

# GPSGLONASS40N-S3-01

## Specification

<b>Product Name</b>	<b>INPAQ RF Active Antenna</b>
<b>Series/PN</b>	<b>GPSGLONASS40N-S3-01</b>

## PN : GPSGLONASS40N-S3-01

### 1. Application :

This application shall apply for antenna unit which shall be used with an engine for an automobile.  
(For impedance 50Ω)

### 2. Appearance :

Antenna Unit (without radome, connector, and cable –refer to an attached drawing)

Characteristics	Specification
Dimensions	15*15*6.35mm
Radome	#N
Connector	I-PEX MHF
Cable	RF Cable φ0.81(White)
Weight	5.4g typ.

### 3. Operating Condition :

Temperature            -40~+90°C

### 4. Storage Condition :

Temperature            -40~+90°C  
Humidity                65±20%RH

### 5. Electrical Specification :

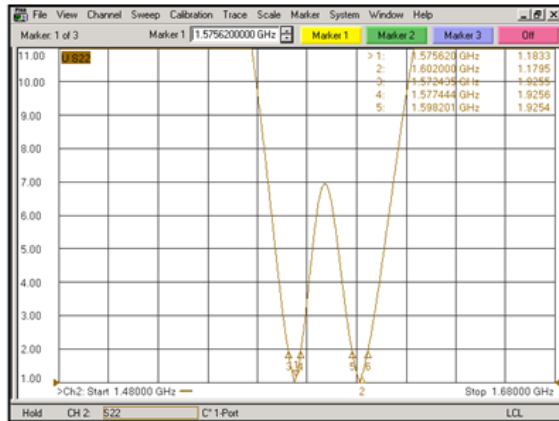
※All value are defined at 25±15°C, 65±20%RH, power handling 1μ watt, air pressure 960±100 HPA unless otherwise noted.

※Patch antenna performance and characteristic data are measured in the project device.

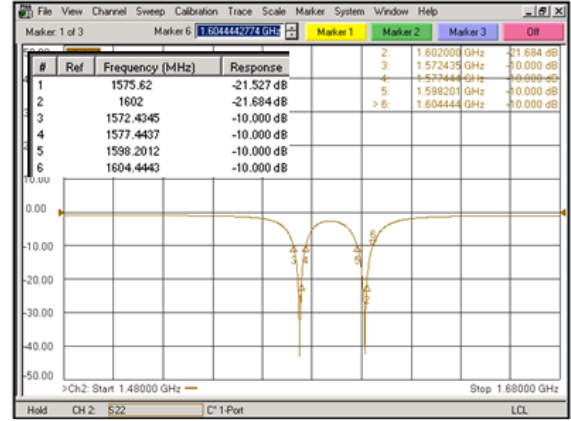
#### 5-1 Patch Specification.

Characteristics		Specification
Frequency Domain		1575MHz~ 1606MHz
Zenith Gain	1575.42 MHz	-0.95 dBic
	1602 MHz	1.48 dBic
Output Impedance		50Ω
Polarization		RHCP

### 5-2 Antenna S-Parameter



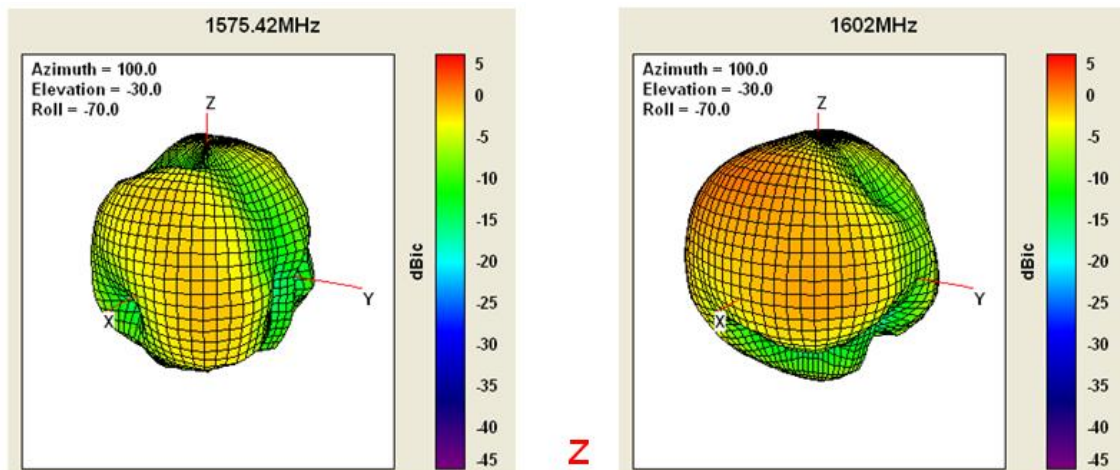
VSWR



S<sub>11</sub>

MS-5761		
Frequency (MHz)	S <sub>11</sub> (dB)	Bandwidth(MHz):S <sub>11</sub> < -10dB
1575.42	-21.5	5 (1572.4-1577.4)
1602	-21.6	6.2 (1598.2-1604.4)

### 5-3 3D Gain Pattern.



**5-4 LNA Specification.**

Characteristics		Specification
Frequency Domain		1575.42MHz~ 1602MHz
Gain	1575.42 MHz	20±3dB
	1602 MHz	19±3dB
Noise Figure		2.5dB max
Filter Outband attenuation		20dB Typ. fo±100MHz
Output V.S.W.R		2.0 typ.
Operation Voltage		3.3V±0.1V
Current		5±2.5mA

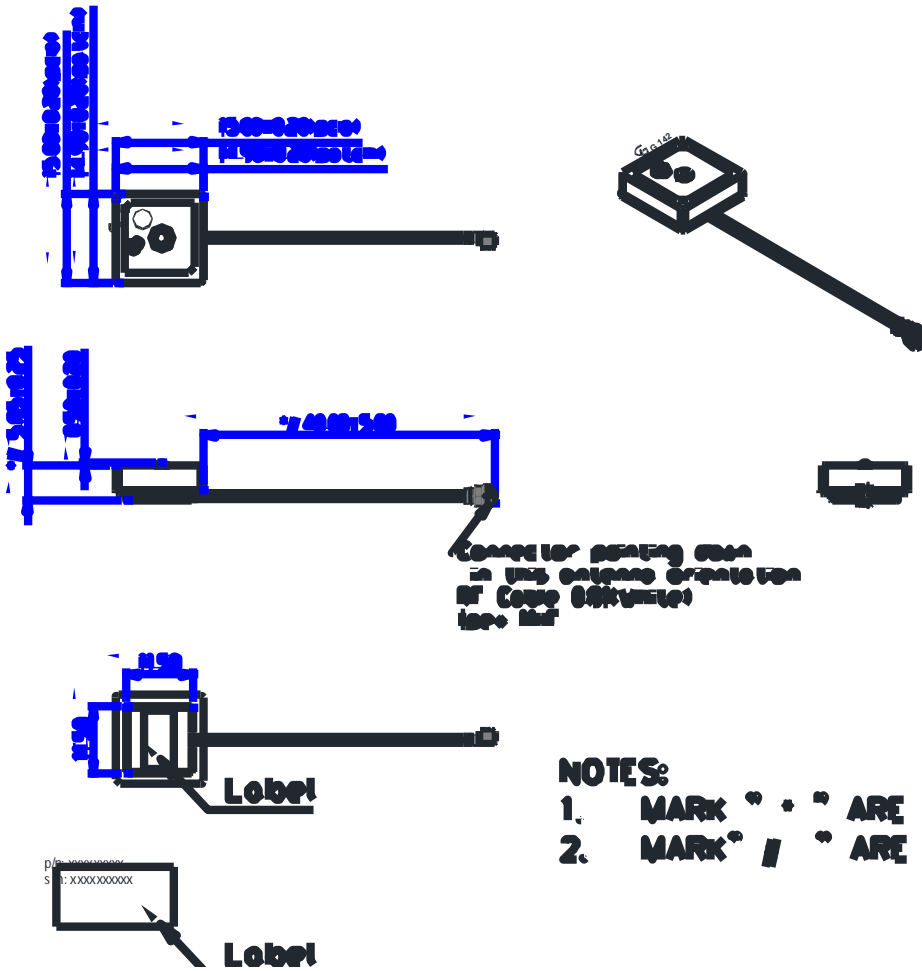
**5-5 Overall Specification. (Through Antenna, LNA, without cable loss)**

Characteristics		Specification
Frequency Domain		1575.42MHz~ 1602MHz
Zenith Gain	1575.42 MHz	19.05±3 dBic
	1602 MHz	20.48±3 dBic
Output Impedance		50Ω
Output V.S.W.R		2.5 typ
Operation Voltage		3.3V±0.1V
Current		5±2.5mA

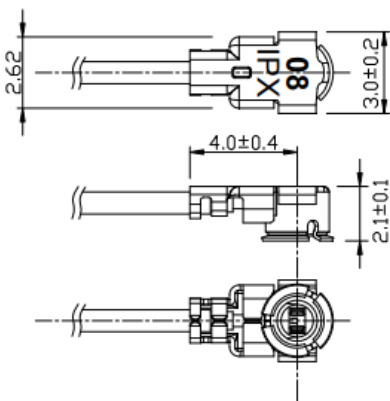
**6. UL approval list:**

ITEM	DESCRIPTION	MATERIAL SPECIFICATION	QUANTITY	UNIT	UL File NO
1	PCB	15*15*0.4mm	1	PCS	E495648
2	Label	10*5mm	1	PCS	N/A
4	Cable	40mm	1	PCS	E318898
5	Connector	I-PEX	1	PCS	E213445
6	Patch	14.9*14.9*4.0mm	1	PCS	N/A
7	Shield	11.5*11.5*1.4mm	1	PCS	N/A

**7. Antenna Dimensions :** (unit : mm)

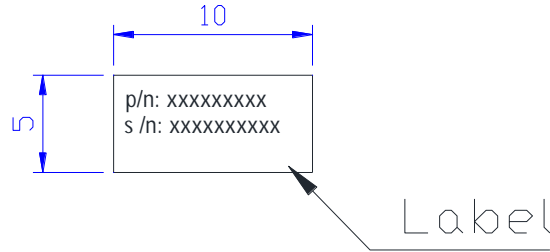


**Connector:** I-PEX MHF      **Cable:** RF Cable φ0.81 (White)

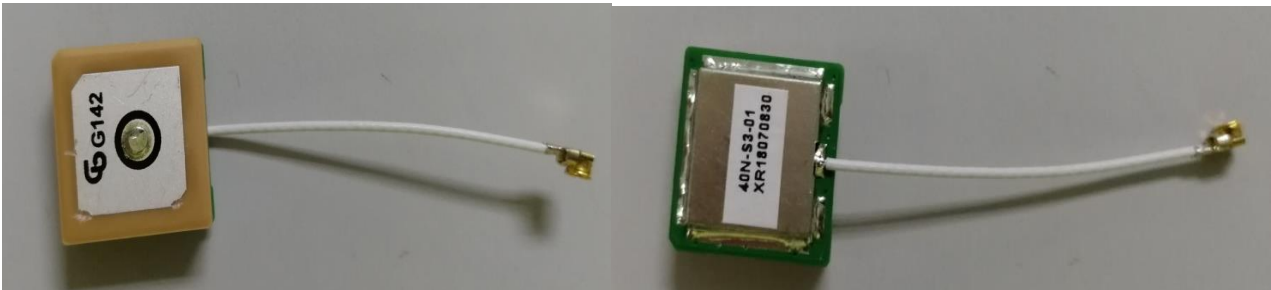


### 8. Label(批號.產品型號)

p/n：產品型號(非變動) 與 s/n：批號(依照生產批次進行變動) 如下所示



### 9. 產品實物圖



### 10. Patch 外觀刻痕說明

天線外觀說明：**Patch** 為陶瓷天線產品因製程需求將於天線電性面來進行調試，我們的製程將每一顆天線都會確認天線頻率，所以在天線表面上有不規則的刻痕為正常現象（如下為示意圖）

