

Product Specifications



High Gain Surface Mount



Mirror Mount Option SM-MM



Trunk Mount Option SM-TM



Magnetic Mount (Model MGX-*)

Hi-Gain Surface Mount AVL (Pat. Pnd.) Tri-Band for GSM/CDMA & GPS

- Thru-Hole mounts to vehicle roof/trunk, or use optional trunk lip, mirror mounts
- High performance GPS with 26 dB active amplifier, Dual 3.3/5 VDC Bias
- High performance 800 & 1900 Band for voice & data
- Available for popular bands including Nextel

This antenna is the ultimate in high gain performance for AVL/tracking applications with a permanent hole mount. This TriBand Surface mount provides operation on GSM, CDMA or Nextel 800 bands along with GPS. The GPS antenna has an active amplifier for maximum satellite reception.

Models are available for a variety of network combination. Hi Gain antenna performance is 2 dBi on the 800 MHz bands, and 5 dBi on the 1.8/1.9 GHz bands. With advanced designs, there is no detrimental interaction between bands. This unit requires drilling a 3/4" hole (19 mm) for mounting. Underside access is required for securing to the vehicle surface.

A separate connector is provided for the GPS interface and the 850/1900 band interface. The antennas are provided with 15 feet (4.5 meters) of cables (RG-58 for GSM/CDMA, RG-174 for GPS). Standard connectors are SMA/SMB for GPS, and TNC or SMA for cellular. Other connectors and configurations may be available, please consult factory.

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 signal is applied through the same cabling directly to the GPS circuit. The unit will operate with either a 3 or 5 VDC bias.

Antenna Model Configurator

SMX- -

example - SMX-U15-1A2C
Mag mount - MGX-U15-1A2C

Freq & GPS Voltage

Code	Description
U15	US GSM/CDMA & GPS
N15	Nextel trunking/US 1.9 GHz & GPS
E15	EU GSM & DCS-1800

Note: All models are dual voltage 3.3 or 5 VDC
For Mag Mount, substitute SMX in model with MGX (example MGX-U15-1A2C)

Cellular Cable & Connector

Code	Description
1A	RG-58 & TNC
1B	RG-58 & MiniUHF
1C	RG-58 & SMA
1H	RG-58 & Fakra
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
US GSM/CDMA	824-894 MHz/1850-1990 MHz
Nextel	804-870 MHz
EU GSM/DCS	870-960 MHz/1710-1880 MHz

Gain: 2 dBi on 800 - 960 MHz,
5 dBi on 1.7 - 2 GHz

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 (Cell/PCS Band)

Amplifier Bias: 3.3 or 5 VDC +/- 10% (GPS)

Current: 20 mA max, 10 mA typical

Cable:

GPS RG-174, 15 feet (4.5 m)

PCS/DCS RG-58, 15 feet (4.5 m)

Whip: 304 Stainless Steel

Dimensions: 12" tall, base is 1" H x 2 5/8" D

31 cm tall, base 2.5cm H x 7 cm D
3/4" dia x 1/2" long (19 mm x 12 mm)

Mounting: for 3/16" thick (4.7 mm) surface

Optional Mirror & Trunk Mount

Connector: Varies, see above configurator