TAOGLAS®

THOR98PP

Thunder Series

Integrated 5G/LTE Omnidirectional Antenna for Ericsson (Cradlepoint) R980

- Integrated Multi-band 5G Omni Antenna
- Wi-Fi Omni Antenna
- Cavity to install Ericsson (Cradlepoint) R980 Router

Contents

Ireland & USA ISO 9001:2015 Certified

Taiwan ISO 9001:2015 Certified

046

IATF16949

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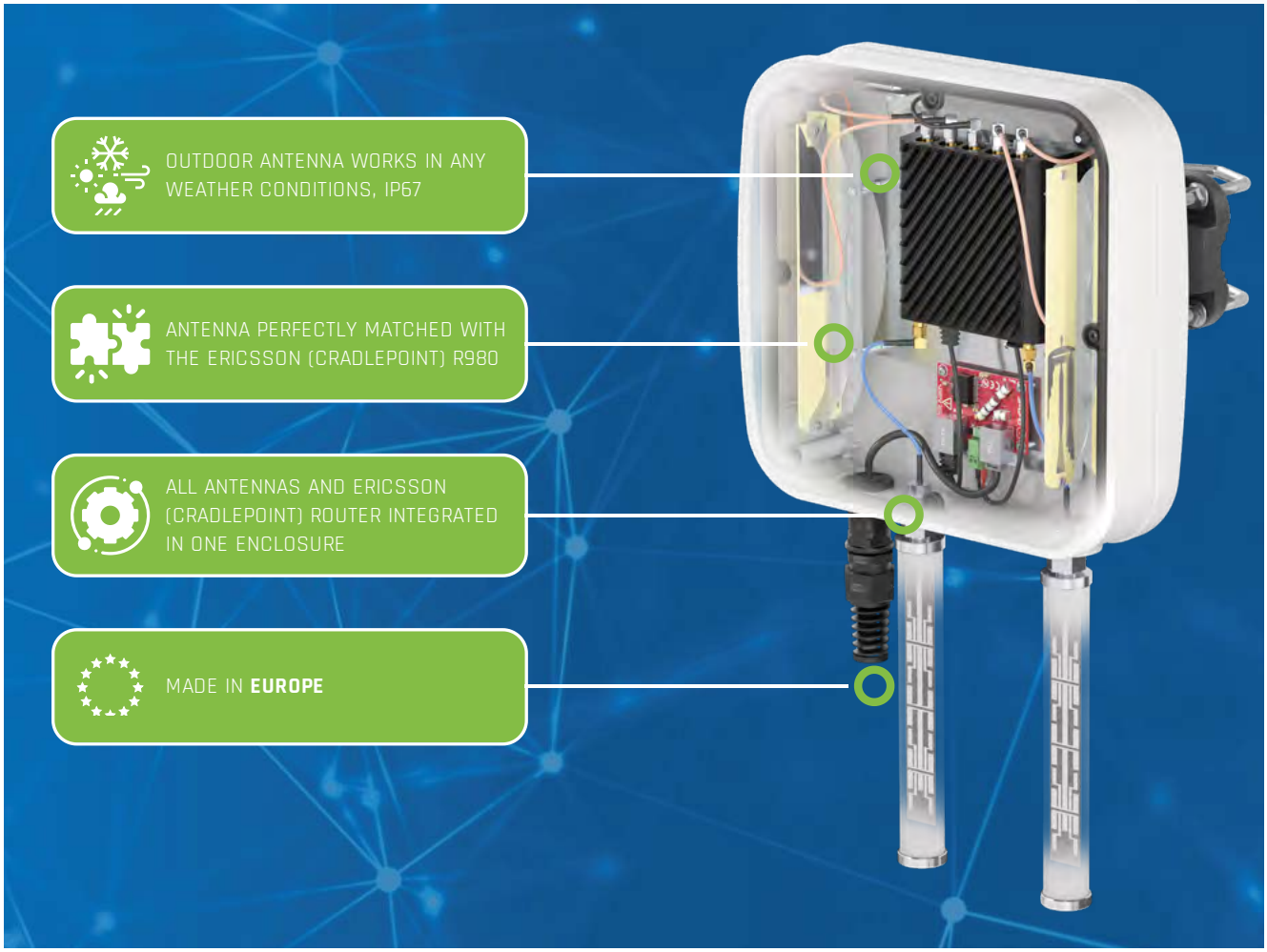
Thunder Series THOR98PP

Integrated Omnidirectional Antenna for Ericsson R980

INTEGRATED MULTI-BAND 5G OMNI ANTENNA + WI-FI OMNI ANTENNA + GNSS ANTENNA + PLACE TO INSTALL ERICSSON(CRADLEPOINT) R980 (ALL-IN-ONE)

The Taoglas THOR98 is an all-in-one antenna for Ericsson (Cradlepoint) R980 routers is a perfect outdoor device for mobile and fixed installations like industrial, public, CCTV, hotspots, and yachts. It has embedded omnidirectional 5G, Wi-Fi®, and GNSS antennas. If you use the Ericsson (Cradlepoint) R980 router with the THOR98 Thunder omnidirectional 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 overvoltage, short circuit or improper connection.

5G | Wi Fi 6E | GPS | 694-6000MHz | 7 dBi | OMNI DIRECTIONAL | IP 67 | -40° TO +80°



5G / LTE ANTENNA SPECIFICATION

FREQUENCY	617 - 960 MHz 1.7 - 2.7 GHz 3.3 - 4.7 GHz 5.2 - 6.0 GHz
GAIN	617 - 960 MHz : 3 dBi 1.7 - 2.7 GHz : 4 dBi 3.3 - 4.7 GHz : 4.5 dBi 5.2 - 6.0 : 2.5dBi
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, 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, n47, n48, n53, n65, n66, n67, n71, n77, n78, n80, n81, n82, n83, n84, n85, n86, n89, n90, n95, n97, n98, n100, n101, n256
VSWR	<1.80, max <2.00
BEAMWIDTH	360°/35° +/- 5°
POLARIZATION	Vertical
IMPEDANCE	50 Ω

WI-FI SPECIFICATION

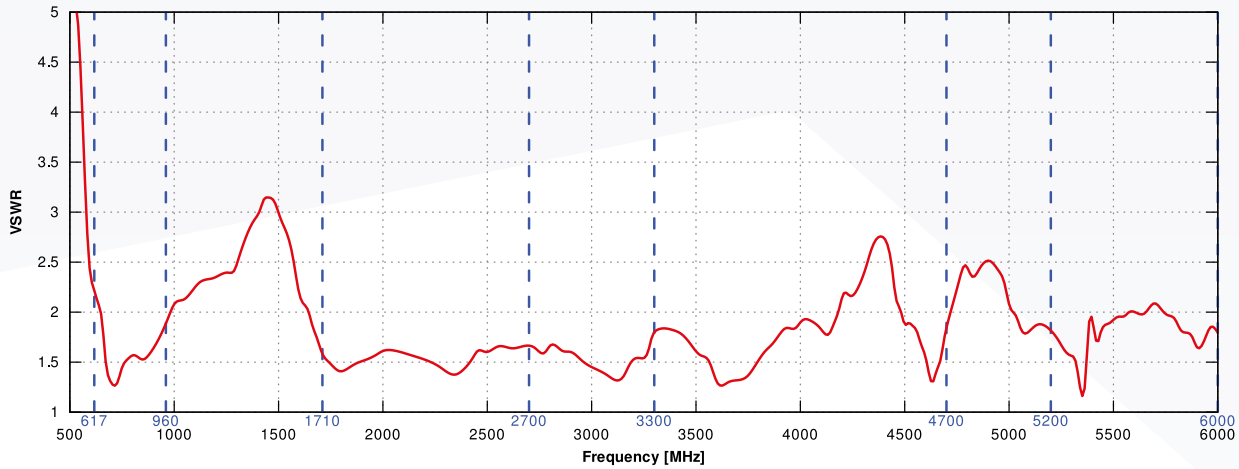
FREQUENCY	2.4 - 2.5 GHz 5.0 - 7.2 GHz
GAIN	2.4 - 2.5 GHz: 6 dBi 5.0 - 6.0 GHz: 7.5 dBi
VSWR	<1.70, max <2.00
BEAMWIDTH	360°/25° +/- 5°
POLARIZATION	Vertical
IMPEDANCE	50 Ω

MECHANICAL SPECIFICATION

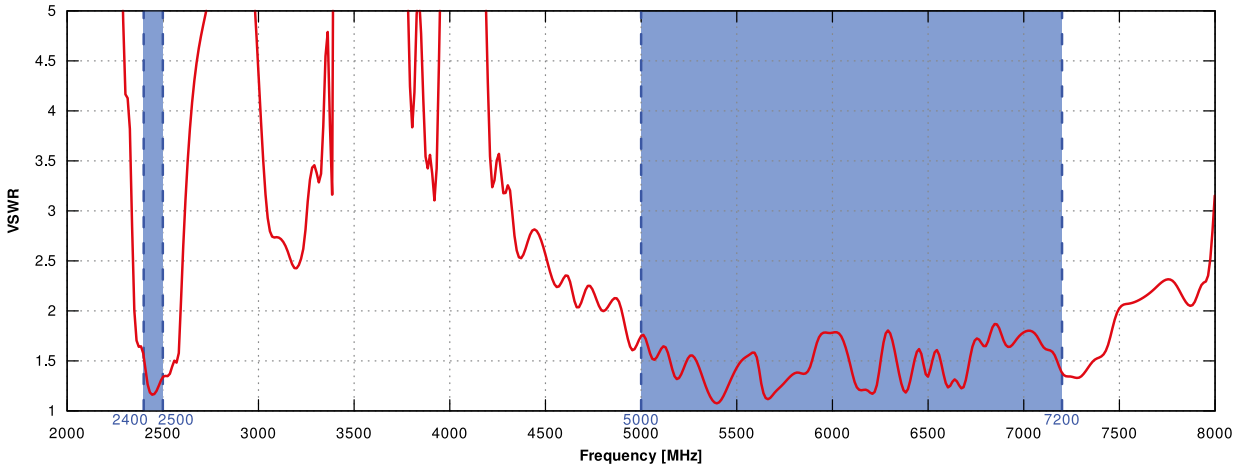
MATERIAL	ABS, aluminum, PTFE, Fiberglass
INGRESS PROTECTION	IP67
CONNECTOR TYPE	RJ45
DIMENSIONS	272 x 276 x 100 mm 10.71 x 10.87 x 3.93 inch
WEIGHT	1.8 kg 3.97 lbs
OPERATING TEMPERATURE	From -40°C to 75°C From -40°F to 167°F
ENCLOSURE RECOMMENDED TIGHTENING TORQUE	0,6 - 0,8 Nm

PLOTS

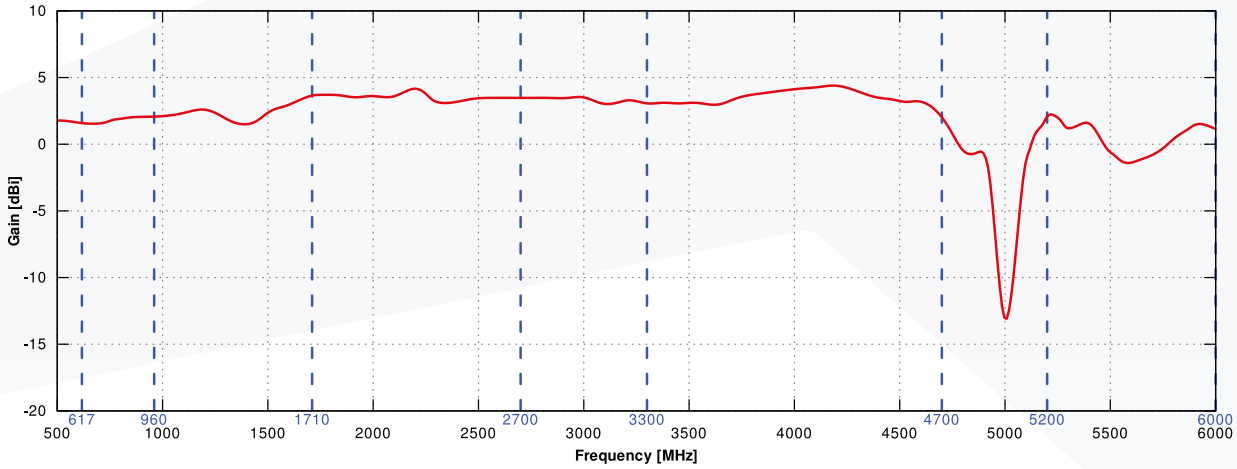
5G/LTE VSWR



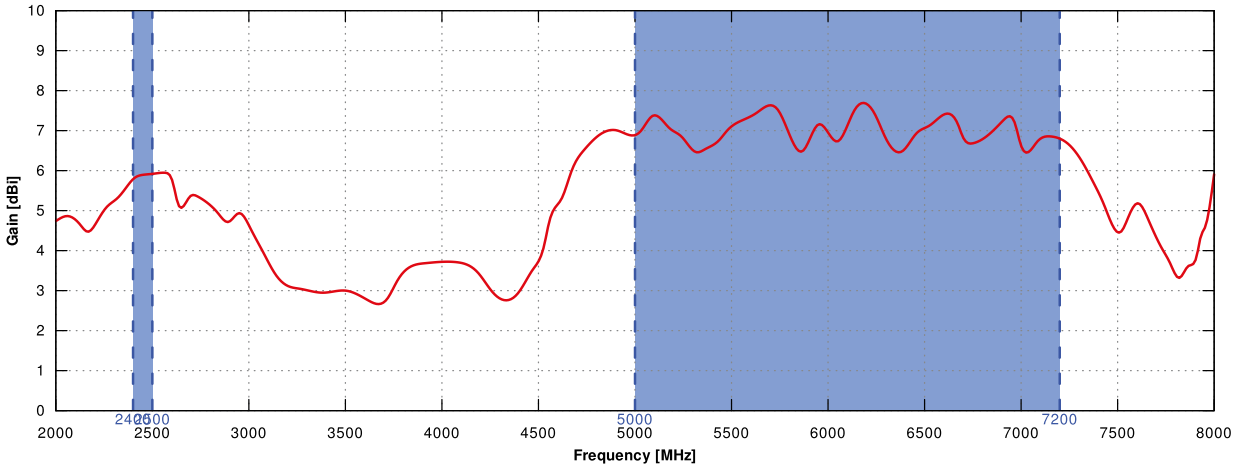
WI-FI VSWR



5G/LTE Gain

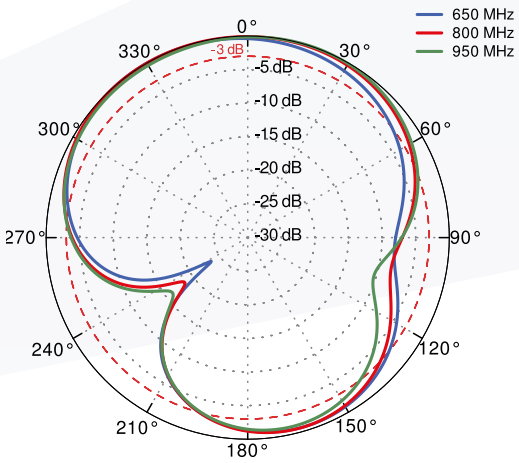


Wi-Fi Gain

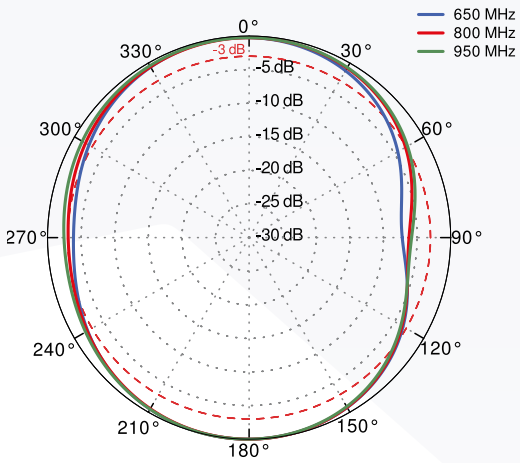


5G/LTE from 650MHz to 950MHz

ELEVATION

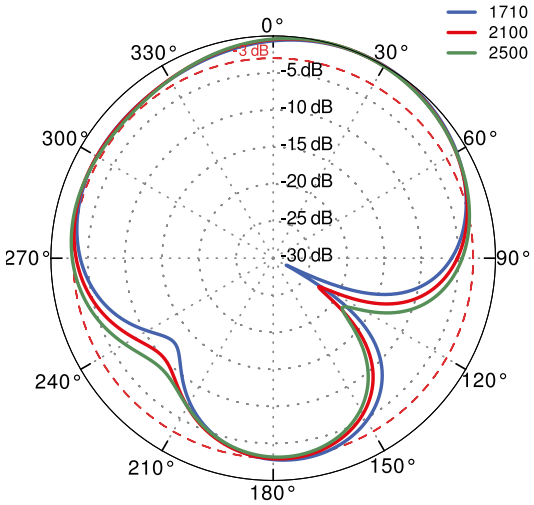


AZIMUTH

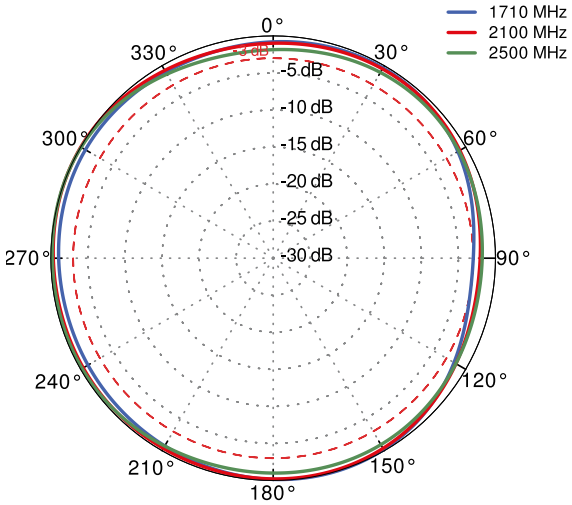


5G/LTE from 1.71GHz to 2.5GHz

ELEVATION

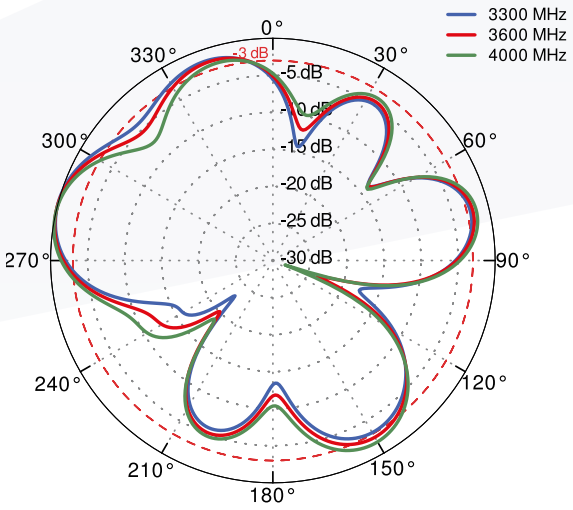


AZIMUTH



5G/LTE from 3.3GHz to 4.0GHz

ELEVATION



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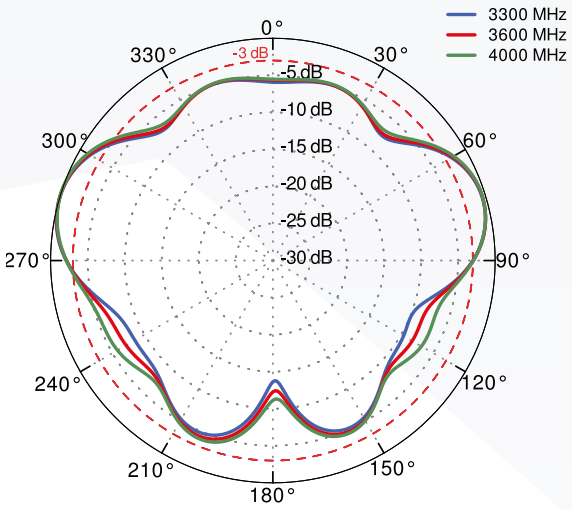
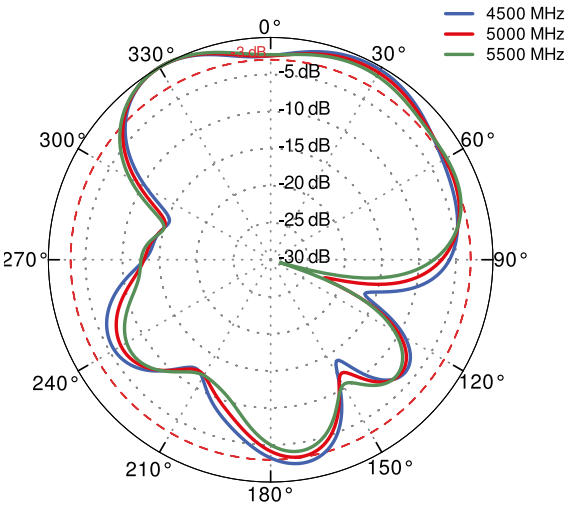


5G/LTE from 4.5GHz to 5.5GHz

ELEVATION



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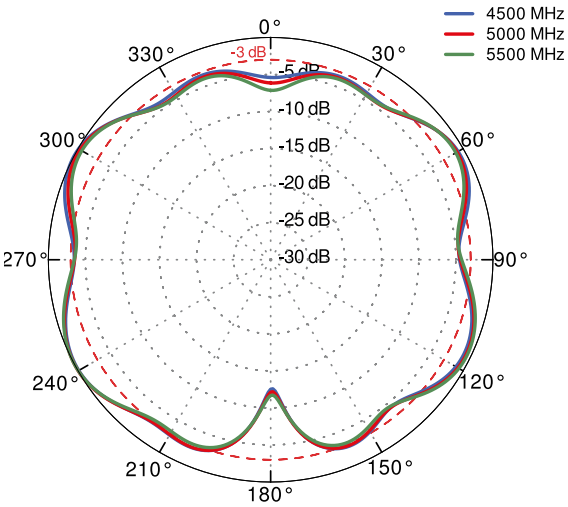
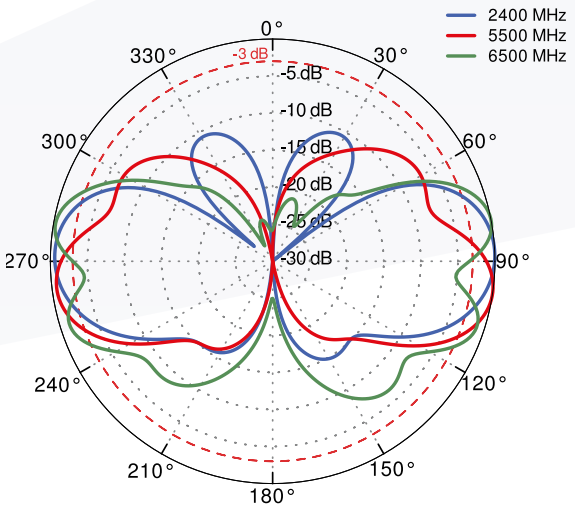


Wi-Fi 2.4GHz and 5GHz and 6GHz

ELEVATION



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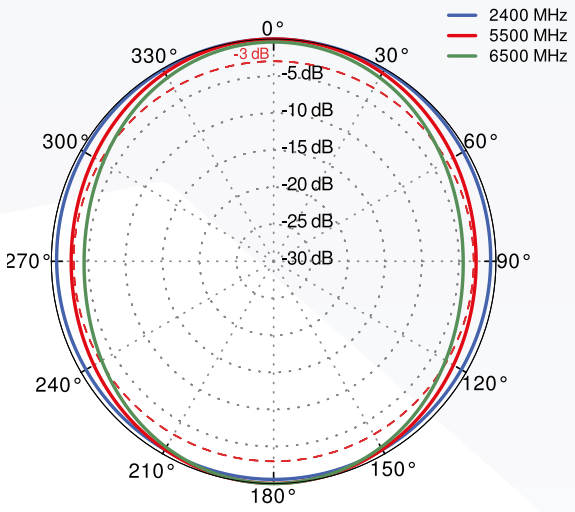


GNSS Specifications

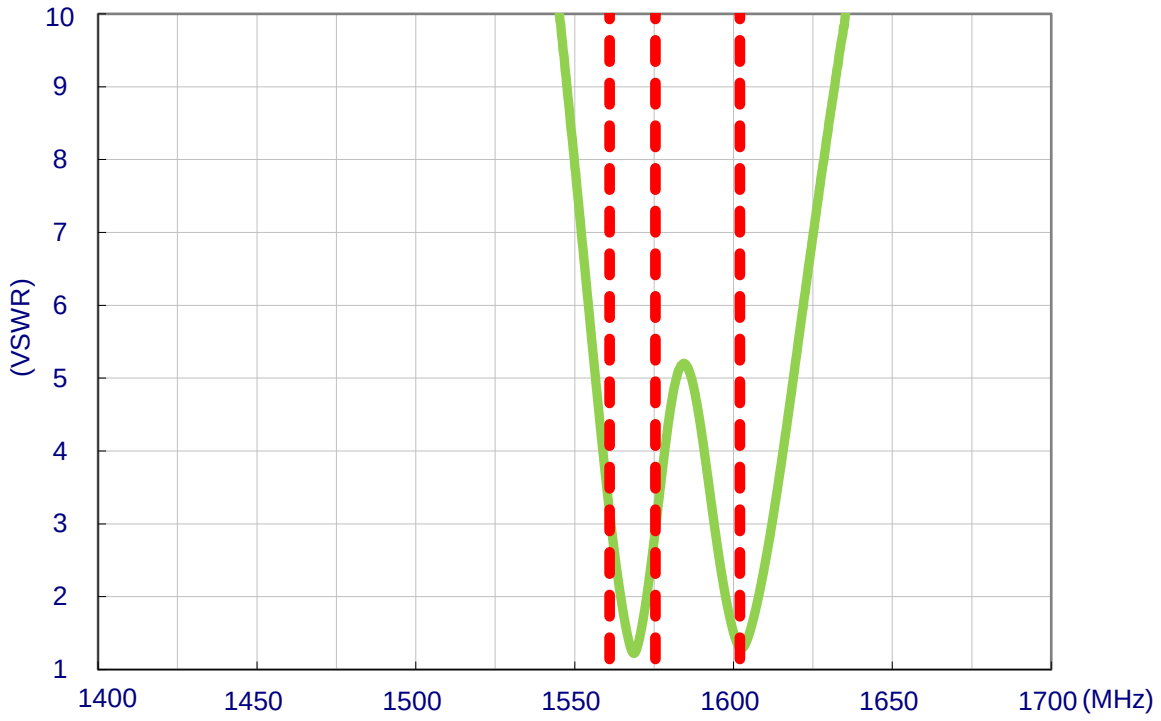
GNSS Frequency Band							
GPS/QZSS	L1 1575.42MHz	L2 1227.6MHz	L5 1176.45MHz	L6 1278.75MHz			
	☑	☐	☐	☐			
GLONASS	L5R 1176.45MHz	L3PT 1201.5MHz	L2PT 1246MHz	L1CR 1575.42MHz	L1PT 1602MHz		
	☐	☐	☐	☑	☑		
Galileo	E5a 1176.45MHz	E5b 1201.5MHz	E4 1215MHz	E3 1256MHz	E6 1278.75MHz	E2 1561MHz	E1 1575.42MHz
	☐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

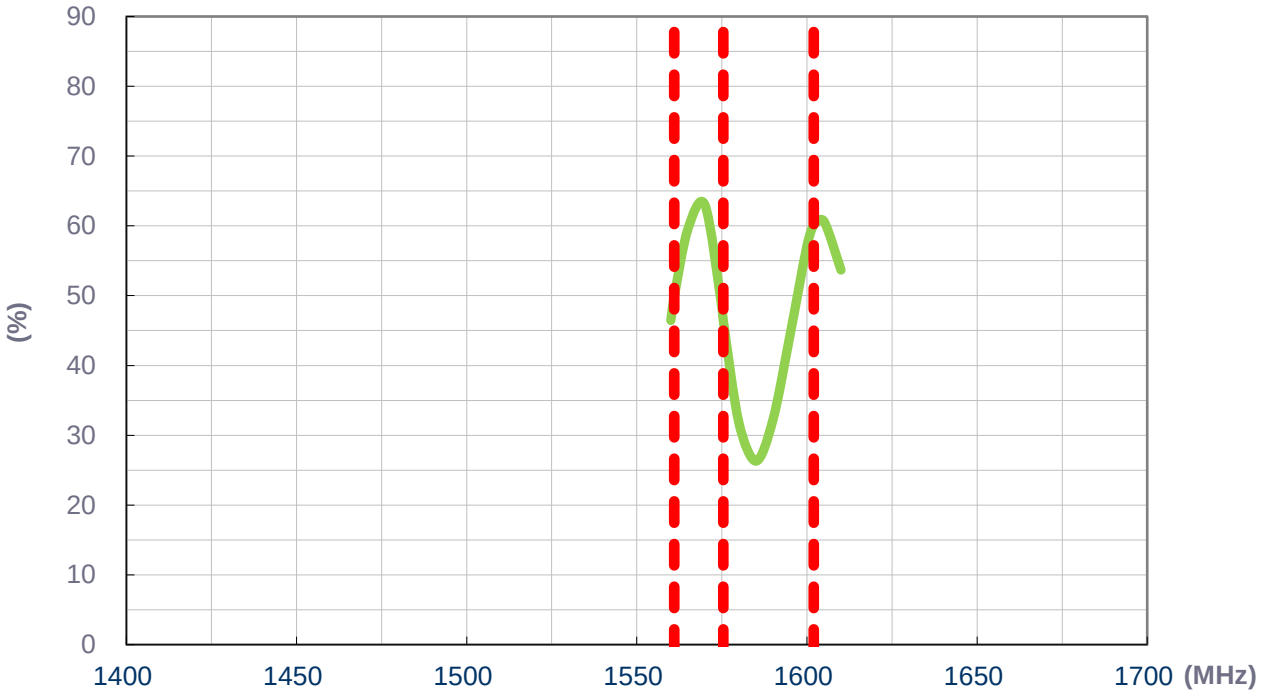
LNA Specification			
Gain (dB)	14.8 ± 1	15.0 ± 1	15.0 ± 1
NF (dB)	2.4 ± 0.2	1.9 ± 0.2	2.2 ± 0.2
Input Voltage	+1.8 to +5 VDC		
Power Consumption	3 to 24.5mA typical		
Out-Of-Band Attenuation (dB)	10-500MHz	> 60	
	500-850MHz	> 40	
	850-1000MHz	> 35	
	1000-1500MHz	> 25	
	1700-2300MHz	> 19	
	2300-5000MHz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

PLOTS

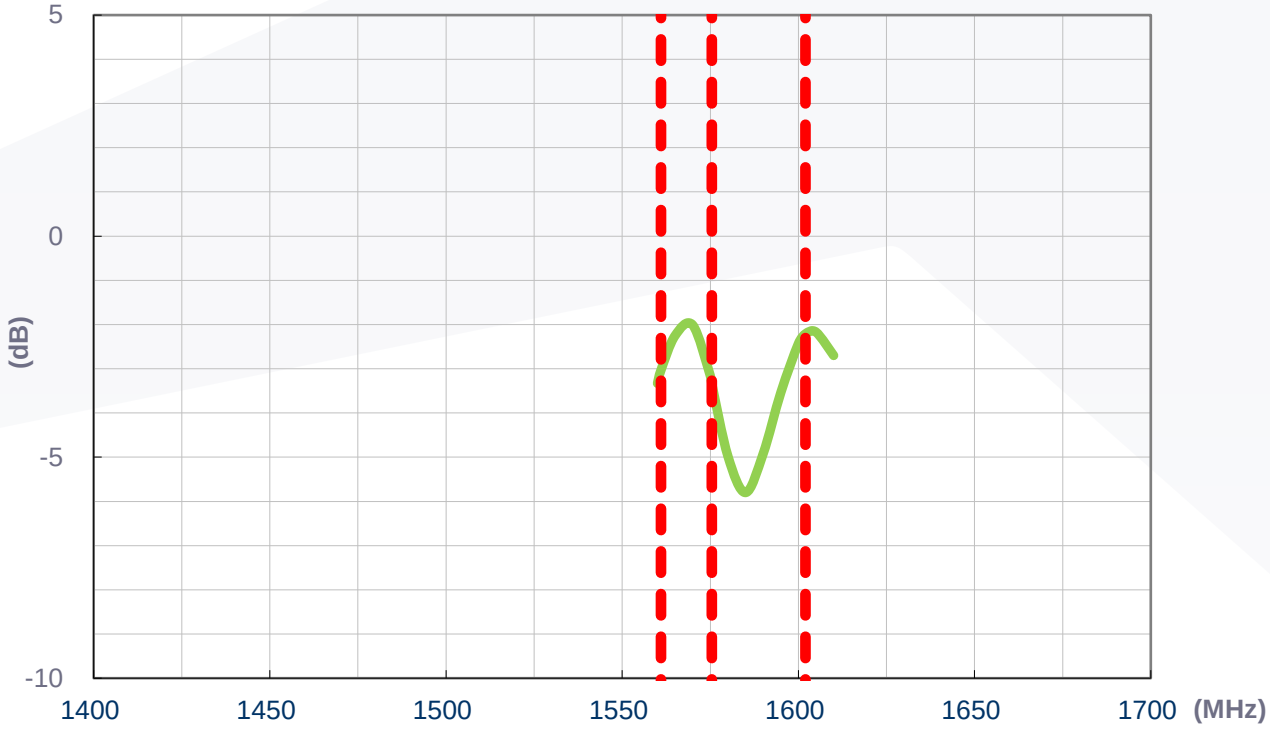
VSWR



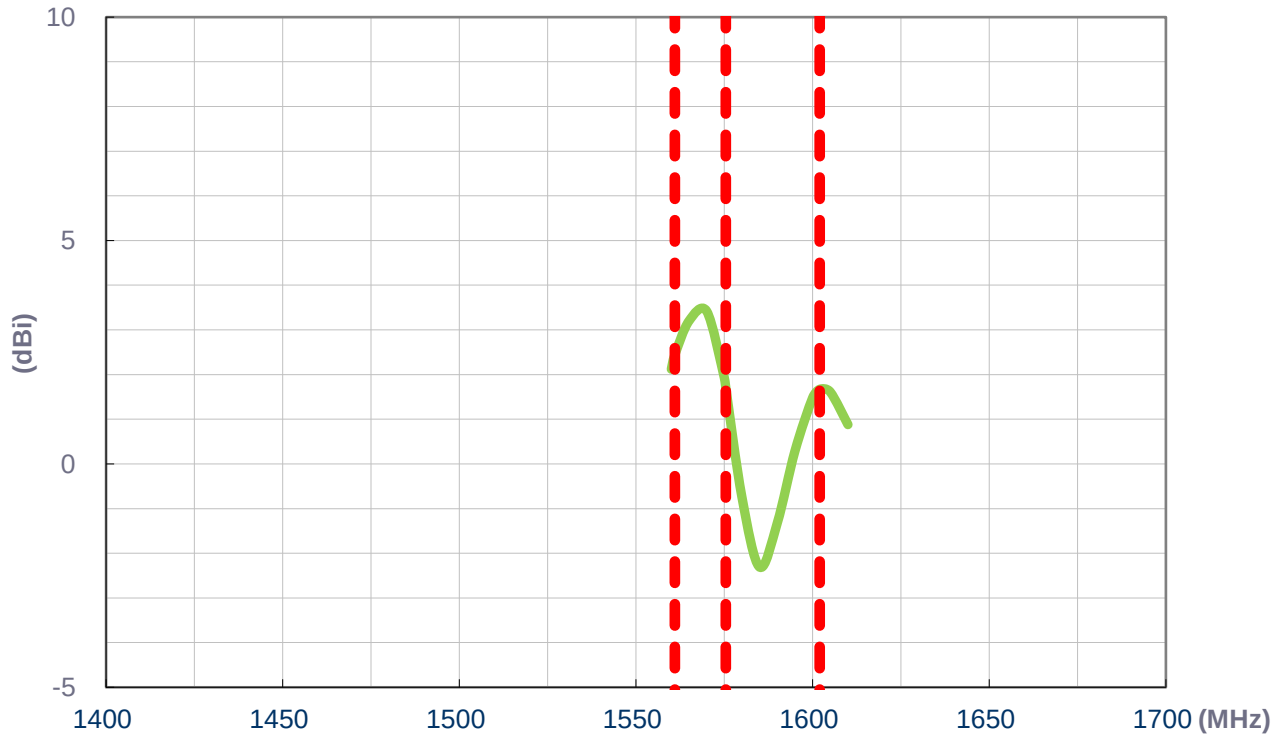
Efficiency



Average Gain



Peak Gain



DIMENSIONS