



5 Watt P1dB, 1.7 GHz to 2.5 GHz, High
Power Amplifier, 11 dB Gain, SMA

TECHNICAL DATA SHEET

PE15A5015

PE15A5015 is a GaAs amplifier module designed for linear applications including COFDM video and UAV/UGV data links. The PE15A5015 can provide over 5 Watts of analog FM power and operates in the 1.7 to 2.5 GHz frequency range. The amplifier offers 1 Watt of Linear COFDM of output power and 11 dB typical small signal gain with the gain flatness of ± 0.5 dB typical. This excellent technical performance is achieved through the use of hybrid MIC design and advanced GaAs PHEMT devices. The driver 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, and thermal protection for added reliability. The amplifier operates over the temperature range of -10°C and +80°C.

Features

- 1.7 GHz to 2.5 GHz Frequency Range
- P1dB 5 Watts typ
- 1 Watt Linear COFDM Power Output
- Small Signal Gain: 11 dB typ
- 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°C, DC Voltage = 12Volts DC Current = 800mA)

Description	Minimum	Typical	Maximum	Units
Frequency Range	1.7		2.5	GHz
Small Signal Gain		11		dB
Gain Flatness		± 0.5		dB
Output at 1 dB Compression Point	+13	+37		dBm
Input Return Loss		-15	-14	dB
Operating DC Voltage		12	14	Volts
Operating DC Current			800	mA
Operating Temperature Range	-10		+80	°C

Absolute Maximum Rating

Environmental Specifications

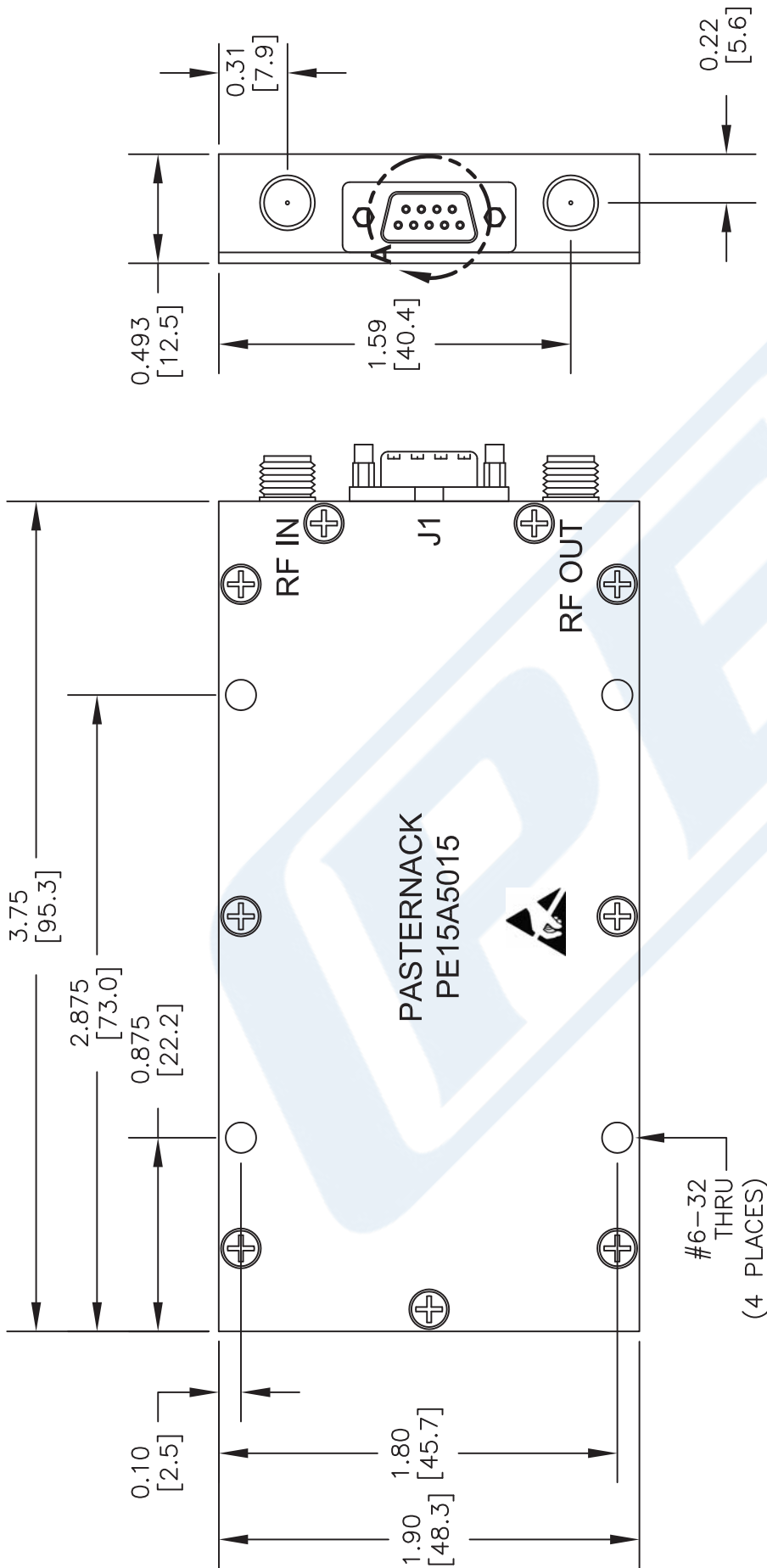
Temperature

Operating Range	-10 to +80 deg C
Storage Range	-65 to +150 deg C

Click the following link (or enter part number in "SEARCH" on website) to obtain additional part information including price, inventory and certifications: [5 Watt P1dB, 1.7 GHz to 2.5 GHz, High Power Amplifier, 11 dB Gain, SMA PE15A5015](#)

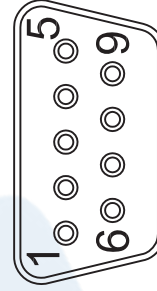
PE15A5015 CAD Drawing

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J1 - Male Micro-D Conn.	
PIN	FUNCTION
1	GND
2	GND
3	+VDC
4	+VDC
5	Amp Enable
6	GND
7	+VDC
8	+VDC
9	GND

PIN	DESCRIPTION	SPECIFICATION
+VDC	DC Supply	+9 to +14 VDC
AMP Enable	TTL On/Off	Low=Enable, High=Disable
GND	---	---
RF Input	---	+27 dBm Max.



View A

NOTE:
HEAT SINK REQUIRED FOR PROPER OPERATION,
UNIT IS COOLED BY CONDUCTING TO HEAT SINK.

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].
4. FITS MIL-C-17 AND EQUIVALENT CABLES.

DWG TITLE

PE15A5015

PASTERNAK
THE ENGINEER'S RF SOURCE

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FSCM NO. 53919

CAD FILE 050714

SCALE N/A

SIZE A

150