Part No. W1P35x8F04-U150D3B0A

Embedded 2.4 GHz Wi-Fi Antenna

2.4 GHz

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

KYOCERA AVX' W1P35x8F04 Family PCB antennas include an embedded Wi-Fi Antenna design with foam on the back side to minimize the detuning of the antenna on different surfaces that delivers on the key needs of today's wireless product designers: miniaturized design and superior signal sensitivity.

Excels in Real-Life Conditions

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

Extensive RF Experience

KYOCERA AVX 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

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

KEY BENEFITS

Quicker Time-to-Market
Standard part means fewer design changes, and simple implementation

Superior Network Coverage
Better network coverage means more reliable wireless connections.

Faster Data Rates
Improved performance also means faster data rates for downloading e-mail, surfing the internet and watching mobile video.

RoHS Compliant
Products are the latest RoHS version compliant.

APPLICATIONS

- Access Points and Routers
- Gateways
- Wi-Fi applications
- Embedded design
- M2M Industrial devices

Electrical Specifications

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

Frequency band (GHz)	2.40 – 2.48
Return Loss	< -15 dB
Average Efficiency	70%
Peak Gain	< 2.8 dBi
Feed Point Impedance	50 ohms unbalanced

Mechanical Specifications

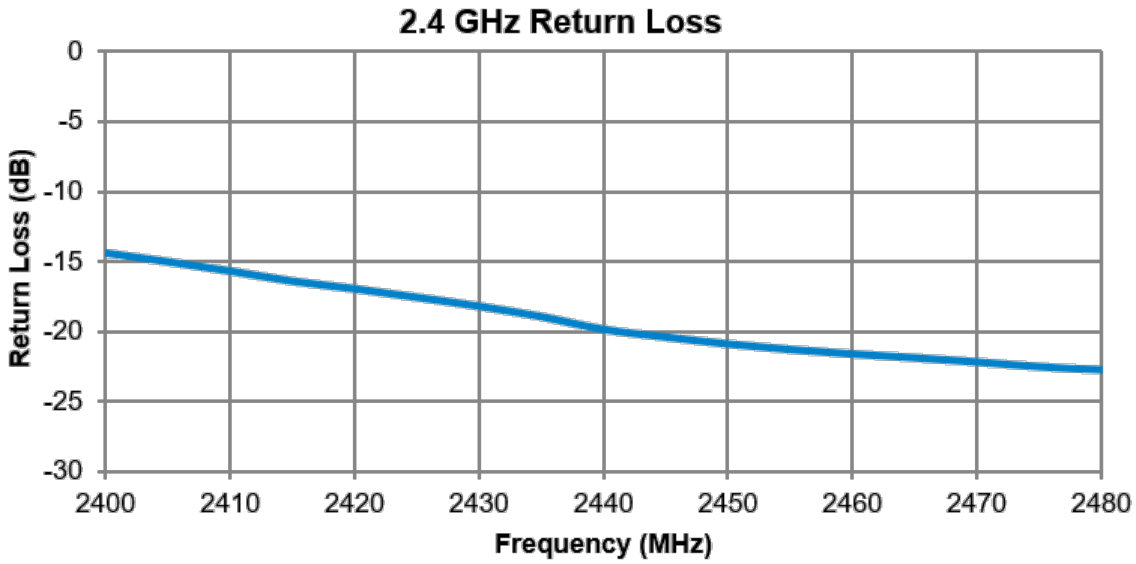
Part Number	W1P35x8F04-U150D3B0A
Size (mm)	35.20 ± 0.15 length 8.50 ± 0.15 width 0.40 thickness
*Connector	u.fl compatible
*Cable length	150 mm
Weight (grams)	0.3
Adhesive	3M468MP
Packing	Individual PE bags (default) or tray (per request)

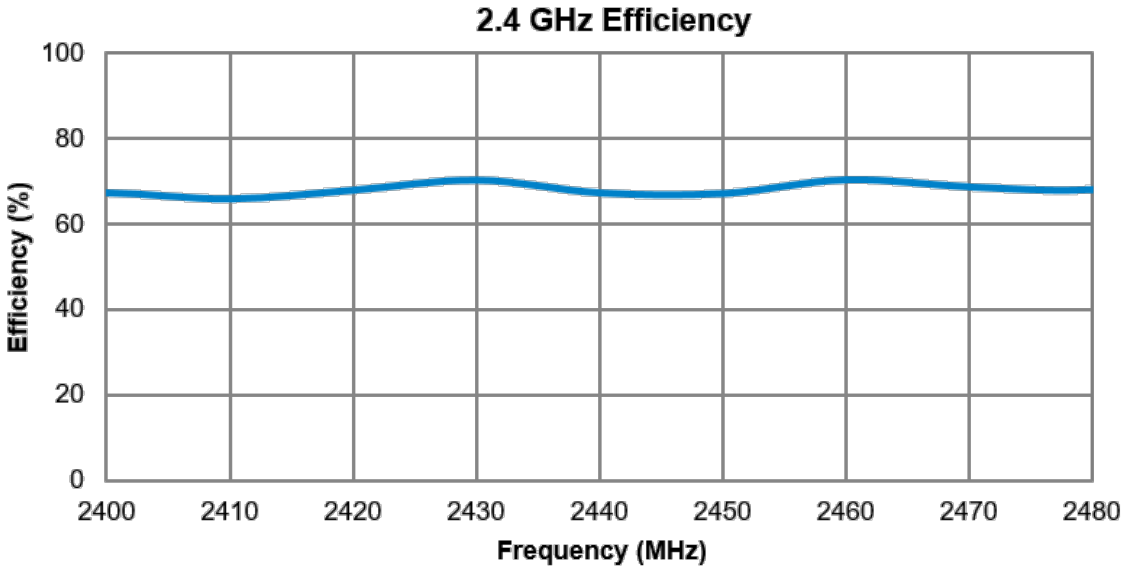
*Additional variations available in different cable lengths, colors and connectors, refer to Appendix on page 4.

2.4 GHz embedded antenna specifications
KYOCERA AVX produces a wide variety of standard and custom antennas to meet user needs

Typical Return Loss & Efficiency Plots

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





2.4 GHz embedded antenna specifications
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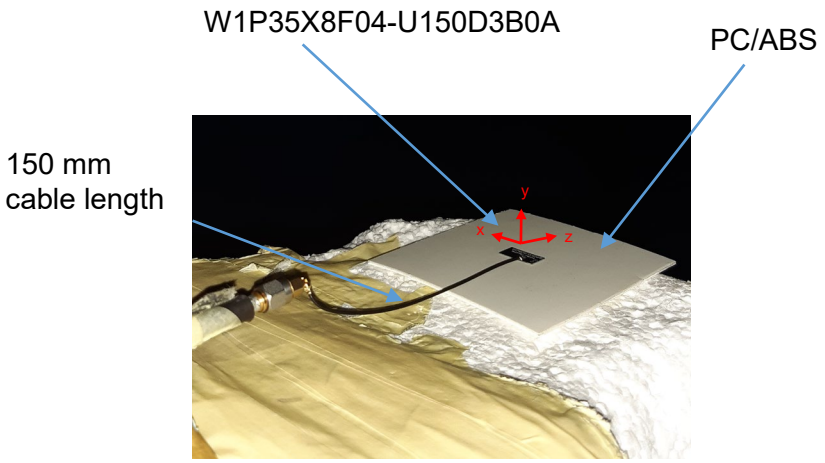
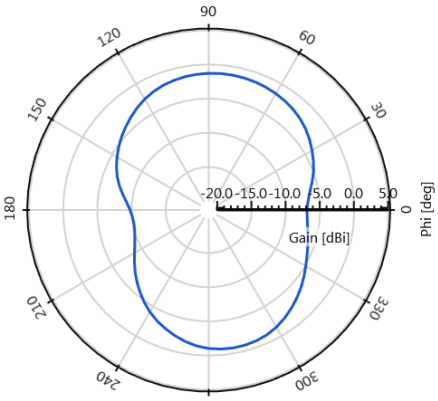
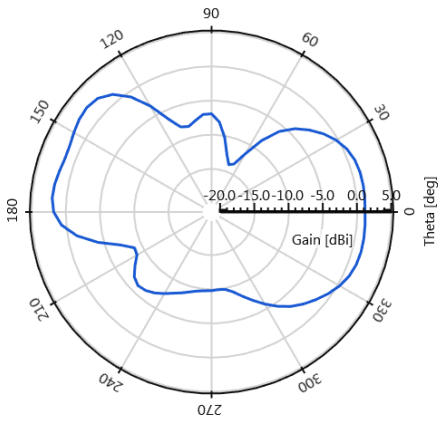
Antenna Radiation Patterns

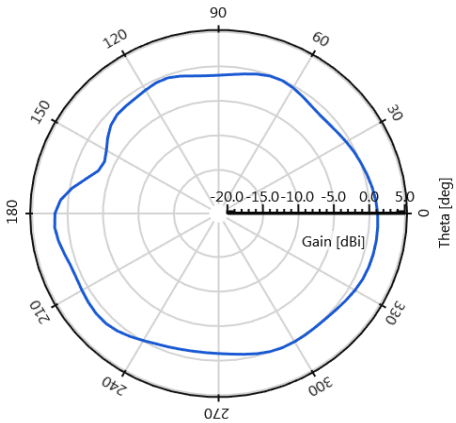
Typical Performances in reference device housing made in PC/ABS plastic and 150 mm cable length

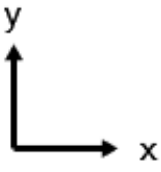


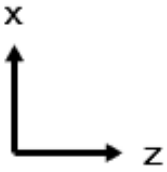
Measured at 2440 MHz

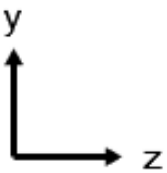












Generic Antenna Part Numbers

generic standard antenna part numbers for W1- Family

Example of generic Wi-Fi PN: **W1P35x8F04-U100D3B0A**

PN Nomenclature

PCB silk screen number

W	1	P	35X8	F	04
Series	**Freq. of operation**	**Type**	**Size**	**Tuning version**	**PCB thickness**
W = Wi-Fi Family	1 = 2.4 GHz	F = FPC P = PCB	35x8 mm 35.2x8.5mm*	W =Tuning on plastic wall F = Tuning for foam on plastic wall R = Tuning with ribs	01 = 0.1mm** 04 = 0.4 mm* 08 = 0.8 mm***

*Typical thickness for PCB
** Thickness for FPC
***Recommended for assembly with ribs

PN Nomenclature

Second part of the PN

U	100	D	3	B	0	A
Connector type	**Cable from connector to PCB edge**	**Connector orientation compared to PCB silkscreen printing**	**Cable diameter**	**Cable color**	**Ferrite beads**	**Mounting options**
U = u.fl compatible* W = w.fl compatible H = MHF4 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* 7 = 1.37 mm	B = Black* G = Gray	0 = No* 1 = Yes	N = No adhesive A = using adhesive 3M468MP* C = using adhesive 3M467** T = using adhesive 3M9448A***
*Typical connector	*Typical length	*Typical orientation	*Typical diameter for u.fl	*Typical color	*Default configuration	*Adhesive for PCB **Adhesive for FPC ***Adhesive for PCB + foam

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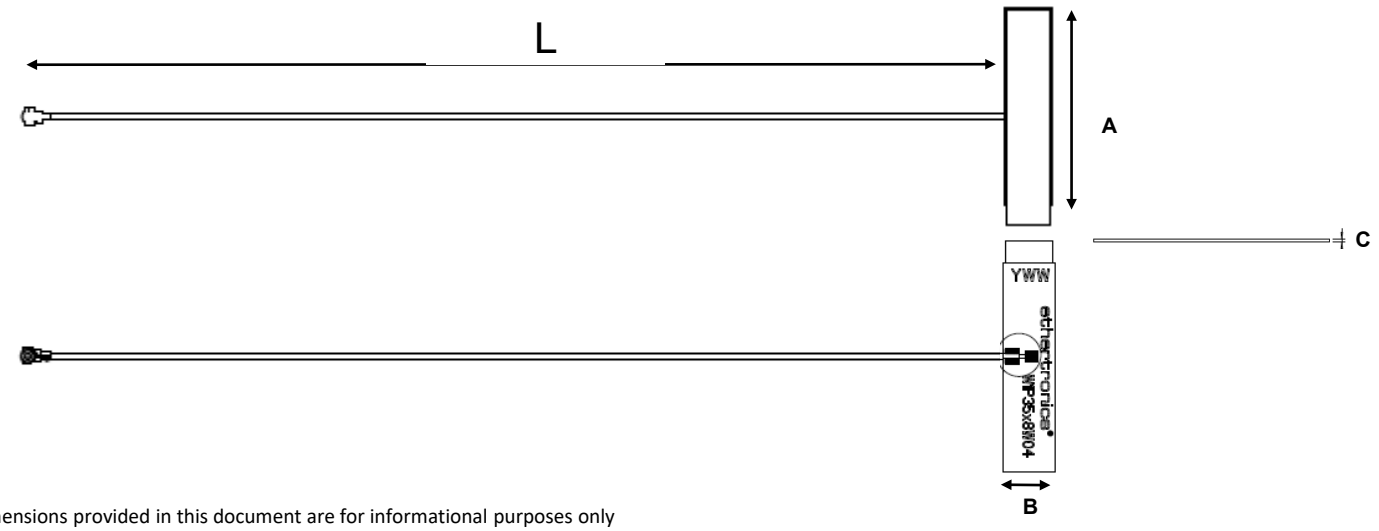
Typical Ordering Part Numbers

Part Number	Type	Tuning version	Connector	Cable length (mm)	Mounting Options
W1P35X8W04-U050D3B0A	PCB	Tuning on Plastic Wall	u.fl compatible	50	Using Adhesive 3M468MP
W1P35X8W04-U100D3B0A				100	
W1P35X8W04-U150D3B0A				150	
W1P35X8W04-H100D3B0A			MHF4	100	
W1P35X8F04-U050D3B0T		Tuning for foam on plastic wall	u.fl compatible	50	Using Adhesive 3M9448A
W1P35X8F04-U100D3B0T				100	
W1P35X8F04-U150D3B0T				150	
W1F35X8W01-U100D3B0C	FPC	Tuning on Plastic Wall	u.fl compatible	100	Using Adhesive 3M467

Mechanical Dimensions (mm)

Part Number	A (mm)	B (mm)	C (mm)	L(mm)	Connector
W1P35X8F04-U150D3B0A	35.20 ± 0.15	8.50 ± 0.15	0.40	150	u.fl Compatible



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