

MDL GPS/N-3V0 I-PEX MHF Φ 0.8 20mm GPS196N-S3-12-A

1. Application:

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

2. Appearance:

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

Dimensions	20.8*6.0*6.7 mm	; Radome	#N
Weight	3.00 \pm 1 g (typ)	; Connector	I-PEX MHF
Color	gray	; Cable	RF Φ 0.8 20mm
PCB	lead free		

3. Operating Condition:

Temperature -40 to +90 $^{\circ}$ C

4. Storage Condition:

Temperature -40 to +90 $^{\circ}$ C

Humidity 65 \pm 20 % RH

5. Electrical Specification:

* All value are defined at 25 \pm 15 $^{\circ}$ C, 65 \pm 20 % RH, power handling 1 u watt, air pressure 960 \pm 100 HPA unless otherwise noted.

* Patch characteristics are measured with test ground plane in an anechoic chamber.

■ Patch Specification.

Characteristics	Specification
Center Frequency	1575.42 \pm 2.0 MHz (when covered with a radome on LNA ground plane.)
Bandwidth (10dB return loss)	10 MHz min
Gain at Zenith	-1.0 dBic typ
Polarization	R.H.C.P
Axial Ratio	3.0dB typ(for PDA mechanical & ground 20.8x6.0mm)

■ Filter/LNA Specification.

Characteristics	Specification
Gain	26 \pm 3dB (DC=3.0V)
Noise Figure	1.5 dB typ (DC=3.0V)
Output V.S.W.R	2.0 max (DC=3.0V)
Current (DC= 3.0 \pm 0.01V)	8.5 \pm 2 mA

■ Overall Specification.

Characteristics	Specification
Center Frequency	1575.42 \pm 1.023 MHz (when covered with a radome on LNA ground plane.)
Gain at Zenith	25 dBic typ(for ground 20.8x6.0mm)
Output Impedance	50ohm
Output VSWR	2.0 typ
Operation Voltage	3.0 \pm 0.3V

UNLESS OTHER SPECIFIED TOLERANCES ON :

X = \pm X.X = \pm X.XX =
 ANGLES = \pm HOLE DIA = \pm



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SCALE : N/A

UNIT : mm

DRAWN BY : *[Signature]*

CHECKED BY : *[Signature]*

DESIGNED BY : *[Signature]*

APPROVED BY : *[Signature]*

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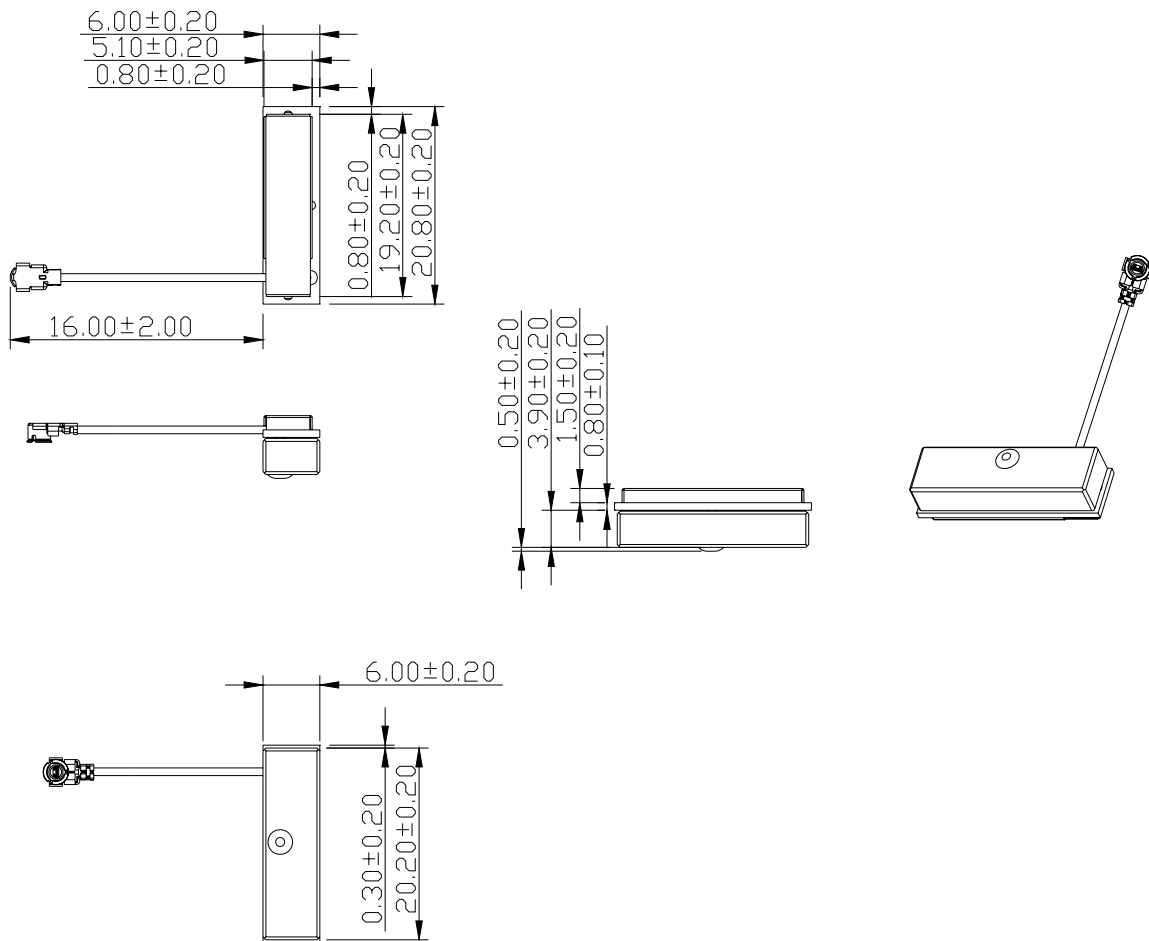
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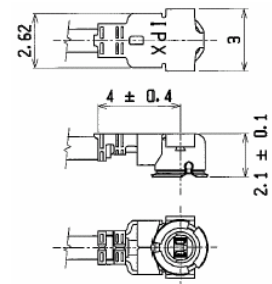
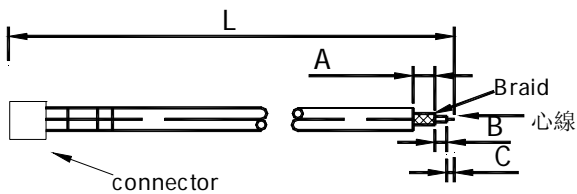
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6. Antenna Dimensions: (unit: mm)



7. Cable Length:



Connector : I-PEX MHF , Cable : RF Cable ϕ 0.8(灰色)

L : 20 ± 2 mm A : 1.5 ± 0.5 mm B : 1 ± 0.5 mm C : 1 ± 0.5 mm

Connector : I-PEX MHF (此為示意圖，其圖一內應有線徑標示"08")

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X = \pm X.X = \pm X.XX =
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