



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

PL28821/2018

**CUSTOMER:**  
**SO:**  
**MODEL NO:** SDLVA-8G18G-40-5-SFF  
**SERIAL NO:** PL28821/2018

**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	±1.6 dB (See Plots)	PMI QA 1	
3	Log Linearity Over Temp.	±1.0 dB (P <sub>in</sub> = -30dBm @ -54°C to +85°C)	± 0.77dB (See Plots)		
4	Logging Range	-40 to +0 dBm	-40 to +0 dBm (See Plots)		
5	Input VSWR	2.5:1 Max.	2.32:1 (See Plot)		
6	Max. RF Input	+10 dBm CW (Survival)	Pass (See Typical Characteristics)		
7	Log Video Output Voltage	10mV to 2.25V	48mV to 1.98V (See Plots)		
8	Log Video Output Slope	50mV/dB ±6.0mV/dB Max.	46.50mV/dB (See Plots)		
9	Log Video Output Rise Time	25ns Max. (P <sub>in</sub> = -20dBm @ 10% to 90%)	9.10ns (See Plots)		
10	Log Video Output Fall Time	30ns Max. (P <sub>in</sub> = -20dBm @ 90% to 10%)	14.20ns (See Plot)		
11	Log Video Recovery Time	40ns Max. (P <sub>in</sub> = -20dBm @ 90% to 10%)	37.12ns (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: *[Signature]* *F. Hernandez* PMI QA 1      Date: 4/29/20



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

PL28821/2018

LOG TRANSFER VS FREQUENCY  
 MODEL: SDLVA-8G18G-40-5-SFF    OPTION :    Tuesday, April 28, 2020  
 TESTED BY: H. Gonzales    10:09 AM  
 SERIAL No. PL28821/2018  
 Temp: 25°C

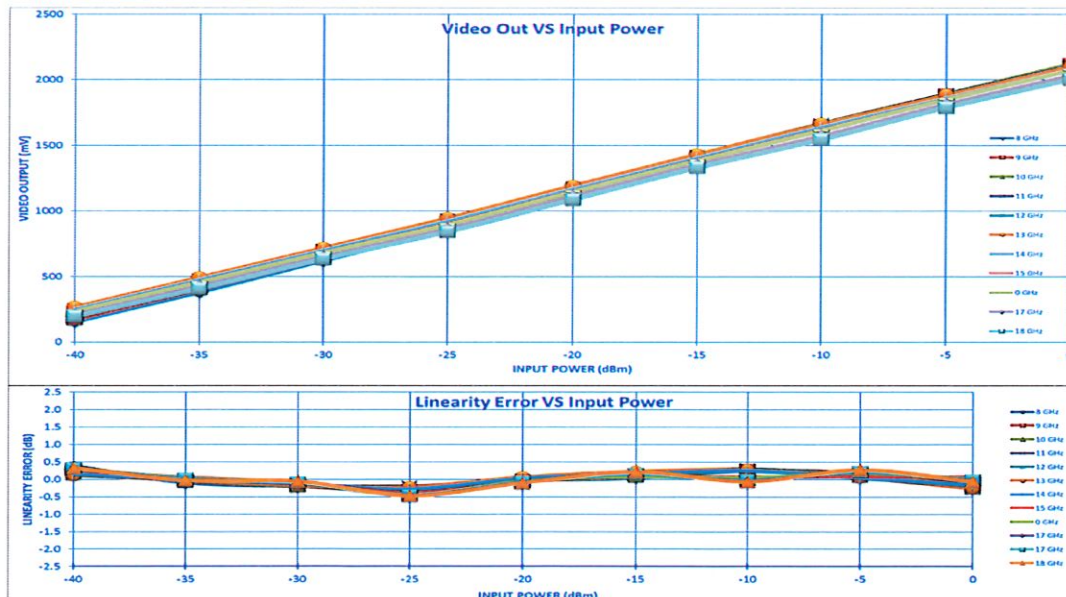


Frequency

Frequency	INTERCEPT (mV)	SLOPE (mV/dB)	-40	-35	-30	-25	-20	-15	-10	-5	0	RF Input Power (dBm)
8 GHz	2115	49.5	155	379	621	862	1123	1376	1633	1876	2108	Measured Value (mV)
			19	-5	-10	-17	-3	2	12	8	-7	Error (mV)
			0.38	-0.10	-0.20	-0.34	-0.06	0.05	0.25	0.17	-0.14	LINEARITY ERROR (dB)
9 GHz	2124	49.1	172	401	639	880	1138	1391	1648	1895	2114	Measured Value (mV)
			14	-2	-10	-15	-3	5	13	7	-9	Error (mV)
			0.29	-0.05	-0.20	-0.31	-0.06	0.10	0.27	0.15	-0.19	LINEARITY ERROR (dB)
10 GHz	2130	48.5	199	430	665	906	1159	1407	1659	1893	2119	Measured Value (mV)
			10	-2	-9	-11	-1	5	13	6	-11	Error (mV)
			0.21	-0.04	-0.19	-0.22	-0.02	0.10	0.26	0.12	-0.23	LINEARITY ERROR (dB)
11 GHz	2122	47.8	219	449	681	919	1168	1413	1659	1887	2110	Measured Value (mV)
			8	-2	-8	-10	-1	7	14	4	-12	Error (mV)
			0.16	-0.04	-0.17	-0.20	-0.02	0.15	0.29	0.08	-0.25	LINEARITY ERROR (dB)
12 GHz	2123	47	250	477	705	937	1183	1425	1667	1892	2110	Measured Value (mV)
			7	-1	-8	-11	0	7	14	5	-13	Error (mV)
			0.15	-0.03	-0.16	-0.23	0.00	0.15	0.29	0.10	-0.27	LINEARITY ERROR (dB)
13 GHz	2114	46.4	264	490	715	944	1189	1428	1663	1884	2102	Measured Value (mV)
			5	-1	-8	-11	2	10	12	2	-12	Error (mV)
			0.11	-0.02	-0.17	-0.23	0.05	0.21	0.27	0.05	-0.27	LINEARITY ERROR (dB)
14 GHz	2087	46.1	248	472	697	920	1165	1402	1636	1858	2078	Measured Value (mV)
			6	0	-5	-13	1	7	11	2	-8	Error (mV)
			0.14	0.00	-0.12	-0.29	0.02	0.15	0.24	0.04	-0.18	LINEARITY ERROR (dB)
15 GHz	2077	46.4	232	455	680	898	1145	1384	1615	1849	2079	Measured Value (mV)
			12	2	-4	-18	-4	3	3	4	2	Error (mV)
			0.26	0.05	-0.09	-0.40	-0.08	0.08	0.05	0.08	0.04	LINEARITY ERROR (dB)
0 GHz	2071	46.3	232	451	676	891	1141	1380	1609	1847	2071	Measured Value (mV)
			14	1	-4	-21	-3	4	2	8	0	Error (mV)
			0.31	0.03	-0.10	-0.46	-0.07	0.08	0.03	0.18	0.00	LINEARITY ERROR (dB)
17 GHz	2033	48	206	422	647	861	1108	1349	1571	1813	2032	Measured Value (mV)
			14	1	-4	-21	-4	7	-1	10	-1	Error (mV)
			0.31	0.01	-0.09	-0.46	-0.09	0.15	-0.03	0.21	-0.02	LINEARITY ERROR (dB)
18 GHz	2004	45.7	192	405	631	841	1086	1329	1544	1788	2001	Measured Value (mV)
			15	-1	-3	-22	-5	10	-3	12	-3	Error (mV)
			0.33	-0.03	-0.06	-0.47	-0.11	0.21	-0.07	0.27	-0.06	LINEARITY ERROR (dB)

Average Slope    47.2  
 Flatness ± dB      
 Average Offset    215.3

1.2	1.2	1	1.1	1.1	1.1	1.3	1.1	1.3
155	379	621	841	1086	1329	1544	1788	2001
264	490	715	944	1189	1428	1667	1893	2119





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

PL28821/2018

LOG TRANSFER VS FREQUENCY  
 MODEL: SDLVA-8G18G-40-5-SFF      OPTION :      Tuesday, April 28, 2020  
 TESTED BY: H. Gonzales      10:10 AM  
 SERIAL No. PL28821/2018  
 Temp: -54°C

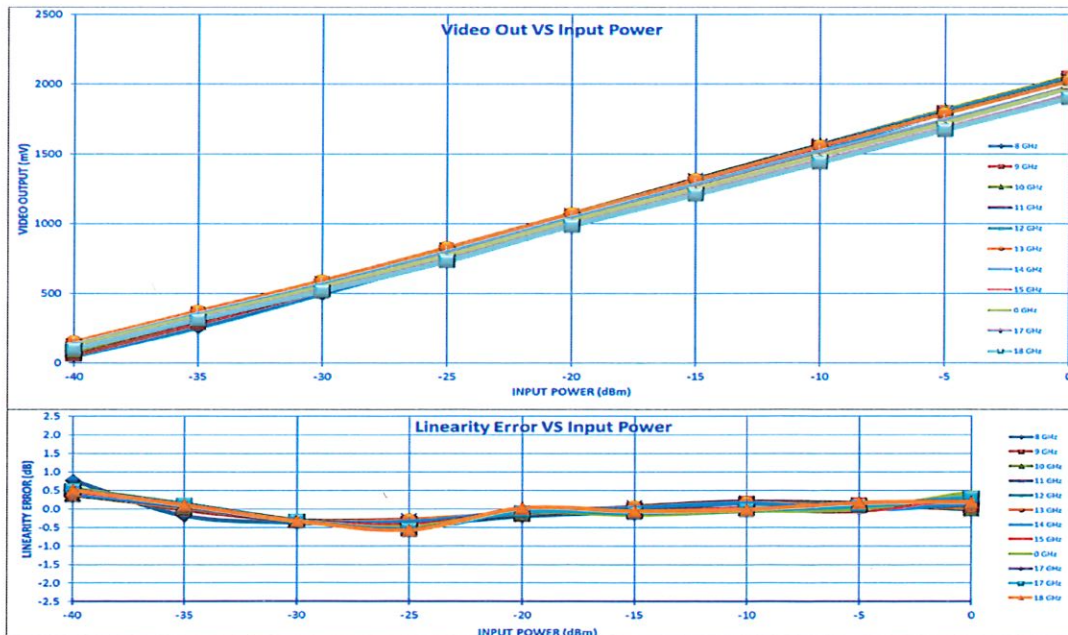


Frequency

Frequency	INTERCEPT (mV)	SLOPE (mV/dB)	-40	-35	-30	-25	-20	-15	-10	-5	0	RF Input Power (dBm)
8 GHz	2033	50.6	48	253	497	747	1011	1271	1538	1788	2040	Measured Value (mV)
			39	-9	-19	-22	-10	-3	9	8	8	Error (mV)
			0.77	-0.18	-0.37	-0.43	-0.20	-0.07	0.17	0.16	0.15	LINEARITY ERROR (dB)
9 GHz	2044	50.4	55	280	518	767	1029	1289	1550	1799	2047	Measured Value (mV)
			25	-1	-15	-18	-8	0	8	7	2	Error (mV)
			0.50	-0.03	-0.31	-0.36	-0.16	0.00	0.18	0.13	0.05	LINEARITY ERROR (dB)
10 GHz	2055	49.8	81	312	545	795	1052	1311	1565	1812	2054	Measured Value (mV)
			19	1	-15	-15	-6	3	8	6	-1	Error (mV)
			0.38	0.02	-0.31	-0.29	-0.13	0.06	0.16	0.12	-0.02	LINEARITY ERROR (dB)
11 GHz	2044	49	101	329	558	804	1056	1311	1563	1803	2043	Measured Value (mV)
			18	2	-15	-14	-7	3	9	4	0	Error (mV)
			0.37	0.03	-0.30	-0.29	-0.15	0.06	0.19	0.09	-0.01	LINEARITY ERROR (dB)
12 GHz	2040	48.1	135	359	592	823	1071	1321	1567	1805	2041	Measured Value (mV)
			18	2	-15	-15	-7	3	8	5	1	Error (mV)
			0.38	0.04	-0.31	-0.30	-0.15	0.06	0.16	0.11	0.01	LINEARITY ERROR (dB)
13 GHz	2020	47.2	148	368	588	825	1070	1313	1555	1786	2021	Measured Value (mV)
			17	2	-15	-14	-4	2	8	3	1	Error (mV)
			0.37	0.04	-0.32	-0.30	-0.09	0.05	0.16	0.06	0.03	LINEARITY ERROR (dB)
14 GHz	1974	46.5	192	350	564	795	1041	1278	1516	1741	1979	Measured Value (mV)
			18	3	-15	-16	-3	2	7	-1	5	Error (mV)
			0.38	0.07	-0.32	-0.35	-0.07	0.03	0.15	-0.01	0.12	LINEARITY ERROR (dB)
15 GHz	1954	46.4	119	335	547	773	1021	1254	1490	1719	1971	Measured Value (mV)
			22	6	-14	-20	-4	-4	0	-3	17	Error (mV)
			0.48	0.12	-0.31	-0.43	-0.10	-0.08	0.00	-0.06	0.37	LINEARITY ERROR (dB)
0 GHz	1949	46.2	125	337	547	770	1021	1248	1484	1717	1970	Measured Value (mV)
			26	6	-15	-23	-4	-7	-3	-1	21	Error (mV)
			0.55	0.14	-0.33	-0.50	-0.08	-0.16	-0.06	-0.01	0.45	LINEARITY ERROR (dB)
17 GHz	1908	45.8	101	312	521	738	989	1217	1449	1682	1923	Measured Value (mV)
			24	6	-14	-25	-4	-5	-1	3	15	Error (mV)
			0.52	0.13	-0.30	-0.55	-0.08	-0.10	-0.02	0.07	0.32	LINEARITY ERROR (dB)
18 GHz	1889	45.4	98	306	514	729	983	1206	1435	1670	1897	Measured Value (mV)
			23	5	-15	-26	1	-3	-1	7	8	Error (mV)
			0.50	0.11	-0.32	-0.57	0.02	-0.06	-0.02	0.16	0.18	LINEARITY ERROR (dB)

Average Slope 47.8  
 Flatness ± dB  
 Average Offset 103.9

1	1.2	1	1	0.9	1.2	1.4	1.5	1.8
48	253	497	729	983	1206	1435	1670	1897
148	368	588	825	1071	1321	1567	1812	2054





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

PL28821/2018

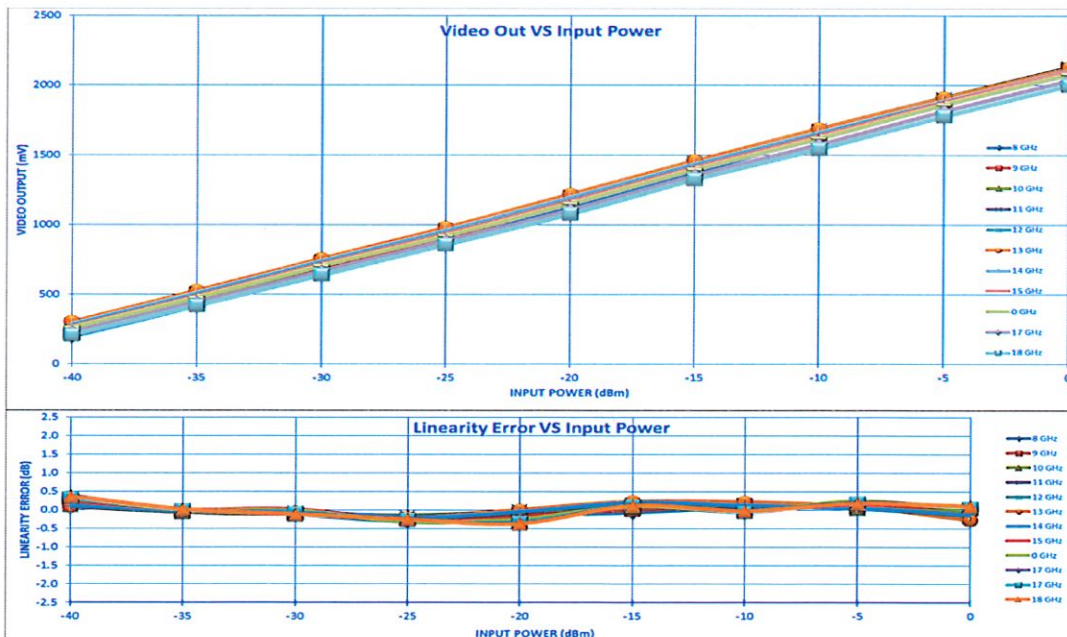
LOG TRANSFER VS FREQUENCY  
 MODEL: SDLVA-8G18G-40-5-SFF      OPTION :      Tuesday, April 28, 2020  
 TESTED BY: H. Gonzales      10:12 AM  
 SERIAL No. PL28821/2018  
 Temp: 95°C



Frequency			-40	-35	-30	-25	-20	-15	-10	-5	0	RF Input Power (dBm)
8 GHz	INTERCEPT (mV)	2105	197	417	654	886	1135	1379	1627	1870	2109	Measured Value (mV)
	SLOPE (mV/dB)	48.2	18	-2	-6	-15	-7	-3	4	6	4	Error (mV)
			0.38	-0.05	-0.12	-0.30	-0.14	-0.07	0.08	0.12	0.09	LINEARITY ERROR (dB)
9 GHz	INTERCEPT (mV)	2116	214	437	674	907	1153	1397	1643	1880	2117	Measured Value (mV)
	SLOPE (mV/dB)	47.9	14	-2	-6	-12	-5	0	8	3	1	Error (mV)
			0.29	-0.05	-0.12	-0.25	-0.10	0.00	0.13	0.07	0.02	LINEARITY ERROR (dB)
10 GHz	INTERCEPT (mV)	2130	237	464	700	935	1178	1420	1661	1895	2127	Measured Value (mV)
	SLOPE (mV/dB)	47.5	8	-3	-4	-7	-2	3	6	2	-3	Error (mV)
			0.17	-0.06	-0.09	-0.15	-0.03	0.06	0.13	0.04	-0.07	LINEARITY ERROR (dB)
11 GHz	INTERCEPT (mV)	2133	258	485	720	949	1192	1434	1670	1900	2128	Measured Value (mV)
	SLOPE (mV/dB)	47	5	-2	-3	-8	-1	6	7	2	-7	Error (mV)
			0.11	-0.05	-0.08	-0.18	-0.02	0.13	0.16	0.05	-0.14	LINEARITY ERROR (dB)
12 GHz	INTERCEPT (mV)	2140	288	512	745	971	1210	1451	1683	1911	2130	Measured Value (mV)
	SLOPE (mV/dB)	46.4	5	-3	-2	-8	-1	8	8	4	-10	Error (mV)
			0.10	-0.07	-0.05	-0.18	-0.02	0.17	0.17	0.08	-0.21	LINEARITY ERROR (dB)
13 GHz	INTERCEPT (mV)	2135	298	522	753	975	1215	1455	1685	1910	2123	Measured Value (mV)
	SLOPE (mV/dB)	46	4	-3	-2	-10	0	10	10	4	-13	Error (mV)
			0.08	-0.06	-0.05	-0.21	0.00	0.22	0.21	0.09	-0.27	LINEARITY ERROR (dB)
14 GHz	INTERCEPT (mV)	2110	283	508	736	956	1192	1432	1659	1883	2104	Measured Value (mV)
	SLOPE (mV/dB)	45.8	5	-2	-1	-10	-2	8	6	2	-6	Error (mV)
			0.10	-0.04	-0.02	-0.22	-0.05	0.20	0.12	0.04	-0.14	LINEARITY ERROR (dB)
15 GHz	INTERCEPT (mV)	2098	266	486	716	933	1167	1410	1636	1875	2101	Measured Value (mV)
	SLOPE (mV/dB)	46.1	11	0	0	-14	-10	3	-1	7	3	Error (mV)
			0.25	0.00	0.01	-0.30	-0.22	0.07	-0.02	0.15	0.06	LINEARITY ERROR (dB)
16 GHz	INTERCEPT (mV)	2077	257	473	701	916	1148	1394	1617	1859	2078	Measured Value (mV)
	SLOPE (mV/dB)	45.8	14	0	-1	-15	-12	5	-2	11	1	Error (mV)
			0.30	0.00	-0.03	-0.33	-0.26	0.10	-0.04	0.24	0.02	LINEARITY ERROR (dB)
17 GHz	INTERCEPT (mV)	2030	226	439	663	881	1106	1353	1573	1812	2033	Measured Value (mV)
	SLOPE (mV/dB)	45.5	15	0	-3	-12	-15	5	-2	9	3	Error (mV)
			0.32	0.01	-0.07	-0.27	-0.33	0.11	-0.05	0.20	0.07	LINEARITY ERROR (dB)
18 GHz	INTERCEPT (mV)	1995	207	417	637	856	1076	1323	1542	1777	1999	Measured Value (mV)
	SLOPE (mV/dB)	45.1	16	1	-5	-12	-17	5	-1	8	4	Error (mV)
			0.36	0.02	-0.11	-0.26	-0.37	0.11	-0.03	0.18	0.10	LINEARITY ERROR (dB)

Average Slope      46.5  
 Flatness ± dB  
 Average Offset      248.4

	1.1	1.1	1.2	1.3	1.5	1.4	1.5	1.4	1.4
	197	417	637	856	1076	1323	1542	1777	1999
	298	522	753	975	1215	1455	1685	1911	2130

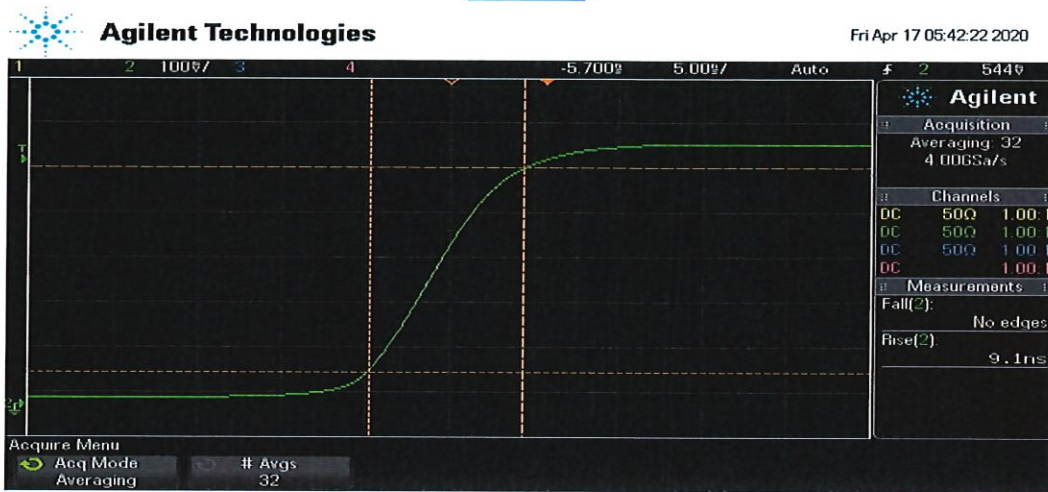




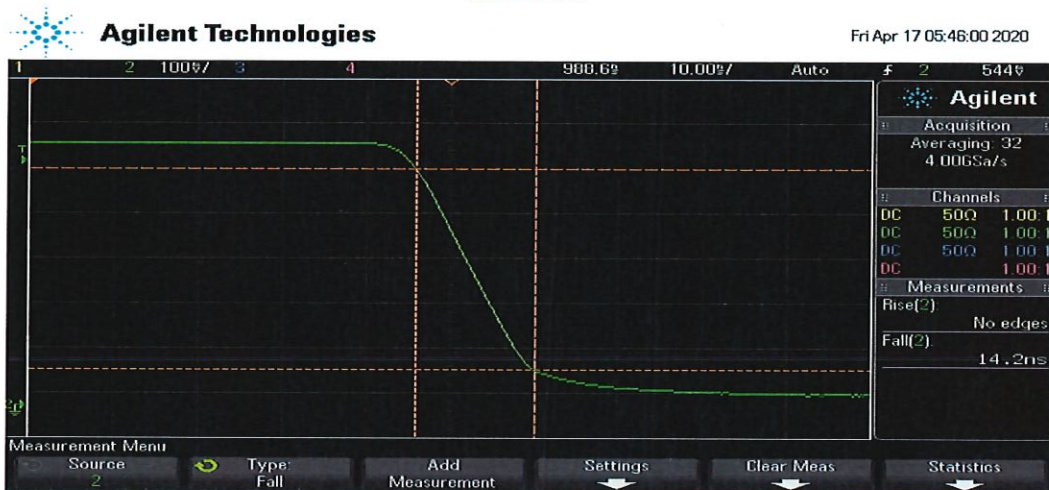
**SUMMARY TEST DATA  
ON  
SDLVA-8G18G-40-5-SFF**

PL28821/2018

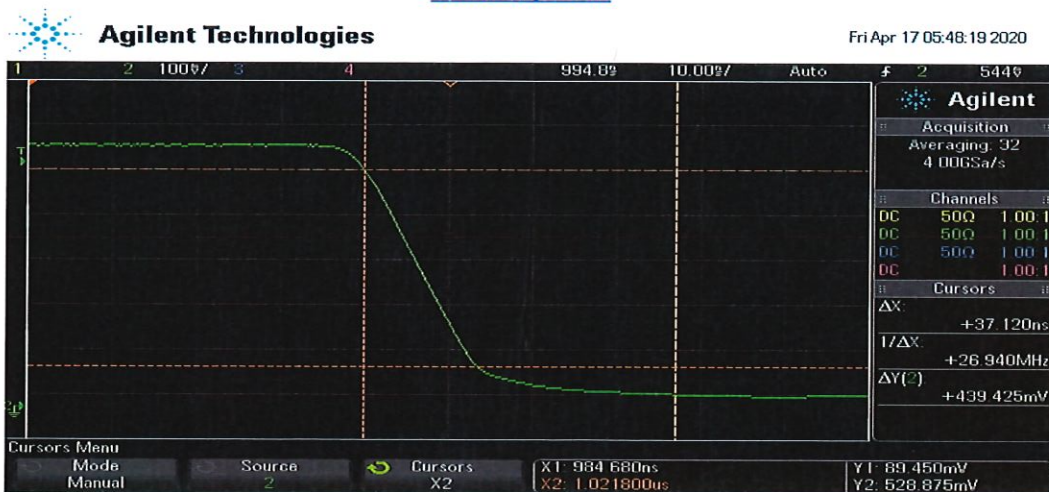
Rise Time



Fall Time



Recovery Time





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

PL28821/2018

## VSWR

