

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

CUSTOMER: _____
 SO: _____
 MODEL NO: SDLVA-6G18G-CD-2-OPT218
 SERIAL NO: PL42905/2348

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	PMI QA1
2	Flatness	± 2.0 dB Maximum	± 1.2dB 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	14.5/12.0dBm	
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)	1.32/-1.34dB See Plots	
10	Pulse Range	30 ns to CW	Pass	
11	Rise Time	10 ns (6 ns Typical)	6.3 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: *K. Hunter*

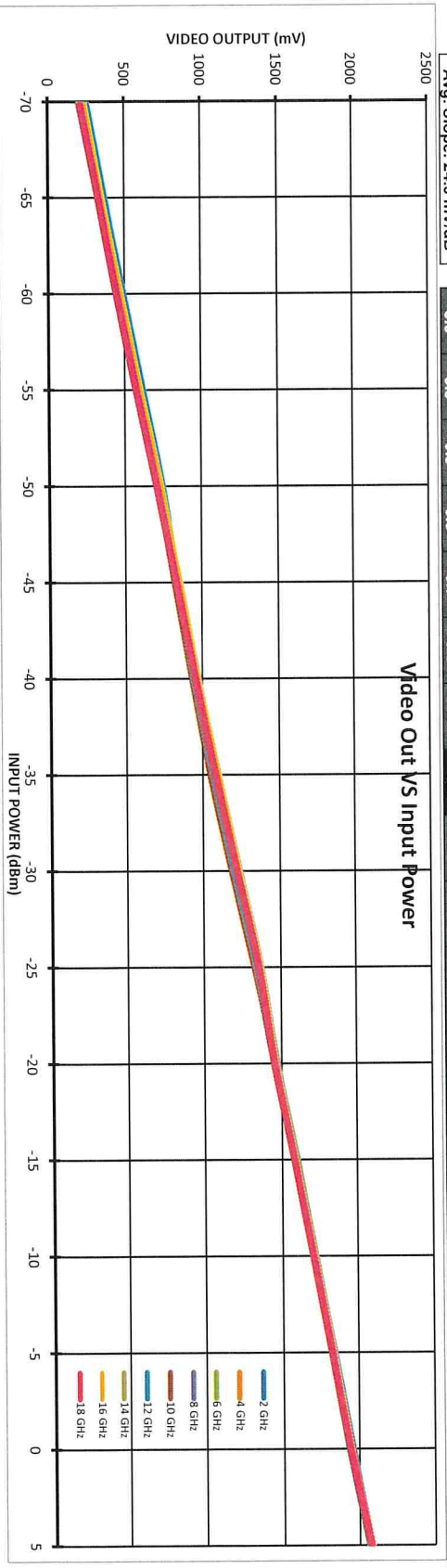
Date: 11-27-23



Frequency

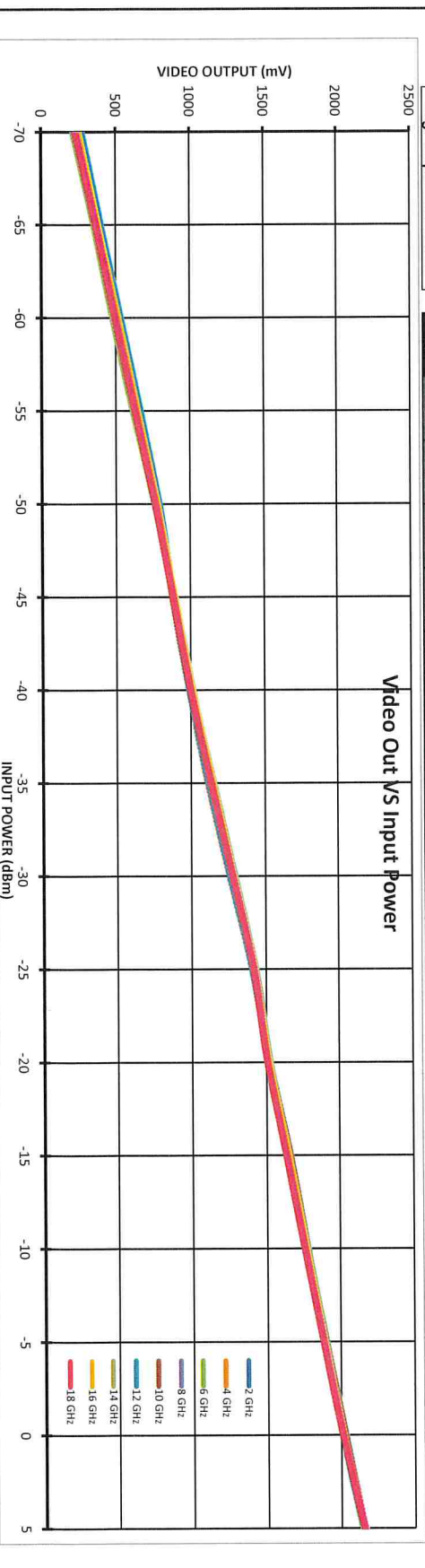
Frequency	INTERCEPT (mV)	SLOPE (mV/DB)	LN. ERR. (DB)	-70	-65	-60	-55	-50	-45	-40	-35	-30	-25	-20	-15	-10	-5	0	5
2 GHz	INTERCEPT (mV)	1968		236	356	480	602	731	848	964	1099	1229	1364	1466	1600	1723	1848	1963	2088
	SLOPE (mV/DB)	24.8		4	0	0	-2	3	-4	-12	-1	5	16	-6	4	3	4	-5	-4
	LN. ERR. (DB)	0.6		0.14	-0.02	-0.02	-0.10	0.11	-0.18	-0.50	-0.05	0.19	0.63	-0.25	0.15	0.11	0.15	-0.21	-0.17
4 GHz	INTERCEPT (mV)	1966		212	339	461	586	721	847	962	1091	1221	1353	1462	1595	1718	1841	1958	2088
	SLOPE (mV/DB)	25.02		-3	-1	-5	-5	5	6	-4	0	5	12	-4	4	2	0	-8	-4
	LN. ERR. (DB)	0.478		-0.13	-0.06	-0.18	-0.18	0.21	0.25	-0.15	0.00	0.20	0.48	-0.16	0.15	0.07	-0.01	-0.34	-0.14
6 GHz	INTERCEPT (mV)	1962		201	327	447	573	708	829	943	1066	1200	1339	1460	1599	1719	1841	1954	2079
	SLOPE (mV/DB)	25.2		3	3	-3	-3	6	1	-11	-14	-6	7	2	15	9	5	-8	-9
	LN. ERR. (DB)	0.602		0.13	0.13	-0.14	-0.11	0.25	0.05	-0.43	-0.55	-0.23	0.28	0.09	0.60	0.36	0.20	-0.31	-0.35
8 GHz	INTERCEPT (mV)	1952		210	336	457	583	716	828	939	1059	1194	1335	1454	1587	1711	1832	1945	2077
	SLOPE (mV/DB)	24.93		3	5	1	2	11	-2	-15	-20	-10	7	1	9	9	5	-7	1
	LN. ERR. (DB)	0.807		0.13	0.19	0.04	0.10	0.43	-0.07	-0.62	-0.81	-0.39	0.27	0.04	0.38	0.35	0.20	-0.26	0.03
10 GHz	INTERCEPT (mV)	1963		211	335	456	581	711	821	932	1050	1185	1329	1466	1609	1727	1846	1960	2086
	SLOPE (mV/DB)	25.2		12	10	5	4	8	-8	-23	-31	-22	-4	7	24	16	9	-3	-3
	LN. ERR. (DB)	1.232		0.48	0.40	0.20	0.16	0.32	-0.32	-0.91	-1.23	-0.88	-0.16	0.27	0.95	0.63	0.35	-0.13	-0.13
12 GHz	INTERCEPT (mV)	1948		246	365	491	616	744	843	952	1076	1209	1352	1461	1591	1713	1832	1941	2071
	SLOPE (mV/DB)	24.36		3	0	5	8	14	-9	-22	-20	-8	13	0	8	8	6	-7	1
	LN. ERR. (DB)	0.891		0.13	0.02	0.19	0.32	0.57	-0.36	-0.89	-0.80	-0.34	0.53	0.00	0.34	0.34	0.23	-0.30	0.04
14 GHz	INTERCEPT (mV)	1970		202	327	449	579	720	854	971	1102	1235	1371	1469	1601	1723	1840	1948	2075
	SLOPE (mV/DB)	25.1		-11	-11	-15	-10	5	14	5	11	18	29	1	8	4	-4	-22	-20
	LN. ERR. (DB)	1.14		-0.43	-0.45	-0.59	-0.41	0.20	0.54	0.20	0.42	0.72	1.14	0.04	0.30	0.16	-0.17	-0.87	-0.81
16 GHz	INTERCEPT (mV)	1959		235	355	480	606	741	861	976	1109	1238	1372	1467	1595	1716	1834	1941	2070
	SLOPE (mV/DB)	24.52		-8	-11	-8	-5	8	5	-2	8	14	26	-2	4	2	-2	-18	-12
	LN. ERR. (DB)	1.056		-0.32	-0.43	-0.33	-0.19	0.32	0.21	-0.10	0.33	0.59	1.06	-0.07	0.15	0.09	-0.10	-0.73	-0.47
18 GHz	INTERCEPT (mV)	1959		207	330	451	578	711	837	957	1086	1223	1360	1457	1587	1710	1829	1944	2081
	SLOPE (mV/DB)	25		-2	-4	-8	-6	2	3	-2	2	14	26	-2	3	1	-5	-15	-3
	LN. ERR. (DB)	1.028		-0.08	-0.16	-0.32	-0.25	0.07	0.11	-0.09	0.07	0.55	1.03	-0.09	0.11	0.03	-0.22	-0.62	-0.14
Avg. Slope: 24.9 mV/DB																			
Flatness dB: ±1.2 dB																			

Video Out VS Input Power

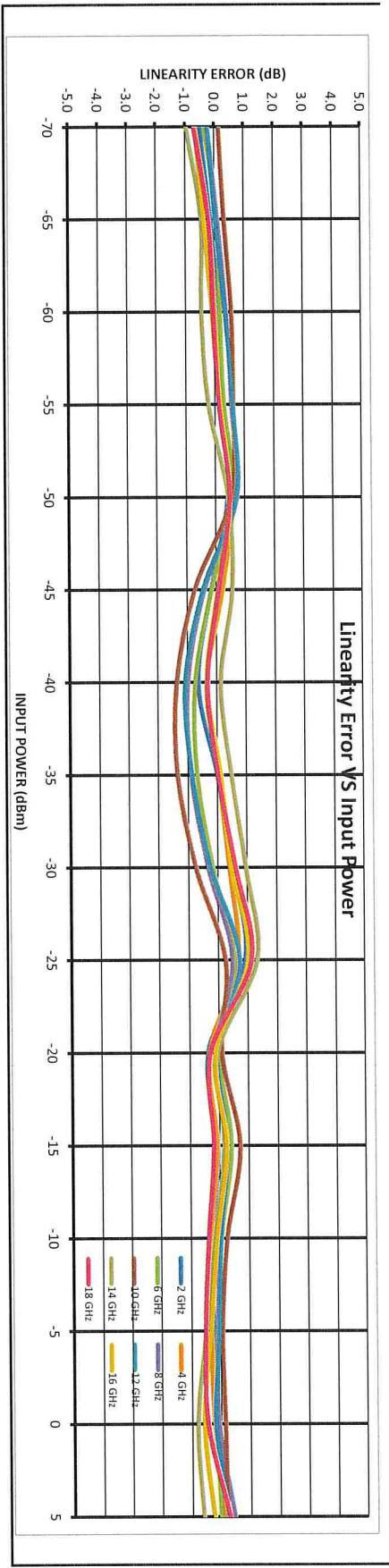




Frequency	-70	-65	-60	-55	-50	-45	-40	-35	-30	-25	-20	-15	-10	-5	0	5		
2 GHz	INTERCEPT (mV)	2039	250	386	520	650	781	893	1008	1151	1291	1428	1522	1657	1778	1906	2037	2166
	SLOPE (mV/DB)	25.38	-12	-3	4	7	11	-4	-16	0	14	24	-9	-1	-7	-6	-2	0
	LN. ERR. (DB)	0.9	-0.49	-0.13	0.15	0.27	0.44	-0.15	-0.52	0.02	0.53	0.93	-0.36	-0.04	-0.27	-0.23	-0.07	0.02
4 GHz	INTERCEPT (mV)	2032	236	375	507	638	776	894	1007	1144	1280	1414	1516	1649	1770	1897	2027	2163
	SLOPE (mV/DB)	25.42	-16	-5	0	4	15	6	-8	2	11	18	-8	-2	-8	-8	-5	4
	LN. ERR. (DB)	0.689	-0.65	-0.18	0.01	0.17	0.59	0.23	-0.32	0.07	0.42	0.69	-0.30	-0.07	-0.31	-0.31	-0.20	0.15
6 GHz	INTERCEPT (mV)	2030	233	372	502	633	769	877	990	1119	1260	1406	1520	1658	1776	1900	2027	2158
	SLOPE (mV/DB)	25.55	-9	2	5	8	16	-4	-18	-17	-4	14	1	11	1	-3	-3	0
	LN. ERR. (DB)	0.718	-0.34	0.10	0.18	0.31	0.63	-0.14	-0.72	-0.67	-0.15	0.56	0.02	0.42	0.04	-0.11	-0.14	-0.01
8 GHz	INTERCEPT (mV)	2021	256	390	523	653	783	880	991	1119	1259	1405	1515	1649	1769	1893	2019	2158
	SLOPE (mV/DB)	25.13	-6	3	10	15	19	-10	-24	-22	-8	13	-3	5	0	-2	-2	12
	LN. ERR. (DB)	0.971	-0.22	0.11	0.41	0.58	0.75	-0.39	-0.97	-0.88	-0.31	0.50	-0.12	0.21	-0.01	-0.08	-0.06	0.47
10 GHz	INTERCEPT (mV)	2034	264	395	528	656	781	875	986	1113	1255	1407	1530	1672	1787	1909	2038	2166
	SLOPE (mV/DB)	25.35	4	9	15	16	14	-18	-34	-34	-18	7	3	18	7	2	4	5
	LN. ERR. (DB)	1.343	0.17	0.34	0.59	0.64	0.57	-0.72	-1.34	-1.33	-0.73	0.27	0.12	0.72	0.26	0.07	0.16	0.21
12 GHz	INTERCEPT (mV)	2018	268	399	532	663	790	886	995	1125	1265	1414	1519	1651	1770	1893	2014	2150
	SLOPE (mV/DB)	24.93	-6	1	9	15	18	-11	-26	-21	-6	19	-1	6	1	-1	-4	7
	LN. ERR. (DB)	1.06	-0.23	0.03	0.36	0.62	0.72	-0.43	-1.06	-0.84	-0.23	0.75	-0.04	0.26	0.03	-0.03	-0.18	0.28
14 GHz	INTERCEPT (mV)	2041	212	354	483	618	764	896	1014	1152	1293	1431	1525	1659	1779	1900	2021	2155
	SLOPE (mV/DB)	25.78	-25	-12	-12	-5	12	15	4	13	25	34	-1	4	-5	-12	-20	-15
	LN. ERR. (DB)	1.324	-0.96	-0.45	-0.45	-0.21	0.45	0.57	0.15	0.50	0.97	1.32	-0.03	0.17	-0.18	-0.48	-0.79	-0.59
16 GHz	INTERCEPT (mV)	2032	255	388	521	653	787	902	1018	1155	1290	1429	1526	1661	1778	1898	2018	2152
	SLOPE (mV/DB)	25.15	-16	-9	-2	5	13	2	-8	3	13	26	-3	6	-2	-8	-14	-6
	LN. ERR. (DB)	1.03	-0.64	-0.36	-0.07	0.18	0.51	0.08	-0.31	0.14	0.50	1.03	-0.11	0.25	-0.10	-0.32	-0.55	-0.23
18 GHz	INTERCEPT (mV)	2027	229	369	500	632	768	885	1002	1138	1280	1420	1511	1641	1763	1887	2016	2162
	SLOPE (mV/DB)	25.44	-17	-5	-1	4	13	3	-7	1	15	29	-7	-4	-9	-13	-11	8
	LN. ERR. (DB)	1.142	-0.68	-0.18	-0.03	0.16	0.51	0.11	-0.29	0.06	0.64	1.14	-0.28	-0.17	-0.37	-0.50	-0.43	0.31
Avg. Slope: 25.3 mV/DB																		
Flatness dB: +1.1 dB																		



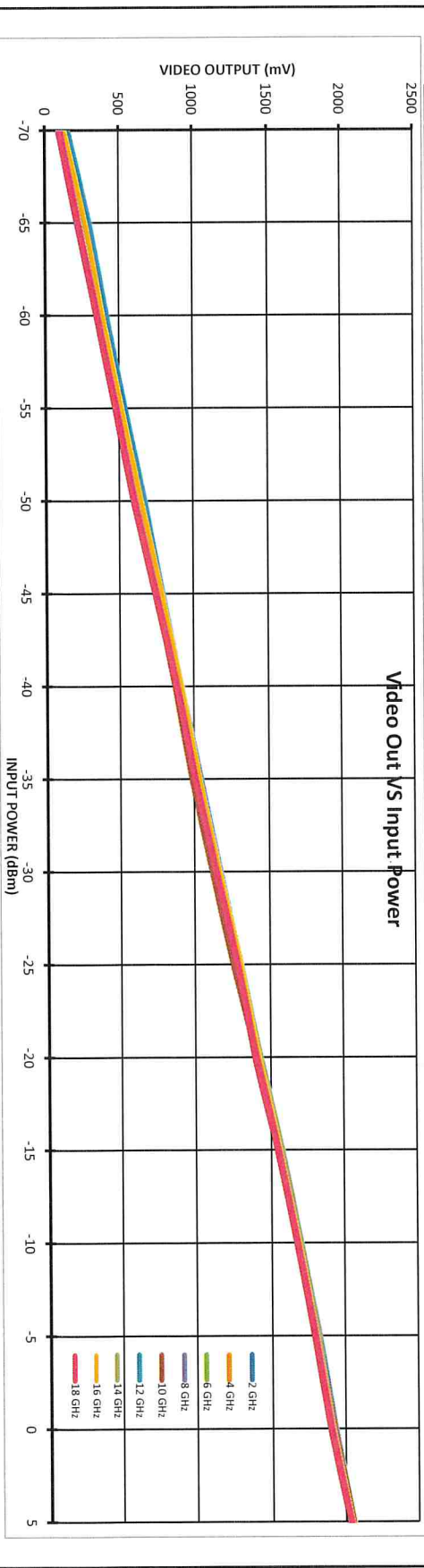
PL42905
-40°C





Frequency

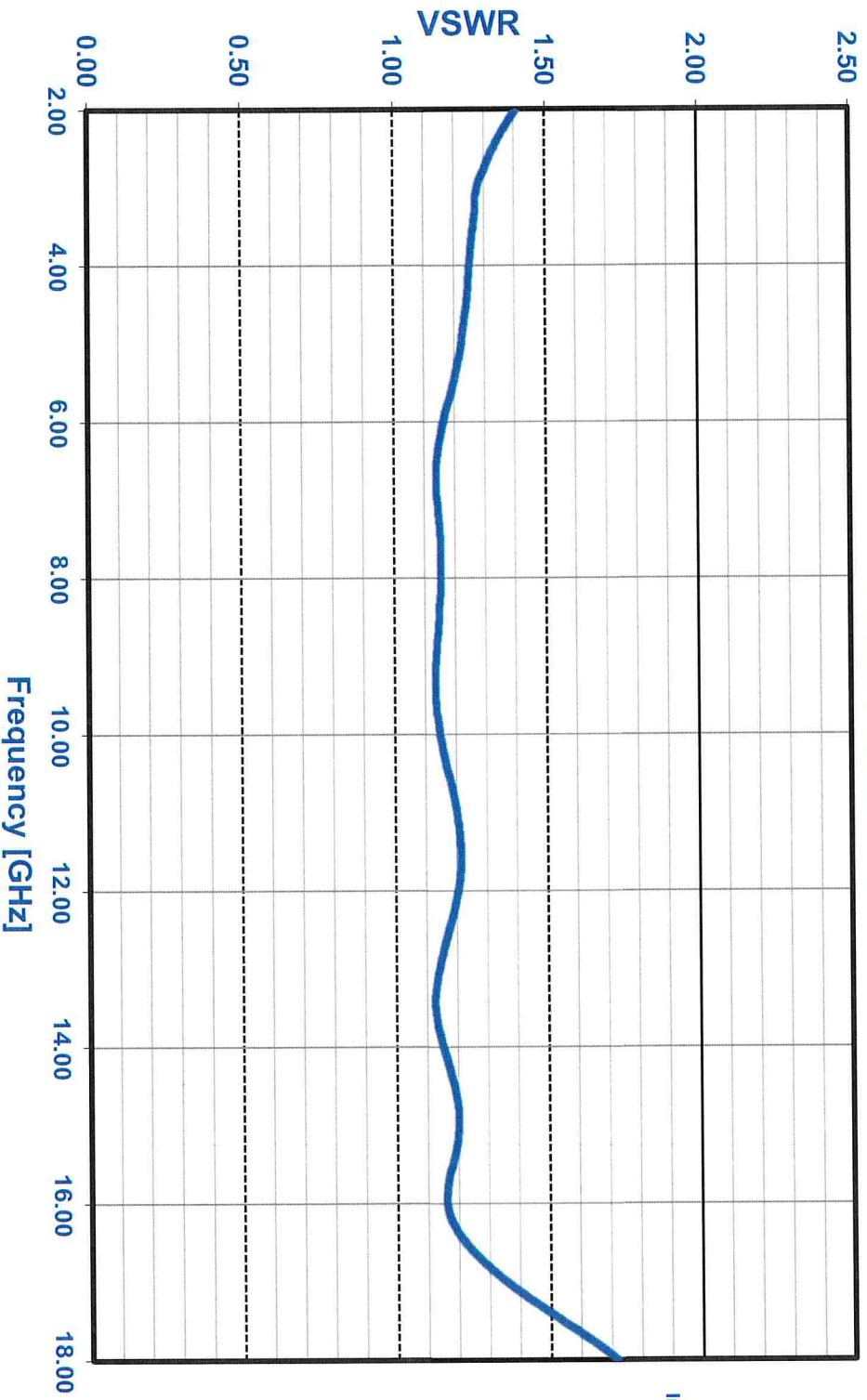
Frequency	70	65	60	55	50	45	40	35	30	25	20	15	10	5	0	5		
2 GHz	INTERCEPT (mV)	1947	149	294	417	539	665	795	921	1049	1177	1311	1431	1575	1706	1830	1937	2060
	SLOPE (mV/dB)	25.56	-8	9	4	-2	-4	-1	-3	3	-5	12	15	11	-10	-15	-10	-15
	LINEARITY ERROR (dB)	0.6	-0.33	0.35	0.16	-0.07	-0.14	-0.06	-0.13	-0.12	-0.11	0.13	0.45	0.58	0.43	-0.38	-0.57	-0.57
4 GHz	INTERCEPT (mV)	1943	122	264	389	517	643	784	912	1035	1164	1295	1421	1564	1698	1822	1932	2060
	SLOPE (mV/dB)	25.9	-8	4	0	-2	-5	6	5	-2	-2	-4	9	14	8	-11	-13	-13
	LINEARITY ERROR (dB)	0.537	-0.32	0.17	-0.01	-0.06	-0.20	0.25	0.19	-0.06	-0.08	-0.02	-0.16	0.36	0.54	0.32	-0.43	-0.49
6 GHz	INTERCEPT (mV)	1936	106	240	367	497	624	763	891	1008	1142	1276	1414	1565	1698	1819	1924	2046
	SLOPE (mV/dB)	26.15	0	4	0	-1	-5	4	1	-13	-10	-6	1	21	23	14	-12	-21
	LINEARITY ERROR (dB)	0.895	0.01	0.14	-0.01	-0.03	-0.18	0.14	0.03	-0.49	-0.37	-0.24	0.03	0.81	0.90	0.52	-0.46	-0.80
8 GHz	INTERCEPT (mV)	1930	109	244	371	501	627	762	884	999	1135	1270	1411	1558	1692	1814	1920	2049
	SLOPE (mV/dB)	26.04	1	6	3	3	-1	3	-5	-20	-14	-9	1	18	22	14	-10	-12
	LINEARITY ERROR (dB)	0.844	0.05	0.24	0.11	0.11	-0.05	0.13	-0.19	-0.77	-0.55	-0.36	0.05	0.70	0.84	0.53	-0.40	-0.45
10 GHz	INTERCEPT (mV)	1939	107	240	367	496	620	754	875	989	1123	1259	1416	1578	1707	1826	1931	2055
	SLOPE (mV/dB)	26.31	10	11	7	4	-4	-1	-12	-29	-27	-22	3	34	31	19	-8	-16
	LINEARITY ERROR (dB)	1.279	0.37	0.42	0.25	0.15	-0.13	-0.04	-0.44	-1.11	-1.02	-0.85	0.12	1.28	1.18	0.70	-0.30	-0.59
12 GHz	INTERCEPT (mV)	1927	143	287	409	536	667	786	901	1017	1151	1291	1422	1560	1694	1813	1916	2041
	SLOPE (mV/dB)	25.37	-8	9	4	5	9	1	-11	-22	-15	-1	3	14	21	13	-11	-12
	LINEARITY ERROR (dB)	0.856	-0.31	0.37	0.18	0.18	0.35	0.04	-0.43	-0.86	-0.57	-0.05	0.11	0.55	0.83	0.52	-0.42	-0.49
14 GHz	INTERCEPT (mV)	1946	103	234	364	497	629	781	914	1036	1168	1307	1430	1571	1702	1820	1920	2043
	SLOPE (mV/dB)	26.19	-10	-10	-11	-9	-8	13	15	7	8	16	8	18	18	5	-26	-34
	LINEARITY ERROR (dB)	1.294	-0.38	-0.38	-0.41	-0.34	-0.29	0.51	0.59	0.25	0.29	0.60	0.30	0.68	0.68	0.19	-0.99	-1.29
16 GHz	INTERCEPT (mV)	1935	126	267	390	520	651	792	920	1044	1173	1311	1427	1561	1693	1811	1912	2039
	SLOPE (mV/dB)	25.62	-15	-3	-8	-6	-3	10	10	6	7	17	4	10	14	4	-23	-24
	LINEARITY ERROR (dB)	0.942	-0.60	-0.10	-0.30	-0.23	-0.11	0.39	0.38	0.22	0.26	0.64	0.17	0.40	0.55	0.16	-0.90	-0.94
18 GHz	INTERCEPT (mV)	1929	95	218	350	482	605	750	890	1011	1149	1289	1409	1549	1682	1801	1908	2039
	SLOPE (mV/dB)	26.21	1	-7	-6	-5	-13	1	10	0	7	16	5	14	15	2	-21	-21
	LINEARITY ERROR (dB)	0.791	0.05	-0.26	-0.22	-0.19	-0.49	0.04	0.38	-0.01	0.26	0.60	0.18	0.52	0.59	0.13	-0.79	-0.79
Avg. Slope: 25.9 mV/dB																		
Flatness dB: ±1.5 dB																		



Model Number: SDLVA-6G18G-CD-2 OPT218
Serial Number: PL42905
Date: 11/27/2023

Temperature: +25C

VSWR GRAPH

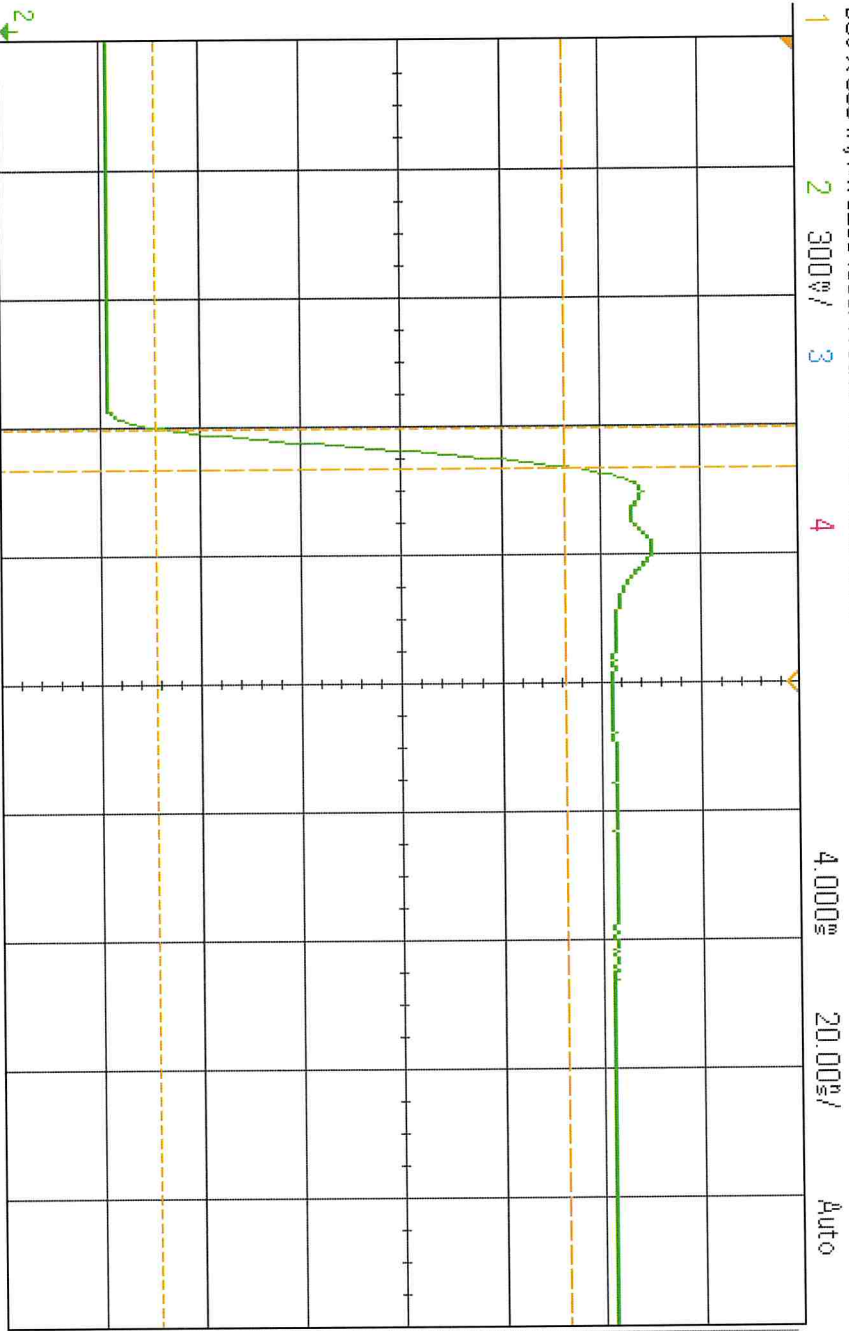


Input VSWR 1.72:1 Max

PL42905

Rise Time

DSO-X 3034A, MY52394003 Wed Nov 22 09:15:09 2023



f 4 2.83V

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): 6.3ns

Measurement Menu

Source 2

Type: Rise

Add Measurement

Settings

Clear Meas

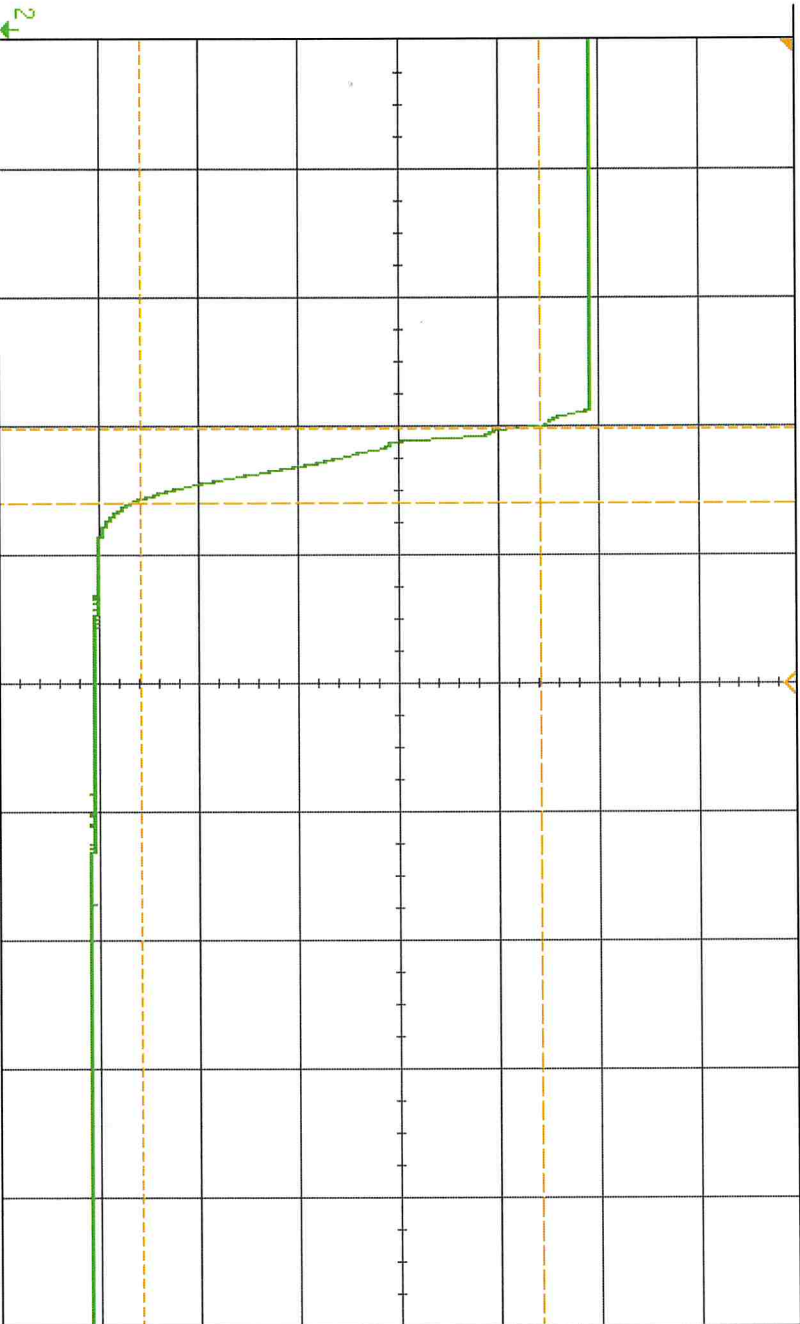
Statistics

PL42905

Recovery

DSO-X 3034A, MW52394003, Wed Nov 22 09:16:15 2023

1 2 300%/ 3 4 4.050V 100.0ns/ Auto f 4 2.83V



Measurement Menu

- Source 2
- Type: Fall
- Add Measurement
- Settings
- Clear Meas
- Statistics

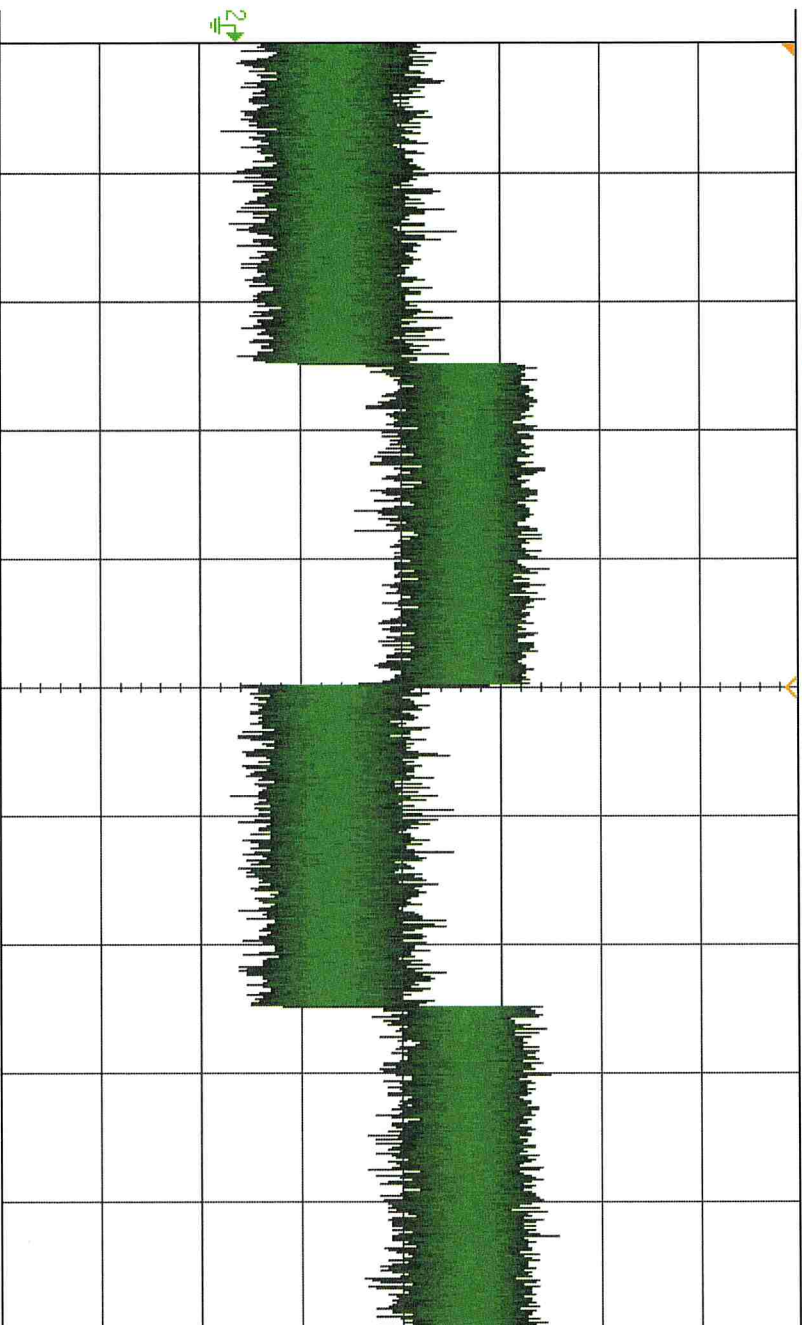
Acquisition	32
Averaging	32
Channels	1.00:1
DC	1.00:1
DC	1.00:1
DC	1.00:1
Measurements	No edges
Rise[2]:	56.8ns
Fall[2]:	

PL42905

TSS -71

DSO-X 3034A, MW52394003, Wed Nov 22 09:17:22 2023

1 2 100% / 3 4 4.050ms 20.00% / Auto f 4 2.83V



Channels	Scale
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.