



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

Customer: _____
 SO No: _____
 Model No: ERDLVA-2G18G-65-70MV-70C
 Serial No: PL48058/2444

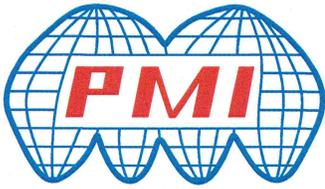
Tested By: Anton L.
 Temperature: -40°C TO +70°C
 Date 10/30/2024
 Drawing No: 27642020 Rev: A1

TEST ITEM NO	PARAMETERS	SPECIFIED VALUE	TEST RESULTS	QA QC
1	Frequency Range:	2 to 18 GHz	2 to 18 GHz	PM QC
2	VSWR:	2.2:1 MAX @ 50 Ω	1.90 :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	- 72.1 dBm	
5	VIDEO OUT Dynamic Range:	-65 to 0 dBm	-65 to 0 dBm	
6	VIDEO OUT Log Slope Fixed:	70 ± 3mV/dB	70.4 mV/dB	
			69.9 mV/dB	
7	VIDEO OUT Log Linearity:	±1.0 dB MAX @25C	0.55 dB	
			-0.62 dB	
8	VIDEO OUT Log Accuracy:	±2.3 dB MAX @25C	0.72 dB	
			-0.84 dB	
9	VIDEO OUT Absolute Log Accuracy:	±2.9 dB MAX Over Freq & temp	1.21 dB	
			-1.32 dB	
10	VIDEO OUT DC Offset:	0 ±70 mV (RF Input Terminated & DC Power On) @25C	45 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	202.2 ns	



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13	VIDEO OUT Settling Time:	50 ns With in ± 70 mV of final value @-10 dBm	24 ns	PMI QA3
14	VIDEO OUT Recovery Time:	1 us MAX to within 1 dB of baseline for PW <10us & Power = -10dBm	0.45 us	
15	VIDEO OUT Video Frequency Flatness:	± 2.0 dB MAX @25C	± 0.59 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	1.57 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	75 Ω	
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	140.3 mV	PMI QA3
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 @ 310 mA -15 V @ 80 mA	
25	Power Supply Ripple From DC to 10 MHz	100 mV MAX	Pass	

QA/QC Approval: K. Blum

Date: 11-1-24



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

LOG TRANSFER WITH FREQUENCY

TESTED BY: Anton L.
MODEL: ERDLVA-2G18G-65-70MV-70C
SERIAL NO: PL48058/2444
DATE: 10/30/2024

Test Temp: 25 °C
Video Offset: 45 mV

Frequency

2000 MHz	INTERCEPT (mV)	4864
	SLOPE (mV/dB)	70.4

6000 MHz	INTERCEPT (mV)	4914
	SLOPE (mV/dB)	69.9

10000 MHz	INTERCEPT (mV)	4898
	SLOPE (mV/dB)	70.0

14000 MHz	INTERCEPT (mV)	4911
	SLOPE (mV/dB)	70.2

18000 MHz	INTERCEPT (mV)	4881
	SLOPE (mV/dB)	69.9

	-65	-60	-55	-50	-45	-40	-35	-30	-25	-20	-15	-10	-5	0
2000 MHz	300	648	982	1337	1710	2036	2395	2767	3094	3456	3834	4166	4510	4851
2000 MHz	9	5	-13	-9	12	-14	-7	14	-11	-1	25	5	-2	-13
2000 MHz	0.13	0.07	-0.18	-0.13	0.17	-0.20	-0.10	0.19	-0.16	-0.01	0.36	0.08	-0.03	-0.19
2000 MHz	-0.57	-0.60	-0.84	-0.77	-0.45	-0.80	-0.67	-0.36	-0.70	-0.53	-0.14	-0.40	-0.49	-0.62
6000 MHz	368	722	1064	1413	1780	2102	2464	2833	3162	3512	3869	4198	4559	4927
6000 MHz	0	4	-4	-4	13	-14	-2	17	-3	-3	4	-16	-5	13
6000 MHz	0.00	0.06	-0.05	-0.06	0.19	-0.21	-0.03	0.25	-0.05	-0.04	0.06	-0.23	-0.07	0.19
6000 MHz	0.40	0.45	0.33	0.31	0.55	0.15	0.31	0.58	0.27	0.27	0.36	0.06	0.21	0.46
10000 MHz	343	700	1045	1397	1764	2086	2452	2823	3147	3497	3843	4178	4545	4909
10000 MHz	-8	1	-4	-2	15	-13	3	28	-1	-1	5	-20	-3	11
10000 MHz	-0.09	0.01	-0.06	-0.03	0.22	-0.18	0.05	0.35	-0.02	-0.02	-0.07	-0.28	-0.04	0.16
10000 MHz	0.04	0.14	0.06	0.08	0.32	-0.08	0.14	0.44	0.06	0.05	-0.01	-0.23	0.01	0.20
14000 MHz	343	700	1045	1392	1748	2075	2461	2843	3171	3519	3865	4198	4552	4895
14000 MHz	-4	2	-4	-8	-3	-27	7	38	15	12	7	-11	-8	-16
14000 MHz	-0.05	0.03	-0.06	-0.12	-0.05	-0.39	0.11	0.55	0.22	0.17	0.10	-0.16	-0.12	-0.23
14000 MHz	0.04	0.14	0.06	0.01	0.09	-0.24	0.27	0.72	0.40	0.37	0.31	0.06	0.11	0.00
18000 MHz	346	702	1038	1383	1729	2043	2431	2818	3145	3494	3827	4167	4532	4889
18000 MHz	7	13	0	-4	-8	-43	-5	33	11	10	-6	-16	0	8
18000 MHz	0.10	0.19	0.00	-0.06	-0.11	-0.62	-0.07	0.47	0.15	0.15	-0.09	-0.22	0.00	0.11
18000 MHz	0.09	0.17	-0.04	-0.12	-0.18	-0.70	-0.16	0.36	0.03	0.01	-0.24	-0.38	-0.18	-0.08

RF Input Power (dBm)	
Measured Value (mV)	
Error (mV)	
LINEARITY ERROR (dB)	0.36
ACCURACY ERROR (dB)	-0.84

Measured Value (mV)	
Error (mV)	
LINEARITY ERROR (dB)	0.25
ACCURACY ERROR (dB)	0.58

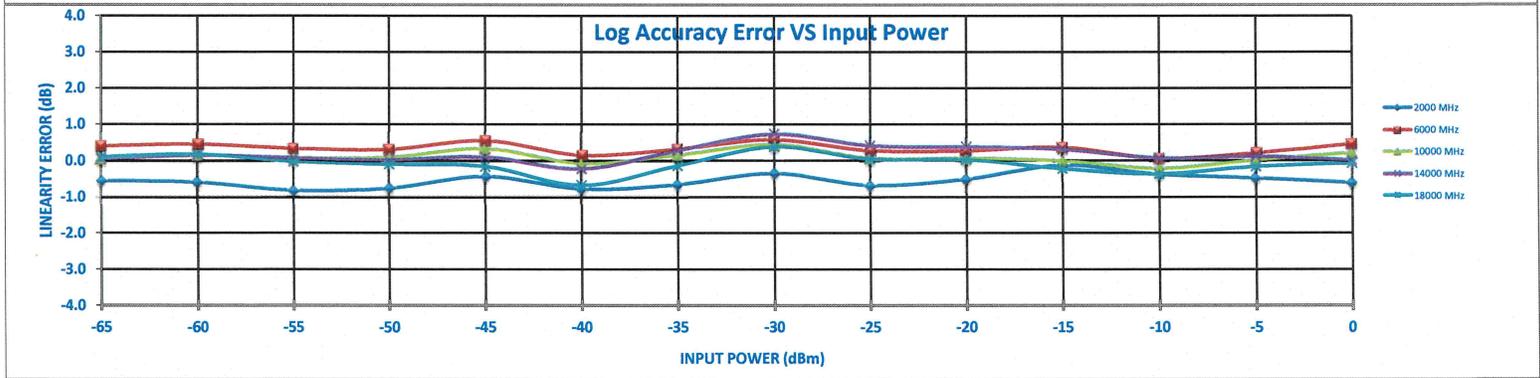
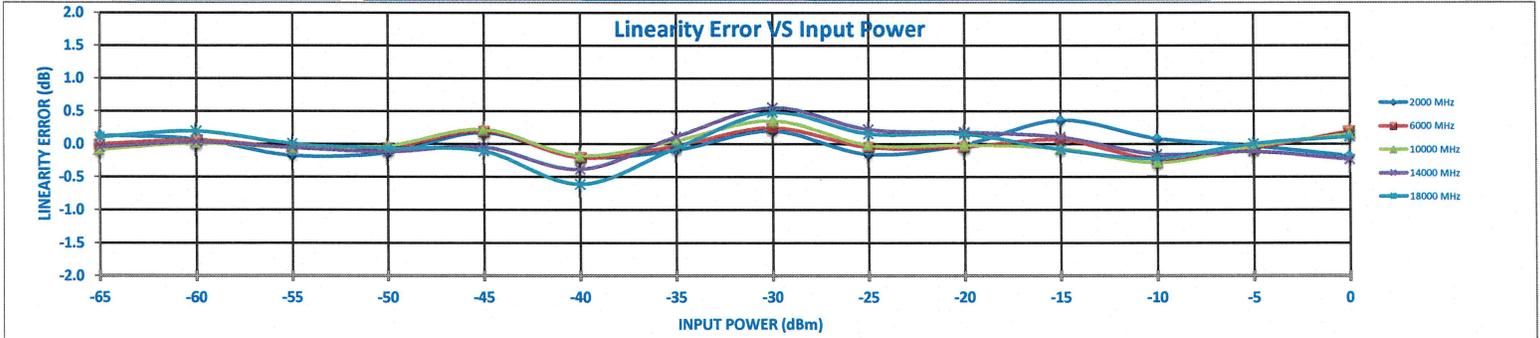
Measured Value (mV)	
Error (mV)	
LINEARITY ERROR (dB)	0.35
ACCURACY ERROR (dB)	0.44

Measured Value (mV)	
Error (mV)	
LINEARITY ERROR (dB)	0.55
ACCURACY ERROR (dB)	0.72

Measured Value (mV)	
Error (mV)	
LINEARITY ERROR (dB)	-0.62
ACCURACY ERROR (dB)	-0.70

Flatness	+/- dB	0.49	0.53	0.59	0.54	0.50	0.47	0.49	0.54	0.55	0.45	0.30	0.23	0.35	0.54
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0.59





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

LOG TRANSFER WITH FREQUENCY

TESTED BY: Anton L.
 MODEL: ERDLVA-2G18G-65-70MV-70C
 SERIAL NO: PL48058/2444
 DATE: 10/30/2024

Test Temp: -40 °C
 Video Offset: 42 mV

Frequency

2000 MHz	INTERCEPT (mV)	4775
	SLOPE (mV/dB)	69.5

6000 MHz	INTERCEPT (mV)	4822
	SLOPE (mV/dB)	68.9

10000 MHz	INTERCEPT (mV)	4825
	SLOPE (mV/dB)	68.8

14000 MHz	INTERCEPT (mV)	4854
	SLOPE (mV/dB)	69.3

18000 MHz	INTERCEPT (mV)	4852
	SLOPE (mV/dB)	69.2

-65	-60	-55	-50	-45	-40	-35	-30	-25	-20	-15	-10	-5	0
272	602	924	1283	1659	1993	2356	2706	3016	3369	3749	4087	4428	4766
17	-1	-26	-15	13	0	15	17	-21	-15	17	7	1	-9
0.25	-0.01	-0.38	-0.22	0.19	-0.01	0.21	0.25	-0.30	-0.22	0.24	0.11	0.01	-0.13
-0.40	-0.63	-0.98	-0.78	-0.35	-0.52	-0.27	-0.21	-0.72	-0.62	-0.12	-0.23	-0.30	-0.41

345	684	1022	1368	1741	2074	2425	2767	3087	3428	3787	4120	4472	4841
1	-4	-11	-9	19	8	14	12	-13	-16	-2	-13	-6	19
0.02	-0.06	-0.16	-0.13	0.28	0.11	0.21	0.17	-0.18	-0.23	-0.02	-0.19	-0.08	0.27
0.65	0.55	0.44	0.44	0.84	0.65	0.73	0.68	0.30	0.24	0.43	0.24	0.33	0.67

348	689	1035	1384	1753	2085	2438	2775	3096	3433	3785	4122	4478	4842
1	-10	9	3	22	11	20	19	10	-17	6	-15	-4	17
-0.10	-0.14	-0.11	-0.04	0.33	0.15	0.29	0.19	-0.15	-0.25	-0.13	-0.23	-0.05	0.24
0.69	0.63	0.63	0.68	1.01	0.81	0.92	0.79	0.43	0.31	0.40	0.27	0.42	0.68

348	688	1034	1378	1738	2075	2454	2799	3127	3464	3816	4155	4502	4842
-1	-8	-8	-11	3	-7	26	24	6	-4	2	-6	-5	-12
-0.02	-0.11	-0.12	-0.15	0.04	-0.10	0.37	0.35	0.08	-0.05	0.03	-0.08	-0.08	-0.17
0.69	0.61	0.61	0.59	0.80	0.67	1.15	1.14	0.88	0.76	0.85	0.75	0.77	0.68

356	697	1040	1379	1731	2064	2457	2804	3129	3462	3801	4144	4502	4860
4	-1	-4	-11	-6	-19	28	29	8	-5	-12	-15	-4	8
0.06	-0.02	-0.06	-0.16	-0.08	-0.27	0.41	0.42	0.11	-0.08	-0.18	-0.22	-0.05	0.12
0.81	0.74	0.70	0.60	0.69	0.51	1.19	1.21	0.91	0.73	0.63	0.59	0.77	0.94

RF Input Power (dBm)	
Measured Value (mV)	
Error (mV)	
LINEARITY ERROR (dB)	-0.38
ACCURACY ERROR (dB)	-0.98

Measured Value (mV)	
Error (mV)	
LINEARITY ERROR (dB)	0.28
ACCURACY ERROR (dB)	0.84

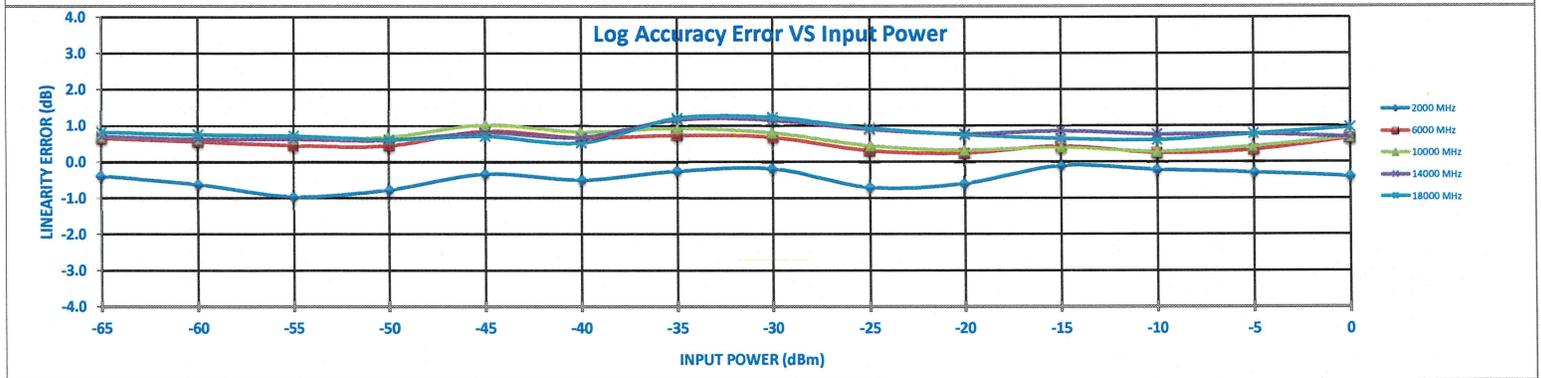
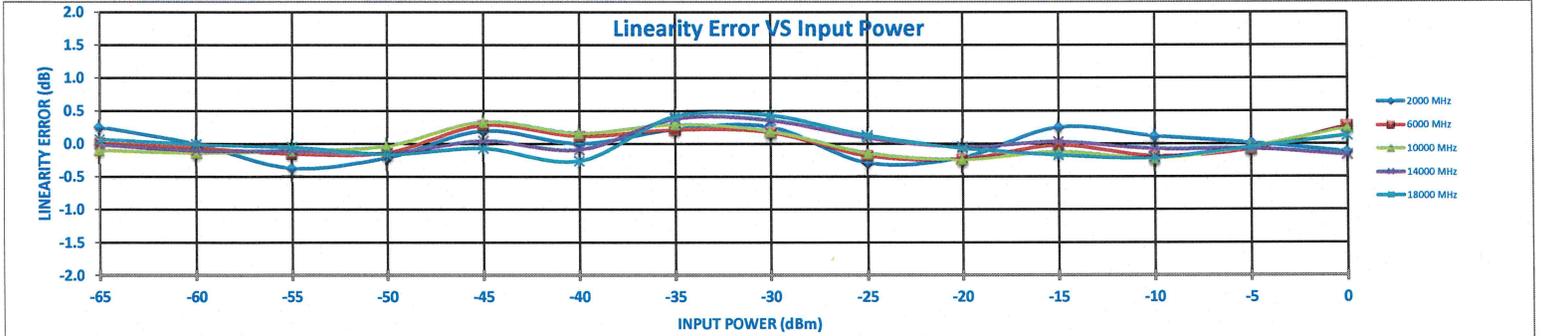
Measured Value (mV)	
Error (mV)	
LINEARITY ERROR (dB)	0.33
ACCURACY ERROR (dB)	1.01

Measured Value (mV)	
Error (mV)	
LINEARITY ERROR (dB)	0.37
ACCURACY ERROR (dB)	1.15

Measured Value (mV)	
Error (mV)	
LINEARITY ERROR (dB)	0.42
ACCURACY ERROR (dB)	1.21

Flatness	+/- dB	0.61	0.69	0.84	0.73	0.68	0.67	0.73	0.71	0.82	0.69	0.48	0.49	0.54	0.68
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0.84





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

LOG TRANSFER WITH FREQUENCY

TESTED BY: Anton L.
 MODEL: ERDLVA-2G18G-65-70MV-70C
 SERIAL NO: PL48058/2444
 DATE: 10/30/2024

Test Temp: 70 °C
 Video Offset: -6 mV

Frequency

2000 MHz	INTERCEPT (mV)	4905
	SLOPE (mV/dB)	71.7

6000 MHz	INTERCEPT (mV)	4925
	SLOPE (mV/dB)	70.9

10000 MHz	INTERCEPT (mV)	4900
	SLOPE (mV/dB)	70.7

14000 MHz	INTERCEPT (mV)	4910
	SLOPE (mV/dB)	70.5

18000 MHz	INTERCEPT (mV)	4878
	SLOPE (mV/dB)	71.5

	-65	-60	-55	-50	-45	-40	-35	-30	-25	-20	-15	-10	-5	0
2000 MHz	242	611	959	1318	1689	2099	2377	2784	3125	3489	3867	4192	4533	4873
6000 MHz	-22	12	6	1	14	-26	-15	28	11	11	10	-17	-11	-2
10000 MHz	-0.41	0.12	0.13	0.14	0.29	-0.34	-0.17	0.36	0.11	0.12	-0.02	-0.27	-0.08	0.03
14000 MHz	-0.47	0.13	0.18	0.13	0.10	-0.45	-0.13	0.49	0.27	0.23	0.11	-0.19	-0.24	-0.16
18000 MHz	-0.07	0.25	0.14	0.09	-0.20	-0.75	-0.42	0.52	0.41	0.40	0.03	-0.19	-0.16	-0.03

RF Input Power (dBm)	
Measured Value (mV)	
Error (mV)	
LINEARITY ERROR (dB)	0.51
ACCURACY ERROR (dB)	-0.67

Measured Value (mV)	
Error (mV)	
LINEARITY ERROR (dB)	0.39
ACCURACY ERROR (dB)	0.81

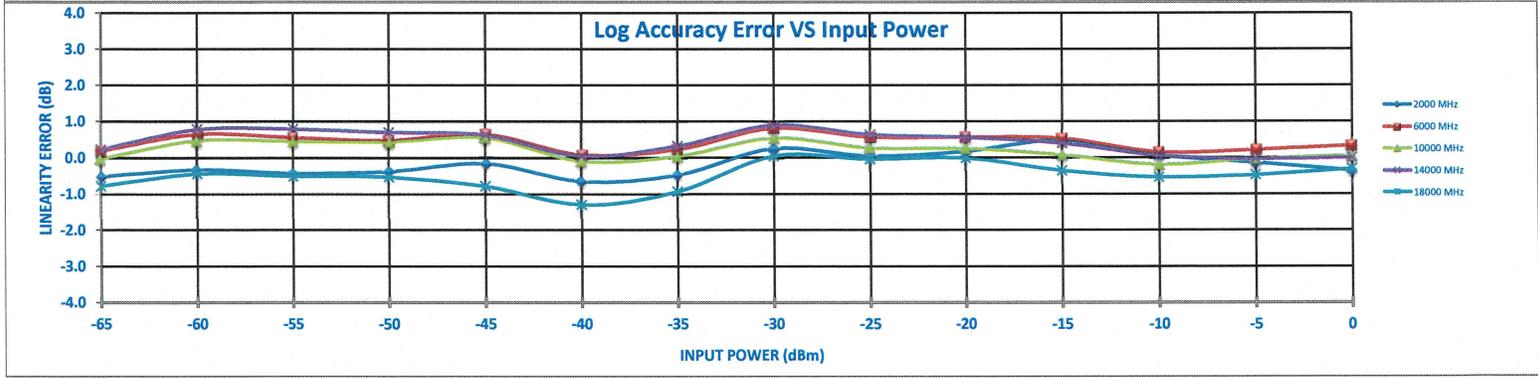
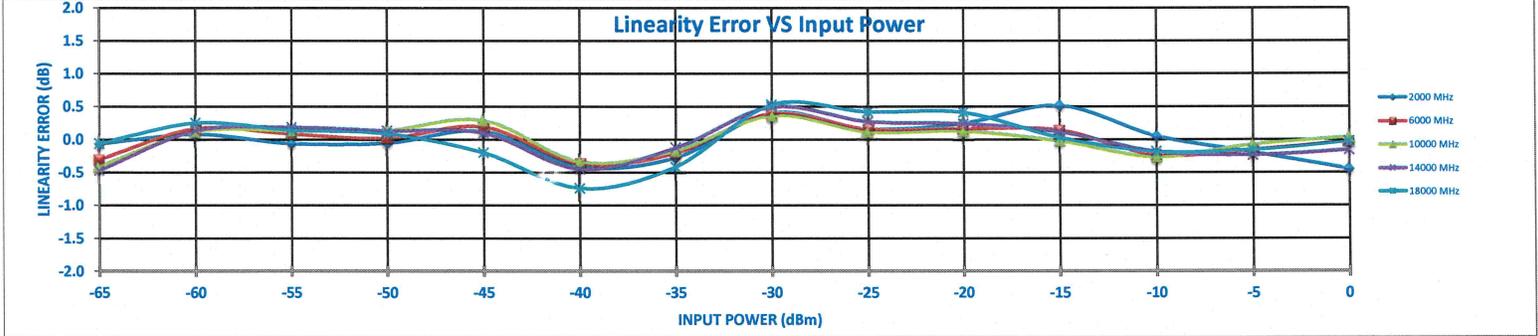
Measured Value (mV)	
Error (mV)	
LINEARITY ERROR (dB)	-0.41
ACCURACY ERROR (dB)	0.55

Measured Value (mV)	
Error (mV)	
LINEARITY ERROR (dB)	0.49
ACCURACY ERROR (dB)	0.88

Measured Value (mV)	
Error (mV)	
LINEARITY ERROR (dB)	-0.75
ACCURACY ERROR (dB)	-1.32

Flatness	+/- dB	0.51	0.61	0.65	0.62	0.72	0.70	0.63	0.43	0.34	0.30	0.45	0.35	0.35	0.35
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0.72

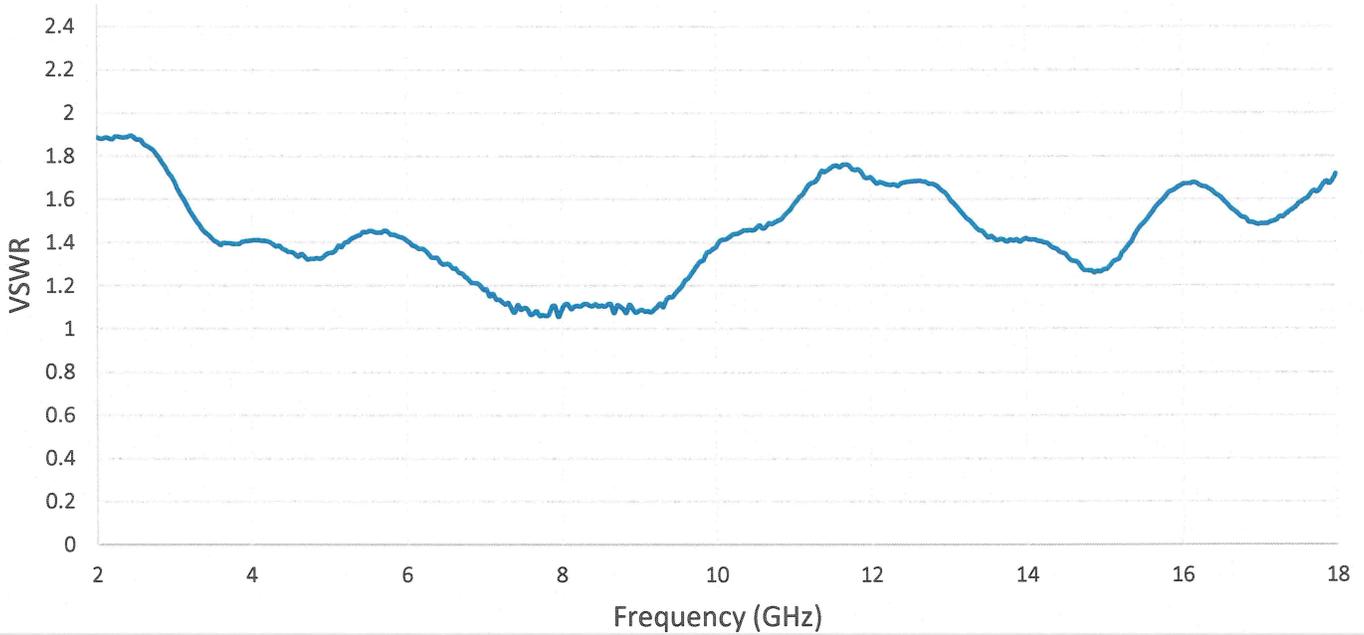




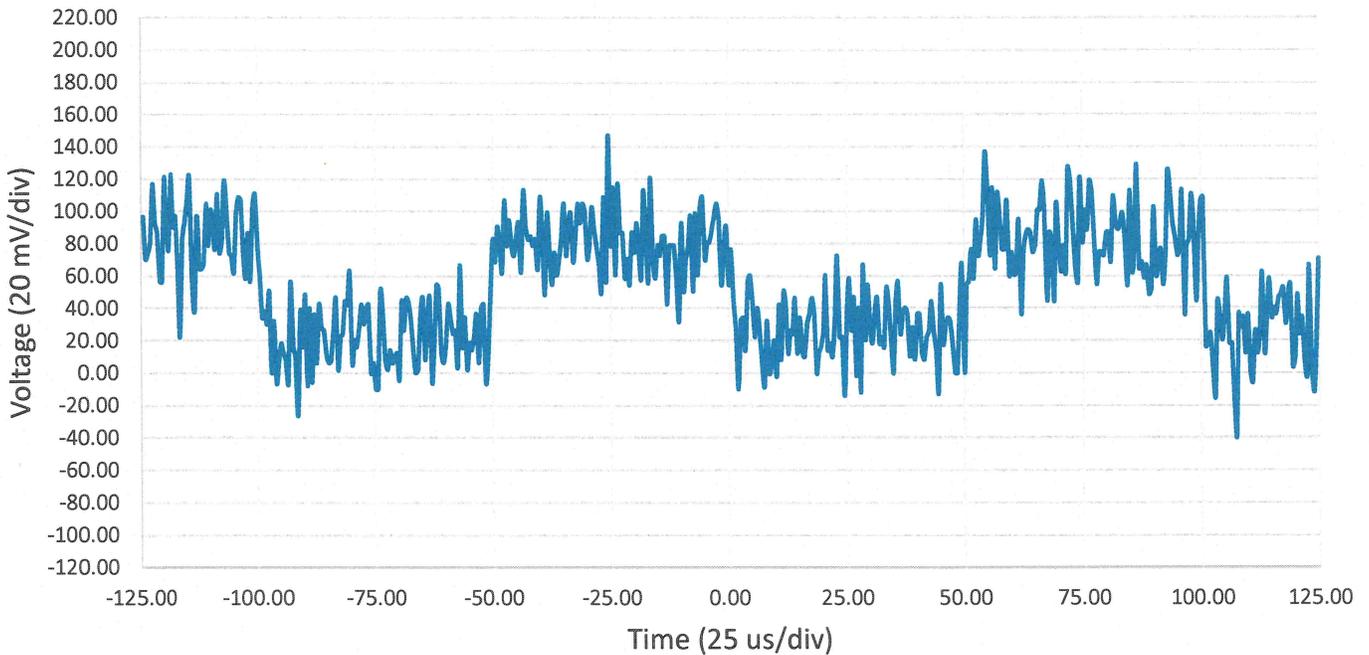
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PL48058/2444

VSWR 1.9:1



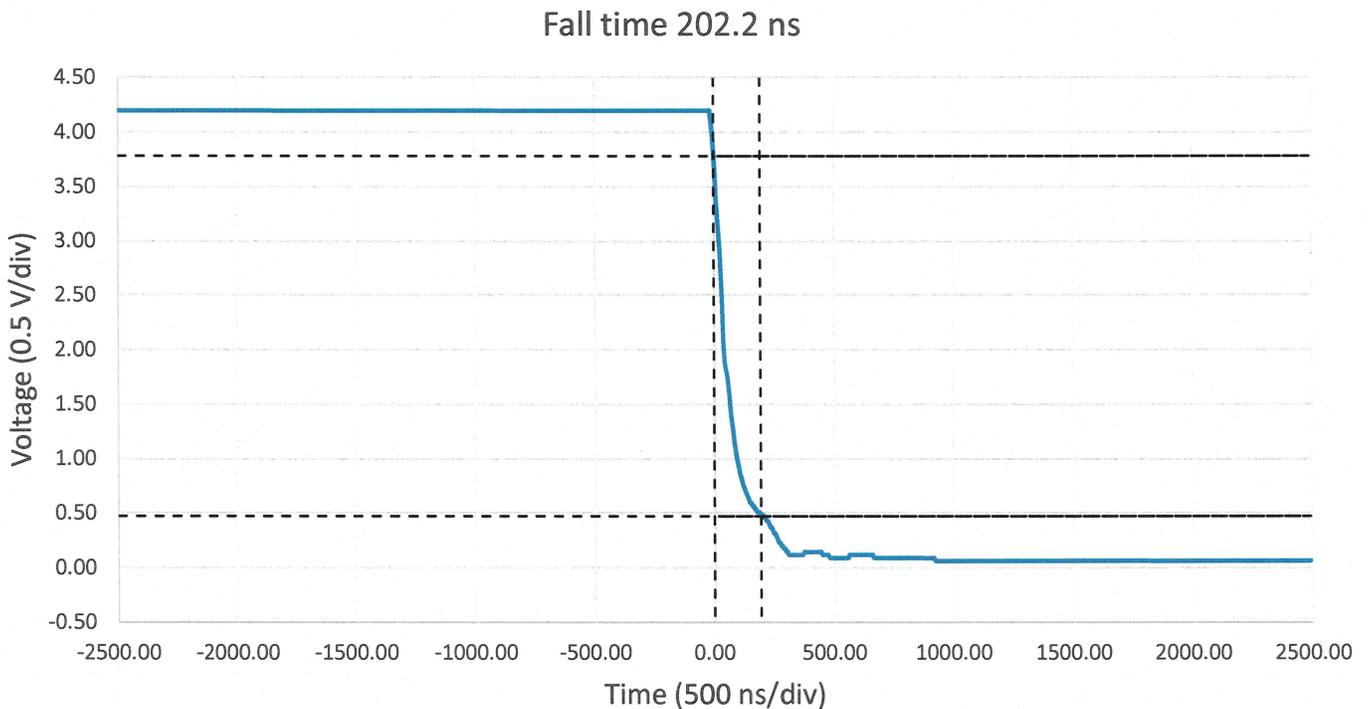
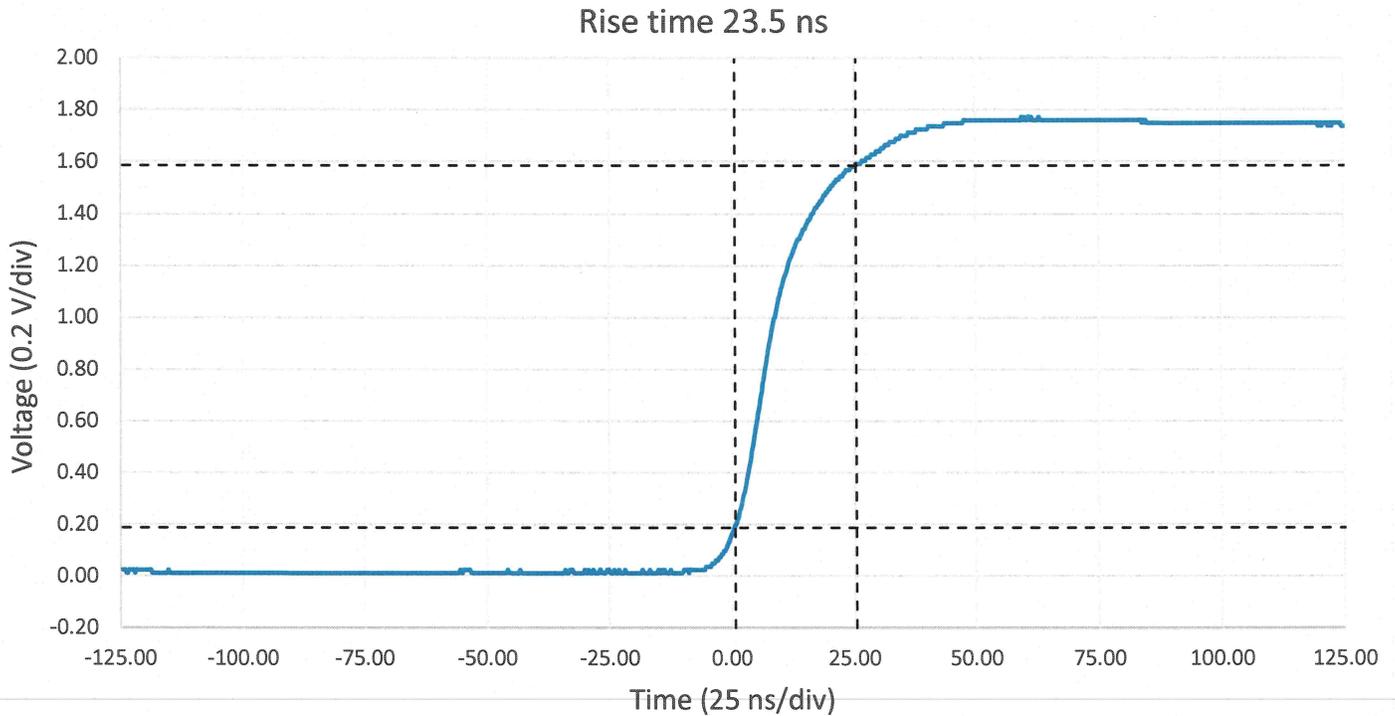
TSS @ -72.1 dBm





**Summary Data
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PL48058/2444

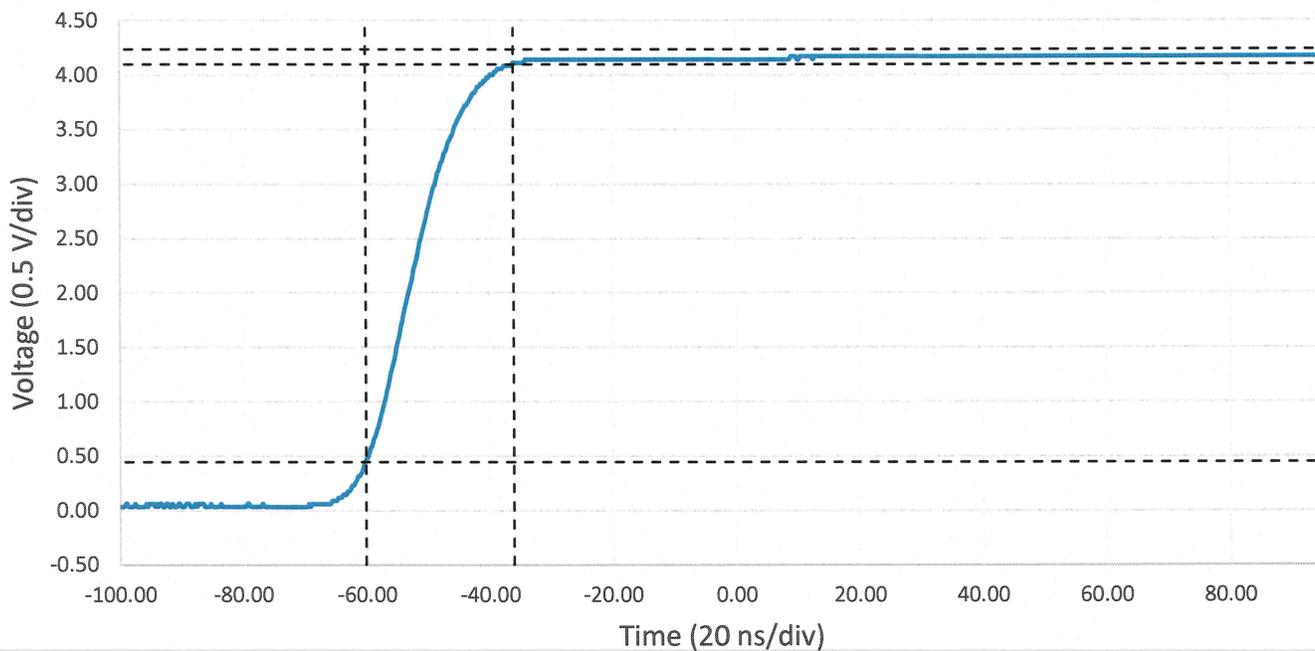




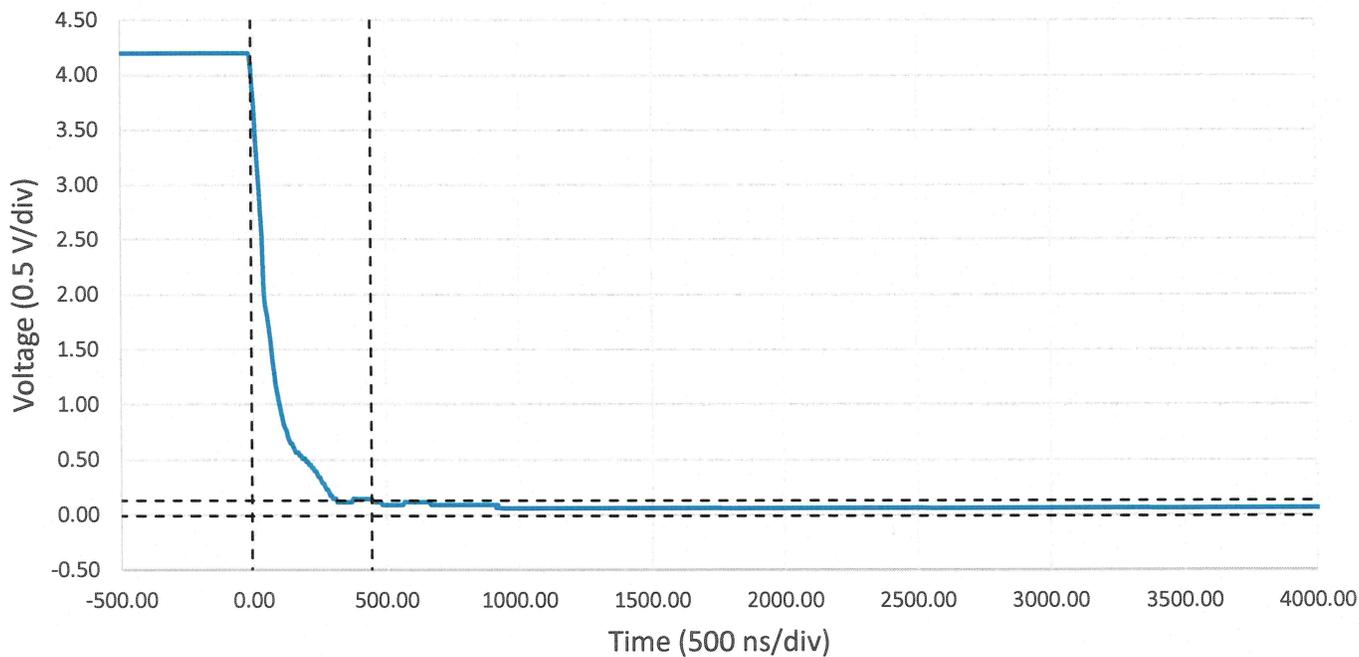
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Settle time 24 ns



Recovery time 450 ns

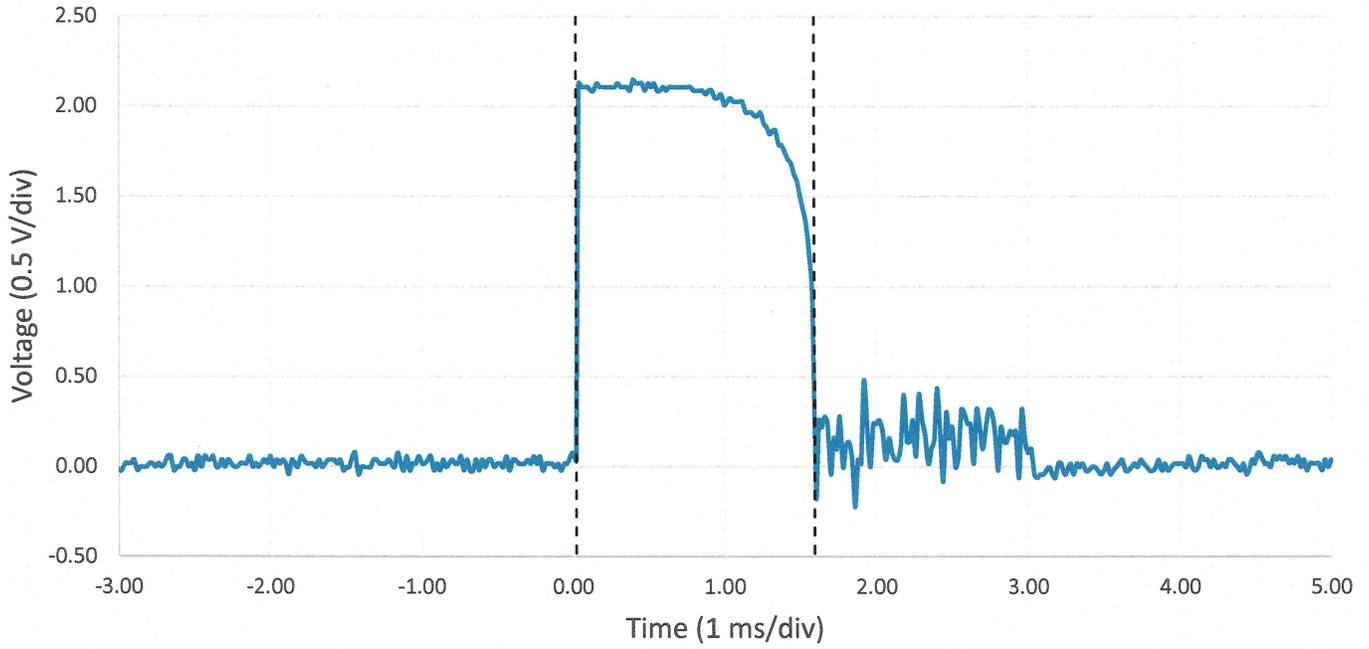




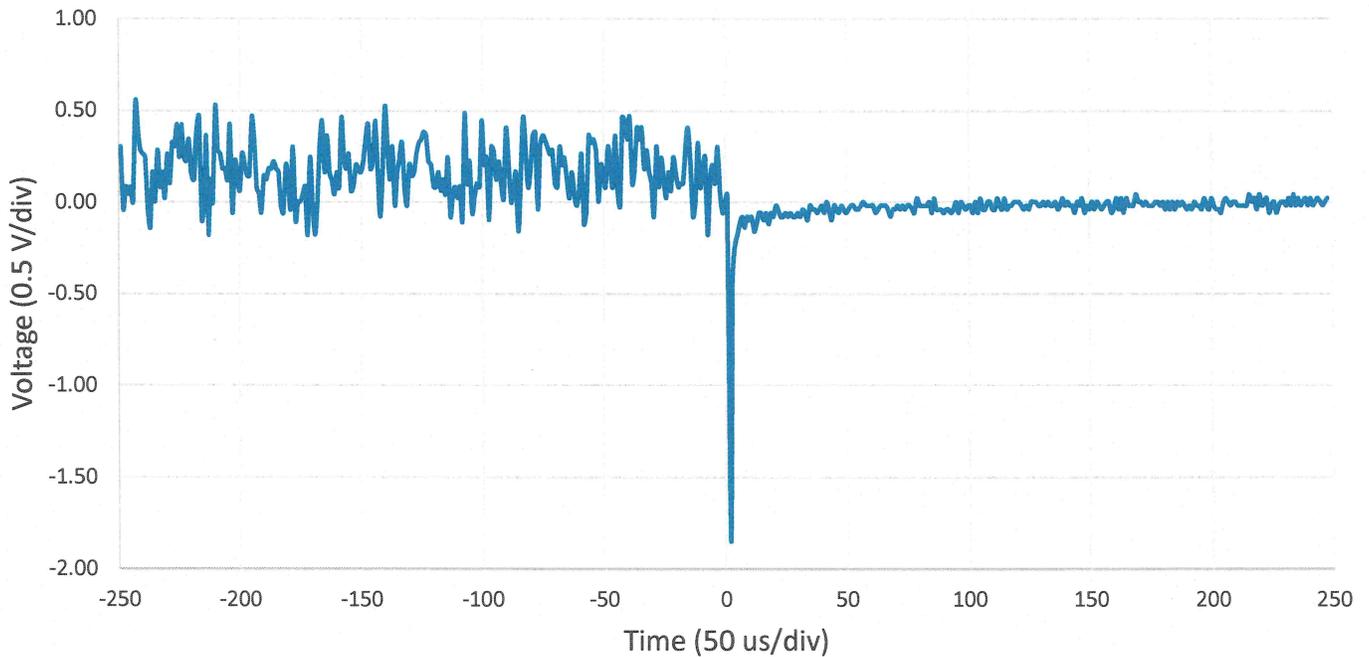
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CW Immunity 1.57 ms



CW Recovery Plot





**Summary Data
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PL48058/2444

RMS Noise 21.3 mV

