



45 dB Gain, 100 Watt Psat, 700 MHz to 2.7 GHz,
 High Power High Gain Amplifier, GaN, SMA

TECHNICAL DATA SHEET

PE15A5033F

The PE15A5033F is a 100 W high gain Class A/AB Coaxial Linear Power Amplifier operating in the 0.7 to 2.7 GHz frequency range. The amplifier offers 100 Watts typical saturated power and 45 dB minimum small signal gain with ± 1.5 dB typical gain flatness. The amplifier requires typically a +30V DC power supply. The SMA connectorized module is unconditionally stable and operates over the temperature range of 0°C and +50°C. The unit comes with a Heatsink and Fan.

Features

- 0.7 GHz to 2.7 GHz Frequency Range
- Psat 100 Watts typ
- Small Signal Gain: 45 dB min
- Gain Flatness ± 1.5 dB typ
- Switching Time 5 usec max
- 50 Ohms Input and Output Matched
- Unconditionally Stable
- Regulated Supply
- RF Input Signal Format: CW/AM/FM/Pulse
- Efficiency (PAE) 30% Typical
- Heatsink and Fan

Applications

- Military Radio
- Communication Systems
- High Gain Driver Power Amplifier
- High Gain Output Power Amplifier

Electrical Specifications (TA = +25°C, DC Voltage = 30Volts)

Description	Minimum	Typical	Maximum	Units
Frequency Range	0.7		2.7	GHz
Small Signal Gain	45			dB
Gain Flatness @ Psat		± 1.5	± 2	dB
Input Power		+7	+10	dBm
Psat	+49.5	+50		dBm
Efficiency (PAE)	25	30		%
Harmonics		-20	-15	dBc
Spurious		-70	-60	dBc
Input VSWR			2:1	
Switching Speed for On/Off Switch Gate			5,000	usec
TTL Control	"1": On, "0": Off, Enable: 5V, Disable: 0V			
Operating DC Voltage		30		Volts
DC Consumption			500	Watts
Operating Temperature Range	0		+50	°C

Click the following link (or enter part number in "SEARCH" on website) to obtain additional part information including price, inventory and certifications: [45 dB Gain, 100 Watt Psat, 700 MHz to 2.7 GHz, High Power High Gain Amplifier, GaN, SMA PE15A5033F](#)



45 dB Gain, 100 Watt Psat, 700 MHz to 2.7 GHz,
High Power High Gain Amplifier, GaN, SMA

TECHNICAL DATA SHEET

PE15A5033F

Mechanical Specifications

Size

Length	10.75 in [273.05 mm]
Width	7 in [177.8 mm]
Height	3.75 in [95.25 mm]
Weight	9.5 lbs [4.31 Kg]
Input Connector	SMA Female
Output Connector	SMA Female

Environmental Specifications

Temperature

Operating Range	0 to +50 deg C
Humidity	95% Non-Condensing
Shock	Normal Truck Transport
Vibration	Normal Truck Transport
Altitude	10000 feet Above Sea Level

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

Not 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.



Click the following link (or enter part number in "SEARCH" on website) to obtain additional part information including price, inventory and certifications: [45 dB Gain, 100 Watt Psat, 700 MHz to 2.7 GHz, High Power High Gain Amplifier, GaN, SMA PE15A5033F](#)

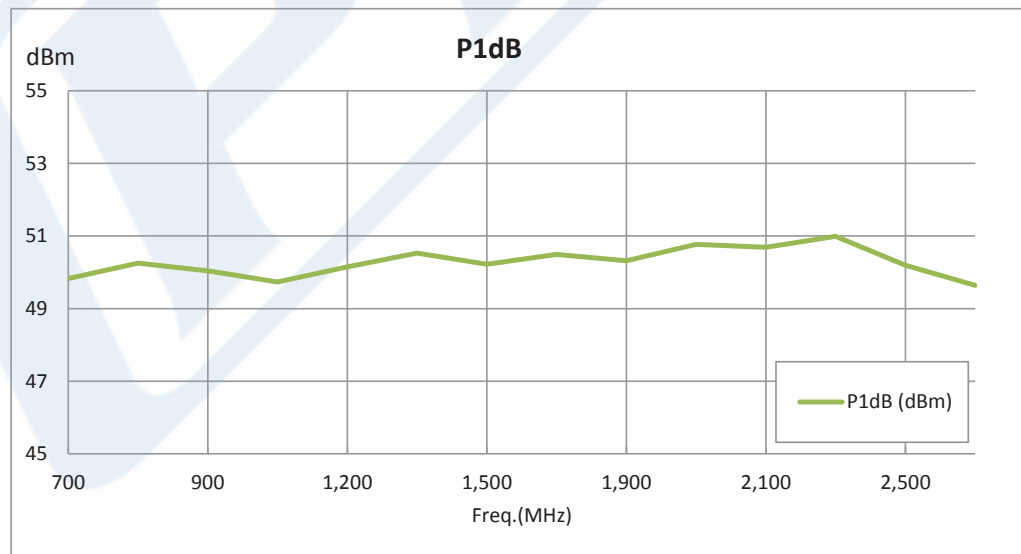
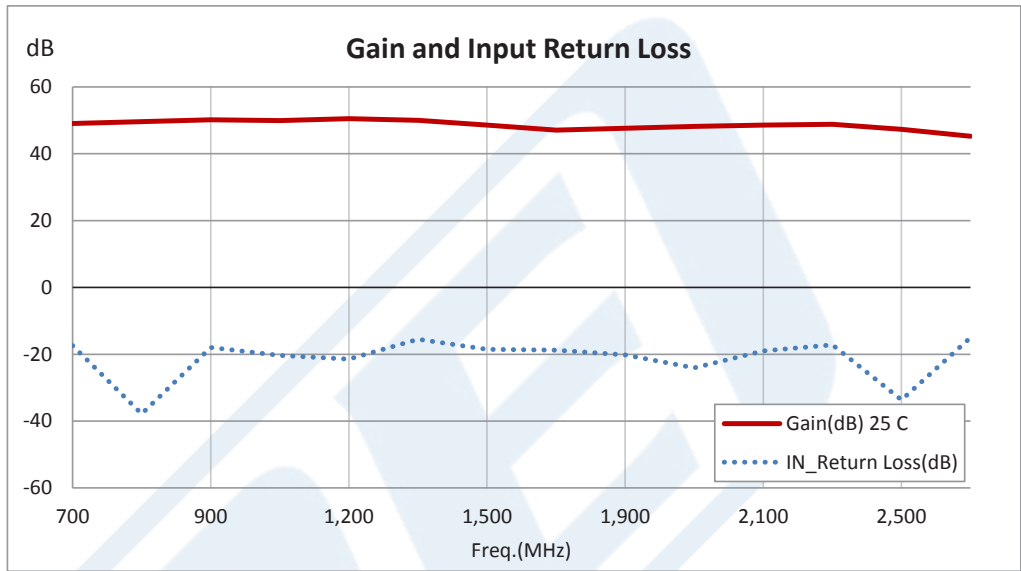




45 dB Gain, 100 Watt Psat, 700 MHz to 2.7 GHz,
High Power High Gain Amplifier, GaN, SMA

TECHNICAL DATA SHEET PE15A5033F

Typical Performance Data



Click the following link (or enter part number in "SEARCH" on website) to obtain additional part information including price, inventory and certifications: [45 dB Gain, 100 Watt Psat, 700 MHz to 2.7 GHz, High Power High Gain Amplifier, GaN, SMA PE15A5033F](#)

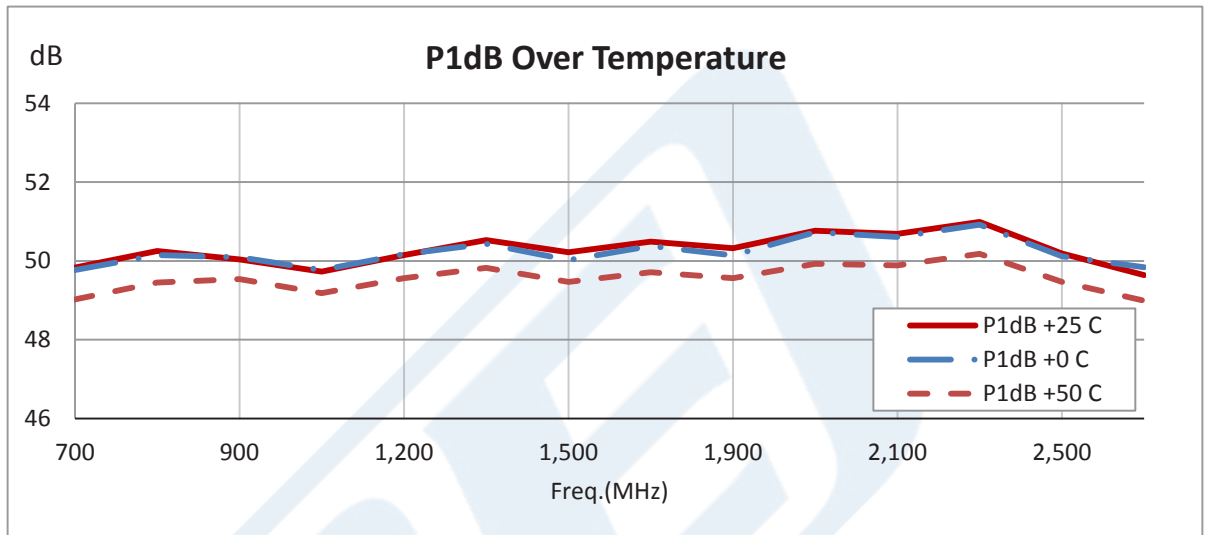




45 dB Gain, 100 Watt Psat, 700 MHz to 2.7 GHz,
High Power High Gain Amplifier, GaN, SMA

TECHNICAL DATA SHEET

PE15A5033F



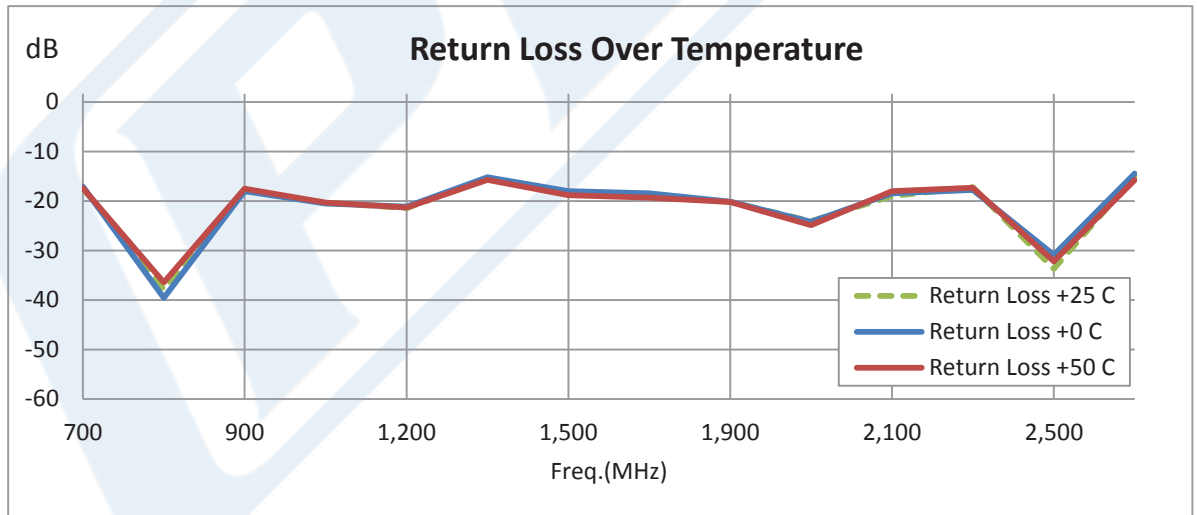
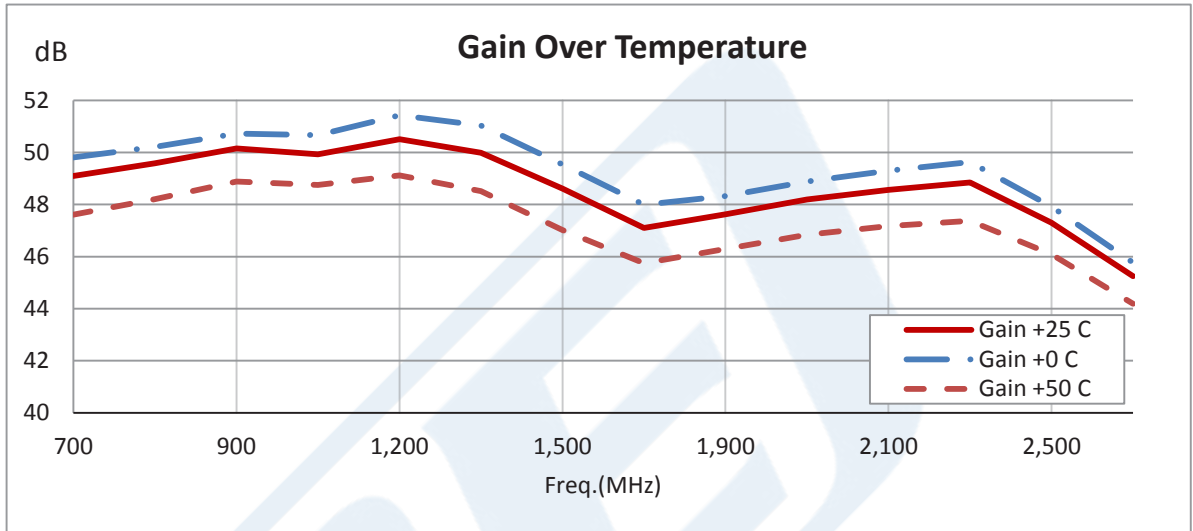
Click the following link (or enter part number in "SEARCH" on website) to obtain additional part information including price, inventory and certifications: [45 dB Gain, 100 Watt Psat, 700 MHz to 2.7 GHz, High Power High Gain Amplifier, GaN, SMA PE15A5033F](#)





45 dB Gain, 100 Watt Psat, 700 MHz to 2.7 GHz,
High Power High Gain Amplifier, GaN, SMA

TECHNICAL DATA SHEET PE15A5033F

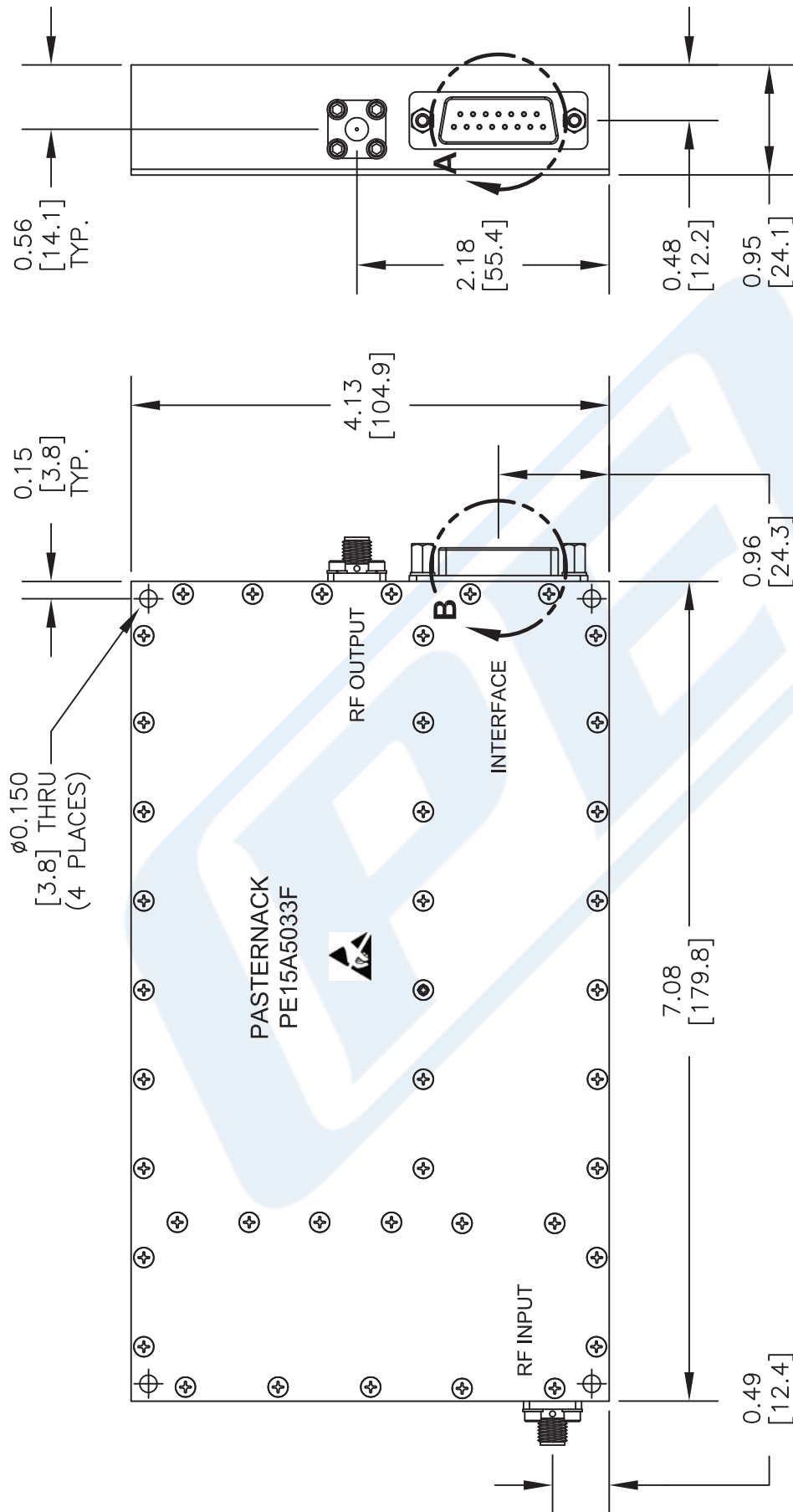


Click the following link (or enter part number in "SEARCH" on website) to obtain additional part information including price, inventory and certifications: [45 dB Gain, 100 Watt Psat, 700 MHz to 2.7 GHz, High Power High Gain Amplifier, GaN, SMA PE15A5033F](#)



PE15A5033F CAD Drawing

45 dB Gain, 100 Watt Psat, 700 MHz to 2.7 GHz, High Power High Gain Amplifier, GaN, SMA



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

DWG TITLE

PE15A5033F

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].

PASTERNAK
THE ENGINEER'S RF SOURCE
Pasternack Enterprises, Inc.
P.O. Box 16759 | Irvine | CA | 92623
Phone: (949) 261-1920 | Fax: (949) 261-7451
Website: www.pasternack.com | E-Mail: sales@pasternack.com

FSCM NO. 53919

CAD FILE 052015

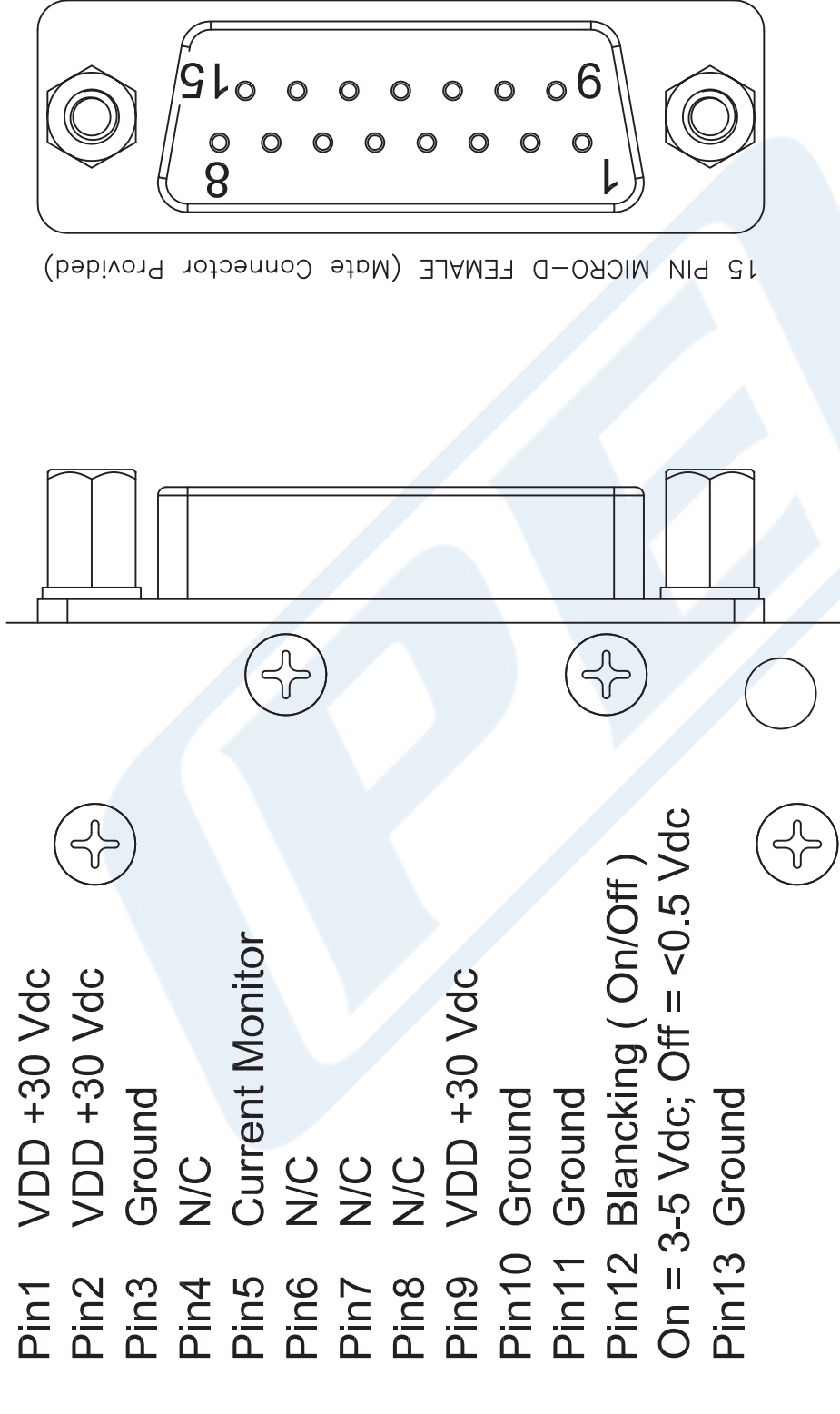
SCALE N/A

SIZE A

2233

PE15A5033F CAD Drawing

45 dB Gain, 100 Watt Psat, 700 MHz to 2.7 GHz, High Power High Gain Amplifier, GaN, SMA



View A

View B

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].

DWG TITLE
PE15A5033F

FSCM NO. 53919

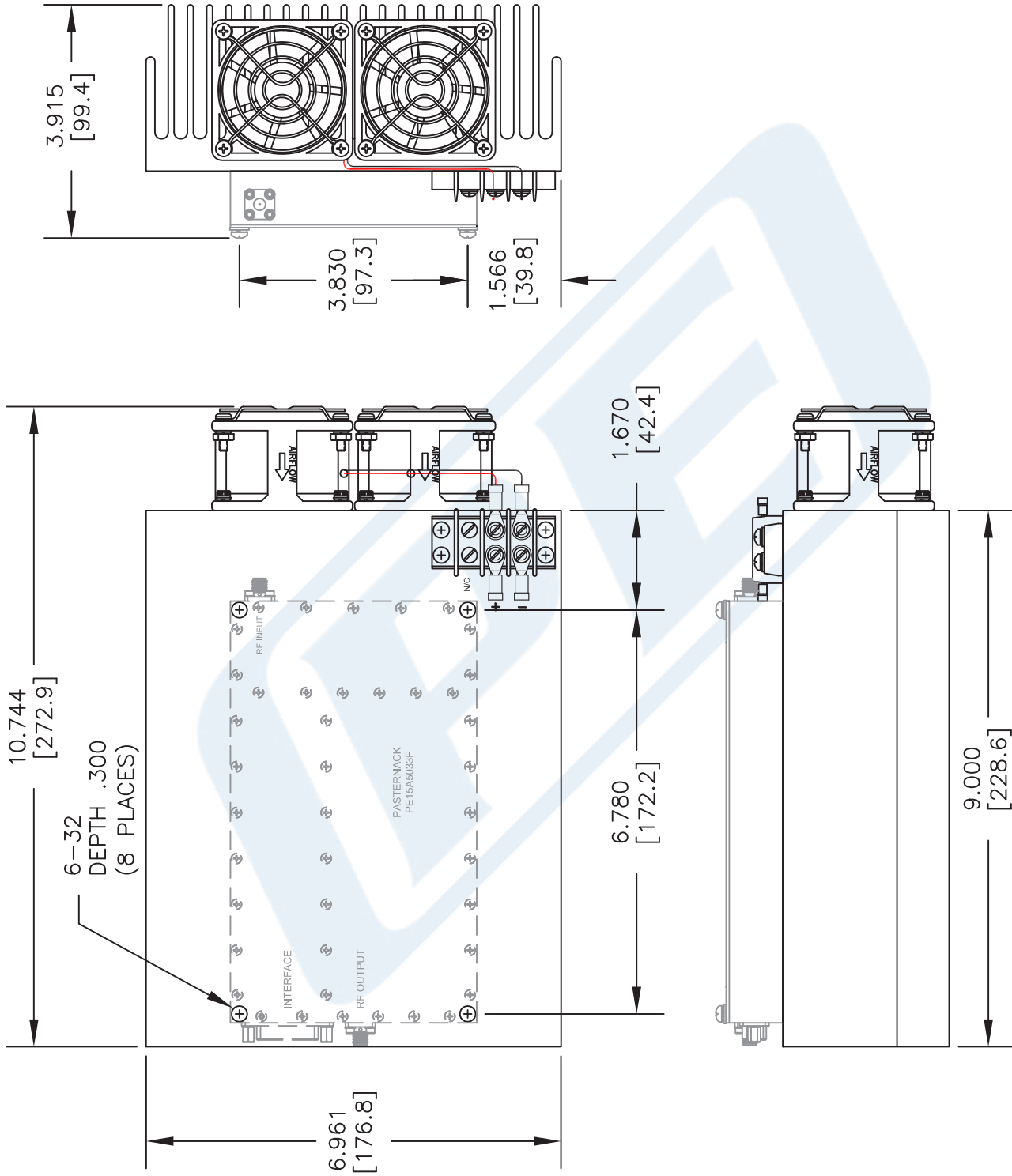
2233

PE PASTERNAK
 THE ENGINEER'S RF SOURCE
 Pasternack Enterprises, Inc.
 P.O. Box 16759 | Irvine | CA | 92623

Phone: (949) 261-1920 | Fax: (949) 261-7451
 Website: www.pasternack.com | E-Mail: sales@pasternack.com

PE15A5033F CAD Drawing

45 dB Gain, 100 Watt Psat, 700 MHz to 2.7 GHz, High Power High Gain Amplifier, GaN, SMA



DWG TITLE

PE15A5033F

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 052015

SCALE N/A

SIZE A

2233



Pasternack Enterprises, Inc.
 P.O. Box 16759 | Irvine | CA | 92623
 Phone: (949) 261-1920 | Fax: (949) 261-7451
 Website: www.pasternack.com | E-Mail: sales@pasternack.com