



## FEATURES

- **Suitable for vehicular, shipborne and shelter installations**
- **Robust construction**
- **Hemispherical radiation pattern coverage**
- **All Weather operation**
- **200 Watts CW Power handling**
- **Designed to MIL-STD-810 environmental requirements**
- **4 hole CECOM adaptor plate available**
- **Vehicle mount telescopic mast available**

**20-30-60**  
**NSN 5985-99-434-4648**  
**UHF SATCOM On-The-Move**  
**Antenna**  
**240 to 320 MHz**



The 20-30-60 is a rugged UHF Satcom antenna designed for use on military vehicles operating in worldwide conditions of service and specifically configured to provide satellite capture through hemispherical radiation pattern coverage. As such, it is ideally suited to Satcom on-the move applications where vehicle movement over rough terrain causes rapid changes in the angle subtended from the antenna to the satellite.

The 20-30-60 comprises a wide band Quadrifilar Helix, hybrid connected such as to provide essentially Right Hand Circular (RHC) polarization through a 180° solid angle.

The radiating element dimensions, their height above the antenna base and phasing circuits combine to optimize gain over 25 - 60° equating to low angle satellite capture. The design and general configuration of the 20-30-60 ensures performance is minimally affected by different ground planes and mounting circumstances.

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# SPECIFICATIONS

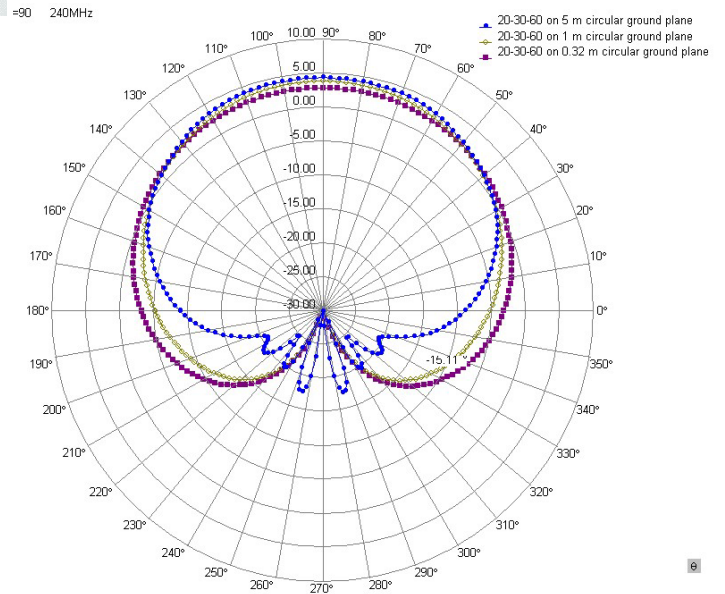
Cooper Antennas Model 20-30-60

NSN 5985-99-434-4648

UHF Satcom On-The-Move Antenna

## ELECTRICAL

|                            |  |
|----------------------------|--|
| <b>Frequency</b>           | <b>240 - 270 MHz</b><br><b>290 - 320 MHz</b> |
| <b>Gain (Typical)</b>      |  |
| 20° to 75°                 | ≥ +2.5 dBiC                                  |
| 75° to 90°                 | ≥ +4.0 dBiC                                  |
| 10° to 20°                 | ≥ -1.0 dBiC                                  |
| <b>VSWR</b>                | ≤ 1.5:1                                      |
| <b>Impedance (nominal)</b> | <b>50 Ohms</b>                               |
| <b>Power</b>               | <b>200 Watts CW</b>                          |
| <b>Polarization</b>        | <b>Right Hand Circular</b>                   |
| <b>RF Connector</b>        | <b>N Female</b>                              |



Pattern at 240 MHz

## MECHANICAL

|                            |                                       |
|----------------------------|---------------------------------------|
| <b>Height</b>              | <b>14.17 inches</b><br><b>(360mm)</b> |
| <b>Base Plate Diameter</b> | <b>13.07 inches</b><br><b>(332mm)</b> |
| <b>Weight</b>              | <b>10 lbs (4.55kg)</b>                |

## FINISH

**Standard : Urethane Lusterless Desert Tan**

**Other finish options are available**

**Please specify finish required when ordering**

## OPTIONAL EXTRAS

**4 Hole CECOM Adaptor Plate-Part No. 20391**

**Vehicle Mount Telescopic Mast**

**Part No. 20-00-61**

**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.**