

**Description: 2.4-2.5GHz 1.3dBi IP67 RP-SMA  
External Stick Antenna**

**Series: Stick Antenna**

**PART NUMBER: W5039**



**Features:**

- Frequency 2400-2500MHz
- Quarter wave Dipole
- Gain 1.3dBi
- Vertical Polarization
- Omni radiation in Hor plane
- Length 93.79mm
- IP67
- Connector RP-SMA

**Applications:**

- WiFi, Bluetooth, BLE, ZigBee
- ISM 2.4GHz radios
- Indoor / Outdoor applications
- Video / data transmission
- Security, surveillance, monitoring
- IoT, M2M

Issue: 1637

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 & 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



**Description: 2.4-2.5GHz 1.3dBi IP67 RP-SMA  
External Stick Antenna****Series: Stick Antenna****PART NUMBER: W5039****ELECTRICAL SPECIFICATIONS**

Frequency	2400-2500	MHz
Nominal Impedance	50	$\Omega$
VSWR	2: 1	
Average efficiency	77	%
Peak Gain	1.3	dBi +/- 1 dB
Polarization:	Vertical	
Power withstanding	3	W
Connector type	RP SMA	

Issue: 1637

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: 2.4-2.5GHz 1.3dBi IP67 RP-SMA External Stick Antenna**

**Series: Stick Antenna**

**PART NUMBER: W5039**

**MECHANICAL SPECIFICATIONS**

Plastic radome	TPE	DSM CM600
Color	Black	
Ingress Protection	IP67	
Weight	11	g
Overall Length	[3.7]93.79	[INCHES]MM
Flammability Rating	UL94-V2	

**ENVIRONMENTAL SPECIFICATIONS**

Operating temperature	-40/+85	° C
Drop test	1 meter to tile	10 times
Storage Temperature	-40°C to +85°C	24 hours
Corrosion	Salt Spray	2h+1 week, two cycle
Vibration	duration 3x15 minutes 3 planes	45 minutes
Mechanical Shocks	20g / 11mS	half-sine
Temperature shock	-35°C to +65°C	15 deg.C/min, 3 cycles
Radome Retention	>20	lbsf
UV Rating	ISO 4892-3	2006
Wind-loading	125	Mph
Product Lifespan Estimate	20	Years

Issue: 1637

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.

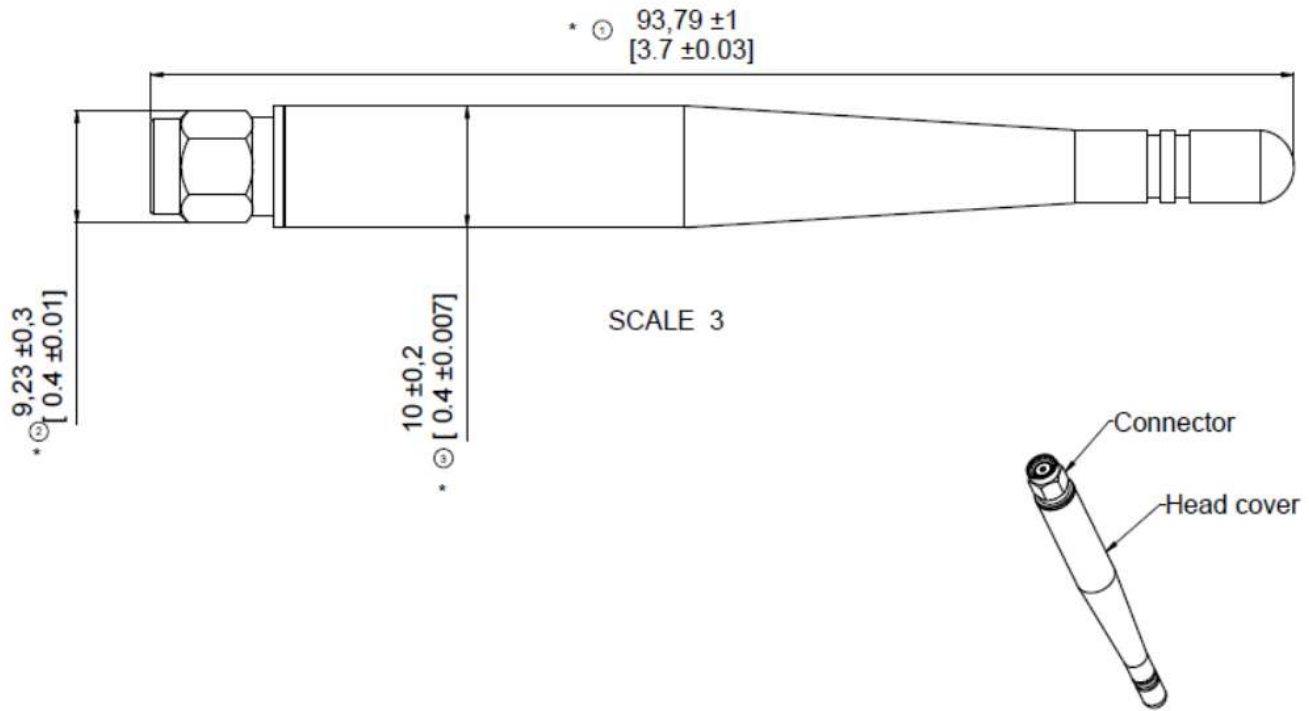


Description: 2.4-2.5GHz 1.3dBi IP67 RP-SMA  
External Stick Antenna

Series: Stick Antenna

PART NUMBER: W5039

MECHANICAL DRAWING



Issue: 1637

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: 2.4-2.5GHz 1.3dBi IP67 RP-SMA  
External Stick Antenna

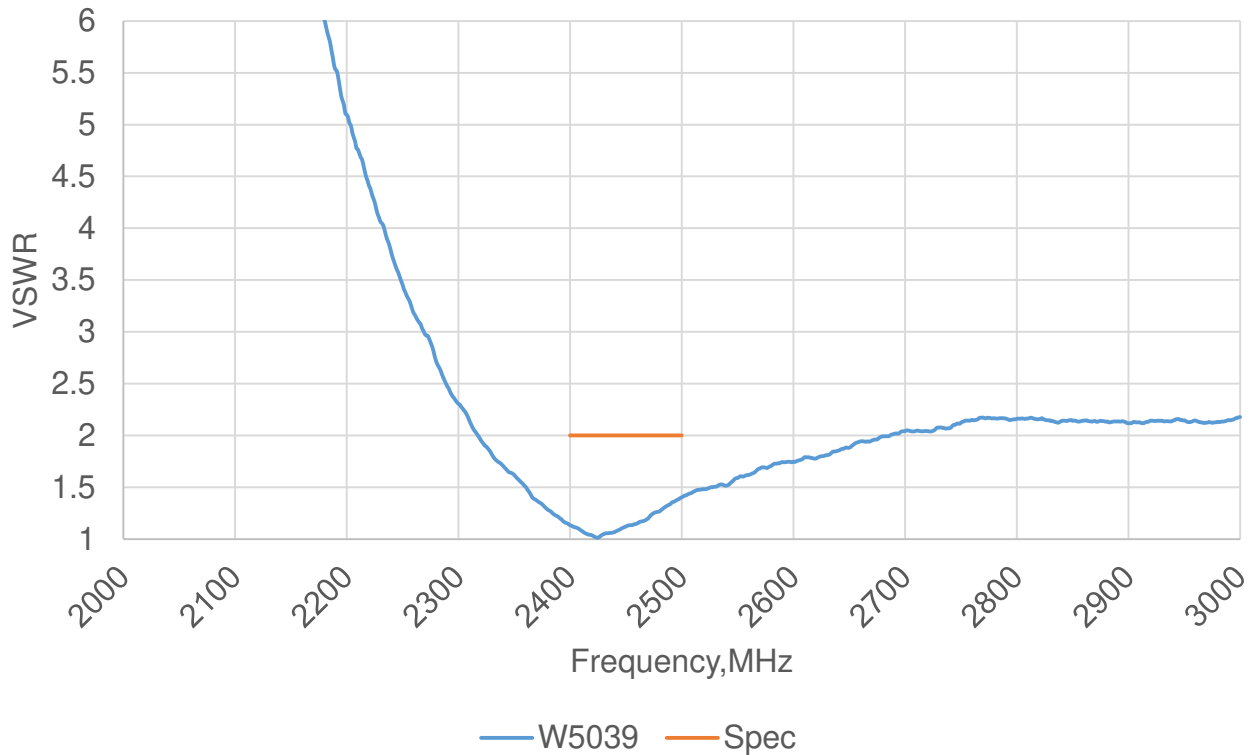
Series: Stick Antenna

PART NUMBER: W5039

CHARTS

VSWR

VSWR vs Frequency measured in free space  
W5039 measured in PSU



Issue: 1637

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: 2.4-2.5GHz 1.3dBi IP67 RP-SMA External Stick Antenna**

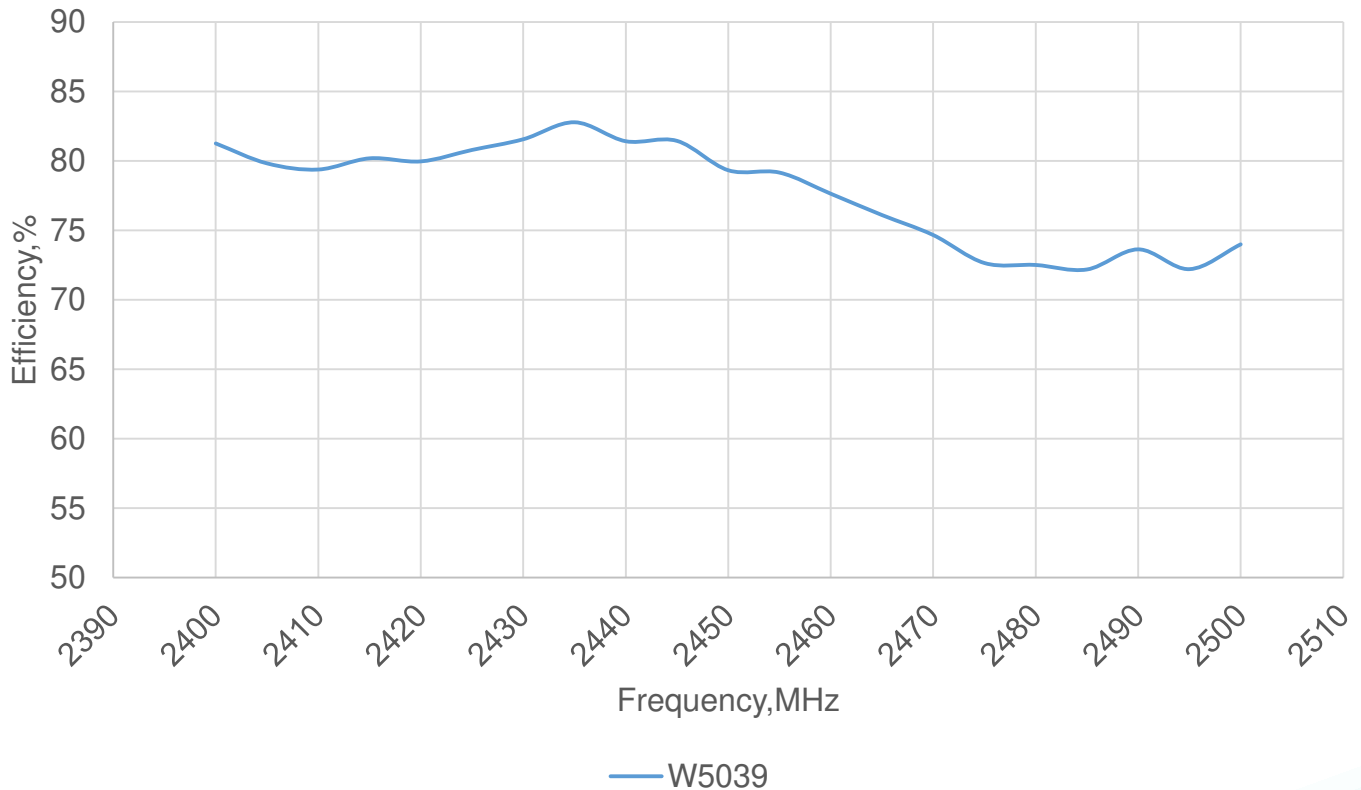
**Series: Stick Antenna**

**PART NUMBER: W5039**

**CHARTS**

**Efficiency**

Efficiency vs Frequency measured in free space  
W5039 measured in PSU



Issue: 1637

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: 2.4-2.5GHz 1.3dBi IP67 RP-SMA  
External Stick Antenna

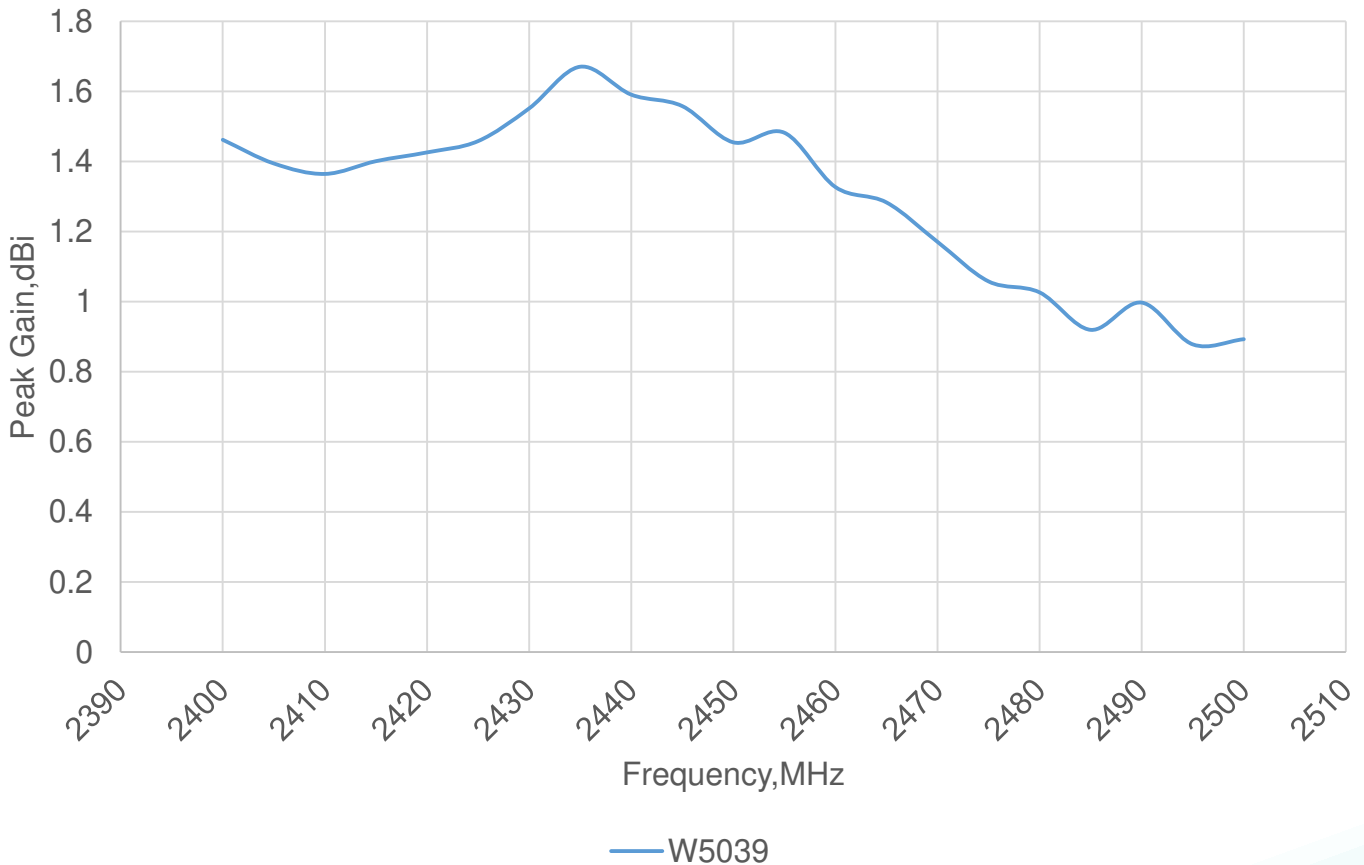
Series: Stick Antenna

PART NUMBER: W5039

CHARTS

Peak Gain

Peak Gain vs Frequency measured in free space  
W5039 measured in PSU



Issue: 1637

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

CONFIDENTIAL AND PROPRIETARY INFORMATION

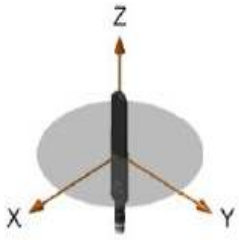
This document contains confidential and proprietary information of Pulse Electronics, Inc. (Pulse) and is protected by copyright, trade secret and other state and federal laws. Its receipt or possession does not convey any rights to reproduce, disclose its contents, or to manufacture, use or sell anything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

Description: 2.4-2.5GHz 1.3dBi IP67 RP-SMA External Stick Antenna

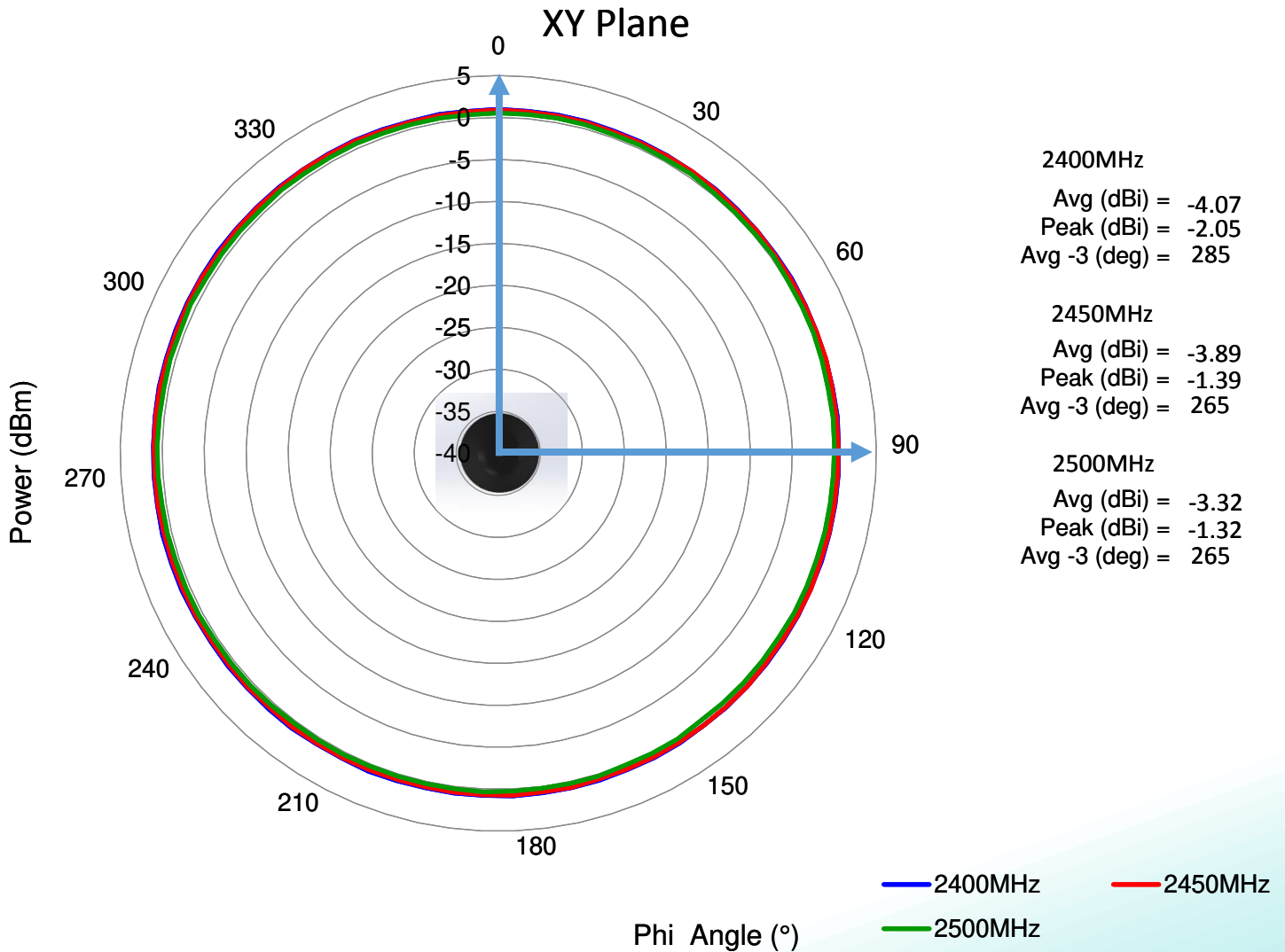
Series: Stick Antenna

PART NUMBER: W5039

CHARTS



Gain Plots



Issue: 1637

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.



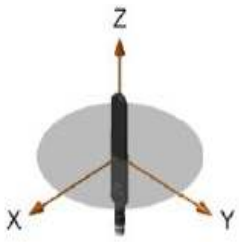


Description: 2.4-2.5GHz 1.3dBi IP67 RP-SMA External Stick Antenna

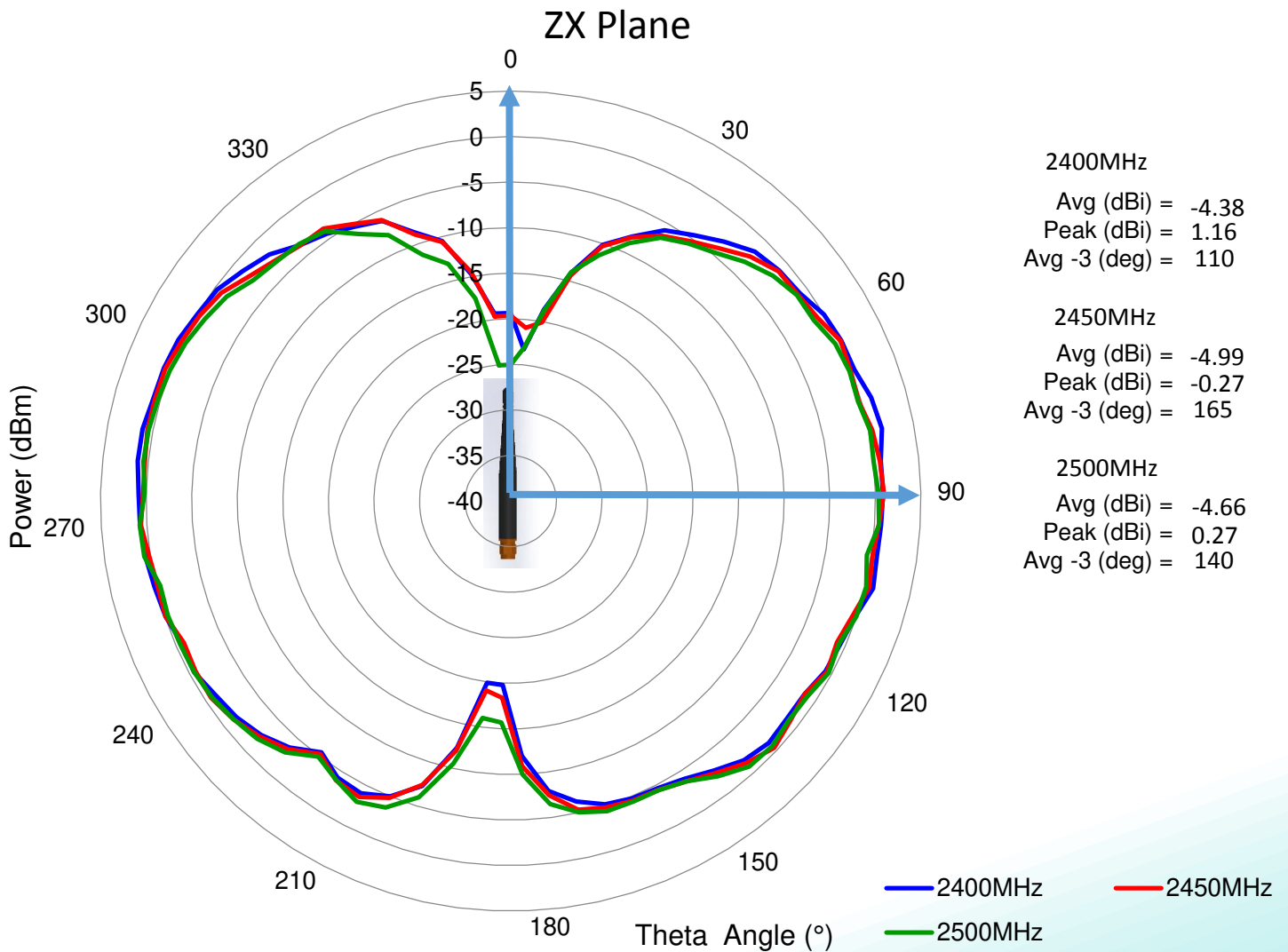
Series: Stick Antenna

PART NUMBER: W5039

CHARTS



Gain Plots



Issue: 1637

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

CONFIDENTIAL AND PROPRIETARY INFORMATION

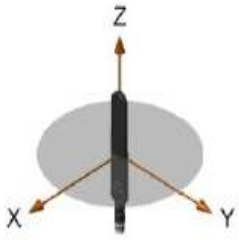
This document contains confidential and proprietary information of Pulse Electronics, Inc. (Pulse) and is protected by copyright, trade secret and other state and federal laws. Its receipt or possession does not convey any rights to reproduce, disclose its contents, or to manufacture, use or sell anything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

Description: 2.4-2.5GHz 1.3dBi IP67 RP-SMA External Stick Antenna

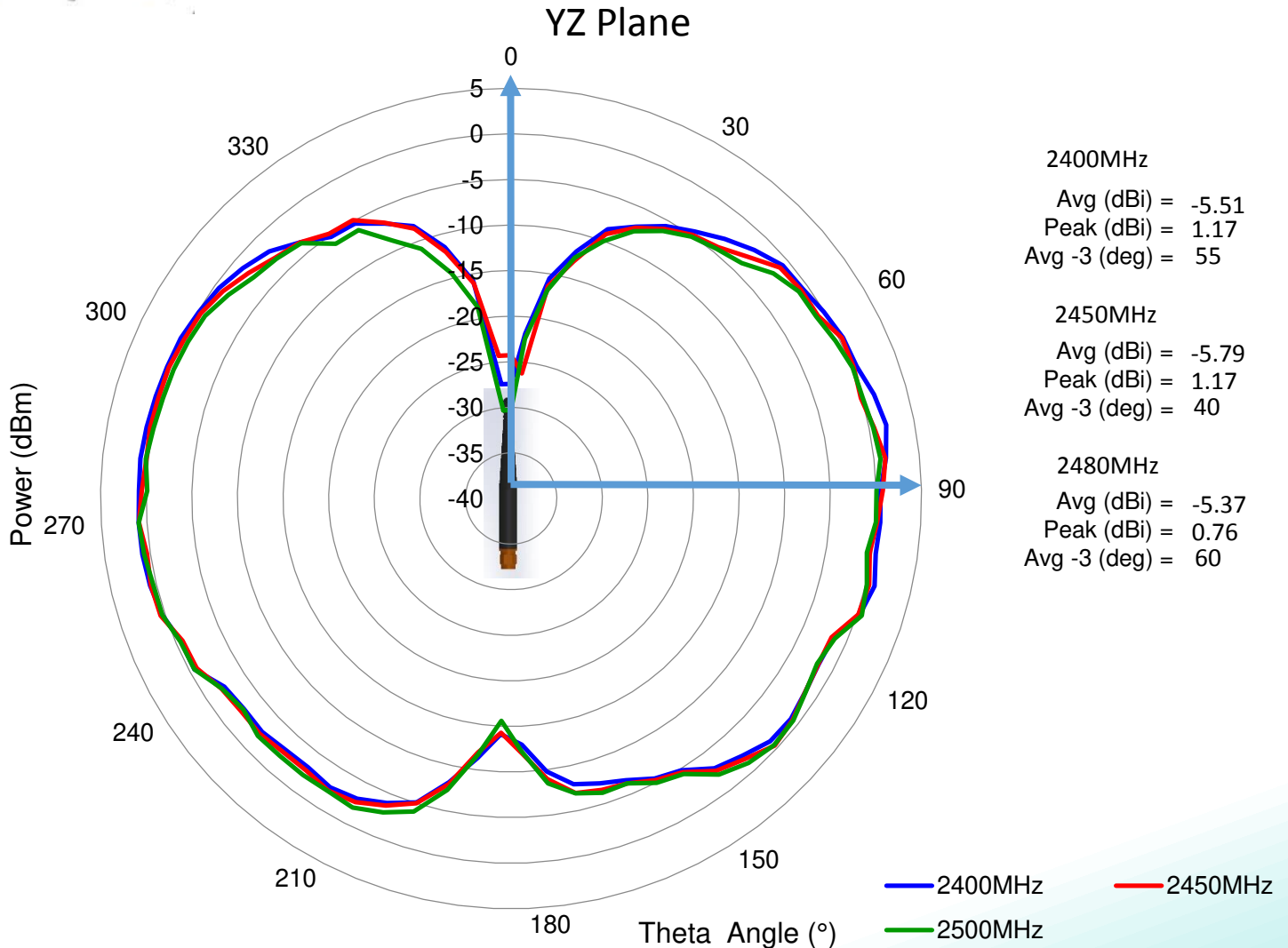
Series: Stick Antenna

PART NUMBER: W5039

CHARTS



Gain Plots



Issue: 1637

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: 2.4-2.5GHz 1.3dBi IP67 RP-SMA  
External Stick Antenna

Series: Stick Antenna

PART NUMBER: W5039

## PACKAGING

Bullet PE bag packing  
35PCS/PE bag  
20 bags (700PCS)/carton box



Issue: 1637

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.