



**SUMMARY TEST DATA  
ON  
SDLVA-212-65-16MV-12DBM**

Customer: _____	Tested By: <u>Jim Hopson</u>	
SO No: _____	Temperature: <u>+25°C</u>	
Model No: <u>SDLVA-212-65-16MV-12DBM</u>	Date: <u>09/30/24</u>	
Serial No: <u>PL46791/2440</u>	Drawing No: <u>27626223</u>	Rev: <u>A2</u>

TEST. ITEM NO	PARAMETERS	SPECIFIED VALUE	TEST RESULTS	QA QC
1	Frequency Range	2 GHz to 12 GHz	2 GHz to 12 GHz	PMI QA3
2	TSS	-64 dBm max	-64 dBm	
3	Input Power Handling	+20 dBm	Pass	
4	Simultaneous Signal Suppression	Simultaneous signal, 5 dB lower at RF input, shall be 5 dB lower at output with -45 dBm Min input signal	-5.5 Typ.	
5	Output Harmonics	-9 dBc	-10dBc Typ.	
6	Video Log Range	-55 dBm to +10 dBm	-55 dBm to +10 dBm	
7	Video Log Linearity	+2.2 dB	+1.55/- .66 dB	
8	Video Log Slope	16.0 ±2.0 mV/dB nom	15.63/17.14 mV/dB	
9	Video Freq Flatness	±4 dB max	±1.64 dB	
10	Pulse Width Range	25 nsec to CW	25 nsec to CW	
11	Video Rise Time	10 nsec max	5 nsec	

4921 Robert J. Mathews Parkway, Suite 1, El Dorado Hills, CA, 95762  
 Phone: (916) 542-1401 Fax: (916) 265-2597  
 Email: [sales@pmi-rf.com](mailto:sales@pmi-rf.com)



**SUMMARY TEST DATA  
ON  
SDLVA-212-65-16MV-12DBM**

TEST. ITEM NO	PARAMETERS	SPECIFIED VALUE	TEST RESULTS	QA QC
12	Video Fall Time	15 nsec max	8 nsec	PMI QA3
13	Recovery Time	30 nsec max	< 25 nsec	
14	Delay	<2 nsec	<2 nsec	
15	Video Output Impedance	35Ω Nominal	Pass	
16	RF In/Out Impedance	50Ω	Pass	
17	Input VSWR (50Ω)	2.0:1 max	1.89:1	
18	DC Supply	+15 V @ 800 mA -15 V @ 200 mA	500 mA 30 mA	

QA/QC Approval: K. Klauze Date: 10-1-24

LOG TRANSFER WITH FREQUENCY  
 MODEL: SDLVA-212-65-16MW-12DBM  
 TESTED BY: Jim Hopson  
 DATE: 9-30-2024  
 SERIAL NO: P/L46791

Test Temp: 29C

PLANAR MONOLITHICS INDUSTRIES  
 4921 Robert J. Matthews Parkway STE 1  
 TEL: 916-542-1401 FAX: 301-662-1731  
 EMAIL: SALES@PML-RF.COM  
 ISO 9001:2000 CERTIFIED



Frequency

-55	-50	-45	-40	-35	-30	-25	-20	-15	-10	-5	0	5	10
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RF Input Power (dbm)

2000 MHz	INTERCEPT (mV)	-980.9
	SLOPE (mV/DB)	-15.63

-125	-200	-283	-360	-432	-503	-585	-667	-744	-813	-896	-987	-1077	-1135
-4	-1	-6	-4	2	9	5	1	2	12	7	-6	-18	2
0.27	0.07	0.38	0.28	-0.11	-0.57	-0.32	-0.08	-0.15	-0.74	-0.43	0.39	1.15	-0.14
0.81	0.38	0.43	0.09	-0.53	-1.21	-1.22	-1.23	-1.55	-2.35	-2.30	-1.77	-1.29	-2.76

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

7250 MHz	INTERCEPT (mV)	-1017
	SLOPE (mV/DB)	-16.55

-118	-190	-278	-360	-439	-510	-592	-682	-763	-850	-931	-1019	-1112	-1189
-10	0	-5	-4	-1	11	12	5	6	5	2	4	-2	-12
0.62	-0.02	0.29	0.27	0.04	-0.67	-0.71	-0.27	-0.38	-0.12	-0.23	0.09	0.71	0.37
0.34	-0.26	0.08	0.09	-0.10	-0.78	-0.80	-0.32	-0.39	-0.10	-0.17	0.18	0.84	0.52

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

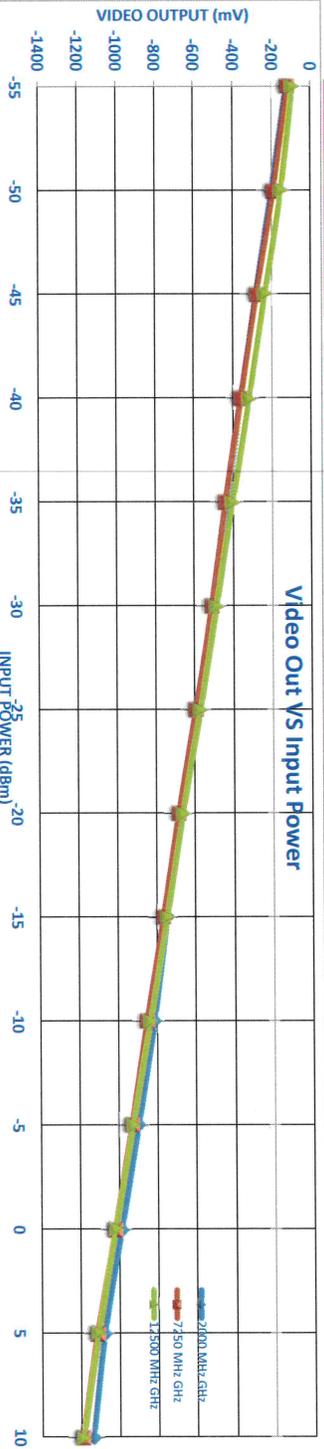
12500 MHz	INTERCEPT (mV)	-1009
	SLOPE (mV/DB)	-17.14

-93	-152	-235	-318	-404	-486	-569	-660	-743	-832	-924	-1017	-1107	-1185
-37	0	3	5	5	9	11	6	9	5	-1	-8	-13	-5
1.55	0.00	-0.16	-0.31	-0.29	-0.51	-0.66	-0.35	-0.51	-0.32	0.05	0.48	0.73	0.28
-1.16	-2.56	-2.52	-2.46	-2.23	-2.24	-2.20	-1.66	-1.61	-1.20	-0.60	0.06	0.53	0.28

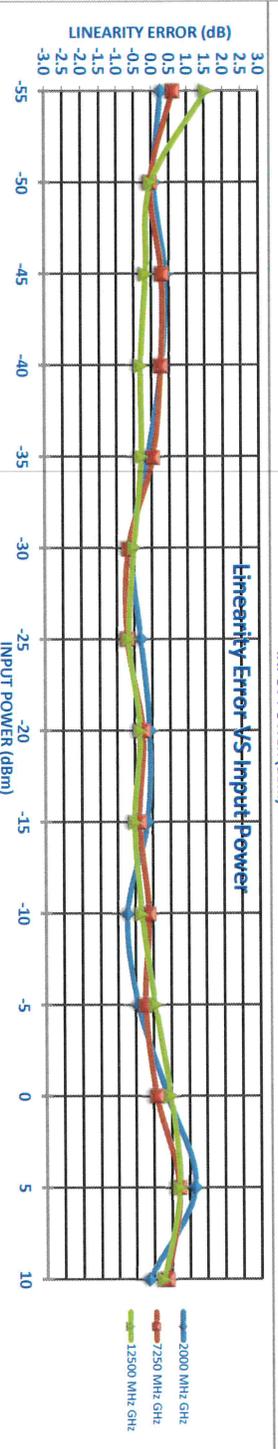
Measured Value (mV)  
 Error (mV)  
 LINEARITY ERROR (dB)  
 ACCURACY ERROR (dB)

Flatness dB	+/-	0.99	1.47	1.48	1.28	1.06	0.73	0.70	0.67	0.61	1.13	1.06	0.97	1.06	1.64
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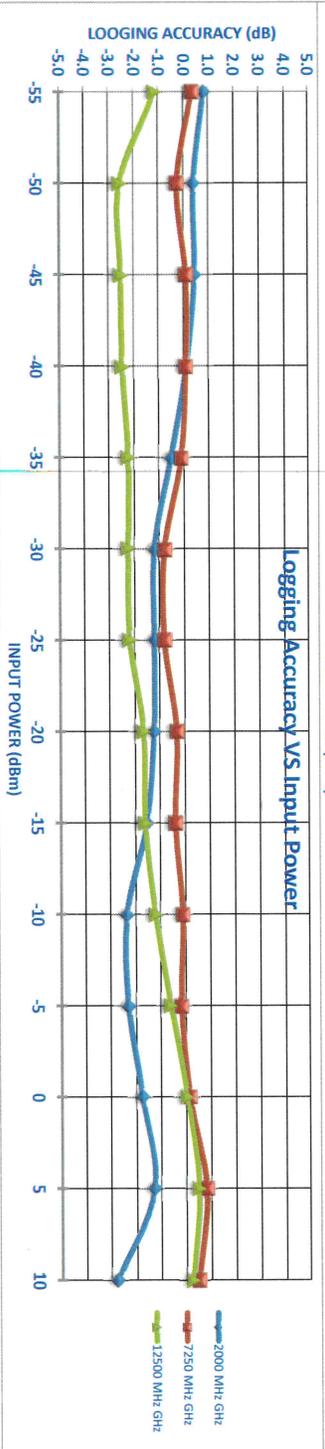
Video Out VS Input Power



Linearity Error VS Input Power



Logging Accuracy VS Input Power





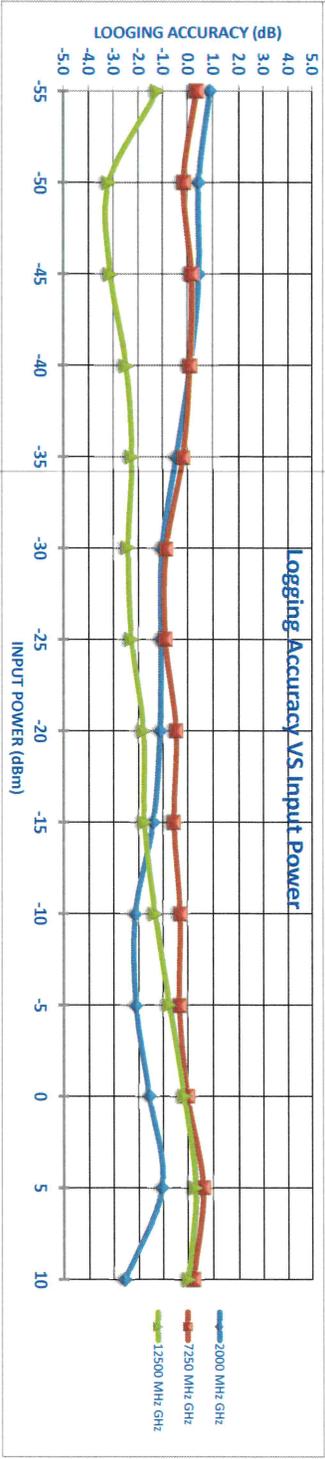
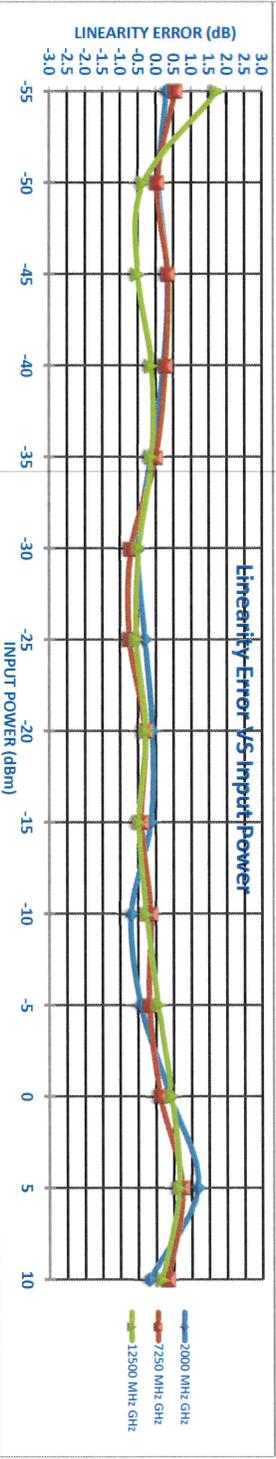
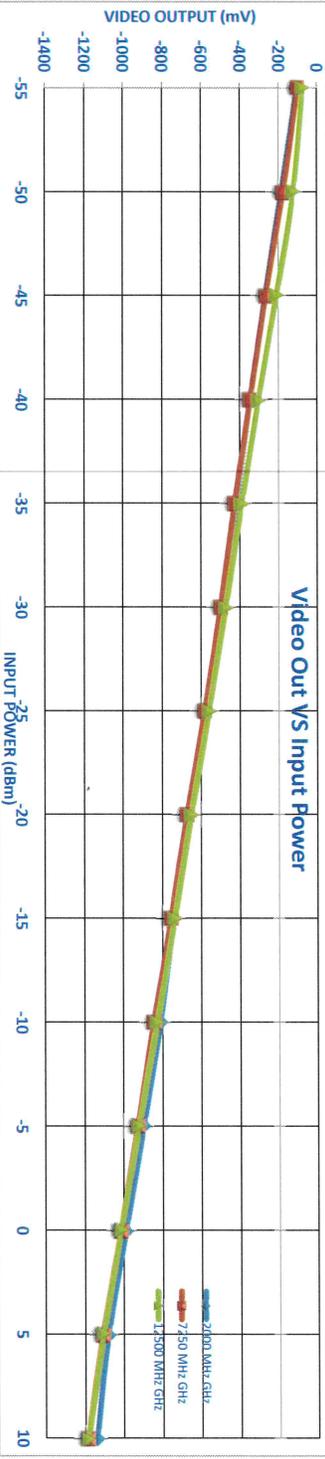
Frequency	-55	-50	-45	-40	-35	-30	-25	-20	-15	-10	-5	0	5	10
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2000 MHz	INTERCEPT (mV)	-980.6	-108	-184	-268	-346	-420	-494	-577	-660	-739	-810	-894	-987	-1079	-1137
	SLOPE (mV/DB)	-15.95	-5	-1	-5	-4	2	8	5	2	2	11	7	-6	-19	3
	LINEARITY ERROR (DB)	0.31	0.08	0.34	0.22	-0.14	-0.50	-0.30	-0.10	-0.15	-0.69	-0.43	0.40	1.17	-0.20	-0.20
	ACCURACY ERROR (DB)	0.87	0.42	0.44	0.10	-0.48	-1.05	-1.09	-1.12	-1.40	-2.15	-2.13	-1.56	-1.06	-2.59	

7250 MHz	INTERCEPT (mV)	-1011	-100	-175	-263	-346	-425	-497	-580	-671	-753	-841	-924	-1013	-1107	-1184
	SLOPE (mV/DB)	-16.74	-9	-1	-6	-5	0	12	12	5	7	2	3	-2	-12	-6
	LINEARITY ERROR (DB)	0.56	0.05	0.35	0.29	0.01	-0.69	-0.74	-0.30	-0.40	-0.15	-0.19	0.13	0.74	0.34	0.34
	ACCURACY ERROR (DB)	0.35	-0.15	0.15	0.10	-0.18	-0.87	-0.91	-0.46	-0.56	-0.30	-0.33	-0.01	0.61	0.22	

12500 MHz	INTERCEPT (mV)	-1003	-73	-124	-209	-303	-390	-471	-557	-649	-733	-824	-917	-1011	-1102	-1181
	SLOPE (mV/DB)	-17.46	-30	6	9	2	2	8	10	5	8	5	-1	-8	-11	-3
	LINEARITY ERROR (DB)	1.74	-0.34	-0.50	-0.12	-0.11	-0.47	-0.55	-0.28	-0.47	-0.26	-0.07	0.45	0.66	0.18	0.18
	ACCURACY ERROR (DB)	-1.22	-3.18	-3.12	-2.50	-2.27	-2.43	-2.28	-1.78	-1.76	-1.31	-0.75	-0.13	0.31	0.04	

Flatness dB	+/-	1.05	1.80	1.78	1.30	1.05	0.78	0.69	0.66	0.60	0.93	0.90	0.78	0.84	1.41
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LOG TRANSFER WITH FREQUENCY  
 MODEL: SDLVA-212-65-16M/-12DBM  
 TESTED BY: Jim Hopson  
 DATE: 9-30-2024  
 SERIAL NO: PL46791

Test Temp: +85C

PLANAR MONOLITHICS INDUSTRIES  
 4921 Robert J. Mathews Parkway STE 1  
 TEL: 916-542-1401 FAX: 301-662-1731  
 EMAIL: SALES@PMI-RF.COM  
 ISO 9001:2000 CERTIFIED



Frequency

-55	-50	-45	-40	-35	-30	-25	-20	-15	-10	-5	0	5	10
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2000 MHz	INTERCEPT (mV)	-967.7
	SLOPE (mV/dB)	-14.69

-164	-231	-313	-386	-456	-517	-596	-673	-745	-812	-886	-972	-1057	-1114
-4	2	-6	-6	-2	10	5	1	2	9	8	-4	-16	1
0.24	-0.14	0.42	0.39	0.16	-0.69	-0.31	-0.07	-0.16	-0.60	-0.56	0.29	1.08	-0.04
1.03	0.30	0.45	0.04	-0.55	-1.71	-1.73	-1.88	-2.35	-3.13	-3.47	-3.05	-2.70	-4.11

Measured Value (mV)	-1114
Error (mV)	-16
LINEARITY ERROR (dB)	1.08
ACCURACY ERROR (dB)	-4.11

7250 MHz	INTERCEPT (mV)	-1027
	SLOPE (mV/dB)	-16.14

-154	-217	-303	-384	-463	-534	-611	-700	-779	-863	-942	-1027	-1119	-1195
-15	3	12	-3	-1	9	12	4	6	2	4	0	-12	-7
0.91	-0.19	0.12	0.17	0.07	-0.53	-0.76	-0.24	-0.35	-0.14	-0.25	0.02	0.72	0.43
0.43	-0.62	-0.21	-0.08	-0.11	-0.63	-0.79	-0.18	-0.20	0.09	0.06	0.41	1.21	1.00

Measured Value (mV)	-1195
Error (mV)	-7
LINEARITY ERROR (dB)	0.43
ACCURACY ERROR (dB)	1.00

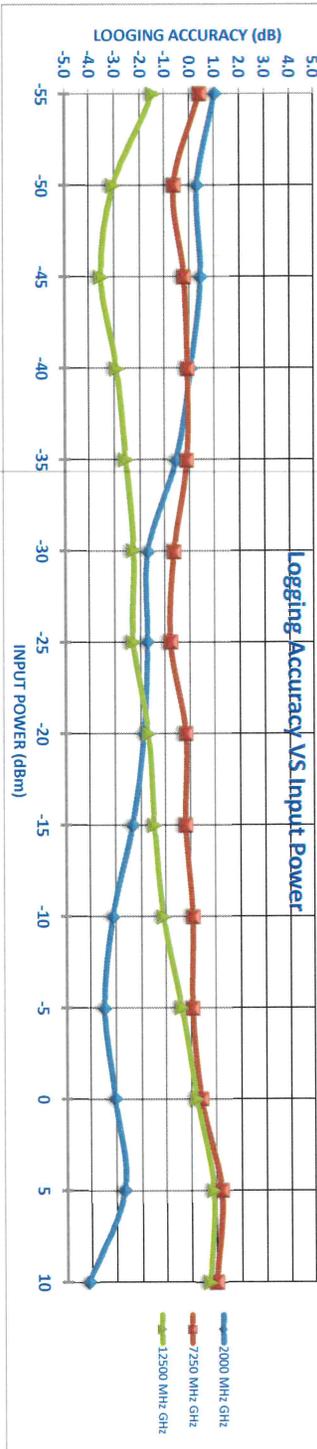
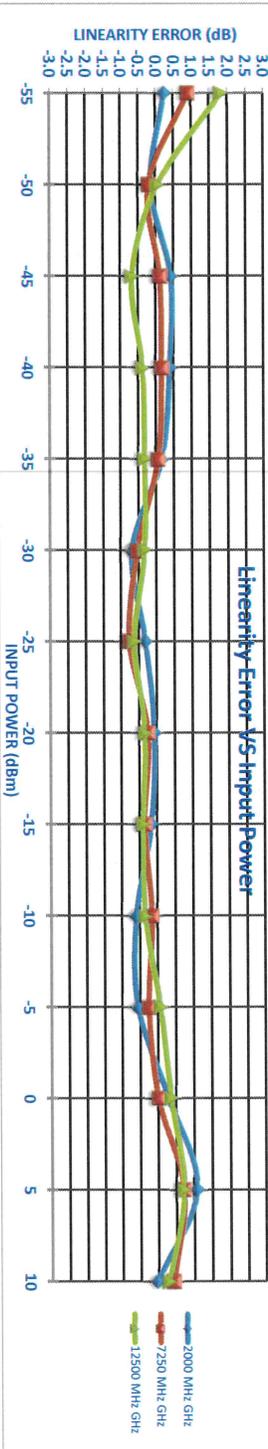
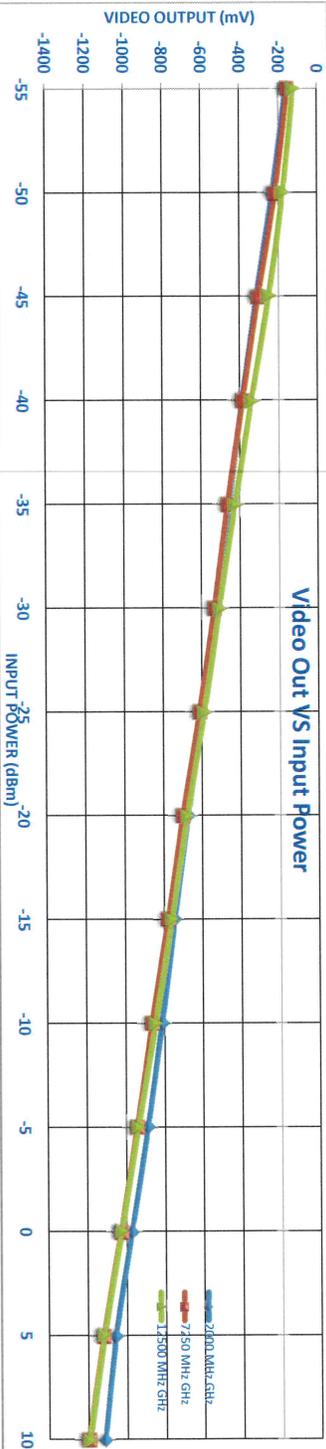
12500 MHz	INTERCEPT (mV)	-1018
	SLOPE (mV/dB)	-16.81

-124	-178	-250	-339	-424	-508	-587	-676	-759	-844	-935	-1024	-1114	-1191
-31	-1	11	6	5	10	6	6	7	6	-1	-6	-12	-5
1.83	0.06	-0.67	-0.38	-0.32	-0.62	-0.33	-0.39	-0.34	0.08	0.37	0.72	0.31	0.74
-1.46	-3.04	-3.52	-2.92	-2.56	-2.27	-2.30	-1.69	-1.46	-1.11	-0.38	0.23	0.89	0.74

Measured Value (mV)	-1191
Error (mV)	0.31
LINEARITY ERROR (dB)	0.72
ACCURACY ERROR (dB)	0.74

Flatness dB	+/-
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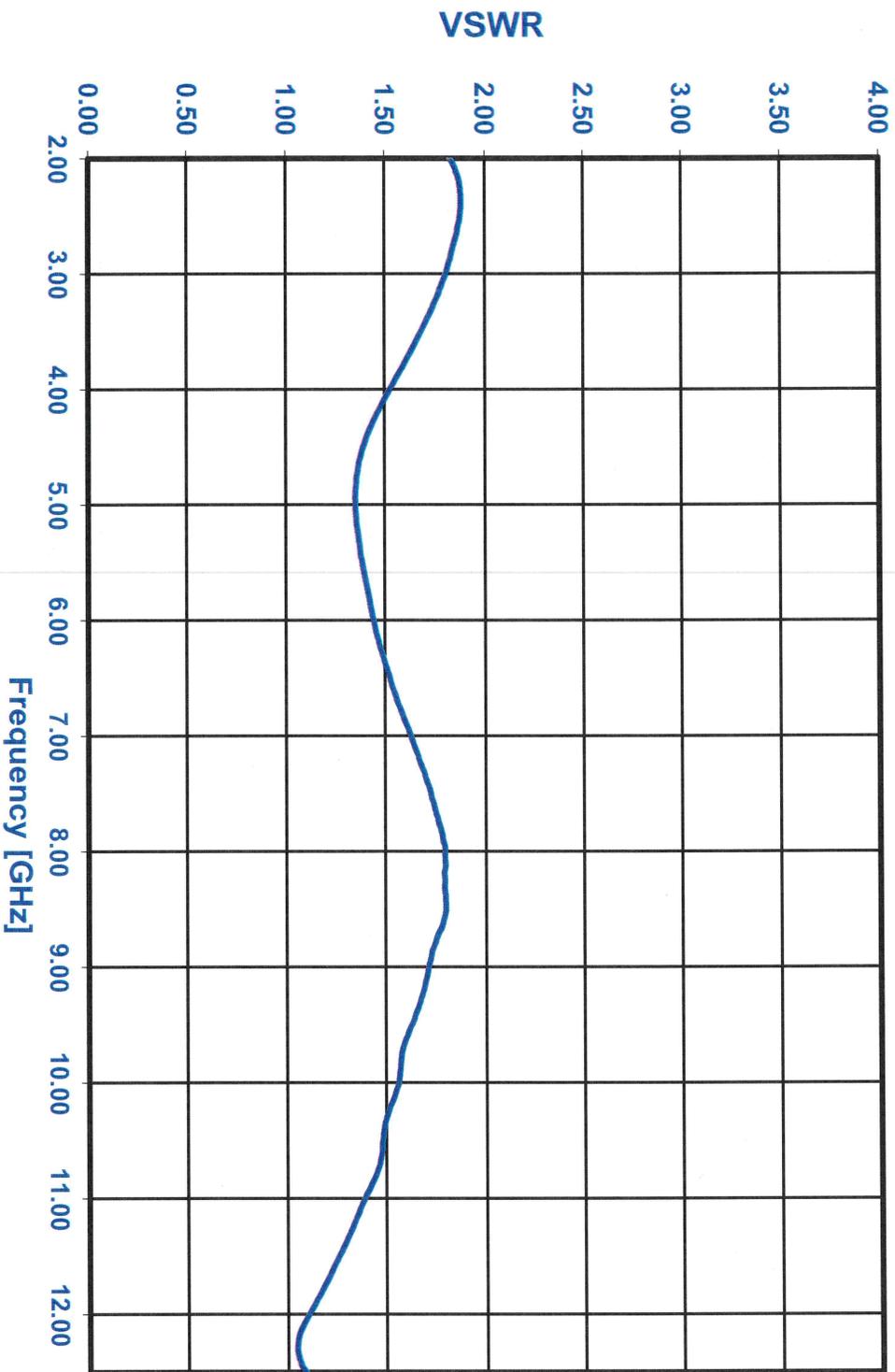
1.24	1.67	1.98	1.48	1.23	0.82	0.76	0.85	1.07	1.61	1.76	1.73	1.95	2.55
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Model Number: SDLVA-212-65-16MV-12DBM  
Serial Number: PL46791

Temperature: +25C

## VSWR GRAPH

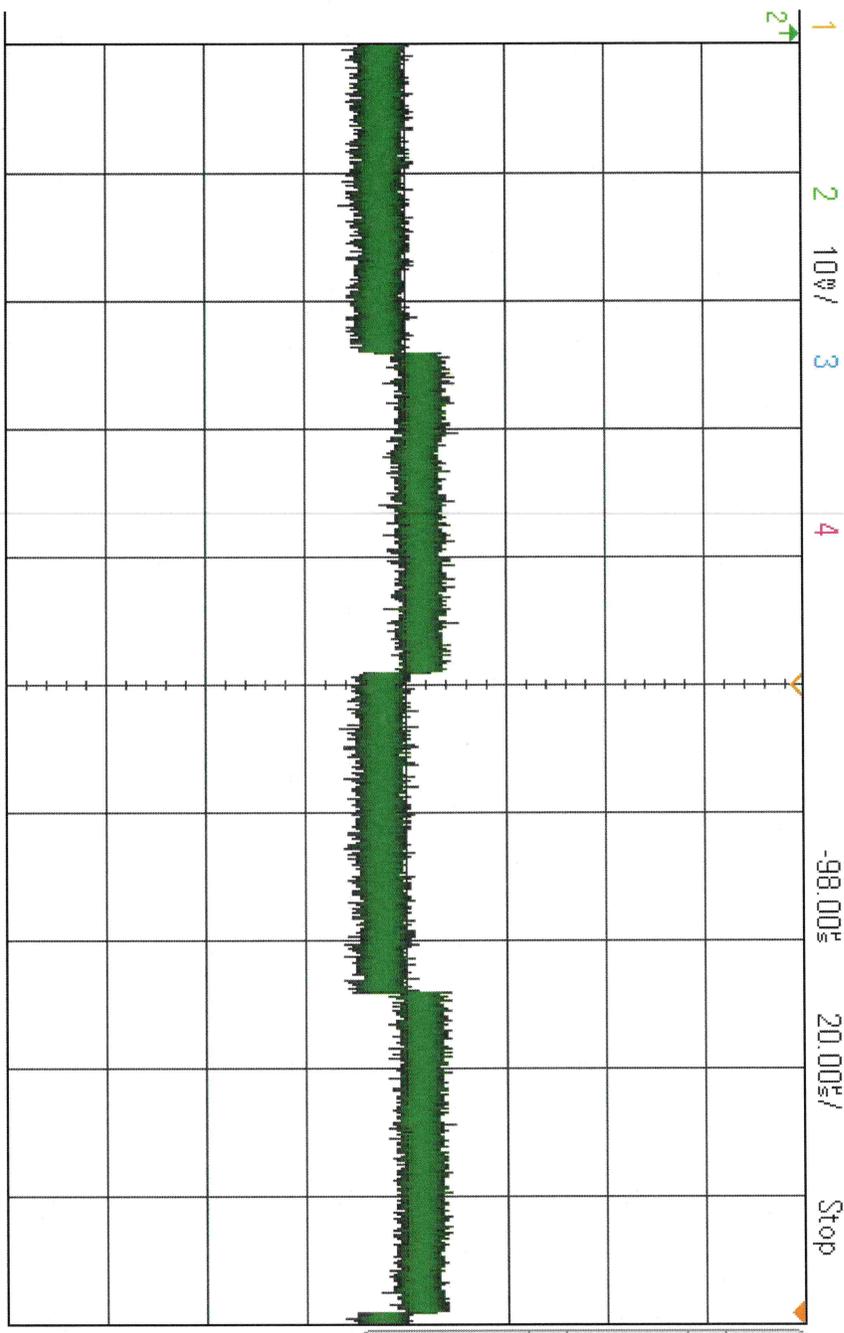


Input 1.89:1 Max

@ -20dBm

PL 46791  
TSS - 64 dbm

DSO-X 3034A, MW52394003, Wed Sep 25 11:59:13 2024



KEYSIGHT TECHNOLOGIES

Acquisition Normal 4.00GSa/s

Channels	
DC	1.00:1

Cursors Menu  
Mode Off

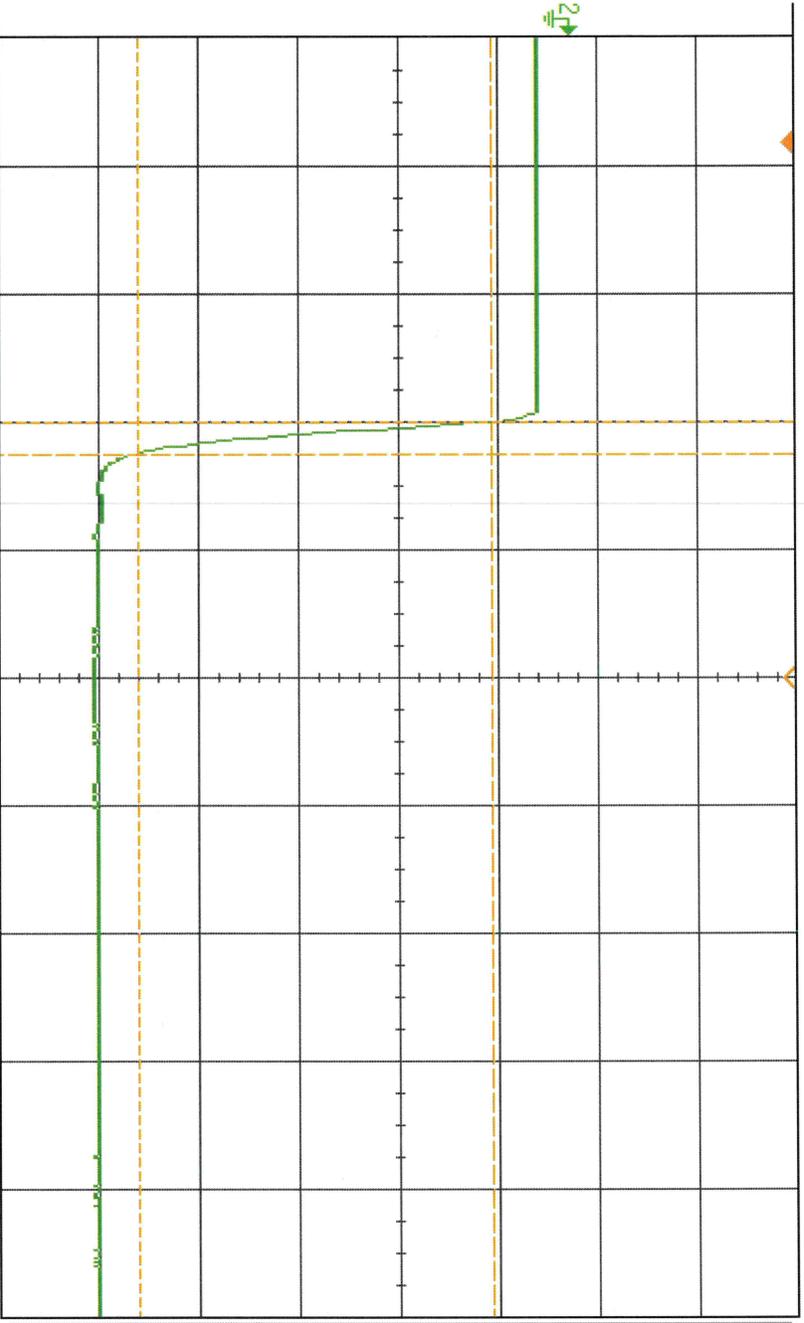
To turn on cursors, press the [Cursors] key on the front panel.

PL 46791  
Rise Time

DSO-X 3034A, MMS2394003: Wed Sep 25 11:56:31 2024

83.60ns 20.00ns/ Auto

f E 2.23V



Save to file = pl46790\_rise\_time

Save

Recall

Default/Erase

**KEYSIGHT**  
TECHNOLOGIES

Acquisition  
Averaging: 16  
4.00GSa/s

Channels	
DC	1.00:1

Measurements

Rise(2):  
1.00/30/4/No edges  
Fall(2):  
Rise 5.0ns

Press to Save

PL46791

Fall & Recovery

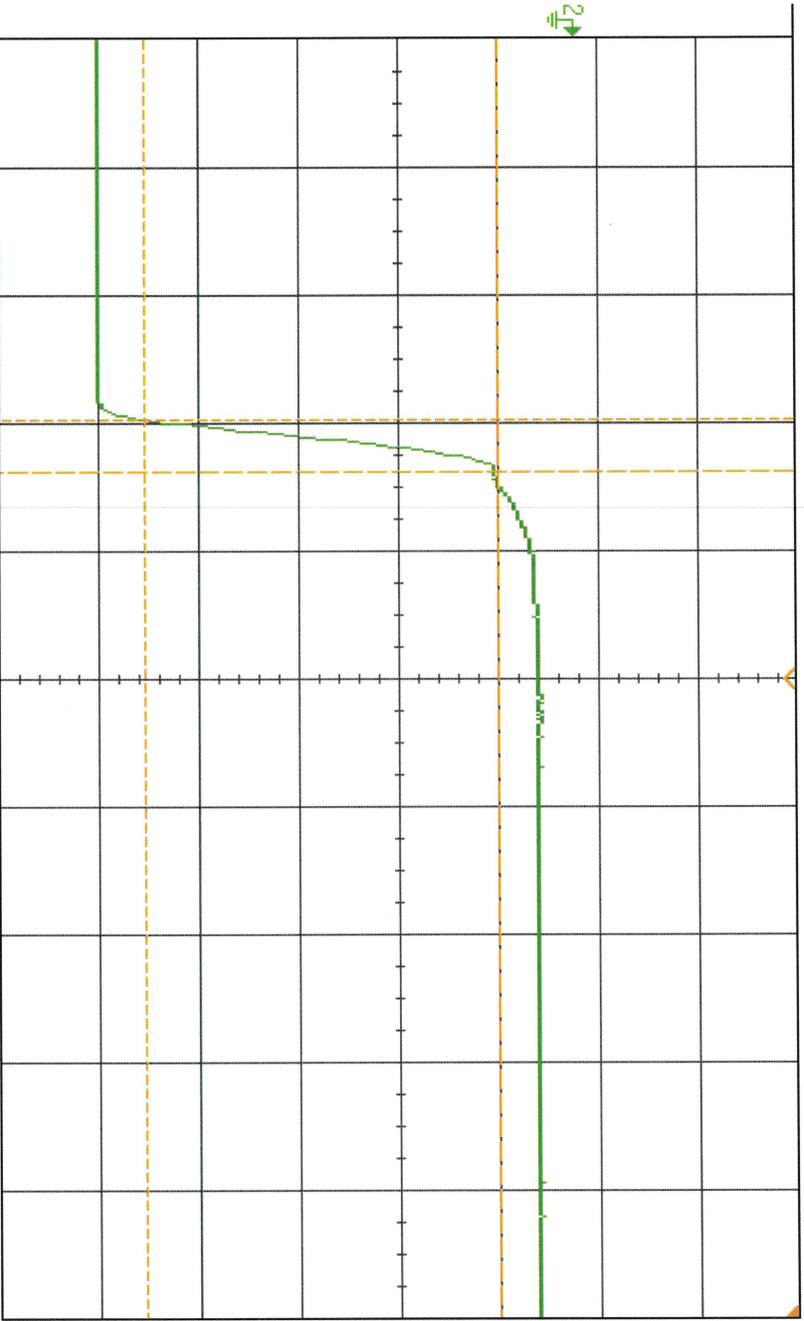
DSO-X 3034A, MW52394003, Wed Sep 25 11:57:52 2024

1 2 250mV 3 4

-149.9µs 20.00ns/

Stop

F E 2.23V



Measurement Menu

Source 2

Type: Rise

Add Measurement

Settings

Clear Meas

Statistics

KEYSIGHT TECHNOLOGIES

Acquisition ::  
Averaging: 16  
4.00GSa/s

Channels ::  
DC 1.00:1  
DC 1.00:1  
DC 1.00:1  
DC 1.00:1

Measurements ::  
Fall(2): No edges  
Rise(2): No edges  
Fall: 8.0ns

# SDLVA-212-65-16MV-12DBM

SN# PL46791

Power

FREQ	-55 dbm	+10 dbm P-SAT
2GHz	13.5 dbm	15 dbm
3GHz	14.6 dbm	15 dbm
4GHz	14.9 dbm	14.9 dbm
5GHz	14.7 dbm	15.1 dbm
6GHz	14.5 dbm	15 dbm
7GHz	14.5 dbm	14.7 dbm
8GHz	14.5 dbm	14.8 dbm
9GHz	14.4 dbm	14.7 dbm
10GHz	14.2 dbm	14.8 dbm
11GHz	14.1 dbm	14.8 dbm
12.5GHz	13.7 dbm	14.6 dbm