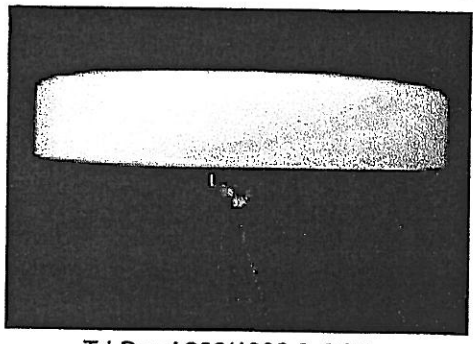
Product Specifications

MOBILE MARK® COMMUNICATIONS ANTENNAS



Tri-Band 900/1900 & GPS

Surface Mount GPS Antenna (Pat.Pnd.)

Tri-Band 900/1900 MHz & GPS

- Mounts easily to roof, trunk or bulkhead
- High performance GPS with 26 dB active amplifier
- Secure & low profile less than 1" high, mounts to 5/8" hole
- Tri-band 900/1900/GPS for AVL applications

This extremely versatile configuration provides a high level of integration for AVL/tracking applications. The Tri-band antenna provides operation on Cellular and PCS bands along with GPS. The surface mount style antennas can be mounted to any vehicle, cargo container or trailer.

Models are available for Cellular/CDPD & PCS, as well as other popular private networks. Separate cabling is provided for the GPS and 900/1900 MHz interface.

The design uses a 5/8" feed thru for securing to the vehicle. Access to the underside of the body surface is required to complete the installation. For the GPS interface. The antennas are outfitted with 15 feet of RG-174 cable & SMB or SMA connectors. All connectors are male/plugs. The Cellular/PCS cable is 15 feet of RG-58. 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 VDC or +5 VDC) and signal is applied through the same cabling directly to the GPS circuit.

The antennas are enclosed in a 4 1/2"D x 3/4"H weatherproof polycarbonate radome, and supplied with all mounting hardware and sealing gasket. The standard color is white, but can also be supplied in black or grey.

Antenna Model Configurator SM-□□□-□□□ example: SM-U15-1A2C

Freq & GPS Voltage

Code	Description
U15	US AMPS/US PCS with 5 V GPS
U13	US AMPS/US PCS with 3 V GPS
C15	Mobitex & ISM/US PCS with 5 V GPS
C13	Mobitex & ISM/US PCS with 3 V GPS
E15	EU GSM/DCS-1800 with 5 V GPS
E13	EU GSM/DCS-1800 with 3 V GPS
N13	Nextel trunking/US PCS with 3 V GPS
N15	Nextel trunking/US PCS with 5 V GPS

Cellular Cable & Connector

Code	Description
1A	RG-58 & TNC
1B	RG-58 & MiniUHF
1C	RG-58 & SMA

GPS Cable & Connector

Code	Description
2C	RG-174 & SMA
2D	RG-174 & SMB
2E	RG-174 & MCX
2F	RG-174 & MMCX
2G	RG-174 & BNC

Specifications

Frequency:	
GPS	1575.42 +/- 2 MHz
PCS	1850-1990 MHz
Cellular/CDPD	824-894 MHz
ISM/ EU GSM	870-960 MHz
DCS-1800	1710-1880 MHz
Nextel	806-870 MHz
Cellular / PCS Gain:	Unity
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:	-30° to +80° C
Nominal Impedance:	50 ohms
Maximum Power:	30 Watts (800/900 MHz Band)
Amplifier Bias:	+3 or +5 VDC +/- 10% (GPS)
Current Drain:	20 mA max
Cable:	
GPS	RG-174, 15 ft, exits at bottom
Cellular/PCS	RG-58, 15 ft, exits at bottom
Case:	4.5"D x .95"H
Case Material:	Polycarbonate
Mounting:	5/8" diameter feed thru, 3/8" long thread for up to 1/4" thick metal
Hardware:	Nut, lockwasher and gasket included
Connector:	See above, other configurations are available, consult factory.

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Visit our web page at www.mobilemark.com. Specifications subject to change without notice (6/2003).

120-110-2201 SM-U15-1A2C 120-110-2104

120-110-2101 + 120-110-2201 68-60