

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

CUSTOMER: _____
SO: _____
MODEL NO: SDLVA-6G18G-CD-2-OPT218
SERIAL NO: PL43762/2406

TESTED BY: Jim Hopson
TEMPERATURE: +25°C
DATE: 2/7/2024
DRAWING NO: 27623906 REV: A1

TEST ITEM NO:	PARAMETERS	SPECIFIED VALUE	MEASURED VALUE	REMARKS QA/QC <i>PMI</i> <i>QA3</i>
1	Frequency Range	2.0 GHz – 18.0 GHz	GHz - GHz	
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)	1.75:1	
5	Input Power	+17 dBm CW Maximum	Pass	
6	RF Out	+13 dBm ±3 dB Typical	14.2/12.6 dBm	
7	Log Slope	25 mV/dB (±10%) 50Ω	25.3 mV/dB See Plot	
8	Log Range	-70 to +5 dBm	See Plots	
9	Log Linearity	±2.5 dB (-40°C - +85°C)	1.37/-1.31 dB See Plots	
10	Pulse Range	30 ns to CW	Pass	
11	Rise Time	10 ns (6 ns Typical)	5.5 ns	
12	Recovery Time	60 ns Typical	60 ns Typical	
13	DC Supply	+15V or +12V @ 350 mA -15V or -12V @ 180 mA	270 mA 100 mA	

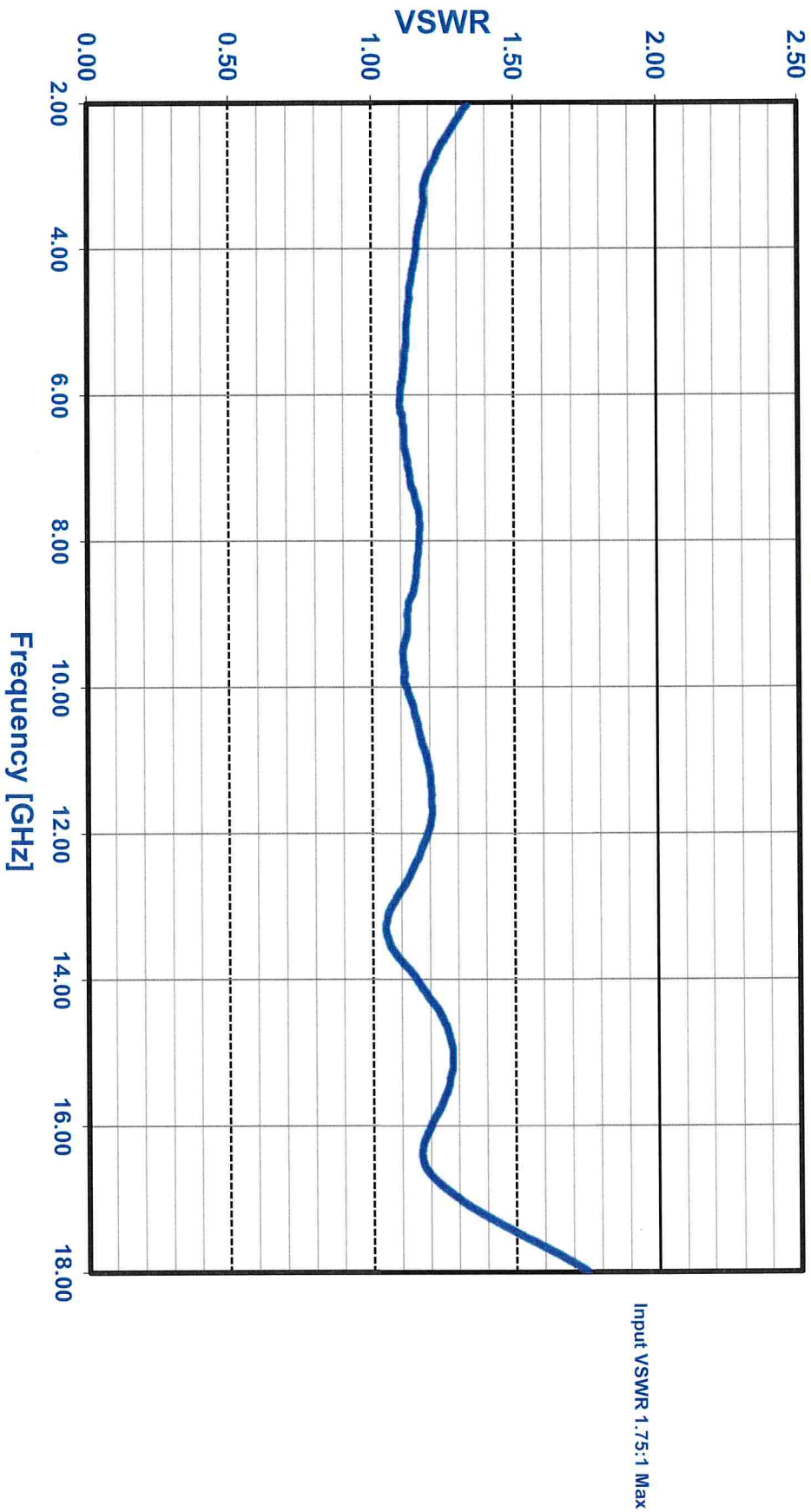
QA/QC Approval: *H. [Signature]*

Date: 2-8-24

Model Number: SDLVA-6G18G-CD-2 OPT218
Serial Number: PL43762
Date: 2/6/2024

Temperature: +25C

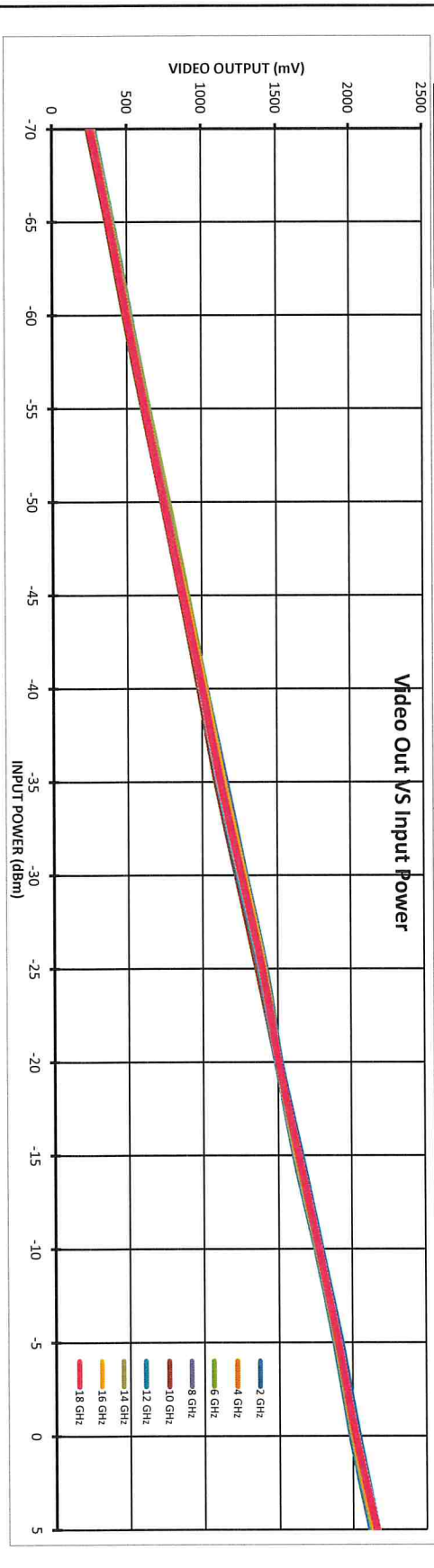
VSWR GRAPH





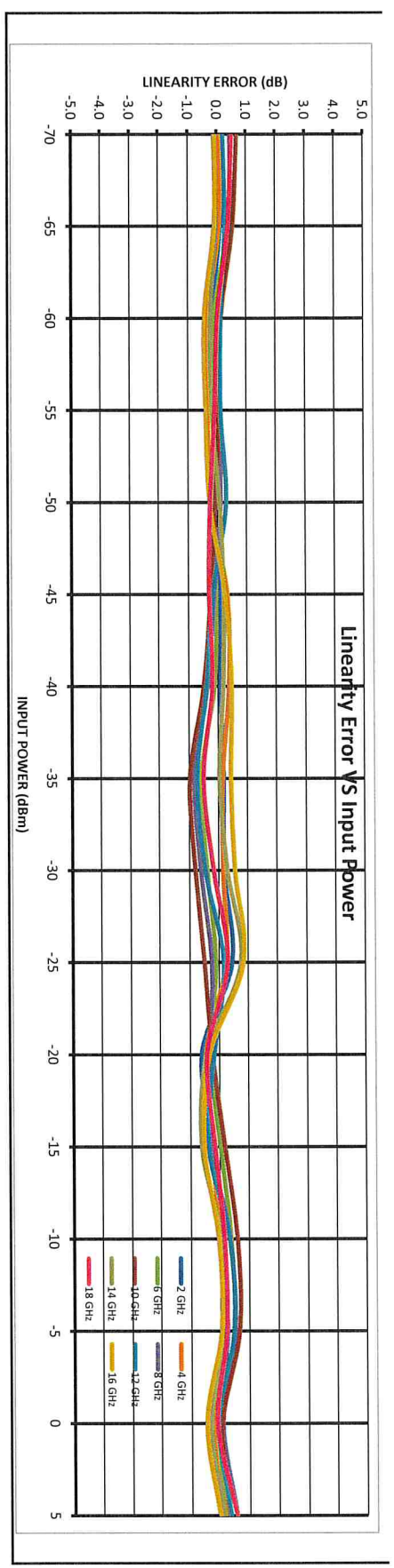
Frequency

Frequency	INTERCEPT (mV)	SLOPE (mV/dB)	LN. ERR. (dB)	RF Input Power (dbm)	Measured Value (mV)	Error (mV)	LINEARITY ERROR (dB)
2 GHz	2045	25.43	0.6	-70	270	395	515
	2045	25.43	0.6	-65	5	3	-4
	2045	25.43	0.6	-60	0.20	0.12	-0.17
4 GHz	2030	25.57	0.453	-55	243	370	488
	2030	25.57	0.453	-50	3	2	-8
	2030	25.57	0.453	-45	0.11	0.07	-0.31
6 GHz	2017	25.58	0.581	-40	239	364	480
	2017	25.58	0.581	-35	12	9	-2
	2017	25.58	0.581	-30	0.48	0.37	-0.09
8 GHz	2000	25.17	0.811	-25	250	376	493
	2000	25.17	0.811	-20	11	12	3
	2000	25.17	0.811	-15	0.45	0.46	0.11
10 GHz	2009	25.49	0.967	-10	242	366	483
	2009	25.49	0.967	-5	17	14	4
	2009	25.49	0.967	0	0.68	0.55	0.14
12 GHz	1996	24.69	0.723	5	273	398	518
	1996	24.69	0.723	0	5	7	3
	1996	24.69	0.723	-5	0.21	0.28	0.14
14 GHz	2014	24.92	0.757	10	267	393	513
	2014	24.92	0.757	5	-3	-1	-6
	2014	24.92	0.757	0	-0.10	-0.05	-0.23
16 GHz	2017	25.17	0.847	15	254	379	496
	2017	25.17	0.847	10	-1	-2	-11
	2017	25.17	0.847	5	-0.05	-0.08	-0.43
18 GHz	2025	25.45	0.549	20	256	380	498
	2025	25.45	0.549	15	13	10	0
	2025	25.45	0.549	10	0.51	0.38	0.02
Avg. Slope: 25.3 mV/dB				25	0.7	0.7	0.8
Flatness: dB: ±1.3 dB				30	0.7	0.7	0.7
				35	0.7	0.7	0.7
				40	0.9	0.9	0.9
				45	1	1	1
				50	1.3	1.2	1.2
				55	1.2	1.2	1.2
				60	0.6	0.6	0.6
				65	0.9	0.9	0.9
				70	0.7	0.7	0.7
				75	0.9	0.9	0.9
				80	0.7	0.7	0.7
				85	0.8	0.8	0.8
				90	1	1	1
				95	0.9	0.9	0.9
				100	0.9	0.9	0.9



PL43762

25°C





Frequency	-70	-65	-60	-55	-50	-45	-40	-35	-30	-25	-20	-15	-10	-5	0	5
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2 GHz	INTERCEPT (mV)	1945
	SLOPE (mV/dB)	25.09
	LN. ERR. (dB)	0.6

4 GHz	INTERCEPT (mV)	1930
	SLOPE (mV/dB)	25.37
	LN. ERR. (dB)	0.663

6 GHz	INTERCEPT (mV)	1917
	SLOPE (mV/dB)	25.45
	LN. ERR. (dB)	0.964

8 GHz	INTERCEPT (mV)	1901
	SLOPE (mV/dB)	25.21
	LN. ERR. (dB)	0.988

10 GHz	INTERCEPT (mV)	1906
	SLOPE (mV/dB)	25.54
	LN. ERR. (dB)	1.368

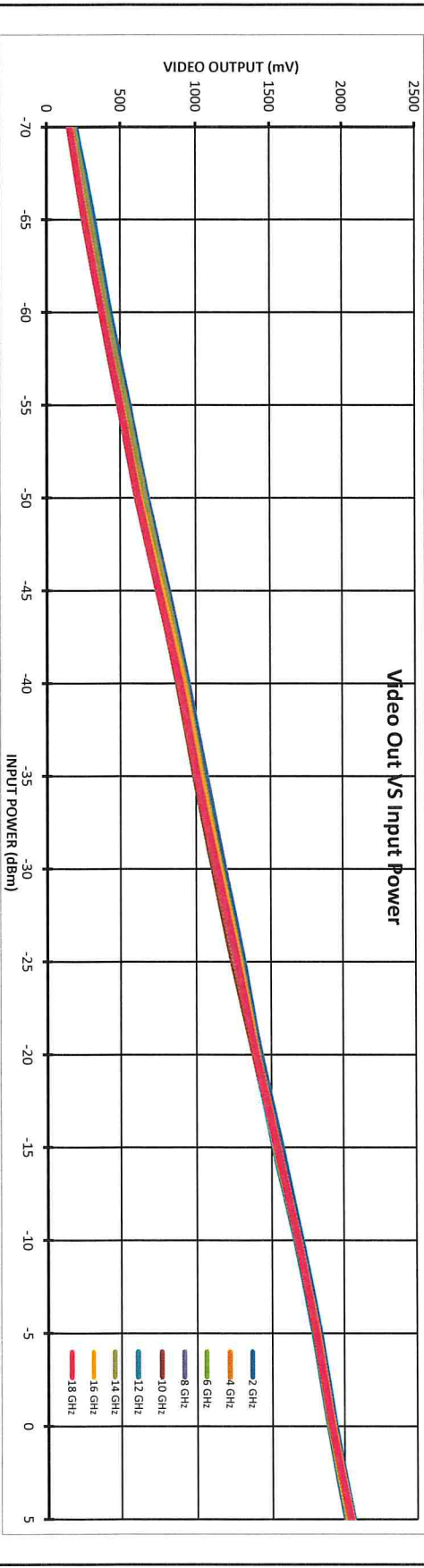
12 GHz	INTERCEPT (mV)	1896
	SLOPE (mV/dB)	24.67
	LN. ERR. (dB)	0.767

14 GHz	INTERCEPT (mV)	1913
	SLOPE (mV/dB)	24.96
	LN. ERR. (dB)	0.564

16 GHz	INTERCEPT (mV)	1913
	SLOPE (mV/dB)	25.25
	LN. ERR. (dB)	0.841

18 GHz	INTERCEPT (mV)	1917
	SLOPE (mV/dB)	25.63
	LN. ERR. (dB)	1.219

Avg. Slope: 25.2 mV/dB
 Flatness: dB: ±1.6 dB



RF Input Power (dBm)	-70	-65	-60	-55	-50	-45	-40	-35	-30	-25	-20	-15	-10	-5	0	5
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Measured Value (mV)	195	322	435	556	676	816	948	1070	1191	1320	1432	1571	1705	1831	1938	2063
Error (mV)	7	8	-4	-9	-14	0	7	3	-1	3	-11	3	11	12	-7	-7
LINEARITY ERROR (dB)	0.26	0.32	-0.17	-0.35	-0.57	0.01	0.27	0.14	-0.04	0.10	-0.44	0.10	0.44	0.47	-0.27	-0.29

Measured Value (mV)	168	285	401	526	645	790	929	1045	1168	1293	1414	1548	1698	1815	1924	2053
Error (mV)	14	4	-7	-9	-17	1	14	3	-1	-3	-9	-2	11	12	-6	-4
LINEARITY ERROR (dB)	0.53	0.15	-0.28	-0.35	-0.66	0.05	0.53	0.11	-0.05	-0.12	-0.35	-0.07	0.45	0.46	-0.24	-0.16

Measured Value (mV)	160	270	388	512	629	766	900	1014	1141	1268	1401	1542	1683	1809	1915	2038
Error (mV)	25	7	-2	-5	-15	-6	1	-12	-12	-13	-7	7	21	19	-2	-6
LINEARITY ERROR (dB)	0.96	0.29	-0.08	-0.20	-0.61	-0.22	0.04	-0.48	-0.49	-0.50	-0.27	0.27	0.81	0.76	-0.07	-0.24

Measured Value (mV)	161	272	390	513	630	761	888	1001	1126	1252	1388	1524	1670	1795	1903	2030
Error (mV)	25	10	2	-1	-10	-5	-4	-17	-19	-19	-9	1	21	20	2	3
LINEARITY ERROR (dB)	0.99	0.39	0.07	-0.05	-0.41	-0.21	-0.18	-0.69	-0.73	-0.74	-0.34	0.05	0.84	0.80	0.09	0.12

Measured Value (mV)	153	255	377	499	614	747	876	991	1116	1242	1386	1535	1680	1804	1907	2031
Error (mV)	35	9	4	-2	-15	-10	-8	-21	-24	-25	-9	12	30	26	1	-3
LINEARITY ERROR (dB)	1.37	0.36	0.14	-0.08	-0.58	-0.37	-0.32	-0.82	-0.93	-0.99	-0.35	0.48	1.16	1.01	0.04	-0.10

Measured Value (mV)	181	302	416	540	658	784	904	1015	1140	1269	1402	1523	1668	1790	1895	2017
Error (mV)	12	10	0	1	-4	-2	-5	-17	-16	-10	0	-3	19	18	-1	-2
LINEARITY ERROR (dB)	0.49	0.40	0.02	0.04	-0.17	-0.07	-0.20	-0.70	-0.64	-0.41	-0.02	-0.11	0.77	0.71	-0.03	-0.09

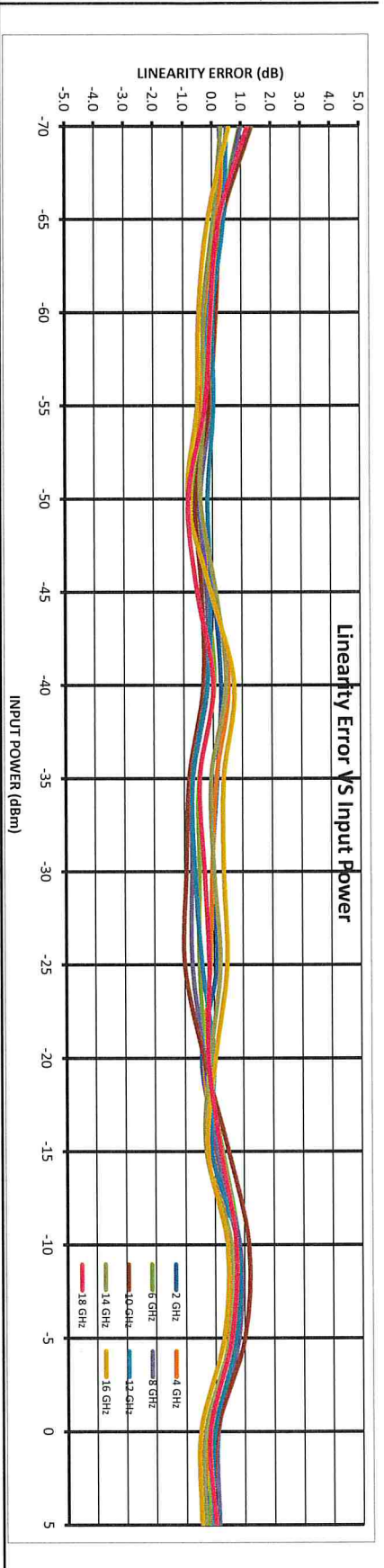
Measured Value (mV)	173	291	407	533	654	792	925	1037	1164	1294	1410	1531	1677	1800	1904	2028
Error (mV)	8	1	-8	-7	-10	3	11	-2	0	2.2	-3	-7	14	12	-9	-9
LINEARITY ERROR (dB)	0.32	0.04	-0.31	-0.26	-0.42	0.11	0.44	-0.07	0.01	0.22	-0.13	-0.28	0.56	0.49	-0.34	-0.38

Measured Value (mV)	160	268	386	511	629	775	921	1038	1164	1293	1409	1528	1671	1794	1900	2027
Error (mV)	15	-3	-12	-13	-21	-1	18	9	9	11	1	-6	11	7	-13	-12
LINEARITY ERROR (dB)	0.59	-0.14	-0.46	-0.51	-0.84	-0.06	0.72	0.36	0.35	0.46	0.05	-0.24	0.42	0.30	-0.51	-0.48

Measured Value (mV)	154	257	378	501	614	750	892	1008	1140	1272	1399	1538	1679	1803	1912	2045
Error (mV)	31	6	-1	-6	-21	-14	0	-12	-8	-4	-5	6	18	14	-5	0
LINEARITY ERROR (dB)	1.22	0.24	-0.04	-0.24	-0.83	-0.53	0.01	-0.46	-0.31	-0.16	-0.20	0.22	0.72	0.56	-0.19	0.00

PL43762

85°C





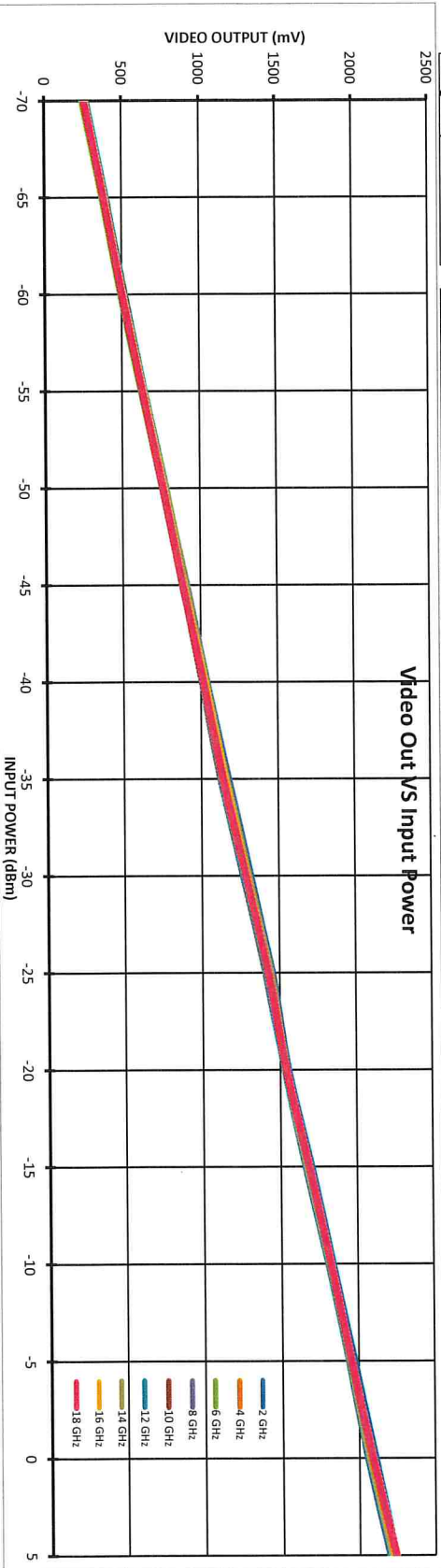
Frequency

Frequency	INTERCEPT (mV)	SLOPE (mV/DB)	LIN. ERR. (DB)
2 GHz	2108	26.56	0.8
4 GHz	2091	26.52	0.667
6 GHz	2077	26.44	0.887
8 GHz	2058	25.85	1.032
10 GHz	2068	26.07	1.31
12 GHz	2057	25.73	0.893
14 GHz	2075	26.02	0.672
16 GHz	2081	26.31	0.532
18 GHz	2084	26.37	0.93

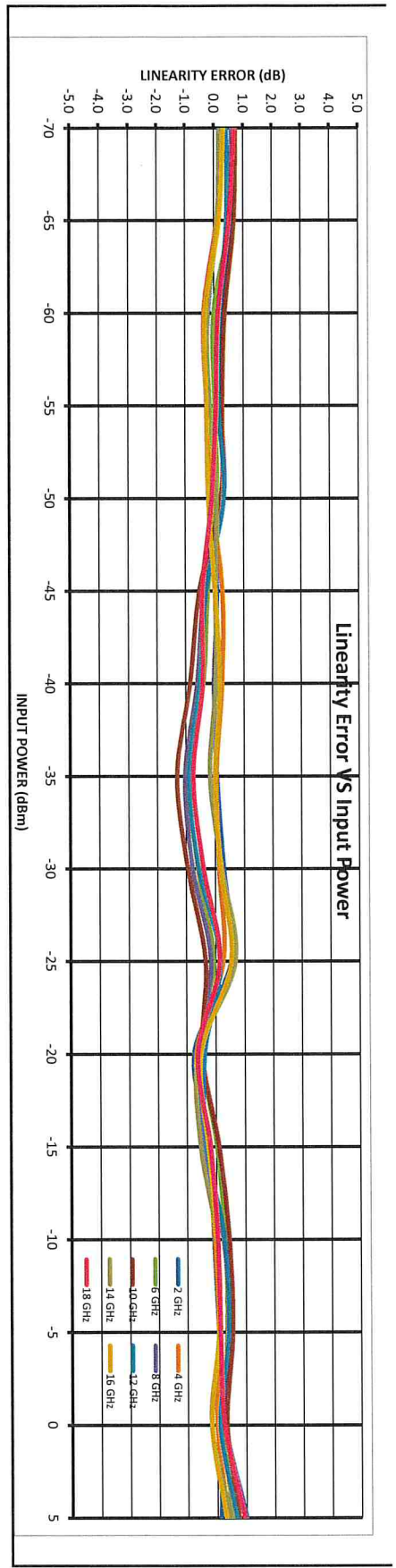
RF Input Power (dBm)	-70	-65	-60	-55	-50	-45	-40	-35	-30	-25	-20	-15	-10	-5	0	5
2 GHz	254	385	509	642	778	915	1045	1180	1319	1458	1557	1704	1840	1977	2112	2244
4 GHz	242	370	491	626	763	905	1037	1164	1299	1435	1543	1685	1824	1960	2091	2233
6 GHz	243	372	490	623	757	881	1009	1128	1268	1414	1536	1681	1820	1954	2082	2223
8 GHz	263	391	513	642	773	885	1008	1126	1262	1407	1526	1659	1805	1939	2065	2213
10 GHz	263	392	514	642	771	882	1004	1122	1262	1408	1535	1680	1819	1952	2077	2218
12 GHz	266	395	517	645	778	891	1014	1133	1270	1417	1532	1662	1806	1938	2059	2202
14 GHz	258	387	508	640	776	895	1014	1133	1270	1417	1532	1662	1806	1938	2059	2202
16 GHz	247	375	494	627	760	897	1033	1160	1296	1437	1541	1679	1818	1951	2076	2220
18 GHz	256	383	505	635	763	886	1018	1141	1282	1428	1540	1683	1821	1955	2090	2240

RF Input Power (dBm)	-70	-65	-60	-55	-50	-45	-40	-35	-30	-25	-20	-15	-10	-5	0	5
Measured Value (mV)	254	385	509	642	778	915	1045	1180	1319	1458	1557	1704	1840	1977	2112	2244
Error (mV)	5	3	-6	-5	-2	2	-1	1	8	14	-20	-6	-3	2	4	3
LINEARITY ERROR (DB)	0.19	0.12	-0.21	-0.20	-0.08	0.08	-0.03	0.05	0.29	0.52	-0.75	-0.22	-0.09	0.06	0.15	0.12

Video Out VS Input Power

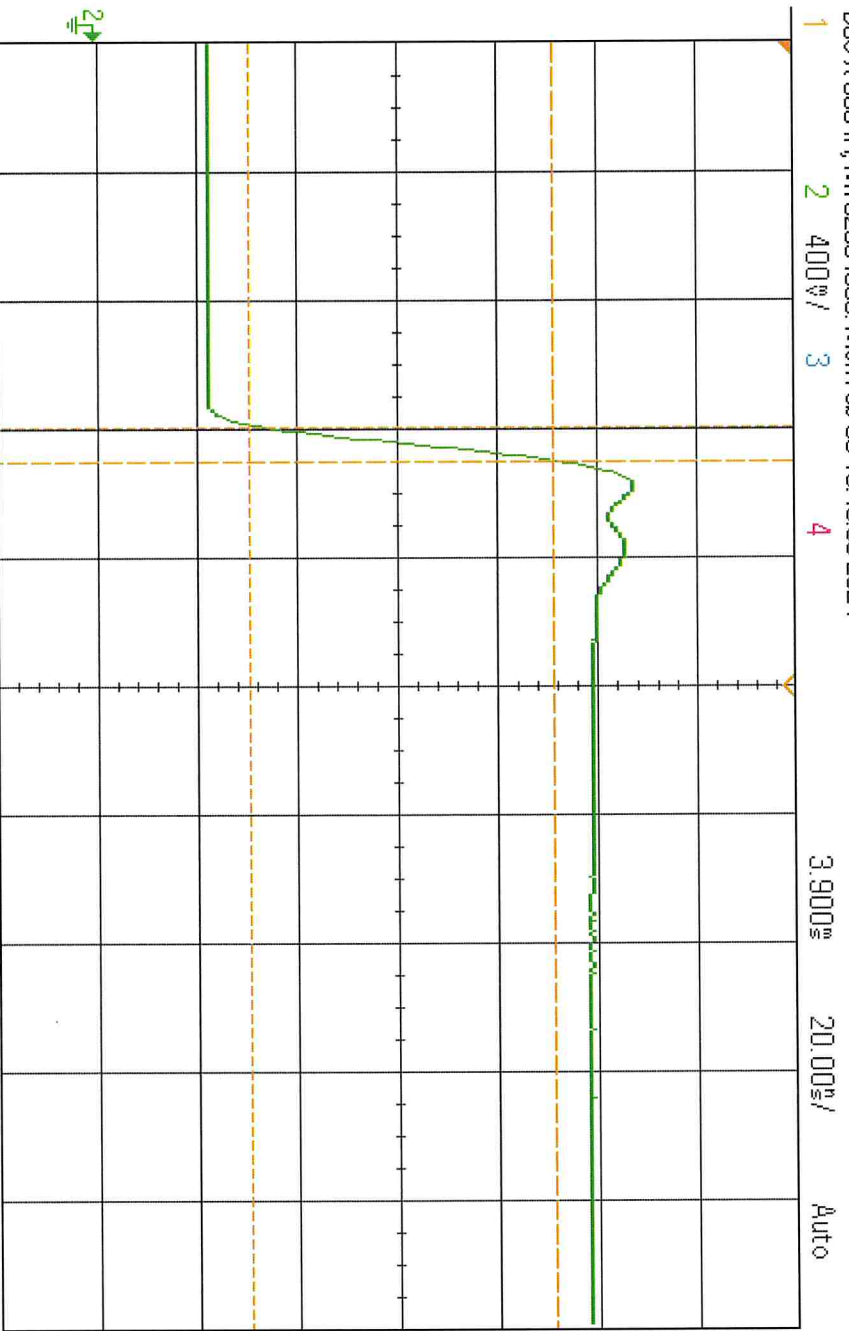


PL43762
-40°C



PL43762
RISE TIME

DSO-X 3034A, MW52394003, Mon Feb 05 15:40:56 2024



3.900µs 20.00%/ Auto f 4 2.35V

KEYSIGHT
TECHNOLOGIES

Acquisition ::
Averaging: 16
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): 5.5ns

Measurement Menu

Source 2

Type: Rise

Add Measurement

Settings

Clear Meas

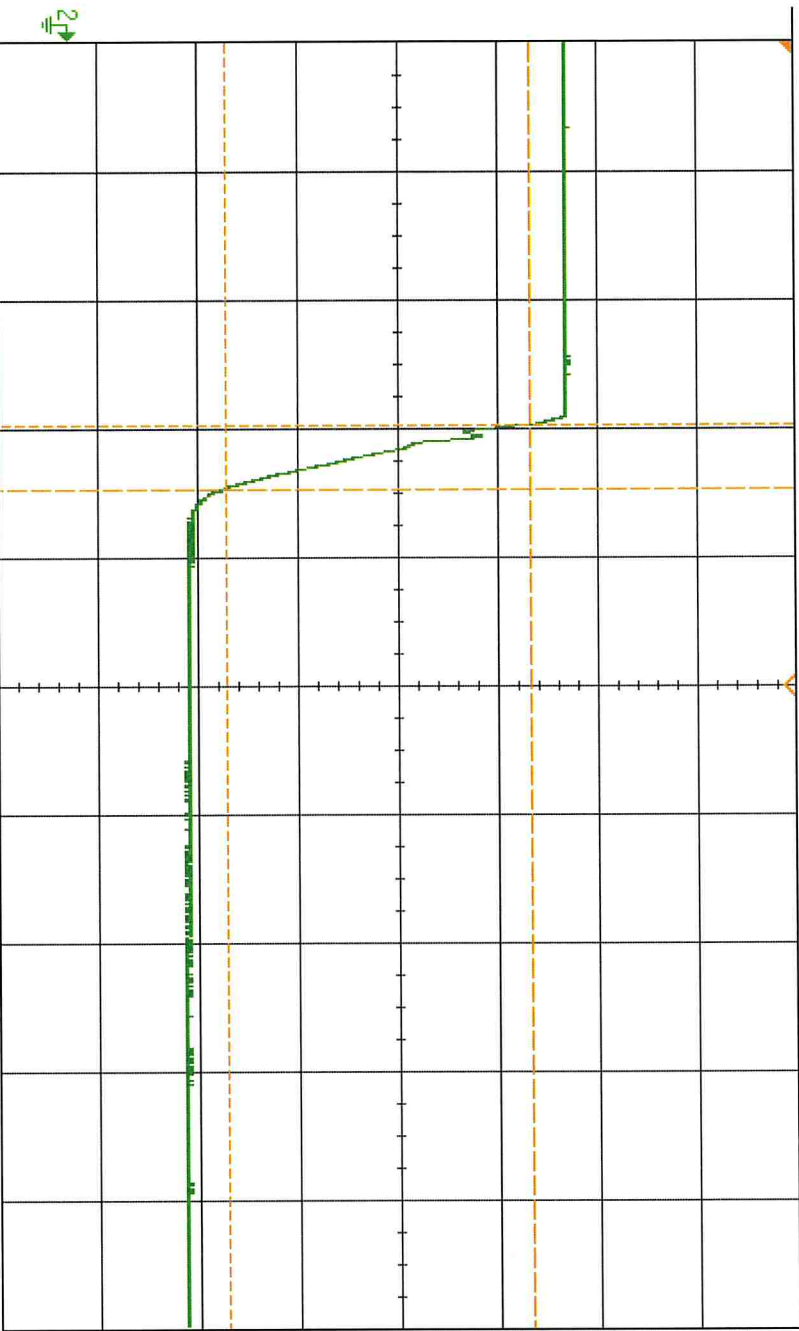
Statistics

PL43762

Recovery

DSO-X 3034A, MW52394003, Mon Feb 05 15:39:45 2024

1 2 400V/ 3 4 3.950V 100.0V/ Auto f 4 2.35V



Save to file = PL43762_recovery

Save

Recall

Default/Erase

KEYSIGHT TECHNOLOGIES

Acquisition ::
Averaging: 16
4.006Sa/s

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

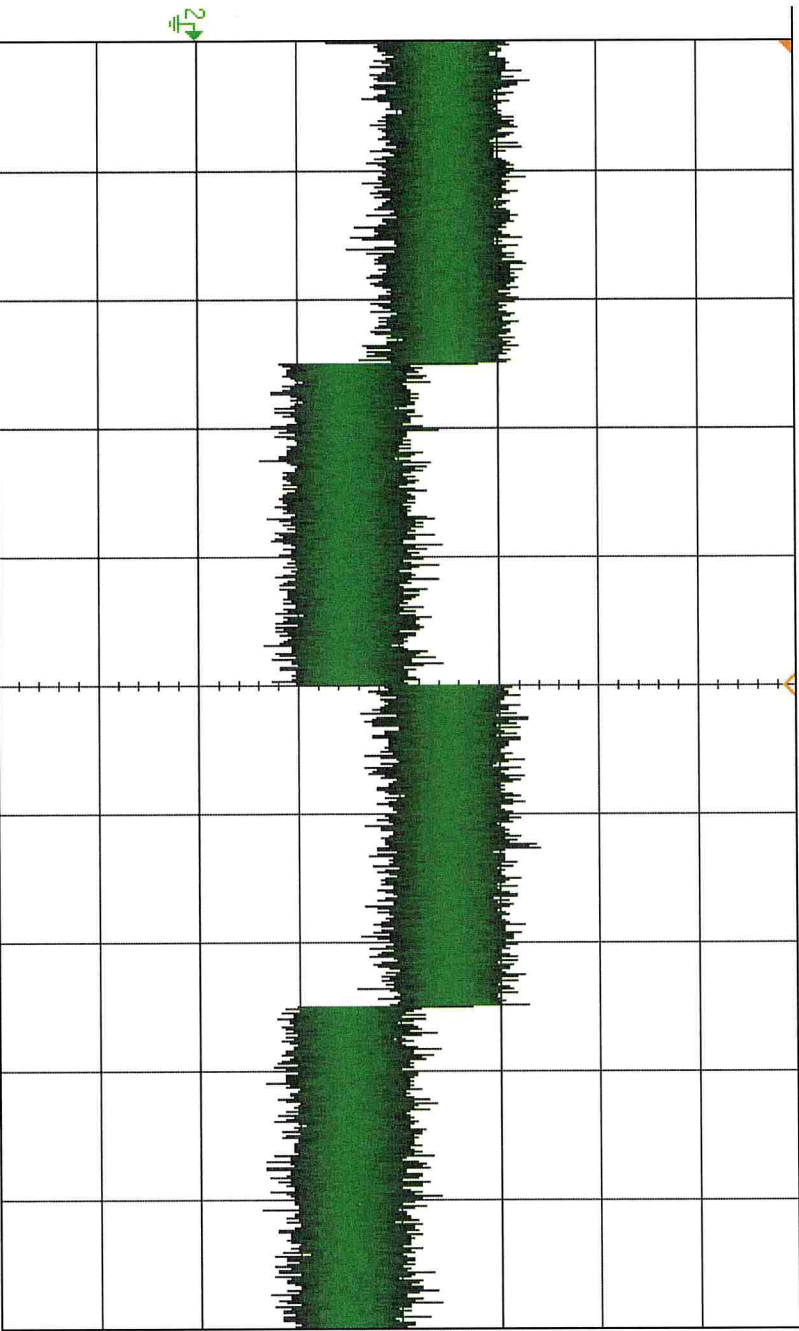
Measurements ::
Rise(2): No edges
Fall(2): 49.5ns

Press to Save

PL43762
TSS -71

DSO-X-3034A, MW52394003: Mon Feb 05 15:42:10 2024

1 2 100% / 3 4 3.900µs 20.00µs / Auto f 4 2.35V



KEYSIGHT
TECHNOLOGIES

Acquisition
Normal
4.00GSa/s

Channels	
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.