TAOGLAS®

THDR70PP

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

Ireland & USA ISO 9001:2015 Certified

Taiwan ISO 9001:2015 Certified

IATF16949

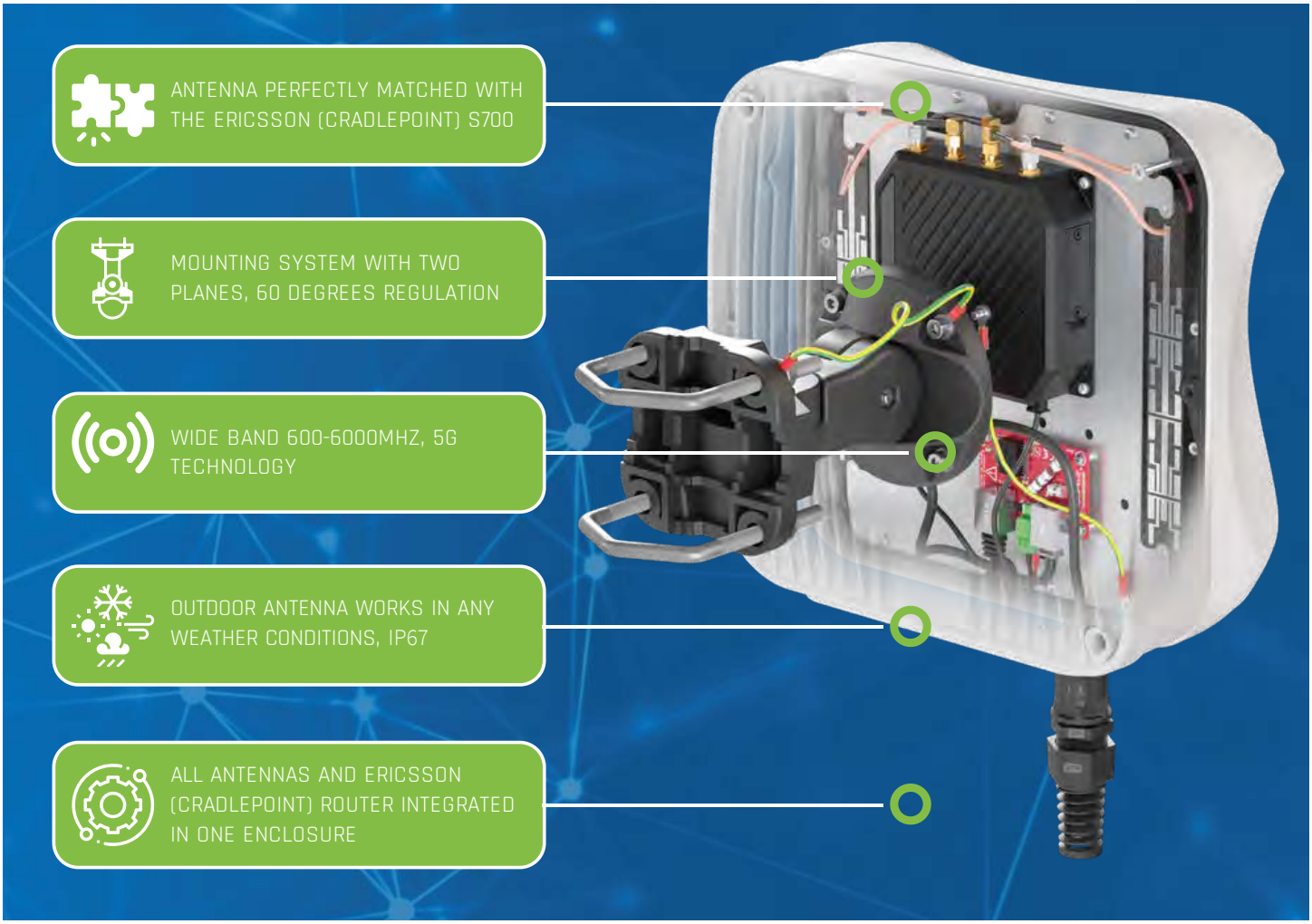
© Taoglas 2025

Thunder Series THDR70PP

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. 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 over-voltage, short circuit or improper connection.



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

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						

6000 MHz

5G

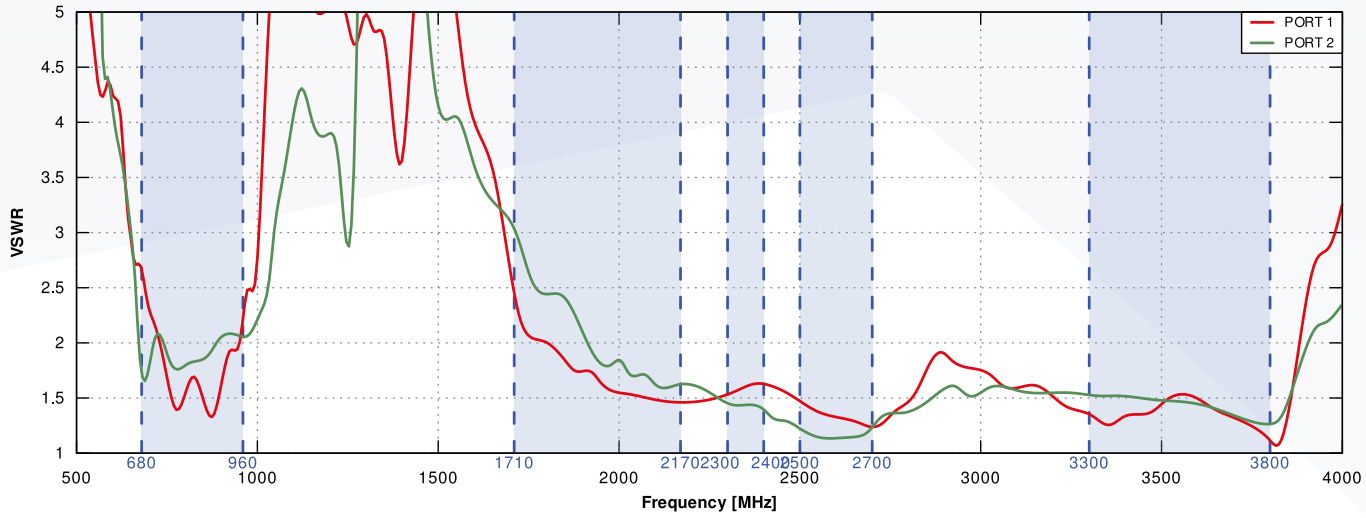
617 MHz

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	n79	n80	n81	n82
n83	n84	n85	n86	n89	n90	n95
n97	n98	n100	n101	n256		

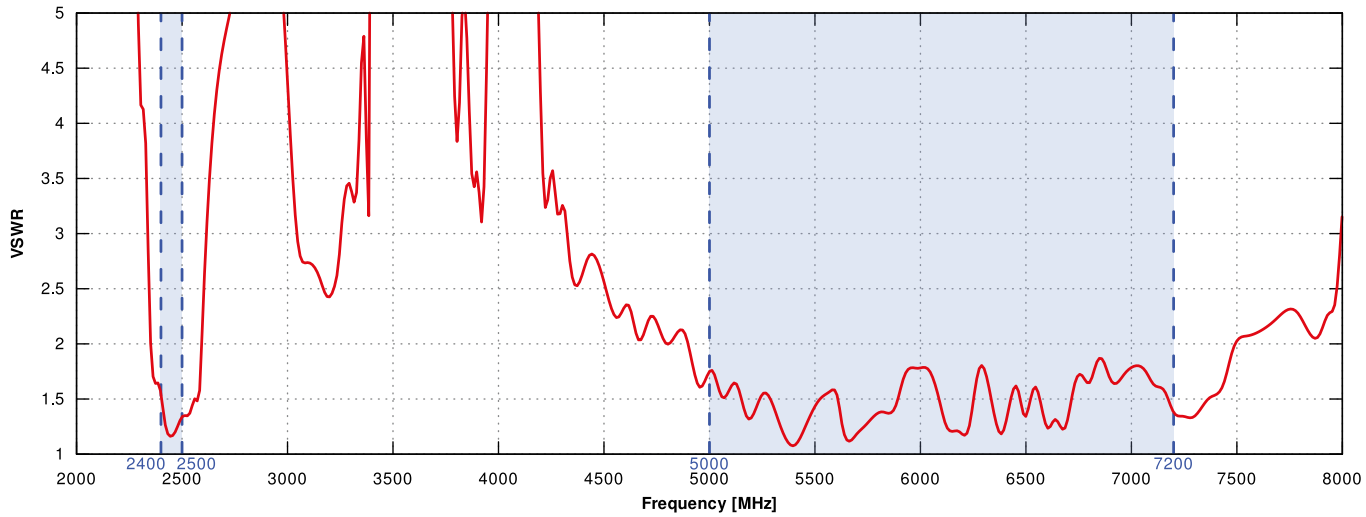
6000 MHz

PLOTS

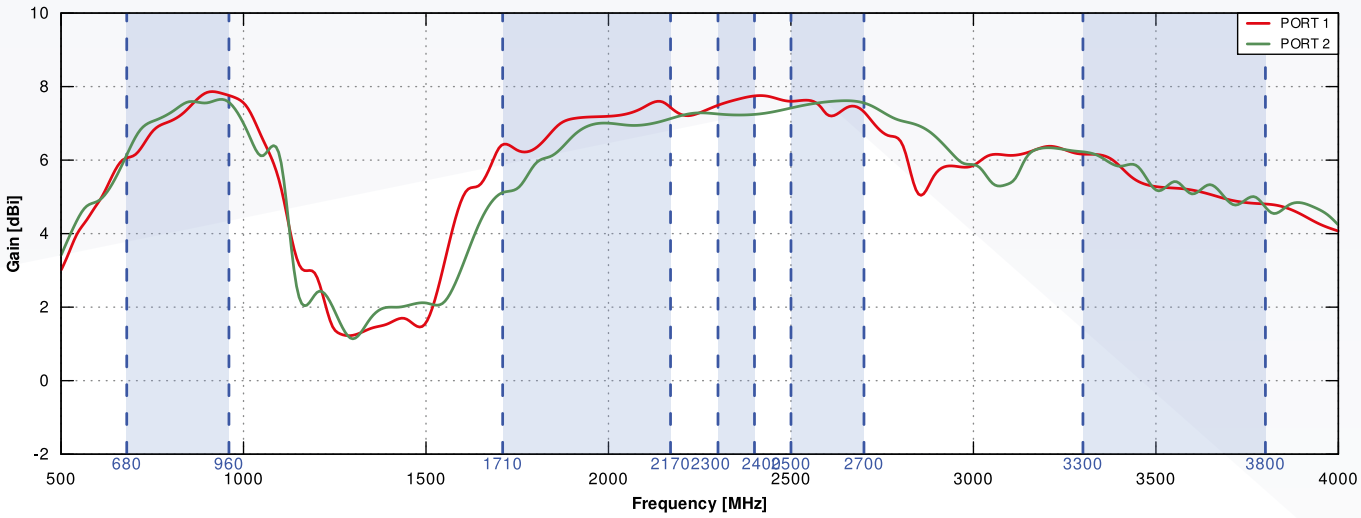
5G/LTE VSWR



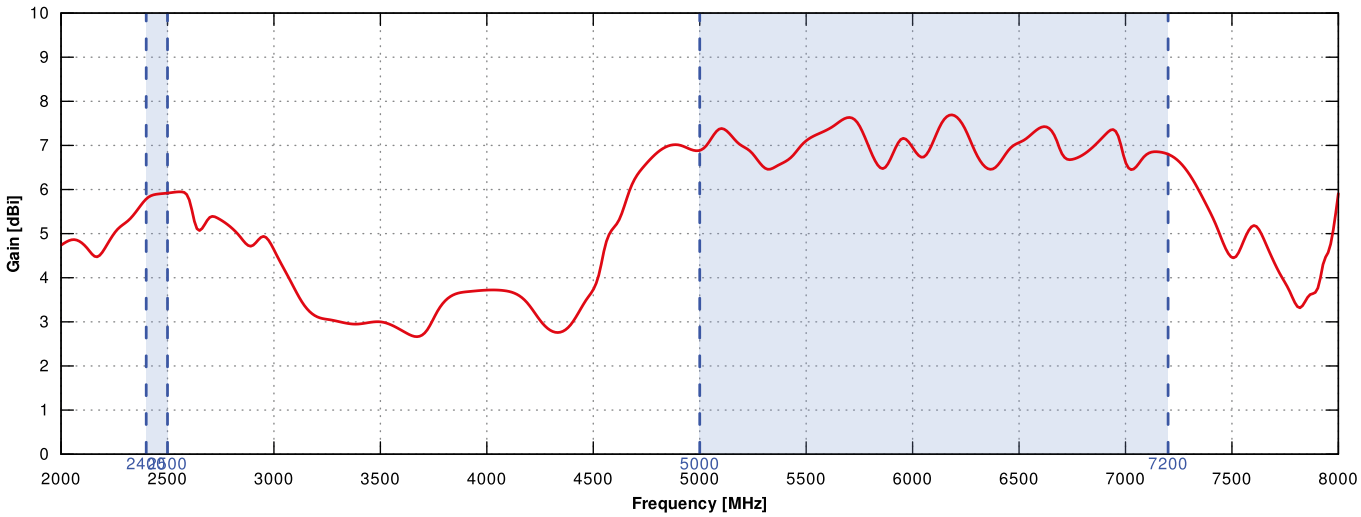
WI-FI VSWR



LTE Gain

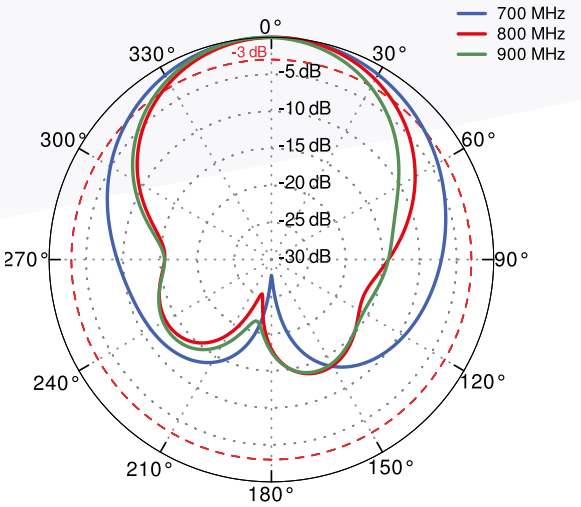


WI-FI Gain

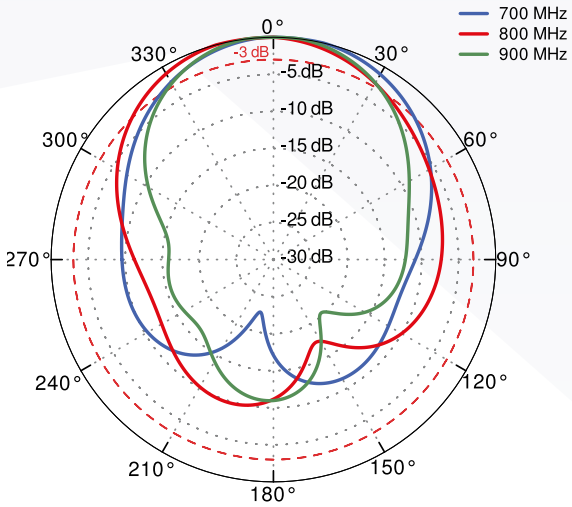


PORT 1 - 5G/LTE from 700MHz to 900MHz

ELEVATION

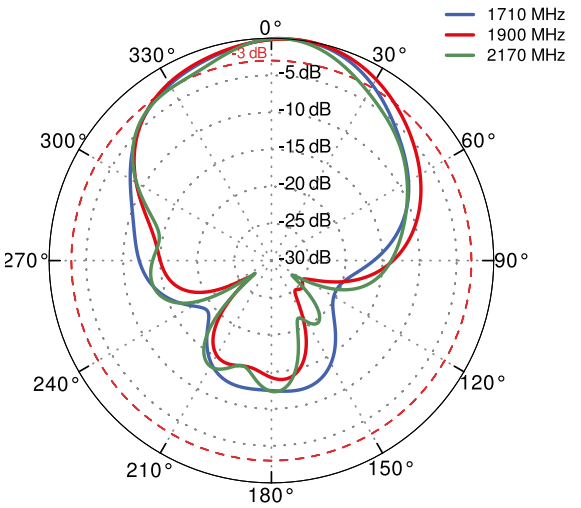


AZIMUTH

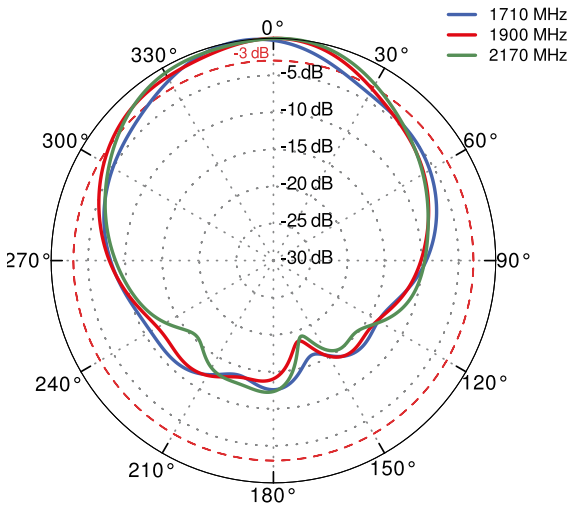


PORT 1 - 5G/LTE from 1.71GHz to 2.17GHz

ELEVATION

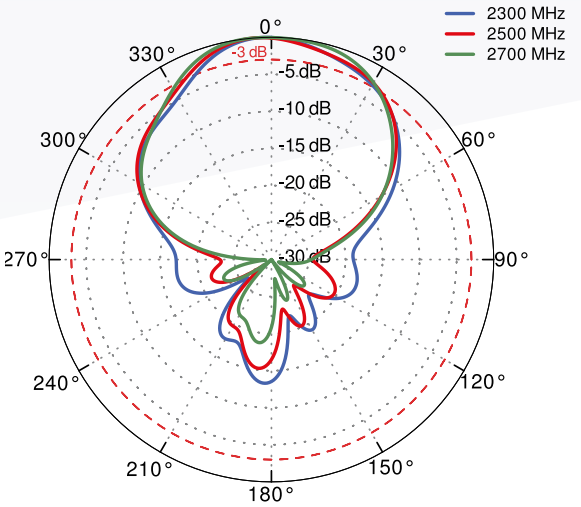


AZIMUTH

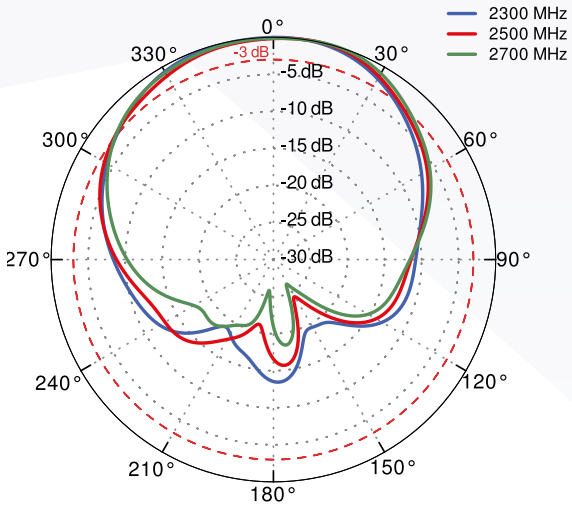


PORT 1 - 5G/LTE from 2.3GHz to 2.7GHz

ELEVATION

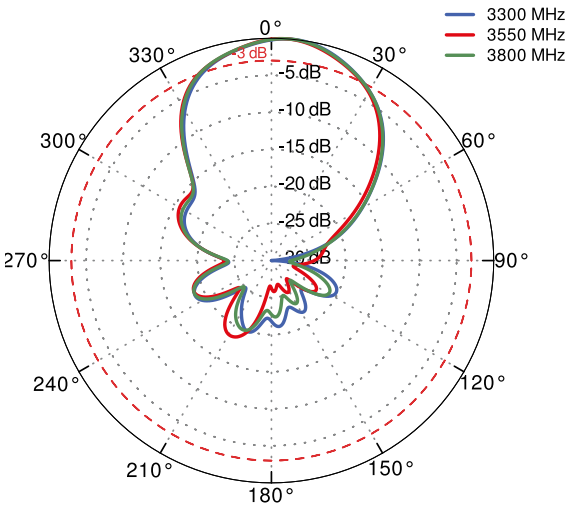


AZIMUTH

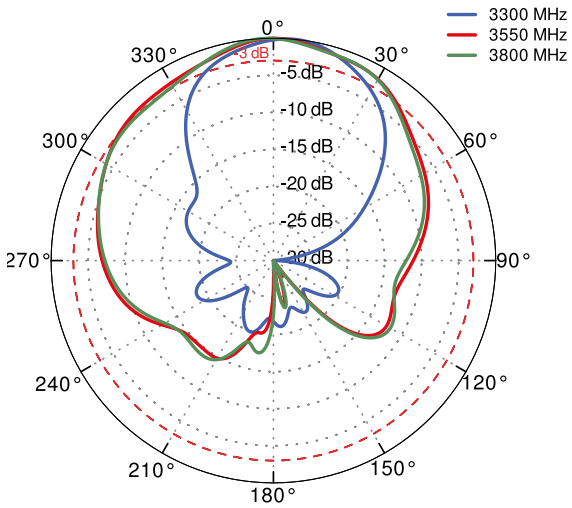


PORT 1 - 5G/LTE from 3.3GHz to 3.8GHz

ELEVATION

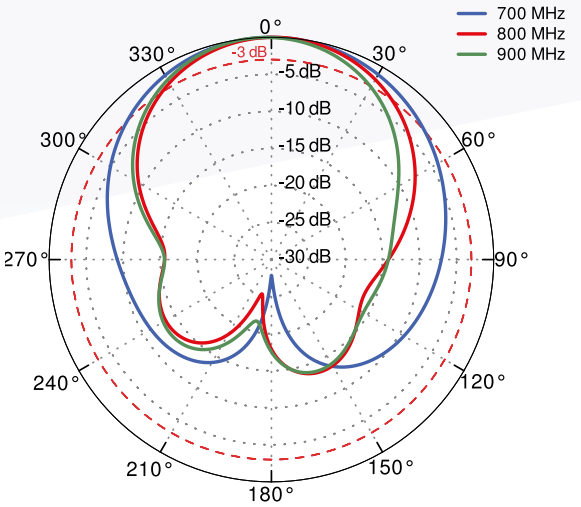


AZIMUTH

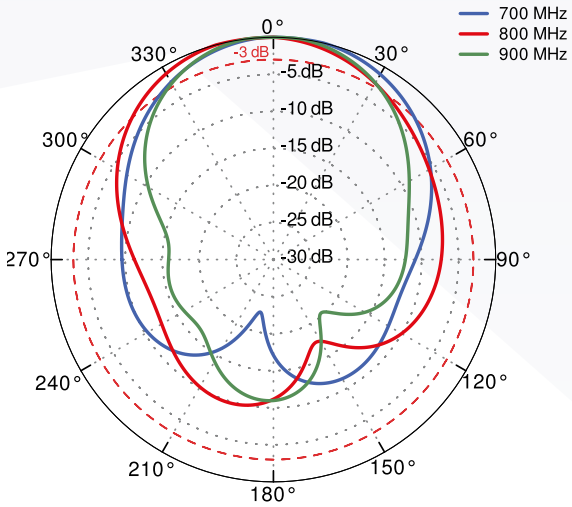


PORT 2 - 5G/LTE from 700MHz to 900MHz

ELEVATION

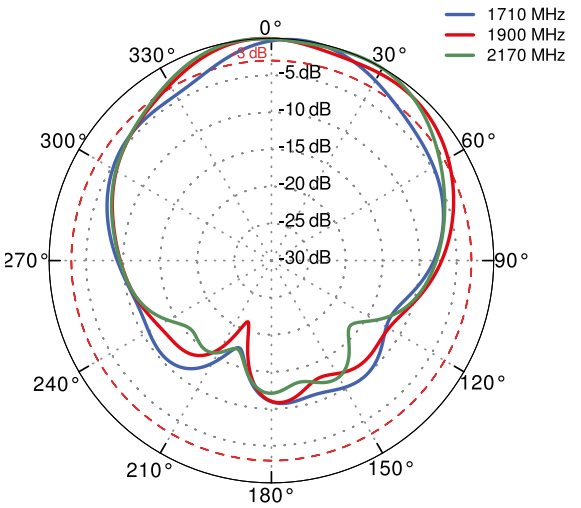


AZIMUTH

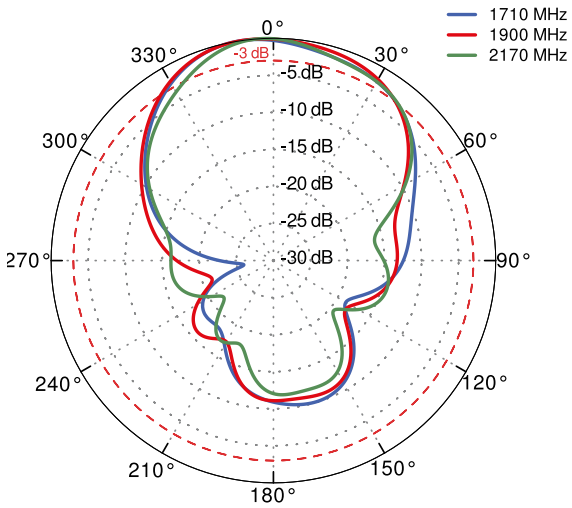


PORT 2 - 5G/LTE from 1.71GHz to 2.17GHz

ELEVATION

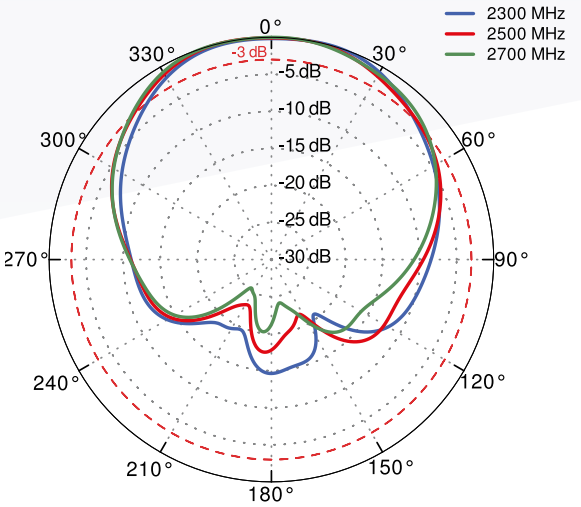


AZIMUTH

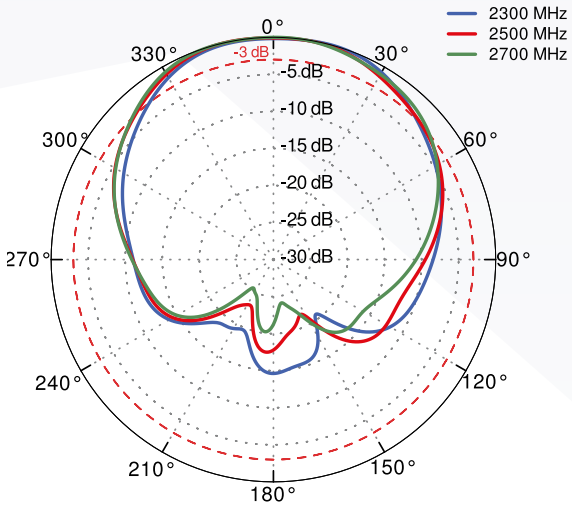


PORT 2 - 5G/LTE from 2.3GHz to 2.7GHz

ELEVATION

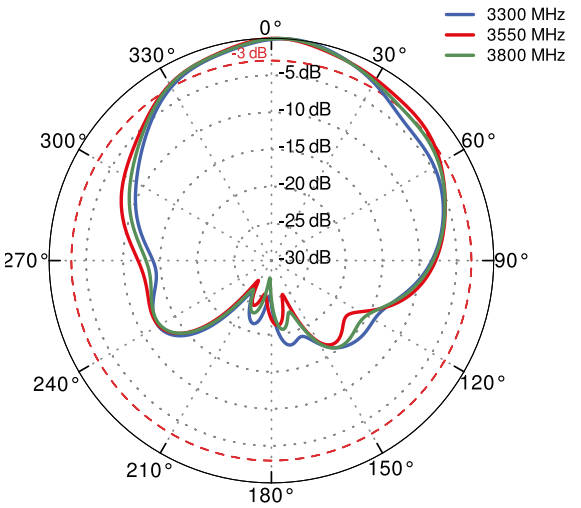


AZIMUTH

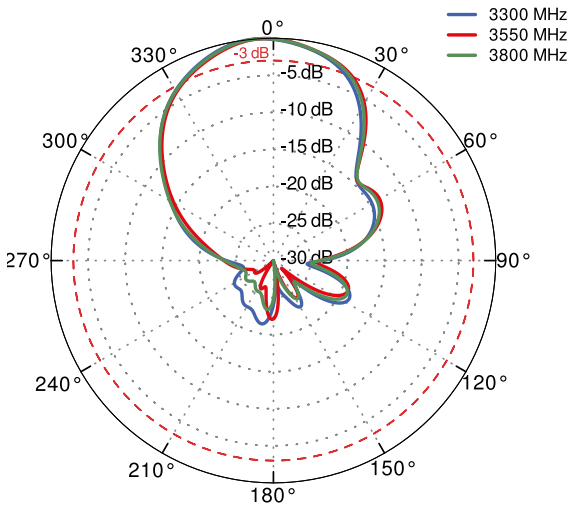


PORT 2 - 5G/LTE from 3.3GHz to 3.8GHz

ELEVATION

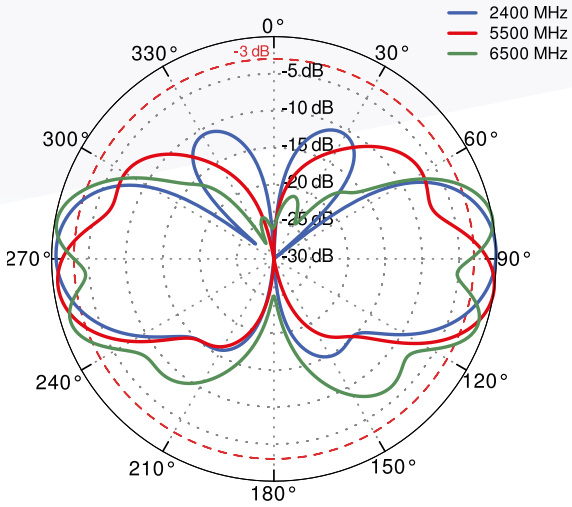


AZIMUTH

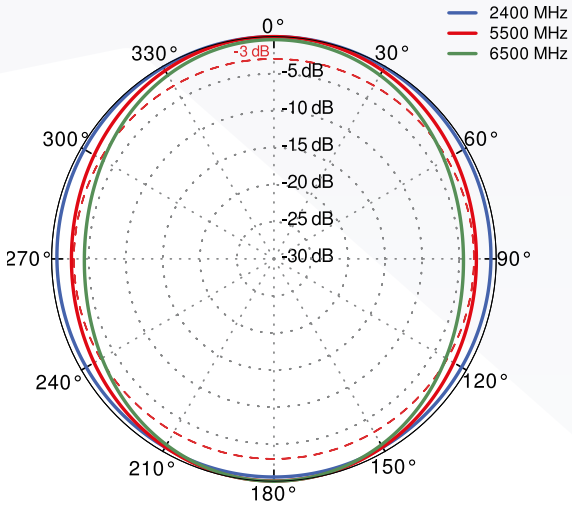


Wi-Fi From 2.4 GHz to 6.5 GHz

ELEVATION



AZIMUTH



GNSS Specifications

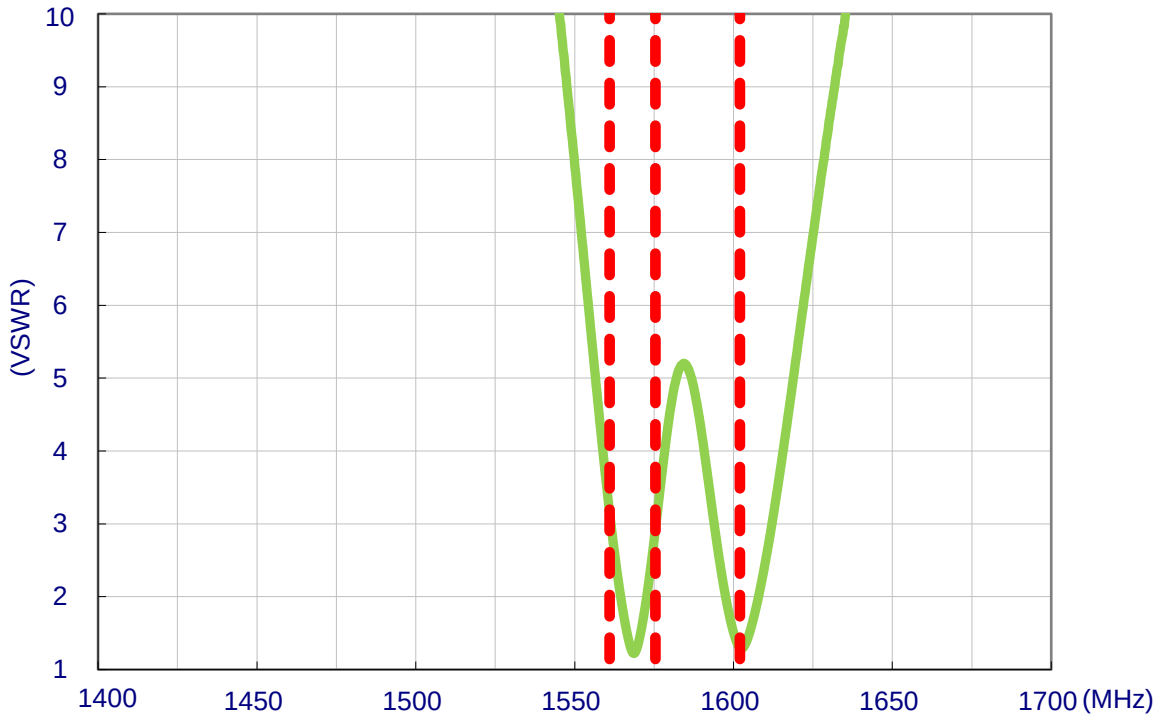
GNSS Frequency Band							
GPS/QZSS	L1 1575.42MHz	L2 1227.6MHz	L5 1176.45MHz	L6 1278.75MHz			
	☑	☐	☐	☐			
GLONASS	L5R 1176.45MHz	L3PT 1201.5MHz	L2PT 1246MHz	L1CR 1575.42MHz	L1PT 1602MHz		
	☐	☐	☐	☑	☑		
Galileo	E5a 1176.45MHz	E5b 1201.5MHz	E4 1215MHz	E3 1256MHz	E6 1278.75MHz	E2 1561MHz	E1 1575.42MHz
	☐	☐	☐	☐	☐	☐	☑
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		

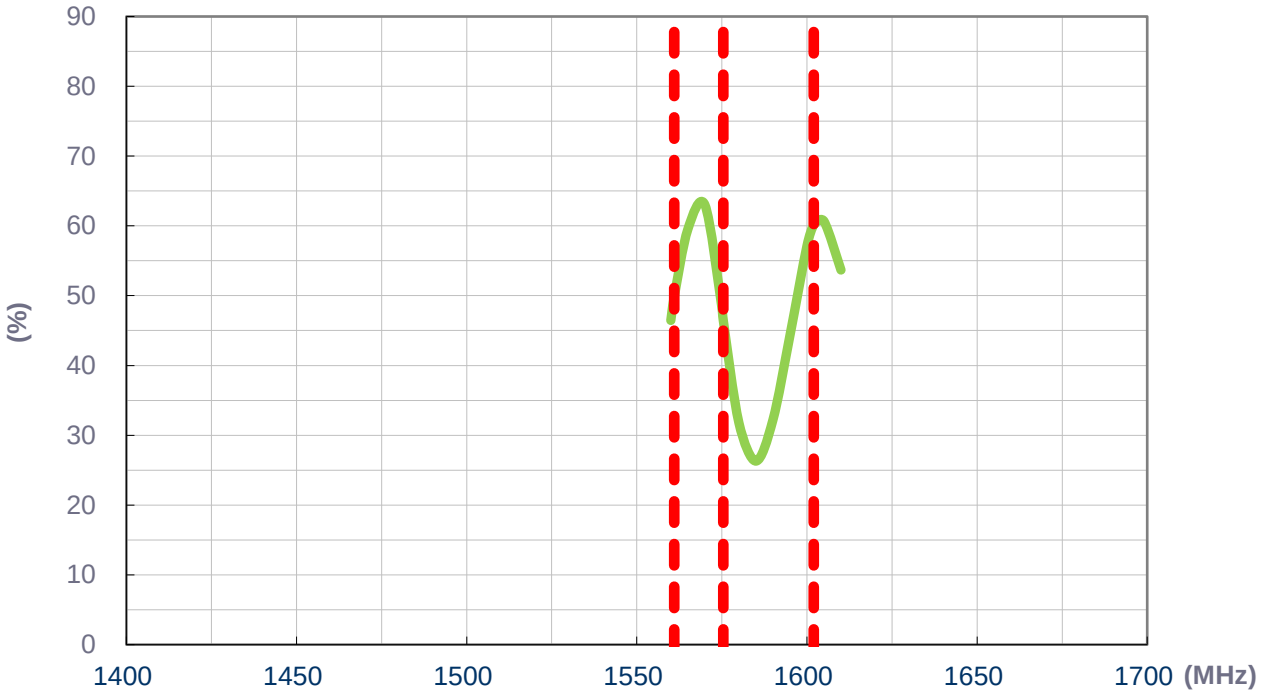
LNA Specification			
Gain (dB)	14.8 ± 1	15.0 ± 1	15.0 ± 1
NF (dB)	2.4 ± 0.2	1.9 ± 0.2	2.2 ± 0.2
Input Voltage	+1.8 to +5 VDC		
Power Consumption	3 to 24.5mA typical		
Out-Of-Band Attenuation (dB)	10-500MHz	> 60	
	500-850MHz	> 40	
	850-1000MHz	> 35	
	1000-1500MHz	> 25	
	1700-2300MHz	> 19	
	2300-5000MHz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

PLOTS

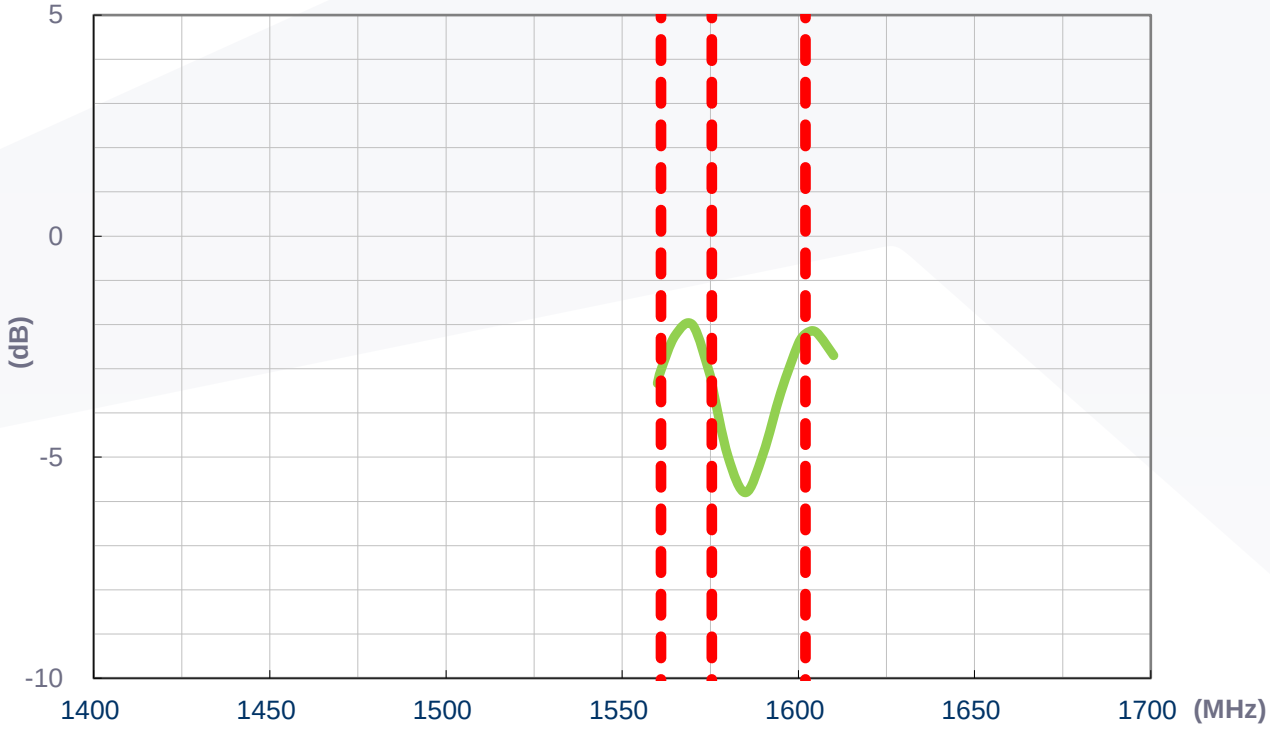
VSWR



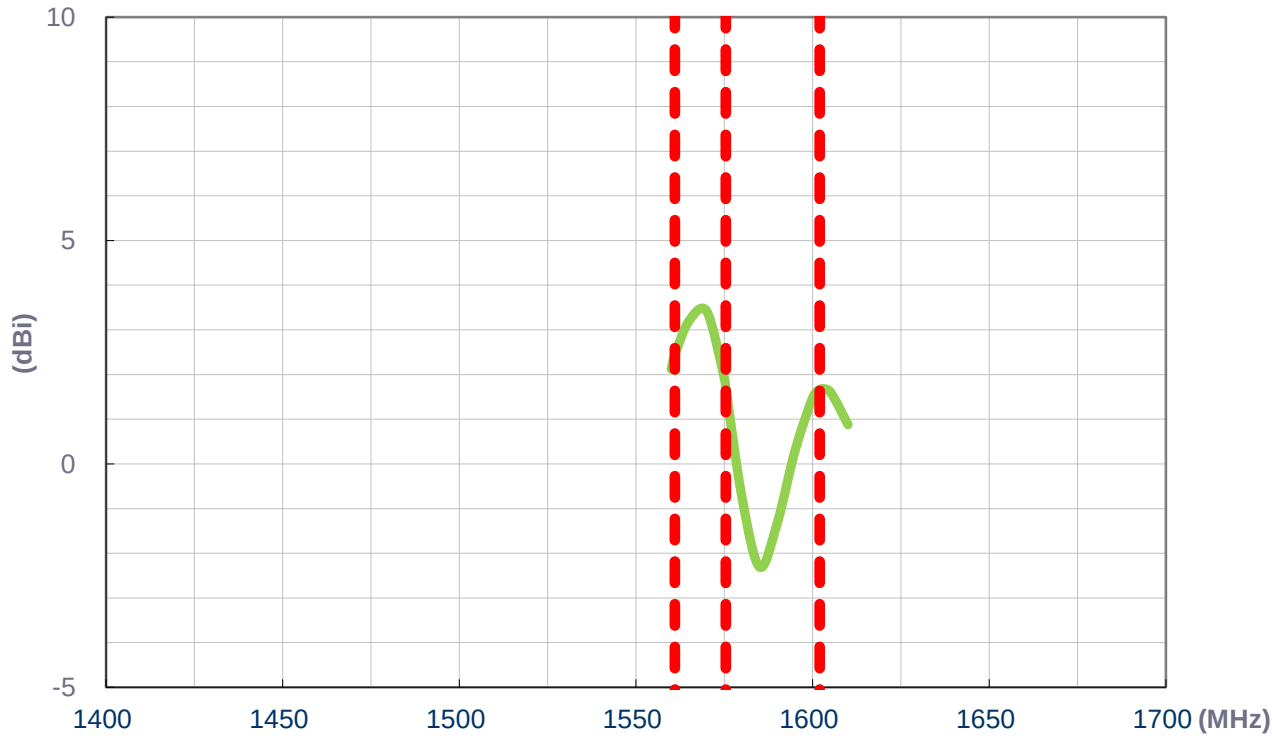
Efficiency



Average Gain



Peak Gain



DIMENSIONS