

Internal Mercury™

Part Number (P/N):

5V AMPS, PCS & GPS Telematics Antenna

CAF94209 **CAF94303**
CAF94326 **CAF94331**
CAF94392 **CAF94393**
CAF94394 **CAF94434**

Features:

- 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 *	-	-	4.5 - 5.5 VDC
LNA Current Consumption *	-	-	18 mA typical, 25mA MAX @ 5 VDC
Dimensions (L x W x H)	5.12" x 2.59" x .51"		
Radome Material	Cycology		

*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 limited exposure to salt fog

Cables & Connectors:

Antenna P/N	Patch Connector	GPS Connector	Cable Length
CAF94209	TNC - Male	SMA - Male	*10'
CAF94303	SMC - Male	SMA - Male	*15'
CAF94326	SMA - Male	MCX (OSX) Straight	*3 m
CAF94331	SMA - Male	BNC - Male	*20'
CAF94392	SMA - Male	SMA - Male	*15'
CAF94393	SMA - Male	MCX (OSX) R/A	*6' / *6' 6"
CAF94394	SMA - Male	SMB - Male	*10'
CAF94434	TNC - Male	SMA - Male	*3 m

*Supplied with black low-loss RG-174 coax

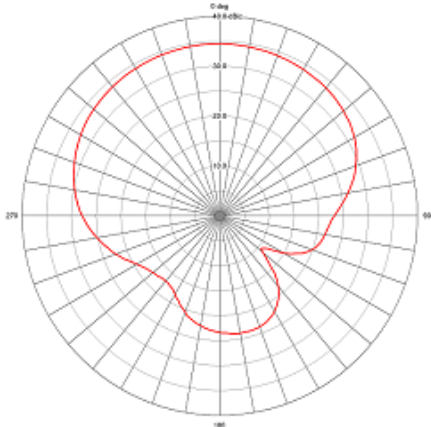
Specifications subject to change without notice.

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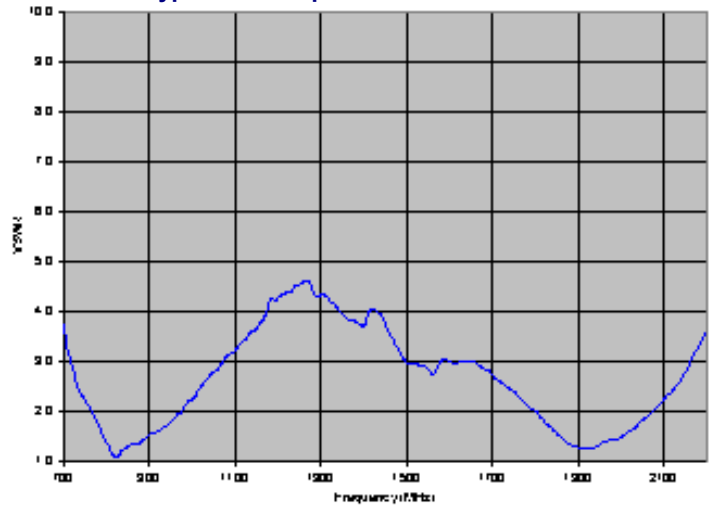
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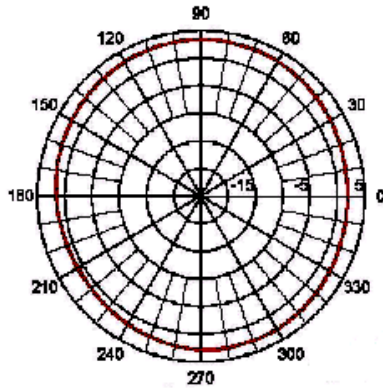


Typical GPS Elevation Pattern

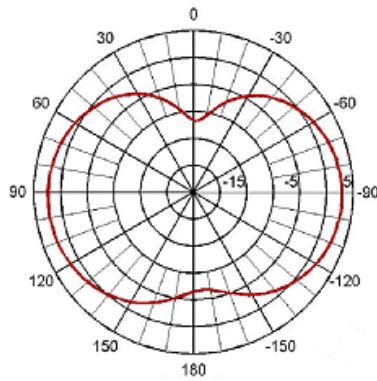
Typical VSWR performance AMPS/PCS



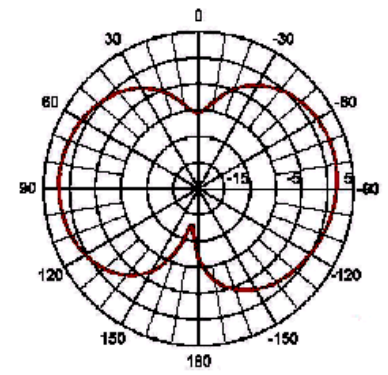
AMPS



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

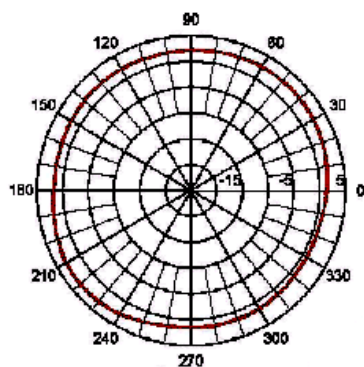


Elevation Phi=0, 861 MHz
Elevation perpendicular to antenna,
parallel to cable

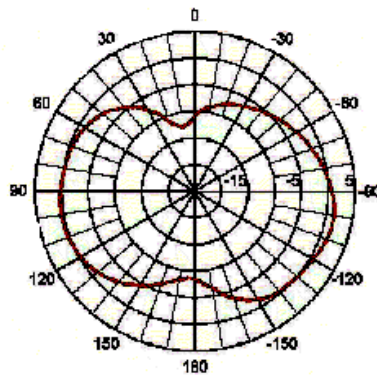


Elevation Phi=90, 861 MHz
Elevation parallel to antenna,
parallel to cable

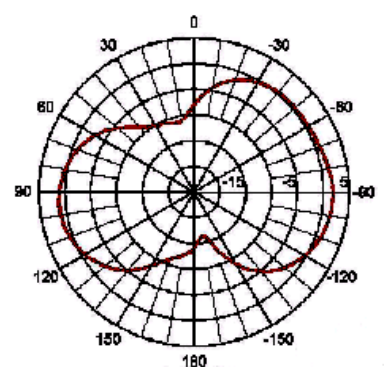
PCS



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



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



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

Specifications subject to change without notice.

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