

Description: ISM868/915MHz, 2.4GHz Ant

Series: PCB Embedded

PART NUMBER: W3331

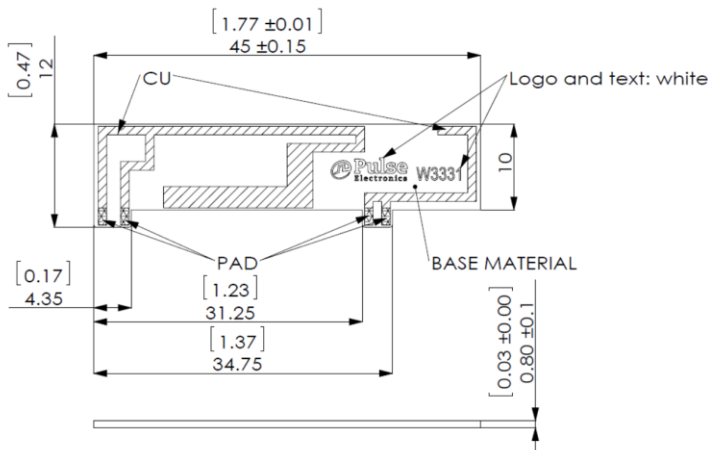


Features:

- Small clearance needed (about 4mm)
- Test PCB size 118.5\*102mm
- High efficiency
- Small compact form factor
- Low profile
- Multi-band (ISM and 2.4 GHz)
- Board Mountable
- 2 connection points
- Lead free materials
- RoHS Compliant Product

Applications:

- Data transmission for IoT applications
- High speed data terminals
- Routers using ISM frequencies
- ISM and WiFi dual applications
- Hot Spots
- Radio modules
- WiFi / BLE / Zigbee



All dimensions are in mm / inches

Issue: 1612

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Tel: 1-360-944-7551

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Herrenberg, Germany  
Tel: 49 7032 7806 0

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99 Huo Ju Road(#29 Bldg,4<sup>th</sup> Phase  
Suzhou New District  
Jiangsu Province, Suzhou 215009 PR China  
Tel: 86 512 6807 9998



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**ELECTRICAL SPECIFICATIONS**

Frequency port1	863-928MHz
Frequency port2	2400-2500MHz
Nominal Impedance	50Ω
Return Loss	-6dB max@ISM868/915MHz -12dB max@ISM2.4GHz
Isolation between port1& port2	-15dB
Average efficiency	65% @ISM868/915MHz 75%@ISM2.4GHz
Gain	2 +/- 1 dBi@ISM868/915MHz 3.5 +/- 1 dBi@ISM2.4GHz
Radiation Pattern	Omni
Polarization:	linear
Power withstanding	3W

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PART NUMBER: **W3331****MECHANICAL SPECIFICATIONS**

PCB material	FR4
Color	Black
Weight	0.75g
Overall Length	1.77 INCHES
Overall width	0.47 INCHES

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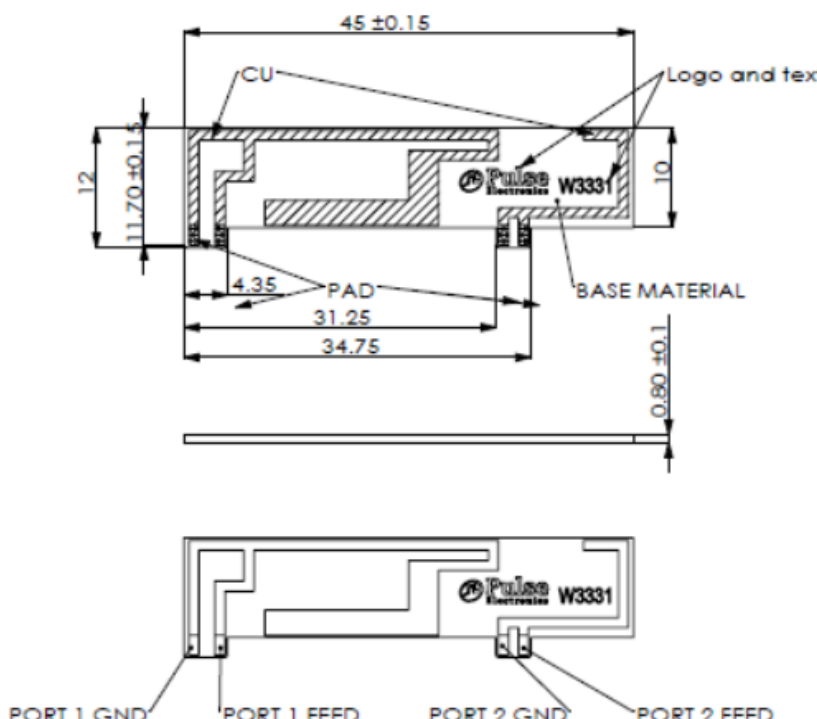
MECHANICAL DRAWING

Mod	Explication
11	ADD PORT DESCRIPTION
10	CLASS A RELEASE

Functional Characteristic key:  
Process capability studies required, total 1 pcs.  
Process capability studies required and ongoing statistical process control required, total 0 pcs.



No recycling plastics allowed to use.

Please follow Pulse Limits of hazardous substances (RoHS, halogens) in the document "Pulse Hazardous Substances (HS) Limits" and "Vendor Survey Questionnaire, Material Composition (LOM-SAF-10040)"



**Notes:**

1. Material: FR4, thickness 0.8mm.
2. Copper 0.5Oz, plating Ni 2-4 um min., Au immersion 0.05um min.
3. Logo and text on silkscreen layer, white
4. Visual quality according to PGS.030.000 Class III.
5. On PWB outline the maximum burr is 0,2mm.
6. Solder mask must be black.
7. Immersion GOLD+ Openings in solder mask.
8. All numbered dimenions must be measured and data collected.

 Pulse Finland Oy Takajantie 6 P0440 Kempele, Finland Tel: +358 207 935 500 Fax: +358 207 935 501 www.pulseelectronics.com/antennas		Sheet number	1/1		
	2:1 (A4)	General Tolerance	ISO-2768-f		
Product(s)	W3331	Customer number	11	19-Jul-16	WinZhu
Item Name	PCB	Drawn	WinZhu	26-Jan-16	01 06-Apr-16 WinZhu
		Chkd			0.4 22-Mar-16 WinZhu
		Apprd			0.3 09-Mar-16 WinZhu
		Document number	W3331	Part Version	0.2 24-Feb-16 WinZhu
				Document Version	0.1 26-Jan-16 WinZhu
				Mod	Date Name

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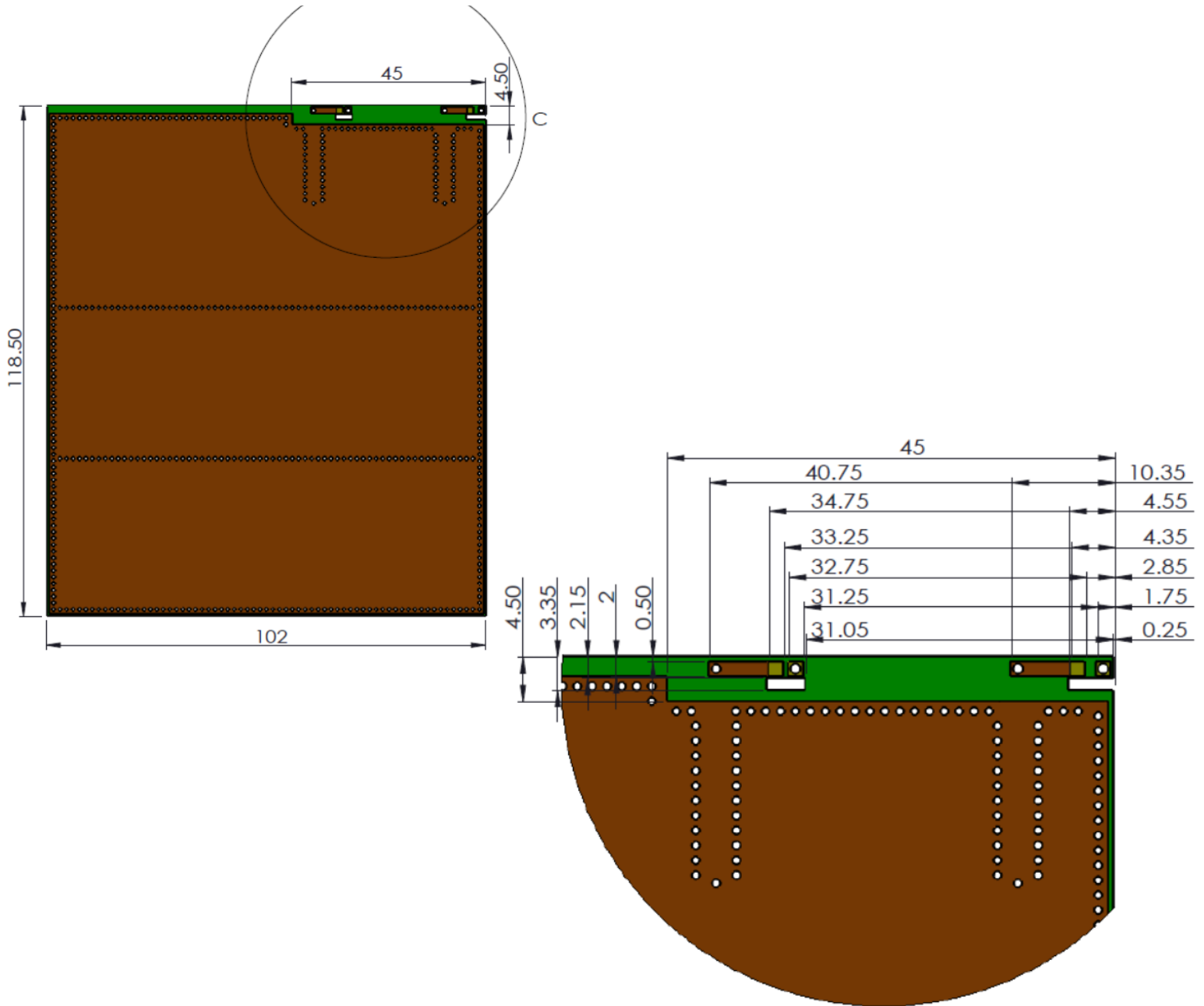
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OTHER SPECIFICATIONS

Recommended PCB layout(Unit:mm)



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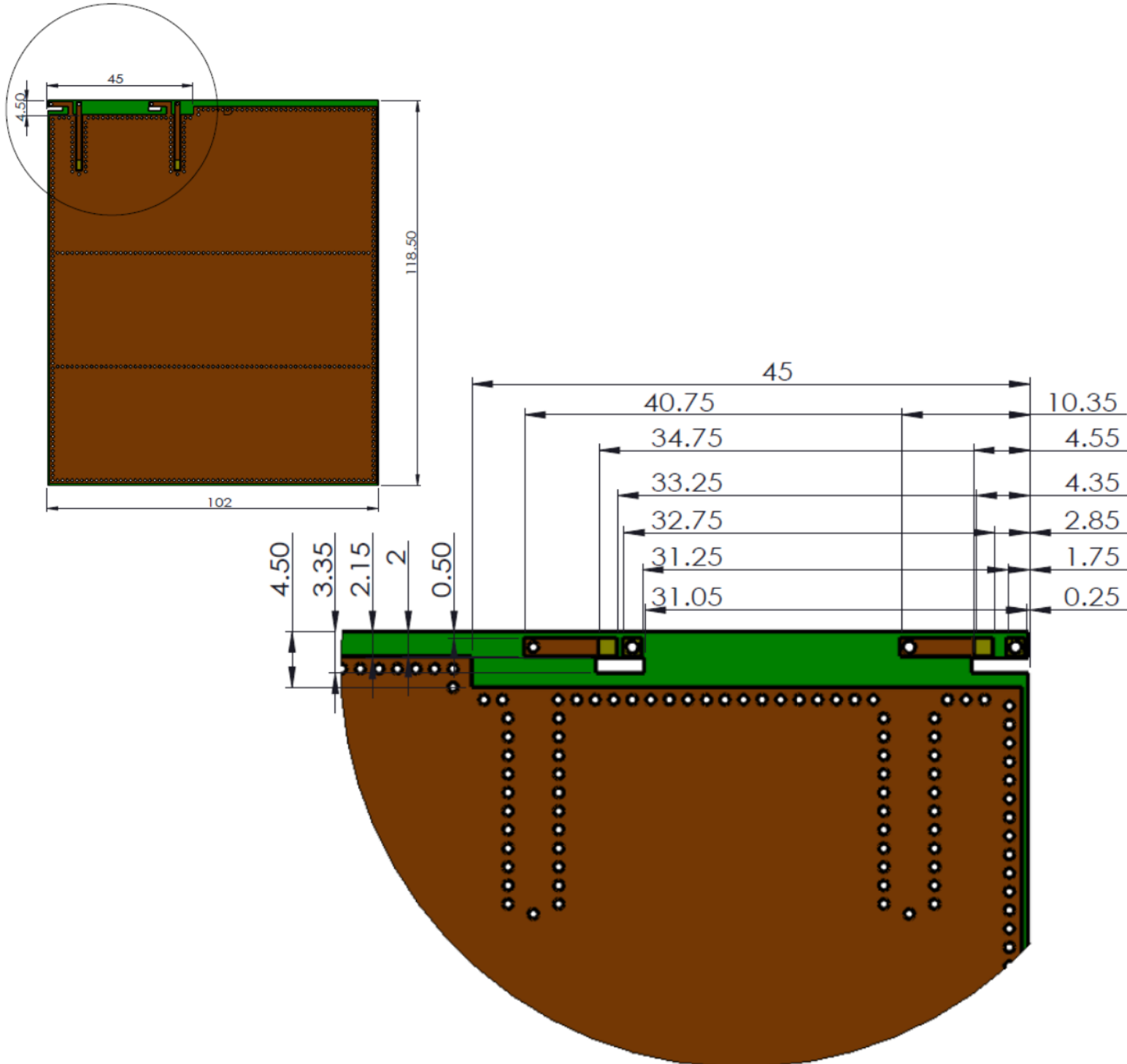
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OTHER SPECIFICATIONS



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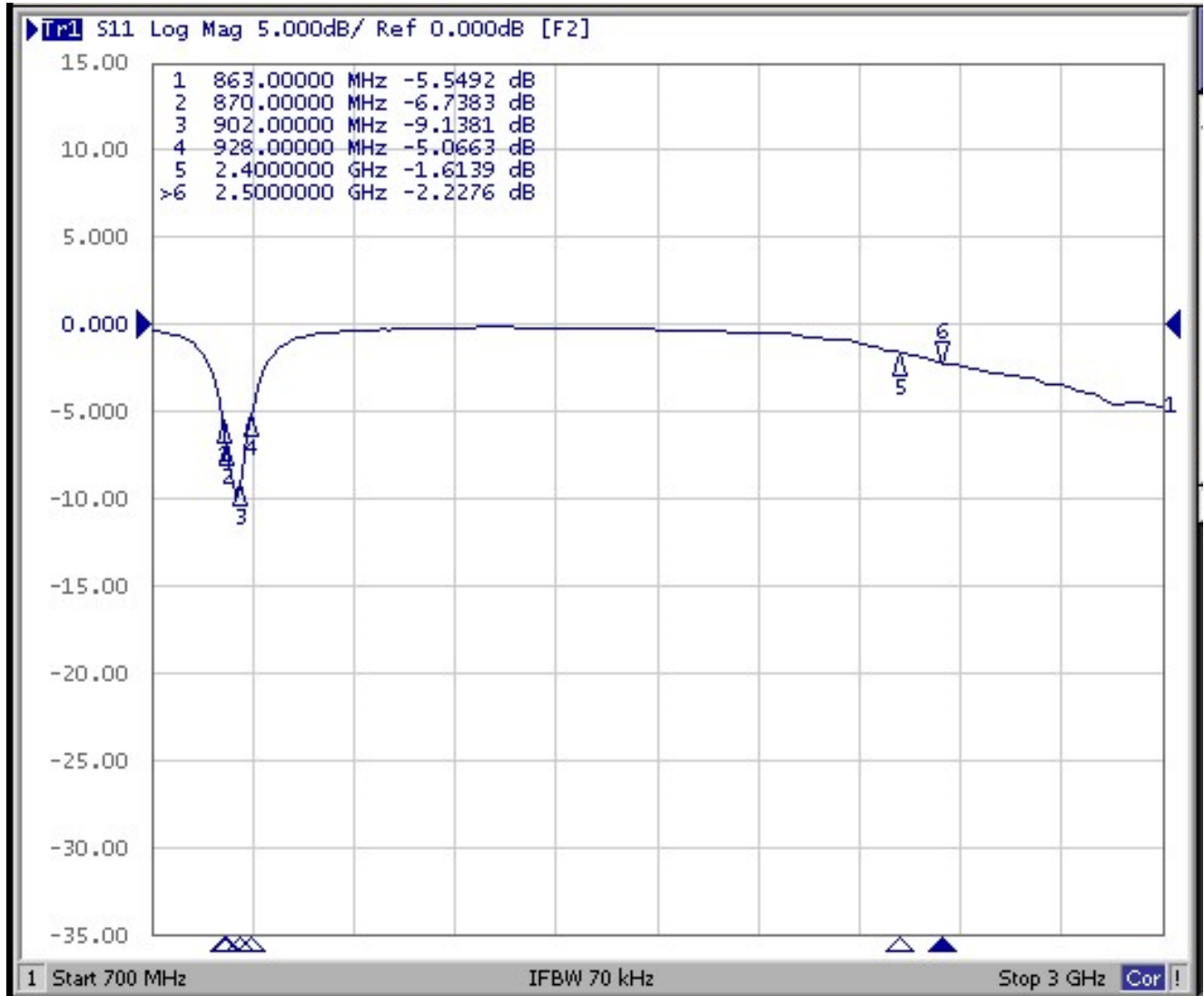
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CHARTS

ISM868/915MHz band Return Loss



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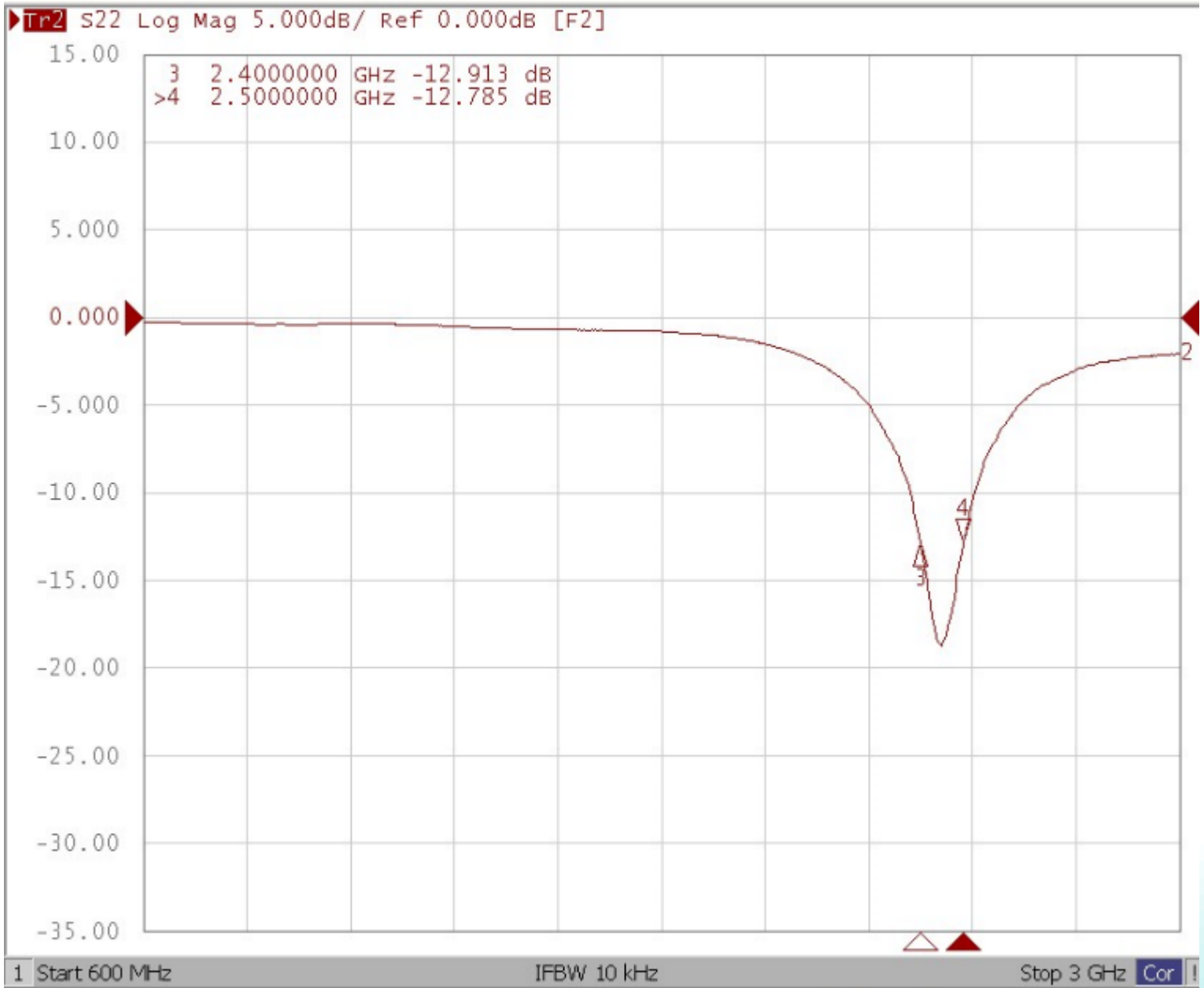
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CHARTS

ISM2.4GHz Return Loss



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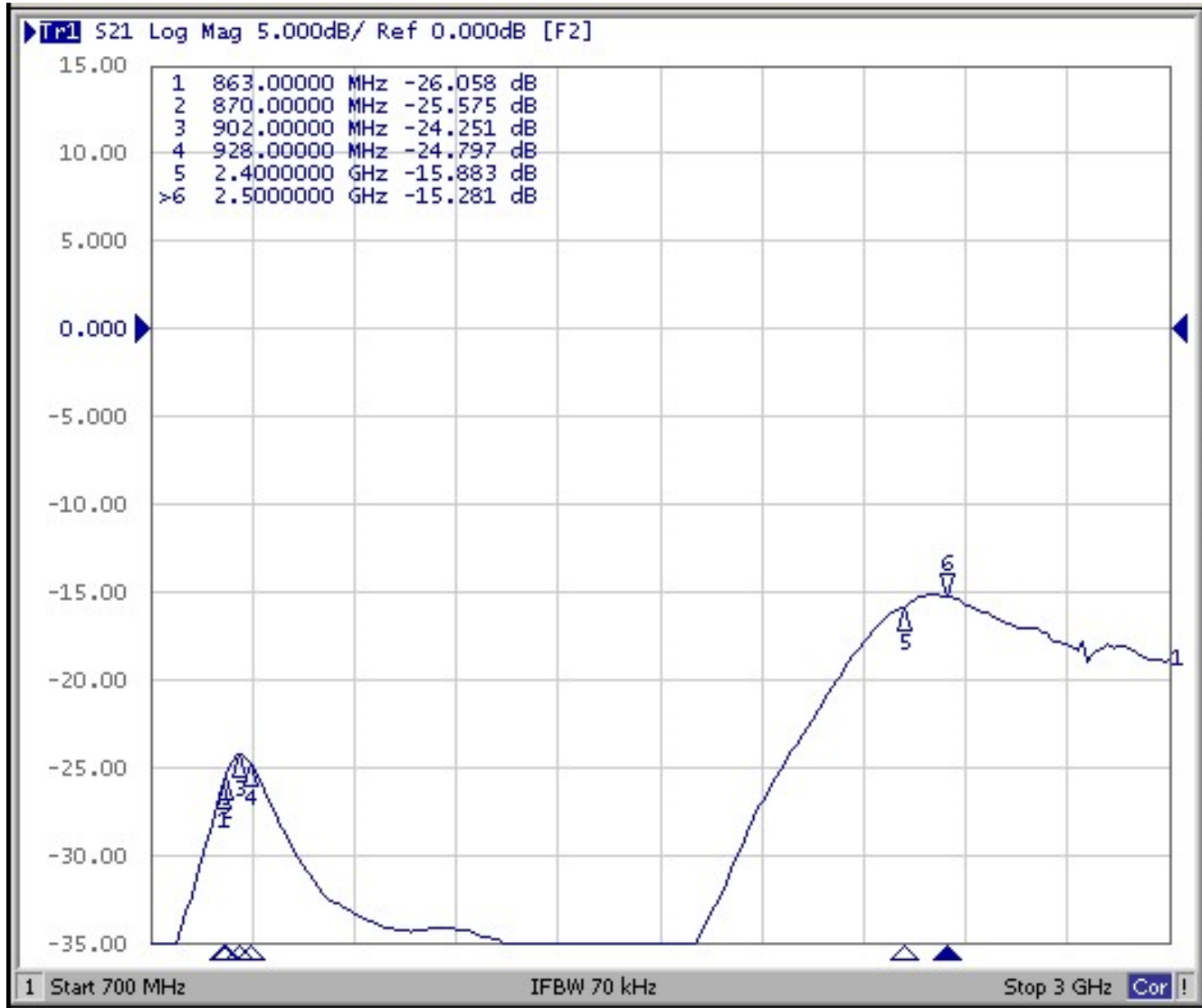
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CHARTS

Isolation



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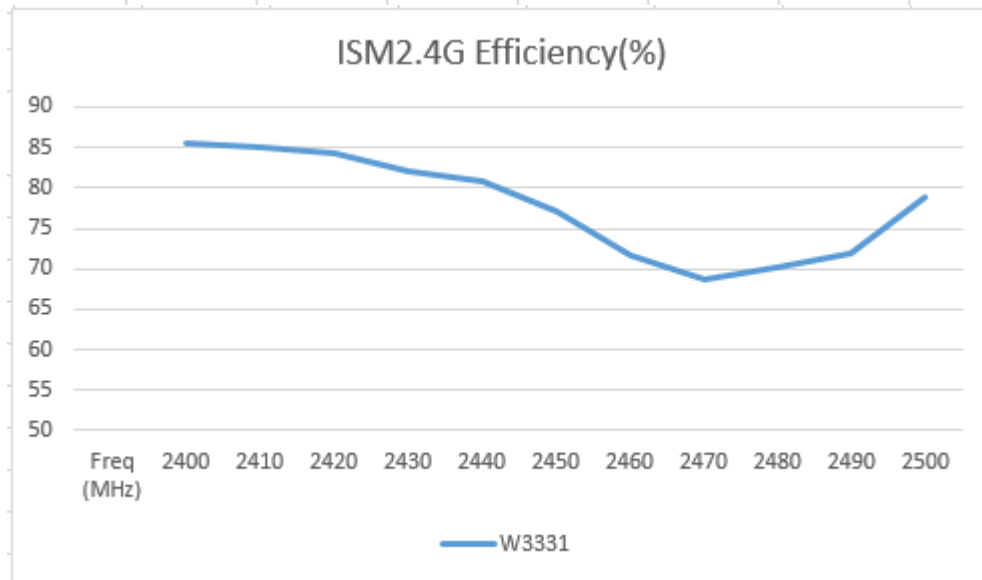
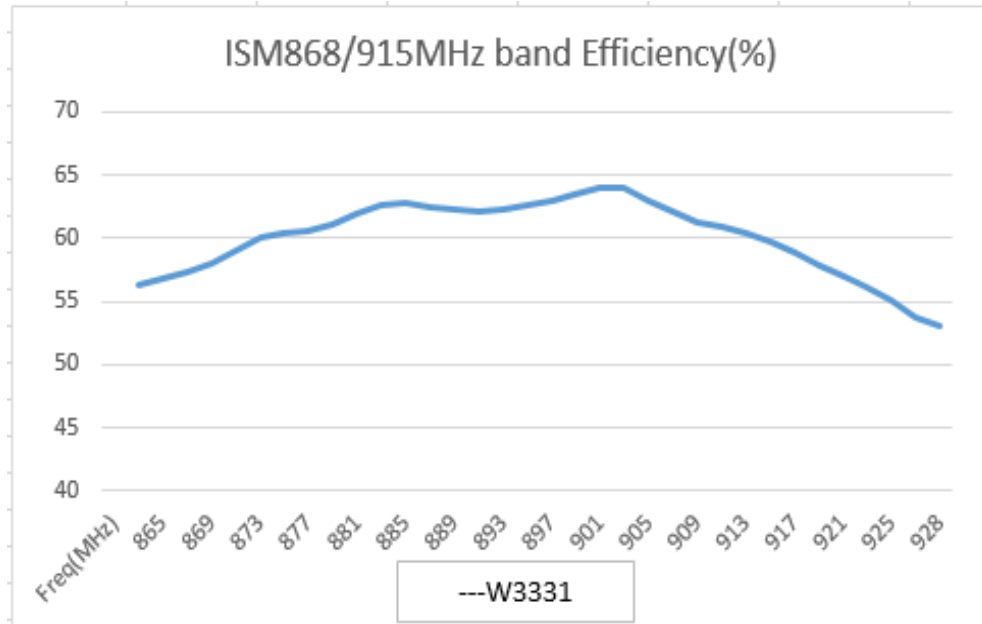
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CHARTS

Efficiency(%)



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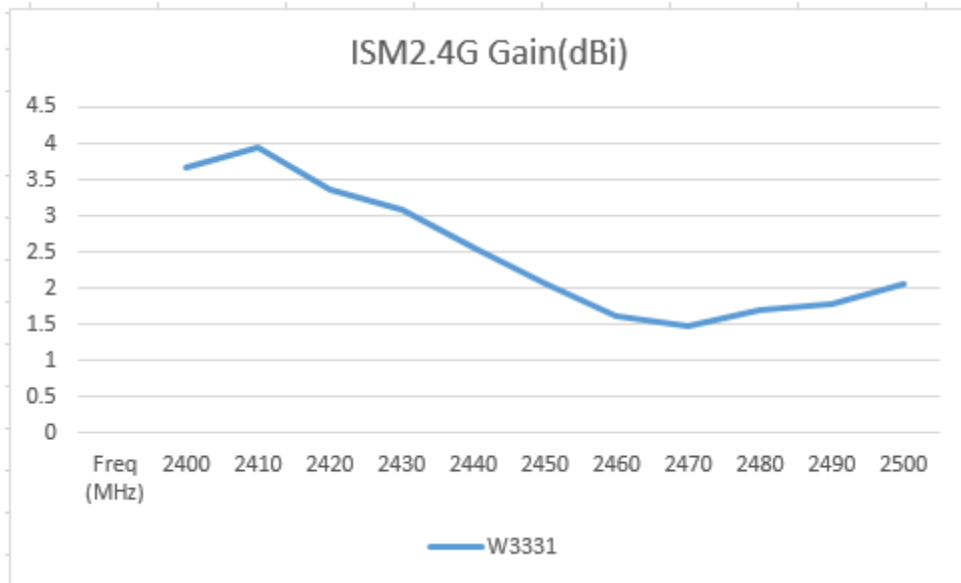
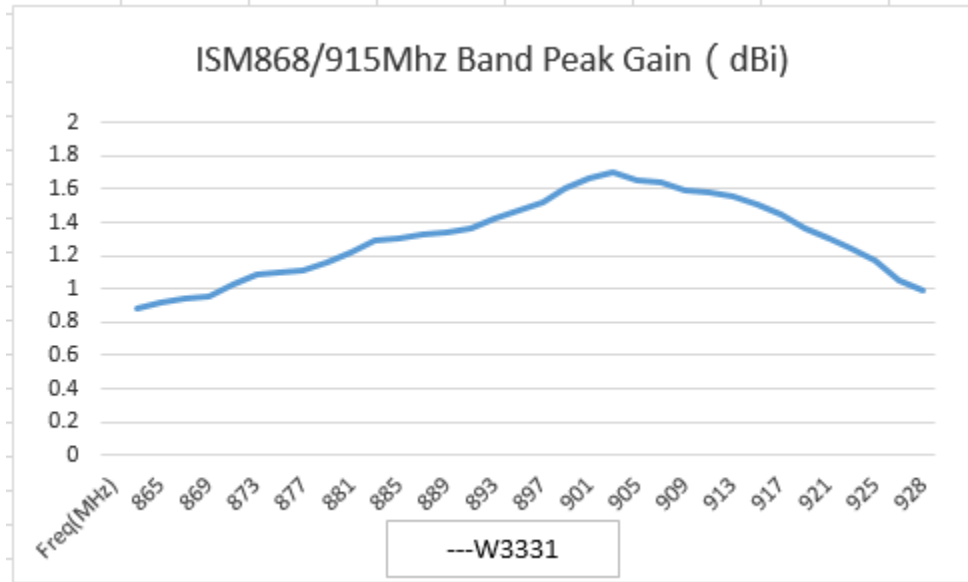
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CHARTS

Peak Gain ( dBi)



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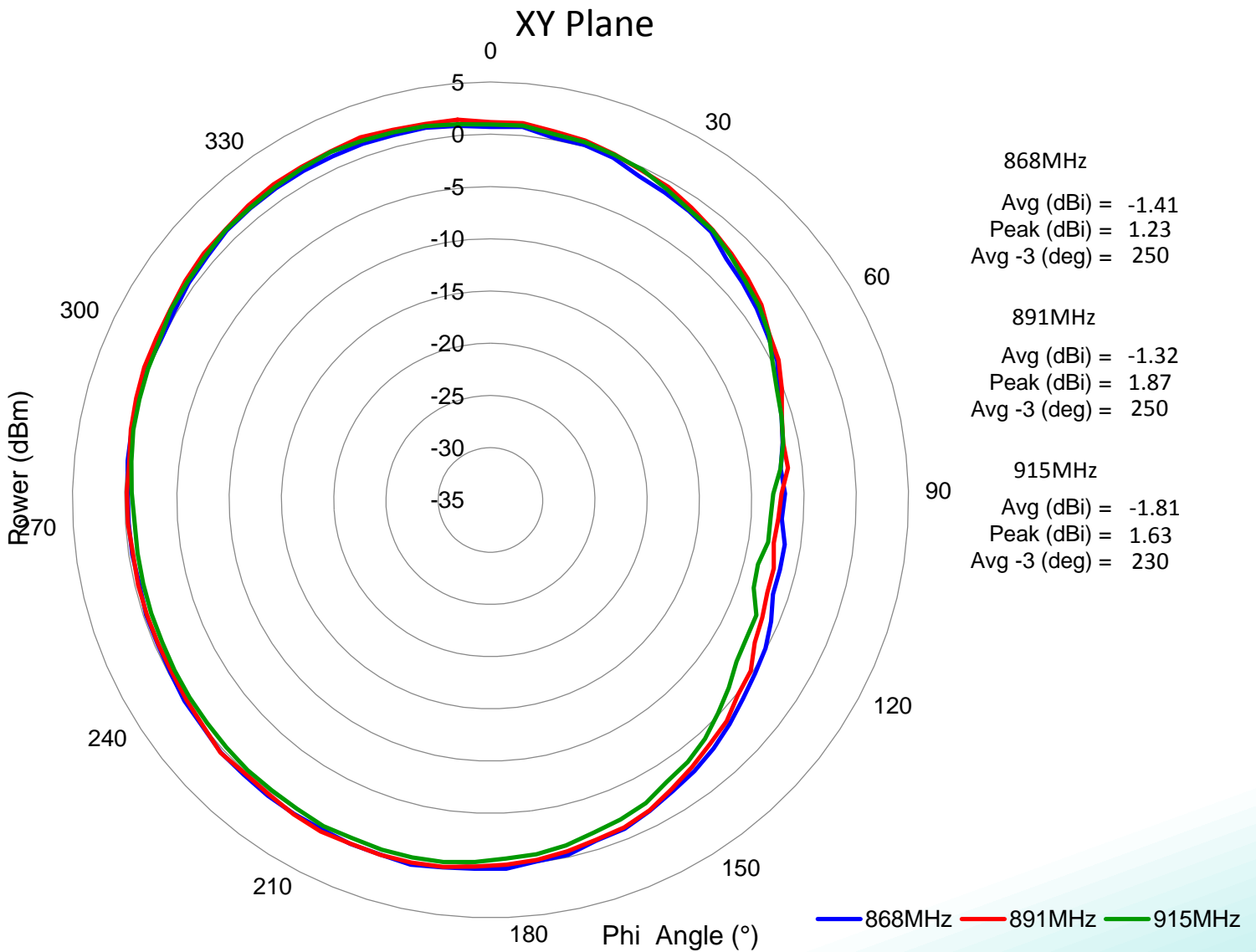
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CHARTS

Typical free space radiation pattern  
ISM868/915MHz  
X-Y plane



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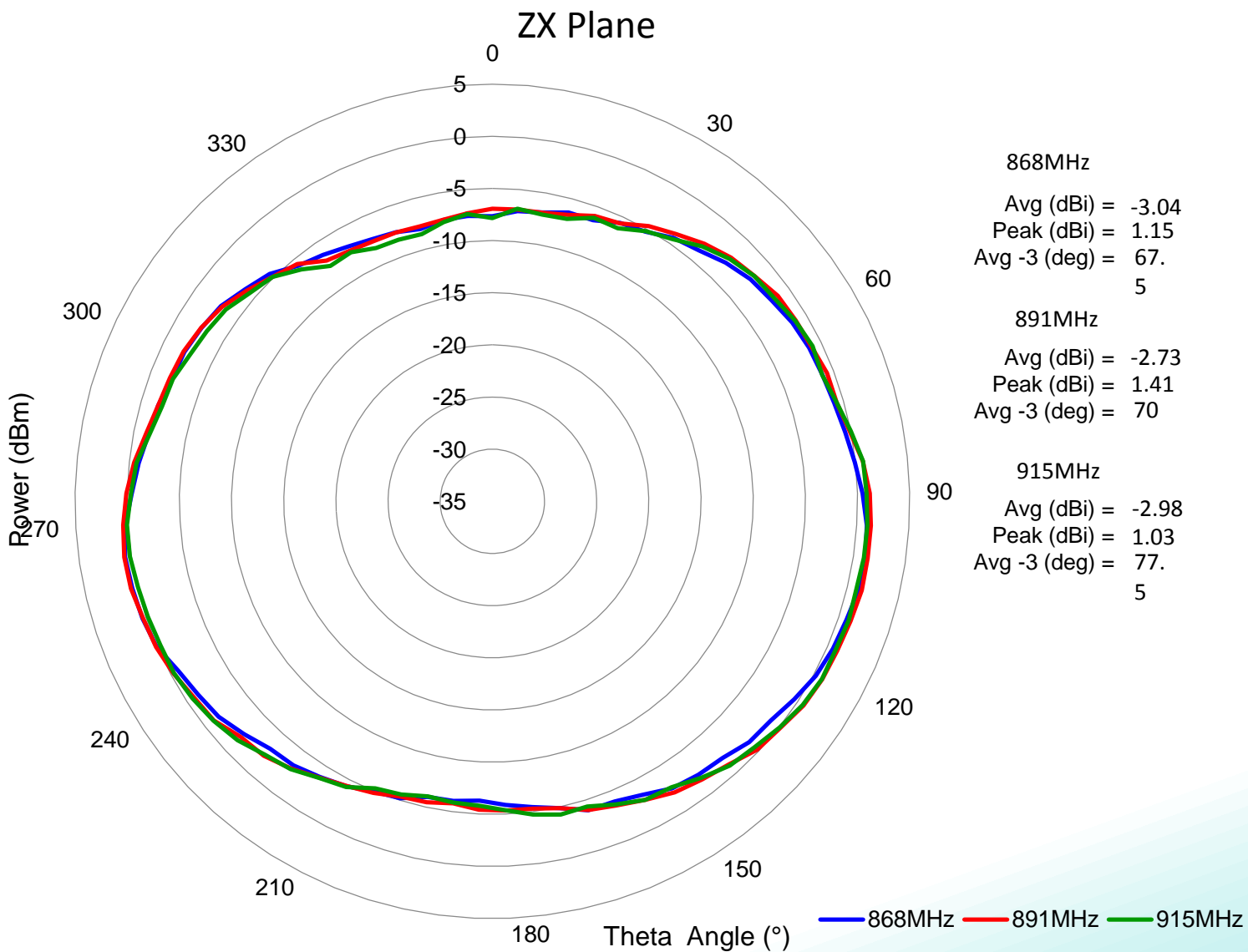
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CHARTS

Typical free space radiation pattern  
ISM868/915MHz  
Z-X plane



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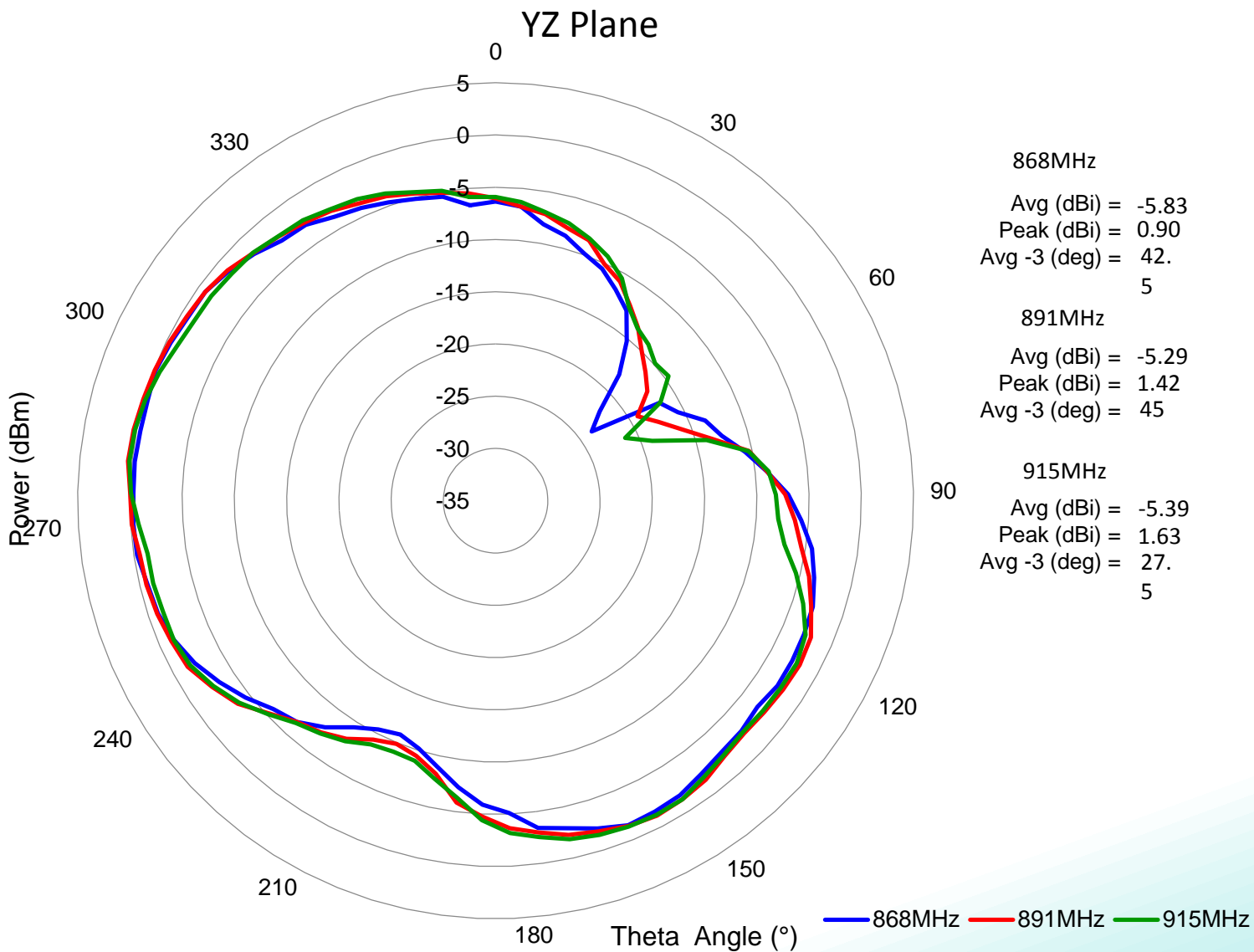
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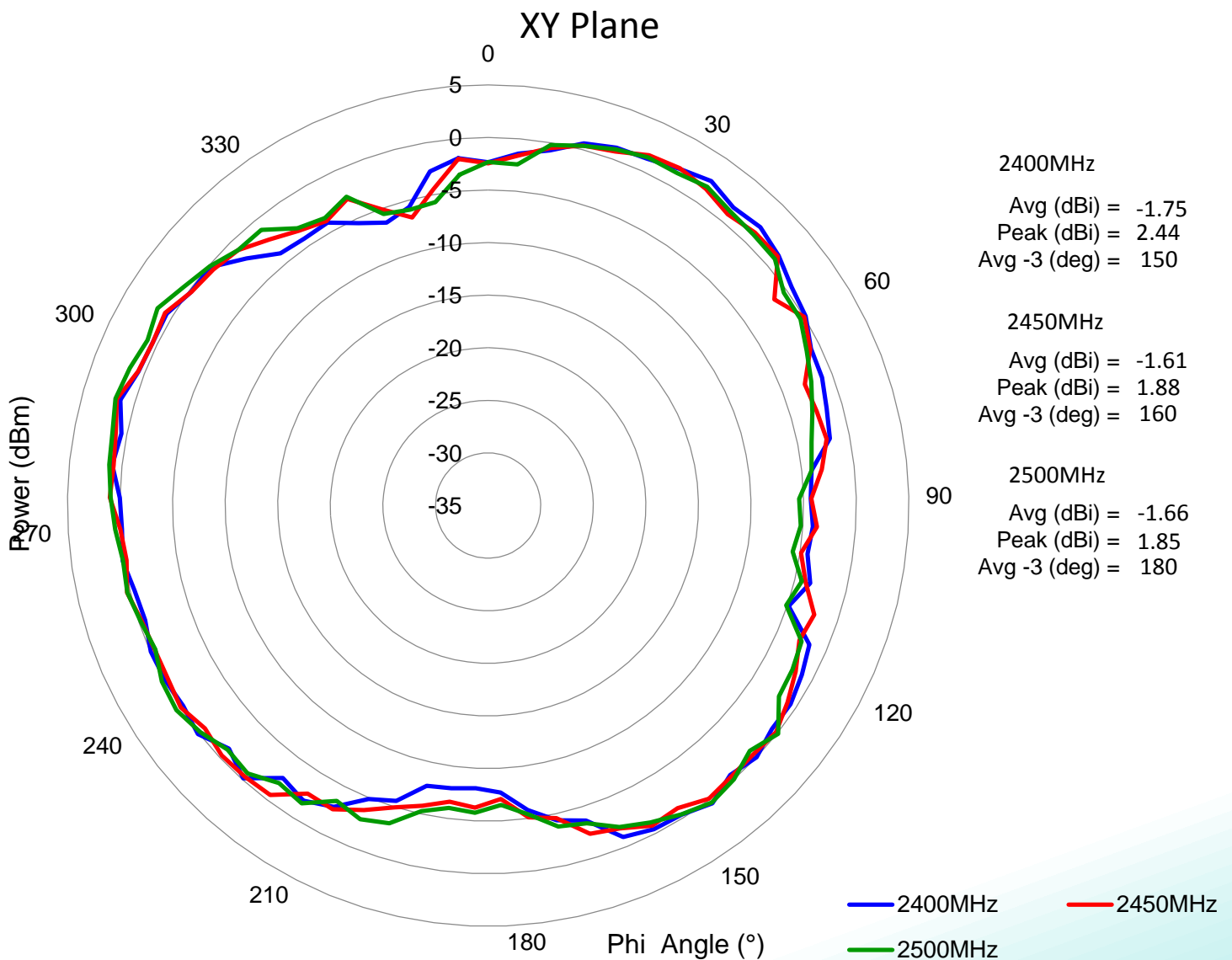
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CHARTS

Typical free space radiation pattern  
ISM2.4GHz  
X-Y plane



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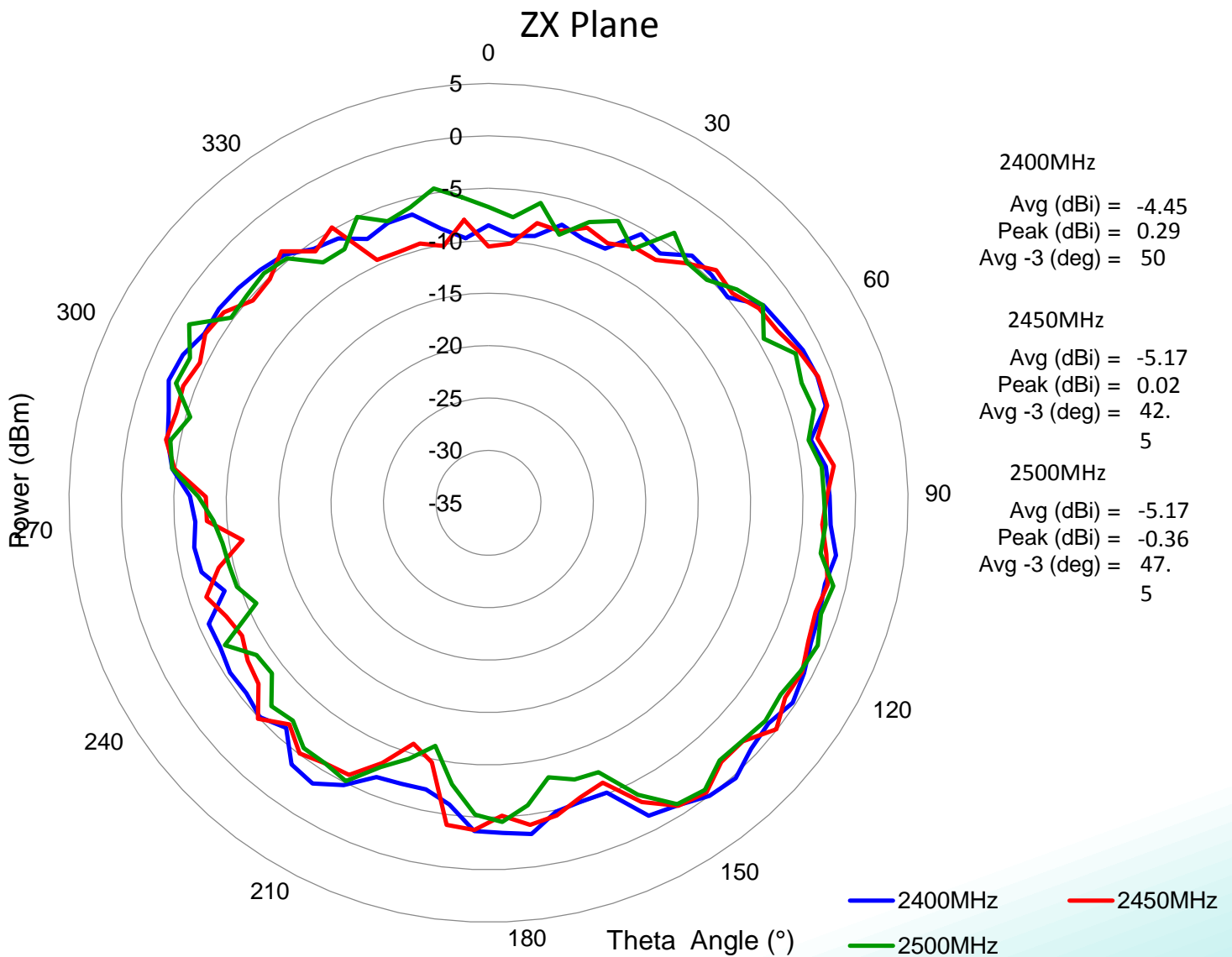
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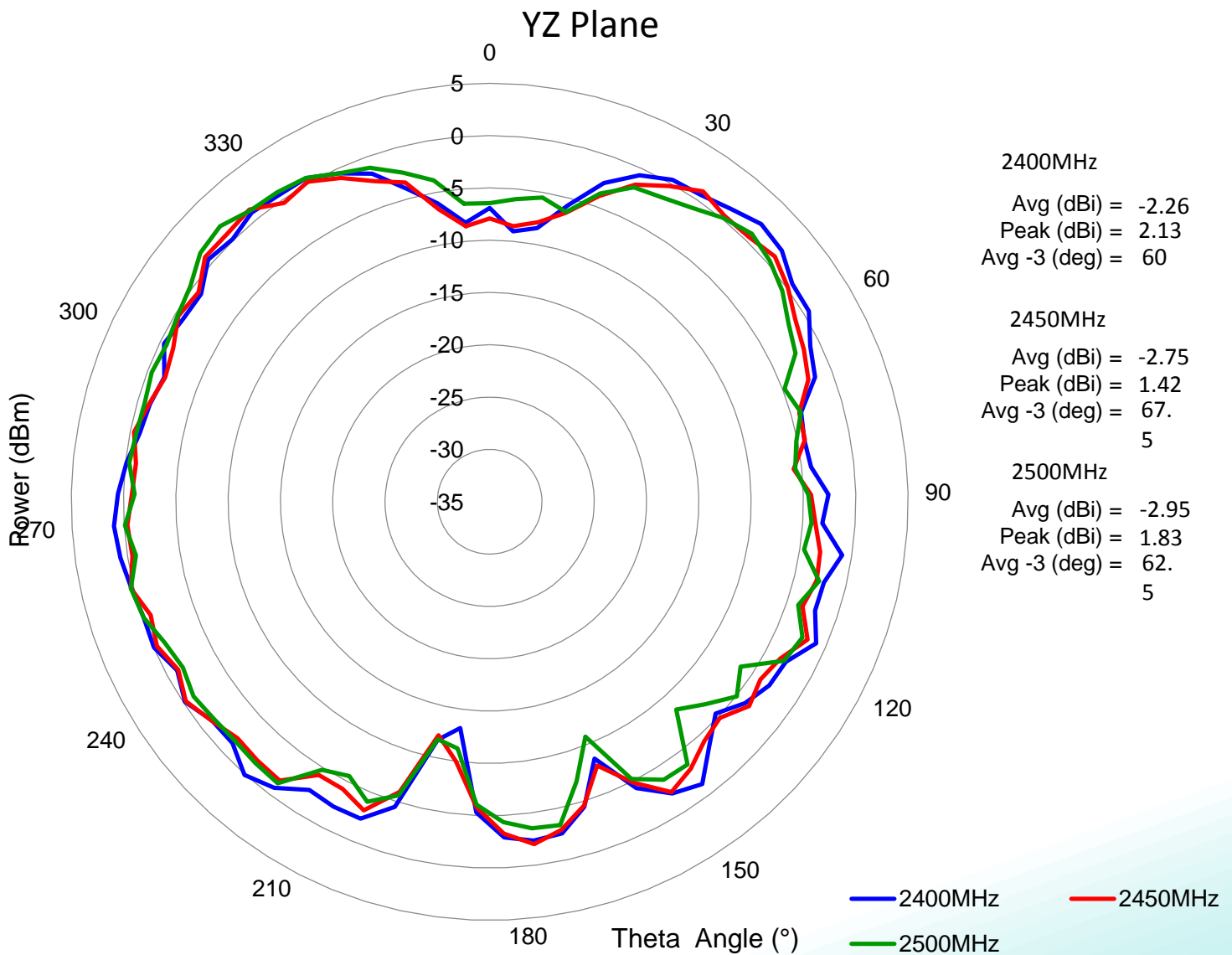
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## PACKAGING

10PCS/PE bag

1000PCS/box

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