



**SUMMARY TEST DATA  
ON  
SDLVA-218-60-70MV-CW-100**

Customer: _____	Tested By: <u>JOHNM</u>
SO No: _____	Temperature: <u>+25°C</u>
Model No: <u>SDLVA-218-60-70MV-CW-100</u>	Date: <u>7-16-18</u>
Serial No: <u>PL23077/1829</u>	Drawing No: <u>27630921</u> Rev: <u>A1</u>

TEST. ITEM NO	PARAMETERS	SPECIFIED VALUE	TEST RESULTS	QA QC
1	Frequency Range	2 GHz – 18 GHz	<b>2 GHz to 18 GHz</b>	
2	Flatness	± 2.0 dB Typ.	<b>± 2.0 dB (See Plots)</b>	
3	Pulse peak Amplitude loss CW Level	-50 dBm: No Loss -40 dBm: 2.0 dB Max.	<b>Pass (&lt;1.0dB)</b>	
4	TSS	-66 dBm Min. For 10 MHz Video Bandwidth	<b>-71 dBm</b>	
5	Log Dynamic Range @ +25°C, -20° C, 85° C	-60 to 0 dBm	<b>-60 to 0 dBm (See Plots)</b>	
6	Log Slope @ +25°C, -20° C, 85° C	70mV/dB Nom.	<b>70mV/dB Nom (See Plots)</b>	
7	Log Linearity @ +25°C, -20° C, 85° C	± 1.5 dB Max.	<b>± 1.32 dB Max. (See Plots)</b>	
8	DC Offset @ +25°C, -20° C, 85° C	± 150mV Typ.	<b>± 127mV (See Plots)</b>	
9	Rise Time	25 ns Max.	<b>24.8 ns</b>	
10	Settling Time	55 ns Max., 90% Output to ± 0.5 dB of Final Value	<b>29 ns</b>	
11	Recovery Time	500 ns Max.	<b>222 ns</b>	
12	VSWR	2.0:1 Max.	<b>1.65:1 (See Plot)</b>	



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13	DC Supply	+15VDC -15VDC	330 mA 110 mA	
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QA/QC Approval: \_\_\_\_\_ Date: \_\_\_\_\_



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LOG TRANSFER WITH FREQUENCY  
 MODEL: SDLVA-218-60-70MV-CW-100  
 TESTED BY: J. Merriner  
 DATE: 07/13/2018  
 SERIAL NO: PL23077/1829  
 Test Temp: +25C

VOS= 62MV



PLANAR MONOLITHICS INDUSTRIES  
 4921 Robert J. Mathews Parkway,  
 Suite 1  
 El Dorado Hills, CA 95762  
 Phone: 916-542-1401

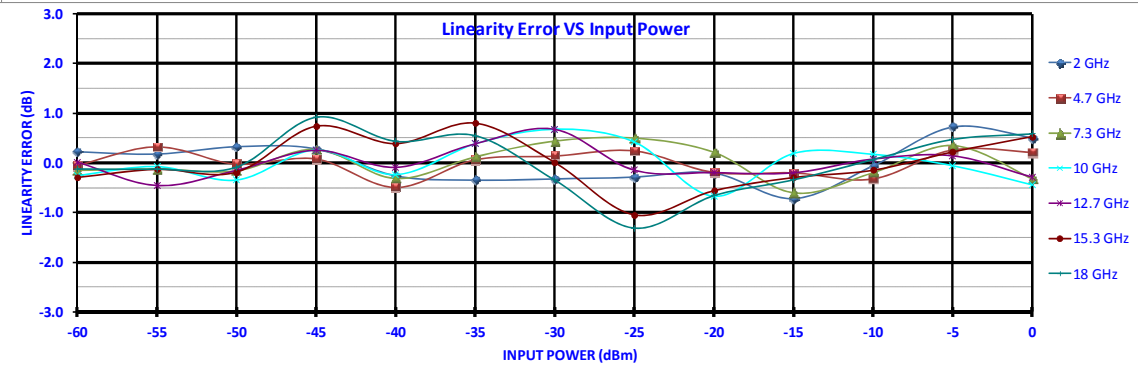
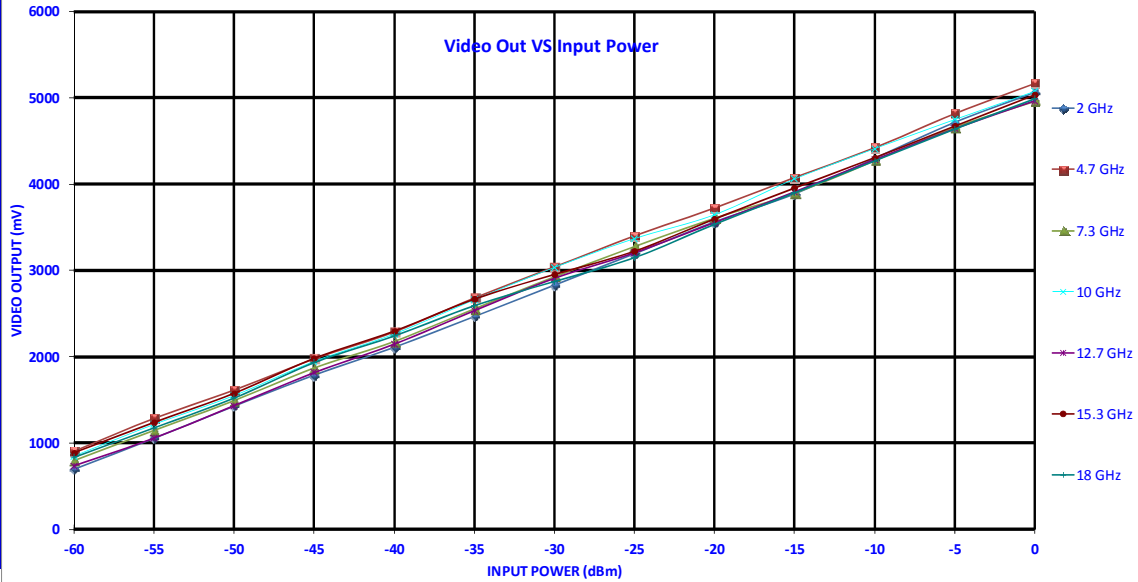
Frequency

		-60	-55	-50	-45	-40	-35	-30	-25	-20	-15	-10	-5	0	RF Input Power (dBm)
2 GHz	INTERCEPT (mV)	5026	5026	5026	5026	5026	5026	5026	5026	5026	5026	5026	5026	5026	Measured Value (mV)
	SLOPE (mV/dB)	72.5	72.5	72.5	72.5	72.5	72.5	72.5	72.5	72.5	72.5	72.5	72.5	72.5	Error (mV)
		695	1054	1427	1786	2109	2465	2829	3194	3562	3887	4297	4716	5062	LINEARITY ERROR (dB)
		16	13	23	20	-19	-25	-24	-21	-15	-52	-5	52	36	
		0.22	0.18	0.32	0.28	-0.26	-0.35	-0.32	-0.29	-0.21	-0.72	-0.06	0.72	0.50	
4.7 GHz	INTERCEPT (mV)	5151	5151	5151	5151	5151	5151	5151	5151	5151	5151	5151	5151	5151	Measured Value (mV)
	SLOPE (mV/dB)	70.7	70.7	70.7	70.7	70.7	70.7	70.7	70.7	70.7	70.7	70.7	70.7	70.7	Error (mV)
		904	1284	1613	1974	2287	2680	3039	3400	3723	4076	4421	4816	5166	LINEARITY ERROR (dB)
		-4	23	-2	5	-35	4	10	17	-14	-14	-23	18	15	
		-0.05	0.32	-0.03	0.08	-0.50	0.06	0.13	0.24	-0.19	-0.20	-0.33	0.26	0.21	
7.3 GHz	INTERCEPT (mV)	4981	4981	4981	4981	4981	4981	4981	4981	4981	4981	4981	4981	4981	Measured Value (mV)
	SLOPE (mV/dB)	69.6	69.6	69.6	69.6	69.6	69.6	69.6	69.6	69.6	69.6	69.6	69.6	69.6	Error (mV)
		796	1146	1491	1869	2176	2554	2924	3276	3604	3895	4271	4657	4958	LINEARITY ERROR (dB)
		-11	-9	-11	19	-22	8	30	35	15	-42	-14	24	-23	
		-0.15	-0.12	-0.16	0.27	-0.32	0.12	0.44	0.50	0.21	-0.60	-0.20	0.35	-0.32	
10 GHz	INTERCEPT (mV)	5105	5105	5105	5105	5105	5105	5105	5105	5105	5105	5105	5105	5105	Measured Value (mV)
	SLOPE (mV/dB)	70.6	70.6	70.6	70.6	70.6	70.6	70.6	70.6	70.6	70.6	70.6	70.6	70.6	Error (mV)
		849	1215	1549	1945	2263	2660	3034	3369	3645	4059	4411	4748	5074	LINEARITY ERROR (dB)
		-18	-5	-25	18	-17	27	48	30	-48	13	12	-4	-31	
		-0.26	-0.08	-0.35	0.26	-0.24	0.38	0.68	0.42	-0.67	0.19	0.17	-0.06	-0.44	
12.7 GHz	INTERCEPT (mV)	4986	4986	4986	4986	4986	4986	4986	4986	4986	4986	4986	4986	4986	Measured Value (mV)
	SLOPE (mV/dB)	70.9	70.9	70.9	70.9	70.9	70.9	70.9	70.9	70.9	70.9	70.9	70.9	70.9	Error (mV)
		735	1056	1432	1815	2145	2533	2908	3204	3555	3909	4283	4642	4966	LINEARITY ERROR (dB)
		1	-32	-11	18	-7	27	48	-11	-14	-14	5	10	-20	
		0.01	-0.46	-0.15	0.25	-0.09	0.38	0.67	-0.15	-0.20	-0.20	0.08	0.14	-0.29	
15.3 GHz	INTERCEPT (mV)	4998	4998	4998	4998	4998	4998	4998	4998	4998	4998	4998	4998	4998	Measured Value (mV)
	SLOPE (mV/dB)	68.2	68.2	68.2	68.2	68.2	68.2	68.2	68.2	68.2	68.2	68.2	68.2	68.2	Error (mV)
		887	1239	1576	1980	2297	2666	2953	3222	3596	3955	4306	4672	5034	LINEARITY ERROR (dB)
		-20	-9	-13	50	26	54	0	-71	-38	-20	-10	15	36	
		-0.29	-0.13	-0.19	0.74	0.39	0.80	0.01	-1.05	-0.56	-0.30	-0.15	0.22	0.53	
18 GHz	INTERCEPT (mV)	4948	4948	4948	4948	4948	4948	4948	4948	4948	4948	4948	4948	4948	Measured Value (mV)
	SLOPE (mV/dB)	68.4	68.4	68.4	68.4	68.4	68.4	68.4	68.4	68.4	68.4	68.4	68.4	68.4	Error (mV)
		833	1175	1520	1931	2240	2590	2871	3147	3534	3898	4268	4638	4988	LINEARITY ERROR (dB)
		-9	-9	-6	63	30	37	-24	-90	-45	-23	4	32	40	
		-0.13	-0.13	-0.09	0.92	0.43	0.55	-0.35	-1.32	-0.66	-0.34	0.06	0.47	0.58	
Flatness +/-dB		1.5	1.6	1.3	1.4	1.3	1.5	1.5	1.8	1.3	1.3	1.1	1.3	1.5	
Slope Avg (mV/dB)		70.1													



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LOG TRANSFER WITH FREQUENCY  
MODEL: SDLVA-218-60-70MV-CW-100  
SERIAL NO: PL23077/1829  
Test Temp: +25C





## SUMMARY TEST DATA ON SDLVA-218-60-70MV-CW-100

LOG TRANSFER WITH FREQUENCY  
 MODEL: SDLVA-218-60-70MV-CW-100  
 TESTED BY: J. Merriner  
 DATE: 07/13/2018  
 SERIAL NO: PL23077/1829  
 Test Temp: -20C

VOS=-2MV



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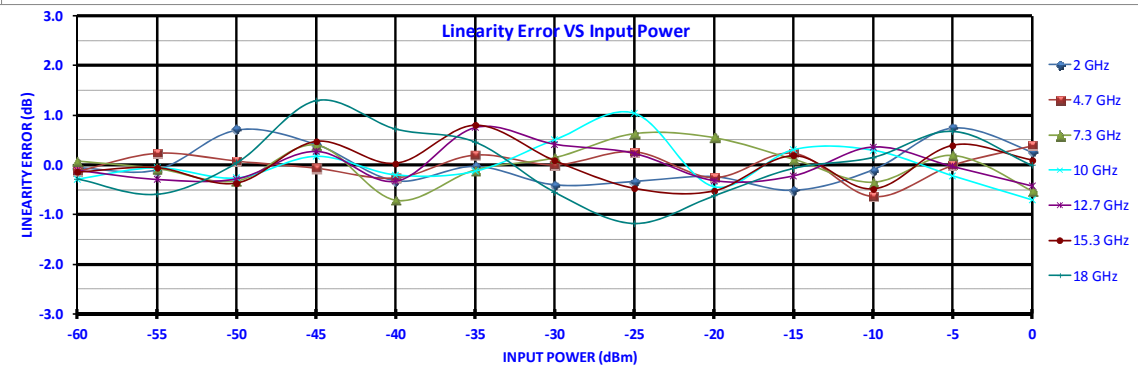
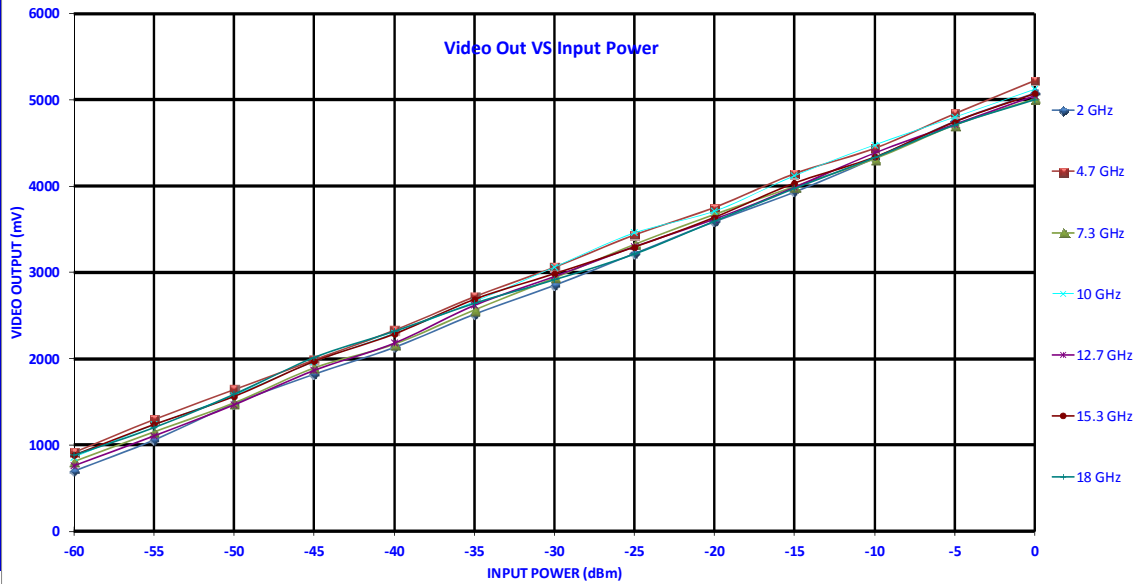
Frequency

		-60	-55	-50	-45	-40	-35	-30	-25	-20	-15	-10	-5	0	RF Input Power (dBm)
2 GHz	INTERCEPT (mV)	697	1057	1478	1820	2130	2514	2850	3218	3588	3931	4324	4748	5076	Measured Value (mV)
	SLOPE (mV/dB)	-4	-7	51	30	-23	-2	-29	-24	-17	-37	-7	54	19	Error (mV)
		-0.06	-0.10	0.70	0.41	-0.32	-0.03	-0.40	-0.33	-0.24	-0.51	-0.10	0.74	0.26	LINEARITY ERROR (dB)
4.7 GHz	INTERCEPT (mV)	913	1295	1640	1986	2328	2717	3059	3434	3753	4144	4438	4839	5223	Measured Value (mV)
	SLOPE (mV/dB)	-9	16	5	-5	-19	14	0	19	-18	17	-46	-1	27	Error (mV)
		-0.13	0.23	0.07	-0.07	-0.27	0.20	0.00	0.26	-0.26	0.23	-0.64	-0.01	0.38	LINEARITY ERROR (dB)
7.3 GHz	INTERCEPT (mV)	809	1152	1488	1893	2168	2565	2936	3324	3672	3995	4316	4708	5011	Measured Value (mV)
	SLOPE (mV/dB)	5	-5	-23	28	-50	-7	10	44	39	8	-25	13	-37	Error (mV)
		0.08	-0.08	-0.33	0.40	-0.71	-0.10	0.14	0.63	0.55	0.11	-0.35	0.19	-0.53	LINEARITY ERROR (dB)
10 GHz	INTERCEPT (mV)	859	1233	1576	1965	2296	2659	3062	3458	3710	4121	4478	4799	5122	Measured Value (mV)
	SLOPE (mV/dB)	-20	-4	-19	12	-14	-9	36	74	-32	22	21	-16	-51	Error (mV)
		-0.29	-0.06	-0.27	0.17	-0.20	-0.13	0.50	1.04	-0.44	0.30	0.29	-0.22	-0.71	LINEARITY ERROR (dB)
12.7 GHz	INTERCEPT (mV)	759	1105	1465	1864	2180	2617	2952	3298	3618	3984	4385	4716	5047	Measured Value (mV)
	SLOPE (mV/dB)	-8	-21	-20	19	-24	54	30	16	-23	-16	26	-2	-31	Error (mV)
		-0.11	-0.29	-0.28	0.27	-0.33	0.75	0.41	0.23	-0.32	-0.22	0.36	-0.03	-0.43	LINEARITY ERROR (dB)
15.3 GHz	INTERCEPT (mV)	883	1237	1563	1969	2286	2687	2985	3294	3638	4035	4336	4745	5072	Measured Value (mV)
	SLOPE (mV/dB)	-10	-4	-26	33	2	55	6	-33	-37	13	-34	27	7	Error (mV)
		-0.15	-0.06	-0.37	0.47	0.03	0.80	0.08	-0.47	-0.53	0.18	-0.49	0.39	0.10	LINEARITY ERROR (dB)
18 GHz	INTERCEPT (mV)	880	1201	1586	2014	2317	2641	2914	3213	3593	3973	4330	4708	5003	Measured Value (mV)
	SLOPE (mV/dB)	-20	-41	2	88	49	31	-38	-81	-43	-5	10	46	-1	Error (mV)
		-0.29	-0.59	0.03	1.29	0.72	0.46	-0.55	-1.18	-0.63	-0.07	0.15	0.67	-0.01	LINEARITY ERROR (dB)
Flatness +/-dB		1.5	1.7	1.2	1.4	1.4	1.4	1.5	1.7	1.2	1.5	1.1	0.9	1.6	
Slope Avg (mV/dB)		70.8													



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SERIAL NO: PL23077/1829  
Test Temp: -20C





**SUMMARY TEST DATA  
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SDLVA-218-60-70MV-CW-100**

LOG TRANSFER WITH FREQUENCY  
 MODEL: SDLVA-218-60-70MV-CW-100  
 TESTED BY: J. Merriner  
 DATE: 07/13/2018  
 SERIAL NO: PL23077/1829  
 Test Temp: +85C

VOS= 127MV



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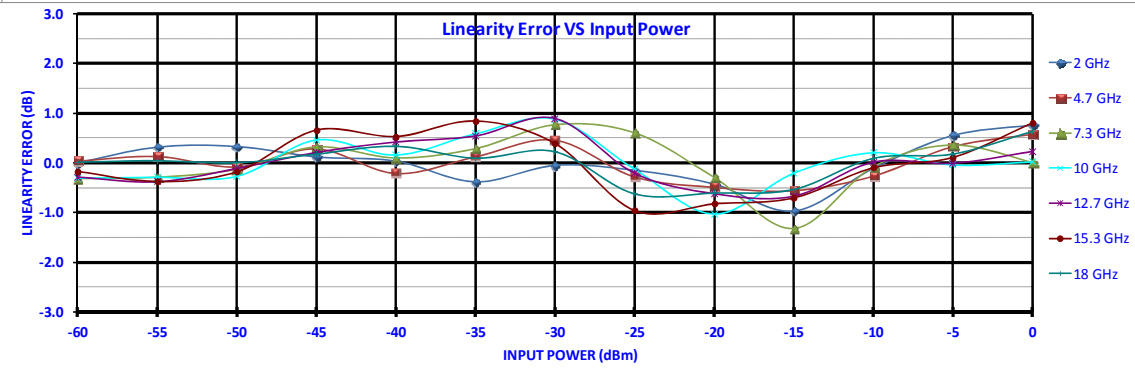
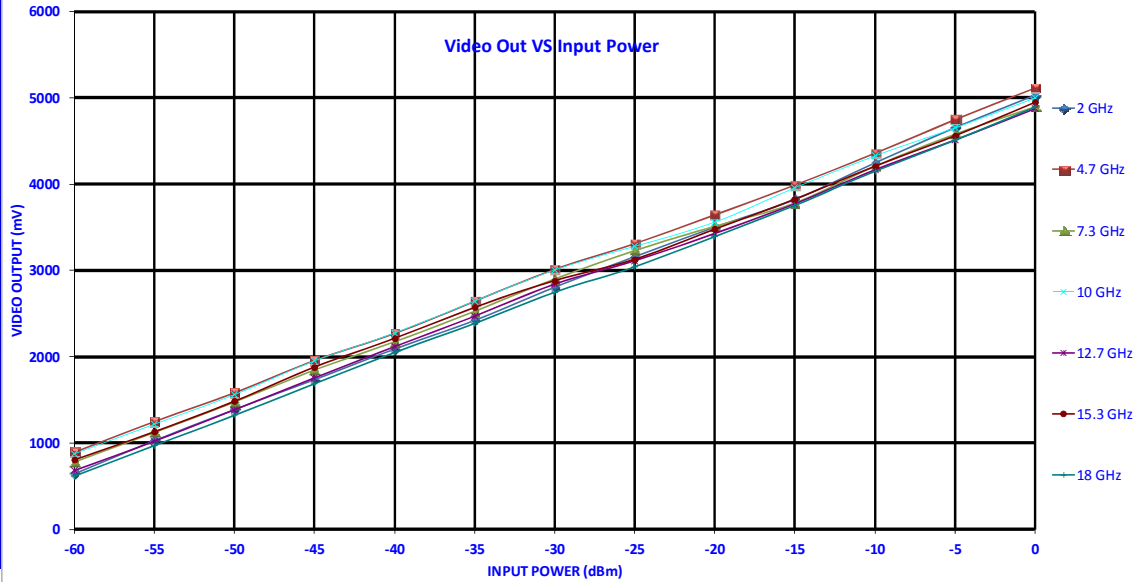
Frequency

		-60	-55	-50	-45	-40	-35	-30	-25	-20	-15	-10	-5	0	RF Input Power (dBm)
2 GHz	INTERCEPT (mV)	642	1026	1388	1734	2089	2420	2805	3159	3500	3822	4245	4654	5030	Measured Value (mV)
	SLOPE (mV/dB)	0	23	24	9	2	-28	-4	-11	-31	-70	-8	40	55	Error (mV)
		0.00	0.32	0.33	0.12	0.03	-0.38	-0.05	-0.15	-0.43	-0.97	-0.11	0.55	0.76	LINEARITY ERROR (dB)
4.7 GHz	INTERCEPT (mV)	892	1247	1581	1955	2269	2641	3013	3310	3644	3988	4357	4747	5113	Measured Value (mV)
	SLOPE (mV/dB)	2	9	-6	20	-15	8	32	-20	-35	-39	-19	23	40	Error (mV)
		0.03	0.13	-0.08	0.28	-0.22	0.12	0.45	-0.29	-0.50	-0.56	-0.27	0.32	0.57	LINEARITY ERROR (dB)
7.3 GHz	INTERCEPT (mV)	779	1122	1474	1846	2172	2526	2900	3230	3510	3781	4207	4578	4895	Measured Value (mV)
	SLOPE (mV/dB)	-22	-20	-9	22	7	19	52	41	-20	-90	-5	24	0	Error (mV)
		-0.32	-0.29	-0.13	0.32	0.10	0.29	0.77	0.60	-0.29	-1.32	-0.08	0.36	0.00	LINEARITY ERROR (dB)
10 GHz	INTERCEPT (mV)	874	1217	1560	1952	2273	2644	3006	3279	3559	3957	4327	4652	4998	Measured Value (mV)
	SLOPE (mV/dB)	-21	-20	-19	31	11	40	60	-9	-71	-14	14	-3	1	Error (mV)
		-0.31	-0.29	-0.27	0.46	0.16	0.58	0.88	-0.13	-1.03	-0.21	0.20	-0.04	0.02	LINEARITY ERROR (dB)
12.7 GHz	INTERCEPT (mV)	680	1020	1385	1754	2115	2470	2841	3111	3429	3772	4166	4511	4874	Measured Value (mV)
	SLOPE (mV/dB)	-20	-26	-8	14	29	37	62	-15	-43	-47	1	-1	16	Error (mV)
		-0.29	-0.38	-0.12	0.21	0.42	0.54	0.89	-0.21	-0.62	-0.67	0.01	-0.01	0.23	LINEARITY ERROR (dB)
15.3 GHz	INTERCEPT (mV)	804	1130	1483	1880	2211	2572	2881	3129	3478	3826	4207	4561	4948	Measured Value (mV)
	SLOPE (mV/dB)	-12	-26	-12	45	36	57	26	-65	-56	-48	-7	7	55	Error (mV)
		-0.17	-0.38	-0.18	0.66	0.53	0.84	0.39	-0.96	-0.83	-0.71	-0.10	0.11	0.80	LINEARITY ERROR (dB)
18 GHz	INTERCEPT (mV)	615	970	1320	1685	2049	2385	2747	3040	3394	3752	4149	4508	4893	Measured Value (mV)
	SLOPE (mV/dB)	1	3	0	12	23	7	16	-44	-43	-38	6	12	45	Error (mV)
		0.01	0.04	0.00	0.17	0.33	0.09	0.22	-0.63	-0.61	-0.54	0.09	0.18	0.63	LINEARITY ERROR (dB)
Flatness +/-dB		2	2	1.9	1.9	1.6	1.9	1.9	1.9	1.8	1.7	1.5	1.7	1.7	
Slope Avg (mV/dB)		69.5													



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SERIAL NO: PL23077/1829  
Test Temp: +85C





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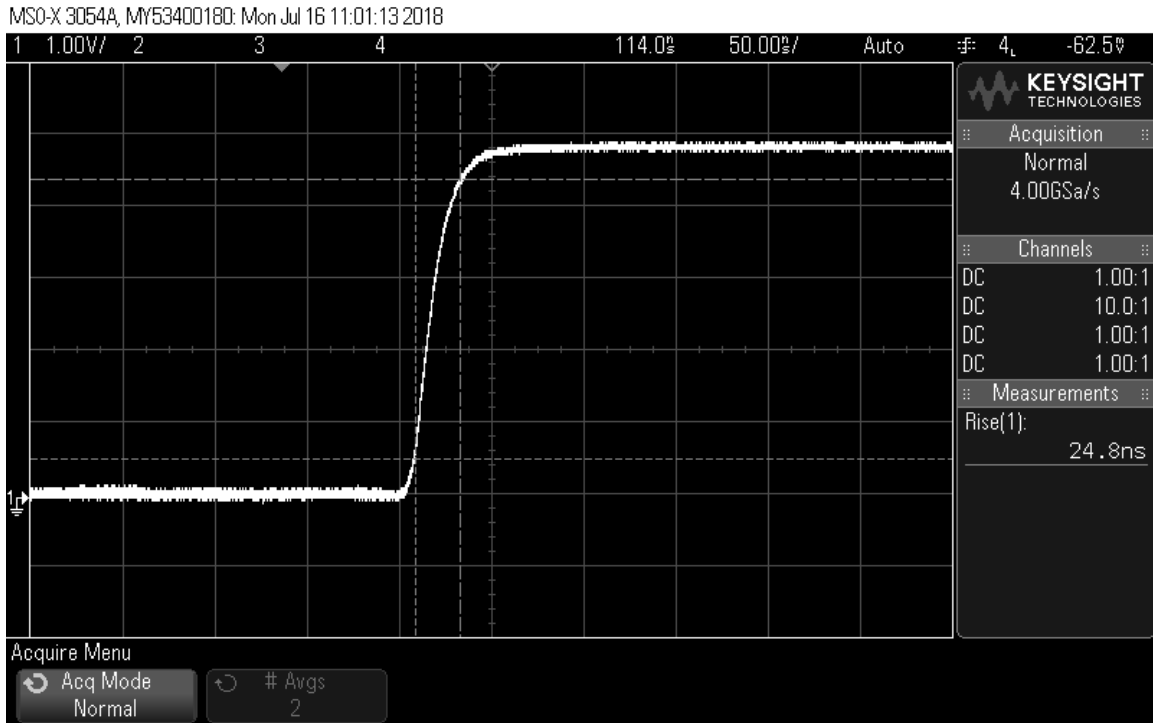
**VSWR PLOT**





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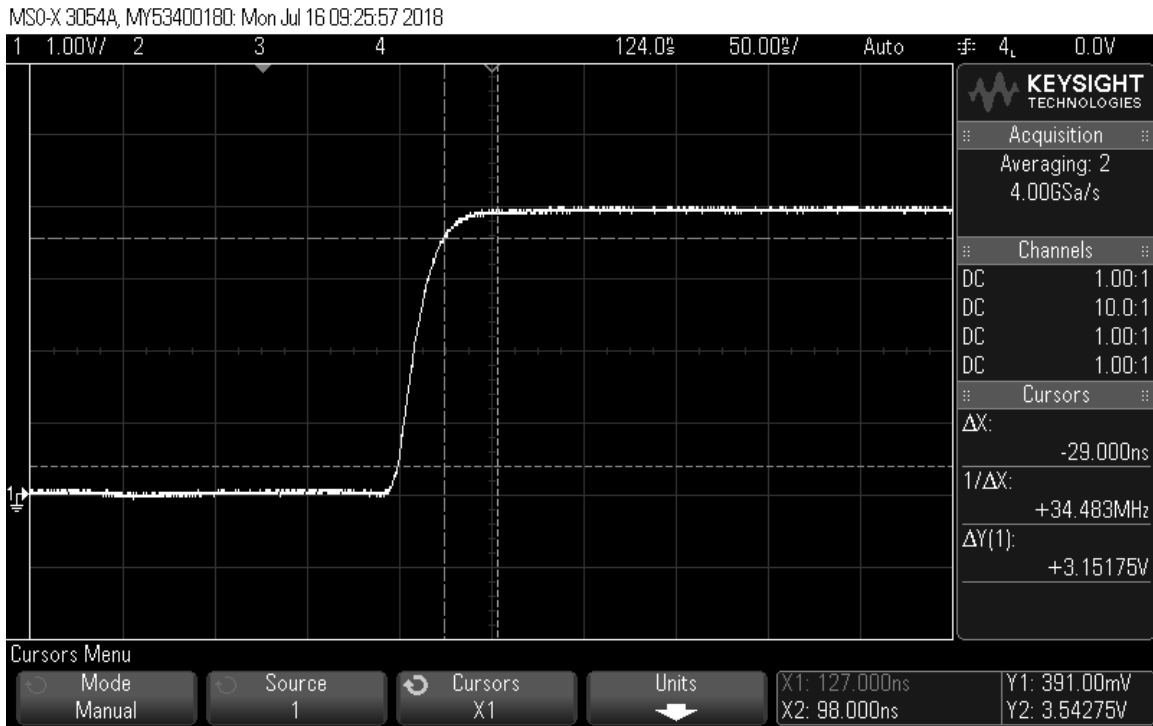
**RISE TIME**





**SUMMARY TEST DATA  
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**SETTLING TIME**





**SUMMARY TEST DATA  
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**RECOVERY TIME**

