

Walsin Technology Corporation
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APPROVAL SHEET

RFANT Pb free Series – RoHS Compliance

MULTILAYER CERAMIC ANTENNA

Halogens Free Product

2.4 GHz ISM Band RF Application

P/N: RFANT2012090A0T

*Contents in this sheet are subject to change without prior notice.


FEATURES

1. Surface Mounted Devices with a small dimension of $2.0 \times 1.25 \times 0.9 \text{ mm}^3$ meet future miniaturization trend.
2. Embedded and LTCC (Low Temperature Co-fired Ceramic) technology is able to future integrate with system design as well as beautifying the housing of final product.
3. High Stability in Temperature / Humidity Change
4. Omni - directional in azimuth

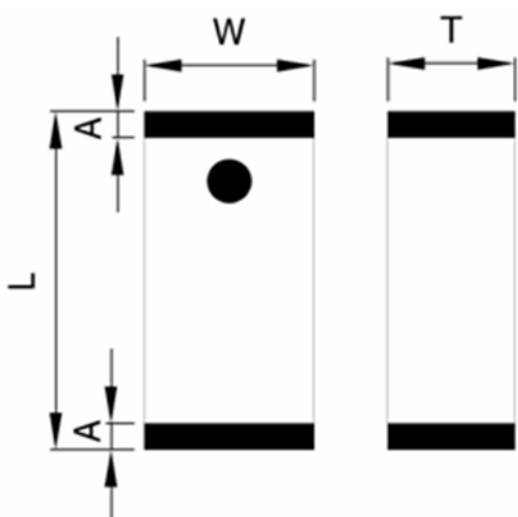
APPLICATIONS

1. Bluetooth
2. Wireless LAN
3. HormRF
4. ISM band 2.4GHz working frequency

CONSTRUCTION

Figure	PIN	Connection
	1	Feeding
	2	Soldering terminal

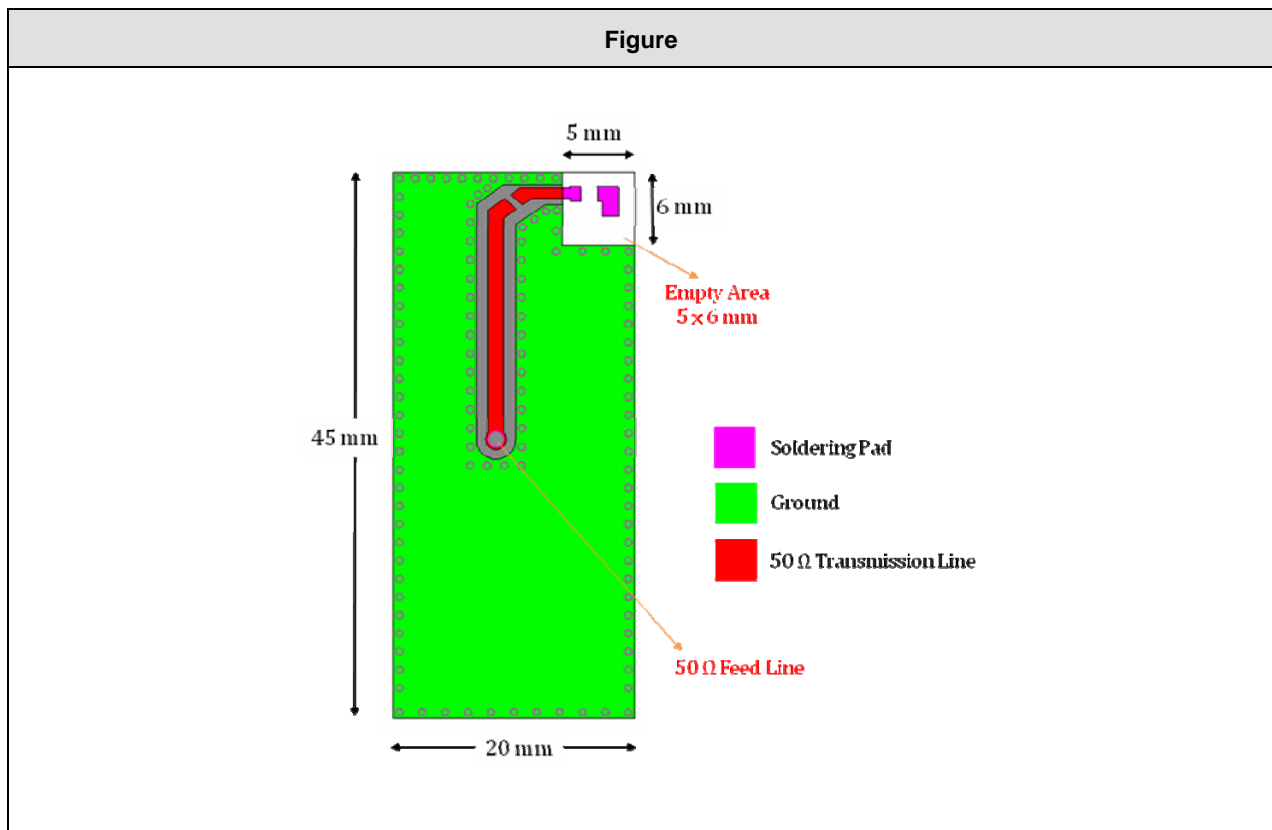
DIMENSIONS

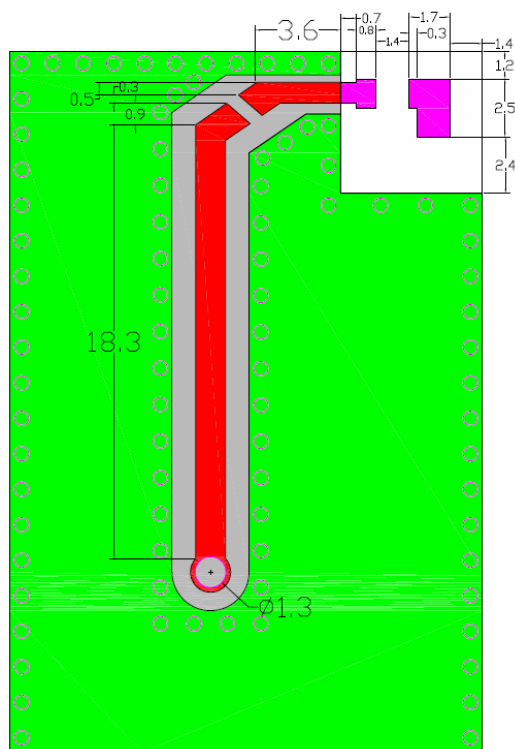
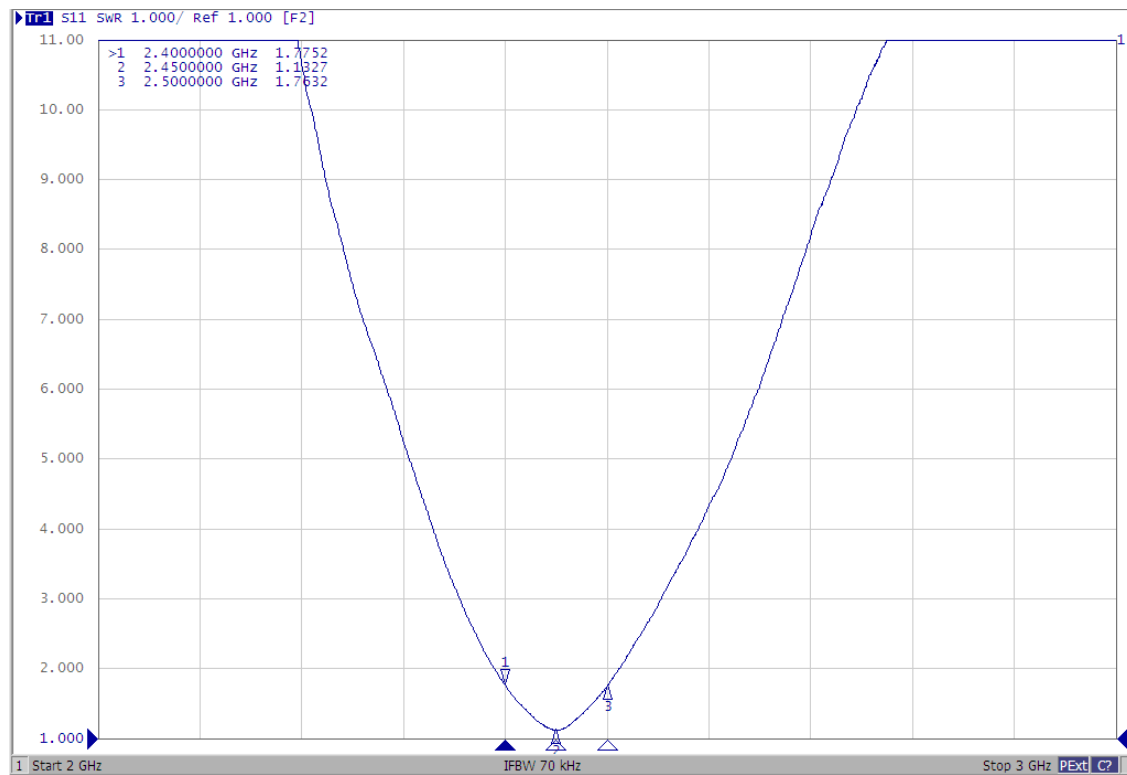
Figure	Symbol	Dimension (mm)
	L	2.0 ± 0.20
	W	1.25 ± 0.20
	T	0.90 ± 0.10
	A	0.25 ± 0.15

ELECTRICAL CHARACTERISTICS

RFANT2012090A0T	Specification
Working Frequency Range	2400 ~ 2500 MHz
Gain	1.36 dBi (Typical)
VSWR	2.0 max.
Polarization	Linear
Azimuth Beamwidth	Omni-directional
Impedance	50Ω
Rated Power (max.)	3 Watts
Maximum Input Power	5 Watts for 5 minutes
Operation Temperature	-40°C ~ +85°C

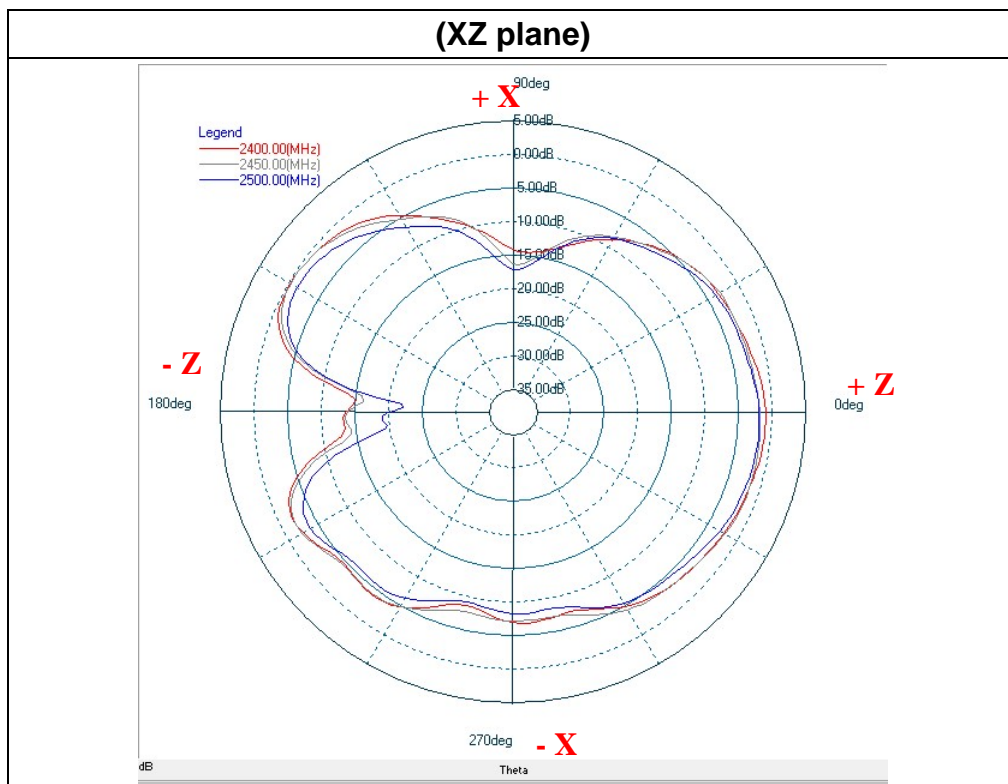
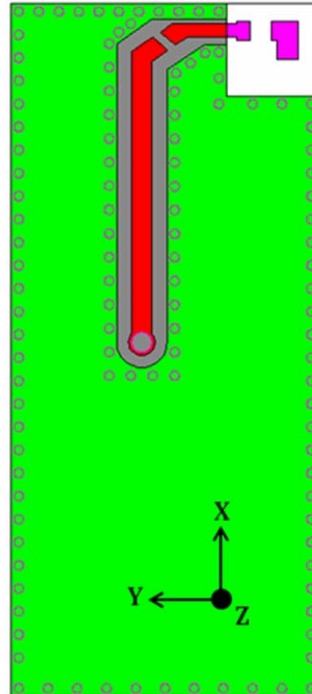
Remark: The specification is defined based on the test board dimension as in below

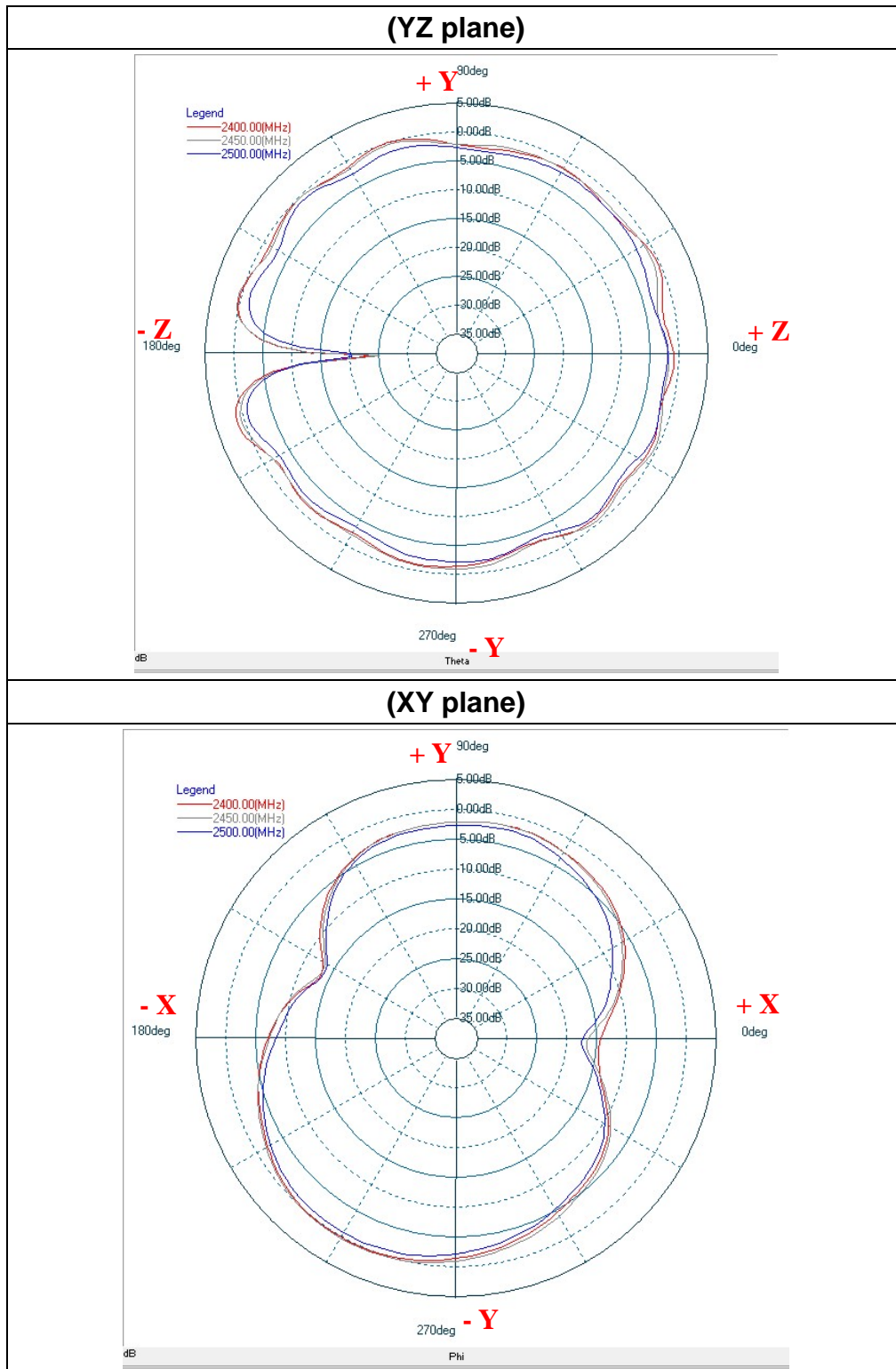
SOLDER LAND PATTERN DESIGN

Antenna on Test Board (FR4 Thickness 0.8mm)**Antenna VSWR on Test Board**

RADIATION PATTERN

Radiation Pattern and Gain were dependent on measurement board design. The specification of RFANT2012090A0T antenna was measured based on the PCB size and installation position as shown in the below figure Test Board





	ZX plane		ZY plane		XY plane	
Frequency [MHz]	Max Value [dBi]	Average [dBi]	Max Value [dBi]	Average [dBi]	Max Value [dBi]	Average [dBi]
2400	0.89	-4.72	1.07	-0.64	-0.03	-3.73
2450	-0.11	-4.90	1.36	-0.54	0.20	-3.54
2500	-0.72	-5.43	0.95	-1.00	0.09	-3.77