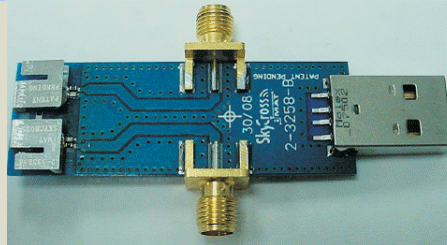


iMAT-1110  
Antenna element

iMAT-1110-A

Assembly including antenna element, PCB,  
and connectors as shown



2.3-2.4 GHz  
WiMAX Antenna

### Features

- Single antenna structure with multiple feeds behaves like multiple antennas
- Ready-made diversity or MIMO antenna system
- High isolation, low correlation, and high efficiency in a very small footprint
- Surface mount technology & common materials translate to cost effective manufacturing

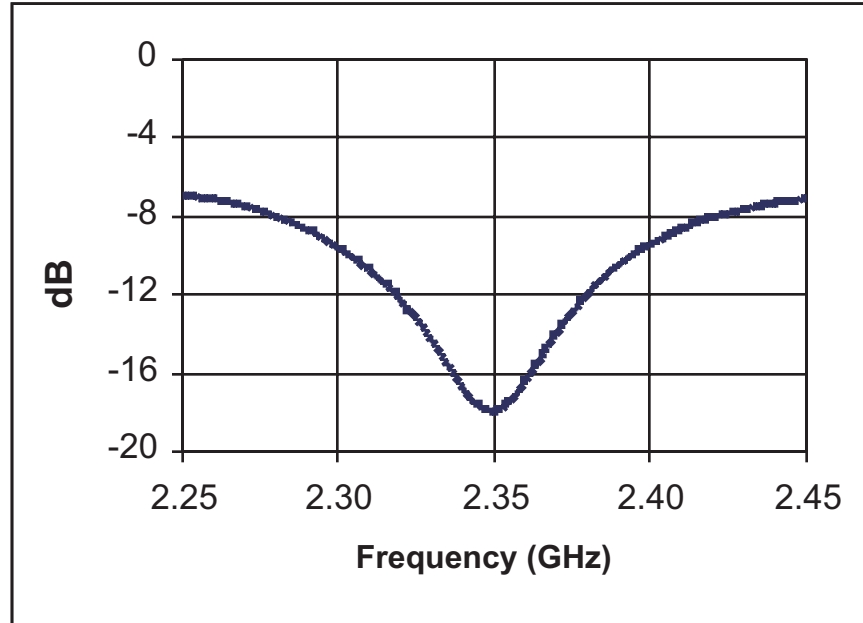
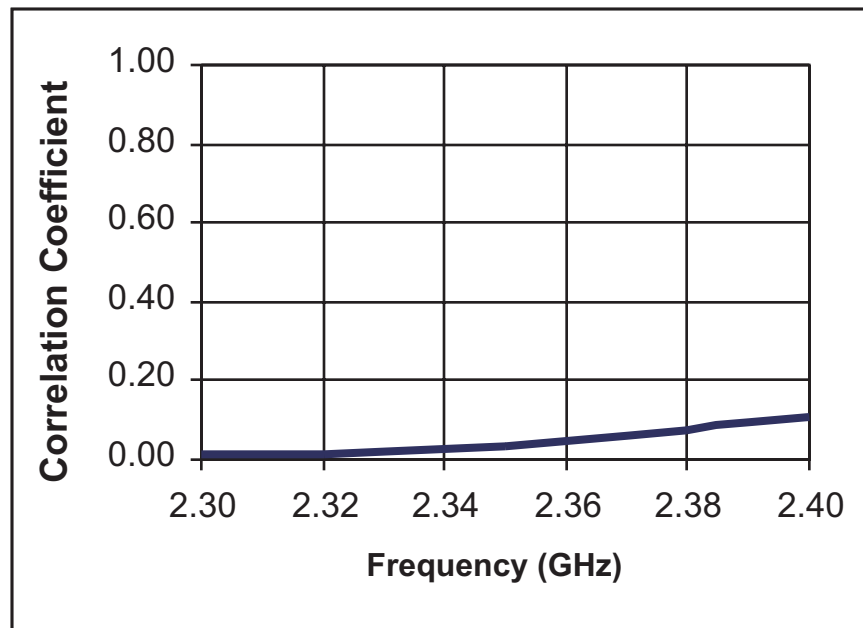
### Mechanical Specifications

Antenna Element	0.38 x 0.71 x 0.11 in 9.7 x 18.0 x 2.7 mm
Assembly PCB	2.12 x 0.75 in 54.0 x 19.0 mm
Area of PCB that is Ground	1.7 x 0.75 in 43.0 x 19.0 mm
Antenna Element Weight	0.4 g

### Electrical Specifications

Frequency Range	2.3-2.4 GHz
Gain	>2.0 dBi at 2.35 GHz
VSWR	<2.5:1 across band
Isolation	< -8 dB across band
Envelope Correlation Coefficient	<0.3 across band
Polarization	Linear
Radiation Pattern	Elevation onmi-directional
Feed Impedance	50 Ohms Unbalanced

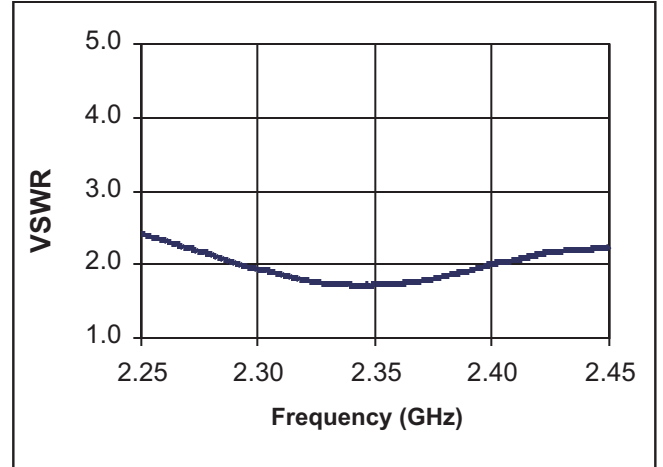
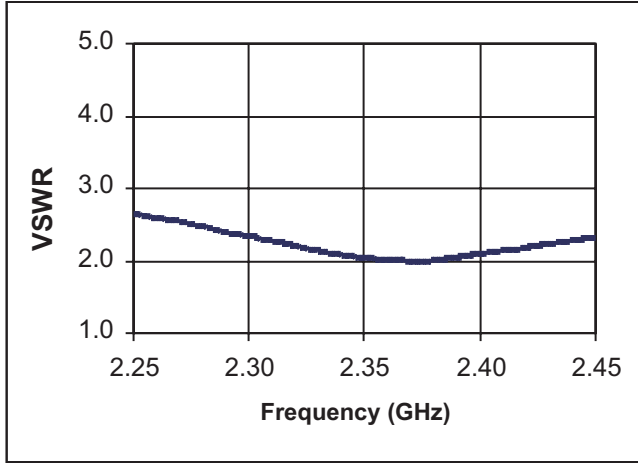
All antenna measurements are taken in free space. Antenna will need to be customized (tuned and/or trimmed) to achieve similar performance when fitted in a plastic enclosure. Results may vary depending on the particular implementation.

**Isolation: S21 (1 to 2)****Envelope Correlation Coefficient**

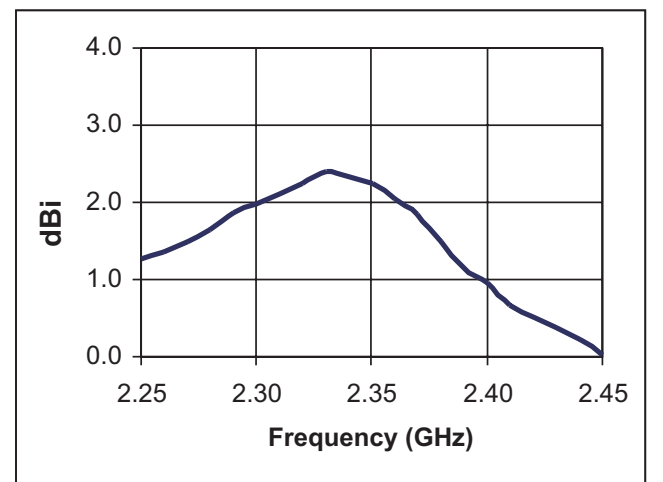
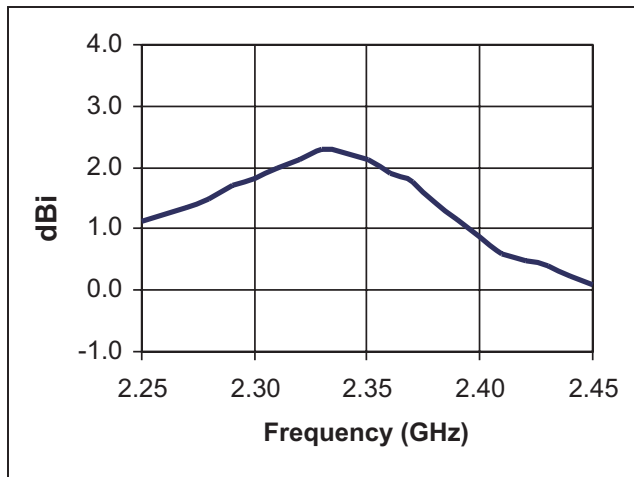
**Port 1**

**Port 2**

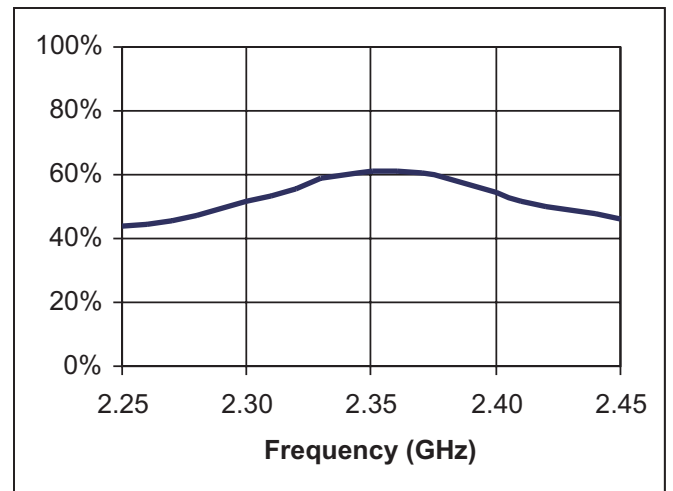
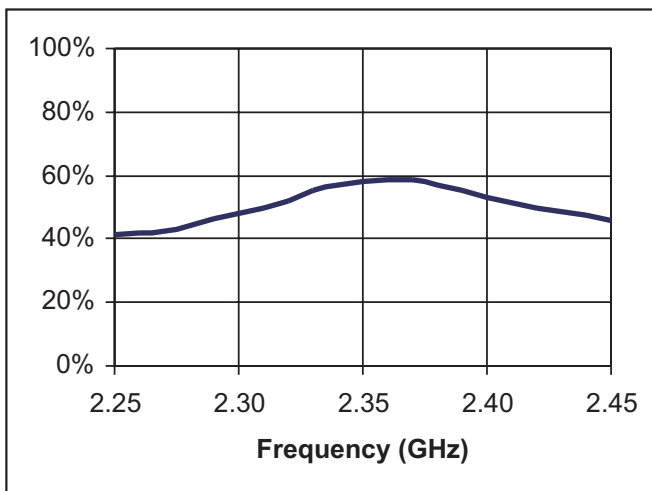
**VSWR**



**Peak Gain**



**Efficiency**

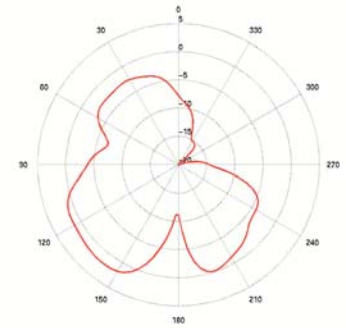
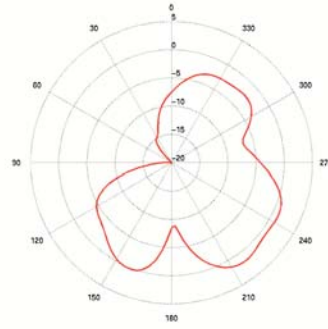


Diagrams Below are at 2.35 GHz

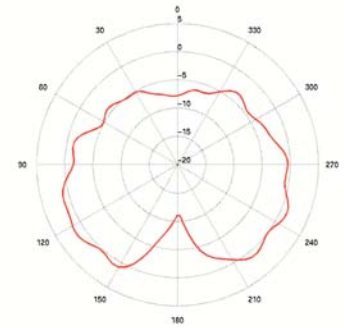
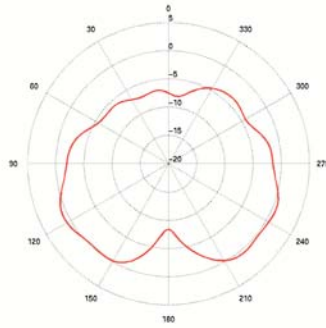
Port 1

Port 2

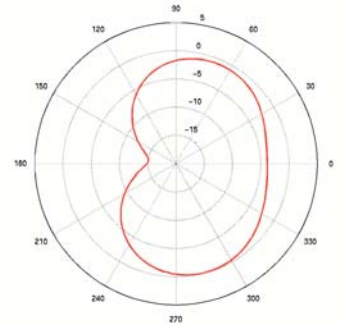
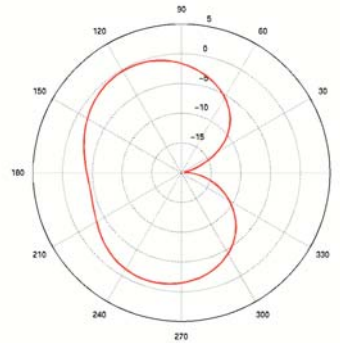
Elevation Cut **Phi=0 Degrees**



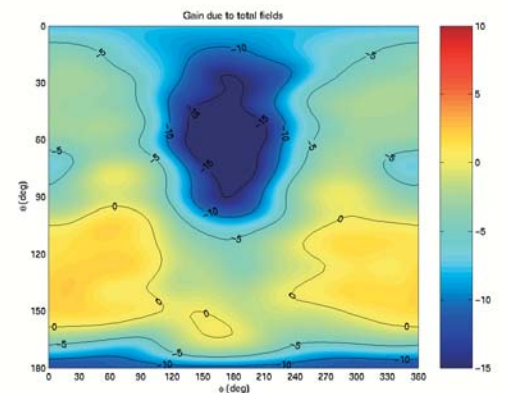
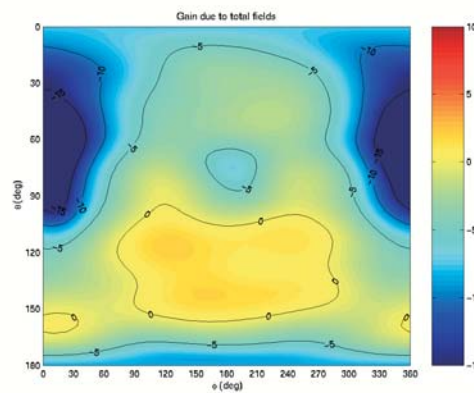
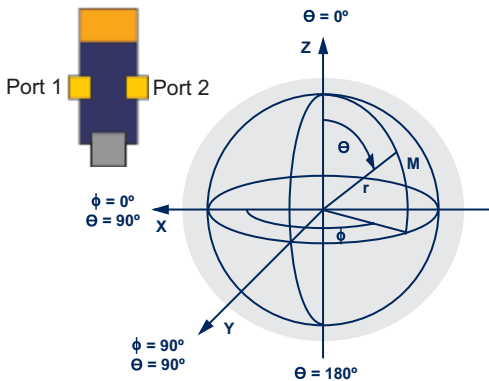
Elevation Cut **Phi=90 Degrees**



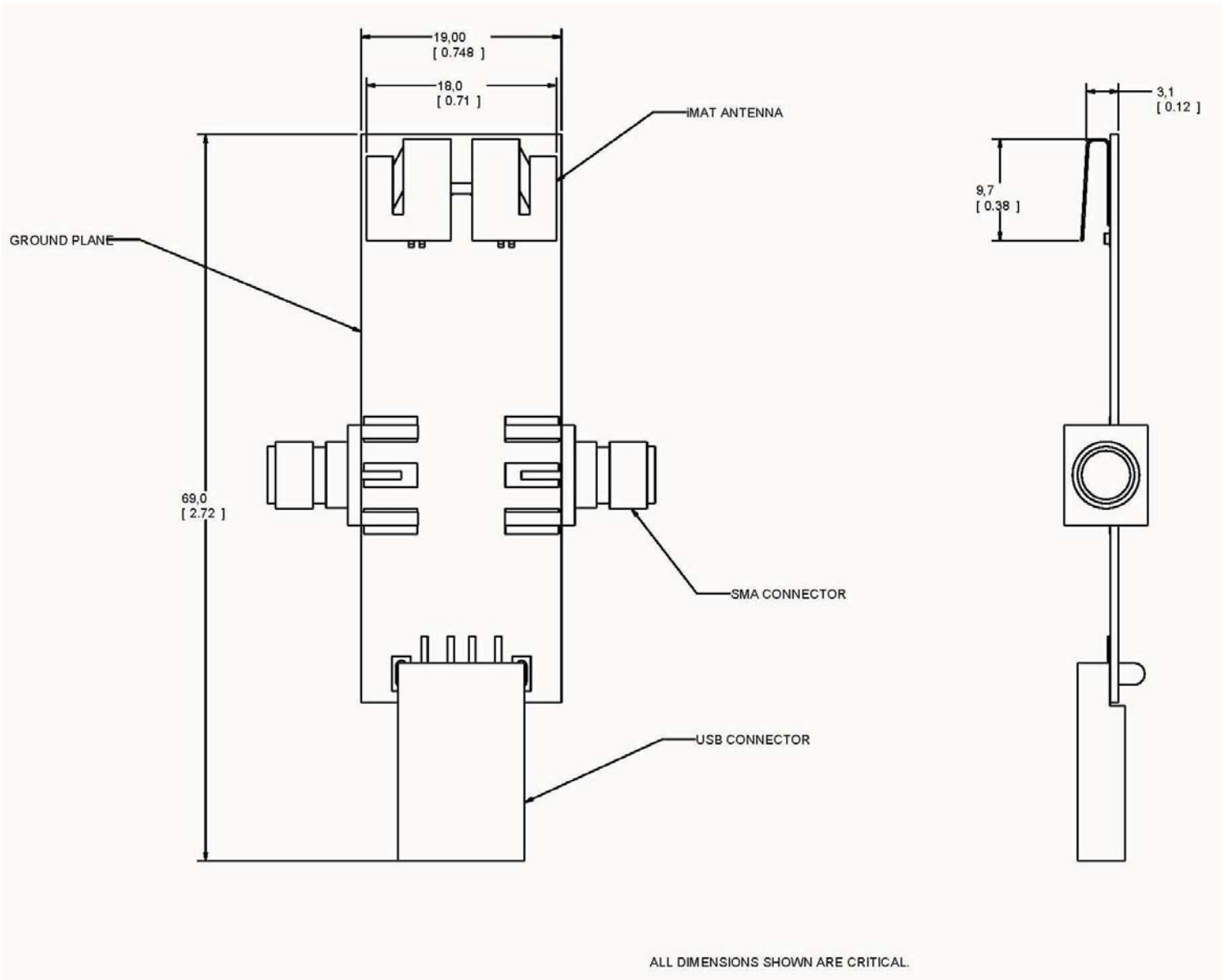
Azimuth Cut **Theta=90 Degrees**



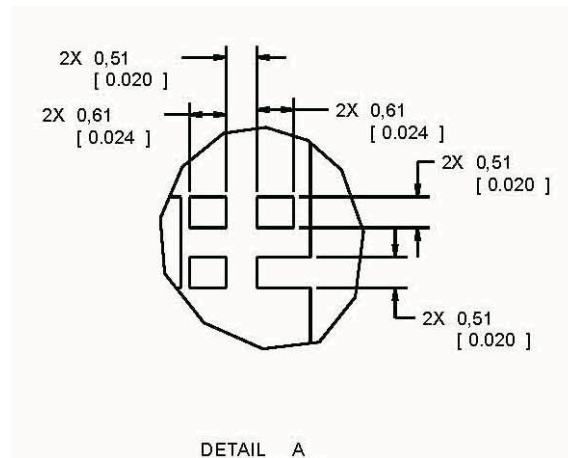
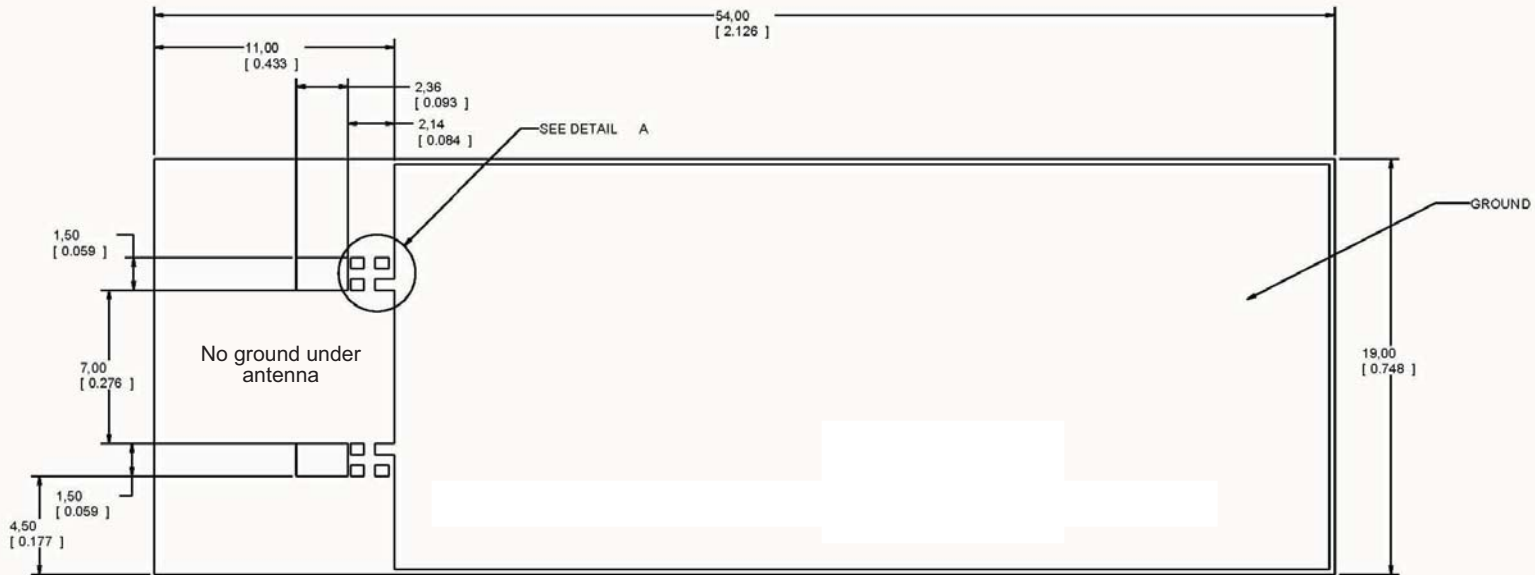
Spherical Gain Contour Map



## Footprint



## Footprint



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