

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

CUSTOMER: \_\_\_\_\_  
 SO: \_\_\_\_\_  
 MODEL NO: SDLVA-6G18G-CD-2-OPT218  
 SERIAL NO: PL43760/2406

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
1	Frequency Range	2.0 GHz – 18.0 GHz	GHz - GHz	Q43
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)	1.41:1	
5	Input Power	+17 dBm CW Maximum	Pass	
6	RF Out	+13 dBm ±3 dB Typical	14.0/12.4 dBm	
7	Log Slope	25 mV/dB (±10%) 50Ω	24.8 mV/dB See Plot	
8	Log Range	-70 to +5 dBm	See Plots	
9	Log Linearity	±2.5 dB (-40°C - +85°C)	1.53/-1.51 dB See Plots	
10	Pulse Range	30 ns to CW	Pass	
11	Rise Time	10 ns (6 ns Typical)	5.8 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	

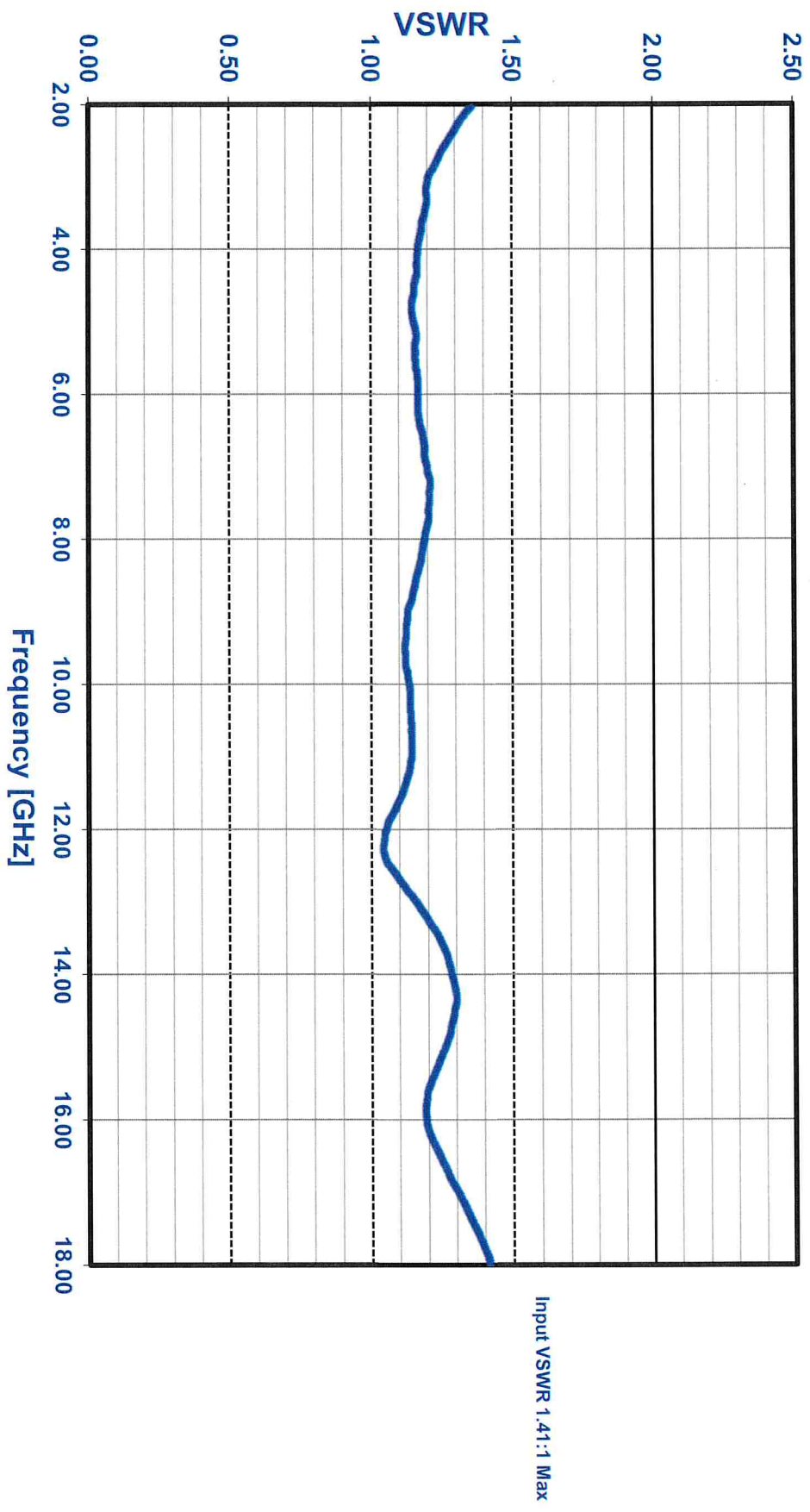
QA/QC Approval: *K. [Signature]*

Date: 2-8-24

Model Number: SDLVA-6G18G-CD-2 OPT218  
Serial Number: PL43760  
Date: 2/6/2024

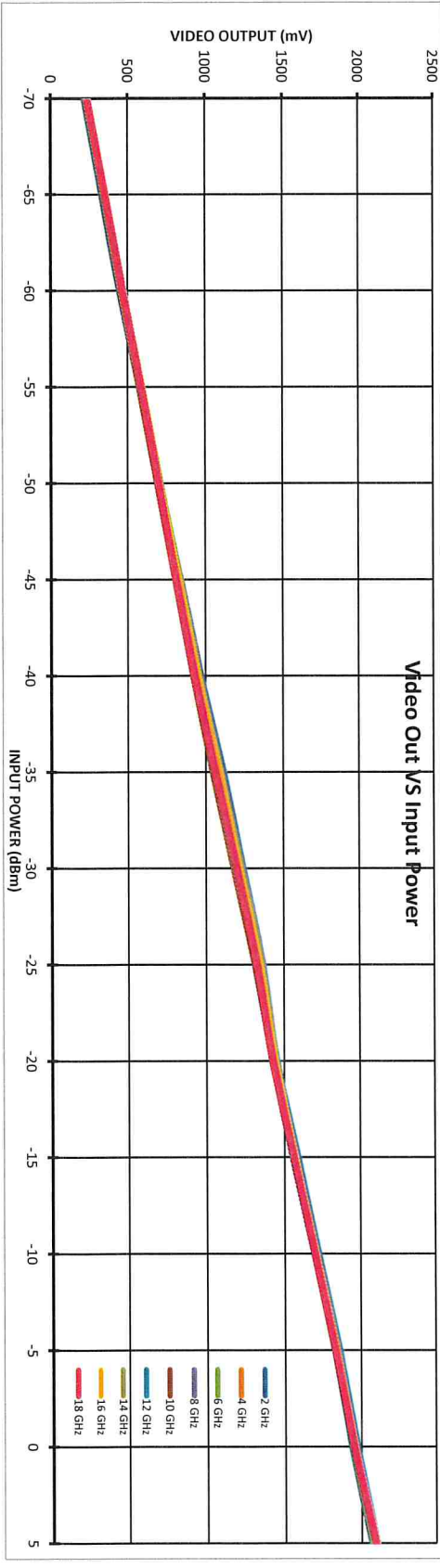
Temperature: +25C

### VSWR GRAPH





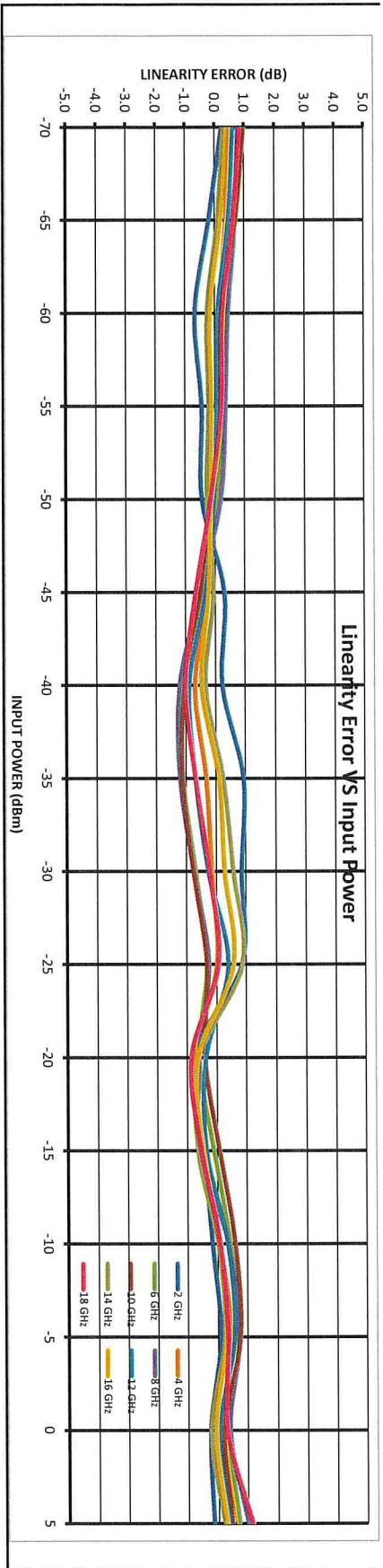
Frequency	Intercept (mV)	SLOPE (mV/DB)	LIN. ERR. (DB)	-70	-65	-60	-55	-50	-45	-40	-35	-30	-25	-20	-15	-10	-5	0	5
2 GHz	INTERCEPT (mV)	1985		212	328	443	576	703	849	974	1119	1244	1371	1456	1592	1726	1860	1978	2108
	SLOPE (mV/DB)	25.41		6	-5	-17	-11	-11	8	6	24	22	22	-20	-11	-4	2	-7	-4
	LIN. ERR. (DB)	0.9		0.25	-0.19	-0.66	-0.43	-0.43	0.31	0.23	0.94	0.86	0.85	-0.80	-0.45	-0.18	0.10	-0.26	-0.14
4 GHz	INTERCEPT (mV)	1960		238	359	477	599	720	839	952	1085	1213	1341	1446	1577	1714	1847	1964	2100
	SLOPE (mV/DB)	24.77		13	10	4	2	-1	-6	-17	-8	-3	1	-18	-11	2	11	4	17
	LIN. ERR. (DB)	0.731		0.51	0.39	0.15	0.08	-0.04	-0.23	-0.67	-0.30	-0.14	0.03	-0.73	-0.44	0.09	0.46	0.18	0.67
6 GHz	INTERCEPT (mV)	1950		237	357	472	594	713	823	931	1056	1190	1323	1440	1576	1713	1844	1959	2092
	SLOPE (mV/DB)	24.78		21	17	8	7	2	-12	-28	-27	-17	-8	-15	-3	10	18	9	18
	LIN. ERR. (DB)	1.136		0.86	0.70	0.34	0.26	0.07	-0.49	-1.14	-1.09	-0.68	-0.32	-0.59	-0.11	0.42	0.71	0.35	0.72
8 GHz	INTERCEPT (mV)	1930		241	361	477	597	715	820	925	1047	1180	1314	1428	1551	1695	1826	1940	2077
	SLOPE (mV/DB)	24.41		19	17	11	9	5	-12	-29	-18	-6	-14	-13	9	18	10	25	25
	LIN. ERR. (DB)	1.193		0.78	0.70	0.45	0.37	0.20	-0.49	-1.19	-1.19	-0.74	-0.25	-0.58	-0.54	0.36	0.73	0.40	1.01
10 GHz	INTERCEPT (mV)	1947		221	339	452	575	692	810	921	1044	1178	1314	1437	1574	1712	1841	1952	2084
	SLOPE (mV/DB)	25.01		25	18	6	4	-4	-11	-26	-19	-8	-10	-10	2	15	19	5	12
	LIN. ERR. (DB)	1.103		1.00	0.71	0.23	0.15	-0.18	-0.46	-1.02	-1.10	-0.75	-0.31	-0.39	0.09	0.60	0.76	0.20	0.47
12 GHz	INTERCEPT (mV)	1940		236	355	469	591	711	827	936	1064	1197	1336	1440	1563	1703	1831	1941	2072
	SLOPE (mV/DB)	24.56		15	11	2	2	-1	-8	-22	-17	-6	10	-9	-9	8	14	1	9
	LIN. ERR. (DB)	0.887		0.61	0.46	0.10	0.07	-0.05	-0.32	-0.89	-0.68	-0.26	0.40	-0.37	-0.36	0.34	0.55	0.03	0.36
14 GHz	INTERCEPT (mV)	1956		231	350	465	590	712	841	958	1096	1228	1359	1446	1569	1709	1838	1950	2085
	SLOPE (mV/DB)	24.75		7	3	-6	-5	-7	-1	-8	6	14	22	-15	-16	0	6	-6	5
	LIN. ERR. (DB)	0.877		0.30	0.11	-0.25	-0.20	-0.27	-0.05	-0.33	-0.25	0.58	0.88	-0.61	-0.64	0.02	0.23	-0.24	0.21
16 GHz	INTERCEPT (mV)	1959		235	354	469	594	717	839	957	1095	1223	1354	1448	1576	1713	1842	1957	2090
	SLOPE (mV/DB)	24.77		10	5	-4	-3	-3	-5	-11	3	7	14	-16	-11	2	7	-2	7
	LIN. ERR. (DB)	0.628		0.40	0.20	-0.15	-0.11	-0.14	-0.21	-0.45	0.12	0.29	0.58	-0.63	-0.46	0.07	0.28	-0.08	0.29
18 GHz	INTERCEPT (mV)	1948		236	354	469	592	707	818	933	1065	1200	1331	1432	1564	1703	1833	1956	2101
	SLOPE (mV/DB)	24.77		21	15	7	6	-3	-16	-25	-16	-5	2	-21	-13	2	9	8	29
	LIN. ERR. (DB)	1.168		0.86	0.63	0.27	0.24	-0.12	-0.64	-0.99	-0.66	-0.21	0.08	-0.85	-0.52	0.10	0.35	0.31	1.17
Avg. Slope: 24.8 mV/DB				0.6	0.7	0.7	0.5	0.6	0.8	1.1	1.5	1.3	1.1	0.6	0.8	0.6	0.7	0.8	0.7
Flatness dB: ±1.5 dB																			
Measured Value (mV)																			
ERROR (mV)																			
LINEARITY ERROR (DB)																			

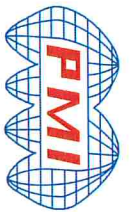




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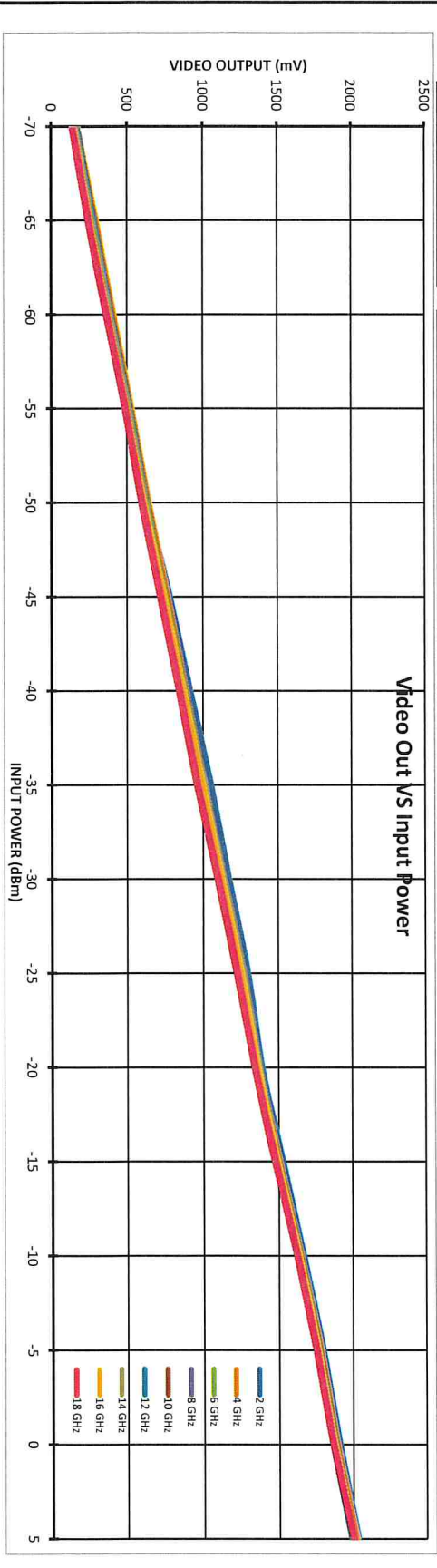
25°C





Frequency

Frequency	-70	-65	-60	-55	-50	-45	-40	-35	-30	-25	-20	-15	-10	-5	0	5		
2 GHz	INTERCEPT (mV)	1919	157	272	390	519	639	787	919	1056	1176	1302	1386	1531	1670	1801	1911	2036
	SLOPE (mV/dB)	25.27	7	-4	-13	-10	-16	5	11	22	15	15	-18	-9	4	8	-8	-9
	LN. ERR. (dB)	0.9	0.28	-0.17	-0.50	-0.39	-0.65	0.21	0.43	0.85	0.60	0.59	-0.69	-0.35	0.15	0.33	-0.32	-0.37
4 GHz	INTERCEPT (mV)	1891	174	297	412	534	647	773	892	1015	1140	1264	1378	1511	1654	1786	1896	2026
	SLOPE (mV/dB)	24.73	14	13	5	3	-8	-5	-10	-11	-9	-9	-19	-9	10	19	5	-11
	LN. ERR. (dB)	0.75	0.56	0.53	0.19	0.12	-0.31	-0.22	-0.40	-0.43	-0.37	-0.36	-0.75	-0.37	0.41	0.75	0.20	0.46
6 GHz	INTERCEPT (mV)	1877	165	285	398	522	634	754	867	982	1114	1239	1366	1504	1649	1778	1887	2011
	SLOPE (mV/dB)	24.78	22	18	7	7	-5	-8	-19	-28	-20	-19	-16	-2	19	24	10	10
	LN. ERR. (dB)	1.14	0.88	0.73	0.29	0.29	-0.19	-0.34	-0.78	-1.14	-0.81	-0.77	-0.64	-0.07	0.78	0.99	0.39	0.39
8 GHz	INTERCEPT (mV)	1862	163	281	395	518	629	747	858	970	1102	1228	1356	1485	1634	1764	1873	2001
	SLOPE (mV/dB)	24.6	23	18	9	9	-3	-8	-20	-31	-22	-19	-14	-8	18	25	11	16
	LN. ERR. (dB)	1.27	0.93	0.72	0.36	0.36	-0.13	-0.33	-0.82	-1.27	-0.90	-0.78	-0.58	-0.34	0.72	1.00	0.43	0.64
10 GHz	INTERCEPT (mV)	1875	143	246	367	489	600	727	849	962	1095	1223	1360	1503	1649	1775	1879	2003
	SLOPE (mV/dB)	25.23	35	12	7	7	-13	-12	-16	-29	-22	-21	-10	7	27	27	4	2
	LN. ERR. (dB)	1.384	1.38	0.47	0.26	0.10	-0.51	-0.47	-0.64	-1.16	-0.89	-0.82	-0.39	0.28	1.06	1.06	0.18	0.09
12 GHz	INTERCEPT (mV)	1868	158	274	389	512	625	751	866	983	1115	1248	1389	1492	1639	1765	1869	1992
	SLOPE (mV/dB)	24.69	19	11	3	2	-8	-6	-14	-21	-12	-3	-5	-6	18	20	1	1
	LN. ERR. (dB)	0.838	0.75	0.45	0.11	0.09	-0.34	-0.23	-0.58	-0.84	-0.49	-0.11	-0.21	-0.23	0.73	0.83	0.04	0.02
14 GHz	INTERCEPT (mV)	1882	151	263	381	506	621	756	882	1008	1139	1269	1375	1497	1645	1771	1876	2003
	SLOPE (mV/dB)	24.94	15	2	-4	-4	-14	-4	-2	-1	5	10	-8	-11	12	14	-6	-4
	LN. ERR. (dB)	0.6	0.60	0.09	-0.18	-0.17	-0.56	-0.15	-0.09	-0.04	0.21	0.42	-0.33	-0.44	0.49	0.55	-0.25	-0.15
16 GHz	INTERCEPT (mV)	1881	148	259	376	503	618	751	878	1005	1133	1261	1373	1498	1643	1770	1876	2004
	SLOPE (mV/dB)	25	17	3	-5	-5	-13	-5	-3	-1	2	5	-8	-8	12	14	-5	-2
	LN. ERR. (dB)	0.681	0.68	0.12	-0.20	-0.12	-0.52	-0.20	-0.12	-0.04	0.08	0.20	-0.32	-0.32	0.48	0.56	-0.20	-0.08
18 GHz	INTERCEPT (mV)	1865	142	247	367	492	601	724	848	966	1104	1231	1348	1483	1629	1757	1870	2006
	SLOPE (mV/dB)	25.05	30	10	5	5	-12	-14	-15	-22	-10	-8	-16	-6	14	17	5	16
	LN. ERR. (dB)	1.212	1.21	0.40	0.19	0.19	-0.46	-0.55	-0.60	-0.89	-0.38	-0.31	-0.64	-0.25	0.58	0.69	0.20	0.63
Avg. Slope: 24.9 mV/dB																		
Flatness: dB: ±1.9 dB																		







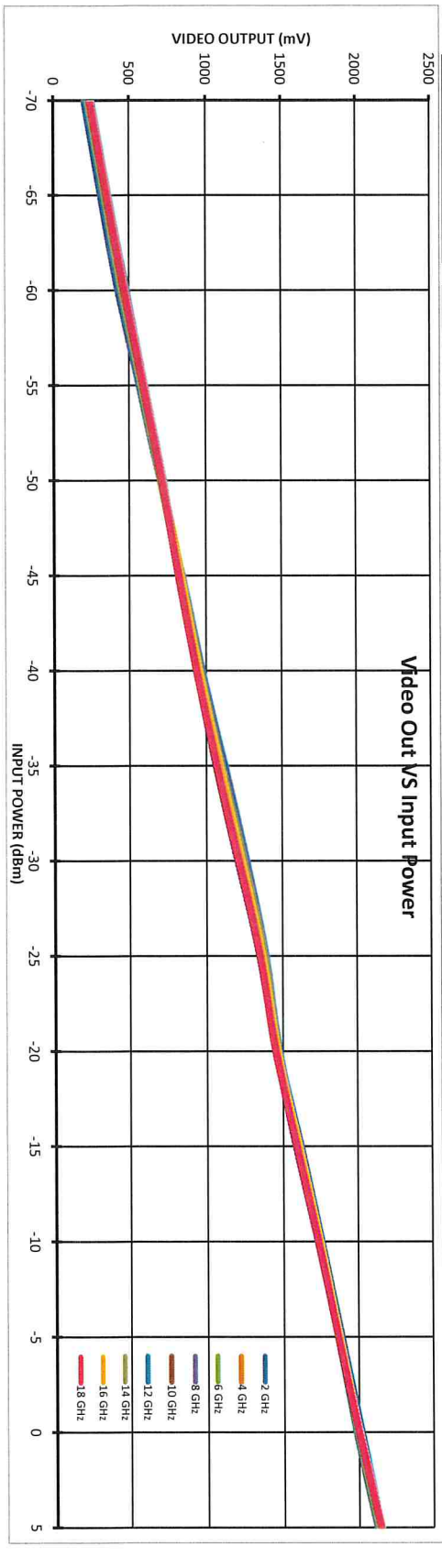


Frequency

Frequency	2 GHz	4 GHz	6 GHz	8 GHz	10 GHz	12 GHz	14 GHz	16 GHz	18 GHz
INTERCEPT (mV)	2028	1999	1989	1968	1986	1981	1996	2003	1987
SLOPE (mV/DB)	26.32	25.46	25.36	24.87	25.32	25.3	25.54	25.54	25.37
LN. ERR. (DB)	1.1	0.889	1.471	1.505	1.452	1.1	0.912	0.949	1.529
Measured Value (mV)	200	240	246	257	247	238	230	239	243
Error (mV)	-8	8	19	17	19	13	5	9	18
LINEARITY ERROR (DB)	-0.30	0.33	0.74	0.69	0.76	0.53	0.19	0.33	0.69
Measured Value (mV)	309	353	359	369	359	350	341	351	356
Error (mV)	-24	-2	8	12	9	-1	-11	9	7
LINEARITY ERROR (DB)	-0.93	-0.08	0.31	0.48	0.34	-0.05	-0.43	-0.20	0.26
Measured Value (mV)	424	470	475	488	475	462	453	465	472
Error (mV)	-15	1	7	11	6	-1	-9	-5	8
LINEARITY ERROR (DB)	-0.57	0.03	0.28	0.42	0.24	-0.03	-0.34	-0.11	0.31
Measured Value (mV)	565	600	601	611	599	589	583	595	600
Error (mV)	-10	1	4	7	6	-2	-10	-3	8
LINEARITY ERROR (DB)	-0.37	0.02	0.17	0.29	0.24	-0.08	-0.40	-0.10	0.04
Measured Value (mV)	702	727	725	732	719	714	709	723	720
Error (mV)	8	-8	-18	-19	-1	-12	-6	-10	-20
LINEARITY ERROR (DB)	0.30	-0.30	-0.73	-0.77	-0.80	-1.07	-0.23	-0.40	-1.25
Measured Value (mV)	851	846	829	830	826	831	841	843	826
Error (mV)	4	-21	-37	-37	-37	-27	-12	-20	-32
LINEARITY ERROR (DB)	0.16	-0.83	-1.47	-1.51	-1.45	-1.36	-0.63	-0.26	-0.45
Measured Value (mV)	979	960	937	936	936	942	963	961	941
Error (mV)	25	-9	-34	-20	-20	-8	16	2	-11
LINEARITY ERROR (DB)	0.93	-0.06	-1.34	-1.40	-1.36	-0.32	0.10	0.06	-0.45
Measured Value (mV)	1131	1234	1208	1202	1206	1214	1246	1238	1215
Error (mV)	29	4	-6	-3	-4	10	23	10	0
LINEARITY ERROR (DB)	1.10	0.16	-0.78	-0.81	-0.79	-0.14	0.91	0.39	-0.01
Measured Value (mV)	1287	1367	1349	1343	1349	1359	1381	1374	1353
Error (mV)	25	-2	-6	-18	-4	-11	-17	-18	-24
LINEARITY ERROR (DB)	0.96	-0.77	-0.22	-0.71	-0.56	-0.44	-0.68	-0.70	-0.95
Measured Value (mV)	1481	1470	1465	1453	1465	1464	1468	1474	1456
Error (mV)	-10	-9	0	-12	2	6	-12	5	-13
LINEARITY ERROR (DB)	-0.38	-0.37	-0.01	-0.49	0.09	0.24	-0.47	0.07	-0.51
Measured Value (mV)	1623	1608	1608	1583	1608	1596	1601	1615	1594
Error (mV)	-9	6	8	6	11	12	1	2	-1
LINEARITY ERROR (DB)	-0.32	0.24	0.31	0.22	0.42	0.46	-0.03	0.20	-0.03
Measured Value (mV)	1756	1878	1743	1725	1743	1734	1740	1749	1733
Error (mV)	-4	9	14	14	16	12	2	5	5
LINEARITY ERROR (DB)	-0.16	0.34	0.56	0.57	0.63	0.53	0.06	0.21	0.22
Measured Value (mV)	1892	2008	1876	1858	1875	1866	1870	1880	1866
Error (mV)	14	26	14	14	16	16	11	17	17
LINEARITY ERROR (DB)	0.56	1.01	0.31	0.56	0.57	0.56	0.45	0.66	0.66
Measured Value (mV)	2003	2141	2003	1982	1997	1985	1993	2008	2004
Error (mV)	14	26	14	14	16	16	11	17	17
LINEARITY ERROR (DB)	0.56	1.01	0.31	0.56	0.57	0.56	0.45	0.66	0.66
Measured Value (mV)	2141	2147	2141	2127	2134	2123	2135	2144	2153
Error (mV)	6	7	6	5	7	6	4	5	8
LINEARITY ERROR (DB)	0.24	0.81	0.31	0.22	0.42	0.46	0.16	0.53	1.53

Avg. Slope: 25.5 mV/DB

Flatness dB: ±1.3 dB





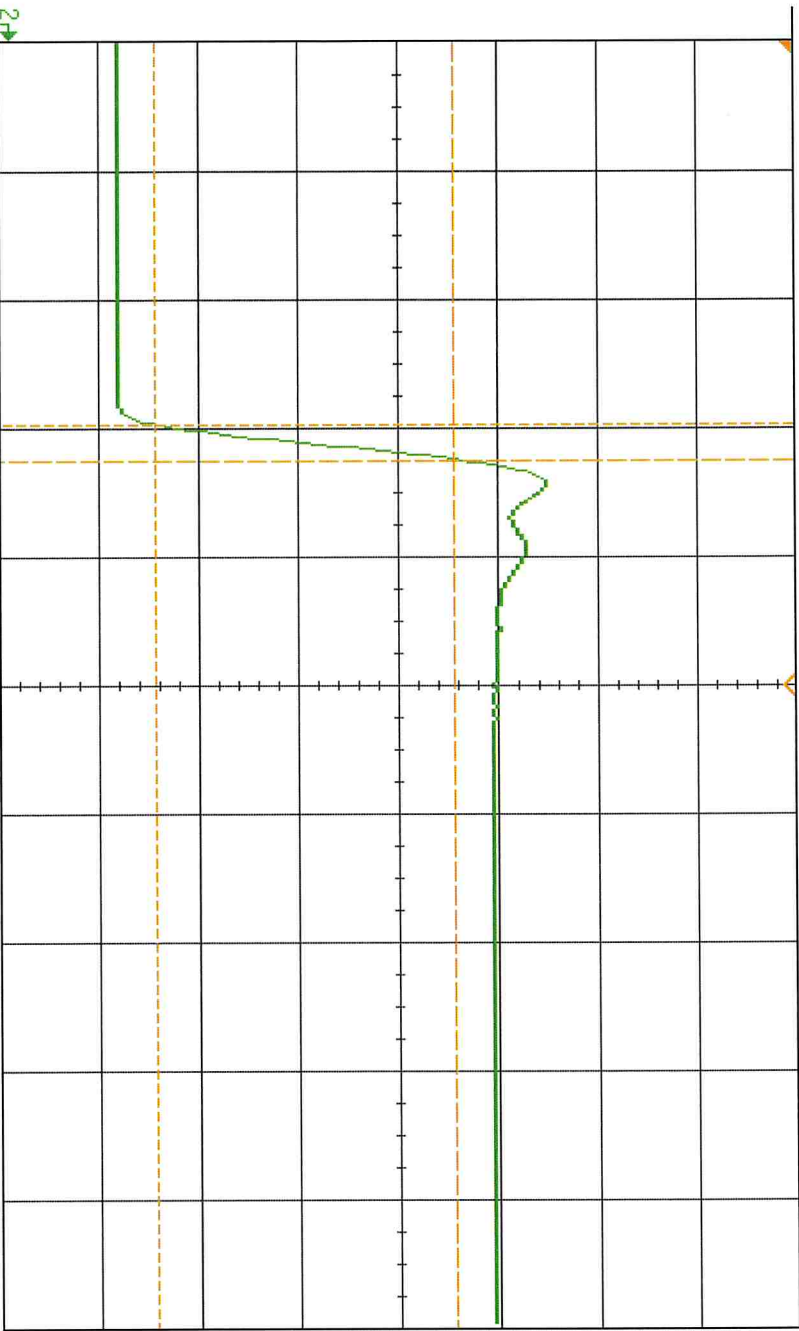


PL43768

Rise Time

DSO-X-3034A, MW52394003: Mon Feb 05 15:30:44 2024

1 2 400% / 3 4 3.900µs 20.00%/ Auto f 4 2.35V



Measurement Menu

Source 2

Type: Rise

Add Measurement

Settings

Clear Meas

Statistics

**KEYSIGHT**  
TECHNOLOGIES

Acquisition ::  
Averaging: 1B  
4.00GSa/s

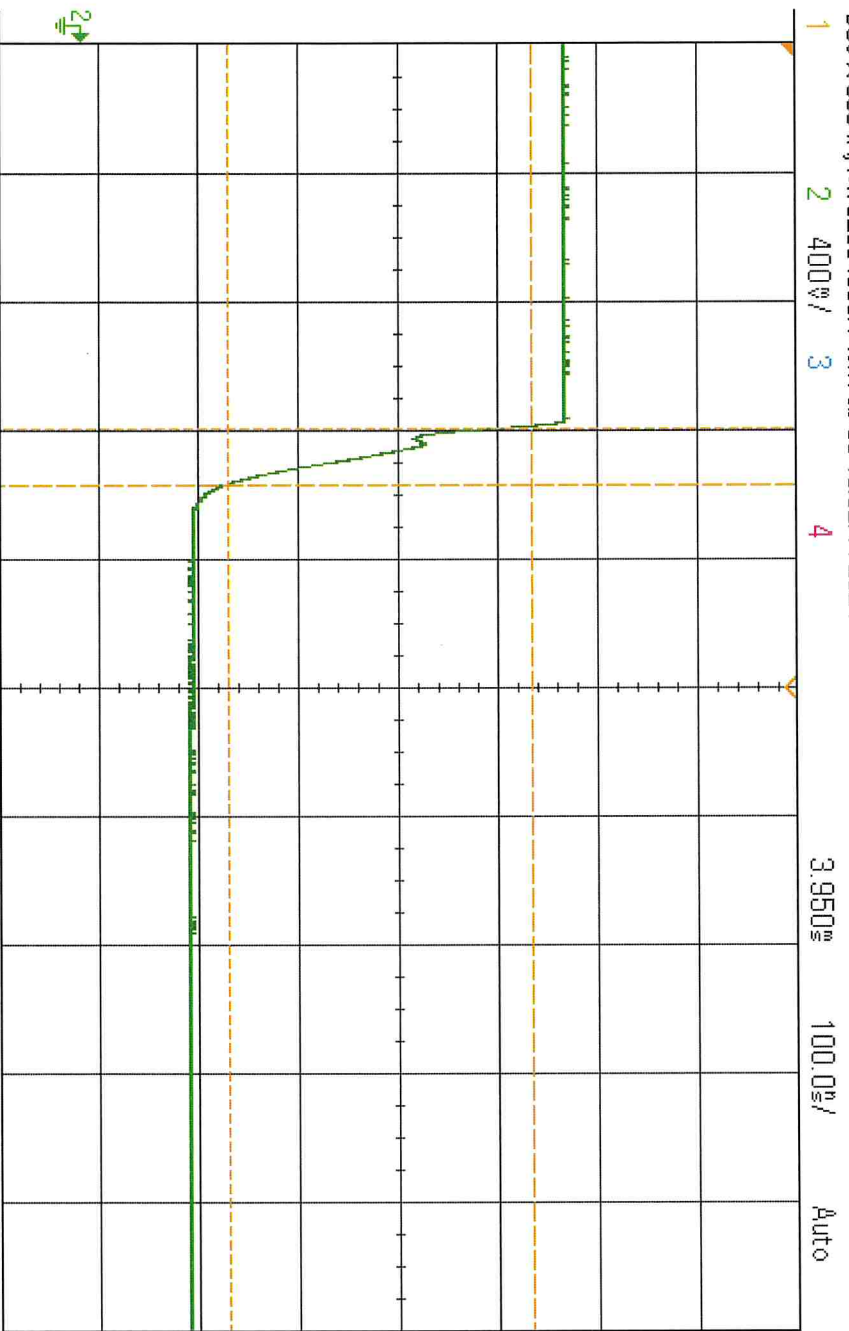
Channels ::  
DC 1.00:1  
DC 1.00:1  
DC 1.00:1  
DC 1.00:1

Measurements ::  
Fall(2): No edges  
Rise(2): 5.8ns

PL43760

Recovery

DSO-X 3034A, MW52394003, Mon Feb 05 15:32:44 2024



Acquisition

Averaging: 16  
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]: 44.5ns

Measurement Menu

Source 2

Type: Fall

Add Measurement

Settings

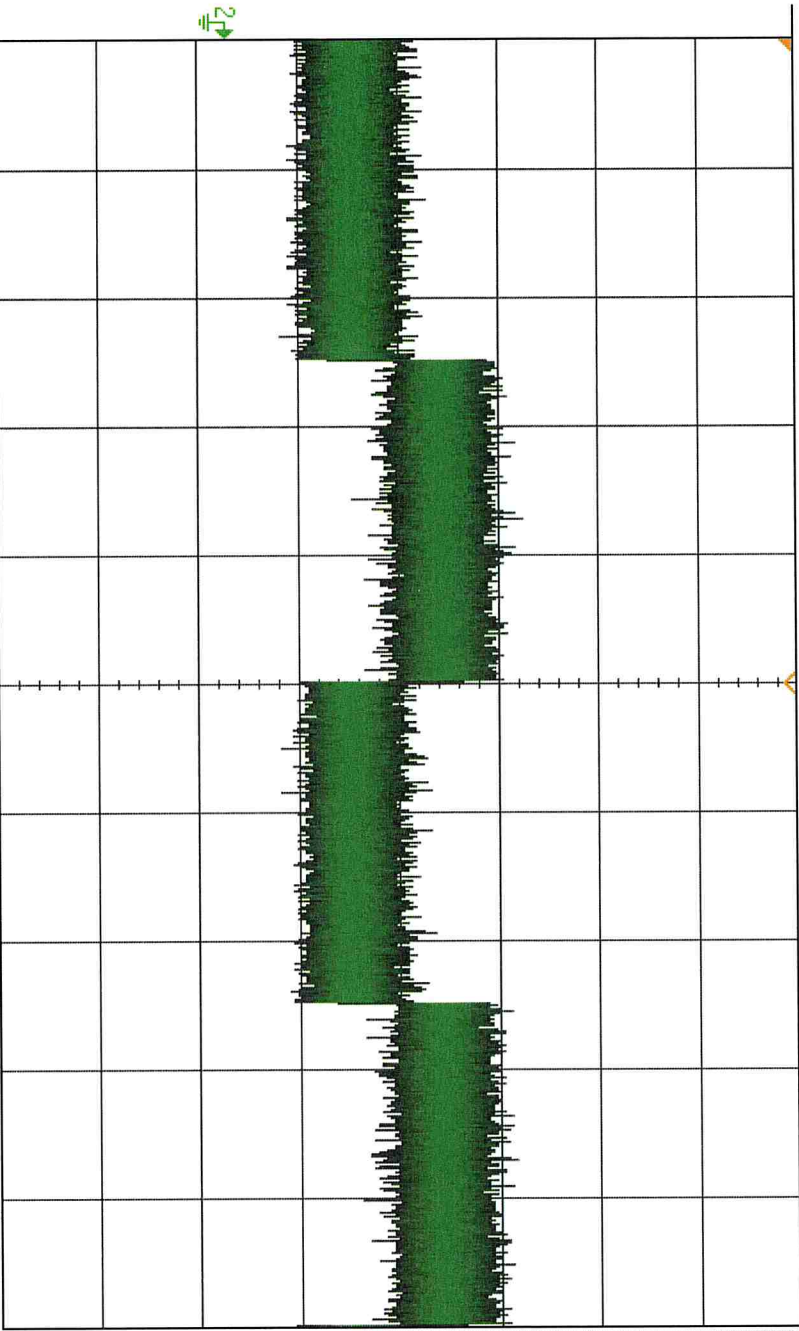
Clear Meas

Statistics

PL43760  
TSS -71

DSO-X 3034A, MW52394003, Mon Feb 05 15:34:01 2024

1 2 100%/ 3 4 3.950µs 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.