PASTERNACK®
THE ENGINEER'S RF SOURCE

2.2 dB NF, 20 mW, 8 GHz to 12 GHz, Low Noise Amplifier, 38 dB Gain, SMA

TECHNICAL DATA SHEET PE15A1003

PE151003 is a X-band coaxial low noise amplifier operating in the 8 to 12 GHz frequency range. The amplifier offers 2.2 dB noise figure, 13 dBm minimum of saturated power and high 38 dB minimal small signal gain with the excellent gain flatness of ±1.0dB max. This exceptional technical performance is achieved through the use of hybrid MIC design and advanced GaAs PHEMT devices. The low noise amplifier requires typically a +12V DC power supply. The connectorized SMA module is unconditionally stable and includes built-in voltage regulation, bias sequencing, and reverse bias protection for added reliability. The amplifier operates over the temperature range of -40°C and +85°C.

Features

- 8 GHz to 12 GHz Frequency Range
- Psat: 13 dBm min
- High Small Signal Gain: 38 dB
- Gain Flatness: ±1.0 dB max
- Noise Figure: 2.2 dB
- 50 Ohms Input and Output Matched
- -40 to 85°C Operating Temperature
- Unconditionally Stable
- Regulated Supply & Bias Sequencing
- Hermetically Sealed Module
- Overvoltage External Protection

Applications

- Laboratory Applications
- R&D Labs
- Radar Systems
- Telecom Infrastructure
- Test Instrumentation
- Military & Space
- Communication Systems
- Microwave Radio Systems
- Satellite Communications
- Low Noise Amplifier
- General Purpose Amplification
- Gain Block

Electrical Specifications (TA = +25°C, DC Voltage = 12Volts, DC Current = 250mA)

Description	Minimum	Typical	Maximum	Units
Frequency Range	8		12	GHz
Small Signal Gain	38			dB
Minimum Psat	+13			dBm
Noise Figure		2.2		dB
Input VSWR			2:1	
Output VSWR			2:1	
Operating DC Voltage	11	12	13	Volts
Operating DC Current			250	mA
Operating Temperature Range	-40		+85	°C

Click the following link (or enter part number in "SEARCH" on website) to obtain additional part information including price, inventory and certifications: 2.2 dB NF, 20 mW, 8 GHz to 12 GHz, Low Noise Amplifier, 38 dB Gain, SMA PE15A1003

Pasternack Enterprises, Inc. • P.O. Box 16759, Irvine, CA 92623
Phone: (866) 727-8376 or (949) 261-1920 • **Fax:** (949) 261-7451
Sales@Pasternack.com • Techsupport@Pasternack.com

ISO 9001 : 2008 Registered

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Absolute Maximum Rating

Parameter	Rating	Units
Source Voltage	+15	Volts
RF input Power	+17	dBm
Operating Temperature (base-plate)	-40 to +85	°C
Storage Temperature	-55 to +85	°C

ESD Sensitive Material, Transport material in Approved ESD bags. Handle only in approved ESD Workstation.

Compliance Certifications (visit www.Pasternack.com for current document)

RoHS Compliant

Plotted and Other Data

Notes:

- Values at +25 °C, sea level
- ESD Sensitive Material, Transport material in Approved ESD bags. Handle only in approved ESD Workstation.

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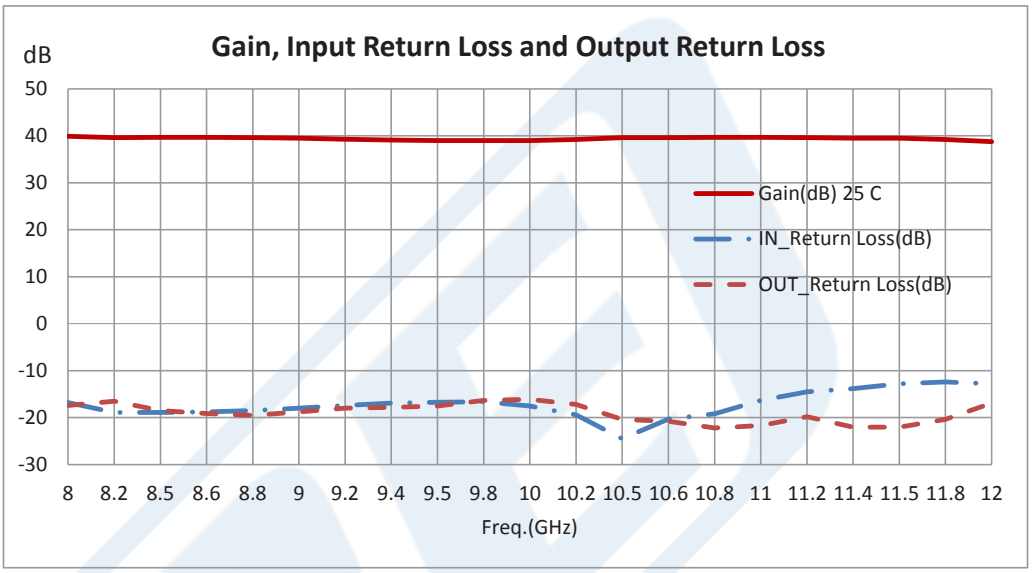
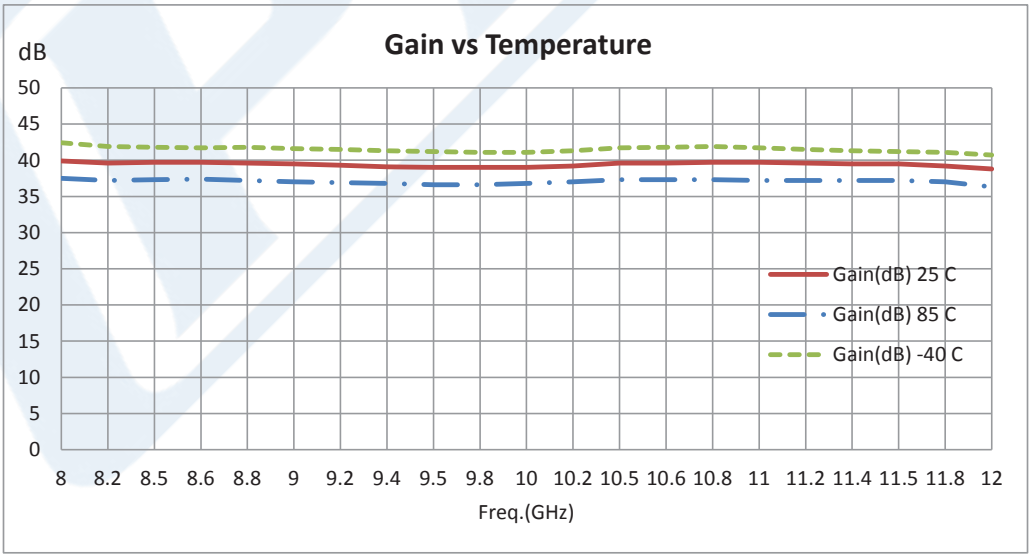
Power Data





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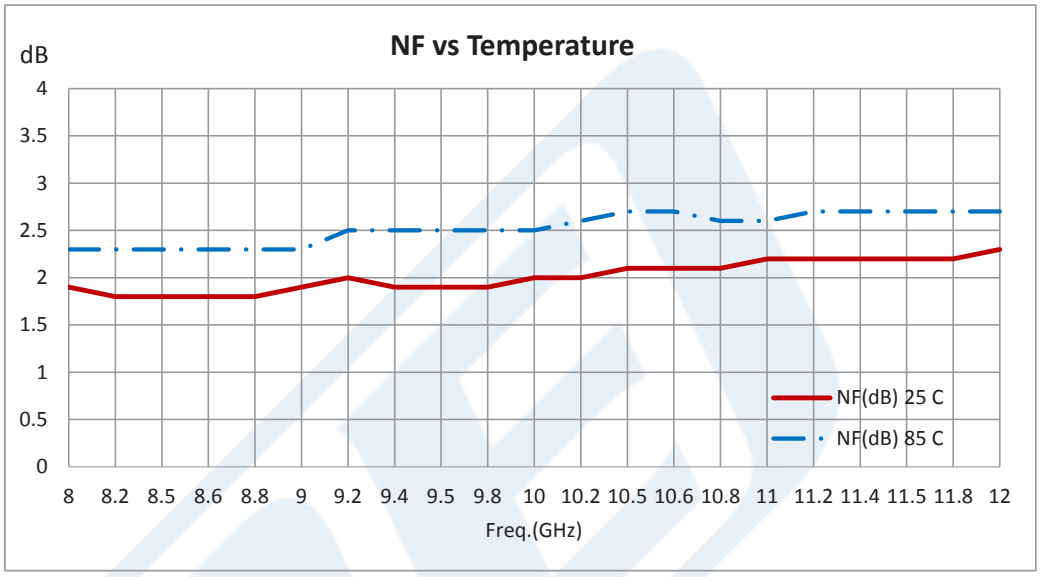

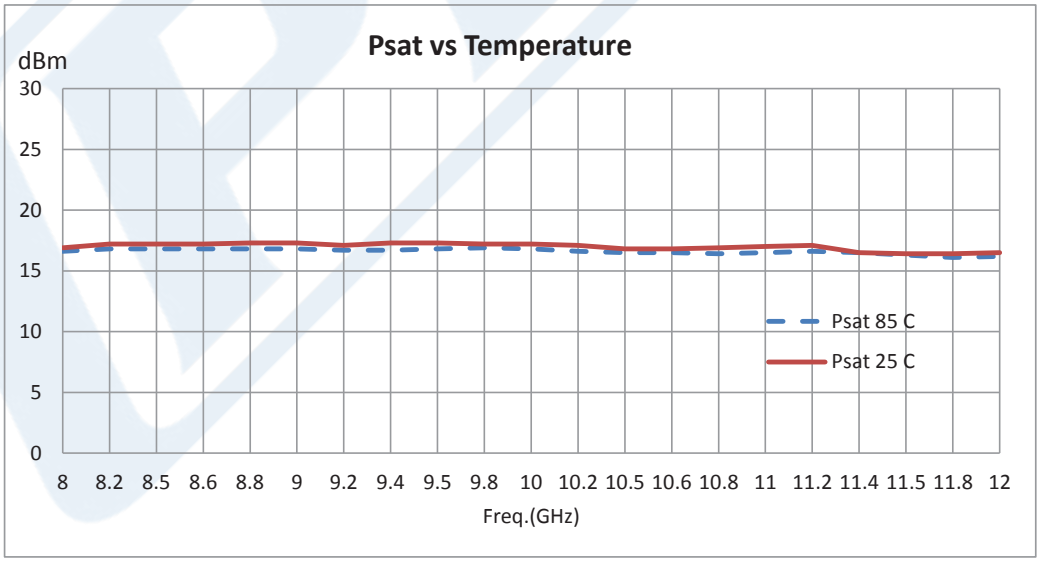

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2.2 dB NF, 20 mW, 8 GHz to 12 GHz, Low Noise Amplifier, 38 dB Gain, SMA from Pasternack Enterprises has same day shipment for domestic and International orders. Our RF, microwave and millimeter wave products maintain a 99% availability and are part of the broadest selection in the industry.

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URL: http://www.pasternack.com/2.2-db-12-ghz-low-noise-amplifier-38-db-gain-sma-pe15a1003-p.aspx

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PE15A1003 CAD Drawing

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