



THDR70

Thunder Series

Integrated Multi-Band 5G Directional Antenna
for Ericsson (Cradlepoint) S700

- Integrated Multi-Band 5G Directional Antenna
- Wi-Fi 6E Omni Antenna + GNSS Antenna
- Cavity for Ericsson (Cradlepoint) S700 Router

Contents

Page:	Section:
3	Introduction
4	Specifications
6	Mechanical Specifications
7	Plots
18	Dimensions



Taoglas makes no warranties based on the accuracy or completeness of the contents of this document and reserves the right to make changes to specifications and product descriptions at any time without notice. Taoglas reserves all rights to this document and the information contained herein. Reproduction, use or disclosure to third parties without express permission is strictly prohibited.

© Taoglas 2025

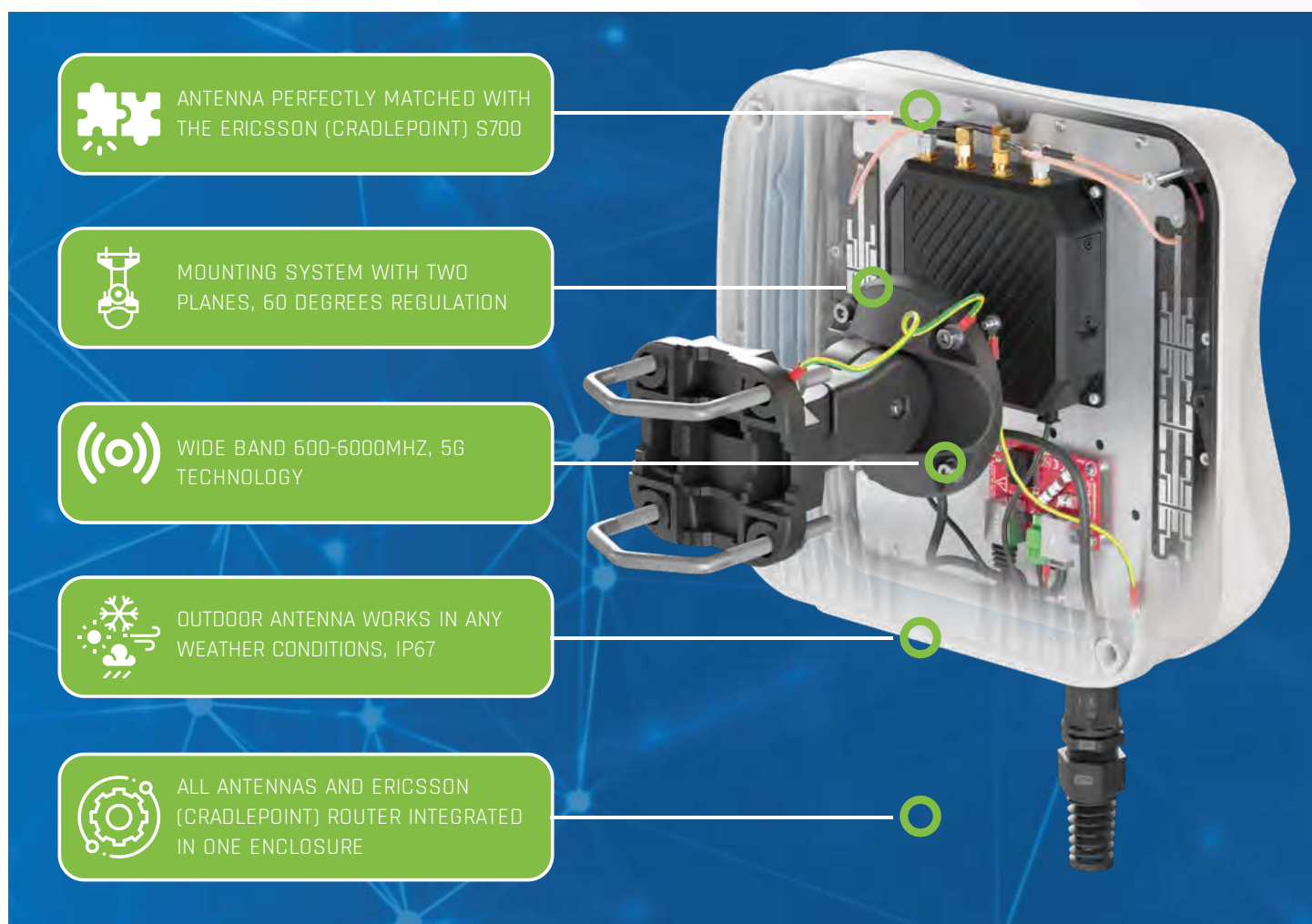


Thunder Series THDR70

Integrated Directional Antenna for Ericsson (Cradlepoint) S700

INTEGRATED MULTI-BAND 5G DIRECTIONAL ANTENNA + WI-FI 6E OMNI ANTENNA + GNSS ANTENNA + PLACE TO INSTALL ERICSSON (CRADLEPOINT) S700 (ALL-IN-ONE)

The Taoglas THDR70 is a directional antenna for Ericsson (Cradlepoint) S700 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®, and GNSS antenna. If you use an Ericsson (Cradlepoint) S700 router with the THDR70 Thunder 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



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	50Ω

MECHANICAL SPECIFICATION

MATERIALS	ABS, aluminum, PTFE, fiberglass
CONNECTOR TYPE	RJ45
INGRESS PROTECTION	IP67
DIMENSIONS	270 x 276 x 190 mm 10.62 x 10.85 x 7.48 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

	1	2	3	4	5	7	8	
	9	10	12	13	14	17	18	
	19	20	22	25	26	27	28	
617	29	30	33	34	35	36	37	6000
MHz	38	39	40	41	42	43	44	MHz
	46	47	48	49	52	53	65	
	66	67	68	69	71	85	103	
	106							

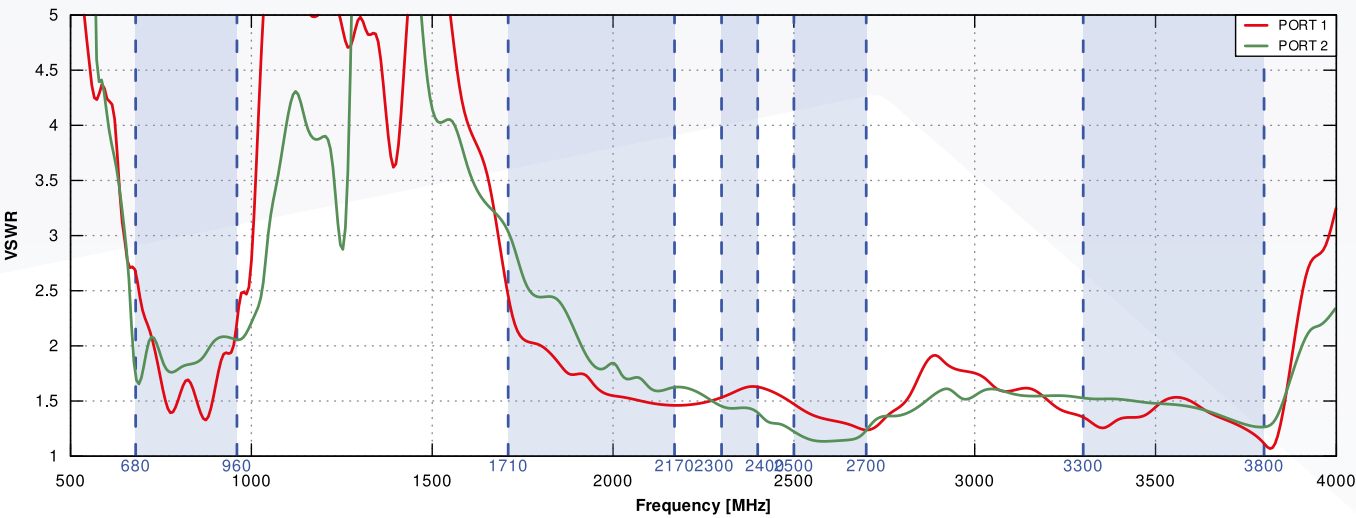
5G

	n1	n2	n3	n5	n7	n8	n12	
	n13	n14	n18	n20	n25	n26	n28	
	n29	n30	n34	n38	n39	n40	n41	
617	n46	n47	n48	n53	n65	n66	n67	6000
MHz	n71	n77	n78	n79	n80	n81	n82	MHz
	n83	n84	n85	n86	n89	n90	n95	
	n97	n98	n100	n101	n256			

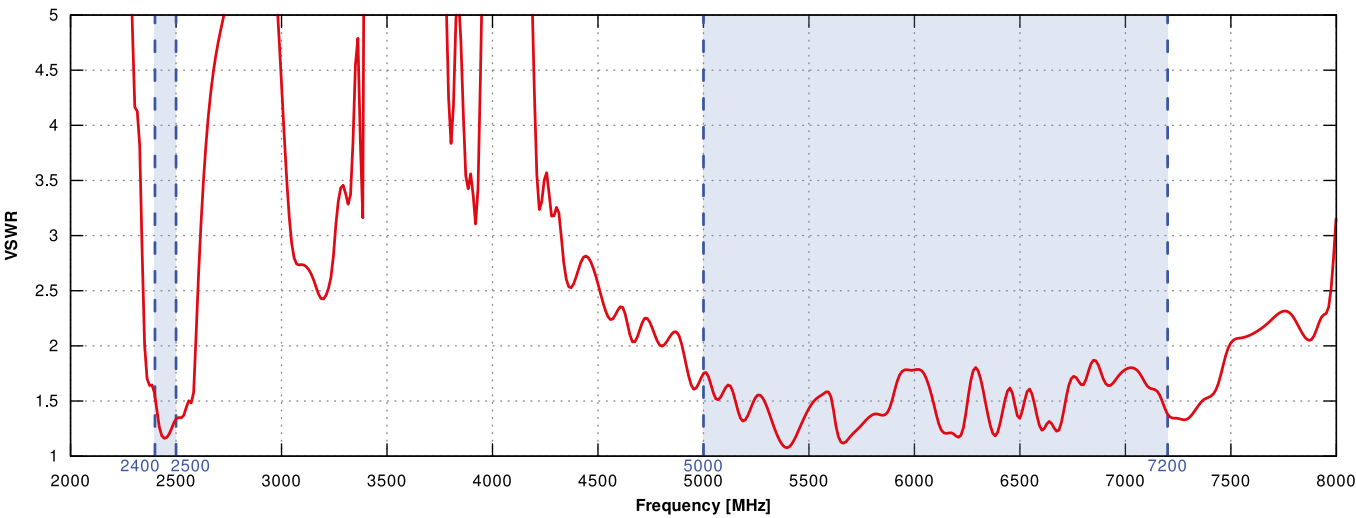


PLOTS

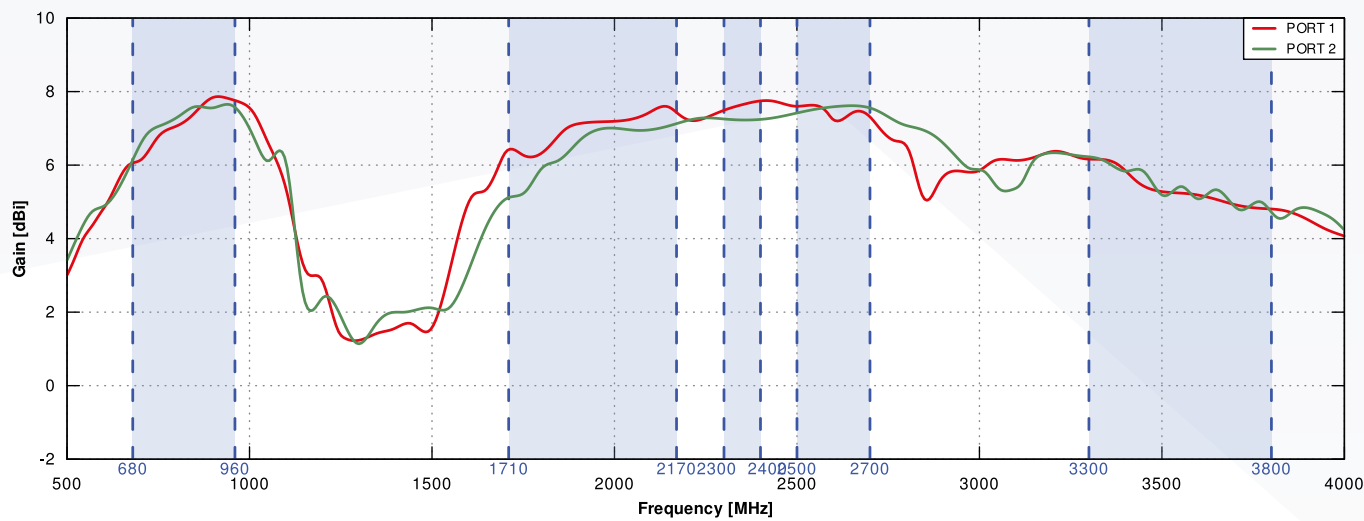
5G/LTE VSWR



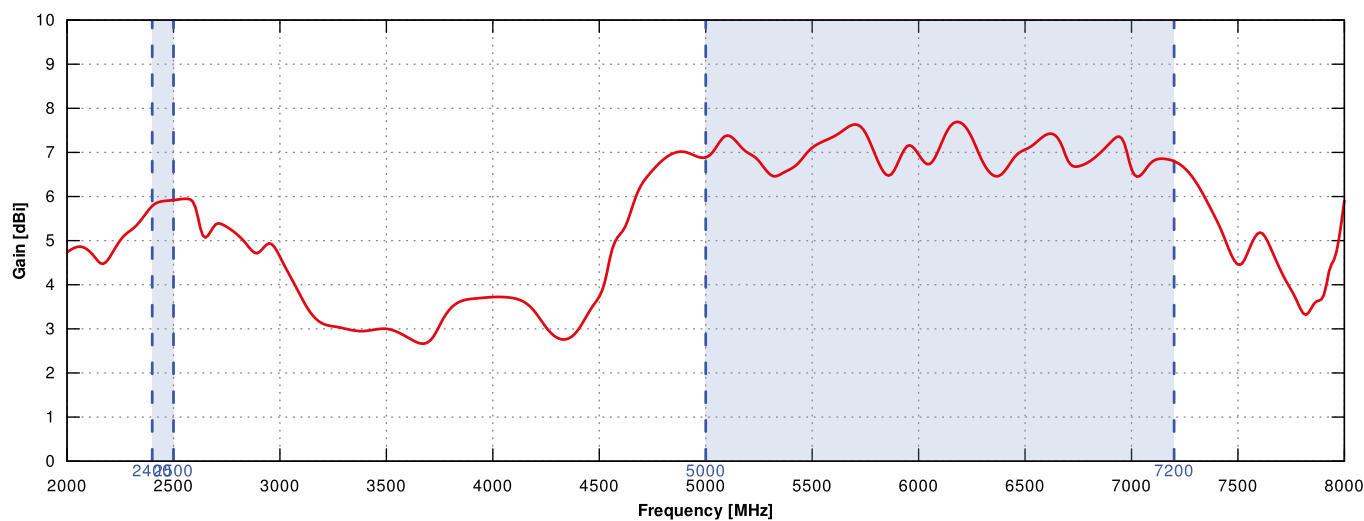
WI-FI VSWR



LTE Gain

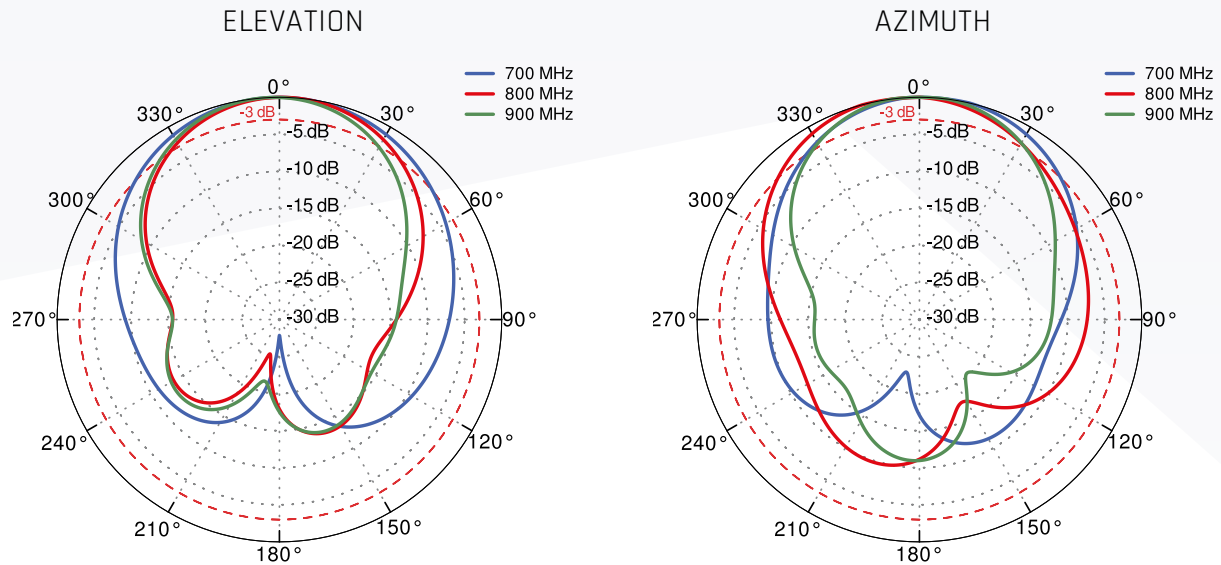


WI-FI Gain

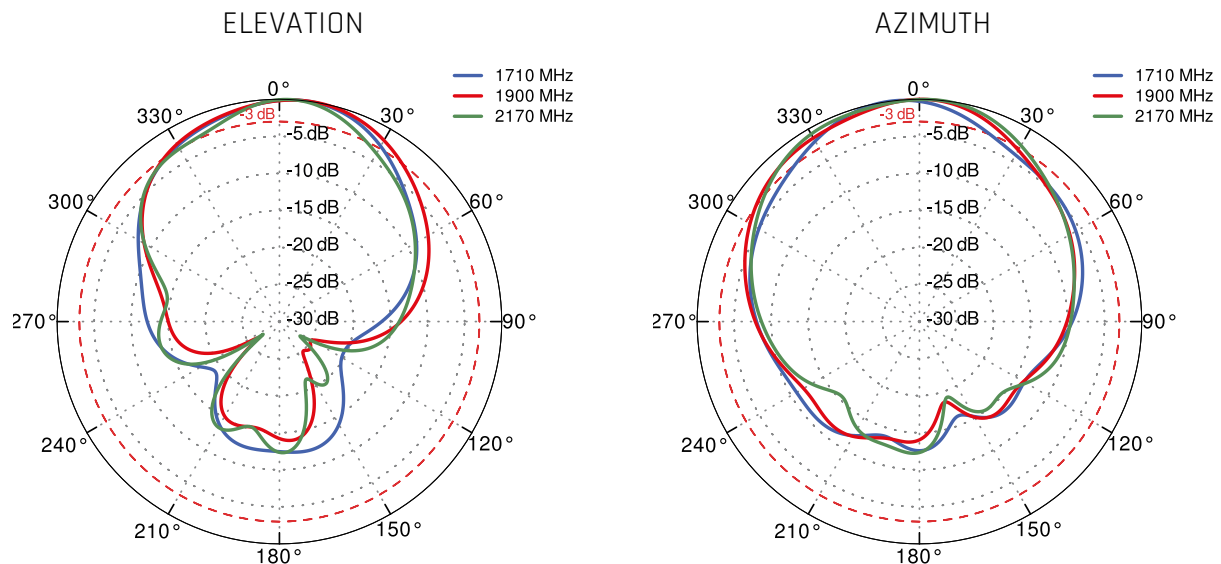




PORT 1 - 5G/LTE from 700MHz to 900MHz

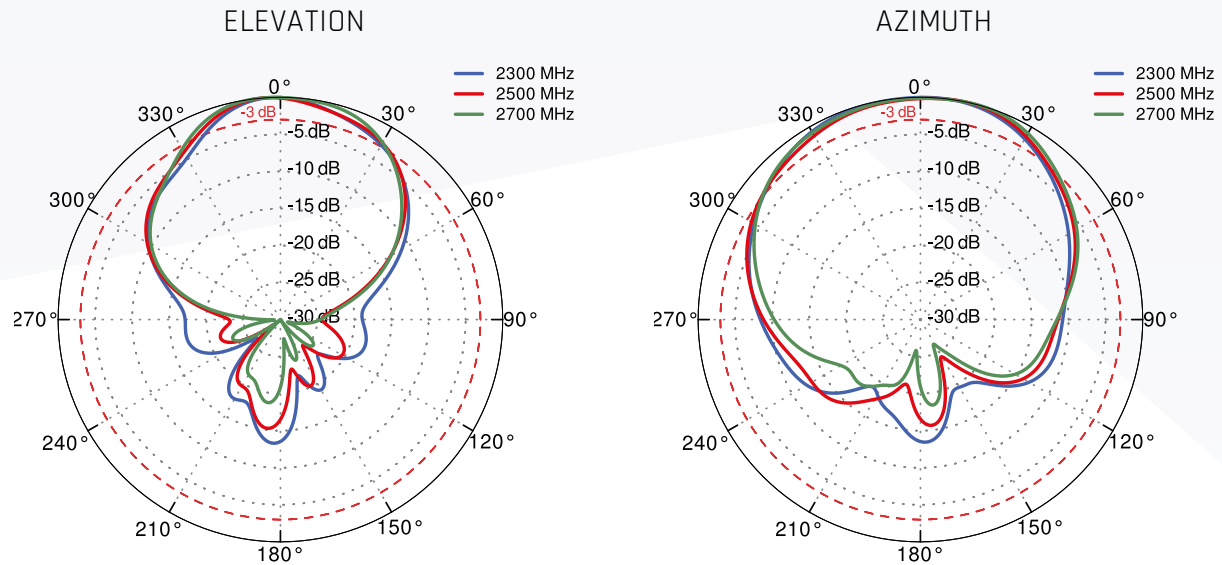


PORT 1 - 5G/LTE from 1.71GHz to 2.17GHz

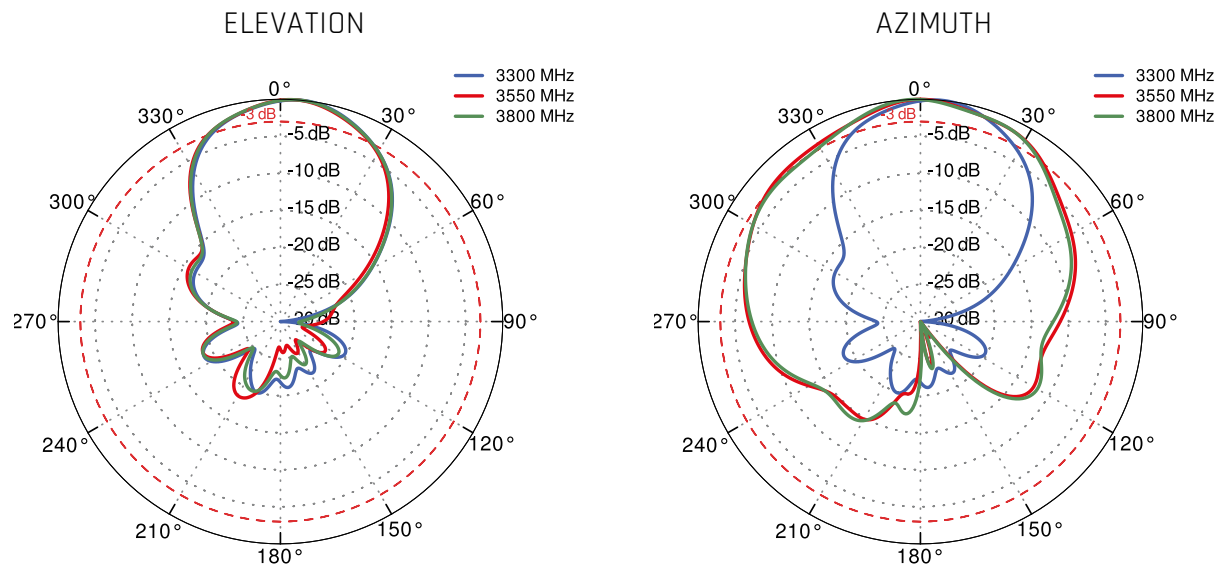




PORT 1 - 5G/LTE from 2.3GHz to 2.7GHz

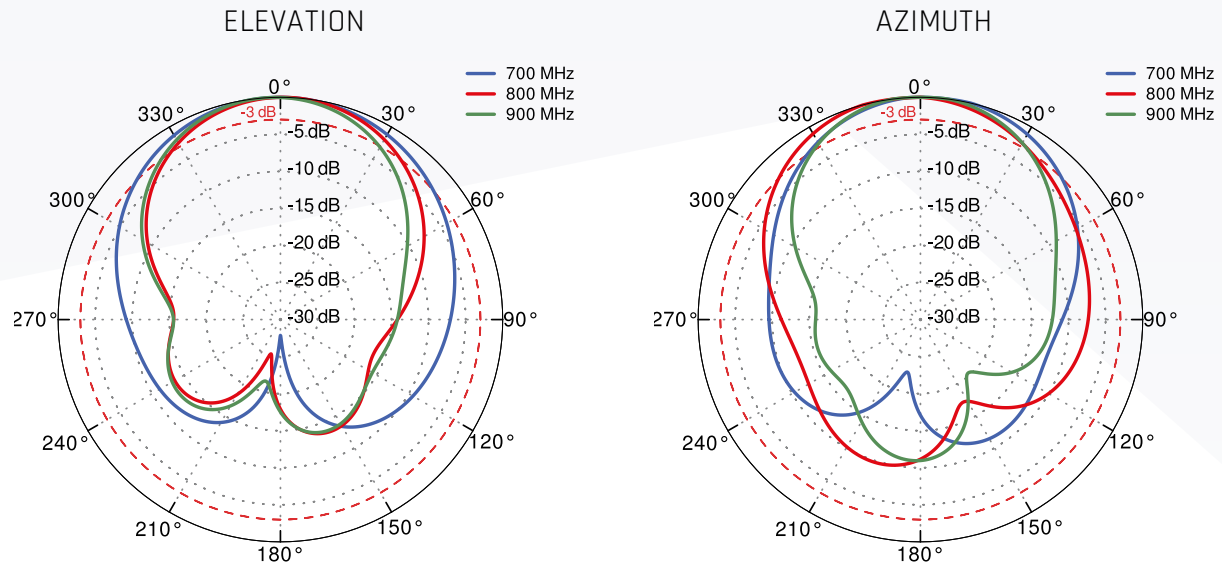


PORT 1 - 5G/LTE from 3.3GHz to 3.8GHz

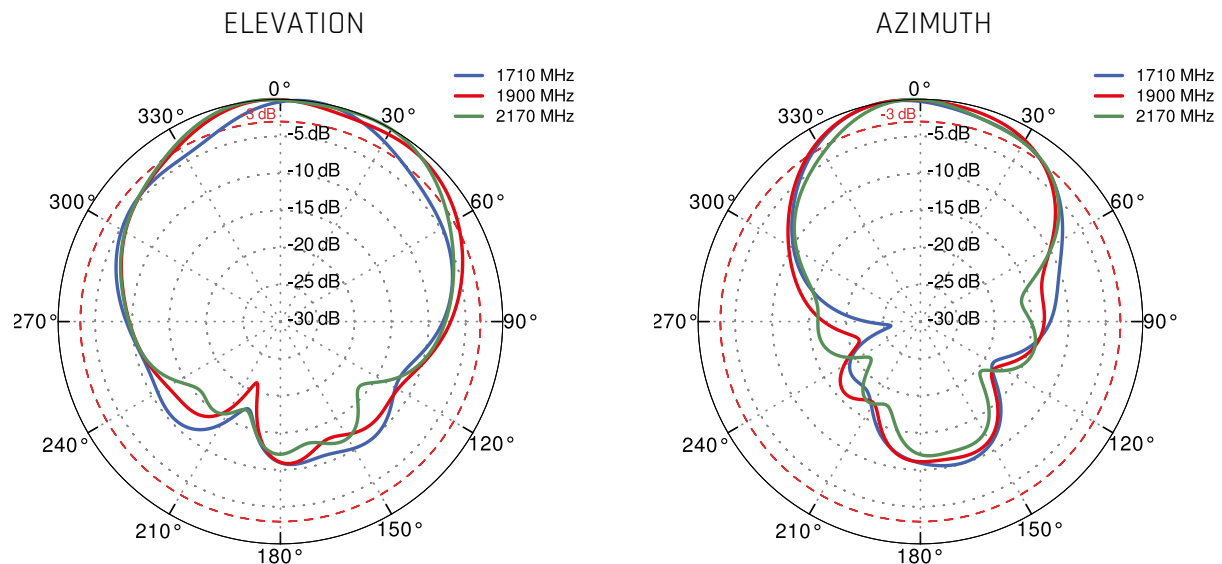




PORT 2 - 5G/LTE from 700MHz to 900MHz

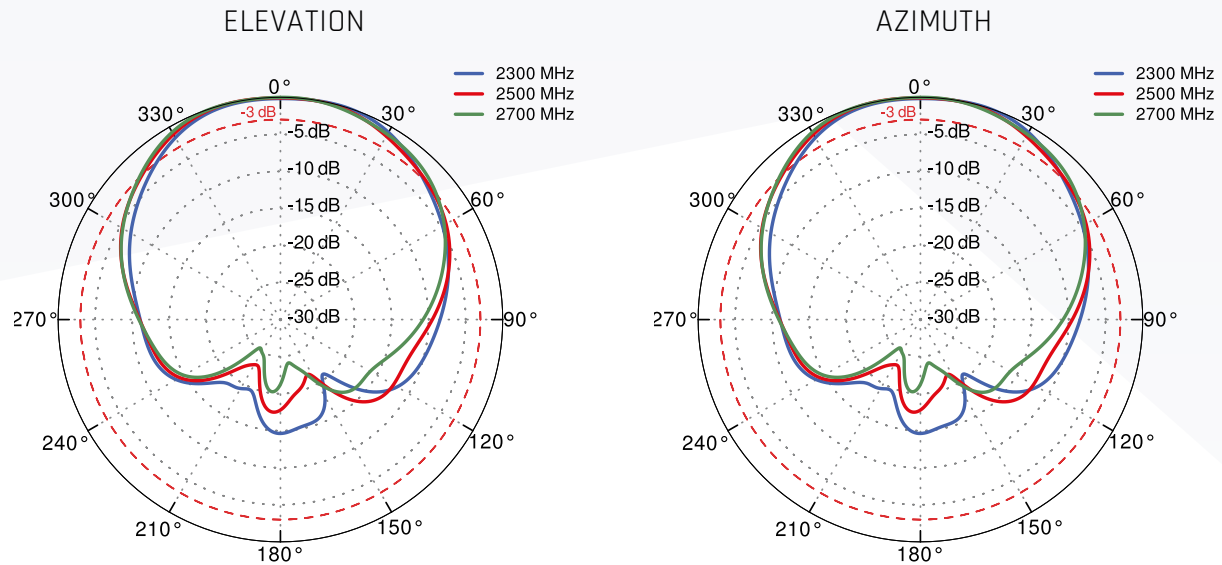


PORT 2 - 5G/LTE from 1.71GHz to 2.17GHz

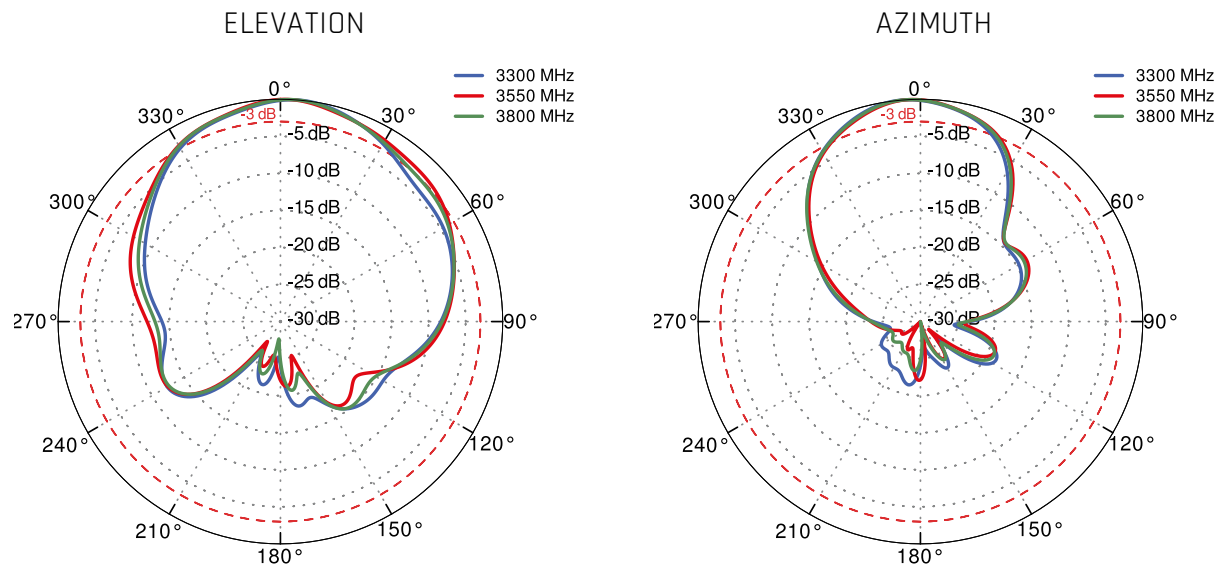




PORT 2 - 5G/LTE from 2.3GHz to 2.7GHz

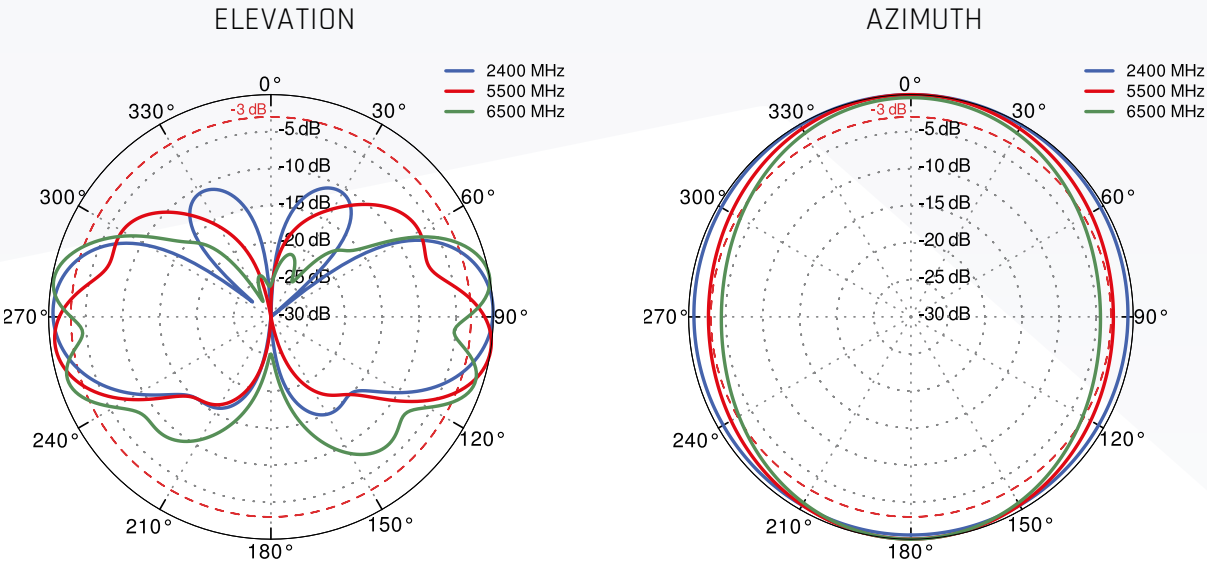


PORT 2 - 5G/LTE from 3.3GHz to 3.8GHz





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					
	☐	☒					

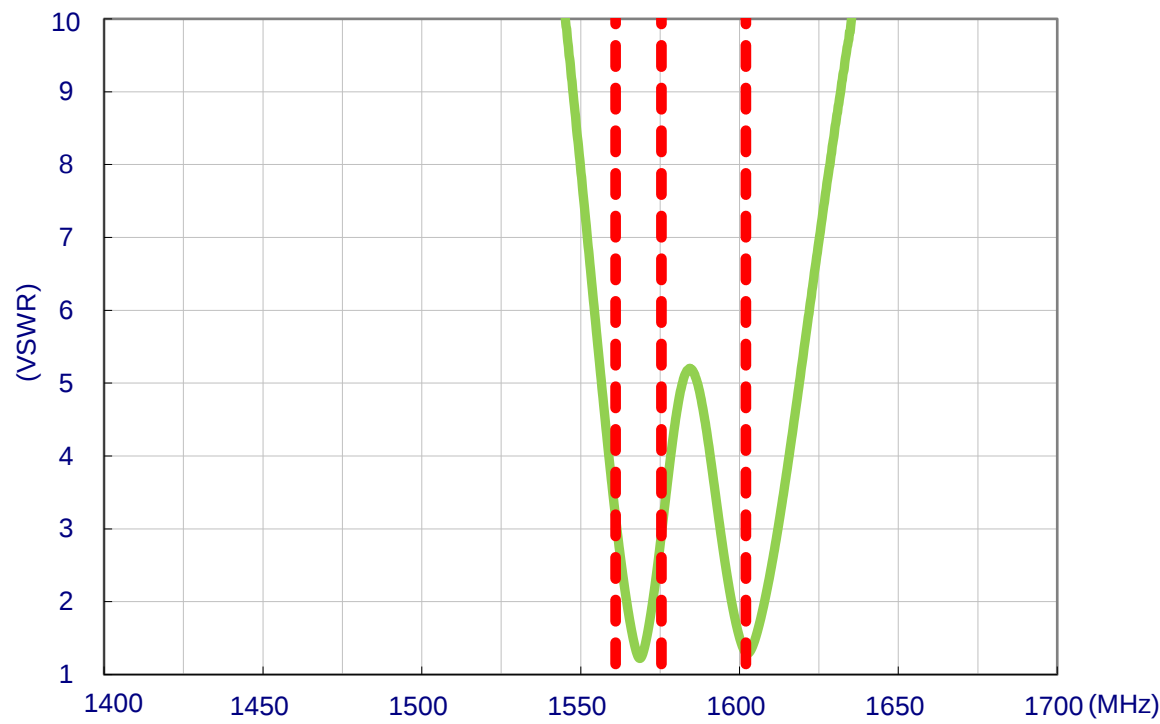
Electrical			
Frequency	BeiDou	GPS/GALILEO	GLONASS
	1561MHz	1575.42MHz	1602MHz
Efficiency (%)	49.8	46.5	60.1
Average Gain (dBi)	-3.03	-3.33	-2.21
Peak Gain (dBi)	2.44	1.72	1.67
Impedance	50Ω		
Polarization	RHCP		



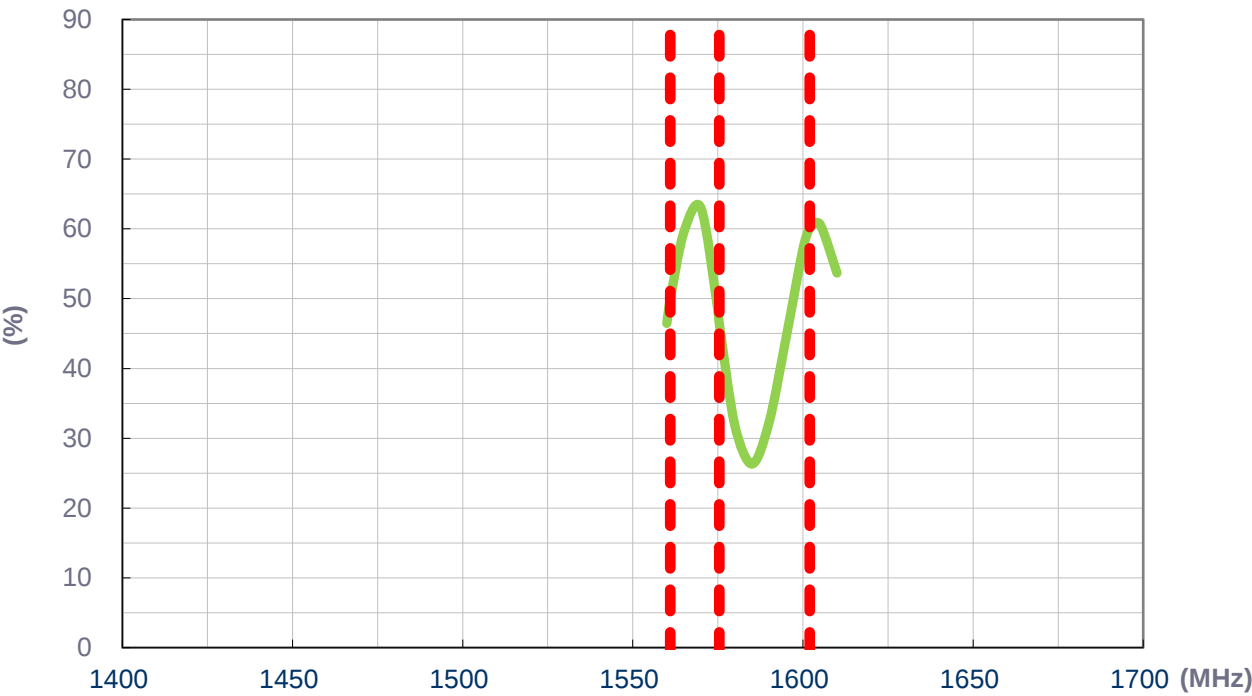
LNA Specification			
Gain (dB)	14.8 ± 1	15.0 ± 1	15.0 ± 1
NF (dB)	2.4 ± 0.2	1.9 ± 0.2	2.2 ± 0.2
Input Voltage	+1.8 to +5 VDC		
Power Consumption	3 to 24.5mA typical		
Out-Of-Band Attenuation (dB)	10-500MHz	> 60	
	500-850MHz	> 40	
	850-1000MHz	> 35	
	1000-1500MHz	> 25	
	1700-2300MHz	> 19	
	2300-5000MHz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

PLOTS

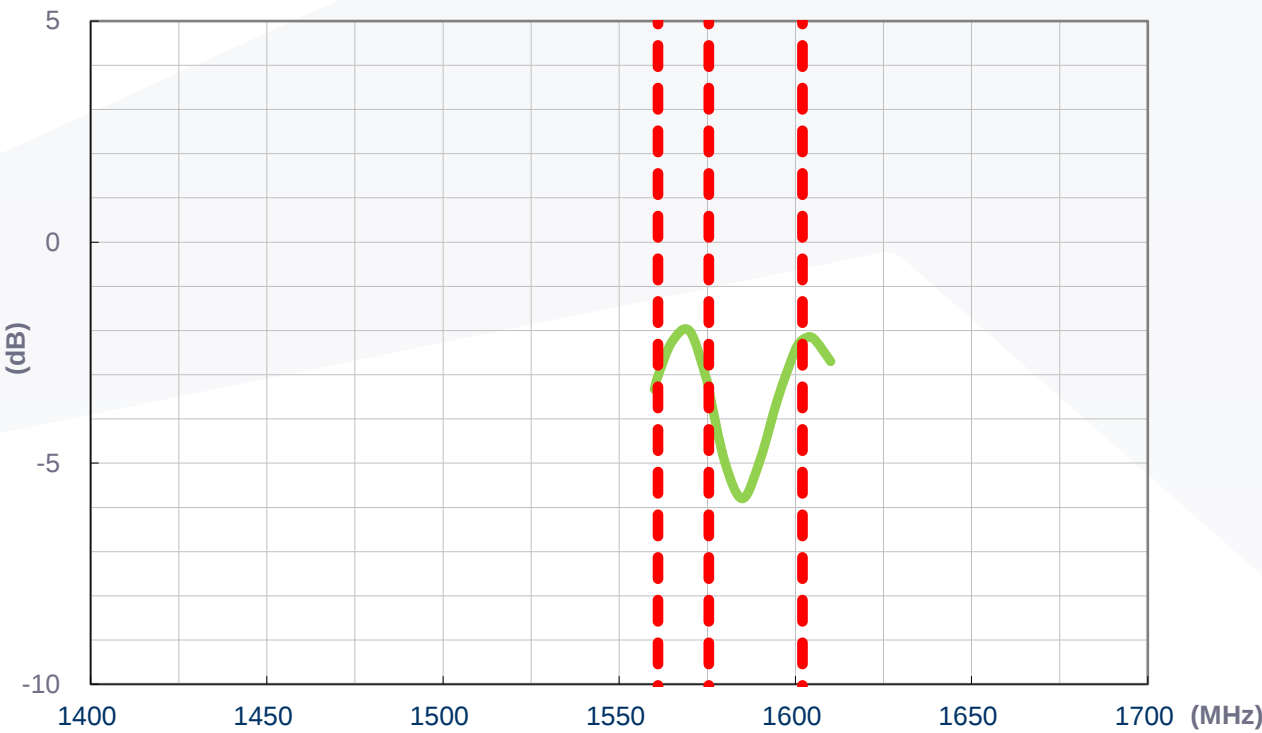
VSWR



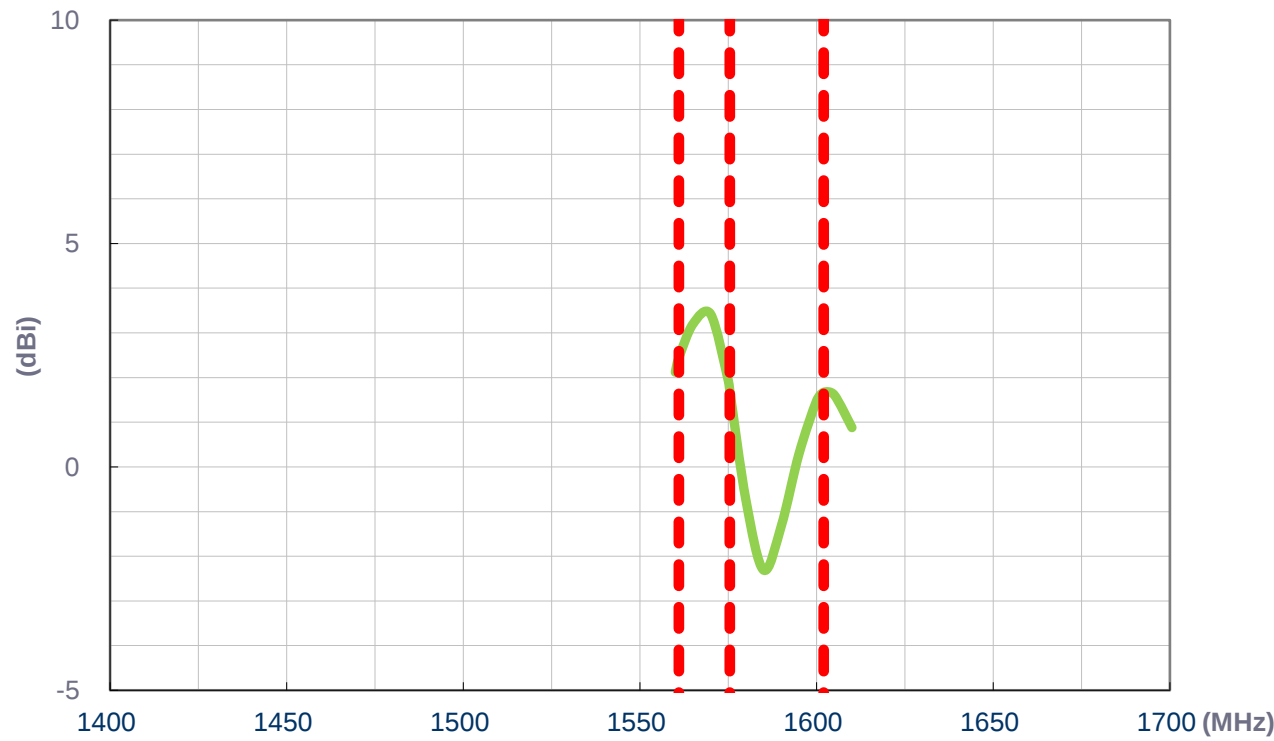
Efficiency



Average Gain



Peak Gain





DIMENSIONS

