

KC.GA.00132

ACTIVE ANTENNA SPECIFICATION

1. Application:

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

2. Appearance:

Antenna Unit (with radome, connector, and cable – refer to an attached drawing)	
Dimensions	Φ100.5*88mm
Radome	#S1-M
Output Connector	N
Cable	NA

3. Operating Condition:

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


4. Storage Condition:

Storage Temperature	-40 ~ +85°C
Relative Humidity	20 ~ 95% RH
Recommended Storage condition	Store in room 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 10 watt, air pressure 960 ±100 HPA unless otherwise noted.


* Antenna characteristics are measured with test housing in an anechoic chamber.

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5-1 GNSS PATCH Antenna


Characteristics	Specification	Unit	Conditions
Center Frequency 1(Low-band)	1201	MHz	@70*70 Ground
Gain(Zenith)	@1176 MHz	0.42	@70*70 Ground With 3dB Coupler
	@1207 MHz	1.76	
	@1227 MHz	0.92	
Axial ratio	@1176 MHz	1.7	@70*70 Ground With 3dB Coupler
	@1207 MHz	0.8	
	@1227 MHz	1.1	
Return Loss @Fo	≤ -15	dB	@70*70 Ground
Polarization	R.H.C.P		
Frequency Temperature Coefficient	0±20	ppm/°C	-40°C to +85°C

Characteristics	Specification	Unit	Conditions
Center Frequency 2	1585	MHz	@70*70 Ground
Gain(Zenith)	@1561 MHz	3.5	@70*70 Ground With 3dB Hybrid
	@1575 MHz	3.8	
	@1602 MHz	2.9	
Axial ratio	@1561 MHz	1.8	@70*70 Ground With 3dB Hybrid
	@1575 MHz	1.6	
	@1602 MHz	1.3	
Return Loss @Fo	< -15	dB	@70*70 Ground
Polarization	2 PIN		
Frequency Temperature Coefficient	0±20	ppm/°C	-40°C to +85°C

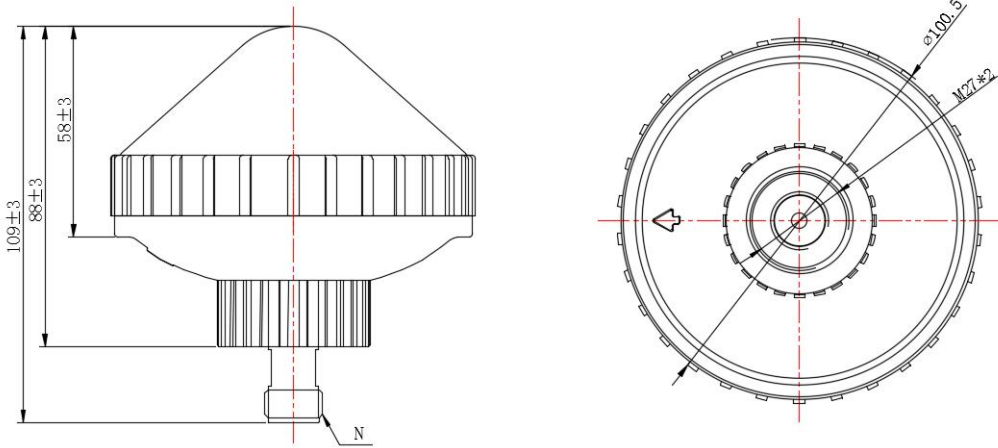
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5-2 GNSS Overall Specifications (Through Antenna & LNA)

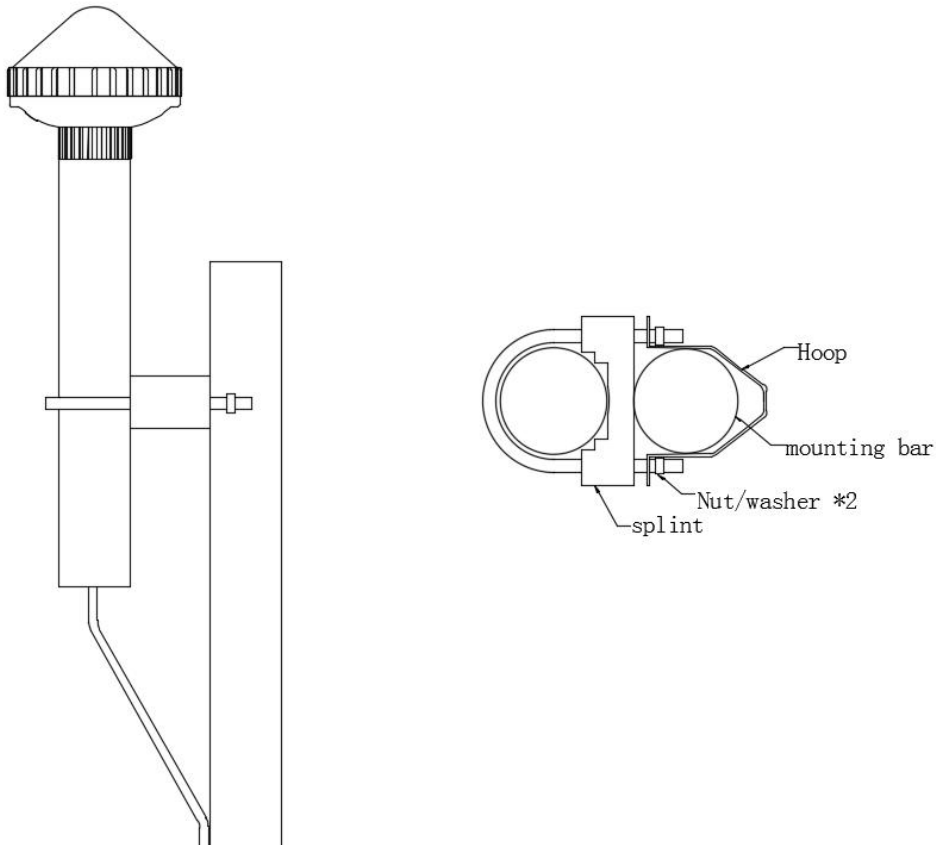
Characteristics	Specification
Frequency Range	1166-1218/1559-1606 (MHZ)
Zenith Gain	43±2 dB typ.
Noise Figure (dB)	≤2
Output VSWR	≤1.8
Operation Voltage	3~12V
Current	<45 Ma
Passband Ripple	(1166-1218)MHz: <2dB / (1559-1606)MHz: <2dB
LNA output 1dB compression point	>0dBm
Water proof class	IP67 rated
Polarization	R.H.C.P
Output Impedance (Ω)	50Ω
ESD protection	15KV air discharge
Lighting Protection	IEC61000-4-5 standard
Operating temperature (°C)	-40 ~ +85
Corrosion(Salt Spray).	720h
Environment	Outdoor natural environment, degree of protection IP67
TMTBF	Mean time between failures is greater than 100,000 hours
Dimensions (mm)	Ø97±0.5×84±0.5
Weight (g)	≈700
Radome Color	white
Connector	1xN-F

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6. Antenna Dimension:




installation diagram:



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7. Product Image :



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