



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

Customer: 1155 2000 2000
 SO No: 1155 2000 2000
 Model No: ERDLVA-2G18G-65-70MV-70C
 Serial No: PL47585/2444

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	
2	VSWR:	2.2:1 MAX @ 50 Ω	1.80 :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	- 72.0 dBm	
5	VIDEO OUT Dynamic Range:	-65 to 0 dBm	-65 to 0 dBm	
6	VIDEO OUT Log Slope Fixed:	70 ± 3mV/dB	70.9 mV/dB	
			70.1 mV/dB	
7	VIDEO OUT Log Linearity:	±1.0 dB MAX @25C	0.57 dB	
			-0.35 dB	
8	VIDEO OUT Log Accuracy:	±2.3 dB MAX @25C	1.07 dB	
			-0.72 dB	
9	VIDEO OUT Absolute Log Accuracy:	±2.9 dB MAX Over Freq & temp	1.47 dB	
			-1.52 dB	
10	VIDEO OUT DC Offset:	0 ±70 mV (RF Input Terminated & DC Power On) @25C	41 mV	
11	VIDEO OUT Rise Time (10% to 90%):	28 ns MAX	23.3 ns	
12	VIDEO OUT Fall Time (90% to 10%):	300 ns MAX	101.9 ns	



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13	VIDEO OUT Settling Time:	50 ns With in ± 70 mV of final value @-10 dBm	24.5 ns	PMI QAS
14	VIDEO OUT Recovery Time:	1 us MAX to within 1 dB of baseline for PW <10us & Power = -10dBm	0.66 us	
15	VIDEO OUT Video Frequency Flatness:	± 2.0 dB MAX @25C	± 0.80 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	146.4 mV	PMI QAS
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. Klamminger*

Date: 11-1-24



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LOG TRANSFER WITH FREQUENCY

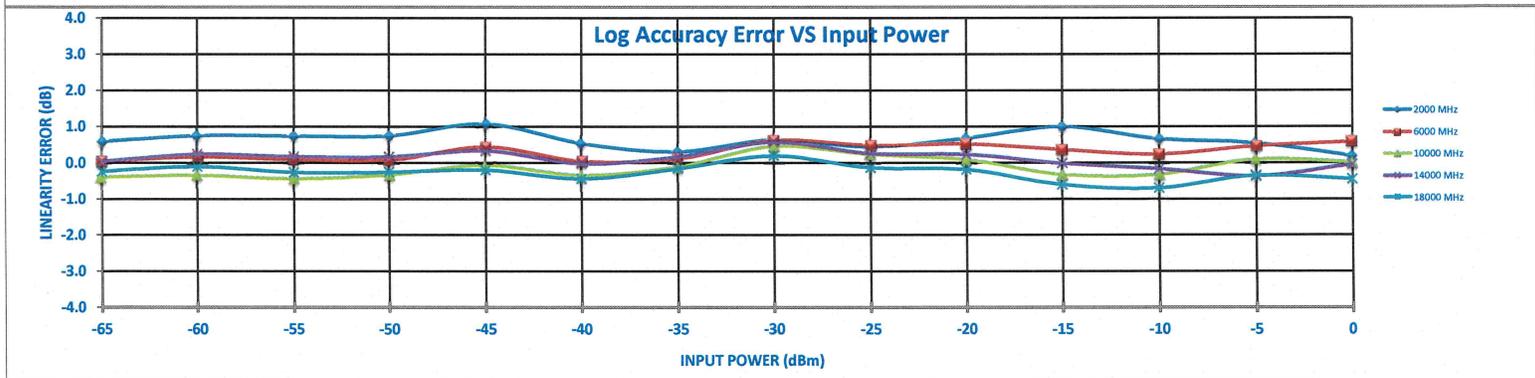
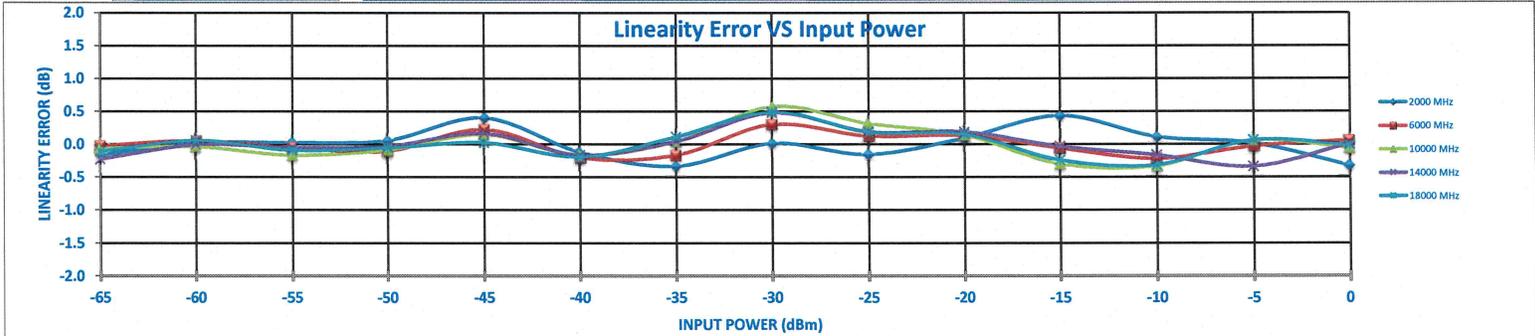
TESTED BY: Anton L.
 MODEL: ERDLVA-2G18G-65-70MV-70C
 SERIAL NO: PL47585/2444
 DATE: 10/30/2024

Test Temp: 25 °C
 Video Offset: 41 mV

Frequency

Frequency	INTERCEPT (mV)	SLOPE (mV/dB)	-65	-60	-55	-50	-45	-40	-35	-30	-25	-20	-15	-10	-5	0	RF Input Power (dBm)
2000 MHz	4954	70.2	382	746	1097	1450	1825	2139	2475	2850	3189	3557	3932	4260	4604	4931	Measured Value (mV) Error (mV) LINEARITY ERROR (dB) 0.43 ACCURACY ERROR (dB) 1.07
6000 MHz	4956	70.9	345	705	1052	1403	1781	2105	2462	2850	3192	3547	3888	4231	4599	4960	Measured Value (mV) Error (mV) LINEARITY ERROR (dB) 0.30 ACCURACY ERROR (dB) 0.62
10000 MHz	4924	70.9	313	669	1014	1374	1745	2077	2446	2838	3174	3516	3839	4191	4573	4919	Measured Value (mV) Error (mV) LINEARITY ERROR (dB) 0.57 ACCURACY ERROR (dB) 0.45
14000 MHz	4915	70.1	344	710	1057	1409	1773	2100	2465	2846	3176	3526	3861	4202	4540	4915	Measured Value (mV) Error (mV) LINEARITY ERROR (dB) 0.48 ACCURACY ERROR (dB) 0.57
18000 MHz	4887	70.1	324	686	1026	1379	1735	2070	2442	2819	3148	3496	3819	4164	4541	4886	Measured Value (mV) Error (mV) LINEARITY ERROR (dB) 0.49 ACCURACY ERROR (dB) -0.72

Flatness	+/- dB	0.49	0.55	0.59	0.54	0.64	0.49	0.23	0.22	0.31	0.43	0.80	0.68	0.45	0.53	0.80
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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: PL47585/2444
 DATE: 10/30/2024

Test Temp: -40 °C
 Video Offset: -19 mV

Frequency

2000 MHz	INTERCEPT (mV)	4831
	SLOPE (mV/dB)	69.6

6000 MHz	INTERCEPT (mV)	4857
	SLOPE (mV/dB)	70.2

10000 MHz	INTERCEPT (mV)	4871
	SLOPE (mV/dB)	70.5

14000 MHz	INTERCEPT (mV)	4877
	SLOPE (mV/dB)	70.0

18000 MHz	INTERCEPT (mV)	4885
	SLOPE (mV/dB)	70.7

	-65	-60	-55	-50	-45	-40	-35	-30	-25	-20	-15	-10	-5	0
306	655	999	1349	1731	2053	2372	2735	3067	3430	3809	4152	4497	4813	
-1	0	-4	-2	32	6	-23	-8	-24	-9	22	17	14	-18	
-0.01	0.00	-0.06	-0.03	0.46	0.08	-0.33	-0.12	-0.35	-0.13	0.31	0.24	0.20	-0.26	
0.05	0.02	-0.08	-0.10	0.34	-0.07	-0.53	-0.36	-0.63	-0.46	-0.06	-0.18	-0.26	-0.76	

	302	647	990	1338	1716	2044	2385	2763	3100	3449	3802	4149	4517	4860
8	2	-6	-9	18	-5	-15	12	-2	-4	-2	-6	11	3	
0.11	0.02	-0.09	-0.13	0.25	-0.08	-0.22	0.17	-0.03	-0.06	-0.03	-0.09	0.15	0.04	
-0.01	-0.10	-0.21	-0.26	0.13	-0.20	-0.34	0.04	-0.16	-0.19	-0.16	-0.22	0.02	-0.09	

	289	637	982	1329	1707	2041	2401	2786	3119	3459	3802	4154	4526	4863
3	1	-3	-5	19	-3	-11	11	-2	-4	-11	11	8	3	
0.05	-0.02	-0.13	-0.21	0.15	-0.12	-0.01	0.45	0.17	-0.01	-0.15	-0.16	0.11	-0.11	
-0.20	-0.24	-0.33	-0.38	0.00	-0.24	-0.12	0.37	0.11	-0.05	-0.16	-0.15	0.15	-0.05	

	323	667	1026	1371	1730	2069	2425	2804	3140	3479	3826	4175	4532	4854
-3	-9	0	-5	4	-7	-1	27	13	2	-1	-2	5	-23	
-0.04	-0.13	0.00	-0.08	0.05	-0.11	-0.02	0.39	0.19	0.03	-0.01	-0.03	0.07	-0.33	
0.29	0.19	0.30	0.21	0.33	0.16	0.23	0.62	0.41	0.24	0.18	0.15	0.24	-0.18	

	294	644	988	1331	1691	2038	2425	2811	3143	3477	3813	4166	4536	4864
4	1	-9	-19	-13	-19	15	47	26	6	-11	-12	5	-21	
0.06	0.01	-0.12	-0.27	-0.18	-0.27	0.21	0.67	0.36	0.09	-0.16	-0.17	0.07	-0.29	
-0.13	-0.14	-0.24	-0.36	-0.23	-0.29	0.23	0.72	0.45	0.21	-0.01	0.02	0.29	-0.04	

RF Input Power (dBm)	
Measured Value (mV)	
Error (mV)	
LINEARITY ERROR (dB)	0.46
ACCURACY ERROR (dB)	-0.76

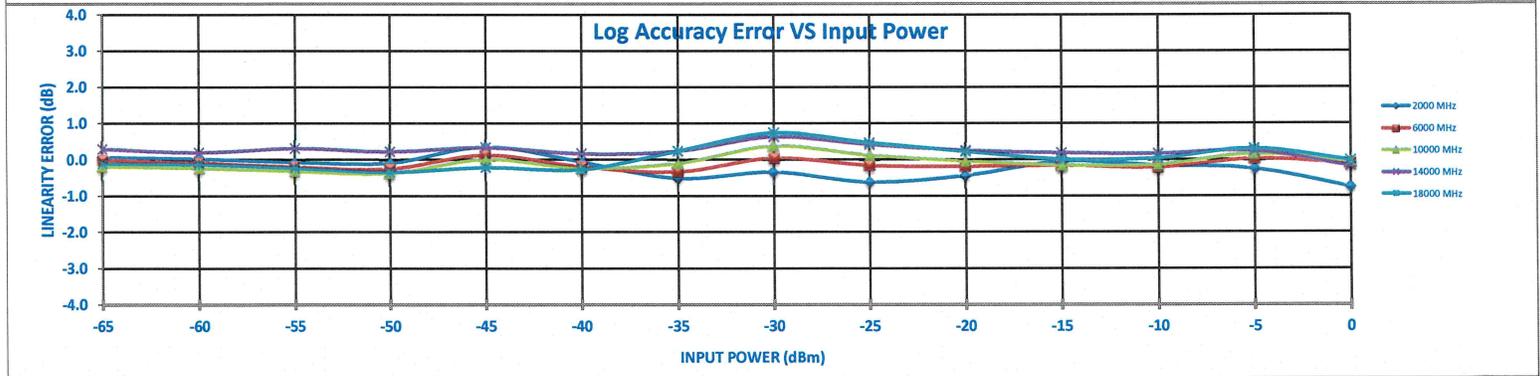
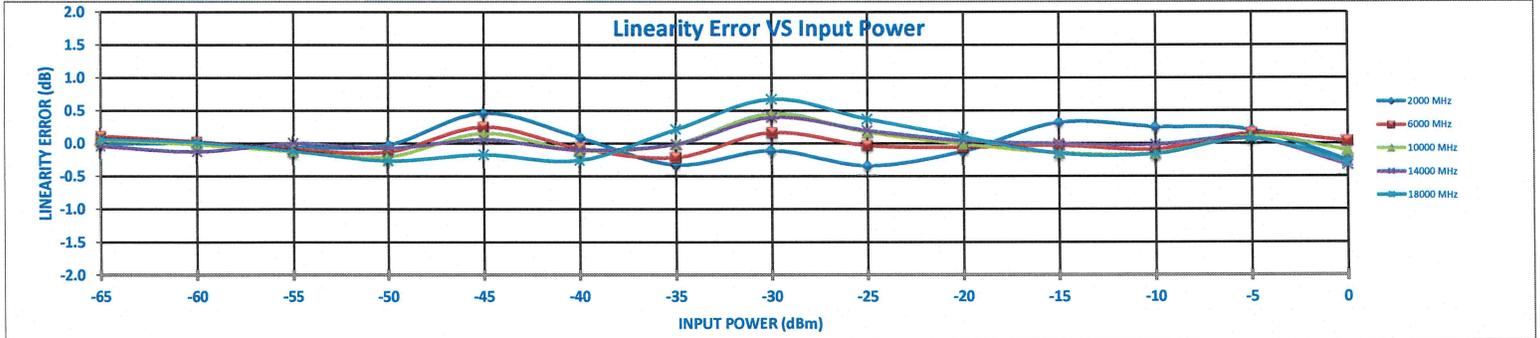
Measured Value (mV)	
Error (mV)	
LINEARITY ERROR (dB)	0.25
ACCURACY ERROR (dB)	-0.34

Measured Value (mV)	
Error (mV)	
LINEARITY ERROR (dB)	0.45
ACCURACY ERROR (dB)	-0.38

Measured Value (mV)	
Error (mV)	
LINEARITY ERROR (dB)	0.39
ACCURACY ERROR (dB)	0.62

Measured Value (mV)	
Error (mV)	
LINEARITY ERROR (dB)	0.67
ACCURACY ERROR (dB)	0.72

Flatness	+/- dB	0.24	0.21	0.31	0.30	0.28	0.22	0.38	0.54	0.54	0.35	0.17	0.19	0.28	0.36
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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: PL47585/2444
DATE: 10/30/2024

Test Temp: 70 °C
Video Offset: 66 mV

Frequency		
2000 MHz	INTERCEPT (mV)	4956
	SLOPE (mV/dB)	69.5

	-65	-60	-55	-50	-45	-40	-35	-30	-25	-20	-15	-10	-5	0
	387	793	1153	1507	1875	2173	2499	2865	3206	3572	3943	4264	4603	4934
	-54	5	18	24	45	-4	-25	-7	-13	6	29	3	-5	-22
	-0.77	0.07	0.25	0.35	0.65	-0.06	-0.37	-0.10	-0.19	0.08	0.42	0.04	-0.08	-0.31
	-0.04	0.83	1.03	1.15	1.47	0.77	0.49	0.78	0.71	1.00	1.36	1.00	0.90	0.69

RF Input Power (dBm)	
Measured Value (mV)	
Error (mV)	
LINEARITY ERROR (dB)	-0.77
ACCURACY ERROR (dB)	1.47

6000 MHz	INTERCEPT (mV)	4947
	SLOPE (mV/dB)	70.0

	349	750	1106	1461	1833	2140	2483	2862	3203	3550	3879	4228	4588	4961
	-45	5	11	16	38	-6	-13	16	7	4	-18	-19	-9	14
	-0.65	0.08	0.16	0.23	0.54	-0.08	-0.18	0.23	0.10	0.05	-0.25	-0.27	-0.13	0.19
	-0.59	0.20	0.35	0.48	0.86	0.30	0.26	0.74	0.66	0.68	0.44	0.48	0.69	1.08

Measured Value (mV)	
Error (mV)	
LINEARITY ERROR (dB)	-0.65
ACCURACY ERROR (dB)	1.08

10000 MHz	INTERCEPT (mV)	4876
	SLOPE (mV/dB)	69.1

	320	719	1085	1439	1809	2124	2465	2839	3161	3486	3795	4158	4533	4880
	-53	-10	11	19	44	15	8	37	13	8	-44	-27	5	8
	-0.91	-0.14	0.16	0.28	0.63	0.19	0.12	0.53	0.19	-0.11	-0.64	-0.39	0.04	0.06
	-1.01	-0.24	0.05	0.16	0.51	0.07	0.00	0.40	0.06	-0.24	-0.78	-0.53	-0.11	-0.09

Measured Value (mV)	
Error (mV)	
LINEARITY ERROR (dB)	-0.91
ACCURACY ERROR (dB)	-1.01

14000 MHz	INTERCEPT (mV)	4858
	SLOPE (mV/dB)	68.2

	365	761	1126	1477	1830	2143	2480	2829	3151	3496	3824	4164	4517	4846
	-64	-8	16	26	38	11	7	15	-4	1	-12	-13	-1	-12
	-0.93	-0.12	0.23	0.38	0.56	0.16	0.10	0.22	-0.05	0.01	-0.18	-0.19	-0.01	-0.18
	-0.36	0.36	0.64	0.71	0.82	0.34	0.21	0.26	-0.09	-0.10	-0.36	-0.44	-0.34	-0.58

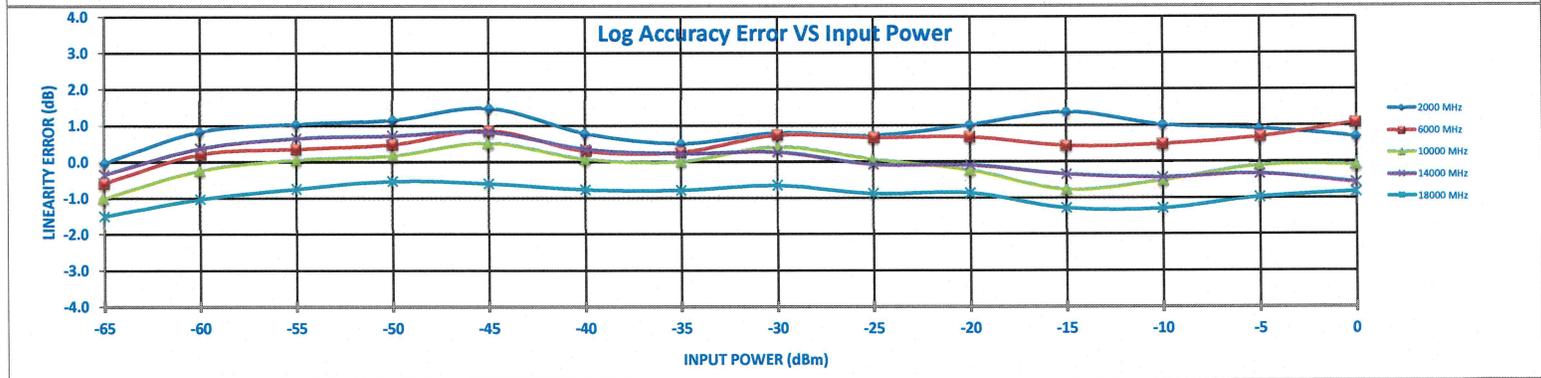
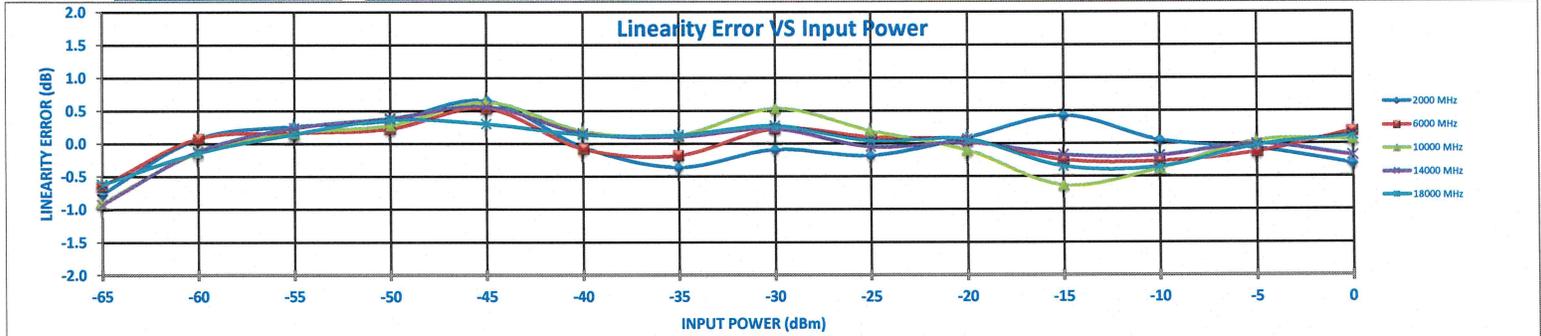
Measured Value (mV)	
Error (mV)	
LINEARITY ERROR (dB)	-0.93
ACCURACY ERROR (dB)	0.82

18000 MHz	INTERCEPT (mV)	4820
	SLOPE (mV/dB)	69.1

	285	664	1029	1390	1731	2065	2410	2765	3095	3442	3759	4104	4472	4828
	-43	-10	10	25	21	9	9	18	3	4	-24	-25	-2	8
	-0.63	-0.14	0.14	0.36	0.30	0.13	0.12	0.26	0.04	0.06	-0.35	-0.36	-0.04	0.12
	-1.52	-1.04	-0.76	-0.54	-0.81	-0.79	-0.80	-0.67	-0.90	-0.88	-1.30	-1.31	-0.99	-0.84

Measured Value (mV)	
Error (mV)	
LINEARITY ERROR (dB)	-0.63
ACCURACY ERROR (dB)	-1.52

Flatness	+/- dB	0.74	0.93	0.90	0.85	1.04	0.78	0.64	0.72	0.80	0.94	1.33	1.16	0.95	0.96
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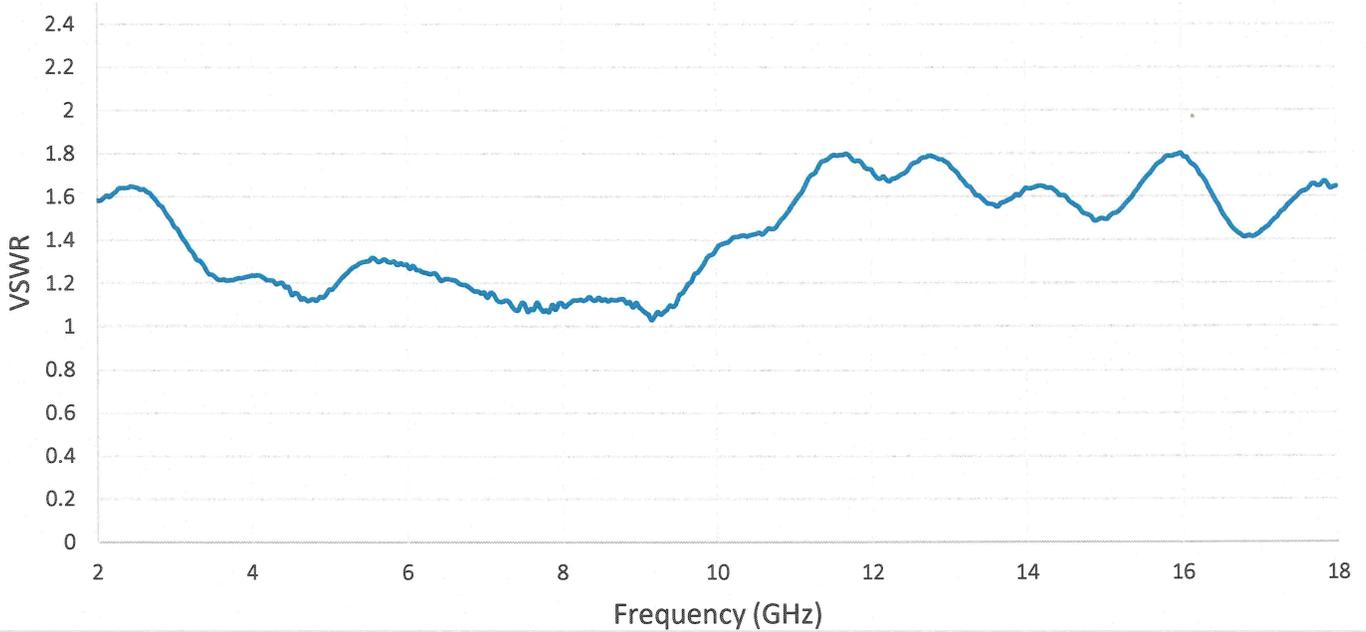




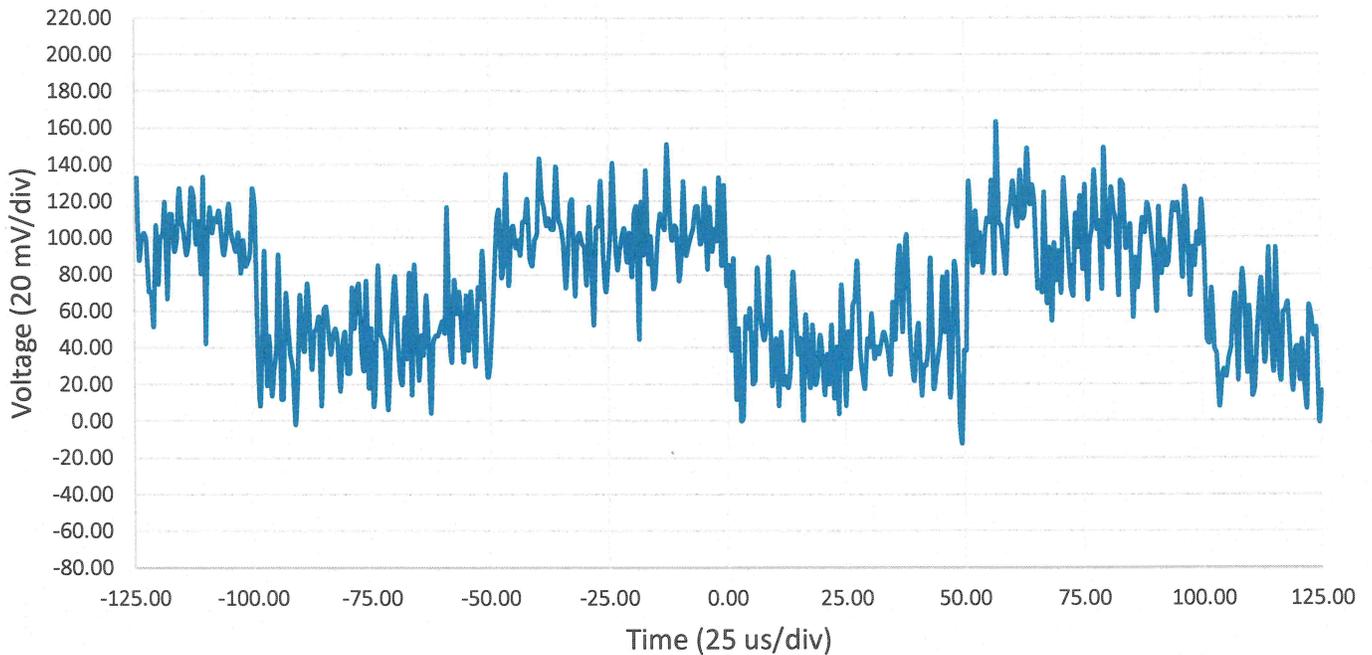
**Summary Data
For
ERDLVA-2G18G-65-70MV-70C**

PL47585/2444

VSWR 1.8:1



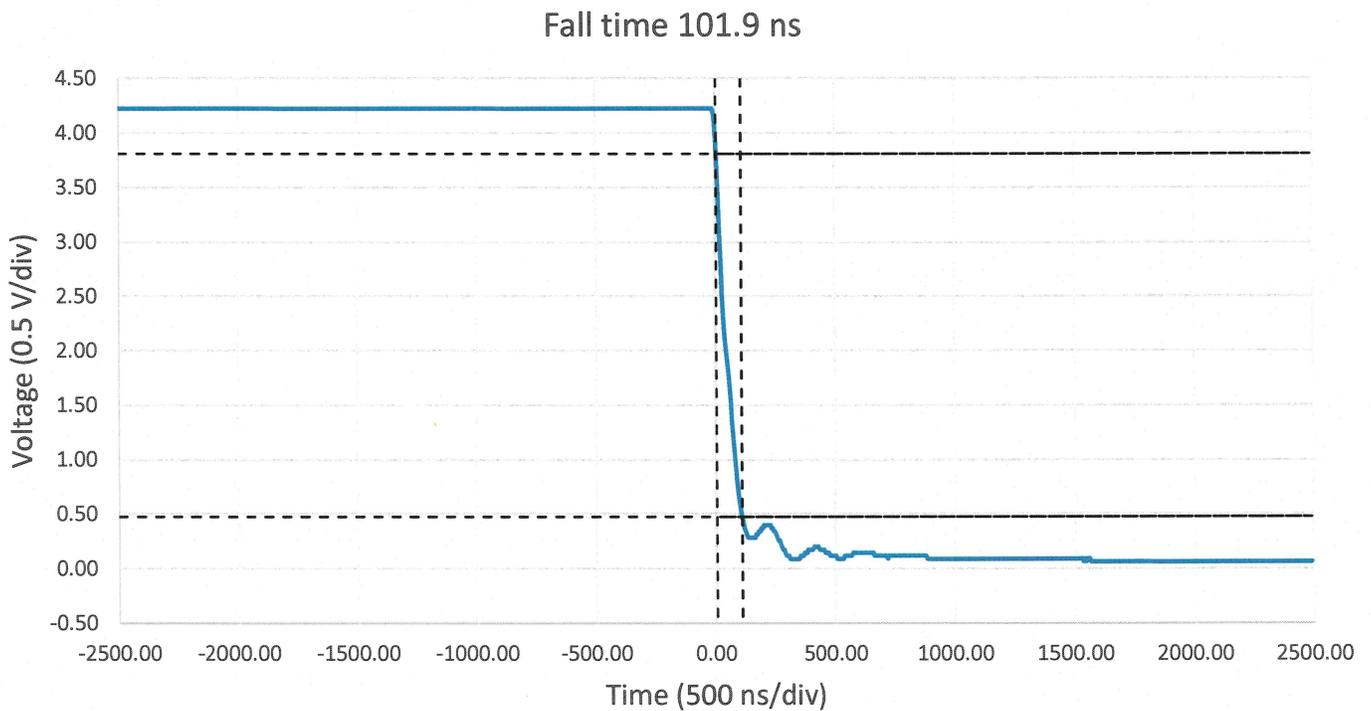
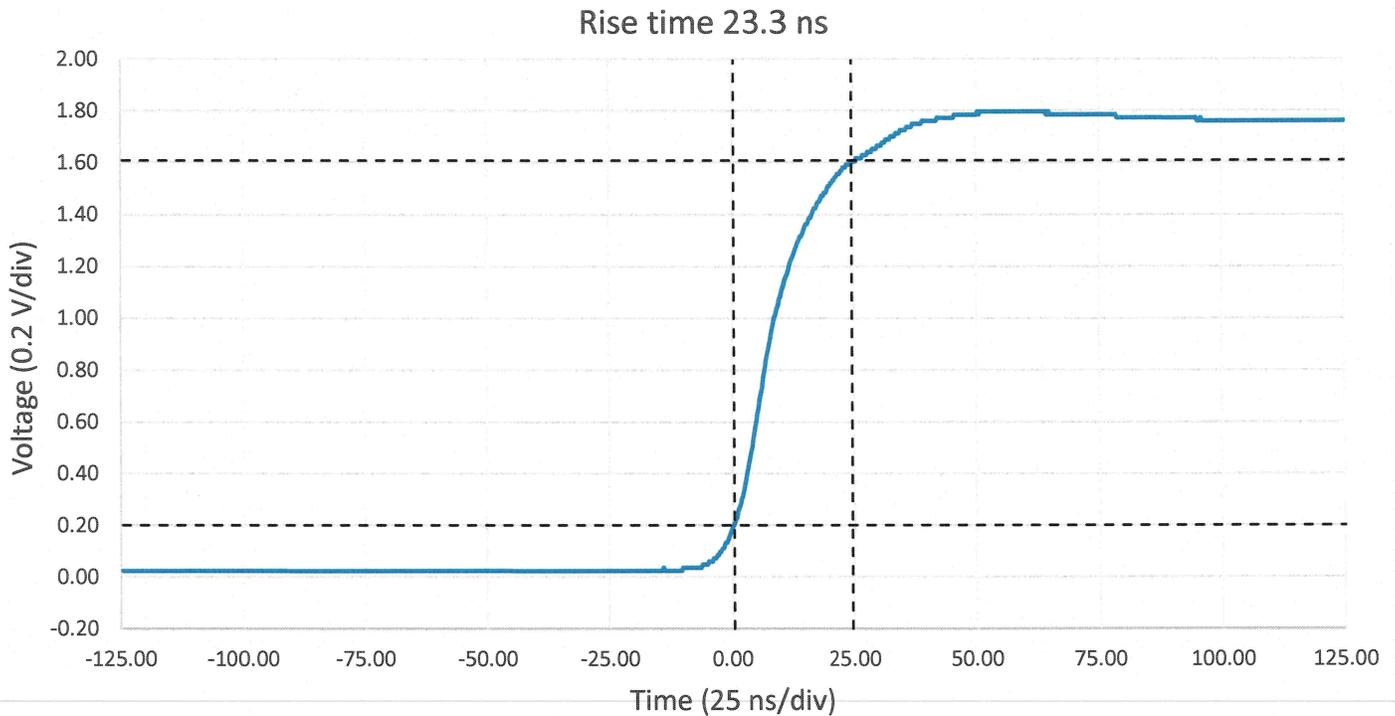
TSS @ -72 dBm





**Summary Data
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PL47585/2444

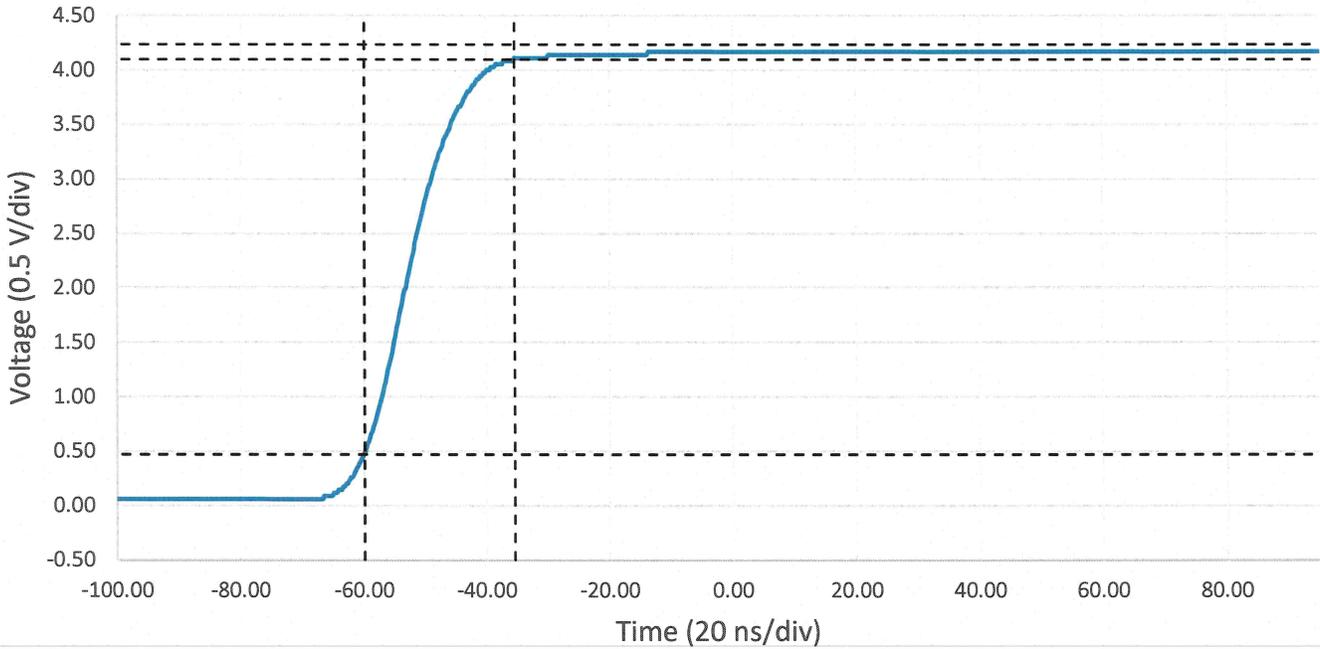




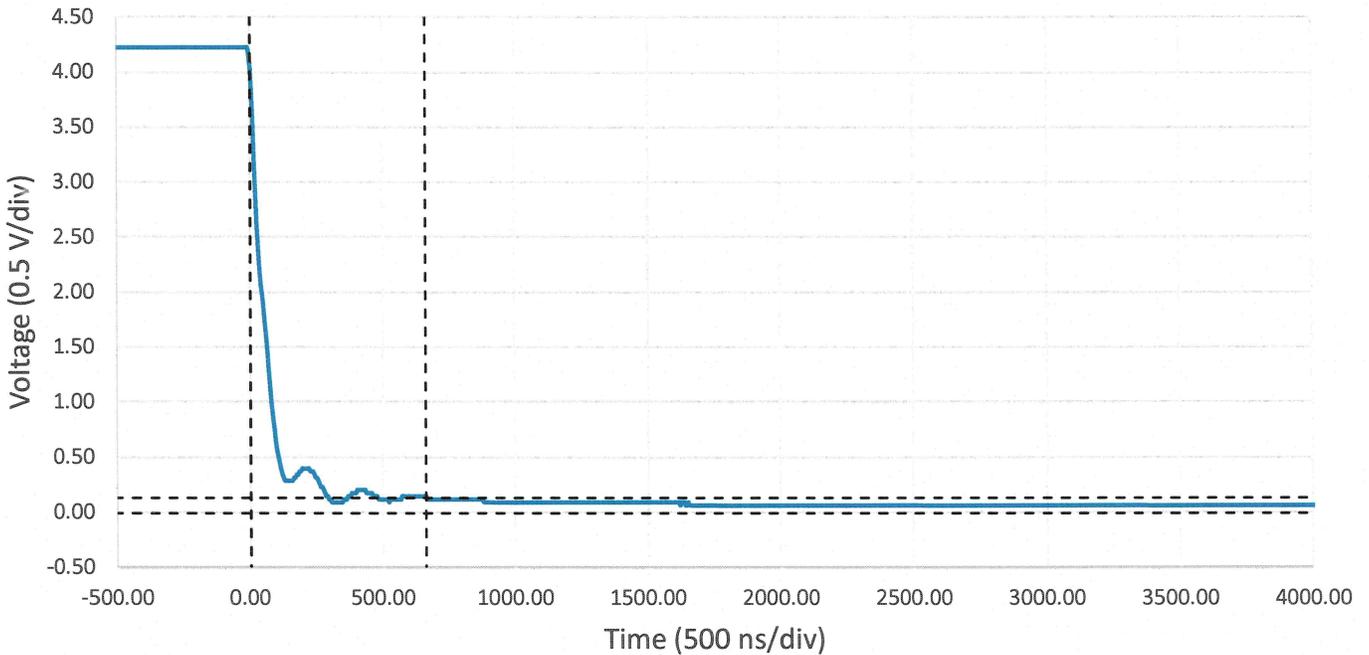
**Summary Data
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PL47585/2444

Settle time 24.5 ns



Recovery time 660 ns

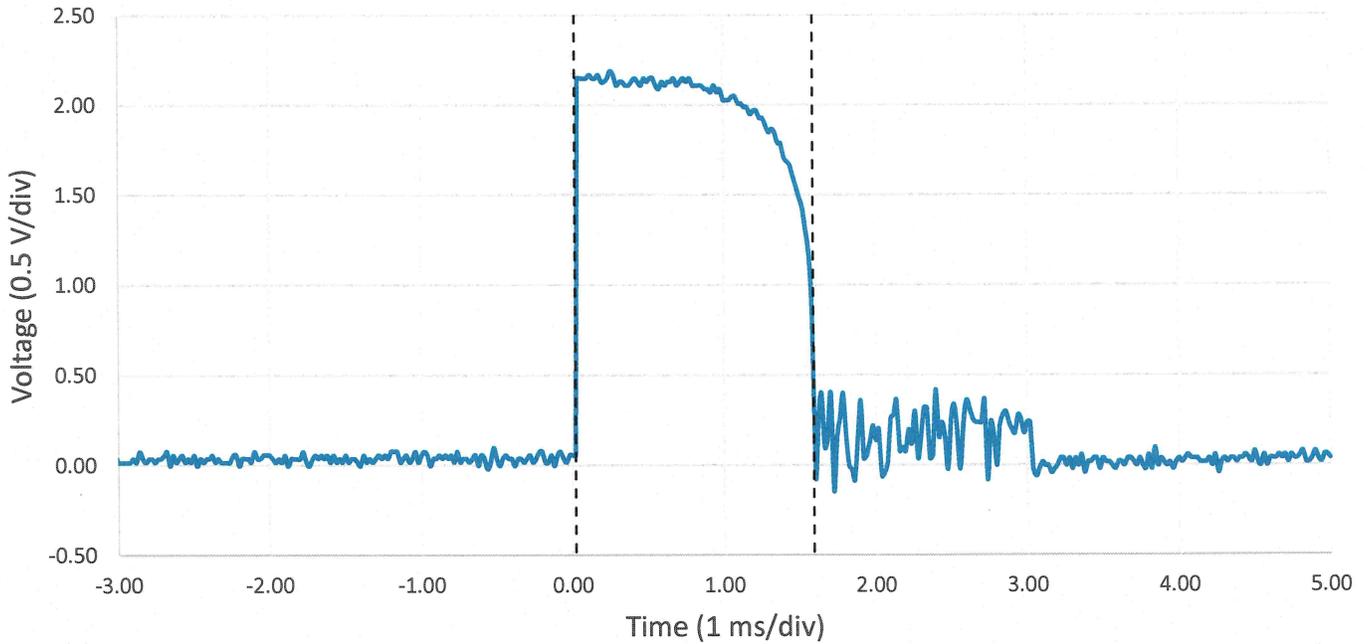




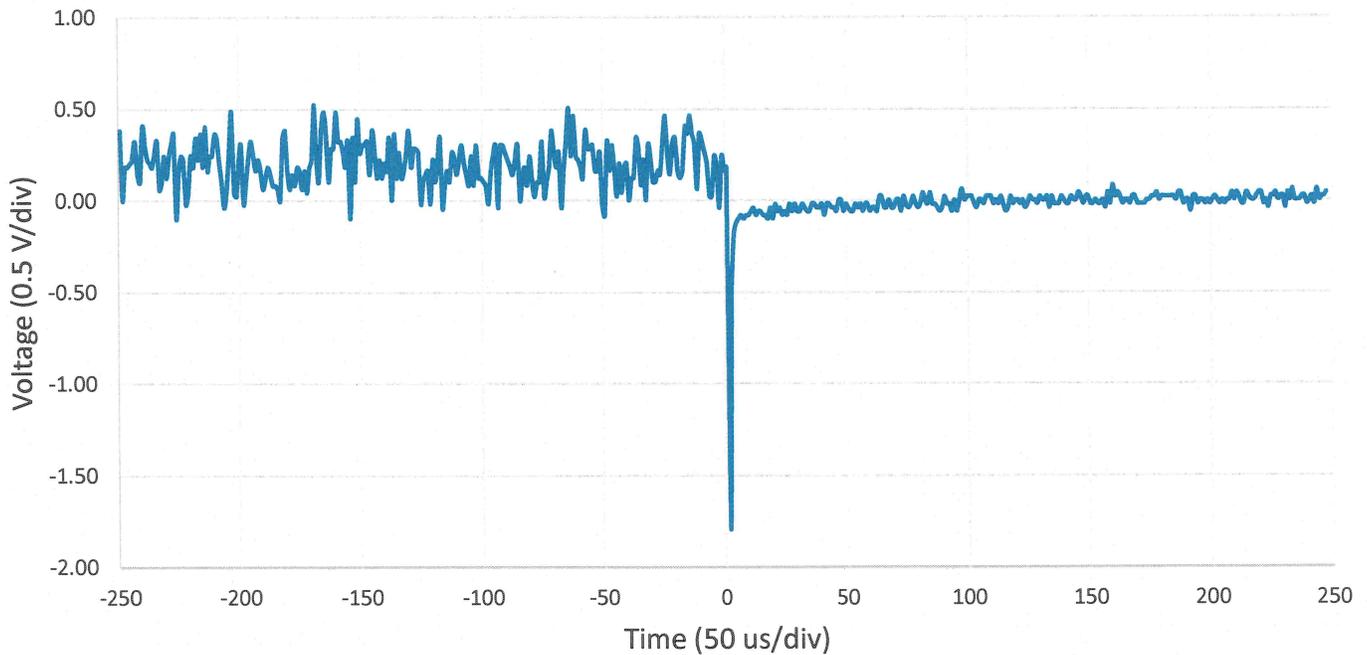
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PL47585/2444

CW Immunity 1.57 ms



CW Recovery Plot





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

PL47585/2444

RMS Noise 22.2 mV

