



Accessories

GPS/GLONASS/GALILEO/BEIDOU Antenna

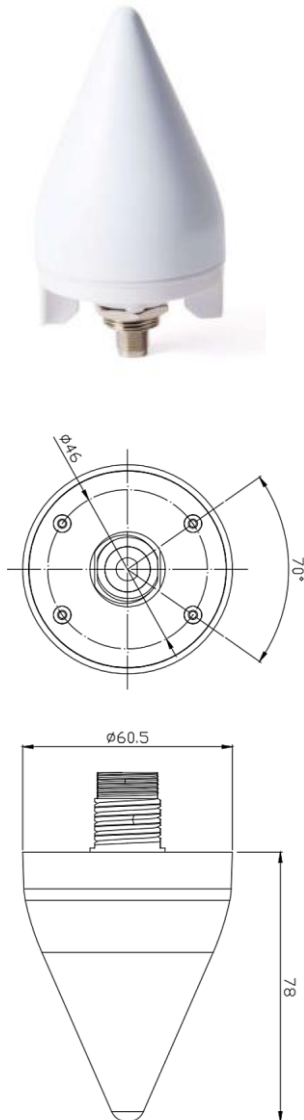
Description

Screen proposes two different solutions which are among the world's high-performance GPS/GLONASS/GALILEO/BEIDOU antennas.

It is very suitable for GPS system application with assemble in a suitable clearance area and collocate with a suitable matching circuit.

These antennas were designed to speed the overall development process and decrease required development time then make your products fast to enter the market of the world.

Type 1: GPS/GLONASS/GALILEO/BEIDOU



Physical Condition	
Construction:	Polycarbonate radome detachable cable/connector for easy mount, rubber-O-ring between top radome and screw base for waterproof
Dimension:	60.5 mm in diameter x 78mm in height.
Color:	Standard in ivory with 0.8 inch threaded wing nut (standard accessory)
Mounting:	Plastic pole mounting kit

Connector	
Connector Available:	TNC Female Bulkhead

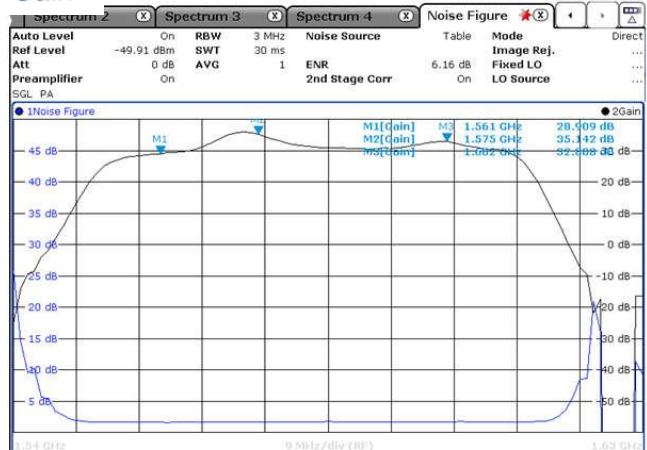
Antenna Element		
Polarization:	R.H.C.P. (Right Hand Circular Polarization)	
Gain at Zenith:	1575.42 MHz	2 dBic typical
	1561 MHz	-0.5 dBic typical
	1598~1606 MHz	0.6 dBic typical
Mounted on the 70mm x 70mm square ground plane		
Axial Ratio:	3 dB max. Mounted on the 70mm x 70mm square ground plane	

Low Noise Amplifier	
Gain:	35dB @ 5V typically(1575MHz)
Band Width:	51 MHz min. @ S11<-10 dB
Noise Figure:	1.6 dBTypical
Supply Voltage:	3~5.5V DC
VSWR:	2.0 max.
Current Consumption:	12 mA Typical
Out of band rejection:	f0=1586Mhz , f0±50Mhz: ≥34dB f0±60Mhz: ≥60dB

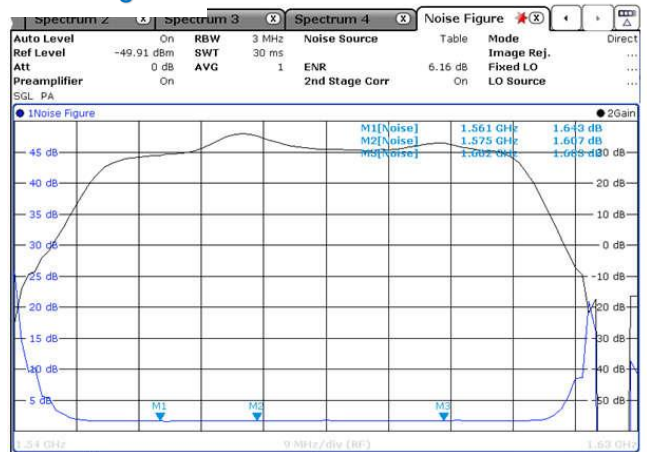
OVERALL PERFORMANCE (Antenna Element, LNA & Cable)	
Center Frequency:	1575.42 MHz & 1561 MHz & 1598~1606 MHz
Gain:	At 90° 35+ 3dB (Cable loss) note:1. Mounted on the 70mm x 70mm square ground plane
VSWR:	2.0 max.
Output Impedance:	50 ohm

Environmental conditions	
Operating Temperature:	-40°C~+85°C
Storage Temperature:	-40°C~+90°C
Relative Humidity:	95% non-condensing
Waterproof Level	IP67

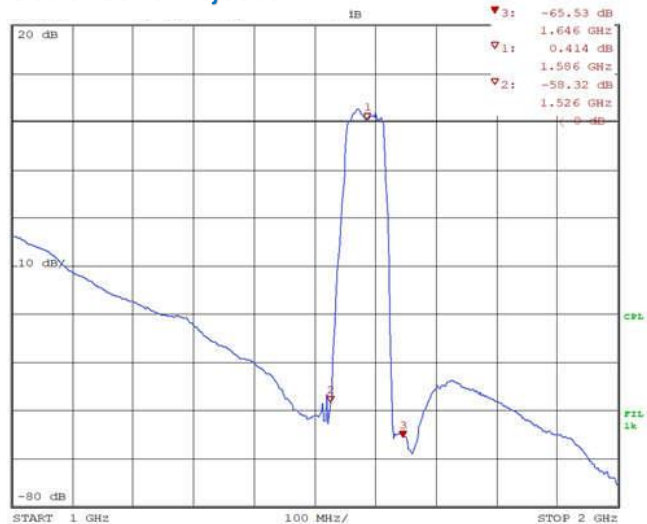
Gain



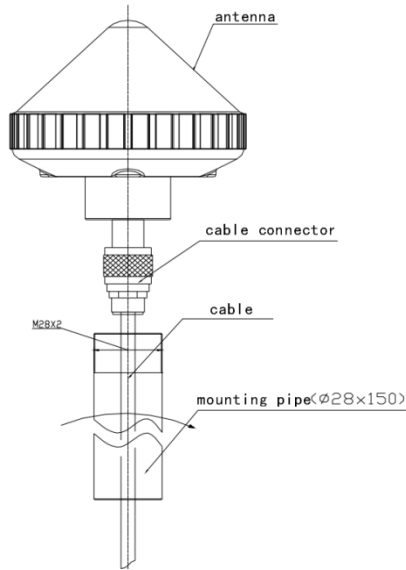
Noise Figure



Out-of-Band Rejection



Type 2: GPS



Patch	
CHARACTERISTICS	SPEC
Dimensions	25mm(L)×25mm(W)×4mm(H) typ
Center Frequency	1575.42±2MHz
Bandwidth(10dB Return Loss)	10MHz min
Peak Gain	3.0dBic typ
3dB Beam Width	110°±10°
Front To Back Ratio	10dB min
Axial Ratio	5dB max
Output V.S.W.R	≤1.5dB
Output Impedance	50ohm
Polarization	R.H.C.P

LNA/Filter	
CHARACTERISTICS	SPEC
Voltage	DC:4V~6V
Current	45mA max
Center Frequency	1575.42±5MHz
Gain	25±2dBi
Noise Figure	2.7dB max
Passband Ripple	1575.42 M ±1.023 MHz : <1dB 1575.42 M ±5 MHz : <2dB
P1dB(out)	>0dBm
Filter (Out of band attenuation)	f0=1575.42 MHz f0=1575.42 MHz ±30MHz 12dBc min f0=1575.42 MHz ±50MHz 35dBc min f0=1575.42 MHz ±100MHz 70dBc min
Input VSWR	≤2.5:1

OVERALL PERFORMANCE (Antenna Element,LNA&Cable)	
CHARACTERISTICS	SPEC
Center Frequency	1575.42±5MHz(when covered with a radome and me assured by LNA ground plane)
Gain	28±2dBi
Noise Figure	2.7dB max
Polarization	R.H.C.P
3dB Beam Width	110°±10°
Front To Back Ratio	10dB min
Axial Ratio	5dB max
Output VSWR	2.5 max
P1dB(out)	>0dBm
Out Of Band Rejection	f0=1575.42 MHz f0=1575.42 MHz ± 30MHz 12dBc min f0=1575.42 MHz ± 50MHz 35dBc min f0=1575.42 MHz ± 100MHz 70dBc min
Output Impedance	50ohm
Voltage	DC: 4V~6V
Current	45mA max
Surge Resistion	Surge resistion according to IEC61000-4-5 std . at 4kv ,1.2/50us Output impedance 2Ω. of Instrument
Weight	< 0.5kg
Connector	N-F type

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

OPERATING CONDITION	
Temperature	-40°C to +75°C
Humidity	5% to 100% RH