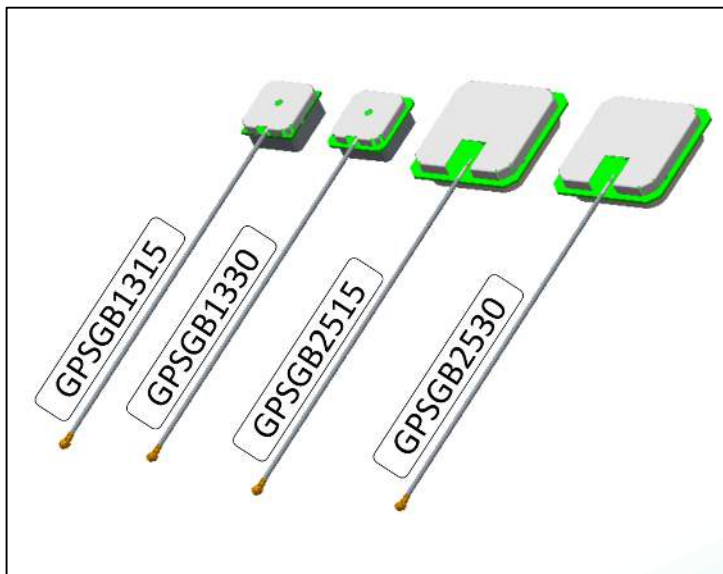
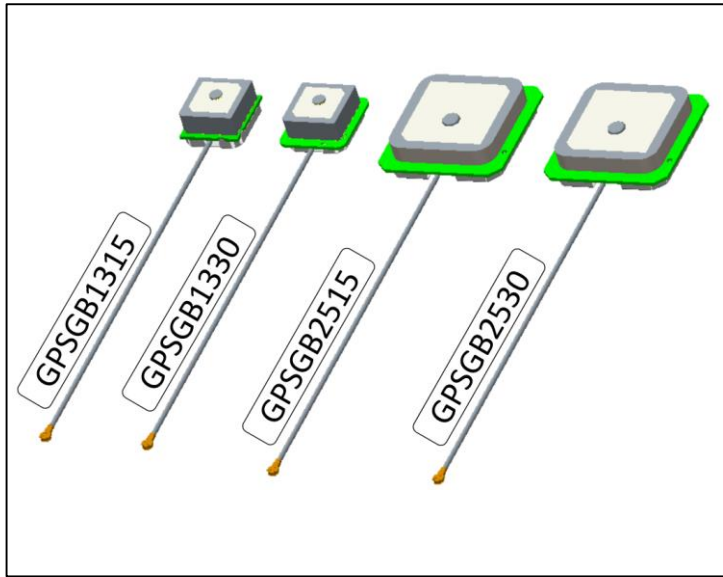


**Description:**

GPS/GLONASS/BEIDOU/COMPASS/Galileo

**PART NUMBER: GPSGBXXXX**

**Series: Internal Active GPS**



**Features:**

- Satellite navigation active antenna
- Ultra low noise amplifiers
- High Gain (30dB) and Low Gain (15dB) LNA variants available
- High rejection filters to suppress out of band interference

**Applications:**

- GPS, GLONASS, BeiDou, Compass, Galileo satellite navigation system
- Asset tracking, Fleet management, IoT, M2M

All dimensions are in mm / inches

Issue: 1945

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Pulse (Suzhou) Wireless Products Co, Inc.  
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Suzhou New District  
Jiangsu Province, Suzhou 215009 PR China  
Tel: 86 512 6807 9998



**Description:**

GPS/GLONASS/BEIDOU/COMPASS/Galileo

**PART NUMBER: GPSGBXXXX**

**Series: Internal Active GPS**

**This document covers all product variants of the following product family:**

Projects	Ceramic Size(mm)	PCB Size (mm)	Thickness (mm)	Cable	Connector
GPSGB1315	13 X 13 X 5	14 X 15 X 0.8	8.15	Φ: 1.13mm L : 100mm	I-PEX MHF 20278-112R-13 compatible with U.FL connector
GPSGB1330		16 X 17 X 0.8	8.15		
GPSGB2515	25 X 25 X 4	30 X 30 X 0.8	8		
GPSGB2530					

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Series: Internal Active GPS

**Description:**  
 GPS/GLONASS/BEIDOU/COMPASS/Galileo  
**PART NUMBER: GPSGBXXXX**

**ELECTRICAL SPECIFICATIONS**

**GPSGB1315**

Frequency	1561.098 ± 2.046/ 1575.42 ± 1.023/ 1602.5625 ± 4	MHz
Nominal Impedance	50	Ω
VSWR	2:1	
Gain (Radiating element)	-1	dBic ± 1 dB
Gain (LNA gain)	15	dB ± 2 dB
Polarization	RHCP	
Out of Band Rejection		
698 MHz	>60	dB
960MHz	>50	dB
1710MHz	>55	dB
2170MHz	>55	dB
2400MHz	>55	dB
2700MHz	>55	dB

Series: Internal Active GPS

**Description:**  
GPS/GLONASS/BEIDOU/COMPASS/Galileo  
**PART NUMBER: GPSGBXXXX**

**ELECTRICAL SPECIFICATIONS**

**GPSGB1330**

Frequency	1561.098 ± 2.046/ 1575.42 ± 1.023/ 1602.5625 ± 4	MHz
Nominal Impedance	50	Ω
VSWR	2:1	
Gain (Radiating element)	-1	dBic ± 1 dB
Gain (LNA gain)	30	dB ± 2 dB
Polarization	RHCP	
Out of Band Rejection		
698 MHz	>70	dB
960MHz	>65	dB
1710MHz	>60	dB
2170MHz	>65	dB
2400MHz	>65	dB
2700MHz	>65	dB

Issue: 1945

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Series: Internal Active GPS

**Description:**  
 GPS/GLONASS/BEIDOU/COMPASS/Galileo  
**PART NUMBER: GPSGBXXXX**

**ELECTRICAL SPECIFICATIONS**

**GPSGB2515**

Frequency	1561.098 ± 2.046/ 1575.42 ± 1.023/ 1602.5625 ± 4	MHz
Nominal Impedance	50	Ω
VSWR	2:1	
Gain (Radiating element)	1	dBic ± 1 dB
Gain (LNA gain)	15	dB ± 2 dB
Polarization	RHCP	
Out of Band Rejection		
698 MHz	>60	dB
960MHz	>50	dB
1710MHz	>55	dB
2170MHz	>55	dB
2400MHz	>55	dB
2700MHz	>55	dB

Series: Internal Active GPS

**Description:**

GPS/GLONASS/BEIDOU/COMPASS/Galileo

**PART NUMBER: GPSGBXXXX**

**ELECTRICAL SPECIFICATIONS**

**GPSGB2530**

Frequency	1561.098 ± 2.046/ 1575.42 ± 1.023/ 1602.5625 ± 4	MHz
Nominal Impedance	50	Ω
VSWR	2:1	
Gain (Radiating element)	1	dBic ± 1 dB
Gain (LNA gain)	30	dB ± 2 dB
Polarization	RHCP	
Out of Band Rejection		
698 MHz	>70	dB
960MHz	>65	dB
1710MHz	>60	dB
2170MHz	>65	dB
2400MHz	>65	dB
2700MHz	>65	dB

**Series: Internal Active GPS**

**Description:**

GPS/GLONASS/BEIDOU/COMPASS/Galileo

**PART NUMBER: GPSGBXXXX**

**ELECTRICAL SPECIFICATIONS**

**ALL GPSGBXXXX**

Noise Figure	<2.4 dB
Operating Voltage	3.3-5 Vdc±0.5V
Current Consumption	<6 mA

**Series: Internal Active GPS**

**Description:**

GPS/GLONASS/BEIDOU/COMPASS/Galileo

**PART NUMBER: GPSGBXXXX**

**MECHANICAL SPECIFICATIONS**

Fixing system

Adhesive Tape

**ENVIRONMENTAL SPECIFICATIONS**

Operating temperature

-40 ~ +85° C



**Description:**

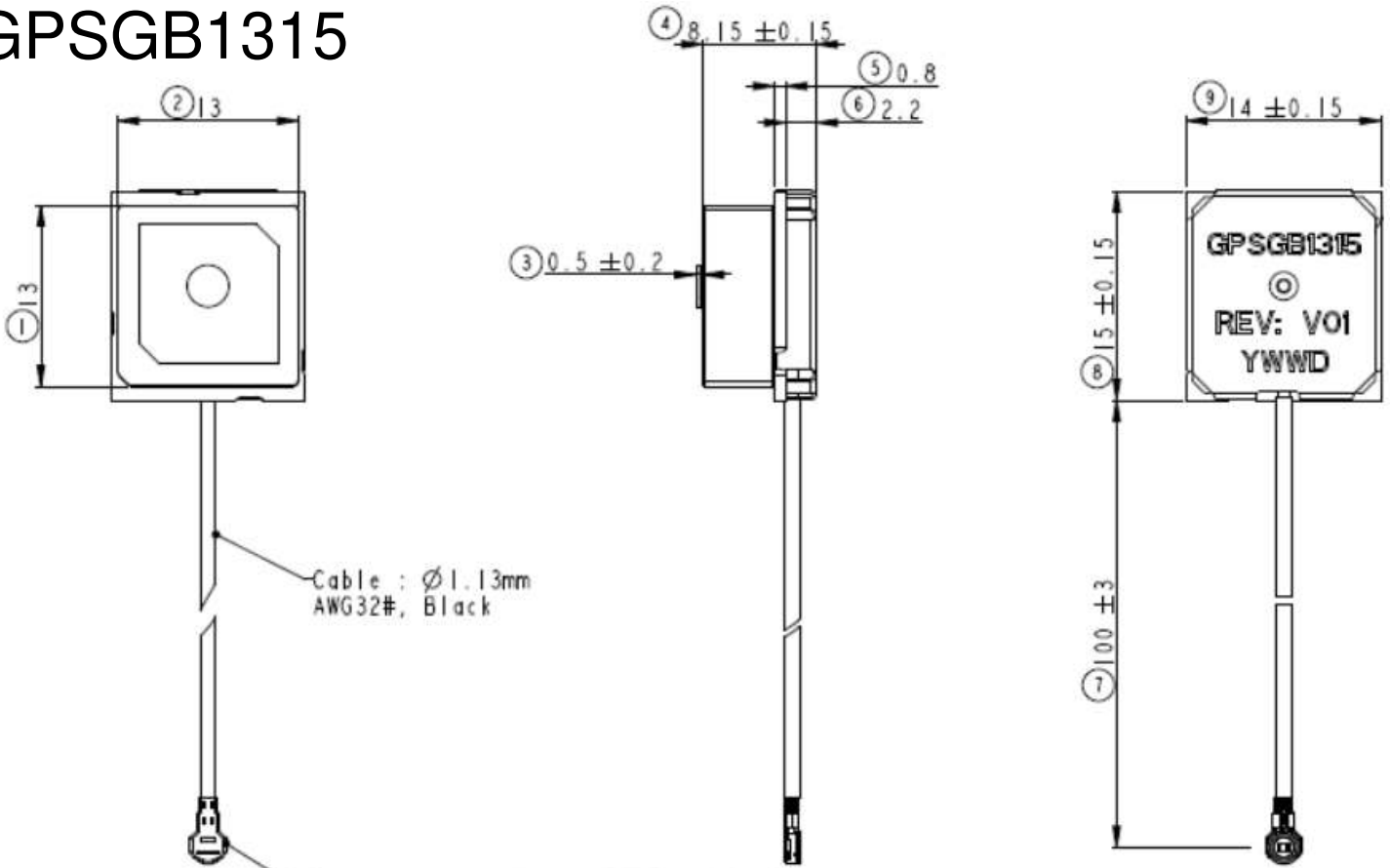
GPS/GLONASS/BEIDOU/COMPASS/Galileo

**PART NUMBER: GPSGBXXXX**

**Series: Internal Active GPS**

**MECHANICAL DRAWING**

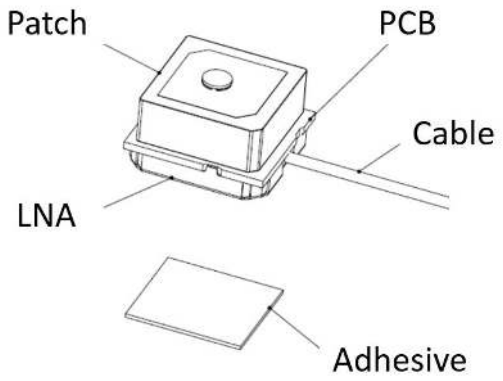
**GPSGB1315**



Cable :  $\varnothing 1.13\text{mm}$   
AWG32#, Black

Connector: I-PEX MHF 20278-112R-13  
compatible with U.FL connector

Suggested Receptacle: I-PEX 20279-001E-##  
or I-PEX 20441-001E-01



P.S.:

Adhesive tape material: 3M R16 , T=0.4mm

It's not assembled, but included in the sales package

Issue: 1945

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**Description:**

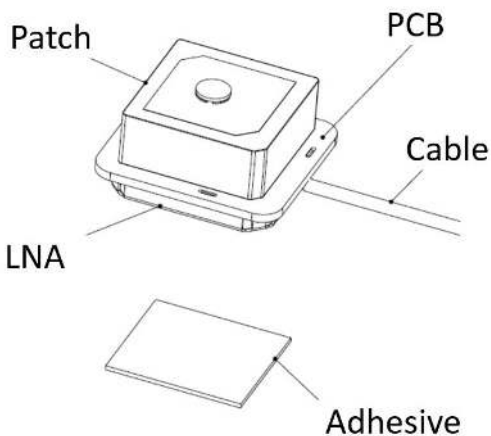
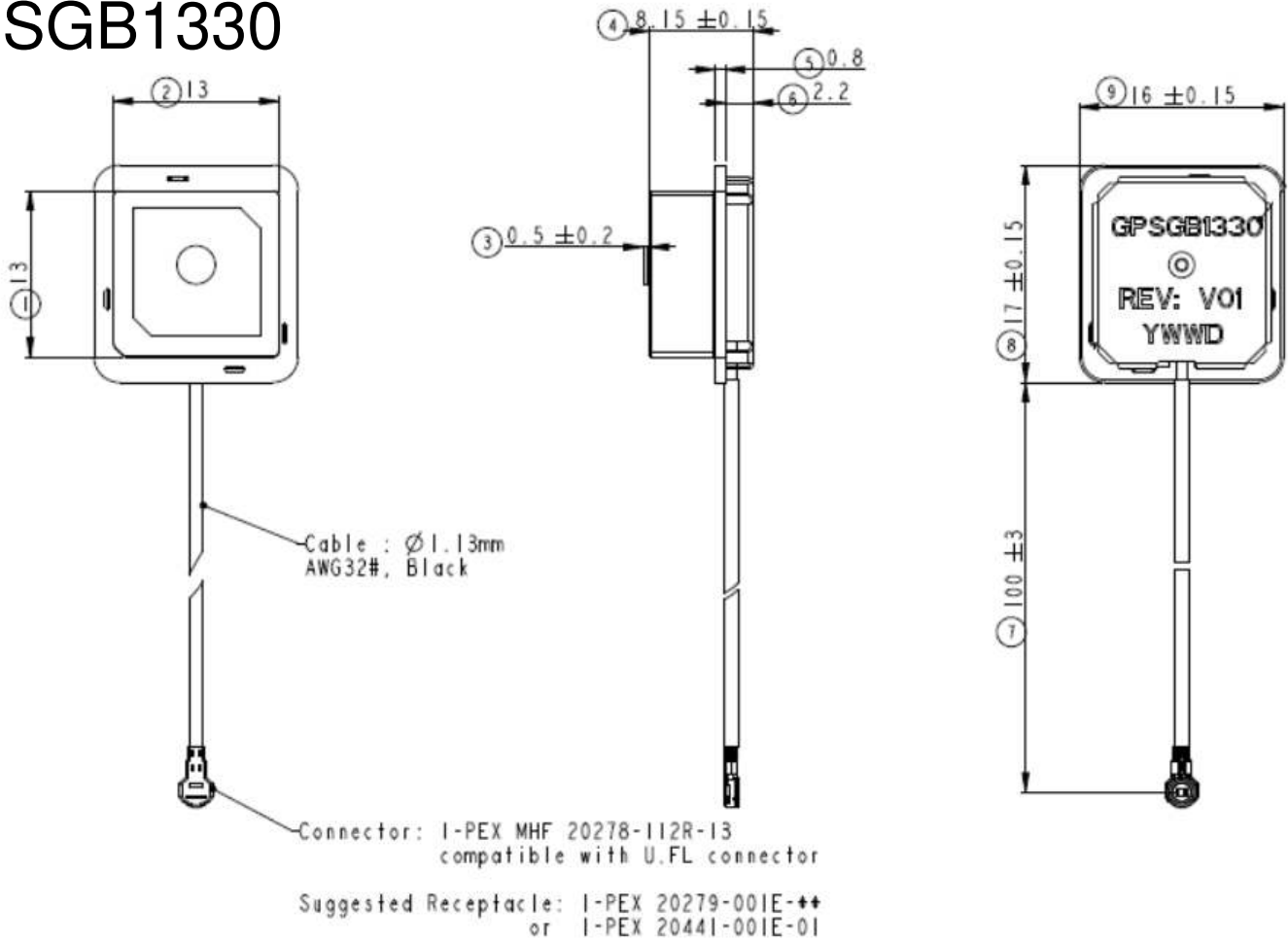
GPS/GLONASS/BEIDOU/COMPASS/Galileo

**PART NUMBER: GPSGBXXXX**

**Series: Internal Active GPS**

**MECHANICAL DRAWING**

**GPSGB1330**



P.S.:

Adhesive tape material: 3M R16 , T=0.4mm

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**Description:**

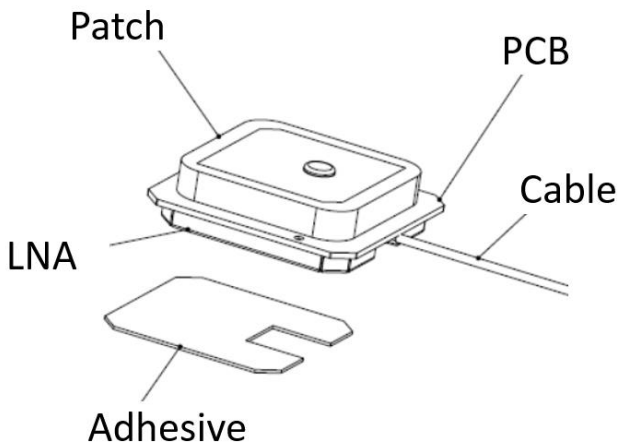
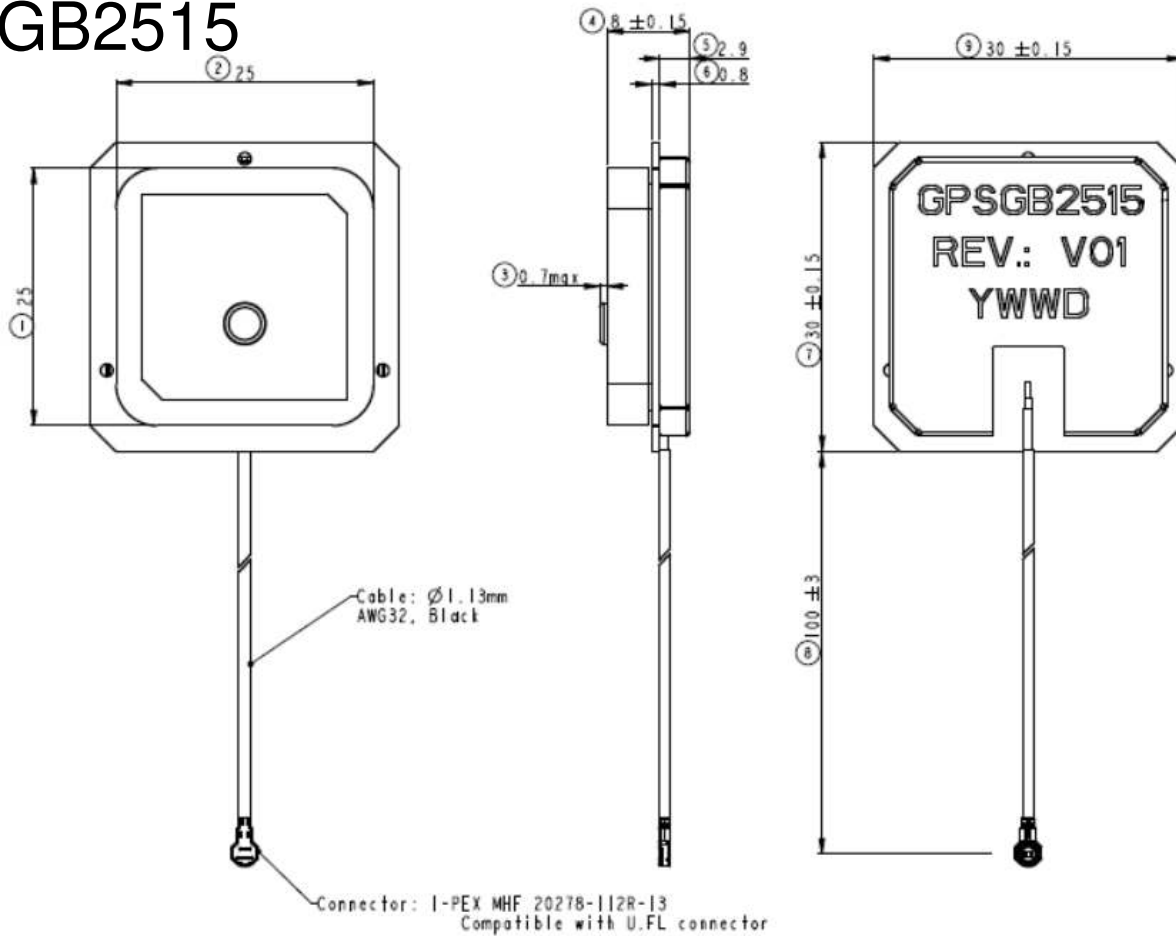
GPS/GLONASS/BEIDOU/COMPASS/Galileo

**PART NUMBER: GPSGBXXXX**

**Series: Internal Active GPS**

**MECHANICAL DRAWING**

**GPSGB2515**



P.S.:

Adhesive tape material: 3M R16 , T=0.4mm  
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**Description:**

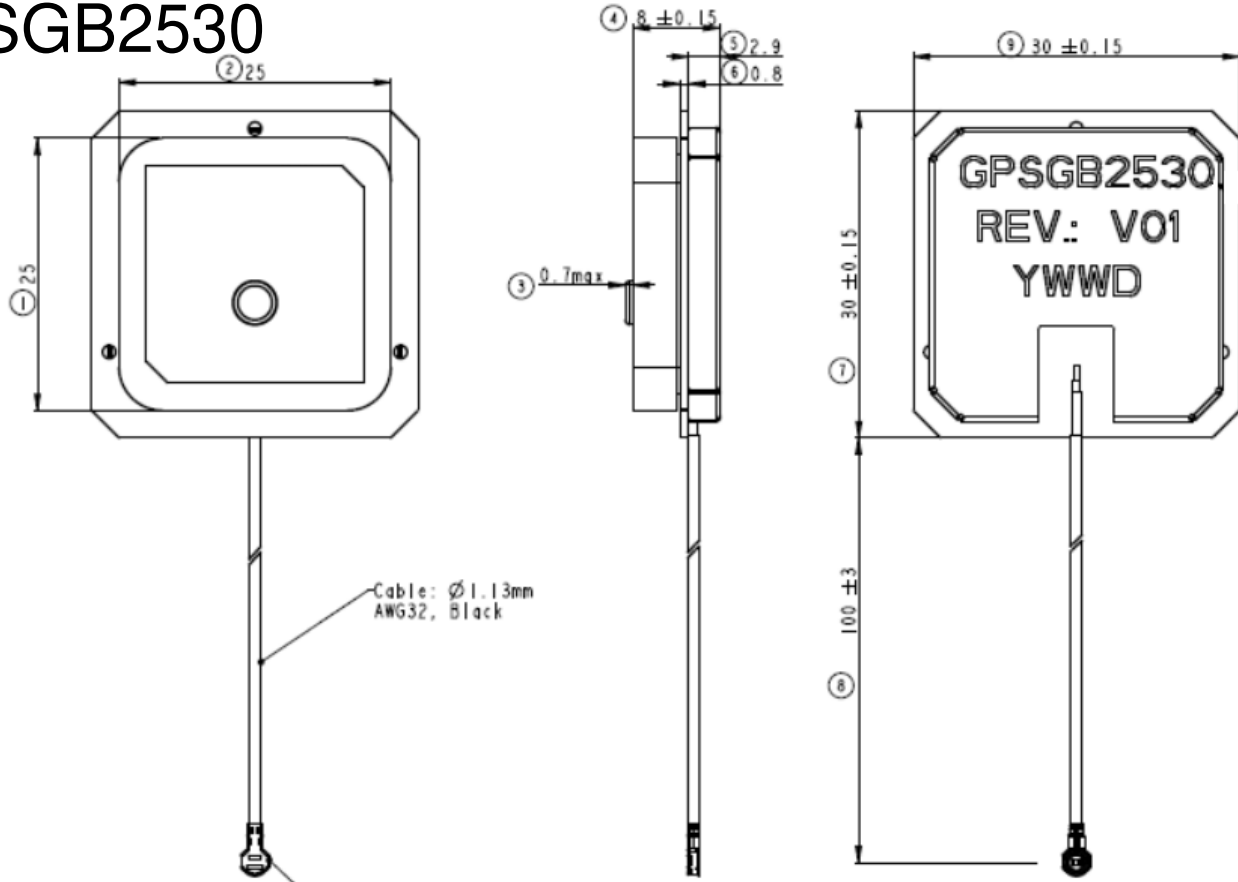
GPS/GLONASS/BEIDOU/COMPASS/Galileo

**PART NUMBER: GPSGBXXXX**

**Series: Internal Active GPS**

**MECHANICAL DRAWING**

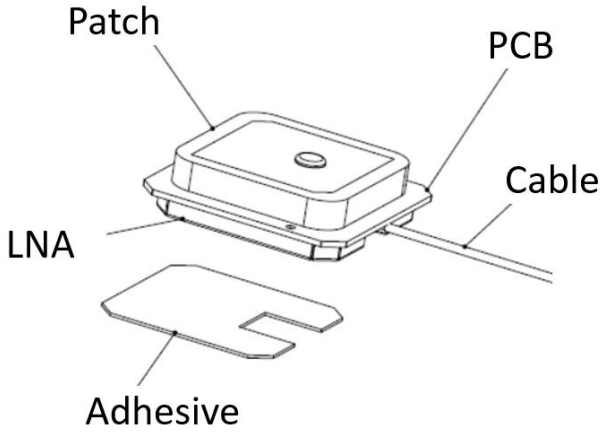
**GPSGB2530**



Cable:  $\varnothing 1.13 \text{mm}$   
AWG32, Black

Connector: I-PEX MHF 20278-112R-13  
Compatible with U.FL connector

Suggested Receptacle: I-PEX 20279-001E-44  
or I-PEX 20441-001E-01



**P.S.:**  
Adhesive tape material: 3M R16 , T=0.4mm  
It's not assembled, but included in the sales package

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**Description:**

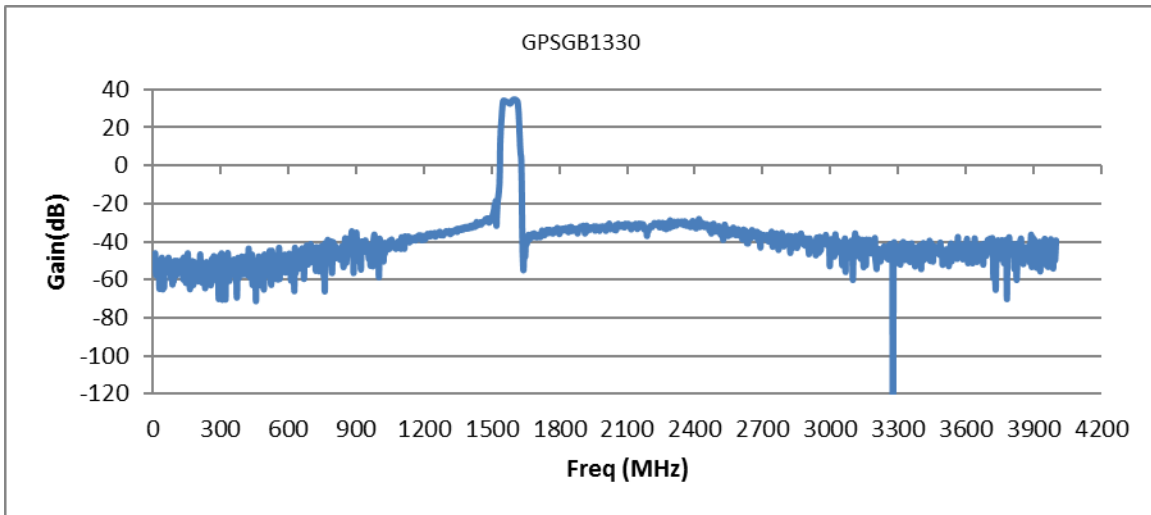
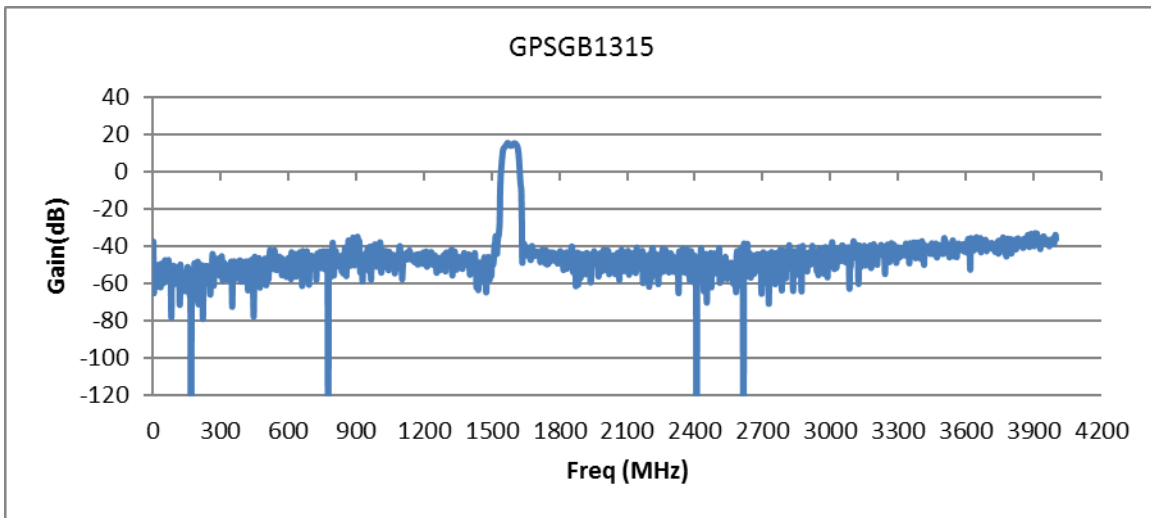
GPS/GLONASS/BEIDOU/COMPASS/Galileo

**PART NUMBER: GPSGBXXXX**

**Series: Internal Active GPS**

**CHARTS**

**LNA Gain and out-of-band rejection**



Issue: 1945

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**Description:**

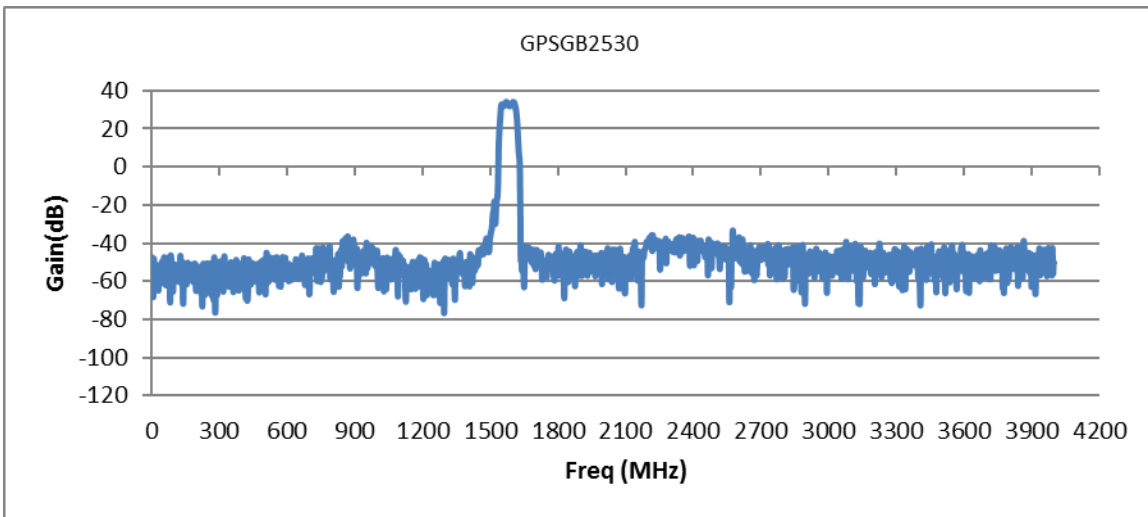
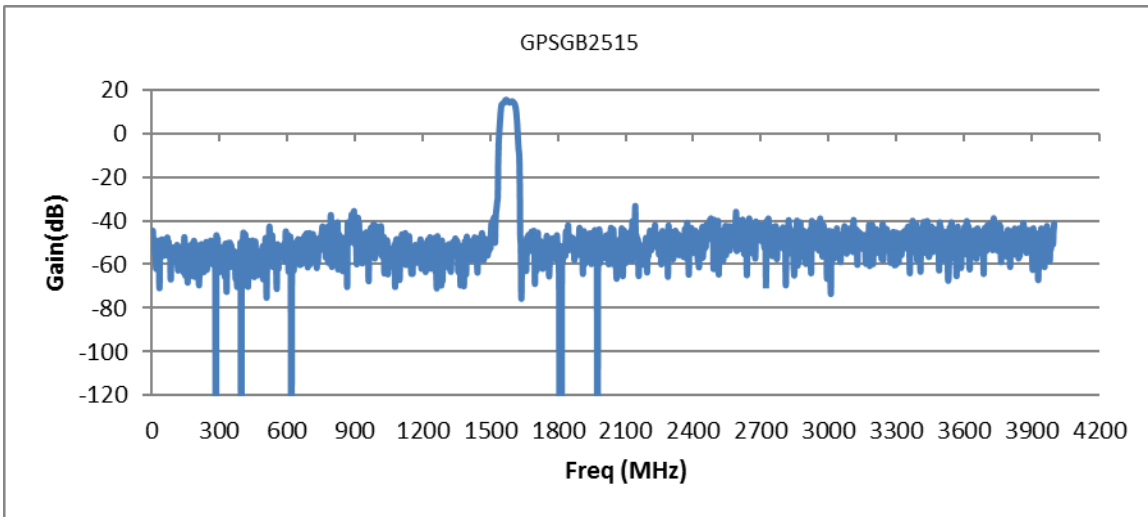
GPS/GLONASS/BEIDOU/COMPASS/Galileo

**PART NUMBER: GPSGBXXXX**

**Series: Internal Active GPS**

**CHARTS**

**LNA Gain and out-of-band rejection**





**Description:**

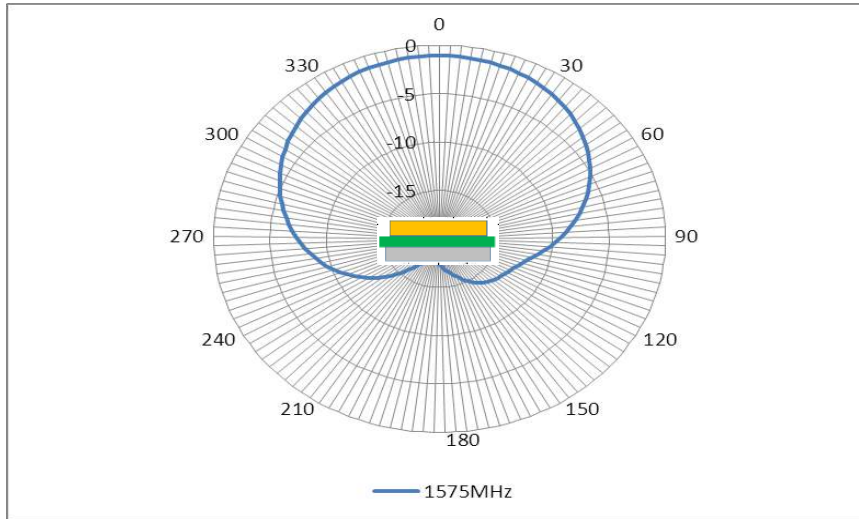
GPS/GLONASS/BEIDOU/COMPASS/Galileo

**PART NUMBER: GPSGBXXXX**

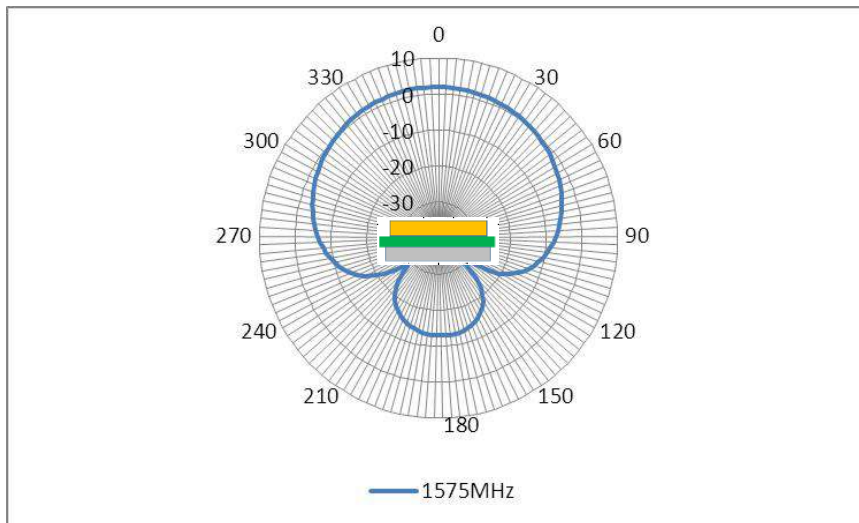
**Series: Internal Active GPS**

**CHARTS**

Radiation Pattern (70mm x 70mm ground plane ) GPS & Galileo



13 X 13 X 5mm Ceramic Antenna



25 X 25 X 4mm Ceramic Antenna

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**Description:**

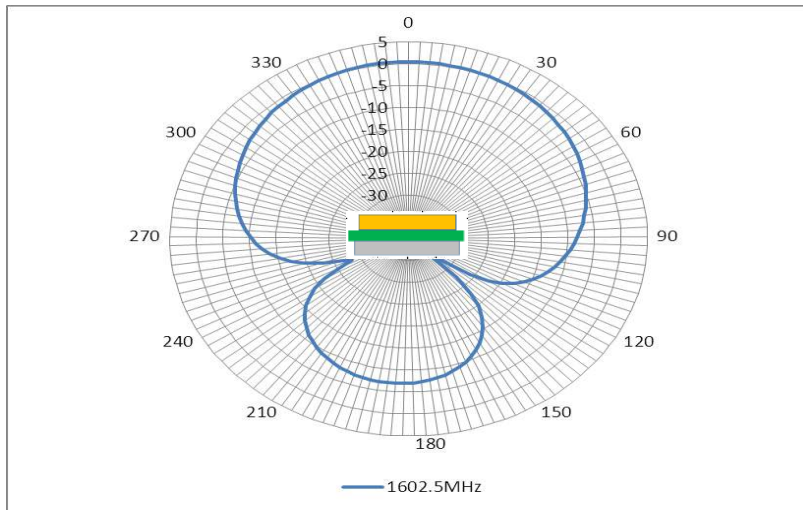
GPS/GLONASS/BEIDOU/COMPASS/Galileo

**PART NUMBER: GPSGBXXXX**

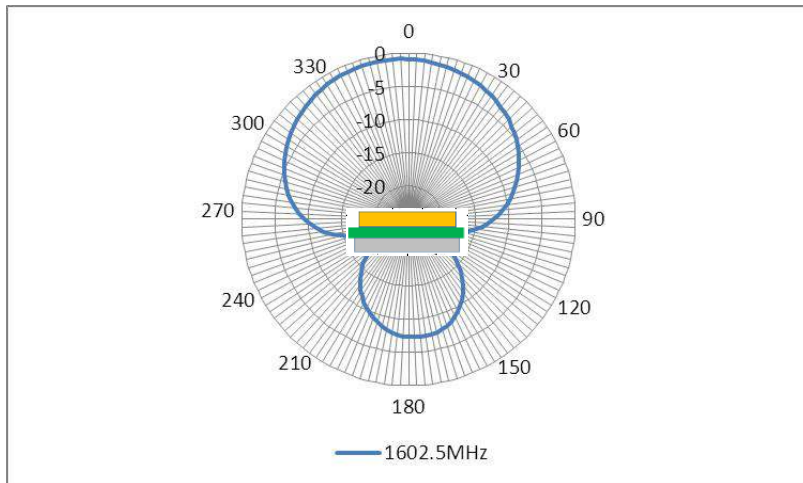
**Series: Internal Active GPS**

**CHARTS**

**Radiation Pattern (70mm x 70mm ground plane ) GLONASS**



13 X 13 X 5mm Ceramic Antenna



25 X 25 X 4mm Ceramic Antenna

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**Description:**

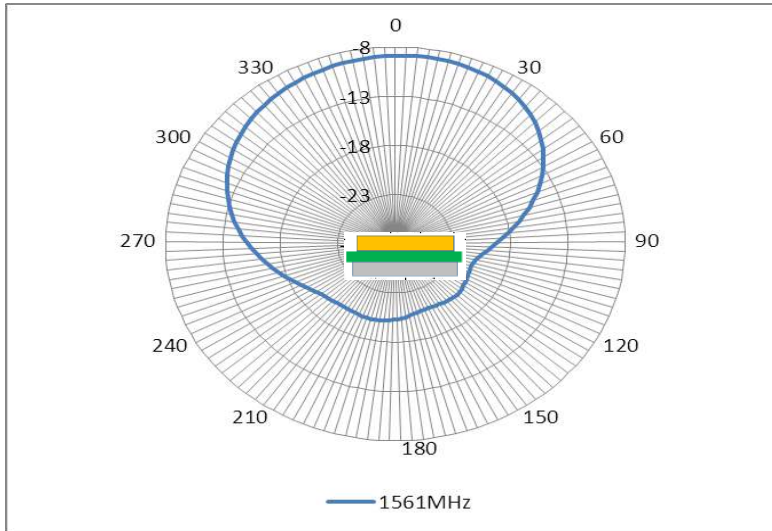
GPS/GLONASS/BEIDOU/COMPASS/Galileo

**PART NUMBER: GPSGBXXXX**

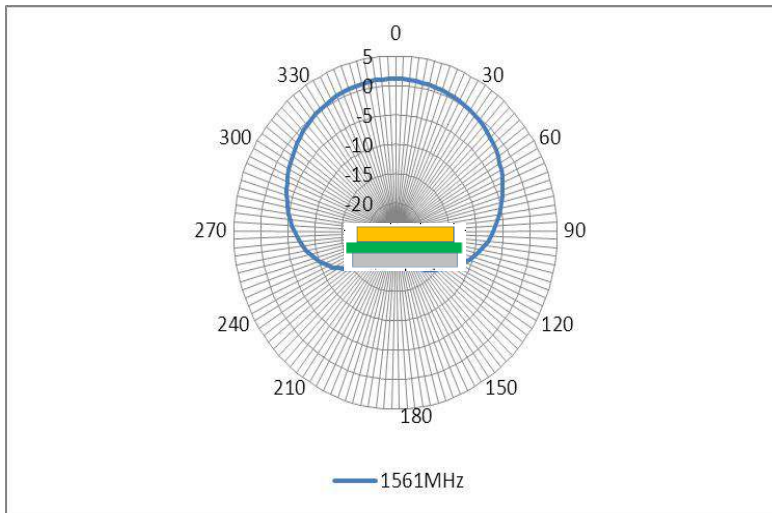
**Series: Internal Active GPS**

**CHARTS**

**Radiation Pattern (70mm x 70mm ground plane ) BD2**



13 X 13 X 5mm Ceramic Antenna



25 X 25 X 4mm Ceramic Antenna

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