

AEB650 Multi-Band GSM + GPS Combination Body Mount Antenna



General Description

The AEB650 antenna has been specifically designed for the demands of today's Telematics and AVL systems. Combining a multi-band (850/900, 1800/1900MHz & 3G) cellular dipole with a high performance amplified GPS antenna in a single, low profile, intrinsically safe ABS housing. The AEB650 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

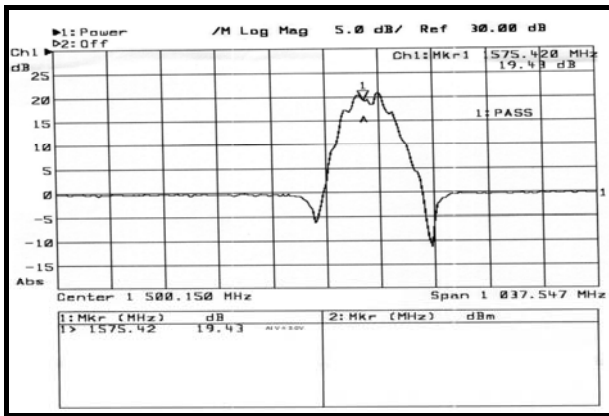
GSM Section		Unit
Frequency	824-849 / 869-894 (GSM 850 Band) 880-915 / 925-960 (GSM 900 Band) 1710-1785 / 1805-1880 (GSM 1800 Band) 1850-1910 / 1930-1990 (GSM 1900 Band) 2100 (3G Band) 2450 (Bluetooth)	MHz
Gain (Typ)	2.0	dBi
VSWR	<2:1 in all bands	-
Impedance (Typ)	50	Ohms
Cable Length	4 (-0, + 0.1)	m
Cable Type	RG174	
Connector	FME (f) Nickel-plated brass crimp type	
Type	Dipole	
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	4		4.1	m
Cable Type	RG174			
Connector	SMA (m) Brass Crimp type			
Type	25mm x 25mm Ceramic Patch			
Polarisation	Right Hand Circular			

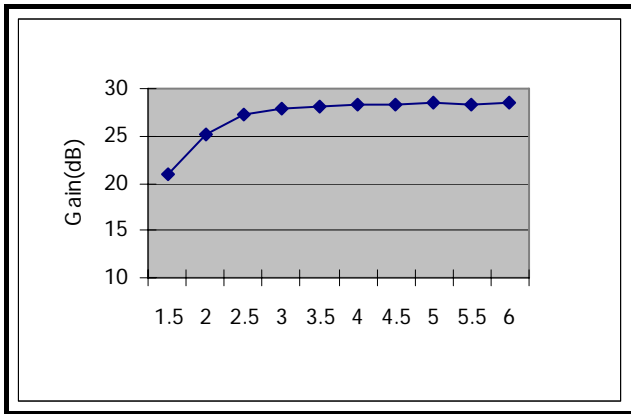
Physical / Environmental		Unit
Size (Nominal)	75AF. x 14H	mm
Weight Typ (including connectors and cable)	165	grams
Operating Temperature	-40 to +85	°C
Storage Temperature	-40 to +100	°C
Humidity	95 Max	%
Colour	Black	
Material	ABS	
Mounting	Double sided self adhesive pad. M16 ABS Nut & Stud	
Mounting Pad Size	75AF x 0.8 thick	mm
Mounting Pad Colour	Grey-Black	
Sealing	Waterproof (IP66)	
RoHS Compliance	Yes	
Approved to	ECE Regulation/EEC Directive 72/245	
Approval Number	"e" 11*72/245*95/54*3741*00	

The above data is to be used as baseline information only. For a more detailed specification, application support or application approval samples, please contact our technical support help desk on +44(0) 01420 476-767. We reserve the right to modify the specifications without prior notice.

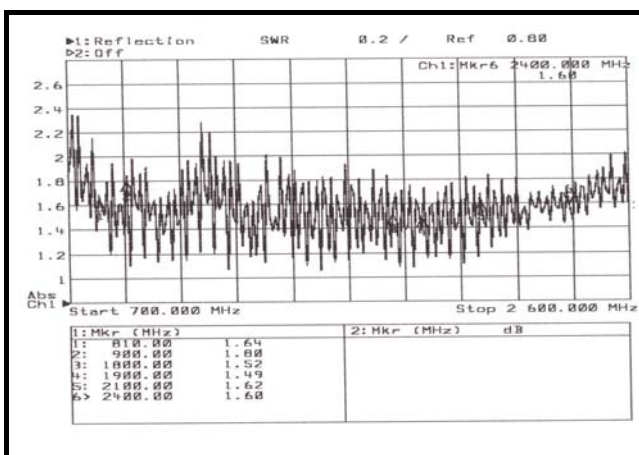
Typical characteristics of the AEB650



GPS - Gain v Frequency



GPS – LNA Gain v Voltage



GSM – VSWR Plot

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