

GPS070C

Quad Band GSM + GPS

Combination Antenna

General Description

The GPS070 antenna has been specifically designed for the demands of today's Telematics and AVL systems. Combining a quad-band (850/900 1800/1900MHz) Cellular dipole with a high performance amplified GPS antenna in a single, low profile windscreen mounted disc antenna; the GPS070C is ideally suited to the current market trend of 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.



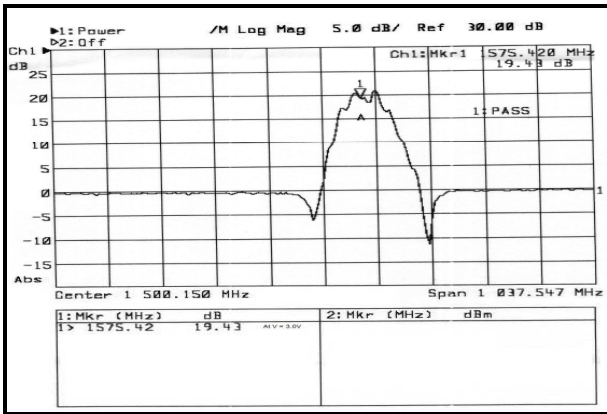
*Test conditions 3V, 25°C

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	Customer Specified			m
Cable Type	RG174			
Connector	Customer Specified			
Type	25mm x 25mm Ceramic Patch			
Polarisation	Right Hand Circular			

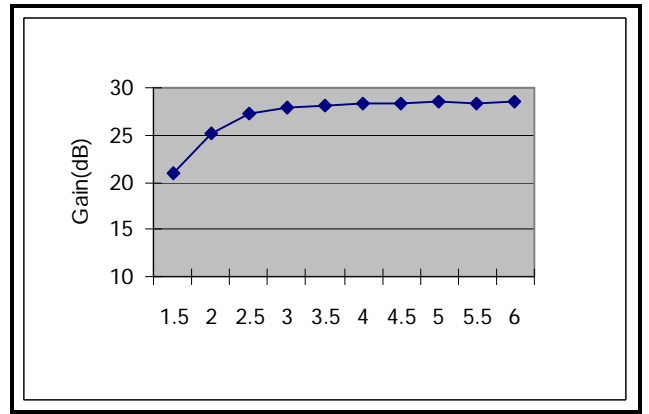
GSM Section		Unit
Frequency	824-849 / 869-894 (GSM 850 Band) 880-915 / 925-960 (GSM 900 Band) 1710-1785 / 1805-1880 (GSM 1800 Band) 1850-1910 / 1930-1990 (GSM 1900 Band)	MHz
Gain (Typ)	2.0	dBi
VSWR	<2:1 in all bands	-
Impedance (Typ)	50	Ohms
Cable Length	Customer Specified	m
Cable Type	RG174	
Connector	Customer Specified	
Type	Dipole	
Polarisation	Vertical	

Physical / Environmental		Unit
Size (Nominal)	77Dia. x 14H	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. (Scapa A1350)	
Mounting Pad Size	70Dia. x 0.8 thick	mm
Mounting Pad Colour	Grey-Black	
Sealing	Non waterproof (internal use only)	
RoHS Compliance	Yes	

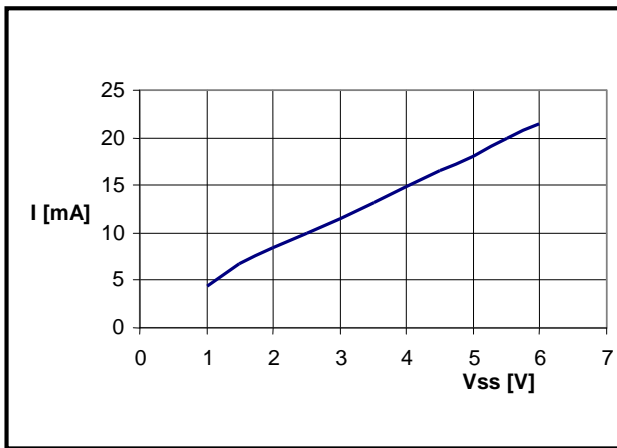
Typical characteristics of the GPS070C



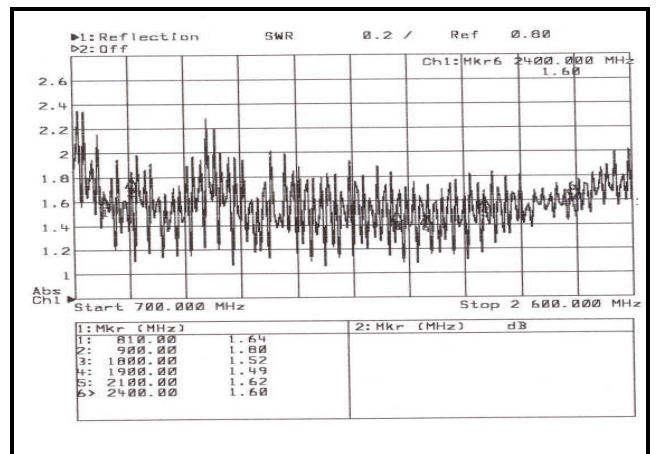
GPS - Gain v Frequency



GPS – LNA Gain v Voltage



GPS – Voltage v Current



GSM – VSWR Plot