



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

Frequency Dividers Technical Data Sheet

PE88D7000

Features

- Wide Input Frequency Range: 100 MHz to 15 GHz
- Divide-by-7 Prescaler
- Output Frequency 14.2 MHz to 2.14 GHz
- Output Power: +4 dBm typical
- Low SSB Phase Noise: -153 dBc/Hz @ 100 KHz offset typical
- RoHS & REACH Compliant Assembly
- Bias Voltage: +5 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 PE88D7000 is a coaxial packaged Frequency Divider module that operates across a wide input frequency range from 100 MHz to 15 GHz and supports a divide ratio of 7. Output Frequency is 14.2 MHz to 2.14 GHz. Impressive broadband typical performance of this Prescaler includes output power of +4 dBm and SSB phase noise of -153 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 +5 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 = 5 Vdc, Id1 = 205 mA)

Description	Minimum	Typical	Maximum	Units
Input Frequency (Sine Wave)	0.1		15	GHz
Output Frequency (Square Wave Output)	0.0142		2.142	GHz
Output Power	3	5		dBm
Phase Noise @100kHz Offset		-153		dBc/Hz
Operating DC Voltage 1		5		V
Operating DC Current 1		205		mA

Performance by Frequency

Description	F1	F2	F3	F4	F5	Units
Frequency Range	0.1 to 0.25	0.25 to 1	1 to 2	2 to 10	10 to 15	GHz
Input Power (CW), Max	10	10	10	10	10	dBm
Input Power (CW), Min	4	-8	-18	-23	-19	dBm

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 7 Prescaler Module, 100 MHz to 15 GHz, SMA PE88D7000](#)



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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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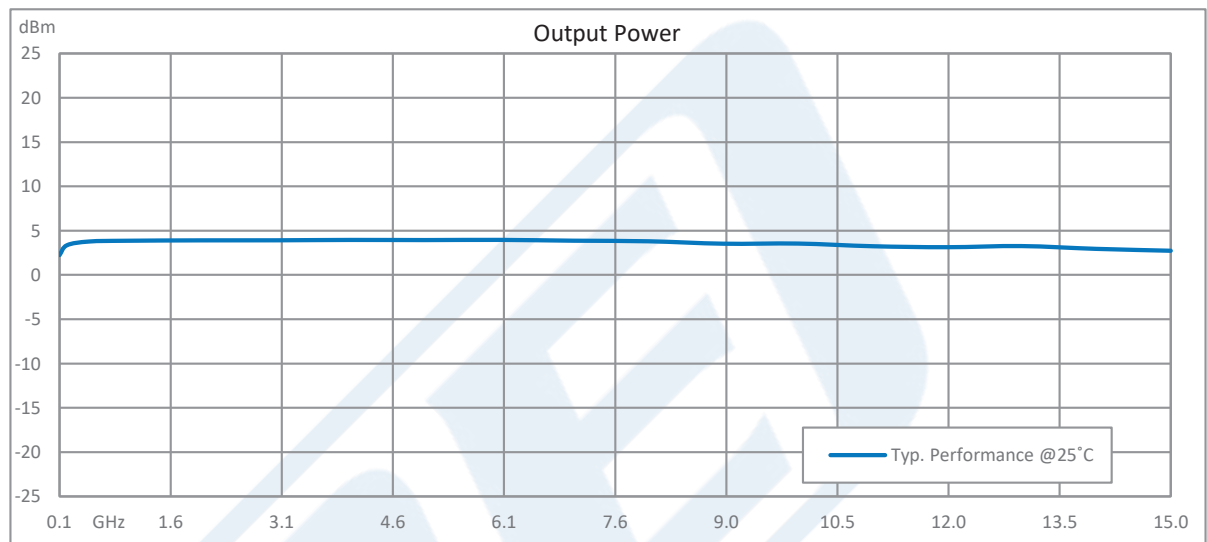


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Typical Performance Data



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

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