Summary Data
For
ERDLVA-2G18G-65-70MV-70C

Customer: [redacted]
SO No: [redacted]
Model No: ERDLVA-2G18G-65-70MV-70C
Serial No: PL48061/2444

Tested By: Anton L.
Temperature: -40°C TO +70°C
Date 10/30/2024
Drawing No: 27642020 **Rev:** A1

TEST ITEM NO	PARAMETERS	SPECIFIED VALUE	TEST RESULTS	QA QC
1	Frequency Range:	2 to 18 GHz	**2 to 18 GHz**	PMI QA3
2	VSWR:	2.2:1 MAX @ 50 Ω	**1.87 :1 MAX**	
3	Input Power:	(1) 1 W CW, Max. (2) 100 W Peak @ PW = 1 us & Duty Cycle = 1%, Max.	**Pass**	
4	VIDEO OUT TSS:	-71 dBm MAX	**- 71.5 dBm**	
5	VIDEO OUT Dynamic Range:	-65 to 0 dBm	**-65 to 0 dBm**	
6	VIDEO OUT Log Slope Fixed:	70 ± 3mV/dB	**70.7 mV/dB** **69.3 mV/dB**	
7	VIDEO OUT Log Linearity:	±1.0 dB MAX @25C	**0.65 dB** **-0.51 dB**	
8	VIDEO OUT Log Accuracy:	±2.3 dB MAX @25C	**0.93 dB** **-0.98 dB**	
9	VIDEO OUT Absolute Log Accuracy:	±2.9 dB MAX Over Freq & temp	**1.17 dB** **-1.31 dB**	
10	VIDEO OUT DC Offset:	0 ±70 mV (RF Input Terminated & DC Power On) @25C	**55 mV**	
11	VIDEO OUT Rise Time (10% to 90%):	28 ns MAX	**23.5 ns**	
12	VIDEO OUT Fall Time (90% to 10%):	300 ns MAX	**219.4 ns**	

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13	VIDEO OUT Settling Time:	50 ns With in ±70 mV of final value @-10 dBm	**22.3 ns**	PMI QA3
14	VIDEO OUT Recovery Time:	1 us MAX to within 1 dB of baseline for PW <10us & Power = -10dBm	**0.47 us**	
15	VIDEO OUT Video Frequency Flatness:	±2.0 dB MAX @25C	**± 0.82 dB**	
16	VIDEO OUT CW Immunity:	CW Immune Power TSS to -40 dBm	**Pass**	
		Pulse Peak Amplitude Loss; 2 dB MAX @ -40dBm CW	**< 2 dB**	
		Baseline shift 200mV @-40dBm CW	**< 200 mV**	
		CW Immunity Time at CW = -40 dBm, ≤ 4 ms	**1.43 ms**	
		CW Recovery Time at CW = -40 dBm, ≤ 20 us	**<20 us**	
17	Pulse droop	1dB Max for 300us pulse at or above -65dBm	**<1dB**	
18	VIDEO OUT Pulse Response, input Signal:	100 ns to 300 us	**100 ns to 300 us**	
19	VIDEO LOAD Impedance:	75 ±1 Ω	**75Ω**	
20	VIDEO driver capability	100 ft RG11 into 75 ohm load	**Pass**	
21	Pulse density capability	10% duty cycle 100 ns, 70% duty cycle 300 us at peak power -10 dBm with 1 dB variable for pulse amplitude and baseline	**Pass**	

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22	VIDEO OUT Noise Level (Vp-p):	160 mV max	**142.5 mV**	PMI QAJ
23	VIDEO OUT Propagation Delay:	50 ns MAX from RF 50% to 10% video (excluding cable)	**< 50 ns**	
24	Power Supply	+15 V @ 500 mA MAX -15 V @ 100 mA MAX	**+15 V @ 320 mA** **-15 V @ 80 mA**	
25	Power Supply Ripple From DC to 10 MHz	100 mV MAX	**Pass**	

QA/QC Approval: K. Klamm **Date:** 11-1-24

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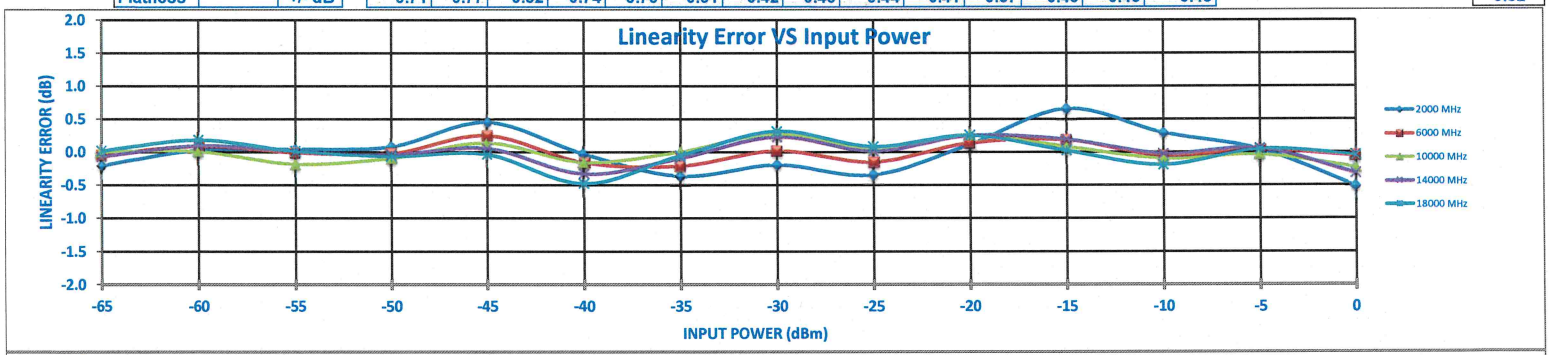
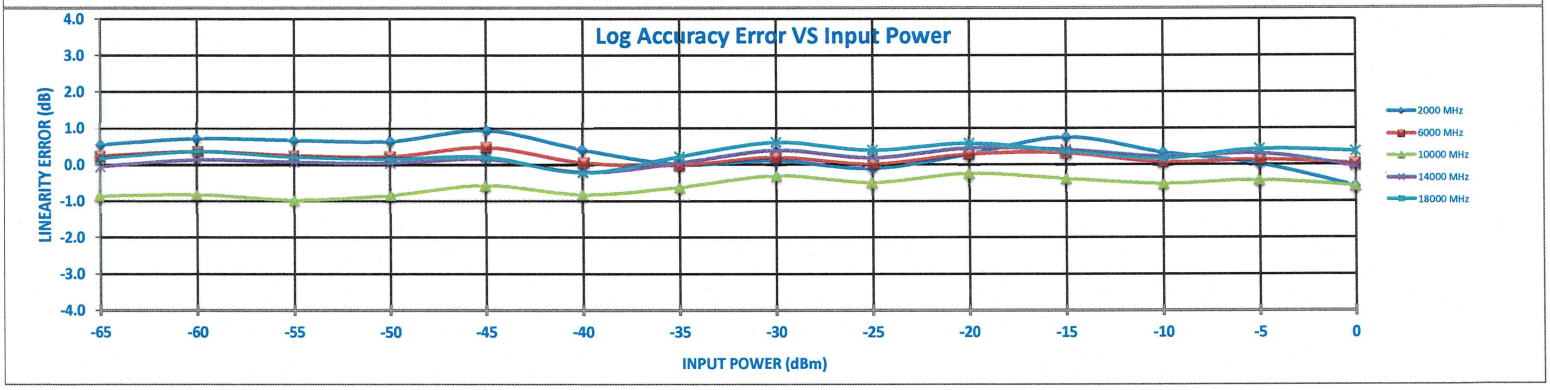
LOG TRANSFER WITH FREQUENCY

TESTED BY: Anton L.
MODEL: ERDLVA-2G18G-65-70MV-70C
SERIAL NO: PL48061/2444
DATE: 10/30/2024

Test Temp: 25 °C
Video Offset: 55 mV

Frequency			-65	-60	-55	-50	-45	-40	-35	-30	-25	-20	-15	-10	-5	0	RF Input Power (dBm)	
2000 MHz	INTERCEPT (mV)	4903	386	749	1096	1445	1817	2130	2453	2811	3147	3525	3909	4230	4559	4867	Measured Value (mV)	
	SLOPE (mV/dB)	69.3	-15	2	3	5	31	-2	-26	-14	-24	8	45	20	3	-36	Error (mV)	
			-0.21	0.03	0.04	0.08	0.45	-0.03	-0.37	-0.20	-0.35	0.11	0.65	0.29	0.04	-0.51	LINEARITY ERROR (dB)	0.65
			0.54	0.71	0.65	0.63	0.93	0.39	-0.01	0.10	-0.12	0.27	0.74	0.32	0.01	-0.60	ACCURACY ERROR (dB)	0.93
6000 MHz	INTERCEPT (mV)	4916	365	724	1067	1416	1785	2106	2452	2818	3156	3526	3879	4212	4568	4912	Measured Value (mV)	
	SLOPE (mV/dB)	70.0	-3	6	-1	-2	18	-11	-15	1	-11	10	13	-4	2	-4	Error (mV)	
			-0.04	0.09	-0.01	-0.02	0.25	-0.16	-0.21	0.02	-0.15	0.14	0.18	-0.06	0.03	-0.05	LINEARITY ERROR (dB)	0.25
			0.24	0.35	0.24	0.22	0.47	0.05	-0.02	0.20	0.01	0.29	0.32	0.06	0.14	0.04	ACCURACY ERROR (dB)	0.47
10000 MHz	INTERCEPT (mV)	4884	287	641	981	1341	1711	2044	2409	2782	3120	3488	3829	4170	4528	4868	Measured Value (mV)	
	SLOPE (mV/dB)	70.7	0	0	-13	-7	9	-11	0	20	4	18	5	-7	-3	-16	Error (mV)	
			0.00	0.01	-0.19	-0.10	0.13	-0.16	0.00	0.28	0.05	0.26	0.08	-0.10	-0.04	-0.23	LINEARITY ERROR (dB)	0.28
			-0.88	-0.83	-0.98	-0.85	-0.58	-0.83	-0.63	-0.32	-0.50	-0.26	-0.40	-0.54	-0.43	-0.59	ACCURACY ERROR (dB)	-0.98
14000 MHz	INTERCEPT (mV)	4928	344	708	1054	1403	1762	2087	2456	2831	3168	3537	3885	4222	4580	4906	Measured Value (mV)	
	SLOPE (mV/dB)	70.5	-5	7	0	-3	4	-23	-7	16	1	18	13	-2	4	-22	Error (mV)	
			-0.07	0.09	0.01	-0.04	0.05	-0.33	-0.09	0.23	0.01	0.25	0.19	-0.03	0.05	-0.32	LINEARITY ERROR (dB)	-0.33
			-0.06	0.12	0.06	0.03	0.15	-0.22	0.04	0.38	0.18	0.44	0.40	0.21	0.31	-0.05	ACCURACY ERROR (dB)	0.44
18000 MHz	INTERCEPT (mV)	4937	360	724	1064	1411	1765	2086	2468	2846	3182	3546	3882	4219	4588	4934	Measured Value (mV)	
	SLOPE (mV/dB)	70.4	1	13	0	-5	-3	-34	-4	22	6	17	1	-14	3	-3	Error (mV)	
			0.01	0.18	0.01	-0.07	-0.04	-0.48	-0.06	0.31	0.08	0.25	0.02	-0.20	0.04	-0.05	LINEARITY ERROR (dB)	-0.48
			0.17	0.35	0.20	0.14	0.19	-0.24	0.21	0.60	0.38	0.57	0.36	0.16	0.42	0.35	ACCURACY ERROR (dB)	0.60
	Flatness	+/- dB	0.71	0.77	0.82	0.74	0.76	0.61	0.42	0.46	0.44	0.41	0.57	0.43	0.43	0.48		0.82





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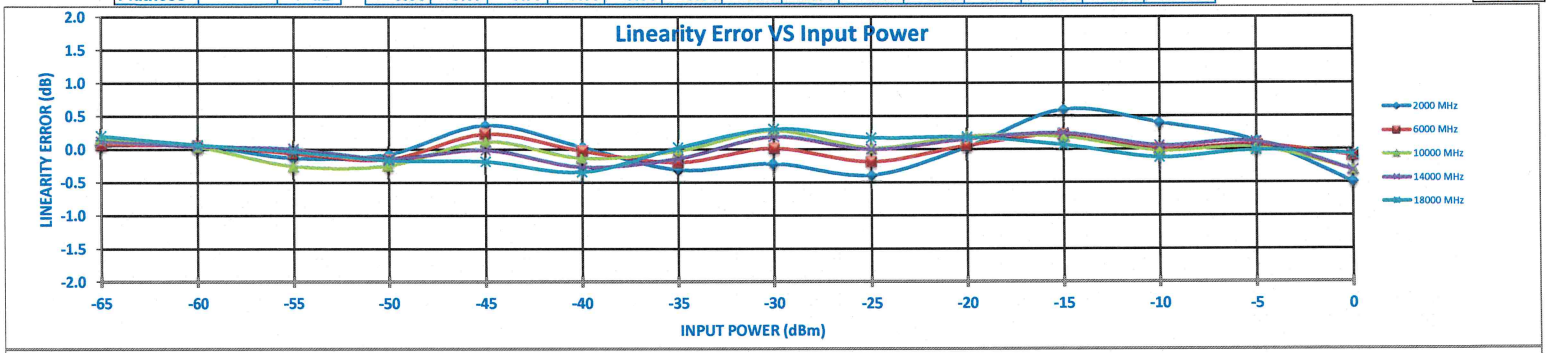
ERDLVA-2G18G-65-70MV-70C

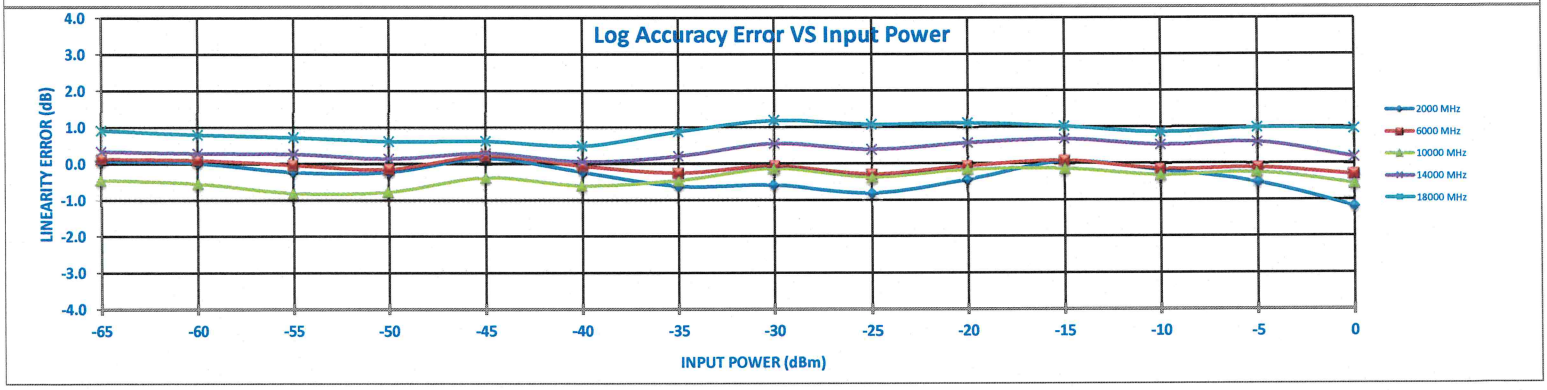
LOG TRANSFER WITH FREQUENCY

TESTED BY: Anton L.
MODEL: ERDLVA-2G18G-65-70MV-70C
SERIAL NO: PL48061/2444
DATE: 10/30/2024

Test Temp: -40 °C
Video Offset: -3 mV

Frequency			-65	-60	-55	-50	-45	-40	-35	-30	-25	-20	-15	-10	-5	0	RF Input Power (dBm)	
2000 MHz	INTERCEPT (mV)	4785	294	640	972	1322	1698	2021	2343	2695	3029	3404	3789	4121	4448	4751	Measured Value (mV)	
	SLOPE (mV/dB)	69.2	4	4	-9	-5	25	2	-22	-16	-27	2	41	27	8	-34	Error (mV)	
			0.06	0.06	-0.14	-0.08	0.36	0.03	-0.31	-0.22	-0.40	0.03	0.59	0.39	0.12	-0.50	LINEARITY ERROR (dB)	0.59
			0.06	0.01	-0.24	-0.24	0.14	-0.24	-0.63	-0.60	-0.82	-0.46	0.05	-0.20	-0.52	-1.19	ACCURACY ERROR (dB)	-1.19
6000 MHz	INTERCEPT (mV)	4820	299	646	986	1328	1703	2033	2369	2732	3066	3431	3791	4124	4476	4813	Measured Value (mV)	
	SLOPE (mV/dB)	69.6	5	4	-4	-10	16	-2	-14	1	-13	4	16	1	4	-7	Error (mV)	
			0.07	0.05	-0.06	-0.15	0.24	-0.03	-0.20	0.01	-0.19	0.05	0.22	0.01	0.06	-0.10	LINEARITY ERROR (dB)	0.24
			0.13	0.09	-0.04	-0.15	0.21	-0.07	-0.26	-0.07	-0.29	-0.07	0.08	-0.16	-0.12	-0.30	ACCURACY ERROR (dB)	-0.30
10000 MHz	INTERCEPT (mV)	4817	258	601	932	1284	1661	1995	2354	2727	3060	3424	3775	4112	4467	4795	Measured Value (mV)	
	SLOPE (mV/dB)	70.3	11	3	-18	-17	8	-9	-2	19	1	13	13	-2	2	-22	Error (mV)	
			0.16	0.04	-0.25	-0.25	0.11	-0.13	-0.03	0.28	0.01	0.19	0.18	-0.02	0.03	-0.31	LINEARITY ERROR (dB)	-0.31
			-0.46	-0.55	-0.82	-0.78	-0.39	-0.61	-0.48	-0.14	-0.38	-0.17	-0.15	-0.33	-0.25	-0.56	ACCURACY ERROR (dB)	-0.82
14000 MHz	INTERCEPT (mV)	4869	313	659	1007	1348	1708	2041	2401	2775	3113	3475	3832	4170	4525	4846	Measured Value (mV)	
	SLOPE (mV/dB)	70.2	8	3	0	-10	-1	-19	-10	13	0	11	17	4	7	-23	Error (mV)	
			0.12	0.05	0.00	-0.14	-0.01	-0.27	-0.14	0.18	0.00	0.15	0.24	0.05	0.11	-0.32	LINEARITY ERROR (dB)	-0.32
			0.33	0.28	0.26	0.13	0.28	0.05	0.20	0.54	0.38	0.56	0.66	0.50	0.58	0.17	ACCURACY ERROR (dB)	0.66
18000 MHz	INTERCEPT (mV)	4906	353	695	1039	1381	1731	2071	2448	2819	3161	3513	3856	4194	4553	4900	Measured Value (mV)	
	SLOPE (mV/dB)	70.3	14	4	-3	-12	-13	-25	1	21	12	12	4	-9	-1	-6	Error (mV)	
			0.20	0.06	-0.04	-0.17	-0.19	-0.35	0.02	0.30	0.17	0.18	0.06	-0.13	-0.02	-0.08	LINEARITY ERROR (dB)	-0.35
			0.90	0.79	0.71	0.61	0.61	0.48	0.87	1.17	1.07	1.10	1.01	0.84	0.98	0.94	ACCURACY ERROR (dB)	1.17
	Flatness	+/- dB	0.68	0.67	0.77	0.69	0.50	0.54	0.75	0.89	0.94	0.78	0.58	0.59	0.75	1.07		1.07





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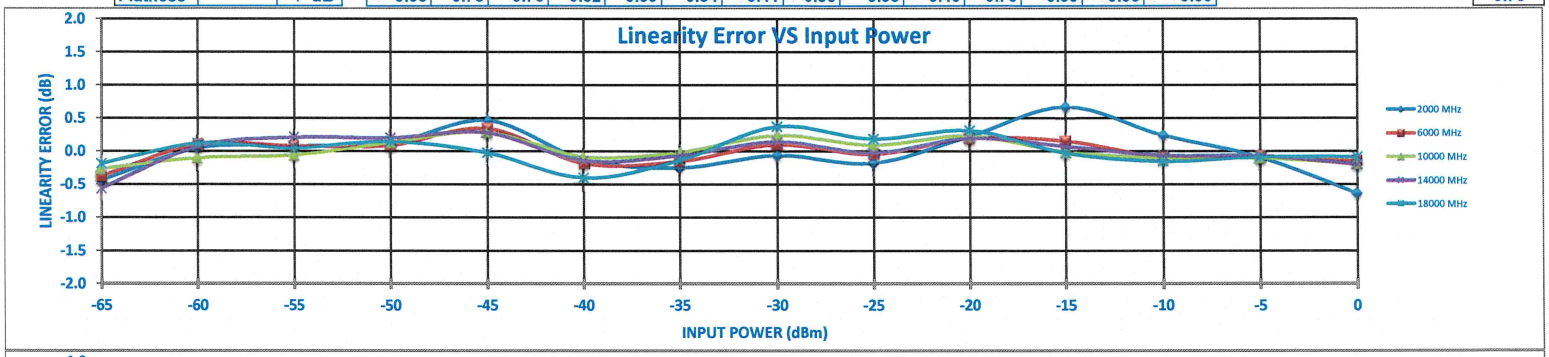
Summary Data
For
ERDLVA-2G18G-65-70MV-70C

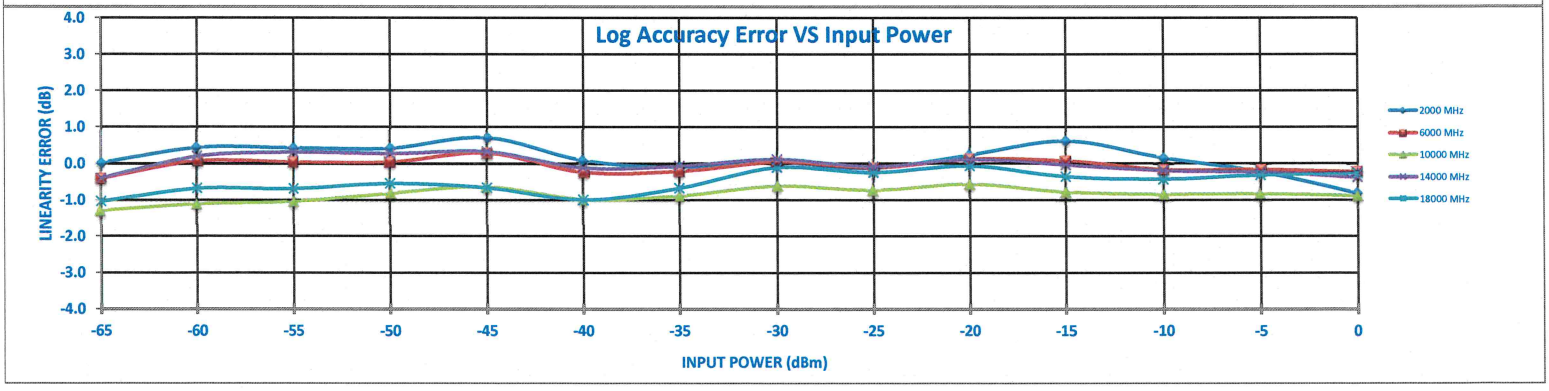
LOG TRANSFER WITH FREQUENCY

TESTED BY: Anton L.
MODEL: ERDLVA-2G18G-65-70MV-70C
SERIAL NO: PL48061/2444
DATE: 10/30/2024

Test Temp: 70 °C
Video Offset: 58 mV

Frequency			-65	-60	-55	-50	-45	-40	-35	-30	-25	-20	-15	-10	-5	0	RF Input Power (dBm)	
2000 MHz	INTERCEPT (mV)	4935	380	762	1112	1463	1835	2142	2481	2842	3182	3558	3937	4255	4580	4890	Measured Value (mV)	
	SLOPE (mV/dB)	69.6	-31	3	5	8	32	-9	-18	-5	-13	15	46	16	-7	-45	Error (mV)	
			-0.44	0.04	0.07	0.12	0.46	-0.13	-0.26	-0.07	-0.18	0.22	0.67	0.23	-0.10	-0.64	LINEARITY ERROR (dB)	0.67
			0.00	0.44	0.42	0.41	0.70	0.07	-0.10	0.03	-0.13	0.22	0.62	0.14	-0.23	-0.82	ACCURACY ERROR (dB)	-0.82
6000 MHz	INTERCEPT (mV)	4942	351	736	1085	1437	1806	2120	2473	2842	3183	3551	3899	4233	4585	4932	Measured Value (mV)	
	SLOPE (mV/dB)	70.2	-26	7	5	6	24	-13	-11	7	-3	14	11	-6	-5	-10	Error (mV)	
			-0.38	0.11	0.08	0.09	0.34	-0.18	-0.16	0.10	-0.04	0.20	0.15	-0.09	-0.08	-0.14	LINEARITY ERROR (dB)	-0.38
			-0.41	0.07	0.03	0.04	0.29	-0.24	-0.22	0.03	-0.11	0.12	0.07	-0.17	-0.16	-0.23	ACCURACY ERROR (dB)	-0.41
10000 MHz	INTERCEPT (mV)	4899	288	653	1009	1376	1740	2067	2425	2796	3139	3502	3838	4185	4538	4885	Measured Value (mV)	
	SLOPE (mV/dB)	70.6	-19	-7	-4	9	20	-6	-1	16	6	16	-1	-7	-8	-14	Error (mV)	
			-0.27	-0.10	-0.06	0.13	0.28	-0.09	-0.02	0.23	0.09	0.23	-0.02	-0.10	-0.11	-0.20	LINEARITY ERROR (dB)	0.28
			-1.31	-1.12	-1.05	-0.83	-0.65	-0.99	-0.90	-0.62	-0.74	-0.57	-0.79	-0.86	-0.83	-0.89	ACCURACY ERROR (dB)	-1.31
14000 MHz	INTERCEPT (mV)	4935	351	745	1104	1453	1808	2128	2483	2847	3185	3550	3891	4231	4580	4921	Measured Value (mV)	
	SLOPE (mV/dB)	69.9	-40	5	14	14	19	-10	-5	10	-2	13	5	-5	-5	-14	Error (mV)	
			-0.57	0.07	0.21	0.20	0.28	-0.15	-0.07	0.14	-0.03	0.19	0.07	-0.07	-0.07	-0.20	LINEARITY ERROR (dB)	-0.57
			-0.41	0.19	0.30	0.27	0.32	-0.13	-0.07	0.10	-0.09	0.11	-0.04	-0.20	-0.23	-0.38	ACCURACY ERROR (dB)	-0.41
18000 MHz	INTERCEPT (mV)	4935	306	683	1033	1395	1738	2066	2440	2831	3173	3537	3868	4214	4574	4929	Measured Value (mV)	
	SLOPE (mV/dB)	71.0	-14	8	3	10	-2	-29	-10	26	13	22	-2	-11	-6	-6	Error (mV)	
			-0.19	0.11	0.04	0.14	-0.03	-0.41	-0.14	0.36	0.18	0.31	-0.03	-0.16	-0.09	-0.09	LINEARITY ERROR (dB)	-0.41
			-1.05	-0.69	-0.71	-0.56	-0.68	-1.01	-0.69	-0.12	-0.26	-0.08	-0.37	-0.44	-0.32	-0.27	ACCURACY ERROR (dB)	-1.05
	Flatness	+/- dB	0.65	0.78	0.73	0.62	0.69	0.54	0.41	0.36	0.33	0.40	0.70	0.50	0.33	0.33		0.78





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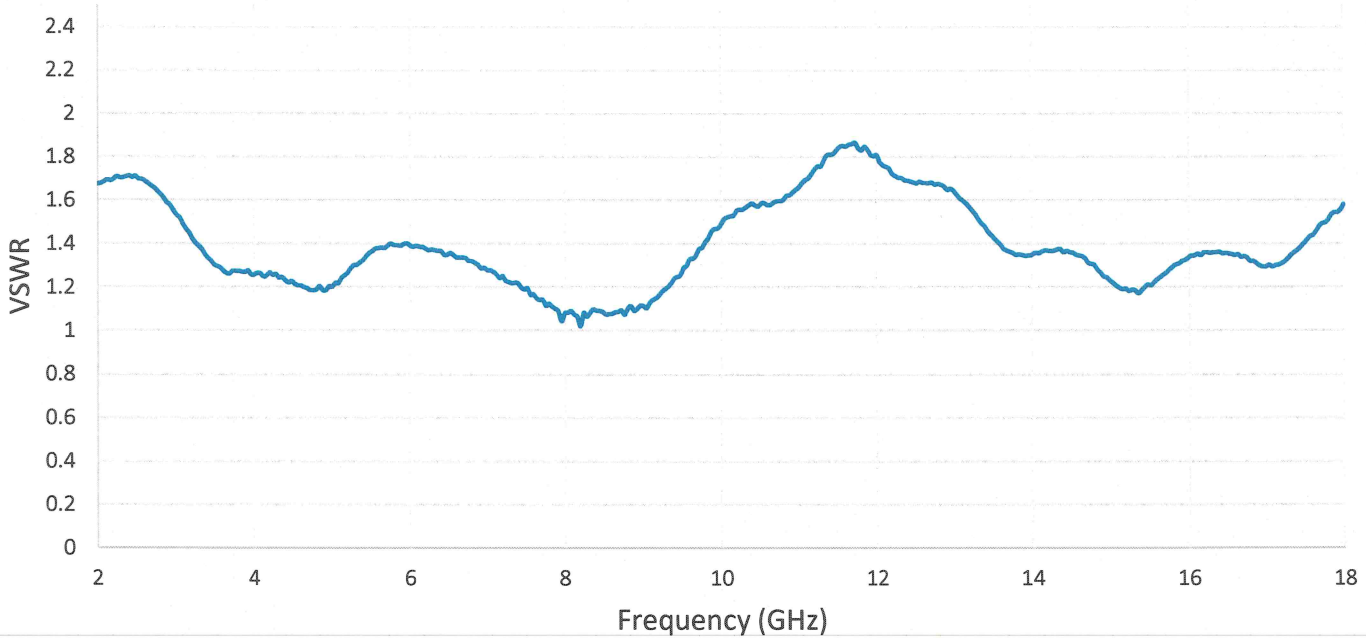
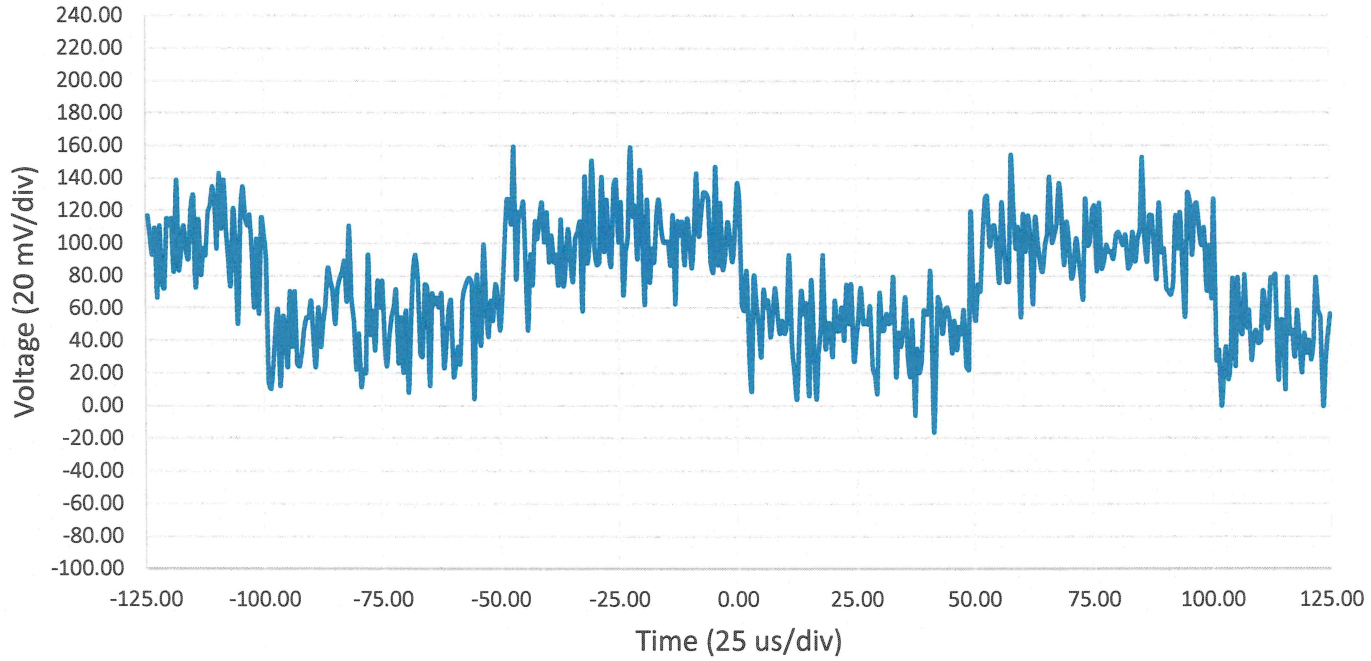
PL48061/2444

VSWR 1.87:1



TSS @ -71.5 dBm



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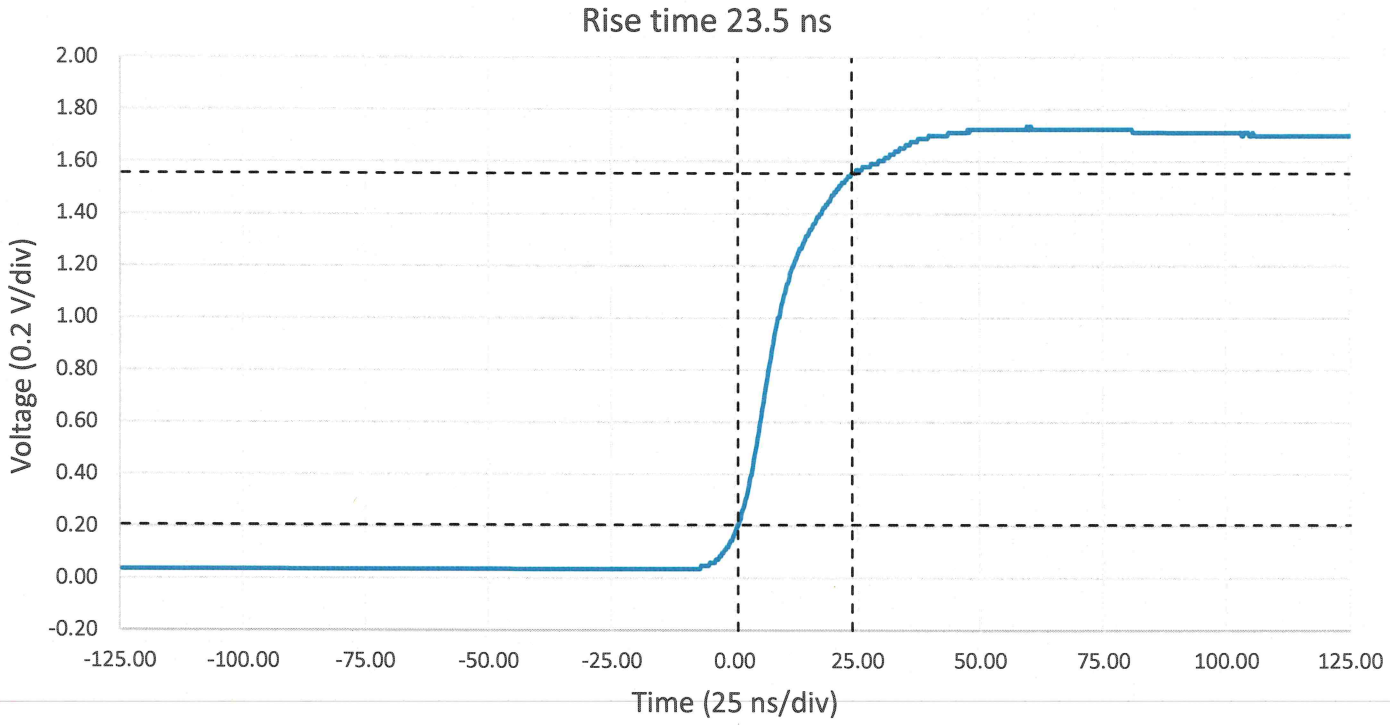

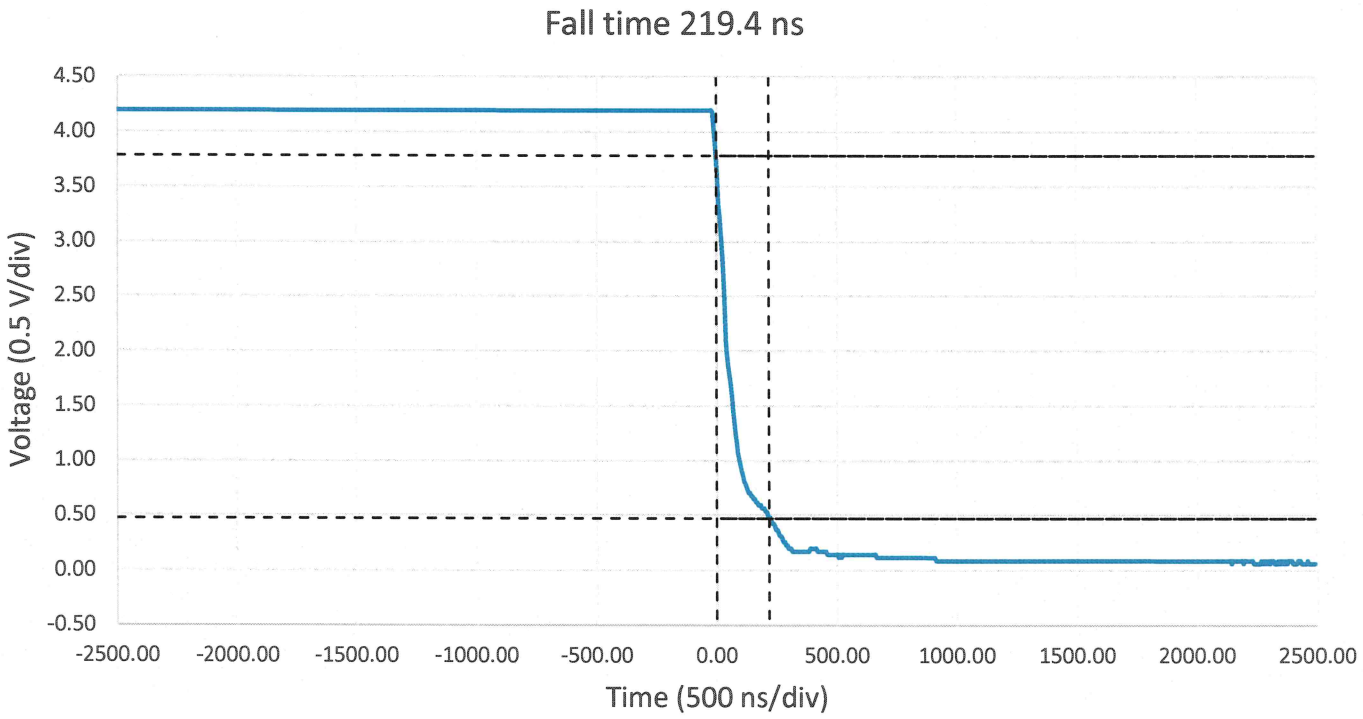

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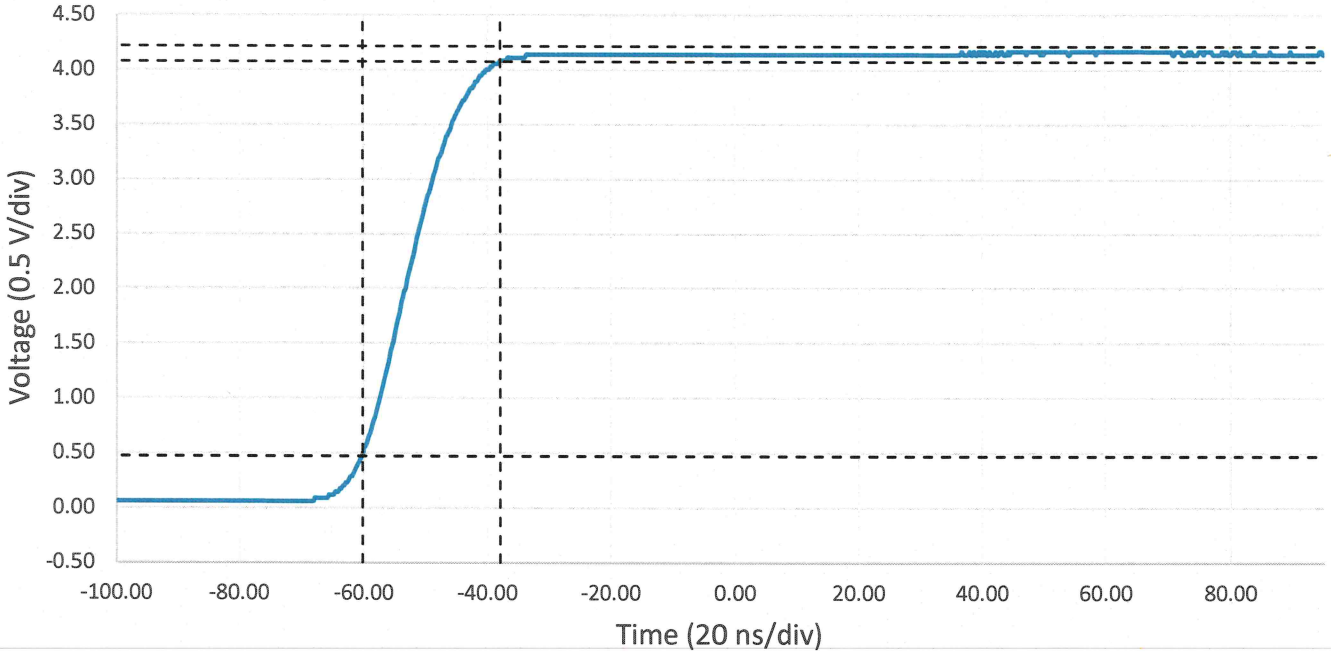
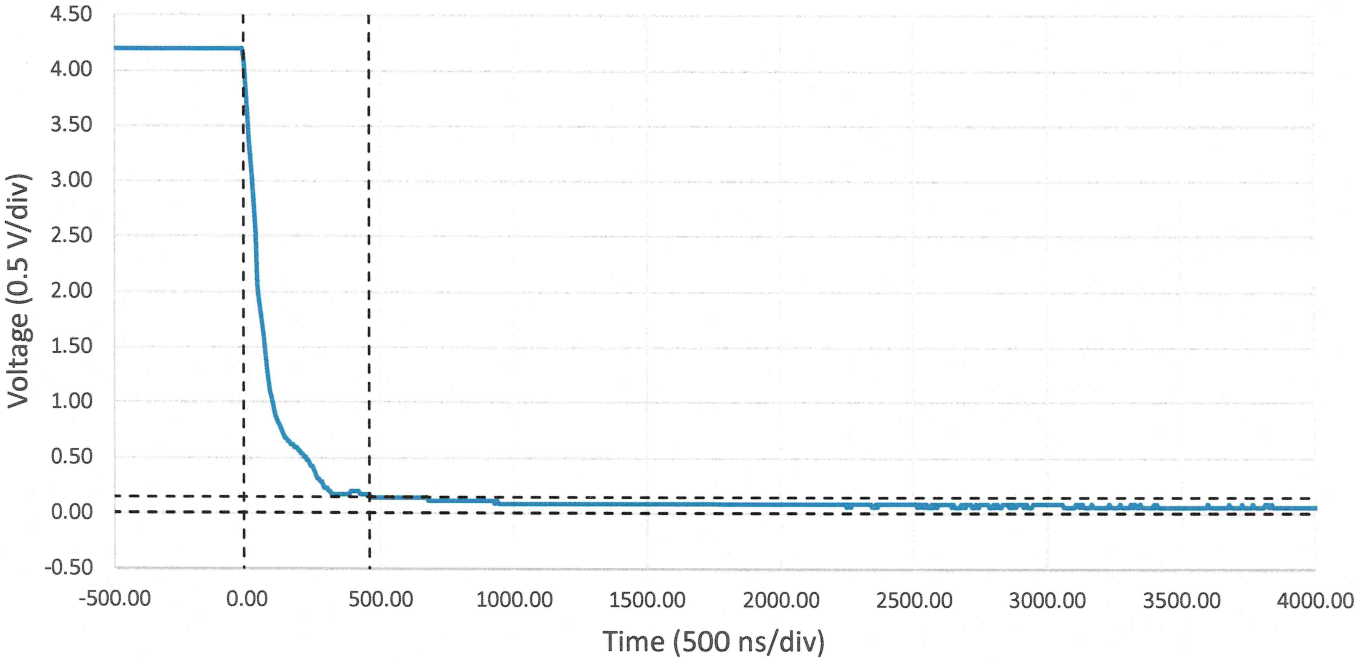
PL48061/2444

Settle time 22.3 ns



Recovery time 470 ns



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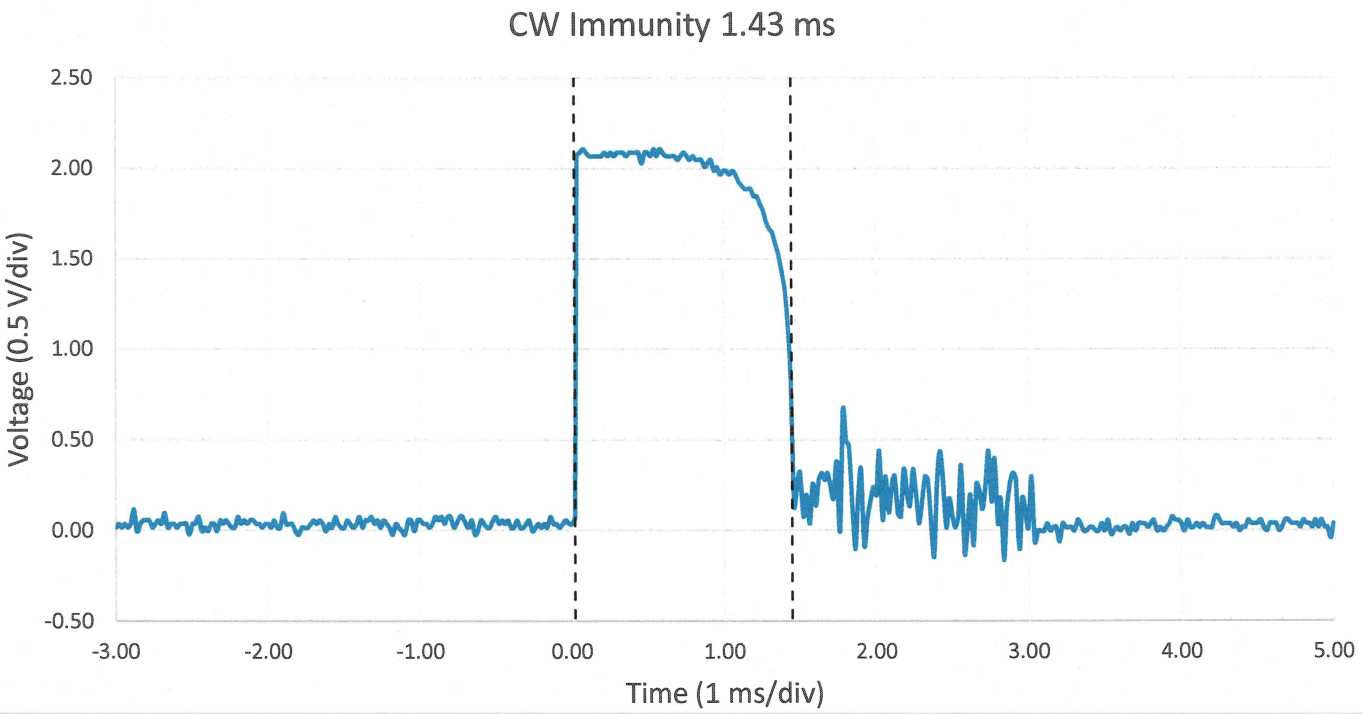
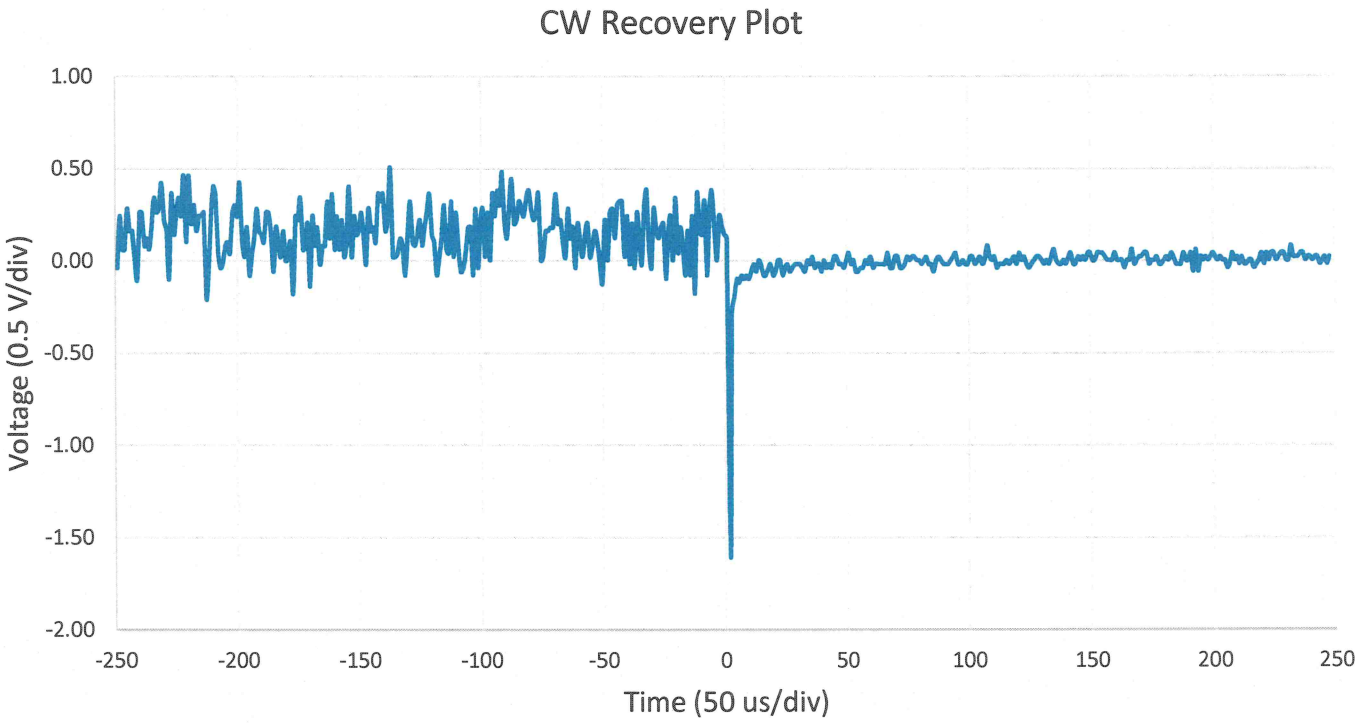
ERDLVA-2G18G-65-70MV-70C

PL48061/2444





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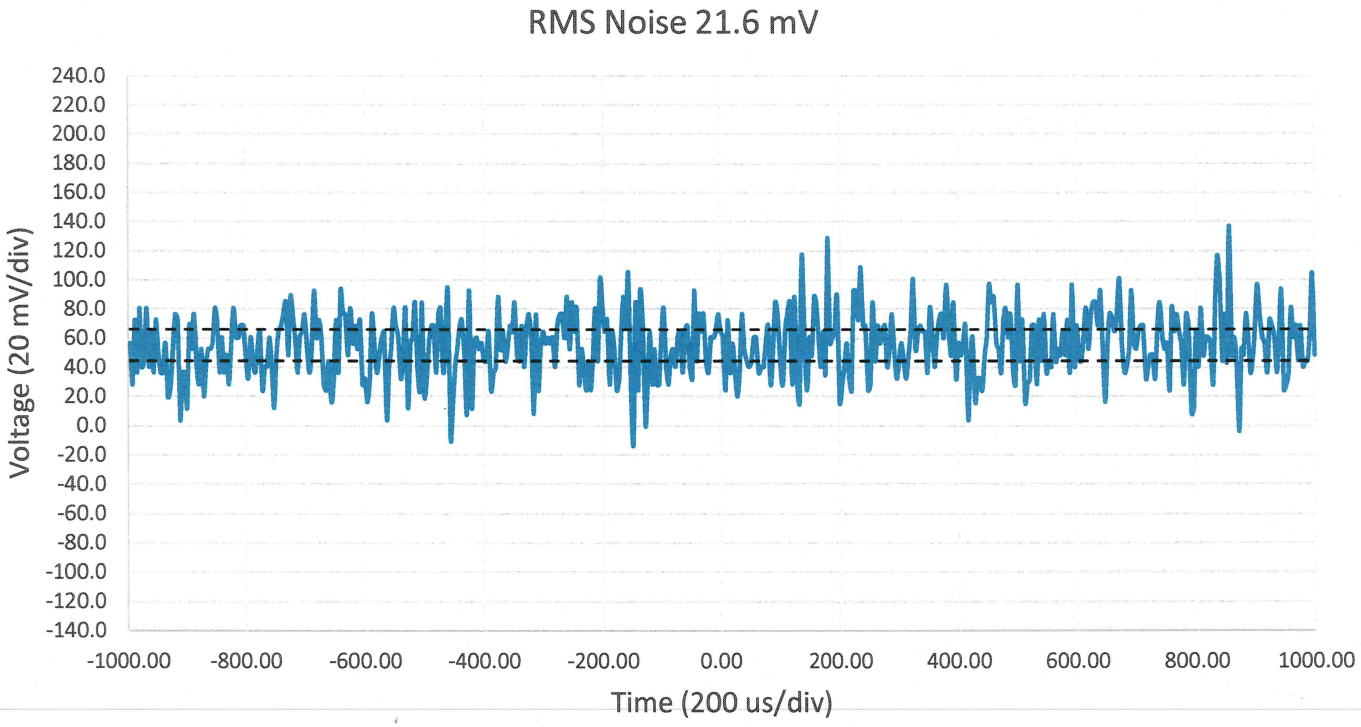
Summary Data
For
ERDLVA-2G18G-65-70MV-70C

PL48061/2444



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