TRIVAL ANTENE

antennas
antenna masts
accessories

COMPANY PROFILE

COMPANY INFO

Full Name: TRIVAL ANTENE, OPREMA ZA TELEKOMUNIKACIJE, D.O.O.
Short Name: TRIVAL ANTENE D.O.O.
Address: TRIVAL ANTENE D.O.O., Gorenjska cesta 25, SI-1234 Menges, SLOVENIA
Tax ID no. (VAT): SI45748489
Bank Account Number:
SI56023120010391619;
SWIFT CODE: LJBASI2X; NOVA LB, d.d., podruznica Kamnik
Managing Director: Miran Kozjek, miran.kozjek@trivalantene.si
Technical Manager: Branko Dekleva, brane.dekleva@trivalantene.si

HISTORY

The history of the company TRIVAL ANTENE d.o.o. started in 1965 in the company SVIT Kamnik, where first antennas have been developed and produced from composite materials (polyester and epoxy resin with fiberglass) mainly for the army needs. In 1975 the company SVIT has been separated into two companies: SVIT and TRIVAL and both became members of the company DONIT Medvode. In the beginning of the 1989 TRIVAL became independent company, later organized into four Profit Centers (PC). One of them was TRIVAL PC ANTENE which became privately owned partnership company in 1993.

Today the company TRIVAL ANTENE has more than 200 different types of antennas, antenna masts and accessories in its product list. The company was mainly involved in military antennas and masts production but through last ten years we expanded our products range also on other markets, mainly for marine applications, private mobile radio, radio amateur applications, etc. The company also represents or distributes products from the company SMARTEQ AB from Sweden (mobile antennas).

PRODUCTS

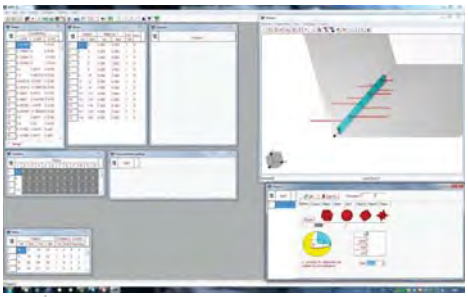
Our products are basically divided on:

- military antennas (HF, VHF and UHF antennas, stationary, tactical and mobile antennas)
- antennas for marine applications (HF, VHF and UHF antennas for big ships and yachts)
- antennas for civil professional communications (HF, VHF and UHF antennas, stationary, mobile antennas and antennas for handheld radios)
- radio amateur antennas (HF, VHF and UHF stationary, mobile and portable antennas)
- antenna masts (tubular sectionalized and winch driven telescopic glass fibre masts from 5 to 18 m)
- custom designed antennas (antennas for EMC measurements, radio monitoring, etc.)
- antenna accessories (cables, connectors, mounting equipment, etc.)

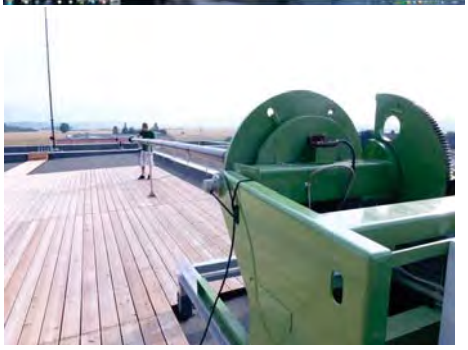
RESEARCH AND DEVELOPMENT

Today's demands of modern wireless communications and new technologies dictate constant development of new products and improvement of the standard products. Our well educated engineers and technicians could achieve this with support of the modern measurement and test equipment

COMPANY PROFILE



(computer controlled measuring equipment ROHDE-SCHWARZ from .1 to 6000 MHZ and AGILENT vector network analyzer .3 to 3000 MHZ with time domain option for impedance and radiation pattern measurements together with up-to-date computer software for electrical and mechanical design (WIPL-D Pro CAD). In the company we have well equipped open area antenna measurement facilities with 500 m2 roof antenna gain and radiation pattern measurement range; with the Azimuth/Elevation turntable and custom made software which integrates turntable with measuring equipment. Two 12 m composite masts are used for Tx and Rx antenna support. We have also a physical laboratory where we could do all the climatic and mechanical tests of basic material or final products (computer controlled dynamometer INSTRON, 1 sq-m climatic-cabin WEISS-Gallenkamp, high voltage insulator testing capabilities, instrument for testing of galvanic coatings etc.).



PRODUCTION FACILITIES

The materials for our antennas and masts are mainly based on composites. On this area we closely cooperate with company TRIVAL KOMPOZITI d.o.o. , equipped with special filament winding and pultrusion machines. Beside that we have very close connection with many vendors and suppliers making parts and sub-assemblies due to our drawings and quality procedures.

QUALITY

The quality management system is organized and certified in accordance with ISO-9001:2008. The structure of the company is determined by the Quality Manual, with the quality management encompasses all levels of business - development, production, purchasing and sales.
The quality control system of the products is based on the standard MIL-STD-810 (environmental tests) and recommendation IEEE-149/1979 (electrical tests). These standards are already present in the model development phase, which continues in the prototyping phase and ends with "0" series.

MARKETS

More than 95% of our products are exported within more than 65 countries around the world. Between 30 - 50% are exported to the USA, 25% in the middle- and far-east and 20% in the European Union.

IQNet®

THE INTERNATIONAL CERTIFICATION NETWORK

CERTIFICATE

IQNet *and* **SIQ**
hereby certify that the organization

TRIVAL ANTENE d.o.o.

Mengeš, Slovenija

for the following field of activities

Development and production of antennas, antenna masts and accessories

has implemented and maintains a

Management System

which meets the requirements of the standard

ISO 9001:2008

Certification date: **2013-02-20**
Validity date: **2016-03-31**

Registration Number: **SI – Q-1744**

Michael Drechsel
President of IQNet

Igor Likar
Managing Director of SIQ

IQNet Partners*:
AENOR *Spain* AFNOR Certification *France* AIB-Vincotte International *Belgium* ANCE-IGE *Mexico* APCER *Portugal* CCC *Cyprus* CISQ *Italy* CQC *China* CQM *China* CQS *Czech Republic* Cro Cert *Croatia* DQS Holding GmbH *Germany* DS *Denmark* FCAV *Brazil* FONDONORMA *Venezuela* ICONTEC *Colombia* IMNC *Mexico* INNORPI *Tunisia* Inspecta Certification *Finland* IRAM *Argentina* JQA *Japan* KFQ *Korea* MIRTEC *Greece* MSZT *Hungary* Nemko AS *Norway* NSAI *Ireland* PCBC *Poland* Quality Austria *Austria* RR *Russia* SII *Israel* SIQ *Slovenia* SIRIM QAS International *Malaysia* SQS *Switzerland* SRAC *Romania* TEST St Petersburg *Russia* TSE *Turkey* YUQS *Serbia*
IQNet is represented in the USA by: AFNOR Certification, CISQ, DQS Holding GmbH and NSAI Inc.
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PRODUCT SELECTION GUIDE

wideband antenna - no tuning required over specified freq. range

narrowband antenna - freq. must be specified or ATU used

PRODUCT TYPE	DESCRIPTION	1MHz 2 3 4 5 6 7 8 9	10MHz 2 3 4 5 6 7 8 9	100 MHz 2 3 4 5 6 7 8 9	1000 MHz 2 3
	ANTENNAS 2 - 30 MHz				
A-7142	foldable sectionalized HF whip antenna for manpack radios - height 2.4 m				
AD-02/...	tubular sectionalized transceiving HF monopole				
AD-14-W/80	five band wire HF antenna (3.5, 7, 14, 21, 28 MHz) for radioamateurs				
AD-14-WA/80	eight band wire HF antenna (3.5, 7, 10, 14, 18, 21, 24, 28 MHz) for radioamateurs				
AD-4	tubular sectionalized HF mobile monopole with base AP-4				
KUA-35/5	tactical wideband HF transceiving wire antenna				
KUA-35/6	tactical wideband HF wire dipole antenna				
KUA-35/7-T	tactical adjustable HF wire antenna				
	ANTENNAS 20 - 108 MHz				
AD-17	wideband disc - cone VHF antenna (30 - 90 MHz)				
AD-17/B-110	wideband disc - cone VHF antenna (30 - 110 MHz)				
AD-18/CF-3108	wideband center-fed mobile VHF antenna (30 - 108 MHz)				
AD-18/CF-388	wideband center-fed mobile VHF antenna (30 - 88 MHz)				
AD-18/D	wideband mobile VHF monopole antenna (30 - 90 MHz)				
AD-18/D-110	wideband mobile VHF monopole antenna (30 - 110 MHz)				
AD-18/D-2110	wideband mobile VHF monopole antenna (20 - 110 MHz)				
AD-21/3108	wideband low profile mobile antenna 30-108 MHz w. magnet or fixed mount				
AD-21/6688	wideband low profile mobile antenna 66-88 MHz w. magnet or fixed mount				
AD-25/C	tape whip VHF antenna for manpack radio				
AD-25/CW	wideband whip VHF antenna for manpack radio (30 - 90 (108) MHz)				
AD-26/C	foldable VHF whip antenna for manpack radios				
AD-26/CW	wideband whip VHF antenna for manpack radio (30 - 90 (108) MHz)				
AD-27/V120-3108	wideband mobile VHF monopole antenna (30 - 90 MHz)				
AD-27/V190-3108	wideband mobile VHF monopole antenna (30 - 108 MHz) with tilt and GPS				
AD-38/4	double folded dipole - 68 - 88 MHz				
AD-39/4	folded dipole - 68 - 88 MHz				
AD-40/4-2	2-element YAGI antenna 72 - 86 MHz				
AD-40/4-3	3-element YAGI antenna 72 - 86 MHz				
AD-44/BW	wideband antenna for handheld tactical radio (L = 400 mm; 30 - 90 (108) MHz)				
AD-44/CW	wideband antenna for handheld tactical radio (L = 850 mm; 30 - 90 (108) MHz)				
AD-52	wideband VHF directional wire antenna 30 - 90 MHz				
Mobile antennas 27 - 108 MHz	mobile antennas (27 - 108 MHz)				
	ANTENNAS 108 - 180 MHz				
AD-11/G	wideband dipole (144 - 176 MHz)				
AD-18/H-1318	wideband mobile center-fed VHF antenna 130 - 180 MHz				
AD-21/1318	wideband low-profile mobile VHF monopole antenna (130 - 180 MHz)				
AD-23/2-2	collinear dipole 144 - 176 MHz; 6 dBi				
AD-38/2	double folded dipole - 146 - 176 MHz				
AD-39/2	folded dipole 146 - 176 MHz				
AD-39/2.3	folded dipole 118 - 136 MHz				
AD-40/2-2	2-element YAGI antenna - 146 - 176 MHz; 3 dBd				
AD-40/2-3	3-element YAGI antenna - 146 - 176 MHz; 5 dBd				

PRODUCT SELECTION GUIDE

wideband antenna - no tuning required over specified freq. range

narrowband antenna - freq. must be specified or ATU used

PRODUCT TYPE	DESCRIPTION	1MHz 2 3 4 5 6 7 8 9	10MHz 2 3 4 5 6 7 8 9	100 MHz 2 3 4 5 6 7 8 9	1000 MHz 2 3
AD-40/2-6	6-element YAGI antenna - 146 - 176 MHz; 8 dBd				
AD-44/BW-D	wideband antenna for handheld radio (L = 382 mm; 138 - 176 MHz)				
Mobile antennas 108 - 180 MHz	Mobile antennas 108 - 180 MHz				
	ANTENNAS 20 - 512 MHz				
AD-10/S	wideband VHF - UHF dipole (100 - 512 MHz) for stationary use				
AD-17/C-1512	wideband VHF/UHF disc-cone antenna (108 - 512 MHz)				
AD-17/C-1512-F	wideband VHF/UHF disc-cone antenna (108 - 512 MHz) for field use				
AD-18/D-3512	wideband VHF/UHF mobile antenna (30 - 512 MHz) w. GPS option				
AD-18/D-3512-DF	wideband dual-feed VHF/UHF mobile antenna (30-88 & 225-512 MHz)				
AD-18/F	wideband mobile VHF/UHF antenna (108 - 512 MHz)				
AD-21/3512	wideband low-profile mobile antenna (30 - 512 MHz, 50 W)				
AD-21/66174	wideband low-profile mobile antenna (dual-band 66 - 88 and 136 - 175 MHz, 50 W)				
AD-22/A	wideband log - periodic VHF - UHF antenna (100 - 512 MHz)				
AD-25/CW-2175	wideband whip VHF antenna for manpack radio (20 - 175 MHz)				
AD-25/CW-3512	wideband antenna for handheld or manpack radio (L = 1150 mm; 30 - 512 MHz; 20 W)				
AD-27/V150-3512	wideband VHF/UHF short mobile antenna (30 - 512 MHz) w. GPS option				
AD-27/V150-3512-DF	wideband dual-feed VHF/UHF short mobile antenna (30-88 & 225-512 MHz)				
AD-44/BW-AS-30-512	wideband antenna for handheld or manpack radio (L = 380 mm; 30 - 512 MHz)				
AD-44/CW-3175	wideband antenna for handheld or manpack radio (L = 1180 mm; 30 - 175 MHz)				
AD-44/CW-AS-30-512	wideband antenna for handheld or manpack radio (L = 825 mm; 30 - 512 MHz)				
AD-44/CW-TA-30-512	wideband antenna for handheld or manpack radio (L = 500 mm; 30 - 512 MHz)				
AD-65/A-1512	wideband antenna for handheld or manpack radio (L = 670 mm; 108 - 512 MHz)				
AD-65/B-1512	wideband antenna for handheld or manpack radio (L = 500 mm; 100 - 512 MHz)				
	ANTENNAS 225 - 512 MHz				
AD-10/A	wideband UHF dipole (225 - 512 MHz) for stationary use				
AD-18/E	wideband mobile UHF antenna (225 - 512 MHz, 100 W)				
AD-18/E-HP	wideband mobile UHF high power antenna (225 - 512 MHz; 200 W)				
AD-22/B	wideband log - periodic VHF - UHF antenna (225 - 512 MHz)				
AD-22/B-F	wideband log - periodic VHF - UHF antenna (225 - 512 MHz) with flexible elements				
AD-44/E	wideband antenna for handheld or manpack radio (L = 260 mm; 225 - 512 MHz)				
AD-44/E-CM	wideband center-fed antenna for manpack radio (L = 580 mm; 225 - 512 MHz)				
AD-44/E-HS	wideband antenna for handheld radio (L = 240 mm; 225 - 512 MHz; SMA female)				
	ANTENNAS 380 - 1000 MHz				
AD-12/G	wideband dipole (440 - 475 MHz)				
AD-23/07-4	collinear dipole 400 - 500 MHz; 8 dBi				
AD-24/A	wideband heavy duty mobile antenna (430 - 470 MHz)				
AD-38/07	double folded dipole - 390 - 480 MHz				
AD-39/07	folded dipole - 390 - 480 MHz				
AD-40/07-3	3-element YAGI antenna - 390 - 475 MHz; 5 dBd				
AD-40/07-3T	3-element YAGI antenna - 380 - 420 MHz; 5 dBd				
AD-40/07-7	7-element YAGI antenna - 390 - 475 MHz; 8.5 dBd				
AD-40/07-7T	7-element YAGI antenna - 380 - 420 MHz; 8.5 dBd				
AD-40/07-9	9-element YAGI antenna - 390 - 475 MHz; 10 dBd				

PRODUCT SELECTION GUIDE

wideband antenna - no tuning required over specified freq. range

narrowband antenna - freq. must be specified or ATU used

PRODUCT TYPE	DESCRIPTION	1MHz 2 3 4 5 6 7 8 9	10MHz 2 3 4 5 6 7 8 9	100 MHz 2 3 4 5 6 7 8 9	1000 MHz 2 3
AD-40/07-9T	9-element YAGI antenna - 380 - 420 MHz; 10 dBd				
AD-40/35-7	7-element yagi antenna for 810 - 910 MHz; 8.5 dBd				
Mobile antennas 380 - 1000 MHz	Mobile antennas (380 - 1000 MHz)				
	ANTENNAS 20 - 3000 MHz				
AD-10/D	wideband base station antenna (500 - 3000 MHz; 500W, N female)				
AD-18/G-2210	wideband mobile VHF/UHF antenna (225 - 1000 MHz)				
AD-18/G-50300	wideband mobile VHF/UHF antenna (500 - 3000 MHz)				
AD-20/...	antennas for handheld radios				
AD-21/5250-M	UHF Mobile Magnet Mount Antenna (500 - 2500 MHz)				
AD-22/C	wideband log - periodic VHF - UHF antenna (80 - 1300 MHz)				
AD-22/D	wideband log - periodic UHF antenna (1300 - 2700 MHz)				
AD-22/E	wideband log - periodic UHF antenna (800 - 2600 MHz)				
AD-64/A	ultra wideband antenna for manpack radio (225 - 2000 MHz; 620 mm)				
AD-64/B	ultra wideband antenna for manpack radio (225 - 1000 MHz; 620 mm)				
AD-64/C	ultra wideband antenna for manpack radio (1000 - 2500 MHz; 485 mm)				
AD-64/D	ultra wideband antenna for manpack radio (500 - 3000 MHz; 425 mm)				
AD-79/18D	mobile GPS active receiving antenna				
Mobile antennas 20 - 3000 MHz	Mobile antennas 20 - 3000 MHz				
	ANTENNA MASTS				
ST-05	sectionalized tubular mast - height 5 m				
ST-08	sectionalized tubular mast - height 8 m				
ST-10	sectionalized tubular mast - height 10 m				
ST-12	sectionalized tubular mast - height 12 m				
STM	sectionalized manpack/manportable tubular masts				
ST-R	sectionalized tubular mast with tripod - height 6 m				
STV-08/105	telescopic winch driven mast - height 8 m with accessories				
STV-08/128	telescopic winch driven mast - height 8 m with accessories				
STV-10/105	telescopic winch driven mast - height 10 m with accessories				
STV-10/128	telescopic winch driven mast - height 10 m with accessories				
STV-12/105	telescopic winch driven mast - height 12 m with accessories				
STV-12/128	telescopic winch driven mast - height 12 m with accessories				
STV-15/105	telescopic winch driven mast - height 15 m with accessories				
STV-15/128	telescopic winch driven mast - height 15 m with accessories				
STV-18/128	telescopic winch driven mast - height 18 m with accessories				
STV-G	telescopic winch driven mast for fire brigades				
	ACCESSORIES				
APS-38/...	antenna power dividers				
ASP	coaxiall lightning surge protector (0 - 1.5 GHz)				
ASP-W	coaxial lightning surge protector (0 - 1.5 GHz) - waterproof				
ASP-WH	coaxial lightning surge protector (1.5 - 2.5 GHz) - waterproof				
ATP-1827/01	tripod stand for VHF/UHF vehicular antennas AD-18/... and AD-27/...				
ATP-1827/02	"GP" kit for VHF/UHF vehicular antennas AD-18/... and AD-27/...				
ATP-1827/03	Attachment adaptor for VHF/UHF vehicular antennas AD-18/... and AD-27/...				

PRODUCT SELECTION GUIDE

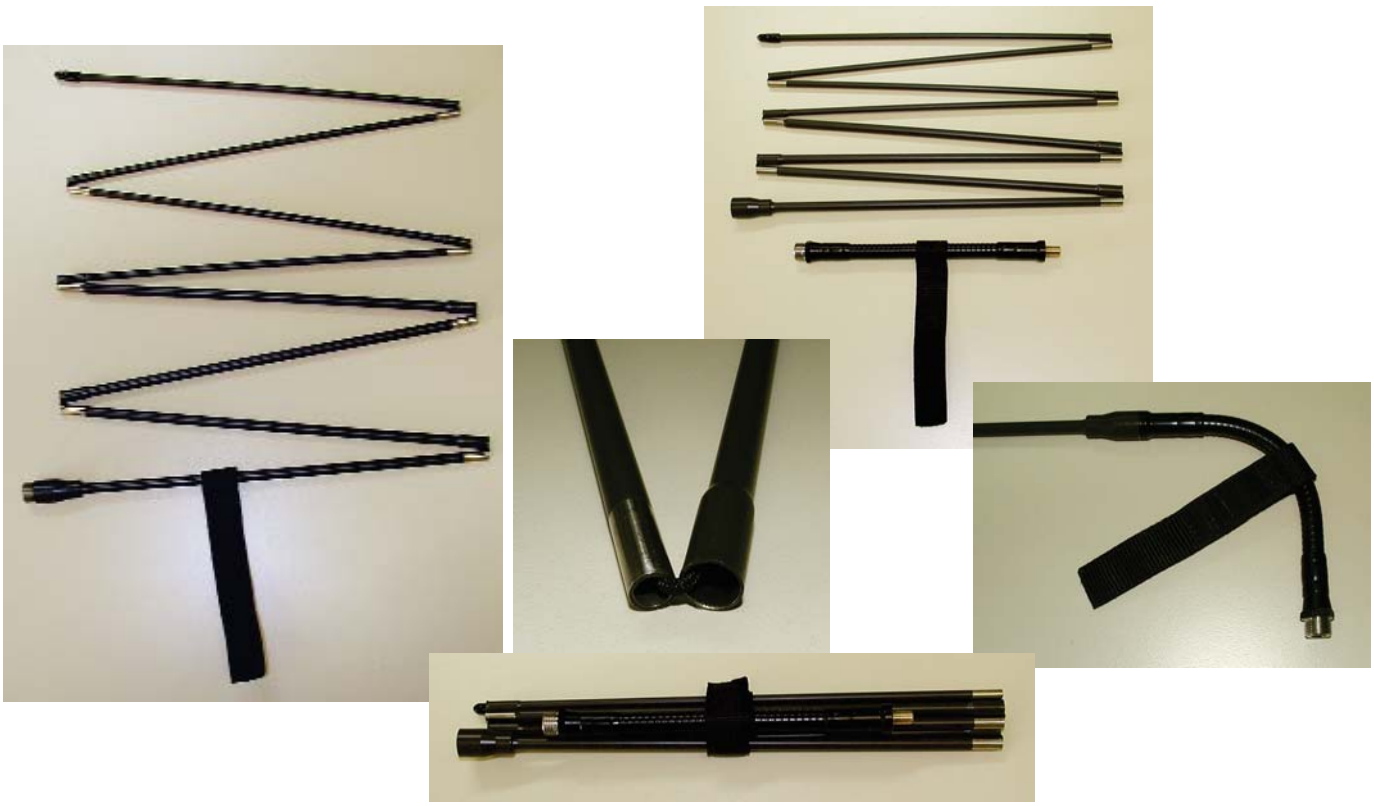
wideband antenna - no tuning required over specified freq. range
narrowband antenna - freq. must be specified or ATU used

PRODUCT TYPE	D E S C R I P T I O N	1MHz 2 3 4 5 6 7 8 9	10MHz 2 3 4 5 6 7 8 9	100 MHz 2 3 4 5 6 7 8 9	1000 MHz 2 3
Mounting Accessories...	mounting hardware for base station antennas				
PK-2	connection box for antennas AD-2/D-xx				
UI-2	lead-through insulator				
UI-3	lead - through insulator for main marine antenna				

TRIVAL ANTENE

A-7142

Family of antennas A-7142 is intended for use with portable and manpack radios within HF frequency band. The antenna is composed of several thin wall stainless steel sections connected with elastic rope. Elastic rope tension enables good electrical contact between sections and quick deployment of the antenna within seconds. The antenna consists also a special grip tape for packing when not in use.
Version A-7142/GN contains also a special “goose-neck”enables vertical position of the antenna irrespective of position of radio set. The antenna is available in different heights (max. 3220 mm) and with different types of thread connectors (5/8-18UNF as standard or by request) or coaxial connectors.Antenna radiator is painted MIL Green, goose- neck is painted black.



Frequency range	2 - 30 MHz
Maximum power	50 W
Polarization	VER.
Connector	thread 5/8”-18UNF (or by request)
Height	max. 3035 mm
Stowed length	320 mm
Weight	max. 0,350 kg
Temperature range	- 40....+70 °C

Versions:
A-7142/GN: antenna with Goose Neck and thread connector 5/8”-18UNF
A-7142/GN-38: antenna with Goose Neck and thread connector 3/8”-24UNF
A-7142/GN-58: antenna with Goose Neck and customized coaxial connector with thread 5/8”-18UNF
A-7142/GN-78: antenna with Goose Neck and customized coaxial connector with thread 7/8”-20UNEF
A-7142/GN-M24A: antenna with Goose Neck and customized coaxial connector with thread M24x1.25
A-7142/GN-N: antenna with Goose Neck and coaxial connector N male
A-7142/GN-Nf: antenna with Goose Neck and coaxial connector N female
A-7142/GN-PL: antenna with Goose neck and coaxial connector PL-259 (UHF male)
A-7142/GN-VT: antenna with Goose Neck and customized coaxial connector with thread M22x1.25

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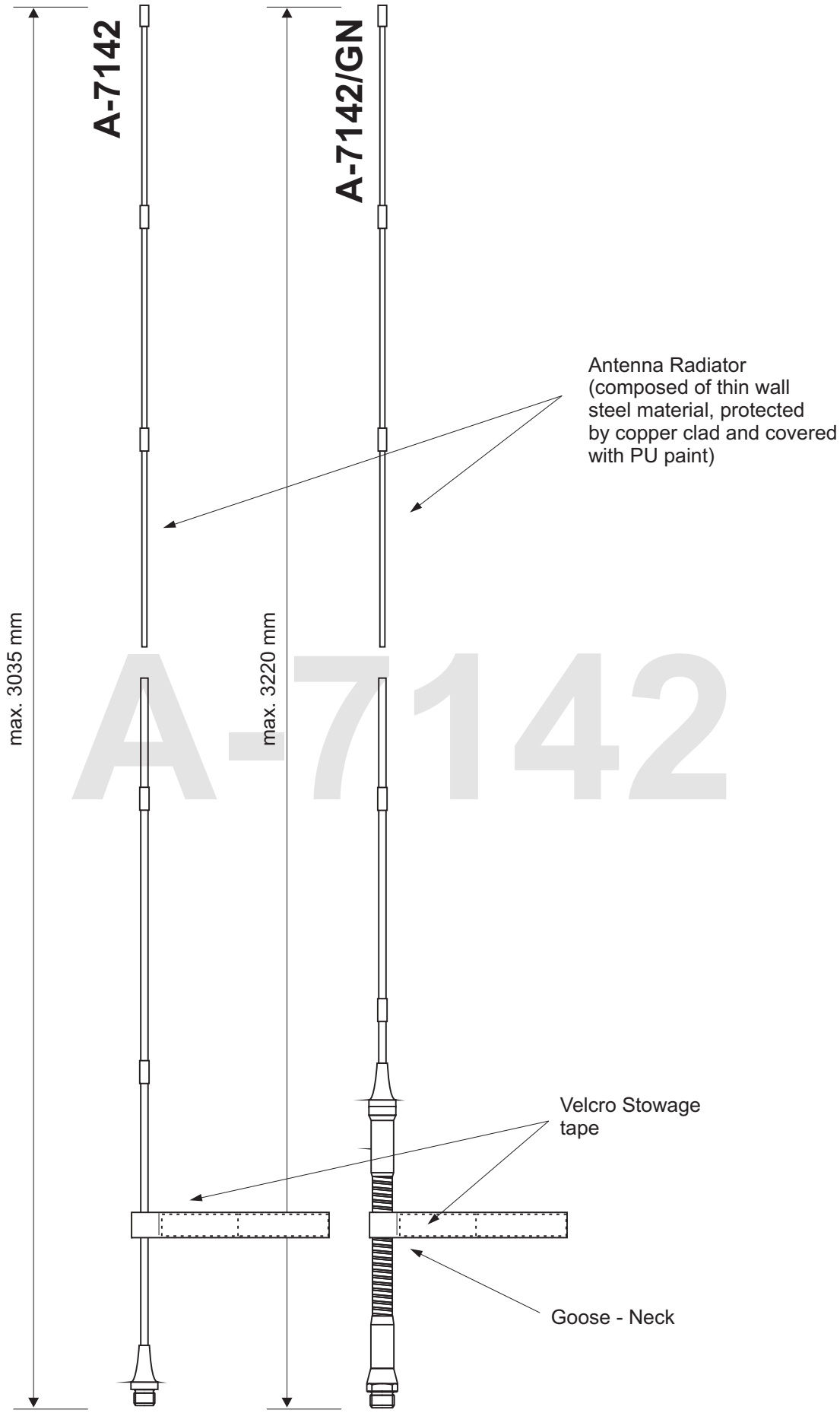
email: info@trivalantene.si; www.trival-antennas-mast.com


A-7142
A-7142/GN
max. 3035 mm
max. 3220 mm
Antenna Radiator
(composed of thin wall
steel material, protected
by copper clad and covered
with PU paint)
Velcro Stowage
tape
Goose - Neck

AD-14-W/80

The antenna AD-14-W/80 is wire multiband antenna intended for radioamateur use on 80, 40, 20, 17, 12 and 10 meter bands. 15 meter band is usable only with antenna tuner unit. The antenna is composed of two wire segments made of special insulated copper wire rope length of approx. 40 meters, of two end insulators and of balun transformer. The balun is placed on 1/3 or 2/3 of the antenna wire enables good VSWR on all mentioned frequency bands. The antenna is suitable for mounting as dipole, mounted between two appropriate supports or mounted on some appropriate mast as "inverted V".

A special version of this antenna (AD-14-WA/80) is available for work also on WARC and 15 m bands.

	AD-14-W/80	AD-14-WA/80
Frequency range	3.5 - 4.0 MHz 7.0 - 7.3 MHz 14.0 - 14.35 MHz 18.068 - 18.168 MHz 24.89 - 24.99 MHz 28.0 - 29.7 MHz	3.5 - 4.0 MHz 7.0 - 7.3 MHz 10.10 - 10.15 MHz 14.0 - 14.35 MHz 18.068 - 18.168 MHz 21.0 - 21.45 MHz 24.89 - 24.99 MHz 28.0 - 29.7 MHz
Impedance	50 ohm	50 ohm
VSWR	< 2.5	< 2.5
Polarization	HOR.	HOR.
Maximum power	300 W CW, 1000 PEP	300 W CW, 1000 PEP
Mass of antenna	1.4 kg	1.6 kg
Wire length	42.2 m	42.2 m

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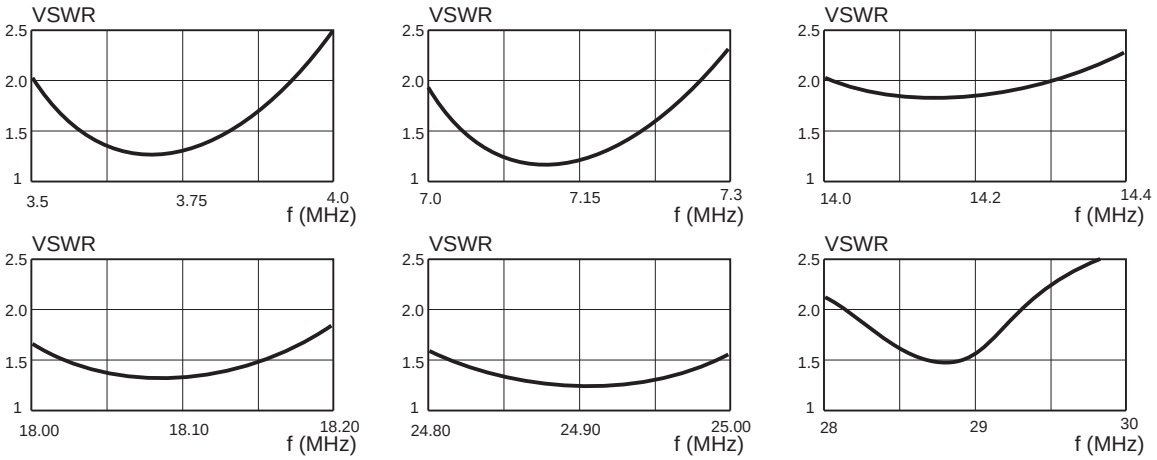
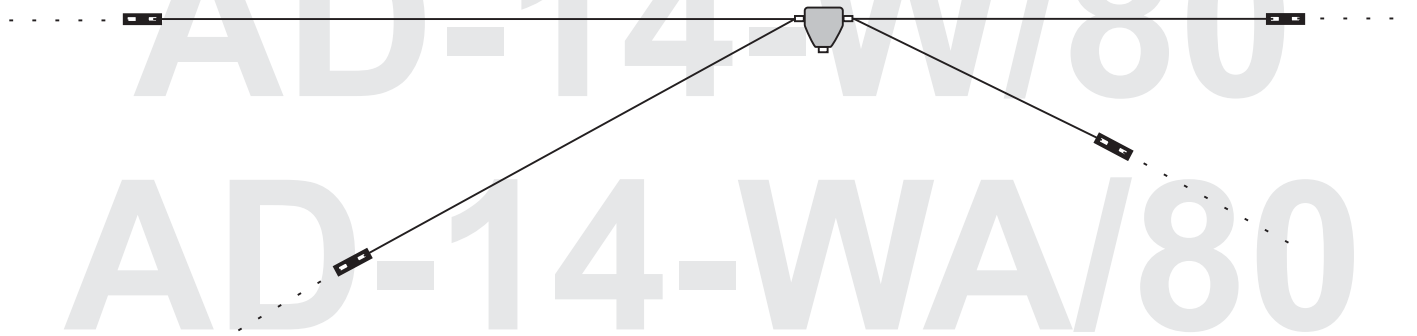
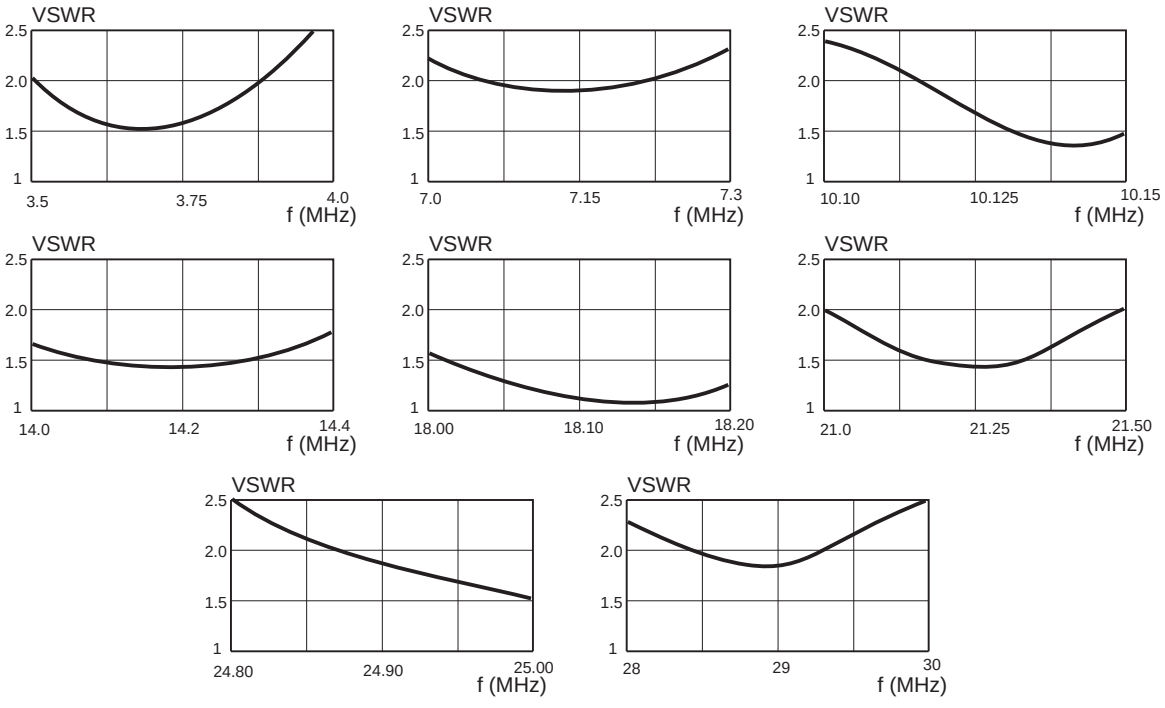
AD-14-W/80



AD-14-WA/80





AD-2

Antennas AD-2 represent the family of transceiving self- supporting HF monopoles. The antennas are composed of two- or three sections, connected together by screw-joints, protected against unscrewing with cross screw protecting unit. The first part of the antenna is support, designed in four types with difference in the way of mounting and also connecting of the RF feeding wire. The support type A has the antenna connector below the flange and is convenient for mounting directly on deck, where the antenna connector is safe against atmospheric influences. The support type B is similar, only a special insulator is added below the flange allows the antenna to be mounted outside on a proper console. The support type C and D have side mounted antenna connector in a special waterproof housing with a lead-in unit. They differ only in the way of mounting. All the antenna connectors are screw type with M8 nuts. The antenna sections are made of epoxy-glass composite material and the screw joints are made of stainless steel. The antennas are very lightweight but on the other side they are highly resistant against all weather conditions. The flange on the support type A, B and C is made of special polyamide with excellent mechanical characteristics. Antennas AD-2 are intended primarily for use on all kind of ships, oil rigs etc. They could be also used on ground objects for stationary use. In that case a special wire ground-plane must be ordered.

Frequency range	2 - 30 MHz
Polarization	VERT.
Connector	M 8
Maximum power	500 W (5,6,7 m) 1000 W (8,9 m)
Height	5....9 m
No. of Sections	2 (5 and 6 m antenna) 3 (7, 8 and 9 m antenna)
Mass	max. 10 kg
Diameter	38/28/20 mm
Wind velocity	150 km/h
Temperature range	-40...+70°C

Antenna type naming system:
AD-2/X-Y; where:
X = attachment type (A, B, C or D)
Y = height in meters

(**AD-2/D-9** is 9 m three sections antenna with two side attachment consoles)

AVAILABLE ACCESSORIES:
- PK-02: Connection Box for the antennas type AD-2/C-... and AD-2/D-... (see separate data sheet for the PK-02)

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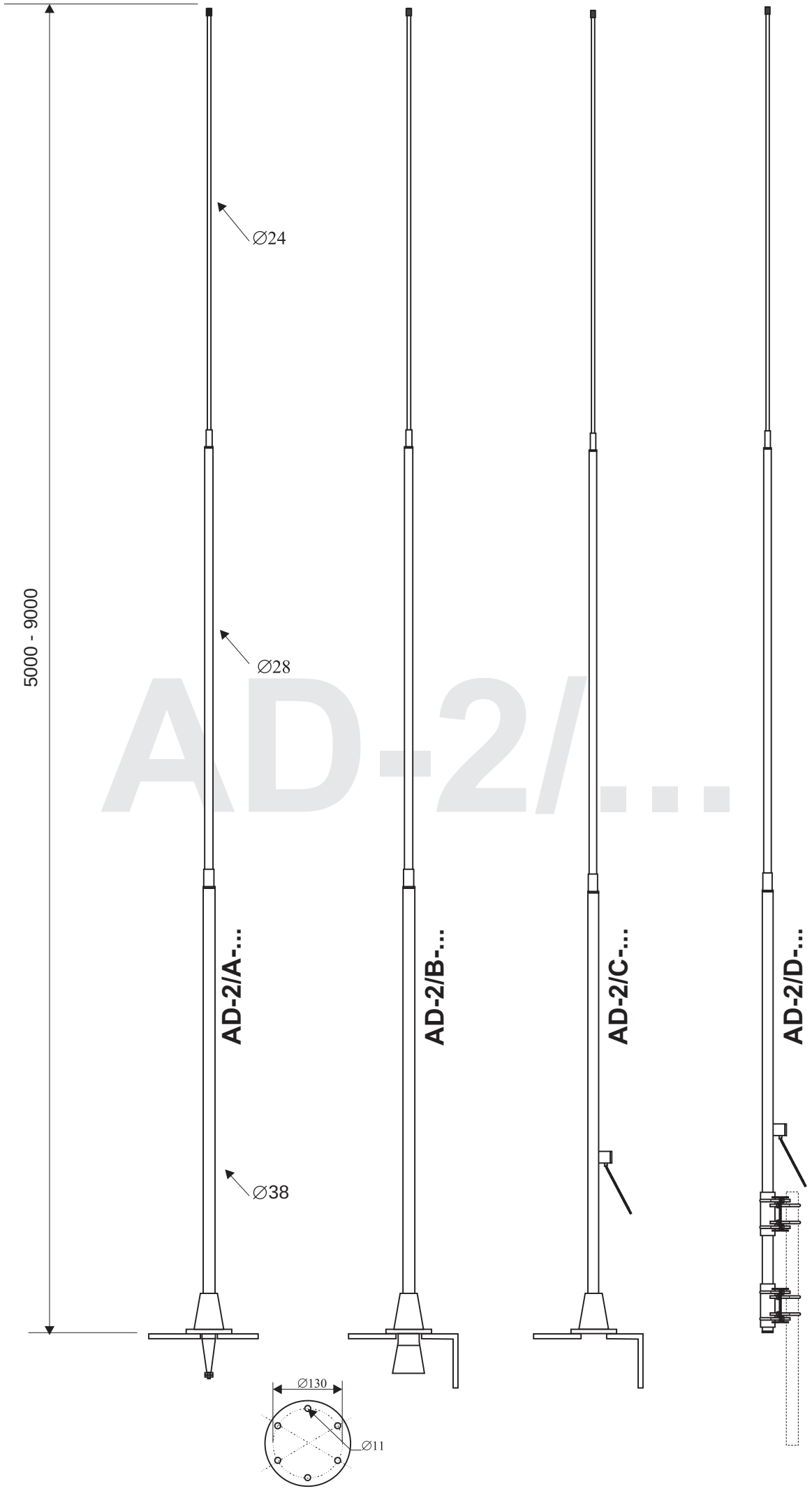
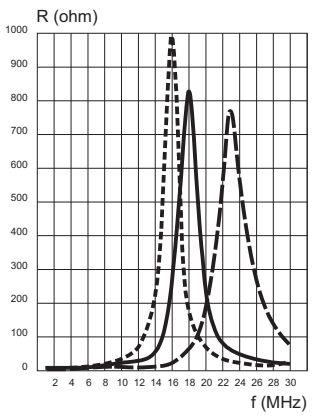
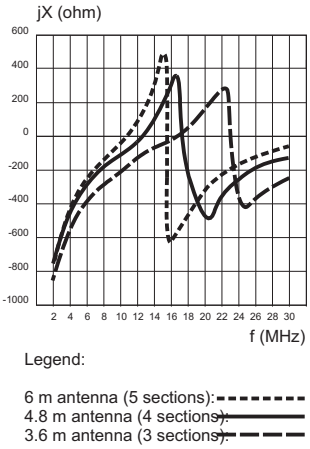


AD-4

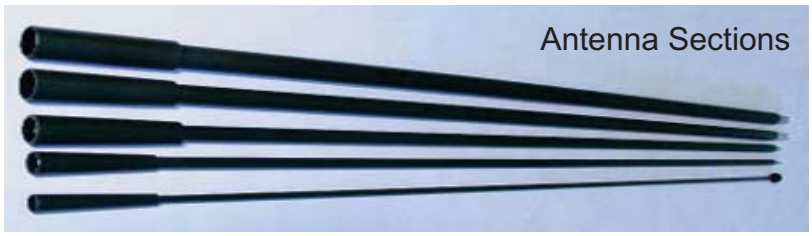
The family of the HF mobile antennas AD-4 are composed of the antenna sections and the antenna bases suitable for various configurations and antenna heights. The antennas are intended for mobile work with the HF radios. The antenna sections are all 120 (4') cm long and are made of strong pultruded composite tube (fiberglass) with male and female joints at both ends. Antenna sections are mounted on the antenna base type AP-4/M (up to 4 sections) or on the base type AD-4/MHD (up to 7 sections), made of composite materials and with biconical SS spring enabling bending the antenna with the rope horizontally for NVIS applications. The antenna sections are packed in canvas bag for transportation and storage.
The antenna AD-4 could be used also stationary with the antenna base type AP-4/S or side feed base type AP-4/SF.
A special antenna base type AP-4/MHL was designed for NVIS applications. The AP-4/MHL has a special locking system enables to lock the spring for rigid position or unlock it in order to tilt the antenna in horizontal position for NVIS applicaitons.

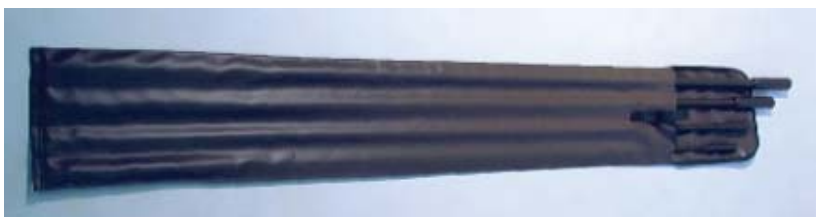
NATO Stock Number (NSN): 5985-42-000-0720 (antenna AD-4/4.8m with the antenna base AP-4/MHD)





Frequency range	1,5 - 30 MHz
Impedance	see diagram
Maximum power	400 W - 1 kW CW
Polarization	VER.
Connector	M 8 screw type
Height	3.6 - 4.8 m with AP-4/M 4.8 - 8.4 m with AP-4/MHD, MHL AP-4/S or AP-4/SF
Section weight	
- AD-4/1	0.17 kg
- AD-4/2	0.26 kg
- AD-4/3	0.40 kg
- AD-4/4	0.53 kg
- AD-4/5	0.63 kg
Support weight	
- AP-4/M	2.5 kg
- AP-4/S	2.2 kg
- AP-4/MHD	4.3 kg
- AP-4/MHL	4.1 kg
Wind velocity	120 km/h
Temperature range	- 40....+70 °C





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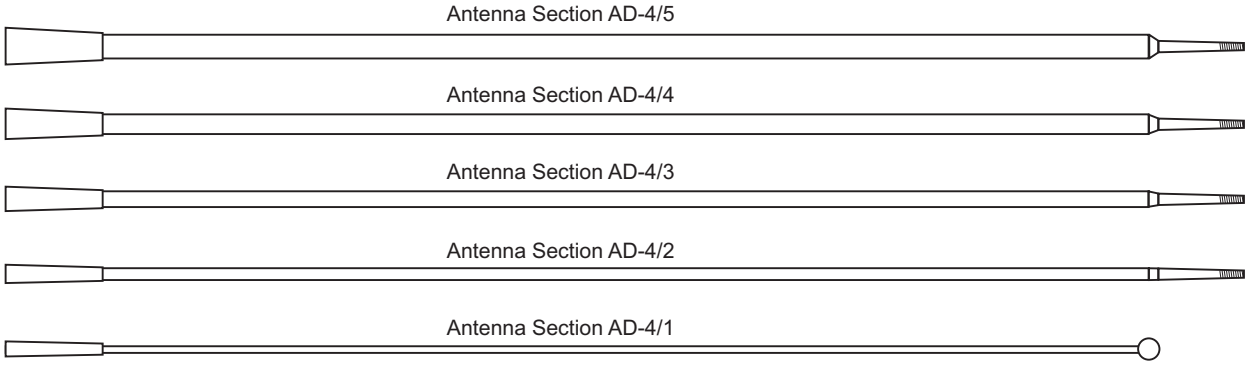
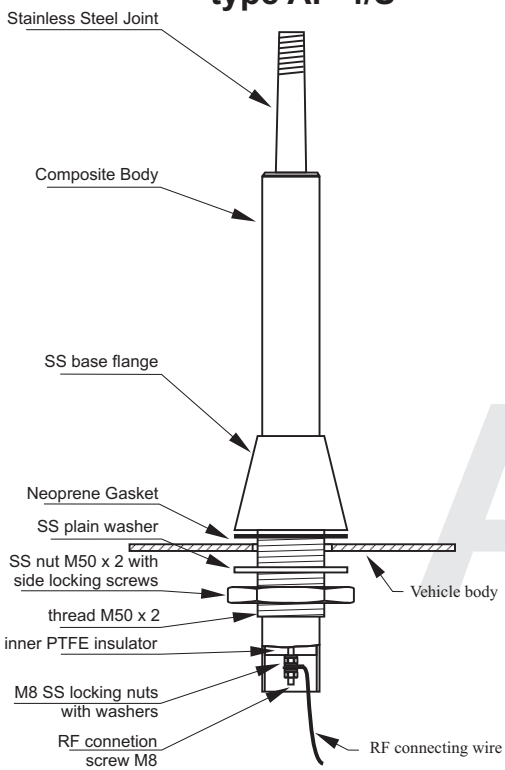
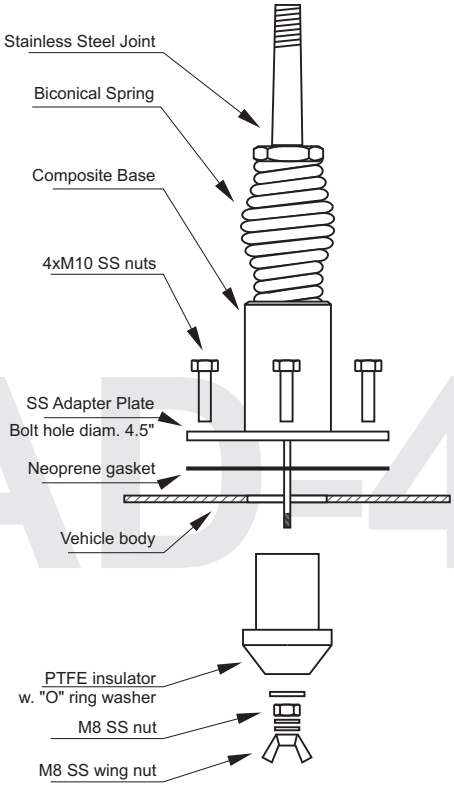
Antenna Sections



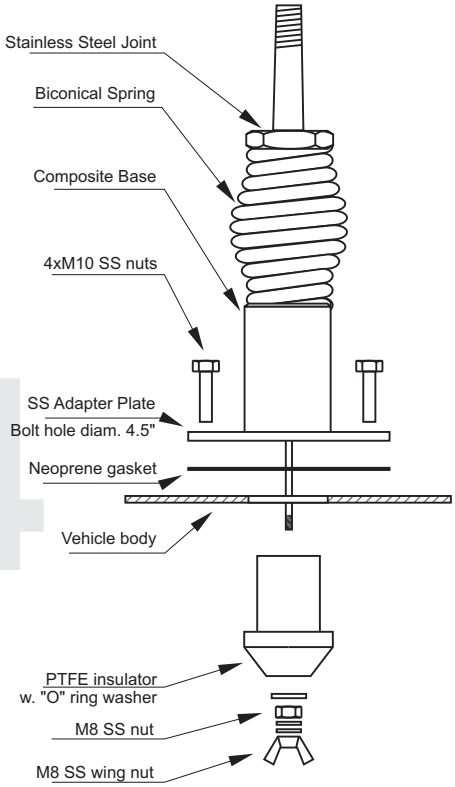
Antenna Support type AP-4/S



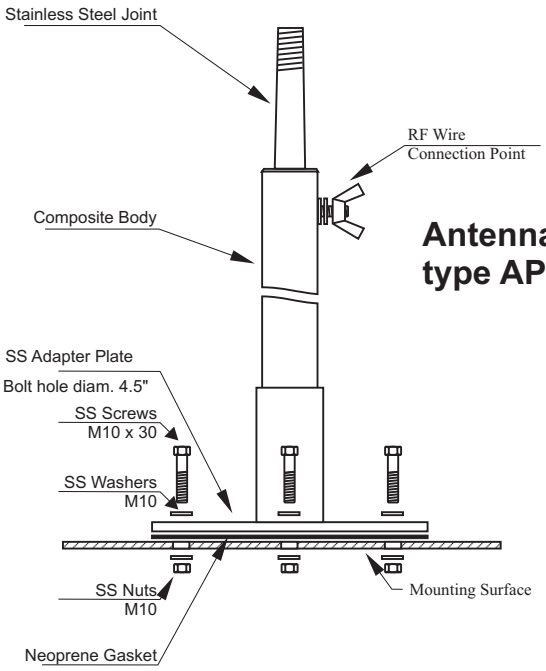
Antenna Support type AP-4/M



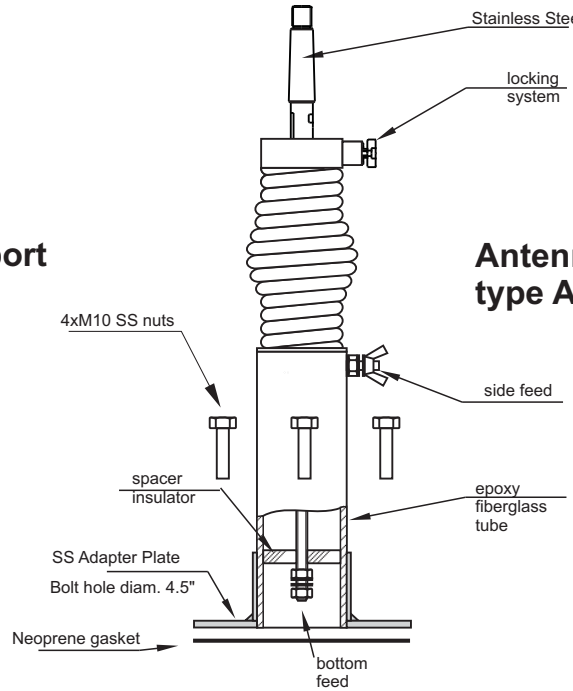
Antenna Support type AP-4/MHD



Antenna Support type AP-4/SF



Antenna Support type AP-4/MHL



KUA-35/5

The antenna KUA-35/5 is a wideband shortwave transportable antenna. The mast is composed of seven sections each made of epoxy - glass composite material. On the top of the mast is the impedance transformer which is connected to two 7-wire dipole sections. From the top of the mast 7-wire sections of dipoles go toward the ground, guyed on it with ropes and pegs. Dipoles are connected over the special junction element and coaxial cable with 3-wire dipoles, mounted similar from the top of the mast toward the ground. Such construction of the antenna allows beside wideband characteristics also an approximately circular horizontal radiation pattern and vertical radiation toward the zenith. Therefore the antenna is suitable for communications over short to middle ranges up to 1500 km with sky and ground waves. The antenna is packed in the transportable linen bags.

Frequency range	1,5 - 30 MHz
Impedance	50 ohm
VSWR	< 2,5 (DIAG. 1)
Polarization	HOR.
Maximum power	1 kW CW
Radiation diagram	DIAG. 2, 3
Height	10 m
Lenght of sections	7 X 1,4 m
Mass of antenna	67 kg
Section diameter	60 mm
Mount. time/no. of pers.	30 min./3
Mounting area	25 m
Wind velocity	120 km/h
Temperature range	-40....+70 °C

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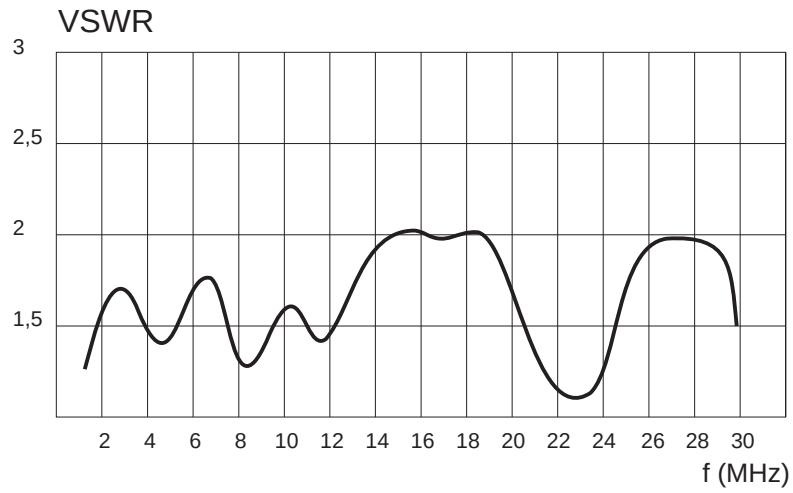
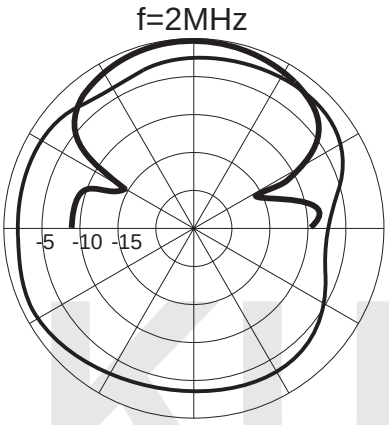
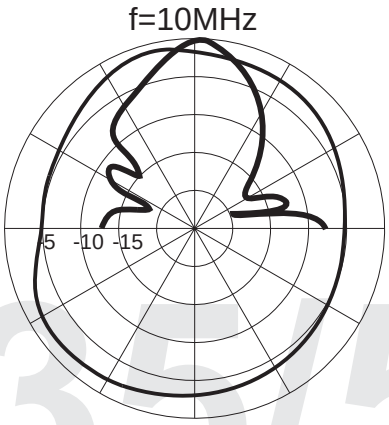
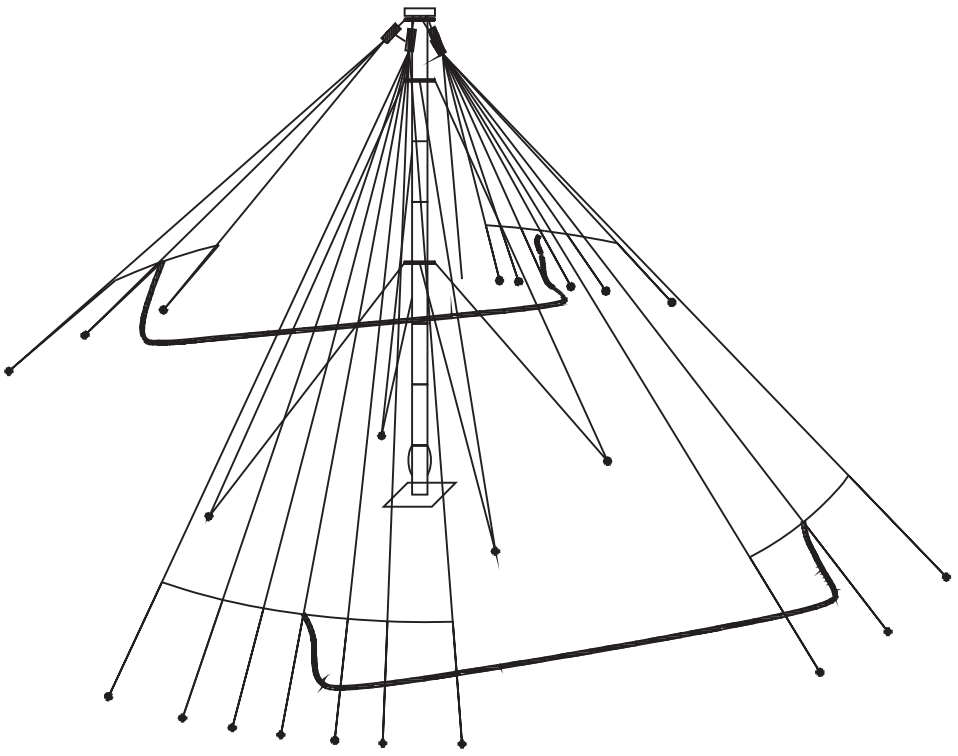




VERT. DIA.
HOR. DIA.



VERT. DIA.
HOR. DIA.



KUA-35/6

Antennas KUA-35/6 represent the family of wideband HF wire dipole antennas. Its universal construction allows using almost everywhere and in all circumstances. It is primarily intended for use as a tactical field antenna together with a single support mast at the center as inverted “V” or “delta dipole” antenna which makes it suitable for NVIS communications. Each end is attached to the sliding insulator with nylon rope allows us to attach the antenna ends on ground or some other appropriate objects. The antenna could be also mounted stationary on the already prepared mounting mast. Stationary version has two special mounting consoles for fixing the terminating load and the antenna transformer.

The antenna is electrically designed as a closed dipole with balun transformer and end terminating load. The overall length of the antenna wire is 2 x 40 m. The antenna has vertical radiation toward the zenith for short to medium skywave communications.

The antenna is very simple and robust construction. All metal parts are galvanically protected or made of corrosion resistant materials enables long life and high reliability. For tactical use we recommend using some of our sectionalized tubular masts series ST or telescopic masts series STV.

Frequency range	2 - 30 MHz
Impedance	50 ohm
VSWR	< 3
Efficiency	15 - 55 %
Radiation pattern	DIAG. 1, 2
Maximum power	30, 100, 400 W, 1 kW
Min. mounting height	10 m
Length of dipole	2 x 20 m wire length 40 m
Weight	app. 6 kg
Input connector	N female
Temp. range (operating)	-40 .... +55 °C
Wind speed:	
- instalation	90 km/h
- operating	120 km/h
- survival	160 km/h

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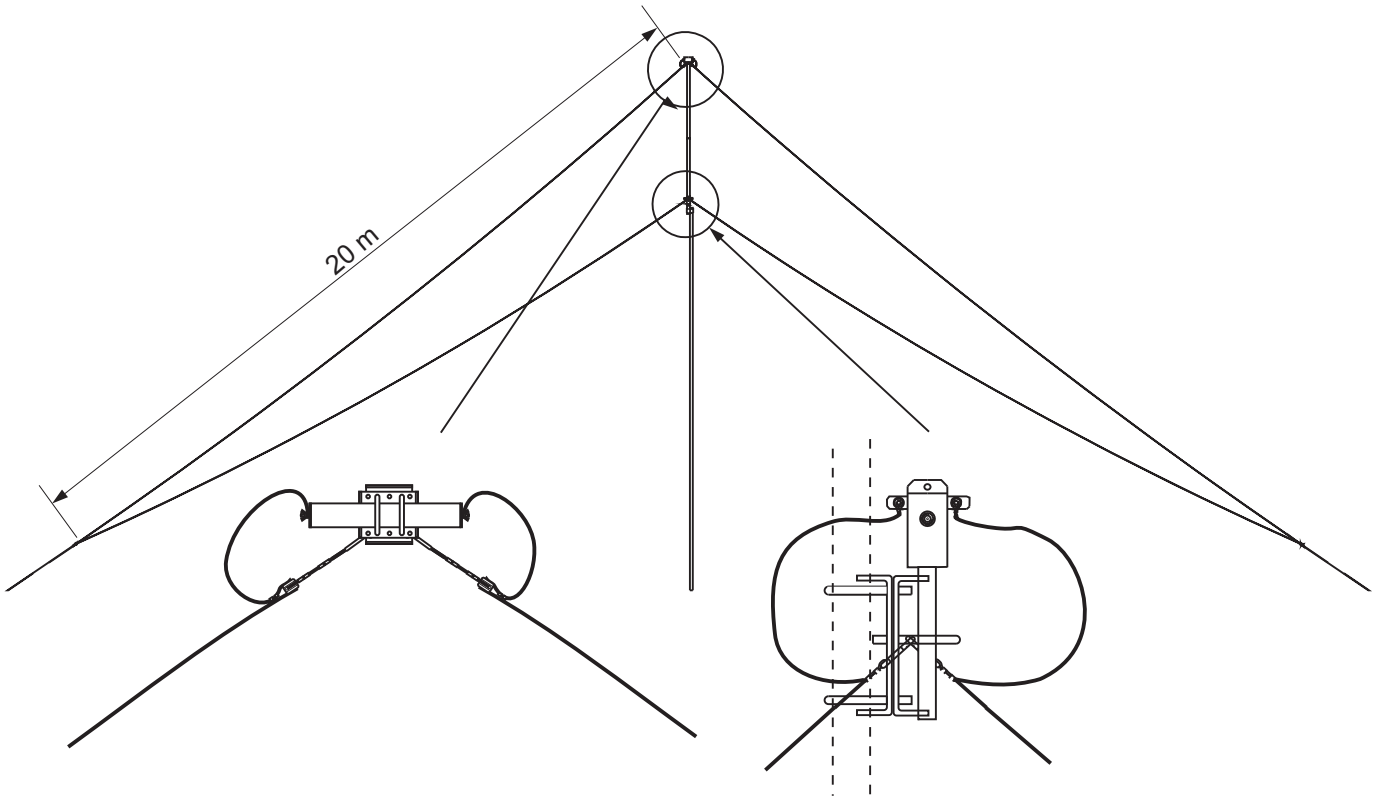
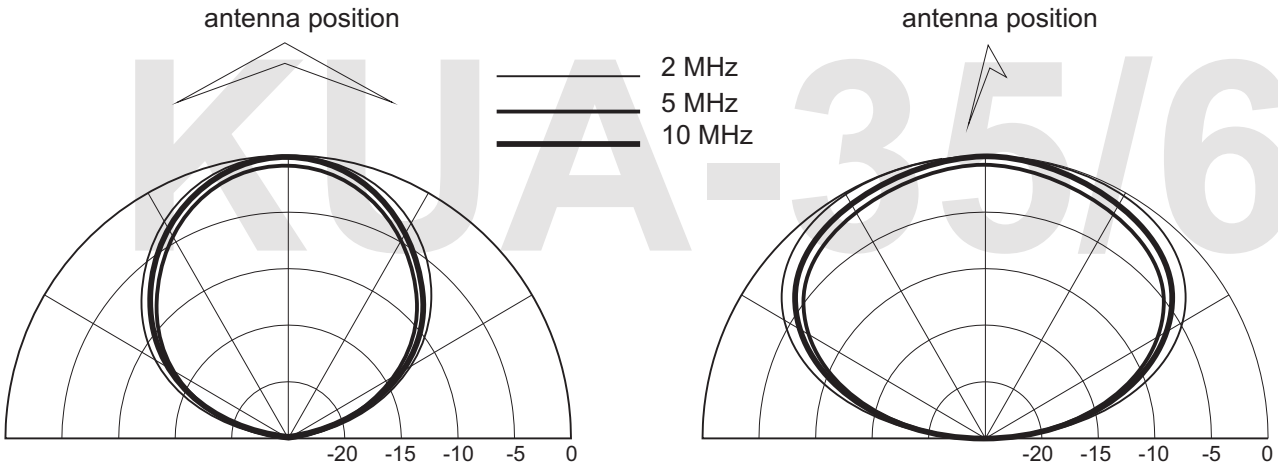
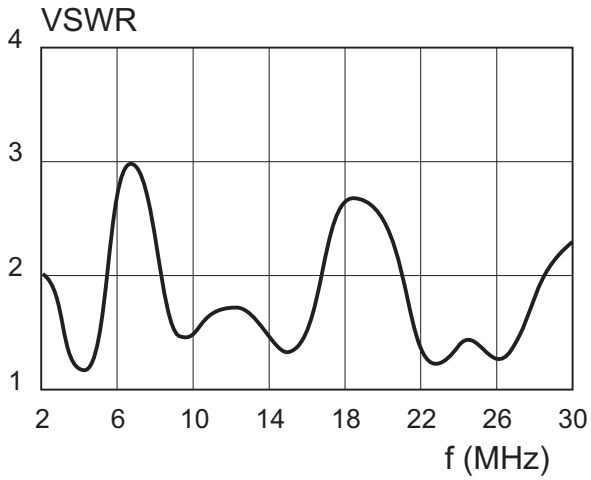




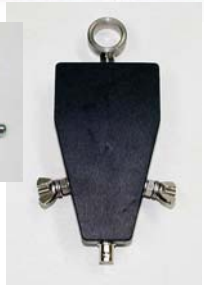
RADIATION PATTERN



KUA-35/7-T

The antenna KUA-35/7-T is tactical HF adjustable wire dipole antenna for the frequency range from 2 to 30 MHz. It is intended for use with portable and manpack HF radio stations. The antenna is primarily designed to be erected as "inverted V" or in specific cases as "long wire" antenna. The antenna could be supported by trees or similar objects or could be used with some appropriate tactical portable mast such as ST series of fiberglass masts. The antenna is composed of center dipole junction box and two dipole wire elements calibrated with marker sleeves indicating the length necessary for particular frequency. The dipole wire elements are wounded on the polypropylene reels which are used also as insulators. Each dipole element has 15 m of nylon rope for fixing it on ground through the anchors. The antenna comprises also 24 m raising rope with throwing weight for erecting and two coaxial cables for connection the antenna to radio station. In special cases the antenna could be erected as long wire antenna using only one dipole element. One end of the element is connected on the radio set and the other end is spreaded toward the direction of communication. For that specific case of antenna some special elements are included such as grounding anchor and BNC - two pole adapter connector.All parts of the antenna are made of materials tested on MIL-810-C standards. A special kevlar reinforced wire is used for dipole wire elements. All metal parts are made of stainless steel or they are galvanicaly protected. All elements are packed in a linen bag suitable for transport.

Frequency range	2-30 MHz
Impedance	50 ohm
VSWR	< 1,5
Gain	typ. > 2 dBi
Maximum power	100 W CW
Min. mounting height	8 m
Length of dipole	2 x 34 m
Mass	3 kg
Input connector	BNC
Temp. range	-40 ... + 55 °C
Wind speed:	
- installation	90 km/h
- operation	120 km/h
- survival	160 km/h



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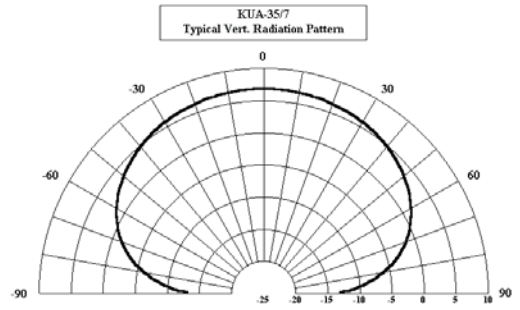
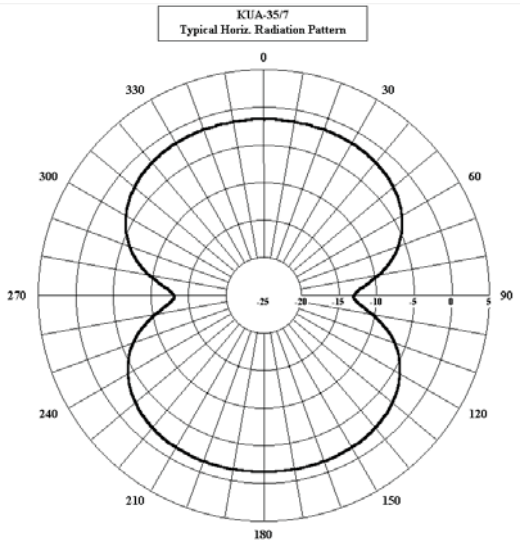
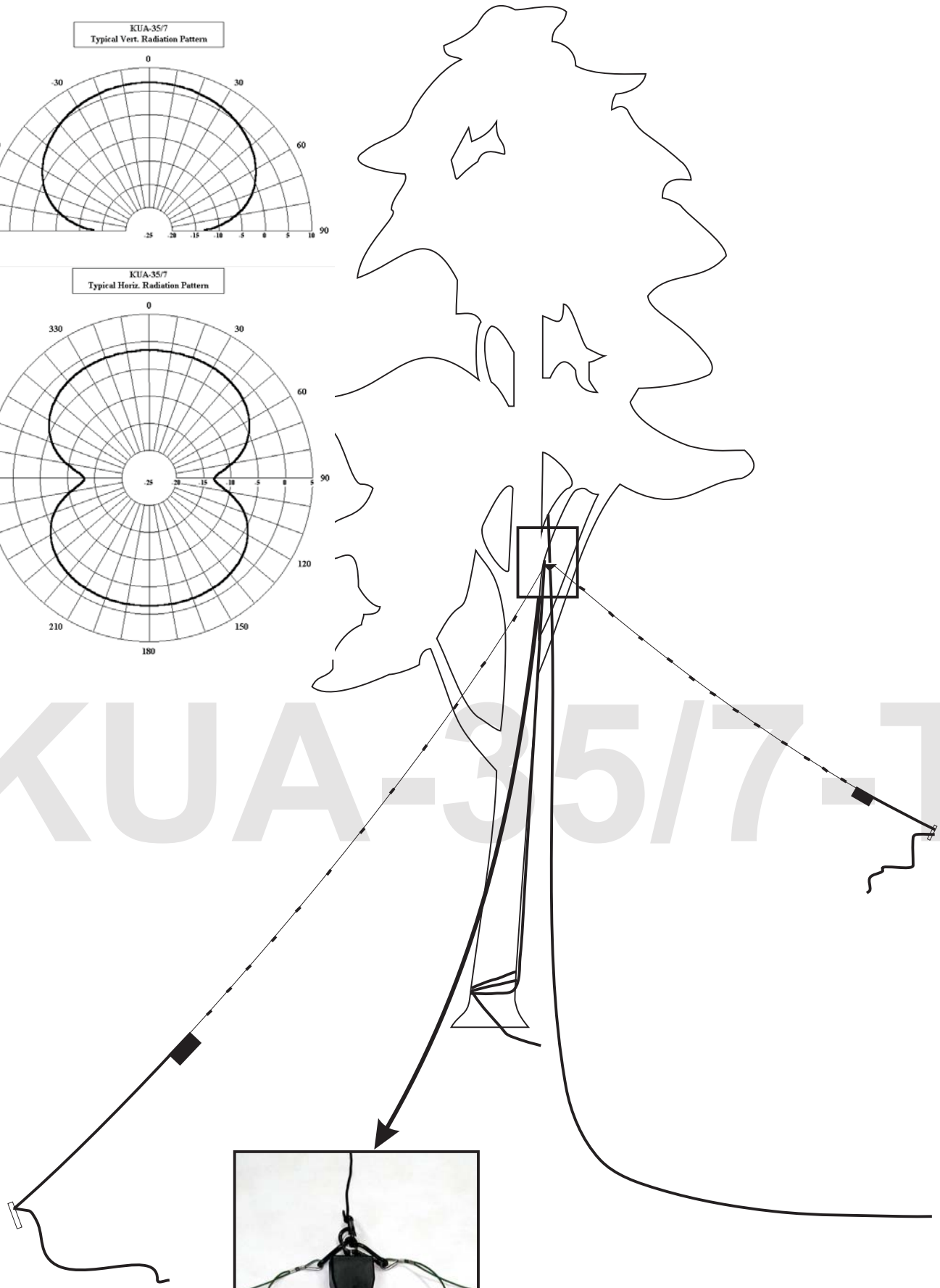
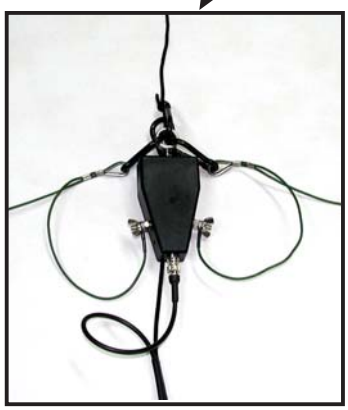

KUA-35/7
Typical Vert. Radiation Pattern
0
30
60
90
-30
-60
-90
.25
.20
.15
.10
.5
0
5
10


KUA-35/7
Typical Horiz. Radiation Pattern
0
30
60
90
120
150
180
210
240
270
300
330
.25
.20
.15
.10
.5
0
5





AD-44/BW...

The antennas AD-44/BW represent a family of wideband monopole whips, primarily intended for use with portable and handheld radios in VHF frequency range from 30 to 90 (108) MHz. Electrically the antenna is optimised for all exploatation conditions (radio in hand, at the side, etc.) so it is not necessary for additional tuning. The antenna is composed of radiating part made of special wounded wire or helix and covered with a heatshrinkable tube with silicone underlayer ensuring high flexibility and roughness. The antenna has built-in a special passive tranformer tuning network enclosed in fiberglass housing above the input coaxial connector. Input connector is TNC male. Other types (N or BNC male) are available on special request.

	/BW-C	/BW-A	/BW-AH	/BW-B	/BW-BH	/BW-BT	/BW-ESW	/BW-ESS
Frequency (Mhz)	30-108	30-88	30-108	30-88	30-108	30-88	30-88	30-88
Impedance	50	50	50	50	50	50	50	50
VSWR	< 3.5	<3.5	<3.5	<3.5	<3.5	<3.5	<3.5	<3.5
Max. power (W)	8	8	8	8	8	8	8	8
Connector type	TNCm	TNCm	TNCm	TNCm	TNCm	TNCm mod.	TNCm mod.	TNCm mod.
Radiator type	helix	whip	whip	helix	helix	helix	whip	helix
Radiator diam.(mm)	10.8	5.5	5.5	10.8	10.8	10.8	5.5	10.8
Height (mm)	150	400	330	400	330	450	400	400
Weight (gr.)	75	105	105	120	105	170	120	120

Connector
AD-44/BW-A

Connector
AD-44/BW-BT

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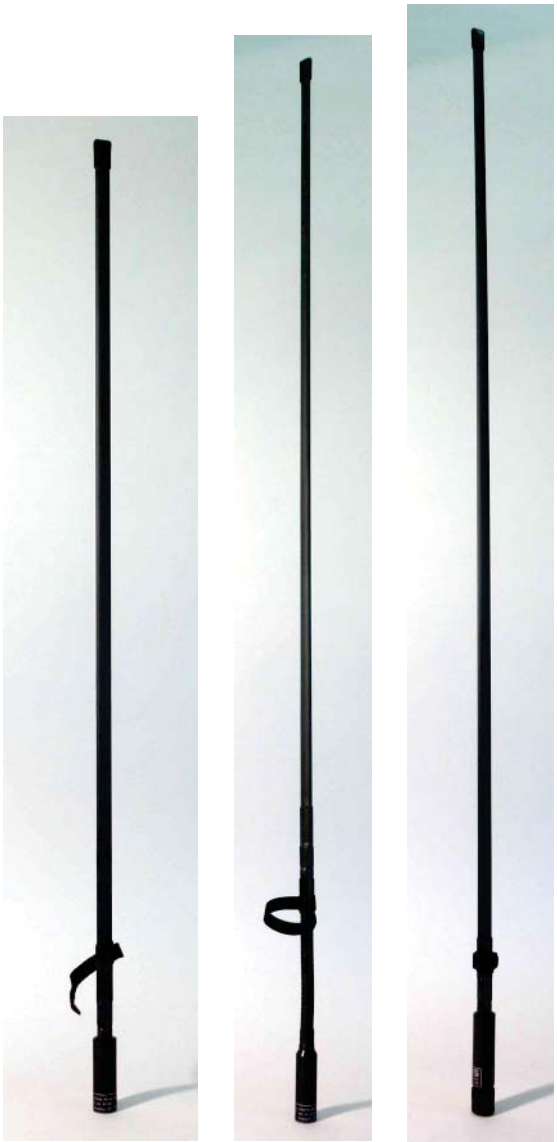
150 mm
330 mm
400 mm
450 mm
AD-44/BW-C
AD-44/BW-A
AD-44/BW-AH
AD-44/BW-B
AD-44/BW-BH
AD-44/BW-BT
AD-44/BW-ESW
AD-44/BW-ESS
13
Ø20
7/16"-28UNF
9
3.5
M18x1
Ø14.5
Ø11.5
BNC/TNC
inner part
9
6
Ø20
Ø17
1/2"-28UNF
Ø1.35 mm
(BNC
or TNC)

TRIVAL ANTENE

AD-44/CW...

The antennas AD-44/CW represent a family of wideband monopole whips, primarily intended for use with portable and handheld radios in VHF frequency range from 30 to 90 (108) Mhz.
Electrically the antenna is optimised for all exploitation conditions (radio in hand, at the side, at the breast etc.) so it is not necessary for additional tuning. The antenna is composed of radiating part made of special steel multilayer tape material covered with a plastic sleeve ensuring high flexibility and roughness.
The antenna has built-in a special passive transformer tuning network enclosed in fibreglass housing above the input coaxial connector. Above the transformer unit could be added so called “goose neck” enables that the antenna is always in vertical position regardless of the position of the radio station. Input connector is TNC male (or modified TNC male), Other types (N or BNC male) are available on special request.



	/CW-A	/CW-AH	/CW-E	/CW-EG	/CW-TR	/CW-AH2
Frequency (Mhz)	30-88	30-108	30-88	30-88	30-88	30-108
Impedance	50	50	50	50	50	50
VSWR	< 3.5	<3.5	<3.5	<3.5	<3.5	<3.5
Max. power (W)	10	10	10	10	10	25
Connector type	TNCm	TNCm	TNCm mod.	TNCm mod.	TNCm mod	TNCm
Radiator type	tape	tape	tape	tape	tape	tape
Goose-neck (mm)	-	165	-	165	-	165
Height (mm)	840	990	835	990	1150	1145
Weight (gr.)	135	270	135	230	225	280

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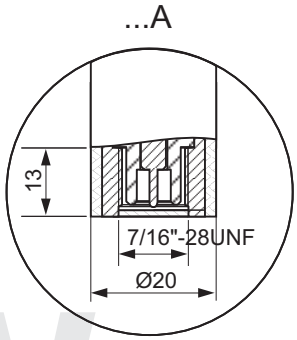
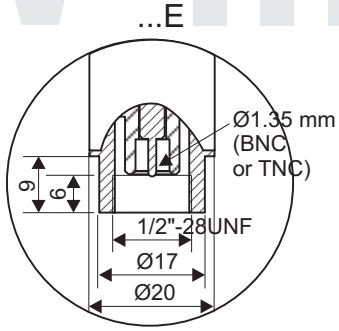
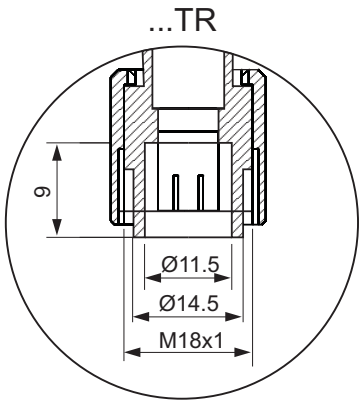
AD-44/CW-A
AD-44/CW-AH
AD-44/CW-E
AD-44/CW-EG
AD-44/CW-TR
AD-44/CW-AH2
...A
...E
...TR


...A
13
7/16"-28UNF
Ø20

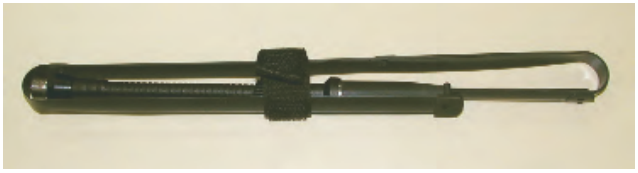

...E
Ø1.35 mm
(BNC
or TNC)
9
6
1/2"-28UNF
Ø17
Ø20


...TR
9
Ø11.5
Ø14.5
M18x1

AD-25/C

Family of antennas AD-25/C is intended for use with portable and manpack radios within VHF frequency band. The antenna radiator is composed of several multilayered tapes connected together to ensure good conductivity, flexibility and robust construction. The antenna consists also a special grip tape for packing when not in use.

Version of AD-25/C-GN contains also a special “goose-neck”enables vertical position of the antenna irrespective of position of radio set. Antenna is available in different heights (max. 1080 mm) and with different types of thread connectors (5/16”- 24UNF as standard or by request).



	AD-25/C-760	AD-25/C-915	AD-25/C-GN-925	AD-25/C-GN-1080
Frequency range	30 - 90 (108) Mhz	30 - 90 (108) Mhz	30 - 90 (108) Mhz	30 - 90 (108) Mhz
Maximum power	25 W	25 W	25 W	25 W
Polarization	VER.	VER.	VER.	VER.
Connector	thread 5/16-24UNF (or by request)	thread 5/16-24UNF (or by request)	thread 5/16-24UNF (or by request)	thread 5/16-24UNF (or by request)
Height	760 mm	915 mm	925 mm	1080 mm
Weight	0,10 kg	0,11 kg	0,17 kg	0,18 kg
Temperature range	- 40....+70 °C	- 40....+70 °C	- 40....+70 °C	- 40....+70 °C

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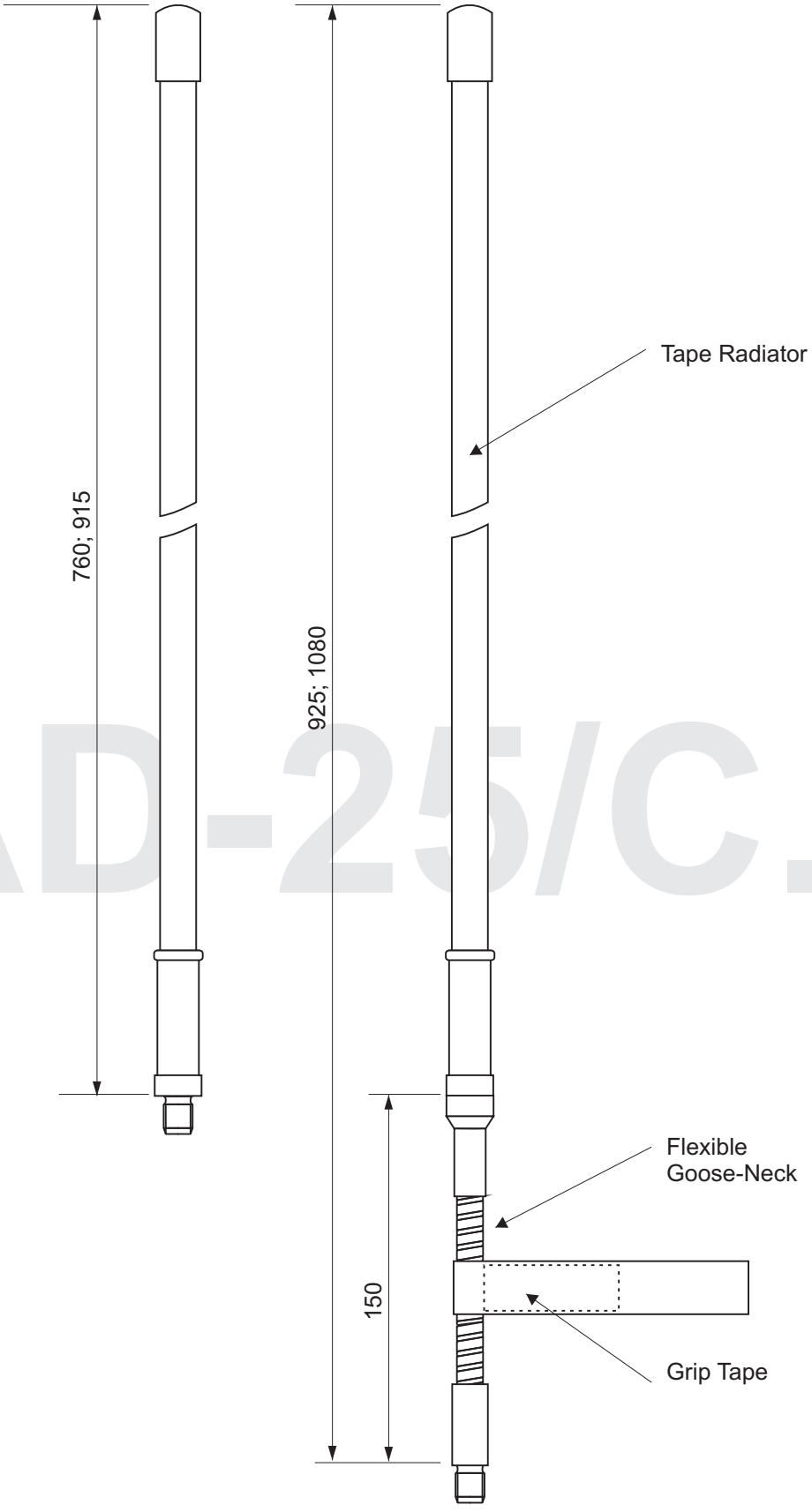
760; 915
925; 1080
Tape Radiator
Flexible
Goose-Neck
150
Grip Tape

AD-25/CW-...

The family of wideband antennas AD-25/CW is composed of wideband VHF whips intended for use on manpack radios in the frequency range from 30 to 88 (108) MHz.
Electrically the antenna is optimised for all exploitation conditions (radio on back, at the breast, on the ground, etc.) so it is not necessary for additional tuning. The antenna is composed of radiating part made of special steel multilayer tape material ensuring high flexibility and roughness. The antenna has built-in a special passive transformer tuning network enclosed in fibreglass housing above the input coaxial connector. Above the transformer unit is so called "goose neck" enables that the antenna is always in vertical position regardless of the position of the radio unit. Different models regarding the frequency range, max. RF power, input connector, etc., are available on request.

	AD-25/CW-AL	AD-25/CW-ALN	AD-25/CW-TA	AD-25/CW-TS
Frequency (MHz)	30 - 108	30 - 108	30 - 108	30 - 108
Impedance (Ohm)	50 ohm	50 ohm	50 ohm	50 ohm
VSWR	< 3.5	< 3.5	< 4.5	< 4.5
Gain	DIAG. 2	DIAG. 2	DIAG. 2	DIAG. 2
Polarization	VER.	VER.	VER.	VER.
Maximum power (W)	15	15	25	25
Connector	modif. BNC/TNC	N male	Thales PR4G F@stNet radio	modif. BNC/TNC
Height (mm)	1200	1200	1650	1650
Mass (kg)	0,35 kg	0,35 kg	0,45 kg	0,45 kg
Environmental specs.	MIL-STD-810	MIL-STD-810	MIL-STD-810	MIL-STD-810

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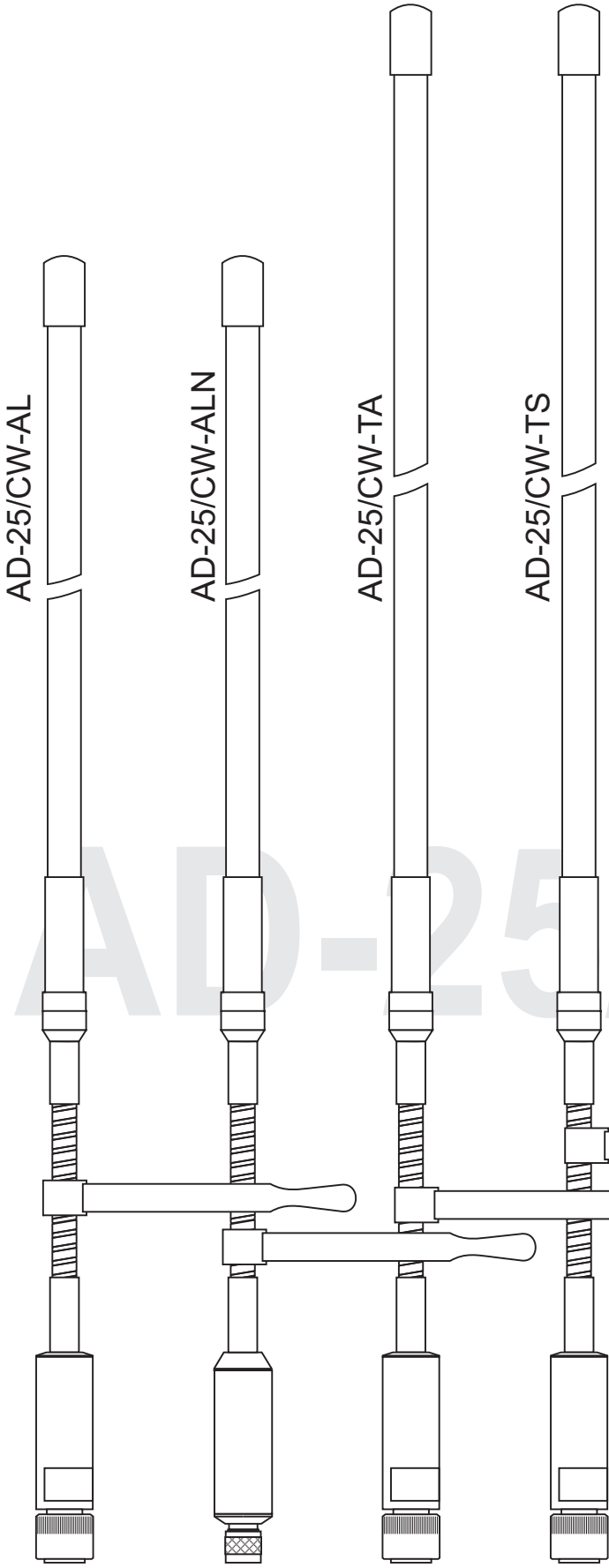
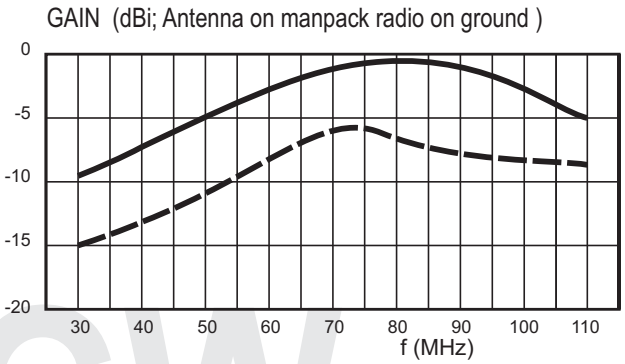
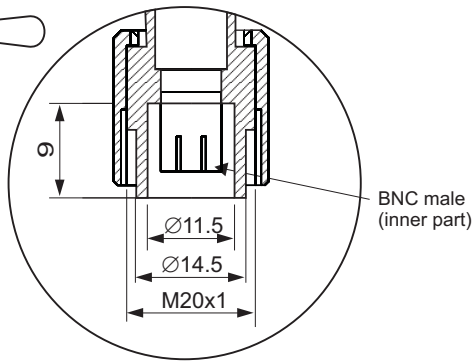
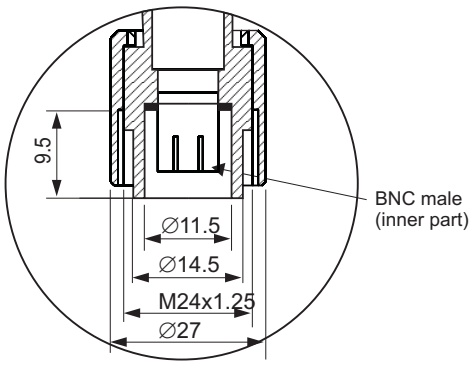






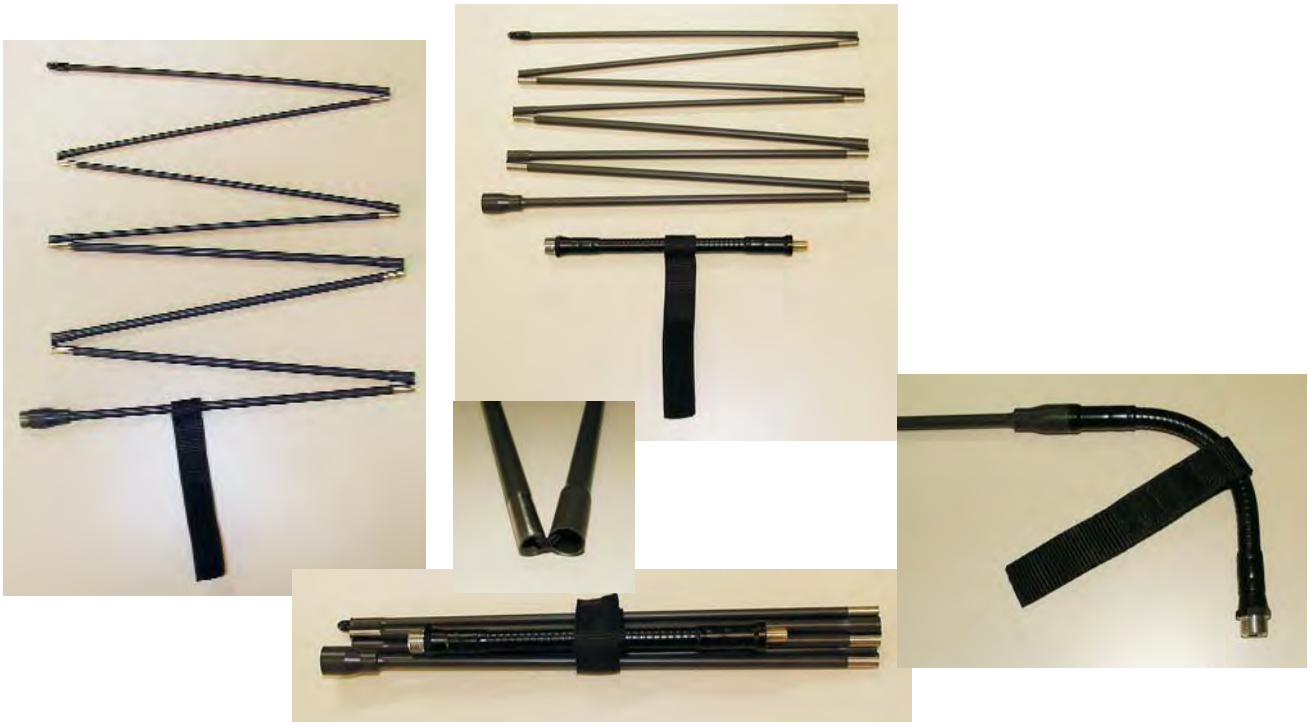
connector../CW-TA



connector../CW-AL; ../CW-TS

AD-26/C

Family of antennas AD-26/C is intended for use with portable and manpack radios within VHF frequency band. The antenna is composed of several thin wall stainless steel sections connected with elastic rope. Elastic rope tension enables good electrical contact between sections and quick deployment of the antenna within seconds. The antenna consists also a special grip tape for packing when not in use. Version of AD-26/C-GN contains also a special “goose-neck”enables vertical position of the antenna irrespective of position of radio set. Antenna is available in different heights (max. 3220 mm) and with different types of thread connectors (5/8”-18UNF as standard or by request). Antenna radiator is painted MIL Green while the goose-neck is painted black.



Frequency range	30 - 90 Mhz
Maximum power	50 W
Polarization	VER.
Connector	thread 5/8”-18UNF (or by request)
Height	max. 3035 mm
Weight	max. 0,350 kg
Temperature range	- 40....+70 °C

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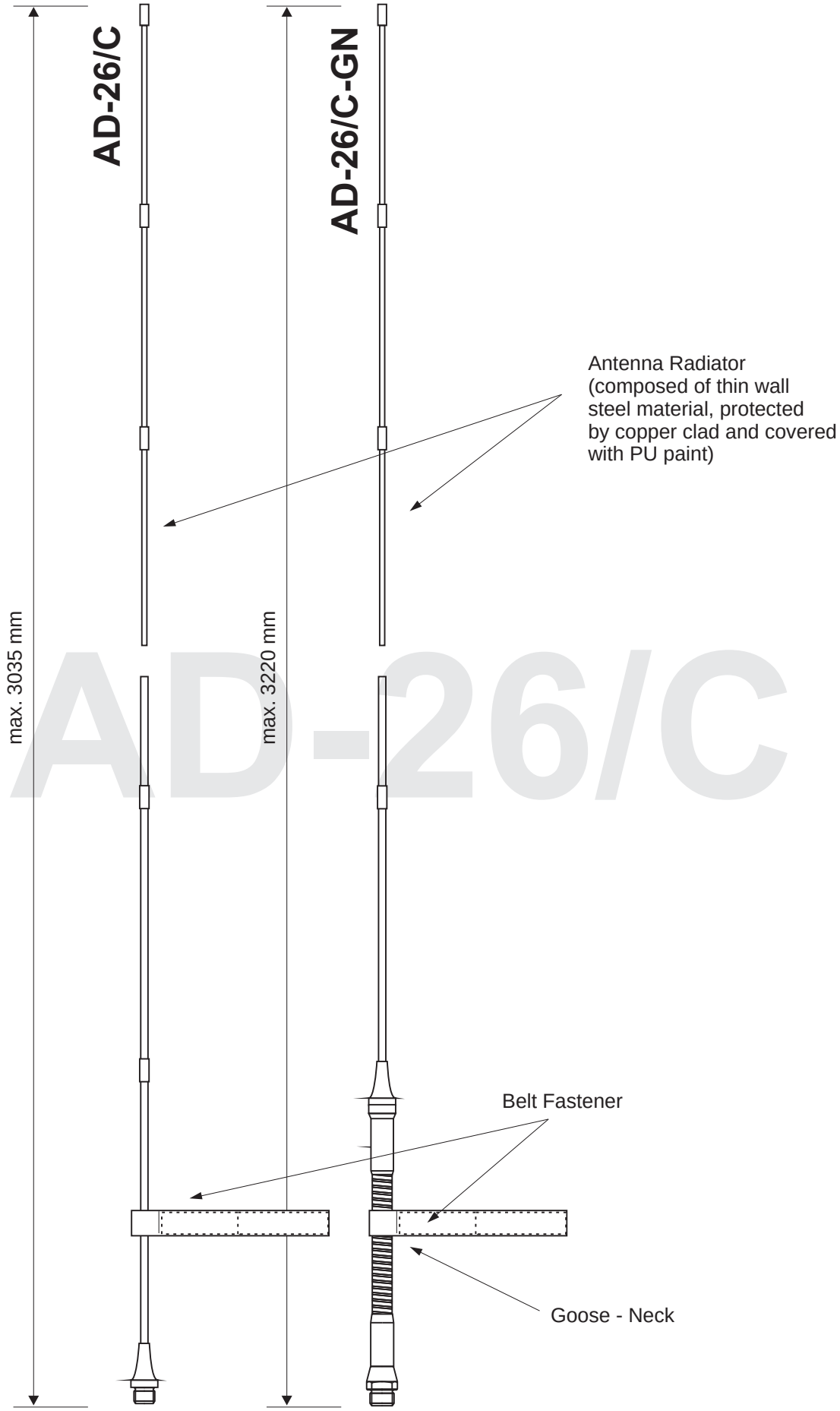
AD-26/C
AD-26/C-GN
Antenna Radiator
(composed of thin wall
steel material, protected
by copper clad and covered
with PU paint)
max. 3035 mm
max. 3220 mm
Belt Fastener
Goose - Neck

AD-26/CW

The antenna AD-26/CW is a wideband VHF monopole antenna intended for use primarily on manpack radios. The antenna radiator is composed of 8 sections made of thin wall copper plates stainless steel with tubular joints and elastic rope enabling fast deployment. The antenna has built-in a special passive transformer tuning network enclosed in fiberglass housing above the input coaxial connector. Above the transformer unit is so called “goose neck” enables that the antenna is always in vertical position.

The antenna is wideband and therefore suitable for use with standard VHF radios as well with “frequency hopping” systems for work in stay with radio on the ground or on the back, concerning the antenna length. All metal parts of the antenna are galvanically protected. Antenna radiator is painted MIL Green (RAL 6014) while the goose-neck and matching unit are black.

Different models regarding the frequency range, max. RF power, input connector, etc., are available on request.

Frequency range	30 - 108 MHz
Impedance	50 ohm
VSWR	< 3.5
Polarization	VER.
Maximum power	50 W CW
Connector	see versions below
Height	2450 mm
Mass of antenna	350 g
Length of sections	300 mm
Environmental specs.	MIL-STD-810F

Versions:
AD-26/CW: antenna with the goose-neck and a special modified BNC/TNC connector with the outer thread M24x1.25
AD-26/CW-S: antenna with the goose-neck and SINCGARS type connector
AD-26/CW-N: antenna with the goose-neck and N male connector
AD-26/CW-TNC: antenna with the goose-neck and TNC male connector

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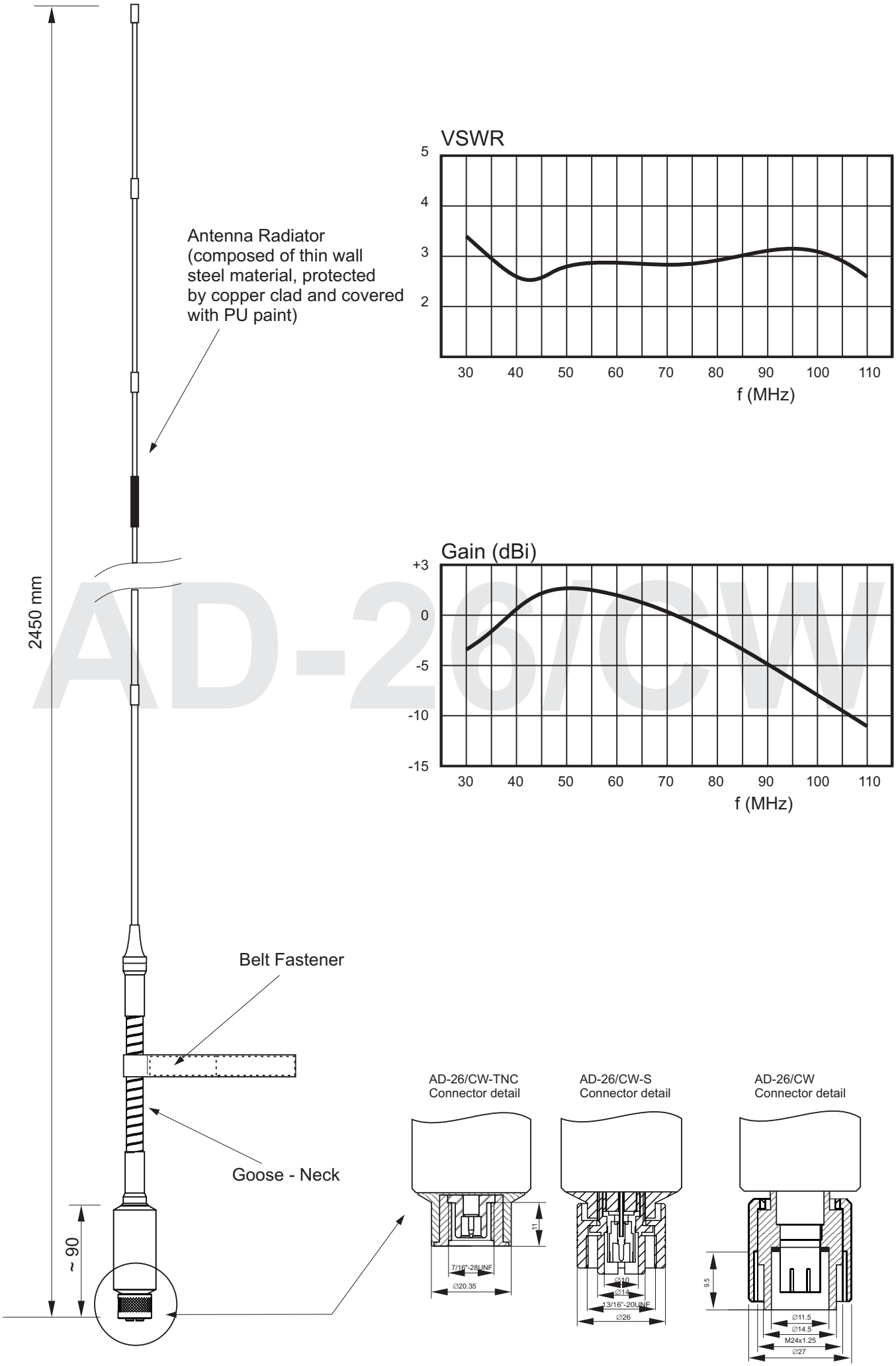
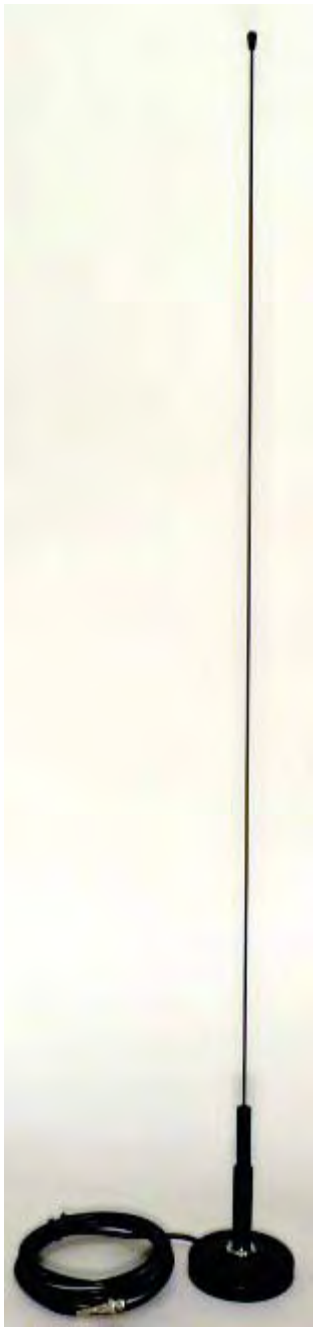

2450 mm
Antenna Radiator
(composed of thin wall
steel material, protected
by copper clad and covered
with PU paint)
VSWR
5
4
3
2
30
40
50
60
70
80
90
100
110
f (MHz)
Gain (dBi)
+3
0
-5
-10
-15
30
40
50
60
70
80
90
100
110
f (MHz)
Belt Fastener
Goose - Neck
~ 90
AD-26/CW-TNC
Connector detail
7/16"-28UNF
Ø20.35
11
AD-26/CW-S
Connector detail
Ø10
Ø14
13/16"-20UNF
Ø26
AD-26/CW
Connector detail
9.5
Ø11.5
Ø14.5
M24x1.25
Ø27

AD-21/6688

The antenna AD-21/6688 is a wideband low-profile monopole mobile antenna covering frequency range from 66 to 88 MHz and is intended for use with portable and mobile radios. The antenna radiator is composed of two parts: the whip made of special strong and flexible stainless steel whip with spring at the bottom and the matching transformer unit above the N male coaxial connector. The radiator is painted with special UV protective polyurethane black paint while the housing of the antenna matching unit is made of durable ertacetal material.
The antenna radiator could be used as a separate antenna attached to the portable radio device or it can be used with the magnet base ADM-21/N or fixed base ADN-21/N, both with the integrated coaxial cable length of 4 meters and ended with the FME female connector. Various adapters from FME to N, BNC, UHF, SMA, etc. are available on request.

VERSIONS:

AD-21/6688-N: wideband monopole antenna for portable radio devices with N male connector
AD-21/6688-F: antenna **AD-21/6688-N** with the fixed mount **ADN-21/N** for mobile applications
AD-21/6688-M: antenna **AD-21/6688-N** with the magnet mount **ADM-21/N** for mobile applications



Frequency range	66-88 MHz
Impedance	50 ohm
VSWR	< 2,5 (see diagram)
Max. power	50 W CW
Gain	see diagram
Height	120 cm
Radiator Weight	200 gr.
Magnet Base Weight	850 gr.
Fixed Base Weight	200 gr.
Cable length	4 m
Input connector	FME female

Fixed mount
ADN-21/N

Magnet mount
ADM-21/N

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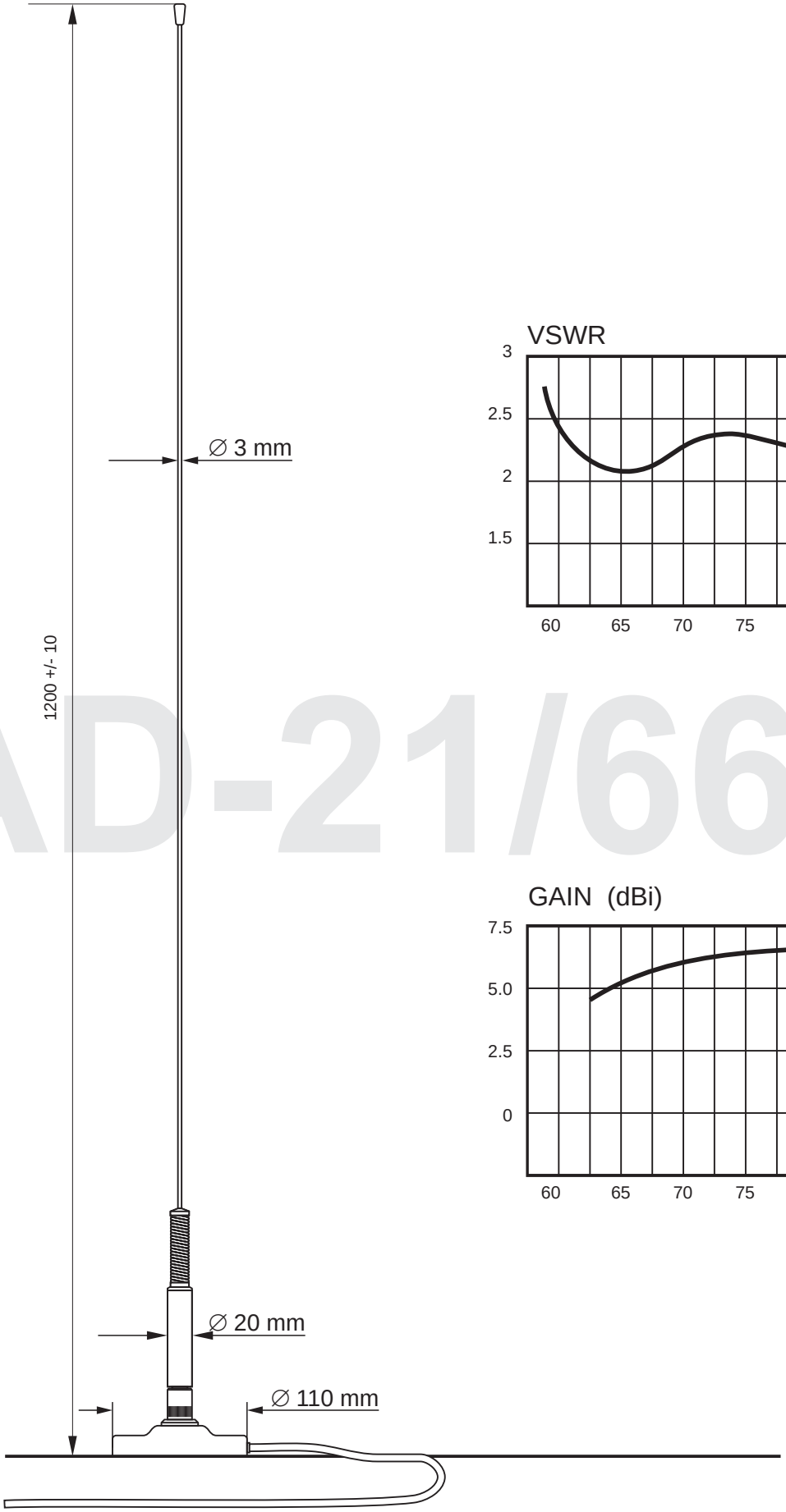
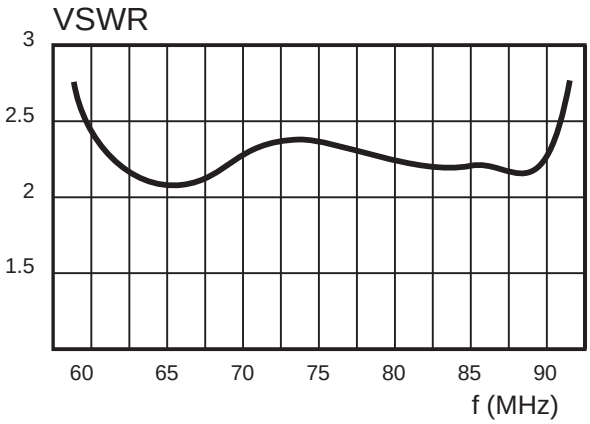
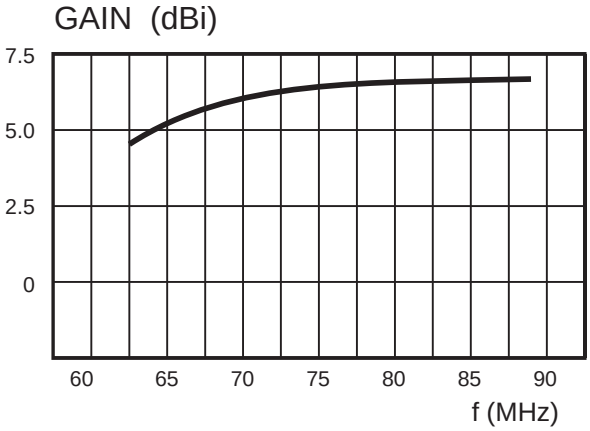

∅ 3 mm
1200 +/- 10
∅ 20 mm
∅ 110 mm


VSWR
3
2.5
2
1.5
60
65
70
75
80
85
90
f (MHz)

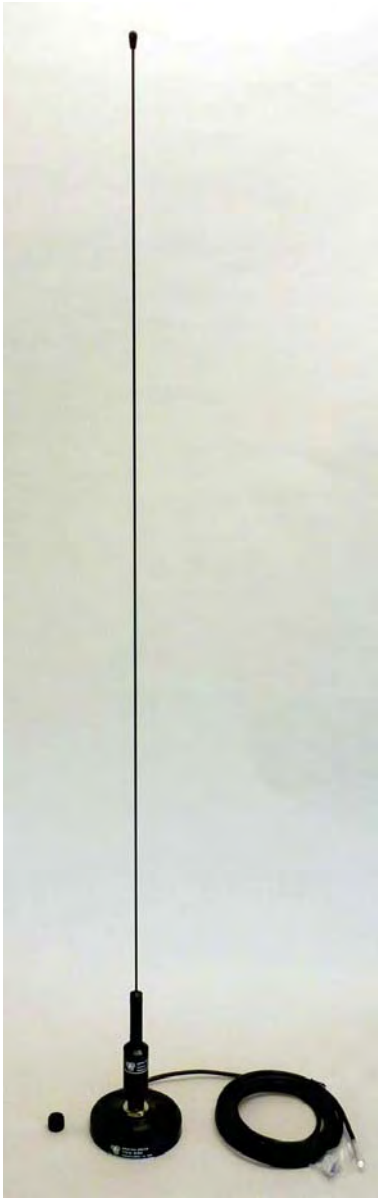

GAIN (dBi)
7.5
5.0
2.5
0
60
65
70
75
80
85
90
f (MHz)

AD-21/3108

The antenna AD-21/3108 is a wideband low-profile monopole mobile antenna covering frequency range from 30 to 108 MHz and is intended for use with portable and mobile radios. The antenna radiator is composed of two parts: the whip made of special strong and flexible stainless steel whip with spring at the bottom and the matching transformer unit above the N male coaxial connector. The radiator and the matching unit are painted with UV protective polyurethane black paint.
The antenna radiator could be used as a separate antenna attached to the portable radio device or it can be used with the magnet base ADM-21/N or fixed base ADN-21/N, both with the integrated coaxial cable length of 4 meters and ended with the FME female connector. Various adapters from FME to N, BNC, UHF, SMA, etc. are available on request.

VERSIONS:

AD-21/3108-N: wideband monopole antenna for portable radio devices with N male connector
AD-21/3108-F: antenna **AD-21/3108-N** with the fixed mount **ADN-21/N** for mobile applications
AD-21/3108-M: antenna **AD-21/3108-N** with the magnet mount **ADM-21/N** for mobile applications



Frequency range	30-108 Mhz
Impedance	50 ohm
VSWR	< 3.5 (see diagram)
Max. power	25 W CW
Gain	-15 .... 0 dBi
Height	120 cm
Radiator Weight	200 gr.
Magnet Base Weight	850 gr.
Fixed Base Weight	200 gr.
Cable length	4 m
Input connector	FME female

Fixed mount
ADN-21/N

Magnet mount
ADM-21/N

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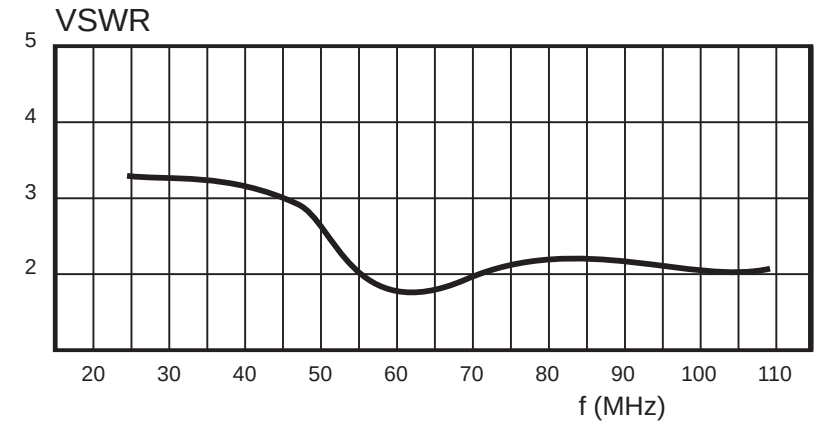
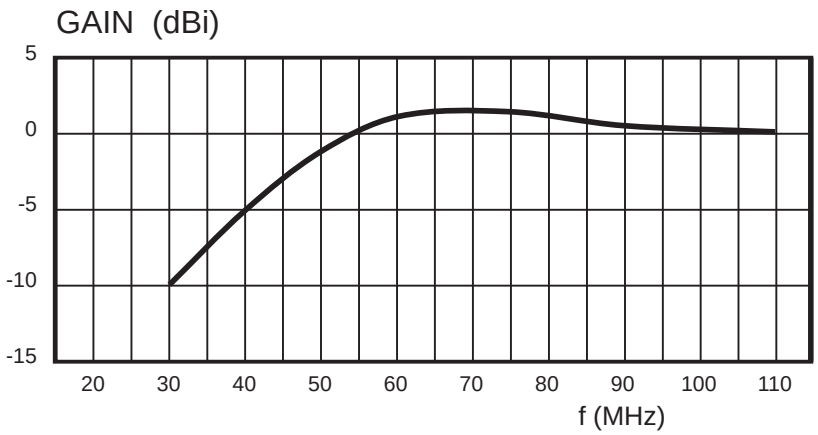
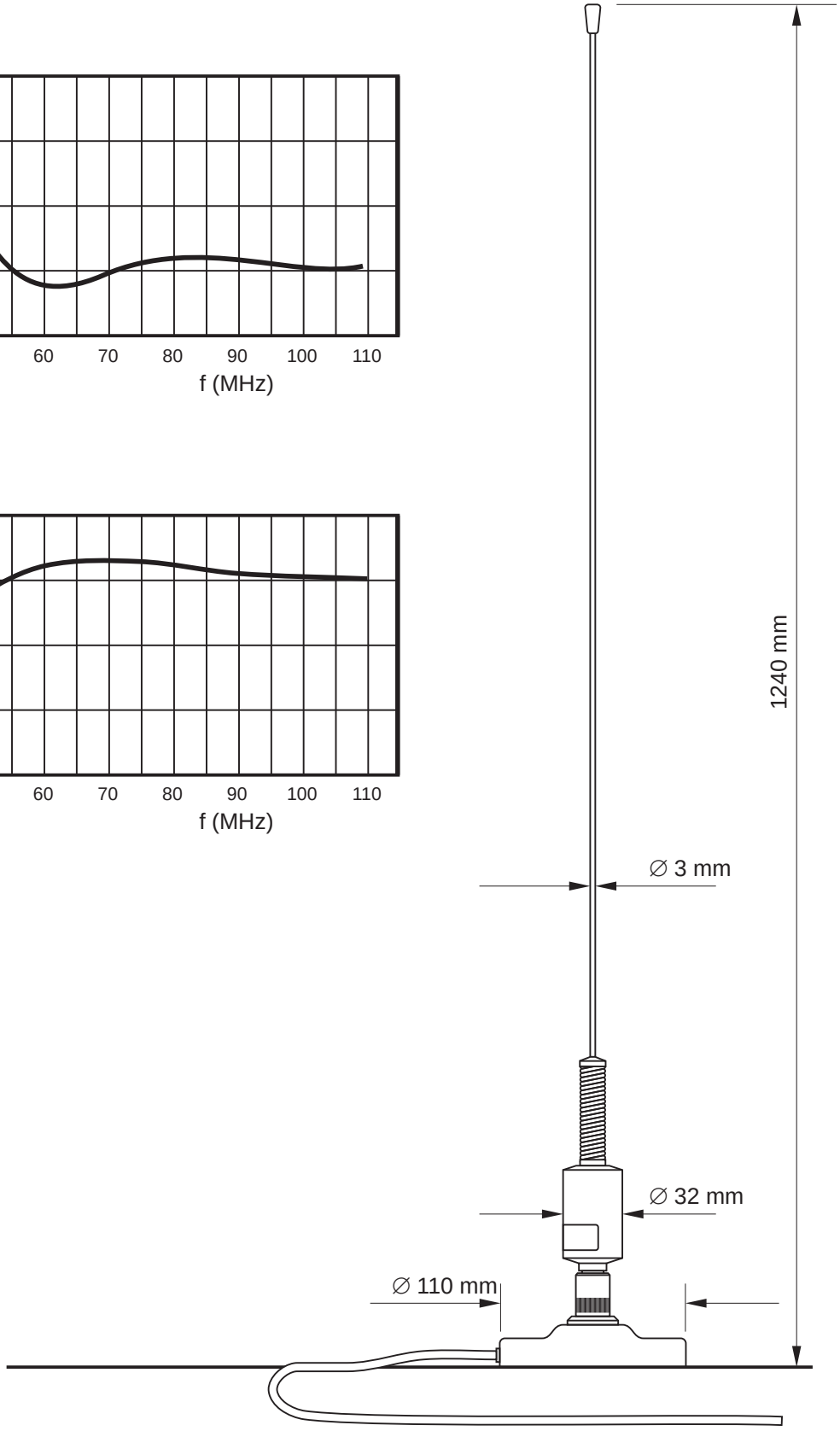

VSWR
5
4
3
2
20
30
40
50
60
70
80
90
100
110
f (MHz)


GAIN (dBi)
5
0
-5
-10
-15
20
30
40
50
60
70
80
90
100
110
f (MHz)


1240 mm
∅ 3 mm
∅ 32 mm
∅ 110 mm

AD-18/CF-388

The antenna AD-18/CF-388 is VHF "center-fed" type wideband mobile VHF antenna for frequency range from 30 to 88 MHz, mainly intended for use in heavy duty mobile applications.
The antenna is composed of three main parts: antenna base, lower and upper radiating element. The antenna base is made of aluminum and durable plastic materials. Inside the base is the matching circuitry and (optional) GPS antenna. Stainless steel spring absorbs the shocks and the vibrations, in addition protects the antenna against impacts. Both radiating elements are made of composite materials enable outstanding strength and roughness even in hardest conditions of use.
The antenna base has four mounting holes equally spaced on a 4.5" (114.3 mm) circle which complies with NATO standard. Different base plate dimensions are available on request.
The antenna radiator is painted with military green (RAL-6014) two-component UV resistant paint. Other colors are available by request.

ELECTRICAL SPECIFICATIONS - VHF/UHF:	
Frequency range	30 - 88 MHz
Impedance	50 ohms
VSWR	< 3,5
Gain	-3 ..... +1 dBi
Polarization	vert.
Maximum power	100 W CW
Connector	N female (BNC female optional)
ELECTRICAL SPECIFICATIONS - GPS:	
Frequency range	L1 1575.42 +/- 10 MHZ or L1/L2 1575/1227 MHz
Impedance	50 ohms
VSWR	< 2
Polarization	RHC
Gain (LNA)	26 dB
Noise fig.	1.35 dB
Power supply	5 V DC +/- 0.25 V (max. 20 mA)
Connector	SMA female
MECHANICAL SPECIFICATIONS:	
Design	Center-fed (VHF); patch antenna with LNA (GPS)
Height	2955 mm
Weight	3.6 kg
Max. high voltage rating	16 kV
Wind rating	45 m/s (160 km/h)
Color	MIL Green
ENVIRONMENTAL SPECIFICATIONS:	
High Temperature - Storage	MIL-STD-810G; Method 501.5; Proc. I; +75 °C for 96h
High Temperature - Operating	MIL-STD-810G; Method 501.5; Proc. II; +65 °C for 16h
Low Temperature - Storage	MIL-STD-810G; Method 502.5; Proc. I; -55 °C for 96h
Low temperature - Operating	MIL-STD-810G; Method 502.5; Proc. II; -40 °C for 16h
Humidity	MIL-STD-810G; Method 507.5; 10 cycles of 24 h; 95%
Solar radiation	MIL-STD-810G; Method 505.5; Proc. I; 3 cycles
Rain	MIL-STD-810G; Method 506.5; Proc. III
Icing/Freezing Rain	MIL-STD-810G; Method 521.5
Sand and Dust	MIL-STD-810G; Method 510.5; Proc. I and II
Vibration	MIL-STD 810G, Method 514.6; Proc. I
Shock-Transit Drop	MIL-STD-810G, Method 516.6, Procedure IV
Contamination by Fluids	MIL-STD-810G, Method 504.1, Procedure II (Fuels, Hydraulic Oils and Lubricating Oils acc. to the Table 504.1-I.)
Oak-beam test	20 hits on 100 mm oak beam at speed 25 km/h
EMP Protection	MIL-STD 461E RS105

VERSIONS:
AD-18/CF-388: VHF antenna
AD-18/CF-388G: combined VHF and GPS L1 antenna
AD-18/CF-388G2: combined VHF and GPS L1/L2 antenna

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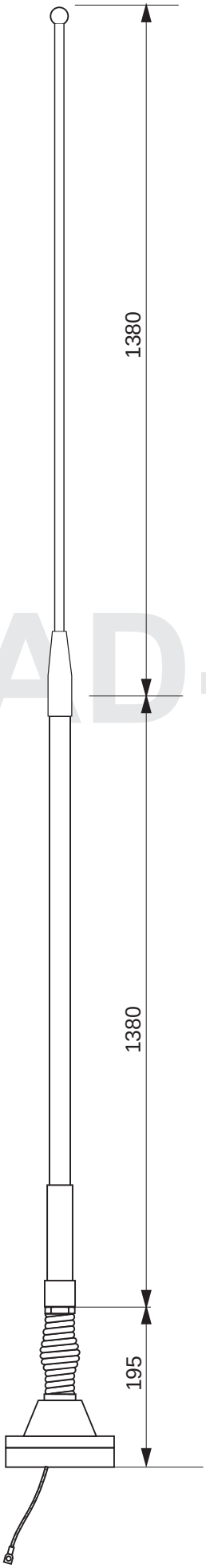

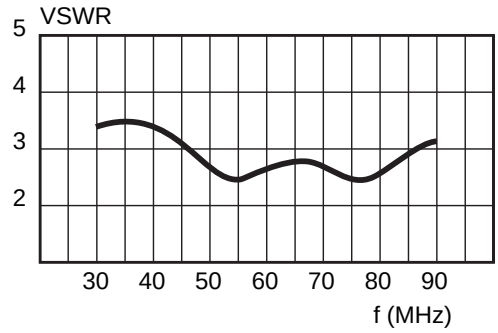

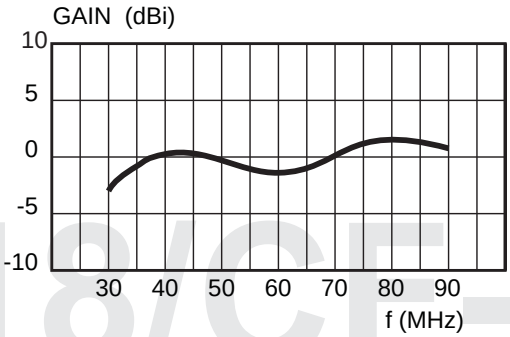

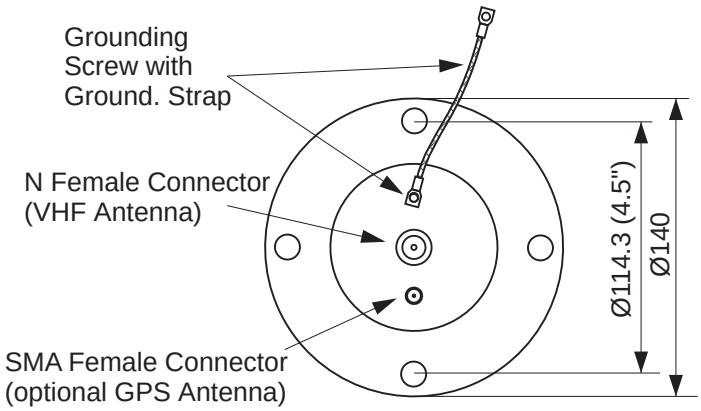

ANTENNA BASE -
BOTTOM VIEW

AD-18/CF-3108

The antenna AD-18/CF-3108 is VHF "center-fed" type wideband mobile VHF antenna for frequency range from 30 to 108 MHz, mainly intended for use in heavy duty mobile applications.
The antenna is composed of three main parts: antenna base, lower and upper radiating element. The antenna base is made of aluminum and durable plastic materials. Inside the base is the matching circuitry and (optional) GPS antenna. Stainless steel spring absorbs the shocks and the vibrations, in addition protects the antenna against impacts. Both radiating elements are made of composite materials enable outstanding strength and roughness even in hardest conditions of use.
The antenna base has four mounting holes equally spaced on a 4.5" (114.3 mm) circle which complies with NATO standard. Different base plate dimensions are available on request.
The antenna radiator is painted with military green (RAL-6014) two-component UV resistant paint. Other colors are available by request.

ELECTRICAL SPECIFICATIONS - VHF/UHF:	
Frequency range	30 - 108 MHz
Impedance	50 ohms
VSWR	< 3,5
Gain	-4 ..... +1 dBi
Polarization	vert.
Maximum power	100 W CW
Connector	N female (BNC female optional)
ELECTRICAL SPECIFICATIONS - GPS:	
Frequency range	L1 1575.42 +/- 10 MHZ or L1/L2 1575/1227 MHz
Impedance	50 ohms
VSWR	< 2
Polarization	RHC
Gain (LNA)	26 dB
Noise fig.	1.35 dB
Power supply	5 V DC +/- 0.25 V (max. 20 mA)
Connector	SMA female
MECHANICAL SPECIFICATIONS:	
Design	Center-fed (VHF); patch antenna with LNA (GPS)
Height	2955 mm
Weight	3.6 kg
Max. high voltage rating	16 kV
Wind rating	45 m/s (160 km/h)
Color	MIL Green
ENVIRONMENTAL SPECIFICATIONS:	
High Temperature - Storage	MIL-STD-810G; Method 501.5; Proc. I; +75 °C for 96h
High Temperature - Operating	MIL-STD-810G; Method 501.5; Proc. II; +65 °C for 16h
Low Temperature - Storage	MIL-STD-810G; Method 502.5; Proc. I; -55 °C for 96h
Low temperature - Operating	MIL-STD-810G; Method 502.5; Proc. II; -40 °C for 16h
Humidity	MIL-STD-810G; Method 507.5; 10 cycles of 24 h; 95%
Solar radiation	MIL-STD-810G; Method 505.5; Proc. I; 3 cycles
Rain	MIL-STD-810G; Method 506.5; Proc. III
Icing/Freezing Rain	MIL-STD-810G; Method 521.5
Sand and Dust	MIL-STD-810G; Method 510.5; Proc. I and II
Vibration	MIL-STD 810G, Method 514.6; Proc. I
Shock-Transit Drop	MIL-STD-810G, Method 516.6, Procedure IV
Contamination by Fluids	MIL-STD-810G, Method 504.1, Procedure II (Fuels, Hydraulic Oils and Lubricating Oils acc. to the Table 504.1-I.)
Oak-beam test	20 hits on 100 mm oak beam at speed 25 km/h
EMP Protection	MIL-STD 461E RS105

VERSIONS:
AD-18/CF-3108: VHF antenna
AD-18/CF-3108G: combined VHF and GPS L1 antenna
AD-18/CF-3108G2: combined VHF and GPS L1/L2 antenna

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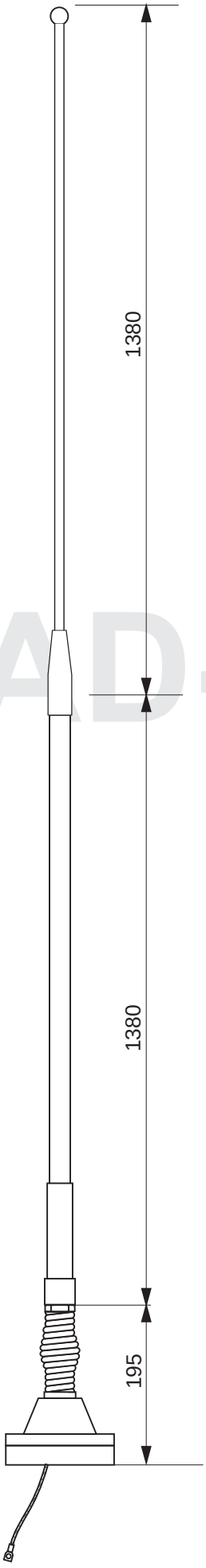

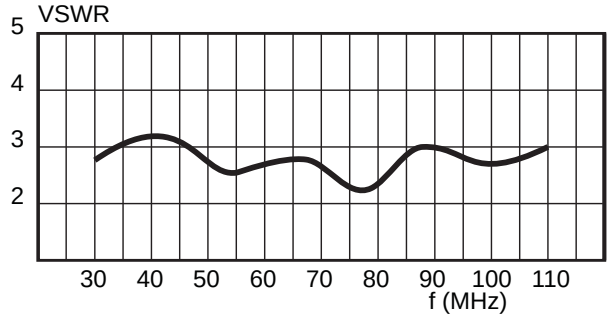

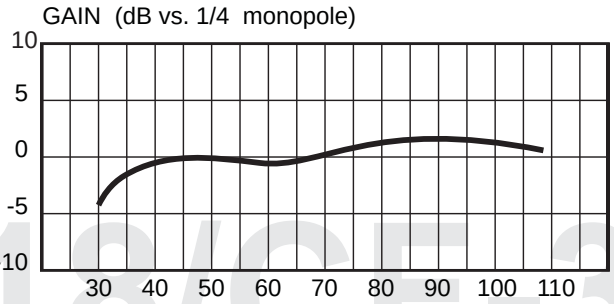

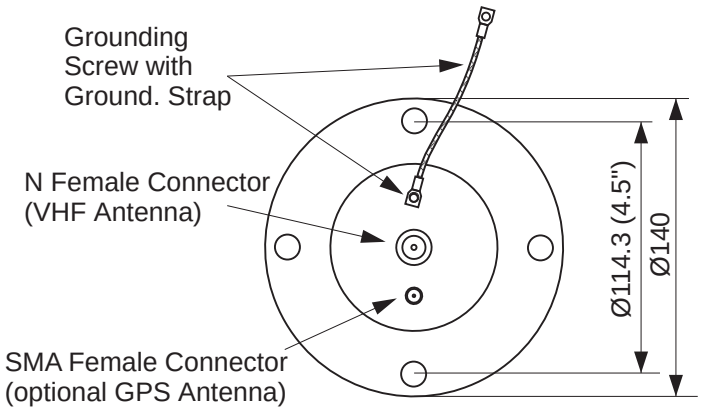

ANTENNA BASE -
BOTTOM VIEW

AD-18/D

The antenna AD-18/D is a wideband mobile VHF antenna for frequency range from 30 to 90 MHZ, mainly intended for use in heavy duty mobile applications.
The antenna is composed of three main parts: antenna base, lower and upper radiating element. The antenna base is made of aluminum and durable plastic materials. Inside the base is the matching circuitry and (optional) GPS antenna. Stainless steel spring absorbs the shocks and the vibrations, in addition protects the antenna against impacts. Both radiating elements are made of composite materials enable outstanding strength and roughness even in hardest conditions of use.
The antenna base has four mounting holes equally spaced on a 4.5" (114.3 mm) circle which complies with NATO standard. Different base plate dimensions are available on request.
The antenna radiator is painted with military green (RAL-6014) two-component UV resistant paint.

ELECTRICAL SPECIFICATIONS - VHF:	
Frequency range	30 - 90 MHZ
Impedance	50 ohm
VSWR	< 3,5
Gain	typ. -5 ..... +0.5 dB(1/4)
Polarization	vert.
Maximum power	150 W CW
Connector	N female (BNC female opt.)
ELECTRICAL SPECIFICATIONS - GPS:	
Frequency range	L1 1575.42 +/- 10 MHZ
Impedance	50 ohm
VSWR	< 2
Polarization	RHC
Gain (LNA)	26 dB
Noise fig.	1.35 dB
Power supply	5 V DC +/- 0.25 V (max. 20 mA)
Connector	SMA female
MECHANICAL SPECIFICATIONS:	
Design	End-fed (VHF/UHF); patch antenna w. LNA (GPS)
Height	2.75 m
Weight	3.5 kg
Max. high voltage rating	16 kV
Temperature range - in use	-50 ... +55 °C
Temperature range - in stock	-55 ... +75 °C
Wind rating	45 m/s (160 km/h)
Color	RAL-6014

Versions:
AD-18/D: VHF antenna
AD-18/D-G: combined VHF and GPS antenna

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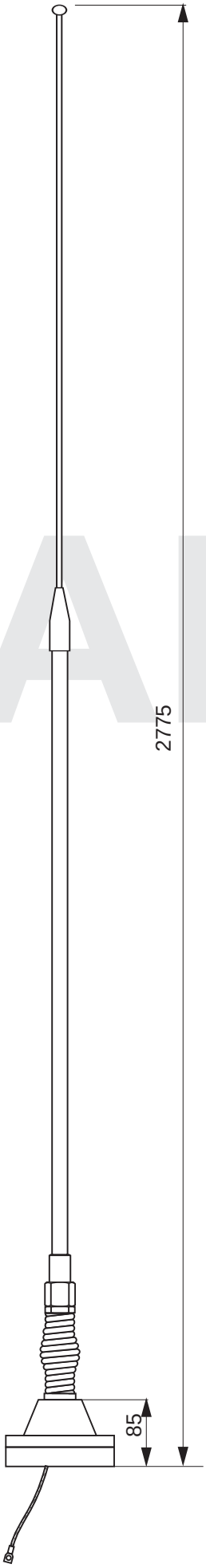

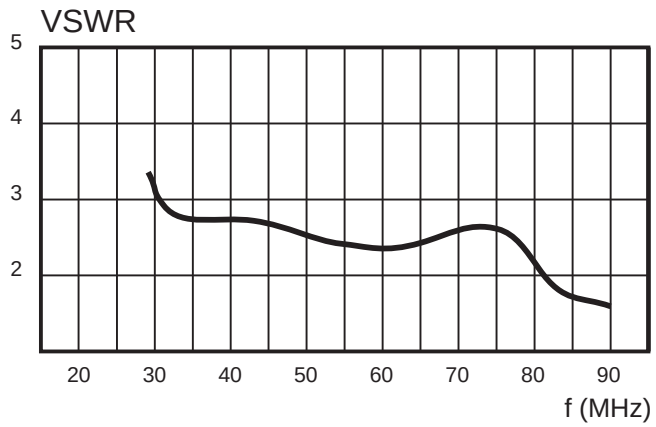

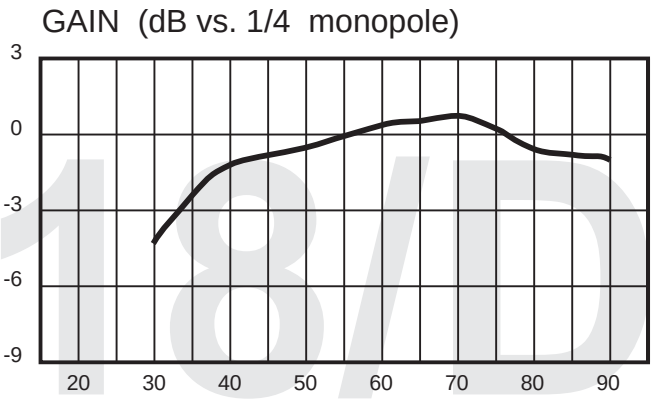

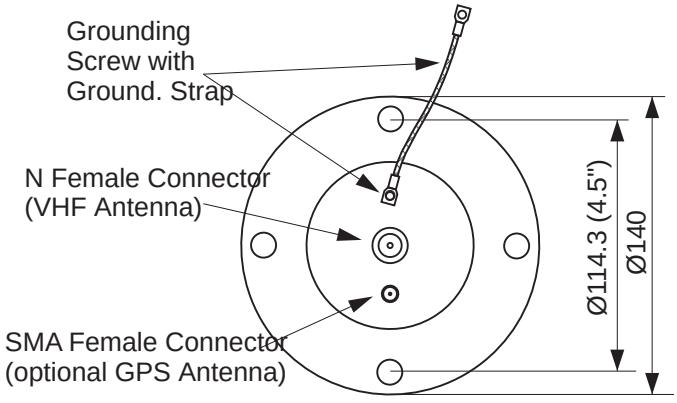

ANTENNA BASE -
BOTTOM VIEW

AD-18/D-110

The antenna AD-18/D-110 is a wideband mobile VHF antenna for frequency range from 30 to 110 MHZ, mainly intended for use in heavy duty mobile applications.
The antenna is composed of three main parts: antenna base, lower and upper radiating element. The antenna base is made of aluminum and durable plastic materials. Inside the base is the matching circuitry and (optional) GPS antenna. Stainless steel spring absorbs the shocks and the vibrations, in addition protects the antenna against impacts. Both radiating elements are made of composite materials enable outstanding strength and roughness even in hardest conditions of use.
The antenna base has four mounting holes equally spaced on a 4.5" (114.3 mm) circle which complies with NATO standard. Different base plate dimensions are available on request.
The antenna radiator is painted with military green (RAL-6014) two-component UV resistant paint.

ELECTRICAL SPECIFICATIONS - VHF:	
Frequency range	30 - 110 MHZ
Impedance	50 ohm
VSWR	< 3,5
Gain	tip. -6 ..... +0.5 dB(1/4)
Polarization	vert.
Maximum power	100 W CW
Connector	N female (BNC female opt.)
ELECTRICAL SPECIFICATIONS - GPS:	
Frequency range	L1 1575.42 +/- 10 MHZ
Impedance	50 ohm
VSWR	< 2
Polarization	RHC
Gain (LNA)	26 dB
Noise fig.	1.35 dB
Power supply	5 V DC +/- 0.25 V (max. 20 mA)
Connector	SMA female
MECHANICAL SPECIFICATIONS:	
Design	End-fed (VHF/UHF); patch antenna w. LNA (GPS)
Height	2.795 m
Weight	3.5 kg
Max. high voltage rating	16 kV
Temperature range - in use	-50 ... +55 °C
Temperature range - in stock	-55 ... +75 °C
Wind rating	45 m/s (160 km/h)
Color	RAL-6014

Versions:
AD-18/D-110: VHF antena
AD-18/D-110-G: combined VHF and GPS antenna

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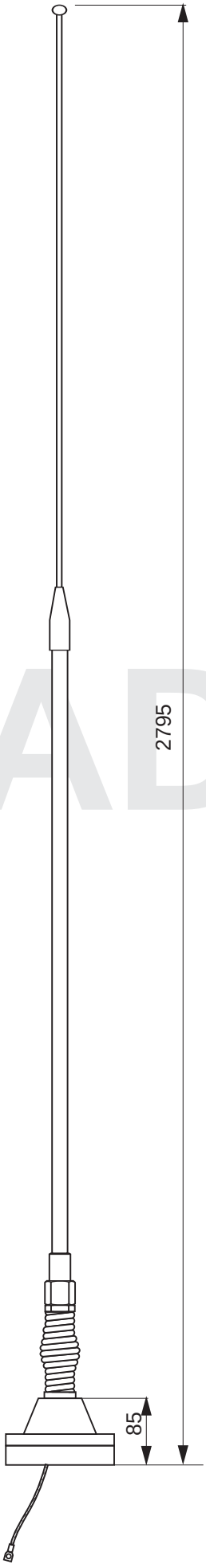

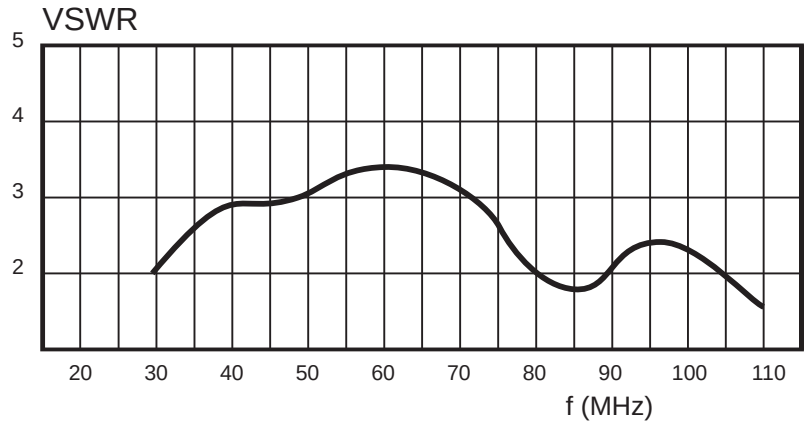

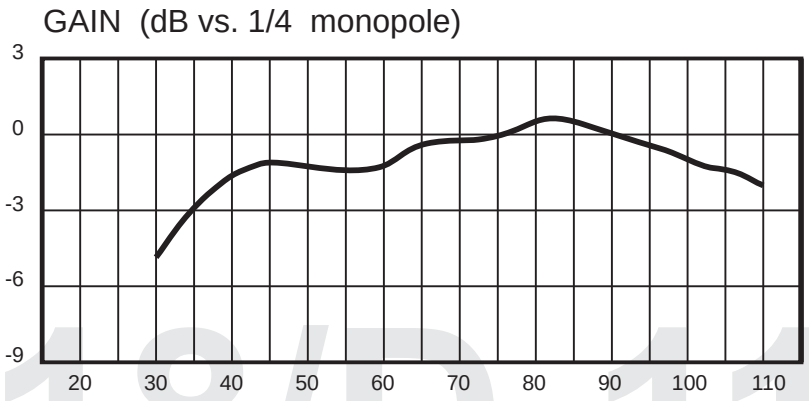

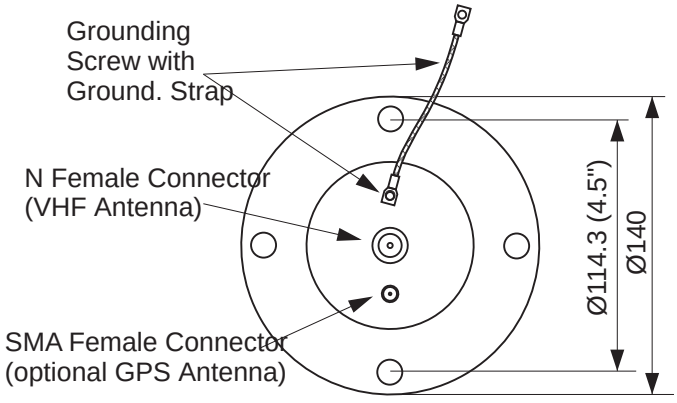

ANTENNA BASE -
BOTTOM VIEW

AD-18/D-2110

The antenna AD-18/D-2110 is a wideband mobile VHF antenna for frequency range from 20 to 110 MHZ, mainly intended for use in heavy duty mobile and jamming applications. The antenna is composed of three main parts: antenna base, lower and upper radiating element. The antenna base is made of aluminum and durable plastic materials. Inside the base is the matching circuitry and (optional) GPS antenna. Stainless steel spring absorbs the shocks and the vibrations, in addition protects the antenna against impacts. Both radiating elements are made of composite materials enable outstanding strength and roughness even in hardest conditions of use. The antenna base has four mounting holes equally spaced on a 4.5" (114.3 mm) circle which complies with NATO standard. Different base plate dimensions are available on request. The antenna radiator is painted with military green (RAL-6014) two-component UV resistant paint.

ELECTRICAL SPECIFICATIONS - VHF/UHF:	
Frequency range	20 - 110 MHz
Impedance	50 ohms
VSWR	< 3,5
Gain	typ. -8 ..... +2 dB
Polarization	vert.
Maximum power	100 W CW
Connector	N female (BNC female optional)
ELECTRICAL SPECIFICATIONS - GPS:	(optional)
Frequency range	L1 1575.42 +/- 10 MHZ
Impedance	50 ohms
VSWR	< 2
Polarization	RHC
Gain (LNA)	26 dB
Noise fig.	1.35 dB
Power supply	5 V DC +/- 0.25 V (max. 20 mA)
Connector	SMA female
MECHANICAL SPECIFICATIONS:	
Design	End fed whip (VHF); patch antenna with LNA (GPS)
Height	2.795 m
Weight	3.5 kg
Max. high voltage rating	16 kV
Temperature range - in use	-50 ... +55 °C
Temperature range - in stock	-55 ... +75 °C
Wind rating	45 m/s (160 km/h)
Color	MIL Green

VERSIONS:
AD-18/D-2110: VHF antenna
AD-18/D-2110-G: combined VHF and GPS antenna

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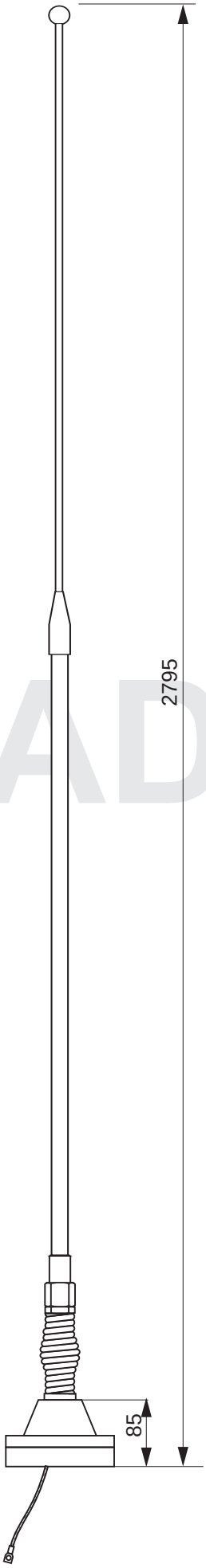

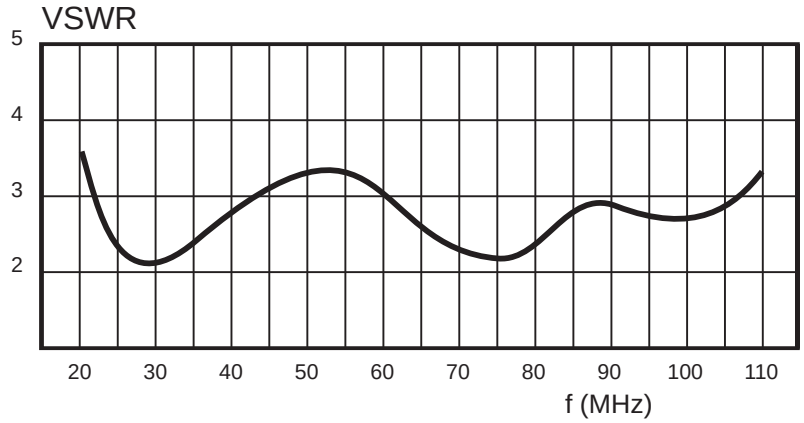

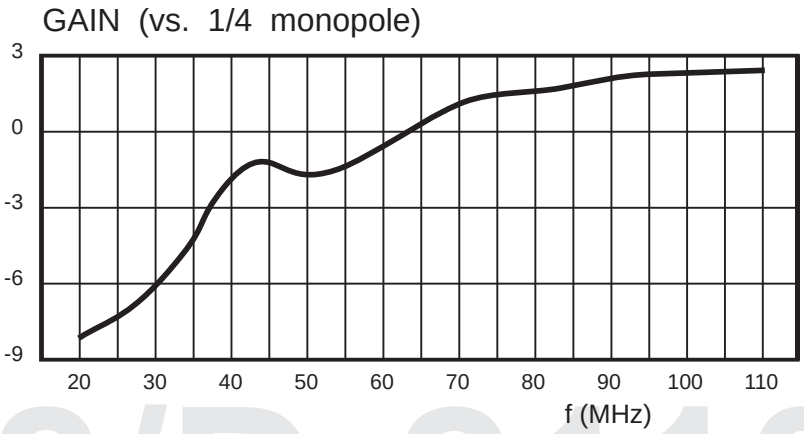

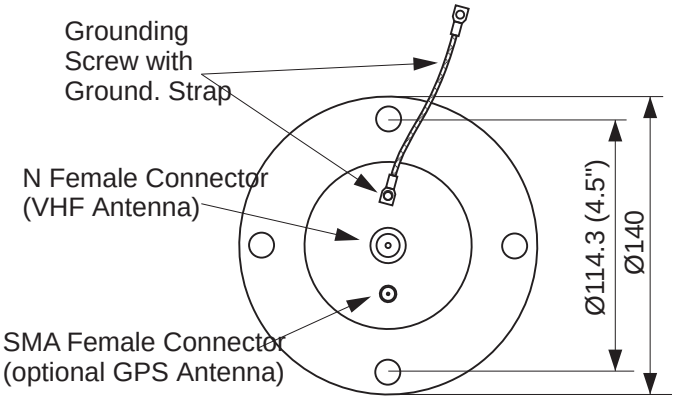

ANTENNA BASE -
BOTTOM VIEW

AD-27/V120-3108

The antenna AD-27/V120-3108 is a wideband monopole mobile VHF antenna intended for frequency range from 30 to 108 MHz. The antenna is designed for maximum possible gain and acceptable low VSWR with extreme short radiating element. The antenna is therefore intended for use on smaller vehicles, motorcycles, etc.
The antenna is composed of two parts: the antenna base and the radiating element. The antenna base is made of aluminium and durable plastic materials. Inside the base is matching transformer unit for the VHF radiator and (optional) GPS antenna. Powerful biconical spring protects the antenna against impacts. The radiating element is made of composite materials enable outstanding strength even in hardest conditions of use.
The antenna base has four mounting holes equally spaced on a 4.5" (114.3 mm) circle which complies with US army standard (AS-1729). Different base plate dimensions are also available on request.
The antenna is completely painted with military green (RAL-6014) two-component UV resistant paint.

ELECTRICAL SPECIFICATIONS - VHF:	
Frequency range	30 - 108 MHz
Impedance	50 ohms
VSWR	< 3,5
Polarization	vert.
Maximum power	100 W CW
Connector	N female (BNC female optional)
ELECTRICAL SPECIFICATIONS - GPS:	
Frequency range	L1 1575.42 +/- 10 MHZ
Impedance	50 ohms
VSWR	< 2
Polarization	RHC
Gain (LNA)	26 dB
Noise fig.	1.35 dB
Power supply	5 V DC +/- 0.25 V (max. 20 mA)
Connector	SMA female
MECHANICAL SPECIFICATIONS:	
Design	End fed whip (VHF)
Height	1.20 m
Weight	2.0 kg
Max. high voltage rating	16 kV
Temperature range - in use	-40 ... +75 °C
Temperature range - in stock	-55 ... +75 °C
Wind rating	55 m/s (200 km/h)
Color	MIL Green

VERSIONS:

AD-27/V120-3108: VHF antenna without GPS
AD-27/V120-3108G: combined VHF and GPS antenna

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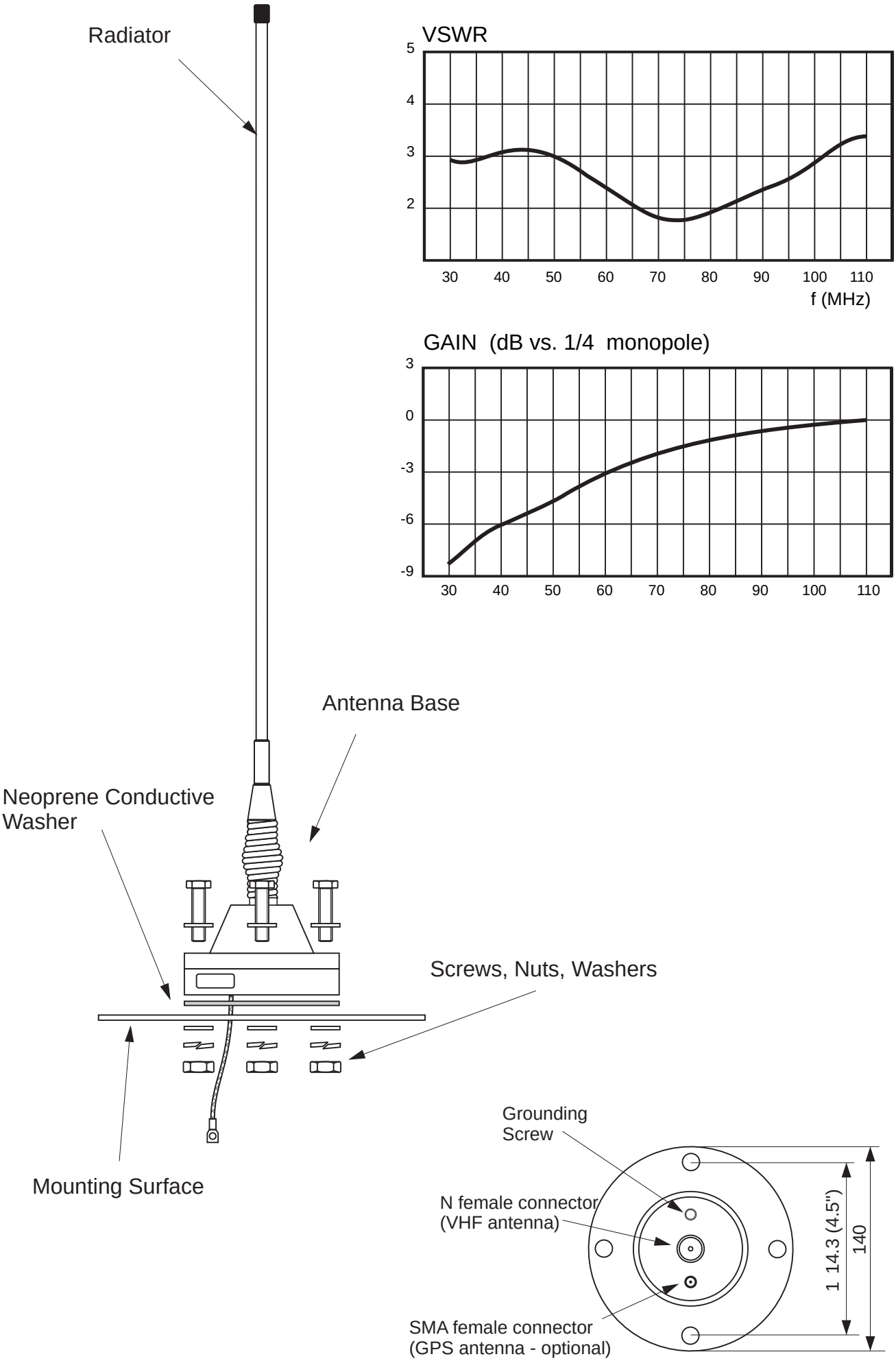
Radiator
VSWR
5
4
3
2
30
40
50
60
70
80
90
100
110
f (MHz)
GAIN (dB vs. 1/4 monopole)
3
0
-3
-6
-9
30
40
50
60
70
80
90
100
110
Antenna Base
Neoprene Conductive Washer
Screws, Nuts, Washers
Mounting Surface
Grounding Screw
N female connector (VHF antenna)
SMA female connector (GPS antenna - optional)
1 14.3 (4.5")
140

AD-27/V190-3108

The antenna AD-27/V190-3108 is a family of wideband monopole VHF low profile mobile antennas for frequency range from 30 to 108 MHZ. The antenna has a very low profile of radiating elements, very low visibility and very low weight, making it universal and suitable for installations in heavy trucked as well as lighter wheeled military vehicles.
The antenna is composed of two main parts: antenna base and radiating element. The antenna base is made of aluminum and durable plastic materials. Inside the base is the matching circuitry for the VHF radiator and (optional) GPS antenna. Stainless steel spring absorbs the shocks and the vibrations, in addition protects the antenna against impacts, while the (optional) tilting mechanism enables to adjust the inclination radius of the antenna, when "on move", or if decided so. Radiating element is made of conical Stainless Steel rod enabling outstanding strength and flexibility in the most severe environmental conditions.
The antenna base has four mounting holes equally spaced on a 4.5" (114.3 mm) circle which complies with NATO and US army standard (AS-1729). Different base plate dimensions are available on request.
The antenna is black anodized.

ELECTRICAL SPECIFICATIONS - VHF:	
Frequency range	30 - 108 MHZ
Impedance	50 ohms
VSWR	< 3,5 (see diagram)
Gain	see diagram
Polarization	vert.
Maximum power	100 W CW
Connector	BNC female (N female optional)
ELECTRICAL SPECIFICATIONS - GPS:	
Frequency range	L1 1575.42 +/- 10 MHZ
Impedance	50 ohms
VSWR	< 2
Polarization	RHC
Gain (LNA)	26 dB
Noise fig.	1.35 dB
Power supply	3.5 - 5 V DC (max. 10 mA)
Connector	SMA female
MECHANICAL SPECIFICATIONS:	
Design	End fed whip (VHF); patch antenna with LNA (GPS)
Height	1.95 m
Weight	2.2 kg
Max. high voltage rating	16 kV
Temperature range - in use	-40 ... +55 °C
Temperature range - in stock	-55 ... +75 °C
Wind rating	55 m/s (200 km/h)
Color	Black

VERSIONS:

AD-27/V190-3108: VHF antenna
AD-27/V190-3108T: VHF antenna with tilting mechanism
AD-27/V190-3108G: combined VHF and GPS antenna
AD-27/V190-3108GT: combined VHF and GPS antenna with tilting mechanism

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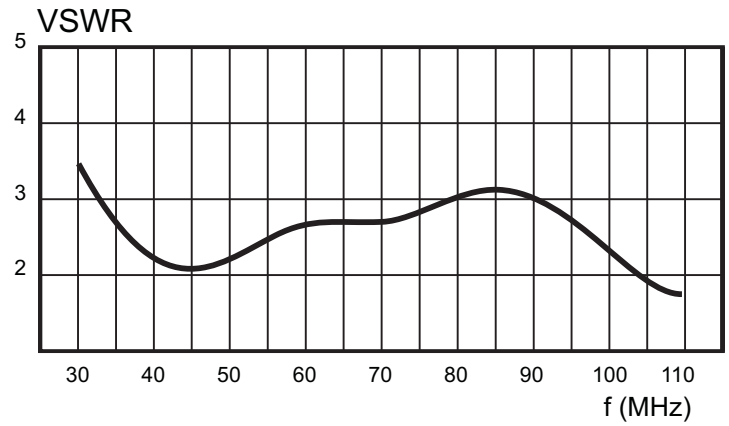
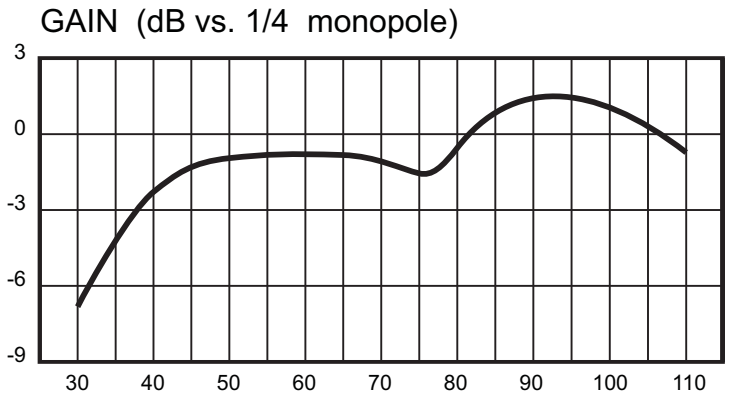
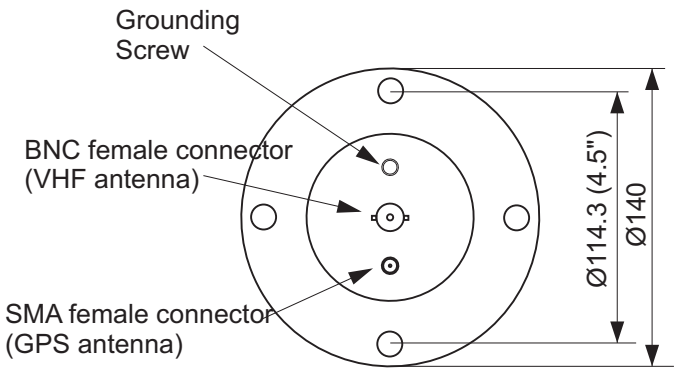
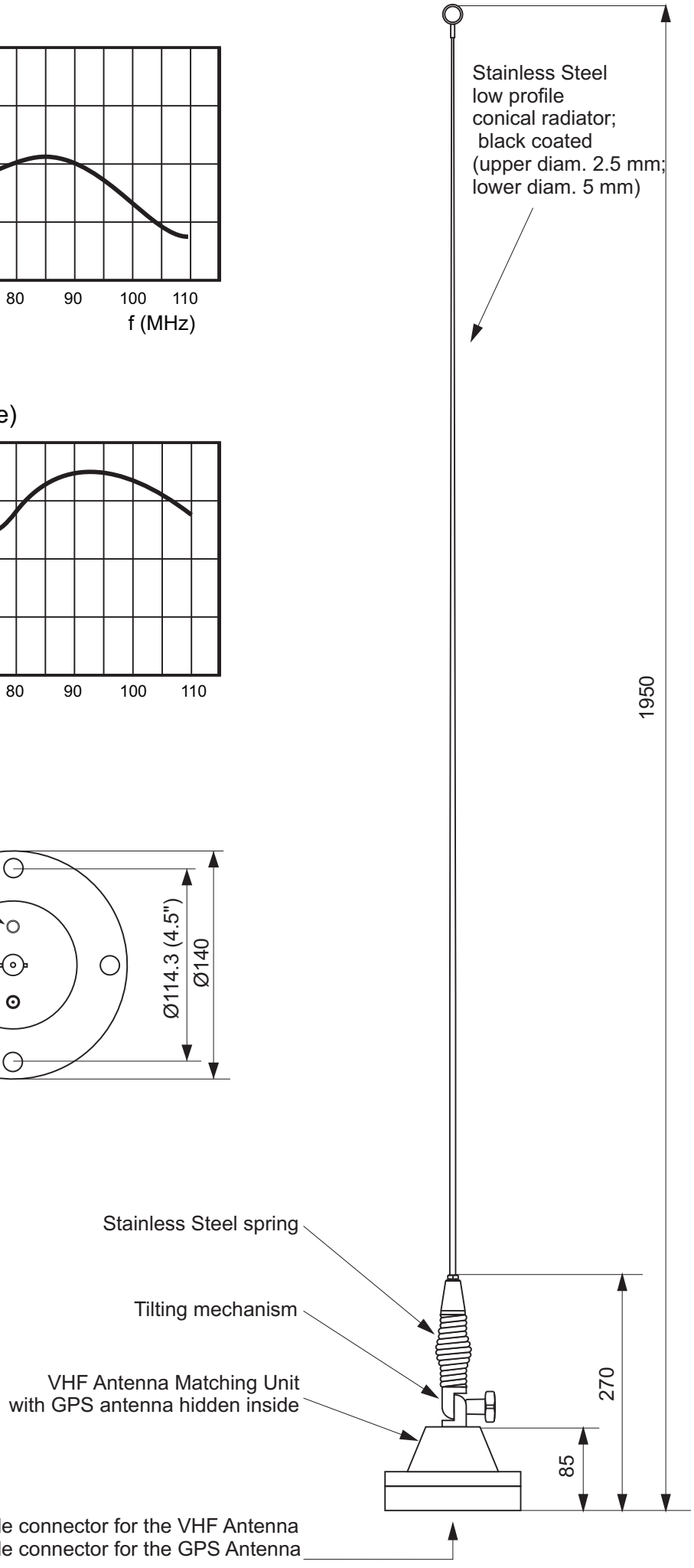

VSWR
5
4
3
2
30
40
50
60
70
80
90
100
110
f (MHz)


GAIN (dB vs. 1/4 monopole)
3
0
-3
-6
-9
30
40
50
60
70
80
90
100
110


Grounding
Screw
BNC female connector
(VHF antenna)
SMA female connector
(GPS antenna)
Ø114.3 (4.5")
Ø140


Stainless Steel
low profile
conical radiator;
black coated
(upper diam. 2.5 mm;
lower diam. 5 mm)
1950
Stainless Steel spring
Tilting mechanism
VHF Antenna Matching Unit
with GPS antenna hidden inside
270
85
BNC female connector for the VHF Antenna
SMA female connector for the GPS Antenna

TRIVAL ANTENE

AD-52

The antenna AD-52 is a wideband wire directional antenna intended for use with handheld or manpack radio units in VHF frequency range from 30 to 88 MHz. The radiating element is made of wire with special capacitive loadings along it, enable together with antenna matching transformer very low VSWR and on the other hand directional radiation pattern and therefore relatively high gain. The antenna is mainly intended for use in stay because of its simple construction and easy erecting . Except of the wire radiating element the antenna is composed of matching transformer unit, watertight enclosed in a fiberglass housing with all necessary connectors, the 15 m long coaxial feeder made of RG-58/U with coaxial connectors, lifting rope 25 m with weight, anchor and hammer. All together is packed in a handy linen bag, suitable for transport.

Frequency range	30 - 90 Mhz
Impedance	50 ohm
VSWR	< 1.8
Gain (vs. 1/4 l)	8 - 11.5 dB
3 dB beamwidth azim.	90 - 30 °
3 dB beamwidth elev.	35 - 10 °
Front to back ratio	> 13 dB
Polarization	VER.
Maximum power	50 W CW
Connector type	FME +N, TNC, BNC,
Mass of antenna	3.8 kg
Antenna length	17.8 m
Mounting height	8 - 10 m
Temperature range	-40....+70 °C

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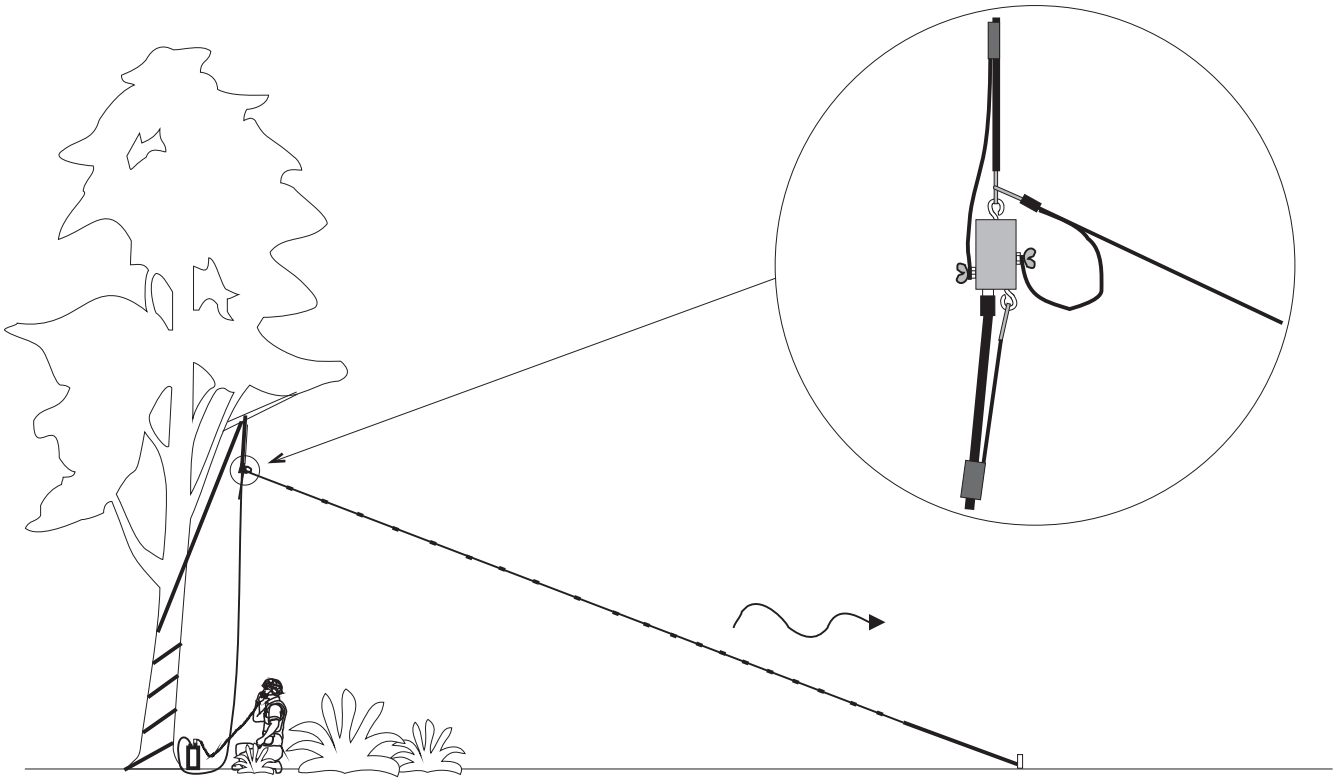
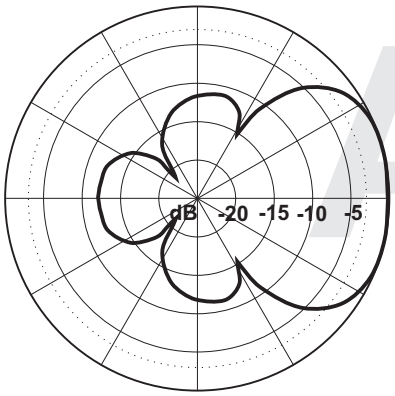
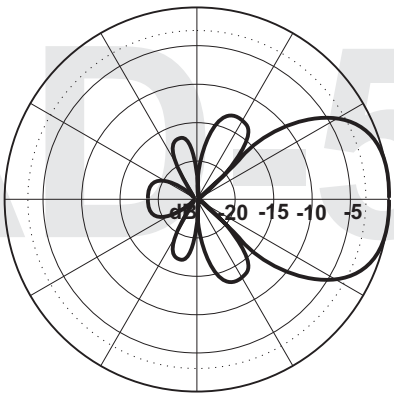


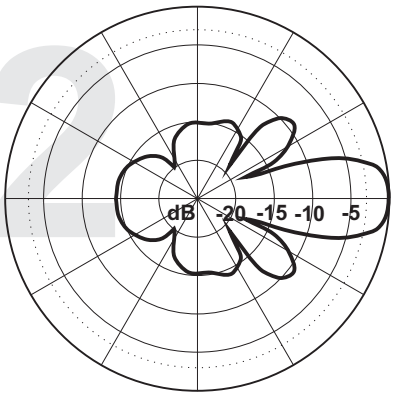
azimuth radiation pattern



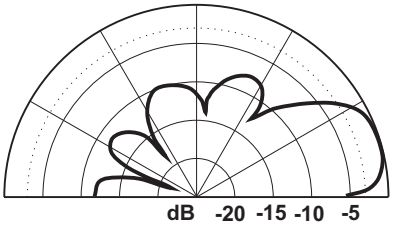
30 MHz

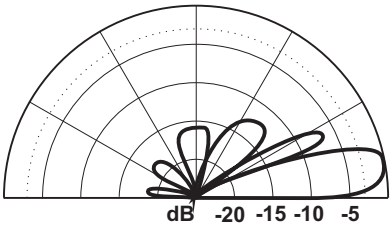


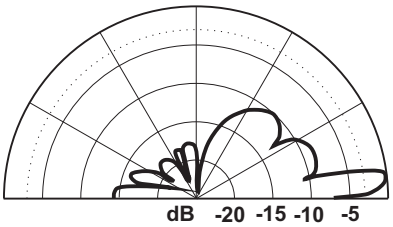
60 MHz



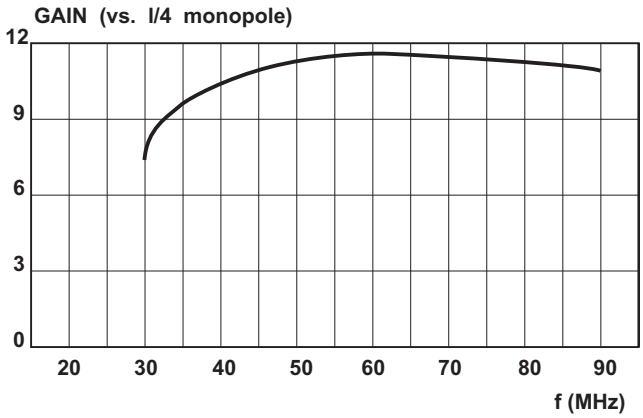
90 MHz

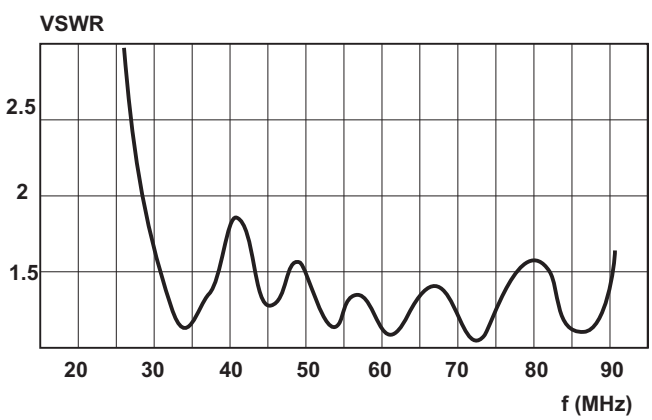






elevation radiation pattern





AD-17

The antenna AD-17 is a wideband VHF “disc-cone” antenna, intended primarily for portable tactical use. The antenna elements are made of composite materials (epoxy and polyester resin, reinforced with fiberglass), ensuring low weight and excellent resistance against atmospheric influences. In spite of a low weight the antenna is robust enough also for stationary use. The antenna is composed of the support head with the tube where a special line transformer is built-in, of six disc elements and six cone elements, the last ones are divided into two sections. With computer synthesis and optimisation, the construction with a minimum possible number of the elements is achieved together with constant electrical characteristics. This construction enables simple and quick erection. All antenna parts are packed in a handy transportable linen bag.

Frequency range	30 - 90 Mhz
Impedance	50 ohm
VSWR	< 3 (DIAG. 1)
Gain	2 dBi (0 dBd)
Polarization	VER.
Maximum power	100 W CW
Radiation pattern	H-omni
Connector	N female
Height	3 m
Width	2,2 m
Mass of antenna	6.1 kg
Wind velocity	120 km/h
Temperature range	-40....+70 °C

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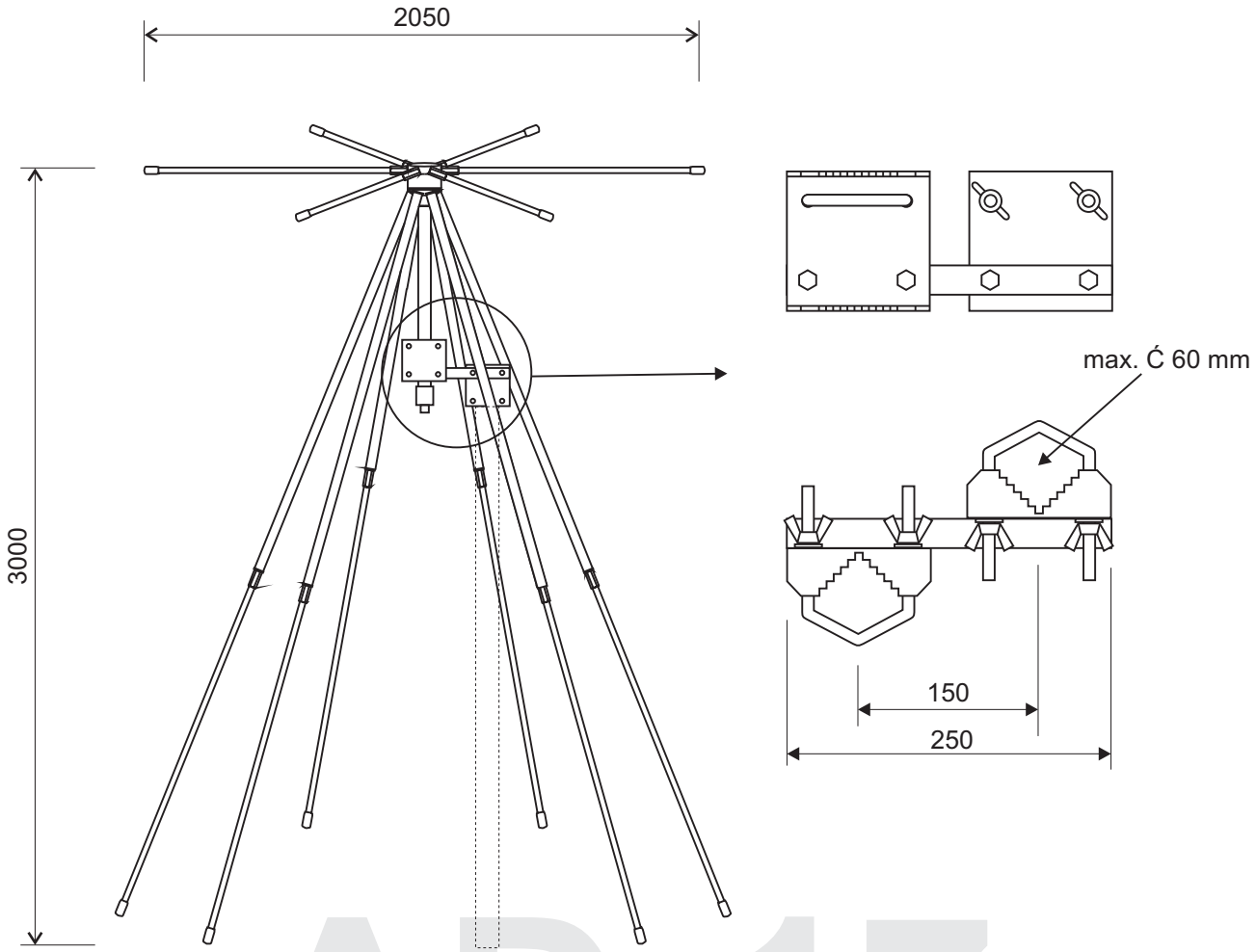
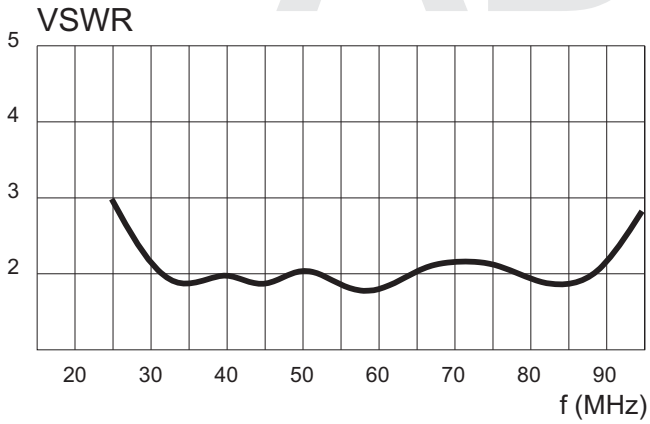
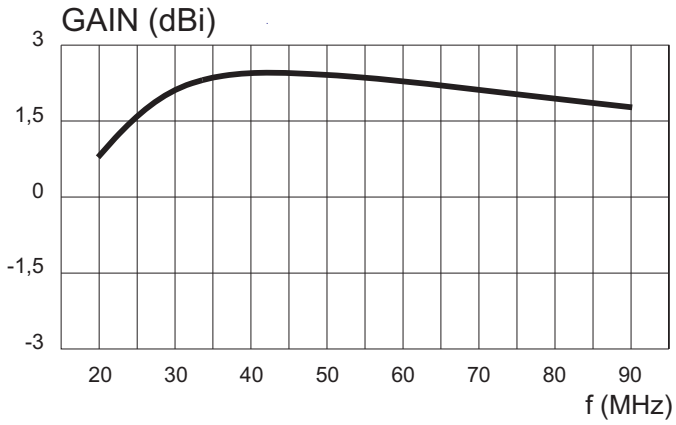

2050
3000
max. Ć 60 mm
150
250


VSWR
5
4
3
2
20
30
40
50
60
70
80
90
f (MHz)


GAIN (dBi)
3
1,5
0
-1,5
-3
20
30
40
50
60
70
80
90
f (MHz)

AD-17/B-110

The antenna AD-17/B-110 is a wideband VHF “disc-cone” antenna, intended for tactical transportable or stationary use. The antenna elements are made of composite materials (epoxy and polyester resin, reinforced with fiberglass), ensuring low weight and excellent resistance against atmospheric influences. In spite of a low weight the antenna is robust enough also for stationary use. The antenna is composed of the support head with the tube where a special line transformer is built-in, of six disc elements and six cone elements, the last ones are divided into two sections. Additional vertical element ensures wideband coverage up to 110 MHz with relatively constant gain and radiation pattern properties. With computer synthesis and optimisation, the construction with a minimum possible number of the elements is achieved together with constant electrical characteristics. This construction enables simple and quick erection. All antenna parts are packed in a handy transportable linen bag.

Frequency range	30 - 110 Mhz
Impedance	50 ohm
VSWR	< 3
Gain	typ. 0 - 2 dBi
Polarization	VER.
Maximum power	100 W CW
Radiation pattern	H-omni
Connector	N female
Height	3.3 m
Width	2,2 m
Mass of antenna	7.3 kg
Wind velocity	
- operational	120 km/h
- survival	160 km/h
Temperature range	-40....+70 °C

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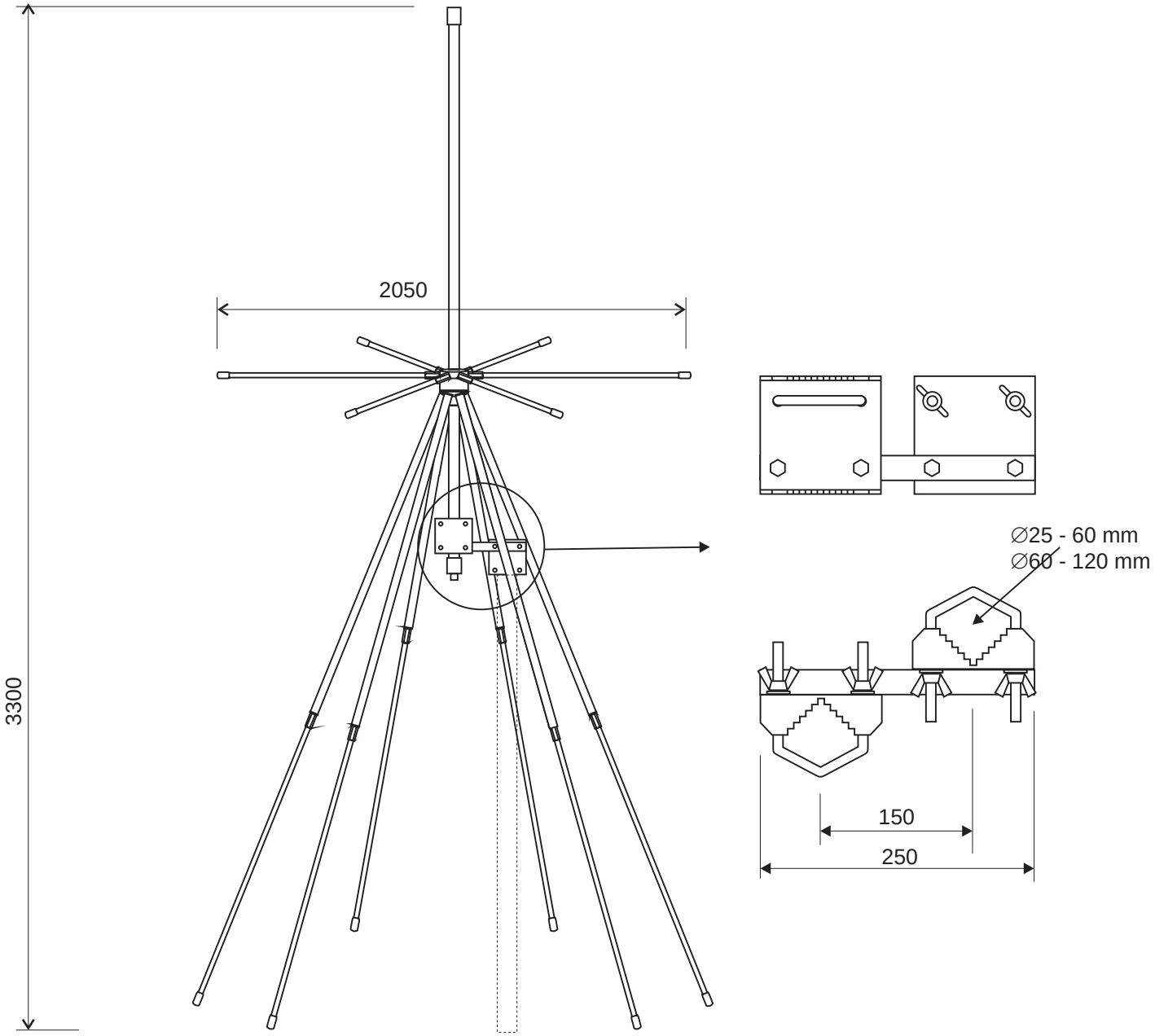
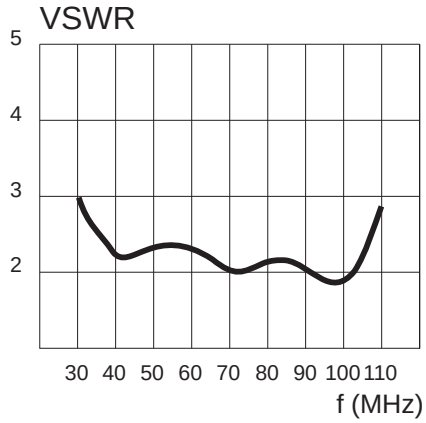
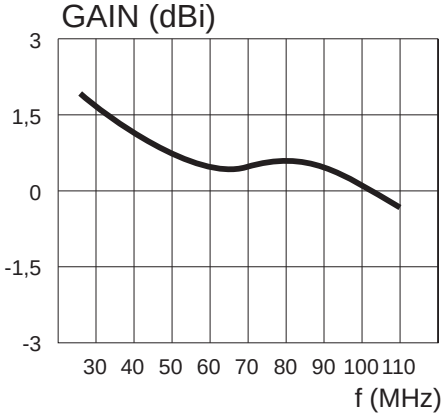

2050
3300
∅25 - 60 mm
∅60 - 120 mm
150
250


VSWR
5
4
3
2
30 40 50 60 70 80 90 100 110
f (MHz)


GAIN (dBi)
3
1,5
0
-1,5
-3
30 40 50 60 70 80 90 100 110
f (MHz)

AD-39/4

The family of wideband antennas AD-39 is composed of so called folded dipoles and is primarily intended for use as stationary antenna on VHF and UHF frequency range. The antenna is composed of a folded dipole mounted on a supporting boom. The dipole has 3 m of coaxial cable type RG-213/U with N female type of connector. The antenna is appropriate for side mast mounting with 2 dBd gain together with offset radiation pattern. With different combinations of several antennas together with appropriate power dividers type APS-38 a different radiation patterns with different gains could be easily achieved depending on our signal coverage requirement. Dipoles are made of aluminum alloy tube with 18 mm of diameter and mounted on square aluminum boom together with mounting console enables the antenna to be mounted on antenna mast with external diameter up to 60 mm. All aluminium parts are transparent anodized enable long life and reliable work even in hardest climatic conditions.

Frequency range	68 - 88 Mhz
Impedance	50 ohm
VSWR	< 1,8
Gain	0 - 2 dBd
Polarization	VERT.
Maximum power	100 W
Connector	N
Height	170 cm
Lenght	100 cm
Mass of antenna	2,5 kg

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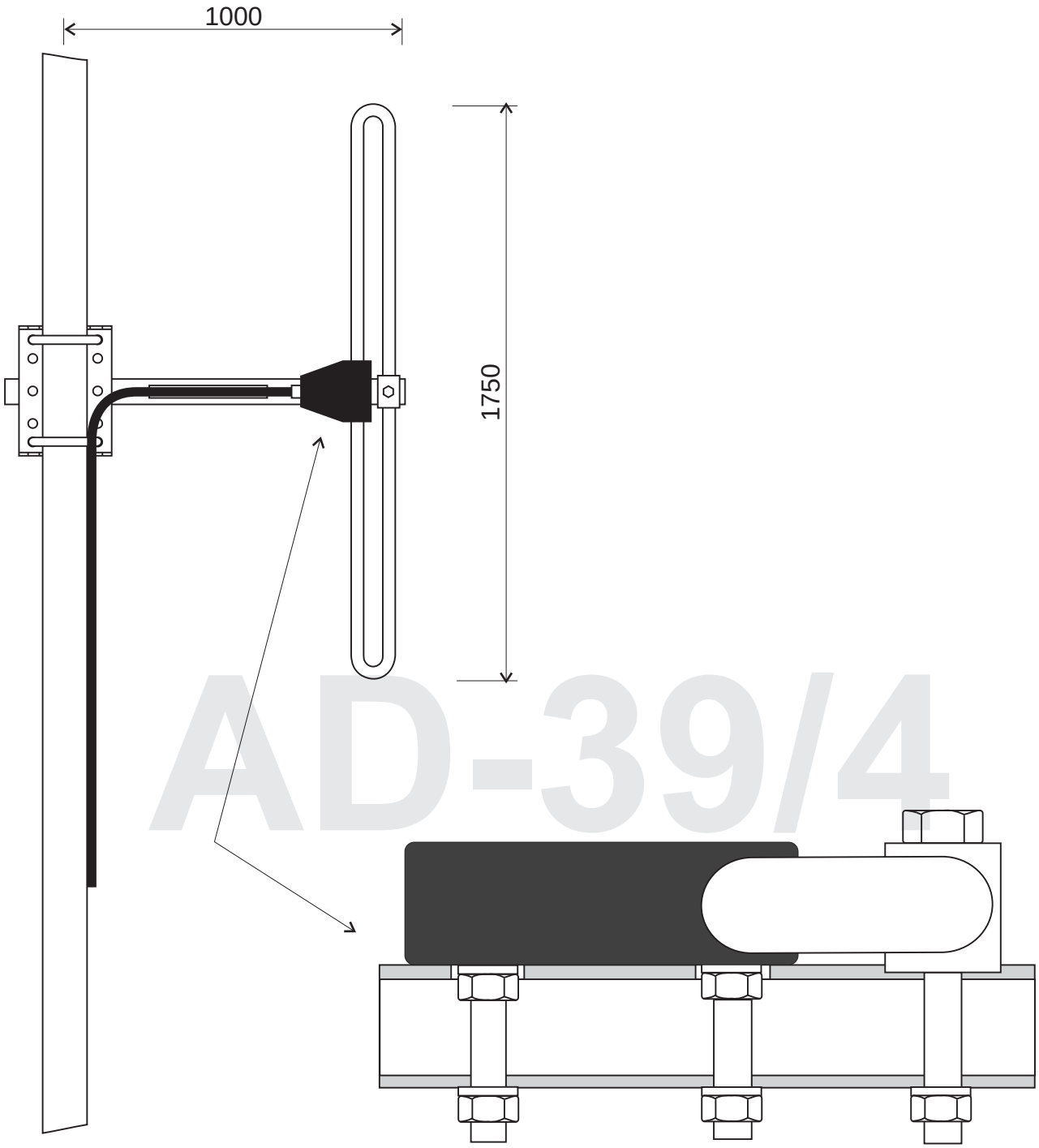
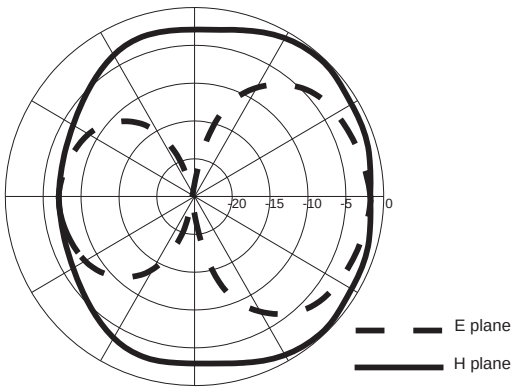
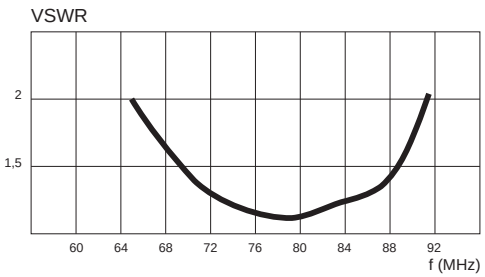

1000
1750

AD-39/4


-20
-15
-10
-5
0
E plane
H plane


VSWR
2
1,5
60
64
68
72
76
80
84
88
92
f (MHz)

AD-40/4-2

The antenna AD-40/4-2 is 2-element wideband yagi antenna, primarily intended for stationary use on standard VHF frequency range from 72 to 86 MHz. The antenna is directional with 3 dBd gain. The radiator is made of folded dipole enables constant characteristics on whole frequency band. The elements are made of aluminum alloy tube 18/16 mm and inserted into aluminum square tube boom 30 x 30 mm. The universal mounting adapter is on back side of the boom enables vertical or horizontal polarization as well. All joint elements are made of stainless steel, matching unit is built in plastic protective housing and all aluminium parts are transparent anodized enable long life and reliable work even in hardest climatic conditions. All metal parts are DC grounded.

Frequency range	72 - 86 Mhz
Impedance	50 ohm
VSWR	< 1,8
Gain	3 dBd
Front to Back ratio	> 12 dB
Polarization	VERT./HOR.
Maximum power	100 W
Connector	1,5 m RG-213 + N
Width	205 cm
Length	120 cm
Mass of antenna	3,5 kg

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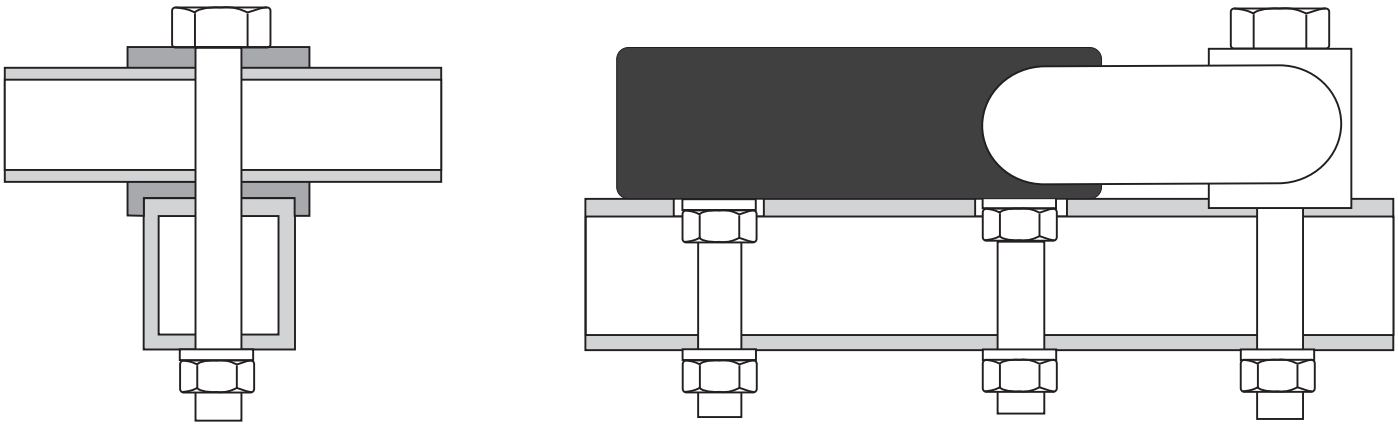
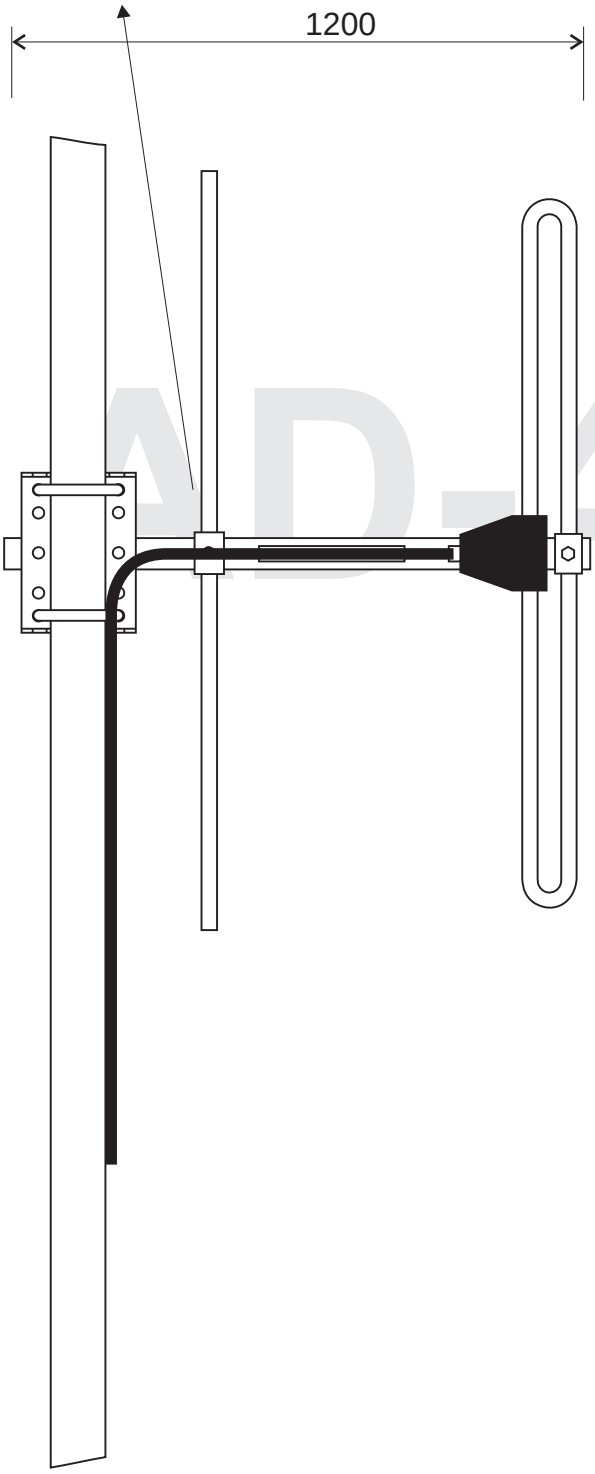
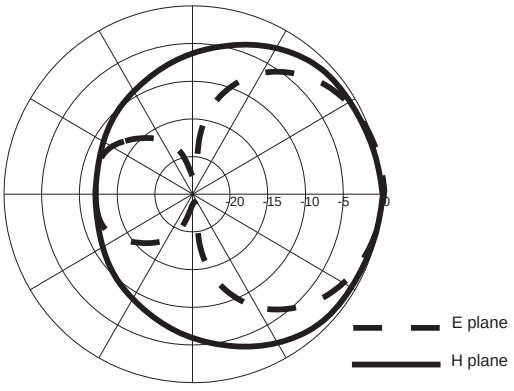
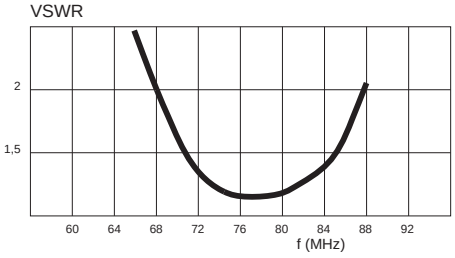



1200

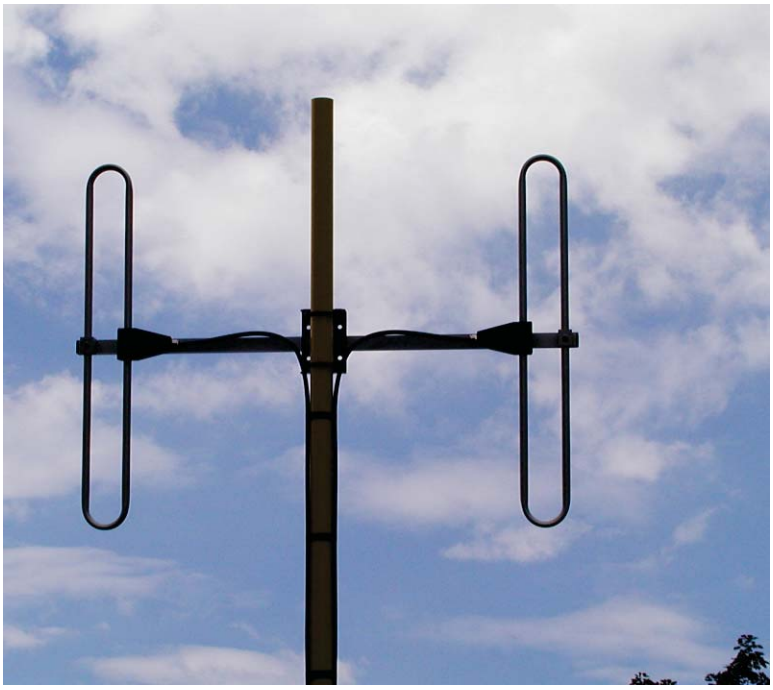

-20
-15
-10
-5
E plane
H plane


VSWR
2
1,5
60
64
68
72
76
80
84
88
92
f (MHz)

AD-38/4

The family of wideband antennas AD-38 is composed of so called double folded dipoles primarily intended for use as stationary antennas on VHF and UHF frequency range. The antenna is composed of two folded dipoles mounted on common supporting boom. Each dipole has 3 m of coaxial cable type RG-213/U with N male type connector which must be connected on two-way power divider type APS-38/4-2. Such antenna system has elliptical horizontal radiation pattern with 3 dBd gain. With different combinations of several antennas a different radiation patterns with different gains could be easily achieved depending on our signal coverage requirement. Dipoles are made of aluminum alloy tube with 18 mm of diameter and mounted on square aluminum boom 30 x 30 mm together with mounting console enables the antenna to be mounted on antenna mast with external diameter up to 60 mm. All aluminium parts are transparent anodized enable long life and reliable work even in hardest climatic conditions.

Frequency range	68-88 Mhz
Impedance	50 ohm
VSWR	< 1,8
Gain	3 dBd
Polarization	VERT.
Maximum power	200 W
Connector	N
Height	175 cm
Lenght	200 cm
Mass of antenna	5 kg



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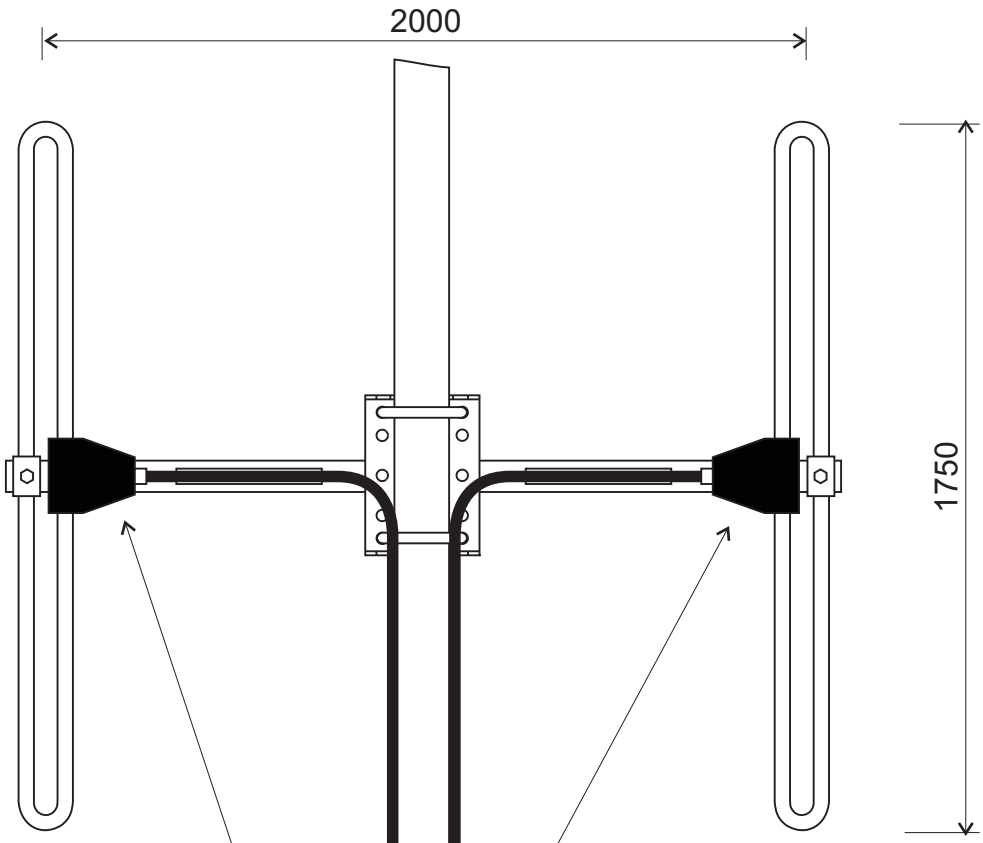
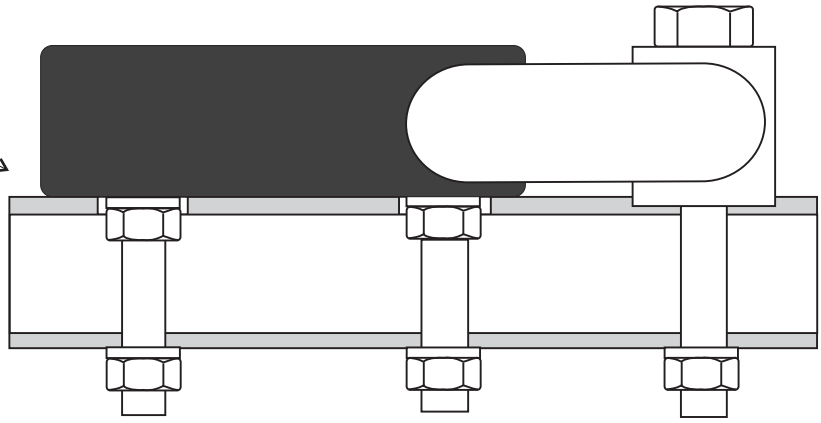
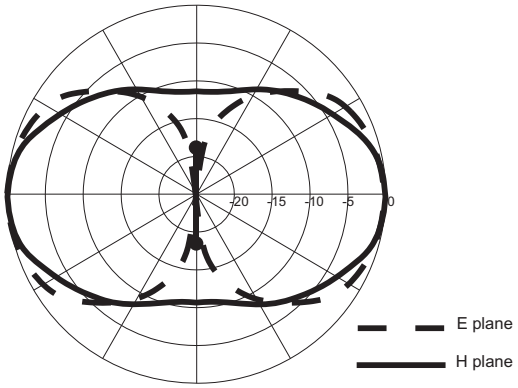
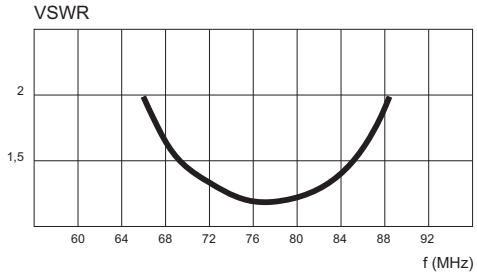

2000
1750




-20
-15
-10
-5
0
E plane
H plane


VSWR
2
1,5
60
64
68
72
76
80
84
88
92
f (MHz)

AD-40/4-3

The antenna AD-40/4-3 is 3-element wideband yagi antenna, primarily intended for stationary use on standard VHF frequency range from 66 to 88 MHz. The antenna is directional with 4,5 dBd gain. The radiator is made of folded dipole enables constant characteristics on whole frequency band. The elements are made of aluminum alloy tube 18/16 mm and inserted on the aluminum square tube boom 30 x 30 mm. The universal mounting adapter is on the back side of the boom enables vertical or horizontal polarization as well. All joint elements are made of stainless steel, matching unit is built in plastic protective housing and all aluminium parts are transparent anodized enable long life and reliable work even in hardest climatic conditions. All metal parts are DC grounded.

Frequency range	66 - 88 Mhz
Impedance	50 ohm
VSWR	< 2
Gain	4.5 dBd
Front to Back ratio	> 15 dB
Polarization	VERT./HOR.
Maximum power	100 W
Connector	3 m RG-213 + N
Width	230 cm
Length	160 cm
Mass of antenna	5 kg

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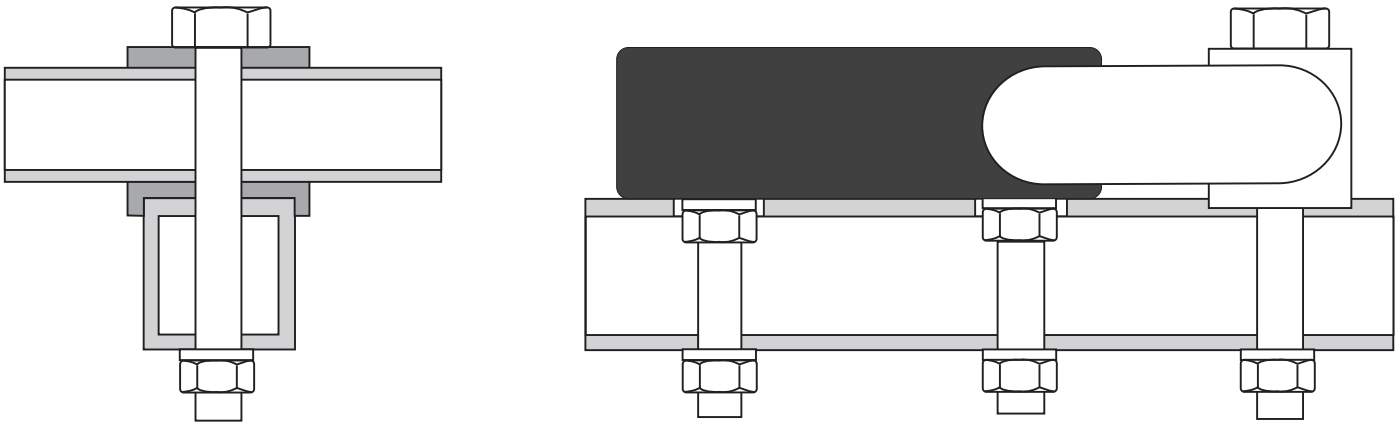
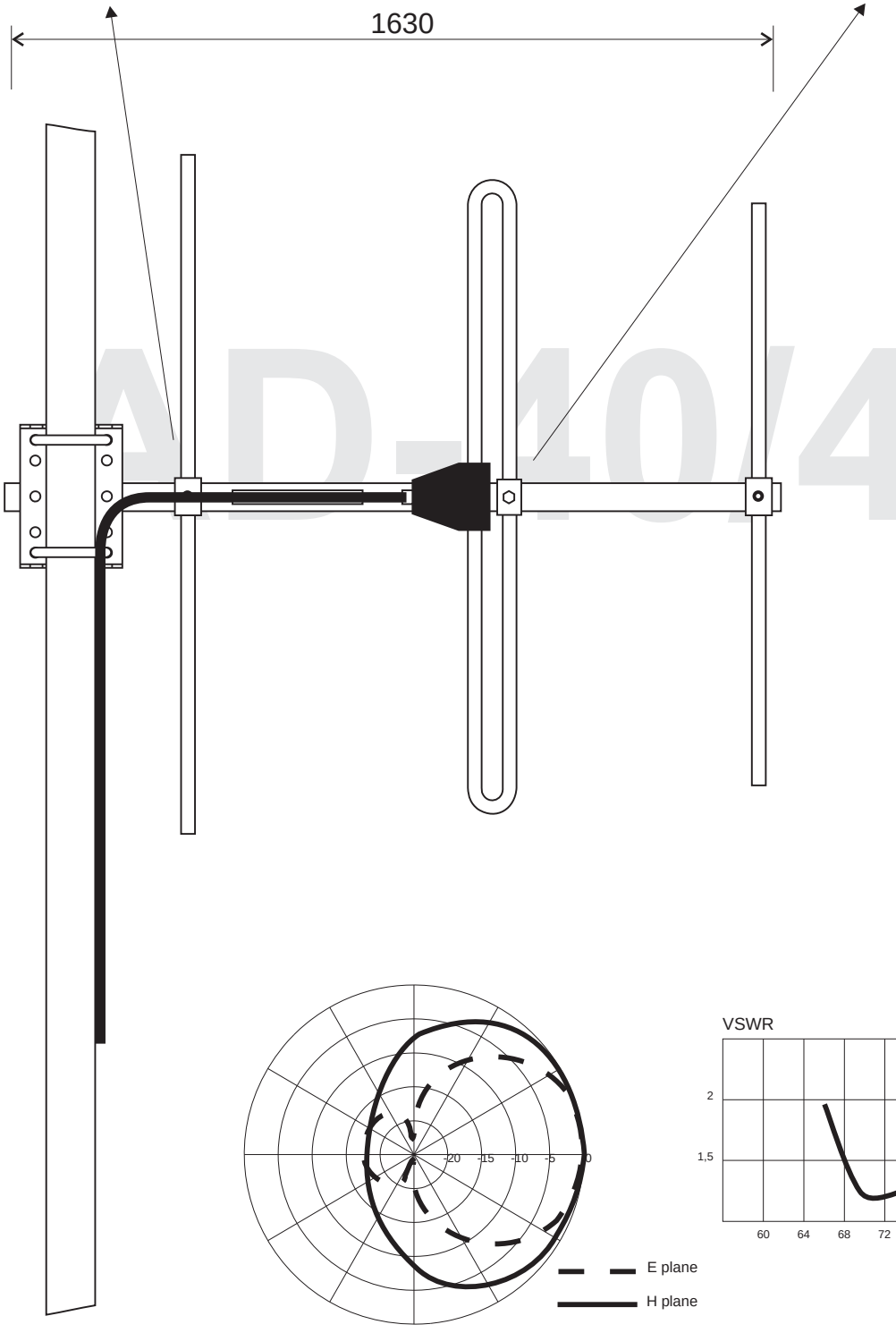
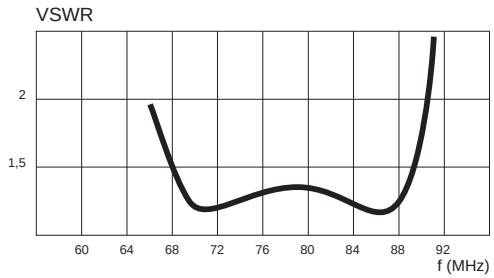



1630

-20
-15
-10
-5
0
E plane
H plane


VSWR
2
1,5
60
64
68
72
76
80
84
88
92
f (MHz)

MOBILE ANTENNAS
30 - 88 MHz

Mobile antennas are composed of the family of antenna radiators type ADS-21, fixed mounts type ADN-21 and magnet mounts type ADM-21. The antenna radiators are made of Stainless Steel or composite material (fiberglass) and painted with black protective paint, all covering the frequency range from 27 MHz (CB) to 900 MHz (GSM). Main advantage of the all family is beside quality materials and simple use also simple combining of different types of the radiators with different types of the mounts through M6 screw joint (male on the mount side and female on the radiator side). In that way user could easily combine the appropriate radiator with different mount according to his requirements. All the mounts are equipped with coaxial cable type RG-58 terminated with connector type FME on which we could easily fit different adapters from FME to PL 259, BNC, TNC, N, MINI UHF or SMA.

Antennas	ADS-21/ CB-B	ADS-21/ 4-C
Antenna type	1/4 short.	1/4 w. spring
Frequency	27 MHz	66-88 MHz
Impedance	50	50
VSWR	1.2	1.2
GAIN	0 dB	0 dB
Bandwith (Mhz at SWR<2)	0.8	8
Material	SS	SS
Colour	natur.	black
Height	600 mm	1090 mm

Mounts	ADN-21/2	ADM-21/Ma6
Mount type	fixed with swivel	magnet 90 mm-swivel
Colour	black	black
Cable	5 m RG-58	3.5 m RG-58
Radiator joint	screw M6	screw M6
Height	42 mm	80 mm
Weight w. cable	250 gr.	750 gr.

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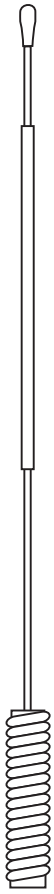

ADS-21/CB-B

ADS-21/4-C

ADN-21/2

ADM-21/MA6

AD-44/BW-D

The antenna AD-44/BW-D is a wideband monopole whip, primarily intended for use with portable and handheld radio stations in VHF frequency range from 138 to 176 MHz. Electrically the antenna is optimised for all exploatation conditions (radio in hand, at the side, etc.) so it is not necessary to additionaly tune the antenna. The antenna is composed of radiating part made of special wounded wire and covered with a heatshrinkable tube with silicone underlayer ensuring high flexibility and roughness. The antenna has built-in a special passive tranformer tuning network enclosed in fiberglass housing above the input coaxial connector. Input connector is TNC male (BNC or N male are available by request).

Frequency range	138 - 176 Mhz
Impedance	50 ohm
VSWR	< 2
Polarization	VERT.
Gain	~ 0 dB
Maximum power	10 W
Connector type	TNC male
Height	382 mm
Mass of antenna	110 gr.

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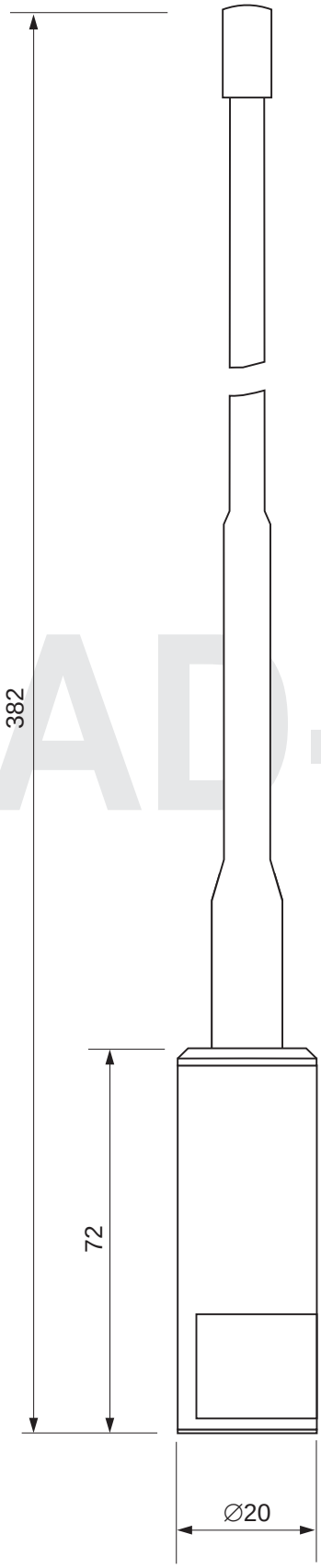

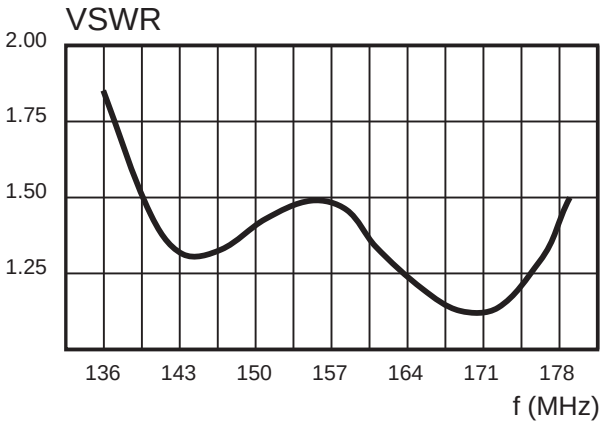

AD-21/1318

The antenna AD-21/1318 is a wideband monopole for the frequency range from 130 to 180 MHz and it is primarily intended for use with portable and mobile radio devices. There is no need for tuning the antenna since the antenna broadband characteristics were achieved with a specially designed radiator with two concentrated loadings and with the appropriate antenna matching circuit placed above the antenna connector. The antenna is composed of a base with N male connector and of a radiating element with spring, made of stainless-steel.The antenna radiator could be used as a separate antenna attached to the portable radio device or it can be used with the magnet base ADM-21/N or fixed base ADN-21/N, both with the integrated coaxial cable length of 4 meters and ended with the FME female connector. Various adapters from FME to N, BNC, UHF, SMA, etc. are available on request.

VERSIONS:

AD-21/1318-N: wideband monopole antenna for portable radio devices with N male connector
AD-21/1318-F: antenna **AD-21/1318-N** with the fixed mount **ADN-21/N** for mobile applications
AD-21/1318-M: antenna **AD-21/1318-N** with the magnet mount **ADM-21/N** for mobile applications

Frequency range	130 - 180 MHz
Impedance	50 ohm
VSWR	< 2 (DIAG. 1)
Gain	DIAG. 2
Polarization	VER.
Maximum power	50 W CW
Connector	N male
Height	1025 mm
Weight:	
- antenna AD-21/1318	300 g
- magnet mount ADM-21/N	850 g
- fixed mount ADN-21/N	200 g
Wind velocity	180 km/h
Temperature range	-40....+70 °C

Fixed mount
ADN-21/N

Magnet mount
ADM-21/N

Antenna
AD-21/1318-N

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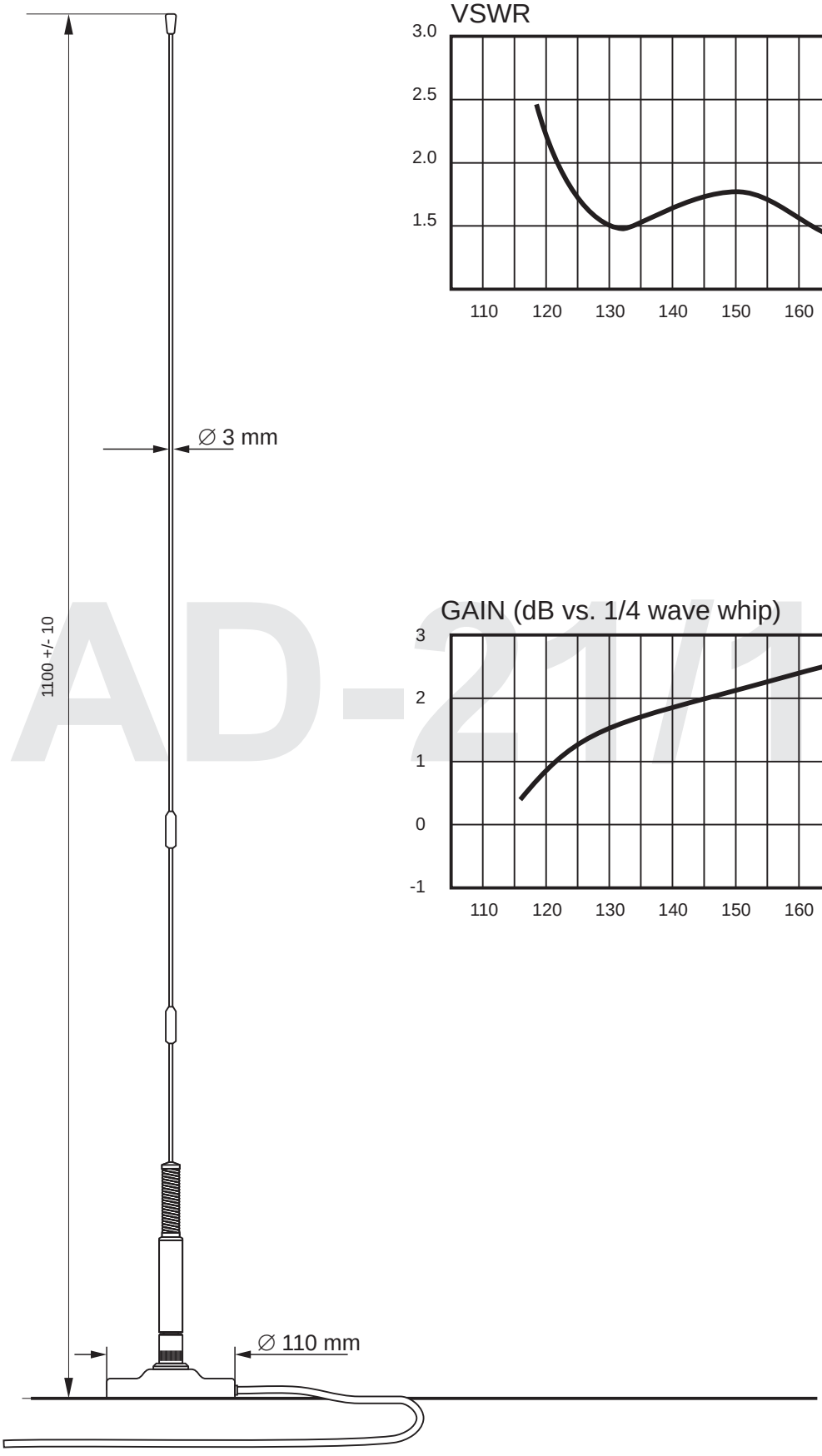
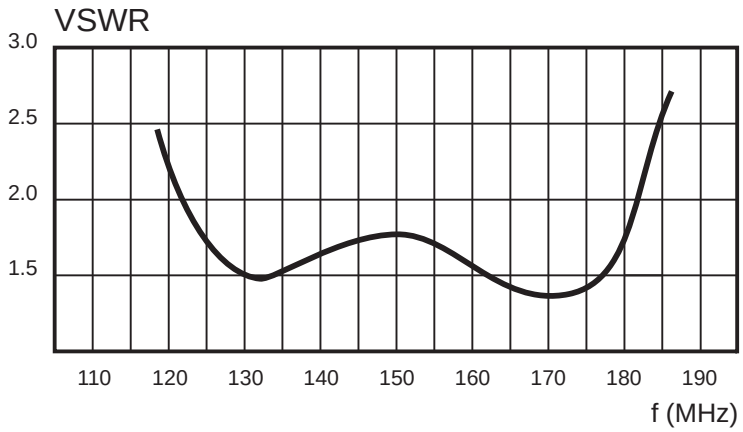
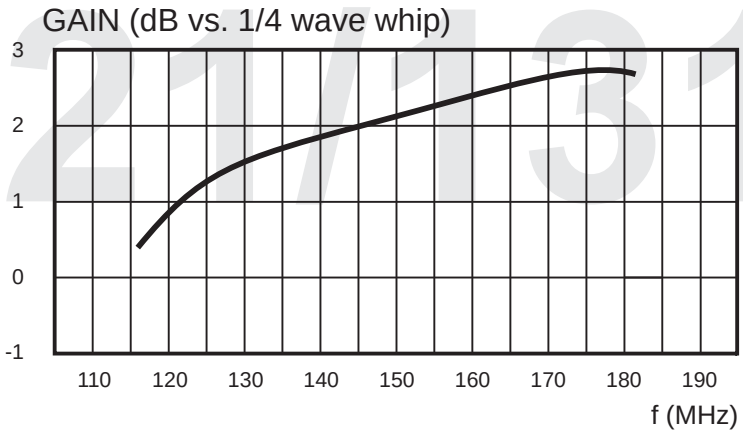

∅ 3 mm
1100 +/- 10
∅ 110 mm


VSWR
3.0
2.5
2.0
1.5
110
120
130
140
150
160
170
180
190
f (MHz)


GAIN (dB vs. 1/4 wave whip)
3
2
1
0
-1
110
120
130
140
150
160
170
180
190
f (MHz)

AD-18/H-1318

The antenna AD-18/H-1318 is a wideband dipole mobile antenna intended for use in the VHF frequency range from 130 to 180 MHz. The antenna is composed from two main parts: the radiator and the antenna base. The radiator is made of 28 mm diameter fibreglass whip with special radiating elements placed inside. The antenna base has built-in biconical spring enables resistivity against mechanical impacts. Electrically the antenna is designed as center-fed thus the electrical characteristics are independent from the ground or mounting place.
The antenna is painted with two component UV resistant polyurethane military green paint (RAL 6014).

Frequency range	130 - 180 MHz
Impedance	50 ohm
VSWR	< 3
Gain	typ. 0 dBi
Polarization	VER.
Maximum power	400 W CW
Connector type	N or BNC female
Mass of antenna	3.2 kg
Antenna height	1470 mm
Wind speed	180 km/h
Temp. range	-45/+55 oC

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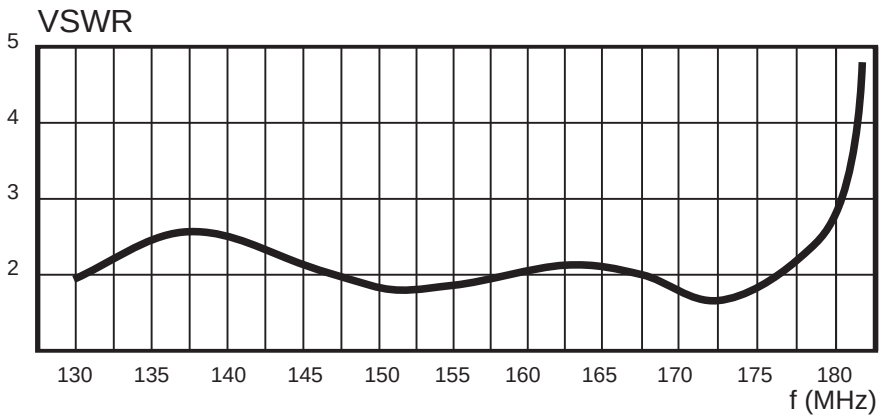
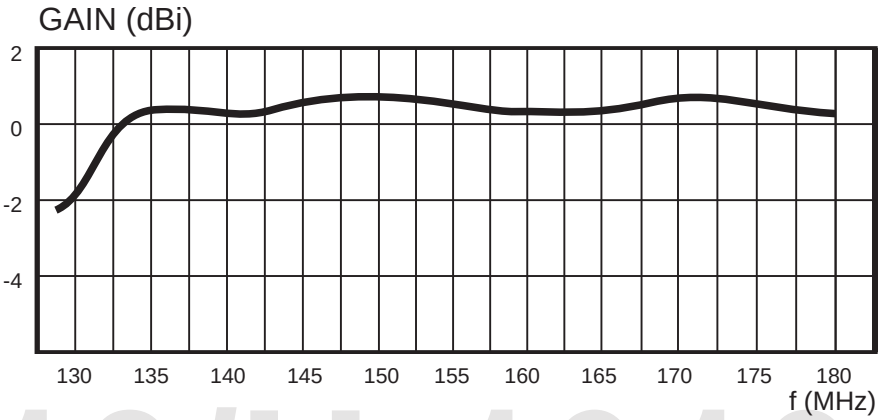
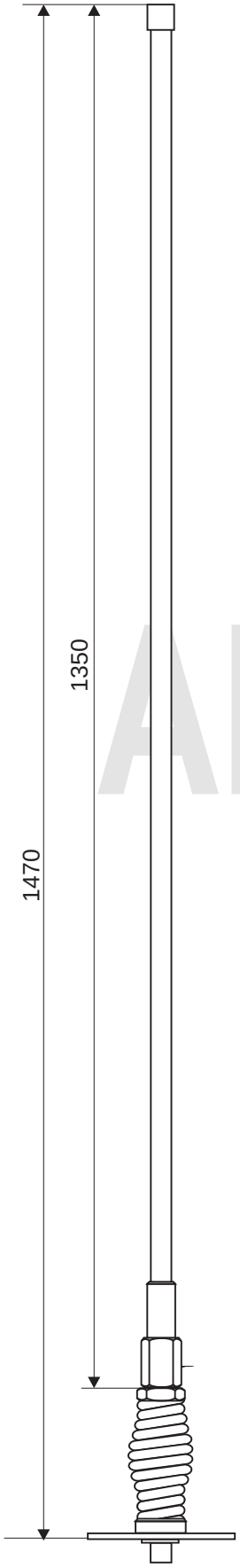
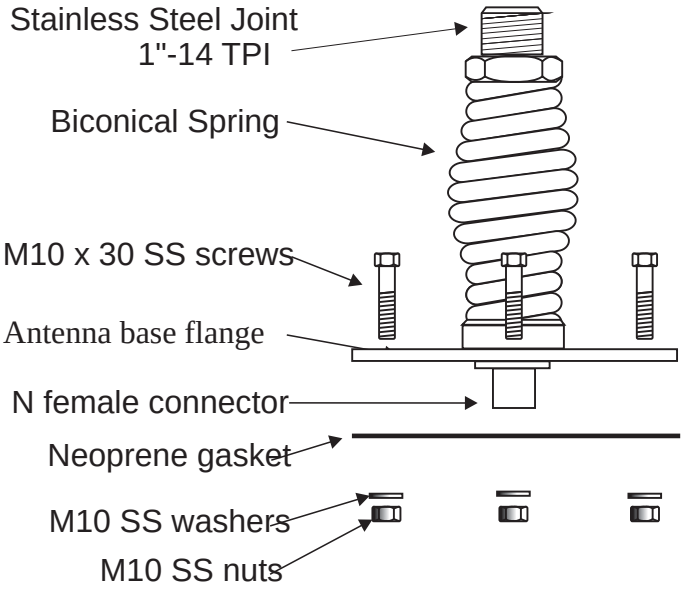
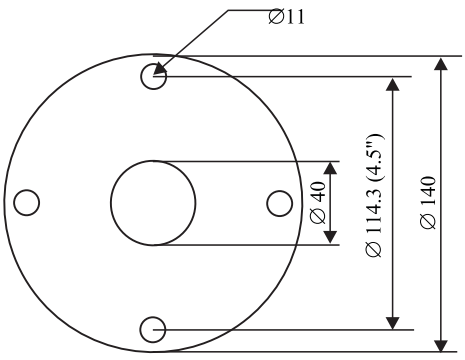

VSWR
5
4
3
2
130
135
140
145
150
155
160
165
170
175
180
f (MHz)


GAIN (dBi)
2
0
-2
-4
130
135
140
145
150
155
160
165
170
175
180
f (MHz)


1350
1470


Stainless Steel Joint
1"-14 TPI
Biconical Spring
M10 x 30 SS screws
Antenna base flange
N female connector
Neoprene gasket
M10 SS washers
M10 SS nuts


∅11
Ø 40
Ø 114.3 (4.5")
Ø 140

AD-11/G

Antenna AD-11/G is wideband antenna covering frequency range from 144 to 176 MHz and is intended for stationary and portable use. Electrically the antenna is designed as a dipole with capacitive continuously distributed loading along the upper radiating element. All metal parts of the antenna are DC grounded and enclosed in tube made of composite material epoxy-glass ensuring good resistance against atmospheric influences and long life time. The antenna could be mounted on any metal tube with inner diameter greater than 30 mm and outer diameter less than 49 mm (for instance standard tube 1 1/4”). The antenna could also be mounted by our standard mounting console and adapter elements ADK.

Frequency range	144 - 176 Mhz
Impedance	50 ohm
VSWR	< 1,6 (DIAG. 1)
Gain	0 - 1 dBd
Polarization	VER.
Maximum power	400 W CW
Connector	N
Height	1,37 m
Diameter	28 mm
Mass of antenna	1,6 kg
Wind velocity	150 km/h
Temperature range	-40....+70 °C

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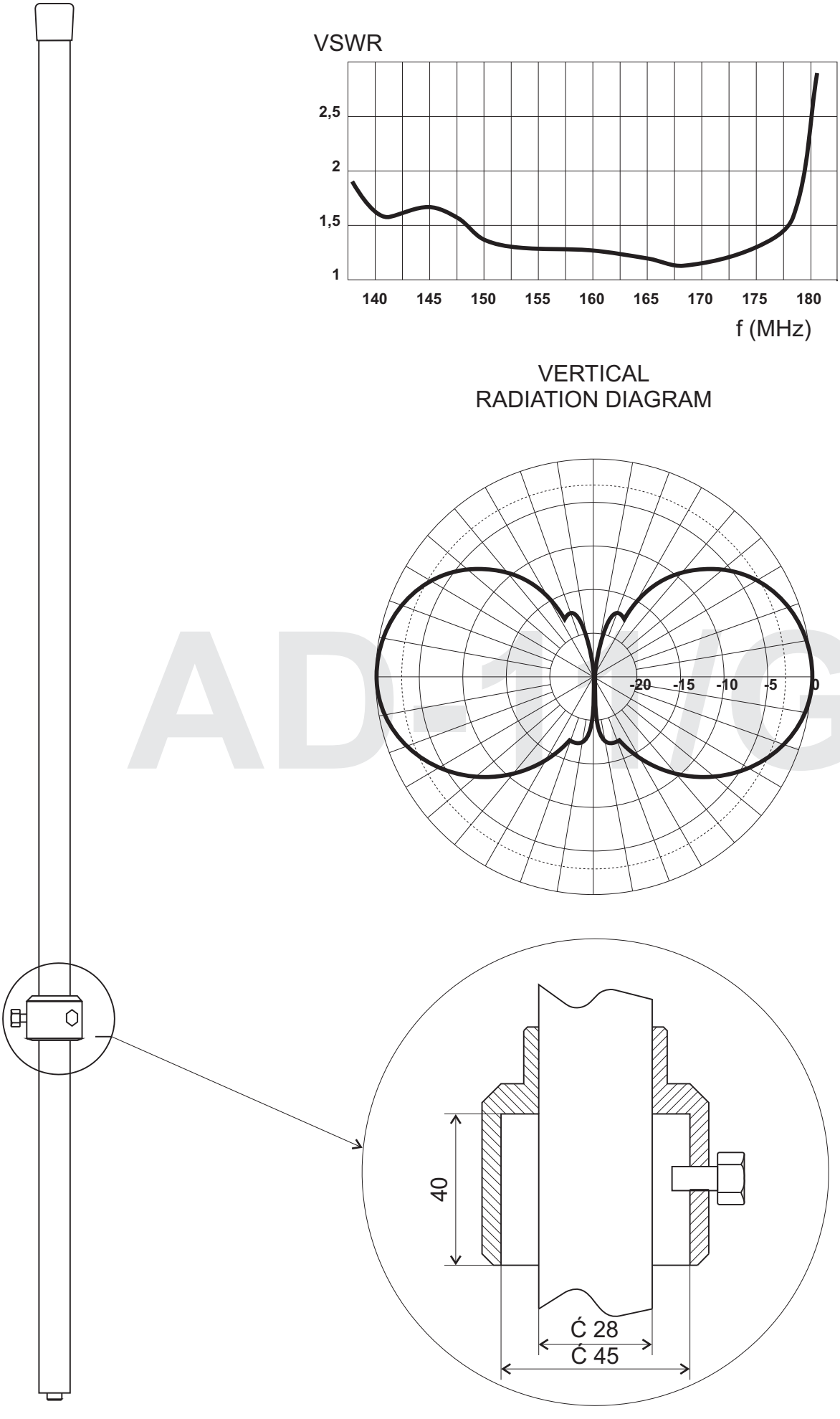
VSWR
2,5
2
1,5
1
140
145
150
155
160
165
170
175
180
f (MHz)
VERTICAL
RADIATION DIAGRAM
-20
-15
-10
-5
40
Ć 28
Ć 45

AD-23/2-2

The antenna AD-23/2-2 is a collinear dipole for use on VHF frequency range from 135 to 175 MHz in separate frequency bands. The antenna is electrically designed as collinear dipole, composed of two elements half wave length each. The phasing coil between the elements is used for proper current phase shift on the radiating elements. At the antenna base a matching circuit is built-in by which all radiating elements are also DC grounded. All elements are enclosed in a tube made of composite material enabling excellent mechanical and atmospheric resistance. The antenna could be attached directly to the masts with diameters from 24 to 62 mm. For different mounting options our standard family of mounting consoles type ADK could be used.

VERSIONS:

AD-23/2-2 (135-145 MHz)
AD-23/2-2 (145-155 MHz)
AD-23/2-2 (155-165 MHz)
AD-23/2-2 (165-175 MHz)

Frequency range	135 - 175 MHz
Impedance	50 ohm
VSWR	< 1,8 (fo +/- 4%fo)
Gain	3 dBd
Polarization	VER.
Maximum power	200 W CW
Height	3 m
Mass	2,3 kg
Connector	N female
Wind velocity	160 km/h

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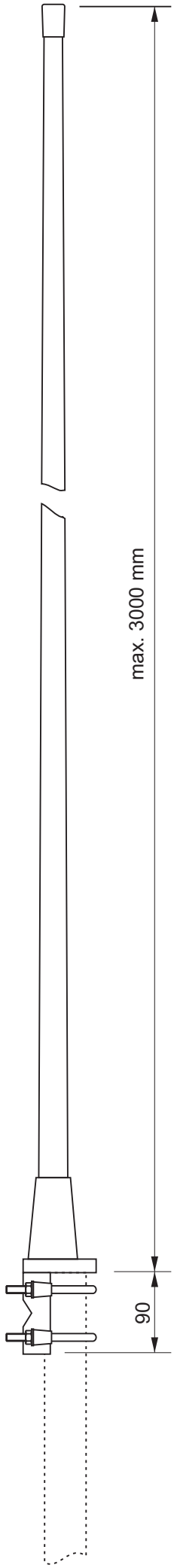
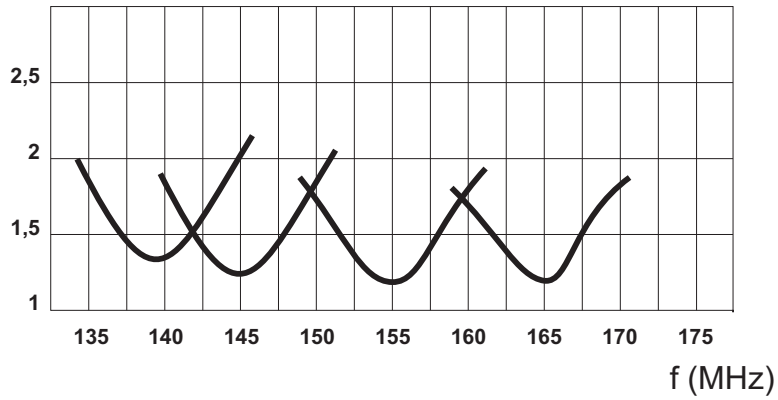
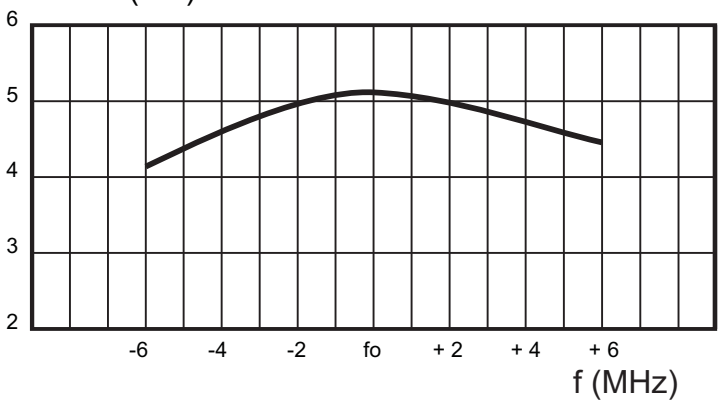


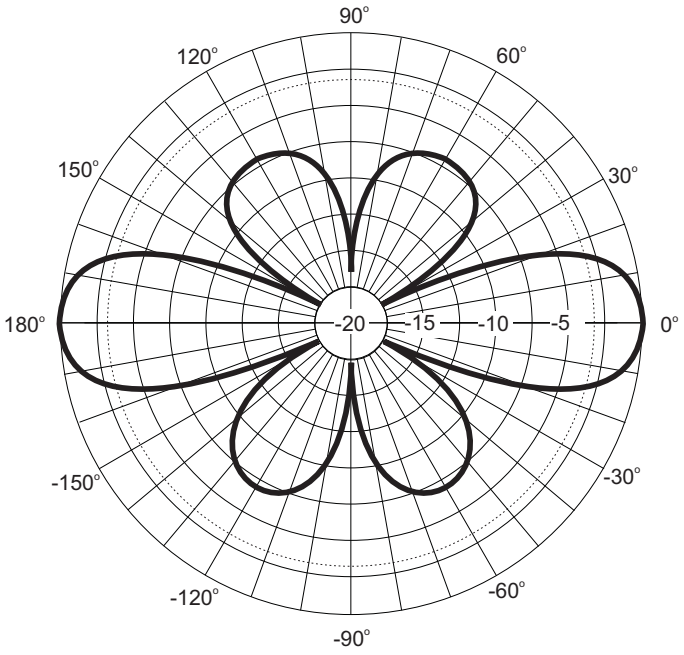
VSWR



GAIN (dBi)



TYPICAL RADIATION PATTERN
(Vertical - E plane)



AD-39/2

The family of wideband antennas AD-39 is composed of so called folded dipoles and is primarily intended for use as stationary antenna on VHF and UHF frequency range. The antenna is composed of a folded dipole mounted on a supporting boom. The dipole has 1.5 m of coaxial cable type RG-213/U with N female type of connector. The antenna is appropriate for side mast mounting with 2 dBd gain together with offset radiation pattern. With different combinations of several antennas together with appropriate power dividers type APS-38 a different radiation patterns with different gains could be easily achieved depending on our signal coverage requirement. Dipoles are made of aluminum alloy tube with 18 mm of diameter and mounted on square aluminum boom together with mounting console enables the antenna to be mounted on antenna mast with external diameter up to 60 mm. All aluminium parts are transparent anodized enable long life and reliable work even in hardest climatic conditions.

Frequency range	146 - 176 MHz
Impedance	50 ohm
VSWR	< 1,6
Gain	0 - 2 dBd
Polarization	VERT.
Maximum power	100 W
Connector	N
Height	85 cm
Lenght	56 cm
Weight	2.5 kg

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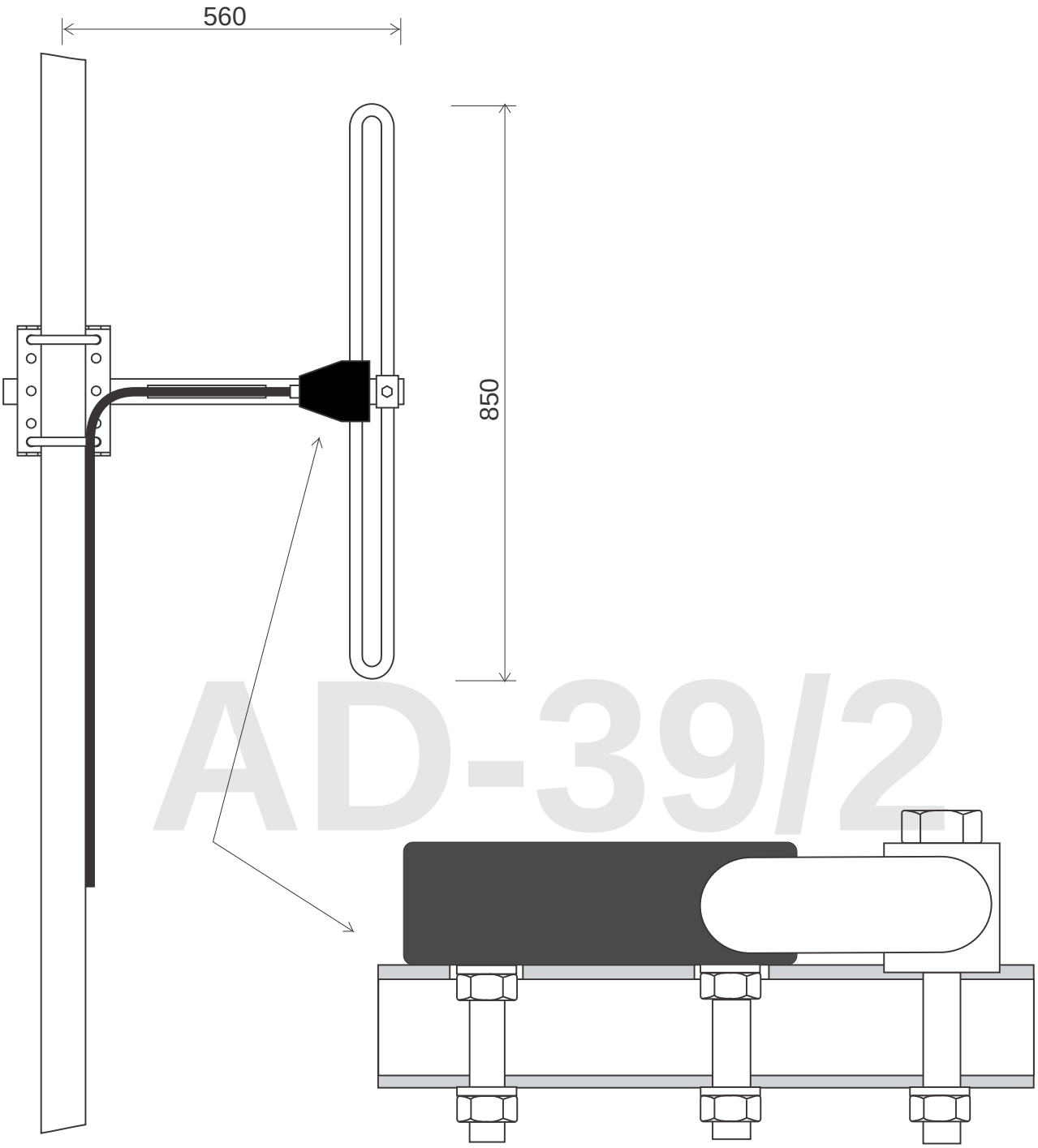
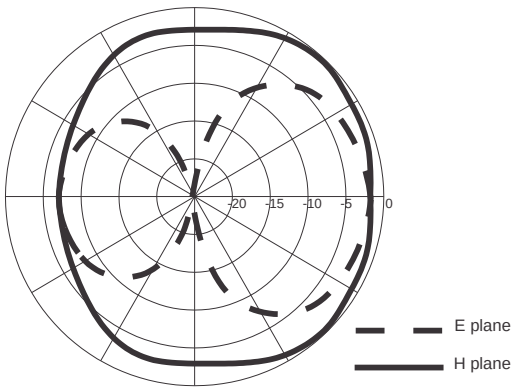
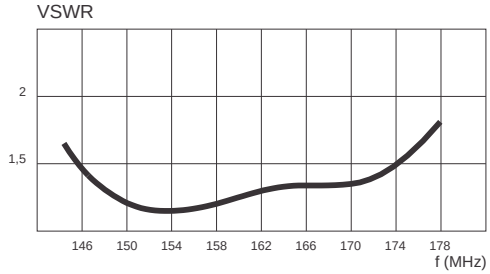

560
850

AD-39/2

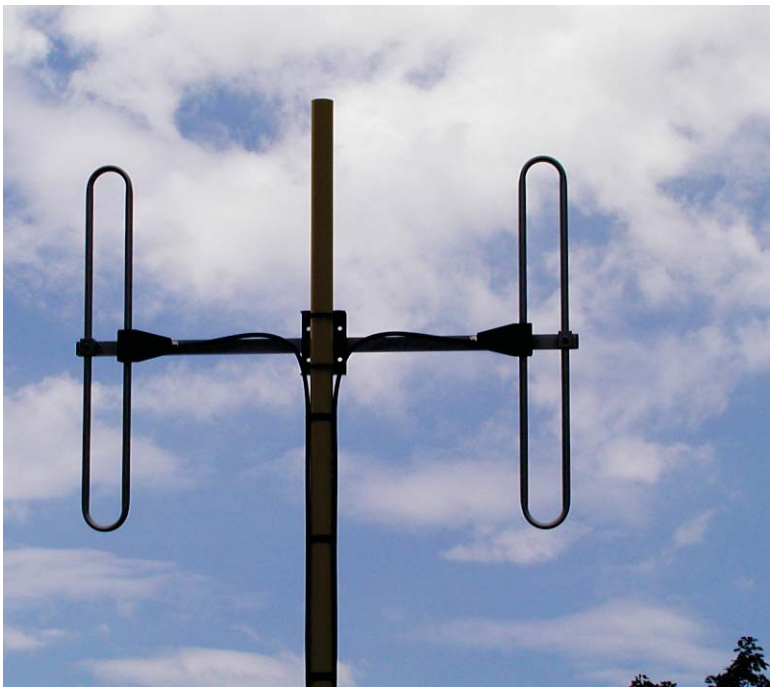

-20
-15
-10
-5
0
E plane
H plane


VSWR
2
1,5
146
150
154
158
162
166
170
174
178
f (MHz)

AD-38/2

The family of wideband antennas AD-38 is composed of so called double folded dipoles primarily intended for use as stationary antennas on VHF and UHF frequency range. The antenna is composed of two folded dipoles mounted on common supporting boom. Each dipole has 1.5 m of coaxial cable type RG-213/U with N male type connector which must be connected on two-way power divider type APS-38/2-2. Such antenna system has elliptical horizontal radiation pattern with 3 dBd gain. With different combinations of several antennas a different radiation patterns with different gains could be easily achieved depending on our signal coverage requirement. Dipoles are made of aluminum alloy tube with 18 mm of diameter and mounted on square aluminum boom 30 x 30 mm together with mounting console enables the antenna to be mounted on antenna mast with external diameter up to 60 mm. All aluminium parts are transparent anodized enable long life and reliable work even in hardest climatic conditions.

Frequency range	146 - 176 MHz
Impedance	50 ohm
VSWR	< 1,8
Gain	3 dBd
Polarization	VERT.
Maximum power	200 W
Connector	Nmale
Height	85 cm
Lenght	110 cm
Weight	4 kg



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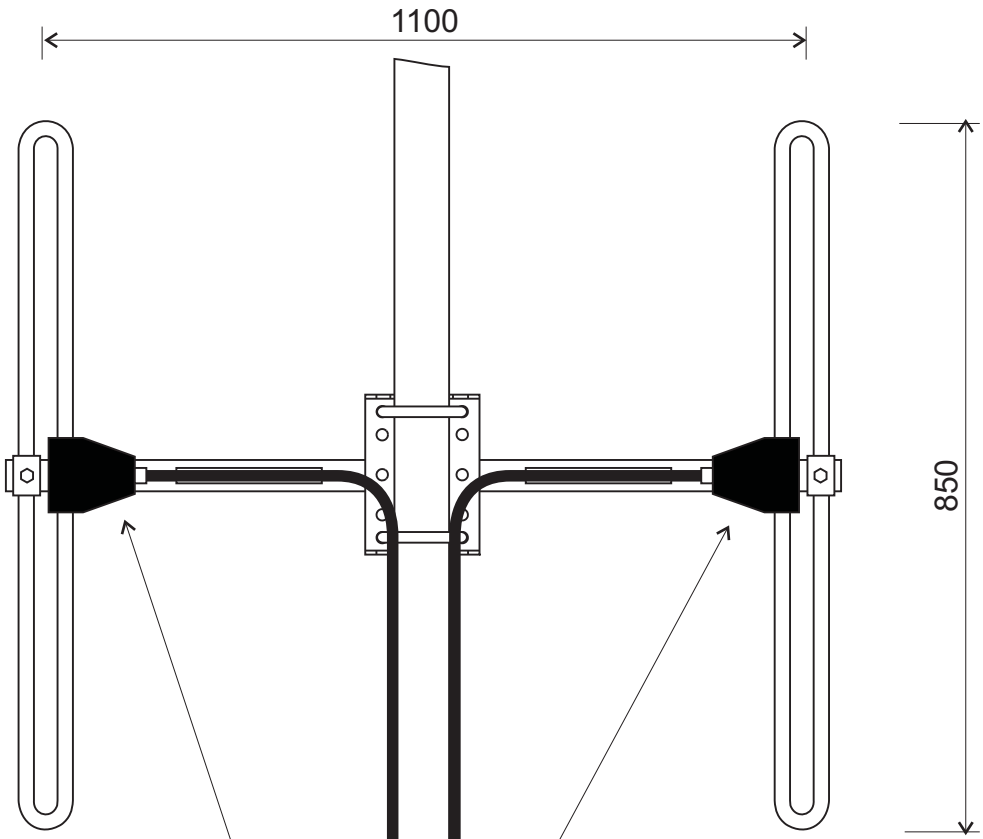
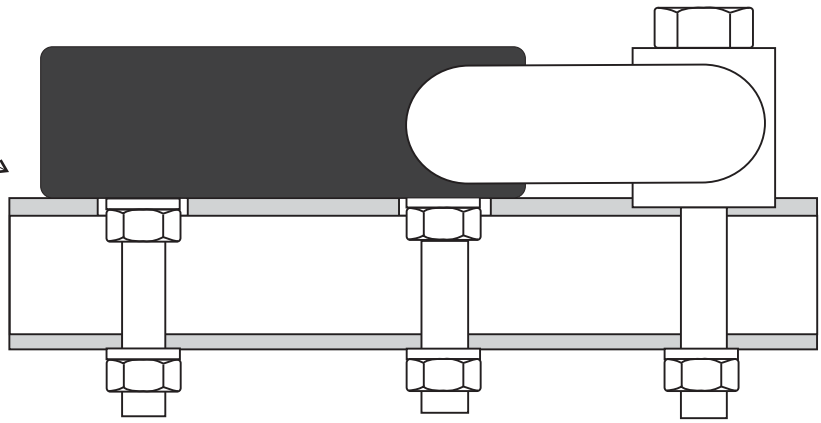
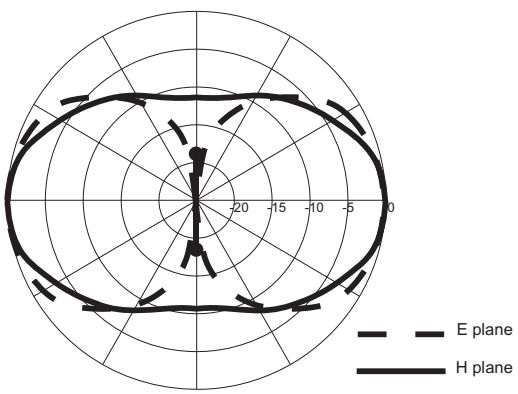
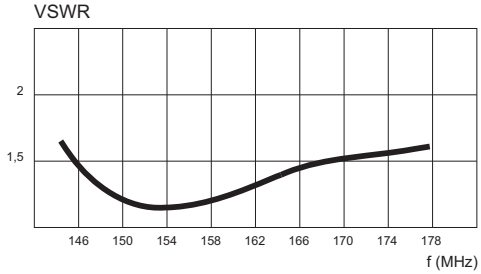

1100
850

AD-38/2




-20
-15
-10
-5
0
E plane
H plane


VSWR
2
1,5
146
150
154
158
162
166
170
174
178
f (MHz)

AD-39/2.3

The family of wideband antennas AD-39 is composed of so called folded dipoles and is primarily intended for use as stationary antenna on VHF and UHF frequency range. The antenna is composed of a folded dipole mounted on a supporting boom. The dipole has 3 m of coaxial cable type RG-213/U with N female type of connector. The antenna is appropriate for side mast mounting with 2 dBd gain together with offset radiation pattern. With different combinations of several antennas together with appropriate power dividers type APS-38 a different radiation patterns with different gains could be easily achieved depending on our signal coverage requirement. Dipoles are made of aluminum alloy tube with 18 mm of diameter and mounted on square aluminum boom together with mounting console enables the antenna to be mounted on antenna mast with external diameter up to 60 mm. All aluminium parts are transparent anodized enable long life and reliable work even in hardest climatic conditions.

Frequency range	118 - 136 MHz
Impedance	50 ohm
VSWR	< 1,6
Gain	0 - 2 dBd
Polarization	VERT.
Maximum power	100 W
Connector	N
Height	110 cm
Lenght	70 cm
Weight	2.5 kg

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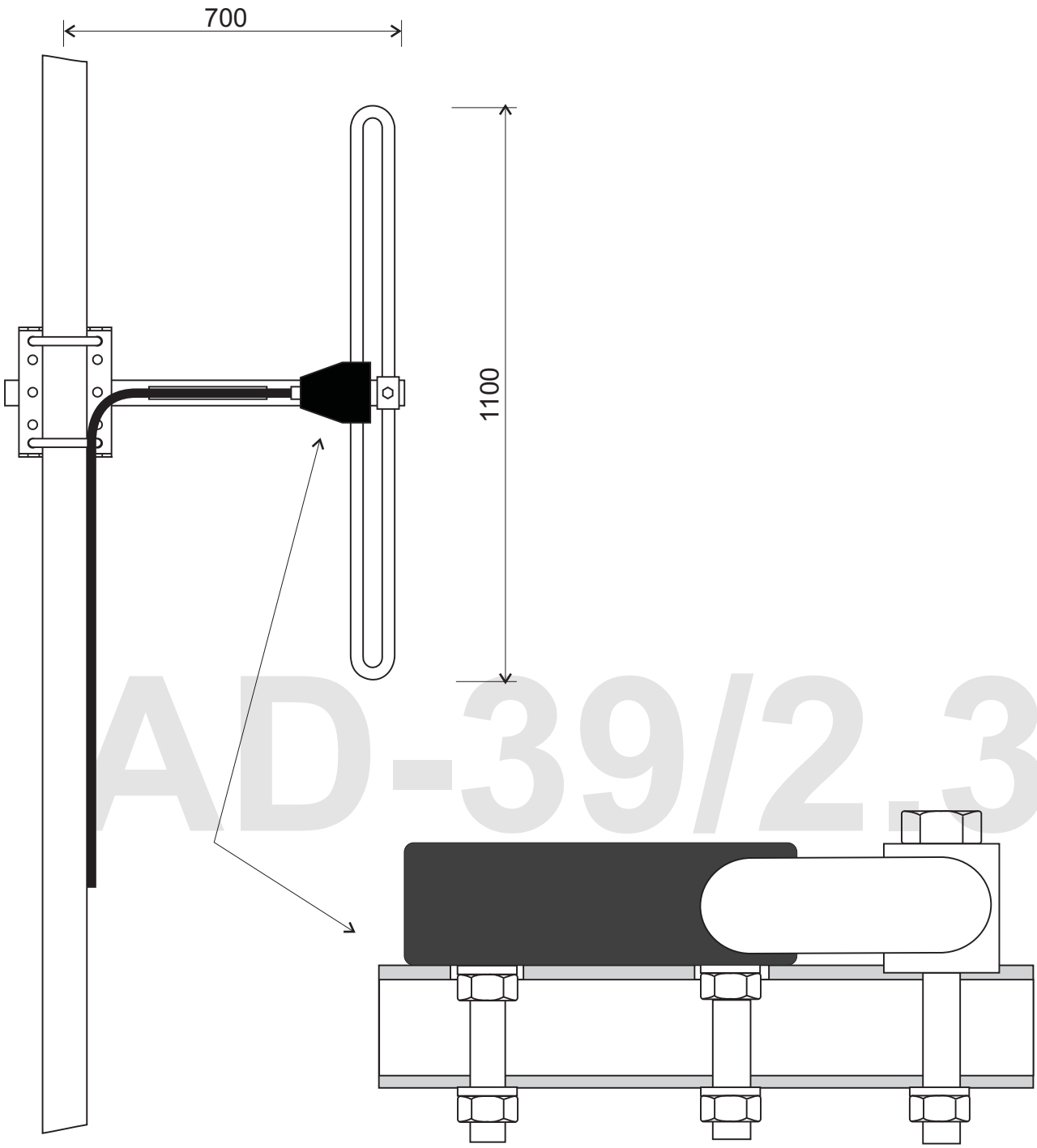
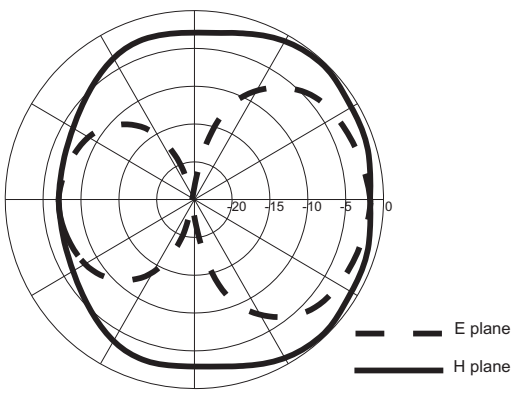
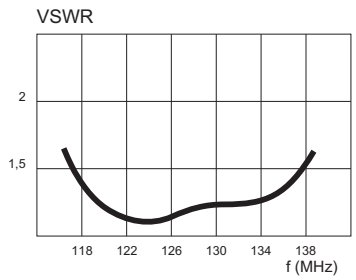

700
1100


-20
-15
-10
-5
0
E plane
H plane


VSWR
2
1,5
118
122
126
130
134
138
f (MHz)

AD-40/2-2

The antenna AD-40/2-2 is 2-element wideband yagi antenna, primarily intended for stationary use on standard VHF frequency range from 146 to 176 MHz. The antenna is directional with 3 dBd gain. The radiator is made of folded dipole enables constant characteristics on whole frequency band. The elements are made of aluminum alloy tube 18/16 mm and inserted on the aluminum square tube boom 30 x 30 mm. The universal mounting adapter is on the back side of the boom enables vertical or horizontal polarization as well. All joint elements are made of stainless steel, matching unit is built in plastic protective housing and all aluminium parts are transparent anodized enable long life and reliable work even in hardest climatic conditions. All metal parts are DC grounded.

Frequency range	146 - 176 Mhz
Impedance	50 ohm
VSWR	< 1,6
Gain	3 dBd
Front to Back ratio	> 14 dB
Polarization	VERT./HOR.
Maximum power	100 W
Connector	1.5 m RG-213 + N
Width	100 cm
Length	85 cm
Mass of antenna	3 kg

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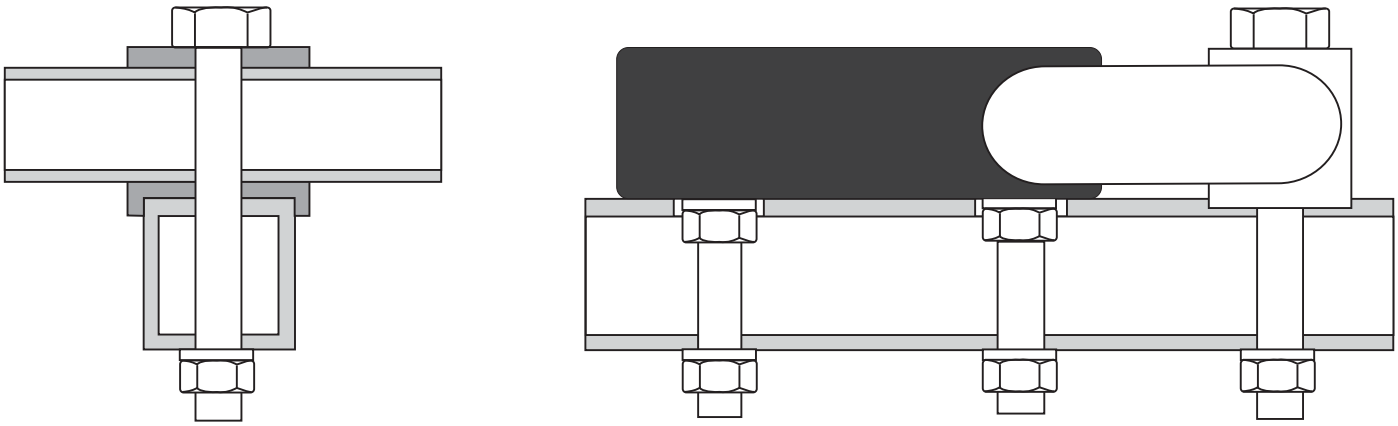
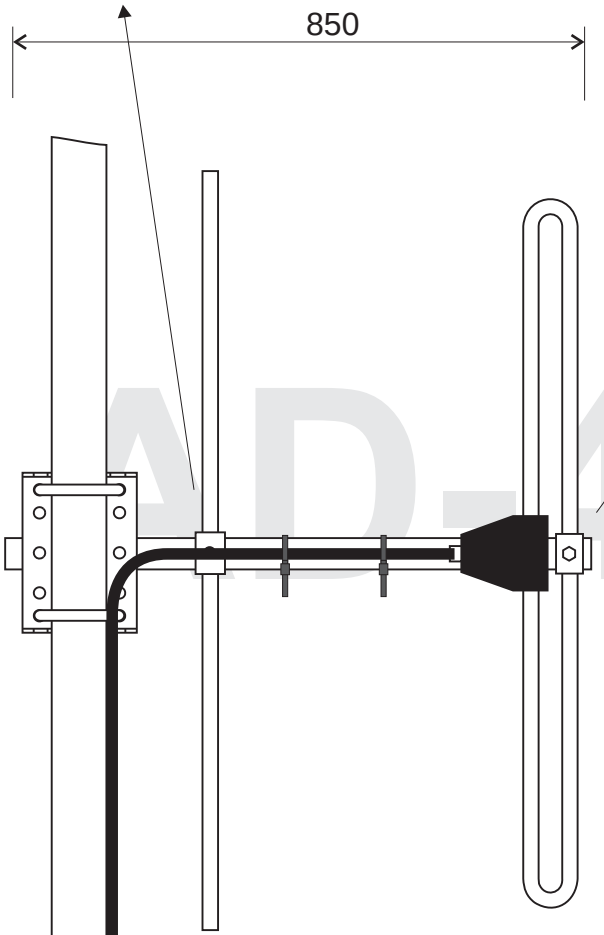
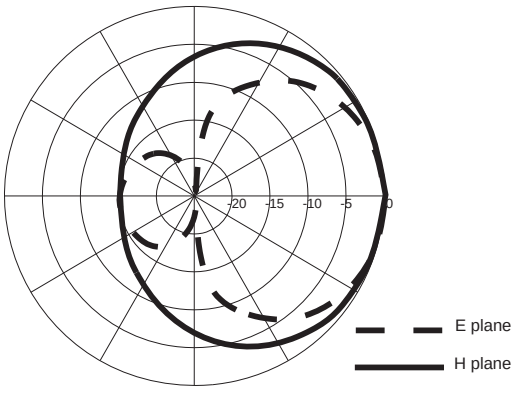
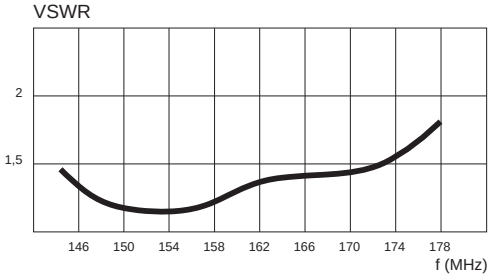



850


-20
-15
-10
-5
0
E plane
H plane


VSWR
2
1,5
146
150
154
158
162
166
170
174
178
f (MHz)

AD-40/2-3

The antenna AD-40/2-3 is 3-element wideband yagi antenna, primarily intended for stationary use on standard VHF frequency range from 146 to 176 MHz. The antenna is directional with 5 dBd gain. The radiator is made of folded dipole enables constant characteristics on whole frequency band. The elements are made of aluminum alloy tube 18/16 mm and inserted on the aluminum square tube boom 30 x 30 mm. The universal mounting adapter is on the back side of the boom enables vertical or horizontal polarization as well. All joint elements are made of stainless steel, matching unit is built in plastic protective housing and all aluminium parts are transparent anodized enable long life and reliable work even in hardest climatic conditions. All metal parts are DC grounded.

Frequency range	146 - 176 Mhz
Impedance	50 ohm
VSWR	< 1,6
Gain	5 dBd
Front to Back ratio	> 16 dB
Polarization	VERT./HOR.
Maximum power	100 W
Connector	1.5 m RG-213 + N
Width	100 cm
Length	110 cm
Mass of antenna	3,5 kg

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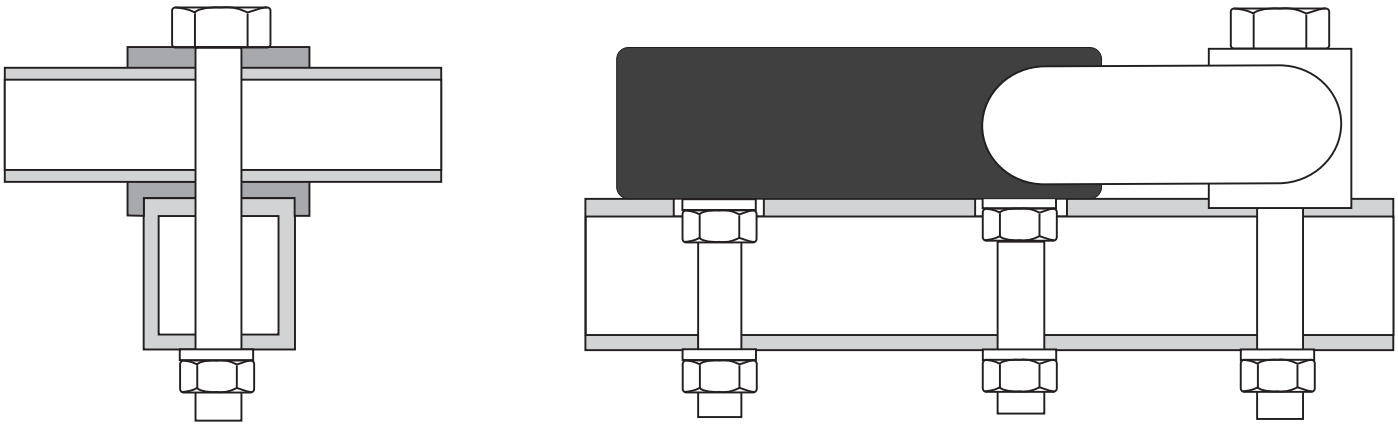
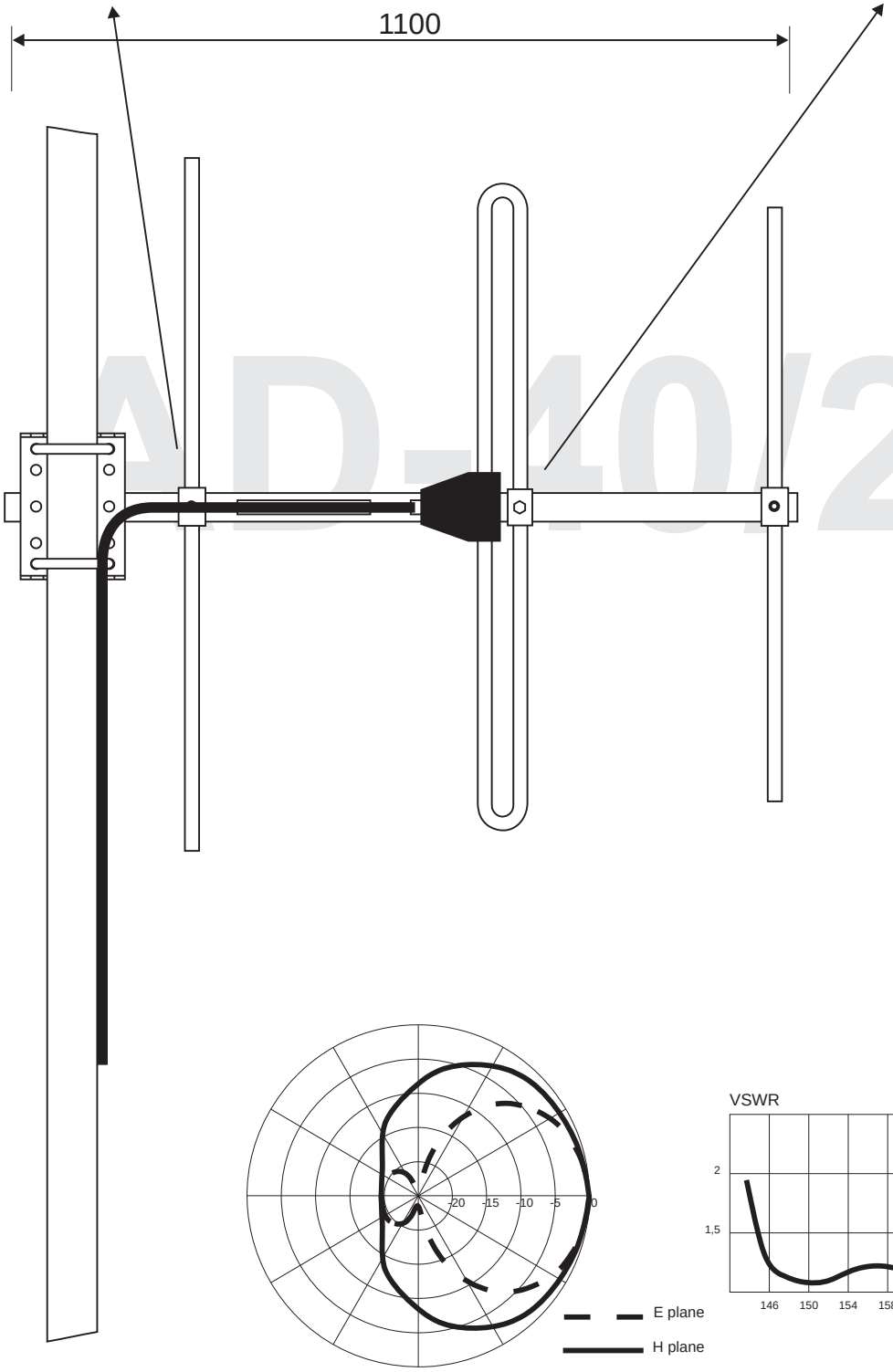
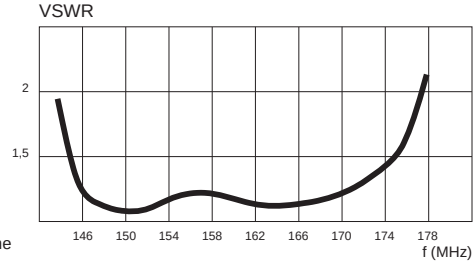



1100

-20
-15
-10
-5
0
E plane
H plane


VSWR
2
1,5
146
150
154
158
162
166
170
174
178
f (MHz)

AD-40/2-6

The antenna AD-40/2-6 is 6-element wideband yagi antenna, primarily intended for stationary use on standard VHF frequency range from 146 to 176 MHz. The antenna is directional with 8 dBd gain. The radiator is made of folded dipole enables constant characteristics on whole frequency band. The elements are made of aluminum alloy tube 18/16 mm and of aluminum rods 10 mm and inserted on the aluminum square tube boom 30 x 30 mm. The universal mounting adapter is on the back side of the boom enables using vertical or horizontal polarization as well. All joint elements are made of stainless steel, matching unit is built in plastic protective housing and all aluminium parts are transparent anodized enable long life and reliable work even in hardest climatic conditions. All metal parts are DC grounded.

Frequency range	146 - 176 Mhz
Impedance	50 ohm
VSWR	< 2
Gain	8 dBd
Front to Back ratio	> 14 dB
Polarization	VERT./HOR.
Maximum power	100 W
Connector	1.5 m RG-213 + N
Width	100 cm
Length	180 cm
Mass of antenna	5 kg

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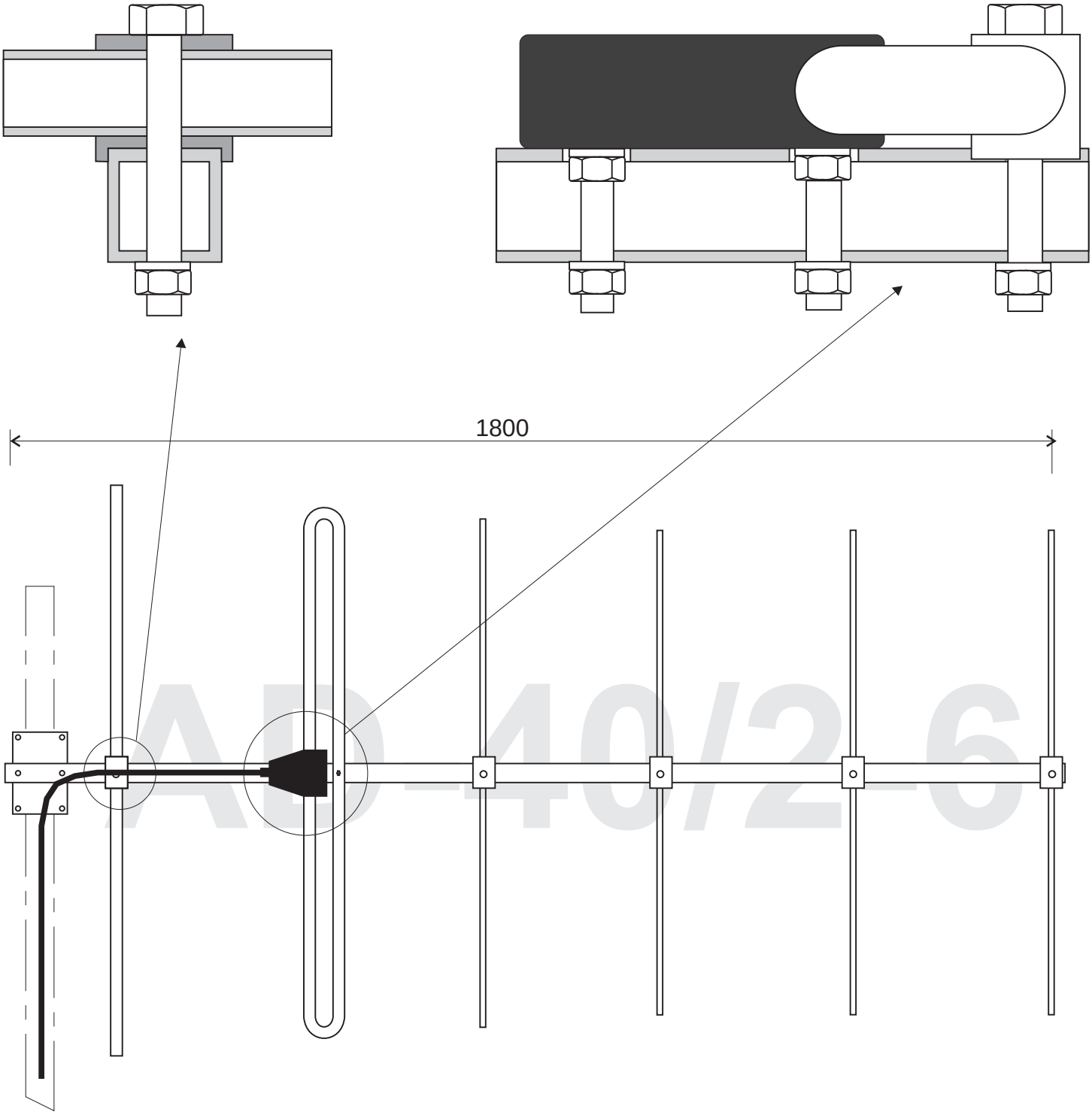
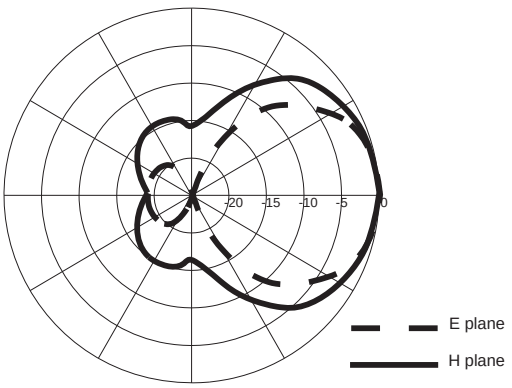
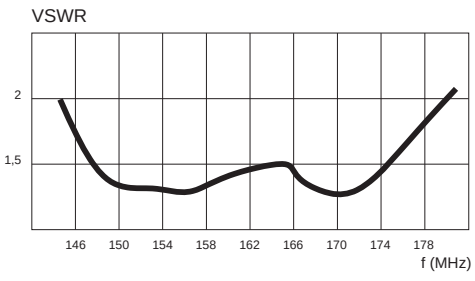

1800


-20
-15
-10
-5
0
E plane
H plane


VSWR
2
1,5
146
150
154
158
162
166
170
174
178
f (MHz)

MOBILE ANTENNAS
108 - 176 MHz

Mobile antennas are composed of the family of antenna radiators type ADS-21, fixed mounts type ADN-21 and magnet mounts type ADM-21. The antenna radiators are made of Stainless Steel or composite material (fiberglass) and painted with black protective paint, all covering the frequency range from 27 MHz (CB) to 900 MHz (GSM). Main advantage of the all family is beside quality materials and simple use also simple combining of different types of the radiators with different types of the mounts through M6 screw joint (male on the mount side and female on the radiator side). In that way user could easily combine the appropriate radiator with different mount according to his requirements. All the mounts are equipped with coaxial cable type RG-58 terminated with connector type FME on which we could easily fit different adapters from FME to PL 259, BNC, TNC, N, MINI UHF or SMA.

Antennas	ADS-21/2-A	ADS-21/2-B	ADS-21/2-D
Antenna type	1/4	1/4 w. spring	5/8
Frequency	144-176	144-176	144-176
Impedance	50	50	50
VSWR	1.2	1.2	1.2
GAIN	0 dB	0 dB	3 dB
Bandwith (Mhz at SWR<2)	15	15	6
Material	SS	SS	SS
Colour	black	black	black
Height	470 mm	470 mm	1350 mm

Mounts	ADN-21/1	ADN-21/2	ADM-21/Ma6	ADM-21/Mi6
Mount type	fixed bendable	fixed with swivel	magnet 90 mm-swivel	magnet 60 mm
Colour	black	black	black	black
Cable	5 m RG-58	5 m RG-58	3.5 m RG-58	3 m RG-58
Radiator joint	screw M6	screw M6	screw M6	screw M6
Height	40 mm	42 mm	80 mm	58 mm
Weight w. cable	250 gr.	250 gr.	750 gr.	350 gr.

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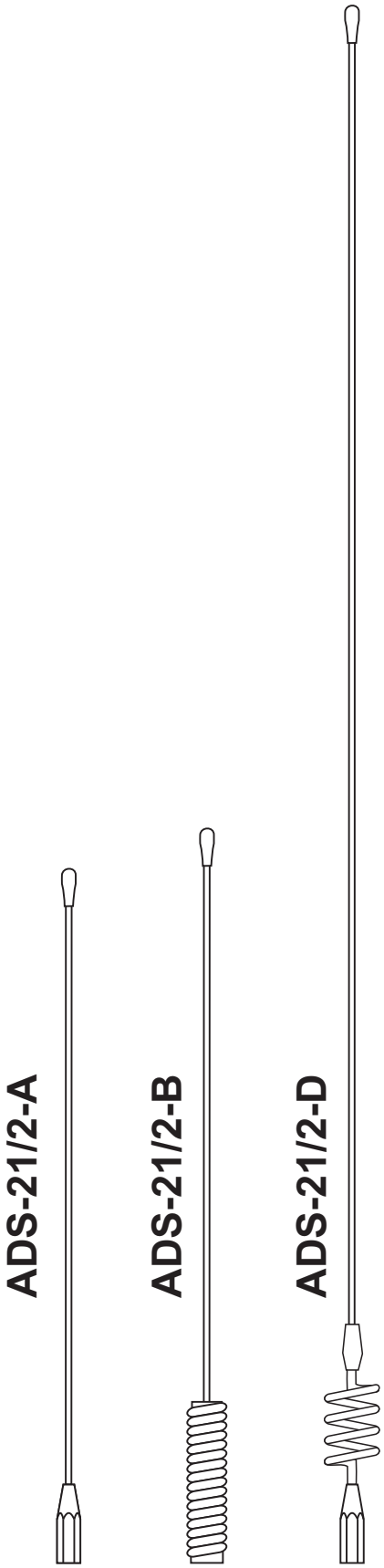


ADN-21/1

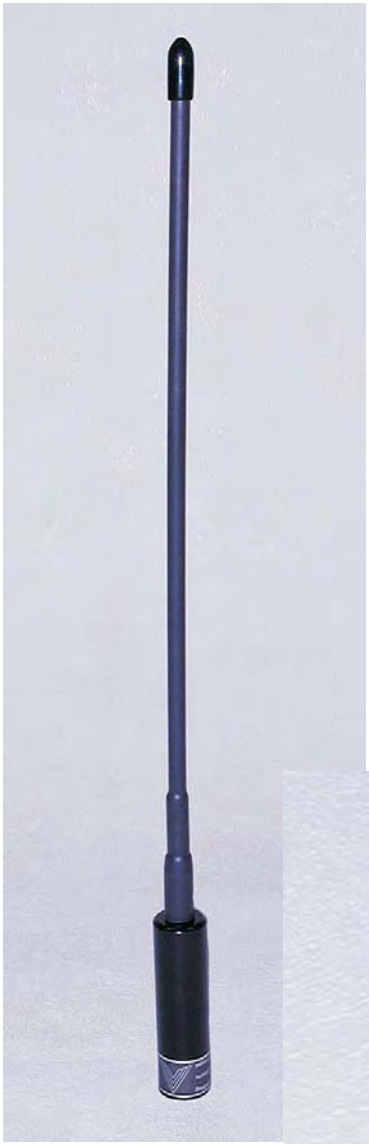
ADN-21/2

ADM-21/MI6

ADM-21/MA6

AD-44/BW-AS-30-512

The antenna AD-44/BW-AS-30-512 is a wideband monopole whip, primarily intended for use with portable and handheld radio stations. Electrically the antenna is optimized for all exploitation conditions (radio in hand, at the side, at the breast etc.) so it is not necessary to tune the antenna with cutting. The antenna is composed of special wounded wire and covered with a heatshrinkable tube with silicone undercover ensuring high flexibility and roughness. The antenna has built-in a special transformer tuning network over the input coaxial connector. The antenna AD-44/BW-AS-30-512 is specially designed for use in the frequency range from 30 to 512 MHz.



Frequency range	30 - 512 Mhz
Impedance	50 ohm
VSWR	< 3
Gain	see diagram
Polarization	VER.
Maximum power	5 W CW
Connector	TNC male
Length	380 mm
Mass of antenna	100 g

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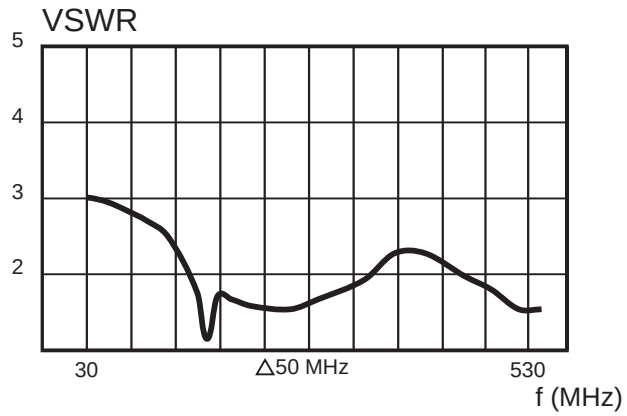

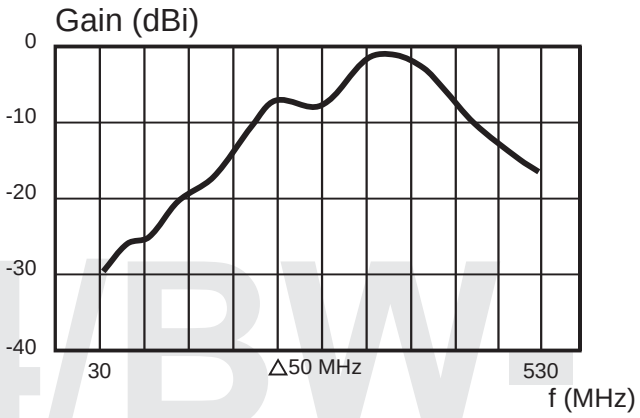

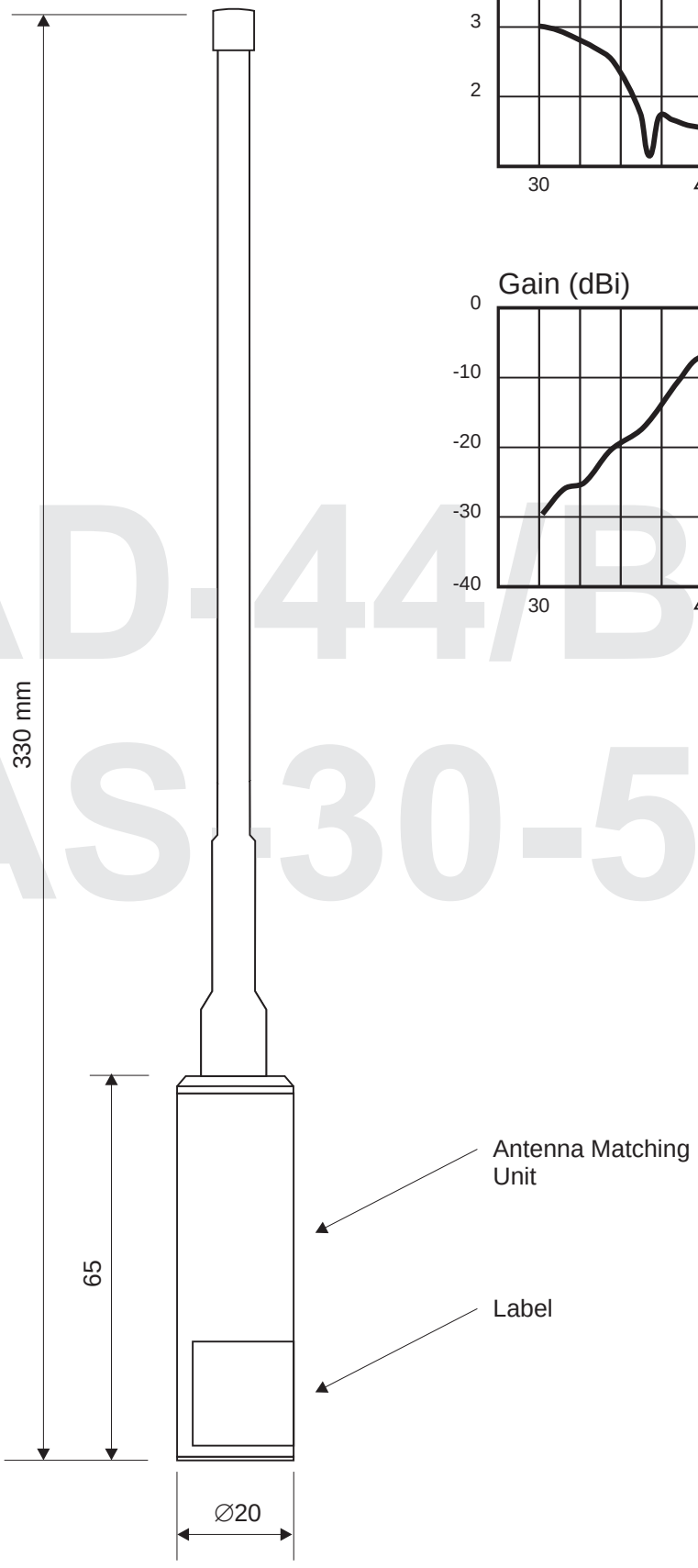

AD-44/BW-AS-30-512B

The antenna AD-44/BW-AS-30-512B is a wideband monopole whip, primarily intended for use with portable and handheld radios. Electrically the antenna is optimized for all exploitation conditions (radio in hand, at the side, at the breast etc.) so it is not necessary to tune the antenna with cutting. The antenna is composed of a bendable blade radiator covered with a plastic tube ensuring high flexibility and roughness.
The antenna has built-in a special transformer tuning network over the input coaxial connector. The antenna AD-44/BW-AS-30-512B is specially designed for use in the frequency range from 30 to 512 MHz.

NATO STOCK NUMBER (NSN): 5985-01-559-4696

Frequency range	30 - 512 MHz
Impedance	50 ohm
VSWR	< 3
Gain	see diagram
Polarization	VER.
Maximum power	5 W CW
Connector	TNC male
Length	330 mm
Mass of antenna	100 g

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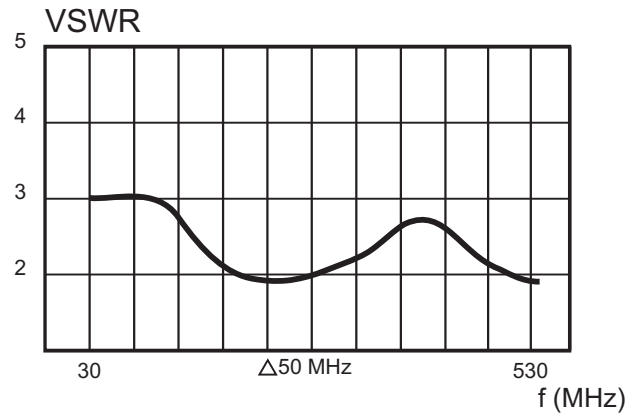
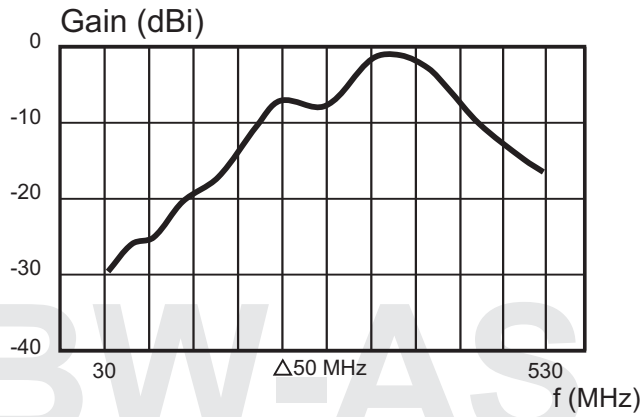
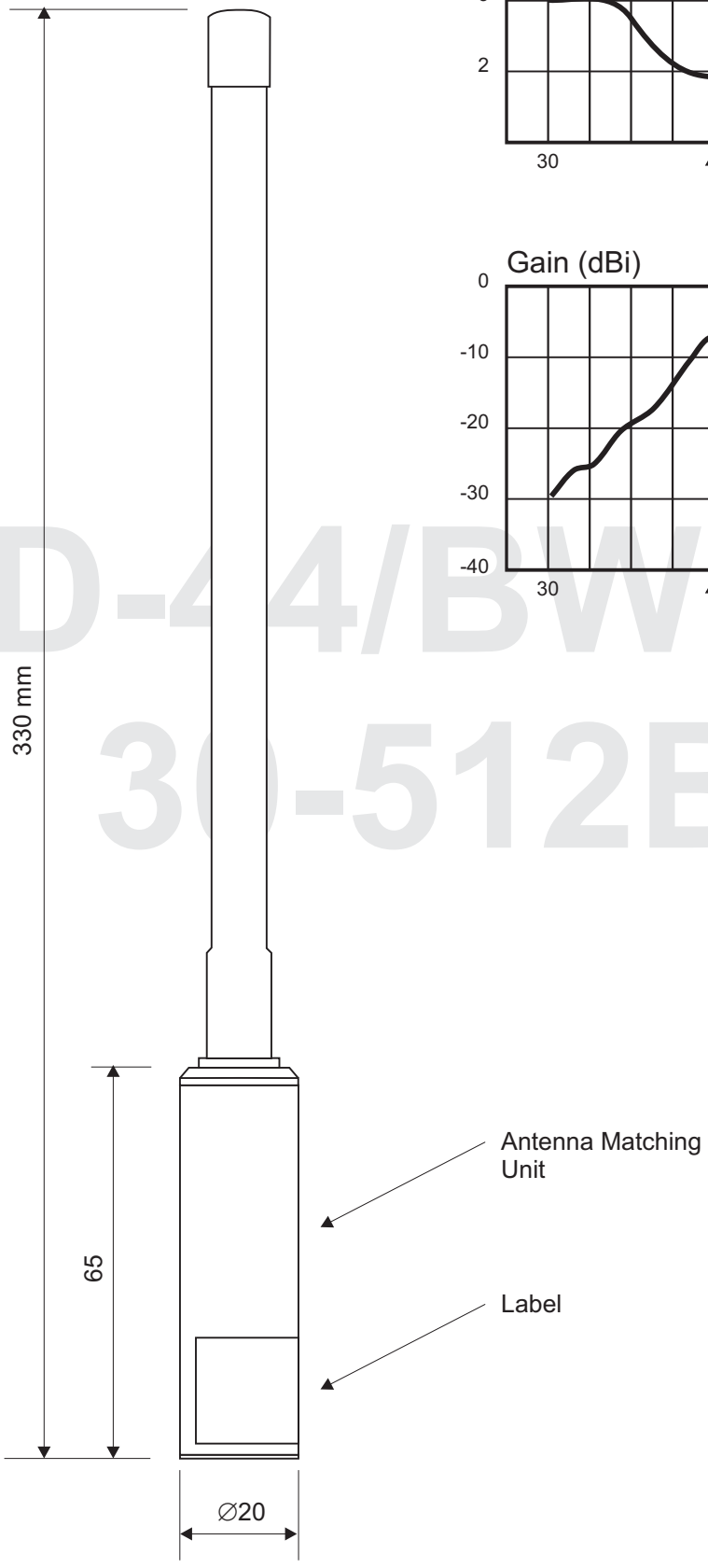
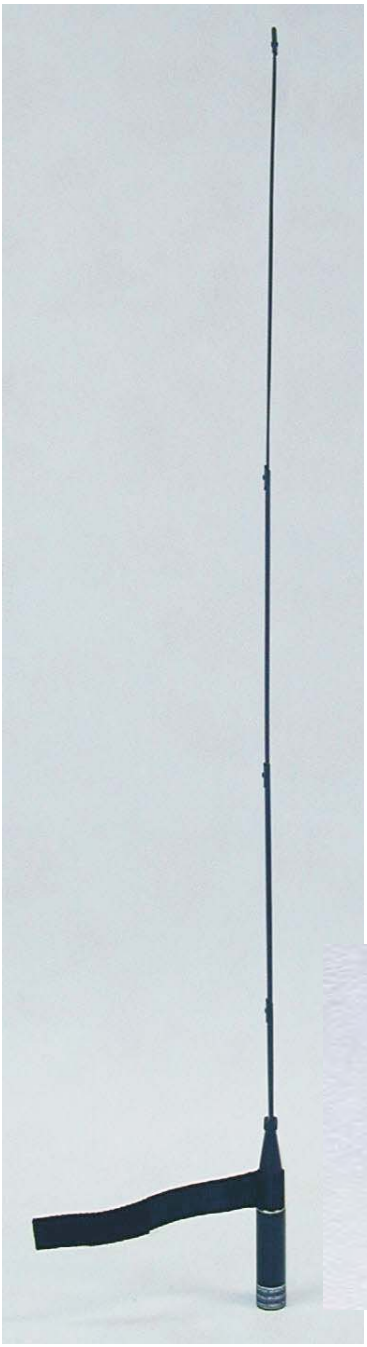






AD-44/CW-AS-30-512

The antenna AD-44/CW-AS-30-512 is a wideband monopole whip, primarily intended for use with portable and handheld radio stations in VHF frequency range from 30 to 512 MHz. Electrically the antenna is optimised for all exploitation conditions (radio in hand, at the side, etc.) so it is not necessary to additionally tune the antenna. The antenna is composed of radiating part made of tape radiator and of the antenna matching unit with built-in a special passive transformer tuning network enclosed in fiberglass housing above the input coaxial connector.



Frequency range	30 - 512 Mhz
Impedance	50 ohm
VSWR	< 3
Gain	see diagram
Polarization	VER.
Maximum power	5 W CW
Connector	825 mm
Length	TNC male
Mass of antenna	155 g

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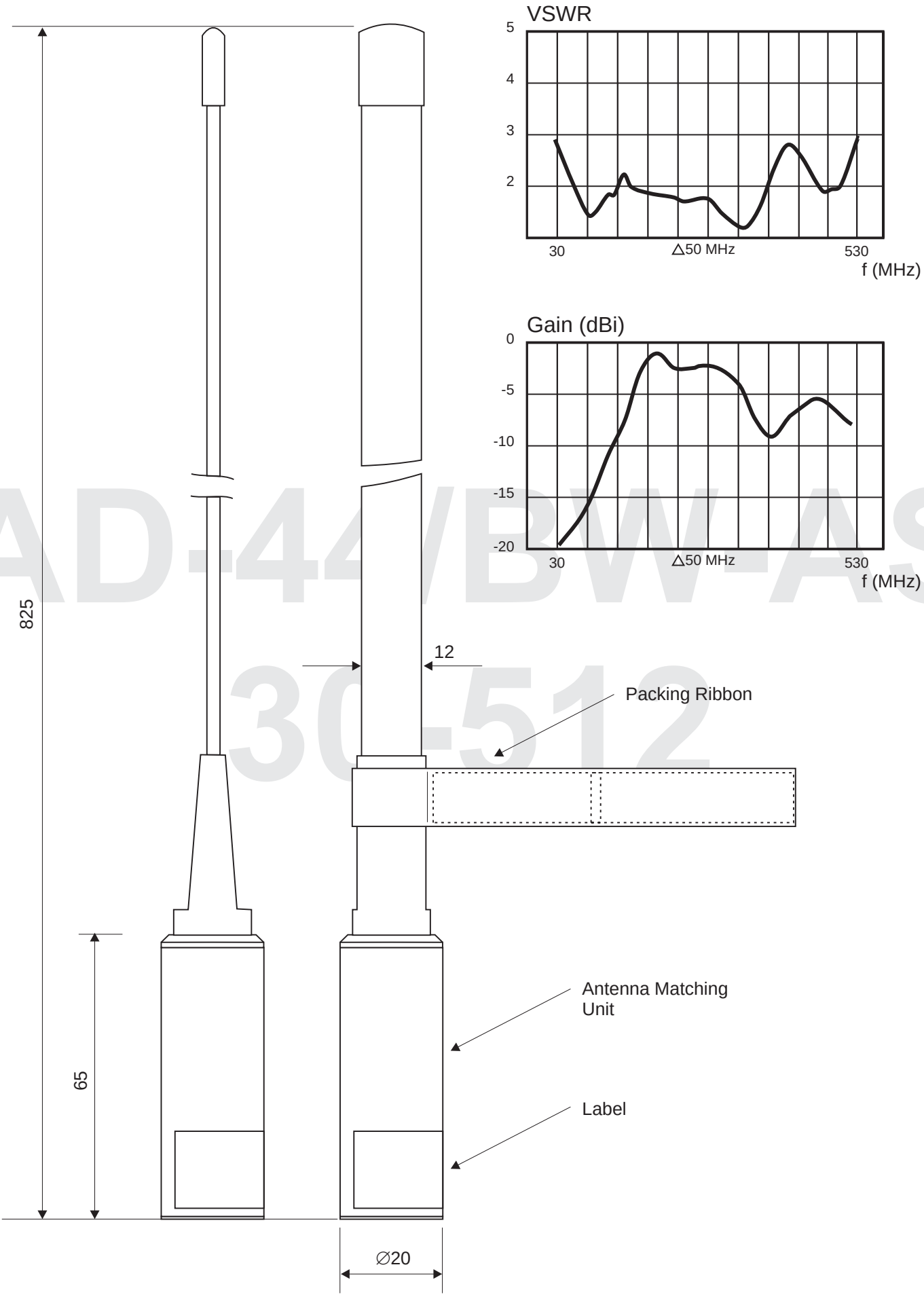

AD-44/CW-TA-30-512

The antenna AD-44/CW-TA-30-512 is a wideband monopole whip, primarily intended for use with portable and handheld radio stations in VHF/UHF frequency range from 30 to 512 MHz. Electrically the antenna is optimised for all exploitation conditions (radio in hand, at the side, etc.) so it is not necessary to additionally tune the antenna. The antenna is composed of radiating part made of tape radiator and of the antenna matching unit with built-in a special passive transformer tuning network enclosed in fiberglass housing above the input coaxial connector.

Frequency range	30 -512 MHz
Impedance	50 ohm
VSWR	< 3.5 (typ. < 3)
Polarization	VER.
Maximum power	5 W CW
Height	516 mm
Weight	120 g
Connector	TNC male

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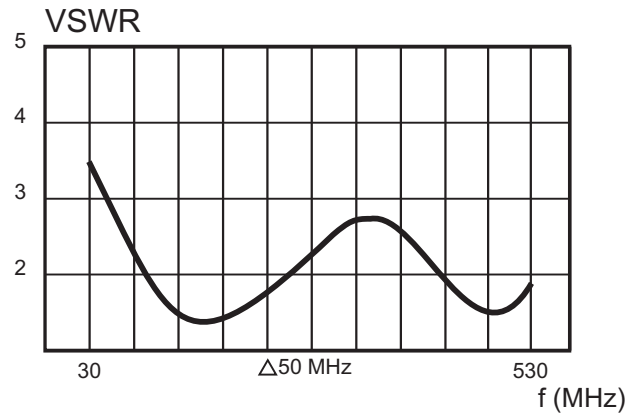

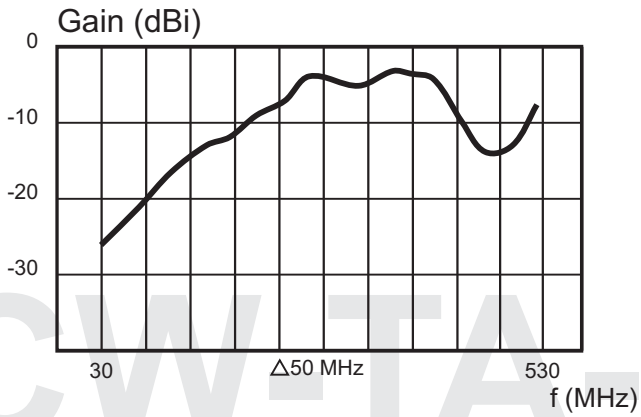

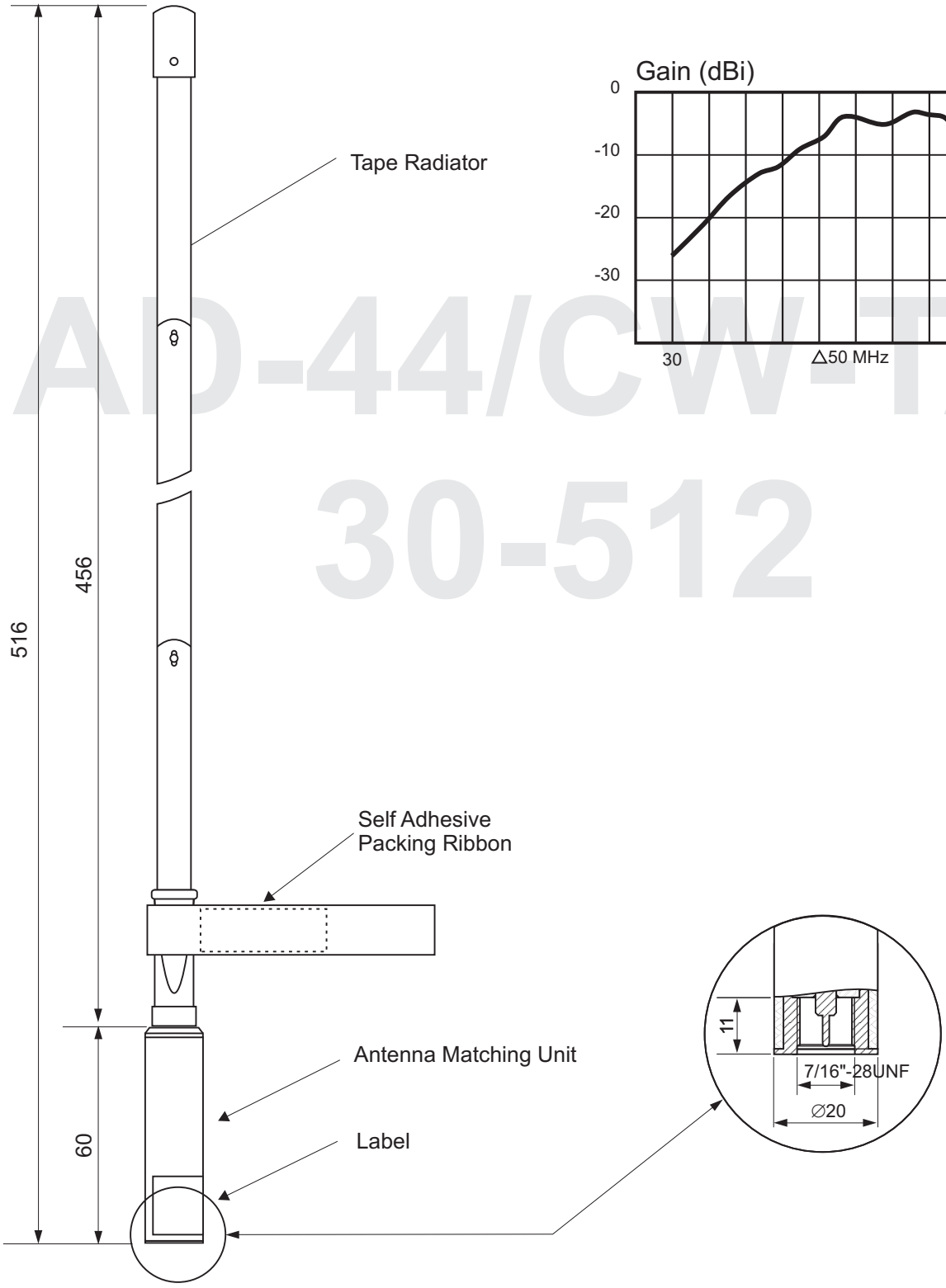

AD-65/A-1512

The antenna AD-65/A-1512 is a wideband monopole whip, primarily intended for use with manpack and handheld radios in VHF/UHF frequency range from 100 to 512 MHz. Electrically the antenna is optimized for all exploitation conditions (radio in hand, at the side, etc.) so it is not necessary to additionally tune the antenna. The antenna is composed of radiating part made of tape radiator and of the antenna matching unit with built-in a special passive transformer tuning network enclosed in fiberglass housing above the input coaxial connector. Between the tape radiator and matching unit is a flexible goose-neck allows bending the antenna to be always in vertical position.

Frequency (Mhz)	100-512
Impedance	50
VSWR	<3
Gain	see diagram
Polarization	Vertical
Max. power (W)	15
Connector type	TNCm
Radiator type	tape
Goose-neck (mm)	164
Height (mm)	670
Weight (gr.)	250
Temperature range	-40 .... +70 °C

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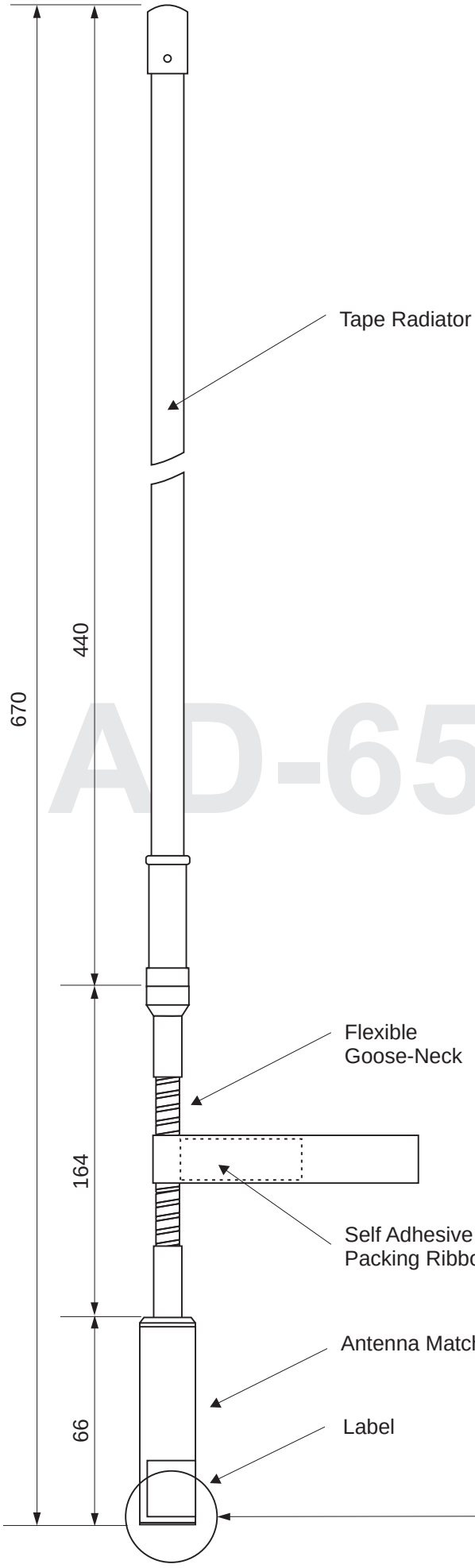
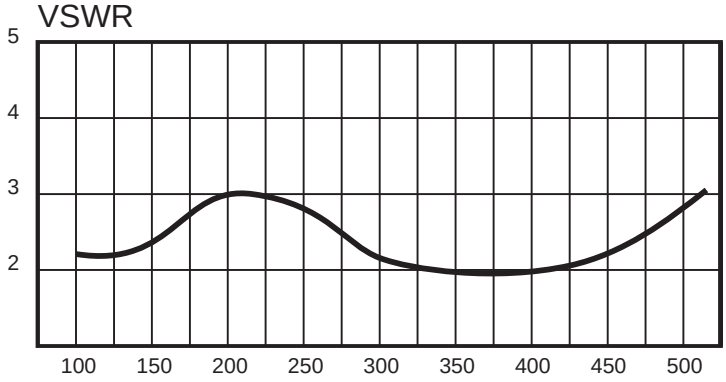
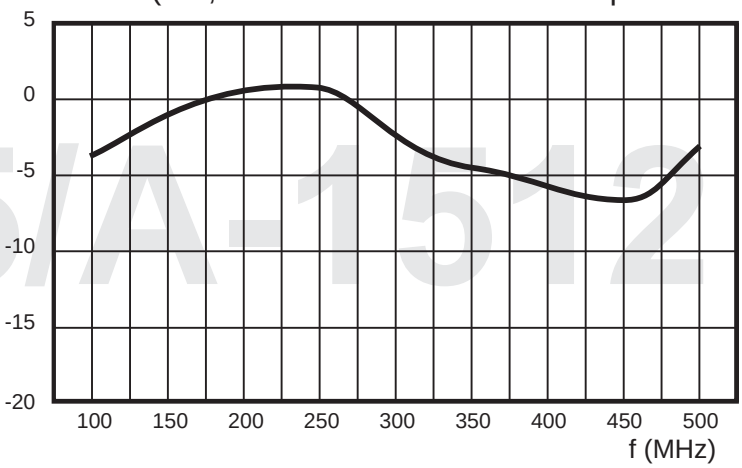
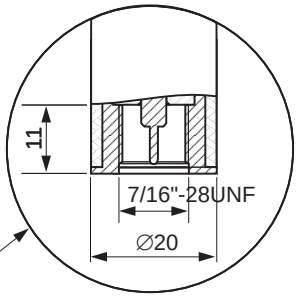


VSWR



GAIN (dBi; Antenna measured on manpack radio)





AD-65/B-1512

The antenna AD-65/B-1512 is a wideband low-profile monopole antenna covering frequency range from 100 to 520 MHz and is intended for use with portable and manpack radio and other RF devices. The antenna is composed of radiator and transformer unit with connector. The new construction of the radiator consist different materials which gives the radiator its flexibility and roughness. In the middle of the radiator is reactive loading enabling flat gain curve in the UHF frequency range. The matching unit is painted with UV protective polyurethane black paint.

Frequency range	100 - 520 MHz
Impedance	50 ohm
VSWR	3:1 (see diagram)
Max. power	16 W CW
Gain	see diagram
Polarization	VER.
Height	510 mm
Weight	190 gr.
Connector	N male

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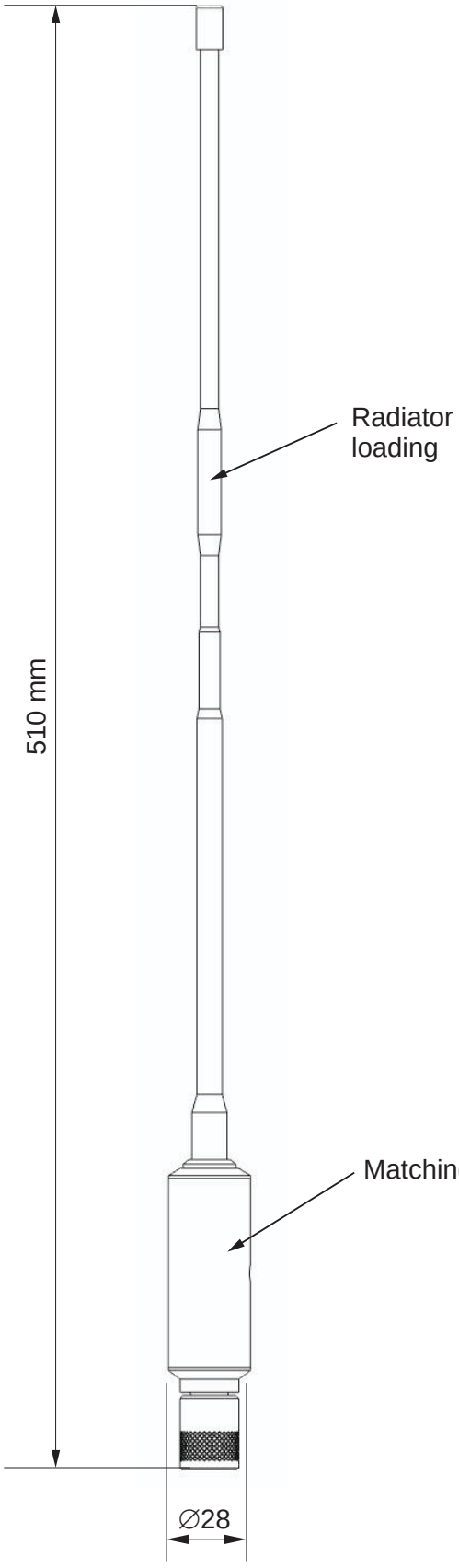
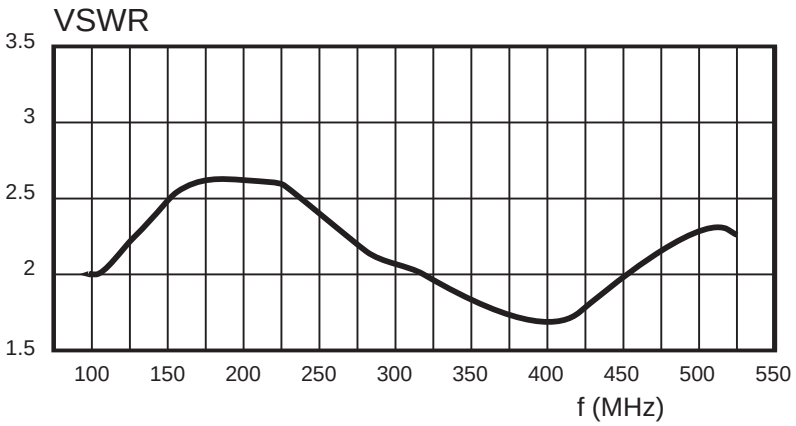
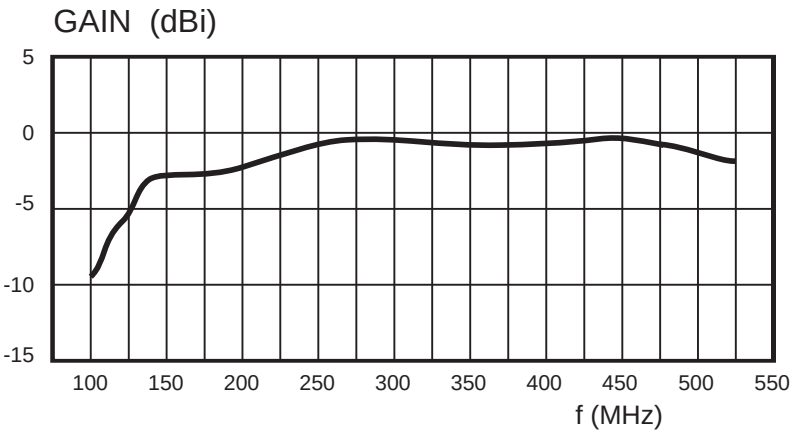

510 mm
Radiator
loading
Matching unit
∅28


VSWR
3.5
3
2.5
2
1.5
100
150
200
250
300
350
400
450
500
550
f (MHz)


GAIN (dBi)
5
0
-5
-10
-15
100
150
200
250
300
350
400
450
500
550
f (MHz)

AD-25/CW-3512

The antenna AD-25/CW-3512 is a wideband monopole whip antenna, primarily intended for use with manpack radios on VHF/UHF frequency range from 30 to 512 MHz. The antenna electrical performances are optimized for use on manportable radio units and other RF devices with relatively small ground plane.
The antenna is composed of radiating part made of bendable tape radiator ensuring high flexibility and roughness. Below the radiator is the goose-neck which enables vertical position of the antenna regardless of the position of the radio. Antenna matching unit is placed above the connector which is designed with inner part intended for electrical connection between the radio unit, middle part which is intended to hold the antenna in position and outer part - connector nut - which is intended to fasten the antenna firmly on the radio connector. Various connector threads are available on request.
The antenna is in black colour.

	AD-25/CW-3512-H	AD-25/CW-3512-N	AD-25/CW-3512-S	AD-25/CW-3512-HP
Frequency range (MHz)	30 - 512	30 - 512	30 - 512	25 - 512
Impedance (ohm)	50	50	50	50
VSWR	< 3.5	< 3.5	< 3.5	< 3.5
Polarization	VER.	VER.	VER.	VER.
Maximum power (W)	20	20	20	50
Height (mm)	1155	1155	1155	1455
Max. diameter (mm)	30	30	30	42
Mass (g)	320	320	320	750
Connector	TNC male	N	SINCGARS	N male
Temp. range				
- operation (°C)	-40.....+55	-40.....+55	-40.....+55	-40.....+55
- storage (°C)	-40.....+70	-40.....+70	-40.....+70	-40.....+70

SINCGARS connector

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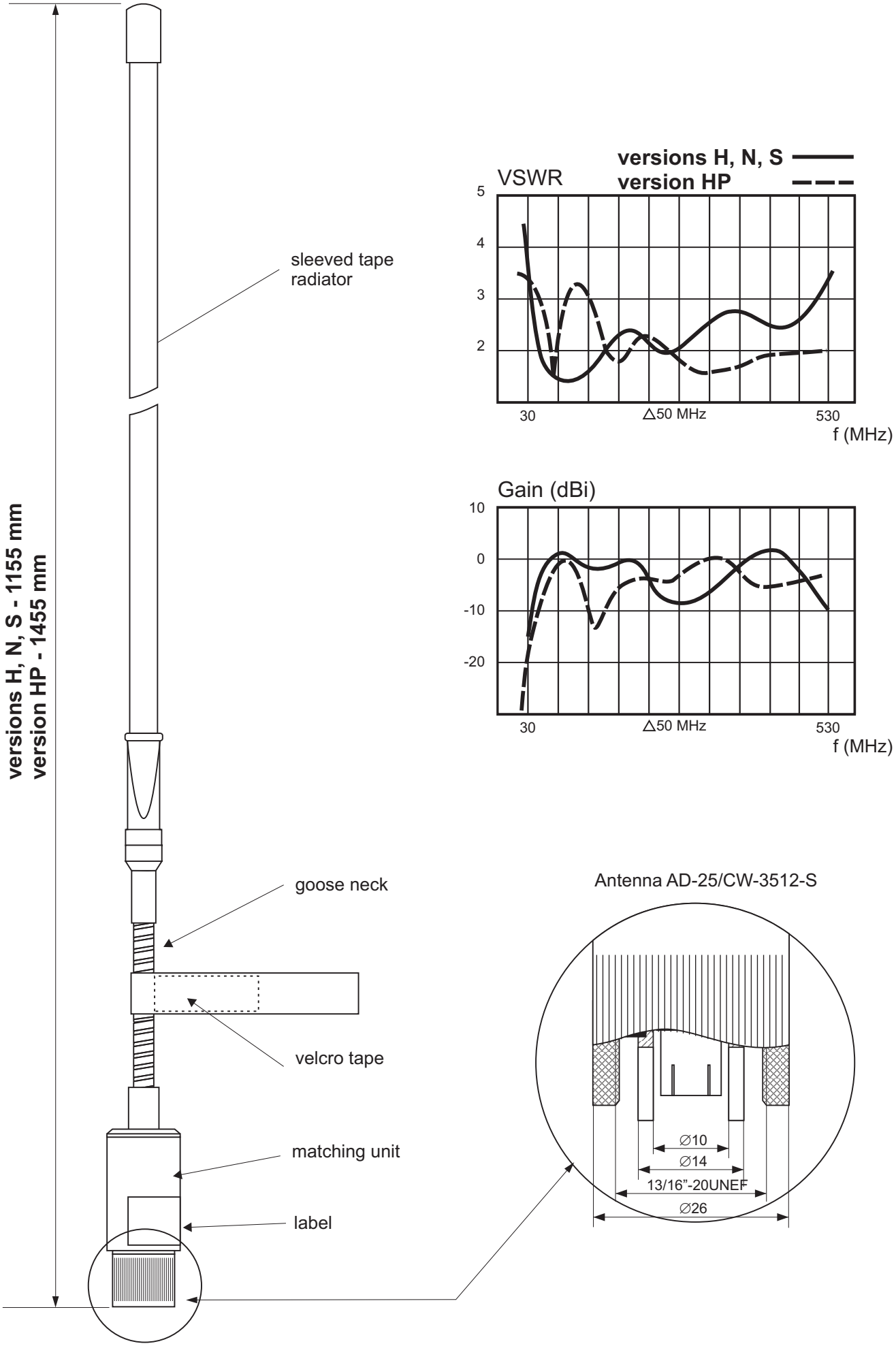
versions H, N, S - 1155 mm
version HP - 1455 mm
sleeved tape radiator
goose neck
velcro tape
matching unit
label
VSWR
versions H, N, S
version HP
5
4
3
2
30
△50 MHz
530
f (MHz)
Gain (dBi)
10
0
-10
-20
30
△50 MHz
530
f (MHz)
Antenna AD-25/CW-3512-S
∅10
∅14
13/16"-20UNEF
∅26

AD-25/CW-2175

The antenna AD-25/CW-2175 is a wideband low-profile monopole antenna covering frequency range from 20 to 175 MHz and is intended for use with portable and manpack VHF radio devices. The antenna is composed of two parts: the blade radiator and the matching transformer unit above the N male coaxial connector. The matching unit is painted with UV protective polyurethane black paint.

Frequency range	20-175 MHz
Impedance	50 ohm
VSWR	3.5:1 (see diagram)
Max. power	16 W CW
Gain	see diagram
Height	1020 mm
Weight	240 gr.
Connector	N male
Polarization	VER.

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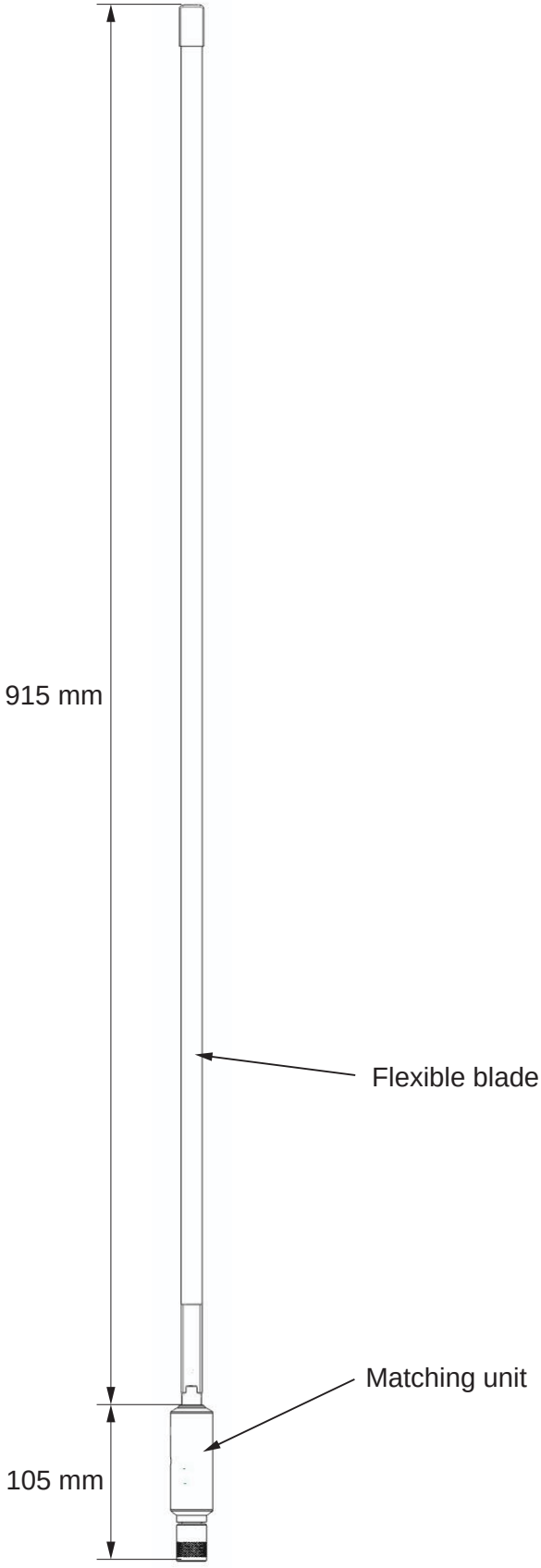
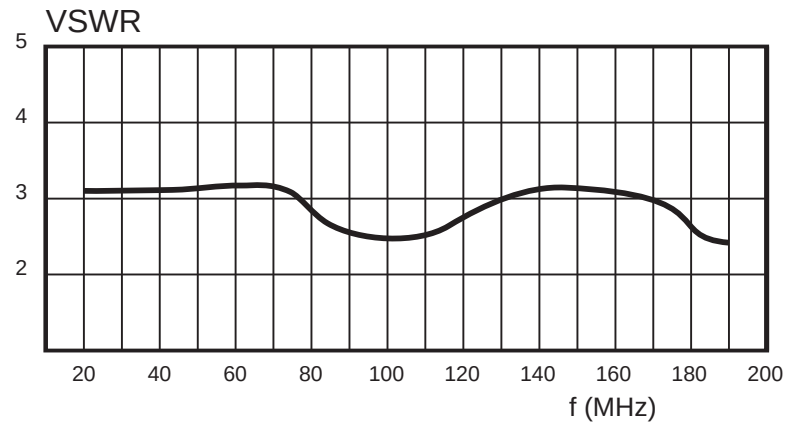
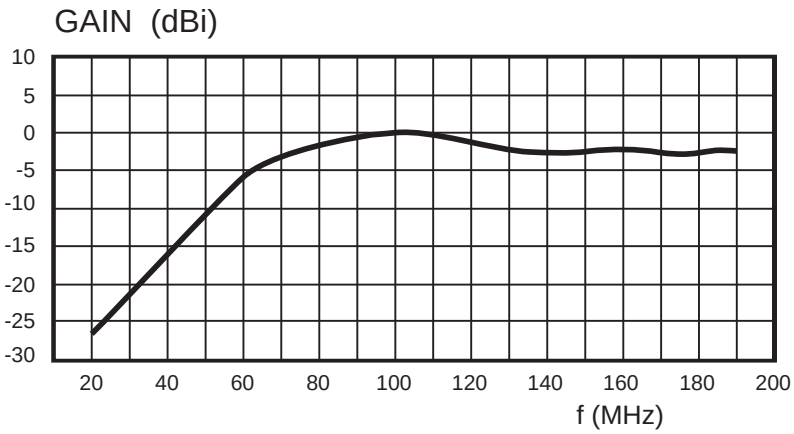

915 mm
Flexible blade radiator
Matching unit
105 mm


VSWR
5
4
3
2
20
40
60
80
100
120
140
160
180
200
f (MHz)


GAIN (dBi)
10
5
0
-5
-10
-15
-20
-25
-30
20
40
60
80
100
120
140
160
180
200
f (MHz)

AD-44/CW-3175

The antenna AD-44/CW-3175 is a wideband monopole whip, primarily intended for use with portable (handheld) radios in VHF frequency range from 30 to 175 MHz. Electrical performances of the antenna are optimized for hadheld radios. The antenna is composed of radiating part made of tape radiator, covered with plastic sleeve and of the antenna matching unit with built-in a special passive transformer tuning network enclosed in plastic housing above the input coaxial connector. Between the tape radiator and matching unit is a flexible goose-neck allows bending the antenna to be always in vertical position.

TECHNICAL CHARACTERISTICS	
Frequency (MHz)	30-175
Impedance (Ohms)	50 ohm
VSWR	<3.5
Gain (dBi)	-17 ...+1 dBi (see gain diagram)
Polarization	Vertical
Max. power (W)	max. 15
Connector type	modified BNC/TNC male
Radiator type	tape, sleeve covered
Goose-neck height (mm)	164
Antenna height (mm)	1180
Antenna weight (gr.)	300
Colour	Black, non-glossy

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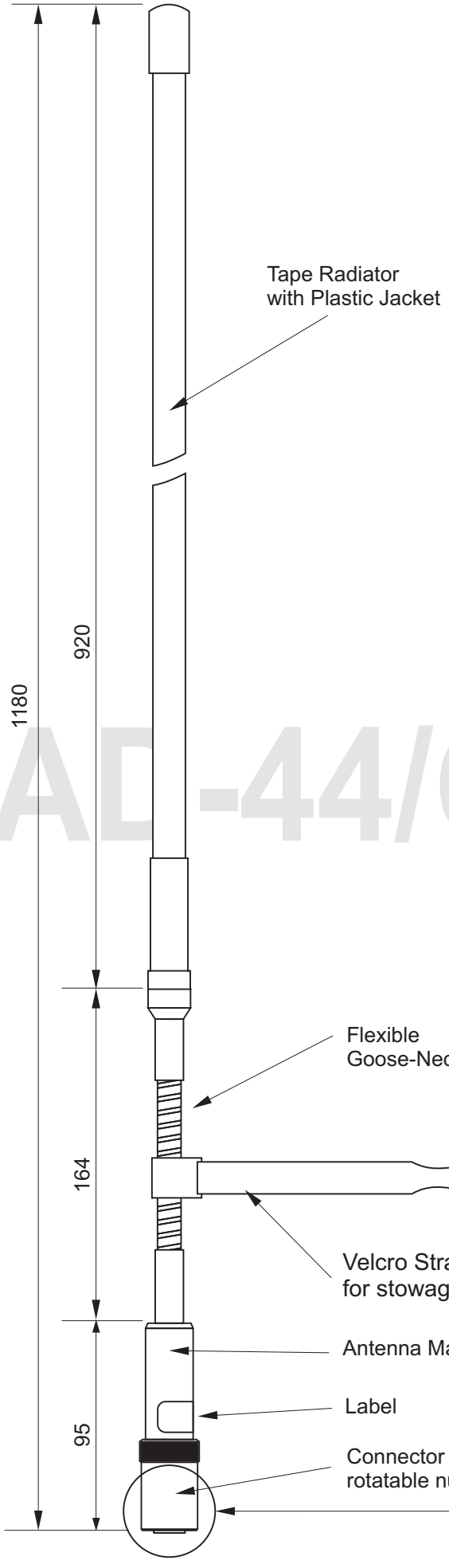
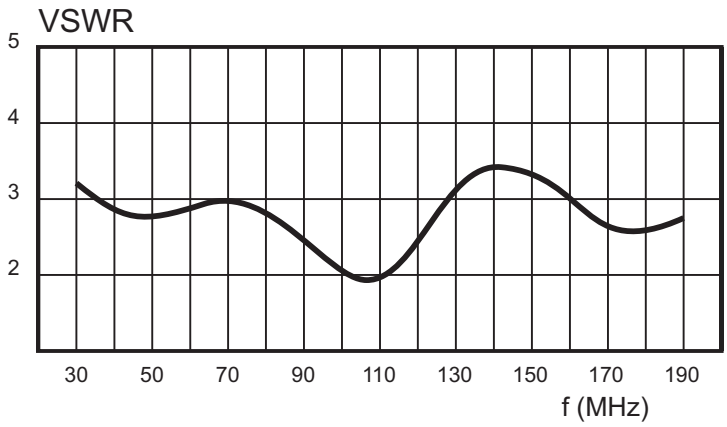
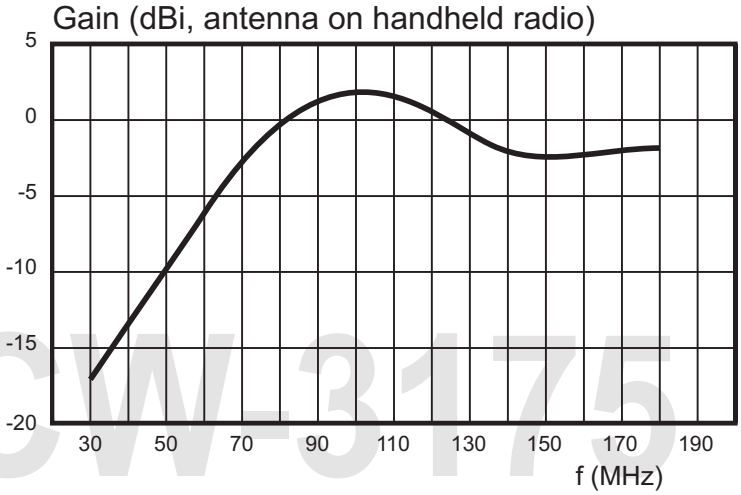
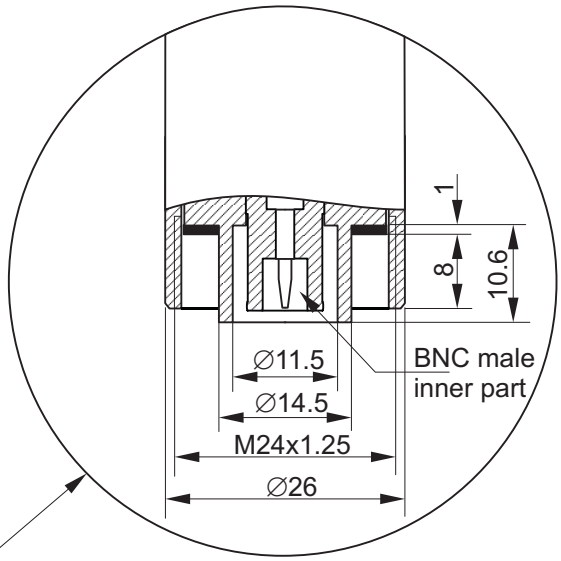

1180
920
164
95
Tape Radiator
with Plastic Jacket
Flexible
Goose-Neck
Velcro Strap
for stowage
Antenna Matching Unit
Label
Connector with
rotatable nut


VSWR
5
4
3
2
30
50
70
90
110
130
150
170
190
f (MHz)


Gain (dBi, antenna on handheld radio)
5
0
-5
-10
-15
-20
30
50
70
90
110
130
150
170
190
f (MHz)


1
8
10.6
∅11.5
∅14.5
M24x1.25
∅26
BNC male
inner part

AD-18/D-3512

Rev. A

The antenna AD-18/D-3512 is a wideband mobile VHF/UHF antenna for frequency range from 25 to 512 MHz, mainly intended for use in heavy duty mobile applications.
The antenna is composed of three main parts: antenna base, lower and upper radiating element. The antenna base is made of aluminum and durable plastic materials. Inside the base is the matching circuitry and (optional) GPS antenna. Stainless steel spring absorbs the shocks and the vibrations, in addition protects the antenna against impacts. Both radiating elements are made of composite materials enable outstanding strength and roughness even in hardest conditions of use.
The antenna base has four mounting holes equally spaced on a 4.5" (114.3 mm) circle which complies with NATO standard. Different base plate dimensions are available on request.
The antenna radiator is painted with military green (RAL-6014) two-component UV resistant paint.

ELECTRICAL SPECIFICATIONS - VHF/UHF:	
Frequency range	25 - 512 MHz
Impedance	50 ohms
VSWR	< 3,5
Gain	typ. -6 ..... +0.5 dB
Polarization	vert.
Maximum power	100 W CW
Connector	N female (BNC female optional)
ELECTRICAL SPECIFICATIONS - GPS:	
Frequency range	L1 1575.42 +/- 10 MHz
Impedance	50 ohms
VSWR	< 2
Polarization	RHC
Gain (LNA)	26 dB
Noise fig.	1.35 dB
Power supply	5 V DC +/- 0.25 V (max. 20 mA)
Connector	SMA female
MECHANICAL SPECIFICATIONS:	
Design	End fed whip (VHF/UHF); patch antenna with LNA (GPS)
Height	2.75 m
Weight	3.8 kg
Max. high voltage rating	16 kV
Temperature range - in use	-50 ... +55 °C
Temperature range - in stock	-55 ... +75 °C
Wind rating	45 m/s (160 km/h)
Color	MIL Green

VERSIONS:
AD-18/D-3512: VHF/UHF antenna
AD-18/D-3512G: combined VHF/UHF and GPS antenna

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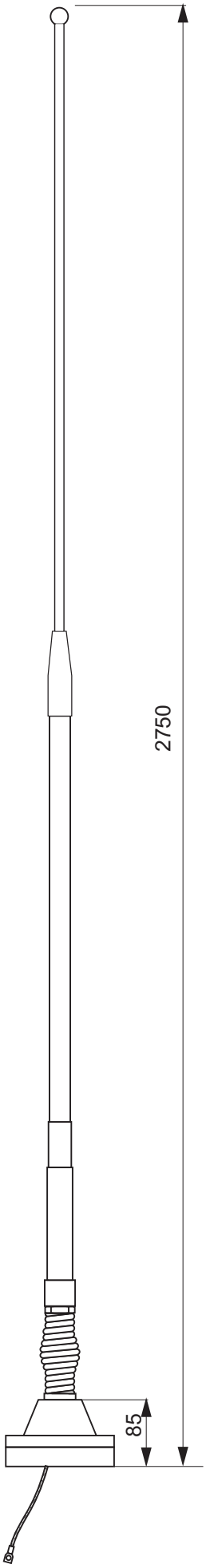

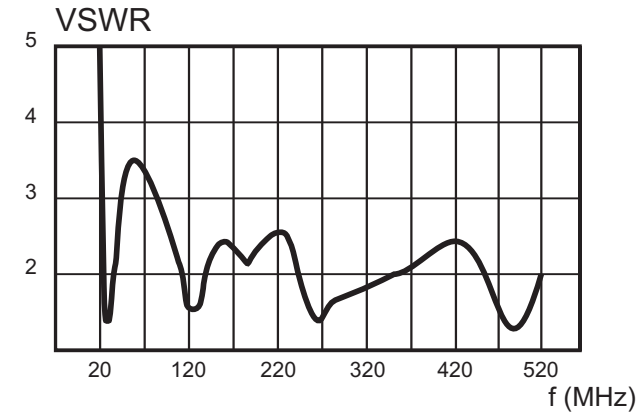

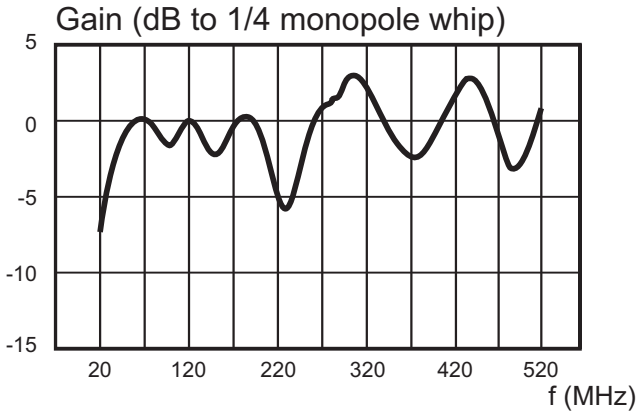

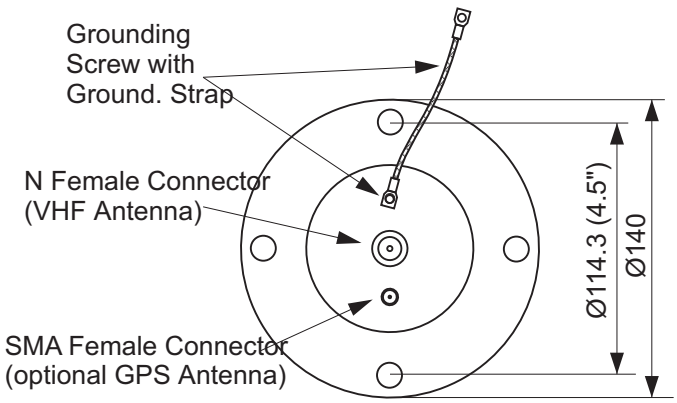

ANTENNA BASE -
BOTTOM VIEW

AD-18/D-3512-DF

Rev. A

The antenna AD-18/D-3512-DF is a wideband monopole VHF/UHF mobile antenna for frequency range from 30 to 512 MHz with the antenna diplexer built inside the antenna housing, enables connection of the two separate VHF and UHF radio units on the same antenna. The separate GPS antenna is build inside the antenna base as an option.
The antenna is composed of two main parts: antenna base and radiator. The antenna base is made of aluminum and durable plastic materials. Inside the base is the matching circuitry for the VHF/UHF antenna radiator together with the VHF/UHF diplexer which enables separate feed for VHF and UHF signals. Stainless steel spring above the housing absorbs the shocks and the vibrations, in addition protects the antenna against impacts. Two sections antenna radiator are made of brass tubing enclosed in strong and durable fiberglass radome tube.
The antenna base has four mounting holes equally spaced on a 4.5" (114.3 mm) circle which complies with NATO and US army standard.
The antenna radiator is painted MIL Green while the antenna base with the spring is black colour.

ELECTRICAL SPECIFICATIONS:	
Frequency range (MHz)	30 - 88 (VHF); 225 - 512 (UHF)
Impedance (Ohms)	50
VSWR	< 3,5
Gain (dB)	-6 ... +3 (see diagram)
Port to port isolation (dB)	> 45
Polarization	vert.
Maximum power (W)	75 CW avg.; 100 max.
Connector	N female (VHF), BNC female (UHF)
ELECTRICAL SPECIFICATIONS - GPS:	
Frequency range	1575.42 + 1227.60 MHz (L1/L2)
Impedance	50 ohm
VSWR	< 2
Polarization	RHC
Gain (LNA)	≥ 30 dB
Noise fig.	< 2 dB
Power supply	2.5 - 6.0 V DC (9 mA max.)
Connector	SMA female
MECHANICAL SPECIFICATIONS:	
Design	End fed whip (VHF), dipole (UHF), patch (GPS)
Height (m)	2.75 m
Weight (kg)	~ 4 kg
Max. high voltage rating (kV)	16 kV
Temperature range - in use (°C)	-50 ... +55 °C
Temperature range - in stock (°C)	-55 ... +75 °C
Wind rating (km/h)	160
Color	MIL Green - Black

Versions:
AD-18/D-3512-DF: VHF/UHF 30-88/225-512 MHz Dual-Band Dual-Feed antenna
AD-18/D-3512-DF-G: VHF/UHF 30-88/225-512 MHz Dual-Band Dual-Feed antenna with GPS L1
AD-18/D-3512-DF-G2: VHF/UHF 30-88/225-512 MHz Dual-Band Dual-Feed antenna with GPS L1 and L2

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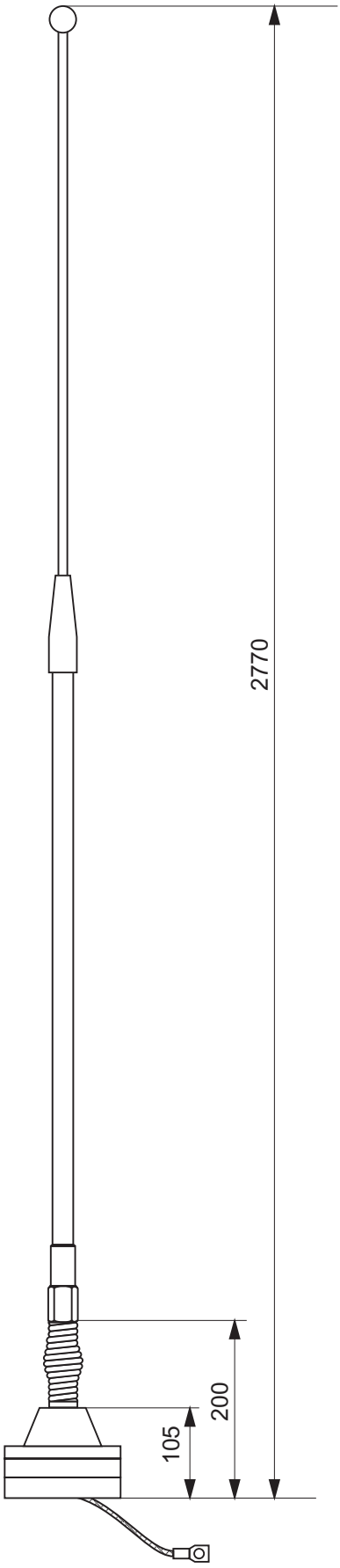
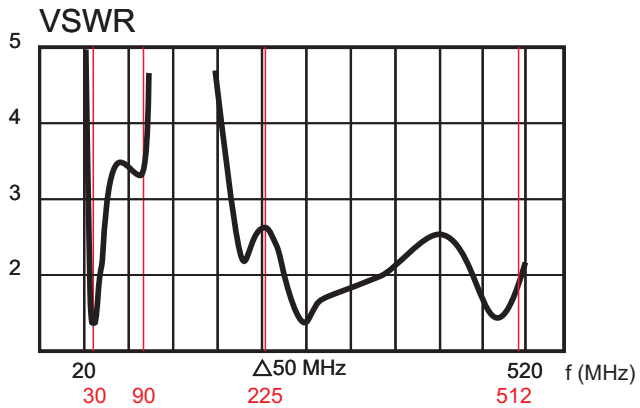
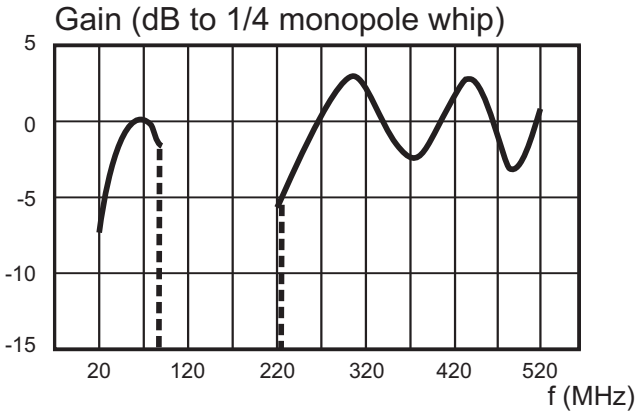
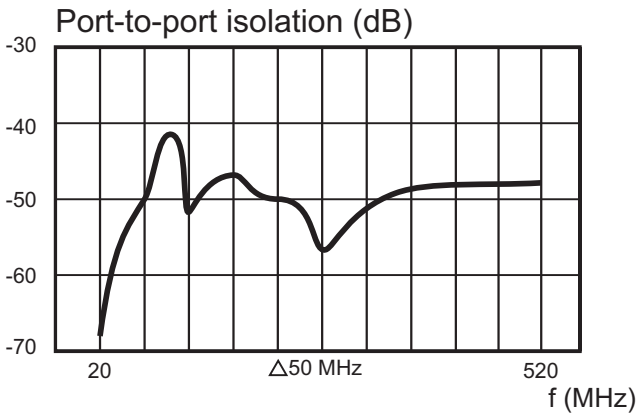
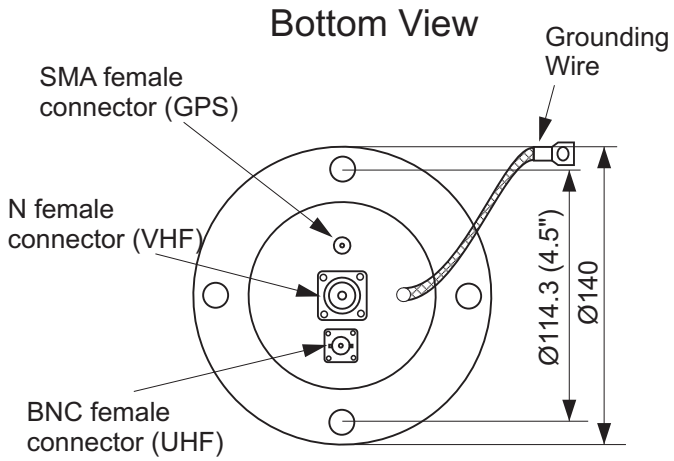

2770
200
105


VSWR
5
4
3
2
20
△50 MHz
520
f (MHz)
30
90
225
512


Gain (dB to 1/4 monopole whip)
5
0
-5
-10
-15
20
120
220
320
420
520
f (MHz)


Port-to-port isolation (dB)
-30
-40
-50
-60
-70
20
△50 MHz
520
f (MHz)


Bottom View
Grounding Wire
SMA female connector (GPS)
N female connector (VHF)
BNC female connector (UHF)
Ø114.3 (4.5")
Ø140

AD-27/V150-3512

Rev. A

The antenna AD-27/V150-3512 is an ultra wideband short mobile VHF/UHF antenna for frequency range from 30 to 512 MHZ, mainly intended for use in heavy duty mobile applications.
The antenna is composed of two main parts: antenna base and radiating element. The antenna base is made of aluminum and durable plastic materials. Inside the base is the matching circuitry and (optional) GPS antenna. Stainless steel spring absorbs the shocks and the vibrations, in addition protects the antenna against impacts. Radiating element is made of composite materials enable outstanding strength and roughness even in hardest conditions of use.
The antenna base has four mounting holes equally spaced on a 4.5" (114.3 mm) circle which complies with NATO standard. Different base plate dimensions are available on request.
The antenna radiator is painted with military green (RAL-6014) two-component UV resistant paint.

ELECTRICAL SPECIFICATIONS - VHF/UHF:	
Frequency range	30 - 512 MHZ
Impedance	50 ohms
VSWR	< 3,5
Gain	typ. -8 ..... +2 dB
Polarization	vert.
Maximum power	100 W CW
Connector	N female (BNC female optional)
ELECTRICAL SPECIFICATIONS - GPS:	
Frequency range	L1 1575.42 +/- 10 MHZ
Impedance	50 ohms
VSWR	< 2
Polarization	RHC
Gain (LNA)	26 dB
Noise fig.	1.35 dB
Power supply	3 - 6 V DC (max. 10 mA)
Connector	SMA female
MECHANICAL SPECIFICATIONS:	
Design	End fed whip (VHF/UHF); patch antenna with LNA (GPS)
Height	1.55 m
Weight	3.5 kg
Max. high voltage rating	16 kV
Temperature range - in use	-50 ... +55 °C
Temperature range - in stock	-55 ... +75 °C
Wind rating	45 m/s (160 km/h)
Color	MIL Green

VERSIONS:
AD-27/V150-3512: VHF/UHF antenna
AD-27/V150-3512G: combined VHF/UHF and GPS antenna

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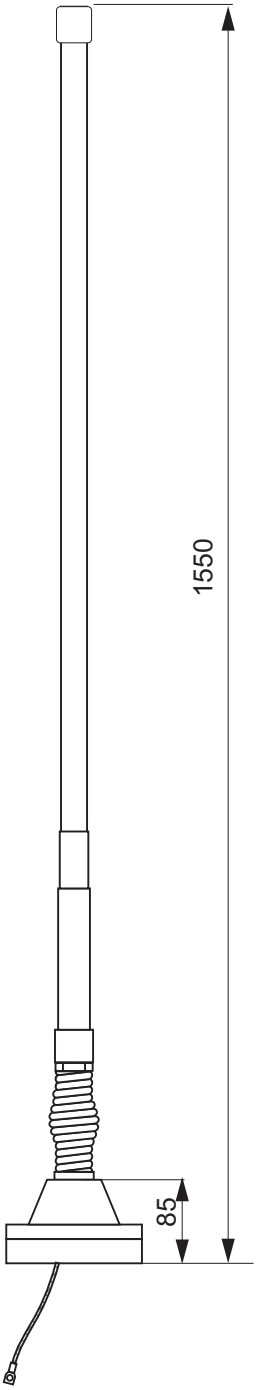

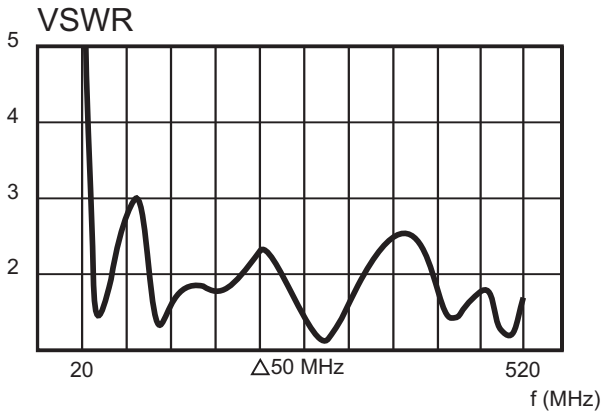

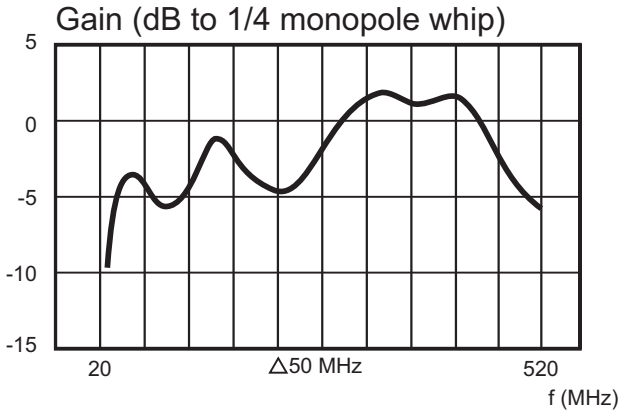

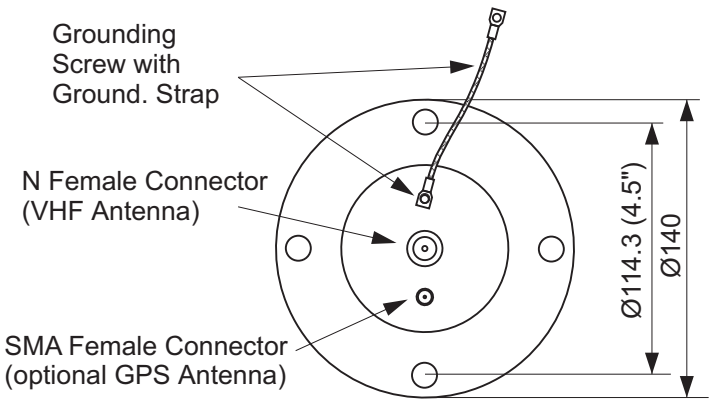

ANTENNA BASE -
BOTTOM VIEW

AD-27/V150-3512-DF

Rev. A

The antenna AD-27/V150-3512-DF is a dual-band dual-feed short mobile VHF/UHF antenna for frequency range from 30 to 512 MHz with the antenna diplexer built inside the antenna housing, enabling connection of the two separate VHF and UHF radio units on the same antenna. The separate GPS antenna (optional) is build inside the antenna base.
The antenna is composed of two main parts: antenna base and radiating element. The antenna base is made of aluminum and durable plastic materials. Inside the base is the diplexer circuitry and the matching circuit. Stainless steel spring absorbs the shocks and the vibrations, in addition protects the antenna against impacts. Radiating element is made of composite materials which enables outstanding strength and roughness even in hardest conditions of use.
The antenna base has four mounting holes equally spaced on a 4.5" (114.3 mm) circle which complies with NATO standard. Different base plate dimensions are available on request. The antenna radiator is painted with military green (RAL-6014) two-component UV resistant paint.

ELECTRICAL SPECIFICATIONS:	
Frequency range (MHz)	30 - 88 (VHF); 225 - 512 (UHF)
Impedance (Ohms)	50
VSWR	< 3,5
Gain (dB)	-8 ... +2 (see diagram)
Port to port isolation (dB)	> 45
Polarization	vert.
Maximum power (W)	75 CW avg.; 100 max.
Connector	N female (VHF), BNC female (UHF)
ELECTRICAL SPECIFICATIONS - GPS:	
Frequency range	1575.42 + 1227.60 MHz (L1/L2)
Impedance	50 ohm
VSWR	< 2
Polarization	RHC
Gain (LNA)	≥ 30 dB
Noise fig.	< 2 dB
Power supply	2.5 - 6.0 V DC (9 mA max.)
Connector	SMA female
MECHANICAL SPECIFICATIONS:	
Design	End fed whip (VHF), dipole (UHF), patch (GPS)
Height (m)	1.55 m
Weight (kg)	~ 3.4 kg
Max. high voltage rating (kV)	16 kV
Temperature range - in use (°C)	-50 ... +55 °C
Temperature range - in stock (°C)	-55 ... +75 °C
Wind rating (km/h)	160
Color	MIL Green - Black

Versions:
AD-27/V150-3512-DF: VHF/UHF 30-88/225-512 MHz Dual-Band Dual-Feed antenna
AD-27/V150-3512-DF-G: VHF/UHF 30-88/225-512 MHz Dual-Band Dual-Feed antenna with GPS L1
AD-27/V150-3512-DF-G2: VHF/UHF 30-88/225-512 MHz Dual-Band Dual-Feed antenna with GPS L1 and L2

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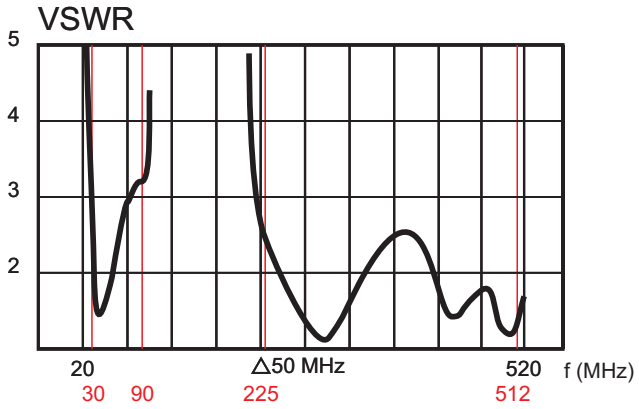

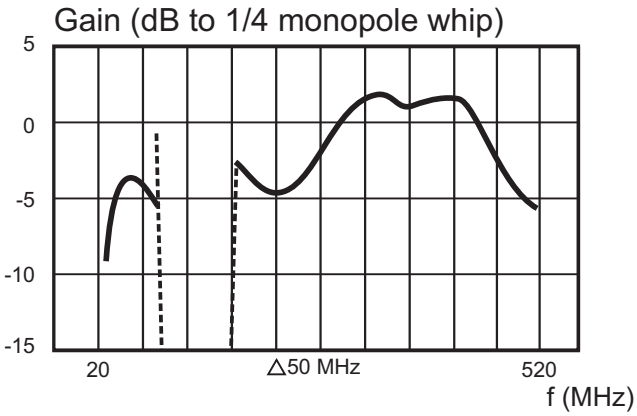

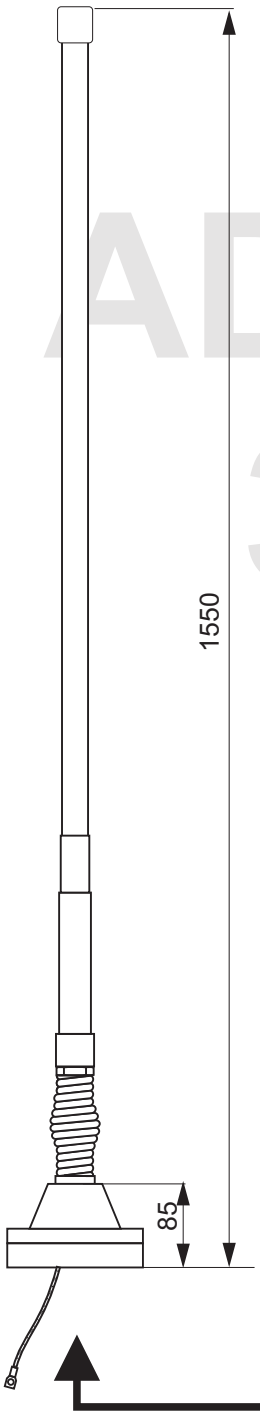

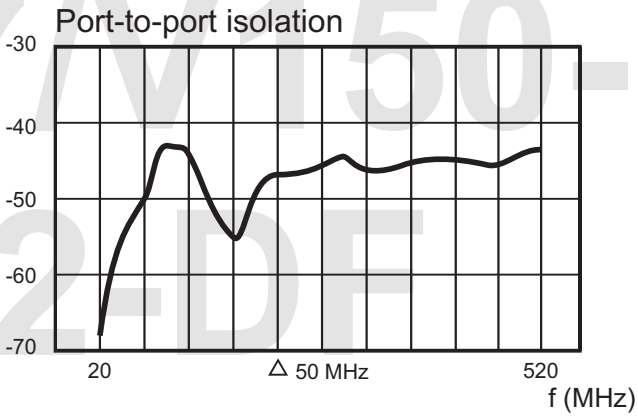

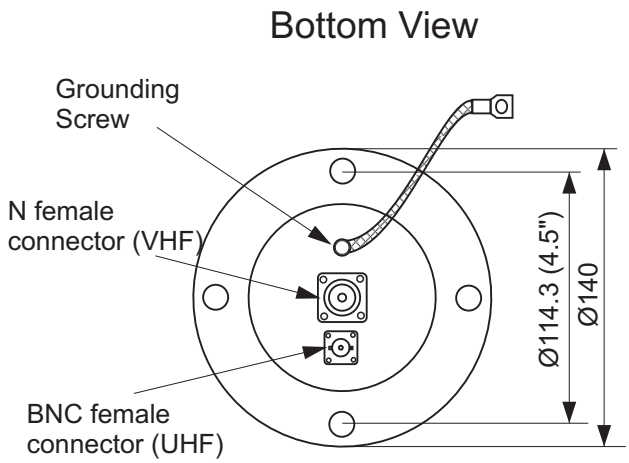

AD-18/F

The antenna AD-18/F is a wideband dipole mobile antenna intended for use in the frequency range from 108 to 512 MHz. The antenna is composed from two main parts: the radiator and the antenna base. The radiator is made of 28 mm diameter fibreglass whip with special radiating elements placed inside. The antenna base has built-in biconical spring enables resistivity against mechanical impacts. Electrically the antenna is designed as center-fed thus the electrical characteristics are independent from the ground or mounting place.
The antenna is painted with two component UV resistant polyurethane military green paint (RAL 6014).

Frequency range	108 - 512 MHz
Impedance	50 ohm
VSWR	< 3.5
Gain	typ. -4 ... 0 dBi
Polarization	VER.
Maximum power	75 - 100 W CW
Connector type	N or BNC female
Mass of antenna	2.9 kg
Antenna length	150 cm
Wind speed	180 km/h
Temp. range	-45/+55 oC

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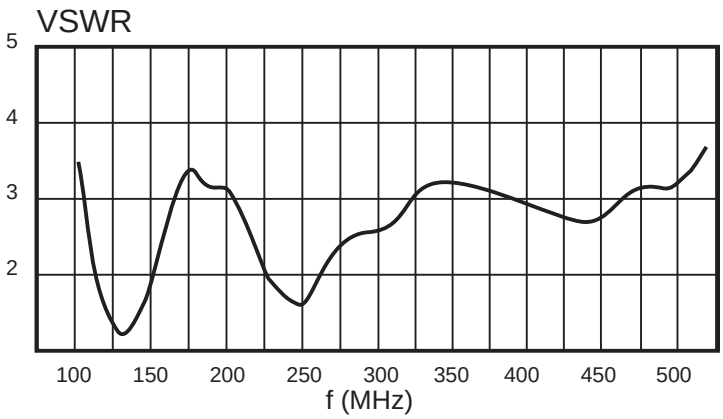
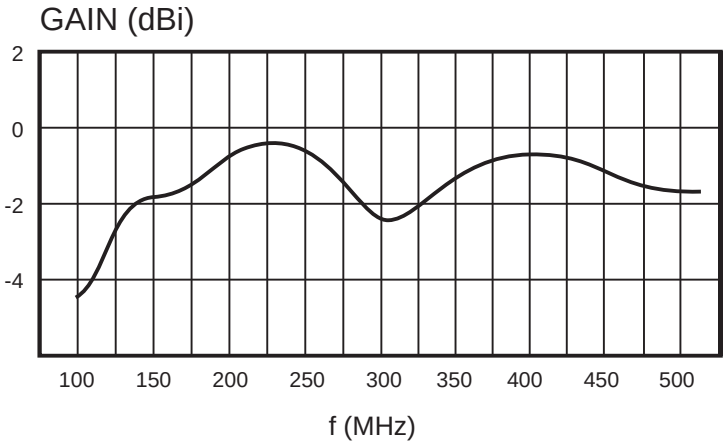
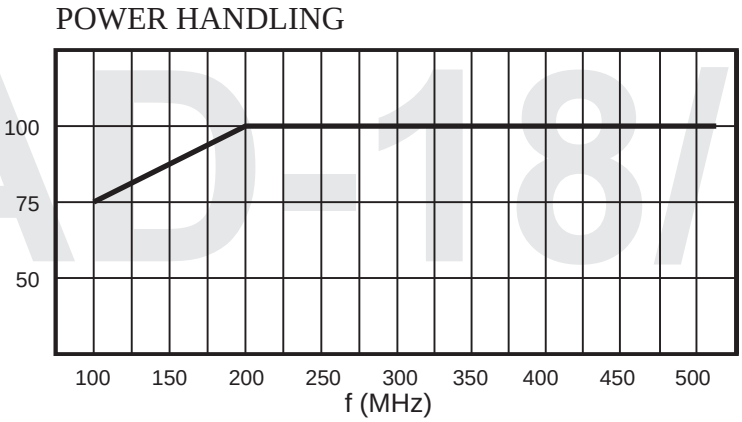
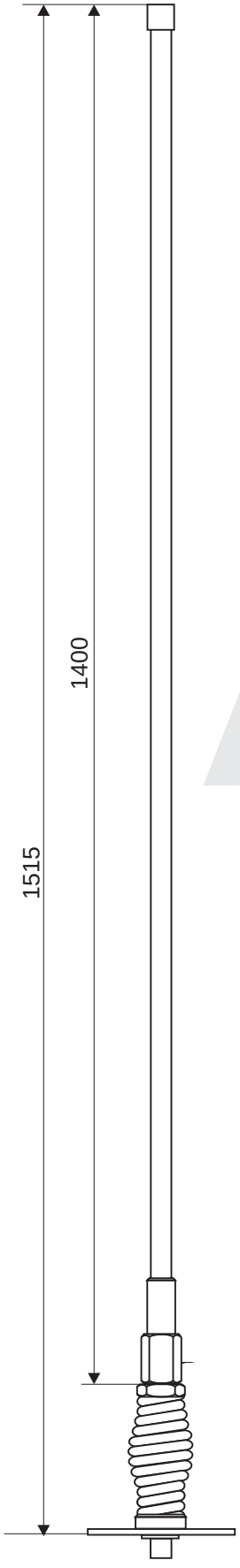
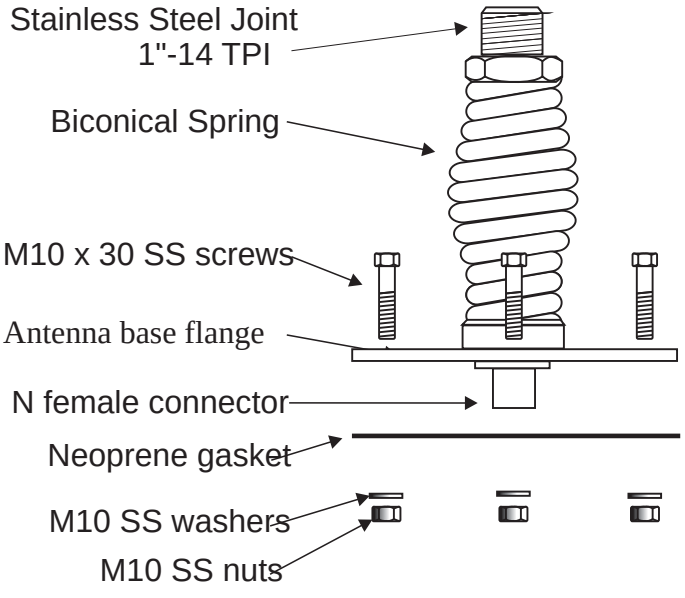
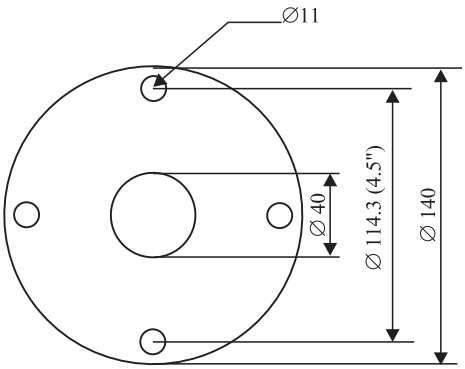

VSWR
5
4
3
2
100 150 200 250 300 350 400 450 500
f (MHz)


GAIN (dBi)
2
0
-2
-4
100 150 200 250 300 350 400 450 500
f (MHz)


POWER HANDLING
100
75
50
100 150 200 250 300 350 400 450 500
f (MHz)


1400
1515


Stainless Steel Joint
1"-14 TPI
Biconical Spring
M10 x 30 SS screws
Antenna base flange
N female connector
Neoprene gasket
M10 SS washers
M10 SS nuts


∅11
Ø 40
Ø 114.3 (4.5")
Ø 140

AD-21/3512

The antenna AD-21/3512 is a wideband low-profile monopole mobile antenna covering frequency range from 30 to 512 MHz and is intended for use with portable and mobile radios. The antenna radiator is composed of two parts: the whip made of special strong and flexible stainless steel whip with spring at the bottom and the matching transformer unit above the N male coaxial connector. The radiator and the matching unit are painted with UV protective polyurethane black paint.
The antenna radiator could be used as a separate antenna attached to the portable radio device or it can be used with the magnet base ADM-21/N or fixed base ADN-21/N, both with the integrated coaxial cable length of 4 meters and ended with the FME female connector. Various adapters from FME to N, BNC, UHF, SMA, etc. are available on request.

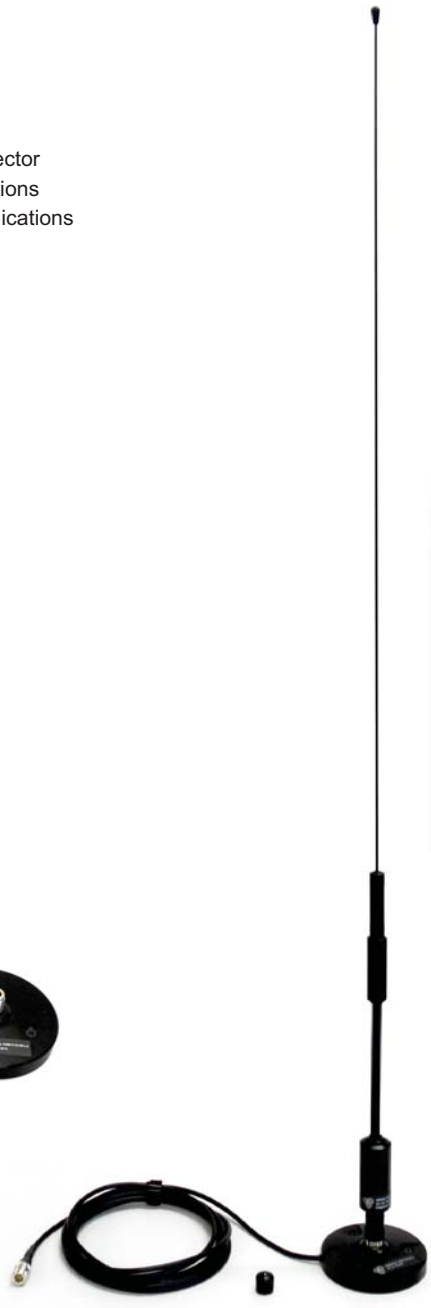
VERSIONS:

AD-21/3512-N: wideband monopole antenna for portable radio devices with N male connector
AD-21/3512-F: antenna **AD-21/3512-N** with the fixed mount **ADN-21/N** for mobile applications
AD-21/3512-M: antenna **AD-21/3512-N** with the magnet mount **ADM-21/N** for mobile applications

Frequency range	30-512 MHz
Impedance	50 ohm
VSWR	< 3.5 (see diagram)
Max. power	50 W CW
Gain	-12 .... 0 dBi
Height	1225 mm
Radiator Weight	350 gr.
Magnet Base Weight	700 gr.
Fixed Base Weight	200 gr.
Cable length	4 m
Input connector	N female

Fixed mount
ADN-21/N

Magnet mount
ADM-21/N



Antenna
AD-21/3512-M

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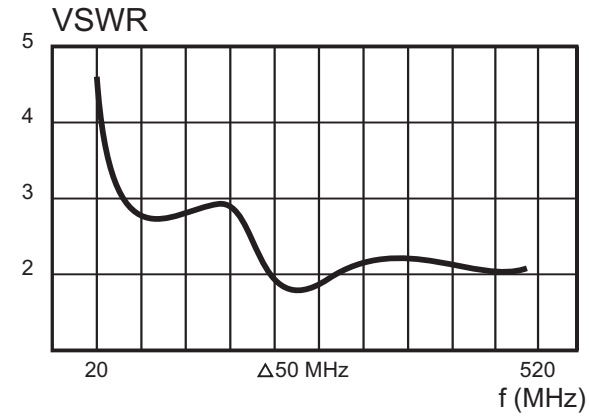
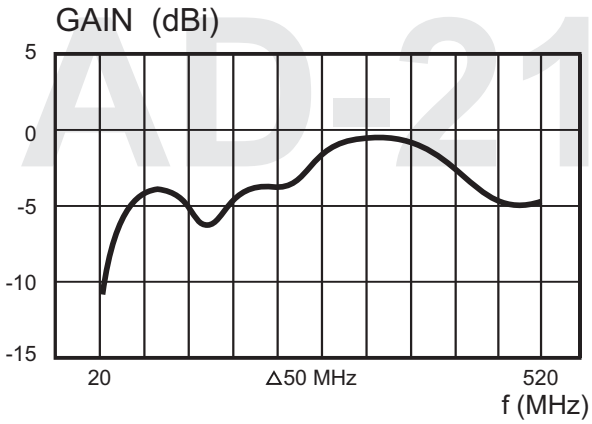
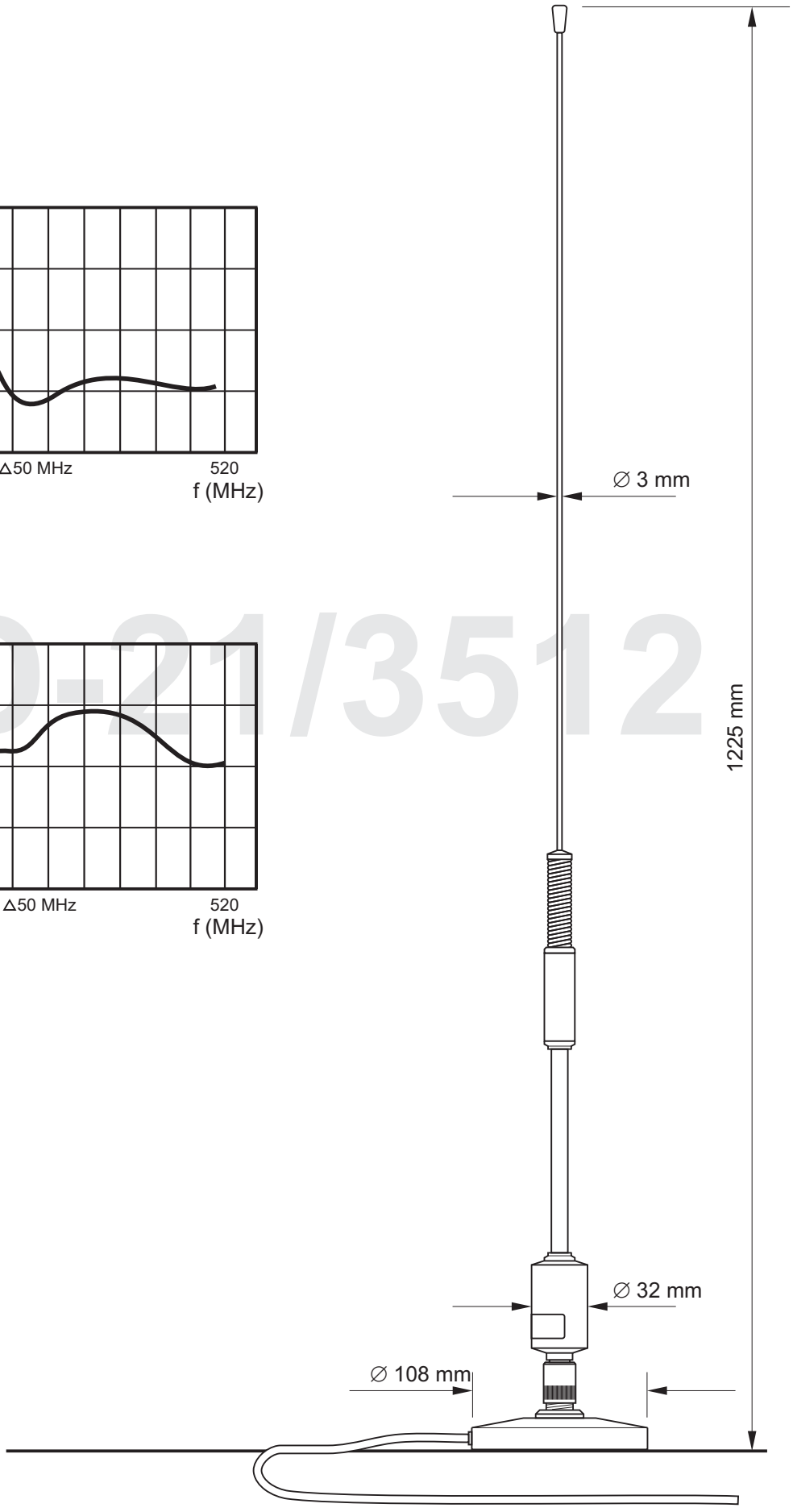

VSWR
5
4
3
2
20
△50 MHz
520
f (MHz)


GAIN (dBi)
5
0
-5
-10
-15
20
△50 MHz
520
f (MHz)


∅ 3 mm
1225 mm
∅ 32 mm
∅ 108 mm

AD-21/66174

The antenna AD-21/66174 is a wideband low-profile monopole mobile antenna covering frequency range from 66 to 88 MHz and 136 to 174 MHz. It is intended for use with portable and mobile radios. The antenna radiator is composed of two parts: the whip made of special strong and flexible stainless steel whip spring at the bottom and the matching transformer unit above the N male coaxial connector. Antenna whip consist one concentrated loading which improves gain in the frequency range from 136 to 174 MHz. The radiator and the matching unit are painted with UV protective polyurethane black paint.
The antenna radiator could be used as a separate antenna attached to the portable radio device or it can be used with the magnet base ADM-21/N or fixed base ADN-21/N, both with the integrated coaxial cable length of 4 meters and ended with the FME female connector. Various adapters from FME to N, BNC, UHF, SMA, etc. are available on request.

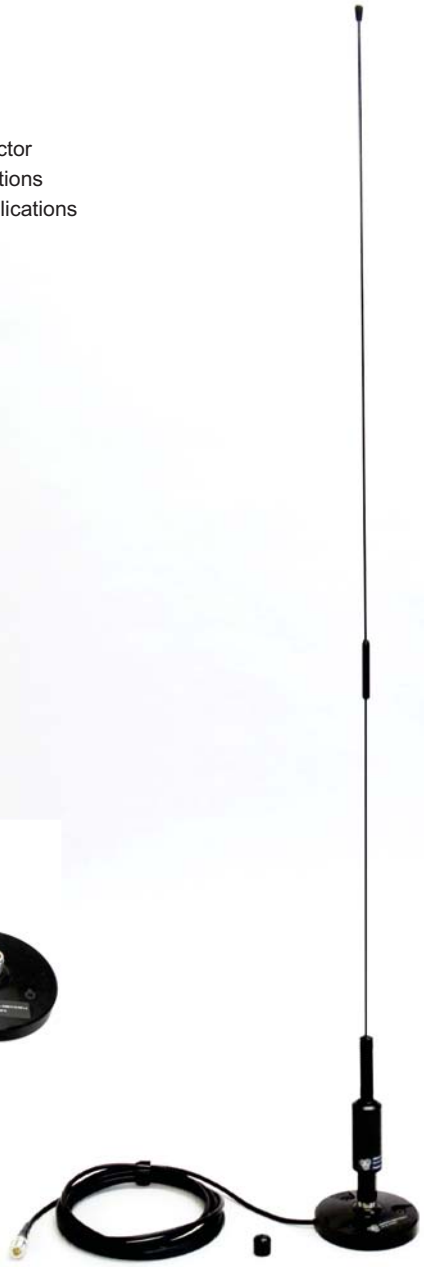
VERSIONS:

AD-21/66174-N: wideband monopole antenna for portable radio devices with N male connector
AD-21/66174-F: antenna **AD-21/66174-N** with the fixed mount **ADN-21/N** for mobile applications
AD-21/66174-M: antenna **AD-21/66174-N** with the magnet mount **ADM-21/N** for mobile applications

Frequency range	66-88 MHz and 136-174 MHz
Impedance	50 ohm
VSWR	< 3.5 (see diagram)
Max. power	50 W CW
Gain	see diagram
Height	1210 mm
Radiator Weight	300 gr.
Magnet Base Weight	700 gr.
Fixed Base Weight	200 gr.
Cable length	4 m
Input connector	N female

Fixed mount
ADN-21/N

Magnet mount
ADM-21/N



Antenna
AD-21/66174-N

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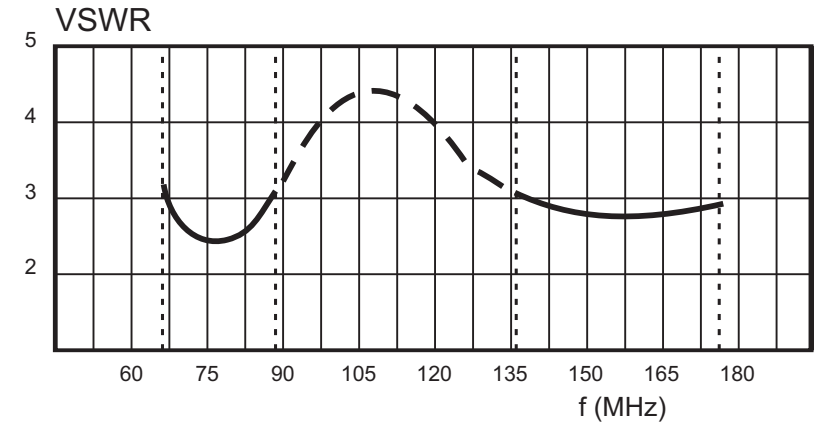
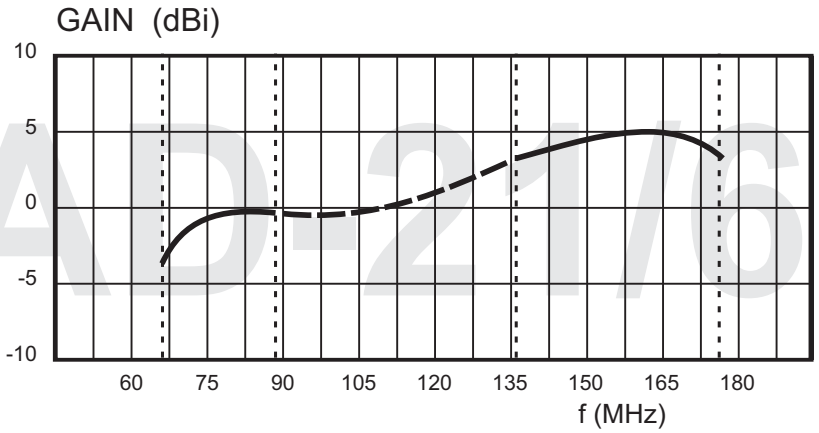
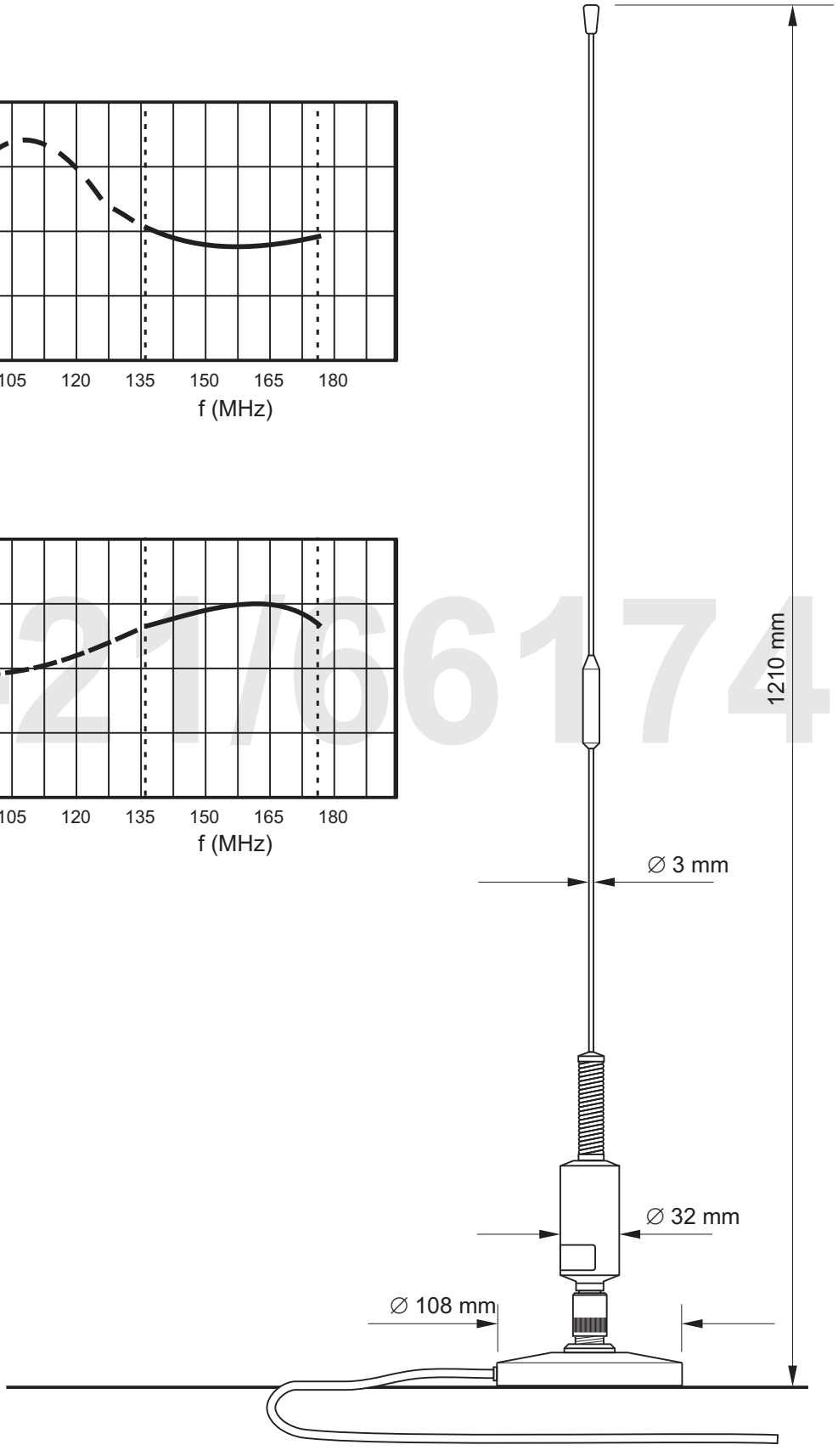

VSWR
5
4
3
2
60
75
90
105
120
135
150
165
180
f (MHz)


GAIN (dBi)
10
5
0
-5
-10
60
75
90
105
120
135
150
165
180
f (MHz)


1210 mm
∅ 3 mm
∅ 32 mm
∅ 108 mm

AD-10/S
Rev-A

The antenna AD-10/S is a wideband vertical polarised dipole covering the frequency range from 108 to 512 MHz. All elements of the antenna are enclosed in an epoxy - glass composite tube. The antenna is intended for stationary use. Electrically the antenna is designed so that enables a large bandwith and relatively constant vertical radiation diagram. The antenna has built-in a coaxial cable length of 1 m with coaxial connector N female type at the end. A special mounting tube with mounting console adapter enables to mount the antenna on the mast with diam. up to 60 mm (2”).

Frequency range	108 - 512 Mhz
Impedance	50 ohm
VSWR	< 3
Gain	-2...+2 dBi
Polarization	VER.
Maximum power	500 W CW
Connector	N female
Height	1080 mm
Diameter	130 mm
Mass of antenna	7,8 kg
Wind velocity	160 km/h
Temperature range	-55....+80 °C

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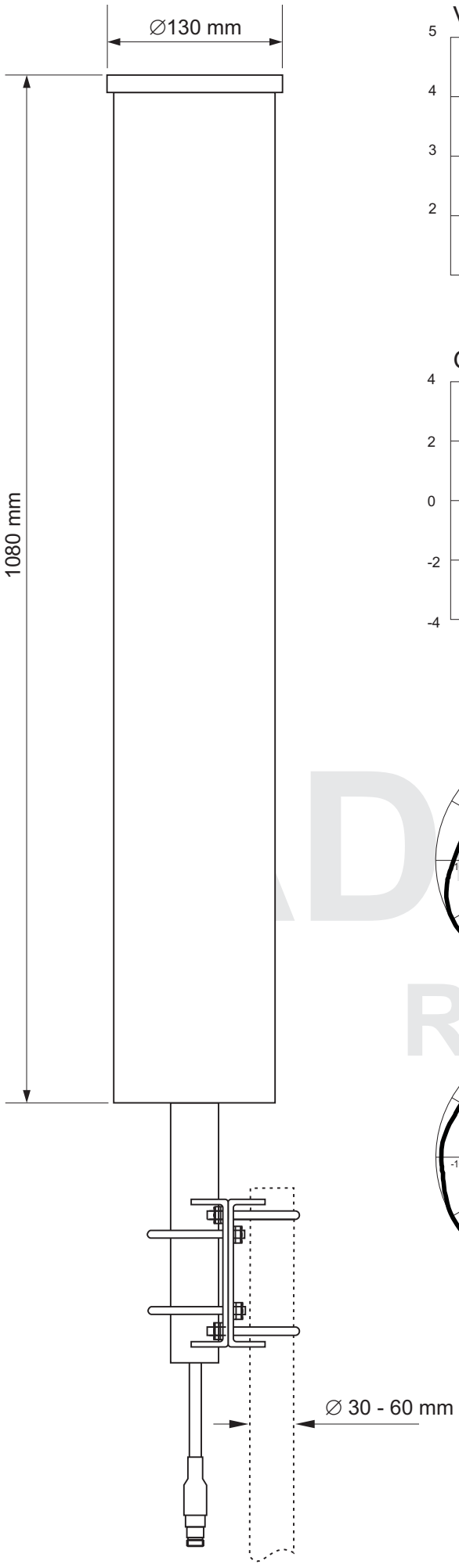
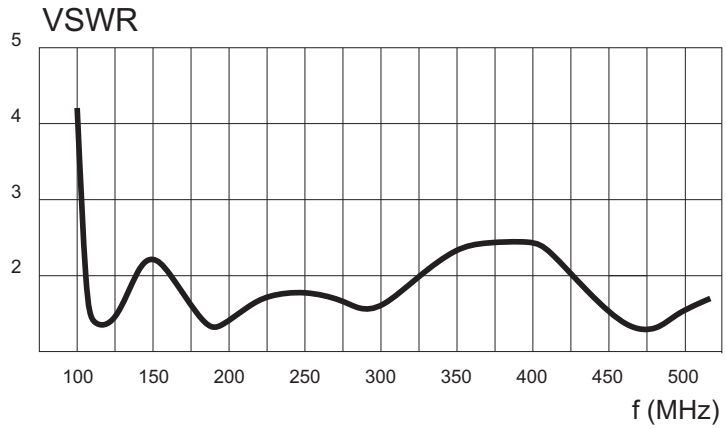
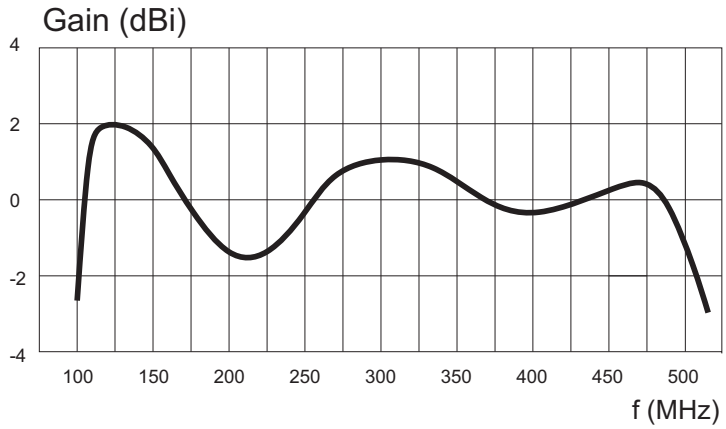
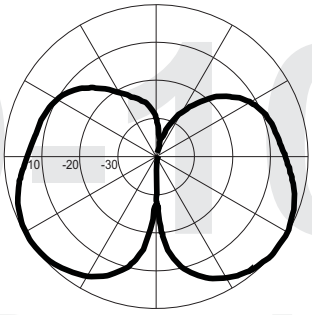


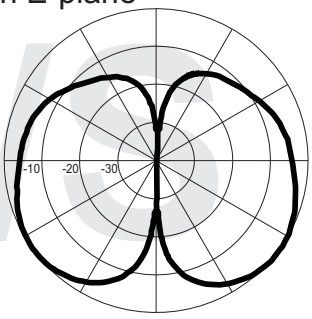




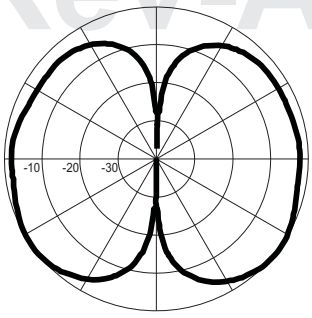
Radiation Pattern E-plane



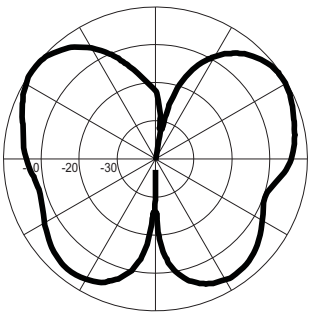
F = 100 MHz



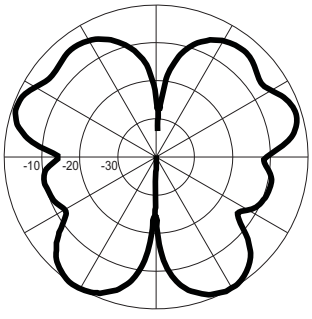
F = 200 MHz



F = 300 MHz



F = 400 MHz



F = 500 MHz

AD-17/C-1512

The antenna AD-17/C-1512 is a wideband VHF/UHF "disc-cone" antenna, intended for base station use as well as field transportable applications. The antenna disc and radial elements are made of high grade aluminum alloy rods, protected with the irridite coating and painted with black two-component PU UV-resistant paint, ensuring low weight and excellent resistance against atmospheric influences. In spite of a low weight the antenna is very robust due to the special construction of the element joint nuts. The antenna is composed of the support hub, 12 disc elements and 12 radial (cone) elements. The antenna exhibits constant gain and stable radiation pattern over the complete frequency range 100 - 512 MHZ.

The antenna is equipped with mounting console which allows installation on the appropriate masts with the outer diameter between 25 to 60 mm. Other mounting options are available with use of family of our consoles, clamps and arms ADK.

Frequency range	100 - 512 MHz
Impedance	50 ohm
VSWR	< 2.5
Gain	typ. 2 dBi
Polarization	Vertical
Maximum power	500 W CW
Connector	N female
Width	100 cm
Height	90 cm
Weight	5 kg
Temp. range	-55 ... +75 °C
Wind velocity	160 km/h

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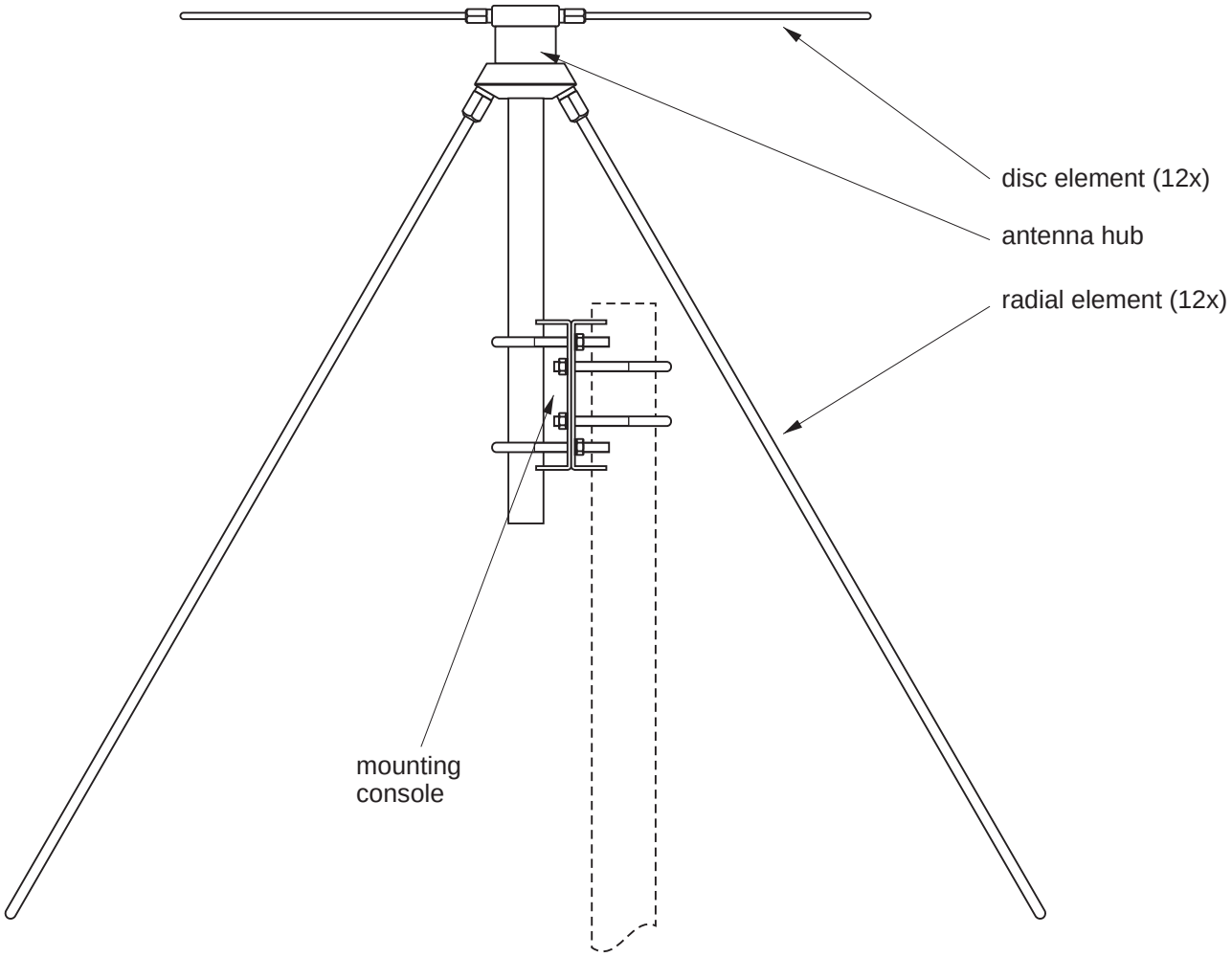
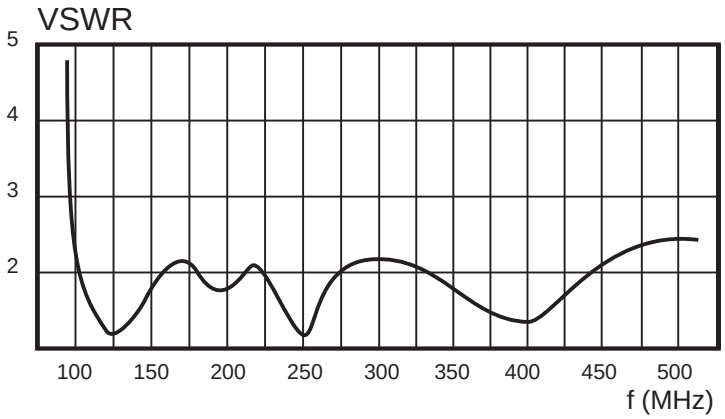
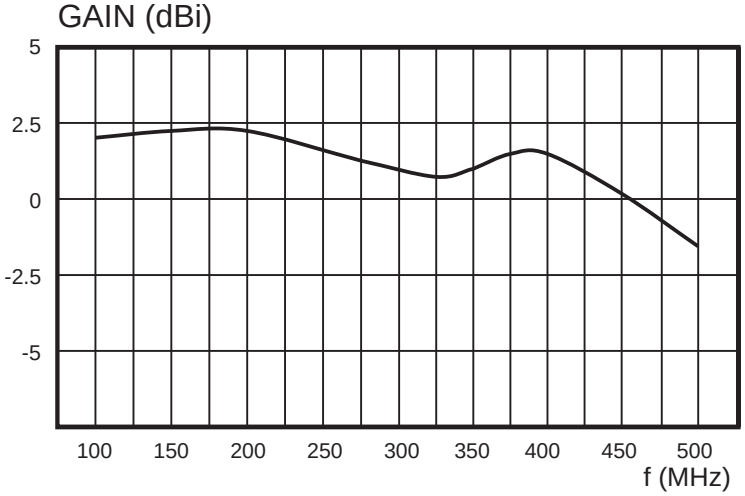

disc element (12x)
antenna hub
radial element (12x)
mounting
console


VSWR
5
4
3
2
100
150
200
250
300
350
400
450
500
f (MHz)


GAIN (dBi)
5
2.5
0
-2.5
-5
100
150
200
250
300
350
400
450
500
f (MHz)

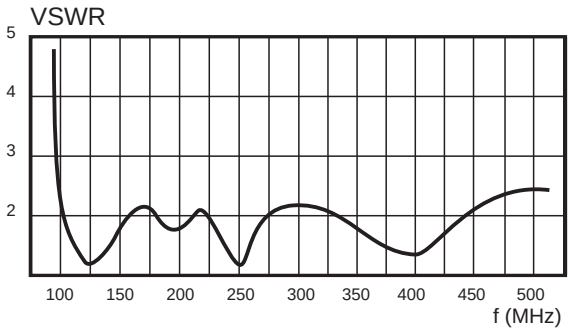
AD-17/C-1512-F

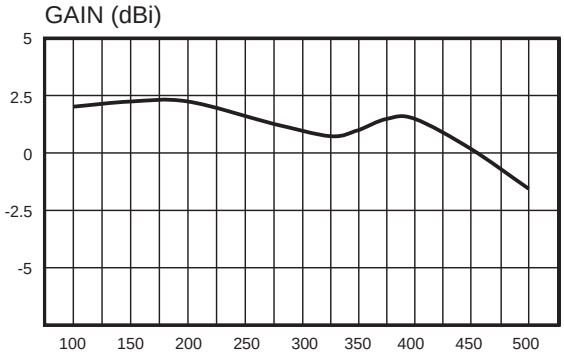
The antenna AD-17/C-1512-F is a wideband VHF/UHF "disc-cone" antenna, intended primarily for field/tactical/transportable applications. The antenna disc and radial elements are permanently attached to the antenna hub and are made of a special bi-directional bendable tape elements, covered with plastic sleeve. Complete antenna is stowed inside the portable cylinder covered with double impregnated canvas bag.

Such fixed and bendable radiating elements together with the unique bag design make the antenna ready for work in a fraction of time.

The antenna is equipped with mounting console which allows installation on the appropriate masts with the outer diameter between 25 to 60 mm.

Frequency range	100 - 512 (1000) MHz
Impedance	50 ohm
VSWR	< 2.5
Gain	typ. 2 dBi
Polarization	Vertical
Maximum power	500 W CW
Connector	N female
Width	100 cm
Height	90 cm
Weight	3.5 kg (antenna) + 4.1 kg (bag)
Temp. range	-55 ... +75 °C
Wind velocity	160 km/h





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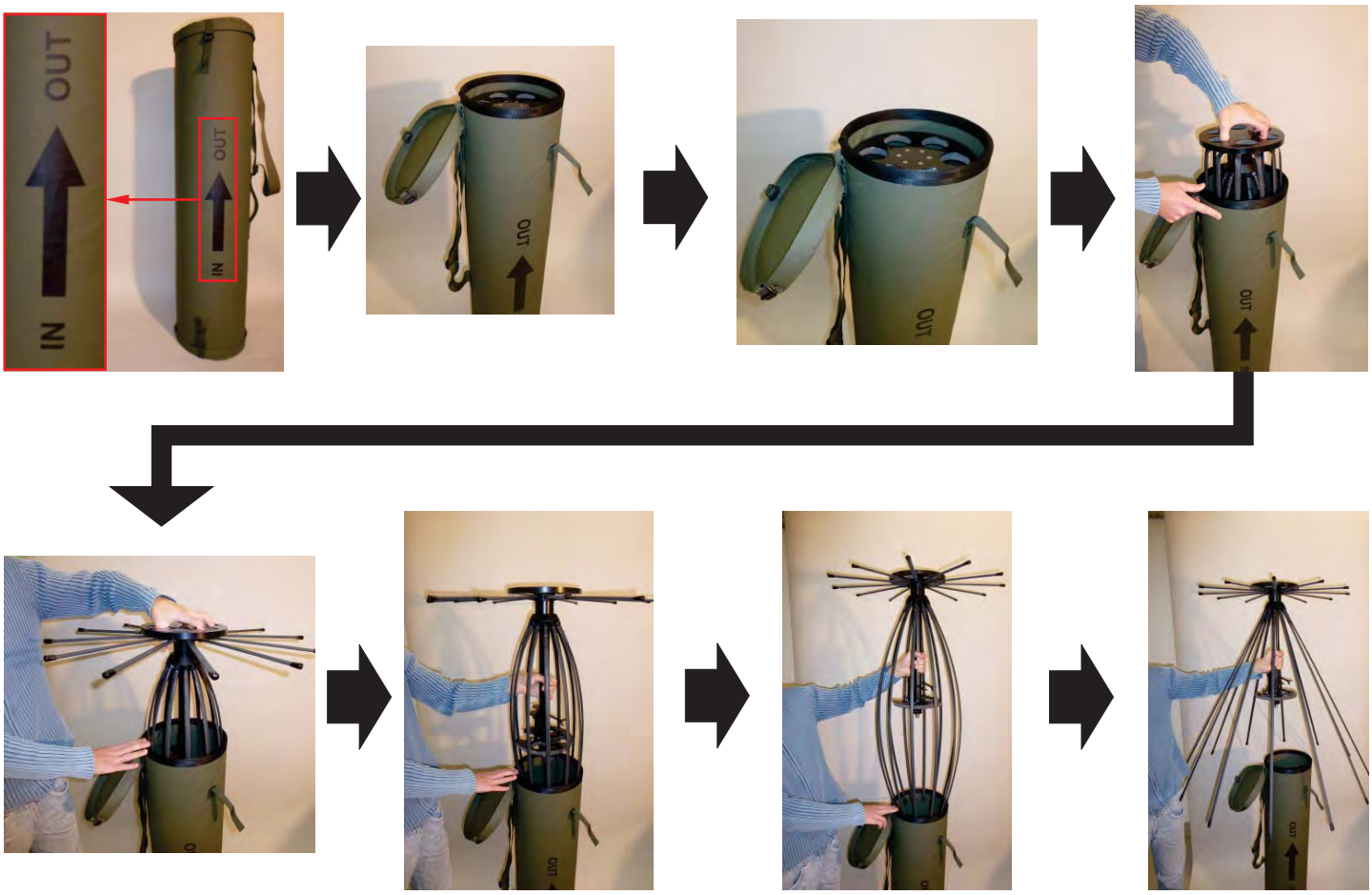
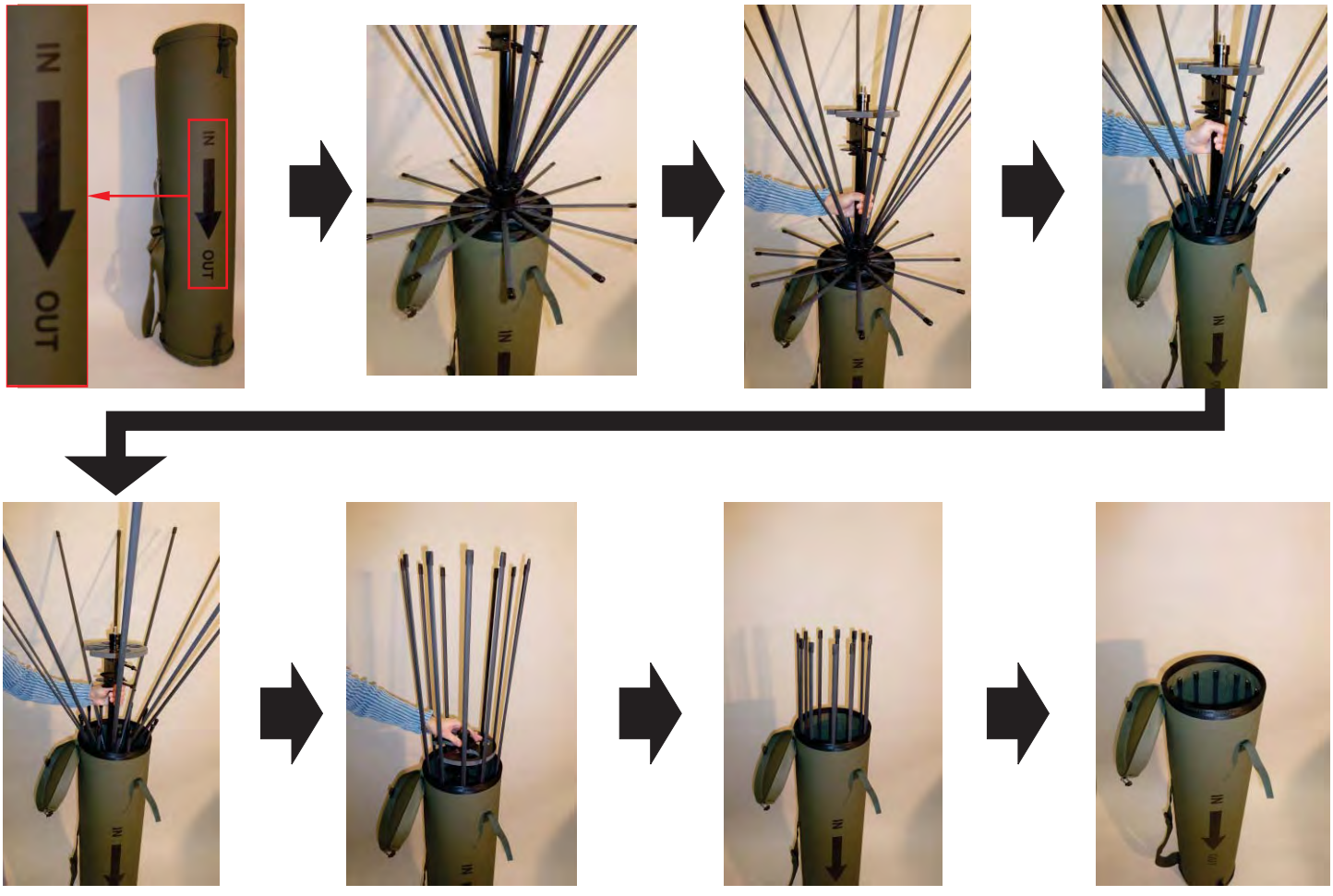
Unpacking procedure

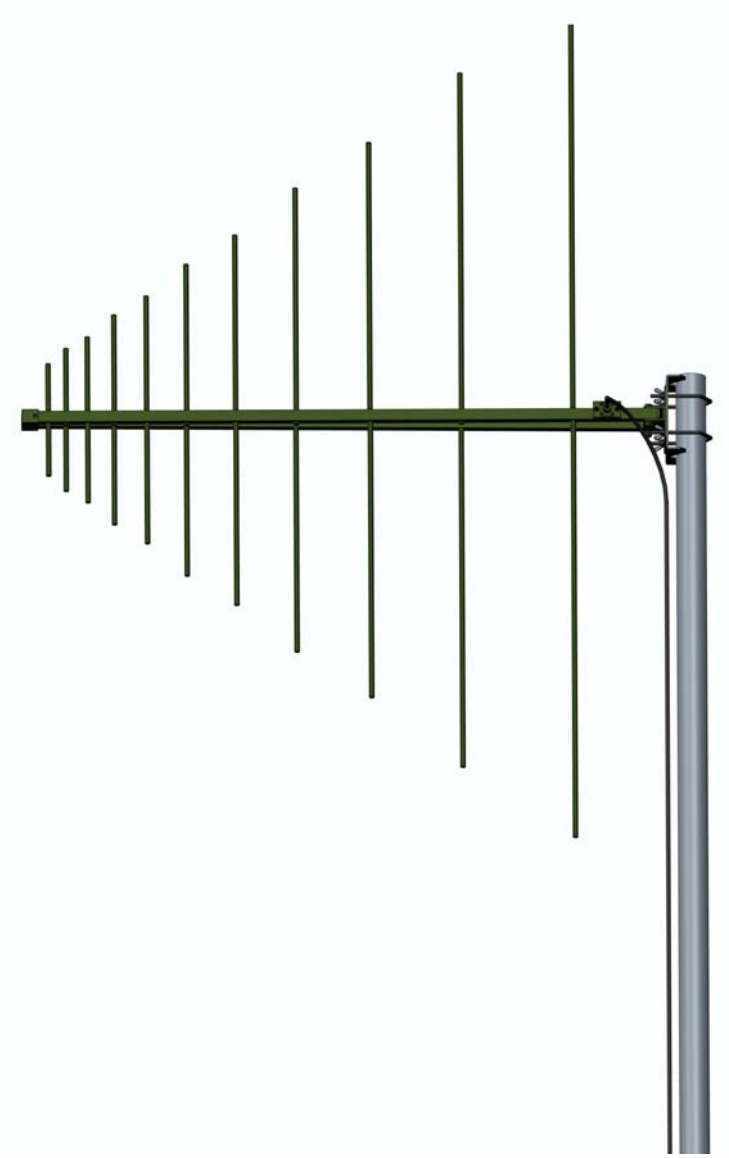


Packing procedure

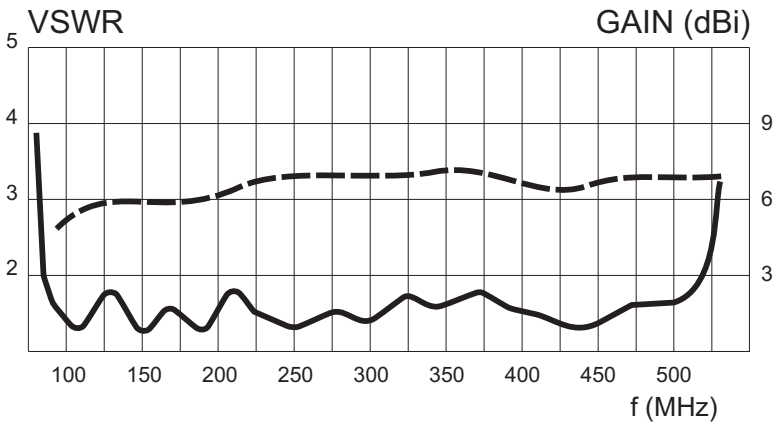


AD-22/A
Rev. A

The antenna AD-22/A is a log-periodic dipole antenna covering frequency range from 100 to 512 MHz. The antenna is composed of a boom element and 11 dipoles connected to the boom by special screw joints. All dipole elements and boom are made of aluminum alloy and joints are made of stainless steel. Beside that there is also an antenna support mounted on the boom element, constructed for easy change of the antenna polarization.
The antenna support enable mounting the antenna on masts with outer diameter between 20 and 60 mm. The antenna is primarily intended for stationary use due to construction of elements and materials enabling long life.
All metal parts of the antenna are painted with UV resistant polyurethane paint.



Frequency range	100 - 512 MHz
Impedance	50 ohm
VSWR	typ. < 1.5
Gain	6 - 7 dBi
Front-to-back ratio	> 20 dB
Polarization	HOR./VER.
Maximum power	500 W CW
Connector	N female
Length	1,25 m
Width	1,6 m
Mass	4 kg
Wind velocity	120 km/h
Temperature range	-55...+80 °C



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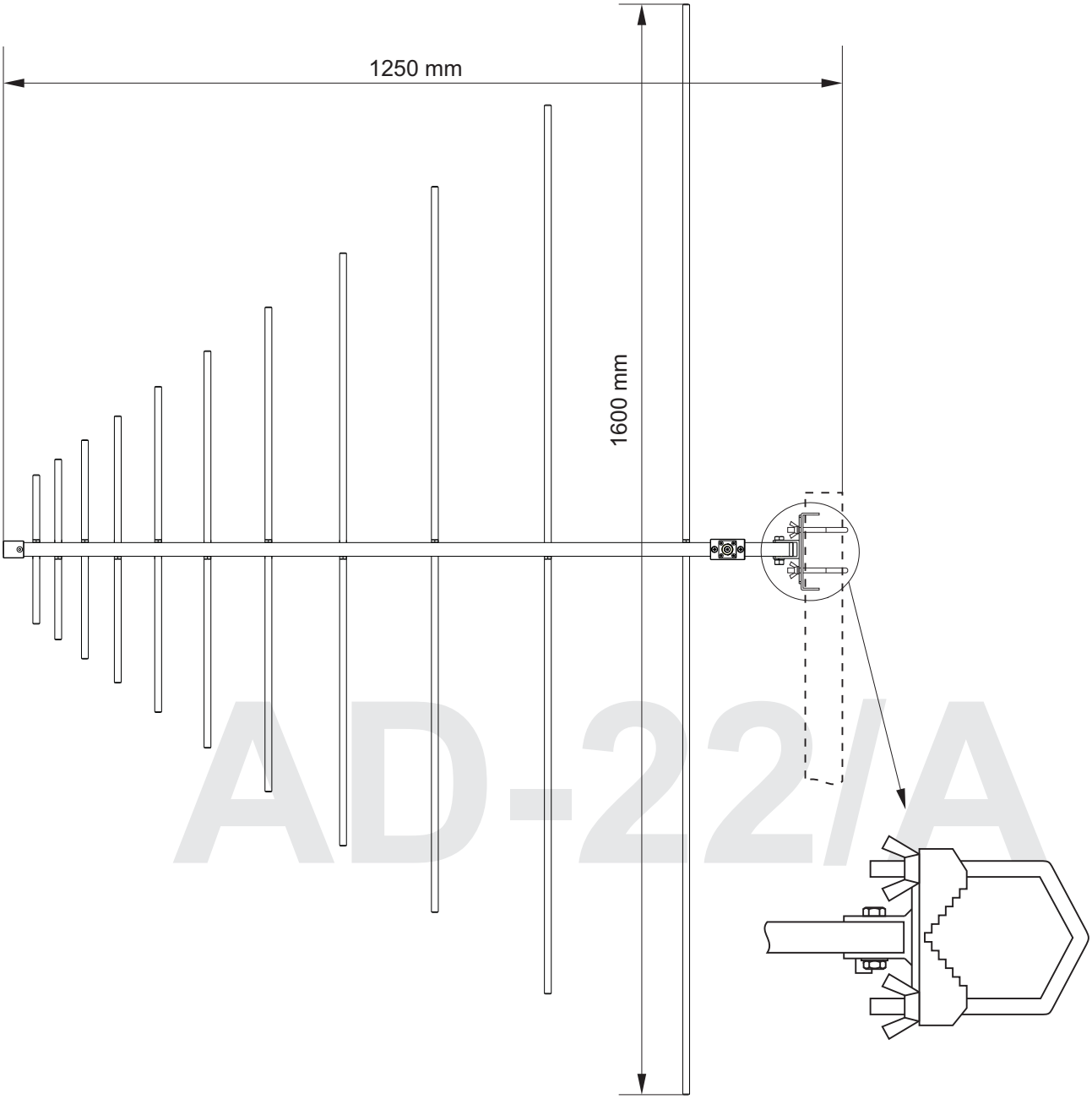
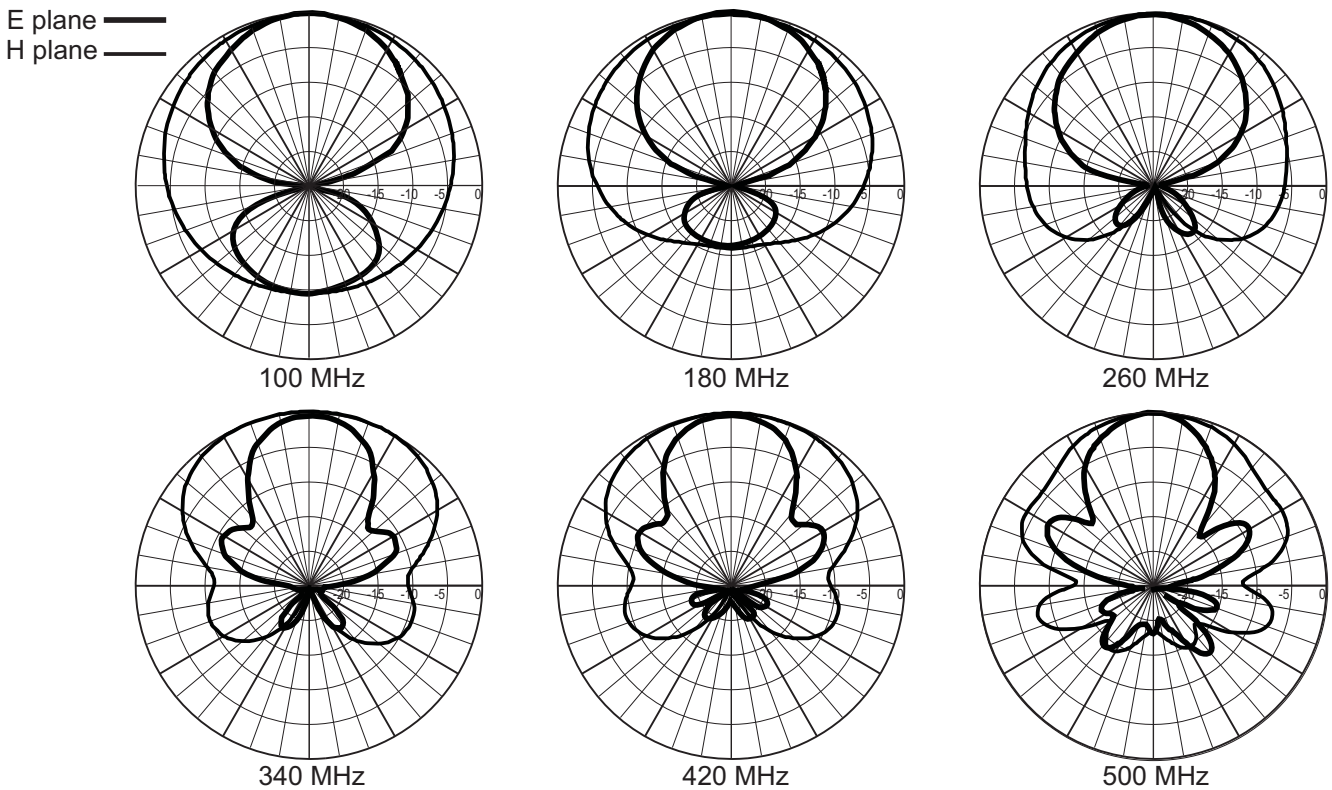

1250 mm
1600 mm

AD-22/A


E plane
H plane
100 MHz
180 MHz
260 MHz
340 MHz
420 MHz
500 MHz

AD-44/E

The antenna AD-44/E is a wideband monopole whip, primarily intended for use with portable and handheld radio stations in UHF frequency range from 225 to 512 MHz. Electrically the antenna is optimised for all exploitation conditions (radio in hand, at the side, at the breast etc.) so it is not necessary to additionally tune the antenna. The antenna is composed of radiating part made of special wounded wire and covered with a heatshrinkable tube with silicone layer ensuring high flexibility and roughness. The antenna has built-in a special microstrip transformer matching network enclosed in fiberglass housing above the input coaxial connector. Input connector is built-in TNC male (AD-44/E-HH) or N male (AD-44/E-MP).

Frequency range	225 - 512 Mhz
Impedance	50 ohm
VSWR	typ. < 2.5
Polarization	VER.
Maximum power	15 W CW
Height	260 mm
Mass	90 g
Connector	Nmale - TNCmale
Temp. range	-40.....+55 °C

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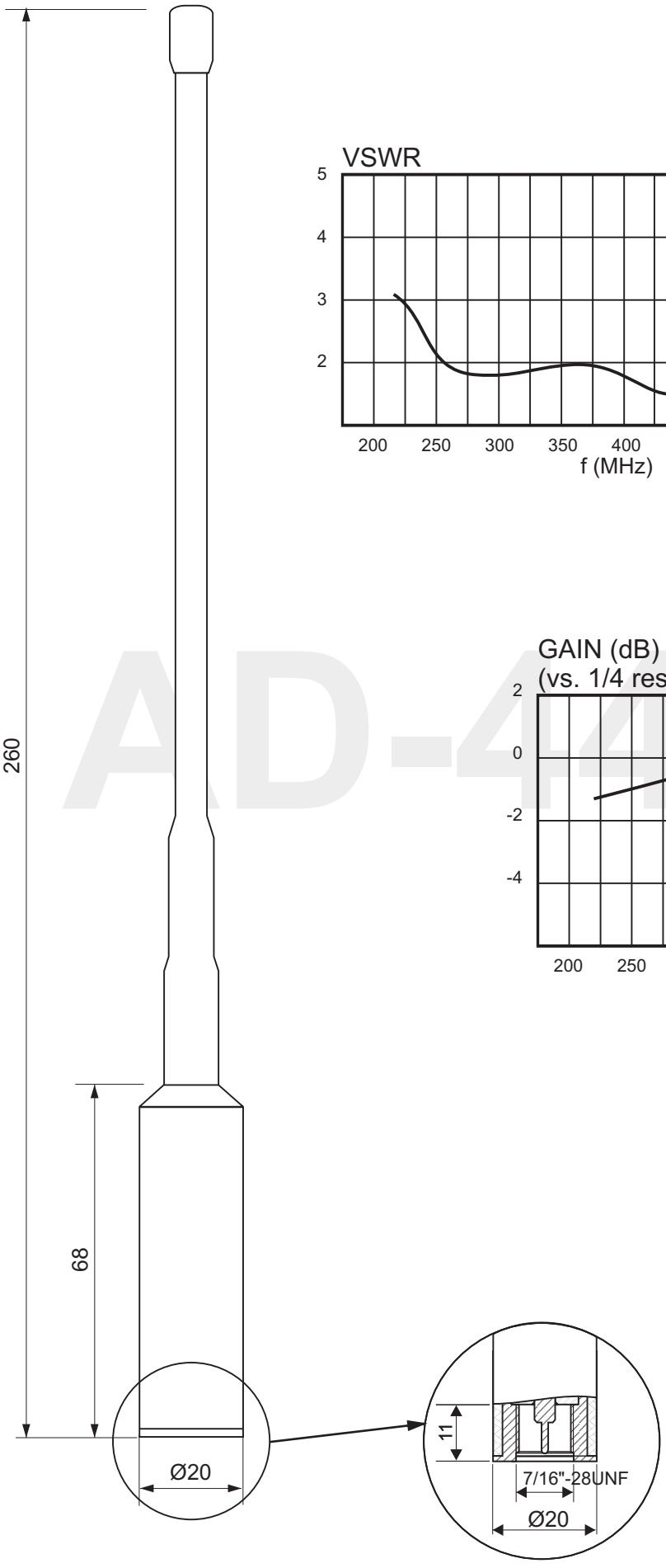
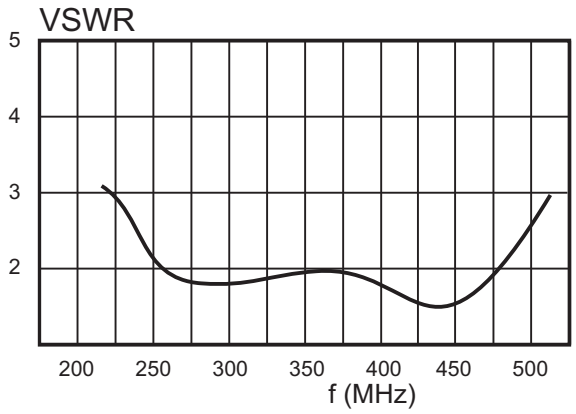
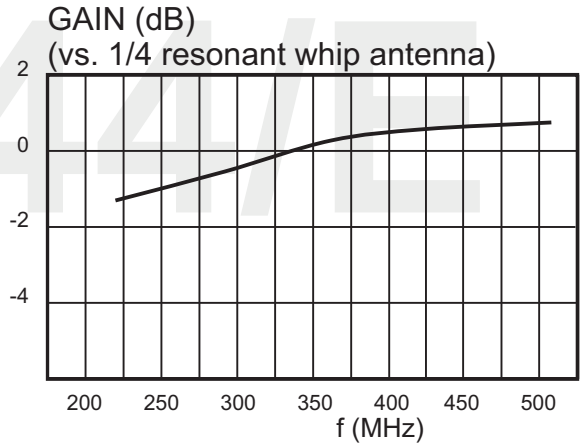

260
68
Ø20
11
7/16"-28UNF
Ø20


VSWR
5
4
3
2
200
250
300
350
400
450
500
f (MHz)


GAIN (dB)
(vs. 1/4 resonant whip antenna)
2
0
-2
-4
200
250
300
350
400
450
500
f (MHz)

AD-44/E-CM

The antenna AD-44/E-CM is a wideband center-fed whip antenna, primarily intended for use with manpack radios VHF/UHF frequency range from 225 to 512 MHz. A center-fed design makes the antenna insensitive of the shape and dimensions of the radio unit.
The antenna is composed of radiating part made of bi-directional bendable blade radiator and covered with a plastic tube ensuring high flexibility and roughness. The antenna has built-in a special microstrip transformer matching network enclosed in fiberglass housing above the antenna goose-neck enable vertical position of the antenna regardless of the position of the radio.

Frequency range	225 - 512 Mhz
Impedance	50 ohm
VSWR	< 3
Polarization	VER.
Maximum power	20 W CW
Height	580 mm
Max. diameter	20 mm
Mass	320 g
Connector	Nmale
Temp. range - operation	-40.....+55 °C
Temp. range - storage	-40.....+70 °C

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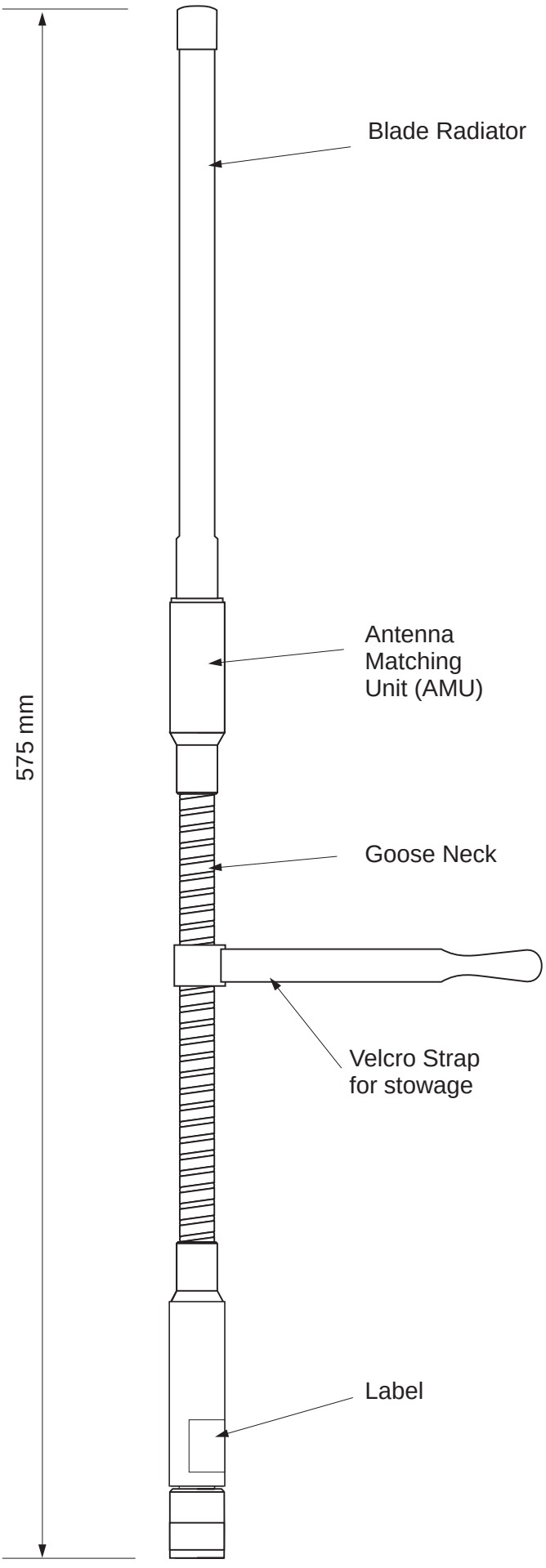
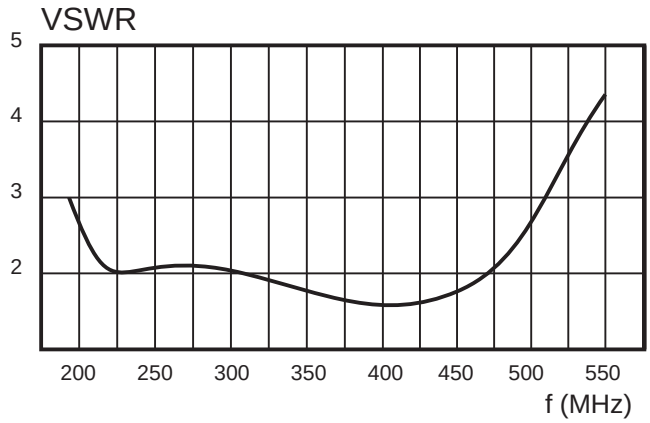
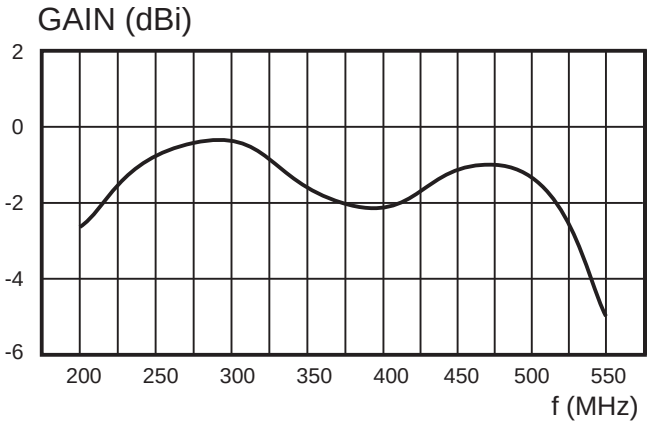

575 mm
Blade Radiator
Antenna
Matching
Unit (AMU)
Goose Neck
Velcro Strap
for stowage
Label


VSWR
5
4
3
2
200
250
300
350
400
450
500
550
f (MHz)


GAIN (dBi)
2
0
-2
-4
-6
200
250
300
350
400
450
500
550
f (MHz)

AD-18/E

The antenna AD-18/E is a wideband dipole mobile antenna intended for use in the frequency range from 225 to 512 MHz. The antenna is composed from two main parts: the radiator and the antenna base. The radiator is made of 24 mm diameter fibreglass whip with special radiating elements placed inside. The antenna base has built-in biconical spring enables resistivity against mechanical impacts. Electrically the antenna is designed as center-fed thus the electrical characteristics are independent from the ground or mounting place.
The antenna is painted with two component UV resistant polyurethane military green paint (RAL 6014).

Frequency range	225 - 512 Mhz
Impedance	50 ohm
VSWR	< 2.5
Gain	typ. -1 ... +3 dBi
Polarization	VER.
Maximum power	70 W CW
Connector type	N female
Mass of antenna	2.75 kg
Antenna length	100 cm
Wind speed	180 km/h
Temp. range	-45/+65 °C

This product will be abolished from the sales program on 31.12.2016.
Spare parts available until 2020.

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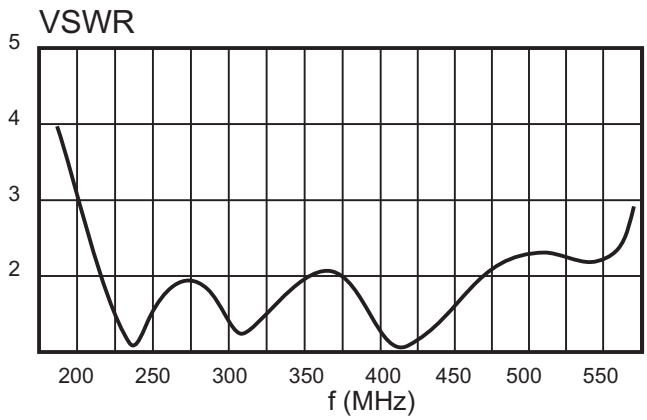
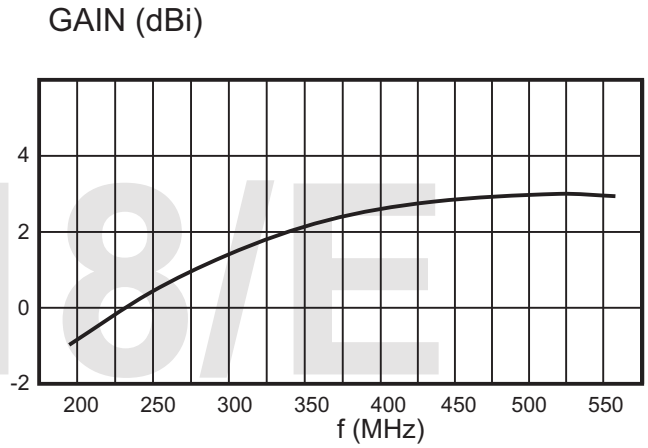
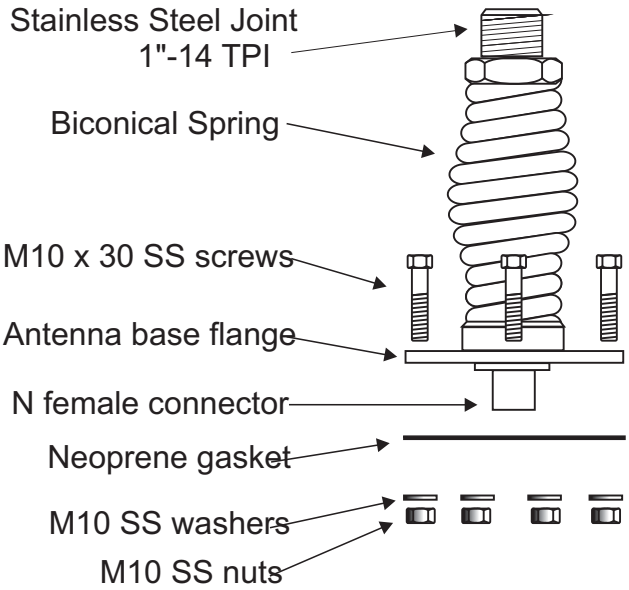
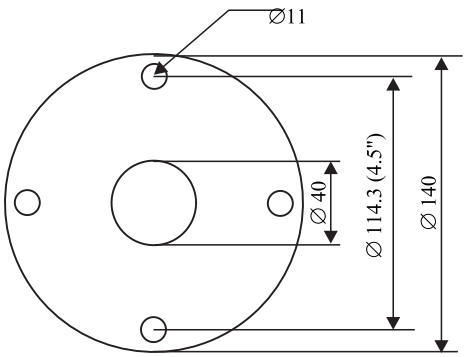
1000


VSWR
5
4
3
2
200
250
300
350
400
450
500
550
f (MHz)


GAIN (dBi)
4
2
0
-2
200
250
300
350
400
450
500
550
f (MHz)


Stainless Steel Joint
1"-14 TPI
Biconical Spring
M10 x 30 SS screws
Antenna base flange
N female connector
Neoprene gasket
M10 SS washers
M10 SS nuts


∅11
Ø 40
Ø 114.3 (4.5")
Ø 140

AD-18/E

Rev. A

The antenna AD-18/E is a wideband dipole mobile antenna intended for use in the frequency range from 225 to 512 MHz, mainly intended for use in heavy duty mobile applications.
The antenna is composed from two main parts: the radiator and the antenna base. The radiator is made of 43 mm diameter fibreglass whip with special radiating elements firmly placed inside. The antenna base has built-in biconical spring enables resistivity against mechanical impacts. Electrically the antenna is designed as center-fed thus the electrical characteristics are independent from the ground or mounting place.
The antenna base has an option of additional built-in GPS active antenna. Stainless steel spring absorbs the shocks and the vibrations, in addition protects the antenna against impacts. The radiating element is made of composite materials enable outstanding strength and roughness even in hardest conditions of use.
The antenna base has four mounting holes equally spaced on a 4.5" (114.3 mm) circle which complies with NATO standard. Different base plate dimensions are available on request.
The antenna radiator is painted with military green (RAL-6014) two-component UV resistant paint.

ELECTRICAL SPECIFICATIONS - UHF:	
Frequency range	225 - 512 MHz
Impedance	50 ohms
VSWR	< 3
Gain	-1 .. +2 dBi
Polarization	vert.
Maximum power	100 W CW
Connector	N female (BNC female optional)
ELECTRICAL SPECIFICATIONS - GPS:	
Frequency range	L1 1575.42 +/- 10 MHz
Impedance	50 ohms
VSWR	< 2
Polarization	RHC
Gain (LNA)	26 dB
Noise fig.	1.35 dB
Power supply	3 - 5.5 V DC (max. 20 mA)
Connector	SMA female
MECHANICAL SPECIFICATIONS:	
Design	Center-fed whip (VHF/UHF); patch antenna with LNA (GPS)
Height	1130 mm
Weight	3.7 kg
Max. high voltage rating	16 kV
Temperature range - in use	-50 ... +55 °C
Temperature range - in stock	-55 ... +75 °C
Wind rating	45 m/s (160 km/h)
Color	RAL-6014

VERSIONS:
AD-18/E: UHF antenna
AD-18/E-G: combined UHF and GPS L1 antenna

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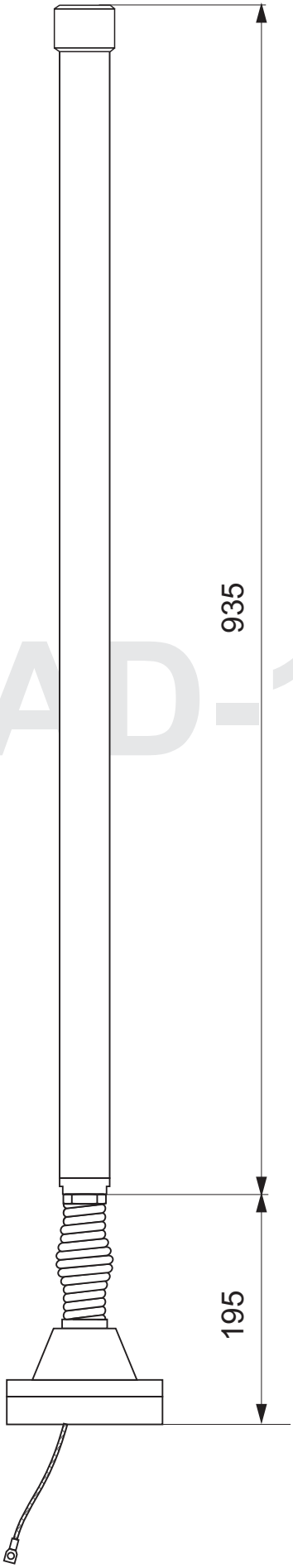

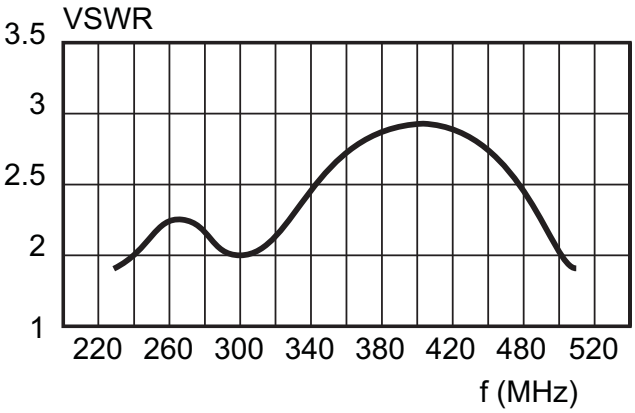

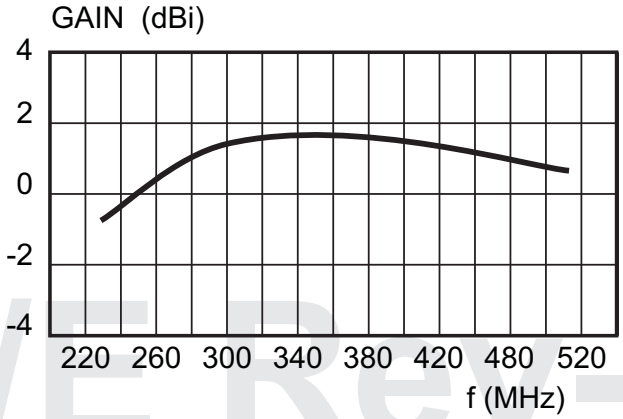

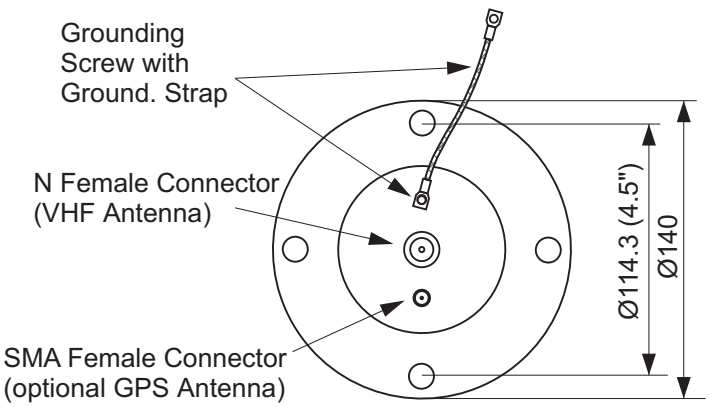

ANTENNA BASE -
BOTTOM VIEW

AD-18/E-HP

Rev. A

The antenna AD-18/E-HP is a wideband dipole mobile antenna intended for use in the frequency range from 225 to 512 MHz, mainly intended for use in heavy duty mobile applications.
The antenna is composed from two main parts: the radiator and the antenna base. The radiator is made of 43 mm diameter fibreglass whip with special radiating elements firmly placed inside. The antenna base has built-in biconical spring enables resistivity against mechanical impacts. Electrically the antenna is designed as center-fed thus the electrical characteristics are independent from the ground or mounting place.
The antenna base has an option of additional built-in GPS active antenna. Stainless steel spring absorbs the shocks and the vibrations, in addition protects the antenna against impacts. The radiating element is made of composite materials enable outstanding strength and roughness even in hardest conditions of use.
The antenna base has four mounting holes equally spaced on a 4.5" (114.3 mm) circle which complies with NATO standard. Different base plate dimensions are available on request.
The antenna radiator is painted with military green (RAL-6014) two-component UV resistant paint.

ELECTRICAL SPECIFICATIONS - UHF:	
Frequency range	225 - 512 MHz
Impedance	50 ohms
VSWR	< 3
Gain	-1 .. +2 dBi
Polarization	vert.
Maximum power	200 W CW
Connector	N female (BNC female optional)
ELECTRICAL SPECIFICATIONS - GPS:	
Frequency range	L1 1575.42 +/- 10 MHz
Impedance	50 ohms
VSWR	< 2
Polarization	RHC
Gain (LNA)	26 dB
Noise fig.	1.35 dB
Power supply	3 - 5.5 V DC (max. 20 mA)
Connector	SMA female
MECHANICAL SPECIFICATIONS:	
Design	Center-fed whip (VHF/UHF); patch antenna with LNA (GPS)
Height	1130 mm
Weight	3.7 kg
Max. high voltage rating	16 kV
Temperature range - in use	-50 ... +55 °C
Temperature range - in stock	-55 ... +75 °C
Wind rating	45 m/s (160 km/h)
Color	RAL-6014

VERSIONS:
AD-18/E-HP: UHF antenna
AD-18/E-HP-G: combined UHF and GPS L1 antenna

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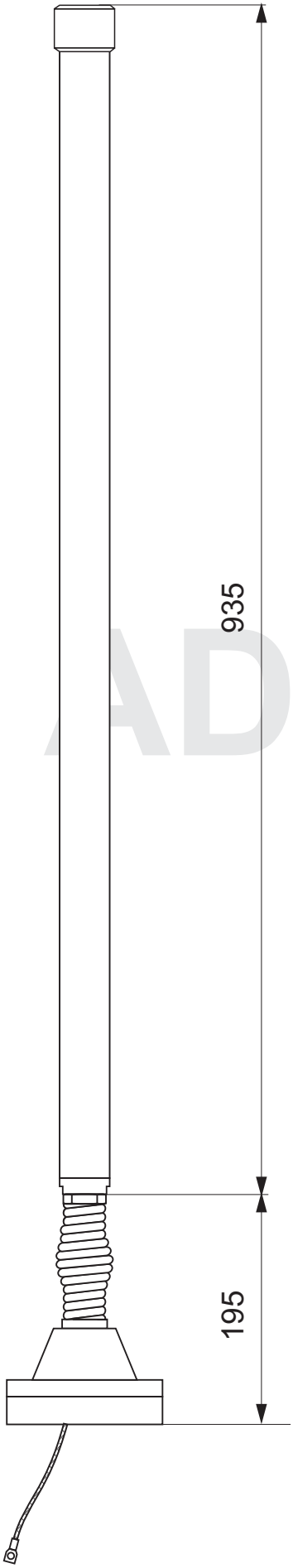

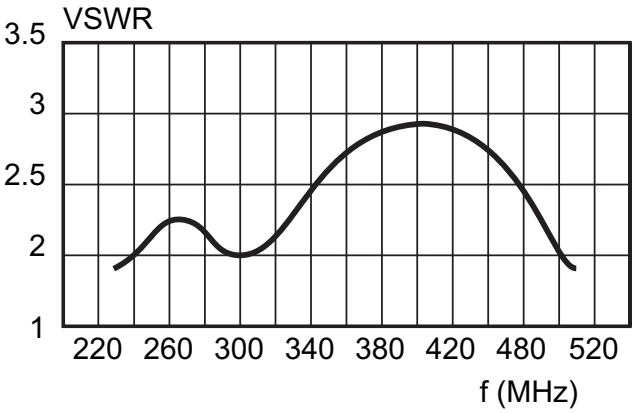

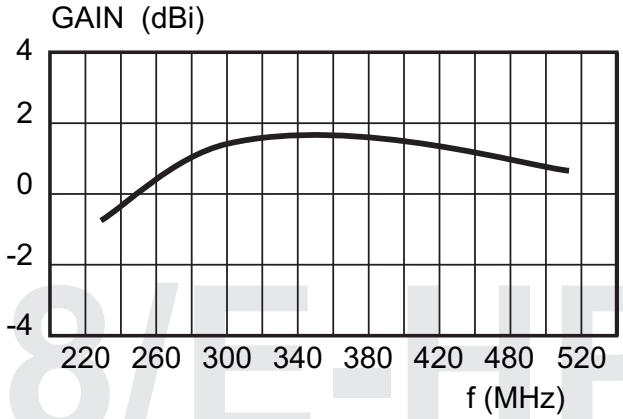

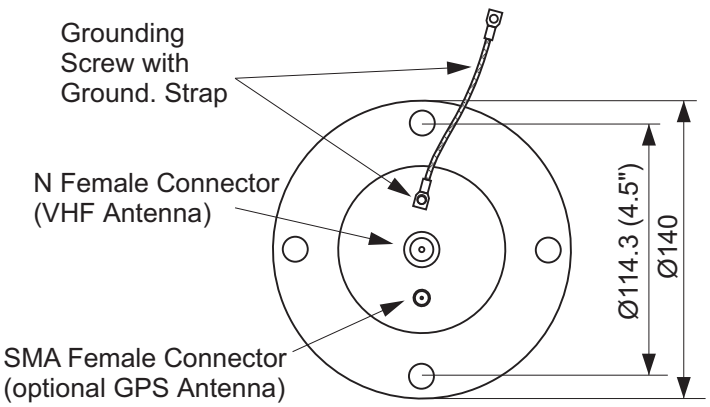

ANTENNA BASE -
BOTTOM VIEW

AD-10/A

The antenna AD-10/A is a wideband vertical polarised dipole covering the frequency range from 200 to 512 MHz. All elements of the antenna are enclosed in an epoxy - glass composite tube. The antenna is intended for stationary use. Electrically the antenna is designed so that the upper radiating element is divided on two axially placed elements, mutually connected so that each element works in its active region. Such design enables a large bandwith and relatively constant vertical radiation diagram. The antenna has built-in a coaxial cable length of 1 m with coaxial connector N female type at the end. A special mounting tube with mounting console adapter enables to mount the antenna on the mast with diam. up to 60 mm (2”).

Frequency range	200 - 512 Mhz
Impedance	50 ohm
VSWR	< 2.5 (DIAG. 1)
Gain	0 - 2 dBi
Ver. radiation pattern	DIAG. 2, 3
Polarization	VER.
Maximum power	200 W CW
Height	630 mm
Diameter	120 mm
Mass of antenna	5 kg
Wind velocity	150 km/h
Temperature range	-40....+70 °C

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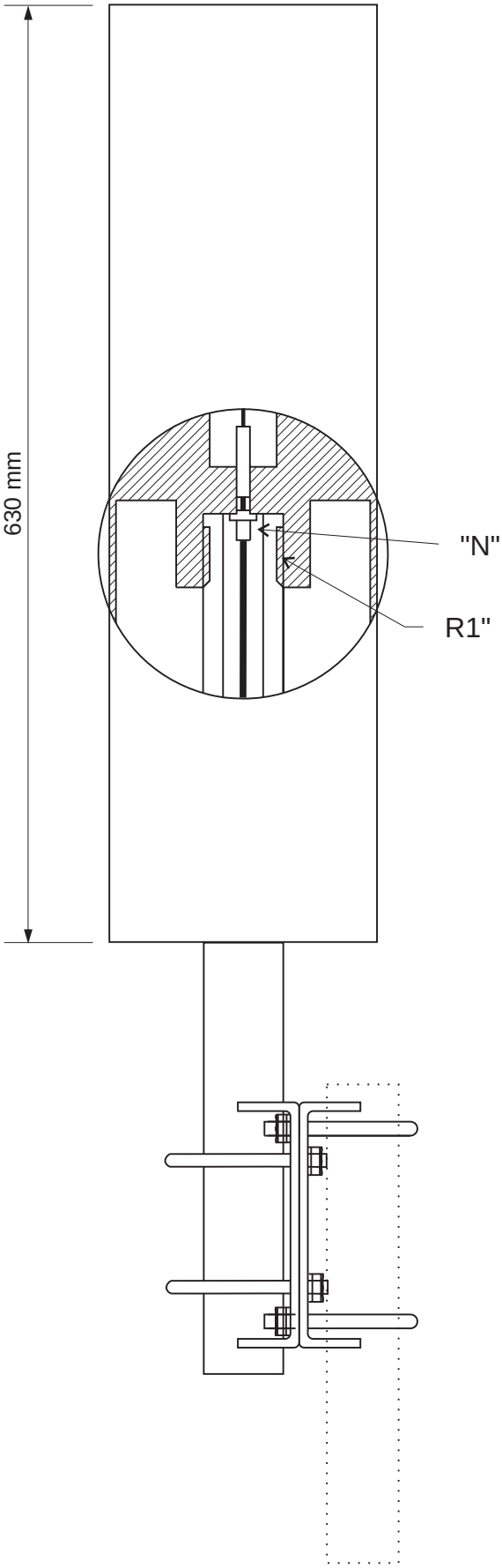
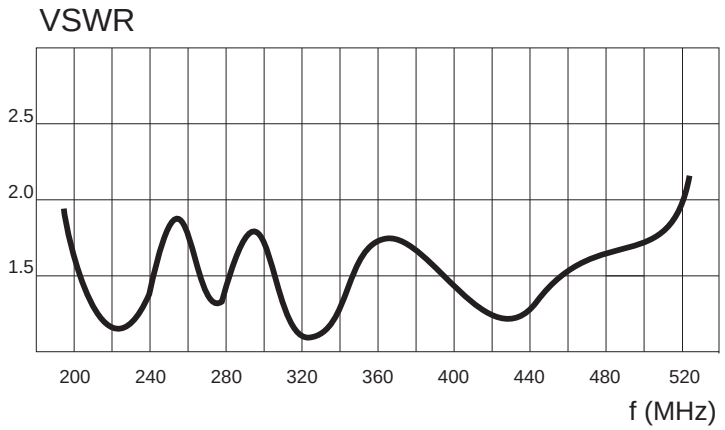
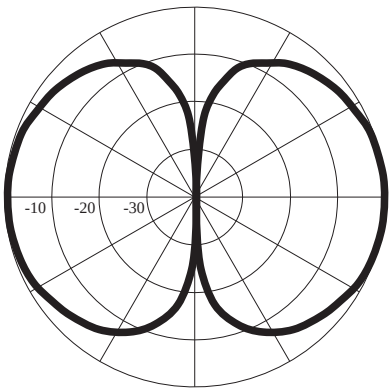
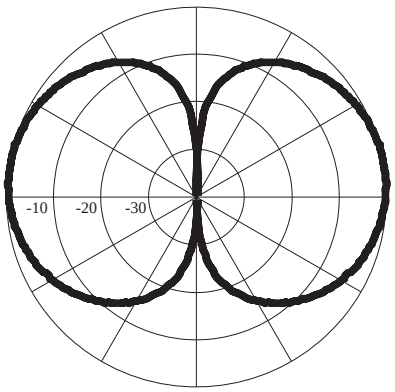




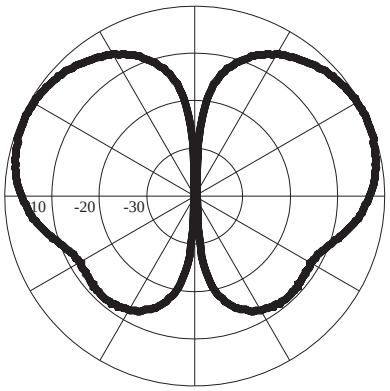
Radiation Pattern
F = 220 MHz



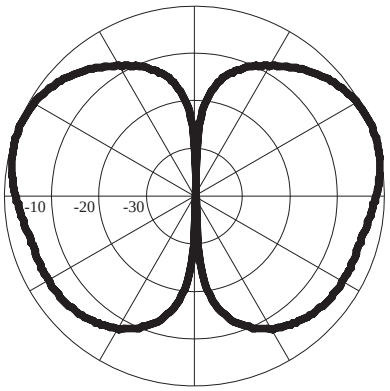
Radiation Pattern
F = 300 MHz



Radiation Pattern
F = 400 MHz



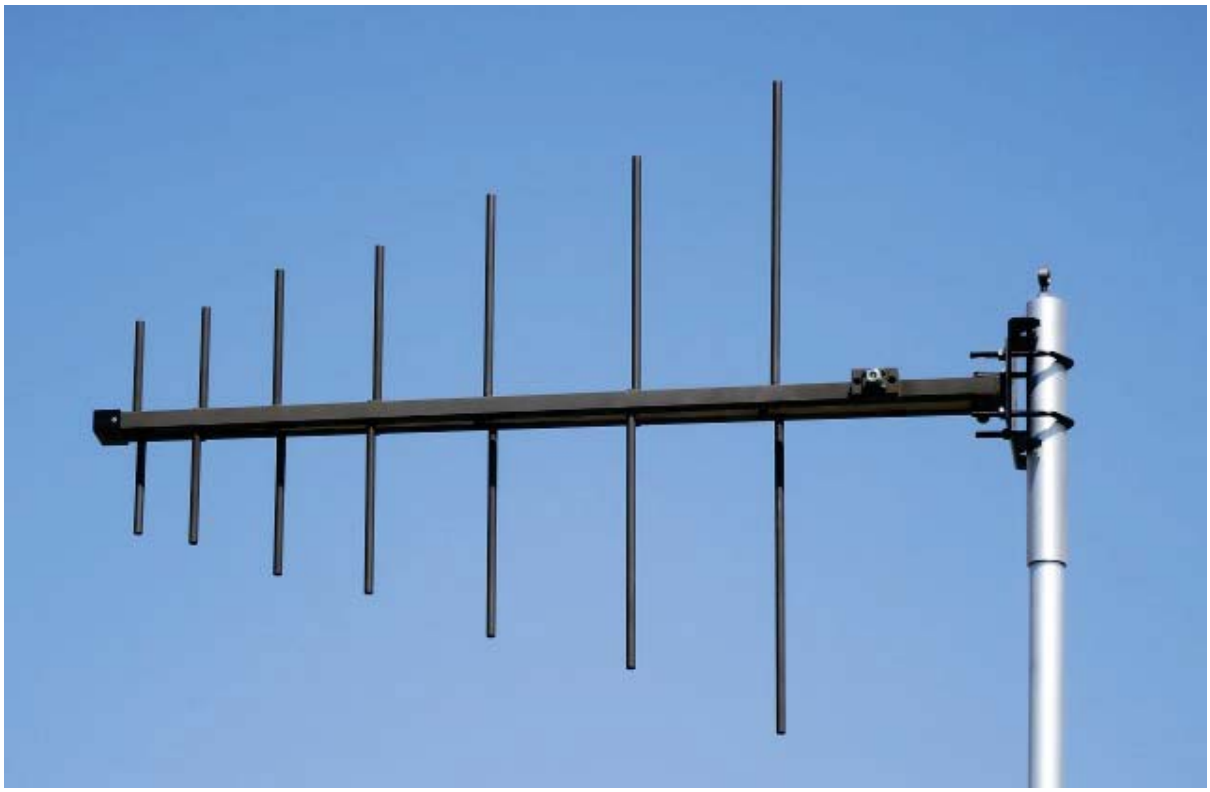
Radiation Pattern
F = 500 MHz



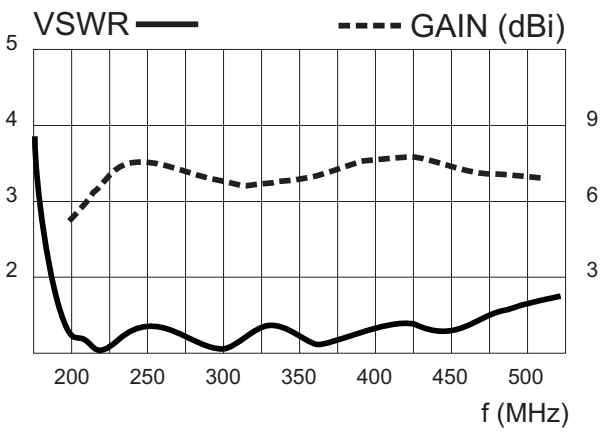
AD-22/B

Rev. A

The antenna AD-22/B is a log-periodic dipole antenna covering the frequency range from 225 to 512 MHz. The antenna is mainly intended for use for broadcast, EMC applications, radio monitoring, jamming, etc.
The antenna is composed of a boom element and 7 dipoles. All dipole elements and boom are made of aluminium alloy, protected with irridite finnish and painted with two component UV resistant PU paint. The antenna support on the end enables mounting on masts with outer diameter between 1" (26 mm) and 2" (60 mm). The antenna is primarily intended for stationary use due to construction of elements and materials enabling long life.



TECHNICAL CHARACTERISTICS	
Frequency range	225 - 512 Mhz
Impedance	50 ohm
VSWR	typ. < 1.5:1
Gain	7 dBi
Front-to-back ratio	> 20 dB
Polarization	HOR./VER.
Maximum power	500 W CW
Connector	N female
Length	1,0 m
Width	0,74 m
Mass	2.2 kg
Wind velocity	
- operational	120 km/h
- survival	160 km/h
Temperature range	-55...+80 °C



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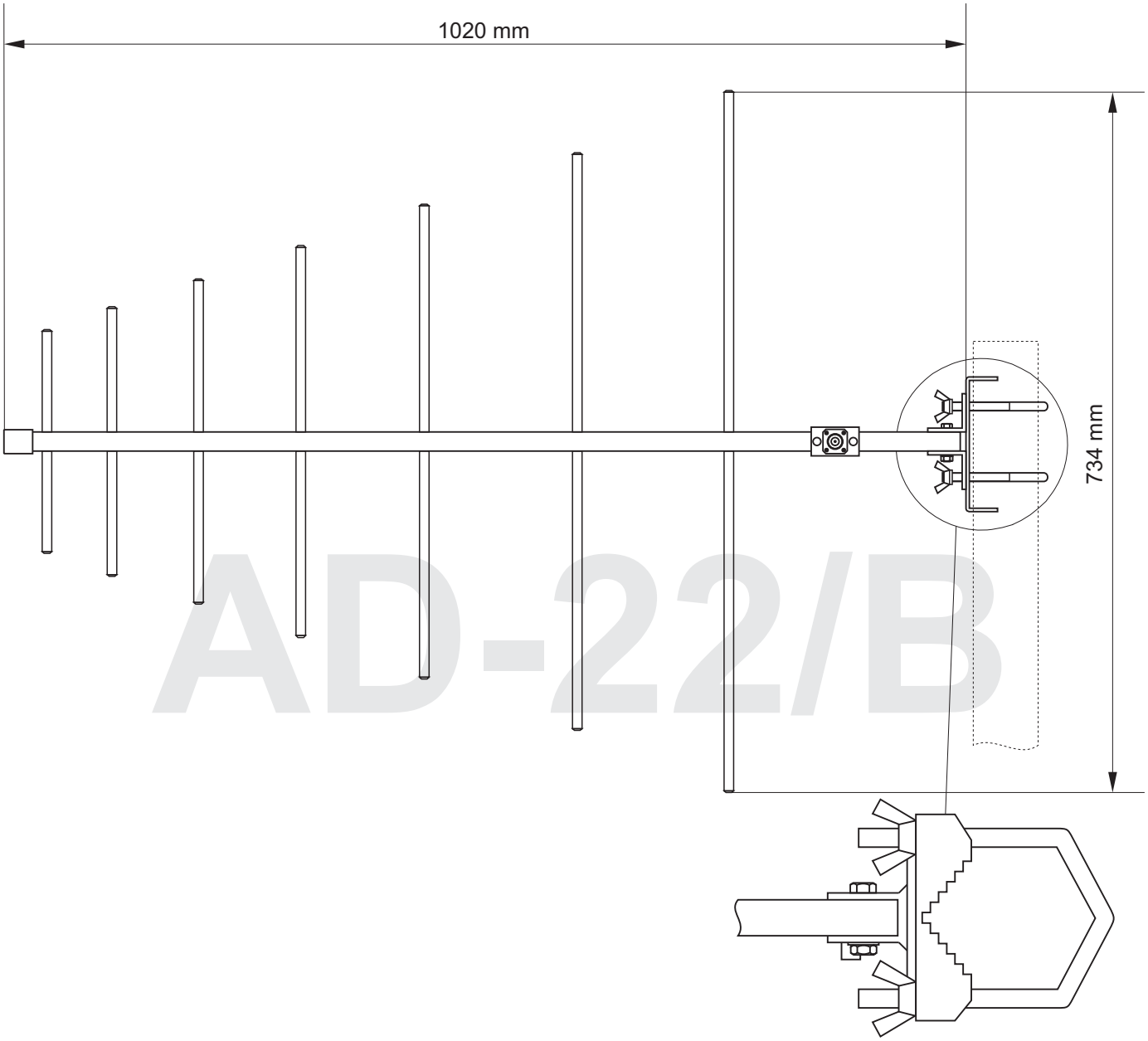
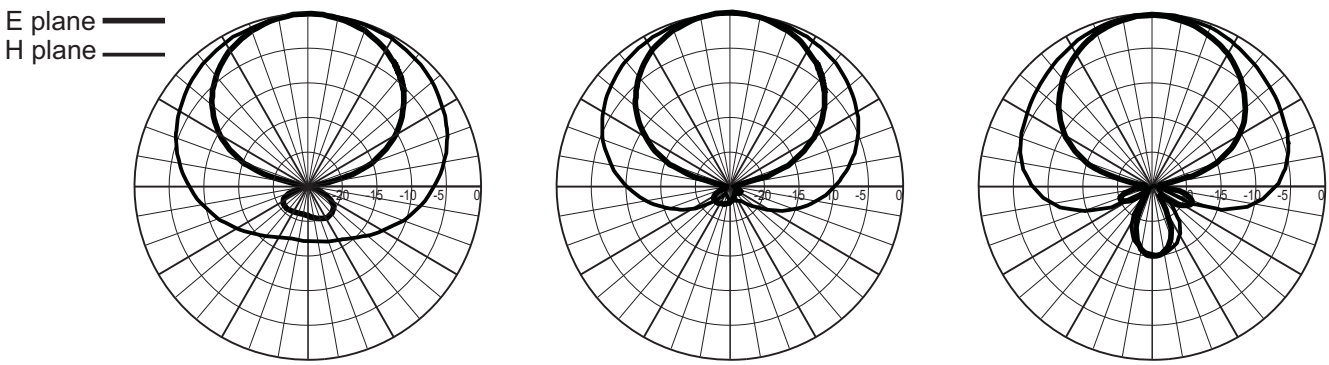

1020 mm
734 mm

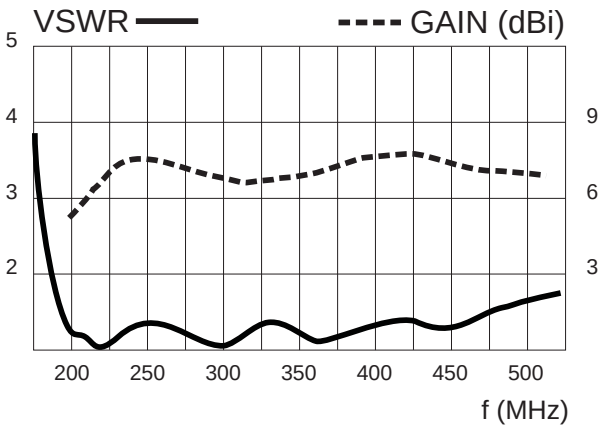
AD-22/B


E plane
H plane
225 MHz
280 MHz
340 MHz
400 MHz
460 MHz
520 MHz

AD-22/B-F

The antenna AD-22/B-F is a log-periodic dipole antenna covering frequency range from 225 to 512 MHz. The antenna is mainly intended for field tactical use.
The antenna is composed of a boom element and 7 dipoles. All dipole elements are permanently attached to the antenna boom and are made of a special bi-directional bendable tape elements, covered with plastic sleeve. Complete antenna is stowed inside the portable cylinder covered with double impregnated canvas bag.
Such fixed and bendable radiating elements together with the unique bag design make the antenna ready for work in a fraction of time. The boom is made of aluminium alloy, protected with irridite finnish and painted with two component UV resistant PU paint. The antenna support on the end enables mounting on masts with outer diameter between 1" (26 mm) and 2" (60 mm).

TECHNICAL CHARACTERISTICS	
Frequency range	225 - 512 Mhz
Impedance	50 ohm
VSWR	typ. < 1.5:1
Gain	7 dBi
Front-to-back ratio	> 20 dB
Polarization	HOR./VER.
Maximum power	500 W CW
Length	1,0 m
Width	0,74 m
Mass	3.1 kg
Wind velocity	120 km/h
Temperature range	-55...+80 °C



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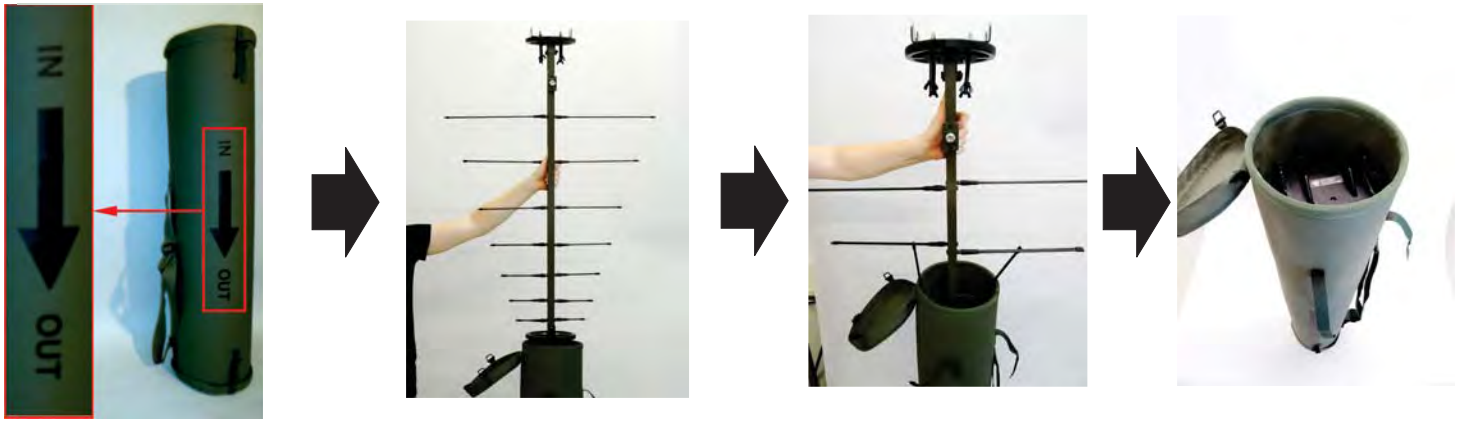
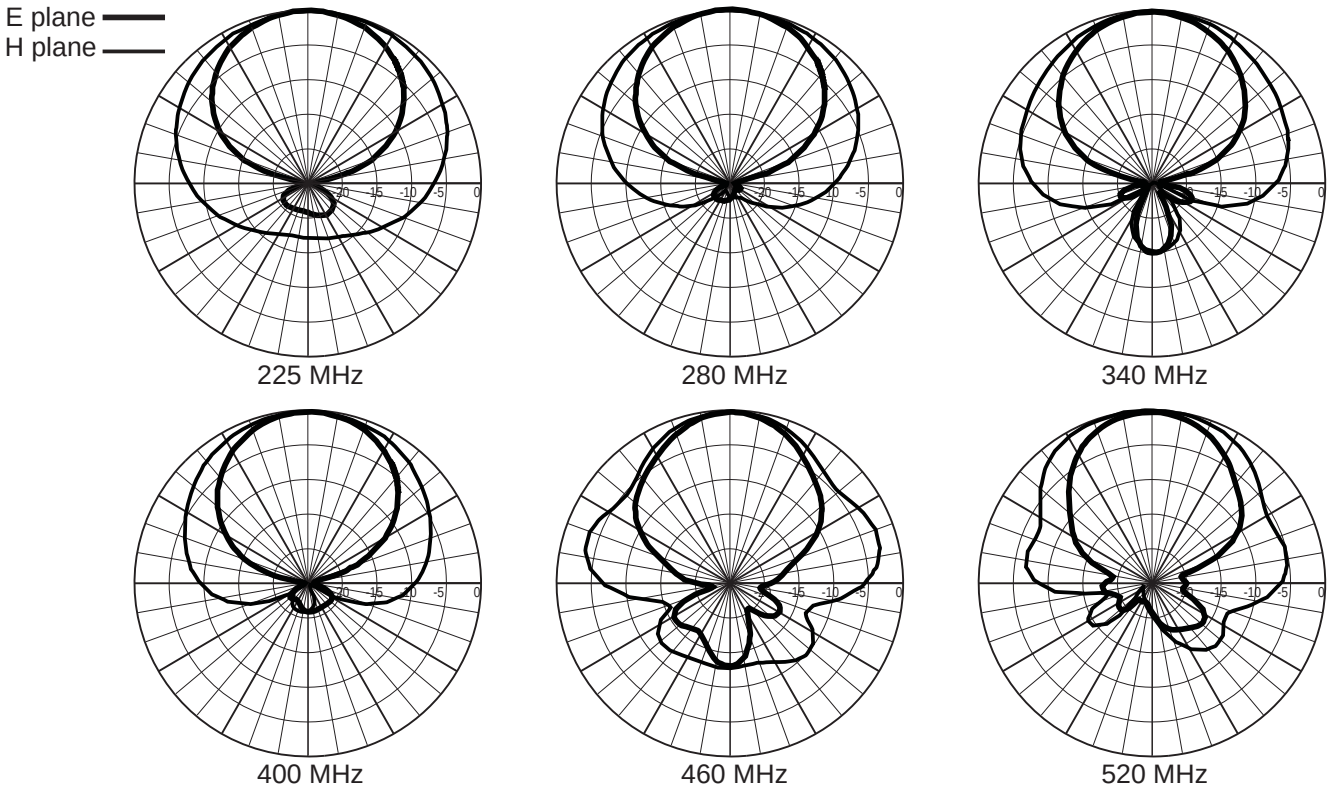
Unpacking procedure

Packing procedure





TRIVAL ANTENE

AD-12/G

Antenna AD-12/G is wideband antenna covering frequency range from 400 to 475 MHz and is intended for stationary and portable use. Electrically the antenna is designed as a dipole with capacitive distributed loading on the upper radiating element. All metal parts of the antenna are grounded and enclosed in tube made of composite material epoxy-glass ensuring good resistance against atmospheric influences and long life time. The antenna could be directly mounted on any metal tube with inner diameter greater than 30 mm and outer diameter less than 49 mm (for instance standard tube 1 1/4”). The antenna could also be mounted by our standard mounting console and adapter elements ADK- .

Frequency range	390 - 475 Mhz
Impedance	50 ohm
VSWR	< 1,8 (DIAG. 1)
Gain	0 dBd
Polarization	VER.
Maximum power	100 W CW
Connector	N
Height	0,53 m
Diameter	28 mm
Mass of antenna	1 kg
Wind velocity	180 km/h
Temperature range	-40....+70 °C

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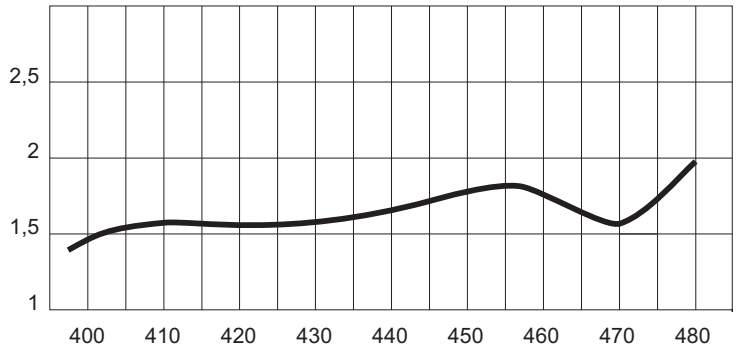
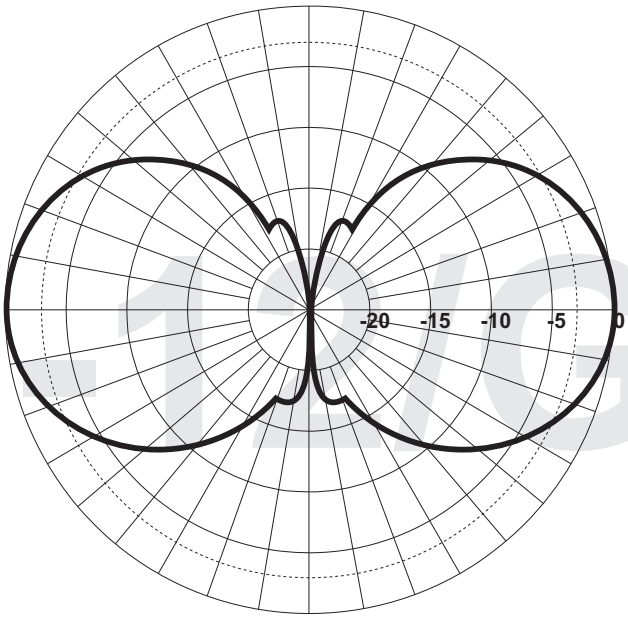
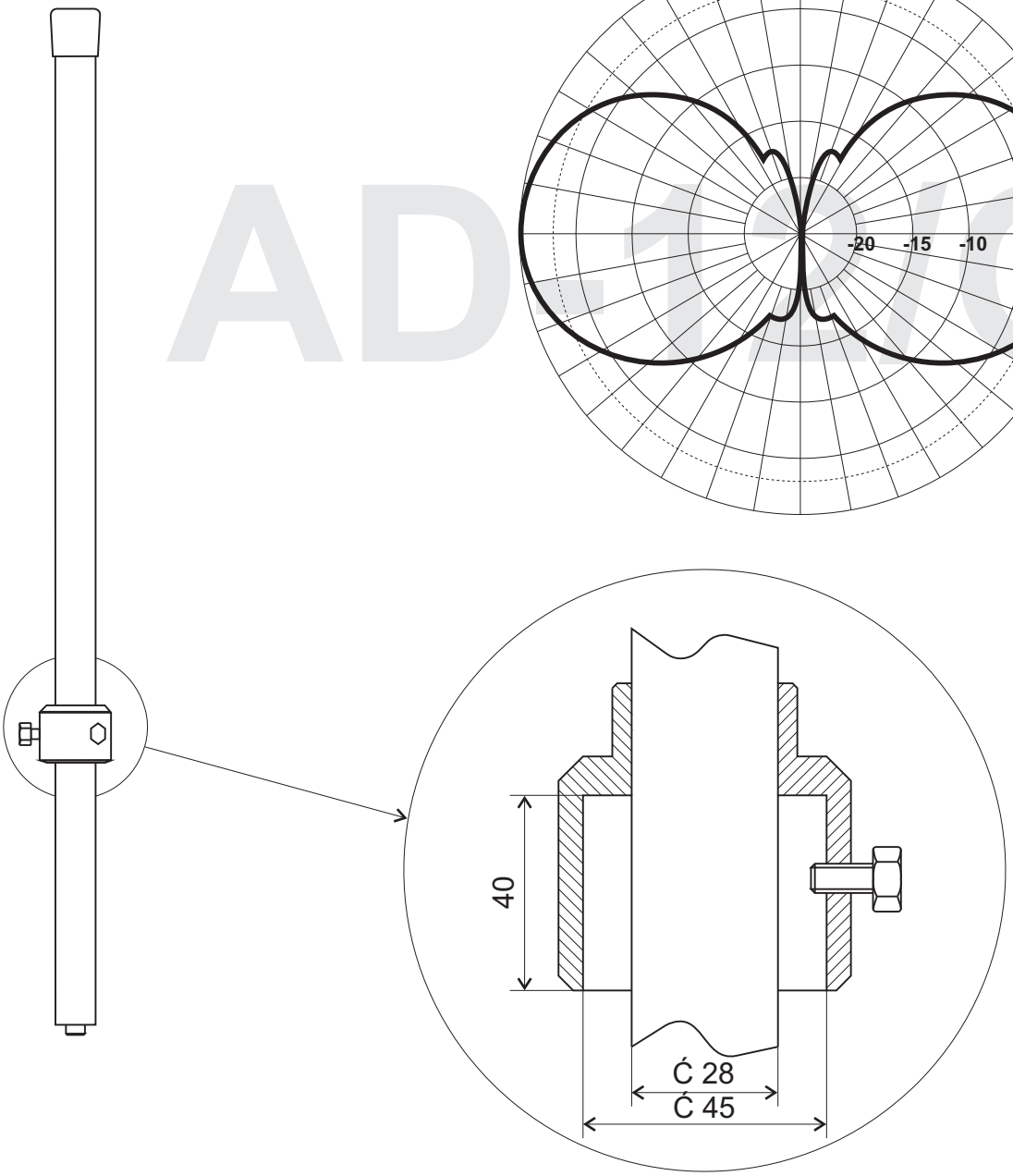
VSWR



VERTICAL
RADIATION DIAGRAM





AD-23/07-4

The antenna AD-23/07-4 is collinear dipole for use on UHF frequency range from 380 to 480 MHz in separate frequency bands. The antenna is electrically designed as collinear dipole, composed of four elements half wave length each. The phasing coil between the elements is used for proper current phase shift on the radiating elements. At the antenna base a matching circuit is built-in by which all radiating elements are also DC grounded. All elements are enclosed in tube made of a composite material enabling excellent mechanical and atmospheric resistance. The antenna could be attached directly to the masts with diameters from 24 to 62 mm. For different mounting options our standard family of mounting consoles type ADK could be used.

VERSIONS:
AD-23/07-4 (380-400 MHz)
AD-23/07-4 (400-430 MHz)
AD-23/07-4 (410-440 MHz)
AD-23/07-4 (440-475 MHz)

Frequency range	380 - 480 MHz
Impedance	50 ohm
VSWR	< 1,8 (fo +/- 4%fo)
Gain	5 dBd
Polarization	VER.
Maximum power	200 W CW
Height	max. 2.4 m
Mass	max 2.0 kg
Connector	N female
Wind velocity	160 km/h
Temperature - operating	-25 ... + 55°C

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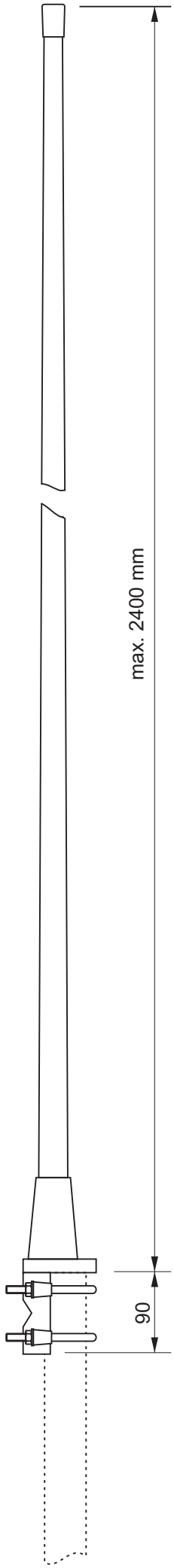
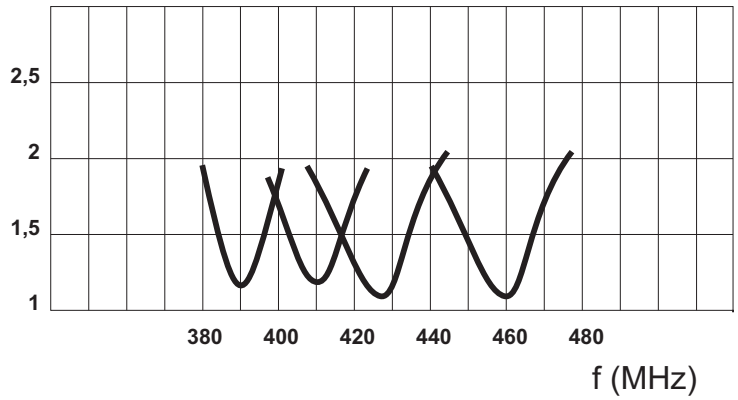
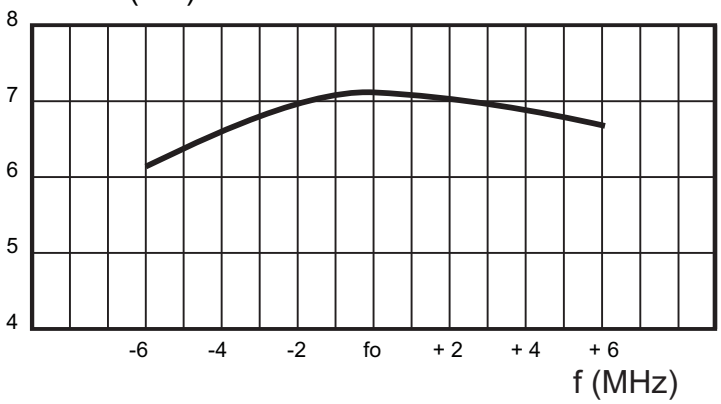


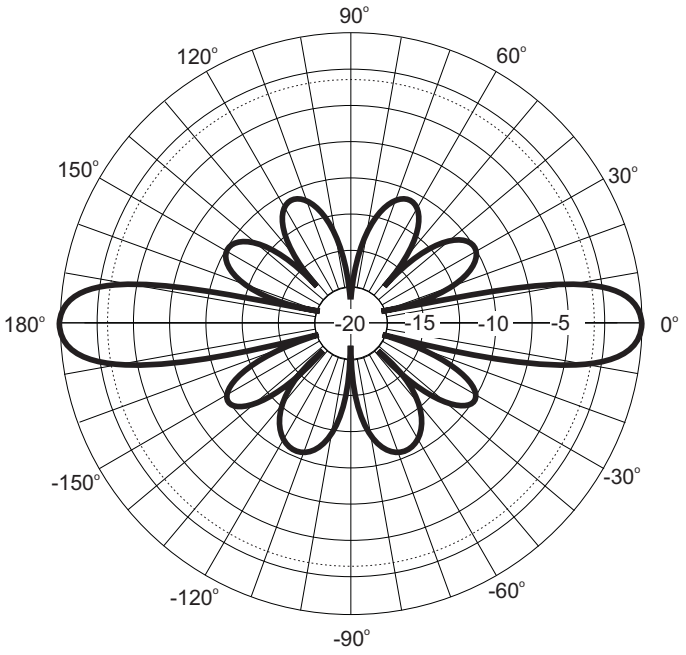
VSWR



GAIN (dBi)



TYPICAL RADIATION PATTERN
(Vertical - E plane)



AD-24/A

The antenna AD-24/A is a wideband monopole intended for use in the standard frequency range from 430 to 470 MHz. The antenna is composed of a mounting plate with a coaxial connector and of a conical radome made from epoxy - glass composite material where the radiating elements are waterproof built- in. The coaxial connector is protected with the washer. The antenna can be mount directly on flat metal surface and it is primarily intended for use on locomotive engines and other similar vehicles. Therefore its mechanical construction is optimised regarding high vibrations and shocks arising by the engine.

Frequency range	430 - 470 Mhz
Impedance	50 ohm
VSWR	< 1,5 (DIAG. 1)
Gain	2 - 3 dBi
Polarization	VER.
Maximum power	100 W CW
Connector	N
Height	180 mm
Diameter	55/42 mm
Mass of antenna	0,6 kg
Wind velocity	180 km/h
Temperature range	-40....+70 °C

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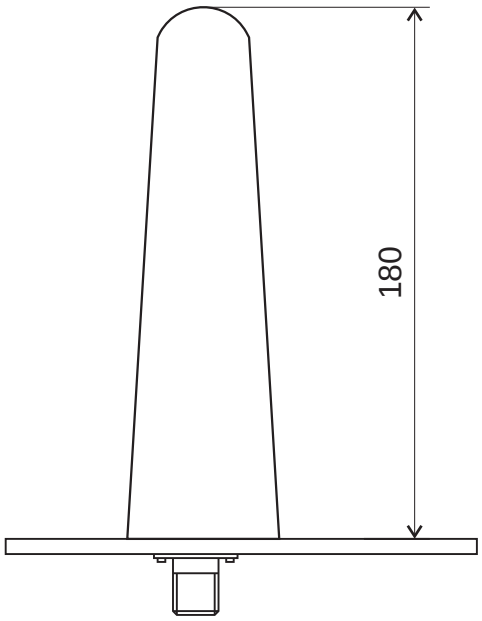
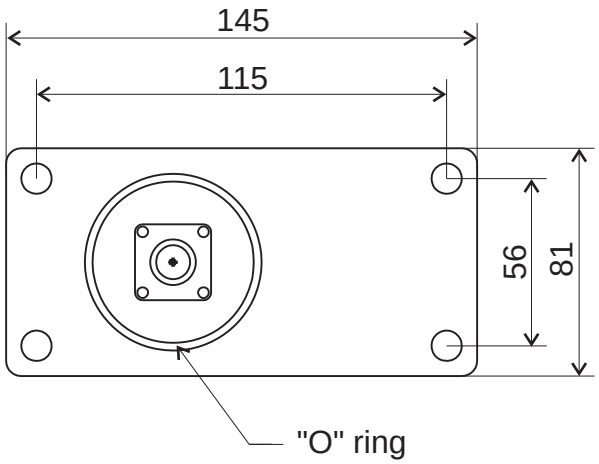
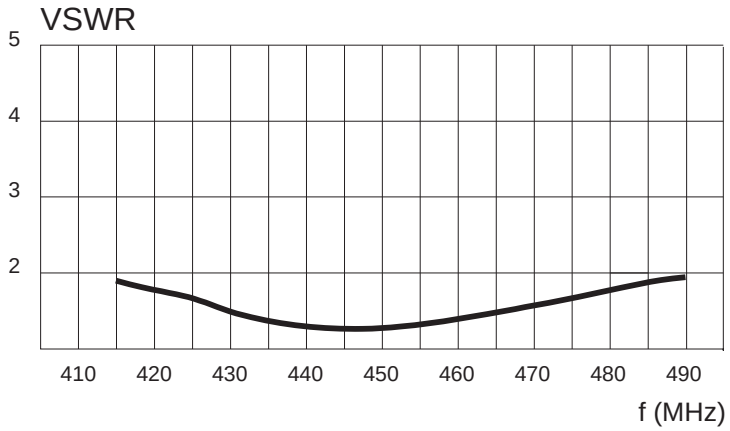

180


145
115
56
81
"O" ring

AD-24/A


VSWR
5
4
3
2
410
420
430
440
450
460
470
480
490
f (MHz)

AD-39/07

The family of wideband antennas AD-39 is composed of so called closed dipoles and is primarily intended for use as stationary antennas on VHF and UHF frequency range. The antenna is composed of a closed dipole mounted on supporting boom. The dipole has 1.5 m of coaxial cable type RG-213/U with N type connector. The antenna is appropriate for side mast mounting with 2 dBd gain together with offset radiation pattern. With different combinations of several antennas together with appropriate power dividers type APS-38 a different radiation patterns with different gains could be easily achieved depending on our signal coverage requirement. Dipoles are made of aluminum alloy rod with 10 mm of diameter and mounted on square aluminum boom together with mounting console enables the antenna to be mounted on antenna mast with external diameter up to 60 mm. All aluminium parts are transparent anodized enable long life and reliable work even in hardest climatic conditions.

Frequency range	390 - 480 Mhz
Impedance	50 ohm
VSWR	< 1,8
Gain	0 - 2 dBd
Polarization	VERT.
Maximum power	100 W
Connector	1.5 m RG-213/U + Nm
Width	30 cm
Length	31 cm
Mass of antenna	2,0 kg

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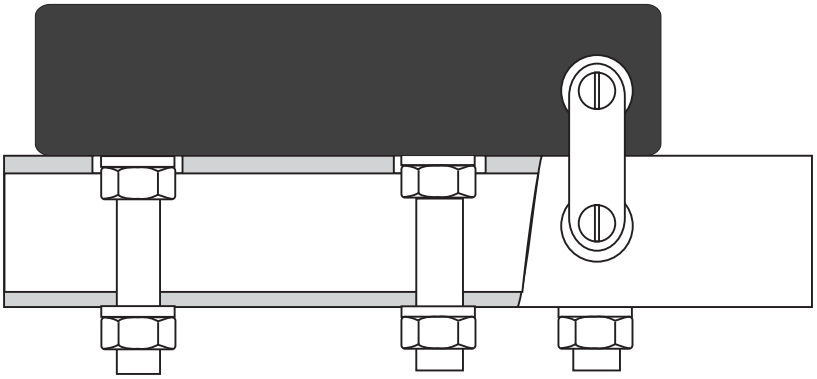
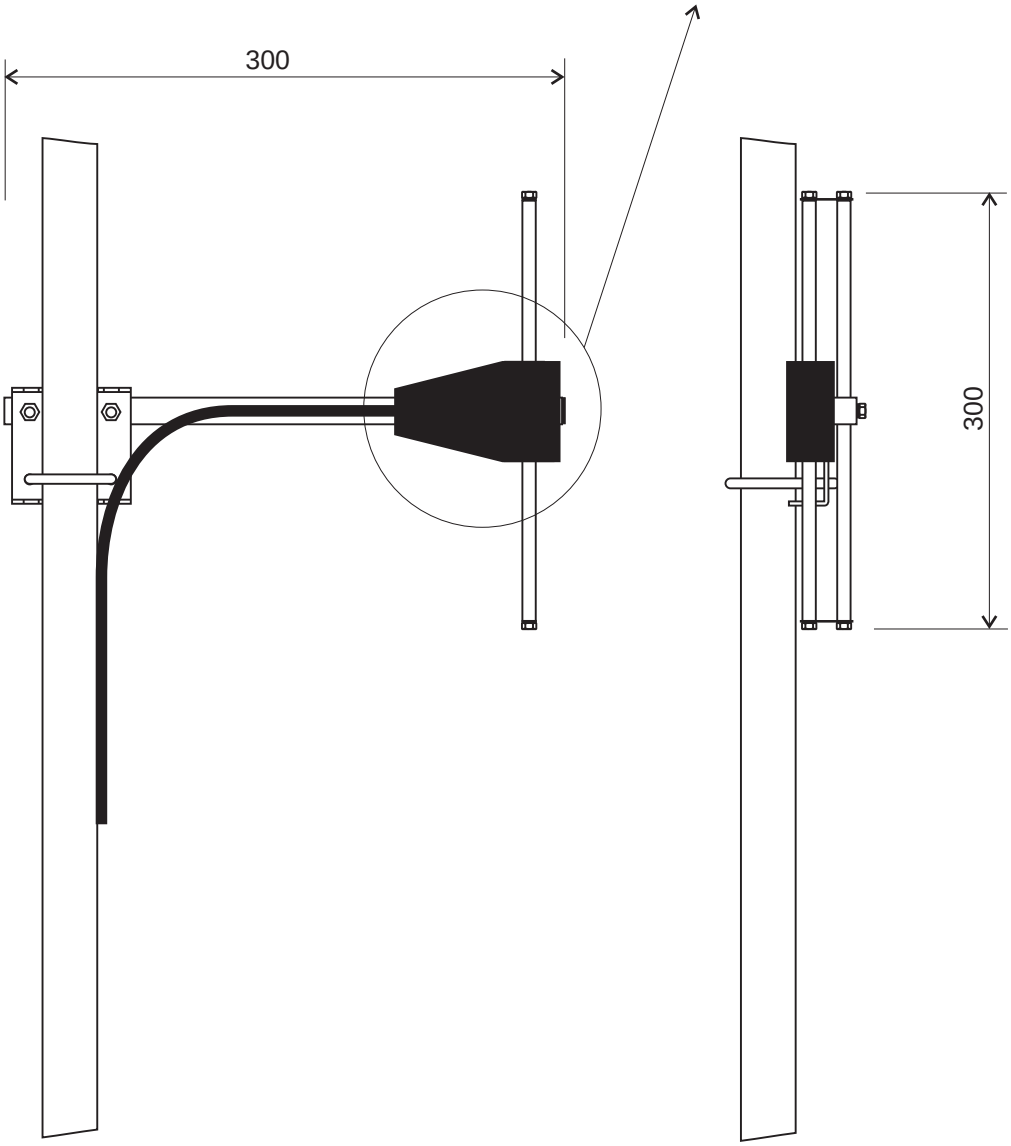
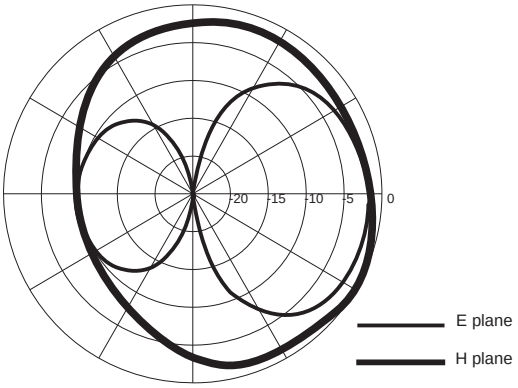
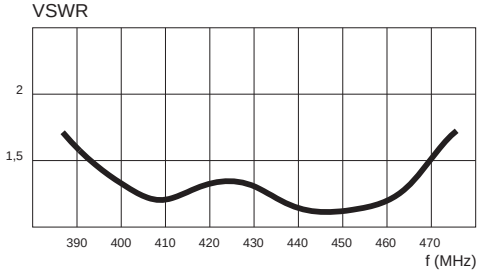



300
300


-20
-15
-10
-5
0
E plane
H plane


VSWR
2
1,5
390
400
410
420
430
440
450
460
470
f (MHz)

AD-38/07

The family of wideband antennas AD-38 is composed of so called double folded dipoles primarily intended for use as stationary antennas on VHF and UHF frequency range. The antenna is composed of two folded dipoles mounted on common supporting boom. Each dipole has 1.5 m of coaxial cable type RG-213/U with N male type connector which must be connected on two-way power divider type APS-38/07-2. Such antenna system has elliptical horizontal radiation pattern with 3 dBd gain. With different combinations of several antennas a different radiation patterns with different gains could be easily achieved depending on our signal coverage requirement. Dipoles are made of aluminum alloy rod with 10 mm of diameter and mounted on square aluminum boom 20 x 20 mm together with mounting console enables the antenna to be mounted on antenna mast with external diameter up to 60 mm. All aluminium parts are transparent anodized enable long life and reliable work even in hardest climatic conditions. All metal elements are DC grounded.

Frequency range	390 - 475 Mhz
Impedance	50 ohm
VSWR	< 1,8
Gain	3 dBd
Polarization	VERT.
Maximum power	200 W
Connector	N
Height	320 cm
Lenght	350 cm
Mass of antenna	2 kg
Wind velocity	150 km/h
Temperature - operating	-25 ... + 55 °C

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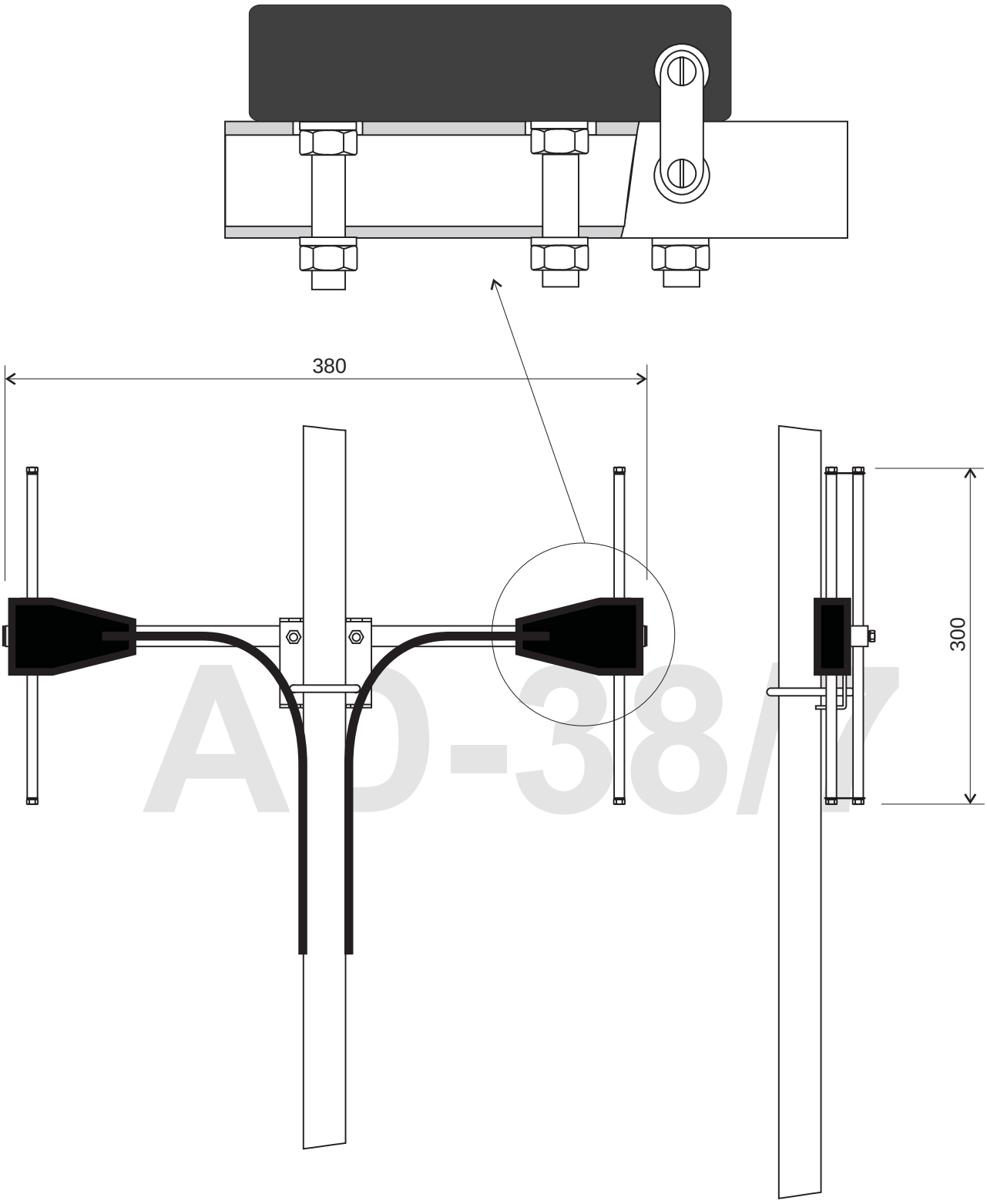
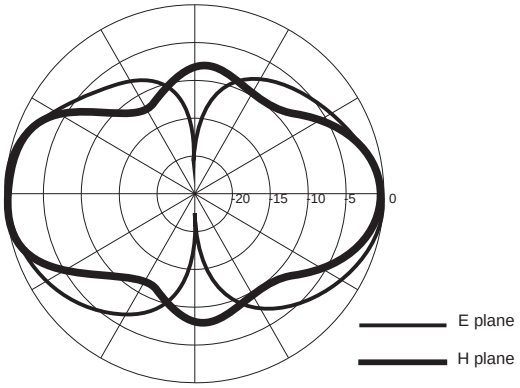
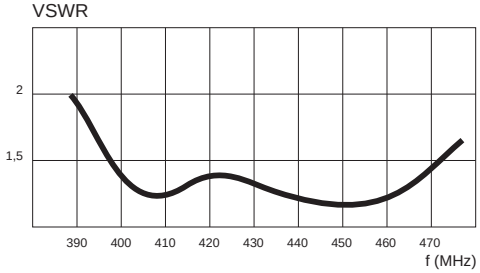
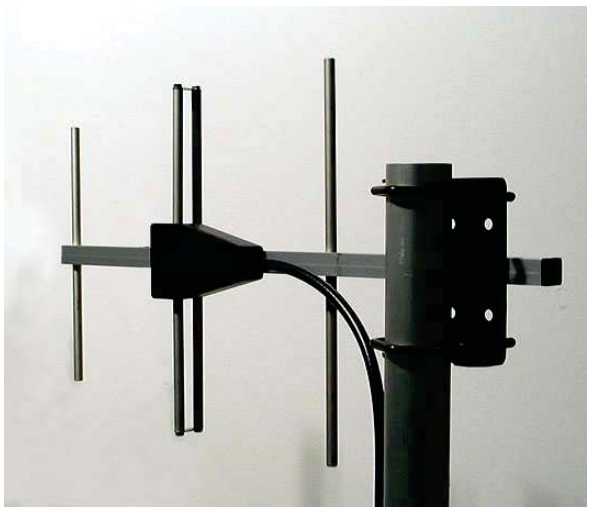

380
300


-20
-15
-10
-5
0
E plane
H plane


VSWR
2
1,5
390
400
410
420
430
440
450
460
470
f (MHz)

AD-40/07-3

The antenna AD-40/07-3 is 3-element yagi antenna, primarily intended for use on standard UHF frequency range from 390 to 475 MHz. The antenna is directional with 5 dBd gain. The radiator is made of folded dipole enables constant characteristics on whole frequency band. The elements are made of aluminum alloy rod with 10 mm diameter and inserted into aluminum square tube boom 20 x 20 mm. The mounting adapter is on back side of the boom enables using vertical or horizontal polarization as well. All joint elements are made of stainless steel and matching unit is built in plastic protective housing enable reliable work even in hardest climatic conditions. All metal parts are DC grounded.



Frequency range	390 - 475 MHz
Impedance	50 ohm
VSWR	< 1,8
Gain	5 dBd
Front to Back ratio	> 15 dB
Polarization	VERT./HOR.
Maximum power	100 W
Connector	FME, Nf
Width	35 cm
Length	42.5 cm
Weight	0.6 kg
Wind velocity	150 km/h
Temperature - operating	-40 ... + 55°C

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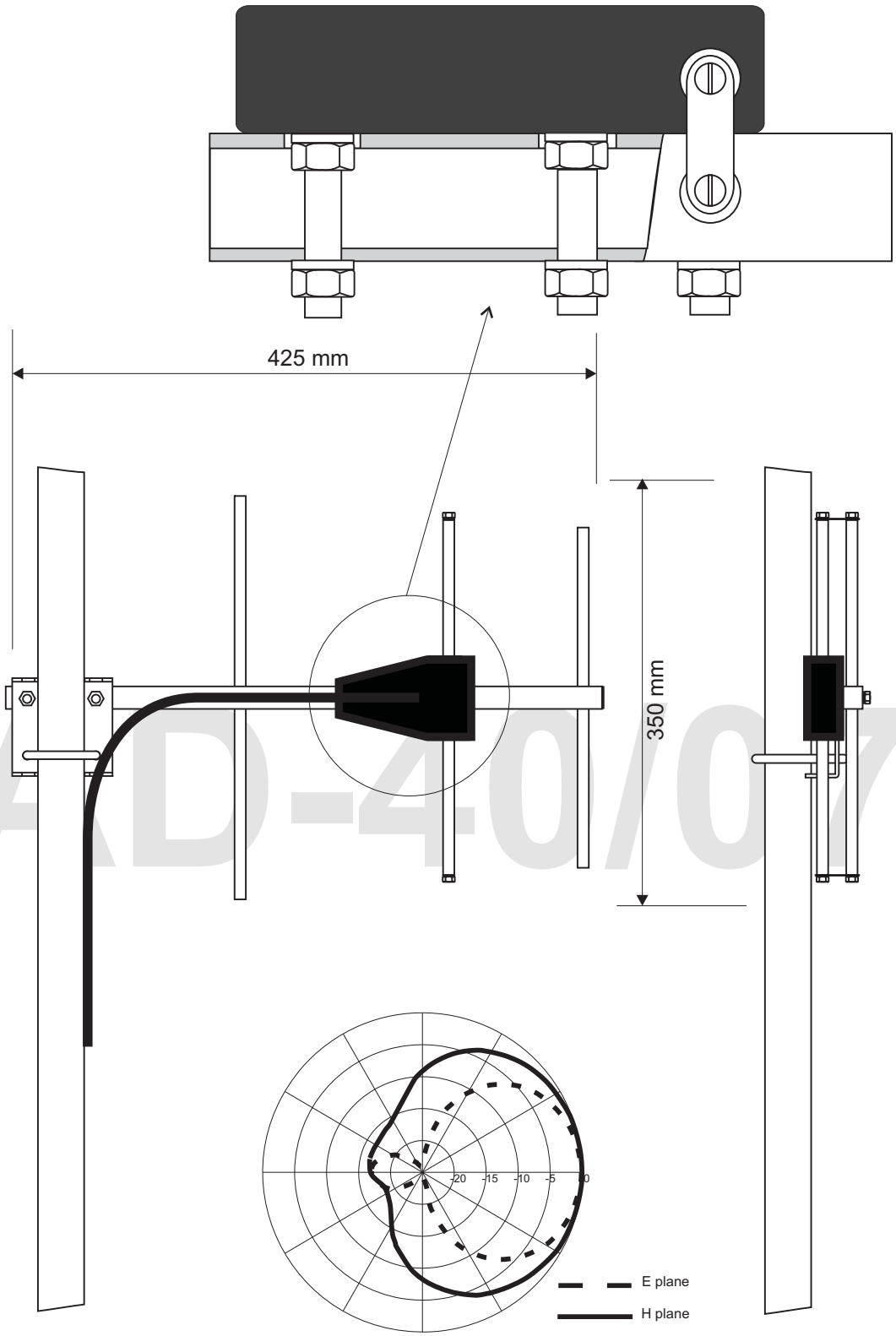
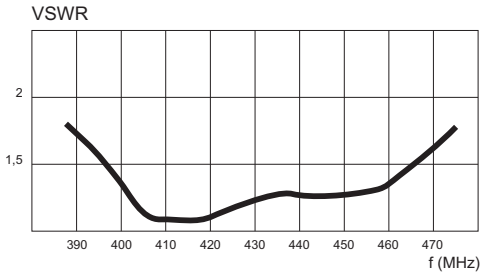
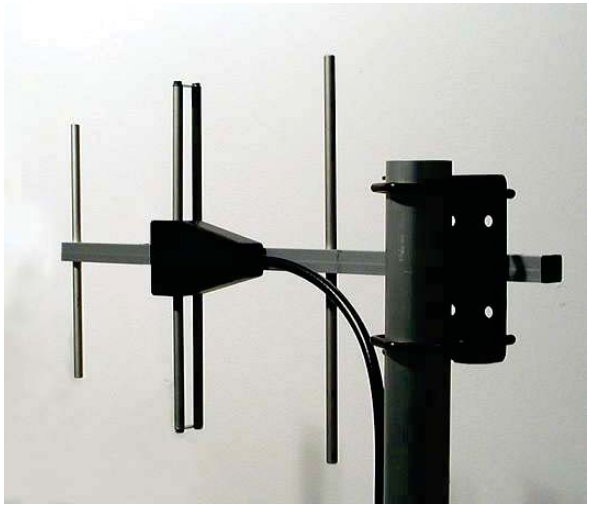

425 mm
350 mm

-20
-15
-10
-5
0
E plane
H plane


VSWR
2
1,5
390
400
410
420
430
440
450
460
470
f (MHz)

AD-40/07-3T

The antenna AD-40/07-3T is 3-element yagi antenna, primarily intended for use on TETRA frequency range from 380 to 420 MHz. The antenna is directional with 5 dBd gain. The radiator is made of folded dipole enables constant characteristics on whole frequency band. The elements are made of aluminum alloy rod with 10 mm diameter and inserted into aluminum square tube boom 20 x 20 mm. The mounting adapter is on back side of the boom enables using vertical or horizontal polarization as well. All joint elements are made of stainless steel and matching unit is built in plastic protective housing enable reliable work even in hardest climatic conditions. All metal parts are DC grounded.



Frequency range	380 - 420 MHz
Impedance	50 ohm
VSWR	< 1,8
Gain	5 dBd
Front to Back ratio	> 15 dB
Polarization	VERT./HOR.
Maximum power	100 W
Connector	1.5 m RG-213 + Nfemale
Width	38 cm
Length	50 cm
Mass of antenna	1.5 kg

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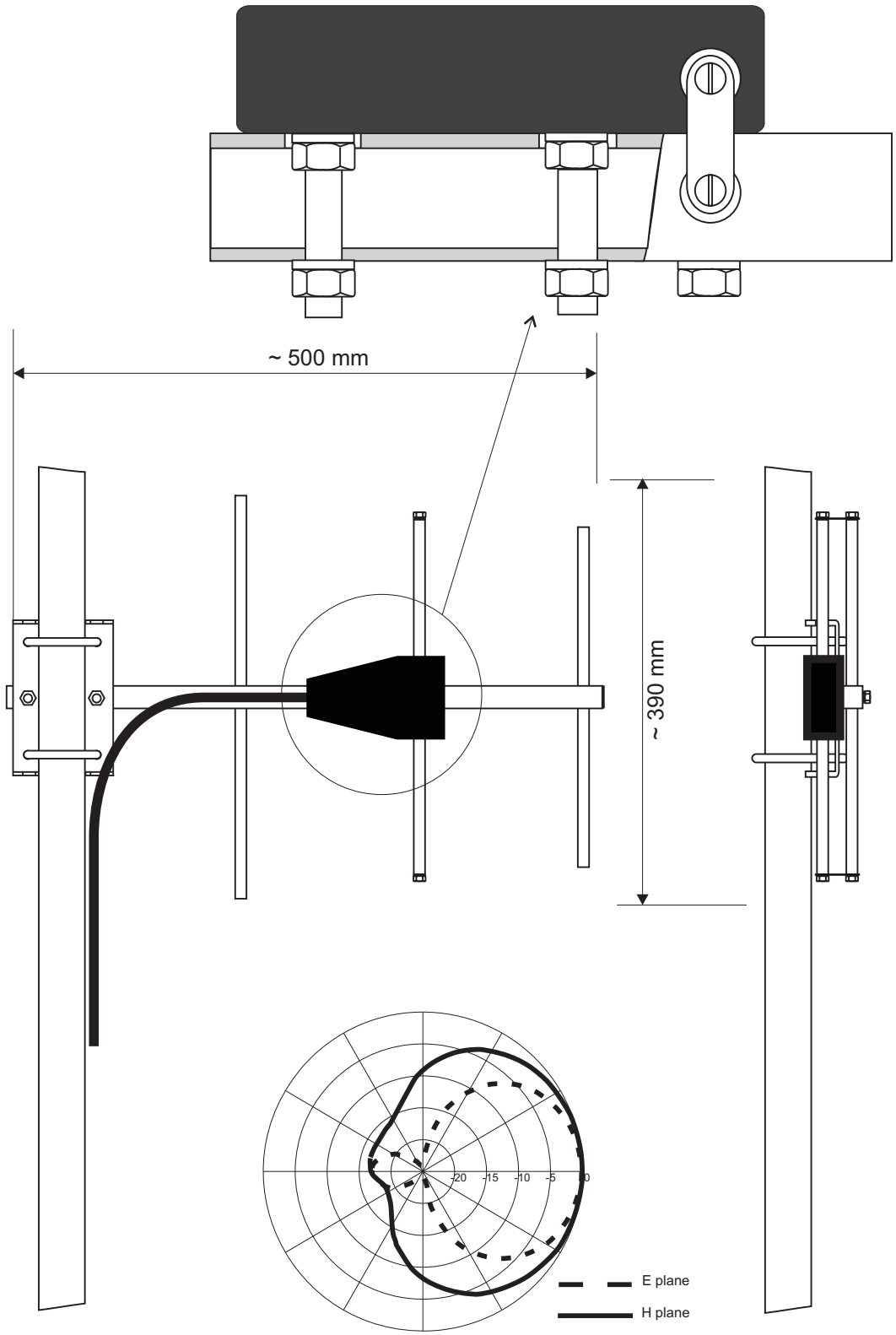
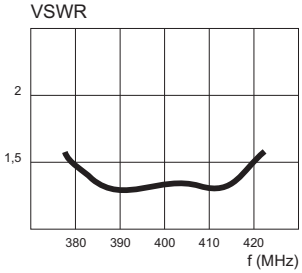

~ 500 mm
~ 390 mm

-20
-15
-10
-5
0
E plane
H plane


VSWR
2
1,5
380
390
400
410
420
f (MHz)

AD-40/07-7

The antenna AD-40/07-7 is 7-element yagi antenna, primarily intended for use on standard UHF frequency range from 390 to 475 MHz. The antenna is directional with 8.5 dBd gain. The radiator is made of folded dipole enables constant characteristics on whole frequency band. The elements are made of aluminum alloy with 10 mm diameter and inserted into aluminum square tube boom 20 x 20 mm. The mounting adapter is on back side of the boom enables using vertical or horizontal polarization as well. All joint elements are made of stainless steel and matching unit is built in a plastic protective housing enable reliable work even in hardest climatic conditions. All metal parts are DC grounded.

Frequency range	390 - 475 Mhz
Impedance	50 ohm
VSWR	< 1,6
Gain	8,5 dBd
Front to Back ratio	> 20dB
Polarization	VERT./HOR.
Maximum power	100 W
Connector	1.5 m RG-213 + N
Width	35 cm
Length	105 cm
Mass of antenna	2,5 kg

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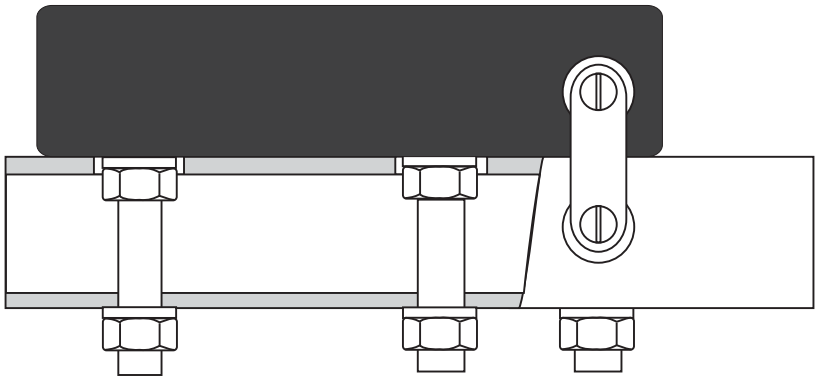
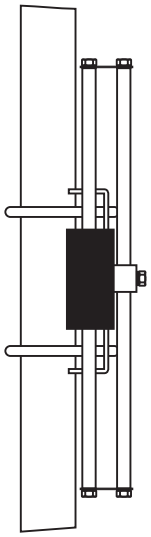
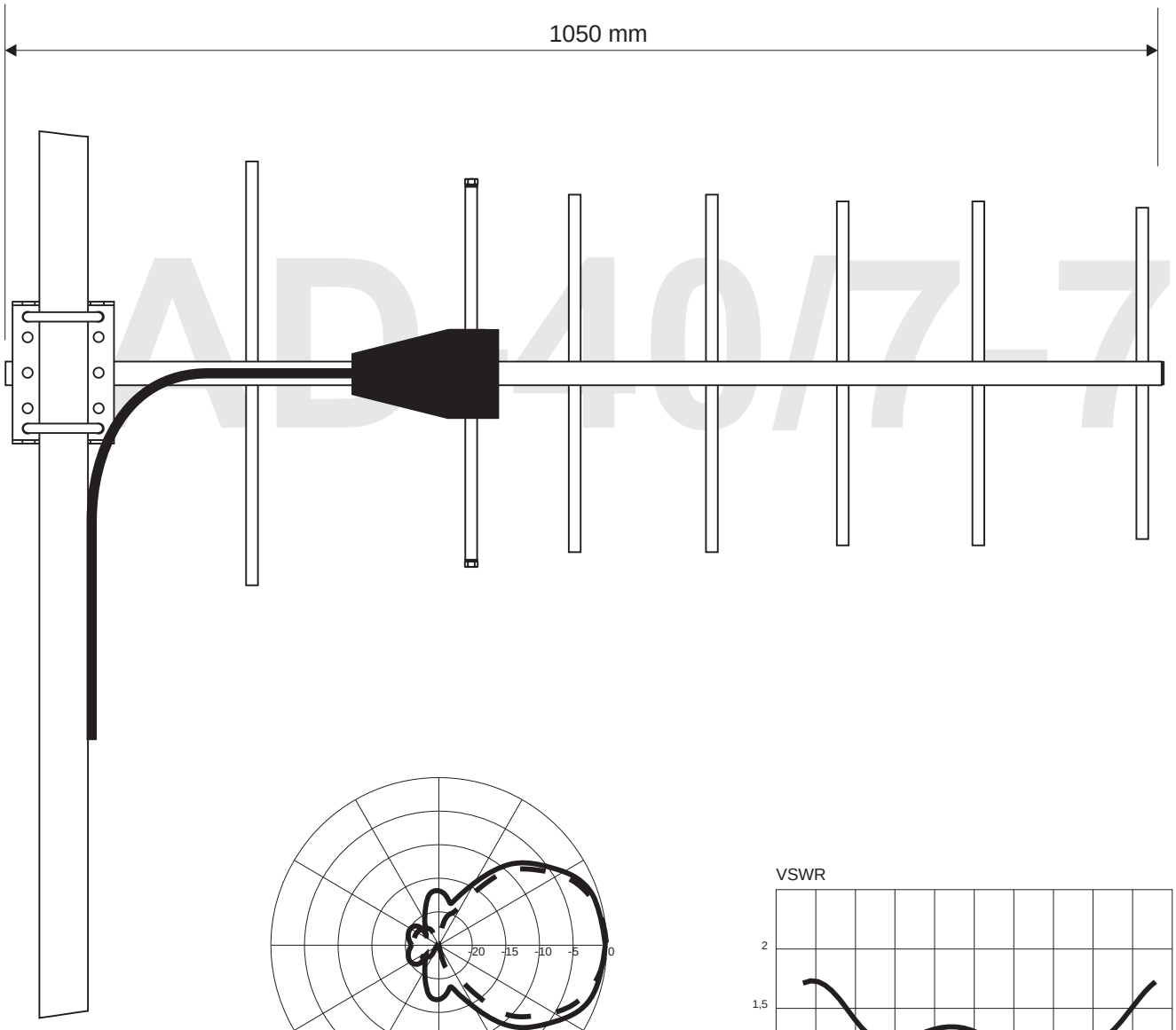
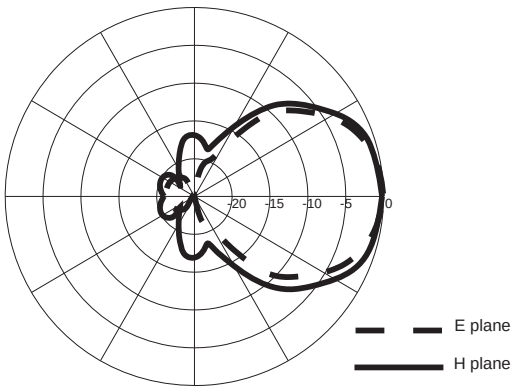
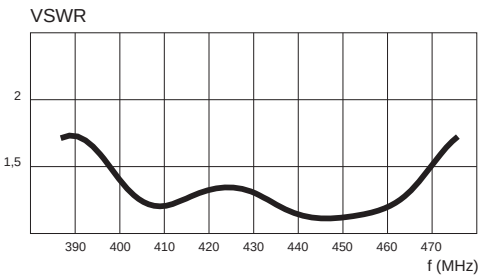




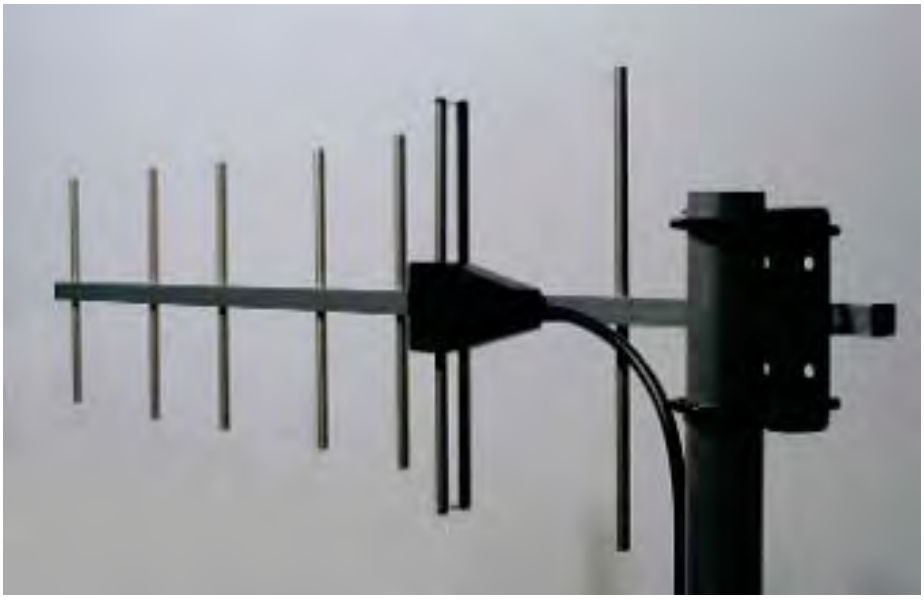

1050 mm


-20
-15
-10
-5
0
E plane
H plane


VSWR
2
1,5
390
400
410
420
430
440
450
460
470
f (MHz)

AD-40/07-7T

The antenna AD-40/07-7T is 7-element yagi antenna, primarily intended for use on TETRA UHF frequency range from 380 to 420 MHz. The antenna is directional with 8.5 dBd gain. The radiator is made of folded dipole enables constant characteristics on whole frequency band. The elements are made of aluminum alloy with 10 mm diameter and inserted into aluminum square tube boom 20 x 20 mm. The mounting adapter is on back side of the boom enables using vertical or horizontal polarization as well. All joint elements are made of stainless steel and matching unit is built in a plastic protective housing enable reliable work even in hardest climatic conditions. All metal parts are DC grounded.



Frequency range	380 - 420 MHz
Impedance	50 ohm
VSWR	< 1,6
Gain	8,5 dBd
Front to Back ratio	> 20dB
Polarization	VERT./HOR.
Maximum power	100 W
Connector	1.5 m RG-213 + N
Width	38 cm
Length	120 cm
Mass of antenna	2,5 kg

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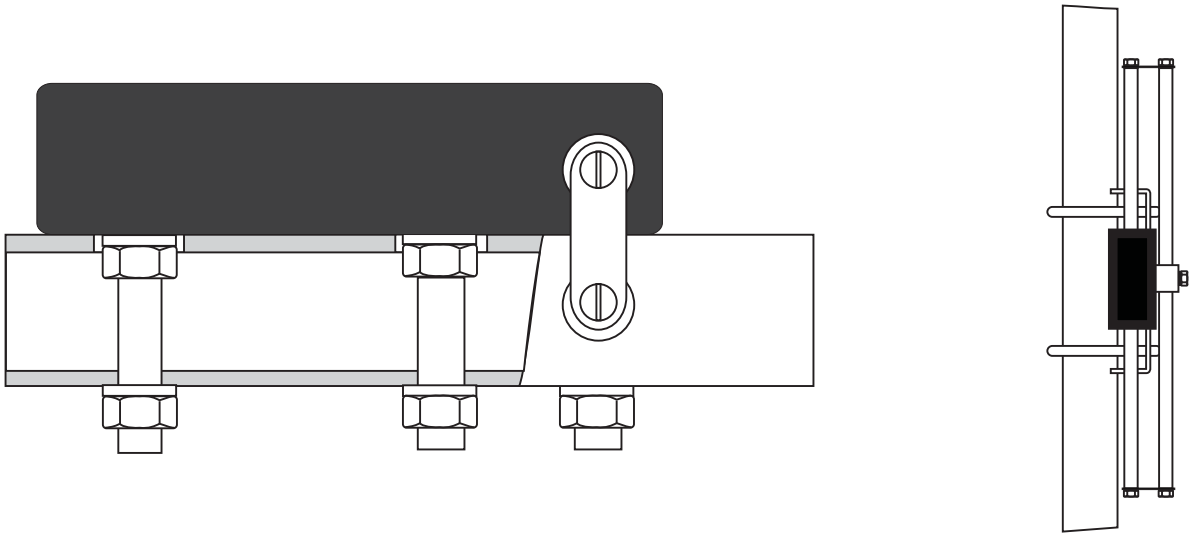
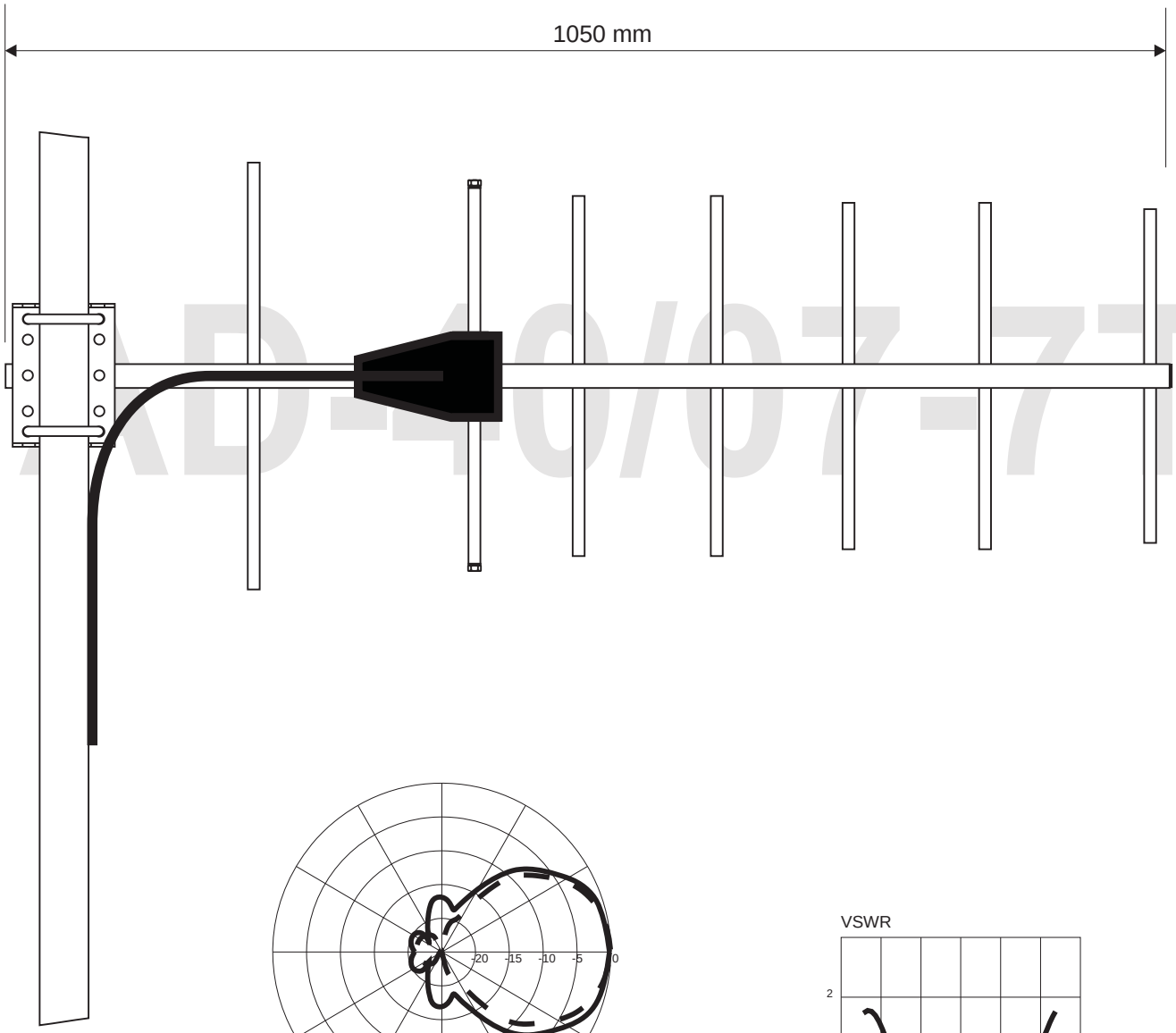
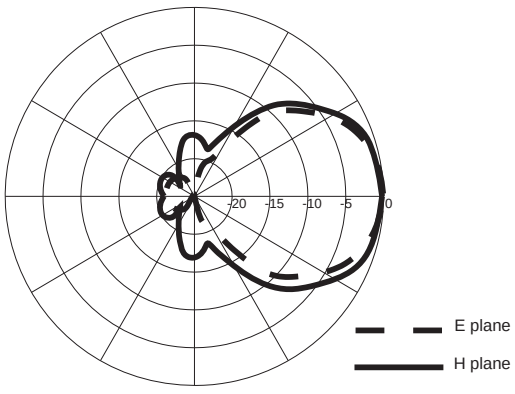
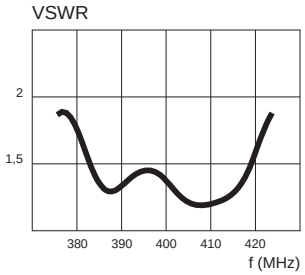



1050 mm


-20
-15
-10
-5
0
E plane
H plane


VSWR
2
1,5
380
390
400
410
420
f (MHz)

AD-40/07-9

The antenna AD-40/07-9 is 9-element yagi antenna, primarily intended for use on standard UHF frequency range from 390 to 475 MHz. The antenna is directional with 10 dBd gain. The radiator is made of folded dipole enables constant characteristics on whole frequency band. The elements are made of aluminum alloy with 10 mm diameter and inserted into aluminum square tube boom 20 x 20 mm. The mounting adapter is on back side of the boom enables using vertical or horizontal polarization as well. All joint element are made of stainless steel and matching unit is built in plastic protective housing enable reliable work even in hardest climatic conditions. All metal parts are DC grounded.

Frequency range	390 - 475 Mhz
Impedance	50 ohm
VSWR	< 1.6
Gain	10 dBd
Front to Back ratio	> 20dB
Polarization	VERT./HOR.
Maximum power	200 W
Connector	1.5 m RG-213 + N
Width	35 cm
Length	135 cm
Mass of antenna	2.8 kg
Wind velocity	150 km/h
Temperature - operating	-25 ... + 55 °C

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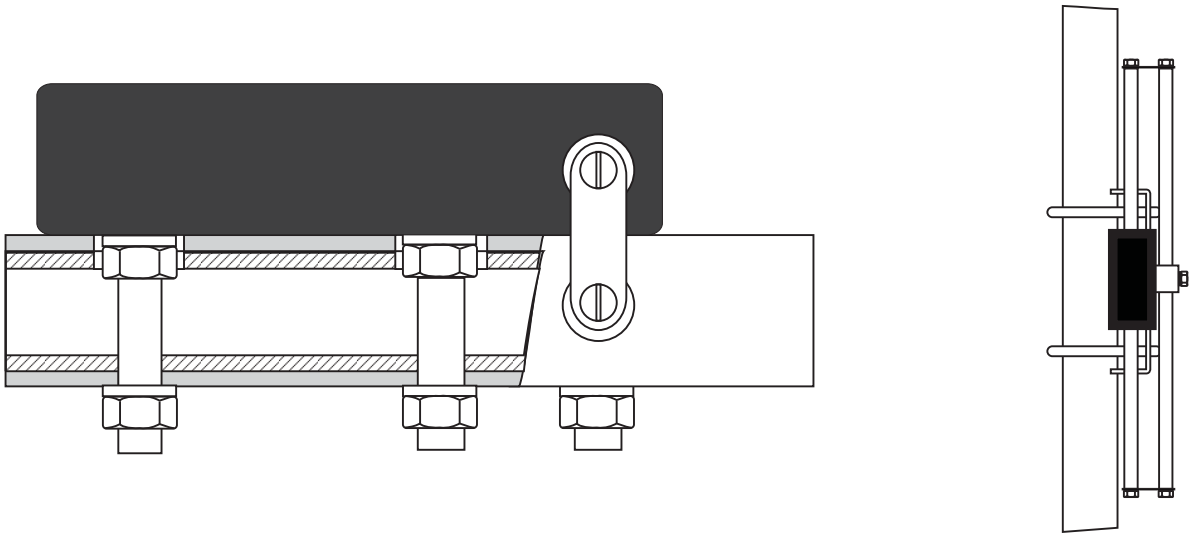
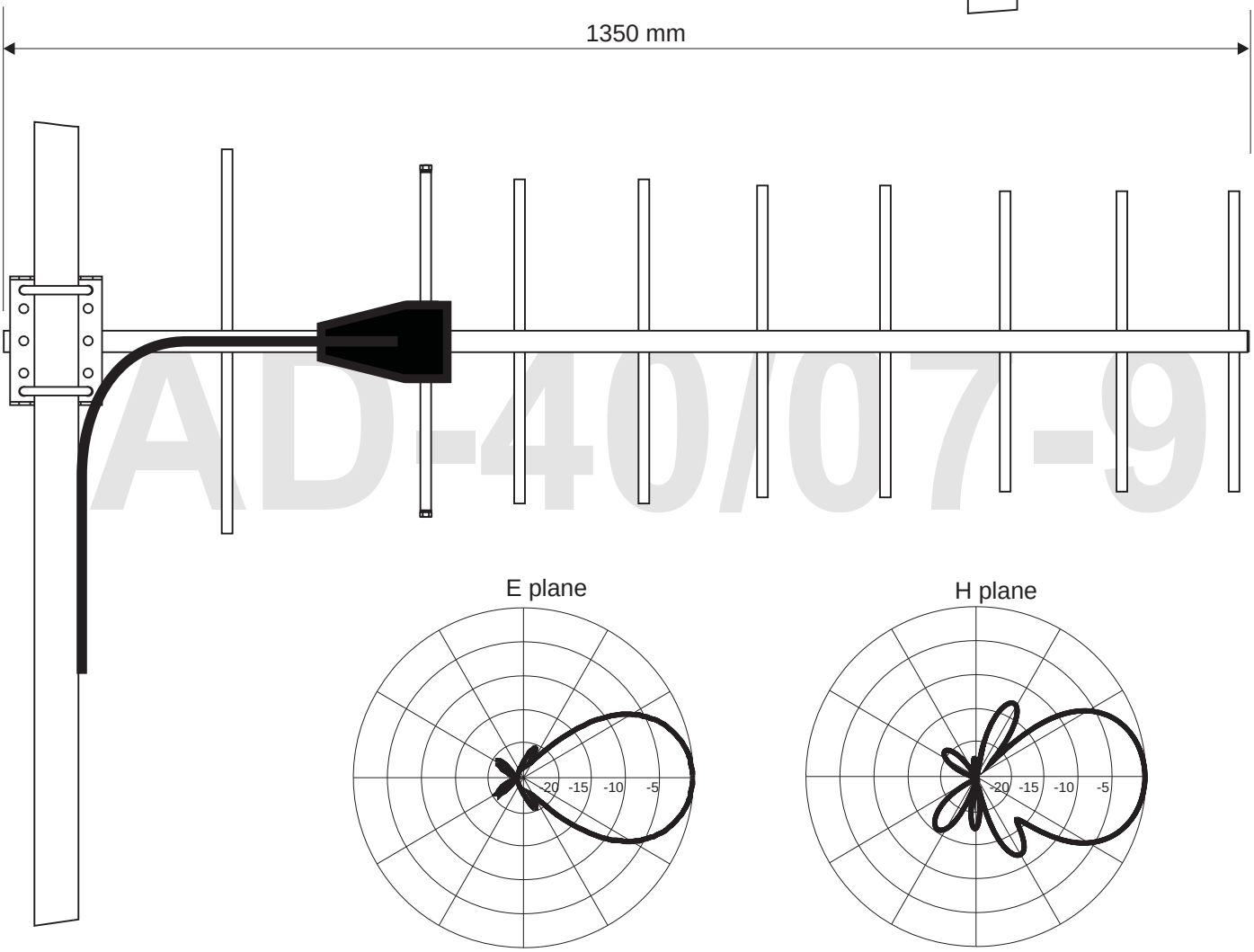
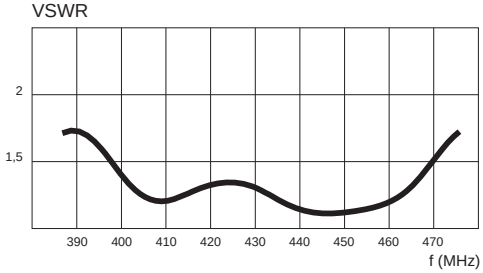



1350 mm

E plane
H plane
-20
-15
-10
-5
-20
-15
-10
-5


VSWR
2
1,5
390
400
410
420
430
440
450
460
470
f (MHz)

AD-40/07-9T

The antenna AD-40/07-9T is 9-element yagi antenna, primarily intended for use on TETRA UHF frequency range from 380 to 420 MHz. The antenna is directional with 10 dBd gain. The radiator is made of folded dipole enables constant characteristics on whole frequency band. The elements are made of aluminum alloy with 10 mm diameter and inserted into aluminum square tube boom 20 x 20 mm. The mounting adapter is on back side of the boom enables using vertical or horizontal polarization as well. All joint element are made of stainless steel and matching unit is built in plastic protective housing enable reliable work even in hardest climatic conditions. All metal parts are DC grounded.

Frequency range	380 - 420 Mhz
Impedance	50 ohm
VSWR	< 1.6
Gain	10 dBd
Front to Back ratio	> 20dB
Polarization	VERT./HOR.
Maximum power	200 W
Connector	1.5 m RG-213 + N
Width	38 cm
Length	150 cm
Mass of antenna	3.0 kg

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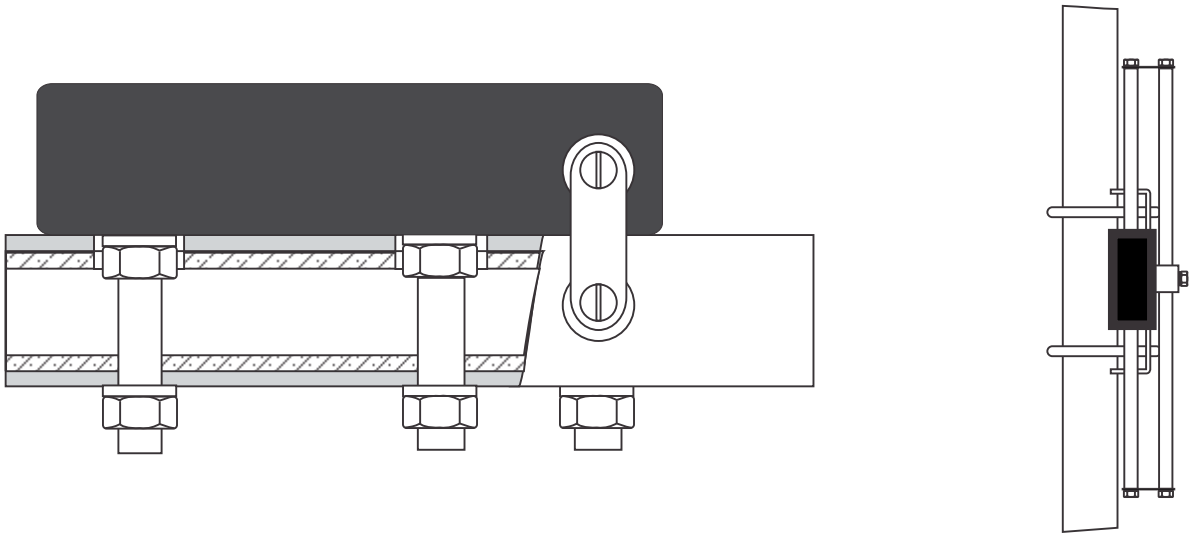
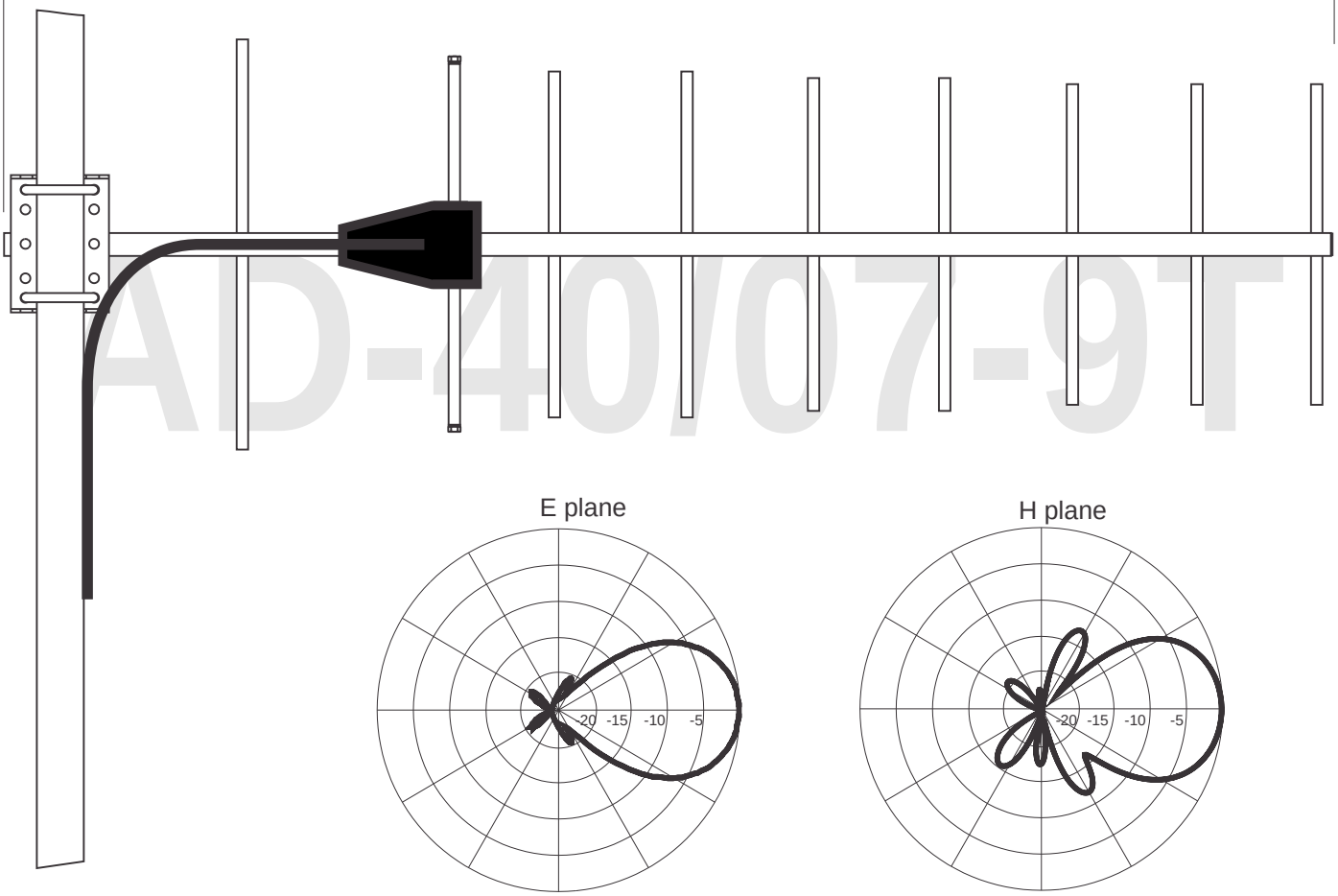
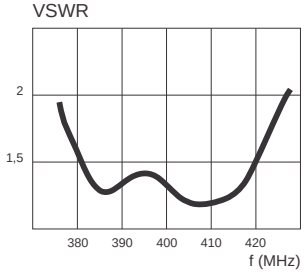


1480 mm



AD-40/07-9T



AD-40/35-7

The antenna AD-40/35-7 is 7-element yagi antenna, primarily intended for use on UHF frequency range from 810 to 910 MHz. The antenna is directional with 8,5 dBd gain. The radiator is made of folded dipole enables constant characteristics on whole frequency band. The elements are made of aluminum alloy with 10 mm diameter and inserted into aluminum square tube boom 20 x 20 mm. The mounting adapter is on back side of the boom enables using vertical or horizontal polarization as well. All joint elements are made of stainless steel and matching unit is built in plastic protective housing enable reliable work even in hardest climatic conditions. All metal parts are DC grounded.

Frequency range	810 - 910 Mhz
Impedance	50 ohm
VSWR	< 1,6
Gain	8,5 dBd
Front to Back ratio	> 20dB
Polarization	VERT./HOR.
Maximum power	100 W
Connector	N female
Width	18 cm
Length	64 cm
Mass of antenna	1 kg

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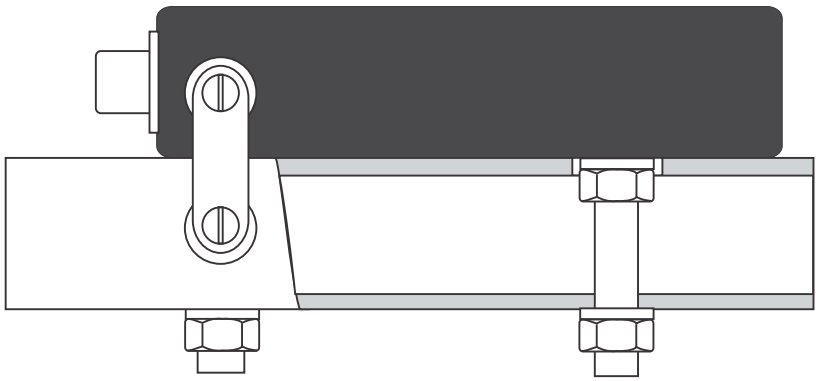
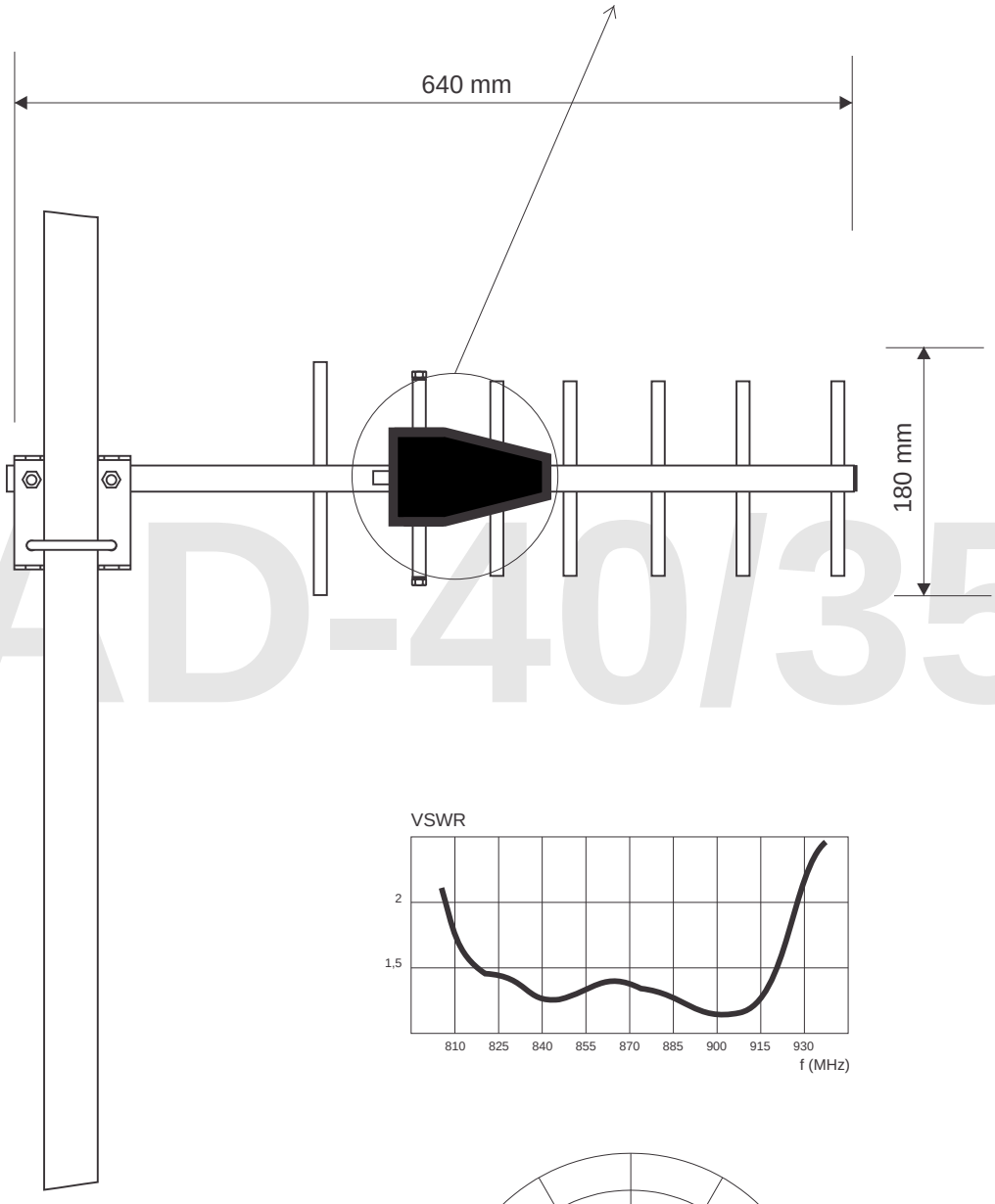
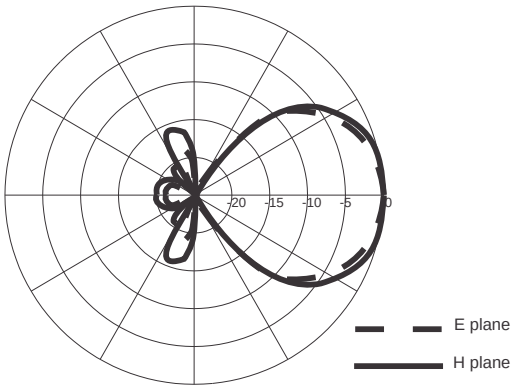



640 mm
180 mm

VSWR
2
1,5
810
825
840
855
870
885
900
915
930
f (MHz)


-20
-15
-10
-5
0
E plane
H plane

MOBILE ANTENNAS
380 - 1000 MHz

Mobile antennas are composed of the family of antenna radiators type ADS-21, fixed mounts type ADN-21 and magnet mounts type ADM-21. The antenna radiators are made of Stainless Steel or composite material (fiberglass) and painted with black protective paint, all covering the frequency range from 27 MHz (CB) to 900 MHz (GSM). Main advantage of the all family is beside quality materials and simple use also simple combining of different types of the radiators with different types of the mounts through M6 screw joint (male on the mount side and female on the radiator side). In that way user could easily combine the appropriate radiator with different mount according to his requirements. All the mounts are equipped with coaxial cable type RG-58 terminated with connector type FME on which we could easily fit different adapters from FME to PL 259, BNC, TNC, N, MINI UHF or SMA.

	ADS-21/ 07-A	ADS-21/ 07-B	ADS-21/ 07-D	ADS-21/ 35-A	ADS-21/ 37-A	ADS-21/ 3174
Radiator type	collinear	5/8	1/4	collinear	collinear	1/4
Frequency (MHz)	380 - 480	380 - 480	410 - 480	890-960	824-894	890-960
Impedance	50	50	50	50	50	50
VSWR	<1.5	<1.5	<1.5	<1.5	<1.5	<1.5
GAIN - dB(1/4 wave)	4 dB	3 dB	0 dB	4 dB	4 dB	0 dB
Bandwith (MHz at SWR<2)	25	40	55	80	80	80
Material	SS	SS	SS	SS	SS	Brass
Colour	black	black	black	black	black	black
Height	560 mm	450 mm	140 mm	275 mm	315 mm	49 mm

Mounts	ADN-21/1	ADN-21/2	ADM-21/MA6	ADM-21/MI6
Mount type	fixed bendable	fixed with swivel	magnet 90 mm-swivel	magnet 60 mm
Colour	black	black	black	black
Cable	5 m RG-58	5 m RG-58	3.5 m RG-58	3 m RG-58
Radiator joint	screw M6	screw M6	screw M6	screw M6
Height	40 mm	42 mm	80 mm	58 mm
Weight w. cable	250 gr.	250 gr.	750 gr.	350 gr.

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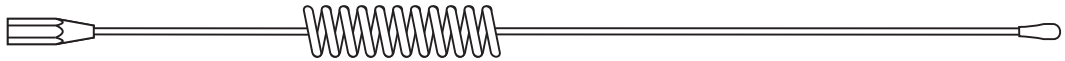
ADS-21/07-A

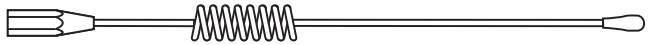


ADS-21/07-B

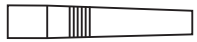
ADS-21/07-D1

ADS-21/35-A

ADS-21/37-A



ADS-21/3174



ADM-21/MA6

ADM-21/MI6

ADN-21/2

ADN-21/1

AD-10/D

The antenna AD-10/D is a wideband UHF antenna for the frequency range from 500 to 3000 MHz, mainly intended for base station use. The antenna is composed of two main parts: attachment pipe with console and radiating element. The attachment pipe is made of aluminium tube diameter of 40 mm. The radiating element is enclosed in a tube made of composite material. The antenna is painted with black two-component UV resistant PU paint. The antenna has N female coaxial connector mounted at the end of the antenna attachment pipe. Attachment piper has a special mounting console adapter enables mounting the antenna on the mast with diameter up to 60 mm.

ELECTRICAL SPECS	
Frequency range	500 - 3000 MHz
Impedance	50 ohm
VSWR	< 2.5
Gain	1 - 2.5 dBi
Polarization	Vertical
Maximum power	500 W (500 MHz) .... 200 W (3000 MHz) CW
Connector	N female
MECHANICAL SPECS	
Design	Dipole (Center-Fed) Antenna
Height	500 mm
Weight	3 kg
Diameter	89 mm
Temperature range - in use	-50 ... +55C
Temperature range - in stock	-55 ... +75C
Wind rating	55 m/s (200 km/h)
Color	Black

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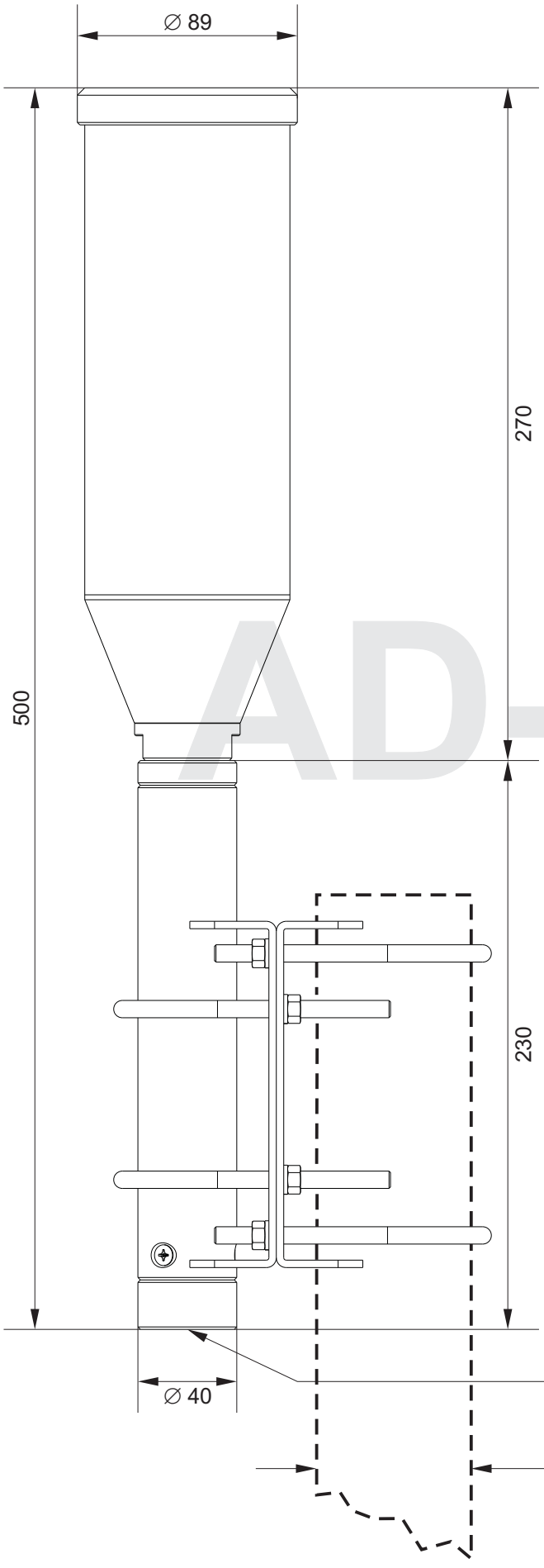
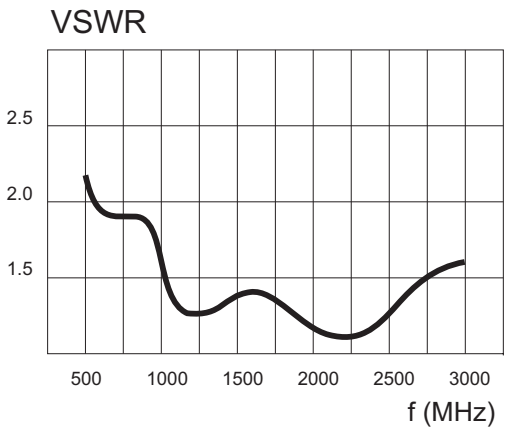
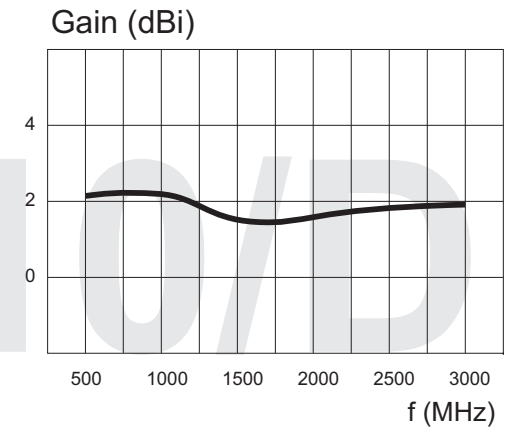
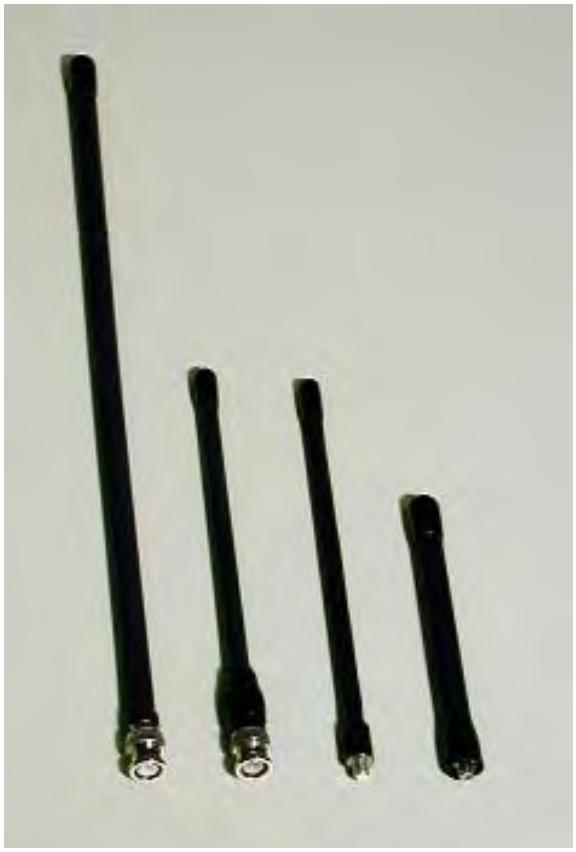

∅ 89
500
270
230
∅ 40
N female connector
Tube dimension
∅ 30 - 60 mm


VSWR
2.5
2.0
1.5
500
1000
1500
2000
2500
3000
f (MHz)


Gain (dBi)
4
2
0
500
1000
1500
2000
2500
3000
f (MHz)

AD-20

The antennas AD-20 represent the family of so called “rubber flexible antennas”, primarily intended for use with a two-way hand held or other portable radios. Difference between particular antennas are in frequency range, type of radiating element and in type of connecting element or connector.



Common properties are in good electrical conductivity (the radiating element is galvanically coated with copper), perfect mechanical and climatic properties and roughness enabled with special coating of heatshrinkable tube with silicone layer. The code of the antenna is AD-20/x-y-z, where “x” means frequency range, “y” means type of radiating element and “z” means type of connecting element. The table shows the meaning of particular numbers. All antennas are tuned on the beginning of the frequency band or on customer request.

Antennas AD-20/.... have three basic types of radiating element:
- HELIX type - made of strong spring-steel wire coated with copper; such radiator is physically and therefore electrically shorter (approx. 30% of normal 1/4 wave antenna length
- WIRE type - made of straight flexible wire; full 1/4 wave length
- TAPE type - made of special steel tape covered with plastic jacket, full 1/4 wave length; mechanically extremely robust antennas

	X-frequency range	Y-type of radiating element	Z-type of connector
1	36 - 42 MHz	helix	5/32"
2	66 - 88 MHz	wire	3/8"-24G
3	144 -174 MHz	tape	5/8"-24G
4	400 - 500 MHz		1/4"-32UNEF*
5	800 - 1000 MHz		1/4"-36UNS**
6			
7			
8			
9			UHF (PL-259)
10			BNC (UG-88/U)
11			N (UG-21/U)
12			TNC
13			SMA

EXAMPLE: AD-20/x-y-z ==> AD-20/3-1-10 is spring rubber antenna with BNC connector for frequency range 144-174 MHz
* - for Motorola GP 3xx series; ICOM IC-F61
** - for Motorola DP 4000 series

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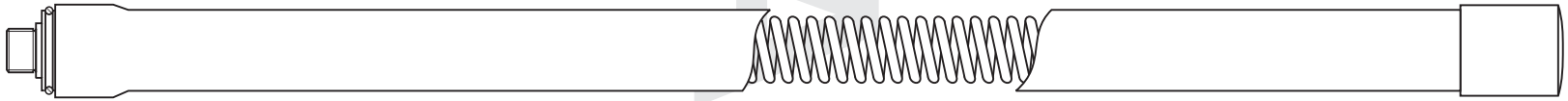


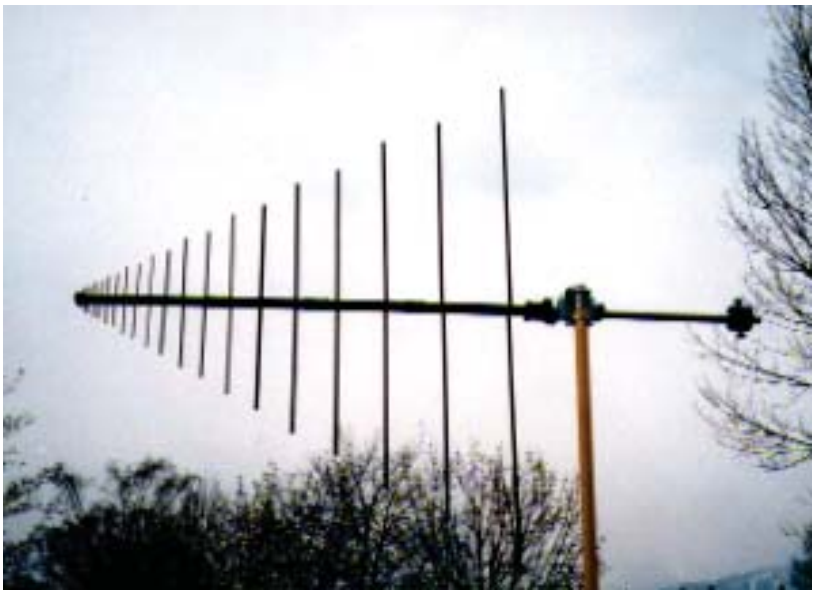
typical antenna AD-20/x-1-z

typical antenna AD-20/x-2-z

typical antenna AD-20/x-3-z

AD-22/C

The antenna AD-22/C is a log-periodic dipole antenna covering the frequency range from 80 to 1300 MHz. The antenna is mainly intended for use in EMC applications, radio monitoring, etc.
The antenna is composed of a boom element and 20 dipoles connected to the boom by special screw joints. All dipole elements and boom are made of aluminum alloy and joints are made of stainless steel. On the end of the antenna boom is joint for mounting the support pipe with mounting console for mounting the antenna on the mast. The mounting console is constructed for easy change of antenna polarization. The antenna support enable mounting the antenna on masts with outer diameter between 26 and 60 mm. The antenna is primarily intended for use as transportable but it can be used also as stationary due to construction of elements and materials enabling long life. All metal parts of the antenna are painted with UV resistant polyurethane paint. The antenna is packed in a special canvas bag suitable for transport.



Frequency range	80 - 1300 MHz
Impedance	50 ohm
VSWR	< 2,5
Gain	6 dBi
Front-to-back ratio	> 15 dB
Polarization	HOR./VER.
Maximum power	100 W CW
Length	1,8 m
Width	2 m
Weight - antenna + counterweight	18 kg
Wind velocity	120 km/h
Temperature range	-40...+70 °C

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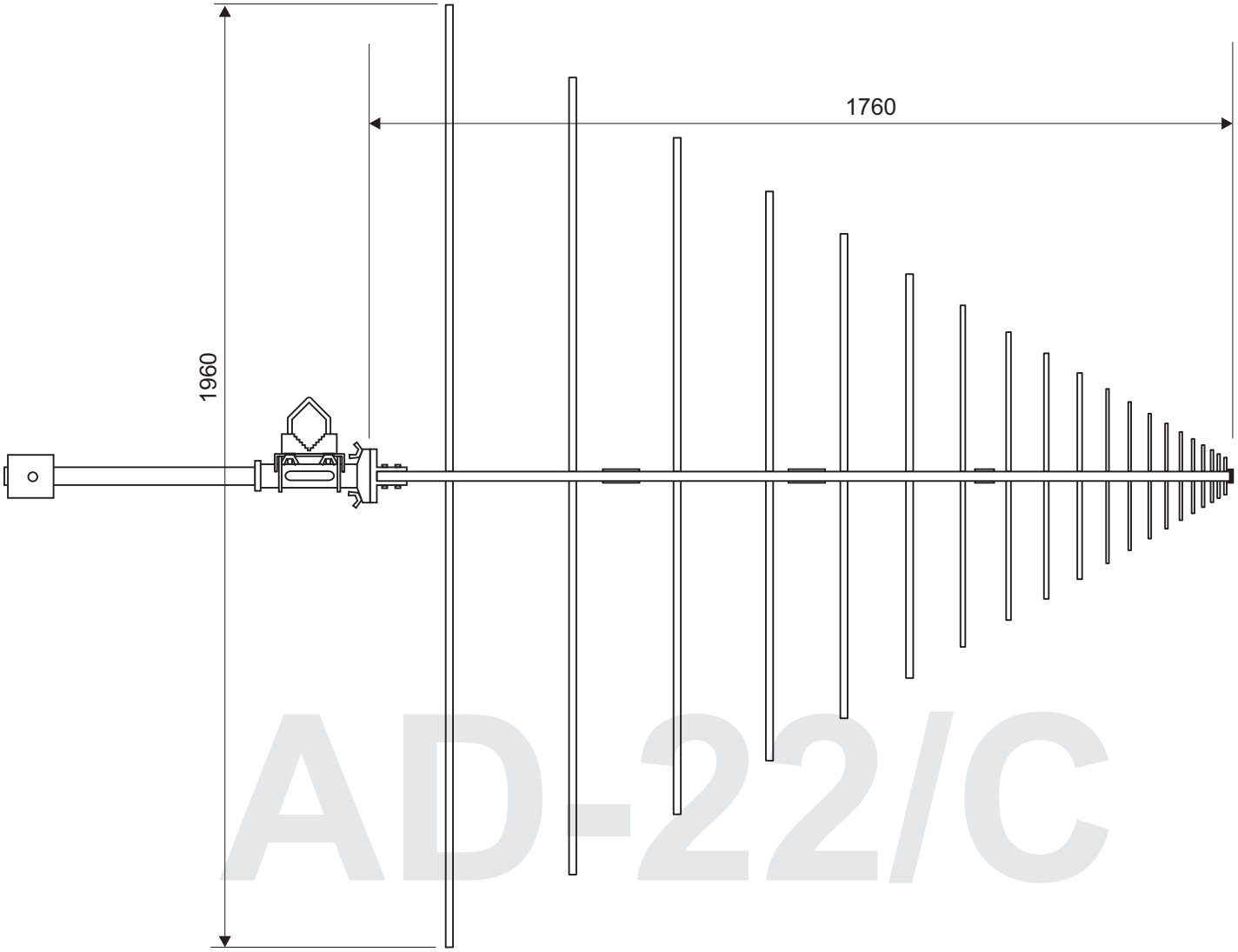
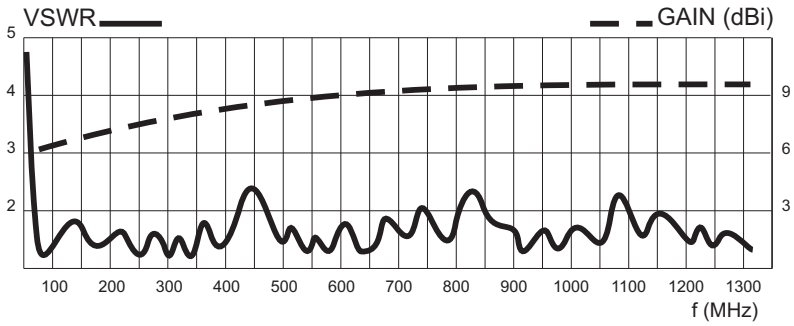
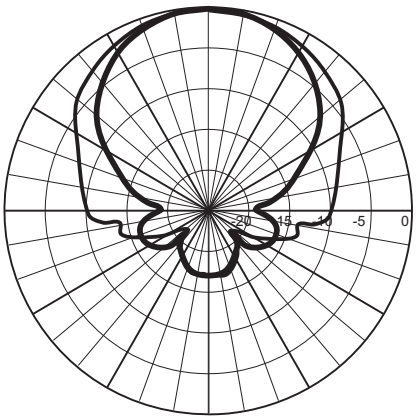


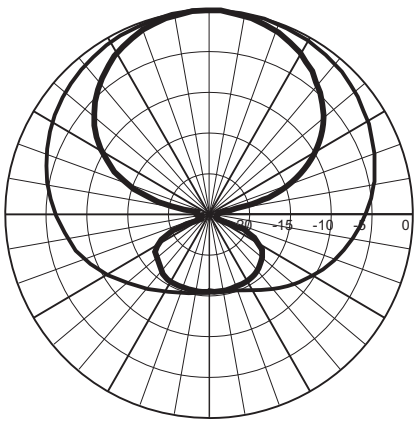
AD-22/C



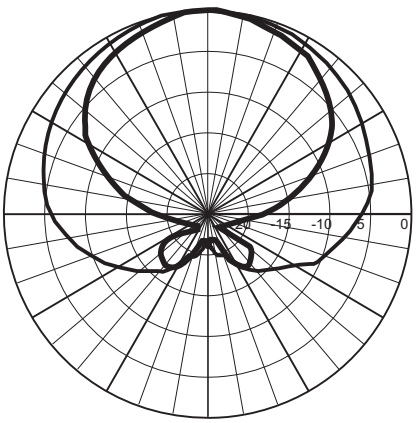


1300 MHz

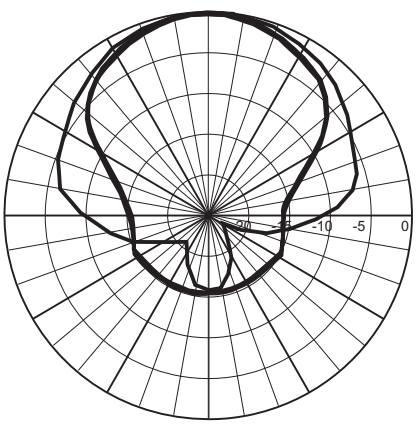
E plane
H plane



100 MHz



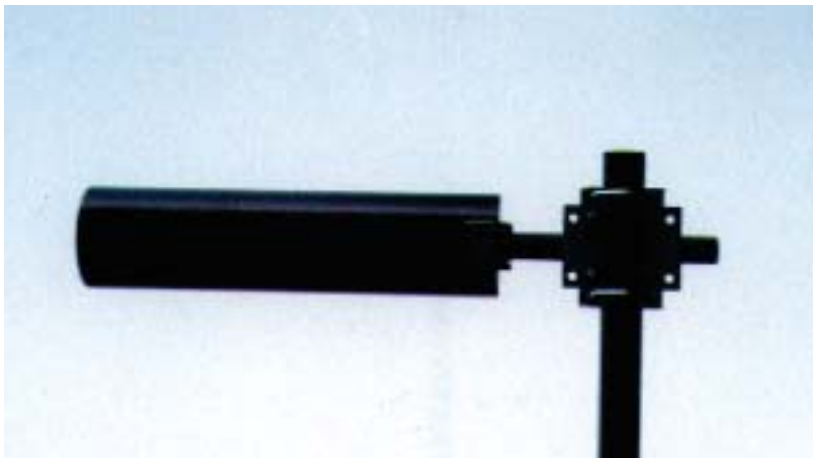
500 MHz



900 MHz

AD-22/D

The antenna AD-22/D is a log-periodic dipole antenna covering the frequency range from 1300 to 2700 MHz. The antenna is mainly intended for use in EMC applications, radio monitoring, etc.
The antenna is composed of a boom element and 15 dipoles. All dipole elements and boom are made of brass and galvanically coated with silver. The antenna is enclosed in a radome made of ABS plastic material. The antenna support on the end enables mounting on masts with outer diameter between 1" (26 mm) and 2" (60 mm). The antenna could be used as transportable or as stationary.



Frequency range	1300 - 2700 MHz
Impedance	50 ohm
VSWR	< 2 (DIAG. 1)
Gain	9 dBi (DIAG. 2)
Front-to-back ratio	> 18 dB
Polarization	HOR./VER.
Maximum power	50 W CW
Length	450 mm
Width	125 mm
Mass	1.8 kg
Wind velocity	150 km/h
Temperature range	-40...+70 °C

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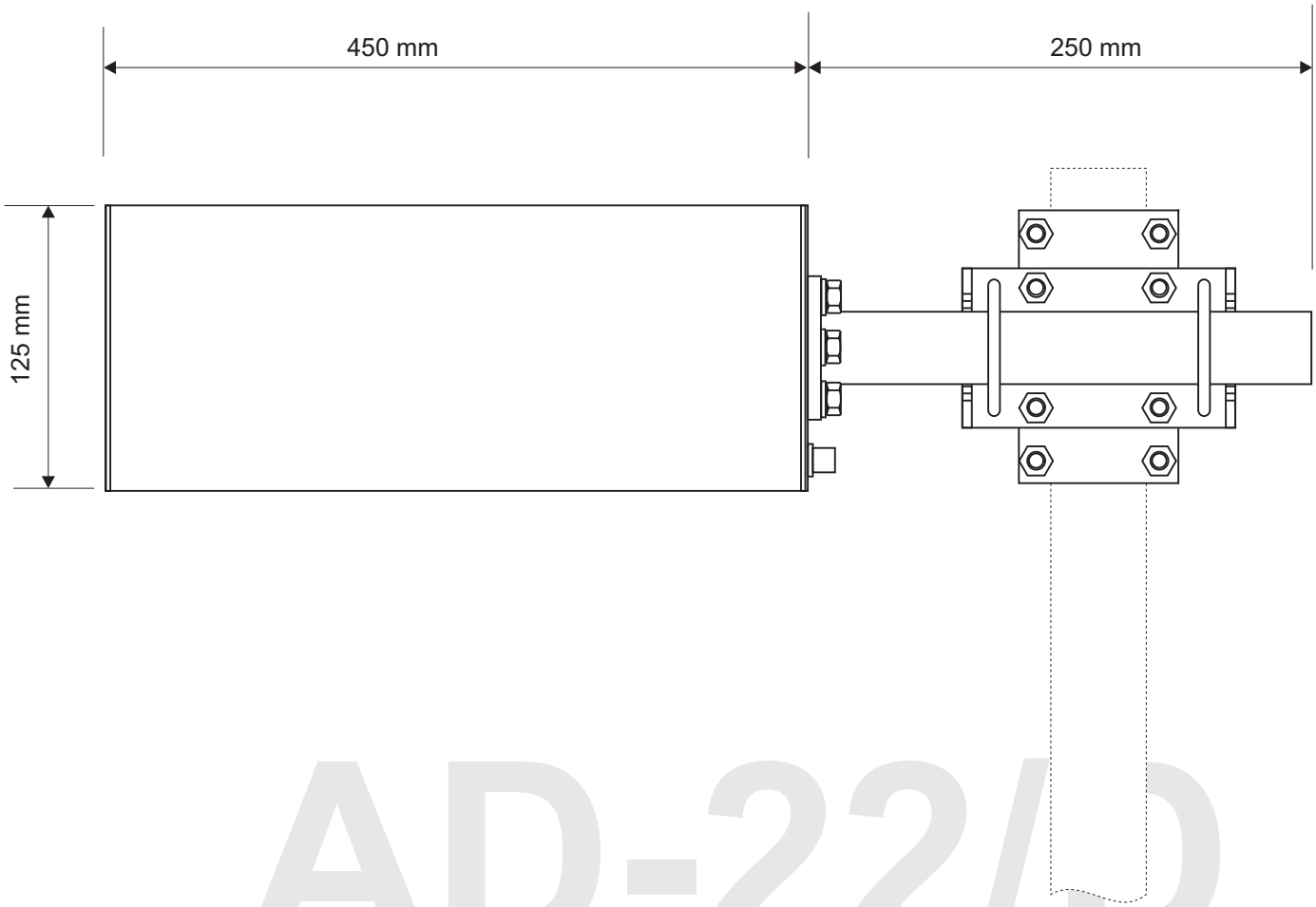
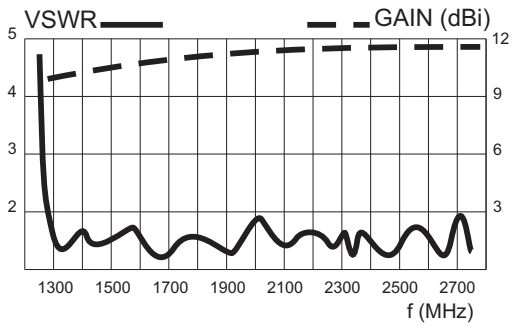
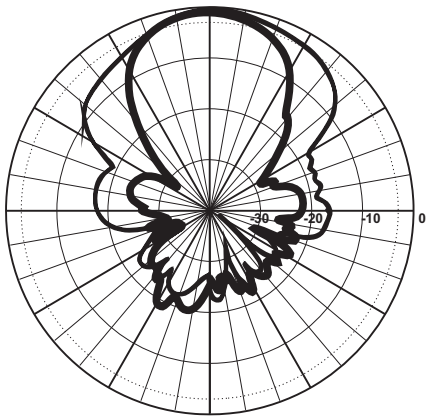
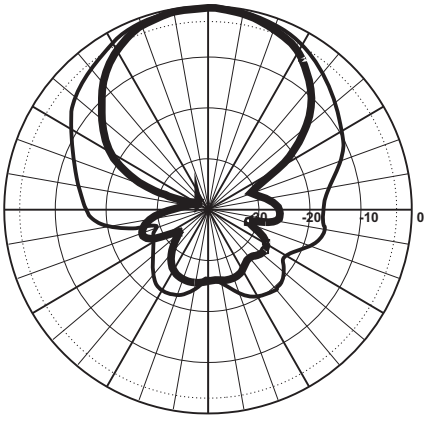




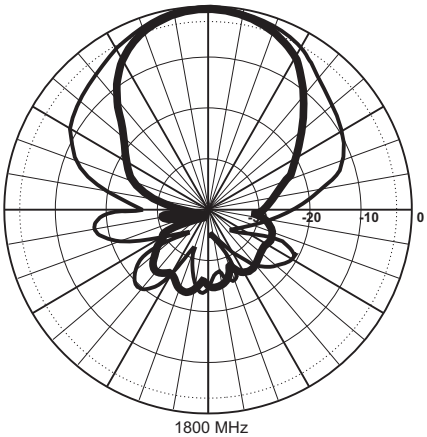


2700 MHz

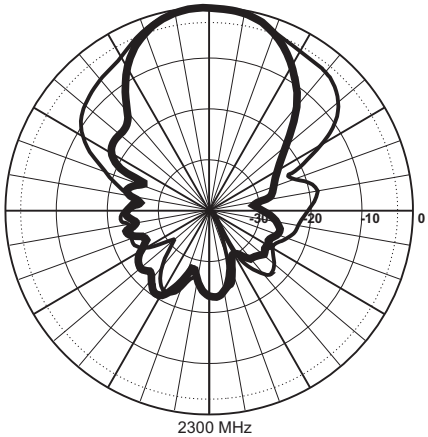
E plane
H plane



1300 MHz



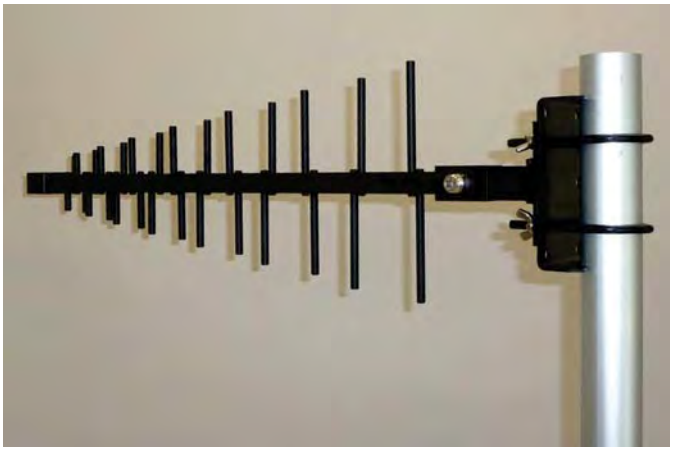
1800 MHz



2300 MHz

AD-22/E

The antenna AD-22/E is a log-periodic dipole antenna covering the frequency range from 800 to 2600 MHz. The antenna is mainly intended for use for broadcast, EMC applications, radio monitoring, jamming, etc.
The antenna is composed of a boom element and 14 dipoles. All dipole elements and boom are made of aluminium alloy, protected with irridite finnish and painted with two component UV resistant PU paint. The antenna support on the end enables mounting on masts with outer diameter between 1" (26 mm) and 2" (60 mm). The antenna could be used as transportable or as stationary.



Frequency range	800 - 2600 Mhz
Impedance	50 ohm
VSWR	< 2.5 (DIAG. 1)
Gain	typ. 8 dBi (DIAG. 2)
Front-to-back ratio	> 13 dB typ.
Polarization	HOR./VER.
Maximum power	150 W CW
Connector	N female
Length	730 mm
Width	225 mm
Mass	1,75 kg
Wind velocity	160 km/h
Temperature range	-55...+80 °C

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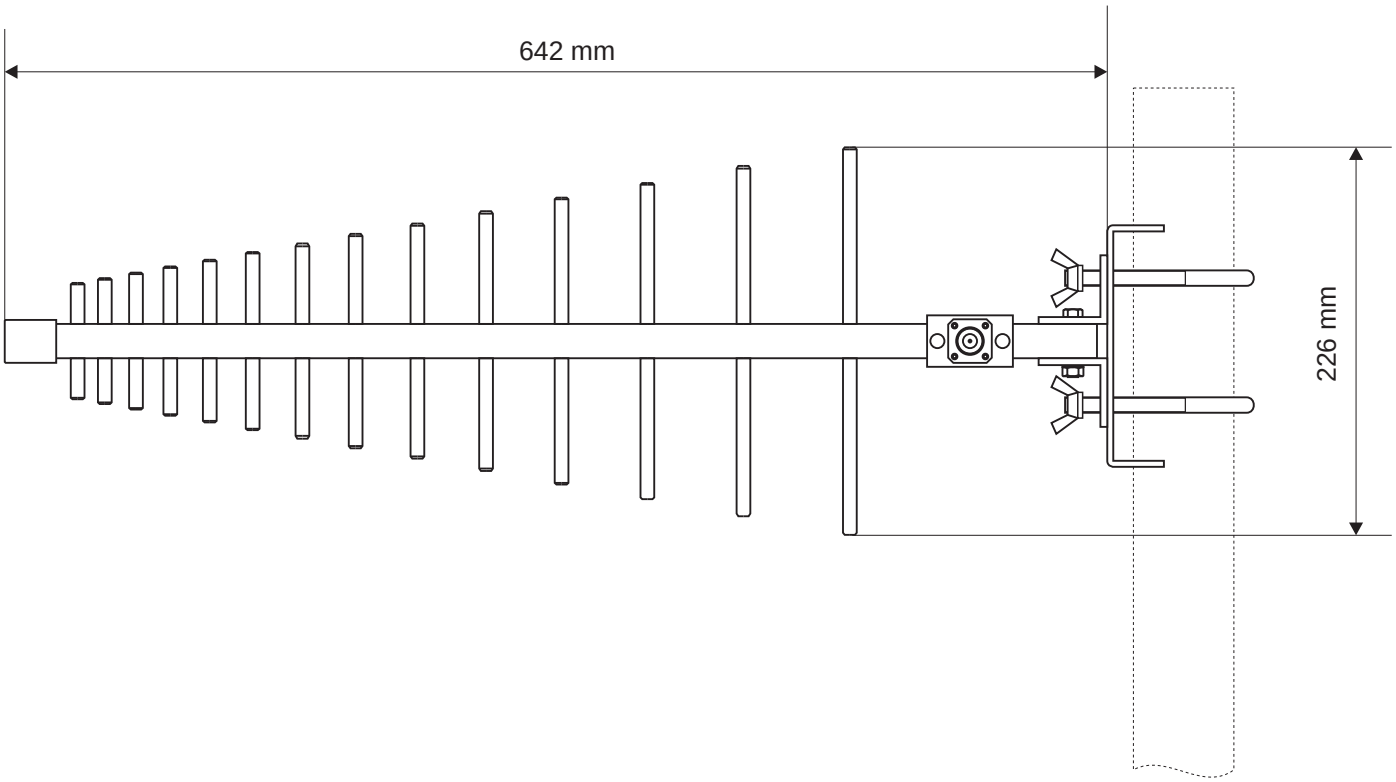
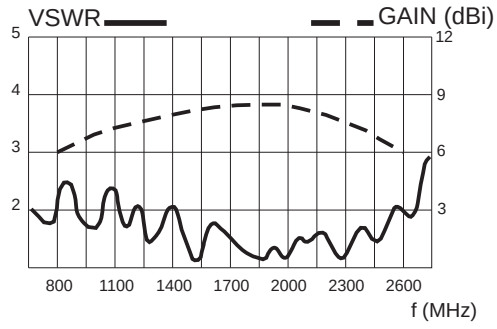
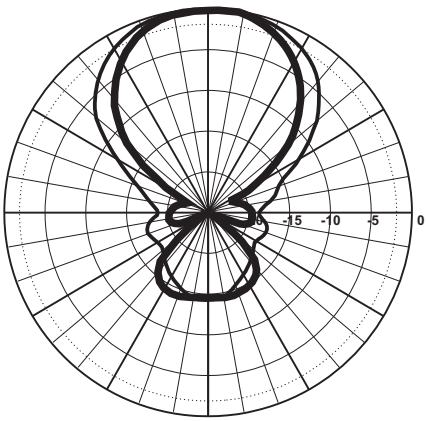


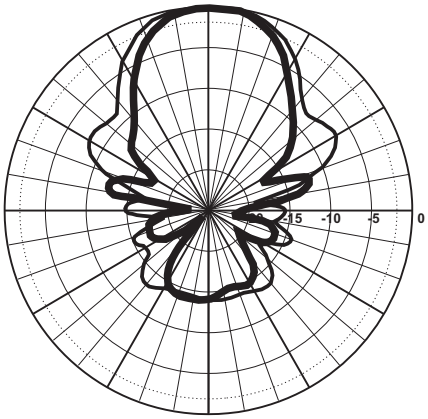
AD-22/E



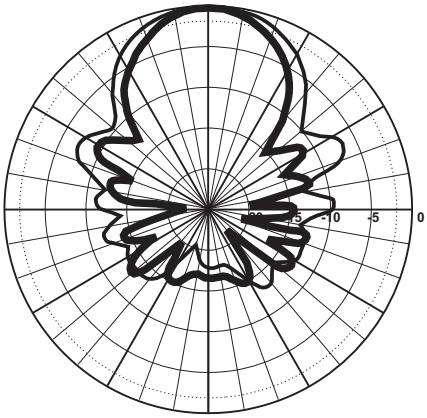


1000 MHz

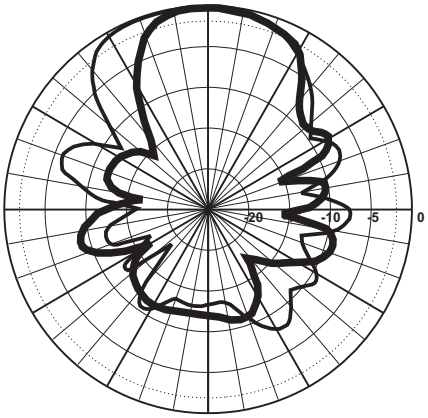
E plane
H plane



1500 MHz



2000 MHz



2500 MHz

AD-18/G-2210

The antenna AD-18/G-2210 is an ultra wideband dipole mobile antenna intended for use in the frequency range from 225 to 1000 MHZ, mainly intended for use in heavy duty mobile applications.
The antenna is composed from two main parts: the radiator and the antenna base. The radiator is made of 28 mm diameter fibreglass whip with special radiating elements firmly placed inside. The antenna base has built-in biconical spring enables resistivity against mechanical impacts. Electrically the antenna is designed as center-fed thus the electrical characteristics are independent from the ground or mounting place.
The antenna is painted with two component UV resistant polyurethane military green paint (RAL 6014).
The antenna base has an option of additional built-in GPS active antenna. Stainless steel spring absorbs the shocks and the vibrations, in addition protects the antenna against impacts. The radiating element is made of composite materials enable outstanding strength and roughness even in hardest conditions of use.
The antenna base has four mounting holes equally spaced on a 4.5" (114.3 mm) circle which complies with NATO standard. Different base plate dimensions are available on request.
The antenna radiator is painted with military green (RAL-6014) two-component UV resistant paint.

ELECTRICAL SPECIFICATIONS - UHF:	
Frequency range	225 - 1000 MHZ
Impedance	50 ohms
VSWR	< 3,5
Gain	typ. -10 ..... +3 dB (see diagram)
Polarization	vert.
Maximum power	50 W CW
Connector	N female (BNC female optional)
ELECTRICAL SPECIFICATIONS - GPS:	
Frequency range	L1 1575.42 +/- 10 MHZ
Impedance	50 ohms
VSWR	< 2
Polarization	RHC
Gain (LNA)	26 dB
Noise fig.	1.35 dB
Power supply	3 - 5.5 V DC (max. 20 mA)
Connector	SMA female
MECHANICAL SPECIFICATIONS:	
Design	Center-fed whip (UHF); patch antenna with LNA (GPS)
Height	1.2 m
Weight	2.8 kg
Max. high voltage rating	16 kV
Temperature range - in use	-50 ... +55 °C
Temperature range - in stock	-55 ... +75 °C
Wind rating	45 m/s (160 km/h)
Color	MIL Green

VERSIONS:
AD-18/G-2210: UHF antenna
AD-18/G-2210G: combined UHF and GPS antenna

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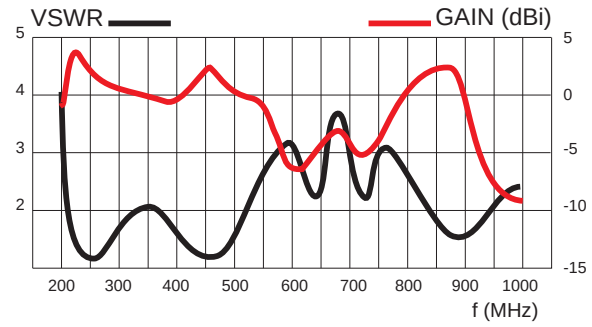

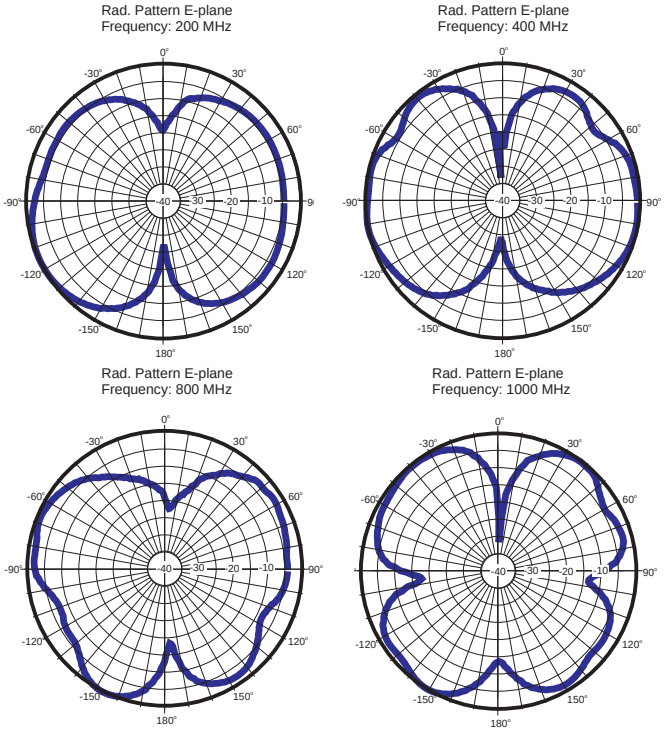

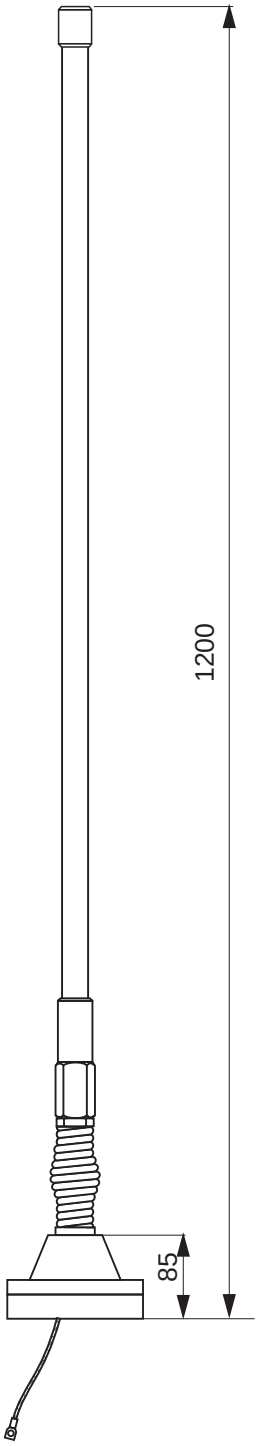

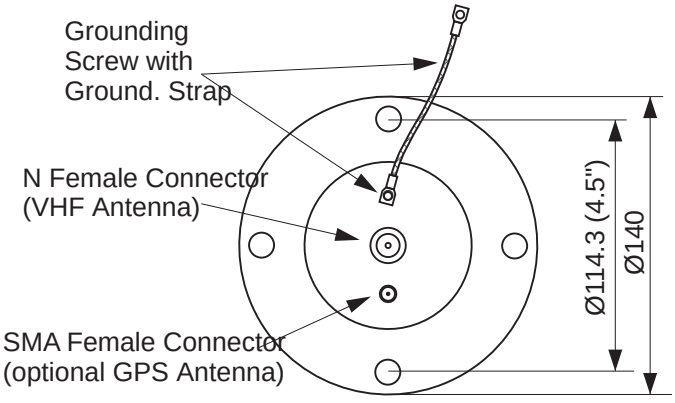

ANTENNA BASE -
BOTTOM VIEW

AD-18/G-50300

The antenna AD-18/G-50300 is a wideband UHF antenna for frequency range from 500 to 3000 MHz, mainly intended for use in heavy duty mobile applications. The antenna is composed of two main parts: the antenna base and the radiating element. The antenna base is made of aluminum and durable plastic materials. Inside the base is mounted (optional) GPS antenna. Stainless steel spring absorbs shocks and vibrations. Radiating elements are made of aluminium alloy and are enclosed inside epoxi composite tube enable outstanding strength and roughness even in hardest conditions of use. The antenna base has four mounting holes equally spaced on a 4.5" (114.3 mm) circle which complies with NATO standard. Different base plate dimensions are available on request. The antenna radiator is painted with black PU two-component UV resistant paint.

ELECTRICAL SPECS - UHF	
Frequency range	500 - 3000 MHz
Impedance	50 ohm
VSWR	< 2.5
Gain	1 - 2.5 dBi
Polarization	Vertical
Maximum power	500 W (500 MHz) .... 200 W (3000 MHz) CW
Connector	N female
ELECTRICAL SPECS - GPS	
Frequency range	L1 1575.42 +/- 10 MHz
Impedance	50 ohm
VSWR	<2
Gain (LNA)	26 dB
Polarization	RHC
Noise fig.	1.35 dB
Power supply	3 - 5 V DC (max. 10 mA)
Connector	SMA female
MECHANICAL SPECS	
Design	Dipole (Center-Fed) Antenna
Height	465 mm
Weight	3.3 kg
Max Radiator Diameter	89 mm
Temperature range - in use	-50 ... +55 °C
Temperature range - in stock	-55 ... +75 °C
Wind rating	45 m/s (160 km/h)
Color	Black

VERSIONS:
AD-18/G-50300: UHF Antenna
AD-18/G-50300-G: combined UHF and GPS Antenna

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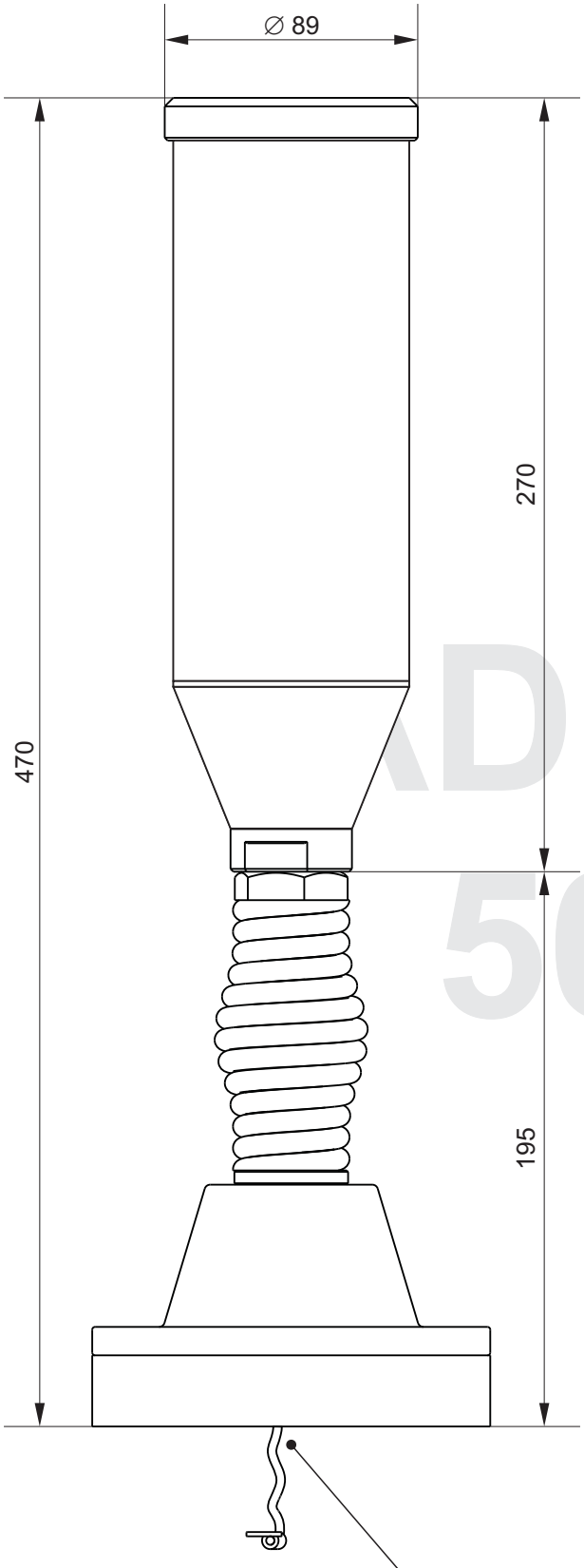

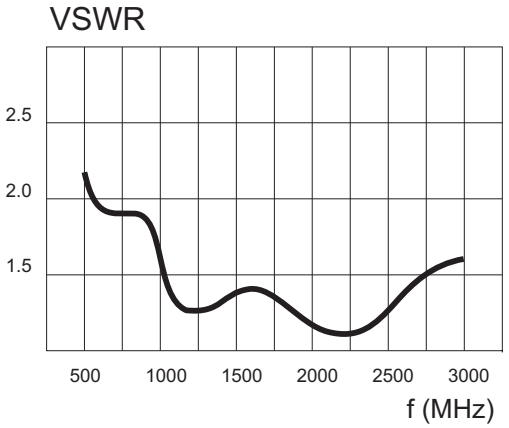

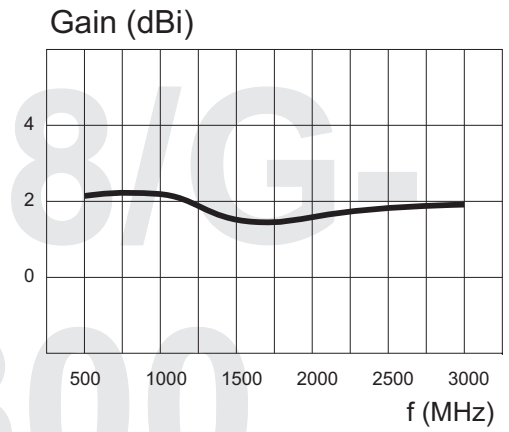

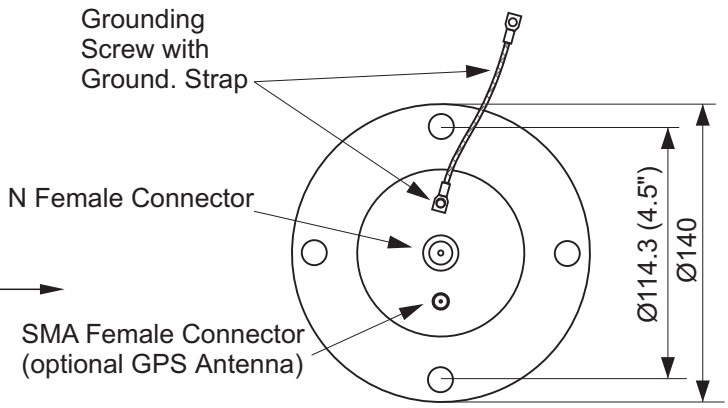

ANTENNA BASE -
BOTTOM VIEW

AD-21/5250-M

The antenna AD-21/5250-M is a wideband vertical polarised dipole covering frequency range from 500 to 2500 MHz and it is primarily intended for use with mobile radio and jamming devices. There is no need for tuning the antenna since the antenna broadband characteristics were achieved with a specially designed radiator. The antenna is painted with UV protective polyurethene black paint. Antenna has integrated magnet and coaxial cable length of 4 meters and ended with the FME female connector. Various adapters from FME to N, BNC, UHF, SMA, etc. are available on request.

Frequency range	500 - 2500 MHz
Impedance	50 ohm
VSWR	< 3 (see diagram)
Gain	see diagram
Polarization	VER.
Maximum power	100 W CW
Height	140 mm
Weight	800 gr.
Cable lenght	4 m
Input connector	N female (optional)
Wind velocity	180 km/h
Temperature range	-40....+70 °C

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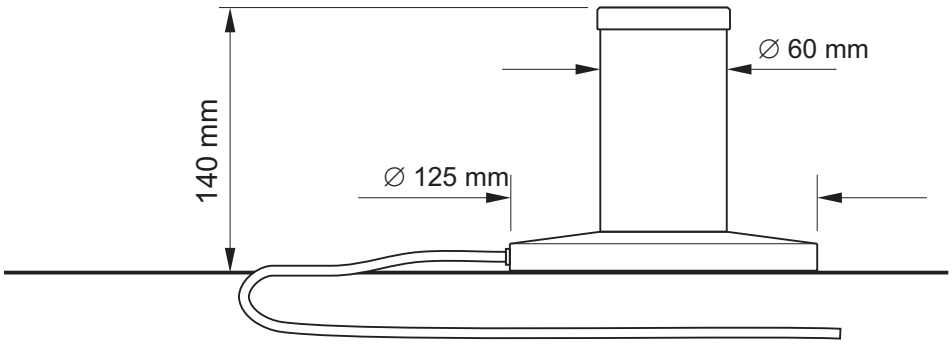
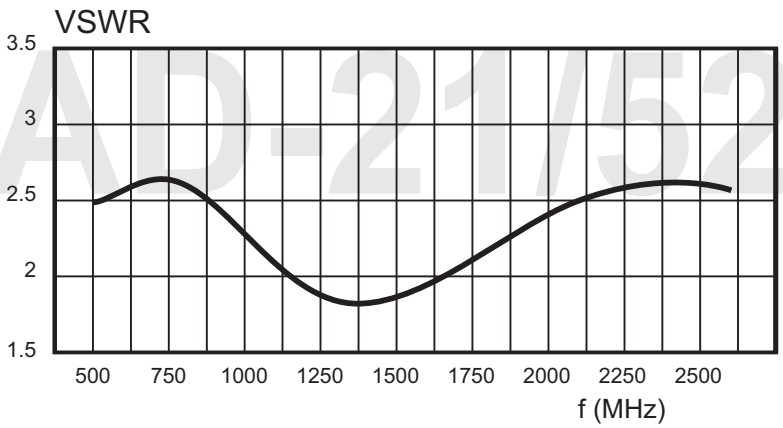
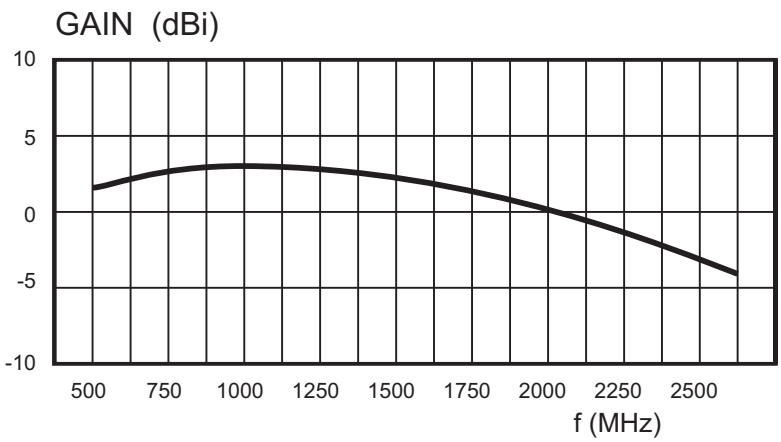

∅ 60 mm
140 mm
∅ 125 mm


VSWR
3.5
3
2.5
2
1.5
500
750
1000
1250
1500
1750
2000
2250
2500
f (MHz)


GAIN (dBi)
10
5
0
-5
-10
500
750
1000
1250
1500
1750
2000
2250
2500
f (MHz)

AD-64/A

The antenna AD-64/A is the ultra widedband manpack antenna intended for use with modern broadband software defined radios (SDR). The antenna is sleeve dipole center fed design thus enable to work without the presence of the ground plane.
Radiation part of the antenna is fully enclosed in a fiberglass radome. The antenna is also equipped with the flexible goose neck allowing the antenna to be bent in almost every position. The antenna construction is rugged and intended for use in the harshest military environments.

Frequency range	225 - 2000 Mhz
Impedance	50 ohms
VSWR	< 3:1 typical (see diagram)
Maximum power	50 W CW
Polarization	Linear Vertical
Gain	see diagram
Radiation Pattern	omnidirectional
Connector	N male
Height	625 mm
Weight	0.53 kg
Radome Diameter	28 mm
Temperature range	- 40....+70 °C

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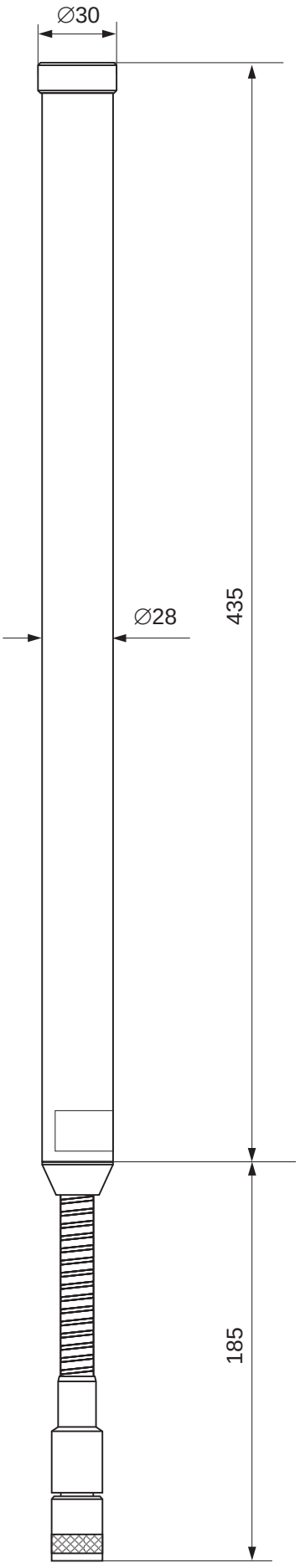
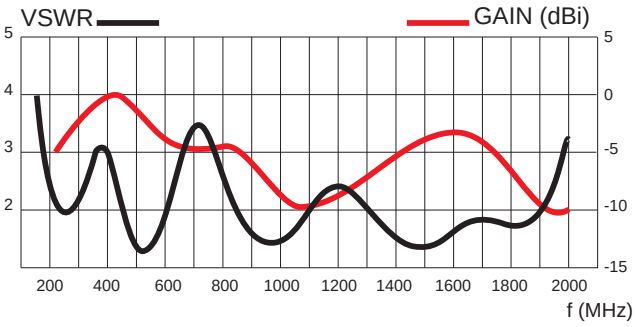
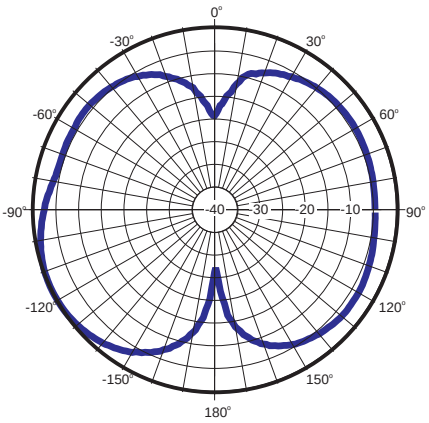
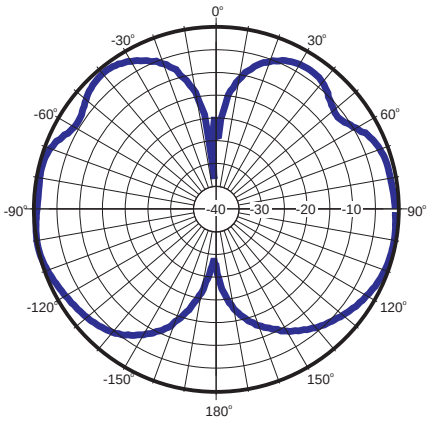




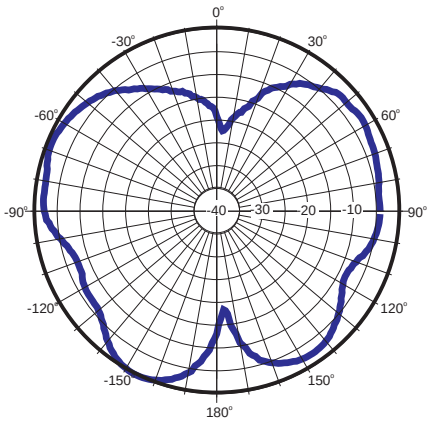
Rad. Pattern E-plane
Frequency: 200 MHz



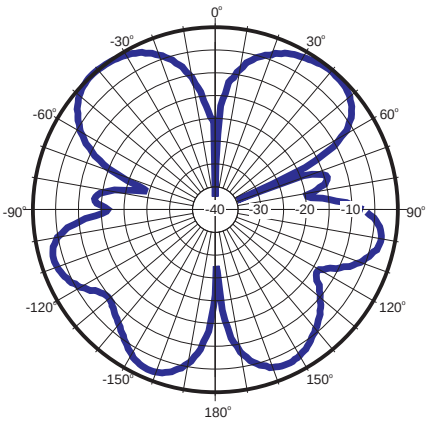
Rad. Pattern E-plane
Frequency: 400 MHz



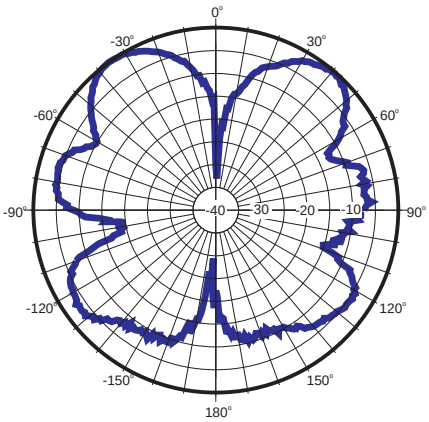
Rad. Pattern E-plane
Frequency: 800 MHz



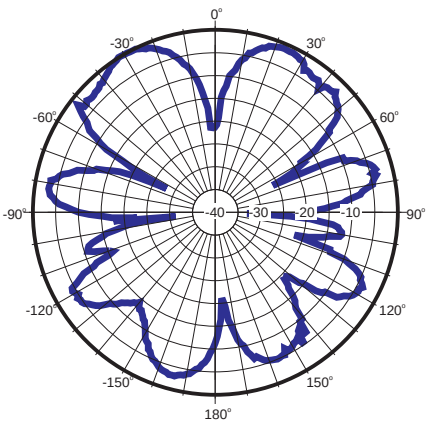
Rad. Pattern E-plane
Frequency: 1400 MHz



Rad. Pattern E-plane
Frequency: 1800 MHz



Rad. Pattern E-plane
Frequency: 2000 MHz



AD-64/B

The antenna AD-64/B is the ultra widedband manpack antenna intended for use with modern broadband software defined radios (SDR). The antenna is sleeve dipole center fed design thus enable to work without the presence of the ground plane.
Radiation part of the antenna is fully enclosed in a fiberglass radome. The antenna is also equipped with the flexible goose neck allowing the antenna to be bent in almost every position. The antenna construction is rugged and intended for use in the harshest military environments.

Frequency range	225 - 1000 Mhz
Impedance	50 ohms
VSWR	< 3:1 typical (see diagram)
Maximum power	50 W CW
Polarization	Linear Vertical
Gain	see diagram
Radiation Pattern	omnidirectional
Connector	N male
Height	625 mm
Weight	0.53 kg
Radome Diameter	28 mm
Temperature range	- 40....+70 °C

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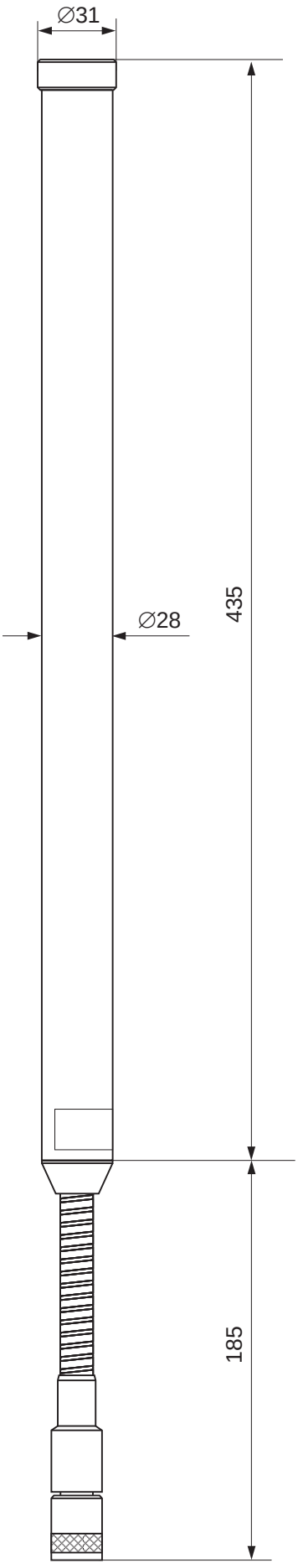
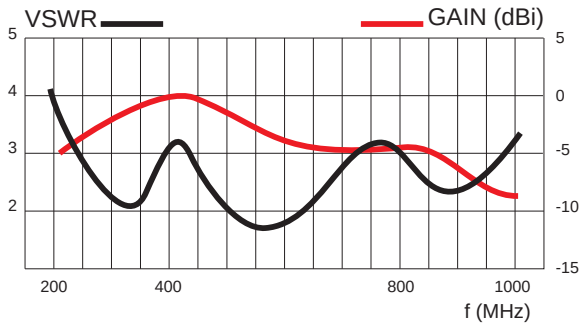
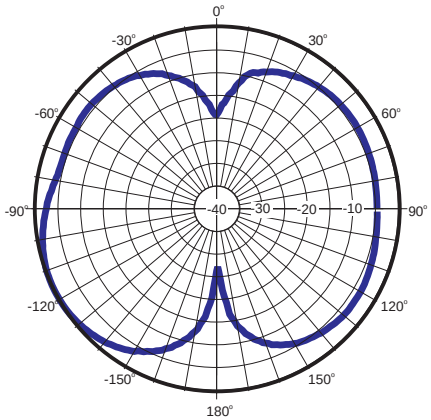
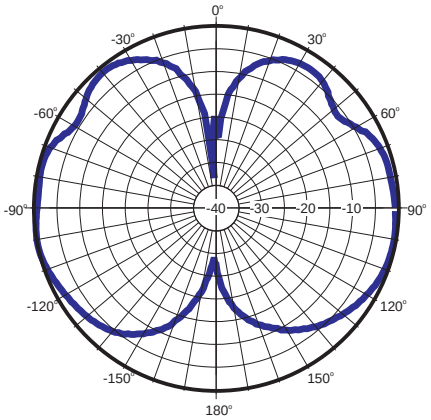




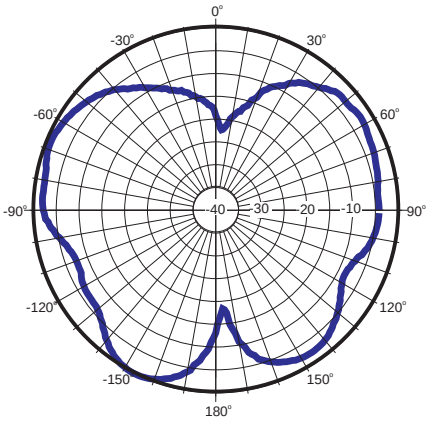
Rad. Pattern E-plane
Frequency: 200 MHz



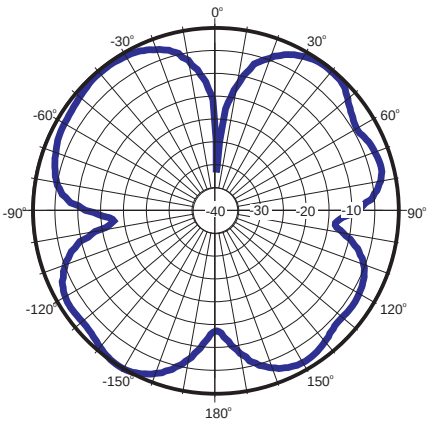
Rad. Pattern E-plane
Frequency: 400 MHz



Rad. Pattern E-plane
Frequency: 800 MHz



Rad. Pattern E-plane
Frequency: 1000 MHz



AD-64/C

The antenna AD-64/C is the ultra widedband manpack antenna intended for use with modern broadband software defined radios (SDR). The antenna is sleeve dipole center fed design thus enable to work without the presence of the ground plane.
Radiation part of the antenna is fully enclosed in a fiberglass radome. The antenna is also equipped with the flexible goose neck allowing the antenna to be bent in almost every position. The antenna construction is rugged and intended for use in the harshest military environments.

Frequency range	1000 - 2500 Mhz
Impedance	50 ohms
VSWR	< 3:1 typical (see diagram)
Maximum power	20 W CW
Polarization	Linear Vertical
Gain	see diagram
Radiation Pattern	omnidirectional
Connector	N male
Height	485 mm
Weight	0.35 kg
Radome Diameter	28 mm
Temperature range	- 40....+70 °C

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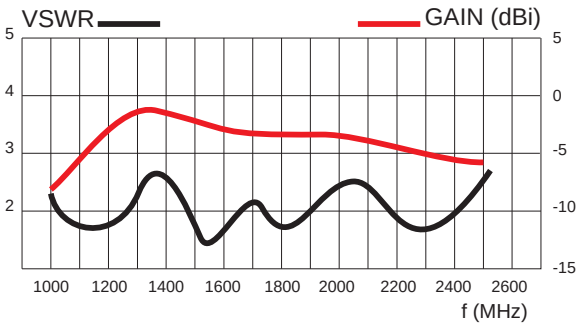
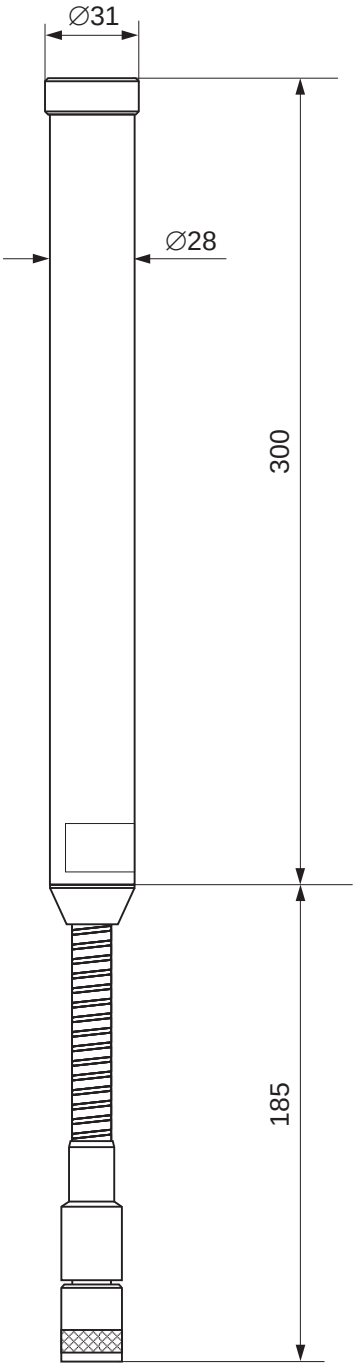
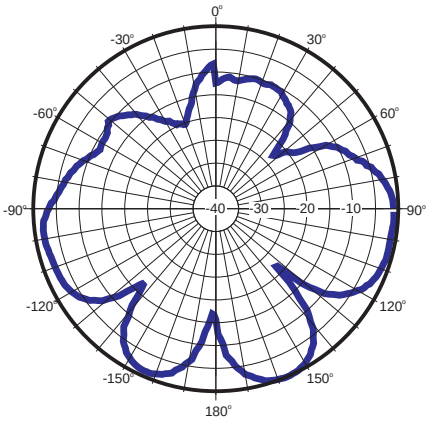
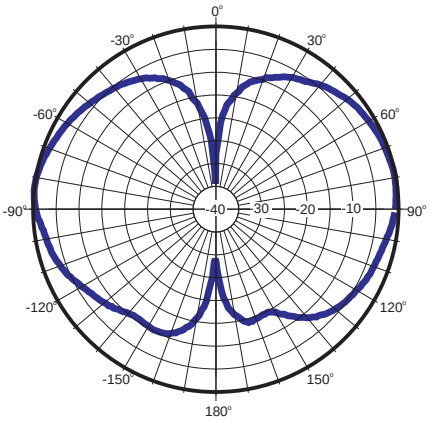




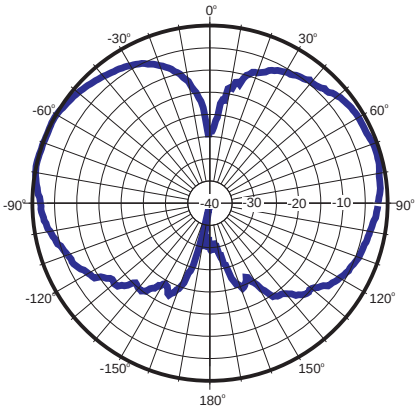
Rad. Pattern E-plane
Frequency: 1000 MHz



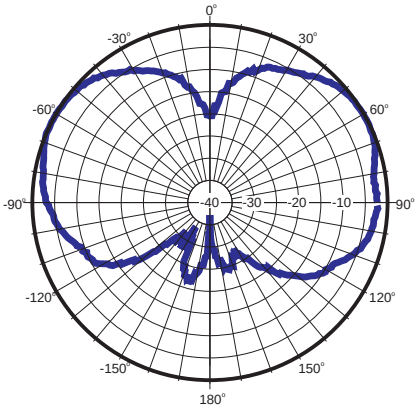
Rad. Pattern E-plane
Frequency: 1400 MHz



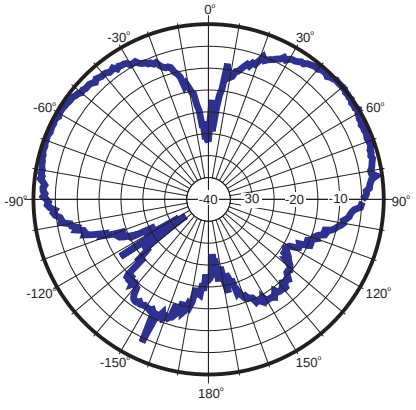
Rad. Pattern E-plane
Frequency: 1800 MHz



Rad. Pattern E-plane
Frequency: 2200 MHz



Rad. Pattern E-plane
Frequency: 2500 MHz



AD-64/D

The antenna AD-64/D is the ultra widedband manpack antenna intended for use with modern broadband software defined radios (SDR) and other radio devices (jammers, scanners, etc.). The antenna is a sleeve dipole center fed design thus enable to work without the presence of the ground plane.
Radiation part of the antenna is fully enclosed in a fiberglass radome. The antenna is also equipped with the flexible goose neck allowing the antenna to be bent in almost every position. The antenna construction is rugged and intended for use in the harshest military environments.

Frequency range	500 - 3000 MHz
Impedance	50 ohms
VSWR	< 3:1 typical (see diagram)
Maximum power	50 W CW
Polarization	Linear Vertical
Gain	see diagram
Radiation Pattern	omnidirectional
Connector	N male
Height	425 mm
Weight	0.4 kg
Radome Diameter	28 mm
Temperature range	- 40....+70 °C

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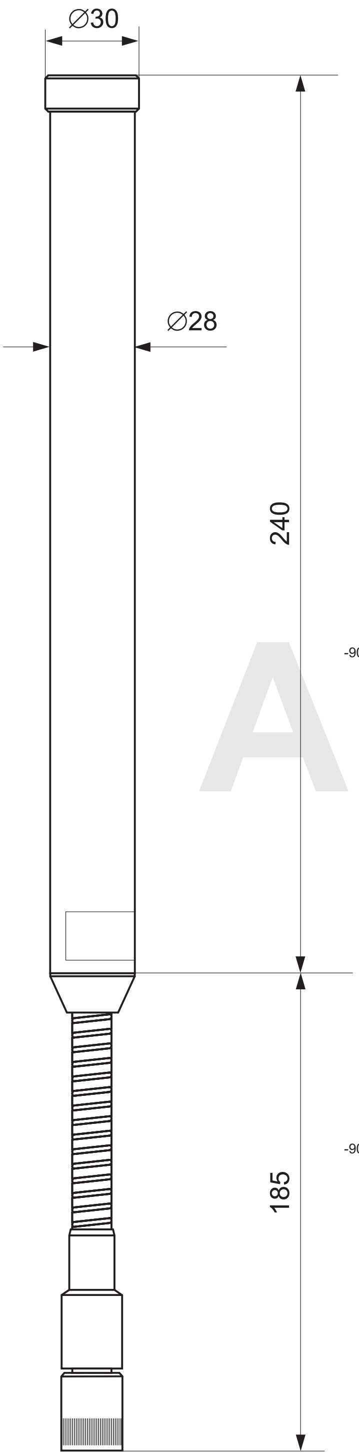
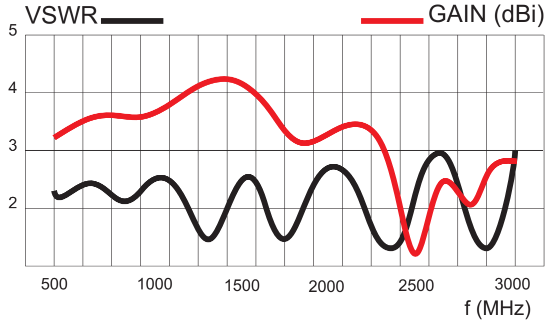
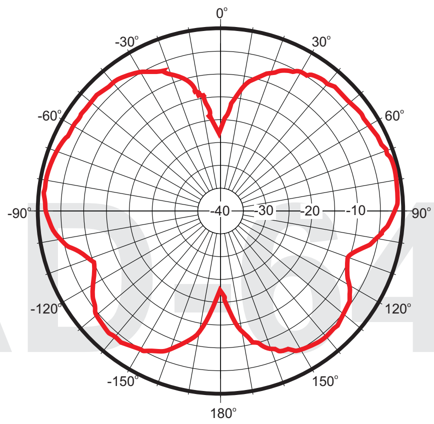
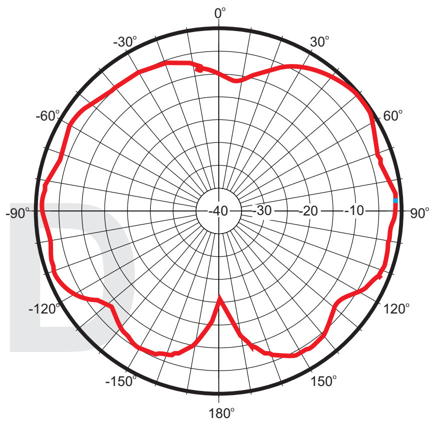




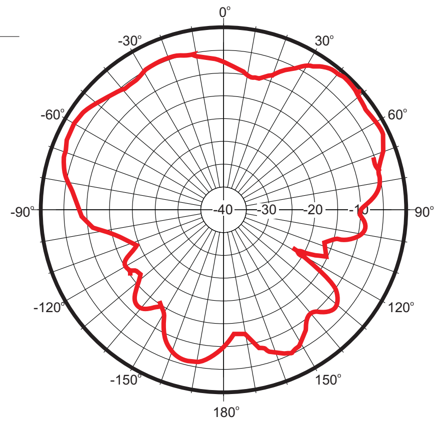
Rad. Pattern E-plane
Frequency: 500 MHz



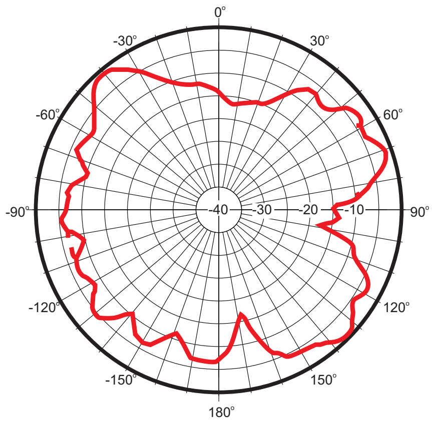
Rad. Pattern E-plane
Frequency: 1000 MHz



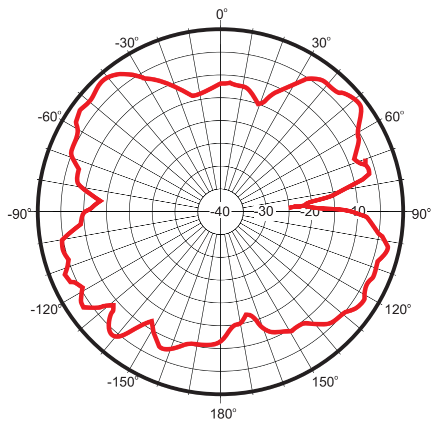
Rad. Pattern E-plane
Frequency: 1500 MHz



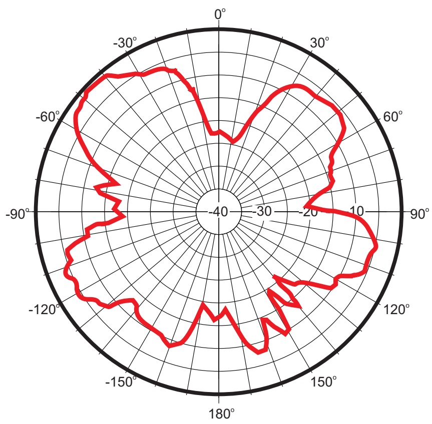
Rad. Pattern E-plane
Frequency: 2000 MHz



Rad. Pattern E-plane
Frequency: 2500 MHz



Rad. Pattern E-plane
Frequency: 3000 MHz



AD-79/18D
Rev. A

The antenna AD-79/18D is a mobile GPS active receiving antenna intended for use with mobile and portable GPS receivers. The active parts with the ceramic patch antenna are enclosed in the ABS radome. Stainless steel mounting adapter has M10 thread with washers and nut for easy mounting. The antenna could be used as standalone or in combination with our standard VHF/UHF broadband mobile antennas type AD-18/D, AD-27 or AD-18/E. With these antennas the AD-79/18D could be placed on the existing antenna base instead of one M10 mounting screw - no need to drill additional mounting hole.
The antenna has up to 5 m of RG-316 coaxial cable with SMA female connector. Other connector types and coaxial cable lengths are available on request.

Frequency range	1575.42 +/- 10 MHz (L1)
Impedance	50 ohms
VSWR	< 2
Polarization	RHC
Gain (LNA)	28 dB
Noise fig.	1.35 dB
Power supply	3.0 - 5.5 V DC (approx. 10 mA)
Connector	SMA female
Dimensions	dia. 47 mm x 110 mm
Weight	200 g
Colour	Black
Materials	ABS; Stainless Steel
Temperature range	- 40....+55 °C

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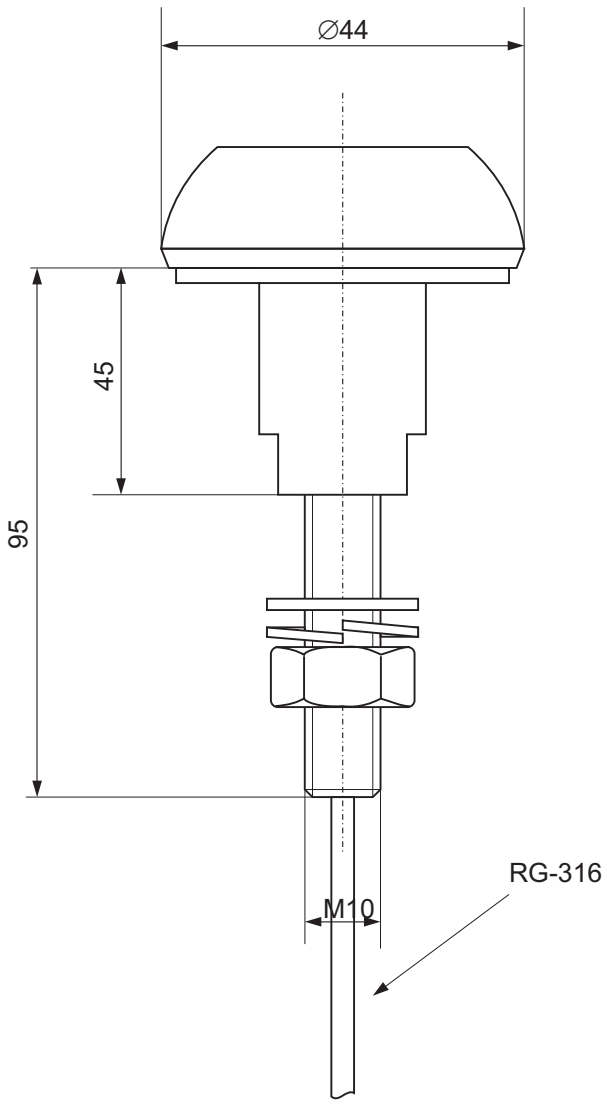
∅44
45
95
RG-316
M10

MOBILE ANTENNAS VHF/UHF

Mobile antennas are composed of the family of antenna radiators type ADS-21, fixed mounts type ADN-21 and magnet mounts type ADM-21. The antenna radiators are made of Stainless Steel or composite material (fiberglass) and painted with black protective paint, all covering the frequency range from 27 MHz (CB) to 900 MHz (GSM). Main advantage of the all family is beside quality materials and simple use also simple combining of different types of the radiators with different types of the mounts through M6 screw joint (male on the mount side and female on the radiator side). In that way user could easily combine the appropriate radiator with different mount according to his requirements. All the mounts are equipped with coaxial cable type RG-58 terminated with connector type FME on which we could easily fit different adapters from FME to PL 259, BNC, TNC, N, MINI UHF or SMA.

Antennas	ADS-21/ 207-B	ADS-21/ 207-C
Antenna type	1/4 + 5/8	1/4 + 5/8
Frequency	145/435 dualband	2m/0.7m dualband
Impedance	50	50
VSWR	1.2	1.5
GAIN	0 dB / 3 dB	0 dB/3 dB
Bandwith (Mhz at SWR<2)	4/15	4/20
Material	SS	SS
Colour	black	black
Height	430 mm	450 mm

Mounts	ADN-21/1	ADN-21/2	ADM-21/Ma6	ADM-21/Mi6
Mount type	fixed bendable	fixed with swivel	magnet 90 mm-swivel	magnet 60 mm
Colour	black	black	black	black
Cable	5 m RG-58	5 m RG-58	3.5 m RG-58	3 m RG-58
Radiator joint	screw M6	screw M6	screw M6	screw M6
Height	40 mm	42 mm	80 mm	58 mm
Weight w. cable	250 gr.	250 gr.	750 gr.	350 gr.

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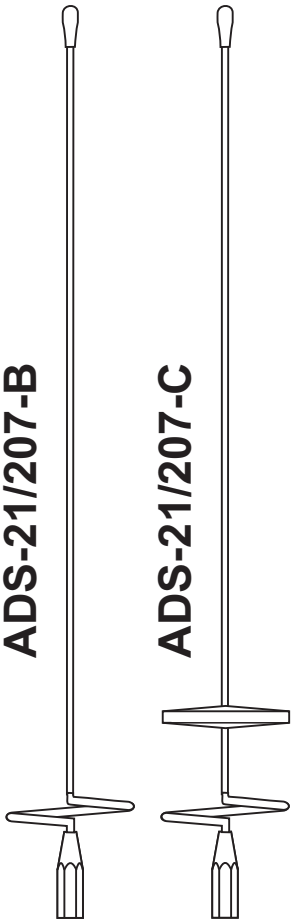
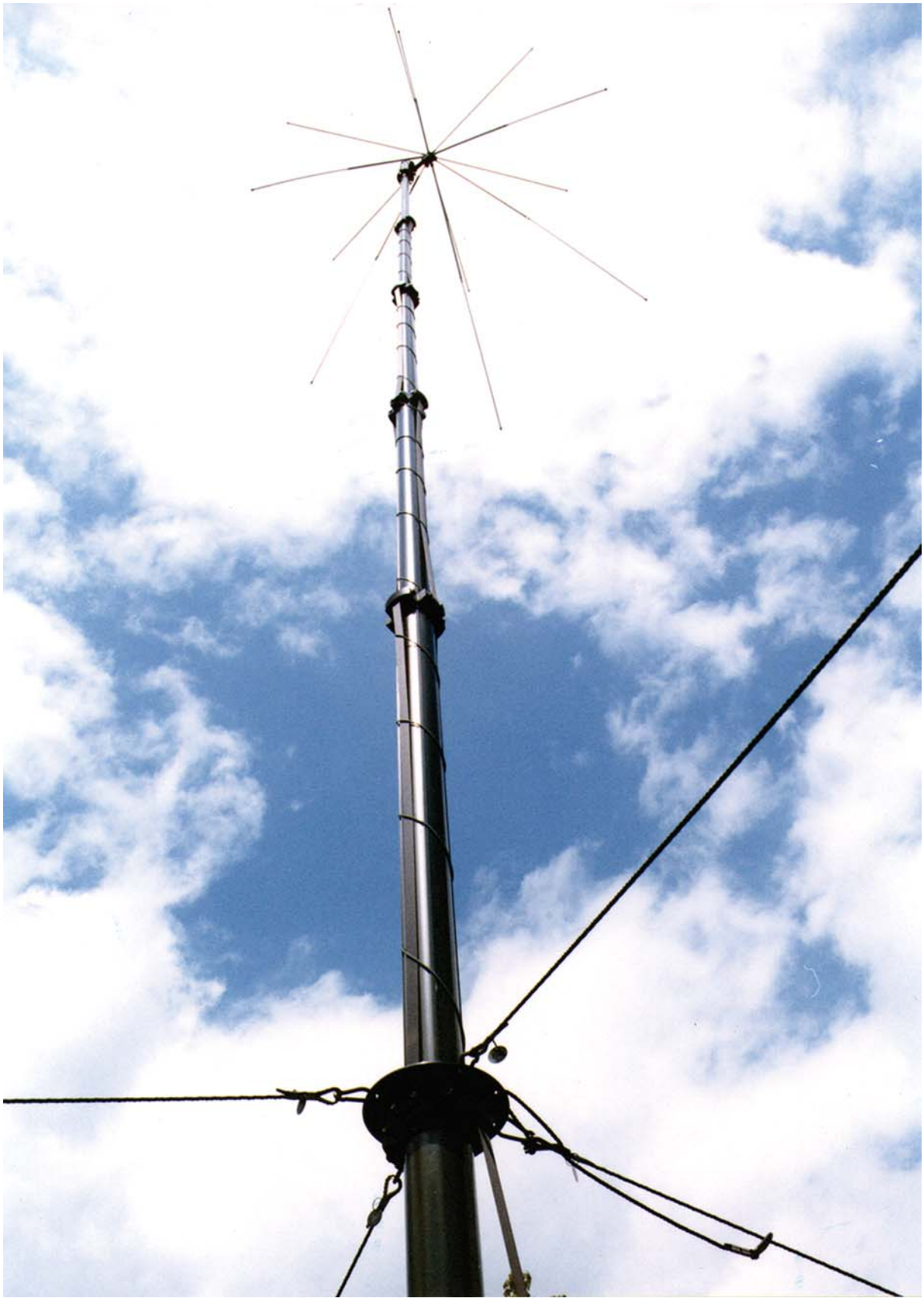


ADN-21/1

ADN-21/2

ADM-21/MI6

ADM-21/MA6



TELESCOPIC MASTS STV

winch driven

TRIVAL ANTENE

TRIVAL ANTENE d.o.o., Gorenjska cesta 25
SI-1234 Menges, SLOVENIA, tel. +386-1-8314-396
info@trivalantene.si, www.trival-antennas-masts.com

TELESCOPIC WINCH OPERATED MASTS SERIES STV
DESIGNED FOR HARSHEST MILITARY ENVIRONMENT OPERATIONS

Telescopic winch operated masts series **STV** are designed on a basis of many years of experience in development and production of antennas and antenna masts and on a basis of knowing and considering the needs and demands of the end users in the era of modern wireless telecommunications.

The family of telescopic masts STV consists carefully selected modern materials and technologies and considerate design, functionality and simplicity of use. With all that features the family of the masts STV are suitable for use on the field as well as on the vehicles also in hardest environmental conditions.

The mast is basically composed of telescopic sections made of **composite material ("fiberglass")** by use the process of "pultrusion". By use of that technology all the fibres are placed longitudinally along the section enable excellent stability with high degree of elasticity. Certain fiberglass layer is also wounded radially during the pultrusion process enables high degree of radial hardness. The masts STV meet environmental requirements in accordance with **MIL-STD-810**.

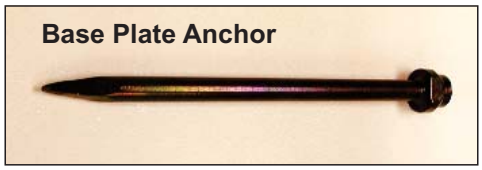
The sections have four special **longitudinal guidways** placed equally outside and made during the process of pultrusion enable excellent guidance when raising and lowering of the masts as well as additionally longitudinal stability. The guidways ensure that the mast is **axially joined together** prevent the various sections from turning which allows us to easily turn the whole mast in the case of using directional antennas. On the end of the sections are special slide-joints made of durable polyacetal with low weight and excellent mechanical characteristics.

Erection of the mast is enabled with **removable hand operated winch** with cogwheel transmission and with system of strong polyester-aramide reinforced belts guided between the sections. During the erection we put the belt into the winch wheel and wind it with crank arm, which lifts the sections up. For lowering the mast we simply turn the crank arm in the opposite direction without any need of hand switching which is done by built-in **automatic switch mechanism**. The winch has built-in **automatic safety brake** to protect the operator in the case of heavier loads.

The telescopic mast STV has all accessories need for field erection: anchors, guying ropes (made of DYNEEMA material), hammer, etc., together with special cross-bar with eye-anchor intended to fix the mast in specific direction, the base plate with safety chain attachments and extension aluminum tube with grounding screw for antenna attachment. All the accessories are stored in separate linen bags. The mast alone has also linen cap for top sections protection.

The telescopic masts series **STV are applicable also for mobile use** mounted on vehicles. For this purpose a special mounting kit is available, composed of base plate element and side bracket.

STV-	8/105	10/105	12/105	15/105	8/128	10/128	12/128	15/128	18/128
System height (m)	8	10	12	15	8	10	12	15	18
Mast height (m)	7.5	9.5	11.5	14.5	7.5	9.5	11.5	14.5	17.5
Retracted length (m)	2.0	2.3	2.7	3.2	2.0	2.3	2.7	3.2	3.7
Bottom section diam. (mm)	105	105	105	105	128	128	128	128	128
Top section diam. (mm)	50	50	50	50	71.5	71.5	71.5	71.5	71.5
Extension tube length (mm)	500	500	500	500	500	500	500	500	500
Max. vertical top load (kg)	25	25	25	25	35	35	35	30	30
Max. wind area CxA (m2)	0.5	0.35	0.4	0.35	0.8	0.7	0.8	0.8	0.6
Max. horizontal top load (N)	360	250	287	250	570	500	570	570	430
Max. operational wind speed (km/h)	120	120	120	120	120	120	120	120	120
Max. survival wind speed (km/h)	160	160	160	160	160	160	160	160	160
Guy radius (m)	7	7	8-10	10-12	7	7	8-10	10-12	10-12
No. of quys x levels	4 x 2	4 x 2	4 x 3	4 x 3	4 x 2	4 x 2	4 x 3	4 x 3	4 x 3
No. of sections	6	6	6	6	6	6	6	6	6
Mast weight (kg)	20.5	21.5	23	25	24.5	26.5	29	35	41.5
Accessories weight (kg)	24	24	33	35	27.5	27.5	36.5	44	44



	MAST TYPE/QTY.								
ACCESSORY NAME	8/105	10/105	12/105	15/105	8/128	10/128	12/128	15/128	18/128
Masthead Cap	1	1	1	1	1	1	1	1	1
Bag	1	1	2	2	1	1	2	2	2
Guy Anchor 650	4	4	8	8	4	4	8	-	-
Guy Anchor 850	-	-	-	-	-	-	-	8	8
Eyebar	1	1	1	1	1	1	1	1	1
Base Plate Anchor	3	3	3	3	3	3	3	3	3
Hammer 3 kg	1	1	1	1	1	1	1	1	1
Base Plate	1	1	1	1	1	1	1	1	1
Winch 501	1	1	1	-	-	-	-	-	-
Winch 651	-	-	-	1	1	1	1	1	1
Guying rope RED	4	4	4	4	4	4	4	4	4
Guying Rope BLUE	4	4	4	4	4	4	4	4	4
Guying Rope YELLOW	-	-	4	4	-	-	4	4	4
Measuring Rope MR-7	1	1	-	-	1	1	-	-	-
Measuring Rope MR-8-10	-	-	1	-	-	-	1	-	-
Measuring Rope MR-10-12	-	-	-	1	-	-	-	1	1
Extension Tube 50/50	1	1	1	1	1	1	1	1	1

STV TELESCOPIC MASTS - MOBILE MOUNTING

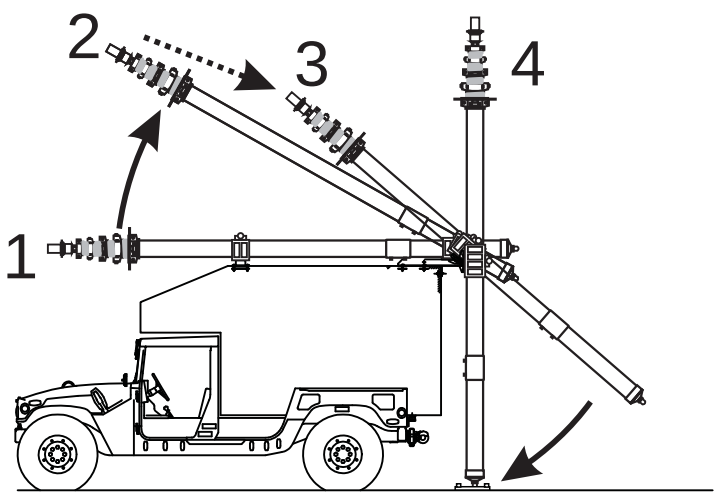
STV telescopic winch driven masts could be mounted on various kinds of vehicles. To ensure that the mast will be mounted properly and safely, the following facts must be taken into account:

- Two basic mobile mounting adapters are available: the STV-L and STV-U (detailed technical drawings are available on request). Both adapters have all necessary holes and fittings made so that the masts series STV could be inserted on that adapters with the mast foot and the first guying ring plate.

- The other side of the adapters has another holes drilled and prepared to fit on special mounting bracket (not supplied!) which will fit specific car body. The user must provide those adapters according to the specific vehicle body construction.

STV TELESCOPIC MASTS - SEMI MOBILE MOUNTING

When the mast is too big to be completely attached to the vehicle or shelter then so called "semi mobile" mounting is recommended. In this case the mast foot lays on the ground while to upper attachment can be provided with various combinations of clamps and consoles available.



TRIVAL ANTENE

Telescopic Winch Driven Masts
type STV-G

Telescopic mast type STV-G is a special version of the family of STV winch driven masts. The mast is modified acc. to lower top load requirements and easier mounting inside or outside the vehicle and is primarily intended for use with the Fire Brigade or similar vehicles for elevation of the lightning, photography or any other appropriate equipment.
Mast sections are made of composite material (polyester resin reinforced with fiberglass). On the end of the sections are special slide-joints made of durable polyacetal leading the sections while elevating and lowering the mast. Each section has four longitudinal guidways placed equally outside which ensure the mast could be manually rotated around its axis.
Erection of the mast is enabled with hand operated winch with cogwheel transmission and with system of strong polyester belts guided between the sections. During the erection we put the belt into the winch wheel and wind it with crank arm, which lifts the sections up. For lowering the mast we simply turn the crank arm in the opposite direction without any need of hand switching which is done by built-in automatic switch mechanism. The winch has built-in automatic safety brake to protect the operator in the case of heavier loads.
Mast STV-G are made in two basic versions - with 3 or 4 sections. More sections at the same extended height enable lower retracted height. Also many other dimensions could be customized as: winch position, mast foot arrangement, top adapter diameter and height, etc...

TECHNICAL SPECIFICATIONS	STV-G/3	STV-G/4
MECHANICAL		
Extended height (m)	max. 4.0	max. 5.0
Retracted height (m)	min. 1.2	min. 1.2
No. of sections	3	4
Mast weight (kg)	< 14	< 17
Bottom section diam. (mm)	83	83
Top section diam. (mm)	61	50
Max. vertical top load (kg)	10	10
Max. wind area CxA (m2)	0.15	0.15
Colour	black	black

ENVIRONMENTAL	
Max. oper. wind speed (km/h)	90
Operating temp. range (°C)	-45 ... +80
Humidity	MIL-STD-810, +40 oC / 93 % RH
Vibrations	MIL-STD-810, 10 – 55 Hz; Amp. +/- 0.35 mm
Shock - transit drop	MIL-STD-810F; Method 516.5 procedure IV
Salt Fog	MIL-STD-810F; Method 509.4
Sand Test	MIL-STD-810F, Method 510.4, Procedure II,
Dust Test	MIL-STD-810F, Method 510.5, Procedure I

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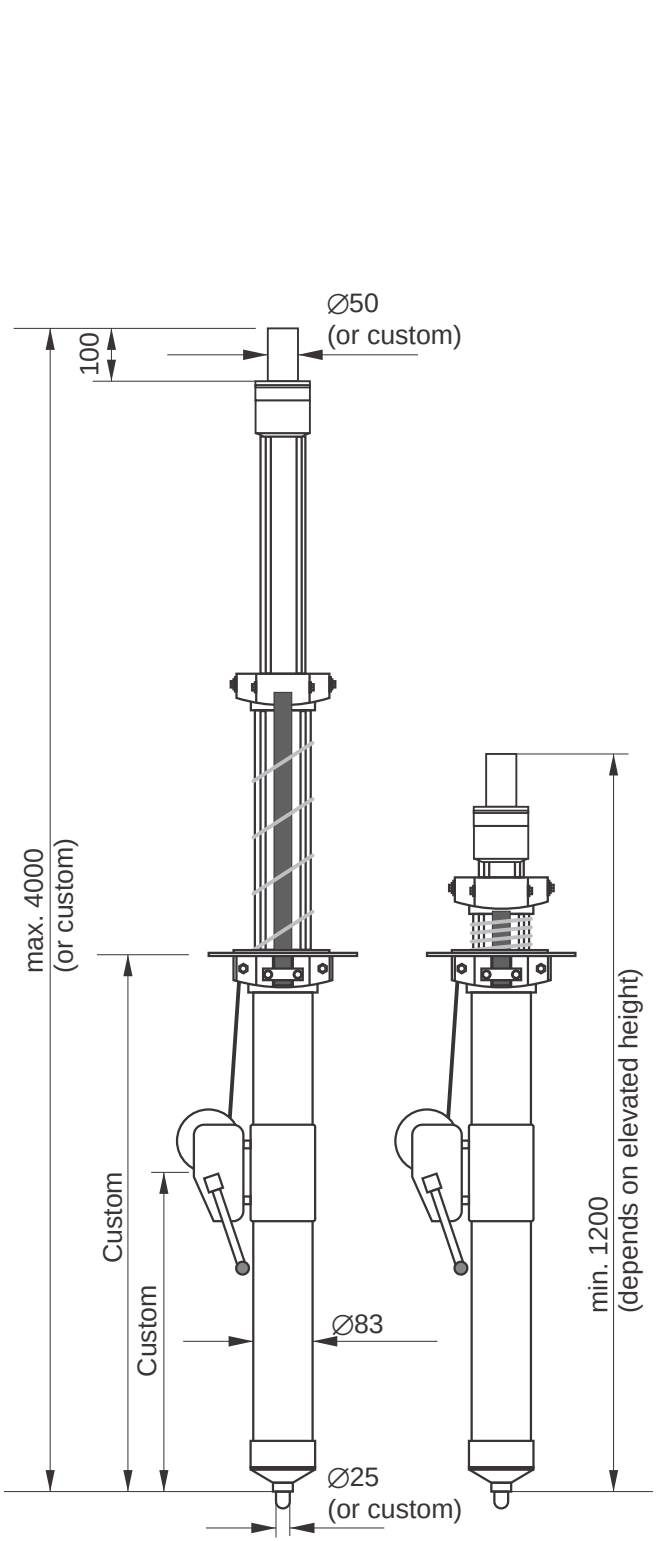
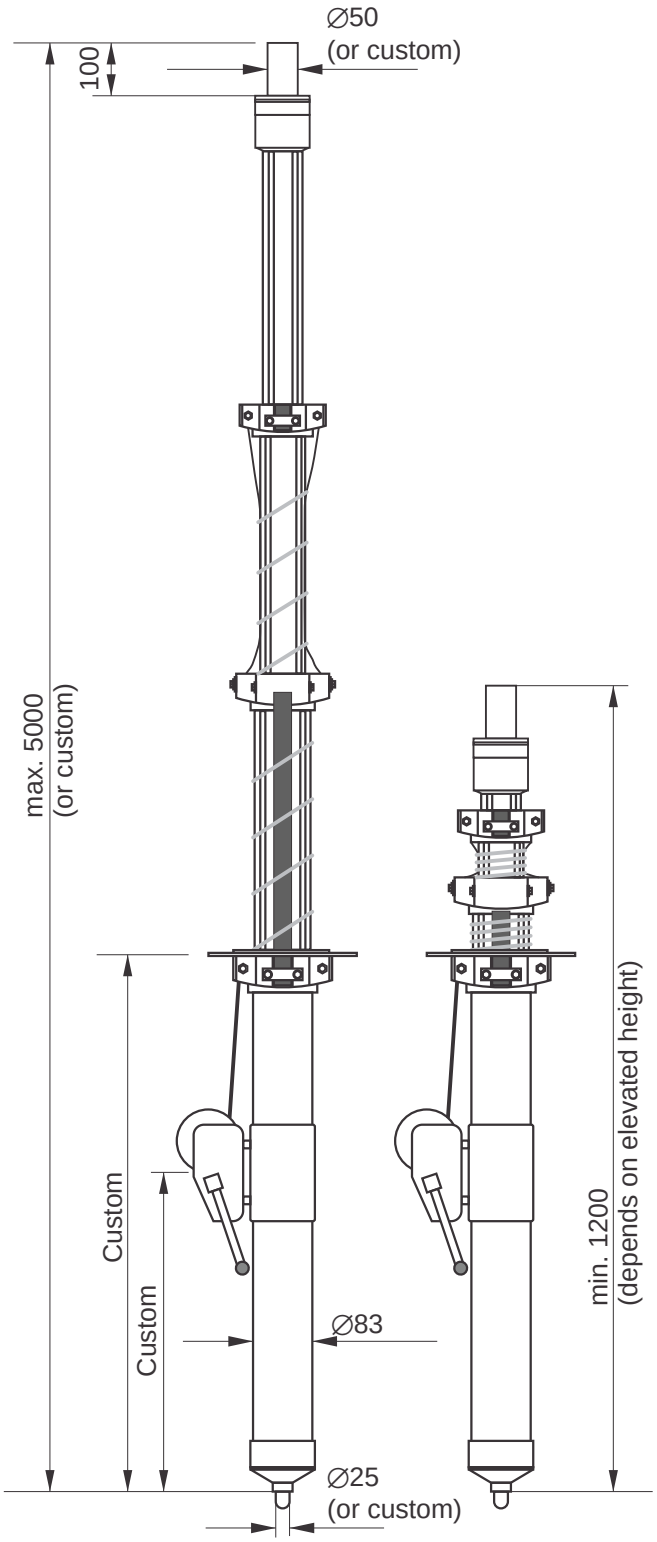
STV-G/3

STV-G/4

ALL DIMENSIONS IN MILIMETERS!





TRIVAL ANTENE

ST

Antenna masts ST-5, ST-8, ST-10 and ST-12 represent the family of light antenna masts, composed of tubular sections with joints, made of polyester - glass composite material (fiberglass). The mast stands on the tilting base fixed on a ground with iron pegs, comprising terminals for the possibility of connecting radial ground wires. The mast is guyed on several levels with high quality polyester ropes. The top section is intended for the antenna attachment. A special adapter is added for the possibility of mounting a greater part of our antennas. The masts are also suitable for different kinds of wire antennas erecting up with the erecting rope. The major advantages of the masts are: short erection time, easy handling, low weight, low icing, robust construction and good isolation characteristics. The mast is packed in two transportable linen bags.

	ST-5	ST-8	ST-10	ST-12
Height (m)	5	8	10	12
Mast Weight (kg)	9	13.5	15.5	19
Accessories Weight (kg)	15.4	17.3	17.3	20.3
Max. top load (kg)	15	15	10	10
No. of sections	3x1,4+1 m	5x1,4 + 1 m	7x1,4 m	8x1,4+1 m
Section diameter (mm)	60	60	60	60
No. of guying levels	1	2	2	3
Mounting area	5x5 m	7x7 m	10x10 m	10x10 m
Mounting time	1pers./5 min.	2 pers./10 min.	2pers./10 min.	2pers./10 min.
Temperature range	-40... +55°C	-40... +55°C	-40... +55°C	-40... +55°C

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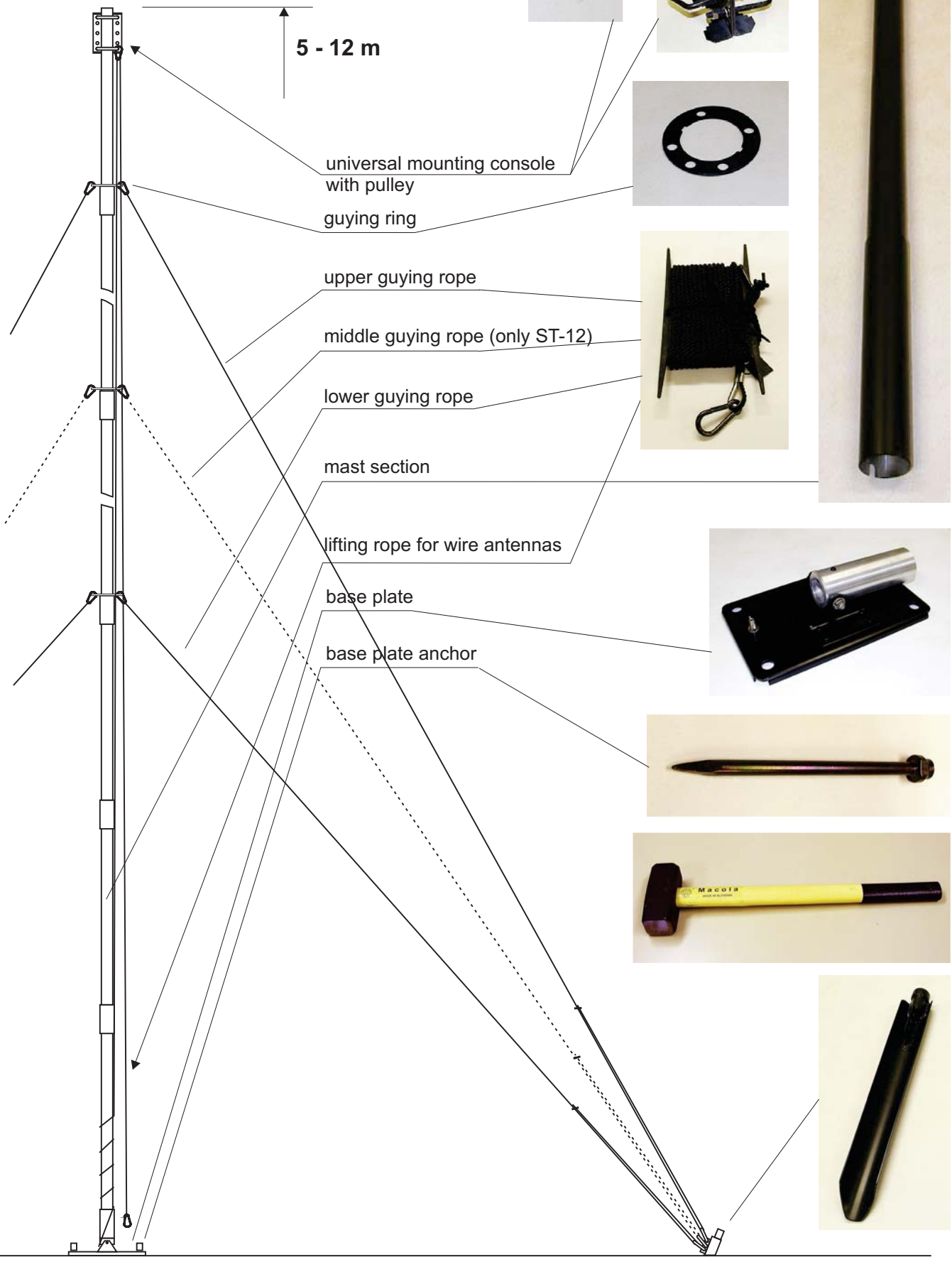
5 - 12 m
universal mounting console
with pulley
guying ring
upper guying rope
middle guying rope (only ST-12)
lower guying rope
mast section
lifting rope for wire antennas
base plate
base plate anchor

TRIVAL ANTENE

Lightweight Manportable Mast
Series STM

Antenna masts series STM compose the family of lightweight manportable/manpack sectionalized tubular masts intended for use with lightweight antennas. Mast sections are made of composite material (fiberglass) with aluminium joints and painted with the 2 component UV resistant PU paint. All ground mounting accessories are included in the strong canvas carrying bag. Various options (section length, number of sections, no. of guying levels, no. of guys, etc.) are available on request.

TYPE NAME LEGEND:
STM-x.x/y-dd-m:
x.x = height in meters
y = number of sections
dd = length of the section in centimeters
m = anchors and mast base material; S = steel; A = aluminium

	STM-3/5-60	STM-4.8/8-60	STM-7/6-123	STM-8/8-100
Height erected (m)	3	4.8	7.40	8.0
Mast Weight (kg)				
- steel anchors and tilting base	4.85	8.40	8.90	11.20
- aluminium anchors and base	3.20	6.70	7.20	9.50
Max. top load (kg)	5	5	4	4
No. of sections	5	8	6	8
Section diameter (mm)	43	43	43	43
Section wall thickness (mm)	2.35	2.35	2.35	2.35
Top adapter out/in diam. (mm)	35/24	35/24	35/24	35/24
Section weight (kg)	0.5	0.5	1.0	0.8
Section length (m)	0.6	0.6	1.23	1.00
No. of guying levels	1	1	2	2
No. of guys	3	3	3	4
Mounting area diameter (m)	3	3	6	6
Mounting time	1pers./5 min.	1pers./5 min.	1-2 pers./5 min.	1-2 pers./5 min.
Carrying bag size (mm)	700 x 170 x 160	750 x 230 x 180	1300 x 200 x 200	1150 x 200 x 200
Temperature range (oC)	-55... +70°C	-55... +70°C	-55... +70°C	-55... +70°C

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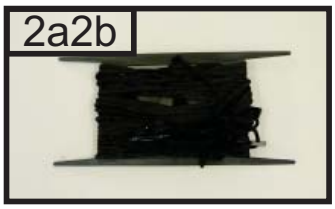
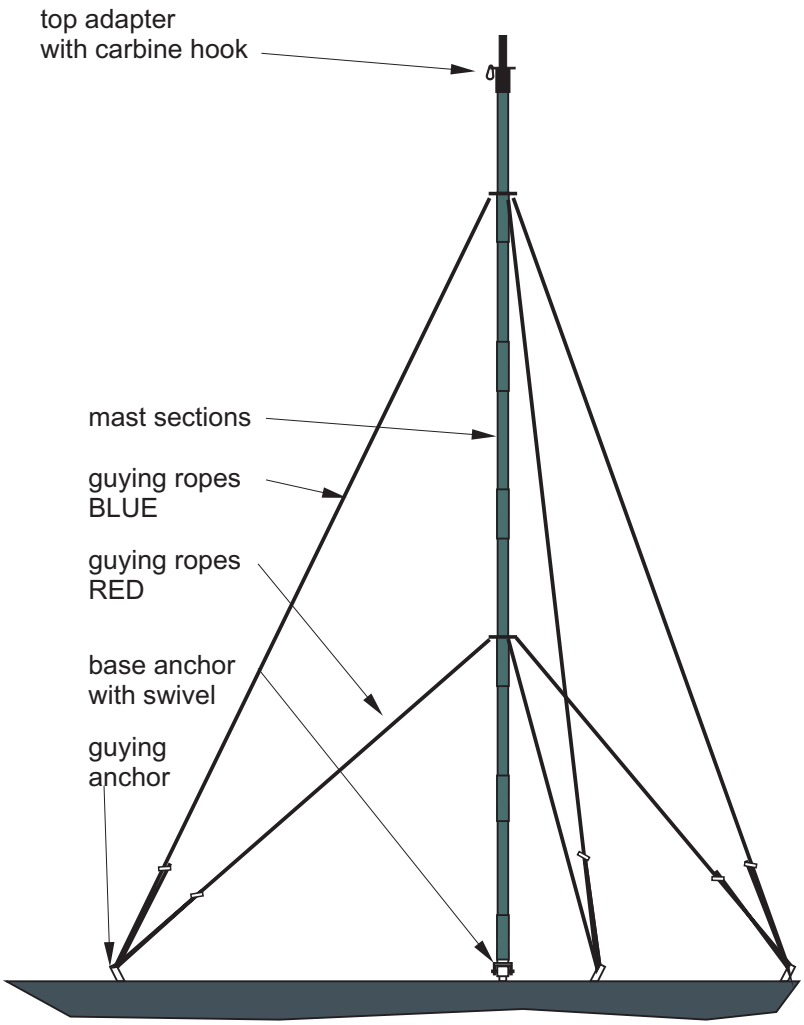


Part	Part name
1	Mast section
2a	Guying ropes RED on reel
2b	Guying ropes BLUE on reel
3	Guying anchor (made of steel)
4a	Base anchor with swivel
4b	Base anchor - aluminium
5	Hammer
6	Top adapter with carbine hook
7	Canvas bag

mast in vertical position



TRIVAL ANTENE

ST-R

The antenna mast ST-R is primarily intended for use for elevating and mounting of a light directional and omnidirectional or wire antennas for mobile work in stay. The base mast unit is special three-leg stay made of aluminum alloy square tubes with telescopic support legs made of composite material (glass reinforced polyester tubes). In normal conditions the mast do not need additional ropes and anchors. The three-leg stay is designed for very quick elevating of the mast also on inclined ground. The mast is packed in handy linen bag. Standard mast height is 6 m (4 sections of 1,5 m), but different dimensions are also available on special request.

Height	6 m
Weight of three-leg stay	6 kg
Weight of one mast section	1,5 kg
No. of sections	4
Length of sections	1400 mm
Diameter of sections	60 mm
Mounting area	D = 2,8 m
Mounting time	1 per./5 min.
Max. Headload	6 kg

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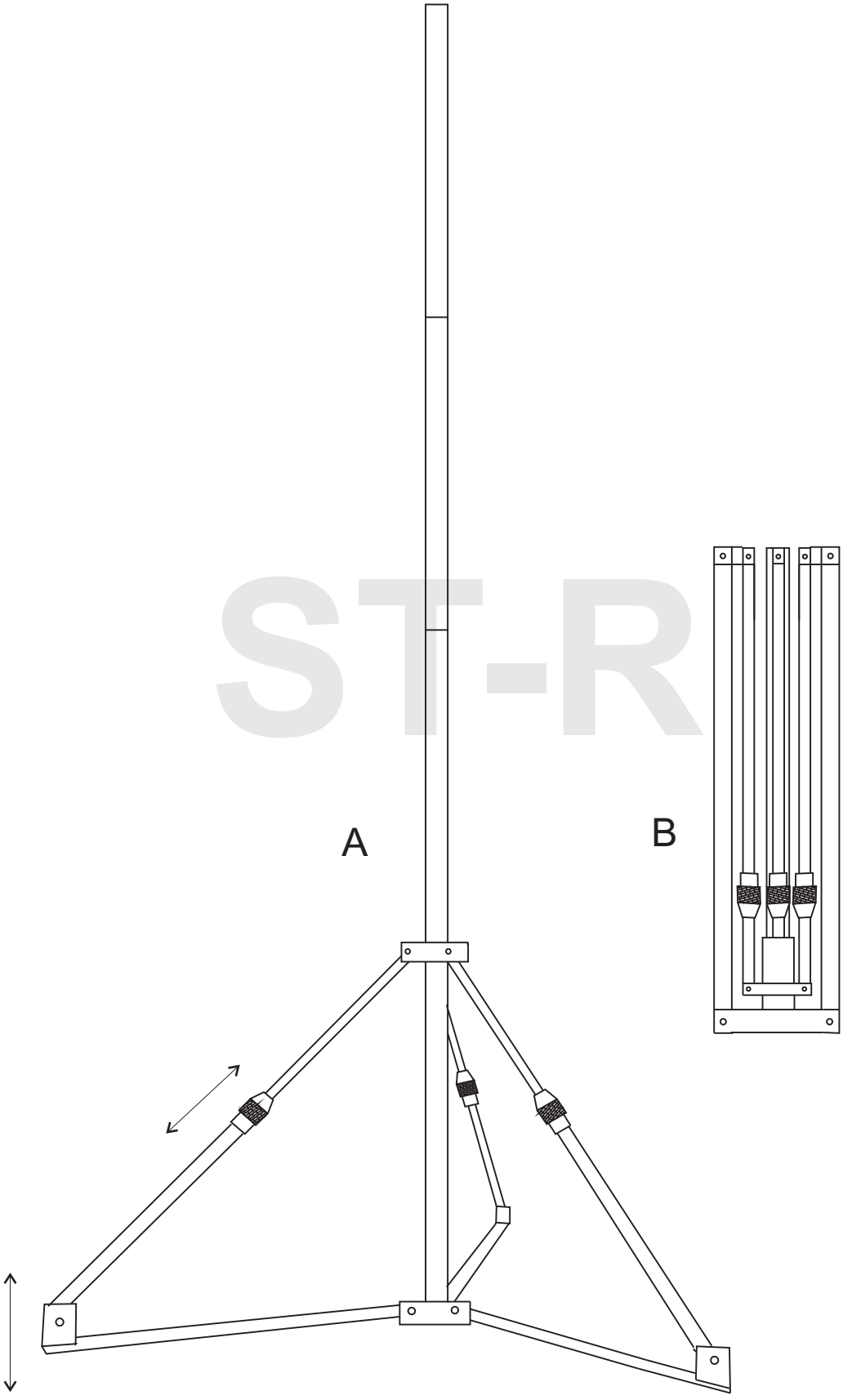
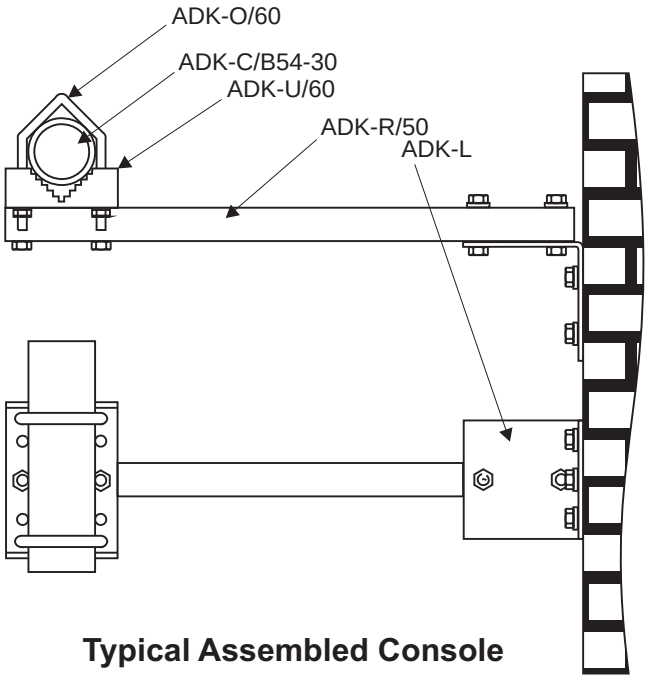

A
B

MOUNTING ADAPTERS ADK-...

For mounting a major part of our antennas our mounting adapters could be used. They are composed of five basic elements: universal mounting adapter type ADK-U, lengthening arm type ADK-R/..., mounting pipe type ADK-C/..., angle adapter ADK-L and mounting clamp type ADK-O. All these elements enable almost unlimited numbers of combination of mounting one or more antennas in group on the antenna mast or asside it. All elements are made of stainless steel or steel and galvanically protected with zinc and painted with cataphoretic black paint.



Typical Assembled Console

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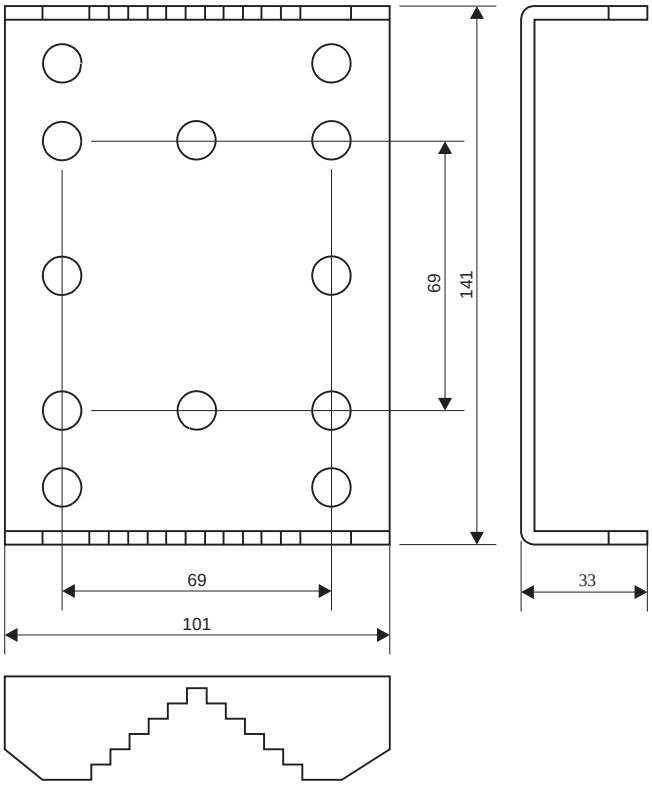
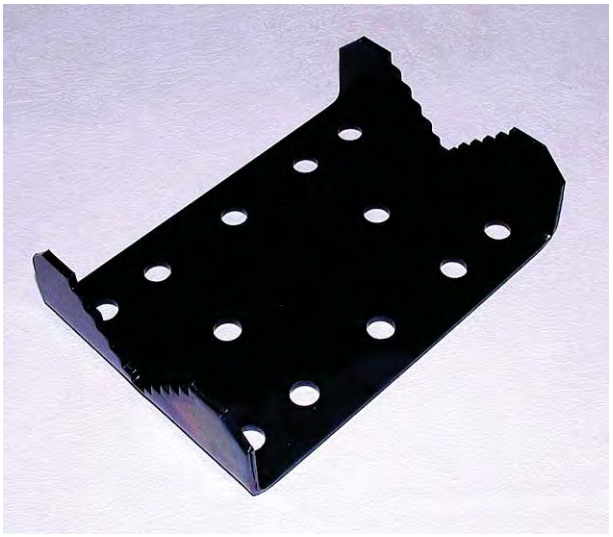
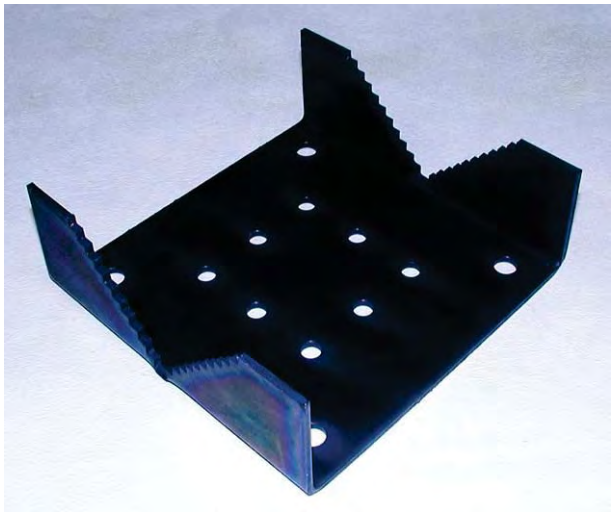
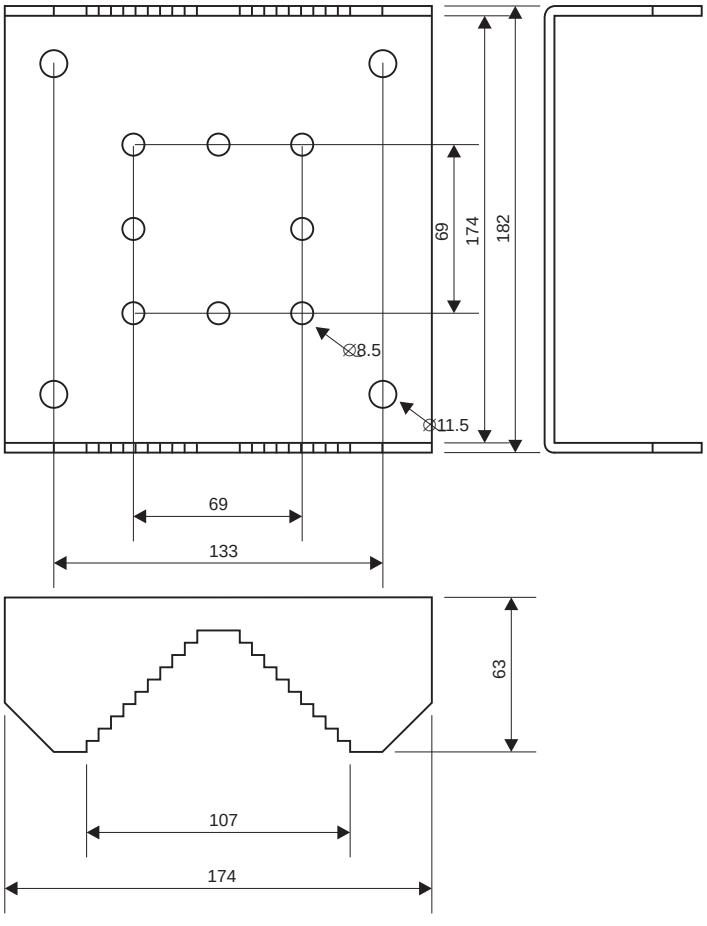


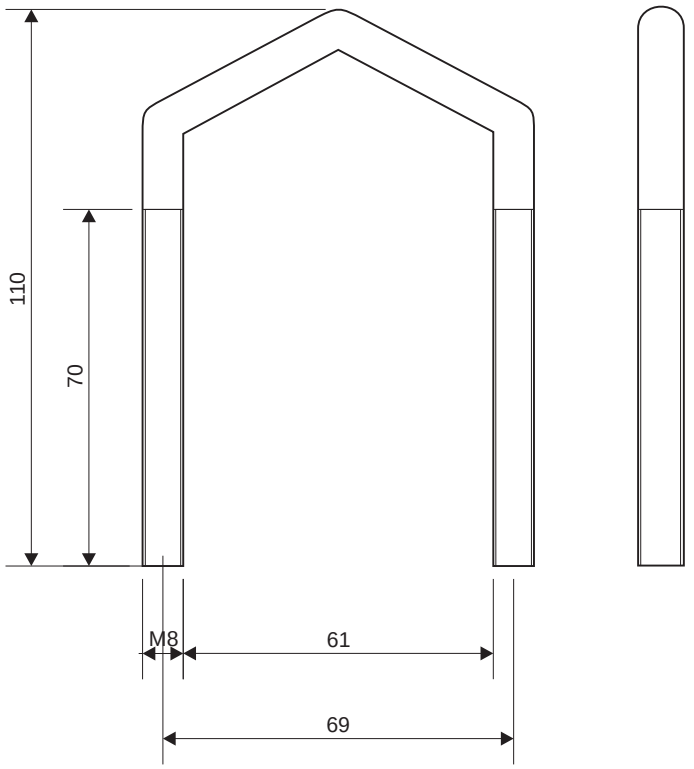


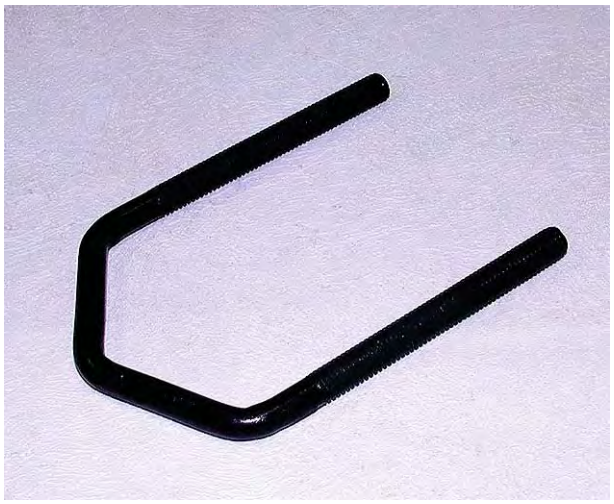
Antenna Mounting Console
ADK-U/60
(antenna mast diam. 20 - 60 mm)



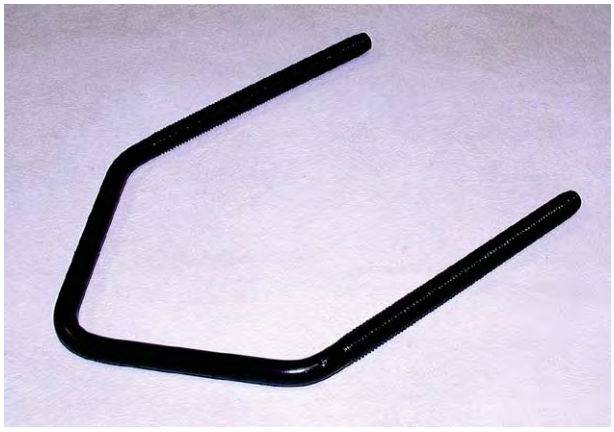


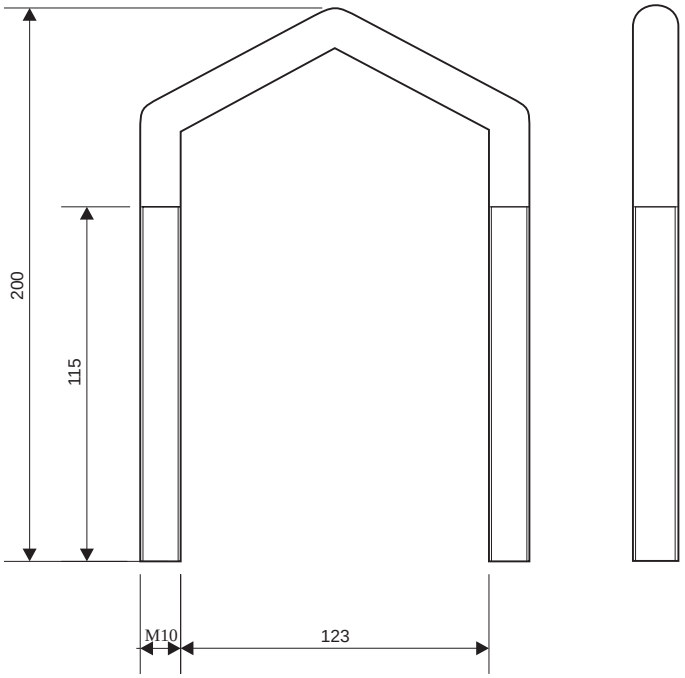
Antenna Mounting Console
ADK-U/120
(antenna mast diam. 60 - 120 mm)



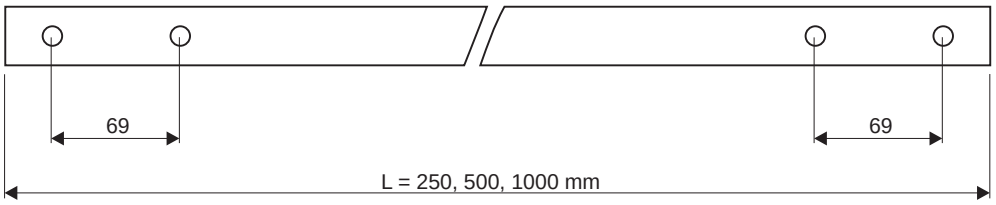


Antenna Mounting Clamp
ADK-O/60
(antenna mast diam. 20 - 60 mm)

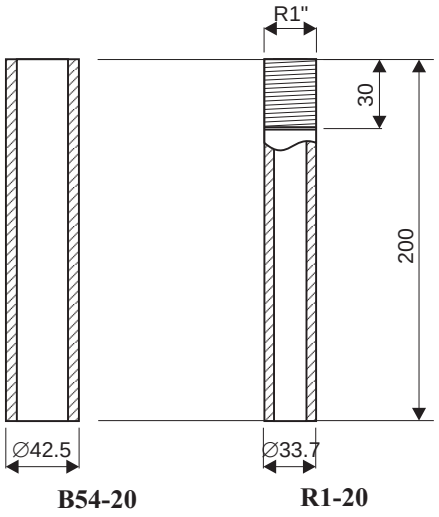




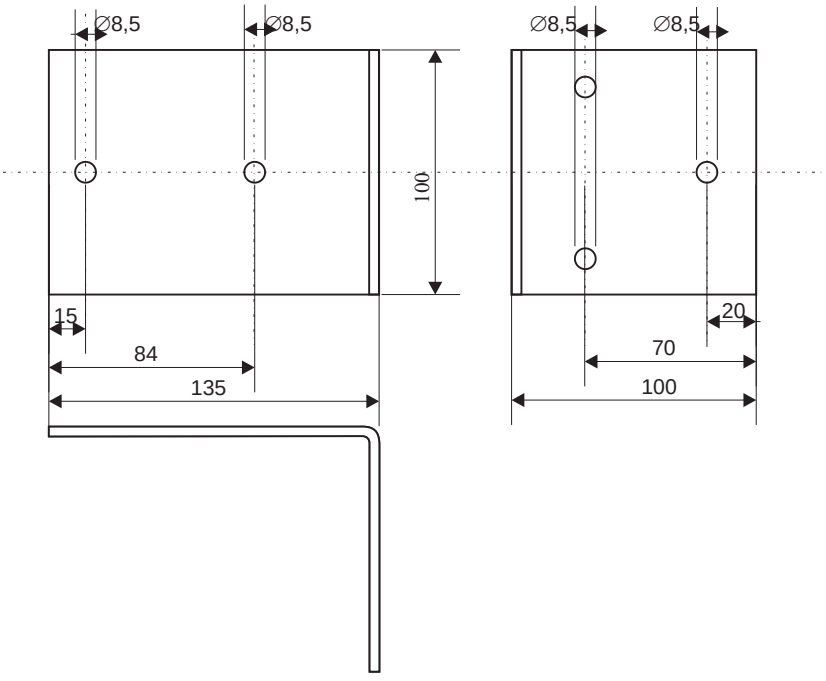
Antenna Mounting Clamp
ADK-O/120
(antenna mast diam. 60 - 120 mm)



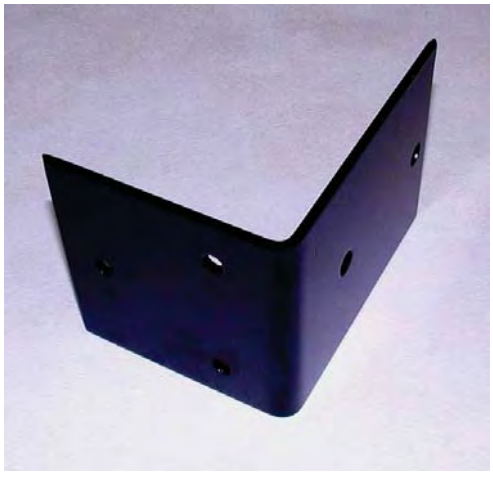
Antenna Mounting Arm
ADK-R/25 (L = 250 mm)
ADK-R/50 (L = 500 mm)
ADK-R/100 (L = 1000 mm)



Antenna Mounting Tube
ADK-C/R1-20
ADK-C/B54-20



Antenna Wall
Mounting Bracket
ADK-L



APS-38

The family of power dividers type APS-38 is composed of two-, three- and four-way power dividers for use on standard VHF and UHF frequency ranges. Dividers enable connection of two or more antennas together in one antenna array or system. They are designed as passive dividers on the base of quarterwave line coaxial transformer with one input and two or more outputs. The outer section of the divider is made of aluminum alloy square tube with side mounted input and output connectors and transparently anodized. The divider could be mounted on mast with one of our standard universal mounting consoles family ADK.

Frequency range (Mhz)	66-88, 146-176, 390-475, 790-960
Impedance	50 ohm
VSWR	< 1,3
Maximum power	400 W
Connector	N fem.
Lenght	max. 100 cm
Mass	max. 0,5 kg

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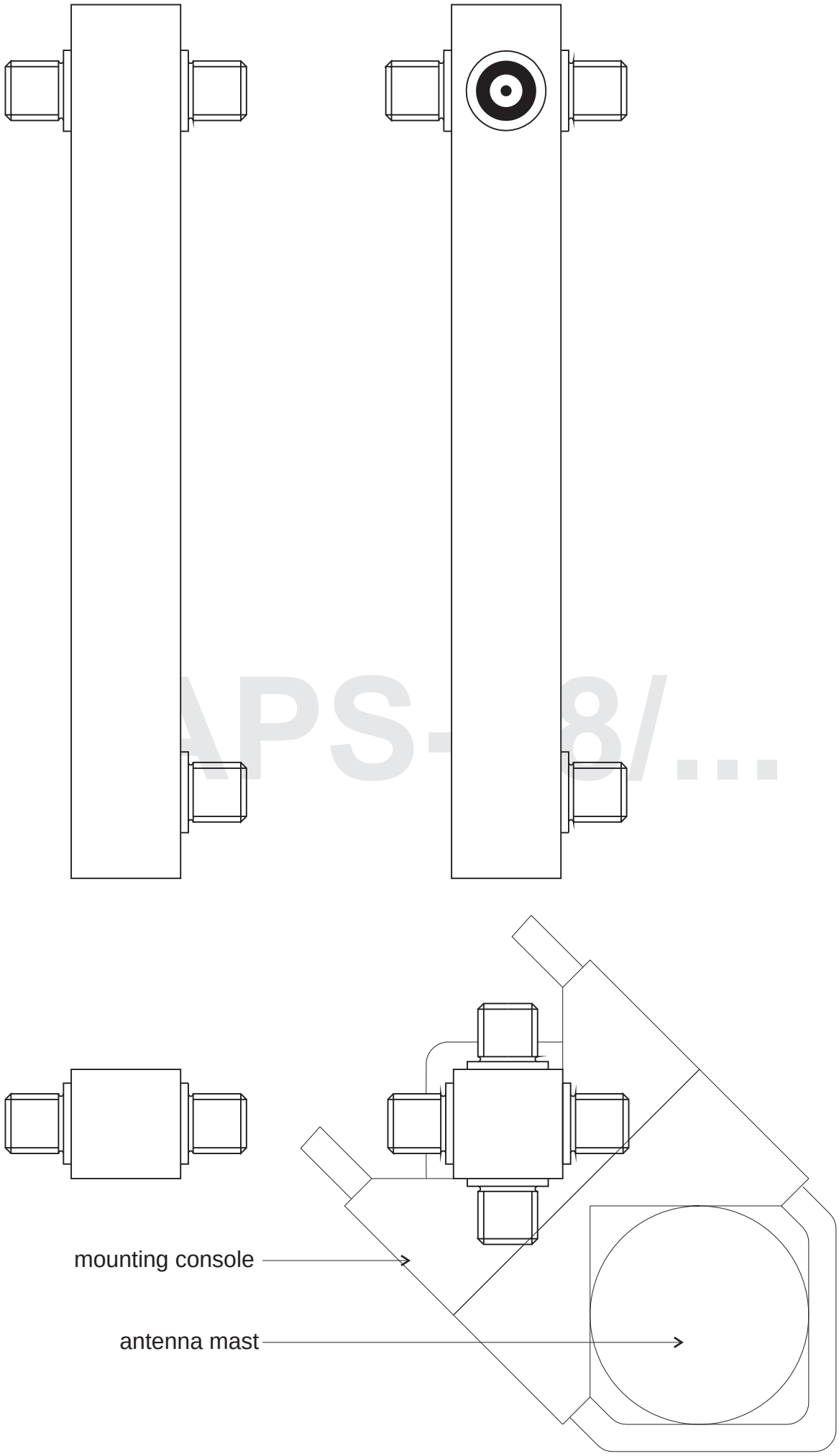
mounting console
antenna mast

Coaxial Surge Protectors ASP-...

Coaxial surge protectors against atmospheric discharges type ASP are intended for protection of personnel, radio and other equipment against direct, indirect lightning and other discharging influences (EMP, NEMP). Compared with the model ASP, the ASP-W is designed as waterproof coaxial feedthrough and intended to be mounted on properly grounded panel mount plate outside the object or building.
The protector is usable within frequency range from 0 (DC) to 1500 MHz (ASP and ASP-W) or from 1500 to 2500 MHz (ASP-WH). The models ASP and ASP-W are composed of metal nickel coated housing ended with two coaxial connectors (type N, BNC or TNC). A special gas filled surge arrester is inserted in with the function of voltage-dependent switch. As soon as the voltage applied to the arrester exceeds the spark-over voltage, an arc is formed in the hermetically sealed region within microseconds. After that the arrester is capable to do its function further again.
The model ASP-WH has protection enabled with short-circuited 1/4 wave stub.

VERSIONS:

ASP-01: connectors Nf – Nm
ASP-02: connectors TNCf – TNCm
ASP-03: connectors UHFm- UHFf
ASP-04: connectors Nf-Nf
ASP-05:connectors BNCf-BNCf

ASP-01/W: connectors Nf-Nm
ASP-04/W : connectors Nf – Nf
ASP-05/W : connectors BNCf – BNCf
ASP-46/W : connectors Nf – TNCf

ASP-04/WH: connectors Nf-Nf

Frequency range	0-1500 MHz (connectors N) 0-500 MHz (connectors BNC, TNC) 1500-2500 MHz (ASP-WH)
Impedance	50 ohm
VSWR	< 1.35
Insertion loss	< 0.2 dB
Spark-over voltage	600 V (ASP-W)
Max. discharge current	10 kA (ASP-W) < 25 kA (ASP-WH)
Connector	see VERSIONS above
Weight	170 g
Max. panel thickness	8 mm
Operating temperature	-50 .... +80 °C


ASP-01/W


ASP-04/W


ASP-04/WH


ASP-05/W

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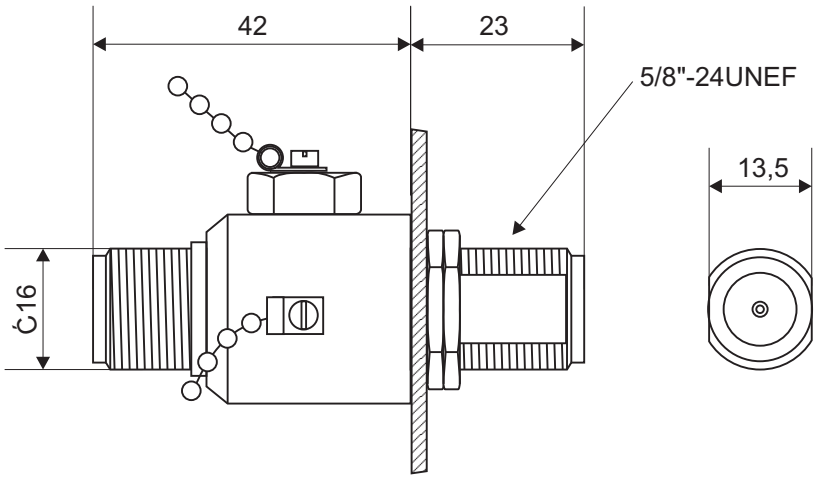
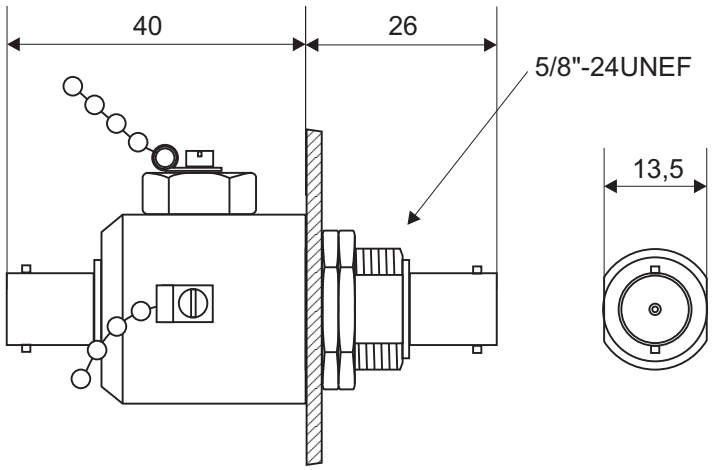
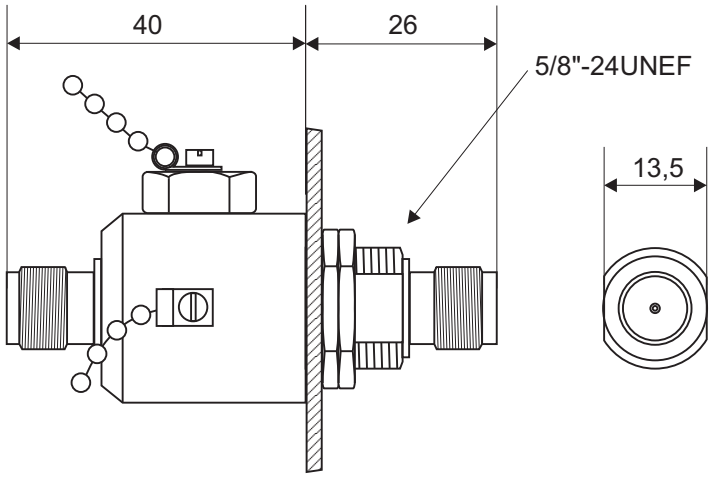


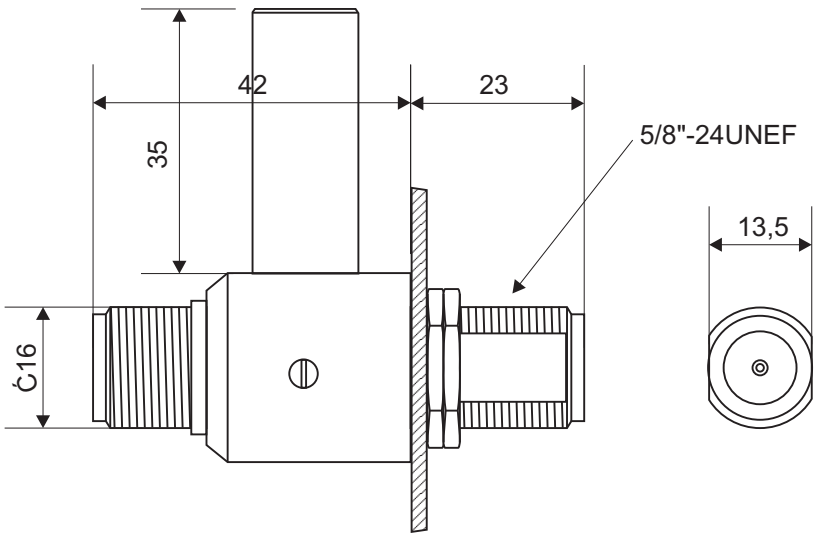
ASP-04/W
(Nf - Nf)



ASP-05/W
(BNCf - BNCf)



ASP-06/W
(TNCf-TNCf)



ASP-04/WH
(Nf - Nf)

Lead-through insulator UI-2

The antenna lead-in insulator UI-2 is intended for safe installation of antenna wire from transmitter or antenna tuning unit to connection element on the antenna. The insulator could be mounted on the wall of vehicle cabin or on some other objects (ships). It is made of polypropylene material and inside of it is a conductor with screw joints M8 and nuts for connection of antenna wire. The insulator is resistant against atmospheric influences and UV radiation. All metal parts are galvanically protected.

Max. RF voltage	20 kV
Mass	0.5 kg
Height	220 mm
Mounting	6 x M8
Temperature range	-40...+70°C

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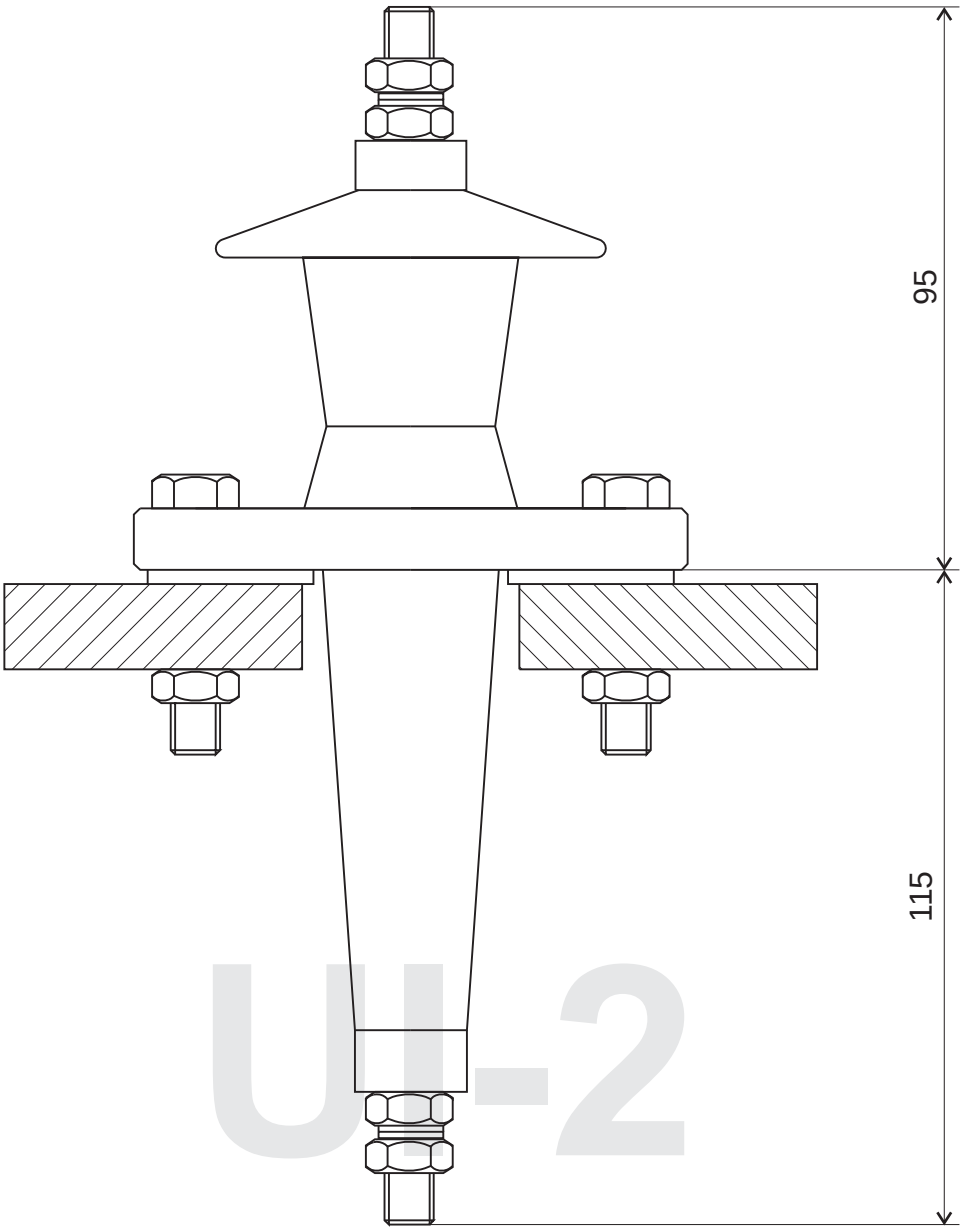

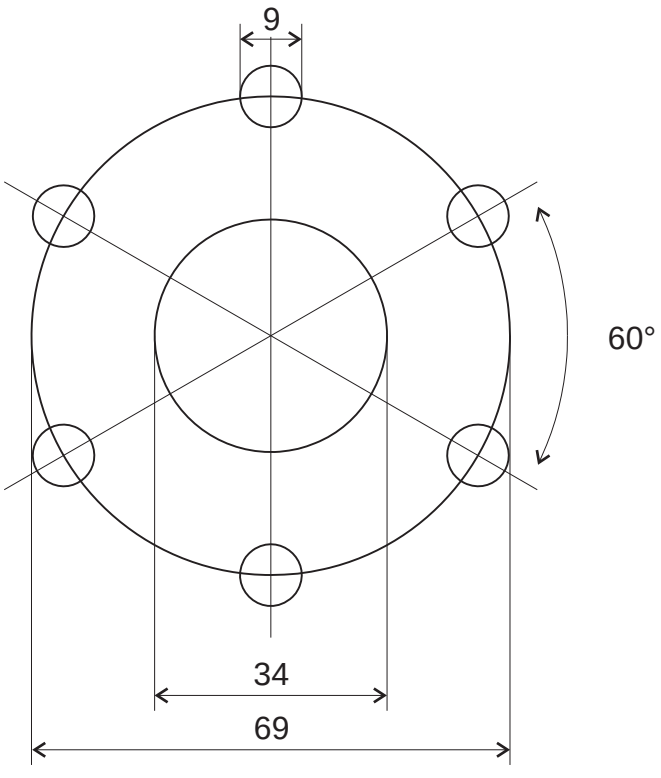

Lead-through insulator UI-3

The antenna lead-in insulator UI-3 is intended for use on ships for safe installation of the antenna wire from transmitter or antenna tuning unit to connection element on the main transmitting antenna. The insulator is made of highest quality polypropylene material with excellent electrical and mechanical characteristics. The flange is made of composite material (epoxy fiberglass). The insulator is designed primarilly for side mounting. On the lower part of the insulator is special connecting element for transmiter wire and on the upper part is a special cable joint for connection of the antenna wire.

Max. RF voltage	20 kV
Mass	5 kg
Height	365 mm
Mounting	6 x M 10
Temperature range	-40/+70 C

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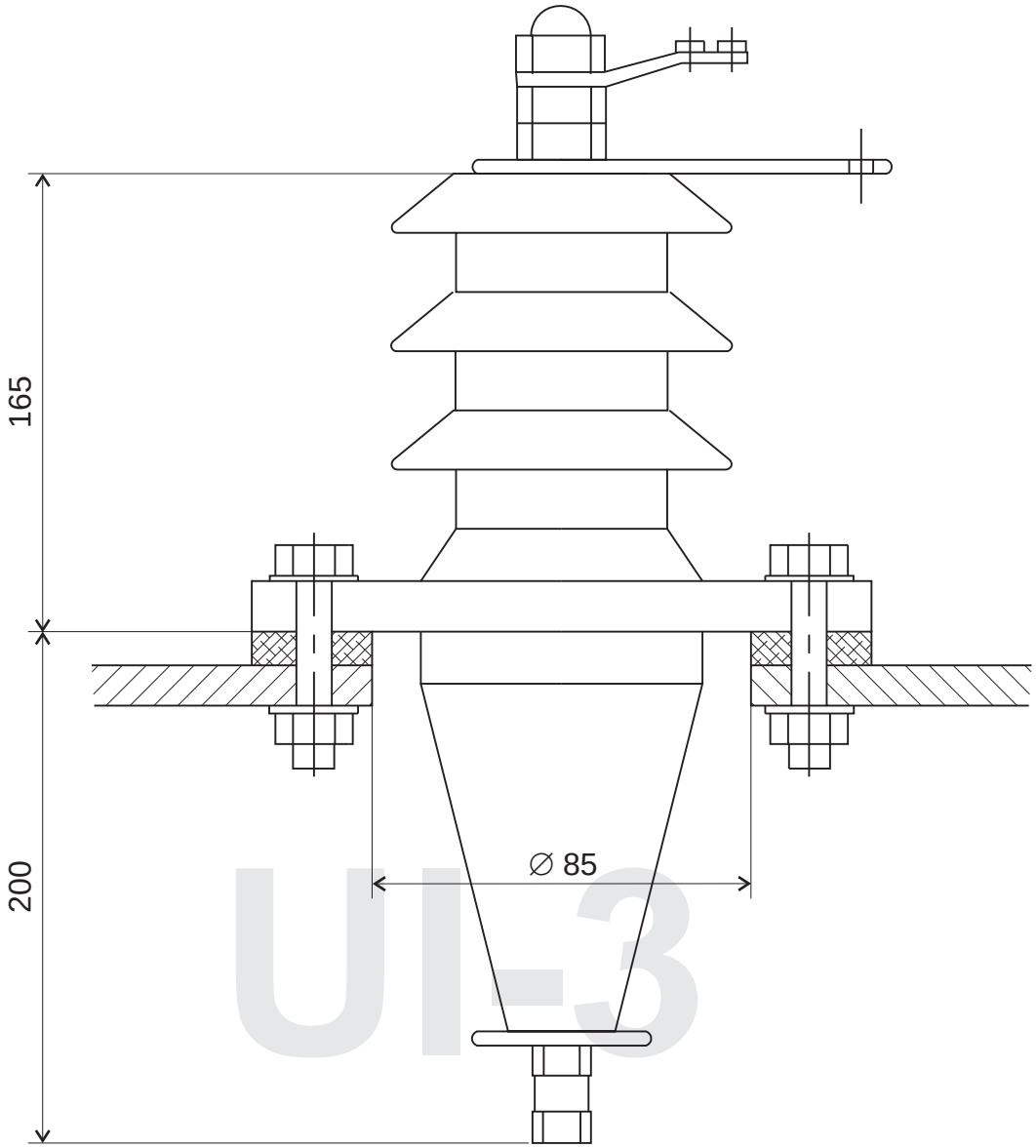
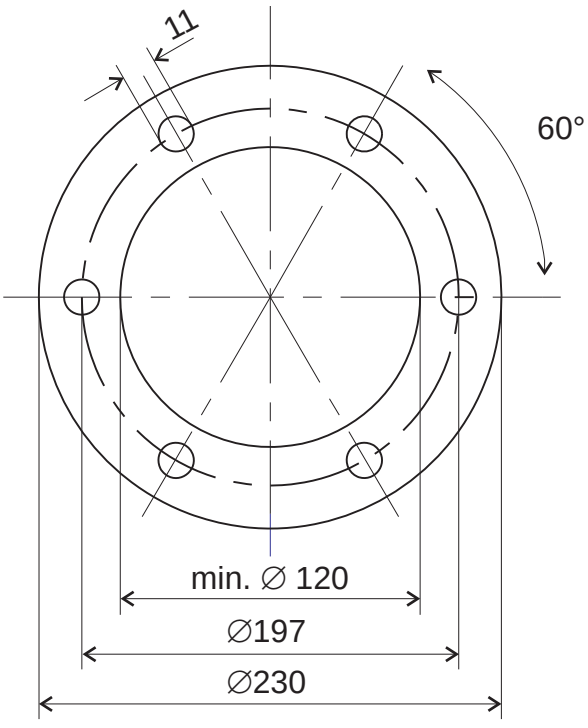
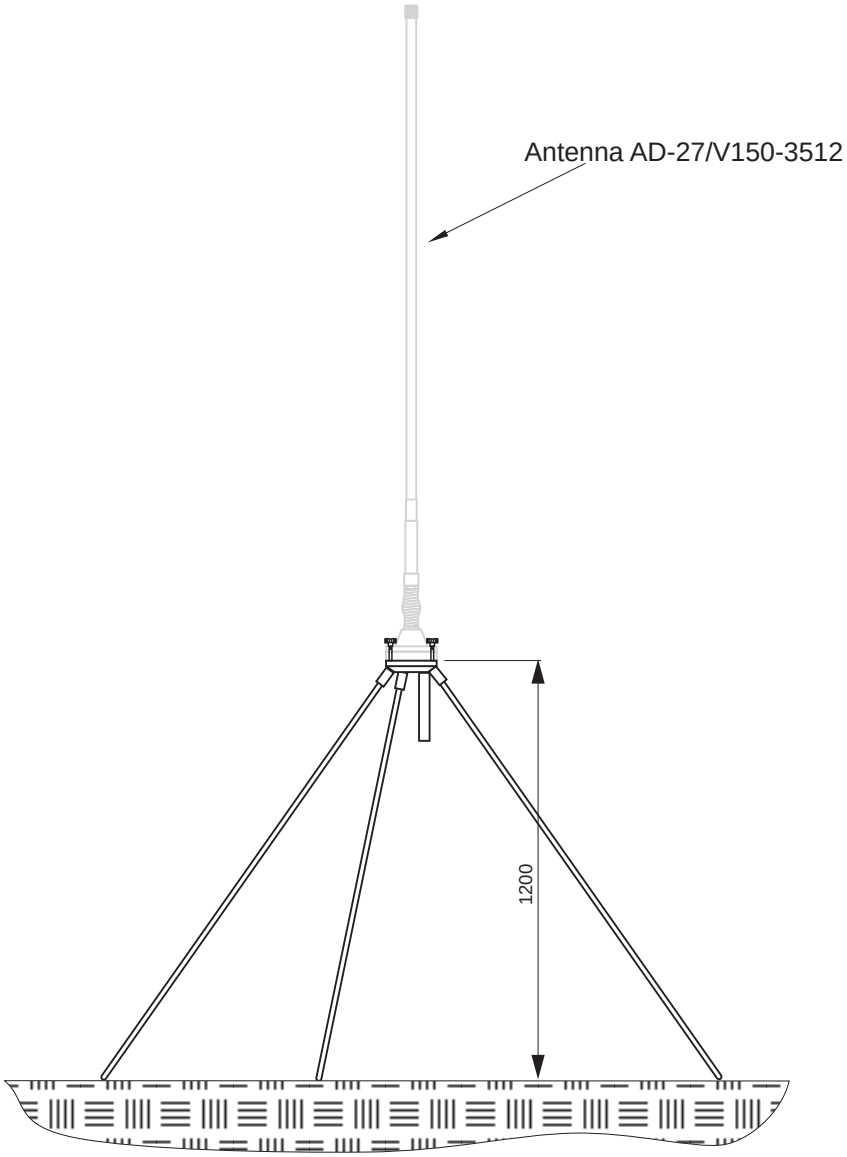

165
200
∅ 85


11
60°
min. ∅ 120
∅197
∅230

ATP-1827/01

The antenna tripod type ATP-1827/01 was designed for quick and easy deployment of our VHF/UHF mobile antennas types AD-18/... and AD-27/... in a tactical environment. The tripod legs form the ground plane for increased antenna performance. Tripod legs are made of aluminum alloy, protected with iridite finish and painted with UV resistant PU paint.
Complete tripod elements are packed in a handy canvas bag capable to carry the antenna elements (antenna base with radiators) also.

MECHANICAL SPECIFICATIONS: Design Material Surface Treatment Height Weight	 Center Mount - 3 legs High Grade Aluminum Alloy Iridite Finish + MIL Green PU paint 1.2 m Approx. 5 kg



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email: info@trivalantene.si; www.trival-antennas-mast.com

Ground Plane Kit
ATP-1827/02

The antenna ground plane kit type ATP-1827/02 was designed for quick and easy deployment of our VHF/UHF mobile antennas types AD-18/... and AD-27/... in a tactical environment. The kit radials form the ground plane for increased antenna performance. Radials are made of aluminum alloy, protected with iridite finish and painted with UV resistant PU paint.
Complete GP kit is packed in a handy canvas bag suitable for packing also the antenna elements (antenna base and radiators).

MECHANICAL SPECIFICATIONS:	
Design	Center Mount - 3 radials
Material	High Grade Aluminum Alloy 6061-T6 Joints Stailess Steel
Surface Treatment	Iridite Finish + MIL Green PU paint
Height	1.2 m
Weight	Approx. 6 kg

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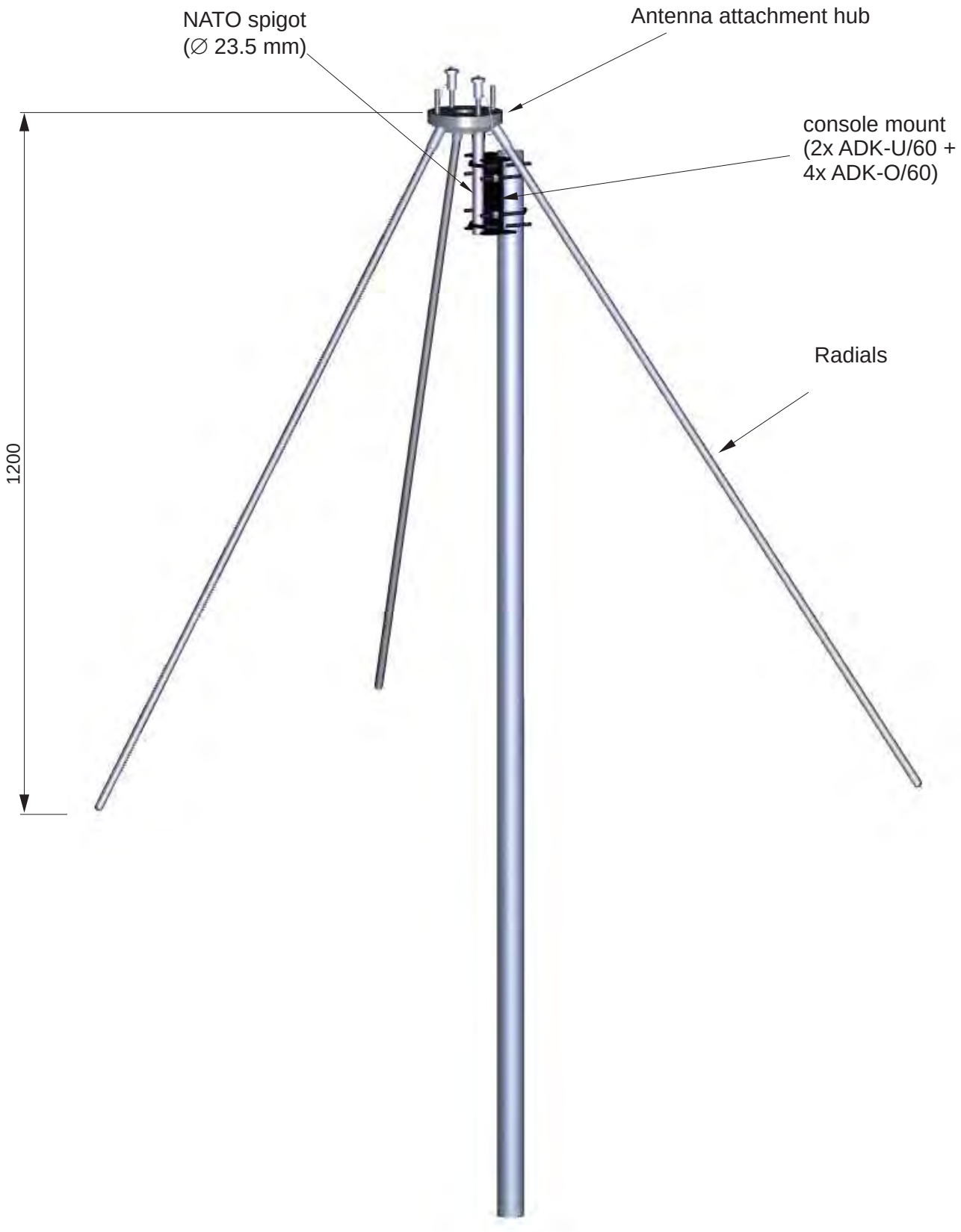
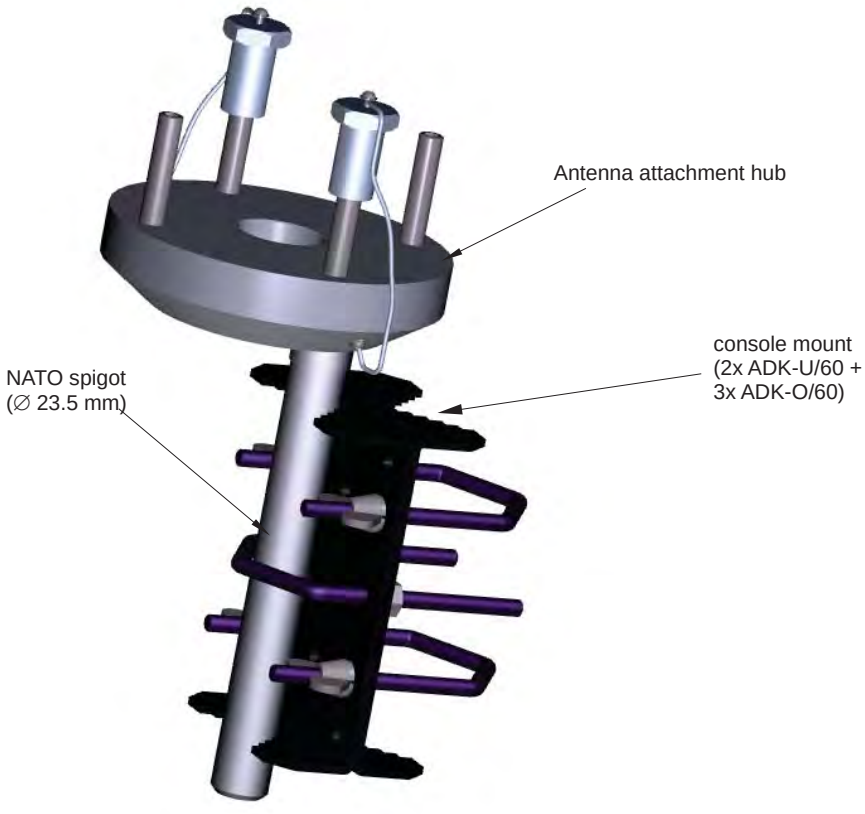

NATO spigot
(∅ 23.5 mm)
Antenna attachment hub
console mount
(2x ADK-U/60 +
4x ADK-O/60)
Radials
1200

Attachment Adaptor ATP-1827/03

The attachment adaptor kit type ATP-1827/03 was designed for quick and easy deployment of our center-fed VHF/UHF mobile antennas in a tactical environment. Adaptor kit is composed of aluminum alloy antenna hub with NATO 23.5 mm diam. spigot and the universal attachment console made of stainless steel. Console allows attaching to the mast tube diameter from 25 to 60 mm. Antenna hub with spigot is with the irridite finish and protected with the PU paint. Console kit is painted with black cataphoretic paint.

MECHANICAL SPECIFICATIONS:	
Design	Center Mount, standard NATO 4.5" bolt hole pattern
Material	High Grade Aluminum Alloy 6061-T6 Stailess Steel
Surface Treatment	Iridite Finish + MIL Green PU paint
Weight	Approx. 2 kg



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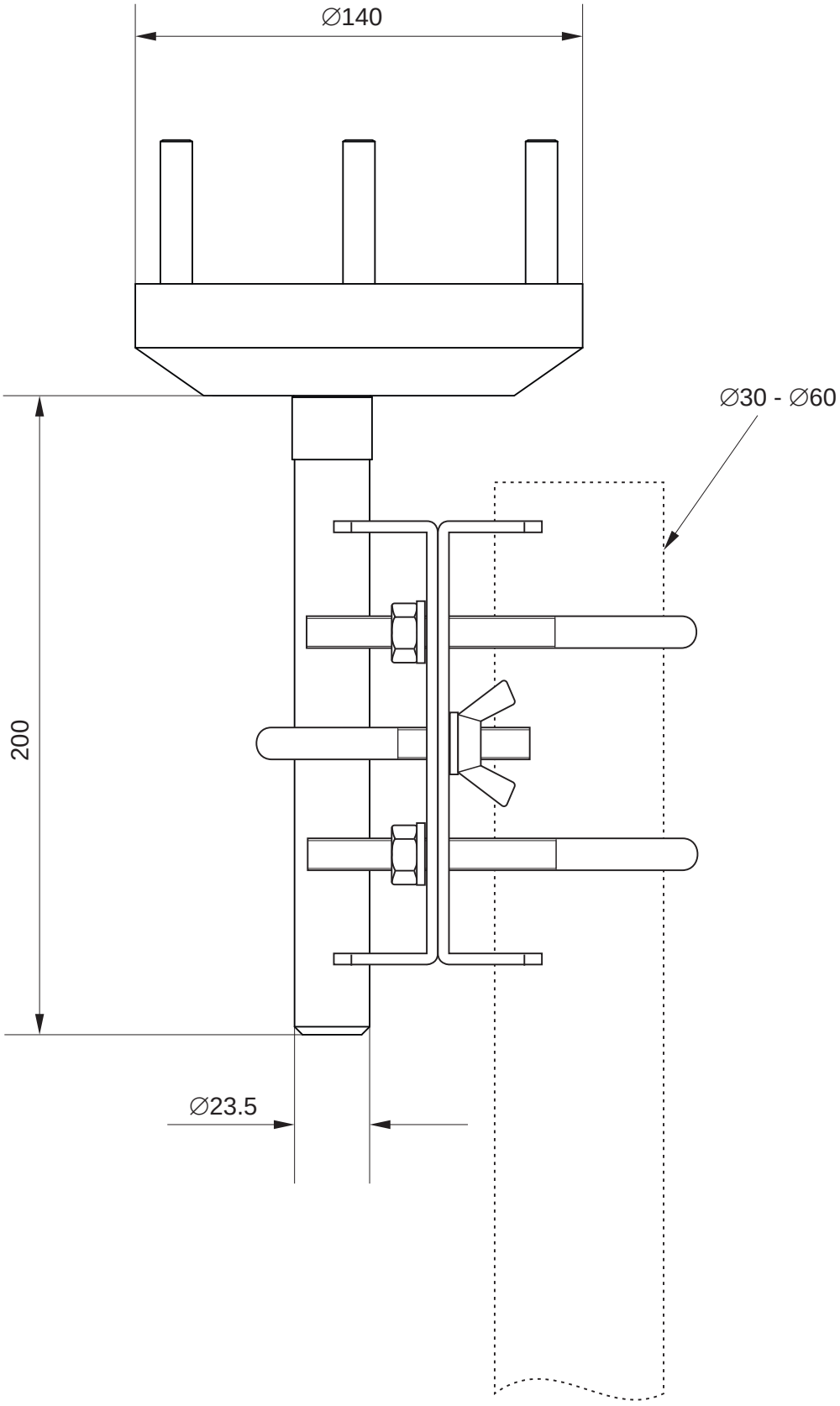
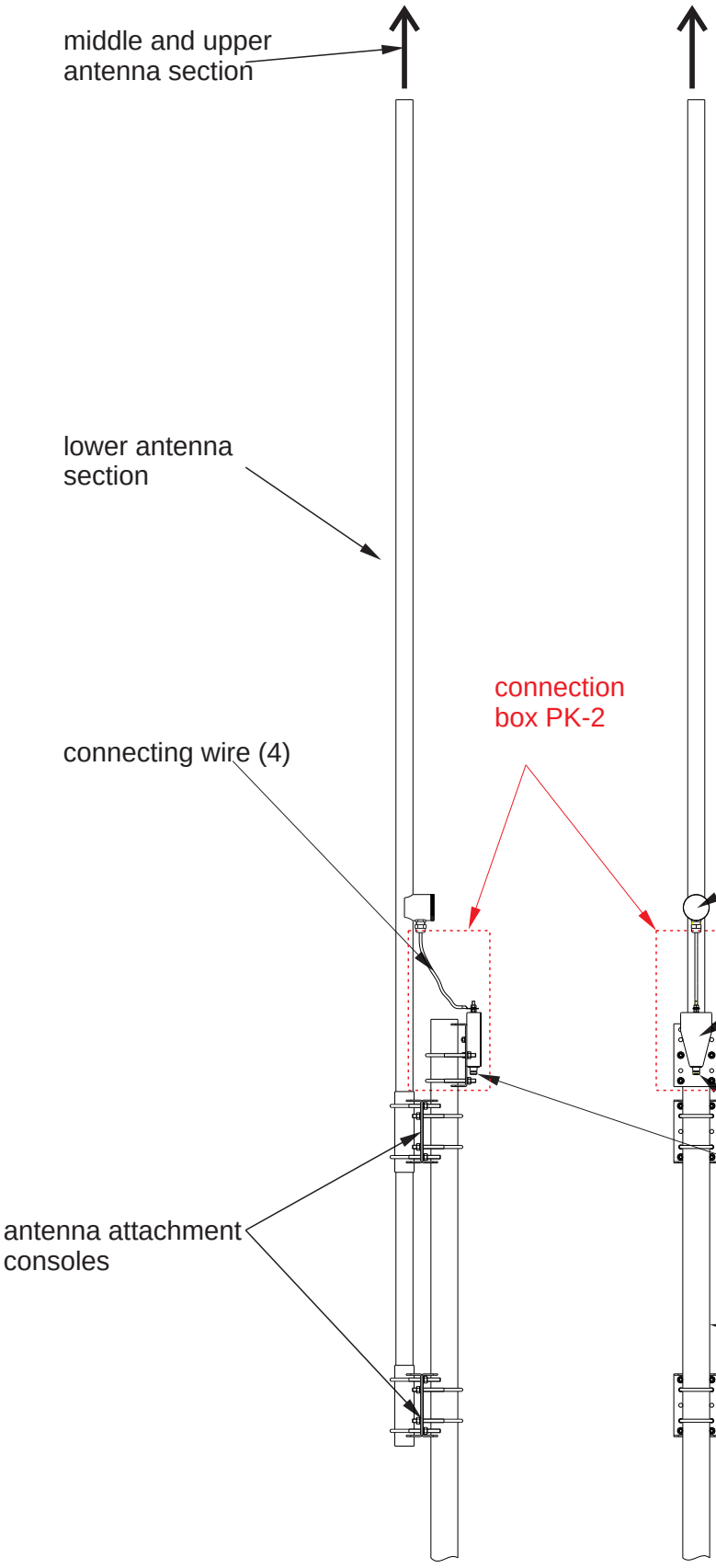

∅140
∅30 - ∅60
200
∅23.5

Connection Box PK-2
for Antenna AD-2/D-xx



The CONNECTION BOX PK-2 is composed of connection box with N or UHF female connector, attachment console and connecting wire. Attachment box is fixed to the stainless steel console which at the same time acts as a connection betwen the connector ground point to the metal attachment pipe. Hot connector point has a connection to the antenna sections.

Versions:

PK-2/N: with N female input connector
PK-2/UHF: with UHF female input connector

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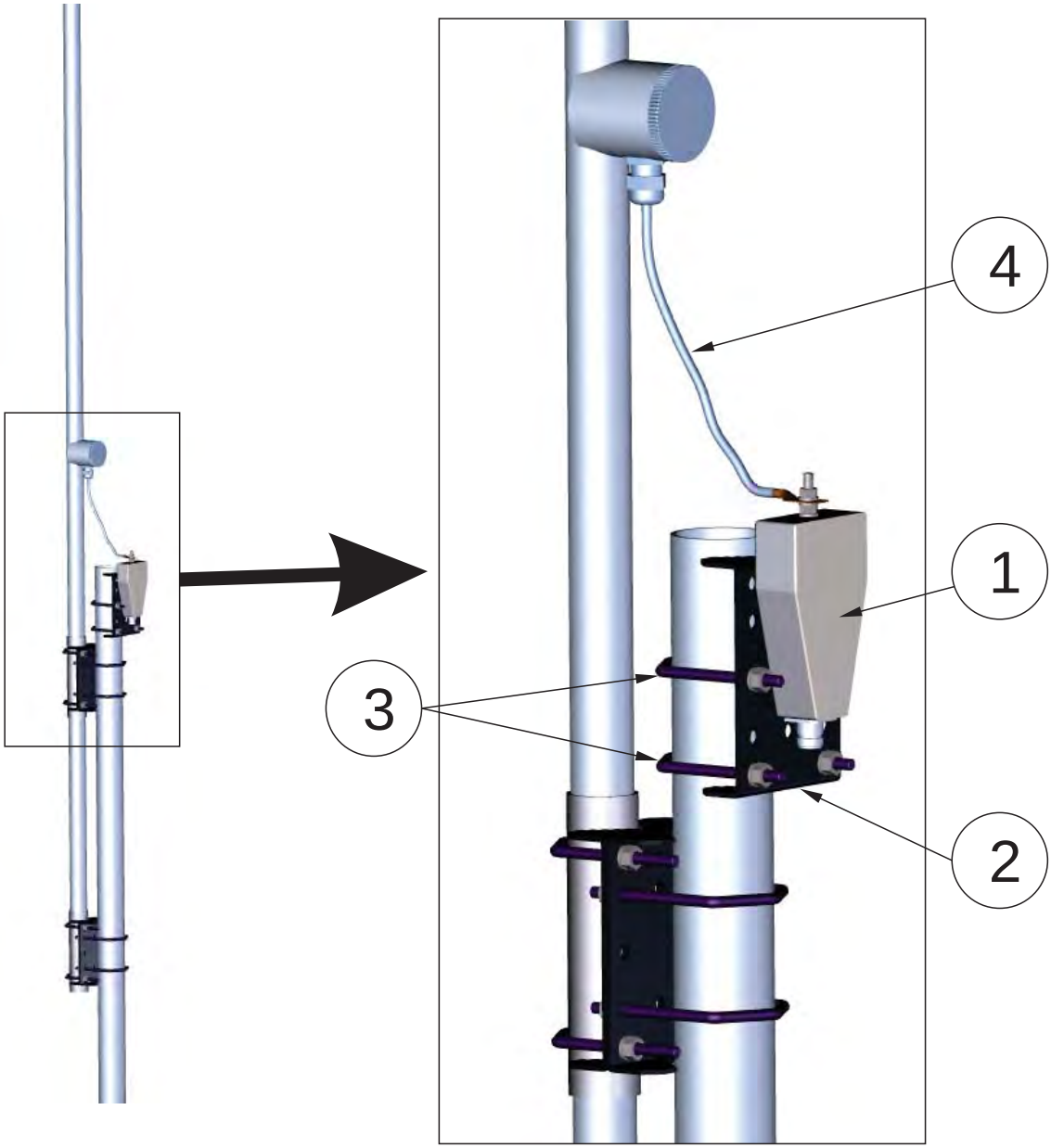
email: info@trivalantene.si; www.trivalantene.si



Item No.	PK-2 Parts List	Units
1	Connection Box with coaxial input connector	1
2	Attachment Console ADK-U/60	1
3	Attachment Clamps ADK-O/60 with nuts and washers	2
4	Connecting Wire with Cable Lugs fi 8 mm	1