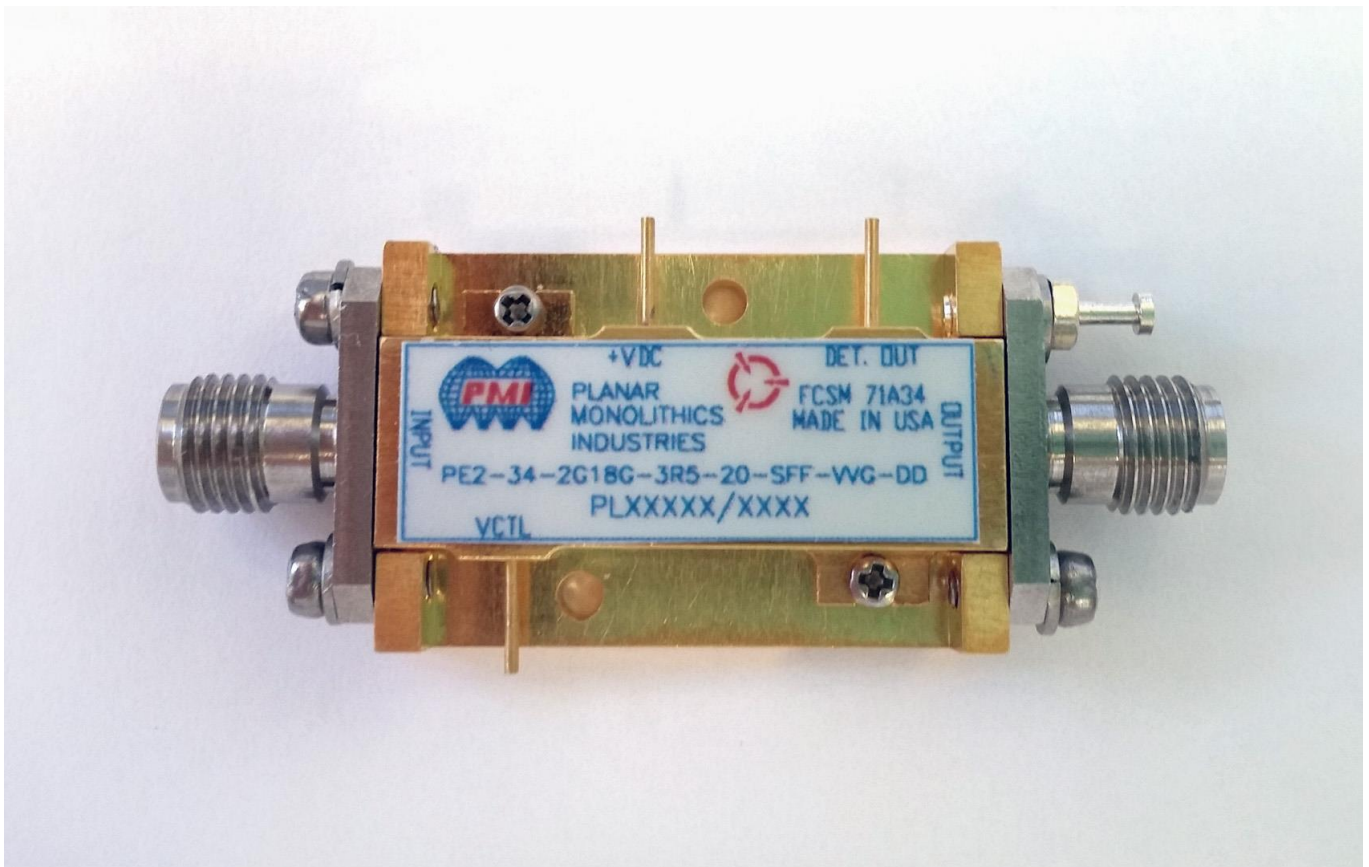




**Typical Characteristics
On
PE2-34-2G18G-3R5-20-SFF-VVG-DD**

MODEL NUMBER PE2-34-2G18G-3R5-20-SFF-VVG-DD IS A VOLTAGE VARIABLE GAIN AMPLIFIER WITH INTEGRATED DIODE DETECTOR THAT OPERATES OVER THE FREQUENCY RANGE 2.0 TO 18.0 GHz. THIS AMPLIFIER IS SUPPLIED IN OUR STANDARD PE2 HOUSING THAT CAN BE USED AS A SMA CONNECTORIZED OR A SURFACE MOUNT COMPONENT. IT IS OPTIMIZED FOR 5.5 TO 18.0 GHz MEETING THE FOLLOWING SPECIFICATIONS.



Designed by: PMI Engineering

September 21, 2016

Tested & Reported by: Simon Kuhn

Page 1 of 9



**Typical Characteristics
On
PE2-34-2G18G-3R5-20-SFF-VVG-DD**

TABLE OF CONTENTS

1. Product Feature & Mechanical Drawing:	Page 3
2. Tabulated Data:	Page 4
3. Gain, Flatness, VSWR @ 0V (Full Attenuation) & 0.5V:	Page 5
4. Gain, Flatness, VSWR @ 1.0V & 1.5V:	Page 6
5. Gain, Flatness, VSWR @ 2.0V (0dB Attenuation):	Page 7
6. Noise Figure & P-1dB:	Page 8
7. Diode Detector Graph:	Page 9



Typical Characteristics On PE2-34-2G18G-3R5-20-SFF-VVG-DD

PRODUCT FEATURE & MECHANICAL DRAWING

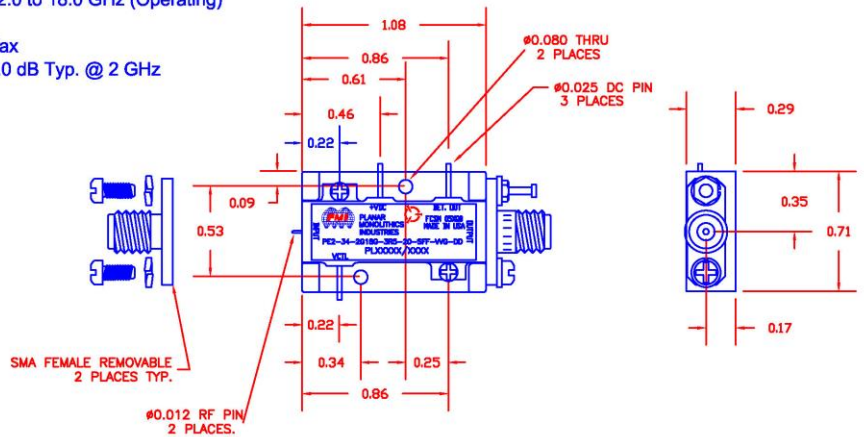
Description:

PMI model # PE2-34-2G18G-3R5-20-SFF-VVG-DD is a voltage variable gain amplifier with integrated diode detector that operates over the frequency range 2.0 to 18.0 GHz. This amplifier is supplied in our standard PE2 housing that can be used as a SMA connectorized or a surface mount component. It is optimized for 5.5 to 18.0 GHz meeting the following specifications:

Specifications:

- Frequency Range: 5.5 to 18.0 GHz (Specified) / 2.0 to 18.0 GHz (Operating)
- *Linear Gain: 30 dB Min.
- *Gain Flatness: +/- 1.0 dB Goal / +/- 1.5 dB Max
- *Noise Figure: -3.0 dB Goal / 3.7 dB Max. / 4.0 dB Typ. @ 2 GHz
- *OP1dB: +10 dBm Min.
- VSWR Input/Output: 2.0:1 Max.
- Gain Control: 20 dB Min.
- Control Voltage: 0 to 1.5 VDC, 2 VDC Max.
- Diode Detector: Included at the output port
- Diode Detector Sensitivity: 0.5 mV/mW typical
- DC Voltage Supply: +12 to +15 VDC
- DC Current Draw: 280 mA Nominal
- Connectors In/Out: SMA Female
- Finish: Gold Plated

*At 0dB Attenuation



REVISIONS				
ZONE	REV.	DESCRIPTION	DATE	APPROVED
	1	ORIGINAL RELEASE	07/08/16	SA

PMI CONFIDENTIAL AND PROPRIETARY

Environmental Ratings:

- Temperature: -55 to +85 Deg. C (Operating);
..... -55 to +125 Deg. C (Storage)
- Humidity: MIL-STD-202F, METHOD 103B COND B.
- Shock: MIL-STD-202F, METHOD 213B COND B.
- Altitude: MIL-STD-202F, METHOD 105C COND B.
- Temperature Cycle: MIL-STD-202F, METHOD 107D COND A

Note: The above specifications are subject to change or revision.

ALL DIMENSIONS ARE IN INCHES
TOLERANCES:
X.XX ±0.020
X.XXX ±0.010

PLANAR MONOLITHICS INDUSTRIES, INC.

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EL DORADO HILLS, CALIFORNIA 95762
TEL: 916-542-1401 FAX: 916-265-2597
WEBSITE: www.pmi-rf.com
E-MAIL: sales@pmi-rf.com
ISO 9001 CERTIFIED

APPROVALS		DATE		TITLE	
DRAWN	JMS	DATE	07/08/16	PRODUCT FEATURE	
CHECKED				PE2-34-2G18G-3R5-20-SFF-VVG-DD	REV. 1
ISSUED		SIZE	PSCM NO.	DWG NO.	
		A	05XQ0	27029691	
SCALE: N:S				SHEET 1 OF 1	



**Typical Characteristics
On
PE2-34-2G18G-3R5-20-SFF-VVG-DD**

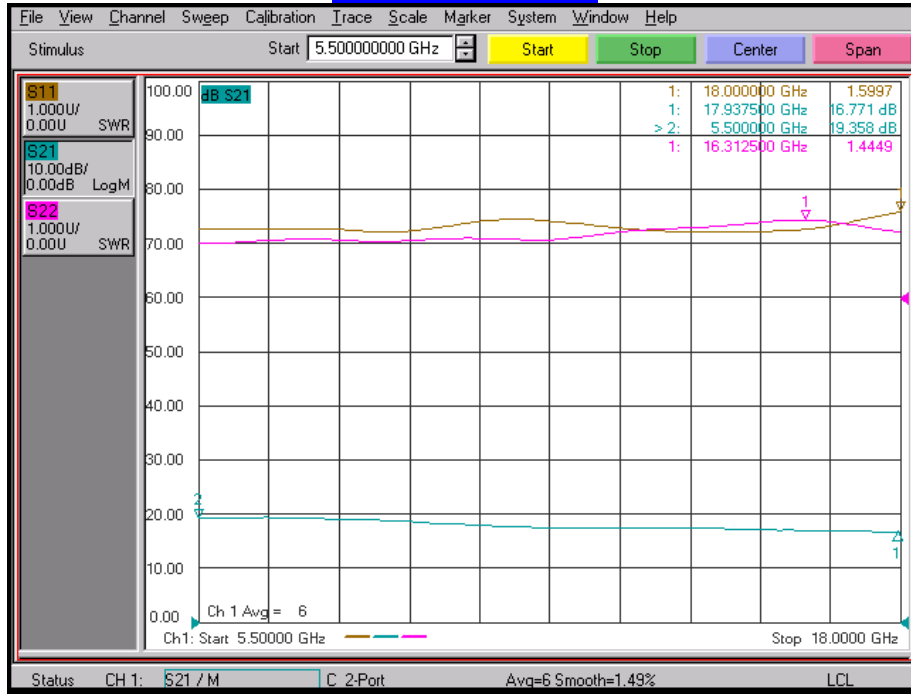
TABULATED DATA

TEST. ITEM NO	PARAMETERS	SPECIFIED VALUE	PASS FAIL	QA QC
1	Frequency Range:	5.5 to 18.0 GHz (Specified) 2.0 to 18.0 GHz (Operating)	5.5 to 18.0 GHz (Specified) 2.0 to 18.0 GHz (Operating)	
2	*Linear Gain:	30dB Min.	40.07 dB	
3	*Gain Flatness:	±1.0dB Goal, ±1.5dB Max	± 0.72 dB (See Plot)	
4	*Noise Figure:	3.0dB Goal, 3.7dB Max, 4.0dB Typ. @ 2GHz	3.5 dB (See Plot)	
5	*OP1dB:	+10dBm Min	> +10dBm	
6	VSWR Input/Output:	2.0:1 Max	1.60 :1	
7	Gain Control:	20dB Min.	> 20dB	
8	Control Voltage:	0 to 1.5VDC, 2VDC Max	Pass	
9	Diode Detector Sensitivity:	0.5mV/mW Typ	< 0.5 mV/mW (See Plot)	
10	Power Supply:	+12 to +15VDC @ 280mA Nominal	215 mA	

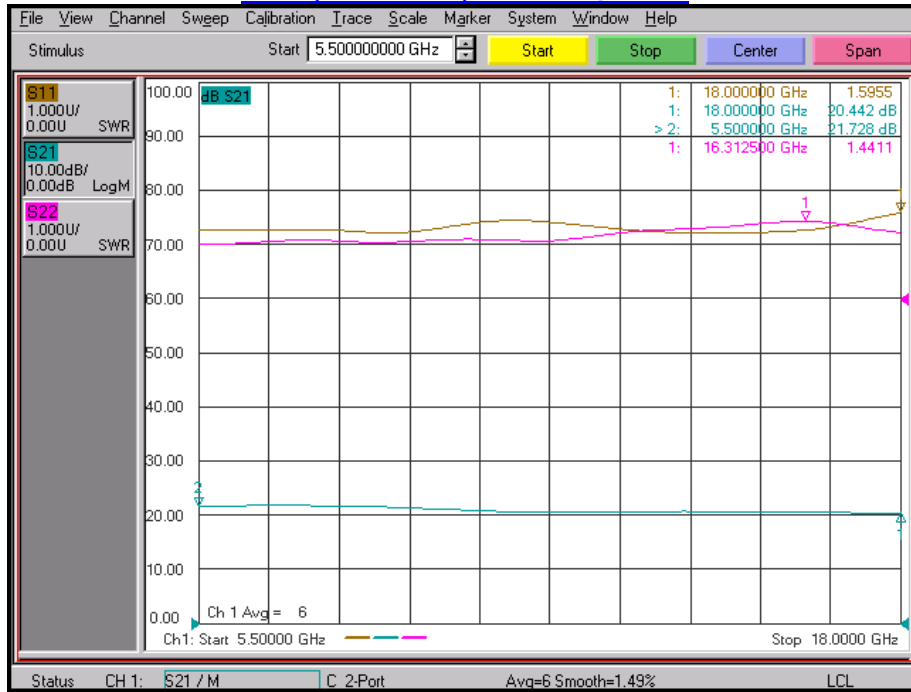


Typical Characteristics On PE2-34-2G18G-3R5-20-SFF-VVG-DD

Gain, Flatness, VSWR @ 0V (Full Attenuation)



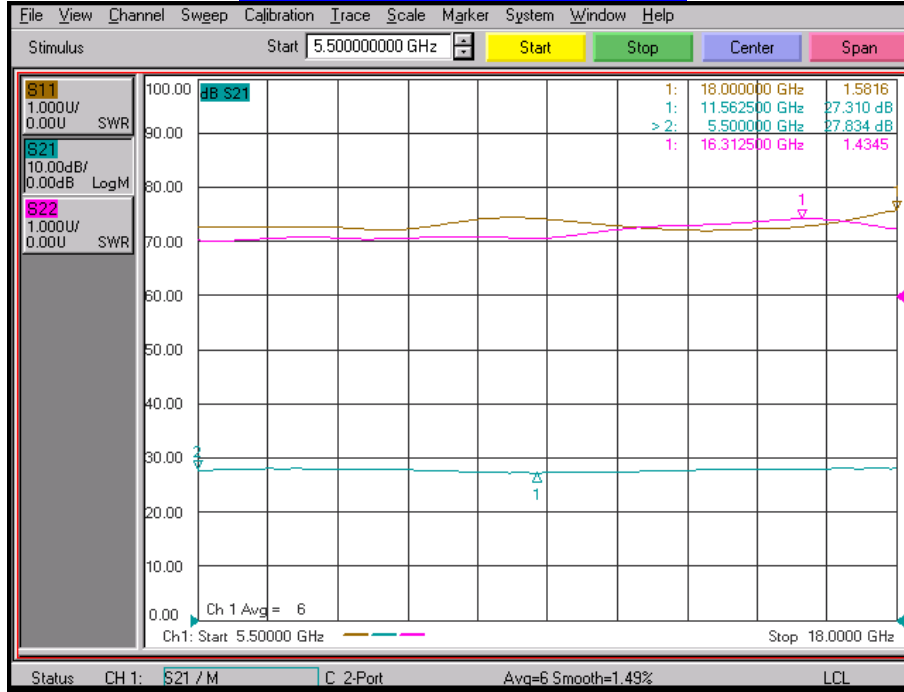
Gain, Flatness, VSWR @ 0.5V



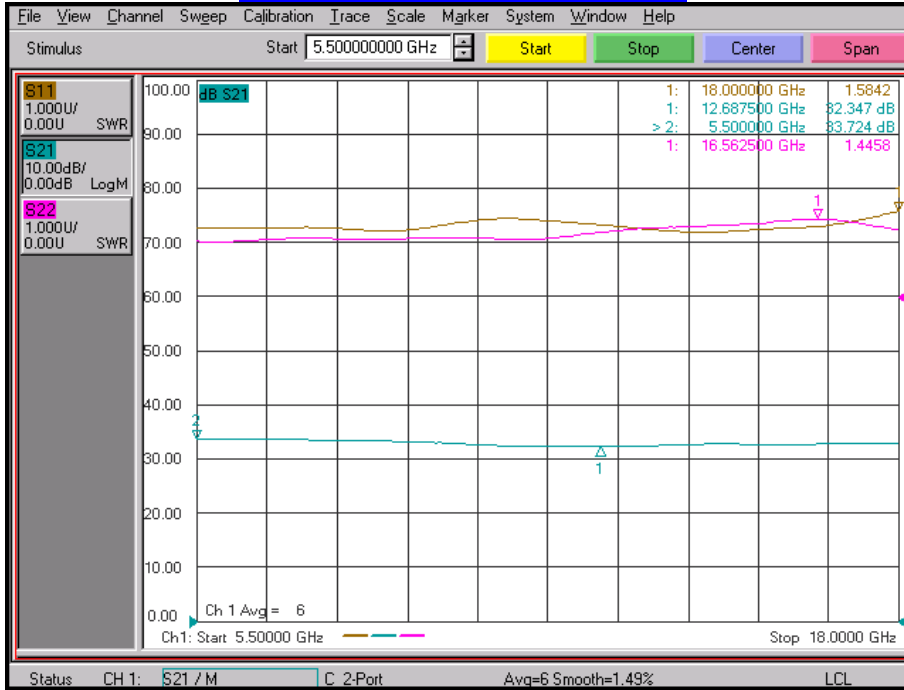


Typical Characteristics On PE2-34-2G18G-3R5-20-SFF-VVG-DD

Gain, Flatness, VSWR @ 1.0V



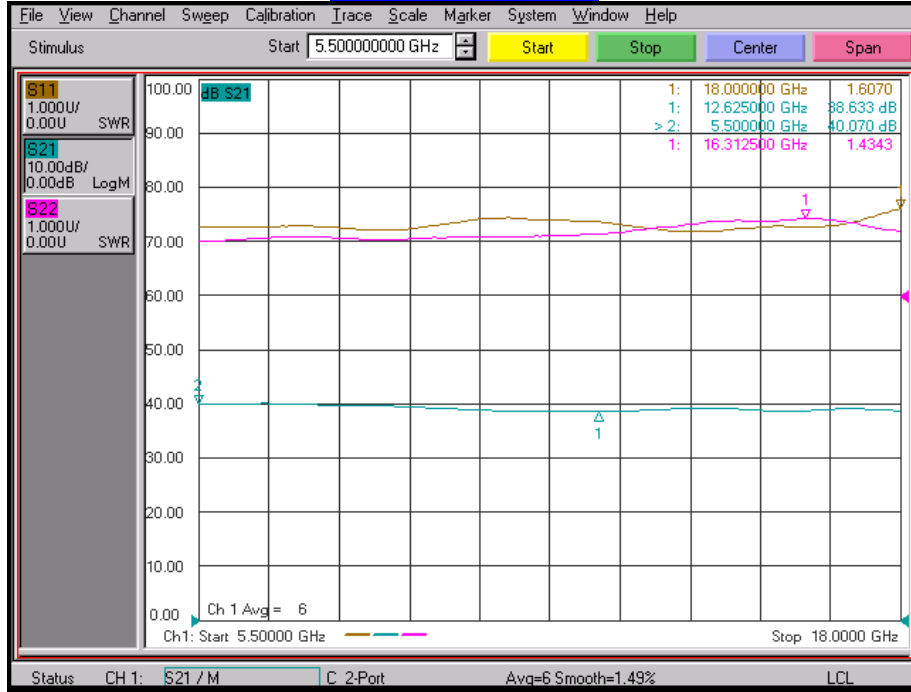
Gain, Flatness, VSWR @ 1.5V





**Typical Characteristics
On
PE2-34-2G18G-3R5-20-SFF-VVG-DD**

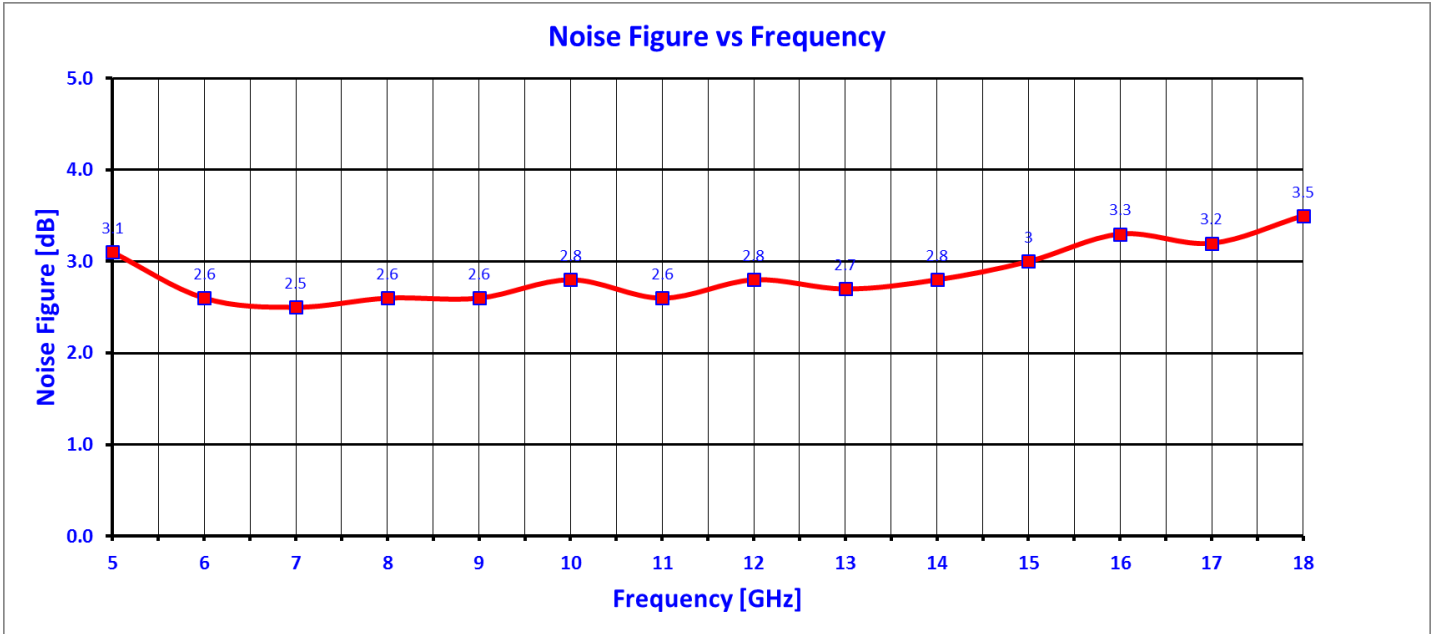
**Gain, Flatness, VSWR @ 2.0V
(0dB Attenuation)**



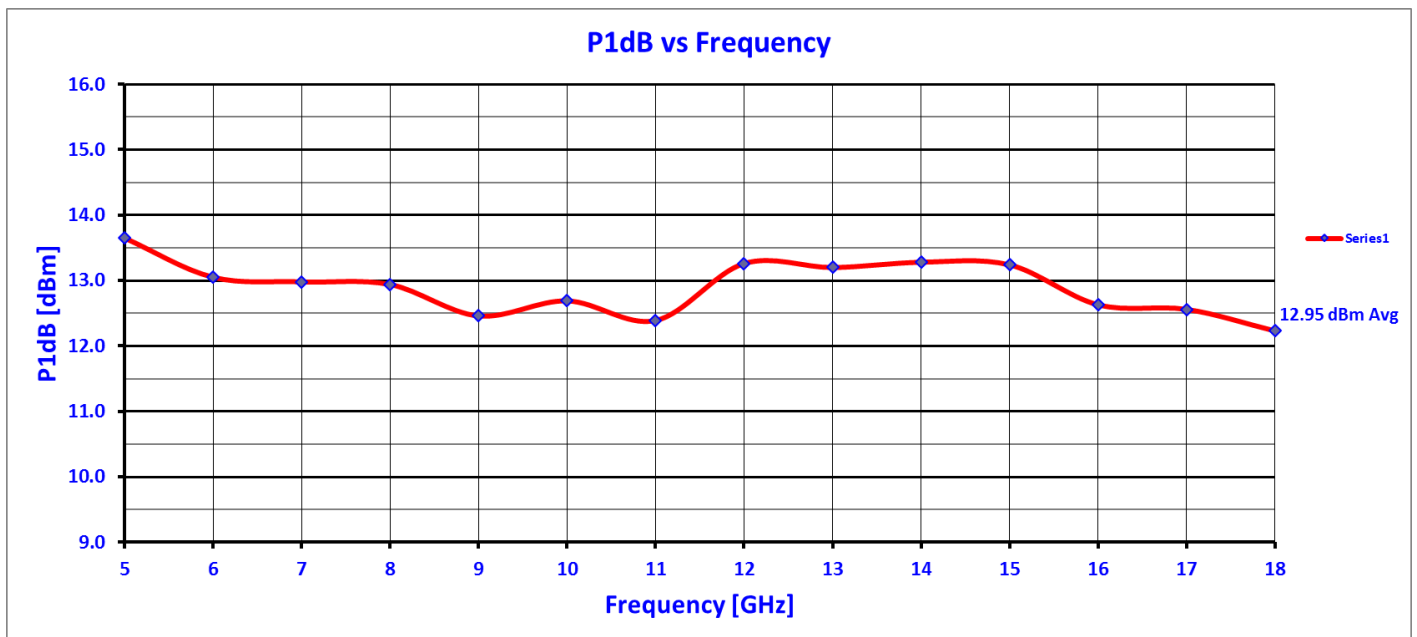


**Typical Characteristics
On
PE2-34-2G18G-3R5-20-SFF-VVG-DD**

Noise Figure



P-1dB





**Typical Characteristics
On
PE2-34-2G18G-3R5-20-SFF-VVG-DD**

Diode Detector Graph

