


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

CUSTOMER: _____
 SO: _____
 MODEL NO: SDLVA-6G18G-CD-2-OPT218
 SERIAL NO: PL42889/2347

TESTED BY: Jim Hopson
 TEMPERATURE: +25°C
 DATE: 11/20/2023
 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	± 1.6 dB 25°C See Plots	
3	TSS	-70 dBm Minimum	-71dBm	
4	VSWR	2.0:1 (Input)	1.72:1	
5	Input Power	+17 dBm CW Maximum	Pass	
6	RF Out	+13 dBm ±3 dB Typical	14.8/12.3dBm	
7	Log Slope	25 mV/dB (±10%) 50Ω	24.9 mV/dB See Plot	
8	Log Range	-70 to +5 dBm	See Plots	
9	Log Linearity	±2.5 dB (-40°C - +85°C)	1.67/-2.04dB See Plots	
10	Pulse Range	30 ns to CW	Pass	
11	Rise Time	10 ns (6 ns Typical)	6.0 ns	
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: 

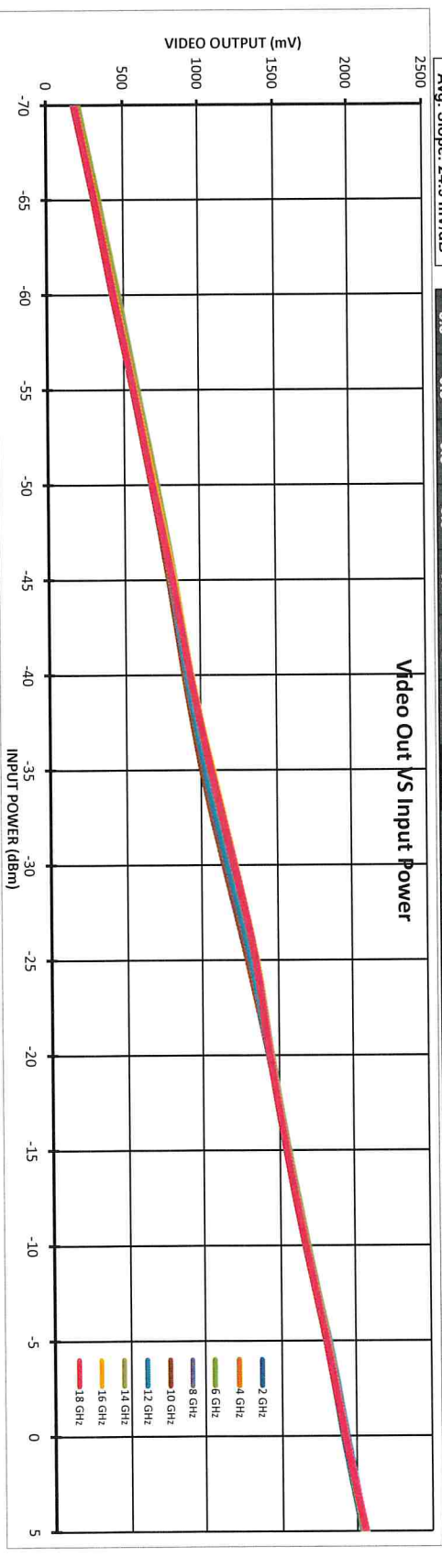
Date: 11-20-23



Frequency

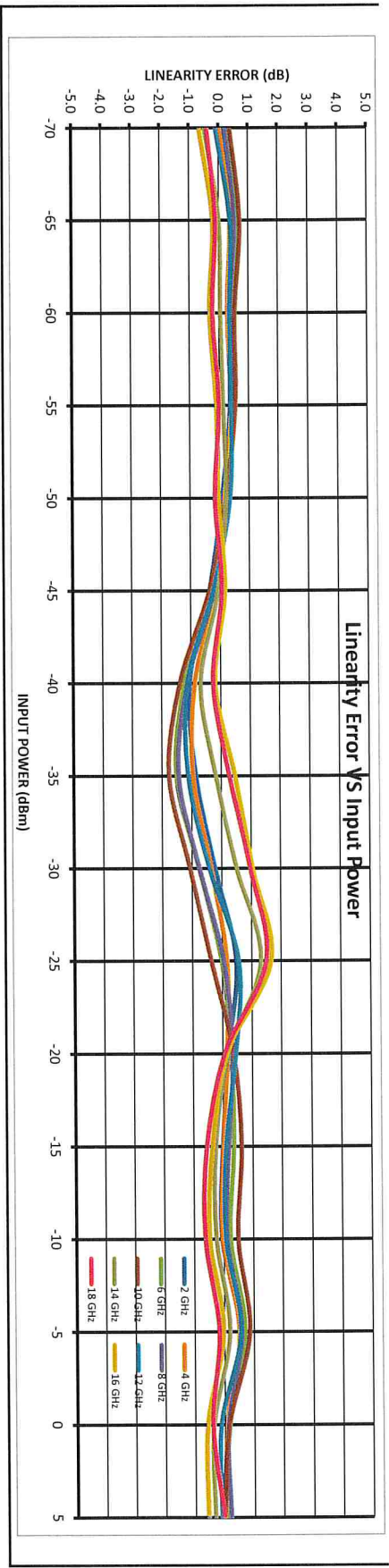
Frequency	Intercept (mV)	Slope (mV/dB)	Lin. Err. (dB)	70	65	60	55	50	45	40	35	30	25	20	15	10	5	0	5
2 GHz	INTERCEPT (mV)	1938		187	321	443	570	688	802	910	1040	1181	1324	1442	1562	1686	1827	1941	2061
	SLOPE (mV/dB)	25.04		2	11	8	9	2	-9	-26	-21	-6	12	5	0	-1	14	3	-2
	LIN. ERR. (dB)	1.0		0.08	0.43	0.30	0.37	0.09	-0.36	-1.05	-0.86	-0.23	0.48	0.20	-0.01	-0.06	0.57	0.12	-0.08
4 GHz	INTERCEPT (mV)	1927		177	311	434	562	681	798	905	1028	1168	1306	1431	1552	1676	1815	1929	2055
	SLOPE (mV/dB)	25.01		1	9	7	10	4	-4	-22	-24	-9	4	4	0	-1	13	2	3
	LIN. ERR. (dB)	0.949		0.02	0.38	0.30	0.42	0.18	-0.18	-0.87	-0.95	-0.35	0.17	0.17	0.00	-0.04	0.52	0.08	0.12
6 GHz	INTERCEPT (mV)	1927		179	314	434	561	680	792	894	1012	1156	1300	1433	1560	1682	1819	1931	2053
	SLOPE (mV/dB)	25.05		6	16	10	12	6	-7	-31	-38	-19	0	7	9	6	18	4	1
	LIN. ERR. (dB)	1.511		0.24	0.63	0.42	0.49	0.24	-0.29	-1.22	-1.51	-0.76	-0.02	0.29	0.36	0.23	0.70	0.17	0.04
8 GHz	INTERCEPT (mV)	1920		177	310	431	559	678	791	893	1010	1152	1297	1429	1550	1673	1810	1923	2050
	SLOPE (mV/dB)	24.97		5	13	9	13	7	-5	-28	-36	-19	1	9	5	3	15	3	5
	LIN. ERR. (dB)	1.437		0.21	0.53	0.38	0.50	0.27	-0.21	-1.12	-1.44	-0.75	0.06	0.34	0.19	0.11	0.60	0.12	0.21
10 GHz	INTERCEPT (mV)	1927		179	313	434	560	677	788	888	1004	1147	1290	1434	1566	1688	1823	1931	2052
	SLOPE (mV/dB)	25.11		10	18	14	14	5	-9	-35	-44	-27	-9	9	16	12	22	4	0
	LIN. ERR. (dB)	1.757		0.38	0.72	0.54	0.56	0.22	-0.36	-1.38	-1.76	-1.06	-0.37	0.37	0.63	0.49	0.86	0.17	-0.01
12 GHz	INTERCEPT (mV)	1920		198	333	455	579	701	809	910	1033	1173	1320	1440	1554	1676	1811	1917	2040
	SLOPE (mV/dB)	24.56		-3	9	9	10	9	-6	-28	-27	-10	14	11	2	2	14	3	-3
	LIN. ERR. (dB)	1.124		-0.11	0.38	0.35	0.40	0.37	-0.24	-1.12	-1.12	-0.42	0.57	0.46	0.10	0.06	0.56	-0.12	-0.12
14 GHz	INTERCEPT (mV)	1935		202	337	461	586	711	827	935	1070	1210	1353	1448	1560	1683	1817	1926	2050
	SLOPE (mV/dB)	24.59		-12	0	1	3	5	-2	-17	-5	13	33	5	-6	-6	5	-9	-8
	LIN. ERR. (dB)	1.325		-0.48	0.01	0.05	0.13	0.22	-0.07	-0.67	-0.18	0.51	1.32	0.19	-0.26	-0.26	0.19	-0.37	-0.33
16 GHz	INTERCEPT (mV)	1938		190	325	446	575	700	829	944	1084	1222	1361	1447	1558	1679	1814	1924	2048
	SLOPE (mV/dB)	24.74		-16	-5	-8	-2	-1	4	-5	12	26	41	4	-9	-12	-1	-14	-14
	LIN. ERR. (dB)	1.669		-0.66	-0.20	-0.31	-0.10	-0.05	0.17	-0.18	0.47	1.05	1.67	0.15	-0.37	-0.48	-0.02	-0.58	-0.57
18 GHz	INTERCEPT (mV)	1935		179	311	433	563	684	814	931	1069	1211	1349	1438	1547	1670	1806	1925	2059
	SLOPE (mV/dB)	24.94		-10	-3	-5	0	-4	1	-6	7	24	38	2	-14	-16	-4	-10	-1
	LIN. ERR. (dB)	1.508		-0.40	-0.11	-0.22	0.00	-0.15	0.06	-0.25	0.28	0.88	1.51	0.08	-0.55	-0.62	-0.17	-0.40	-0.03
Avg. Slope: 24.9 mV/dB																			
Flatness: dB: +1.6 dB																			

Video Out vs Input Power



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

PL42889
+25°C

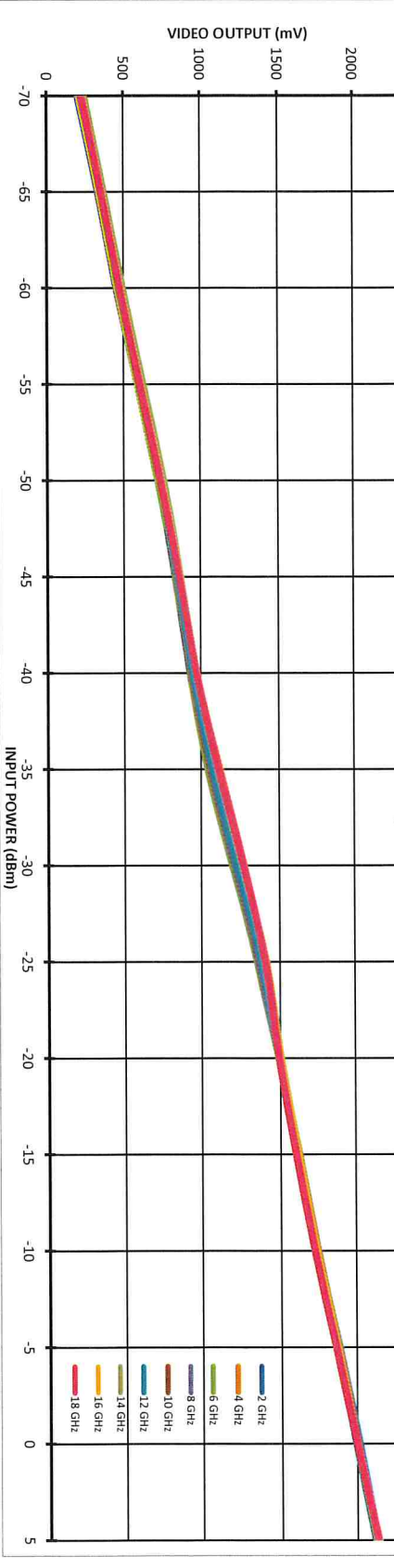




Frequency

Frequency	-70	-65	-60	-55	-50	-45	-40	-35	-30	-25	-20	-15	-10	-5	0	5
2 GHz	INTERCEPT (mV)	2017														
	SLOPE (mV/dB)	26.14														
	LIN. ERR. (dB)	1.1														
4 GHz	INTERCEPT (mV)	1999														
	SLOPE (mV/dB)	25.81														
	LIN. ERR. (dB)	1.214														
6 GHz	INTERCEPT (mV)	1990														
	SLOPE (mV/dB)	25.68														
	LIN. ERR. (dB)	1.933														
8 GHz	INTERCEPT (mV)	1991														
	SLOPE (mV/dB)	25.42														
	LIN. ERR. (dB)	1.708														
10 GHz	INTERCEPT (mV)	2001														
	SLOPE (mV/dB)	25.39														
	LIN. ERR. (dB)	2.041														
12 GHz	INTERCEPT (mV)	1994														
	SLOPE (mV/dB)	25.3														
	LIN. ERR. (dB)	1.355														
14 GHz	INTERCEPT (mV)	2007														
	SLOPE (mV/dB)	25.21														
	LIN. ERR. (dB)	1.378														
16 GHz	INTERCEPT (mV)	2015														
	SLOPE (mV/dB)	25.45														
	LIN. ERR. (dB)	1.538														
18 GHz	INTERCEPT (mV)	2003														
	SLOPE (mV/dB)	25.38														
	LIN. ERR. (dB)	1.541														
Avg. Slope: 25.5 mV/dB																
RF Input Power (dBm)																
Measured Value (mV)	196	325	448	587	715	833	942	1075	1228	1383	1502	1625	1751	1894	2022	2146
Error (mV)	9	8	0	8	5	-7	-29	-27	-4	20	8	1	-4	8	5	-1
LINEARITY ERROR (dB)	0.36	0.29	0.00	0.31	0.21	-0.28	-1.11	-1.02	-0.17	0.76	0.31	0.02	-0.16	0.31	0.21	-0.05
Measured Value (mV)	205	331	453	588	715	832	938	1064	1212	1360	1488	1613	1737	1879	2005	2138
Error (mV)	13	10	3	9	7	-5	-28	-31	-12	7	5	1	-4	9	6	10
LINEARITY ERROR (dB)	0.51	0.39	0.12	0.35	0.27	-0.20	-1.10	-1.21	-0.48	0.25	0.21	0.05	-0.14	0.36	0.24	0.39
Measured Value (mV)	211	339	459	592	717	824	923	1042	1194	1349	1485	1614	1737	1877	2000	2130
Error (mV)	18	18	9	14	11	-11	-40	-50	-26	1	8	9	4	15	10	11
LINEARITY ERROR (dB)	0.70	0.69	0.36	0.54	0.41	-0.42	-1.57	-1.93	-1.01	0.02	0.32	0.35	0.14	0.59	0.38	0.44
Measured Value (mV)	225	355	477	607	733	835	935	1058	1207	1361	1489	1612	1735	1876	2000	2134
Error (mV)	13	16	11	14	13	-12	-39	-43	-21	5	6	2	-2	12	9	16
LINEARITY ERROR (dB)	0.52	0.63	0.43	0.55	0.50	-0.48	-1.55	-1.71	-0.84	0.21	0.25	0.09	-0.07	0.48	0.36	0.63
Measured Value (mV)	241	370	495	621	742	837	936	1060	1210	1366	1501	1631	1755	1891	2012	2137
Error (mV)	18	20	18	17	11	-21	-49	-52	-29	0	8	11	8	17	11	10
LINEARITY ERROR (dB)	0.70	0.78	0.71	0.67	0.43	-0.82	-1.92	-2.04	-1.13	0.01	0.33	0.45	0.33	0.69	0.45	0.37
Measured Value (mV)	230	360	483	612	740	846	948	1076	1223	1379	1499	1618	1741	1879	1995	2124
Error (mV)	7	10	7	9	11	-10	-34	-33	-12	17	11	3	0	11	1	3
LINEARITY ERROR (dB)	0.27	0.41	0.27	0.37	0.43	-0.39	-1.35	-1.30	-0.49	0.68	0.42	0.12	-0.02	0.44	0.02	0.12
Measured Value (mV)	239	368	495	624	754	865	974	1115	1264	1411	1504	1621	1744	1882	2001	2134
Error (mV)	-3	0	1	4	8	-7	-24	-9	14	35	2	-7	-10	2	-6	1
LINEARITY ERROR (dB)	-0.11	0.01	0.04	0.16	0.32	-0.28	-0.96	-0.36	0.55	1.38	0.07	-0.29	-0.41	0.06	-0.22	0.06
Measured Value (mV)	228	358	482	614	744	868	982	1129	1275	1418	1508	1626	1748	1885	2008	2135
Error (mV)	-6	-3	-6	-1	1	-2	-15	5	23	39	2	-7	-13	-3	-7	-7
LINEARITY ERROR (dB)	-0.22	-0.12	-0.24	-0.06	0.05	-0.07	-0.60	0.18	0.92	1.54	0.07	-0.29	-0.49	-0.11	-0.28	-0.29
Measured Value (mV)	223	353	477	608	736	859	974	1118	1267	1408	1492	1603	1726	1868	2001	2144
Error (mV)	-4	-1	-4	0	2	-2	-14	3	25	39	-4	-20	-24	-8	-2	14
LINEARITY ERROR (dB)	-0.15	-0.03	-0.14	0.02	0.06	-0.09	-0.56	0.11	0.98	1.54	-0.15	-0.78	-0.93	-0.33	-0.09	0.54
Flatness dB: ±1.7 dB																
Avg. Slope: 25.5 mV/dB																

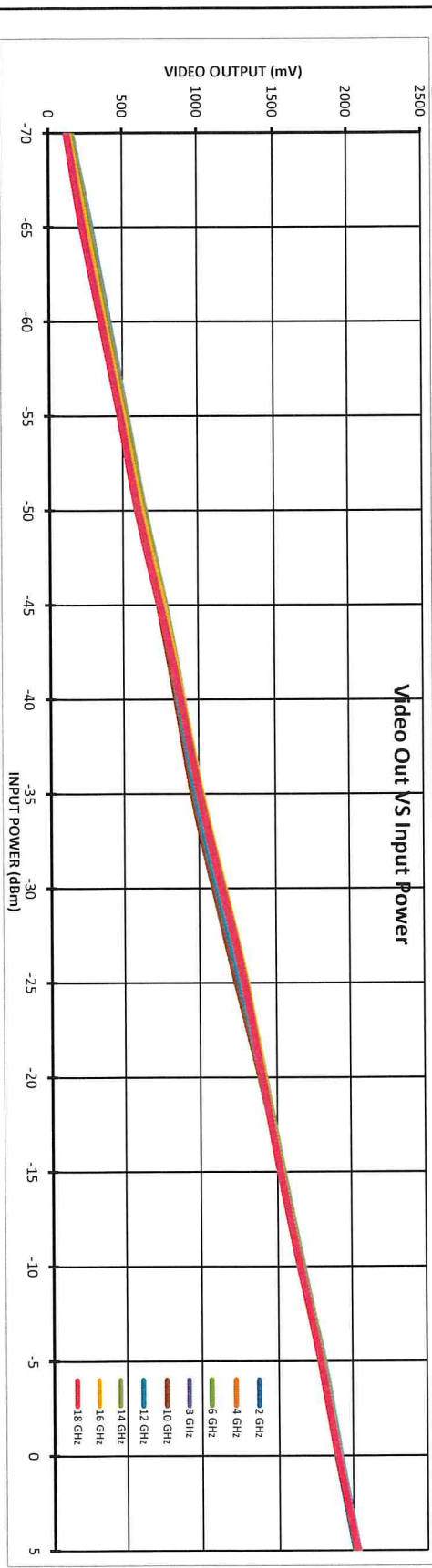
Video Out Vs Input Power





Frequency

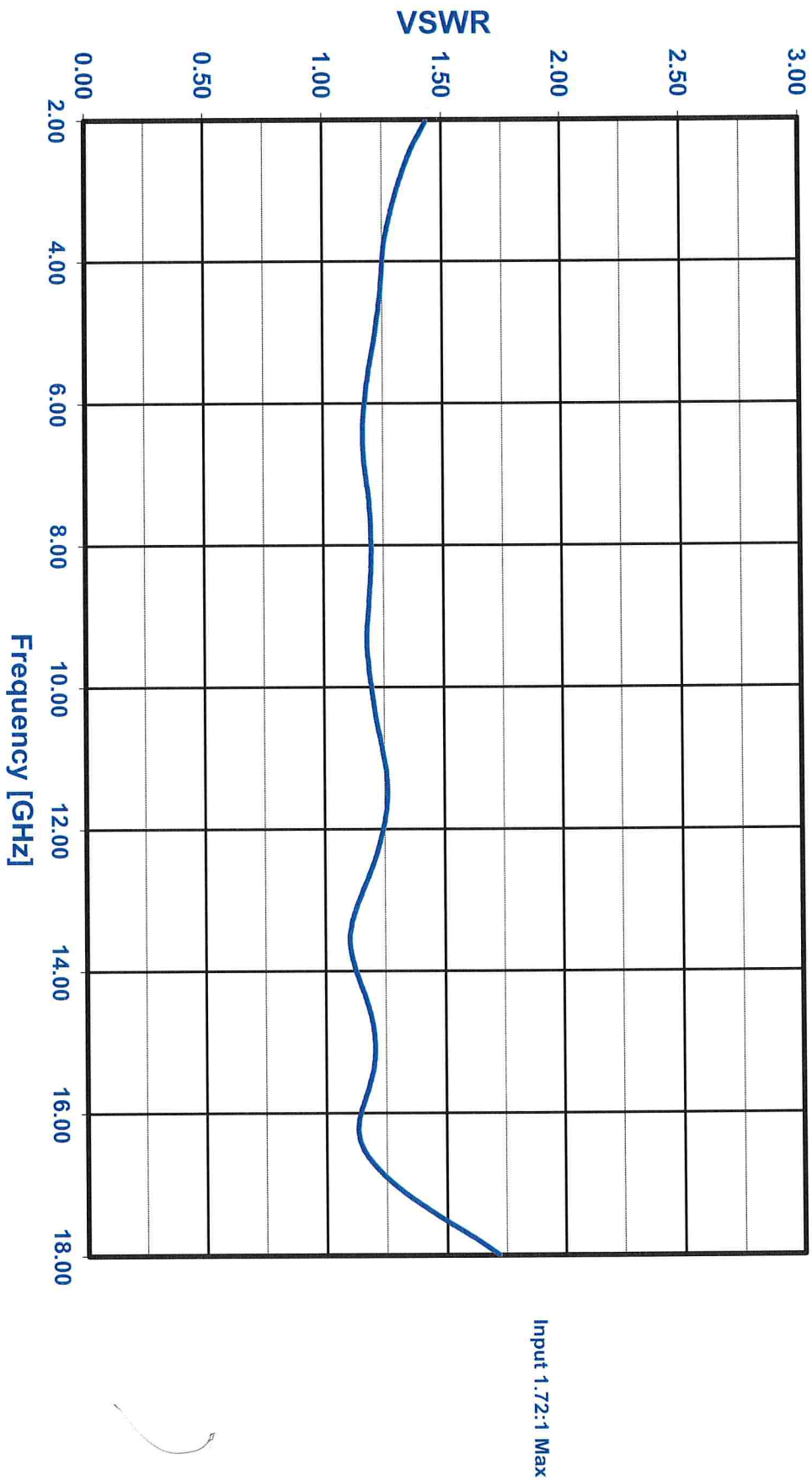
Frequency	-70	-65	-60	-55	-50	-45	-40	-35	-30	-25	-20	-15	-10	-5	0	5		
2 GHz	INTERCEPT (mV)	1913	155	286	406	532	644	764	877	1001	1140	1278	1410	1538	1668	1810	1917	2037
	SLOPE (mV/dB)	25.27	11	16	10	9	-5	-12	-25	-27	-15	-3	3	4	8	24	4	-2
	LN. ERR. (dB)	1.1	0.45	0.63	0.38	0.36	-0.20	-0.46	-0.38	-1.08	-0.58	-0.12	0.10	0.17	0.31	0.93	0.16	-0.09
4 GHz	INTERCEPT (mV)	1901	146	270	392	519	633	757	872	989	1128	1260	1396	1525	1656	1797	1906	2030
	SLOPE (mV/dB)	25.28	14	12	7	8	-4	-7	-18	-28	-15	-9	0	3	7	22	5	2
	LN. ERR. (dB)	1.09	0.57	0.47	0.30	0.32	-0.17	-0.27	-0.72	-1.09	-0.59	-0.37	0.01	0.11	0.29	0.87	0.18	0.09
6 GHz	INTERCEPT (mV)	1894	137	255	377	504	618	741	852	964	1105	1242	1387	1525	1655	1793	1901	2020
	SLOPE (mV/dB)	25.43	23	14	9	9	-4	-8	-25	-40	-26	-16	2	13	16	26	7	-1
	LN. ERR. (dB)	1.56	0.92	0.56	0.36	0.35	-0.16	-0.33	-0.96	-1.56	-1.02	-0.63	0.07	0.50	0.61	1.04	0.28	-0.04
8 GHz	INTERCEPT (mV)	1896	134	248	372	499	614	738	851	963	1103	1241	1389	1525	1655	1793	1902	2026
	SLOPE (mV/dB)	25.55	26	12	9	8	-5	-8	-23	-39	-27	-16	4	12	14	25	6	2
	LN. ERR. (dB)	1.524	1.03	0.49	0.34	0.31	-0.19	-0.33	-0.91	-1.52	-1.04	-0.64	0.15	0.47	0.56	0.96	0.23	0.09
10 GHz	INTERCEPT (mV)	1902	133	245	370	497	609	733	844	955	1095	1232	1389	1539	1669	1805	1908	2027
	SLOPE (mV/dB)	25.72	32	15	12	10	-6	-11	-29	-46	-35	-27	2	23	25	32	6	-3
	LN. ERR. (dB)	1.801	1.24	0.60	0.46	0.39	-0.25	-0.43	-1.12	-1.80	-1.36	-1.03	0.07	0.90	0.96	1.24	0.25	-0.12
12 GHz	INTERCEPT (mV)	1898	152	277	396	523	640	762	870	985	1125	1266	1406	1531	1659	1794	1897	2017
	SLOPE (mV/dB)	25.12	13	12	6	7	-2	-5	-23	-33	-19	-4	11	10	12	22	-1	-6
	LN. ERR. (dB)	1.331	0.51	0.49	0.23	0.28	-0.06	-0.21	-0.91	-1.33	-0.76	-0.15	0.43	0.40	0.50	0.87	-0.03	-0.25
14 GHz	INTERCEPT (mV)	1914	148	273	394	523	641	773	892	1015	1155	1298	1417	1538	1666	1801	1905	2026
	SLOPE (mV/dB)	25.3	5	4	-2	1	-8	-2	-10	-13	0	17	9	4	5	14	-9	-14
	LN. ERR. (dB)	0.661	0.20	0.14	-0.08	0.02	-0.31	-0.09	-0.39	-0.53	0.01	0.66	0.37	0.15	0.21	0.55	-0.34	-0.56
16 GHz	INTERCEPT (mV)	1914	138	256	378	508	627	767	896	1026	1163	1307	1417	1531	1659	1794	1900	2022
	SLOPE (mV/dB)	25.45	5	-4	-9	-6	-15	-2	0	3	13	29	12	-1	0	7	-14	-19
	LN. ERR. (dB)	1.153	0.21	-0.15	-0.36	-0.25	-0.57	-0.07	0.00	0.11	0.49	1.15	0.48	-0.04	-0.01	0.29	-0.54	-0.75
18 GHz	INTERCEPT (mV)	1909	125	228	357	485	602	742	879	1006	1147	1289	1404	1521	1649	1786	1899	2030
	SLOPE (mV/dB)	25.77	19	-6	-6	-7	-19	-8	0	-1	11	24	10	-2	-3	6	-10	-8
	LN. ERR. (dB)	0.929	0.75	-0.25	-0.24	-0.27	-0.73	-0.30	0.02	-0.05	0.42	0.93	0.39	-0.07	-0.10	0.22	-0.40	-0.31
Avg. Slope: 25.4 mV/dB																		
Flatness dB: ±1.5 dB																		



Model Number: SDLVA-2G18G-CD-2-OPT218
Serial Number: PL42889

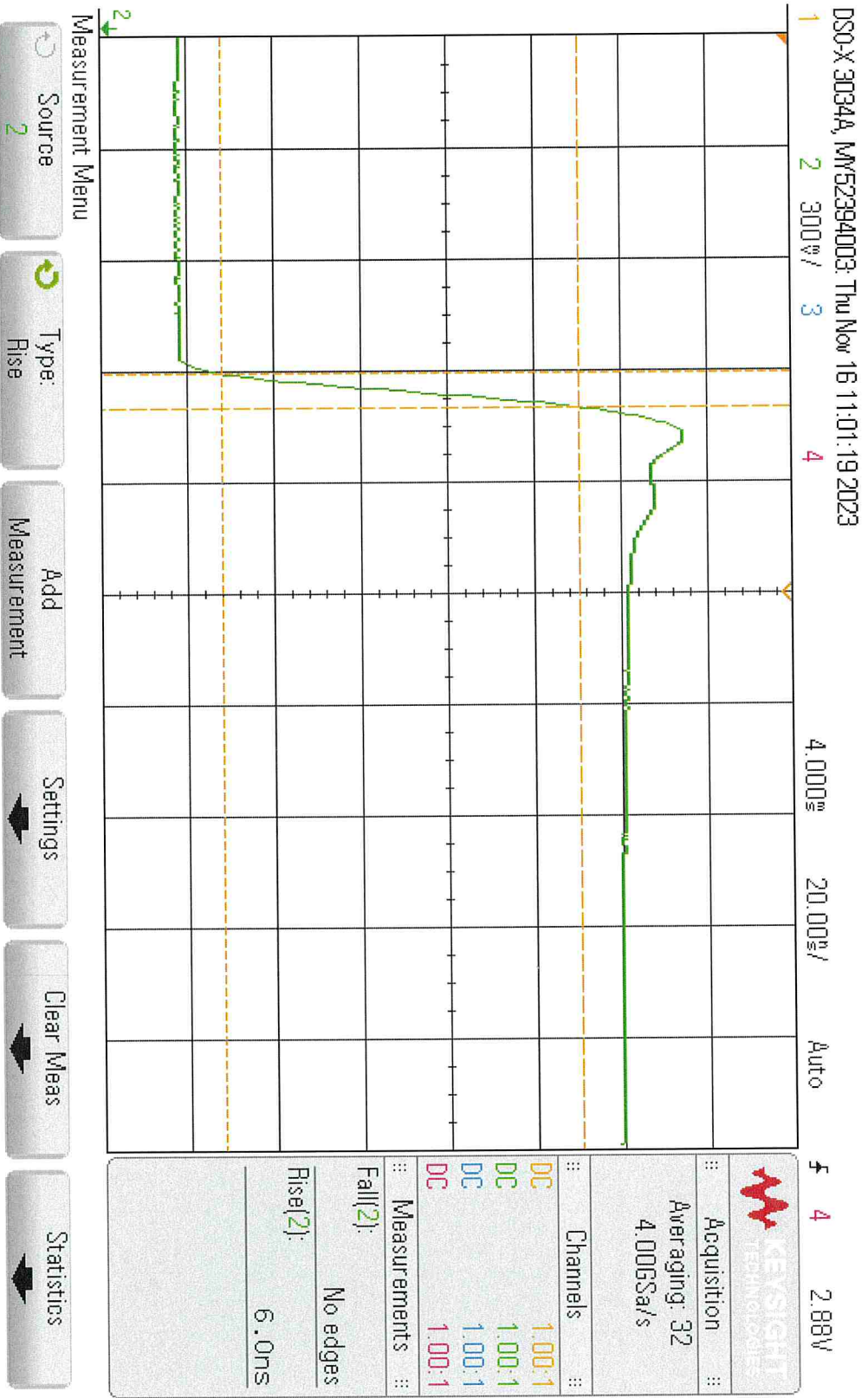
Temperature: +25C

VSWR GRAPH



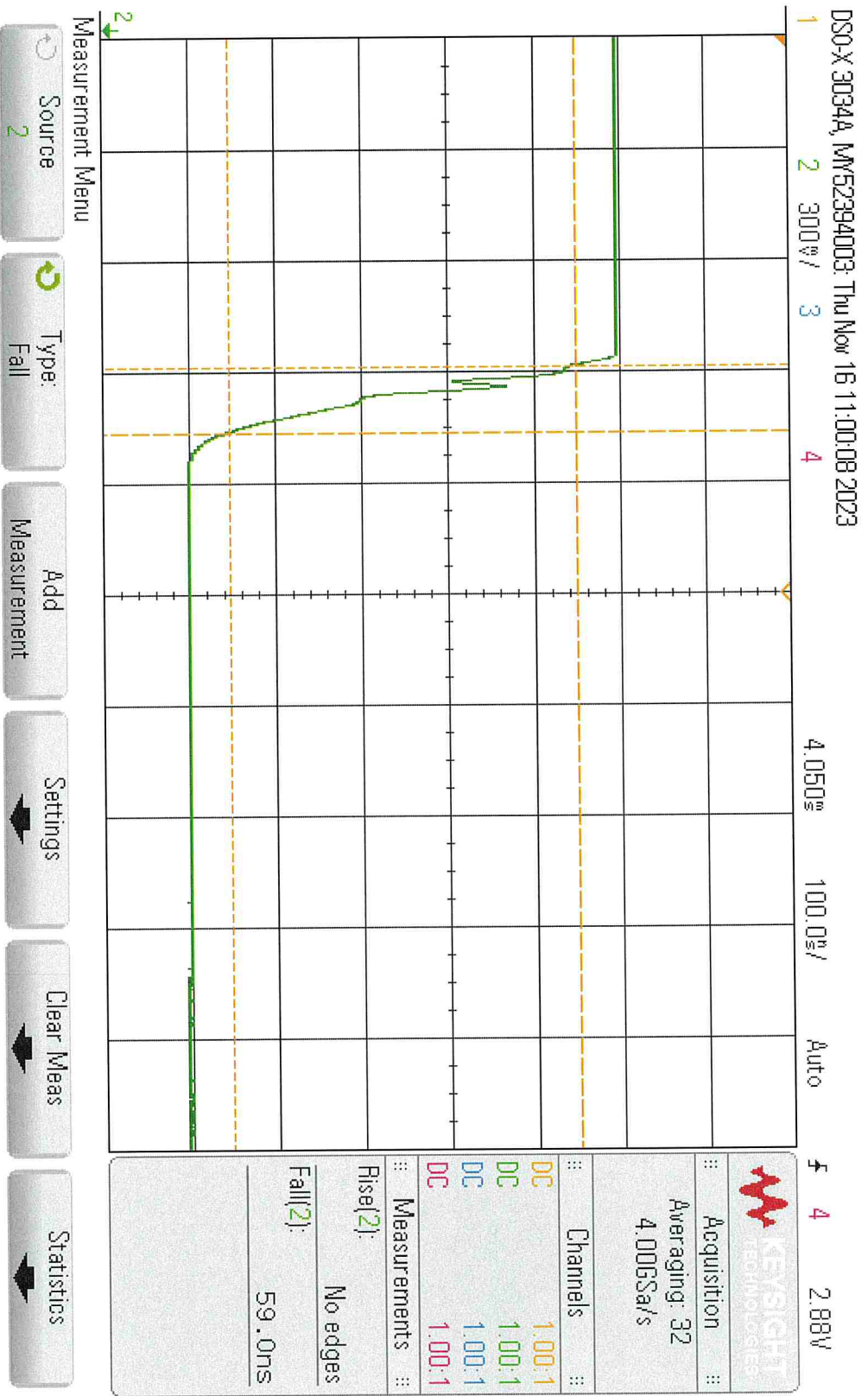
PL42889

Rise Time



PL42889

RECOVERY

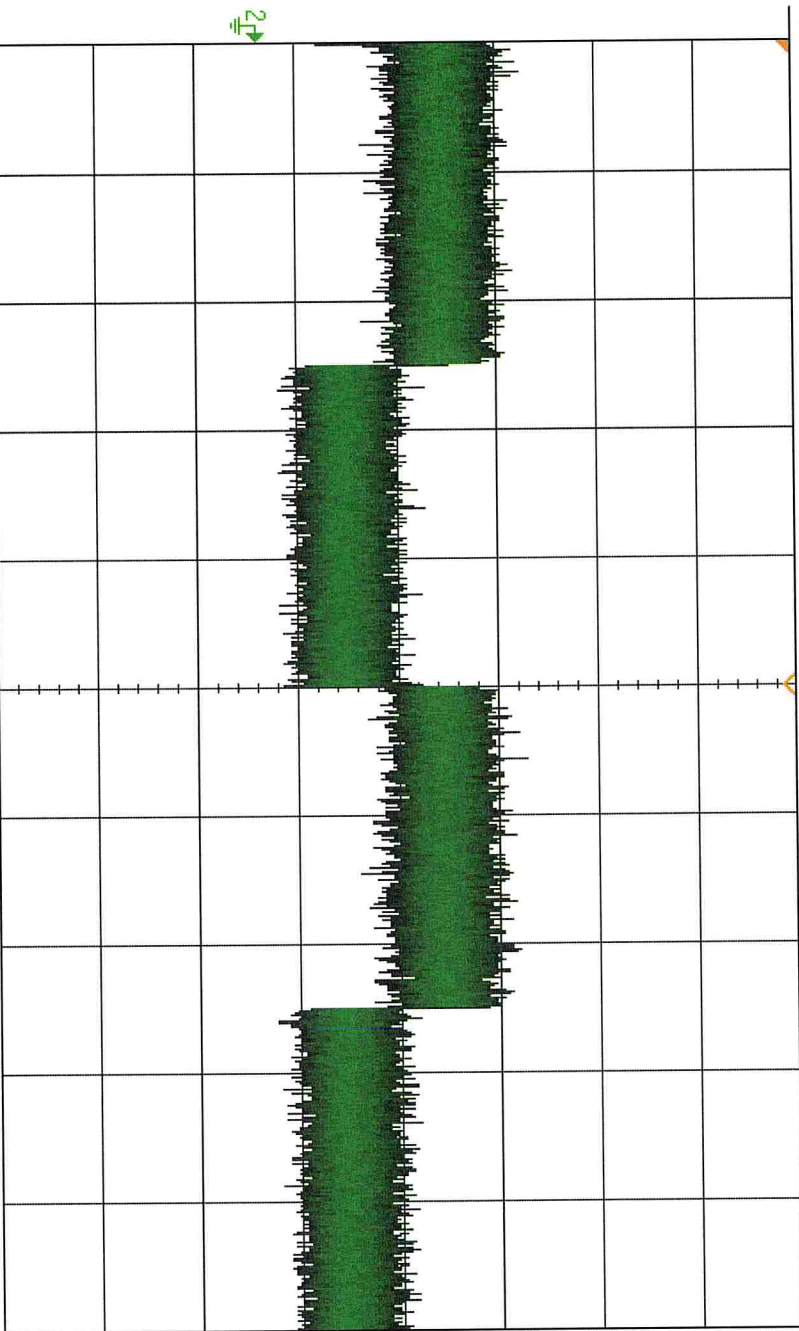


PL42889

TSS - 71

DSO-X 3034A, MW52394003: Thu Nov 16 11:02:47 2023

1 2 100% / 3 4 4.000ns 20.00ns / Auto f 4 2.88V



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

Acquisition: Normal
4.006Sa/s

Cursors Menu
Mode Off

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