



## Echo 5

27dB Miniature GPS 15 x 15mm Active Patch Antenna



### Key Features

- 27dB pre-amplifier
- Low Current Low Voltage
- Designed for embedded applications

### General Description

The Echo 5 GPS embedded patch antenna combines excellent performance characteristics at a low operating voltage. It is an ideal antenna where power consumption and board space is a key factor.

A built in LNA gives 27dB gain from and operates between 2.3 and 5.5V DC making it ideally suited to low power, small sized applications.

Typically supplied with a uFL/ IPEX connector and a short tail of cable. Alternative cable lengths and connectors can be supplied for volume requirements.

### Additional Considerations

- Compatible with many GPS engine manufacturers equipment
- Can be mounted on any surface
- Meets all EU compliance criteria for electronic goods





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### Key Specifications - Electrical

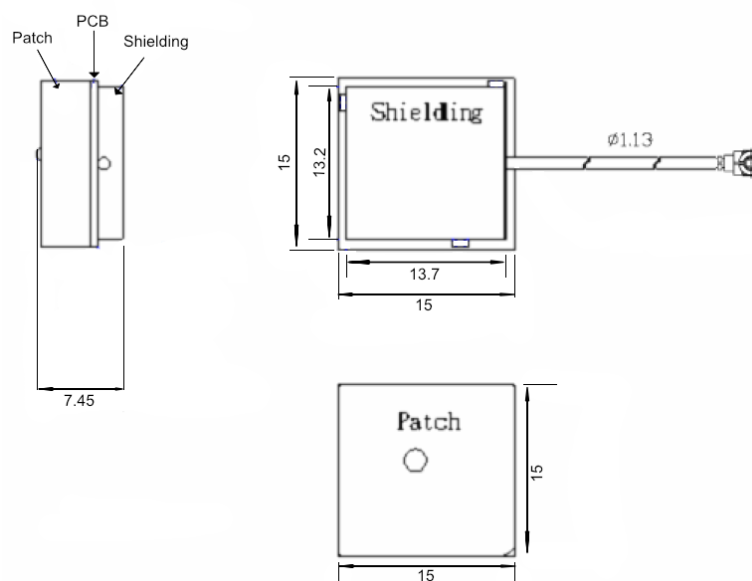
Temperature range:	-30° to +80°C
Gain at Zenith:	1 dBic
VSWR:	2.0:1
Voltage and supply current:	2.3 - 5.5V ( $\pm$ 0.3V)
Centre frequency:	1575.42MHz
Polarization:	RHCP
Gain at 10° Elv:	-7 dBic min
Axial Ratio:	3dB Typ

### Key Specifications - Mechanical

Dimensions:	15 mm x 15mm x 8mm (without cable and connector)
Cable:	100mm x 1.13mm coax
Connector:	UFL
Mounting method:	Designed for embedded use

### LNA

Output VSWR:	2.0:1
Typical voltage and supply current:	2.5V - 6.6mA 3V - 8.6mA 4V - 12.6mA 5V - 16mA
Centre frequency:	1575.42MHz
Noise Figure:	1.5dB Typ
Gain:	27 dB Typ



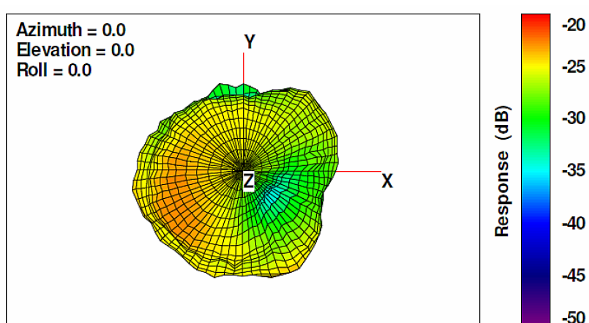


## Echo 5

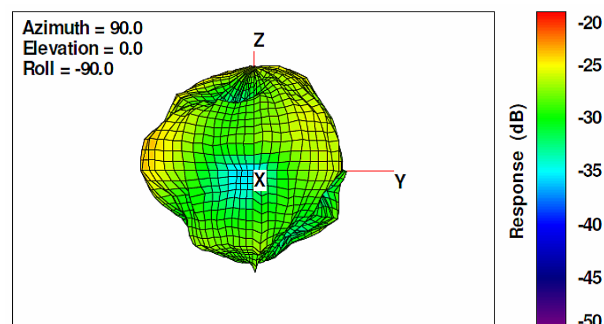
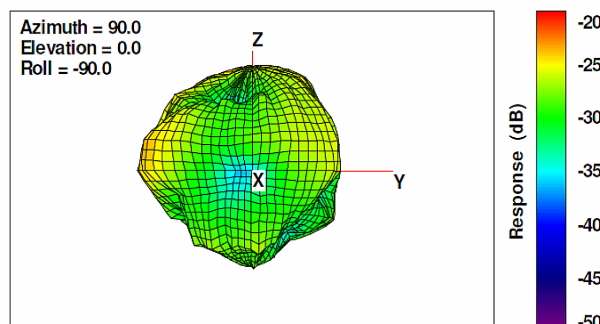
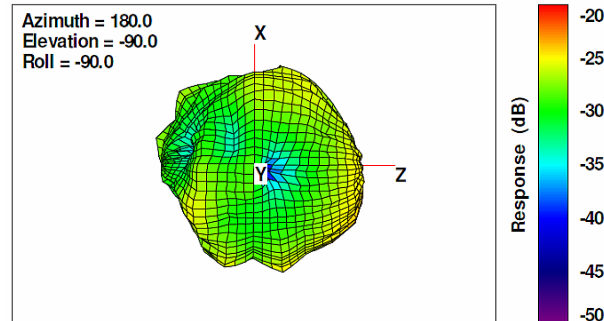
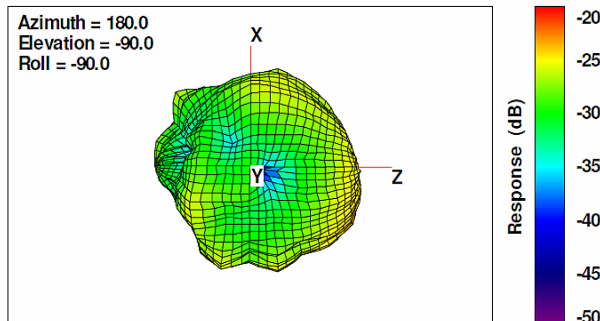
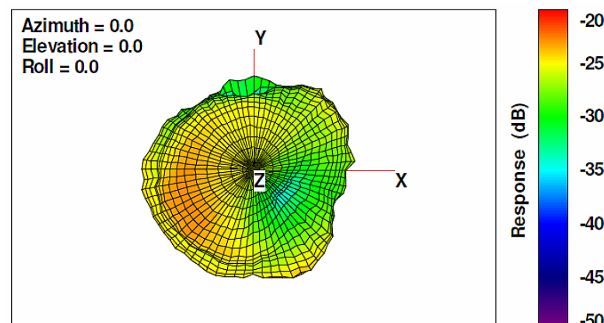
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### Radiation Plots

#### 1575 MHz



#### 1575.42 MHz

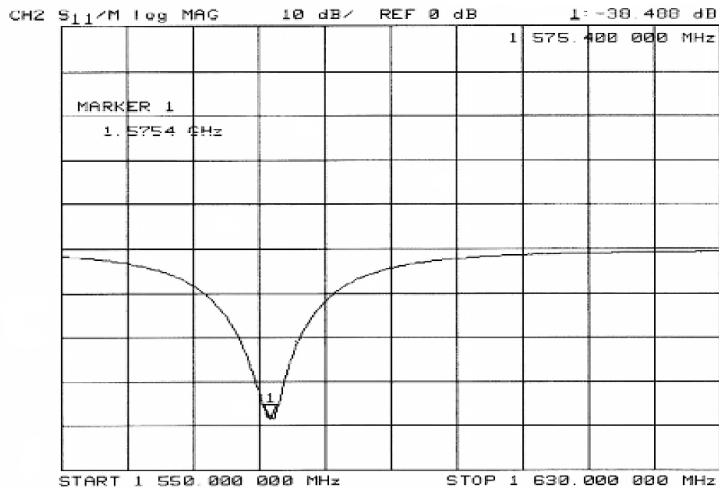




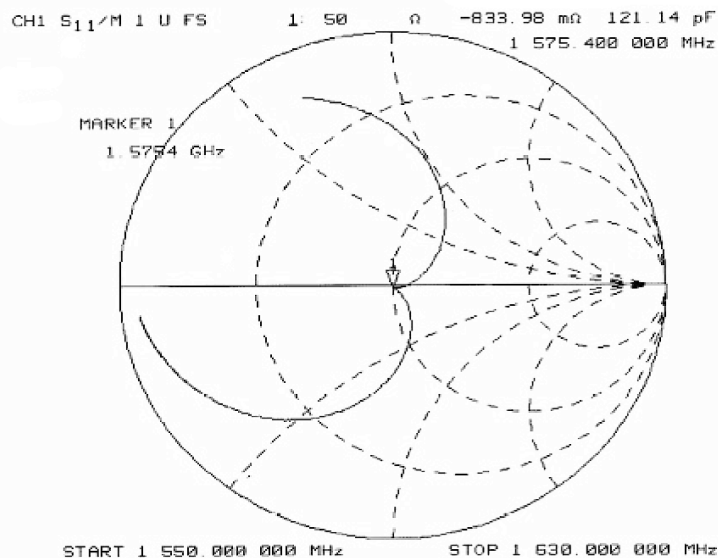
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### Return Loss



### Impedance



### Ordering Details

Part Number	Description
ECHO5/0.1M/UFL/S/S/15	GPS Active Patch Antenna, 100mm Cable, UFL Connector