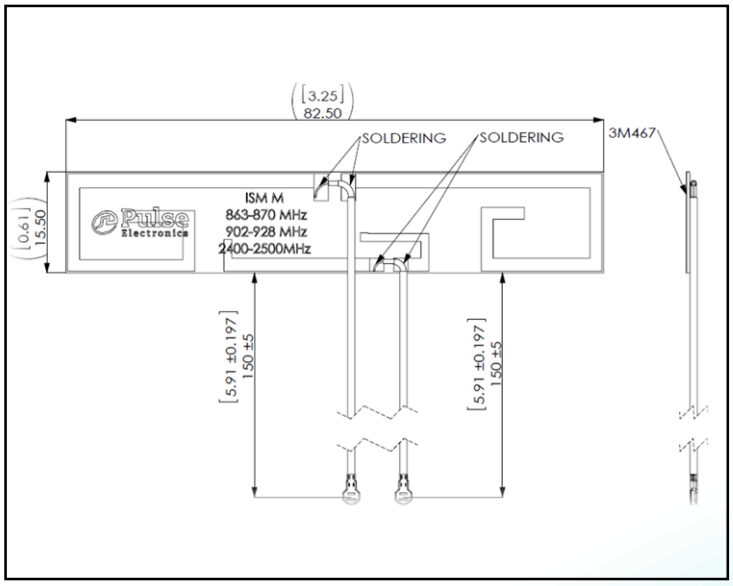
PulseLARSEN Antennas

TECHNICAL DATA SHEET

Description: ISM868/915MHz, 2.4GHz Antenna

Series: Internal

PART NUMBER: W3332B0150



All dimensions are in mm / inches

Features:

- Tri-band dual feed ISM antenna
- PCB radiator with two pigtail coax feeds (815/915MHz and 2.4GHz)
- Size 15.5x82.5x0.5mm
- U.FL compatible connectors

Applications:

- Devices using ISM band radios 868MHz, 915MHz, 2.4GHz
- Machine to Machine, IoT
- Data terminals and routers using ISM bands
- 2.4-2.5GHz band also applicable for Bluetooth, BLE Zigbee. WiFi

Issue: 1649

RoHS COMPLIANT

For more information:

Pulse Worldwide Headquarters
12220 World Trade Drive
San Diego, CA 92128
USA
Tel:1-858-674-8100

Pulse/Larsen Antennas
3611 NE 112th Ave
Vancouver, WA 98682
USA
Tel: 1-360-944-7551

Europe Headquarters
Pulse GmbH & Do, KG
Zeppelinstrasse 15
Herrenberg, Germany
Tel: 49 7032 7806 0

Pulse (Suzhou) Wireless Products Co, Inc.
99 Huo Ju Road(#29 Bldg,4th Phase
Suzhou New District
Jiangsu Province, Suzhou 215009 PR China
Tel: 86 512 6807 9998

Description: ISM868/915MHz, 2.4GHz Antenna

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ELECTRICAL SPECIFICATIONS

Cable 1		
Frequency	863-928	MHz
Nominal Impedance	50	Ω
Return loss(max)	-5	dB
Peak Gain	0.2	dBi
Average Efficiency	55	%
Cable 2		
Frequency	2400-2500	MHz
Nominal Impedance	50	Ω
Return loss(max)	-10	dB
Peak Gain	4.1	dBi
Average Efficiency	64	%
Isolation between cable 1 and cable 2		
@863-928MHz	-16	dB
@2400-2500MHz	-11	dB

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MECHANICAL SPECIFICATIONS

PCB material	FR4
PCB thickness	0.5 mm
Adhesive	3M467
Cable type	OD 1.13mm coax
Cable length	150 mm
Connector	U.FL compatible

ENVIRONMENTAL SPECIFICATIONS

Operating temperature	-40/+85 ° C

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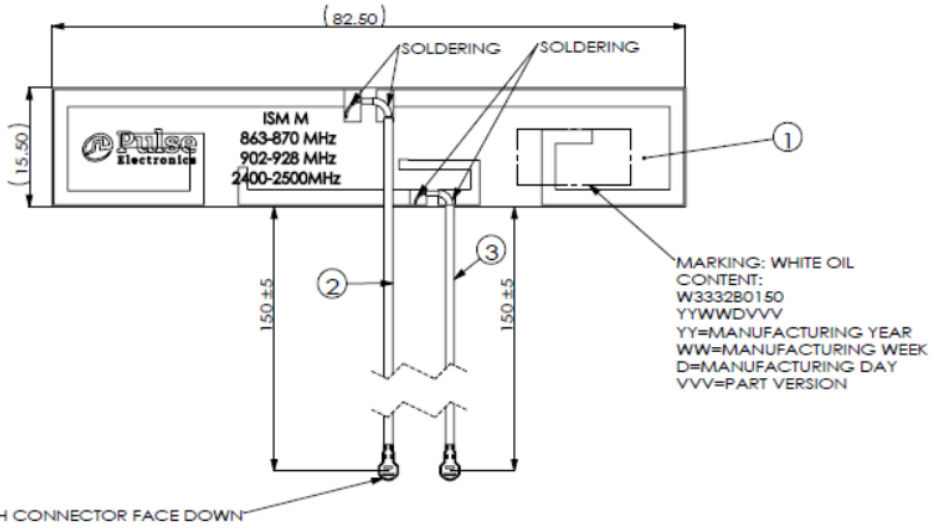
MECHANICAL DRAWING

ITEM	P/N	DESCRIPTION	QUANTITY	NOTE
1	025-6139.001	PCB WITH 3M467 ADHESIVE	1	
2	055-2240.001	CABLE 1	1	
3	055-2241.001	CABLE 2	1	



NOTES:
1. RoHS COMPLIANT.
2. NORMAL IMPEDANCE 50Ω.
3. CABLE1: 863-928 MHz, RETURN LOSS (MAX.)-5dB, PEAK GAIN:0.2dBi,AVERAGE EFFICIENCY:55%
   CABLE2:2400-2500MHz,ETURN LOSS (MAX.)-10dB, PEAK GAIN:4.1dBi,AVERAGE EFFICIENCY:64%
4. ISOLATION BETWEEN CABLE 1 AND CABLE 2:
   @863-928MHz, -16dB
   @2400-2500MHz, -11dB
5. ANTENNA MOUNTING METHOD: ADHESIVE
5. VISUAL QUALITY PER PULSE PQ5.030.000 CLASS III

Mod	Explication
01	COPY FROM W3332 REV12 AND FIRST RELEASE

Pulse Electronics — Pulse Finland Oy, Automaatiotie 1, 90460 Oulunsalo, Finland, Tel: +358 207 935 500, Fax: +358 207 935 501, www.pulseelectronics.com/antennas

Product(s): W3332B0150
Item Name: W3332B0150 ASSEMBLY

Sheet number: 1/1
General Tolerance:
Customer number:
Scale: 2:1 (A3)
Drawn: WinZhu 20160905
Chkd:
Apprd:
Document number: W3332B0150
Part Version: P01
Document Version: 01
01 Mod 05-Sep-16 Date WinZhu Name

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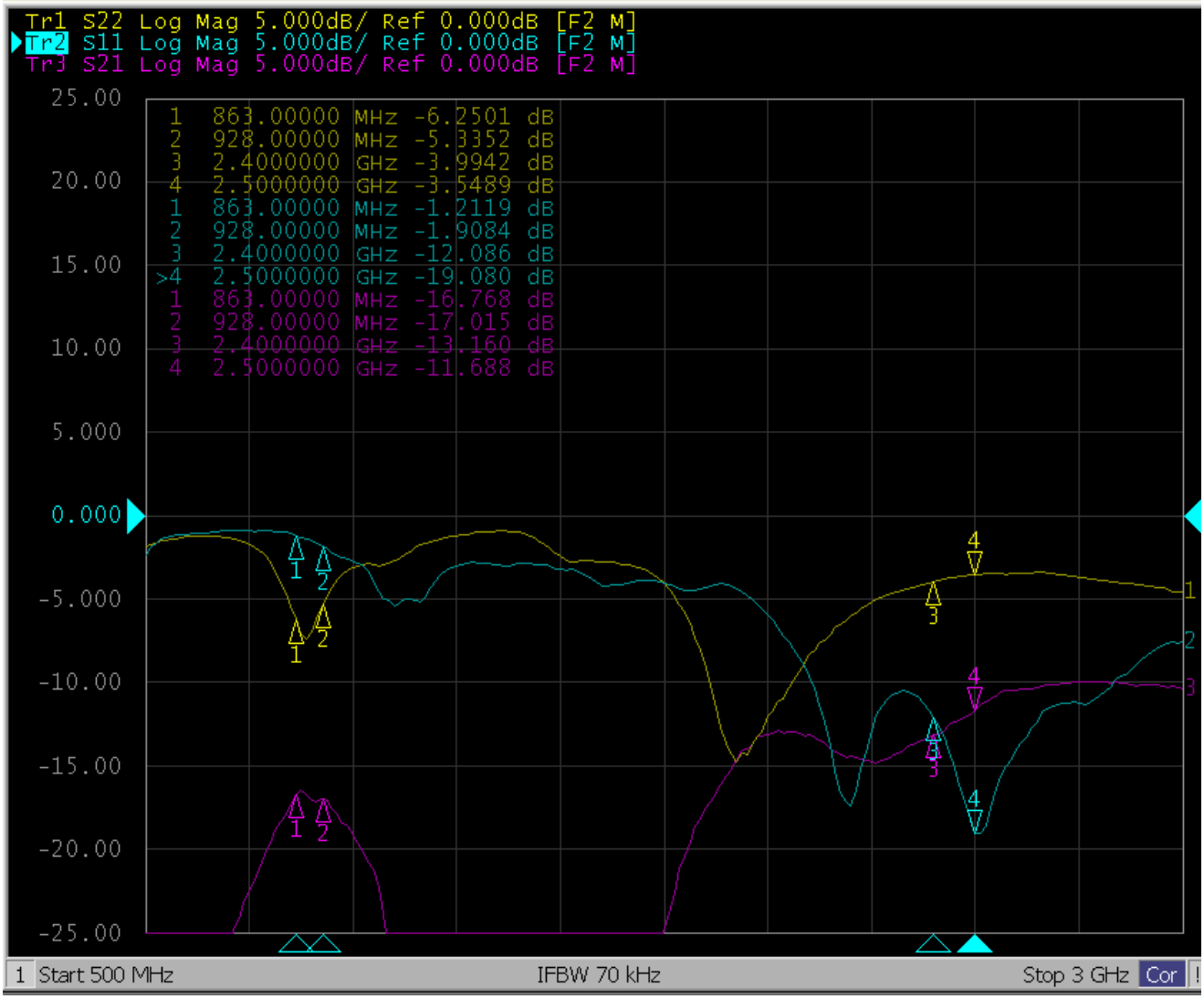
CHARTS

Return loss



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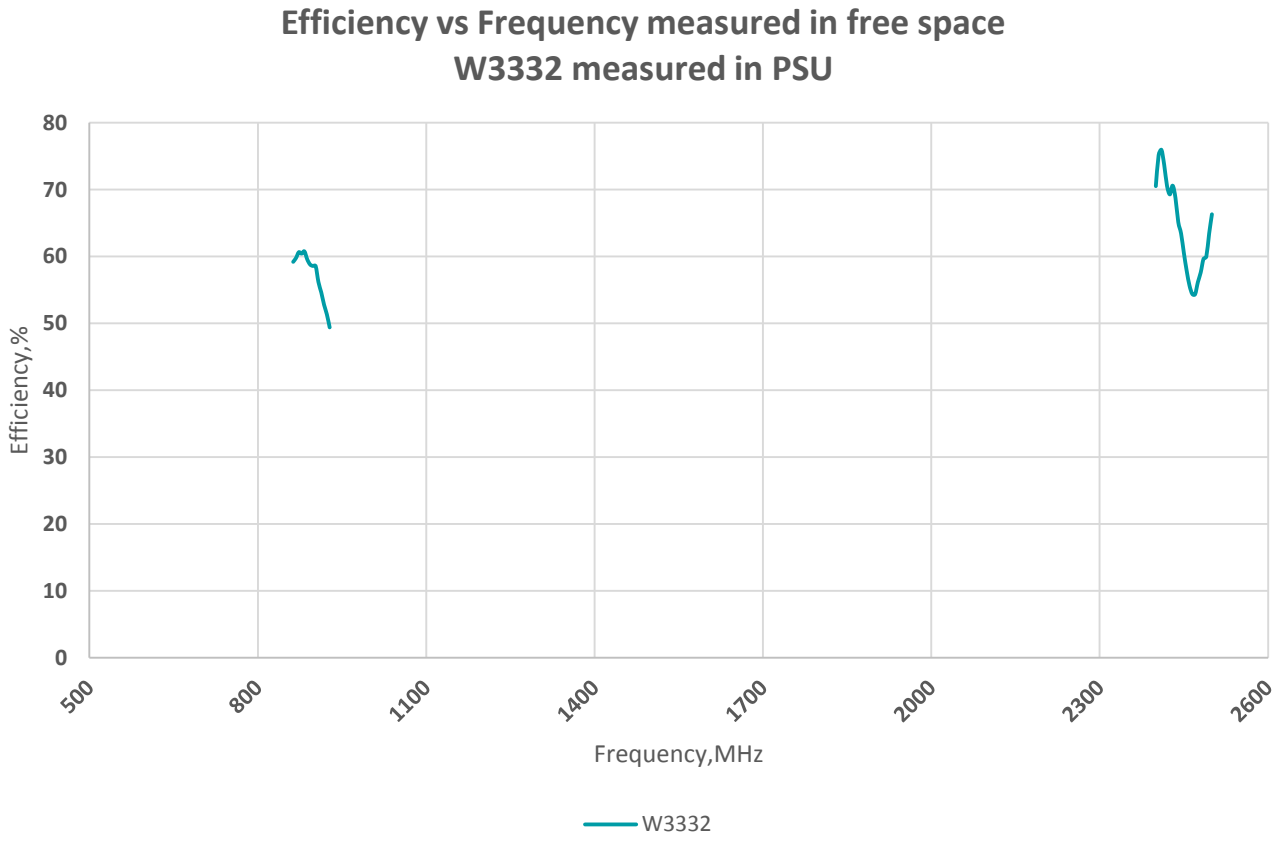
CHARTS

Efficiency



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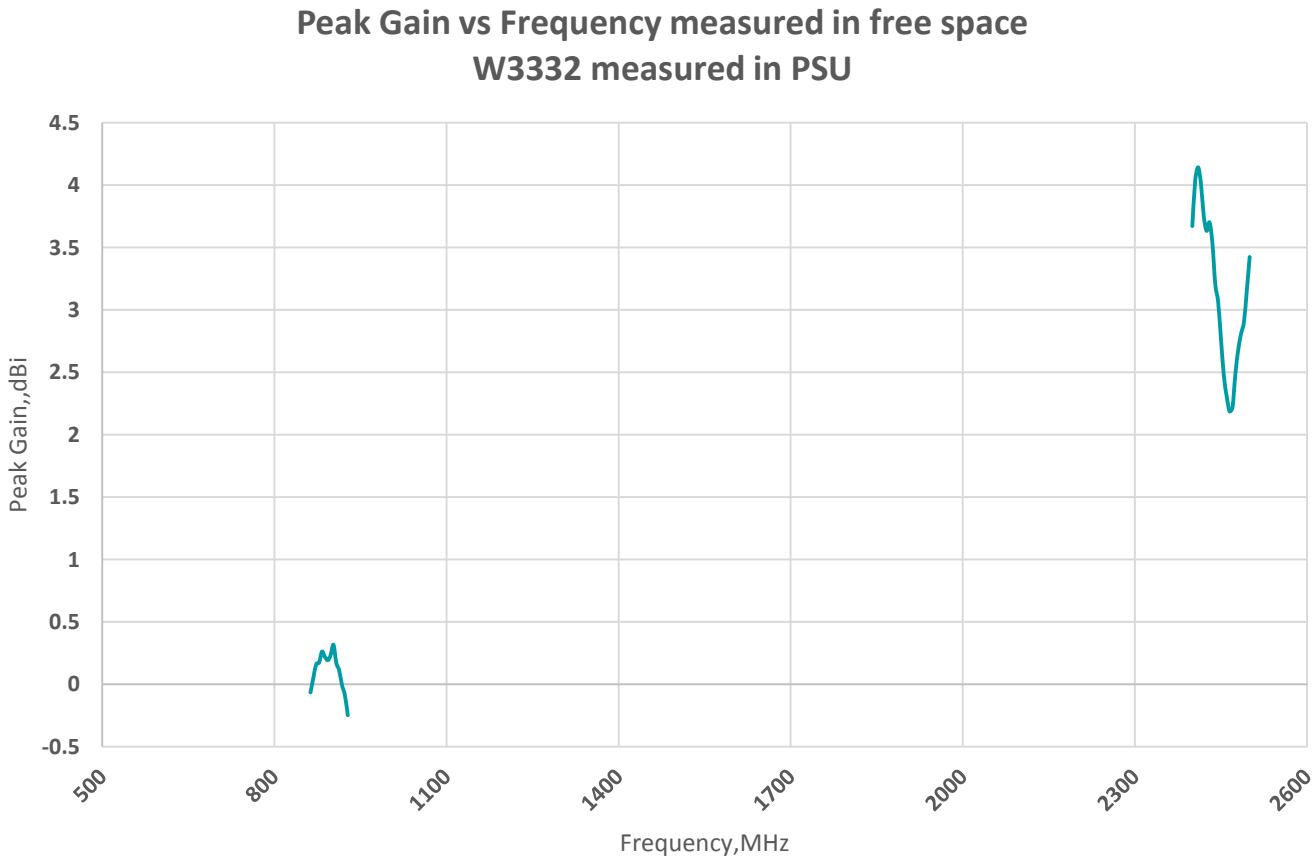
CHARTS

Peak Gain



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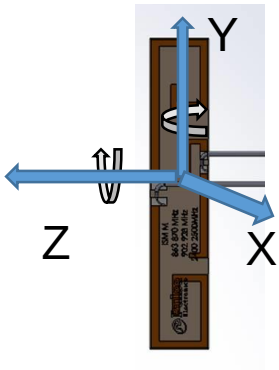
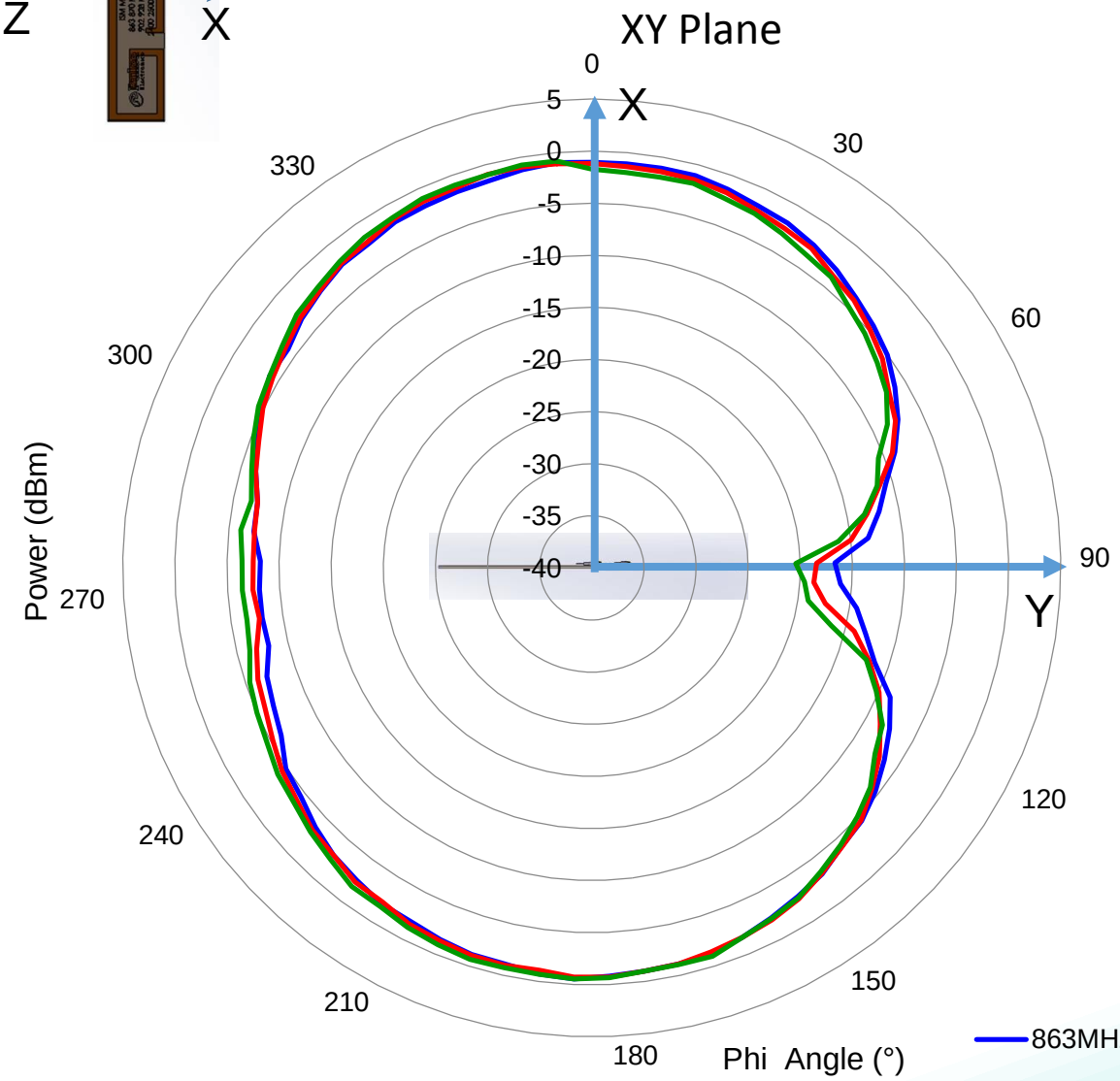


Radiation Pattern
863-928MHz



863MHz

Avg (dBi) = -4.71
Peak (dBi) = -0.52
Avg -3 (deg) = 175

902MHz

Avg (dBi) = -4.88
Peak (dBi) = -0.7
Avg -3 (deg) = 180

928MHz

Avg (dBi) = -4.91
Peak (dBi) = -0.52
Avg -3 (deg) = 175

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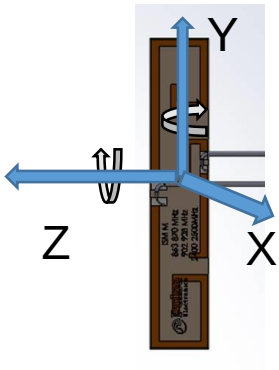

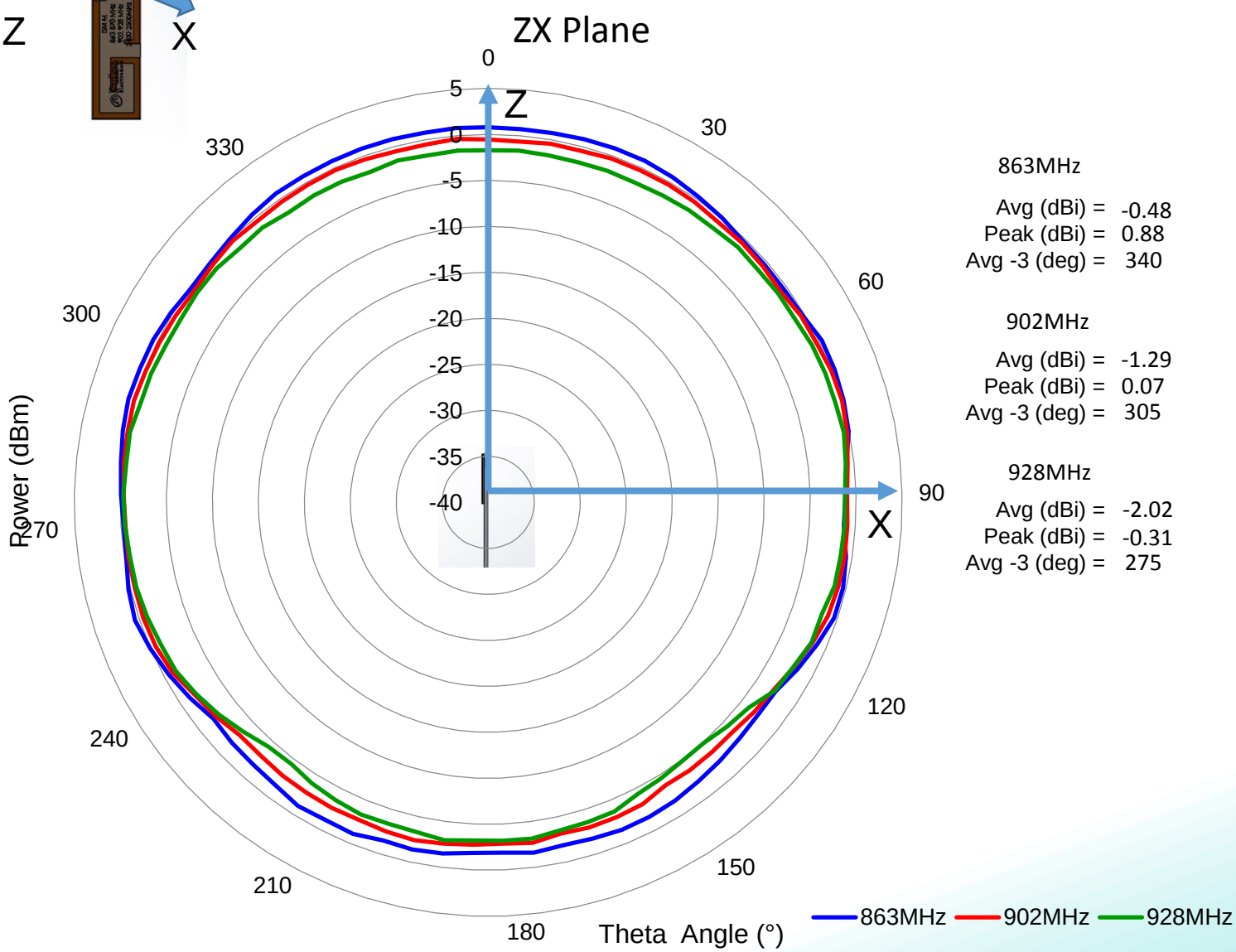

863MHz

Avg (dBi) = -0.48
Peak (dBi) = 0.88
Avg -3 (deg) = 340

902MHz

Avg (dBi) = -1.29
Peak (dBi) = 0.07
Avg -3 (deg) = 305

928MHz

Avg (dBi) = -2.02
Peak (dBi) = -0.31
Avg -3 (deg) = 275

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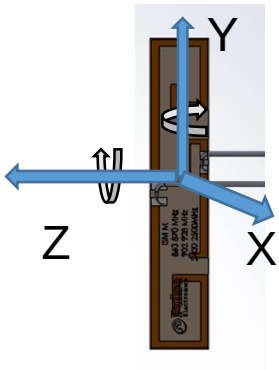
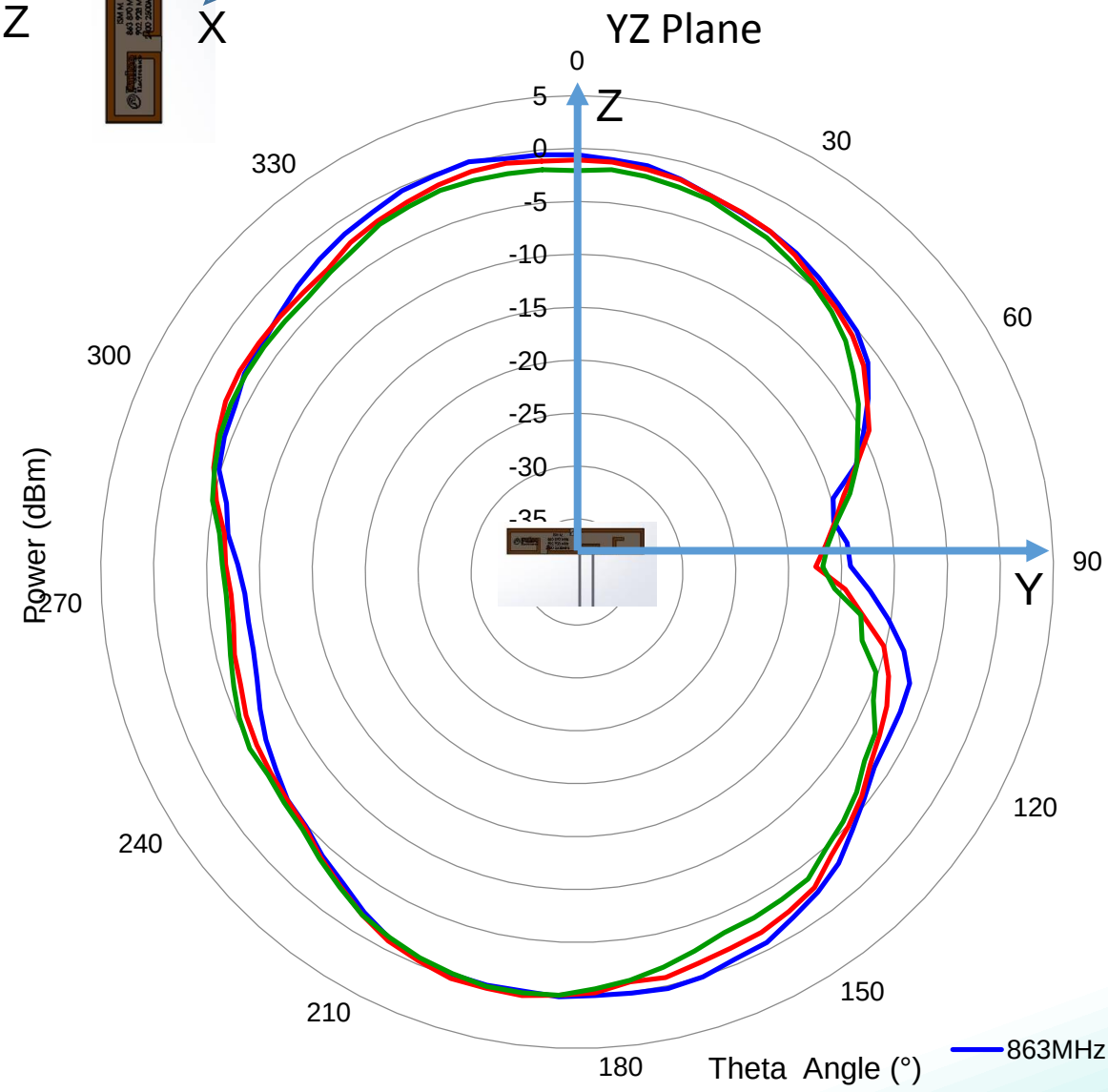
CHARTS



Radiation Pattern
863-928MHz



863MHz

Avg (dBi) = -4.40
Peak (dBi) = 0.25
Avg -3 (deg) = 145

902MHz

Avg (dBi) = -4.66
Peak (dBi) = 0.33
Avg -3 (deg) = 130

928MHz

Avg (dBi) = -5.08
Peak (dBi) = 0.08
Avg -3 (deg) = 110

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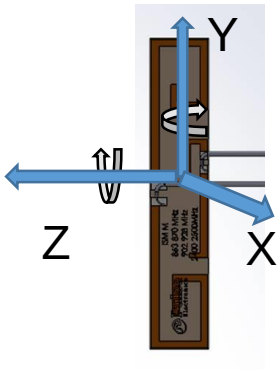
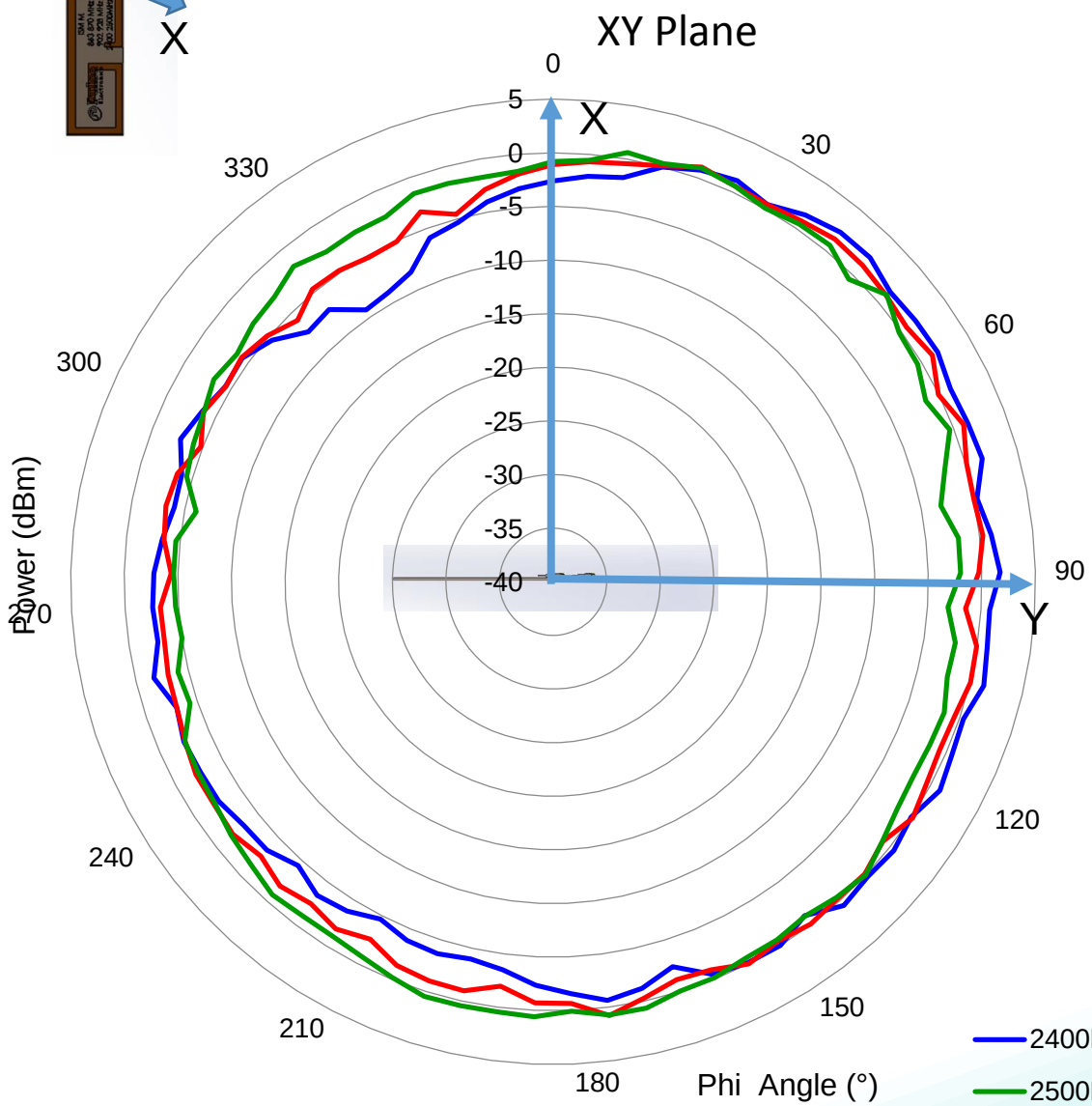
CHARTS



Radiation Pattern
2400-2500MHz



2400MHz

Avg (dBi) = -1.91
Peak (dBi) = 2.27
Avg -3 (deg) = 145

2450MHz

Avg (dBi) = -1.54
Peak (dBi) = 1.39
Avg -3 (deg) = 185

2500MHz

Avg (dBi) = -1.52
Peak (dBi) = 1.06
Avg -3 (deg) = 225

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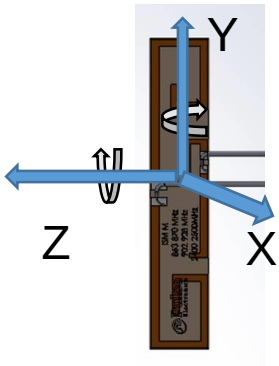
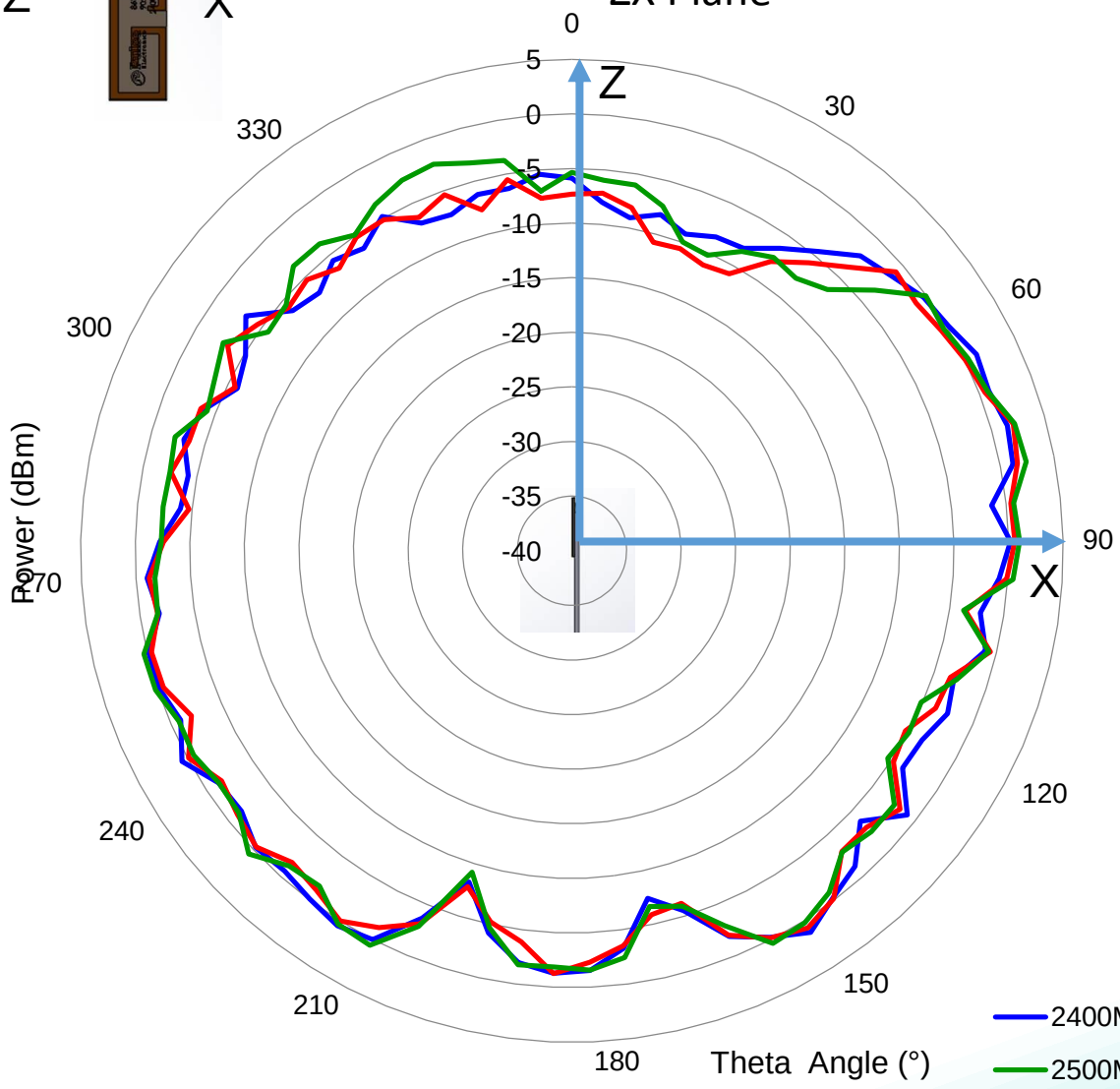
CHARTS



Radiation Pattern
2400-2500MHz



2400MHz

Avg (dBi) = -3.18
Peak (dBi) = 1.51
Avg -3 (deg) = 140

2450MHz

Avg (dBi) = -3.54
Peak (dBi) = 2.08
Avg -3 (deg) = 85

2500MHz

Avg (dBi) = -2.98
Peak (dBi) = 2.4
Avg -3 (deg) = 75

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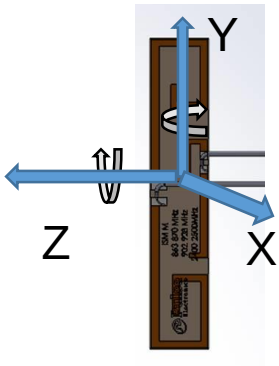

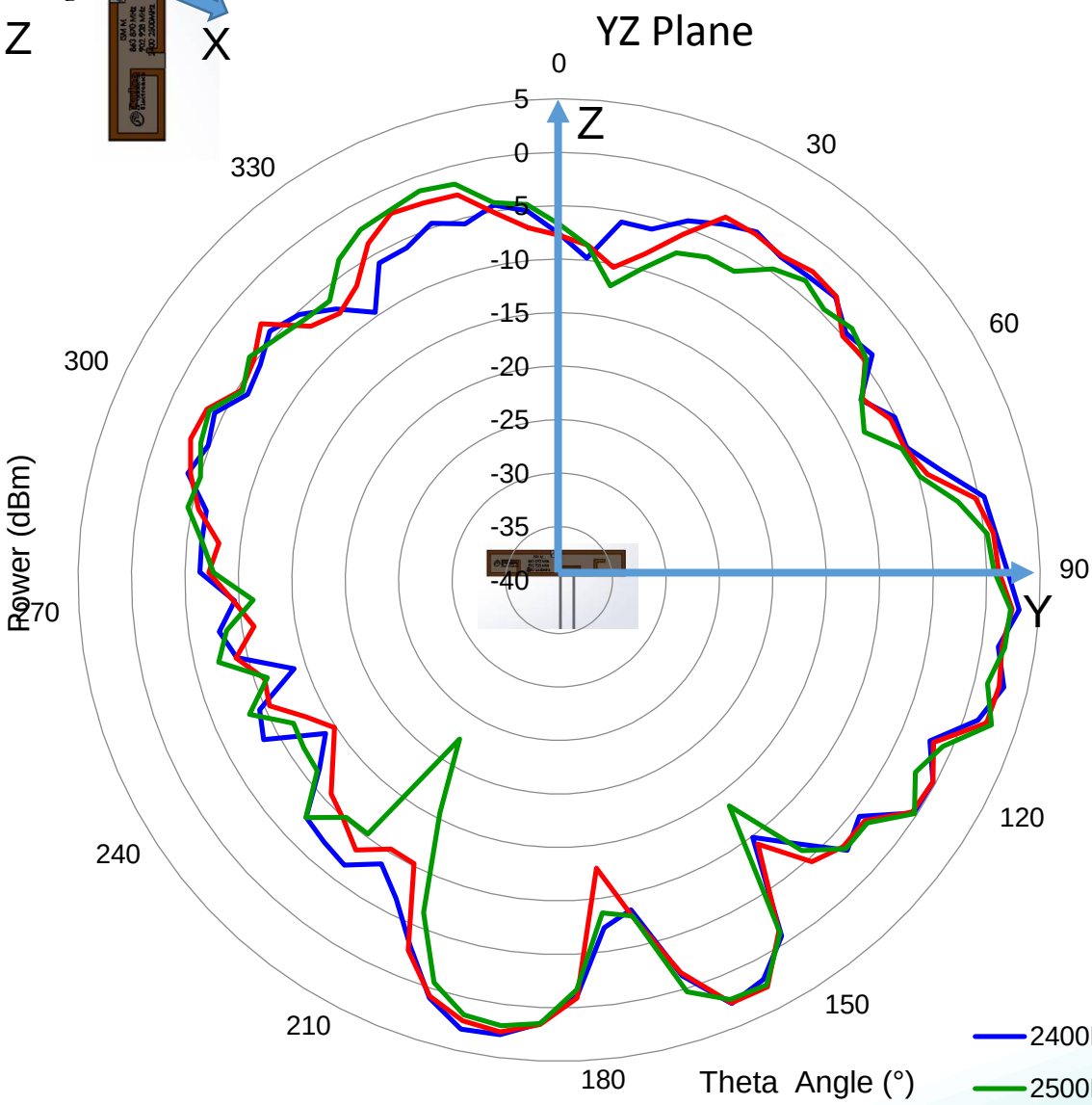

2400MHz

Avg (dBi) = -4.48
Peak (dBi) = 3.12
Avg -3 (deg) = 60

2450MHz

Avg (dBi) = -4.77
Peak (dBi) = 2.73
Avg -3 (deg) = 60

2500MHz

Avg (dBi) = -5.09
Peak (dBi) = 2.65
Avg -3 (deg) = 60

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PACKAGING

10PCS/PE bag
1000PCS/box

RoHS COMPLIANT