



**SUMMARY TEST DATA
ON
SDLVA-218-71-70MV-1**

PL38757

Customer: _____
 Job No: _____
 Model No: SDLVA-218-71-70MV-1
 Serial No: PL38757

Tested By: Dan Almond
 Temperature: 25C
 Date: 04/19/2023

TEST. ITEM NO	PARAMETERS	SPECIFIED VALUE	PASS	QA
			FAIL	QC
1	Frequency Range:	2 GHz – 18 GHz	2 GHz – 18 GHz	QA QC PL38757
2	CW Level: Pulse peak loss at -40 dbm	-40 dBm: 2.0 dB	PASS <2dB	
4	Flatness:	± 2.0 dB Max.	+/-1.43dB (See Plots)	
5	Log Linearity @25C	± 1.0 dB Max.	+0.87/-0.93 (See Plot)	
6	Log Range:	-66 to +5 dBm	-66 to +5dB (See Plots)	
7	Log Slope	70mV/dB nominal	70mV/dB (See Plot)	
8	Log accuracy from 70mV / dB @ 25C	± 2.0 dB Max.	+1.52/-1.47dB (See Plot)	
9	VSWR:	2.0:1 Max.	1.80:1 (See Plot)	
10	Rise Time:	25nS Max.	23nS	
11	Settling time	50nS Max	<50nS	
12	Recovery Time:	500nS Max.	250nS	
13	Noise level	75mV(RMS)	72mV	
14	DC offset	± 70mV Max	-13mV	
15	Video output @ -66dBm	350± 140mV	451mV	
16	Pulse droop @ 300uS pulse @ -65dBm	70mV Max	PASS <70mV	

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17	Peak & baseline variation with duty cycle up 50% @ 2uS PW	70mV Max	PASS <70mV	PMI QA3
18	TSS:	-72 dBm Min. @15MHz video BW	-72dBm	
19	DC Supply:	+15VDC @ 400 mA -15VDC @ 150 mA	+15 VDC @ 330mA -15 VDC @ 90mA	

QA/QC Approval: *H. Venter* Date: 4-19-23

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PAGE #1

MODEL: SDLVA-218-71-70MV-1
TESTED BY: E.BENSON
DATE: 04-18-23
SERIAL NO: PL38757
Test Temp: +25C



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TABULATED LOG LINEARITY AND LOGGING ACCURACY

Frequency															RF Input Power (dBm)		
		-65	-60	-55	-50	-45	-40	-35	-30	-25	-20	-15	-10	-5	0	5	
2 GHz	INTERCEPT (mV)	5008													Measured Value (mV)		
	SLOPE (mV/dB)	70.30													Error (mV)		
		401	777	1147	1482	1868	2208	2593	2879	3220	3571	3929	4306	4709	5031	5332	LINEARITY ERROR (dB)
		-0.54	-0.19	0.07	-0.16	0.33	0.16	0.64	-0.29	-0.44	-0.45	-0.35	0.01	0.74	0.32	-0.40	ACCURACY ERROR (dB)
		-1.47	-1.10	-0.81	-1.03	-0.51	-0.65	-0.15	-1.07	-1.20	-1.18	-1.07	-0.68	0.07	-0.33	-1.03	
3 GHz	INTERCEPT (mV)	5019													Measured Value (mV)		
	SLOPE (mV/dB)	69.63													Error (mV)		
		451	819	1199	1535	1913	2252	2600	2896	3253	3598	3971	4356	4732	5007	5334	LINEARITY ERROR (dB)
		-0.61	-0.33	0.13	-0.04	0.39	0.25	0.25	-0.50	-0.37	-0.41	-0.06	0.47	0.87	-0.18	-0.48	ACCURACY ERROR (dB)
		-0.75	-0.50	-0.07	-0.27	0.13	-0.03	-0.05	-0.83	-0.73	-0.80	-0.47	0.03	0.40	-0.67	-1.00	
4 GHz	INTERCEPT (mV)	5009													Measured Value (mV)		
	SLOPE (mV/dB)	68.56													Error (mV)		
		513	870	1253	1588	1954	2295	2629	2924	3275	3601	3917	4313	4714	5020	5371	LINEARITY ERROR (dB)
		-0.57	-0.36	0.22	0.11	0.45	0.42	0.29	-0.40	-0.29	-0.53	-0.92	-0.15	0.70	0.17	0.29	ACCURACY ERROR (dB)
		0.13	0.23	0.70	0.49	0.72	0.59	0.36	-0.43	-0.41	-0.75	-1.24	-0.58	0.15	-0.48	-0.47	
5 GHz	INTERCEPT (mV)	5014													Measured Value (mV)		
	SLOPE (mV/dB)	69.44													Error (mV)		
		477	842	1222	1550	1922	2260	2601	2890	3228	3581	3917	4290	4714	5039	5409	LINEARITY ERROR (dB)
		-0.34	-0.08	0.39	0.11	0.47	0.34	0.25	-0.59	-0.72	-0.64	-0.80	-0.43	0.68	0.36	0.69	ACCURACY ERROR (dB)
		-0.38	-0.17	0.26	-0.05	0.26	0.09	-0.04	-0.91	-1.08	-1.04	-1.24	-0.91	0.15	-0.21	0.07	
6 GHz	INTERCEPT (mV)	5037													Measured Value (mV)		
	SLOPE (mV/dB)	69.09													Error (mV)		
		525	877	1258	1589	1950	2297	2631	2928	3280	3633	3985	4311	4710	5043	5425	LINEARITY ERROR (dB)
		-0.31	-0.21	0.30	0.09	0.32	0.34	0.18	-0.52	-0.43	-0.32	-0.22	-0.51	0.27	0.09	0.62	ACCURACY ERROR (dB)
		0.30	0.33	0.77	0.50	0.66	0.62	0.39	-0.37	-0.34	-0.30	-0.27	-0.61	0.09	-0.15	0.30	
7 GHz	INTERCEPT (mV)	5094													Measured Value (mV)		
	SLOPE (mV/dB)	70.28													Error (mV)		
		517	870	1252	1586	1949	2289	2633	2934	3323	3676	4024	4390	4770	5101	5456	LINEARITY ERROR (dB)
		-0.12	-0.10	0.34	0.09	0.26	0.09	-0.01	-0.73	-0.19	-0.17	-0.22	-0.01	0.39	0.10	0.15	ACCURACY ERROR (dB)
		0.19	0.23	0.69	0.46	0.65	0.50	0.42	-0.28	0.27	0.32	0.29	0.52	0.95	0.67	0.75	
8 GHz	INTERCEPT (mV)	5069													Measured Value (mV)		
	SLOPE (mV/dB)	70.70													Error (mV)		
		442	811	1188	1519	1894	2236	2598	2918	3324	3681	4029	4385	4762	5030	5376	LINEARITY ERROR (dB)
		-0.45	-0.23	0.10	-0.22	0.09	-0.07	0.05	-0.43	0.31	0.36	0.28	0.32	0.65	-0.56	-0.66	ACCURACY ERROR (dB)
		-0.88	-0.61	-0.23	-0.50	-0.14	-0.25	-0.08	-0.51	0.29	0.39	0.36	0.45	0.83	-0.34	-0.40	
9 GHz	INTERCEPT (mV)	5087													Measured Value (mV)		
	SLOPE (mV/dB)	70.94													Error (mV)		
		451	817	1195	1531	1910	2255	2614	2922	3320	3671	4029	4396	4767	5039	5443	LINEARITY ERROR (dB)
		-0.35	-0.19	0.13	-0.13	0.21	0.08	0.14	-0.52	0.09	0.04	0.08	0.26	0.49	-0.68	0.02	ACCURACY ERROR (dB)
		-0.75	-0.53	-0.13	-0.33	0.09	0.02	0.15	-0.45	0.23	0.25	0.36	0.60	0.90	-0.21	0.56	
10 GHz	INTERCEPT (mV)	5077													Measured Value (mV)		
	SLOPE (mV/dB)	70.88													Error (mV)		
		432	808	1185	1527	1909	2251	2610	2912	3290	3655	4041	4396	4727	5063	5418	LINEARITY ERROR (dB)
		-0.53	-0.23	0.09	-0.09	0.30	0.13	0.19	-0.55	-0.21	-0.07	0.38	0.39	0.06	-0.20	-0.19	ACCURACY ERROR (dB)
		-1.03	-0.65	-0.27	-0.38	0.07	-0.04	0.09	-0.60	-0.20	0.02	0.53	0.60	0.33	0.13	0.20	

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PAGE #2

MODEL: SDLVA-218-71-70MV-1
 TESTED BY: E.BENSON
 DATE: 04-18-23
 SERIAL NO: PL38757
 Test Temp: +25C



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TABULATED LOG LINEARITY AND LOGGING ACCURACY

Frequency		-65	-60	-55	-50	-45	-40	-35	-30	-25	-20	-15	-10	-5	0	5	RF Input Power (dBm)
11 GHz	INTERCEPT (mV)	461 830 1212 1545 1921 2267 2626 2942 3337 3675 4052 4396 4770 5051 5376															Measured Value (mV)
	SLOPE (mV/dB)	-42 -25 5 -14 10 4 11 -25 18 4 29 21 43 -28 -55															Error (mV)
		-0.60 -0.36 0.07 -0.20 0.14 0.06 0.16 -0.35 0.26 0.06 0.42 0.30 0.62 -0.39 -0.78															LINEARITY ERROR (dB)
		-0.61 -0.34 0.12 -0.13 0.25 0.19 0.32 -0.17 0.47 0.30 0.69 0.60 0.95 -0.04 -0.40															ACCURACY ERROR (dB)
12 GHz	INTERCEPT (mV)	439 810 1186 1516 1894 2240 2608 2933 3321 3649 4043 4386 4748 5043 5384															Measured Value (mV)
	SLOPE (mV/dB)	-34 -17 6 -18 6 -1 13 -16 18 -7 33 22 30 -28 -41															Error (mV)
		-0.48 -0.23 0.08 -0.25 0.09 -0.02 0.18 -0.23 0.26 -0.10 0.46 0.31 0.43 -0.40 -0.58															LINEARITY ERROR (dB)
		-0.93 -0.63 -0.25 -0.54 -0.14 -0.20 0.06 -0.30 0.25 -0.07 0.56 0.46 0.63 -0.15 -0.28															ACCURACY ERROR (dB)
13 GHz	INTERCEPT (mV)	447 813 1189 1522 1900 2249 2617 2940 3310 3630 4003 4347 4739 5110 5502															Measured Value (mV)
	SLOPE (mV/dB)	-11 -1 18 -6 15 7 19 -15 -2 -39 -23 -35 0 14 49															Error (mV)
		-0.15 -0.02 0.25 -0.08 0.21 0.10 0.26 -0.21 -0.03 -0.54 -0.32 -0.50 0.00 0.19 0.69															LINEARITY ERROR (dB)
		-0.81 -0.58 -0.21 -0.45 -0.05 -0.07 0.19 -0.20 0.09 -0.34 -0.01 -0.10 0.50 0.80 1.40															ACCURACY ERROR (dB)
14 GHz	INTERCEPT (mV)	514 866 1247 1576 1946 2310 2670 2951 3301 3614 3998 4369 4737 5063 5396															Measured Value (mV)
	SLOPE (mV/dB)	-29 -24 10 -8 15 32 45 -21 -19 -53 -16 8 29 8 -6															Error (mV)
		-0.42 -0.35 0.14 -0.12 0.21 0.45 0.64 -0.31 -0.27 -0.76 -0.22 0.12 0.42 0.12 -0.08															LINEARITY ERROR (dB)
		0.15 0.17 0.62 0.32 0.60 0.80 0.95 -0.04 -0.04 -0.57 -0.08 0.22 0.47 0.13 -0.11															ACCURACY ERROR (dB)
15 GHz	INTERCEPT (mV)	551 902 1282 1610 1975 2323 2668 2937 3286 3579 3939 4284 4655 4960 5320															Measured Value (mV)
	SLOPE (mV/dB)	-56 -41 4 -3 26 39 48 -18 -5 -47 -22 -13 23 -8 17															Error (mV)
		-0.84 -0.60 0.06 -0.05 0.39 0.58 0.72 -0.27 -0.07 -0.70 -0.33 -0.19 0.34 -0.12 0.25															LINEARITY ERROR (dB)
		0.67 0.69 1.12 0.80 1.02 0.99 0.92 -0.24 -0.25 -1.07 -0.93 -1.00 -0.70 -1.34 -1.20															ACCURACY ERROR (dB)
16 GHz	INTERCEPT (mV)	519 874 1254 1587 1956 2330 2670 2930 3265 3592 3977 4341 4712 5049 5407															Measured Value (mV)
	SLOPE (mV/dB)	-35 -24 11 -1 24 53 48 -37 -46 -64 -24 -4 22 14 28															Error (mV)
		-0.50 -0.35 0.16 -0.01 0.34 0.77 0.70 -0.53 -0.67 -0.93 -0.34 -0.06 0.32 0.21 0.40															LINEARITY ERROR (dB)
		0.22 0.29 0.72 0.47 0.75 1.09 0.95 -0.34 -0.55 -0.88 -0.38 -0.18 0.12 -0.07 0.05															ACCURACY ERROR (dB)
17 GHz	INTERCEPT (mV)	503 866 1240 1585 1949 2319 2680 2969 3367 3716 4062 4447 4782 5160 5509															Measured Value (mV)
	SLOPE (mV/dB)	-17 -10 8 -3 5 20 25 -42 0 -7 -17 12 -9 13 6															Error (mV)
		-0.23 -0.14 0.12 -0.04 0.08 0.27 0.35 -0.60 0.00 -0.10 -0.24 0.17 -0.13 0.18 0.08															LINEARITY ERROR (dB)
		-0.01 0.17 0.52 0.45 0.65 0.93 1.09 0.22 0.90 0.89 0.83 1.33 1.12 1.52 1.50															ACCURACY ERROR (dB)
18 GHz	INTERCEPT (mV)	412 788 1151 1491 1866 2218 2585 2887 3300 3654 4005 4385 4717 5068 5413															Measured Value (mV)
	SLOPE (mV/dB)	-20 -1 5 -12 6 1 11 -44 12 9 3 26 1 -5 -17															Error (mV)
		-0.28 -0.01 0.07 -0.16 0.09 0.02 0.16 -0.61 0.17 0.13 0.05 0.37 0.02 -0.06 -0.23															LINEARITY ERROR (dB)
		-1.31 -0.94 -0.75 -0.90 -0.54 -0.51 -0.27 -0.95 -0.05 0.00 0.02 0.45 0.19 0.20 0.13															ACCURACY ERROR (dB)
Output Vos(mV)=		-13.0															
Avg Slope(mV/dB)=		70.0															Max Measured (mV)
Max Slope(mV/dB)=		71.4															Min Measured (mV)
Min Slope(mV/dB)=		67.1															FLATNESS ERROR (+/-dB)

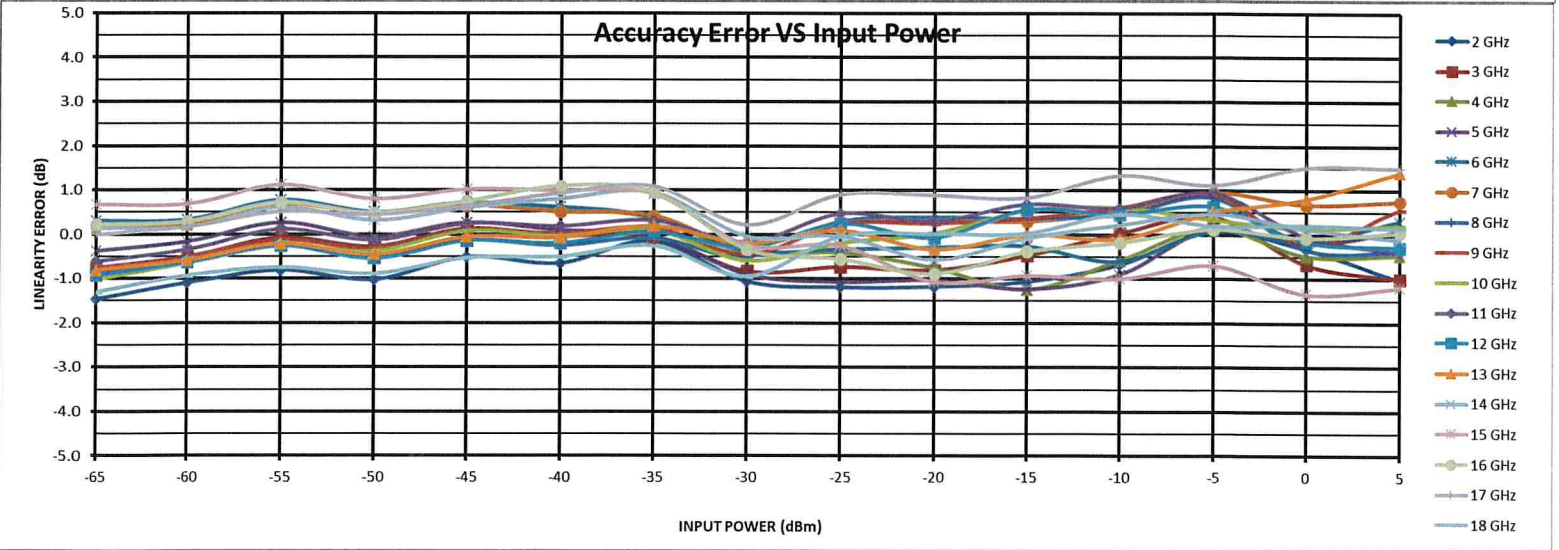
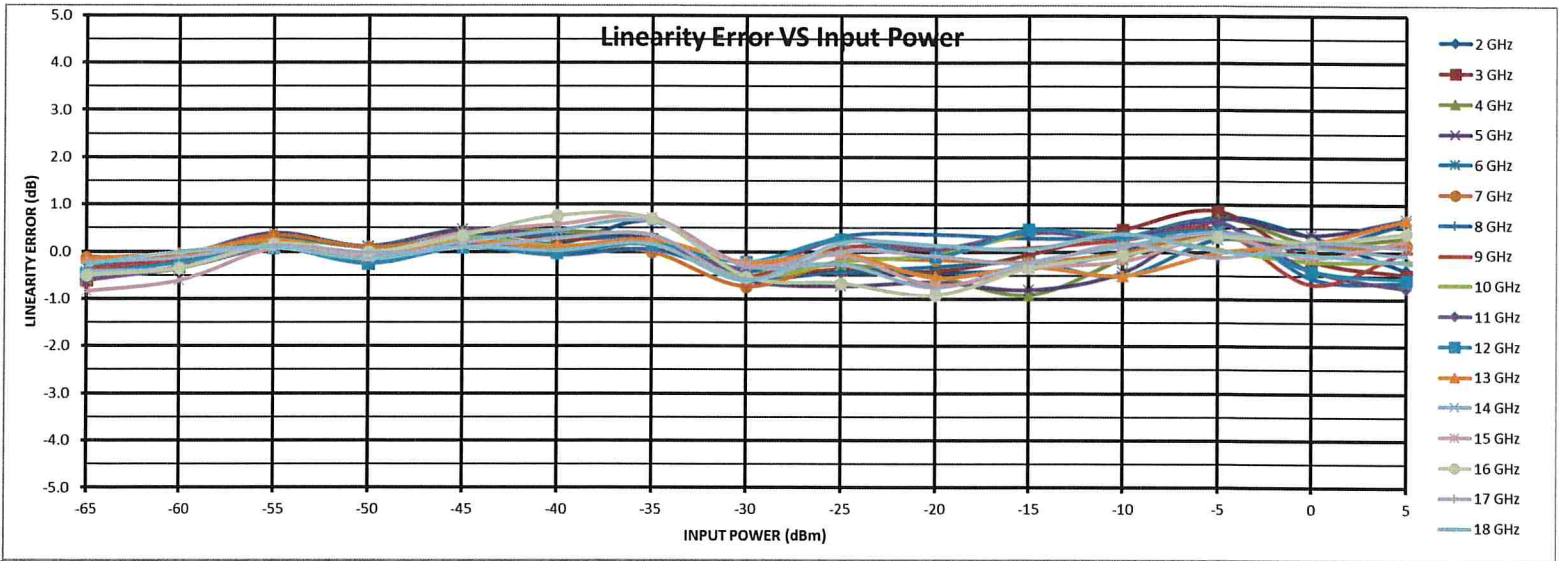
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RISE TIME 23nS



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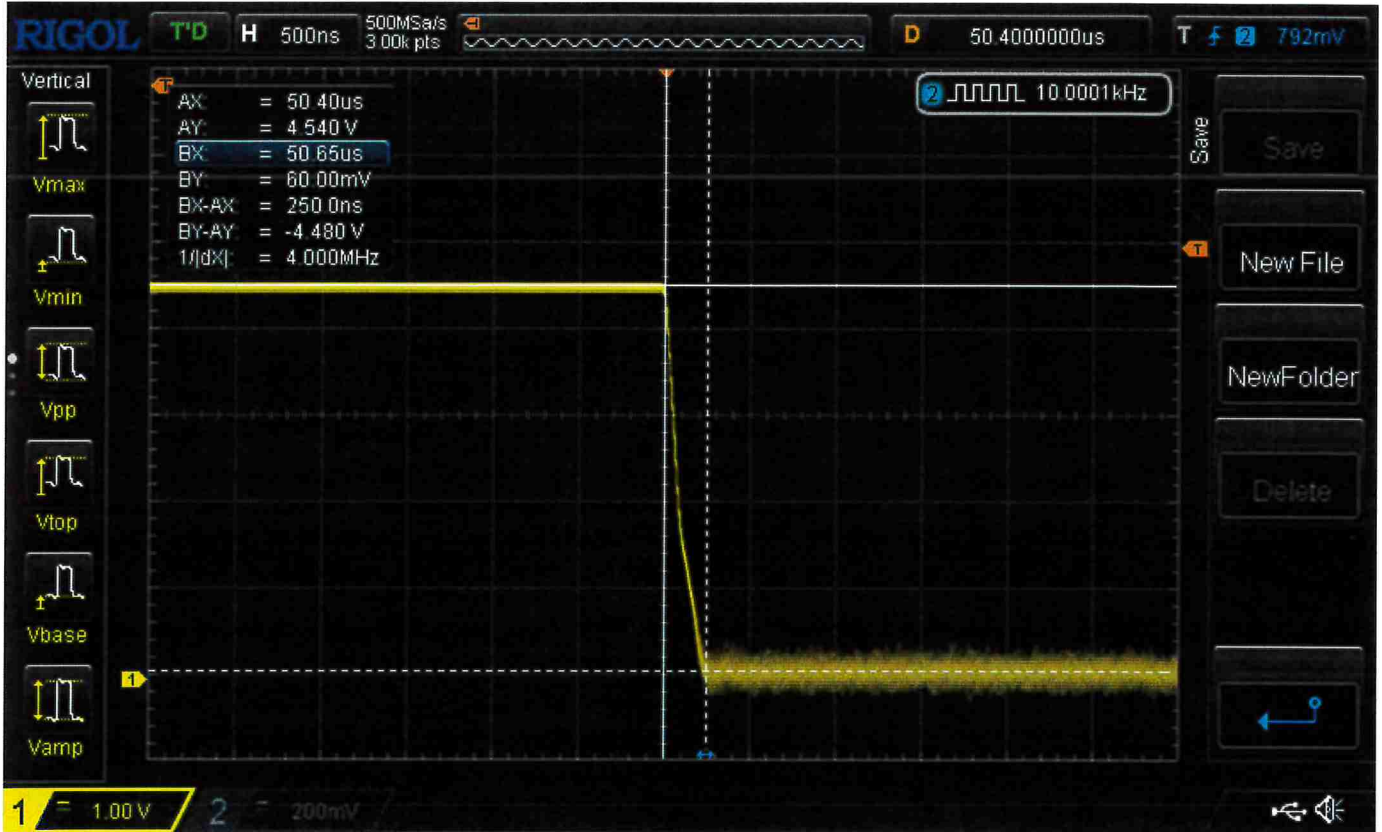
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RECOVERY TIME 250nS



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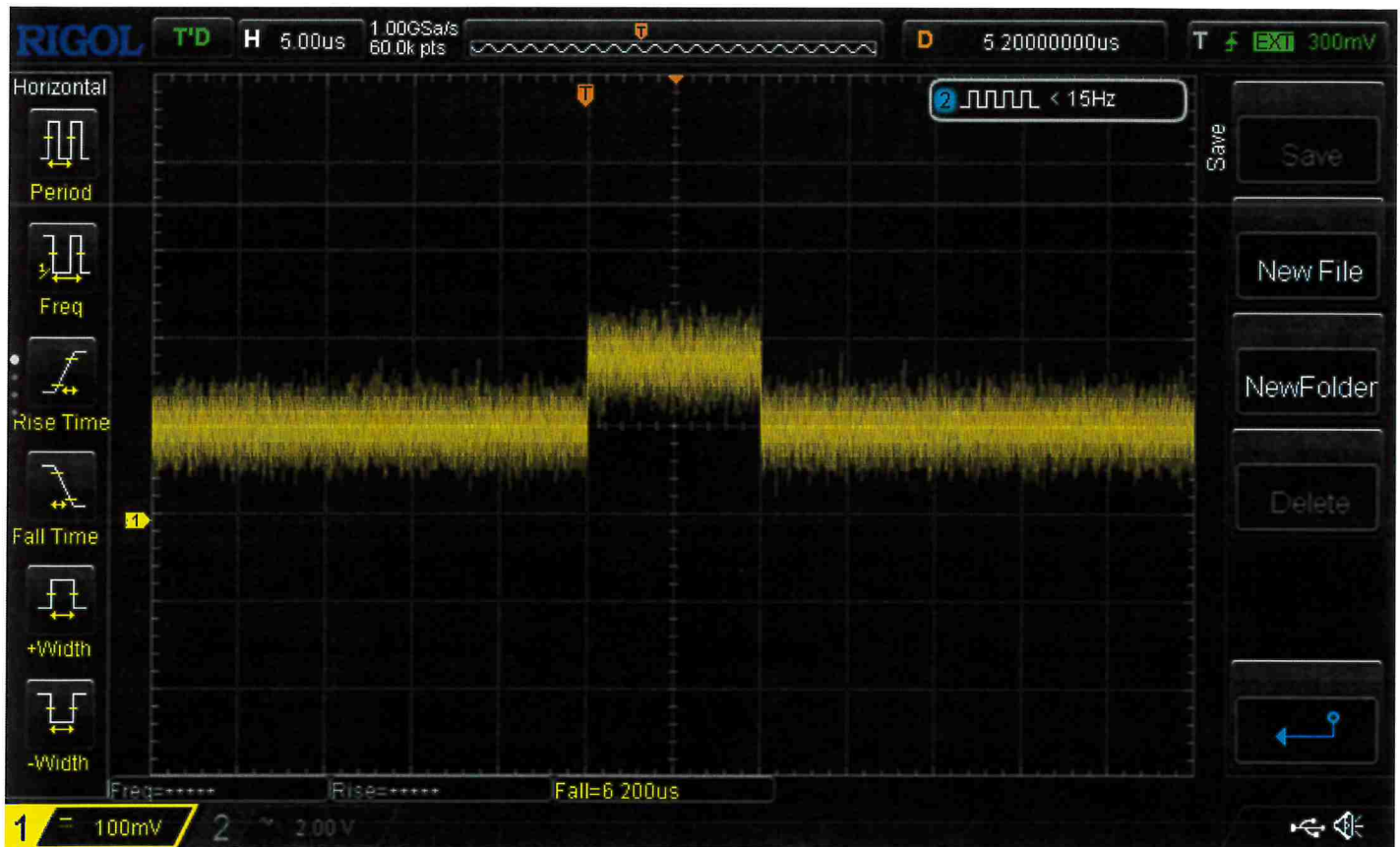
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TSS -72dBm



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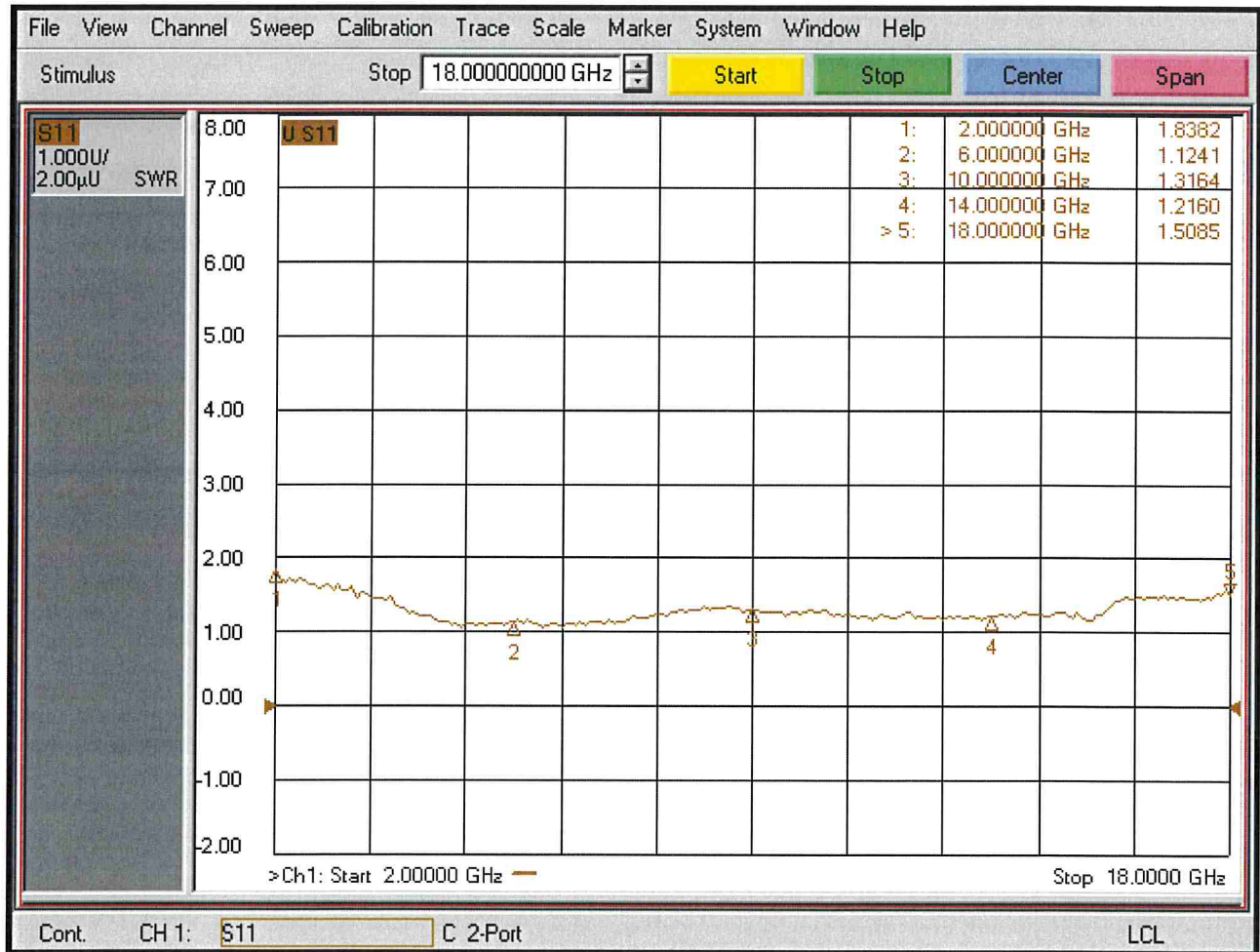
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VSWR 1.80:1



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