



20-20-13

NSN 5985-01-588-5574
Spring mounted VHF / UHF
SINGARS/EPLRS Antenna
30-88 MHz & 225-450 MHz

FEATURES

- **Joint Electronics Type Designation System AS-4697/VRC**
- **UHF Dipole Element is ground plane independent**
- **Spring mounted - can be tied down for stowage**
- **Fits standard CECOM 4 hole mount**
- **Robust Construction**
- **Designed to sustain 25 mph “Oak Beam” Test**
- **100 Watts CW Power**
- **Omni-directional Pattern in azimuth**
- **Complies with MIL-STD-810 Environmental and MIL-S-901 shock**
- **DC Grounded Element with at least 10kV high voltage protection**

The 20-20-13 is a vertically polarized, omni-directional VHF/UHF antenna. It is compatible with all popular military radios operating in the 30 to 88 MHz and 225 to 450 MHz frequency ranges. The antenna can handle 100 Watts of power, has separate VHF and UHF coaxial connectors and requires no external tuning.

Radiating elements comprise a UHF dipole integrated into a VHF monopole and are totally encased in high strength fiberglass tubing which provides insulation in the event of accidental contact with 10kV RMS (minimum) high voltage power lines. The antenna is designed to provide peak radiation near to the horizon.

Where simultaneous VHF/UHF operation is required, use of dual in line filter, Part No. 21-80-12 is recommended to increase isolation to a minimum of 50dB.

The antenna is a member of a family of quickly deployed lightweight antennas developed by Cooper Antennas for tactical military communications. Rugged design ensures reliability in arctic, jungle or equatorial desert environments. The antenna is spring mounted for vehicular use and has a mounting base compatible with standard CECOM mounting brackets, having four 7/16 inch dia. holes on a 4.5 inch circle. It is especially well suited to special mission applications.



Cooper Antennas Ltd for non-USA customers

Thames Industrial Estate, Unit K, Fieldhouse Lane,
Buckinghamshire SL7 1TB, UK
Tel: +44 (0) 1628 482 360
Email: sales@cooperantennas.com
www.cooperantennas.com



Australian Representatives
ROJONE, PTY LTD.

Tel: 02 9829 1555
E: sales@rojone.com.au
www.rojone.com.au

SPECIFICATIONS

Cooper Antennas Model 20-20-13

NSN 5985-01-588-5574

Spring Mounted SINGARS/EPLRS Antenna

ELECTRICAL

Frequency band	30-88 & 225-450 MHz
VSWR	≤ 3.0:1 VHF
	≤ 2.5:1 UHF
Gain (at horizon on 4'x 4' ground plane)	-6 to -2.5dBi (30-88 MHz)
	≥ 0dBi (225-400 MHz)
	≥ -1dBi (401-450 MHz)
Isolation	20dB typ. VHF
	30dB min UHF
Impedance	50 Ohms
Power	50 Watts CW
Polarization	Vertical
Antenna RF Connectors	BNC Female (VHF)
	N Male (UHF)
Operational Temperature	-51°C to +71°C

MECHANICAL

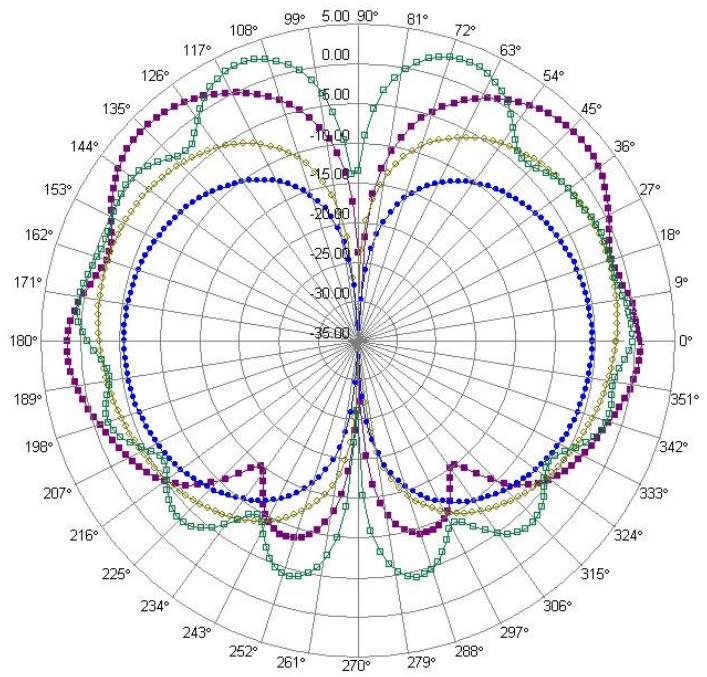
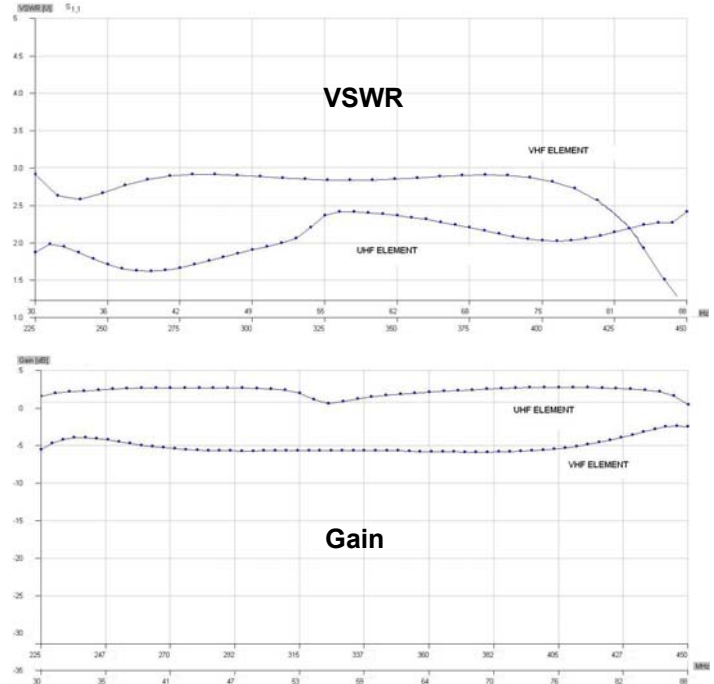
Overall Height from mount	72 inches (1829mm)
Element Diameter	2.25 inches (57mm) (over entire length)
Weight	7.7 lbs max (3.49kg)

FINISH

MIL-DTL-14072E(CR), MIL-DTL-53039, 383 GREEN

Other finish options are available.

Please specify finish required when ordering.



Elevation Plot for 30, 88, 225 and 450 MHz

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.