



Frequency Divider, Divide by 12 Prescaler Module, 100 MHz to 13 GHz, SMA

Frequency Dividers Technical Data Sheet

PE88D12000

Features

- Wide Input Frequency Range: 100 MHz to 13 GHz
- Divide-by-12 Prescaler
- Output Frequency 8 MHz to 1.08 GHz
- Output Power: -1 dBm typical
- Low SSB Phase Noise: -145 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 PE88D12000 is a coaxial packaged Frequency Divider module that operates across a wide input frequency range from 100 MHz to 13 GHz and supports a divide ratio of 12. Output Frequency is 8 MHz to 1.08 GHz. Impressive broadband typical performance of this Prescaler includes output power of -1 dBm and SSB phase noise of -145 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 = 185 mA)

Description	Minimum	Typical	Maximum	Units
Input Frequency (Sine Wave)	0.1		13	GHz
Output Frequency (Square Wave Output)	0.008		1.08	GHz
Phase Noise @100kHz Offset		-145		dBc/Hz
Operating DC Voltage 1	9	12	15	V
Operating DC Current 1		185	200	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 12 Prescaler Module, 100 MHz to 13 GHz, SMA PE88D12000](#)



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Performance by Frequency

Description	F1	F2	F3	F4	F5	Units
Frequency Range	0.1 to 1	1 to 10	10 to 12	12 to 13		GHz
Input Power (CW), Max	10	10	3	3		dBm
Input Power (CW), Typ	0	0	0	0		dBm
Input Power (CW), Min	-1	-15	-10	-5		dBm
Output Power (CW), Typ	-2	-1	-1	-1		dBm
Output Power (CW), Min	-4	-4	-4	-4		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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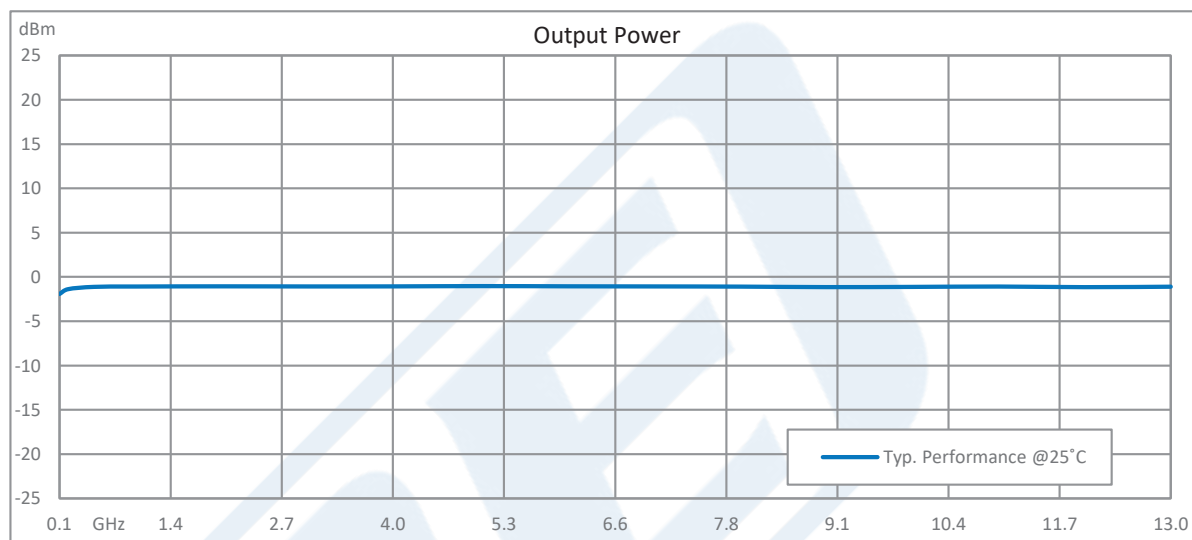


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Typical Performance Data



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