

MDL GPS/GLONASS 3V0~5V5 SMA PLUG 1.5DS 5m 6

GPSGLONASS11U0W-S6-02-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)

Characteristics		Specification
Dimensions		37.4*34.0*15.35mm
Radome		#U0W
Total Weight		105.8g typ.
Output Connector		SMA PLUG
Cable		SHIKOKU 1.5DS-QEHV(TA) 5m (Black)
Skid proof		NO
Label		YES
Mounting		Magnet Mount
Magnet		YES
Pulling Force of Magnet		19.4N Min.
Water Proof		Water Proof (JIS C0920)
Shock	Vertical Axis	50G
	All Axis	30G
Vibration		10~200Hz. Log Sweep 3.0G (Sweep Time: 15Min.) 3Axis
Magnet Mount Withstand		Withstand Up To Speed of 180Km/h
Cable Pulling Force		49N Min. Visible or electrical damage must not appear when applying upto 49N pulling force between cable and antenna as well as between cable and connector
Bending Test		After Bending Test 90 degree Right and Left x1,000 Cycles, No permanent damage be found.
Anti-Corrosion		Based On JIS Z 2371, Spray 5% Salt Water 35%C Should Not Rush After 96Hrs,
Configuration and Dimension		To refer to mechanical drawing.
Weight		32.2g Without Cable
Top housing weight		Max.:5.6g Avg.:5.6g Min.:5.6g
Bottom housing weight		Max.:2.1g Avg.:2.08g Min.:2g

UNLESS OTHER SPECIFIED TOLERANCES ON :

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



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SCALE : UNIT : mm
 DRAWN BY:潘佳靖 CHECKED BY:楊奇峯
 DESIGNED BY:徐培仁 APPROVED BY:朱嘉宏

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**DOCUMENT
 NO.**

ENS000074410

**SPEC REV.
 P0**

3. Operating Condition :

Temperature	-40~+85°C
Humidity	20~95%RH

4. Storage Condition :

Temperature	-40~+100°C
Humidity	20~95%RH
Recommended Storage condition	Store in indoor condition as listed below: Temperature -20°C ~+45°C, Humidity 80% Max.

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 characteristics are measured with 70x70mm ground plane in an anechoic chamber.

5-1 Patch Specification.

Characteristics		Specification
Frequency Domain		1575MHz~1615MHz
Center Frequency		1593±3MHz
Bandwidth (10dB return loss)		43MHz typ.
Zenith Gain	1575.42MHz	4.2dBic typ.
	1602MHz	4.3dBic typ.
Polarization		R.H.C.P

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5-2 LNA Specification.

Characteristics		Specification
Frequency Range		1575MHz~1615MHz
Gain	1575.42MHz	20±4dB (at 3.0±0.1V) 27±4dB (at 5.5±0.1V)
	1602MHz	20±4dB (at 3.0±0.1V) 27±4dB (at 5.5±0.1V)
Noise Figure		2.0dB typ.
Filter Outband attenuation		30dB typ. fo±100MHz (fo=1575.42MHz~1602MHz)
Output V.S.W.R		2.0 Max.
ESD	Antenna Surface	±15KV
	Connector Pin	±8KV
Operation Voltage		DC=3.0±0.6V DC=5.5±1V
Current	DC=4.5±2mA (at 3.0±0.1V)	
	DC=11±2mA (at 5.5±0.1V)	

5-3 Overall Specification. (Through Antenna, LNA, without cable loss)

Characteristics		Specification
Frequency Range		1575MHz~1615MHz
Zenith Gain	1575.42MHz	24.2±4dBic (for ground 70×70mm at 3.3±0.1V) 31.2±4dBic (for ground 70×70mm at 5.0±0.1V)
	1602MHz	24.3±4dBic (for ground 70×70mm at 3.3±0.1V) 31.3±4dBic (for ground 70×70mm at 5.0±0.1V)
Output Impedance		50Ω
Output V.S.W.R		2.0 Max.
Operation Voltage		DC=3.3±0.6V DC=5.0±1V
Current	DC=4.5±2mA (at 3.3±0.1V)	
	DC=11±2mA (at 5.0±0.1V)	

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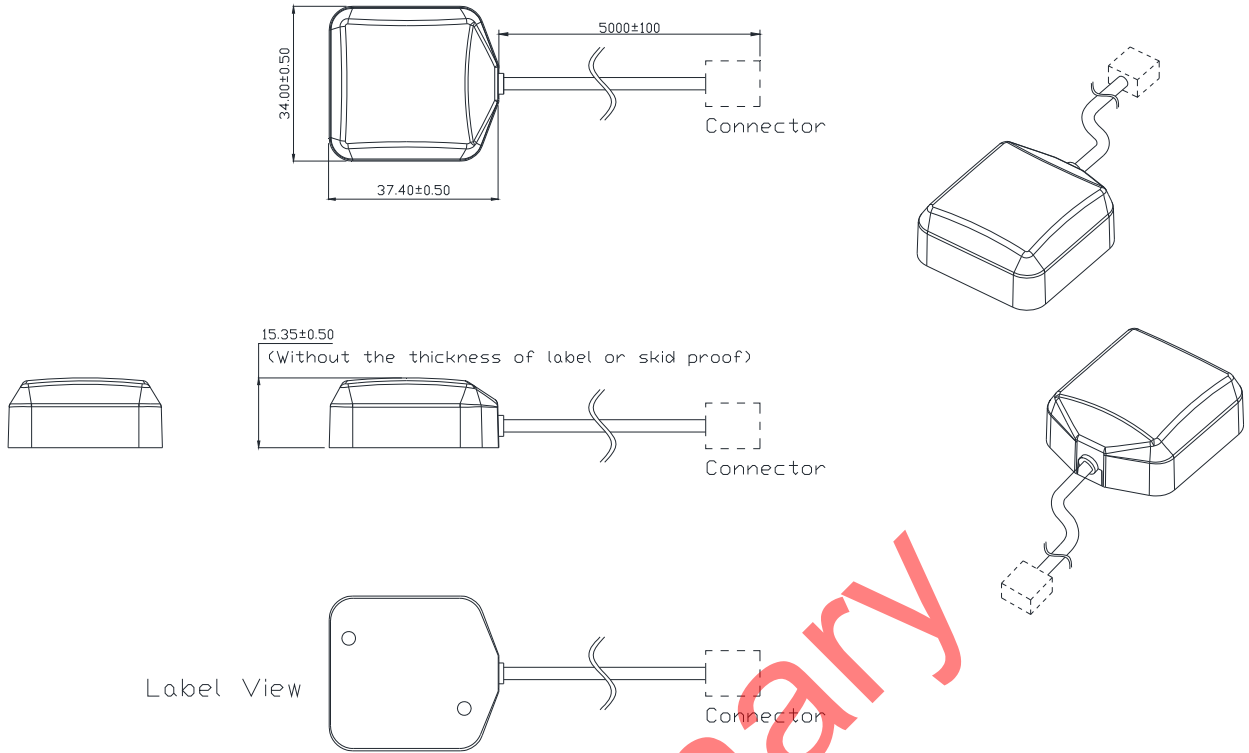
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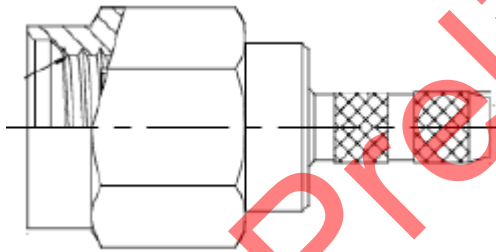
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6. Antenna Dimensions : (unit : mm)



Connector appearance : SMA PLUG



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