

## FPS Series

## 0.5 – 6.0GHz Divide-By-400 Prescaler

### Features

- Input Frequency: 0.5-6.0GHz
- Output Frequency: 1.25-15MHz
- Divide Ratio: 400
- Output Power: -1.5dBm
- Phase Noise: -144dBc/Hz
- DC Power: 12V
- SMA Connector

### Picture



### Description

FPS-400-6 is a wideband frequency divider with divide ratio of 400. The AC coupled square wave output with 1.2 Vp-p swing fits many PLL applications.

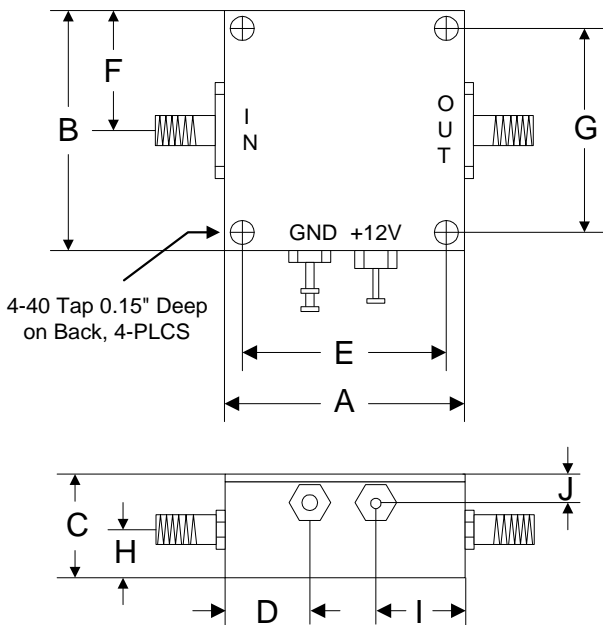
### Electrical Specifications @ +25 °C, $Z_S = Z_L = 50$ Ohms

| Parameter                       | Unit   | Minimum | Typical | Maximum |
|---------------------------------|--------|---------|---------|---------|
| Input Frequency Range           | GHz    | 0.5     |         | 6.0     |
| Output Frequency Range          | MHz    | 1.25    |         | 15      |
| Fixed Divide Ratio              |        |         | 400     |         |
| Input Power Range               |        |         |         |         |
| f = 0.5GHz – 1.0GHz             | dBm    | -11     | -15     | +12     |
| f = 1.0GHz – 6.0GHz             | dBm    | -12     | -15     | +12     |
| Output Power to 50 Ohm Load     | dBm    |         | -1.5    |         |
| Output Voltage Swing (8pF Load) | Vp-p   | 0.8     | 1.2     |         |
| SSB Phase Noise (100KHz Offset) | dBc/Hz |         | -144    |         |
| DC Power Supply                 | V      | 7       | 12      | 15      |
| Supply Current                  | mA     |         | 85      |         |

### Absolute Maximum Ratings

| Parameter             | Absolute Maximum  |
|-----------------------|-------------------|
| RF Input Power        | +13dBm            |
| Supply Voltage        | +16V              |
| Operating Temperature | -40 °C to +85 °C  |
| Storage Temperature   | -55 °C to +100 °C |

### Outline



|             | A     | B     | C     | D     | E     | F     | G     | H     | I     | J     |
|-------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| <b>Inch</b> | 1.250 | 1.250 | 0.563 | 0.450 | 1.000 | 0.625 | 1.000 | 0.250 | 0.500 | 0.187 |
| <b>mm</b>   | 31.75 | 31.75 | 14.29 | 11.43 | 25.40 | 15.88 | 25.40 | 6.35  | 12.70 | 4.76  |