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TRIVAL ANTENE

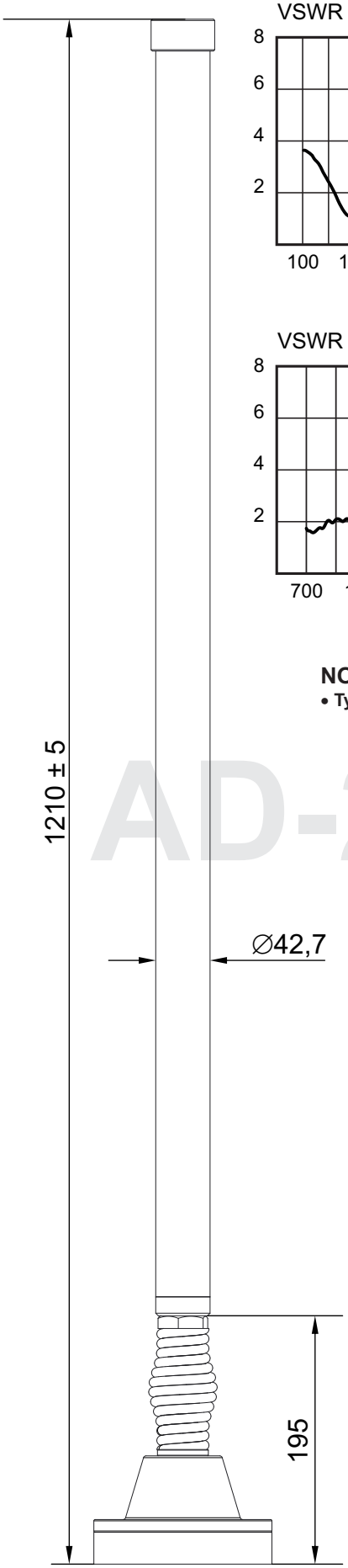
AD-27/DB-15-73

The antenna AD-27/DB-15-73 is a "center-fed" type mobile UHF antenna for the frequency range from 100 - 512 MHz and 700 - 3000 MHz, mainly intended for use in heavy-duty mobile applications. The antenna is designed as a dipole in both UHF bands and does not require any ground plane, so the electrical performance (GAIN and VSWR) of the antenna is always the same. This specific antenna design allows various types of mounting.
The antenna is composed of a base and radiating element, which is not detachable.
The antenna base is made of aluminum and durable plastic materials. Big stainless steel spring absorbs the shocks and vibrations, also, protects the antenna against impacts. The antenna base has NATO standard four mounting holes equally spaced on a 4.5" (114.3 mm) circle.
The radiating element is made of composite material that enables outstanding strength and roughness even in the hardest conditions of use. The antenna radiating element is painted with black two-component UV-resistant paint. Other colors and connectors are available on request.

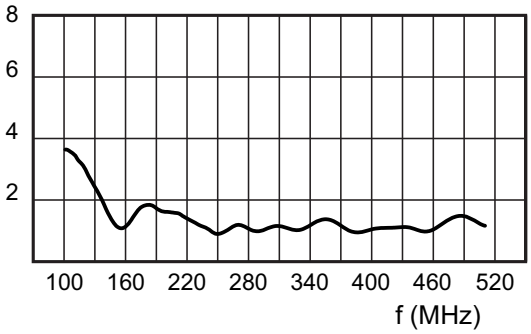


ELECTRICAL SPECS.:	
Frequency range - Port 1	100 - 512 MHz
Frequency range - Port 2	700 - 3000 MHz
Impedance	50 ohms
VSWR - Port 1	< 3.5
VSWR - Port 2	< 3.5
Gain	See diagram
Polarization	Linear Vertical
Radiation Pattern	Omnidirectional
Maximum power	80 W CW
Connector - Port 1	TNC female
Connector - Port 2	N female
MECHANICAL SPECS:	
Design	Dipole (100 - 512 MHz) & Dipole (700 - 3000 MHz)
Height	1210 mm
Weight	4.2 kg
Max. high voltage rating	16 kV
Wind rating	45 m/s (160 km/h)
Color	Black
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

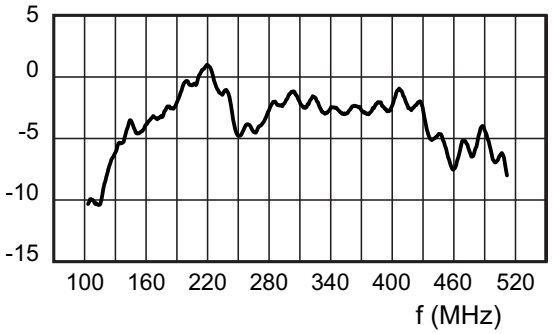
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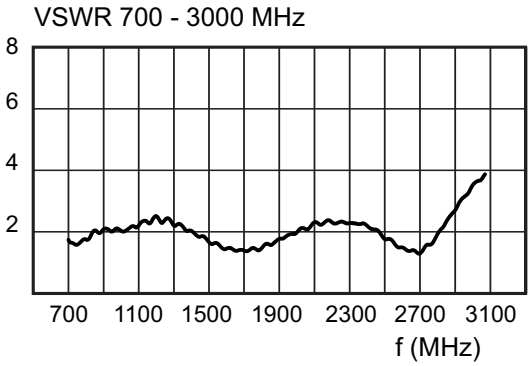
VSWR 100 - 512 MHz



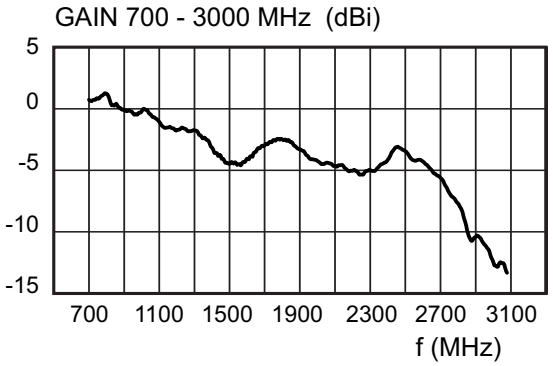
GAIN 100 - 512 MHz (dBi)



VSWR 700 - 3000 MHz



GAIN 700 - 3000 MHz (dBi)

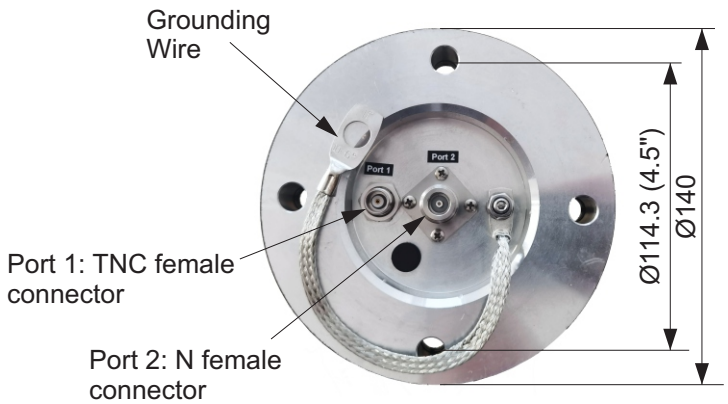


NOTICE:

- **Type of installation does not affect electrically characteristics of the antenna (VSWR and GAIN).**

AD-27/DB-15-73

Antenna Base
Bottom View



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