



**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>PL46793/2440</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	-10 dBc Typ.	
6	Video Log Range	-55 dBm to +10 dBm	-55 dBm to +10 dBm	
7	Video Log Linearity	+2.2 dB	1.12/-0.86 dB	
8	Video Log Slope	16.0 ±2.0 mV/dB nom	15.67/17.53 mV/dB	
9	Video Freq Flatness	±4 dB max	±2.21 dB	
10	Pulse Width Range	25 nsec to CW	25 nsec to CW	
11	Video Rise Time	10 nsec max	5.8 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
12	Video Fall Time	15 nsec max	13.3 nsec	PMI QA3
13	Recovery Time	30 nsec max	<30 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: K. Klamm Date: 10-1-24

LOG TRANSFER WITH FREQUENCY
 MODEL: SDLVA-212-65-16MW-12DBM
 TESTED BY: Jim Hopson
 DATE: 9-30-2024
 SERIAL NO: P146793

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
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RF Input Power (dbm)

2000 MHz	INTERCEPT (mV)	-1005
	SLOPE (mV/DB)	-15.67

-149	-226	-303	-382	-455	-526	-607	-681	-756	-843	-933	-1015	-1089	-1163
-6	-5	-4	-4	1	8	6	10	14	5	-7	-10	-6	-2
0.40	0.31	0.22	0.27	-0.07	-0.54	-0.37	-0.65	-0.86	-0.31	0.43	0.67	0.39	0.11
1.04	0.64	0.24	-0.04	-0.68	-1.44	-1.61	-2.19	-2.71	-2.52	-2.14	-2.24	-2.83	-3.41

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

7250 MHz	INTERCEPT (mV)	-1067
	SLOPE (mV/DB)	-17.04

-134	-214	-303	-390	-472	-549	-635	-725	-807	-891	-984	-1074	-1157	-1237
0.25	-0.06	0.15	0.26	0.08	-0.41	-0.36	-0.08	-0.27	-0.34	0.12	0.40	0.27	-0.03
0.16	-0.07	0.23	0.44	0.33	-0.07	0.06	0.44	0.34	0.35	0.90	1.28	1.23	1.01

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

12500 MHz	INTERCEPT (mV)	-1056
	SLOPE (mV/DB)	-17.53

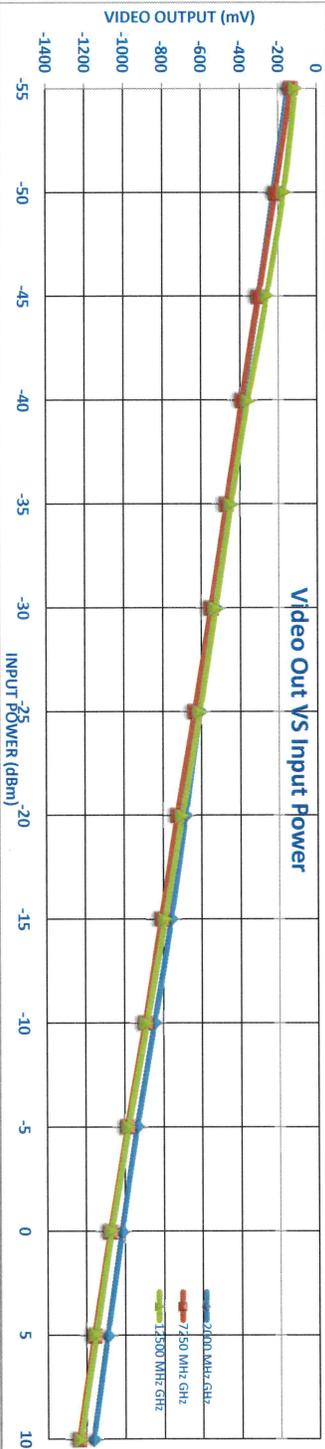
-111	-170	-260	-357	-448	-526	-606	-698	-788	-882	-976	-1066	-1147	-1227
-20	9	8	-2	-6	4	12	7	5	-1	-8	-10	-3	4
1.12	-0.54	-0.43	0.13	0.32	-0.23	-0.67	-0.42	-0.29	0.07	0.43	0.57	0.19	-0.25
-1.20	-2.70	-2.36	-1.54	-1.10	-1.44	-1.67	-1.17	-0.80	-0.19	0.43	0.80	0.64	0.41

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

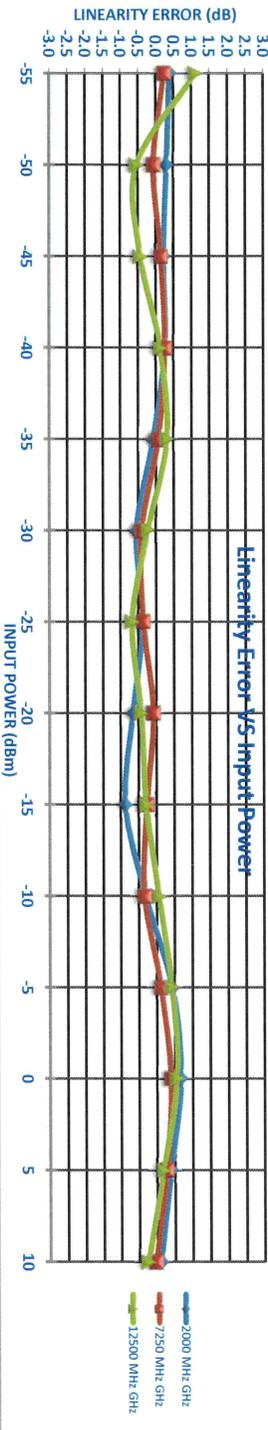
Flatness (dB)	+/-
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1.12	1.67	1.30	0.99	0.72	0.69	0.87	1.31	1.52	1.43	1.52	1.76	2.03	2.21
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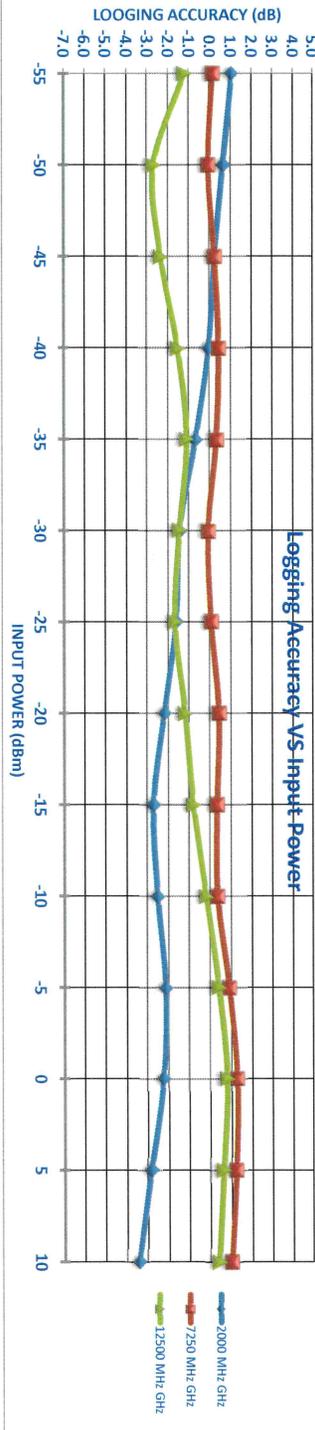
Video Out VS Input Power



Linearity Error VS Input Power



Logging Accuracy VS Input Power



LOG TRANSFER WITH FREQUENCY
 MODEL: SDLYA-212-65-16MW-12DBM
 TESTED BY: Jim Hopson
 DATE: 9-30-2024
 SERIAL NO.: PL46793

Test Temp: +85C

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)	-988.1
	SLOPE (mV/DB)	-14.35

-203	-273	-348	-422	-489	-550	-624	-690	-756	-837	-920	-997	-1068	-1137
-4	-2	-5	-8	-3	8	5	11	17	8	4	-9	-8	-5
0.28	0.15	0.38	0.54	0.21	-0.54	-0.38	-0.78	-1.18	-0.53	0.25	0.62	0.57	0.38
1.02	0.44	0.17	-0.15	-0.92	-2.07	-2.39	-3.22	-4.05	-3.94	-3.69	-3.83	-4.34	-4.99

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

7250 MHz	INTERCEPT (mV)	-1075
	SLOPE (mV/DB)	-16.3

-190	-257	-343	-426	-509	-581	-660	-744	-820	-904	-996	-1084	-1165	-1241
-11	-9	-1	-3	-4	5	8	5	11	8	-2	-9	-8	-3
0.67	-0.19	0.08	0.17	0.26	-0.32	-0.48	-0.33	-0.66	-0.51	0.13	0.53	0.50	0.16
0.17	-0.56	-0.14	0.10	0.34	-0.11	-0.12	0.19	-0.01	0.30	1.11	1.67	1.78	1.58

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

12500 MHz	INTERCEPT (mV)	-1061
	SLOPE (mV/DB)	-16.84

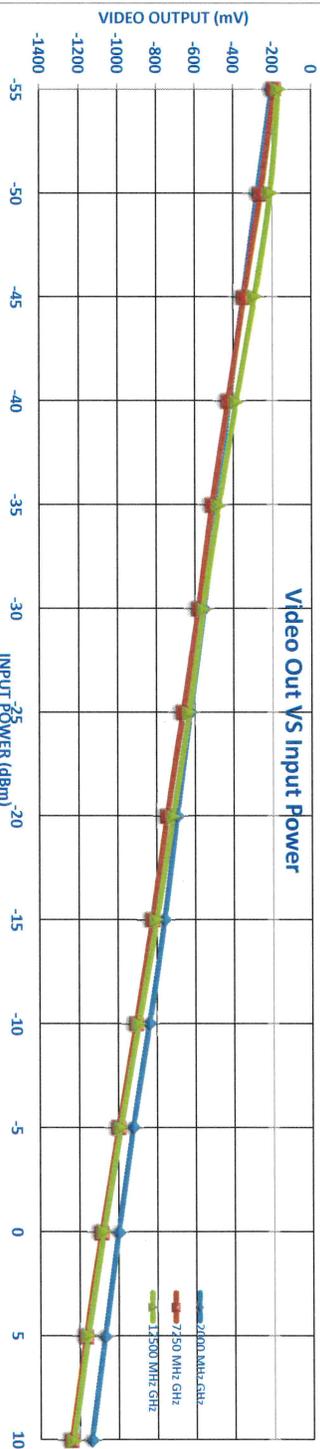
-168	-210	-289	-384	-474	-555	-628	-711	-798	-889	-984	-1073	-1154	-1229
-3.4	8	14	3	-3	1	12	13	10	3	-7	-12	-9	0
1.99	-0.50	-0.84	-0.18	-0.16	-0.03	-0.70	-0.77	-0.60	-0.20	0.44	0.72	0.53	-0.02
-1.20	-3.52	-3.57	-2.55	-1.87	-1.75	-2.14	-1.90	-1.40	-0.65	0.35	0.97	1.09	0.83

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

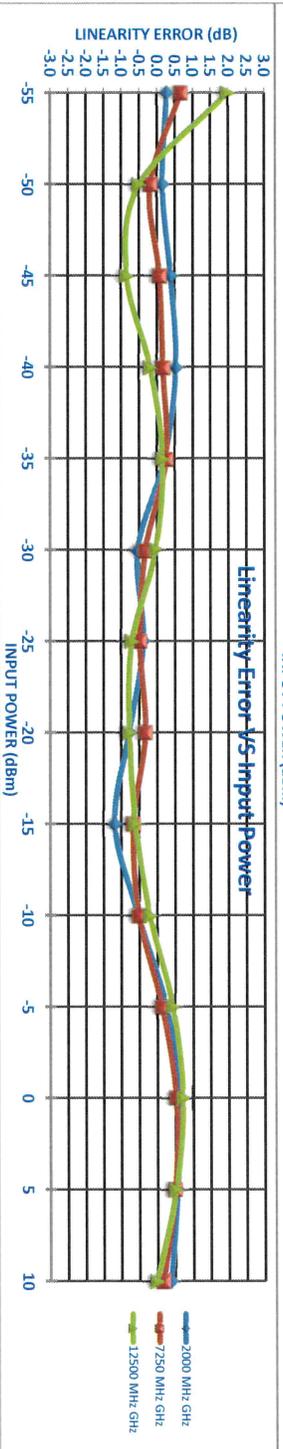
Flatness dB	+/-
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1.11	1.98	1.87	1.33	1.11	0.98	1.14	1.71	2.02	2.12	2.40	2.75	3.06	3.28
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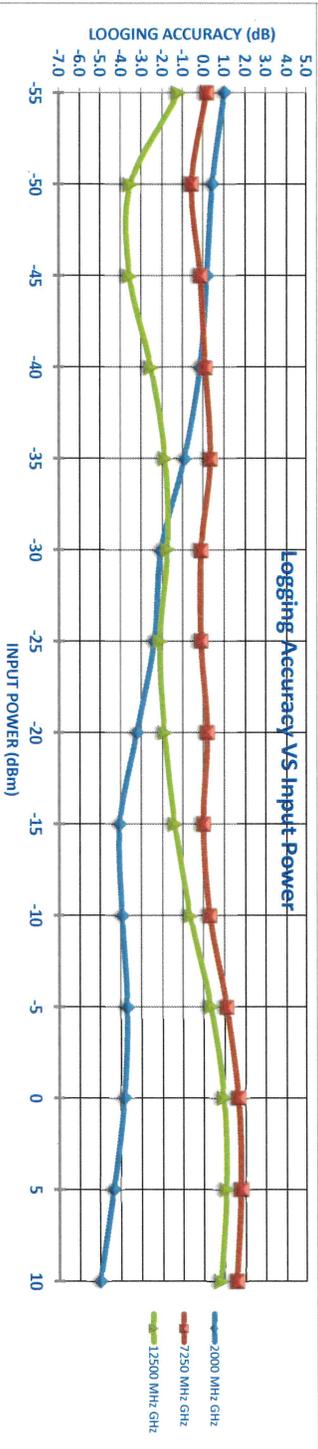
Video Out VS Input Power



Linearity Error VS Input Power



Logging Accuracy VS Input Power



Test Temp: 0C



Frequency

-55	-50	-45	-40	-35	-30	-25	-20	-15	-10	-5	0	5	10
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2000 MHz	INTERCEPT (mV)	-998.5
	SLOPE (mV/DB)	-16.36

-107	-185	-265	-347	-424	-501	-583	-661	-740	-831	-925	-1009	-1086	-1163
-8	-5	-3	-3	2	7	7	10	13	4	-8	-10	-6	-1
0.47	0.28	0.17	0.17	-0.12	-0.42	-0.40	-0.64	-0.81	-0.24	0.50	0.64	0.35	0.05
0.87	0.42	0.06	-0.22	-0.76	-1.30	-1.56	-2.05	-2.47	-2.21	-1.77	-1.91	-2.45	-3.00

Measured Value (mV)	-1163
Error (mV)	-1
LINEARITY ERROR (dB)	0.05
ACCURACY ERROR (dB)	-3.00

7250 MHz	INTERCEPT (mV)	-1053
	SLOPE (mV/DB)	-17.49

-96	-178	-268	-358	-440	-520	-609	-702	-787	-874	-969	-1060	-1144	-1227
-5	0	0.15	0.27	-0.04	-0.47	-0.38	-0.07	-0.21	-0.24	0.20	0.40	0.20	-0.06
0.26	0.00	0.15	0.27	-0.04	-0.47	-0.38	-0.07	-0.21	-0.24	0.20	0.40	0.20	-0.06
0.23	0.02	0.24	0.42	0.17	-0.21	-0.05	0.33	0.25	0.28	0.78	1.04	0.91	0.71

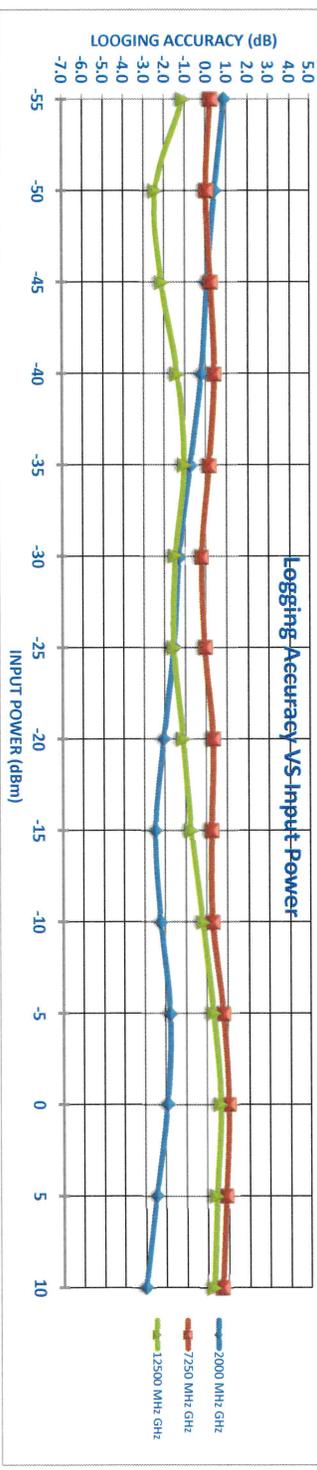
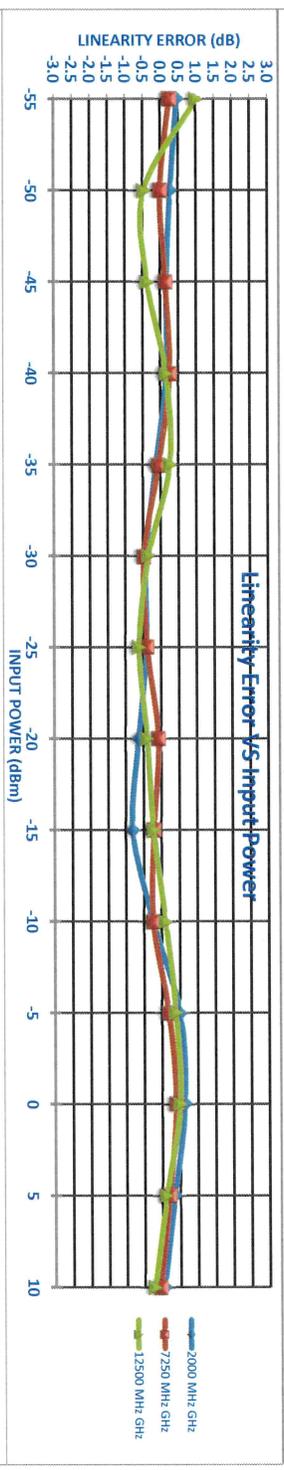
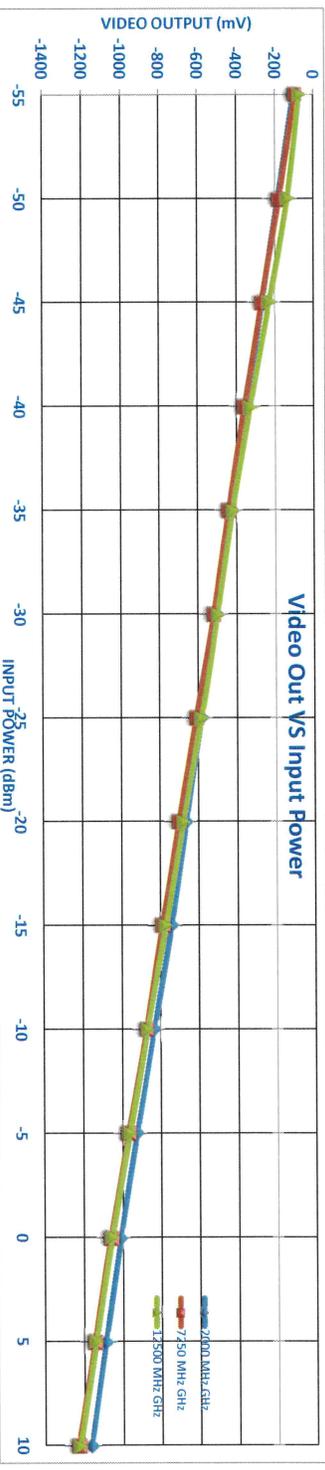
Measured Value (mV)	-1227
Error (mV)	-3
LINEARITY ERROR (dB)	0.20
ACCURACY ERROR (dB)	-0.06

12500 MHz	INTERCEPT (mV)	-1044
	SLOPE (mV/DB)	-17.99

-73	-136	-228	-327	-419	-498	-583	-677	-770	-866	-961	-1053	-1136	-1220
-18	8	7	-3	-5	6	11	7	4	-2	-7	-9	-2	4
1.02	-0.46	-0.37	0.16	0.27	-0.34	-0.61	-0.39	-0.22	0.12	0.40	0.51	0.12	-0.21
-1.10	-2.43	-2.13	-1.37	-1.05	-1.48	-1.56	-1.12	-0.74	-0.18	0.32	0.64	0.44	0.30

Measured Value (mV)	-1220
Error (mV)	4
LINEARITY ERROR (dB)	0.12
ACCURACY ERROR (dB)	0.30

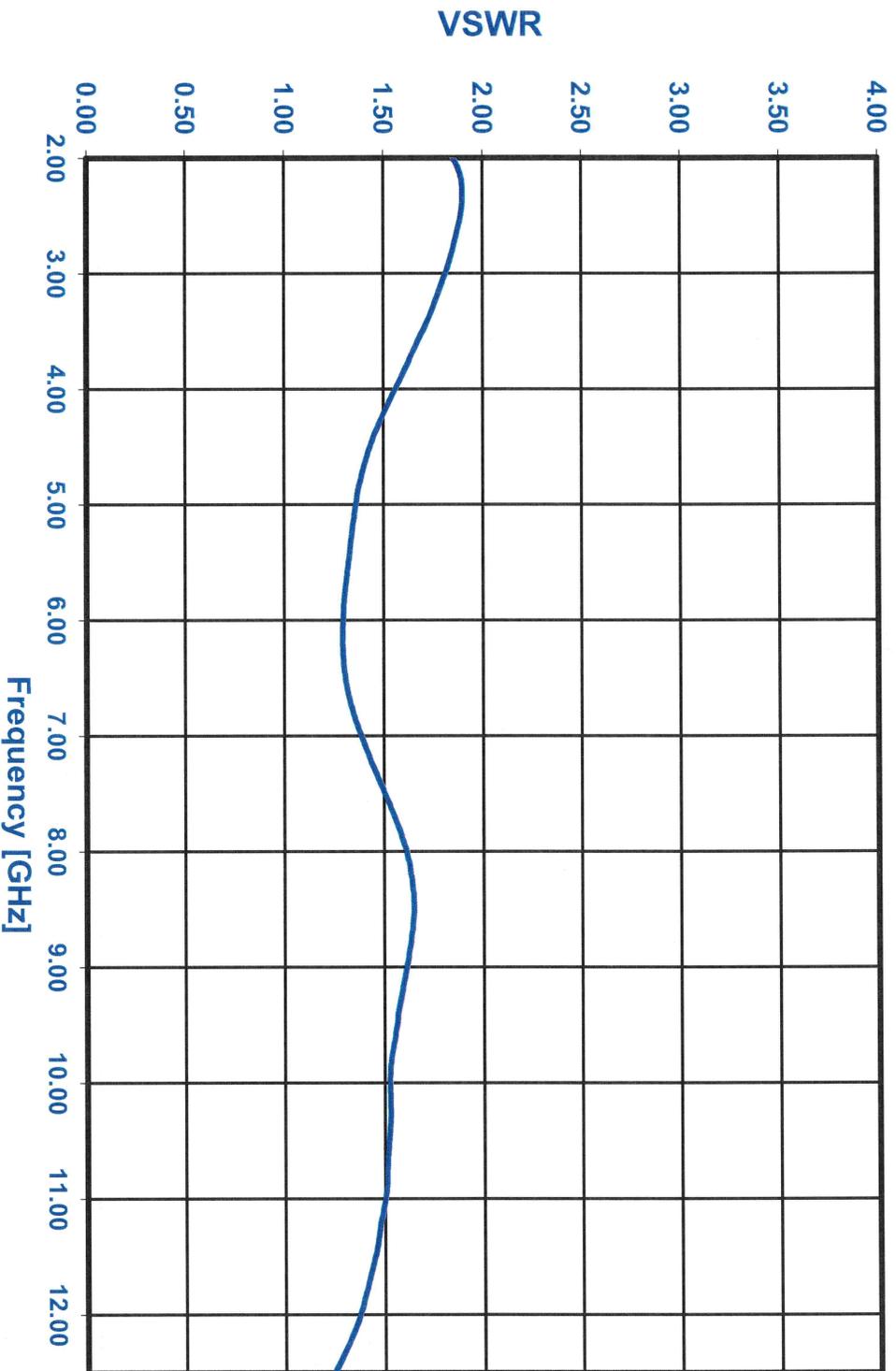
Flatness dB	+/-	0.98	1.43	1.18	0.90	0.61	0.64	0.75	1.19	1.36	1.24	1.27	1.48	1.68	1.85
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Model Number: SDL VA-212-65-16MV-12DBM
Serial Number: PL46793

Temperature: +25C

VSWR GRAPH

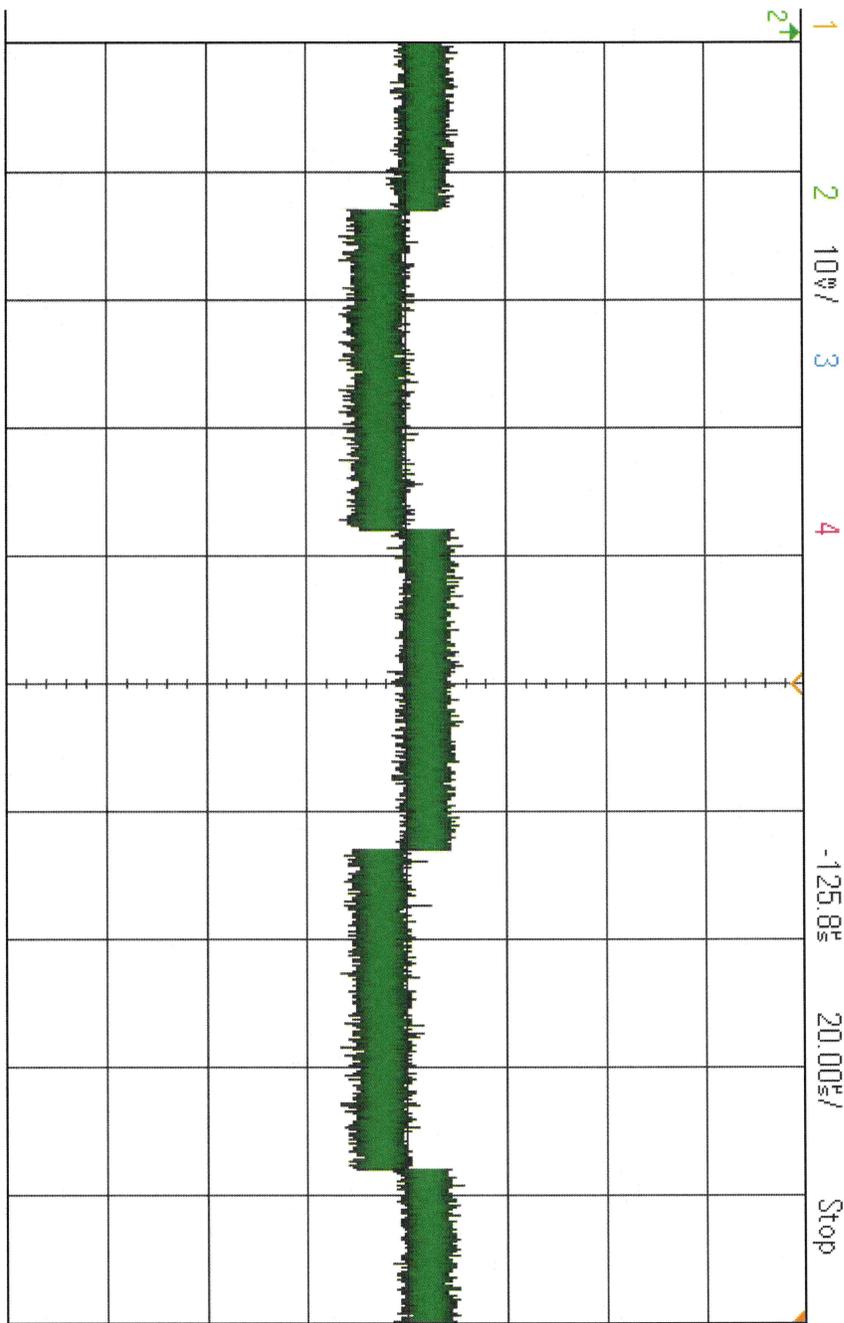


Input 1.90:1 Max

@ -20dBm

PL46793
TSS - 64 dbm

DSO-X 3034A, MW52394003: Thu Sep 26 10:07:24 2024



KEYSIGHT TECHNOLOGIES

Acquisition Normal
4.00GSa/s

Channels	
DC	1.00:1

Acquire Menu
Acq Mode Normal

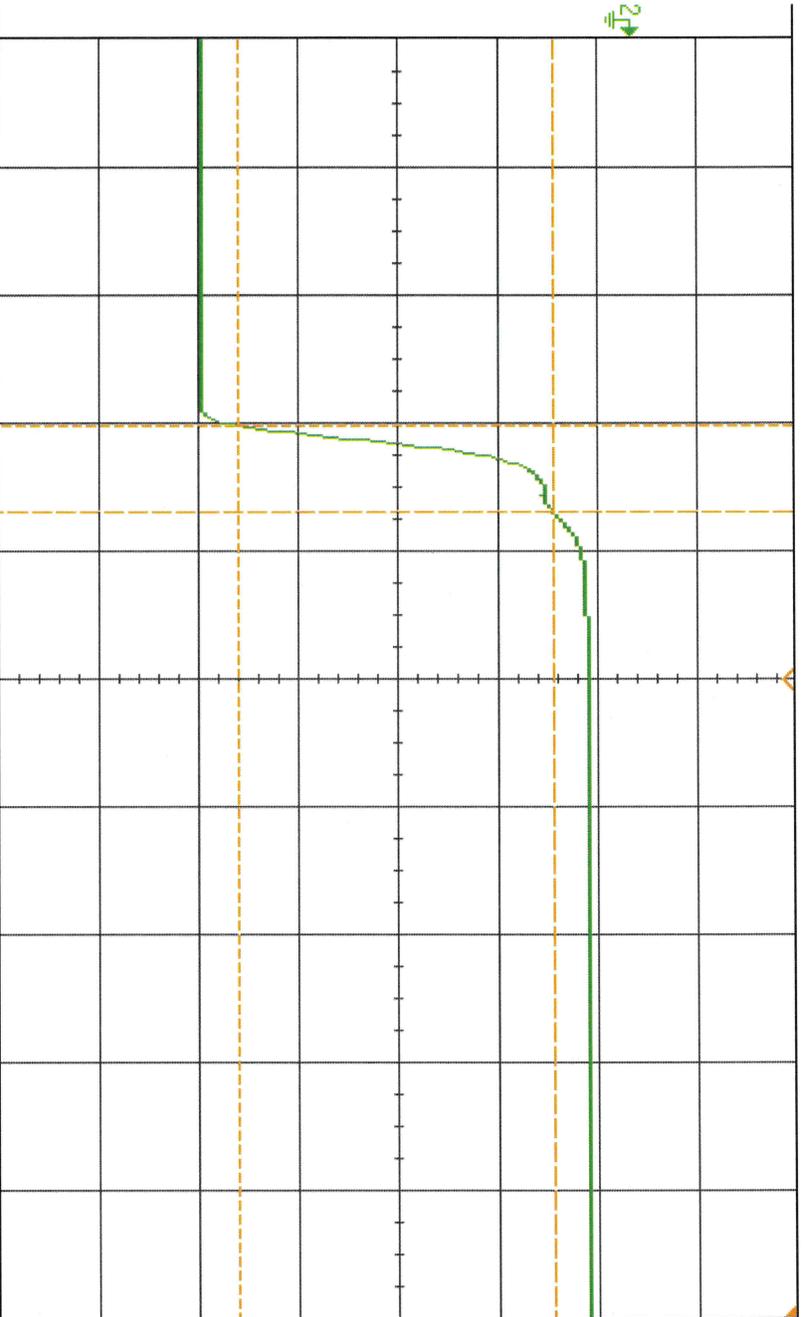
Avgs 16

Segmented

PL46793 Fall & Recovery

DSO-X 3034A, MY52394003, Thu Sep 26 10:06:11 2024

1 2 250% / 3 4 -149.9% 20.00% / Auto f E 2.23V



Measurement Menu

Source 2

Type: Rise

Add Measurement

Settings

Clear Meas

Statistics

KEYSIGHT TECHNOLOGIES

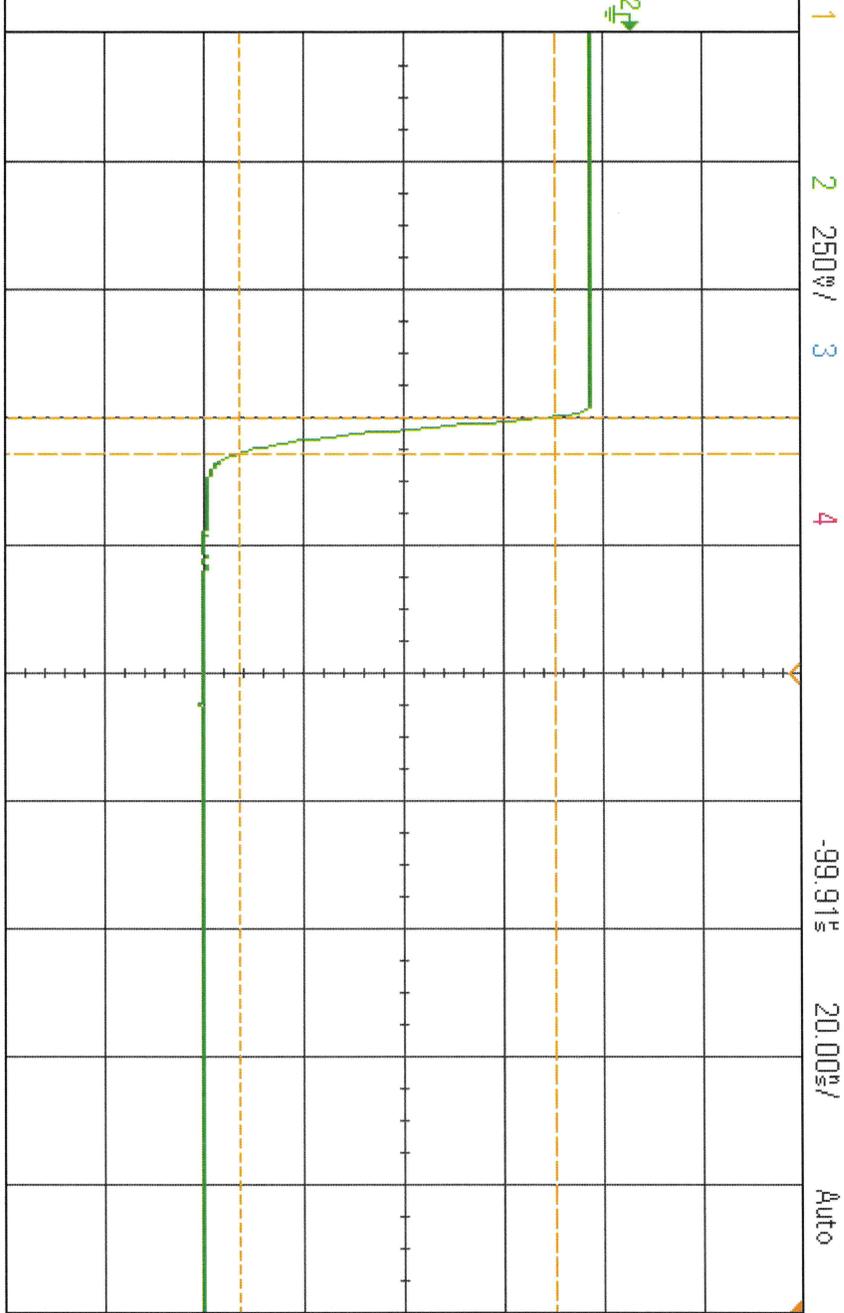
Acquisition ::
Averaging: 16
4.00GS/s

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

Measurements ::
Fall(2):
MPd10/24 No edges
Rise(2):
Fall 13.3ns

PL46793
Rise Time

DSO-X 3034A, MW52394003, Thu Sep 26 10:03:52 2024



-99.91mV 20.00ns/div Auto 2.23V

MEASUREMENTS

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 5.8ns

Measurement Menu

Source 2

Type: Fall

Add Measurement

Settings

Clear Meas

Statistics

SDLVA-212-65-16MV-12DBM

SN# PL46793

Power

FREQ	-55 dbm	+10 dbm P-SAT
2GHz	14.2 dbm	15 dbm
3GHz	15 dbm	15 dbm
4GHz	15.2 dbm	14.9 dbm
5GHz	15 dbm	15.2 dbm
6GHz	15 dbm	15.1 dbm
7GHz	15 dbm	15 dbm
8GHz	14.9 dbm	15.1 dbm
9GHz	14.6 dbm	14.6 dbm
10GHz	14.6 dbm	14.8 dbm
11GHz	14.7 dbm	15 dbm
12.5GHz	14.7 dbm	15.1 dbm