

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

CUSTOMER: _____
 SO: _____
 MODEL NO: SDLVA-6G18G-CD-2-OPT218
 SERIAL NO: PL42888/2347

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	<i>87</i>
2	Flatness	± 2.0 dB Maximum	± 1.3 dB 25°C See Plots	
3	TSS	-70 dBm Minimum	-71dBm	
4	VSWR	2.0:1 (Input)	1.83:1	
5	Input Power	+17 dBm CW Maximum	Pass	
6	RF Out	+13 dBm ±3 dB Typical	14.7/12.5 dBm	
7	Log Slope	25 mV/dB (±10%) 50Ω	25.1 mV/dB See Plot	
8	Log Range	-70 to +5 dBm	See Plots	
9	Log Linearity	±2.5 dB (-40°C - +85°C)	1.42/-1.52dB 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	

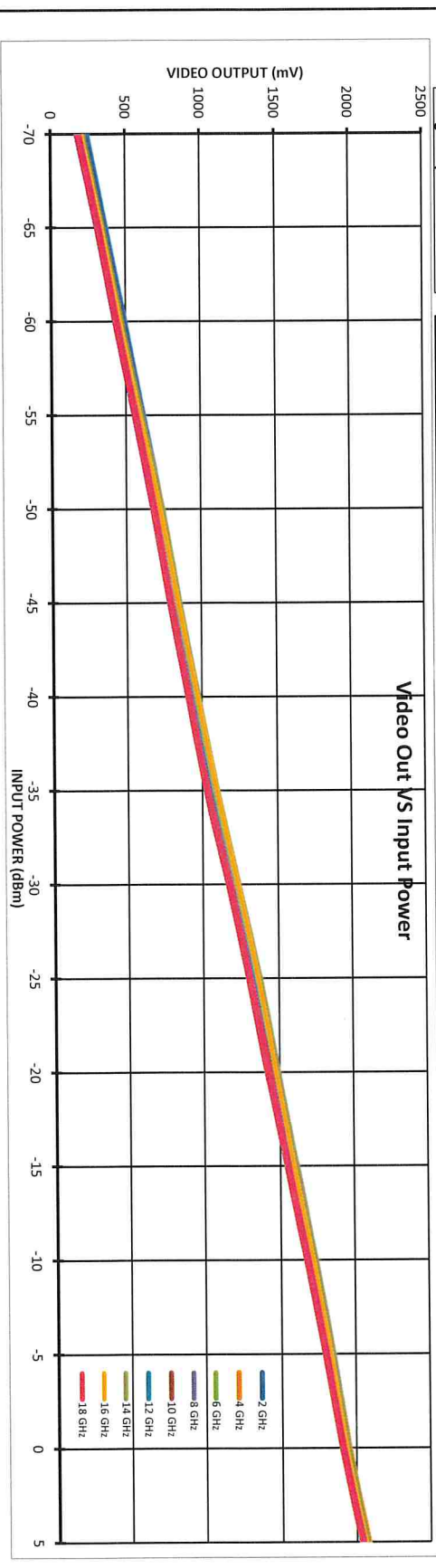
QA/QC Approval: *K. [Signature]*

Date: 11-20-23



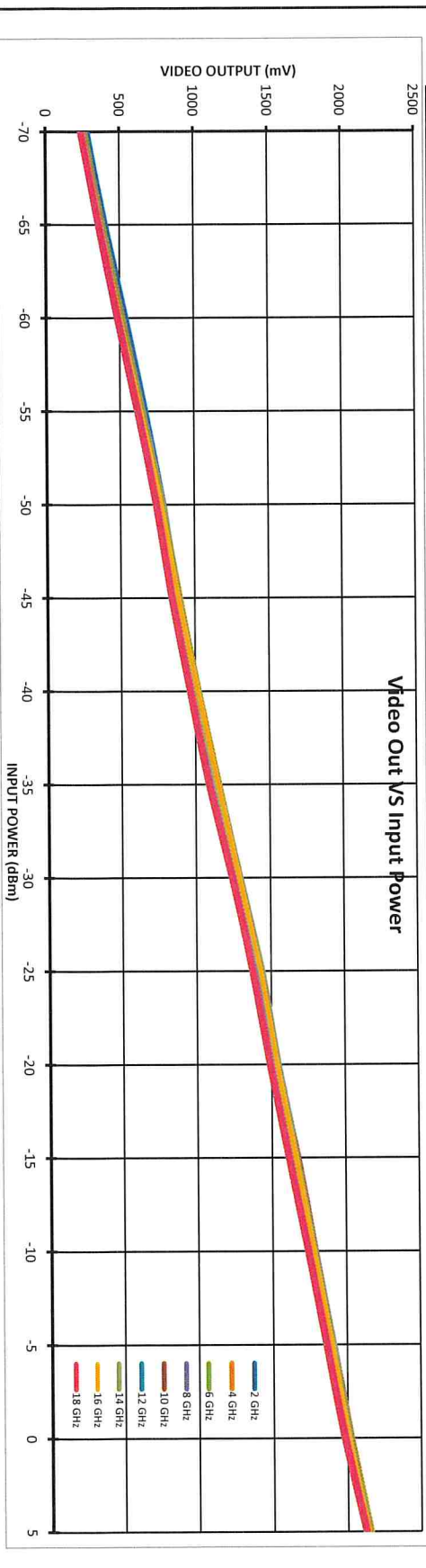
Frequency

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)	1967		242	366	494	615	740	843	968	1098	1232	1367	1487	1610	1728	1850	1955	2074
	SLOPE (mV/dB)	24.62		-2	-1	4	2	4	-16	-14	-7	4	16	12	12	7	6	-12	-16
	LN. ERR. (dB)	0.7		-0.06	-0.03	0.17	0.09	0.16	-0.65	-0.57	-0.29	0.15	0.63	0.50	0.50	0.29	0.25	-0.49	-0.65
4 GHz	INTERCEPT (mV)	1974		205	337	462	590	723	844	971	1096	1229	1362	1485	1611	1727	1848	1955	2080
	SLOPE (mV/dB)	25.11		-11	-5	-5	-3	5	0	1	1	8	16	13	14	4	0	-19	-19
	LN. ERR. (dB)	0.77		-0.45	-0.19	-0.21	-0.12	0.18	0.00	0.06	0.04	0.34	0.63	0.53	0.55	0.17	-0.01	-0.75	-0.77
6 GHz	INTERCEPT (mV)	1964		177	309	429	562	696	816	938	1058	1197	1331	1470	1605	1723	1843	1948	2068
	SLOPE (mV/dB)	25.48		-3	1	-6	0	6	-1	-7	-14	-2	4	16	24	14	7	-16	-23
	LN. ERR. (dB)	0.923		-0.13	0.06	-0.23	-0.01	0.25	-0.05	-0.26	-0.55	-0.09	0.17	0.62	0.92	0.55	0.26	-0.61	-0.91
8 GHz	INTERCEPT (mV)	1959		176	308	429	559	690	815	938	1059	1195	1324	1463	1597	1718	1838	1942	2068
	SLOPE (mV/dB)	25.42		-3	2	-4	-1	2	0	-4	-10	-1	1	13	20	14	6	-17	-18
	LN. ERR. (dB)	0.774		-0.12	0.07	-0.17	-0.06	0.10	0.01	-0.15	-0.39	-0.04	0.04	0.50	0.77	0.53	0.25	-0.66	-0.70
10 GHz	INTERCEPT (mV)	1962		182	313	433	561	692	808	923	1042	1179	1316	1469	1614	1731	1849	1949	2066
	SLOPE (mV/dB)	25.5		5	9	1	2	5	-6	-19	-27	-18	-8	17	35	24	15	-13	-23
	LN. ERR. (dB)	1.363		0.21	0.35	0.05	0.07	0.21	-0.24	-0.73	-1.07	-0.69	-0.32	0.68	1.36	0.95	0.58	-0.50	-0.91
12 GHz	INTERCEPT (mV)	1959		201	333	457	586	722	831	949	1072	1215	1358	1483	1602	1721	1839	1937	2057
	SLOPE (mV/dB)	24.97		-10	-3	-4	0	11	-5	-11	-13	5	23	23	17	11	5	-22	-27
	LN. ERR. (dB)	1.084		-0.41	-0.13	-0.16	0.01	0.45	-0.18	-0.46	-0.53	0.20	0.92	0.93	0.69	0.46	0.19	-0.89	-1.08
14 GHz	INTERCEPT (mV)	1967		208	339	466	598	735	847	971	1096	1233	1370	1485	1606	1726	1844	1943	2064
	SLOPE (mV/dB)	24.89		-17	-10	-8	0	12	0	-1	0	13	25	16	12	8	1	-24	-28
	LN. ERR. (dB)	1.106		-0.68	-0.41	-0.31	-0.01	0.50	0.00	-0.02	0.00	0.51	1.01	0.63	0.49	0.31	0.05	-0.97	-1.11
16 GHz	INTERCEPT (mV)	1959		203	334	459	591	725	843	972	1099	1234	1365	1476	1594	1714	1832	1935	2059
	SLOPE (mV/dB)	24.83		-18	-11	-10	-2	7	1	6	9	20	27	13	7	3	-3	-24	-24
	LN. ERR. (dB)	1.07		-0.73	-0.45	-0.42	-0.10	0.30	0.05	0.24	0.36	0.79	1.07	0.54	0.29	0.13	-0.12	-0.97	-0.98
18 GHz	INTERCEPT (mV)	1917		185	315	436	564	684	792	911	1033	1177	1306	1424	1551	1678	1797	1909	2042
	SLOPE (mV/dB)	24.74		0	6	4	8	4	-11	-16	-18	2	8	2	5	8	4	-8	-8
	LN. ERR. (dB)	0.723		0.01	0.26	0.15	0.32	0.17	-0.46	-0.65	-0.72	0.10	0.31	0.08	0.21	0.34	0.15	-0.32	0.05
Avg. Slope: 25.1 mV/dB																			
Flatness dB: ±1.3 dB																			



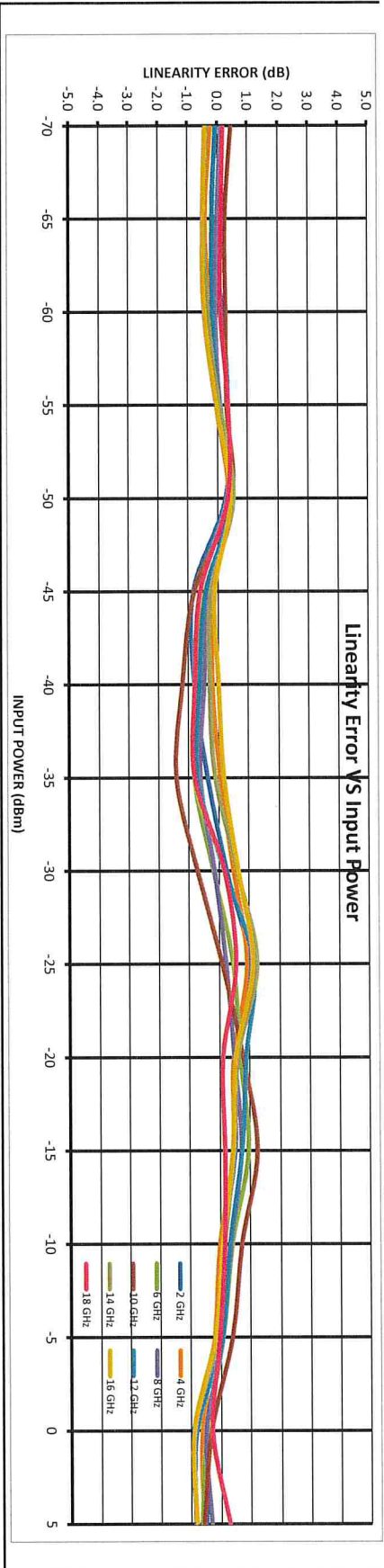


Frequency	-70	-65	-60	-55	-50	-45	-40	-35	-30	-25	-20	-15	-10	-5	0	5		
2 GHz	INTERCEPT (mV)	2040	285	407	541	671	794	892	1018	1154	1295	1439	1552	1677	1792	1915	2029	2153
	SLOPE (mV/dB)	25.06	-1	-5	4	9	7	-21	-20	-9	6	25	13	13	2	0	-11	-13
	LN. ERR. (dB)	1.0	-0.05	-0.18	0.17	0.36	0.26	-0.82	-0.80	-0.37	0.26	1.01	0.52	0.50	0.09	0.00	-0.45	-0.50
4 GHz	INTERCEPT (mV)	2045	265	387	518	650	787	901	1026	1159	1297	1435	1550	1676	1791	1913	2029	2157
	SLOPE (mV/dB)	25.35	-6	-11	-6	-1	9	-4	-5	1	12	24	12	11	-1	-5	-16	-15
	LN. ERR. (dB)	0.931	-0.23	-0.42	-0.25	-0.04	0.36	-0.14	-0.21	0.04	0.49	0.93	0.47	0.44	-0.02	-0.21	-0.63	-0.58
6 GHz	INTERCEPT (mV)	2038	246	371	496	630	769	873	995	1120	1284	1409	1543	1678	1792	1912	2026	2150
	SLOPE (mV/dB)	25.65	3	0	-3	0	13	-11	-17	-21	-5	12	18	25	10	2	-12	-16
	LN. ERR. (dB)	0.956	0.13	0.00	-0.13	0.10	0.52	-0.43	-0.67	-0.80	-0.19	0.47	0.69	0.96	0.40	0.08	-0.48	-0.64
8 GHz	INTERCEPT (mV)	2028	248	372	498	629	765	874	997	1121	1260	1397	1531	1664	1782	1902	2015	2147
	SLOPE (mV/dB)	25.47	3	-1	-2	2	11	-8	-12	-15	-4	6	13	18	9	2	-13	-8
	LN. ERR. (dB)	0.716	0.11	-0.02	-0.07	0.07	0.41	-0.31	-0.48	-0.61	-0.15	0.23	0.49	0.72	0.35	0.06	-0.50	-0.32
10 GHz	INTERCEPT (mV)	2032	261	383	511	639	771	866	983	1105	1250	1398	1543	1682	1796	1915	2024	2145
	SLOPE (mV/dB)	25.47	12	6	7	8	12	-20	-30	-36	-18	2	20	32	18	10	-8	-15
	LN. ERR. (dB)	1.406	0.46	0.25	0.27	0.30	0.48	-0.79	-1.20	-1.41	-0.71	0.10	0.79	1.25	0.72	0.39	-0.33	-0.58
12 GHz	INTERCEPT (mV)	2029	251	375	502	634	772	877	998	1123	1272	1424	1544	1667	1783	1903	2008	2134
	SLOPE (mV/dB)	25.37	-2	-5	-5	1	12	-10	-16	-18	4	30	23	19	8	1	-21	-22
	LN. ERR. (dB)	1.165	-0.07	-0.19	-0.18	0.02	0.46	-0.40	-0.63	-0.70	0.17	1.16	0.90	0.74	0.32	0.05	-0.81	-0.85
14 GHz	INTERCEPT (mV)	2037	256	380	510	646	785	892	1017	1148	1293	1436	1546	1669	1787	1907	2014	2142
	SLOPE (mV/dB)	25.3	-9	-12	-8	1	14	-6	-7	-3	15	32	15	12	3	-3	-23	-21
	LN. ERR. (dB)	1.264	-0.37	-0.47	-0.33	0.04	0.54	-0.24	-0.30	-0.12	0.61	1.26	0.61	0.47	0.14	-0.12	-0.89	-0.83
16 GHz	INTERCEPT (mV)	2034	247	372	500	637	776	889	1019	1150	1289	1428	1540	1664	1782	1902	2011	2140
	SLOPE (mV/dB)	25.37	-11	-13	-11	-1	11	-3	0	4	16	29	14	11	2	-5	-23	-21
	LN. ERR. (dB)	1.127	-0.42	-0.49	-0.45	-0.05	0.43	-0.12	0.01	0.17	0.65	1.13	0.54	0.43	0.08	-0.19	-0.90	-0.81
18 GHz	INTERCEPT (mV)	1990	238	362	487	619	744	846	967	1092	1242	1377	1491	1618	1743	1864	1983	2123
	SLOPE (mV/dB)	25.1	4	3	2	9	9	-15	-20	-20	5	14	3	4	4	-1	-7	7
	LN. ERR. (dB)	0.797	0.18	0.12	0.10	0.36	0.34	-0.60	-0.78	-0.80	0.18	0.56	0.10	0.16	0.14	-0.04	-0.30	0.28
Avg. Slope: 25.3 mV/dB																		
Flatness dB: ±1.3 dB																		



PL42888

-40°C

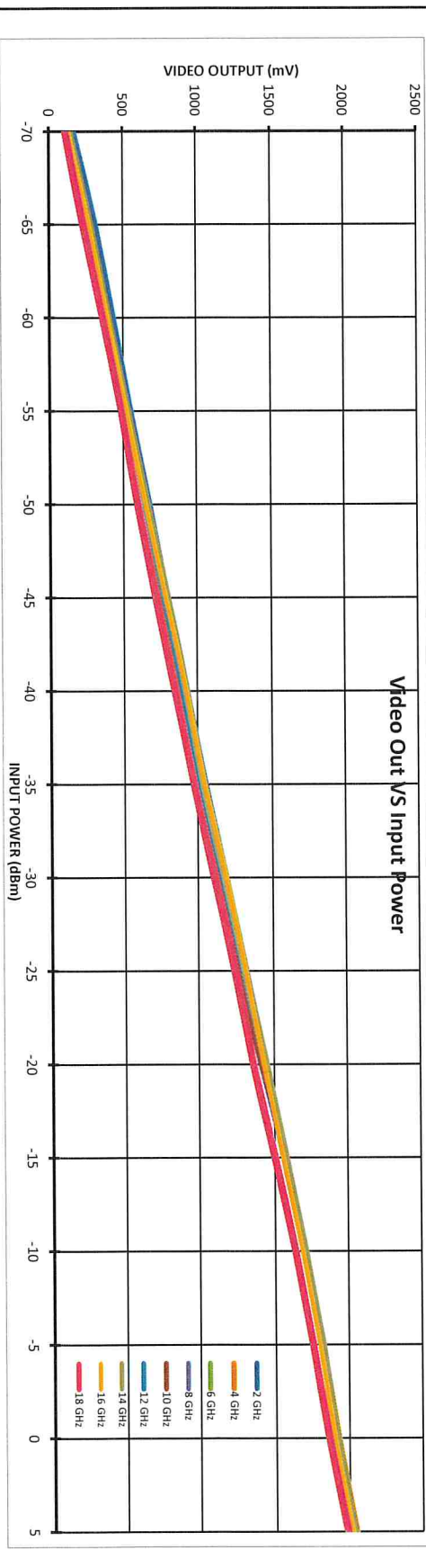




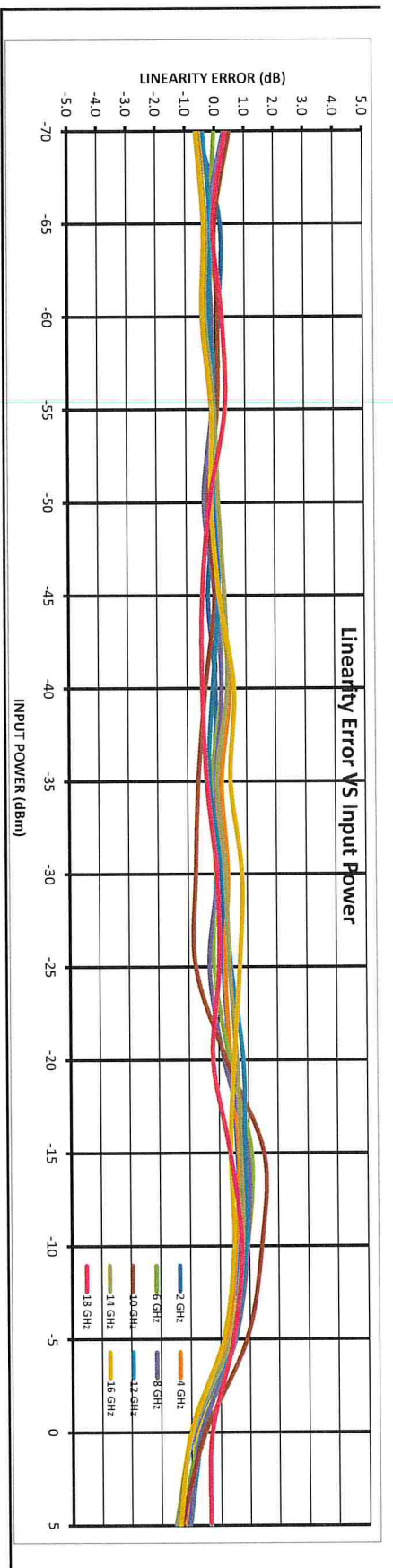
Frequency

Frequency	2 GHz	4 GHz	6 GHz	8 GHz	10 GHz	12 GHz	14 GHz	16 GHz	18 GHz
INTERCEPT (mV)	1940	1950	1943	1935	1935	1937	1942	1930	1872
SLOPE (mV/dB)	25.19	25.79	26.18	26.28	26.31	25.7	25.61	25.48	25.32
LINEARITY ERROR (dB)	1.0	1.153	1.337	1.083	1.518	1.519	1.501	1.37	0.744
Measured Value (mV)	164	131	110	103	106	127	134	129	109
ERROR (mV)	308	271	237	220	224	262	270	263	225
LINEARITY ERROR (dB)	5	-2	-4	-7	0	-4	-8	-10	-2
Measured Value (mV)	432	397	368	355	356	389	397	389	359
ERROR (mV)	0	-5	-4	-3	2	-5	-9	-8	6
LINEARITY ERROR (dB)	0	-0.28	-0.28	-0.41	1	-1	-1	-1	8
Measured Value (mV)	555	528	501	486	489	522	533	524	488
ERROR (mV)	-1	-3	-2	-1	1	-1	2	-4	-5
LINEARITY ERROR (dB)	-0.04	-0.28	-0.23	-0.41	-0.27	0.02	0.08	-0.17	-0.21
Measured Value (mV)	680	655	628	610	612	652	664	651	601
ERROR (mV)	-7	3	1	-1	-7	2	7	2	-12
LINEARITY ERROR (dB)	-0.28	0.11	0.04	-0.05	-0.06	0.08	0.27	0.09	-0.47
Measured Value (mV)	800	792	766	751	749	782	797	785	721
ERROR (mV)	-1	11	4	4	-2	-3	9	15	-13
LINEARITY ERROR (dB)	-0.04	0.42	0.16	0.16	-0.10	-0.14	0.35	0.45	-0.50
Measured Value (mV)	932	929	900	888	872	905	927	925	847
ERROR (mV)	-2	4	-5	-1	-17	-7	0	11	-9
LINEARITY ERROR (dB)	-0.08	0.15	-0.18	-0.04	-0.74	-0.27	0.17	0.83	-0.36
Measured Value (mV)	1057	1051	1022	1014	997	1030	1046	1049	977
ERROR (mV)	3	9	-2	-1	-19	4	7	21	-1
LINEARITY ERROR (dB)	0.13	0.35	-0.06	-0.02	-0.30	0.43	0.84	0.73	0.02
Measured Value (mV)	1188	1185	1156	1146	1126	1170	1181	1186	1112
ERROR (mV)	4	6	-4	-8	-20	11	10	19	1
LINEARITY ERROR (dB)	0.17	0.23	-0.14	-0.30	-0.76	0.43	0.84	0.73	0.02
Measured Value (mV)	1315	1311	1285	1270	1257	1305	1312	1311	1240
ERROR (mV)	9	10	10	5	7	21	16	13	-5
LINEARITY ERROR (dB)	0.37	0.39	0.36	0.18	0.25	0.84	0.86	0.52	-0.20
Measured Value (mV)	1446	1444	1429	1414	1415	1444	1446	1433	1361
ERROR (mV)	15	17	29	25	40	22	19	10	9
LINEARITY ERROR (dB)	0.61	0.66	1.09	0.96	1.52	0.86	0.86	0.38	0.37
Measured Value (mV)	1578	1580	1579	1566	1580	1573	1577	1557	1502
ERROR (mV)	16	14	25	25	37	22	20	12	19
LINEARITY ERROR (dB)	0.65	0.55	0.94	0.94	1.42	0.87	0.77	0.48	0.74
Measured Value (mV)	1705	1706	1706	1697	1709	1702	1706	1687	1638
ERROR (mV)	11	6	13	13	24	10	9	3	11
LINEARITY ERROR (dB)	0.42	0.24	0.49	0.51	0.91	0.39	0.34	0.11	0.44
Measured Value (mV)	1825	1827	1825	1817	1827	1818	1823	1805	1757
ERROR (mV)	-18	-20	-18	-17	-14	-24	-24	-26	-7
LINEARITY ERROR (dB)	-0.69	-0.77	-0.69	-0.65	-0.52	-0.92	-0.95	-1.00	-0.29
Measured Value (mV)	1925	1930	1925	1918	1921	1913	1918	1904	1865
ERROR (mV)	-15	-15	-15	-15	-14	-24	-24	-26	-7
LINEARITY ERROR (dB)	-0.61	-0.77	-0.69	-0.65	-0.52	-0.92	-0.95	-1.00	-0.29
Measured Value (mV)	2040	2049	2039	2038	2031	2026	2032	2022	1990
ERROR (mV)	-26	-30	-35	-28	-35	-39	-38	-35	-9
LINEARITY ERROR (dB)	-1.05	-1.15	-1.34	-1.08	-1.34	-1.52	-1.50	-1.37	-0.35

Avg. Slope: 25.8 mV/dB



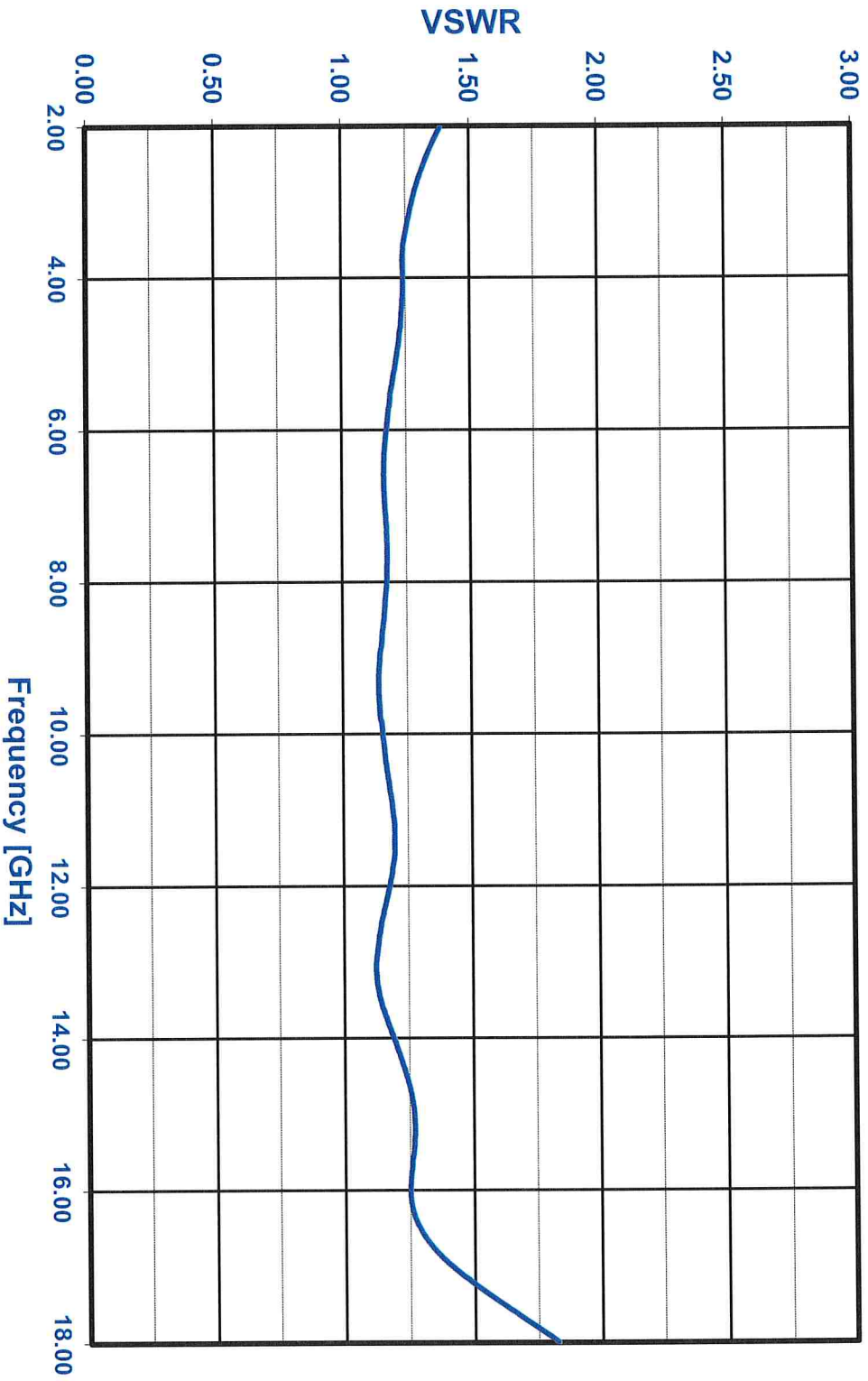
PL42888
+85°C



Model Number: SDLVA-2G18G-CD-2-OPT218
Serial Number: PL42888

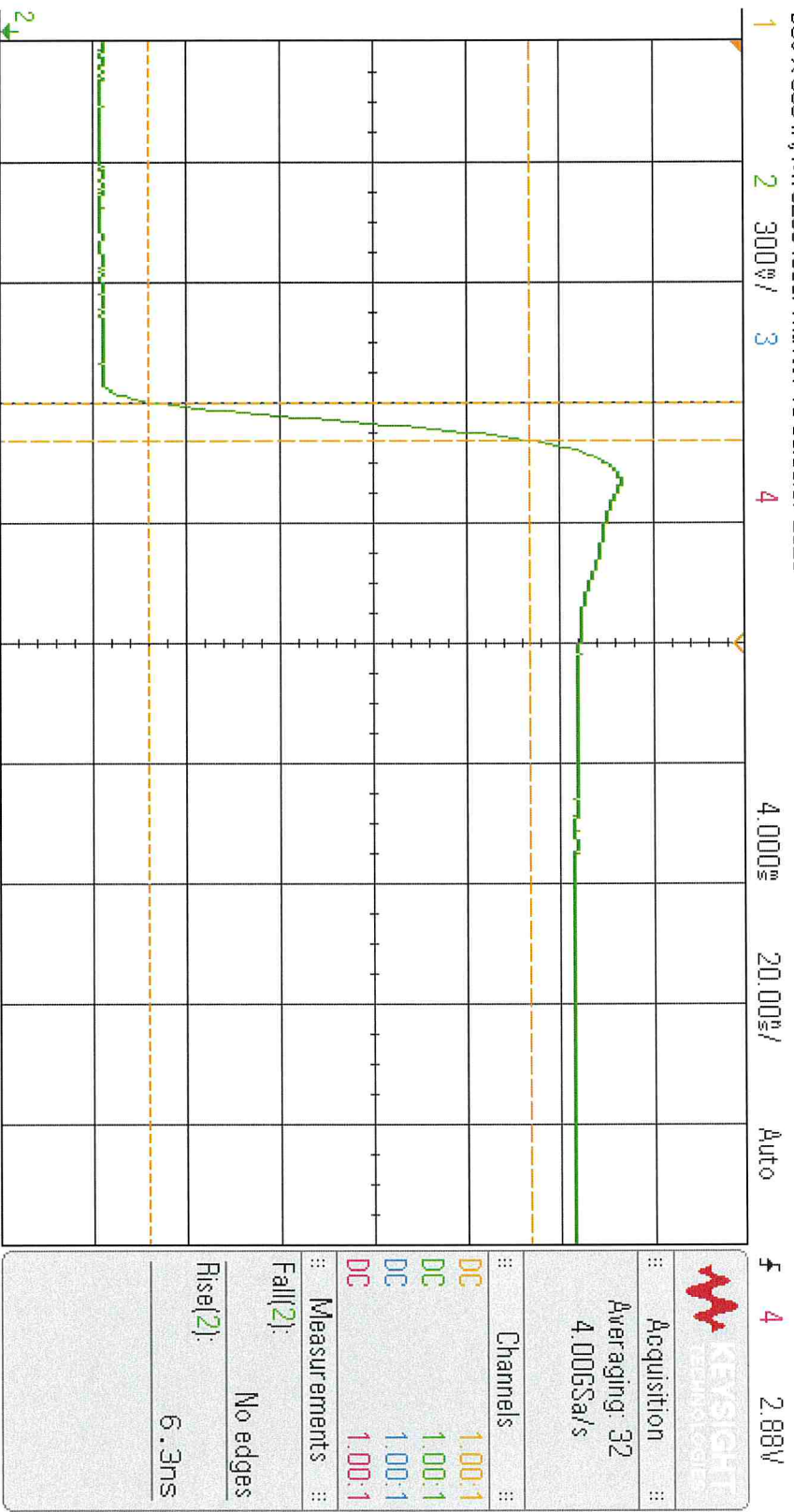
Temperature: +25C

VSWR GRAPH



PL42888
Rise Time

DSO-X 3034A, MW52394003, Thu Nov 16 09:59:57 2023



Measurement Menu

Source 2

Type: Rise

Add Measurement

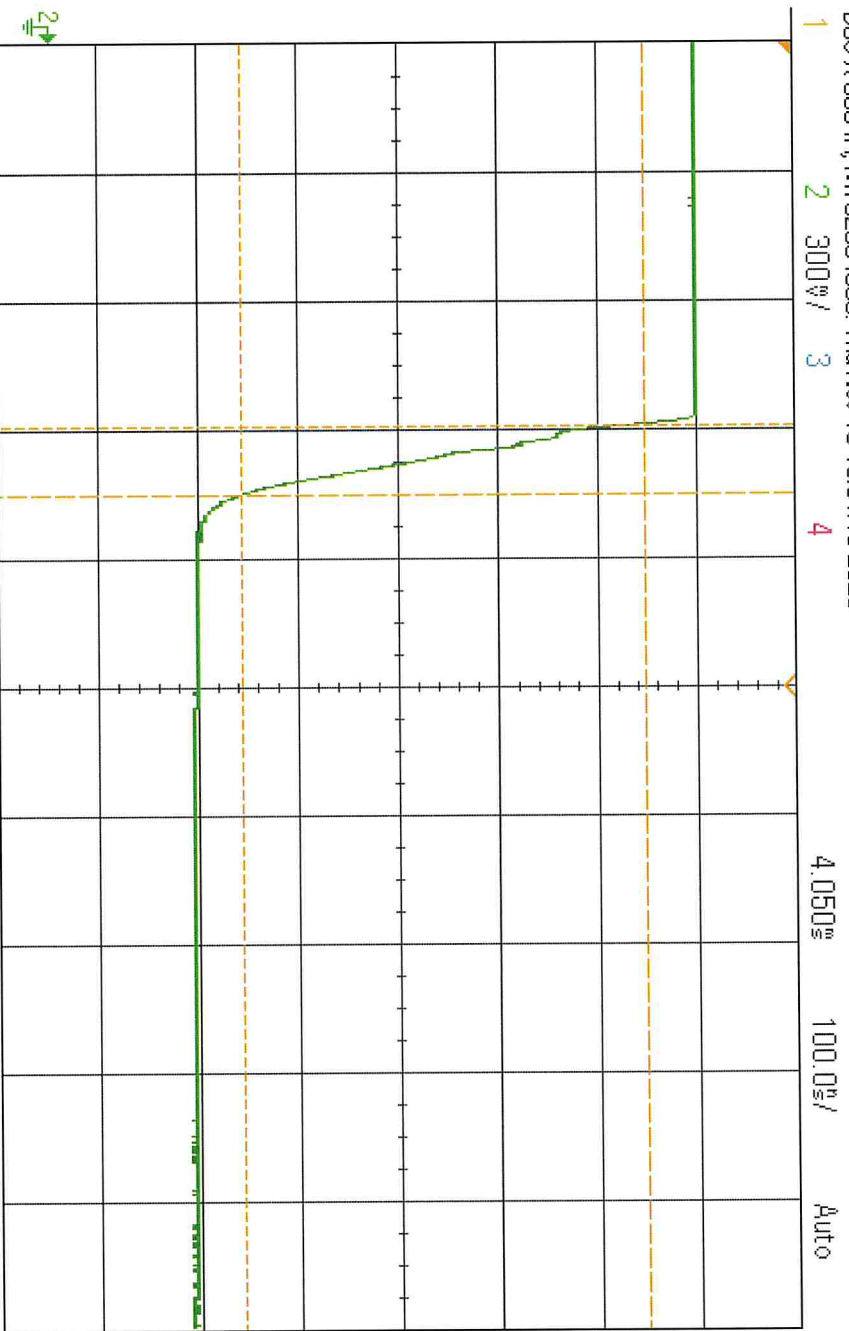
Settings

Clear Meas

Statistics

PL42888
Recovery

DSO-X 3034A, MW52394003, Thu Nov 16 10:01:13 2023



f 4 2.88V



Acquisition ::
Averaging: 32
4.006Sa/s

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

Measurements ::

Rise(2): No edges

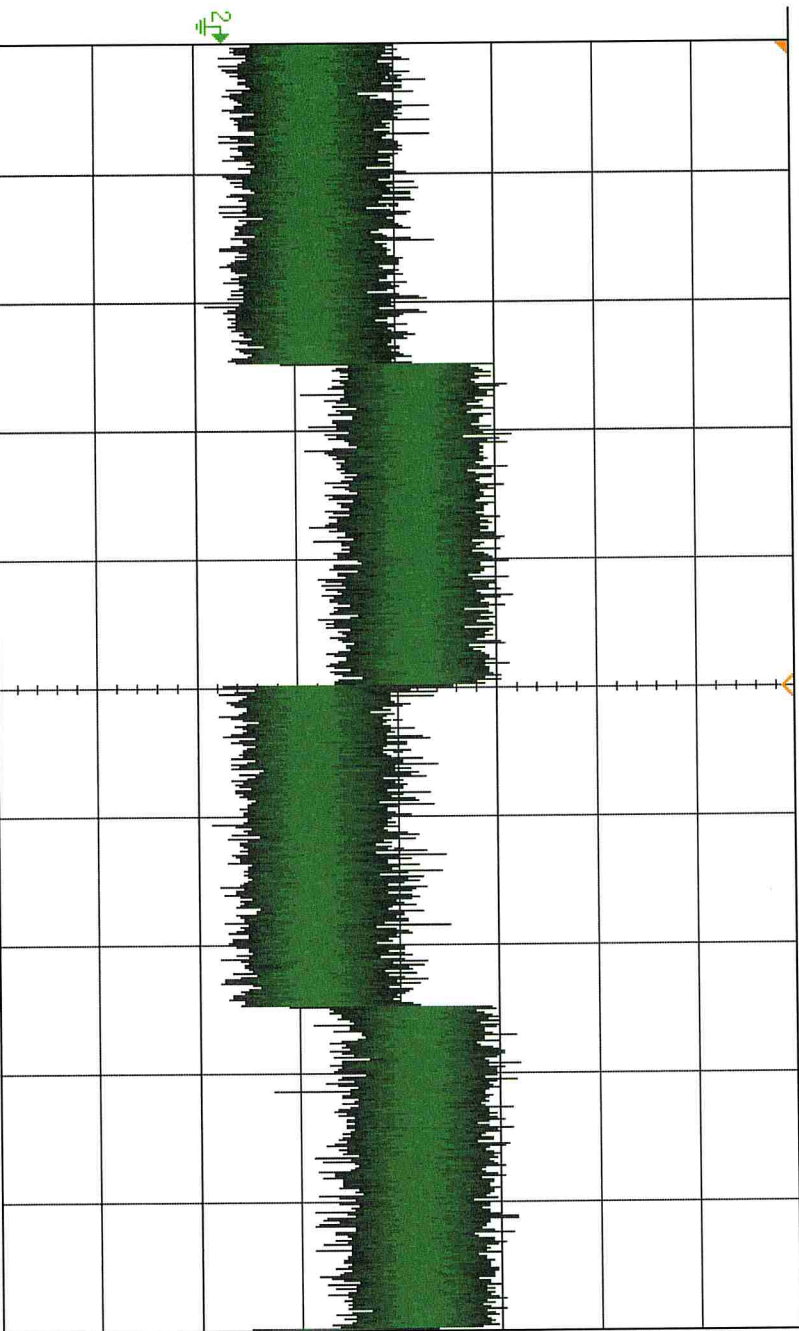
Fall(2): 54.0ns

Measurement Menu

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

PL42888
TSS-71

DSO-X 3034A, MW52394003: Thu Nov 16 09:55:51 2023
1 2 100% / 3 4 4.050V 20.00V / Auto f 4 2.88V



Channels	Acquisition
DC	1.00:1
DC	1.00:1
DC	1.00:1
DC	1.00:1

Acquire Menu

Acq Mode Normal

Avgs 32

Segmented