

# QuWave LTE High Gain GNSS for Teltonika

## INTEGRATED MULTI-BAND LTE OMNI ANTENNA + WI-FI OMNI ANTENNA + GPS ACTIVE ANTENNA + PLACE TO INSTALL TELTONIKA 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 LTE and Wi-Fi antennas with all Teltonika routers into a single IP67 enclosure. Such integration allows implementation of new outdoor LTE solutions.

QuWave for Teltonika 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 Teltonika routers: RUT9xx, RUT3xx, RUTX09, RUTM09, RUTX11\*, RUTM11\*, RUTM16

\* no Bluetooth antenna



OUTDOOR ANTENNA WORKS IN ANY WEATHER CONDITIONS, IP67



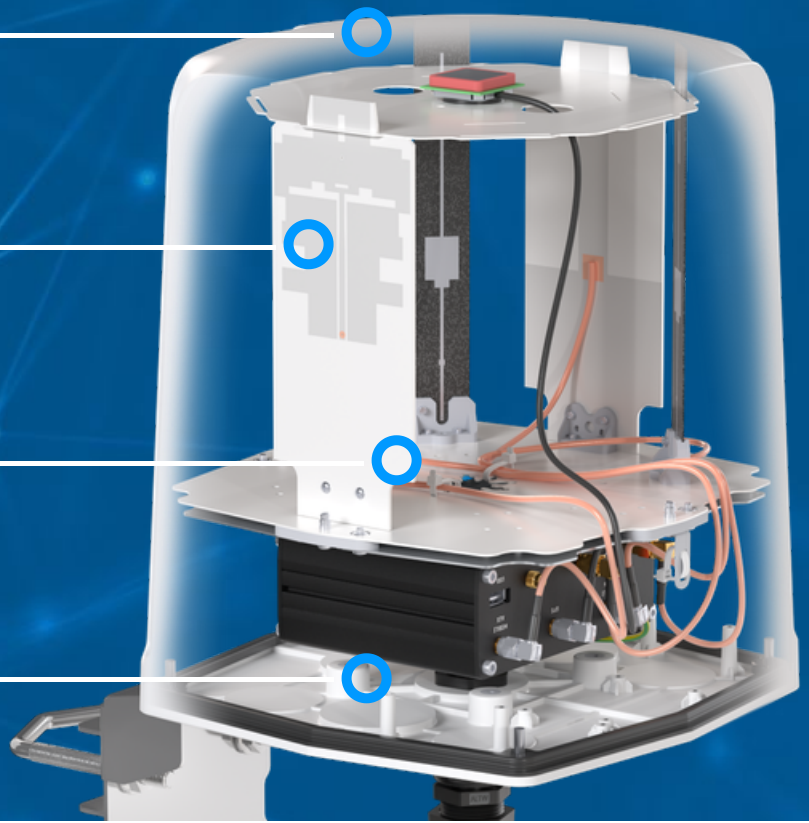
ANTENNA PERFECTLY MATCHED WITH THE TELTONIKA ROUTERS



ALL ANTENNAS AND TELTONIKA ROUTER INTEGRATED IN ONE ENCLOSURE



GALVANIZED STEEL, WALL OR POLE MOUNTING BRACKET



## 5G / LTE ANTENNA SPECIFICATION

FREQUENCY	0.5 - 2.0 GHz 2.0 - 3.7 GHz 3.7 - 5.0 GHz 5.0 - 6.23 GHz
MAX. GAIN	0.5 - 2.0 GHz : 3 dBi 2.0 - 3.7 GHz : 4 dBi 3.7 - 5.0 GHz : 4.6 dBi 5.0 - 6.23 GHz : 4.1 dBi
SUPPORTED LTE BANDS	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, 107, 111, 252, 253, 254, 255, 256
SUPPORTED 5G BANDS	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, n105, n106, n109, n110, n250, n251, n252, n253, n254, n255, n256
VSWR	< 2.50, max < 3.00
BEAMWIDTH	360°/35° ±5°
POLARIZATION	Vertical
IMPEDANCE	50 Ω
CONNECTOR	2x SMA
CABLE TYPE	RG316

## WI-FI ANTENNA SPECIFICATION

FREQUENCY	2.4 - 2.5 GHz 5.0 - 7.2 GHz
MAX. GAIN	2.4 - 2.5 GHz: 6dBi 5 GHz: 7.5dBi 7 GHz: 7.5dBi
VSWR	< 1.50, max < 2.00
BEAMWIDTH	360°/25°
POLARIZATION	Vertical
IMPEDANCE	50 $\Omega$
CONNECTOR	2x RPSMA
CABLE TYPE	RG316

## GPS ACTIVE ANTENNA SPECIFICATION

FREQUENCY	1.56 - 1.61 GHz
VSWR	< 2
GAIN	3 dBi
GAIN 3V	28 dBi
DC POWER INPUT	2.5 V ~ 6.5 V
POWER CONSUMPTION	2.5 - 6.5 mA
IMPEDANCE	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
29	30	33	34	35	36	37
38	39	40	41	42	43	44
47	48	49	52	53	65	66
67	68	69	71	85	103	106

617 MHz      6000 MHz

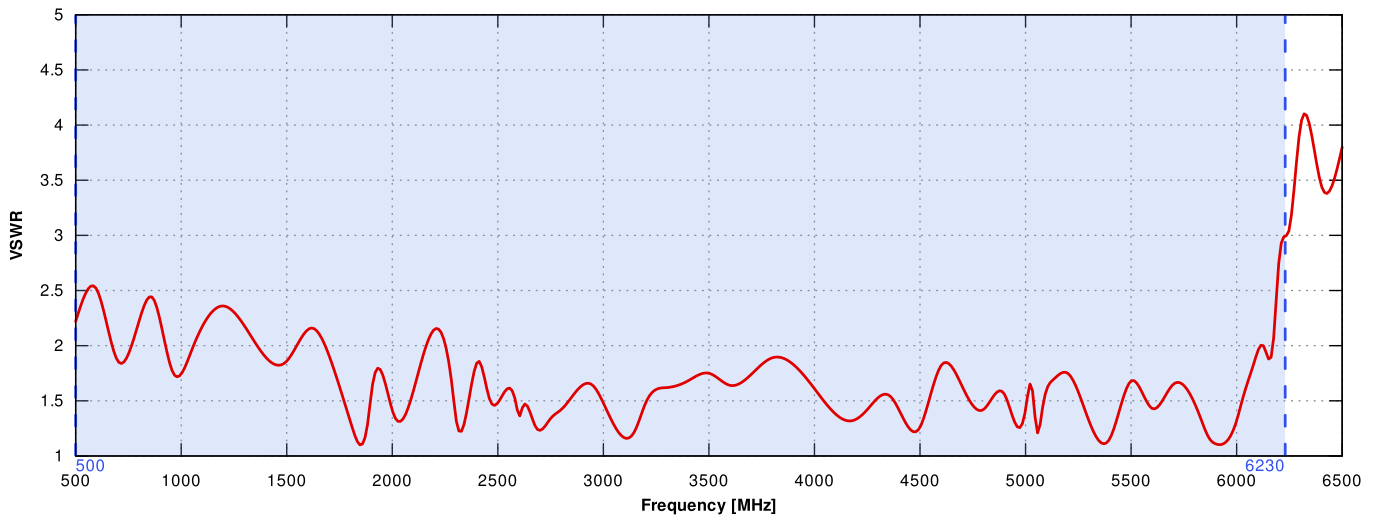
5G

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

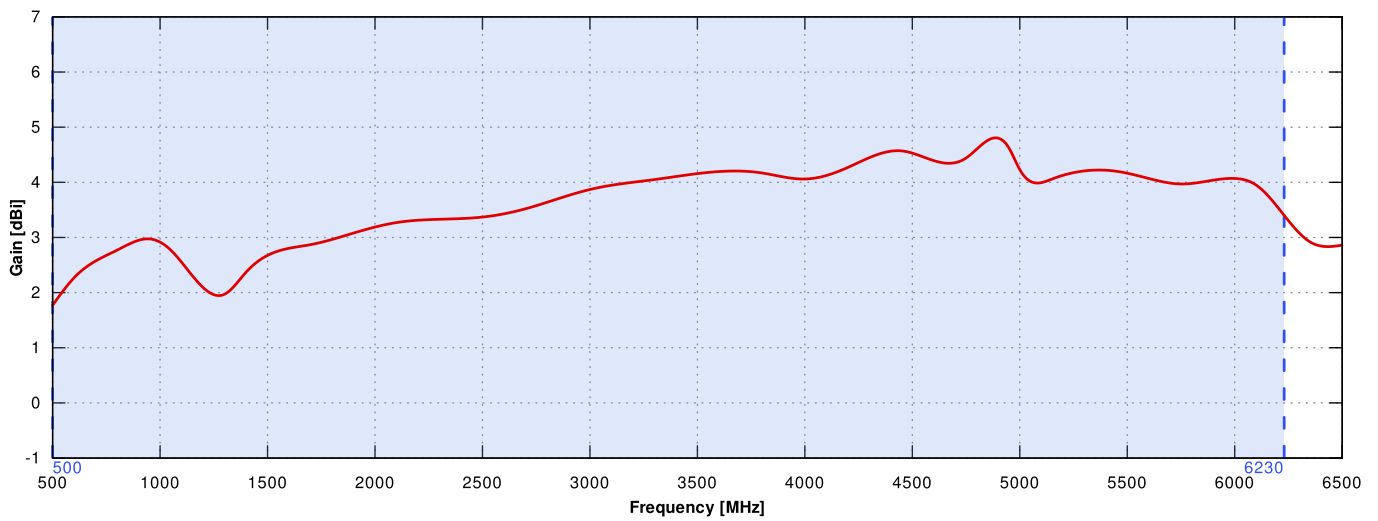
617 MHz      6000 MHz

# PLOTS

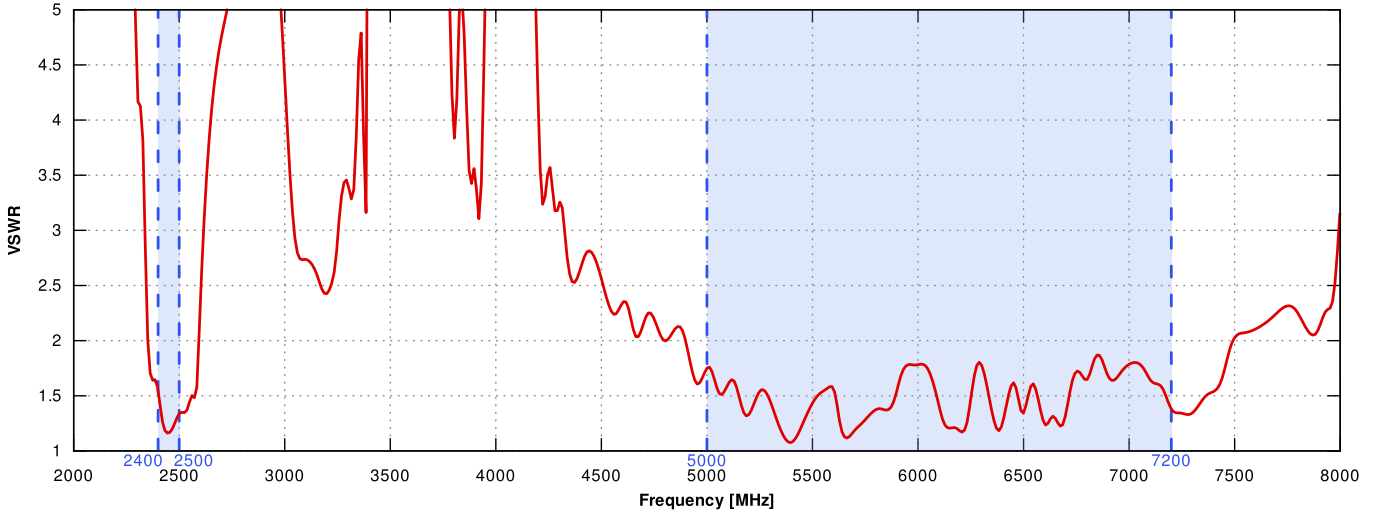
## 5G/LTE VSWR



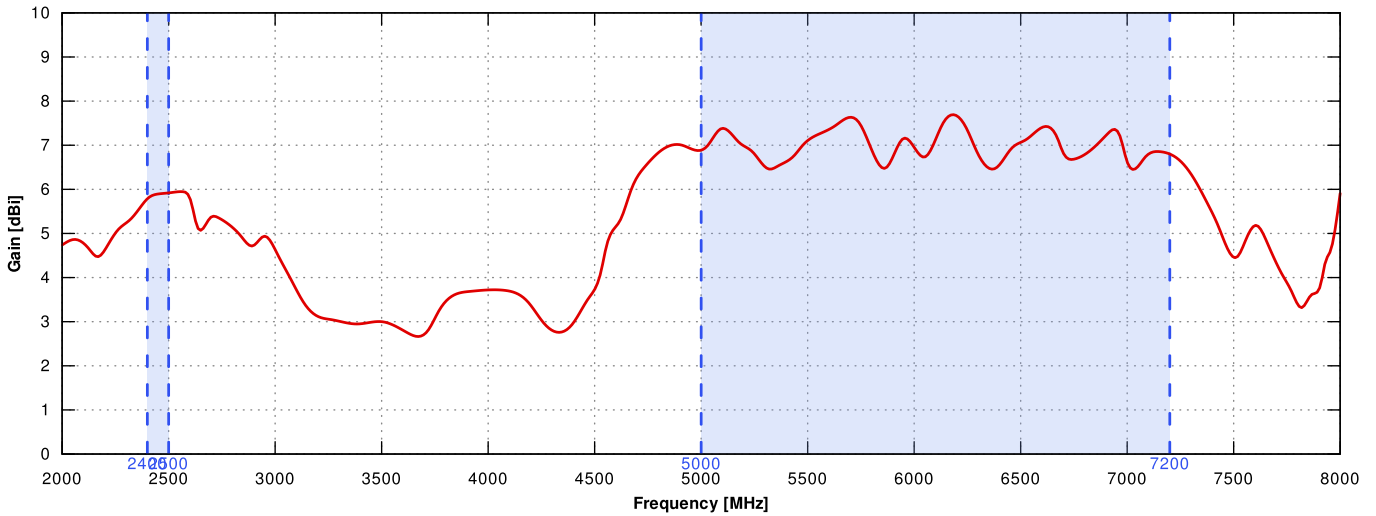
## 5G/LTE Gain



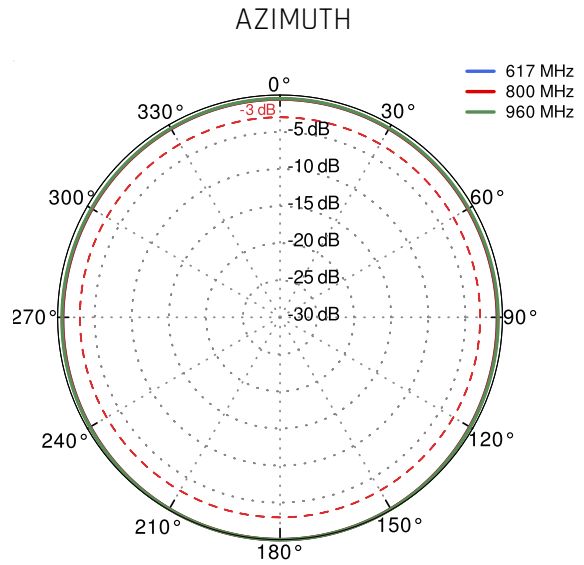
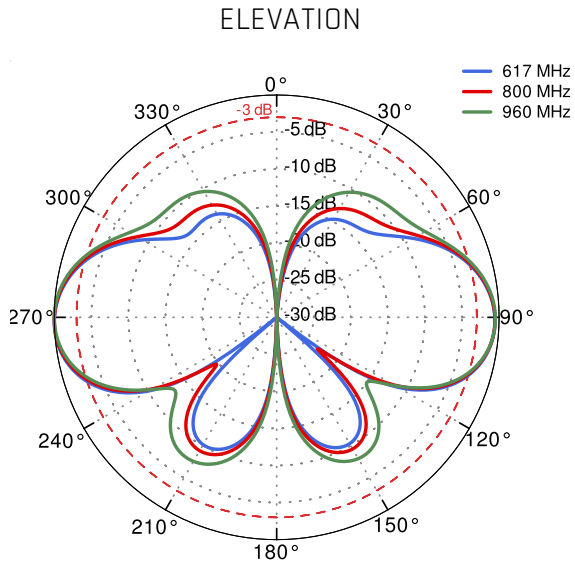
### WI-FI VSWR



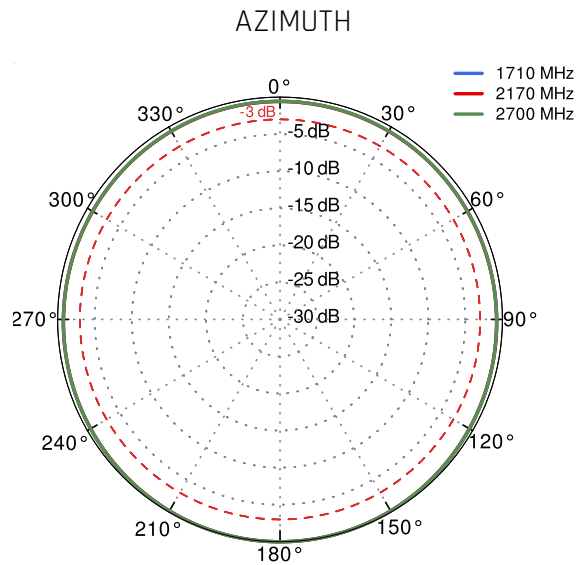
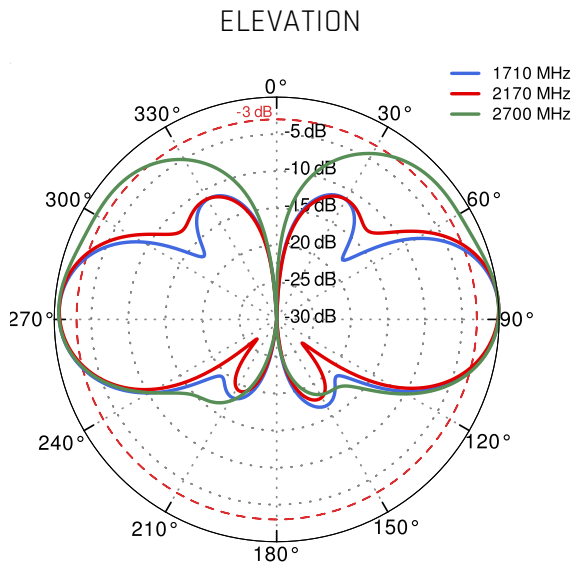
### WI-FI Gain



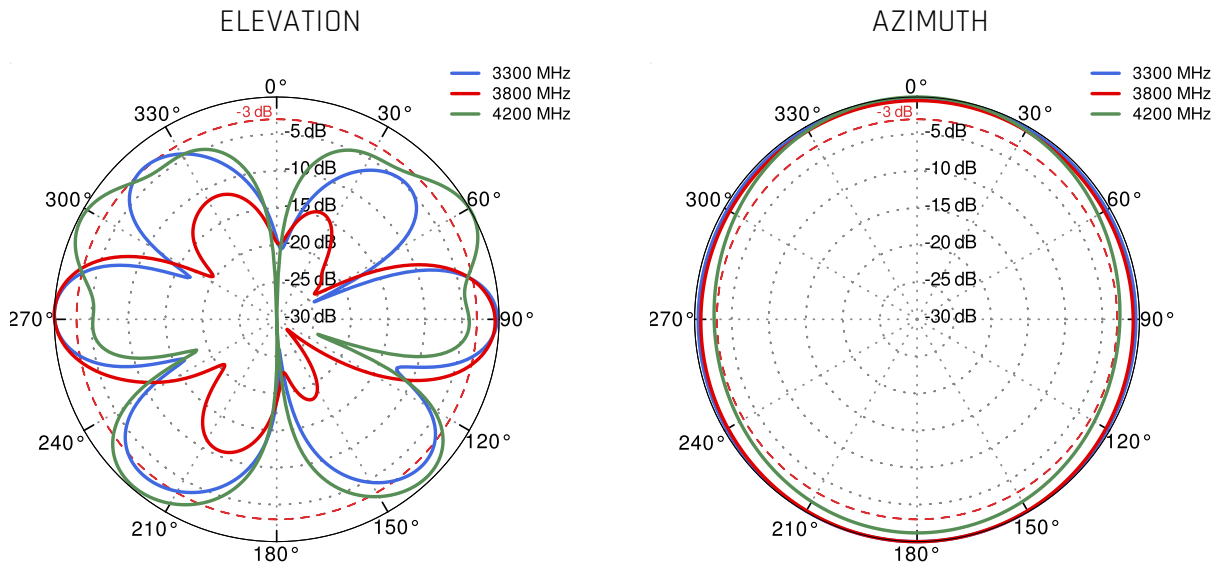
5G/LTE From 617MHz to 960MHz



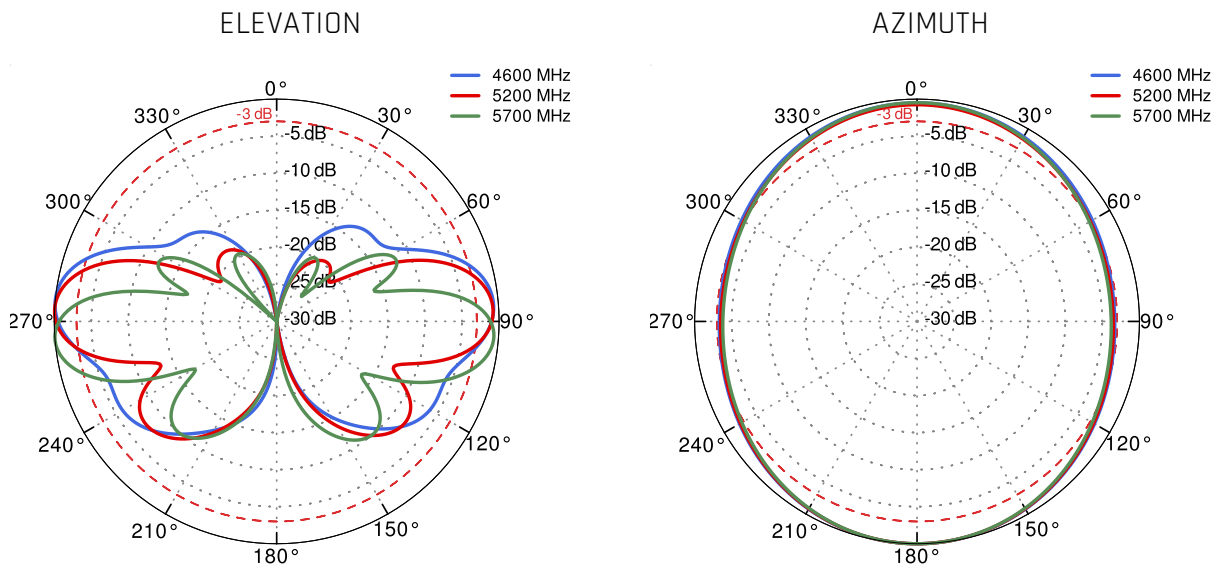
5G/LTE From 1.71GHz to 2.7GHz



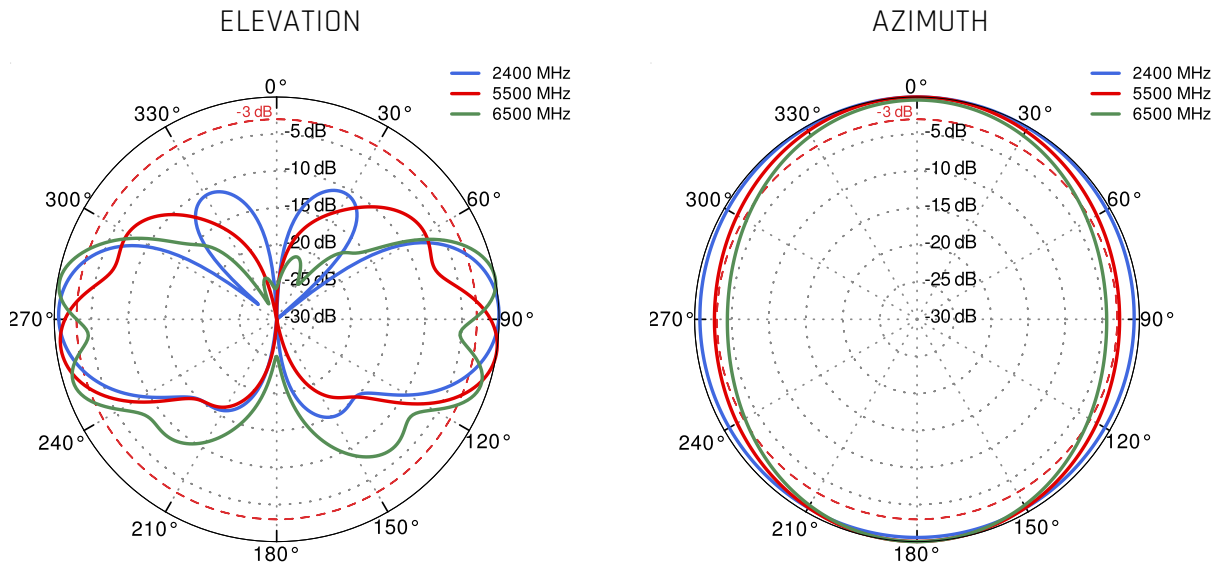
5G/LTE From 3.3GHz to 4.2GHz



5G/LTE From 4.6GHz to 5.7GHz



Wi-Fi From 2.4 GHz to 6.5 GHz



**DIMENSIONS**

