



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

PL28822/2018

**CUSTOMER:**  
**SO:**  
**MODEL NO:** SDLVA-8G18G-40-5-SFF  
**SERIAL NO:** PL28822/2018

**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 <sub>in</sub> = -30dBm @ -54°C to +85°C)	± 0.27dB (See Plots)	
4	Logging Range	-40 to +0 dBm	-40 to +0 dBm (See Plots)	
5	Input VSWR	2.5:1 Max.	2.31:1 (See Plot)	
6	Max. RF Input	+10 dBm CW (Survival)	Pass (See Typical Characteristics)	
7	Log Video Output Voltage	10mV to 2.25V	78mV to 1.89V (See Plots)	
8	Log Video Output Slope	50mV/dB ±6.0mV/dB Max.	45.20mV/dB (See Plots)	
9	Log Video Output Rise Time	25ns Max. (P <sub>in</sub> = -20dBm @ 10% to 90%)	18.80ns (See Plots)	
10	Log Video Output Fall Time	30ns Max. (P <sub>in</sub> = -20dBm @ 90% to 10%)	24.30ns (See Plot)	
11	Log Video Recovery Time	40ns Max. (P <sub>in</sub> = -20dBm @ 90% to 10%)	36.70ns (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:  F. Hernandez PMI QA1 Date: 4/29/20



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

PL28822/2018

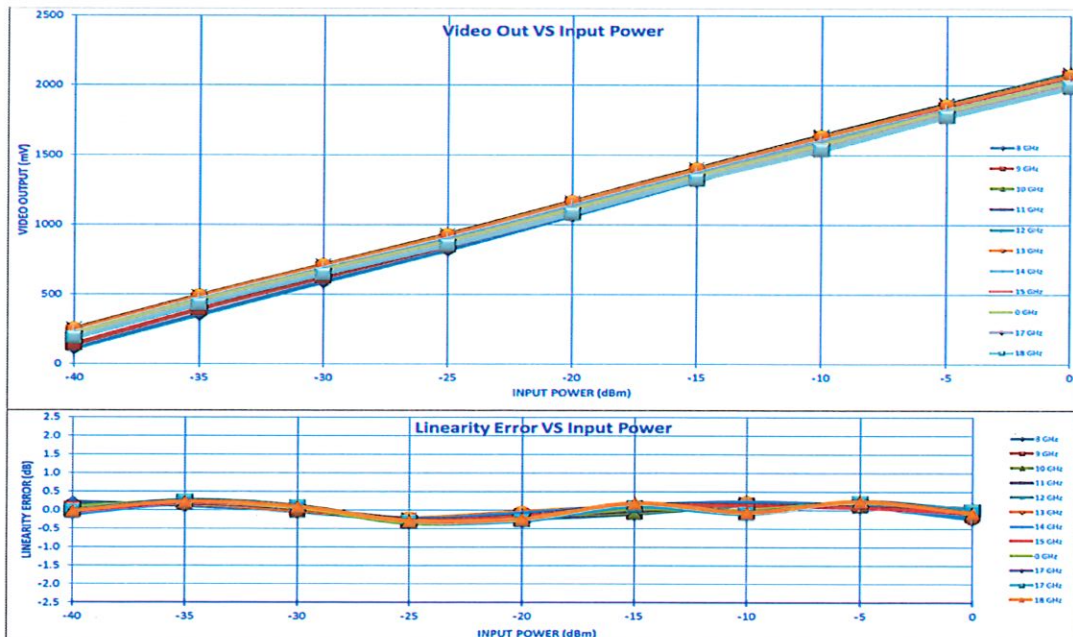
LOG TRANSFER VS FREQUENCY  
 MODEL: SDLVA-8G18G-40-5-SFF      OPTION :      Tuesday, April 29, 2020  
 TESTED BY: H. Gonzales      10:14 AM  
 SERIAL No. PL28822/2018  
 Temp: 25°C



Frequency	INTERCEPT (mV)	SLOPE (mV/dB)	RF Input Power (dBm)	Measured Value (mV)	Error (mV)	LINEARITY ERROR (dB)
8 GHz	2052	48.7	-40	113	6	0.20
			-35	353	-1	0.12
9 GHz	2069	48.3	-30	590	1	0.05
			-25	820	-14	0.22
10 GHz	2092	47.6	-20	1066	-10	0.01
			-15	1317	-5	0.22
11 GHz	2091	46.7	-10	1571	8	0.00
			-5	1818	6	0.21
12 GHz	2093	46	0	2054	2	0.02
			-40	113	6	0.16
13 GHz	2080	45.8	-35	388	1	0.05
			-30	620	1	0.22
14 GHz	2041	45.3	-25	846	-10	0.02
			-20	1092	-3	0.02
15 GHz	2020	45.3	-15	1341	8	0.05
			-10	1593	6	0.19
0 GHz	2027	45.3	-5	1833	6	0.07
			0	2090	-2	0.19
17 GHz	1998	45.2	-40	113	6	0.07
			-35	353	-1	0.23
18 GHz	1988	45	-30	590	1	0.06
			-25	820	-14	0.23

Average Slope	46.3
Flatness ± dB	
Average Offset	199.1

1.5	1.5	1.3	1.2	1.1	0.9	1.2	1	1.1
113	353	590	820	1066	1317	1535	1773	1984
253	490	710	931	1167	1405	1642	1868	2090







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

PL28822/2018

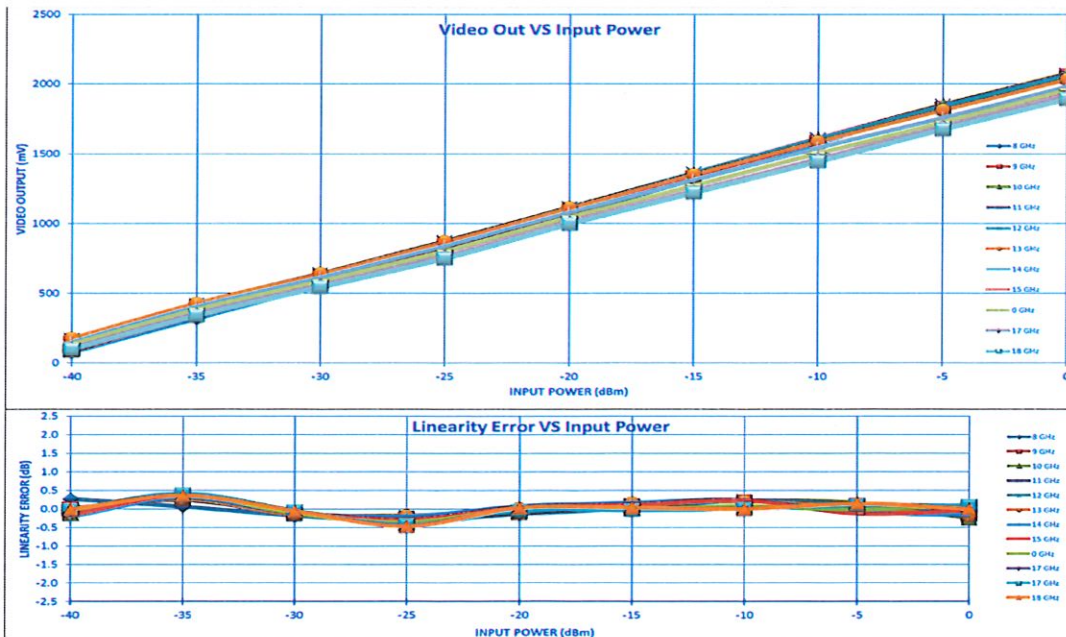
LOG TRANSFER VS FREQUENCY  
 MODEL: SDLVA-8G18G-40-5-SFF      OPTION :      Tuesday, April 28, 2020  
 TESTED BY: H. Gonzales      10:15 AM  
 SERIAL No. PL28822/2018  
 Temp: -54°C



Frequency

Frequency	INTERCEPT (mV)	SLOPE (mV/dB)	Measured Value (mV)	Error (mV)	LINEARITY ERROR (dB)
8 GHz	2066	50	78, 318, 556, 799, 1058, 1316, 1577, 1823, 2062	14, 3, -9, -16, -7, 1, 11, 7, -4	0.27, 0.06, -0.18, -0.32, -0.14, 0.01, 0.22, 0.15, -0.08
9 GHz	2071	49.7	85, 344, 574, 817, 1071, 1330, 1585, 1828, 2063	1, 11, -7, -12, -6, 4, 11, 6, -8	0.02, 0.23, -0.14, -0.25, -0.12, 0.09, 0.22, 0.12, -0.16
10 GHz	2089	49.1	118, 386, 610, 852, 1103, 1358, 1608, 1851, 2076	-7, 16, -6, -9, -4, 5, 10, 9, -13	-0.14, 0.32, -0.13, -0.19, -0.08, 0.11, 0.21, 0.16, -0.26
11 GHz	2081	48.2	145, 408, 628, 865, 1111, 1363, 1609, 1845, 2070	-6, 15, -6, -10, -5, 6, 11, 6, -11	-0.13, 0.32, -0.12, -0.20, -0.10, 0.12, 0.22, 0.12, -0.23
12 GHz	2066	47.3	172, 423, 640, 874, 1116, 1363, 1603, 1835, 2057	-2, 12, -7, -10, -4, 6, 10, 5, -10	-0.05, 0.25, -0.15, -0.21, -0.09, 0.12, 0.20, 0.12, -0.20
13 GHz	2041	46.6	173, 424, 637, 868, 1110, 1349, 1585, 1809, 2031	-6, 12, -7, -9, 0, 7, 10, 2, -10	-0.12, 0.27, -0.15, -0.19, 0.01, 0.15, 0.21, 0.03, -0.21
14 GHz	1989	45.8	150, 402, 612, 836, 1077, 1310, 1543, 1757, 1981	-8, 14, -5, -9, 3, 7, 11, -4, -8	-0.20, 0.31, -0.11, -0.20, 0.07, 0.16, 0.24, -0.08, -0.18
15 GHz	1944	45.4	122, 374, 580, 797, 1039, 1269, 1501, 1711, 1942	-8, 17, -4, -13, 2, 5, 10, -6, -2	-0.18, 0.37, -0.08, -0.30, 0.04, 0.10, 0.23, -0.14, -0.05
16 GHz	1951	45.4	134, 380, 583, 799, 1042, 1269, 1500, 1723, 1956	-1, 18, -6, -17, -1, -1, 3, -1, 5	-0.03, 0.40, -0.12, -0.37, -0.01, -0.02, 0.07, -0.03, 0.11
17 GHz	1913	45.2	104, 350, 555, 764, 1008, 1234, 1462, 1692, 1917	-1, 19, -2, -20, -2, -2, 0, 4, 4	-0.03, 0.41, -0.05, -0.44, -0.03, -0.04, 0.00, 0.10, 0.08
18 GHz	1890	44.9	94, 335, 541, 747, 994, 1218, 1441, 1672, 1890	-1, 16, -3, -21, 1, 1, 0, 6, 0	-0.02, 0.36, -0.06, -0.47, 0.03, 0.03, 0.00, 0.14, -0.01

Average Slope	47.0
Flatness ± dB	1, 1.1, 1.1, 1.4, 1.3, 1.5, 1.8, 1.9, 2
Average Offset	78, 318, 541, 747, 994, 1218, 1441, 1672, 1890
	173, 424, 640, 874, 1116, 1363, 1809, 1851, 2076







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

PL28822/2018

LOG TRANSFER VS FREQUENCY  
MODEL: SDLVA-8G18G-40-5-SFF  
TESTED BY: H. Gonzales  
SERIAL No. PL28822/2018  
Temp: 95°C

Tuesday, April 28, 2020  
10:16 AM

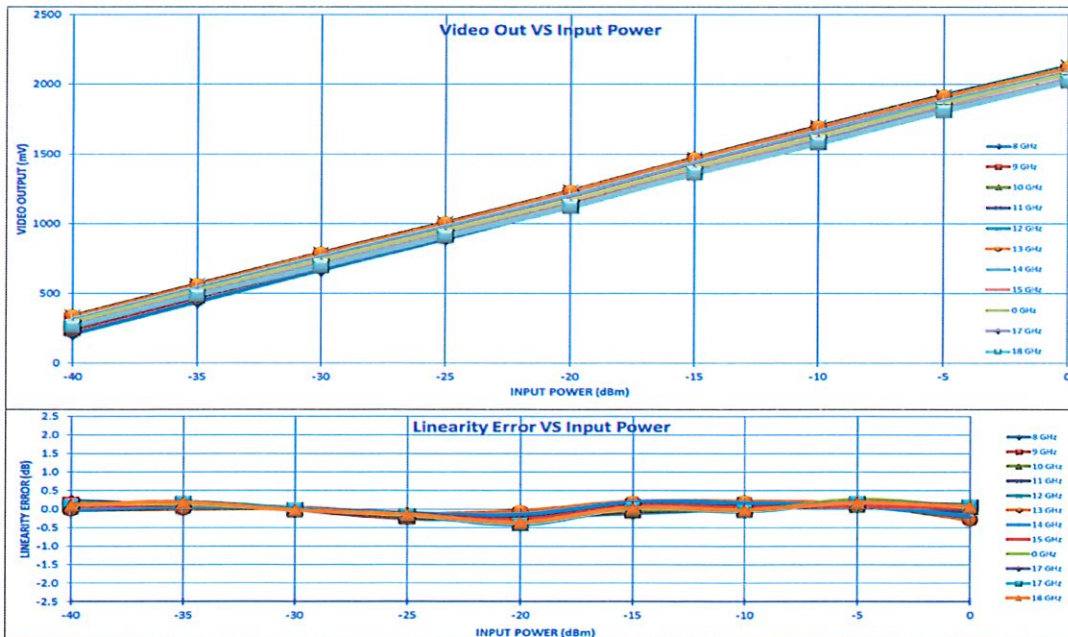


Frequency

Frequency	INTERCEPT (mV)	SLOPE (mV/dB)	Measured Value (mV)	Error (mV)	LINEARITY ERROR (dB)
8 GHz	2078	46.9	211, 240, 440, 669, 893, 1129, 1369, 1609, 1851, 2083	10, 5, -1, -12, -10, -5, 1, 8, 5	0.22, 0.10, -0.03, -0.26, -0.22, -0.11, 0.01, 0.17, 0.11
9 GHz	2093	46.5	240, 471, 697, 919, 1155, 1392, 1631, 1866, 2096	7, 5, -1, -11, -8, -3, 3, 5, 3	0.16, 0.11, -0.02, -0.24, -0.17, -0.07, 0.06, 0.12, 0.07
10 GHz	2122	46	288, 518, 742, 965, 1196, 1430, 1666, 1896, 2124	5, 4, -1, -9, -7, -2, 4, 4, 1	0.11, 0.10, -0.02, -0.18, -0.15, -0.05, 0.08, 0.09, 0.03
11 GHz	2134	45.5	316, 545, 769, 989, 1217, 1453, 1685, 1911, 2130	2, 4, 0, -7, -7, 2, 6, 4, -3	0.05, 0.08, 0.00, -0.16, -0.16, 0.04, 0.13, 0.10, -0.08
12 GHz	2143	45.1	339, 565, 790, 1008, 1235, 1472, 1699, 1923, 2133	1, 1, 0, -7, -5, 6, 8, 6, -10	0.02, 0.02, 0.00, -0.15, -0.11, 0.12, 0.17, 0.13, -0.21
13 GHz	2132	44.9	335, 560, 785, 1003, 1231, 1467, 1692, 1913, 2119	-1, 0, 0, -6, -3, 9, 9, 5, -13	-0.03, 0.00, 0.00, -0.13, -0.06, 0.19, 0.20, 0.12, -0.30
14 GHz	2097	44.6	313, 538, 761, 978, 1199, 1436, 1659, 1878, 2088	-1, 2, 1, -5, -7, 8, 7, 4, -9	-0.03, 0.04, 0.02, -0.11, -0.15, 0.18, 0.16, 0.08, -0.20
15 GHz	2075	44.5	297, 521, 741, 955, 1172, 1410, 1631, 1855, 2078	3, 5, 2, -6, -13, 3, 2, 3, 2	0.07, 0.10, 0.04, -0.15, -0.28, 0.08, 0.04, 0.07, 0.04
0 GHz	2071	44.5	298, 519, 737, 951, 1165, 1404, 1624, 1860, 2073	7, 5, 1, -8, -16, 0, -2, 11, 2	0.15, 0.12, 0.02, -0.18, -0.37, 0.00, -0.05, 0.25, 0.05
17 GHz	2035	44.3	266, 492, 705, 920, 1130, 1371, 1589, 1822, 2039	5, 8, 1, -7, -18, 1, -2, 8, 4	0.10, 0.19, 0.01, -0.15, -0.41, 0.03, -0.05, 0.19, 0.09
18 GHz	2017	44.1	258, 482, 693, 908, 1119, 1357, 1575, 1804, 2020	5, 8, -1, -6, -16, 2, -1, 8, 3	0.11, 0.18, -0.03, -0.14, -0.36, 0.03, -0.03, 0.18, 0.07

Average Slope	45.2
Flatness ± dB	
Average Offset	287.4

1.4	1.4	1.3	1.3	1.3	1.3	1.4	1.3	1.3
211	440	669	893	1119	1357	1575	1804	2020
339	565	790	1008	1235	1472	1699	1923	2133

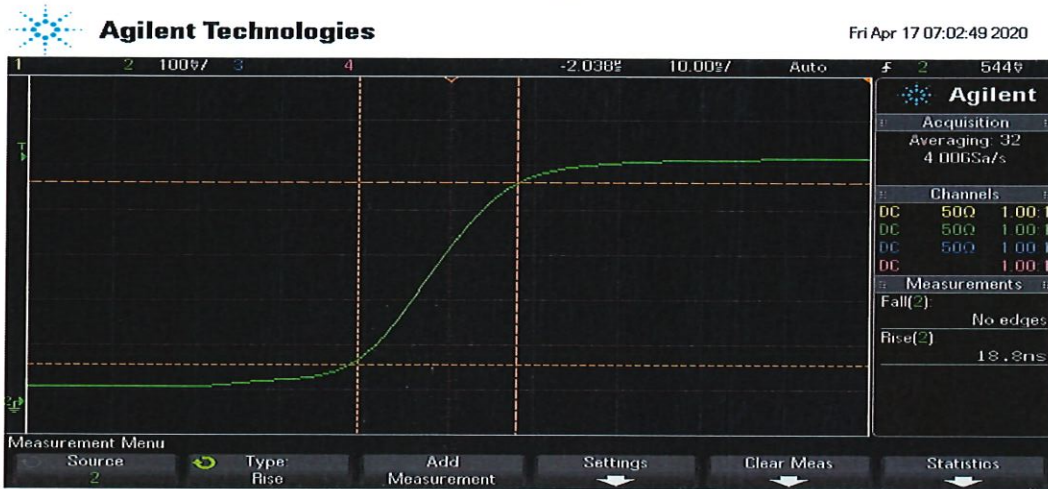




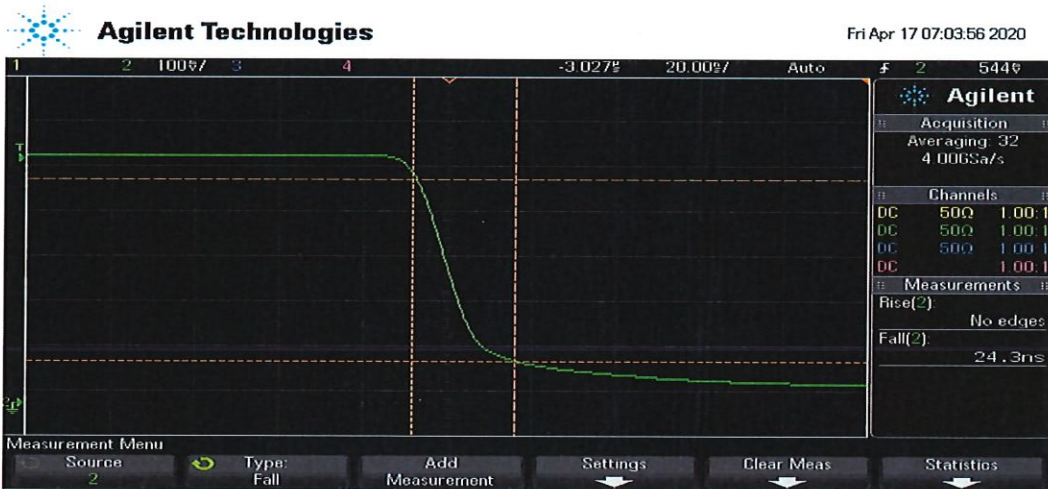
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ON  
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PL28822/2018

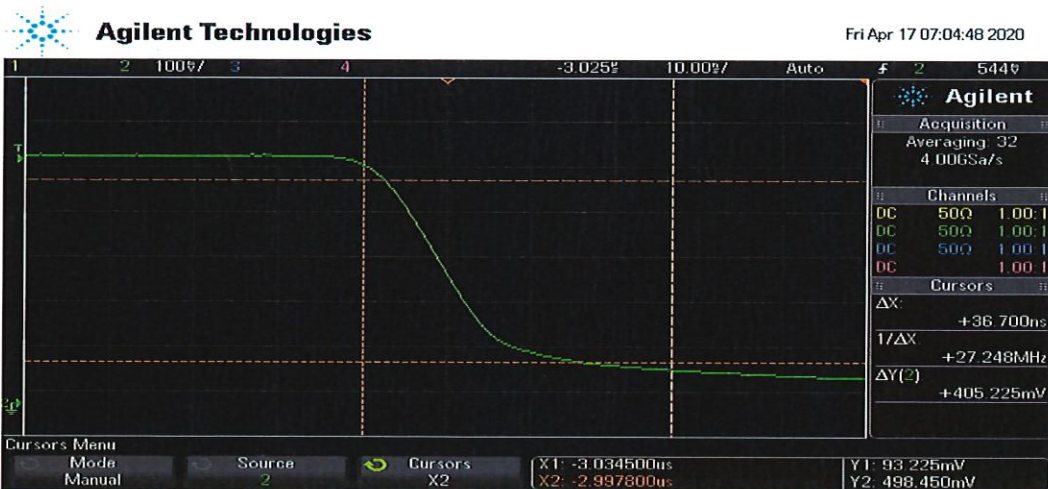
Rise Time



Fall Time



Recovery Time







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## VSWR

