

# GNSS/ GPS L1+L5/ GLONASS/ BeiDou/ Galileo - Active Stacked Patch Antenna

**APARC2511X-SG3L5**

Request Samples



Check Inventory



25 x 25 x 13 mm

RoHS/RoHS II Compliant

MSL Level = N/A

## Features

- Multiband GNSS Coverage – GPS/GLONASS/BeiDou/Galileo
- RHCP polarization
- Easy installation using IPEX Connector (Customizable Cable and Connector Options)
- High gain LNA

## Applications

- GNSS – GPS L1+L5/GLONASS/BeiDou/Galileo
- IoT
- M2M
- Remote Monitoring
- Geofencing
- Surveying and Mapping Systems
- Logistics and Tracking

## Electrical Specifications

Parameter	Specification				Unit	Note
	L1:BeiDou	L1:GPS/Galileo	L1:GLONASS	L5		
Operating Frequency	1561±2.046	1575.42±1.023	1602±8	1176±10	MHz	
VSWR	6.12	1.50	1.95	2.74		
Gain	-2	0	2	-2	dBi	Zenith
Impedance	50				Ω	
Polarization	RHCP					
Radiation Pattern	Omni-directional					Azimuth
<b>LNA</b>						
Noise Figure	1				dB	(25°C±5°C)
Gain	28±3		27±3		dB	(25°C±5°C)
Impedance	50				Ω	
VSWR	2.0					Max

## Mechanical Specification

Parameter	Specification
Antenna Dimension	25*25*13mm
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)

# GNSS/ GPS L1+L5/ GLONASS/ BeiDou/ Galileo - Active Stacked Patch Antenna

APARC2511X-SG3L5

Request Samples



Check Inventory



25 x 25 x 13 mm

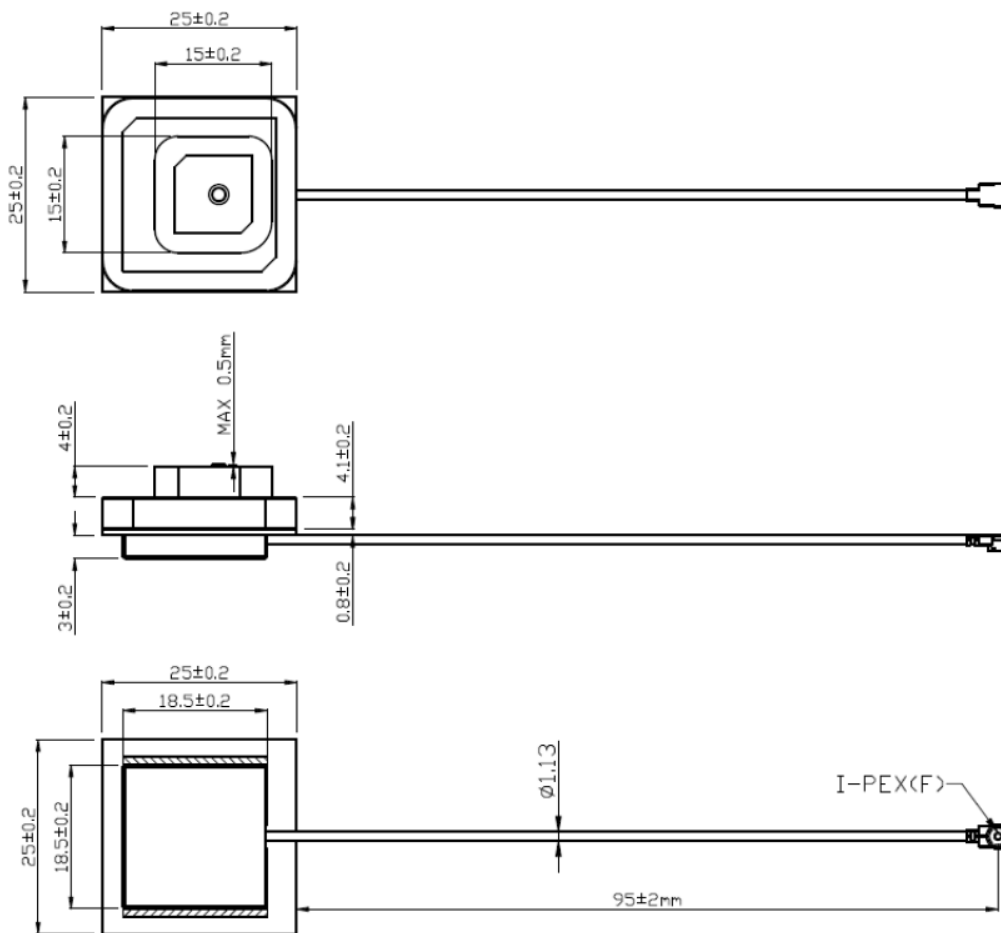
RoHS/RoHS II Compliant

MSL Level = N/A

## 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

## Product Dimension



Unit : mm

# GNSS/ GPS L1+L5/ GLONASS/ BeiDou/ Galileo - Active Stacked Patch Antenna

APARC2511X-SG3L5

Request Samples



Check Inventory

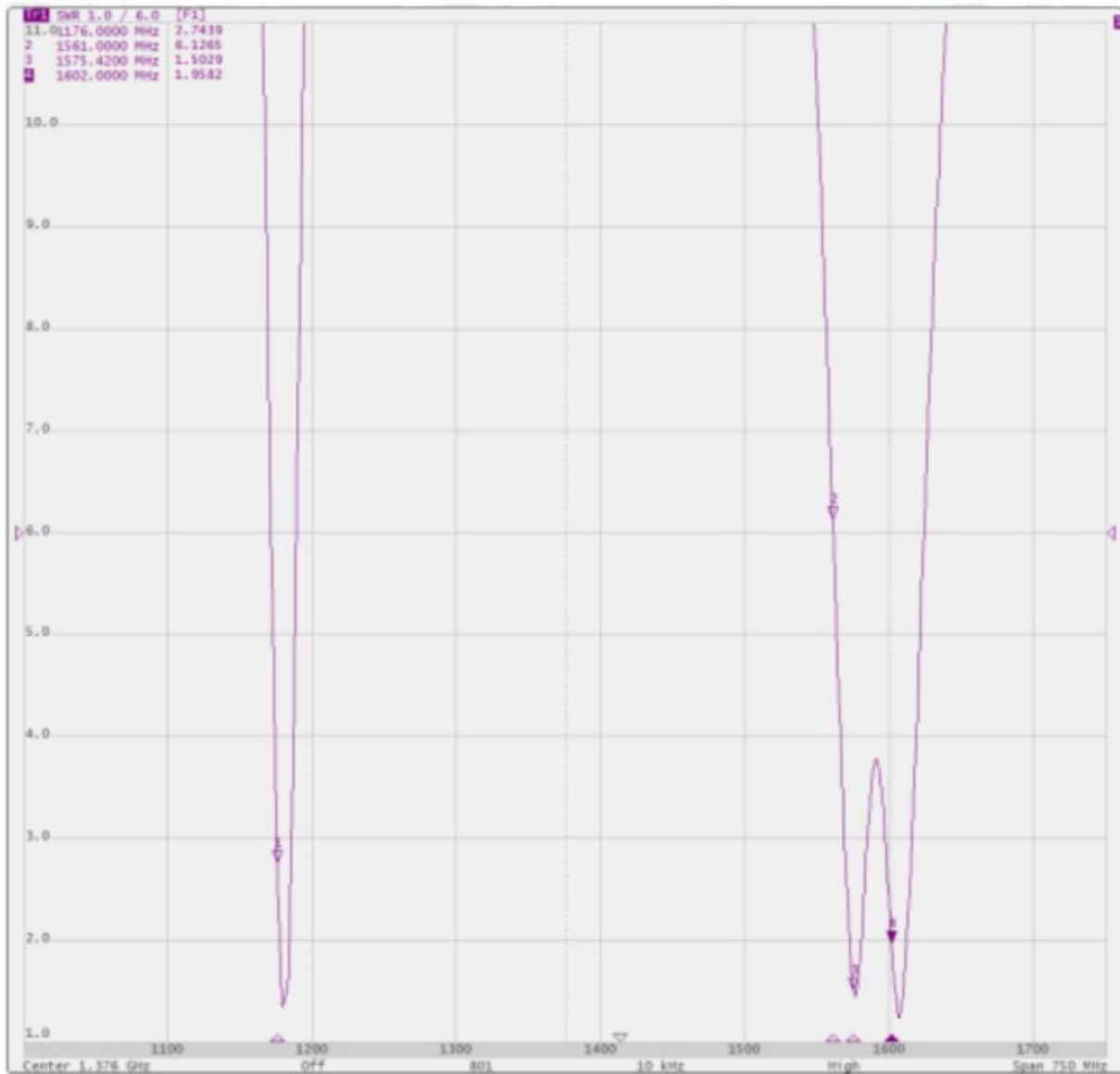


25 x 25 x 13 mm

RoHS/RoHS II Compliant

MSL Level = N/A

## Test Measurement –Antenna: Impedance Characteristics



# GNSS/ GPS L1+L5/ GLONASS/ BeiDou/ Galileo - Active Stacked Patch Antenna

APARC2511X-SG3L5

Request Samples



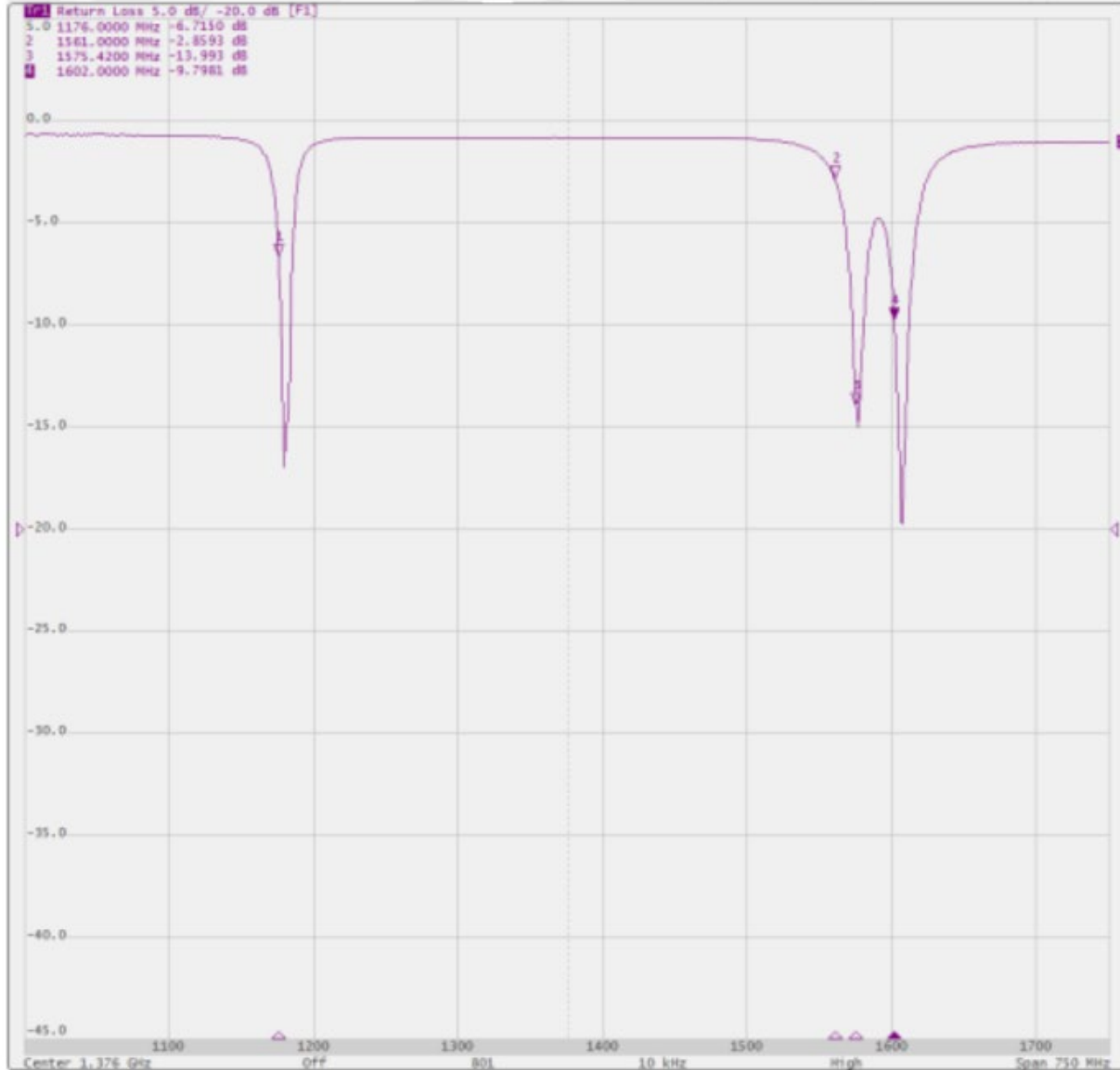
Check Inventory



25 x 25 x 13 mm

RoHS/RoHS II Compliant

MSL Level = N/A



# GNSS/ GPS L1+L5/ GLONASS/ BeiDou/ Galileo - Active Stacked Patch Antenna

APARC2511X-SG3L5

Request Samples



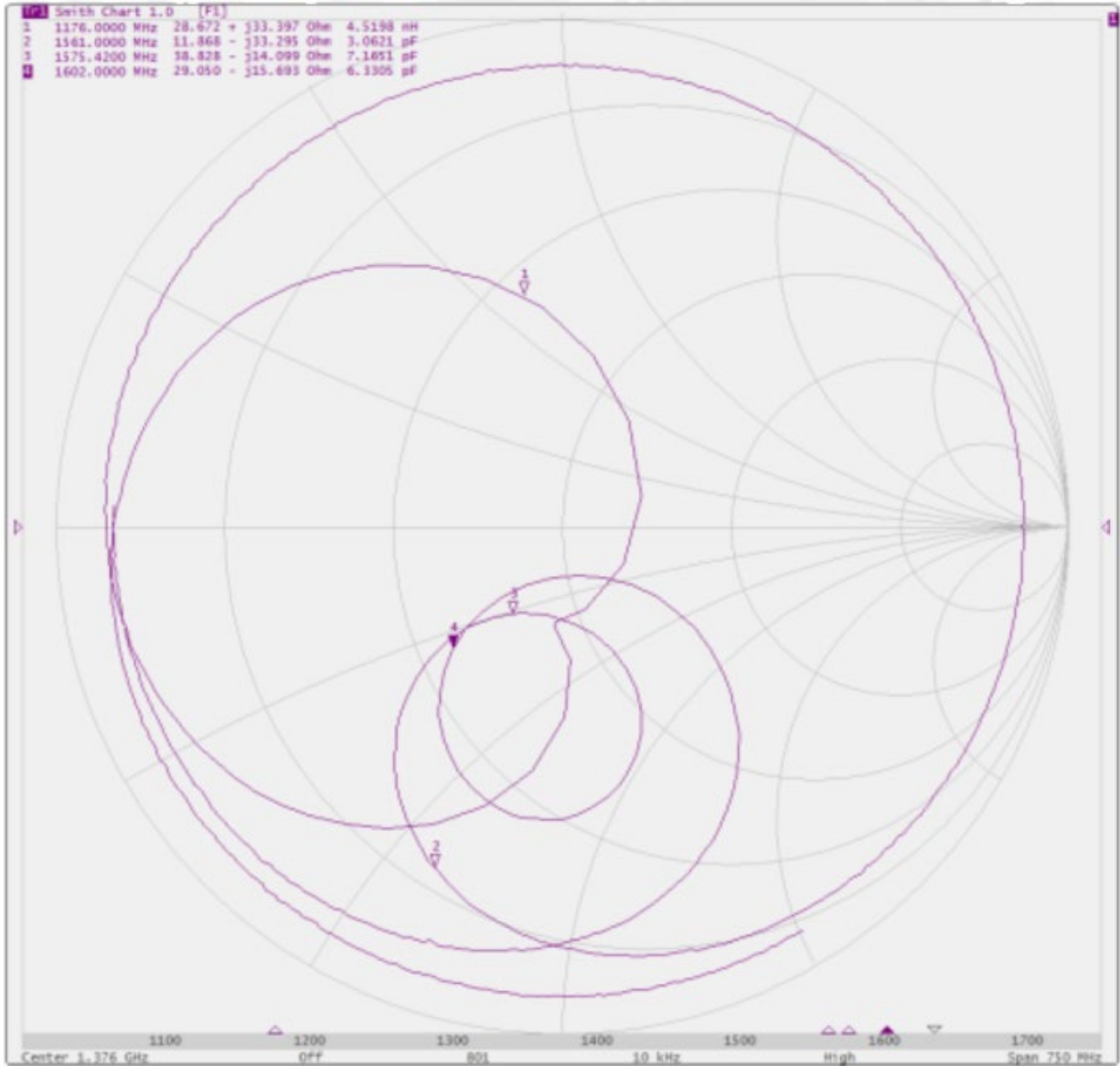
Check Inventory



25 x 25 x 13 mm

RoHS/RoHS II Compliant

MSL Level = N/A



5101 Hidden Creek Ln Spicewood TX 78669  
Phone: 512-371-6159 | Fax: 512-351-8858  
For terms and conditions of sales, please visit:  
[www.abracon.com](http://www.abracon.com)

REVISED: 02-03-20

ABRACON IS  
ISO9001-2015  
CERTIFIED

# GNSS/ GPS L1+L5/ GLONASS/ BeiDou/ Galileo - Active Stacked Patch Antenna

APARC2511X-SG3L5

Request Samples



Check Inventory



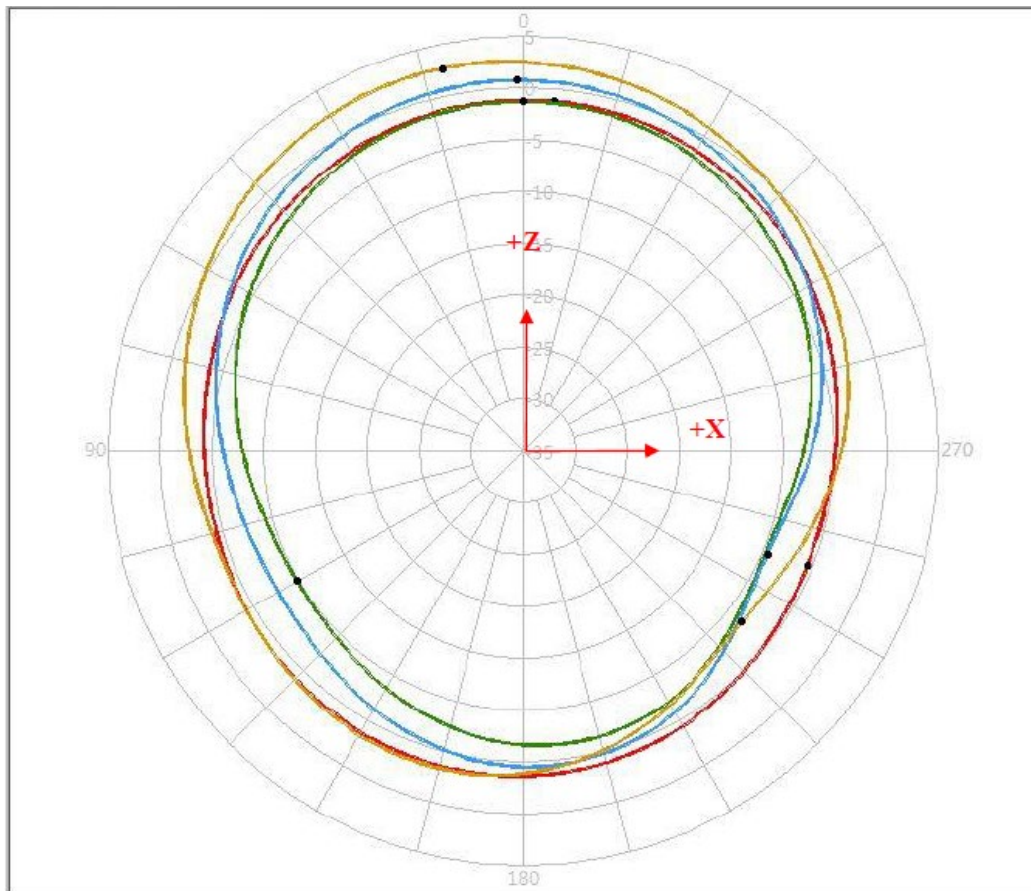
25 x 25 x 13 mm

RoHS/RoHS II Compliant

MSL Level = N/A

## Radiation Characteristics

### XZ-Plane



Frequency (MHz)	Peak Gain (dBi)	Average Gain (dBi)
1176 MHz	-1.23	-3.25
1561 MHz	-1.37	-5.12
1575.42 MHz	0.72	-3.28
1602 MHz	2.65	-1.27

# GNSS/ GPS L1+L5/ GLONASS/ BeiDou/ Galileo - Active Stacked Patch Antenna

APARC2511X-SG3L5

Request Samples



Check Inventory

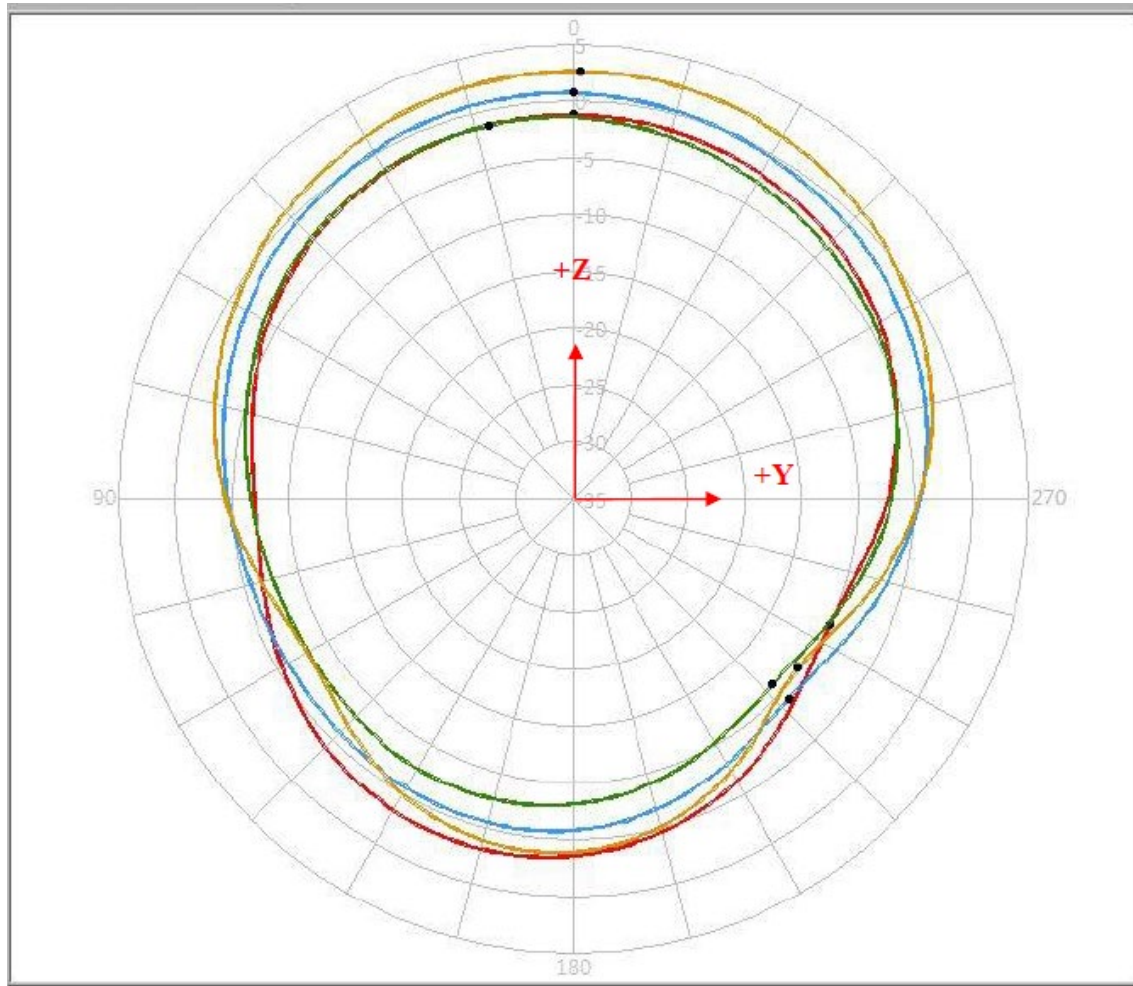


25 x 25 x 13 mm

RoHS/RoHS II Compliant

MSL Level = N/A

YZ- Plane



Frequency (MHz)	Peak Gain (dBi)	Average Gain (dBi)
1176 MHz	-1.23	-4.05
1561 MHz	-1.34	-5.03
1575.42 MHz	0.73	-2.85
1602 MHz	2.66	-1.54

# GNSS/ GPS L1+L5/ GLONASS/ BeiDou/ Galileo - Active Stacked Patch Antenna

APARC2511X-SG3L5

Request Samples



Check Inventory

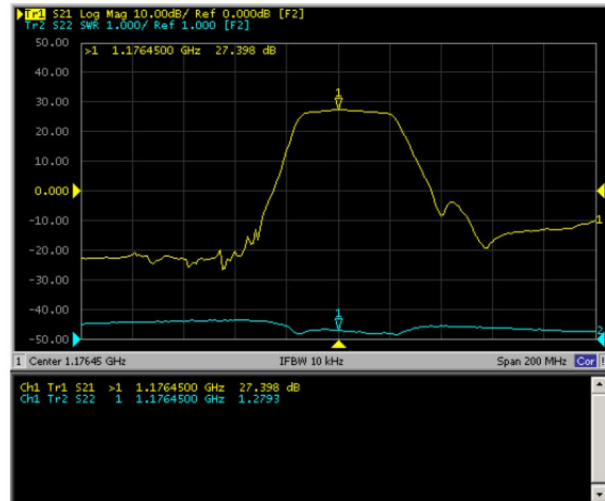
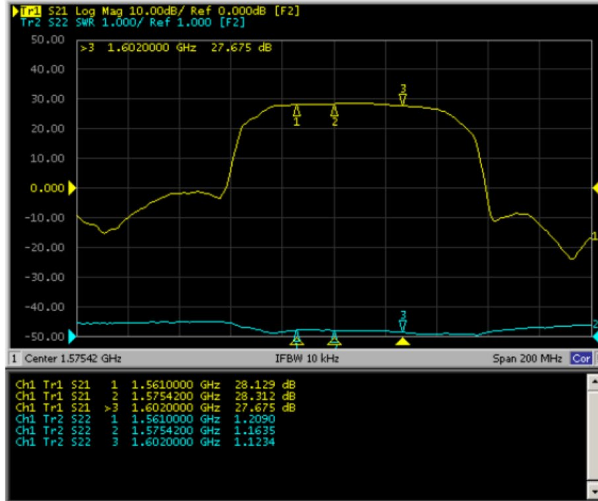


25 x 25 x 13 mm

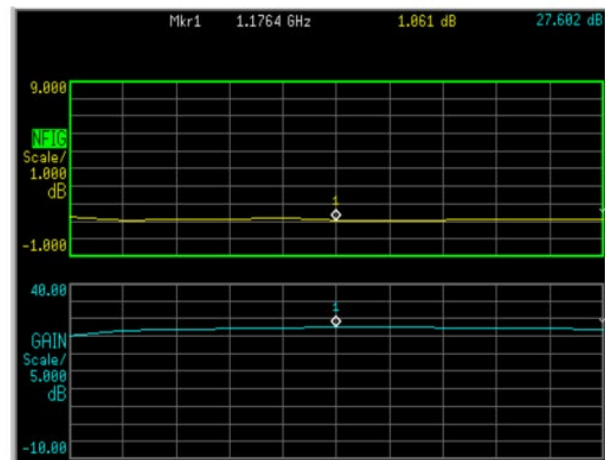
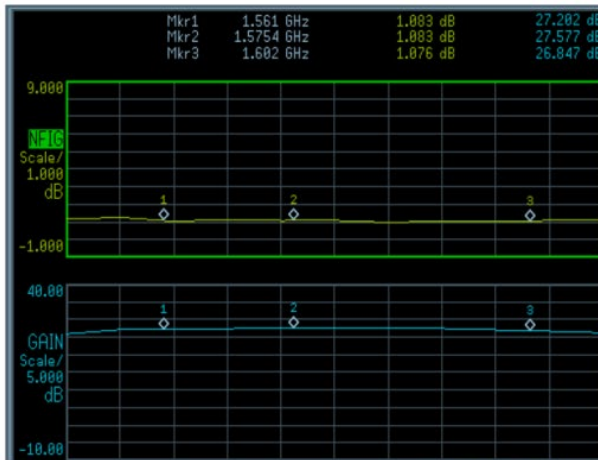
RoHS/RoHS II Compliant

MSL Level = N/A

## Test Measurements-LNA: Gain, Noise figure



LNA Gain @3.3V



LNA Noise Figure @3.3V



# GNSS/ GPS L1+L5/ GLONASS/ BeiDou/ Galileo - Active Stacked Patch Antenna

APARC2511X-SG3L5

Request Samples



Check Inventory



25 x 25 x 13 mm

RoHS/RoHS II Compliant

MSL Level = N/A

## Packaging Information

---

Number of Antenna/ Carton : 450

Dimension of the Carton : 390 x 320 x 290 mm

**ATTENTION:** Abracon LLC's products are COTS – Commercial-Off-The-Shelf products; suitable for Commercial, Industrial and, where designated, Automotive Applications. Abracon's products are not specifically designed for Military, Aviation, Aerospace, Life-dependent Medical applications or any application requiring high reliability where component failure could result in loss of life and/or property. For applications requiring high reliability and/or presenting an extreme operating environment, written consent and authorization from Abracon LLC is required. Please contact Abracon LLC for more information.



5101 Hidden Creek Ln Spicewood TX 78669  
Phone: 512-371-6159 | Fax: 512-351-8858  
For terms and conditions of sales, please visit:  
[www.abracon.com](http://www.abracon.com)

**REVISED: 02-03-20**

ABRACON IS  
ISO9001-2015  
CERTIFIED