

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- <u>0100S</u>	Active Patch with Cable & Connector	0100 mm	Ø1.13 mm with IPEX-1 (F) (Standard)
APKC1507G2- <u>0050A</u>	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 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	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 Compliant	Yes
PB Free	Yes
ESD Sensitive	No
MSL Level	N/A



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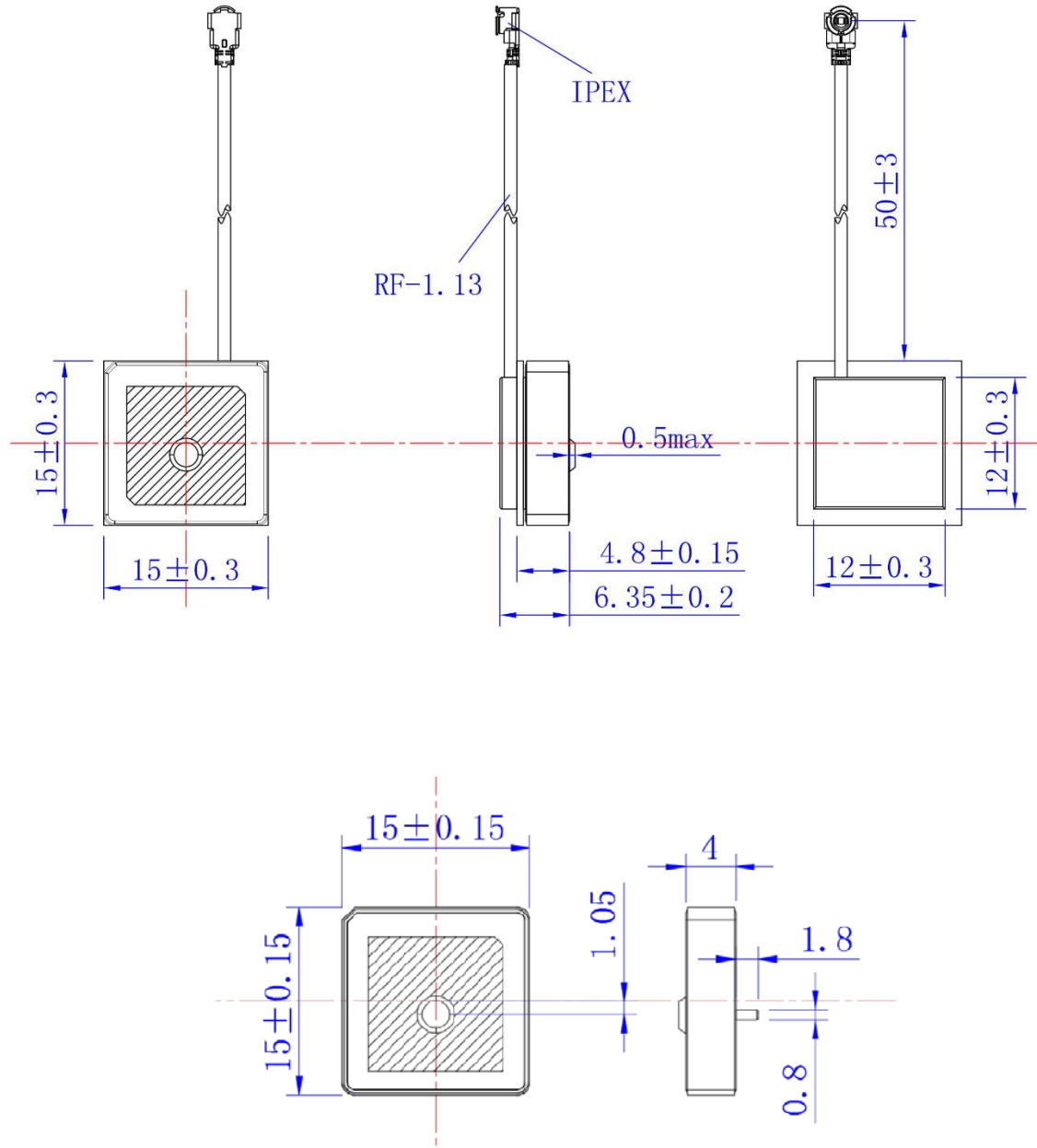
Check Inventory



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Product Dimension

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



Unit : mm

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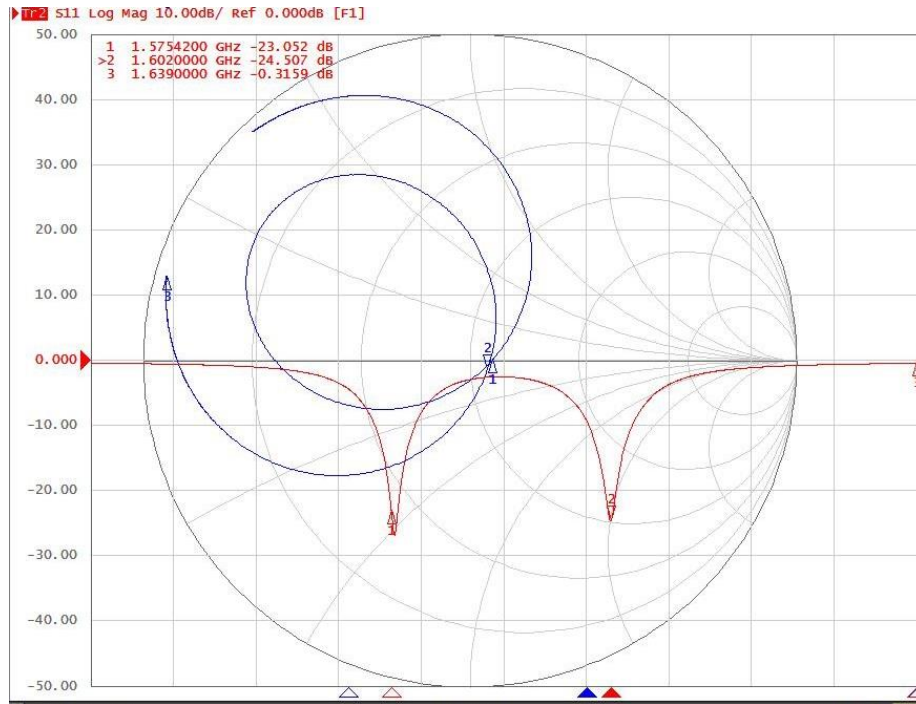


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Test Measurement – Impedance Characteristics (Active/Passive Antenna)



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



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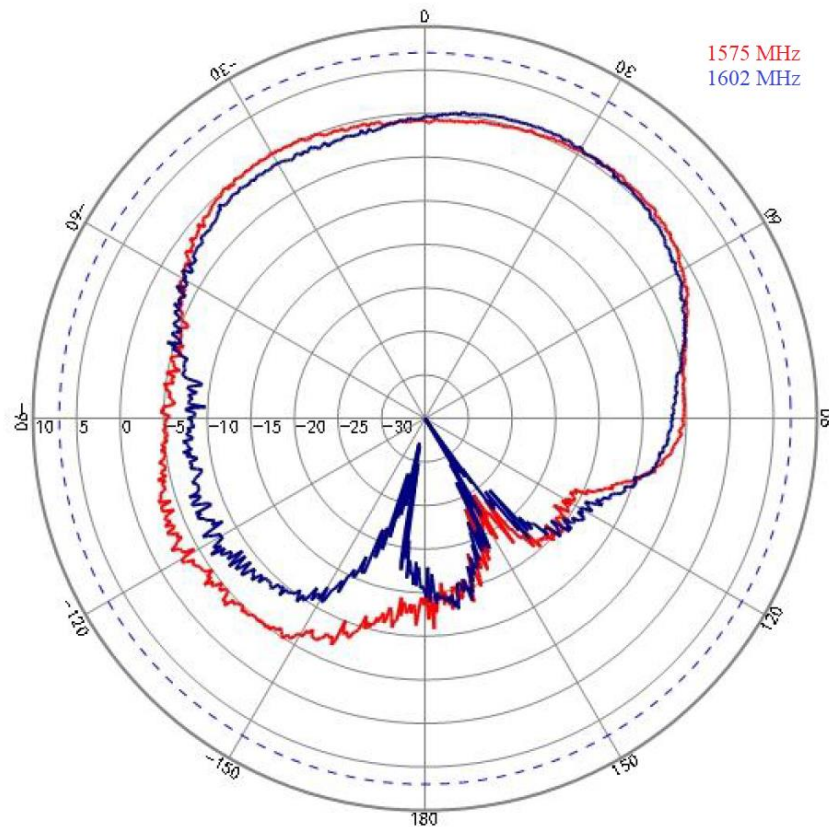


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Radiation Characteristics – 2D Elevation Pattern



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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