



THDR92

Thunder Series

Integrated 5G/LTE Directional Antenna
for Ericsson (Cradlepoint) R920

- Integrated Multi-band 5G Directional Antenna
- Omnidirectional Wi-Fi Antenna
- GNSS Antenna
- Cavity to install Ericsson R920 Router
- Robust, IP67 Rated Enclosure

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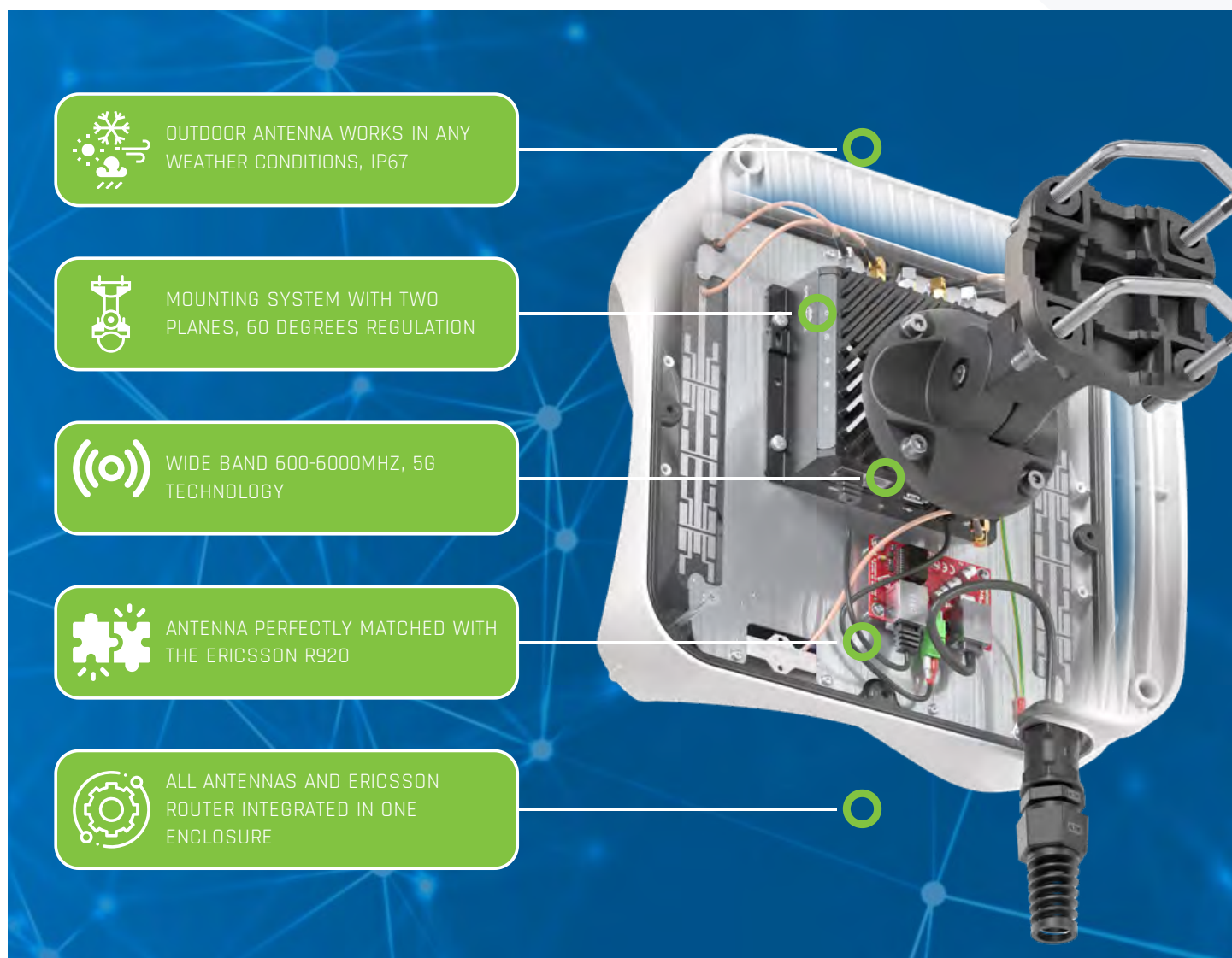
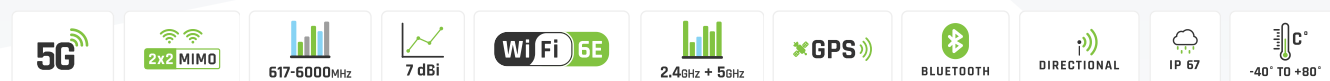


Thunder Series THDR92

Integrated Omnidirectional Antenna for Ericsson R920

INTEGRATED MULTI-BAND 5G DIRECTIONAL ANTENNA + WI-FI 6E OMNI ANTENNA + BLUETOOTH ANTENNA + GNSS ANTENNA + PLACE TO INSTALL ERICSSON R920 (ALL-IN-ONE)

The Taoglas THDR92 is an all-in-one directional antenna for Ericsson (Cradlepoint) R920 routers is a perfect outdoor device for improving the signal in rural/suburban and locations where the mobile signal is weak. It has embedded directional 5G, Wi-Fi®, Bluetooth®, and GNSS antennas. If you use the Ericsson (Cradlepoint) R920 router with a THDR92 Thunder Integrated Directional antenna, you get a complete integrated solution with embedded router and multi-band antennas in one enclosure.





5G / LTE ANTENNA SPECIFICATION

FREQUENCY	617 - 960 MHz 1.7 - 2.7 GHz 3.3 - 4.6 GHz 4.7 - 6.0 GHz
GAIN	617 - 960 MHz : 6 dBi 1.7 - 2.7 GHz : 7 dBi 3.3 - 4.6 GHz : 7 dBi 4.7 - 6.0 GHz : 5.5dBi
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, n79, n80, n81, n82, n83, n84, n85, n86, n89, n90, n95, n97, n98, n100, n101, n256
VSWR	<2.00, max <3.00
BEAMWIDTH	80°/80° ±15°
POLARIZATION	X (+45degrees)
IMPEDANCE	50 Ω
CONNECTOR	2x SMA
CABLE TYPE	RG316



WI-FI ANTENNA SPECIFICATION

FREQUENCY	2.4 - 2.5 GHz 5.0 - 7.2 GHz
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 Ω
CONNECTOR	2x RPSMA
CABLE TYPE	RG316

MECHANICAL SPECIFICATION

MATERIALS	ABS, aluminum, PTFE, fiberglass
CONNECTOR TYPE	RJ45
INGRESS PROTECTION	IP67
DIMENSIONS	269 x 270 x 177 mm 10.6 x 10.62 x 7 inch
WEIGHT	2.8 kg 6.17lbs
OPERATING TEMPERATURE	From -40°C to 80°C From -40°F to 176°F
MAST DIAMETER	25-60mm 0.98-2.36 inch



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

617 MHz6000 MHz

5G

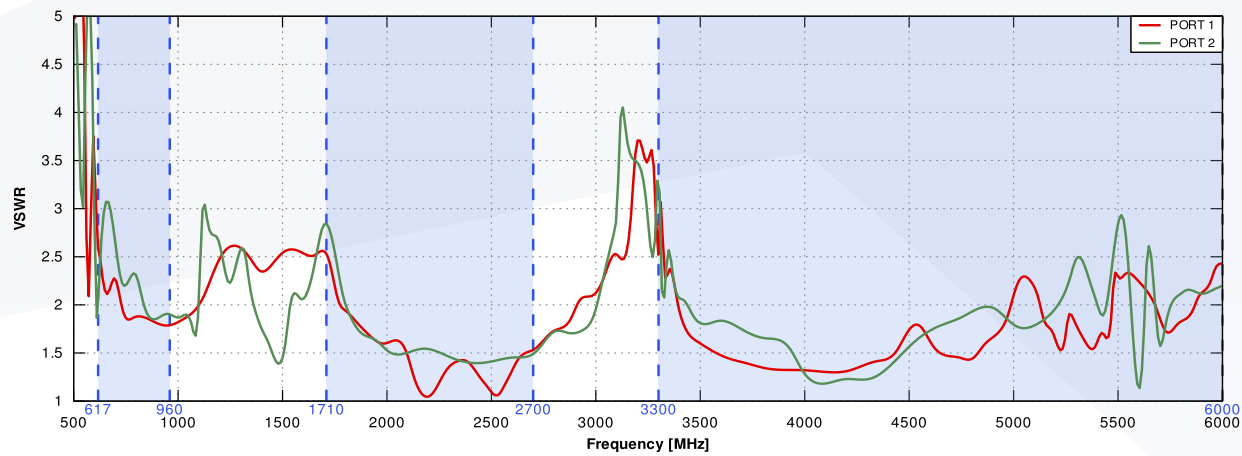
n1	n2	n3	n5	n7	n8	n12
n13	n14	n18	n20	n25	n26	n28
n29	n30	n34	n38	n39	n40	n41
n46	n47	n48	n53	n65	n66	n67
n71	n77	n78	n79	n80	n81	n82
n83	n84	n85	n86	n89	n90	n95
n97	n98	n100	n101	n256		

617 MHz6000 MHz

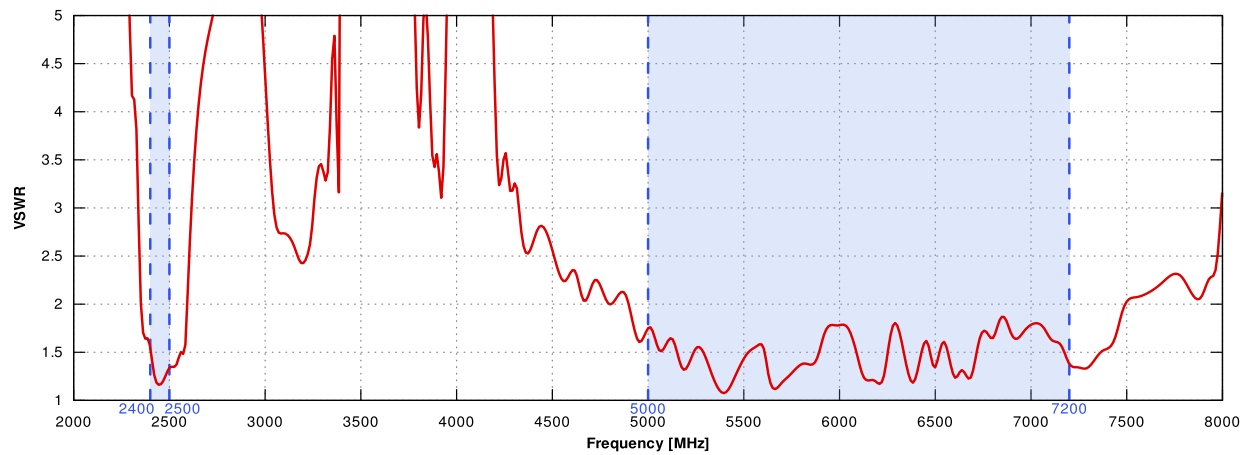


PLOTS

LTE VSWR

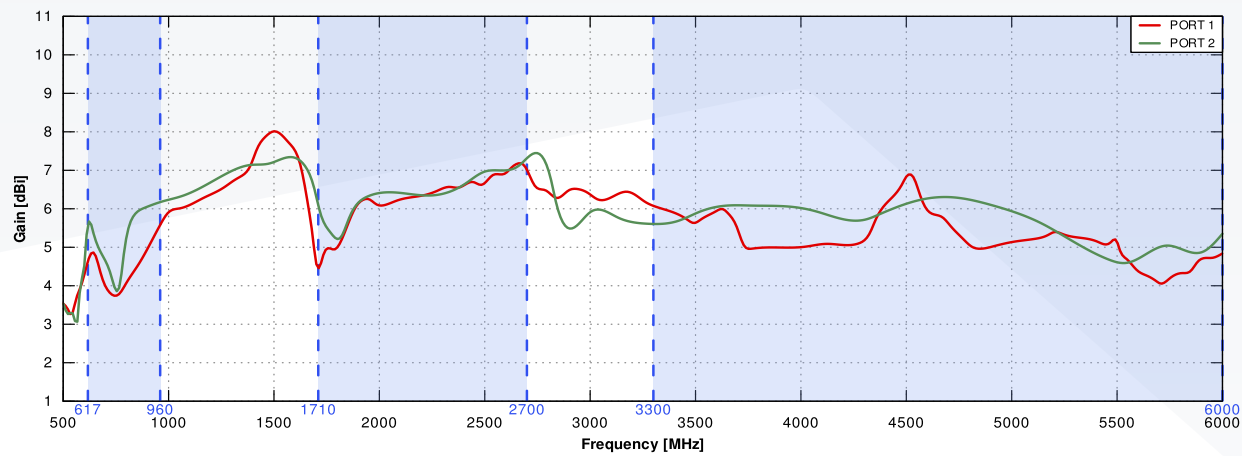


WI-FI VSWR

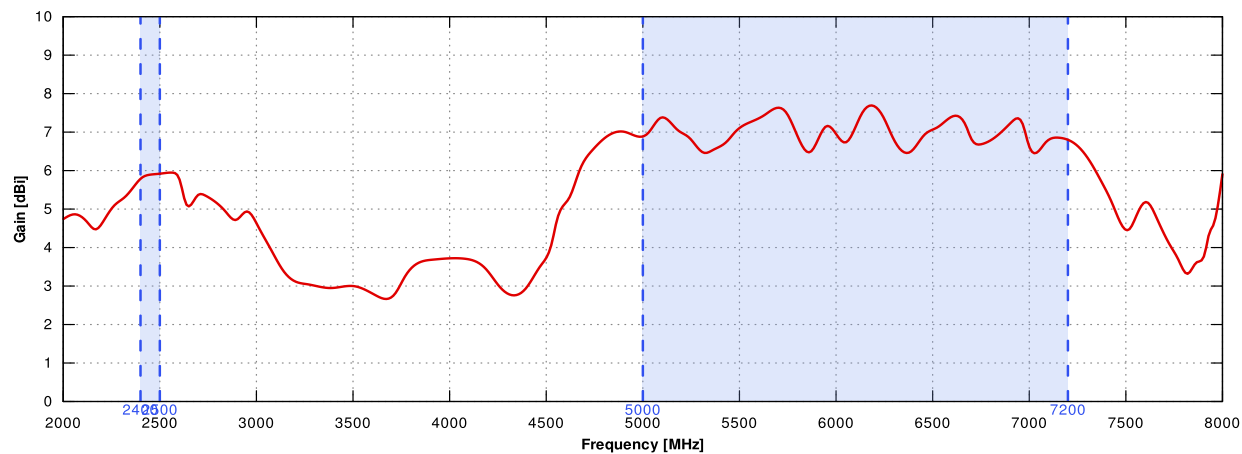




LTE Gain

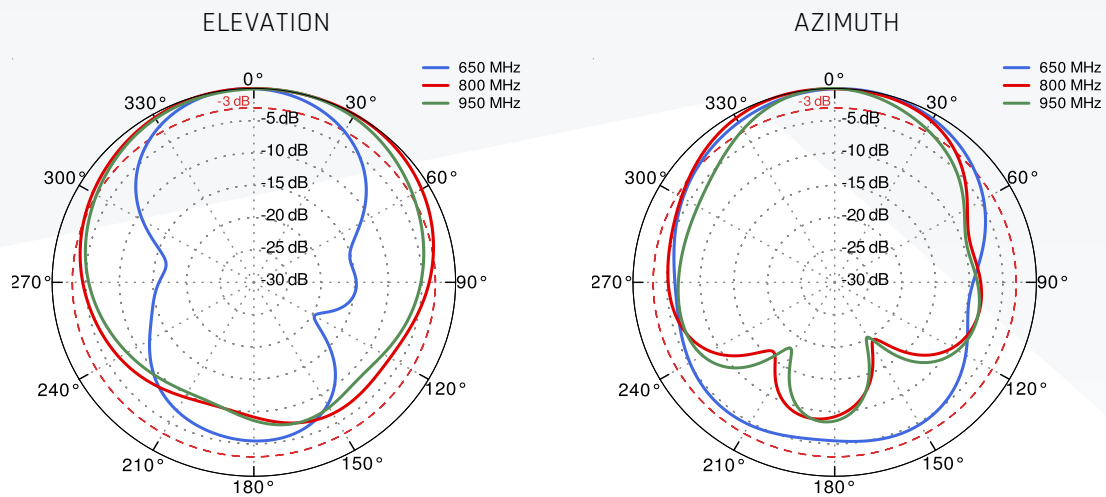


Wi-Fi Gain

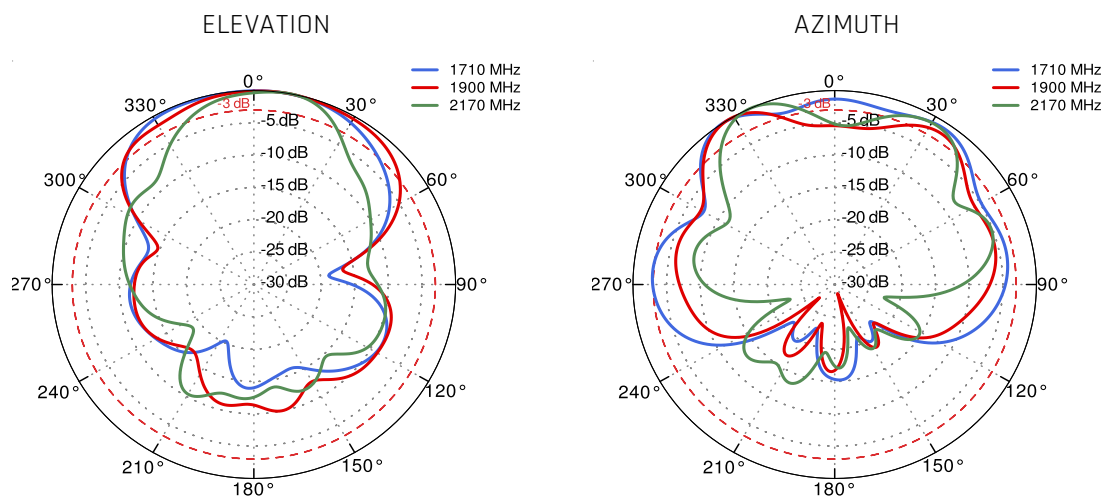




PORT 1 - 5G/LTE from 650MHz to 950MHz

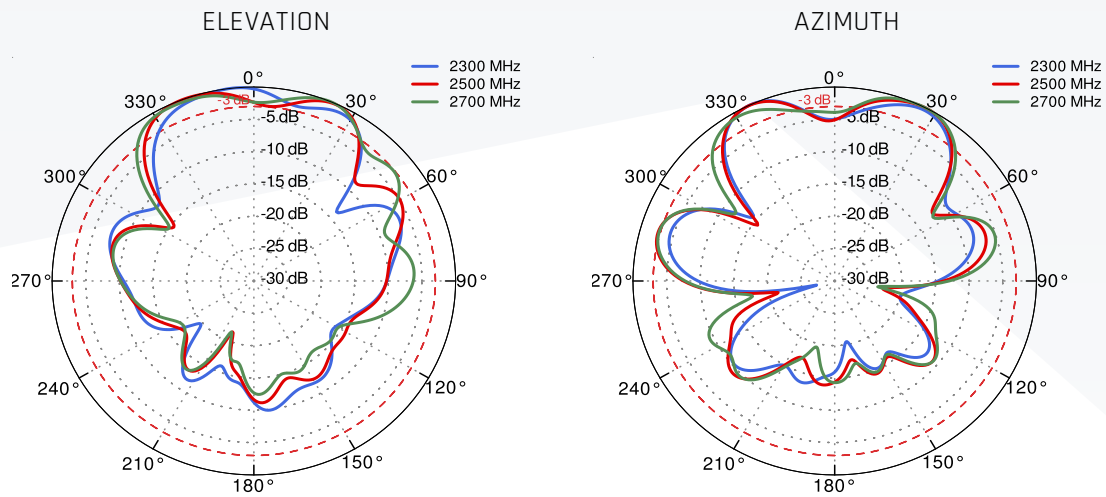


PORT 1 - 5G/LTE from 1.71GHz to 2.17GHz

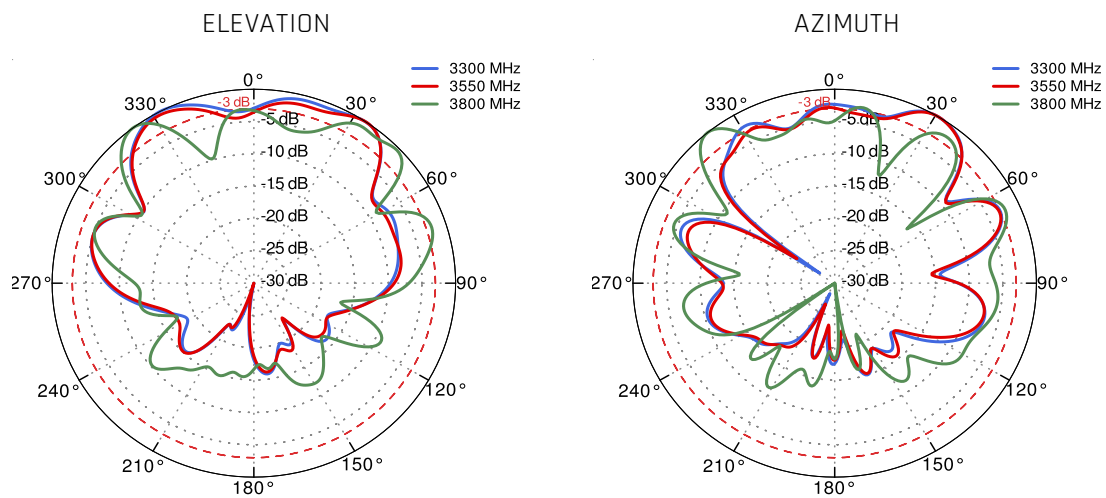




PORT 1 - 5G/LTE from 2.3GHz to 2.7GHz

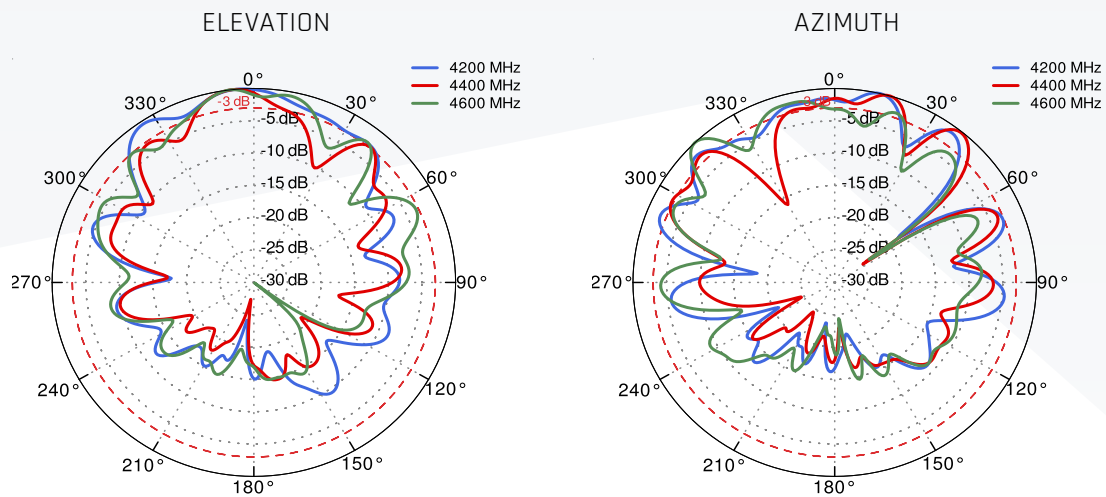


PORT 1 - 5G/LTE from 3.3GHz to 3.8GHz

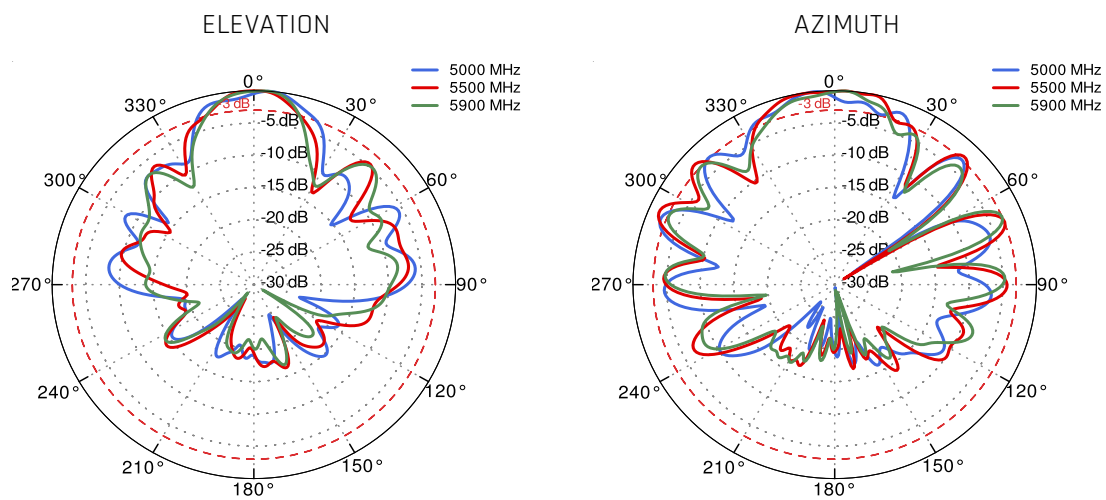




PORT 1 - 5G/LTE from 4.2GHz to 4.6GHz

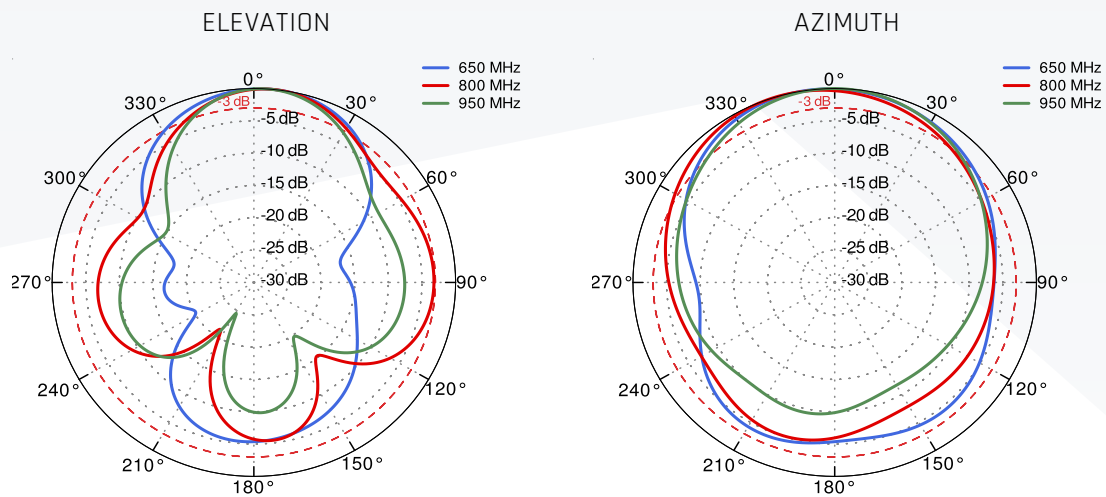


PORT 1 - 5G/LTE from 5.0GHz to 5.9GHz

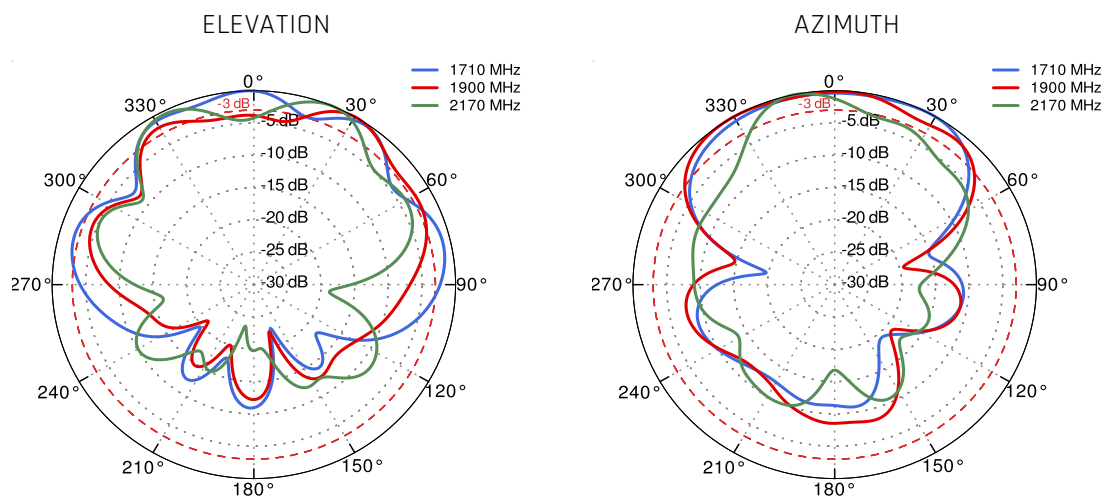




PORT 2 - 5G/LTE from 650MHz to 950MHz

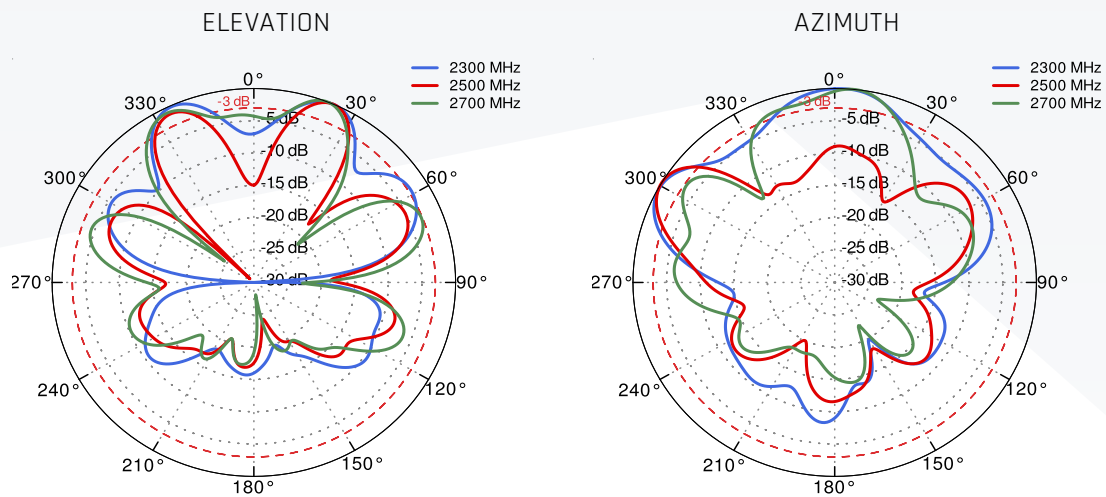


PORT 2 - 5G/LTE from 1.71GHz to 2.17GHz

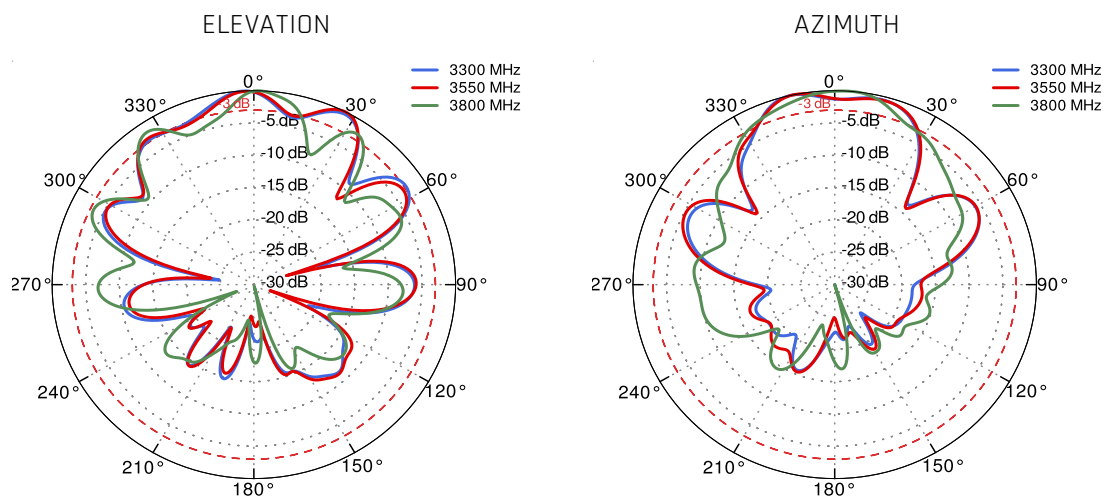




PORT 2 - 5G/LTE from 2.3GHz to 2.7GHz

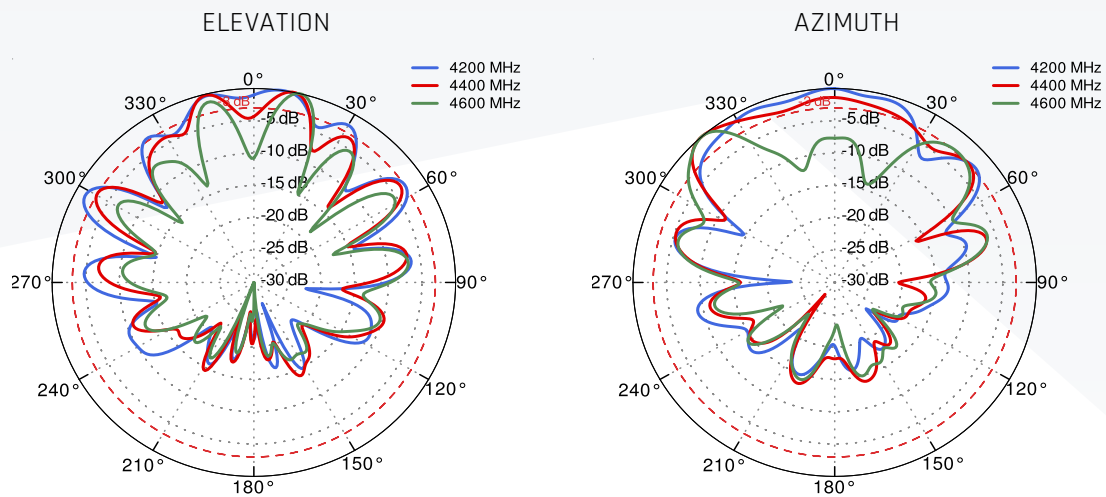


PORT 2 - 5G/LTE from 3.3GHz to 3.8GHz

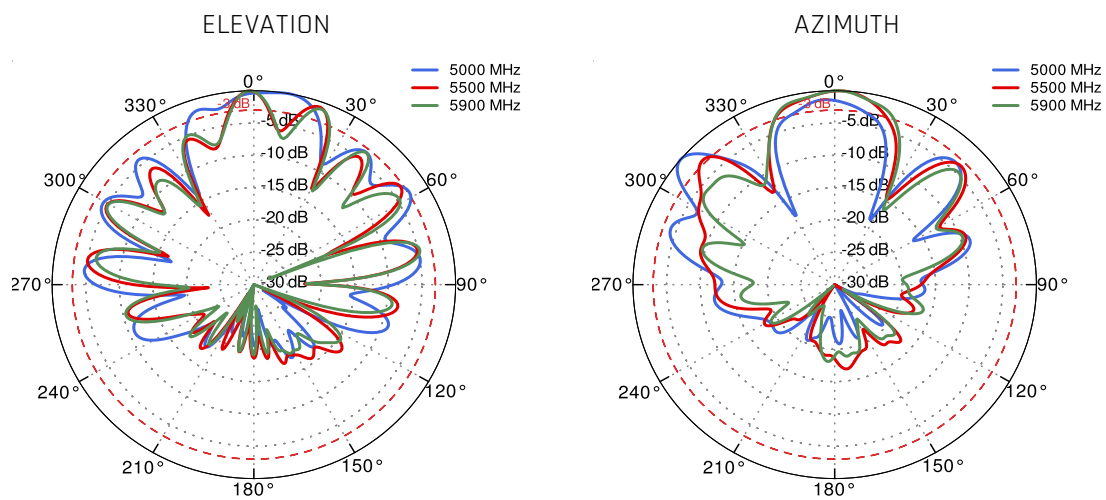




PORT 2 - 5G/LTE from 4.2GHz to 4.6GHz

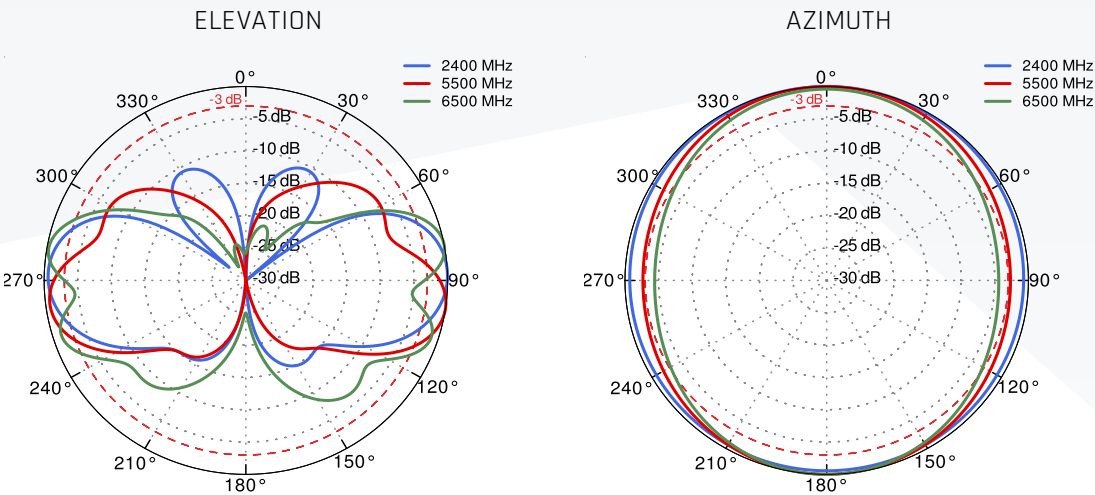


PORT 2 - 5G/LTE from 5.0GHz to 5.9GHz





Wi-Fi From 2.4 GHz to 6.5 GHz





GNSS Specifications

GNSS Frequency Band							
GPS/QZSS	L1 1575.42MHz	L2 1227.6MHz	L5 1176.45MHz	L6 1278.75MHz			
	☒	☐	☐	☐			
GLONASS	L5R 1176.45MHz	L3PT 1201.5MHz	L2PT 1246MHz	L1CR 1575.42MHz	L1PT 1602MHz		
	☐	☐	☐	☒	☒		
Galileo	E5a 1176.45MHz	E5b 1201.5MHz	E4 1215MHz	E3 1256MHz	E6 1278.75MHz	E2 1561MHz	E1 1575.42MHz
	☐	☐	☐	☐	☐	☐	☒
BeiDou	B1 1561MHz	B2 1207.14MHz	B3 1268.52MHz				
	☒	☐	☐				
Compass	E5B(B2)/ E6(B3) 1268.56MHz	E2(B1) 1561MHz					
	☐	☒					
SBAS	Omnistar 1542.5MHz	WAAS/EGN OS 1575.42MHz					
	☐	☒					

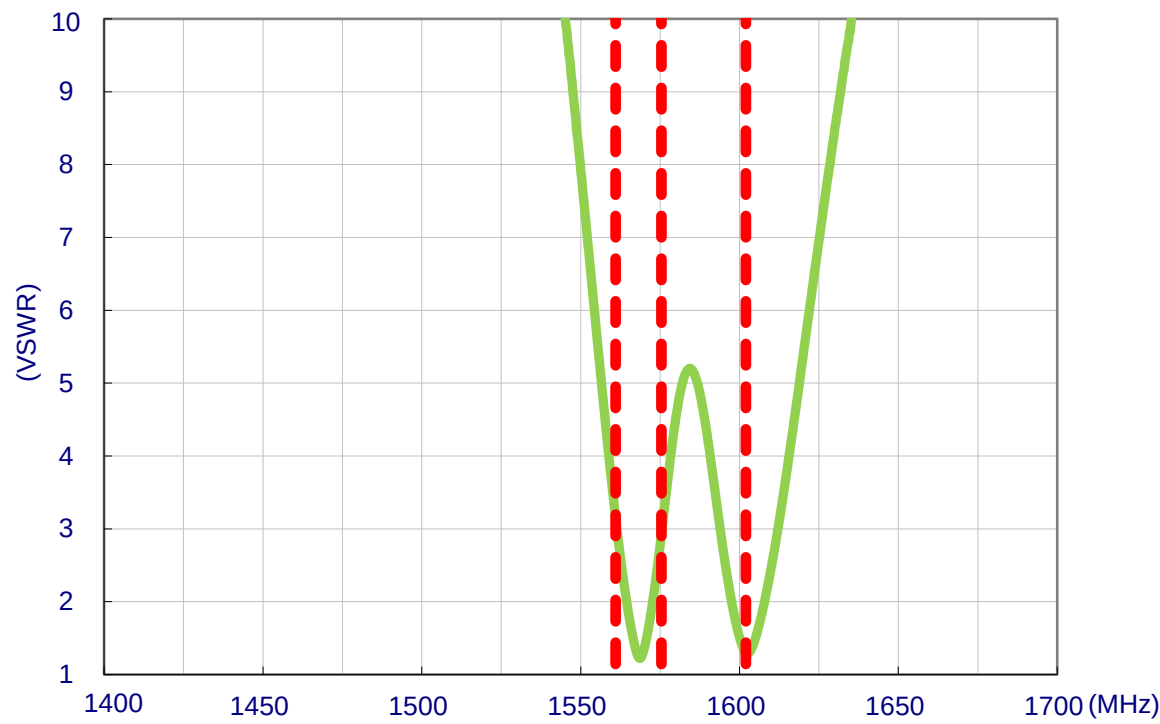
Electrical			
Frequency	BeiDou	GPS/GALILEO	GLONASS
	1561MHz	1575.42MHz	1602MHz
Efficiency (%)	49.8	46.5	60.1
Average Gain (dBi)	-3.03	-3.33	-2.21
Peak Gain (dBi)	2.44	1.72	1.67
Impedance	50Ω		
Polarization	RHCP		



LNA Specification			
Gain (dB)	14.8 ± 1	15.0 ± 1	15.0 ± 1
NF (dB)	2.4 ± 0.2	1.9 ± 0.2	2.2 ± 0.2
Input Voltage	+1.8 to +5 VDC		
Power Consumption	3 to 24.5mA typical		
Out-Of-Band Attenuation (dB)	10-500MHz	> 60	
	500-850MHz	> 40	
	850-1000MHz	> 35	
	1000-1500MHz	> 25	
	1700-2300MHz	> 19	
	2300-5000MHz	> 30	
	5000-6000MHz	> 25	

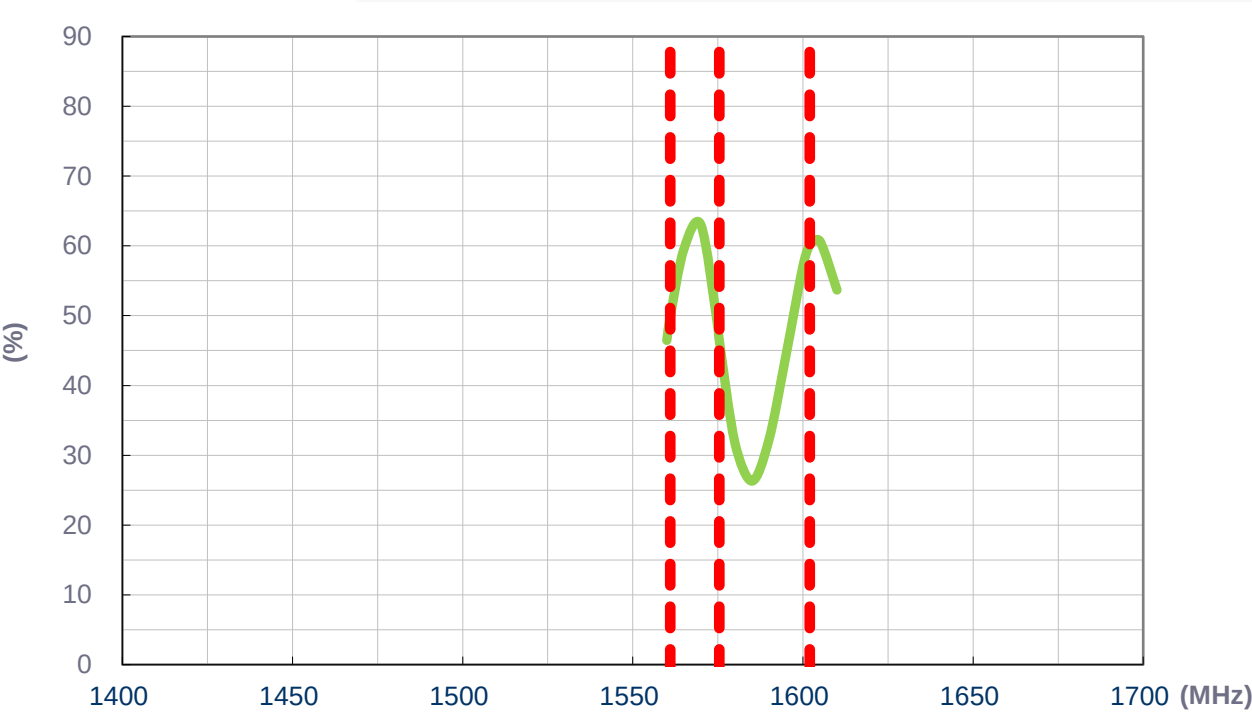
PLOTS

VSWR



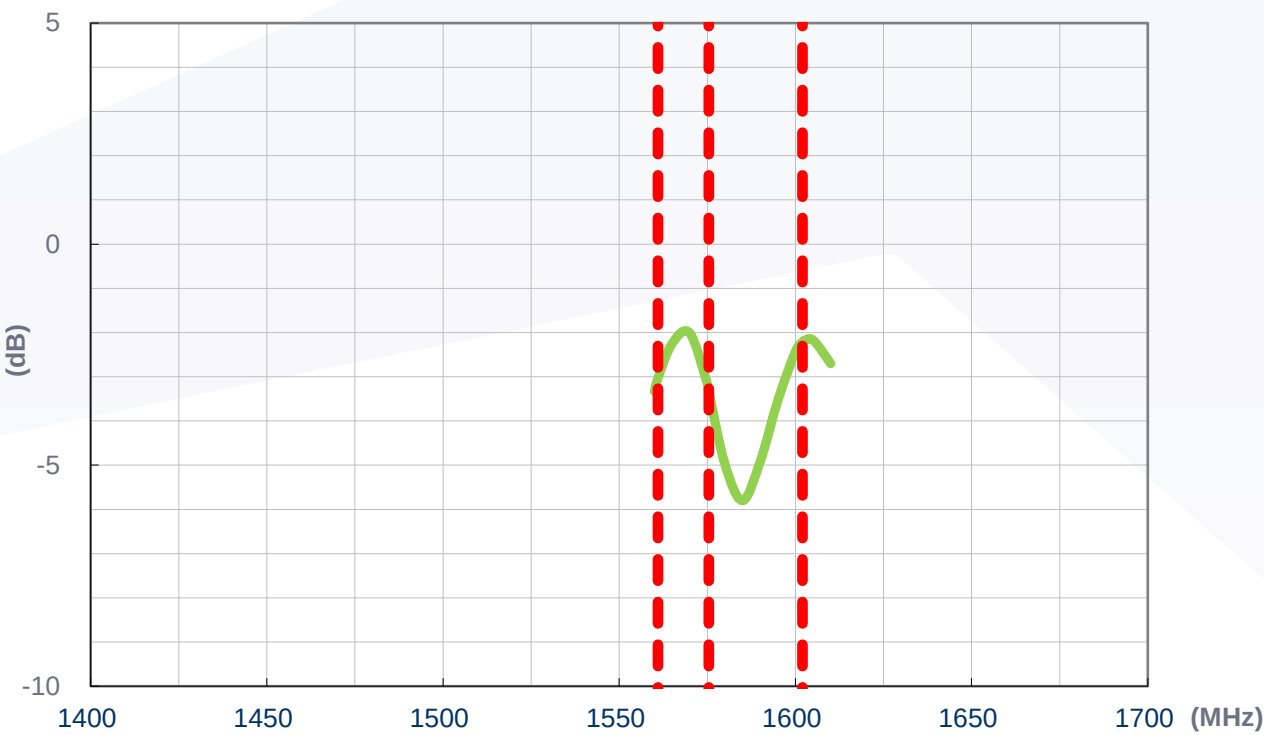


Efficiency

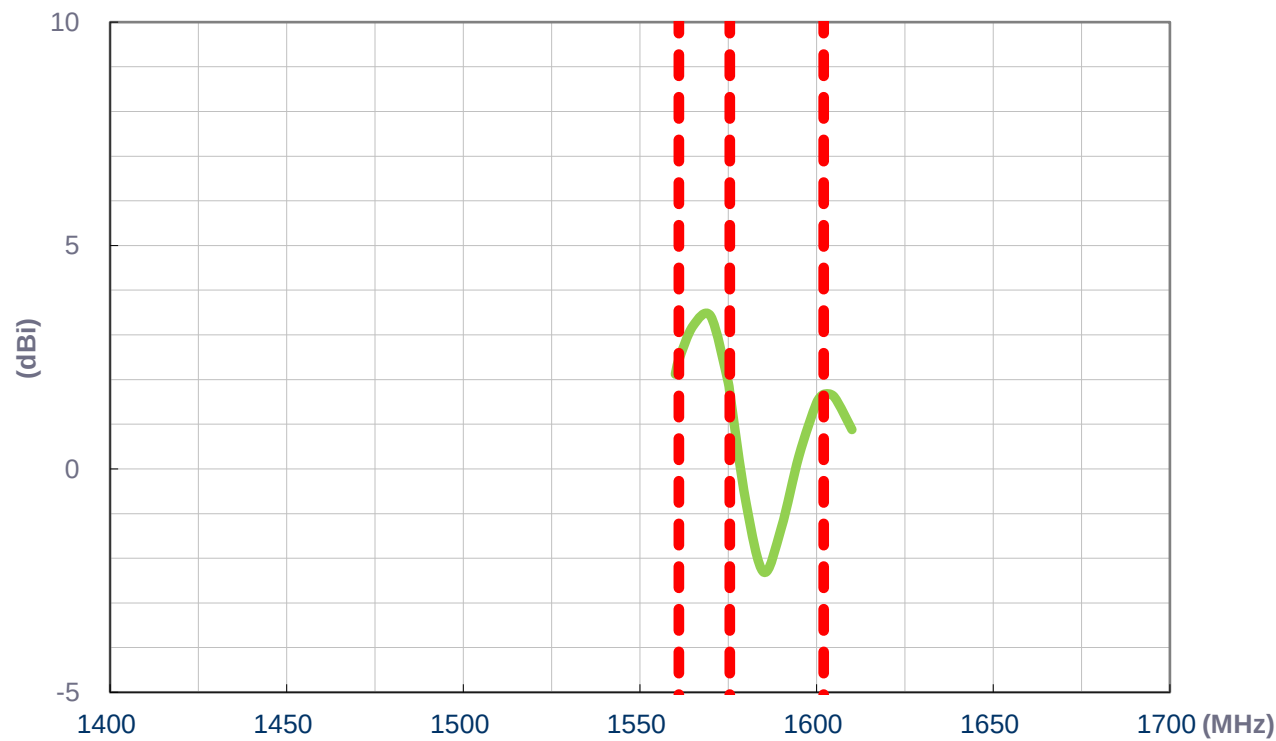




Average Gain



Peak Gain





DIMENSIONS

