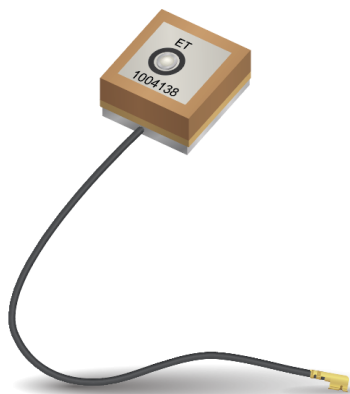


Part No. 1004138

GPS Ceramic Patch Antenna with LNA

1.575 GHz

Supports: Tracking, Smart Home, Agriculture, Automotive, Healthcare, Digital Signage, Wearables, Industrial Devices



GPS Ceramic Patch Antenna with LNA

1.575 GHz

KEY BENEFITS

Reduced Costs & Time-to-Market

Standard antennas eliminate design fees, redesign cycle time and minimize risk associated with customer solution. Quicker time to market.

Quicker Time-to-Market

By optimizing antenna size, performance and emissions, customer and regulatory specifications are more easily met.

Reliability

Products are the latest RoHS version compliant.

APPLICATIONS

- Embedded design
- POS, Headsets, Tablets
- Gateway, Access Point
- Telematics
- Tracking
- Healthcare
- M2M, Industrial devices
- Smart Grid
- OBD-II
- Not recommended in harsh environments

Ethertronics' antennas deliver on the key needs of device designers for higher functionality and performance in smaller/thinner designs. These innovative antennas provide compelling advantages for GPS enabled handheld devices, media players and other mobile communications devices.

GPS active patch antenna solution utilizes a Low Noise Amplifier (LNA) mounted on a PCB for superior performance.

Electrical Specifications

Typical characteristics in free-space

| Frequency | 1.575 GHz |
|------------------------|----------------------------|
| Center Frequency f_0 | 1575.42 \pm 2.0 MHz |
| Bandwidth | 10 MHz min |
| Gain at Zenith | 1.0 dBic (typ) |
| Polarization | R.H.C.P |
| Impedance | 50 ohm |
| Output VSWR | 2.0 (typ) |
| Operation Voltage | 3.0 \pm 0.1 V |
| LNA/Filter Gain | 21 \pm 3 dB (DC = 3.0 V) |

Mechanical Specifications & Ordering Part Number

| Ordering Part Number | 1004138 |
|----------------------|---------------------------|
| Size (mm) | 13.0 x 13.0 x 6.8 |
| Mounting | Drop-in |
| Weight (grams) | 4.9 |
| Packaging | Plastic Tray |
| Connector | IPEX MHF |
| Cable (mm) | Ø 1.13 coax , 126.0 cable |

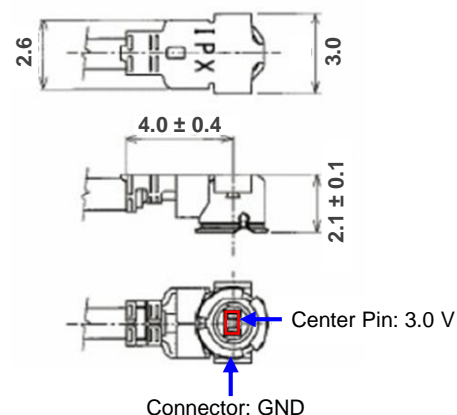


GPS Ceramic Patch Antenna with LNA Ethertronics' Embedded Antenna Specifications
Ethertronics produces a wide variety of standard and custom antennas to meet user needs.

Filter/LNA Specifications

| | |
|--------------------------------|----------------------------|
| Gain | 21 ± 3 dB (DC = 3.0 V) |
| Noise Figure | 1.5 dB typ (DC = 3.0 V) |
| Output VSWR | 2.0 max (DC = 3.0 V) |
| Current (DC = 3.0 ± 0.1 V) | 4.5 ± 1.5 mA |

Connector Dimensions (mm)



Mechanical Dimensions

Typical antenna dimensions (mm)

| Part Number | A (mm) | B (mm) | C (mm) | D (mm) |
|-------------|----------------|----------------|---------------|-----------------|
| 1004138 | 13.0 ± 0.2 | 13.0 ± 0.2 | 6.8 ± 0.7 | 126.0 ± 3.0 |

