



**SUMMARY TEST DATA**  
**ON**  
**SDLVA-8G18G-40-5-SFF**

PL28825/2018

**CUSTOMER:** \_\_\_\_\_  
**SO:** \_\_\_\_\_  
**MODEL NO:** SDLVA-8G18G-40-5-SFF  
**SERIAL NO:** PL28825/2018

**TESTED BY:** H. Gonzales  
**TEMPERATURE:** +25°C, -54°C, +95°C  
**DATE:** Tuesday, April 28, 2020  
**DRAWING NO:** 27615839      **REV:** A1

TEST ITEM NO:	PARAMETERS	SPECIFIED VALUE	MEASURED VALUE	REMARKS QA/QC
1	Frequency Range	8 to 18 GHz	8 to 18 GHz	PMI QA 1
2	Frequency Flatness	±2.0 dB	±2.0 dB (See Plots)	
3	Log Linearity Over Temp.	±1.0 dB (P <sub>in</sub> = -30dBm @ -54°C to +85°C)	± 0.21dB (See Plots)	
4	Logging Range	-40 to +0 dBm	-40 to +0 dBm (See Plots)	
5	Input VSWR	2.5:1 Max.	2.42:1 (See Plot)	
6	Max. RF Input	+10 dBm CW (Survival)	Pass (See Typical Characteristics)	
7	Log Video Output Voltage	10mV to 2.25V	90mV to 1.99V (See Plots)	
8	Log Video Output Slope	50mV/dB ±6.0mV/dB Max.	46.30mV/dB (See Plots)	
9	Log Video Output Rise Time	25ns Max. (P <sub>in</sub> = -20dBm @ 10% to 90%)	11.00ns (See Plots)	
10	Log Video Output Fall Time	30ns Max. (P <sub>in</sub> = -20dBm @ 90% to 10%)	23.60ns (See Plot)	
11	Log Video Recovery Time	40ns Max. (P <sub>in</sub> = -20dBm @ 90% to 10%)	37.20ns (see Plot)	
12	Operating Voltage	+5V ±5% (Max. Ripple 100 mV pk-pk, 20 MHz BW)	Pass	
13	Operating Current	130 mA Max.	130mA @ 5 Volts	PMI QA 1

QA/QC Approval:  PMI QA 1      Date: 4/29/20



# SUMMARY TEST DATA ON SDLVA-8G18G-40-5-SFF +25°C

PL28825/2018

LOG TRANSFER VS FREQUENCY  
 MODEL: SDLVA-8G18G-40-5-SFF      OPTION :  
 TESTED BY: H. Gonzales      Tuesday, April 28, 2020  
 SERIAL No. PL28825/2018      12:54 PM  
 Temp: 25°C

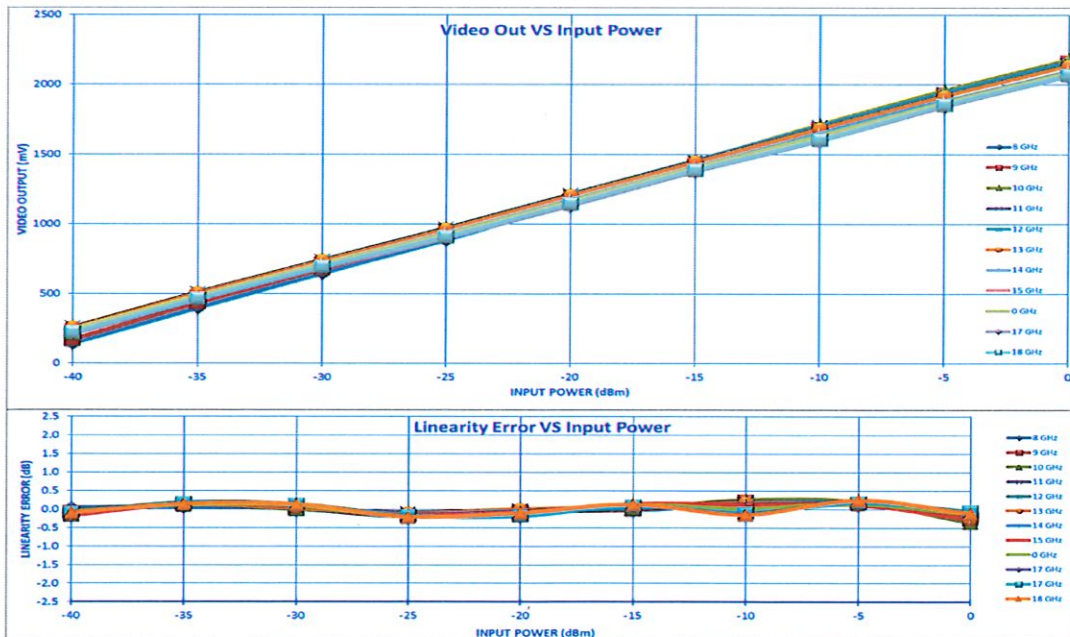


Frequency

Frequency	INTERCEPT (mV)	SLOPE (mV/dB)	-40	-35	-30	-25	-20	-15	-10	-5	0	RF Input Power (dBm)
8 GHz	2158	50.5	143	398	645	887	1146	1400	1681	1916	2151	Measured Value (mV) Error (mV) LINEARITY ERROR (dB)
9 GHz	2173	50	168	428	673	913	1170	1422	1684	1932	2181	Measured Value (mV) Error (mV) LINEARITY ERROR (dB)
10 GHz	2194	49.5	208	470	710	953	1205	1453	1712	1957	2176	Measured Value (mV) Error (mV) LINEARITY ERROR (dB)
11 GHz	2178	48.8	223	480	719	956	1202	1447	1700	1940	2162	Measured Value (mV) Error (mV) LINEARITY ERROR (dB)
12 GHz	2171	47.7	259	509	742	973	1214	1457	1704	1940	2158	Measured Value (mV) Error (mV) LINEARITY ERROR (dB)
13 GHz	2147	47.2	253	502	734	963	1203	1443	1684	1917	2134	Measured Value (mV) Error (mV) LINEARITY ERROR (dB)
14 GHz	2108	46.7	233	481	712	935	1173	1411	1648	1881	2097	Measured Value (mV) Error (mV) LINEARITY ERROR (dB)
15 GHz	2089	46.4	224	471	702	922	1157	1399	1631	1862	2077	Measured Value (mV) Error (mV) LINEARITY ERROR (dB)
16 GHz	2092	46.2	241	481	711	928	1163	1404	1631	1868	2087	Measured Value (mV) Error (mV) LINEARITY ERROR (dB)
17 GHz	2066	46.3	208	453	682	900	1131	1376	1596	1843	2063	Measured Value (mV) Error (mV) LINEARITY ERROR (dB)
18 GHz	2071	46.2	220	462	692	907	1143	1385	1603	1852	2066	Measured Value (mV) Error (mV) LINEARITY ERROR (dB)

Average Slope	47.7
Flatness ± dB	
Average Offset	216.4

1.2	1.2	1	0.9	0.9	0.9	1.2	1.2	1.2
143	396	645	887	1131	1376	1598	1843	2063
259	509	742	973	1214	1457	1712	1957	2176





# SUMMARY TEST DATA ON SDLVA-8G18G-40-5-SFF -54°C

PL28825/2018

LOG TRANSFER VS FREQUENCY  
 MODEL: SDLVA-8G18G-40-5-SFF      OPTION :  
 TESTED BY: H. Gonzales      Tuesday, April 28, 2020  
 SERIAL No. PL28825/2018      1:01 PM  
 Temp: -54°C

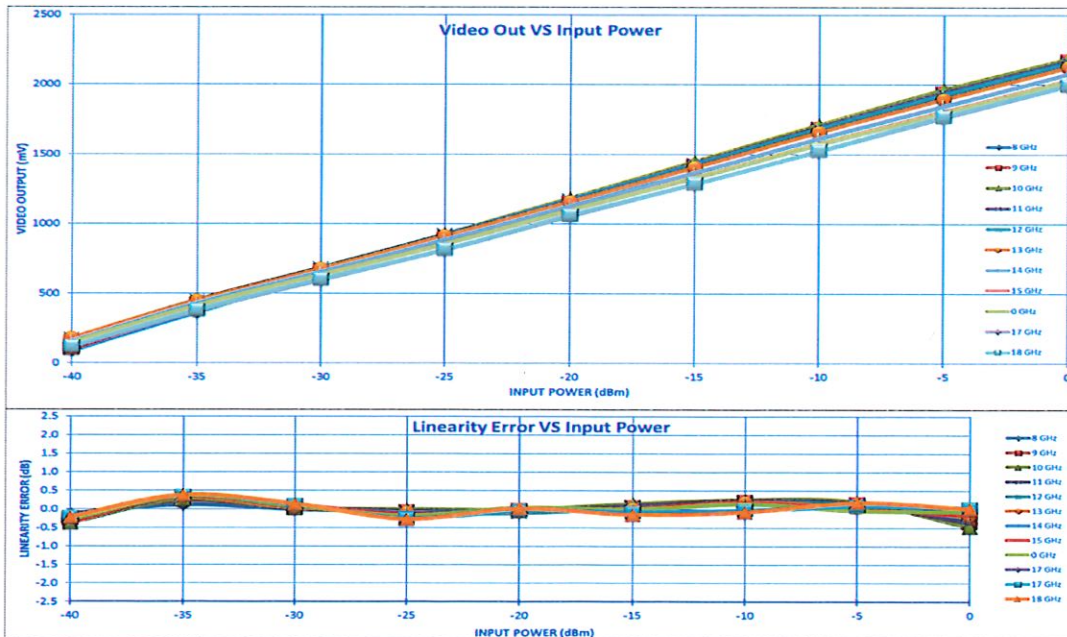


Frequency

Frequency	INTERCEPT (mV)	SLOPE (mV/dB)	-40	-35	-30	-25	-20	-15	-10	-5	0	RF Input Power (dBm)
8 GHz	2192	52.4	90	385	620	878	1143	1407	1681	1939	2175	Measured Value (mV)
			-7	6	0	-4	-1	1	13	9	-17	Error (mV)
			-0.13	0.12	-0.01	-0.08	-0.02	0.03	0.24	0.17	-0.32	LINEARITY ERROR (dB)
9 GHz	2194	52	101	387	636	892	1154	1418	1686	1943	2175	Measured Value (mV)
			-15	12	1	-3	-1	4	12	9	-19	Error (mV)
			-0.29	0.23	0.02	-0.05	-0.02	0.08	0.23	0.17	-0.37	LINEARITY ERROR (dB)
10 GHz	2209	51.3	137	426	671	926	1182	1446	1708	1962	2184	Measured Value (mV)
			-19	13	1	0	-1	7	13	10	-24	Error (mV)
			-0.38	0.26	0.02	-0.01	-0.01	0.14	0.25	0.20	-0.48	LINEARITY ERROR (dB)
11 GHz	2184	50.5	144	431	669	917	1170	1430	1690	1938	2165	Measured Value (mV)
			-18	16	2	-3	-3	4	11	8	-18	Error (mV)
			-0.36	0.32	0.04	-0.05	-0.05	0.09	0.23	0.15	-0.36	LINEARITY ERROR (dB)
12 GHz	2165	49.4	174	450	684	924	1172	1425	1679	1925	2154	Measured Value (mV)
			-13	15	2	-5	-5	1	9	7	-11	Error (mV)
			-0.27	0.31	0.05	-0.10	-0.10	0.03	0.17	0.13	-0.23	LINEARITY ERROR (dB)
13 GHz	2133	48.6	175	447	677	913	1158	1405	1656	1894	2124	Measured Value (mV)
			-13	15	2	-5	-3	1	9	3	-9	Error (mV)
			-0.27	0.32	0.03	-0.10	-0.06	0.01	0.19	0.07	-0.19	LINEARITY ERROR (dB)
14 GHz	2084	47.8	157	429	654	894	1127	1367	1613	1845	2077	Measured Value (mV)
			-15	17	3	-5	-1	0	7	0	-6	Error (mV)
			-0.32	0.36	0.07	-0.11	-0.02	-0.01	0.16	0.01	-0.13	LINEARITY ERROR (dB)
15 GHz	2038	47.1	137	407	631	853	1098	1332	1574	1803	2030	Measured Value (mV)
			-17	17	6	-7	0	1	7	1	-7	Error (mV)
			-0.37	0.37	0.12	-0.15	0.00	0.01	0.16	0.01	-0.16	LINEARITY ERROR (dB)
16 GHz	2030	46.7	147	411	632	853	1097	1328	1569	1794	2027	Measured Value (mV)
			-14	17	4	-9	2	0	6	-2	-3	Error (mV)
			-0.29	0.36	0.08	-0.19	0.04	-0.01	0.14	-0.04	-0.07	LINEARITY ERROR (dB)
17 GHz	1992	46.7	113	374	596	812	1055	1287	1523	1762	1994	Measured Value (mV)
			-10	17	6	-12	-2	-4	-2	4	2	Error (mV)
			-0.21	0.37	0.12	-0.25	-0.04	-0.08	-0.03	0.08	0.04	LINEARITY ERROR (dB)
18 GHz	1994	46.7	118	379	601	815	1062	1288	1524	1769	1995	Measured Value (mV)
			-10	18	6	-13	1	-7	-4	8	1	Error (mV)
			-0.22	0.38	0.14	-0.27	0.01	-0.15	-0.08	0.17	0.02	LINEARITY ERROR (dB)

Average Slope	49.0
Flatness ± dB	
Average Offset	135.7

0.9	0.9	0.9	1.2	1.3	1.6	1.9	2	1.9
90	365	596	812	1055	1287	1523	1762	1994
175	450	684	926	1182	1446	1708	1962	2184





# SUMMARY TEST DATA ON SDLVA-8G18G-40-5-SFF +95°C

PL28825/2018

LOG TRANSFER VS FREQUENCY  
 MODEL: SDLVA-8G18G-40-5-SFF    OPTION :    Tuesday, April 28, 2020  
 TESTED BY: H. Gonzales  
 SERIAL No. PL28825/2018    1:37 PM  
 Temp: 95°C

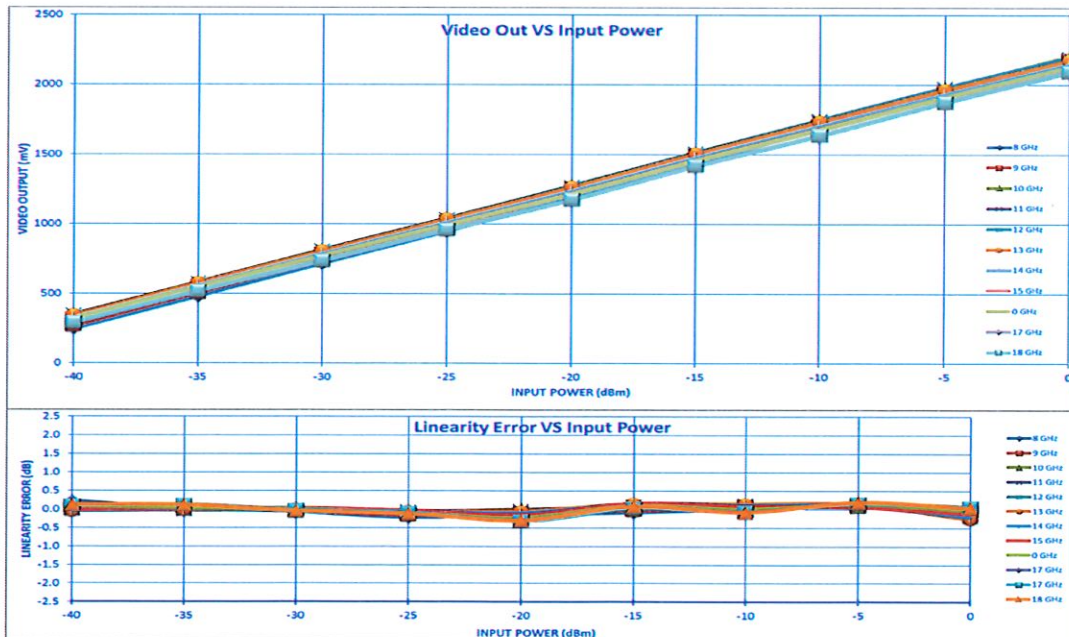


Frequency

Frequency	INTERCEPT (mV)	SLOPE (mV/dB)	-40	-35	-30	-25	-20	-15	-10	-5	0	RF Input Power (dBm)
8 GHz	2164	48.1	250	481	718	951	1196	1439	1685	1931	2166	Measured Value (mV)
			10	1	-3	-10	-6	-4	2	7	2	Error (mV)
			0.21	0.03	-0.05	-0.21	-0.13	-0.08	0.03	0.15	0.04	LINEARITY ERROR (dB)
9 GHz	2181	47.9	268	505	741	975	1218	1460	1705	1946	2179	Measured Value (mV)
			5	2	-2	-7	-4	-1	4	5	-2	Error (mV)
			0.10	0.05	-0.04	-0.15	-0.09	-0.03	0.09	0.11	-0.03	LINEARITY ERROR (dB)
10 GHz	2208	47.6	303	541	778	1013	1255	1494	1737	1974	2202	Measured Value (mV)
			1	0	-1	-4	0	1	5	4	-6	Error (mV)
			0.02	0.01	-0.02	-0.09	0.00	0.02	0.11	0.09	-0.13	LINEARITY ERROR (dB)
11 GHz	2201	47	318	555	790	1023	1259	1500	1737	1970	2192	Measured Value (mV)
			-1	0	0	-3	-1	4	6	4	-9	Error (mV)
			-0.03	0.01	0.00	-0.06	-0.02	0.09	0.13	0.08	-0.18	LINEARITY ERROR (dB)
12 GHz	2205	46.4	360	580	812	1041	1274	1514	1747	1979	2198	Measured Value (mV)
			1	-1	0	-4	-3	5	6	6	-10	Error (mV)
			0.02	-0.02	-0.01	-0.08	-0.06	0.10	0.13	0.13	-0.21	LINEARITY ERROR (dB)
13 GHz	2185	46	343	574	805	1033	1262	1502	1731	1961	2173	Measured Value (mV)
			-2	-1	1	-2	-3	7	8	6	-12	Error (mV)
			-0.04	-0.01	0.01	-0.04	-0.06	0.15	0.14	0.12	-0.26	LINEARITY ERROR (dB)
14 GHz	2151	45.6	324	554	783	1008	1233	1473	1700	1927	2142	Measured Value (mV)
			-2	0	1	-2	-5	7	5	5	-9	Error (mV)
			-0.03	0.00	0.02	-0.04	-0.11	0.15	0.11	0.10	-0.20	LINEARITY ERROR (dB)
15 GHz	2130	45.4	315	543	770	994	1215	1456	1680	1906	2125	Measured Value (mV)
			-1	1	1	-2	-7	7	3	3	-5	Error (mV)
			-0.01	0.03	0.02	-0.04	-0.16	0.15	0.07	0.06	-0.11	LINEARITY ERROR (dB)
0 GHz	2127	45.3	321	545	769	991	1211	1452	1674	1907	2126	Measured Value (mV)
			4	2	0	-5	-11	4	0	6	-1	Error (mV)
			0.09	0.04	0.01	-0.10	-0.23	0.09	-0.01	0.14	-0.02	LINEARITY ERROR (dB)
17 GHz	2093	45.3	287	515	735	958	1174	1416	1639	1874	2086	Measured Value (mV)
			4	5	-1	-4	-14	1	-3	7	3	Error (mV)
			0.10	0.12	-0.02	-0.09	-0.31	0.03	-0.06	0.16	0.06	LINEARITY ERROR (dB)
18 GHz	2089	45.1	292	517	735	957	1174	1416	1635	1872	2091	Measured Value (mV)
			5	5	-2	-5	-14	3	-4	8	2	Error (mV)
			0.12	0.12	-0.04	-0.12	-0.30	0.08	-0.08	0.19	0.04	LINEARITY ERROR (dB)

Average Slope	46.3
Flatness ± dB	
Average Offset	308.4

1.1	1.1	1	1	1.1	1.1	1.2	1.2	1.2
250	481	718	951	1174	1416	1635	1872	2091
350	580	812	1041	1274	1514	1747	1979	2202

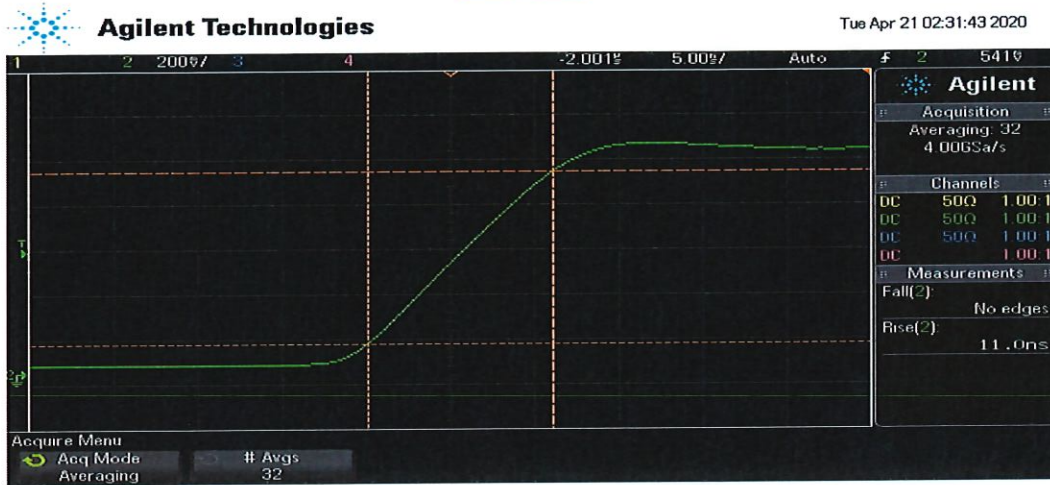




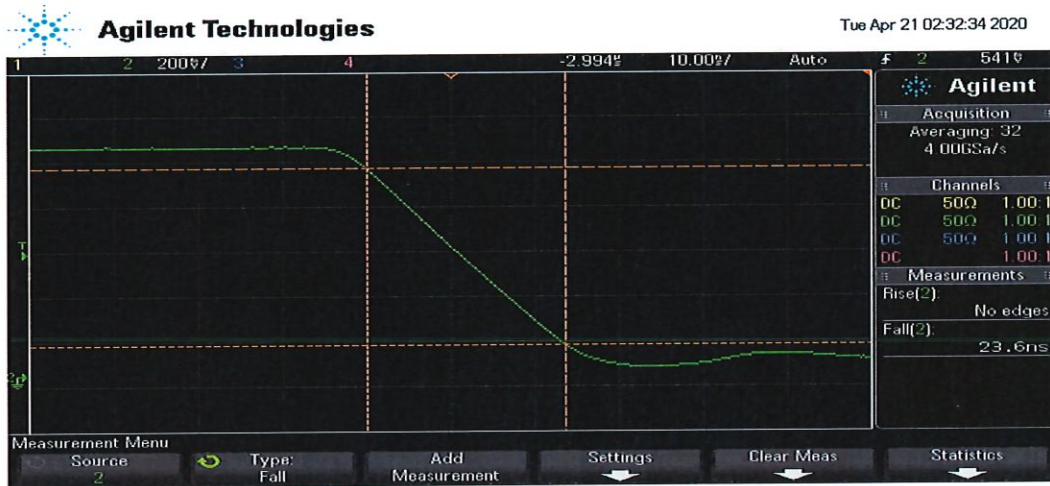
**SUMMARY TEST DATA  
ON  
SDLVA-8G18G-40-5-SFF**

PL28825/2018

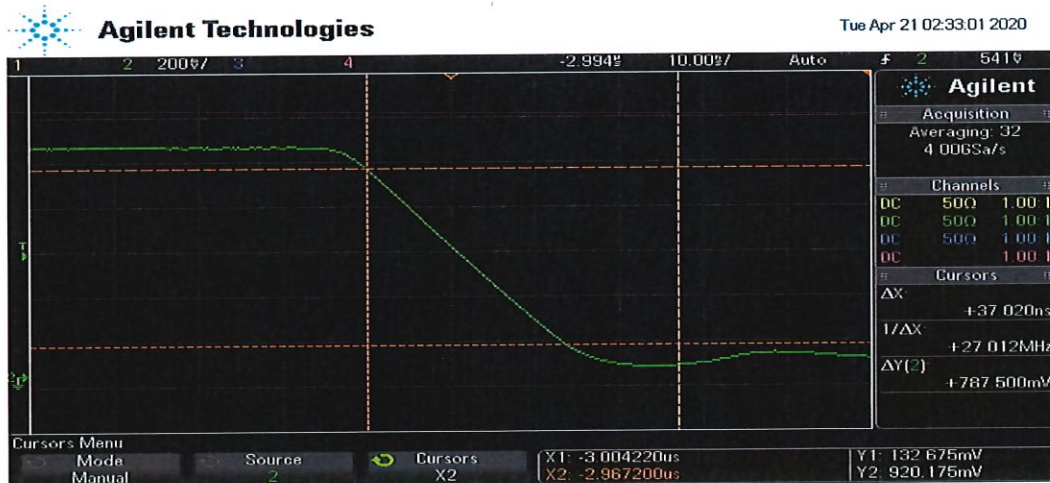
Rise Time



Fall Time



Recovery Time





# SUMMARY TEST DATA ON SDLVA-8G18G-40-5-SFF

PL28825/2018

## VSWR

