



Chipsmall Limited consists of a professional team with an average of over 10 year of expertise in the distribution of electronic components. Based in Hongkong, we have already established firm and mutual-benefit business relationships with customers from,Europe,America and south Asia,supplying obsolete and hard-to-find components to meet their specific needs.

With the principle of “Quality Parts,Customers Priority,Honest Operation,and Considerate Service”,our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip,ALPS,ROHM,Xilinx,Pulse,ON,Everlight and Freescale. Main products comprise IC,Modules,Potentiometer,IC Socket,Relay,Connector.Our parts cover such applications as commercial,industrial, and automotives areas.

We are looking forward to setting up business relationship with you and hope to provide you with the best service and solution. Let us make a better world for our industry!



Contact us

Tel: +86-755-8981 8866 Fax: +86-755-8427 6832

Email & Skype: info@chipsmall.com Web: www.chipsmall.com

Address: A1208, Overseas Decoration Building, #122 Zhenhua RD., Futian, Shenzhen, China



Miniature GPS Antenna

Features

- Miniature GPS Patch Antenna
- Centre freq 1.575.42MHz
- 20mm x 20mm x 8mm
- VSWR <1.5:1
- Gain (Zenith) 2dB
- Polarisation RHCP
- LNA Gain 28dB (+/-2)
- Noise Figure 1.5dB
- 2.5m RG174 Connecting Lead
- Alternative Connectors: FME / TNC / SMA / MMCX
- 50 Ohm Impedance
- Max Power 50W



Applications

- GPS Systems
- Embedded positioning

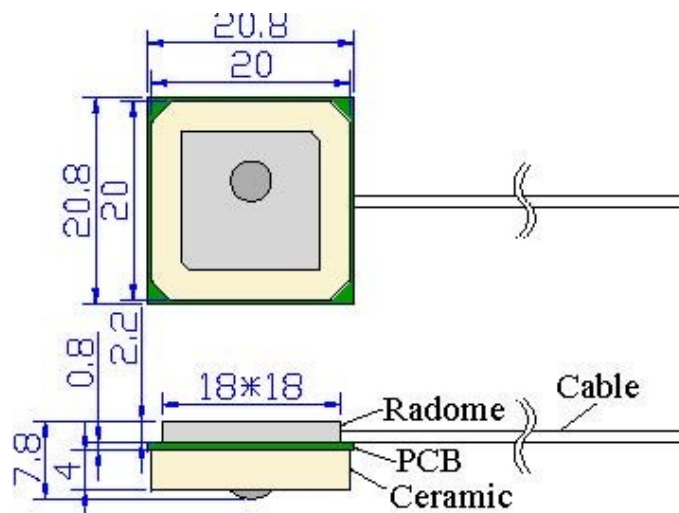
Description

A compact GPS Antenna for embedded positioning applications where high performance is required.

Ordering Information

Part Number	Dimensions (mm)	Cable	Connector
ANT-GPS-P20SMA	20mm sq	RG174	SMA (M)

Mechanical Detail



Reliability Data

The module has been tested to operate within the following Environmental Conditions;

Condition: Temperature range $25 \pm 3^{\circ}\text{C}$

Relative Humidity range 55~75%RH

Operating Temperature range $-40^{\circ}\text{C} \sim +85^{\circ}\text{C}$

Storage Temperature range $-40^{\circ}\text{C} \sim +100^{\circ}\text{C}$

Moisture Resilience

The device satisfies the stated electrical characteristics specified after being exposed to the temperature $40 \pm 2^{\circ}\text{C}$ and the relative humidity 90~95% RH for 96 hours and 1~2 hours recovery time under normal condition.

Vibration Resistance

The device satisfies the electrical characteristics specified after being vibrated from 10 to 55Hz with amplitude of 1.5mm for 2 hours each in X , Y and Z directions.

Drop Shock

The device satisfies the electrical characteristics specified after being dropped onto a hard wooden board from a height of 30cm 3 times on each face of the 3 dimensions of the device.

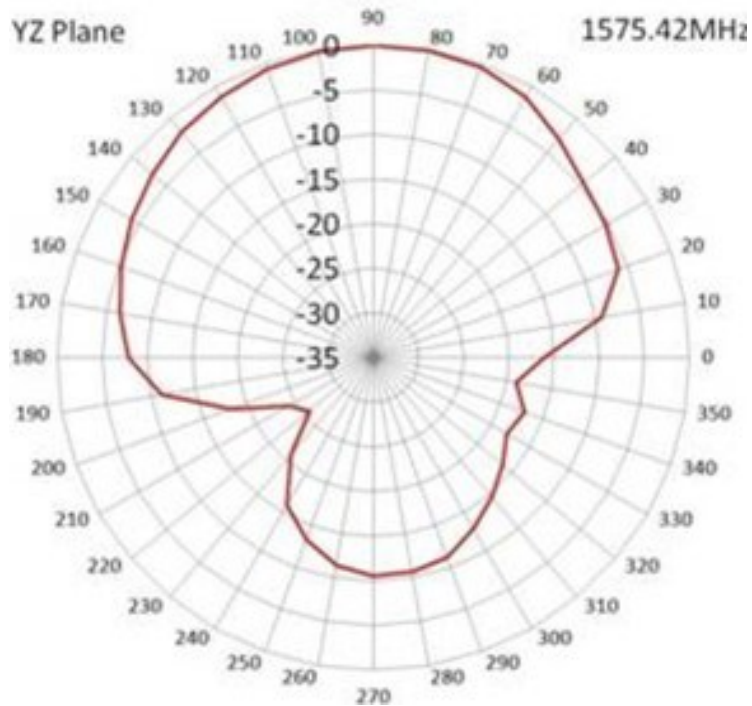
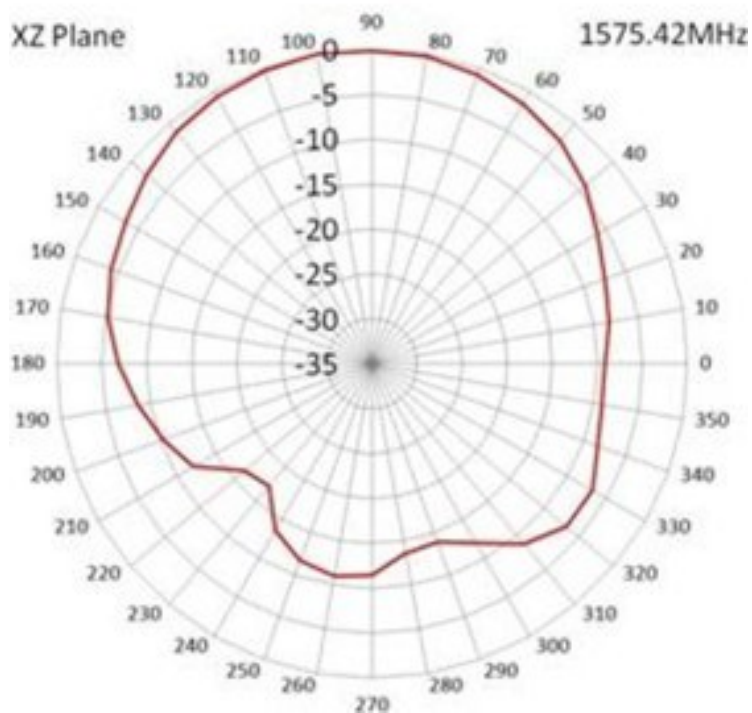
High / Low Temperature Endurance

The device satisfies the electrical characteristics specified after being exposed to temperature $80 \pm 5^{\circ}\text{C}$ for 24 ± 2 hours and being given 1~2 hours recovery time under normal temperature. And after being exposed to the temperature $-40^{\circ}\text{C} \pm 5^{\circ}\text{C}$ for 24 ± 2 hours and being given 1 to 2 hours recovery time under normal temperature.

Temperature Cycle Test

The device satisfies the electrical characteristics specified after being exposed to -25°C and $+85^{\circ}\text{C}$ for 30 ± 2 min each by 5 cycles and being given 1 to 2 hours recovery time under normal temperature.

Radiation Data



Dielectric Antenna

Item	Specification	Tolerance
Centre Frequency	1575.42Hz	+/-3MHz
Band Width (MHz)	±5 MHz	±1 MHz
V.S.W.R (in BW)	1.5 : 1	—
Gain (Zenith)	2 dB	±0.5 dB
Polarization	RHCP	—
Impedance	50 Ω	—

LNA / Filter

Item	Specification	Tolerance
LNA Gain	28±2 dB	±2.5 dB
Noise Figure	1.5 dB	—
Filter Out Band Attenuation	30dB Min f0+40MHz 30dB Min f0-40MHz 40dB Min f0+100MHz 35dB Min f0-100MHz	±1.0 dB
DC Voltage	3~5 V	
DC Current	5~10 mA	

RF Solutions Ltd. Recycling Notice Meets the following EC Directives:

DO NOT

Discard with normal waste, please recycle.

ROHS Directive 2002/95/EC

Specifies certain limits for hazardous substances.

WEEE Directive 2002/96/EC

Waste electrical & electronic equipment. This product must be disposed of through a licensed WEEE collection point. RF Solutions Ltd., fulfills its WEEE obligations by membership of an approved compliance scheme.

Waste Batteries and Accumulators Directive 2006/66/EC

Where batteries are fitted, before recycling the product, the batteries must be removed and disposed of at a licensed collection point.

**Environment Agency producer
registration number:** WEE/JB0104WV.

Disclaimer:

Whilst the information in this document is believed to be correct at the time of issue, RF Solutions Ltd does not accept any liability whatsoever for its accuracy, adequacy or completeness. No express or implied warranty or representation is given relating to the information contained in this document. RF Solutions Ltd reserves the right to make changes and improvements to the product (s) described herein without notice. Buyers and other users should determine for themselves the suitability of any such information or products for their own particular requirements or specification(s). RF Solutions Ltd shall not be liable for any loss or damage caused as a result of user's own determination of how to deploy or use RF Solutions Ltd's products. Use of RF Solutions Ltd products or components in life support and/or safety applications is not authorised except with express written approval. No licences are created, implicitly or otherwise, under any of RF Solutions Ltd's intellectual property rights. Liability for loss or damage resulting or caused by reliance on the information contained herein or from the use of the product (including liability resulting from negligence or where RF Solutions Ltd was aware of the possibility of such loss or damage arising) is excluded. This will not operate to limit or restrict RF Solutions Ltd's liability for death or personal injury resulting from its negligence.