

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

CUSTOMER: _____
 SO: _____
 MODEL NO: _____
 SERIAL NO: _____

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	<i>PMI QA3</i>
2	Flatness	± 2.0 dB Maximum	± 1.2dB 25°C See Plots	
3	TSS	-70 dBm Minimum	-71dBm	
4	VSWR	2.0:1 (Input)	1.56:1	
5	Input Power	+17 dBm CW Maximum	Pass	
6	RF Out	+13 dBm ±3 dB Typical	14.7/11.3dBm	
7	Log Slope	25 mV/dB (±10%) 50Ω	25.4mV/dB See Plot	
8	Log Range	-70 to +5 dBm	See Plots	
9	Log Linearity	±2.5 dB (-40°C - +85°C)	2.05/-1.14dB See Plots	
10	Pulse Range	30 ns to CW	Pass	
11	Rise Time	10 ns (6 ns Typical)	6.8ns	
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. [Signature]*

Date: 11-14-23



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)

2 GHz	INTERCEPT (mV)	1967
	SLOPE (mV/dB)	25.36
	LIN. ERR. (dB)	1.1

208	332	452	571	689	804	924	1063	1210	1353	1457	1550	1719	1848	1963	2096
16	14	7	-1	-10	-21	-28	-16	4	20	-2	4	6	8	-4	3
0.65	0.54	0.27	-0.03	-0.38	-0.85	-1.11	-0.63	0.16	0.80	-0.10	0.15	0.24	0.32	-0.14	0.10

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

4 GHz	INTERCEPT (mV)	1964
	SLOPE (mV/dB)	25.4
	LIN. ERR. (dB)	0.731

196	321	440	563	685	813	934	1070	1212	1212	1348	1453	1584	1713	1841	1956	2094
10	8	0	-4	-9	-8	-14	-5	10	19	-3	1	3	4	4	-8	3
0.38	0.30	-0.02	-0.17	-0.37	-0.33	-0.57	-0.21	0.38	0.73	-0.14	0.02	0.10	0.14	-0.33	0.10	

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

6 GHz	INTERCEPT (mV)	1960
	SLOPE (mV/dB)	25.83
	LIN. ERR. (dB)	0.859

174	294	408	535	656	786	909	1034	1181	1325	1447	1585	1714	1840	1953	2087
22	13	-2	-4	-12	-12	-18	-22	-4	11	4	12	12	9	-7	-2
0.86	0.50	-0.08	-0.17	-0.48	-0.45	-0.69	-0.85	-0.16	0.42	0.14	0.48	0.48	0.35	-0.27	-0.08

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

8 GHz	INTERCEPT (mV)	1946
	SLOPE (mV/dB)	25.59
	LIN. ERR. (dB)	0.731

173	293	408	535	654	785	907	1032	1176	1320	1438	1566	1700	1825	1938	2075
19	11	-2	-3	-12	-9	-15	-18	-2	14	4	4	10	7	-8	1
0.73	0.42	-0.09	-0.13	-0.48	-0.36	-0.59	-0.71	-0.08	0.55	0.16	0.16	0.39	0.28	-0.31	0.05

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

10 GHz	INTERCEPT (mV)	1946
	SLOPE (mV/dB)	25.79
	LIN. ERR. (dB)	0.947

165	281	397	523	639	772	898	1023	1169	1313	1439	1570	1702	1827	1937	2071
24	11	-2	-4	-17	-13	-16	-20	-3	12	9	11	14	10	-9	-4
0.95	0.44	-0.06	-0.17	-0.68	-0.52	-0.64	-0.79	-0.13	0.45	0.34	0.42	0.53	0.38	-0.36	-0.16

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

12 GHz	INTERCEPT (mV)	1931
	SLOPE (mV/dB)	25.02
	LIN. ERR. (dB)	1.369

185	308	423	548	671	801	922	1053	1196	1340	1436	1547	1685	1808	1918	2049
5	3	-7	-7	-9	-4	-8	-3	15	34	5	-9	4	2	-13	-7
0.20	0.12	-0.28	-0.29	-0.37	-0.18	-0.34	-0.10	0.61	1.37	0.21	-0.36	0.16	0.07	-0.53	-0.29

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

14 GHz	INTERCEPT (mV)	1937
	SLOPE (mV/dB)	25.38
	LIN. ERR. (dB)	1.802

163	276	393	524	649	798	932	1075	1216	1348	1430	1538	1680	1802	1914	2052
3	-11	-21	-17	-19	3	11	27	41	46	1	-18	-3	-8	-23	-12
0.12	-0.43	-0.82	-0.66	-0.74	0.13	0.41	1.05	1.60	1.80	0.03	-0.71	-0.12	-0.31	-0.90	-0.46

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

16 GHz	INTERCEPT (mV)	1932
	SLOPE (mV/dB)	24.97
	LIN. ERR. (dB)	1.206

189	312	428	554	675	801	926	1060	1199	1338	1433	1547	1685	1808	1920	2055
5	3	-6	-5	-9	-8	-7	2	16	30	0	-11	3	1	-12	-2
0.19	0.11	-0.24	-0.19	-0.35	-0.30	-0.29	0.07	0.64	1.21	0.01	-0.42	0.10	0.03	-0.48	-0.08

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

18 GHz	INTERCEPT (mV)	1939
	SLOPE (mV/dB)	25.59
	LIN. ERR. (dB)	1.135

168	283	399	528	643	770	901	1035	1187	1328	1423	1548	1683	1810	1930	2077
20	8	-4	-3	-16	-17	-14	-8	16	29	-4	-7	0	-1	-9	10
0.80	0.29	-0.17	-0.13	-0.64	-0.67	-0.55	-0.32	0.62	1.13	-0.15	-0.27	0.01	-0.03	-0.34	0.41

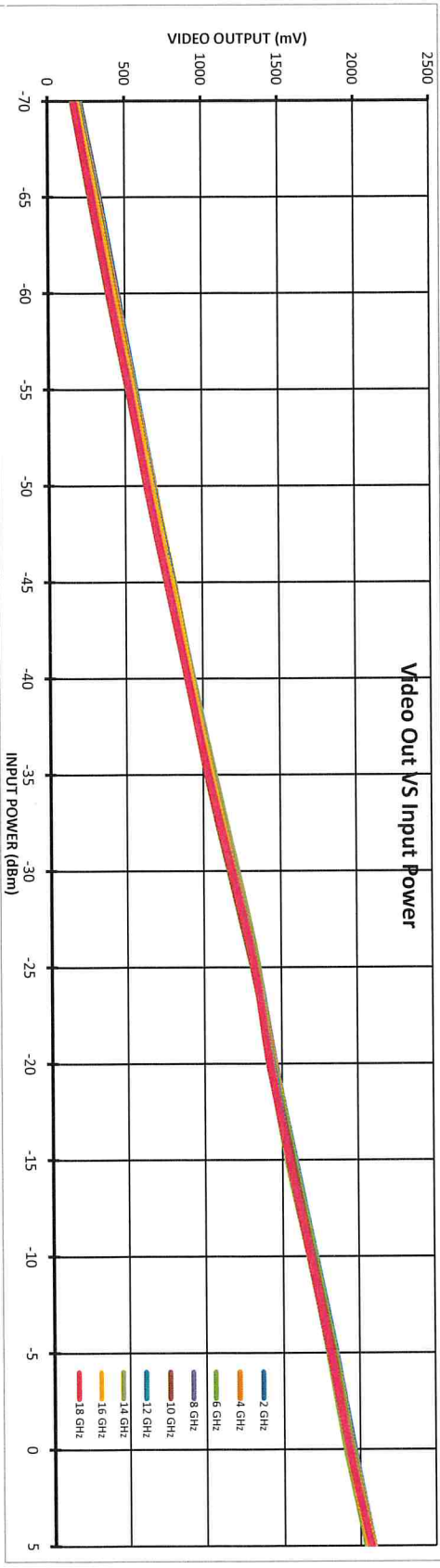
Measured Value (mV)
 ERROR (mV)
 LINEARITY ERROR (dB)

Avg. Slope: 25.4 mV/dB

0.9	1.1	1.2	0.9	1	0.8	0.7	1	0.9	0.8	0.8	0.7	1	0.8	0.9	0.9
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Flatness dB: ±1.2 dB

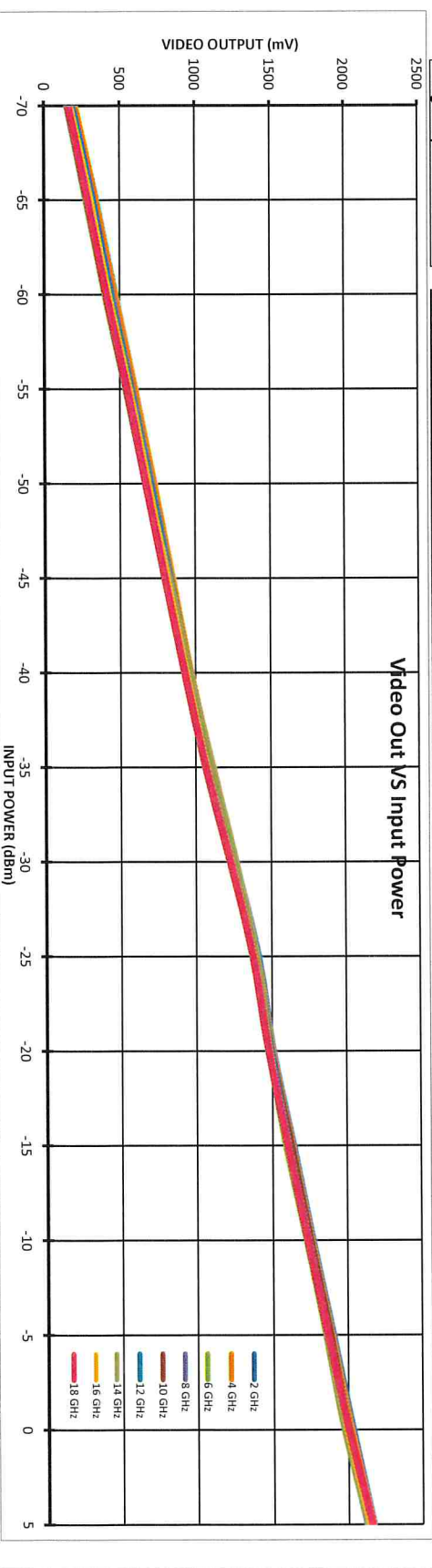
Video Out VS Input Power





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)	2040		201	346	475	604	728	844	964	1110	1268	1417	1513	1649	1775	1907	2035	2173	
	SLOPE (mV/DB)	26.22		-4	10	8	6	-1	-16	-27	-13	14	32	-3	2	-3	-2	-5	2	
	LIN. ERR. (DB)	1.22		-0.15	0.38	0.30	0.22	-0.05	-0.62	-1.05	-0.48	0.55	1.23	-0.11	0.08	-0.11	-0.08	-0.19	0.07	
4 GHz	INTERCEPT (mV)	2033		201	343	471	601	730	855	976	1120	1269	1408	1507	1640	1767	1897	2024	2168	
	SLOPE (mV/DB)	26.06		-8	4	2	1	0	-5	-15	-1	18	26	-5	-2	-5	-6	-9	5	
	LIN. ERR. (DB)	1.016		-0.30	0.15	0.06	0.05	0.00	-0.20	-0.56	-0.03	0.68	1.02	-0.19	-0.08	-0.21	-0.22	-0.35	0.18	
6 GHz	INTERCEPT (mV)	2021		171	309	434	568	695	820	941	1070	1224	1379	1498	1634	1761	1890	2012	2155	
	SLOPE (mV/DB)	26.5		5	10	3	4	-1	-9	-20	-24	-2	20	7	10	5	1	-9	1	
	LIN. ERR. (DB)	0.899		0.17	0.38	0.10	0.15	-0.05	-0.33	-0.77	-0.90	-0.09	0.76	0.25	0.39	0.18	0.05	-0.35	0.05	
8 GHz	INTERCEPT (mV)	2015		181	322	447	578	706	829	950	1081	1230	1383	1495	1626	1755	1884	2005	2152	
	SLOPE (mV/DB)	26.19		-1	9	3	3	0	-8	-18	-18	1	23	4	4	2	0	-10	6	
	LIN. ERR. (DB)	0.86		-0.03	0.36	0.13	0.13	0.02	-0.29	-0.67	-0.67	0.02	0.86	0.14	0.14	0.06	-0.01	-0.39	0.22	
10 GHz	INTERCEPT (mV)	2019		179	319	444	574	697	823	945	1077	1230	1385	1500	1635	1761	1889	2008	2150	
	SLOPE (mV/DB)	26.33		3	11	5	3	-6	-11	-21	-21	1	24	7	11	5	1	-11	-1	
	LIN. ERR. (DB)	0.912		0.11	0.43	0.17	0.11	-0.22	-0.43	-0.80	-0.79	0.03	0.91	0.28	0.41	0.19	0.05	-0.43	-0.03	
12 GHz	INTERCEPT (mV)	2004		174	314	440	573	702	834	959	1095	1246	1397	1491	1609	1742	1869	1985	2127	
	SLOPE (mV/DB)	25.99		-11	-1	-5	-2	-3	-1	-6	0	21	42	6	-6	-3	-5	-19	-7	
	LIN. ERR. (DB)	1.627		-0.43	-0.05	-0.20	-0.08	-0.12	-0.04	-0.23	0.01	0.82	1.63	0.24	-0.22	-0.10	-0.21	-0.75	-0.28	
14 GHz	INTERCEPT (mV)	2008		146	271	403	541	672	826	964	1112	1263	1401	1482	1595	1733	1859	1978	2131	
	SLOPE (mV/DB)	26.45		-11	-18	-18	-13	-14	8	14	30	48	54	3	-16	-11	-17	-30	-9	
	LIN. ERR. (DB)	2.046		-0.41	-0.68	-0.69	-0.47	-0.52	0.30	0.52	1.12	1.83	2.05	0.11	-0.62	-0.40	-0.64	-1.14	-0.35	
16 GHz	INTERCEPT (mV)	2004		169	307	433	568	693	819	946	1080	1226	1377	1486	1612	1744	1871	1990	2137	
	SLOPE (mV/DB)	26.18		-3	4	-1	3	-2	-7	-11	-8	7	27	5	0	1	-3	-14	2	
	LIN. ERR. (DB)	1.033		-0.11	0.16	-0.03	0.13	-0.10	-0.28	-0.43	-0.31	0.26	1.03	0.20	0.01	0.05	-0.10	-0.55	0.06	
18 GHz	INTERCEPT (mV)	2012		153	282	413	549	670	799	931	1068	1226	1377	1477	1606	1739	1869	2004	2160	
	SLOPE (mV/DB)	26.66		8	3	0.04	1	4	-9	-13	-14	14	32	-1	-8	-6	-9	-8	15	
	LIN. ERR. (DB)	1.194		0.29	0.13	0.04	0.14	-0.32	-0.48	-0.53	-0.39	0.53	1.19	-0.06	-0.22	-0.23	-0.35	-0.29	0.56	
Avg. Slope: 26.3 mV/DB				1	1.4	1.4	1.2	1.1	1.1	0.9	1	0.9	0.8	0.7	1	0.8	0.9	1.1	0.9	
Flatness dB: ±1.4 dB																				

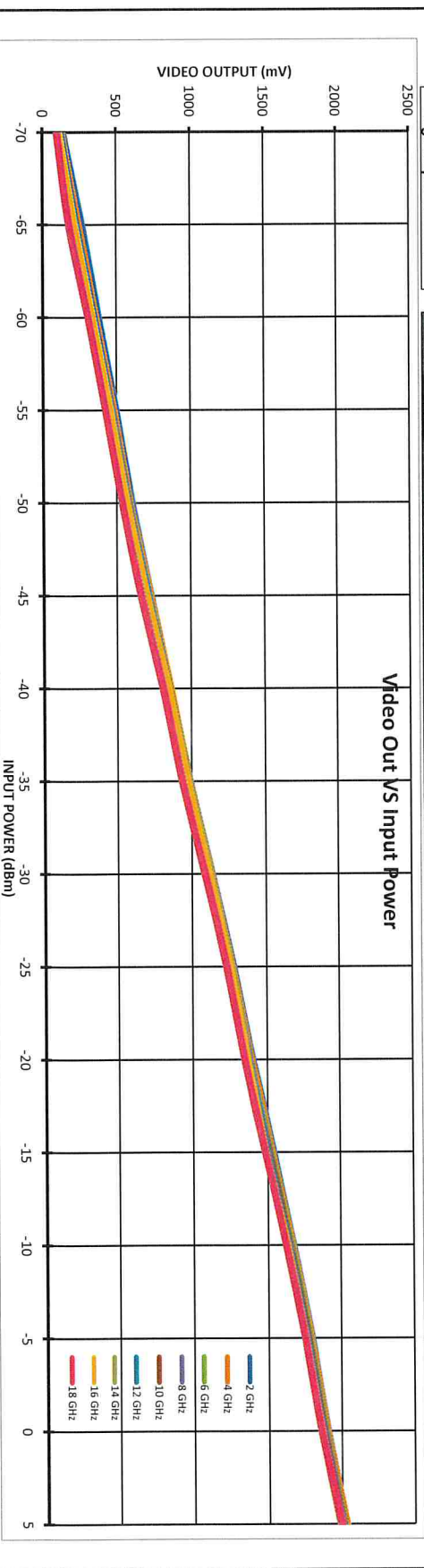
Video Out VS Input Power



Model: SDLVA-6G18G-CD-2 - OP1218
 Serial No: PL42815
 Date: 1/10/923
 Tested By: Jim Hopson
 Test Temp: +85°C



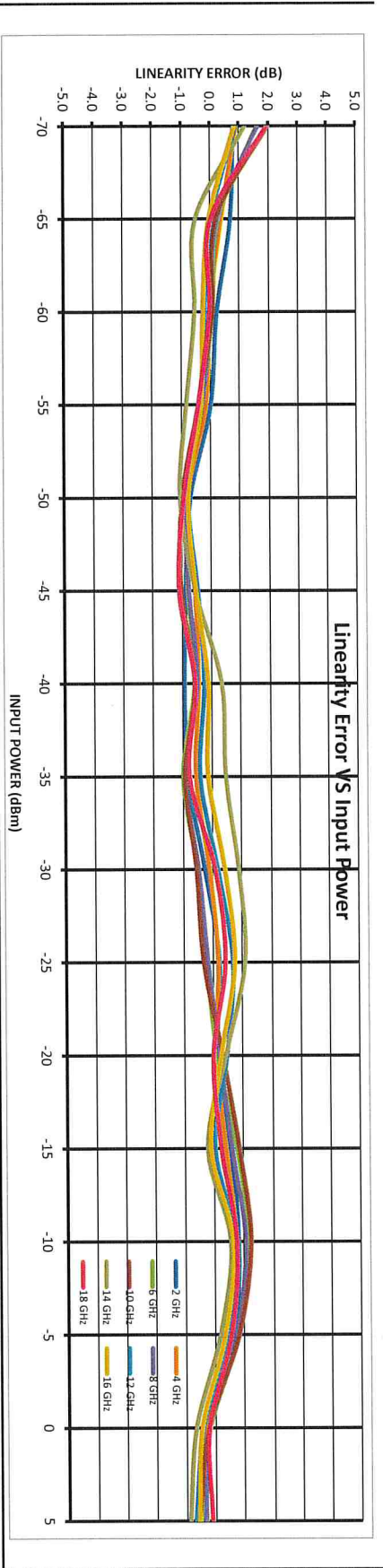
Frequency	-70	-65	-60	-55	-50	-45	-40	-35	-30	-25	-20	-15	-10	-5	0	5
2 GHz	INTERCEPT (mV)	1918	140	266	382	505	615	739	866	997	1140	1281	1407	1547	1682	1806
	SLOPE (mV/dB)	25.69	21	18	6	0	-18	-22	-24	-21	-7	6	3	15	21	17
	LIN. ERR. (dB)	0.9	0.81	0.72	0.23	0.02	-0.70	-0.87	-0.93	-0.83	-0.26	0.22	0.13	0.58	0.83	0.66
	Measured Value (mV)	1916	140	242	361	487	600	736	868	995	1136	1273	1400	1538	1676	1800
	ERROR (mV)	25.91	24	10	0	-4	-21	-14	-12	-14	-3	5	2	11	19	14
	LINEARITY ERROR (dB)	0.915	0.91	0.39	-0.02	-0.15	-0.79	-0.54	-0.45	-0.56	-0.10	0.18	0.08	0.41	0.74	0.52
4 GHz	INTERCEPT (mV)	1902	103	199	325	447	564	697	834	965	1099	1238	1379	1528	1670	1792
	SLOPE (mV/dB)	26.32	43	8	2	-7	-22	-21	-15	-26	-13	-6	3	21	31	22
	LIN. ERR. (dB)	1.645	1.65	0.29	0.08	-0.28	-0.84	-0.79	-0.58	-0.38	-0.51	-0.23	0.13	0.79	1.18	0.82
	Measured Value (mV)	1895	103	197	323	445	561	695	833	953	1096	1235	1376	1518	1661	1783
	ERROR (mV)	26.22	44	6	1	-8	-23	-20	-13	-24	-12	-4	5	16	28	19
	LINEARITY ERROR (dB)	1.663	1.66	0.25	0.05	-0.30	-0.87	-0.76	-0.50	-0.92	-0.47	-0.17	0.21	0.62	1.07	0.73
6 GHz	INTERCEPT (mV)	1892	95	180	309	428	545	676	820	943	1085	1223	1372	1519	1661	1782
	SLOPE (mV/dB)	26.42	53	5	2	-11	-26	-27	-15	-24	-14	-8	8	23	33	22
	LIN. ERR. (dB)	1.988	1.99	0.21	0.09	-0.41	-0.98	-1.02	-0.57	-0.92	-0.54	-0.32	0.32	0.88	1.26	0.84
	Measured Value (mV)	1882	95	182	311	433	557	700	853	986	1127	1262	1374	1487	1637	1757
	ERROR (mV)	25.58	53	1	2	-11	-26	-27	-15	-24	-14	-8	8	23	33	22
	LINEARITY ERROR (dB)	0.898	1.99	0.21	0.09	-0.41	-0.98	-1.02	-0.57	-0.92	-0.54	-0.32	0.32	0.88	1.26	0.84
8 GHz	INTERCEPT (mV)	1882	114	220	342	467	583	719	852	976	1119	1260	1382	1499	1645	1765
	SLOPE (mV/dB)	25.98	23	1	-5	-8	-20	-12	-7	-10	5	18	12	1	19	11
	LIN. ERR. (dB)	0.898	0.90	0.04	-0.19	-0.30	-0.77	-0.45	-0.25	-0.41	0.18	0.69	0.46	0.04	0.74	0.43
	Measured Value (mV)	1882	114	220	342	467	583	719	852	976	1119	1260	1382	1499	1645	1765
	ERROR (mV)	25.98	23	1	-5	-8	-20	-12	-7	-10	5	18	12	1	19	11
	LINEARITY ERROR (dB)	0.898	0.90	0.04	-0.19	-0.30	-0.77	-0.45	-0.25	-0.41	0.18	0.69	0.46	0.04	0.74	0.43
10 GHz	INTERCEPT (mV)	1882	97	182	311	433	557	700	853	986	1127	1262	1374	1487	1637	1757
	SLOPE (mV/dB)	25.96	32	-13	-14	-22	-27	-14	9	12	24	29	11	-6	14	5
	LIN. ERR. (dB)	1.224	1.22	-0.50	-0.53	-0.83	-1.05	-0.54	0.35	0.47	0.91	1.11	0.42	-0.22	0.56	0.18
	Measured Value (mV)	1882	97	182	311	433	557	700	853	986	1127	1262	1374	1487	1637	1757
	ERROR (mV)	25.96	32	-13	-14	-22	-27	-14	9	12	24	29	11	-6	14	5
	LINEARITY ERROR (dB)	1.224	1.22	-0.50	-0.53	-0.83	-1.05	-0.54	0.35	0.47	0.91	1.11	0.42	-0.22	0.56	0.18
12 GHz	INTERCEPT (mV)	1882	114	219	341	467	583	717	855	982	1124	1260	1375	1493	1640	1760
	SLOPE (mV/dB)	25.52	22	-1	-6	-8	-20	-13	-3	-4	11	19	7	-3	16	9
	LIN. ERR. (dB)	0.854	0.85	-0.03	-0.25	-0.32	-0.77	-0.52	-0.11	-0.14	0.43	0.75	0.26	-0.12	0.64	0.35
	Measured Value (mV)	1869	114	219	341	467	583	717	855	982	1124	1260	1375	1493	1640	1760
	ERROR (mV)	26.07	22	-1	-6	-8	-20	-13	-3	-4	11	19	7	-3	16	9
	LINEARITY ERROR (dB)	1.969	0.85	-0.03	-0.25	-0.32	-0.77	-0.52	-0.11	-0.14	0.43	0.75	0.26	-0.12	0.64	0.35
14 GHz	INTERCEPT (mV)	1869	95	175	304	424	541	667	811	936	1089	1228	1347	1484	1628	1753
	SLOPE (mV/dB)	26.07	51	1	0	-11	-24	-28	-15	-20	3	11	0	6	20	15
	LIN. ERR. (dB)	1.969	1.97	0.04	-0.01	-0.41	-0.92	-1.09	-0.57	-0.77	0.10	0.43	-0.01	0.25	0.77	0.57
	Measured Value (mV)	1869	95	175	304	424	541	667	811	936	1089	1228	1347	1484	1628	1753
	ERROR (mV)	26.07	51	1	0	-11	-24	-28	-15	-20	3	11	0	6	20	15
	LINEARITY ERROR (dB)	1.969	1.97	0.04	-0.01	-0.41	-0.92	-1.09	-0.57	-0.77	0.10	0.43	-0.01	0.25	0.77	0.57
16 GHz	INTERCEPT (mV)	1869	114	219	341	467	583	717	855	982	1124	1260	1375	1493	1640	1760
	SLOPE (mV/dB)	25.52	22	-1	-6	-8	-20	-13	-3	-4	11	19	7	-3	16	9
	LIN. ERR. (dB)	0.854	0.85	-0.03	-0.25	-0.32	-0.77	-0.52	-0.11	-0.14	0.43	0.75	0.26	-0.12	0.64	0.35
	Measured Value (mV)	1869	114	219	341	467	583	717	855	982	1124	1260	1375	1493	1640	1760
	ERROR (mV)	26.07	22	-1	-6	-8	-20	-13	-3	-4	11	19	7	-3	16	9
	LINEARITY ERROR (dB)	1.969	0.85	-0.03	-0.25	-0.32	-0.77	-0.52	-0.11	-0.14	0.43	0.75	0.26	-0.12	0.64	0.35
18 GHz	INTERCEPT (mV)	1869	95	175	304	424	541	667	811	936	1089	1228	1347	1484	1628	1753
	SLOPE (mV/dB)	26.07	51	1	0	-11	-24	-28	-15	-20	3	11	0	6	20	15
	LIN. ERR. (dB)	1.969	1.97	0.04	-0.01	-0.41	-0.92	-1.09	-0.57	-0.77	0.10	0.43	-0.01	0.25	0.77	0.57
	Measured Value (mV)	1869	95	175	304	424	541	667	811	936	1089	1228	1347	1484	1628	1753
	ERROR (mV)	26.07	51	1	0	-11	-24	-28	-15	-20	3	11	0	6	20	15
	LINEARITY ERROR (dB)	1.969	1.97	0.04	-0.01	-0.41	-0.92	-1.09	-0.57	-0.77	0.10	0.43	-0.01	0.25	0.77	0.57



Flatness dB: ±1.8 dB

PL42815

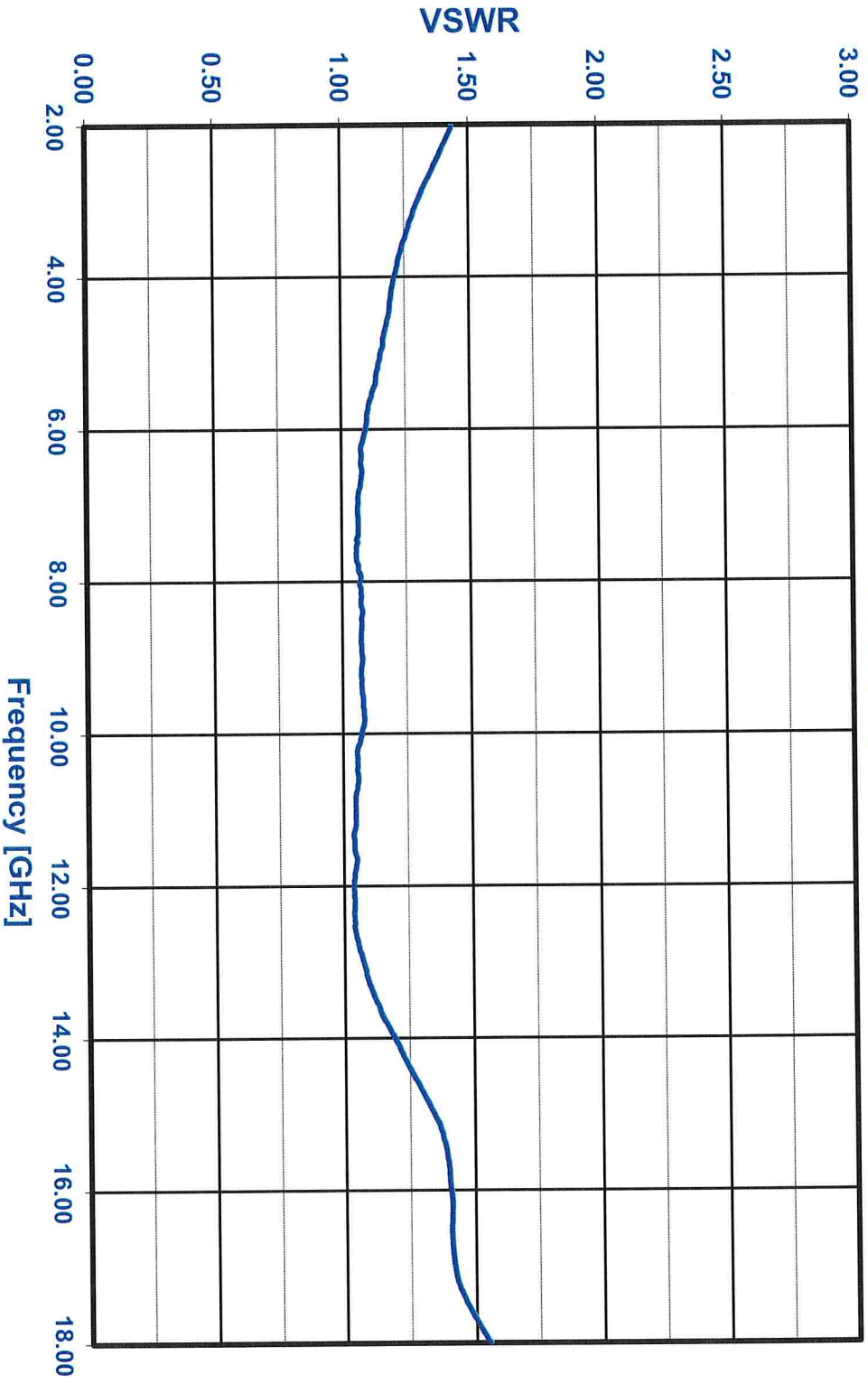
+85°C



Model Number: SDLVA-2G18G-CD-2-OPT218
Serial Number: PL42815

Temperature: +25C

VSWR GRAPH

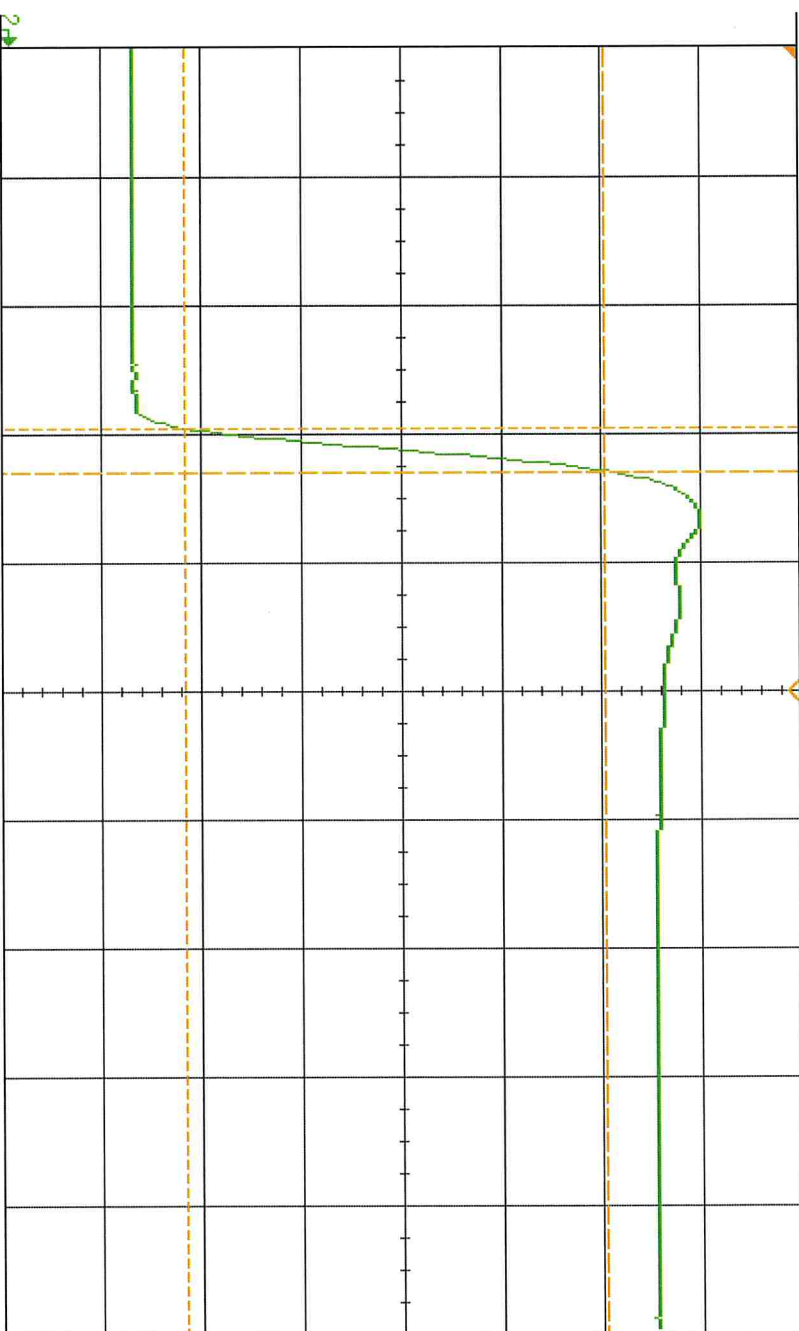


Input 1.56:1 Max

PL42815
Rise Time

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

1 2 300%/ 3 4 4.000ns 20.00ns/ Auto F 4 3.55V



Measurement Menu

Source 2

Type: Rise

Add Measurement

Settings

Clear Meas

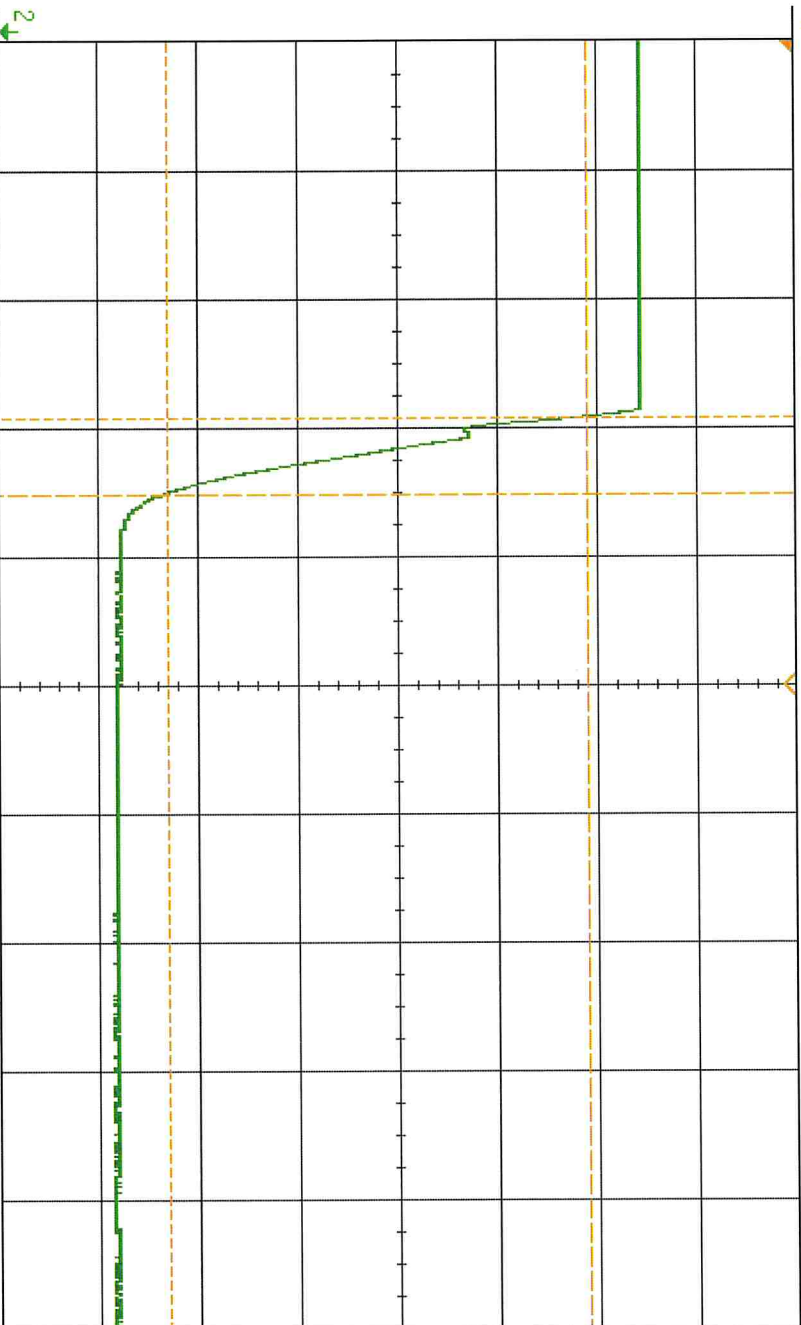
Statistics

KEYSIGHT Technologies	
Acquisition	4.00GSa/s
Averaging	32
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

PL42815
RECOVERY

DSO-X 3034A, MY52394003, Fri Nov 10 14:40:40 2023

1 2 300%/ 3 4 4.050ns 100.0ns/ Auto F 4 3.55V



Measurement Menu

Source 2

Type: Fall

Add Measurement

Settings

Clear Meas

Statistics

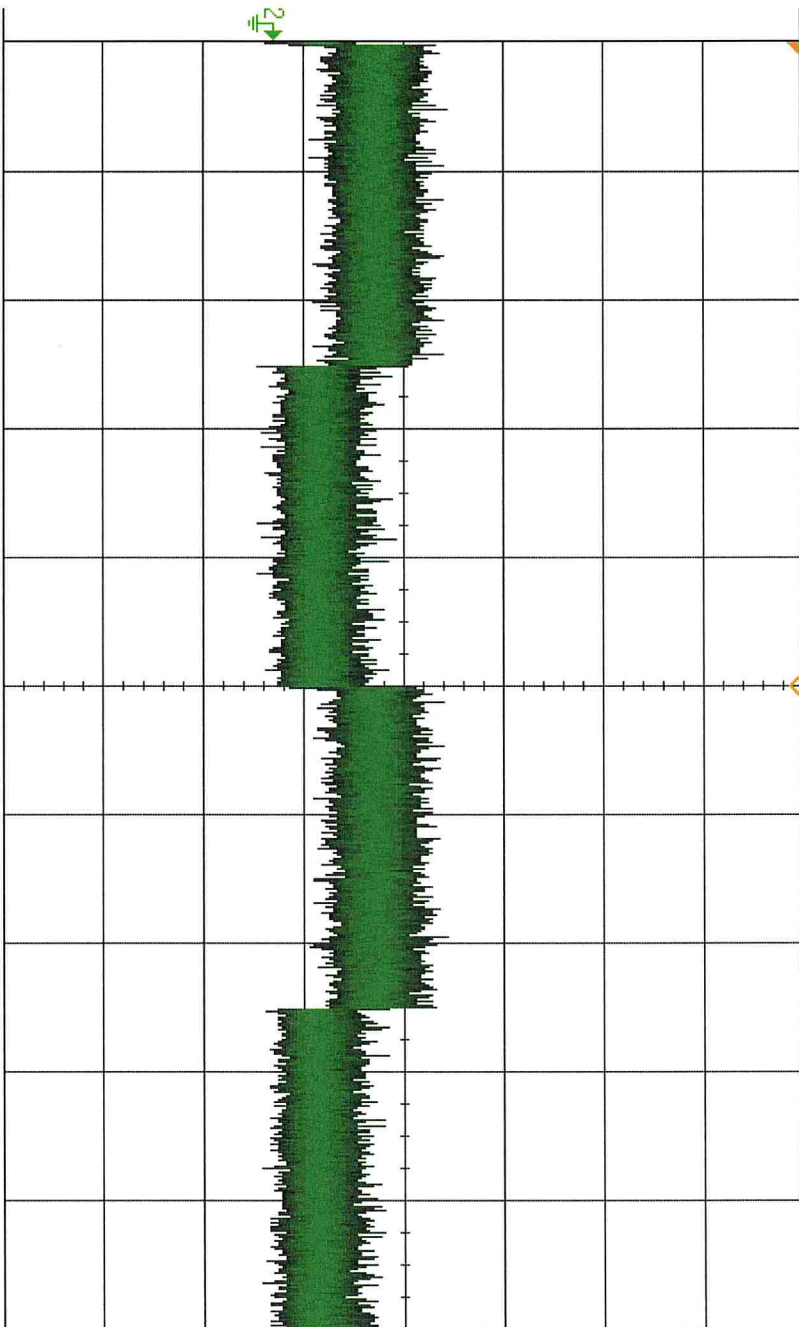
KEYSIGHT TECHNOLOGIES	
Acquisition	4.00GSa/s
Averaging: 32	
Channels	DC 1.00:1
	DC 1.00:1
	DC 1.00:1
	DC 1.00:1
Measurements	
Rise(2):	No edges
Fall(2):	59.3ns

PL42815

TSS -71

DSO-X 3034A, MY52394003, Fri Nov 10 12:09:11 2023

1 2 100% / 3 4



4.000 μs

20.00 μV

Auto

F 4 2.18V

KEYSIGHT TECHNOLOGIES	Acquisition	Normal	4.000S/s
Channels	DC	1.00:1	DC
	DC	1.00:1	DC
	DC	1.00:1	DC
	DC	1.00:1	DC

Cursors Menu

Mode Off

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