

## Product Specifications

**MOBILE MARK<sup>®</sup>**  
COMMUNICATIONS ANTENNAS



3 dB Dual Band  
with inside (left) &  
outside(right)

On-Window  
GPS Only



### On-Window GPS Antennas (Patented)

Cellular/GPS, SMR/GPS & GPS only

- High performance dual band operates on Cellular with 27 dB active GPS gain
- Dual band On-Window SMR & 27 dB GPS also available
- Dual & single band models mount easily to window with double sided tape
- Separate low profile cabling for easy headliner installation & routing

This antenna represents a union of the latest cellular and GPS technologies. This combination is perfect for new generation location services. For GPS only applications, a single band On-Window model is also available.

The Cellular design outperforms other antennas of similar size, without sacrificing GPS sensitivity. The Cellular circuit, with a 3 1/2" whip, provides up to 3 dB gain. GPS performance is 27 dB, with 5 dBi antenna gain. The GPS circuitry has a low 2.0 dB noise figure

with excellent filter characteristics. No interaction occurs between the bands.

On dual band models, the GPS antenna is mounted within the inside coupling box. This places the GPS element directly against the glass of the vehicle. Power (+5 VDC) and signal is applied through the same cabling directly to the GPS antenna. Cables exit at the top of the inside coupling box, allowing direct entry into the headliner.

#### Model Numbers

Model	Description
MM3-900/1575	3 dB Cellular Antenna & GPS
MM3-837/1575	3 dB lowband SMR Antenna & GPS
MM3-925/1575	3 dB highband SMR Antenna & GPS
MM5-900/1575	5 dB Cellular Antenna & GPS
MM5-837/1575	5 dB lowband SMR Antenna & GPS
MM5-925/1575	5 dB highband SMR Antenna & GPS
IW-1575	On-Window GPS Active Antenna

Please specify TNC or Mini-UHF connector for the Cellular/SMR connection. Please consult factory for other configurations.

The GPS only model is enclosed in a protective round radome that mounts easily to the inside of the vehicle window. The antenna element points outside the window. Power is also supplied to the GPS amplifier through the single cable. Other models provide SMR/GPS operation as well as higher gain cellular performance.

The products can be mounted on a front or rear windshield. The cables are RG-174. The cellular cable (15 ft) terminates with a TNC or Mini-UHF connector. The GPS cable (15 ft) terminates with an SMB plug. For SMR models, the cable supplied is RG-58.

#### Specifications

##### Frequency:

Cellular	824-895 MHz
Lowband SMR	806-870 MHz
Highband SMR	890-960 MHz
GPS	1575.42 +/- 2 MHz
Cellular/SMR Gain:	3 dB or 5 dB
GPS Gain:	27 dB Amplifier, 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 Cellular/SMR
Amplifier Bias:	+5 VDC +/- 10% (GPS)

##### Current Drain:

Cable:	20 mA max RG-174, 15 ft GPS, 15 ft Cellular SMR version uses 15 ft RG-58
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##### External Mount:

Internal Mount:	ABS plastic, 2" round diameter
MM3 Models	ABS 2"H x 3.25" W coupling box
IW Models	ABS 1 5/8"H x 1 5/8" W x 7/8"D

##### Cellular Whip:

Whip Connection:	Flexible radiator 3 1/2 inches, 5 dB Cellular is 17" rigid
Cable Attachment:	Locking ball mechanism
Connector :	Integral to coupling box, top exit TNC or Mini-UHF Cellular/SMR, SMB on GPS

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Visit our web page at [www.mobilemark.com](http://www.mobilemark.com). Specifications subject to change without notice (12/99).