


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

CUSTOMER: _____
SO: _____
MODEL NO: SDLVA-6G18G-CD-2-OPT218
SERIAL NO: PL42767/2346

TESTED BY: Jim Hopson
TEMPERATURE: +25°C
DATE: 11/14/2023
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	<div style="text-align: right; color: blue; font-weight: bold;">QA</div> 
2	Flatness	± 2.0 dB Maximum	± 1.7dB 25°C See Plots	
3	TSS	-70 dBm Minimum	-71dBm	
4	VSWR	2.0:1 (Input)	1.65:1	
5	Input Power	+17 dBm CW Maximum	Pass	
6	RF Out	+13 dBm ±3 dB Typical	14.7/11.9dBm	
7	Log Slope	25 mV/dB (±10%) 50Ω	24.9mV/dB See Plot	
8	Log Range	-70 to +5 dBm	See Plots	
9	Log Linearity	±2.5 dB (-40°C - +85°C)	1.66/-1.51dB See Plots	
10	Pulse Range	30 ns to CW	Pass	
11	Rise Time	10 ns (6 ns Typical)	5.5ns	
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: 11-14-23



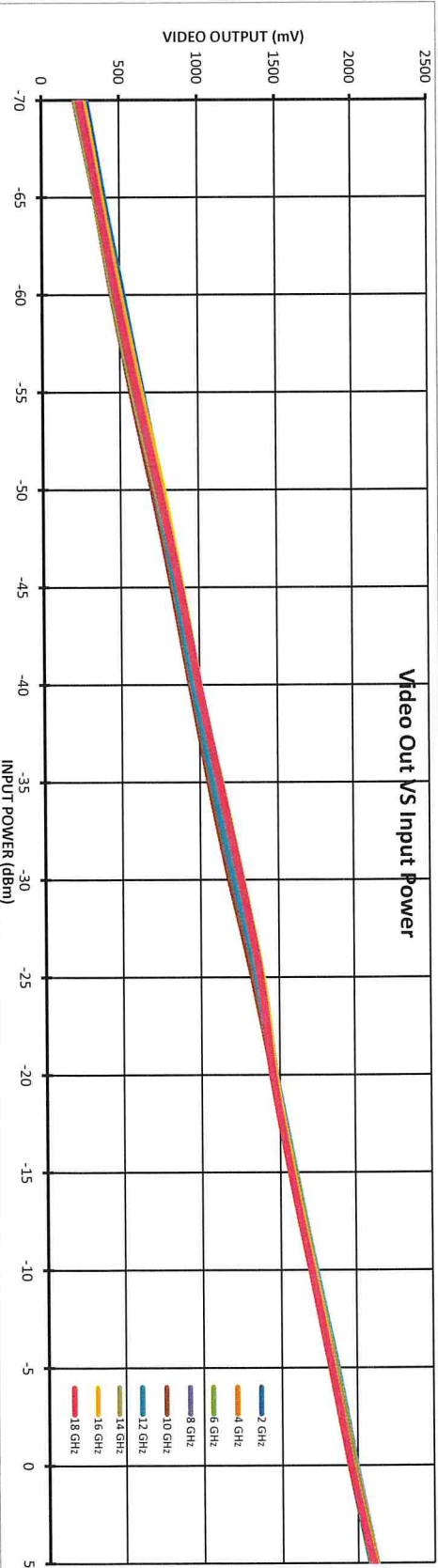
Frequency	INTERCEPT (mV)	SLOPE (mV/dB)	LIN. ERR. (dB)	-70	-65	-60	-55	-50	-45	-40	-35	-30	-25	-20	-15	-10	-5	0	5
2 GHz	INTERCEPT (mV)	1984		276	395	521	644	764	885	976	1110	1238	1375	1475	1606	1737	1873	1994	2126
	SLOPE (mV/dB)	24.56		11	7	11	11	8	-14	-26	-15	-9	5	-18	-10	-2	12	10	19
	LIN. ERR. (dB)	1.0		0.46	0.30	0.43	0.44	0.32	-0.57	-1.05	-0.59	-0.38	0.20	-0.73	-0.40	-0.07	0.47	0.40	0.77
4 GHz	INTERCEPT (mV)	1983		250	372	498	624	756	870	979	1107	1232	1364	1470	1600	1731	1866	1987	2124
	SLOPE (mV/dB)	24.8		3	1	3	5	13	3	-12	-8	-7	1	-17	-11	-4	7	4	17
	LIN. ERR. (dB)	0.698		0.12	0.04	0.12	0.20	0.53	0.42	-0.48	-0.32	-0.28	0.05	-0.68	-0.44	-0.15	0.29	0.17	0.70
6 GHz	INTERCEPT (mV)	1981		214	341	459	588	724	842	953	1073	1205	1343	1467	1603	1733	1865	1982	2115
	SLOPE (mV/dB)	25.35		8	8	0	2	11	2	-14	-20	-15	-4	-7	3	6	11	1	8
	LIN. ERR. (dB)	0.801		0.32	0.33	-0.02	0.07	0.43	0.09	-0.53	-0.80	-0.59	-0.15	-0.26	0.10	0.23	0.44	0.05	0.30
8 GHz	INTERCEPT (mV)	1966		220	346	466	593	729	844	952	1073	1201	1339	1457	1583	1719	1851	1968	2105
	SLOPE (mV/dB)	25.02		5	6	1	3	14	4	-13	-17	-14	-2	-9	-8	3	10	2	14
	LIN. ERR. (dB)	0.693		0.21	0.25	0.05	0.12	0.56	0.15	-0.53	-0.69	-0.58	-0.06	-0.34	-0.31	0.13	0.40	0.08	0.56
10 GHz	INTERCEPT (mV)	1971		205	331	448	575	706	830	942	1061	1190	1331	1461	1588	1729	1857	1969	2101
	SLOPE (mV/dB)	25.39		11	10	0	0	4	1	-13	-21	-19	-5	-2	8	12	13	-2	3
	LIN. ERR. (dB)	0.843		0.44	0.40	0.01	0.01	0.17	0.06	-0.53	-0.84	-0.76	-0.21	-0.09	0.31	0.47	0.51	-0.08	0.12
12 GHz	INTERCEPT (mV)	1966		228	353	473	600	737	856	965	1090	1221	1365	1466	1587	1720	1847	1958	2091
	SLOPE (mV/dB)	24.8		-2	-1	-5	-2	11	6	-9	-8	-1	19	-4	-7	2	5	-8	1
	LIN. ERR. (dB)	0.772		-0.07	-0.03	-0.19	-0.07	0.45	0.25	-0.35	-0.31	-0.03	0.77	-0.16	-0.28	0.08	0.20	-0.32	0.04
14 GHz	INTERCEPT (mV)	1982		214	340	460	593	740	881	997	1132	1263	1392	1470	1588	1723	1849	1962	2100
	SLOPE (mV/dB)	25.01		-17	-16	-21	-13	9	25	16	26	31	35	-12	-19	-9	-8	-20	-7
	LIN. ERR. (dB)	1.418		-0.69	-0.65	-0.85	-0.53	0.34	0.98	0.62	1.02	1.26	1.42	-0.46	-0.74	-0.35	-0.31	-0.79	-0.27
16 GHz	INTERCEPT (mV)	1974		260	379	506	638	776	894	1007	1142	1273	1398	1472	1589	1722	1848	1961	2097
	SLOPE (mV/dB)	24.27		-15	-17	-12	-1	16	12	4	18	27	31	-17	-21	-9	-5	-13	2
	LIN. ERR. (dB)	1.27		-0.62	-0.71	-0.48	-0.04	0.64	0.51	0.16	0.72	1.12	1.27	-0.68	-0.86	-0.38	-0.19	-0.53	0.07
18 GHz	INTERCEPT (mV)	1970		233	355	478	609	749	880	997	1131	1261	1383	1458	1574	1708	1836	1958	2106
	SLOPE (mV/dB)	24.62		-13	-15	-15	-7	10	18	12	23	30	29	-20	-27	-16	-11	-12	13
	LIN. ERR. (dB)	1.206		-0.54	-0.59	-0.59	-0.27	0.41	0.73	0.48	0.93	1.21	1.16	-0.79	-1.08	-0.64	-0.44	-0.49	0.52

Avg. Slope: 24.9 mV/dB

RF Input Power (dBm)

Flatness dB: ±1.7 dB

Video Out VS Input Power



VIDEO OUTPUT (mV)

INPUT POWER (dBm)

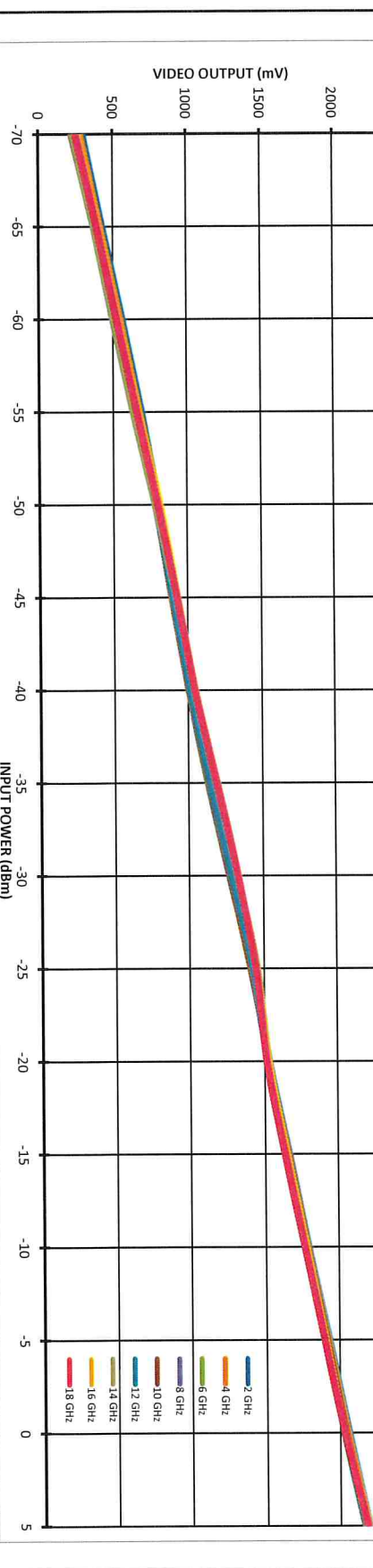
- 2 GHz
- 4 GHz
- 6 GHz
- 8 GHz
- 10 GHz
- 12 GHz
- 14 GHz
- 16 GHz
- 18 GHz



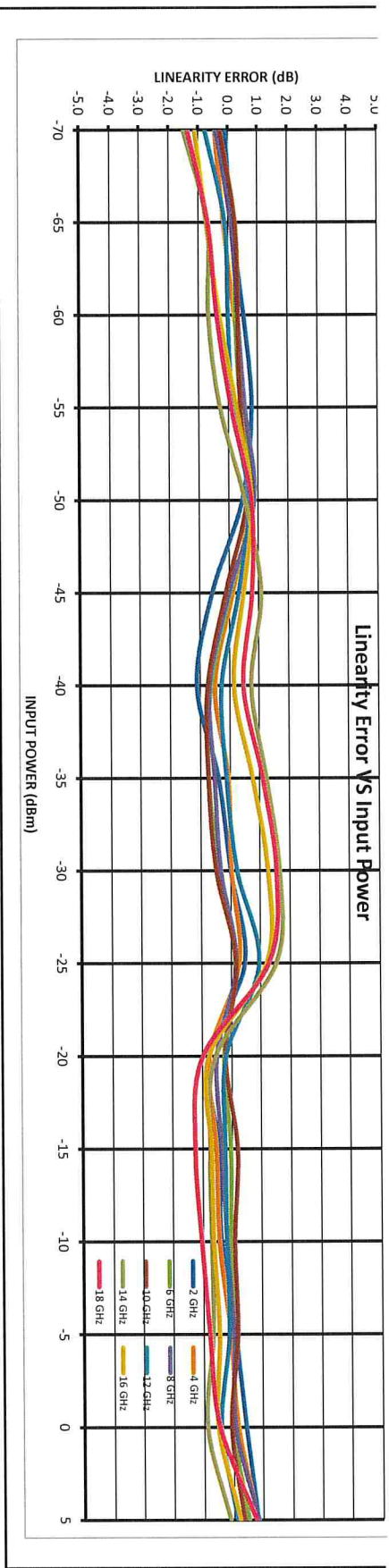
RF Input Power (dBm)

Frequency	2 GHz	4 GHz	6 GHz	8 GHz	10 GHz	12 GHz	14 GHz	16 GHz	18 GHz
-70	2057	2054	2044	2037	2046	2041	2055	2050	2045
-65	25.04	25.15	25.68	25.23	25.57	25.44	25.64	25.17	25.17
-60	1.1	0.816	0.84	0.877	0.737	0.96	1.661	1.28	1.563
-55	302	415	236	261	249	240	221	280	249
-50	433	550	381	400	390	384	370	414	392
-45	568	684	510	532	520	514	499	549	525
-40	700	815	643	664	650	645	637	688	663
-35	817	925	782	798	783	786	787	825	806
-30	916	1035	890	902	892	904	929	942	932
-25	1028	1172	1001	1011	1004	1016	1048	1058	1050
-20	1171	1300	1127	1141	1132	1147	1189	1198	1192
-15	1306	1432	1264	1272	1266	1283	1328	1335	1329
-10	1443	1537	1406	1411	1411	1429	1453	1458	1448
-5	1537	1670	1524	1520	1529	1527	1528	1533	1517
0	1670	1791	1658	1653	1667	1653	1651	1659	1636
5	1797	1926	1786	1780	1792	1781	1780	1785	1767
10	1934	2058	1918	1912	1922	1910	1909	1914	1899
15	2068	2200	2044	2039	2044	2030	2032	2037	2033
20	2183	2220	2186	2185	2183	2171	2180	2180	2190
25	2183	2220	2186	2185	2183	2171	2180	2180	2190
30	2183	2220	2186	2185	2183	2171	2180	2180	2190
35	2183	2220	2186	2185	2183	2171	2180	2180	2190
40	2183	2220	2186	2185	2183	2171	2180	2180	2190
45	2183	2220	2186	2185	2183	2171	2180	2180	2190
50	2183	2220	2186	2185	2183	2171	2180	2180	2190
55	2183	2220	2186	2185	2183	2171	2180	2180	2190
60	2183	2220	2186	2185	2183	2171	2180	2180	2190
65	2183	2220	2186	2185	2183	2171	2180	2180	2190
70	2183	2220	2186	2185	2183	2171	2180	2180	2190

Video Out VS Input Power



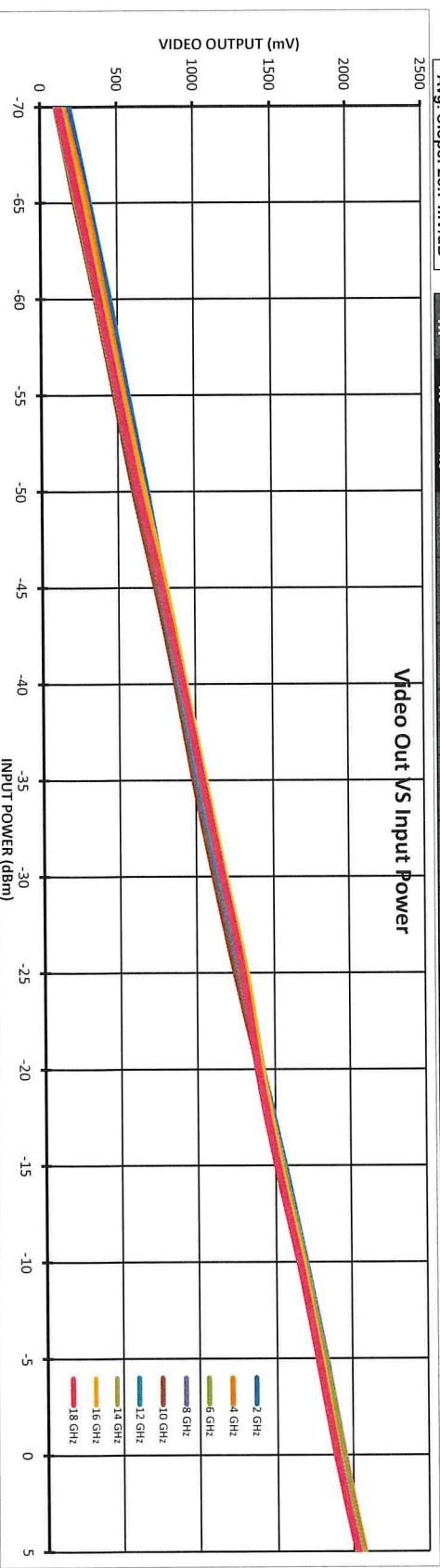
PL42767
-40°C





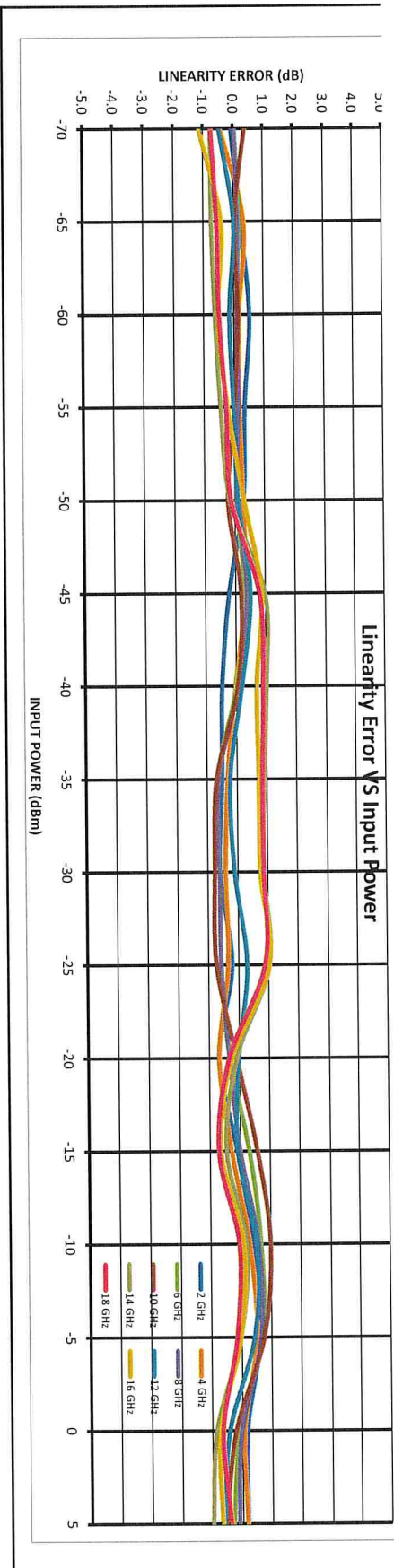
Frequency	RE Input Power (dBm)	-70	-65	-60	-55	-50	-45	-40	-35	-30	-25	-20	-15	-10	-5	0	5
2 GHz	Measured Value (mV)	183	316	449	570	694	807	926	1051	1174	1309	1423	1563	1701	1832	1946	2072
	SLOPE (mV/dB)	-2	6	13	9	7	-5	-12	-15	-5	-17	-17	-2	10	16	4	5
	LINEARITY ERROR (dB)	-0.06	0.23	0.53	0.35	0.29	-0.21	-0.47	-0.49	-0.59	-0.21	-0.67	-0.09	0.41	0.62	0.16	0.18
4 GHz	Measured Value (mV)	147	294	417	544	674	803	921	1041	1166	1295	1414	1551	1693	1826	1942	2072
	SLOPE (mV/dB)	-11	9	5	4	7	9	-1	-8	-10	-8	-17	-7	8	13	2	5
	LINEARITY ERROR (dB)	-0.42	0.36	0.19	0.17	0.28	0.35	-0.02	-0.31	-0.40	-0.33	-0.66	-0.28	0.30	0.52	0.07	0.18
6 GHz	Measured Value (mV)	110	244	372	503	632	769	892	1005	1137	1288	1405	1552	1692	1823	1933	2058
	SLOPE (mV/dB)	1	5	2	3	1	8	1	-17	-15	-15	-8	8	18	18	-2	-8
	LINEARITY ERROR (dB)	0.05	0.19	0.09	0.11	0.06	0.31	0.02	-0.65	-0.59	-0.57	-0.32	0.31	0.68	0.70	-0.09	-0.30
8 GHz	Measured Value (mV)	109	241	370	500	628	766	887	999	1129	1259	1395	1533	1678	1809	1921	2048
	SLOPE (mV/dB)	1	3	3	3	3	2	10	-16	-15	-15	-8	0	16	17	0	-3
	LINEARITY ERROR (dB)	0.04	0.13	0.11	0.13	0.07	0.40	0.07	-0.61	-0.59	-0.57	-0.32	0.01	0.60	0.66	-0.02	-0.12
10 GHz	Measured Value (mV)	97	219	353	481	606	748	876	988	1117	1249	1397	1546	1688	1813	1919	2041
	SLOPE (mV/dB)	10	1	4	1	-6	5	2	-17	-20	-19	-2	15	26	20	-5	-15
	LINEARITY ERROR (dB)	0.39	0.04	0.14	0.02	-0.22	0.19	0.07	-0.67	-0.75	-0.72	-0.09	0.59	1.00	0.76	-0.20	-0.55
12 GHz	Measured Value (mV)	121	261	385	516	647	785	905	1022	1153	1291	1411	1537	1681	1806	1912	2035
	SLOPE (mV/dB)	-12	0	-4	0	3	13	5	-6	-3	-3	0	-2	14	11	-11	-16
	LINEARITY ERROR (dB)	-0.46	0.01	-0.14	-0.02	0.11	0.50	0.20	-0.23	-0.10	0.29	-0.01	-0.09	0.54	0.43	-0.42	-0.61
14 GHz	Measured Value (mV)	106	236	368	502	639	798	928	1055	1183	1317	1417	1537	1683	1807	1915	2041
	SLOPE (mV/dB)	-19	-19	-16	-11	-4	26	26	24	23	23	27	-12	5	0	-22	-25
	LINEARITY ERROR (dB)	-0.75	-0.72	-0.62	-0.44	-0.15	0.99	1.02	0.93	0.87	1.05	-0.09	-0.45	0.19	-0.02	-0.84	-0.97
16 GHz	Measured Value (mV)	140	284	407	540	679	819	940	1067	1193	1326	1419	1535	1679	1802	1910	2037
	SLOPE (mV/dB)	-28	-10	-13	-5	8	22	17	19	19	26	-6	-16	2	0	-18	-17
	LINEARITY ERROR (dB)	-1.13	-0.40	-0.51	-0.22	0.31	0.88	0.69	0.75	0.76	1.05	-0.25	-0.63	0.09	-0.01	-0.72	-0.66
18 GHz	Measured Value (mV)	112	244	373	506	637	788	918	1044	1172	1300	1396	1514	1658	1783	1898	2032
	SLOPE (mV/dB)	-18	-14	-12	-7	-3	21	23	22	22	23	-8	-18	-1	-4	-16	-9
	LINEARITY ERROR (dB)	-0.72	-0.54	-0.48	-0.26	-0.12	0.81	0.91	0.85	0.88	0.90	-0.33	-0.70	-0.05	-0.14	-0.63	-0.37
Avg. Slope: 25.7 mV/dB		1.7	1.9	1.9	1.7	1.7	1.4	1.2	1.5	1.5	1.5	0.5	1	0.8	1	0.9	0.8
Flatness: dB: ±1.9 dB																	

Video Out VS Input Power



PL42767

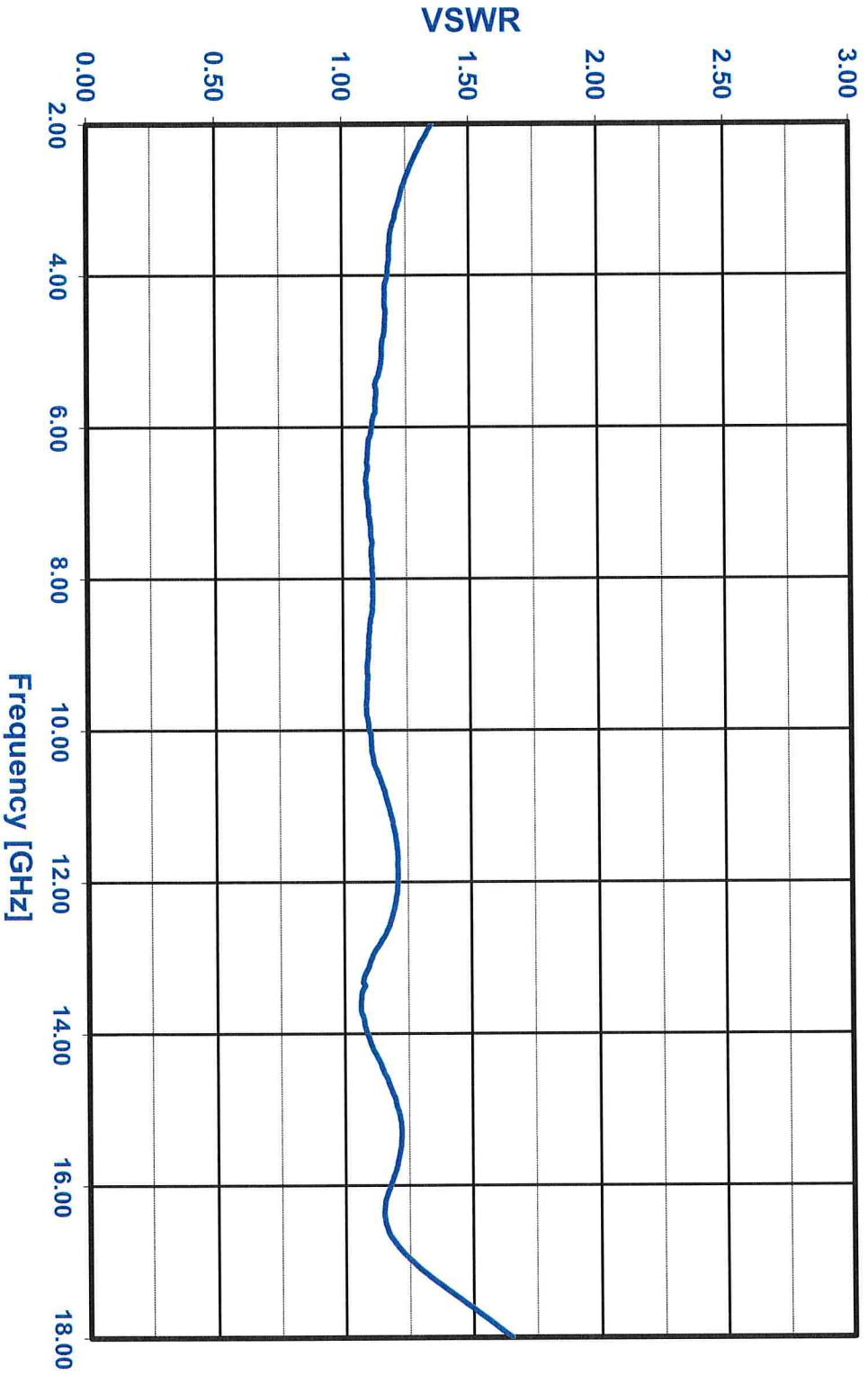
+85°C



Model Number: SDLVA-2G18G-CD-2-OPT218
Serial Number: PL42767

Temperature: +25C

VSWR GRAPH

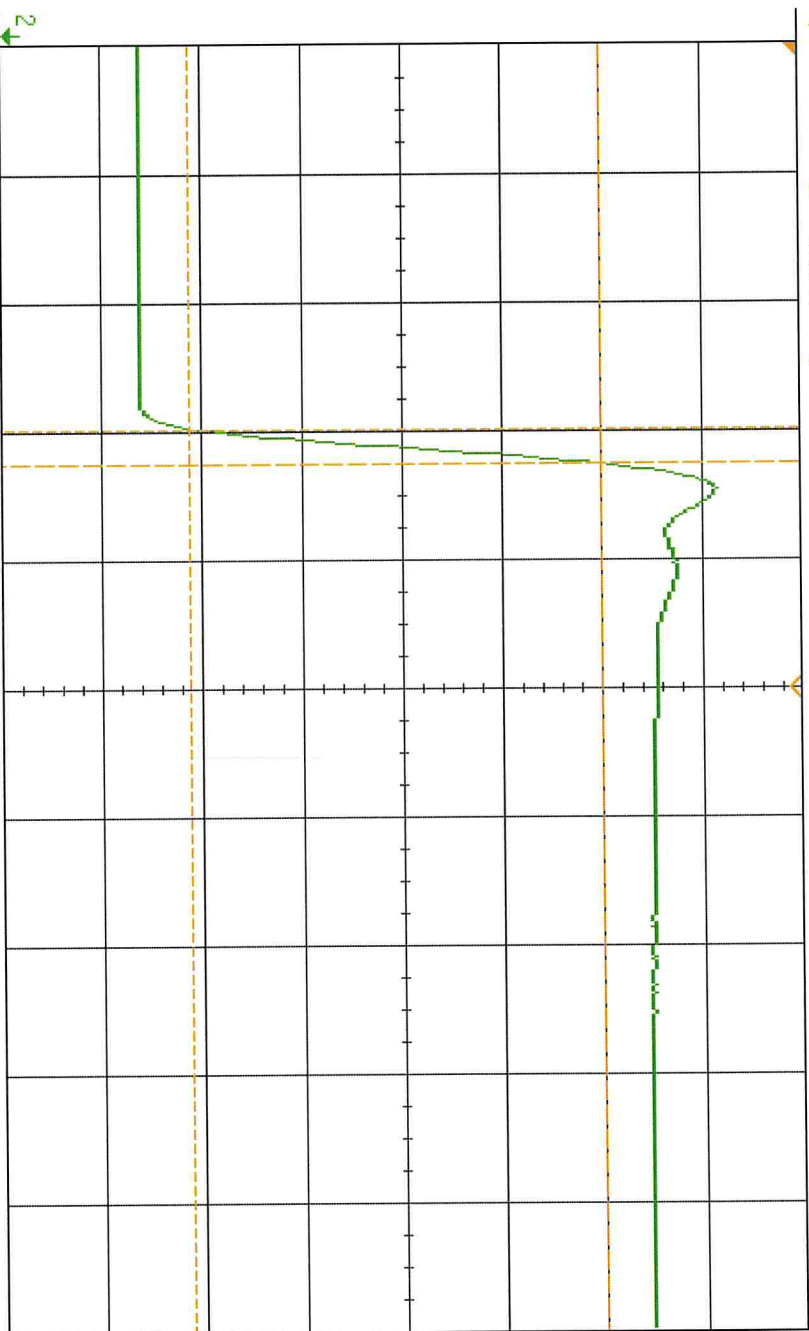


Input 1.65:1 Max

PL42767
 Rise Time

DSO-X 3034A, MW52394003, Fri Nov 10 12:02:48 2023

1 2 300%/ 3 4 4.000ms 20.00%/ Auto f 4 2.18V



Measurement Menu

Source 2

Type: Rise

Add Measurement

Settings

Clear Meas

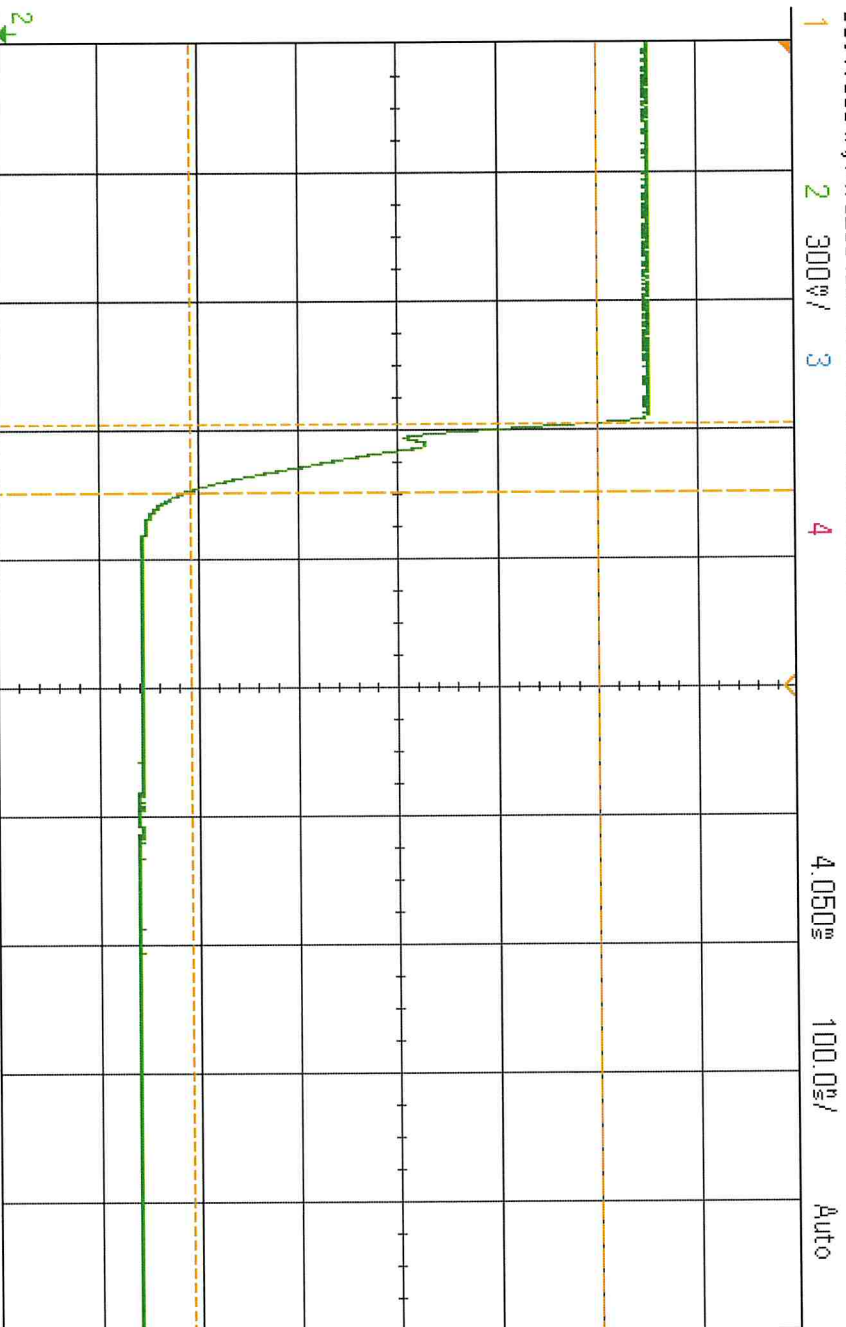
Statistics

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): 5.5ns

PL42767

RECOVERY

DSO-X 3034A, MY52394003, Fri Nov 10 12:03:45 2023



KEYSIGHT
TECHNOLOGIES

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): 52.0ns

Measurement Menu

Source 2

Type: Fall

Add Measurement

Settings

Clear Meas

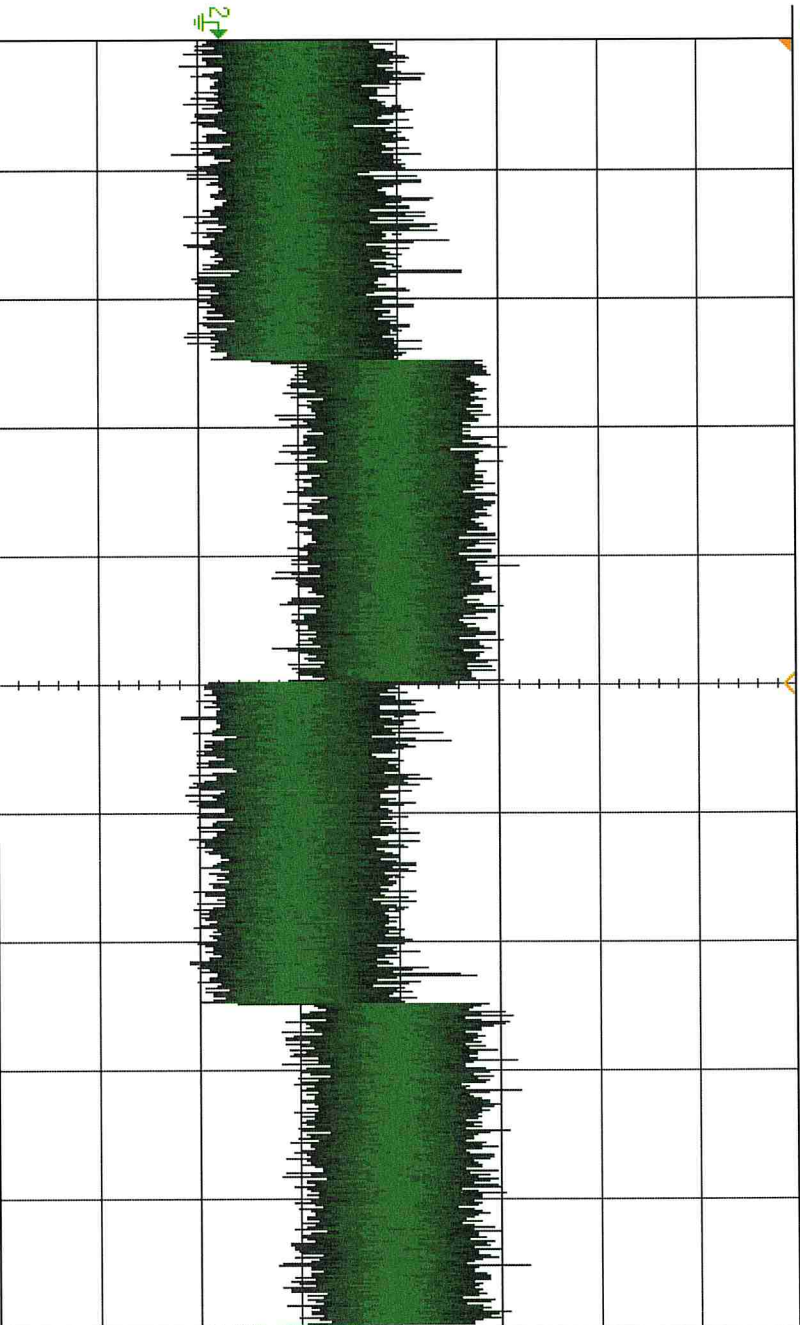
Statistics

PL42767

TSS - 7/

DSO-X 3034A, MY52394003, Fri Nov 10 12:01:29 2023

1 2 100% / 3 4 4.050ms 20.00ns / Auto f 4 2.20V



KEYSIGHT TECHNOLOGIES	
Acquisition	
Normal	
4.00GS/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.