

AMC-ANTGPS088

Penta Band GSM + GPS

Combination Antenna



General Description

The AMC-ANTGPS088 antenna has been specifically designed for the demands of today's Telematics and AVL systems. Combining a Penta-Band (850/900 1800/1900MHz, 2.1-2.5GHz) cellular quarter wave planar antenna with a high performance amplified GPS module in a single, low profile, adhesive pad mounted wedge. The AMC-ANT-GPS088 is ideally suited to manufacturers supplying GPS receivers with an integrated LNA. Delivering 18dBi (nominal) at the connector, it also meets the specification of most "high sensitivity" GPS receivers. The AMC-ANTGPS088's unique shape lends itself to a range of internal mounting options.

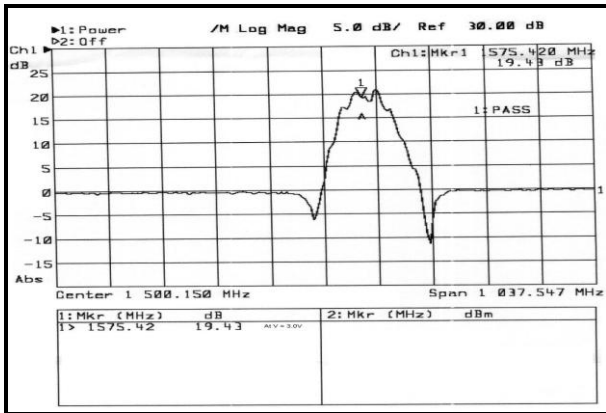
*Test conditions 3V, 25°C

GSM Section		Unit
Frequency	824-849 / 869-894 (GSM 850 Band) 880-915 / 925-960 (GSM 900 Band) 1710-1785 / 1805-1880 (GSM 1800 Band) 1850-1910 / 1930-1990 (GSM 1900 Band) 2110-2170 (WCDMA 2100)	MHz
Gain (Typ)	2.0	dBi
VSWR	<2:1 in all bands	-
Impedance (Typ)	50	Ohms
Cable Length	Customer Spec (-0, + 0.1)	m
Cable Type	RG174 Taped at intervals to GPS Cable	
Connector	Customer Specified (inc. FAKRA)	
Type	¼ Wave	
Polarisation	Vertical	

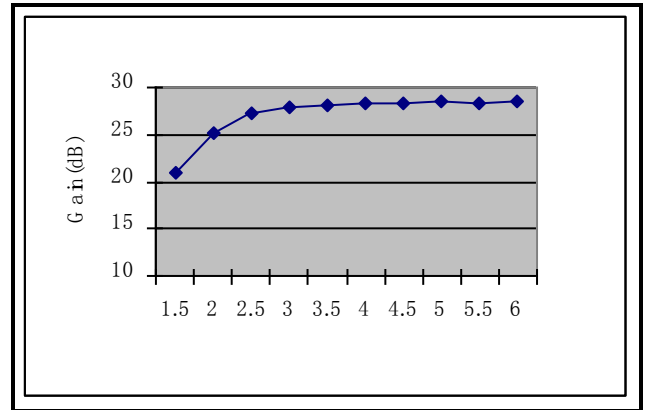
GPS Section	Min	Typ	Max	Unit
Centre Frequency*	1572.42	L1, 1575.42	1578.42	Band MHz
Impedance*		50		Ohms
Bandwidth (-10dB point)*		10		MHz
Attenuation (f ₀ ±100MHz)*		≥25		dB
Axial Ratio*		4		dB
VSWR*			2:1	-
Noise Figure*		1.5		dB
LNA Gain*	26			dB
Overall Gain* (Patch+LNA+Cable)	18			dBi
Supply Voltage	2.5	3.0	5.5	Volts
Supply Current*	8	12	20	mA
Cable Length	Spec	Spec	Spec	m
Cable Type	RG-174 Taped at intervals to GSM Cable			
Connector	Customer Specified (inc. FAKRA)			
Type	25mm x 25mm Ceramic Patch			
Polarisation	Right Hand Circular			

Physical / Environmental		Unit
Size (Nominal)	110L x 36W x 19H	mm
Weight Typ (including connectors and cable)	130	grams
Operating Temperature	-40 to +85	°C
Storage Temperature	-40 to +100	°C
Humidity	95 Max	%
Colour	Black	
Material	ABS Plastic	
Mounting	Double sided self adhesive pad.	
Mounting Pad Size	97L x 30W x 1 thick	mm
Mounting Pad Colour	Black	
Sealing	Waterproof	
RoHS Compliance	Yes	
Approved to	ECE Regulation/EEC Directive 72/245	
Approval Number	"e" 11*72/245*95/54*3741*00	

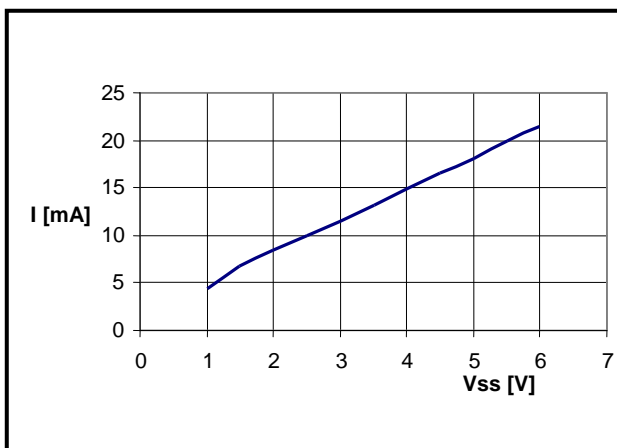
Typical characteristics of the AMC-ANTGPS088



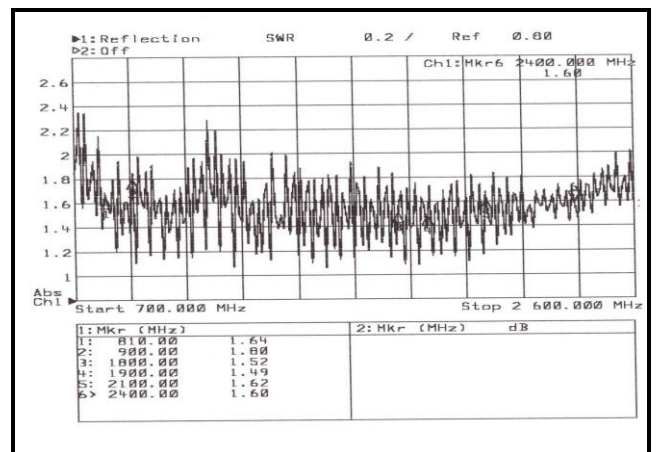
GPS - Gain v Frequency



GPS - LNA Gain v Voltage



GPS - Voltage v Current



GSM - VSWR Plot

Orientation Identification:

- Satellite side – marked with a round blue sticker – 10mm diameter with black writing: **“THIS SIDE TO THE SKY”**



Ordering Information		
Part Number	Cable length & type	Connector Type
AMC-ANTGPS088-AT3M	3m RG-174	GSM – SMA (m) / GPS – SMB (f)
AMC-ANTGPS088-IO4M	4m RG-174	GSM – MMCX R/A (m) / GPS – MCX R/A (m)
AMC-ANTGPS088-IO5M	5m RG-174	GSM – MMCX R/A (m) / GPS – MCX R/A (m)
AMC-ANTGPS088-JA4M	4m RG-174	GSM – FME (f) / GPS - SMA (m)
AMC-ANTGPS088-TP1.5M	1.5m RG-174	GSM – SMB (f) / GPS – SMC (f)