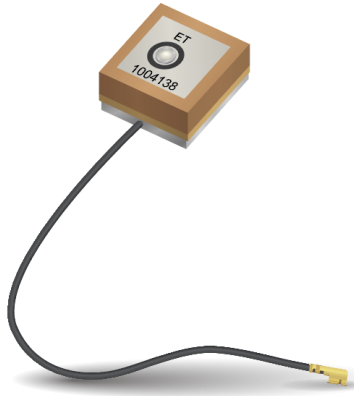


# Part No. 1004138

## 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)	$\varnothing$ 1.13 coax , 126.0 cable

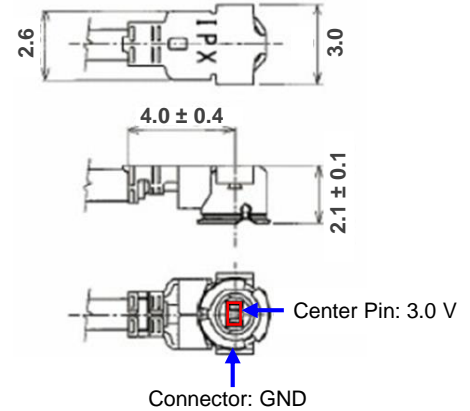


GPS Ceramic Patch Antenna with LNA Ethertronics' Embedded Antenna Specifications  
Ethertronics produces a wide variety of standard and custom antennas to meet user needs.

### 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 ± 0.1V)	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

