



Summary Data
For
EWDM-2G6G-65-70MV-1

Customer: _____

Tested By: Jim Hopson

SO No: _____

Temperature: -10°C TO +85°C

Model No: EWDM-2G6G-65-70MV-1

Date 11/4/2024

Serial No: PL42379/2422

Drawing No: 27637945

Rev: A1

TEST ITEM NO	PARAMETERS	SPECIFIED VALUE	TEST RESULTS	QA QC
1	Frequency Range:	2 to 6 GHz	2 to 6 GHz	PM QA3
2	VSWR:	2.0:1 MAX @ 50 Ω	1.28:1 @ 50 Ω (RF IN) 1.23:1 @ 50 Ω (BIT IN) 1.22:1 @ 50 Ω (RF OUT) 1.42:1 @ 50 Ω (SW OUT)	
3	Noise Figure:	6 dB MAX	4.6 dB	
4	Input Power:	(1) 1 W CW, Max. (2) 100 W Peak @ PW = 1 μ s & Duty Cycle = 1%, Max.	PASS	
5	TTL Control	See Logic Table	PASS	
6	SP3T Switch Isolation	60 dB MIN (All Ports)	> 60 dB	
7	SP3T Switching Speed:	100 ns MAX	50 ns	
8	RF OUT Linear Gain	+33 dB MIN, 39 dB MAX	+37.04 dB MAX +34.84 dB MIN	
9	RF OUT Frequency Flatness:	± 2.0 dB MAX	± 1.1 dB	
10	RF OUT 1 dB Compression Point:	+3 dBm MIN	+10.8 dBm	
11	RF OUT Second Harmonic:	-9 dBc MIN	-30 dBc	
12	RF OUT Third Harmonic:	-12 dBc MIN	-43 dBc	



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13	SW Linear Gain	+7 dB MIN, 15 dB MAX	+12.09 dB MAX +10.58 dB MIN	PMI QA3
14	SW Frequency Flatness:	±1.2 dB MAX	±0.8 dB	
15	SW 1 dB Compression Point:	+3 dBm MIN	+6.8 dBm	
16	SW Second Harmonic:	-9 dBc MIN	-21 dBc	
17	SW Third Harmonic:	-12 dBc MIN	-40 dBc	
18	VIDEO OUT TSS:	-71 dBm MAX	-71 dBm	
19	VIDEO OUT Dynamic Range:	-65 to 0 dBm	-65 to 0 dBm	
20	VIDEO OUT Log Slope Fixed:	70 ± 3mV/dB	71.1/68.63 mv/dB	
21	VIDEO OUT Log Linearity:	±0.75 dB MAX @ 4 GHZ	.40/-.54 dB	
22	VIDEO OUT Log Accuracy:	±1.25 dB MAX	.80/-.84 dB	
23	VIDEO OUT Absolute Log Accuracy:	±1.5 dB MAX	±1.39 dB	
24	VIDEO OUT DC Offset:	0 ±70 mV (RF Input Terminated & DC Power On)	-1 mV	
25	VIDEO OUT Rise Time (10% to 90%):	25 ns TYP 28 ns MAX	26.8 ns	
26	VIDEO OUT Fall Time (90% to 10%):	300 ns MAX	179.1 ns	
27	VIDEO OUT Settling Time:	50 ns With in ±70 mV of final value, MAX	40 ns	
28	VIDEO OUT Recovery Time:	0.5 us MAX to within 1 dB of baseline	0.47 us	



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29	VIDEO OUT Video Frequency Flatness:	± 1.0 dB MAX	± 0.7 dB	PMI QA3
30	VIDEO OUT CW Immunity:	A. CW Immune Power TSS to -40 dBm Baseline Shift: 200 mV MAX	< 200 mV	
		B. Pulse Peak Amplitude Loss; 2 dB MAX	< 2 dB	
		CW Immunity Time at CW = -40 dBm, ≤ 4 ms	1.4 ms	
		CW Recovery Time at CW = -40 dBm, ≤ 50 us	< 50 us	
31	VIDEO OUT Pulse Response, input Signal:	100 ns to 300 us	100 ns to 300 us	
32	VIDEO OUT load Impedance:	$75 \pm 1 \Omega$	75 Ω	
33	VIDEO OUT Video Output driver capability	150 ft. RG11 into 75 ohm load	PASS	
34	Pulse density capability:	10% duty cycle 100ns; 70% duty cycle 300us at peak power -10 dBm with 1 dB variable for pulse amplitude and baseline	PASS	
35	VIDEO OUT Noise Level (Vp-p):	150 mV TYP	< 100 mV	



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36	Droop of the Output Video Pulse @ 300us & - 65 dBm	70mV (1 dB) MAX	< 70 mV	PMI QA3
37	VIDEO OUT Propagation Delay:	50 ns MAX Excluding cable	40 ns	
38	Power Supply	+15 V @ 1000 mA MAX -15 V @ 500 mA MAX	+15 V @ 610 mA -15 V @ 140 mA	
39	Power Supply Ripple From DC to 10 MHz	100 mV MAX	Pass/Fail	

QA/QC Approval: R. Klumpp Date: 11-7-24



LOG TRANSFER WITH FREQUENCY
TESTED BY: Jim Hopson
MODEL: EWD-26G-65-70MW-1
SERIAL NO: PL42379 RF
DATE: 11/4/24

Test Temp: 25C
V Offset: -00.001

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

-65	-60	-55	-50	-45	-40	-35	-30	-25	-20	-15	-10	-5	0
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RF Input Power (dbm)

2000 MHz	INTERCEPT (mV)	4813.3
	SLOPE (mV/dB)	69.972
	Max Accuracy Error	0.80

260	624	964	1331	1675	1991	2342	2687	3070	3435	3782	4137	4464	4787
-5	9	-1	16	10	-23	-22	-27	6	21	18	23	1	-26
-0.07	0.13	-0.01	0.23	0.15	-0.33	-0.32	-0.39	0.09	0.30	0.26	0.33	0.01	-0.38
0.22	0.43	0.31	0.57	0.50	0.03	0.07	0.01	0.50	0.74	0.71	0.80	0.49	0.12

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

3000 MHz	INTERCEPT (mV)	4762.1
	SLOPE (mV/dB)	69.136
	Max Accuracy Error	0.54

261	618	963	1329	1673	1985	2328	2652	3031	3373	3722	4082	4422	4773
-7	4	3	24	22	-12	-14	-36	-3	-6	-3	11	6	11
-0.10	0.06	0.05	0.34	0.32	-0.17	-0.21	-0.52	-0.04	-0.09	-0.04	0.16	0.08	0.16
0.23	0.35	0.29	0.54	0.47	-0.05	-0.13	-0.49	-0.05	-0.15	-0.15	0.01	-0.11	-0.08

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

4000 MHz	INTERCEPT (mV)	4727.1
	SLOPE (mV/dB)	68.631
	Max Accuracy Error	-0.79

255	612	955	1321	1666	1977	2318	2631	3002	3338	3691	4052	4392	4743
-11	3	3	25	27	-5	-7	-37	-9	-17	-7	11	8	16
-0.16	0.04	0.04	0.37	0.40	-0.07	-0.10	-0.54	-0.14	-0.24	-0.10	0.16	0.12	0.23
0.14	0.26	0.18	0.43	0.37	-0.17	-0.28	-0.79	-0.47	-0.65	-0.59	-0.42	-0.54	-0.51

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

5000 MHz	INTERCEPT (mV)	4778.4
	SLOPE (mV/dB)	69.849
	Max Accuracy Error	-0.35

238	591	932	1303	1648	1964	2318	2666	3045	3383	3730	4095	4430	4773
0	4	-5	17	13	-20	-16	-17	13	2	-1	15	1	-5
0.00	0.05	-0.07	0.24	0.18	-0.29	-0.22	-0.24	0.18	0.02	-0.01	0.22	0.01	-0.08
-0.10	-0.04	-0.15	0.17	0.12	-0.35	-0.28	-0.29	0.15	-0.01	-0.03	0.20	0.00	-0.08

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

6000 MHz	INTERCEPT (mV)	4814.5
	SLOPE (mV/dB)	71.14
	Max Accuracy Error	-0.84

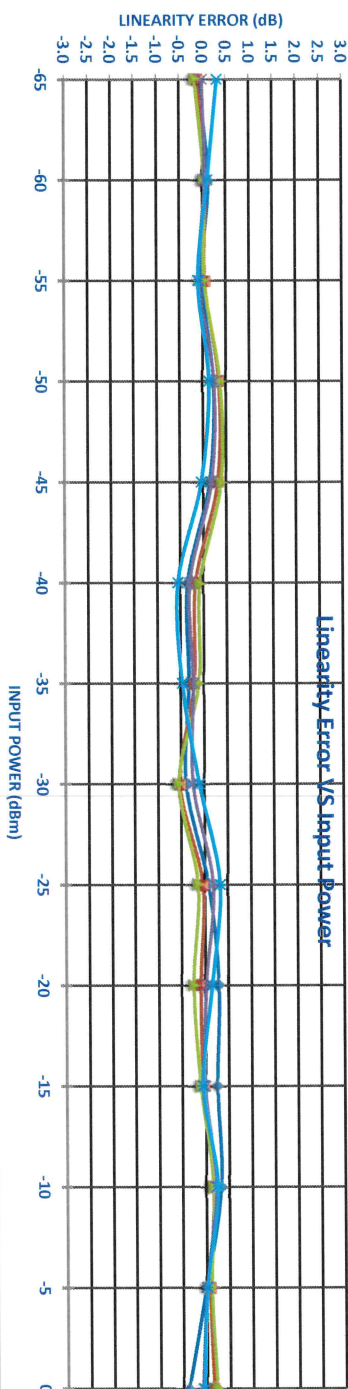
213	554	895	1267	1611	1930	2292	2673	3060	3403	3744	4121	4460	4811
23	8	-7	10	-2	-39	-33	-7	24	11	-3	18	1	-3
0.32	0.11	-0.10	0.13	-0.03	-0.55	-0.46	-0.10	0.34	0.16	-0.05	0.25	0.02	-0.05
-0.46	-0.57	-0.68	-0.35	-0.41	-0.84	-0.65	-0.19	0.36	0.28	0.17	0.57	0.43	0.47

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

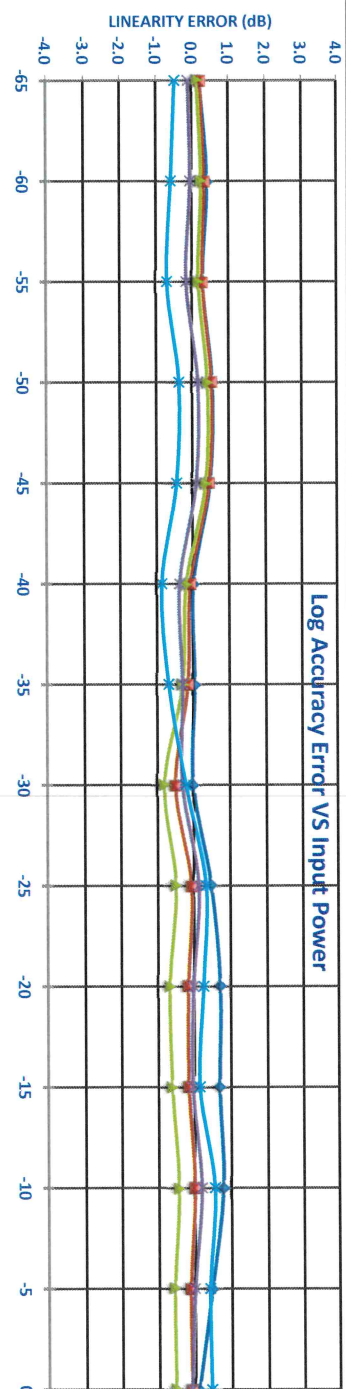
Flatness +/- dB 0.70

0.34	0.50	0.49	0.46	0.46	0.44	0.36	0.40	0.49	0.70	0.65	0.61	0.52	0.49
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Linearity Error VS Input Power



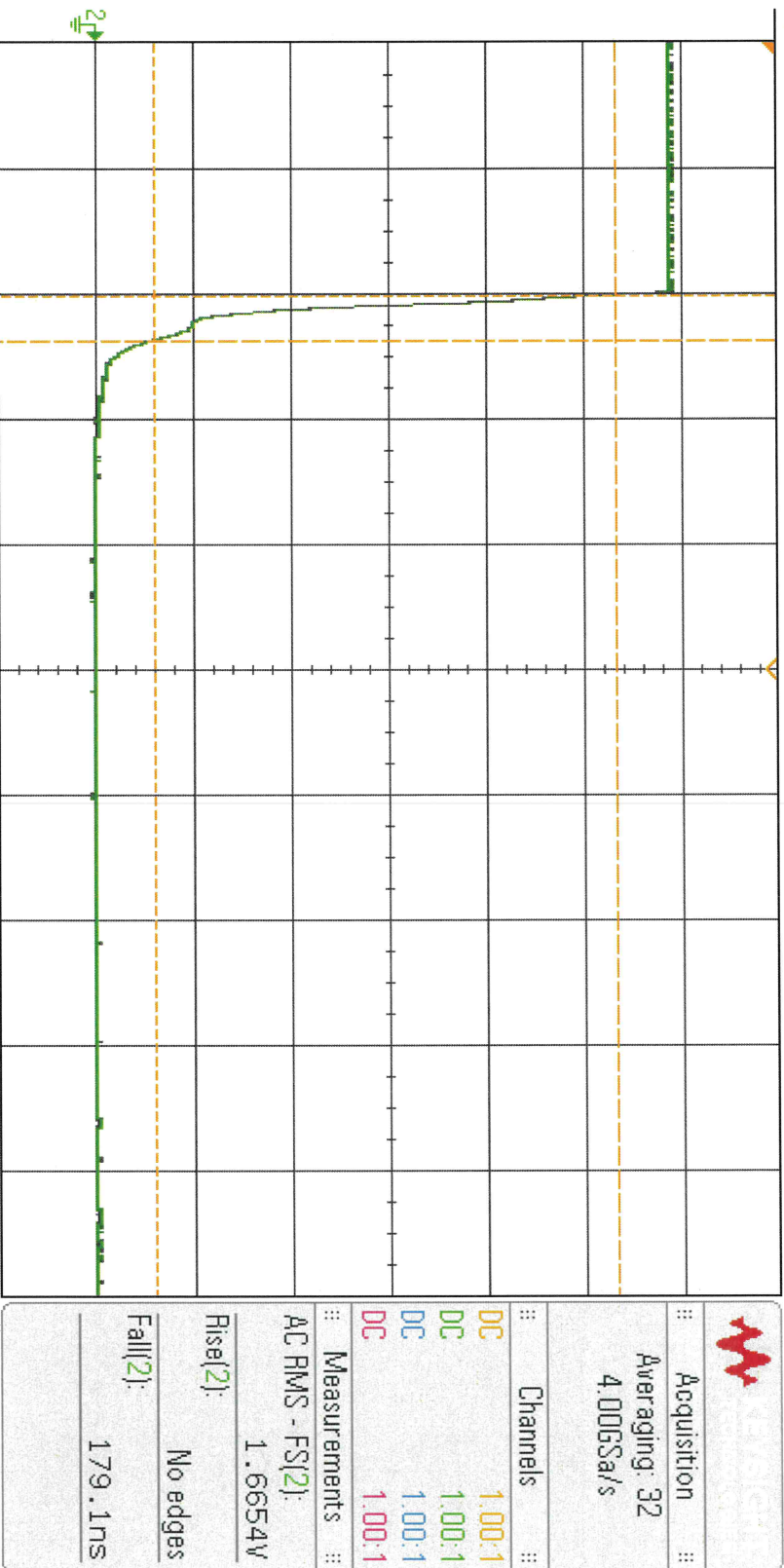
Log Accuracy Error VS Input Power



PL#2379 Recovery

DSO-X 3034A, MW52394003: Mon Nov 04 12:16:49 2024

1 2 700V/ 3 25.05ms 500.0ns/ 4 Auto f E 2.51V



Measurement Menu

Source 2 Type: Fall Add Measurement Settings Clear Meas Statistics

PL42379

Rise Time

