

***RF-1980F-AT001 /  
RF-1980-AT001  
TILT-WHIP ADAPTERS***

*for use with a vehicular  
whip to allow for NVIS  
communication*

The RF-1980 family provides whip antennas the flexibility to tilt from 0° (vertical) to 50°, 70°, and 90°. The use of a tilt-whip adapter provides radiation patterns that accommodate near vertical incidence skywave (NVIS) propagation.

The RF-1980F is a tilt-whip adapter with a spring base that bolts to standard 4.5-inch bolt hole pattern. The length of whip antenna is limited to 16 feet.

The RF-1980 is a tilt-whip adapter that mounts directly on a standard whip base. If a locking base is used, a 32-foot whip can be installed with this tilt-whip adapter.



## Specifications for the RF-1980

### Electrical

- **Frequency Range**  
2 to 30 MHz
- **RF Power Capacity**  
1 kW
- **Input Impedance**  
50 ohm, nominal
- **Radiation Pattern**  
Azimuth - omnidirectional  
Elevation - see below
- **Polarization**  
Turns vertically polarized whip  
into horizontal polarized tilt whip
- **Gain**  
with 32 foot whip: 0 dBi @ 8 MHz  
With 16 foot whip: -2 dBi @ 8 MHz

### Environmental

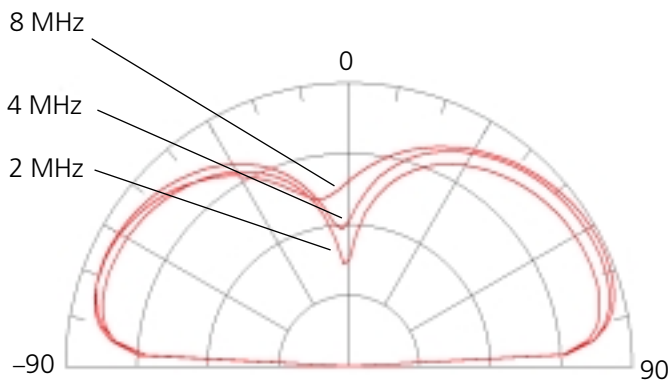
- **Designed to meet MIL-STD-810**

### Mechanical

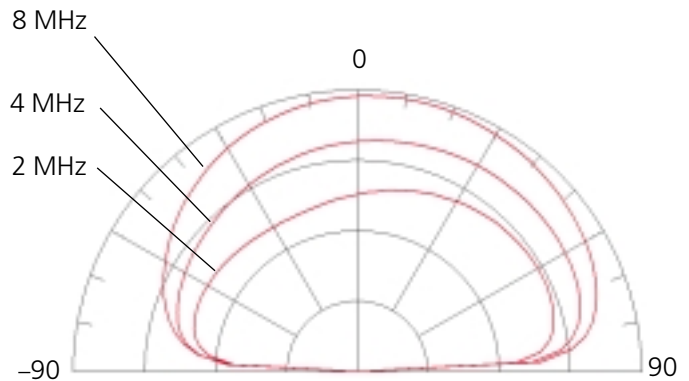
- **Deployed Dimensions**  
RF-1980F 20.5 inch  
RF-1980 19 inch
- **Color**  
RF1980F-AT001: CARC green  
RF-1980F-AT002: CARC tan  
RF-1980: Flat black
- **Weight**  
10 lb (4.5 kg)
- **Mounting Interface**  
RF-1980F: 4-3/8 inch hole equally spaced  
on 4.5-inch diameter  
RF-1980: threads on standard whip base
- **Installation Time**  
RF-1980F: 10 minutes, 1 person  
RF-1980: 2 minutes, 1 person

### Options

- SB-V16/32: 16- or 32-foot whip  
(The RF-1980 family are adapters.  
They require a whip for operation.)
- RF-292 Universal Antenna Mount  
for vehicles



32' Whip on Vehicle without Tilt Whip



32' Whip on Vehicle with Tilt Whip  
(antenna tilted over ground)

Specifications are subject to change without notice.



RF Communications Division | 1680 University Avenue | Rochester, NY USA 14610  
[www.harris.com](http://www.harris.com) 1-585-244-5830