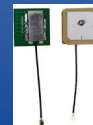


# GPS/GLONASS – Active Patch Antenna



APKD1507G2

Request Samples



Check Inventory



15 x 15 x 7 mm

RoHS/RoHS II Compliant

MSL Level = N/A

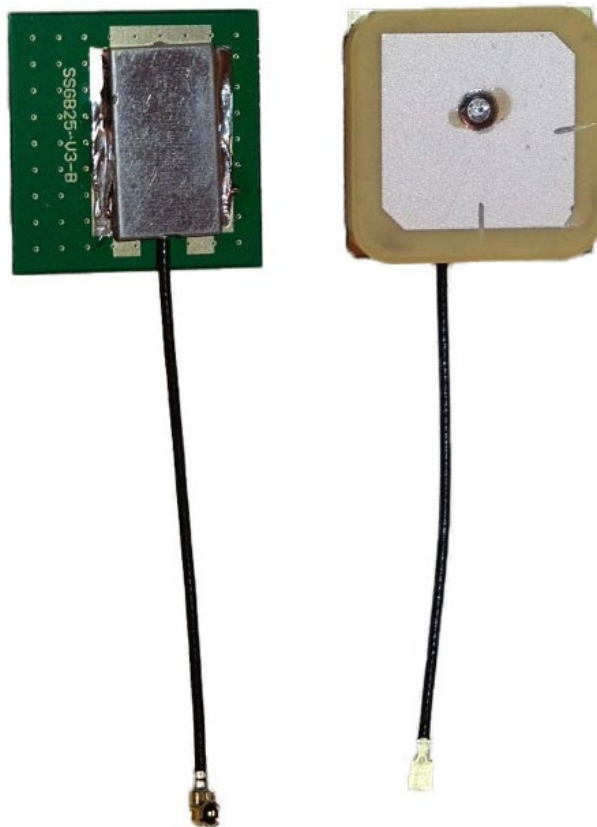
## Features

- Ultra-Compact Active Patch
- Operates in the GPS/GLONASS bands
- LNA with high gain of 21 dB
- Polarization - RHCP
- Easy installation using cable & Connector
- Fully customizable cable and connector options for RF connection

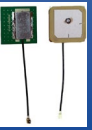
## Applications

- IoT
- M2M
- Logistics
- Navigation
- Geofencing
- Smart agriculture
- Industrial monitors
- Geo-tracking/Geolocation
- Surveying and mapping systems

## Product Image



# GPS/GLONASS – Active Patch Antenna



**APKD1507G2**

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15 x 15 x 7 mm  
**RoHS/RoHS II Compliant**  
 MSL Level = N/A

## Part Number Builder

APK□1507G2-□□□□□

Antenna Sub-Type / Mounting Type		
Code	Sub-Type	Mounting Type
<b>D</b> (Standard)	Active Patch	Cable & connector
A	Passive Patch	Through Hole-Pin
C	Passive Patch	Cable & Connector

Cable length in 'mm'	
Cable length supported : Ø1.13 mm (50 mm to 500 mm)	
Code	Description
<b>0100</b> (Standard)	100 mm
Other Examples :	
0050	50 mm
0200	200 mm

Cable Type & Connector Type		
Code	Cable Type	Connector Type
<b>S</b> (Standard)	RF Ø1.37 mm or others	<b>IPEX-1 (F)</b>
A		IPEX-4 (F)
B		MMCX (F)
C		MMCX (M)
D		MCX (F)
E		MCX (M)
F		SMA (F)
G		SMA (M)
H		RP-SMA (F)
I		RP-SMA (M)
J		SMB (F)
K		SMB (M)
L		FAKRA-D (F)

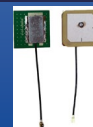
### Example Configurations :

Part Number	Antenna Sub-Type / Mounting Type	Cable length	Cable Type / Connector Type
APK <b>D</b> 1507G2- <b>0100</b> S	Active Patch with Cable & Connector	0100 mm	Ø1.37 mm with IPEX-1 (F) (Standard)
APK <b>C</b> 1507G2- <b>0100</b> S	Passive Patch with Cable & Connector	0050 mm	Ø1.37 mm with IPEX-4 (F)

### Note :

- For the standard part number (APK**D**1507G2-**0100**S), please refer to the packaging at the end of the document.
- For custom configurations (APK□1507G2-□□□□□), MOQs, pricing and packaging changes may be applicable.

# GPS/GLONASS – Active Patch Antenna



**APKD1507G2**

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15 x 15 x 7 mm  
**RoHS/RoHS II Compliant**  
 MSL Level = N/A

## Electrical Specification

Parameter	Specification			Unit
	Min	Typ	Max	
<b>ANTENNA</b>				
Operating Frequency		1575.42		MHz
	1598.06		1605.38	
VSWR			2.0	
Bandwidth (RL = -10 dB)	5			MHz
Peak gain (on 15x15 mm ground)		1.0		dBi
Impedance		50		$\Omega$
Polarization		RHCP		
<b>LNA</b>				
Operating Frequency	1556		1608	MHz
VSWR			2.0	
Noise Figure			1.1	dB
Gain (at 25°C)	19	21	23	dB
DC Current	2.6	4.2	5.0	mA
DC Voltage	1.5	3.0	3.6	V

## Mechanical Specification

Parameter	Specification
Antenna Dimensions	15 x 15 x 4 mm
Antenna Type	Active / Ceramic Patch
RF Connector	IPEX-1 (F)
RF Cable Type	$\emptyset$ 1.13mm
Cable Length	105 mm

## Environmental Specification

Parameter	Specification
Operating Temperature	-40°C to +85°C
Storage Temperature	-45°C to +85°C
Relative Humidity	10% ~ 95%
ROHS Complaint	Yes
PB Free	Yes
ESD Sensitive	No
MSL Level	N/A

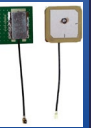


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# GPS/GLONASS – Active Patch Antenna



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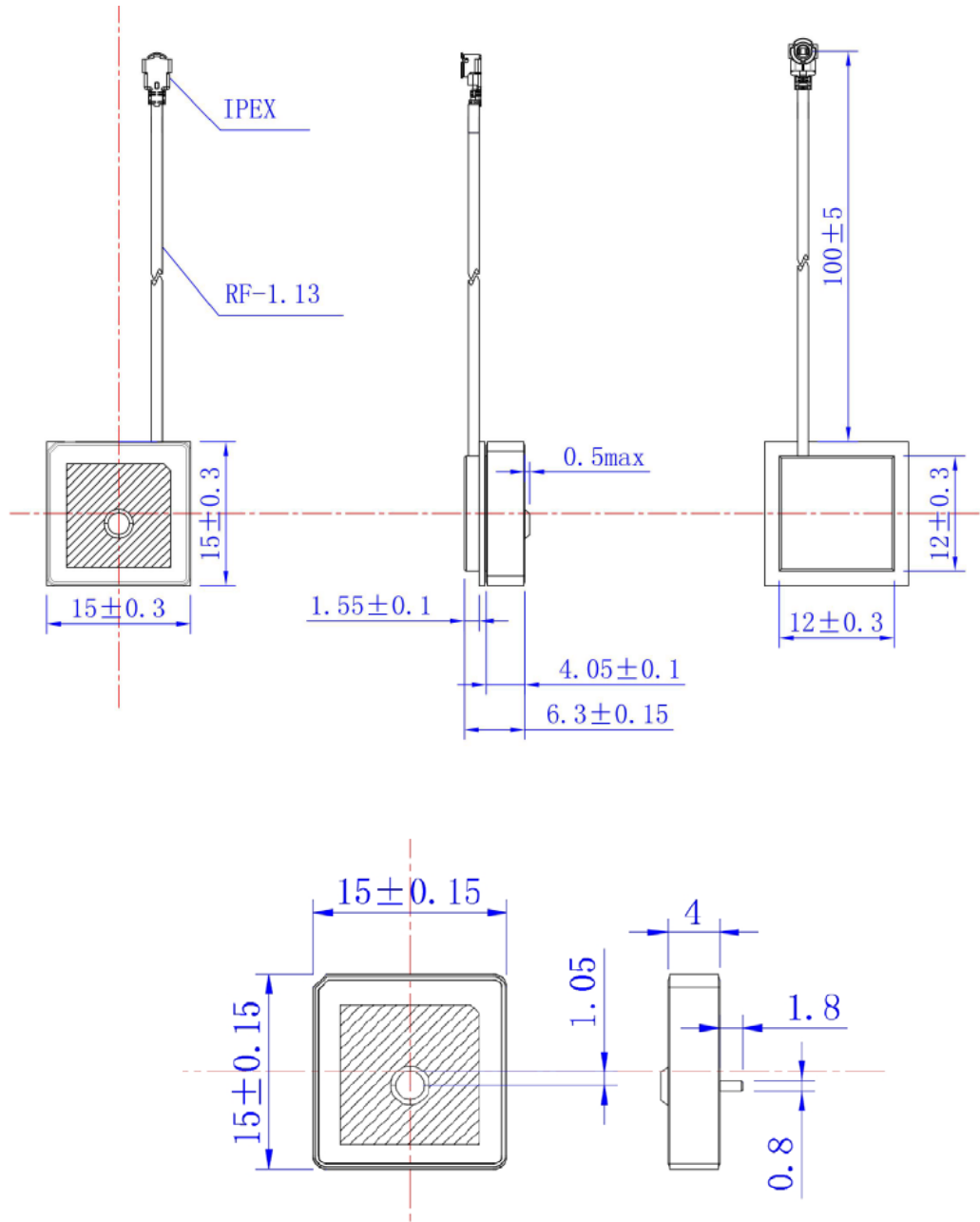


Check Inventory



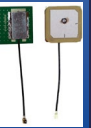
15 x 15 x 7 mm  
RoHS/RoHS II Compliant  
MSL Level = N/A

## Product Dimension



Unit : mm

# GPS/GLONASS – Active Patch Antenna



**APKD1507G2**

Request Samples

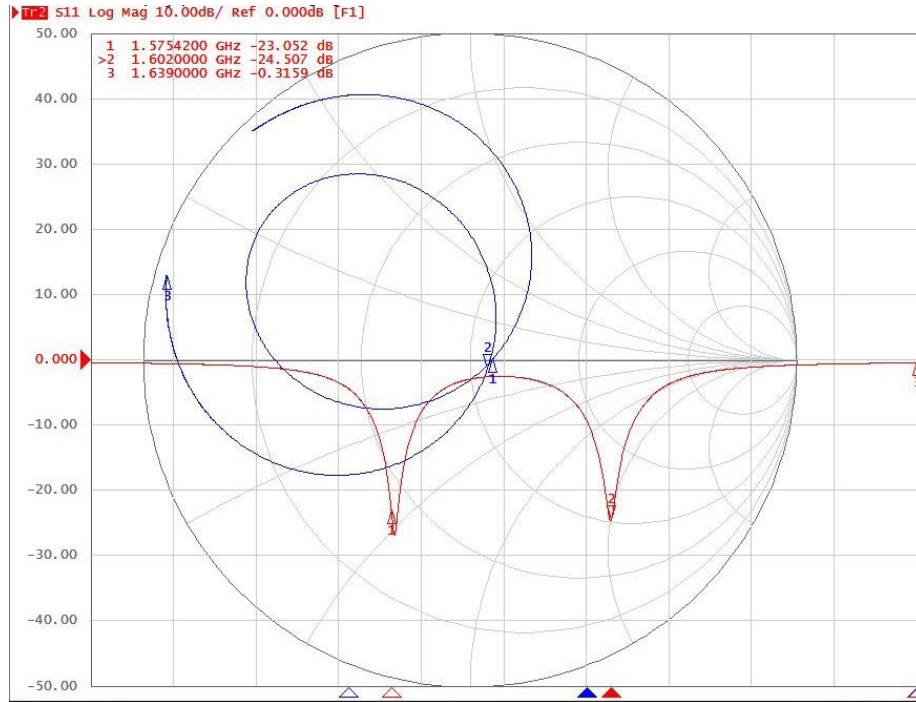


Check Inventory

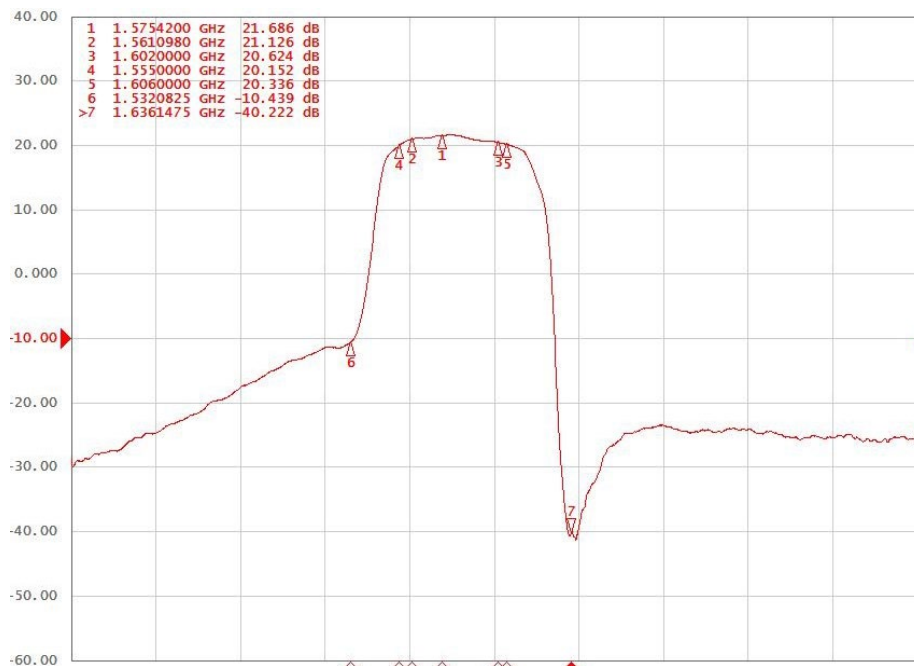


15 x 15 x 7 mm  
**RoHS/RoHS II Compliant**  
 MSL Level = N/A

## Test Measurement – Impedance Characteristics (Active/Passive Antenna)



## Test Measurement – LNA Gain at 3.0 V (Active Antenna)

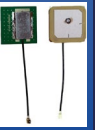


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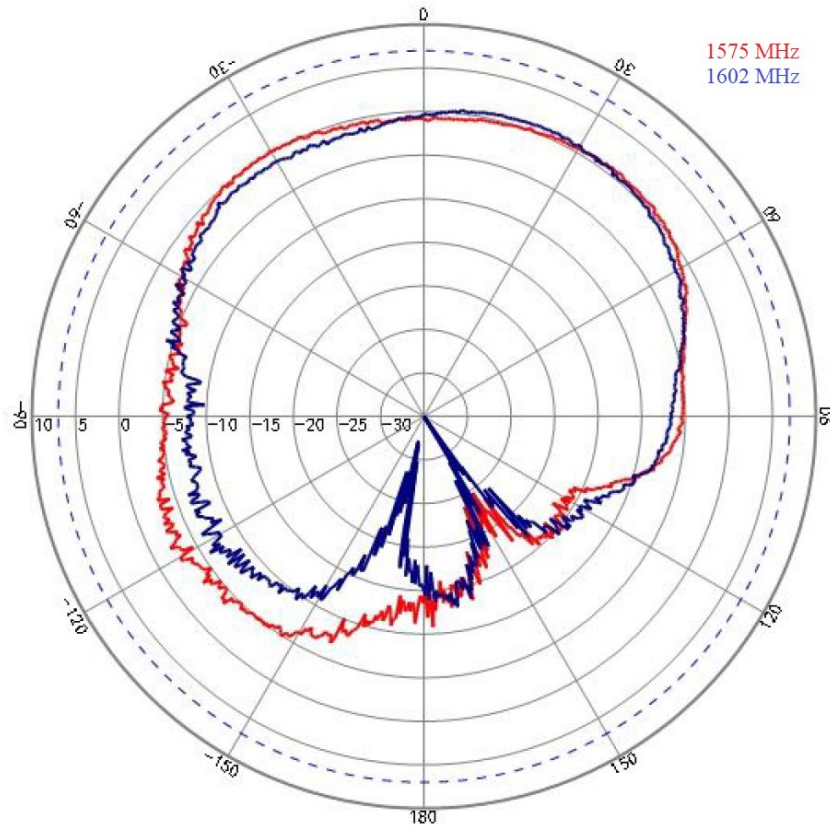


Check Inventory



15 x 15 x 7 mm  
RoHS/RoHS II Compliant  
MSL Level = N/A

## Radiation Characteristics – 2D Elevation Pattern



## Packaging Information

Number of Antenna/ Carton: 1600 pcs  
Dimension of the Carton: 52 x 29 x 16 cm  
Weight of the Carton: 11 kg  
Weight of 1 pc : 6g (active antenna)

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