

Waterproof Internal Mercury™

AMPS, PCS & GPS Telematics Antenna

Part Number (P/N):

CAF94461

CAF94462

CAF94528

Features:

- Ruggedized, durable housing that stands up to extreme weather conditions
- High gain solution maximizes coverage area
- Small size and low profile allow for stealth (covert) in-vehicle automotive applications such as fleet management, asset tracking and anti-theft systems
- Sleek durable housing for longer lifespan and easier transfer between vehicles.



Electrical Specifications:

	AMPS Specifications	PCS Specifications	GPS Specifications
Element Type	Microstrip	Microstrip	Dielectrically Loaded Patch
Frequency Ranges	824 - 896 MHz	1850 -1990 MHz	1575.42 MHz
Gain	3 dBi Nominal	3 dBi Nominal	30 dBi Nominal
Polarization	Linear	Linear	RHCP
Impedance	50 ohms	50 ohms	50 ohms
Input Power (max)	10 watts	10 watts	
Axial Ratio			3 dB maximum
VSWR (min performance)	2:1 MAX	2:1 MAX	2:1 MAX
LNA * Gain	-	-	31 dBi
LNA * Noise Figure	-	-	1.5 dB MAX (23 ⁰ C)
LNA * Supply Voltage	-	-	2.7 - 3.3 VDC or 4.5 - 5.5 VDC
LNA * Current Consumption	-	-	18 mA typical, 25mA MAX @ 3 or 5 VDC
Dimensions (L x W x H)	5.12" x 2.59" x .51"		
Radome Material	Cycology, Hermetically sealed, 100% waterproof		

* LNA - Low Noise Amplifier

Environmental Specifications:

Shock/Drop/Vibration	50 g shocks 10x 3 axes, 1 meter drops 6 axes; 10 - 1000 Hz vibration 1 hour 3 axes
Temperature	Thermal shock -40 ⁰ to +70 ⁰ C < 2 minutes Thermal soak 100 hours 85 ⁰ C
Operating Temperature	-40 ⁰ to +70 ⁰ C
Storage Temperature	-40 ⁰ to +85 ⁰ C
Solvents	Resists washer solvents, gasoline, engine coolant
Humidity	Operation 95% RH at 65 ⁰ C
Corrosion	Resists salt fog and corrosive atmospheres
Wind Driven Rain	70 mph wind with 2"/hour rain - 2 hour duration
Immersion	12", 24" & 1 m for 24 hours - Temp 43-57 ⁰ F



Cable & Connector:

Antenna P/N	Patch Connector	GPS Connector	Cable Length	GPS Voltage
CAF94461	TNC - Male	SMA - Male	*15'	5 VDC
CAF94462	TNC - Male	SMA - Male	*15'	3 VDC
CAF94528	SMA - Male	SMA - Male	*10'	3 VDC

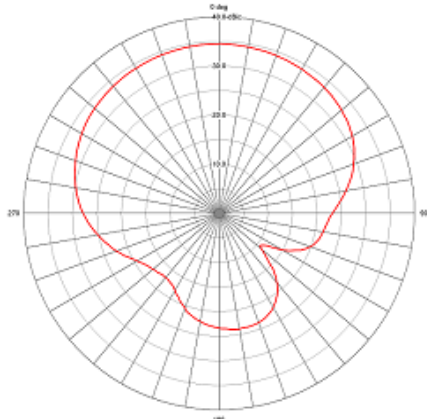
* Supplied with black low-loss RG-174 coax

Specifications subject to change without notice.

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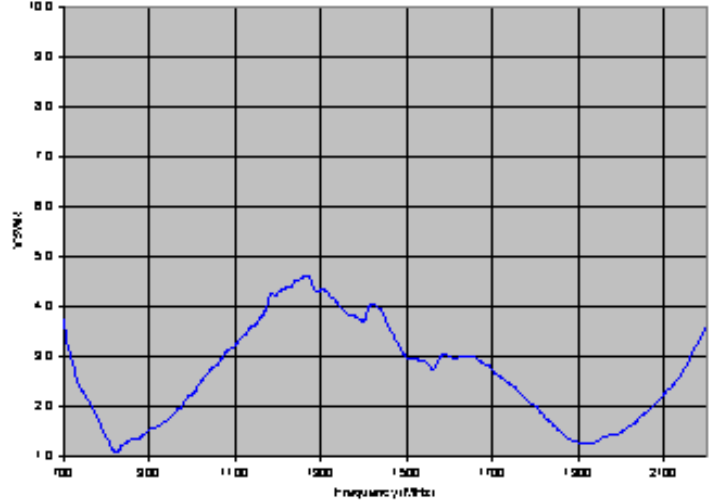
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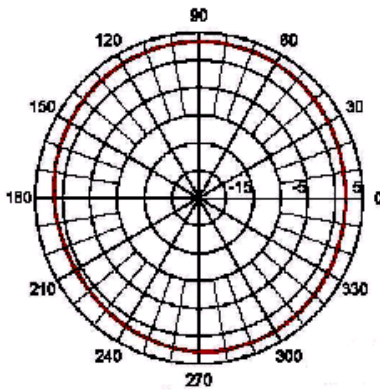


Typical GPS Elevation Pattern

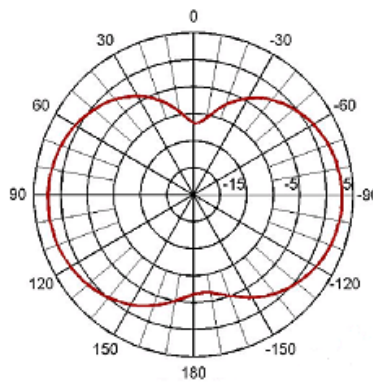
Typical VSWR performance AMPS/PCS



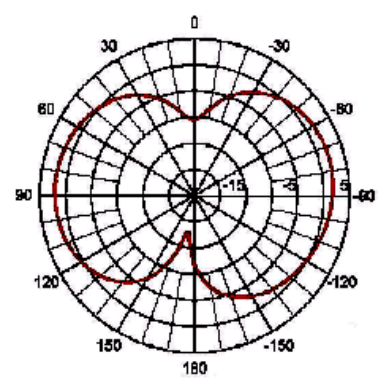
AMPS



Azimuth, 861 MHz
Azimuth perpendicular to antenna,
parallel to cable

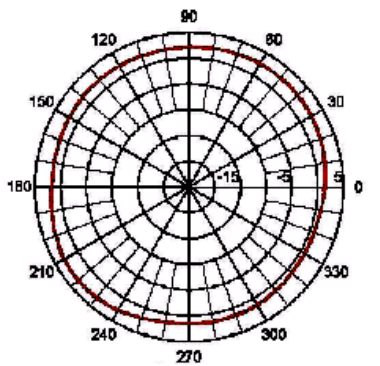


Elevation Phi=0, 861 MHz
Elevation perpendicular to antenna,
perpendicular to cable

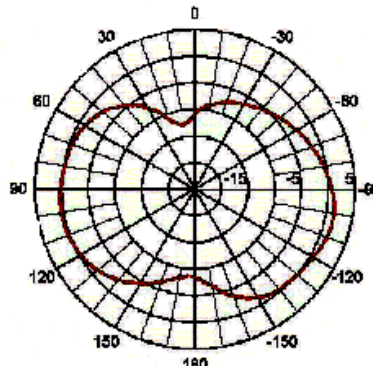


Elevation Phi=90, 861 MHz
Elevation parallel to antenna,
parallel to cable

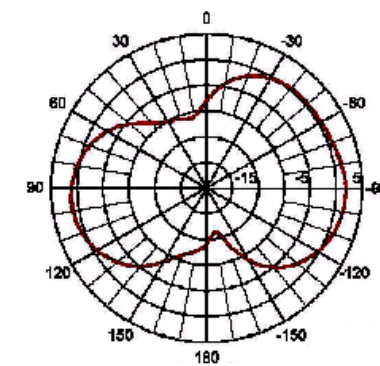
PCS



Azimuth, 1920 MHz
Azimuth perpendicular to antenna,
parallel to cable



Elevation Phi=0, 1920 MHz
Elevation perpendicular to antenna,
perpendicular to cable



Elevation Phi=90, 1920 MHz
Elevation parallel to antenna,
parallel to cable

Specifications subject to change without notice.

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