



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

PL37460/2234

Customer: _____ Tested By: J. Boze
SO No: _____ Temperature: +25°C
Model No: SDLVA-2020-70 Opt 0518 A03 A07-50OHM Date: 8/23/22
Serial No: PL37460/2234 Drawing No: 27610088 Rev: A1

TEST. ITEM NO	PARAMETERS	SPECIFIED VALUE	TEST RESULTS	QA QC PMI 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)	±1.38 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)	1.71:1 See Plot	
6	Logging Range	-65 dBm to +5 dBm	-65 to +5 dBm See Plot	
7	Log Slope	20 mV/dB (±10% Tolerance)	18.9 mV/dB See Plot	
8	Log Temperature Stability:	±1.75 dB (0°C to 60°C)	±1.60 dB See Plot	
9	Rise Time (10% to 90%):	20 ns Max	18.3 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.	+17.0 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:  Date: 8.23.22



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PL37460/2234

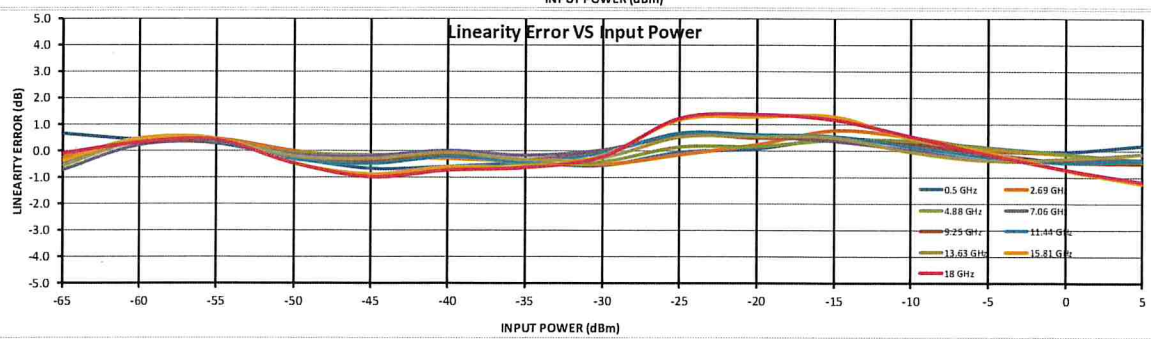
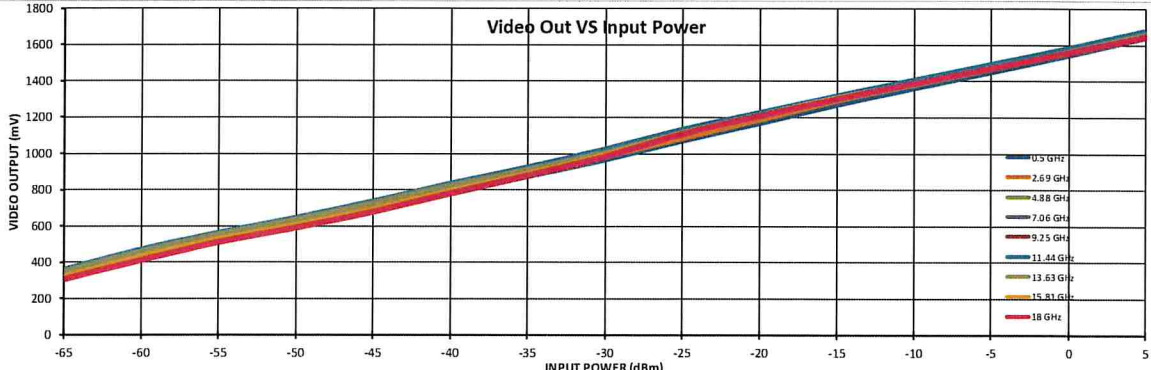
Model: SDLVA-2020-70 OPT. 0518, A03, A07-500HM
Serial No: PL37460
Date: 08/23/22
Tested By: J Boze
Test Temp: +25°C

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)	1543															Measured Value (mV)
	SLOPE (mV/dB)	18.9															ERROR (mV)
	LIN. ERR. (dB)	0.7															LINEARITY ERROR (dB)
		327	417	509	593	680	776	873	966	1070	1167	1269	1360	1449	1543	1642	
		13	8	6	-5	-12	-11	-9	-10	-1	2	9	6	0	0	4	
		0.68	0.44	0.30	-0.26	-0.66	-0.58	-0.45	-0.53	-0.03	0.10	0.49	0.30	0.01	-0.02	0.21	
2.69 GHz	INTERCEPT (mV)	1581															Measured Value (mV)
	SLOPE (mV/dB)	19															ERROR (mV)
	LIN. ERR. (dB)	0.78															LINEARITY ERROR (dB)
		324	431	527	613	702	797	889	982	1084	1186	1291	1381	1467	1558	1647	
		-5	8	9	0	-6	-5	-8	-10	-3	5	15	10	1	-3	-8	
		-0.24	0.40	0.47	0.01	-0.30	-0.28	-0.43	-0.52	-0.14	0.24	0.78	0.53	0.06	-0.13	-0.44	
4.88 GHz	INTERCEPT (mV)	1585															Measured Value (mV)
	SLOPE (mV/dB)	18.7															ERROR (mV)
	LIN. ERR. (dB)	0.48															LINEARITY ERROR (dB)
		362	471	562	648	740	834	921	1016	1120	1214	1312	1405	1494	1583	1672	
		-6	9	6	-1	-3	-2	-9	-8	3	3	8	7	2	-2	-7	
		-0.35	0.48	0.34	-0.07	-0.15	-0.13	-0.48	-0.41	0.15	0.17	0.41	0.38	0.13	-0.11	-0.36	
7.06 GHz	INTERCEPT (mV)	1565															Measured Value (mV)
	SLOPE (mV/dB)	18.5															ERROR (mV)
	LIN. ERR. (dB)	0.73															LINEARITY ERROR (dB)
		352	462	556	640	731	827	916	1012	1115	1206	1295	1381	1466	1558	1651	
		-13	4	6	-2	-3	0	-3	1	12	10	7	1	-6	-7	-6	
		-0.73	0.24	0.33	-0.12	-0.19	0.02	-0.16	0.04	0.63	0.56	0.38	0.04	-0.35	-0.37	-0.33	
9.25 GHz	INTERCEPT (mV)	1583															Measured Value (mV)
	SLOPE (mV/dB)	18.8															ERROR (mV)
	LIN. ERR. (dB)	0.6															LINEARITY ERROR (dB)
		352	462	555	639	730	828	919	1018	1124	1216	1310	1399	1487	1575	1668	
		-9	7	6	-4	-7	-3	-6	-1	11	9	8	4	-2	-8	-9	
		-0.48	0.37	0.32	-0.21	-0.37	-0.15	-0.31	-0.04	0.60	0.49	0.49	0.23	-0.09	-0.40	-0.46	
11.44 GHz	INTERCEPT (mV)	1592															Measured Value (mV)
	SLOPE (mV/dB)	18.8															ERROR (mV)
	LIN. ERR. (dB)	0.67															LINEARITY ERROR (dB)
		360	471	563	645	736	835	926	1026	1134	1227	1320	1407	1494	1584	1680	
		-8	9	7	-6	-9	-4	-7	-1	13	11	10	3	-4	-8	-6	
		-0.43	0.47	0.35	-0.30	-0.46	-0.21	-0.37	-0.06	0.67	0.61	0.55	0.17	-0.21	-0.43	-0.34	
13.63 GHz	INTERCEPT (mV)	1567															Measured Value (mV)
	SLOPE (mV/dB)	18.6															ERROR (mV)
	LIN. ERR. (dB)	0.54															LINEARITY ERROR (dB)
		351	461	555	636	727	824	912	1006	1113	1206	1298	1381	1468	1562	1658	
		-10	7	8	-3	-5	-1	-6	-5	10	10	9	-1	-6	-5	-2	
		-0.54	0.38	0.45	-0.18	-0.28	-0.05	-0.31	-0.24	0.52	0.53	0.49	-0.03	-0.35	-0.28	-0.11	
15.81 GHz	INTERCEPT (mV)	1576															Measured Value (mV)
	SLOPE (mV/dB)	19.2															ERROR (mV)
	LIN. ERR. (dB)	1.29															LINEARITY ERROR (dB)
		322	434	530	608	696	797	893	997	1119	1217	1313	1393	1479	1562	1648	
		-7	9	9	-9	-17	-12	-12	-4	23	25	25	9	-1	-14	-24	
		-0.38	0.46	0.47	-0.47	-0.88	-0.61	-0.61	-0.18	1.18	1.29	1.29	0.46	-0.05	-0.73	-1.24	
18 GHz	INTERCEPT (mV)	1572															Measured Value (mV)
	SLOPE (mV/dB)	19.4															ERROR (mV)
	LIN. ERR. (dB)	1.38															LINEARITY ERROR (dB)
		308	413	512	592	679	781	880	985	1110	1210	1303	1388	1472	1558	1646	
		-2	6	8	-4	-19	-14	-12	-4	24	27	23	11	-2	-14	-23	
		-0.08	0.32	0.42	-0.46	-0.97	-0.72	-0.62	-0.21	1.23	1.38	1.17	0.55	-0.13	-0.70	-1.17	

Avg. Slope: 18.9 mV/dB Flatness dB: ±1.7 dB





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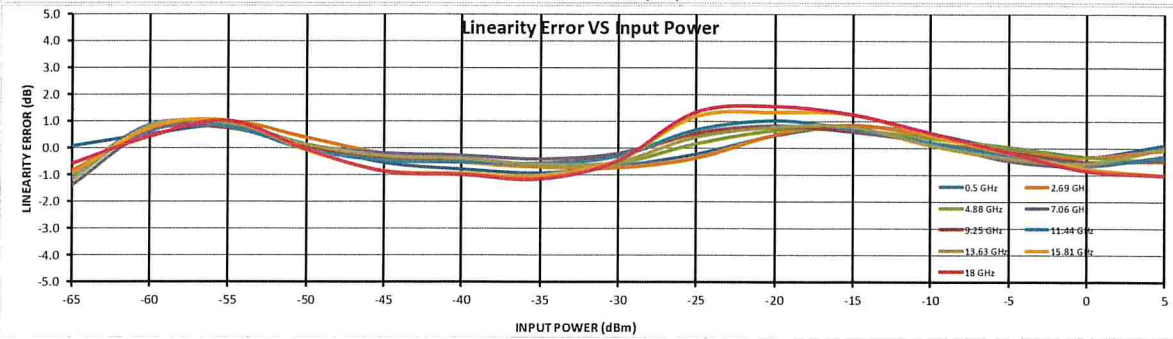
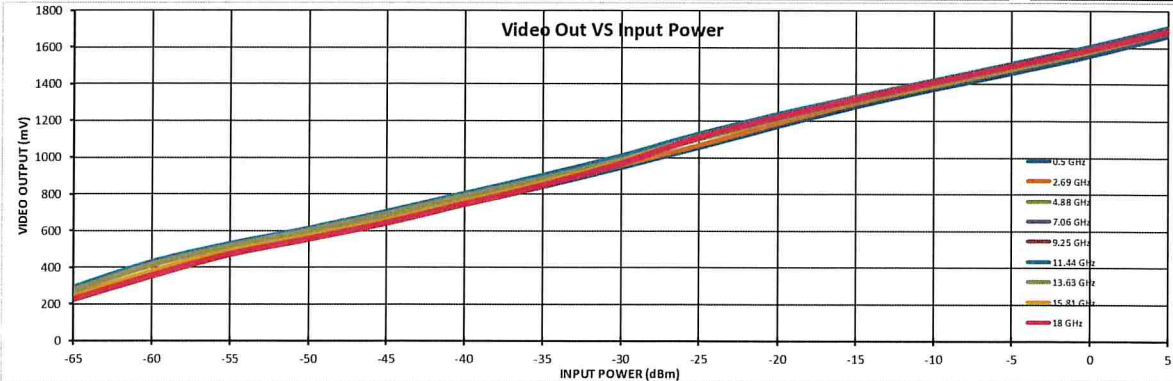
Model: SDLVA-2020-70 OPT. 0518, A03, A07-50OHM
Serial No: PL37460
Date: 08/15/22
Tested By: J Boze
Test Temp: 0°C

TRANSFER RESPONSE @ 0°C



Frequency		-85	-80	-75	-70	-65	-60	-55	-50	-45	-40	-35	-30	-25	-20	-15	-10	-5	0	5	RF Input Power (dBm)
0.5 GHz	INTERCEPT (mV)	1564																			Measured Value (mV)
	SLOPE (mV/dB)	20.2																			ERROR (mV)
	LN. ERR. (dB)	0.9																			LINEARITY ERROR (dB)
		254	364	471	558	645	741	839	945	1055	1170	1278	1373	1462	1557	1667					
		1	10	17	3	-11	-16	-19	-14	-4	10	17	11	-1	-7	2					
		0.07	0.52	0.82	0.14	-0.55	-0.79	-0.93	-0.67	-0.22	0.48	0.84	0.55	-0.04	-0.33	0.12					
2.69 GHz	INTERCEPT (mV)	1585																			Measured Value (mV)
	SLOPE (mV/dB)	20.3																			ERROR (mV)
	LN. ERR. (dB)	1.02																			LINEARITY ERROR (dB)
		248	380	489	578	667	762	860	961	1070	1189	1298	1391	1481	1578	1685					
		-17	13	21	8	-4	-11	-14	-15	-7	10	18	9	-2	-7	-1					
		-0.86	0.65	1.02	0.40	-0.21	-0.53	-0.71	-0.73	-0.36	0.50	0.87	0.46	-0.11	-0.33	-0.06					
4.88 GHz	INTERCEPT (mV)	1605																			Measured Value (mV)
	SLOPE (mV/dB)	19.9																			ERROR (mV)
	LN. ERR. (dB)	1																			LINEARITY ERROR (dB)
		294	430	528	614	706	802	897	998	1112	1221	1321	1414	1507	1599	1695					
		-20	17	15	2	-5	-9	-13	-11	3	13	14	7	1	-6	-10					
		-1.00	0.85	0.78	0.11	-0.26	-0.43	-0.65	-0.56	0.17	0.66	0.69	0.38	0.06	-0.31	-0.48					
7.06 GHz	INTERCEPT (mV)	1591																			Measured Value (mV)
	SLOPE (mV/dB)	19.7																			ERROR (mV)
	LN. ERR. (dB)	1.4																			LINEARITY ERROR (dB)
		280	419	520	606	699	796	892	995	1109	1213	1307	1398	1483	1578	1684					
		-28	13	15	2	-3	-5	-8	-4	12	17	12	5	-9	-13	-9					
		-1.40	0.64	0.76	0.11	-0.18	-0.26	-0.40	-0.18	0.59	0.86	0.62	0.23	-0.46	-0.65	-0.28					
9.25 GHz	INTERCEPT (mV)	1607																			Measured Value (mV)
	SLOPE (mV/dB)	20																			ERROR (mV)
	LN. ERR. (dB)	1.14																			LINEARITY ERROR (dB)
		281	421	520	605	697	795	894	1000	1117	1222	1320	1411	1504	1597	1698					
		-23	17	16	0	-8	-10	-11	-5	11	16	14	5	-3	-10	-9					
		-1.14	0.84	0.78	0.02	-0.39	-0.50	-0.56	-0.27	0.56	0.80	0.69	0.23	-0.13	-0.49	-0.45					
11.44 GHz	INTERCEPT (mV)	1613																			Measured Value (mV)
	SLOPE (mV/dB)	20																			ERROR (mV)
	LN. ERR. (dB)	1.08																			LINEARITY ERROR (dB)
		289	428	527	610	702	801	900	1006	1126	1233	1327	1417	1508	1602	1706					
		-22	17	16	-1	-9	-11	-12	-6	14	20	14	4	-5	-11	-8					
		-1.08	0.86	0.80	-0.06	-0.47	-0.53	-0.59	-0.31	0.68	1.02	0.71	0.20	-0.26	-0.57	-0.38					
13.63 GHz	INTERCEPT (mV)	1594																			Measured Value (mV)
	SLOPE (mV/dB)	19.9																			ERROR (mV)
	LN. ERR. (dB)	1.21																			LINEARITY ERROR (dB)
		274	414	516	600	691	789	884	986	1104	1211	1311	1397	1487	1583	1694					
		-24	16	19	3	-6	-8	-12	-10	8	15	16	2	-8	-11	0					
		-1.21	0.81	0.93	0.14	-0.30	-0.38	-0.62	-0.50	0.41	0.78	0.79	0.10	-0.38	-0.57	0.00					
15.81 GHz	INTERCEPT (mV)	1614																			Measured Value (mV)
	SLOPE (mV/dB)	20.8																			ERROR (mV)
	LN. ERR. (dB)	1.36																			LINEARITY ERROR (dB)
		243	382	492	573	661	763	865	981	1119	1226	1328	1416	1506	1598	1697					
		-20	16	22	-1	-17	-19	-21	-9	25	28	26	10	-4	-16	-20					
		-0.94	0.75	1.04	-0.06	-0.83	-0.92	-1.01	-0.43	1.21	1.36	1.26	0.50	-0.17	-0.75	-0.98					
18 GHz	INTERCEPT (mV)	1610																			Measured Value (mV)
	SLOPE (mV/dB)	21.1																			ERROR (mV)
	LN. ERR. (dB)	1.56																			LINEARITY ERROR (dB)
		226	353	471	554	642	745	847	967	1111	1221	1320	1411	1501	1592	1694					
		-13	9	21	-1	-19	-21	-25	-10	29	33	27	12	-3	-18	-21					
		-0.59	0.42	1.02	-0.05	-0.88	-1.00	-1.16	-0.47	1.35	1.56	1.26	0.57	-0.16	-0.85	-1.02					

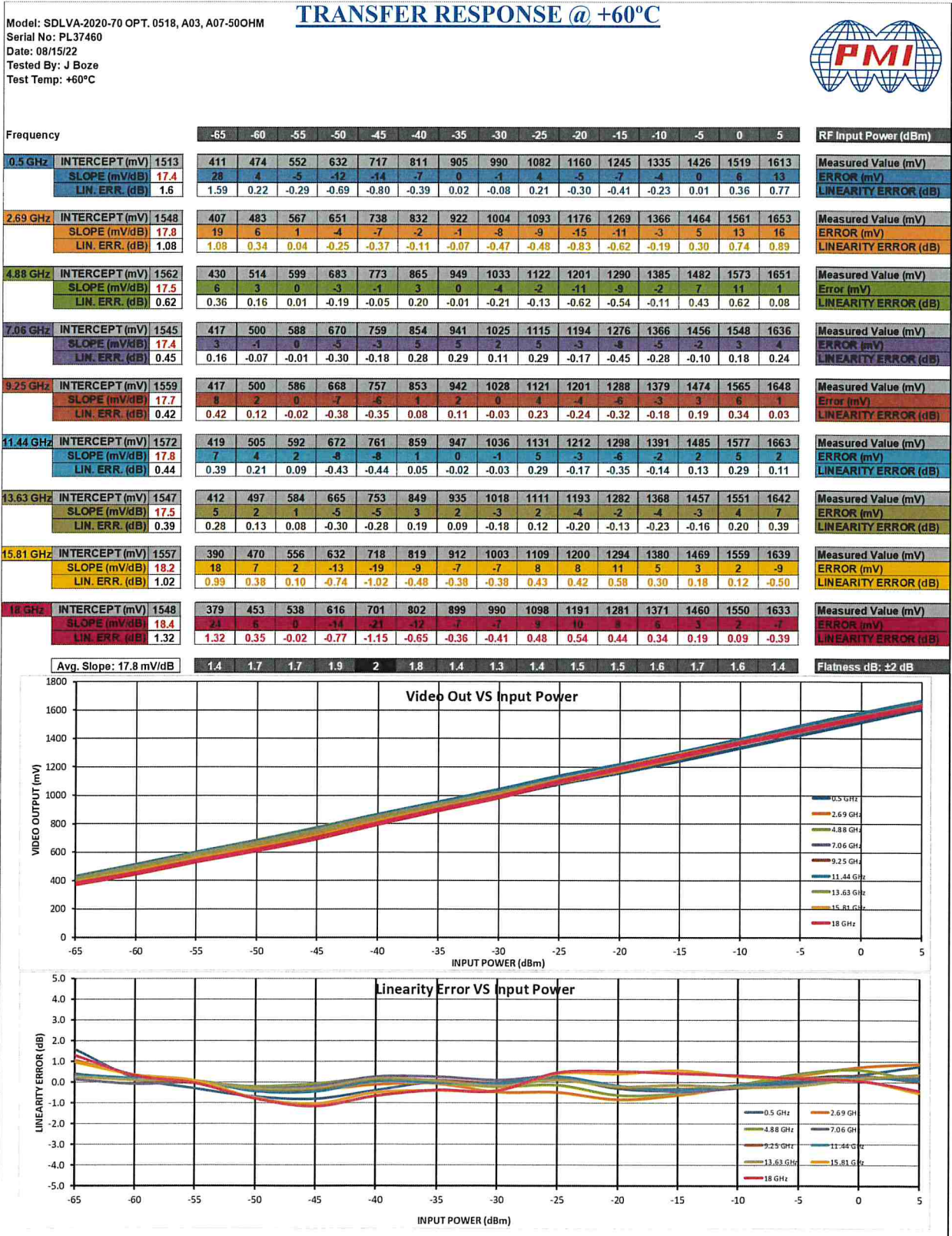
Avg. Slope: 20.2 mV/dB 1.7 1.9 1.4 1.5 1.6 1.5 1.5 1.8 1.6 1.2 1.1 1.1 1.1 1 Flatness dB: ±1.9 dB





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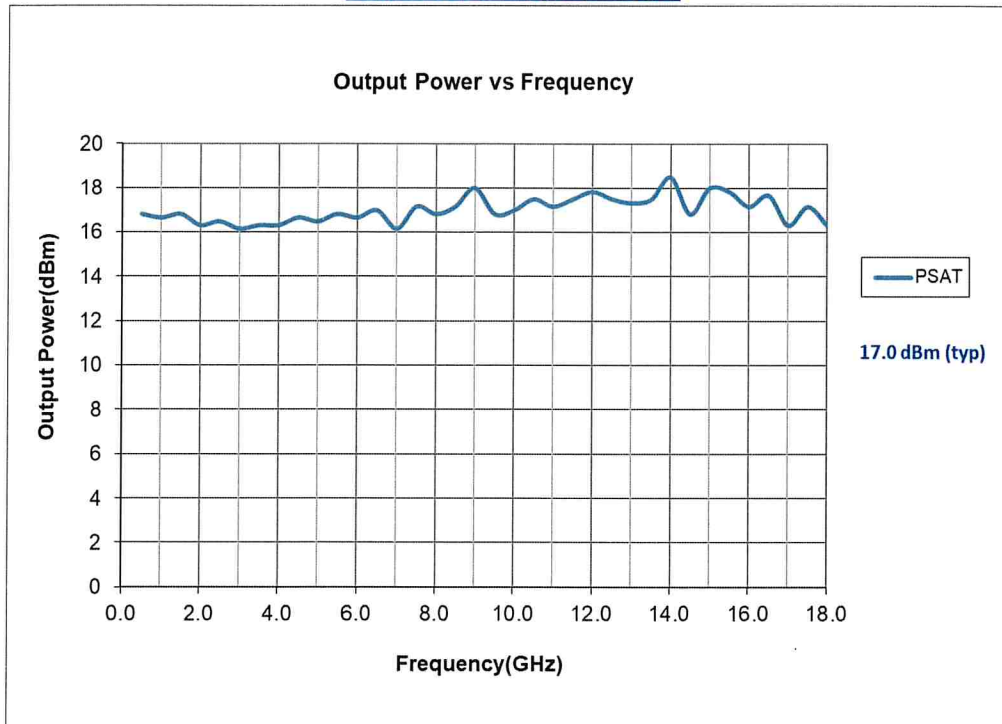




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Saturated Output Power



Input VSWR



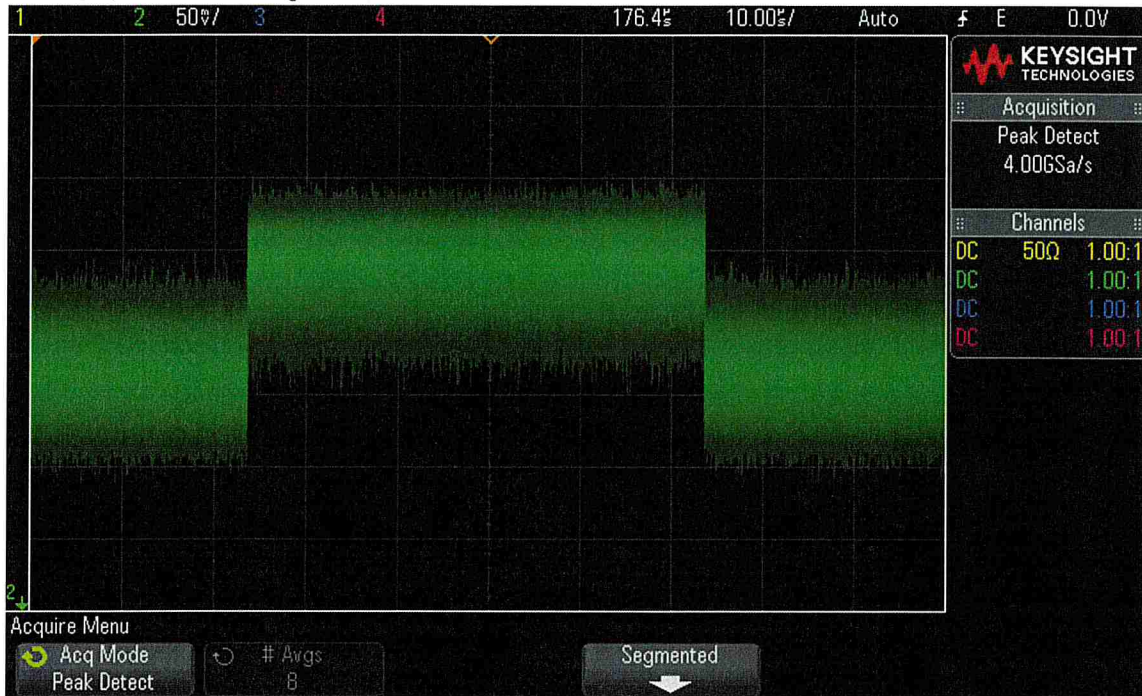


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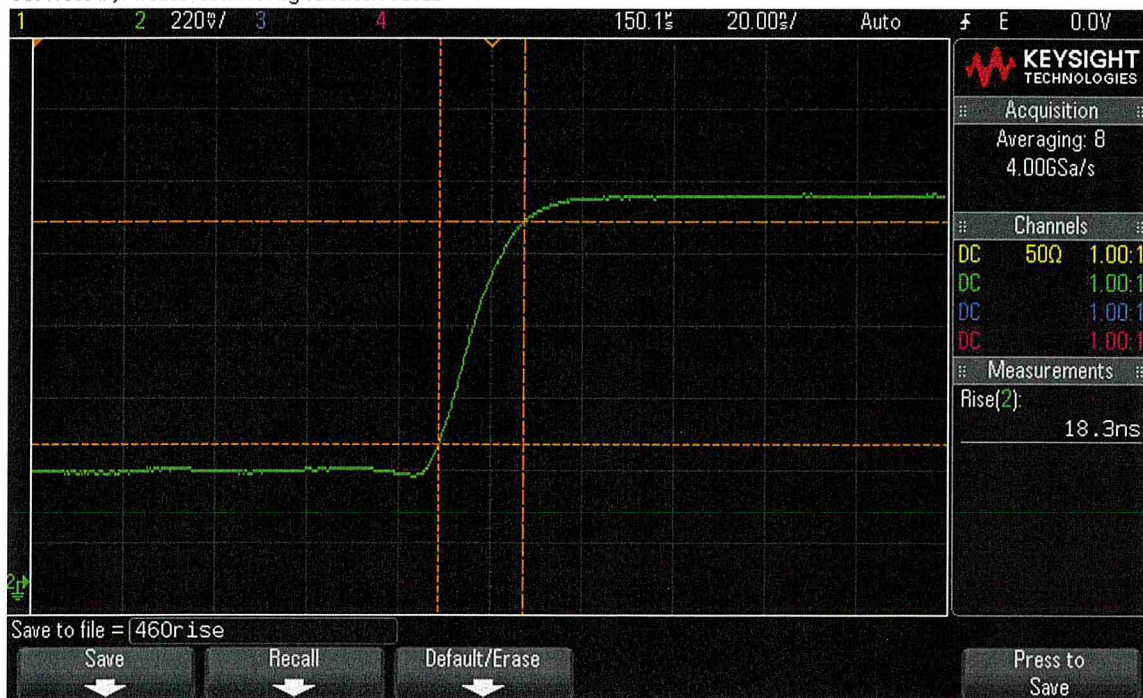
TSS Plot

DSO-X 3034A, MY52394003: Tue Aug 16 13:07:58 2022



Rise Time Plot

DSO-X 3034A, MY52394003: Tue Aug 16 13:05:14 2022





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

PL37460/2234

Recovery Time Plot

DSO-X 3034A, MY52394003: Tue Aug 16 13:06:25 2022

