



20-50-16VM
JTRS Vehicle Mount
Antenna
30 to 512 MHz

FEATURES

- **Covers all operating portions of 30 - 512 MHz JTRS frequency band**
- **Efficient decoupling circuits maintain radiation pattern throughout frequency band**
- **Omnidirectional azimuth pattern**
- **CECOM mounting plate with spring for base station or mobile applications.**
- **No tuning required**
- **Only 48 inches overall height**
- **Meets MIL-STD-810 environment**
- **100 Watts power handling**
- **Excellent gain maintained by passive impedance matching throughout frequency band**
- **Detachable top element for stowage**

The 20-50-16 is a high performance wide band multi-element antenna intended for use with the Joint Tactical Radio System (JTRS) and similar systems operating within the frequency band 30-512 MHz.

The antenna comprises a CECOM plate mounted parasitically excited UHF sleeved monopole co-linearly stacked with a VHF monopole element. Decoupling techniques are employed to minimize unwanted interaction between elements and maintain optimum radiation patterns throughout the entire frequency band. Proprietary matching techniques are employed to maintain VSWR relatively independently of ground plane.

Construction comprises a spring mounted aluminum alloy base unit with integral matching circuits supporting a detachable aluminum alloy top element. The whole assembly is foam filled to provide maximum strength and prevent the ingress of moisture. The side-mounted BNC connector is protected by 3 high impact guard studs.



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SPECIFICATIONS

Cooper Antennas Model 20-50-16VM JTRS Vehicle Mount Antenna

ELECTRICAL

Frequency	30 - 512 MHz
Gain	
30 - 88 MHz	13 dBi to -6 dBi
118 - 174 MHz	-4 dBi average
225 - 512 MHz	0 dBi average
VSWR	
30 - 88 MHz	≤ 2.5:1
118 - 174 MHz	≤ 3.0:1
225 - 490 MHz	≤ 2.5:1
491 - 512 MHz	≤ 3.0:1
Impedance	50 Ohms (nominal)
Power	100 Watts CW
Polarization	Linear (vertical when vertically mounted)
Antenna RF Connector	BNC Female
Operational Temperature	-40°C to +71°C

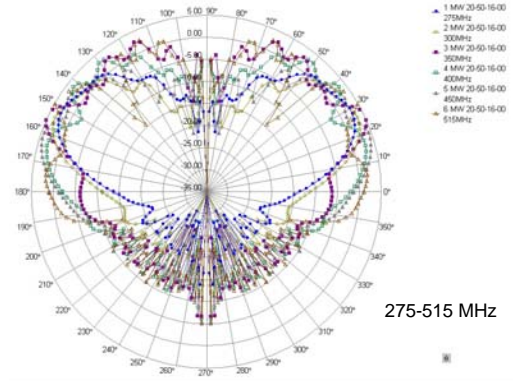
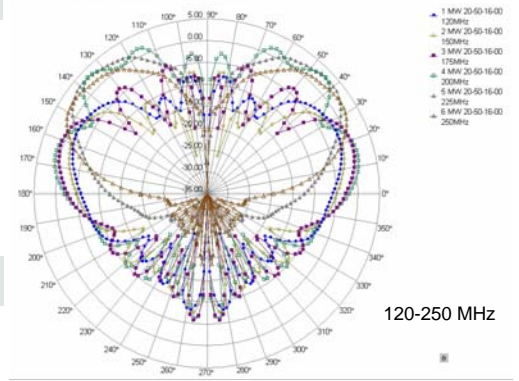
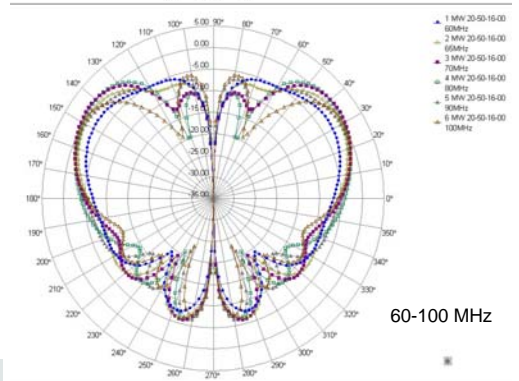
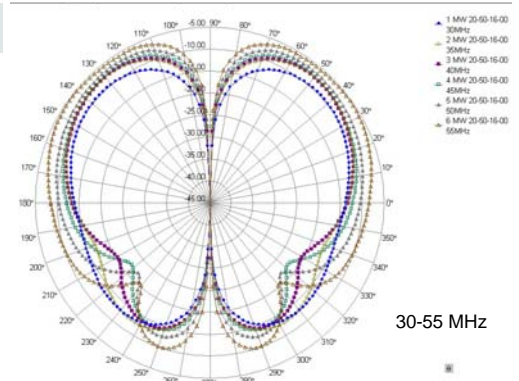
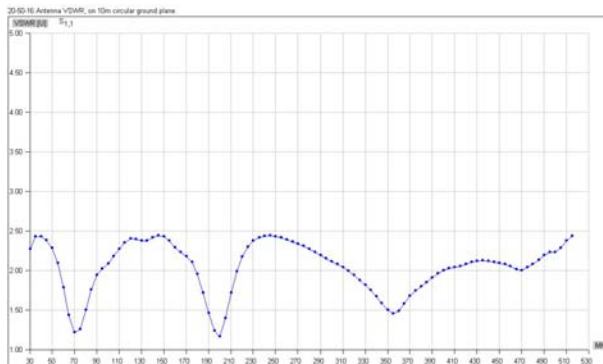
MECHANICAL

Fixings	CECOM pattern base with four 7/16 inch (11.1mm) dia. holes on a 4.5 inch (114mm) circle
Overall height	48 inches (1219mm)
Weight	7.2lbs (3.27kg)

FINISH

Urethane Desert Sand. Other finish options are available.

Please specify finish required when ordering.



Note: Cooper Antennas Ltd has a policy of continuous product improvement and data herein is therefore subject to change. Please check with Cooper Antennas Ltd that this data sheet is at latest issue before initiating contract activity.