SUMMARY TEST DATA ON SDLVA-6G18G-CD-2-OPT218

PL41946/2335

Customer:
SO No:
Model No: SDLVA-6G18G-CD-2-OPT218
Serial No: PL41946/2335

Tested By: Rcombs
Temperature: +25° C
Date: 8/31/2023
Drawing No: 27623906 Rev: A1

TEST ITEM NO.	PARAMETERS	SPECIFIED VALUE	TEST RESULTS	QA QC
1	Frequency:	2.0 GHz – 18.0 GHz	2.0 GHz – 18.0 GHz See Plots	PMI QA2
2	Flatness:	± 2.0 dB Maximum	±1.6 dB 25°C See Plots	
3	TSS:	-70 dBm Minimum	71 dBm	
4	VSWR:	2.0:1 (Input)	1.7:1 (Input)	
5	Power Input:	+17 dBm CW Maximum	Pass	
6	RF Out:	+13 dBm ±3 dB Typical	12.30 dBm Avg.	
7	Log Slope:	25 mV/dB (±10%) 50Ω	24.9 mV/dB See Plots	
8	Log Range:	-70 to +5 dBm	-70 to +5 dBm See Plots	
9	Log Linearity:	±2.5 dB (-40°C - +85°C)	±2.1 dB See Plots	
10	Pulse Range:	30 ns to CW	Pass	
11	Rise Time:	10 ns (6 ns Typical)	6.3 ns	
12	Recovery Time:	60 ns Typical	48 ns	
13	DC Supply:	+15V or +12V @ 350 mA -15V or -12V @ 180 mA	+12V @ 260 mA -12V @ 100 mA	PMI QA2

QA/QC Approval: Cameron Udy PMI QA2 Date:

7311-F Grove Road Frederick, MD 21704 USA Phone: (301)662-5019 Fax: (301)662-1731
Email: sales@pmi-rf.com

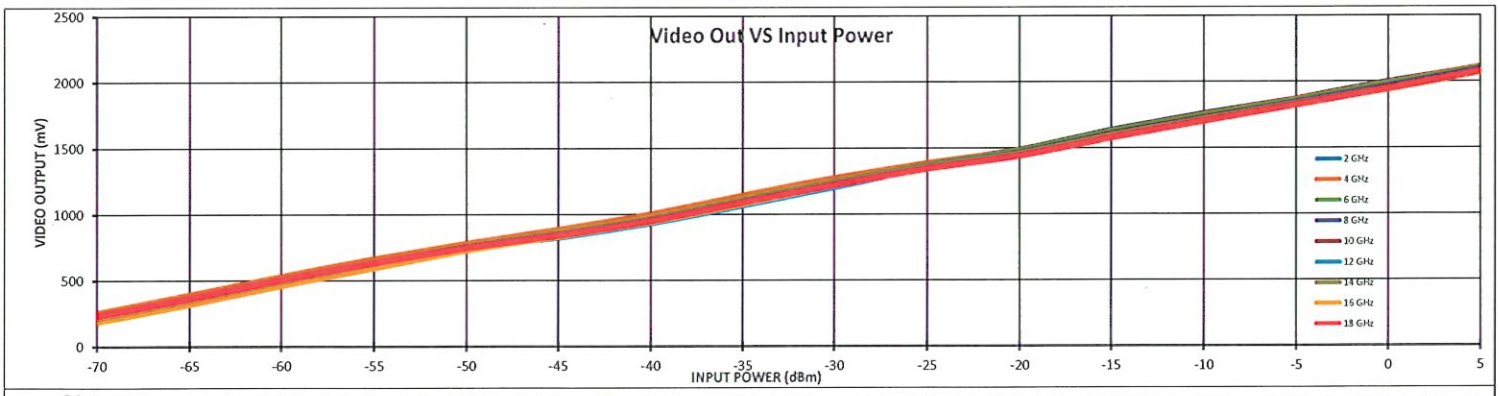
SUMMARY TEST DATA
ON
SDLVA-6G18G-CD-2-OPT218

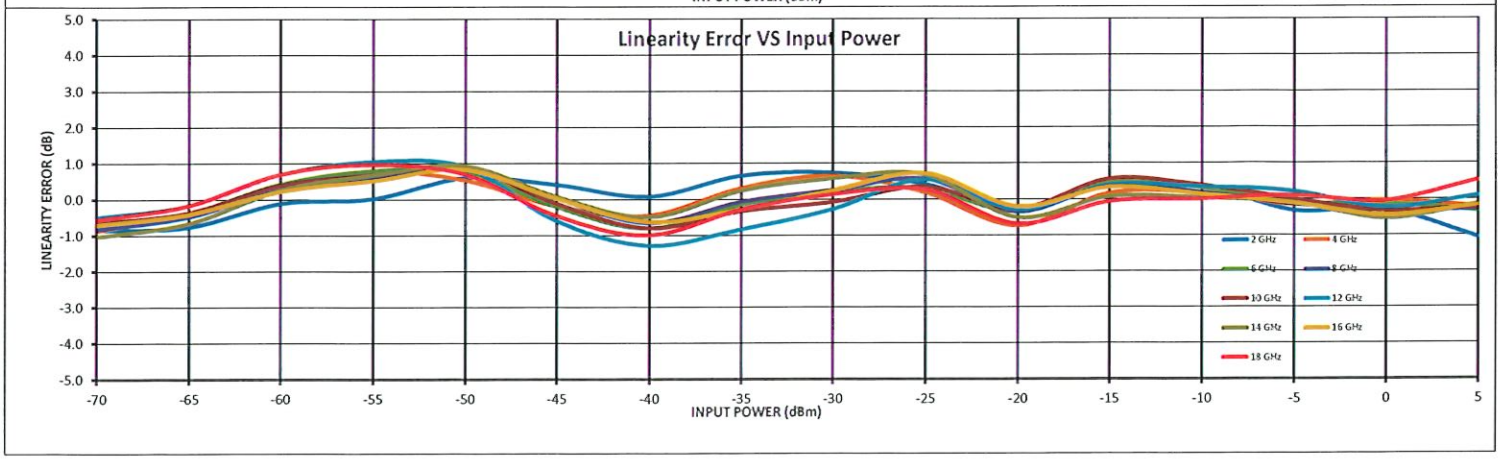
PL41946/2335

Log Transfer Over Frequency +25°C

Model: SDLVA-6G18G-CD-2-OPT218
Serial No: PL41946/2335
Date: 8/31/2023
Tested By: Rcombs
Test Temp: · +25°C

Frequency			-70	-65	-60	-55	-50	-45	-40	-35	-30	-25	-20	-15	-10	-5	0	5	RF Input Power (dBm)
2 GHz	INTERCEPT (mV)	2009	198	328	473	604	746	869	989	1131	1261	1381	1490	1637	1763	1873	2002	2110	Measured Value (mV)
	SLOPE (mV/dB)	25.6	-22	-19	-3	1	15	10	2	17	19	11	-8	11	9	-8	-8	-27	ERROR (mV)
	LIN. ERR. (dB)	1.1	-0.85	-0.76	-0.11	0.02	0.60	0.41	0.08	0.65	0.74	0.41	-0.31	0.45	0.36	-0.32	-0.30	-1.06	LINEARITY ERROR (dB)
4 GHz	INTERCEPT (mV)	1995	256	391	531	665	781	886	1003	1144	1275	1386	1486	1631	1754	1869	1994	2112	Measured Value (mV)
	SLOPE (mV/dB)	24.5	-22	-9	8	19	13	-5	-11	7	16	5	-18	4	4	-4	-1	-6	ERROR (mV)
	LIN. ERR. (dB)	0.9	-0.88	-0.37	0.32	0.78	0.53	-0.19	-0.46	0.30	0.65	0.18	-0.74	0.16	0.17	-0.17	-0.05	-0.23	LINEARITY ERROR (dB)
6 GHz	INTERCEPT (mV)	1991	223	357	502	637	761	861	971	1113	1246	1374	1483	1628	1749	1863	1988	2108	Measured Value (mV)
	SLOPE (mV/dB)	25.0	-19	-10	10	20	19	-5	-20	-4	5	7	-9	12	8	-3	-4	-8	Error (mV)
	LIN. ERR. (dB)	0.8	-0.76	-0.38	0.42	0.80	0.76	-0.21	-0.81	-0.15	0.20	0.29	-0.35	0.46	0.30	-0.12	-0.14	-0.33	LINEARITY ERROR (dB)
8 GHz	INTERCEPT (mV)	1976	195	331	476	609	743	846	955	1095	1229	1362	1465	1609	1729	1847	1958	2095	Measured Value (mV)
	SLOPE (mV/dB)	25.1	-21	-12	7	15	23	1	-15	-2	6	14	-9	10	4	-4	-8	-7	ERROR (mV)
	LIN. ERR. (dB)	0.9	-0.83	-0.47	0.28	0.58	0.91	0.03	-0.66	-0.08	0.24	0.56	-0.35	0.38	0.17	-0.15	-0.34	-0.28	LINEARITY ERROR (dB)
10 GHz	INTERCEPT (mV)	1969	206	338	482	614	744	843	951	1087	1218	1354	1463	1608	1729	1844	1960	2088	Measured Value (mV)
	SLOPE (mV/dB)	24.9	-16	-9	10	17	23	-3	-20	-8	-2	8	-7	14	9	0	-8	-6	Error (mV)
	LIN. ERR. (dB)	0.9	-0.66	-0.37	0.39	0.67	0.91	-0.12	-0.80	-0.33	-0.09	0.34	-0.27	0.55	0.37	-0.02	-0.33	-0.24	LINEARITY ERROR (dB)
12 GHz	INTERCEPT (mV)	1951	222	352	496	628	747	832	938	1072	1208	1351	1453	1592	1714	1834	1945	2076	Measured Value (mV)
	SLOPE (mV/dB)	24.5	-12	-4	17	26	22	-15	-32	-20	-7	14	-7	9	8	5	-6	2	ERROR (mV)
	LIN. ERR. (dB)	1.3	-0.49	-0.17	0.69	1.06	0.90	-0.61	-1.28	-0.83	-0.28	0.55	-0.29	0.38	0.33	0.21	-0.25	0.09	LINEARITY ERROR (dB)
14 GHz	INTERCEPT (mV)	1956	210	342	487	621	750	852	961	1101	1232	1358	1452	1589	1711	1830	1942	2075	Measured Value (mV)
	SLOPE (mV/dB)	24.6	-25	-16	6	17	23	2	-12	6	14	17	-13	2	1	-3	-13	-4	ERROR (mV)
	LIN. ERR. (dB)	1.0	-1.04	-0.67	0.25	0.67	0.93	0.07	-0.49	0.24	0.57	0.68	-0.51	0.07	0.03	-0.11	-0.55	-0.14	LINEARITY ERROR (dB)
16 GHz	INTERCEPT (mV)	1962	178	311	453	587	721	827	937	1072	1211	1349	1452	1591	1713	1833	1950	2084	Measured Value (mV)
	SLOPE (mV/dB)	25.2	-18	-10	6	13	21	1	-15	-7	6	18	-5	8	3	-3	-12	-4	ERROR (mV)
	LIN. ERR. (dB)	0.8	-0.71	-0.41	0.22	0.51	0.83	0.02	-0.63	-0.28	0.24	0.72	-0.21	0.32	0.13	-0.12	-0.46	-0.18	LINEARITY ERROR (dB)
18 GHz	INTERCEPT (mV)	1946	232	362	505	633	748	841	950	1089	1220	1345	1443	1580	1703	1827	1944	2080	Measured Value (mV)
	SLOPE (mV/dB)	24.3	-14	-4	17	23	17	-11	-24	-7	3	6	-17	-2	0	2	-2	12	ERROR (mV)
	LIN. ERR. (dB)	1.0	-0.57	-0.18	0.69	0.96	0.69	-0.46	-1.01	-0.29	0.13	0.26	-0.69	-0.07	0.00	0.09	-0.07	0.51	LINEARITY ERROR (dB)
	Avg. Slope: 24.9 mV/dB		1.6	1.6	1.6	1.6	1.2	1.2	1.3	1.5	1.3	0.8	0.9	1.1	1.2	0.9	1.2	0.8	Flatness dB: ±1.6 dB





7311-F Grove Road Frederick, MD 21704 USA Phone: (301)662-5019 Fax: (301)662-1731
Email: sales@pmi-rf.com

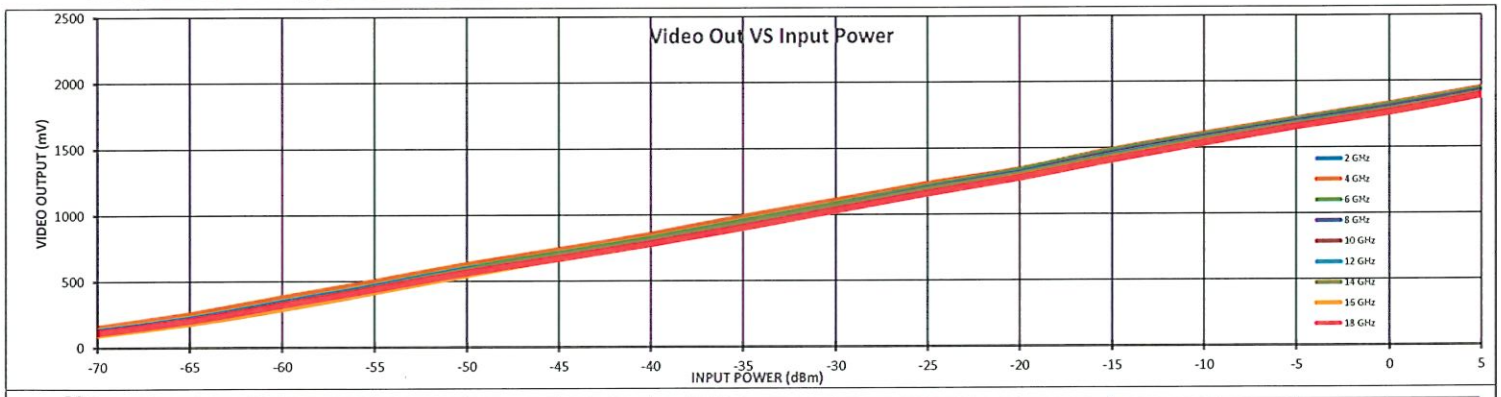
SUMMARY TEST DATA
ON
SDLVA-6G18G-CD-2-OPT218

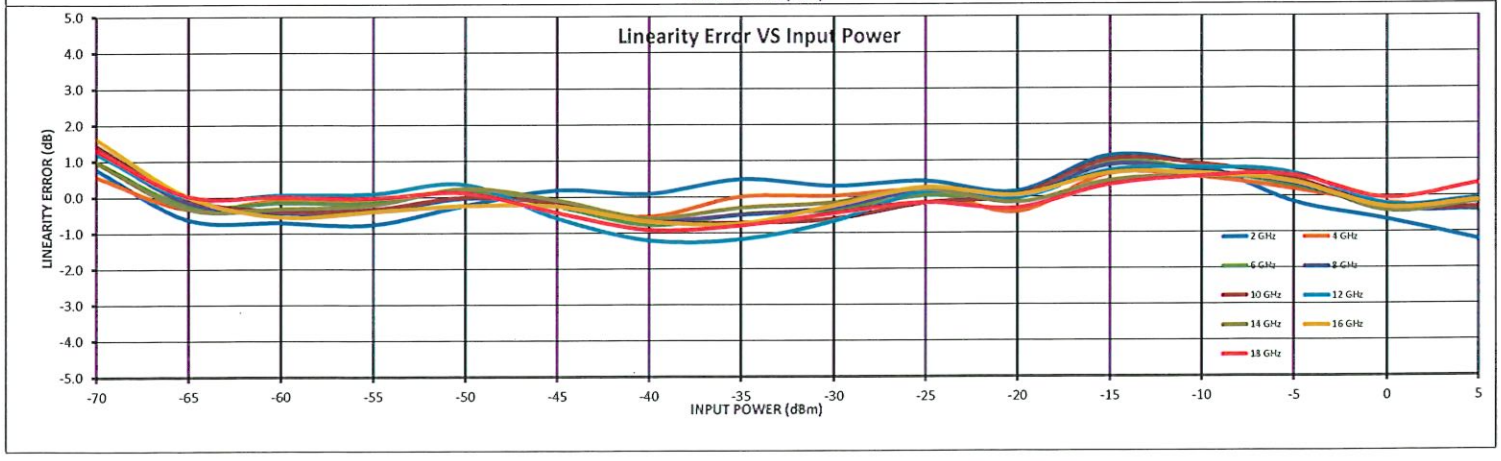
PL41946/2335

Log Transfer Over Frequency +85°C

Model: SDLVA-6G18G-CD-2-OPT218
Serial No: PL41946/2335
Date: 8/31/2023
Tested By: Rcombs
Test Temp: · +85°C

Frequency		-70	-65	-60	-55	-50	-45	-40	-35	-30	-25	-20	-15	-10	-5	0	5	RF Input Power (dBm)
2 GHz	INTERCEPT (mV) 1823	124	212	333	454	590	723	843	976	1094	1220	1336	1482	1598	1696	1807	1916	Measured Value (mV)
	SLOPE (mV/dB) 24.6	19	-15	-17	-19	-6	5	2	12	7	11	4	28	20	-4	-16	-30	ERROR (mV)
	LIN. ERR. (dB) 1.2	0.78	-0.62	-0.70	-0.76	-0.24	0.19	0.08	0.48	0.29	0.43	0.15	1.12	0.83	-0.17	-0.65	-1.22	LINEARITY ERROR (dB)
4 GHz	INTERCEPT (mV) 1832	152	251	378	499	627	739	851	985	1107	1231	1338	1484	1603	1715	1827	1944	Measured Value (mV)
	SLOPE (mV/dB) 24.2	14	-8	-2	-2	4	-4	-13	0	0	4	-11	15	13	4	-5	-9	ERROR (mV)
	LIN. ERR. (dB) 0.6	0.57	-0.33	-0.07	-0.10	0.18	-0.18	-0.55	-0.01	0.02	0.15	-0.44	0.62	0.52	0.18	-0.21	-0.35	LINEARITY ERROR (dB)
6 GHz	INTERCEPT (mV) 1825	128	222	346	469	601	713	823	953	1079	1212	1333	1480	1597	1710	1820	1939	Measured Value (mV)
	SLOPE (mV/dB) 24.6	24	-5	-4	-4	4	-6	-19	-12	-9	1	-1	23	17	7	-6	-10	Error (mV)
	LIN. ERR. (dB) 1.0	0.99	-0.21	-0.15	-0.16	0.18	-0.26	-0.78	-0.49	-0.37	0.03	-0.06	0.94	0.70	0.29	-0.25	-0.41	LINEARITY ERROR (dB)
8 GHz	INTERCEPT (mV) 1810	108	197	313	438	571	692	803	930	1059	1195	1314	1460	1579	1694	1801	1924	Measured Value (mV)
	SLOPE (mV/dB) 24.8	32	-3	-10	-10	-1	-4	-16	-12	-8	4	0	21	17	8	-9	-9	ERROR (mV)
	LIN. ERR. (dB) 1.3	1.28	-0.14	-0.42	-0.39	-0.03	-0.15	-0.65	-0.50	-0.31	0.18	-0.02	0.87	0.69	0.34	-0.35	-0.38	LINEARITY ERROR (dB)
10 GHz	INTERCEPT (mV) 1798	105	193	308	432	563	683	794	916	1042	1177	1305	1453	1573	1687	1790	1914	Measured Value (mV)
	SLOPE (mV/dB) 24.7	35	-1	-9	-9	0	-4	-17	-18	-15	-4	1	25	22	12	-8	-8	Error (mV)
	LIN. ERR. (dB) 1.4	1.44	-0.04	-0.38	-0.34	-0.02	-0.18	-0.68	-0.73	-0.62	-0.18	0.03	1.02	0.88	0.48	-0.34	-0.33	LINEARITY ERROR (dB)
12 GHz	INTERCEPT (mV) 1783	122	213	336	457	584	682	788	909	1042	1182	1299	1438	1560	1677	1777	1902	Measured Value (mV)
	SLOPE (mV/dB) 24.1	30	0	2	2	9	-14	-29	-29	-17	3	-1	17	19	15	-6	-2	ERROR (mV)
	LIN. ERR. (dB) 1.2	1.22	-0.01	0.07	0.09	0.35	-0.59	-1.21	-1.18	-0.69	0.13	-0.03	0.72	0.79	0.63	-0.23	-0.07	LINEARITY ERROR (dB)
14 GHz	INTERCEPT (mV) 1781	113	203	324	447	579	692	800	928	1052	1182	1294	1429	1553	1670	1771	1898	Measured Value (mV)
	SLOPE (mV/dB) 24.2	23	-8	-8	-5	6	-2	-14	-7	-4	5	-4	10	13	10	-10	-4	ERROR (mV)
	LIN. ERR. (dB) 1.0	0.96	-0.32	-0.32	-0.22	0.23	-0.09	-0.59	-0.31	-0.17	0.21	-0.17	0.43	0.55	0.40	-0.42	-0.18	LINEARITY ERROR (dB)
16 GHz	INTERCEPT (mV) 1782	91	175	284	412	539	662	776	898	1034	1170	1288	1427	1550	1668	1774	1903	Measured Value (mV)
	SLOPE (mV/dB) 24.7	40	0	-14	-10	-6	-7	-17	-19	-6	6	1	16	15	10	-8	-3	ERROR (mV)
	LIN. ERR. (dB) 1.6	1.63	0.02	-0.55	-0.40	-0.25	-0.27	-0.68	-0.75	-0.25	0.26	0.04	0.64	0.63	0.39	-0.31	-0.13	LINEARITY ERROR (dB)
18 GHz	INTERCEPT (mV) 1764	112	201	321	440	564	671	780	903	1031	1158	1275	1411	1536	1657	1762	1892	Measured Value (mV)
	SLOPE (mV/dB) 24.0	32	1	0	-1	3	-11	-22	-19	-11	-4	-8	8	13	14	-2	8	ERROR (mV)
	LIN. ERR. (dB) 1.3	1.31	0.03	0.01	-0.03	0.11	-0.44	-0.93	-0.81	-0.47	-0.17	-0.33	0.32	0.55	0.57	-0.07	0.34	LINEARITY ERROR (dB)
	Avg. Slope: 24.4 mV/dB	1.3	1.6	1.9	1.8	1.8	1.6	1.5	1.8	1.5	1.5	1.3	1.5	1.4	1.2	1.3	1.1	Flatness dB: ±1.9 dB





7311-F Grove Road Frederick, MD 21704 USA Phone: (301)662-5019 Fax: (301)662-1731
Email: sales@pmi-rf.com

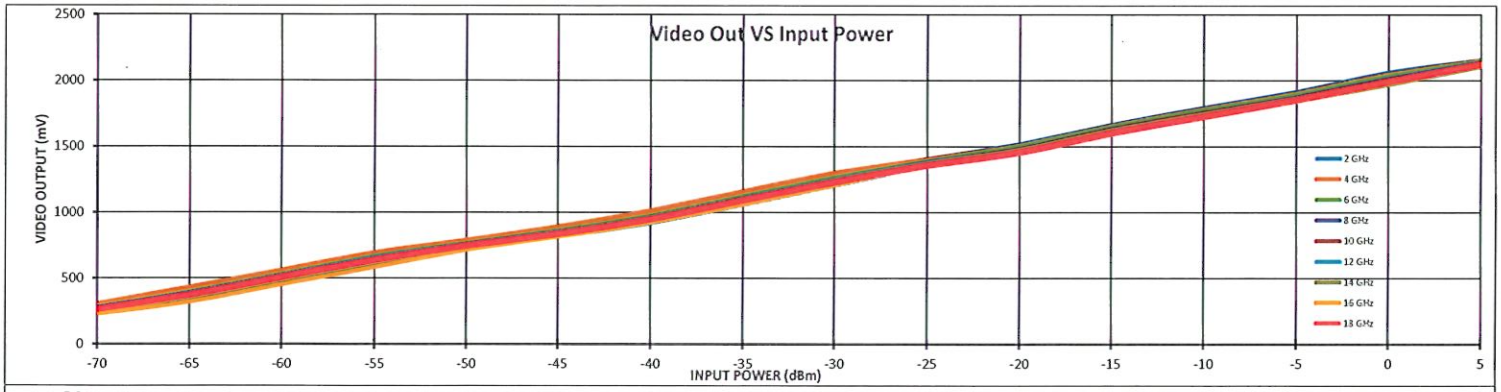
SUMMARY TEST DATA
ON
SDLVA-6G18G-CD-2-OPT218

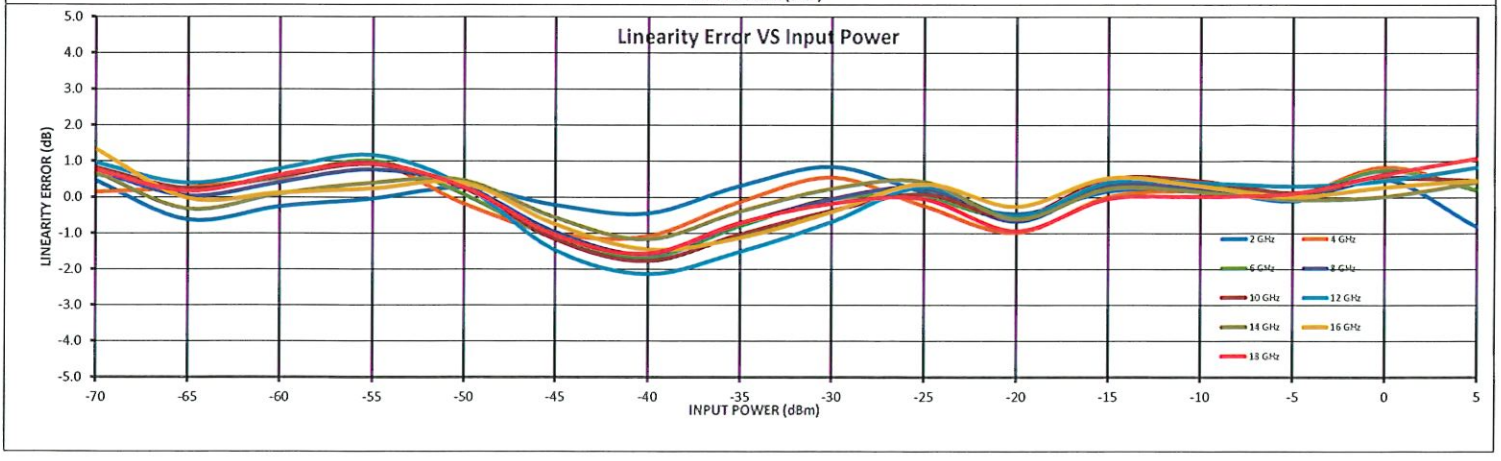
PL41946/2335

Log Transfer Over Frequency -40°C

Model: SDLVA-6G18G-CD-2-OPT218
Serial No: PL41946/2335
Date: 8/31/2023
Tested By: Rcombs
Test Temp: - -40°C

Frequency			-70	-65	-60	-55	-50	-45	-40	-35	-30	-25	-20	-15	-10	-5	0	5	RF Input Power (dBm)
2 GHz	INTERCEPT (mV)	2045	246	348	487	622	759	876	999	1148	1291	1402	1516	1662	1793	1913	2059	2154	Measured Value (mV)
	SLOPE (mV/dB)	25.9	12	-16	-7	-1	7	-6	-12	8	22	4	-12	4	6	-3	13	-21	ERROR (mV)
	LIN. ERR. (dB)	0.8	0.46	-0.62	-0.26	-0.04	0.27	-0.22	-0.45	0.31	0.85	0.15	-0.46	0.17	0.24	-0.10	0.51	-0.82	LINEARITY ERROR (dB)
4 GHz	INTERCEPT (mV)	2021	301	427	557	691	786	888	1009	1156	1296	1400	1505	1652	1779	1898	2042	2149	Measured Value (mV)
	SLOPE (mV/dB)	24.6	3	6	13	24	-4	-25	-27	-3	13	-6	-24	0	4	0	21	5	ERROR (mV)
	LIN. ERR. (dB)	1.1	0.14	0.25	0.53	0.97	-0.18	-1.01	-1.09	-0.14	0.54	-0.24	-0.99	0.00	0.17	0.00	0.84	0.19	LINEARITY ERROR (dB)
6 GHz	INTERCEPT (mV)	2014	277	392	526	662	764	858	971	1118	1262	1388	1499	1648	1773	1891	2033	2144	Measured Value (mV)
	SLOPE (mV/dB)	25.0	16	6	14	25	2	-29	-42	-20	-1	0	-14	9	9	2	19	5	Error (mV)
	LIN. ERR. (dB)	1.7	0.63	0.23	0.55	1.01	0.08	-1.16	-1.68	-0.80	-0.04	0.00	-0.56	0.36	0.37	0.07	0.74	0.21	LINEARITY ERROR (dB)
8 GHz	INTERCEPT (mV)	1999	262	370	505	639	753	846	956	1103	1245	1378	1481	1630	1754	1873	2012	2135	Measured Value (mV)
	SLOPE (mV/dB)	25.1	19	1	10	19	8	-24	-40	-19	-1	6	-17	8	6	0	13	11	ERROR (mV)
	LIN. ERR. (dB)	1.6	0.74	0.04	0.41	0.77	0.31	-0.97	-1.59	-0.74	-0.05	0.25	-0.66	0.30	0.23	-0.01	0.54	0.43	LINEARITY ERROR (dB)
10 GHz	INTERCEPT (mV)	1992	268	378	511	645	753	842	951	1094	1235	1371	1480	1631	1754	1871	2005	2128	Measured Value (mV)
	SLOPE (mV/dB)	24.9	21	6	14	23	6	-29	-44	-26	-9	2	-14	12	11	3	13	11	Error (mV)
	LIN. ERR. (dB)	1.8	0.82	0.24	0.57	0.91	0.25	-1.17	-1.78	-1.04	-0.38	0.08	-0.55	0.50	0.45	0.12	0.51	0.46	LINEARITY ERROR (dB)
12 GHz	INTERCEPT (mV)	1973	268	377	511	643	746	825	932	1071	1215	1363	1466	1613	1736	1857	1984	2117	Measured Value (mV)
	SLOPE (mV/dB)	24.7	24	10	20	29	8	-36	-53	-37	-17	7	-13	10	10	8	11	21	ERROR (mV)
	LIN. ERR. (dB)	2.1	0.96	0.39	0.79	1.17	0.32	-1.47	-2.13	-1.51	-0.68	0.29	-0.53	0.41	0.40	0.31	0.46	0.83	LINEARITY ERROR (dB)
14 GHz	INTERCEPT (mV)	1982	244	344	480	613	740	839	950	1095	1235	1366	1466	1612	1735	1855	1983	2118	Measured Value (mV)
	SLOPE (mV/dB)	25.1	17	-8	2	10	12	-14	-29	-10	6	11	-15	6	4	-2	0	10	ERROR (mV)
	LIN. ERR. (dB)	1.2	0.69	-0.33	0.10	0.40	0.47	-0.57	-1.17	-0.40	0.23	0.43	-0.60	0.24	0.15	-0.07	0.02	0.42	LINEARITY ERROR (dB)
16 GHz	INTERCEPT (mV)	1987	226	319	451	582	715	813	924	1060	1207	1355	1467	1616	1739	1859	1994	2127	Measured Value (mV)
	SLOPE (mV/dB)	25.6	34	-1	3	6	10	-19	-37	-29	-11	10	-7	14	8	0	7	12	ERROR (mV)
	LIN. ERR. (dB)	1.5	1.34	-0.03	0.12	0.24	0.39	-0.76	-1.45	-1.14	-0.41	0.37	-0.26	0.53	0.32	0.01	0.27	0.47	LINEARITY ERROR (dB)
18 GHz	INTERCEPT (mV)	1976	263	372	507	639	746	837	948	1093	1230	1357	1458	1604	1729	1855	1992	2126	Measured Value (mV)
	SLOPE (mV/dB)	24.7	19	4	15	23	7	-26	-39	-18	-4	-1	-23	-1	0	2	15	27	ERROR (mV)
	LIN. ERR. (dB)	1.572	0.76	0.16	0.61	0.94	0.28	-1.05	-1.57	-0.72	-0.18	-0.05	-0.94	-0.05	0.01	0.10	0.62	1.07	LINEARITY ERROR (dB)
	Avg. Slope: 25.1 mV/dB		1.5	2.2	2.1	2.2	1.4	1.5	1.7	1.9	1.8	0.9	1.2	1.2	1.3	1.2	1.5	0.7	Flatness dB: ±2.2 dB



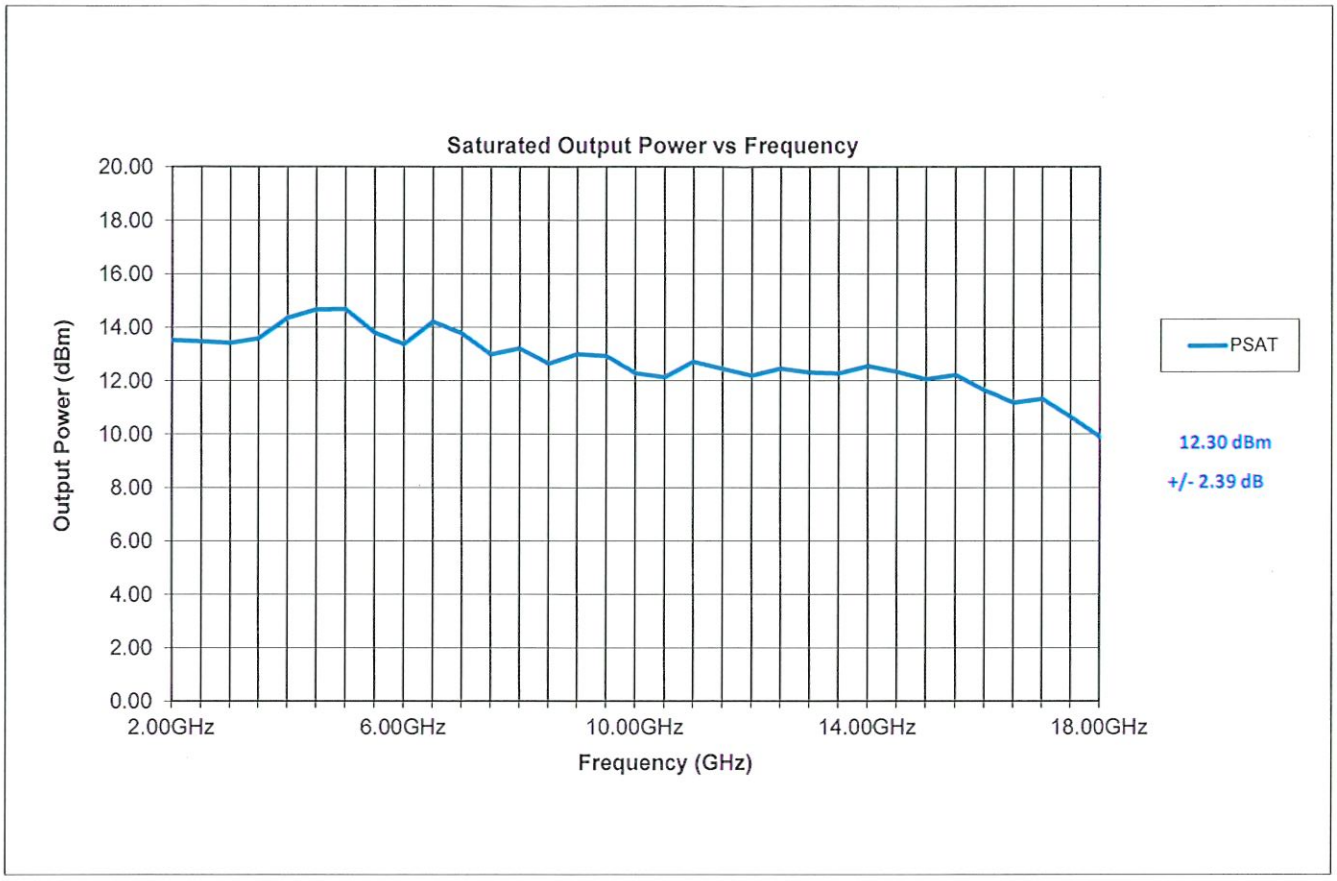


7311-F Grove Road Frederick, MD 21704 USA Phone: (301)662-5019 Fax: (301)662-1731
Email: sales@pmi-rf.com

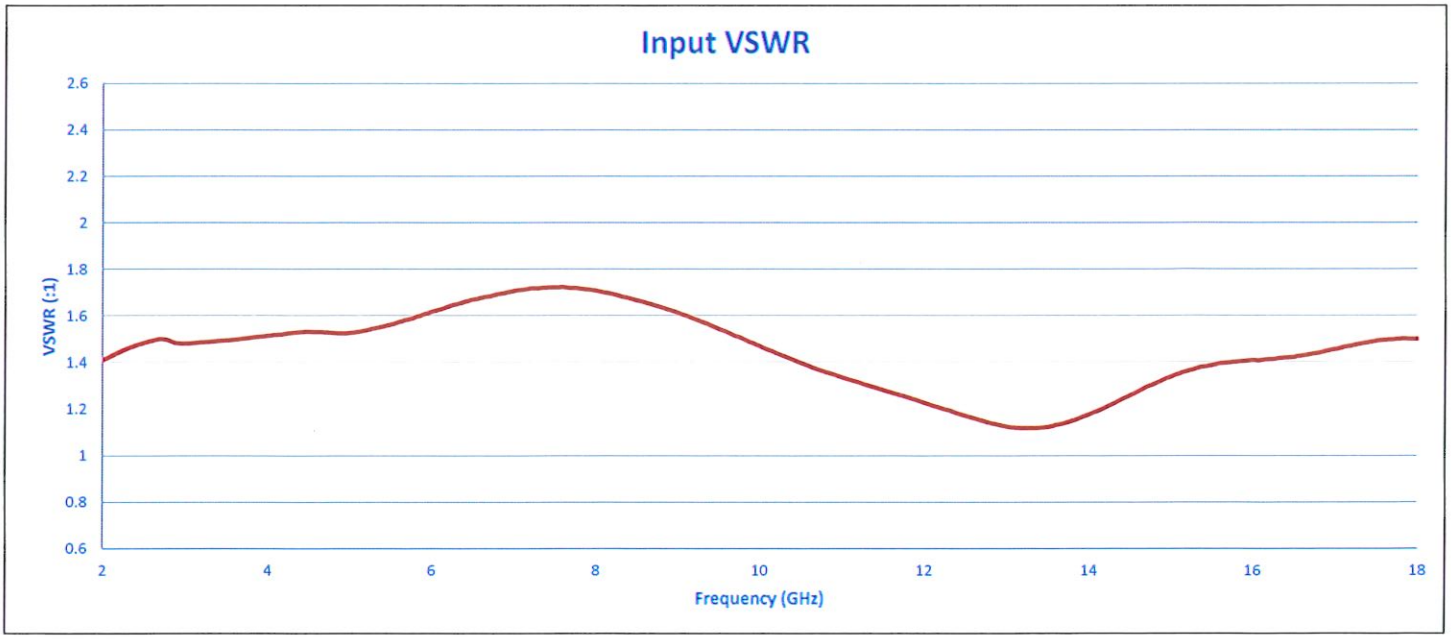
SUMMARY TEST DATA
ON
SDLVA-6G18G-CD-2-OPT218

PL41946/2335

PSAT



INPUT VSWR

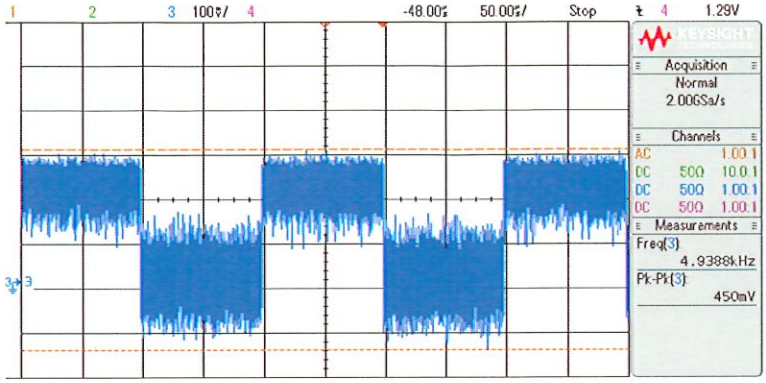


7311-F Grove Road Frederick, MD 21704 USA Phone: (301)662-5019 Fax: (301)662-1731
Email: sales@pmi-rf.com

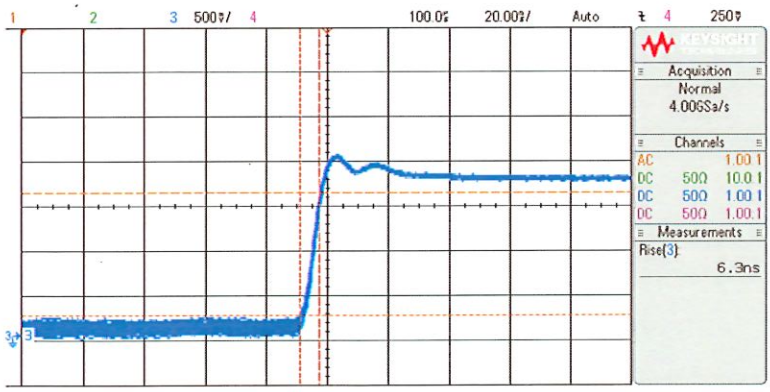
SUMMARY TEST DATA
ON
SDLVA-6G18G-CD-2-OPT218

PL41946/2335

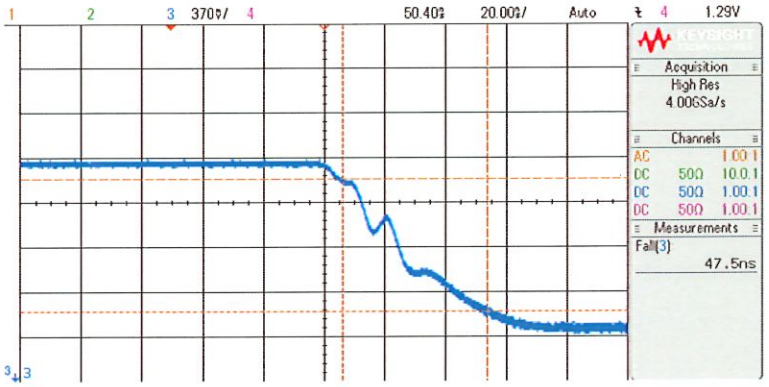
TSS



Rise Time



Fall Time



7311-F Grove Road Frederick, MD 21704 USA Phone: (301)662-5019 Fax: (301)662-1731
Email: sales@pmi-rf.com