



## 900 MHz 8 dBi Flat Patch Antenna

### Antennas Technical Data Sheet

PE51FP1005

#### Features

- Superior performance
- Light weight and only 8.5 inches square
- Durable UV-stable, UL flame rated radome
- Low loss solid brass elements and 12 in. coax lead
- Can be installed for either vertical or horizontal polarization

#### Applications

- 900MHz ISM Band
- Wireless LAN systems
- Cellular, GSM
- LPWAN, LoRA, IoT, M2M applications
- SCADA, RFID

#### Description

Only 8.5 inches square This high gain flat patch antenna provides 8 dBi gain with broad coverage. It is suitable for both indoor and outdoor wireless LAN and wireless video applications in the 900MHz ISM band, GSM, 900MHz cellular, RFID, and LPWAN/IoT/M2M applications.

This antenna's construction features sealed internal elements and an aesthetic UV-stable, UL flame rated white plastic radome. Can be wall or mast mounted using U-bolts.

Custom Connectors are available for this antenna.

#### Configuration

|                   |                        |
|-------------------|------------------------|
| Design            | Panel                  |
| Band Type         | Single                 |
| Radiation Pattern | Directional            |
| Polarization      | Vertical or Horizontal |
| Cable Length      | 12 in [304.8 mm]       |
| Connector Type    | N Female               |
| Number of Ports   | 1                      |

#### Electrical Specifications

| Description | Minimum | Typical | Maximum | Units |
|-------------|---------|---------|---------|-------|
| Input VSWR  |         | 1.5:1   | 1.5:1   |       |
| Impedance   |         | 50      |         | Ohms  |
| Gain        |         | 8       |         | dBi   |

#### Specifications by Band

| Description           | Band 1  | Band 2 | Band 3 | Band 4 | Band 5 | Units  |
|-----------------------|---------|--------|--------|--------|--------|--------|
| Range                 | 902-928 |        |        |        |        | MHz    |
| Gain                  | 8       |        |        |        |        | dBi    |
| Horizontal Beam Width | 75      |        |        |        |        | Degees |
| Vertical Beam Width   | 65      |        |        |        |        | Degees |

Click the following link (or enter part number in "SEARCH" on website) to obtain additional part information including price, inventory and certifications: [900 MHz 8 dBi Flat Patch Antenna PE51FP1005](#)



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#### Mechanical Specifications

Radome Material

UV-inhibited Polymer

##### Size

Overall Length

8.5 in [215.9 mm]

Width

8.5 in [215.9 mm]

Height

1.2 in [30.48 mm]

Weight

1.17 lbs [530.7 g]

Color

White

#### Environmental Specifications

##### Temperature

Operating Range

-20 to +60 deg C

Environment

UL-94HB

Wind Loading

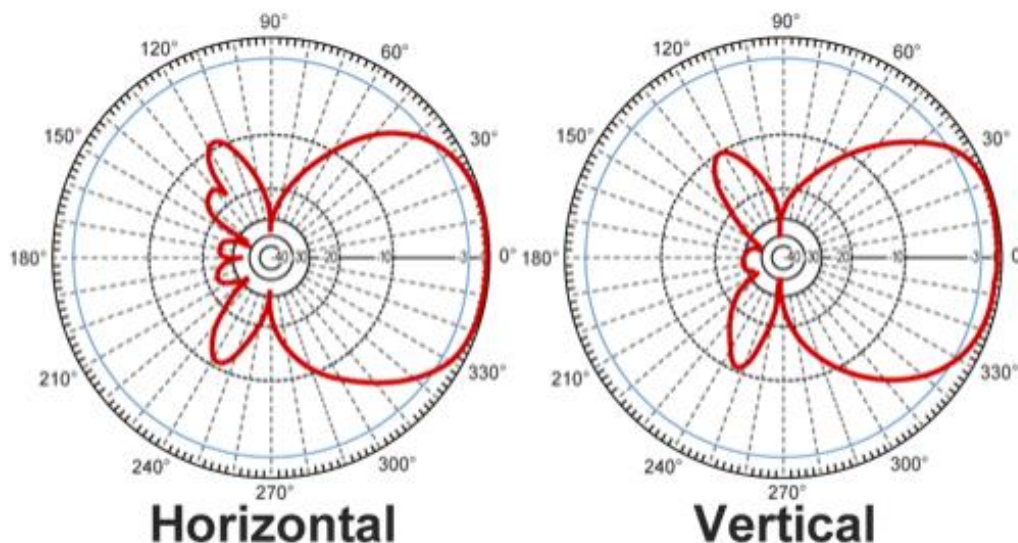
150 MPH [241.4 KPH]

**Compliance Certifications** (see [product page](#) for current document)

#### Plotted and Other Data

Notes:

##### Typical Radiation Pattern



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900 MHz 8 dBi Flat Patch Antenna from Pasternack Enterprises has same day shipment for domestic and International orders. Our RF, microwave and millimeter wave products maintain a 99.4% availability and are part of the broadest selection in the industry.

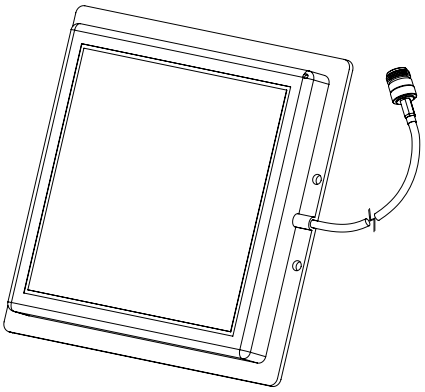
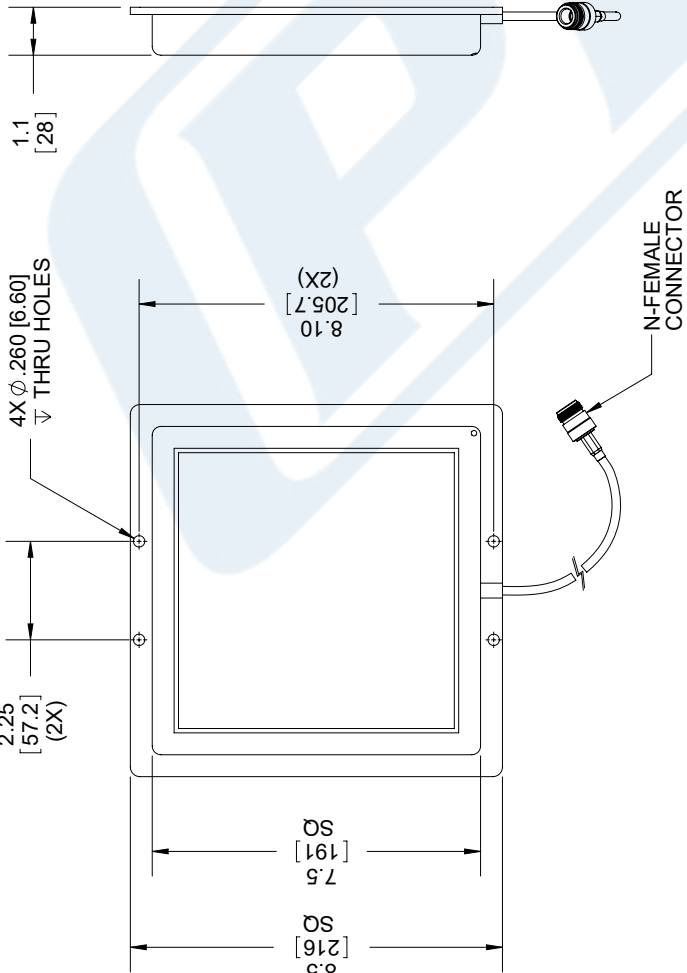
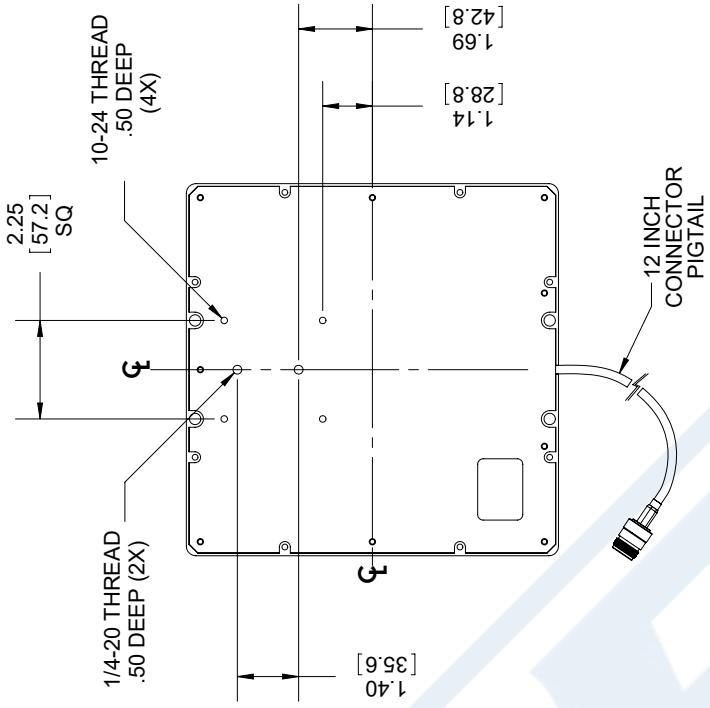
Click the following link (or enter part number in "SEARCH" on website) to obtain additional part information including price, inventory and certifications: [900 MHz 8 dBi Flat Patch Antenna PE51FP1005](#)

URL: <https://www.pasternack.com/single-antenna-8-dbi-gain-n-pe51fp1005-p.aspx>

The information contained in this document is accurate to the best of our knowledge and representative of the part described herein. It may be necessary to make modifications to the part and/or the documentation of the part, in order to implement improvements. Pasternack reserves the right to make such changes as required. Unless otherwise stated, all specifications are nominal. Pasternack does not make any representation or warranty regarding the suitability of the part described herein for any particular purpose, and Pasternack does not assume any liability arising out of the use of any part or documentation.

PE51FP1005 CAD Drawing  
900 MHz 8 dBi Flat Patch Antenna

| REVISIONS |                 |           |          |
|-----------|-----------------|-----------|----------|
| REV.      | DESCRIPTION     | DATE      | APPROVED |
| A         | INITIAL RELEASE | 2/11/2020 | M.MILLER |



THIRD-ANGLE PROJECTION

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SHEET 1 OF 1

SCALE N/A

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UNLESS OTHERWISE SPECIFIED LEADING DIMENSIONS ARE INCHES DIMENSIONS IN [ ] ARE MILLIMETERS

TOLERANCES:

|               |       |             |
|---------------|-------|-------------|
| .X = ± .2     | [.08] | FRACTIONS   |
| .XX = ± .02   | [.51] | ± 1/32      |
| .XXX = ± .005 | [.13] | ANGLES ± 1° |

CABLE LENGTH (L) TOLERANCES:

|                             |            |      |
|-----------------------------|------------|------|
| L ≤ 12 [305]                | ± .1 [25]  | / -0 |
| 12 [305] < L ≤ 60 [1524]    | ± .2 [51]  | / -0 |
| 60 [1524] < L ≤ 120 [3048]  | ± .4 [102] | / -0 |
| 120 [3048] < L ≤ 300 [7620] | ± .6 [152] | / -0 |
| 300 [7620] < L              | ± .5% L    | / -0 |

ALL DIMENSIONS SHOWN ARE FOR REFERENCE ONLY.

SIZE A

CAGE CODE 53919

DRAWN BY K.DANG

ITEM NO. PE51FP1005

REV A

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