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TRIVAL ANTENE

AD-27/DB-3512

Rev. A

The antenna AD-27/DB-3512 is a dual-band monopole/dipole mobile antenna intended for use in heavy-duty mobile applications. The antenna is covering a frequency range from 30 to 108 MHz and from 225 to 512 MHz. Due to the special monopole design in the radiator, the ground for the VHF is not needed. That way the antenna can be also installed on a mast.The antenna is composed of two main parts: an antenna base and a radiating element. The antenna base is made of aluminum and durable plastic materials. Stainless steel spring absorbs the shocks and the vibrations, in addition, protect the antenna against impacts. The antenna base has built-in surge protection. The radiating element is made of composite materials that enable outstanding strength and roughness even in the 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. The antenna radiator is painted with military green (RAL-6014) two-component UV resistant paint. Other colors are available on request.



ELECTRICAL SPECS.:	
Frequency range	30 - 108 MHz & 225 - 512 MHz
Impedance	50 ohms
VSWR	< 2.5
Gain	See diagram
Polarization	Linear Vertical
Radiation Pattern	Omnidirectional
Maximum power	100 W CW
Connector	N female or BNC female
ELECTRICAL SPECS - GPS:	
Frequency range	L1: 1575.42 +/- 10 MHz or L1/L2 1575.42 / 1227.60 MHz
Impedance	50 ohms
VSWR	< 2
Polarization	RHC
LNA Gain / Voltage / Current	18 dB (+/- 2 dB) / 5 V / 19 mA 16 dB (+/- 2 dB) / 3.5 V / 13 mA 10 dB (+/- 2 dB) / 2 V / 7 mA
Noise fig.	<1.5 dB
Connector	SMA female
MECHANICAL SPECS:	
Design	Monopole (30 - 108 MHz) & Dipole (225 - 512 MHz)
Height	2230 mm
Weight	4.5 kg
Max. high voltage rating	16 kV
Wind rating	45 m/s (160 km/h)
Color	MIL Green
ENVIRONMENTAL SPECS:	
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

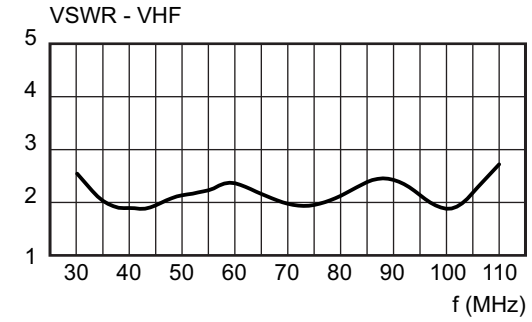
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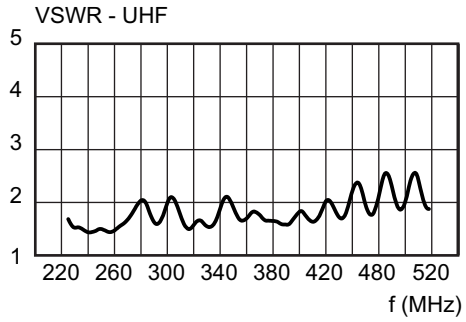
AD-27/DB-3512-N: VHF/UHF antenna with N female connector
AD-27/DB-3512-G-N: combined VHF/UHF (N female) and GPS L1 (SMA female) antenna
AD-27/DB-3512-G2-N: combined VHF/UHF (N female) and GPS L1/L2 (SMA female) antenna
AD-27/DB-3512-BNC: VHF/UHF antenna with BNC female connector
AD-27/DB-3512-G-BNC: combined VHF/UHF (BNC female) and GPS L1 (SMA female) antenna
AD-27/DB-3512-G2-BNC: combined VHF/UHF (BNC female) and GPS L1/L2 (SMA female) antenna

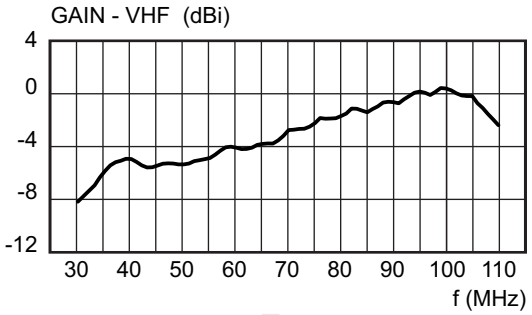
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email: info@trivalantene.si; www.trival-antennas-mast.com

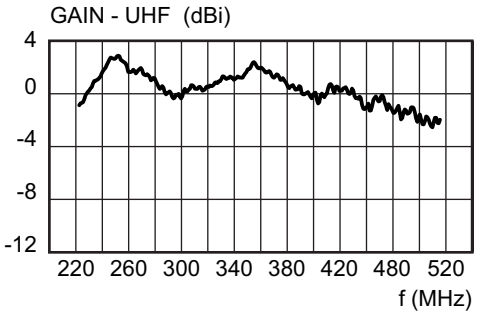
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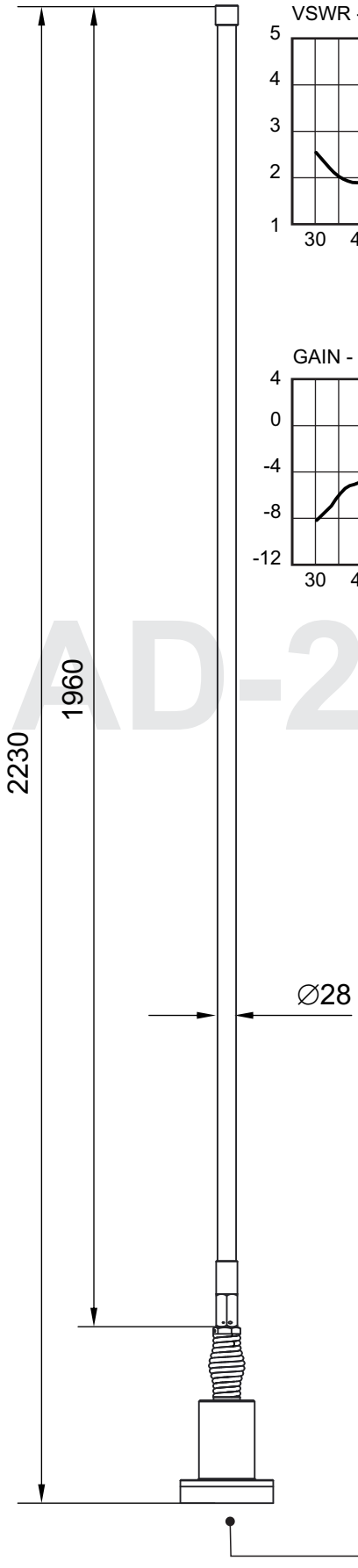


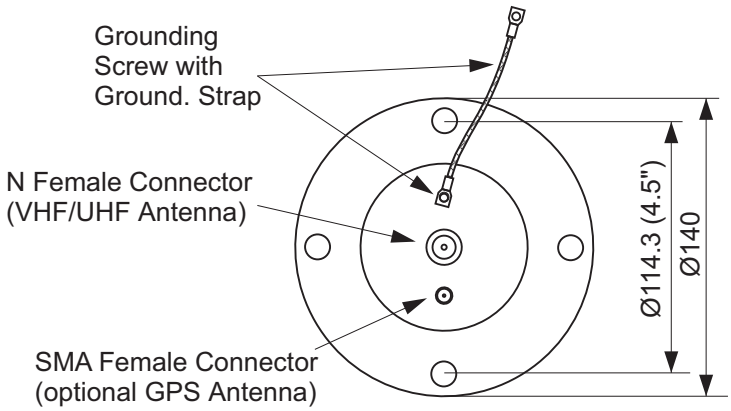






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ANTENNA BASE -
BOTTOM VIEW

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