



Tri-Band 850/1900 & GPS
(Available in white or black)

Dome Surface Mount (Pat.Pnd.)

Tri-Band 900/1900 MHz & GPS

- Mounts easily to roof, trunk or bulkhead
- High performance GPS with 26 dB active amplifier (dual 3.3 & 5 V)
- Secure & Discreet; mounts to 5/8" hole (16 mm)
- Tri-Band 850/1900/GPS for AVL applications

This versatile antenna provides the integration of several technologies for AVL/tracking. The Tri-Band Dome antenna operates on Cellular and PCS Bands (GSM, 1XRTT & EV-DO) along with GPS. The Domed Surface mount antenna can be mounted to vehicles, cargo containers or trailers.

Models are available for 850 & 1900 MHz bands, as well as other popular private networks. Separate cabling is provided for the GPS and 850/1900 MHz interface.

The design uses a 5/8" feed thru (16 mm) for securing to the vehicle. Access to the underside of the body surface is required to complete the installation. The GPS feed of the antennas are outfitted with 15 feet (4.5 meters) of RG-174 cable and a variety of connectors. All connectors are

male (plugs). The Cellular/PCS cable is 15 feet of RG-58 (4.5 meters). Please consult factory for special lengths or connectors.

GPS performance is 26 dB, with 5 dBi antenna gain. The GPS circuit has a low noise figure (2.0 dB max) with excellent filter characteristics. Power for the GPS amplifier (+3.3/5 VDC) and signal is applied through the same cabling directly to the GPS circuit.

The antennas are enclosed in a 2.85" D x 1.45" H weatherproof polycarbonate radome (72 mm x 37mm), and supplied with all mounting hardware and sealing gasket. The standard color is white, but they can also be supplied in black.

Antenna Model Configurator

DM- -

example - DM-U15-1A2C

Freq & GPS Voltage

Code	Description
U15	US Cell/PCS/GSM - 3.3/5V GPS
C15	Mobitex & ISM/US PCS - 3.3/ 5V GPS
E15	EU GSM/DCS-1800 - 3.3/5V GPS
N15	Nextel trunking/US PCS - 3.3/5 V GPS

Note: All models are dual voltage 3.3/5 VDC

Cellular Cable & Connector

Code	Description
1A	RG-58 & TNC
1B	RG-58 & MiniUHF
1C	RG-58 & SMA
1H	RG-58 & Fakra
1J	RG-58 & Rev Pol SMA
1L	RG-58 & SMC

GPS Cable & Connector

Code	Description
2C	RG-174 & SMA
2D	RG-174 & SMB
2E	RG-174 & MCX
2F	RG-174 & MMCX
2H	RG-174 & Fakra
2L	RG-174 & SMC

Specifications

Frequency:

GPS	1575.42 +/- 2 MHz
PCS	1850-1990 MHz
Cellular	824-894 MHz
ISM/ EU GSM	870-960 MHz
DCS-1800	1710-1880 MHz
Nextel	806-870 MHz

Cellular / PCS Gain: Unity/3 dBi peak

GPS Gain: 26 dB, 5 dBi Antenna

VSWR: 2:1 max over range

Noise Figure: 2.0 dB max, 1.7 dB typical

Operating Temp: -40° to +85° C

Nominal Impedance: 50 ohms

Maximum Power: 10 Watts (800/900 MHz Band)

Amplifier Bias: Dual 3.3 & 5 VDC +/- 10%

Current: 20 mA max, 10 mA typical

Cable:

GPS	RG-174, 15 ft (4.5 meters)
Cellular/PCS	RG-58, 15 ft (4.5 meters)

Case: 2.85"D x 1.45"H (72 mm x 37 mm)

Case Material: White ABS, black optional

Stud Mounting: 5/8" dia x 3/4" long (16 mm x 14 mm)

thread for 3/8" thick (9.5 mm) metal

Locknut and gasket included

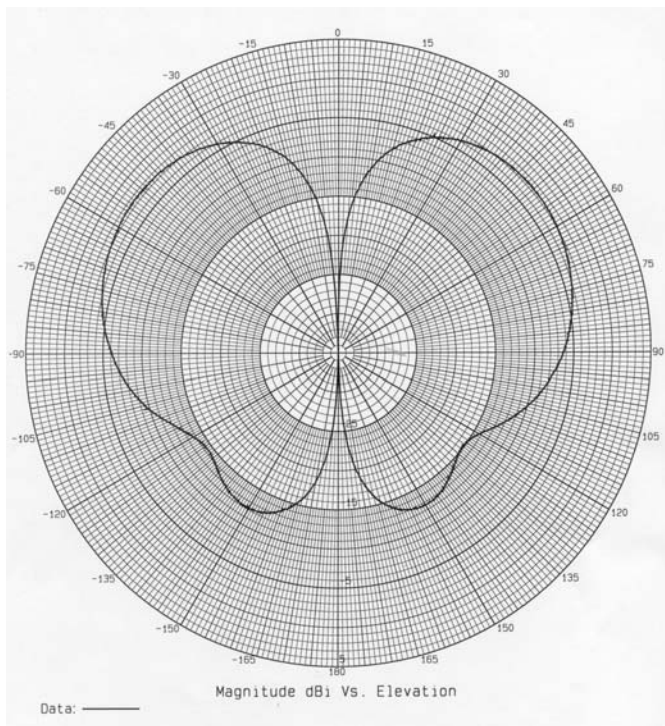
Hardware: Locknut and gasket included

Connector: See above, other configurations are available, consult factory.

DM-900/1900 Antenna

Low Profile Dual Band “Dome” Mount Antenna
Cellular 824-894 MHz, PCS 1850-1990 MHz

DM-900 – Elevation Plot



DM-1900 – Elevation Plot

