

# MDL,GPSL1L2/U8W 3-5V SMA PLUG RG-174 5M 1

## GPSLX09U8W-S6-03-A

### 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 (with radome, connector, and cable— refer to an attached drawing)

Dimensions	65.0*65.0*26.0 mm	;	Radome	#N
Connector	SMA PLUG	;	Cable	RG174, 5000 mm
PCB	Lead free	;		

### 3. Operating Condition :

Temperature -40 to +85 °C

### 4. Storage Condition :

Temperature -40 to +85 °C  
Humidity 65±20 % RH

### 5. Electrical Specification :

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

\* Patch characteristics are measured in an anechoic chamber.

#### 5-1 Patch Specification

Characteristics	Specification	
Frequency Range	L1: 1557~1606 MHz	L2 : 1207~1248 MHz
Center Frequency	1565.5 MHz	1223 MHz
Peak Gain	2.7 dBic typ	2.8 dBic typ
Polarization	R.H.C.P	
Zenith Axial Ratio	3 dB Max	

The patch antenna performance is measured with the D=150 mm ground plane

UNLESS OTHER SPECIFIED TOLERANCES ON :

X=±      X.X=±      X.XX=±  
 ANGLES = ±      HOLE DIA = ±



INPAQ TECHNOLOGY CO., LTD.

SCALE : N/A

UNIT : mm

DRAWN BY: 林純正

CHECKED BY: 林純正

DESIGNED BY: 許振璋

APPROVED BY: 蔡凱翔

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TITLE : MDL,GPSL1L2L5/U8W 3-5V SMA PLUG  
 RG-174 5M 1 GPSLX09U8W-S6-03-A

DOCUMENT  
 NO.

ENS000123830

SPEC REV.

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**5-2 Filter/LNA Specification**

Characteristics	Specification	
Frequency	L1:1557~1606 MHz	L2: 1197 to 1249 MHz
Gain	27±3dB(1557MHz)	27±3dB(1197MHz)
	27±3dB(1575.42MHz)	27±3dB(1226MHz)
	26±3dB(1602MHz)	27±3dB(1249MHz)
	25±3dB(1606MHz)	-
Noise Figure	2.0 dB typ	2.0 dB typ
Filter Outband attenuation	40.0dB TYP. @ fo±100MHz (fo = 1557 & 1606 MHz)	40.0dB TYP. @ fo±100MHz (fo = 1160 & 1240 MHz)
Output V.S.W.R	2.0 typ	2.0 typ
Operation Voltage	3-5V	3-5V
Current	29±3 mA	29±3 mA

**5-3 Overall Specification (Through Patch and LNA without cable loss)**

Characteristics	Specification	
Frequency	L1:1557~1606 MHz	L2: 1197 to 1249 MHz
Gain	29.7±3dB(1557MHz)	29.8±3dB(1197MHz)
	29.7±3dB(1575.42MHz)	29.8±3dB(1226MHz)
	28.7±3dB(1602MHz)	29.8±3dB(1249MHz)
	27.7±3dB(1606MHz)	-
Output Impedance	50ohm	50ohm
Output V.S.W.R	2.0 typ	2.0 typ
sOperation Voltage	3-5V	3-5V
Current	29±3 mA	29±3 mA

UNLESS OTHER SPECIFIED TOLERANCES ON :

X=±      X.X=±      X.XX=±  
 ANGLES = ±      HOLE DIA = ±



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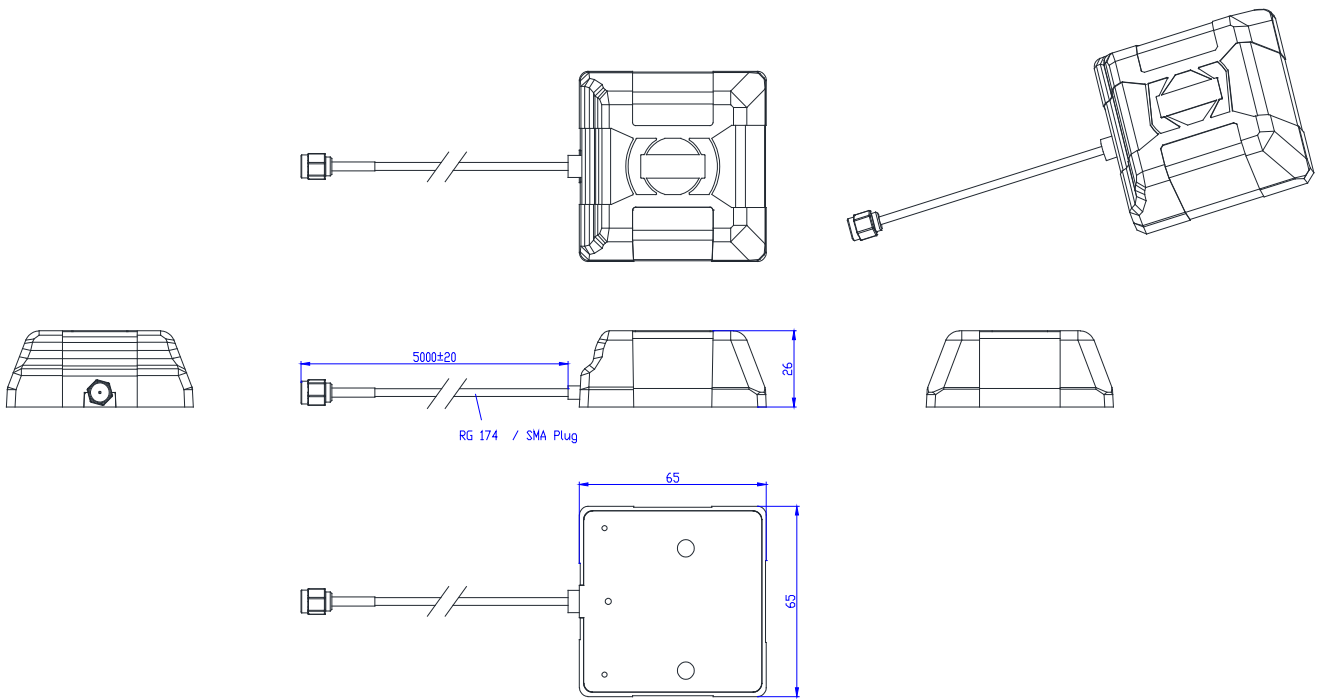
SCALE : N/A      UNIT : mm  
 DRAWN BY: 林純正      CHECKED BY: 林純正  
 DESIGNED BY: 許振璋      APPROVED BY: 蔡凱翔

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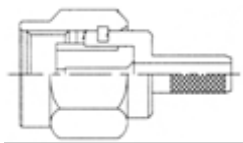
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6. Antenna Dimensions : (unit : mm)



Connector appearance: SMA PLUG (内牙公針)



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SCALE : N/A	UNIT : mm	
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