

Part No. WXP3015W08-U100D3B0A

Embedded Wi-Fi Dual Band Antenna - Multiple Radiation Patterns

2.4 & 5 GHz

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



Ethertronics 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.

Excels in Real-Life Conditions

Meets the ever-growing demand for smaller, thinner product designs by eliminating whip and stub antennas.

Extensive RF Experience

Ethertronics antennas are supported by documentation, and when needed, by the expertise of RF engineers who have integrated hundreds of antenna designs into wireless devices.

Global Operations & Design Support

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

Electrical Specifications

Typical Characteristics (in reference device housing made in PC/ABS plastic and 100mm cable length)

Frequency (GHz)	2.4 – 2.48	5.15 – 5.85
Return Loss*	< -8.4 dB	< 8.7 dB
Average Efficiency*	65 %	61%
Peak Gain*	< 3 dBi	< 6.7 dBi
Feed Point Impedance	50 ohms unbalanced	

Mechanical Specifications & Ordering Part Number

*Among all variants

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, refer to Appendix on page 4.

Embedded Wi-Fi Antenna AP, Routers, Gateways

2.4 / 5 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

RoHS Compliant

Products are the latest RoHS version compliant

APPLICATIONS

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

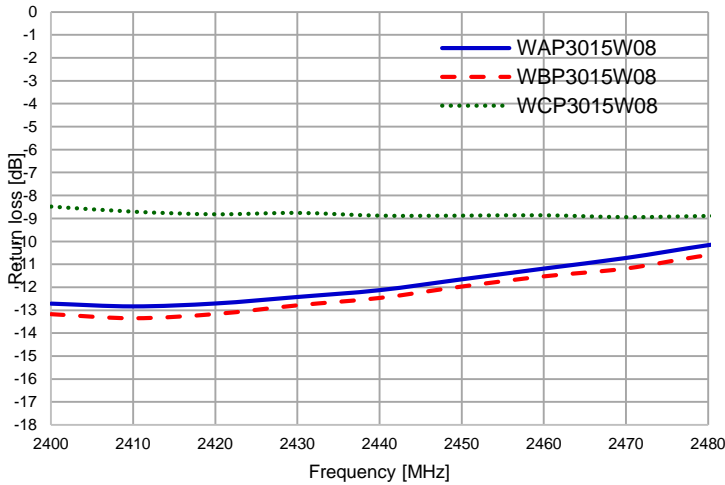


Wi-Fi 2.4 & 5 GHz embedded antenna specifications
Ethertronics produces a wide variety of standard and custom antennas to meet user needs

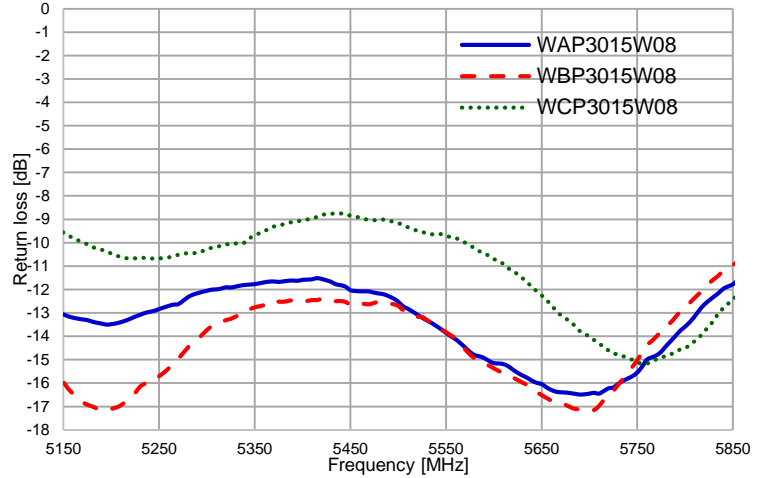
Return Loss and Efficiency Plots

Measured in reference device housing made in PC/ABS plastic and 100 mm cable length

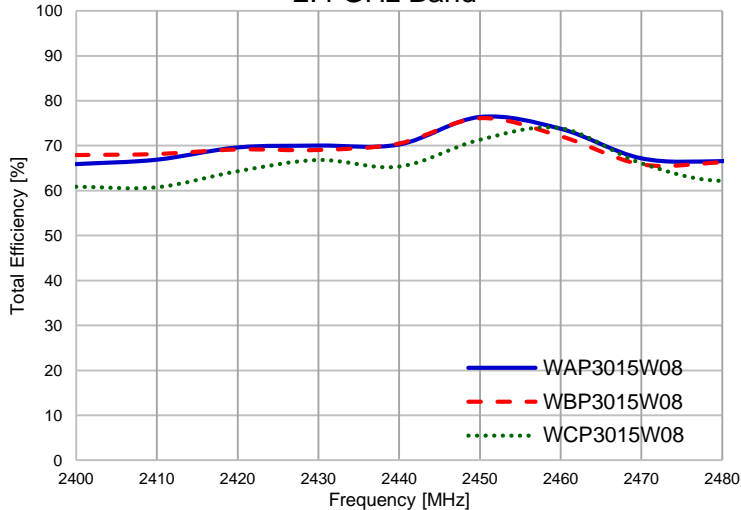
2.4 GHz Band



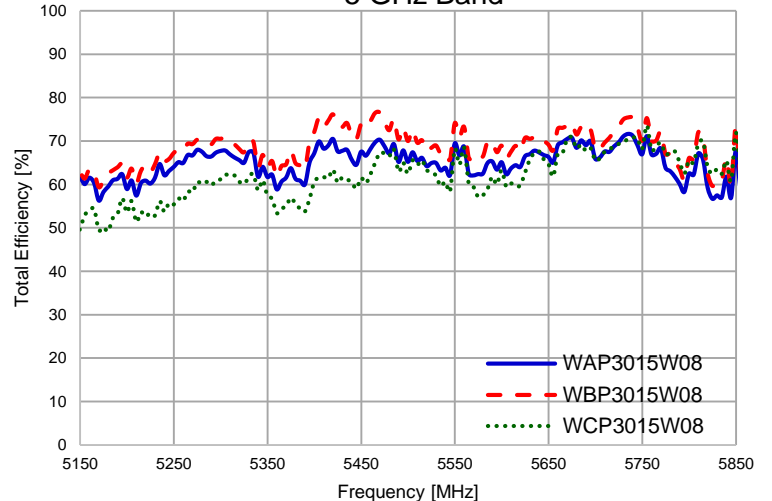
5 GHz Band



2.4 GHz Band



5 GHz Band

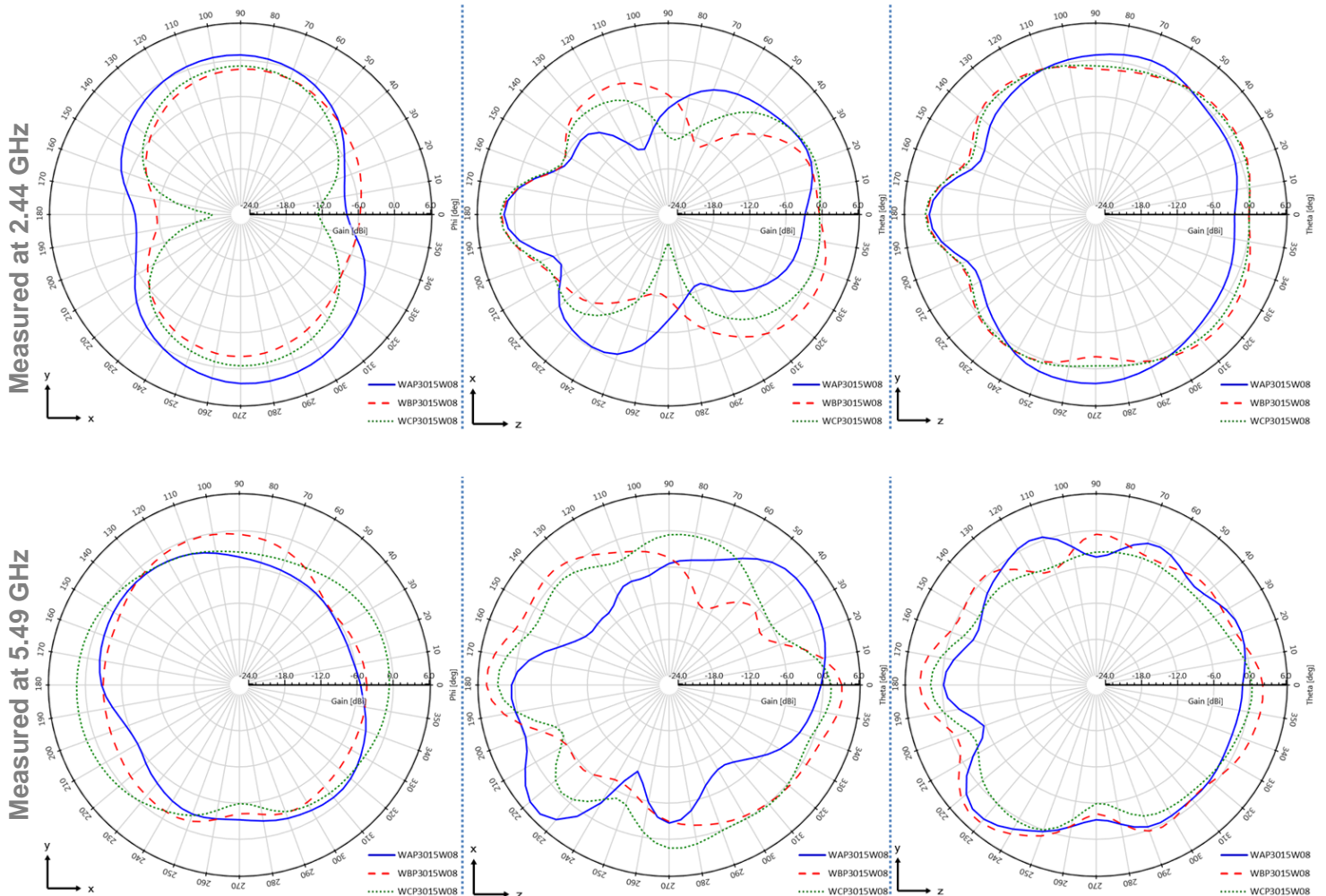
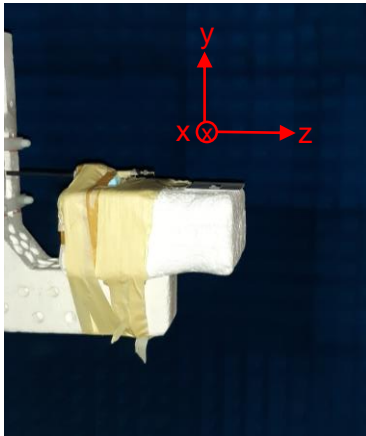




Wi-Fi 2.4 & 5 GHz embedded antenna specifications
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Antenna Radiation Patterns plots

Typical Performances in reference device housing made in PC/ABS plastic and 100 mm cable length





Generic Antenna Part Numbers

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

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

PN Nomenclature

PCB silk screen number

W T	A T	P T	3015 T	W T	08 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 T	100 T	D T	3 T	G T	0 T	A 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



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

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	

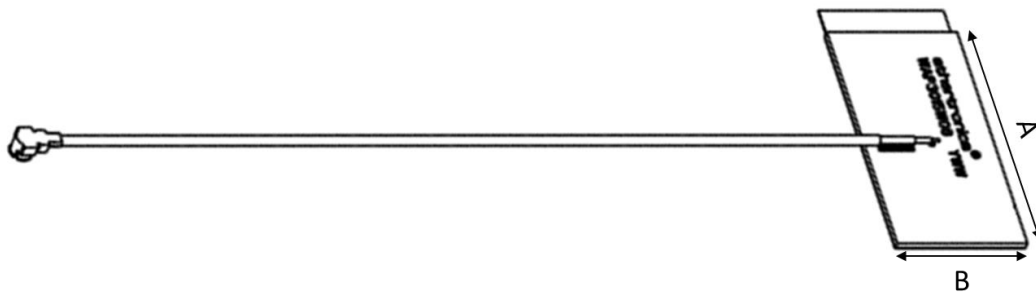


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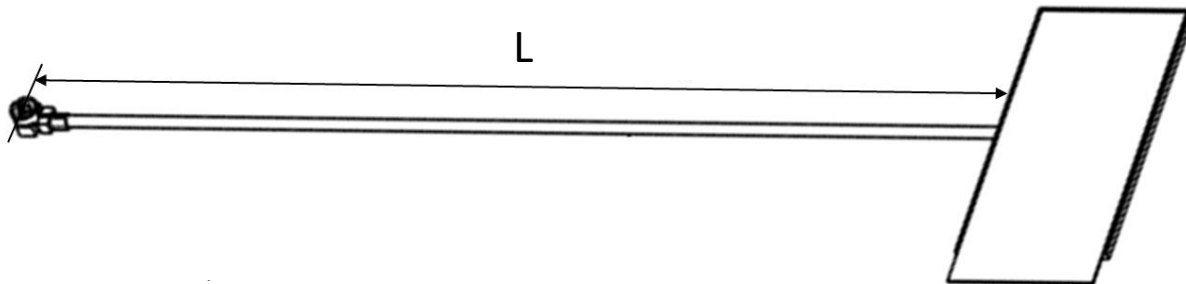
Mechanical Dimensions

Typical dimensions in mm

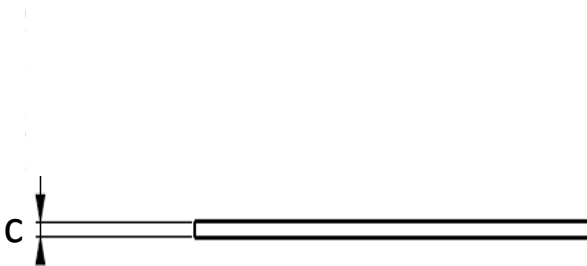
Part Number	A (mm)	B (mm)	C (mm)	L (mm)	Connector
WXP3015W08-U100D3B0A	30.00 ± 0.15	15.50 ± 0.15	0.80 ± 0.05	100	u.fl compatible



Top View



Bottom View



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

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