

GPS L1+L2+L5 : ACTIVE STACKED PATCH ANTENNA

APARC2511X-SGL2L5

Request Samples



Check Inventory



ESD Sensitive

25.0 x 25.0 x12.4 mm
RoHS/RoHS II Compliant
MSL Level = N/A

Features

- Multiband GPS L1, L2, L5 Coverage
- High Gain LNA.
- Circular polarization.
- Compact Form Factor.
- Single Feed Stacked Patch
- Easy installation using IPEX Connector
(Customizable Cable and Connector Options)

Applications

- IoT
- M2M
- Logistics
- Navigation
- Geofencing
- Precision Farming
- Remote Monitoring
- Surveying and Mapping Systems

Electrical Specifications

Parameter	Specification			Unit	Note
	L1	L2	L5		
Operating Frequency	1575.42±1.023	1227.6±10	1176.45±10	MHz	
VSWR	1.53	2.24	2.09		
Gain	-3.5	-3	-4	dBi	Zenith
Impedance	50			Ω	
Polarization	RHCP				
Radiation Pattern	Omni-directional				Azimuth
LNA					
Noise Figure	1	0.9	1.3	dB	(+25°C±5°C)
Gain	29±3	30±3	27±3	dB	(+25°C±5°C)
Impedance	50			Ω	
VSWR	2.0				Max
Operating Voltage	3.0-5.0			V	
Current Consumption*	10			mA	Typ
	15			mA	Max

*Note : Current Consumption @3.3V

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Mechanical Specifications

Parameter	Specification
Antenna Dimension	25 x 25 x 12.4 mm
Mounting Type	Surface Mount
RF Connector	IPEX (female)
RF Cable	Ø1.13 ±0.1 mm, L = 100 ± 10 mm

*Note: Cable Loss = Max.(-1.4dB/meter)

Environmental Specification

Parameter	Specification
Operating Temperature	-40°C to +85°C
Storage Temperature	-40°C to +85°C
RoHS Compliance	Yes
PB Free	No
MSL	NA
ESD Sensitive	Yes
Relative Humidity	40% to 95%

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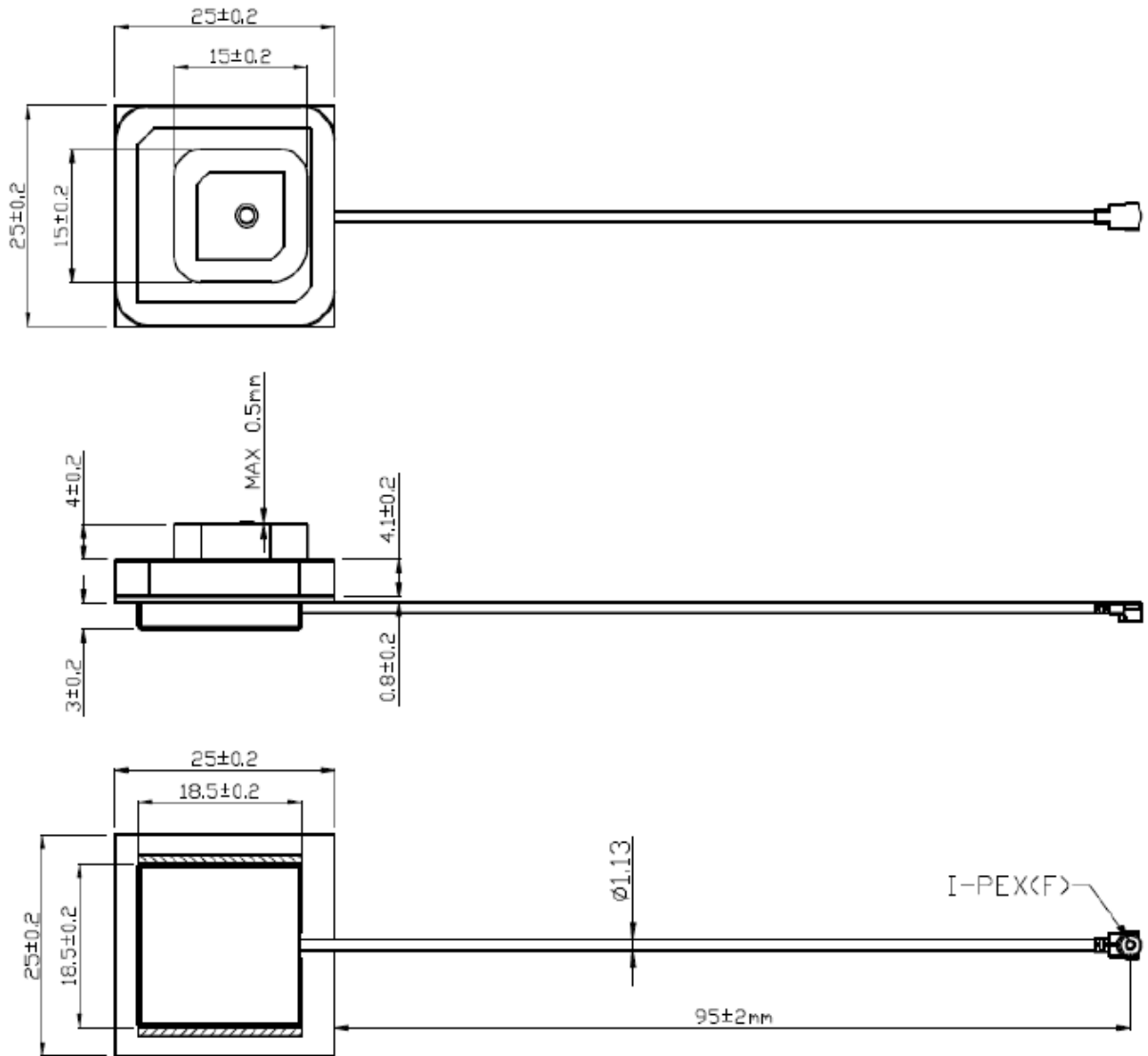
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Product Dimension



Unit : mm

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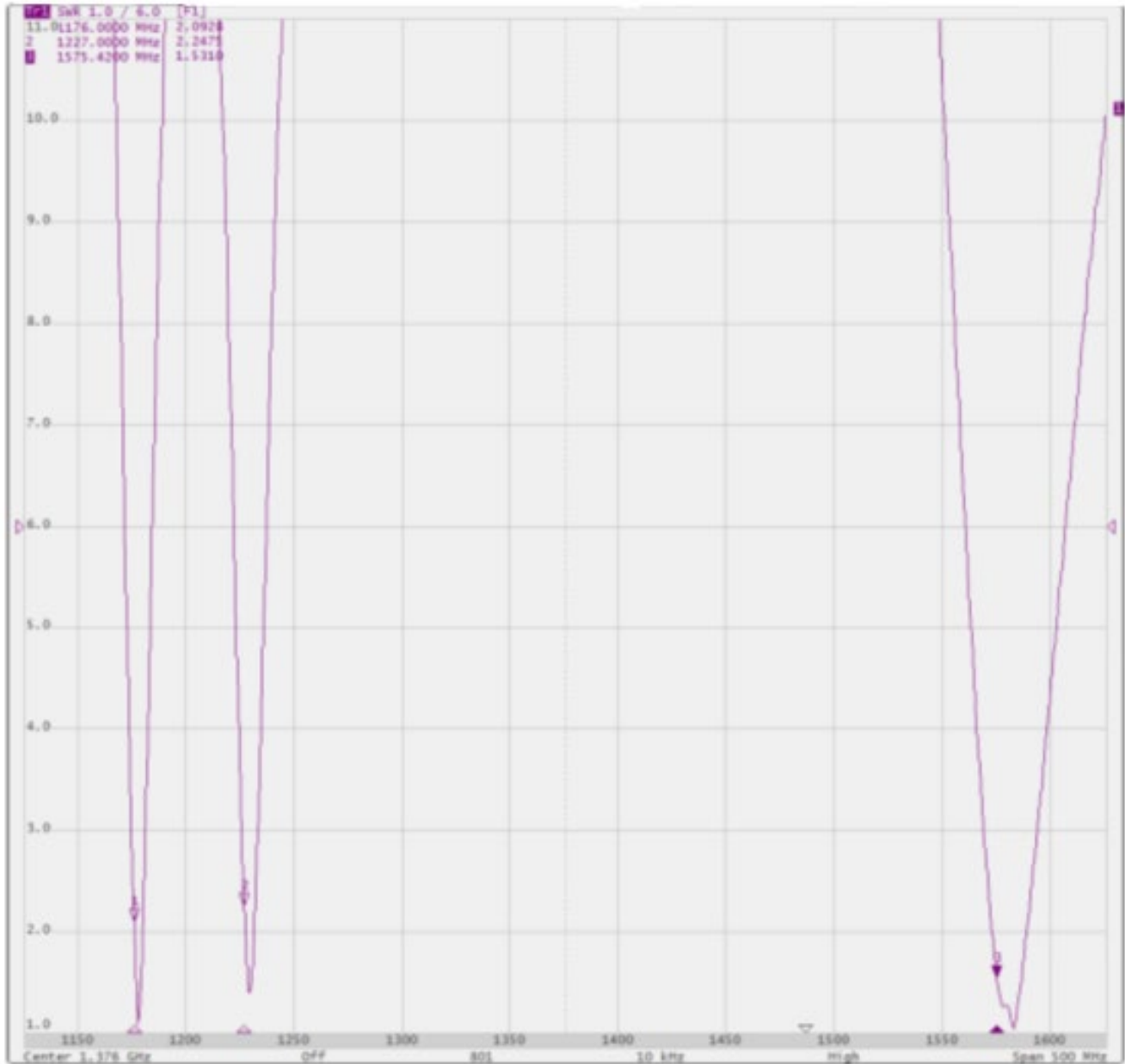
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Test Measurement - Antenna Impedance Characteristics



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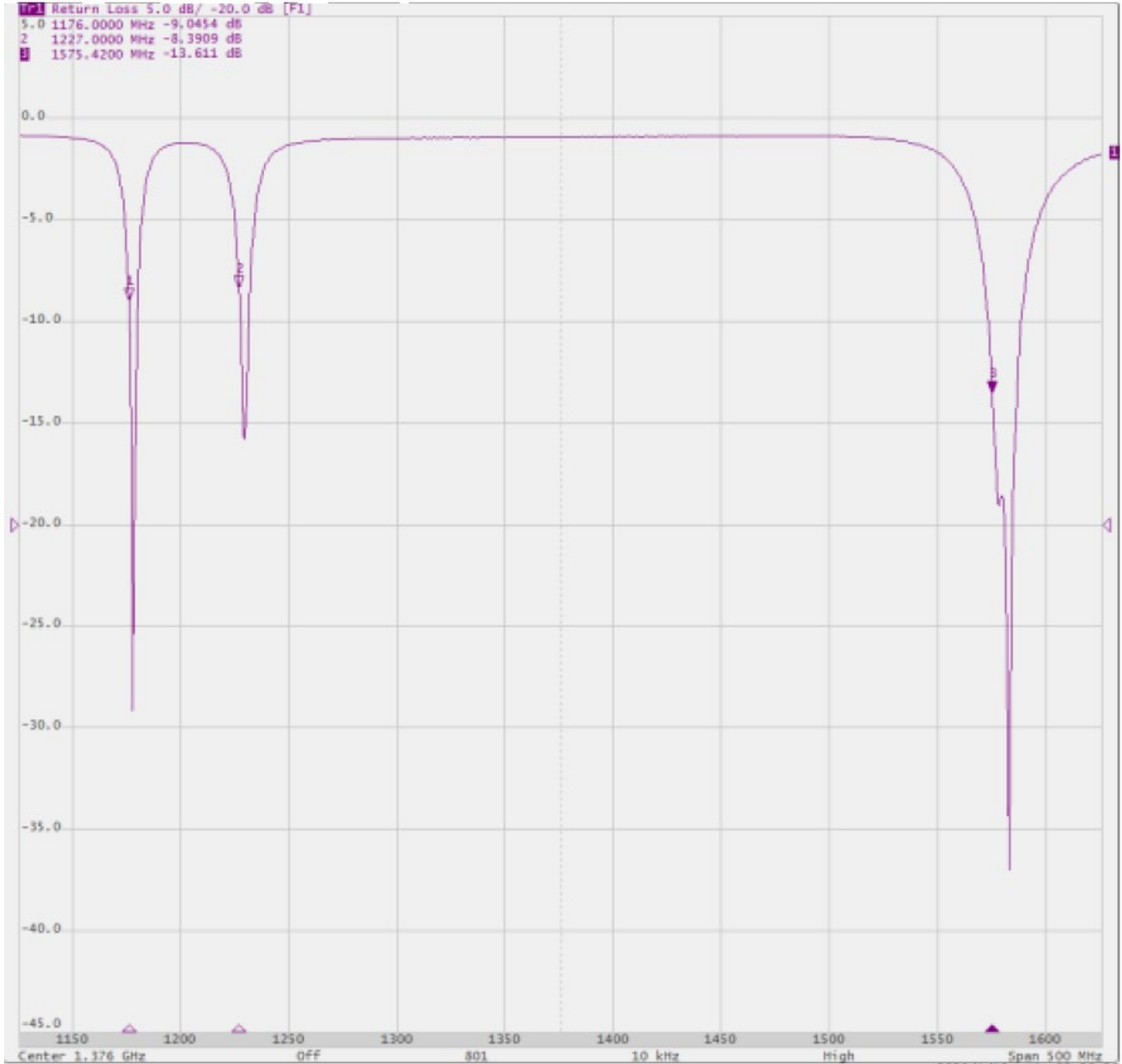
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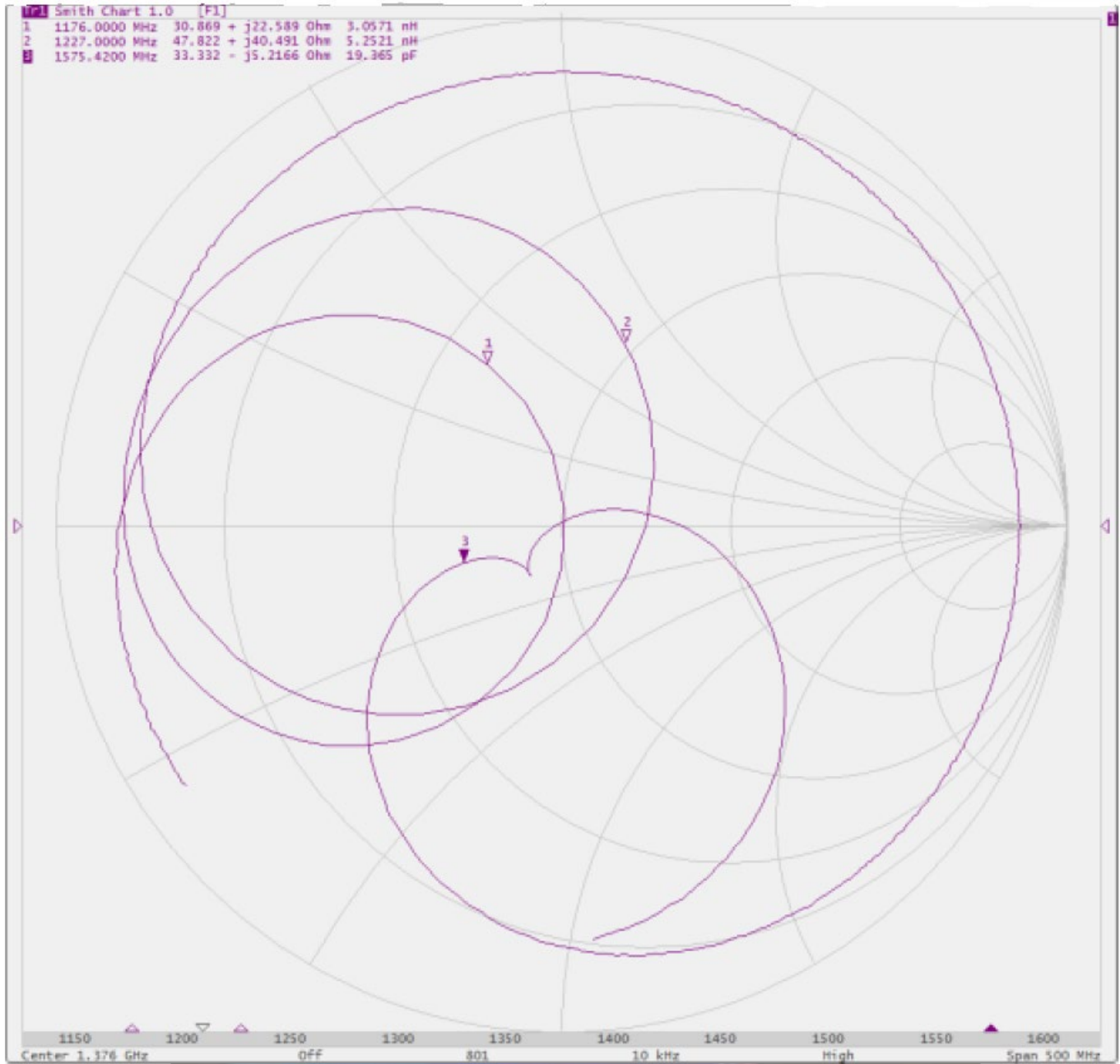
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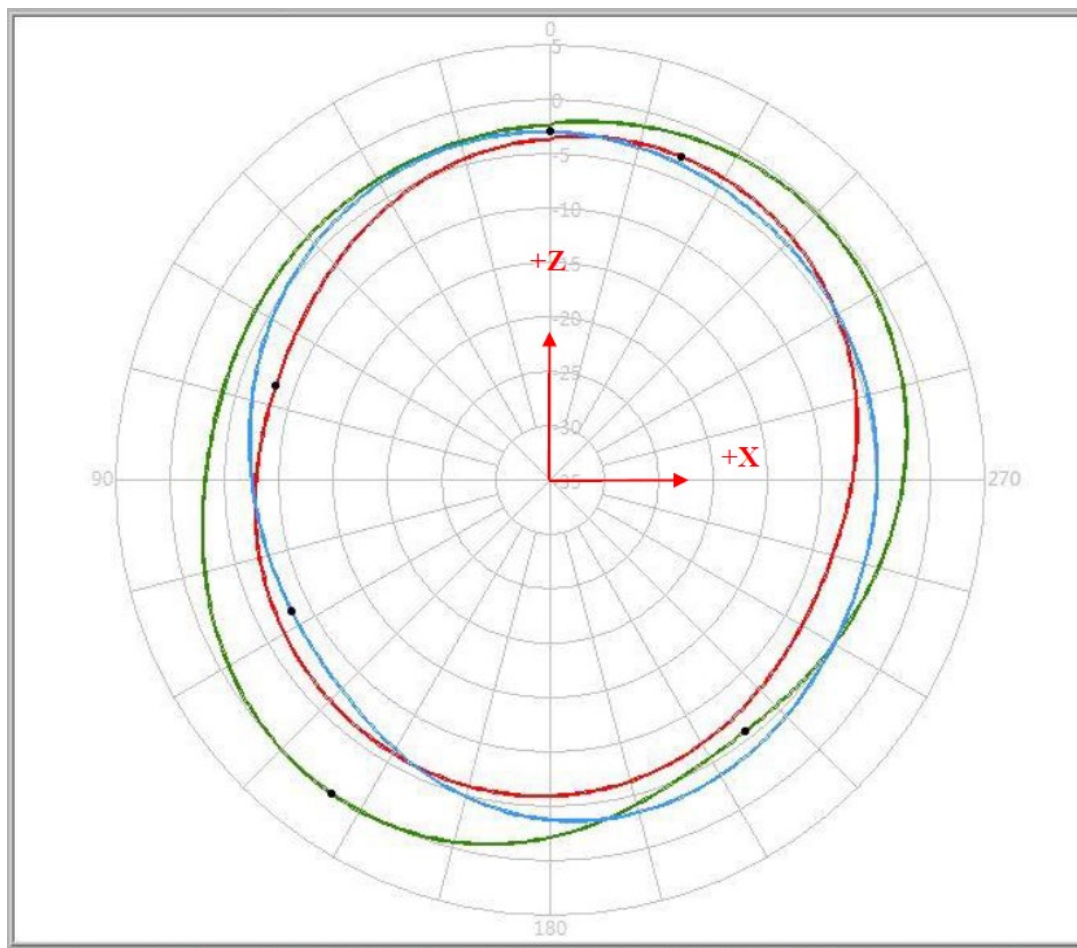
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Radiation Characteristics

XZ-Plane



Frequency (MHz)	Peak Gain (dBi)	Average Gain(dBi)
1176	-2.94	-5.82
1227	0.19	-2.13
1575.42	-2.96	-4.72

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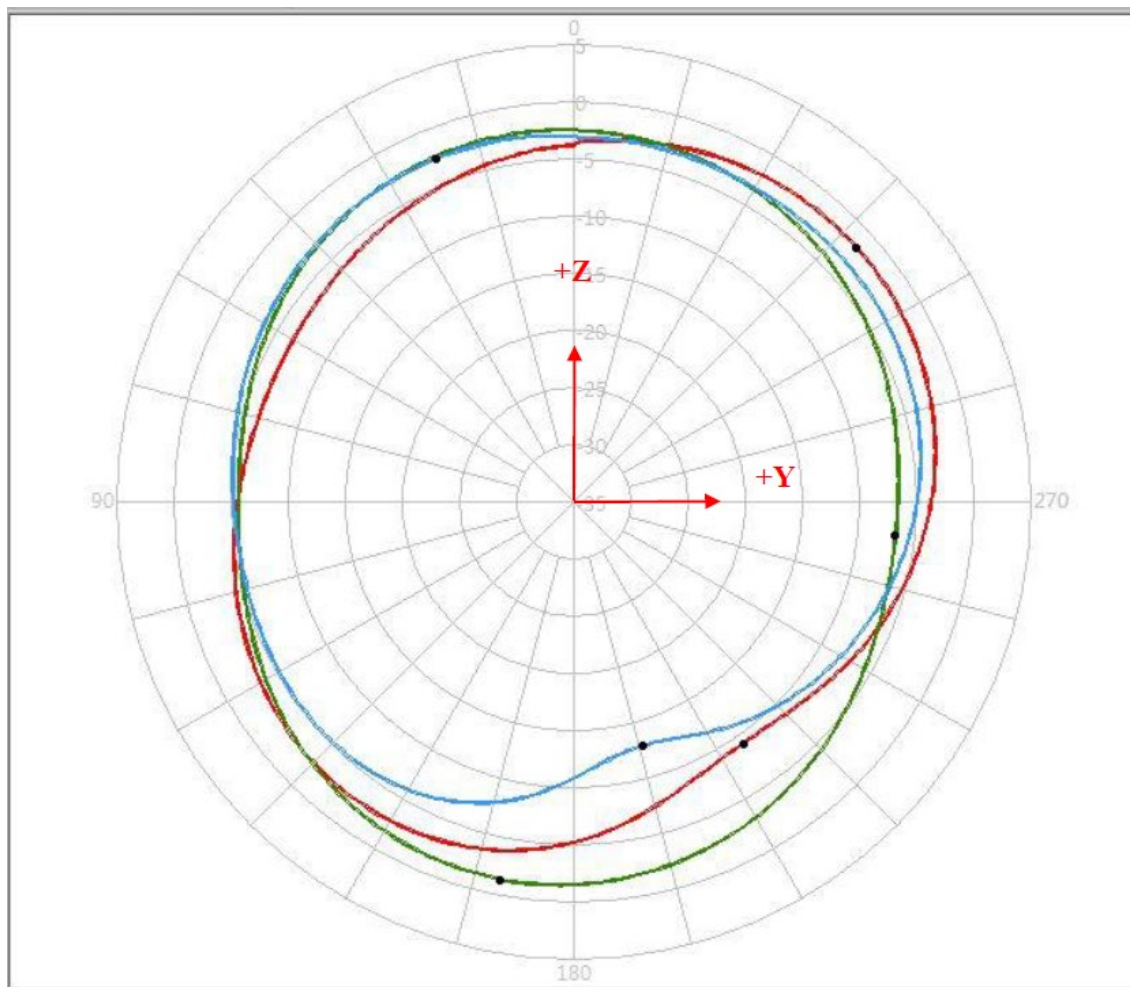
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MSL Level = N/A

YZ-Plane



Frequency (MHz)	Peak Gain (dBi)	Average Gain (dBi)
1176 MHz	-1.74	-4.25
1227 MHz	-1.37	-3.58
1575.42 MHz	-2.68	-4.93

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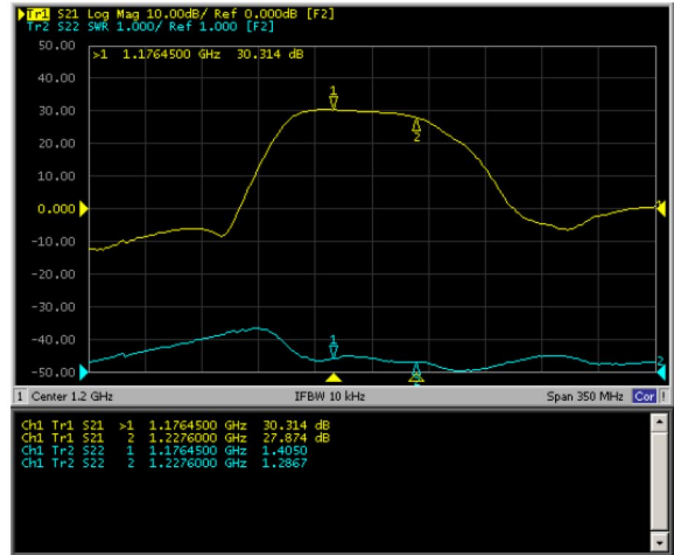
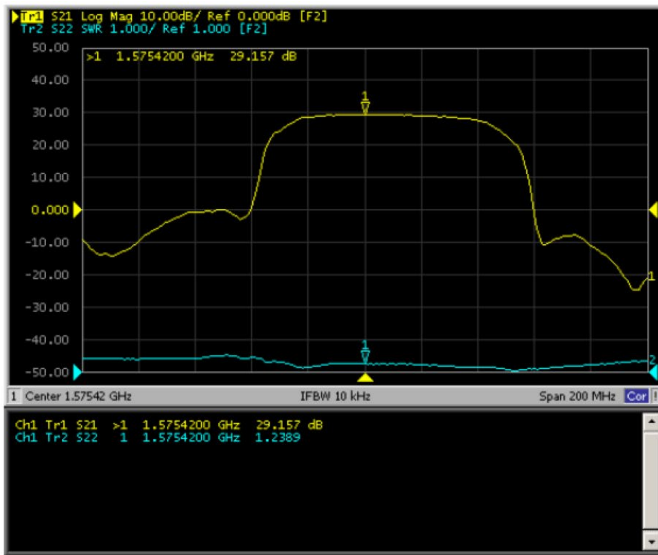
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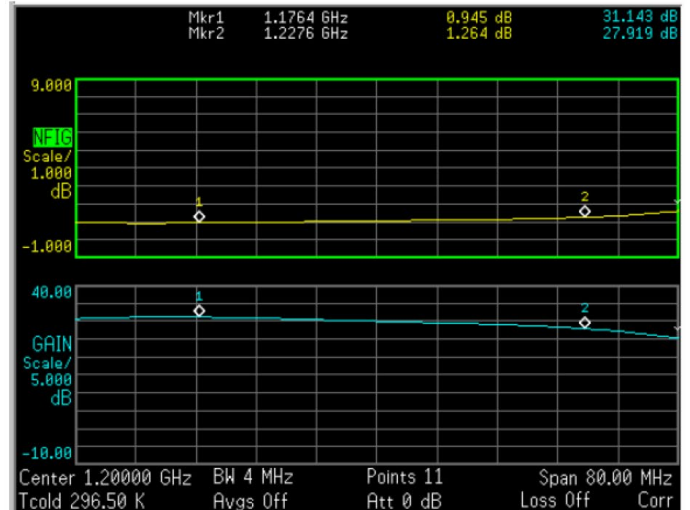
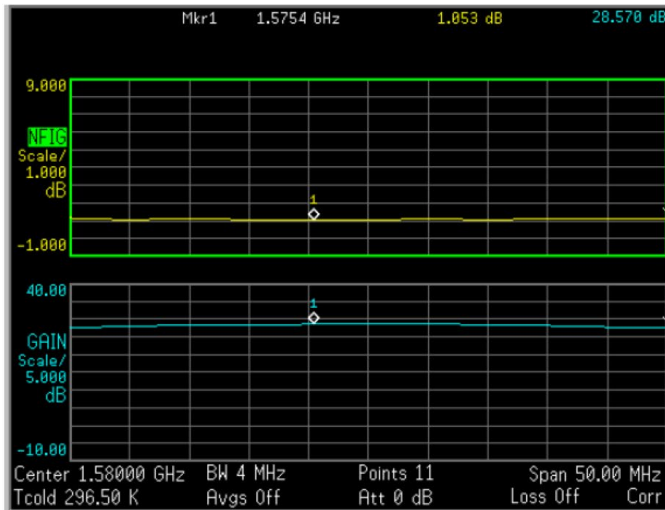
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Test Measurements: LNA - Gain, Noise



LNA Gain @3.3V



LNA Noise Figure @3.3V

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Packaging Information

Number of Antenna/ Carton : 450

Dimension of the Carton : 390 x 320 x 290 mm

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