

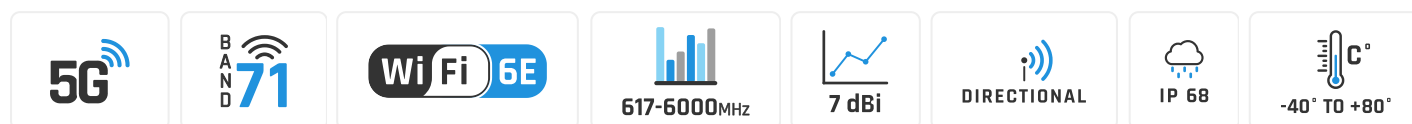
# QuMax for Robustel R5020 Lite

## INTEGRATED MULTI-BAND LTE & 5G PANEL ANTENNA + WI-FI OMNI ANTENNA + PLACE TO INSTALL Robustel R5020 Lite (ALL-IN-ONE)

QuMax for Robustel R5020 Lite is a high performance directional antenna designed for use in a variety of wireless communication applications. This all-in-one product consists of multi-band 5G and Wi-Fi antennas, integrated in IP68 enclosure. It offers 7.5 dBi gain and wide beam width, which makes it suitable for use in both urban and rural environments.

The set contains a [Passive PoE splitter](#), allowing you to split data and power from a single Ethernet cable and maintain gigabit transfer speeds while protecting the LAN port from damage caused by overvoltage, short circuit or improper connection.

Combining QuMax with R5020 Lite inside the antenna housing gives you complete outdoor solution with multiple use scenarios such as transportation public, energy, mining IoT and more.



EMBEDDED **POE SPLITTER**



ANTENNA **PERFECTLY MATCHED** WITH THE ROUTER



OUTDOOR ANTENNA WORKS IN **ANY WEATHER CONDITIONS**, IP68



MADE IN **EUROPE**



## 5G / LTE ANTENNA SPECIFICATION

FREQUENCY	0.617 - 0.96 GHz 1.7 - 2.7 GHz 3.3 - 4.6 GHz 4.7 - 6.0 GHz
GAIN	0.617 - 0.96 GHz: 6 dBi 1.7 - 2.7 GHz: 7 dBi 3.3 - 4.6 GHz: 7 dBi 4.7 - 6.0 GHz: 5.5 dBi
SUPPORTED LTE BANDS	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, 46, 47, 48, 49, 52, 53, 65, 66, 67, 68, 69, 71, 85, 103, 106
SUPPORTED 5G BANDS	n1, n2, n3, n5, n7, n8, n12, n13, n14, n18, n20, n25, n26, n28, n29, n30, n34, n38, n39, n40, n41, n46, n47, n48, n53, n65, n66, n67, n71, n77, n78, n80, n81, n82, n83, n84, n85, n86, n89, n90, n95, n97, n98, n100, n101, n255
VSWR	<2.00, max <3.00
BEAMWIDTH	80°/80° ±15°
POLARIZATION	X (±45degrees)
IMPEDANCE	50 $\Omega$

## WI-FI ANTENNA SPECIFICATION

FREQUENCY	2.40 - 2.50 GHz 5.0 - 7.125 GHz
GAIN	2.40 - 2.50 GHz : 6 dBi 5.0 - 7.125 GHz : 7.5 dBi
VSWR	<1.70, max <2.00
BEAMWIDTH	360°/25° ±5°
POLARIZATION	Vertical
IMPEDANCE	50 $\Omega$

## MECHANICAL SPECIFICATION

MATERIALS	ABS, aluminum, PTFE, Fiberglass
CONNECTOR TYPE	RJ45
INGRESS PROTECTION	IP68
DIMENSIONS	486.0 x 292.2 x 105.6 mm 19.13 x 11.50 x 4.16 inch
WEIGHT	2.8 kg 6.17 lbs
OPERATING TEMPERATURE	From -40°C to 80°C From -40°F to 176°F
ENCLOSURE RECOMMENDED TIGHTENING TORQUE	0,6 - 0,8 Nm
MAST DIAMETER	25-66mm 0.98-2.60 inch

# **FREQUENCY BANDS**

**LTE / 4G**

617  
MHz

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
46	47	48	49	52	53	65
66	67	68	69	71	85	103
106						

6000M  
Hz

**5G**

617  
MHz

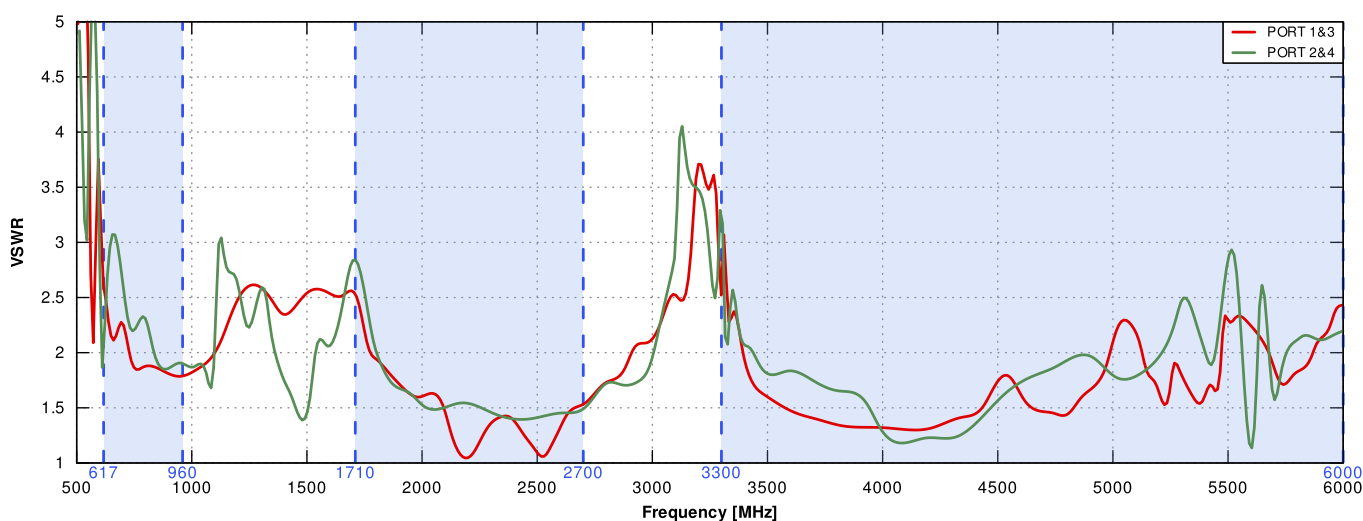
n1	n2	n3	n5	n7	n8	n12
n13	n14	n18	n20	n25	n26	n28
n29	n30	n34	n38	n39	n40	n41
n46	n47	n48	n53	n65	n66	n67
n71	n77	n78	n80	n81	n82	n83
n84	n85	n86	n89	n90	n95	n97
n98	n100	n101	n255			

6000  
MHz

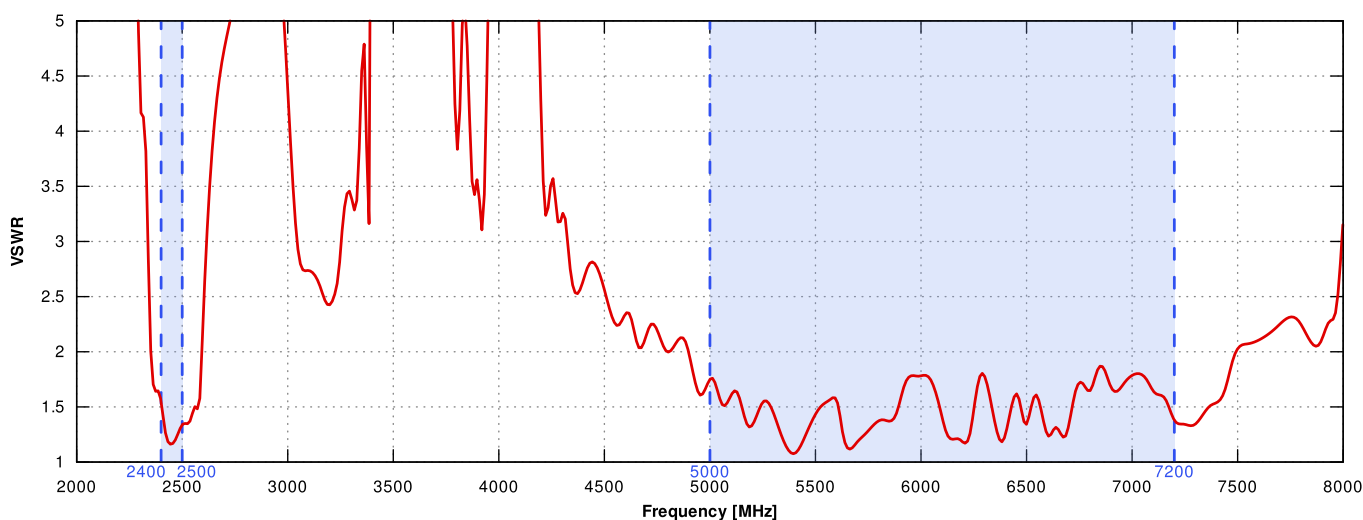


## PLOTS

### VSWR for 5G/LTE antenna



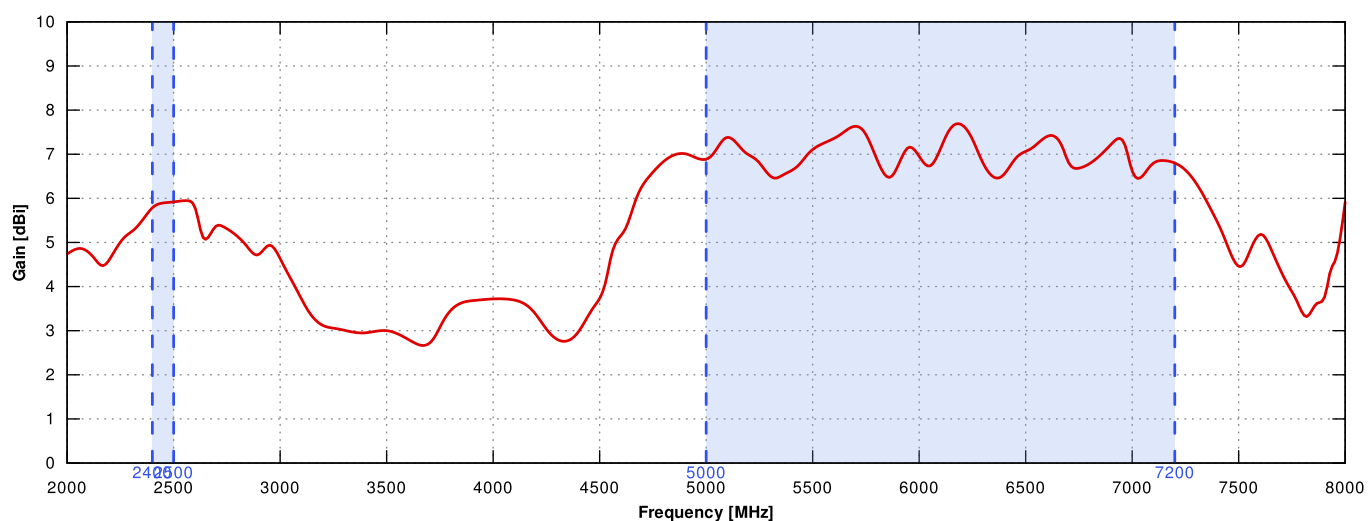
### VSWS for Wi-Fi antenna



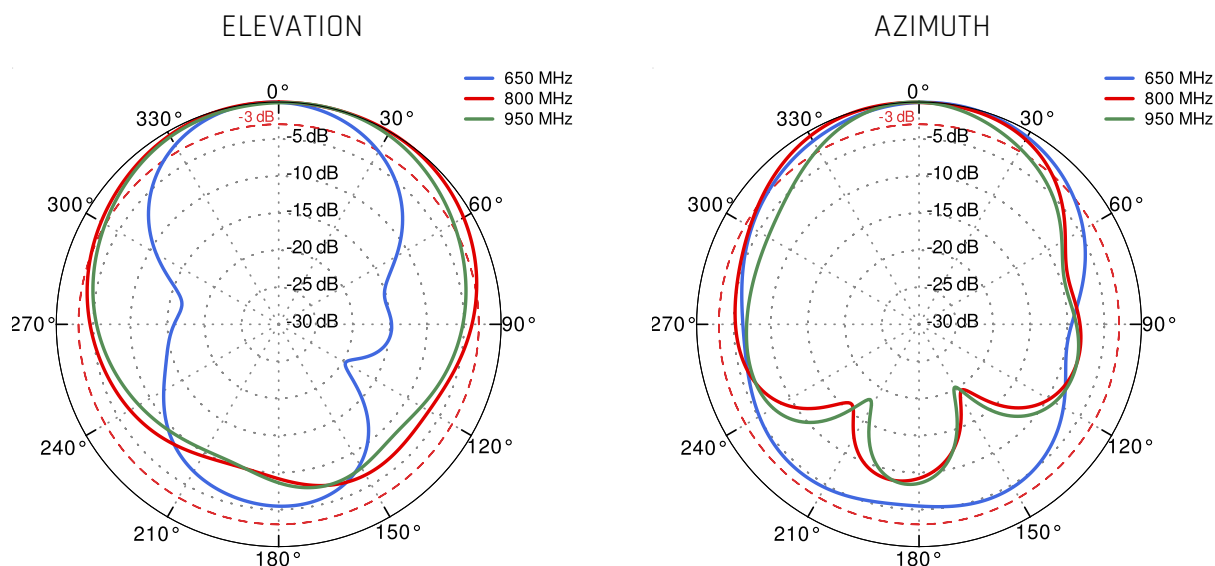
## Gain for 5G/LTE antenna



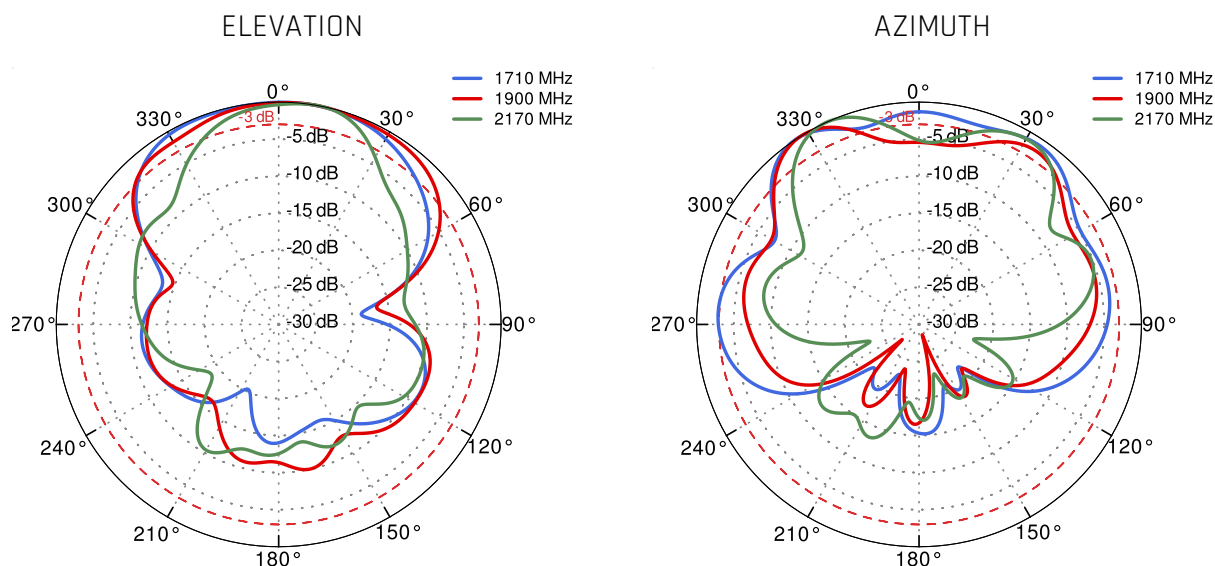
## Gain for Wi-Fi antenna



## PORT 1&3 - 5G/LTE from 650MHz to 950MHz



## PORT 1&3 - 5G/LTE from 1.71GHz to 2.17GHz



## PORT 1&3 - 5G/LTE from 2.3GHz to 2.7GHz



## PORT 1&3 - 5G/LTE from 3.3GHz to 3.8GHz



## PORT 1&3 - 5G/LTE from 4.2GHz to 4.6GHz



## PORT 1&3 - 5G/LTE from 5.0GHz to 5.9GHz



## PORT 2&4 - 5G/LTE from 650MHz to 950MHz



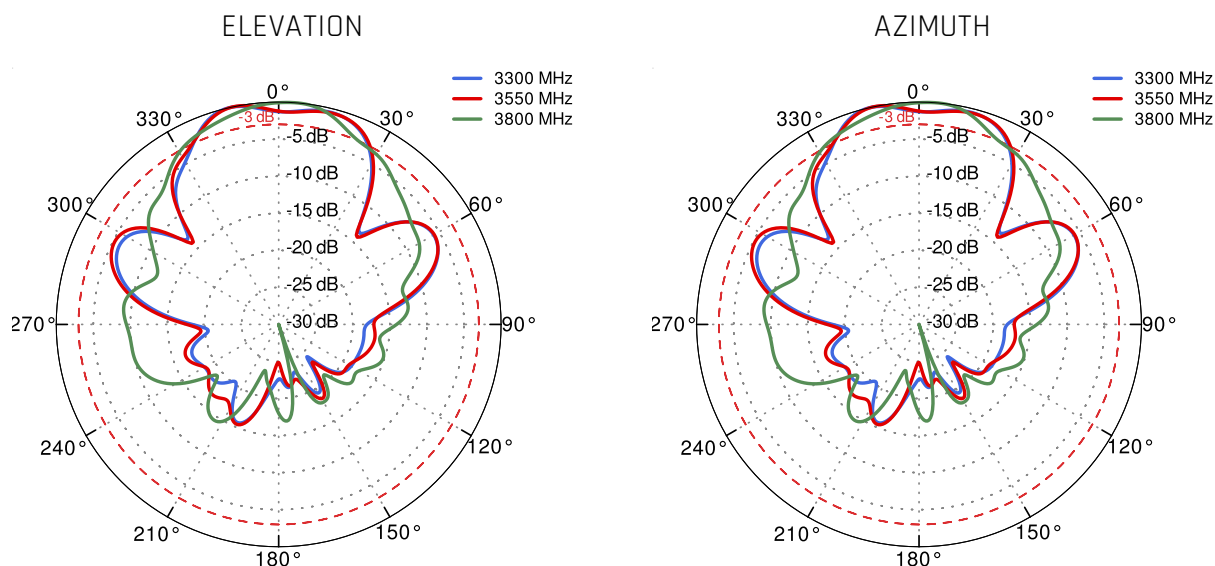
## PORT 2&4 - 5G/LTE from 1.71GHz to 2.17GHz



## PORT 2&4 - 5G/LTE from 2.3GHz to 2.7GHz

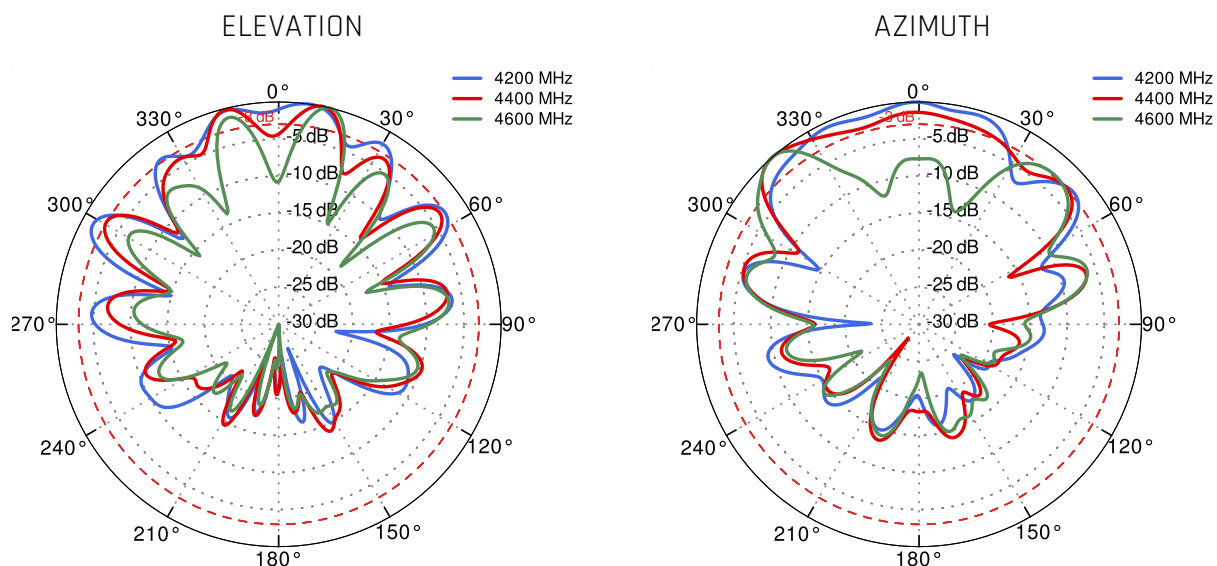


## PORT 2&4 - 5G/LTE from 3.3GHz to 3.8GHz

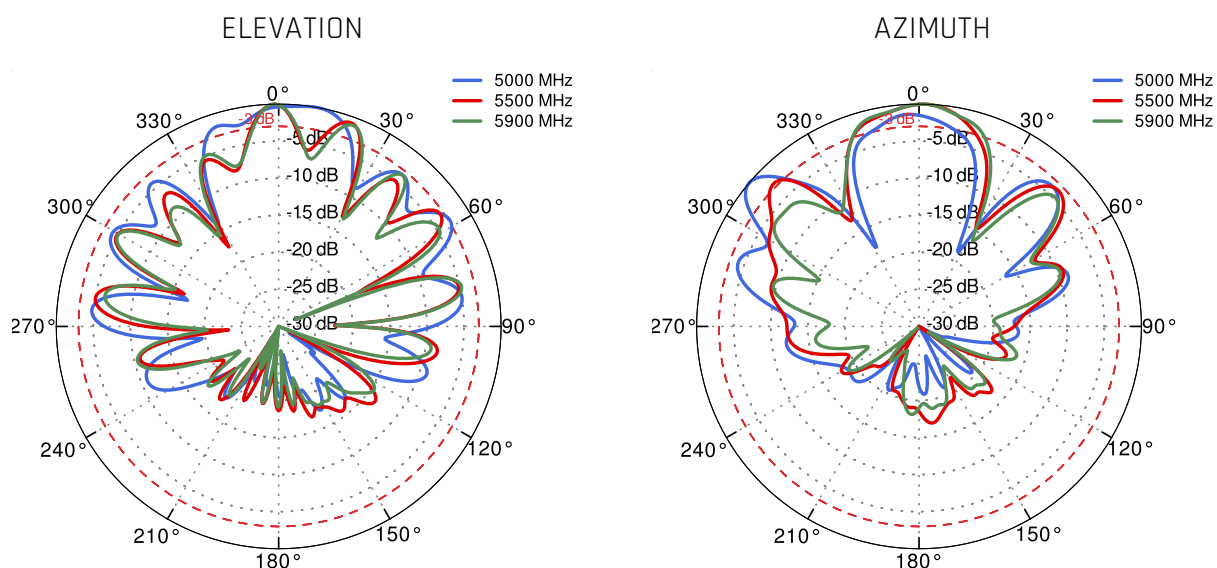




## PORT 2&4 - 5G/LTE from 4.2GHz to 4.6GHz

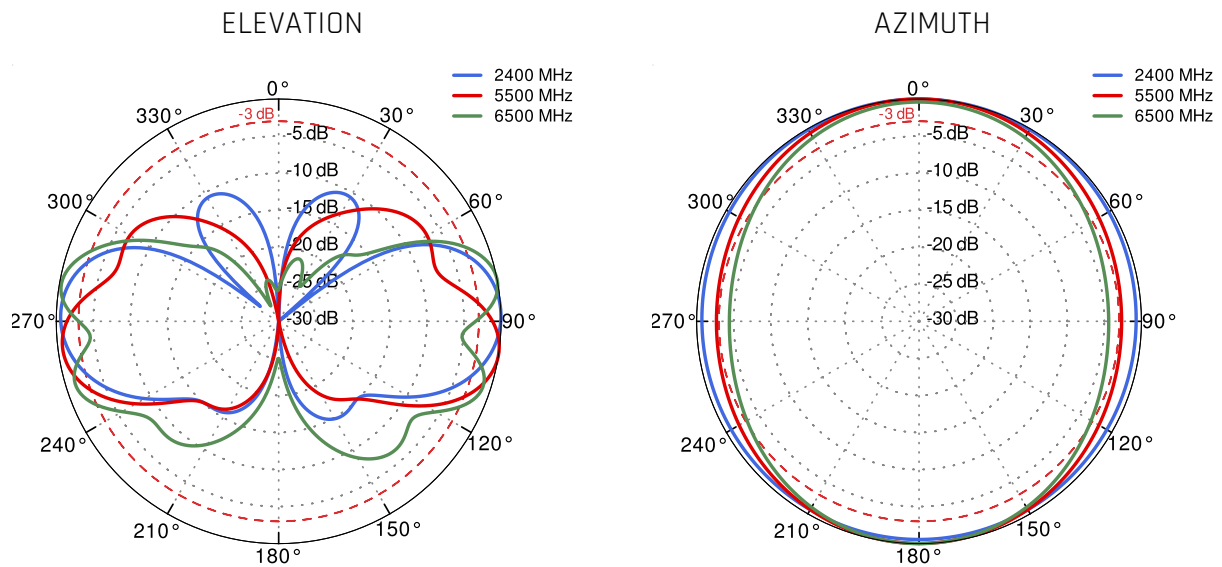


## PORT 2&4 - 5G/LTE from 5.0GHz to 5.9GHz





Wi-Fi 2.4GHz and 5GHz and 6GHz



## DIMENSIONS

