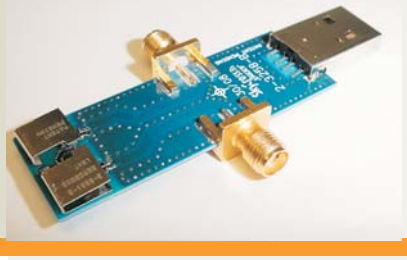
iMAT-1115

Antenna element

iMAT-1115-A

Assembly including antenna element, PCB, and connectors as shown



2.5-2.7 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

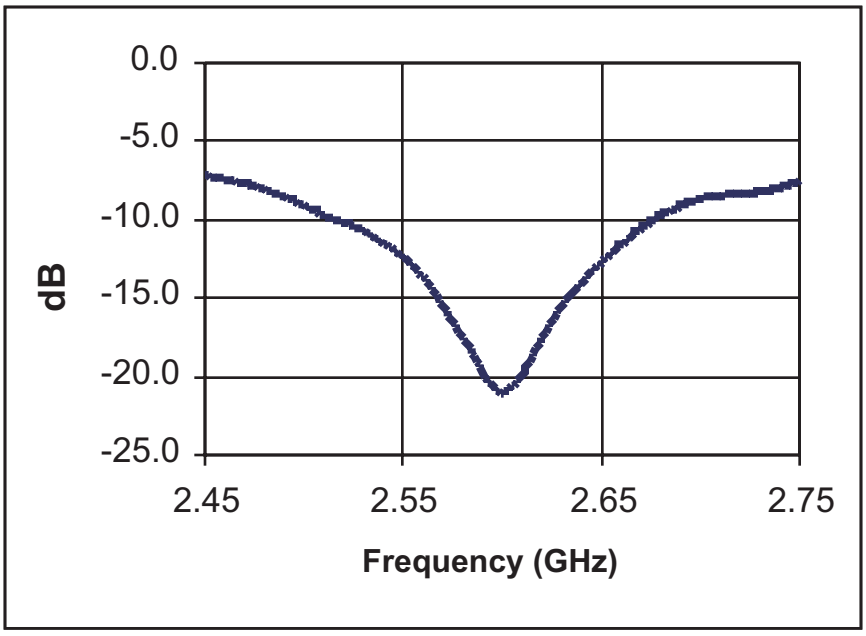
Antenna Element	0.32 x 0.71 x 0.11 in 8.25 x 18.0 x 2.9 mm
Assembly PCB	2.12 x 0.75 in 54.0 x 19.0 mm
Area of PCB that is Ground	1.7 x 0.75 in 44.0 x 19.0 mm
Antenna Element Weight	0.4 g

Electrical Specifications

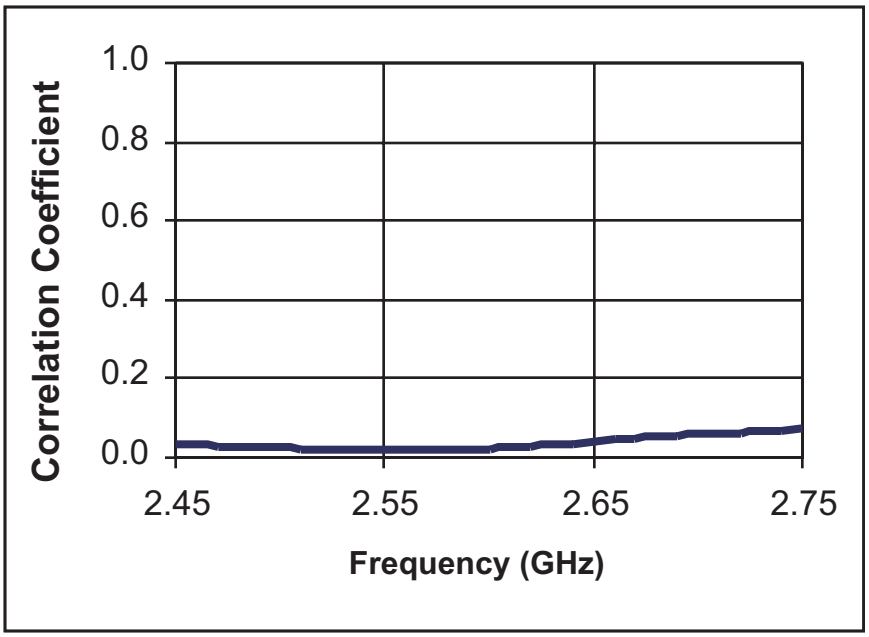
Frequency Range	2.5-2.7 GHz
Gain	>2.5 dBi at 2.6 GHz
VSWR	<2.5:1 across band
Isolation	< -8 dB across band
Envelope Correlation Coefficient	<0.2 across band
Polarization	Linear
Radiation Pattern	Elevation onmi-directional
FeedImpedance	50 Ohms Unbalanced

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)



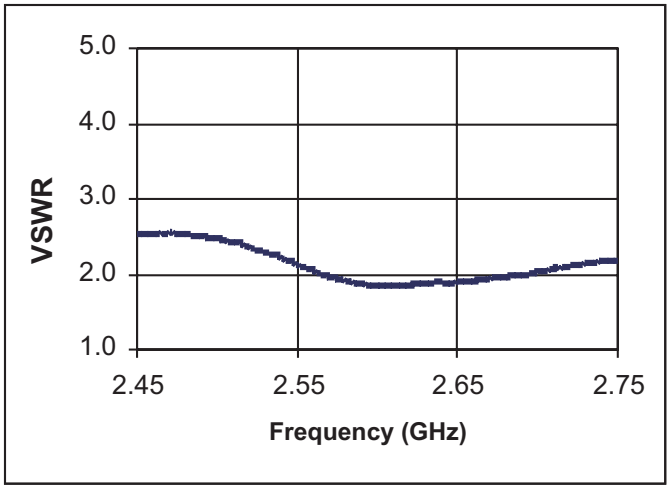
Envelope Correlation Coefficient



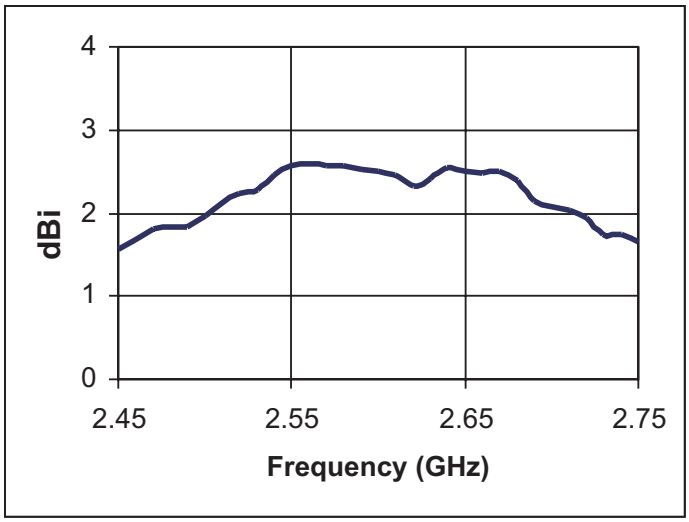
2.5-2.7 GHz WiMAX Antenna

Port 1

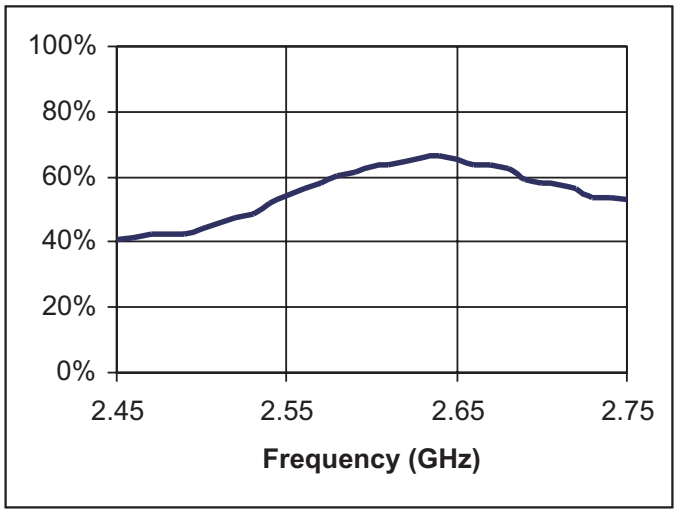
VSWR



Peak Gain

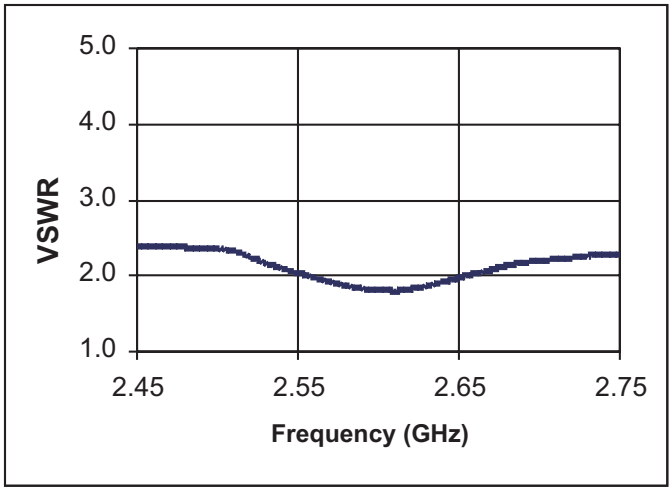


Efficiency

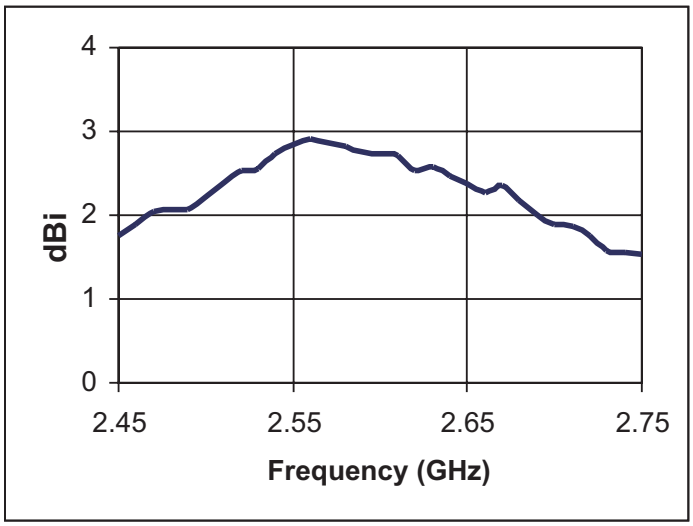


Port 2

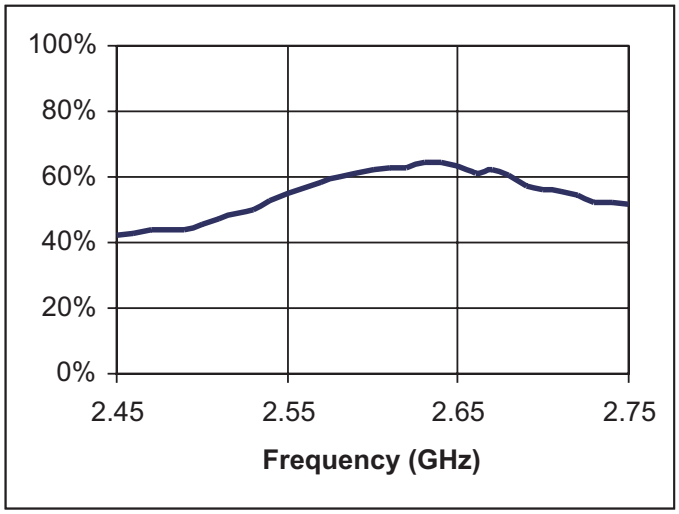
VSWR



Peak Gain



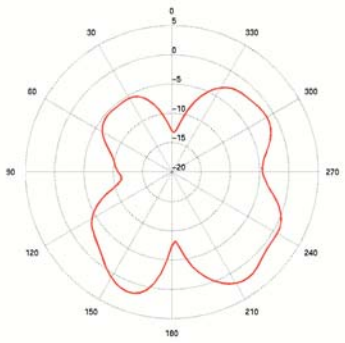
Efficiency

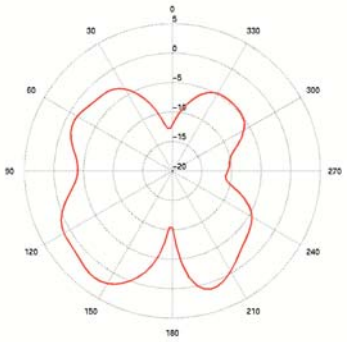


Diagrams Below are at 2.6 GHz

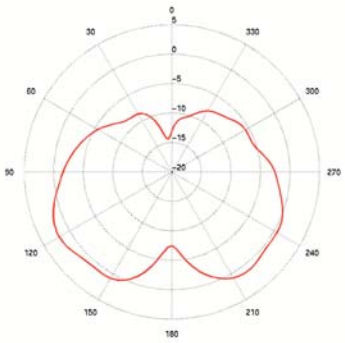
Port 1 **Port 2**

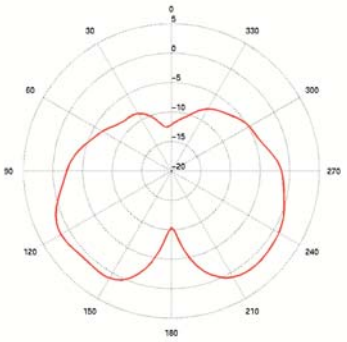
Elevation Cut Phi=0 Degrees



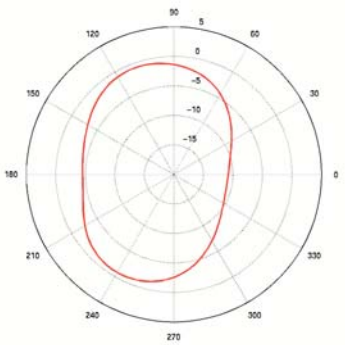


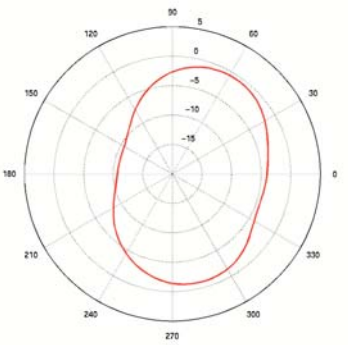
Elevation Cut Phi=90 Degrees



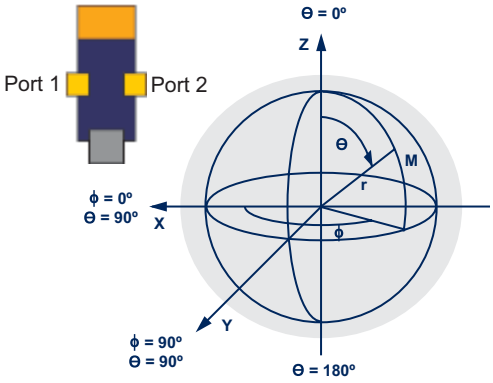


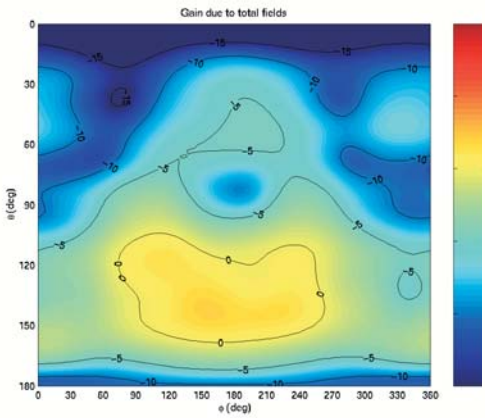
Azimuth Cut Theta=90 Degrees

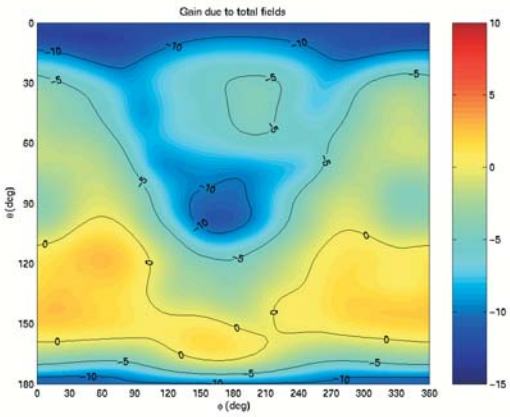




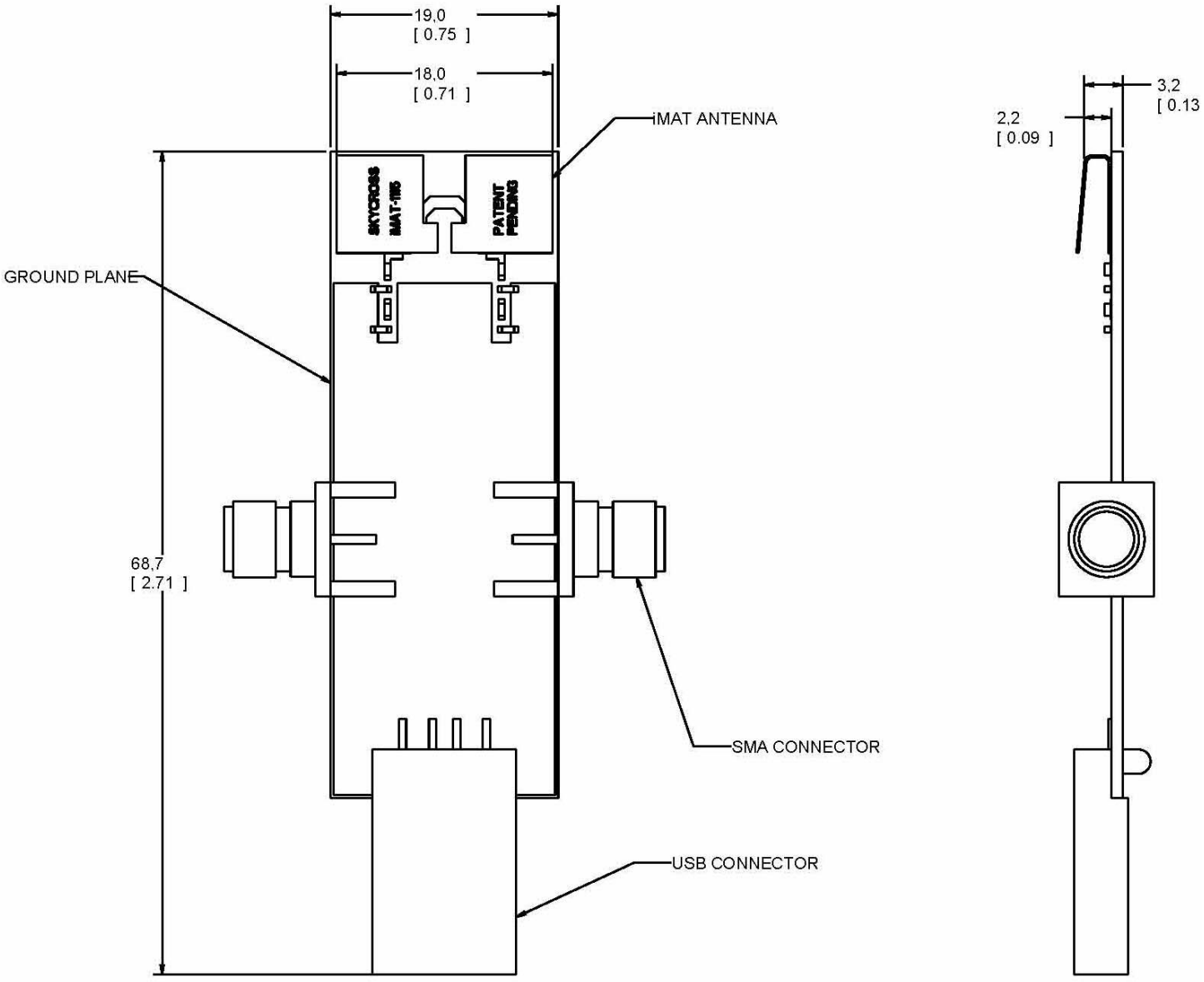
Spherical Gain Contour Map



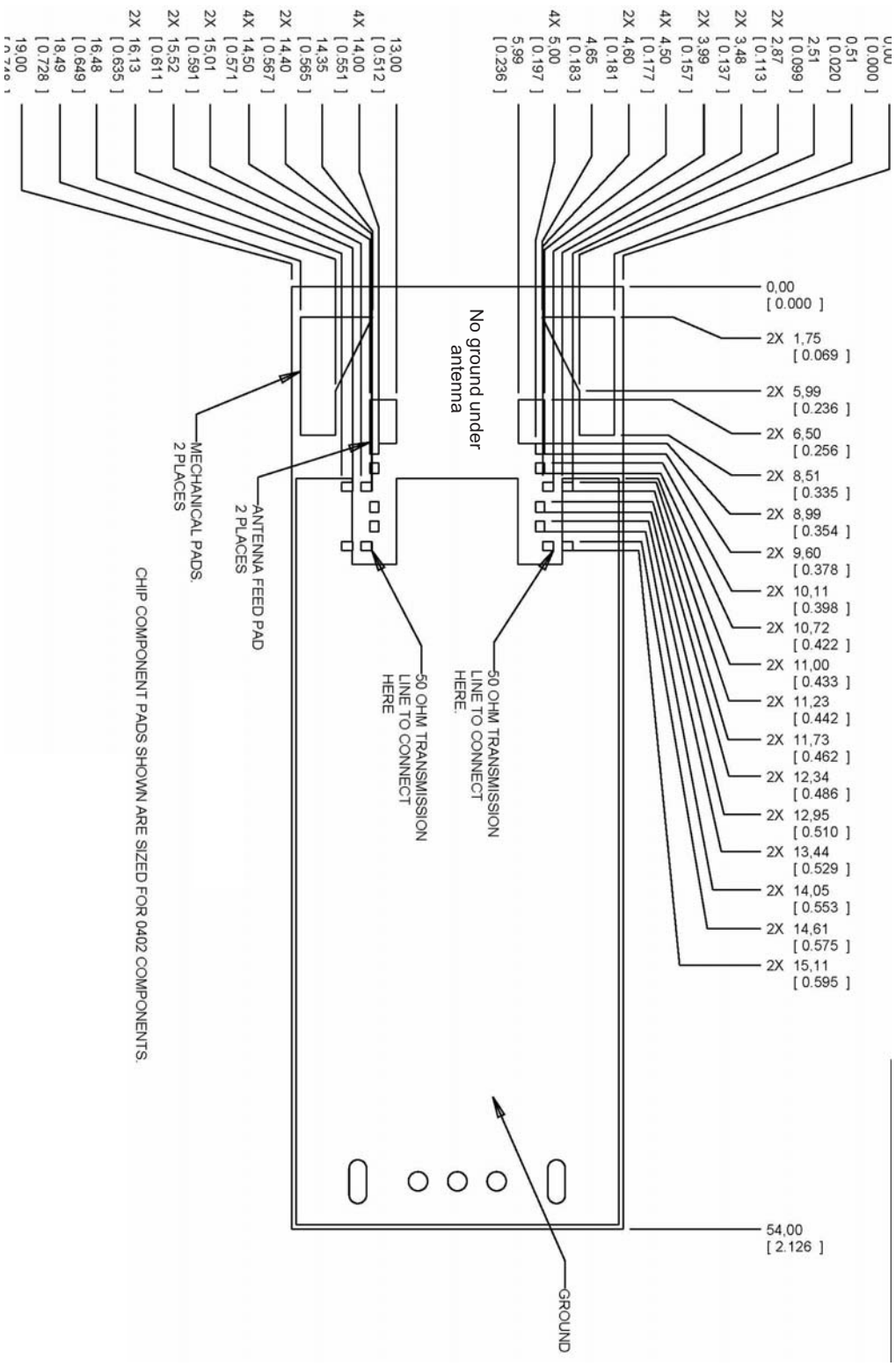




Footprint


19,0
[0.75]
18,0
[0.71]
iMAT ANTENNA
SKYCROSS
IMAT-1115
PATENT
PENDING
GROUND PLANE
68,7
[2.71]
SMA CONNECTOR
USB CONNECTOR
3,2
[0.13
2,2
[0.09]

Footprint



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