



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

On-Window GPS Antennas (Patented) PCS 1.8/1.9 GHz & GPS

- High performance dual band operates on PCS with 26 dB active GPS gain
- Fixed, flexible whip provides a carwash-proof and tamper-proof install
- Mounts easily to window with double sided tape
- Combines 1.8/1.9 GHz and GPS in one package for easier installation

This antenna represents a union of the traditional 1.8/1.9 GHz PCS and GPS technologies. This combination satisfies legacy systems on 1.9 GHz GPRS.

The 1.9 GHz design outperforms other antennas of similar size, without sacrificing GPS sensitivity. The PCS circuit, with a 4" whip (10 cm), provides up to 3 dB gain. GPS performance is 26 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. Note: Many systems are using 1xRTT/EV-DO on 800 & 1900 MHz bands. You usually will benefit from using one of our TriBand models. Check with your carrier for the bands of operation you will now need.

The GPS antenna module is mounted within the inside coupling box. This places the GPS element directly against the glass of the vehicle. The GPS module is internally angled to provide increased skyward visibility and therefore provide the maximum performance.

The external PCS/GPRS whip is flexible & carwash proof. A fixed position prevents tampering or accidentally mis-positioning. A unique (patented) electrical design allows great coverage even when the whip cannot positioned vertically. With the external radiator, maximum signal strength and data rates can be achieved.

Power (3.3 or 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.

The products can be mounted on a front or rear windshield. The PCS/GPRS cable is 15 ft (4.5 meters) of RF-195 and terminates with a TNC or Mini-UHF connector. The GPS cable is 15 ft (4.5 meters) of RG-174 and terminates with an SMA plug.

Model Numbers

Model	Description
MMF3-1900/1575	3 dB 1.9 GHz US PCS & GPS
MMF3-1800/1575	3 dB 1.8 GHz EU DCS & GPS

Please specify connector for the PCS/GPRS connection and also for GPS. Note: All models are dual voltage 3.3/5 VDC. Please consult factory for other configurations.

Specifications

Frequency:		Current:	20 mA max, 10 mA typical
PCS/GPRS	1850-1990 MHz	Cable:	
DCS	1710-1880 MHz	GPS	15 ft (4.5 meters) RG-174
GPS	1575.42 +/- 2 MHz	PCS/DCS	15 ft (4.5 meters) RF-195
PCS/GPRS Gain:	3 dB	External Mount:	ABS plastic, 2" (5 cm) diameter
GPS Gain:	26 dB Amplifier, 5 dBi Antenna	Internal Mount:	ABS 2"H x 3.25" W coupling box (5 cm x 8.3 cm)
VSWR:	2:1 max over range	Cellular Whip:	Flexible radiator 3.5" (9 cm)
Noise Figure:	2.0 dB max, 1.7 dB typical	Whip Connection:	Fixed position
Operating Temp:	-40° to +85° C	Cable Attachment:	Integral to coupling box, top exit
Nominal Impedance:	50 ohms	Connector:	As required
Maximum Power:	10 Watts PCS/GPRS		
Amplifier Bias:	Dual 3.3/5 VDC +/- 10%		