

**Description:** ISM 868/915MHz PCB Antenna  
with coax feed

**Series:** Internal Antenna

**PART NUMBER:** W3312XXXXXX



**Features:**

- 863-928MHz
- Size 75x15 mm
- Flexible PCB thickness 0.1 mm with adhesive tape
- Mounting with 3M467 adhesive tape on back side
- 100mm 1.13mm OD coax cable with U.FL connector



**Applications:**

- Devices with ISM 868MHz / 915MHz radios
- M2M, IoT
- Metering, Industry automation
- Instrumentation

All dimensions are in mm / inches

**Issue: 1912**

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## ELECTRINIC SPECIFICATIONS

Frequency	863-928	MHz
Nominal Impedance	50	$\Omega$
Return loss	-8	dB
Efficiency	45	%
Peak Gain	0.8	dBi +/- 1 dB
Polarization:	linear	
Power withstanding	2	W

Note: All RF data measured with 1.5mm polycarbonate plate to simulate loading effect of real device housing.

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This document covers all product variants of the following product family

Antennas	Color	Connector
W3312B0100	Green	1.13mm OD coax cable with U.FL connector
W3312BB0100	BLACK	

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### MECHANICAL SPECIFICATIONS

PCB type	Flexible
Radiator size	15[0.59] x 75[2.95] mm[inch]
Adhesive	3M467
Total thickness (Radiator+adhesive)	0.1[0.004] mm[inch]
Weight	0.74g
Cable type	OD 1.13mm coax
Cable length	100[3.94] mm[inch]
Connector	U.FL compatible

### ENVIRONMENTAL SPECIFICATIONS

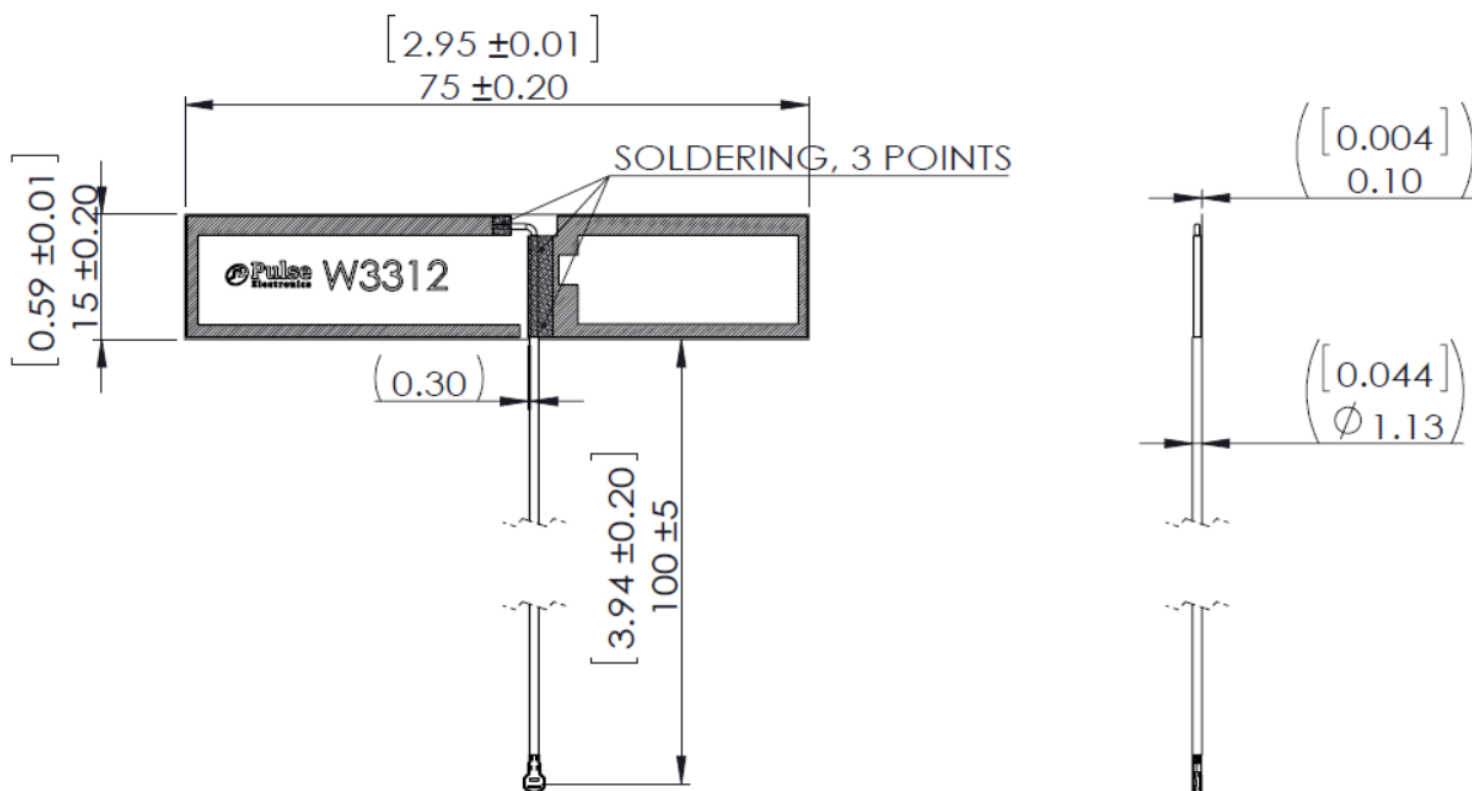
Operating temperature	-40/+85 ° C
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**MECHANICAL DRAWING**



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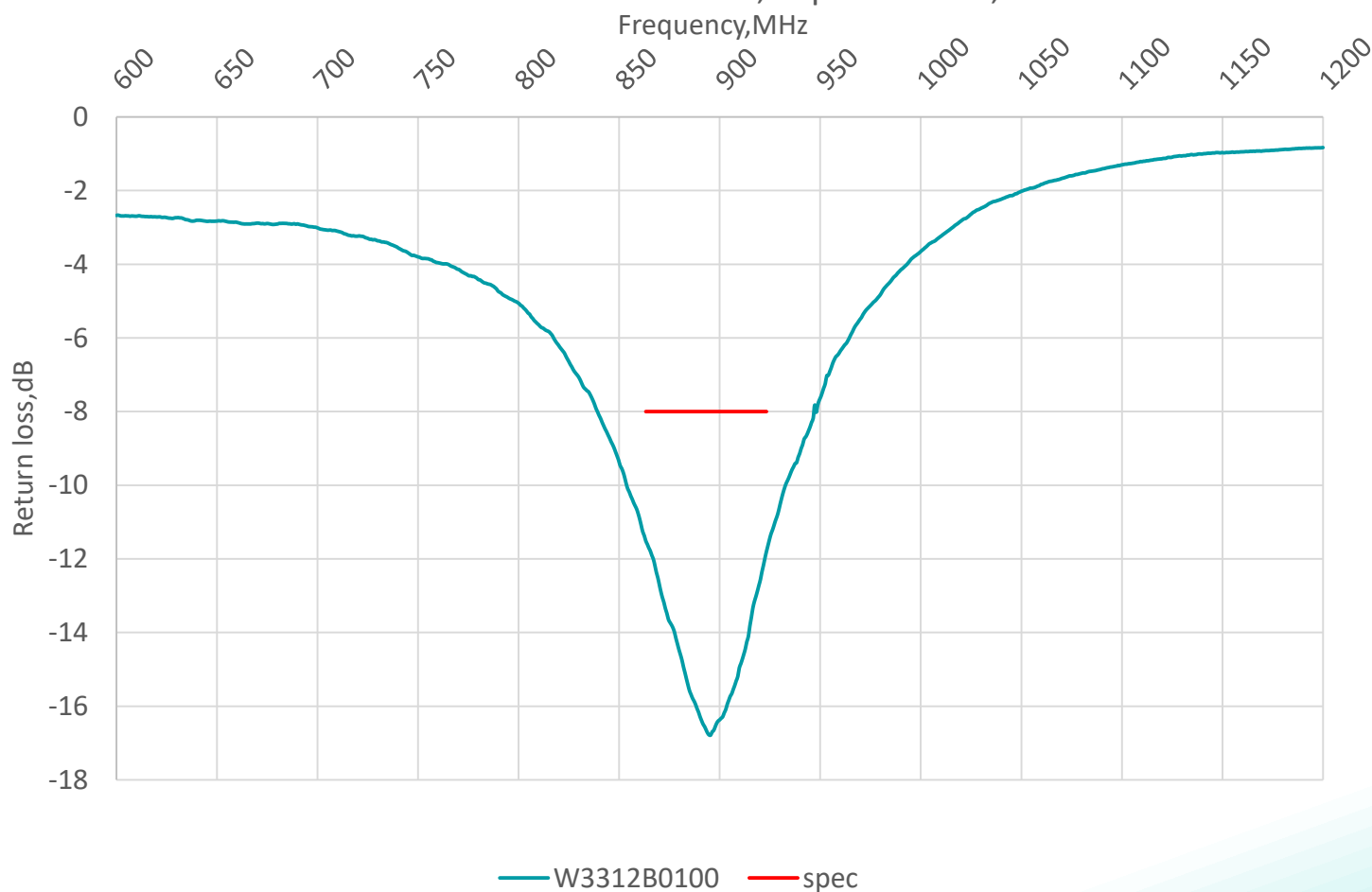
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## CHARTS

### Return loss

Return loss vs Frequency measured with 1.5mm polycarbonate plate  
W3312B0100 measured in PSU , September 18,2016



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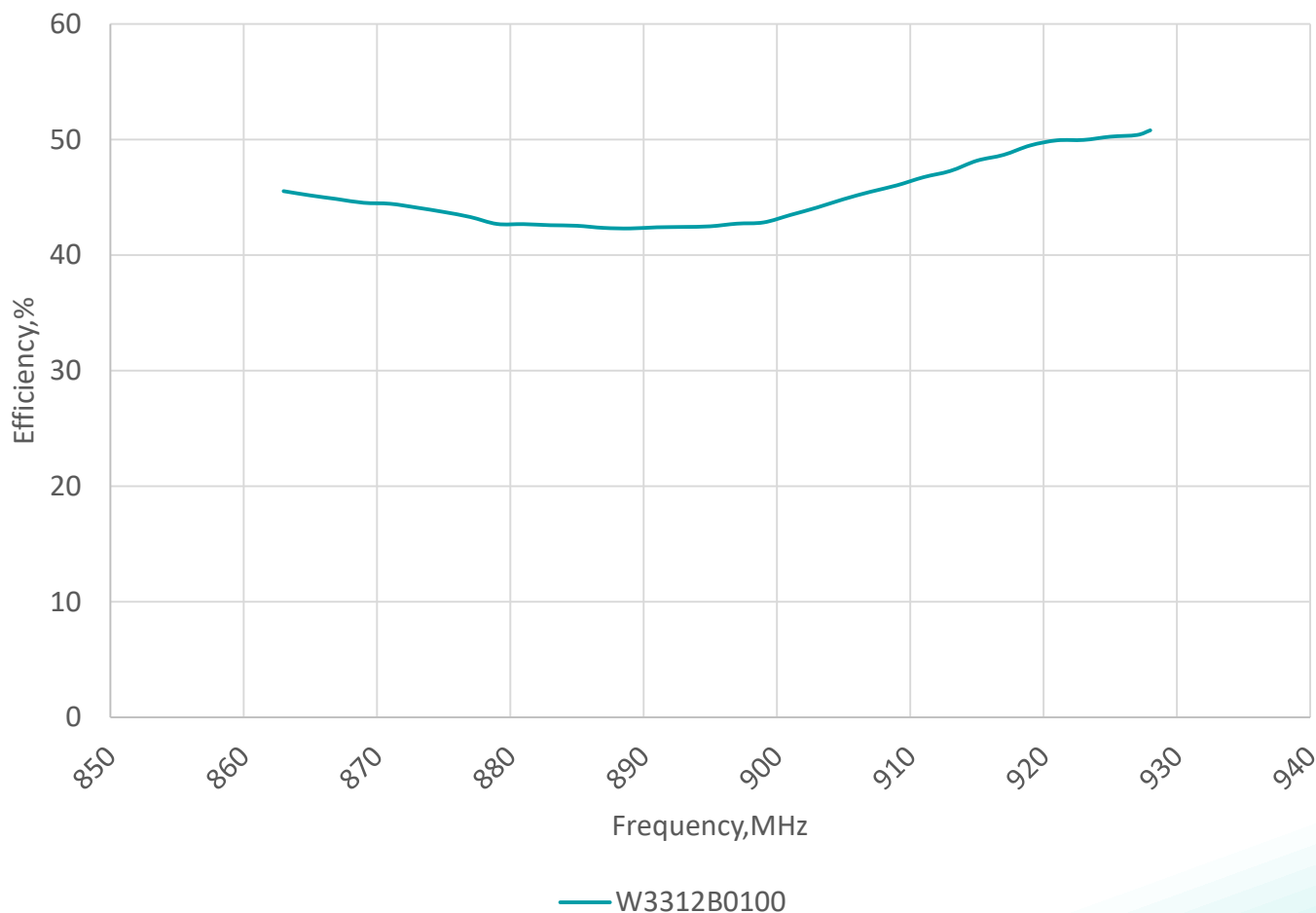
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## CHARTS

### Efficiency

Efficiency vs Frequency measured with 1.5mm polycarbonate plate  
W3312B0100 measured in PSU ,September 18,2016



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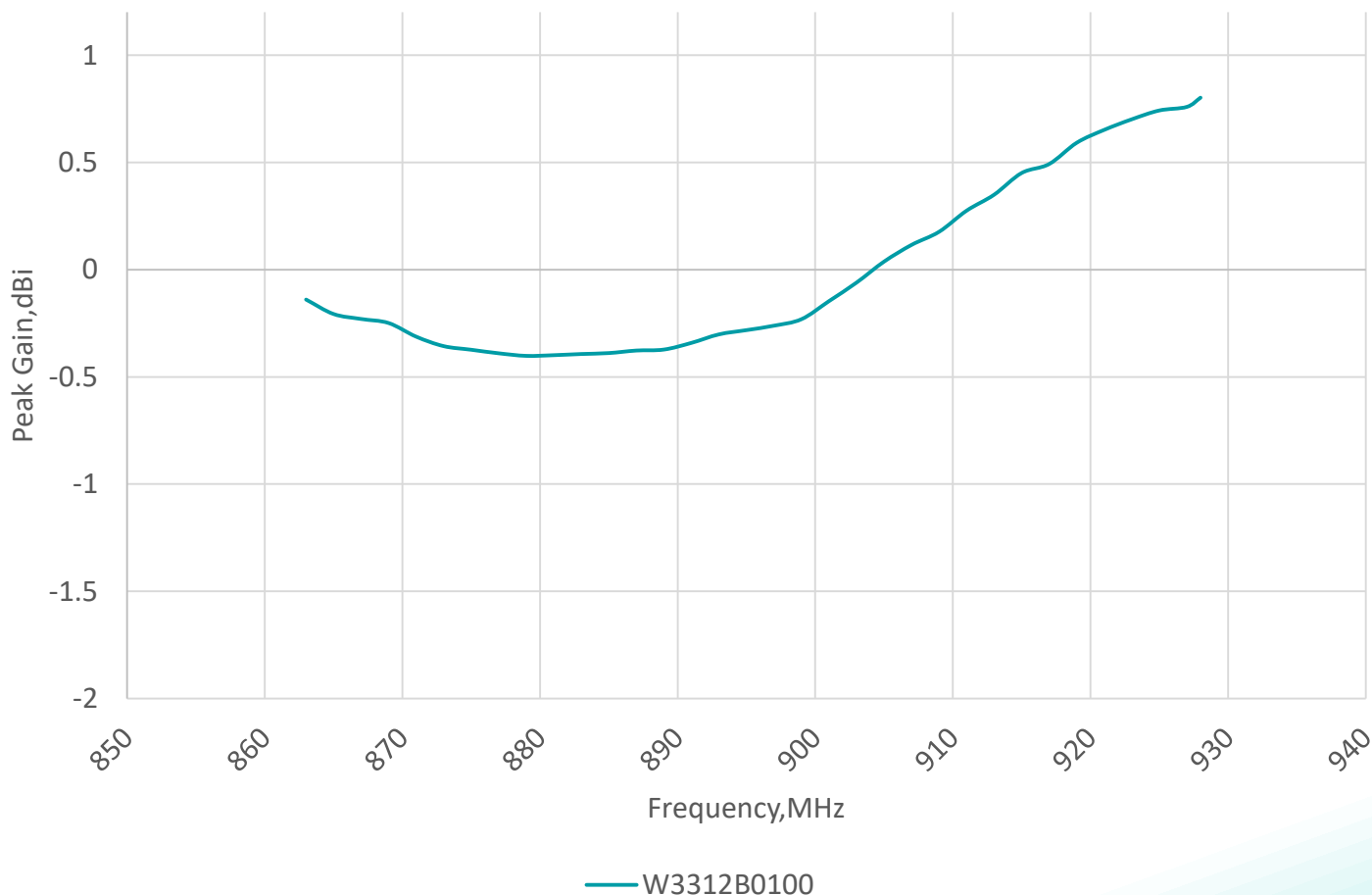
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## CHARTS

### Peak Gain

Peak Gain vs Frequency measured with 1.5mm polycarbonate plate  
W3312B0100 measured in PSU, September 18, 2016



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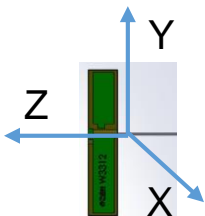


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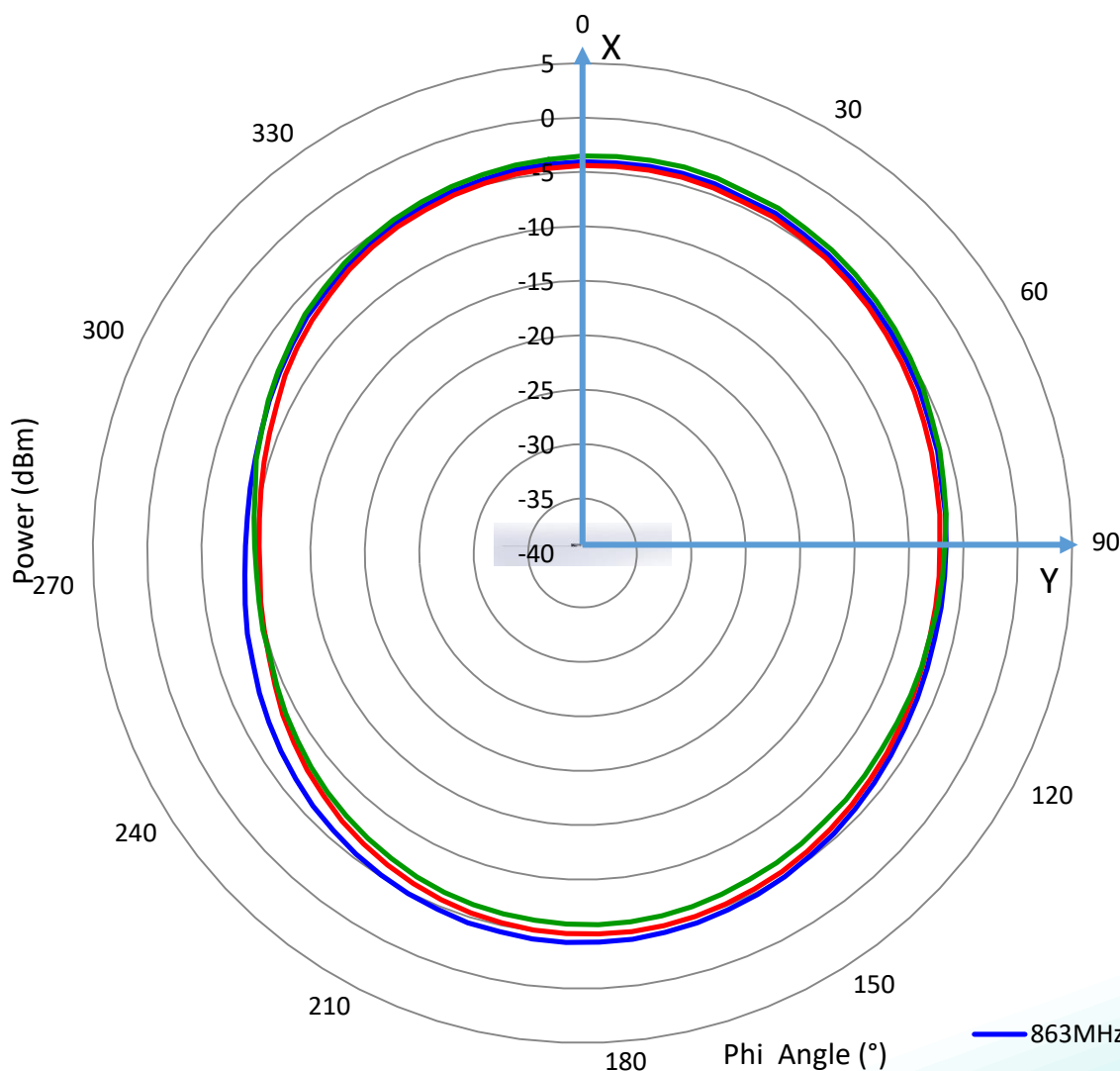
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## CHARTS



### Gain Plots

#### XY Plane



863MHz  
Avg (dBi) = -5.79  
Peak (dBi) = -3.95  
Avg -3 (deg) = 290

895MHz  
Avg (dBi) = -6.48  
Peak (dBi) = -4.29  
Avg -3 (deg) = 250

928MHz  
Avg (dBi) = -6.32  
Peak (dBi) = -3.34  
Avg -3 (deg) = 175

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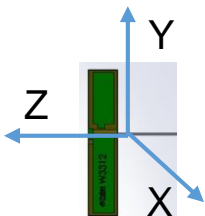
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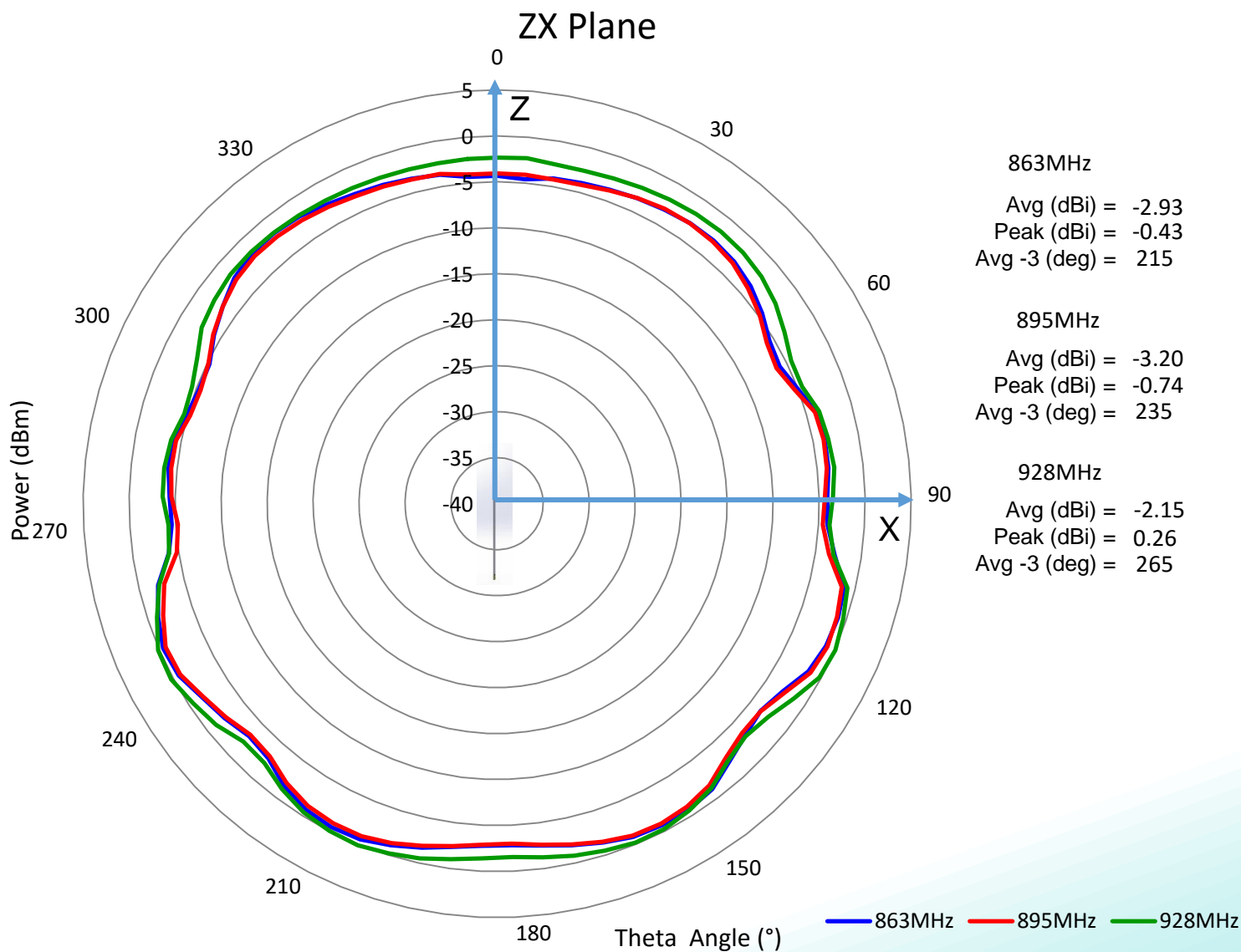
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## CHARTS



### Gain Plots



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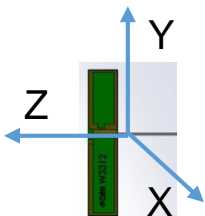
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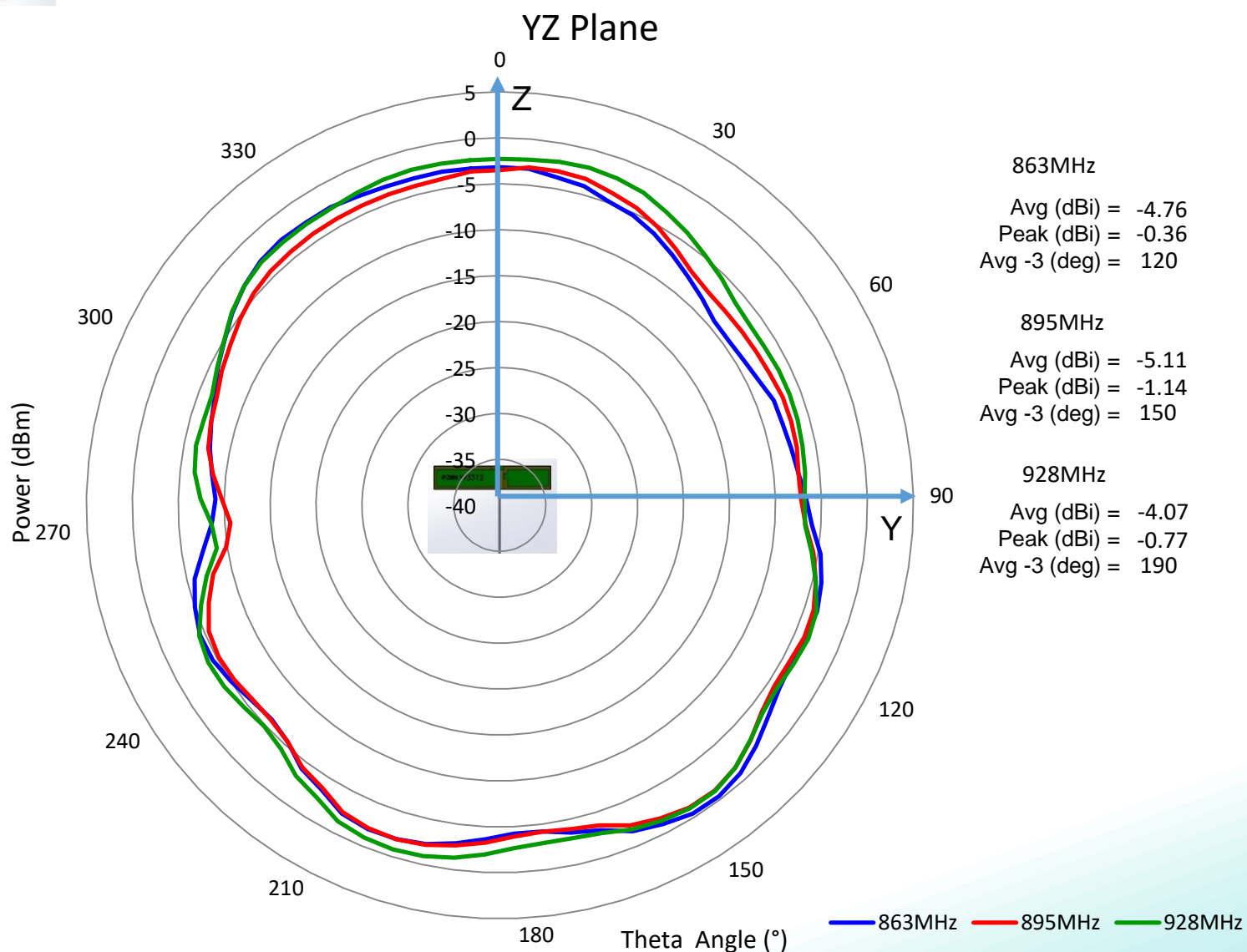
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## CHARTS



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## PACKAGING

10PCS/PE bag  
10 PE bag/foam bag  
15 foam bag/carton box

Total 1500PCS/carton box



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