



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

PL28817/2018

CUSTOMER:

SO:

MODEL NO: SDLVA-8G18G-40-5-SFF

SERIAL NO: PL28817/2018

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 QA1
2	Frequency Flatness	±2.0 dB	±1.9 dB (See Plots)	
3	Log Linearity Over Temp.	±1.0 dB ($P_{in} = -30\text{dBm}$ @ -54°C to +85°C)	± 0.36dB (See Plots)	
4	Logging Range	-40 to +0 dBm	-40 to +0 dBm (See Plots)	
5	Input VSWR	2.5:1 Max.	2.22:1 (See Plot)	
6	Max. RF Input	+10 dBm CW (Survival)	Pass (See Typical Characteristics)	
7	Log Video Output Voltage	10mV to 2.25V	184mV to 2.08V (See Plots)	
8	Log Video Output Slope	50mV/dB ±6.0mV/dB Max.	49.60mV/dB (See Plots)	
9	Log Video Output Rise Time	25ns Max. ($P_{in} = -20\text{dBm}$ @ 10% to 90%)	7.38ns (See Plots)	
10	Log Video Output Fall Time	30ns Max. ($P_{in} = -20\text{dBm}$ @ 90% to 10%)	14.20ns (See Plot)	
11	Log Video Recovery Time	40ns Max. ($P_{in} = -20\text{dBm}$ @ 90% to 10%)	36.40ns (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 QA1

QA/QC Approval:

 PMI
QA1

Date:

4/29/20



PL28817/2018

LOG TRANSFER VS FREQUENCY
MODEL: SDLVA-8G18G-40-5-SFF
TESTED BY: H. Gonzales
SERIAL No. PL28817/2018
Temp: 95°C

OPTION :

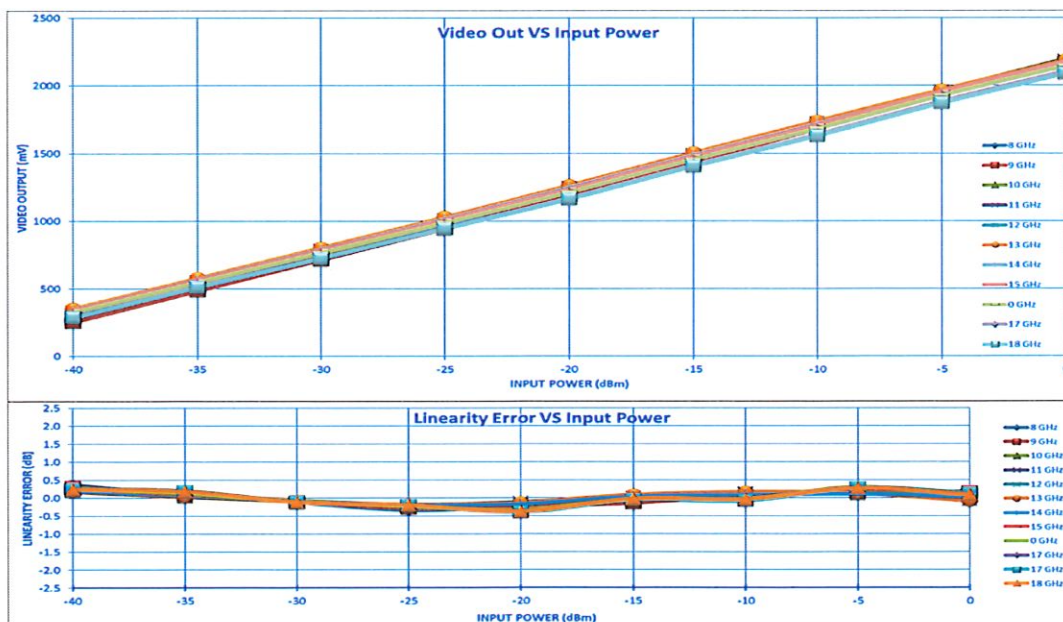
Tuesday, April 28, 2020
10:58 AM



Frequency			-40	-35	-30	-25	-20	-15	-10	-5	0	RF Input Power (dBm)
8 GHz	INTERCEPT (mV)	2191	273	501	733	965	1212	1458	1710	1958	2197	Measured Value (mV)
	SLOPE (mV/dB)	48.4	18	4	-6	-16	-11	-7	4	9	6	Error (mV)
			0.36	0.07	-0.12	-0.34	-0.23	-0.15	0.07	0.19	0.13	LINEARITY ERROR (dB)
9 GHz	INTERCEPT (mV)	2159	250	480	711	943	1188	1430	1681	1925	2167	Measured Value (mV)
	SLOPE (mV/dB)	48.1	15	5	-5	-14	-11	-7	3	7	8	Error (mV)
			0.31	0.10	-0.10	-0.29	-0.23	-0.15	0.06	0.15	0.16	LINEARITY ERROR (dB)
10 GHz	INTERCEPT (mV)	2192	294	523	755	987	1230	1472	1718	1959	2194	Measured Value (mV)
	SLOPE (mV/dB)	47.7	12	2	-5	-11	-7	-4	4	6	3	Error (mV)
			0.24	0.05	-0.10	-0.23	-0.15	-0.08	0.08	0.13	0.06	LINEARITY ERROR (dB)
11 GHz	INTERCEPT (mV)	2184	303	532	761	991	1231	1473	1717	1953	2184	Measured Value (mV)
	SLOPE (mV/dB)	47.3	10	3	-5	-10	-8	-2	6	5	1	Error (mV)
			0.21	0.06	-0.10	-0.22	-0.16	-0.04	0.12	0.11	0.01	LINEARITY ERROR (dB)
12 GHz	INTERCEPT (mV)	2191	334	561	788	1016	1253	1493	1732	1963	2187	Measured Value (mV)
	SLOPE (mV/dB)	46.6	8	1	-4	-9	-6	1	7	5	-4	Error (mV)
			0.17	0.02	-0.08	-0.19	-0.12	0.03	0.15	0.12	-0.08	LINEARITY ERROR (dB)
13 GHz	INTERCEPT (mV)	2191	349	574	789	1027	1280	1501	1736	1985	2186	Measured Value (mV)
	SLOPE (mV/dB)	46.2	8	1	-5	-9	-6	4	7	5	-5	Error (mV)
			0.16	0.02	-0.10	-0.18	-0.14	0.08	0.15	0.11	-0.10	LINEARITY ERROR (dB)
14 GHz	INTERCEPT (mV)	2172	341	564	789	1013	1244	1484	1716	1947	2173	Measured Value (mV)
	SLOPE (mV/dB)	46	9	2	-4	-9	-9	1	3	5	1	Error (mV)
			0.19	0.05	-0.08	-0.20	-0.18	0.03	0.07	0.10	0.01	LINEARITY ERROR (dB)
15 GHz	INTERCEPT (mV)	2171	339	561	784	1006	1235	1477	1709	1954	2174	Measured Value (mV)
	SLOPE (mV/dB)	46.1	13	4	-3	-12	-14	-3	-1	13	3	Error (mV)
			0.28	0.09	-0.07	-0.26	-0.30	-0.06	-0.02	0.29	0.06	LINEARITY ERROR (dB)
0 GHz	INTERCEPT (mV)	2140	321	543	762	984	1209	1451	1680	1924	2143	Measured Value (mV)
	SLOPE (mV/dB)	45.8	13	5	-4	-11	-15	-2	-2	13	3	Error (mV)
			0.28	0.11	-0.09	-0.24	-0.34	-0.04	-0.04	0.29	0.07	LINEARITY ERROR (dB)
17 GHz	INTERCEPT (mV)	2098	284	510	724	948	1168	1411	1638	1882	2104	Measured Value (mV)
	SLOPE (mV/dB)	45.6	11	9	-5	-9	-18	-3	-3	13	6	Error (mV)
			0.25	0.19	-0.11	-0.21	-0.39	-0.06	-0.07	0.27	0.13	LINEARITY ERROR (dB)
18 GHz	INTERCEPT (mV)	2094	284	508	721	943	1162	1404	1630	1870	2088	Measured Value (mV)
	SLOPE (mV/dB)	45.3	11	8	-5	-9	-17	-1	-2	12	4	Error (mV)
			0.24	0.17	-0.12	-0.20	-0.37	-0.03	-0.04	0.27	0.09	LINEARITY ERROR (dB)

Average Slope	45.6
Flatness \pm dB	
Average Offset	306.6

1.1	1	0.9	0.9	1.1	1	1.1	1	1.2
250	480	711	943	1162	1404	1630	1870	2088
349	574	799	1027	1260	1501	1736	1965	2197

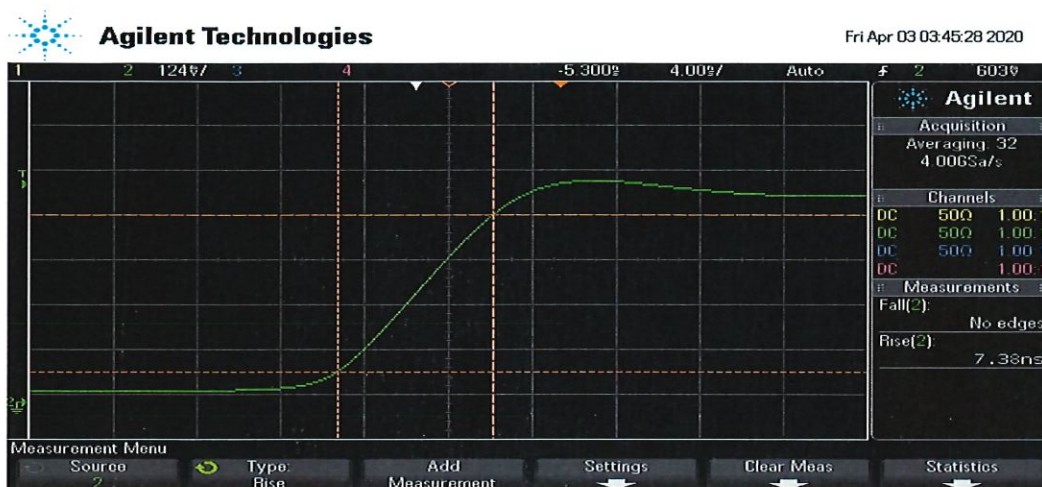




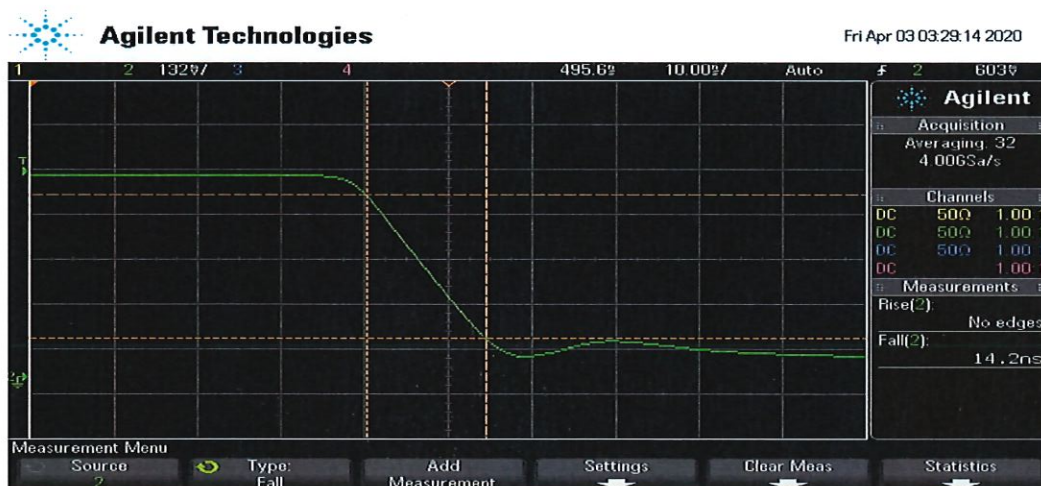
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ON
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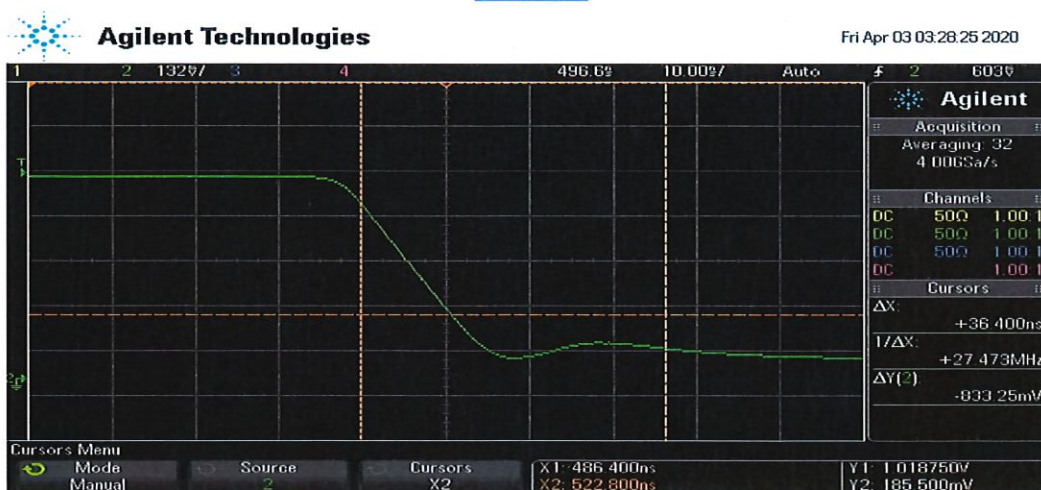
Rise Time



Fall Time



Recovery





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VSWR

