

# MDL GPS/GLONASS 3V0~5V0 FKA SMB FEMALE

## RG174 5M 9 GPSGLONASS13S3W-S6-00-A

### 1. Application:

This application shall apply for antenna unit which shall be used with an engine for an automobile.

### 2. Appearance:

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

Dimensions	72*59*21 mm	;	Radome	#S3W
Weight	184.1±18 g	;	Connector	FAKRA SMB Female C Code
Color	Black	;	Cable	RG-174
PCB	Lead free	;	Water Proof	IP66

### 3. Operating Condition:

Temperature -40 ~ +80 °C

### 4. Storage Condition:

Temperature -40 ~ +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 with test ground plane in an anechoic chamber.

#### ■ Patch Specification

Characteristics		Specification
Frequency Range		1570 MHz ~ 1610 MHz
Center Frequency		1593±3 MHz
Bandwidth (10dB return loss)		60 MHz typ
Gain (zenith)	1575.42 MHz	4.5 dBic max
	1602 MHz	5.0 dBic max
Polarization		R.H.C.P.

UNLESS OTHER SPECIFIED TOLERANCES ON :

X= X.X=±0.4 X.XX=±0.2

ANGLES=± HOLEDIA=



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SCALE : UNIT : mm

DRAWN BY: 邱子紋 CHECKED BY: 楊奇峯

DESIGNED BY: 朱嘉宏 APPROVED BY: 蘇志銘

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TITLE : MDL GPS/GLONASS 3V0~5V0 FKA SMB FE  
MALE RG174 5m 9 GPSGLONASS13S3W-S6  
-00-A

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**■ Filter/LNA Specification**

Characteristics		Specification
Frequency Range		1575 MHz ~ 1615 MHz
Gain	1575.42 MHz	27±3 dB (3.0±0.1 V)
		30±3 dB (5.0±0.1 V)
	1602 MHz	27±3 dB (3.0±0.1 V)
		30±3 dB (5.0±0.1 V)
Noise Figure		2.0 dB typ
Output V.S.W.R		2.0 max
Operation Voltage		DC=3.0±0.3V DC=5.0±0.5V
Current		9±3 mA (3.0±0.1 V)
		18±3 mA (5.0±0.1 V)

**■ Overall Specification (Through Patch and LNA with cable loss)**

Characteristics		Specification
Frequency Range		1575 MHz ~ 1615 MHz
Zenith Gain	1575.42 MHz	31.5±3 dBic (3.0±0.1 V)
		34.5±3 dBic (5.0±0.1 V)
	1602 MHz	32±3 dBic (3.0±0.1 V)
		35±3 dBic (5.0±0.1 V)
Output Impedance		50 ohm
Output V.S.W.R		2.0 max
Operation Voltage		DC=3.0±0.3V DC=5.0±0.5V
Current		9±3mA (3.0±0.1 V)
		18±3mA (5.0±0.1 V)

UNLESS OTHER SPECIFIED TOLERANCES ON :

X=            X.X=±0.4            X.XX=±0.2

ANGLES=±            HOLEDIA=


**INPAQ TECHNOLOGY CO., LTD**
**SCALE :**
**UNIT : mm**
**DRAWN BY:** 邱子紋

**CHECKED BY:** 楊奇峯

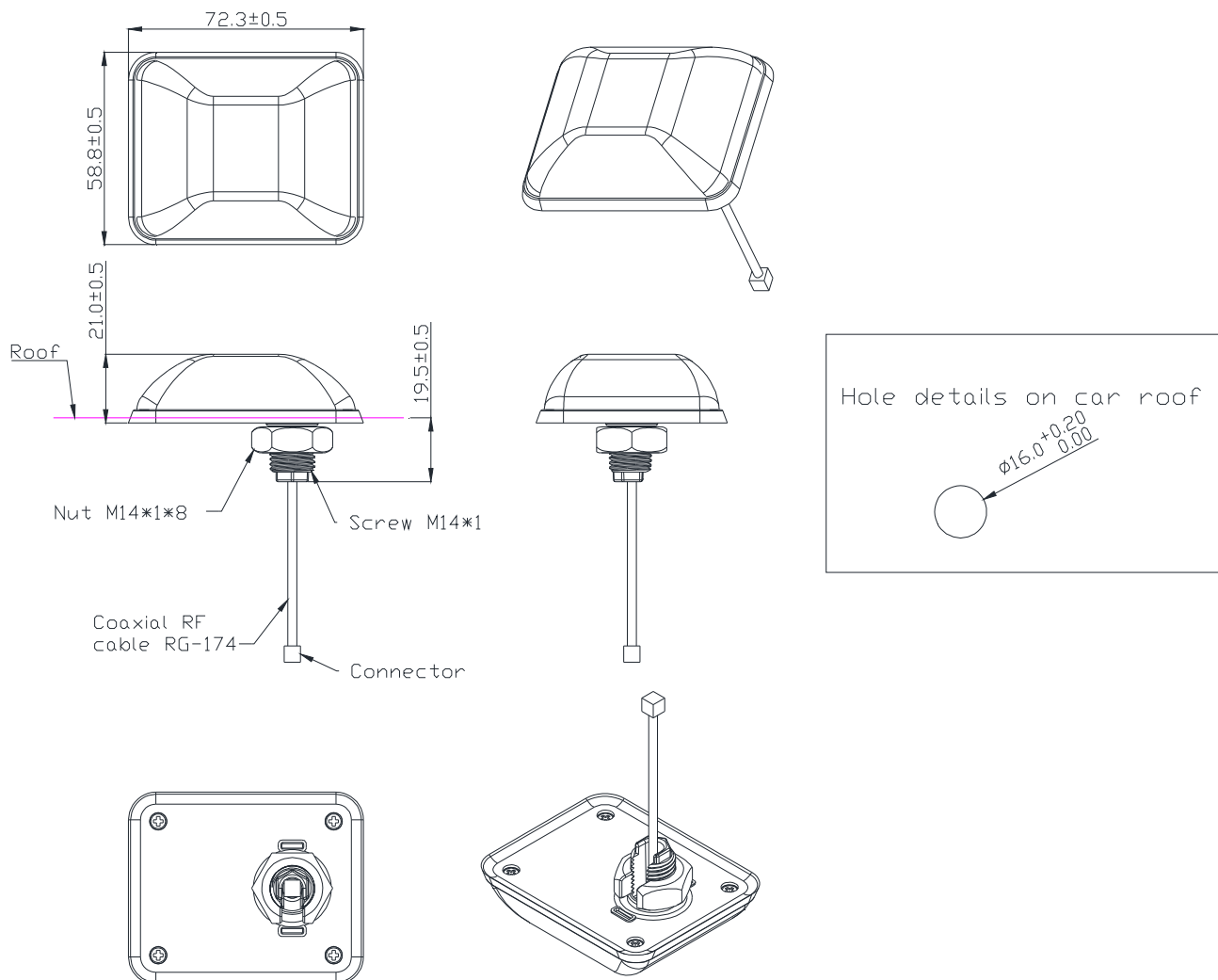
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### 6. Antenna Dimensions: (unit: mm)



Connector appearance: FAKRA SMB Female C Code



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