

GPS/GLONASS Ceramic Patch Antenna

Pulse Part Number SWR0032

V04



Applications

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

Antenna Specification

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

Characteristics	Specification
Dimensions	25*25*7.5Max mm
Radome	#N
Weight	15g typ.
Connector	I-PEX MHF
Cable	RF Cable 1.13 78mm
Magnet	NO
Label	NO
Anti-slip pad	NO
Double side adhesive	NO

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Operating Condition

Temperature(° C)	-40~+90
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Storage Condition

Temperature(° C)	-40~+90
Humidity	65 ± 20%RH

Electrical specifications

*Note: 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.*

Patch Specification

Characteristics		Specification
Frequency Domain		1575MHz~1615MHz
Bandwidth (10dB return loss)		43.0MHz typ.
Zenith Gain	1575.42MHz	2.4dBic typ.
	1602MHz	2.02dBic typ.
Polarization		RHCP

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LNA Specification

Characteristics		Specification
Frequency Range		1575MHz~1615MHz
Gain	1575.42MHz	$27 \pm 3\text{dB}$ (at $3.0 \pm 0.1\text{V}$)
	1602MHz	$27 \pm 3\text{dB}$ (at $3.0 \pm 0.1\text{V}$)
Noise Figure		2.0dB typ
Filter Outband attenuation		37.0dB typ. fo $\pm 100\text{MHz}$ (fo=1575.42MHz~1602MHz)
Output VSWR		2.5 max.
Operation Voltage		DC= $3.0 \pm 0.6\text{V}$
Current		DC= $9 \pm 3\text{mA}$ (at $3.0 \pm 0.1\text{V}$)

Overall Specification (Through Antenna, LNA, without cable loss)

Characteristics		Specification
Frequency Range		1575MHz~1615MHz
Zenith Gain	1575.42MHz	$29.4 \pm 3\text{dBic}$ (for ground $70 \times 70\text{mm}$ at $3.0 \pm 0.1\text{V}$)
	1602MHz	$29.02 \pm 3\text{dBic}$ (for ground $70 \times 70\text{mm}$ at $3.0 \pm 0.1\text{V}$)
Output Impedance		50Ω
Output VSWR		2.5 max.
Operation Voltage		DC= $3.0 \pm 0.6\text{V}$
Current		DC= $9 \pm 3\text{mA}$ (at $3.0 \pm 0.1\text{V}$)

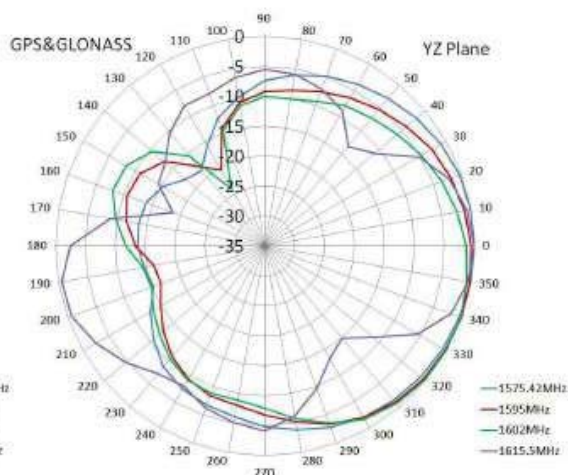
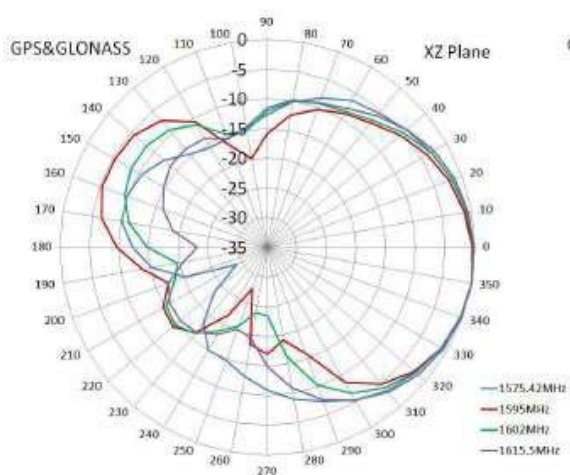
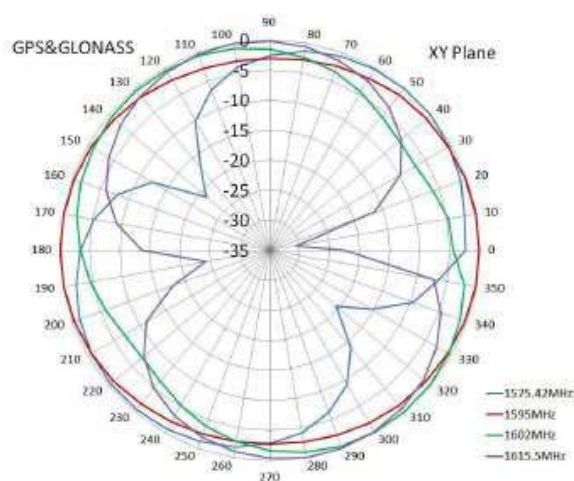
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Typical Electrical Characteristics (T=25°C)

Typical Free space Radiation Patterns

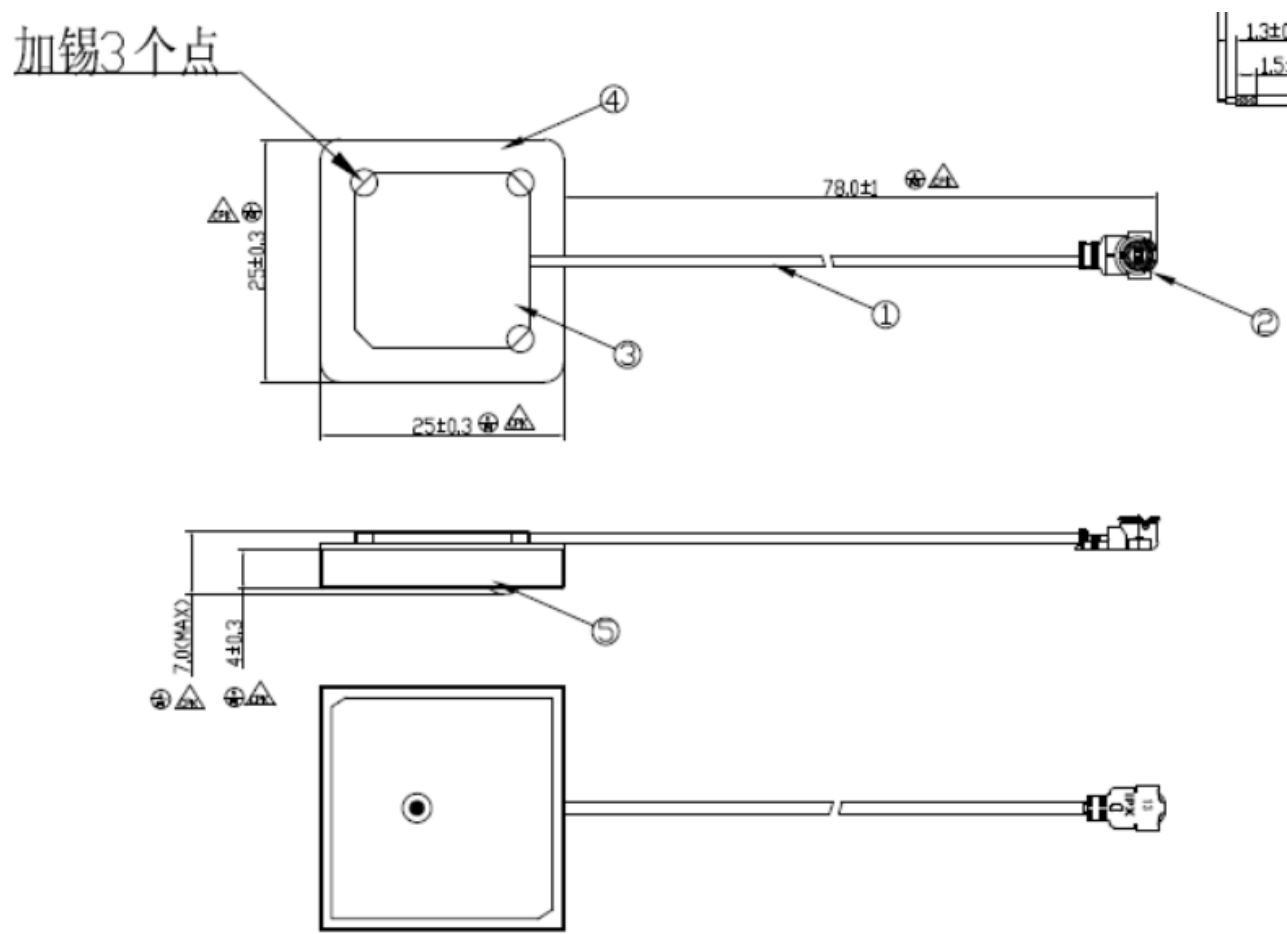


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Antenna Dimensions (unit: mm)



Mechanical	Cable	RF1.13 or others
	Connector	IPEX or others