Part No. X9001091-W3DSMW

External Hinged Wi-Fi Dual Band Antenna

2.4 GHz, 5 GHz

Supports: Wi-Fi applications, Bluetooth, ZigBee, WLAN



External Hinged Wi-Fi Dual Band Antenna

2.4 – 2.485 GHz,
5.15 – 5.85 GHz

KEY BENEFITS

Quicker Time-to-Market
Standard part means fewer design changes with, simple implementation
Easy Assembly using RP-SMA or SMA

Best in Class Performance
External antennas are designed to maintain high efficiency in a variety of device configurations

Great Flexibility
Standard connector to makes easy set-up

Environmental Compliance
Products are the latest RoHS version compliant.

APPLICATIONS

- Gateway, Access Point
- Handheld
- Telematics
- Tracking
- Healthcare (FDA Class I)
- M2M, Industrial devices
- Smart Grid
- OBD-II
- IoT

KYOCERA AVX series of External antennas deliver on the key needs of device designers for higher functionality and performance in access points.
The antenna offers a high gain on both the 2.4 & 5 GHz bands, and can be mounted easily straight or at right angle to the device via an SMA.

Extensive RF Experience

Our external 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 encompass an integrated network of design centers that provide local customer support.

Electrical Specifications

Typical Characteristics measured in Free Space tested and 90º bent position

Frequency (GHz)	2.400 – 2.485	5.150 – 5.850
Return Loss	<-14 dB	<-11 dB
Peak Gain	1.8 dBi	4.0 dBi
Average Efficiency	75%	80%
Polarization	Vertical	
Feed Point Impedance	50 ohm	

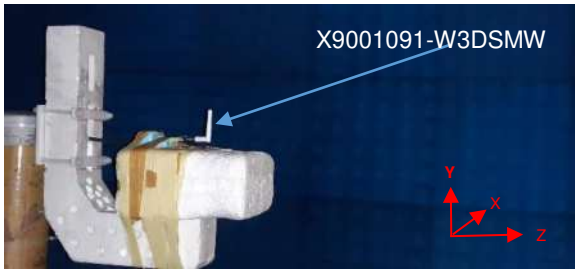
Mechanical Specifications & Ordering Part Number

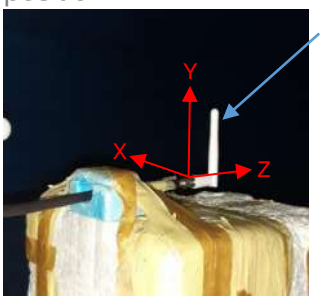
Ordering Part Number	X9001091-W3DSMW
Dimensions (mm)	84.00 ± 2.00 height 9.35 ± 0.10 diameter
Connector Type	SMA Male (RP-SMA is available. Refer to appendix on last page)
Weight (grams)	12
Hinge	Foldable 90º at the hinge level
Color	White (Black color is available. Refer to appendix on the last page)
Operating Temperature (ºC)	-40 to +120
Radome Material	TPEE
Additional Resources	Download 3D FIT File

2.4 / 5 GHz External Wi-Fi antenna specifications
KYOCERA AVX produces a wide variety of standard and custom antennas to meet user needs

Return Loss, Efficiency, and Peak Gain Plots

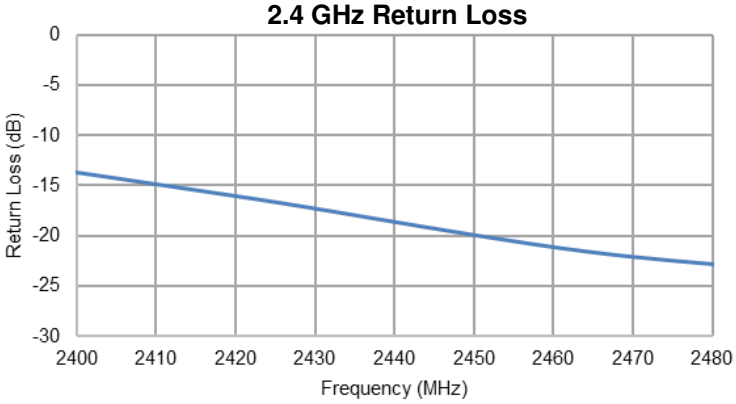
Typical performance measured in free space, and in 90º bent position



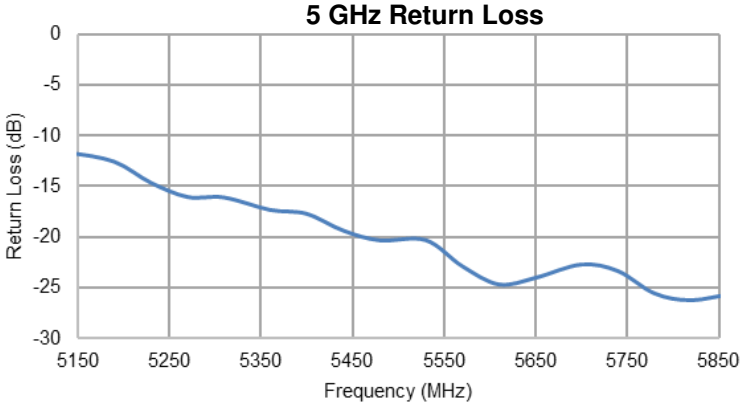


X9001091-W3DSMW
in 90º bent position

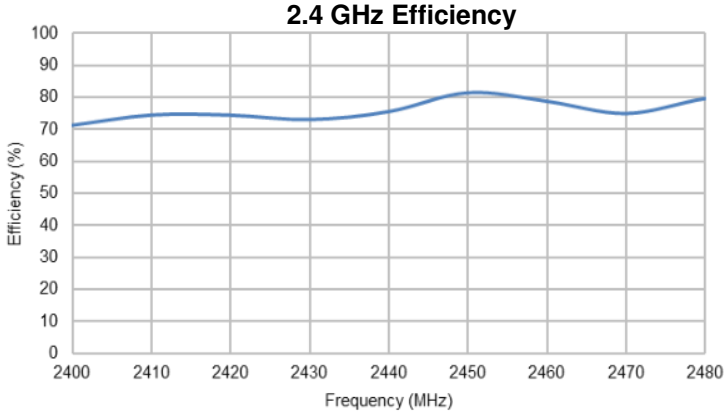
2.4 GHz Return Loss



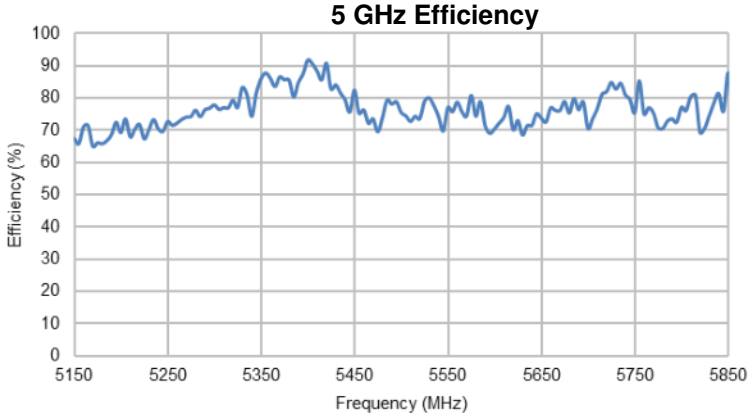
5 GHz Return Loss



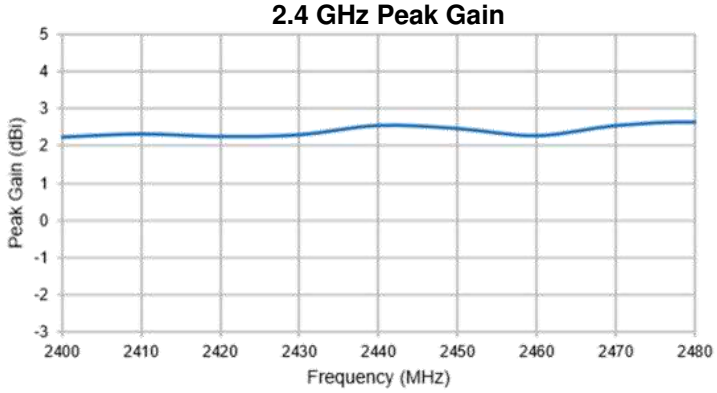
2.4 GHz Efficiency



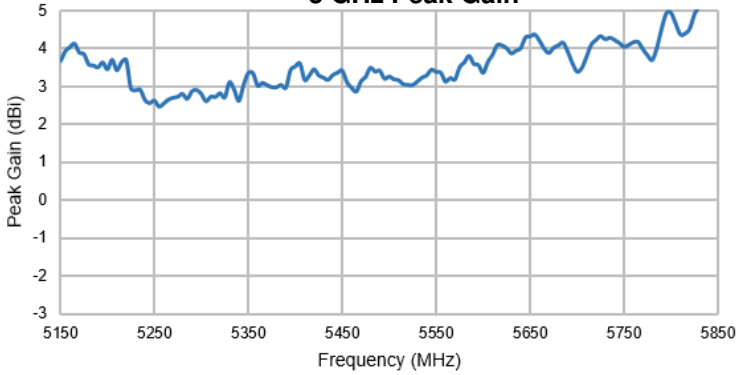
5 GHz Efficiency



2.4 GHz Peak Gain



5 GHz Peak Gain



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2.4 / 5 GHz External Wi-Fi antenna specifications
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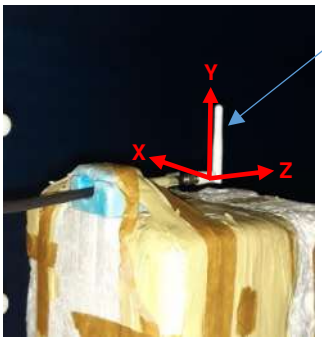
Radiation Patterns Plots

Typical performance measured in free space, and in 90º bent position
Measured at 2.44 GHz, 5.55 GHz



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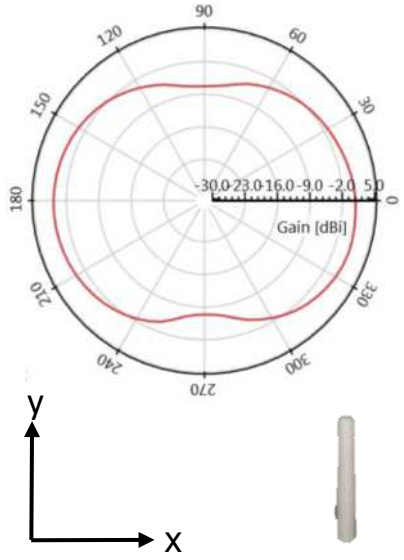
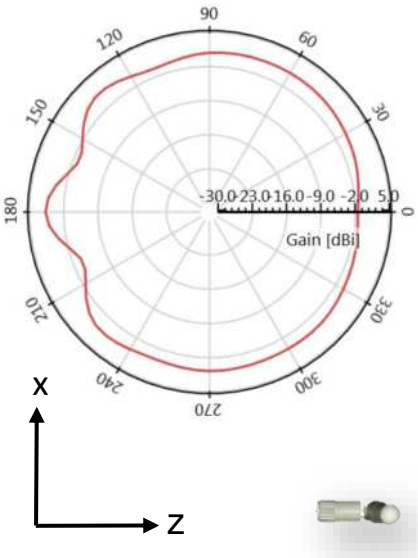
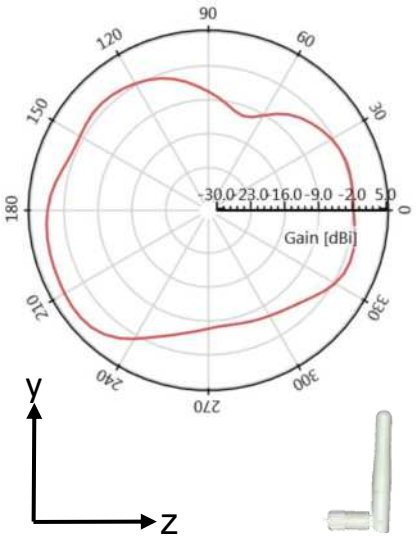
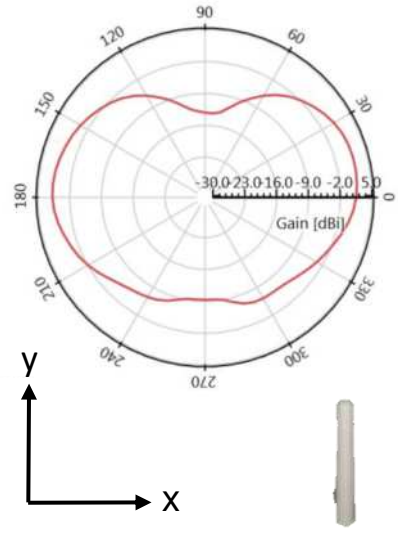
Measured at 2.44 GHz

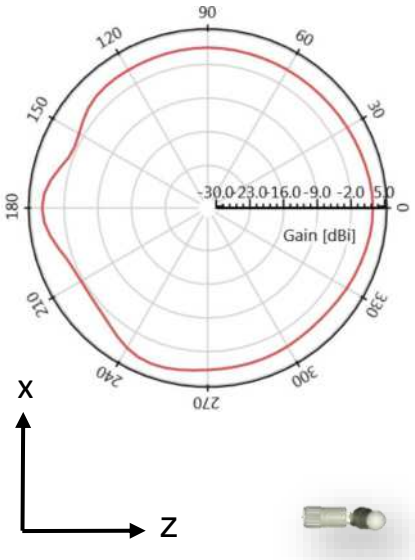


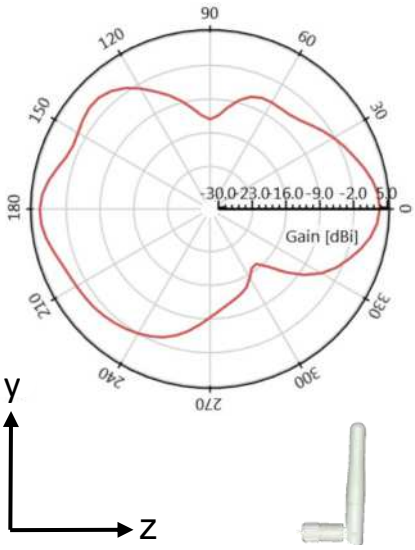




Measured at 5.55 GHz







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2.4 / 5 GHz External Wi-Fi antenna specifications
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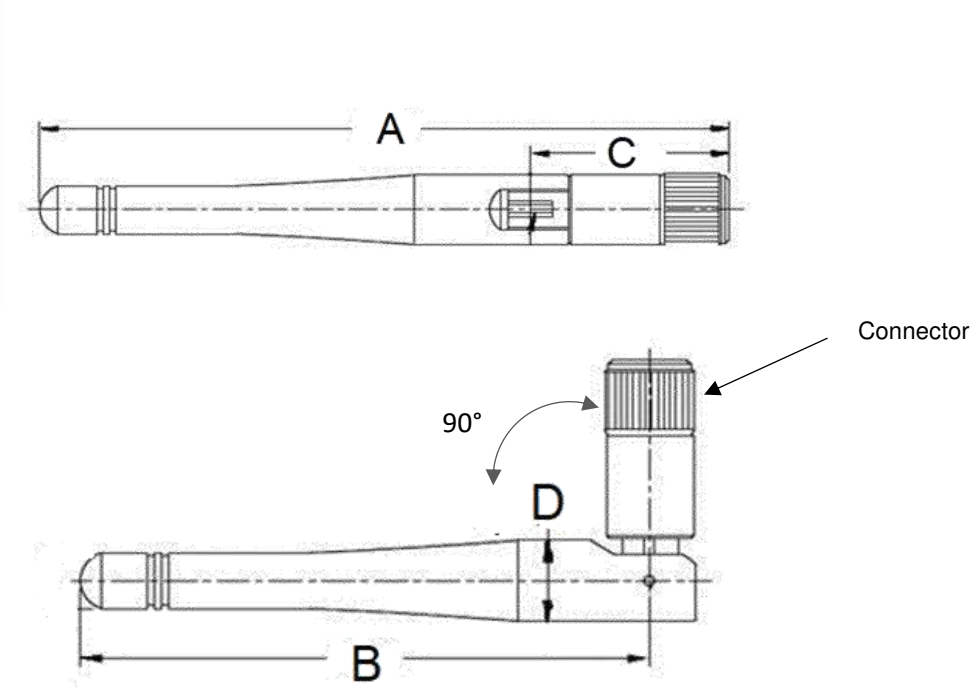
Mechanical Specifications

Typical antenna dimensions in mm

Part Number	A (mm)	B (mm)	C (mm)	D (mm)	Color	Connector
X9001091-W3DSMW	84.00 ± 2.00	58.00 ± 2.00	25.80 ± 2.00	9.35 ± 0.10	White	SMA Male
X9001091-W3DRMW	84.00 ± 2.00	58.00 ± 2.00	25.80 ± 2.00	9.35 ± 0.10	White	RP-SMA Male
X9001091-W3DSMB	84.00 ± 2.00	58.00 ± 2.00	25.80 ± 2.00	9.35 ± 0.10	Black	SMA Male
X9001091-W3DRMB	84.00 ± 2.00	58.00 ± 2.00	25.80 ± 2.00	9.35 ± 0.10	Black	RP-SMA Male



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Additional Resources – Part No. X9001091-W3DSMW

3D FIT File:
https://www.kyocera-avx.com/download/antennas/ME-FIT/X9001091_3D_fit.zip

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