



Rev: A1



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

13	SW Linear Gain	+7 dB MIN, 15 dB MAX	+13.26 dB MAX +10.86 dB MIN	PMI QA3
14	SW Frequency Flatness:	±1.2 dB MAX	±1.2 dB	
15	SW 1 dB Compression Point:	+3 dBm MIN	+7.01 dBm	
16	SW Second Harmonic:	-9 dBc MIN	-27 dBc	
17	SW Third Harmonic:	-12 dBc MIN	-23 dBc	
18	VIDEO OUT TSS:	-71 dBm MAX	-1.07 dBm	
19	VIDEO OUT Dynamic Range:	-65 to 0 dBm	-65 to 0 dBm	
20	VIDEO OUT Log Slope Fixed:	70 ± 3mV/dB	71.2 mV/dB	
21	VIDEO OUT Log Linearity:	±0.75 dB MAX @ 4 GHZ	±0.34 dB	
22	VIDEO OUT Log Accuracy:	±1.25 dB MAX	±1.07 dB	
23	VIDEO OUT Absolute Log Accuracy:	±1.5 dB MAX	±1.31 dB	
24	VIDEO OUT DC Offset:	0 ±70 mV (RF Input Terminated & DC Power On)	18 mV	
25	VIDEO OUT Rise Time (10% to 90%):	25 ns TYP 28 ns MAX	24.8 ns	
26	VIDEO OUT Fall Time (90% to 10%):	300 ns MAX	130.6 ns	
27	VIDEO OUT Settling Time:	50 ns With in ±70 mV of final value, MAX	< 50 ns	
28	VIDEO OUT Recovery Time:	0.5 us MAX to within 1 dB of baseline	0.45 us	



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

29	VIDEO OUT Video Frequency Flatness:	± 1.0 dB MAX	± 0.89 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	2.1 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	< 150 mV	



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

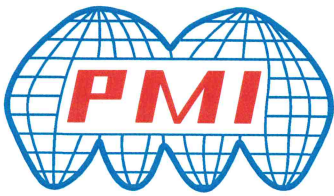
36	Droop of the Output Video Pulse @ 300us & - 65 dBm	70mV (1 dB) MAX	< 70 mV	PMI QA3
37	VIDEO OUT Propagation Delay:	50 ns MAX Excluding cable	40 ns	
38	Power Supply	+15 V @ 1000 mA MAX -15 V @ 500 mA MAX	+15 V @ 632 mA -15 V @ 134 mA	
39	Power Supply Ripple From DC to 10 MHz	100 mV MAX	PASS	

QA/QC Approval:

K. Luter

Date:

6-27-24



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

Model: EWDM-2G6G-65-70MV-1
Serial No: PL46502
Date: 06/27/2024
Tested By: J. Monley
Test Temp: +25°C
Input Port: RF Port

DC Offset: 14 mV



Frequency

2 GHz	INTERCEPT (mV)	4834
	SLOPE (mV/dB)	69.2
	MAX LIN ERROR	0.63
	MAX ACC ERROR	0.74

3 GHz	INTERCEPT (mV)	4936
	SLOPE (mV/dB)	70.5
	MAX LIN ERROR	0.19
	MAX ACC ERROR	0.87

4 GHz	INTERCEPT (mV)	4908
	SLOPE (mV/dB)	70.7
	MAX LIN ERROR	0.34
	MAX ACC ERROR	0.54

5 GHz	INTERCEPT (mV)	4900
	SLOPE (mV/dB)	71
	MAX LIN ERROR	0.33
	MAX ACC ERROR	0.38

6 GHz	INTERCEPT (mV)	4868
	SLOPE (mV/dB)	71.2
	MAX LIN ERROR	0.47
	MAX ACC ERROR	1

AVG. SLOPE: 70.5 mV/dB

-65	-60	-55	-50	-45	-40	-35	-30	-25	-20	-15	-10	-5	0
323	687	1041	1386	1738	2070	2410	2721	3072	3426	3786	4161	4524	4835
-11	7	14	13	19	5	-1	-36	-32	-24	-10	19	36	1
-0.16	0.09	0.21	0.19	0.28	0.07	-0.02	-0.53	-0.46	-0.34	-0.14	0.27	0.62	0.01
0.28	0.44	0.46	0.35	0.34	0.05	-0.13	-0.72	-0.74	-0.72	-0.62	-0.30	-0.15	-0.74

-65	-60	-55	-50	-45	-40	-35	-30	-25	-20	-15	-10	-5	0
349	713	1070	1411	1764	2104	2470	2827	3171	3537	3880	4233	4586	4930
-7	5	10	-2	-1	-14	0	5	-4	10	1	1	2	-6
-0.09	0.07	0.14	-0.03	-0.02	-0.19	0.00	0.07	-0.05	0.14	0.01	0.02	0.03	-0.09
0.65	0.81	0.87	0.70	0.71	0.53	0.72	0.78	0.86	0.85	0.71	0.72	0.73	0.60

-65	-60	-55	-50	-45	-40	-35	-30	-25	-20	-15	-10	-5	0
304	668	1018	1368	1718	2062	2442	2810	3163	3508	3838	4189	4535	4916
-6	4	0	-3	-7	-17	10	24	13	15	-9	-12	-19	8
-0.09	0.05	0.00	-0.05	-0.10	-0.24	0.14	0.34	0.19	0.21	-0.13	-0.16	-0.27	0.11
0.01	0.17	0.13	0.09	0.06	-0.06	0.32	0.54	0.41	0.44	0.12	0.10	0.00	0.40

-65	-60	-55	-50	-45	-40	-35	-30	-25	-20	-15	-10	-5	0
286	646	994	1347	1696	2042	2422	2794	3137	3489	3822	4180	4531	4914
1	6	-1	-3	-9	-18	7	24	12	9	-13	-10	-14	14
0.01	0.08	-0.02	-0.05	-0.13	-0.26	0.09	0.33	0.16	0.12	-0.19	-0.15	-0.20	0.19
-0.25	-0.14	-0.21	-0.20	-0.25	-0.35	0.04	0.32	0.18	0.17	-0.11	-0.03	-0.05	0.38

-65	-60	-55	-50	-45	-40	-35	-30	-25	-20	-15	-10	-5	0
258	608	951	1310	1648	1996	2374	2748	3101	3447	3777	4144	4505	4902
16	10	-2	1	-17	-25	-3	15	12	2	-24	-12	-7	34
0.23	0.15	-0.03	0.01	-0.24	-0.35	-0.04	0.21	0.17	0.03	-0.33	-0.17	-0.10	0.47
-0.65	-0.68	-0.82	-0.73	-0.94	-1.00	-0.64	-0.34	-0.33	-0.43	-0.75	-0.54	-0.42	0.21

-65	-60	-55	-50	-45	-40	-35	-30	-25	-20	-15	-10	-5	0
0.65	0.74	0.84	0.72	0.82	0.77	0.68	0.75	0.70	0.79	0.73	0.63	0.57	0.67

RF Input Power (dBm)

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

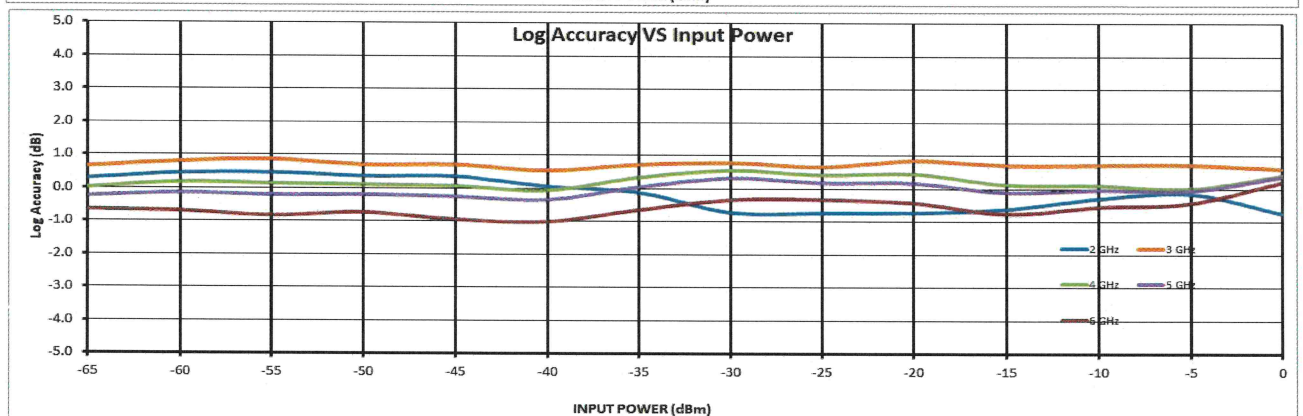
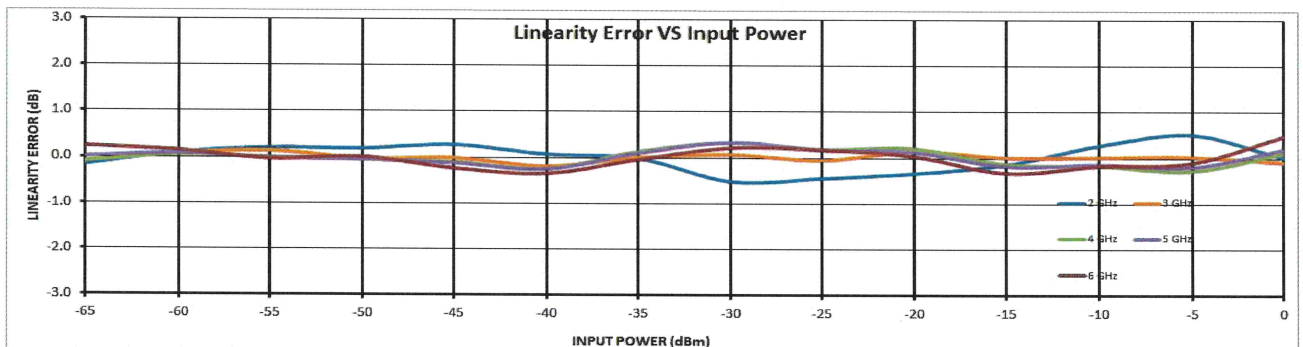
Measured Value (mV)
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LINEARITY ERROR (dB)
LOG ACCURACY (dB)

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ERROR (mV)
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LOG ACCURACY (dB)

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ERROR (mV)
LINEARITY ERROR (dB)
LOG ACCURACY (dB)

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

Flatness dB: ±0.84 dB





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

Model: EWDM-2G6G-65-70MV-1
Serial No: PL46502
Date: 06/27/2024
Tested By: J. Monley
Test Temp: +25°C
Input Port: BIT Port

DC Offset: 18 mV



Frequency

2 GHz	INTERCEPT (mV)	4823
	SLOPE (mV/dB)	69.2
	MAX LIN ERROR	0.60
	MAX ACC ERROR	0.76

3 GHz	INTERCEPT (mV)	4924
	SLOPE (mV/dB)	70.4
	MAX LIN ERROR	0.2
	MAX ACC ERROR	0.87

4 GHz	INTERCEPT (mV)	4892
	SLOPE (mV/dB)	70.7
	MAX LIN ERROR	0.32
	MAX ACC ERROR	0.48

5 GHz	INTERCEPT (mV)	4884
	SLOPE (mV/dB)	71
	MAX LIN ERROR	0.33
	MAX ACC ERROR	0.42

6 GHz	INTERCEPT (mV)	4851
	SLOPE (mV/dB)	71.2
	MAX LIN ERROR	0.46
	MAX ACC ERROR	1.07

AVG. SLOPE: 70.5 mV/dB

	-65	-60	-55	-50	-45	-40	-35	-30	-25	-20	-15	-10	-5	0
310	676	1029	1375	1725	2057	2398	2711	3063	3416	3776	4151	4512	4821	
-12	7	14	14	18	3	-2	-35	-29	-22	-9	20	35	-2	
-0.18	0.11	0.20	0.20	0.26	0.05	-0.03	-0.50	-0.42	-0.32	-0.12	0.29	0.50	-0.03	
0.26	0.45	0.46	0.37	0.33	0.04	-0.13	-0.69	-0.69	-0.69	-0.58	-0.26	-0.14	-0.76	
338	704	1058	1401	1753	2092	2457	2816	3161	3526	3867	4220	4574	4916	
-7	6	8	-1	-1	-14	-1	5	-2	11	0	1	3	-8	
-0.11	0.09	0.12	-0.01	-0.02	-0.20	-0.02	0.08	-0.02	0.16	0.00	0.01	0.04	-0.11	
0.66	0.85	0.87	0.74	0.73	0.54	0.71	0.80	0.70	0.87	0.71	0.72	0.74	0.59	
291	653	1002	1354	1700	2046	2422	2793	3139	3493	3822	4174	4520	4900	
-4	4	0	-2	-9	-17	5	23	15	15	-9	-11	-18	8	
-0.06	0.06	0.00	-0.03	-0.13	-0.24	0.08	0.32	0.21	0.22	-0.13	-0.15	-0.26	0.11	
-0.01	0.13	0.08	0.07	-0.02	-0.12	0.22	0.48	0.38	0.40	0.07	0.06	-0.03	0.36	
272	629	977	1333	1679	2025	2405	2778	3124	3473	3806	4164	4515	4898	
2	4	-3	-2	-11	-20	5	24	15	9	-13	-10	-14	14	
0.03	0.06	-0.04	-0.02	-0.15	-0.27	0.08	0.33	0.20	0.12	-0.19	-0.15	-0.20	0.19	
-0.28	-0.21	-0.28	-0.23	-0.32	-0.42	-0.03	0.26	0.17	0.12	-0.16	-0.08	-0.10	0.33	
245	592	933	1296	1630	1979	2355	2730	3087	3430	3762	4127	4489	4884	
19	10	-4	3	-19	-26	-6	14	15	2	-22	-13	-6	33	
0.27	0.14	-0.06	0.04	-0.27	-0.36	-0.08	0.19	0.21	0.03	-0.31	-0.18	-0.09	0.46	
-0.66	-0.74	-0.90	-0.75	-1.02	-1.07	-0.73	-0.42	-0.35	-0.49	-0.78	-0.60	-0.47	0.13	
0.66	0.79	0.89	0.74	0.87	0.80	0.72	0.74	0.69	0.78	0.74	0.66	0.60	0.67	

RF Input Power (dBm)

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

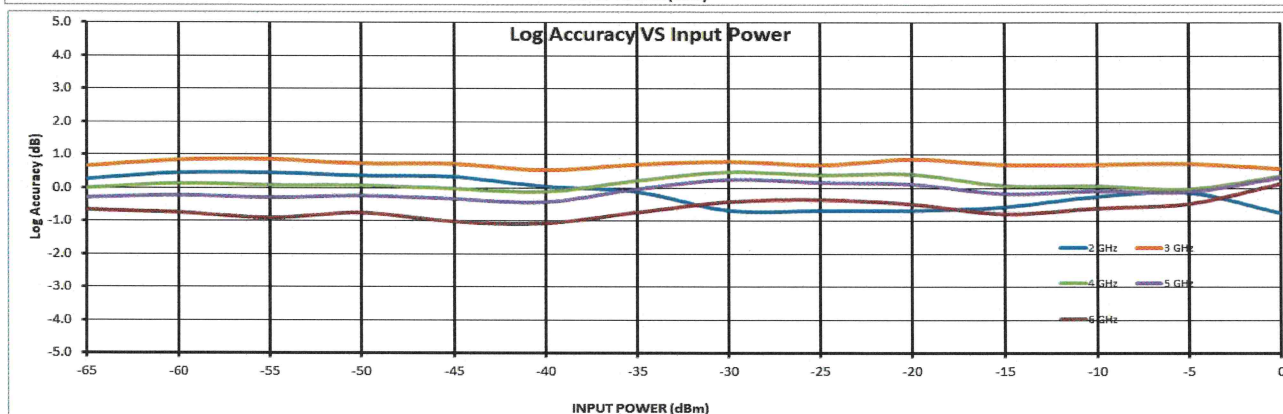
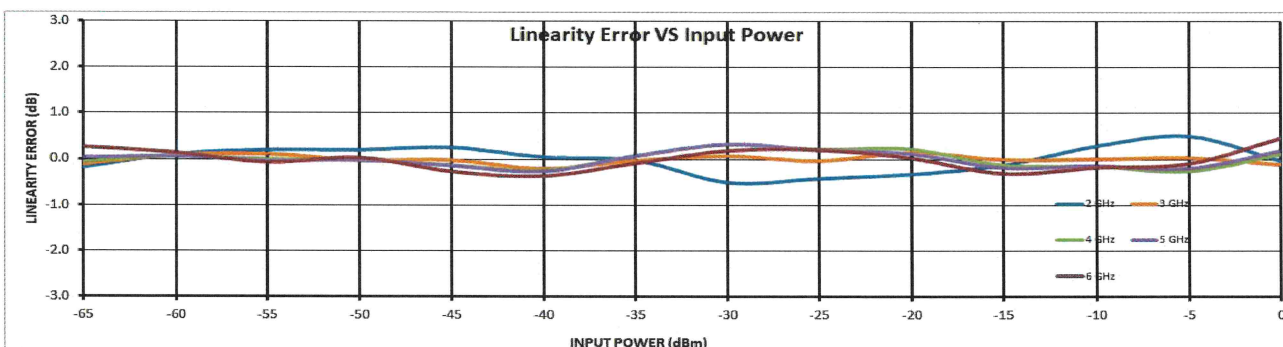
Measured Value (mV)	
ERROR (mV)	
LINEARITY ERROR (dB)	
LOG ACCURACY (dB)	

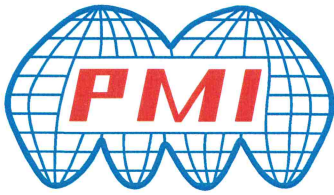
Measured Value (mV)	
ERROR (mV)	
LINEARITY ERROR (dB)	
LOG ACCURACY (dB)	

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

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

Flatness dB: ±0.89 dB





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

Model: EWDM-2G6G-65-70MV-1
Serial No: PL46502
Date:: 06/27/2024
Tested By: J. Monley
Test Temp: 0°C
Input Port: RF Port

DC Offset: 24 mV



Frequency

2 GHz	INTERCEPT (mV)	4871
	SLOPE (mV/dB)	69.7
	MAX LIN ERROR	0.66
	MAX ACC ERROR	0.82

-65	-60	-55	-50	-45	-40	-35	-30	-25	-20	-15	-10	-5	0
330	699	1056	1403	1758	2090	2431	2743	3095	3451	3814	4191	4560	4879
-13	8	16	15	22	5	-2	-38	-35	-27	-12	16	37	8
-0.19	0.11	0.23	0.22	0.31	0.08	-0.03	-0.55	-0.50	-0.39	-0.18	0.23	0.53	0.11
0.16	0.36	0.40	0.30	0.31	-0.01	-0.19	-0.79	-0.82	-0.80	-0.67	-0.35	-0.15	-0.64

RF Input Power (dBm)

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

3 GHz	INTERCEPT (mV)	4971
	SLOPE (mV/dB)	70.9
	MAX LIN ERROR	0.17
	MAX ACC ERROR	0.81

359	725	1085	1429	1784	2125	2490	2848	3193	3562	3909	4263	4618	4971
-7	5	11	0	1	-12	-2	2	-7	8	0	0	1	0
-0.10	0.07	0.15	0.00	0.01	-0.17	-0.02	0.03	-0.10	0.11	0.01	0.00	0.01	-0.01
0.56	0.73	0.81	0.67	0.68	0.49	0.64	0.69	0.56	0.77	0.67	0.66	0.67	0.66

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

4 GHz	INTERCEPT (mV)	4944
	SLOPE (mV/dB)	71
	MAX LIN ERROR	0.3
	MAX ACC ERROR	0.51

321	687	1039	1390	1744	2089	2468	2836	3179	3536	3869	4223	4569	4954
-7	4	1	-3	-4	-14	10	22	11	13	-10	-11	-20	10
-0.10	0.06	0.01	-0.05	-0.06	-0.20	0.13	0.30	0.15	0.18	-0.13	-0.15	-0.28	0.16
0.03	0.19	0.16	0.12	0.11	-0.02	0.33	0.51	0.36	0.40	0.10	0.10	-0.02	0.42

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

5 GHz	INTERCEPT (mV)	4939
	SLOPE (mV/dB)	71.3
	MAX LIN ERROR	0.32
	MAX ACC ERROR	0.44

302	663	1014	1369	1722	2069	2450	2822	3165	3519	3855	4215	4566	4956
0	4	-1	-3	-7	-16	8	23	9	7	-14	-11	-16	17
0.00	0.06	-0.02	-0.04	-0.10	-0.23	0.11	0.32	0.13	0.10	-0.19	-0.15	-0.23	0.24
-0.24	-0.14	-0.19	-0.18	-0.20	-0.30	0.08	0.33	0.17	0.16	-0.10	-0.01	-0.06	0.44

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

6 GHz	INTERCEPT (mV)	4907
	SLOPE (mV/dB)	71.4
	MAX LIN ERROR	0.6
	MAX ACC ERROR	0.87

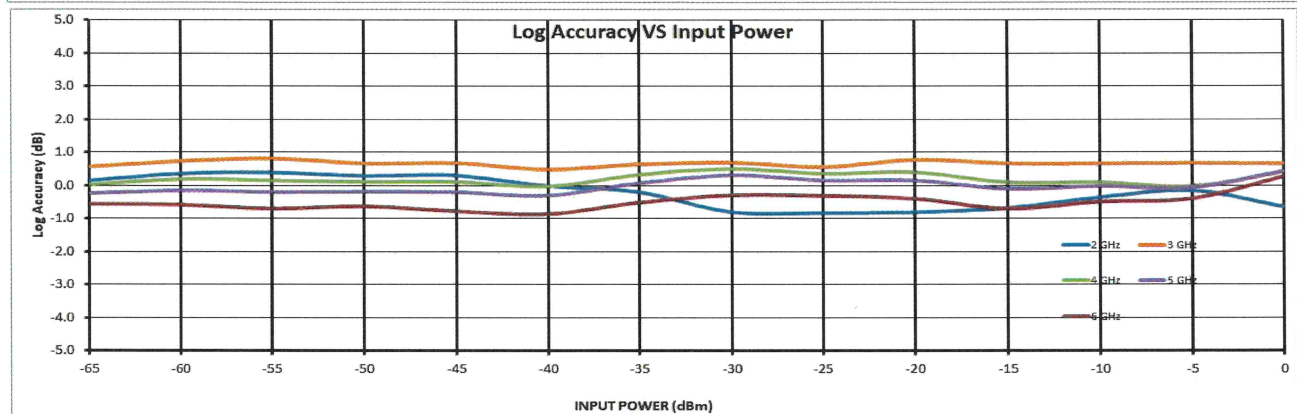
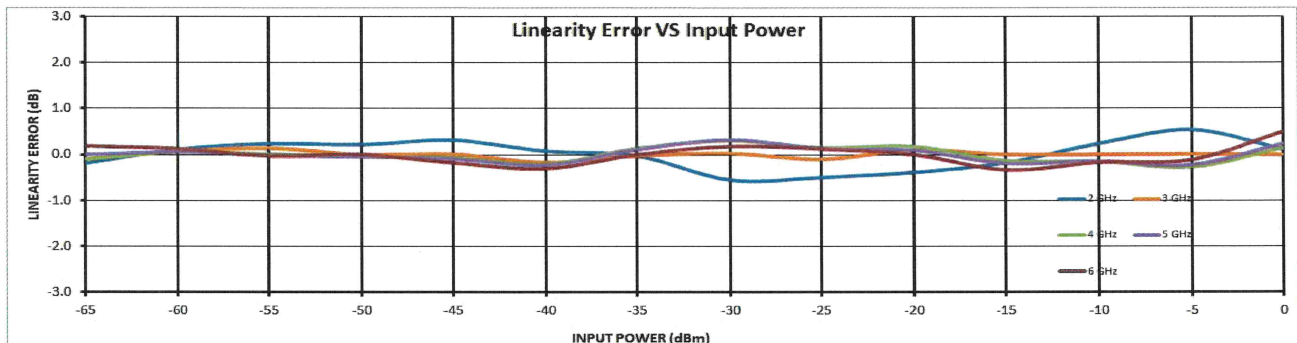
279	632	970	1337	1681	2029	2408	2778	3131	3479	3812	4181	4542	4943
13	9	-2	0	-13	-22	0	13	9	0	-24	-12	-9	36
0.19	0.13	-0.02	0.00	-0.18	-0.31	0.00	0.18	0.13	0.00	-0.34	-0.17	-0.12	0.50
-0.56	-0.58	-0.70	-0.63	-0.78	-0.87	-0.52	-0.30	-0.31	-0.40	-0.70	-0.49	-0.40	0.26

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

AVG. SLOPE: 70.9 mV/dB

0.56	0.66	0.76	0.65	0.73	0.68	0.58	0.74	0.69	0.78	0.68	0.58	0.54	0.65
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Flatness dB: ±0.78 dB





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

Model: EWDM-2G6G-65-70MV-1
Serial No: PL46502
Date: 06/27/2024
Tested By: J. Monley
Test Temp: +85°C
Input Port: RF Port

DC Offset: 9 mV



Frequency

2 GHz	INTERCEPT (mV)	4684
	SLOPE (mV/dB)	68
	MAX LIN ERROR	0.60
	MAX ACC ERROR	1.31

3 GHz	INTERCEPT (mV)	4800
	SLOPE (mV/dB)	69.3
	MAX LIN ERROR	0.58
	MAX ACC ERROR	1.29

4 GHz	INTERCEPT (mV)	4770
	SLOPE (mV/dB)	70.1
	MAX LIN ERROR	0.56
	MAX ACC ERROR	0.77

5 GHz	INTERCEPT (mV)	4765
	SLOPE (mV/dB)	70.1
	MAX LIN ERROR	0.55
	MAX ACC ERROR	0.69

6 GHz	INTERCEPT (mV)	4731
	SLOPE (mV/dB)	70.6
	MAX LIN ERROR	0.49
	MAX ACC ERROR	1.25

AVG. SLOPE: 69.6 mV/dB

-65	-60	-55	-50	-45	-40	-35	-30	-25	-20	-15	-10	-5	0
234	595	952	1303	1638	1971	2309	2632	2979	3315	3666	4029	4356	4650
-29	-8	9	20	15	8	6	-12	-5	-9	2	25	12	-34
-0.42	-0.12	0.13	0.29	0.22	0.11	0.08	-0.17	-0.07	-0.13	0.03	0.37	0.18	-0.60
0.28	0.46	0.59	0.63	0.44	0.22	0.07	-0.29	-0.31	-0.48	-0.44	-0.23	-0.53	-1.31
266	644	994	1339	1678	2017	2379	2742	3082	3430	3760	4113	4456	4760
-28	3	6	5	-3	-10	5	22	15	16	0	6	3	-40
-0.41	0.04	0.09	0.07	-0.04	-0.15	0.07	0.31	0.22	0.24	0.00	0.09	0.04	-0.58
0.74	1.17	1.19	1.15	1.01	0.88	1.08	1.29	1.17	1.17	0.91	0.98	0.90	0.27
204	563	913	1268	1599	1948	2323	2706	3063	3389	3708	4067	4403	4763
-8	-10	-1	4	-16	-17	7	39	36	21	-10	-12	-16	-17
-0.12	-0.14	-0.01	0.05	-0.23	-0.26	0.10	0.66	0.51	0.30	-0.15	-0.17	-0.23	-0.24
-0.15	-0.14	0.03	0.13	-0.12	-0.11	0.27	0.77	0.76	0.58	0.16	0.17	0.14	0.17
199	546	908	1263	1594	1944	2318	2700	3044	3377	3701	4055	4402	4750
-7	-11	0	5	-15	-16	8	39	32	14	-12	-9	-13	-15
-0.10	-0.16	0.00	0.07	-0.21	-0.22	0.11	0.65	0.46	0.21	-0.17	-0.13	-0.18	-0.22
-0.22	-0.24	-0.04	0.05	-0.19	-0.17	0.20	0.69	0.63	0.41	0.06	0.14	0.13	0.12
163	476	850	1205	1528	1880	2251	2640	3000	3327	3649	4010	4373	4744
23	-17	4	6	-24	-26	-8	28	35	9	-23	-16	-5	13
0.33	-0.24	0.06	0.08	-0.35	-0.36	-0.11	0.40	0.49	0.12	-0.32	-0.21	-0.07	0.18
-0.74	-1.25	-0.88	-0.78	-1.14	-1.09	-0.76	-0.17	0.00	-0.31	-0.69	-0.50	-0.29	0.04
0.74	1.21	1.03	0.96	1.08	0.98	0.92	0.79	0.74	0.83	0.80	0.74	0.72	0.79

RF Input Power (dBm)

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

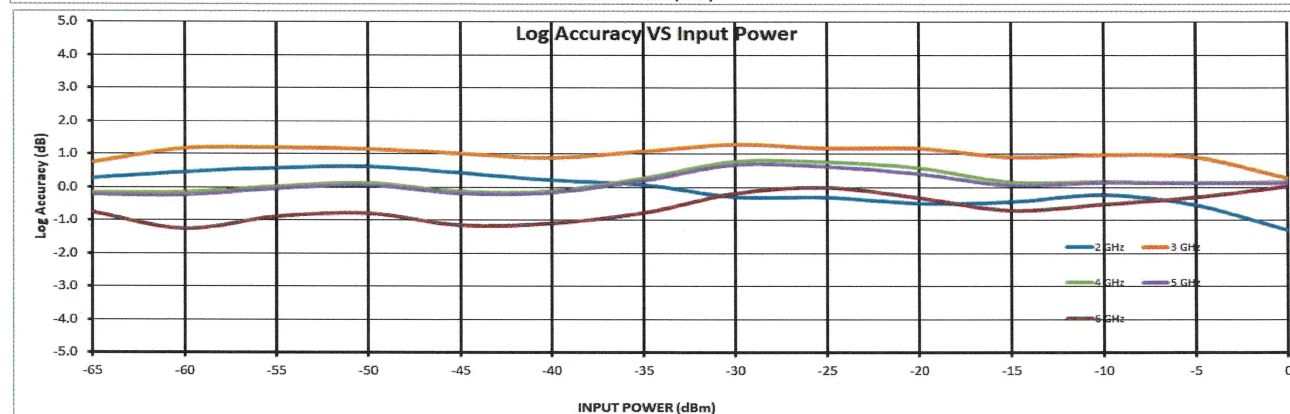
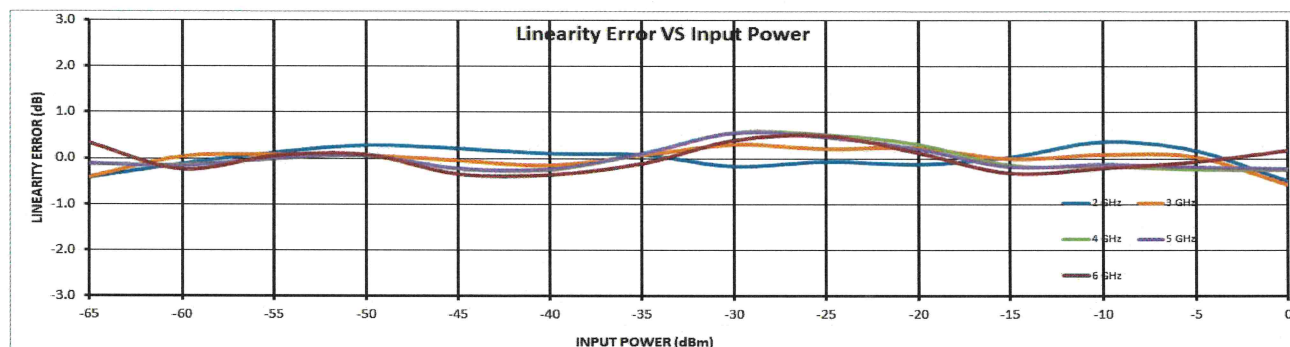
Measured Value (mV)
ERROR (mV)
LINEARITY ERROR (dB)
LOG ACCURACY (dB)

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

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

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

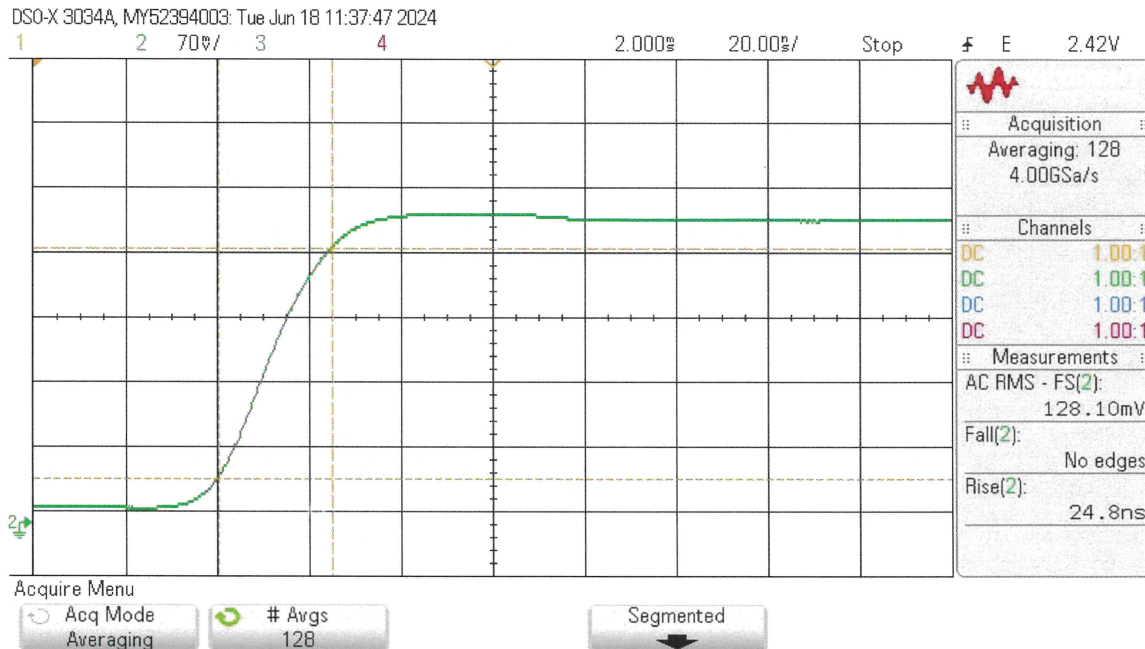
Flatness dB: ±1.21 dB



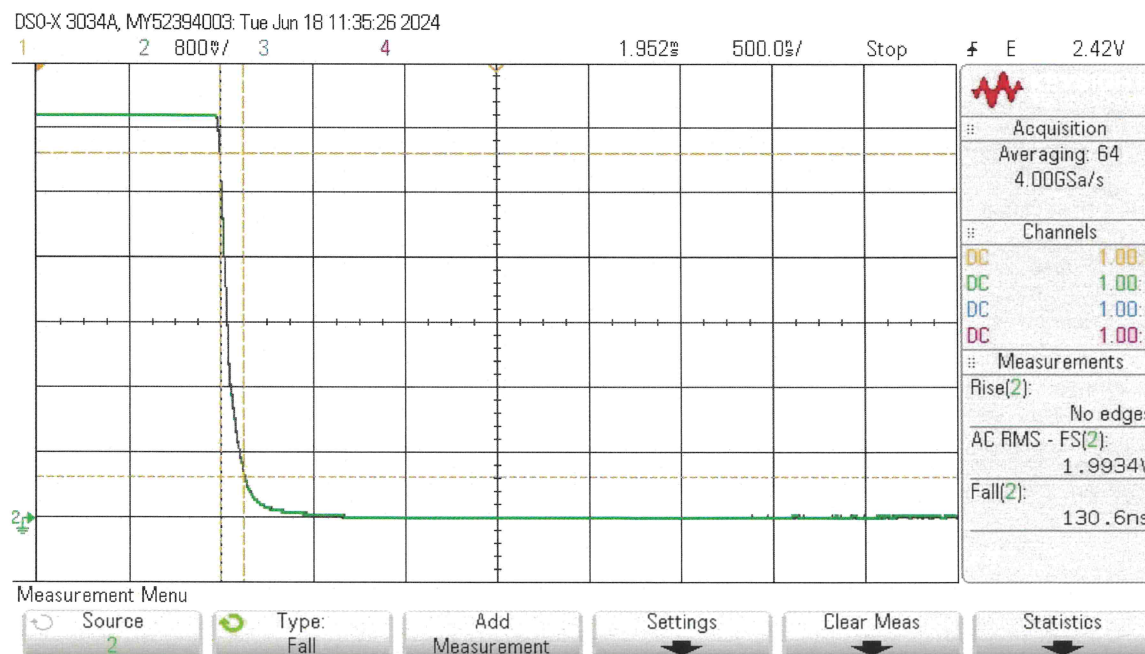


Summary Data
For
EWDM-2G6G-65-70MV-1

Rise Time



Fall and Recovery Time





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

Settling Time

