

Part No. WXP3015W08-U100D3B0A

WLAN / BT / Zigbee / Wi-Fi 6E Embedded PCB Antenna

2.4 GHz, 5 GHz, 6 GHz, 7 GHz

Supports: Wi-Fi applications, Agriculture, Bluetooth, Zigbee, WLAN, Smart Home, Healthcare, Digital Signage



KYOCERA AVX WXP3015W08 series FR4 based antennas include an embedded Wi-Fi dipole design that delivers on the key needs of today's wireless product designers: miniaturized design and superior signal sensitivity. This antenna is ideal to rotate the radiation patterns with a single mechanical outline, slightly to the left (WA), to the right (WB) and straight aligned with Z-axis (WC), which allows to maximize system throughput and migrate peak gain issues.

Global Operations & Design Support

KYOCERA AVX global operations support an integrated network of design centers that can take projects from concept to production

Embedded Wi-Fi Antenna AP, Routers, Gateways

2.4 GHz; 5 GHz 6 GHz; 7 GHz

KEY BENEFITS

Quicker Time-to-Market

Standard part means fewer design changes Simple implementation

Superior Network Coverage

Better network coverage means more reliable wireless connections.

Single form factor with Three Radiation Patterns

Single mechanical outline with different radiation patterns
Easy fine tune to maximize MiMo performance
Maximize system throughput
Mitigate peak gain issues

Environmental Compliance

Products are the latest RoHS version compliant

APPLICATIONS

- Access Points and Routers
- Gateways
- Wi-Fi enabled TV's and monitors

Electrical Specifications

Typical Characteristics (in reference device housing made in PC/ABS plastic and 150 mm cable length)

Frequency (GHz)	2.400 – 2.485	5.150 – 7.125
Peak Gain*	2.90 dBi	5.90 dBi
Average Efficiency*	60%	60%
Return Loss*	< -8.5 dB	< -7.0 dB
Feed Point Impedance	50 ohms unbalanced	
Polarization	Linear	
Power Handling	2.0 Watt CW	

*Among all variants

Mechanical Specifications & Ordering Part Number

Part Number	WXP3015W08-U100D3B0A
Size (mm)	30.00 ± 0.15 length 15.50 ± 0.15 width 0.80 ± 0.05 thickness
*Connector	u.fl compatible
*Cable length (mm)	100
Weight (g)	N/A
Adhesive	3M468MP
Packing	Individual PE bags (default) or tray (per request)

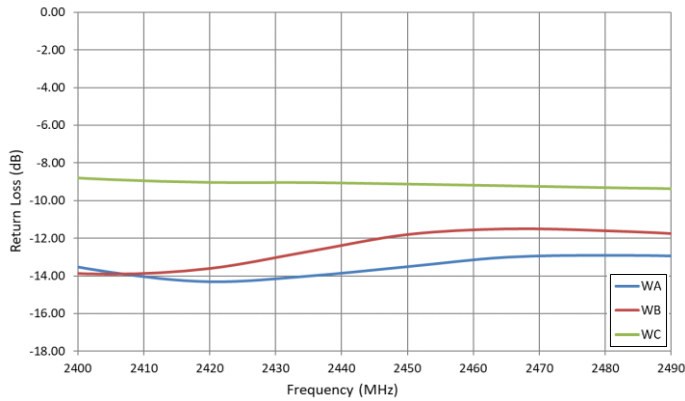
*Additional variations available in different cable lengths, colors and connectors

Wi-Fi 6 & Wi-Fi 6E KYOCERA AVX FR4 embedded antenna specifications
 KYOCERA AVX produces a wide variety of standard and custom antennas to meet user needs

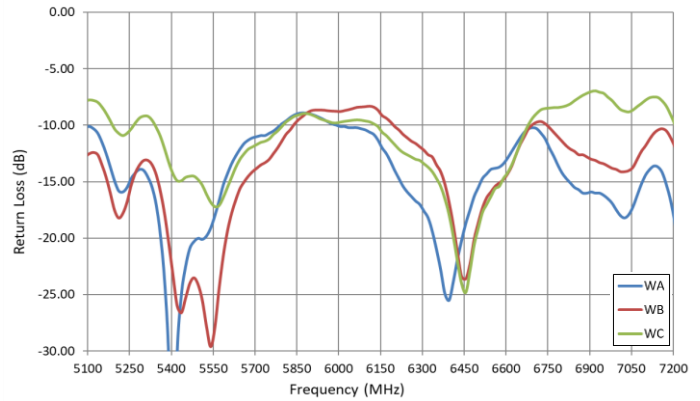
Return Loss, Efficiency, and Peak Gain Plots

Measured in reference device housing made in PC/ABS plastic and 150 mm cable length

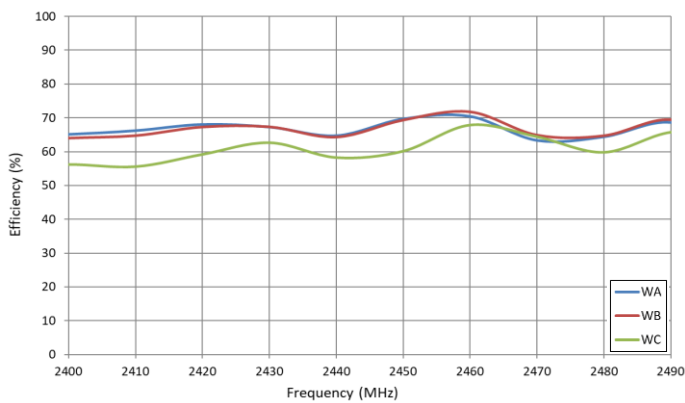
**Return Loss
(2.400 – 2.490) GHz**



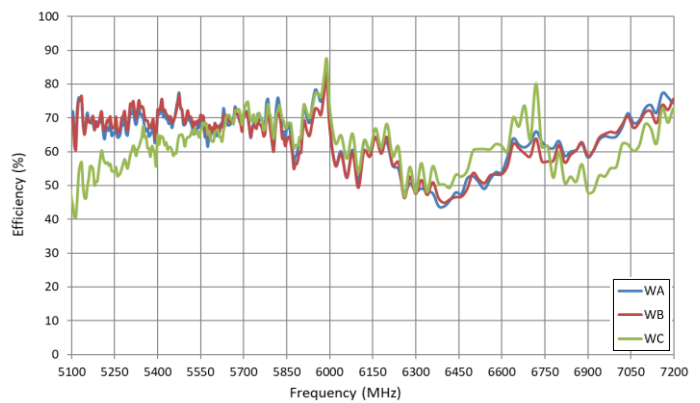
**Return Loss
(5.100 – 7.200) GHz**



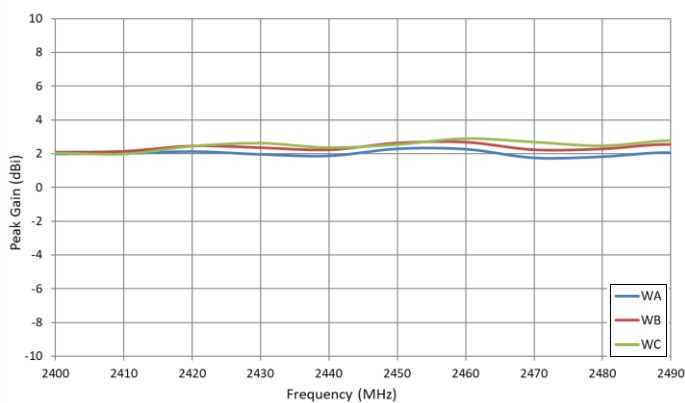
**Efficiency
(2.400 – 2.490) GHz**



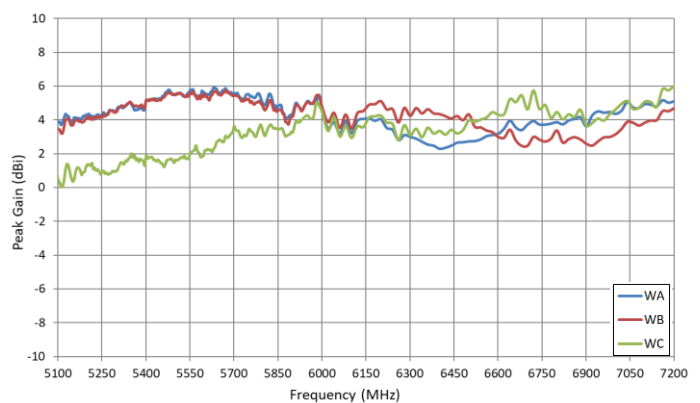
**Efficiency
(5.100 – 7.200) GHz**



**Peak Gain
(2.400 – 2.490) GHz**



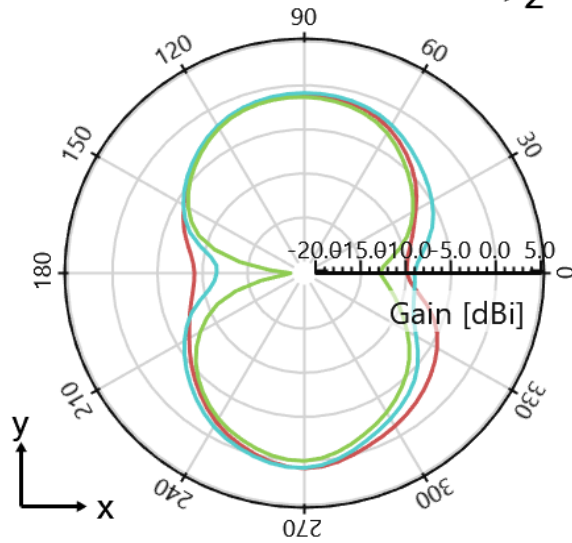
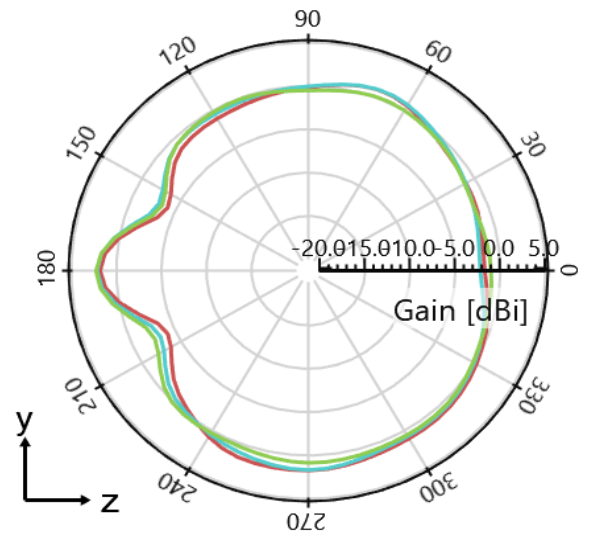
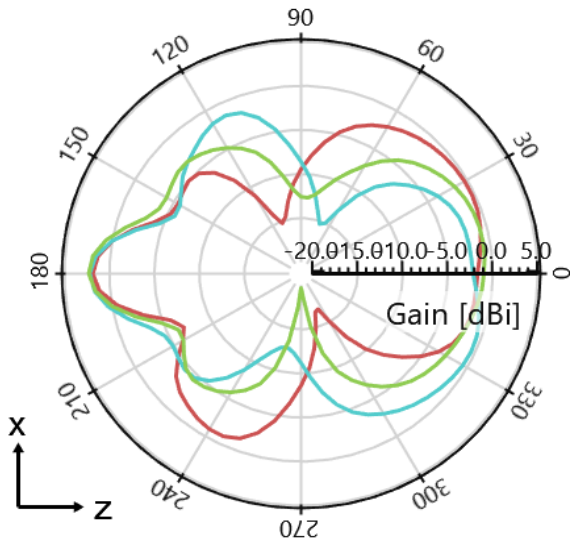
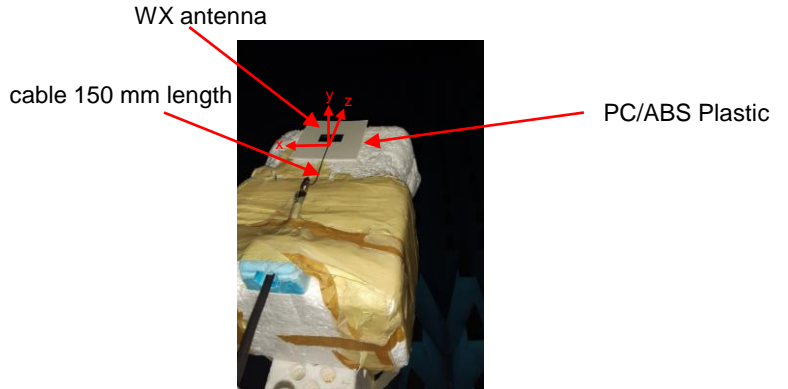
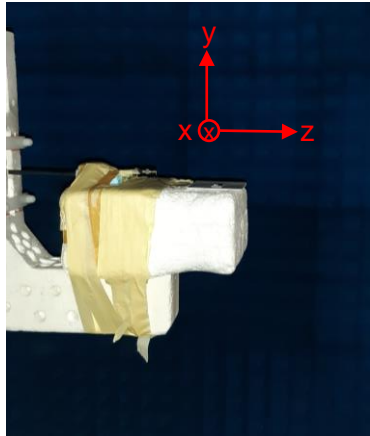
**Peak Gain
(5.100 – 7.200) GHz**



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 KYOCERA AVX produces a wide variety of standard and custom antennas to meet user needs

Antenna Radiation Patterns (WA, WB, WC)

Typical Performances in reference device housing made in PC/ABS plastic and 150 mm cable length
 Measured @ 2.440 GHz

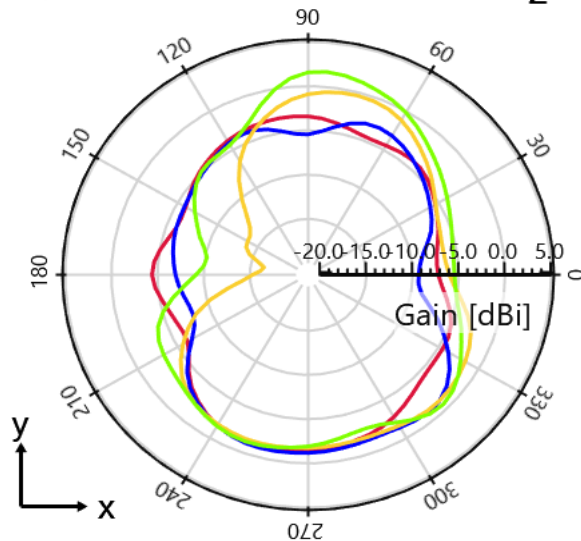
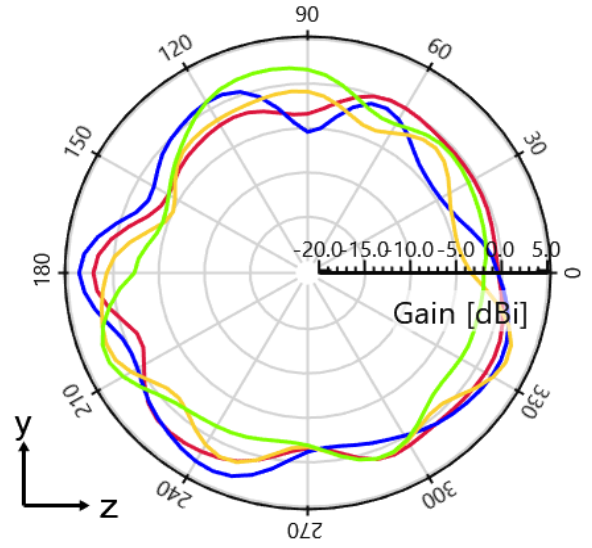
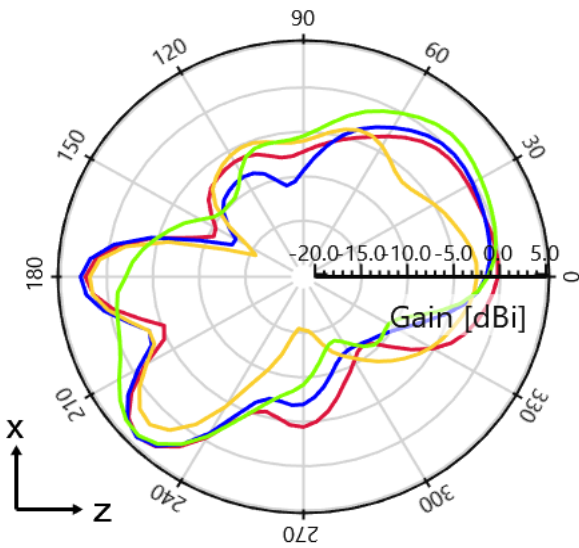
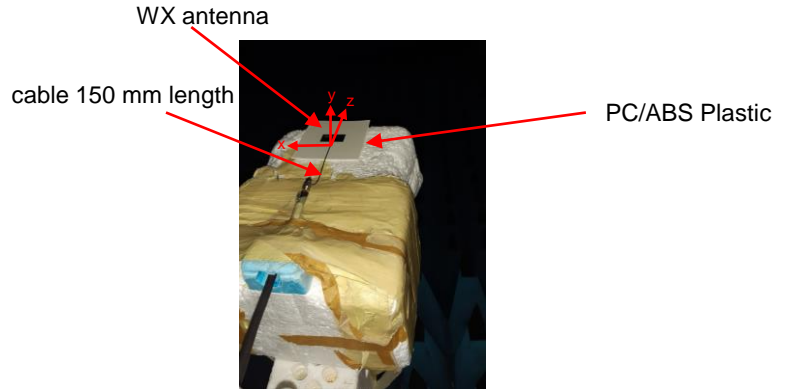
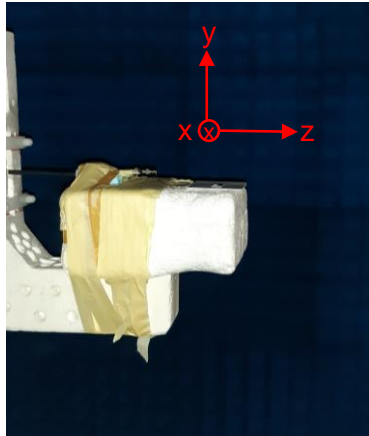


- WA
- WB
- WC

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Antenna Radiation Patterns (WA)

Typical Performances in reference device housing made in PC/ABS plastic and 150 mm cable length
 Measured @ 5500, 6000, 6500, 7000 MHz

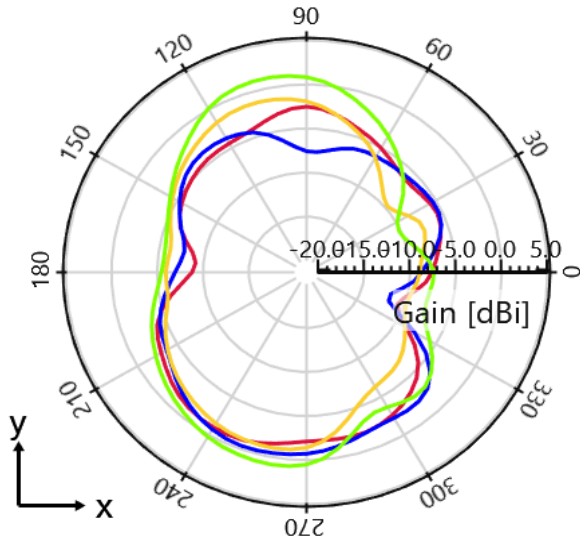
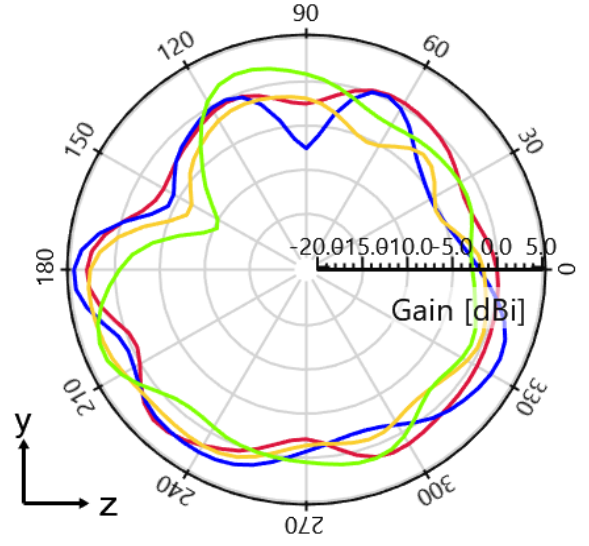
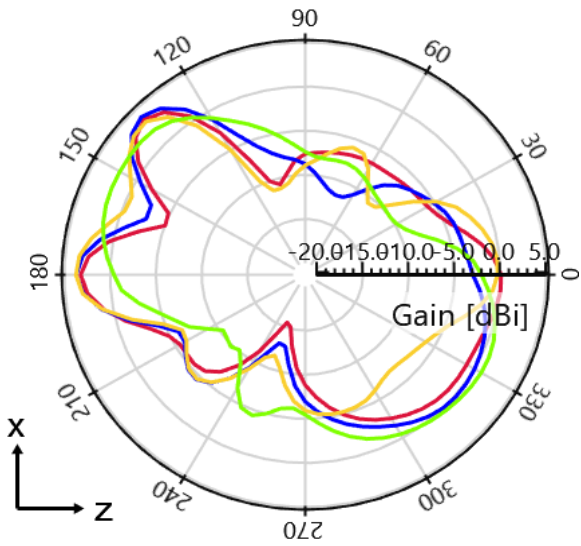
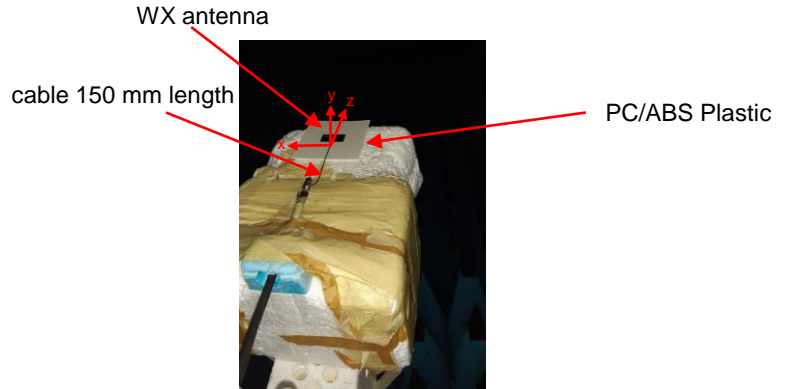
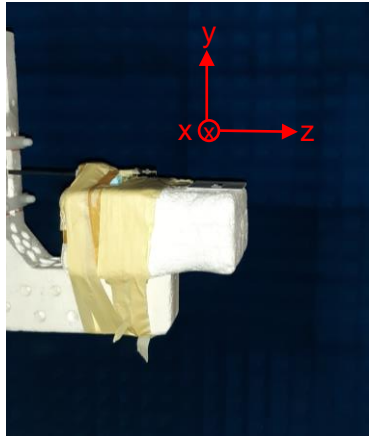


- 5500 MHz
- 6000 MHz
- 6500 MHz
- 7000 MHz

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Antenna Radiation Patterns (WB)

Typical Performances in reference device housing made in PC/ABS plastic and 150 mm cable length
 Measured @ 5500, 6000, 6500, 7000 MHz

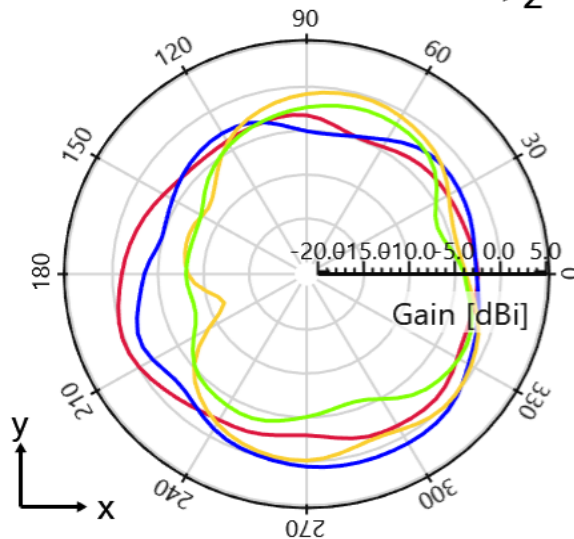
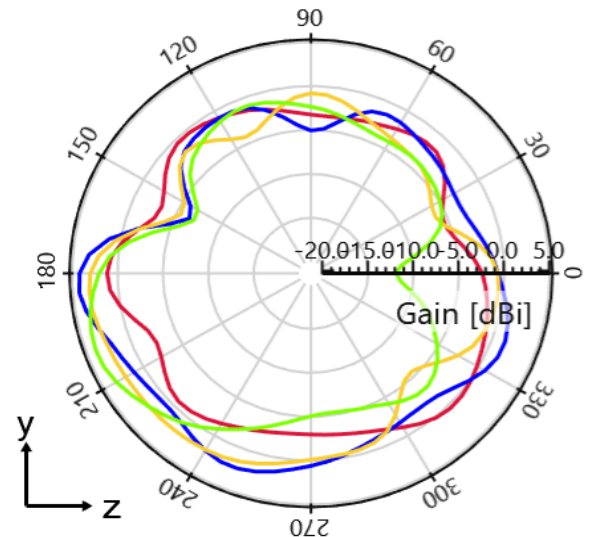
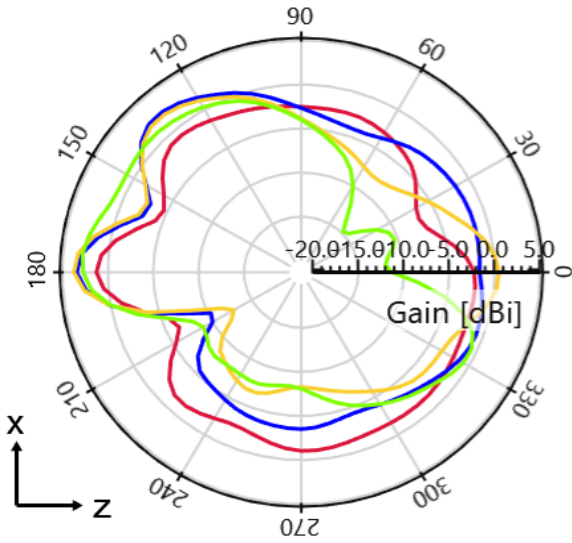
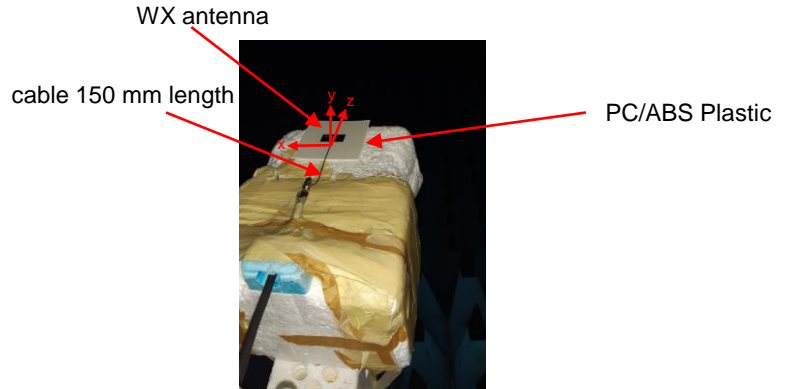
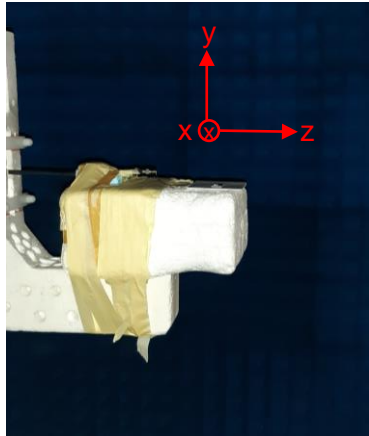


- 5500 MHz
- 6000 MHz
- 6500 MHz
- 7000 MHz

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Antenna Radiation Patterns (WC)

Typical Performances in reference device housing made in PC/ABS plastic and 150 mm cable length
 Measured @ 5500, 6000, 6500, 7000 MHz



- 5500 MHz
- 6000 MHz
- 6500 MHz
- 7000 MHz

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Generic Antenna Part Numbers

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Example of generic Wi-Fi PN: **WAP3015W08-U100D3G0A**

PN Nomenclature

PCB silk screen number

W	A	P	3015	W	08
T	T	T	T	T	T
Series	Rad. pattern orientation	Type	Size	Tuning version	PCB thickness
W = Wi-Fi Family	A = Slant to left (+x) B = Slant to right (-x) C = Straight (aligned with z-axis)	P = PCB	30x15 mm	W=Tuning on plastic wall	08 = 0.8 mm

PN Nomenclature

Second part of the PN

U	100	D	3	G	0	A
T	T	T	T	T	T	T
Connector type	Cable	Connector orientation	Cable diameter	Cable color	Ferrite beads	Mounting options
U = u.fl compatible* W = w.fl compatible H = MH4F N = No connector	050 = 50mm 100 = 100mm* 150 = 150mm	D = Connector down* U = Connector Up L = Left Side R = Right Side N = No connector	1 = 0.81 mm 3 = 1.13mm*	B = Black* G = Gray	0 = No* 1 = Yes	N = No adhesive A = using adhesive 3M468MP*
*Typical connector	*Typical length	*Typical orientation	*Typical diameter for u.fl	*Typical color	*Default configuration	*Adhesive for PCB

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Typical Ordering Part Numbers

Part Number	Type	Tuning version	Connector	Cable length (mm)	Mounting Options
WAP3015W08-U050D3B0A	PCB	Tuning on Plastic Wall	u.fl compatible	50	Using Adhesive 3M468MP
WAP3015W08-U100D3B0A				100	
WAP3015W08-U150D3B0A				150	
WAP3015W08-H100D3B0A			MHF4	100	
WBP3015W08-U050D3B0A	PCB	Tuning on Plastic Wall	u.fl compatible	50	Using Adhesive 3M468MP
WBP3015W08-U100D3B0A				100	
WBP3015W08-U150D3B0A				150	
WBP3015W08-H100D3B0A			MHF4	100	
WCP3015W08-U050D3B0A	PCB	Tuning on Plastic Wall	u.fl compatible	50	Using Adhesive 3M468MP
WCP3015W08-U100D3B0A				100	
WCP3015W08-U150D3B0A				150	
WCP3015W08-H100D3B0A			MHF4	100	

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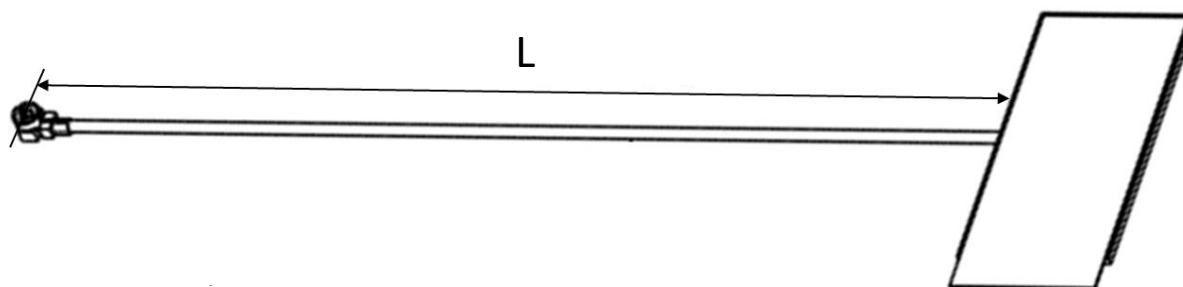
Mechanical Dimensions

Typical dimensions in mm

Part Number	A (mm)	B (mm)	C (mm)	L (mm)	Connector
WXP3015W08-U100D3B0A	30.00 ± 0.15	15.50 ± 0.15	0.80 ± 0.05	100	u.fl compatible



Top View



Bottom View



*All dimensions provided in this document are for informational purposes only