



**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>PL46792/2440</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	1.29/-1.11 dB	
8	Video Log Slope	16.0 ±2.0 mV/dB nom	15.77/17.53 mV/dB	
9	Video Freq Flatness	±4 dB max	±1.66 dB	
10	Pulse Width Range	25 nsec to CW	25 nsec to CW	
11	Video Rise Time	10 nsec max	5.5 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



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

TEST. ITEM NO	PARAMETERS	SPECIFIED VALUE	TEST RESULTS	QA QC PMI QA3
12	Video Fall Time	15 nsec max	7.3 nsec	
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	1.90:1	
18	DC Supply	+15 V @ 800 mA -15 V @ 200 mA	500 mA 30 mA	

QA/QC Approval: *H. Klauy* Date: 10-1-24

LOG TRANSFER WITH FREQUENCY
 MODEL: SDLVA-212-65-16MV-12DBM
 TESTED BY: Jim Hopson
 DATE: 9-30-2024
 SERIAL NO: PL46792

Test Temp: 25C

PLANAR MONOLITHICS INDUSTRIES
 4921 Robert J. Matthews 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
RF Input Power (dbm)													

2000 MHz	INTERCEPT (mV)	-956
	SLOPE (mV/dB)	-15.77

Measured Value (mV)	-94	-165	-247	-329	-415	-485	-549	-631	-712	-795	-872	-953	-1042	-1126
Error (mV)	-5	3	-1	-4	-11	-2	13	9	7	3	5	3	-7	-12
LINEARITY ERROR (dB)	0.33	-0.16	0.07	0.25	0.71	0.14	-0.80	-0.47	-0.20	-0.32	-0.19	0.45	0.78	0.78
ACCURACY ERROR (dB)	0.92	0.15	0.06	-0.09	0.02	-0.82	-2.02	-2.15	-2.33	-2.40	-2.83	-3.01	-2.72	-2.73

7250 MHz	INTERCEPT (mV)	-1011
	SLOPE (mV/dB)	-17.18

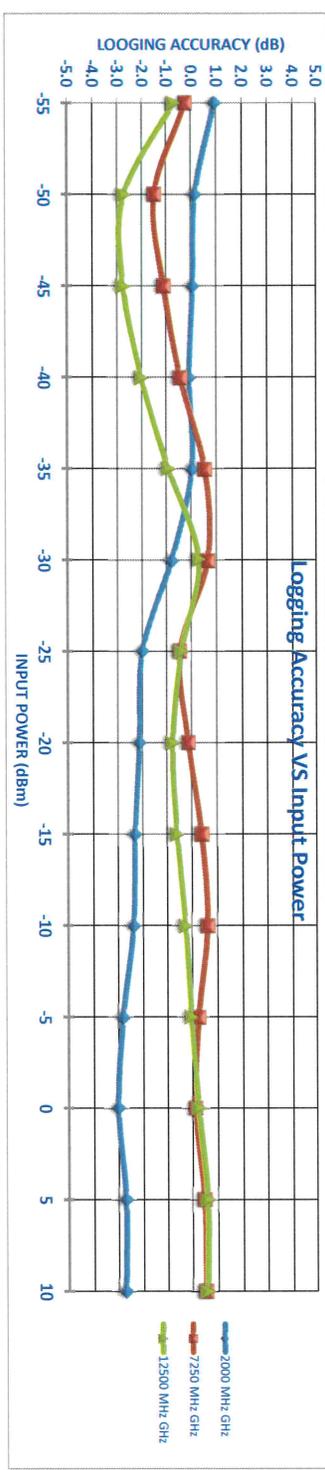
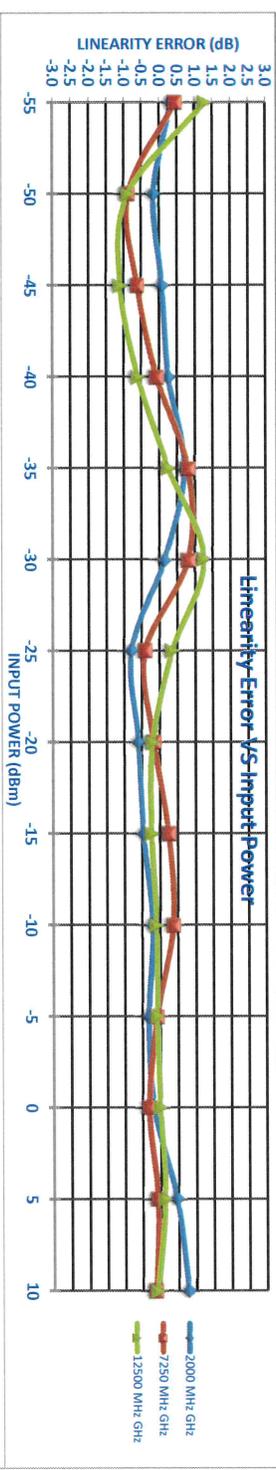
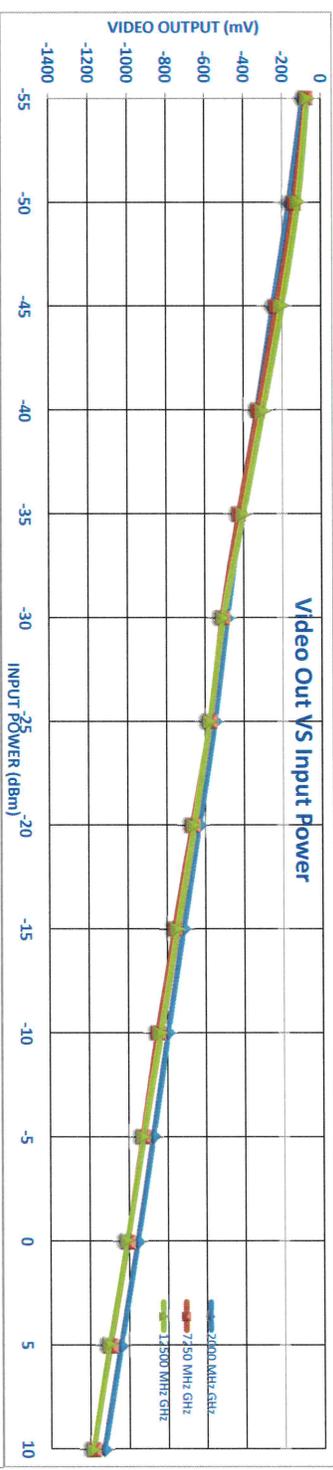
Measured Value (mV)	-74	-137	-228	-323	-424	-510	-575	-665	-758	-846	-924	-1006	-1096	-1181
Error (mV)	-8	15	10	1	-14	-14	7	3	-4	-6	1	5	1	2
LINEARITY ERROR (dB)	0.46	-0.87	-0.61	-0.07	0.81	0.82	-0.40	-0.16	0.25	0.37	-0.09	-0.31	-0.08	-0.13
ACCURACY ERROR (dB)	-0.22	-1.47	-1.10	-0.45	0.56	0.67	-0.47	-0.12	0.40	0.63	0.26	0.14	0.48	0.54

12500 MHz	INTERCEPT (mV)	-1008
	SLOPE (mV/dB)	-17.53

Measured Value (mV)	-66	-116	-200	-296	-399	-504	-576	-654	-741	-831	-919	-1008	-1098	-1182
Error (mV)	-23	15	19	19	-5	-22	-6	3	4	2	1	0	-2	1
LINEARITY ERROR (dB)	1.29	-0.88	-1.11	-0.60	0.26	1.25	0.36	-0.20	-0.23	-0.10	-0.08	-0.01	0.13	-0.08
ACCURACY ERROR (dB)	-0.70	-2.75	-2.77	-2.03	-0.93	0.31	-0.41	-0.78	-0.61	-0.26	-0.03	0.26	0.60	0.59

Flatness dB	+/-
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0.81	1.45	1.41	0.97	0.74	0.74	0.80	1.01	1.37	1.52	1.54	1.63	1.66	1.66
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LOG TRANSFER WITH FREQUENCY
 MODEL: SDLVA-212-65-16MV-12DBM
 TESTED BY: Jim Hopson
 DATE: 9-30-2024
 SERIAL NO.: PL46792

Test Temp: +85C

PLANAR MONOLITHICS INDUSTRIES
 4921 Robert J. Matthews 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)	-954.3
	SLOPE (mV/dB)	-14.98

-139	-201	-283	-359	-438	-502	-563	-645	-726	-805	-878	-952	-1036	-1113
-9	4	-3	-4	-8	3	17	10	4	-1	1	2	-7	-9
0.59	-0.28	0.18	0.27	0.54	-0.18	-1.11	-0.64	-0.24	0.04	0.09	-0.15	0.45	0.59
0.88	-0.29	-0.32	-0.64	-0.81	-1.89	-3.15	-3.13	-3.17	-3.33	-3.86	-4.33	-4.19	-4.47

7250 MHz	INTERCEPT (mV)	-1029
	SLOPE (mV/dB)	-16.79

-122	-174	-258	-351	-447	-540	-605	-691	-783	-870	-948	-1024	-1111	-1190
-17	15	15	6	-6	-15	4	2	-6	-9	-3	5	2	7
0.99	-0.92	-0.91	-0.37	0.35	0.89	-0.24	-0.12	0.36	0.54	0.19	-0.28	-0.10	-0.40
-0.16	-1.99	-1.83	-1.13	-0.26	0.44	-0.58	-0.31	0.32	0.65	0.42	0.08	0.41	0.24

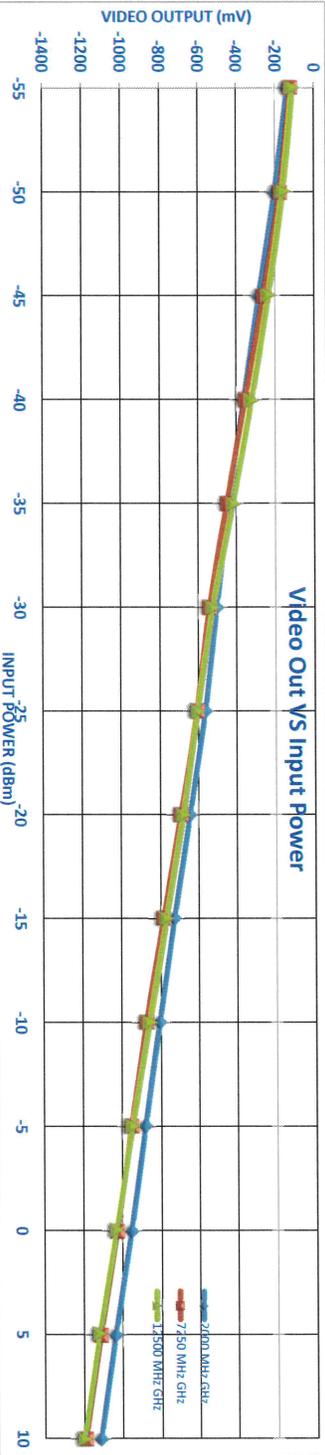
12500 MHz	INTERCEPT (mV)	-1026
	SLOPE (mV/dB)	-17.22

-113	-160	-232	-318	-414	-521	-602	-678	-766	-853	-943	-1028	-1118	-1196
3.34	5	19	19	9	-11	-6	4	2	1	-3	-2	-6	-2
1.95	-0.31	-1.13	-1.13	-0.55	0.66	0.37	-0.22	-0.10	-0.05	0.18	0.11	0.34	-0.13
-0.72	-2.84	-3.43	-3.15	-2.28	-0.72	-1.11	-0.72	-0.39	0.12	0.32	0.32	0.83	0.61

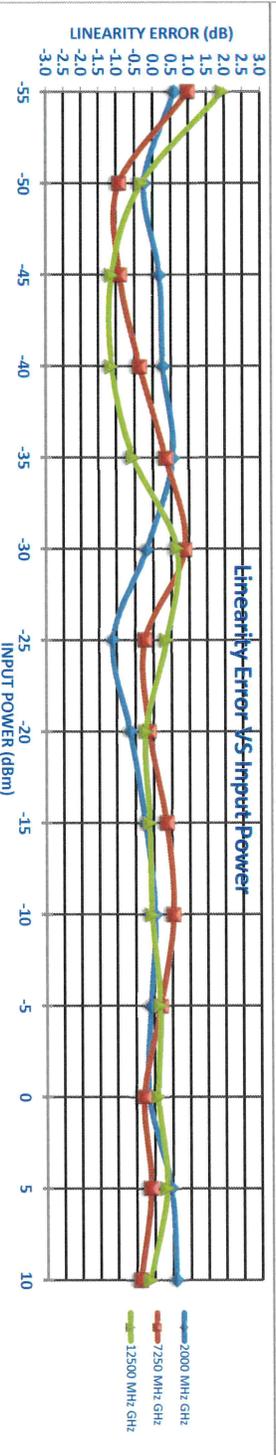
Flatness dB	+/-
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0.80	1.27	1.56	1.26	1.01	1.16	1.29	1.41	1.75	1.99	2.14	2.33	2.51	2.54
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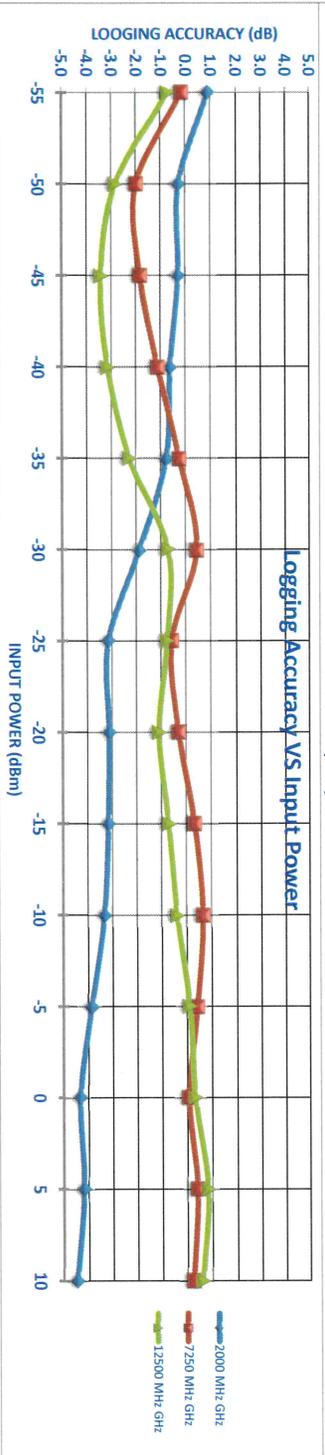
Video Out VS Input Power



Linearity Error VS Input Power



Logging Accuracy VS Input Power



LOG TRANSFER WITH FREQUENCY
 MODEL: SDLVA-212-65-16MV-12DBM
 TESTED BY: Jim Hopson
 DATE: 9-30-2024
 SERIAL NO: PL46792

Test Temp: 0C

PLANAR MONOLITHICS INDUSTRIES
 4921 Robert J. Matthews 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)	-950.7
	SLOPE (mV/dB)	-15.98

-77	-149	-232	-316	-404	-474	-539	-621	-702	-786	-865	-947	-1038	-1125
-5	2	-1	-5	-13	-3	12	10	9	5	6	4	-7	-15
0.32	-0.16	0.04	0.29	0.79	-0.17	-0.76	-0.63	-0.56	-0.30	-0.36	-0.23	0.47	0.91
0.99	0.25	0.14	0.08	0.26	-0.61	-1.78	-1.95	-2.18	-2.23	-2.58	-2.75	-2.39	-2.26

Measured Value (mV)	-1125
Error (mV)	-15
LINEARITY ERROR (dB)	0.91
ACCURACY ERROR (dB)	-2.26

7250 MHz	INTERCEPT (mV)	-1002
	SLOPE (mV/dB)	-17.28

-57	-124	-215	-311	-413	-497	-562	-653	-746	-834	-913	-997	-1087	-1175
-6	14	9	5	0	-16	-13	8	3	-3	-5	3	5	1
0.33	-0.80	-0.52	0.01	0.92	0.78	-0.46	-0.20	0.19	0.28	-0.15	-0.29	-0.08	0.01
-0.17	-1.23	-0.85	-0.22	0.79	0.74	-0.43	-0.07	0.41	0.59	0.25	0.20	0.50	0.68

Measured Value (mV)	-1175
Error (mV)	1
LINEARITY ERROR (dB)	0.01
ACCURACY ERROR (dB)	0.68

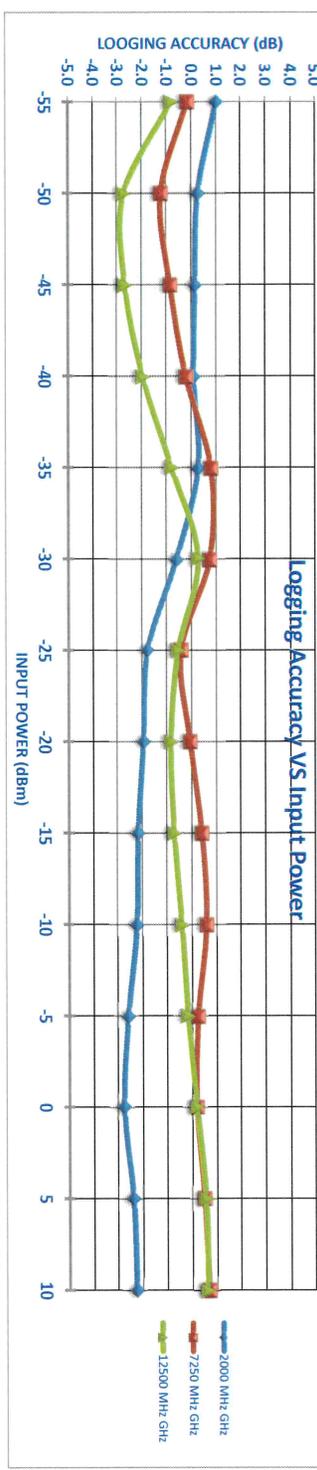
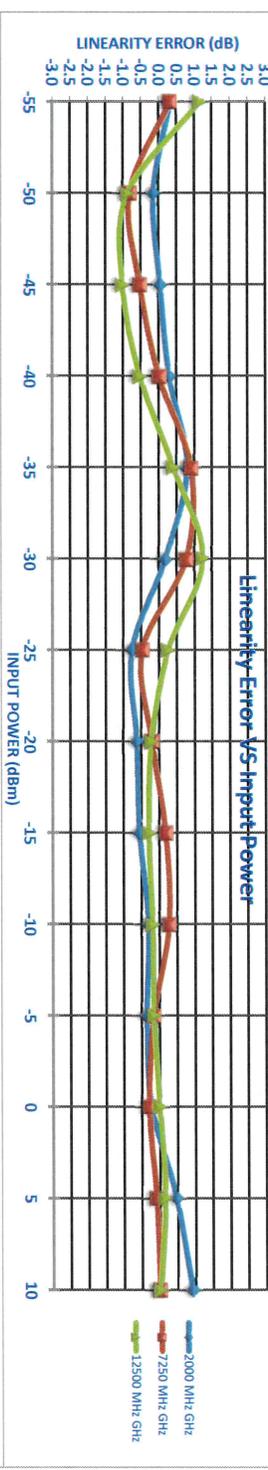
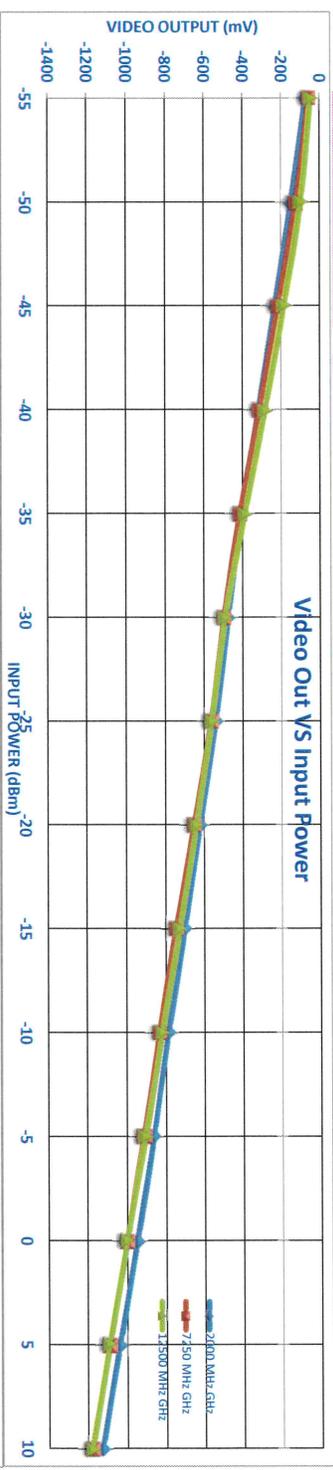
12500 MHz	INTERCEPT (mV)	-997
	SLOPE (mV/dB)	-17.66

-46	-99	-184	-281	-386	-489	-560	-640	-727	-817	-906	-997	-1088	-1174
-21	15	18	9	-7	-22	-5	4	5	3	3	0	-3	0
1.17	-0.87	-1.02	-0.52	0.41	1.24	0.26	-0.21	-0.29	-0.19	-0.15	0.00	0.15	0.02
-0.82	-2.73	-2.69	-1.97	-0.80	0.27	-0.55	-0.83	-0.71	-0.41	-0.17	0.20	0.56	0.62

Measured Value (mV)	-1174
Error (mV)	0
LINEARITY ERROR (dB)	0.02
ACCURACY ERROR (dB)	0.62

Flatness dB	+/-
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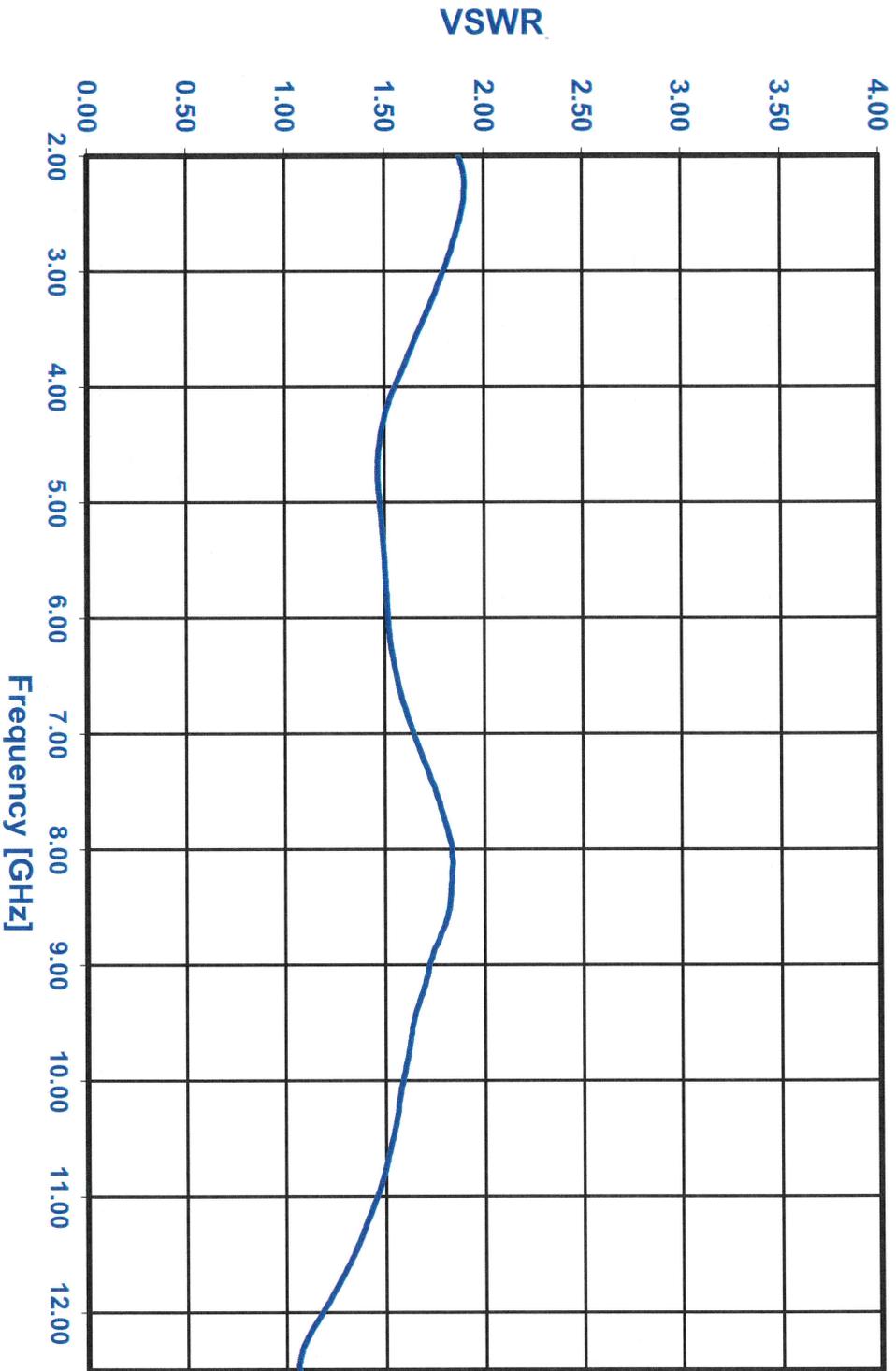
0.90	1.49	1.41	1.03	0.80	0.68	0.68	0.94	1.30	1.41	1.41	1.47	1.47	1.47
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Model Number: SDLVA-212-65-16MV-12DBM
Serial Number: PL46792

Temperature: +25C

VSWR GRAPH



VSWR

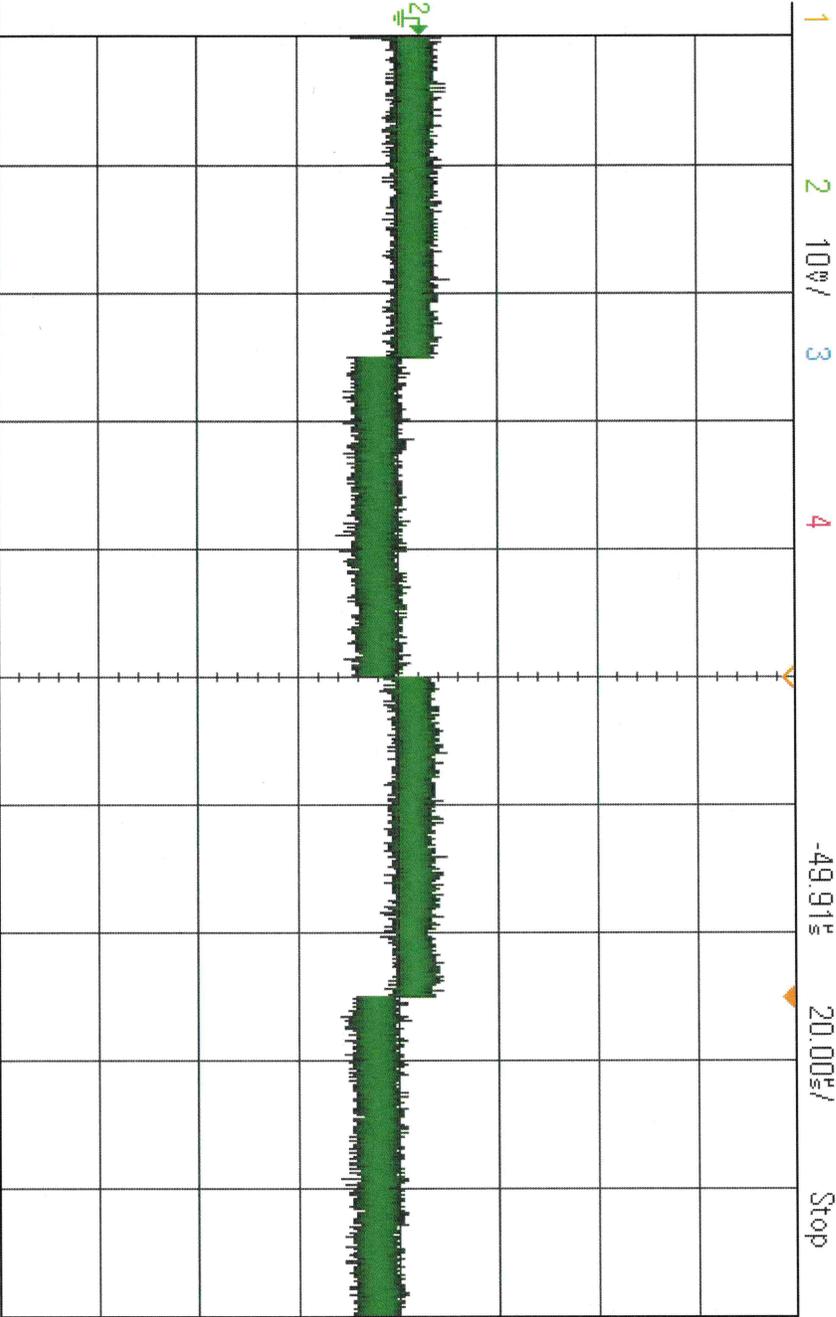
Frequency [GHz]

Input 1.90:1 Max

@ -20dBm

PL46792
TSS - 64 dbm

DSO-X 3034A, MW52394003, Wed Sep 25 11:49:24 2024



f E 2.23V

KEYSIGHT
TECHNOLOGIES

Acquisition
Normal
4.00GSa/s

Channels	
DC	1.00:1

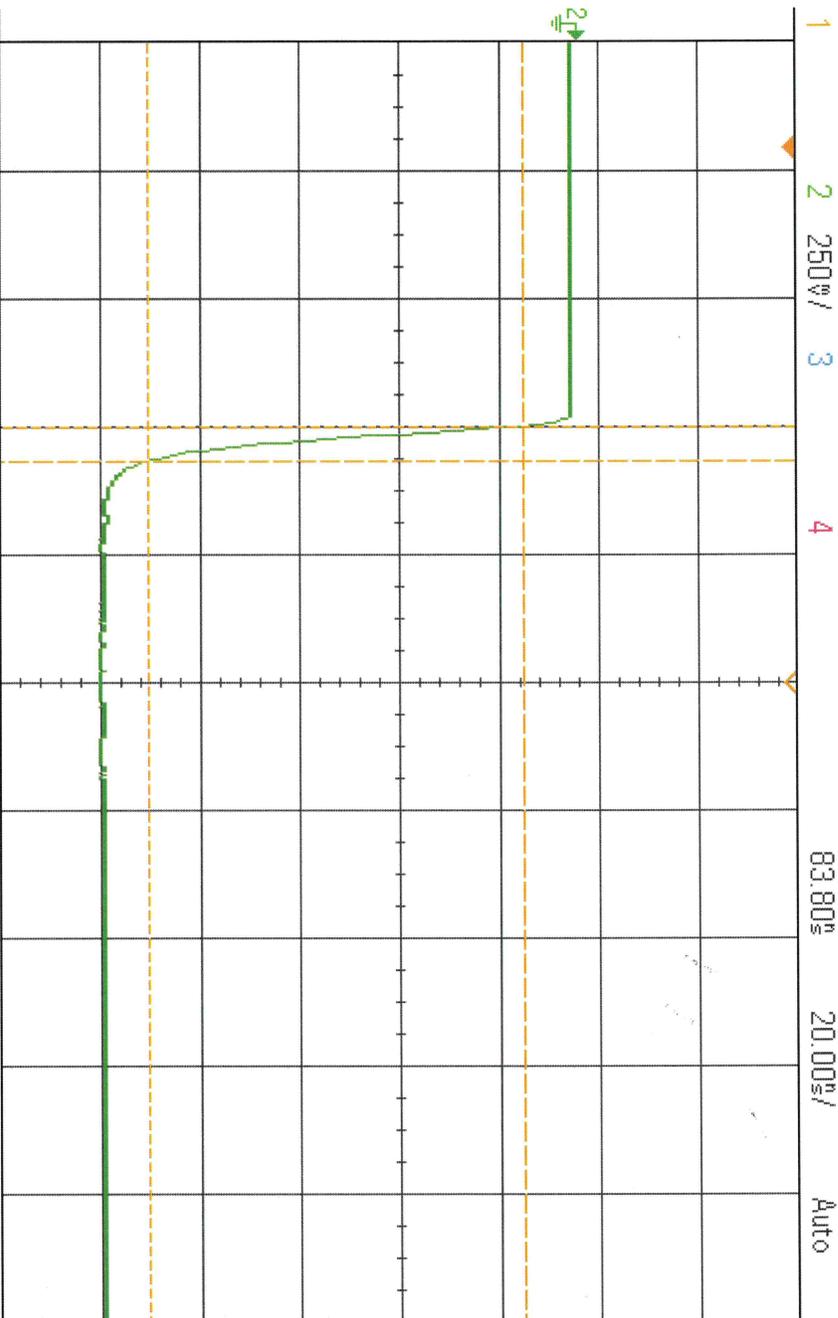
Cursors Menu

Mode
Off

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

PL46792
Rise Time

DSO-X 3034A, MW52394003: Wed Sep 25 11:46:29 2024



83.80mV 20.00ns/div Auto 5 E 2.23V



Acquisition ::
Averaging: 16
4.00GSa/s

Channels ::

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

Measurements ::

Rise(2):

No edges

~~Fall(2):~~

Rise 5.5ns

Clear Measurements Menu

Clear Meas 1
Rise(2)

Clear Meas 2
Fall(2)

Clear Meas 3
<None>

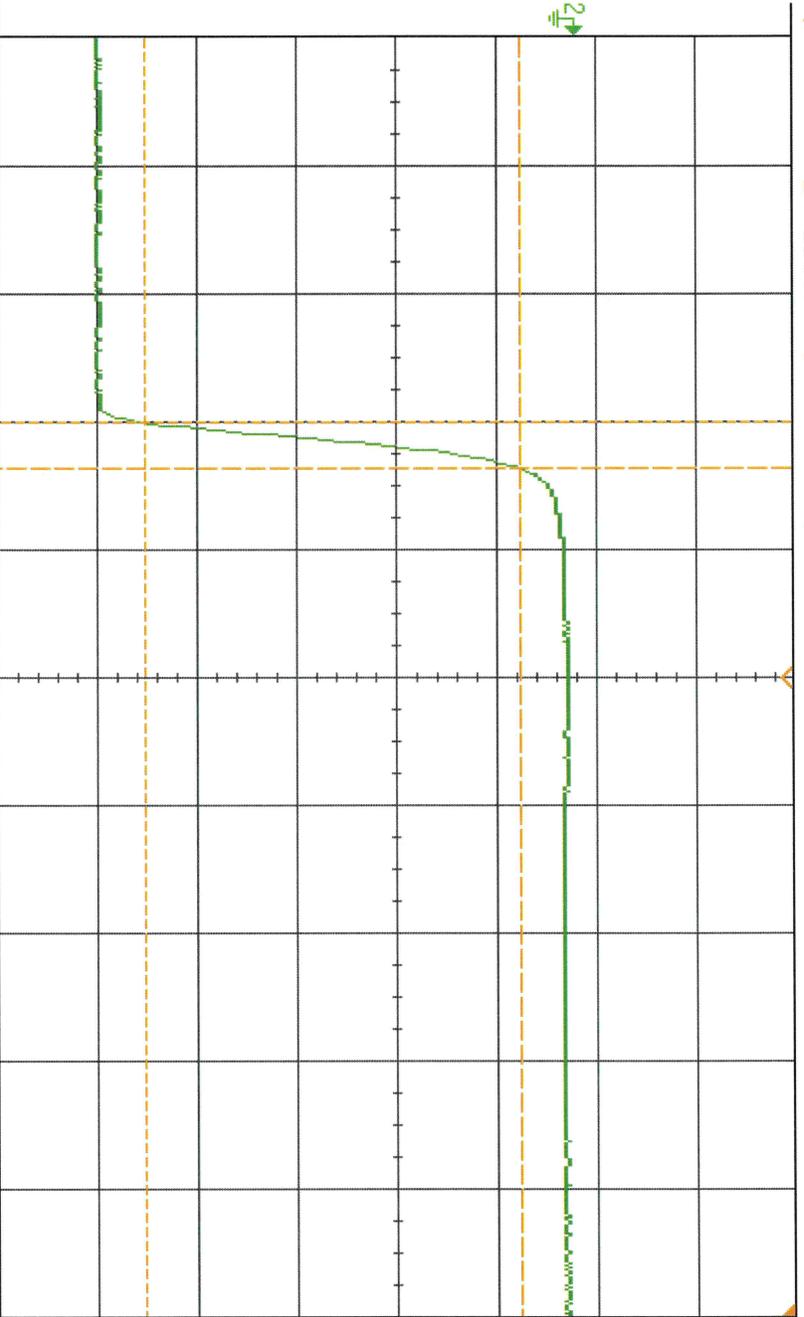
Clear Meas 4
<None>

Clear All

PL46792 Fall & Recovery

DSO-X 3034A, MW52394003, Wed Sep 25 11:47:24 2024

1 2 250V/ 3 4 -49.91% 20.00%/ Auto 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	Scale
DC	1.00:1

Measurements

Fall(2):
No edges
Fall(2):
Fall 7.3ns

SDLVA-212-65-16MV-12DBM

SN# PL46792

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	14.8 dbm	15.1 dbm
6GHZ	14.4 dbm	15 dbm
7GHZ	14.4 dbm	15 dbm
8GHZ	14.6 dbm	15.1 dbm
9GHZ	14.5 dbm	15 dbm
10GHZ	14.3 dbm	15 dbm
11GHZ	14.1 dbm	15 dbm
12.5GHZ	14.2 dbm	15.3 dbm