


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

CUSTOMER: _____
SO: _____
MODEL NO: SDLVA-6G18G-CD-2-OPT218
SERIAL NO: PL44287/2406

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 PMI QA3
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	14.0/13.1 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)	1.07/-1.20 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	

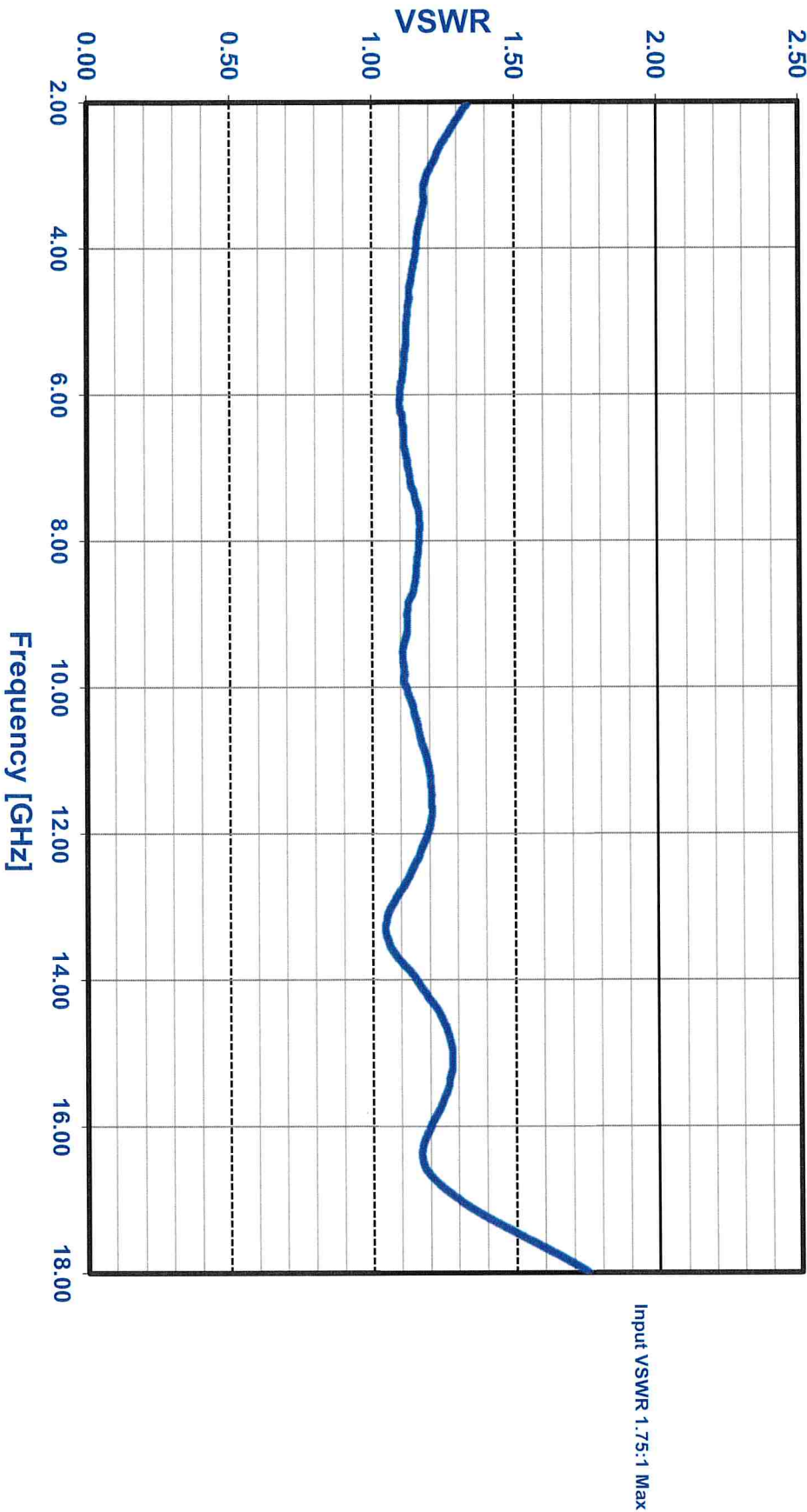
QA/QC Approval: 

Date: 2-8-24

Model Number: SDLVA-6G18G-CD-2 OPT218
Serial Number: PL44287
Date: 2/6/2024

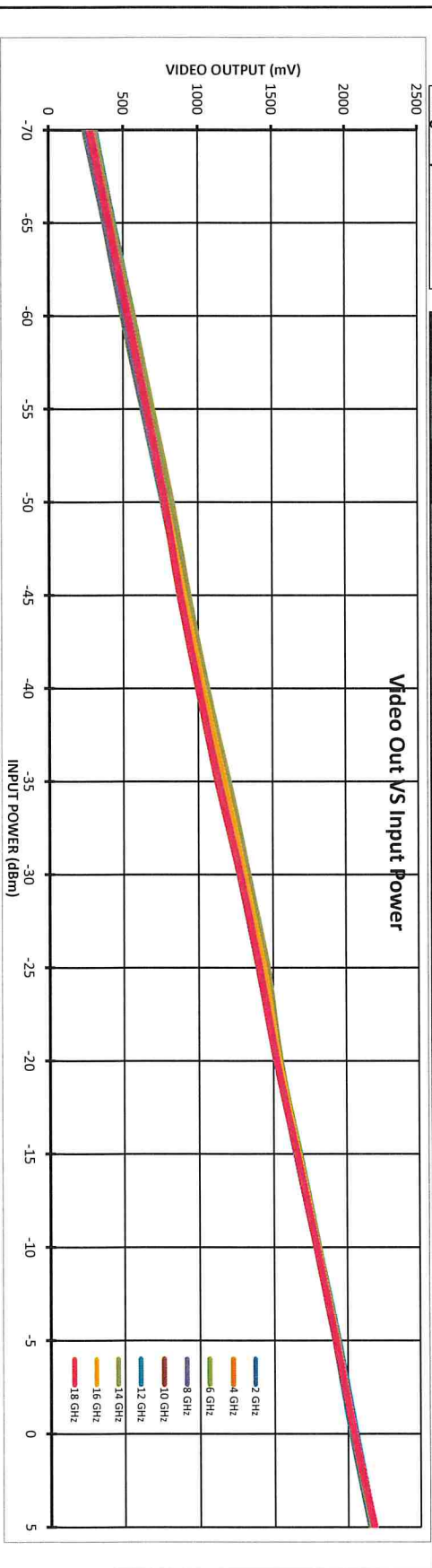
Temperature: +25C

VSWR GRAPH





Frequency	-70	-65	-60	-55	-50	-45	-40	-35	-30	-25	-20	-15	-10	-5	0	5		
2 GHz	INTERCEPT (mV)	2064	238	422	552	675	801	914	1042	1184	1318	1450	1549	1684	1811	1941	2060	2187
	SLOPE (mV/dB)	25.25	2	0	3	0	0	-13	-12	4	12	18	-10	-1	0	4	-4	-3
	LN. ERR. (dB)	0.7	0.07	-0.02	0.13	0.00	-0.01	-0.53	-0.46	0.16	0.47	0.70	-0.38	-0.03	0.00	0.14	-0.14	-0.11
4 GHz	INTERCEPT (mV)	2056	264	396	522	650	783	910	1037	1170	1303	1432	1539	1671	1800	1929	2046	2180
	SLOPE (mV/dB)	25.5	-27	-2	-4	-3	2	2	1	7	12	14	-7	-2	-1	1	-10	-3
	LN. ERR. (dB)	0.54	-0.27	-0.09	-0.15	-0.13	0.09	0.07	0.05	0.26	0.48	0.54	-0.26	-0.09	-0.03	0.03	-0.38	-0.13
6 GHz	INTERCEPT (mV)	2052	244	375	496	628	761	886	1013	1139	1278	1414	1535	1673	1801	1928	2044	2174
	SLOPE (mV/dB)	25.86	2	4	-5	-2	2	-3	-5	-8	2	8	0	9	7	5	-8	-8
	LN. ERR. (dB)	0.333	0.08	0.14	-0.18	-0.08	0.07	-0.10	-0.19	-0.32	0.06	0.32	0.00	0.33	0.28	0.19	-0.32	-0.29
8 GHz	INTERCEPT (mV)	2033	253	383	506	634	765	884	1007	1132	1267	1400	1522	1652	1786	1913	2027	2163
	SLOPE (mV/dB)	25.46	2	5	0	1	5	-4	-8	-10	-3	3	-2	0	7	7	-6	2
	LN. ERR. (dB)	0.401	0.08	0.19	0.02	0.04	0.19	-0.14	-0.31	-0.40	-0.10	0.12	-0.09	0.02	0.28	0.27	-0.25	0.09
10 GHz	INTERCEPT (mV)	2045	271	399	525	650	779	888	1010	1134	1272	1409	1537	1676	1803	1929	2041	2170
	SLOPE (mV/dB)	25.44	7	8	6	4	6	-12	-17	-21	-10	0	1	12	12	11	-4	-2
	LN. ERR. (dB)	0.814	0.27	0.30	0.25	0.16	0.23	-0.48	-0.69	-0.81	-0.39	-0.01	0.02	0.49	0.48	0.43	-0.17	-0.10
12 GHz	INTERCEPT (mV)	2036	309	432	563	689	814	910	1031	1160	1296	1436	1539	1664	1794	1919	2030	2161
	SLOPE (mV/dB)	24.67	0	-1	7	10	11	-16	-18	-13	0	17	-4	-2	5	7	-6	2
	LN. ERR. (dB)	0.738	-0.01	-0.02	0.29	0.40	0.46	-0.64	-0.74	-0.51	0.01	0.68	-0.14	-0.07	0.20	0.26	-0.24	0.08
14 GHz	INTERCEPT (mV)	2054	303	427	560	690	820	933	1056	1195	1330	1459	1547	1675	1804	1928	2042	2174
	SLOPE (mV/dB)	24.86	-11	-11	-3	3	9	-3	-4	11	21	26	-10	-7	-2	-2	-12	-5
	LN. ERR. (dB)	1.049	-0.45	-0.46	-0.11	0.12	0.35	-0.11	-0.16	0.43	0.86	1.05	-0.41	-0.26	-0.07	-0.09	-0.50	-0.19
16 GHz	INTERCEPT (mV)	2055	273	401	527	657	788	909	1040	1176	1309	1442	1543	1675	1802	1927	2043	2173
	SLOPE (mV/dB)	25.37	-6	-5	-6	-2	2	-4	0	9	15	21	-4	1	1	-1	-12	-9
	LN. ERR. (dB)	0.843	-0.23	-0.18	-0.22	-0.10	0.07	-0.16	0.00	0.36	0.60	0.84	-0.18	0.03	0.03	-0.04	-0.47	-0.35
18 GHz	INTERCEPT (mV)	2040	280	406	533	658	777	879	1005	1131	1275	1407	1522	1662	1793	1921	2044	2184
	SLOPE (mV/dB)	25.32	12	12	12	10	3	-22	-22	-23	-8	0	-12	2	6	7	4	17
	LN. ERR. (dB)	0.909	0.49	0.46	0.48	0.41	0.11	-0.86	-0.88	-0.91	-0.22	-0.01	-0.47	0.06	0.23	0.29	0.15	0.67
Avg. Slope: 25.3 mV/dB																		
Flatness: dB: ±1.3 dB																		





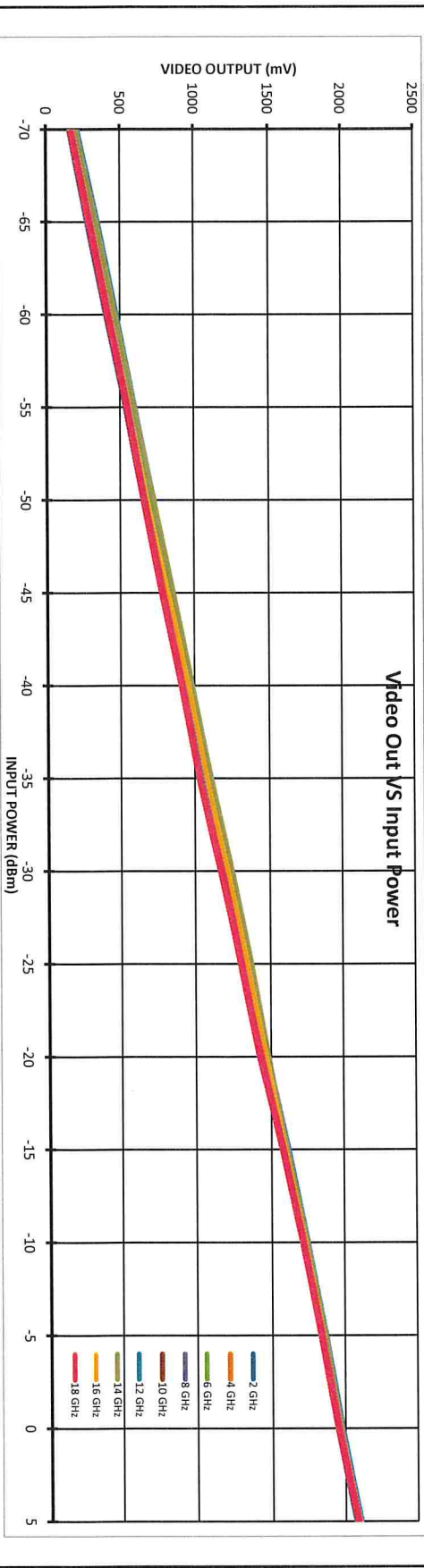
Frequency

Frequency	2 GHz	4 GHz	6 GHz	8 GHz	10 GHz	12 GHz	14 GHz	16 GHz	18 GHz
INTERCEPT (mV)	1993	1985	1981	1964	1974	1967	1984	1978	1958
SLOPE (mV/dB)	25.38	25.73	26.15	25.91	25.95	25.03	25.29	25.71	25.72
LN. ERR. (dB)	0.5	0.535	0.745	0.705	0.983	0.618	0.739	0.801	0.778
Measured Value (mV)	210	177	156	158	166	206	197	172	169
Error (mV)	-7	-7	-1	1	8	5	-4	-3	11
LINEARITY ERROR (dB)	0.26	0.02	-0.22	0.04	0.30	0.21	-0.17	-0.11	0.43
Measured Value (mV)	349	313	280	281	295	345	336	304	298
Error (mV)	5	1	-1	-1	8	4	-4	-3	12
LINEARITY ERROR (dB)	0.06	-0.16	-0.18	-0.06	0.08	0.17	-0.23	-0.33	0.45
Measured Value (mV)	472	437	407	408	419	469	461	427	422
Error (mV)	2	-4	-5	-1	2	4	-6	-8	7
LINEARITY ERROR (dB)	-0.09	-0.31	-0.10	0.00	0.13	0.20	-0.05	-0.16	0.27
Measured Value (mV)	595	567	540	539	550	595	592	560	552
Error (mV)	-2	-3	-3	0	3	5	-1	-4	8
LINEARITY ERROR (dB)	-0.24	-0.29	-0.35	-0.29	-0.21	0.35	0.09	-0.30	-0.32
Measured Value (mV)	718	691	664	661	671	724	722	685	667
Error (mV)	-6	-7	-9	-8	-5	9	2	-8	-5
LINEARITY ERROR (dB)	-0.32	0.08	-0.04	-0.04	-0.16	-0.21	0.19	-0.01	-0.50
Measured Value (mV)	843	829	803	797	802	835	851	821	788
Error (mV)	-1	2	-1	-1	-4	-5	5	0	-13
LINEARITY ERROR (dB)	-0.04	0.36	0.16	0.02	-0.34	-0.38	0.29	0.40	-0.52
Measured Value (mV)	977	965	939	928	927	956	980	960	916
Error (mV)	5	9	4	0	-9	-15	7	10	-13
LINEARITY ERROR (dB)	0.20	0.22	-0.17	-0.27	-0.68	-0.59	0.31	0.30	-0.78
Measured Value (mV)	1110	1090	1061	1050	1048	1076	1107	1086	1038
Error (mV)	7	6	1	-7	-18	-4	8	8	-20
LINEARITY ERROR (dB)	0.29	0.31	0.03	-0.27	-0.48	-0.15	0.53	0.48	-0.30
Measured Value (mV)	1239	1221	1197	1184	1183	1212	1239	1219	1179
Error (mV)	9	5	1	-3	-12	-4	13	12	-8
LINEARITY ERROR (dB)	0.37	0.21	-0.04	-0.10	-0.55	0.20	0.63	0.49	-0.36
Measured Value (mV)	1368	1347	1326	1309	1311	1346	1368	1348	1306
Error (mV)	1	5	-1	-7	-14	5	16	13	-9
LINEARITY ERROR (dB)	0.18	0.16	0.05	-0.28	-0.55	0.11	-0.06	0.12	-0.46
Measured Value (mV)	1481	1467	1459	1444	1455	1469	1477	1467	1432
Error (mV)	-5	-3	1	-2	0	3	-1	3	-12
LINEARITY ERROR (dB)	-0.18	0.16	0.05	-0.07	0.00	0.11	0.04	0.12	-0.46
Measured Value (mV)	1620	1603	1604	1584	1605	1596	1606	1598	1582
Error (mV)	8	4	16	9	20	5	9	6	10
LINEARITY ERROR (dB)	0.30	0.33	0.59	0.34	0.78	0.19	0.04	0.22	0.37
Measured Value (mV)	1749	1736	1737	1723	1740	1732	1740	1732	1718
Error (mV)	10	9	18	18	26	15	9	11	14
LINEARITY ERROR (dB)	0.38	0.33	0.68	0.70	0.98	0.62	0.34	0.43	0.66
Measured Value (mV)	1873	1863	1861	1848	1863	1854	1862	1855	1844
Error (mV)	7	7	11	14	19	12	4	5	14
LINEARITY ERROR (dB)	0.27	0.27	0.42	0.53	0.72	0.49	0.17	0.21	0.56
Measured Value (mV)	1982	1971	1968	1954	1966	1956	1967	1960	1956
Error (mV)	-11	-14	-13	-10	-8	-11	-17	-18	-2
LINEARITY ERROR (dB)	-0.44	-0.53	-0.49	-0.38	-0.31	-0.43	-0.68	-0.70	-0.08
Measured Value (mV)	2107	2101	2092	2082	2088	2081	2092	2086	2090
Error (mV)	-13	-12	-19	-11	-16	-11	-19	-21	3
LINEARITY ERROR (dB)	-0.51	-0.48	-0.74	-0.44	-0.61	-0.44	-0.74	-0.80	0.13

Avg. Slope: 25.7 mV/dB

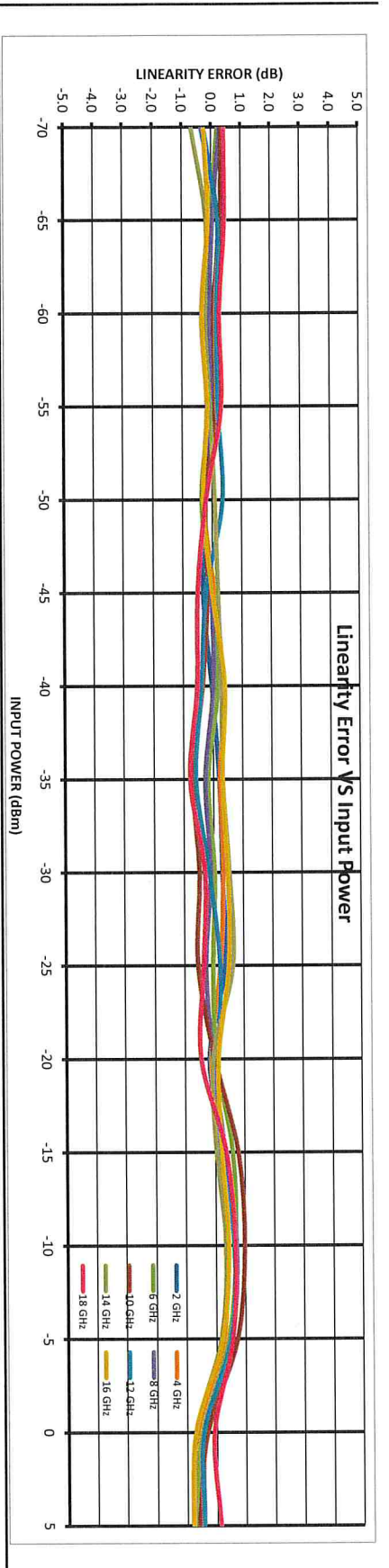
RF Input Power (dBm): -70, -65, -60, -55, -50, -45, -40, -35, -30, -25, -20, -15, -10, -5, 0, 5

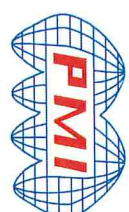
Flatness: ±1.4 dB



PL44287

85°C



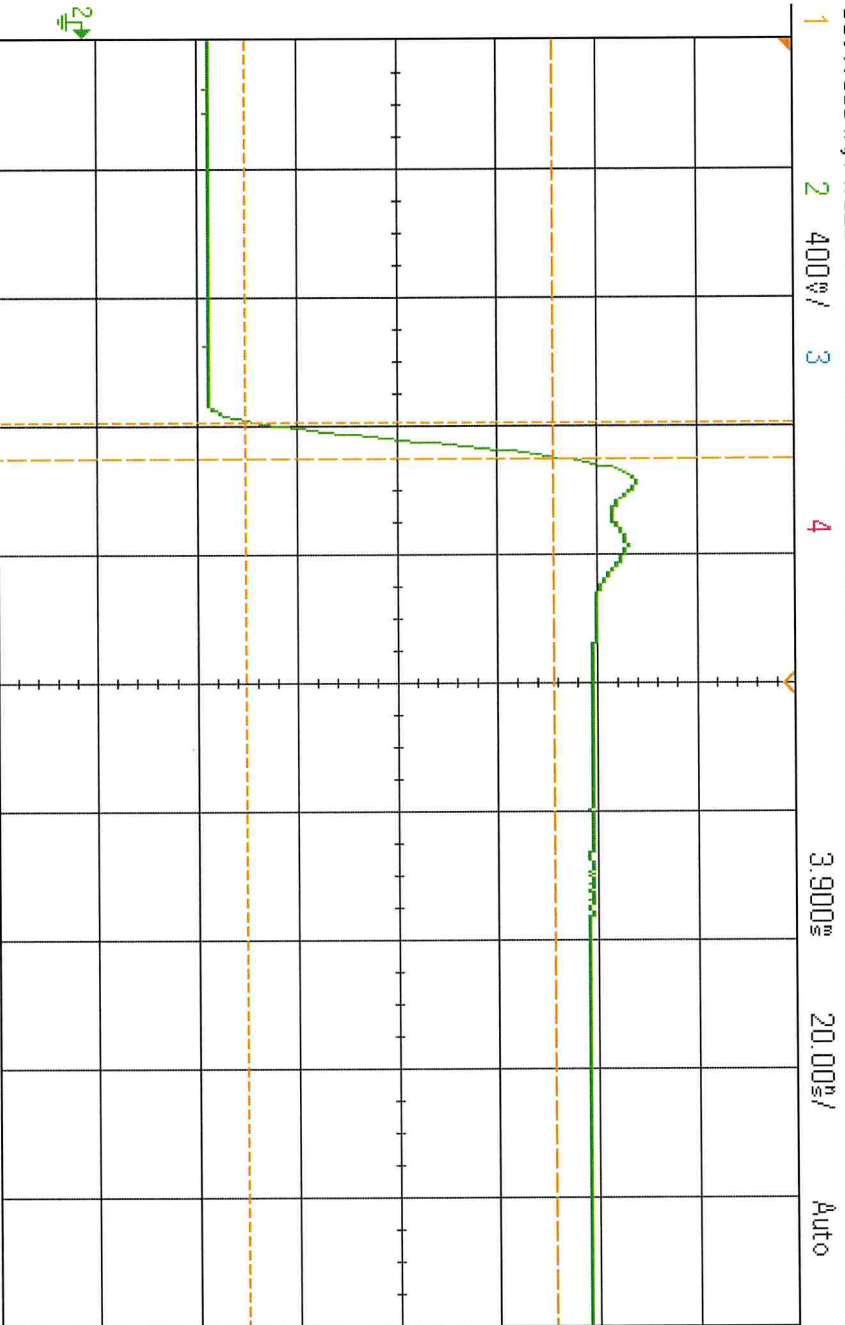


Frequency

Frequency	2 GHz	4 GHz	6 GHz	8 GHz	10 GHz	12 GHz	14 GHz	16 GHz	18 GHz	RF Input Power (dbm)
-70	299	414	260	-1	306	307	294	257	270	1
-65	435	548	400	6	437	437	428	397	408	0.8
-60	572	682	529	7	572	573	565	525	539	0.9
-55	704	820	664	9	700	706	701	664	672	0.8
-50	832	943	802	10	824	834	835	801	796	0.7
-45	943	1072	916	-8	920	931	947	922	896	1
-40	1072	1211	1043	-14	1044	1054	1075	1056	1021	1
-35	1221	1351	1175	-14	1176	1188	1217	1194	1150	1.4
-30	1365	1483	1321	-1	1321	1332	1364	1337	1301	1.2
-25	1501	1584	1465	11	1467	1479	1499	1478	1444	1.1
-20	1593	1735	1582	-5	1586	1582	1588	1588	1564	0.6
-15	1735	1853	1727	8	1730	1716	1725	1732	1709	0.6
-10	1864	1985	1855	4	1857	1846	1855	1859	1843	0.5
-5	1997	2116	1985	1	1986	1976	1983	1987	1974	0.5
0	2132	2253	2115	-1	2112	2098	2110	2117	2113	0.7
5	2260	2253	2248	-1	2243	2234	2247	2248	2257	0.5
	299	414	260	-1	306	307	294	257	270	
	INTERCEPT (mV)	INTERCEPT (mV)	INTERCEPT (mV)	INTERCEPT (mV)	INTERCEPT (mV)	INTERCEPT (mV)	INTERCEPT (mV)	INTERCEPT (mV)	INTERCEPT (mV)	
	SLOPE (mV/dB)	SLOPE (mV/dB)	SLOPE (mV/dB)	SLOPE (mV/dB)	SLOPE (mV/dB)	SLOPE (mV/dB)	SLOPE (mV/dB)	SLOPE (mV/dB)	SLOPE (mV/dB)	
	26.06	26.19	26.49	25.99	25.85	25.6	25.88	26.56	26.31	
	LN. ERR. (dB)	LN. ERR. (dB)	LN. ERR. (dB)	LN. ERR. (dB)	LN. ERR. (dB)	LN. ERR. (dB)	LN. ERR. (dB)	LN. ERR. (dB)	LN. ERR. (dB)	
	0.9	0.654	0.536	0.609	1.149	0.872	1.075	0.702	1.199	
	299	414	260	-1	306	307	294	257	270	
	435	548	400	6	437	437	428	397	408	
	572	682	529	7	572	573	565	525	539	
	704	820	664	9	700	706	701	664	672	
	832	943	802	10	824	834	835	801	796	
	943	1072	916	-8	920	931	947	922	896	
	1072	1211	1043	-14	1044	1054	1075	1056	1021	
	1221	1351	1175	-14	1176	1188	1217	1194	1150	
	1365	1483	1321	-1	1321	1332	1364	1337	1301	
	1501	1584	1465	11	1467	1479	1499	1478	1444	
	1593	1735	1582	-5	1586	1582	1588	1588	1564	
	1735	1853	1727	8	1730	1716	1725	1732	1709	
	1864	1985	1855	4	1857	1846	1855	1859	1843	
	1997	2116	1985	1	1986	1976	1983	1987	1974	
	2132	2253	2115	-1	2112	2098	2110	2117	2113	
	2260	2253	2248	-1	2243	2234	2247	2248	2257	
	INTERCEPT (mV)	INTERCEPT (mV)	INTERCEPT (mV)	INTERCEPT (mV)	INTERCEPT (mV)	INTERCEPT (mV)	INTERCEPT (mV)	INTERCEPT (mV)	INTERCEPT (mV)	
	SLOPE (mV/dB)	SLOPE (mV/dB)	SLOPE (mV/dB)	SLOPE (mV/dB)	SLOPE (mV/dB)	SLOPE (mV/dB)	SLOPE (mV/dB)	SLOPE (mV/dB)	SLOPE (mV/dB)	
	26.06	26.19	26.49	25.99	25.85	25.6	25.88	26.56	26.31	
	LN. ERR. (dB)	LN. ERR. (dB)	LN. ERR. (dB)	LN. ERR. (dB)	LN. ERR. (dB)	LN. ERR. (dB)	LN. ERR. (dB)	LN. ERR. (dB)	LN. ERR. (dB)	
	0.9	0.654	0.536	0.609	1.149	0.872	1.075	0.702	1.199	
	299	414	260	-1	306	307	294	257	270	
	435	548	400	6	437	437	428	397	408	
	572	682	529	7	572	573	565	525	539	
	704	820	664	9	700	706	701	664	672	
	832	943	802	10	824	834	835	801	796	
	943	1072	916	-8	920	931	947	922	896	
	1072	1211	1043	-14	1044	1054	1075	1056	1021	
	1221	1351	1175	-14	1176	1188	1217	1194	1150	
	1365	1483	1321	-1	1321	1332	1364	1337	1301	
	1501	1584	1465	11	1467	1479	1499	1478	1444	
	1593	1735	1582	-5	1586	1582	1588	1588	1564	
	1735	1853	1727	8	1730	1716	1725	1732	1709	
	1864	1985	1855	4	1857	1846	1855	1859	1843	
	1997	2116	1985	1	1986	1976	1983	1987	1974	
	2132	2253	2115	-1	2112	2098	2110	2117	2113	
	2260	2253	2248	-1	2243	2234	2247	2248	2257	
	INTERCEPT (mV)	INTERCEPT (mV)	INTERCEPT (mV)	INTERCEPT (mV)	INTERCEPT (mV)	INTERCEPT (mV)	INTERCEPT (mV)	INTERCEPT (mV)	INTERCEPT (mV)	
	SLOPE (mV/dB)	SLOPE (mV/dB)	SLOPE (mV/dB)	SLOPE (mV/dB)	SLOPE (mV/dB)	SLOPE (mV/dB)	SLOPE (mV/dB)	SLOPE (mV/dB)	SLOPE (mV/dB)	
	26.06	26.19	26.49	25.99	25.85	25.6	25.88	26.56	26.31	
	LN. ERR. (dB)	LN. ERR. (dB)	LN. ERR. (dB)	LN. ERR. (dB)	LN. ERR. (dB)	LN. ERR. (dB)	LN. ERR. (dB)	LN. ERR. (dB)	LN. ERR. (dB)	
	0.9	0.654	0.536	0.609	1.149	0.872	1.075	0.702	1.199	
	299	414	260	-1	306	307	294	257	270	
	435	548	400	6	437	437	428	397	408	
	572	682	529	7	572	573	565	525	539	
	704	820	664	9	700	706	701	664	672	
	832	943	802	10	824	834	835	801	796	
	943	1072	916	-8	920	931	947	922	896	
	1072	1211	1043	-14	1044	1054	1075	1056	1021	
	1221	1351	1175	-14	1176	1188	1217	1194	1150	
	1365	1483	1321	-1	1321	1332	1364	1337	1301	
	1501	1584	1465	11	1467	1479	1499	1478	1444	
	1593	1735	1582	-5	1586	1582	1588	1588	1564	
	1735	1853	1727	8	1730	1716	1725	1732	1709	
	1864	1985	1855	4	1857	1846	1855	1859	1843	
	1997	2116	1985	1	1986	1976	1983	1987	1974	
	2132	2253	2115	-1	2112	2098	2110	2117	2113	
	2260	2253	2248	-1	2243	2234	2247	2248	2257	
	INTERCEPT (mV)	INTERCEPT (mV)	INTERCEPT (mV)	INTERCEPT (mV)	INTERCEPT (mV)	INTERCEPT (mV)	INTERCEPT (mV)	INTERCEPT (mV)	INTERCEPT (mV)	
	SLOPE (mV/dB)	SLOPE (mV/dB)	SLOPE (mV/dB)	SLOPE (mV/dB)	SLOPE (mV/dB)	SLOPE (mV/dB)	SLOPE (mV/dB)	SLOPE (mV/dB)	SLOPE (mV/dB)	
	26.06	26.19	26.49	25.99	25.85	25.6	25.88	26.56	26.31	
	LN. ERR. (dB)	LN. ERR. (dB)	LN. ERR. (dB)	LN. ERR. (dB)	LN. ERR. (dB)	LN. ERR. (dB)	LN. ERR. (dB)	LN. ERR. (dB)	LN. ERR. (dB)	
	0.9	0.654	0.536	0.609	1.149	0.872	1.075	0.702	1.199	
	299	414	260	-1	306	307	294	257	270	
	435	548	400	6	437	437	428	397	408	
	572	682	529	7	572	573	565	525	539	
	704	820	664	9	700	706	701	664	672	
	832	943	802	10	824	834	835	801	796	
	943	1072	916	-8	920	931	947	922	896	
	1072	1211	1043	-14	1044	1054	1075	1056	1021	
	1221	1351	1175	-14	1176	1188	1217	1194	1150	
	1365	1483	1321	-1	1321	1332	1364	1337	1301	
	1501	1584	1465	11	1467	1479	1499	1478	1444	
	1593	1735	1582	-5	1586	1582	1588	1588	1564	
	1735	1853	1727	8	1730	1716	1725	1732	1709	
	1864	1985	1855	4	1857	1846	1855	1859	1843	
	1997	2116	1985	1	1986	1976	1983	1987	1974	
	2132	2253	2115	-1	2112	2098	2110	2117	2113	
	2260	2253	2248	-1	2243	2234	2247	2248	2257	
	INTERCEPT (mV)	INTERCEPT (mV)	INTERCEPT (mV)	INTERCEPT (mV)	INTERCEPT (mV)	INTERCEPT (mV)	INTERCEPT (mV)	INTERCEPT (mV)	INTERCEPT (mV)	
	SLOPE (mV/dB)	SLOPE (mV/dB)	SLOPE (mV/dB)	SLOPE (mV/dB)	SLOPE (mV/dB)	SLOPE (mV/dB)	SLOPE (mV/dB)	SLOPE (mV/dB)	SLOPE (mV/dB)	
	26.06	26.19	26.49	25.99	25.85	25.6	25.88	26.56	26.31	
	LN. ERR. (dB)	LN. ERR. (dB)	LN. ERR. (dB)	LN. ERR. (dB)	LN. ERR. (dB)	LN. ERR. (dB)	LN. ERR. (dB)	LN. ERR. (dB)	LN. ERR. (dB)	
	0.9	0.654	0.536	0.609	1.149	0.872	1.075	0.702	1.199	
	299	414	260	-1	306	307	294	257	270	
	435	548	400	6	437	437	428	397	408	
	572	682	529	7	572	573	565	525	539	
	704	820	664	9	700	706	701	664	672	
	832	943	802	10	824	834	835	801	796	
	943	1072	916	-8	920	931	947	922	896	
	1072	1211	1043	-14	1044	1054	1075	1056	1021	
	1221	1351	1175	-14						

PL44287
Rise Time

DSO-X 3034A, MW52394003: Mon Feb 05 15:03:04 2024



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

Fall(2): No edges

Rise(2): 5.8ns

Trigger Menu

Trigger Type Edge

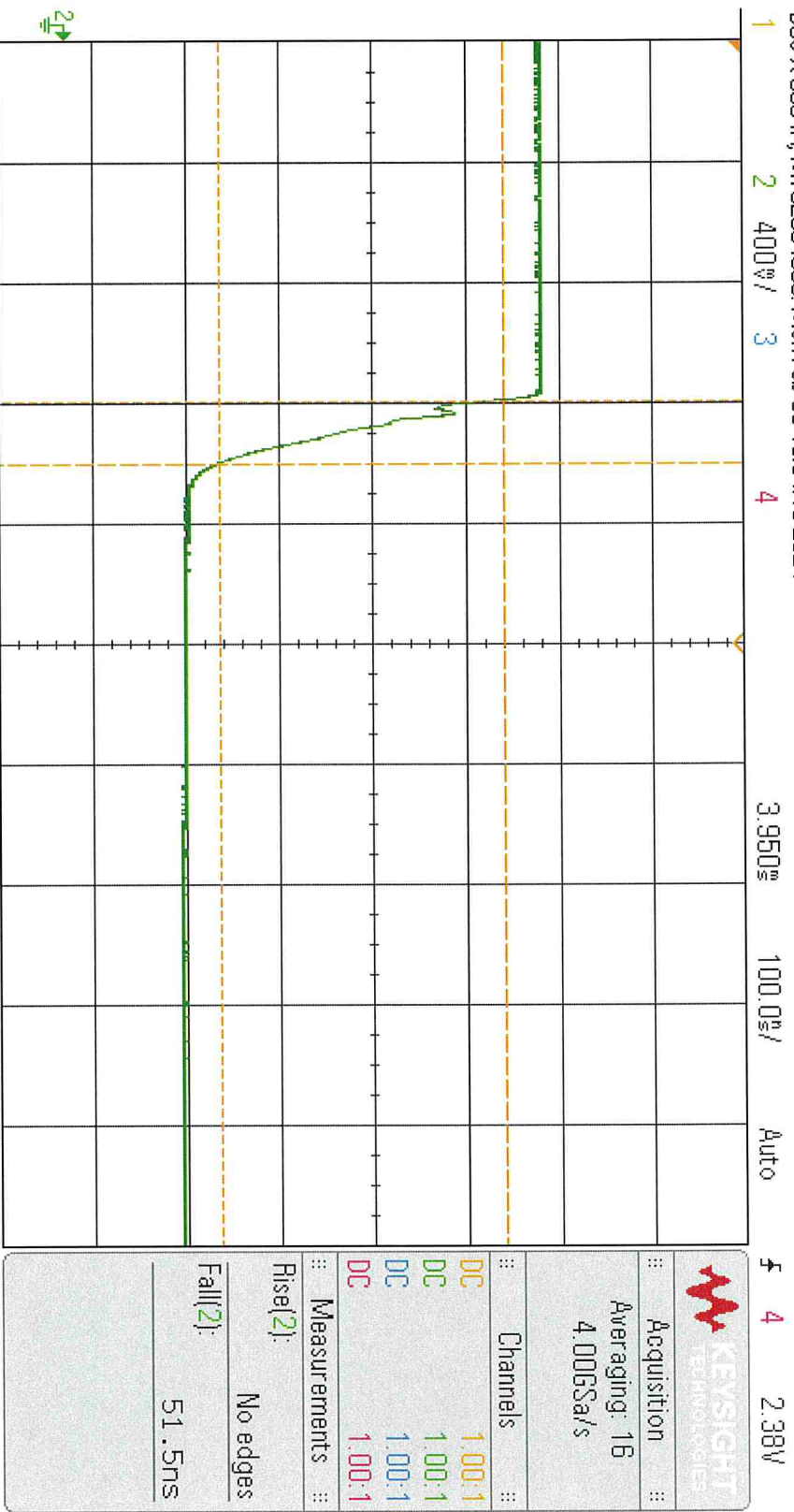
Source 4

Slope f

PL 44287

Recovery

DSO-X 3034A, MW52394003, Mon Feb 05 15:04:15 2024



Measurement Menu

Source 2

Type: Fall

Add Measurement

Settings

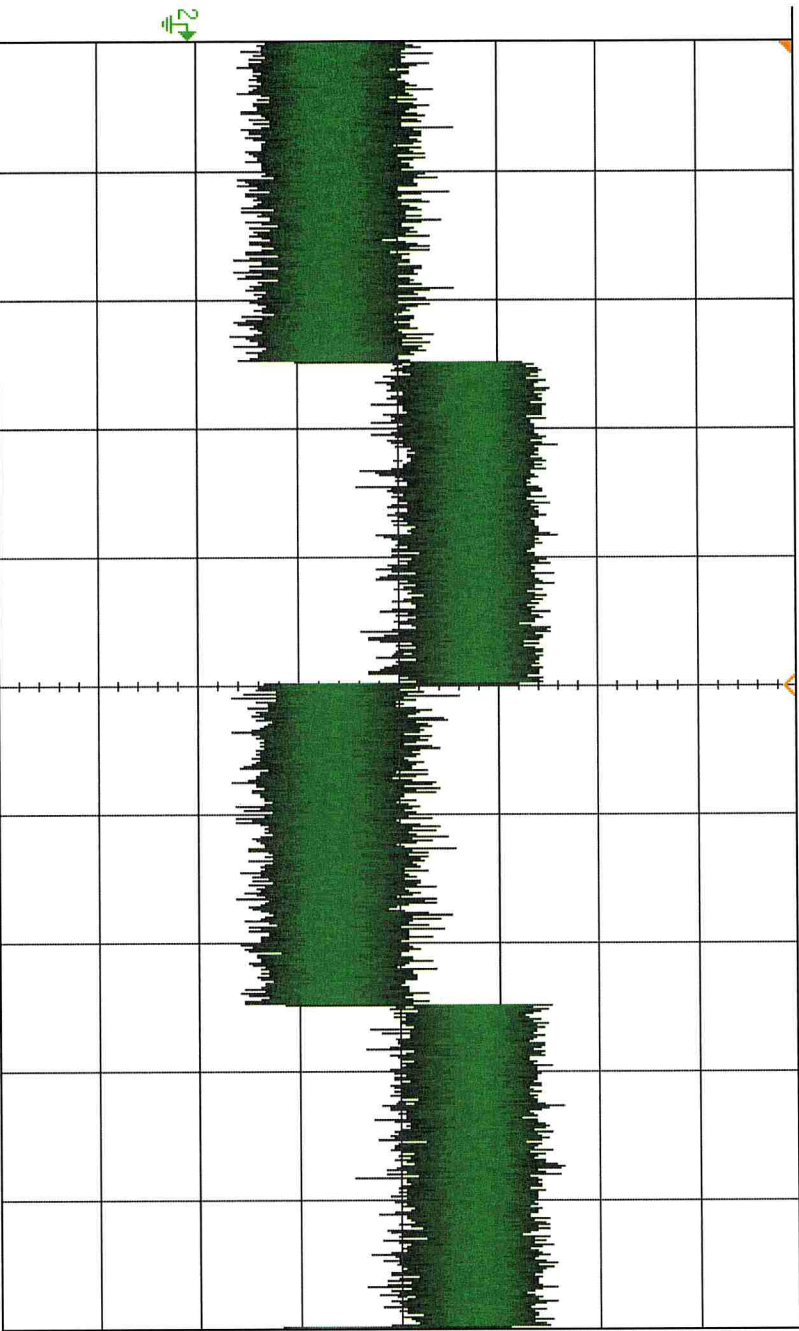
Clear Meas

Statistics

PL44287
TSS-21

DSO-X 3034A, MW52394003: Mon Feb 05 15:05:54 2024

1 2 100% / 3 4 3.950V 20.00V / 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.