

# QuWave for Semtech

**INTEGRATED MULTI-BAND LTE & 5G OMNI ANTENNA + WI-FI OMNI ANTENNA + GPS ACTIVE ANTENNA + PLACE TO INSTALL SEMTECH ROUTERS (ALL-IN-ONE)**

QuWave is an outdoor antenna designed to provide reliable wireless connectivity in a variety of environments. This product is an all in one solution that integrates a high gain omnidirectional 5G and Wi-Fi antennas with Semtech routers into a single IP67 enclosure. Such integration allows implementation of new outdoor 5G solutions. QuWave for Semtech is an ideal solution for outdoor wireless connectivity in moving applications such as transportation, yachting, boats and camping but also city centres with high signal density.

Compatible with the following Semtech routers: LX40, LX60\*, EX400\*, RX400\*, RV50X\*, RV55\*, RX55\*, MP70\*, XR60\*

\* This router requires the purchase of an [PoE 802.3at splitter](#).



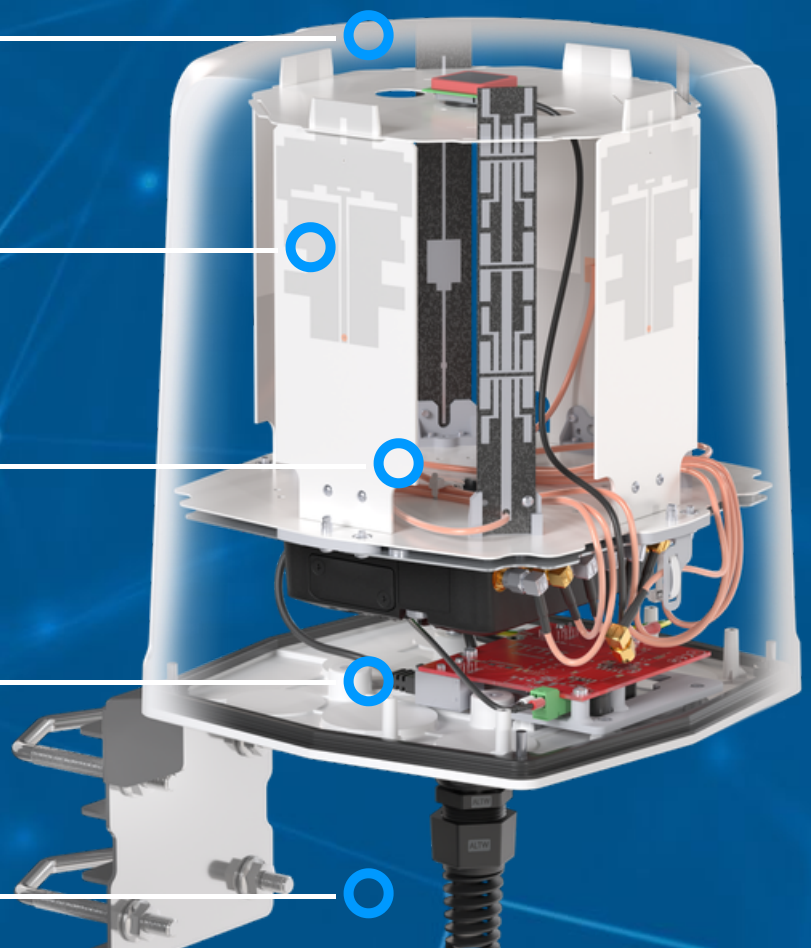
 OUTDOOR ANTENNA WORKS IN ANY WEATHER CONDITIONS, IP67

 ANTENNA PERFECTLY MATCHED WITH THE SEMTECH ROUTERS

 ALL ANTENNAS AND SEMTECH ROUTER INTEGRATED IN ONE ENCLOSURE

 GALVANIZED STEEL, WALL OR POLE MOUNTING BRACKET

 MADE IN EUROPE



## 5G / LTE ANTENNA SPECIFICATION

<b>FREQUENCY</b>	617 - 960 MHz 1.7 - 2.7 GHz 2.7 - 3.8 GHz 3.8 - 5.0 GHz 5.0 - 6.0 GHz
<b>GAIN</b>	617 - 960 MHz: 3 dBi 1.7 - 2.7 GHz: 3.5 dBi 2.7 - 3.8 GHz: 4 dBi 3.8 - 5.0 GHz: 4.5 dBi 5.0 - 6.0 GHz: 4 dBi
<b>SUPPORTED LTE BANDS</b>	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41, 42, 43, 44, 45, 46, 47, 48, 49, 50, 51, 52, 53, 54, 65, 66, 67, 68, 69, 70, 71, 74, 75, 76, 85, 103, 106, 111, 252, 253, 254, 255, 256
<b>SUPPORTED 5G BANDS</b>	n1, n2, n3, n5, n7, n8, n12, n13, n14, n18, n20, n24, n25, n26, n28, n29, n30, n34, n38, n39, n40, n41, n46, n47, n48, n50, n51, n53, n54, n65, n66, n67, n68, n70, n71, n74, n75, n76, n77, n78, n79, n80, n81, n82, n83, n84, n85, n86, n89, n90, n91, n92, n93, n94, n95, n97, n98, n99, n100, n101, n106, n109, n110, n250, n251, n252, n253, n254, n255, n256
<b>VSWR</b>	< 2.0, max < 2.5
<b>BEAMWIDTH</b>	360°/35° ±5°
<b>POLARIZATION</b>	Vertical
<b>IMPEDANCE</b>	50 Ω
<b>CONNECTOR</b>	4x SMA
<b>CABLE TYPE</b>	RG316

## **WI-FI ANTENNA SPECIFICATION**

<b>FREQUENCY</b>	2.4 - 2.5 GHz 5.0 - 7.2 GHz
<b>GAIN</b>	2.4 - 2.5 GHz: 6dBi 5 GHz: 7.5dBi 7 GHz: 7.5dBi
<b>VSWR</b>	< 1.50, max < 2.00
<b>BEAMWIDTH</b>	360°/25°
<b>POLARIZATION</b>	Vertical
<b>IMPEDANCE</b>	50 $\Omega$
<b>CONNECTOR</b>	3x RPSMA
<b>CABLE TYPE</b>	RG316

## **GPS ACTIVE ANTENNA SPECIFICATION**

<b>FREQUENCY</b>	1.56 - 1.61 GHz
<b>VSWR</b>	< 2
<b>GAIN</b>	3 dBi
<b>GAIN 3V</b>	28 dBi
<b>DC POWER INPUT</b>	2.5 V ~ 6.5 V
<b>POWER CONSUMPTION</b>	2.5 - 6.5 mA
<b>IMPEDANCE</b>	50 $\Omega$

**POLARIZATION**

RHCP (right hand circularly polarized)

**CONNECTOR**

1x SMA

**CABLE TYPE**

RG174

 **MECHANICAL SPECIFICATION****MATERIALS**

ABS, aluminum, PTFE

**CONNECTOR TYPE**

1x QuRJ45

**OUTER DIMENSIONS**210 x 210 x 254 mm  
8.27 x 8.27 x 10 inch**INGRESS PROTECTION**

IP67

**OPERATING TEMPERATURE**From -40°C to 80°C  
From -40°F to 176°F**MAST DIAMETER**25-66 mm  
0.98-2.60 inch**ENCLOSURE RECOMMENDED  
TIGHTENING TORQUE**

0.5 - 0.7 Nm

# FREQUENCY BANDS

**LTE / 4G**

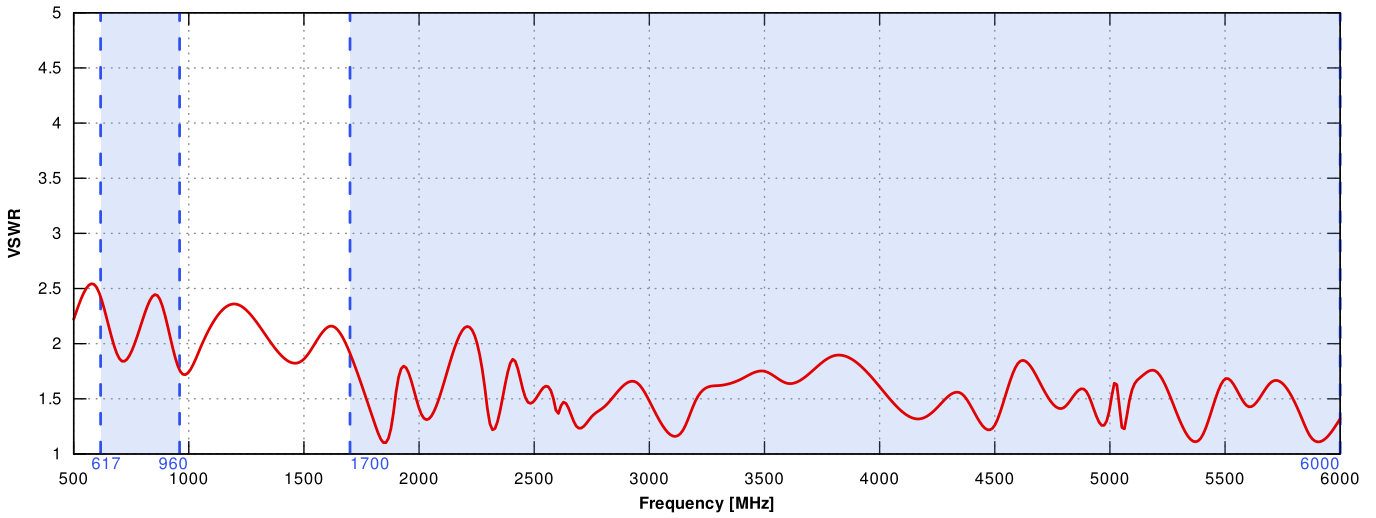
	1	2	3	4	5	7	8	
	9	10	12	13	14	17	18	
	19	20	22	25	26	27	28	
617 MHz	29	30	33	34	35	36	37	6000 MHz
	38	39	40	41	42	43	44	
	47	48	49	52	53	65	66	
	67	68	69	71	85	103	106	

**5G**

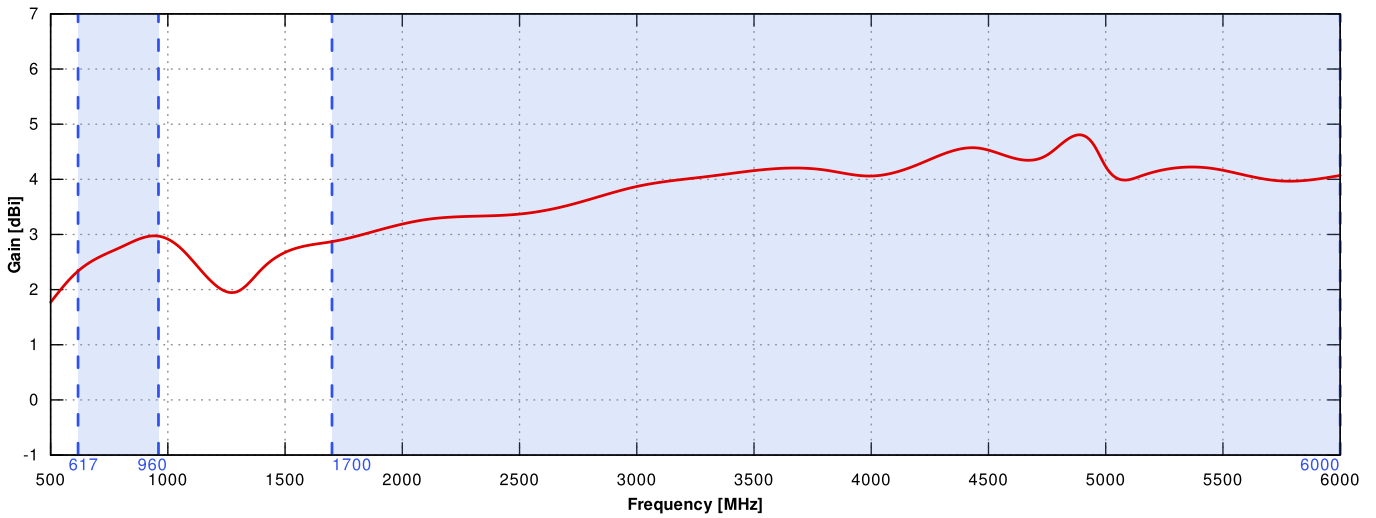
	n1	n2	n3	n5	n7	n8	n12	
	n13	n14	n18	n20	n25	n26	n28	
	n29	n30	n34	n38	n39	n40	n41	
617 MHz	n47	n48	n53	n65	n66	n67	n71	6000 MHz
	n77	n78	n80	n81	n82	n83	n84	
	n85	n86	n89	n90	n95	n97	n98	
	n100	n101	n256					

# PLOTS

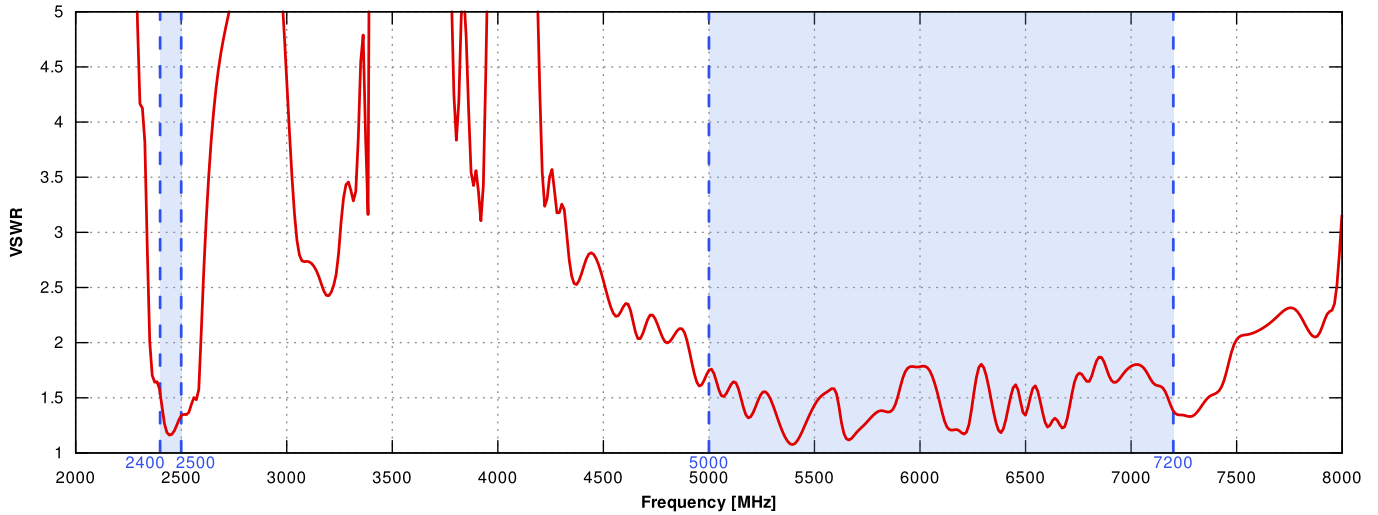
## 5G/LTE VSWR



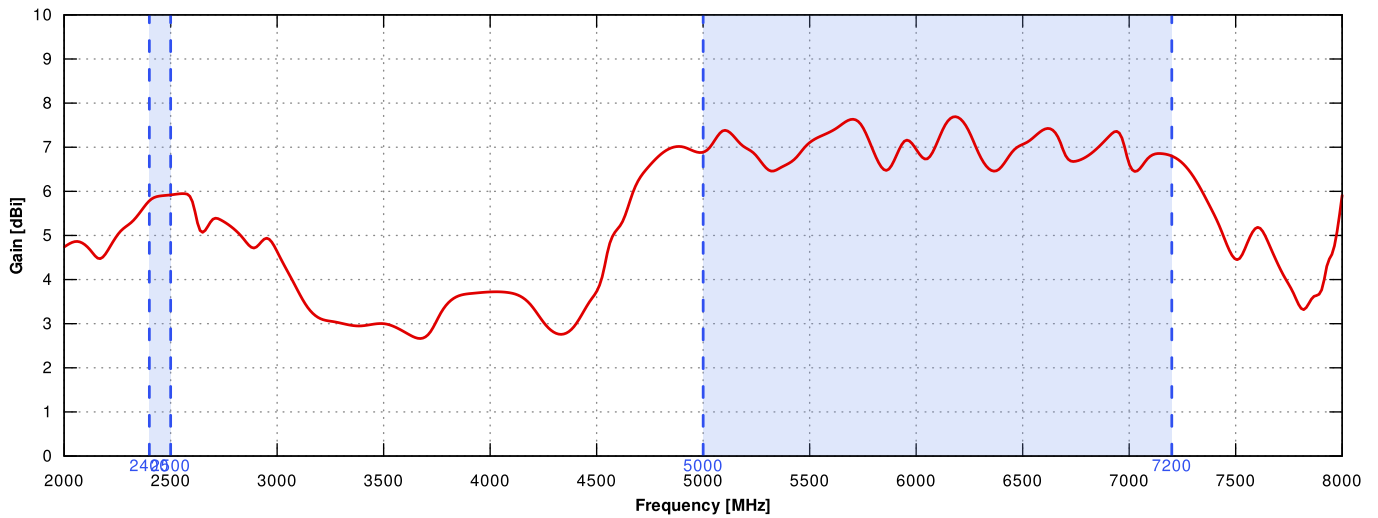
## 5G/LTE Gain



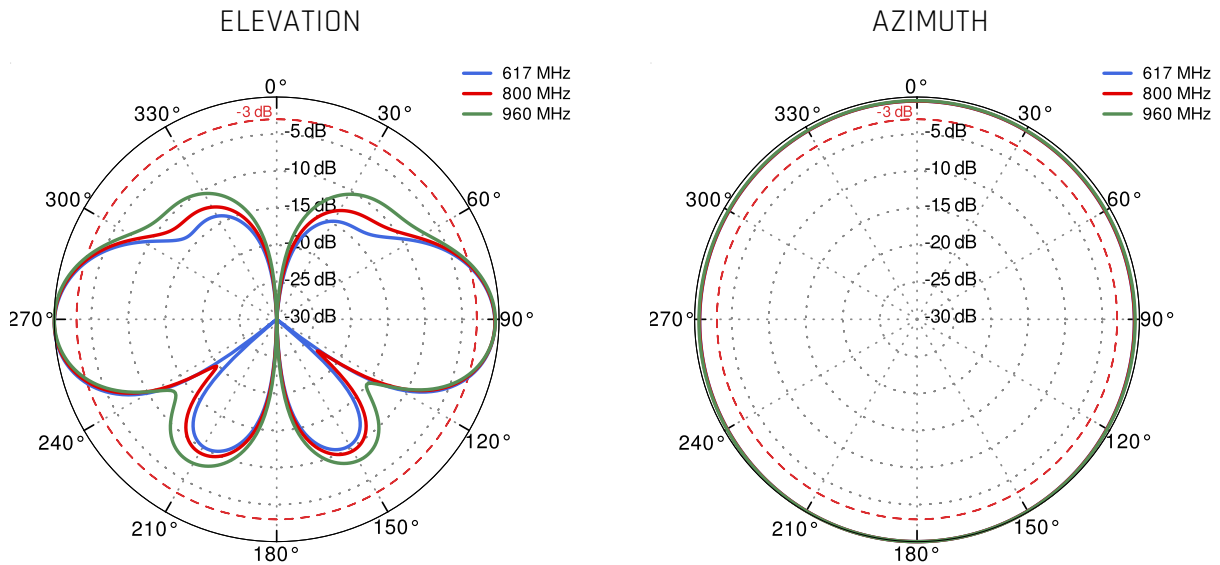
### WI-FI VSWR



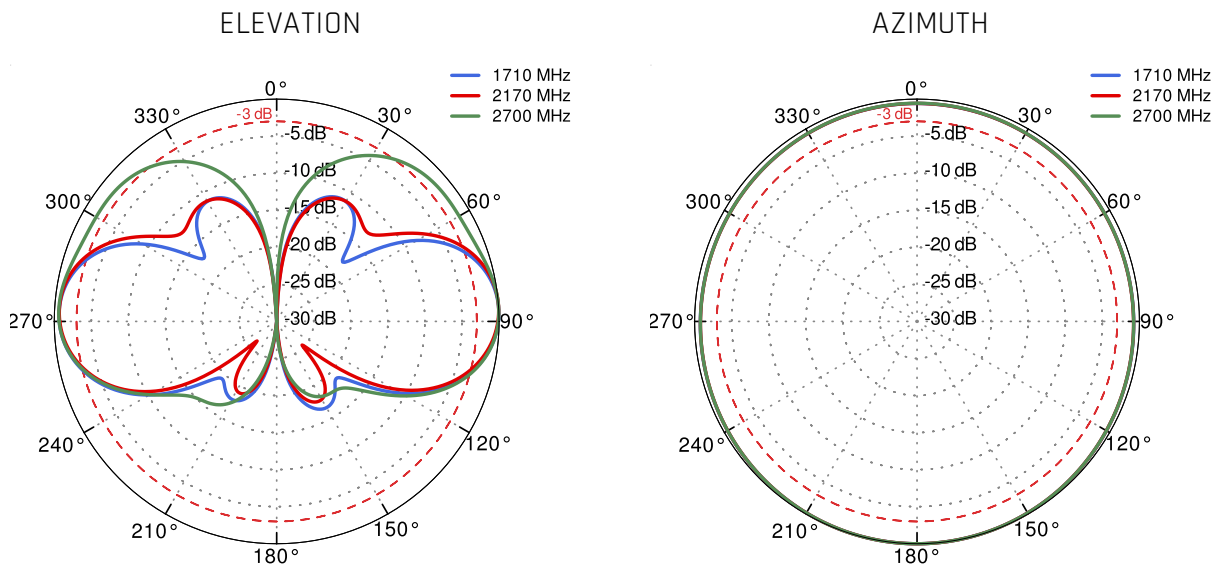
### WI-FI Gain



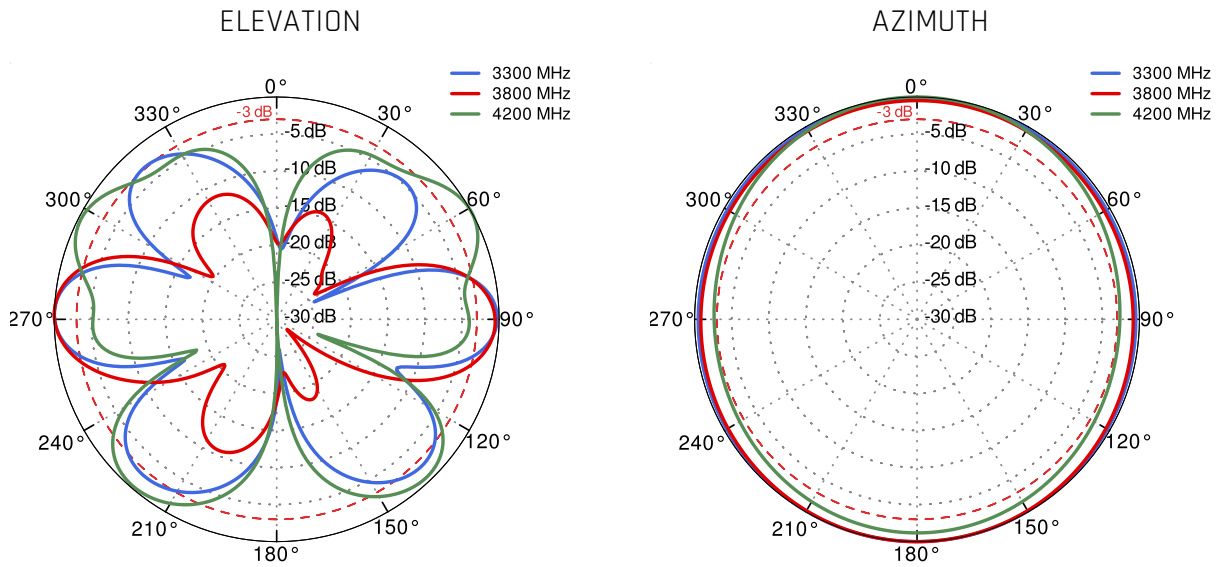
## 5G/LTE From 617MHz to 960MHz



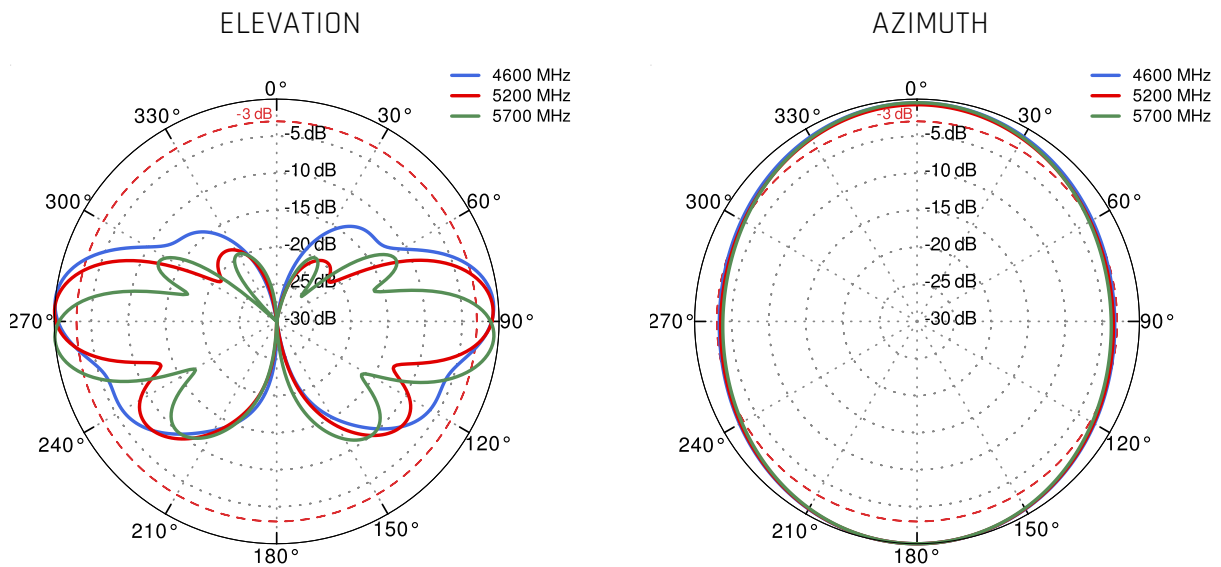
## 5G/LTE From 1.71GHz to 2.7GHz



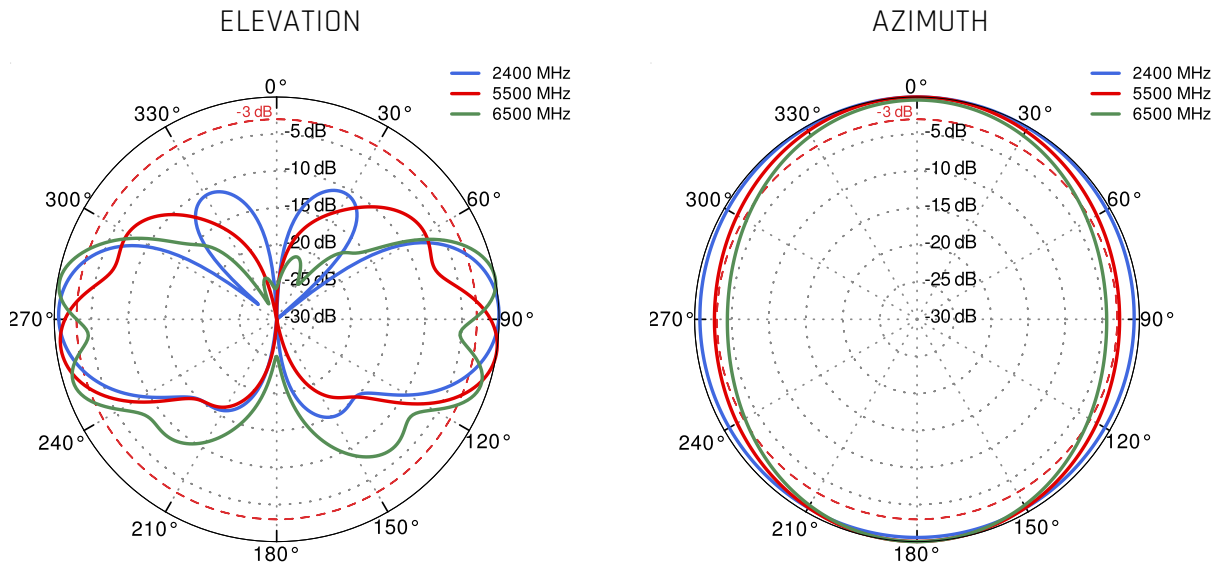
5G/LTE From 3.3GHz to 4.2GHz



5G/LTE From 4.6GHz to 5.7GHz



# Wi-Fi From 2.4 GHz to 6.5 GHz



## DIMENSIONS

