

**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

In the effort to improve our products, we reserve the right to make changes judged to be necessary.

#### CONFIDENTIAL AND PROPRIETARY INFORMATION

This document contains confidential and proprietary information of Pulse Electronics, Inc. (Pulse) and is protected by copyright, trade secret and other state and federal laws. Its receipt or possession does not convey any rights to reproduce, disclose its contents, or to manufacture, use or sell anything it may describe. Reproduction, disclosure or use without specific written authorization of Pulse is strictly forbidden.

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 & Co, 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



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

**Series:** Internal Antenna

**PART NUMBER:** W3312XXXXXX

## 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.

**Series: Internal Antenna**

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

**PART NUMBER: W3312XXXXXX**

This document covers all product variants of the following product family

| Antennas    | Color | Connector                                   |
|-------------|-------|---|
| W3312B0100  | Green | 1.13mm OD coax cable<br>with U.FL connector |
| W3312BB0100 | BLACK |   |

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

**Series:** Internal Antenna

**PART NUMBER:** W3312XXXXXX

### 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

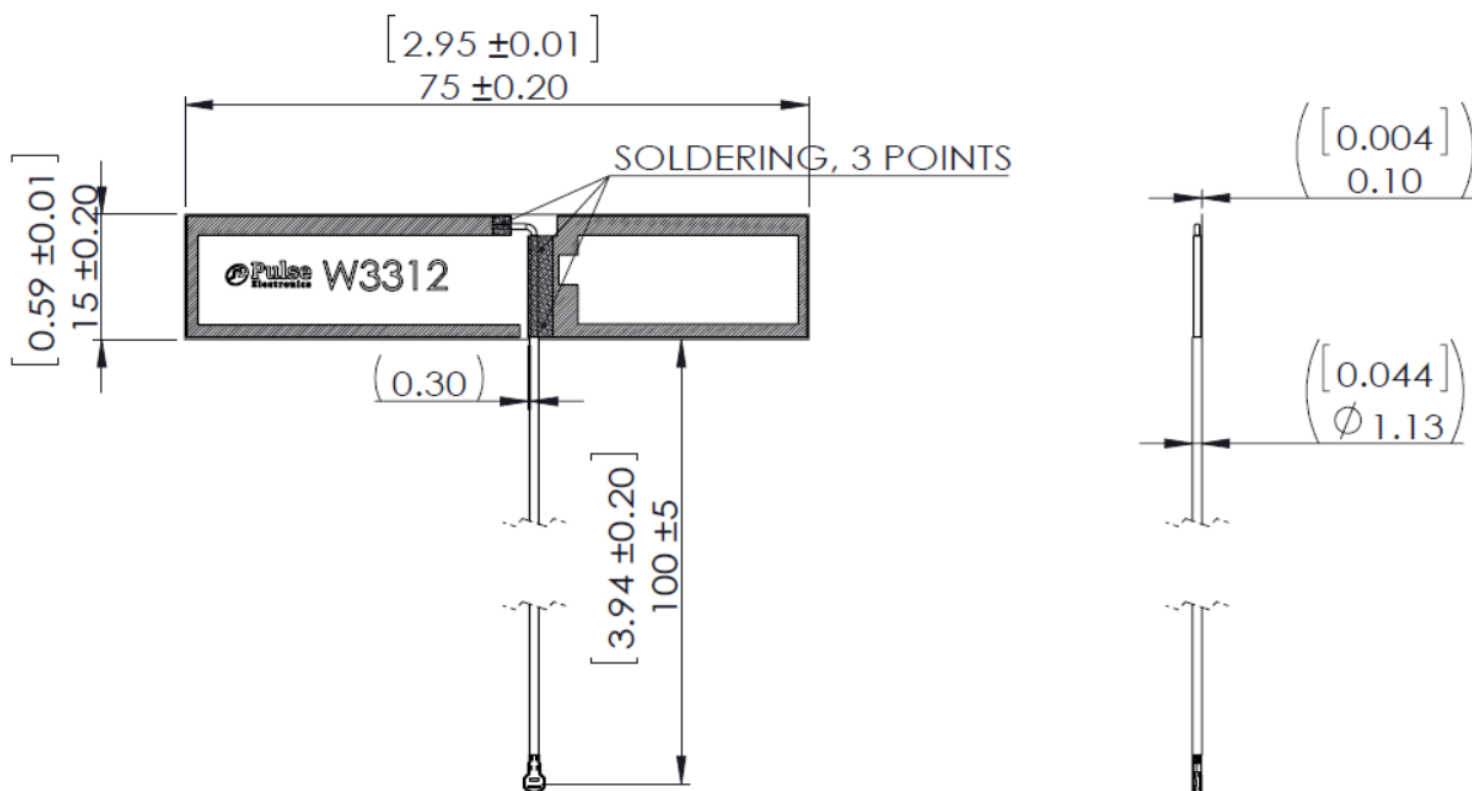
|                       |             |
|-----------------------|-------------|
| Operating temperature | -40/+85 ° C |
|-----------------------|-------------|

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

**Series:** Internal Antenna

**PART NUMBER:** W3312XXXXXX

**MECHANICAL DRAWING**



Issue: 1912

In the effort to improve our products, we reserve the right to make changes judged to be necessary.

CONFIDENTIAL AND PROPRIETARY INFORMATION

This document contains confidential and proprietary information of Pulse Electronics, Inc. (Pulse) and is protected by copyright, trade secret and other state and federal laws. Its receipt or possession does not convey any rights to reproduce, disclose its contents, or to manufacture, use or sell anything it may describe. Reproduction, disclosure or use without specific written authorization of Pulse is strictly forbidden.

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

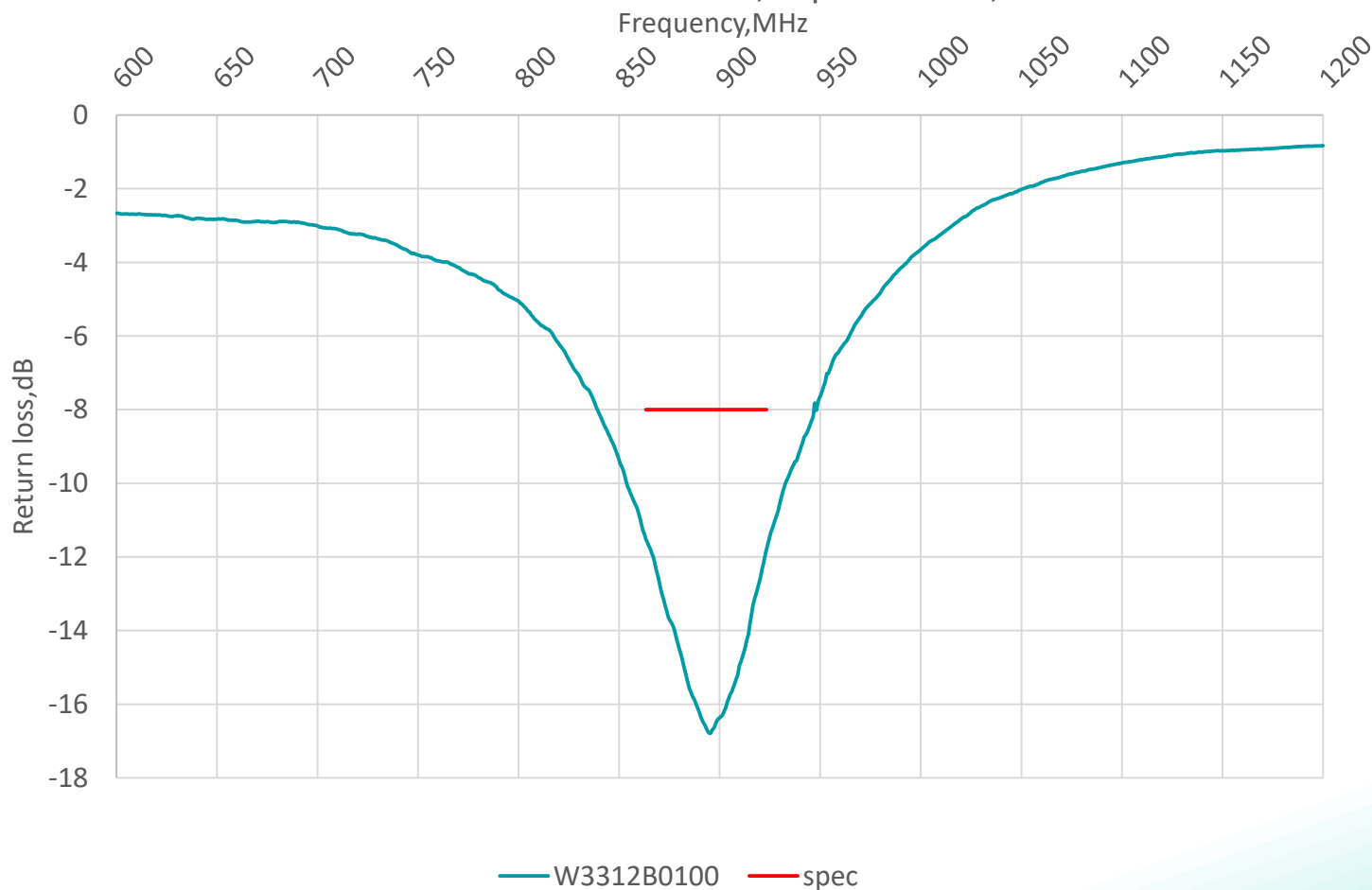
**Series:** Internal Antenna

**PART NUMBER:** W3312XXXXXX

## CHARTS

### Return loss

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



Issue: 1912

In the effort to improve our products, we reserve the right to make changes judged to be necessary.

CONFIDENTIAL AND PROPRIETARY INFORMATION

This document contains confidential and proprietary information of Pulse Electronics, Inc. (Pulse) and is protected by copyright, trade secret and other state and federal laws. Its receipt or possession does not convey any rights to reproduce, disclose its contents, or to manufacture, use or sell anything it may describe. Reproduction, disclosure or use without specific written authorization of Pulse is strictly forbidden.

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

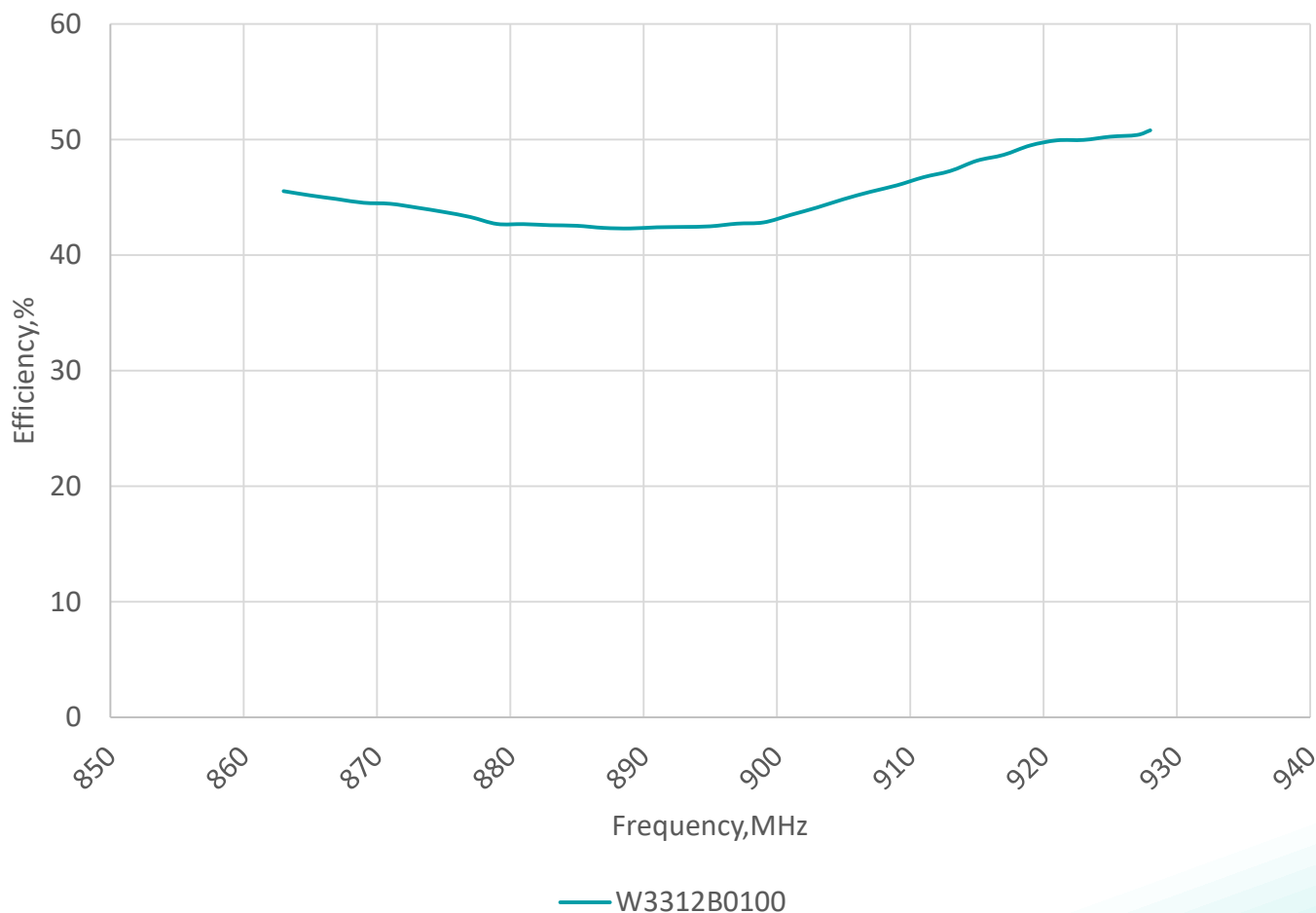
**Series:** Internal Antenna

**PART NUMBER:** W3312XXXXXX

## CHARTS

### Efficiency

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



Issue: 1912

In the effort to improve our products, we reserve the right to make changes judged to be necessary.

CONFIDENTIAL AND PROPRIETARY INFORMATION

This document contains confidential and proprietary information of Pulse Electronics, Inc. (Pulse) and is protected by copyright, trade secret and other state and federal laws. Its receipt or possession does not convey any rights to reproduce, disclose its contents, or to manufacture, use or sell anything it may describe. Reproduction, disclosure or use without specific written authorization of Pulse is strictly forbidden.

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

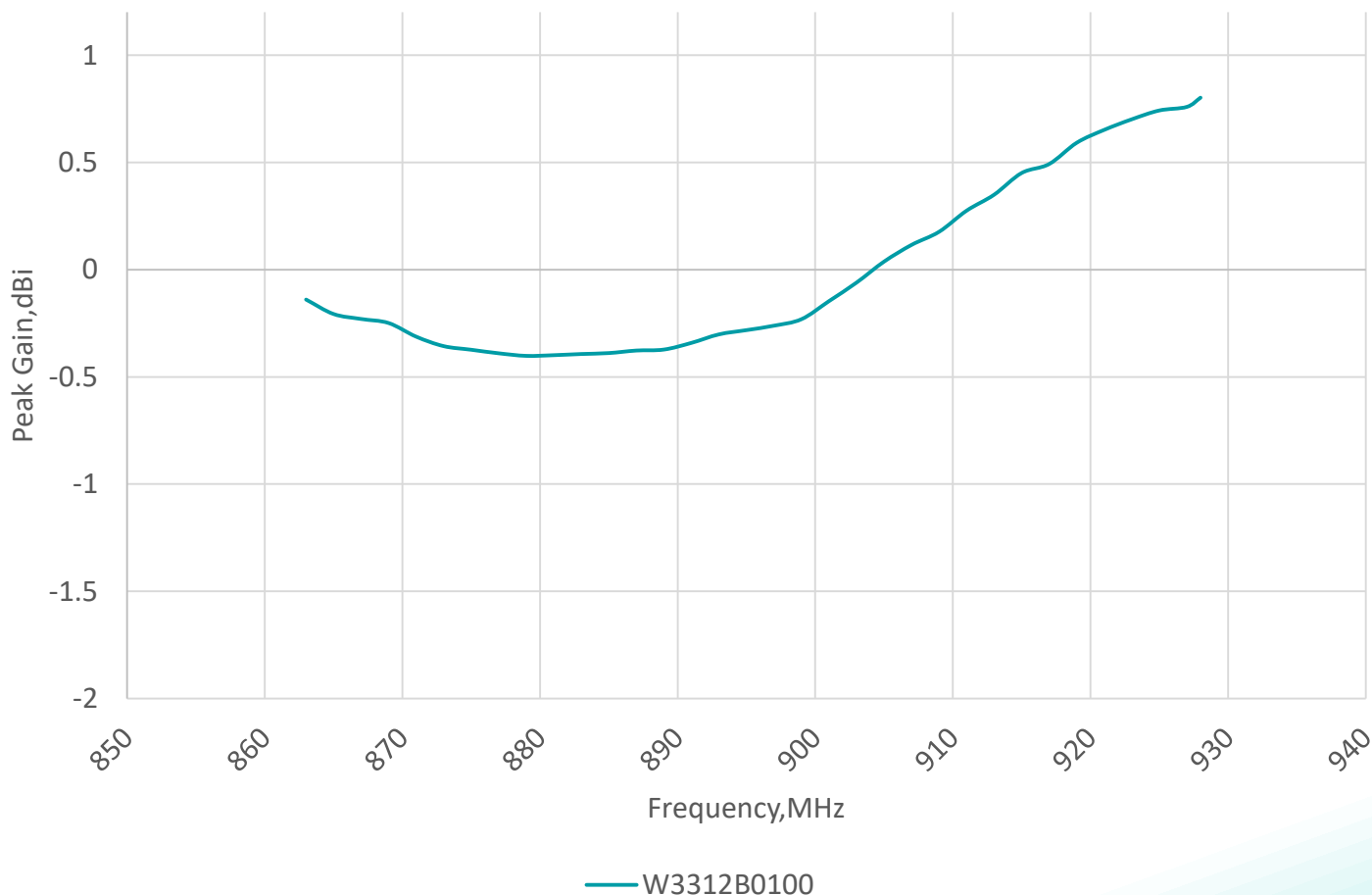
**Series:** Internal Antenna

**PART NUMBER:** W3312XXXXXX

## CHARTS

### Peak Gain

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



Issue: 1912

In the effort to improve our products, we reserve the right to make changes judged to be necessary.

CONFIDENTIAL AND PROPRIETARY INFORMATION

This document contains confidential and proprietary information of Pulse Electronics, Inc. (Pulse) and is protected by copyright, trade secret and other state and federal laws. Its receipt or possession does not convey any rights to reproduce, disclose its contents, or to manufacture, use or sell anything it may describe. Reproduction, disclosure or use without specific written authorization of Pulse is strictly forbidden.

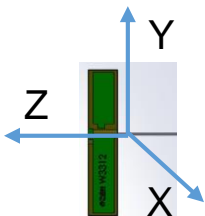


**Description:** ISM 868/915MHz PCB Antenna  
with coax feed

**Series:** Internal Antenna

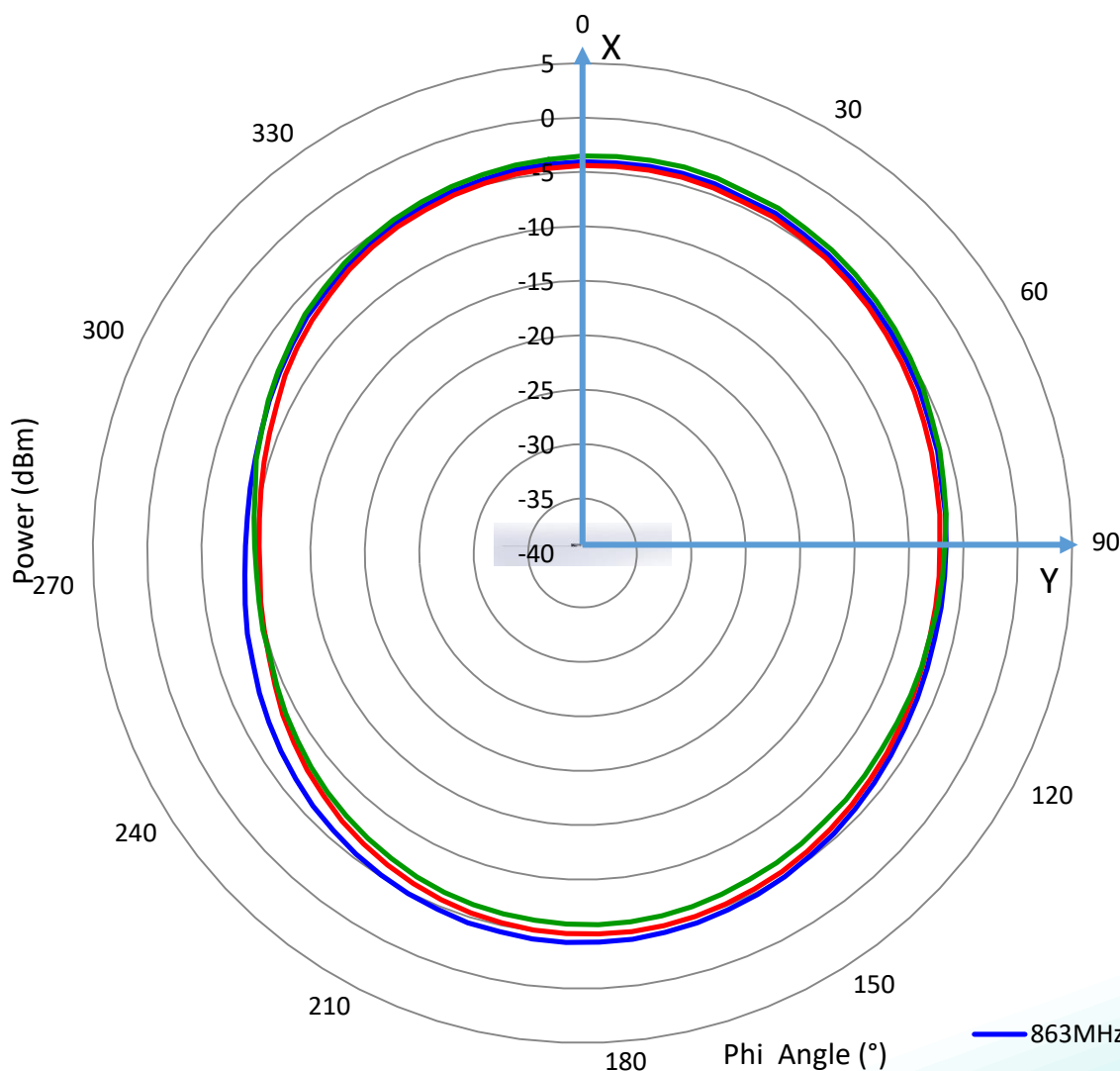
**PART NUMBER:** W3312XXXXXX

## 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

Issue: 1912

In the effort to improve our products, we reserve the right to make changes judged to be necessary.

CONFIDENTIAL AND PROPRIETARY INFORMATION

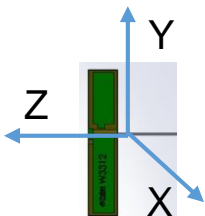
This document contains confidential and proprietary information of Pulse Electronics, Inc. (Pulse) and is protected by copyright, trade secret and other state and federal laws. Its receipt or possession does not convey any rights to reproduce, disclose its contents, or to manufacture, use or sell anything it may describe. Reproduction, disclosure or use without specific written authorization of Pulse is strictly forbidden.

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

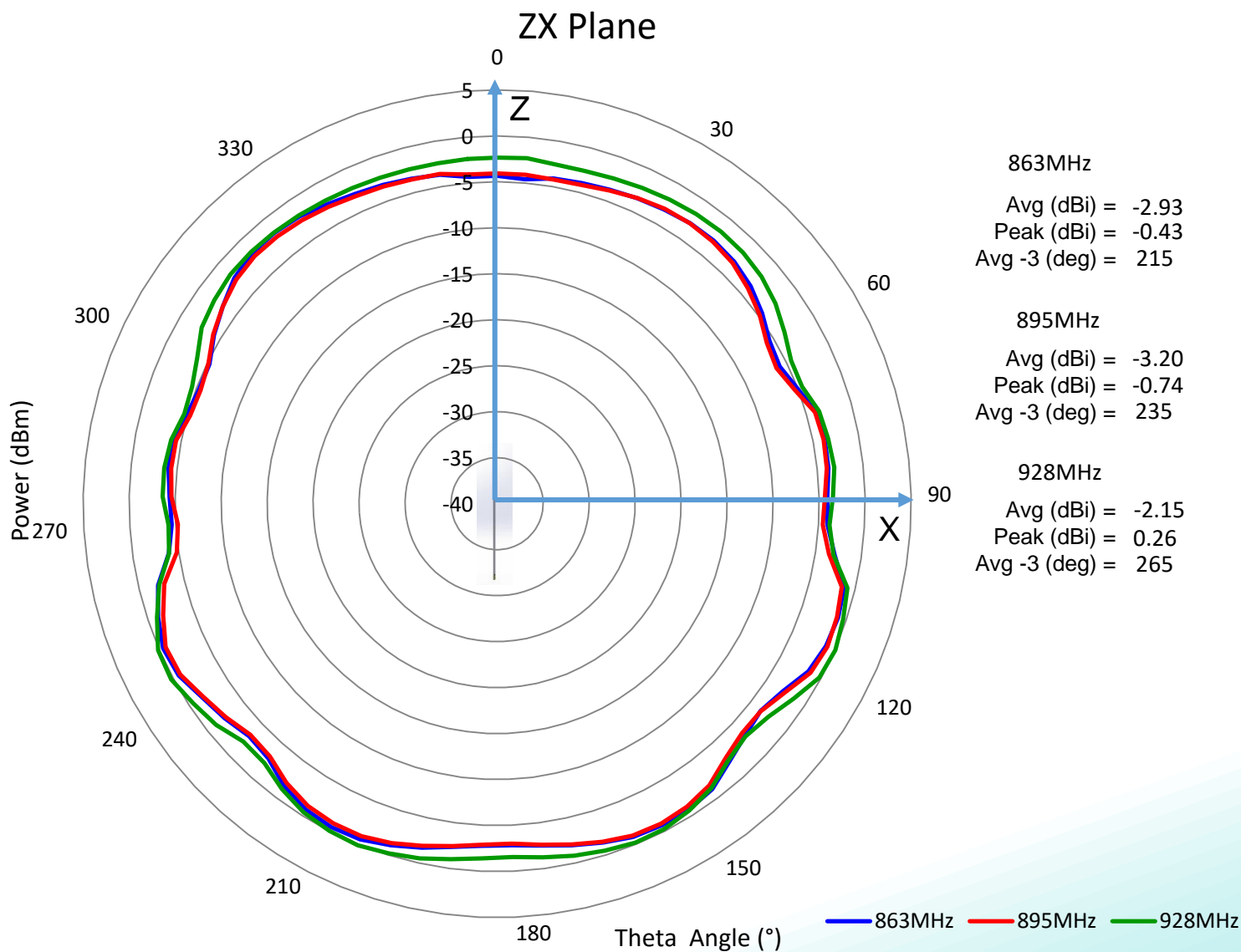
**Series:** Internal Antenna

**PART NUMBER:** W3312XXXXXX

## CHARTS



### Gain Plots



Issue: 1912

In the effort to improve our products, we reserve the right to make changes judged to be necessary.

CONFIDENTIAL AND PROPRIETARY INFORMATION

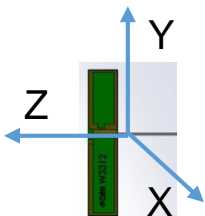
This document contains confidential and proprietary information of Pulse Electronics, Inc. (Pulse) and is protected by copyright, trade secret and other state and federal laws. Its receipt or possession does not convey any rights to reproduce, disclose its contents, or to manufacture, use or sell anything it may describe. Reproduction, disclosure or use without specific written authorization of Pulse is strictly forbidden.

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

**Series:** Internal Antenna

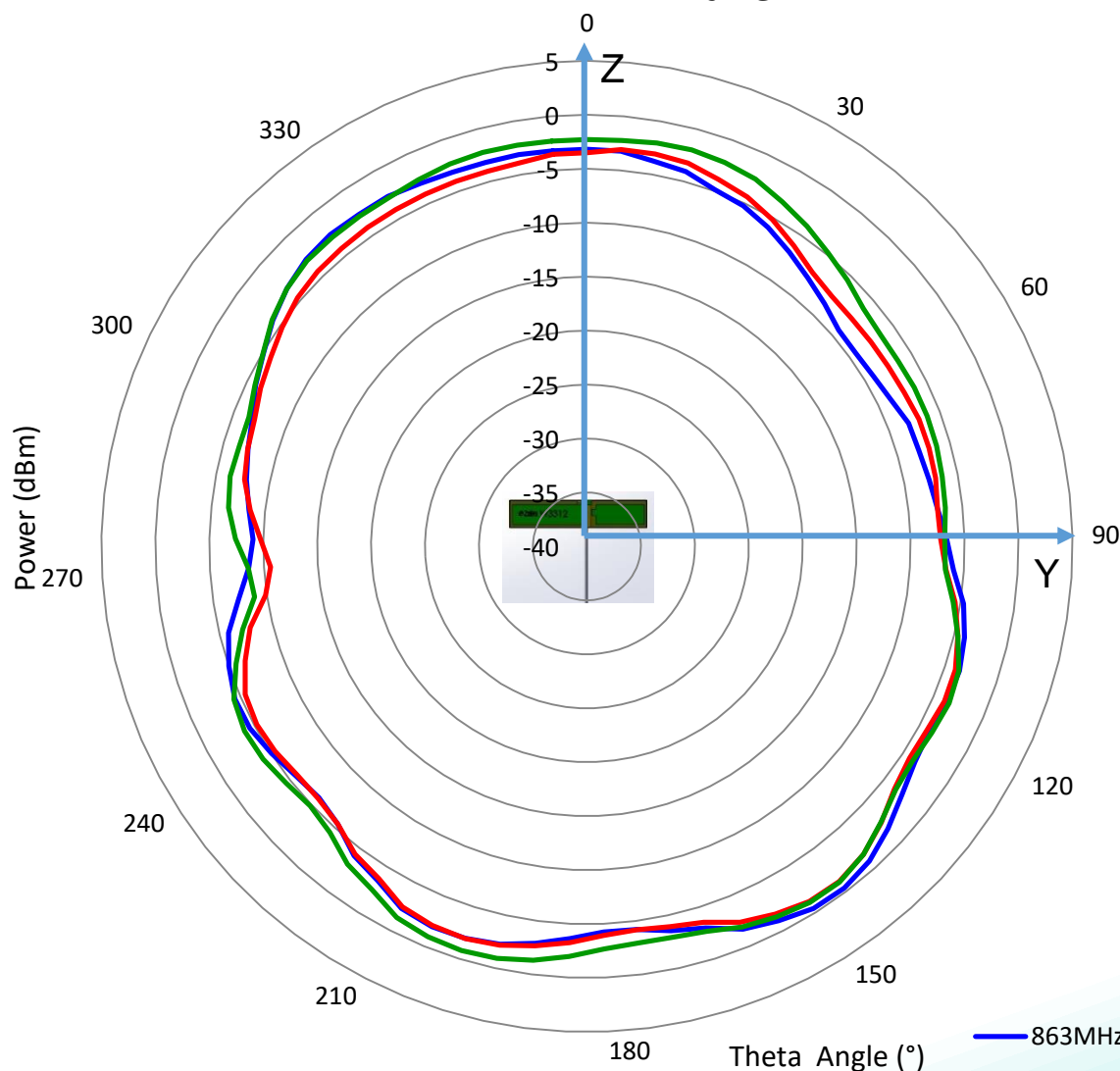
**PART NUMBER:** W3312XXXXXX

## 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

— 863MHz — 895MHz — 928MHz

Issue: 1912

In the effort to improve our products, we reserve the right to make changes judged to be necessary.

CONFIDENTIAL AND PROPRIETARY INFORMATION

This document contains confidential and proprietary information of Pulse Electronics, Inc. (Pulse) and is protected by copyright, trade secret and other state and federal laws. Its receipt or possession does not convey any rights to reproduce, disclose its contents, or to manufacture, use or sell anything it may describe. Reproduction, disclosure or use without specific written authorization of Pulse is strictly forbidden.

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

**Series:** Internal Antenna

**PART NUMBER:** W3312XXXXXX

## PACKAGING

10PCS/PE bag

10 PE bag/foam bag

15 foam bag/carton box

Total 1500PCS/carton box



Issue: 1912

In the effort to improve our products, we reserve the right to make changes judged to be necessary.

CONFIDENTIAL AND PROPRIETARY INFORMATION

This document contains confidential and proprietary information of Pulse Electronics, Inc. (Pulse) and is protected by copyright, trade secret and other state and federal laws. Its receipt or possession does not convey any rights to reproduce, disclose its contents, or to manufacture, use or sell anything it may describe. Reproduction, disclosure or use without specific written authorization of Pulse is strictly forbidden.

Компания «Life Electronics» занимается поставками электронных компонентов импортного и отечественного производства от производителей и со складов крупных дистрибьюторов Европы, Америки и Азии.

С конца 2013 года компания активно расширяет линейку поставок компонентов по направлению коаксиальный кабель, кварцевые генераторы и конденсаторы (керамические, пленочные, электролитические), за счёт заключения дистрибьюторских договоров

Мы предлагаем:

- Конкурентоспособные цены и скидки постоянным клиентам.
- Специальные условия для постоянных клиентов.
- Подбор аналогов.
- Поставку компонентов в любых объемах, удовлетворяющих вашим потребностям.
- Приемлемые сроки поставки, возможна ускоренная поставка.
- Доставку товара в любую точку России и стран СНГ.
- Комплексную поставку.
- Работу по проектам и поставку образцов.
- Формирование склада под заказчика.
- Сертификаты соответствия на поставляемую продукцию (по желанию клиента).
- Тестирование поставляемой продукции.
- Поставку компонентов, требующих военную и космическую приемку.
- Входной контроль качества.
- Наличие сертификата ISO.

В составе нашей компании организован Конструкторский отдел, призванный помогать разработчикам, и инженерам.

Конструкторский отдел помогает осуществить:

- Регистрацию проекта у производителя компонентов.
- Техническую поддержку проекта.
- Защиту от снятия компонента с производства.
- Оценку стоимости проекта по компонентам.
- Изготовление тестовой платы монтаж и пусконаладочные работы.



Тел: +7 (812) 336 43 04 (многоканальный)

Email: [org@lifeelectronics.ru](mailto:org@lifeelectronics.ru)

[www.lifeelectronics.ru](http://www.lifeelectronics.ru)