

MDL GPSL1L2E5bL6/U8W 3.0~5.0 V SMA PLUG RG174 5 M 0

GPSLX09U8W-S6-07-B 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	233.7 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.	
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DRAWN BY : 陳紹平	CHECKED BY : 鄭榮謀			
DESIGNED BY : 李昇鴻	APPROVED BY : 蔡凱翔			
TITLE : MDL GPSL1L2E5bL6/U8W 3.0~5.0 V SMA PLUG RG174 5 M 0 GPSLX09U8W-S6-07-B Specification		DOCUMENT NO.	ENS000132550	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	L1: 1559~1610 MHz L2/E5b/L6 : 1197~1285 MHz	
Peak Gain	1561 MHz	5.5 dBic typ.
	1575.42 MHz	6.1 dBic typ.
	1602 MHz	5.8 dBic typ.
	1610 MHz	5.3 dBic typ.
	1197 MHz	1.6 dBic typ.
	1227.6 MHz	5.5 dBic typ.
	1278.75 MHz	2.2 dBic typ.
	1285 MHz	1.3 dBic typ.
Polarization	RHCP	
Axial Ratio	3.0 dB typ.	
VSWR	2.0 typ.	
Impedance	50 ohm	
Condition	The patch antenna performance is measured with coupler.	

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SPEC REV.
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5-2. Filter / LNA

Characteristics	Specification		
Frequency Range	L1:1559~1610 MHz L2/E5b/L6: 1197~1285 MHz		
Gain	1559 MHz	35.0±3.0 dB	
	1575.42 MHz	37.0±3.0 dB	
	1602 MHz	35.0±3.0 dB	
	1610 MHz	34.0±3.0 dB	
	1197 MHz	34.0±3.0 dB	
	1227.6 MHz	34.0±3.0 dB	
	1278.75 MHz	34.0±3.0 dB	
	1285 MHz	34.0±3.0 dB	
Noise Figure	1.5 dB typ.		
Filter Out Band Attenuation	F ₁ = 1559 MHz	F ₁ -50 MHz	> 75 dB
		F ₁ -100 MHz	> 75 dB
	F ₂ = 1610 MHz	F ₂ +50 MHz	> 65 dB
		F ₂ +100 MHz	> 65 dB
	F ₃ = 1197 MHz	F ₃ -50 MHz	> 0.5 dB
		F ₃ -100 MHz	> 10 dB
	F ₄ = 1285 MHz	F ₄ +50 MHz	> 5 dB
		F ₄ +100 MHz	> 35 dB
Output VSWR	2.0 typ.		
Operation Voltage	3.0~5.0 V		
Current	31.0±3.0 mA(5.0±0.1V)		
	30.0±3.0 mA(3.0±0.1V)		

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

Characteristics	Specification		
Frequency Range	L1:1559~1610 MHz L2/E5B/L6: 1197~1285 MHz		
Gain	1559 MHz	40.5±3.0 dB	
	1575.42 MHz	43.4±3.0 dB	
	1602 MHz	41.1±3.0 dB	
	1610 MHz	39.6±3.0 dB	
	1197 MHz	35.9±3.0 dB	
	1227.6 MHz	39.8±3.0 dB	
	1278.75 MHz	36.5±3.0 dB	
	1285 MHz	35.6±3.0 dB	
Output VSWR	2.0 typ.		
Operation Voltage	3.0~5.0V		
Current	31.0±3.0 mA(5.0±0.1V)		
	30.0±3.0 mA(3.0±0.1V)		

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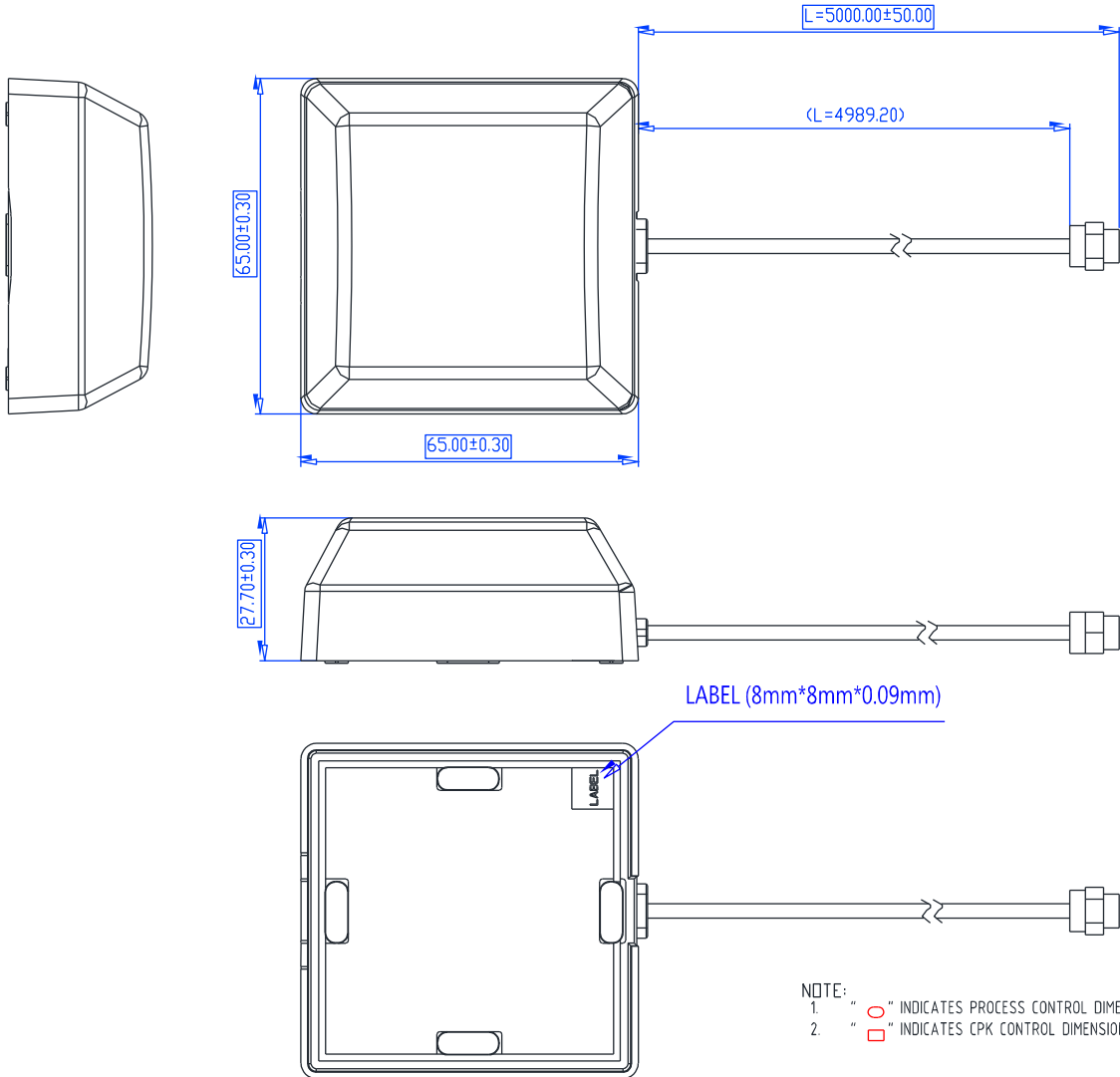
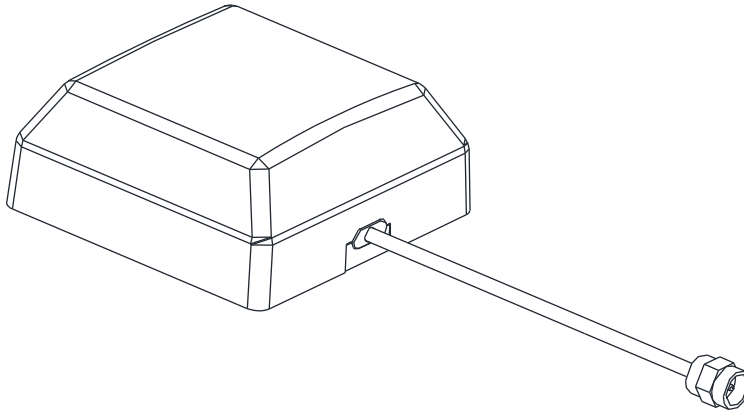
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6. Antenna Dimensions



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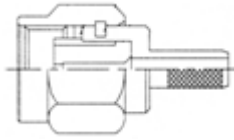
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6-1. Connector Appearance (SMA PLUG)



6-2. Label Information

Ex : GPSLX09U8W-S6-07-B 02 21 0001
(1) (2) (3) (4)

(1)P/N (15 Digit) : GPSLX09U8W-S6-07-B
 (2)Production week (2 Digit) : 02
 (3)Production year (2 Digit) : 21
 (4)Serial code (4 Digit) : 0001

Ex : 07 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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