



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

PL28823/2018

CUSTOMER: _____
SO: _____
MODEL NO: SDLVA-8G18G-40-5-SFF
SERIAL NO: PL28823/2018

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	±1.7 dB (See Plots)		
3	Log Linearity Over Temp.	±1.0 dB (P _{in} = -30dBm @ -54°C to +85°C)	± 0.14dB (See Plots)		
4	Logging Range	-40 to +0 dBm	-40 to +0 dBm (See Plots)		
5	Input VSWR	2.5:1 Max.	2.18:1 (See Plot)		
6	Max. RF Input	+10 dBm CW (Survival)	Pass (See Typical Characteristics)		
7	Log Video Output Voltage	10mV to 2.25V	38mV to 2.00V (See Plots)		
8	Log Video Output Slope	50mV/dB ±6.0mV/dB Max.	47.10mV/dB (See Plots)		
9	Log Video Output Rise Time	25ns Max. (P _{in} = -20dBm @ 10% to 90%)	6.60ns (See Plots)		
10	Log Video Output Fall Time	30ns Max. (P _{in} = -20dBm @ 90% to 10%)	12.80ns (See Plot)		
11	Log Video Recovery Time	40ns Max. (P _{in} = -20dBm @ 90% to 10%)	37.96ns (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

PL28823/2018

LOG TRANSFER VS FREQUENCY
 MODEL: SDLVA-8G18G-40-5-SFF OPTION : Tuesday, April 28, 2020
 TESTED BY: H. Gonzales 10:18 AM
 SERIAL No. PL28823/2018
 Temp: 25°C

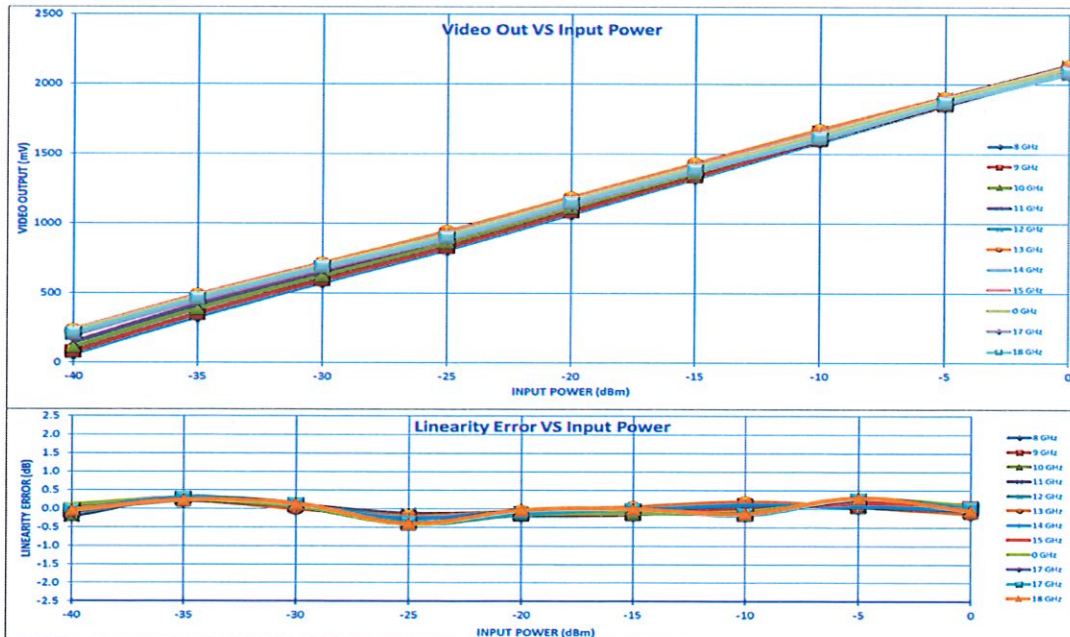


Frequency

Frequency	INTERCEPT (mV)	SLOPE (mV/dB)	-40	-35	-30	-25	-20	-15	-10	-5	0	RF Input Power (dBm)
8 GHz	2094	50.7	65	330	577	815	1070	1326	1589	1847	2097	Measured Value (mV)
			0	11	5	-11	-9	-8	3	7	3	Error (mV)
			-0.01	0.22	0.10	-0.22	-0.18	-0.15	0.05	0.14	0.05	LINEARITY ERROR (dB)
9 GHz	2098	50.4	77	349	592	827	1082	1335	1598	1850	2100	Measured Value (mV)
			-5	15	6	-11	-8	-7	4	4	2	Error (mV)
			-0.10	0.29	0.11	-0.22	-0.16	-0.15	0.09	0.09	0.05	LINEARITY ERROR (dB)
10 GHz	2116	49.9	111	384	624	860	1112	1361	1621	1870	2116	Measured Value (mV)
			-9	15	5	-8	-6	-6	4	4	0	Error (mV)
			-0.18	0.31	0.10	-0.16	-0.11	-0.13	0.09	0.07	0.00	LINEARITY ERROR (dB)
11 GHz	2123	49.2	145	416	651	886	1134	1381	1636	1881	2120	Measured Value (mV)
			-10	15	5	-7	-4	-4	5	4	-3	Error (mV)
			-0.21	0.30	0.09	-0.14	-0.09	-0.08	0.11	0.08	-0.06	LINEARITY ERROR (dB)
12 GHz	2140	48.3	200	461	693	923	1169	1414	1663	1902	2135	Measured Value (mV)
			-7	12	3	-9	-5	-1	7	4	-5	Error (mV)
			-0.14	0.25	0.05	-0.18	-0.10	-0.02	0.14	0.08	-0.10	LINEARITY ERROR (dB)
13 GHz	2136	47.5	231	492	710	939	1183	1425	1670	1901	2130	Measured Value (mV)
			-4	10	0	-9	-3	2	8	3	-5	Error (mV)
			-0.09	0.20	-0.01	-0.19	-0.07	0.04	0.18	0.06	-0.13	LINEARITY ERROR (dB)
14 GHz	2118	47.2	227	477	705	926	1171	1409	1651	1884	2116	Measured Value (mV)
			-3	11	2	-12	-3	-1	5	3	-1	Error (mV)
			-0.07	0.23	0.05	-0.26	-0.06	-0.02	0.10	0.06	-0.02	LINEARITY ERROR (dB)
15 GHz	2126	47.4	233	481	706	923	1170	1410	1651	1896	2131	Measured Value (mV)
			3	13	2	-18	-8	-5	-1	8	6	Error (mV)
			0.06	0.28	0.04	-0.38	-0.16	-0.10	-0.03	0.16	0.12	LINEARITY ERROR (dB)
0 GHz	2112	47.3	227	470	697	911	1159	1397	1636	1889	2117	Measured Value (mV)
			5	12	3	-20	-8	-8	-4	13	4	Error (mV)
			0.11	0.26	0.06	-0.42	-0.17	-0.12	-0.08	0.27	0.09	LINEARITY ERROR (dB)
17 GHz	2079	47	196	447	674	896	1132	1373	1602	1857	2081	Measured Value (mV)
			-2	14	6	-18	-7	-1	-7	13	1	Error (mV)
			-0.04	0.30	0.13	-0.37	-0.14	-0.01	-0.15	0.27	0.03	LINEARITY ERROR (dB)
18 GHz	2081	46.7	209	456	685	893	1144	1379	1607	1861	2078	Measured Value (mV)
			-2	11	6	-19	-2	0	-6	14	-2	Error (mV)
			-0.04	0.24	0.14	-0.40	-0.04	-0.01	-0.13	0.30	-0.05	LINEARITY ERROR (dB)

Average Slope	48.3
Flatness ± dB	
Average Offset	174.8

	1.7	1.6	1.4	1.3	1.2	1	0.8	0.6	0.6
65	330	577	815	1070	1326	1589	1847	2078	
233	482	710	939	1183	1425	1670	1902	2135	





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

PL28823/2018

LOG TRANSFER VS FREQUENCY
MODEL: SDLVA-8G18G-40-5-SFF
TESTED BY: H. Gonzales
SERIAL No. PL28823/2018
Temp: -54°C

OPTION :

Tuesday, April 28, 2020
10:19 AM

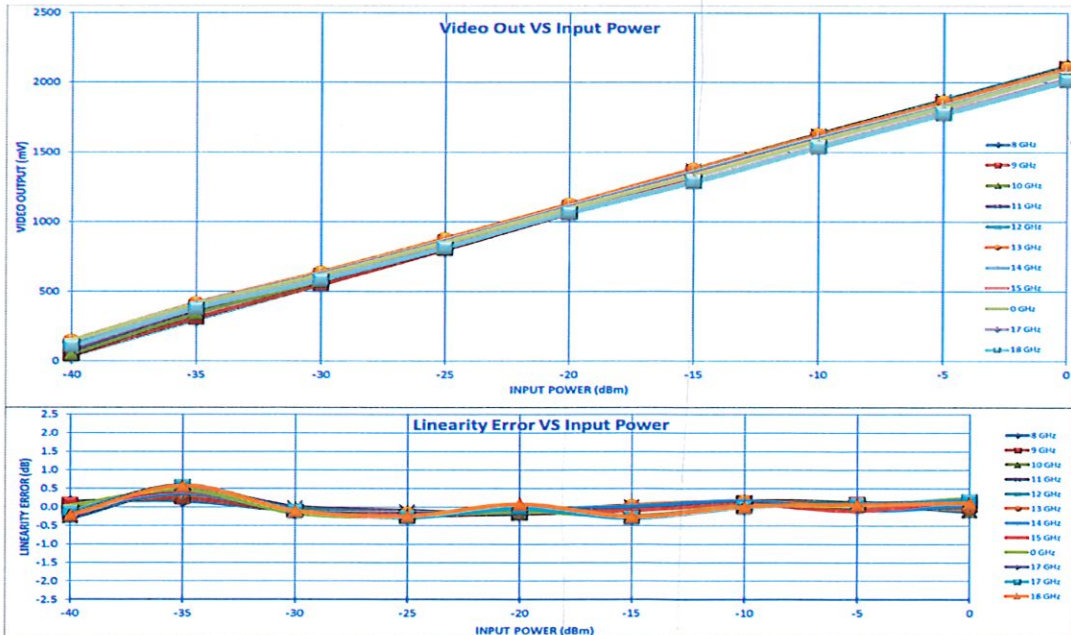


Frequency

Frequency	INTERCEPT (mV)	SLOPE (mV/dB)	-40	-35	-30	-25	-20	-15	-10	-5	0	RF Input Power (dBm)
8 GHz	2119	52.2	39	300	547	802	1065	1331	1604	1864	2119	Measured Value (mV)
			7	9	-5	-12	-9	-5	8	6	1	Error (mV)
			0.14	0.17	-0.10	-0.22	-0.18	-0.09	0.15	0.12	0.02	LINEARITY ERROR (dB)
9 GHz	2106	51.8	39	305	547	800	1061	1326	1596	1853	2107	Measured Value (mV)
			5	12	-6	-12	-10	-4	7	6	1	Error (mV)
			0.09	0.23	-0.11	-0.22	-0.18	-0.07	0.14	0.11	0.02	LINEARITY ERROR (dB)
10 GHz	2123	51.5	50	340	576	828	1084	1348	1614	1870	2117	Measured Value (mV)
			-12	21	-1	-6	-8	-1	6	6	-5	Error (mV)
			-0.23	0.41	-0.02	-0.12	-0.15	-0.02	0.13	0.11	-0.10	LINEARITY ERROR (dB)
11 GHz	2123	50.8	74	386	598	847	1097	1361	1622	1872	2117	Measured Value (mV)
			-15	23	0	-5	-9	1	7	4	-6	Error (mV)
			-0.30	0.45	0.01	-0.10	-0.17	0.02	0.14	0.08	-0.12	LINEARITY ERROR (dB)
12 GHz	2120	49.8	119	398	624	868	1116	1375	1630	1875	2115	Measured Value (mV)
			-9	19	-2	-7	-8	2	8	3	-5	Error (mV)
			-0.19	0.37	-0.04	-0.14	-0.16	0.04	0.16	0.06	-0.10	LINEARITY ERROR (dB)
13 GHz	2105	48.8	146	413	636	878	1123	1375	1625	1861	2103	Measured Value (mV)
			-6	17	-5	-7	-6	2	8	0	-2	Error (mV)
			-0.13	0.34	-0.10	-0.15	-0.12	0.04	0.16	0.00	-0.05	LINEARITY ERROR (dB)
14 GHz	2074	48	147	411	628	865	1110	1354	1601	1830	2075	Measured Value (mV)
			-6	18	-5	-9	-3	1	8	-4	1	Error (mV)
			-0.12	0.37	-0.11	-0.18	-0.07	0.02	0.16	-0.08	0.03	LINEARITY ERROR (dB)
15 GHz	2061	47.8	146	408	621	856	1099	1339	1588	1817	2071	Measured Value (mV)
			-3	20	-6	-10	-5	-5	4	-5	10	Error (mV)
			-0.05	0.43	-0.13	-0.21	-0.11	-0.10	0.07	-0.10	0.21	LINEARITY ERROR (dB)
16 GHz	2055	47.8	145	405	614	849	1094	1327	1579	1818	2068	Measured Value (mV)
			1	22	-8	-12	-5	-12	1	2	11	Error (mV)
			0.02	0.46	-0.17	-0.26	-0.12	-0.24	0.02	0.04	0.24	LINEARITY ERROR (dB)
17 GHz	2017	47.6	107	379	585	814	1063	1290	1541	1783	2026	Measured Value (mV)
			-7	27	-4	-13	-2	-14	0	4	9	Error (mV)
			-0.14	0.58	-0.09	-0.27	-0.05	-0.28	0.00	0.08	0.19	LINEARITY ERROR (dB)
18 GHz	2004	47.3	103	376	581	810	1062	1282	1532	1770	2009	Measured Value (mV)
			-10	27	-5	-12	3	-12	1	3	5	Error (mV)
			-0.21	0.57	-0.10	-0.25	0.07	-0.26	0.01	0.06	0.11	LINEARITY ERROR (dB)

Average Slope	49.4
Flatness ± dB	
Average Offset	101.3

1.1	1.1	0.9	0.8	0.6	0.9	1	1.1	1.1
38	300	547	800	1061	1282	1532	1770	2009
147	413	636	878	1123	1375	1630	1875	2119





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

PL28823/2018

LOG TRANSFER VS FREQUENCY
 MODEL: SDLVA-8G18G-40-5-SFF OPTION : Tuesday, April 28, 2020
 TESTED BY: H. Gonzales 10:20 AM
 SERIAL No. PL28823/2018
 Temp: 95°C

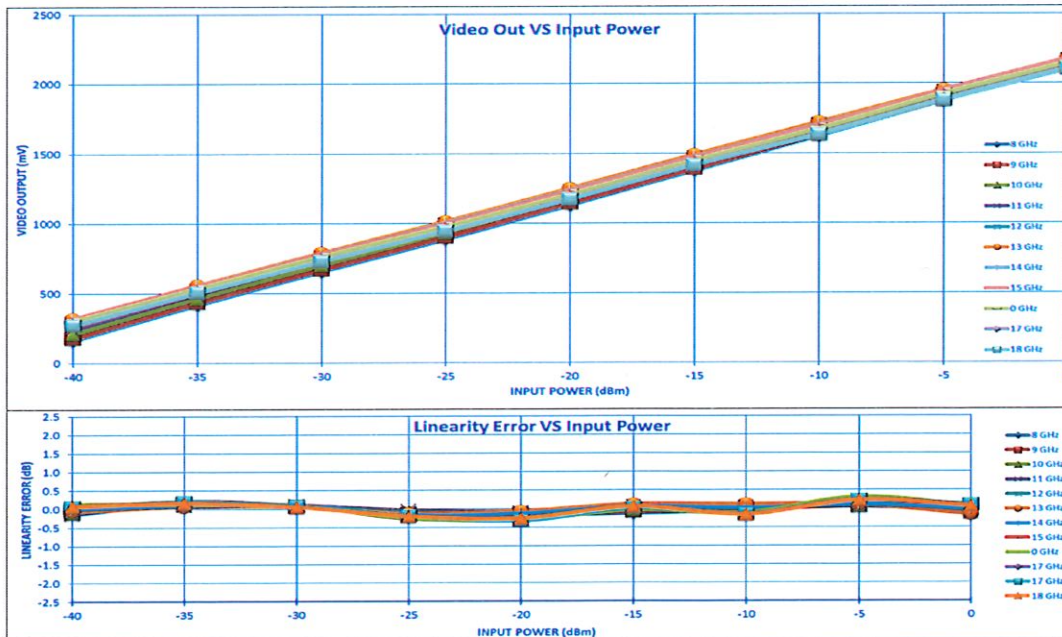


Frequency

Frequency	INTERCEPT (mV)	SLOPE (mV/dB)	-40	-35	-30	-25	-20	-15	-10	-5	0	RF Input Power (dBm)
8 GHz	2115	48.7	165	418	857	888	1131	1378	1626	1878	2120	Measured Value (mV)
			0	10	4	-9	-9	-6	-2	5	6	Error (mV)
			-0.01	0.20	0.09	-0.16	-0.18	-0.12	-0.04	0.11	0.11	LINEARITY ERROR (dB)
9 GHz	2118	48.5	175	430	668	900	1142	1387	1632	1879	2122	Measured Value (mV)
			-3	9	4	-5	-6	-4	-2	3	4	Error (mV)
			-0.06	0.19	0.09	-0.11	-0.13	-0.08	-0.03	0.06	0.09	LINEARITY ERROR (dB)
10 GHz	2143	48.3	207	461	699	933	1173	1416	1661	1905	2143	Measured Value (mV)
			-5	8	4	-4	-4	-3	1	3	0	Error (mV)
			-0.10	0.16	0.08	-0.07	-0.09	-0.05	0.02	0.06	0.00	LINEARITY ERROR (dB)
11 GHz	2159	47.8	239	491	728	961	1198	1442	1683	1923	2156	Measured Value (mV)
			-6	6	5	-2	-4	0	2	3	-3	Error (mV)
			-0.14	0.13	0.09	-0.04	-0.08	0.00	0.04	0.05	-0.06	LINEARITY ERROR (dB)
12 GHz	2178	47.1	290	533	769	996	1232	1476	1711	1948	2172	Measured Value (mV)
			-4	4	4	-4	-4	4	3	5	-6	Error (mV)
			-0.08	0.08	0.08	-0.10	-0.09	0.07	0.07	0.10	-0.14	LINEARITY ERROR (dB)
13 GHz	2180	46.5	316	554	787	1011	1246	1487	1720	1952	2172	Measured Value (mV)
			-3	3	3	-6	-3	5	5	4	-8	Error (mV)
			-0.06	0.06	0.06	-0.12	-0.07	0.11	0.10	0.09	-0.17	LINEARITY ERROR (dB)
14 GHz	2165	46.3	315	550	792	1001	1234	1474	1703	1938	2164	Measured Value (mV)
			0	4	4	-8	-5	3	0	4	-1	Error (mV)
			0.00	0.08	0.09	-0.17	-0.14	0.06	0.01	0.10	-0.02	LINEARITY ERROR (dB)
15 GHz	2171	46.5	317	550	791	997	1230	1473	1701	1949	2175	Measured Value (mV)
			6	6	4	-12	-12	-1	-6	11	4	Error (mV)
			0.12	0.13	0.09	-0.27	-0.25	-0.02	-0.12	0.23	0.09	LINEARITY ERROR (dB)
0 GHz	2141	46.2	300	531	760	974	1204	1447	1674	1924	2143	Measured Value (mV)
			6	6	4	-12	-14	-2	-5	14	2	Error (mV)
			0.13	0.13	0.09	-0.26	-0.30	-0.04	-0.12	0.30	0.05	LINEARITY ERROR (dB)
17 GHz	2105	46.1	266	502	727	945	1169	1415	1637	1885	2109	Measured Value (mV)
			3	9	3	-9	-15	1	-7	10	4	Error (mV)
			0.06	0.19	0.07	-0.19	-0.32	0.02	-0.15	0.22	0.10	LINEARITY ERROR (dB)
18 GHz	2097	45.7	270	503	727	944	1170	1413	1632	1878	2100	Measured Value (mV)
			3	7	2	-9	-12	2	-7	10	3	Error (mV)
			0.07	0.16	0.05	-0.20	-0.26	0.05	-0.16	0.22	0.06	LINEARITY ERROR (dB)

Average Slope 47.1
 Flatness ± dB
 Average Offset 260.1

1.6	1.4	1.4	1.3	1.2	1.2	1	0.8	0.8
165	418	857	888	1131	1378	1626	1876	2190
317	554	787	1011	1246	1487	1720	1952	2175

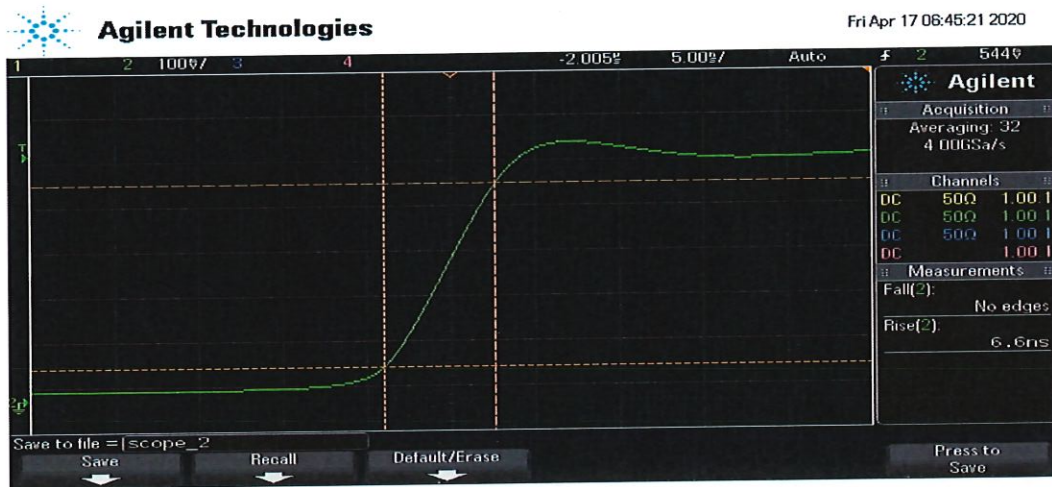




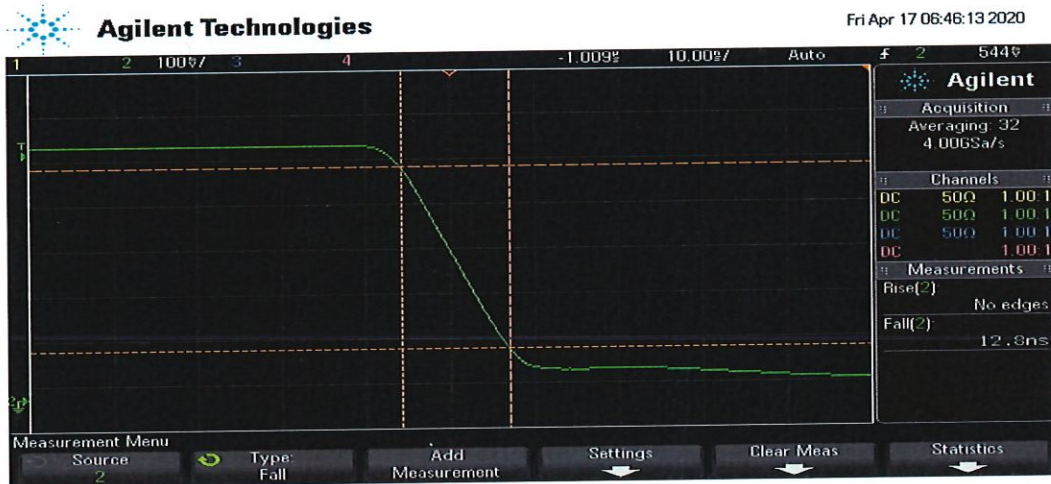
SUMMARY TEST DATA ON SDLVA-8G18G-40-5-SFF

PL28823/2018

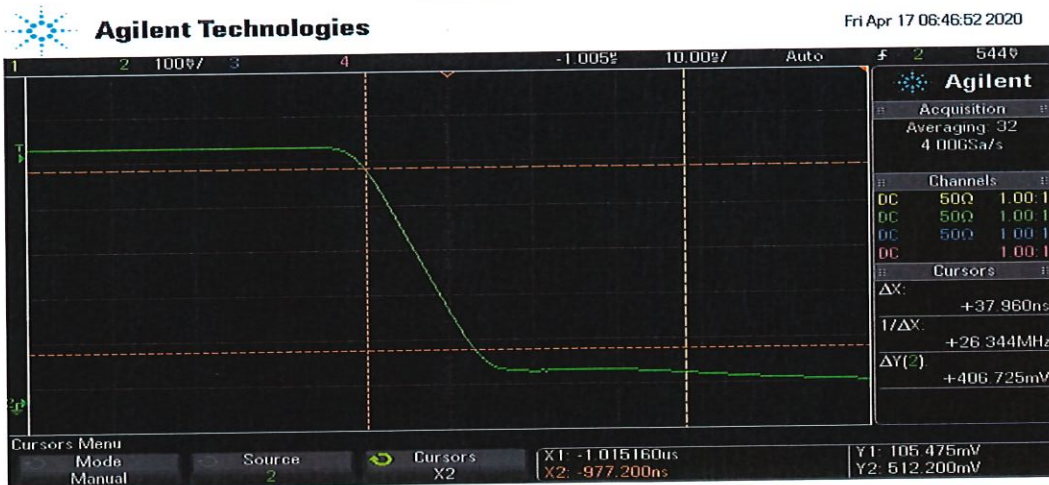
Rise Time



Fall Time



Recovery Time





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

PL28823/2018

VSWR

