


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

CUSTOMER: \_\_\_\_\_  
 SO: \_\_\_\_\_  
 MODEL NO: SDLVA-6G18G-CD-2-OPT218  
 SERIAL NO: PL42891/2347

TESTED BY: Jim Hopson  
 TEMPERATURE: +25°C  
 DATE: 11/20/2023  
 DRAWING NO: 27623906      REV: A1

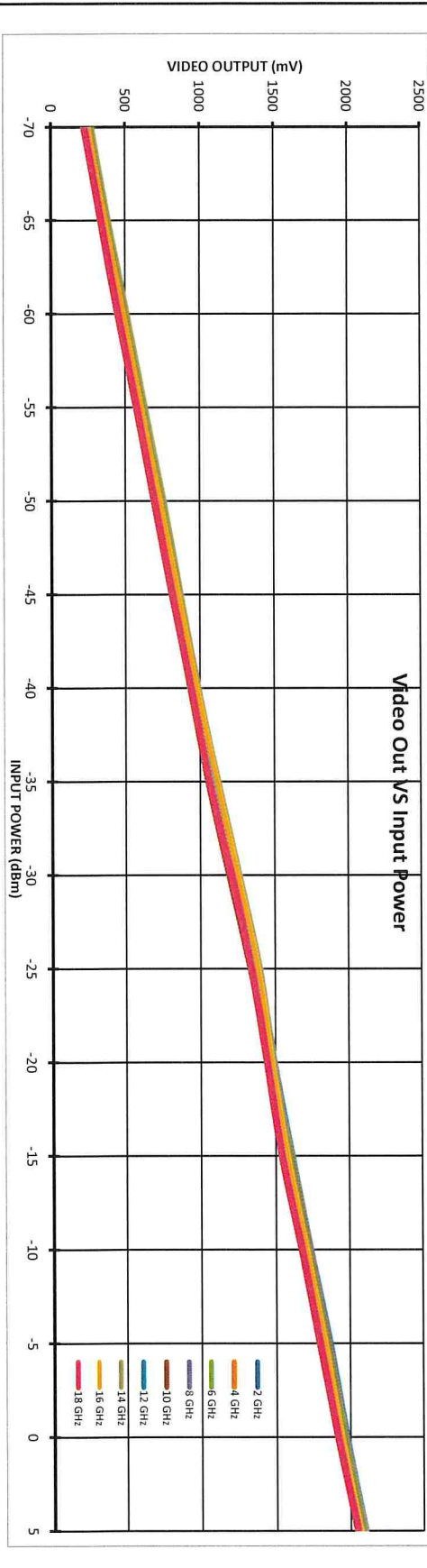
TEST ITEM NO:	PARAMETERS	SPECIFIED VALUE	MEASURED VALUE	REMARKS QA/QC
1	Frequency Range	2.0 GHz – 18.0 GHz	GHz - GHz	<b>PMI</b> <b>QAS</b> 
2	Flatness	± 2.0 dB Maximum	± 1.4 dB 25°C See Plots	
3	TSS	-70 dBm Minimum	-71dBm	
4	VSWR	2.0:1 (Input)	1.72 :1	
5	Input Power	+17 dBm CW Maximum	Pass	
6	RF Out	+13 dBm ±3 dB Typical	14.6/12.1 dBm	
7	Log Slope	25 mV/dB (±10%) 50Ω	24.7 mV/dB See Plot	
8	Log Range	-70 to +5 dBm	See Plots	
9	Log Linearity	±2.5 dB (-40°C - +85°C)	1.54/-1.56dB See Plots	
10	Pulse Range	30 ns to CW	Pass	
11	Rise Time	10 ns (6 ns Typical)	6.8 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	-70	-65	-60	-55	-50	-45	-40	-35	-30	-25	-20	-15	-10	-5	0	5
2 GHz	INTERCEPT (mV)	275	388	514	630	749	856	979	1121	1255	1392	1497	1617	1739	1869	2105
	SLOPE (mV/dB)	13	3	5	-2	-6	-22	-22	-3	8	22	4	1	0	7	-5
	LINEARITY ERROR (dB)	0.51	0.10	0.22	-0.06	-0.23	-0.88	-0.12	0.33	0.89	0.16	0.04	-0.01	0.27	-0.22	-0.14
4 GHz	INTERCEPT (mV)	235	352	472	594	716	831	955	1088	1227	1359	1483	1606	1729	1858	2099
	SLOPE (mV/dB)	15	6	1	-2	-6	-16	-18	-10	3	10	9	6	4	7	-2
	LINEARITY ERROR (dB)	0.59	0.25	0.04	-0.10	-0.23	-0.85	-0.71	-0.40	0.14	0.40	0.34	0.25	0.15	0.29	-0.10
6 GHz	INTERCEPT (mV)	222	338	454	579	701	813	931	1055	1200	1339	1477	1611	1732	1858	2093
	SLOPE (mV/dB)	24	13	2	0	0.03	-0.15	-0.73	-1.07	-1.18	-0.45	0.04	0.48	0.77	0.55	-0.17
	LINEARITY ERROR (dB)	0.94	0.52	0.10	0.03	-0.15	-0.73	-1.07	-1.18	-0.45	0.04	0.48	0.77	0.55	0.53	-0.20
8 GHz	INTERCEPT (mV)	232	348	467	589	711	819	936	1058	1200	1337	1468	1591	1717	1843	2076
	SLOPE (mV/dB)	18	10	4	2	0	-17	-24	-26	-9	4	-1	10	11	13	-4
	LINEARITY ERROR (dB)	0.72	0.39	0.17	0.08	-0.01	-0.67	-0.96	-1.05	-0.34	0.17	0.44	0.39	0.45	0.52	-0.17
10 GHz	INTERCEPT (mV)	237	353	472	593	712	817	932	1053	1194	1331	1473	1608	1732	1856	2082
	SLOPE (mV/dB)	23	15	9	5	-1	-21	-31	-35	-19	-7	10	21	20	19	-2
	LINEARITY ERROR (dB)	0.94	0.58	0.35	0.19	-0.05	-0.84	-1.24	-1.40	-0.75	-0.27	0.42	0.82	0.79	0.75	-0.09
12 GHz	INTERCEPT (mV)	265	378	503	623	744	842	958	1083	1223	1366	1481	1590	1716	1839	2075
	SLOPE (mV/dB)	11	3	6	5	4	-19	-24	-21	-2	19	13	0	5	7	-7
	LINEARITY ERROR (dB)	0.45	0.11	0.26	0.20	0.18	-0.78	-1.01	-0.86	-0.09	0.80	0.53	0.02	0.21	0.27	-0.28
14 GHz	INTERCEPT (mV)	268	381	508	630	754	866	986	1122	1258	1393	1488	1596	1723	1846	2082
	SLOPE (mV/dB)	0	-8	-3	-2	1	-9	-10	4	19	32	6	-8	-2	0	-13
	LINEARITY ERROR (dB)	0.02	-0.33	-0.10	-0.08	0.02	-0.37	-0.42	0.17	0.77	1.33	0.24	-0.31	-0.08	-0.02	-0.53
16 GHz	INTERCEPT (mV)	253	367	490	612	736	857	982	1119	1253	1388	1482	1585	1713	1836	2073
	SLOPE (mV/dB)	0	-8	-7	-7	-5	-6	-3	12	24	37	9	-10	-4	-3	-15
	LINEARITY ERROR (dB)	-0.01	-0.34	-0.30	-0.30	-0.21	-0.26	-0.13	0.48	0.97	1.51	0.36	-0.42	-0.17	-0.13	-0.63
18 GHz	INTERCEPT (mV)	221	336	452	578	696	813	940	1065	1210	1343	1447	1546	1679	1799	1920
	SLOPE (mV/dB)	8	1	-6	-2	-7	-12	-7	-5	18	28	10	-14	-3	-6	-7
	LINEARITY ERROR (dB)	0.34	0.04	-0.23	-0.08	-0.27	-0.49	-0.30	-0.20	0.72	1.15	0.39	-0.57	-0.14	-0.24	-0.30
Avg. Slope: 24.7 mV/dB																
Flatness: dB: ±1.4 dB																







Frequency

-70	-65	-60	-55	-50	-45	-40	-35	-30	-25	-20	-15	-10	-5	0	5
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RF Input Power (dbm)

Measured Value (mV)

2 GHz	INTERCEPT (mV)	2064
	SLOPE (mV/dB)	25.36
	LN. ERR. (dB)	1.4

284	411	548	675	797	906	1028	1179	1324	1465	1559	1680	1800	1933	2057	2188
-5	-4	6	6	1	-17	-21	3	21	35	2	-3	-10	-4	-7	-3
-0.18	-0.18	0.23	0.23	0.05	-0.66	-0.85	0.11	0.83	1.39	0.09	-0.13	-0.40	-0.16	-0.27	-0.10

Measured Value (mV)  
 ERROR (mV)  
 LINEARITY ERROR (dB)

4 GHz	INTERCEPT (mV)	2057
	SLOPE (mV/dB)	26.21
	LN. ERR. (dB)	1.067

230	360	485	616	745	859	983	1125	1283	1430	1551	1675	1794	1924	2046	2182
7	6	0	0	-2	-19	-26	-15	12	28	18	11	-1	-2	-11	-6
0.27	0.24	0.01	0.00	-0.07	-0.72	-0.99	-0.57	0.46	1.07	0.68	0.42	-0.04	-0.08	-0.43	-0.24

Measured Value (mV)  
 ERROR (mV)  
 LINEARITY ERROR (dB)

6 GHz	INTERCEPT (mV)	2049
	SLOPE (mV/dB)	25.92
	LN. ERR. (dB)	1.368

245	376	503	632	759	861	978	1106	1260	1411	1546	1679	1797	1924	2045	2178
11	12	10	9	6	-21	-34	-35	-11	10	16	19	8	5	-4	0
0.41	0.47	0.37	0.34	0.24	-0.82	-1.31	-1.37	-0.43	0.40	0.61	0.74	0.29	0.19	-0.14	-0.01

Measured Value (mV)  
 Error (mV)  
 LINEARITY ERROR (dB)

8 GHz	INTERCEPT (mV)	2029
	SLOPE (mV/dB)	25.25
	LN. ERR. (dB)	1.214

268	395	526	651	775	871	988	1117	1263	1410	1533	1657	1780	1909	2024	2161
7	8	12	11	9	-21	-31	-28	-8	13	9	7	4	7	-5	6
0.27	0.30	0.49	0.44	0.35	-0.85	-1.21	-1.10	-0.32	0.50	0.37	0.28	0.16	0.26	-0.18	0.25

Measured Value (mV)  
 ERROR (mV)  
 LINEARITY ERROR (dB)

10 GHz	INTERCEPT (mV)	2037
	SLOPE (mV/dB)	25.2
	LN. ERR. (dB)	1.641

291	411	544	666	783	872	988	1116	1264	1412	1544	1677	1797	1924	2038	2167
18	12	19	15	6	-31	-41	-39	-17	5	11	18	12	13	1	4
0.70	0.46	0.74	0.58	0.22	-1.24	-1.64	-1.56	-0.69	0.18	0.42	0.70	0.46	0.50	0.02	0.14

Measured Value (mV)  
 Error (mV)  
 LINEARITY ERROR (dB)

12 GHz	INTERCEPT (mV)	2029
	SLOPE (mV/dB)	25.08
	LN. ERR. (dB)	1.102

275	401	533	659	784	882	988	1129	1276	1427	1540	1655	1778	1905	2020	2158
2	2	9	10	9	-18	-28	-22	0	25	13	2	0	2	-9	4
0.07	0.10	0.36	0.38	0.37	-0.73	-1.10	-0.88	-0.02	1.00	0.51	0.09	0.00	0.06	-0.35	0.15

Measured Value (mV)  
 ERROR (mV)  
 LINEARITY ERROR (dB)

14 GHz	INTERCEPT (mV)	2039
	SLOPE (mV/dB)	24.93
	LN. ERR. (dB)	1.48

286	411	546	675	799	906	1026	1167	1313	1453	1545	1658	1781	1908	2026	2166
-8	-8	2	7	6	-11	-16	0	22	37	4	-7	-9	-7	-13	2
-0.33	-0.32	0.10	0.27	0.25	-0.46	-0.65	0.01	0.86	1.48	0.17	-0.30	-0.36	-0.27	-0.54	0.08

Measured Value (mV)  
 ERROR (mV)  
 LINEARITY ERROR (dB)

16 GHz	INTERCEPT (mV)	2037
	SLOPE (mV/dB)	25.3
	LN. ERR. (dB)	1.543

255	386	515	644	773	893	1020	1163	1304	1444	1539	1651	1775	1902	2021	2158
-11	-7	-4	-2	1	-6	-5	11	26	39	8	-7	-9	-9	-16	-6
-0.45	-0.27	-0.17	-0.08	0.02	-0.23	-0.21	0.44	1.01	1.54	0.30	-0.28	-0.37	-0.35	-0.65	-0.24

Measured Value (mV)  
 ERROR (mV)  
 LINEARITY ERROR (dB)

18 GHz	INTERCEPT (mV)	2005
	SLOPE (mV/dB)	25.24
	LN. ERR. (dB)	1.117

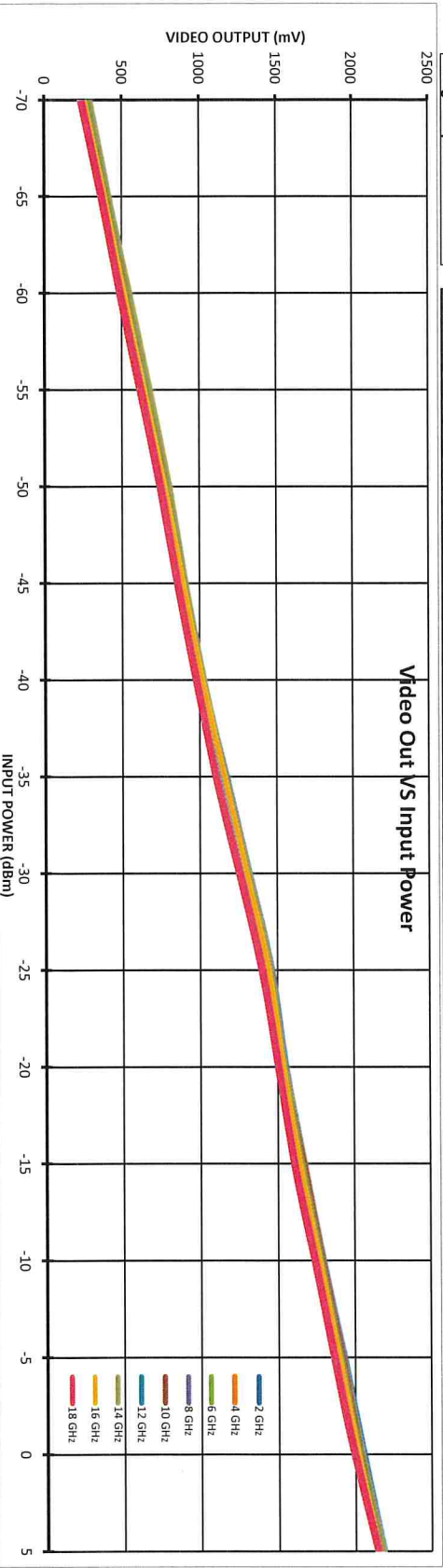
235	367	493	624	747	857	981	1110	1260	1402	1507	1612	1743	1868	1996	2150
-3	3	3	7	4	-12	-14	-11	12	28	7	-14	-9	-11	-9	19
-0.12	0.11	0.10	0.29	0.17	-0.48	-0.56	-0.45	0.49	1.12	0.28	-0.56	-0.37	-0.42	-0.35	0.75

Measured Value (mV)  
 ERROR (mV)  
 LINEARITY ERROR (dB)

Avg. Slope: 25.4 mV/dB

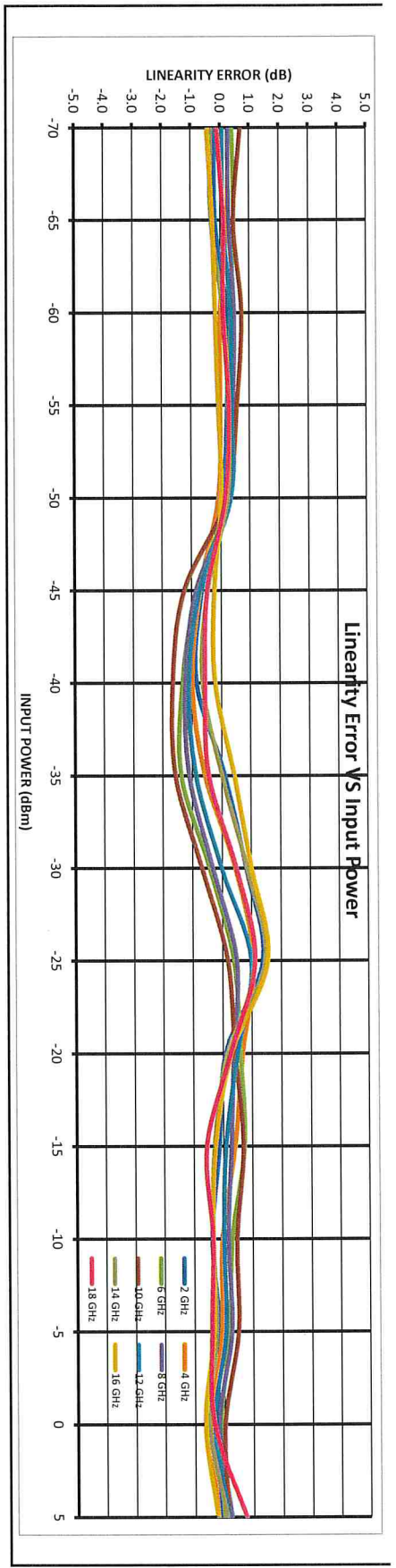
Video Out VS Input Power

Flatness dB: ±1.4 dB



PL42891

-40°C



Model: SDLVA-6G18G-CD-2 - OP1218  
 Serial No: PL42891  
 Date: 11/20/23  
 Tested By: Jim Hopson  
 Test Temp: +85°C



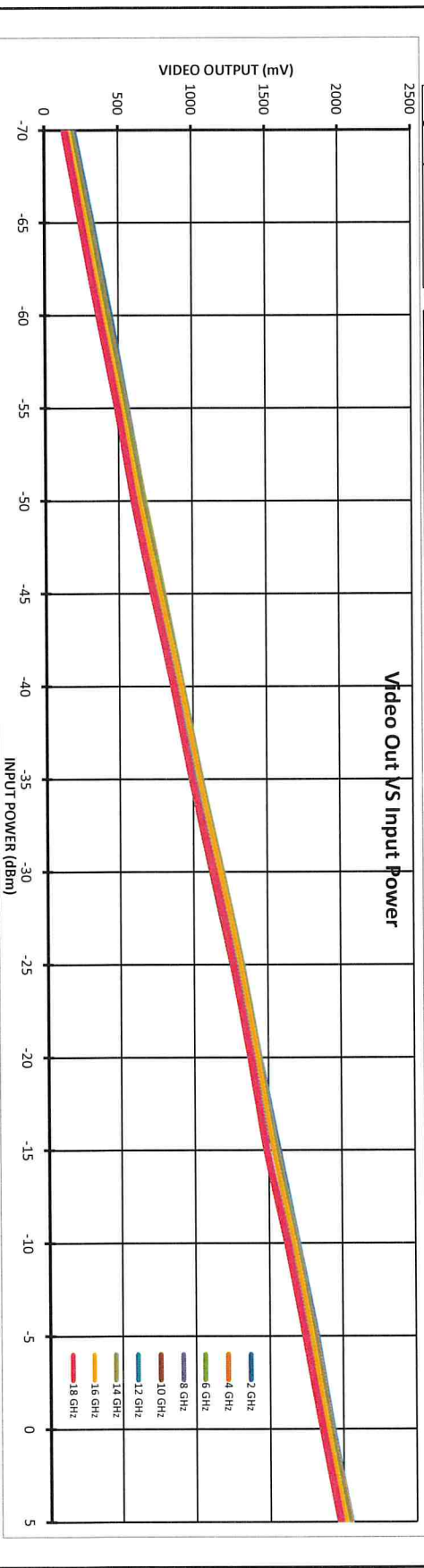
Frequency

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	1937	24.99	0.8	197	323	445	562	679	794	922	1056	1189	1324	1442	1570	1698	1825	1931	2051
	1937	24.99	0.8	8	9	6	-1	-9	-19	-16	-7	1	11	4	7	10	13	-6	-11
	1937	24.99	0.8	0.33	0.38	0.26	-0.06	-0.37	-0.77	-0.65	-0.28	0.04	0.45	0.17	0.29	0.42	0.50	-0.25	-0.45
4 GHz	1928	25.56	0.679	154	279	397	522	638	763	891	1016	1157	1287	1424	1558	1687	1815	1922	2046
	1928	25.56	0.679	15	12	3	0	-12	-15	-15	-4	-2	7	13	15	15	15	-6	-10
	1928	25.56	0.679	0.59	0.48	0.10	-0.01	-0.47	-0.58	-0.57	-0.68	-0.16	-0.08	0.28	0.53	0.58	0.58	-0.23	-0.38
6 GHz	1922	25.75	1.034	143	262	378	506	623	749	873	994	1136	1268	1413	1559	1688	1813	1918	2037
	1922	25.75	1.034	24	14	1	0	-11	-14	-19	-27	-13	-10	6	23	24	20	-4	-14
	1922	25.75	1.034	0.92	0.54	0.05	0.02	-0.44	-0.55	-0.73	-1.03	-0.52	-0.39	0.24	0.91	0.91	0.77	-0.15	-0.53
8 GHz	1906	25.47	0.95	142	262	379	507	624	748	870	990	1129	1260	1402	1538	1673	1799	1903	2020
	1906	25.47	0.95	19	12	2	2	-8	-12	-17	-24	-13	-9	6	14	22	21	-3	-13
	1906	25.47	0.95	0.75	0.47	0.06	0.09	-0.32	-0.45	-0.66	-0.95	-0.49	-0.35	0.23	0.57	0.87	0.81	-0.10	-0.51
10 GHz	1915	25.65	1.19	144	264	381	508	623	745	866	987	1124	1255	1407	1557	1689	1812	1912	2028
	1915	25.65	1.19	24	16	5	4	-10	-16	-23	-30	-21	-19	5	27	31	25	-3	-15
	1915	25.65	1.19	0.95	0.63	0.19	0.15	-0.37	-0.61	-0.90	-1.18	-0.84	-0.73	0.20	1.04	1.19	0.99	-0.12	-0.59
12 GHz	1911	24.89	0.885	176	303	421	545	666	780	898	1018	1158	1295	1426	1543	1678	1800	1904	2025
	1911	24.89	0.885	7	10	3	3	-1	-11	-18	-22	-6	6	13	5	16	13	-7	-10
	1911	24.89	0.885	0.28	0.38	0.13	0.11	-0.03	-0.45	-0.71	-0.89	-0.26	0.25	0.51	0.21	0.64	0.54	-0.28	-0.42
14 GHz	1925	24.92	0.776	178	305	425	550	674	799	925	1052	1187	1321	1435	1551	1685	1807	1911	2031
	1925	24.92	0.776	-2	0	-4	-4	-5	-4	-3	0	10	19	9	0	10	7	-14	-18
	1925	24.92	0.776	-0.09	0.01	-0.18	-0.16	-0.19	-0.17	-0.11	-0.02	0.40	0.78	0.35	0.01	0.38	0.28	-0.55	-0.73
16 GHz	1916	25.11	1.03	158	281	398	526	647	782	918	1046	1181	1314	1428	1536	1671	1793	1899	2019
	1916	25.11	1.03	0	-3	-11	-9	-13	-4	7	9	18	26	14	-3	6	3	-17	-22
	1916	25.11	1.03	-0.01	-0.11	-0.45	-0.35	-0.53	-0.16	0.26	0.36	0.73	1.03	0.57	-0.13	0.25	0.11	-0.67	-0.89
18 GHz	1870	24.92	0.738	136	250	369	497	610	738	871	993	1136	1265	1381	1488	1627	1747	1864	1984
	1870	24.92	0.738	11	0	-6	-2	-14	-10	-2	-4	14	18	10	-8	7	2	-6	-10
	1870	24.92	0.738	0.43	0.00	-0.22	-0.09	-0.55	-0.41	-0.08	-0.18	0.56	0.74	0.39	-0.31	0.27	0.08	-0.22	-0.41

Avg. Slope: 25.2 mV/dB

Video Out VS Input Power

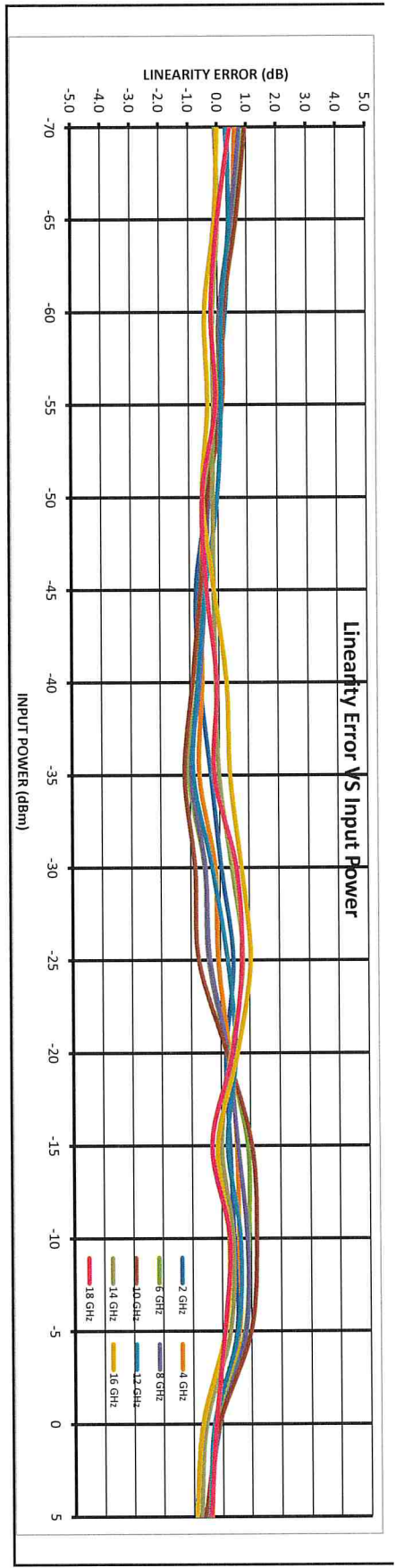
Flatness dB: ±1.6 dB



Frequency	Measured Value (mV)	Error (mV)	Linearity Error (dB)
2 GHz	1937	8	0.33
4 GHz	1928	15	0.59
6 GHz	1922	24	0.92
8 GHz	1906	19	0.75
10 GHz	1915	24	0.95
12 GHz	1911	7	0.28
14 GHz	1925	-2	0.09
16 GHz	1916	0	-0.01
18 GHz	1870	11	0.43

PL 42891

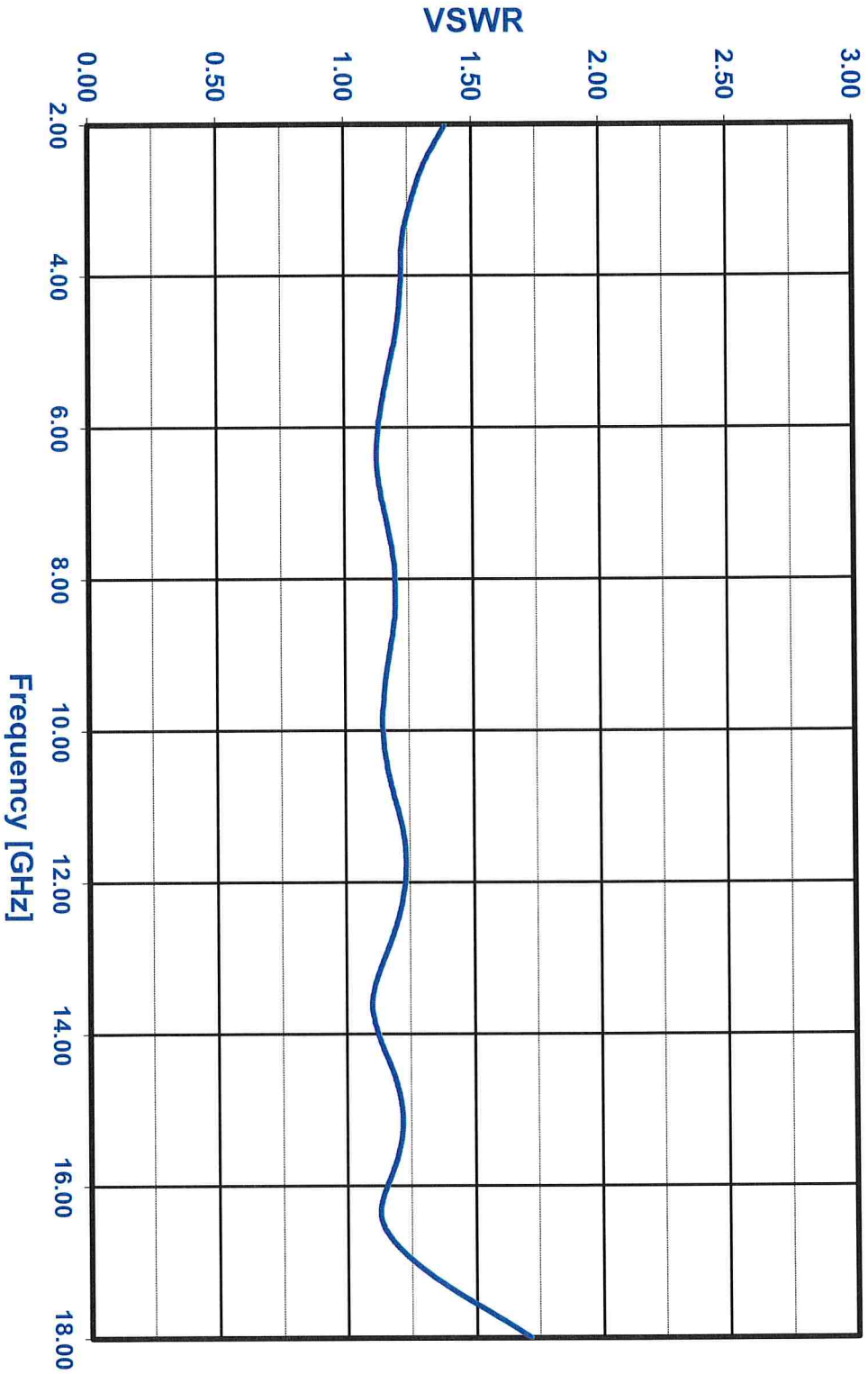
+85°C



Model Number: SDLVA-2G18G-CD-2-OPT218  
Serial Number: PL42891

Temperature: +25C

## VSWR GRAPH

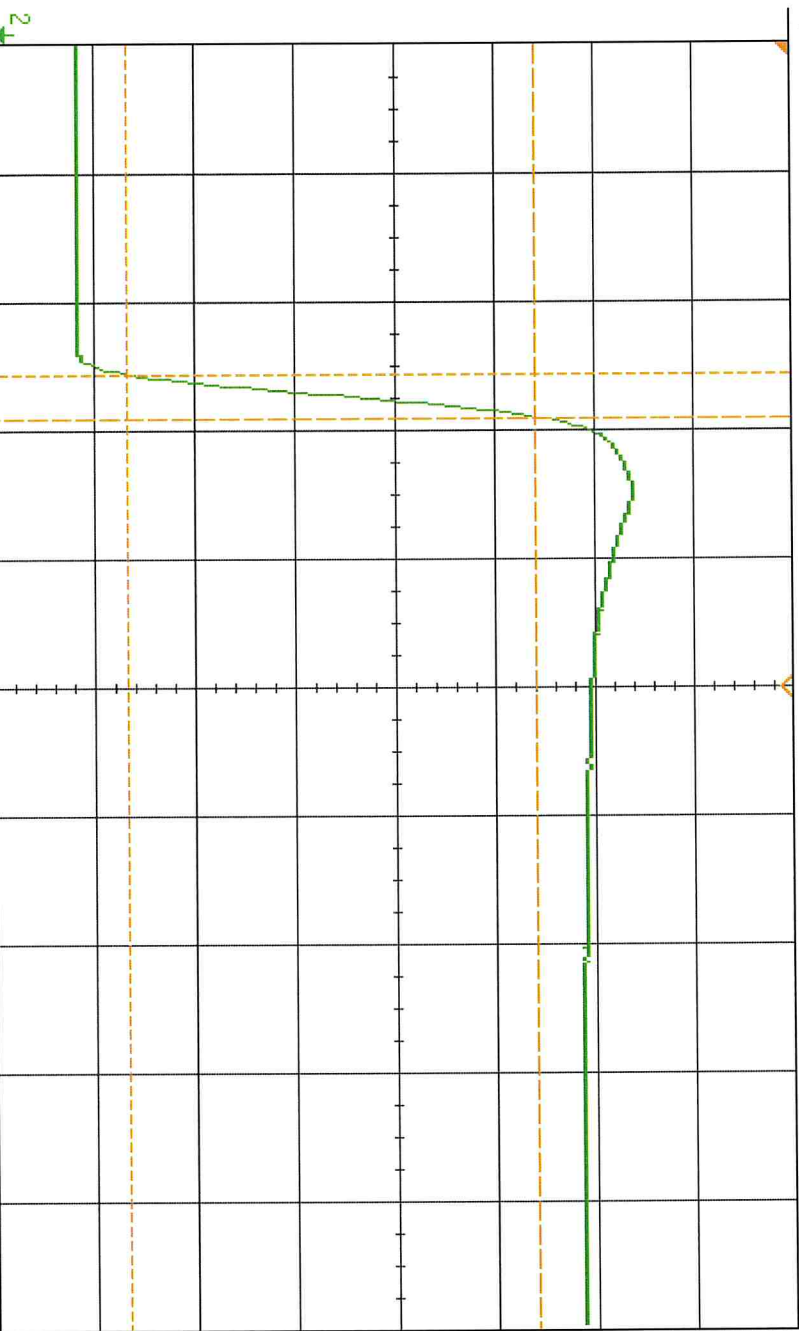


Input 1.72:1 Max



PL42891  
 RISE TIME

DSO-X 3034A, MW52394003 Thu Nov 16 11:43:06 2023  
 1 2 300% 3 4 4.000% 20.00%/ Auto f 4 2.85V



Acquisition  
 Averaging: 32  
 4.00GSa/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): 6.8ns

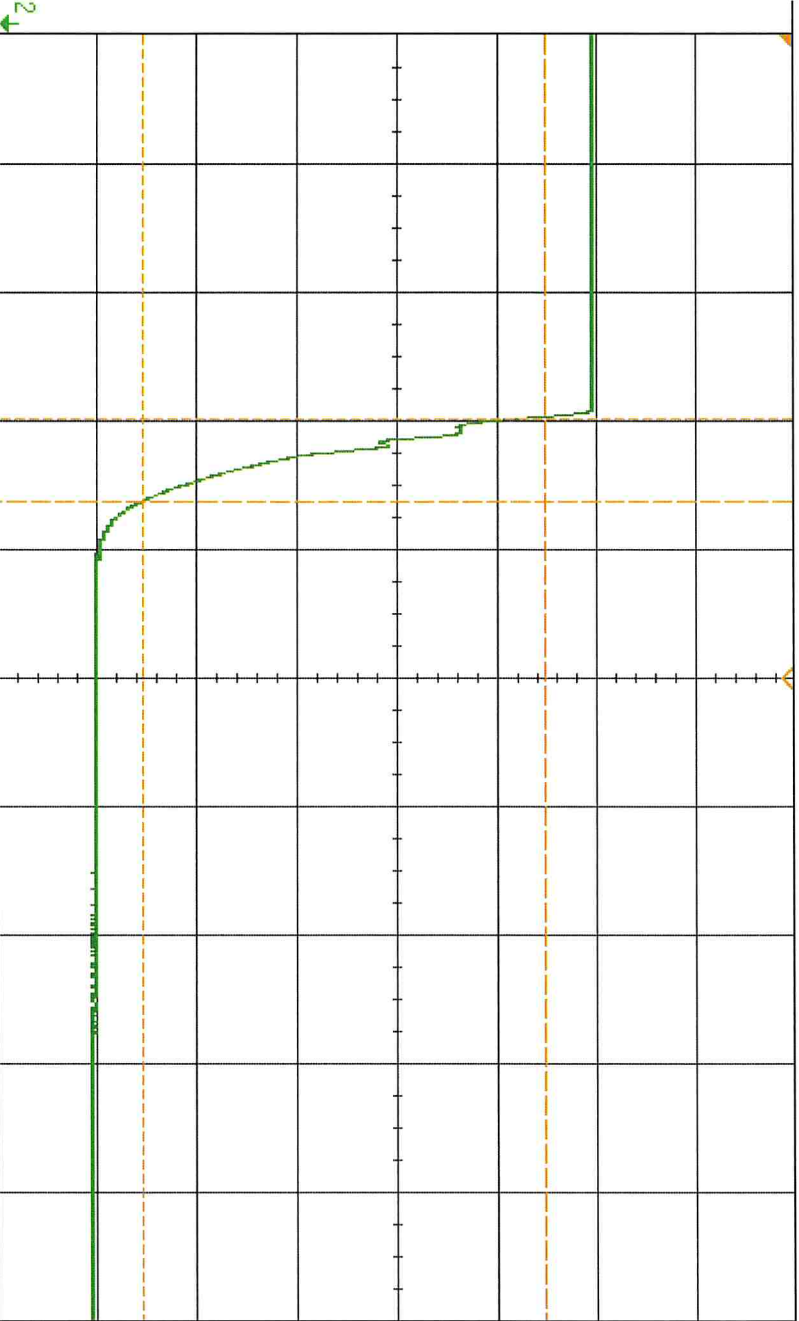
- Measurement Menu
- Source 2
- Type: Rise
- Add Measurement
- Settings
- Clear Meas
- Statistics

PL42891

RECOVERY

DSO-X 3034A, MW52394003- Thu Nov 16 11:42:07 2023

1 2 300% / 3 4 4.050ns 100.0% / Auto 5 4 2.85V



Acquisition

Averaging: 32

4.00GSa/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): 65.0ns

Measurement Menu

Source 2

Type: Fall

Add Measurement

Settings

Clear Meas

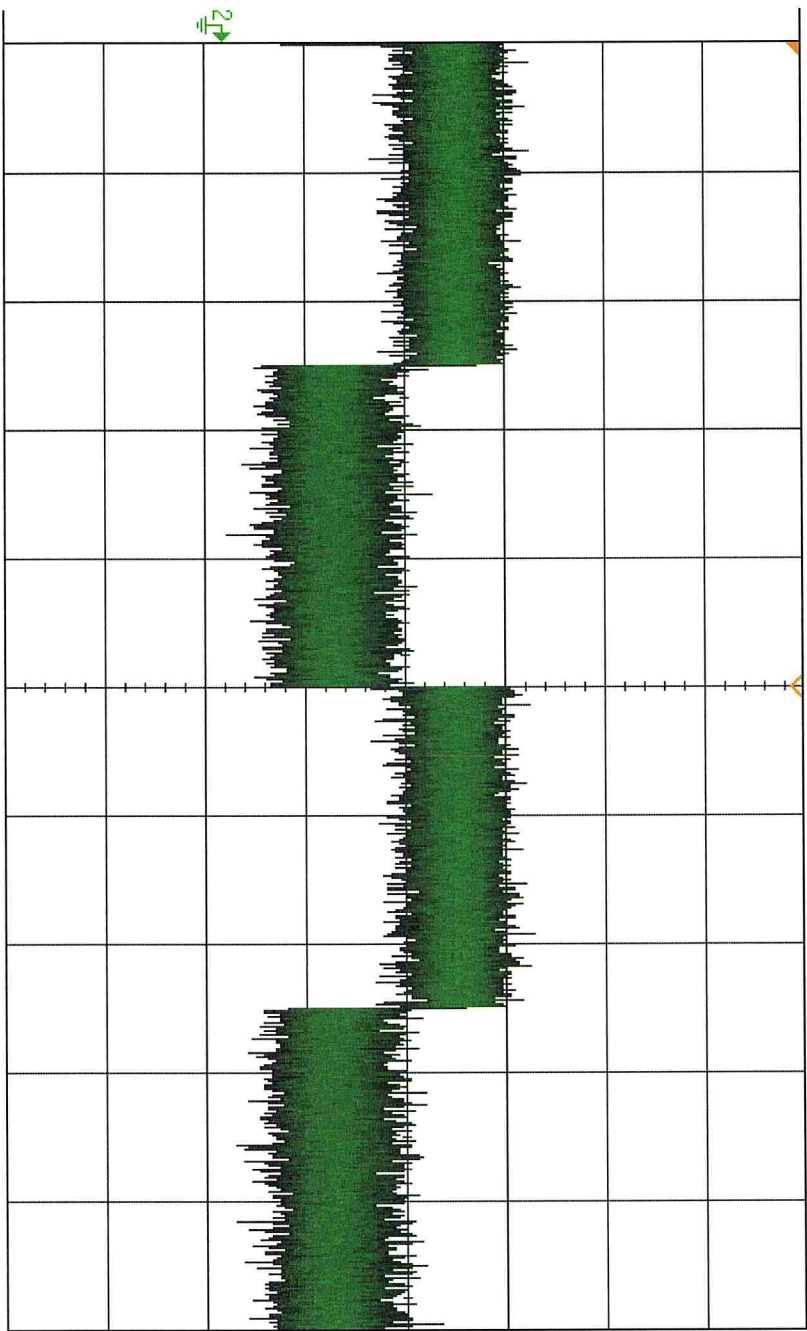
Statistics

PL42891

TSS -71

DSO-X 3034A, MW52394003 Thu Nov 16 11:44:07 2023

1 2 100% / 3 4 4.000% 20.00% / Auto f 4 2.85V



Acquisition	
Normal	
4.00GSa/s	
Channels	
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.