

Description: LTE Stealth Blade Antenna

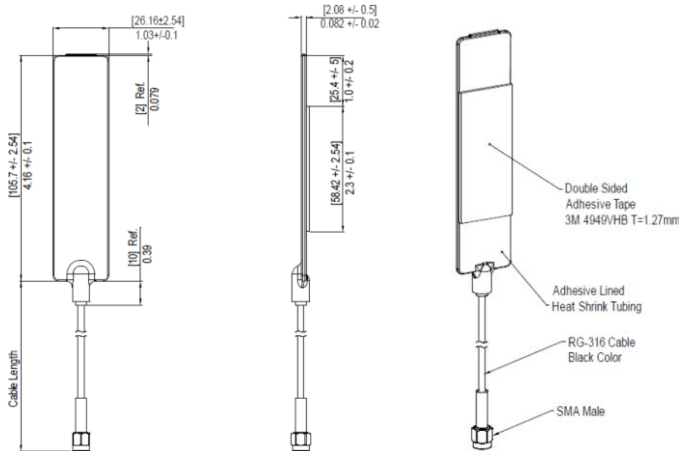
Series: SB Antenna

PART NUMBER: W1991



Features:

- Cost-effective, high-performance solution for LTE 698-2700MHz
- Slim, low-profile without sacrificing mechanical performance
- Multiple cable lengths and connector options
- Adhesive mount
- Flexible board
- IP-67 rating when installed to compliant surface
- RoHS Compliant Product
- Multiple and dual frequency products available



Applications:

- WLAN, LTE and 3G/4G applications
- Public Safety
- IoT - Vending/Smart Metering
- Access Points
- Vehicular (window, dashboard, visor)
- Data transmission

Projects	Connector	Cable Type	Cable Length	Weight
W1991	SMA Male	RG-316 Black	10' / 3048mm	44g
W1991AV			2' / 609.6mm	23g

All dimensions are in mm / inches

Issue: 1618

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: LTE Stealth Blade Antenna

Series: SB Antenna

PART NUMBER: W1991

ELECTRICAL SPECIFICATIONS

Antenna Type	Dipole (Measured with 315mm RG-174 Cable, in free space)
Frequency	698-960/1710-2170/2300-2700MHz
Nominal Impedance	50 Ω
VSWR	2.5:1 Max
Peak Gain (698-960)	2 dBi
Peak Gain (1710-2700)	2 dBi
Efficiency (698-960)	50 %
Efficiency (1710-2700)	60 %
HPBW Horizontal Plane	Omni
HPBW Vertical Plane (698-960)	40°
HPBW Vertical Plane (1710-2170)	70°
HPBW Vertical Plane (2300-2700)	55°
Polarization	Vertical
Power withstanding	3 W
Connector type	Refer to table on Page 1
Cable type	Black RG-316
Length	Refer to table on Page 1

Description: LTE Stealth Blade Antenna**Series: SB Antenna****PART NUMBER: W1991****MECHANICAL SPECIFICATIONS**

Radome	Adhesive lined polyolefin tubing
Color	Black
Ingress Protection	IP67
Weight	Refer to table on Page 1
Overall Length	4.16 INCHES
Cable retention: Pull off	30 N mini
Fixing system	Adhesive Tape (3M VHB 4949)

ENVIRONMENTAL SPECIFICATIONS

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

Issue: 1618

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

CONFIDENTIAL AND PROPRIETARY INFORMATION

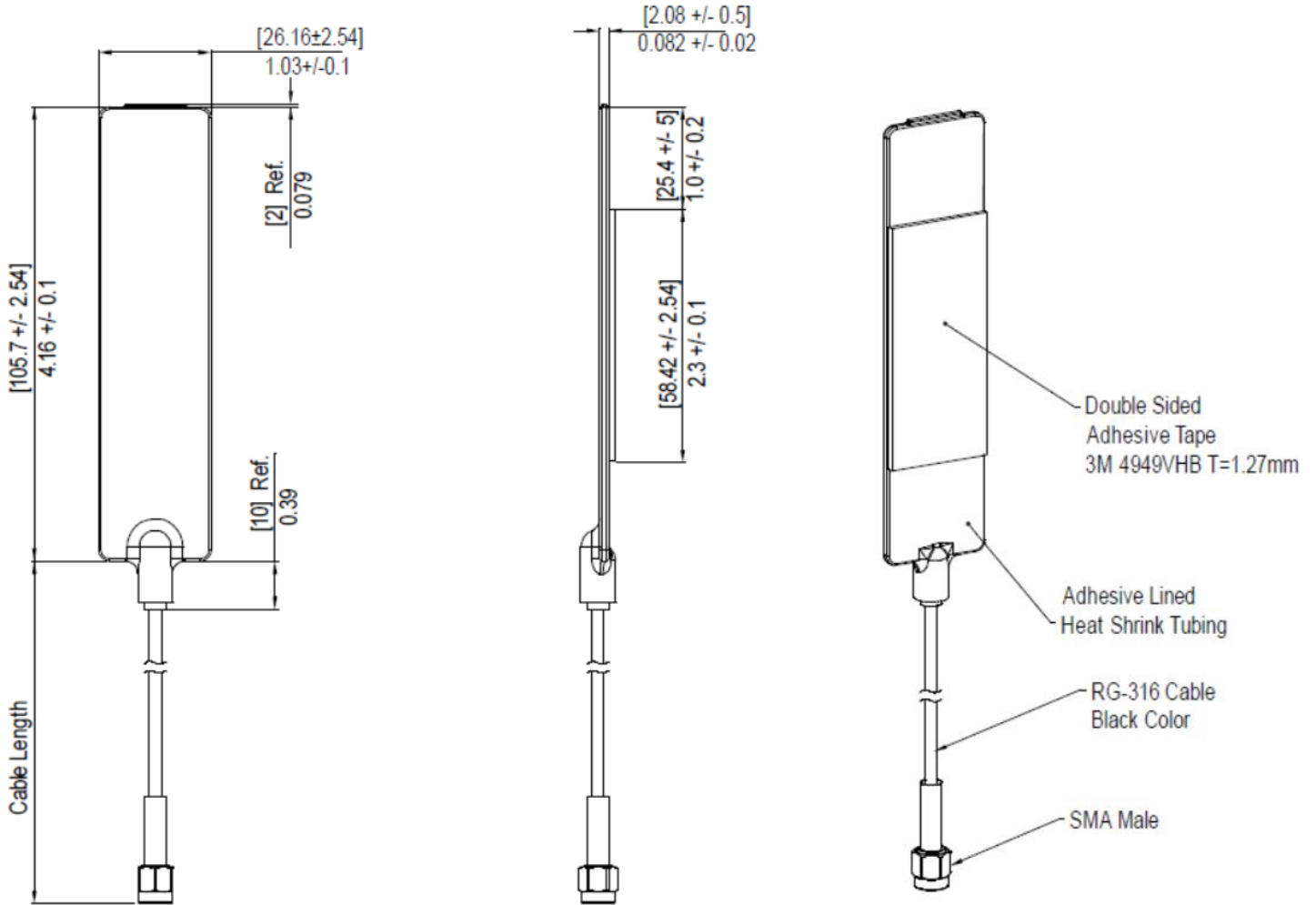
This document contains confidential and proprietary information of Pulse Electronics, Inc. (Pulse) and is protected by copyright, trade secret and other state and federal laws. Its receipt or possession does not convey any rights to reproduce, disclose its contents, or to manufacture, use or sell anything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

Description: LTE Stealth Blade Antenna

Series: SB Antenna

PART NUMBER: W1991

MECHANICAL DRAWING



Issue: 1618

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.

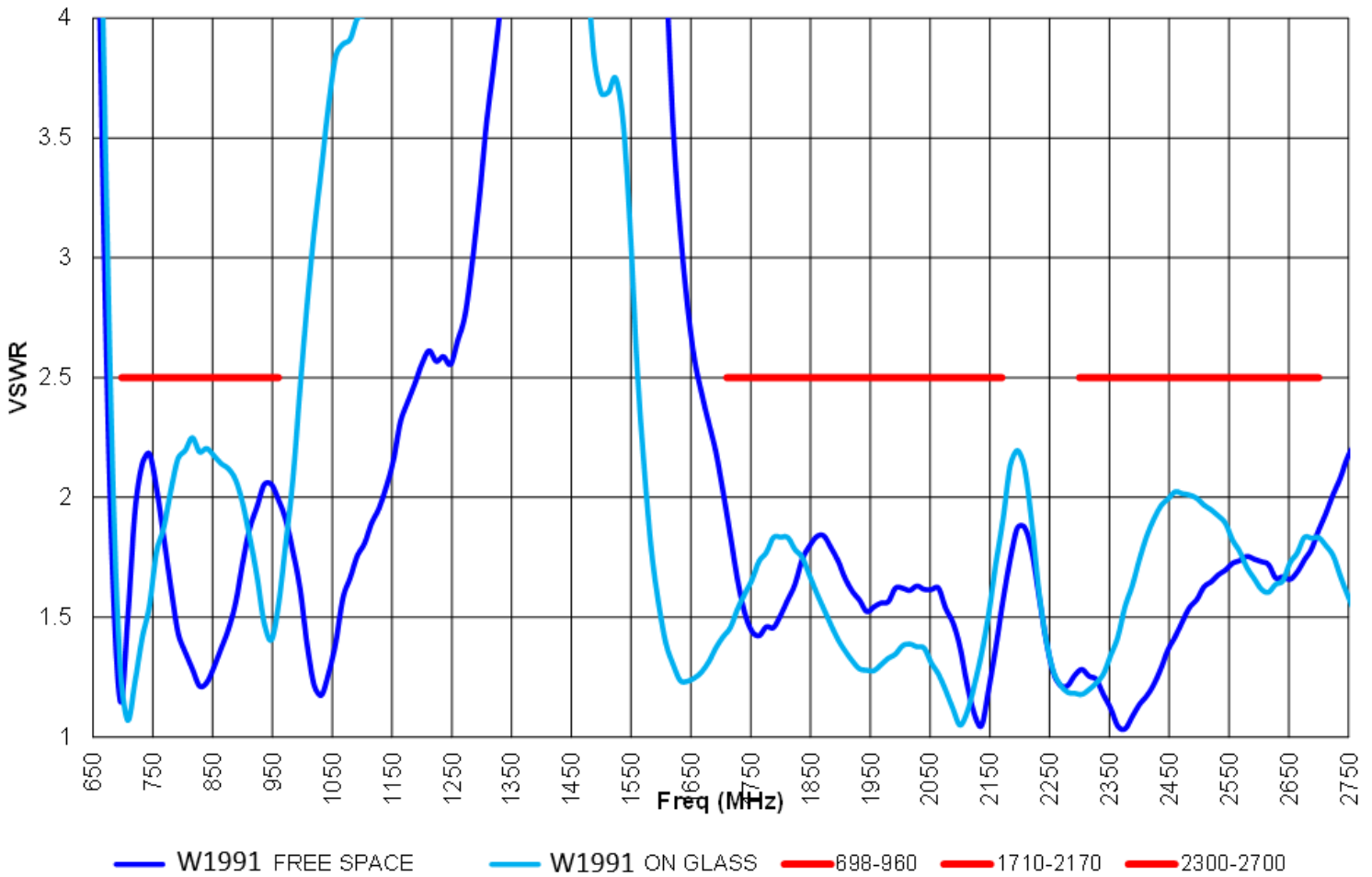
Description: LTE Stealth Blade Antenna

Series: SB Antenna

PART NUMBER: W1991

CHARTS

S11 Parameter Measured with 315mm RG-174 cable



Issue: 1618

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: LTE Stealth Blade Antenna

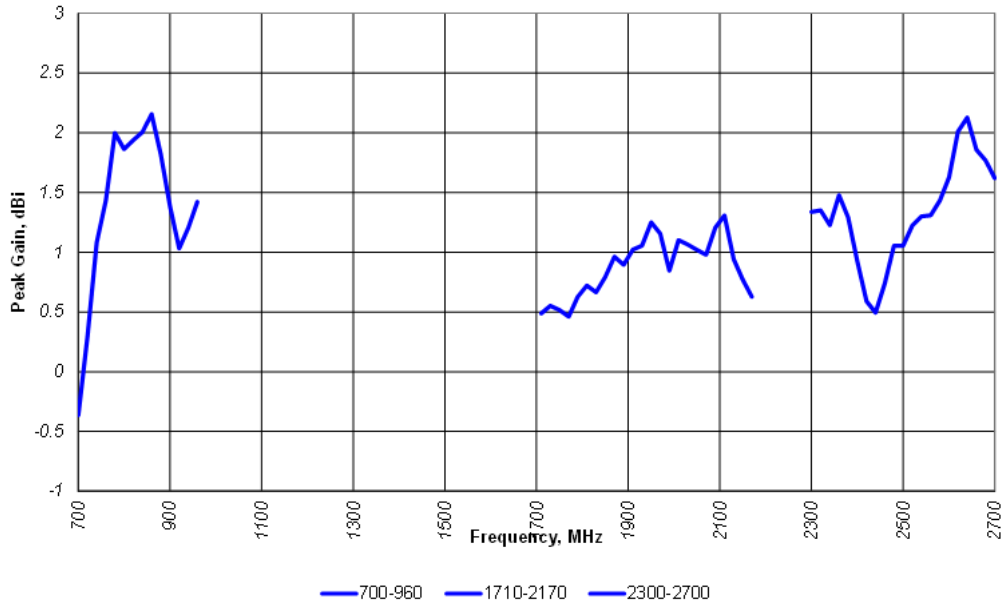
Series: SB Antenna

PART NUMBER: W1991

CHARTS

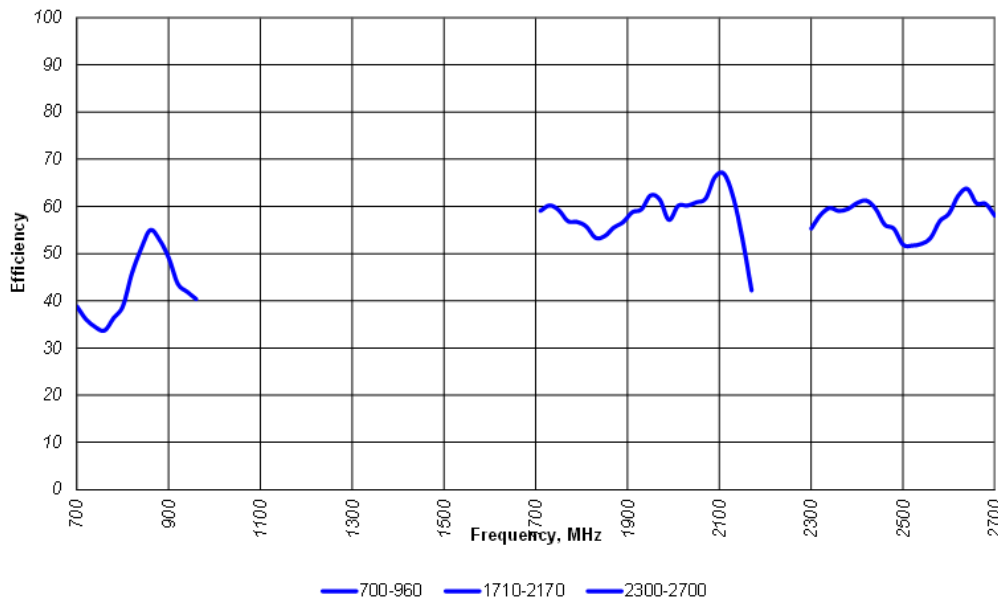
Peak Gain vs Frequency
Free space

Measured at Pulse, USA - June 01, 2016



Efficiency vs Frequency
Free space

Measured at Pulse, USA - June 01, 2016



Issue: 1618

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

CONFIDENTIAL AND PROPRIETARY INFORMATION

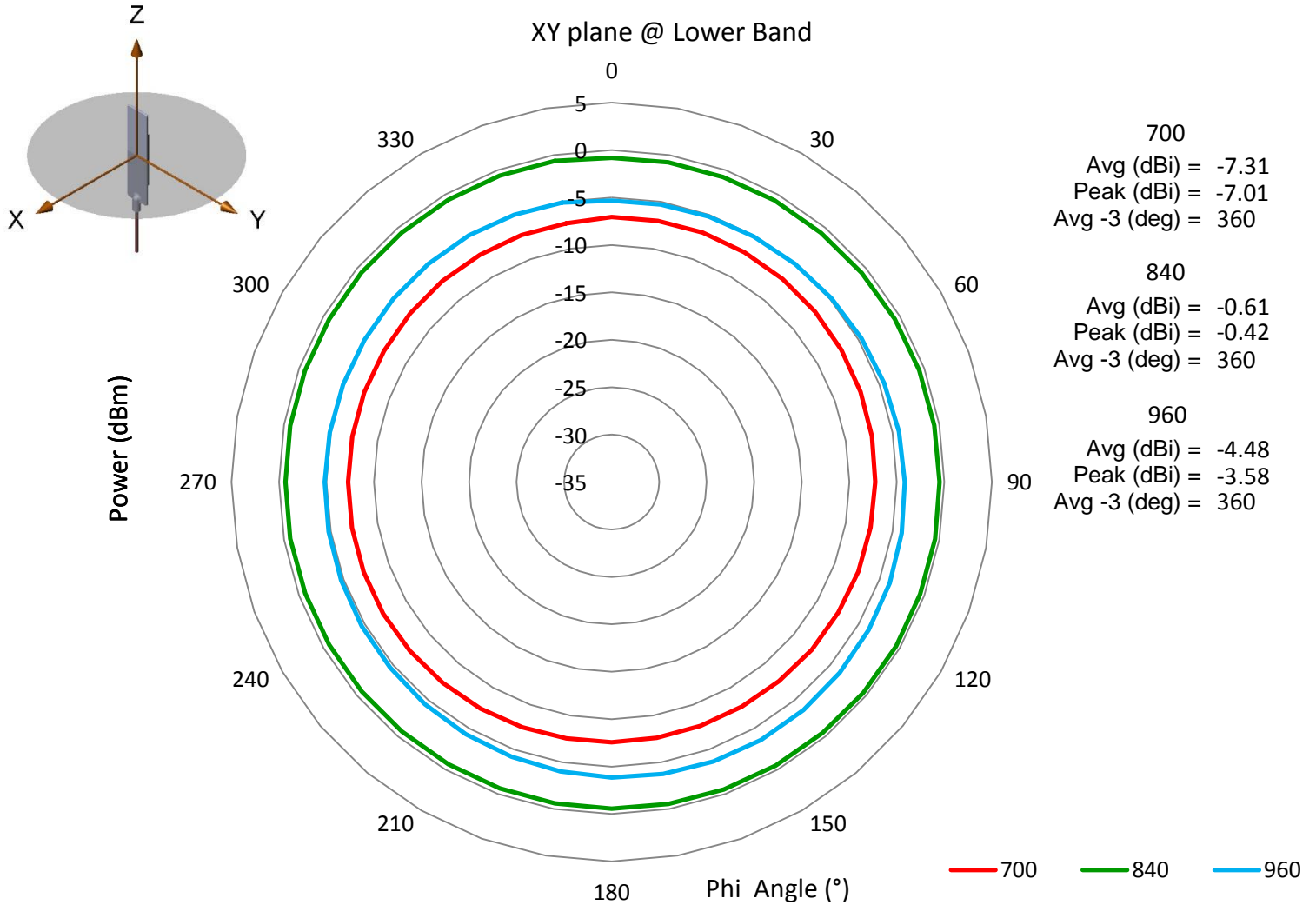
This document contains confidential and proprietary information of Pulse Electronics, Inc. (Pulse) and is protected by copyright, trade secret and other state and federal laws. Its receipt or possession does not convey any rights to reproduce, disclose its contents, or to manufacture, use or sell anything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

Description: LTE Stealth Blade Antenna

Series: SB Antenna

PART NUMBER: W1991

CHARTS



Issue: 1618

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

CONFIDENTIAL AND PROPRIETARY INFORMATION

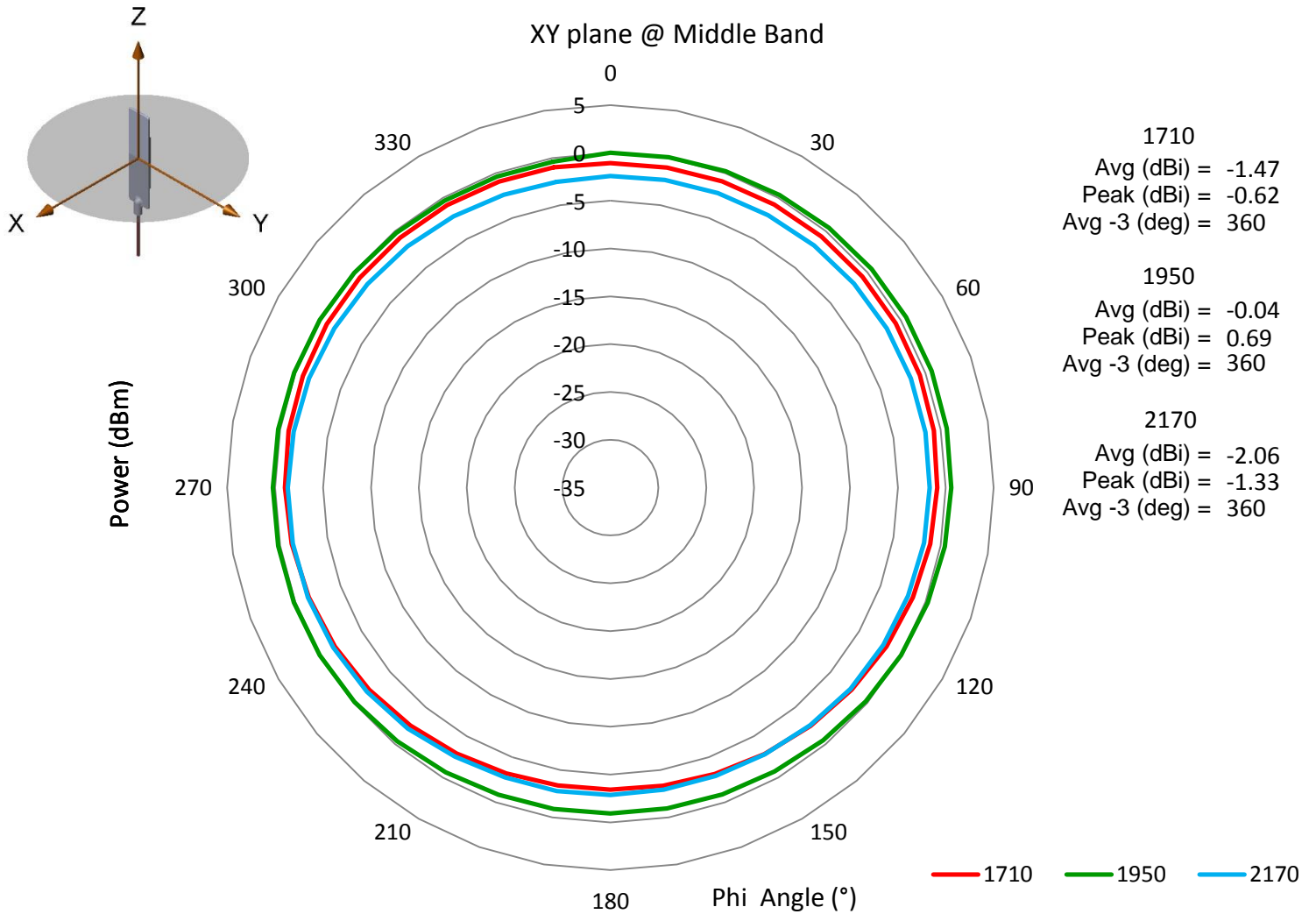
This document contains confidential and proprietary information of Pulse Electronics, Inc. (Pulse) and is protected by copyright, trade secret and other state and federal laws. Its receipt or possession does not convey any rights to reproduce, disclose its contents, or to manufacture, use or sell anything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

Description: LTE Stealth Blade Antenna

Series: SB Antenna

PART NUMBER: W1991

CHARTS



Issue: 1618

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

CONFIDENTIAL AND PROPRIETARY INFORMATION

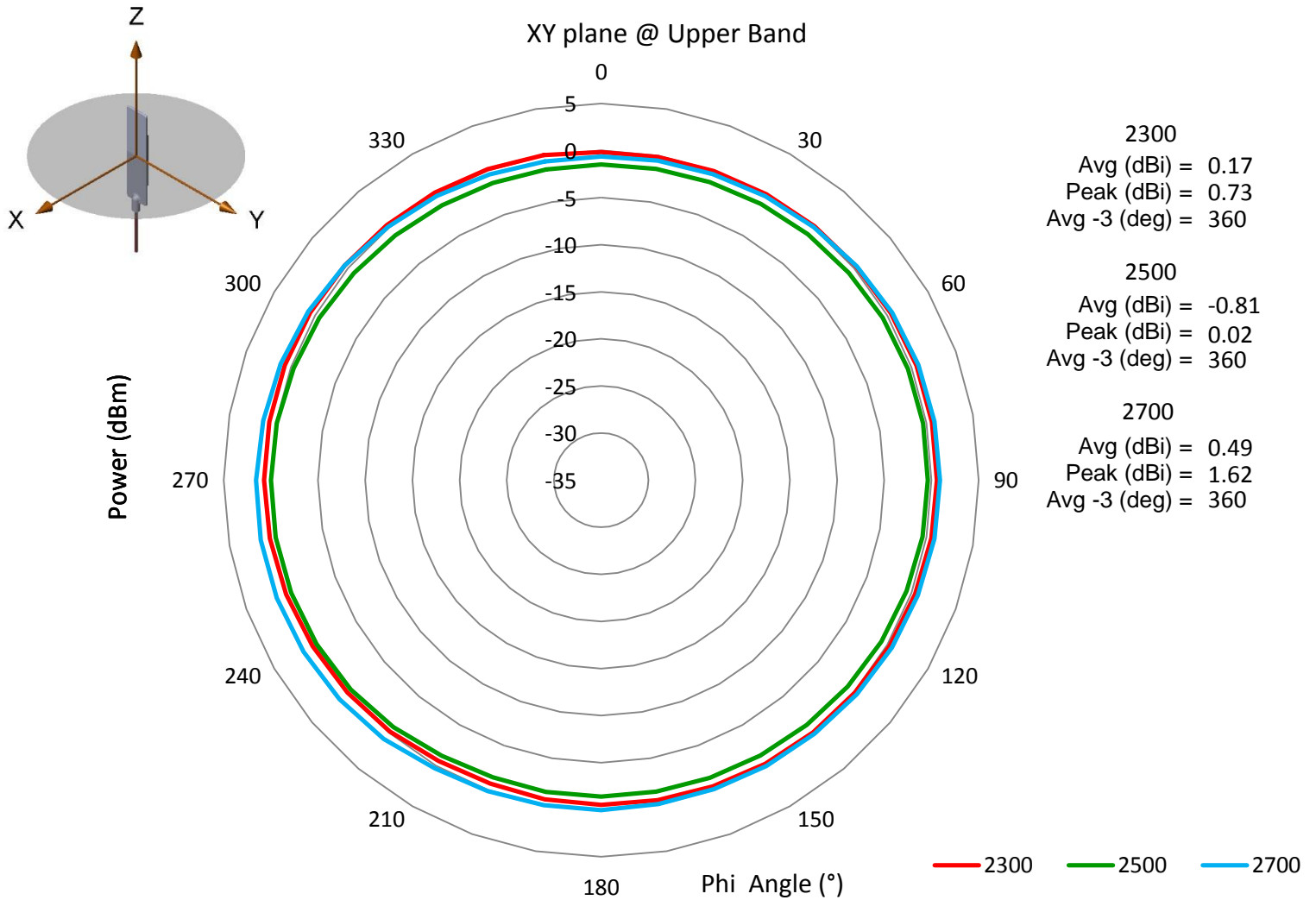
This document contains confidential and proprietary information of Pulse Electronics, Inc. (Pulse) and is protected by copyright, trade secret and other state and federal laws. Its receipt or possession does not convey any rights to reproduce, disclose its contents, or to manufacture, use or sell anything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

Description: LTE Stealth Blade Antenna

Series: SB Antenna

PART NUMBER: W1991

CHARTS



Issue: 1618

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

CONFIDENTIAL AND PROPRIETARY INFORMATION

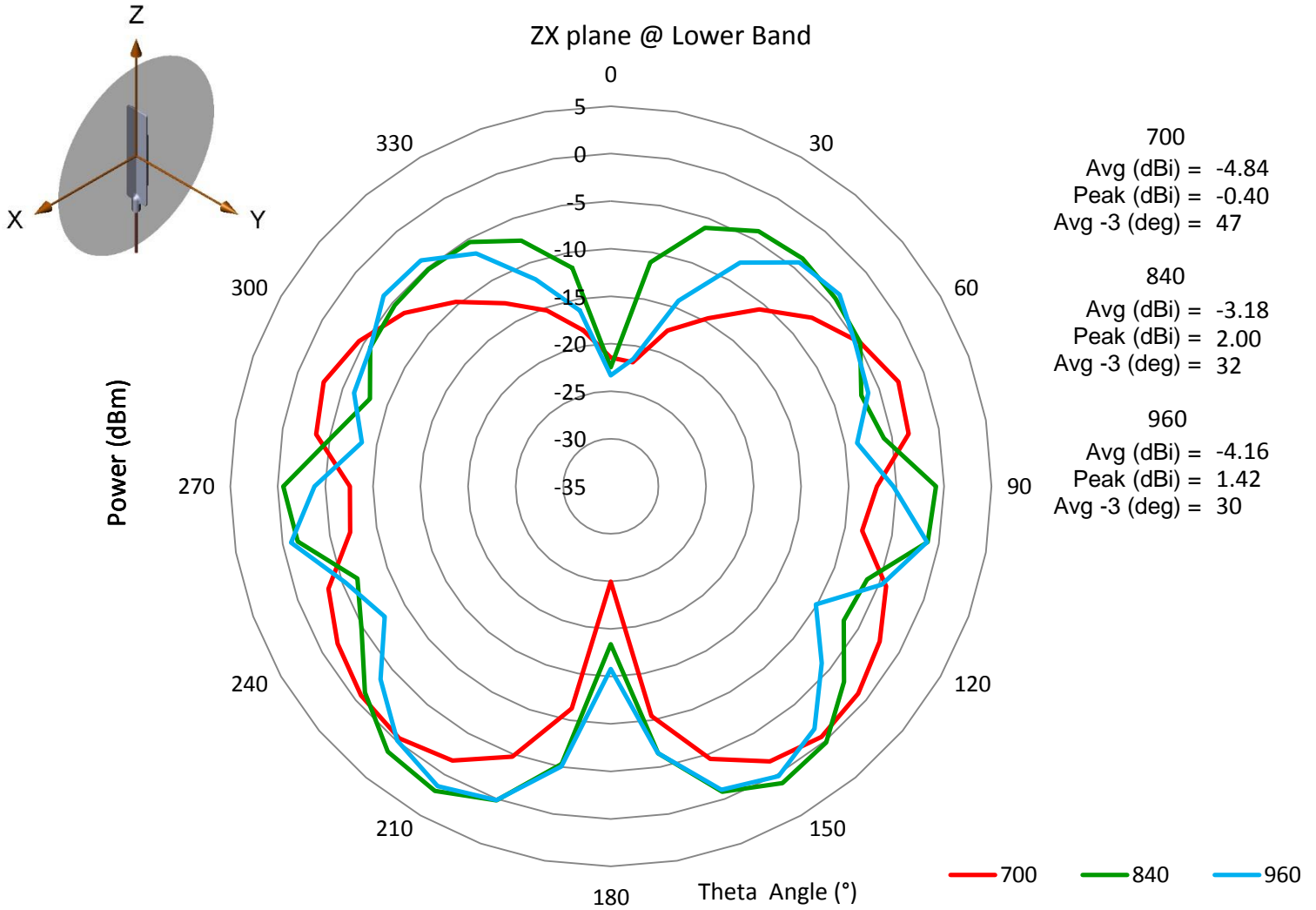
This document contains confidential and proprietary information of Pulse Electronics, Inc. (Pulse) and is protected by copyright, trade secret and other state and federal laws. Its receipt or possession does not convey any rights to reproduce, disclose its contents, or to manufacture, use or sell anything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

Description: LTE Stealth Blade Antenna

Series: SB Antenna

PART NUMBER: W1991

CHARTS



Issue: 1618

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

CONFIDENTIAL AND PROPRIETARY INFORMATION

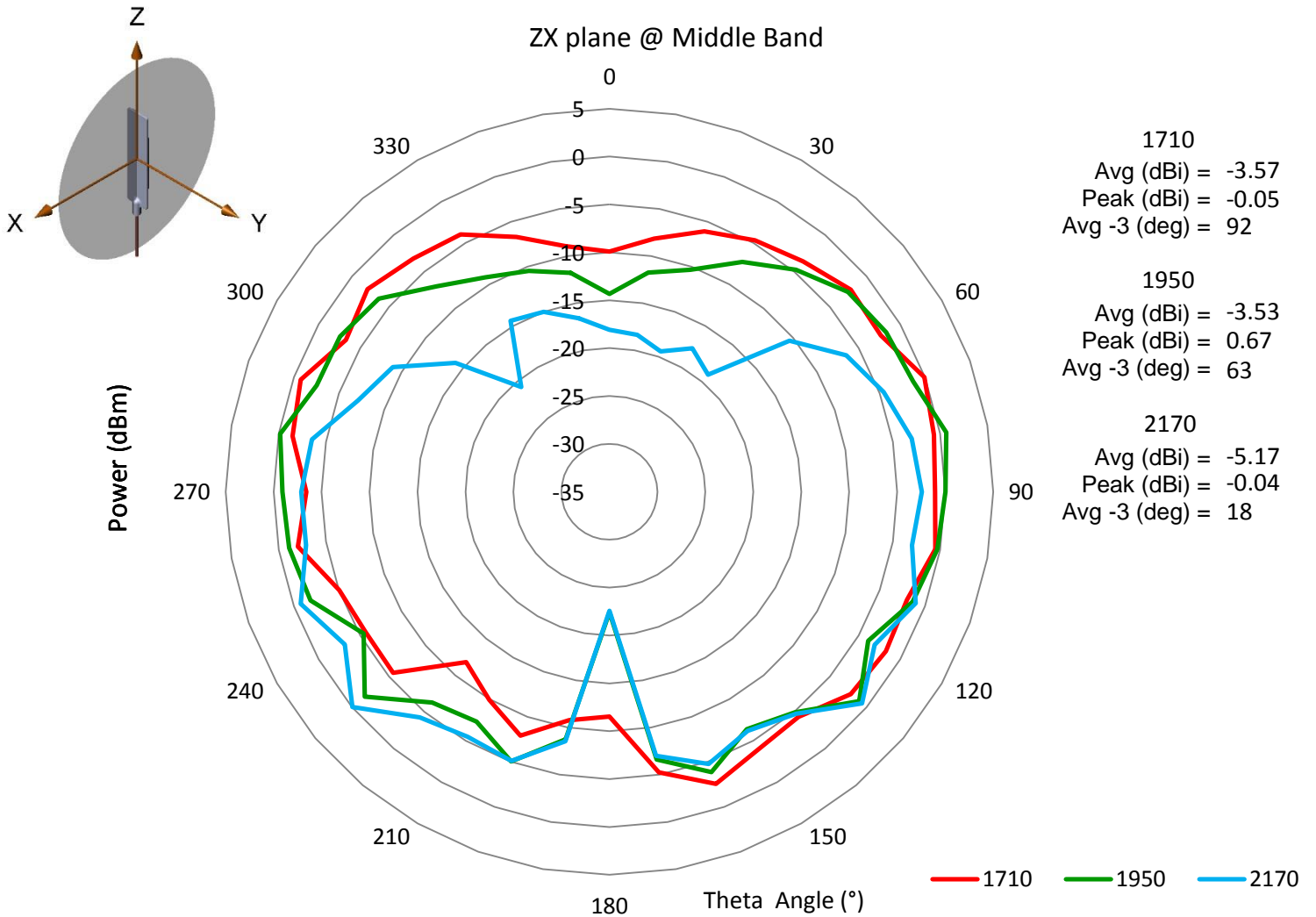
This document contains confidential and proprietary information of Pulse Electronics, Inc. (Pulse) and is protected by copyright, trade secret and other state and federal laws. Its receipt or possession does not convey any rights to reproduce, disclose its contents, or to manufacture, use or sell anything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

Description: LTE Stealth Blade Antenna

Series: SB Antenna

PART NUMBER: W1991

CHARTS



Issue: 1618

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

CONFIDENTIAL AND PROPRIETARY INFORMATION

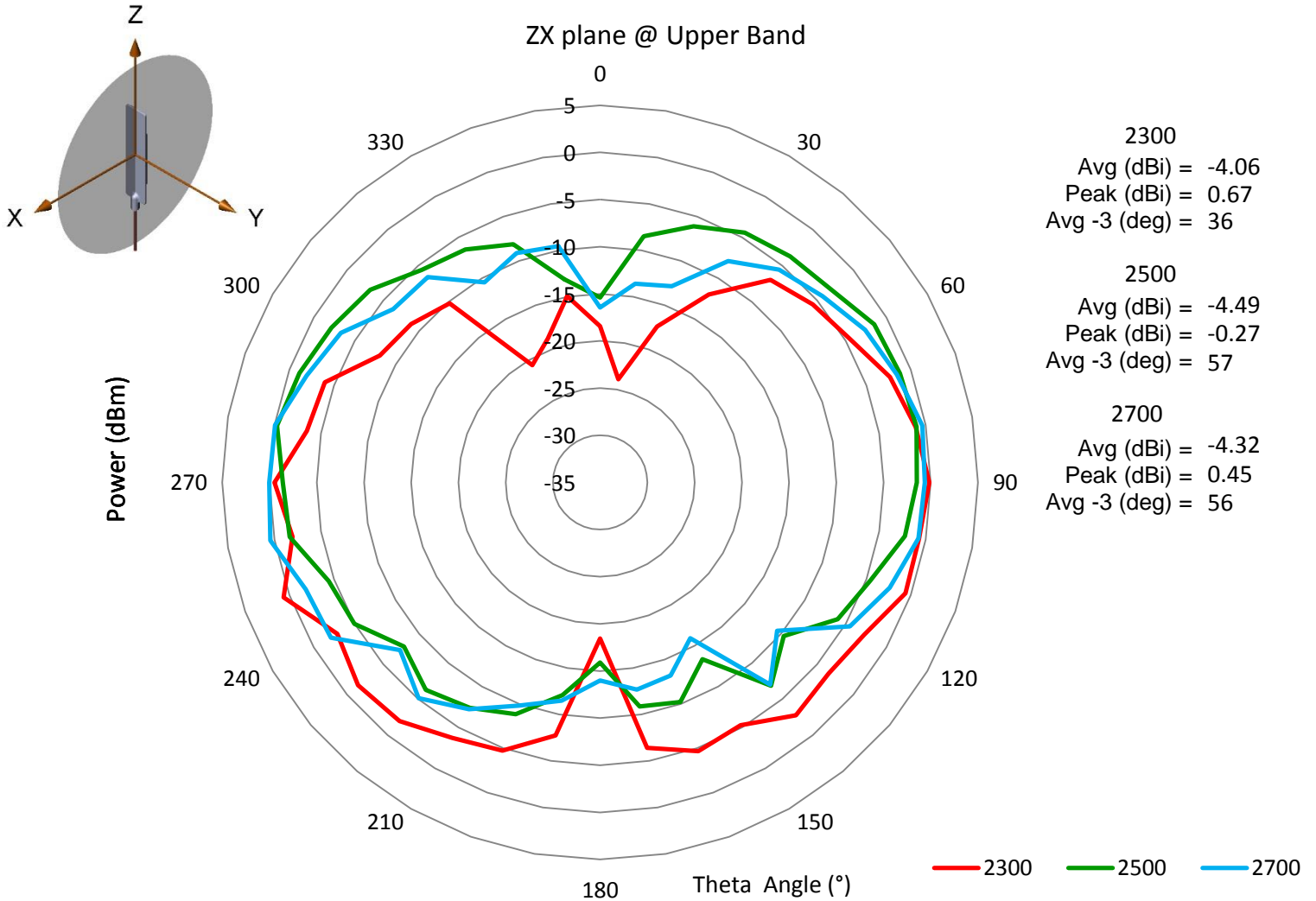
This document contains confidential and proprietary information of Pulse Electronics, Inc. (Pulse) and is protected by copyright, trade secret and other state and federal laws. Its receipt or possession does not convey any rights to reproduce, disclose its contents, or to manufacture, use or sell anything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

Description: LTE Stealth Blade Antenna

Series: SB Antenna

PART NUMBER: W1991

CHARTS



Issue: 1618

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: LTE Stealth Blade Antenna

Series: SB Antenna

PART NUMBER: W1991

Packaging

1 antennas packed in one plastic bag

1 label on each plastic bag with part number, date code.

200 plastic bags of antennas (total 200pcs) packed in a cardboard box

1 label on each box with qty, part number, date code.