



Frequency Divider, Divide by 15 Prescaler Module, 100 MHz to 7 GHz, SMA

Frequency Dividers Technical Data Sheet

PE88D15000

Features

- Wide Input Frequency Range: 100 MHz to 7 GHz
- Divide-by-15 Prescaler
- Output Frequency 6.67 MHz to 466.7 MHz
- Output Power: -1 dBm typical
- Low SSB Phase Noise: -150 dBc/Hz @ 100 KHz offset typical
- RoHS & REACH Compliant Assembly
- Bias Voltage: +12 Vdc
- Operational Temperature Range: -40°C to +85°C
- Compact SMA Connectorized Package
- Designed to meet MIL-STD-202 Test Conditions

Applications

- PLL Applications
- Test Instrumentation
- Countermeasures
- Point to Point Microwave Radio
- SATCOM
- MILCOM
- Base Stations

Description

The PE88D15000 is a coaxial packaged Frequency Divider module that operates across a wide input frequency range from 100 MHz to 7 GHz and supports a divide ratio of 15. Output Frequency is 6.67 MHz to 466.7 MHz. Impressive broadband typical performance of this Prescaler includes output power of -1 dBm and SSB phase noise of -150 dBc/Hz at 100 kHz offset. This exceptional technical performance is achieved through the use of a hybrid MIC PCB solder assembly which is RoHS and REACH compliant. This frequency divider design requires +12 Vdc typical bias voltage, operates over maximum temperature range of -40°C to +85°C, and has an absolute maximum rating for input power of +13 dBm. The rugged and compact package supports SMA Female connectors, RFI and Ground Pins. For highly reliable operation, the model is guaranteed to meet MIL-STD-202 environmental test conditions for Humidity, Shock, Vibration, and Altitude.

Electrical Specifications (TA= 25°C, Vd1 = 12 Vdc, Id1 = 150 mA)

| Description | Minimum | Typical | Maximum | Units |
|---------------------------------------|---------|---------|---------|--------|
| Input Frequency (Sine Wave) | 0.1 | | 7 | GHz |
| Output Frequency (Square Wave Output) | 6.67 | | 466.7 | MHz |
| Output Power | -4 | -1 | | dBm |
| Phase Noise @100kHz Offset | | -150 | | dBc/Hz |
| Operating DC Voltage 1 | 9 | 12 | 15 | V |
| Operating DC Current 1 | | 150 | 170 | mA |

Click the following link (or enter part number in "SEARCH" on website) to obtain additional part information including price, inventory and certifications: [Frequency Divider, Divide by 15 Prescaler Module, 100 MHz to 7 GHz, SMA PE88D15000](#)



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Performance by Frequency

| Description | F1 | F2 | F3 | F4 | F5 | Units |
|-----------------------|----------|--------|----|----|----|-------|
| Frequency Range | 0.1 to 6 | 6 to 7 | | | | GHz |
| Input Power (CW), Max | 12 | 10 | | | | dBm |
| Input Power (CW), Typ | 0 | 0 | | | | dBm |
| Input Power (CW), Min | -12 | -10 | | | | dBm |

Mechanical Specifications

Size

| | |
|------------------|--------------------|
| Length | 1.25 in [31.75 mm] |
| Width | 1.25 in [31.75 mm] |
| Height | 0.563 in [14.3 mm] |
| Input Connector | SMA Female |
| Output Connector | SMA Female |

Environmental Specifications

Temperature

| | |
|-----------------|-------------------|
| Operating Range | -40 to +85 deg C |
| Storage Range | -55 to +125 deg C |

| | |
|-----------|--|
| Humidity | MIL-STD-202F, Method 103B, Condition B |
| Shock | MIL-STD-202F, Method 213B, Condition B |
| Vibration | MIL-STD-202F, Method 204D, Condition B |
| Altitude | MIL-STD-202F, Method 105C, Condition B |

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

Plotted and Other Data

Notes:

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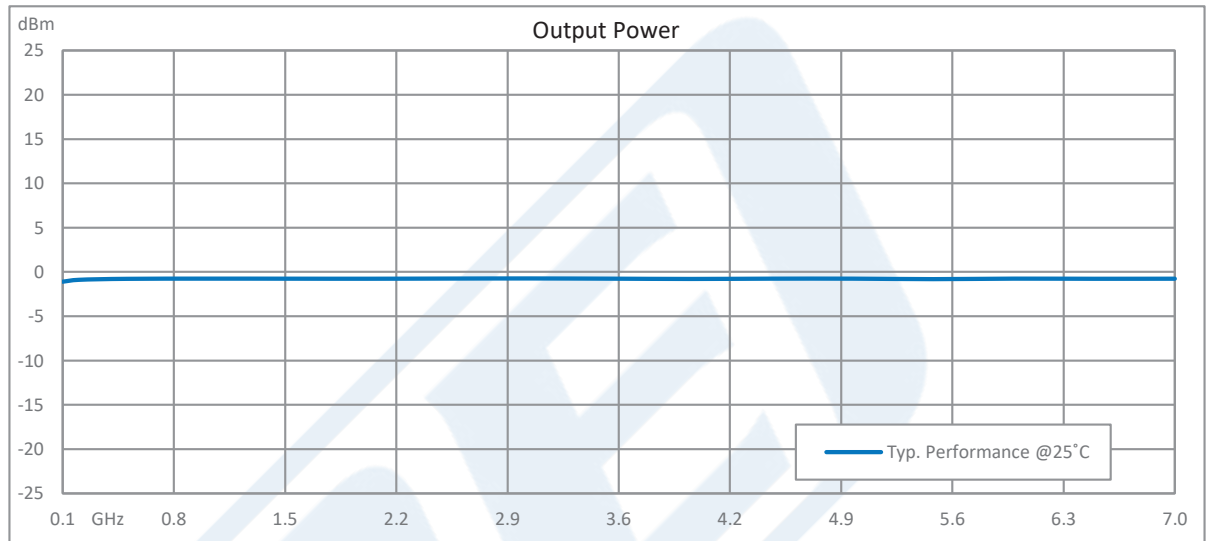


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Typical Performance Data



Frequency Divider, Divide by 15 Prescaler Module, 100 MHz to 7 GHz, SMA 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: [Frequency Divider, Divide by 15 Prescaler Module, 100 MHz to 7 GHz, SMA PE88D15000](https://www.pasternack.com/frequency-divider-divide-15-prescaler-module-100-mhz-7-ghz-sma-pe88d15000-p.aspx)

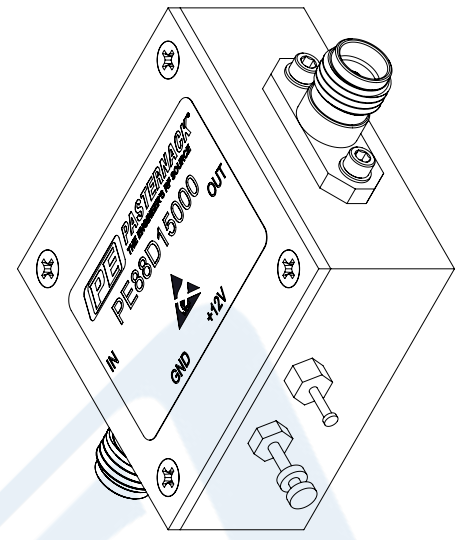
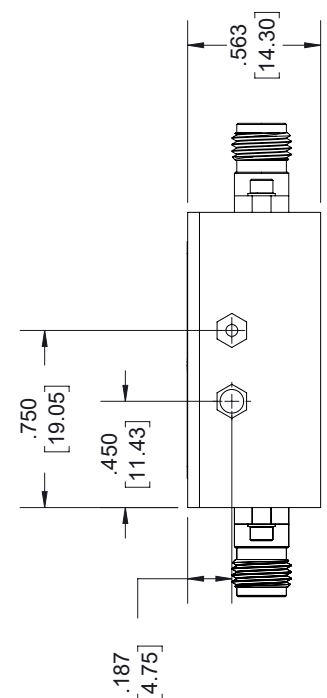
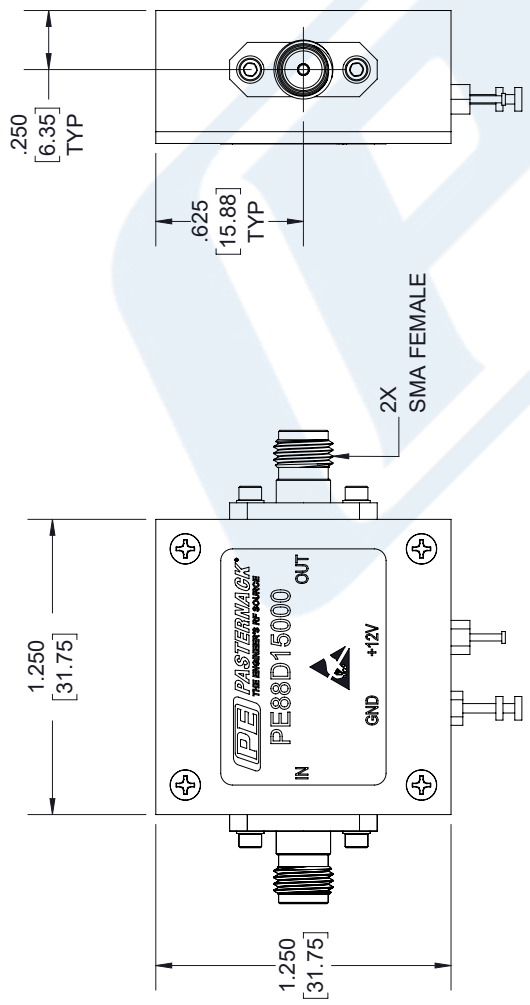
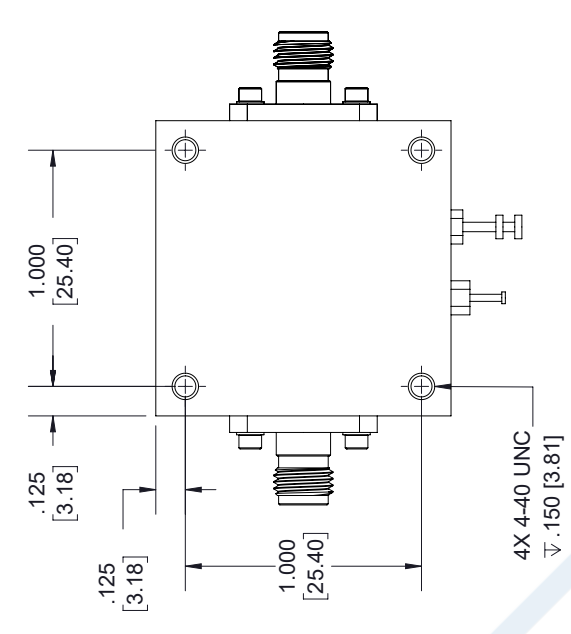
URL: <https://www.pasternack.com/frequency-divider-divide-15-prescaler-module-100-mhz-7-ghz-sma-pe88d15000-p.aspx>

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PE88D15000 CAD Drawing

Frequency Divider, Divide by 15 Prescaler Module, 100 MHz to 7 GHz, SMA

| REVISIONS | | | |
|-----------|-----------------|----------|----------|
| REV. | DESCRIPTION | DATE | APPROVED |
| A | INITIAL RELEASE | 04/25/19 | T. GALLA |



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

TOLERANCES:
 X±± 2 [5.08]
 .XX±± .01 [.25]
 .XXX±± .005 [.13]

FRACTIONS
 ±1/32
 ANGLES ± 1°

ALL DIMENSIONS SHOWN
 ARE FOR REFERENCE ONLY.

THIRD-ANGLE PROJECTION

PE PASTERNAK
 an INFINITO brand

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SHEET 1 OF 1
 SCALE N/A

SIZE A
 CAGE DRAWN BY K.DANG
 PART NUMBER PE88D15000
 REV A

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