



6 GHz to 18 GHz, Log Amplifier, 50 mV/dB
 Log Slope, 40 dBm Log Range, SMA

TECHNICAL DATA SHEET

PE15A2004

The PE15A2004 is a 50 dB Detector Log Video Amplifier (DLVA) that operates at 6 GHz to 18 GHz Frequency Range. The DLVA uses State-Of-The-Art MIC/MMIC Technology. Planar diode detectors and integrated video circuitry result in high speed performance and outstanding reliability.

Features

- 50 dB Detector Log Video Amplifier
- Log Slope 50 mV/dB
- Rise Time 20 ns Max
- Fall Time 45 ns Max
- Recovery Time 150 ns Typ
- TSS -40 dBm Min
- Designed for MIL-STD-202F Conditions

Applications

- Electronic Warfare
- Test & Measurement
- Military & Space
- Radar
- Military Communications Systems

Electrical Specifications

Description	Minimum	Typical	Maximum	Units
Frequency Range	6		18	GHz
Frequency Flatness			±1	dB
Video Output Range @ 50 Ohms Load	0		2.5	V
Tangential Signal Sensitivity	-40			dB
Log Range	-40		+0	dBm
Useful Range	-40		+5	dBm
Log Linearity			±1	dB
Log Linearity Error			±1	dB
Log Slope (± 10% Tolerance)		50		mV/dB
Log Slope Accuracy (Average Slope)			±4	%
Rise Time (10% to 90%)			20	ns
Settling Time			45	ns
Recovery Time		150	300	ns
Input VSWR			2.5:1	
Positive Power Supply 75 mA			15	Volts
Negative Power Supply 75 mA			-15	Volts
Operating Temperature Range	-54		+85	deg C
Storage Temperature Range	-65		+100	deg C

*Note: Do Not Supply +V Without -V Supplied, As Well As This May Destroy The Unit.

Click the following link (or enter part number in "SEARCH" on website) to obtain additional part information including price, inventory and certifications: [6 GHz to 18 GHz, Log Amplifier, 50 mV/dB Log Slope, 40 dBm Log Range, SMA PE15A2004](#)





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Mechanical Specifications

Size

Length	2.2 in [55.88 mm]
Width	1.5 in [38.1 mm]
Height	0.4 in [10.16 mm]

Environmental Specifications

Humidity	MIL-STD-202F, METHOD 103B COND. B
Shock	MIL-STD-202F, METHOD 213B COND. B
Vibration	MIL-STD-202F, METHOD 204D COND. B
Altitude	MIL-STD-202F, METHOD 105C COND. B
Temperature Cycle	MIL-STD-202F, METHOD 107D COND. A

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

Not RoHS Compliant

Plotted and Other Data

Notes:

- Values at +25 °C, sea level

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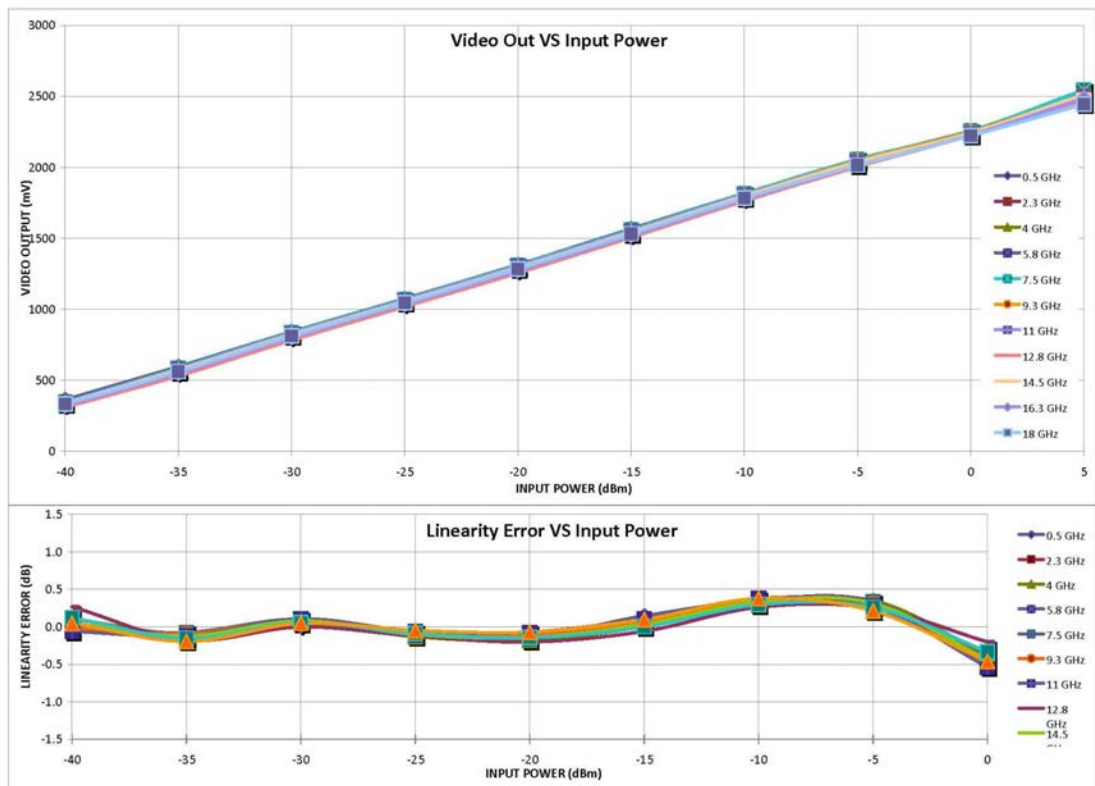
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Typical Performance Data

Log Transfer Plot and Linearity Error at -54 degrees C



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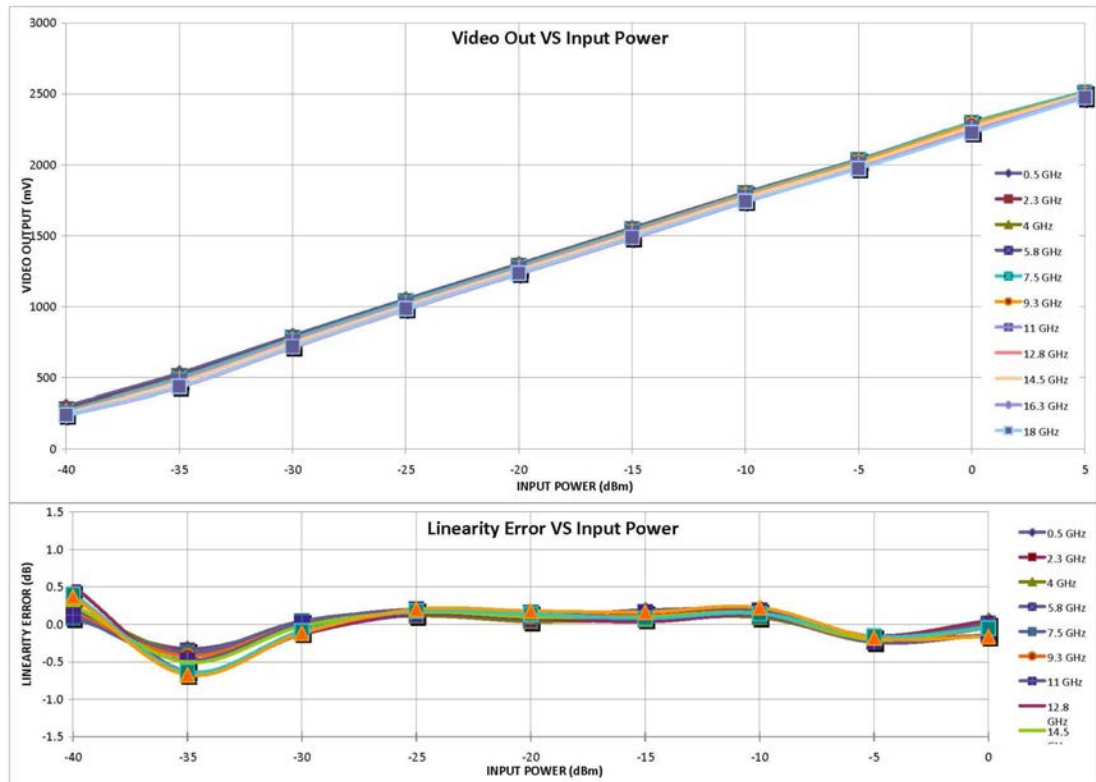


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Log Transfer Plot and Linearity Error at 85 degrees C



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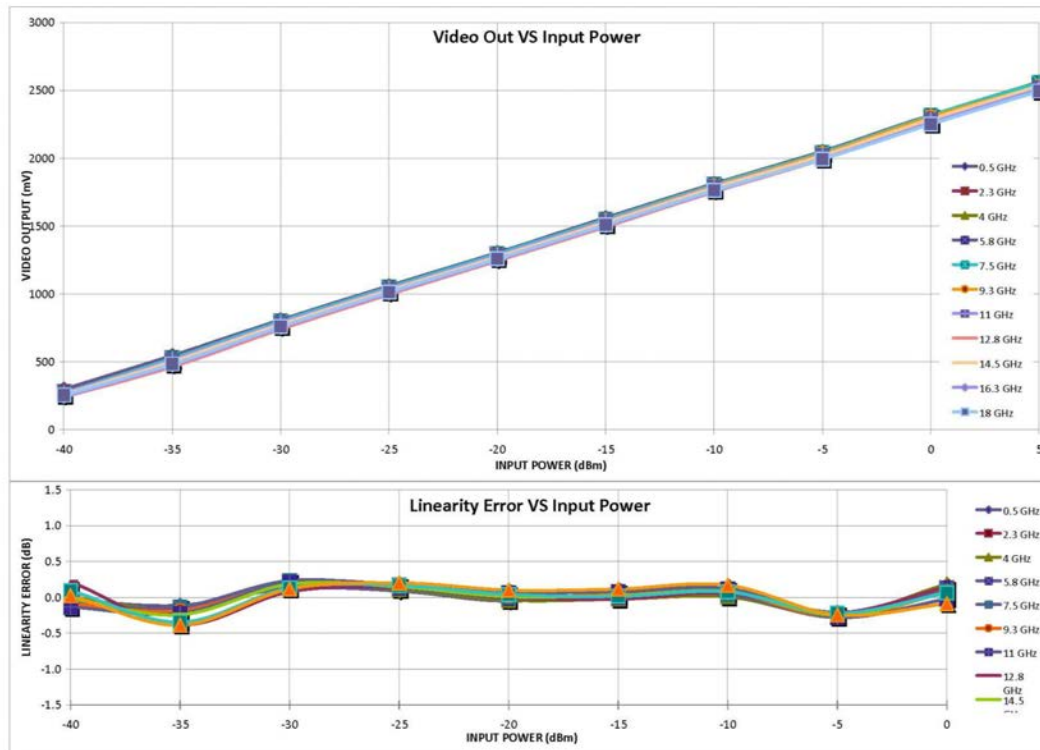


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Log Transfer Plot and Linearity Error at 25 degrees C



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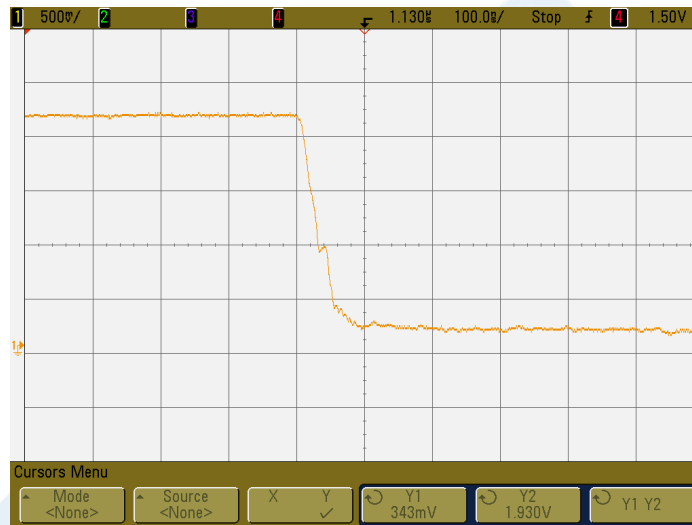


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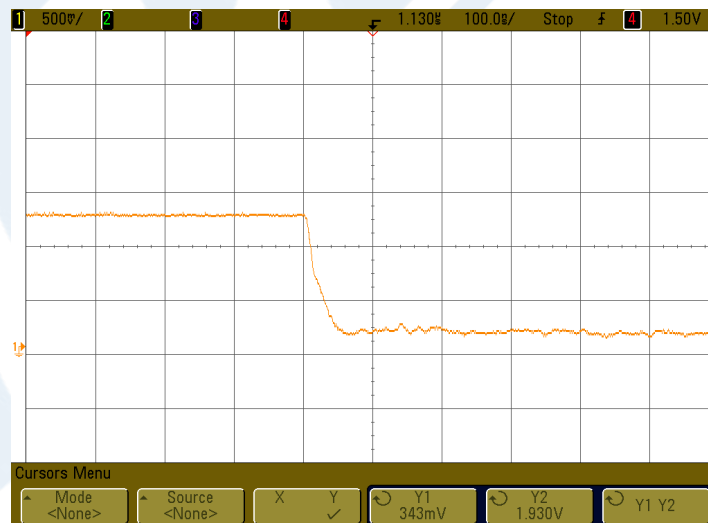
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Recovery Time at 25 Degrees C. 18GHz at 0dBm



Recovery Time at 25 Degrees C. 18GHz at -20dBm



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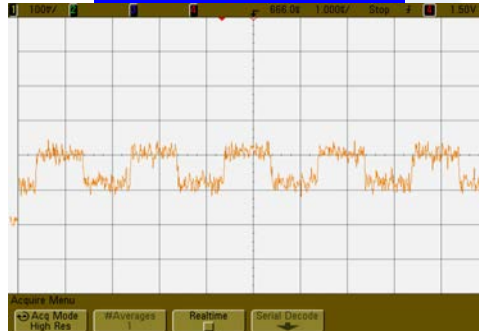
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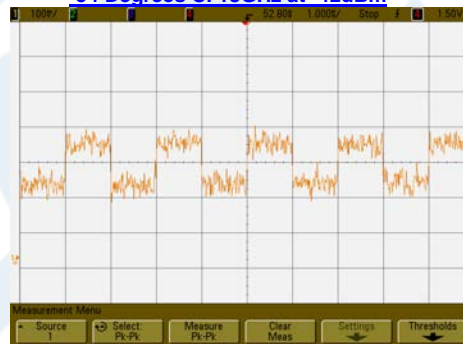
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TSS performance

25 Degrees C. 18GHz at -42dBm



-54 Degrees C. 18GHz at -42dBm



85 Degrees C. 18GHz at -42dBm



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VSWR
25 Degrees C at -20 dBm



-54 Degrees C at -20 dBm



85 Degrees C at -20 dBm



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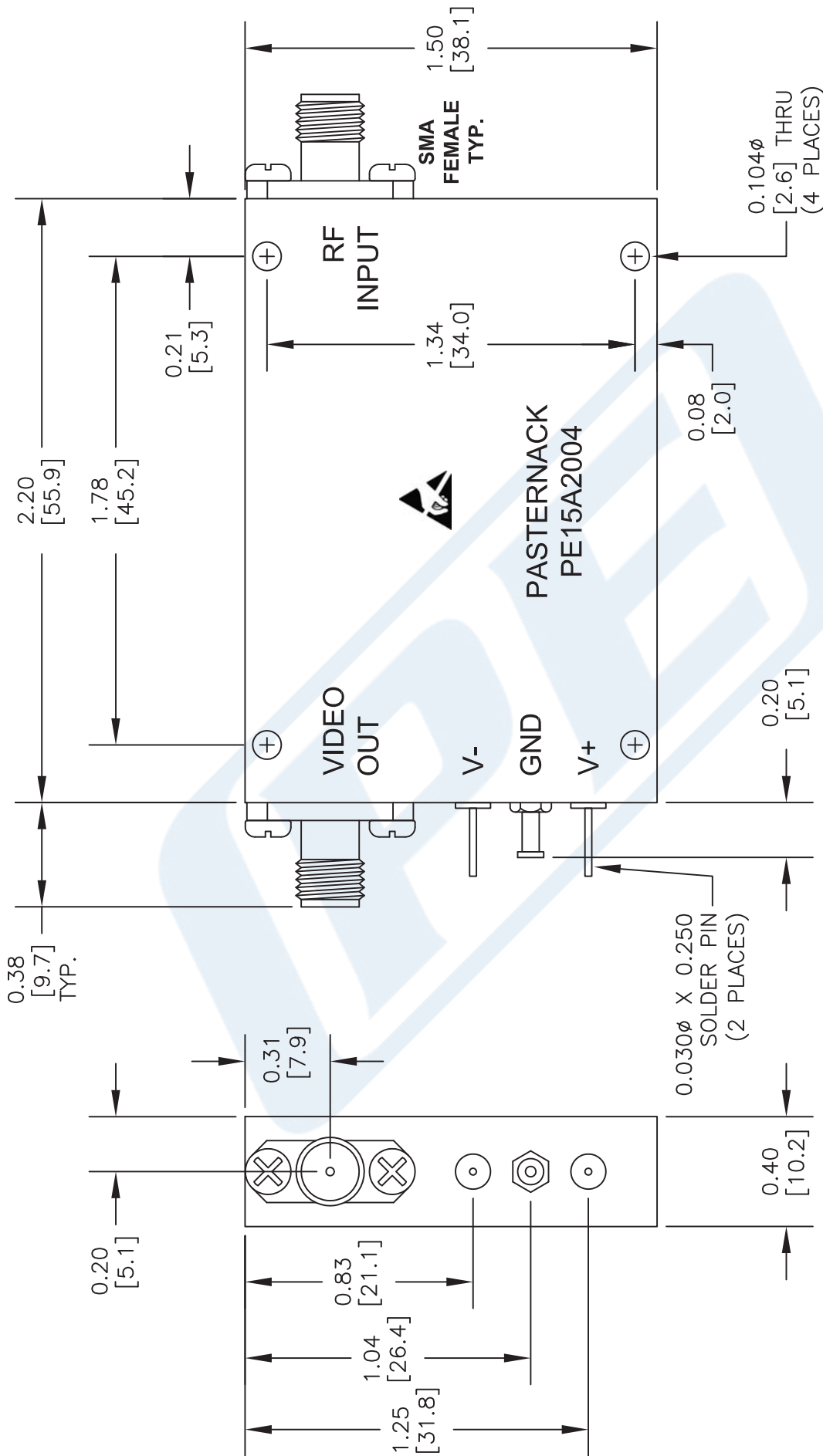
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The information contained in this document is accurate to the best of our knowledge and representative of the part described herein. It may be necessary to make modifications to the part and/or the documentation of the part, in order to implement improvements. Pasternack reserves the right to make such changes as required. Unless otherwise stated, all specifications are nominal. Pasternack does not make any representation or warranty regarding the suitability of the part described herein for any particular purpose, and Pasternack does not assume any liability arising out of the use of any part or documentation.

PE15A2004 CAD Drawing

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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].

DWG TITLE
PE15A2004

FSCM NO. 53919

CAD FILE 092414

SCALE N/A

SIZE A

2233

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