



Tested By: Joshua Monley

Temperature: 0°C TO +85°C

Date 4/30/2024

Drawing No: 27637945

Rev: A1

7311-F Grove Road Frederick, MD 21704 USA

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

13	SW Linear Gain	+7 dB MIN, 15 dB MAX	+11.04 dB MAX +10.43 dB MIN	PMI QA3
14	SW Frequency Flatness:	±1.2 dB MAX	±0.3 dB	
15	SW 1 dB Compression Point:	+3 dBm MIN	+7.3 dBm	
16	SW Second Harmonic:	-9 dBc MIN	-24 dBc	
17	SW Third Harmonic:	-12 dBc MIN	-43 dBc	
18	VIDEO OUT TSS:	-71 dBm MAX	-71.3 dBm	
19	VIDEO OUT Dynamic Range:	-65 to 0 dBm	-65 to 0 dBm	
20	VIDEO OUT Log Slope Fixed:	70 ± 3mV/dB	70.9 mV/dB	
21	VIDEO OUT Log Linearity:	±0.75 dB MAX @ 4 GHZ	±0.41 dB	
22	VIDEO OUT Log Accuracy:	±1.25 dB MAX	±-1.08 dB	
23	VIDEO OUT Absolute Log Accuracy:	±1.5 dB MAX	±-1.17 dB	
24	VIDEO OUT DC Offset:	0 ±70 mV (RF Input Terminated & DC Power On)	-13 mV	
25	VIDEO OUT Rise Time (10% to 90%):	25 ns TYP 28 ns MAX	25.8 ns	
26	VIDEO OUT Fall Time (90% to 10%):	300 ns MAX	144.1 ns	
27	VIDEO OUT Settling Time:	50 ns With in ±70 mV of final value, MAX	21.42 ns	
28	VIDEO OUT Recovery Time:	0.5 us MAX to within 1 dB of baseline	0.404 us	



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

29	VIDEO OUT Video Frequency Flatness:	± 1.0 dB MAX	± 0.76 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	1.74 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 @ 635 mA -15 V @ 134 mA	
39	Power Supply Ripple From DC to 10 MHz	100 mV MAX	Pass/Fail	

QA/QC Approval: K. Luter

Date: 4-30-24



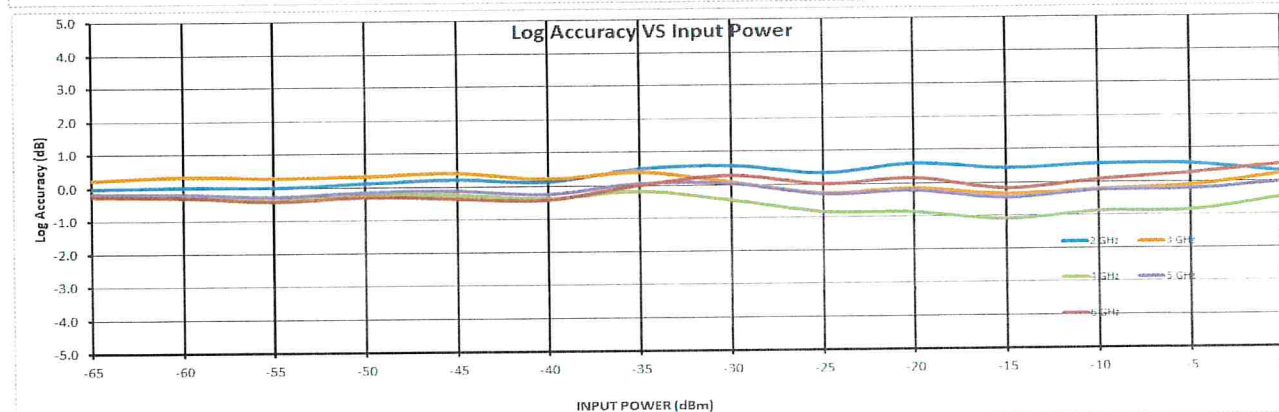
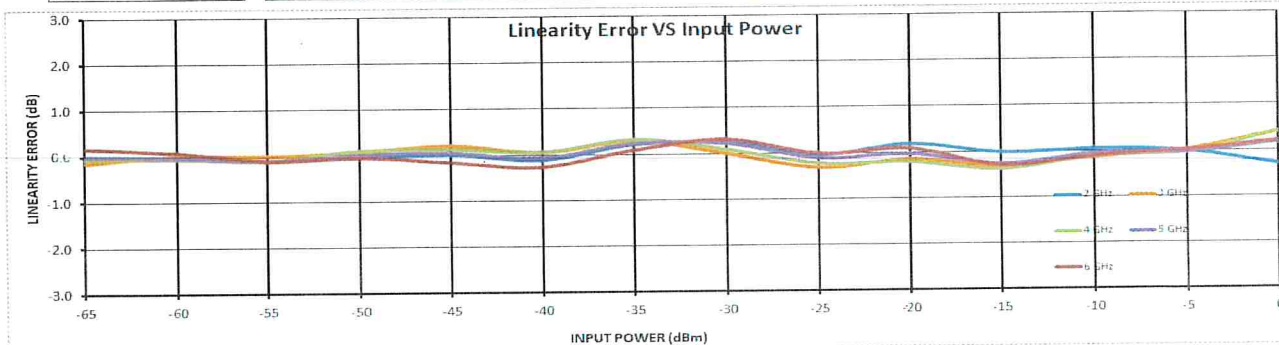
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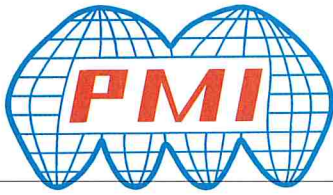
Model: EWDM-2G6G-65-70MV-1
Serial No: PL42370
Date:: 04/29/2024
Tested By: J. Monley
Test Temp: +25°C
Input Port: RF Port

DC Offset: -13 mV



Frequency		-65	-60	-55	-50	-45	-40	-35	-30	-25	-20	-15	-10	-5	0	RF Input Power (dBm)
2 GHz	INTERCEPT (mV)	240	592	941	1299	1655	1999	2375	2730	3063	3431	3770	4127	4476	4808	Measured Value (mV)
	SLOPE (mV/dB)	-3	-4	-8	-2	1	-8	15	17	-2	13	-1	3	0	-21	ERROR (mV)
	MAX LIN ERROR	-0.05	-0.06	-0.11	-0.04	0.01	-0.11	0.22	0.25	-0.03	0.18	-0.01	0.05	0.00	-0.30	LINEARITY ERROR (dB)
	MAX ACC ERROR	-0.02	0.01	0.00	0.12	0.21	0.13	0.50	0.58	0.34	0.60	0.45	0.55	0.54	0.29	LOG ACCURACY (dB)
3 GHz	INTERCEPT (mV)	259	616	962	1315	1670	2006	2369	2696	3021	3379	3715	4074	4431	4804	Measured Value (mV)
	SLOPE (mV/dB)	-10	1	0	6	14	3	20	0	-22	-11	-21	-9	1	27	ERROR (mV)
	MAX LIN ERROR	-0.14	0.01	0.00	0.09	0.21	0.05	0.28	0.00	-0.31	-0.15	-0.31	-0.13	0.02	0.40	LINEARITY ERROR (dB)
	MAX ACC ERROR	0.25	0.35	0.30	0.35	0.42	0.23	0.42	0.09	-0.26	-0.14	-0.34	-0.21	-0.10	0.23	LOG ACCURACY (dB)
4 GHz	INTERCEPT (mV)	226	573	915	1276	1623	1964	2328	2658	2982	3329	3663	4028	4379	4755	Measured Value (mV)
	SLOPE (mV/dB)	-4	-3	-7	8	9	4	22	7	-15	-14	-26	-7	-2	28	ERROR (mV)
	MAX LIN ERROR	-0.06	-0.04	-0.10	0.12	0.13	0.06	0.32	0.09	-0.22	-0.21	-0.38	-0.10	-0.03	0.41	LINEARITY ERROR (dB)
	MAX ACC ERROR	-0.22	-0.26	-0.37	-0.21	-0.25	-0.37	-0.17	-0.45	-0.82	-0.86	-1.08	-0.86	-0.85	-0.47	LOG ACCURACY (dB)
5 GHz	INTERCEPT (mV)	230	578	922	1281	1632	1973	2345	2693	3019	3374	3707	4072	4423	4787	Measured Value (mV)
	SLOPE (mV/dB)	0	-2	-7	2	3	-5	17	16	-8	-3	-19	-4	-2	12	ERROR (mV)
	MAX LIN ERROR	0.00	-0.03	-0.11	0.03	0.05	-0.07	0.25	0.22	-0.11	-0.04	-0.27	-0.05	-0.03	0.17	LINEARITY ERROR (dB)
	MAX ACC ERROR	-0.16	-0.19	-0.27	-0.14	-0.12	-0.24	0.07	0.05	-0.29	-0.21	-0.45	-0.24	-0.22	-0.01	LOG ACCURACY (dB)
6 GHz	INTERCEPT (mV)	224	571	912	1270	1615	1961	2340	2709	3040	3400	3727	4094	4456	4823	Measured Value (mV)
	SLOPE (mV/dB)	12	6	-7	-3	-11	-19	7	22	-1	6	-21	-7	1	14	ERROR (mV)
	MAX LIN ERROR	0.17	0.08	-0.10	-0.04	-0.16	-0.26	0.09	0.31	-0.01	0.08	-0.29	-0.10	0.01	0.20	LINEARITY ERROR (dB)
	MAX ACC ERROR	-0.25	-0.29	-0.41	-0.30	-0.36	-0.42	0.00	0.28	0.01	0.16	-0.17	0.08	0.25	0.50	LOG ACCURACY (dB)
AVG. SLOPE: 69.9 mV/dB		0.25	0.32	0.36	0.32	0.39	0.32	0.34	0.51	0.58	0.73	0.76	0.71	0.69	0.49	Flatness dB: ±0.76 dB





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

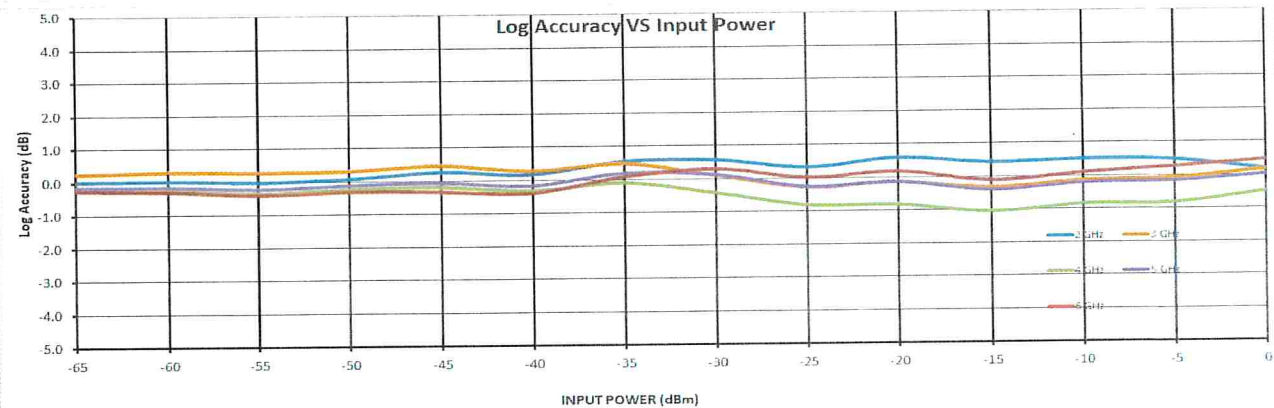
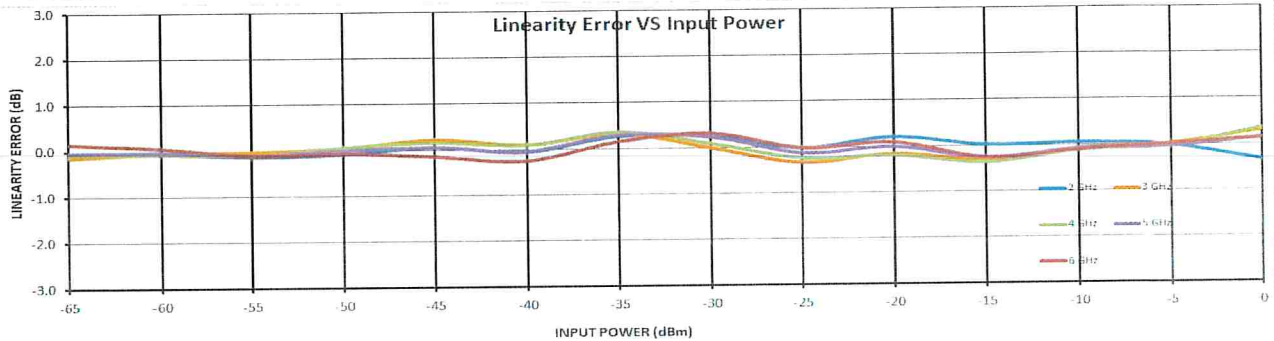
Model: EWDM-2G6G-65-70MV-1
Serial No: PL42370
Date: 04/29/2024
Tested By: J. Monley
Test Temp: +25°C
Input Port: BIT Port

DC Offset: -9 mV



Frequency

		-65	-60	-55	-50	-45	-40	-35	-30	-25	-20	-15	-10	-5	0	RF Input Power (dBm)
2 GHz	INTERCEPT (mV)	262	614	962	1319	1682	2027	2404	2756	3090	3459	3799	4155	4503	4833	Measured Value (mV)
	SLOPE (mV/dB)	-4	-5	-10	-6	3	-5	19	18	-2	14	1	4	-2	-25	ERROR (mV)
	MAX LIN ERROR	-0.05	-0.07	-0.14	-0.09	0.05	-0.07	0.27	0.25	-0.02	0.20	0.01	0.05	-0.02	-0.35	LINEARITY ERROR (dB)
	MAX ACC ERROR	0.01	0.03	-0.01	0.08	0.25	0.17	0.55	0.57	0.33	0.59	0.44	0.51	0.48	0.18	LOG ACCURACY (dB)
3 GHz	INTERCEPT (mV)	279	634	983	1336	1696	2035	2399	2724	3049	3409	3747	4111	4465	4833	Measured Value (mV)
	SLOPE (mV/dB)	-10	-2	-1	4	16	7	23	0	-23	-11	-21	-5	1	22	ERROR (mV)
	MAX LIN ERROR	-0.14	-0.03	-0.02	0.05	0.23	0.10	0.33	0.00	-0.33	-0.16	-0.30	-0.07	0.02	0.31	LINEARITY ERROR (dB)
	MAX ACC ERROR	0.25	0.31	0.29	0.32	0.45	0.29	0.48	0.11	-0.26	-0.12	-0.30	-0.11	-0.07	0.18	LOG ACCURACY (dB)
4 GHz	INTERCEPT (mV)	246	594	939	1297	1651	1993	2359	2687	3011	3361	3696	4061	4413	4787	Measured Value (mV)
	SLOPE (mV/dB)	-6	-5	-6	5	12	7	26	7	-16	-13	-25	-7	-2	25	ERROR (mV)
	MAX LIN ERROR	-0.08	-0.07	-0.09	0.07	0.17	0.10	0.37	0.10	-0.23	-0.19	-0.36	-0.10	-0.03	0.36	LINEARITY ERROR (dB)
	MAX ACC ERROR	-0.22	-0.26	-0.34	-0.24	-0.19	-0.31	-0.09	-0.42	-0.80	-0.81	-1.03	-0.83	-0.81	-0.48	LOG ACCURACY (dB)
5 GHz	INTERCEPT (mV)	251	602	948	1306	1660	2004	2379	2725	3050	3409	3742	4106	4459	4822	Measured Value (mV)
	SLOPE (mV/dB)	-3	-2	-7	0	4	-3	21	17	-9	-1	-18	-5	-3	10	ERROR (mV)
	MAX LIN ERROR	-0.04	-0.03	-0.10	0.00	0.05	-0.04	0.30	0.24	-0.13	-0.01	-0.26	-0.07	-0.04	0.14	LINEARITY ERROR (dB)
	MAX ACC ERROR	-0.15	-0.15	-0.21	-0.11	-0.06	-0.16	0.19	0.12	-0.24	-0.12	-0.38	-0.19	-0.15	0.02	LOG ACCURACY (dB)
6 GHz	INTERCEPT (mV)	244	592	935	1292	1641	1988	2372	2738	3069	3431	3761	4127	4489	4853	Measured Value (mV)
	SLOPE (mV/dB)	11	4	-7	-5	-10	-18	11	23	-1	6	-18	-7	1	10	ERROR (mV)
	MAX LIN ERROR	0.16	0.06	-0.10	-0.07	-0.15	-0.25	0.16	0.32	-0.01	0.09	-0.26	-0.10	0.01	0.14	LINEARITY ERROR (dB)
	MAX ACC ERROR	-0.25	-0.29	-0.40	-0.31	-0.33	-0.38	0.09	0.31	0.03	0.19	-0.10	0.11	0.28	0.47	LOG ACCURACY (dB)
AVG. SLOPE: 70.1 mV/dB		0.25	0.30	0.34	0.31	0.39	0.34	0.32	0.49	0.55	0.70	0.73	0.67	0.64	0.47	Flatness dB: ±0.73 dB





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

Model: EWDM-2G6G-65-70MV-1
Serial No: PL42370
Date: 04/29/2024
Tested By: J. Monley
Test Temp: 0°C
Input Port: RF Port

DC Offset: -15 mV



Frequency

2 GHz	INTERCEPT (mV)	4900
	SLOPE (mV/dB)	71.3
	MAX LIN ERROR	0.31
	MAX ACC ERROR	0.66

3 GHz	INTERCEPT (mV)	4848
	SLOPE (mV/dB)	70.2
	MAX LIN ERROR	0.31
	MAX ACC ERROR	0.42

4 GHz	INTERCEPT (mV)	4794
	SLOPE (mV/dB)	69.9
	MAX LIN ERROR	0.36
	MAX ACC ERROR	1.03

5 GHz	INTERCEPT (mV)	4841
	SLOPE (mV/dB)	70.6
	MAX LIN ERROR	0.29
	MAX ACC ERROR	0.42

6 GHz	INTERCEPT (mV)	4874
	SLOPE (mV/dB)	71.3
	MAX LIN ERROR	0.28
	MAX ACC ERROR	0.37

AVG. SLOPE: 70.7 mV/dB

	-65	-60	-55	-50	-45	-40	-35	-30	-25	-20	-15	-10	-5	0
2 GHz	264	615	967	1325	1694	2040	2419	2776	3118	3490	3833	4189	4540	4878
	0	-5	-10	-9	4	-7	15	16	1	16	3	2	-4	-22
	0.00	-0.07	-0.14	-0.12	0.05	-0.10	0.21	0.22	0.01	0.23	0.04	0.03	-0.05	-0.31
	0.01	-0.02	-0.04	0.03	0.25	0.14	0.51	0.56	0.40	0.66	0.51	0.55	0.52	0.30
3 GHz	281	633	985	1340	1704	2046	2413	2740	3074	3438	3778	4143	4495	4867
	-5	-4	-3	1	14	5	22	-2	-19	-6	-17	-3	-2	19
	-0.07	-0.06	-0.04	0.02	0.20	0.08	0.31	-0.03	-0.28	-0.09	-0.24	-0.04	-0.03	0.27
	0.25	0.24	0.22	0.24	0.39	0.23	0.42	0.05	-0.23	-0.07	-0.26	-0.10	-0.12	0.14
4 GHz	245	596	942	1302	1661	2005	2373	2700	3033	3387	3724	4091	4441	4814
	-6	-4	-8	3	12	7	25	3	-14	-9	-22	-4	-4	20
	-0.08	-0.06	-0.11	0.04	0.18	0.10	0.36	0.04	-0.20	-0.13	-0.31	-0.06	-0.05	0.28
	-0.25	-0.29	-0.39	-0.30	-0.22	-0.35	-0.14	-0.52	-0.81	-0.80	-1.03	-0.84	-0.88	-0.61
5 GHz	250	599	947	1305	1667	2013	2389	2735	3068	3430	3767	4132	4482	4848
	1	-3	-9	-4	5	-2	20	13	-7	2	-14	-3	-6	7
	0.01	-0.05	-0.12	-0.06	0.07	-0.03	0.29	0.19	-0.10	0.03	-0.20	-0.04	-0.08	0.10
	-0.18	-0.25	-0.32	-0.26	-0.13	-0.24	0.08	-0.02	-0.31	-0.19	-0.42	-0.26	-0.30	-0.12
6 GHz	252	600	944	1302	1658	2005	2390	2755	3092	3457	3789	4156	4516	4883
	12	4	-9	-7	-8	-17	11	20	0	9	-16	-5	-2	9
	0.17	0.05	-0.12	-0.10	-0.11	-0.24	0.16	0.28	0.00	0.12	-0.22	-0.08	-0.03	0.12
	-0.16	-0.23	-0.36	-0.30	-0.26	-0.35	0.10	0.26	0.03	0.19	-0.11	0.08	0.18	0.37
AVG.	0.25	0.26	0.30	0.27	0.33	0.29	0.33	0.54	0.60	0.73	0.77	0.69	0.70	0.49

RF Input Power (dBm)

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

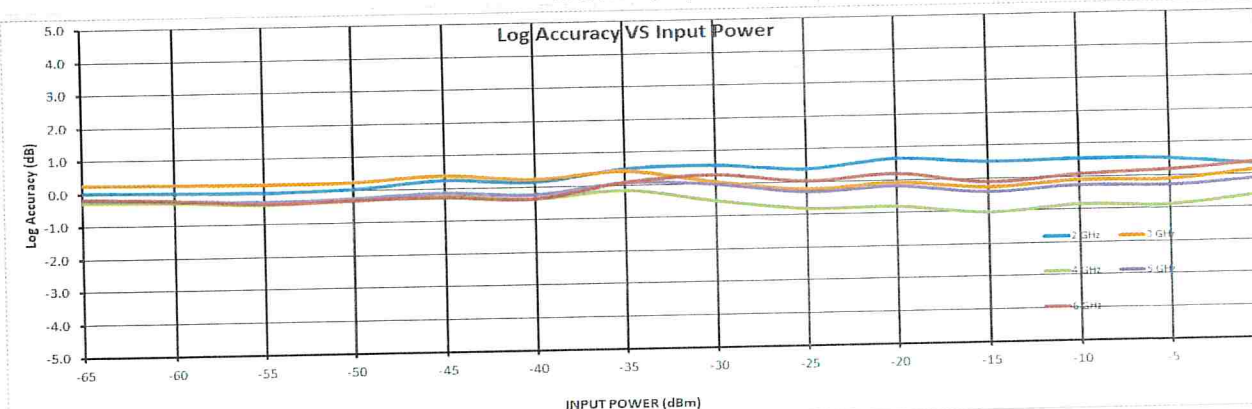
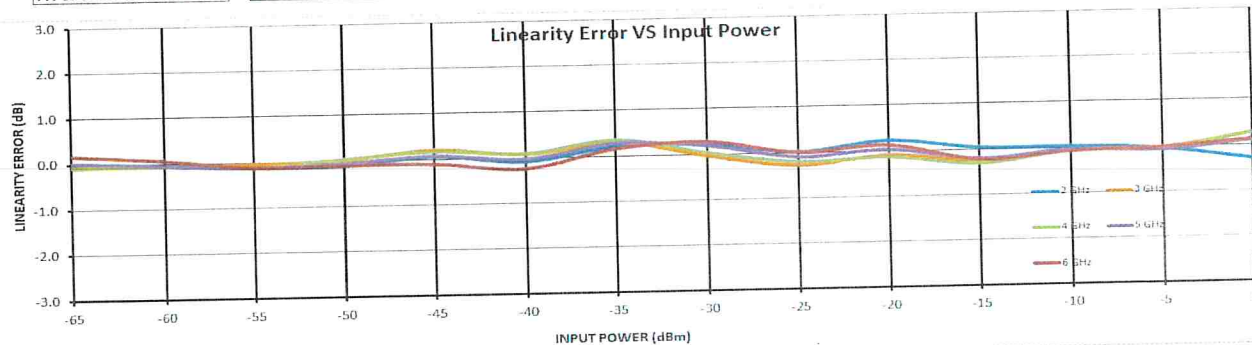
Measured Value (mV)	
ERROR (mV)	
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LOG ACCURACY (dB)	

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: ±0.77 dB





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

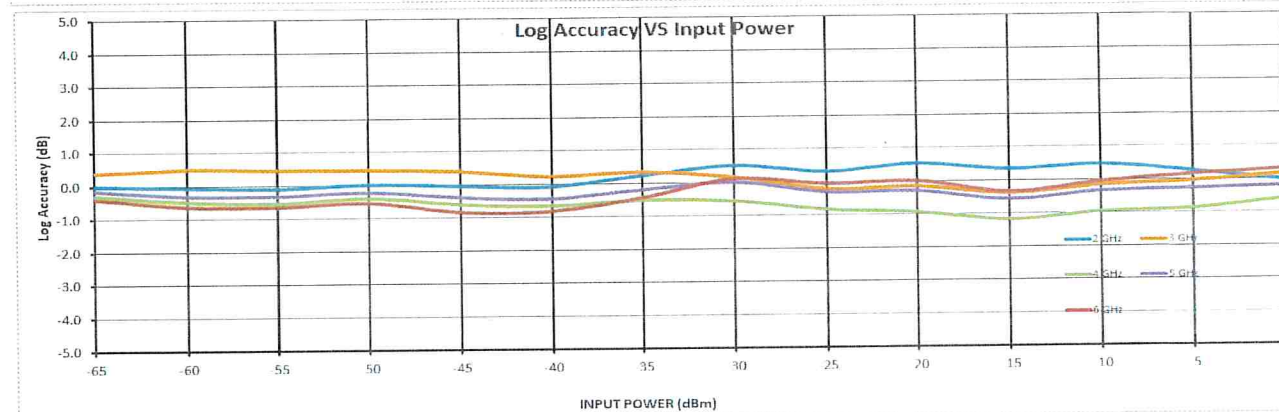
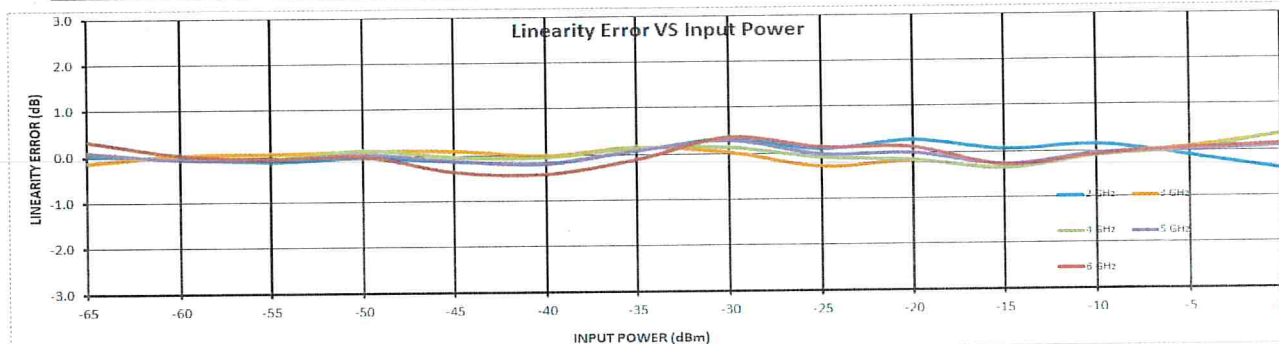
Model: EWDM-2G6G-65-70MV-1
Serial No: PL42370
Date: 04/29/2024
Tested By: J. Monley
Test Temp: +85°C
Input Port: RF Port

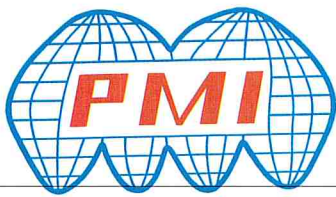
DC Offset: 8 mV



Frequency

		-65	-60	-55	-50	-45	-40	-35	-30	-25	-20	-15	-10	-5	0	RF Input Power (dBm)
2 GHz	INTERCEPT (mV)	4789	221	567	914	1271	1616	1963	2334	2702	3038	3402	3739	4097	4431	4761
	SLOPE (mV/dB)	70.3	2	-3	-8	-2	-9	-14	6	22	7	19	4	11	-7	-28
	MAX LIN ERROR	0.40	0.03	-0.05	-0.11	-0.04	-0.13	-0.19	0.08	0.32	0.09	0.27	0.06	0.15	-0.10	-0.40
	MAX ACC ERROR	0.52	-0.01	-0.06	-0.09	0.02	-0.05	-0.08	0.23	0.50	0.31	0.52	0.34	0.47	0.25	-0.03
3 GHz	INTERCEPT (mV)	4750	249	606	953	1302	1647	1985	2342	2679	3003	3356	3690	4055	4411	4774
	SLOPE (mV/dB)	69.1	-8	3	5	8	7	0	11	2	-19	-12	-23	-4	6	24
	MAX LIN ERROR	0.35	-0.12	0.04	0.07	0.11	0.11	0.00	0.16	0.04	-0.28	-0.17	-0.34	-0.06	0.09	0.35
	MAX ACC ERROR	0.5	0.39	0.50	0.46	0.46	0.40	0.24	0.35	0.17	-0.19	-0.14	-0.36	-0.13	-0.04	0.16
4 GHz	INTERCEPT (mV)	4697	202	538	884	1243	1578	1923	2283	2629	2959	3301	3633	3998	4353	4722
	SLOPE (mV/dB)	69.3	7	-4	-4	9	-2	-4	10	10	-7	-11	-25	-6	2	25
	MAX LIN ERROR	0.36	0.09	-0.05	-0.06	0.13	-0.04	-0.05	0.14	0.14	-0.09	-0.16	-0.36	-0.09	0.03	0.36
	MAX ACC ERROR	1.17	-0.29	-0.48	-0.52	-0.39	-0.59	-0.65	-0.50	-0.55	-0.82	-0.93	-1.17	-0.95	-0.87	-0.59
5 GHz	INTERCEPT (mV)	4742	212	550	899	1255	1593	1938	2305	2668	2996	3346	3677	4042	4395	4749
	SLOPE (mV/dB)	69.8	8	-3	-3	3	-8	-12	6	20	-1	0	-18	-2	2	7
	MAX LIN ERROR	0.29	0.11	-0.05	-0.05	0.05	-0.11	-0.17	0.09	0.29	-0.01	0.00	-0.26	-0.03	0.03	0.10
	MAX ACC ERROR	0.65	-0.14	-0.31	-0.31	-0.21	-0.38	-0.44	-0.18	0.01	-0.29	-0.28	-0.55	-0.32	-0.27	-0.20
6 GHz	INTERCEPT (mV)	4773	195	528	876	1233	1562	1912	2288	2675	3013	3366	3692	4061	4424	4783
	SLOPE (mV/dB)	70.8	24	3	-3	0	-25	-29	-7	26	10	9	-19	-4	5	10
	MAX LIN ERROR	0.41	0.34	0.05	-0.04	0.00	-0.35	-0.41	-0.10	0.37	0.14	0.13	-0.27	-0.06	0.07	0.14
	MAX ACC ERROR	0.82	-0.39	-0.62	-0.64	-0.53	-0.82	-0.81	-0.43	0.11	-0.05	0.00	-0.33	-0.05	0.15	0.29
AVG. SLOPE: 69.9 mV/dB		0.39	0.56	0.55	0.49	0.61	0.52	0.42	0.52	0.57	0.72	0.76	0.71	0.56	0.44	Flatness dB: ±0.76 dB



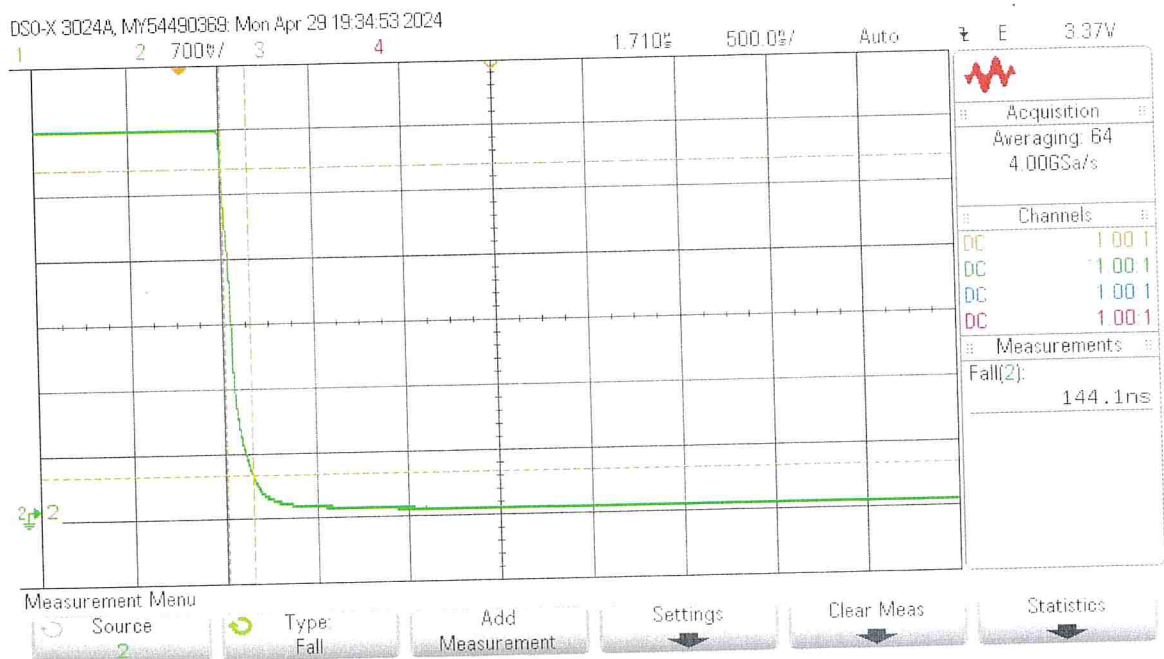


**Summary Data
For
EWDM-2G6G-65-70MV-1**

Rise Time



Fall Time





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

Settling Time



Recovery Time

