

MDL GPSLL1L2E5b/U8W 2.7~5.5 V SMA PLUG RG-174 5 M 0

GPSLX09U8W-S6-00-A Specification

1. Application

This product shall be applied as an antenna unit in positioning or timing system application.

2. Appearance

Antenna Unit (with radome, connector, and cable - refer to an attached drawing)


Dimensions	65.0*65.0*27.7 mm
Radome	#U8W
Connector	SMA PLUG
Cable	RG174/ 5 M
Magnet	YES
Adhesive	NO
Label	YES
Weight	238.8 g typ.
Waterproof	IPX7

3. Operating Condition

Temperature	-40~+105 °C
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4. Storage Condition

Temperature	-40~+105 °C
Humidity	65±20 %RH

UNLESS OTHER SPECIFIED TOLERANCES ON : X=N/A X.X=N/A X.XX=N/A ANGLES=N/A HOLEDIA=N/A			INPAQ TECHNOLOGY CO., LTD.	
SCALE : N/A	UNIT : mm			
DRAWN BY : 陳紹平	CHECKED BY : 鄭榮謀	THIS DRAWINGS AND SPECIFICATIONS ARE THE PROPERTY OF INPAQ TECHNOLOGY CO.,LTD.AND SHALL NOT BE REPRODUCED OR USED AS THE BASIS FOR THE MANUFACTURE OR SALE OF APPARATUS OR DEVICES WITHOUT PERMISSION		
DESIGNED BY : 李昇鴻	APPROVED BY : 蔡凱翔			
TITLE : MDL GPSLL1L2E5b/U8W 2.7~5.5 V SMA PLUG RG-174 5 M 0 GPSLX09U8W-S6-00-A Specification		DOCUMENT NO.	ENS000123870	SPEC REV. A0

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 with the 150 mm diameter ground plane in an anechoic chamber.

5-1. Patch

Characteristics	Specification	
Frequency Range	L/L1: 1525~1610 MHz L2/E5b: 1197~1249 MHz	
Peak Gain	1525 MHz	4.4 dBic
	1550 MHz	5.4 dBic
	1561 MHz	5.8 dBic
	1575.42 MHz	6.2 dBic
	1602 MHz	5.1 dBic
	1610 MHz	4.6 dBic
	1197 MHz	2.8 dBic
	1226 MHz	5.9 dBic
1249 MHz	5.1 dBic	
Polarization	RHCP	
Axial Ratio	3.0 dB typ.	
VSWR	2.0 typ.	
Impedance	50 ohm	
Condition	The patch antenna performance is measured with coupler.	

UNLESS OTHER SPECIFIED TOLERANCES ON :
 X=N/A X.X=N/A X.XX=N/A
 ANGLES=N/A HOLEDIA=N/A



INPAQ TECHNOLOGY CO., LTD.

SCALE : N/A UNIT : mm
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SPEC REV.
 A0

5-2. Filter / LNA

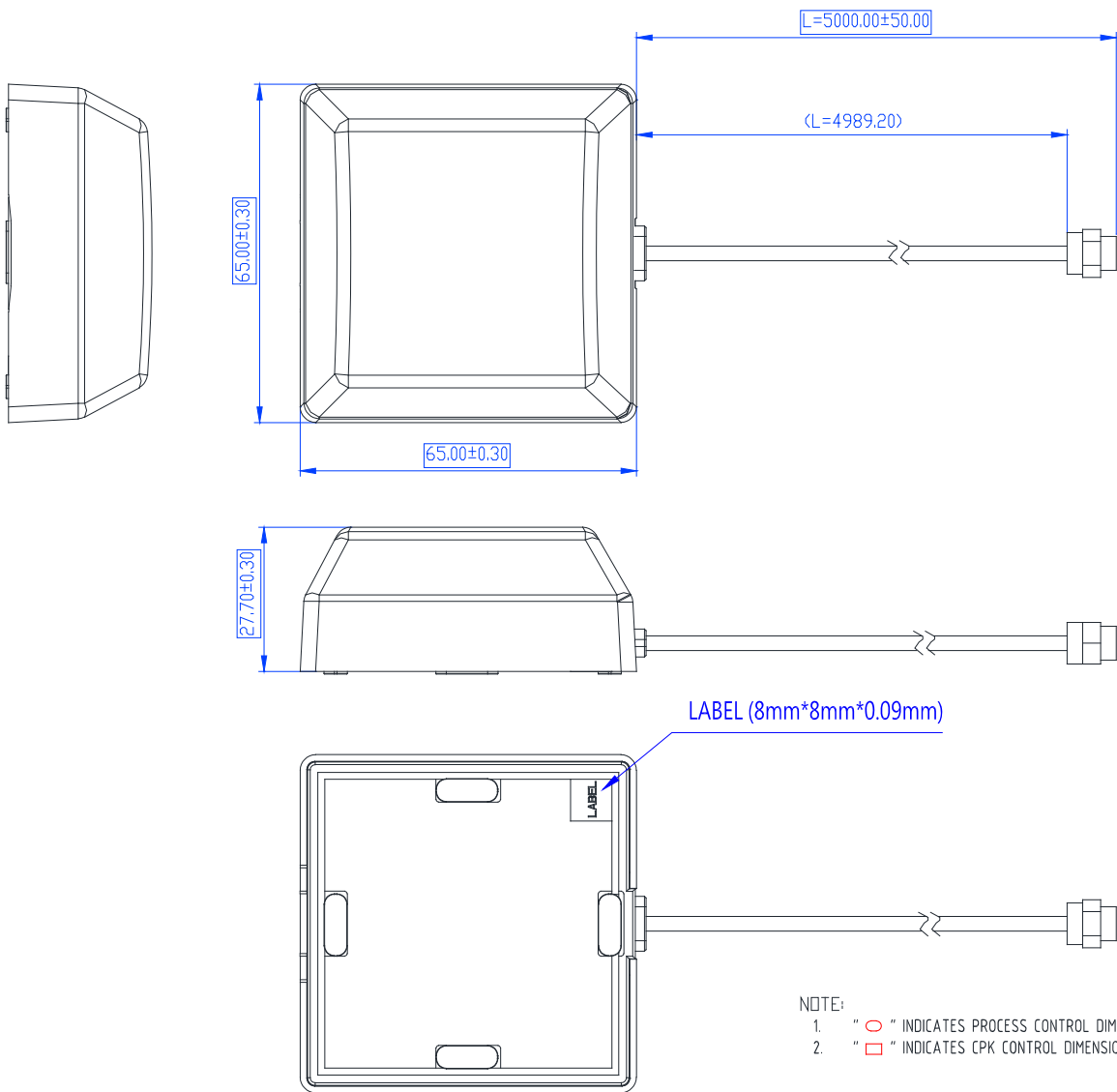
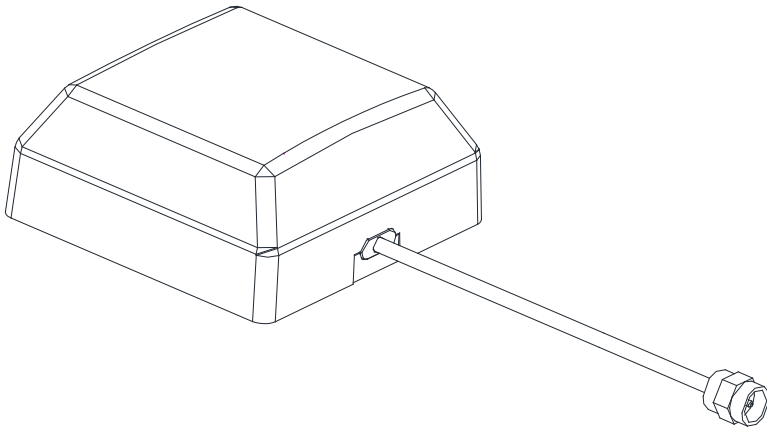
Characteristics	Specification		
Frequency Range	L/L1:1525~1610 MHz L2/E5b: 1197~1249 MHz		
Gain	1525 MHz	31.0±3.0 dB	
	1550 MHz	32.0±3.0 dB	
	1561 MHz	32.0±3.0 dB	
	1575.42 MHz	32.0±3.0 dB	
	1602 MHz	31.0±3.0 dB	
	1610 MHz	31.0±3.0 dB	
	1197 MHz	31.0±3.0 dB	
	1226 MHz	30.0±3.0 dB	
	1249 MHz	30.0±3.0 dB	
Noise Figure	3.5 dB typ. (Pre-Saw)		
Filter Out Band Attenuation	F ₁ = 1525 MHz	F ₁ -50 MHz	> 5 dB
		F ₁ -100 MHz	> 35 dB
	F ₂ = 1610 MHz	F ₂ +50 MHz	> 5 dB
		F ₂ +100 MHz	> 45 dB
	F ₃ = 1197 MHz	F ₃ -50 MHz	> 25 dB
		F ₃ -100 MHz	> 45 dB
	F ₄ = 1249 MHz	F ₄ +50 MHz	> 10 dB
		F ₄ +100 MHz	> 50 dB
Output VSWR	2.0 typ.		
Operation Voltage	2.7~5.5 V		
Current	29.0±3.0 mA		

5-3. Overall Specification (Through Antenna, LNA, Without Cable Loss)

Characteristics	Specification		
Frequency Range	L/L1:1525~1610 MHz L2/E5b: 1197~1249 MHz		
Gain	1525 MHz	34.4±3.0 dB	
	1550 MHz	37.4±3.0 dB	
	1561 MHz	37.8±3.0 dB	
	1575.42 MHz	38.2±3.0 dB	
	1602 MHz	36.1±3.0 dB	
	1610 MHz	35.6±3.0 dB	
	1197 MHz	33.8±3.0 dB	
	1226 MHz	35.9±3.0 dB	
	1249 MHz	35.1±3.0 dB	
Output VSWR	2.0 typ.		
Operation Voltage	2.7~5.5 V		
Current	29.0±3.0 mA		

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6. Antenna Dimensions



UNLESS OTHER SPECIFIED TOLERANCES ON :
 X=N/A X.X=N/A X.XX=N/A
 ANGLES=N/A HOLEDIA=N/A



INPAQ TECHNOLOGY CO., LTD.

SCALE : N/A

UNIT : mm

DRAWN BY : 陳紹平

CHECKED BY : 鄭榮謀

DESIGNED BY : 李昇鴻

APPROVED BY : 蔡凱翔

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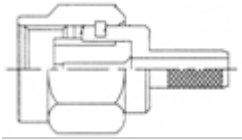
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SPEC REV.
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6-1. Connector Appearance (SMA PLUG)



6-2. Label Information

8 mm


8 mm

Ex : GPSLX09U8W-S6-00-A 02 21 0001
 (1) (2) (3) (4)

(1)P/N (15 Digit) : GPSLX09U8W-S6-00-A
 (2)Production week (2 Digit) : 02
 (3)Production year (2 Digit) : 21
 (4)Serial code (4 Digit) : 0001

Ex : 00 02 21 0001
 (1) (2) (3) (4)

(1)PP : Last two codes of P/N (2 Digit)
 (2)WW : Weeks (2 Digit)
 (3)YY : Years (2 Digit)
 (4)XXXX : Serial code (4 Digit)

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