



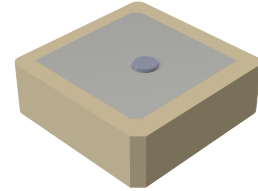
MPA-124-C

L1 GPS Passive Microstrip Antenna - 12mm

Part #: 189-00079-01

Description

The MPA-124-C is a 12 mm ceramic GPS passive patch antenna based on Maxtena technology. Our patch antenna offerings are perfect for projects with a smaller scope and budget for which high-performance and lower weight is not a primary factor for consideration for the antenna. This antenna is designed for embedded applications such as GPS handheld units, mobile devices, and tracking devices. It features higher upper hemisphere efficiency and a lower axial ratio as compared to regular patch antennas. The interface connector is mounted through pin solution, and double-sided adhesive.



Electrical Specifications

| Parameter | Specification |
|------------------------------|-------------------------|
| Range Of Receiving Frequency | 1575.42 \pm 1.023 MHz |
| Center Frequency | 1604MHz \pm 3MHz |
| Bandwidth | 7 MHz |
| Return Loss | -20 dB (@ center freq) |
| VSWR | 1.2 (@ center freq) |
| Gain at Zenith | -3.0 dBic typ. |
| Axial Ratio | 5 dBi typ |
| Polarization | RHCP |
| Impedance | 50 Ω |
| Radiation Pattern | Hemispherical |

Mechanical Specification

| Parameter | Specification |
|-----------------------|------------------|
| Antenna Dimensions | 12 x 12 x 4.2 mm |
| Antenna Type | Ceramic patch |
| Operating Temperature | -40°C to 105°C |
| Connector | Pin |
| Mounting type | Embedded |
| Weight | 3 g |

*Mounted on Ground Plane of 72 x 75 mm

Features

- GPS L1 frequency
- Adhesive mounting
- Pin-Connector
- Compact size
- Custom tuning

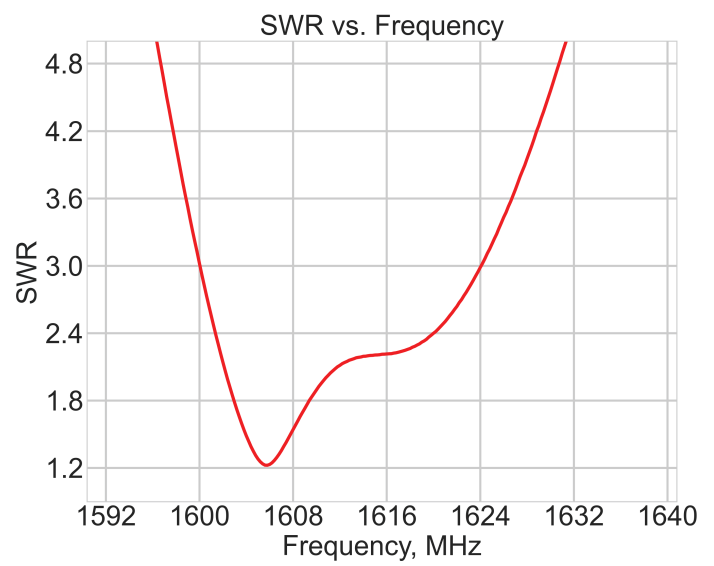
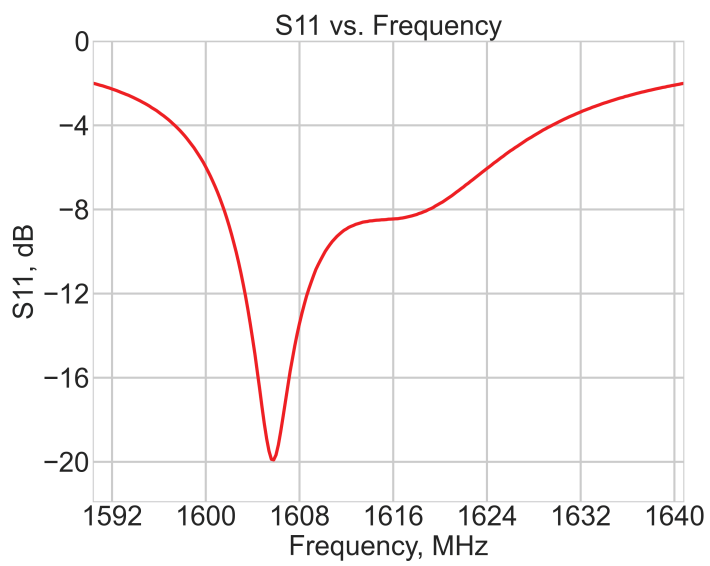
Applications

- Vehicle and fleet tracking
- Military & security
- Asset tracking
- Embedded applications
- Oil & gas industries
- Navigation devices
- Mining equipment
- LBS & M2M applications
- Handheld devices
- Law enforcement



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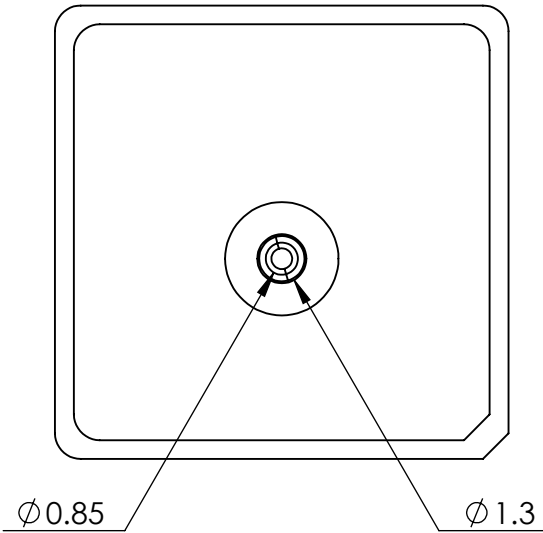
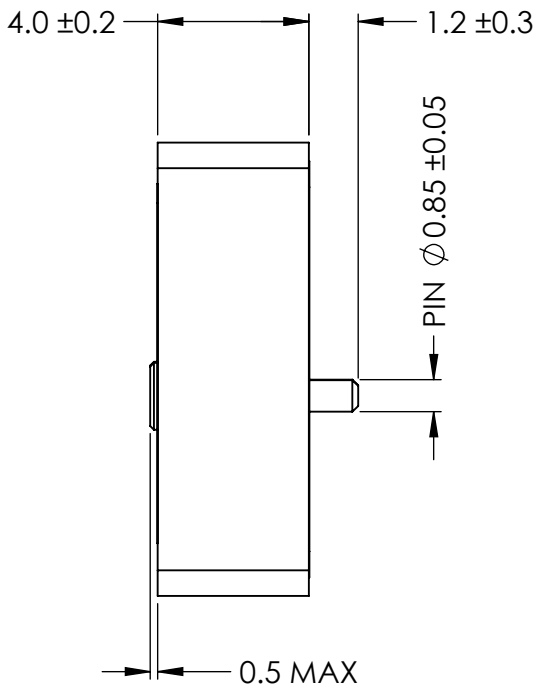
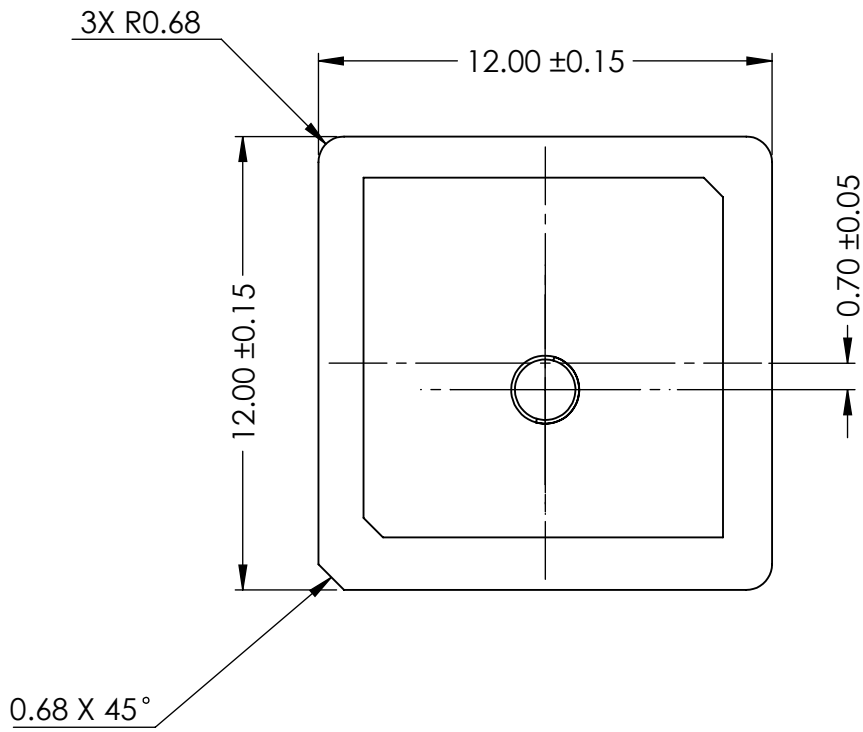
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NOTES:
1. FREQUENCY: 1575.42 MHz
2. OPERATING TEMPERTATURE: -40° C ~ +105° C
3. STORAGE TEMPERTATURE: -40° C ~ +105° C


| DRAWING REVISION HISTORY | | | |
|--------------------------|-----------------|------------|-----|
| REV | DESCRIPTION | DATE | BY |
| A | INITIAL RELEASE | 2021-10-08 | JET |



| ITEM 189-00079 REVISION HISTORY | | | |
|---------------------------------|-----------------|------------|-----|
| REV | DESCRIPTION | DATE | BY |
| A | INITIAL RELEASE | 2021-10-08 | JET |

PROPRIETARY AND CONFIDENTIAL

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| UNLESS OTHERWISE SPECIFIED: | | NAME | | DATE | | MAXTENA, INC | | | | | | | | | |
| DIMENSIONS ARE IN MM TOLERANCES: FRACTIONAL ± ANGULAR: MACH ± .5° BEND ± ONE PLACE DECIMAL ± 1.0 TWO PLACE DECIMAL ± .50 | | DRAWN | JET | 2021-10-08 | | | | | | TITLE: 189-00079 MPA-124-C | | | | | |
| | | CHECKED | ZX | 2021-10-08 | | | | | | | | | | | |
| | | ENG APPR. | NPC | 2021-10-08 | | | | | | | | | | | |
| INTERPRET GEOMETRIC TOLERANCING PER: | | MFG APPR. | | | | SIZE B | | | | | | | | | |
| | | Q.A. | | | | | | | | DWG. NO. 117-00529-01 | | | | | |
|  THIRD ANGLE PROJECTION | | CAD MAINTAINED. CHANGES SHALL BE INCORPORATED BY THE DESIGN ACTIVITY. | | | | REV A | | CAGE CODE: 5KQH7 | | SCALE: NONE | | SHEET 1 OF 1 | | | |
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| DO NOT SCALE DRAWING | | | | | | | | | | | | | | | |