

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

CUSTOMER: \_\_\_\_\_  
SO: \_\_\_\_\_  
MODEL NO: SDLVA-6G18G-CD-2-OPT218  
SERIAL NO: PL42909/2348

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	<b>PMI QA3</b>
2	Flatness	± 2.0 dB Maximum	± 1.1dB 25°C See Plots	
3	TSS	-70 dBm Minimum	-71dBm	
4	VSWR	2.0:1 (Input)	1.69:1	
5	Input Power	+17 dBm CW Maximum	Pass	
6	RF Out	+13 dBm ±3 dB Typical	14.5/11.7dBm	
7	Log Slope	25 mV/dB (±10%) 50Ω	24.8mV/dB See Plot	
8	Log Range	-70 to +5 dBm	See Plots	
9	Log Linearity	±2.5 dB (-40°C - +85°C)	1.40/-1.66dB See Plots	
10	Pulse Range	30 ns to CW	Pass	
11	Rise Time	10 ns (6 ns Typical)	5.8ns	
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: 

Date: 11-27-23

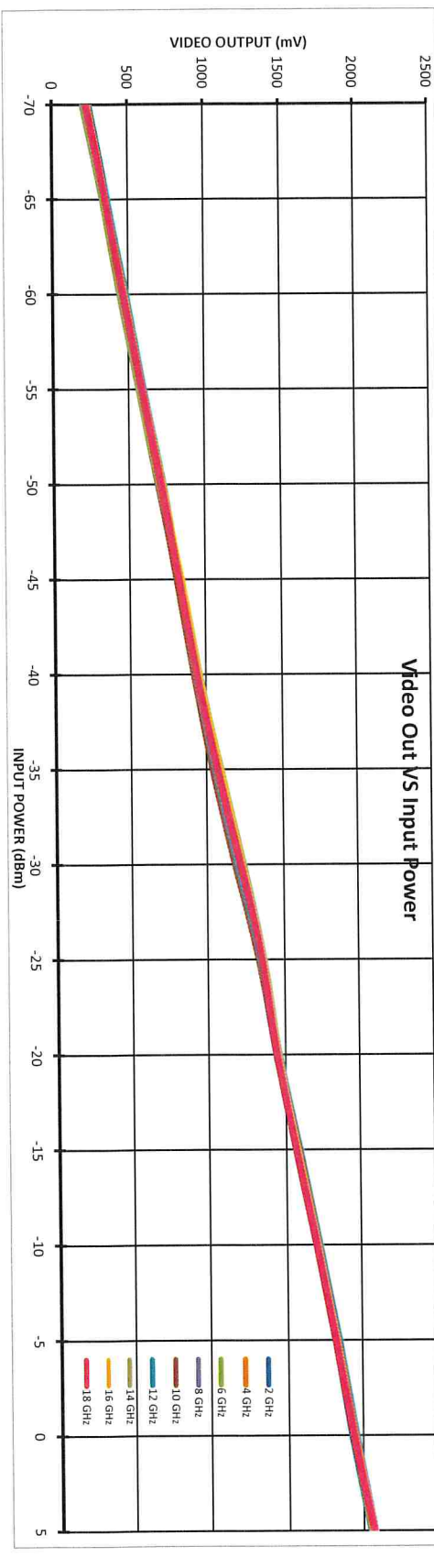


Frequency

Frequency	2 GHz	4 GHz	6 GHz	8 GHz	10 GHz	12 GHz	14 GHz	16 GHz	18 GHz
INTERCEPT (mV)	1964	1960	1954	1940	1951	1937	1956	1949	1946
SLOPE (mV/DB)	24.85	24.99	25.25	24.87	25.17	24.37	24.96	24.45	24.69
LINEARITY ERROR (DB)	1.1	0.66	0.842	0.945	1.212	1.074	1.283	1.046	1.006
Avg. Slope:	24.8 mV/DB								

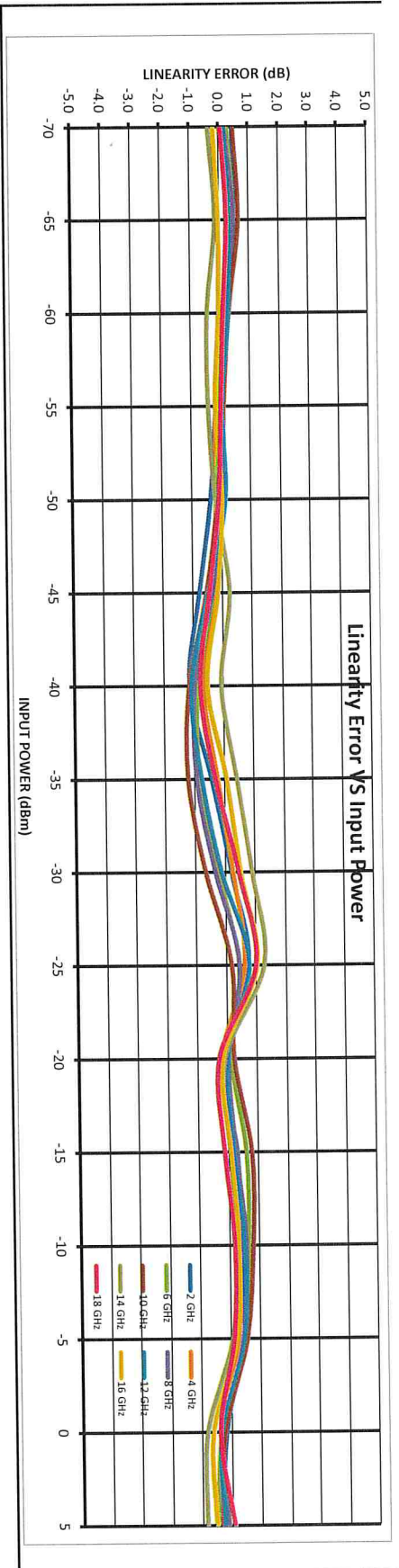
  

RF Input Power (dBm)	-70	-65	-60	-55	-50	-45	-40	-35	-30	-25	-20	-15	-10	-5	0	5
Measured Value (mV)	236	361	481	594	713	827	942	1084	1224	1362	1463	1599	1726	1851	1960	2081
Error (mV)	12	12	8	8	-3	-9	-19	-28	-10	5	19	-4	8	10	11	-4
LINEARITY ERROR (DB)	0.46	0.49	0.32	-0.13	-0.34	-0.76	-1.13	-0.42	0.22	0.77	-0.17	0.30	0.41	0.44	-0.17	-0.30
Measured Value (mV)	212	344	464	582	706	830	944	1080	1217	1351	1456	1590	1718	1842	1952	2078
Error (mV)	1	8	3	-4	-5	-6	-16	-5	7	16	-4	5	8	7	-8	-7
LINEARITY ERROR (DB)	0.04	0.33	0.13	-0.15	-0.18	-0.22	-0.66	-0.22	0.27	0.63	-0.17	0.19	0.32	0.28	-0.32	-0.27
Measured Value (mV)	194	325	442	565	688	810	923	1050	1191	1334	1453	1591	1718	1840	1946	2068
Error (mV)	7	12	3	-1	-4	-8	-21	-21	-6	11	4	16	16	12	-8	-12
LINEARITY ERROR (DB)	0.29	0.47	0.11	-0.02	-0.15	-0.32	-0.84	-0.81	-0.23	0.44	0.15	0.61	0.64	0.48	-0.33	-0.49
Measured Value (mV)	204	336	454	575	699	813	922	1047	1186	1330	1444	1574	1706	1827	1934	2062
Error (mV)	5	12	6	3	2	-8	-24	-23	-8	11	1	7	14	11	-6	-3
LINEARITY ERROR (DB)	0.19	0.50	0.24	0.10	0.09	-0.33	-0.95	-0.92	-0.33	0.46	0.04	0.27	0.57	0.44	-0.26	-0.11
Measured Value (mV)	202	332	449	570	690	806	916	1040	1180	1327	1454	1594	1720	1840	1946	2069
Error (mV)	12	17	8	3	-3	-13	-29	-31	-16	5	6	20	20	14	-5	-8
LINEARITY ERROR (DB)	0.49	0.66	0.31	0.11	-0.12	-0.51	-1.14	-1.21	-0.65	0.19	0.24	0.80	0.80	0.57	-0.22	-0.33
Measured Value (mV)	235	361	482	598	722	829	936	1066	1203	1347	1450	1576	1706	1827	1929	2053
Error (mV)	4	8	7	1	4	-11	-26	-18	-3	19	0	4	13	12	-8	-6
LINEARITY ERROR (DB)	0.17	0.34	0.30	0.06	0.15	-0.46	-1.07	-0.74	-0.12	0.79	0.01	0.18	0.52	0.48	-0.34	-0.25
Measured Value (mV)	200	330	448	573	703	839	956	1093	1230	1364	1455	1583	1713	1833	1936	2060
Error (mV)	-9	-3	-10	-10	-5	6	-2	11	23	32	-2	1	7	2	-20	-21
LINEARITY ERROR (DB)	-0.35	-0.14	-0.41	-0.40	-0.20	0.25	-0.06	0.43	0.92	1.28	-0.07	0.06	0.26	0.07	-0.80	-0.84
Measured Value (mV)	233	359	481	600	727	845	958	1095	1228	1363	1456	1584	1712	1832	1934	2058
Error (mV)	-4	-1	-1	-4	1	-3	-13	2	13	26	-4	2	8	6	-15	-13
LINEARITY ERROR (DB)	-0.18	-0.02	-0.03	-0.16	0.03	-0.14	-0.52	0.08	0.52	1.05	-0.15	0.09	0.32	0.23	-0.60	-0.53
Measured Value (mV)	220	348	468	589	710	825	940	1075	1217	1354	1446	1573	1704	1826	1937	2072
Error (mV)	2	6	3	0	-2	-10	-19	-7	11	25	-7	-3	5	3	-9	2
LINEARITY ERROR (DB)	0.07	0.26	0.12	0.02	-0.08	-0.42	-0.76	-0.29	0.46	1.01	-0.27	-0.12	0.18	0.12	-0.38	0.09
Measured Value (mV)	0.8	0.7	0.8	0.7	0.8	0.8	0.8	1.1	1	0.7	0.4	0.5	0.4	0.5	0.6	0.6
Flatness:	dB: ±1.1 dB															



PL42909

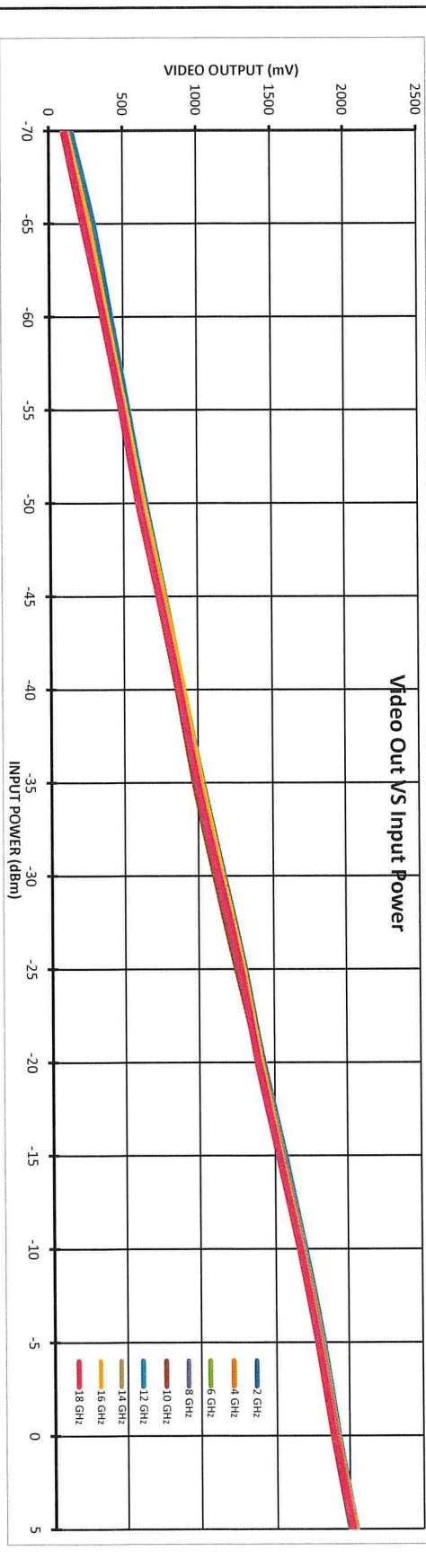
25°C



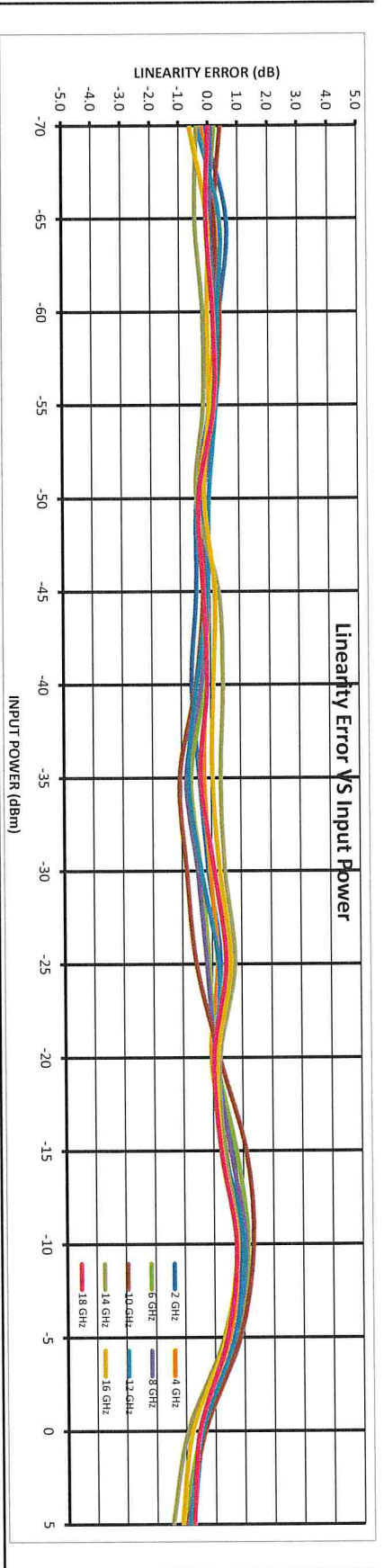


Frequency

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)	1940		148	296	417	536	652	779	902	1036	1171	1309	1428	1573	1707	1829	1929	2045
	SLOPE (mV/dB)	25.53		-4	16	9	1	-11	-12	-16	-10	-3	8	-1	16	23	17	-11	-22
	LN. ERR. (dB)	0.9		-0.17	0.62	0.36	0.02	-0.43	-0.46	-0.64	-0.39	-0.10	0.30	-0.04	0.64	0.89	0.67	-0.41	-0.87
4 GHz	INTERCEPT (mV)	1933		121	263	390	516	633	770	897	1024	1158	1293	1416	1557	1695	1818	1921	2041
	SLOPE (mV/dB)	25.79		-6	7	5	2	-10	-2	-4	-6	-1	5	-1	11	20	14	-12	-21
	LN. ERR. (dB)	0.805		-0.25	0.26	0.18	0.07	-0.40	-0.08	-0.16	-0.24	-0.04	0.19	-0.04	0.43	0.78	0.55	-0.46	-0.81
6 GHz	INTERCEPT (mV)	1920		99	224	360	488	606	742	871	989	1128	1265	1401	1549	1689	1810	1908	2022
	SLOPE (mV/dB)	26.09		6	0	6	3	-9	-4	-5	-18	-9	-3	3	20	30	21	-12	-28
	LN. ERR. (dB)	1.149		0.21	0.00	0.21	0.12	-0.36	-0.15	-0.20	-0.68	-0.35	-0.10	0.11	0.78	1.15	0.79	-0.46	-1.09
8 GHz	INTERCEPT (mV)	1911		101	230	365	493	611	744	867	983	1122	1259	1396	1538	1680	1800	1901	2021
	SLOPE (mV/dB)	25.9		3	2	8	6	-5	-2	-8	-22	-12	-5	3	15	28	18	-10	-20
	LN. ERR. (dB)	1.075		0.11	0.09	0.30	0.24	-0.20	-0.07	-0.32	-0.84	-0.47	-0.18	0.11	0.59	1.08	0.71	-0.39	-0.76
10 GHz	INTERCEPT (mV)	1919		96	221	357	484	600	734	858	974	1111	1250	1401	1555	1692	1811	1910	2025
	SLOPE (mV/dB)	26.2		11	5	10	6	-9	-6	-13	-28	-22	-14	6	29	35	23	-9	-25
	LN. ERR. (dB)	1.335		0.43	0.20	0.39	0.23	-0.34	-0.23	-0.49	-1.07	-0.84	-0.53	0.23	1.11	1.34	0.88	-0.35	-0.96
12 GHz	INTERCEPT (mV)	1907		128	274	398	523	643	768	884	1003	1140	1281	1407	1538	1680	1798	1896	2011
	SLOPE (mV/dB)	25.27		-10	10	7	6	0	-2	-12	-20	-9	6	5	10	26	17	-11	-23
	LN. ERR. (dB)	1.012		-0.39	0.38	0.29	0.23	-0.02	-0.07	-0.48	-0.77	-0.35	0.23	0.21	0.39	1.01	0.68	-0.44	-0.89
14 GHz	INTERCEPT (mV)	1924		99	227	363	493	616	765	898	1025	1158	1296	1412	1545	1686	1803	1900	2016
	SLOPE (mV/dB)	25.93		-10	-12	-5	-5	-12	8	11	8	12	20	7	10	21	9	-24	-38
	LN. ERR. (dB)	1.449		-0.39	-0.46	-0.21	-0.20	-0.45	0.30	0.43	0.33	0.46	0.78	0.25	0.38	0.82	0.33	-0.92	-1.45
16 GHz	INTERCEPT (mV)	1915		120	262	399	517	640	776	901	1027	1160	1296	1411	1541	1681	1798	1896	2014
	SLOPE (mV/dB)	25.42		-16	-1	-1	0	-4	4	2	1	7	16	4	7	20	10	-19	-29
	LN. ERR. (dB)	1.123		-0.63	-0.05	-0.05	-0.01	-0.18	0.17	0.09	0.05	0.28	0.63	0.16	0.27	0.78	0.38	-0.77	-1.12
18 GHz	INTERCEPT (mV)	1910		101	228	363	493	608	741	873	996	1137	1276	1394	1529	1671	1792	1896	2020
	SLOPE (mV/dB)	25.84		0	-2	4	4	-10	-6	-3	-9	3	12	1	7	20	12	-14	-19
	LN. ERR. (dB)	0.764		0.00	-0.08	0.14	0.17	-0.38	-0.23	-0.12	-0.36	0.10	0.48	0.04	0.27	0.76	0.45	-0.53	-0.73
Avg. Slope: 25.8 mV/dB				1	1.5	1.2	1	1	0.9	0.9	1.2	1.2	1.1	0.7	0.9	0.7	0.7	0.6	0.7
Measured Value (mV)				Flatness: dB: ±1.5 dB															
ERROR (mV)																			
LINEARITY ERROR (dB)																			



PL42909  
85°C

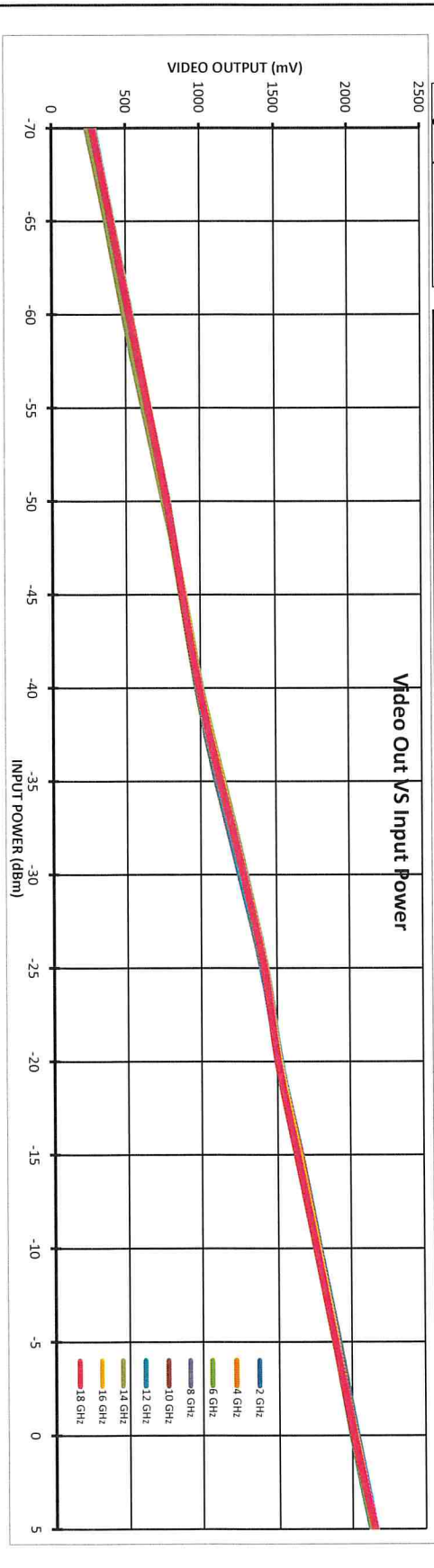




Frequency

Frequency	2 GHz	4 GHz	6 GHz	8 GHz	10 GHz	12 GHz	14 GHz	16 GHz	18 GHz
INTERCEPT (mV)	2037	2029	2021	2007	2022	2010	2027	2023	2016
SLOPE (mV/dB)	25.2	25.12	25.37	24.88	25.11	24.78	25.43	24.97	24.92
LN. ERR. (dB)	1.4	0.931	1.235	1.383	1.661	1.299	1.398	0.935	1.074
Measured Value (mV)	279	273	254	273	279	280	240	274	275
Error (mV)	10	5	13	12	16	8	-7	2	6
LINEARITY ERROR (dB)	0.38	0.19	0.51	0.47	0.64	0.34	-0.27	0.09	0.25
Measured Value (mV)	408	401	385	401	406	407	371	402	402
Error (mV)	10	4	506	11	531	9	-3	2	8
LINEARITY ERROR (dB)	0.38	0.16	0.28	0.45	0.62	0.38	-0.36	0.09	0.31
Measured Value (mV)	534	526	506	525	531	532	492	527	528
Error (mV)	3	0	629	9	649	5	-8	0	8
LINEARITY ERROR (dB)	0.10	0.02	0.13	0.35	0.32	0.18	-0.33	0.02	0.31
Measured Value (mV)	653	648	629	647	649	651	620	650	651
Error (mV)	-2	2	3	8	8	6	-3	4	6
LINEARITY ERROR (dB)	-0.09	0.07	-0.53	0.34	0.32	0.23	-0.10	0.14	0.24
Measured Value (mV)	774	775	756	771	770	776	753	778	773
Error (mV)	-19	-8	866	-16	869	-14	4	-8	-15
LINEARITY ERROR (dB)	-0.77	-0.31	-1.23	-0.64	-0.92	-0.58	0.17	-0.33	-0.61
Measured Value (mV)	883	891	866	871	869	880	887	891	879
Error (mV)	-34	-23	975	-34	976	-32	-8	1003	992
LINEARITY ERROR (dB)	-1.37	-0.93	-1.07	-1.38	-1.66	-1.30	0.31	-0.20	-1.07
Measured Value (mV)	994	1001	1106	1108	1108	1120	1145	1144	1131
Error (mV)	13	-6	1254	-28	1255	-2	26	8	11
LINEARITY ERROR (dB)	0.50	0.45	0.63	0.62	0.55	0.08	1.01	0.33	0.44
Measured Value (mV)	1142	1144	1403	1408	1407	1413	1427	1422	1418
Error (mV)	26	20	16	15	13	23	36	23	25
LINEARITY ERROR (dB)	-0.30	-0.35	0.05	-0.12	0.05	-0.03	-0.10	-0.14	-0.45
Measured Value (mV)	1525	1518	1515	1506	1521	1513	1516	1520	1506
Error (mV)	5	2	12	3	17	5	1	8	-7
LINEARITY ERROR (dB)	0.18	0.00	0.49	0.10	0.66	0.21	0.05	0.31	-0.27
Measured Value (mV)	1663	1654	1653	1636	1662	1643	1647	1656	1635
Error (mV)	3	0	9	7	13	7	1	6	-2
LINEARITY ERROR (dB)	0.10	0.00	0.37	0.29	0.52	0.30	0.04	0.23	-0.10
Measured Value (mV)	1787	1778	1777	1765	1784	1769	1774	1779	1764
Error (mV)	4	1	8	8	11	7	1	3	-1
LINEARITY ERROR (dB)	0.18	0.05	0.30	0.31	0.42	0.30	-0.12	0.12	-0.04
Measured Value (mV)	1915	1905	1902	1890	1907	1893	1897	1901	1890
Error (mV)	-1	-3	-3	-2	1	-6	-18	-11	-3
LINEARITY ERROR (dB)	-0.02	-0.13	-0.13	-0.06	0.04	-0.22	-0.72	-0.44	-0.11
Measured Value (mV)	2036	2026	2018	2005	2023	2004	2009	2012	2013
Error (mV)	-2	2	-1	10	1	1	1	3	-1
LINEARITY ERROR (dB)	-0.06	0.08	-0.04	0.40	0.06	0.02	0.02	0.27	0.59
Measured Value (mV)	2147	2157	2147	2141	2149	2134	2141	2141	2155
Error (mV)	-1	8	9	7	13	7	8	6	-7
LINEARITY ERROR (dB)	-0.13	0.05	0.37	0.31	0.42	0.30	-0.12	0.12	-0.27

Avg. Slope: 25.1 mV/dB



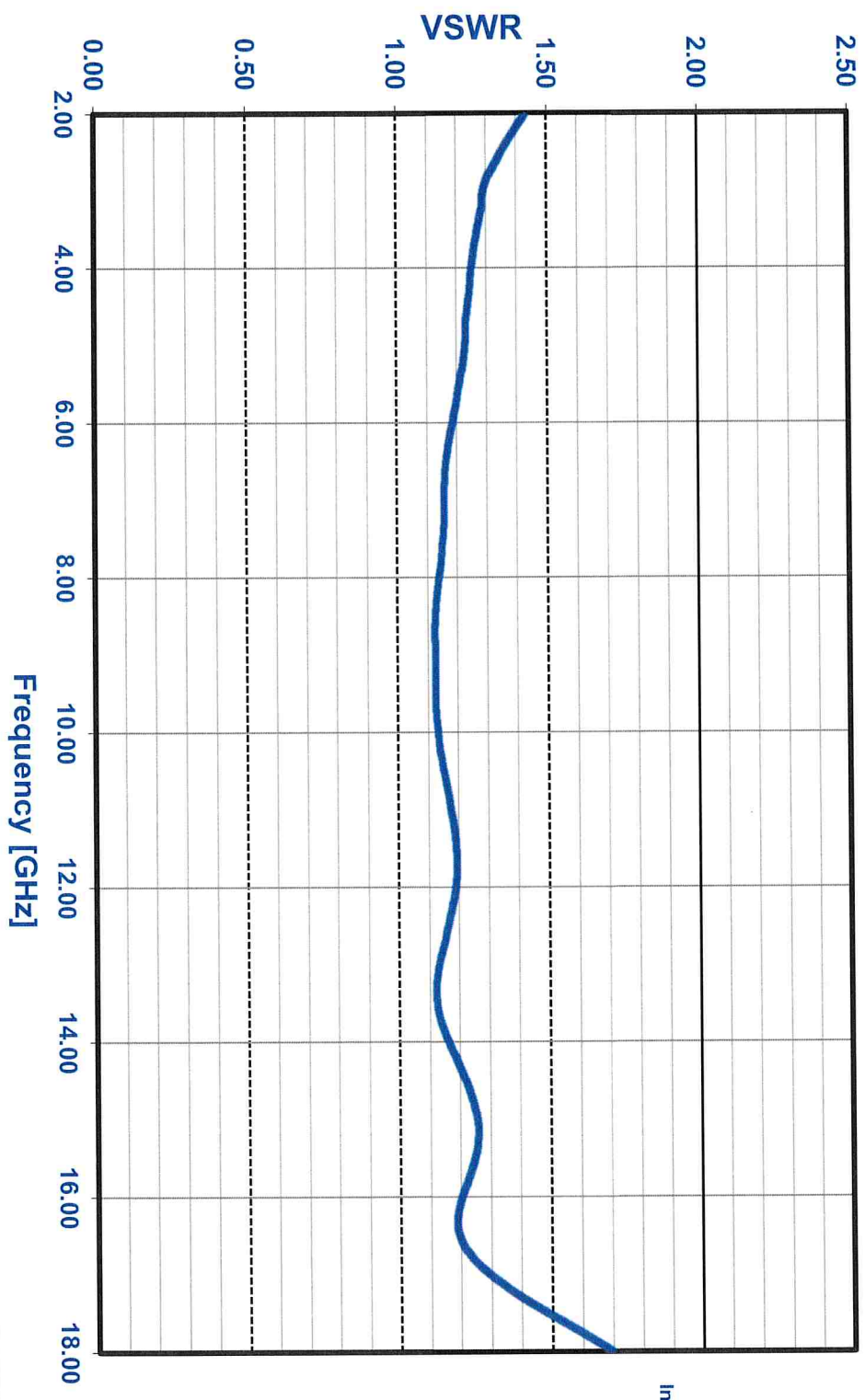
Measured Value (mV)  
 ERROR (mV)  
 LINEARITY ERROR (dB)  
 Flatness: dB: ±0.8 dB



Model Number: SDLVA-6G18G-CD-2 OPT218  
Serial Number: PL42909  
Date: 11/27/2023

Temperature: +25C

### VSWR GRAPH

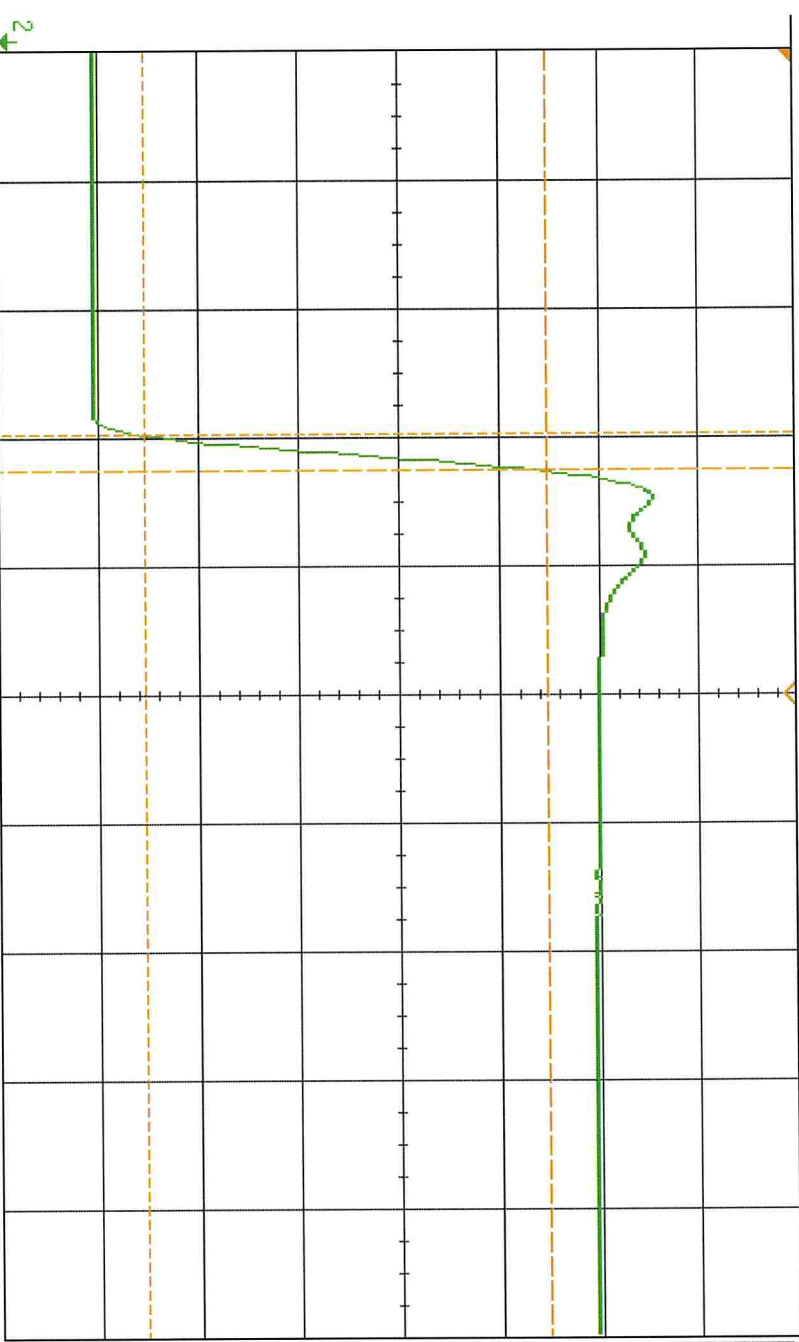




PL42909  
RISE TIME

DSO-X 3034A, MW52394003, Wed Nov 22 09:52:58 2023

1 2 300V / 3 4 4.000ns 20.00ns / Auto f 4 2.68V



**KEYSIGHT**  
TECHNOLOGIES

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): 5.8ns

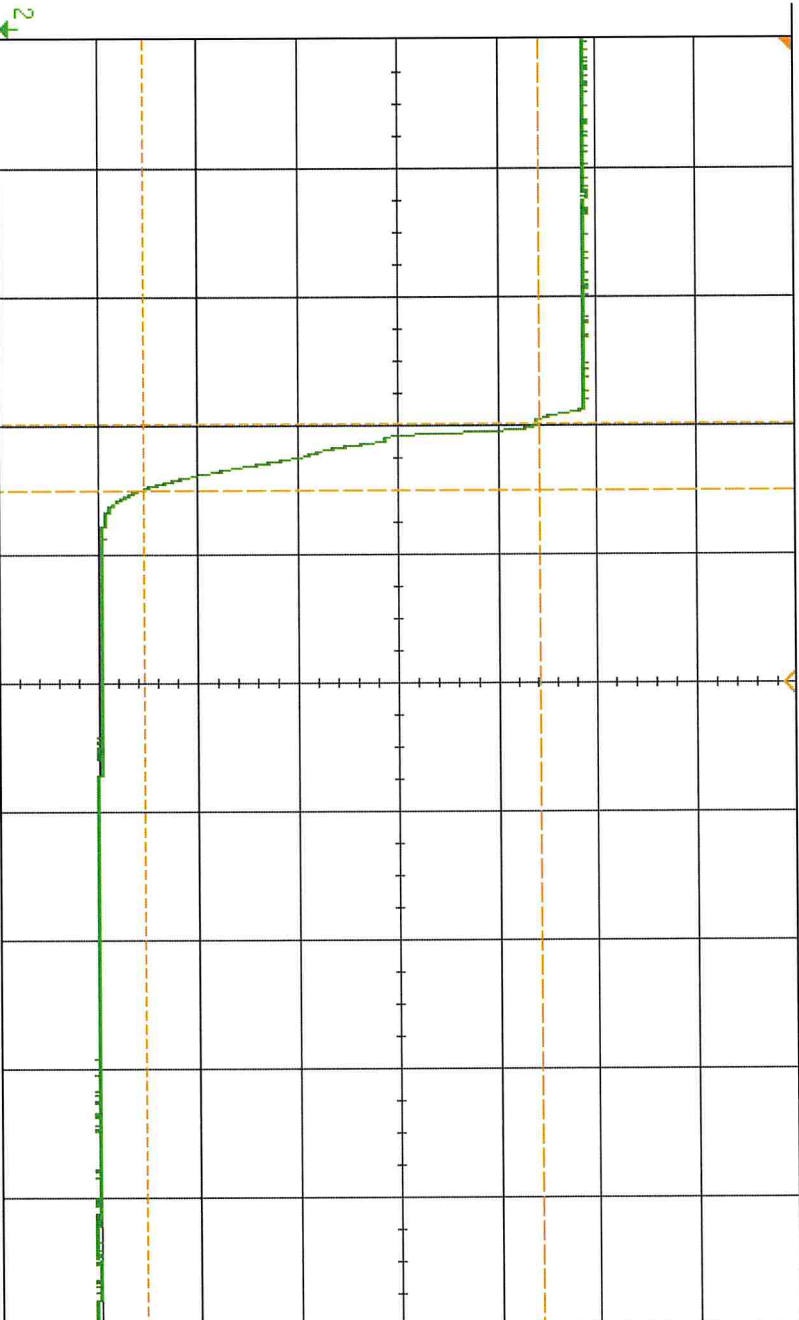
- Measurement Menu
- Source 2
  - Type: Rise
  - Add Measurement
  - Settings
  - Clear Meas
  - Statistics

PL42909

Recovery

DSO-X 3034A, MME52394003, Wed Nov 22 09:53:51 2023

1 2 300ns / 3 4 4.050ms 100.0ns / Auto f 4 2.58V



Measurement Menu

Source 2

Type: Fall

Add Measurement

Settings

Clear Meas

Statistics

KEYSIGHT  
TECHNOLOGIES

Acquisition ::  
Averaging: 32  
4.00GSa/s

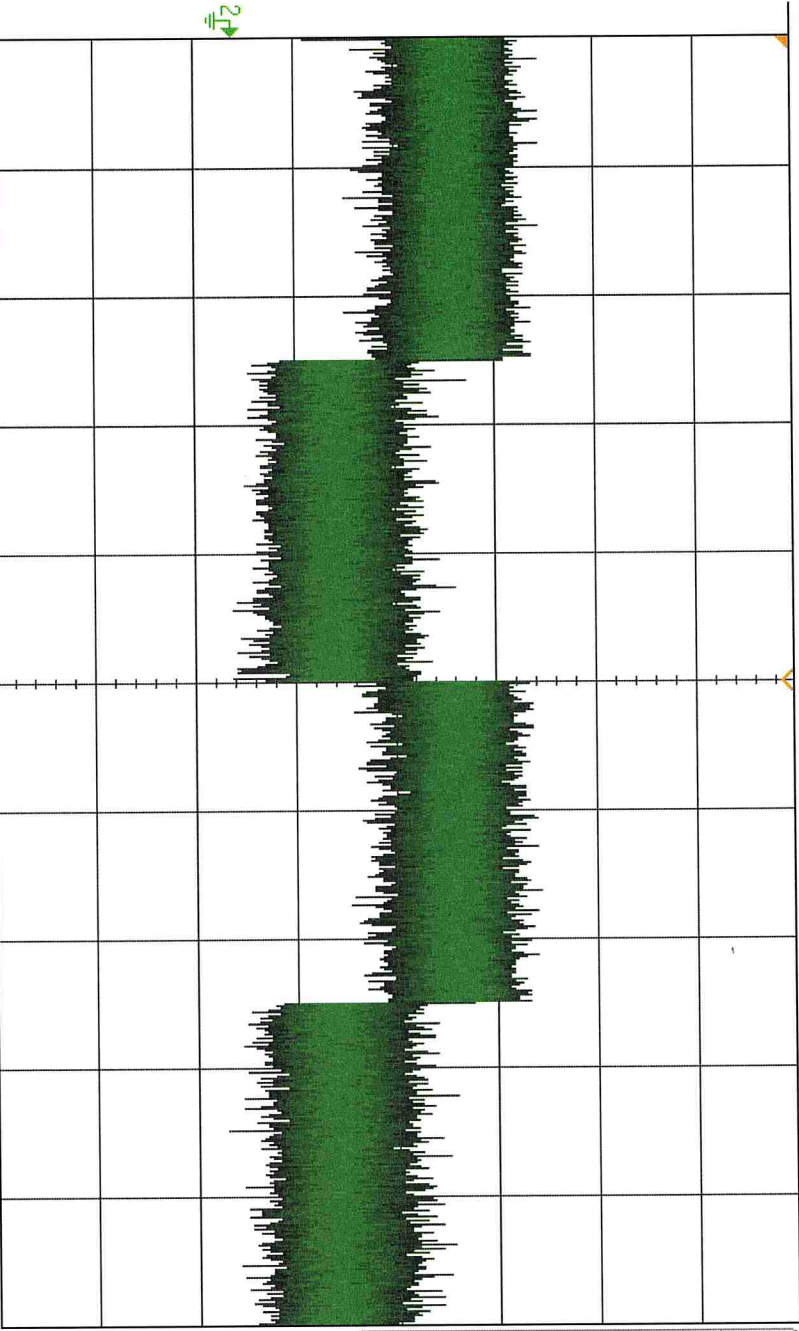
Channels ::  
DC 1.00:1  
DC 1.00:1  
DC 1.00:1  
DC 1.00:1

Measurements ::  
Rise(2): No edges  
Fall(2): 52.3ns

PL42909  
TSS --71

DSO-X 3034A, MY52394003, Wed Nov 22 09:51:41 2023

1 2 100% / 3 4 4.000ms 20.00% / Auto f 4 2.58V



KEYSIGHT  
TECHNOLOGIES

Acquisition  
Normal  
4.00GSa/s

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

Save to file = pl42909\_tss\_71

Save

Recall

Default/Eraser

Press to Save