



THDR19

Thunder Series

Integrated 5G/LTE Directional Antenna
for Ericsson (Cradlepoint) R1900

- Integrated Multi-band 5G Directional MIMO Antennas
- Cavity to install Ericsson R1900 Router
- Robust, IP67 Rated Enclosure

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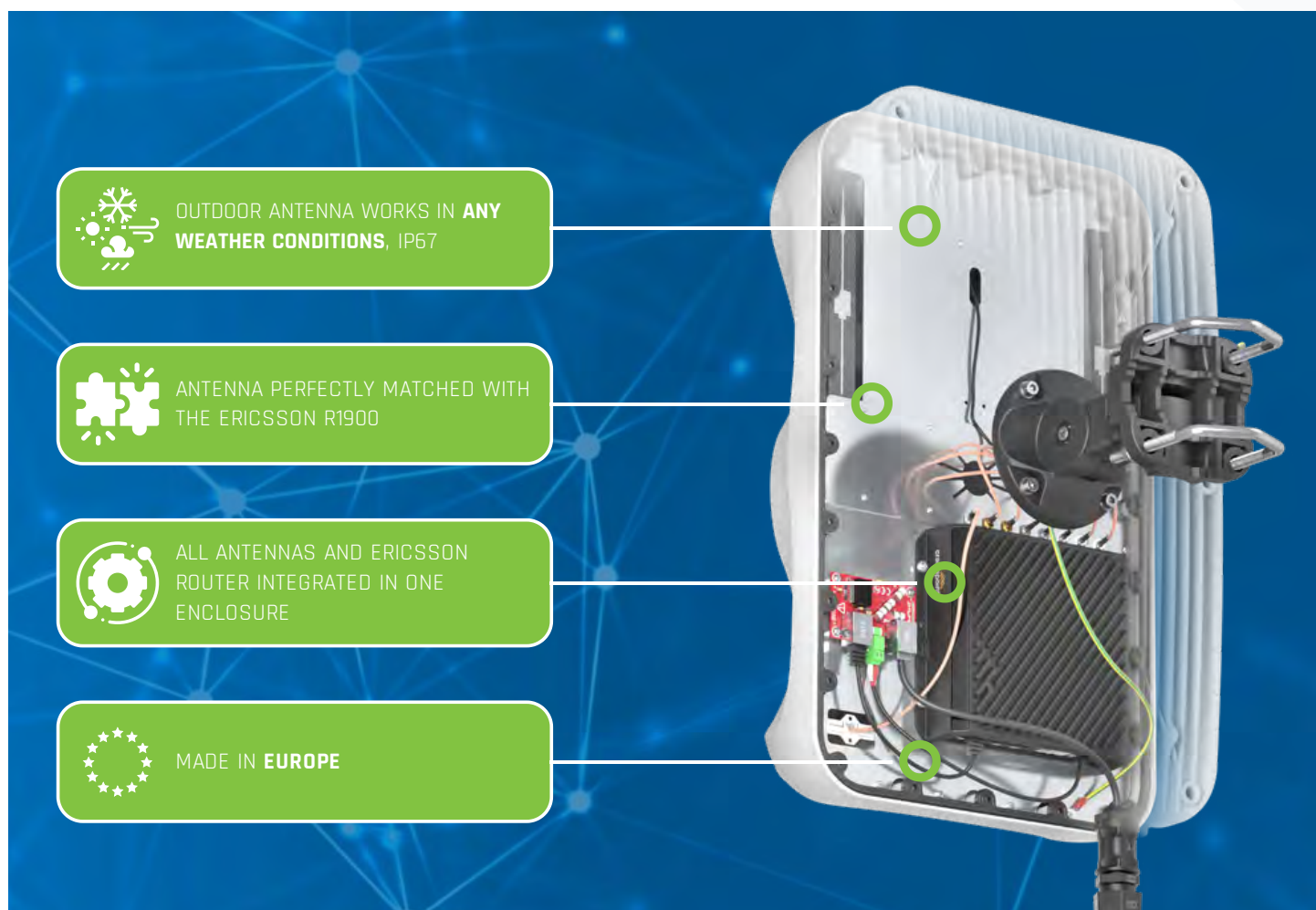


Thunder Series THDR19

Integrated Directional Antenna for Ericsson R1900

INTEGRATED MULTI-BAND 5G DIRECTIONAL ANTENNA + WI-FI OMNI ANTENNA + BLUETOOTH ANTENNA + GNSS ANTENNA + PLACE TO INSTALL ERICSSON R1900 (ALL-IN-ONE)

The Taoglas **THDR19** Integrated Directional all-in-one antenna for Ericsson R1900 routers is ideal for connections over long distances to base station. It has embedded directional 5G, Wi-Fi®, Bluetooth®, and GNSS antennas. If you use the Ericsson R1900 router with the THDR19 Thunder Integrated Directional antenna, you get a complete integrated solution with embedded router and multi-band antennas in one enclosure. It is the first choice for fixed installations in industrial environment.





5G/LTE SPECIFICATION

FREQUENCY	617 - 960 MHz 1.7 - 2.7 GHz 3.3 - 4.6 GHz 4.7 - 6.0 GHz
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
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
VSWR	<2.00, max <3.00
BEAMWIDTH	80°/80° ±15°
POLARIZATION	Vertical
IMPEDANCE	50 Ω



WI-FI 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° +/- 5°
POLARIZATION	Vertical
IMPEDANCE	50 Ω

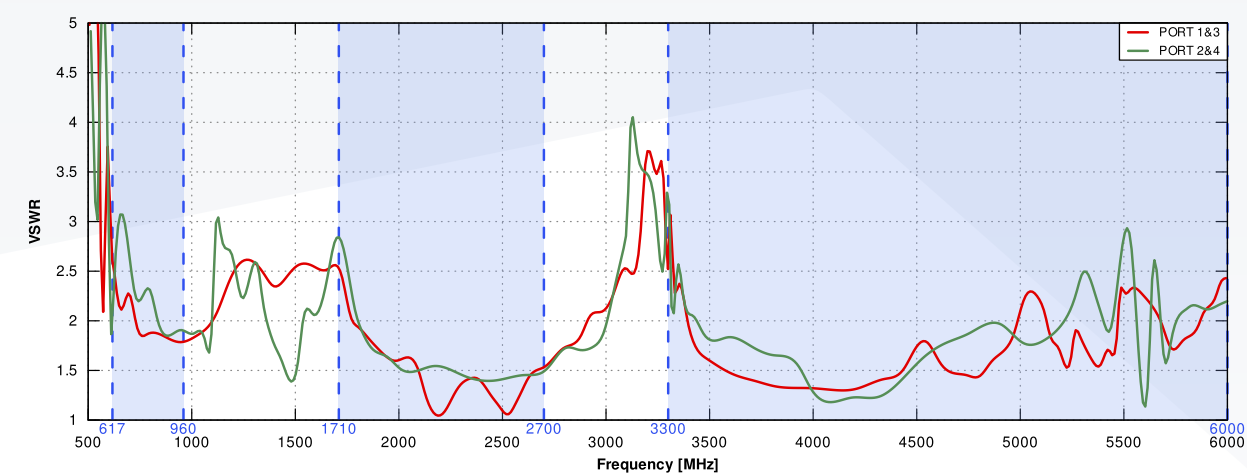
MECHANICAL SPECIFICATION

MATERIAL	ABS, aluminum, PTFE, Fiberglass
INGRESS PROTECTION	IP67
CONNECTOR TYPE	RJ45
DIMENSIONS	486.0 x 292.2 x 210 mm 19.13 x 11.50 x 8.27 inch
WEIGHT	1.8 kg 3.97 lbs
OPERATING TEMPERATURE	From -40°C to 75°C From -40°F to 167°F

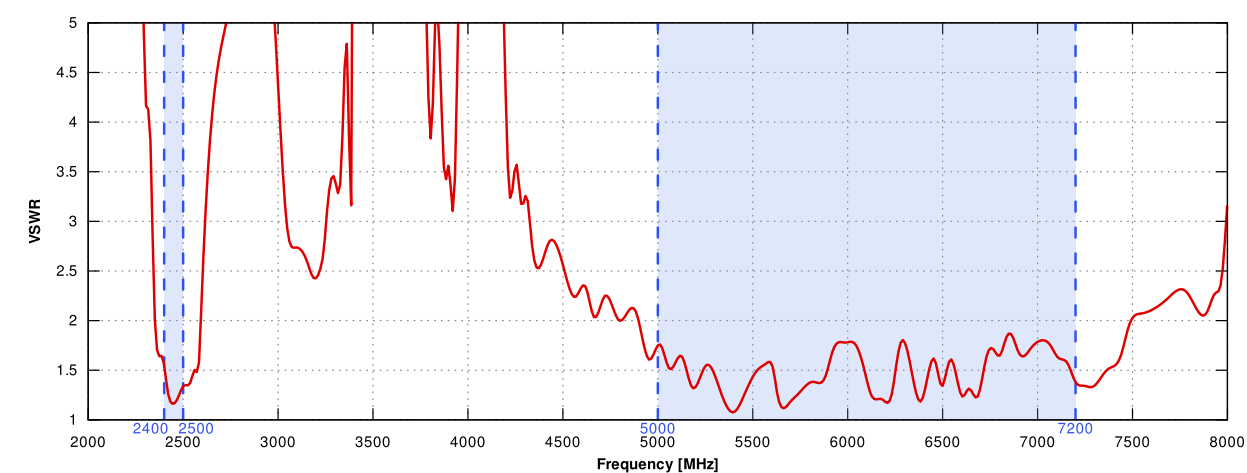


PLOTS

VSWR for 5G/LTE antenna

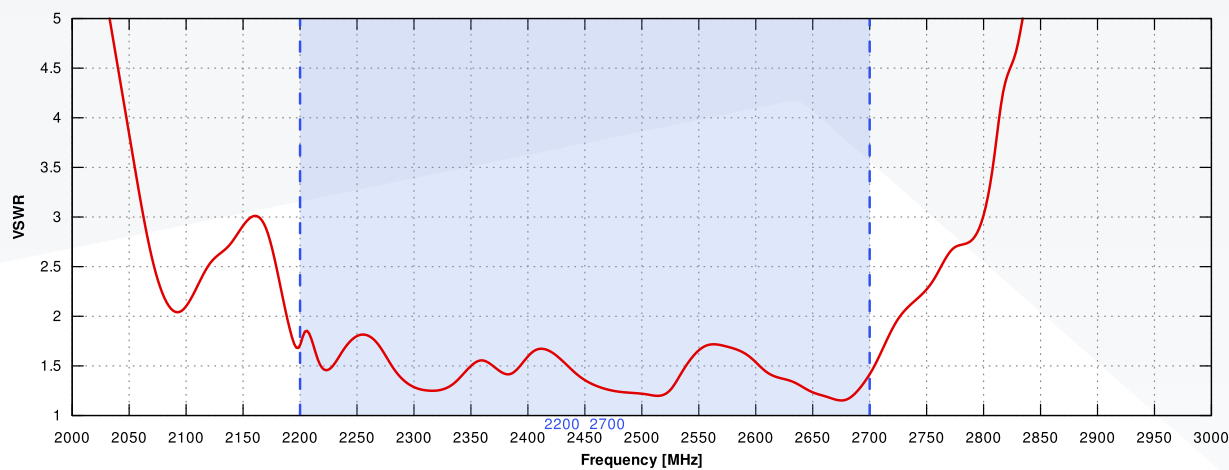


VSWR for Wi-Fi antenna

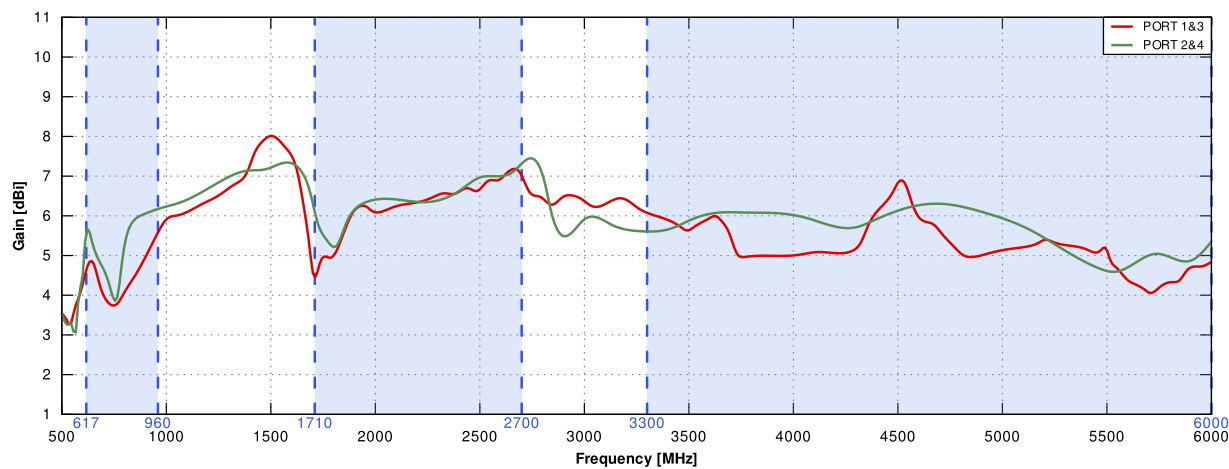




VSWR for Bluetooth antenna

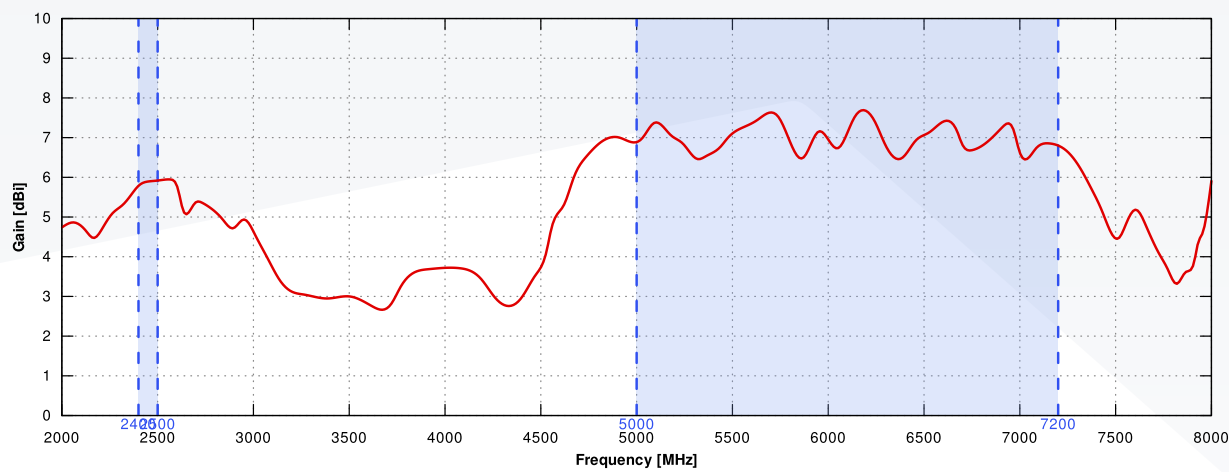


Gain for 5G/LTE antenna

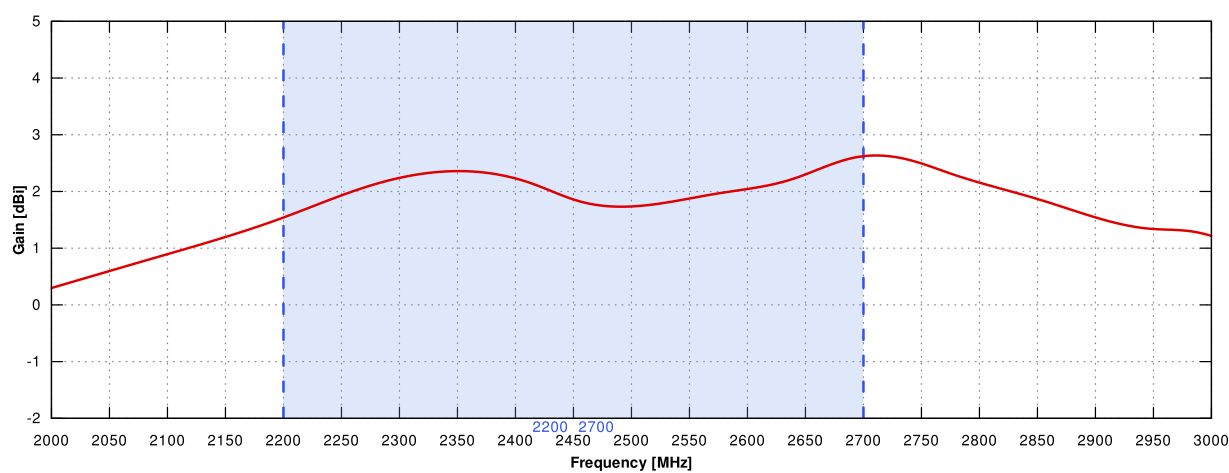




Gain for Wi-Fi antenna

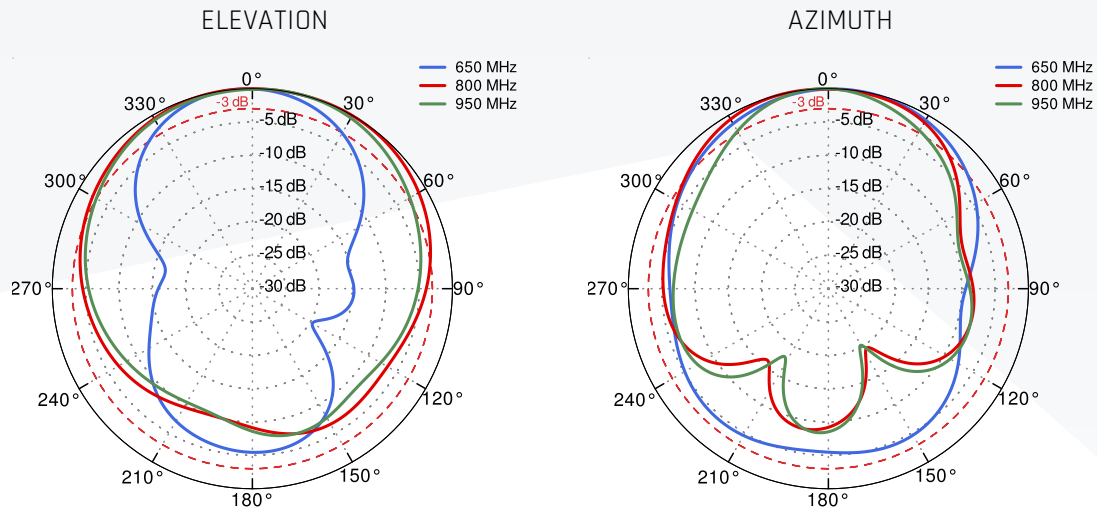


Gain for Bluetooth antenna

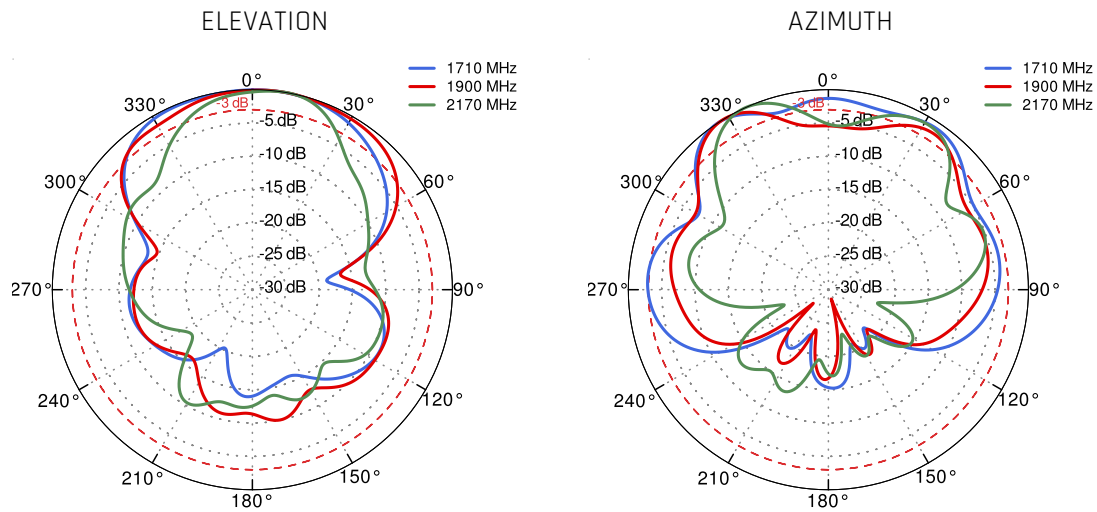




5G/LTE Port 1/3 from 650MHz to 950MHz

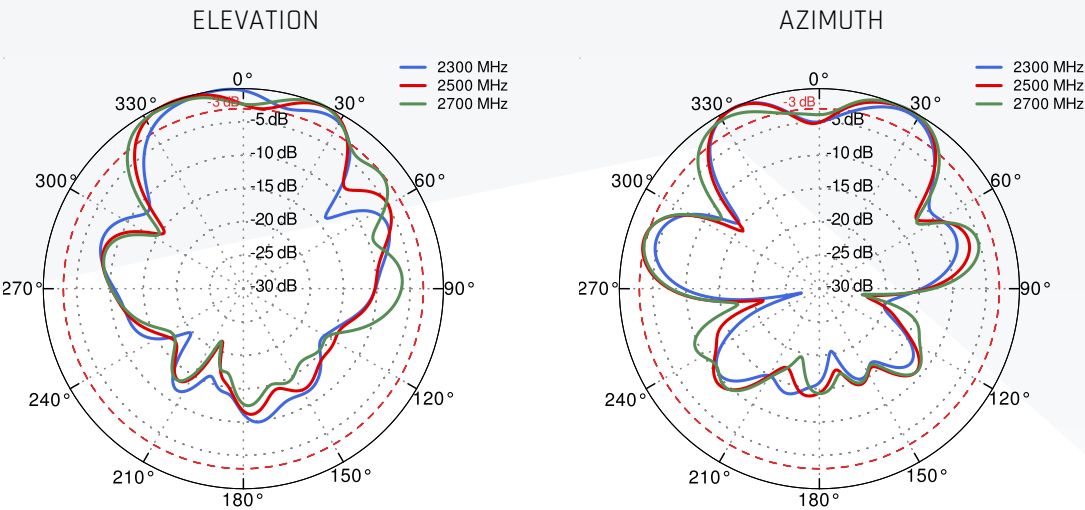


5G/LTE Port 1/3 from 1.71GHz to 2.17GHz

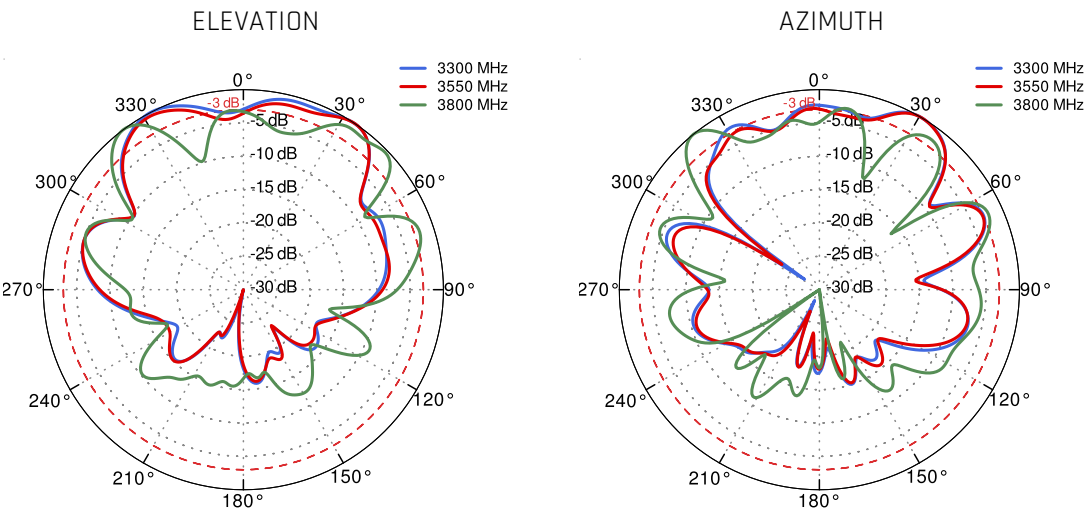




5G/LTE Port 1/3 from 2.3GHz to 2.7GHz

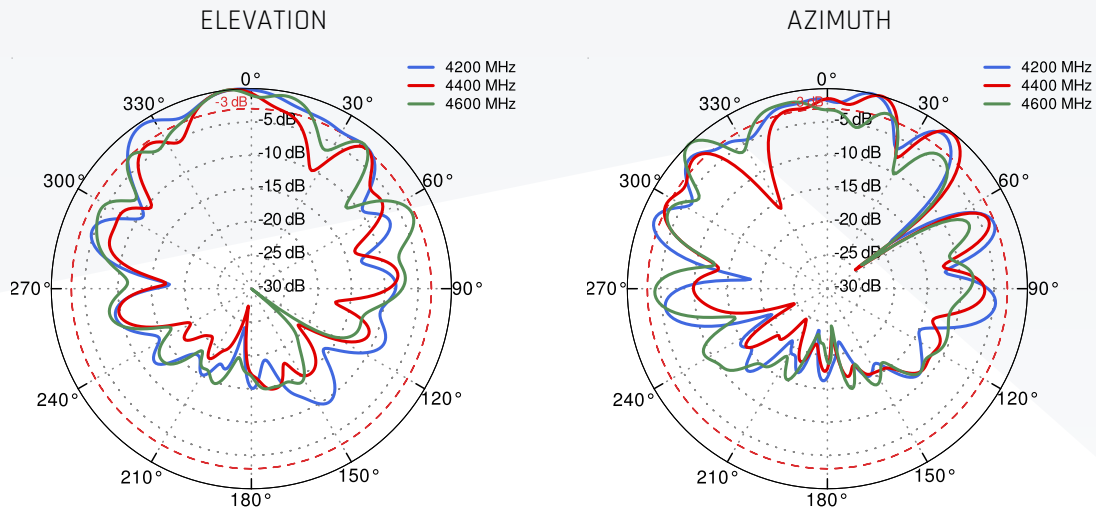


5G/LTE Port 1/3 from 3.3 GHz to 3.8 GHz

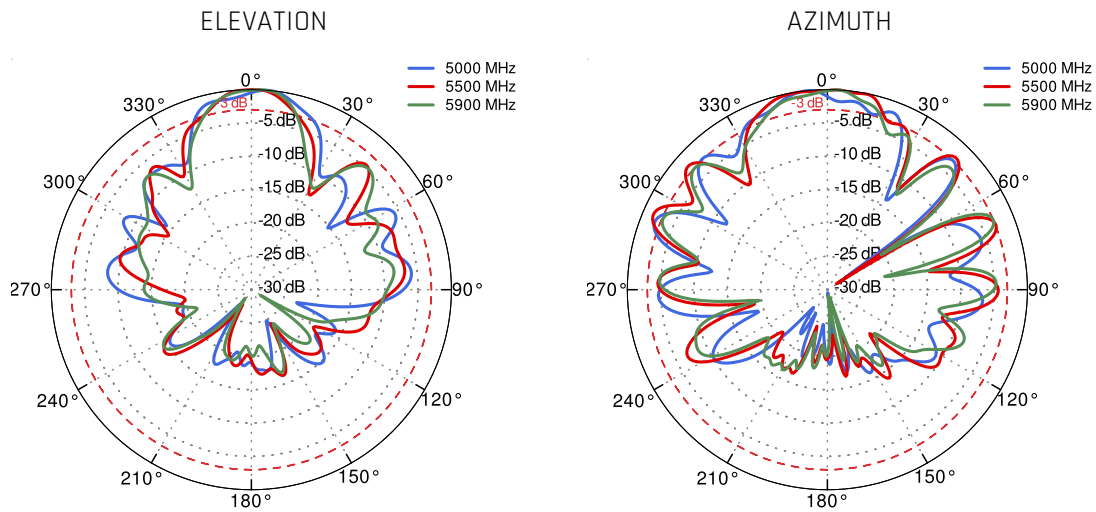




5G/LTE Port 1/3 from 4.2 GHz to 4.6 GHz

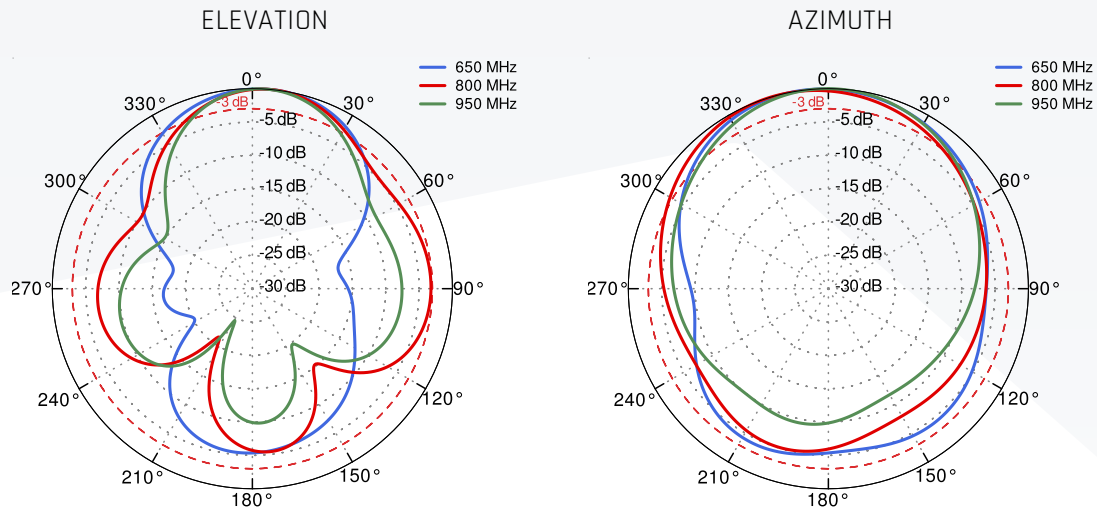


5G/LTE Port 1/3 from 5.0 GHz to 5.9 GHz

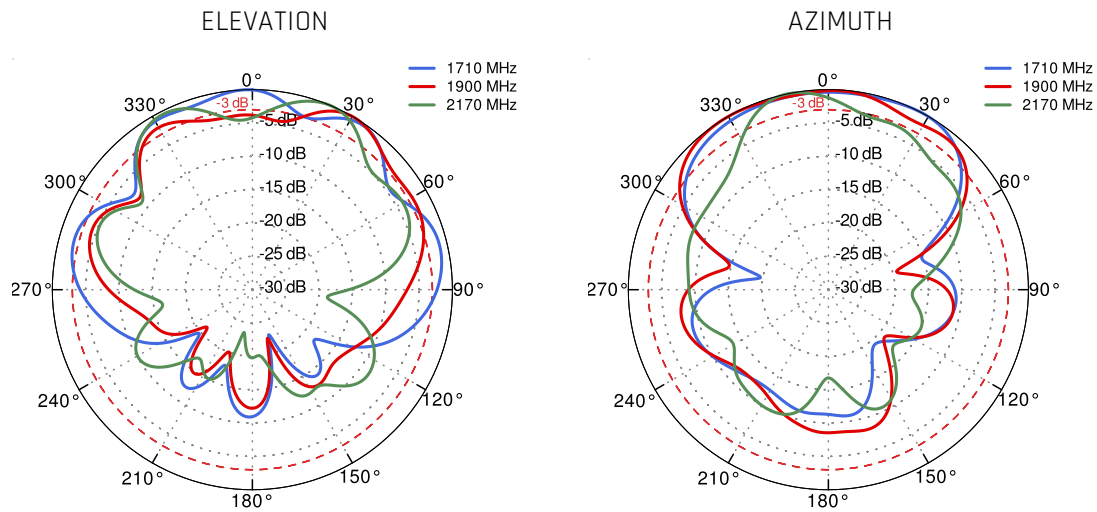




5G/LTE Port 2/4 from 650 MHz to 950 MHz

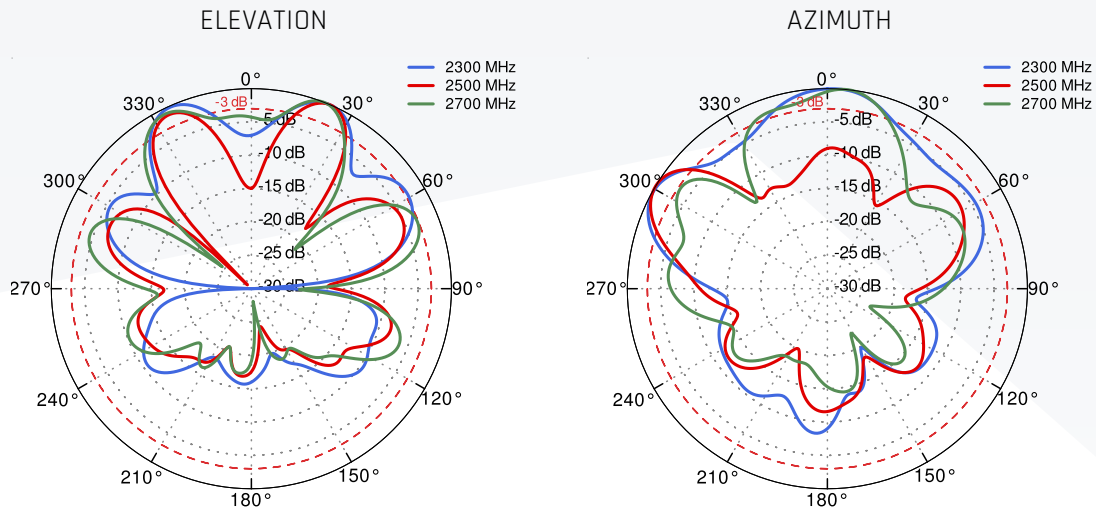


5G/LTE Port 2/4 from 1.71 GHz to 2.17 GHz

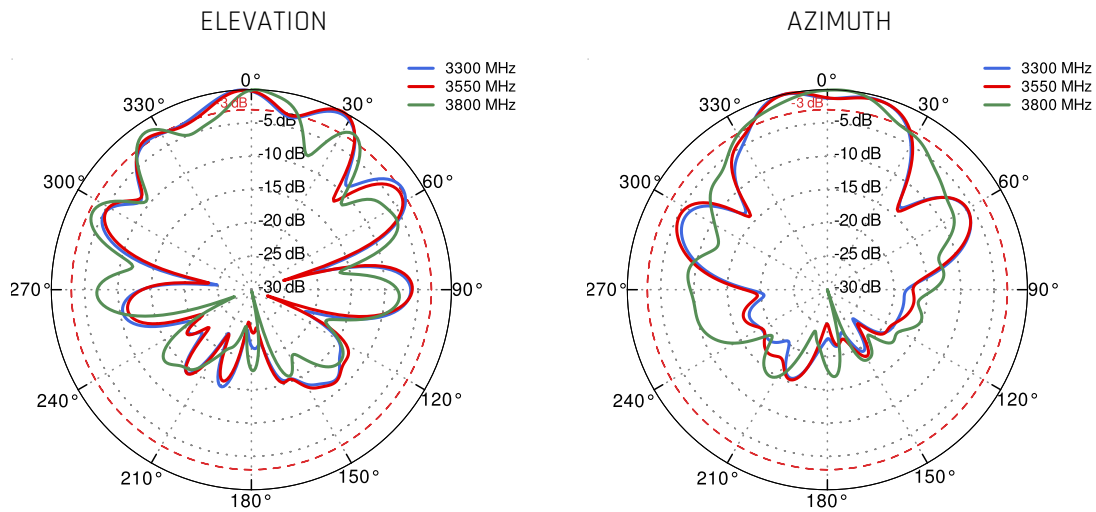




5G/LTE Port 2/4 from 2.3 GHz to 2.7 GHz

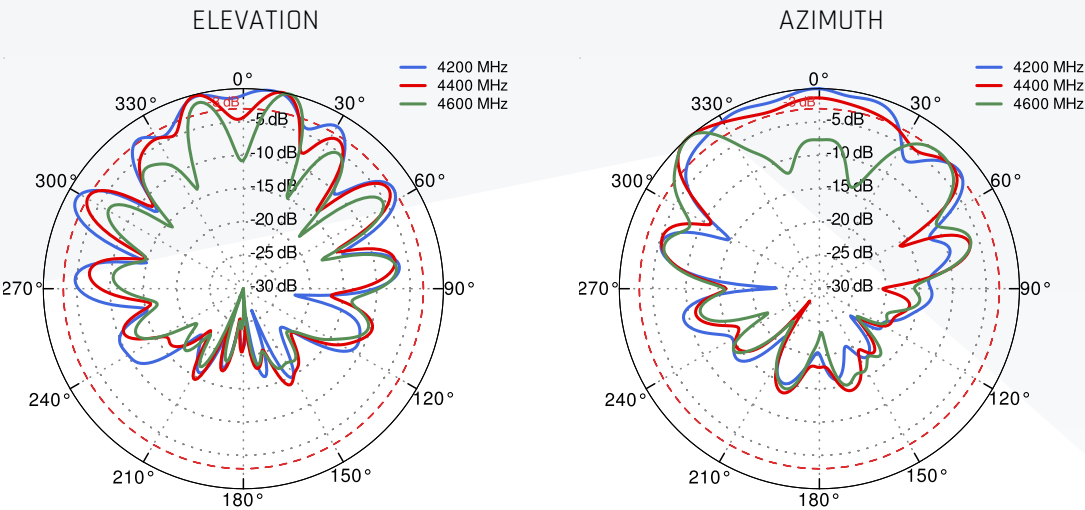


5G/LTE Port 2/4 from 3.3 GHz to 3.8 GHz

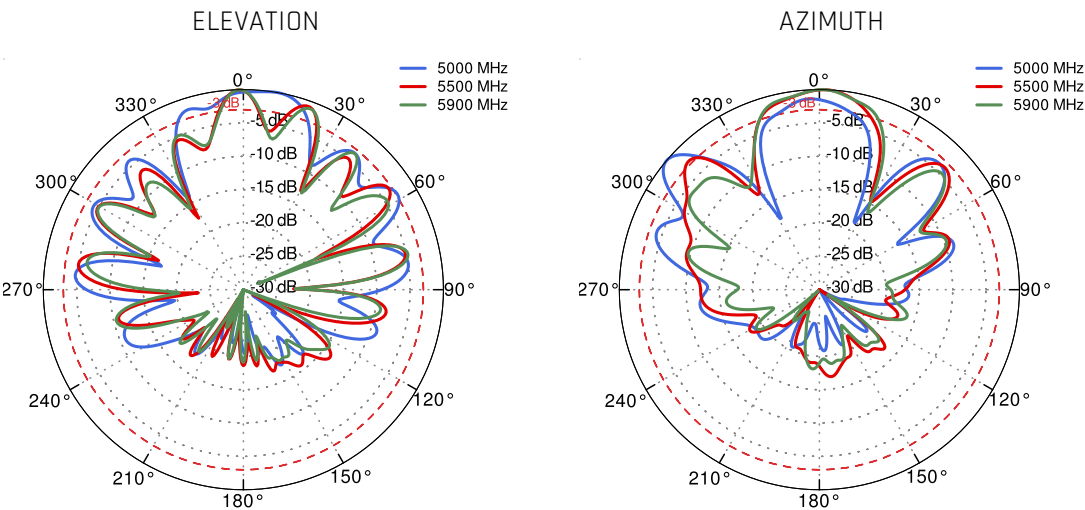




5G/LTE Port 2/4 from 4.2 GHz to 4.6 GHz

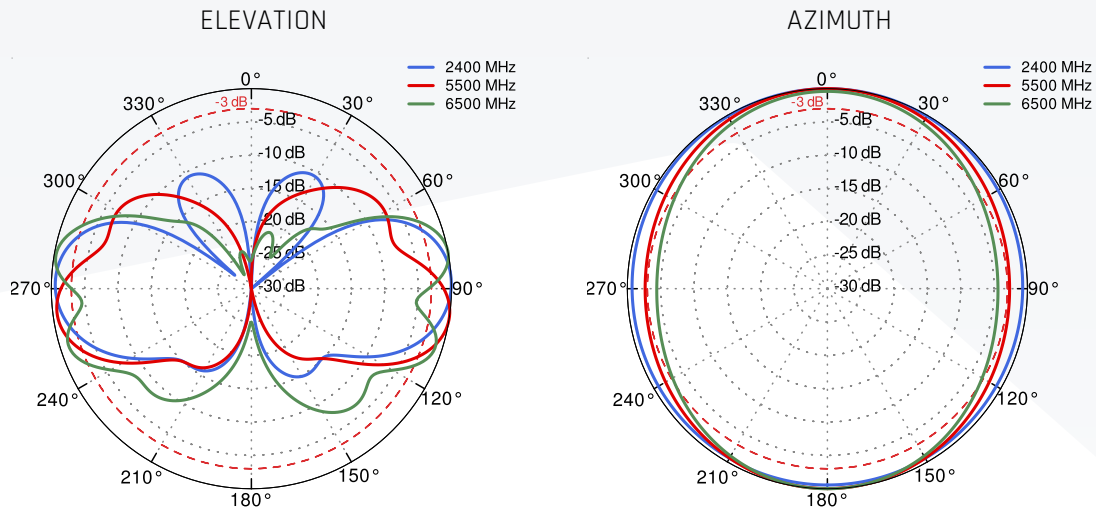


5G/LTE Port 2/4 from 5.0 GHz to 5.9 GHz

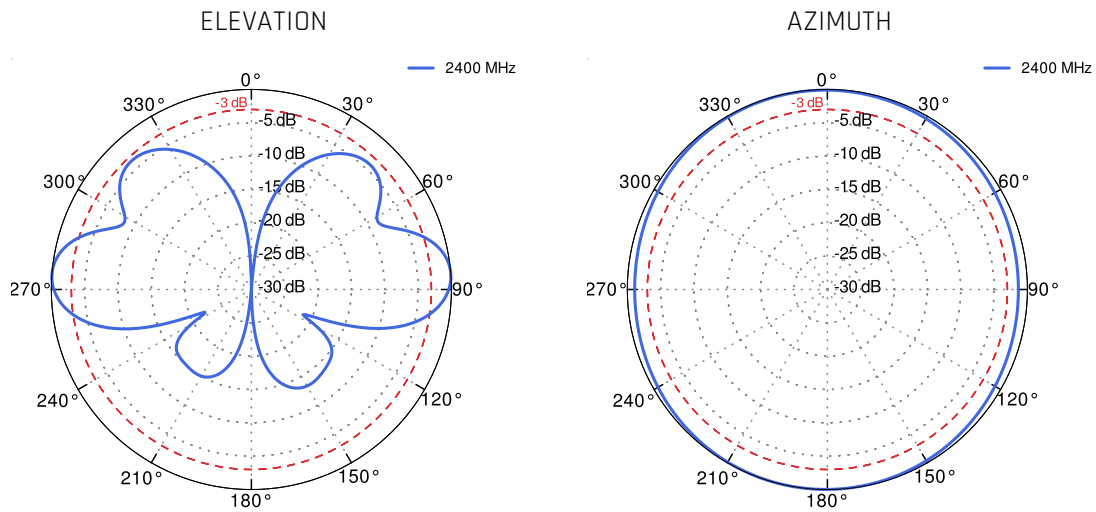




Wi-Fi From 2.4 GHz to 6.5 GHz



Bluetooth





GNSS Specifications

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

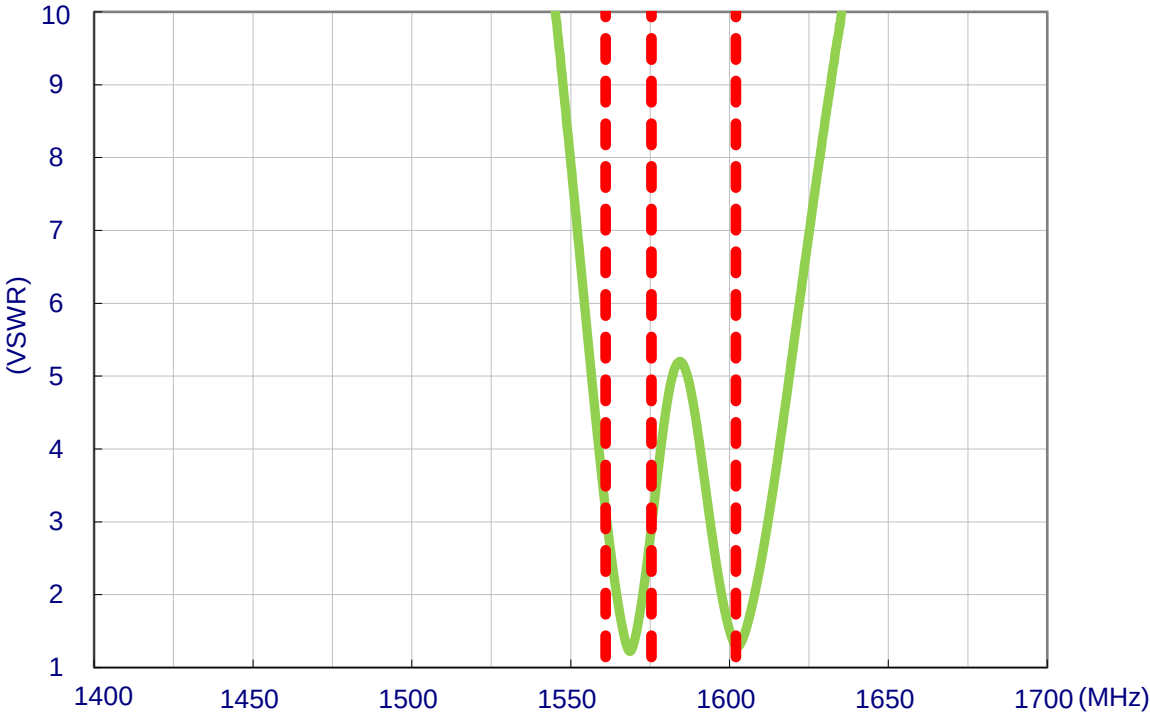
Electrical			
Frequency	BeiDou	GPS/GALILEO	GLONASS
	1561MHz	1575.42MHz	1602MHz
Efficiency (%)	49.8	46.5	60.1
Average Gain (dBi)	-3.03	-3.33	-2.21
Peak Gain (dBi)	2.44	1.72	1.67
Impedance	50Ω		
Polarization	RHCP		



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	

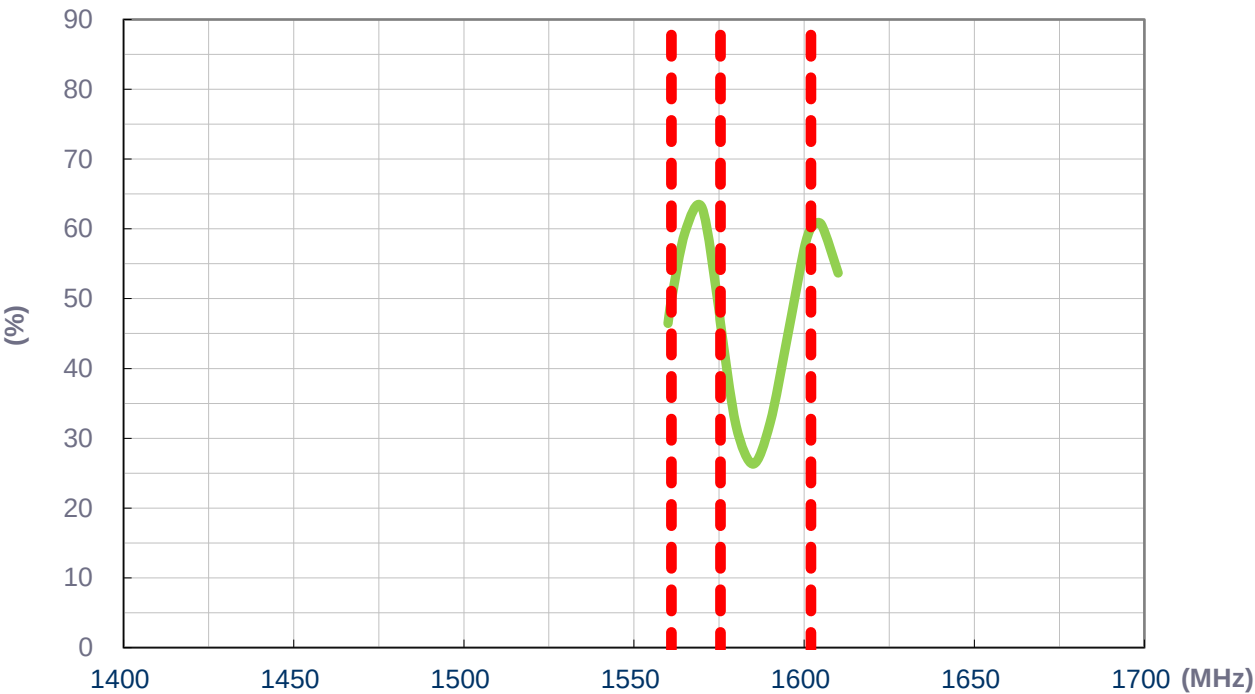
PLOTS

VSWR



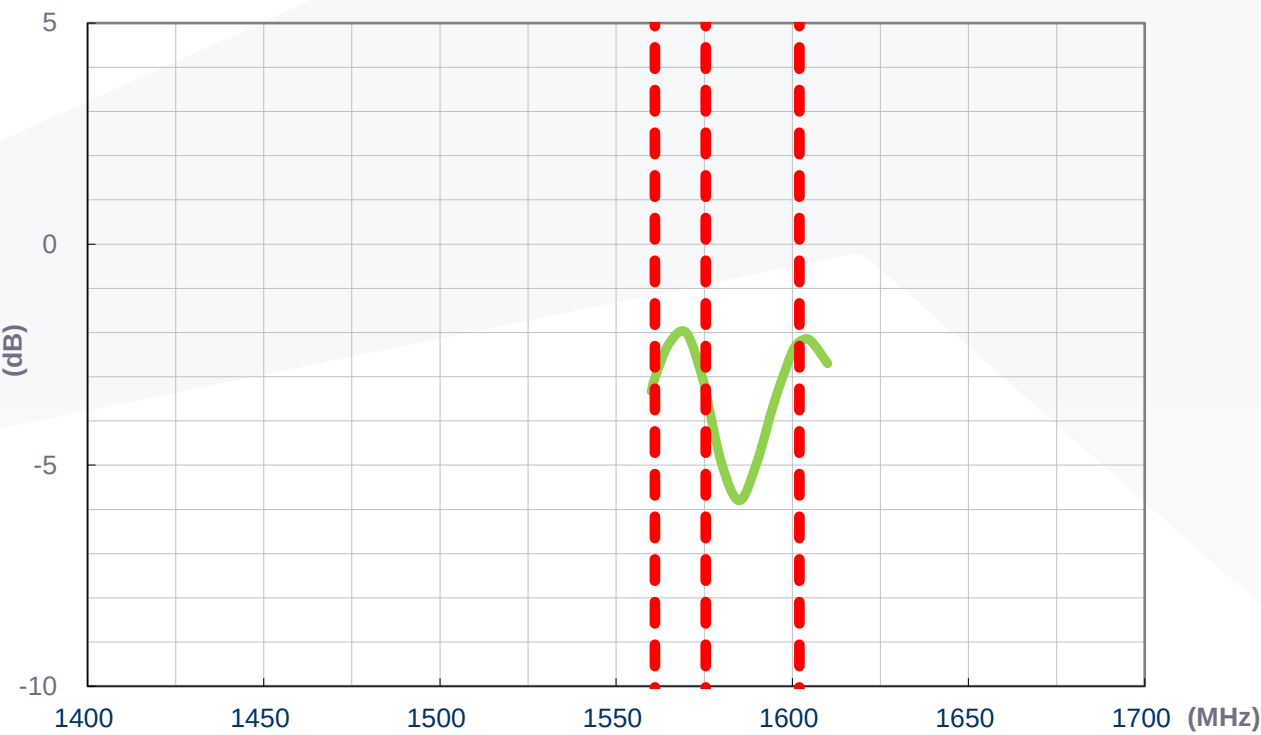


Efficiency

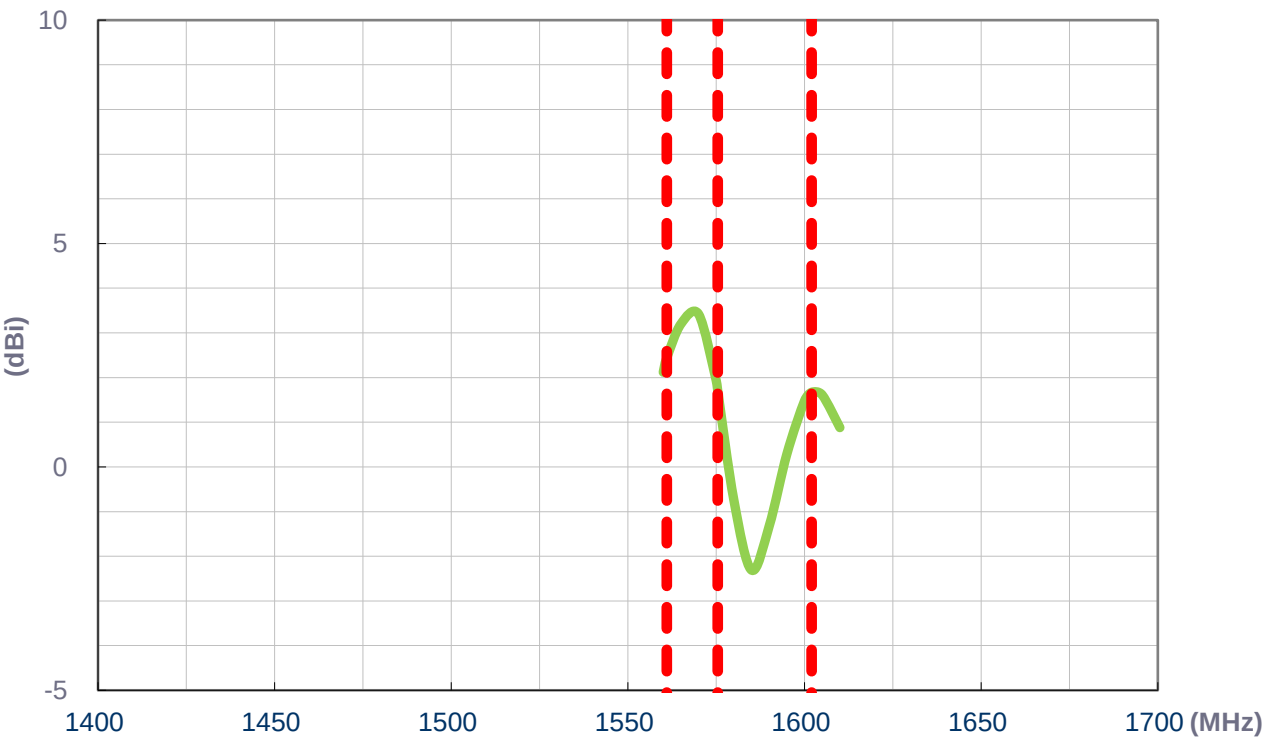




Average Gain



Peak Gain





DIMENSIONS

