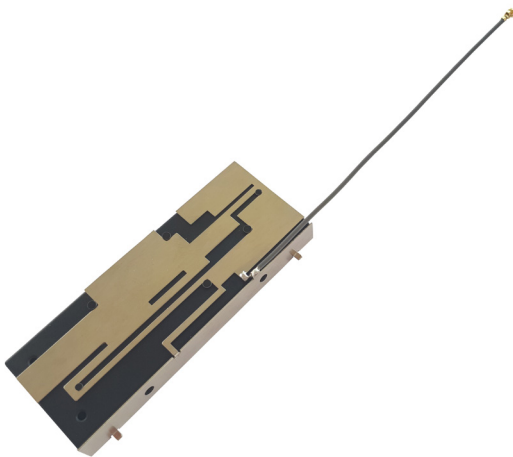




Echo 40

PIFA type 2G/3G/4G and WiMAX embedded Antenna



Features

- Superior wide-band performance
- Small design footprint
- Easy installation

General Description

The Echo 40 antenna is a good wideband antenna covering 2G/3G/4G and WiMAX 2.5GHz providing a robust embedded antenna for reliable IoT and network provision for relatively high speed (10Mbit/s) / moderate distance (6 miles) WiMAX implementation.

Ideal for office to office links and remote to base station links. Although not within the stated spectrum the antenna also picks up the 2400MHz WiFi Spectrum

The Echo 40 is an unusual PIFA type embedded antenna that is preferably mounted on to a PCB where it can be soldered to a ground plane (150 x 145mm) with its two small lugs.

The stated performance is gained with a metal ground plane attached to the lugs which can be a thin metal plate.

Additional Considerations

- 4G embedded antenna
- 2dBi gain at 3G and 4G frequencies
- 2.4GHz WiFi Spectrum also picked up.





Echo 40

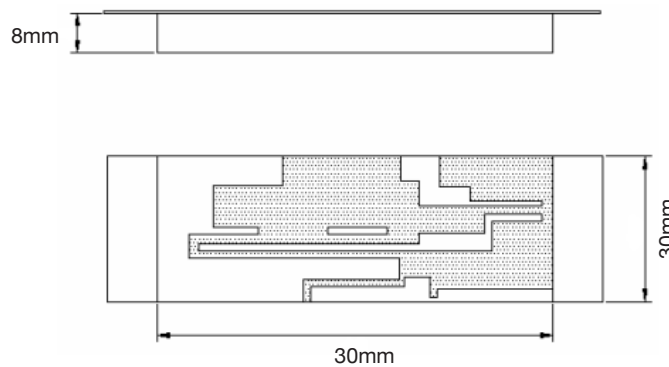
PIFA type 2G/3G/4G and WiMAX embedded Antenna

Electrical Specifications

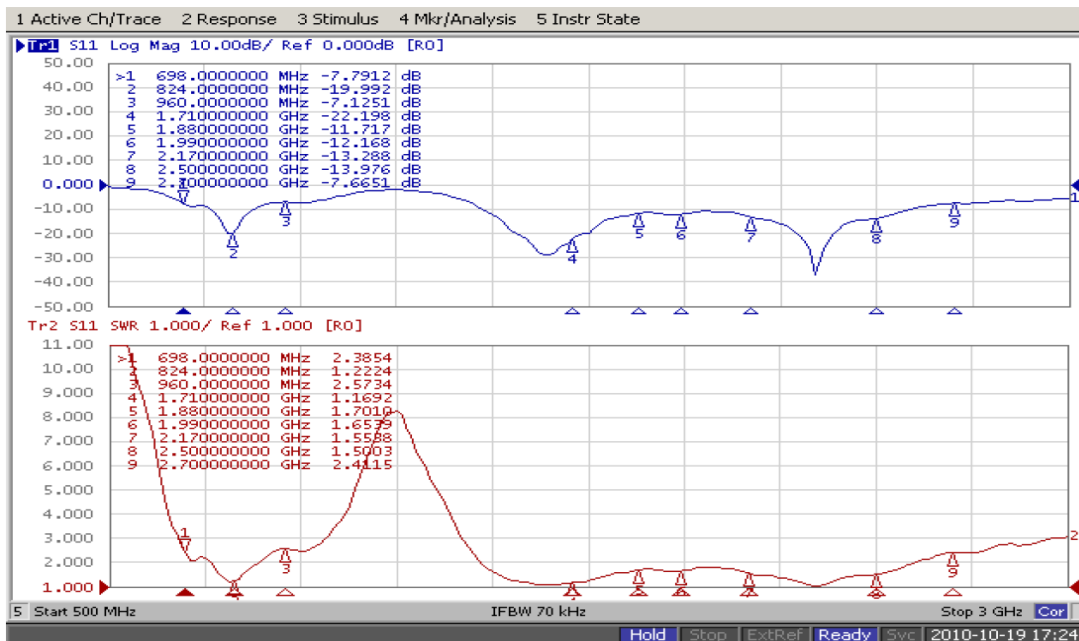
Impedance:	50 Ohm
Peak Gain:	0 / 2 / 2dBi
VSWR:	≤ 3.0
Frequency:	790 - 960MHz 1710 - 2170MHz 2500 - 2700MHz
Radiation:	Omni Directional
Polarization:	Vertical

Mechanical Specifications

Dimensions:	L80 x W30 x H8mm
Cable:	1.37mm,
Connector:	u.FL plug
Radome Material:	PCB FR4

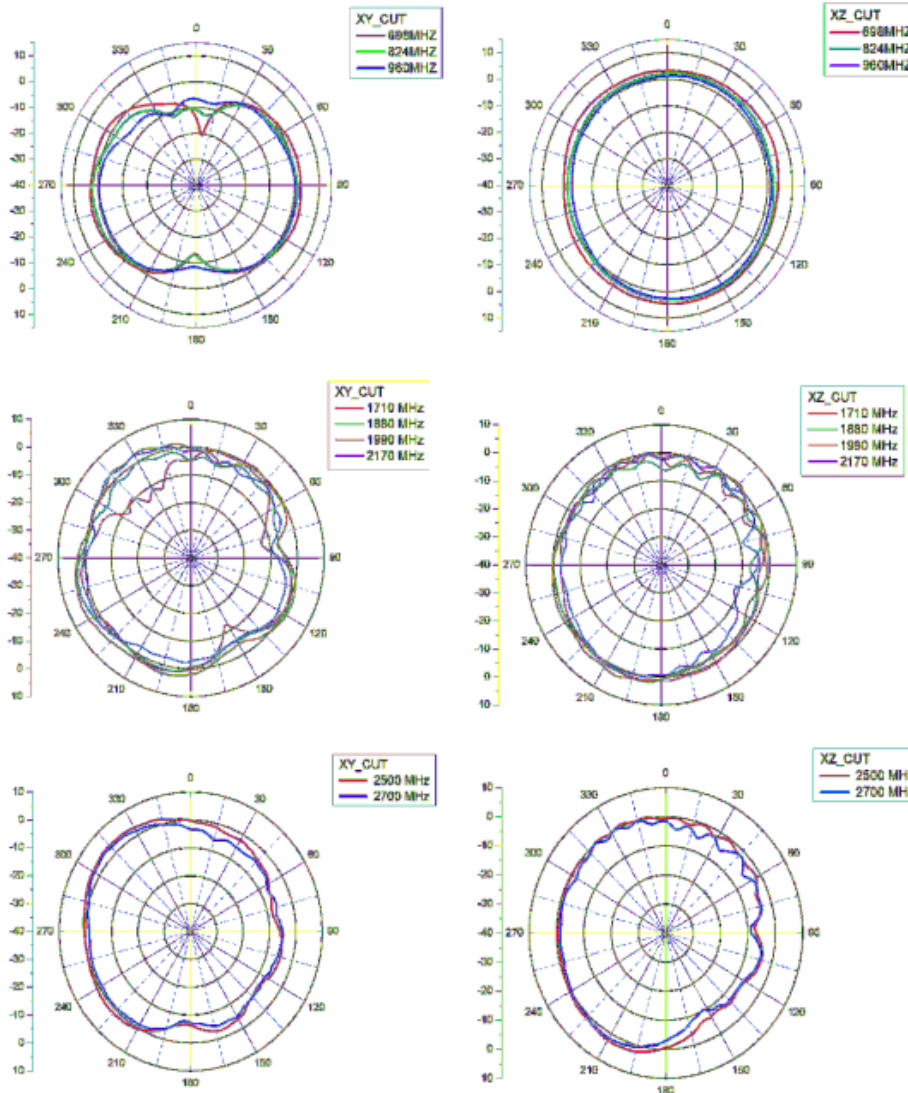


Return Loss / VSWR





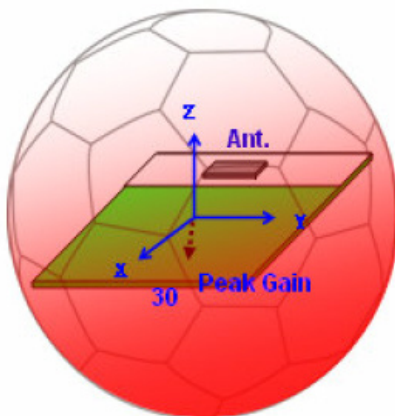
Radiation Patterns



Layout Considerations

Recommended antenna placement and PCB layout

Figure 1



Note:

1. The Echo 40 has the best radiation performance as measured from the center line of the PCB, to the beam angle (as shown in Figures 1, 2 and 3).
2. Mechanical Considerations
Antenna and housing distance: Top >8mm, Side >3mm
PCB ground side: 150 x 145mm

Other preferred antenna placement and PCB layout

Figure 2

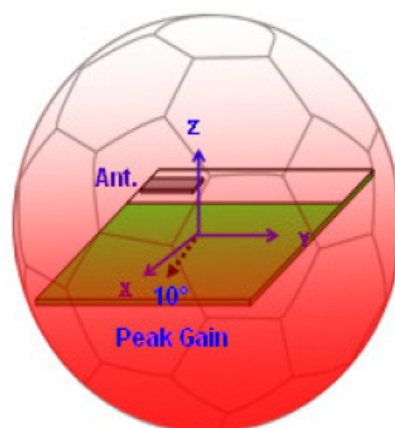
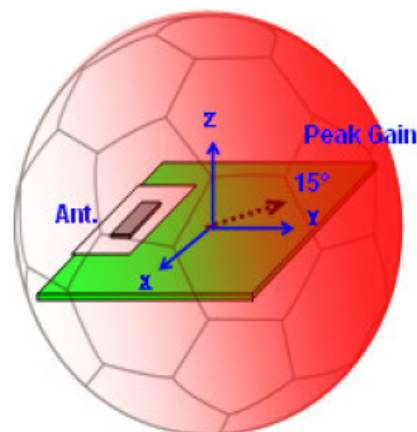


Figure 3



Ordering Details

Part Number	Description
ECHO40/0.1M/UFL/S/S/32	3G/4G/WiMAX EMBEDDED PIFA ANTENNA 100MM CABLE IPEX CONNECTOR