



**SUMMARY TEST DATA
ON
SDLVA-2020-70 Opt 0518 A03
A07-50OHM**

PL37462/2234

Customer: _____	Tested By: <u>J. Boze</u>
SO No: _____	Temperature: <u>+25°C</u>
Model No: <u>SDLVA-2020-70 Opt 0518 A03 A07-50OHM</u>	Date: <u>8/23/22</u>
Serial No: <u>PL37462/2234</u>	Drawing No: <u>27610088</u> Rev: <u>A1</u>

TEST. ITEM NO	PARAMETERS	SPECIFIED VALUE	TEST RESULTS	QA QC <i>PMI</i> QA3
1	Frequency Range:	0.5 GHz to 18.0 GHz	0.5 to 18.0 GHz See Plot	
2	Frequency Flatness:	±2.0 dB Typ (0.5 to 18.0GHz)	±1.7 dB See Plot	
3	Logging Linearity:	±1.75 dB Max (-65 to +5 dBm)	±1.71 dB See Plot	
4	TSS:	-65 dBm Max (8.0 to 18.0 GHz)	-66.0 dBm See Plot	
5	VSWR:	3.0:1 (0.5 to 18.0 GHz @ -20 dBm)	1.78:1 See Plot	
6	Logging Range	-65 dBm to +5 dBm	-65 to +5 dBm See Plot	
7	Log Slope	20 mV/dB (±10% Tolerance)	19.4 mV/dB See Plot	
8	Log Temperature Stability:	±1.75 dB (0°C to 60°C)	±1.71 dB See Plot	
9	Rise Time (10% to 90%):	20 ns Max	13.3 ns See Plot	
10	Recover Time:	200 ns Max (-65 dBm to +5 dBm)	150 ns See Plot	
11	Output Power:	+10 dBm ±2.5 dB Typ.	+16.9 dBm See Plot	
12	Output Video Load:	50Ω ±10% or as desired	Pass	
13	Power Supply:	+15 V @ 600 mA Max -15 V @ 200 mA Max	500 mA 100 mA	

QA/QC Approval: *H. M. [Signature]* Date: 8-23-22



SUMMARY TEST DATA ON SDLVA-2020-70 Opt 0518 A03 A07-50OHM

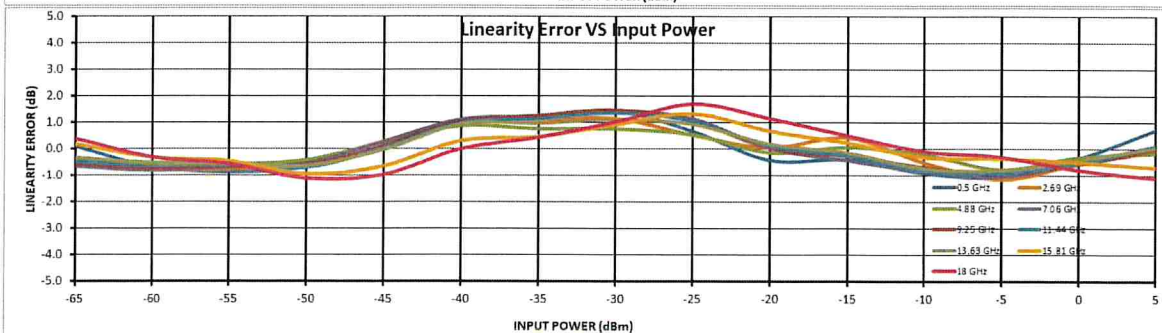
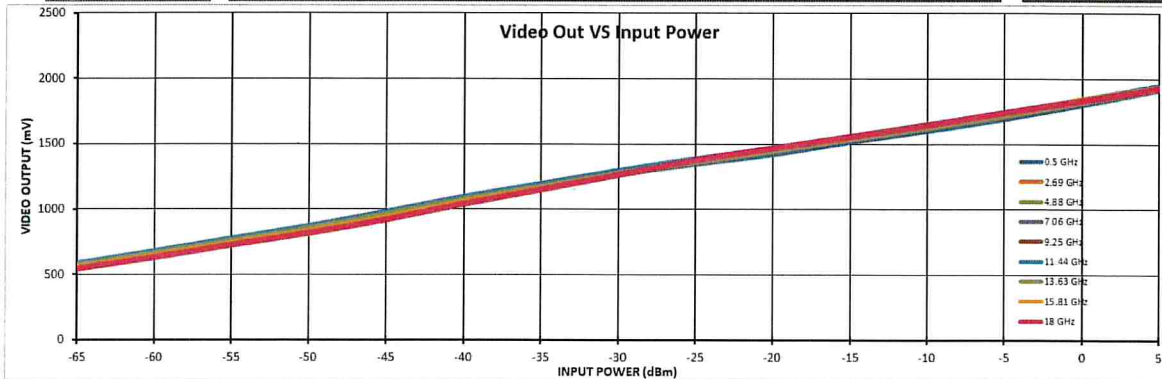
PL37462/2234

Model: SDLVA-2020-70 OPT. 0518, A03, A07-50OHM
Serial No: PL37462
Date: 09/23/22
Tested By: J Boze
Test Temp: +25°C

TRANSFER RESPONSE @+25°C



Frequency		-65	-60	-55	-50	-45	-40	-35	-30	-25	-20	-15	-10	-5	0	5	RF Input Power (dBm)
0.5 GHz	INTERCEPT (mV)	1808															Measured Value (mV)
	SLOPE (mV/dB)	18.9															ERROR (mV)
	LIN. ERR. (dB)	1.5															LINEARITY ERROR (dB)
2.69 GHz	INTERCEPT (mV)	1826															Measured Value (mV)
	SLOPE (mV/dB)	19.2															ERROR (mV)
	LIN. ERR. (dB)	1.16															LINEARITY ERROR (dB)
4.88 GHz	INTERCEPT (mV)	1856															Measured Value (mV)
	SLOPE (mV/dB)	19.4															ERROR (mV)
	LIN. ERR. (dB)	0.88															LINEARITY ERROR (dB)
7.06 GHz	INTERCEPT (mV)	1822															Measured Value (mV)
	SLOPE (mV/dB)	19															ERROR (mV)
	LIN. ERR. (dB)	1.46															LINEARITY ERROR (dB)
9.25 GHz	INTERCEPT (mV)	1839															Measured Value (mV)
	SLOPE (mV/dB)	19.2															ERROR (mV)
	LIN. ERR. (dB)	1.49															LINEARITY ERROR (dB)
11.44 GHz	INTERCEPT (mV)	1850															Measured Value (mV)
	SLOPE (mV/dB)	19.4															ERROR (mV)
	LIN. ERR. (dB)	1.35															LINEARITY ERROR (dB)
13.63 GHz	INTERCEPT (mV)	1829															Measured Value (mV)
	SLOPE (mV/dB)	19.3															ERROR (mV)
	LIN. ERR. (dB)	1.11															LINEARITY ERROR (dB)
15.81 GHz	INTERCEPT (mV)	1858															Measured Value (mV)
	SLOPE (mV/dB)	20															ERROR (mV)
	LIN. ERR. (dB)	1.33															LINEARITY ERROR (dB)
18 GHz	INTERCEPT (mV)	1851															Measured Value (mV)
	SLOPE (mV/dB)	20.2															ERROR (mV)
	LIN. ERR. (dB)	1.71															LINEARITY ERROR (dB)
Avg. Slope: 19.4 mV/dB		1.1	1.3	1.3	1.5	1.7	1.4	1.1	0.8	1	1.3	1.3	1.4	1.5	1.2	0.9	Flatness dB: ±1.7 dB





SUMMARY TEST DATA ON SDLVA-2020-70 Opt 0518 A03 A07-50OHM

PL37462/2234

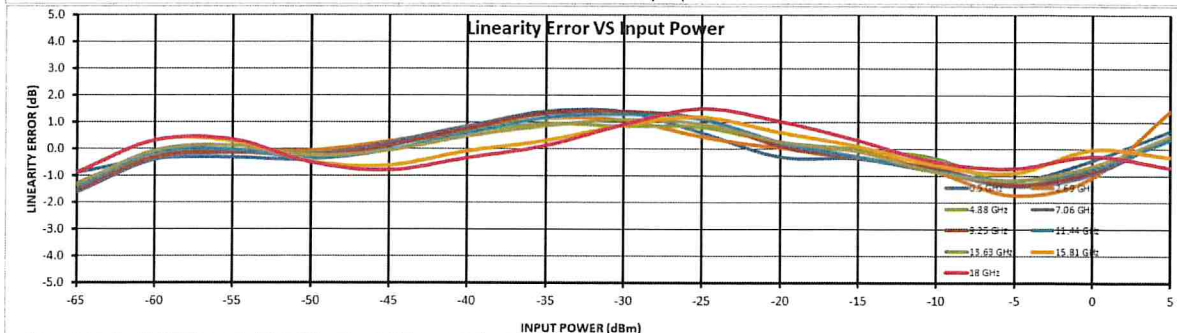
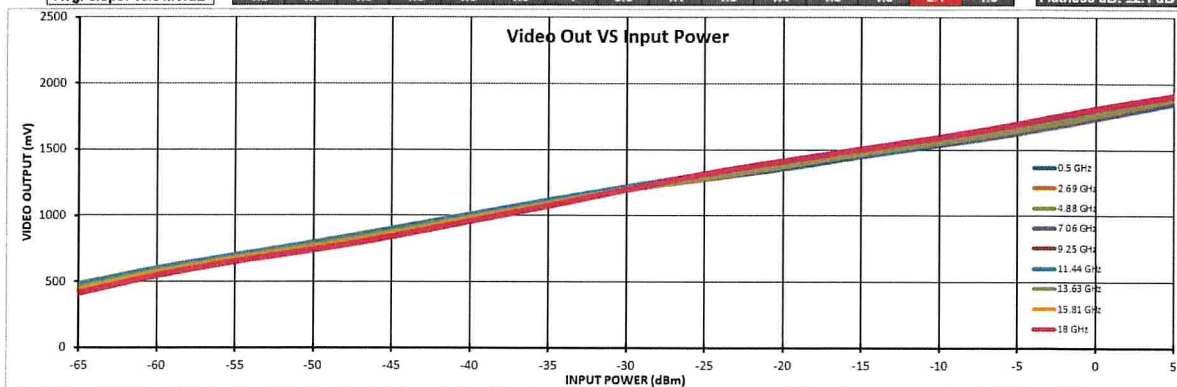
Model: SDLVA-2020-70 OPT. 0518, A03, A07-50OHM
Serial No: PL37462
Date: 08/16/22
Tested By: J Boze
Test Temp: 0°C

TRANSFER RESPONSE @ 0°C



Frequency		-65	-60	-55	-50	-45	-40	-35	-30	-25	-20	-15	-10	-5	0	5	RF Input Power (dBm)
0.5 GHz	INTERCEPT (mV)	487 592 688 782 886 995 1101 1196 1276 1354 1448 1534 1622 1732 1848															Measured Value (mV)
	SLOPE (mV/dB)	-17 -7 -6 -7 2 16 27 27 12 -8 -7 -16 -23 -8 13															ERROR (mV)
	LIN. ERR. (dB)	-0.88 -0.36 -0.31 -0.37 0.10 0.83 1.40 1.40 0.61 -0.29 -0.35 -0.83 -1.20 -0.42 0.68															LINEARITY ERROR (dB)
2.69 GHz	INTERCEPT (mV)	458 580 681 779 884 991 1097 1194 1280 1370 1466 1549 1630 1741 1888															Measured Value (mV)
	SLOPE (mV/dB)	-27 -4 -1 -1 5 15 23 21 9 1 -1 -16 -33 -21 28															ERROR (mV)
	LIN. ERR. (dB)	-1.39 -0.18 -0.03 -0.04 0.30 0.75 1.16 1.09 0.47 0.06 -0.06 -0.83 -1.70 -1.05 1.44															LINEARITY ERROR (dB)
4.88 GHz	INTERCEPT (mV)	485 605 704 800 904 1011 1115 1211 1308 1395 1488 1579 1658 1768 1886															Measured Value (mV)
	SLOPE (mV/dB)	-25 -3 -1 -1 3 12 18 17 16 5 0 -7 -25 -13 7															ERROR (mV)
	LIN. ERR. (dB)	-1.27 -0.14 -0.07 -0.17 0.15 0.62 0.94 0.85 0.80 0.25 0.01 -0.34 -1.30 -0.68 0.36															LINEARITY ERROR (dB)
7.06 GHz	INTERCEPT (mV)	474 594 695 790 895 1003 1108 1206 1297 1375 1462 1548 1633 1738 1862															Measured Value (mV)
	SLOPE (mV/dB)	-31 -7 -3 -4 5 17 26 27 22 4 -5 -15 -27 -18 10															ERROR (mV)
	LIN. ERR. (dB)	-1.63 -0.39 -0.14 -0.20 0.26 0.87 1.33 1.42 1.15 0.20 -0.27 -0.80 -1.39 -0.93 0.52															LINEARITY ERROR (dB)
9.25 GHz	INTERCEPT (mV)	475 596 697 791 896 1005 1114 1212 1304 1381 1470 1560 1645 1752 1874															Measured Value (mV)
	SLOPE (mV/dB)	-30 -8 -2 -5 3 15 26 27 22 2 -6 -14 -26 -16 9															ERROR (mV)
	LIN. ERR. (dB)	-1.52 -0.30 -0.10 -0.26 0.14 0.75 1.36 1.40 1.13 0.10 -0.33 -0.69 -1.32 -0.82 0.46															LINEARITY ERROR (dB)
11.44 GHz	INTERCEPT (mV)	472 596 697 789 894 1005 1115 1216 1311 1393 1481 1569 1661 1768 1888															Measured Value (mV)
	SLOPE (mV/dB)	-28 -3 0 -7 0 12 23 26 22 5 -5 -16 -22 -14 7															ERROR (mV)
	LIN. ERR. (dB)	-1.41 -0.13 -0.01 -0.34 -0.02 0.60 1.18 1.30 1.12 0.27 -0.27 -0.80 -1.14 -0.72 0.37															LINEARITY ERROR (dB)
13.63 GHz	INTERCEPT (mV)	455 580 683 775 878 988 1095 1199 1295 1381 1473 1557 1650 1760 1882															Measured Value (mV)
	SLOPE (mV/dB)	-27 -1 3 -5 -1 10 18 22 19 6 -2 -17 -23 -13 10															ERROR (mV)
	LIN. ERR. (dB)	-1.34 -0.05 0.14 -0.23 -0.04 0.60 0.88 1.12 0.96 0.29 -0.08 -0.85 -1.17 -0.63 0.51															LINEARITY ERROR (dB)
15.81 GHz	INTERCEPT (mV)	446 575 678 766 867 982 1094 1210 1320 1412 1506 1594 1692 1814 1912															Measured Value (mV)
	SLOPE (mV/dB)	-18 7 6 -10 -13 -1 7 19 25 13 2 -13 -18 0 -6															ERROR (mV)
	LIN. ERR. (dB)	-0.89 0.34 0.29 -0.47 -0.81 -0.07 0.32 0.91 1.20 0.63 0.11 -0.60 -0.89 -0.01 -0.29															LINEARITY ERROR (dB)
18 GHz	INTERCEPT (mV)	415 547 654 742 842 958 1074 1197 1316 1412 1503 1692 1693 1809 1906															Measured Value (mV)
	SLOPE (mV/dB)	-19 7 8 -11 -17 7 3 20 32 22 7 -10 18 4 -15															ERROR (mV)
	LIN. ERR. (dB)	-0.89 0.32 0.36 -0.50 -0.79 -0.33 0.14 0.93 1.53 1.05 0.33 -0.48 -0.72 -0.26 -0.69															LINEARITY ERROR (dB)

Avg. Slope: 19.8 mV/dB Flatness dB: ±2.1 dB





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PL37462/2234

Model: SDLVA-2020-70 OPT. 0518, A03, A07-50OHM
Serial No: PL37462
Date: 08/15/22
Tested By: J Boze
Test Temp: +60°C

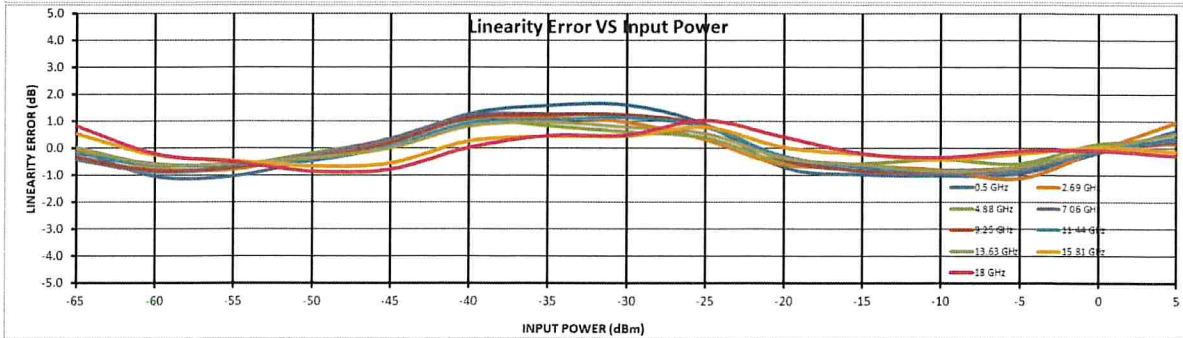
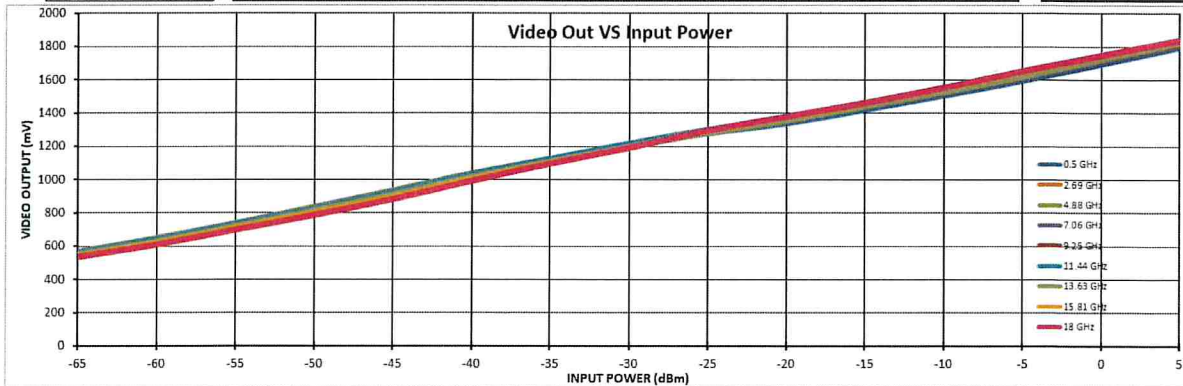
TRANSFER RESPONSE @ +60°C



Frequency		-65	-60	-55	-50	-45	-40	-35	-30	-25	-20	-15	-10	-5	0	5	RF Input Power (dBm)
0.5 GHz	INTERCEPT (mV)	1695															Measured Value (mV)
	SLOPE (mV/dB)	17.3															ERROR (mV)
	LIN. ERR. (dB)	1.6															LINEARITY ERROR (dB)
		568	637	724	821	919	1024	1116	1203	1277	1336	1418	1504	1592	1692	1793	
		0	-18	-18	-7	4	22	28	28	15	-12	-17	-17	-16	-3	12	
		-0.03	-1.04	-1.02	-0.43	0.23	1.29	1.60	1.62	0.89	-0.70	-0.97	-1.01	-0.93	-0.16	0.67	
2.69 GHz	INTERCEPT (mV)	1723															Measured Value (mV)
	SLOPE (mV/dB)	17.9															ERROR (mV)
	LIN. ERR. (dB)	1.14															LINEARITY ERROR (dB)
		656	633	722	822	921	1025	1115	1202	1280	1353	1442	1529	1613	1722	1830	
		0	-13	-14	-3	6	20	20	18	6	-11	-11	-14	-20	-1	18	
		-0.02	-0.73	-0.77	-0.19	0.32	1.12	1.14	0.98	0.33	-0.80	-0.64	-0.79	-1.11	-0.03	0.99	
4.88 GHz	INTERCEPT (mV)	1742															Measured Value (mV)
	SLOPE (mV/dB)	18.3															ERROR (mV)
	LIN. ERR. (dB)	1.05															LINEARITY ERROR (dB)
		669	652	741	839	938	1041	1127	1213	1299	1373	1462	1555	1642	1745	1835	
		-7	-10	-11	-3	6	19	15	11	7	-9	-10	-7	-10	3	3	
		-0.17	-0.56	-0.82	-0.17	0.33	1.05	0.83	0.61	0.39	-0.50	-0.56	-0.39	-0.56	0.17	0.17	
7.06 GHz	INTERCEPT (mV)	1711															Measured Value (mV)
	SLOPE (mV/dB)	17.8															ERROR (mV)
	LIN. ERR. (dB)	1.26															LINEARITY ERROR (dB)
		659	639	730	826	925	1028	1117	1204	1286	1353	1432	1519	1609	1709	1806	
		-7	-18	-13	-5	6	21	22	21	15	-8	-15	-16	-14	-2	7	
		-0.42	-0.88	-0.71	-0.26	0.36	1.21	1.26	1.20	0.86	-0.34	-0.85	-0.91	-0.80	-0.12	0.39	
9.25 GHz	INTERCEPT (mV)	1722															Measured Value (mV)
	SLOPE (mV/dB)	17.8															ERROR (mV)
	LIN. ERR. (dB)	1.25															LINEARITY ERROR (dB)
		661	641	732	827	926	1031	1122	1211	1293	1359	1441	1530	1621	1721	1815	
		-6	-14	-12	-6	4	20	22	22	15	-7	-14	-14	-12	-1	4	
		-0.31	-0.81	-0.69	-0.35	0.22	1.13	1.25	1.25	0.87	-0.42	-0.81	-0.80	-0.68	-0.06	0.23	
11.44 GHz	INTERCEPT (mV)	1737															Measured Value (mV)
	SLOPE (mV/dB)	18.1															ERROR (mV)
	LIN. ERR. (dB)	1.14															LINEARITY ERROR (dB)
		660	642	733	826	926	1032	1124	1216	1300	1371	1454	1542	1634	1736	1834	
		-3	-10	-11	-8	2	17	19	21	14	-5	-12	-15	-13	-1	6	
		-0.17	-0.63	-0.59	-0.45	0.09	0.96	1.05	1.14	0.79	-0.28	-0.68	-0.81	-0.72	-0.07	0.36	
13.63 GHz	INTERCEPT (mV)	1726															Measured Value (mV)
	SLOPE (mV/dB)	18.1															ERROR (mV)
	LIN. ERR. (dB)	0.99															LINEARITY ERROR (dB)
		652	631	722	816	913	1018	1111	1198	1284	1358	1444	1530	1623	1726	1826	
		1	-10	-10	-6	1	15	18	15	10	-6	-10	-15	-12	0	10	
		0.05	-0.58	-0.54	-0.34	0.03	0.84	0.99	0.80	0.56	-0.34	-0.58	-0.82	-0.67	0.03	0.56	
15.81 GHz	INTERCEPT (mV)	1756															Measured Value (mV)
	SLOPE (mV/dB)	18.8															ERROR (mV)
	LIN. ERR. (dB)	0.8															LINEARITY ERROR (dB)
		647	626	716	806	902	1011	1108	1202	1302	1382	1471	1561	1659	1757	1848	
		11	-4	-8	-12	-10	5	9	9	15	1	-4	-8	-3	1	-2	
		0.56	-0.23	-0.43	-0.63	-0.52	0.29	0.46	0.47	0.80	0.06	-0.20	-0.40	-0.18	0.05	-0.11	
18 GHz	INTERCEPT (mV)	1748															Measured Value (mV)
	SLOPE (mV/dB)	18.9															ERROR (mV)
	LIN. ERR. (dB)	1.04															LINEARITY ERROR (dB)
		633	608	697	785	881	991	1094	1189	1294	1377	1460	1552	1651	1746	1837	
		18	4	-3	-15	15	1	8	8	20	8	-4	-8	-2	-2	-6	
		0.84	-0.20	-0.50	-0.85	-0.78	0.03	0.47	0.49	1.04	0.42	-0.19	-0.33	-0.10	-0.08	-0.28	

Avg. Slope: 18.1 mV/dB

Flatness dB: ±1.9 dB

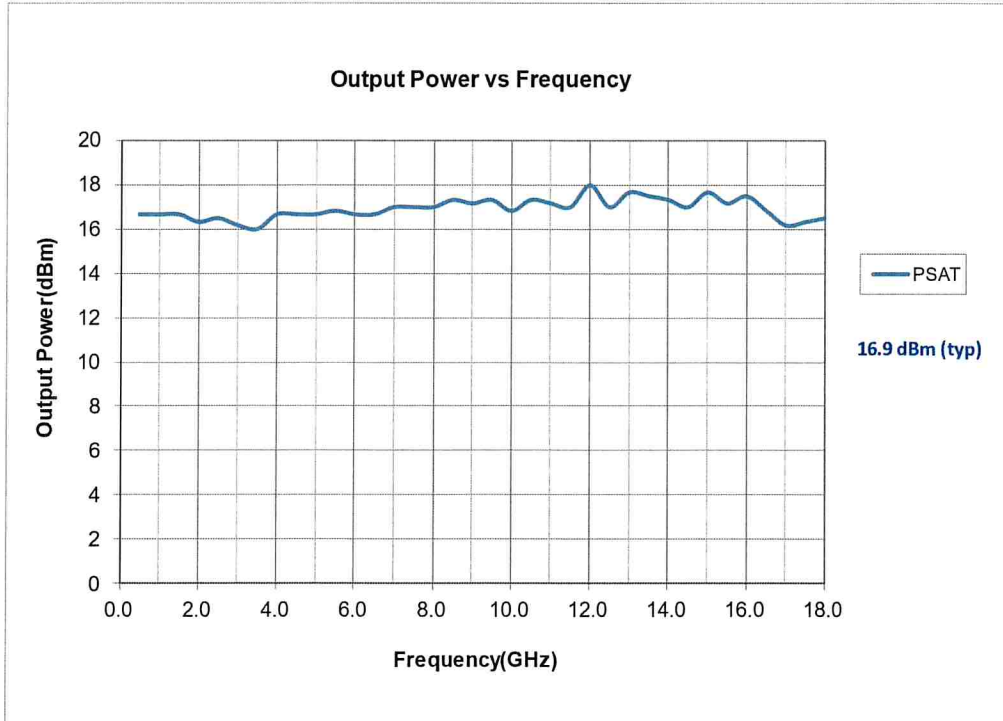




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ON
SDLVA-2020-70 Opt 0518 A03
A07-50OHM**

PL37462/2234

Saturated Output Power



Input VSWR

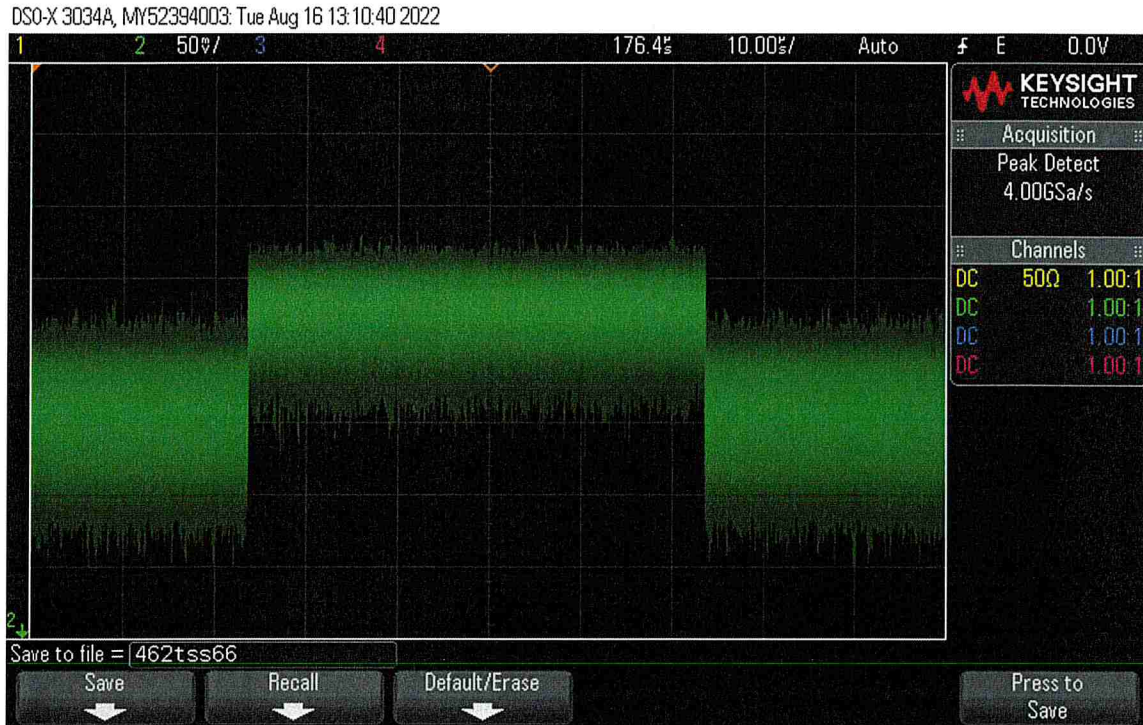




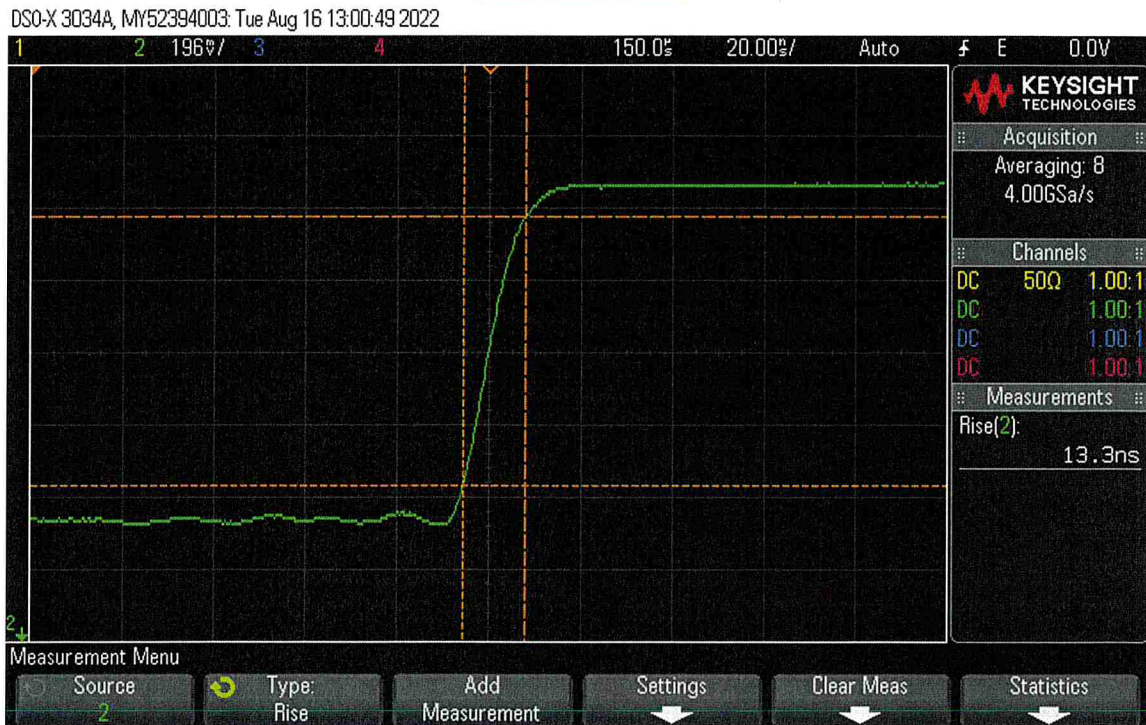
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A07-50OHM**

PL37462/2234

TSS Plot



Rise Time Plot





SUMMARY TEST DATA
ON
SDLVA-2020-70 Opt 0518 A03
A07-50OHM

PL37462/2234

Recovery Time Plot

DSO-X 3034A, MY52394003: Tue Aug 16 13:02:00 2022

