Part No. X1005244-LWA3SX10A2

GNSS (active) / LTE / WiFi 3-in-1 External Antenna

(1561 / 1575 / 1602) MHz + (698-960; 1710-2170; 2300-2690) MHz + (2400-2500; 5150-5850) MHz

Supports: Tracking, Smart Home, Agriculture, Automotive Aftermarket, Healthcare, Digital Signage, Logistics, Industrial Devices

GNSS (active) & LTE & WiFi External Antenna

(1561 / 1575 / 1602) MHz
(698-960; 1710-2170; 2300-2690) MHz
(2400-2500; 5150-5850) MHZ

KYOCERA AVX'd 3-in-1 GNSS (active), LTE and WiFi external antenna delivers on the key needs of device designers for higher functionality and performance.

KEY BENEFITS

Reduced Costs and Time-to Market

Standard antennas eliminate design fees and cycle time associated with a custom solution. getting products to market faster.

High Performance

By optimizing antenna size, performance and emissions, customer and regulatory specifications are more easily met.

Reliability

Products are the latest RoHS & REACH version compliant.

APPLICATIONS

- Remote Monitoring
- Point of Sale
- IoT
- Gateway
- Telematics
- Tracking
- Healthcare
- M2M, Industrial devices
- Smart Grid
- Logistics
- Energy
- Retail

Electrical Specifications

Typical characteristics in free-space

Frequency (GNSS)	1561 MHz	1575 MHz	1602 MHz
Gain at Zenith	1.1 dBi	2.1 dBi	2.3 dBi
VSWR	2.0:1 max		
LNA Electrical Properties			
Frequency (GPS-GLONASS)	**1561 MHz**	**1575 MHz**	**1602 MHz**
VSWR	3.0:1 max		
Impedance	50 Ω		
Antenna Gain (@3.3 V)	28 dB / 25 dB min.		
DC Power Input	3~5 V		
Noise Figure	3.0 dB Typ.		
Power Consumption (@ 3.3 v)	9 mA Typ.		

Frequency (LTE)	698~960 MHz	1710~2170 MHz	2300~2690 MHz
Peak Gain	3.5 dBi	4.6 dBi	3.7 dBi
Average Efficiency	50%	63%	58%
VSWR	2.0:1 max		
Impedance	50 Ω		

GNSS (active) / LTE / WiFi 3-in-1 External Antenna Specifications.
KYOCERA AVX produces a wide variety of standard and custom antennas to meet user needs.

Electrical Specifications cont.

Typical characteristics in free-space

Frequency (WiFi)	2400~2500 MHz	5150~5850 MHz
Peak Gain	4.5 dBi	3.4 dBi
Average Efficiency	61%	56%
VSWR	2.5:1 max	2.0:1 max

Mechanical Specifications

Ordering Part #	X1005244-LWA3SX10A2
Dimensions (mm)	136.2 x 72.4 x 12.7
Mounting Type	Foam Adhesive
Operating Temperature (°C)	-40 ~ +85
Weight (grams)	PC+ABS (Black)
Housing Material & Color	189
Cable	Length: 1M Type: RG-174 GNSS CFD-200 LTE CFD-200 WiFi
Connector	SMA(M) GNSS SMA(M) LTE RP-SMA(M) WiFi
Waterproof	IPX7

tel +(1) 858.550.3820
email: eth.info@KYOCERA-AVX.com

GNSS (active) / LTE / WiFi 3-in-1 External Antenna Specifications.
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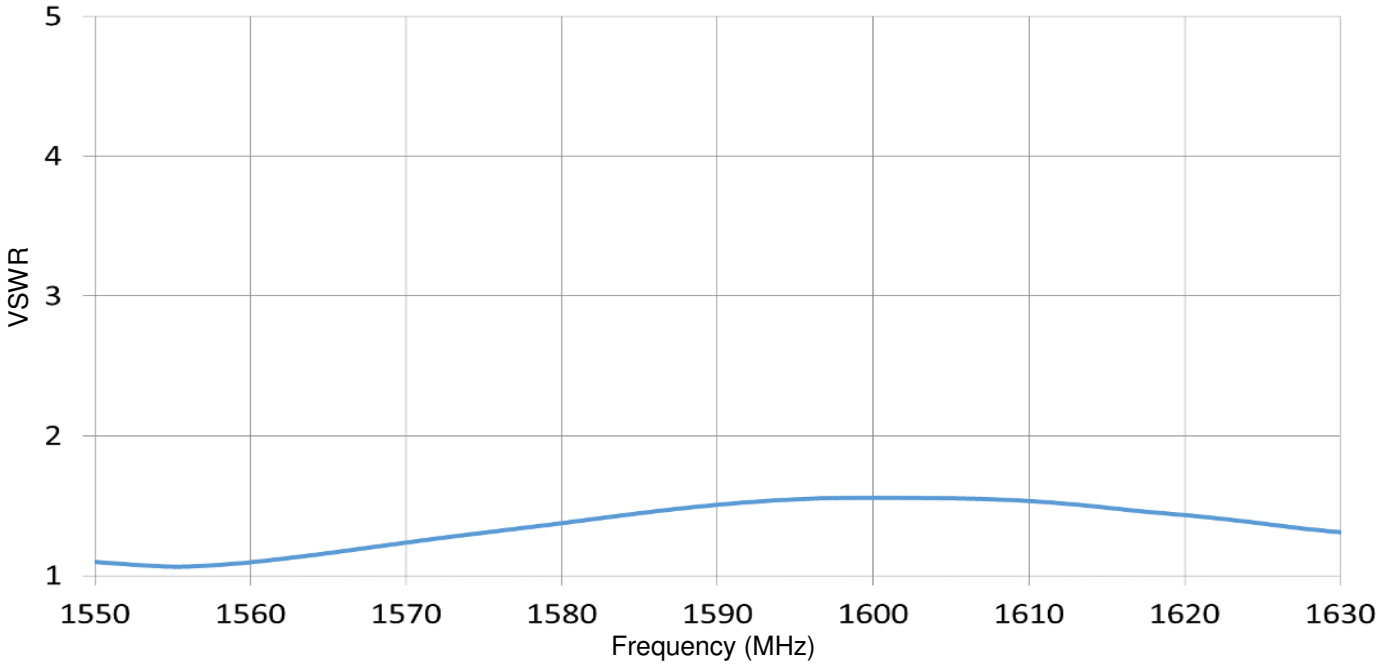
VSWR Plot (GNSS 1561 & 1575 &1602 MHz)

Typical characteristics in free-space

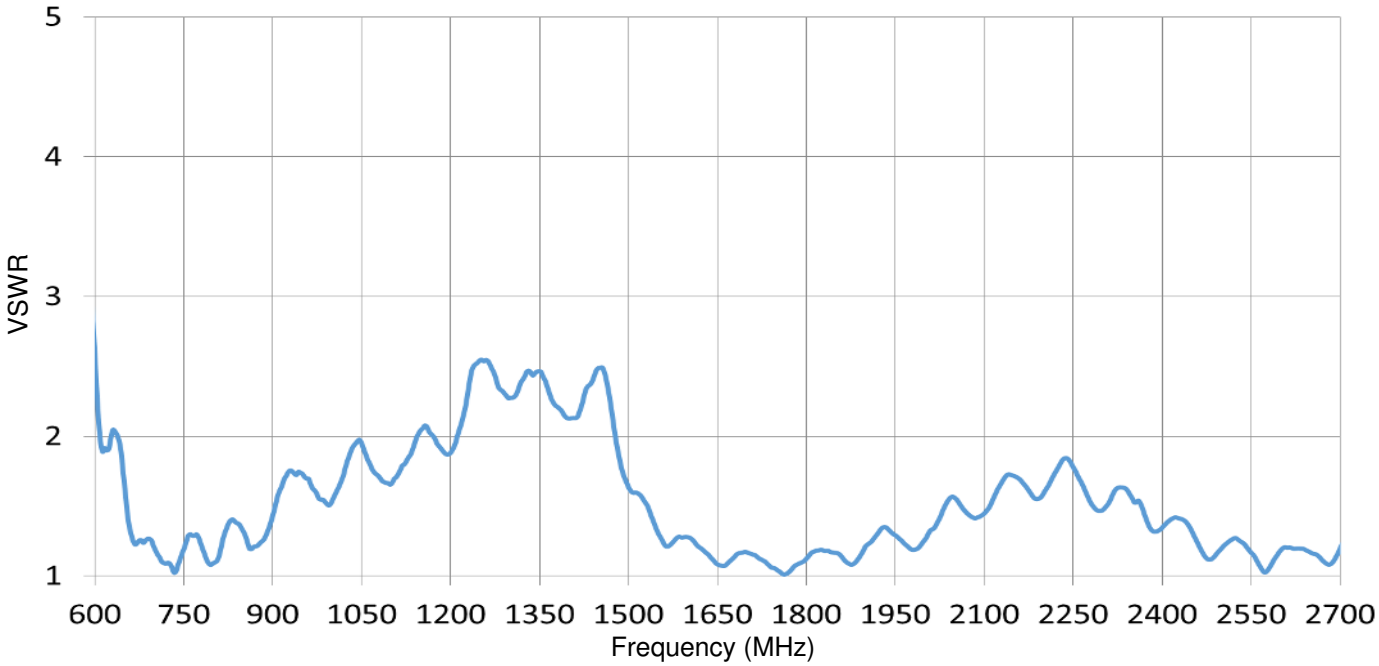
VSWR:



VSWR Plots (LTE 698-2690 MHz)

Typical characteristics in free-space

VSWR:



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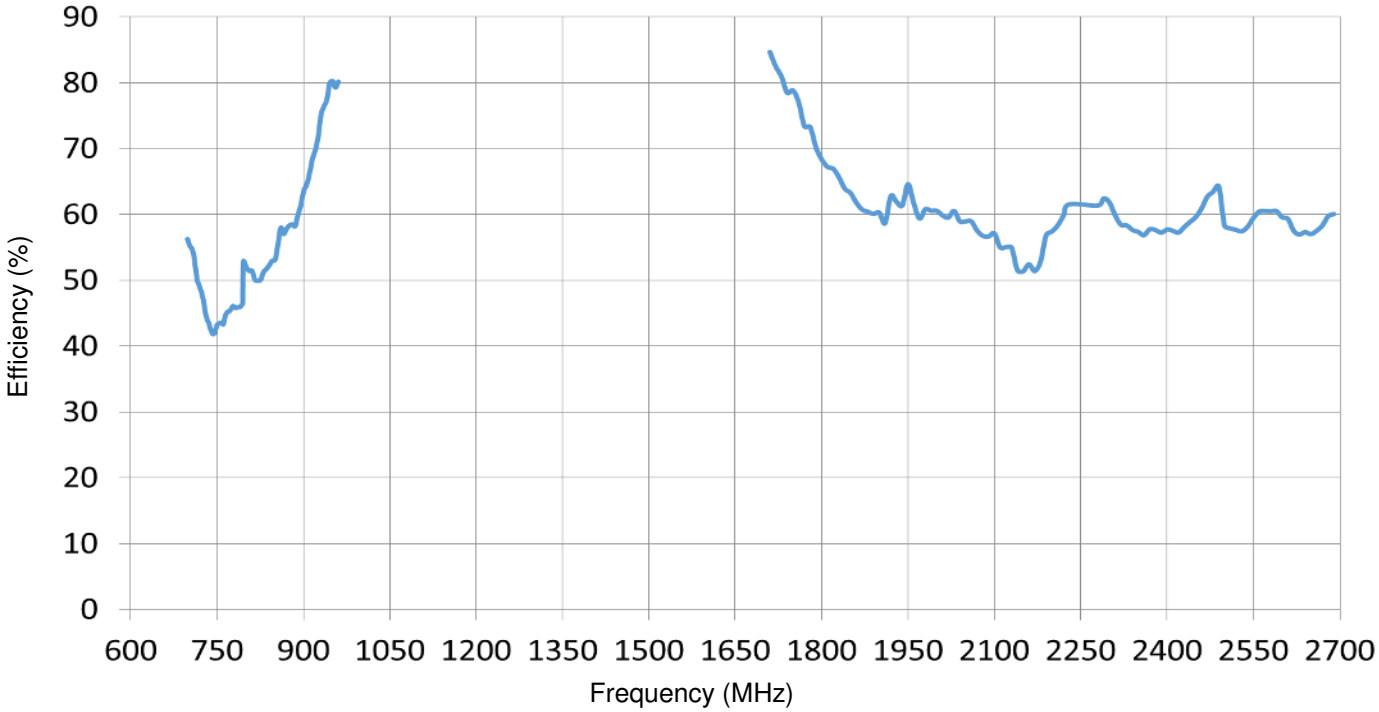
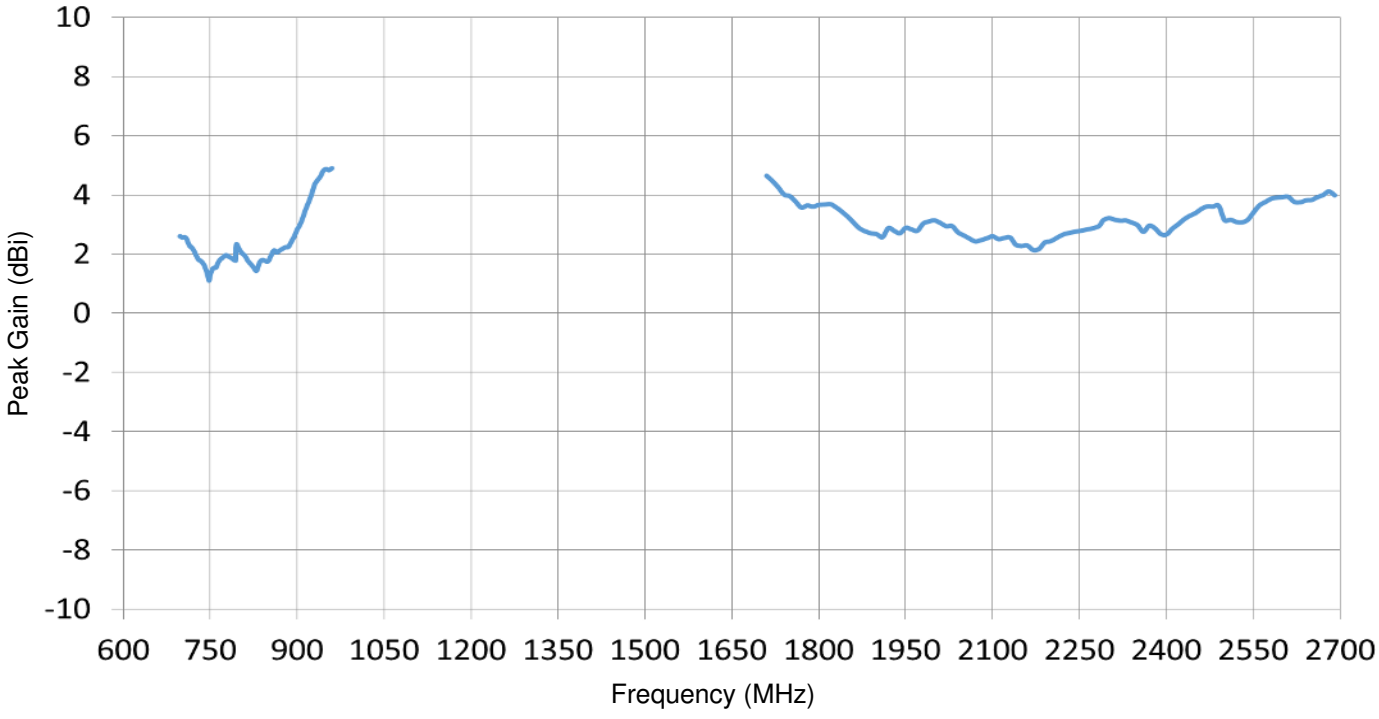
Efficiency, Peak Gain Plots (LTE 698-2690 MHz)

Typical characteristics in free-space

Efficiency:



Peak Gain:



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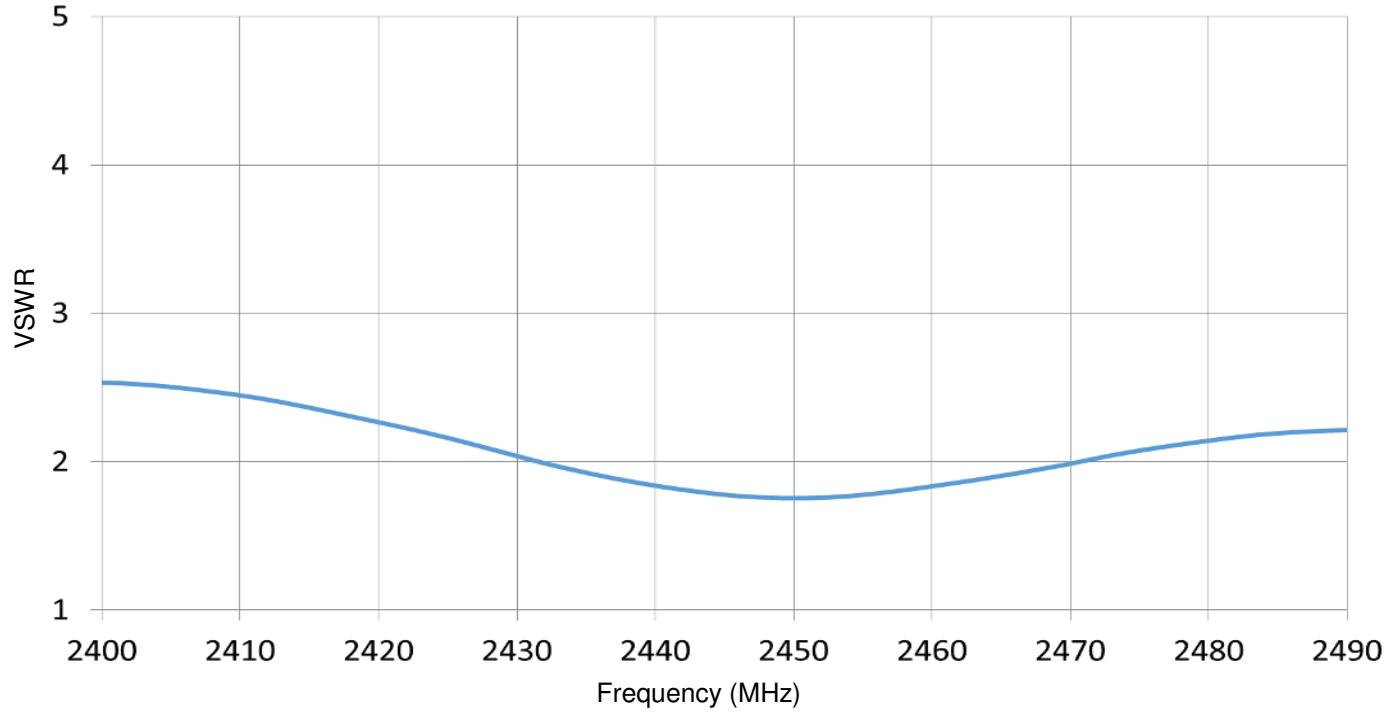
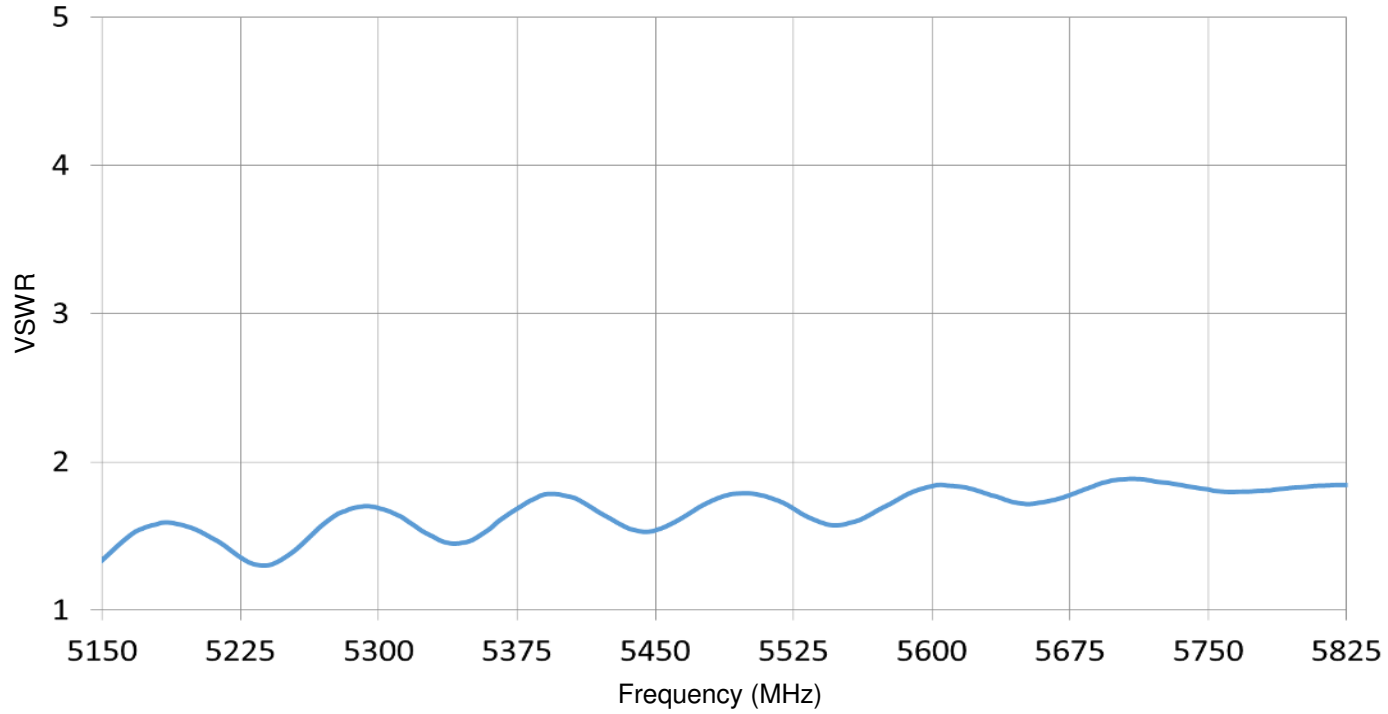
VSWR (WiFi 2400-2485, 5150-5825 MHz)

Typical characteristics in free-space

VSWR:





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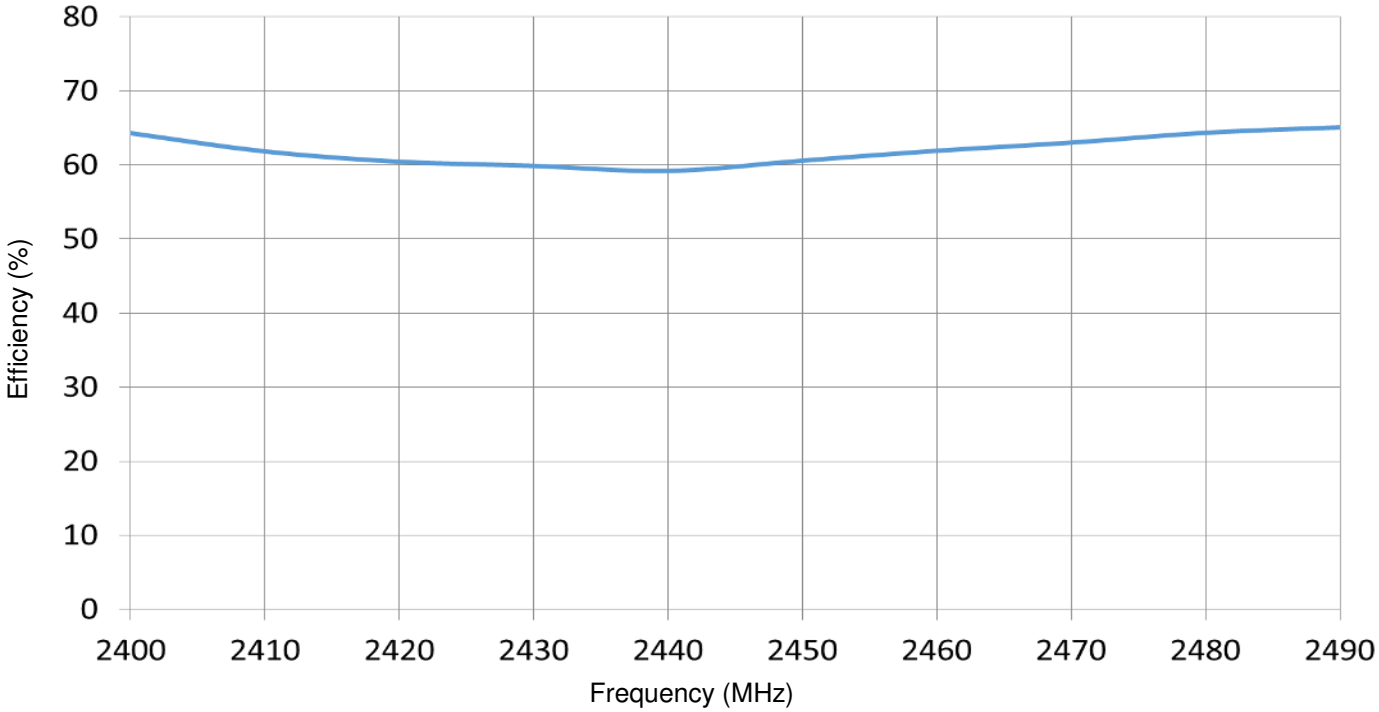
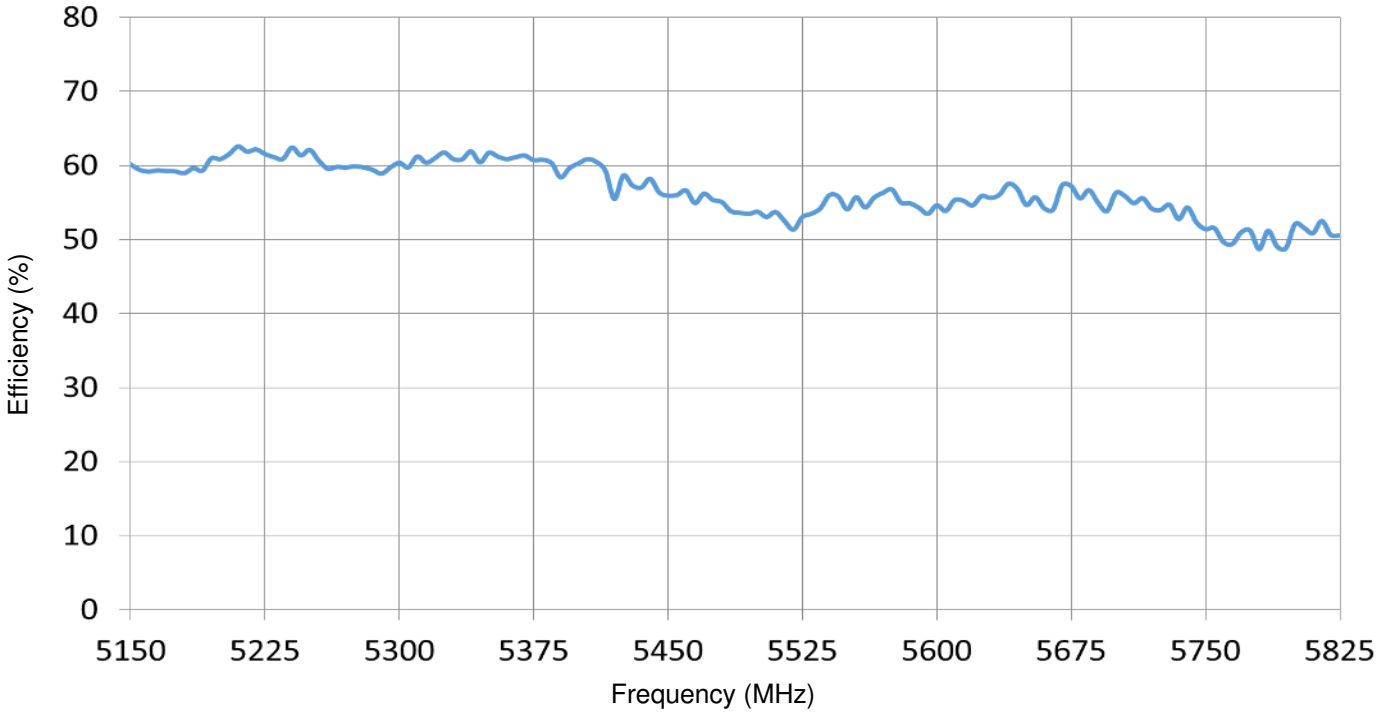
Efficiency (WiFi 2400-2485, 5150-5825 MHz)

Typical characteristics in free-space

Efficiency:





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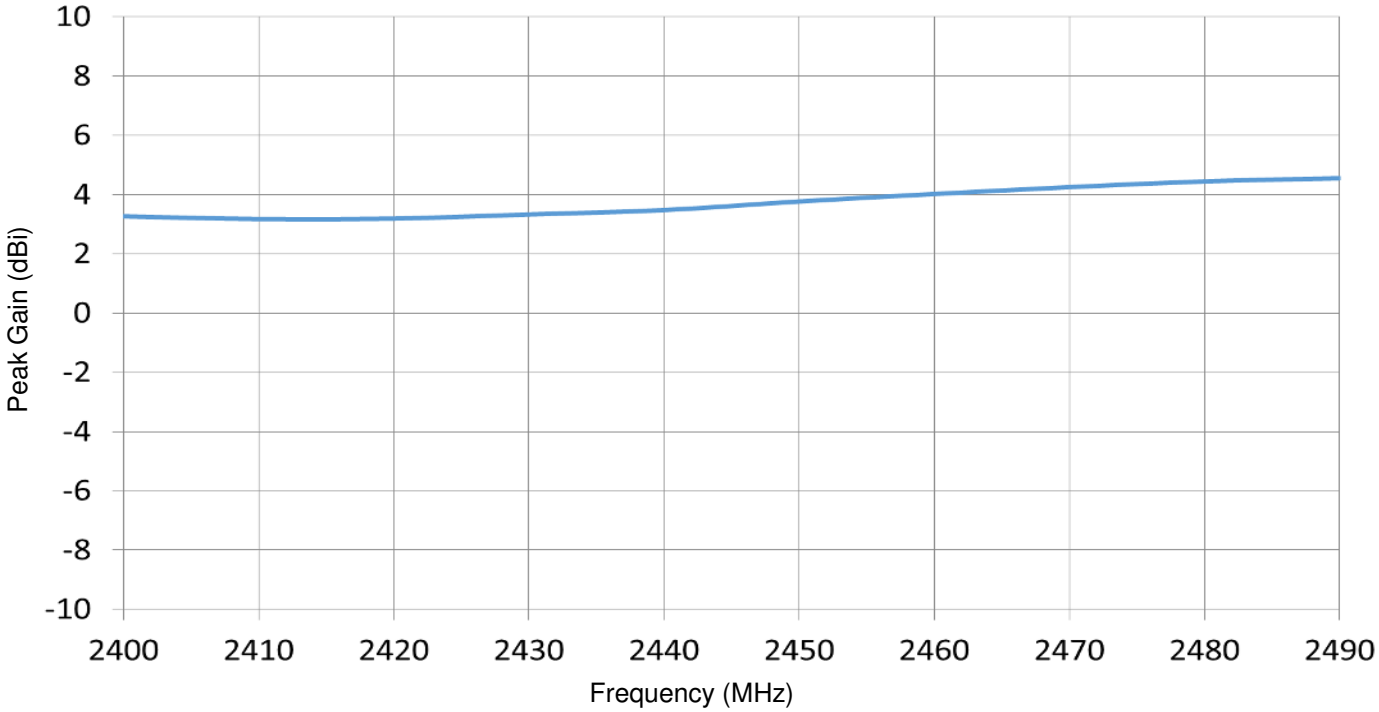
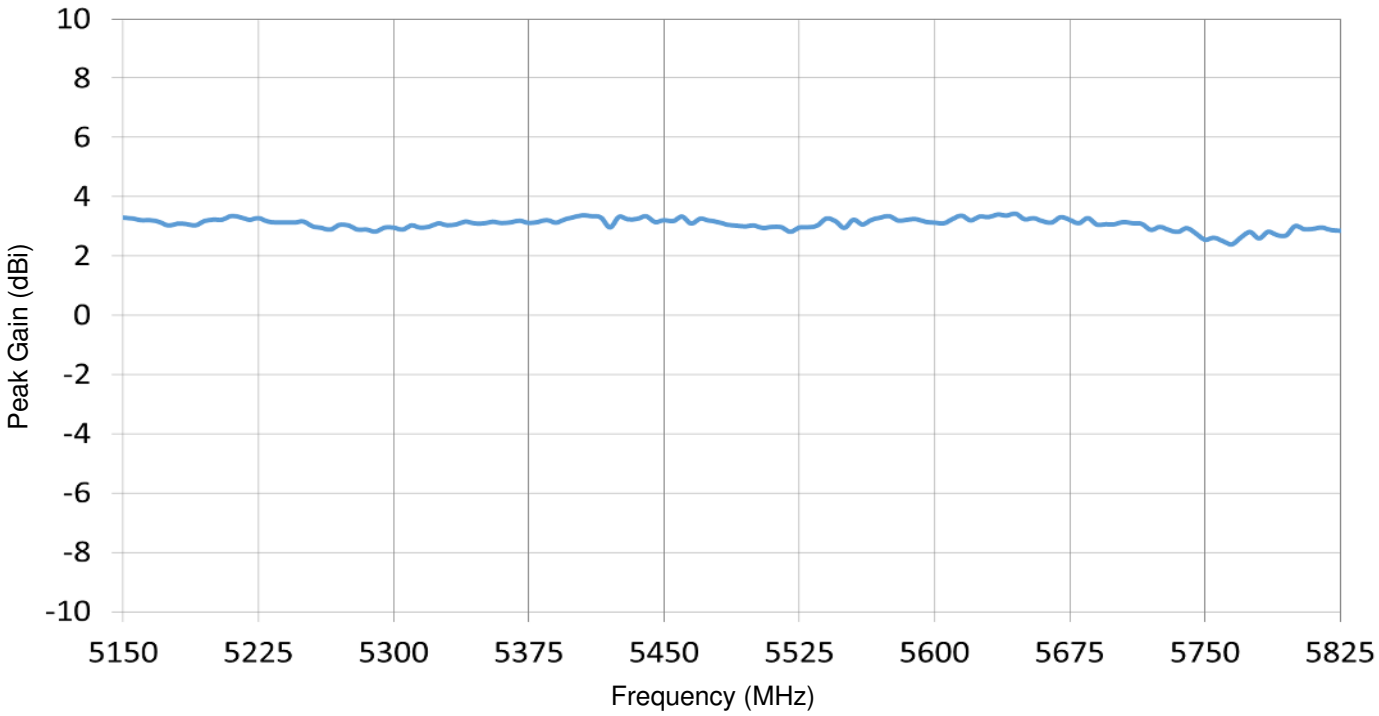
Peak Gain (WiFi 2400-2485, 5150-5825 MHz)

Typical characteristics in free-space

Peak Gain:





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GNSS (active) / LTE / WiFi 3-in-1 External Antenna Specifications.
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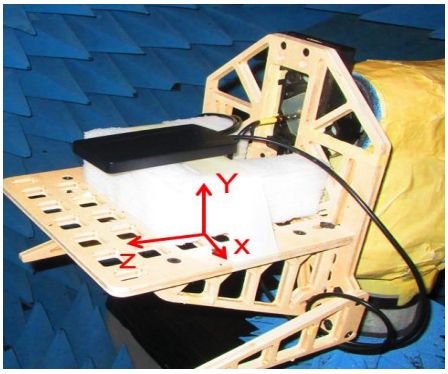
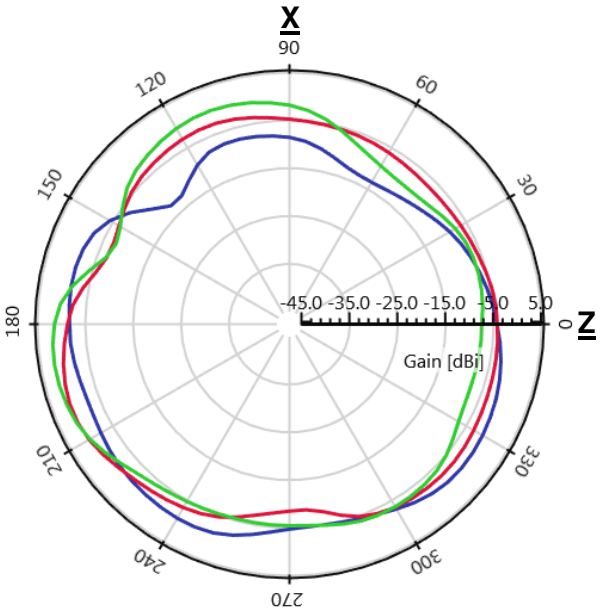
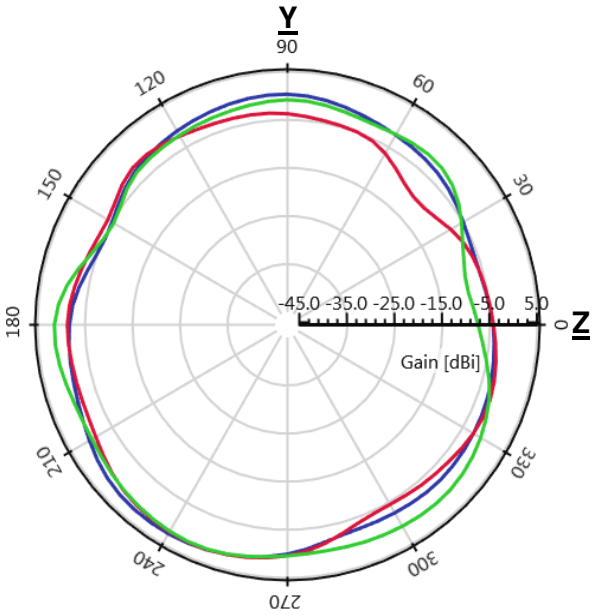
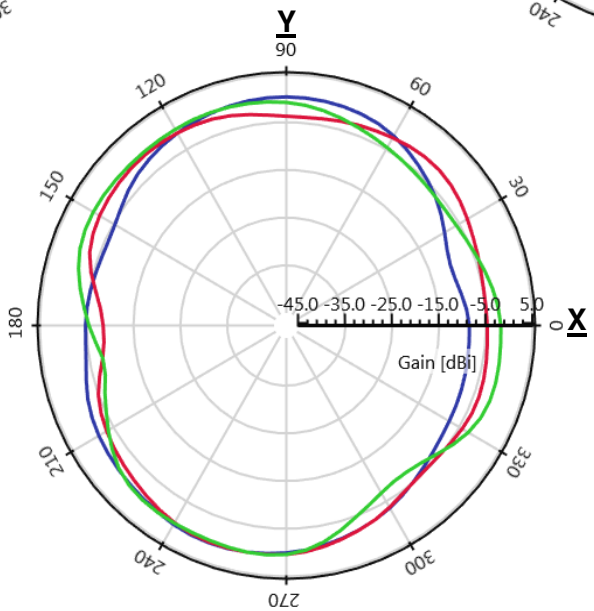
2D Radiation Patterns (LTE 698-960 MHz)

Typical characteristics in free-space









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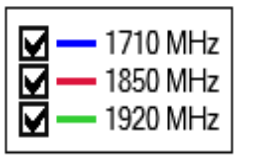
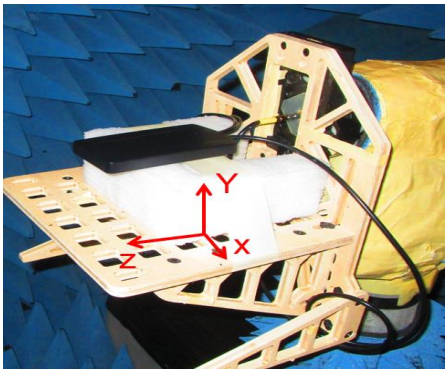
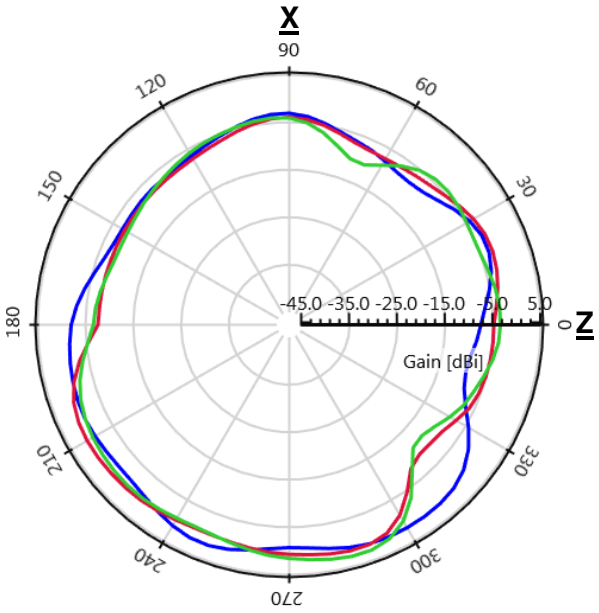
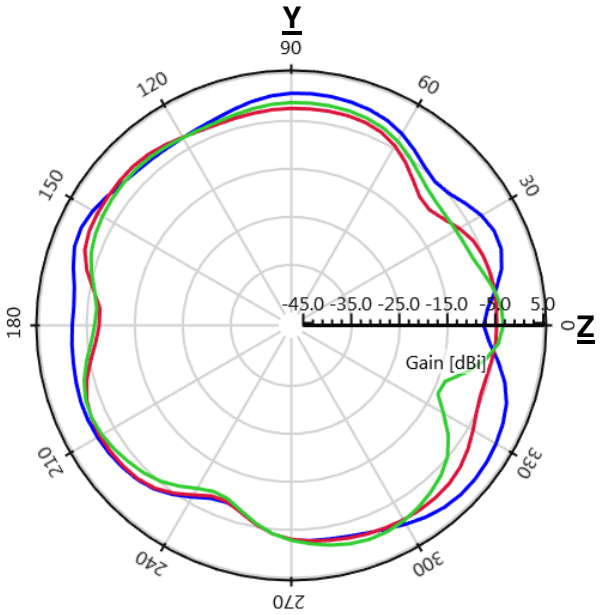
2D Radiation Patterns (LTE 1710-2170 MHz)

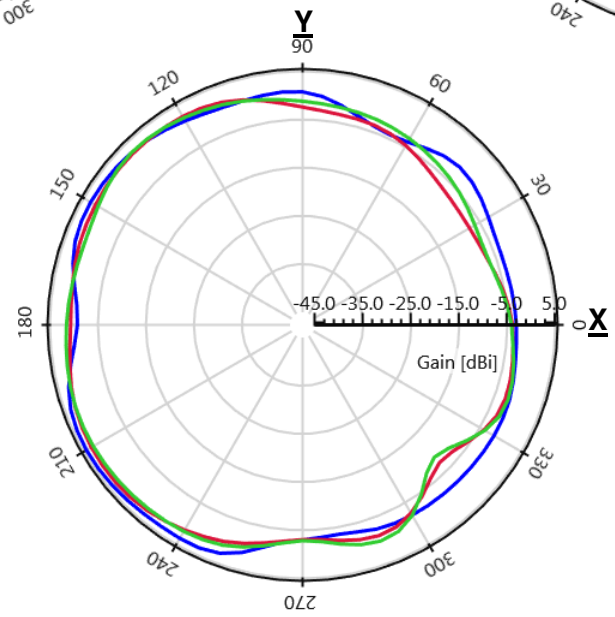
Typical characteristics in free-space











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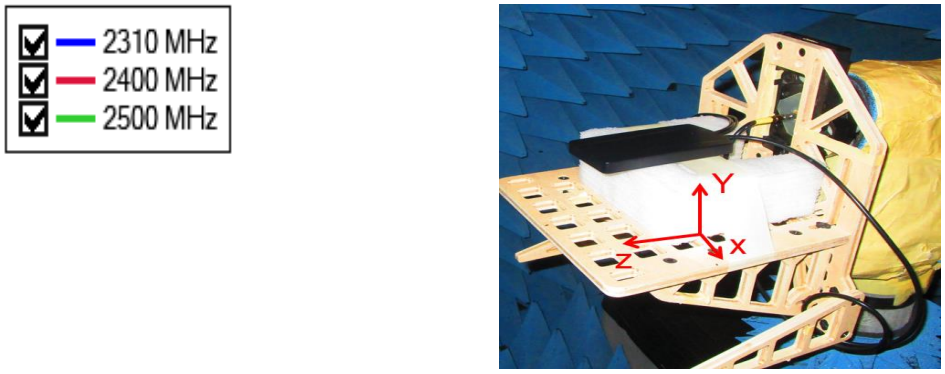
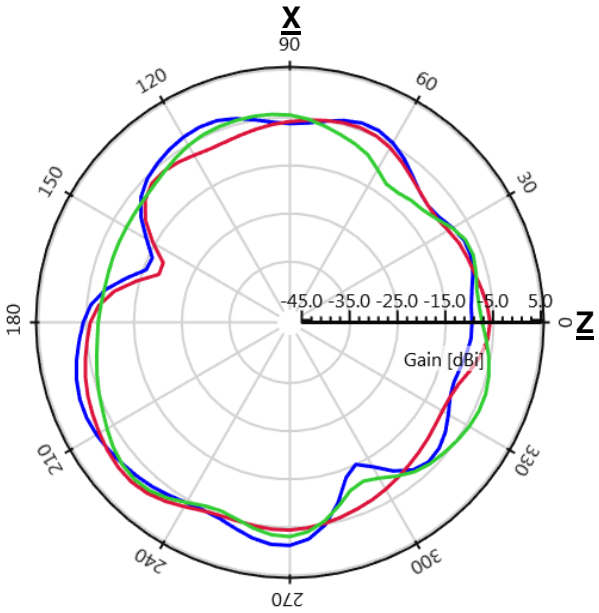
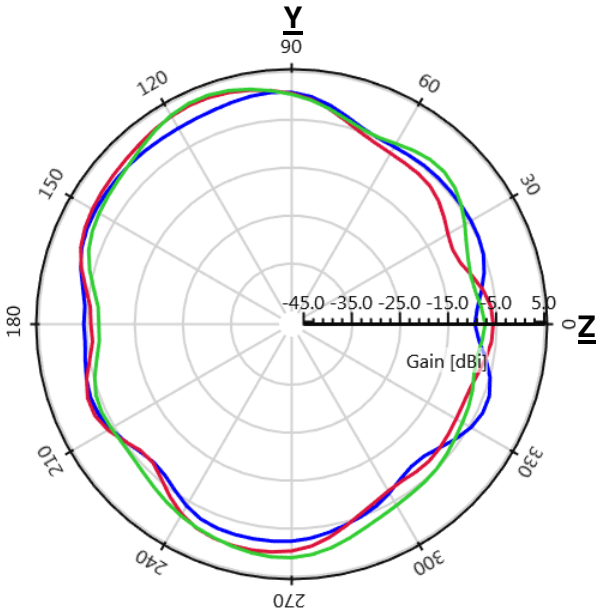
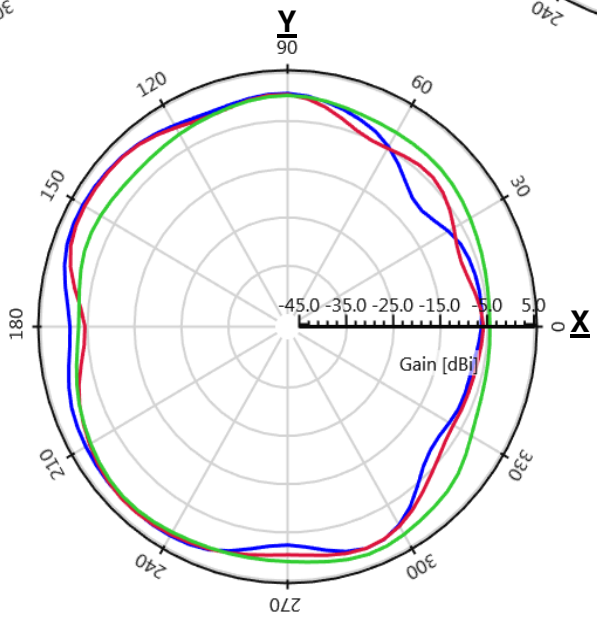
2D Radiation Patterns (LTE 2300-2690 MHz)

Typical characteristics in free-space









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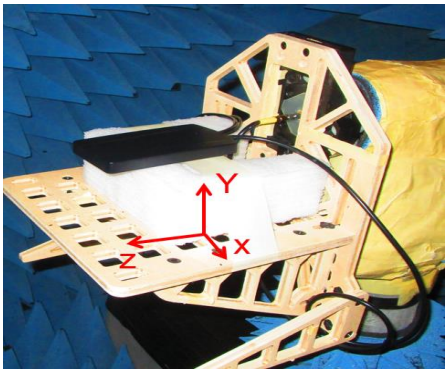
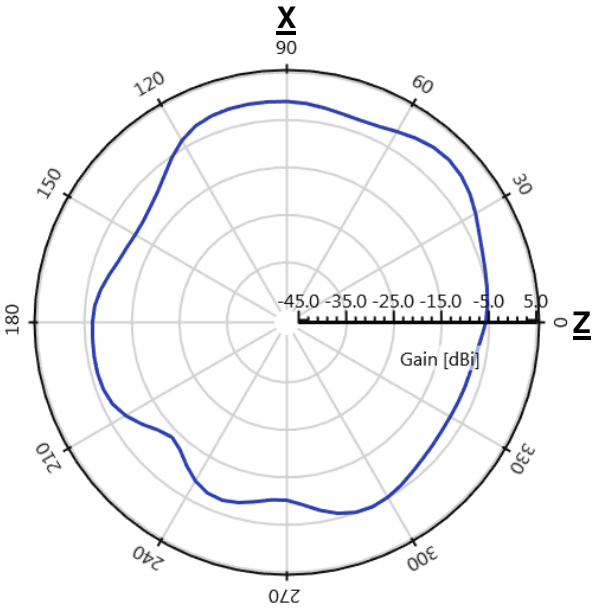
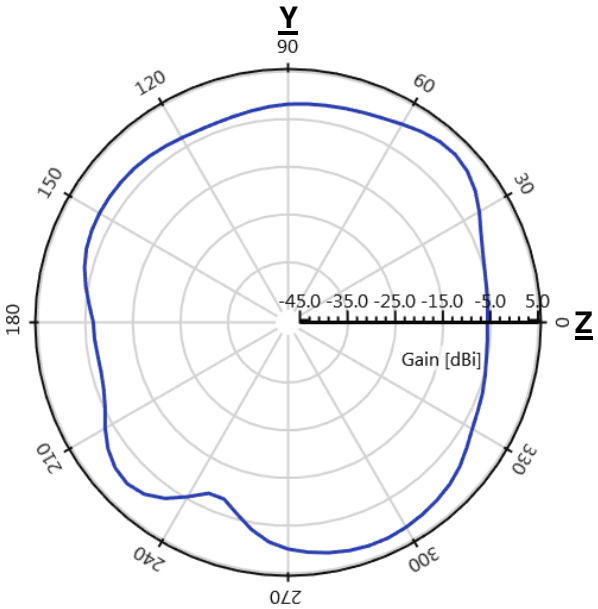
2D Radiation Patterns (WiFi 2400-2485 MHz)

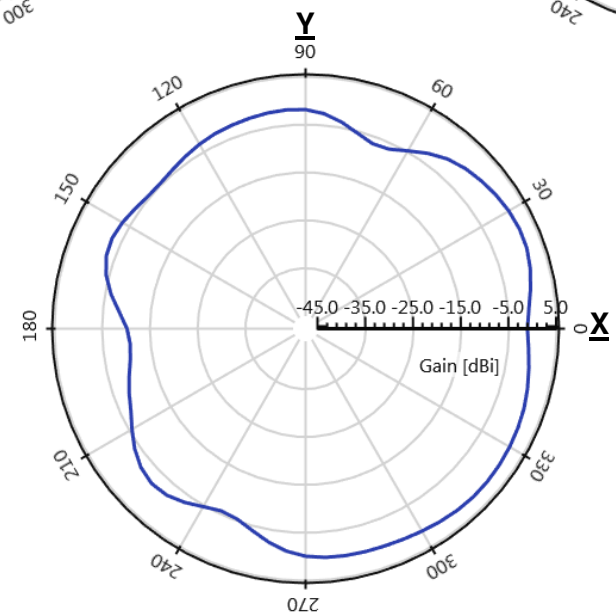
Typical characteristics in free-space

☑ — 2400 MHz









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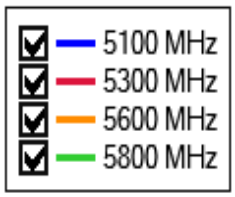
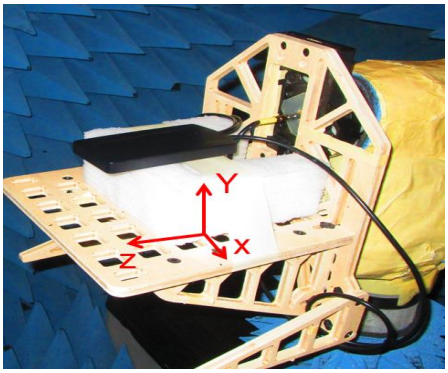
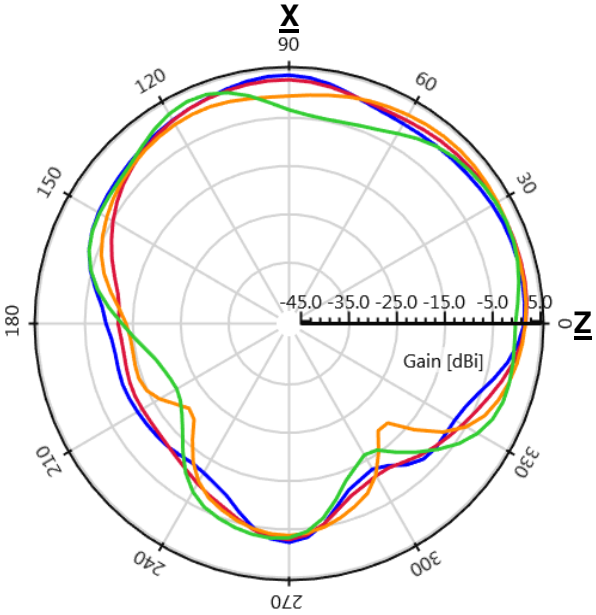
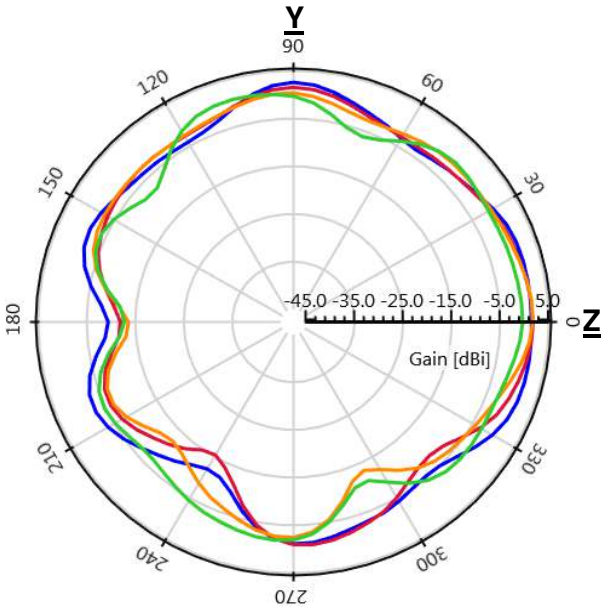
2D Radiation Patterns (WiFi 5150-5850 MHz)

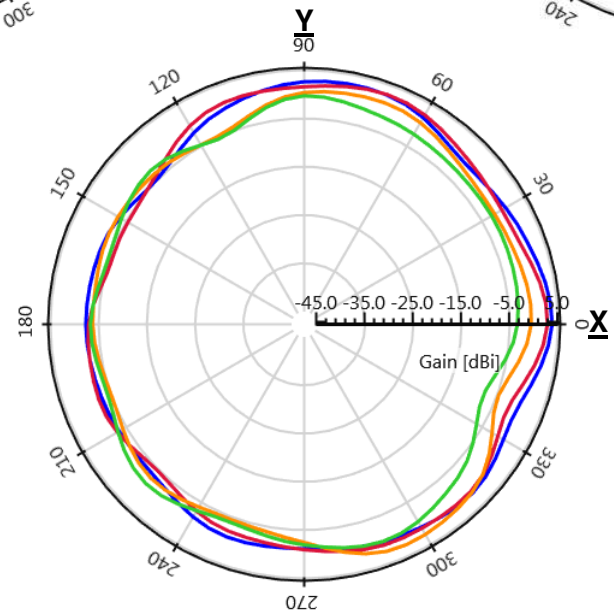
Typical characteristics in free-space











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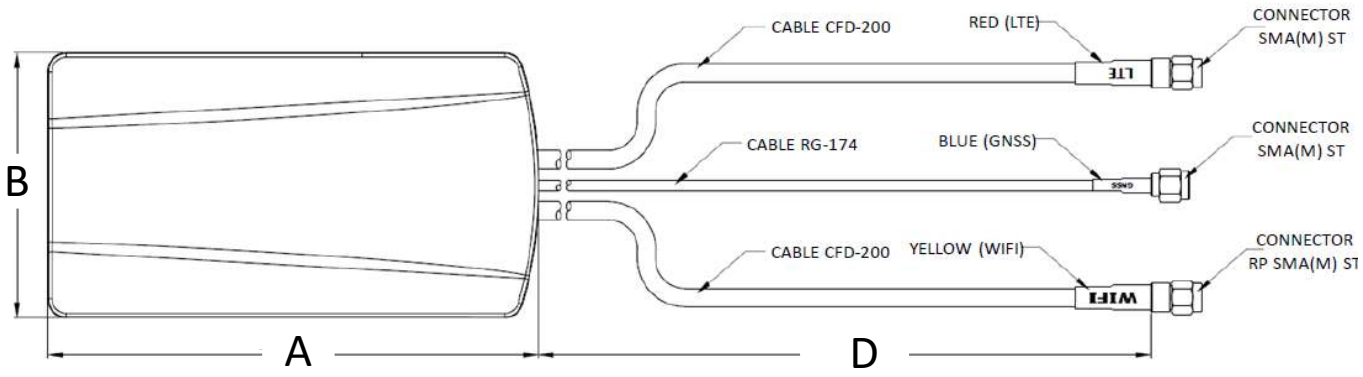
Mechanical Dimensions

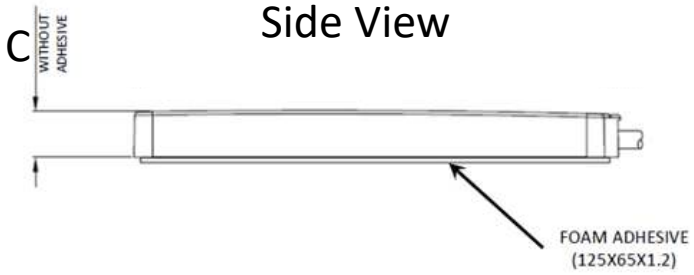
Typical antenna dimensions (mm)

Part Number	A (mm)	B (mm)	C (mm)	D (mm)
X1005244-LWA3SX10A2	136.2 ± 3.0	72.4 ± 1.5	12.7 ± 1.0	1000 ± 40.0

Top View



Side View



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