



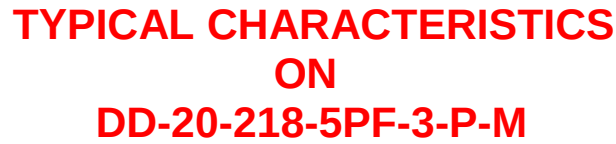
TYPICAL CHARACTERISTICS ON DD-20-218-5PF-3-P-M

MODEL DD-20-218-5PF-3-P-M IS A HIGH SPEED, HIGH SENSITIVITY DETECTOR REQUIRING NO BIAS AND OFFERING EXCELLENT TEMPERATURE STABILITY WITH A RESPONSE TIME OF LESS THAN 5 NANOSECONDS OPERATING OVER THE 2.0 GHz TO 18.0 GHz FREQUENCY RANGE. THE UNIT COMES IN A VERY SMALL SIZE WITH FIELD REMOVABLE SMA CONNECTORS. THIS MODEL HAS BEEN DESIGNED USING CUTTING EDGE TECHNOLOGY WHICH PROVIDES STUNNING PERFORMANCE AND RELIABILITY IN A COMPACT PACKAGE.



December 19th 2013

Prepared By: E. Benson
Tested By: E. Benson
Designed By:
John Merriner
&
Dr. Ashok Gorwara



THE MODEL DD-20-218-5PF-3-P-M IS A HIGH SPEED, HIGH SENSITIVITY DIODE DETECTOR REQUIRING NO BIAS AND OFFERING EXCELLENT TEMPERATURE STABILITY, WITH A RESPONSE TIME OF LESS THAN 5 NANOSECONDS. THE FREQUENCY RANGE IS 2 TO 18 GHZ.

- FREQUENCY RANGE: 2 TO 18 GHz
- VSWR IN/OUT 3.5:1 MAX. (MEASURED @ -23 dBm)

- ## ENVIRONMENTAL RATINGS

- NOTE: SPECIFICATIONS WILL VARY OVER OPERATING TEMPERATURE




7311-F GROVE ROAD
FREDERICK, MARYLAND 21704 USA
TEL: 301-662-5019 FAX: 301-662-1731
WEBSITE: www.pmi-rf.com
E-MAIL: sales@pmi-rf.com
ISO 9001: CERTIFIED

DATE		TITLE	
APPROVALS	DATE	PRODUCT FEATURE	
DRAWN	JM	DD-20-218-5PF-3-P-M	
CHECKED		HIGH SPEED HIGH SENSITIVITY DIODE DETECTOR	
DESIGNED		SIZE	REV
		FORM NO.	
		A	1
		05X00	27020611
		SCALE	1 OF 1
		2/1	SHEET

ALL DIMENSIONS ARE IN INCHES
TOLERANCES:



**TYPICAL CHARACTERISTICS
ON
DD-20-218-5PF-3-P-M**

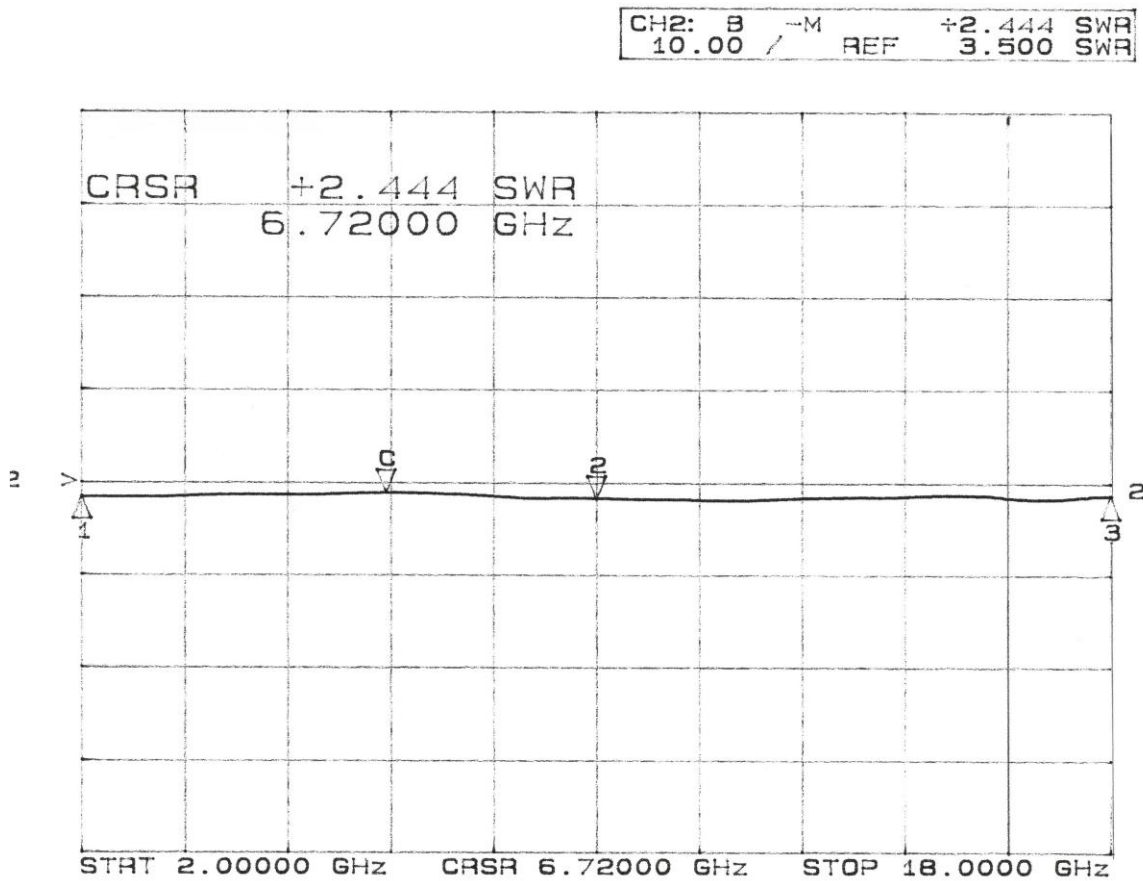
TEST DATA

TEST. ITEM NO	PARAMETERS	SPECIFIED VALUE	PASS FAIL
1	Frequency Range:	2 TO 18 GHz Min	2 TO 18 GHz
2	VSWR:	3.5: 1 Typ @ -23dBm	2.444:1 (See Plot)
3	Frequency Flatness	± 1.0 dB (Max)	± 0.655 dB
4	Rise Time	5 ns (Typ)	4.632 ns
5	Voltage Sensitivity	500 mV/mW	770 mV/mW
6	Output Voltage	Positive Polarity	Positive
7	Maximum Input Power	+20dBm	Pass



TYPICAL CHARACTERISTICS ON DD-20-218-5PF-3-P-M

VSWR Measured: 2.444:1





TYPICAL CHARACTERISTICS ON DD-20-218-5PF-3-P-M

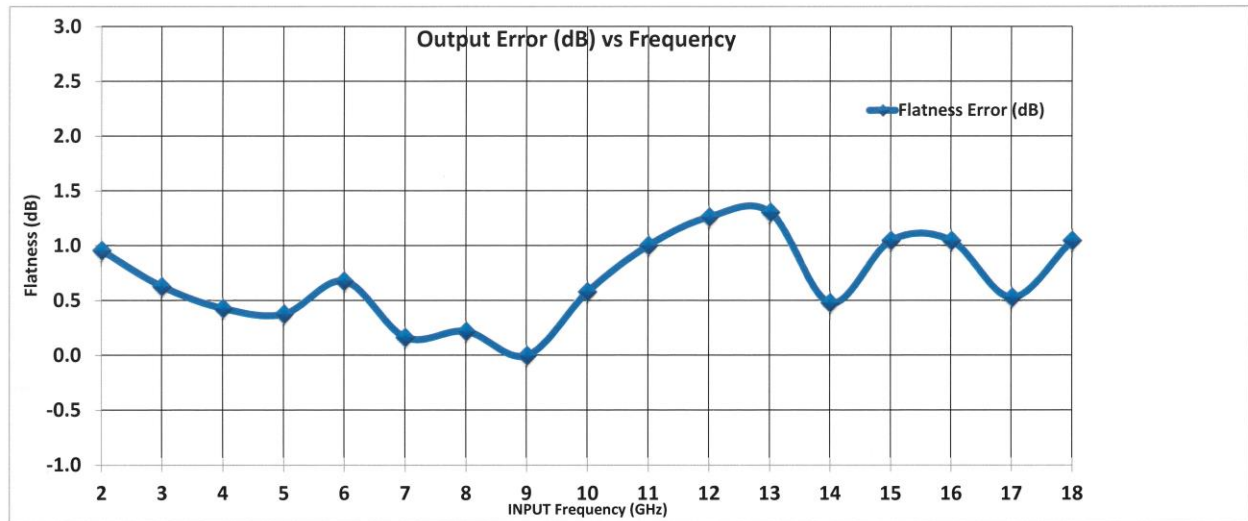
Detector Flatness vs Frequency Tested @ -20dBm = 770mV/mW

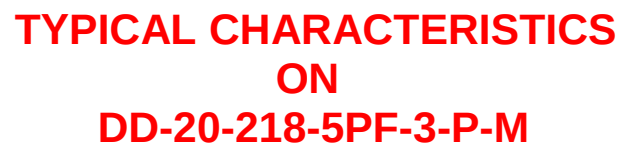
Frequency Flatness
MODEL: DD- 20-218-5PF-3-P-M
TESTED BY: Ken Schwartz
TEST DATE: 12/16/2013
SERIAL NO: PL14396
TEST TEMP: +25C



PLANAR MONOLITHICS INDUSTRIES
4921 Robert J. Mathews Parkway Suite 1
TEL: 916-542-1401 FAX: 916-265-2597
URL: WWW.PMI-RF.COM
EMAIL: SALES@PMI-RF.COM

2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	Frequency (GHz)
9.6	8.9	8.5	8.4	9.0	8.0	8.1	7.7	8.8	9.7	10.3	10.4	8.6	9.8	9.8	8.7	9.8	Measured Value (mV)
0.96	0.63	0.43	0.38	0.68	0.17	0.22	0.00	0.58	1.00	1.26	1.31	0.48	1.05	1.05	0.53	1.05	Flatness Error (dB)
																	Minimum Output Voltage (mV)
																	7.7
																	Test Input Power= -20dBm
																	1.31
																	P-P Error (dB)





File Control Setup Measure Analyze Utilities Help 1:24 AM

2.00 GSa/s

1 On 20 mV/div 2 On E +/-5.0V

Ax Ay Bx By

10.0 ns/div 118.500 ns 1.105 V

Measurements Markers Scales

	current	mean	std dev	min	max
Rise time (1+)	4.770 ns	4.63288 ns	132.26 ps	4.258 ns	5.023 ns

4921 Robert J. Mathews Pkwy Suite 1 El Dorado Hills, CA 95762 USA
Phone: (916)542-1401 Fax: (916)265-2597
Email: sales@pmi-rf.com