

**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

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For more information:

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

Pulse/Larsen Antennas  
18110 SE 34<sup>th</sup> St Bldg 2 Suite 250  
Vancouver, WA 98683  
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, 4<sup>th</sup> Phase  
Suzhou New District  
Jiangsu Province, Suzhou 215009 PR China  
Tel: 86 512 6807 9998



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## ELECTRONIC 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

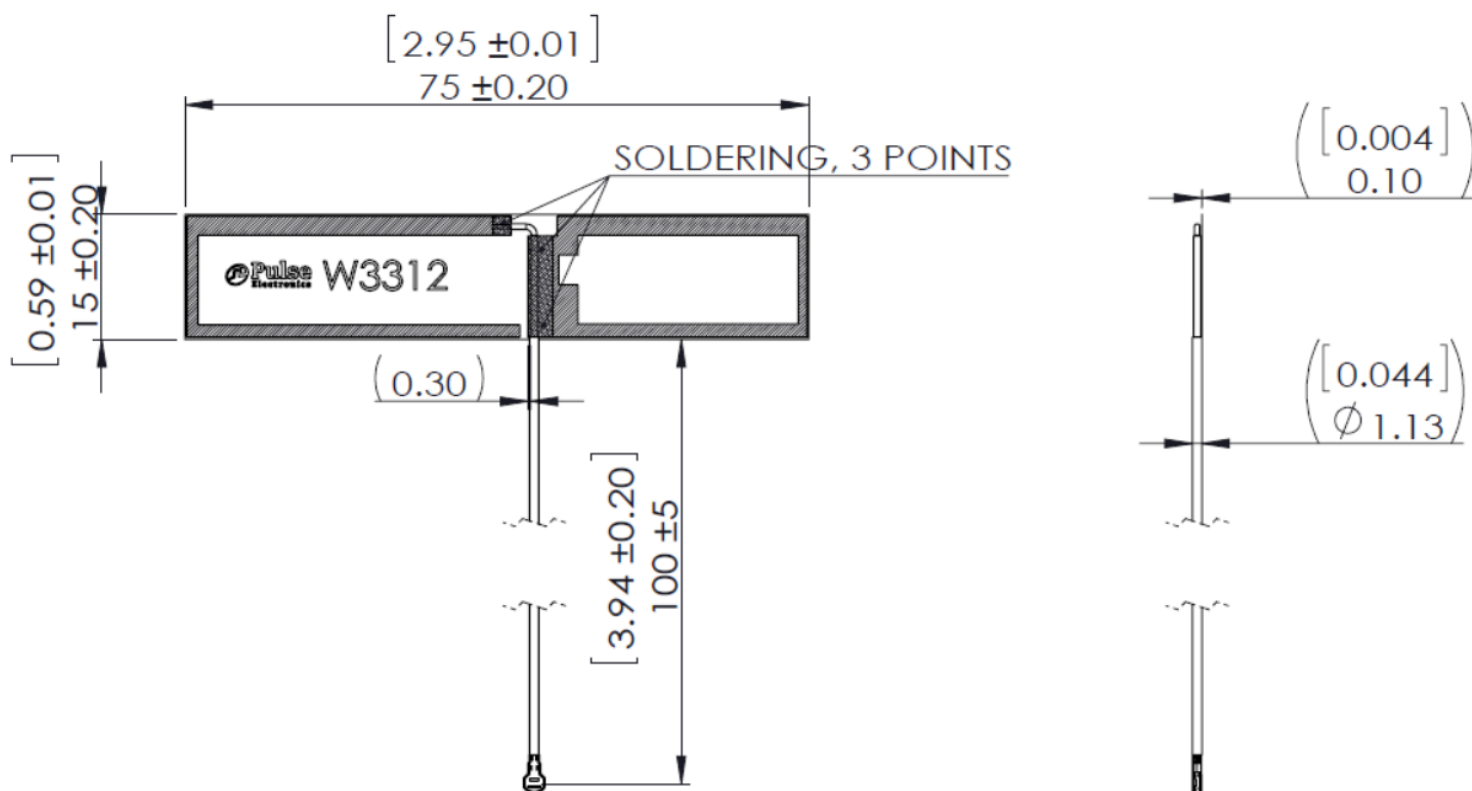
Operating temperature	-40/+85 ° C
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**MECHANICAL DRAWING**



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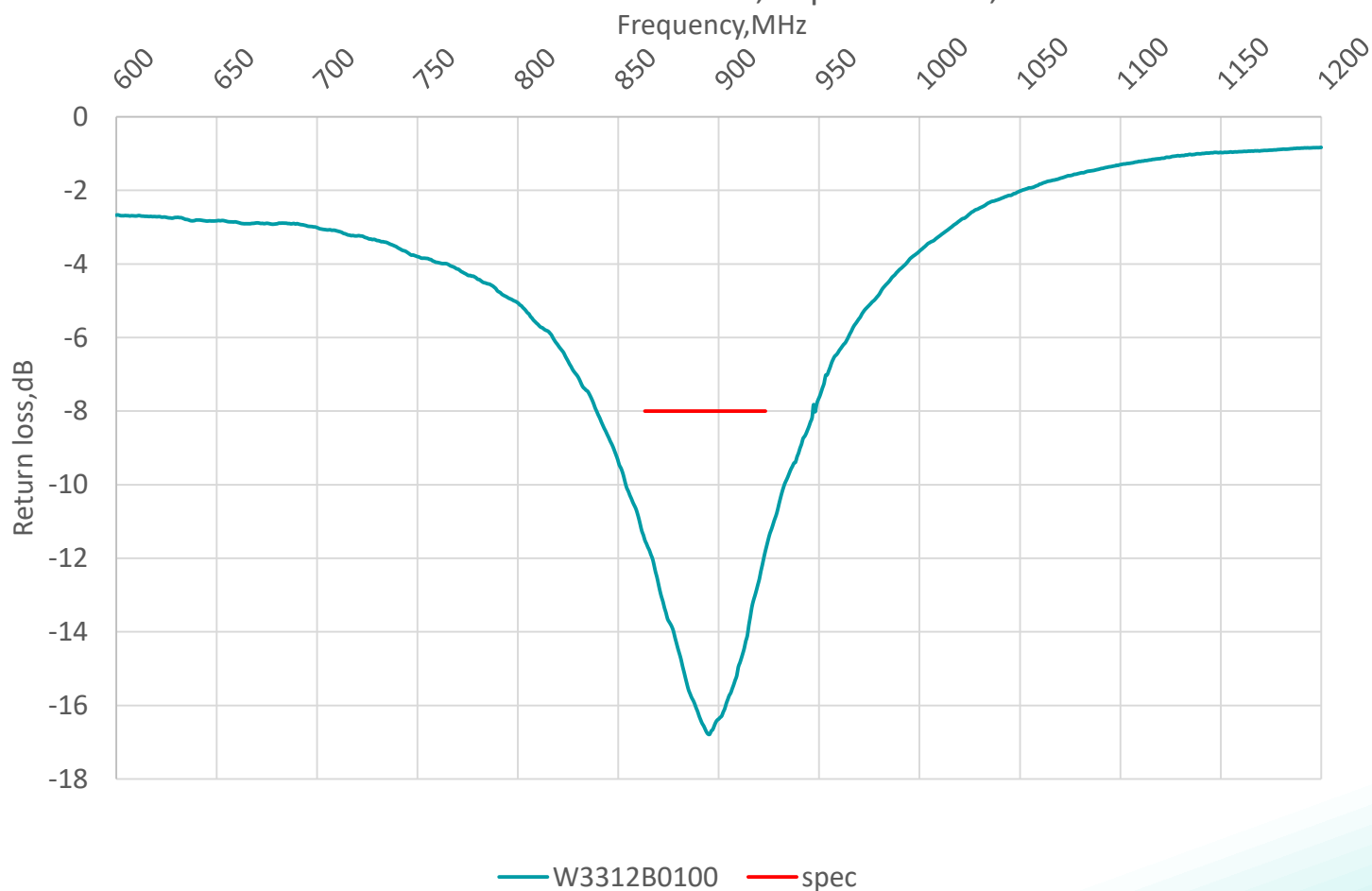
**Series:** Internal Antenna

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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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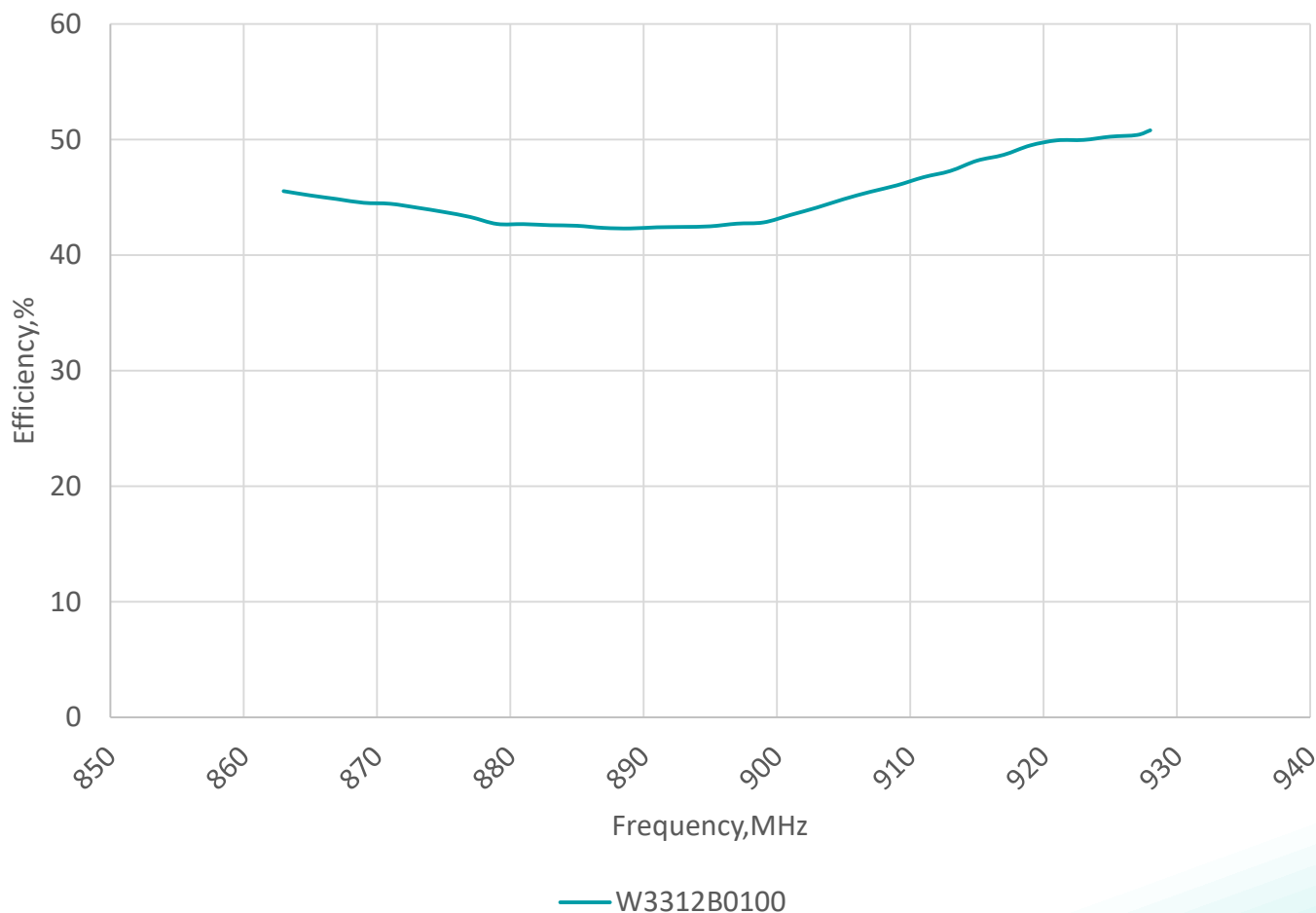
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## CHARTS

### Efficiency

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



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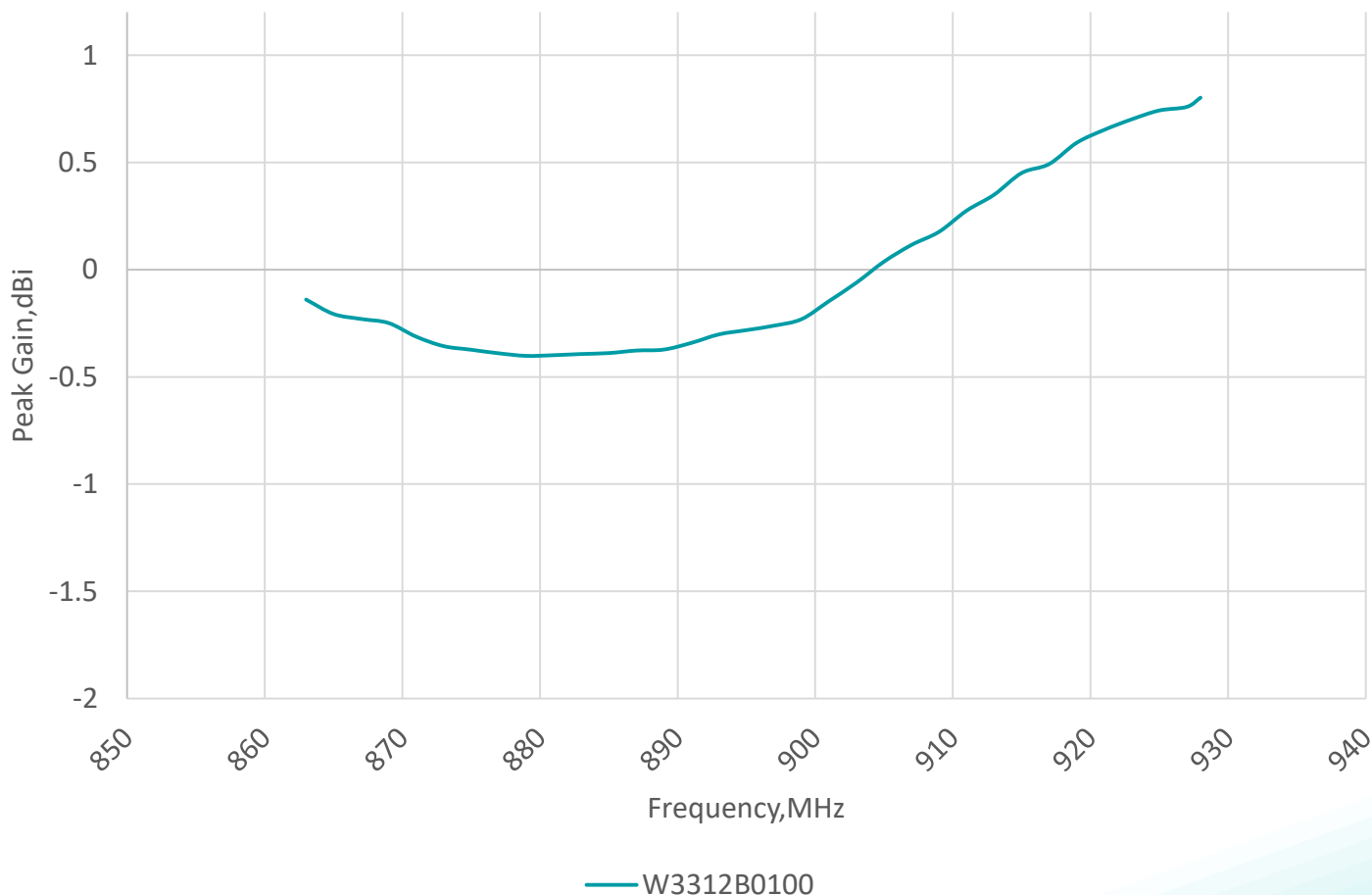
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## CHARTS

### Peak Gain

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



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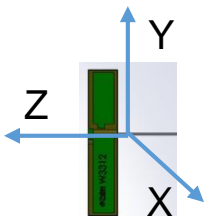


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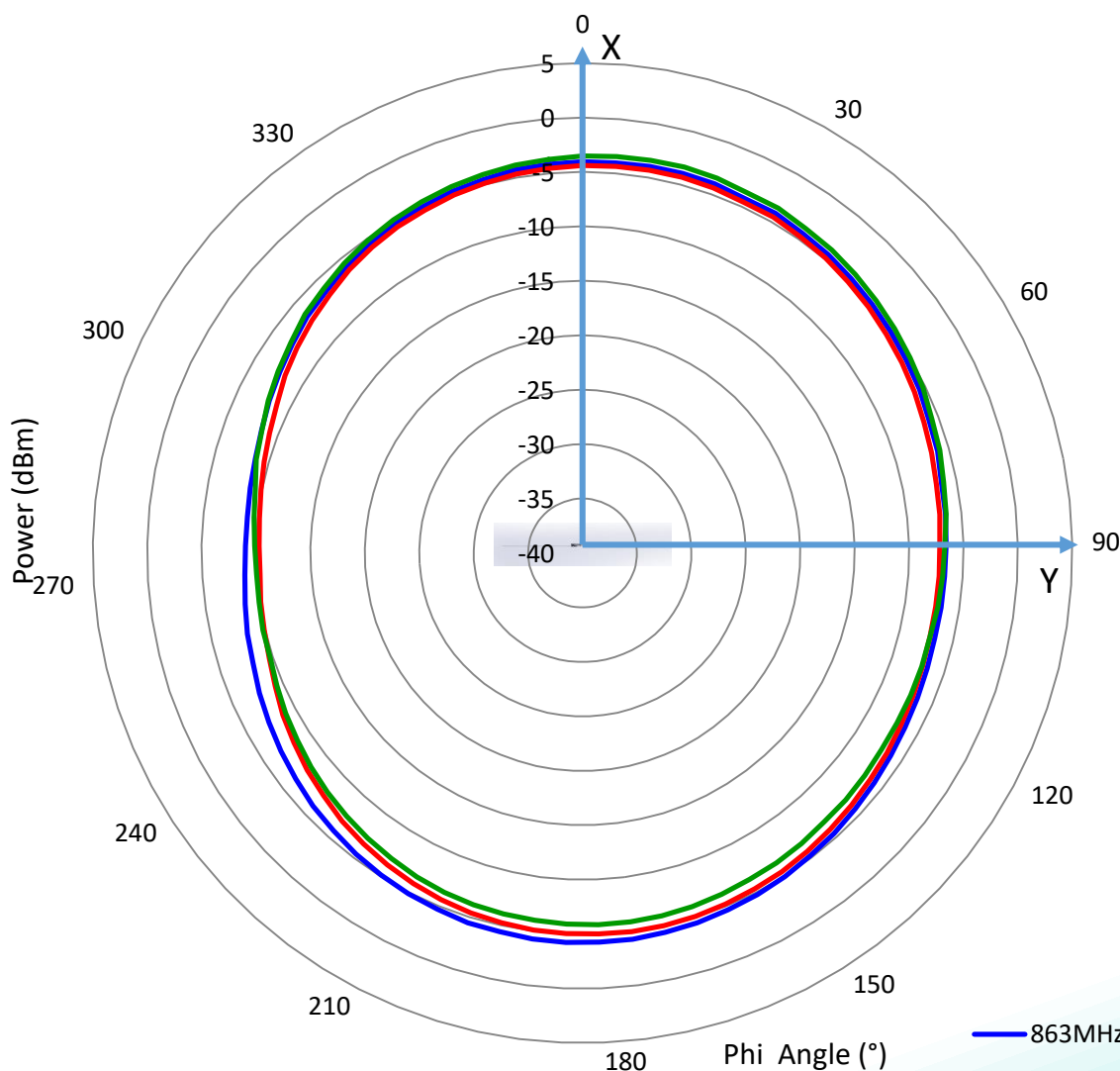
**PART NUMBER:** W3312XXXXXX

## 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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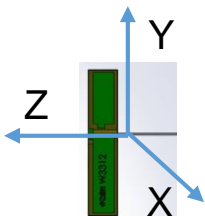
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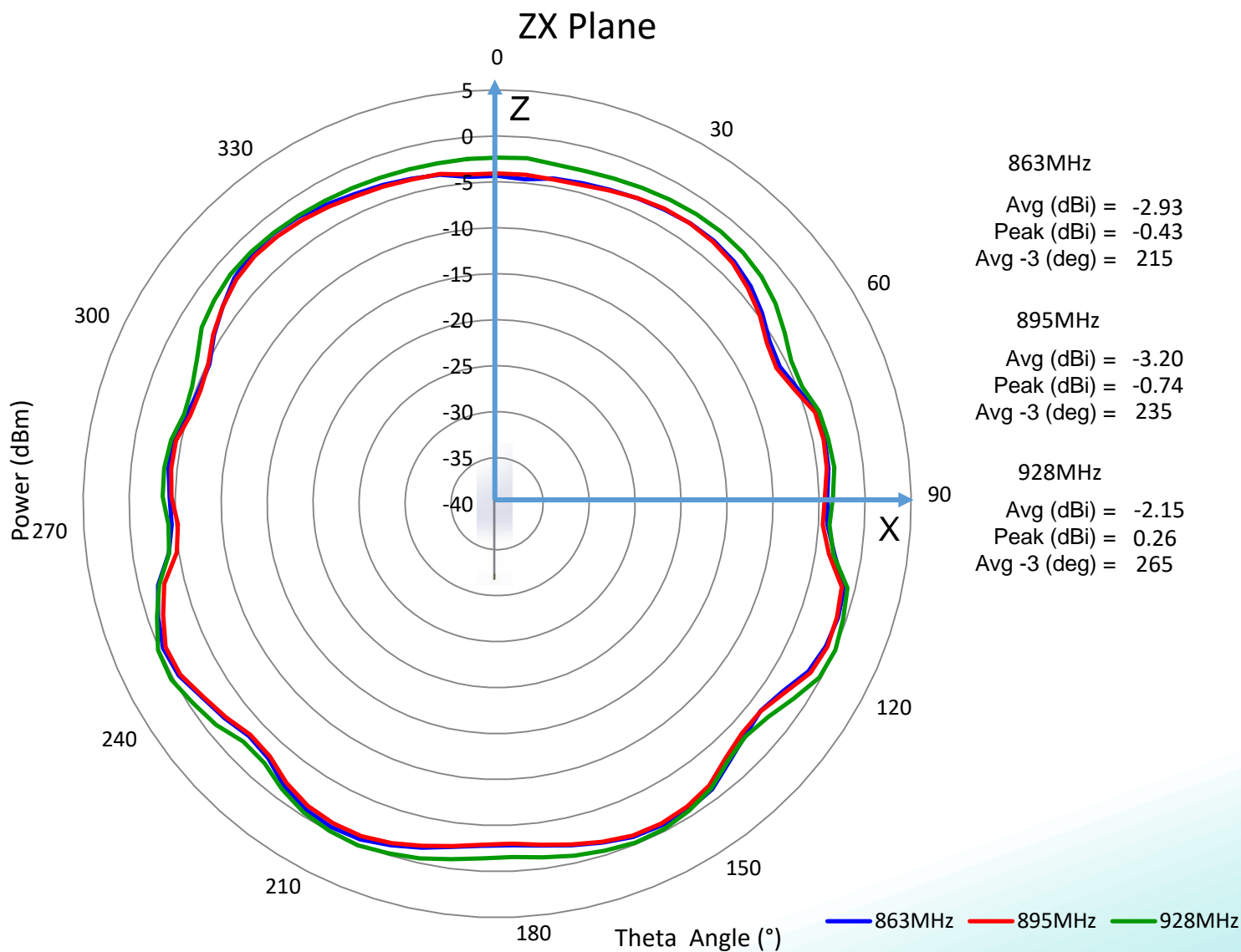
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## CHARTS



### Gain Plots



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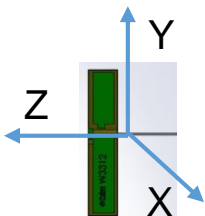
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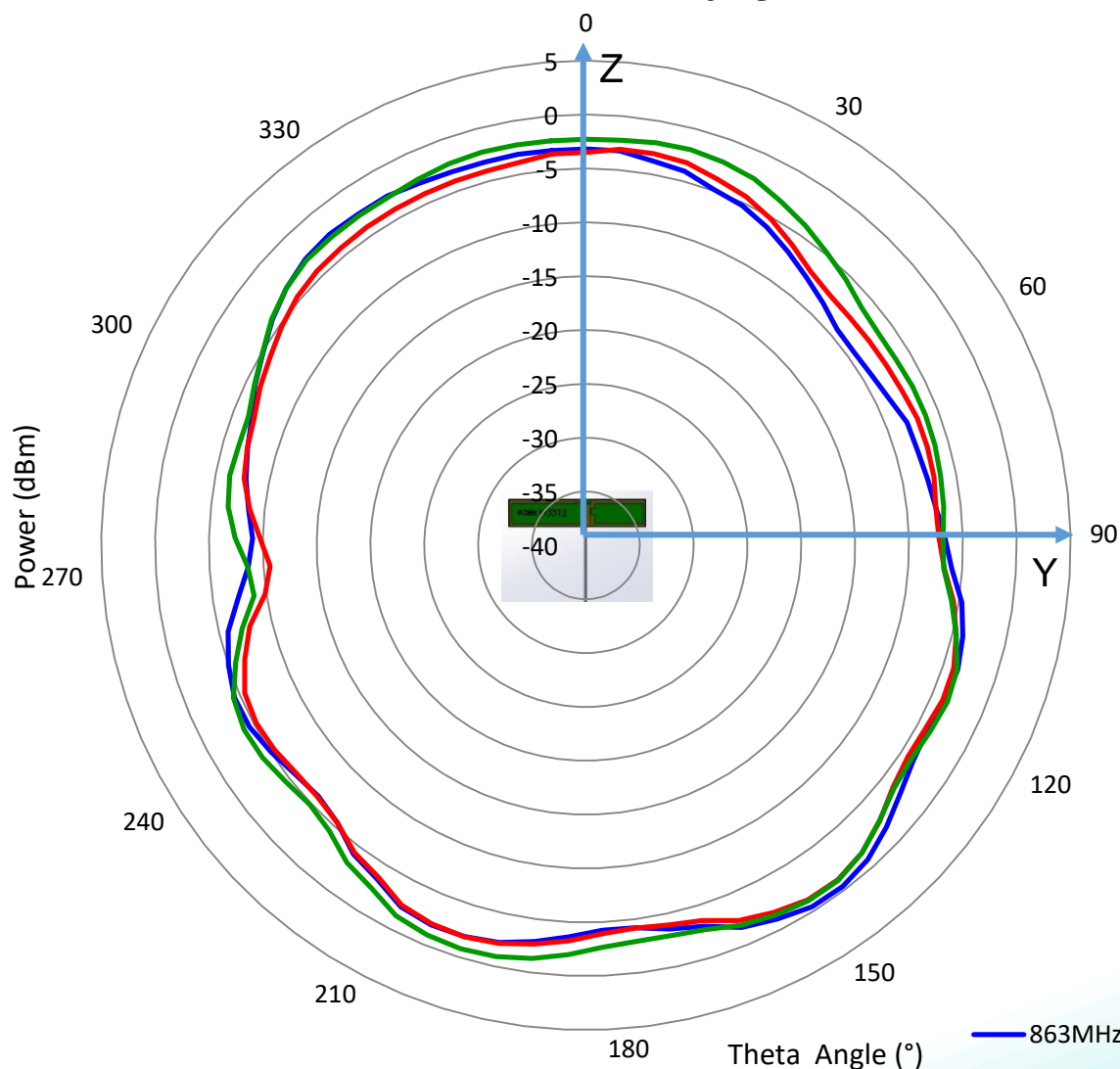
**PART NUMBER:** W3312XXXXXX

## CHARTS



### Gain Plots

#### YZ Plane



863MHz

Avg (dBi) = -4.76

Peak (dBi) = -0.36

Avg -3 (deg) = 120

895MHz

Avg (dBi) = -5.11

Peak (dBi) = -1.14

Avg -3 (deg) = 150

928MHz

Avg (dBi) = -4.07

Peak (dBi) = -0.77

Avg -3 (deg) = 190

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

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**Series: Internal Antenna**

## PACKAGING

10PCS/PE bag

10 PE bag/foam bag

15 foam bag/carton box

Total 1500PCS/carton box



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### Офис по работе с юридическими лицами:

105318, г.Москва, ул.Щербаковская д.3, офис 1107, 1118, ДЦ «Щербаковский»

Телефон: +7 495 668-12-70 (многоканальный)

Факс: +7 495 668-12-70 (доб.304)

E-mail: [info@moschip.ru](mailto:info@moschip.ru)

Skype отдела продаж:

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