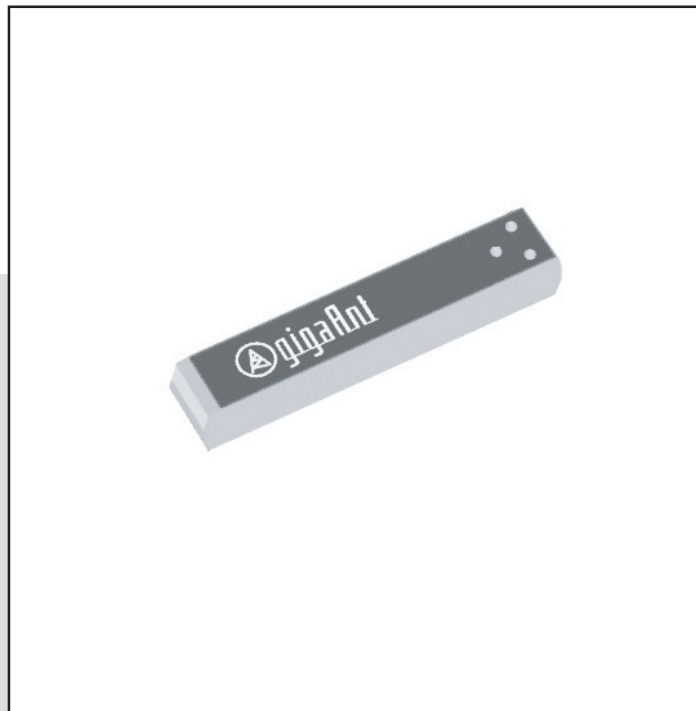


Application Note

2.4 GHz Mica SMD Antenna

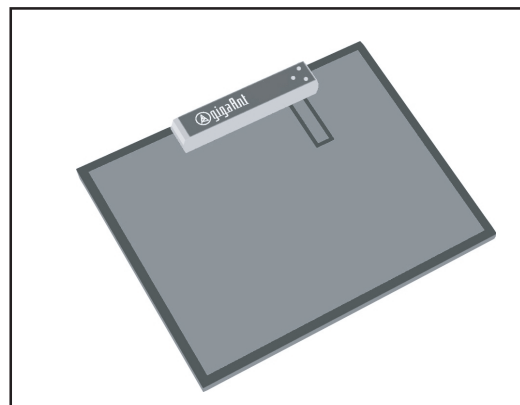


Features

- Designed for 2.4 GHz (Bluetooth™, WLAN 802.11b, Home RF)
- Intended for SMD mounting
- Supplied in tape on reel

Applications

- Mobile phones
- PDAs
- Headsets
- Laptops
- PC Cards
- CF Cards



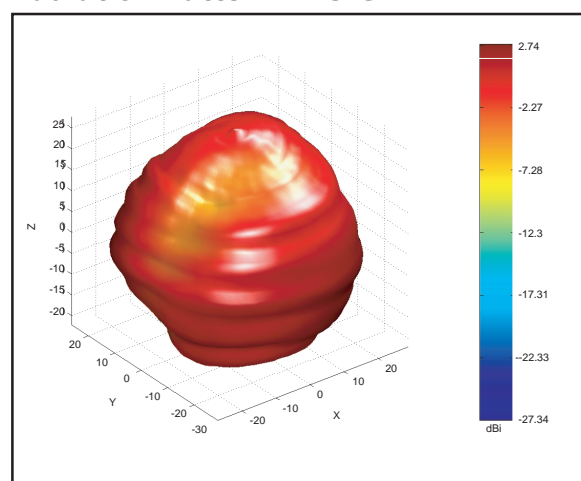
Description

The Mica antenna is intended for use with all 2.4 GHz applications. The antenna requires a groundplane, i.e. your device acts as an active part of the antenna and thus demand careful consideration concerning its placement.

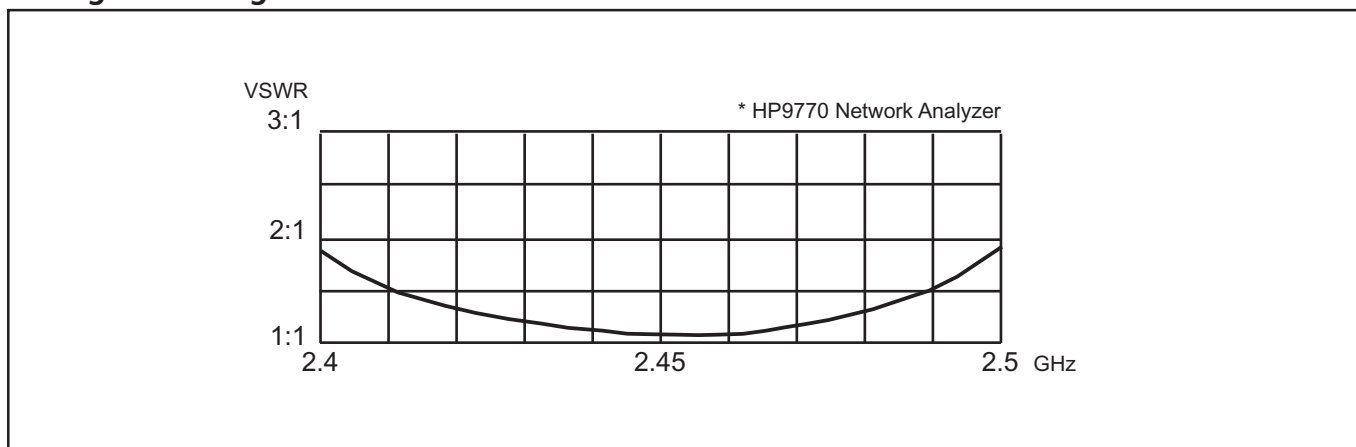
General data

Product name	Mica 2.4 GHz
Article No	3030A5645-01
Frequency	2.4 - 2.5 GHz
Polarization	Linear
Operating temperature	- 40 to 85 °C
Impedance	50Ω
Weight	0.4 g
Antenna type	SMD
Peak Gain*	2.7 dBi
Efficiency*	70 %
VSWR*	>2:1
* Mica reference board	

Radiation Pattern 2.45 GHz

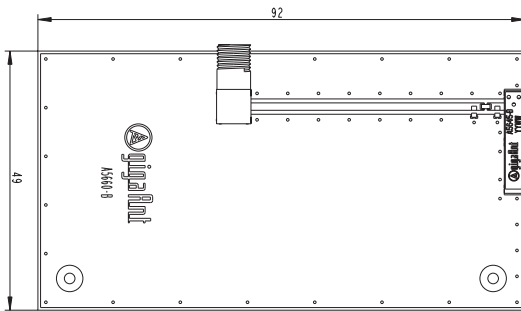


Voltage Standing Wave Ratio



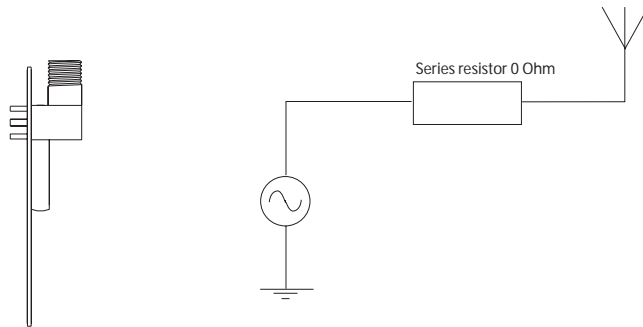
Mica 2.4 GHz test board characteristics & RF performance

Test board dimensions (mm)



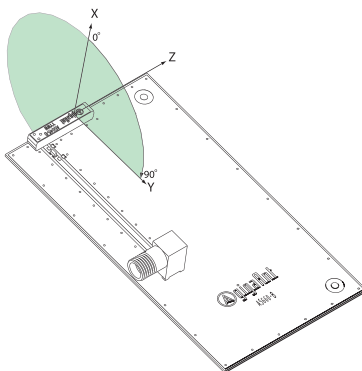
The testboard is designed for evaluation purposes for Mica 2.4 GHz SMD antenna. The card has the same size as a typical PCMCIA card and is fitted with a SMA connector.

Test board matching

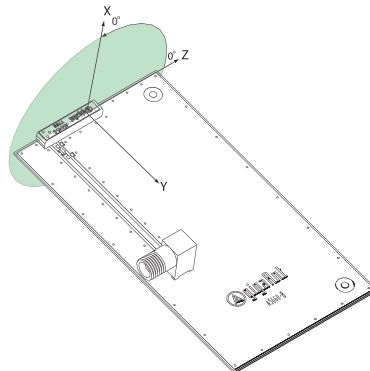


The antenna on the test board does not require any matching. A zero Ohm resistor is used as a series component. Note! Component matching will be necessary for other applications. Component values will vary depending on size of PCB board, surrounding components etc.

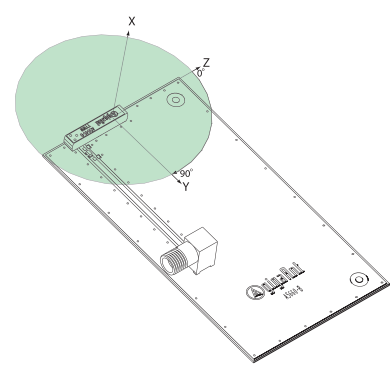
Radiation patterns



XY- Plane



XZ- Plane



YZ- Plane

