



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

PL37461/2234

Tested By: J. Boze
 Temperature: +25°C
 Date: 8/23/22
 Serial No: PL37461/2234 Drawing No: 27610088 Rev: A1

TEST. ITEM NO	PARAMETERS	SPECIFIED VALUE	TEST RESULTS	QA QC
1	Frequency Range:	0.5 GHz to 18.0 GHz	0.5 to 18.0 GHz See Plot	PMI QA3
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)	±1.48 dB See Plot	
4	TSS:	-65 dBm Max (8.0 to 18.0 GHz)	-65.0 dBm See Plot	
5	VSWR:	3.0:1 (0.5 to 18.0 GHz @ -20 dBm)	2.10:1 See Plot	
6	Logging Range	-65 dBm to +5 dBm	-65 to +5 dBm See Plot	
7	Log Slope	20 mV/dB (±10% Tolerance)	19.8 mV/dB See Plot	
8	Log Temperature Stability:	±1.75 dB (0°C to 60°C)	±1.48 dB See Plot	
9	Rise Time (10% to 90%):	20 ns Max	15.0 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.	+17.2 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	480 mA 100 mA	

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



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

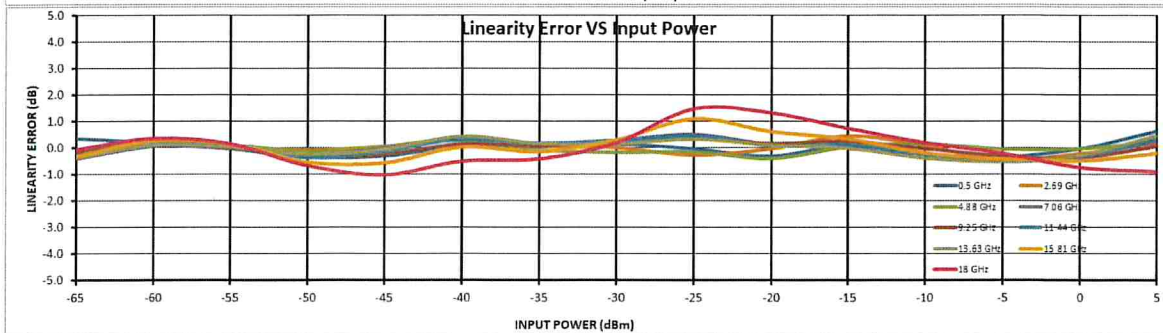
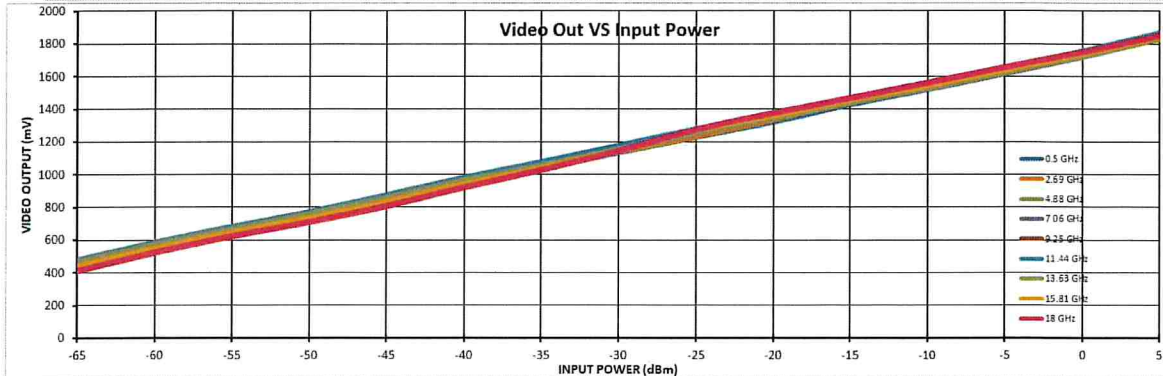
PL37461/2234

Model: SDLVA-2020-70 OPT. 0518, A03, A07-50OHM
Serial No: PL37461
Date: 08/23/22
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)	1716															Measured Value (mV)
	SLOPE (mV/dB)	19.6															ERROR (mV)
	LIN. ERR. (dB)	0.6															LINEARITY ERROR (dB)
		447	642	636	728	827	932	1030	1130	1225	1318	1424	1516	1612	1716	1827	
		7	4	0	-7	-6	1	1	3	-1	-6	2	-4	-6	0	12	
		0.36	0.19	-0.02	-0.33	-0.29	0.05	0.04	0.14	-0.03	0.11	-0.21	-0.32	-0.02	0.63		
2.69 GHz	INTERCEPT (mV)	1727															Measured Value (mV)
	SLOPE (mV/dB)	19.7															ERROR (mV)
	LIN. ERR. (dB)	0.46															LINEARITY ERROR (dB)
		441	549	646	742	843	947	1040	1137	1230	1333	1441	1532	1620	1723	1829	
		-0.37	2	1	-1	1	7	2	0	-5	-1	9	2	-9	-4	3	
		-0.37	0.12	0.05	-0.07	0.05	0.35	0.08	0.01	-0.27	-0.03	0.46	0.08	-0.45	-0.21	0.18	
4.88 GHz	INTERCEPT (mV)	1754															Measured Value (mV)
	SLOPE (mV/dB)	19.7															ERROR (mV)
	LIN. ERR. (dB)	0.39															LINEARITY ERROR (dB)
		468	675	671	765	867	970	1062	1159	1258	1352	1459	1560	1655	1754	1858	
		-3	5	2	-2	1	5	-1	-3	-3	-8	1	3	-1	0	5	
		-0.16	0.26	0.12	-0.12	0.05	0.26	-0.08	-0.16	-0.15	-0.39	0.03	0.15	-0.04	-0.02	0.24	
7.06 GHz	INTERCEPT (mV)	1742															Measured Value (mV)
	SLOPE (mV/dB)	19.5															ERROR (mV)
	LIN. ERR. (dB)	0.52															LINEARITY ERROR (dB)
		464	571	667	760	863	968	1062	1162	1264	1364	1449	1542	1635	1736	1845	
		-8	1	-1	-5	0	7	4	6	10	2	0	-5	-10	-4	5	
		-0.42	0.06	-0.03	-0.27	0.00	0.37	0.18	0.30	0.52	0.13	-0.01	-0.25	-0.49	-0.33	0.25	
9.25 GHz	INTERCEPT (mV)	1763															Measured Value (mV)
	SLOPE (mV/dB)	19.9															ERROR (mV)
	LIN. ERR. (dB)	0.37															LINEARITY ERROR (dB)
		467	574	670	762	864	971	1069	1171	1273	1369	1470	1564	1658	1756	1864	
		-4	4	0	-7	-5	3	2	1	7	3	5	9	-8	-7	1	
		-0.19	0.19	0.01	-0.36	-0.23	0.15	0.08	0.21	0.34	0.17	0.25	-0.02	-0.30	-0.37	0.05	
11.44 GHz	INTERCEPT (mV)	1758															Measured Value (mV)
	SLOPE (mV/dB)	19.6															ERROR (mV)
	LIN. ERR. (dB)	0.52															LINEARITY ERROR (dB)
		476	583	679	789	872	979	1074	1174	1276	1367	1466	1557	1650	1752	1864	
		-6	3	1	-7	-3	6	3	5	9	1	2	-5	-10	-6	7	
		-0.29	0.15	0.04	-0.38	-0.13	0.32	0.15	0.24	0.44	0.07	0.11	-0.26	-0.62	-0.33	0.38	
13.63 GHz	INTERCEPT (mV)	1728															Measured Value (mV)
	SLOPE (mV/dB)	19.3															ERROR (mV)
	LIN. ERR. (dB)	0.51															LINEARITY ERROR (dB)
		468	574	669	760	860	966	1057	1153	1253	1345	1439	1528	1622	1723	1834	
		-7	2	1	-5	-1	9	3	3	7	2	0	-8	-10	-5	9	
		-0.39	0.11	0.04	-0.24	-0.05	0.45	0.17	0.15	0.34	0.11	-0.01	-0.39	-0.51	-0.27	0.48	
15.81 GHz	INTERCEPT (mV)	1742															Measured Value (mV)
	SLOPE (mV/dB)	19.9															ERROR (mV)
	LIN. ERR. (dB)	1.08															LINEARITY ERROR (dB)
		444	555	652	738	837	948	1044	1152	1267	1357	1451	1540	1635	1733	1838	
		-6	5	3	-10	-11	1	-3	6	22	12	7	-4	-8	-9	-4	
		-0.32	0.27	0.15	-0.53	-0.55	0.04	-0.13	0.30	1.08	0.61	0.34	-0.18	-0.41	-0.48	-0.19	
18 GHz	INTERCEPT (mV)	1763															Measured Value (mV)
	SLOPE (mV/dB)	20.8															ERROR (mV)
	LIN. ERR. (dB)	1.48															LINEARITY ERROR (dB)
		407	520	620	707	804	919	1025	1142	1273	1374	1466	1559	1655	1748	1849	
		-1	8	3	-14	-11	-10	8	4	21	28	15	1	-4	-15	-13	
		-0.05	0.37	0.16	-0.67	-1.01	-0.50	-0.41	0.20	1.48	1.33	0.74	0.20	-0.20	-0.74	-0.89	
Avg. Slope: 19.8 mV/dB		1.7	1.6	1.5	1.6	1.7	1.5	1.2	1.1	1.3	1.4	1.2	1.2	1.2	1	0.9	Flatness dB: ±1.7 dB





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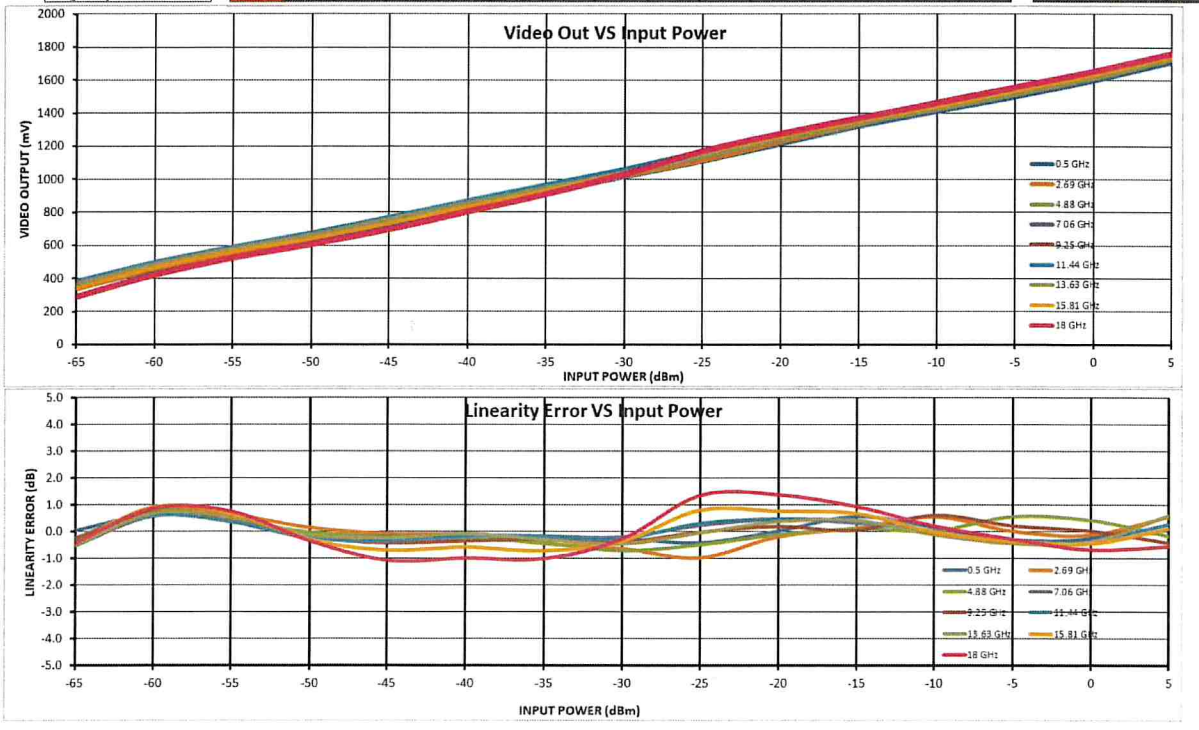
Model: SDLVA-2020-70 OPT. 0518, A03, A07-50OHM
Serial No: PL37461
Date: 08/16/22
Tested By: J Boze
Test Temp: 0°C

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)	1600															Measured Value (mV)
	SLOPE (mV/dB)	19.3															ERROR (mV)
	LIN. ERR. (dB)	0.6															LINEARITY ERROR (dB)
		344	452	544	630	722	821	917	1015	1109	1214	1321	1410	1498	1596	1708	
		1	12	7	-3	-8	-6	-8	-5	-9	1	11	3	-6	-4	11	
		0.04	0.63	0.39	-0.17	-0.41	-0.29	-0.33	-0.26	-0.40	0.03	0.56	0.16	-0.29	-0.22	0.57	
2.69 GHz	INTERCEPT (mV)	1625															Measured Value (mV)
	SLOPE (mV/dB)	19.7															ERROR (mV)
	LIN. ERR. (dB)	0.96															LINEARITY ERROR (dB)
		334	458	563	642	736	834	926	1021	1113	1227	1332	1439	1527	1623	1735	
		-9	16	13	3	-1	-2	-9	-12	-19	-4	3	11	1	-2	11	
		-0.45	0.83	0.65	0.16	-0.07	-0.11	-0.44	-0.63	-0.96	-0.18	0.14	0.57	0.03	-0.11	0.57	
4.88 GHz	INTERCEPT (mV)	1642															Measured Value (mV)
	SLOPE (mV/dB)	19.5															ERROR (mV)
	LIN. ERR. (dB)	0.82															LINEARITY ERROR (dB)
		369	487	578	666	761	857	951	1043	1145	1250	1352	1448	1556	1651	1737	
		-4	16	9	0	-3	-5	-8	-14	-9	-2	2	1	11	9	-3	
		-0.23	0.82	0.48	-0.01	-0.15	-0.23	-0.42	-0.70	-0.48	-0.10	0.12	0.04	0.57	0.44	-0.15	
7.06 GHz	INTERCEPT (mV)	1631															Measured Value (mV)
	SLOPE (mV/dB)	19.3															ERROR (mV)
	LIN. ERR. (dB)	0.57															LINEARITY ERROR (dB)
		364	482	576	661	757	855	951	1047	1162	1253	1347	1438	1526	1624	1733	
		-10	11	7	-3	-4	-3	-3	-4	4	9	6	0	8	-7	5	
		-0.54	0.57	0.38	-0.17	-0.21	-0.14	-0.17	-0.21	0.22	0.45	0.31	0.02	-0.43	-0.36	0.28	
9.25 GHz	INTERCEPT (mV)	1656															Measured Value (mV)
	SLOPE (mV/dB)	19.8															ERROR (mV)
	LIN. ERR. (dB)	0.73															LINEARITY ERROR (dB)
		367	485	577	664	759	859	959	1056	1162	1265	1361	1471	1562	1657	1747	
		-5	14	8	-4	-8	-7	-6	-7	0	4	1	12	5	1	-8	
		-0.24	0.73	0.39	-0.21	-0.40	-0.34	-0.28	-0.37	-0.01	0.20	0.06	0.63	0.23	0.04	-0.41	
11.44 GHz	INTERCEPT (mV)	1642															Measured Value (mV)
	SLOPE (mV/dB)	19.4															ERROR (mV)
	LIN. ERR. (dB)	0.6															LINEARITY ERROR (dB)
		376	492	584	669	764	864	961	1056	1164	1264	1359	1448	1538	1635	1744	
		-8	12	7	-5	-7	-4	-3	-5	6	9	7	0	-7	-7	5	
		-0.39	0.80	0.36	-0.26	-0.35	-0.18	-0.17	-0.27	0.31	0.47	0.38	-0.02	-0.38	-0.37	0.26	
13.63 GHz	INTERCEPT (mV)	1621															Measured Value (mV)
	SLOPE (mV/dB)	19.2															ERROR (mV)
	LIN. ERR. (dB)	0.68															LINEARITY ERROR (dB)
		362	481	574	658	752	851	943	1036	1140	1244	1341	1427	1517	1614	1729	
		-10	13	10	-2	-4	-1	-5	-9	-1	7	8	-2	-8	-7	12	
		-0.52	0.68	0.52	-0.11	-0.22	-0.07	-0.29	-0.45	-0.04	0.37	0.42	-0.10	-0.42	-0.37	0.61	
15.81 GHz	INTERCEPT (mV)	1643															Measured Value (mV)
	SLOPE (mV/dB)	20															ERROR (mV)
	LIN. ERR. (dB)	0.92															LINEARITY ERROR (dB)
		337	464	559	639	731	833	930	1037	1160	1259	1357	1443	1536	1634	1745	
		-9	18	14	-6	-14	-12	-14	-7	16	15	13	0	-7	-9	2	
		-0.44	0.92	0.68	-0.31	-0.70	-0.89	-0.73	-0.36	0.80	0.76	0.67	-0.02	-0.36	-0.45	0.12	
18 GHz	INTERCEPT (mV)	1669															Measured Value (mV)
	SLOPE (mV/dB)	21.1															ERROR (mV)
	LIN. ERR. (dB)	1.4															LINEARITY ERROR (dB)
		290	423	526	608	698	805	910	1031	1171	1277	1373	1463	1558	1655	1763	
		8	18	16	7	23	21	21	6	29	29	20	5	-8	-14	-12	
		-0.42	0.89	0.77	-0.34	-1.07	-0.99	-1.01	-0.27	1.37	1.40	0.95	0.22	-0.27	-0.67	-0.56	

Avg. Slope: 19.7 mV/dB 2.2 1.8 1.5 1.5 1.7 1.5 1.3 1 1.6 1.6 1.3 1.5 1.6 1.5 1.4 Flatness dB: ±2.2 dB





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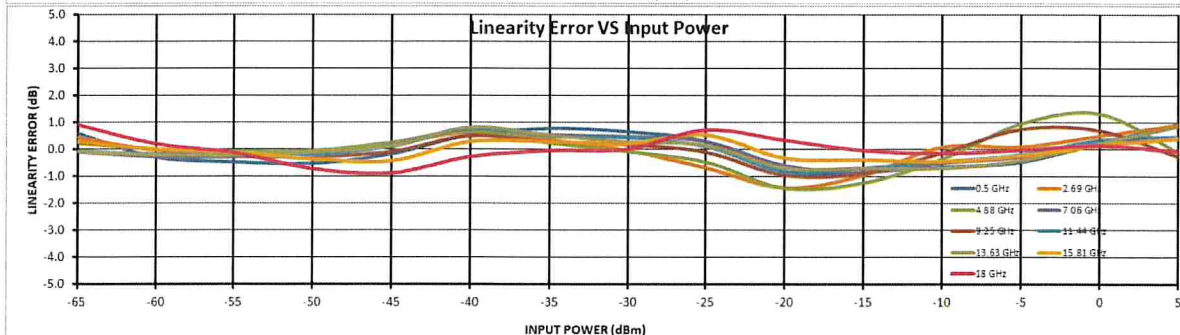
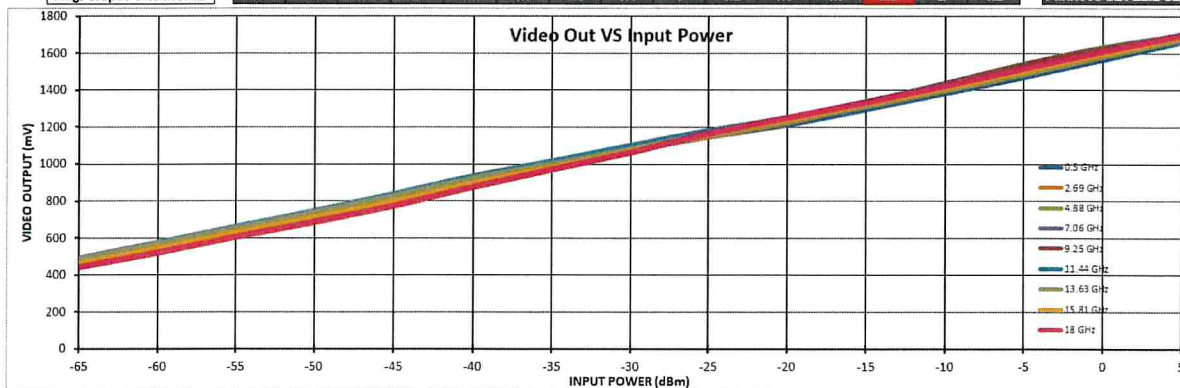
PL37461/2234

Model: SDLVA-2020-70 OPT. 0518, A03, A07-50OHM
Serial No: PL37461
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)	479	548	629	712	802	898	986	1068	1146	1211	1295	1382	1469	1565	1661	Measured Value (mV)
	SLOPE (mV/dB)	10	-5	-8	-9	-3	9	13	11	5	-14	-14	-11	-8	4	16	ERROR (mV)
	LIN. ERR. (dB)	0.61	-0.28	-0.46	-0.52	-0.16	0.55	0.79	0.31	-0.82	-0.82	-0.64	-0.46	0.25	0.97	LINEARITY ERROR (dB)	
2.69 GHz	INTERCEPT (mV)	475	554	639	726	818	913	995	1075	1151	1225	1320	1425	1512	1606	1700	Measured Value (mV)
	SLOPE (mV/dB)	8	0	-2	-2	3	11	6	-1	-12	-24	-16	2	2	9	16	ERROR (mV)
	LIN. ERR. (dB)	0.45	-0.01	-0.12	-0.11	0.18	0.65	0.36	-0.03	-0.66	-1.40	-0.94	0.10	0.11	0.52	0.92	LINEARITY ERROR (dB)
4.88 GHz	INTERCEPT (mV)	489	572	657	744	836	930	1009	1090	1170	1240	1330	1432	1541	1634	1696	Measured Value (mV)
	SLOPE (mV/dB)	4	0	-1	-1	5	12	4	-1	-8	-25	-21	-6	17	23	-2	ERROR (mV)
	LIN. ERR. (dB)	0.23	0.03	-0.07	-0.05	0.26	0.69	0.25	-0.08	-0.46	-1.42	-1.22	-0.34	0.95	1.32	-0.10	LINEARITY ERROR (dB)
7.06 GHz	INTERCEPT (mV)	483	565	650	736	828	924	1005	1089	1171	1241	1322	1413	1502	1597	1684	Measured Value (mV)
	SLOPE (mV/dB)	-1	-5	-5	-4	3	14	10	8	5	-10	-14	-8	-8	5	7	ERROR (mV)
	LIN. ERR. (dB)	-0.08	-0.27	-0.28	-0.23	0.17	0.80	0.56	0.49	0.30	-0.59	-0.83	-0.49	-0.27	0.31	0.42	LINEARITY ERROR (dB)
9.25 GHz	INTERCEPT (mV)	482	565	650	736	827	925	1009	1095	1178	1251	1340	1441	1544	1631	1702	Measured Value (mV)
	SLOPE (mV/dB)	5	0	-3	-5	-1	9	5	3	-2	-16	-15	2	13	12	-4	ERROR (mV)
	LIN. ERR. (dB)	0.28	0.01	-0.15	-0.26	-0.07	0.51	0.29	0.19	-0.09	-0.93	-0.86	-0.11	0.75	0.71	-0.25	LINEARITY ERROR (dB)
11.44 GHz	INTERCEPT (mV)	491	575	661	746	837	934	1015	1100	1180	1250	1338	1428	1518	1613	1701	Measured Value (mV)
	SLOPE (mV/dB)	-1	-3	-3	-3	2	13	8	8	2	-14	-12	-7	-3	6	8	ERROR (mV)
	LIN. ERR. (dB)	-0.07	-0.17	-0.16	-0.20	0.10	0.76	0.48	0.44	0.10	-0.81	-0.68	-0.44	-0.19	0.35	0.48	LINEARITY ERROR (dB)
13.63 GHz	INTERCEPT (mV)	485	567	651	737	825	921	1000	1080	1162	1232	1316	1400	1489	1584	1679	Measured Value (mV)
	SLOPE (mV/dB)	-1	-3	-4	-2	2	14	9	5	3	-11	-12	-12	-7	4	15	ERROR (mV)
	LIN. ERR. (dB)	-0.07	-0.20	-0.21	-0.10	0.13	0.84	0.53	0.29	0.16	-0.68	-0.69	-0.70	-0.41	0.24	0.88	LINEARITY ERROR (dB)
15.81 GHz	INTERCEPT (mV)	465	547	632	715	801	901	988	1074	1167	1239	1325	1411	1502	1596	1688	Measured Value (mV)
	SLOPE (mV/dB)	5	0	-2	-6	-7	5	5	4	10	-5	-7	-8	-4	3	8	ERROR (mV)
	LIN. ERR. (dB)	0.31	0.01	-0.12	-0.36	-0.43	0.31	0.29	0.23	0.56	-0.31	-0.38	-0.45	-0.23	0.16	0.43	LINEARITY ERROR (dB)
18 GHz	INTERCEPT (mV)	443	521	606	686	774	876	971	1063	1167	1251	1335	1424	1517	1611	1698	Measured Value (mV)
	SLOPE (mV/dB)	17	3	-3	-13	18	-5	-1	8	13	8	1	-3	-1	3	1	ERROR (mV)
	LIN. ERR. (dB)	0.92	0.20	-0.12	-0.72	-0.88	-0.28	-0.05	0.01	0.73	0.34	-0.04	-0.14	-0.03	0.14	-0.08	LINEARITY ERROR (dB)
Avg. Slope: 17.3 mV/dB		1.4	1.6	1.6	1.7	1.8	1.7	1.3	1.1	1	1.2	1.3	1.7	2.2	2	1.2	Flatness dB: ±2.2 dB

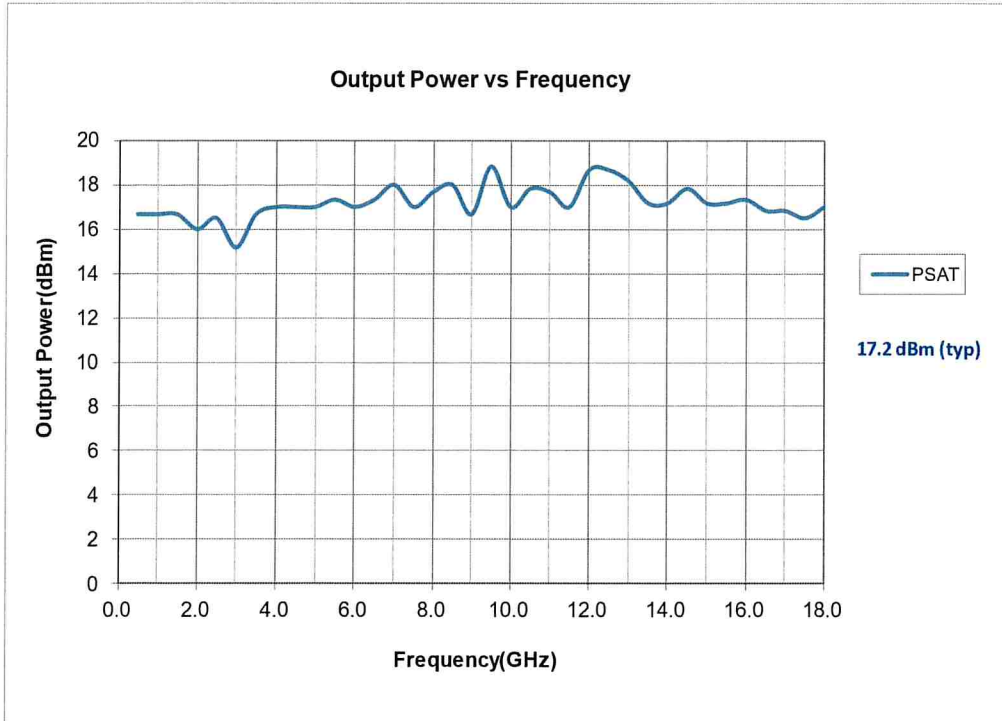




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ON
SDLVA-2020-70 Opt 0518 A03
A07-50OHM**

PL37461/2234

Saturated Output Power



Input VSWR

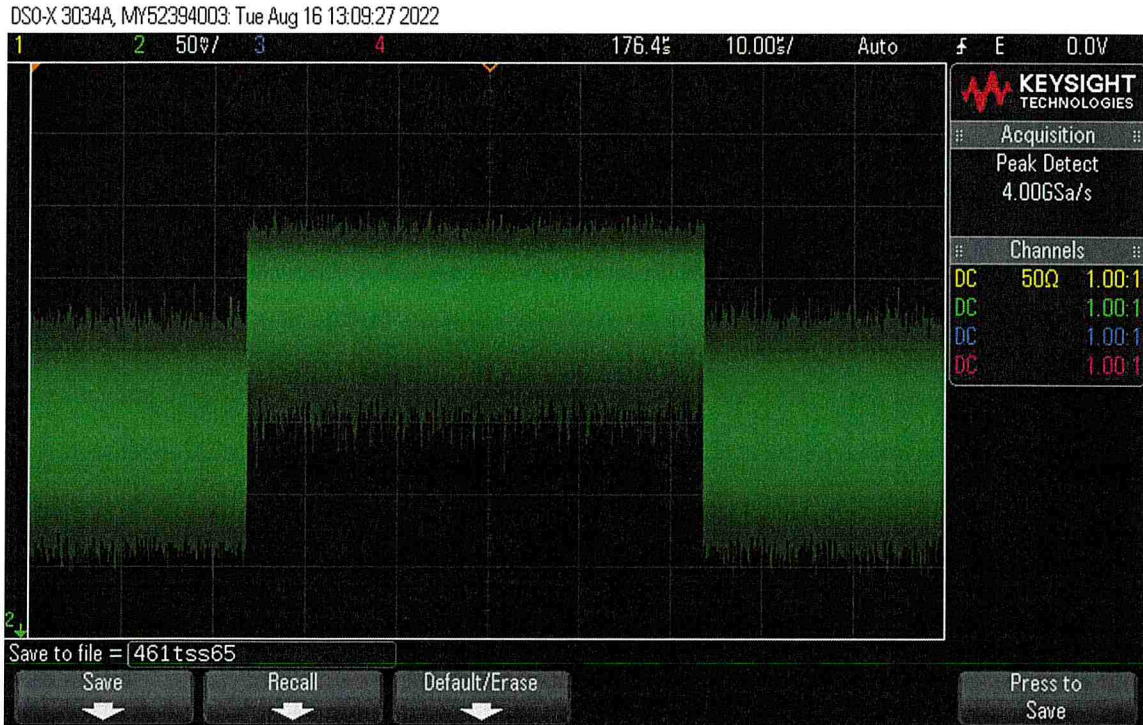




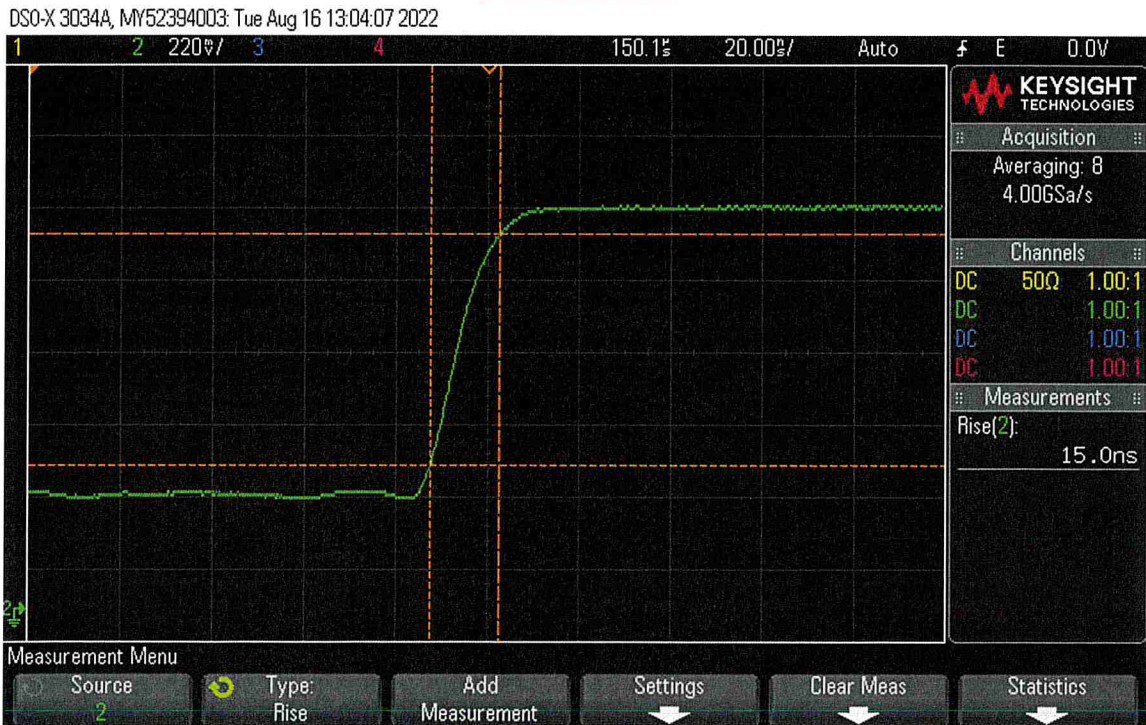
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A07-50OHM**

PL37461/2234

TSS Plot



Rise Time Plot





SUMMARY TEST DATA
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A07-50OHM

PL37461/2234

Recovery Time Plot

DSO-X 3034A, MY52394003: Tue Aug 16 13:03:18 2022

