

SPECIFICATION

Part No. : **AP.12B.07.0057A**

Spec No. : **AP.12A.01**

Product Name : 12mm Two Stage Active GPS Patch Antenna

Features : Ultra Miniature GPS active patch

High performance

Ultra low power consumption

RoHS compliant

Photo



Specification



1.0 Introduction

This miniaturised GPS Active Antenna module combines a tiny 12mm squared ceramic patch antenna from Cirocomm with a two stage low noise amplifier. It is available as a 'plug and play' format for onboard integration with GPS receiver modules via ultra thin coaxial cable and connector from IPEX.

Only 5.5mm in height, this new Taoglas active antenna module utilises XtremeGain™ technology for the highest industry sensitivity.

Designed for use with the new generation of GPS receiver modules using chipsets from SiRF, Ublox, Nemerix, Fastrax, Navsync, Falcom, Telit, Tyco, Siemens etc.

2.0 Specification

Antenna

| Frequency | 1575.42 ± 1.023MHz |
|-----------------|--|
| Antenna Gain | Typ 1.5 dBi @ Zenith(13.4mm*13.4mm Ground Plane) |
| Impedance | 50 Ω |
| Polarization | RHCP |
| Axial Ratio | Max 4.0dB @ Zenith |
| Patch Dimension | 12mm x 12mm x 3.5mm |

LNA

| Frequency | 1575.42 ± 1.023MHz |
|--------------|-------------------------|
| Gain | Typ. 25dB @ 25°C ± 5°C |
| Noise Figure | Typ. 1.4dB @ 25°C ± 5°C |
| | Max 1.8dB @ 85°C |

Cable* & Connector

| RF Cable | Coaxial Cable ϕ 1.13 ± 0.1mm, length 57 ± 2.0mm |
|-----------|--|
| Connector | lpex MHFI (U.FL) |



Total Specification

| Frequency | 1575.42 ± 1.023MHz |
|-------------------|------------------------------|
| Gain | 23.5 ± 4dBic @ 90° |
| Output Impedance | 50 Ω |
| Polarization | RHCP |
| Output VSWR | Max 2.0 |
| Input Voltage | Min. 2.5V Max. 5.5V |
| Power Consumption | At 3.0V Typ. 13mA, Max. 15mA |

3.0 Technical Drawing

