



50 dB Gain, 20 Watt P1dB, 1.7 GHz to 2 GHz, High Power High Gain Amplifier, 60 dBm IP3, SMA

TECHNICAL DATA SHEET

PE15A5014

PE15A5014 is a wideband GaAs amplifier module that is ideal for wideband communications, pulsed applications including radar, and medical and laboratory applications. It produces 4 Watts of linear, 10 MHz LTE. The high gain power coaxial amplifier operating in the 1.7 to 2.0 GHz frequency range. The amplifier offers 40 dB typical small signal gain with the gain flatness of ± 0.5 dB typical. The amplifier has several protection circuits including load VSWR protection, low and high bias protection, 1 reverse bias protection and thermal protection. The connectorized SMA module is unconditionally stable and includes built-in voltage regulation, bias sequencing, and requires typically a +12V DC power supply. The amplifier operates over the temperature range of -10°C and $+85^{\circ}\text{C}$.

Features

- 1.7 GHz to 2.0 GHz Frequency Range
- P1dB 43 dBm typ
- Small Signal Gain: 50 dB min
- Gain Flatness: ± 0.5 typical
- 50 Ohms Input and Output Matched
- Unconditionally Stable
- Regulated Supply & Bias Sequencing
- Overvoltage Protection
- Thermal Protection

Applications

- L-band Military Radar
- Commercial Air Traffic Control
- Weather & Earth Observation
- Satellites
- Radar & Communication Systems
- High Gain Driver Power Amplifier
- High Gain Output Power Amplifier

Electrical Specifications (TA = $+25^{\circ}\text{C}$, DC Voltage = 12Volts)

Description	Minimum	Typical	Maximum	Units
Frequency Range	1.7		2	GHz
Small Signal Gain		50		dB
Gain Flatness		± 0.5		dB
Output at 1 dB Compression Point	+41	+43		dBm
Output 3rd Intercept Point		+60		dBm
Input Return Loss	-15	-20		dB
Operating DC Voltage		12		Volts
Quiescent Current		6,000		mA
Operating Temperature Range	-10		+85	$^{\circ}\text{C}$

Environmental Specifications

Temperature

Operating Range -10 to $+85^{\circ}\text{C}$
Storage Range -55 to $+100^{\circ}\text{C}$

Humidity 95
Shock MIL-STD-810F Method 516.5
Vibration MIL-STD-810F Method 516.5
Altitude MIL-STD-810F Method 500.4

Click the following link (or enter part number in "SEARCH" on website) to obtain additional part information including price, inventory and certifications: [50 dB Gain, 20 Watt P1dB, 1.7 GHz to 2 GHz, High Power High Gain Amplifier, 60 dBm IP3, SMA PE15A5014](#)

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Not RoHS Compliant

Notes:

- Values at +25 °C, sea level
- ESD Sensitive Material, Transport material in Approved ESD bags. Handle only in approved ESD Workstation.
- Heat Sink Required for Proper Operation, Unit is cooled by conduction to heat sink.

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ISO 9001 : 2008 Registered



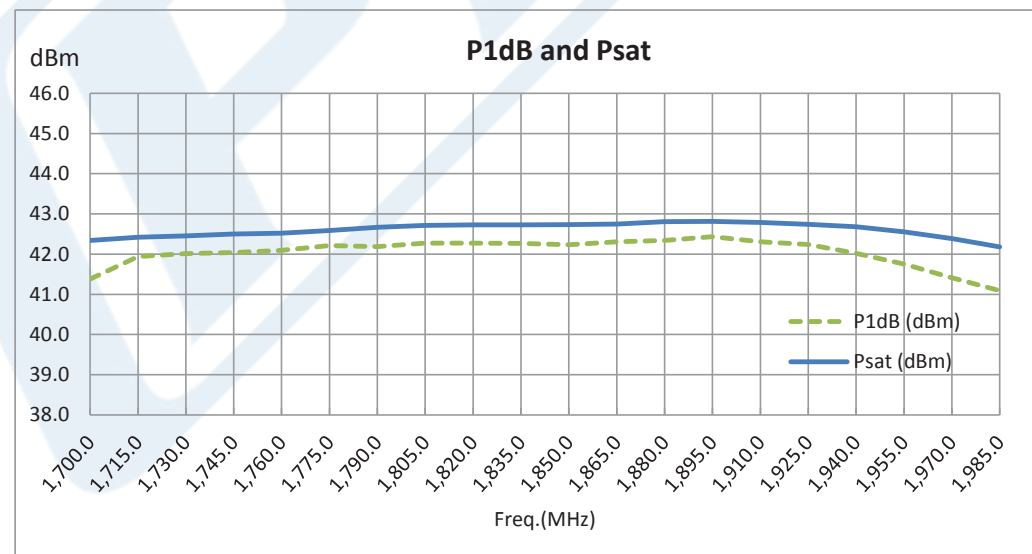
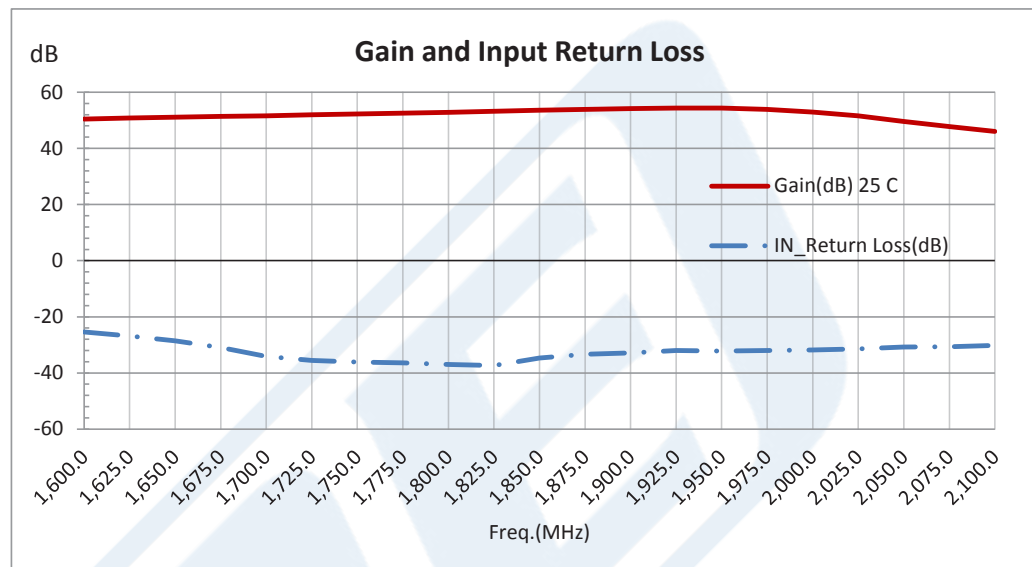


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Typical Performance Data



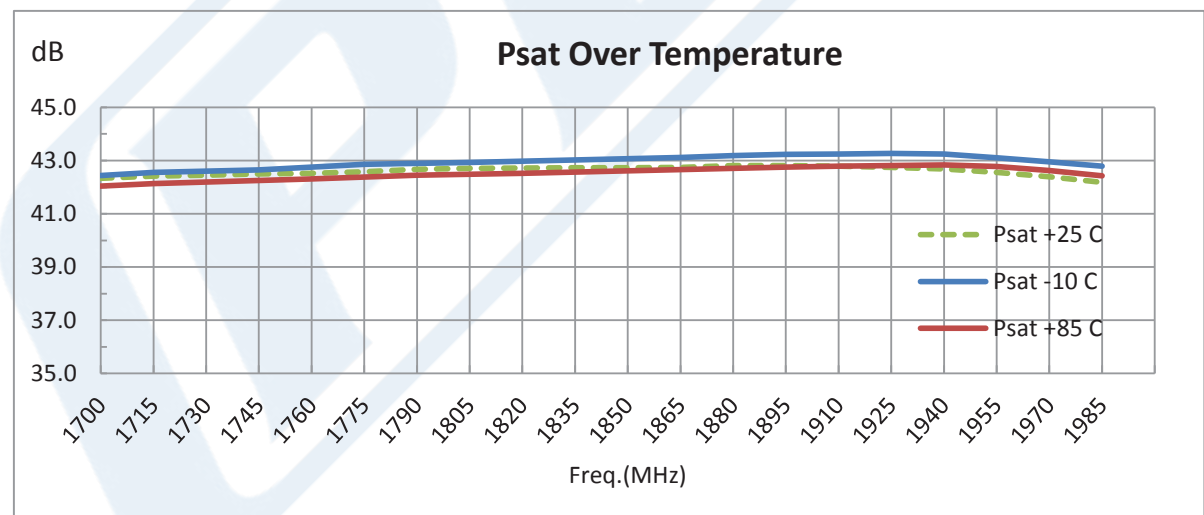
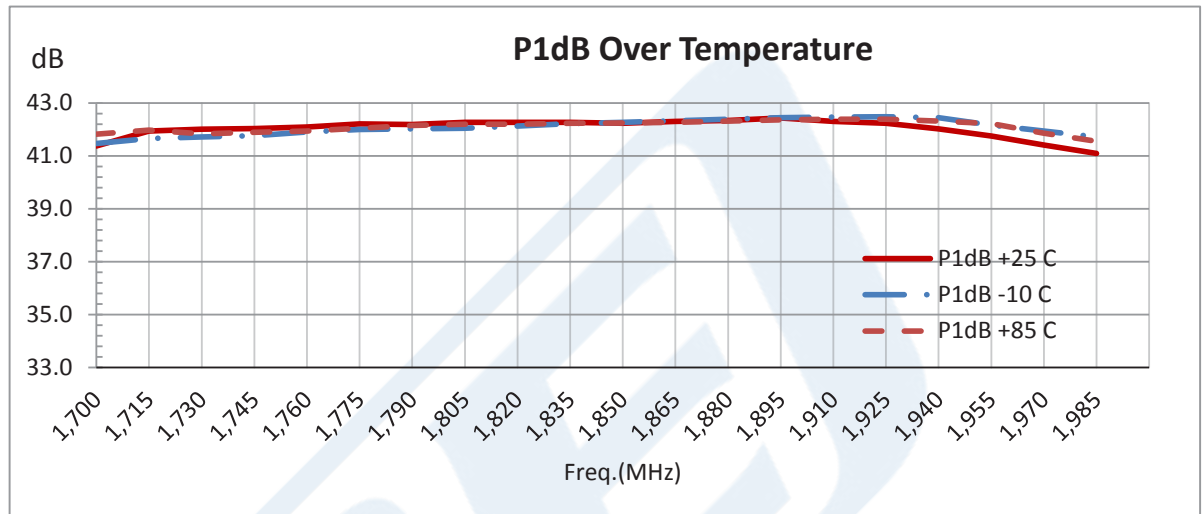
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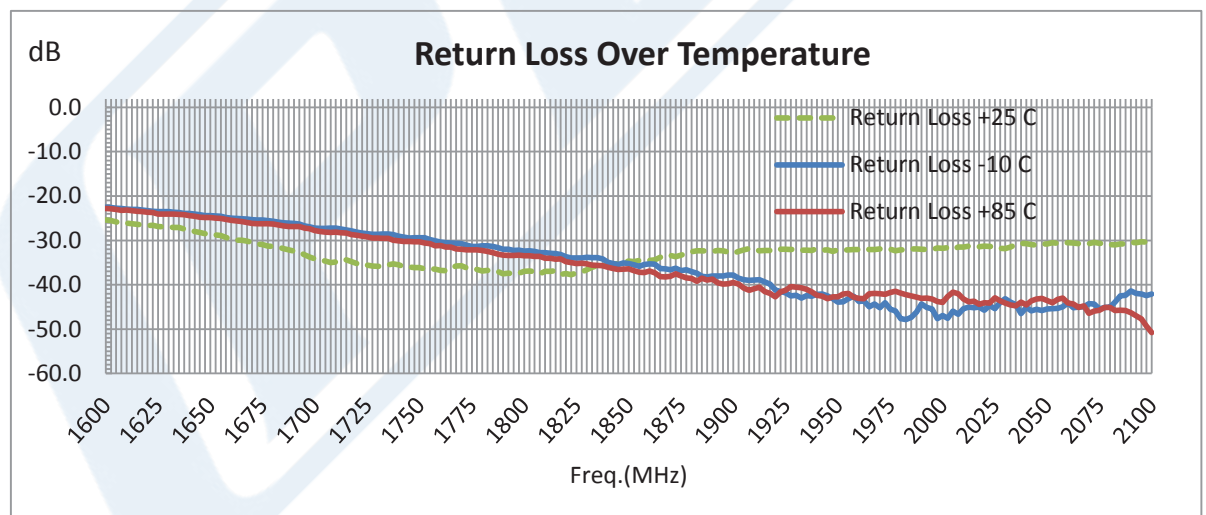
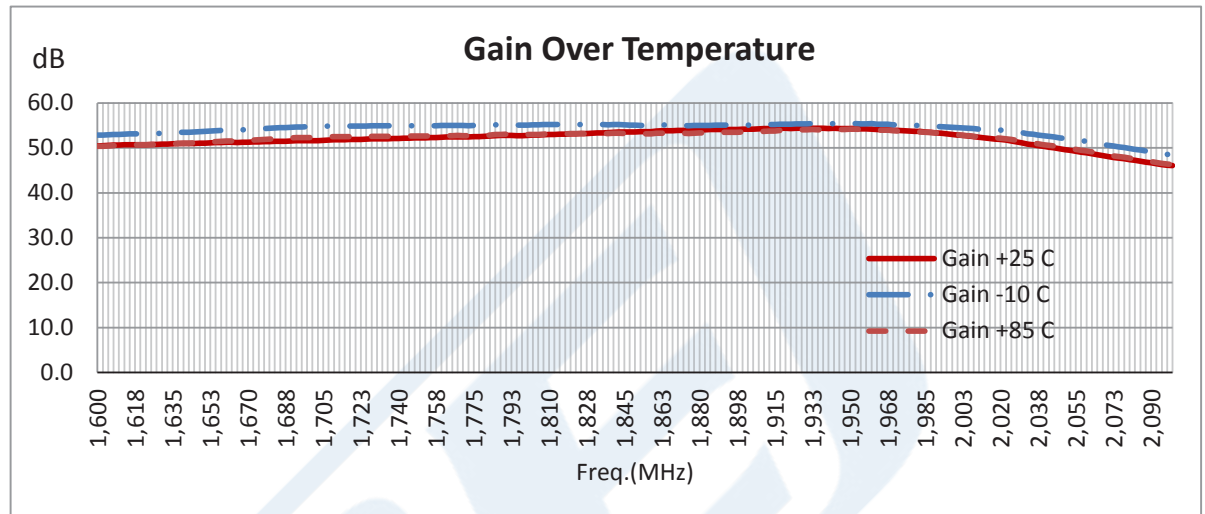
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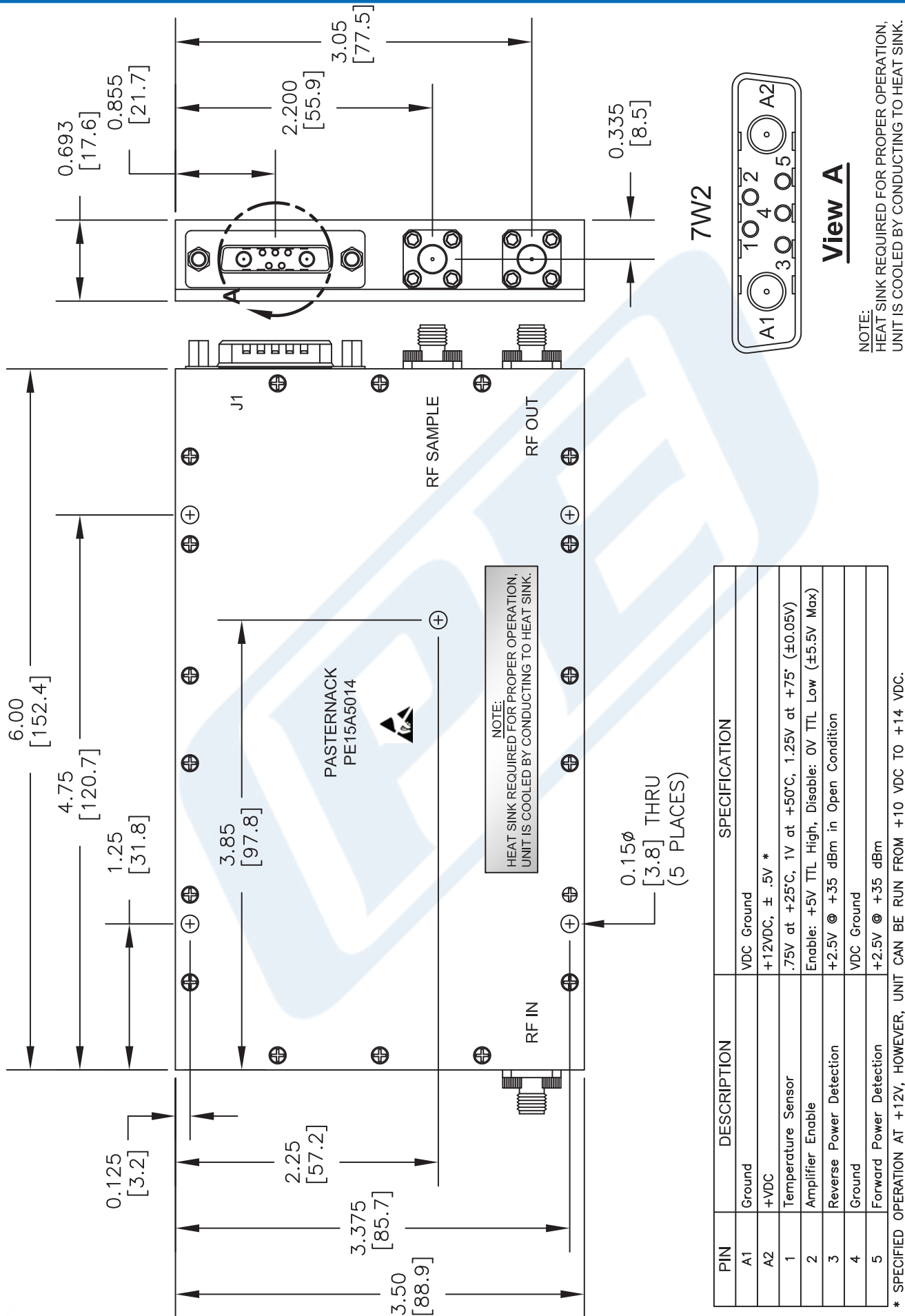
PE15A5014



UL
REGISTERED FIRM
PASTERNAK ENTERPRISES, INC.
CERTIFICATE NO. 1005857-0003
ISSUED: 01-01-2008

PE15A5014 CAD Drawing

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High Gain Amplifier, 60 dBm IP3, SMA



DWG TITLE

PE15A5014

PE PASTERNAK
THE ENGINEER'S RF SOURCE

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NOTES:
1. UNLESS OTHERWISE SPECIFIED ALL DIMENSIONS ARE NOMINAL.
2. ALL SPECIFICATIONS ARE SUBJECT TO CHANGE WITHOUT NOTICE AT ANY TIME.
3. DIMENSIONS ARE IN INCHES [mm].

FSCM NO. 53919

CAD FILE 050114

SCALE N/A

SIZE A

150