

Part No. X9003019

External Hinged Wi-Fi 6 & Wi-Fi 6E

2.4 GHz, 5 GHz, 6 GHz

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



The X9003019 is an external hinged dipole antenna delivers the key needs of device designers for higher functionality and performance. This dipole antenna designed for superior performance in the 2.4 GHz, 5 GHz, and 6 GHz bands supporting both Wi-Fi 6 and Wi-Fi 6E. This antenna can be mounted easily straight or at right angle to the device via an SMA or RP-SMA connector. Antenna offered in white or black.

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.

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KEY BENEFITS

Quicker Time-to-Market

Standard parts means fewer design cycles allowing for faster production times. Easy assembly using RP-SMA or SMA connection.

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

- Internet of Things (IoT) devices
- Smart Home networking / Gateway
- Sensing and remote monitoring
- Healthcare devices
- M2M & Industrial IoT devices
- Remote Access Monitoring
- Asset Tracking

Electrical Specifications

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

Frequency (GHz)	2.400 – 2.485	4900 – 5.850	6.000 – 7.125
VSWR	2.0:1 max		
Peak Gain	2.8 dBi	4.9 dBi	5.5 dBi
Average Efficiency	72%	60%	76%
Polarization	Vertical		
Feed Point Impedance	50 ohm		

Mechanical Specifications

Ordering Part Number	X9003019-W3DRMW
Dimensions (mm)	84.00 ± 2.00 height 9.35 ± 0.10 diameter
Connector Type	RP-SMA Male
Weight (grams)	12
Hinge	Foldable 90° at the hinge level
Color	White
Operating Temperature (°C)	-40 to +120
Radome Material	TPEE

2.4 / 5 / 6 GHz External Wi-Fi 6 & Wi-Fi 6E KYOCERA AVX Antenna Specifications
KYOCERA AVX produces a wide variety of standard and custom antennas to meet user needs

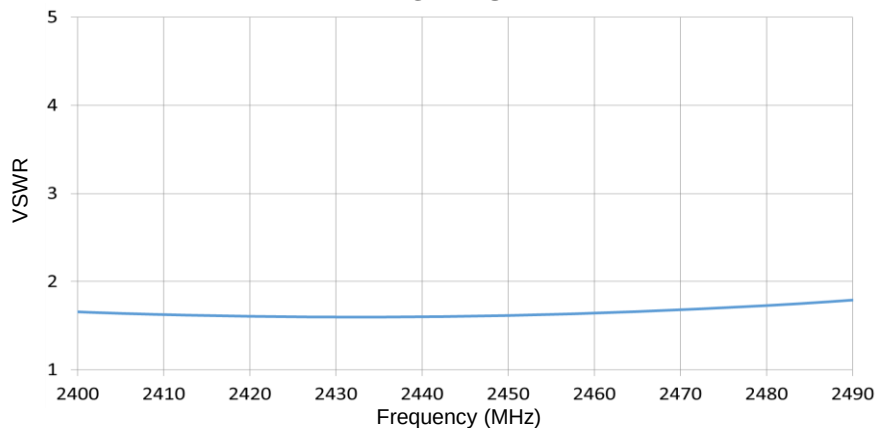
VSWR Plots

Typical performance measured in free space

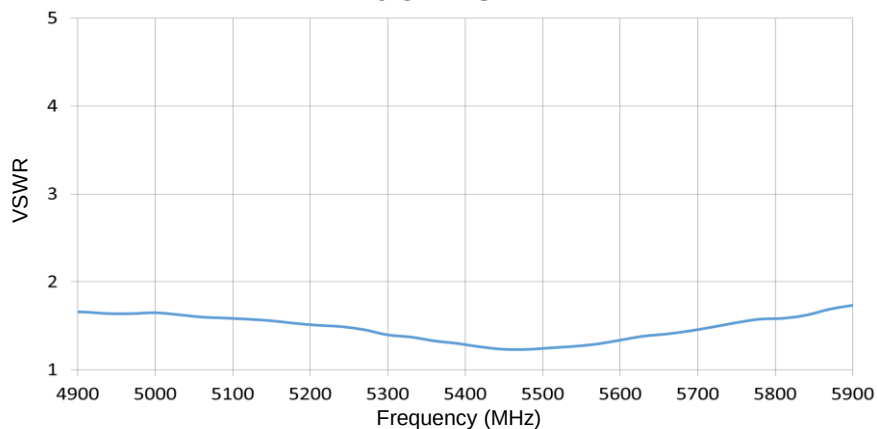


X9003019-W3DRMW in 90° bent position

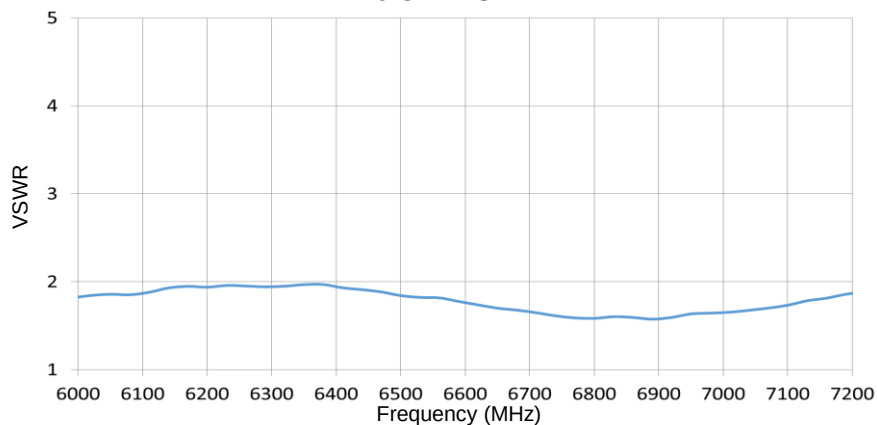
2.4 GHz VSWR



5 GHz VSWR



6 GHz VSWR



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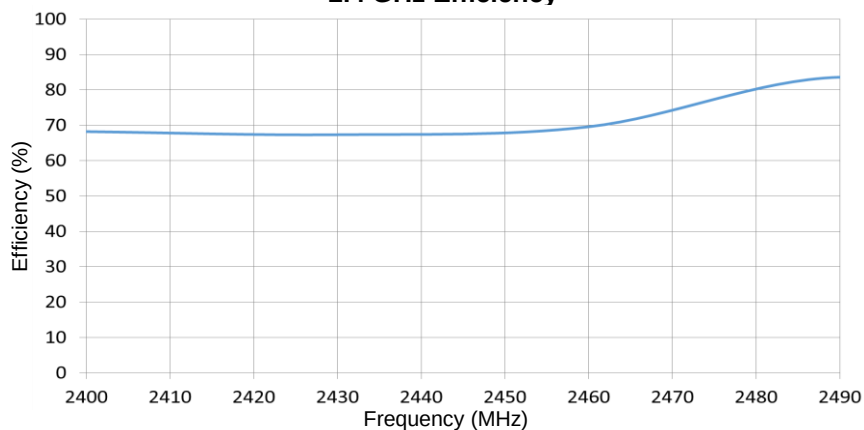
Efficiency Plots

Typical performance measured in free space

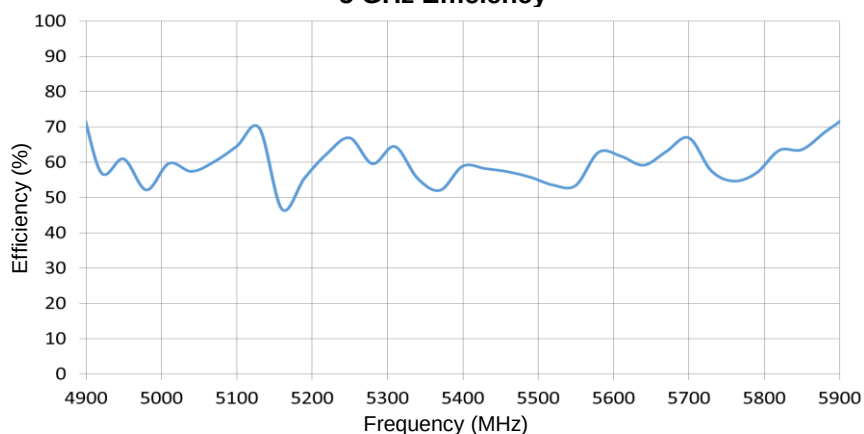


X9003019-W3DRMW in 90° bent position

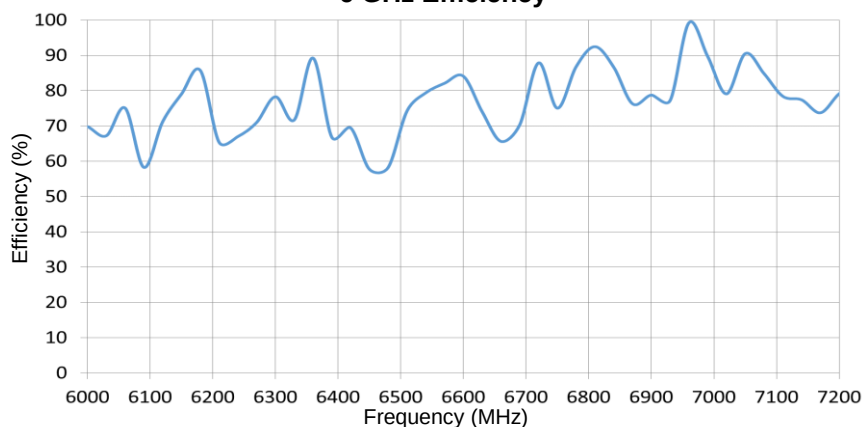
2.4 GHz Efficiency



5 GHz Efficiency



6 GHz Efficiency



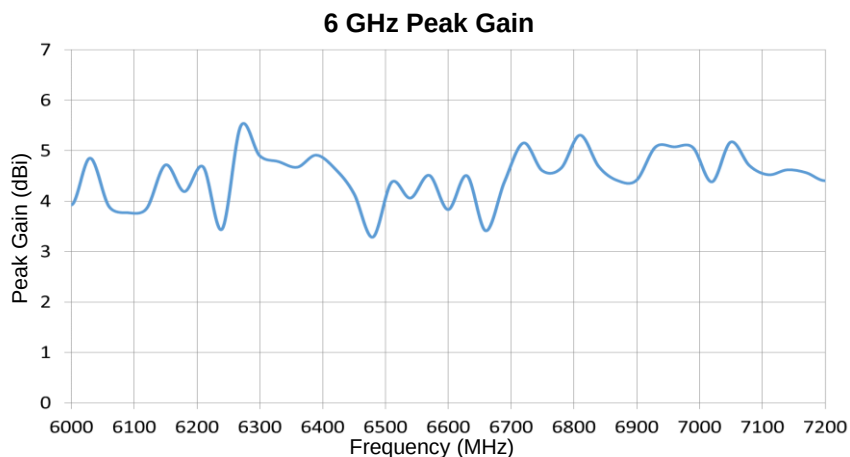
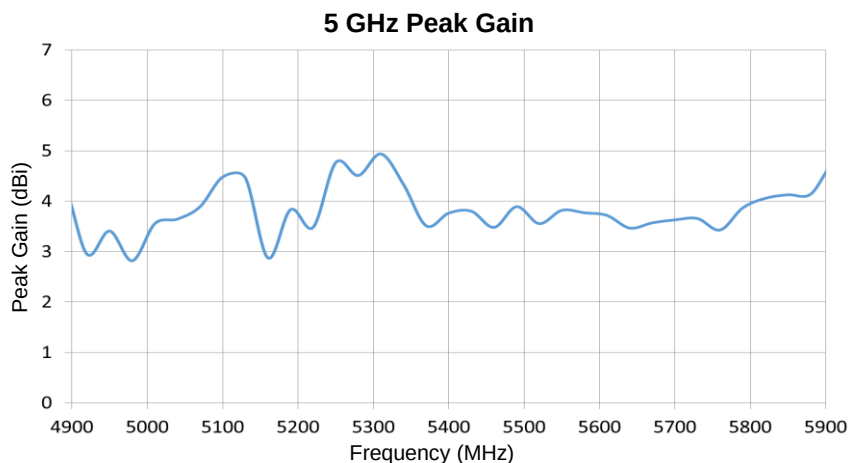
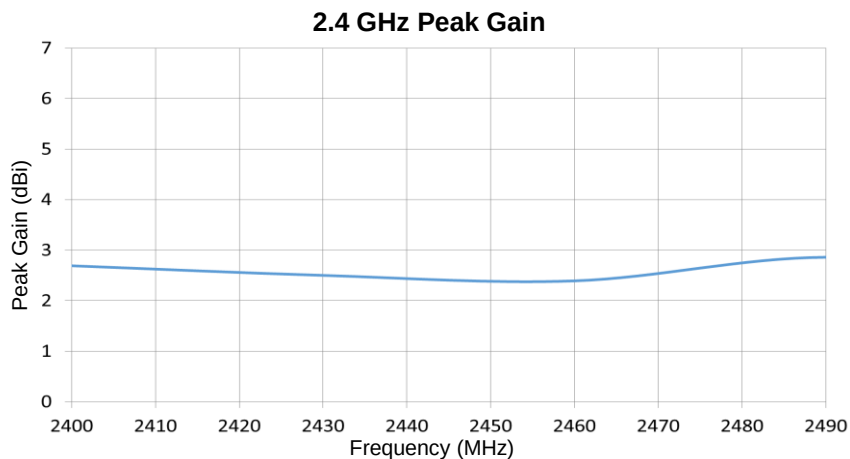
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Peak Gain Plots

Typical performance measured in free space



X9003019-W3DRMW in 90° bent position

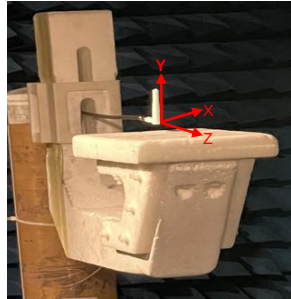


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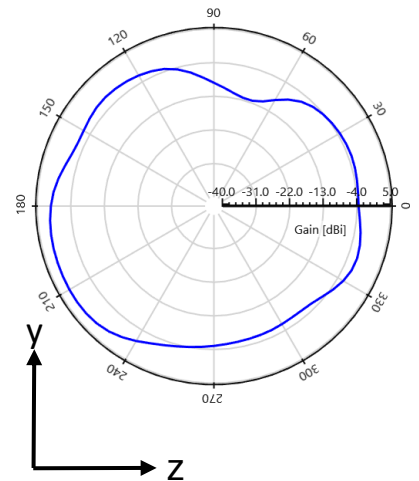
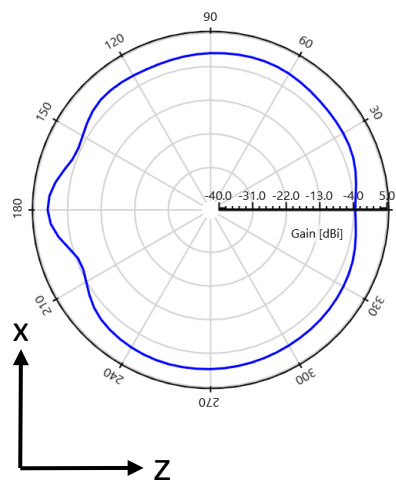
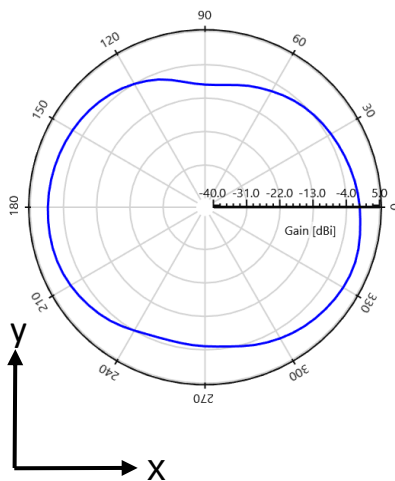
Radiation Patterns Plots

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

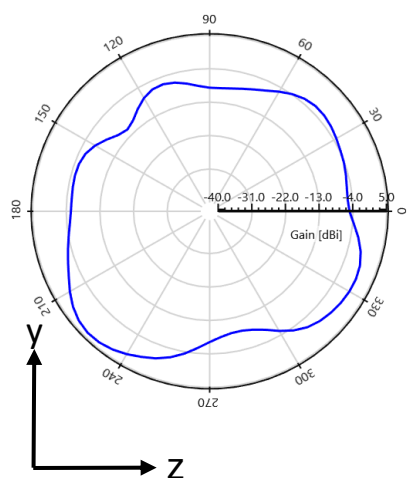
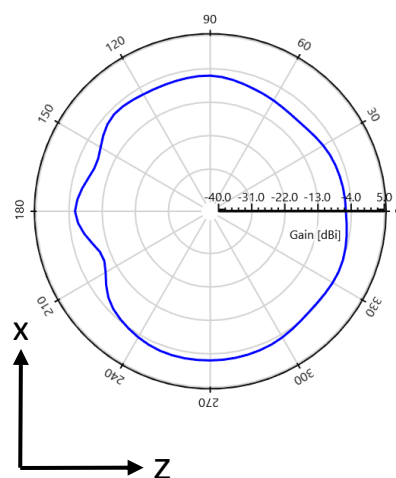
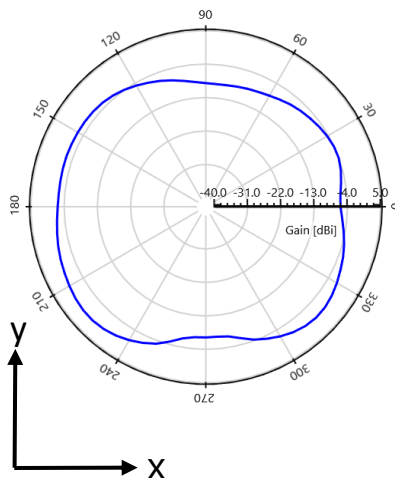
Measured at 2.460 GHz, 5.550 GHz



Measured at 2.460 GHz



Measured at 5.550 GHz



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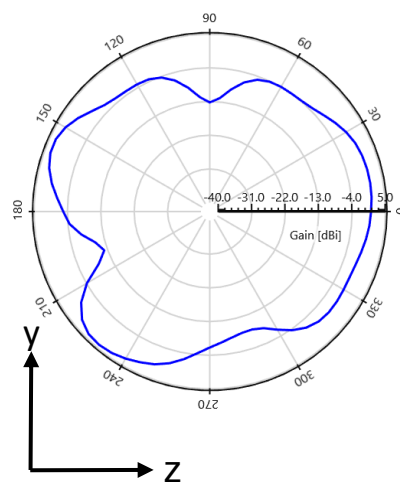
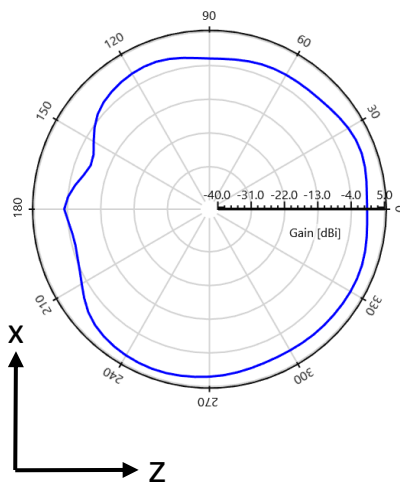
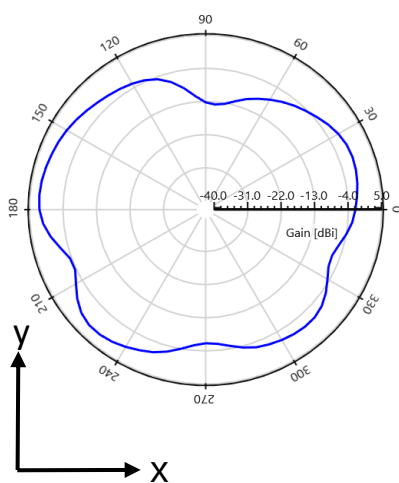
Radiation Patterns Plots

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

Measured at 6.540 GHz



Measured at 6.540 GHz

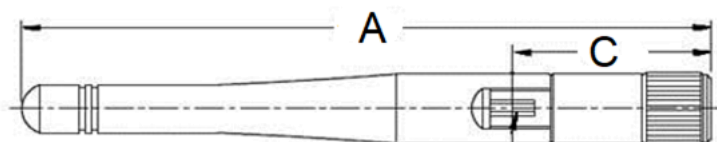


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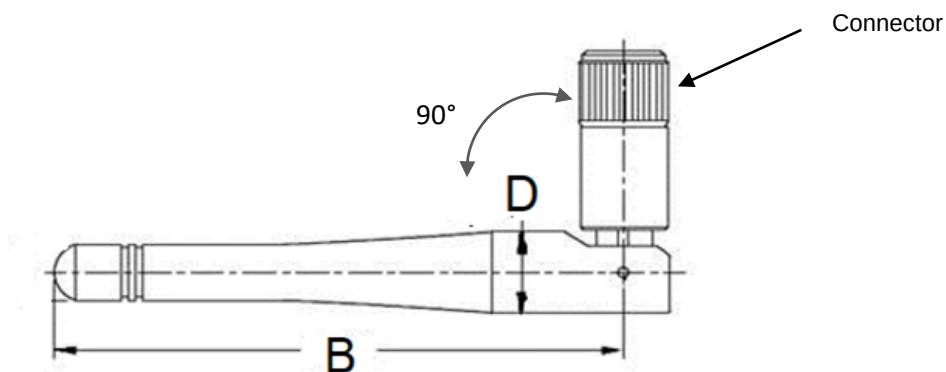
Mechanical Specifications

Typical antenna dimensions in mm

Part Number	A	B	C	D	Color	Connector
X9003019-W3DRMW	84.00 ± 2.00	58.00 ± 2.00	25.80 ± 2.00	9.35 ± 0.10	White	RP-SMA Male
X9003019-W3DRMB	84.00 ± 2.00	58.00 ± 2.00	25.80 ± 2.00	9.35 ± 0.10	Black	RP-SMA Male
X9003019-W3DSMW	84.00 ± 2.00	58.00 ± 2.00	25.80 ± 2.00	9.35 ± 0.10	White	SMA Male
X9003019-W3DSMB	84.00 ± 2.00	58.00 ± 2.00	25.80 ± 2.00	9.35 ± 0.10	Black	SMA Male



Straight View



Bent View