

Description: WiFi 2.4/5GHz/DSRC Antenna

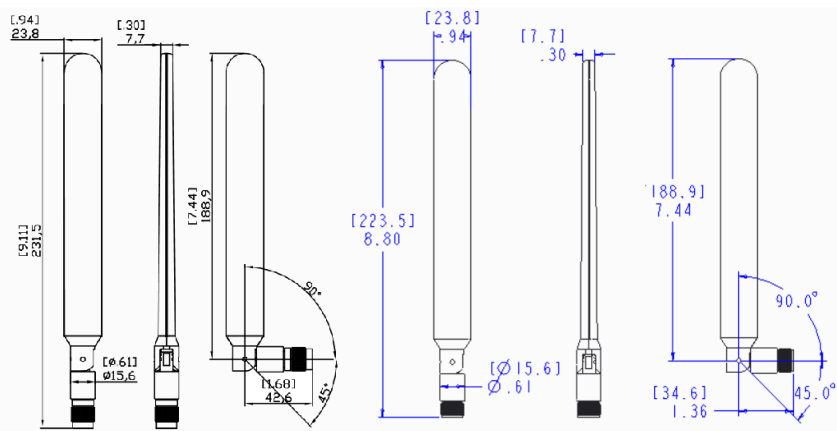
Series: IceBlade

PART NUMBER: ICEBLADEWx



Features:

- Multi Band Swivel Mount Dipole
- Transparent antenna
- ICEBLADEWT: TNC Male Connector
- ICEBLADEWS: SMA Male Connector



Applications:

- 2.4GHz/6GHz radios
- WiFi Routers, Access points
- Zigbee, BLE, BT
- Metering, Security, IoT, M2M Applications
- DSRC

All dimensions are in mm / inches

Issue: 1816

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: WiFi 2.4/5Ghz/DSRC Antenna

Series: IceBlade

PART NUMBER: ICEBLADEWx

This document covers all product variants of the following product family:

ICEBLADEWT: TNC Connector

ICEBLADEWS: SMA Connector

Issue: 1816

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: WiFi 2.4/5GHz/DSRC Antenna

Series: IceBlade

PART NUMBER: ICEBLADEWx

ELECTRICAL SPECIFICATIONS

P/N	Frequency (MHz)	Peak Gain (dBi)	Efficiency (%)	VSWR	Power Standing
ICEBLADEWT	2400-2500	4.2+/-1dB	55	2.3:1	5W
	4900-6000	5.3+/-1dB	80	2.3:1	
ICEBLADEWS	2400-2500	4.2+/-1dB	55	2:1	5W
	4900-6000	5.3+/-1dB	80	2:1	

Typical performance measured in free space

Issue: 1816

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: WiFi 2.4/5Ghz/DSRC Antenna**Series: IceBlade****PART NUMBER: ICEBLADEWx****MECHANICAL SPECIFICATIONS**

Plastic radome	PC945A
Color	Clarity
Flammability(Radome)	UL94 V-0
Weight	45.4g
Positions	0°, 45° & 90°
Overall length	8.8 INCHES
Fixing system	° ± 2 °
Azimuth adjustment	° ± 4°
Elevation adjustment	° ± 4°

Issue: 1816

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: WiFi 2.4/5Ghz/DSRC Antenna

Series: IceBlade

PART NUMBER: ICEBLADEWx

ENVIRONMENTAL SPECIFICATIONS

Operating temperature	-30/+70° C
Temperature	
Stationary	-40/+85° C
Cyclic	Rate 5°C/min, 16 hours
Humidity	
Stationary	95% @ 25° C
Cyclic	12 hours
Salt mist	96 hours

Issue: 1816

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.

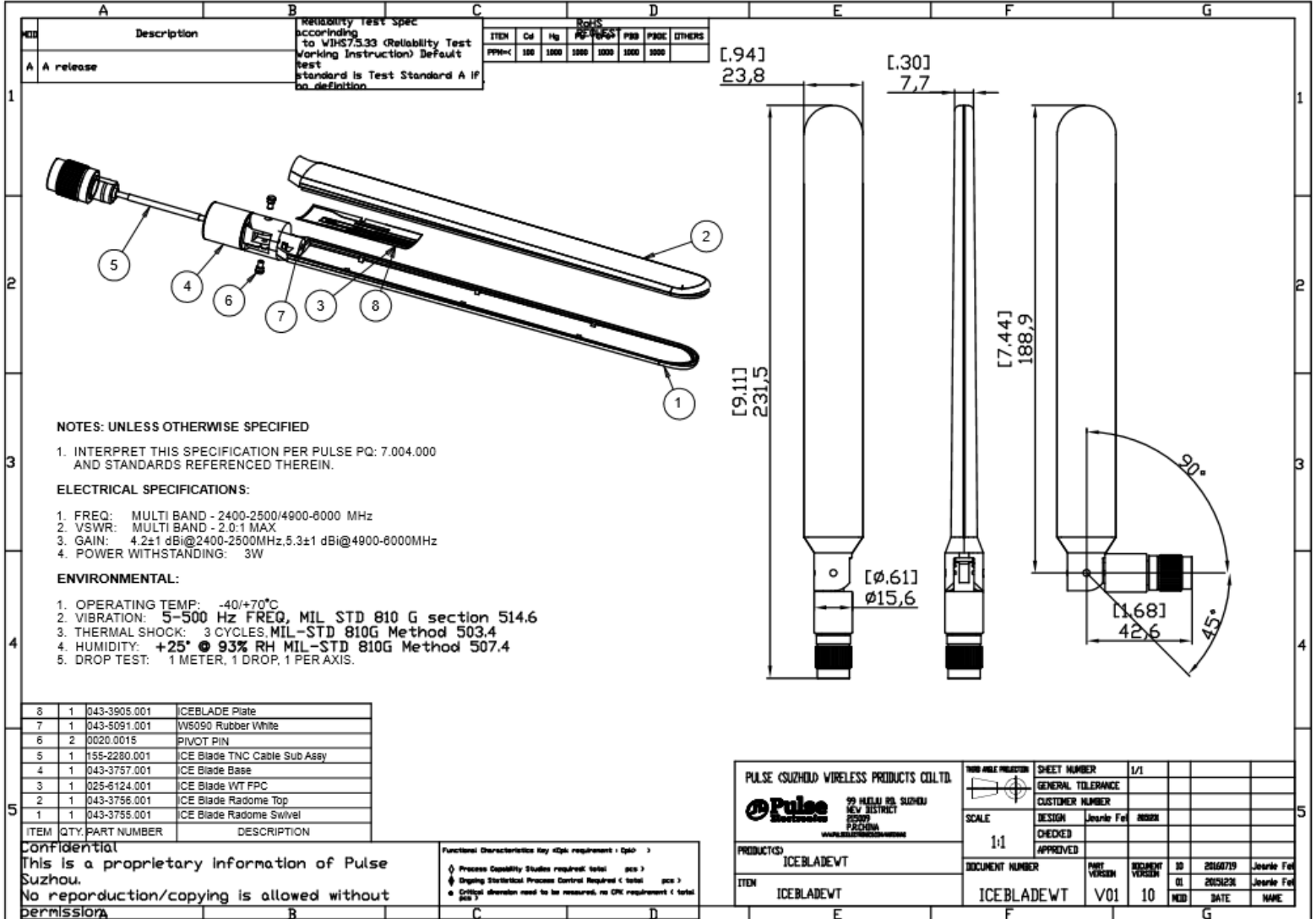
Description: WiFi 2.4/5Ghz/DSRC Antenna

Series: IceBlade

PART NUMBER: ICEBLADEWx

MECHANICAL DRAWING

ICEBLADEWT: TNC Connector



Issue: 1816

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: WiFi 2.4/5Ghz/DSRC Antenna

Series: IceBlade

PART NUMBER: ICEBLADEWx

MECHANICAL DRAWING

ICEBLADEWS: SMA Connector

A	B	C	D	E	F	G																																				
Description		Reliability Test Spec according to WHS7.3.33 (Reliability Test Working Instruction) Default Test Standard is Test Standard A if no definition.	<table border="1" style="font-size: 8px;"> <thead> <tr> <th>ITEM</th> <th>Col</th> <th>Hg</th> <th>RE</th> <th>PHOS</th> <th>PBR</th> <th>PRDC</th> <th>OTHERS</th> </tr> </thead> <tbody> <tr> <td>PPM<</td> <td>100</td> <td>1000</td> <td>1000</td> <td>1000</td> <td>1000</td> <td>1000</td> <td></td> </tr> </tbody> </table>	ITEM	Col	Hg	RE	PHOS	PBR	PRDC	OTHERS	PPM<	100	1000	1000	1000	1000	1000																								
ITEM	Col	Hg	RE	PHOS	PBR	PRDC	OTHERS																																			
PPM<	100	1000	1000	1000	1000	1000																																				
A release																																										
<p>NOTES: UNLESS OTHERWISE SPECIFIED</p> <p>1. INTERPRET THIS SPECIFICATION PER PULSE PQ: 7.004.000 AND STANDARDS REFERENCED THEREIN.</p> <p>ELECTRICAL SPECIFICATIONS:</p> <p>1. FREQ: MULTI BAND - 2400-2500/4900-8000 MHz 2. VSWR: MULTI BAND - 2.0:1 MAX 3. GAIN: 4.2±1 dBi@2400-2500MHz, 5.3±1 dBi@4900-8000MHz 4. POWER WITHSTANDING: 3W</p> <p>ENVIRONMENTAL:</p> <p>1. OPERATING TEMP: -40/+70°C 2. VIBRATION: 5-500 Hz FREQ, MIL STD 810 G section 514.6 3. THERMAL SHOCK: 3 CYCLES, MIL-STD 810G Method 503.4 4. HUMIDITY: +25° ± 93% RH MIL-STD 810G Method 507.4 5. DROP TEST: 1 METER, 1 DROP, 1 PER AXIS.</p>																																										
<table border="1" style="font-size: 8px;"> <thead> <tr> <th>ITEM</th> <th>QTY</th> <th>PART NUMBER</th> <th>DESCRIPTION</th> </tr> </thead> <tbody> <tr><td>8</td><td>1</td><td>043-3905.001</td><td>ICEBLADE Plate</td></tr> <tr><td>7</td><td>1</td><td>043-5091.001</td><td>WS090 Rubber White</td></tr> <tr><td>6</td><td>2</td><td>0020.0015</td><td>PIVOT PIN</td></tr> <tr><td>5</td><td>1</td><td>155-2250.001</td><td>ICE Blade SMA Cable Sub Assy</td></tr> <tr><td>4</td><td>1</td><td>043-3757.001</td><td>ICE Blade Base</td></tr> <tr><td>3</td><td>1</td><td>025-6122.001</td><td>ICE Blade WS FPC</td></tr> <tr><td>2</td><td>1</td><td>043-3756.001</td><td>ICE Blade Radome Top</td></tr> <tr><td>1</td><td>1</td><td>043-3755.001</td><td>ICE Blade Radome Swivel</td></tr> </tbody> </table>		ITEM	QTY	PART NUMBER	DESCRIPTION	8	1	043-3905.001	ICEBLADE Plate	7	1	043-5091.001	WS090 Rubber White	6	2	0020.0015	PIVOT PIN	5	1	155-2250.001	ICE Blade SMA Cable Sub Assy	4	1	043-3757.001	ICE Blade Base	3	1	025-6122.001	ICE Blade WS FPC	2	1	043-3756.001	ICE Blade Radome Top	1	1	043-3755.001	ICE Blade Radome Swivel					
ITEM	QTY	PART NUMBER	DESCRIPTION																																							
8	1	043-3905.001	ICEBLADE Plate																																							
7	1	043-5091.001	WS090 Rubber White																																							
6	2	0020.0015	PIVOT PIN																																							
5	1	155-2250.001	ICE Blade SMA Cable Sub Assy																																							
4	1	043-3757.001	ICE Blade Base																																							
3	1	025-6122.001	ICE Blade WS FPC																																							
2	1	043-3756.001	ICE Blade Radome Top																																							
1	1	043-3755.001	ICE Blade Radome Swivel																																							
<p>ITEM QTY PART NUMBER DESCRIPTION</p> <p>Confidential This is a proprietary information of Pulse Suzhou. No reproduction/copying is allowed without permission.</p>		<p>Functional Characteristics by s/c requirement (s/c >)</p> <p>Process Capability Studies required (total pcs)</p> <p>Digital Statistical Process Control Required (total pcs)</p> <p>Critical dimension need to be measured, no CPK requirement (total pcs)</p>																																								
<p>PULSE (SUZHOU) WIRELESS PRODUCTS CO.,LTD.</p> <p>99 HAILUJI RD, SUZHOU NEW DISTRICT SUZHOU PROVINCE CHINA</p> <p>PRODUCTS: ICEBLADEWS</p> <p>ITEM: ICEBLADEWS</p>		<p>THIRD ANGLE PROJECTION</p> <p>SHEET NUMBER: 1/1</p> <p>GENERAL TOLERANCE: CUSTOMER NUMBER</p> <p>SCALE: 1:1</p> <p>DESIGN: Jierrie Fel</p> <p>CHECKED: APPROVED</p> <p>DOCUMENT NUMBER: ICEBLADEWS</p> <p>PART VERSION: V01</p> <p>DOCUMENT VERSION: 10</p> <p>DATE: 2016/07/19</p> <p>NAME: Jierrie Fel</p>																																								

Issue: 1816

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: WiFi 2.4/5GHz/DSRC Antenna

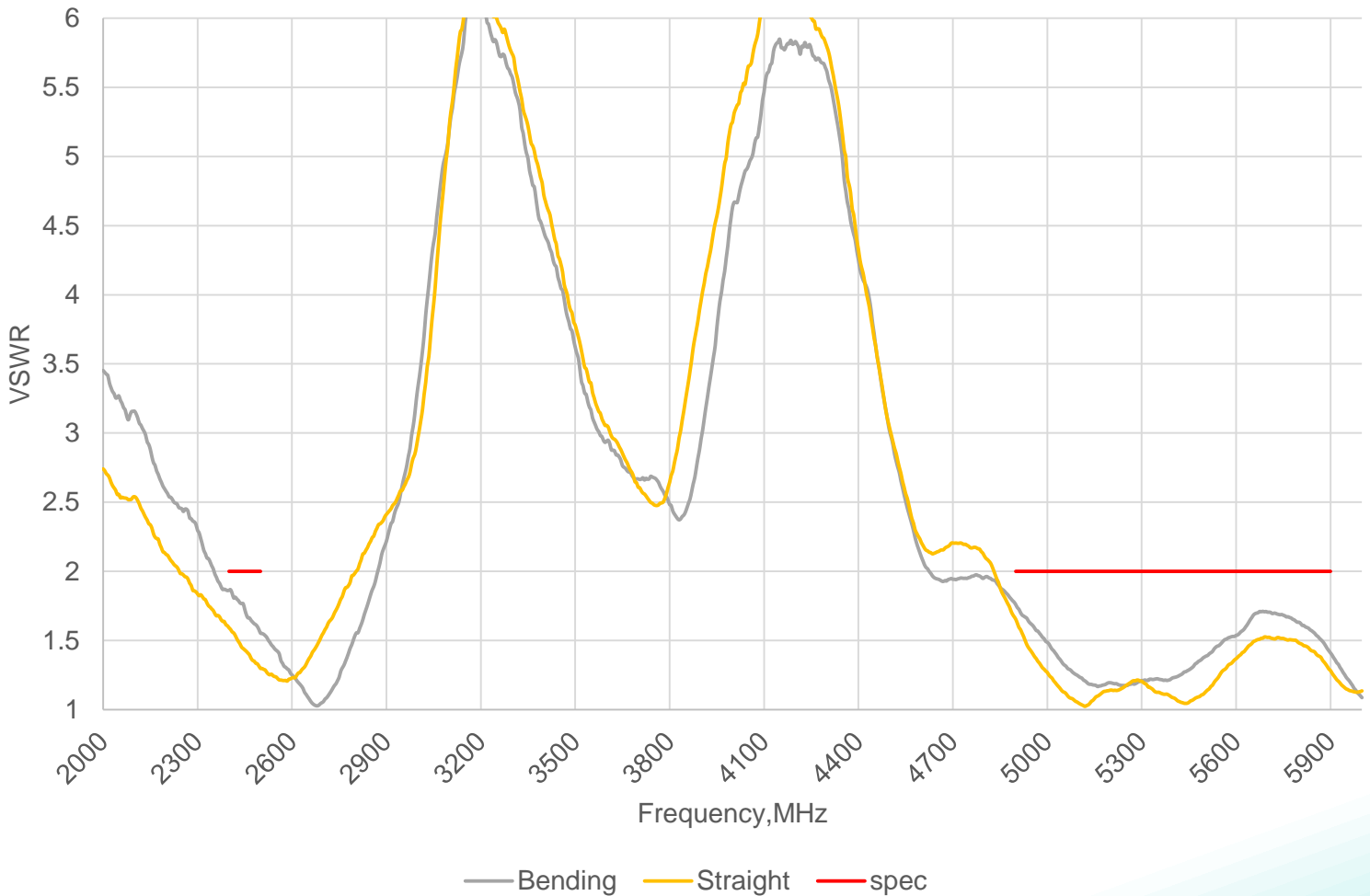
Series: IceBlade

PART NUMBER: ICEBLADEWx

OTHER SPECIFICATIONS

VSWR

VSWR vs Frequency measured in free space



Note: Performance of ICEBLADEWS tested in free space

Issue: 1816

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: WiFi 2.4/5GHz/DSRC Antenna

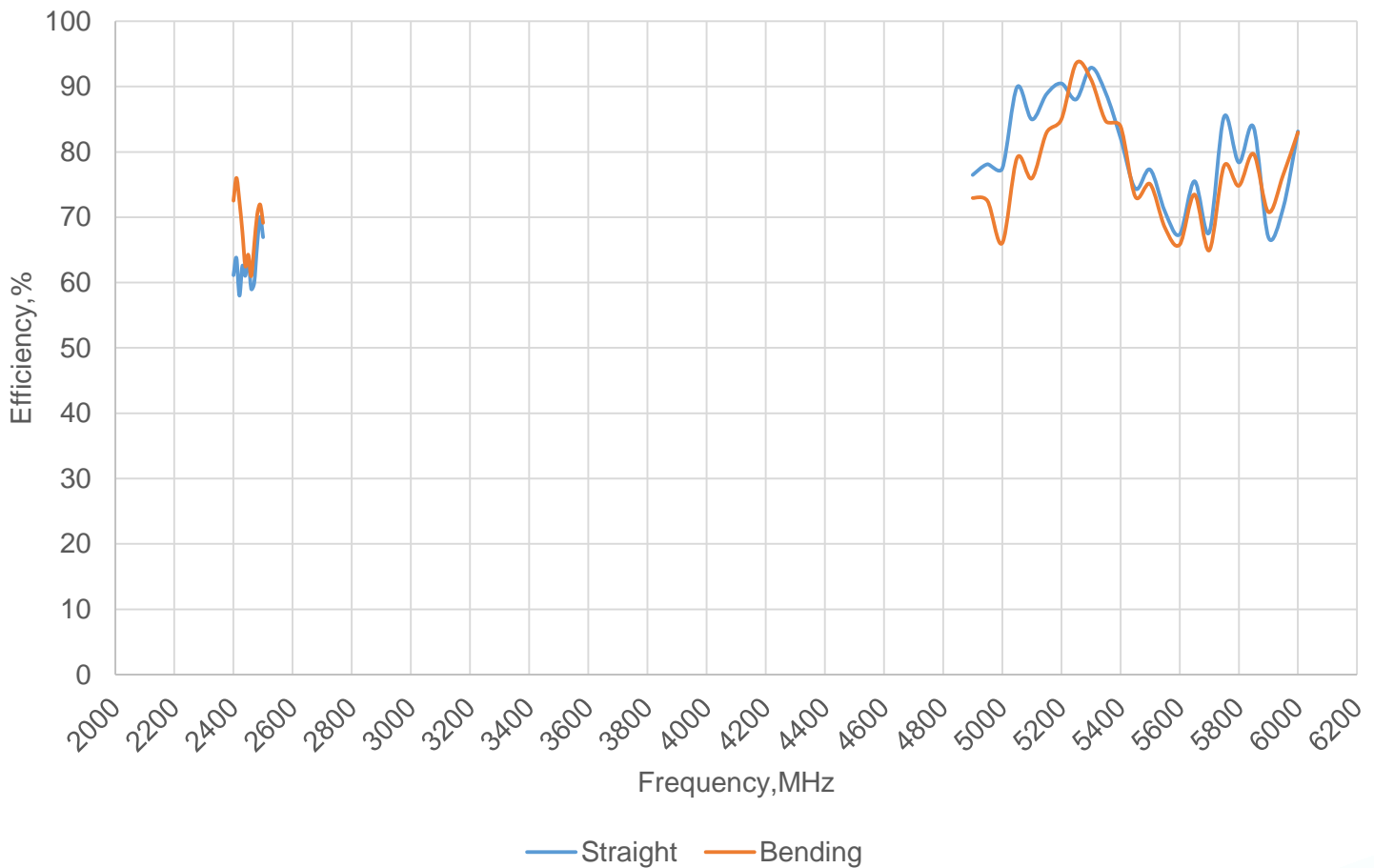
Series: IceBlade

PART NUMBER: ICEBLADEWx

CHARTS

Efficiency

Efficiency vs Frequency measured in free space



Note: Performance of ICEBLADEWS tested in free space

Issue: 1816

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: WiFi 2.4/5GHz/DSRC Antenna

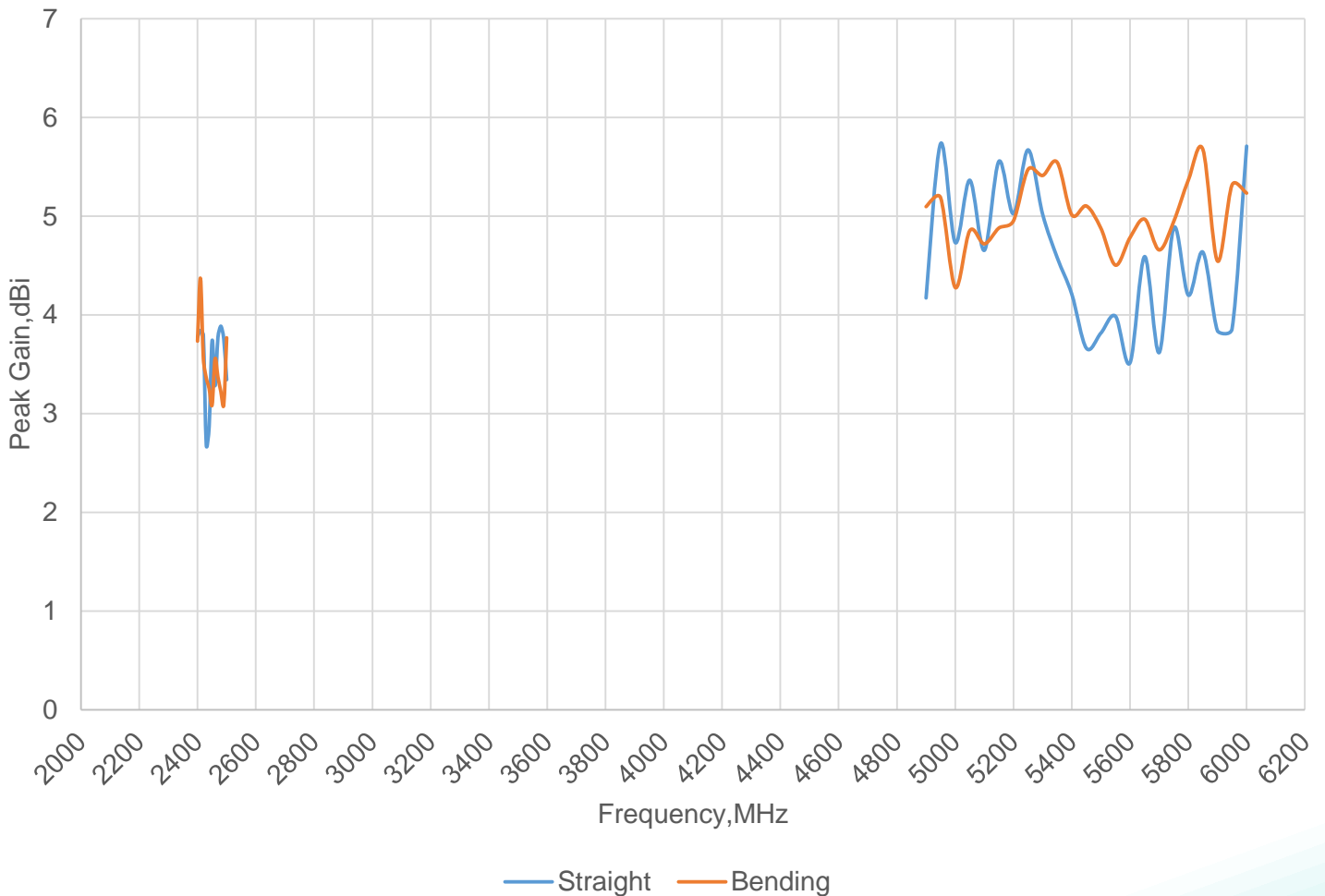
Series: IceBlade

PART NUMBER: ICEBLADEWx

CHARTS

Peak Gain

Peak Gain vs Frequency measured in free space



Note: Performance of ICEBLADEWS tested in free space

Issue: 1816

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.

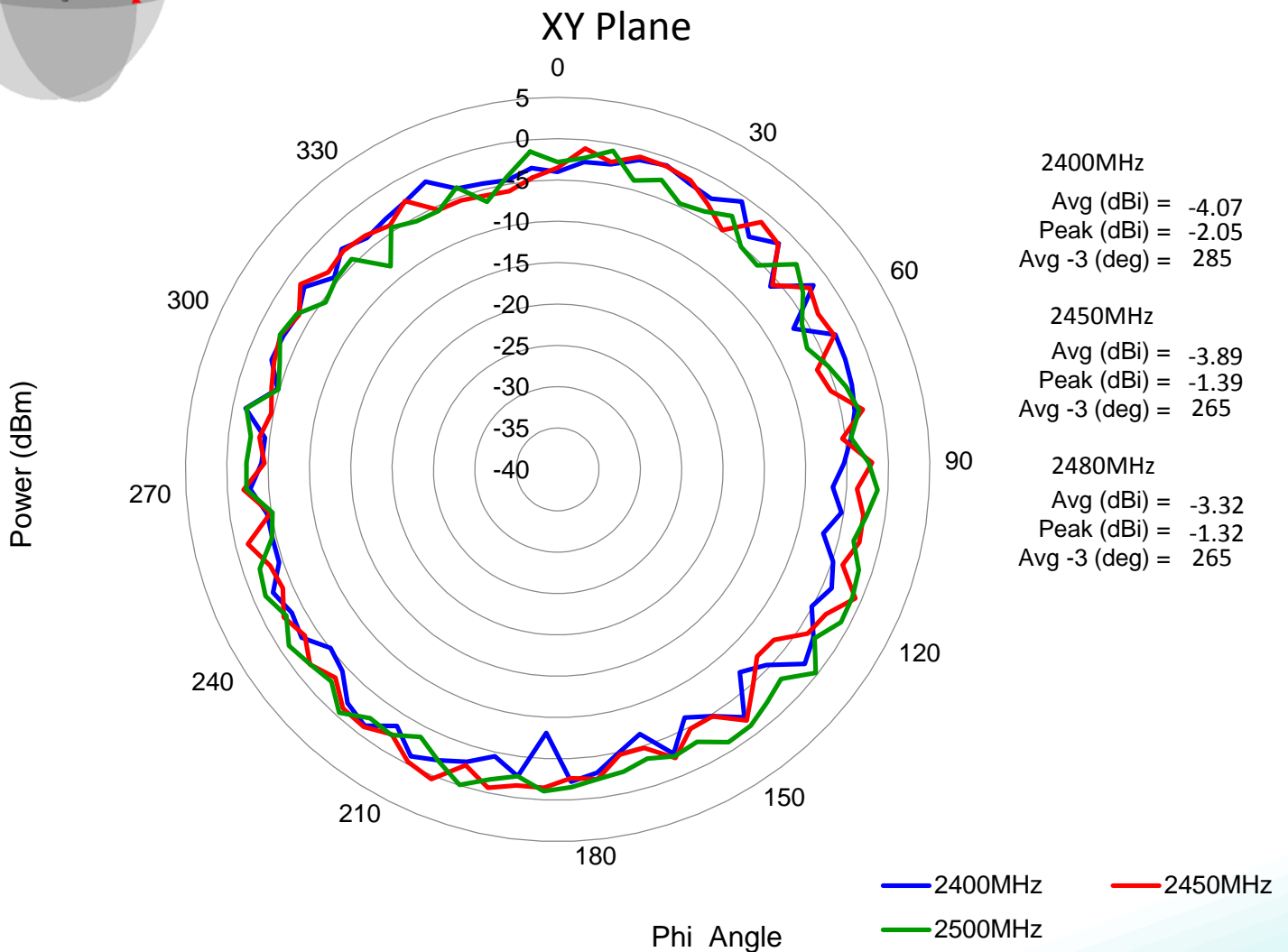
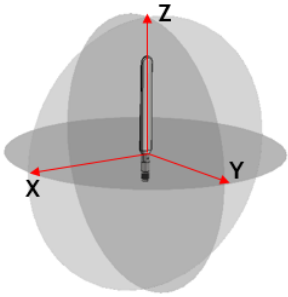


Description: WiFi 2.4/5GHz/DSRC Antenna

Series: IceBlade

PART NUMBER: ICEBLADEWx

CHARTS



Note: Performance of ICEBLADEWS tested in free space

Issue: 1816

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

CONFIDENTIAL AND PROPRIETARY INFORMATION

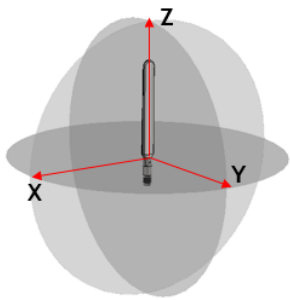
This document contains confidential and proprietary information of Pulse Electronics, Inc. (Pulse) and is protected by copyright, trade secret and other state and federal laws. Its receipt or possession does not convey any rights to reproduce, disclose its contents, or to manufacture, use or sell anything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

Description: WiFi 2.4/5GHz/DSRC Antenna

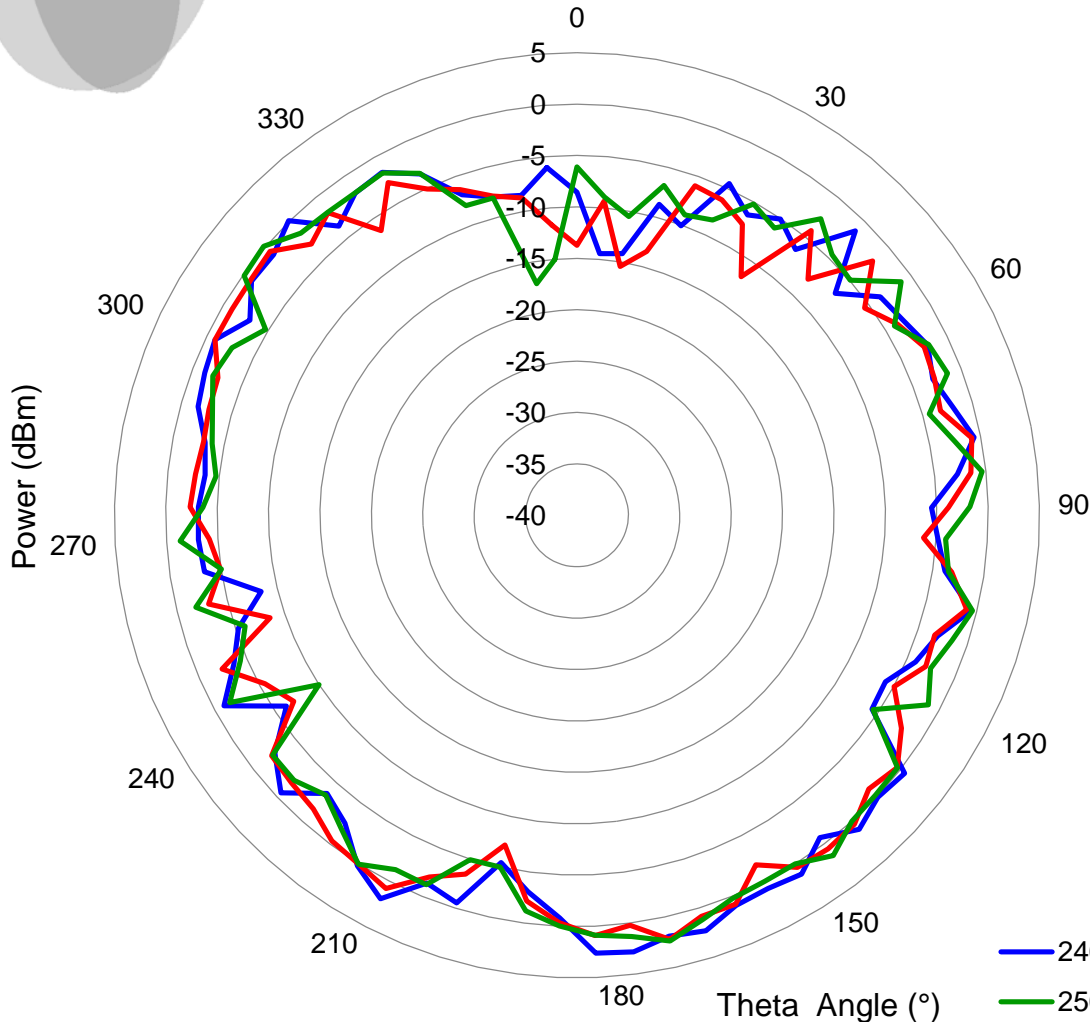
Series: IceBlade

PART NUMBER: ICEBLADEWx

CHARTS



ZX Plane



2400MHz
Avg (dBi) = -4.38
Peak (dBi) = 1.16
Avg -3 (deg) = 110

2450MHz
Avg (dBi) = -4.99
Peak (dBi) = -0.27
Avg -3 (deg) = 165

2480MHz
Avg (dBi) = -4.66
Peak (dBi) = 0.27
Avg -3 (deg) = 140

— 2400MHz — 2450MHz
— 2500MHz

Note: Performance of ICEBLADEWS tested in free space

Issue: 1816

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

CONFIDENTIAL AND PROPRIETARY INFORMATION

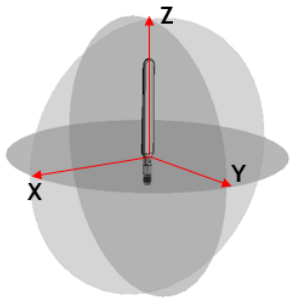
This document contains confidential and proprietary information of Pulse Electronics, Inc. (Pulse) and is protected by copyright, trade secret and other state and federal laws. Its receipt or possession does not convey any rights to reproduce, disclose its contents, or to manufacture, use or sell anything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

Description: WiFi 2.4/5GHz/DSRC Antenna

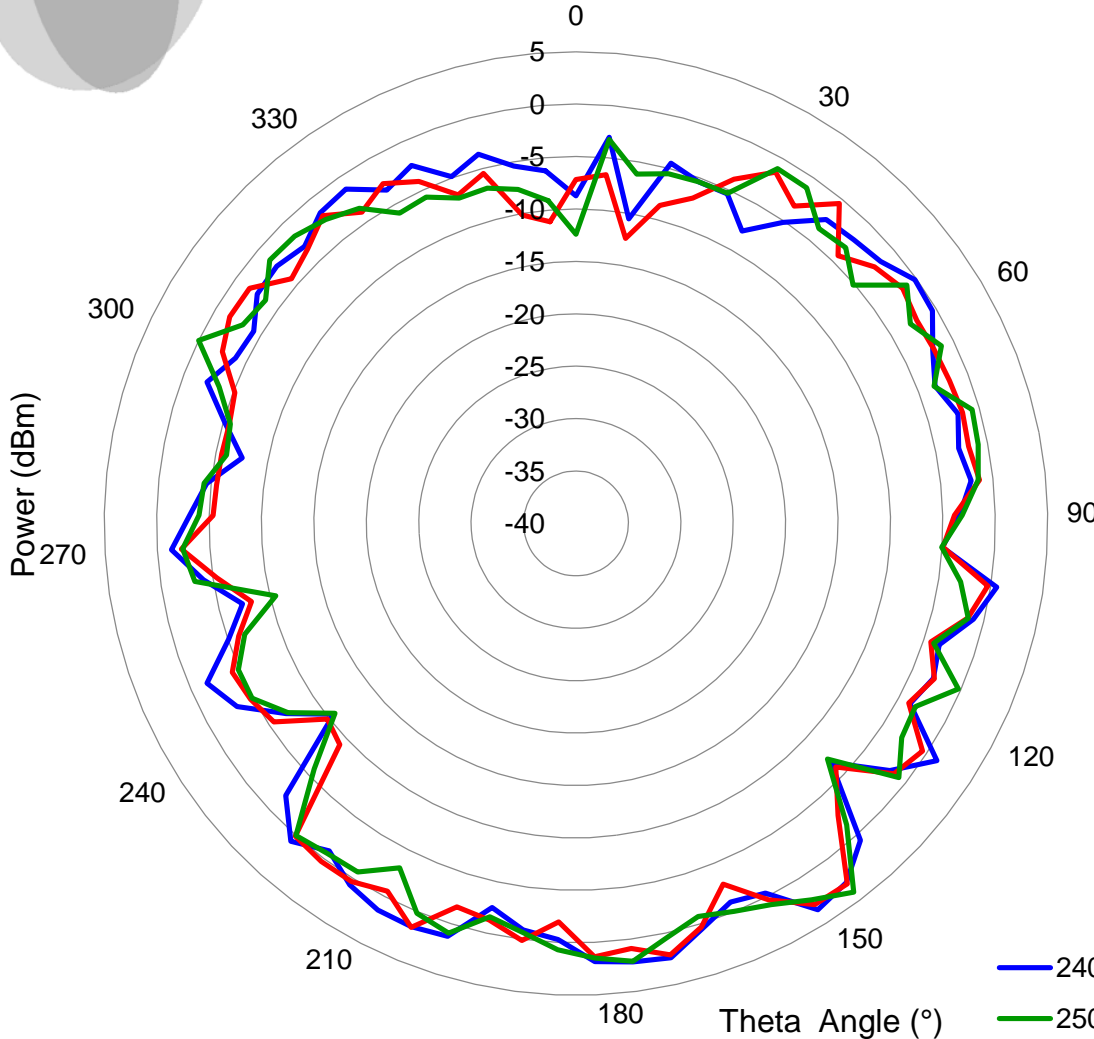
Series: IceBlade

PART NUMBER: ICEBLADEWx

CHARTS



YZ Plane



2400MHz	Avg (dBi) = -5.51
	Peak (dBi) = 1.17
	Avg -3 (deg) = 55
2450MHz	Avg (dBi) = -5.79
	Peak (dBi) = 1.17
	Avg -3 (deg) = 40
2480MHz	Avg (dBi) = -5.37
	Peak (dBi) = 0.76
	Avg -3 (deg) = 60

— 2400MHz — 2450MHz
— 2500MHz

Note: Performance of ICEBLADEWS tested in free space

Issue: 1816

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.

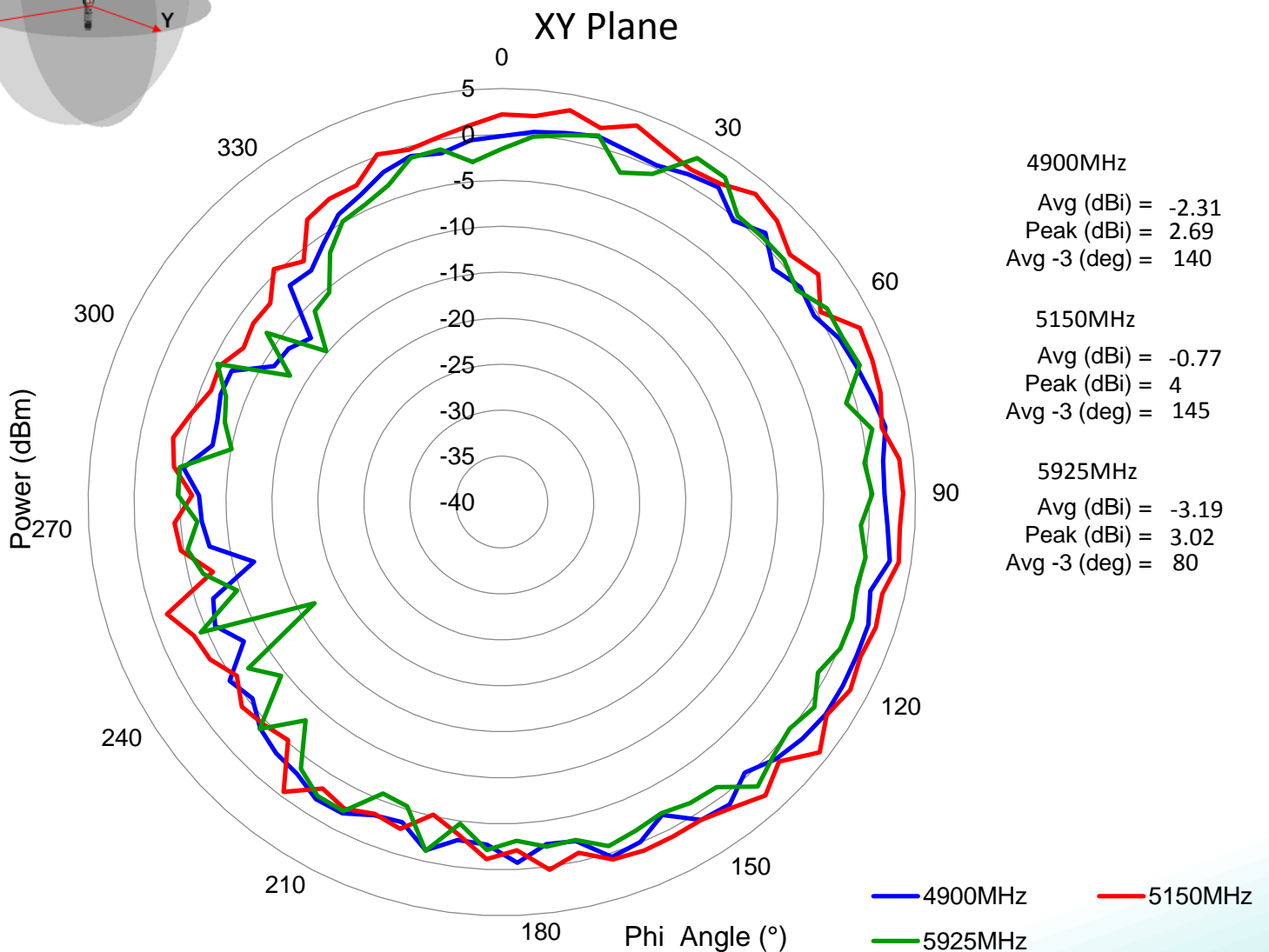
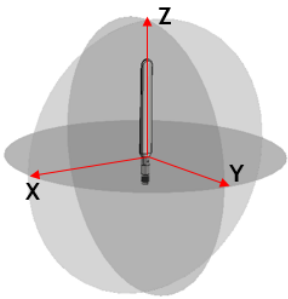


Description: WiFi 2.4/5GHz/DSRC Antenna

Series: IceBlade

PART NUMBER: ICEBLADEWx

CHARTS



Note: Performance of ICEBLADEWS tested in free space

Issue: 1816

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

CONFIDENTIAL AND PROPRIETARY INFORMATION

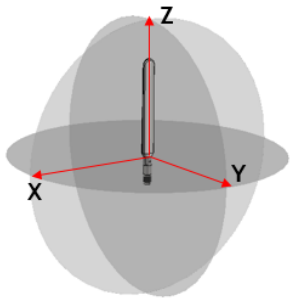
This document contains confidential and proprietary information of Pulse Electronics, Inc. (Pulse) and is protected by copyright, trade secret and other state and federal laws. Its receipt or possession does not convey any rights to reproduce, disclose its contents, or to manufacture, use or sell anything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

Description: WiFi 2.4/5GHz/DSRC Antenna

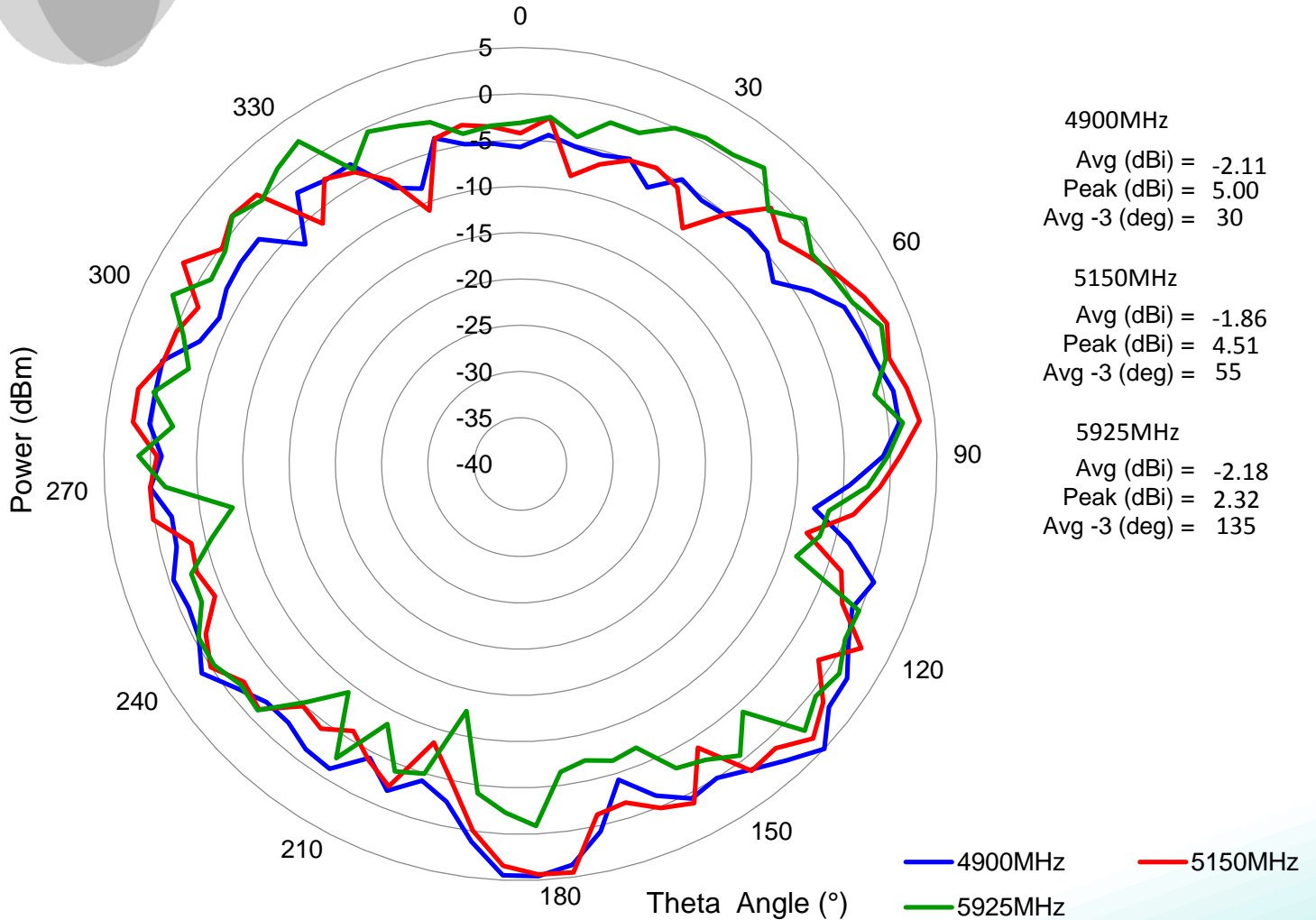
Series: IceBlade

PART NUMBER: ICEBLADEWx

CHARTS



ZX Plane



Note: Performance of ICEBLADEWS tested in free space

Issue: 1816

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

CONFIDENTIAL AND PROPRIETARY INFORMATION

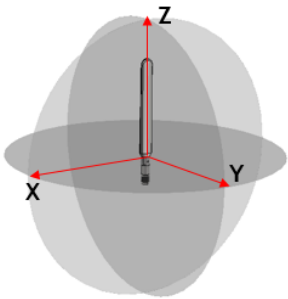
This document contains confidential and proprietary information of Pulse Electronics, Inc. (Pulse) and is protected by copyright, trade secret and other state and federal laws. Its receipt or possession does not convey any rights to reproduce, disclose its contents, or to manufacture, use or sell anything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

Description: WiFi 2.4/5GHz/DSRC Antenna

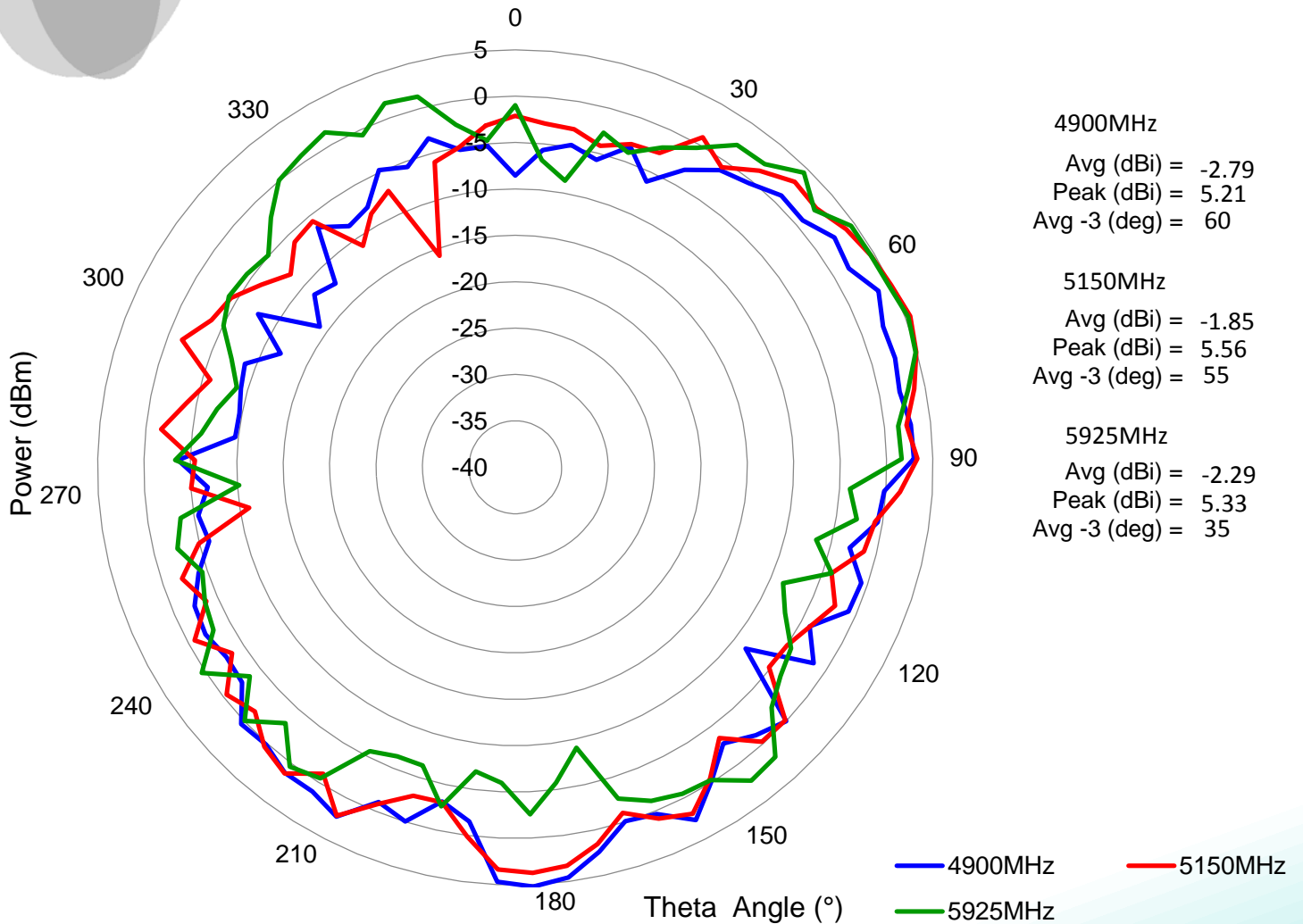
Series: IceBlade

PART NUMBER: ICEBLADEWx

CHARTS



YZ Plane



Note: Performance of ICEBLADEWS tested in free space

Issue: 1816

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: WiFi 2.4/5Ghz/DSRC Antenna

Series: IceBlade

PART NUMBER: ICEBLADEWx

PACKAGING

Pack 10 antennae in one box, each antenna has a PE bag with one label.

Issue: 1816

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.