



**SUMMARY TEST DATA  
ON  
SDLVA-500M4G-CD-2**

PL21587/1738

Customer: \_\_\_\_\_  
 SO No: \_\_\_\_\_  
 Model No: SDLVA-500M4G-CD-2  
 Serial No: PL21587/1738

Tested By: J.Emperador  
 Temperature: 25°C Unless Otherwise Specified  
 Date: 09/18/17  
 Drawing No: 27619941      Rev: B2

TEST ITEM NO	PARAMETERS	SPECIFIED VALUE	PASS FAIL	QA QC	
1	Frequency Range:	500 MHz to 4.0 GHz	500 MHz to 4.0 GHz See Plot #1A	PMI QA 1	
2	RF Gain (Small Signal):	55dB Typ (J1 to J2)@-50dBm	55.5 dB See Plot #1		
3	Video Flatness over Frequency:	± 50mV Max	± 25.0 mV See Plot #1A		
4	TSS:	-73dBm Typ, -71dBm Max (-40°C, 25°C, +75°C)	-73.5 dBm @ -40C -73.5 dBm @ +25C -73.2 dBm @ +75C See Plots #2A, 2B, 2C		
5	VSWR J1, J2 (50 Ohm):	2.0:1 Max	1.57:1, 1.82:1 See Plot #3		
6	PSAT:	+13dBm Typ (J2)	11.80 dBm See Plot #4		
7	Power Input:	+17dBm CW Max (J1)	Pass		
8	Log Slope:	25mV/dB Typ(J3) (50Ω Load ) (-40°C, 25°C, +75°C)	26.0, 24.4, 23.4 mV/dB See Plots #1A, 1B, 1C		
9	Log Range:	-70 to 0 dBm	Pass		
10	Log Linearity	±2.5dB (J3) (-40°C, 25°C, +75°C)	0.91, -0.93, -1.40 dB See Plots #1A, 1B, 1C		
11	DC Offset:	50 ± 50mV(J3)	+56 mV		
12	Pulse Range:	30ns to CW	30 ns to CW		
13	Rise Time:	10ns Max (5ns Typ)	7.9 ns		PMI QA 1



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14	Recovery Time:	60ns Max (40ns Typ)	<b>36.6 ns</b>	PMI QA 1
15	Harmonics:	15dBc Min -70 to 0dBm	<b>16.1 dBc</b>	
16	DC Supply:	+15VDC @ 350 mA -15VDC @ 180 mA	<b>+15VDC @ 181 mA -15VDC @ 98 mA</b>	PMI QA 1

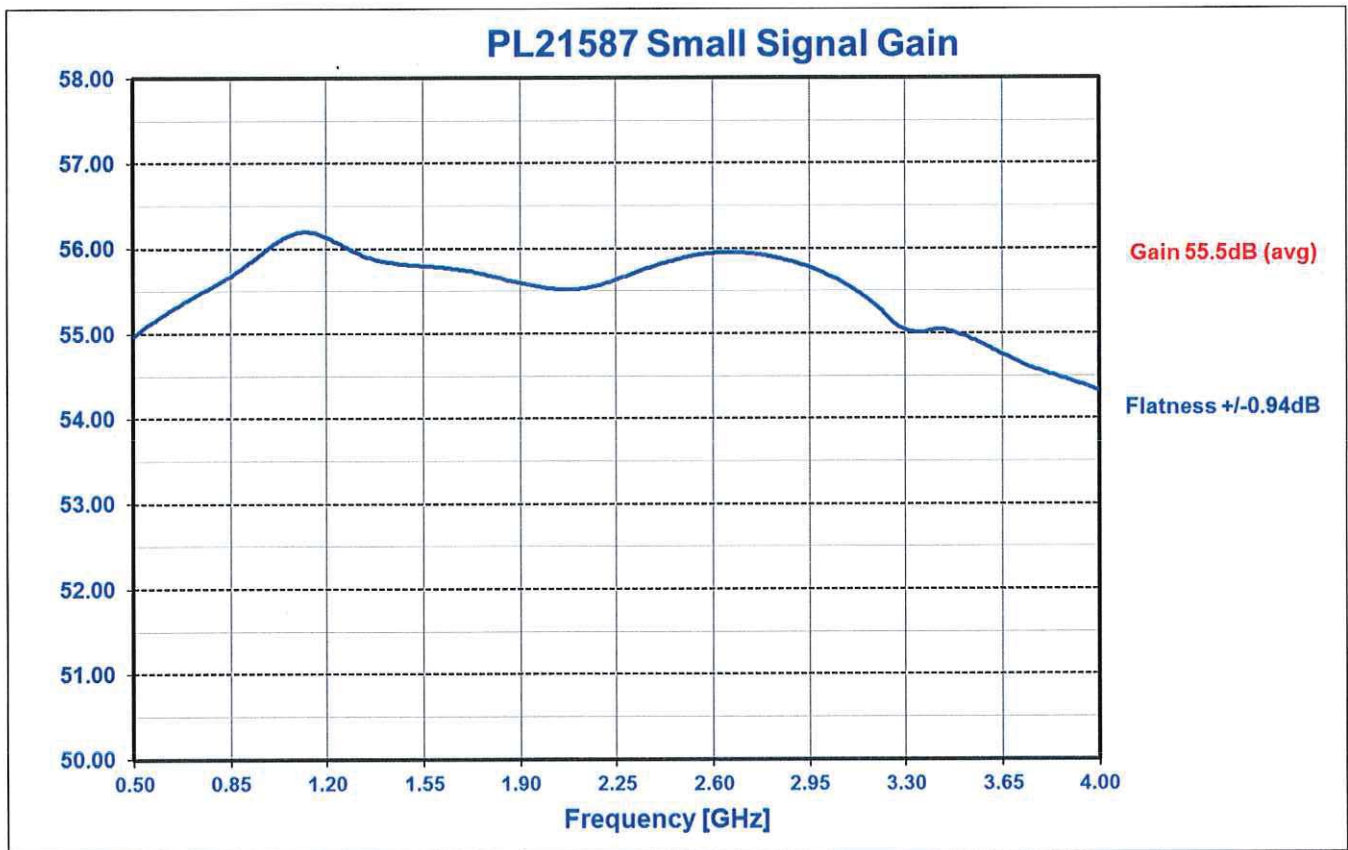
QA/QC Approval:  PMI  
QA 1 Date: 9/20/17



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**GAIN PLOT # 1**

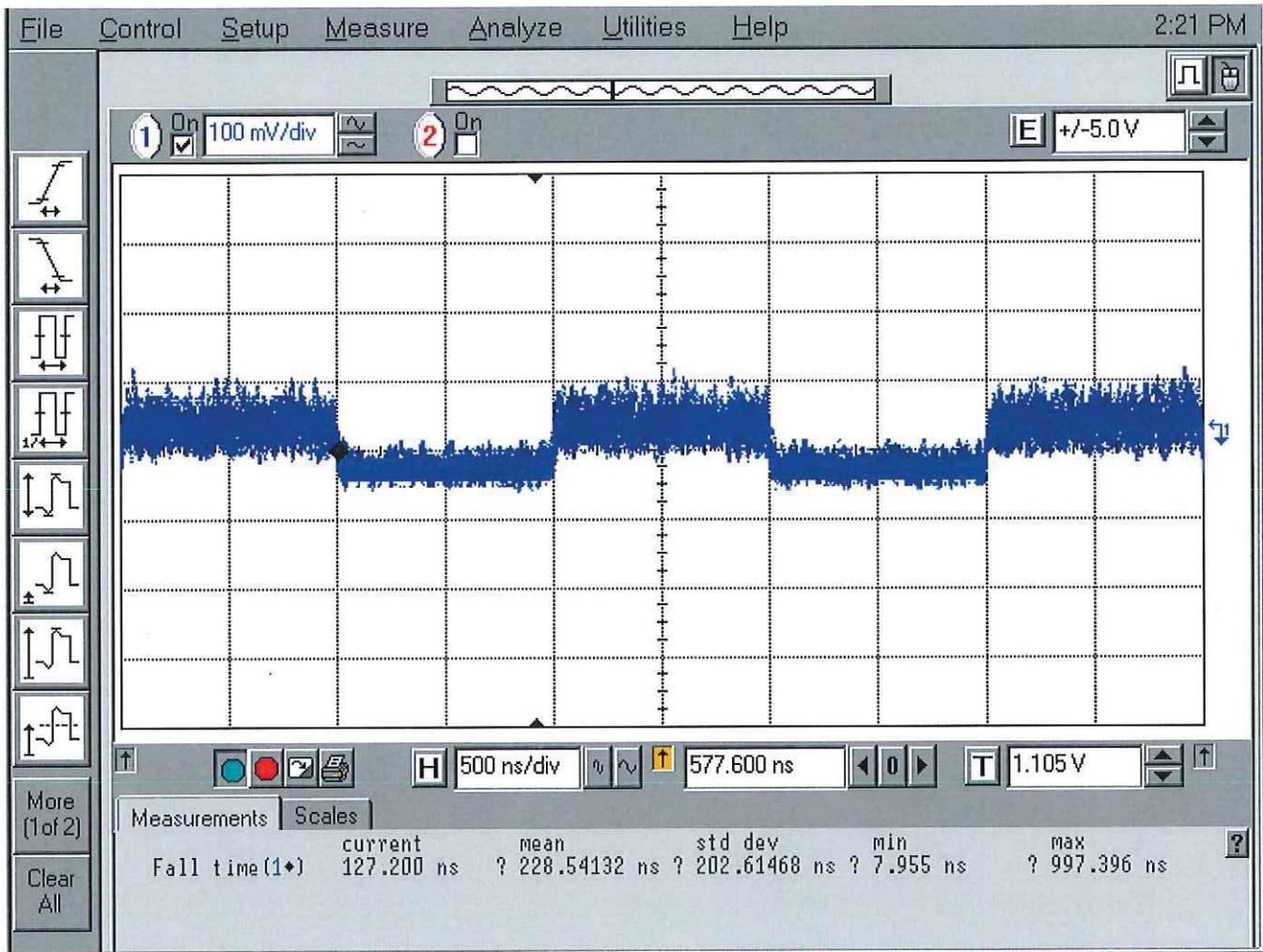




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**TSS PLOT # 2A**  
**-40C@-73.5dBm**

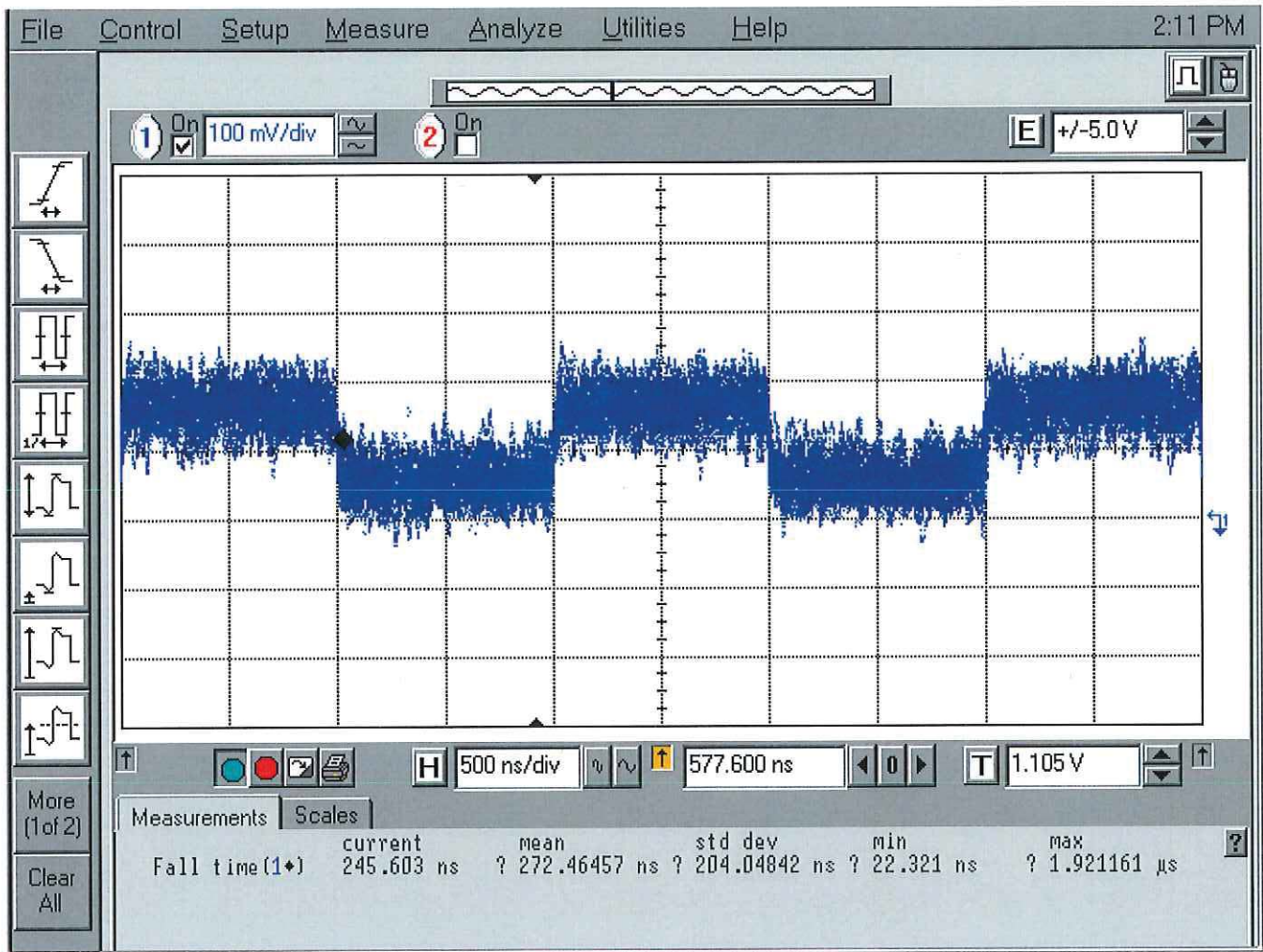




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**TSS PLOT # 2B**  
**+25C@-73.5 dBm**

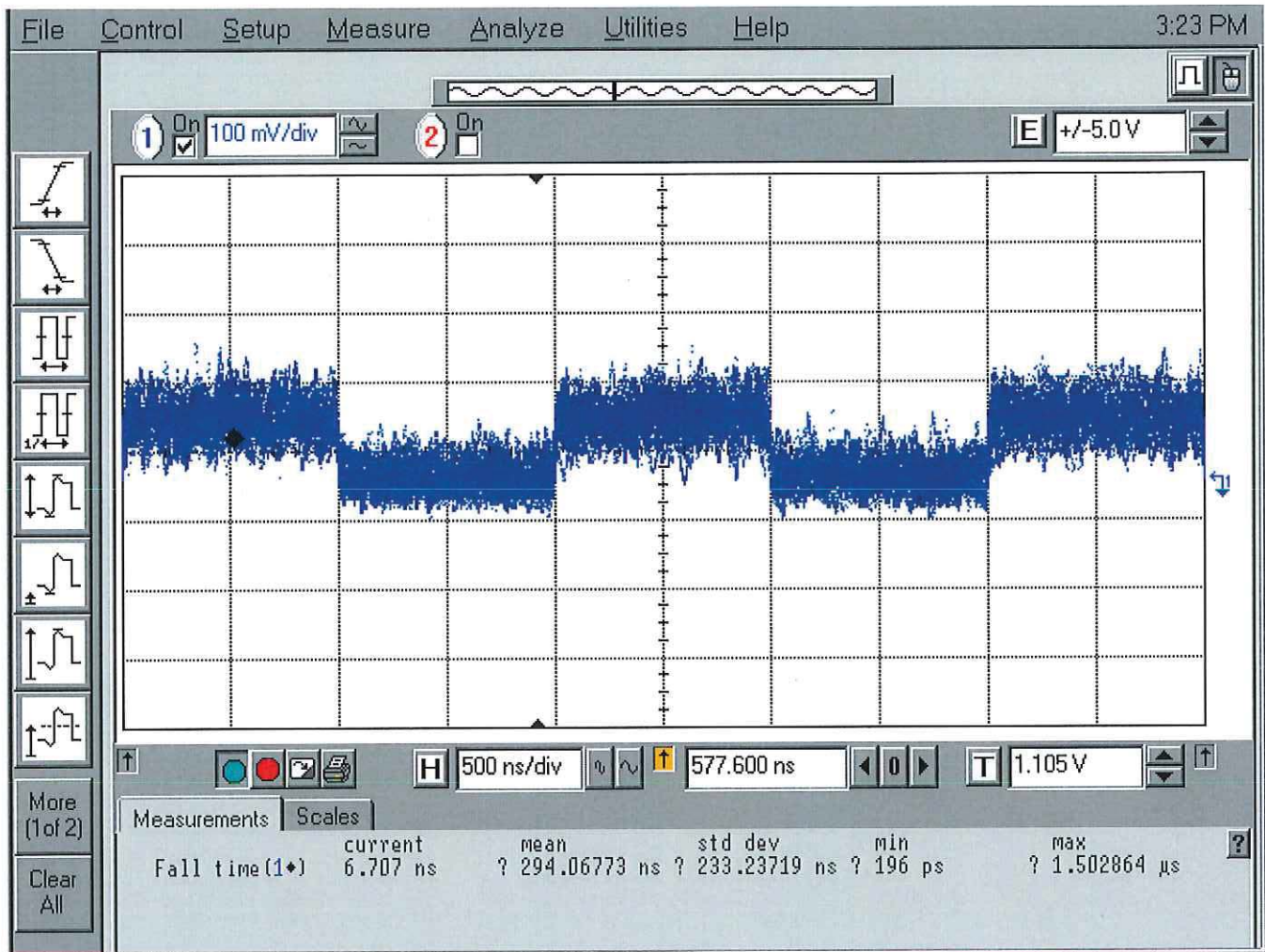




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PL21587/1738

**TSS PLOT # 2C**  
**+75C@-73.2 dBm**

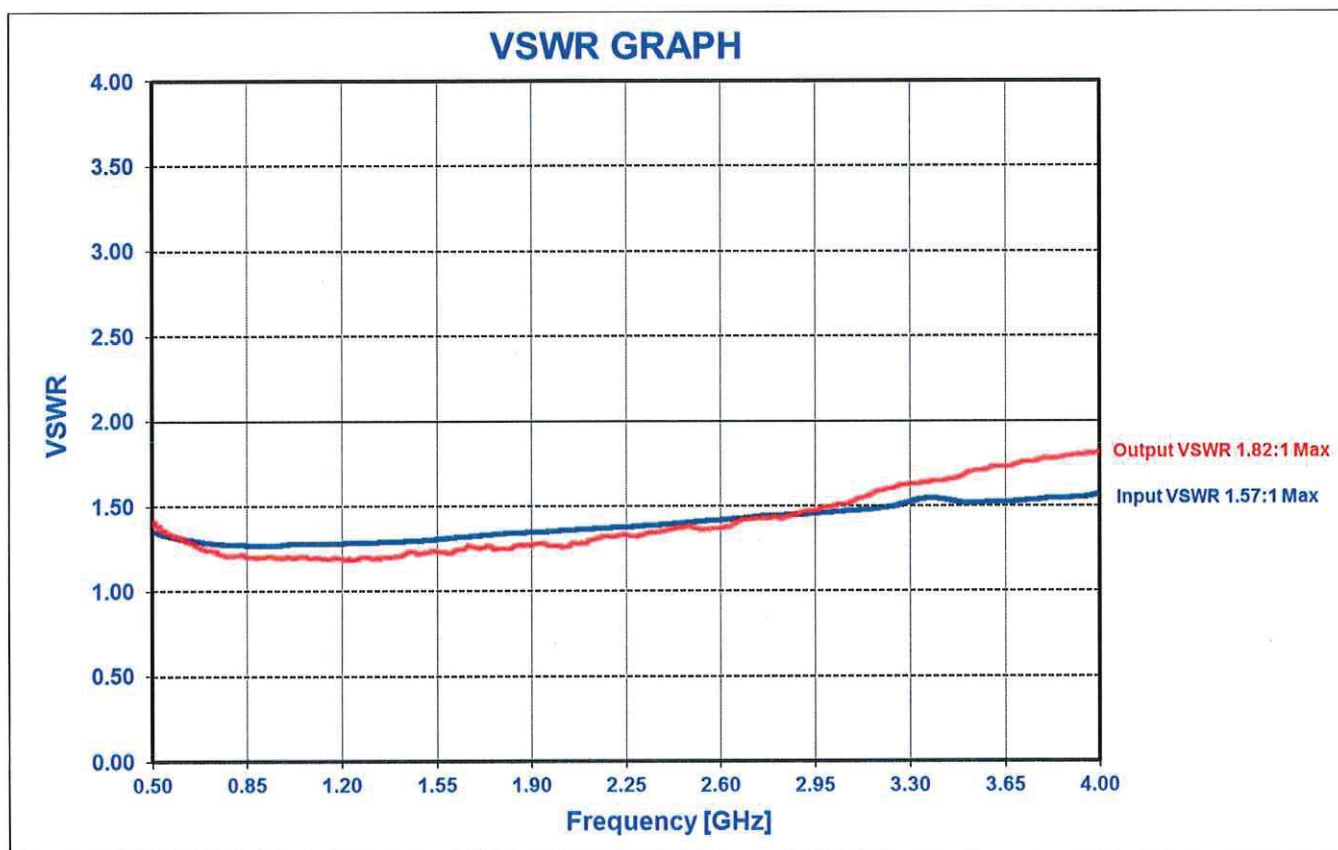




**SUMMARY TEST DATA  
ON  
SDLVA-500M4G-CD-2**

PL21587/1738

**VSWR PLOT # 3**

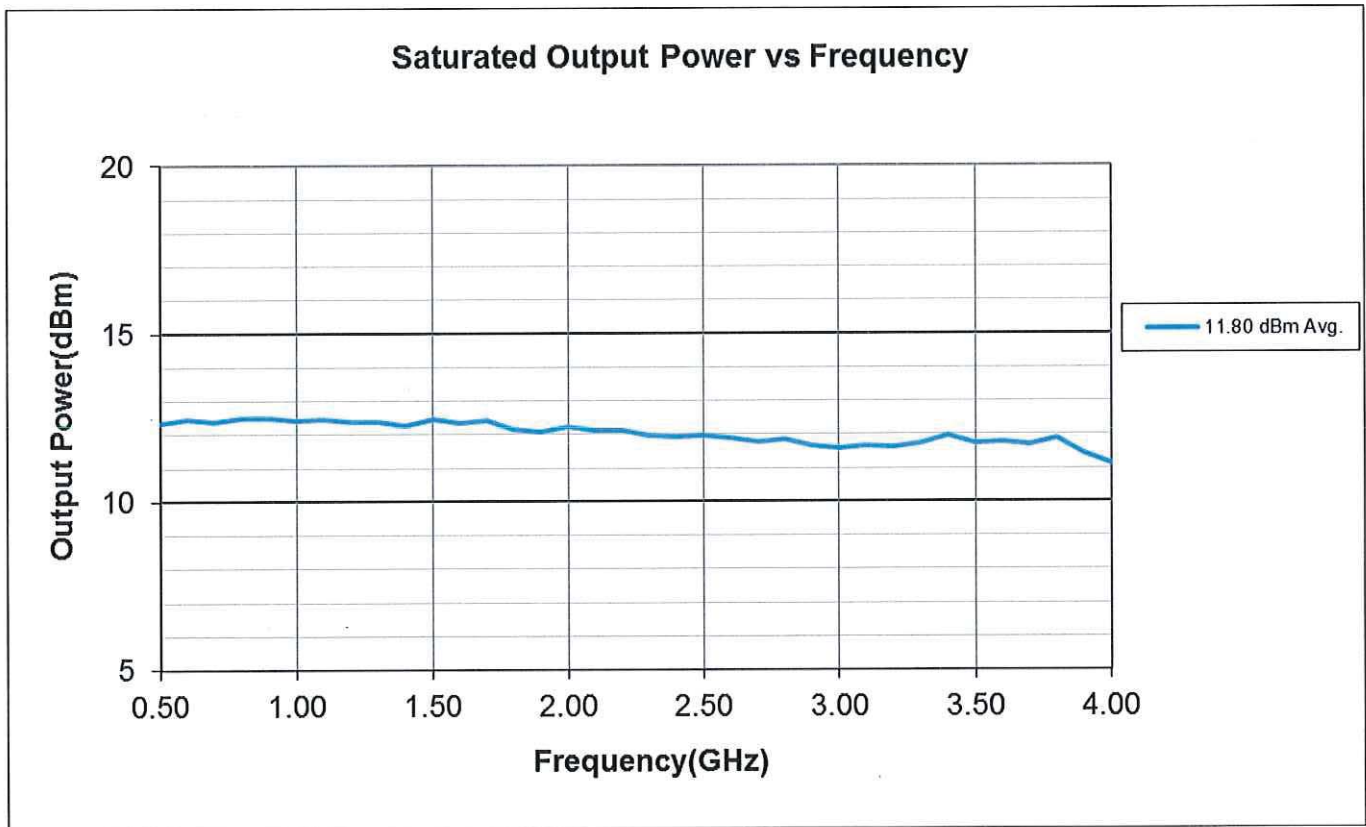




**SUMMARY TEST DATA  
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PL21587/1738

**PSAT PLOT # 4**







# SUMMARY TEST DATA ON SDLVA-500M4G-CD-2

PL21587/1738

## PLOT # 1A

LOG TRANSFER WITH FREQUENCY  
MODEL: SDLVA-500M4G-CD-2  
TESTED BY: J.Emperador  
TEST DATE: 09/18/17  
SERIAL NO: PL21587  
TEST TEMP: -40C

Plot #1A



PLANAR MONOLITHICS INDUSTRIES  
7311-F GROVE ROAD, FREDERICK, MD 21704  
USA

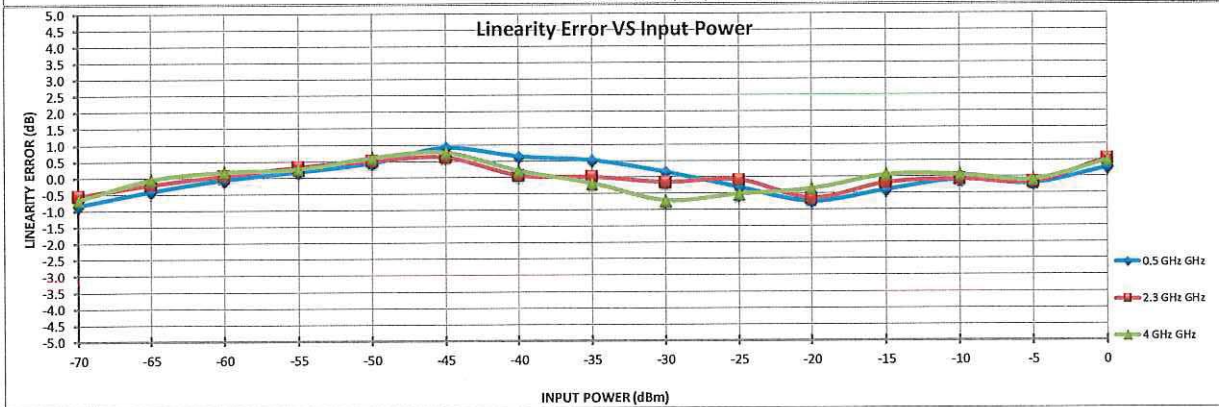
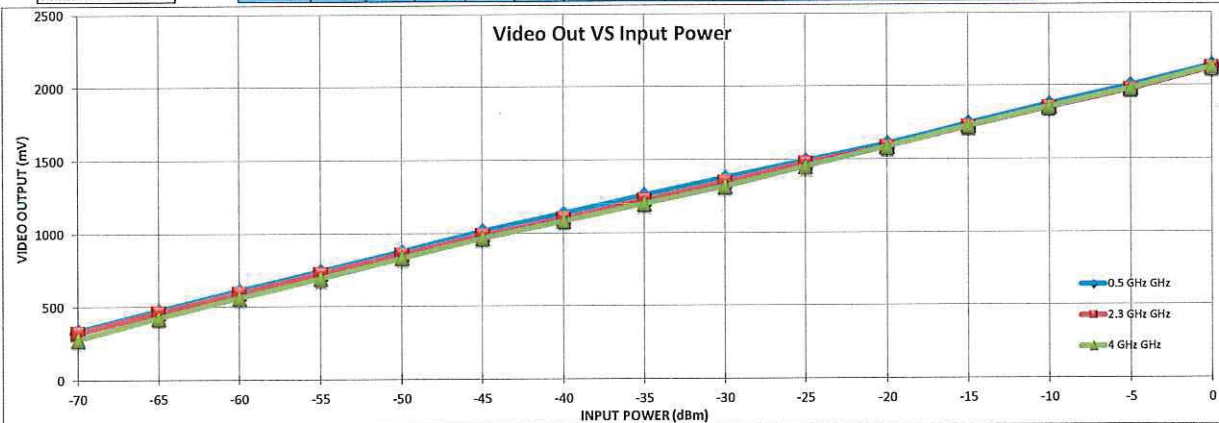
TEL: 301-662-5019 FAX: 301-662-1731

URL: WWW.PMI-RF.COM

Vos = +64 mV

Frequency

Frequency	Intercept (mV)	Slope (mV/dB)	-70	-65	-60	-55	-50	-45	-40	-35	-30	-25	-20	-15	-10	-5	0	RF Input Power (dBm)
0.5 GHz	2127	25.4	327	465	601	734	868	1007	1127	1251	1369	1484	1600	1736	1871	1995	2134	Measured Value (mV)
			-21	-11	-2	4	11	23	16	13	4	-8	-19	-10	-2	-5	7	Error (mV)
			-0.84	-0.41	-0.06	0.17	0.44	0.91	0.63	0.51	0.16	-0.32	-0.75	-0.40	-0.09	-0.21	0.26	LINEARITY ERROR (dB)
2.3 GHz	2108	25.2	326	461	594	727	858	987	1099	1224	1346	1474	1586	1724	1853	1977	2121	Measured Value (mV)
			-14	-5	1	8	13	16	1	0	-4	-2	-17	-5	-2	-4	13	Error (mV)
			-0.56	-0.21	0.06	0.32	0.51	0.62	0.06	0.01	-0.16	-0.09	-0.66	-0.19	-0.08	-0.17	0.53	LINEARITY ERROR (dB)
4 GHz	2117	26	281	427	563	695	834	968	1083	1203	1319	1454	1588	1729	1859	1985	2130	Measured Value (mV)
			-17	-1	5	7	16	20	5	-6	-19	-14	-10	1	2	2	13	Error (mV)
			-0.67	-0.05	0.18	0.26	0.61	0.77	0.19	-0.19	-0.72	-0.53	-0.37	0.06	0.06	-0.09	0.49	LINEARITY ERROR (dB)
Flatness +/-dB			0.9	0.8	0.8	0.8	0.7	0.8	0.9	1	1	0.6	0.3	0.2	0.4	0.4	0.3	





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**PLOT # 1B**

LOG TRANSFER WITH FREQUENCY  
MODEL: SDLVA-500M4G-CD-2  
TESTED BY: J.Emperador  
TEST DATE: 09/18/17  
SERIAL NO: PL21587  
TEST TEMP: +25C

Plot #1B



PLANAR MONOLITHICS INDUSTRIES  
7311-F GROVE ROAD, FREDERICK, MD 21704  
USA  
TEL: 301-662-5019 FAX: 301-662-1731  
URL: WWW.PMI-RF.COM

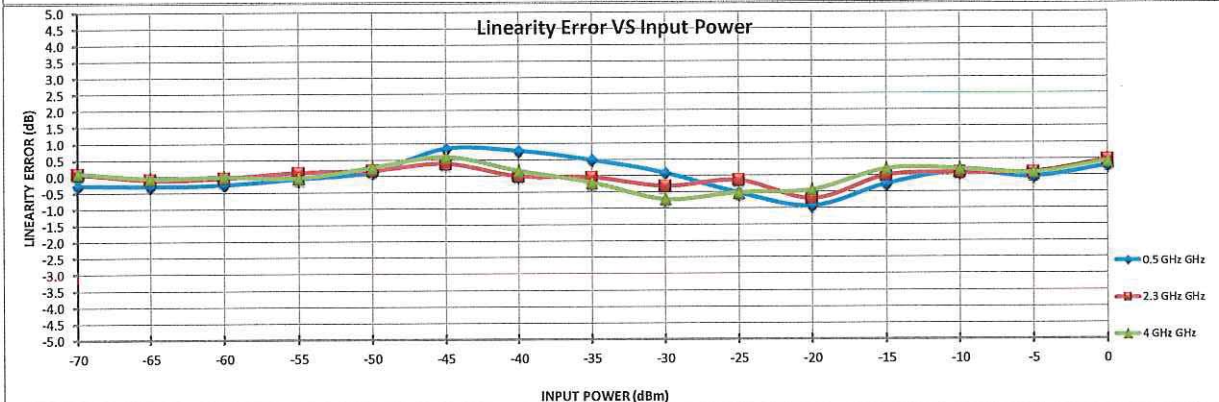
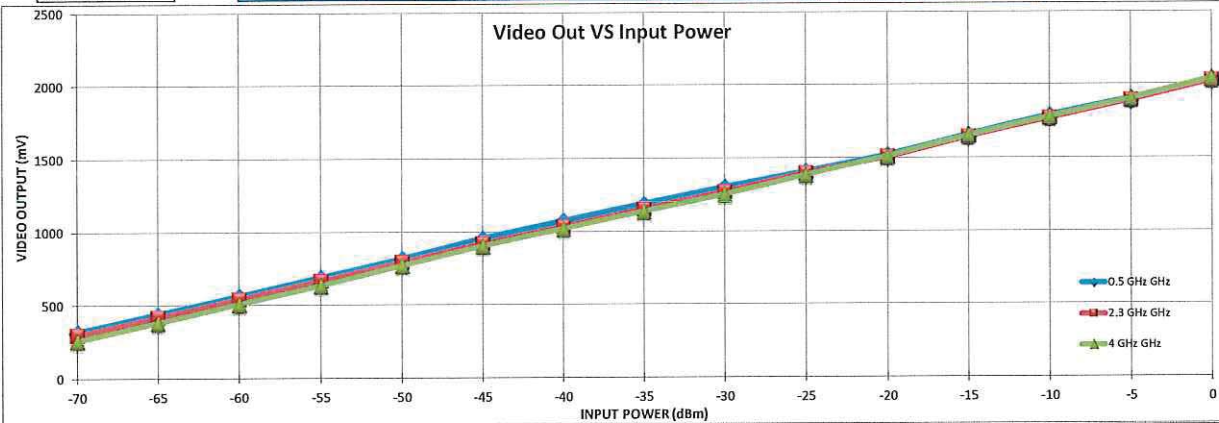
Vos = +56 mV

Frequency

Frequency	Intercept (mV)	Slope (mV/dB)	-70	-65	-60	-55	-50	-45	-40	-35	-30	-25	-20	-15	-10	-5	0	RF Input Power (dBm)
0.5 GHz	2024	24.4	312	433	556	682	809	948	1068	1183	1295	1402	1514	1652	1783	1901	2031	Measured Value (mV)
			-7	-7	-6	-2	3	20	19	12	2	-13	-23	-6	3	-1	7	Error (mV)
			-0.27	-0.30	-0.26	-0.08	0.13	0.84	0.76	0.48	0.08	-0.53	-0.93	-0.27	0.11	-0.05	0.29	LINEARITY ERROR (dB)
2.3 GHz	2017	24.6	301	419	543	670	794	922	1035	1157	1273	1400	1509	1649	1774	1897	2029	Measured Value (mV)
			2	-3	-1	3	4	9	0	-1	-8	-4	-17	0	2	2	12	Error (mV)
			0.09	-0.10	-0.05	0.12	0.17	0.38	-0.02	-0.05	-0.32	-0.15	-0.71	-0.01	0.08	0.09	0.47	LINEARITY ERROR (dB)
4 GHz	2031	25.4	256	379	507	633	768	903	1019	1137	1251	1383	1512	1655	1782	1906	2042	Measured Value (mV)
			3	-1	0	-1	7	15	4	-5	-18	-13	-11	5	5	2	11	Error (mV)
			0.10	-0.05	-0.01	-0.05	0.26	0.58	0.15	-0.20	-0.72	-0.52	-0.44	0.19	0.20	0.08	0.43	LINEARITY ERROR (dB)

Flatness +/-dB

1.1	1.1	1	1	0.8	0.9	1	0.9	0.9	0.4	0.1	0.1	0.2	0.2	0.3
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# SUMMARY TEST DATA ON SDLVA-500M4G-CD-2

PL21587/1738

## PLOT # 1C

LOG TRANSFER WITH FREQUENCY  
MODEL: SDLVA-500M4G-CD-2  
TESTED BY: J.Emperador  
TEST DATE: 09/18/17  
SERIAL NO: PL21587  
TEST TEMP: +75C

Plot #1C



PLANAR MONOLITHICS INDUSTRIES  
7311-F GROVE ROAD, FREDERICK, MD 21704  
USA

TEL: 301-662-5019 FAX: 301-662-1731  
URL: WWW.PMI-RF.COM

Vos = +10 mV

Frequency

Frequency	Intercept (mV)	Slope (mV/dB)	-70	-65	-60	-55	-50	-45	-40	-35	-30	-25	-20	-15	-10	-5	0	RF Input Power (dBm)
0.5 GHz	1940	23.4	281	419	546	664	785	911	1020	1126	1229	1333	1447	1588	1715	1827	1947	Measured Value (mV)
			-24	-3	7	8	13	22	14	3	-10	-23	-26	-2	9	4	7	Error (mV)
			-1.04	-0.13	0.31	0.36	0.54	0.94	0.61	0.15	-0.44	-0.99	-1.10	-0.07	0.37	0.17	0.31	LINEARITY ERROR (dB)
2.3 GHz	1962	24.2	244	393	522	642	767	885	988	1103	1214	1343	1459	1603	1726	1849	1974	Measured Value (mV)
			-22	6	14	13	16	13	-5	-11	-21	-13	-19	4	6	8	12	Error (mV)
			-0.91	0.24	0.57	0.52	0.68	0.55	-0.20	-0.46	-0.88	-0.56	-0.77	0.17	0.25	0.32	0.48	LINEARITY ERROR (dB)
4 GHz	1977	25.1	182	353	484	608	738	867	975	1085	1197	1325	1459	1608	1732	1857	1986	Measured Value (mV)
			-35	10	15	14	18	21	4	-12	-25	-23	-15	8	6	6	9	Error (mV)
			-1.40	0.40	0.61	0.54	0.72	0.85	0.14	-0.48	-1.02	-0.93	-0.60	0.33	0.26	0.23	0.36	LINEARITY ERROR (dB)
Flatness +/-dB			2	1.4	1.3	1.2	1	0.9	0.9	0.8	0.7	0.4	0.2	0.4	0.4	0.6	0.8	

