

Description: ISM868/915, ISM2.4G

Series: Ceramic antenna

PART NUMBER: W3320

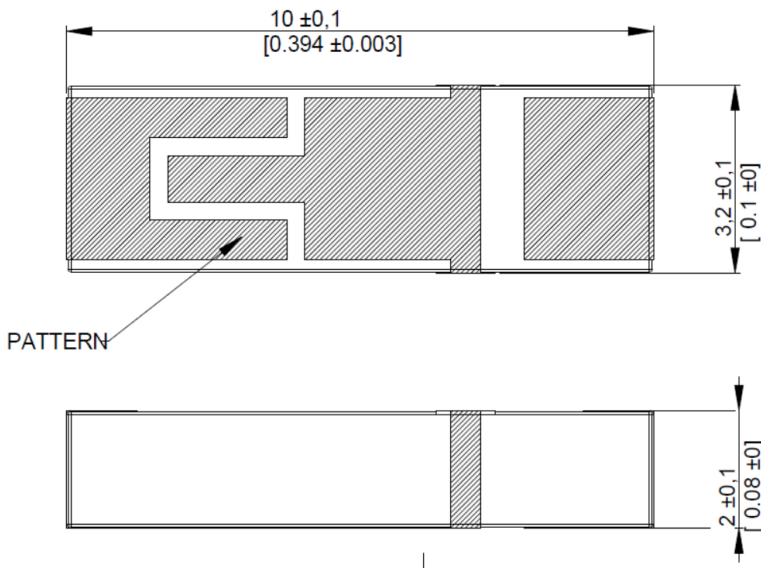


Features:

- 3 in1 –combo antenna
 - Port 1: 868/915MHz
 - Port 2: 2.4GHz
- Compact size 3.2x10x2mm
- SMT mounting on PCB
- Tape & Reel packing
- High isolation between ports >20dB

Applications:

- ISM band radios
- 868MHz, 915MHz, 2.4GHz
- IoT, M2M, set top boxes, devices requiring small embedded multiband ISM antenna



All dimensions are in mm / inches

Issue: 1834

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 34th 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,4th Phase
Suzhou New District
Jiangsu Province, Suzhou 215009 PR China
Tel: 86 512 6807 9998



Description: ISM868/915, ISM2.4G

Series: Ceramic antenna

PART NUMBER: W3320

ELECTRICAL SPECIFICATIONS

Frequency	ISM868/915MHz, ISM2.4GHz
Nominal Impedance	50Ω
Return Loss	<-7dB @868/915MHz <-5dB@2.4
Gain	1dBi +/- 1 dB@868/915MHz 3dBi +/- 1 dB@2.4GHz
Radiation Pattern	Omni
Polarization:	Vertical
Power withstanding	2W

Issue: 1834

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: ISM868/915, ISM2.4G

Series: Ceramic antenna

PART NUMBER: W3320

MECHANICAL SPECIFICATIONS

Weight	0.3 g
Overall Length	10[0.39] MM[INCHES]
Over all width	3.2[0.12] MM[INCHES]
Over all thickness	2[0.08] MM[INCHES]

ENVIRONMENTAL SPECIFICATIONS

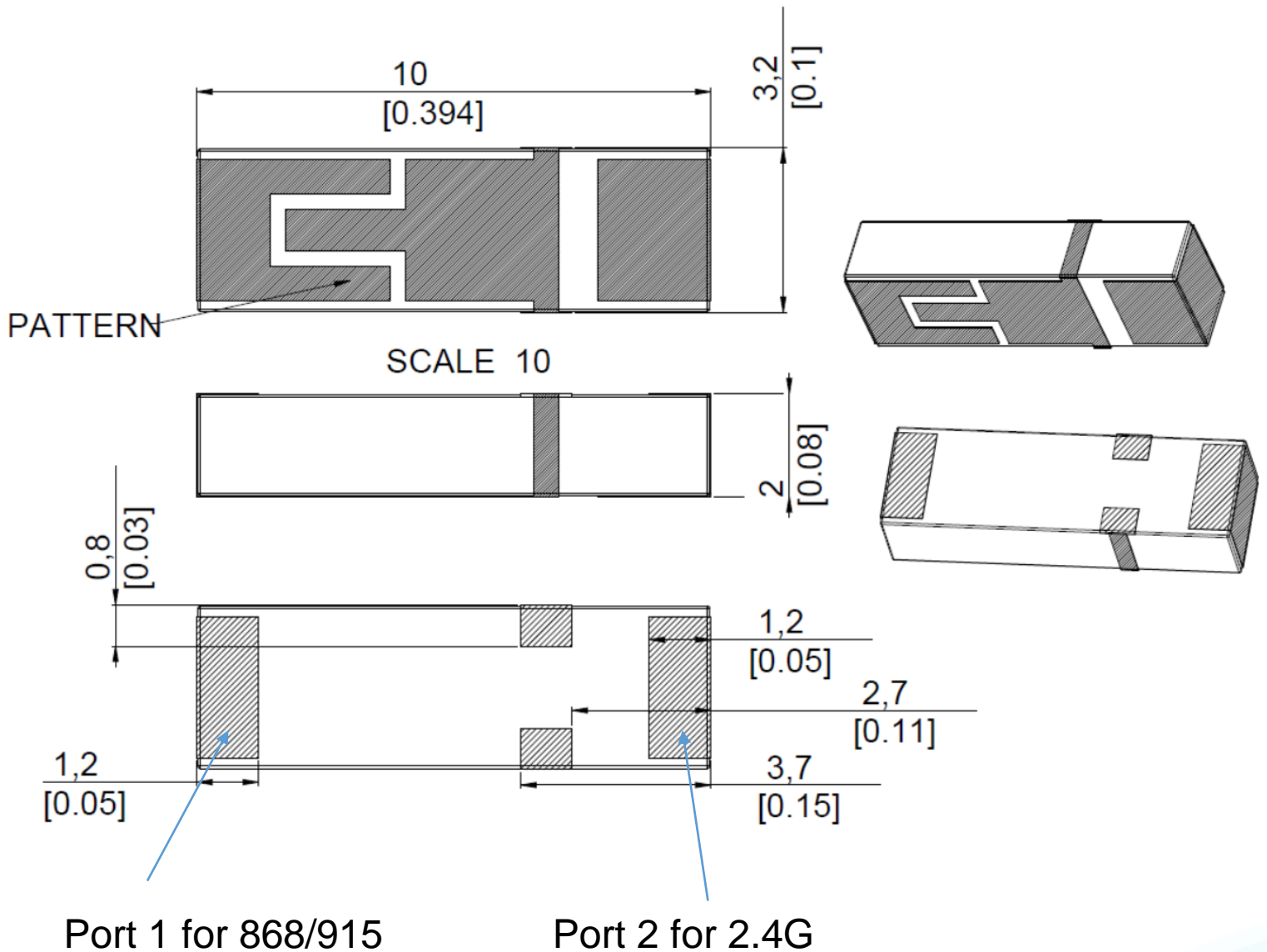
Operating temperature	-40/+85° C
-----------------------	------------

Description: ISM868/915, ISM2.4G

Series: Ceramic antenna

PART NUMBER: W3320

MECHANICAL DRAWING



Issue: 1834

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: ISM868/915, ISM2.4G

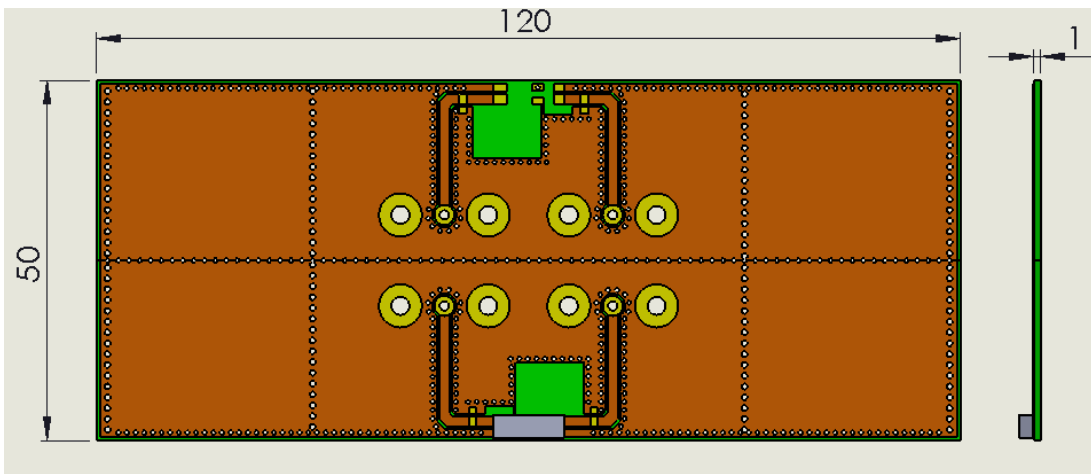
Series: Ceramic antenna

PART NUMBER: W3320

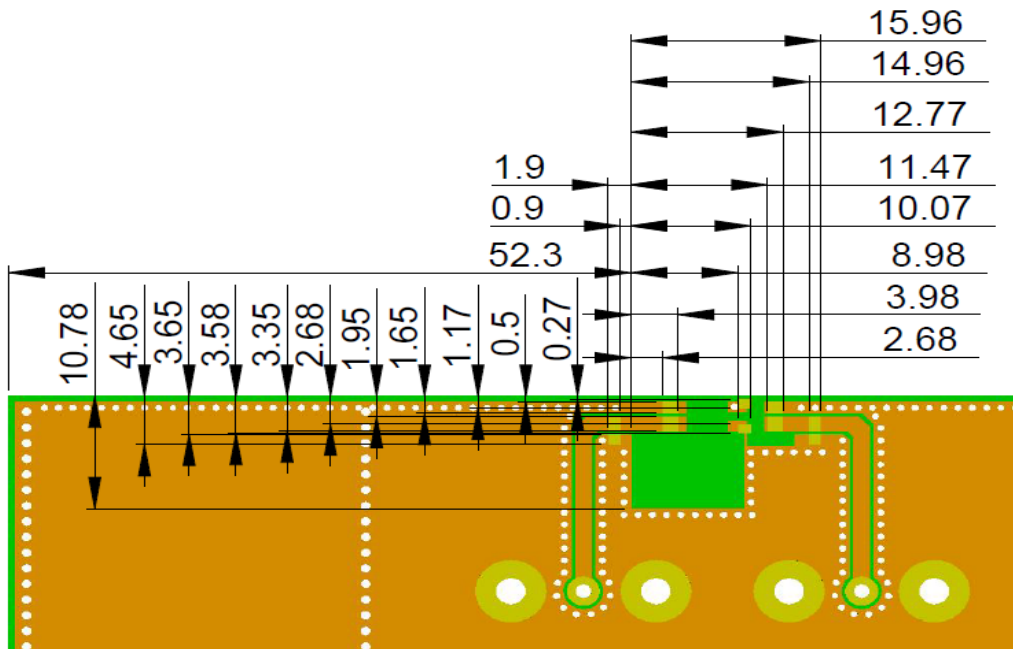
OTHER SPECIFICATIONS

PCB LAYOUT

1, PCB material, FR4, size, 120X50X1mm



2, Clearance area (Top)



Issue: 1834

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: ISM868/915, ISM2.4G

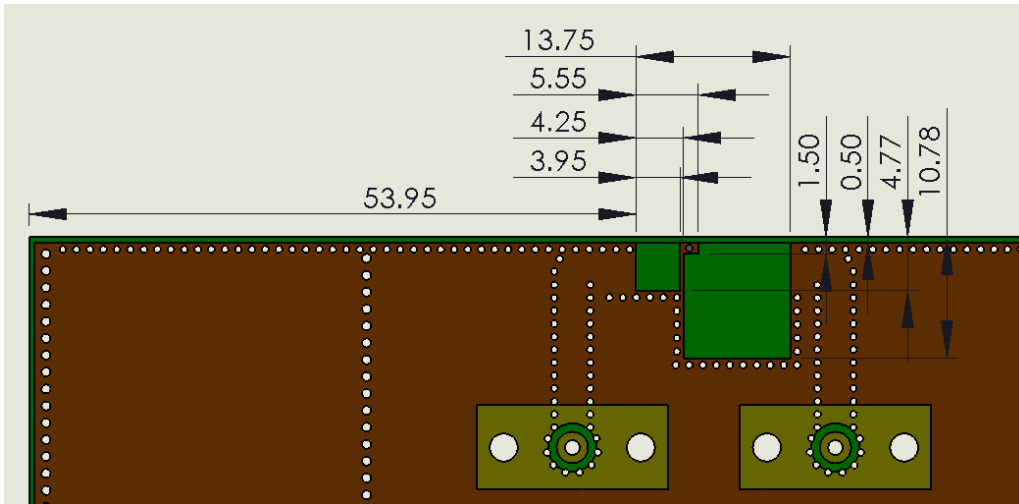
Series: Ceramic antenna

PART NUMBER: W3320

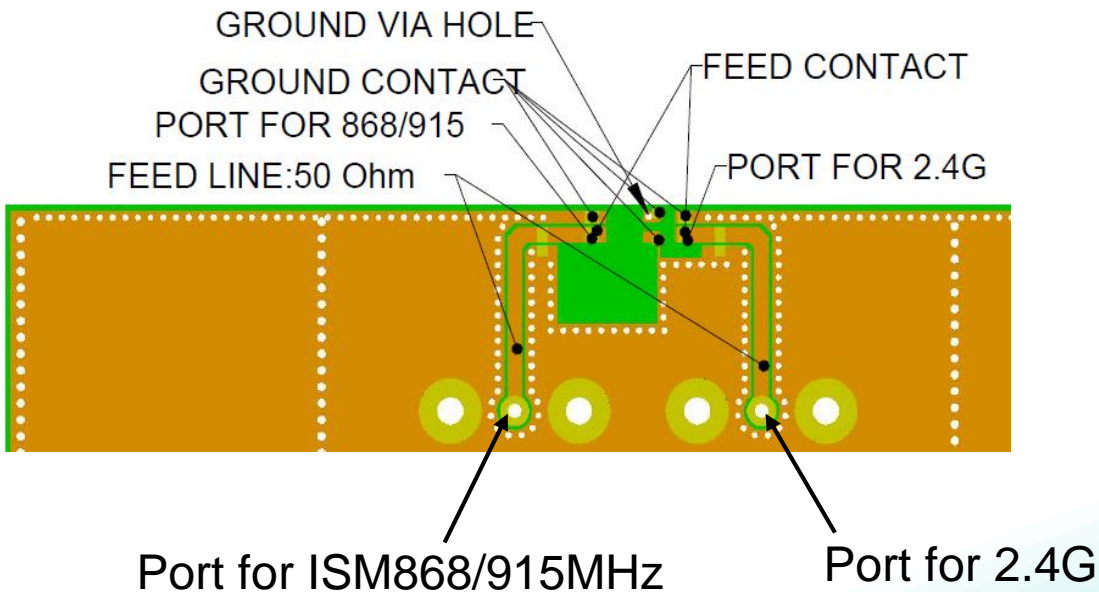
OTHER SPECIFICATIONS

PCB LAYOUT

3, Clearance area (Bottom)



4, PCB Features



Issue: 1834

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: ISM868/915, ISM2.4G

Series: Ceramic antenna

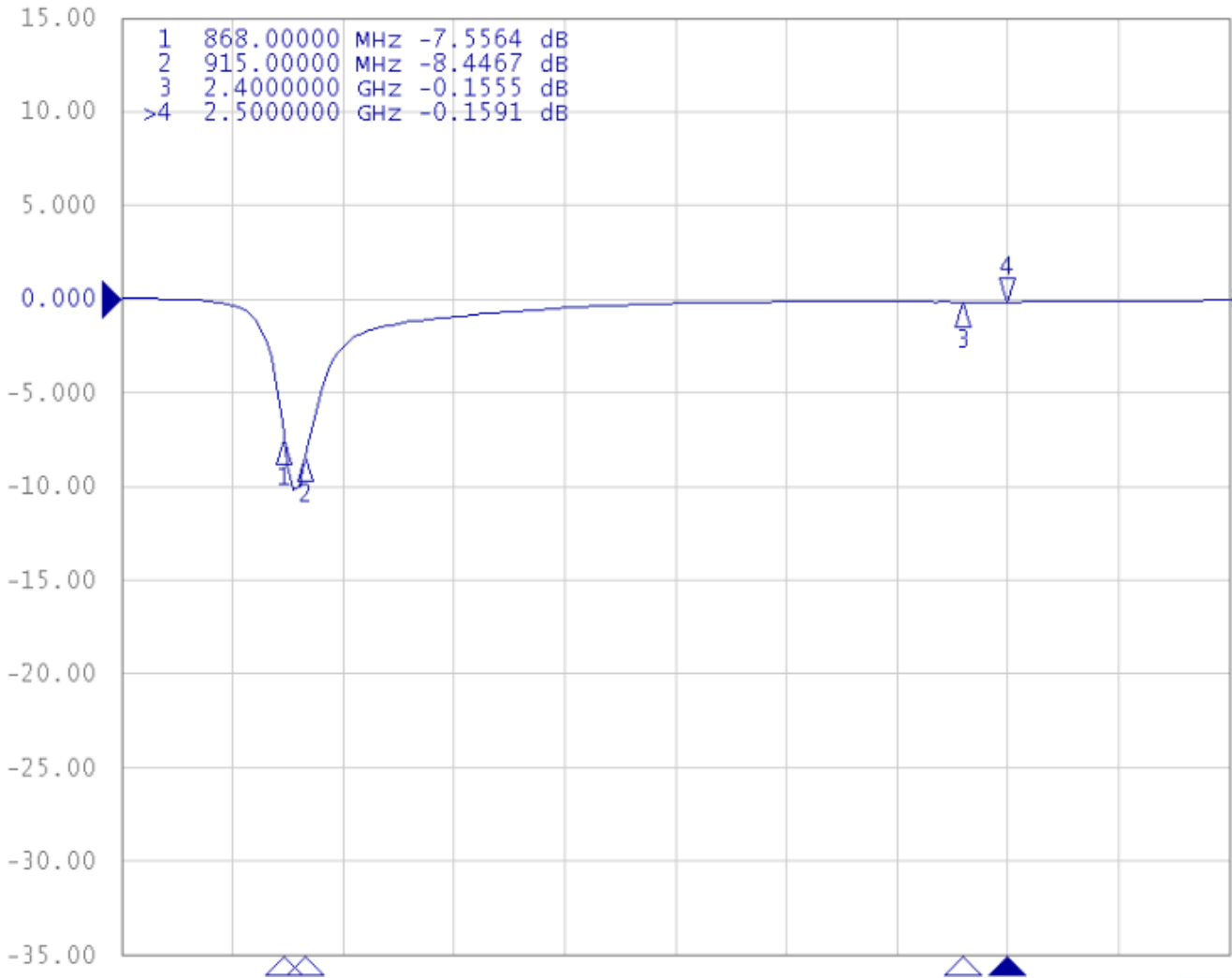
PART NUMBER: W3320

CHARTS

Return Loss

ISM868/915MHz

▶ Tr1 S11 Log Mag 5.000dB/ Ref 0.000dB [F1 Smo]



Issue: 1834

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: ISM868/915, ISM2.4G

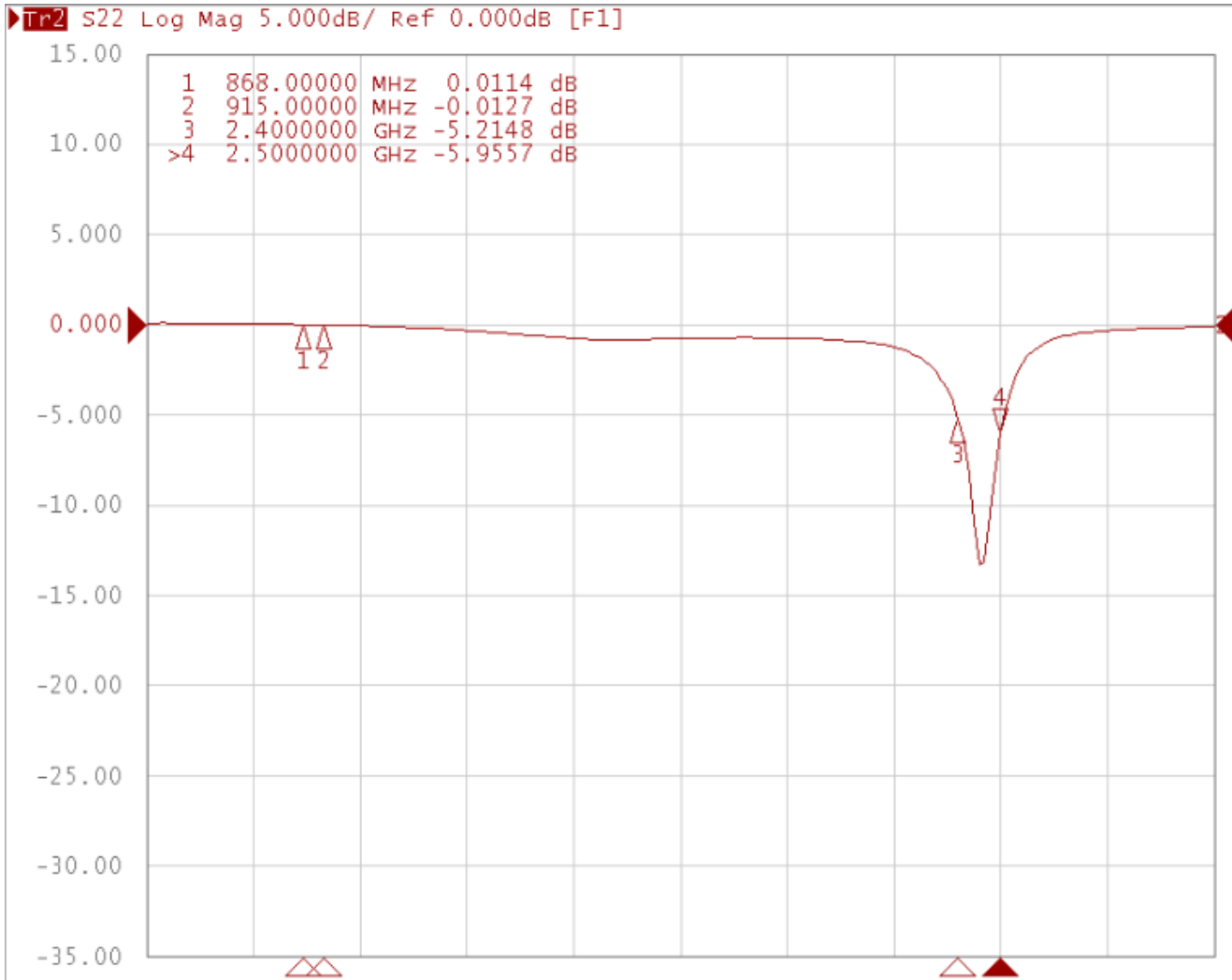
Series: Ceramic antenna

PART NUMBER: W3320

CHARTS

Return Loss

ISM2.4G



Issue: 1834

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.



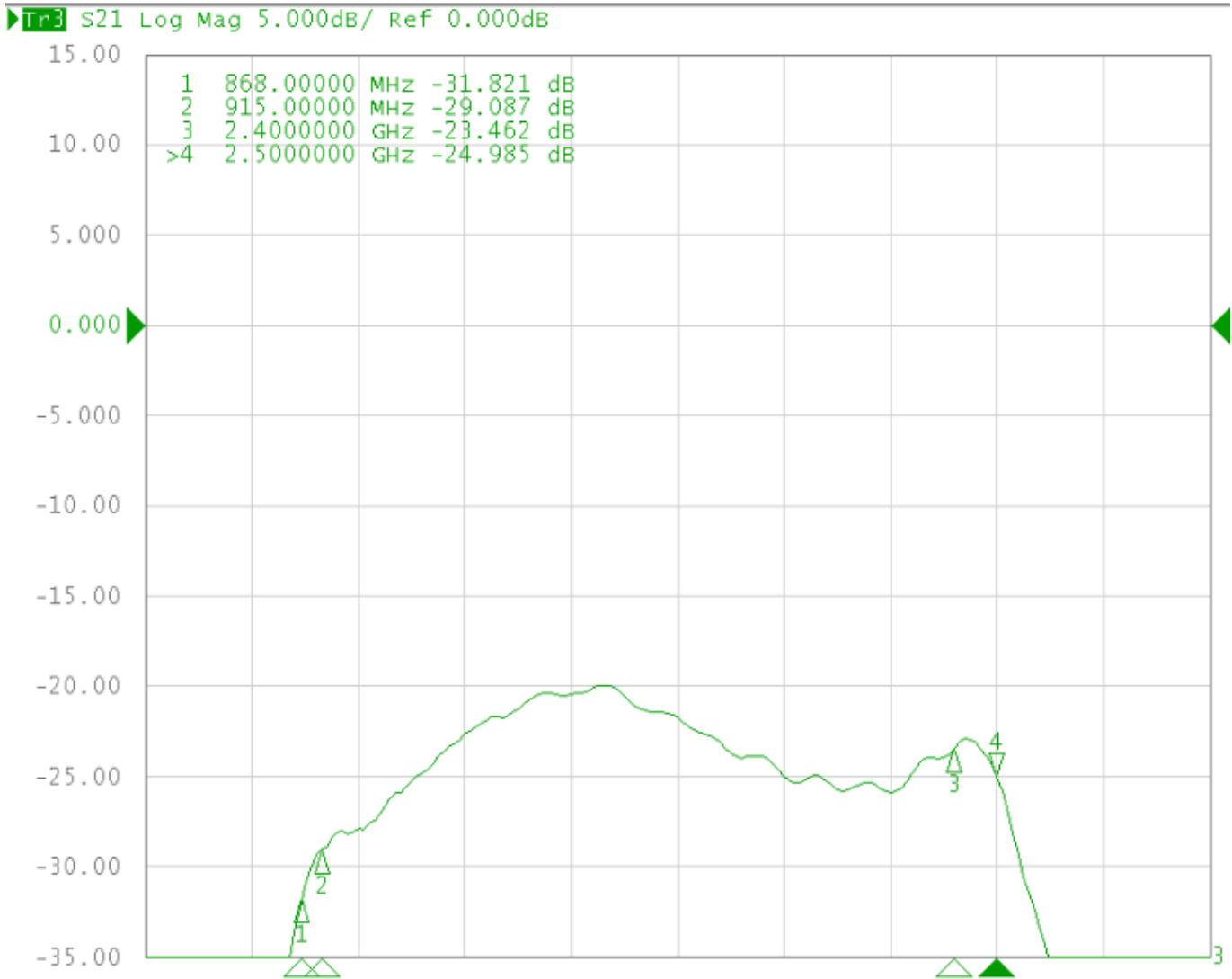
Description: ISM868/915, ISM2.4G

Series: Ceramic antenna

PART NUMBER: W3320

CHARTS

Isolation



Issue: 1834

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.



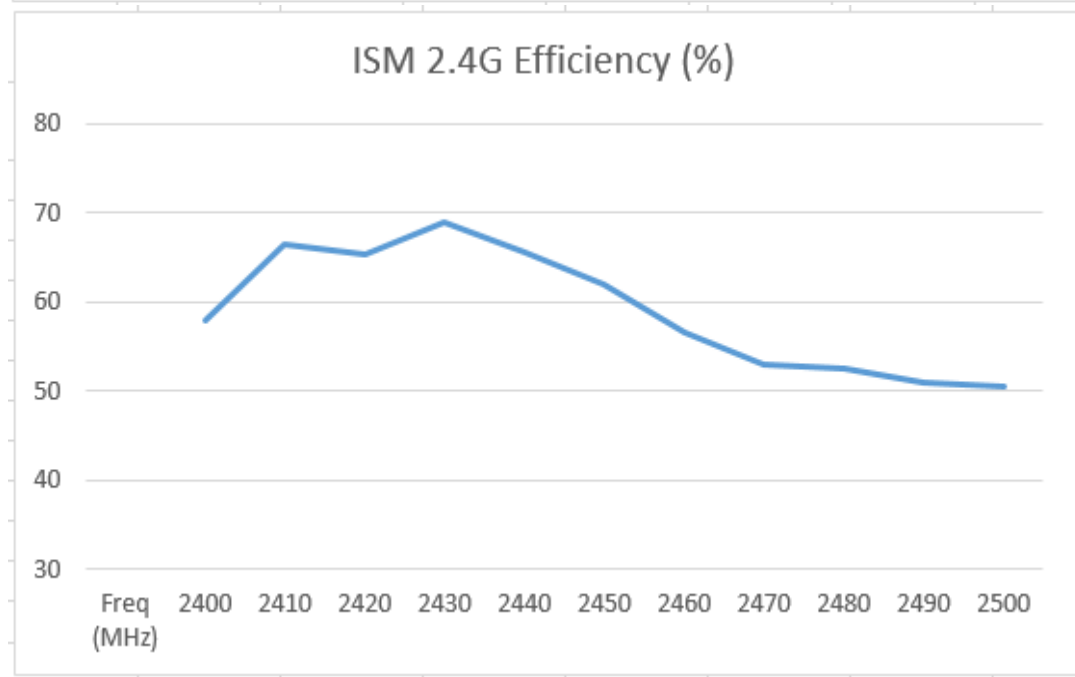
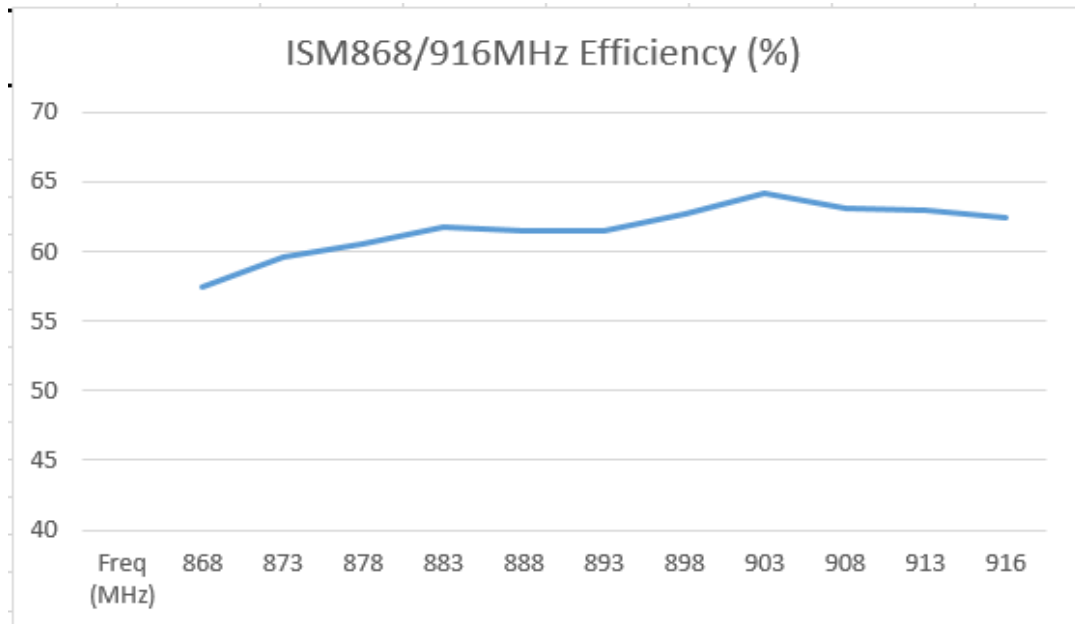
Description: ISM868/915, ISM2.4G

Series: Ceramic antenna

PART NUMBER: W3320

CHARTS

Efficiency(%)



Issue: 1834

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.



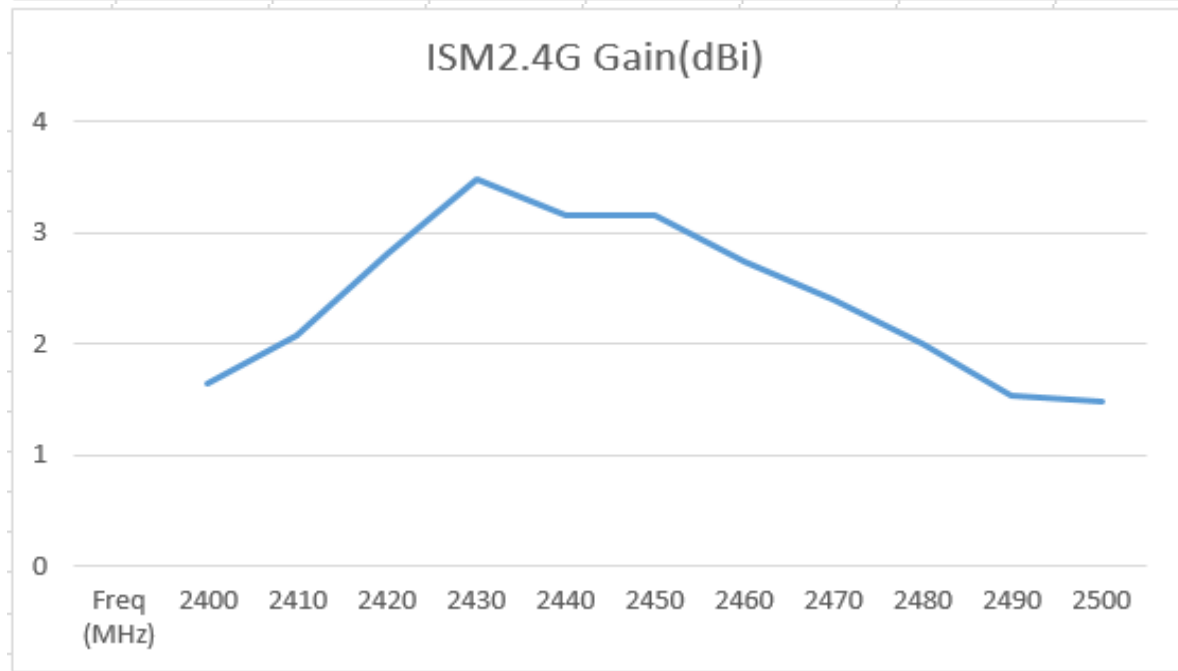
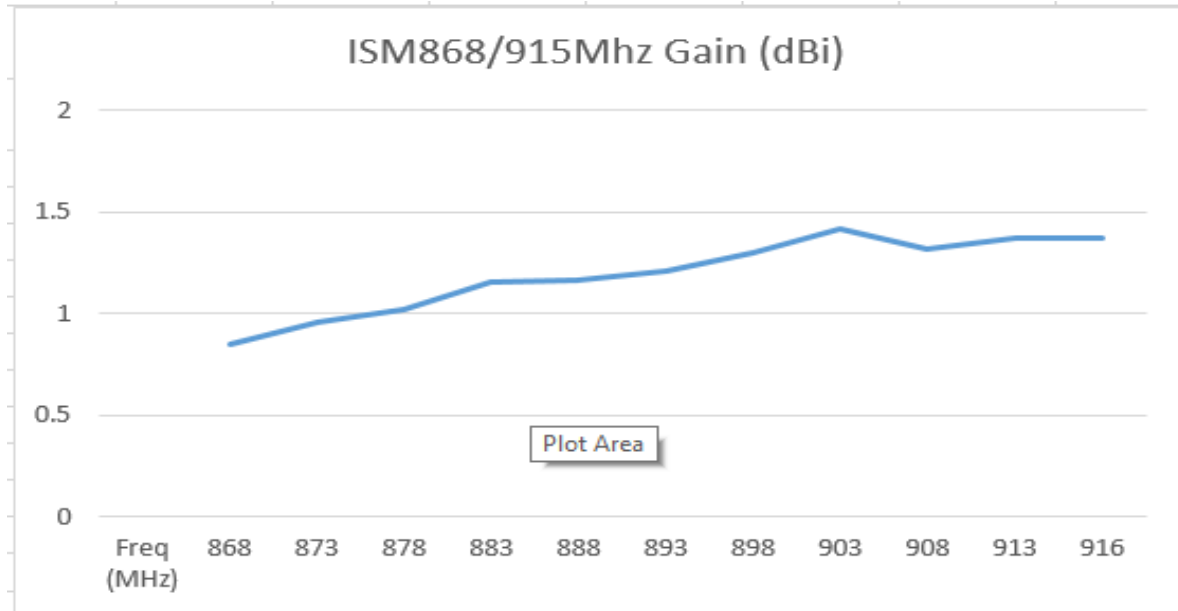
Description: ISM868/915, ISM2.4G

Series: Ceramic antenna

PART NUMBER: W3320

CHARTS

Gain (dBi)



Issue: 1834

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.



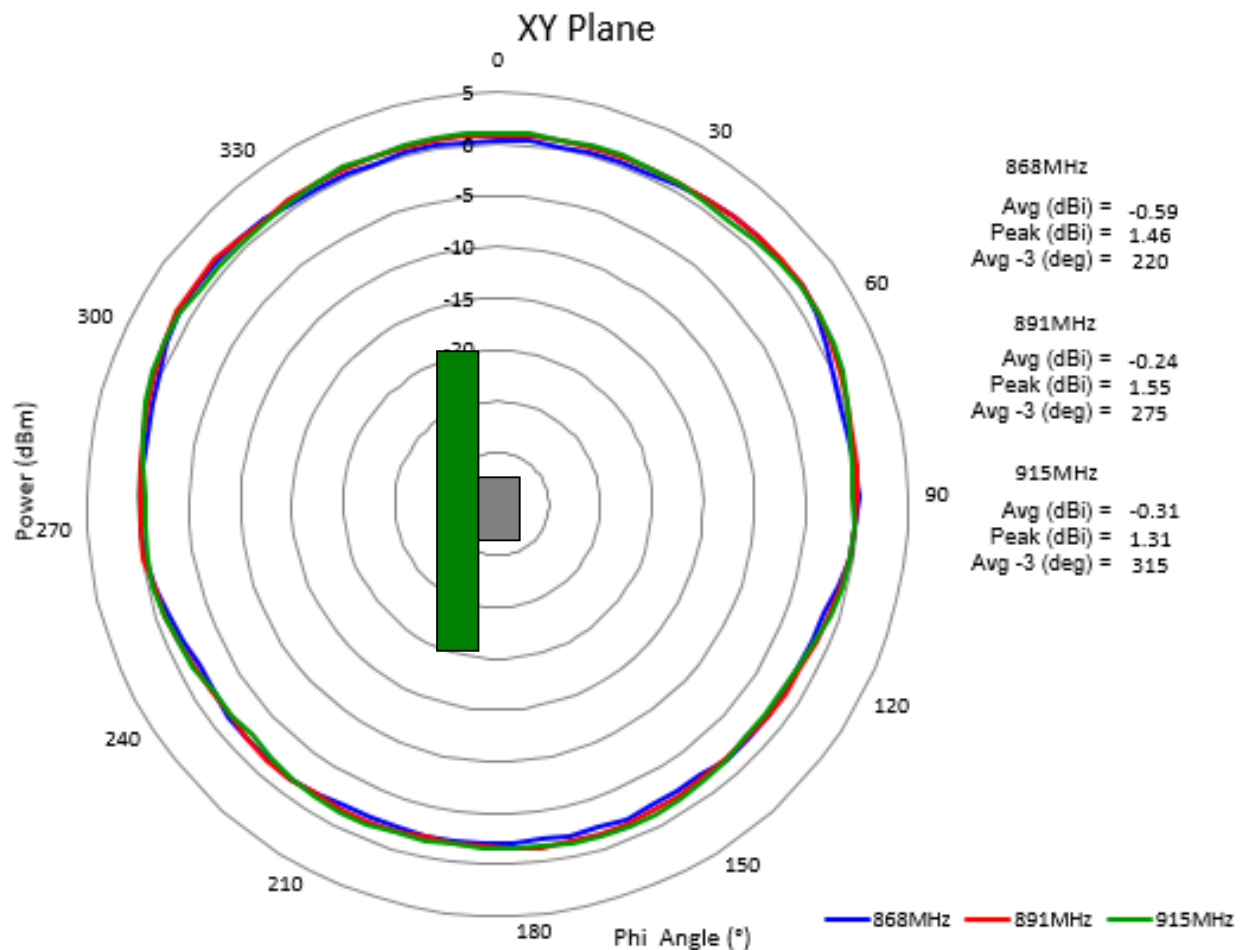
Description: ISM868/915, ISM2.4G

Series: Ceramic antenna

PART NUMBER: W3320

CHARTS

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



Issue: 1834

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.

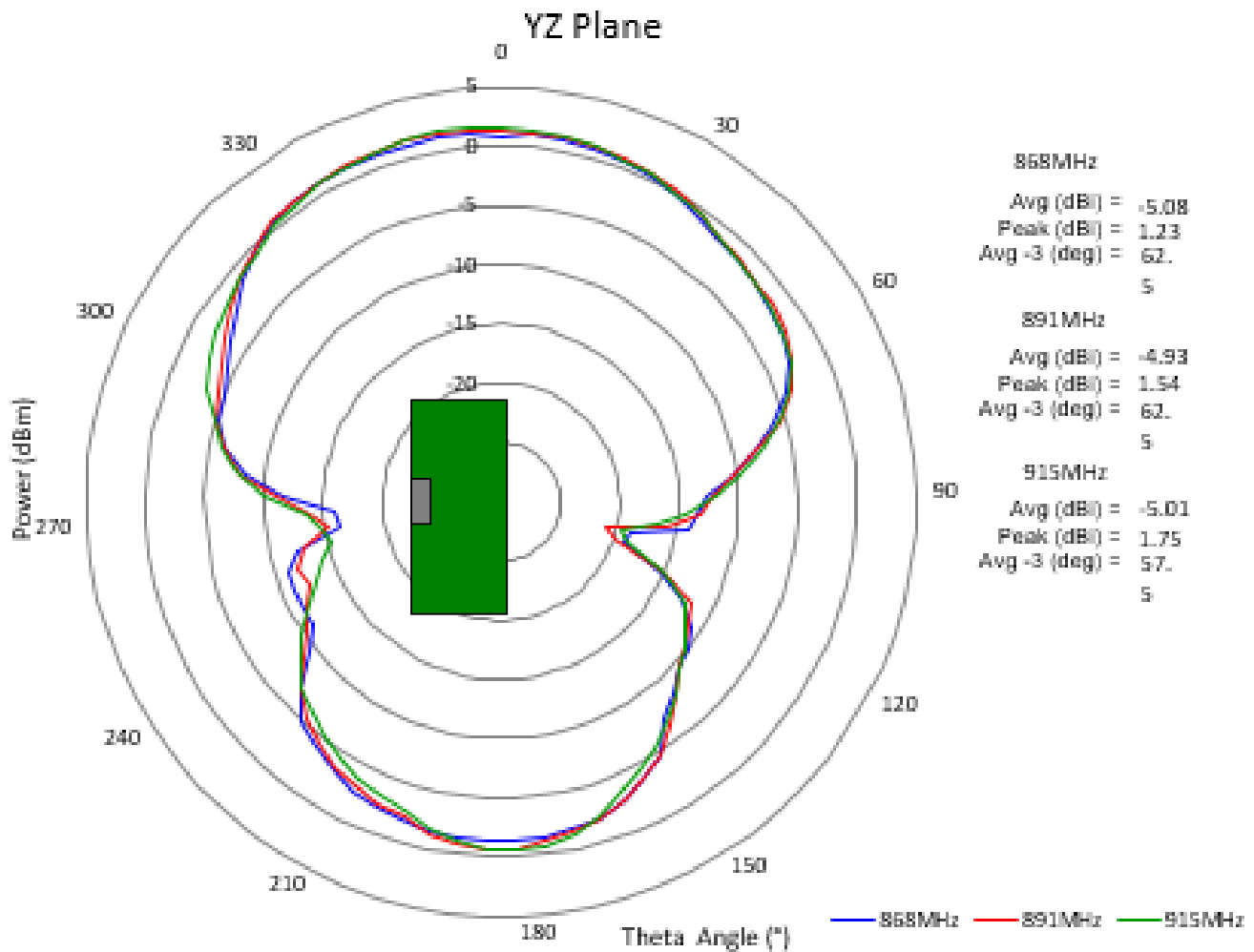
Description: ISM868/915, ISM2.4G

Series: Ceramic antenna

PART NUMBER: W3320

CHARTS

ISM868/915MHz
Y-Z plane



Issue: 1834

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.

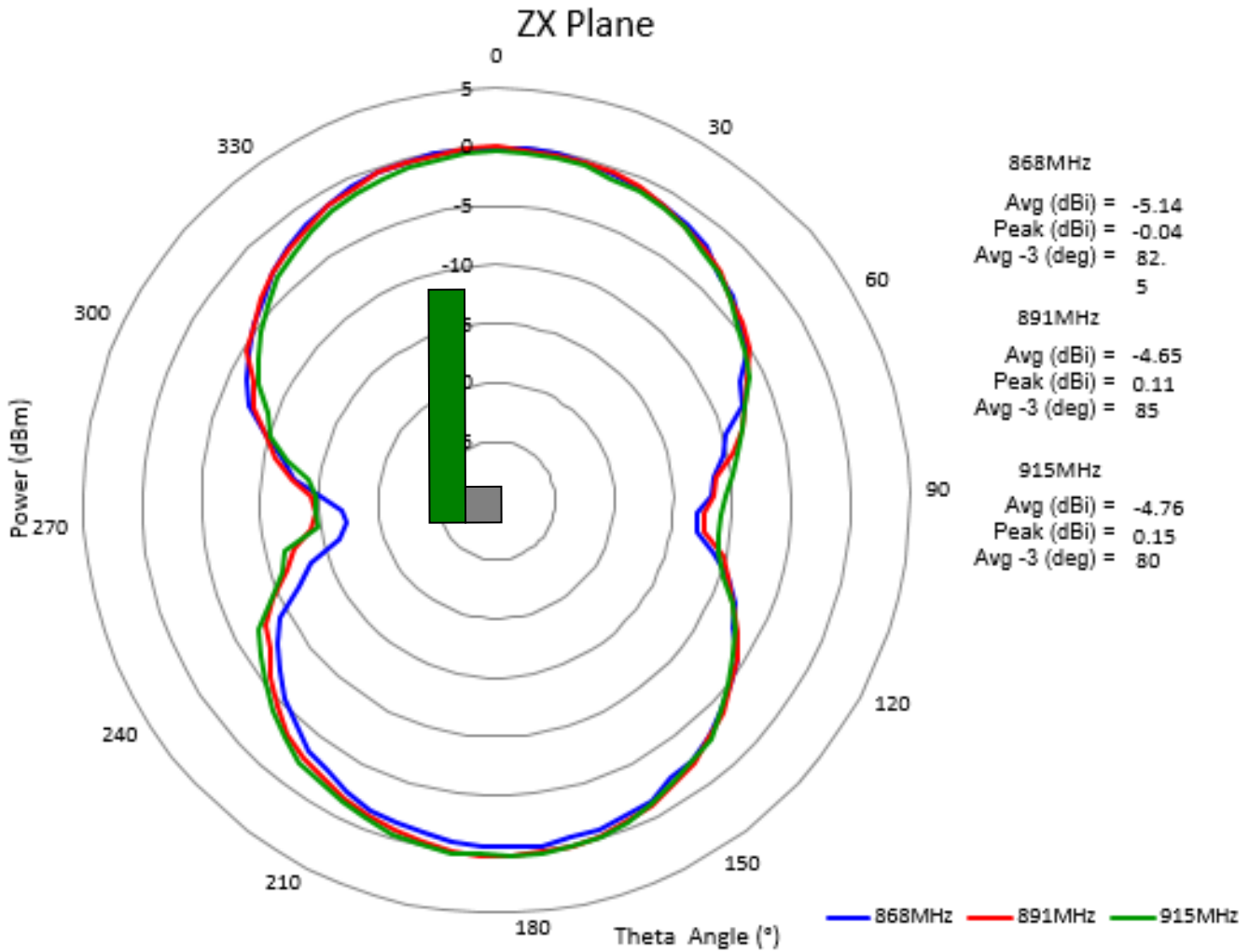
Description: ISM868/915, ISM2.4G

Series: Ceramic antenna

PART NUMBER: W3320

CHARTS

ISM868/915MHz
X-Z plane



Issue: 1834

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.

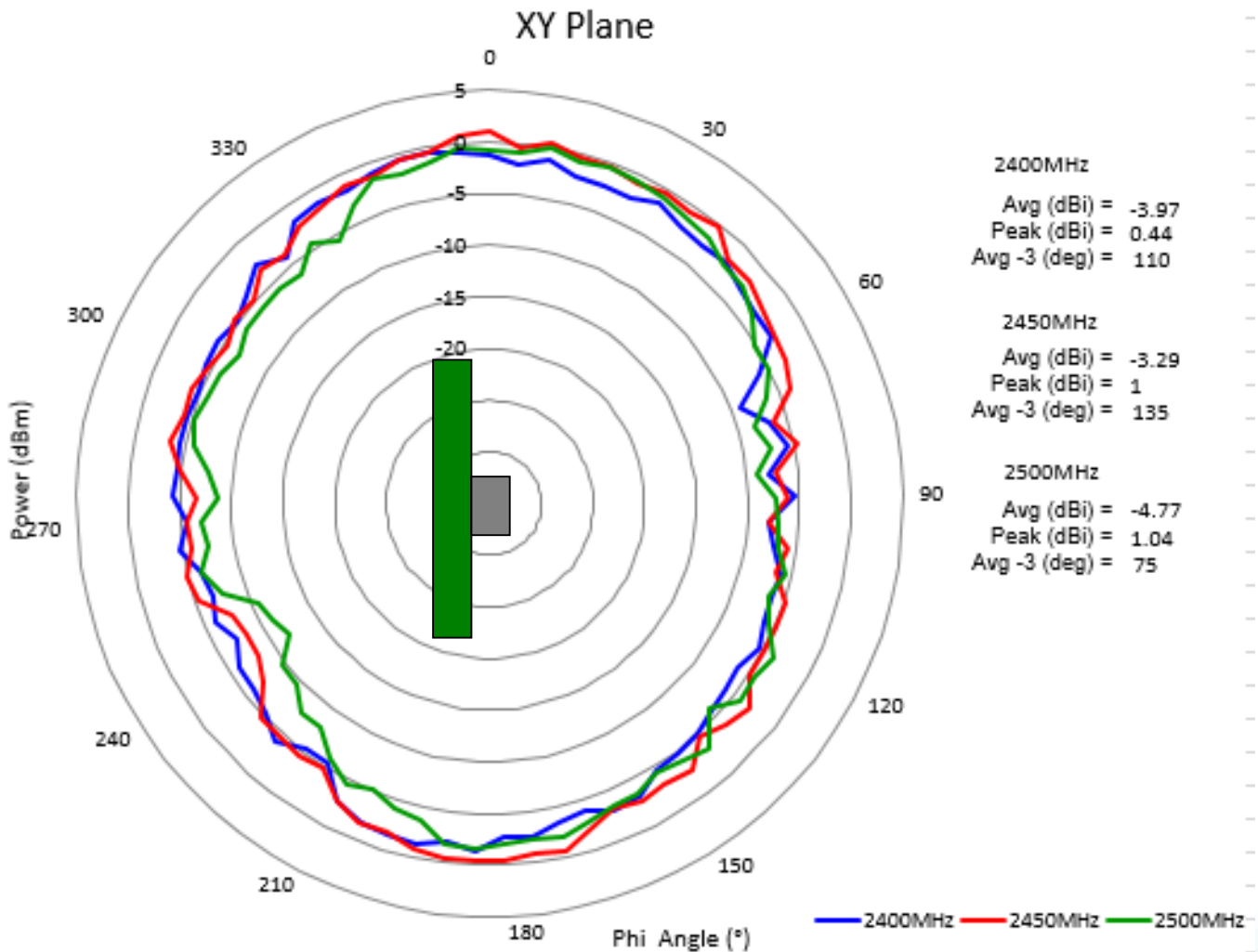
Description: ISM868/915, ISM2.4G

Series: Ceramic antenna

PART NUMBER: W3320

CHARTS

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



Issue: 1834

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.

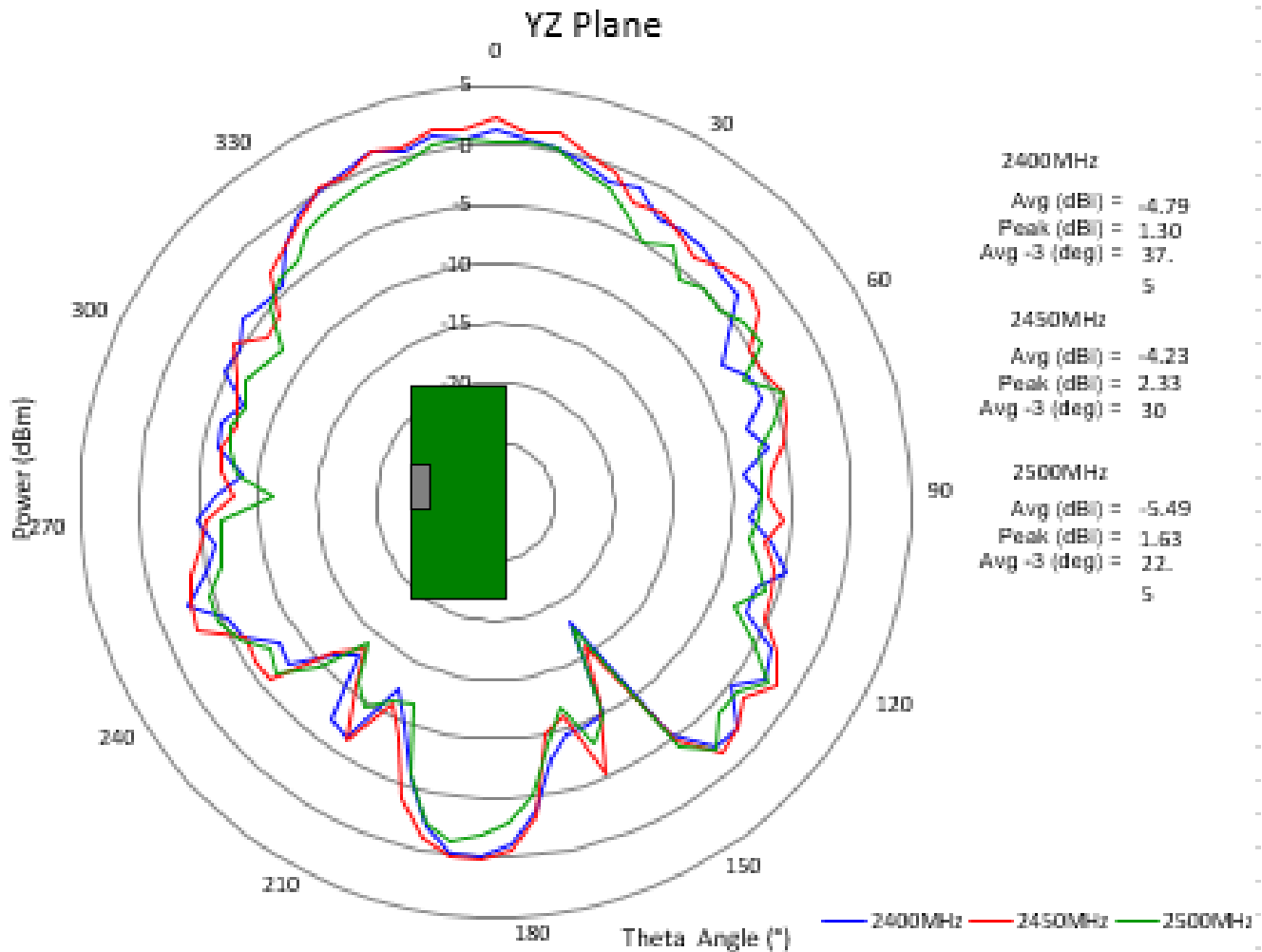
Description: ISM868/915, ISM2.4G

Series: Ceramic antenna

PART NUMBER: W3320

CHARTS

ISM 2.4GHz
Y-Z Plane



Issue: 1834

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.

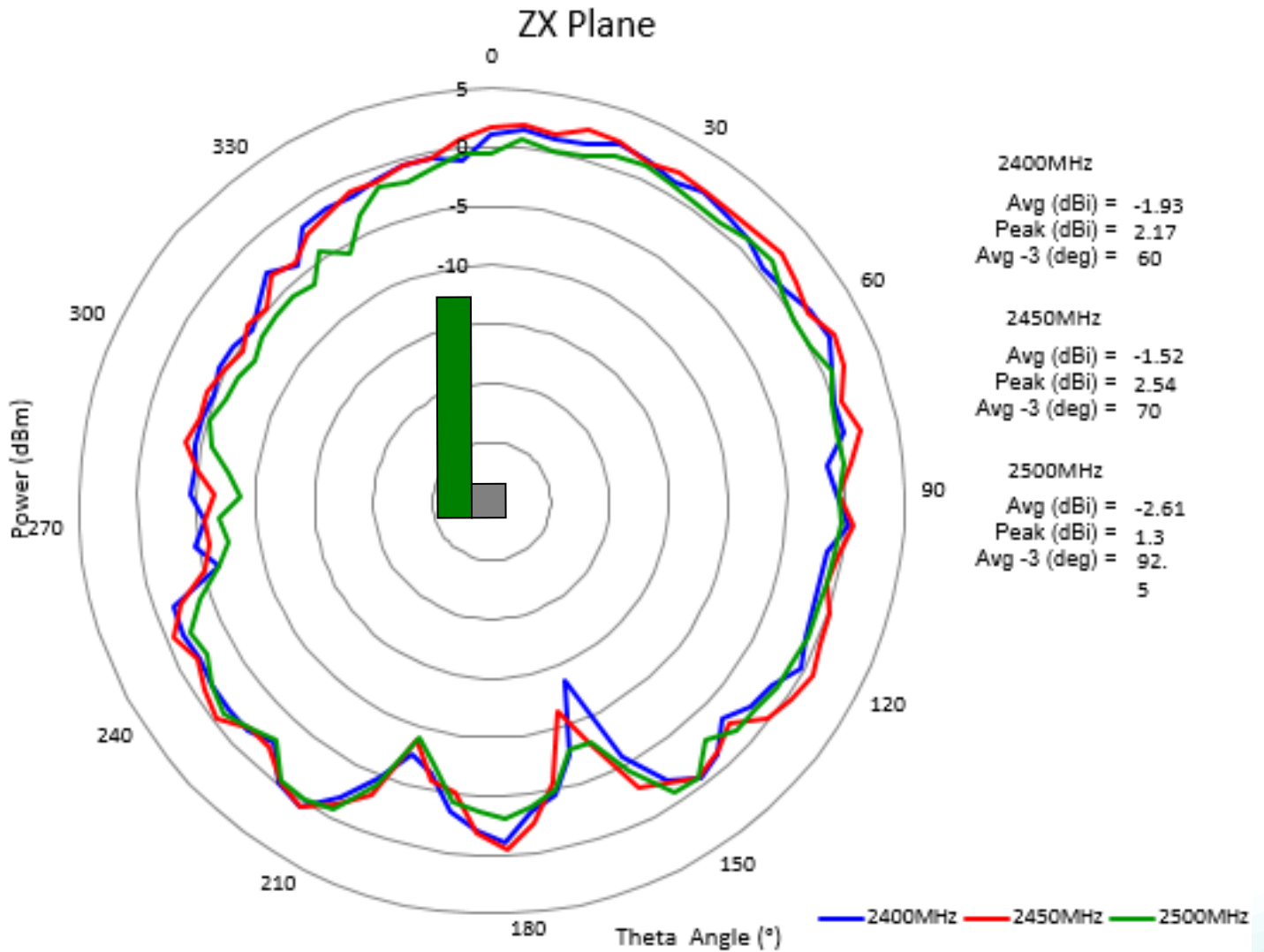
Description: ISM868/915, ISM2.4G

Series: Ceramic antenna

PART NUMBER: W3320

CHARTS

ISM 2.4GHz
X-Z Plane



Issue: 1834

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: ISM868/915, ISM2.4G

Series: Ceramic antenna

PART NUMBER: W3320

PACKAGING

Taping package
1000PCS/Reel
3000PCS/Small box
6000PCS/Carton box



Issue: 1834

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.