



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

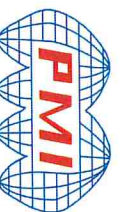
CUSTOMER: _____
 SO: _____
 MODEL NO: SDLVA-6G18G-CD-2-OPT218
 SERIAL NO: PL42908/2348

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	
2	Flatness	± 2.0 dB Maximum	± 1.4dB 25°C See Plots	
3	TSS	-70 dBm Minimum	-71dBm	
4	VSWR	2.0:1 (Input)	1.83:1	
5	Input Power	+17 dBm CW Maximum	Pass	
6	RF Out	+13 dBm ±3 dB Typical	14.6/12.3dBm	
7	Log Slope	25 mV/dB (±10%) 50Ω	24.8mV/dB See Plot	
8	Log Range	-70 to +5 dBm	See Plots	
9	Log Linearity	±2.5 dB (-40°C - +85°C)	1.52/-1.68dB 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

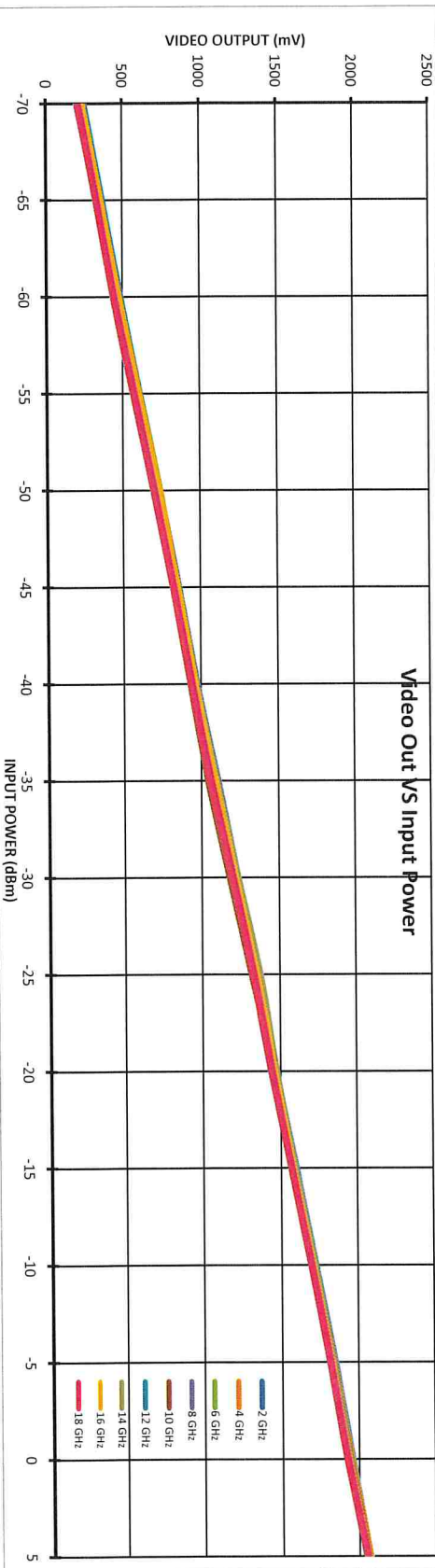
Frequency	INTERCEPT (mV)	SLOPE (mV/dB)	LINEARITY ERROR (dB)
2 GHz	1970	24.63	0.7
4 GHz	1969	25.05	0.675
6 GHz	1960	25.33	0.808
8 GHz	1945	24.89	0.885
10 GHz	1953	25.15	1.257
12 GHz	1944	24.36	0.817
14 GHz	1962	24.88	1.335
16 GHz	1948	24.33	0.789
18 GHz	1941	24.89	0.579

RF Input Power (dBm)	-70	-65	-60	-55	-50	-45	-40	-35	-30	-25	-20	-15	-10	-5	0	5
2 GHz	243	368	490	611	738	863	979	1111	1237	1372	1476	1606	1730	1853	1962	2077
4 GHz	209	338	458	585	716	851	969	1095	1223	1355	1470	1600	1725	1847	1956	2077
6 GHz	190	316	434	564	694	824	941	1057	1193	1331	1461	1599	1723	1843	1949	2066
8 GHz	204	332	451	580	710	828	937	1052	1186	1323	1453	1583	1712	1831	1937	2061
10 GHz	201	329	447	574	699	818	928	1041	1176	1315	1461	1600	1724	1842	1947	2066
12 GHz	236	363	484	607	736	844	952	1072	1208	1355	1486	1586	1713	1830	1933	2053
14 GHz	207	335	456	586	720	852	969	1098	1233	1373	1472	1595	1721	1837	1939	2058
16 GHz	234	360	483	611	743	857	969	1095	1223	1359	1466	1587	1714	1831	1932	2053
18 GHz	198	323	441	572	699	823	941	1060	1199	1333	1444	1572	1701	1820	1928	2057

Measured Value (mV)	1.1	1	1.1	0.9	1	0.9	1	1.4	1.2	1.2	0.6	0.7	0.6	0.7	0.7	0.5
Measured Value (mV)	243	368	490	611	738	863	979	1111	1237	1372	1476	1606	1730	1853	1962	2077
ERROR (mV)	-3	-1	-2	-5	-1	1	-6	3	6	18	-2	5	6	6	-8	-16
LINEARITY ERROR (dB)	-0.13	-0.05	-0.10	-0.19	-0.03	0.05	-0.24	0.11	0.23	0.71	-0.07	0.21	0.25	0.24	-0.33	-0.66

Measured Value (mV)	198	323	441	572	699	823	941	1060	1199	1333	1444	1572	1701	1820	1928	2057
Measured Value (mV)	198	323	441	572	699	823	941	1060	1199	1333	1444	1572	1701	1820	1928	2057
ERROR (mV)	-1	0	-7	0	3	2	-4	-10	5	14	1	5	9	4	-13	-8
LINEARITY ERROR (dB)	-0.03	-0.01	-0.26	0.00	0.10	0.09	-0.17	-0.39	0.19	0.58	0.04	0.18	0.37	0.15	-0.51	-0.33

Video Out VS Input Power



Measured Value (mV)	1.1	1	1.1	0.9	1	0.9	1	1.4	1.2	1.2	0.6	0.7	0.6	0.7	0.7	0.5
Measured Value (mV)	198	323	441	572	699	823	941	1060	1199	1333	1444	1572	1701	1820	1928	2057
ERROR (mV)	-1	0	-7	0	3	2	-4	-10	5	14	1	5	9	4	-13	-8
LINEARITY ERROR (dB)	-0.03	-0.01	-0.26	0.00	0.10	0.09	-0.17	-0.39	0.19	0.58	0.04	0.18	0.37	0.15	-0.51	-0.33

Measured Value (mV)	234	360	483	611	743	857	969	1095	1223	1359	1466	1587	1714	1831	1932	2053
Measured Value (mV)	234	360	483	611	743	857	969	1095	1223	1359	1466	1587	1714	1831	1932	2053
ERROR (mV)	-11	-7	-5	1	11	4	-6	-1	5	19	5	4	9	5	-16	-17
LINEARITY ERROR (dB)	-0.45	-0.27	-0.21	0.05	0.47	0.16	-0.24	-0.06	0.20	0.79	0.19	0.16	0.38	0.19	-0.66	-0.69

Measured Value (mV)	201	329	447	574	699	818	928	1041	1176	1315	1461	1600	1724	1842	1947	2066
Measured Value (mV)	201	329	447	574	699	818	928	1041	1176	1315	1461	1600	1724	1842	1947	2066
ERROR (mV)	9	11	3	4	4	-3	-19	-32	-22	-9	11	24	23	15	-6	-13
LINEARITY ERROR (dB)	0.35	0.44	0.13	0.18	0.15	-0.12	-0.75	-1.26	-0.89	-0.36	0.44	0.97	0.90	0.59	-0.24	-0.51

Measured Value (mV)	236	363	484	607	736	844	952	1072	1208	1355	1486	1586	1713	1830	1933	2053
Measured Value (mV)	236	363	484	607	736	844	952	1072	1208	1355	1486	1586	1713	1830	1933	2053
ERROR (mV)	-3	2	2	3	10	-4	-18	-19	-5	20	9	7	12	8	-11	-13
LINEARITY ERROR (dB)	-0.12	0.10	0.06	0.11	0.41	-0.16	-0.72	-0.80	-0.22	0.82	0.37	0.30	0.51	0.32	-0.46	-0.53

Measured Value (mV)	207	335	456	586	720	852	969	1098	1233	1373	1472	1595	1721	1837	1939	2058
Measured Value (mV)	207	335	456	586	720	852	969	1098	1233	1373	1472	1595	1721	1837	1939	2058
ERROR (mV)	-13	-10	-13	-7	2	10	2	7	18	33	8	6	6	8	0	-23
LINEARITY ERROR (dB)	-0.53	-0.38	-0.52	-0.30	0.09	0.39	0.10	0.28	0.71	1.33	0.31	0.26	0.32	0.02	-0.92	-1.13

Measured Value (mV)	234	360	483	611	743	857	969	1095	1223	1359	1466	1587	1714	1831	1932	2053
Measured Value (mV)	234	360	483	611	743	857	969	1095	1223	1359	1466	1587	1714	1831	1932	2053
ERROR (mV)	-11	-7	-5	1	11	4	-6	-1	5	19	5	4	9	5	-16	-17
LINEARITY ERROR (dB)	-0.45	-0.27	-0.21	0.05	0.47	0.16	-0.24	-0.06	0.20	0.79	0.19	0.16	0.38	0.19	-0.66	-0.69

Measured Value (mV)	198	323	441	572	699	823	941	1060	1199	1333	1444	1572	1701	1820	1928	2057
Measured Value (mV)	198	323	441	572	699	823	941	1060	1199	1333	1444	1572	1701	1820	1928	2057
ERROR (mV)	-1	0	-7	0	3	2	-4	-10	5	14	1	5	9	4	-13	-8
LINEARITY ERROR (dB)	-0.03	-0.01	-0.26	0.00	0.10	0.09	-0.17	-0.39	0.19	0.58	0.04	0.18	0.37	0.15	-0.51	-0.33

Measured Value (mV)	204	332	451	580	710	828	937	1052	1186	1323	1453	1583	1712	1831	1937	2061
Measured Value (mV)	204	332	451	580	710	828	937	1052	1186	1323	1453	1583	1712	1831	1937	2061
ERROR (mV)	1	5	-1	4	9	3	-13	-22	-12	0	6	11	16	10	-8	-9
LINEARITY ERROR (dB)	0.04	0.18	-0.03	0.15	0.37	0.11	-0.51	-0.89	-0.50	0.00	0.23	0.45	0.63	0.42	-0.32	-0.34

Measured Value (mV)	201	329	447	574	699	818	928	1041	1176	1315	1461	1600	1724	1842	1947	2066
Measured Value (mV)	201	329	447	574	699	818	928	1041	1176	1315	1461	1600	1724	1842	1947	2066
ERROR (mV)	9	11	3	4	4	-3	-19	-32	-22	-9	11	24	23	15	-6	-13
LINEARITY ERROR (dB)	0.35	0.44	0.13	0.18	0.15	-0.12	-0.75	-1.26	-0.89	-0.36	0.44	0.97	0.90	0.59	-0.24	-0.51

Measured Value (mV)	236	363	484	607	736	844	952	1072	1208	1355	1486	1586	1713	1830	1933	2053
Measured Value (mV)	236	363	484	607	736	844	952	1072	1208	1355	1486	1586	1713	1830	1933	2053
ERROR (mV)	-3	2	2	3	10	-4	-18	-19	-5	20	9	7	12	8	-11	-13
LINEARITY ERROR (dB)	-0.12	0.10	0.06	0.11	0.41	-0.16	-0.72	-0.80	-0.22	0.82	0.37	0.30	0.51	0.32	-0.46	-0.53

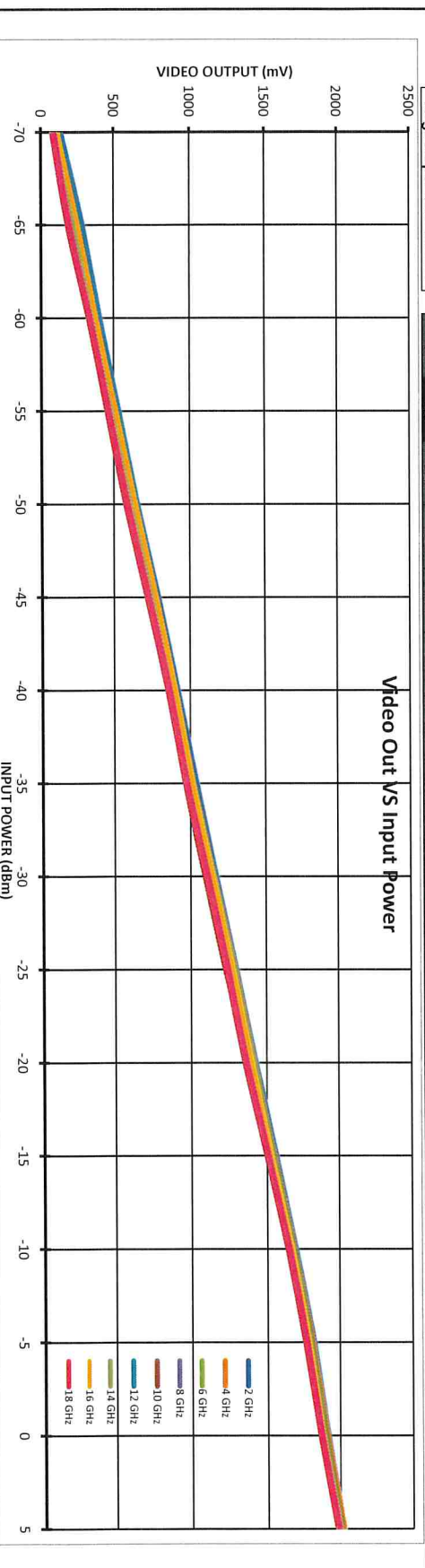
Measured Value (mV)	207	335	456	586	720	852	969	1098	1233	1373	1472	1595	1721	1837	1939	2058
Measured Value (mV)	207	335	456	586	720	852	969	1098	1233	1373	1472	1595	1721	1837	1939	2058
ERROR (mV)	-13	-10	-13	-7	2	10	2	7	18	33	8	6	6	8	0	-23
LINEARITY ERROR (dB)	-0.53	-0.38	-0.52	-0.30	0.09	0.39	0.10	0.28	0.71	1.33	0.31	0.26	0.32	0.02	-0.92	-1.13

Measured Value (mV)	234	360	483	611	743	857	969	1095	1223	1359	1466	1587	1714	1831	1932	2053
Measured Value (mV)	234	360	483	611	743	857	969	1095	1223	1359	1466	1587	1714	1831	1932	2053
ERROR (mV)	-11	-7	-5	1	11	4	-6	-1	5	19	5	4	9	5	-16	-17
LINEARITY ERROR (dB)	-0.45	-0.27	-0.21	0.05	0.47											

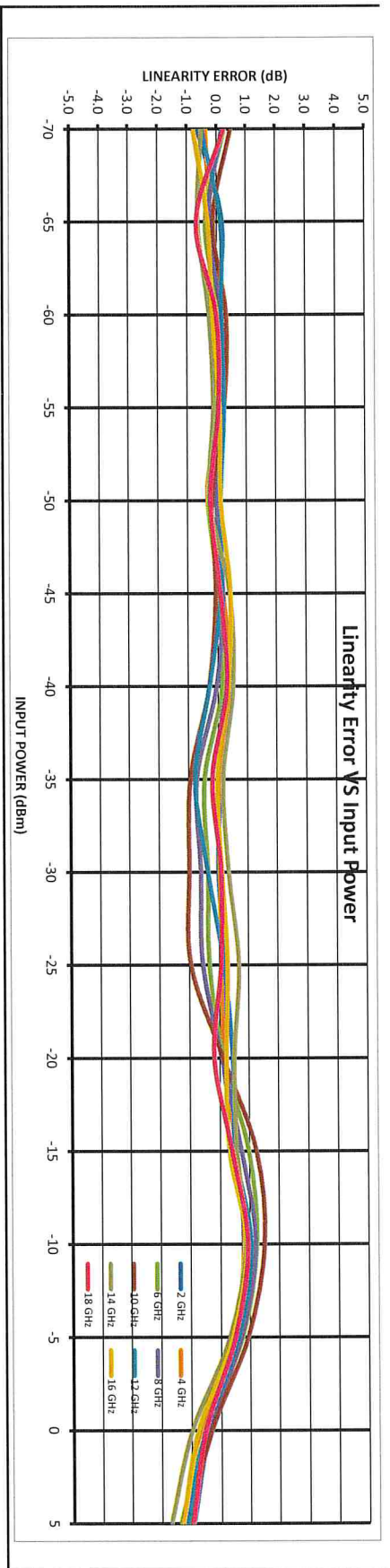


Frequency

Frequency	-70	-65	-60	-55	-50	-45	-40	-35	-30	-25	-20	-15	-10	-5	0	5		
2 GHz	INTERCEPT (mV)	1934	135	284	407	533	654	790	919	1045	1170	1303	1428	1567	1700	1821	1920	2029
	SLOPE (mV/DB)	25.47	-16	5	1	-1	-7	2	3	2	0	5	3	15	20	14	-14	-33
	LN. ERR. (DB)	1.3	-0.65	0.20	0.03	-0.02	-0.27	0.07	0.14	0.08	-0.01	0.21	0.12	0.58	0.80	0.55	-0.56	-1.28
4 GHz	INTERCEPT (mV)	1930	105	239	373	503	625	768	903	1023	1153	1284	1415	1556	1692	1812	1914	2029
	SLOPE (mV/DB)	25.94	-9	-5	-1	-1	-8	5	10	3	1	2	4	15	21	12	-16	-31
	LN. ERR. (DB)	1.188	-0.36	-0.20	-0.03	-0.02	-0.32	0.20	0.40	0.03	0.04	0.09	0.14	0.58	0.82	0.45	-0.62	-1.19
6 GHz	INTERCEPT (mV)	1917	87	201	344	474	597	737	871	986	1120	1252	1385	1549	1687	1805	1903	2012
	SLOPE (mV/DB)	26.24	7	-10	2	1	-8	1	4	-12	-9	-9	3	26	33	20	-14	-36
	LN. ERR. (DB)	1.364	0.28	-0.38	0.07	0.03	-0.29	0.05	0.15	-0.46	-0.36	-0.33	0.12	0.99	1.25	0.75	-0.52	-1.36
8 GHz	INTERCEPT (mV)	1904	92	210	351	482	606	741	865	977	1110	1241	1387	1534	1676	1793	1894	2010
	SLOPE (mV/DB)	25.96	5	-7	4	5	0	5	-1	-19	-15	-14	2	19	31	19	-10	-24
	LN. ERR. (DB)	1.209	0.19	-0.27	0.16	0.21	-0.01	0.19	-0.03	-0.72	-0.60	-0.55	0.08	0.74	1.21	0.72	-0.39	-0.92
10 GHz	INTERCEPT (mV)	1909	87	202	345	474	594	728	853	967	1097	1229	1388	1549	1687	1803	1901	2011
	SLOPE (mV/DB)	26.22	13	-3	9	7	-4	-1	-8	-25	-26	-25	3	33	40	25	-8	-29
	LN. ERR. (DB)	1.521	0.50	-0.12	0.34	0.26	-0.17	-0.06	-0.29	-0.94	-0.98	-0.95	0.12	1.26	1.52	0.95	-0.32	-1.12
12 GHz	INTERCEPT (mV)	1904	120	263	390	519	642	769	885	999	1136	1276	1410	1538	1678	1793	1891	2002
	SLOPE (mV/DB)	25.31	-13	4	4	6	3	3	-7	-20	-9	4	12	13	27	15	-13	-29
	LN. ERR. (DB)	1.144	-0.51	0.14	0.16	0.26	0.12	0.13	-0.28	-0.78	-0.36	0.17	0.46	0.52	1.05	0.60	-0.53	-1.14
14 GHz	INTERCEPT (mV)	1919	95	221	360	493	619	766	898	1018	1152	1290	1415	1546	1683	1798	1894	2005
	SLOPE (mV/DB)	25.87	-13	-16	-7	-3	-7	11	14	4	9	18	13	15	23	8	-25	-44
	LN. ERR. (DB)	1.694	-0.50	-0.63	-0.26	-0.12	-0.25	0.43	0.53	0.17	0.35	0.68	0.51	0.58	0.87	0.32	-0.97	-1.68
16 GHz	INTERCEPT (mV)	1904	113	252	382	515	642	777	901	1018	1148	1279	1404	1533	1674	1788	1885	1998
	SLOPE (mV/DB)	25.31	-20	-7	-4	3	3	12	9	-1	3	7	6	8	23	10	-19	-33
	LN. ERR. (DB)	1.294	-0.79	-0.29	-0.16	0.10	0.12	0.45	0.35	-0.02	0.12	0.29	0.23	0.33	0.90	0.41	-0.76	-1.29
18 GHz	INTERCEPT (mV)	1886	81	186	333	464	586	724	859	975	1112	1241	1364	1509	1652	1770	1873	1991
	SLOPE (mV/DB)	25.89	7	-18	0	2	-6	3	8	-5	2	2	-5	11	24	13	-13	-25
	LN. ERR. (DB)	0.96	-0.26	-0.68	0.00	0.06	-0.23	0.10	0.32	-0.20	0.09	0.07	-0.18	0.42	0.95	0.50	-0.52	-0.96
Avg. Slope: 25.8 mV/DB																		
Flatness: dB: ±1.9 dB																		



PL42908
85°C



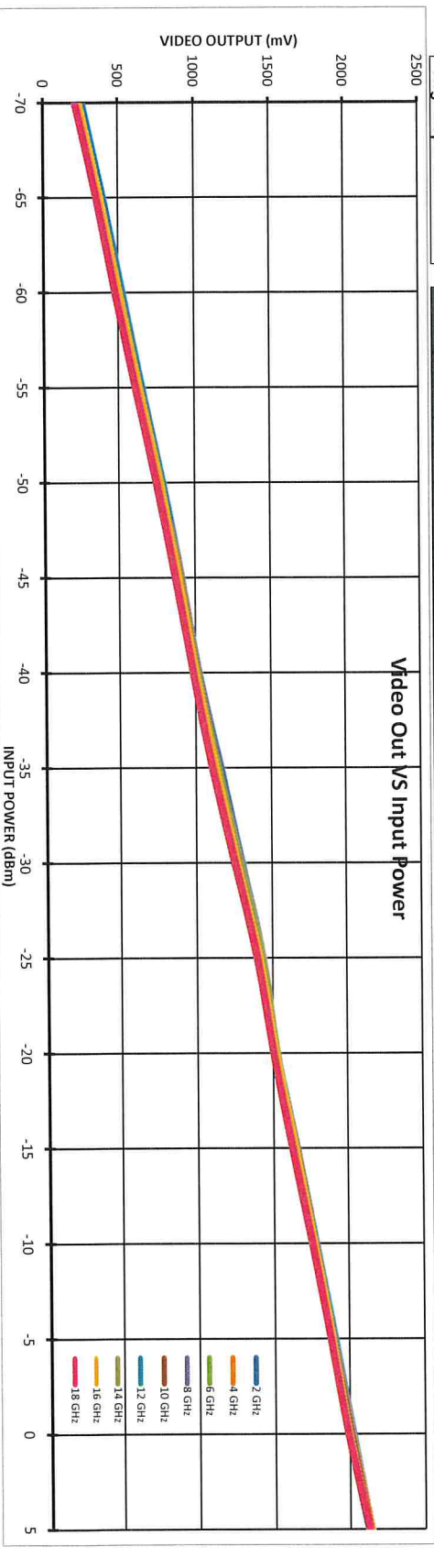


Frequency

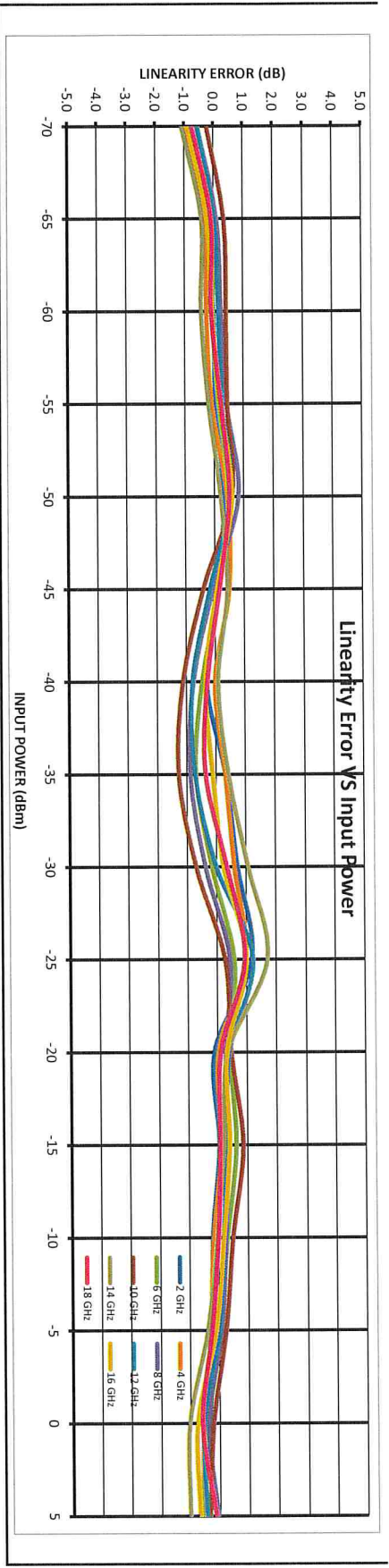
Frequency	2 GHz	4 GHz	6 GHz	8 GHz	10 GHz	12 GHz	14 GHz	16 GHz	18 GHz
INTERCEPT (mV)	2039	2036	2022	2009	2021	2011	2030	2020	2009
SLOPE (mV/dB)	25.05	25.34	25.63	25.06	25.25	24.87	25.52	25.03	25.4
LINEARITY ERROR (dB)	1.2	0.984	0.683	0.88	1.28	1.229	1.716	1.011	0.95
Measured Value (mV)	265	238	215	241	248	256	216	245	212
Error (mV)	-21	-24	-14	-14	-6	-14	-28	-22	-19
LINEARITY ERROR (dB)	-0.82	-0.94	-0.53	-0.56	-0.22	-0.57	-1.09	-0.89	-0.74
Measured Value (mV)	404	381	359	383	389	395	361	387	356
Error (mV)	-7	-9	2	3	9	1	-10	-5	-2
LINEARITY ERROR (dB)	-0.28	-0.29	0.09	0.11	0.36	0.02	-0.41	-0.21	-0.07
Measured Value (mV)	536	509	484	512	517	523	488	516	483
Error (mV)	0	-6	-1	6	11	4	-11	-2	-2
LINEARITY ERROR (dB)	0.06	-0.24	-0.03	0.26	0.43	0.17	-0.43	-0.06	-0.07
Measured Value (mV)	663	640	617	642	644	650	622	648	618
Error (mV)	2	8	4	11	12	7	-5	5	6
LINEARITY ERROR (dB)	0.33	0.45	0.50	0.33	0.61	0.27	0.23	0.61	0.24
Measured Value (mV)	795	780	754	777	774	782	760	783	752
Error (mV)	8	11	13	-1	15	14	11	15	13
LINEARITY ERROR (dB)	0.12	0.16	0.15	-0.06	0.39	0.58	0.44	0.08	0.52
Measured Value (mV)	915	908	873	880	875	888	893	895	870
Error (mV)	3	0	4	-1	-10	-4	3	2	4
LINEARITY ERROR (dB)	0.34	0.00	-0.44	-0.88	-1.11	-0.78	0.43	-0.33	-0.27
Measured Value (mV)	1030	1022	1108	1110	1105	1123	1148	1141	1111
Error (mV)	-7	8	-18	-22	-32	-18	27	-2	9
LINEARITY ERROR (dB)	0.34	0.33	-0.68	-0.75	-0.70	0.00	1.07	0.26	0.36
Measured Value (mV)	1171	1157	1250	1248	1246	1420	1436	1419	1398
Error (mV)	8	16	15	11	7	31	44	25	24
LINEARITY ERROR (dB)	0.73	0.62	0.60	0.45	0.28	1.23	1.72	0.33	0.95
Measured Value (mV)	1306	1427	1397	1394	1397	1524	1529	1527	1504
Error (mV)	18	25	11	11	12	10	9	8	3
LINEARITY ERROR (dB)	1.19	0.05	0.43	0.31	0.47	0.32	0.22	0.40	0.12
Measured Value (mV)	1443	1530	1652	1641	1664	1646	1653	1654	1630
Error (mV)	30	1	16	8	7	8	6	5	2
LINEARITY ERROR (dB)	1.99	-0.09	0.62	0.31	0.49	0.18	0.04	0.19	0.08
Measured Value (mV)	1536	1659	1774	1765	1781	1767	1774	1774	1755
Error (mV)	-2	4	8	6	12	4	-1	5	0
LINEARITY ERROR (dB)	-0.09	0.14	0.31	0.26	0.24	0.18	-0.38	0.09	-0.23
Measured Value (mV)	1665	1778	1895	1886	1901	1887	1893	1892	1876
Error (mV)	1	-4	1	2	6	0	-10	-2	-6
LINEARITY ERROR (dB)	0.05	-0.16	0.03	0.09	0.26	0.00	-1.03	-0.09	-0.59
Measured Value (mV)	1784	1902	2011	2000	2016	2016	2004	2001	1994
Error (mV)	-5	-7	-11	-9	-5	-13	-26	-19	-15
LINEARITY ERROR (dB)	-0.20	-0.27	-0.44	-0.36	-0.20	-0.53	-1.01	-0.74	-0.59
Measured Value (mV)	1910	2022	2135	2133	2139	2125	2132	2128	2133
Error (mV)	-4	-14	-16	-1	-8	-11	-26	-17	-3
LINEARITY ERROR (dB)	-0.17	-0.54	-0.60	-0.06	-0.33	-0.43	-1.01	-0.67	-0.11
Measured Value (mV)	2031	2148	2259	2257	2265	2252	2259	2257	2254
Error (mV)	-8	-14	-16	-8	-5	-8	-6	-5	-3
LINEARITY ERROR (dB)	-0.34	-0.56	-0.60	-0.36	-0.20	-0.33	-0.22	-0.40	-0.11
Measured Value (mV)	2149	2265	2378	2376	2384	2370	2377	2374	2375
Error (mV)	-16	-14	-16	-1	-8	-11	-26	-17	-3
LINEARITY ERROR (dB)	-0.63	-0.56	-0.60	-0.06	-0.33	-0.43	-1.01	-0.67	-0.11

Avg. Slope: 25.2 mV/dB

Flatness: dB: ±1.3 dB



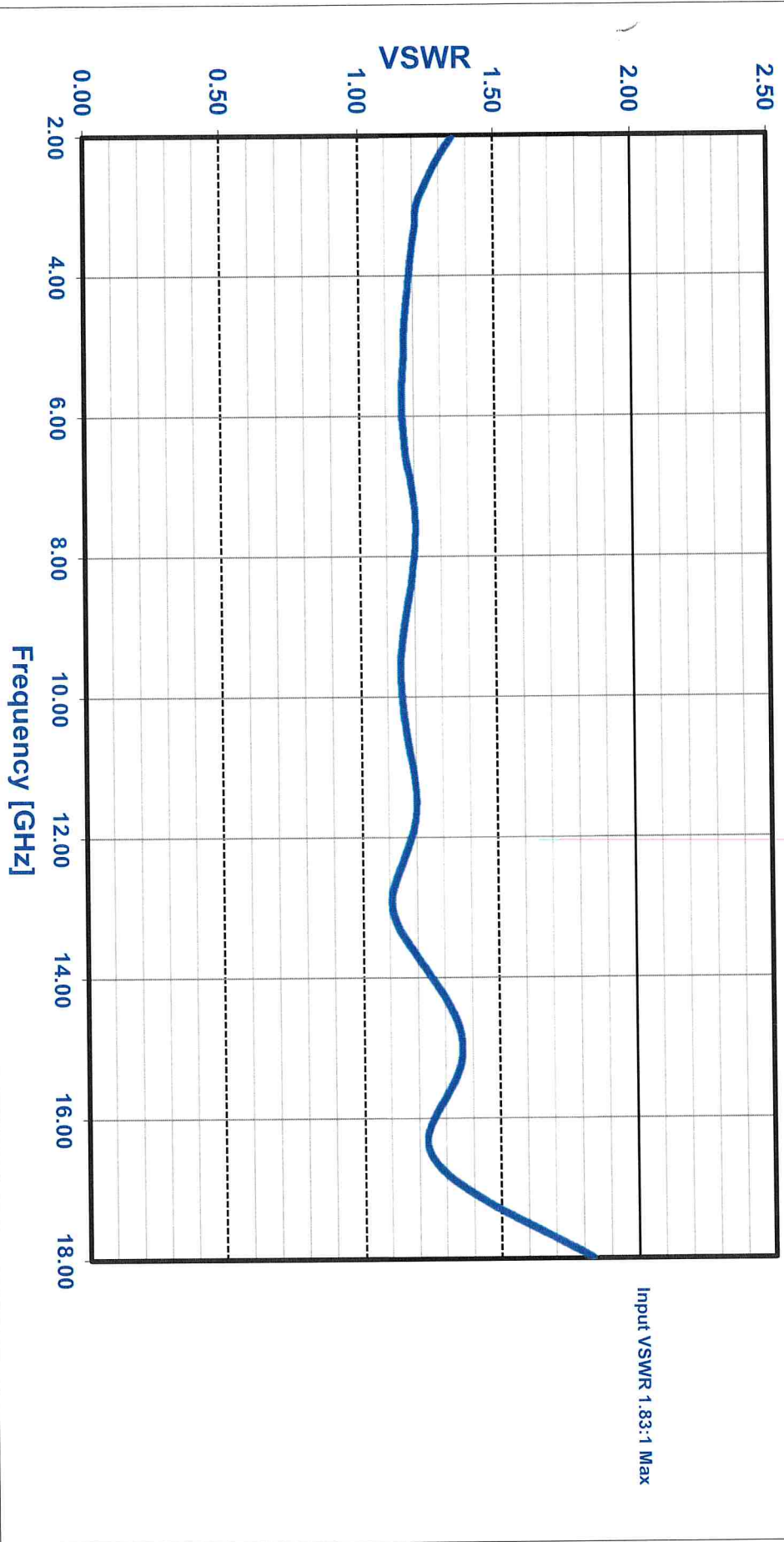
PL42908
-40°C



Model Number: SDLVA-6G18G-CD-2 OPT218
Serial Number: PL42908
Date: 11/27/2023

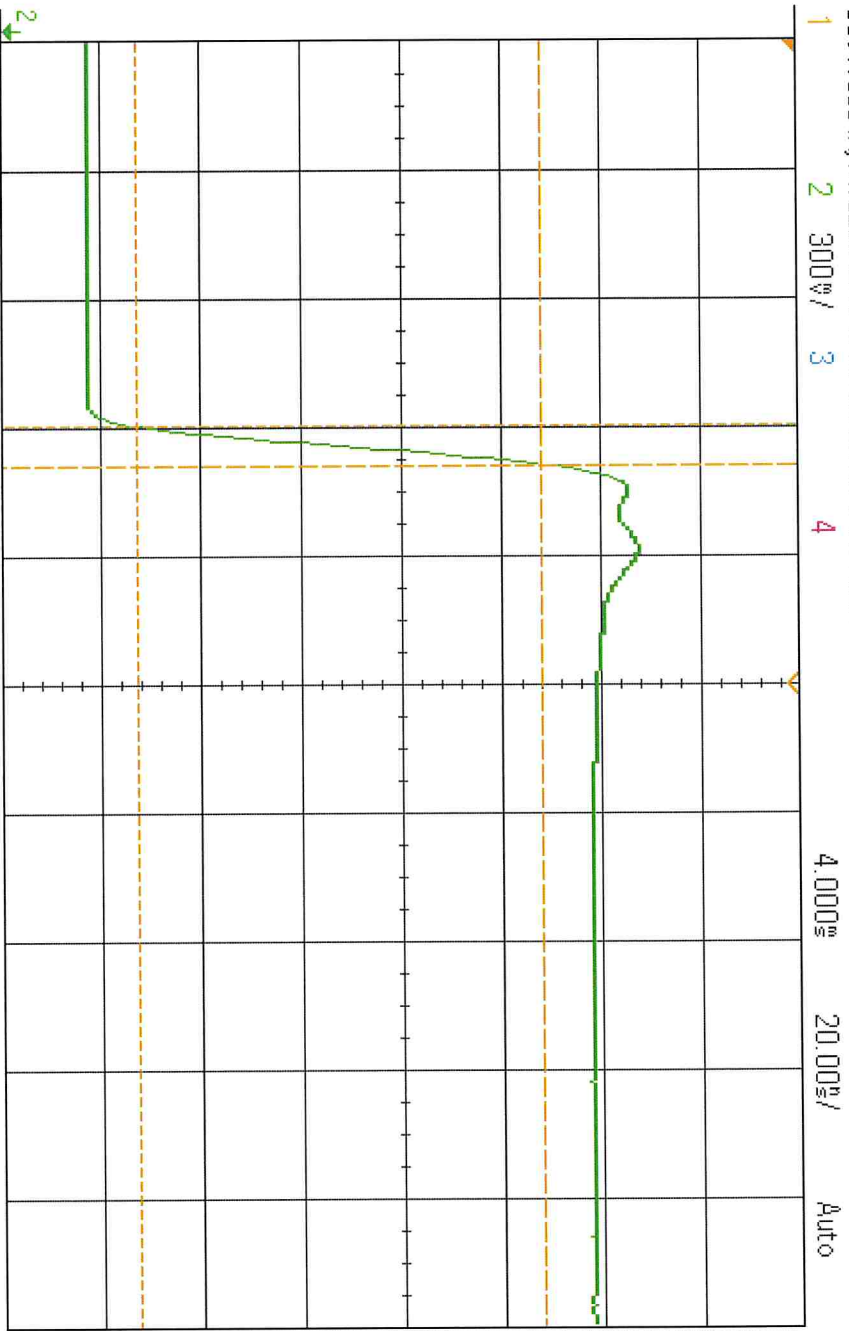
Temperature: +25C

VSWR GRAPH



PL42908
Rise Time

DSO-X 3034A, MY52394003, Wed Nov 22 09:47:37 2023



Measurement Menu
Source 2

Type: Rise

Add Measurement

Settings

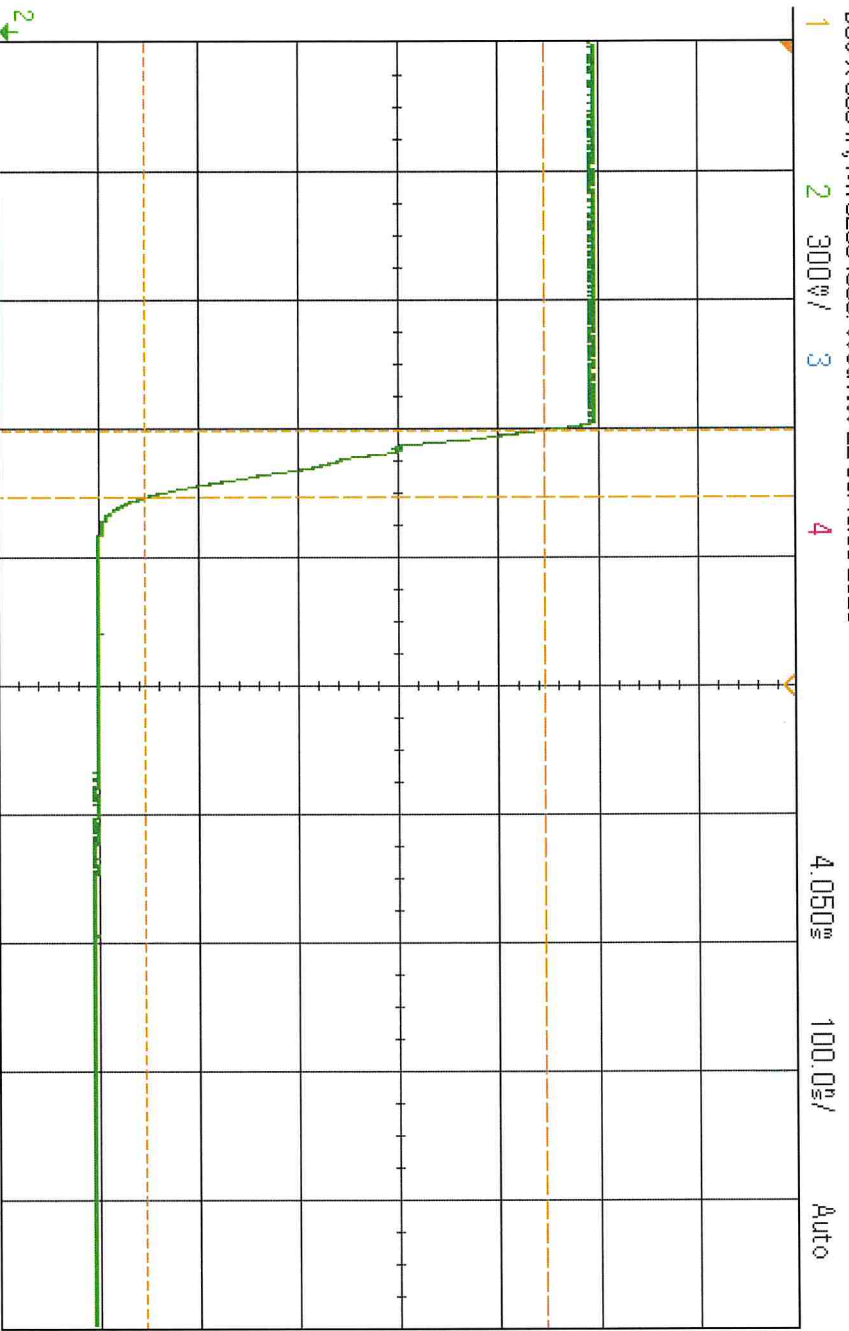
Clear Meas

Statistics

Acquisition	
Averaging: 32	
4.006Sa/s	
Channels	
DC	1.00:1
DC	1.00:1
DC	1.00:1
DC	1.00:1
Measurements	
Fall(2):	No edges
Rise(2):	6.0ns

PL42908 Recovery

DSO-X 3034A, MN52394003, Wed Nov 22 09:46:30 2023



f 4 2.83V

Acquisition
Averaging: 32
4.006Sa/s

Channels	
DC	1.00:1
DC	1.00:1
DC	1.00:1
DC	1.00:1

Measurements

Rise(2): No edges

Fall(2): 52.0ns

Save to file = PL42908_recovery

Save

Recall

Default/Erase

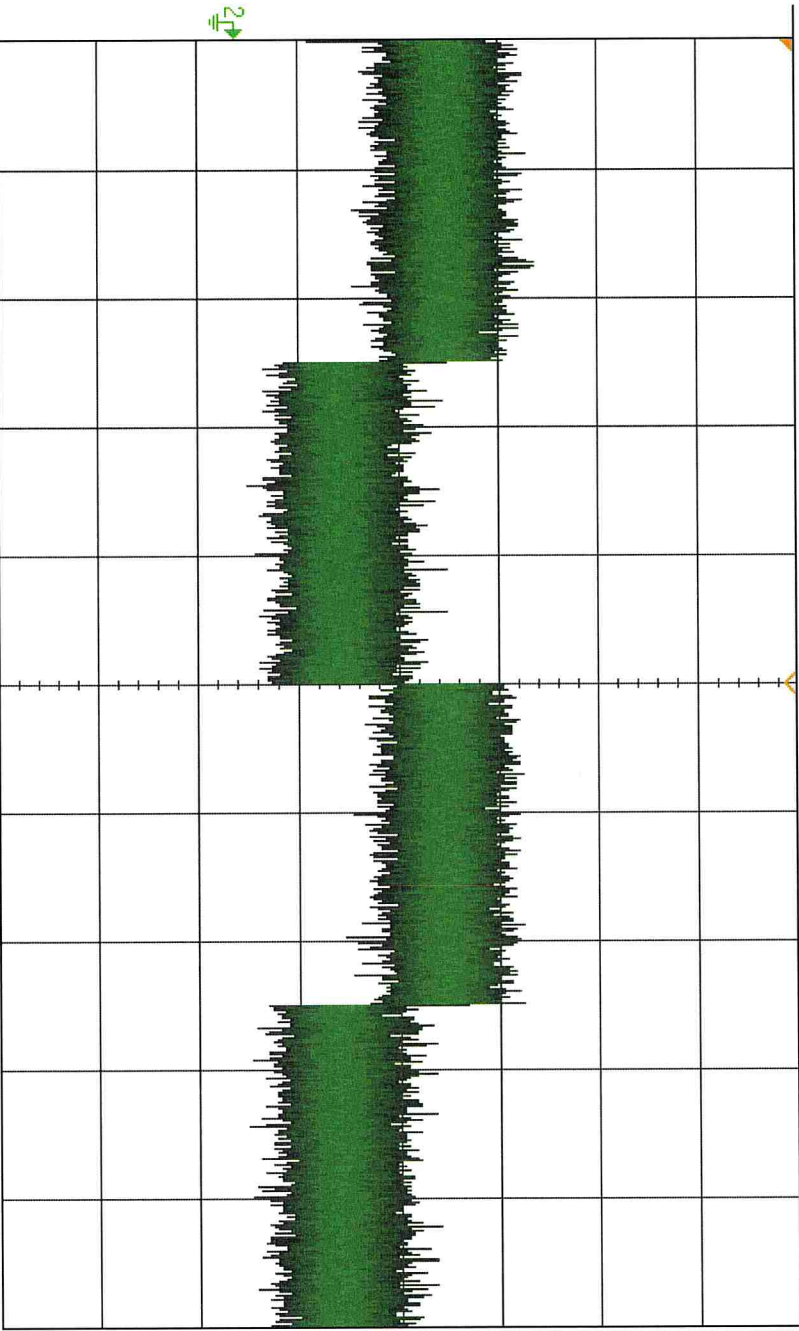
Press to Save

PL42908

TSS - 71

DSO-X-3034A, MY52394003, Wed Nov 22 09:48:34 2023

1 2 100% / 3 4 4.000µs 20.00µs / Auto f 4 2.68V



Acquisition	Normal
Channels	4.00GSa/s
DC	1.00:1
DC	1.00:1
DC	1.00:1
DC	1.00:1

Cursors Menu

Mode
Off

To turn on cursors, press the [Cursors] key on the front panel.