



Rev: A1



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

13	SW Linear Gain	+7 dB MIN, 15 dB MAX	+14.3 dB MAX +12.31 dB MIN	PMI QA?
14	SW Frequency Flatness:	±1.2 dB MAX	±1 dB	
15	SW 1 dB Compression Point:	+3 dBm MIN	+8.63 dBm	
16	SW Second Harmonic:	-9 dBc MIN	-49 dBc	
17	SW Third Harmonic:	-12 dBc MIN	-56 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	71.3 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	±-0.89 dB	
23	VIDEO OUT Absolute Log Accuracy:	±1.5 dB MAX	±-1.05 dB	
24	VIDEO OUT DC Offset:	0 ±70 mV (RF Input Terminated & DC Power On)	16 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	132.8 ns	
27	VIDEO OUT Settling Time:	50 ns With in ±70 mV of final value, MAX	46.6 ns	
28	VIDEO OUT Recovery Time:	0.5 us MAX to within 1 dB of baseline	0.273 us	



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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	1.72 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:	$75 \pm 1 \Omega$	75Ω	
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	



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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 @ 620 mA -15 V @ 130 mA	
39	Power Supply Ripple From DC to 10 MHz	100 mV MAX	Pass/Fail	

QA/QC Approval: H. Luster Date: 4-30-24



Log Accuracy VS Input Power

INPUT POWER (dBm)	2 GHz (dB)	3 GHz (dB)	4 GHz (dB)	5 GHz (dB)	6 GHz (dB)
-65	0.5	0.5	-0.5	-0.5	-0.5
-60	0.8	0.8	-0.2	-0.2	-0.2
-55	0.5	0.5	-0.5	-0.5	-0.5
-50	0.5	0.5	-0.2	-0.2	-0.2
-45	0.8	0.8	-0.2	-0.2	-0.2
-40	0.5	0.5	-0.5	-0.5	-0.5
-35	0.5	0.5	-0.2	-0.2	-0.2
-30	0.5	0.5	-0.5	-0.5	-0.5
-25	0.5	0.5	-0.5	-0.5	-0.5
-20	0.8	0.8	-0.5	-0.5	-0.5
-15	0.8	0.8	-0.5	-0.5	-0.5
-10	0.8	0.8	-0.5	-0.5	-0.5
-5	0.5	0.5	-0.5	-0.5	-0.5
0	0.5	0.5	-0.5	-0.5	-0.5



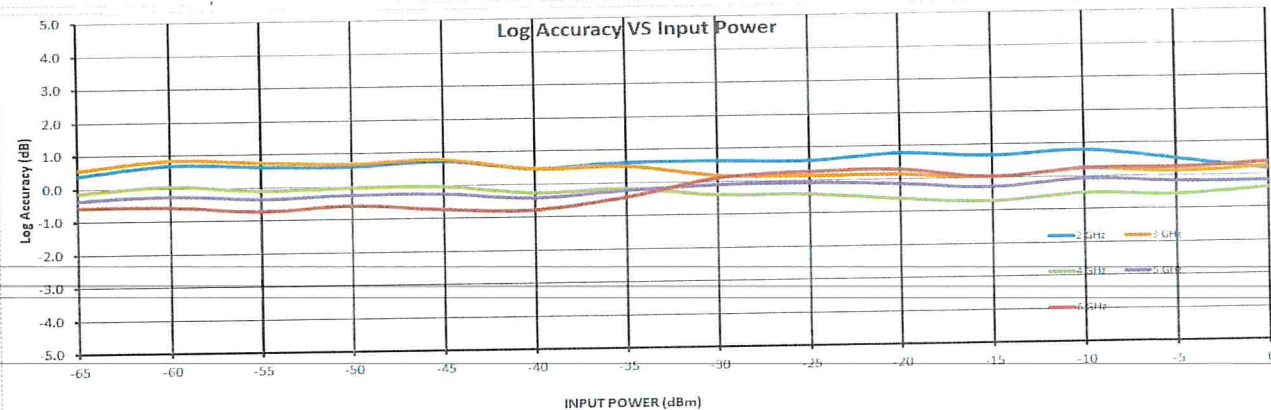
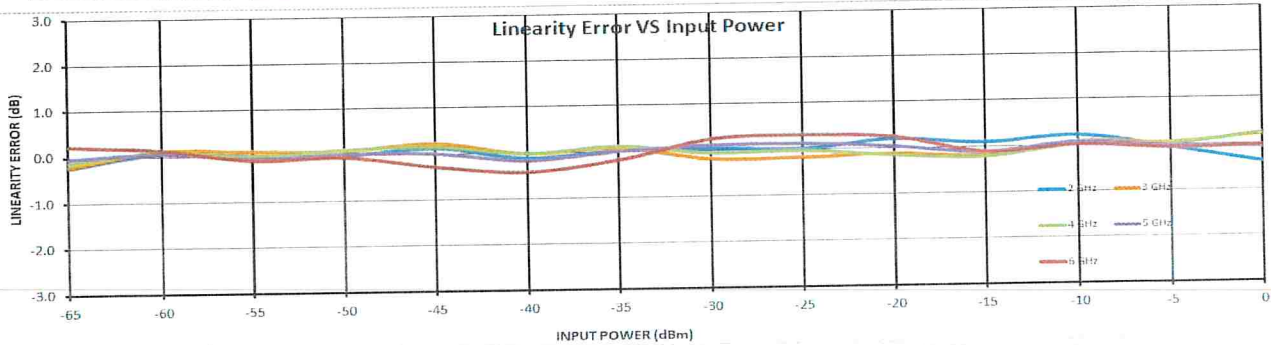
Summary Data For EWDM-2G6G-65-70MV-1

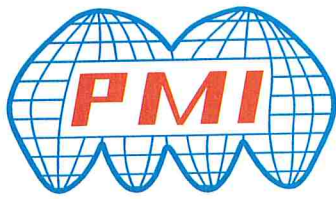
Model: EWDM-2G6G-65-70MV-1
Serial No: PL42360
Date: 04/29/2024
Tested By: J. Monley
Test Temp: +25°C
Input Port: BIT Port

DC Offset: 16 mV



Frequency		-65	-60	-55	-50	-45	-40	-35	-30	-25	-20	-15	-10	-5	0	RF Input Power (dBm)
2 GHz	INTERCEPT (mV)	306	676	1021	1369	1727	2059	2418	2768	3115	3477	3819	4177	4506	4831	Measured Value (mV)
	SLOPE (mV/dB)	-16	5	1	0	9	-8	2	3	1	14	7	16	-4	-28	ERROR (mV)
	MAX LIN ERROR	-0.23	0.07	0.01	0.00	0.13	-0.12	0.03	0.04	0.01	0.20	0.10	0.23	-0.06	-0.40	LINEARITY ERROR (dB)
	MAX ACC ERROR	0.39	0.68	0.62	0.60	0.73	0.48	0.62	0.63	0.60	0.78	0.68	0.80	0.51	0.17	LOG ACCURACY (dB)
3 GHz	INTERCEPT (mV)	318	687	1030	1375	1730	2058	2410	2737	3083	3432	3773	4137	4479	4836	Measured Value (mV)
	SLOPE (mV/dB)	-15	9	6	6	16	-2	5	-13	-12	-9	-13	6	2	14	ERROR (mV)
	MAX LIN ERROR	-0.22	0.12	0.09	0.09	0.23	-0.02	0.07	-0.19	-0.18	-0.13	-0.19	0.08	0.03	0.20	LINEARITY ERROR (dB)
	MAX ACC ERROR	0.56	0.84	0.75	0.69	0.77	0.47	0.51	0.19	0.14	0.14	0.02	0.23	0.13	0.24	LOG ACCURACY (dB)
4 GHz	INTERCEPT (mV)	269	631	970	1324	1673	2007	2362	2696	3044	3381	3723	4086	4431	4792	Measured Value (mV)
	SLOPE (mV/dB)	-10	6	-1	7	10	-2	7	-5	-3	-12	-16	1	0	15	ERROR (mV)
	MAX LIN ERROR	-0.14	0.09	-0.01	0.10	0.15	-0.03	0.10	-0.07	-0.04	-0.17	-0.23	0.02	0.00	0.22	LINEARITY ERROR (dB)
	MAX ACC ERROR	-0.14	0.04	-0.11	-0.04	-0.04	-0.26	-0.18	-0.40	-0.42	-0.59	-0.70	-0.50	-0.56	-0.39	LOG ACCURACY (dB)
5 GHz	INTERCEPT (mV)	254	611	953	1309	1658	1996	2359	2717	3068	3412	3752	4116	4458	4806	Measured Value (mV)
	SLOPE (mV/dB)	-2	4	-4	2	0	-12	1	8	9	3	0	5	2	-5	ERROR (mV)
	MAX LIN ERROR	-0.03	0.06	-0.06	0.02	0.01	-0.17	0.01	0.12	0.13	0.04	-0.11	0.09	-0.03	-0.07	LINEARITY ERROR (dB)
	MAX ACC ERROR	-0.36	-0.25	-0.35	-0.25	-0.26	-0.42	-0.22	-0.10	-0.07	-0.16	-0.28	-0.07	-0.17	-0.19	LOG ACCURACY (dB)
6 GHz	INTERCEPT (mV)	240	589	928	1287	1626	1972	2345	2731	3091	3442	3773	4138	4487	4845	Measured Value (mV)
	SLOPE (mV/dB)	17	10	-6	-3	-20	-30	-12	18	22	17	-7	2	-5	-3	ERROR (mV)
	MAX LIN ERROR	0.24	0.14	-0.09	-0.05	-0.28	-0.42	-0.17	0.25	0.31	0.24	-0.10	0.03	-0.07	-0.04	LINEARITY ERROR (dB)
	MAX ACC ERROR	-0.56	-0.56	-0.71	-0.57	-0.72	-0.76	-0.42	0.10	0.26	0.28	0.02	0.25	0.24	0.37	LOG ACCURACY (dB)
AVG. SLOPE: 69.9 mV/dB		0.56	0.70	0.73	0.63	0.74	0.62	0.52	0.52	0.51	0.69	0.69	0.65	0.54	0.38	Flatness dB: ±0.74 dB





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

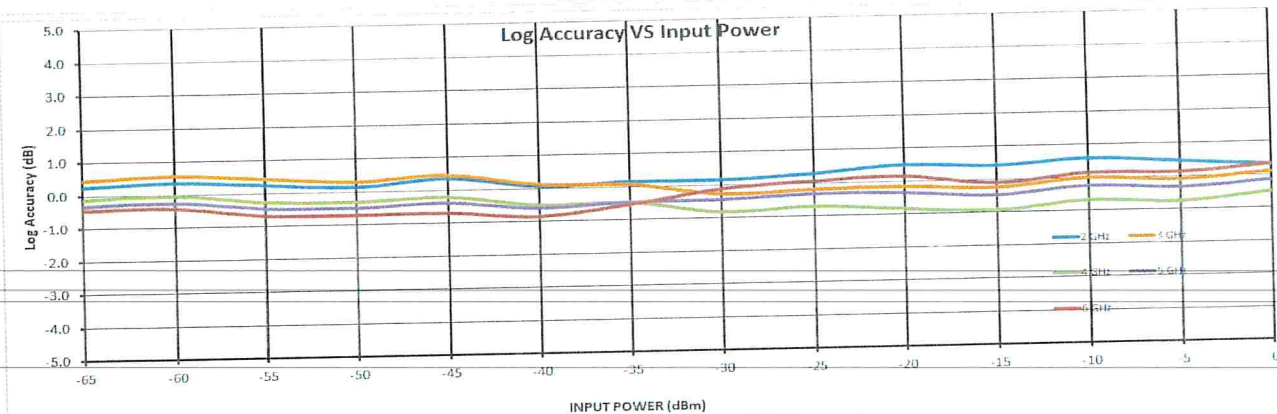
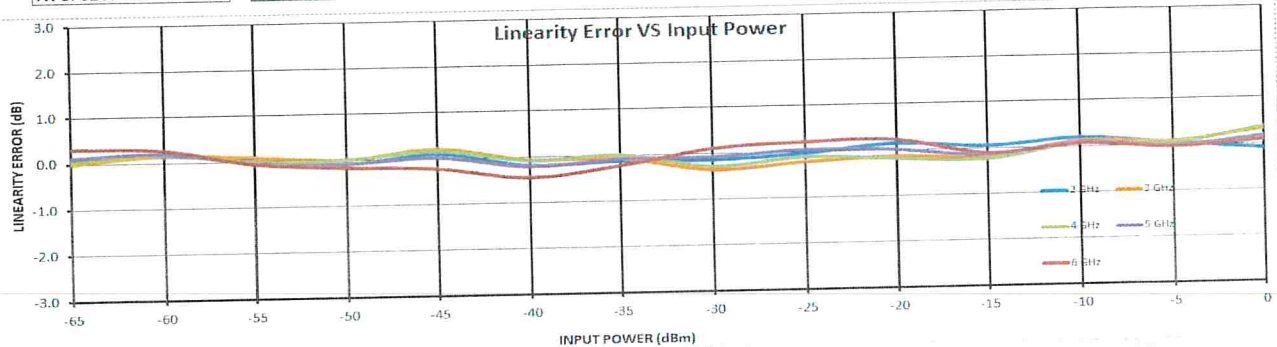
Model: EWDM-2G6G-65-70MV-1
Serial No: PL42360
Date: 04/29/2024
Tested By: J. Monley
Test Temp: 0°C
Input Port: RF Port

DC Offset: -10 mV



Frequency

		-65	-60	-55	-50	-45	-40	-35	-30	-25	-20	-15	-10	-5	0	RF Input Power (dBm)
2 GHz	INTERCEPT (mV)	4919	305	666	1013	1360	1728	2063	2423	2777	3140	3508	3857	4222	4567	4912
	SLOPE (mV/dB)	71.1	4	10	2	-7	8	-14	-9	-11	-3	10	3	13	3	-7
	MAX LIN ERROR	0.20	0.06	0.14	0.02	-0.09	0.09	-0.20	-0.13	-0.15	-0.04	0.14	0.05	0.19	0.04	-0.10
	MAX ACC ERROR	0.57	0.24	0.34	0.24	0.14	0.34	0.07	0.16	0.16	0.29	0.49	0.42	0.57	0.45	0.32
3 GHz	INTERCEPT (mV)	4874	320	682	1027	1372	1736	2067	2417	2747	3107	3463	3811	4182	4529	4897
	SLOPE (mV/dB)	70.1	0	12	6	1	15	-5	-5	-25	-15	-10	-12	9	6	23
	MAX LIN ERROR	0.36	0.00	0.16	0.09	0.01	0.21	-0.06	-0.07	-0.36	-0.22	-0.14	-0.17	0.13	0.08	0.33
	MAX ACC ERROR	0.57	0.45	0.57	0.44	0.31	0.46	0.13	0.08	-0.26	-0.18	-0.15	-0.23	0.01	-0.09	0.11
4 GHz	INTERCEPT (mV)	4827	278	638	976	1327	1688	2021	2377	2707	3069	3414	3761	4133	4481	4853
	SLOPE (mV/dB)	70.7	2	12	0	1	12	-5	0	-20	-8	-13	-16	6	4	26
	MAX LIN ERROR	0.37	0.03	0.17	0.00	0.01	0.17	-0.08	0.01	-0.28	-0.11	-0.18	-0.23	0.08	0.05	0.37
	MAX ACC ERROR	0.94	-0.14	-0.06	-0.28	-0.32	-0.22	-0.52	-0.49	-0.83	-0.71	-0.84	-0.94	-0.68	-0.77	-0.51
5 GHz	INTERCEPT (mV)	4867	265	624	963	1315	1676	2015	2379	2734	3097	3449	3794	4165	4512	4879
	SLOPE (mV/dB)	70.9	9	13	-3	-5	1	-15	-6	-5	3	0	9	7	-1	12
	MAX LIN ERROR	0.21	0.12	0.18	-0.04	-0.08	0.01	-0.21	-0.08	-0.07	0.04	0.00	-0.13	0.10	-0.01	0.16
	MAX ACC ERROR	0.6	-0.32	-0.25	-0.46	-0.49	-0.39	-0.60	-0.46	-0.45	-0.32	-0.35	-0.47	-0.23	-0.33	-0.15
6 GHz	INTERCEPT (mV)	4906	256	612	948	1300	1655	1998	2374	2757	3124	3484	3820	4192	4544	4912
	SLOPE (mV/dB)	71.9	22	19	-4	-12	-16	-33	-16	8	15	16	-8	5	-2	6
	MAX LIN ERROR	0.45	0.31	0.26	-0.06	-0.16	-0.23	-0.45	-0.22	0.11	0.21	0.22	-0.11	0.07	-0.03	0.09
	MAX ACC ERROR	0.84	-0.45	-0.42	-0.68	-0.70	-0.69	-0.84	-0.53	-0.12	0.06	0.15	-0.11	0.15	0.12	0.32
AVG. SLOPE: 70.8 mV/dB		0.45	0.49	0.56	0.51	0.57	0.49	0.35	0.49	0.50	0.66	0.68	0.63	0.61	0.42	Flatness dB: ±0.68 dB





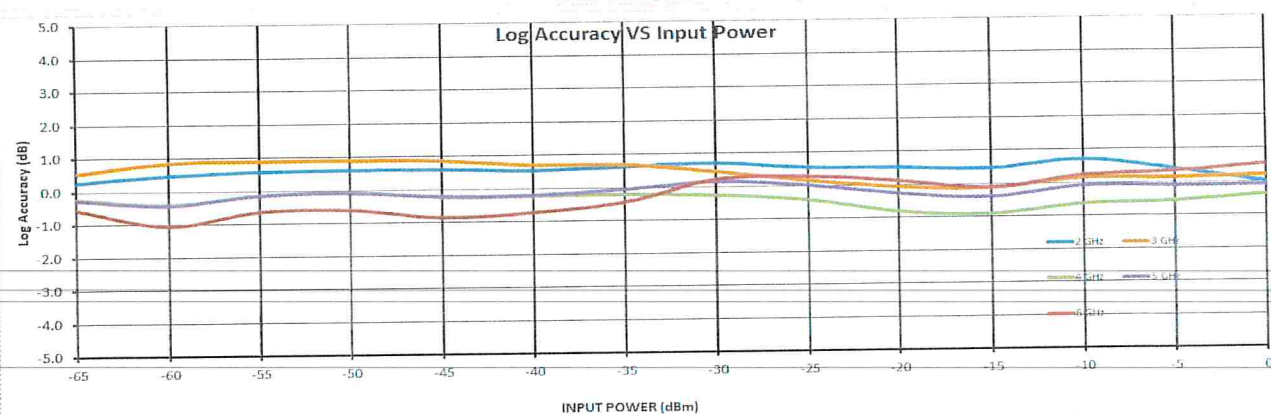
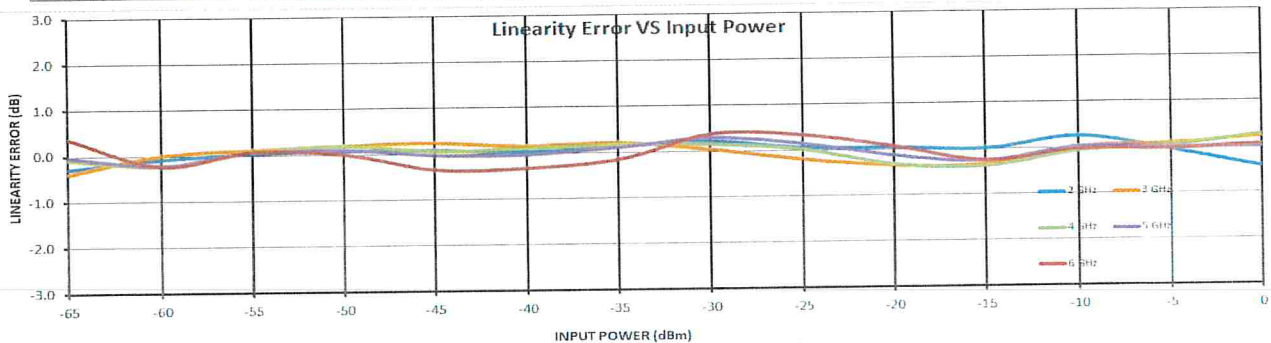
Summary Data For EWDM-2G6G-65-70MV-1

Model: EWDM-2G6G-65-70MV-1
Serial No: PL42360
Date:: 04/29/2024
Tested By: J. Monley
Test Temp: +85°C
Input Port: RF Port

DC Offset: 6 mV



Frequency		-65	-60	-55	-50	-45	-40	-35	-30	-25	-20	-15	-10	-5	0	RF Input Power (dBm)
2 GHz	INTERCEPT (mV)	4662	210	565	914	1258	1599	1936	2284	2631	2961	3301	3639	3997	4317	4631
	SLOPE (mV/dB)	68.2	-20	-6	2	5	5	1	9	15	4	3	0	17	-4	-31
	MAX LIN ERROR	0.45	-0.30	-0.09	0.03	0.07	0.08	0.02	0.12	0.21	0.06	0.04	0.00	0.25	-0.05	-0.45
	MAX ACC ERROR	0.71	0.26	0.45	0.57	0.60	0.60	0.53	0.63	0.71	0.54	0.52	0.47	0.71	0.40	0.00
3 GHz	INTERCEPT (mV)	4630	230	593	937	1279	1618	1949	2289	2614	2935	3261	3598	3959	4299	4645
	SLOPE (mV/dB)	67.3	-26	0	8	13	16	10	14	2	-13	-23	-23	2	5	16
	MAX LIN ERROR	0.39	-0.39	0.00	0.12	0.20	0.24	0.15	0.21	0.04	-0.19	-0.35	-0.34	0.02	0.08	0.22
	MAX ACC ERROR	0.91	0.55	0.87	0.90	0.91	0.88	0.72	0.70	0.46	0.16	-0.06	-0.13	0.16	0.14	0.20
4 GHz	INTERCEPT (mV)	4588	177	506	865	1212	1542	1884	2227	2565	2895	3211	3546	3906	4252	4606
	SLOPE (mV/dB)	67.8	-5	-15	5	13	4	7	11	10	1	-22	-25	-4	3	18
	MAX LIN ERROR	0.38	-0.08	-0.23	0.07	0.19	0.06	0.10	0.16	0.15	0.02	-0.32	-0.38	-0.06	0.04	0.26
	MAX ACC ERROR	0.89	-0.23	-0.41	-0.15	-0.07	-0.24	-0.23	-0.21	-0.26	-0.42	-0.80	-0.89	-0.62	-0.55	-0.37
5 GHz	INTERCEPT (mV)	4626	175	505	866	1211	1544	1886	2238	2593	2925	3248	3581	3943	4283	4625
	SLOPE (mV/dB)	68.4	-3	-15	4	7	-2	-2	7	20	10	-9	-18	2	-1	-1
	MAX LIN ERROR	0.3	-0.04	-0.22	0.06	0.10	-0.03	-0.04	0.11	0.30	0.15	-0.13	-0.27	0.02	-0.01	-0.01
	MAX ACC ERROR	0.42	-0.26	-0.42	-0.14	-0.08	-0.21	-0.20	-0.06	0.15	0.02	-0.25	-0.38	-0.08	-0.10	-0.09
6 GHz	INTERCEPT (mV)	4663	155	462	832	1176	1500	1850	2211	2597	2943	3273	3599	3964	4312	4667
	SLOPE (mV/dB)	69.8	26	-16	6	1	-24	-23	-10	27	24	5	-17	-1	-2	4
	MAX LIN ERROR	0.38	0.37	-0.22	0.08	0.01	-0.34	-0.32	-0.15	0.38	0.35	0.08	-0.25	-0.02	-0.03	0.06
	MAX ACC ERROR	1.05	-0.55	-1.05	-0.63	-0.60	-0.85	-0.73	-0.44	0.21	0.28	0.11	-0.11	0.23	0.33	0.53
AVG. SLOPE: 68.3 mV/dB		0.55	0.96	0.77	0.75	0.86	0.72	0.57	0.48	0.48	0.66	0.68	0.67	0.48	0.45	Flatness dB: ±0.96 dB





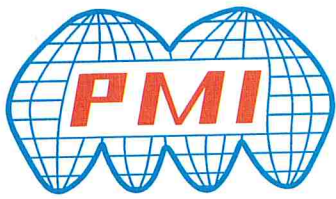
Summary Data For EWDM-2G6G-65-70MV-1

Rise Time



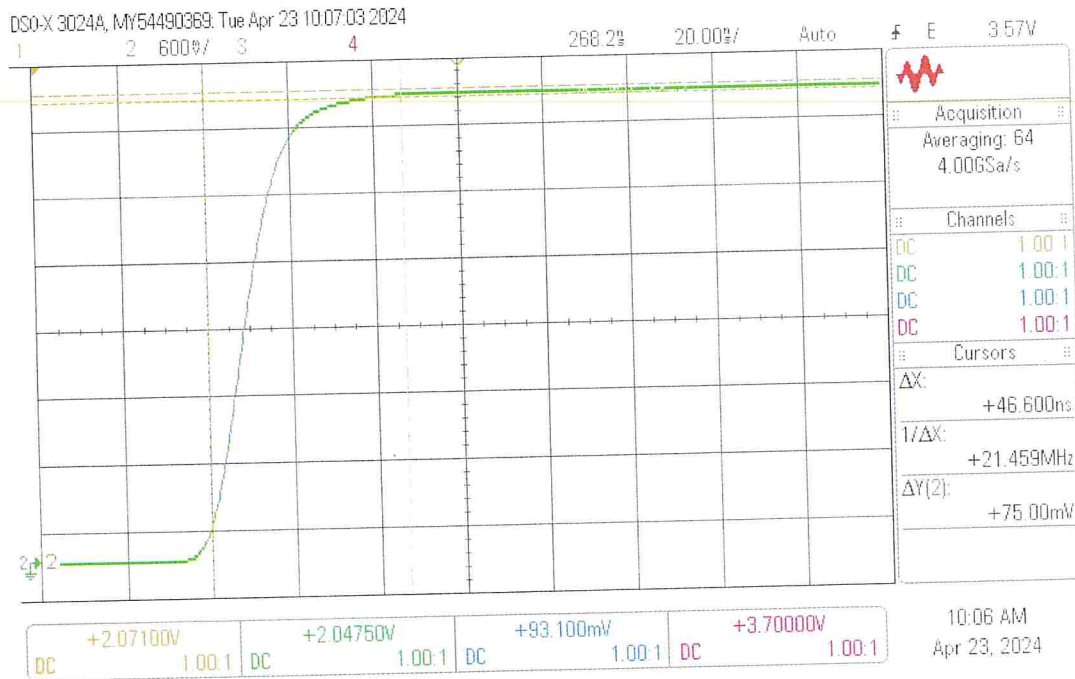
Fall Time





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

Settling Time



Recovery Time

