

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

CUSTOMER: _____
 SO: _____
 MODEL NO: SDLVA-6G18G-CD-2-OPT218
 SERIAL NO: PL46035/2420

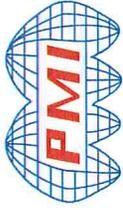
TESTED BY: Jim Hopson
 TEMPERATURE: +25°C
 DATE: 5/10/2024
 DRAWING NO: 27623906 REV: A1

TEST ITEM NO:	PARAMETERS	SPECIFIED VALUE	MEASURED VALUE	REMARKS QA/QC
1	Frequency Range	2.0 GHz – 18.0 GHz	GHz - GHz	PMI QA3
2	Flatness	± 2.0 dB Maximum	± 1.5 dB 25°C See Plots	
3	TSS	-70 dBm Minimum	-71dBm	
4	VSWR	2.0:1 (Input)	1.73:1	
5	Input Power	+17 dBm CW Maximum	Pass	
6	RF Out	+13 dBm ±3 dB Typical	14.2/12.8 dBm	
7	Log Slope	25 mV/dB (±10%) 50Ω	25.2 mV/dB See Plot	
8	Log Range	-70 to +5 dBm	See Plots	
9	Log Linearity	±2.5 dB (-40°C - +85°C)	1.65/-1.49 dB 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	280 mA 100 mA	

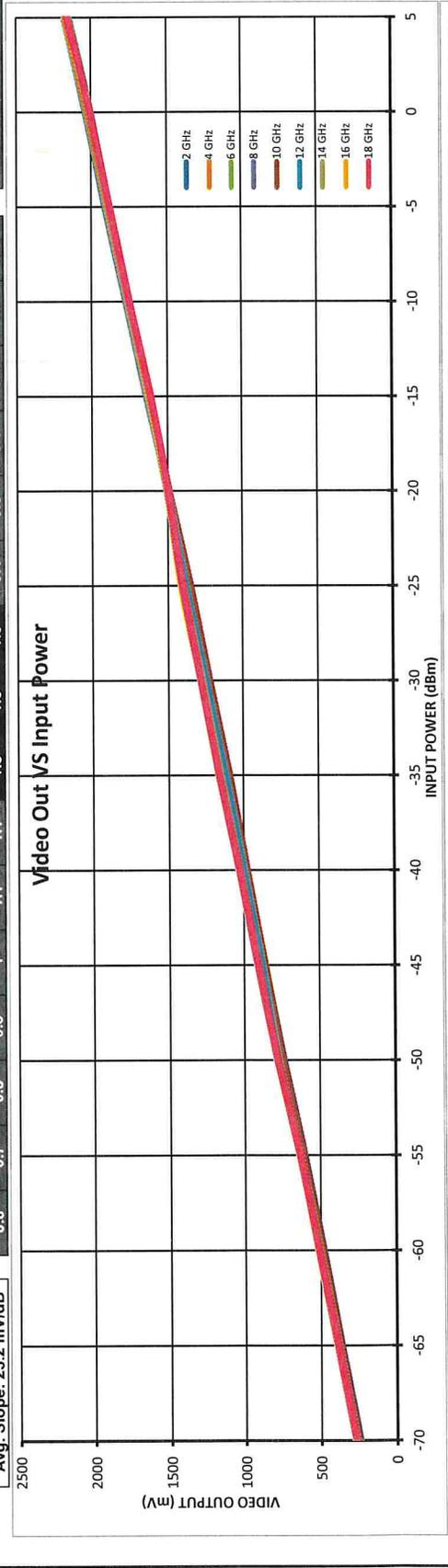
QA/QC Approval: *K. [Signature]*

Date: 5-13-24

Model: SDLVA-6G18G-CD-2 - OPT218
 Serial No: PL46035
 Date: 5/10/24
 Tested By: Jim Hopson
 Test Temp: +25°C



Frequency	-70	-65	-60	-55	-50	-45	-40	-35	-30	-25	-20	-15	-10	-5	0	5
2 GHz	271	389	511	630	760	869	991	1119	1255	1384	1506	1643	1777	1911	2041	2183
SLOPE (mV/dB)	23	14	9	0	3	-15	-21	-20	-11	-9	-15	-5	2	8	11	26
LINEARITY ERROR (dB)	0.91	0.55	0.34	0.01	0.12	-0.60	-0.81	-0.78	-0.44	-0.37	-0.58	-0.20	0.07	0.33	0.44	1.01
4 GHz	255	375	492	616	752	874	997	1120	1253	1379	1499	1633	1769	1901	2033	2180
SLOPE (mV/dB)	18	10	-1	-5	4	-2	-7	-12	-6	-8	-16	-10	-1	3	7	26
LINEARITY ERROR (dB)	0.69	0.39	-0.03	-0.18	0.14	-0.08	-0.27	-0.45	-0.25	-0.32	-0.62	-0.38	-0.06	0.11	0.28	1.03
6 GHz	239	360	475	601	736	857	978	1098	1234	1362	1492	1634	1768	1898	2025	2167
SLOPE (mV/dB)	21	13	0	-3	3	-4	-12	-20	-13	-14	-12	1	6	8	6	20
LINEARITY ERROR (dB)	0.82	0.52	-0.01	-0.11	0.13	-0.16	-0.46	-0.79	-0.51	-0.53	-0.48	0.04	0.25	0.30	0.24	0.76
8 GHz	243	361	477	602	738	861	981	1099	1236	1366	1488	1616	1753	1882	2008	2159
SLOPE (mV/dB)	18	9	-2	-5	4	0	-7	-17	-7	-4	-10	-9	1	3	1	25
LINEARITY ERROR (dB)	0.71	0.35	-0.10	-0.18	0.16	-0.01	-0.29	-0.66	-0.28	-0.17	-0.37	-0.35	0.04	0.11	0.06	0.99
10 GHz	251	367	483	608	743	859	974	1089	1221	1349	1488	1630	1765	1893	2018	2162
SLOPE (mV/dB)	26	14	3	0	8	-4	-16	-29	-24	-23	-12	3	10	11	8	25
LINEARITY ERROR (dB)	1.00	0.55	0.11	0.01	0.31	-0.14	-0.63	-1.12	-0.94	-0.92	-0.47	0.11	0.40	0.42	0.33	0.98
12 GHz	277	394	516	640	778	884	1002	1123	1254	1388	1498	1618	1755	1882	2003	2149
SLOPE (mV/dB)	9	2	0	0	14	-4	-10	-13	-6	4	-9	-13	0	3	0	22
LINEARITY ERROR (dB)	0.37	0.09	0.01	0.01	0.58	-0.15	-0.39	-0.51	-0.22	0.18	-0.38	-0.54	-0.02	0.11	-0.01	0.87
14 GHz	270	388	510	638	783	907	1028	1156	1279	1405	1507	1629	1763	1887	2007	2153
SLOPE (mV/dB)	-2	-9	-11	-8	12	12	8	11	10	11	-11	-14	-5	-5	-10	11
LINEARITY ERROR (dB)	-0.09	-0.36	-0.46	-0.32	0.49	0.47	0.32	0.46	0.39	0.45	-0.46	-0.56	-0.19	-0.21	-0.40	0.46
16 GHz	276	394	517	643	788	910	1031	1164	1297	1425	1510	1627	1760	1885	2007	2157
SLOPE (mV/dB)	-4	-10	-12	-10	11	9	5	14	23	27	-13	-20	-11	-10	-12	13
LINEARITY ERROR (dB)	-0.17	-0.42	-0.47	-0.40	0.44	0.35	0.22	0.57	0.92	1.08	-0.50	-0.79	-0.44	-0.41	-0.50	0.54
18 GHz	274	392	515	640	784	910	1032	1165	1288	1408	1500	1614	1751	1881	2008	2162
SLOPE (mV/dB)	-3	-9	-10	-9	10	12	10	19	18	14	-18	-28	-15	-9	-6	24
LINEARITY ERROR (dB)	-0.13	-0.38	-0.42	-0.38	0.42	0.50	0.42	0.78	0.73	0.57	-0.72	-1.13	-0.61	-0.37	-0.25	0.96
Avg. Slope: 25.2 mV/dB																



Model: SDLVA-6G18G-CD-2 - OPT218
 Serial No: PL46035
 Date: 5/10/24
 Tested By: Jim Hopson
 Test Temp: +85°C



Frequency

2 GHz	INTERCEPT (mV)	1969
	SLOPE (mV/dB)	25.7
	LIN. ERR. (dB)	0.7

4 GHz	INTERCEPT (mV)	1964
	SLOPE (mV/dB)	25.93
	LIN. ERR. (dB)	0.642

6 GHz	INTERCEPT (mV)	1964
	SLOPE (mV/dB)	26.16
	LIN. ERR. (dB)	0.811

8 GHz	INTERCEPT (mV)	1945
	SLOPE (mV/dB)	26.11
	LIN. ERR. (dB)	0.812

10 GHz	INTERCEPT (mV)	1943
	SLOPE (mV/dB)	26.13
	LIN. ERR. (dB)	1.305

12 GHz	INTERCEPT (mV)	1938
	SLOPE (mV/dB)	25.38
	LIN. ERR. (dB)	0.447

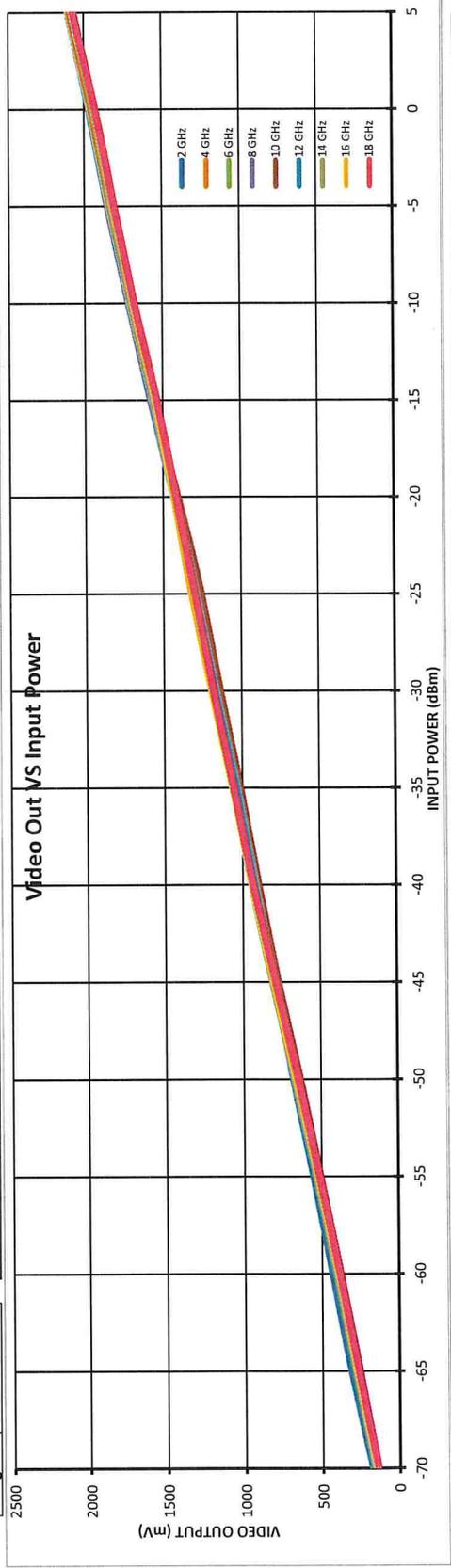
14 GHz	INTERCEPT (mV)	1950
	SLOPE (mV/dB)	25.63
	LIN. ERR. (dB)	0.713

16 GHz	INTERCEPT (mV)	1953
	SLOPE (mV/dB)	25.64
	LIN. ERR. (dB)	0.845

18 GHz	INTERCEPT (mV)	1944
	SLOPE (mV/dB)	25.72
	LIN. ERR. (dB)	0.83

RF Input Power (dBm)	-70	-65	-60	-55	-50	-45	-40	-35	-30	-25	-20	-15	-10	-5	0	5
Measured Value (mV)	180	317	436	556	681	801	929	1054	1186	1308	1439	1583	1724	1855	1973	2111
ERROR (mV)	11	19	9	1	-3	-11	-12	-15	-12	-18	-16	0	12	15	4	14
LINEARITY ERROR (dB)	0.41	0.74	0.37	0.04	-0.10	-0.43	-0.45	-0.59	-0.45	-0.70	-0.61	0.00	0.48	0.58	0.17	0.54
Measured Value (mV)	161	291	409	535	661	796	928	1049	1180	1301	1429	1571	1714	1845	1966	2108
ERROR (mV)	12	12	1	-3	-7	-1	1	-8	-6	-15	-17	-4	9	10	2	14
LINEARITY ERROR (dB)	0.46	0.48	0.03	-0.12	-0.26	-0.05	0.04	-0.30	-0.24	-0.58	-0.64	-0.17	0.35	0.40	0.06	0.54
Measured Value (mV)	143	264	386	512	638	773	905	1026	1158	1279	1416	1568	1711	1840	1954	2091
ERROR (mV)	20	10	1	-3	-8	-4	-3	-13	-11	-21	-15	6	18	17	0	6
LINEARITY ERROR (dB)	0.77	0.39	0.06	-0.13	-0.31	-0.15	-0.11	-0.48	-0.44	-0.81	-0.57	0.24	0.70	0.63	-0.01	0.23
Measured Value (mV)	139	254	378	504	630	769	902	1021	1155	1279	1413	1553	1698	1825	1942	2086
ERROR (mV)	21	6	-1	-5	-10	-1	1	-10	-7	-14	-10	-1	14	10	-3	10
LINEARITY ERROR (dB)	0.81	0.22	-0.03	-0.21	-0.38	-0.05	0.04	-0.40	-0.27	-0.52	-0.39	-0.02	0.53	0.40	-0.12	0.39
Measured Value (mV)	141	256	378	505	631	768	893	1009	1134	1256	1404	1562	1706	1833	1947	2083
ERROR (mV)	27	11	2	-1	-6	0	-5	-20	-25	-34	-17	11	24	20	4	9
LINEARITY ERROR (dB)	1.02	0.42	0.09	-0.05	-0.22	0.02	-0.20	-0.76	-0.97	-1.30	-0.64	0.41	0.92	0.78	0.14	0.35
Measured Value (mV)	165	296	414	540	672	800	923	1040	1172	1299	1425	1551	1696	1821	1934	2070
ERROR (mV)	3	7	-2	-3	3	4	0	-10	-5	-5	-6	-7	11	9	-4	5
LINEARITY ERROR (dB)	0.12	0.28	-0.07	-0.10	0.10	0.14	-0.01	-0.40	-0.20	-0.20	-0.23	-0.27	0.45	0.37	-0.17	0.18
Measured Value (mV)	154	281	401	530	665	809	943	1061	1185	1309	1434	1563	1703	1825	1936	2072
ERROR (mV)	-2	-3	-11	-10	-3	12	18	8	4	0	-3	-2	9	3	-14	-6
LINEARITY ERROR (dB)	-0.07	-0.12	-0.43	-0.40	-0.13	0.48	0.71	0.32	0.16	-0.01	-0.13	-0.10	0.37	0.13	-0.54	-0.24
Measured Value (mV)	153	281	400	529	665	810	947	1072	1205	1334	1441	1556	1698	1820	1934	2076
ERROR (mV)	-6	-6	-15	-14	-6	10	19	16	21	22	0	-13	1	-5	-19	-5
LINEARITY ERROR (dB)	-0.22	-0.23	-0.59	-0.56	-0.25	0.40	0.75	0.63	0.81	0.85	0.02	-0.49	0.04	-0.20	-0.75	-0.21
Measured Value (mV)	145	268	389	517	649	793	936	1059	1185	1305	1421	1543	1687	1815	1932	2077
ERROR (mV)	2	-4	-11	-12	-8	7	21	16	13	5	-8	-15	1	0	-12	5
LINEARITY ERROR (dB)	0.08	-0.14	-0.43	-0.46	-0.33	0.27	0.83	0.61	0.51	0.18	-0.32	-0.57	0.03	0.00	-0.45	0.19

Flatness dB: ±1.5 dB



Avg. Slope: 25.8 mV/dB

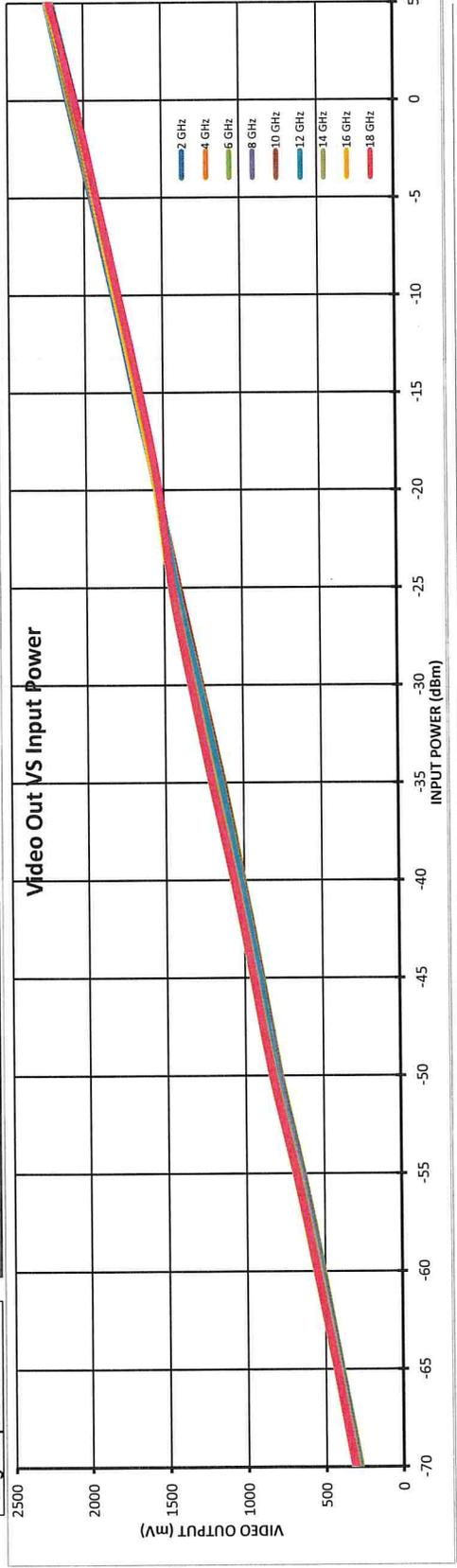
Model: SDLVA-6G18G-CD-2 - OPT218
 Serial No: PL46035
 Date: 5/10/24
 Tested By: Jim Hopson
 Test Temp: -40°C



Frequency

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	2087	26.22	1.2	280	399	522	647	782	889	1012	1142	1287	1426	1546	1689	1822	1959	2107	2250
				28	16	8	2	6	-18	-26	-27	-13	-6	-17	-5	-3	3	20	32
				1.08	0.62	0.31	0.08	0.23	-0.69	-1.00	-1.04	-0.51	-0.21	-0.64	-0.18	-0.11	0.11	0.76	1.21
4 GHz	2079	26.05	1.357	282	397	517	644	784	899	1023	1149	1288	1420	1539	1678	1813	1948	2096	2245
				26	11	1	-2	7	-8	-14	-18	-10	-8	-19	-11	-6	-1	17	35
				1.01	0.43	0.03	-0.09	0.28	-0.31	-0.55	-0.71	-0.37	-0.31	-0.74	-0.41	-0.22	-0.04	0.64	1.36
6 GHz	2073	26.13	1.243	274	391	509	636	775	885	1004	1127	1269	1405	1535	1680	1814	1947	2089	2236
				31	17	4	1	9	-12	-23	-31	-20	-15	-15	-1	2	5	16	32
				1.17	0.64	0.16	0.02	0.34	-0.45	-0.90	-1.19	-0.76	-0.55	-0.53	-0.03	0.10	0.18	0.62	1.24
8 GHz	2058	25.68	1.547	286	400	520	646	785	893	1012	1134	1275	1413	1529	1659	1798	1930	2068	2226
				26	11	3	0	11	-9	-19	-25	-13	-3	-15	-14	-3	0	10	40
				0.99	0.43	0.11	0.01	0.43	-0.37	-0.73	-0.98	-0.49	-0.12	-0.60	-0.53	-0.12	0.02	0.39	1.55
10 GHz	2065	25.63	1.514	303	414	537	662	798	895	1012	1132	1269	1405	1535	1678	1812	1944	2084	2232
				32	15	10	7	15	-17	-28	-36	-27	-19	-17	-3	3	7	19	39
				1.26	0.59	0.39	0.26	0.57	-0.65	-1.08	-1.40	-1.06	-0.75	-0.68	-0.10	0.13	0.28	0.74	1.51
12 GHz	2056	25.28	1.329	305	418	543	669	807	907	1026	1151	1287	1427	1536	1662	1800	1931	2063	2216
				19	5	4	4	15	-11	-19	-20	-10	3	-14	-15	-3	1	7	34
				0.75	0.22	0.16	0.14	0.60	-0.44	-0.74	-0.79	-0.41	0.12	-0.57	-0.58	-0.12	0.06	0.28	1.33
14 GHz	2071	25.33	0.981	302	417	542	672	818	936	1058	1192	1323	1450	1545	1673	1807	1934	2067	2222
				4	-7	-9	-6	14	5	1	8	12	13	-19	-18	-10	-4	25	
				0.17	-0.29	-0.35	-0.22	0.55	0.21	0.02	0.31	0.49	0.50	-0.75	-0.70	-0.40	-0.39	-0.14	0.98
16 GHz	2077	25.32	0.981	310	424	552	680	822	936	1058	1196	1333	1464	1551	1680	1811	1939	2074	2228
				6	-7	-5	-4	11	-1	-6	6	16	20	-19	-17	-12	-11	-3	25
				0.23	-0.26	-0.21	-0.15	0.45	-0.04	-0.23	0.22	0.63	0.81	-0.76	-0.66	-0.49	-0.43	-0.10	0.98
18 GHz	2065	25.02	1.654	314	428	557	685	829	946	1068	1207	1336	1453	1534	1652	1792	1926	2066	2231
				1	-10	-7	-4	15	7	4	18	22	14	-30	-37	-22	-13	1	41
				0.02	-0.42	-0.26	-0.15	0.61	0.29	0.16	0.72	0.88	0.55	-1.21	-1.49	-0.89	-0.54	0.06	1.65

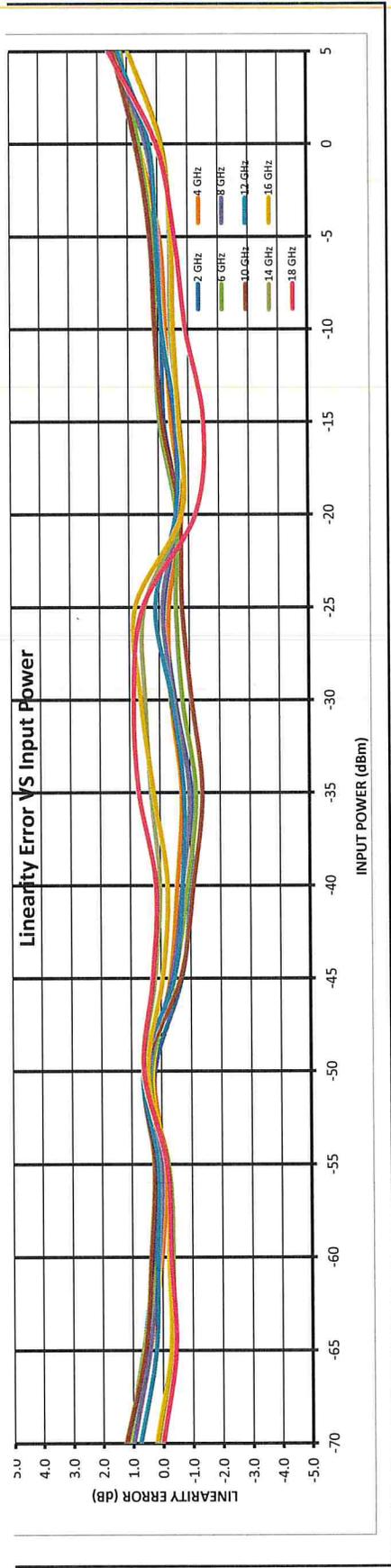
Flatness dB: ±1.6 dB



Avg. Slope: 25.6 mV/dB

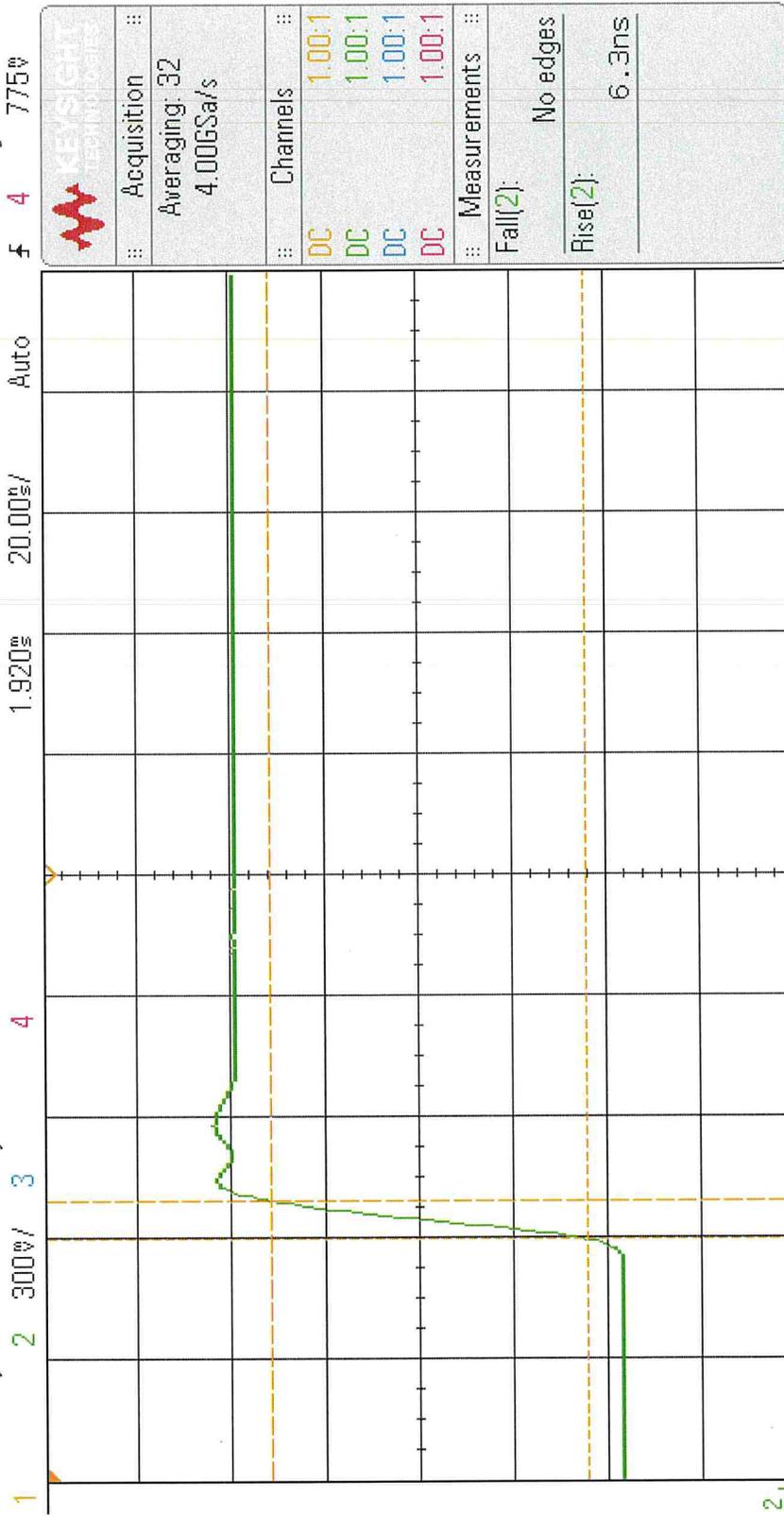
PL46035

-40°C



PL46035
RiseTime

DSO-X 3034A, MY52394003: Fri May 10 13:44:21 2024



Clear Measurements Menu

Clear Meas 1
Fall(2)

Clear Meas 2
Rise(2)

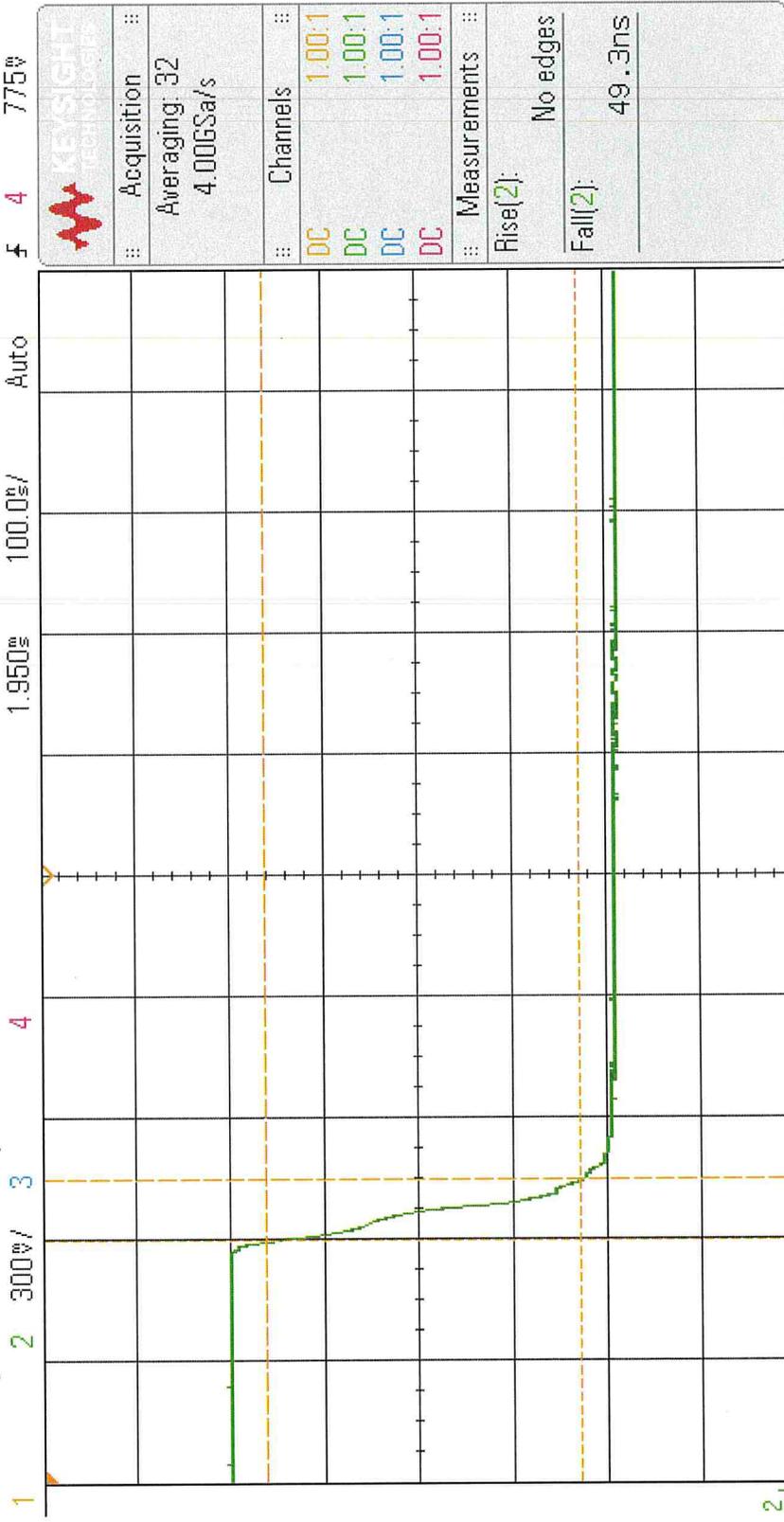
Clear Meas 3
<None>

Clear Meas 4
<None>

Clear All

PL46035
Recovery/Fall

DSO-X 3034A, MY52394003: Fri May 10 13:45:10 2024



4 775mV

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

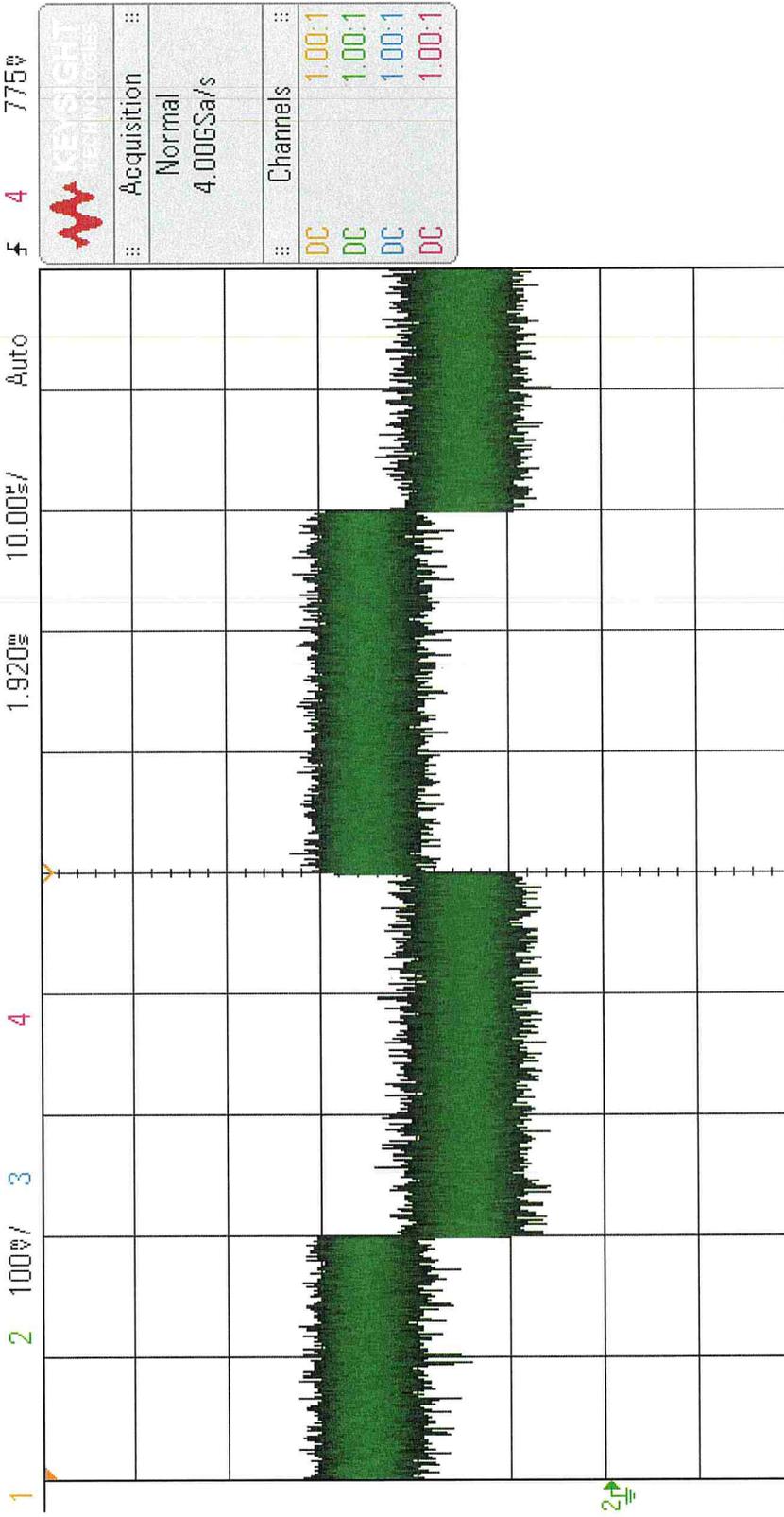
Measurements
Rise(2): No edges
Fall(2): 49.3ns

Measurement Menu
Source 2

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

PL46035
TSS - 71 dbm

DSO-X 3034A, MY52394003: Fri May 10 13:42:42 2024



Save to file = pl46035_tss_71

Save

Recall

Default/Erase

Press to

Save