


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

CUSTOMER: _____
SO: _____
MODEL NO: SDLVA-6G18G-CD-2-OPT218
SERIAL NO: PL42906/2348

TESTED BY: Jim Hopson
TEMPERATURE: +25°C
DATE: 11/27/2023
DRAWING NO: 27623906 REV: A1

TEST ITEM NO:	PARAMETERS	SPECIFIED VALUE	MEASURED VALUE	REMARKS QA/QC
1	Frequency Range	2.0 GHz – 18.0 GHz	GHz - GHz	 PMI QA3
2	Flatness	± 2.0 dB Maximum	± 1.5 dB 25°C See Plots	
3	TSS	-70 dBm Minimum	-71dBm	
4	VSWR	2.0:1 (Input)	1.62:1	
5	Input Power	+17 dBm CW Maximum	Pass	
6	RF Out	+13 dBm ±3 dB Typical	14.6/11.6dBm	
7	Log Slope	25 mV/dB (±10%) 50Ω	25.0 mV/dB See Plot	
8	Log Range	-70 to +5 dBm	See Plots	
9	Log Linearity	±2.5 dB (-40°C - +85°C)	1.32/-1.33dB See Plots	
10	Pulse Range	30 ns to CW	Pass	
11	Rise Time	10 ns (6 ns Typical)	6.0ns	
12	Recovery Time	60 ns Typical	60 ns Typical	
13	DC Supply	+15V or +12V @ 350 mA -15V or -12V @ 180 mA	220 mA 100 mA	

QA/QC Approval: 

Date: 11-27-23

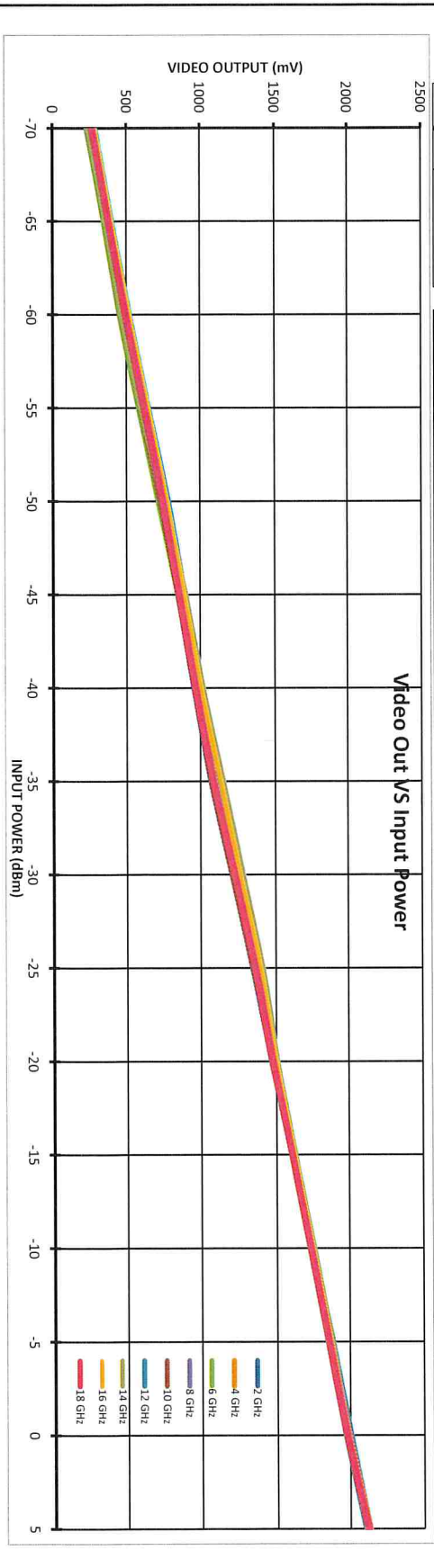


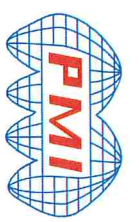
Frequency

Frequency	2 GHz	4 GHz	6 GHz	8 GHz	10 GHz	12 GHz	14 GHz	16 GHz	18 GHz
INTERCEPT (mV)	2010	2008	1997	1981	1998	1989	2009	1998	1983
SLOPE (mV/DB)	25	25.28	25.55	25.06	25.41	24.48	25.15	24.57	24.81
LN. ERR. (DB)	0.8	0.726	0.617	1.218	1.222	0.635	1.162	0.702	1.005
Measured Value (mV)	269	241	224	244	240	275	242	279	260
Error (mV)	9	3	16	18	20	0	-7	1	13
LINEARITY ERROR (dB)	0.36	0.11	0.62	0.71	0.80	0.01	-0.29	0.03	0.54
Measured Value (mV)	386	361	341	362	358	392	362	396	378
Error (mV)	1	-4	5	10	11	-5	-13	-5	7
LINEARITY ERROR (dB)	0.04	-0.14	0.20	0.41	0.44	-0.21	-0.51	-0.21	0.29
Measured Value (mV)	505	478	454	477	474	515	479	519	498
Error (mV)	-5	-13	-10	0	0	-5	-22	-5	3
LINEARITY ERROR (dB)	-0.20	-0.51	-0.38	0.00	0.01	-0.18	-0.86	-0.20	0.13
Measured Value (mV)	628	607	585	604	601	643	612	646	624
Error (mV)	-7	-10	-6	2	2	1	-14	-1	5
LINEARITY ERROR (dB)	-0.28	-0.41	-0.25	0.07	0.08	0.04	-0.57	-0.03	0.21
Measured Value (mV)	755	740	716	734	730	779	754	777	749
Error (mV)	-5	-4	-3	6	6	15	2	7	6
LINEARITY ERROR (dB)	-0.20	-0.15	-0.13	0.26	0.26	0.60	0.07	0.30	0.25
Measured Value (mV)	882	879	850	852	853	891	897	894	860
Error (mV)	-3	9	3	-1	-2	4	19	2	-7
LINEARITY ERROR (dB)	-0.12	0.35	0.12	-0.04	-0.04	0.17	0.41	0.06	-0.28
Measured Value (mV)	1001	1001	969	960	964	998	1014	1007	971
Error (mV)	4	5	-6	-18	-18	-11	10	-8	-20
LINEARITY ERROR (dB)	0.16	0.18	-0.22	-0.73	-0.73	-0.46	0.04	-0.34	-0.80
Measured Value (mV)	1139	1132	1087	1073	1078	1122	1148	1137	1090
Error (mV)	13	9	-15	-31	-31	-10	19	-1	-25
LINEARITY ERROR (dB)	0.52	0.36	-0.61	-1.22	-1.22	-0.39	0.29	-0.04	-0.32
Measured Value (mV)	1406	1394	1364	1350	1355	1392	1410	1401	1369
Error (mV)	21	18	6	-4	-8	16	29	17	6
LINEARITY ERROR (dB)	0.84	0.73	0.23	-0.17	-0.32	0.64	1.16	0.70	0.24
Measured Value (mV)	1501	1497	1488	1477	1491	1486	1503	1500	1479
Error (mV)	-9	-5	2	-2	1	-3	-4	-7	-8
LINEARITY ERROR (dB)	-0.36	-0.20	0.09	-0.10	0.03	-0.12	-0.14	-0.27	-0.32
Measured Value (mV)	1629	1623	1622	1609	1634	1619	1630	1629	1613
Error (mV)	-6	-5	8	4	17	-2	-2	0	2
LINEARITY ERROR (dB)	-0.24	-0.21	0.33	0.43	0.66	0.18	-0.09	-0.02	0.08
Measured Value (mV)	1757	1751	1751	1741	1760	1748	1757	1756	1742
Error (mV)	-3	-4	10	11	16	4	-1	4	7
LINEARITY ERROR (dB)	-0.12	-0.15	0.38	0.38	0.62	0.18	-0.04	0.15	0.28
Measured Value (mV)	1875	1878	1875	1865	1883	1869	1878	1876	1863
Error (mV)	6	-3	6	10	12	3	-6	1	4
LINEARITY ERROR (dB)	0.23	-0.13	0.23	0.38	0.46	0.12	-0.23	0.04	0.16
Measured Value (mV)	1990	1997	1990	1981	1997	1979	1988	1986	1981
Error (mV)	-7	-11	-7	0	-1	-10	-21	-12	-2
LINEARITY ERROR (dB)	-0.26	-0.42	-0.26	0.01	-0.05	-0.39	-0.85	-0.48	-0.09
Measured Value (mV)	2121	2134	2121	2118	2128	2112	2121	2121	2123
Error (mV)	-4	0	-4	12	3	1	0	0	16
LINEARITY ERROR (dB)	-0.14	0.00	-0.14	0.48	0.10	0.04	0.01	0.01	0.64
Measured Value (mV)	2128	2128	2128	2128	2128	2128	2128	2128	2128
Error (mV)	0	0	0	0	0	0	0	0	0
LINEARITY ERROR (dB)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Avg. Slope: 25 mV/DB

Flatness dB: ±1.5 dB





Frequency

-70	-65	-60	-55	-50	-45	-40	-35	-30	-25	-20	-15	-10	-5	0	5
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2 GHz	INTERCEPT (mV)	1984	170	312	434	561	683	820	954	1086	1218	1349	1464	1601	1737	1863	1972	2097
	SLOPE (mV/dB)	25.81	-7	6	-1	-3	-10	-2	3	5	8	10	10	4	11	8	-12	-16
	LN. ERR. (dB)	0.6	-0.28	0.22	-0.05	-0.13	-0.40	-0.09	0.10	0.21	0.33	0.40	-0.14	0.17	0.44	0.32	-0.46	-0.62

4 GHz	INTERCEPT (mV)	1981	141	270	401	533	659	808	949	1075	1207	1337	1457	1590	1728	1853	1965	2095
	SLOPE (mV/dB)	26.21	-5	-7	-7	-6	-11	6	16	11	12	11	0	2	9	3	-16	-17
	LN. ERR. (dB)	0.66	-0.20	-0.28	-0.28	-0.24	-0.44	0.25	0.62	0.43	0.47	0.42	0.00	0.08	0.34	0.11	-0.62	-0.66

6 GHz	INTERCEPT (mV)	1970	126	238	376	507	633	777	916	1034	1170	1303	1442	1588	1728	1850	1958	2080
	SLOPE (mV/dB)	26.52	13	-8	-2	-4	-11	1	7	-8	-4	-4	3	16	23	13	-12	-23
	LN. ERR. (dB)	0.88	0.48	-0.30	-0.09	-0.15	-0.40	0.03	0.27	-0.29	-0.16	-0.14	0.10	0.60	0.88	0.48	-0.45	-0.85

8 GHz	INTERCEPT (mV)	1951	135	256	389	519	642	777	902	1015	1151	1282	1424	1570	1715	1838	1948	2076
	SLOPE (mV/dB)	26.12	12	3	5	4	-3	1	-5	-22	-17	-16	-5	10	25	17	-3	-6
	LN. ERR. (dB)	0.948	0.47	0.10	0.19	0.17	-0.13	0.04	-0.17	-0.85	-0.64	-0.63	-0.19	0.40	0.95	0.66	-0.13	-0.23

10 GHz	INTERCEPT (mV)	1966	132	248	384	513	636	774	902	1016	1149	1281	1434	1594	1733	1854	1960	2083
	SLOPE (mV/dB)	26.46	18	2	6	2	-7	-1	-5	-24	-23	-23	-3	25	32	21	-6	-15
	LN. ERR. (dB)	1.208	0.69	0.07	0.22	0.09	-0.26	-0.04	-0.20	-0.89	-0.87	-0.88	-0.09	0.95	1.21	0.78	-0.21	-0.56

12 GHz	INTERCEPT (mV)	1961	162	304	429	562	693	827	946	1062	1195	1329	1453	1581	1723	1842	1947	2070
	SLOPE (mV/dB)	25.47	-16	-1	-3	2	6	13	4	-7	-1	5	2	2	17	9	-14	-18
	LN. ERR. (dB)	0.705	-0.62	-0.04	-0.13	0.09	0.23	0.49	0.17	-0.28	-0.06	0.20	0.07	0.10	0.67	0.34	-0.53	-0.70

14 GHz	INTERCEPT (mV)	1979	131	255	391	527	659	817	957	1082	1212	1346	1459	1591	1730	1849	1951	2075
	SLOPE (mV/dB)	26.21	-13	-20	-15	-10	-9	18	27	21	19	22	4	5	13	1	-28	-35
	LN. ERR. (dB)	1.327	-0.51	-0.77	-0.58	-0.39	-0.36	0.67	1.01	0.78	0.74	0.86	0.17	0.21	0.51	0.05	-1.06	-1.33

16 GHz	INTERCEPT (mV)	1967	157	301	426	558	686	823	951	1072	1204	1337	1455	1587	1727	1845	1948	2076
	SLOPE (mV/dB)	25.61	-17	-1	-4	0	0	9	9	1	5	10	0	4	16	6	-19	-19
	LN. ERR. (dB)	0.743	-0.67	-0.04	-0.16	-0.01	-0.01	0.34	0.33	0.06	0.21	0.40	0.01	0.16	0.63	0.24	-0.74	-0.74

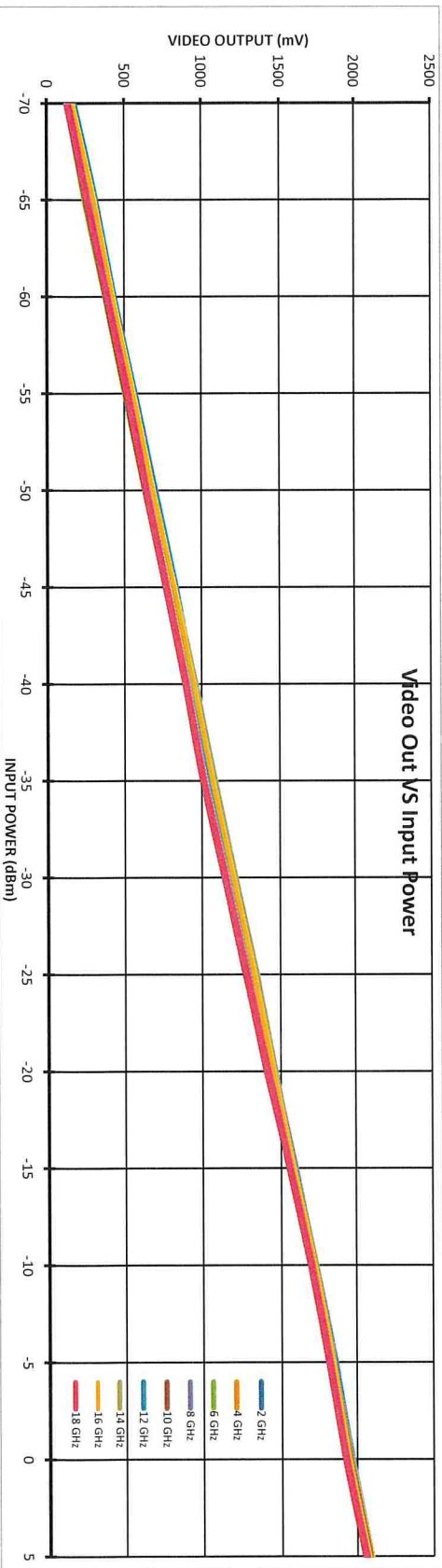
18 GHz	INTERCEPT (mV)	1942	131	257	392	524	643	773	901	1016	1155	1290	1419	1563	1705	1824	1933	2064
	SLOPE (mV/dB)	25.92	4	0	6	8	8	-2	-4	-19	-9	-4	-4	10	22	12	-9	-8
	LN. ERR. (dB)	0.862	0.14	0.01	0.21	0.30	-0.10	-0.09	-0.15	-0.72	-0.35	-0.15	-0.17	0.38	0.86	0.45	-0.34	-0.29

Avg. Slope: 26 mV/dB

0.8	1.4	1.1	1.1	1.2	1	1.1	1.4	1.3	1.3	0.9	0.7	0.6	0.7	0.7	0.6
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Flatness dB: ±1.4 dB

Video Out VS Input Power



- 2 GHz
- 4 GHz
- 6 GHz
- 8 GHz
- 10 GHz
- 12 GHz
- 14 GHz
- 16 GHz
- 18 GHz

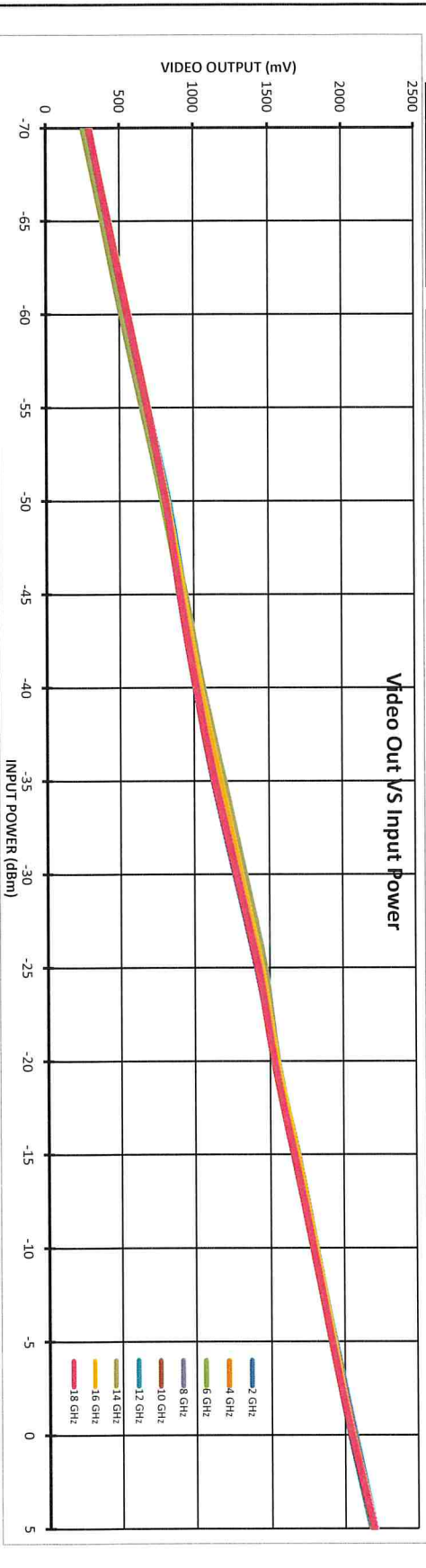


Frequency

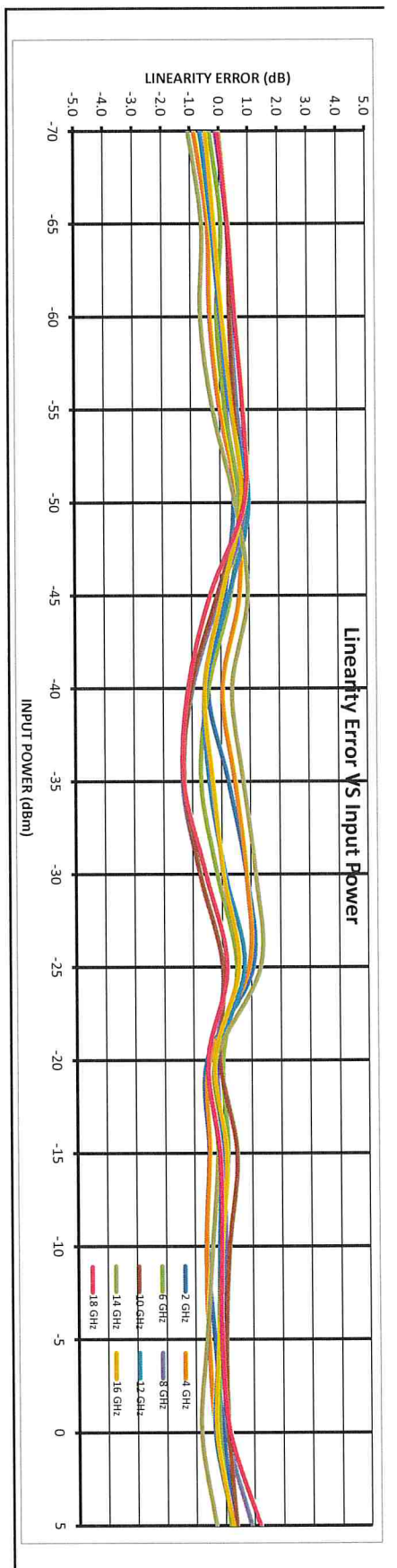
Frequency	2 GHz	4 GHz	6 GHz	8 GHz	10 GHz	12 GHz	14 GHz	16 GHz	18 GHz
INTERCEPT (mV)	2075	2072	2062	2042	2064	2052	2074	2063	2045
SLOPE (mV/DB)	25.32	25.46	25.79	25.19	25.46	24.95	25.67	25.05	25.03
LN. ERR. (DB)	1.1	0.931	0.699	1.331	1.273	1.001	1.32	0.739	1.286
Measured Value (mV)	286	268	248	276	281	290	250	298	292
Error (mV)	-17	-22	-9	-3	0	-16	-27	-11	-1
LINEARITY ERROR (DB)	-0.65	-0.85	-0.33	-0.12	-0.01	-0.64	-1.06	-0.46	-0.05
RF Input Power (dBm)	-70	-65	-60	-55	-50	-45	-40	-35	-30
Measured Value (mV)	424	407	387	412	416	424	390	430	426
Error (mV)	-5	-10	2	7	7	-7	-16	-5	8
LINEARITY ERROR (DB)	0.01	-0.33	0.06	0.28	0.29	-0.27	-0.60	-0.19	0.31
Measured Value (mV)	556	536	512	541	545	556	517	562	557
Error (mV)	0	-8	-2	10	9	0	-17	2	14
LINEARITY ERROR (DB)	0.22	-0.33	-0.09	0.40	0.36	0.02	-0.66	0.08	0.54
Measured Value (mV)	688	672	648	672	676	690	656	696	689
Error (mV)	6	0	5	15	13	10	-6	11	20
LINEARITY ERROR (DB)	0.48	0.02	0.18	0.61	0.50	0.39	-0.24	0.43	0.81
Measured Value (mV)	821	815	789	807	810	830	804	829	815
Error (mV)	12	16	17	24	20	25	14	19	21
LINEARITY ERROR (DB)	0.14	0.66	0.34	0.96	0.77	1.00	0.53	0.74	0.85
Measured Value (mV)	939	943	910	908	915	937	943	937	910
Error (mV)	3	2	9	-1	-3	7	24	1	-9
LINEARITY ERROR (DB)	-0.44	0.66	-0.43	-0.03	-1.03	-0.54	0.94	0.05	-0.36
Measured Value (mV)	1051	1055	1019	1010	1019	1041	1057	1047	1016
Error (mV)	-11	17	-11	-25	-26	-14	10	-14	-28
LINEARITY ERROR (DB)	0.25	0.48	-0.70	-1.33	-1.27	-0.41	0.76	-0.29	-1.12
Measured Value (mV)	1195	1193	1141	1127	1140	1169	1195	1179	1137
Error (mV)	6	22	-4	-34	-19	3	30	1	-13
LINEARITY ERROR (DB)	0.85	1.07	-0.15	-1.8	-0.74	0.12	1.18	0.06	-0.53
Measured Value (mV)	1337	1459	1430	1413	1428	1448	1466	1451	1424
Error (mV)	27	24	13	1	1	19	34	14	5
LINEARITY ERROR (DB)	-0.54	-0.47	0.01	-0.21	-0.09	-0.22	-0.25	-0.28	-0.11
Measured Value (mV)	1555	1551	1546	1533	1552	1548	1554	1555	1532
Error (mV)	-14	-12	0	-5	-2	-5	-6	-7	-3
LINEARITY ERROR (DB)	-0.48	-0.60	0.16	-0.07	0.49	-0.09	-0.19	0.11	-0.11
Measured Value (mV)	1678	1678	1679	1664	1694	1676	1684	1690	1667
Error (mV)	0	-15	4	0	12	-2	10	3	-3
LINEARITY ERROR (DB)	-0.58	-0.60	-0.07	0.07	0.20	-0.16	-0.39	-0.06	-0.08
Measured Value (mV)	1807	1802	1802	1792	1814	1799	1807	1811	1793
Error (mV)	-15	-13	-4	2	5	-4	-5	-2	-2
LINEARITY ERROR (DB)	-0.33	-0.53	-0.14	0.07	0.07	-0.19	-0.60	-0.19	-0.08
Measured Value (mV)	1940	2064	2057	2044	2067	2044	2053	2056	2050
Error (mV)	-8	-8	-5	2	3	-8	-21	-7	5
LINEARITY ERROR (DB)	-0.08	-0.30	-0.18	0.07	0.14	-0.34	-0.81	-0.28	0.19
Measured Value (mV)	2073	2206	2195	2191	2201	2184	2194	2195	2201
Error (mV)	-2	7	5	23	10	7	-8	7	31
LINEARITY ERROR (DB)	0.07	0.27	0.17	0.91	0.40	0.27	-0.31	0.27	1.23
Measured Value (mV)	2195	2195	2195	2191	2201	2184	2194	2195	2201
Error (mV)	-4	-13	-2	2	3	-8	-21	-7	31
LINEARITY ERROR (DB)	-0.14	-0.53	-0.07	0.07	0.07	-0.19	-0.60	-0.19	-0.08
Measured Value (mV)	2057	2064	2057	2044	2067	2044	2053	2056	2050
Error (mV)	-5	-8	-5	2	3	-8	-21	-7	31
LINEARITY ERROR (DB)	-0.18	-0.30	-0.18	0.07	0.14	-0.34	-0.81	-0.28	0.19
Measured Value (mV)	2195	2195	2195	2191	2201	2184	2194	2195	2201
Error (mV)	-4	-13	-2	2	3	-8	-21	-7	31
LINEARITY ERROR (DB)	-0.14	-0.53	-0.07	0.07	0.07	-0.19	-0.60	-0.19	-0.08

Avg. Slope: 25.3 mV/DB

Flatness dB: ±1.4 dB



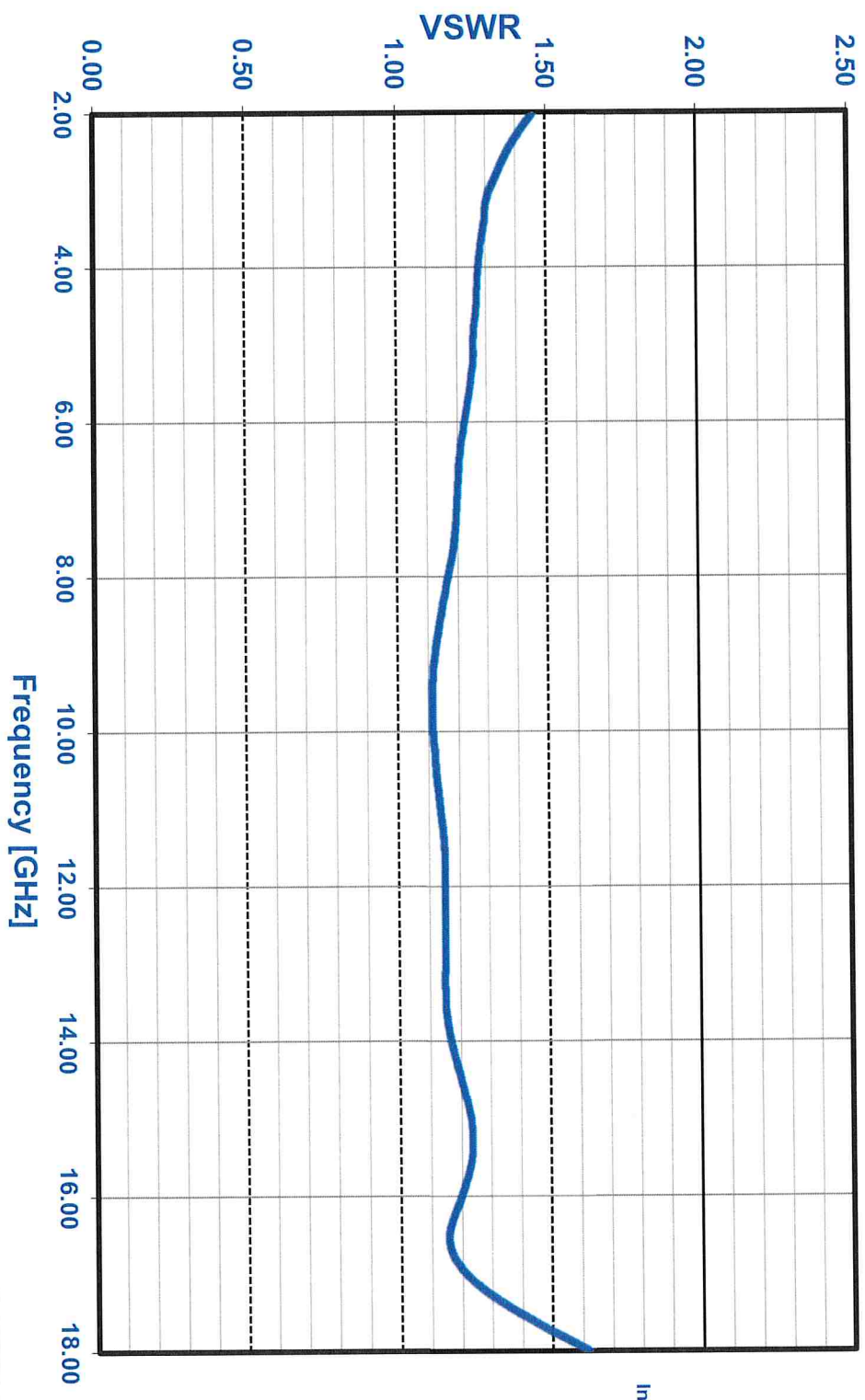
PL42906
-40°C



Model Number: SDLVA-6G18G-CD-2 OPT218
Serial Number: PL42906
Date: 11/27/2023

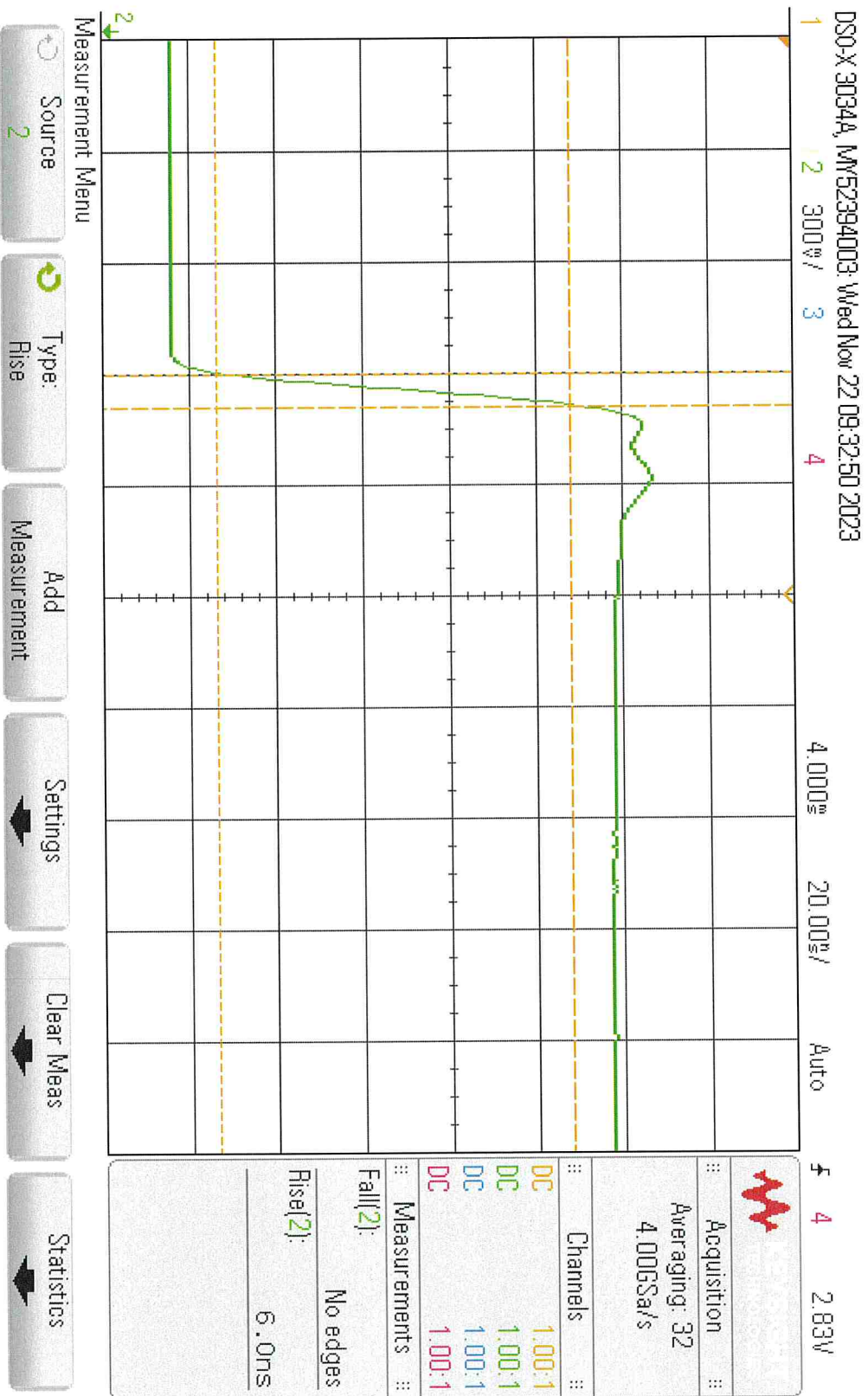
Temperature: +25C

VSWR GRAPH



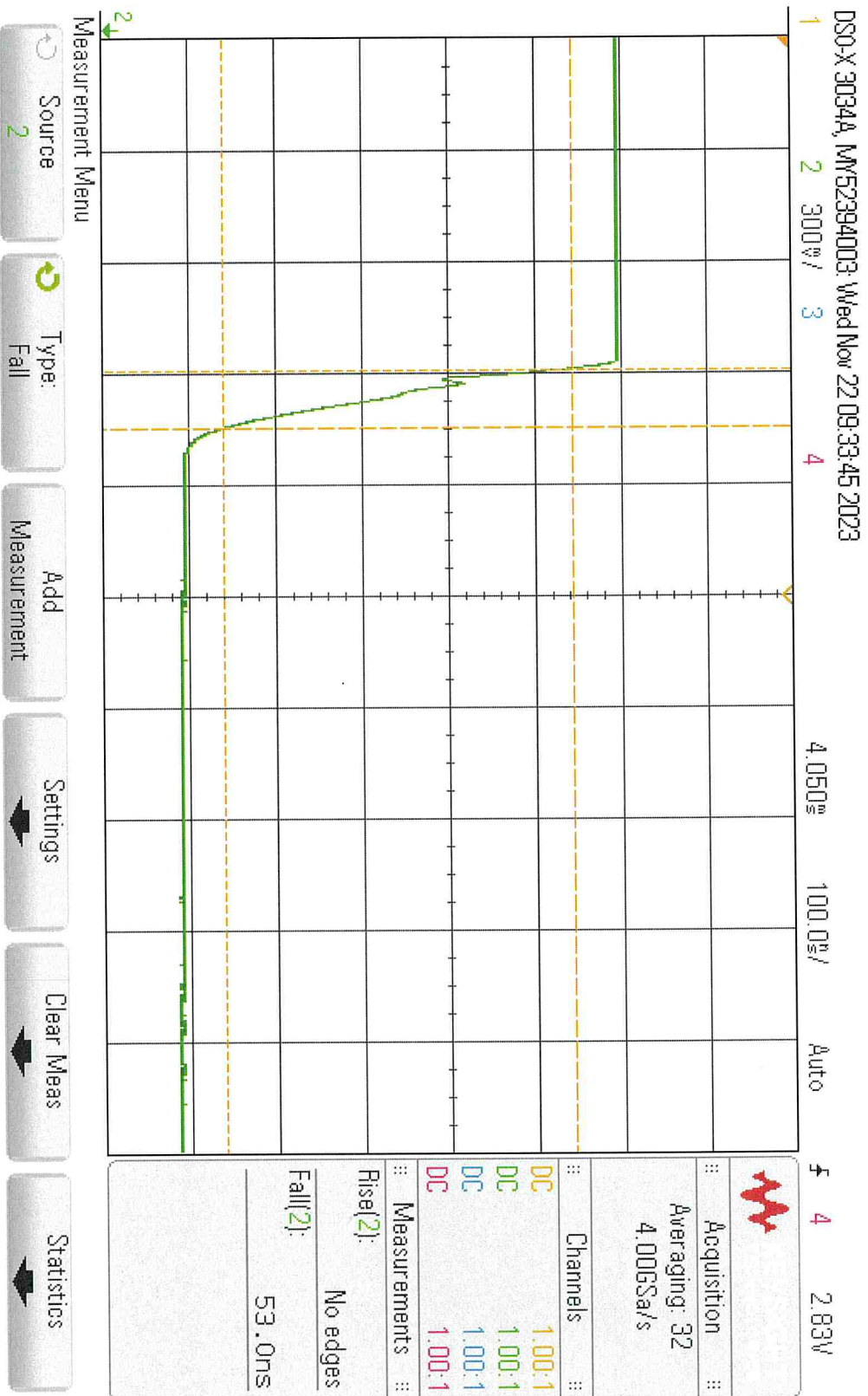
Input VSWR 1.62:1 Max

PL42906
Rise Time



PL42906

Recovery



PL42906
TSS -71

