



SM3 Body Mount for PCS/DCS/GPRS/1X



Trunk Lid Mount Option



Mirror Mount Option



DM2 Dome Mount (also available in black)

Surface Mount GPS Dual Band

1.8/1.9 GHz PCS & GPS (Pat.Pnd.)

- Available for Body/Surface Mount applications
- High gain model for PCS/GPRS/1X with active 26 dB GPS amplifier (dual 3.3/5V)
- Medium gain low profile model with active 26 dB GPS amplifier (dual 3.3/5V)
- SM3 series is ground plane independent; performs equally well on fiberglass or metal

New higher speed data applications are coming for the tracking industry and Mobile Mark is ready. These dual band models extend our existing GPS products by offering compatibility with GPRS (1.9 GHz). These antennas can be mounted to any vehicle's surface or any bulkhead through a 3/4" hole (19 mm).

These antennas provide completely independent dual band operation. The SM3 model for GPRS provides very high gain performance of 5 dBi on the 1800/1900 Band. One model is available for US 1.9 GHz and another model is available for Europe 1.8 GHz GSM. The DM2 model provides 2 dBi gain on the 1900 Band.

GPS performance on all models is 26 dB, with 5 dBi antenna gain. The GPS circuitry has a low noise figure (2.0 dB max) with excellent filter characteristics. No interaction occurs between the bands. Power for the GPS amplifier (3.3 VDC or 5 VDC) and signal is applied through the same cabling directly to the GPS circuit.

The antennas are outfitted with 15 feet (4.5 meters) of RG-174 cable and SMA or SMB (plug) connectors for the

GPS interface. The PCS/DCS coax cable is 15 feet (4.5 meters) of RG-58 with a TNC connector. Other connectors and configurations are available upon request.

The SM3 antennas are enclosed in a weatherproof polycarbonate radome. The DM2 uses an ABS plastic radome. All mounting hardware is supplied. Tri-Band GSM/GPS models also are available.

Model Numbers

| Model | Description |
|---------------|--------------------------------|
| SM3-1900/1575 | 5 dBi US1.9 GHz PCS & GPS |
| SM3-1800/1575 | 5 dBi EU 1.8 GHz GSM & GPS |
| DM2-1900/1575 | 2 dBi US1.9 GHz PCS & GPS |
| DM2-1800/1575 | 2 dBi EU 1.8 GHz GSM & GPS |
| SM-MM | Mirror Mount option for SM3 |
| SM-TM | Trunk Lid Mount option for SM3 |

Please specify connectors at time of order. Note: All models are dual voltage 3.3/5 VDC. Please consult factory for other configurations or options.

Specifications

Frequency:

| | |
|------------------|-------------------|
| US PCS/GPRS | 1850-1990 MHz |
| EU GSM | 1710-1880 MHz |
| GPS (all models) | 1575.42 +/- 2 MHz |

Gain:

See above

GPS Gain:

26 dB Amplifier, 5 dBi Antenna

VSWR:

2:1 max over range

Noise Figure:

2.0 dB max, 1.7 dB typical

Operating Temp:

-30° to +80° C

Nominal Impedance:

50 ohms

Max Power (PCS):

10 Watts

Amplifier Bias:

Dual 3.3 /5 VDC +/-10%

Current:

20 mA max, 10 mA typical

PCS Whip (SM3):

302 Stainless Steel

Connector:

As required (specify)

Cable:

| | |
|-----------|------------------------------|
| GPS | RG-174, 15 feet (4.5 meters) |
| 1900 Band | RG-58, 15 feet (4.5 meters) |

Case Material:

| | |
|-----|--------------------------------|
| SM3 | Polycarbonate (black) |
| DM2 | Acrylonitrile Styrene Acrylate |

Dimensions:

| | |
|------------|---|
| SM3 Series | 8 1/2" H, Base 1"H x 2 5/8" D (216 mm, 25 mm x 67 mm) |
| DM2 Series | 1 1/2" H x 2 7/8"D (38mm x 73mm) |

Stud Mounting:

| | |
|-----|----------------------------------|
| SM3 | 3/4" D (19 mm)x1/2" long (13mm) |
| DM2 | 5/8" D (16 mm)x 1/2" long (13mm) |

Mounting Depth:

| | |
|-----|-----------------------------------|
| SM3 | Up to 3/16" thick (4.7mm) surface |
| DM2 | Up to 1/4" thick (6 mm) surface |