Quantic PMI
PLANAR MONOLITHICS

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

CUSTOMER: [redacted]
SO: [redacted]
MODEL NO: SDLVA-6G18G-CD-2-OPT218-NRF
SERIAL NO: PL52535/2516

TESTED BY: Jim Hopson
TEMPERATURE: +25°C
DATE: 4/17/2025
DRAWING NO: 27630483 **REV:** A1

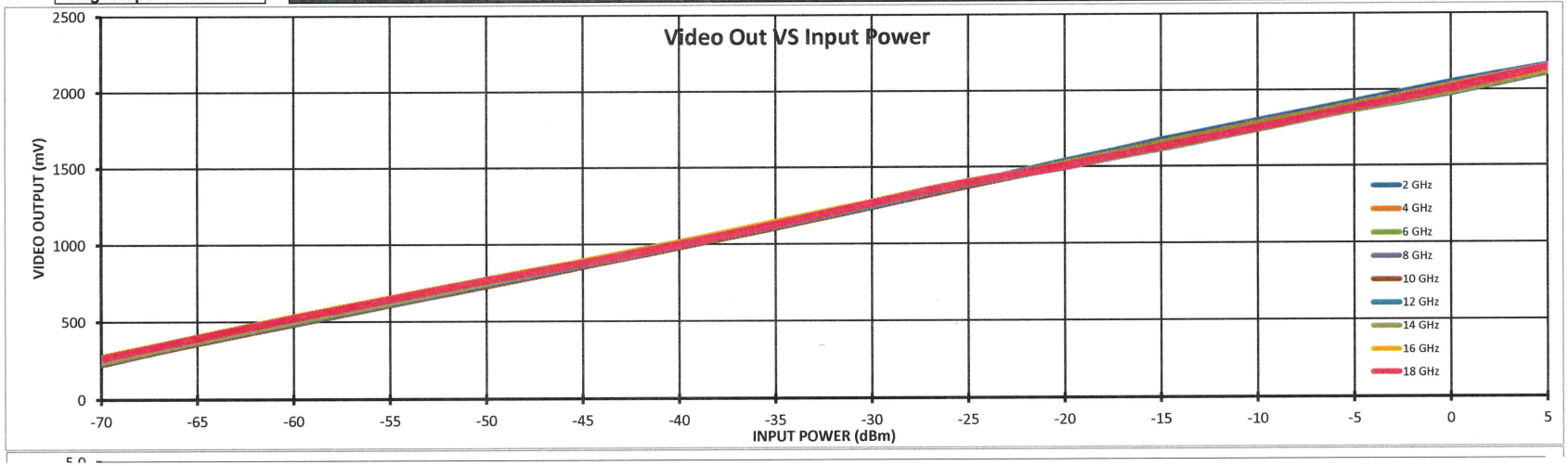
TEST ITEM NO:	PARAMETERS	SPECIFIED VALUE	MEASURED VALUE	REMARKS QA/QC
1	Frequency Range	2.0 GHz – 18.0 GHz	GHz - GHz	PMI QAS
2	Flatness	± 2.0 dB Maximum	± 1.4 dB 25°C See Plots	
3	TSS	-70 dBm Minimum	-71dBm	
4	VSWR	2.0:1 (Input)	1.92:1	
5	Input Power	+17 dBm CW Maximum	Pass	
6	NRF Out			
7	Log Slope	25 mV/dB (±10%) 50Ω	25.1 mV/dB Avg See Plot	
8	Log Range	-70 to +5 dBm	See Plots	
9	Log Linearity	±2.5 dB (-40°C - +85°C)	1.45/-1.87dB See Plots	
10	Pulse Range	30 ns to CW	Pass	
11	Rise Time	10 ns (6 ns Typical)	8.0 ns	
12	Recovery Time	60 ns Typical	60 ns Typical	
13	DC Supply	+15V or +12V @ 350 mA -15V or -12V @ 180 mA	270 mA 100 mA	

QA/QC Approval: K. Klauza Date: 4-17-25

7309-A Grove Road Frederick, MD 21704 USA Phone: (301)662-5019 FAX: (301)662-1731
Email: sales@quanticpmi.com

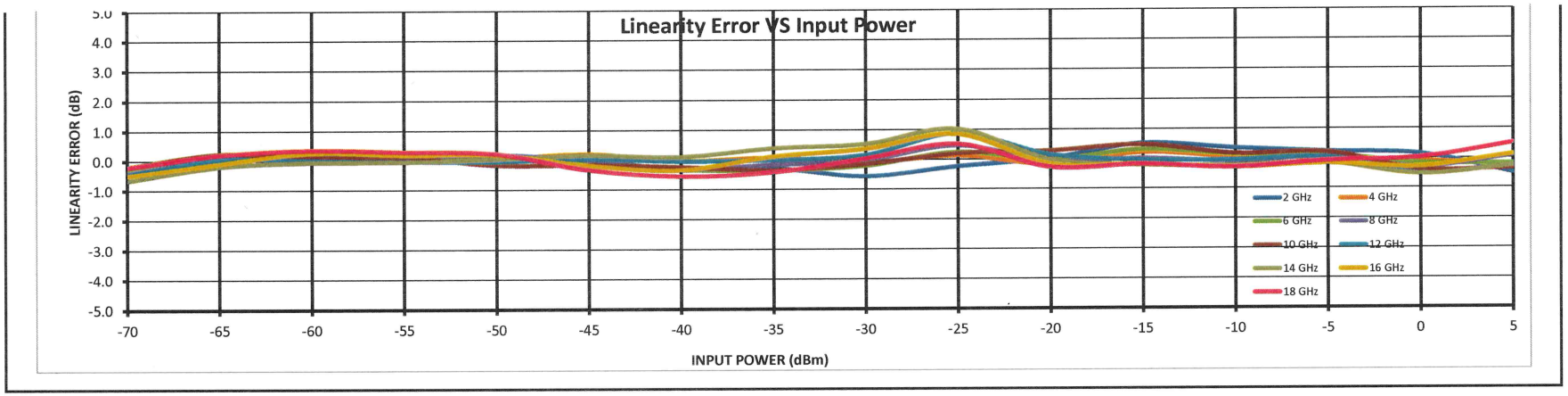
Model: SDLVA-6G18G-CD-2 - OPT218-NRF
Serial No: PL52535
Date: 4/17/25
Tested By: Jim Hopson
Test Temp: +25°C

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)	2047	246	383	516	641	766	891	1012	1142	1263	1400	1535	1676	1800	1925	2051	2163	Measured Value (mV)
	SLOPE (mV/dB)	25.66	-5	4	9	5	2	-1	-9	-7	-14	-6	1	14	10	6	4	-12	ERROR (mV)
	LIN. ERR. (dB)	0.6	-0.19	0.15	0.33	0.20	0.08	-0.05	-0.34	-0.27	-0.56	-0.22	0.04	0.54	0.37	0.24	0.15	-0.48	LINEARITY ERROR (dB)
4 GHz	INTERCEPT (mV)	2033	240	379	509	634	762	893	1014	1144	1267	1400	1520	1657	1780	1906	2031	2154	Measured Value (mV)
	SLOPE (mV/dB)	25.46	-11	1	3	1	2	6	-1	2	-2	3	-4	6	2	0	-2	-6	ERROR (mV)
	LIN. ERR. (dB)	0.434	-0.43	0.03	0.13	0.04	0.07	0.22	-0.03	0.08	-0.09	0.14	-0.15	0.23	0.06	0.01	-0.08	-0.24	LINEARITY ERROR (dB)
6 GHz	INTERCEPT (mV)	2022	244	382	510	634	760	882	1002	1128	1258	1396	1516	1651	1773	1899	2018	2144	Measured Value (mV)
	SLOPE (mV/dB)	25.3	-7	4	6	3	3	-2	-8	-9	-5	6	0	8	4	3	-4	-5	Error (mV)
	LIN. ERR. (dB)	0.339	-0.28	0.17	0.23	0.14	0.12	-0.06	-0.32	-0.34	-0.20	0.25	0.00	0.33	0.16	0.14	-0.16	-0.18	LINEARITY ERROR (dB)
8 GHz	INTERCEPT (mV)	2002	247	384	512	635	761	881	998	1126	1254	1391	1502	1629	1751	1879	1995	2129	Measured Value (mV)
	SLOPE (mV/dB)	24.92	-10	2	5	4	5	0	-7	-4	0	12	-2	1	-2	1	-7	2	ERROR (mV)
	LIN. ERR. (dB)	0.479	-0.42	0.08	0.21	0.15	0.20	0.02	-0.29	-0.15	-0.02	0.48	-0.07	0.03	-0.08	0.06	-0.29	0.09	LINEARITY ERROR (dB)
10 GHz	INTERCEPT (mV)	2001	219	357	481	608	728	855	980	1104	1236	1372	1501	1633	1752	1880	1992	2120	Measured Value (mV)
	SLOPE (mV/dB)	25.39	-5	6	3	3	-4	-4	-6	-9	-4	5	7	13	5	6	-9	-8	Error (mV)
	LIN. ERR. (dB)	0.494	-0.20	0.24	0.12	0.12	-0.15	-0.15	-0.22	-0.34	-0.14	0.21	0.30	0.49	0.18	0.22	-0.37	-0.33	LINEARITY ERROR (dB)
12 GHz	INTERCEPT (mV)	1996	234	372	496	620	745	872	995	1121	1250	1393	1500	1620	1745	1872	1983	2115	Measured Value (mV)
	SLOPE (mV/dB)	25	-12	1	0	-1	-1	1	-1	0	4	22	4	-1	-1	1	-13	-6	ERROR (mV)
	LIN. ERR. (dB)	0.887	-0.47	0.05	0.01	-0.03	-0.03	0.05	-0.03	0.01	0.17	0.89	0.17	-0.03	-0.03	0.05	-0.52	-0.24	LINEARITY ERROR (dB)
14 GHz	INTERCEPT (mV)	2002	239	376	504	629	756	884	1007	1139	1267	1404	1503	1623	1747	1874	1989	2121	Measured Value (mV)
	SLOPE (mV/dB)	24.95	-17	-5	-1	-1	1	4	3	10	13	26	0	-5	-6	-3	-13	-6	ERROR (mV)
	LIN. ERR. (dB)	1.024	-0.68	-0.19	-0.06	-0.04	0.05	0.18	0.11	0.40	0.53	1.02	-0.01	-0.20	-0.23	-0.14	-0.53	-0.23	LINEARITY ERROR (dB)
16 GHz	INTERCEPT (mV)	2006	272	405	537	658	781	895	1014	1148	1277	1412	1510	1633	1753	1879	1999	2132	Measured Value (mV)
	SLOPE (mV/dB)	24.59	-12	-2	7	5	5	-4	-8	3	9	21	-4	-4	-7	-4	-7	3	ERROR (mV)
	LIN. ERR. (dB)	0.855	-0.51	-0.10	0.27	0.19	0.19	-0.17	-0.33	0.12	0.36	0.86	-0.16	-0.16	-0.28	-0.15	-0.27	0.14	LINEARITY ERROR (dB)
18 GHz	INTERCEPT (mV)	2010	259	394	523	646	769	880	999	1127	1263	1400	1505	1632	1754	1884	2011	2148	Measured Value (mV)
	SLOPE (mV/dB)	24.94	-5	5	9	8	6	-8	-14	-10	1	13	-6	-4	-7	-2	1	13	ERROR (mV)
	LIN. ERR. (dB)	0.544	-0.21	0.20	0.37	0.30	0.24	-0.31	-0.54	-0.41	0.04	0.53	-0.26	-0.17	-0.27	-0.06	0.03	0.52	LINEARITY ERROR (dB)
Avg. Slope: 25.1 mV/dB			1.1	1	1.1	1	1.1	0.8	0.7	0.9	0.8	0.8	0.7	1.1	1.1	1.1	1.4	1	Flatness dB: ±1.4 dB



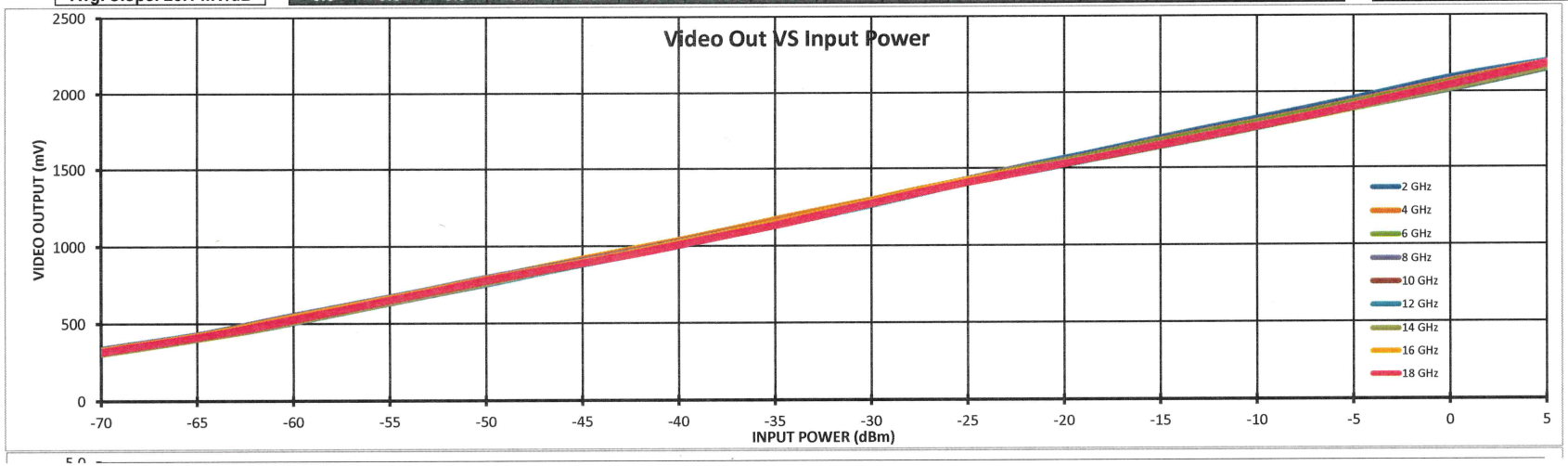
PL52535

25°C

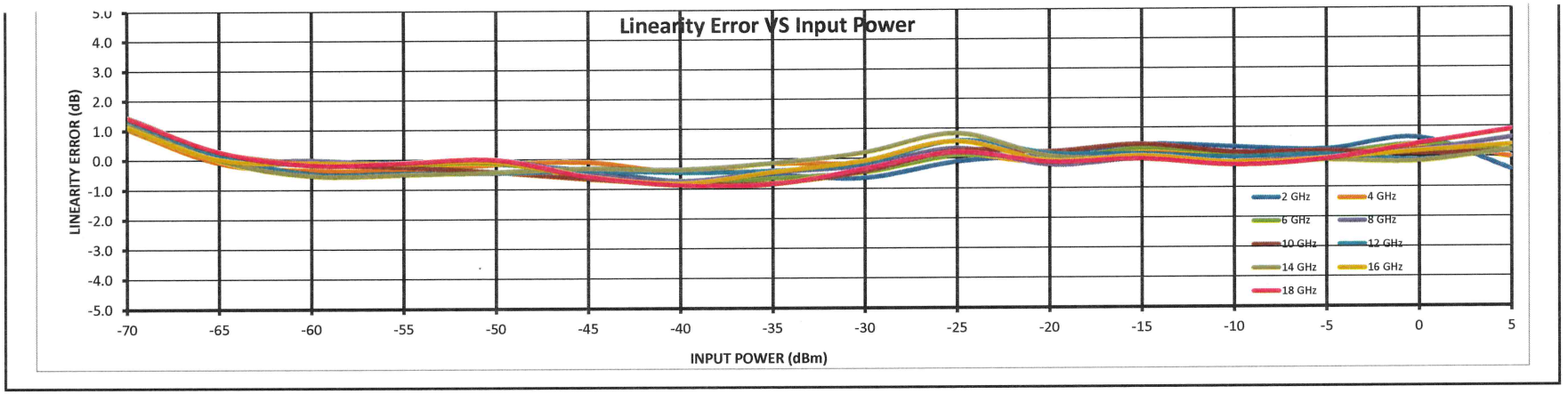

Linearity Error VS Input Power
LINEARITY ERROR (dB)
5.0
4.0
3.0
2.0
1.0
0.0
-1.0
-2.0
-3.0
-4.0
-5.0
-70
-65
-60
-55
-50
-45
-40
-35
-30
-25
-20
-15
-10
-5
0
5
INPUT POWER (dBm)
2 GHz
4 GHz
6 GHz
8 GHz
10 GHz
12 GHz
14 GHz
16 GHz
18 GHz

Model: SDLVA-6G18G-CD-2 - OPT218-NRF
Serial No: PL52535
Date: 4/17/25
Tested By: Jim Hopson
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)	2078	312	411	535	664	791	914	1033	1166	1292	1434	1568	1705	1831	1957	2095	2196	Measured Value (mV)
	SLOPE (mV/dB)	25.67	31	1	-3	-2	-4	-9	-18	-14	-16	-3	3	12	9	7	17	-11	ERROR (mV)
	LIN. ERR. (dB)	1.2	1.20	0.06	-0.11	-0.09	-0.14	-0.35	-0.72	-0.54	-0.63	-0.10	0.12	0.46	0.36	0.27	0.65	-0.42	LINEARITY ERROR (dB)
4 GHz	INTERCEPT (mV)	2061	320	417	537	663	794	922	1040	1173	1299	1433	1552	1687	1808	1934	2070	2187	Measured Value (mV)
	SLOPE (mV/dB)	25.26	27	-2	-8	-8	-4	-2	-10	-4	-4	4	-3	5	0	0	9	0	ERROR (mV)
	LIN. ERR. (dB)	1.084	1.08	-0.08	-0.32	-0.34	-0.15	-0.08	-0.41	-0.14	-0.15	0.15	-0.14	0.21	0.00	-0.01	0.37	0.01	LINEARITY ERROR (dB)
6 GHz	INTERCEPT (mV)	2050	328	425	545	668	794	909	1026	1157	1287	1426	1548	1682	1803	1928	2061	2180	Measured Value (mV)
	SLOPE (mV/dB)	25.06	32	4	-1	-4	-3	-13	-21	-16	-11	3	-1	8	4	3	11	5	Error (mV)
	LIN. ERR. (dB)	1.295	1.29	0.17	-0.05	-0.14	-0.11	-0.52	-0.86	-0.63	-0.44	0.10	-0.03	0.32	0.14	0.13	0.44	0.19	LINEARITY ERROR (dB)
8 GHz	INTERCEPT (mV)	2028	334	431	553	673	799	910	1027	1157	1285	1422	1531	1659	1778	1906	2034	2167	Measured Value (mV)
	SLOPE (mV/dB)	24.59	27	1	0	-3	0	-12	-18	-11	-6	8	-5	0	-4	1	6	16	ERROR (mV)
	LIN. ERR. (dB)	1.095	1.10	0.04	0.00	-0.12	0.01	-0.48	-0.72	-0.43	-0.23	0.34	-0.22	-0.02	-0.18	0.03	0.23	0.64	LINEARITY ERROR (dB)
10 GHz	INTERCEPT (mV)	2030	315	411	526	648	769	888	1009	1134	1269	1411	1535	1666	1784	1910	2032	2160	Measured Value (mV)
	SLOPE (mV/dB)	25.02	36	7	-3	-6	-10	-16	-20	-20	-10	7	6	12	4	5	2	5	Error (mV)
	LIN. ERR. (dB)	1.454	1.45	0.29	-0.11	-0.23	-0.40	-0.64	-0.80	-0.81	-0.41	0.27	0.22	0.46	0.18	0.22	0.09	0.21	LINEARITY ERROR (dB)
12 GHz	INTERCEPT (mV)	2021	306	401	511	636	761	888	1011	1137	1268	1412	1526	1650	1772	1899	2019	2152	Measured Value (mV)
	SLOPE (mV/dB)	24.99	34	4	-11	-11	-11	-9	-11	-10	-4	15	4	3	0	2	-2	6	ERROR (mV)
	LIN. ERR. (dB)	1.352	1.35	0.15	-0.44	-0.44	-0.44	-0.36	-0.44	-0.39	-0.15	0.61	0.17	0.14	0.02	0.10	-0.10	0.22	LINEARITY ERROR (dB)
14 GHz	INTERCEPT (mV)	2027	306	401	513	639	766	894	1018	1148	1282	1423	1529	1652	1773	1900	2024	2159	Measured Value (mV)
	SLOPE (mV/dB)	25.02	30	0	-13	-12	-10	-7	-9	-4	5	21	2	0	-4	-2	-3	6	ERROR (mV)
	LIN. ERR. (dB)	1.208	1.21	0.00	-0.52	-0.49	-0.41	-0.30	-0.34	-0.14	0.21	0.84	0.08	0.00	-0.17	-0.09	-0.14	0.26	LINEARITY ERROR (dB)
16 GHz	INTERCEPT (mV)	2036	329	426	547	670	795	907	1025	1158	1291	1431	1538	1666	1784	1911	2041	2170	Measured Value (mV)
	SLOPE (mV/dB)	24.78	28	1	-2	-3	-2	-14	-20	-11	-2	15	-2	2	-4	-1	5	10	ERROR (mV)
	LIN. ERR. (dB)	1.113	1.11	0.03	-0.09	-0.12	-0.08	-0.56	-0.80	-0.43	-0.06	0.59	-0.09	0.07	-0.16	-0.04	0.21	0.42	LINEARITY ERROR (dB)
18 GHz	INTERCEPT (mV)	2034	314	411	525	652	780	891	1009	1135	1273	1412	1529	1657	1777	1907	2045	2182	Measured Value (mV)
	SLOPE (mV/dB)	25.08	36	7	-4	-2	0	-14	-22	-21	-8	5	-3	-1	-6	-1	11	23	ERROR (mV)
	LIN. ERR. (dB)	1.425	1.42	0.29	-0.16	-0.10	0.01	-0.57	-0.86	-0.84	-0.33	0.21	-0.13	-0.02	-0.24	-0.05	0.45	0.91	LINEARITY ERROR (dB)
	Avg. Slope: 25.1 mV/dB		0.6	0.6	0.8	0.7	0.8	0.7	0.6	0.8	0.6	0.5	0.8	1.1	1.2	1.2	1.5	0.9	Flatness dB: ±1.5 dB

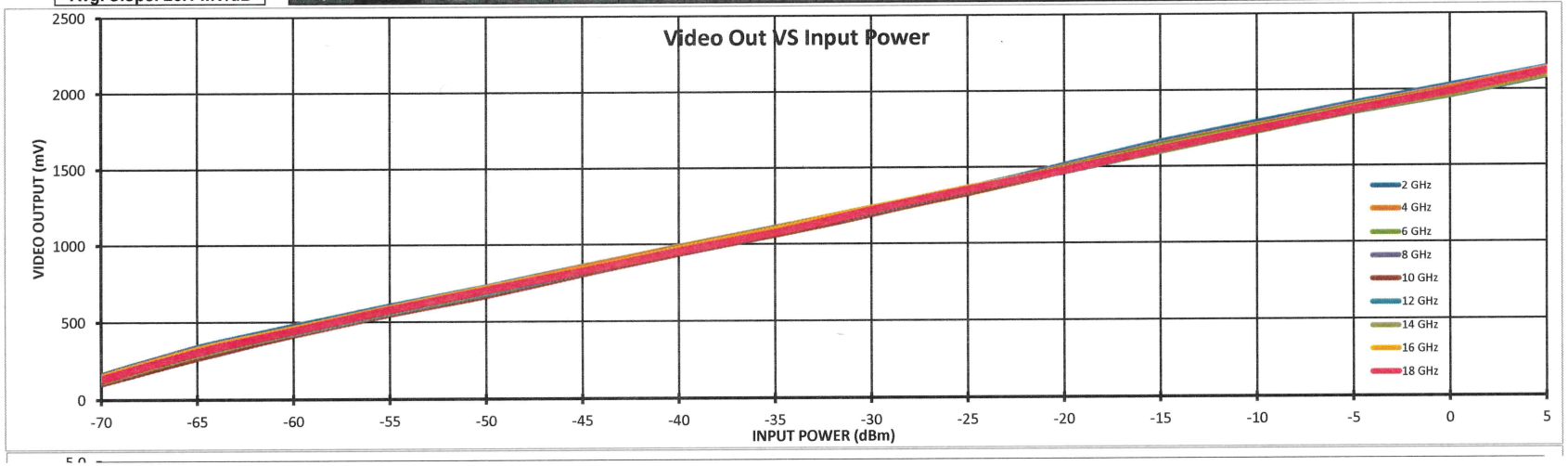


PL52535
-40°C


Linearity Error VS Input Power
LINEARITY ERROR (dB)
5.0
4.0
3.0
2.0
1.0
0.0
-1.0
-2.0
-3.0
-4.0
-5.0
-70
-65
-60
-55
-50
-45
-40
-35
-30
-25
-20
-15
-10
-5
0
5
INPUT POWER (dBm)
2 GHz
4 GHz
6 GHz
8 GHz
10 GHz
12 GHz
14 GHz
16 GHz
18 GHz

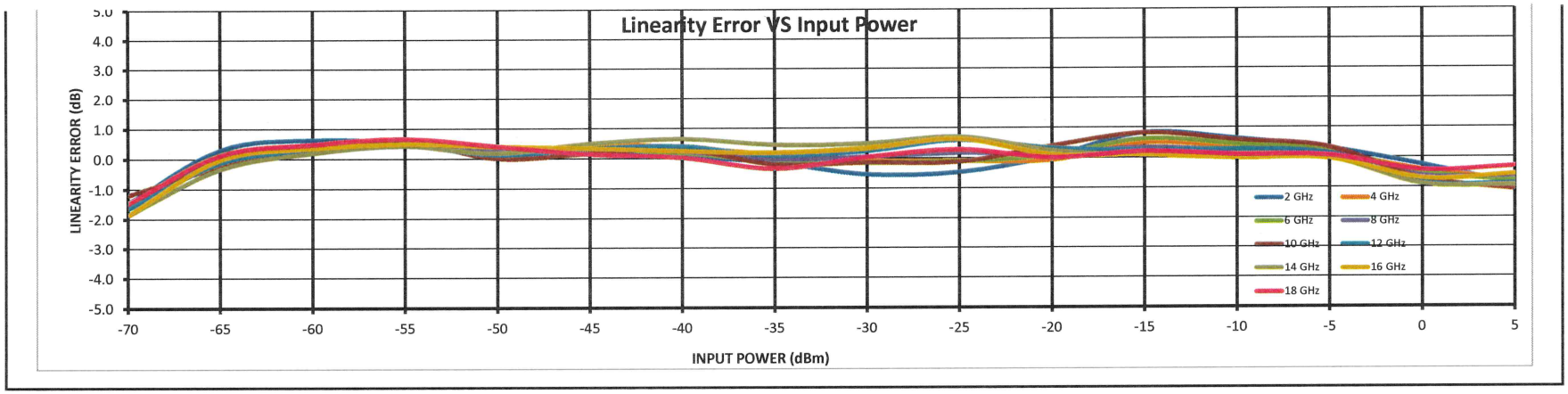
Model: SDLVA-6G18G-CD-2 - OPT218-NRF
Serial No: PL52535
Date: 4/17/25
Tested By: Jim Hopson
Test Temp: +85°C

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)	2034	156	334	474	603	725	858	985	1111	1232	1365	1510	1662	1788	1911	2028	2142	Measured Value (mV)
	SLOPE (mV/dB)	26.28	-39	8	17	14	5	6	2	-4	-14	-12	1	22	16	8	-6	-24	ERROR (mV)
	LIN. ERR. (dB)	1.5	-1.47	0.30	0.63	0.54	0.18	0.24	0.07	-0.13	-0.53	-0.47	0.05	0.83	0.62	0.30	-0.25	-0.91	LINEARITY ERROR (dB)
4 GHz	INTERCEPT (mV)	2024	144	319	458	591	715	854	983	1108	1234	1365	1497	1643	1770	1896	2013	2135	Measured Value (mV)
	SLOPE (mV/dB)	26.26	-41	2	10	12	4	12	10	3	-2	-2	-2	13	9	3	-11	-20	ERROR (mV)
	LIN. ERR. (dB)	1.576	-1.58	0.09	0.38	0.44	0.16	0.46	0.37	0.13	-0.08	-0.09	-0.06	0.50	0.33	0.13	-0.42	-0.77	LINEARITY ERROR (dB)
6 GHz	INTERCEPT (mV)	2013	140	314	452	585	709	842	970	1094	1223	1355	1491	1636	1762	1887	1999	2123	Measured Value (mV)
	SLOPE (mV/dB)	26.19	-39	4	11	13	6	8	5	-2	-4	-3	2	16	11	5	-14	-21	Error (mV)
	LIN. ERR. (dB)	1.499	-1.50	0.15	0.41	0.49	0.23	0.31	0.19	-0.07	-0.15	-0.11	0.09	0.62	0.43	0.21	-0.52	-0.78	LINEARITY ERROR (dB)
8 GHz	INTERCEPT (mV)	1994	133	305	446	579	703	833	961	1084	1216	1349	1478	1613	1740	1868	1978	2108	Measured Value (mV)
	SLOPE (mV/dB)	25.99	-42	0	11	14	8	8	6	-1	1	4	4	9	6	4	-16	-16	ERROR (mV)
	LIN. ERR. (dB)	1.62	-1.62	0.00	0.42	0.54	0.31	0.32	0.24	-0.03	0.05	0.17	0.14	0.33	0.22	0.14	-0.62	-0.62	LINEARITY ERROR (dB)
10 GHz	INTERCEPT (mV)	1991	104	262	413	549	666	803	939	1058	1192	1325	1471	1615	1741	1867	1972	2095	Measured Value (mV)
	SLOPE (mV/dB)	26.5	-32	-6	12	16	0	5	8	-5	-4	-3	10	22	15	9	-19	-28	Error (mV)
	LIN. ERR. (dB)	1.202	-1.20	-0.24	0.46	0.59	0.01	0.18	0.31	-0.20	-0.14	-0.12	0.39	0.82	0.58	0.33	-0.70	-1.06	LINEARITY ERROR (dB)
12 GHz	INTERCEPT (mV)	1988	124	294	435	569	691	826	958	1080	1214	1353	1476	1604	1735	1861	1966	2095	Measured Value (mV)
	SLOPE (mV/dB)	26.01	-43	-3	8	12	4	9	11	2	6	15	8	6	7	3	-22	-23	ERROR (mV)
	LIN. ERR. (dB)	1.657	-1.66	-0.12	0.30	0.45	0.14	0.33	0.40	0.09	0.25	0.59	0.32	0.24	0.28	0.12	-0.84	-0.88	LINEARITY ERROR (dB)
14 GHz	INTERCEPT (mV)	1994	124	294	438	574	698	836	970	1095	1226	1362	1480	1606	1737	1864	1971	2100	Measured Value (mV)
	SLOPE (mV/dB)	26.02	-49	-9	5	11	5	13	17	12	13	18	6	2	3	0	-23	-24	ERROR (mV)
	LIN. ERR. (dB)	1.867	-1.87	-0.33	0.20	0.43	0.19	0.49	0.64	0.45	0.48	0.71	0.24	0.08	0.12	0.00	-0.89	-0.93	LINEARITY ERROR (dB)
16 GHz	INTERCEPT (mV)	1996	150	326	464	596	722	849	975	1102	1234	1370	1485	1613	1739	1867	1978	2110	Measured Value (mV)
	SLOPE (mV/dB)	25.69	-48	0	9	13	10	9	6	5	9	16	3	2	0	-1	-18	-14	ERROR (mV)
	LIN. ERR. (dB)	1.871	-1.87	-0.02	0.35	0.49	0.40	0.34	0.25	0.19	0.33	0.63	0.10	0.09	-0.01	-0.02	-0.70	-0.56	LINEARITY ERROR (dB)
18 GHz	INTERCEPT (mV)	2002	131	304	444	580	704	828	956	1077	1218	1355	1479	1615	1743	1873	1991	2125	Measured Value (mV)
	SLOPE (mV/dB)	26.18	-39	3	12	18	11	4	1	-9	1	7	0	5	3	2	-11	-8	ERROR (mV)
	LIN. ERR. (dB)	1.484	-1.48	0.12	0.47	0.67	0.41	0.14	0.03	-0.34	0.04	0.28	0.01	0.21	0.10	0.07	-0.43	-0.31	LINEARITY ERROR (dB)
Avg. Slope: 26.1 mV/dB			1	1.4	1.2	1	1.1	1.1	0.9	1	0.8	0.9	0.7	1.1	1	1	1.2	0.9	Flatness dB: ±1.4 dB



PL 52535

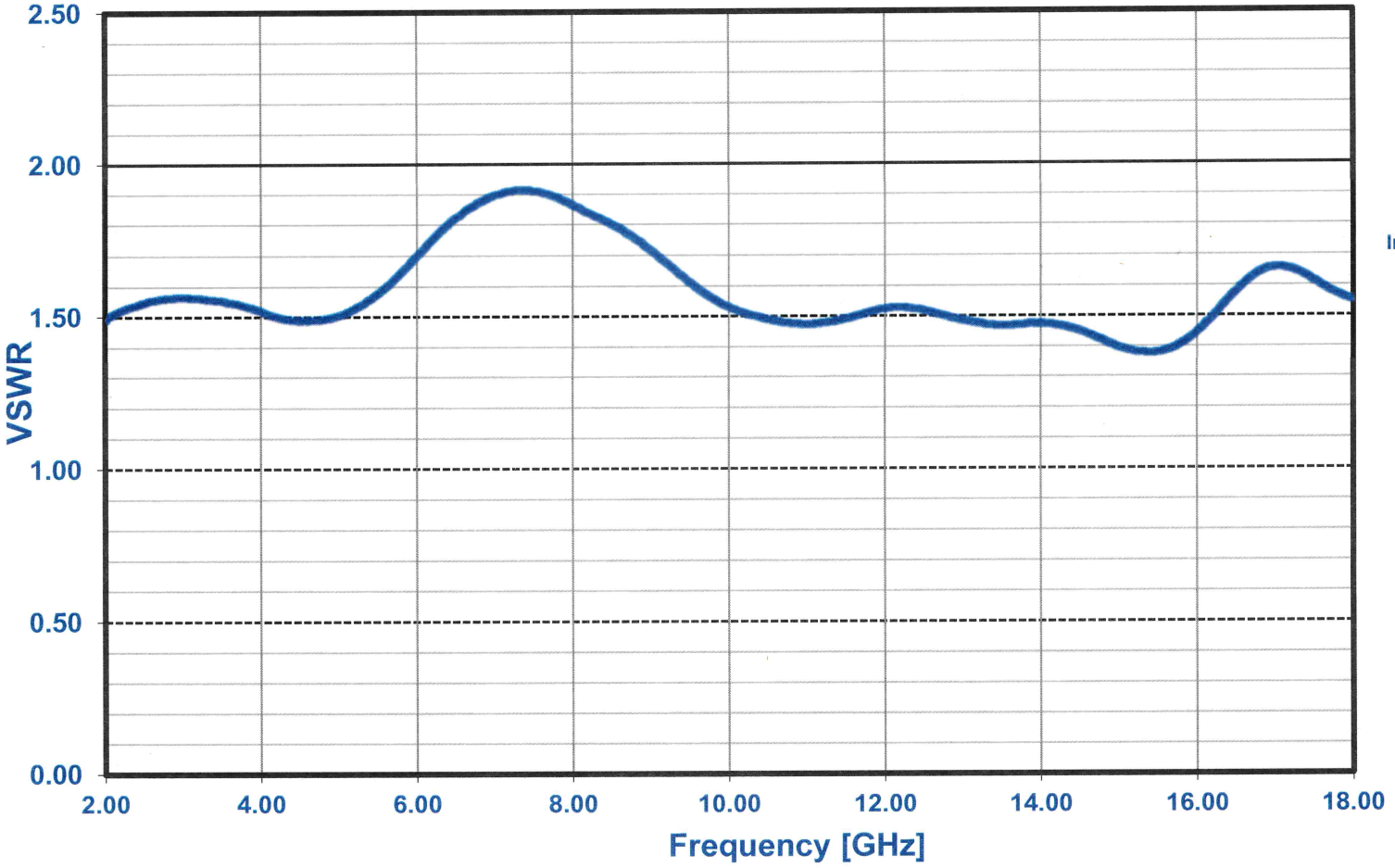
+85°C


Linearity Error VS Input Power
LINEARITY ERROR (dB)
5.0
4.0
3.0
2.0
1.0
0.0
-1.0
-2.0
-3.0
-4.0
-5.0
-70
-65
-60
-55
-50
-45
-40
-35
-30
-25
-20
-15
-10
-5
0
5
INPUT POWER (dBm)
2 GHz
4 GHz
6 GHz
8 GHz
10 GHz
12 GHz
14 GHz
16 GHz
18 GHz

Model Number: SDLVA-6G18G-CD-2 OPT218-NRF
Serial Number: PL52535
Date: 4/16/2025

Temperature: +25C

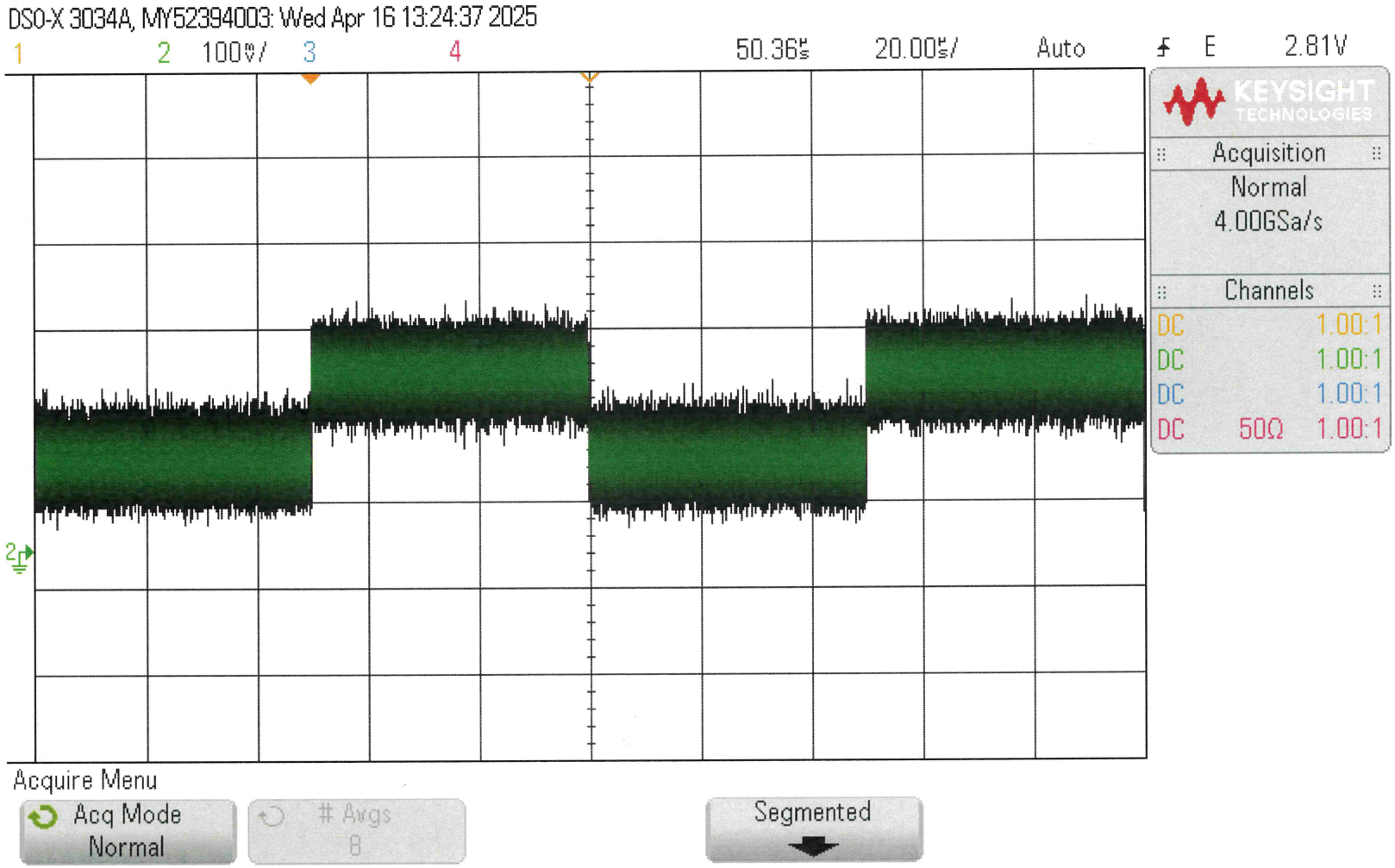
VSWR GRAPH



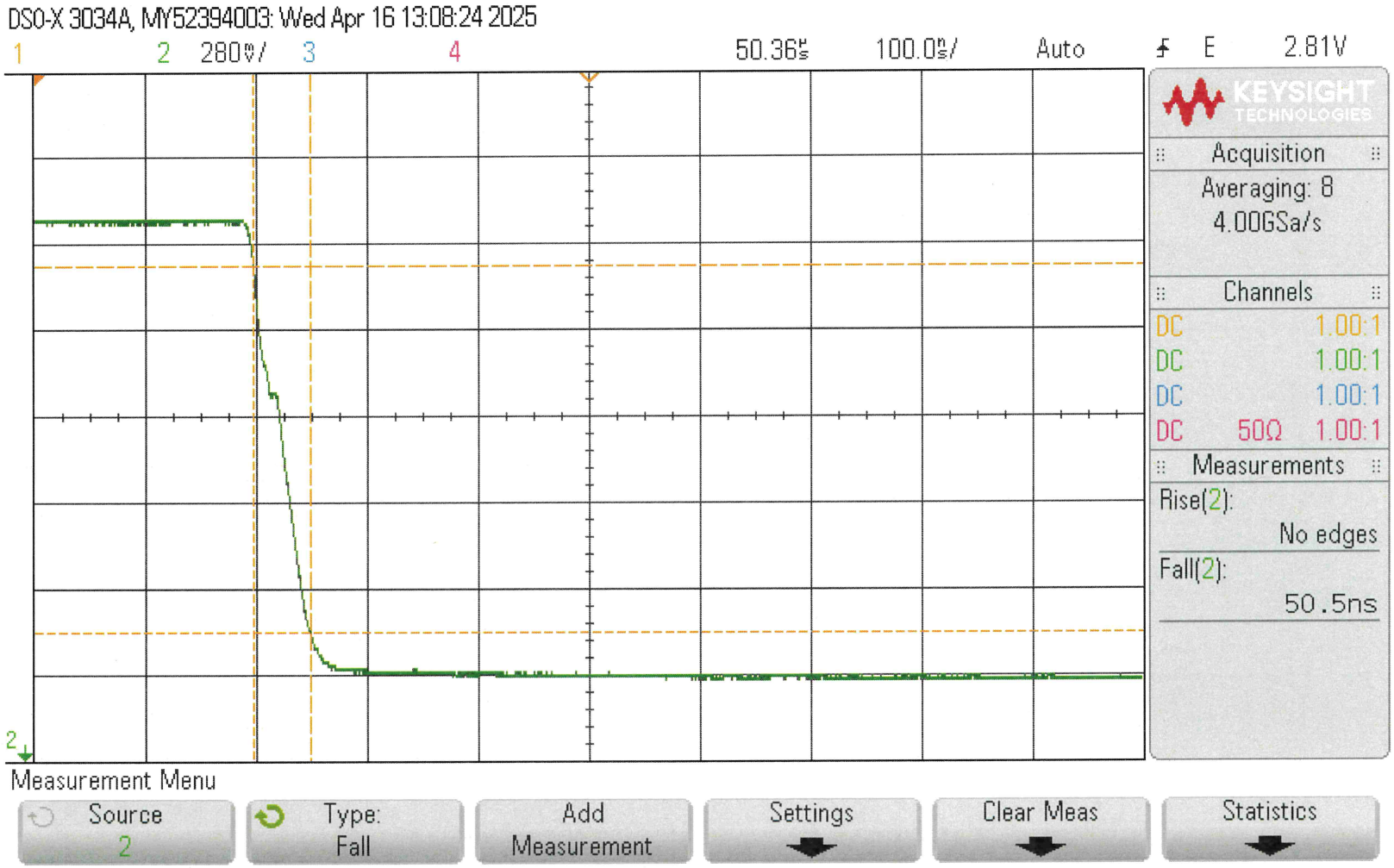
Input VSWR 1.92:1 Max

PL52535

TSS -71 dbm



PL52535
Recovery/Fall



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Rise Time