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

The two pictures below show APKD1507G2-0050S front and back.





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Part Number Builder

APK□1507G2-□□□□□

Antenna Sub-Type / Mounting Type		
Code	**Sub-Type**	**Mounting Type**
D (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**
0100 (Standard)	100 mm
Other Examples :	
0050	50 mm
0200	200 mm

Cable Type & Connector Type		
Code	**Cable Type**	**Connector Type**
S (Standard)	RF Ø1.13 mm or others	IPEX-1 (F)
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
APKD1507G2-0100S	Active Patch with Cable & Connector	0100 mm	Ø1.13 mm with IPEX-1 (F) (Standard)
APKC1507G2-0050A	Passive Patch with Cable & Connector	0050 mm	Ø1.13 mm with IPEX-4 (F)

Note :

- For the standard part number (APKD1507G2-0100S), please refer to the packaging at the end of the document.
- For custom configurations (APK□1507G2-□□□□□), MOQs, pricing and packaging changes may be applicable.

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Electrical Specification

Parameter	Specification			Unit
	Min	Typ	Max	
ANTENNA				
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		Ω
Polarization		RHCP		
LNA				
Operating Frequency	1556		1608	MHz
VSWR			2.0	
Noise Figure			1.1	dB
Gain (at 25ºC)	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	Ø1.13mm

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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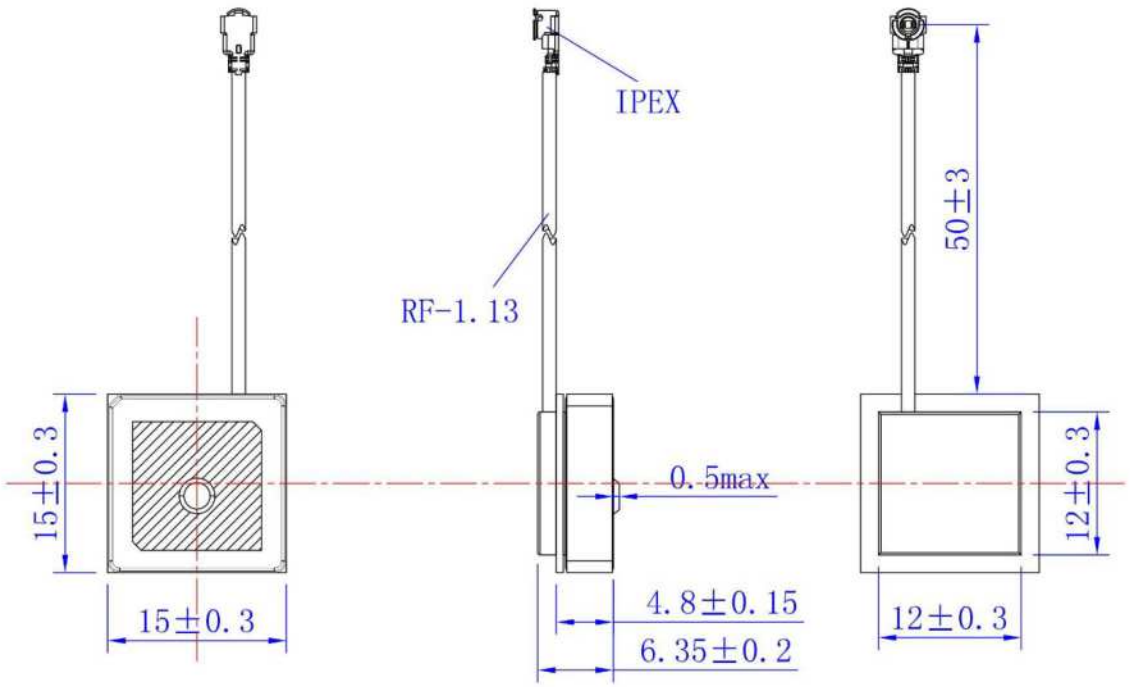
APKD1507G2

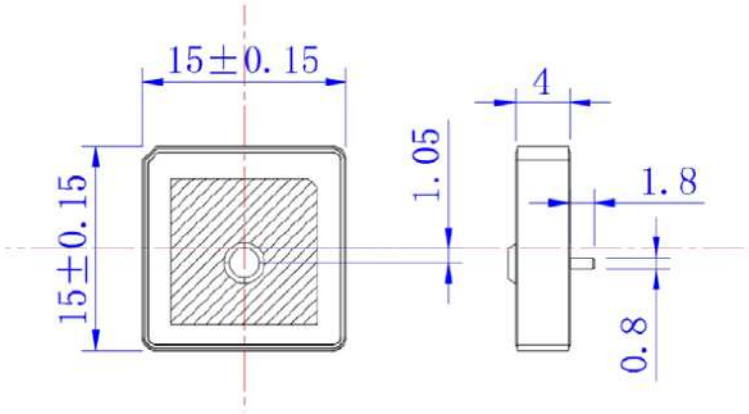
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Product Dimension

Note: The cable length exampled below is for the 50 mm option.





Unit : mm

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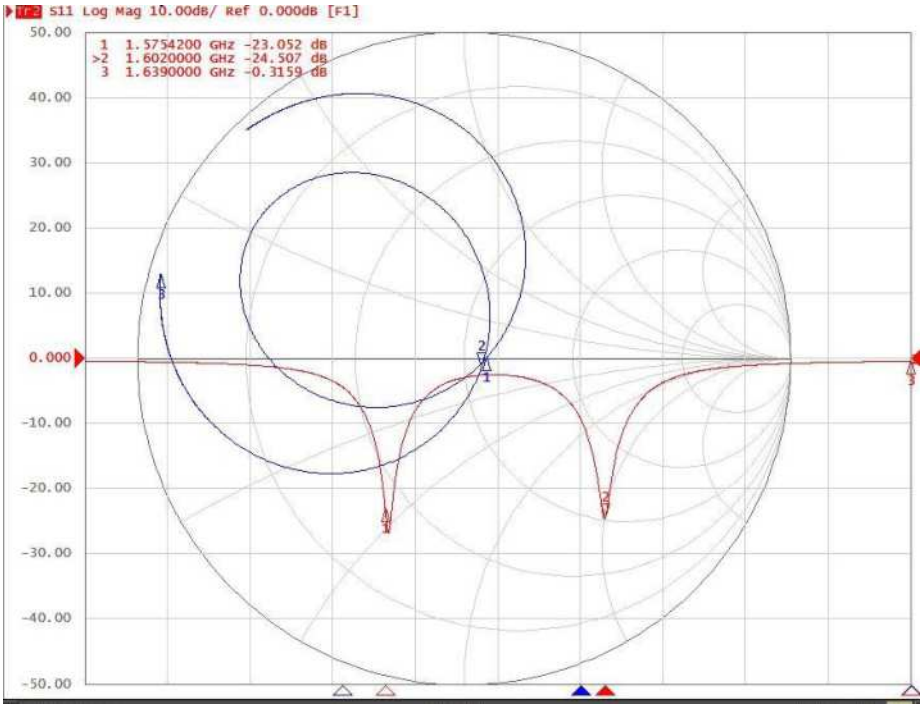


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Test Measurement – Impedance Characteristics (Active/Passive Antenna)



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



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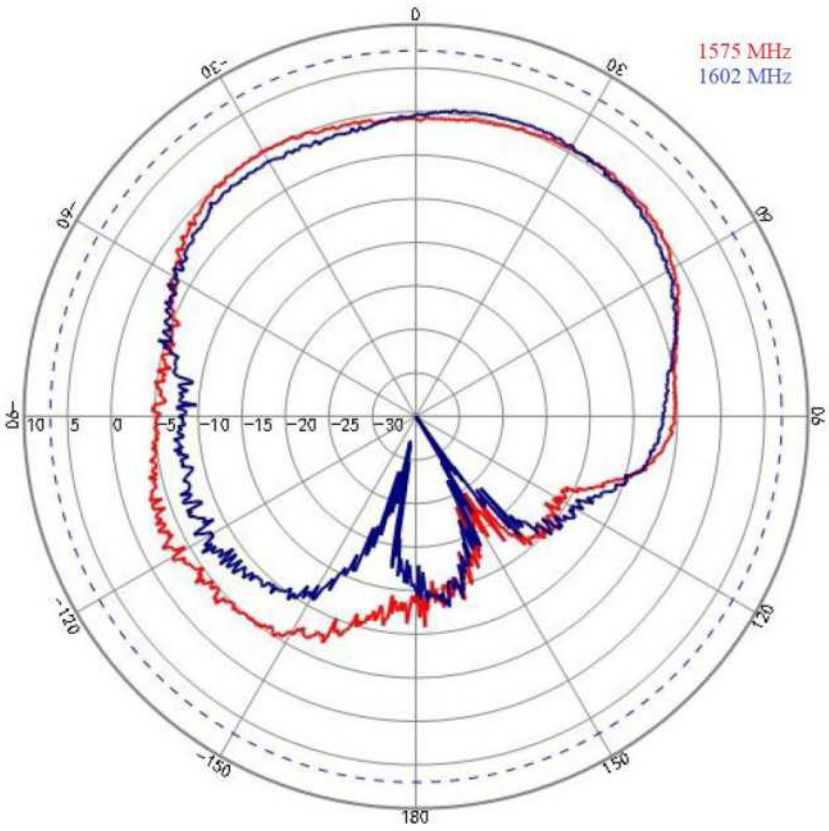


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Radiation Characteristics – 2D Elevation Pattern



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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