



Tested By: Melvin Ayala

Temperature: 0°C TO +85°C

Date 3/7/2021

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	1.37:1 @ 50 Ω (RF IN) 1.29:1 @ 50 Ω (BIT IN) 1.27:1 @ 50 Ω (RF OUT) 1.39:1 @ 50 Ω (SW OUT)	
3	Noise Figure:	6 dB MAX	4.65 dB	
4	Input Power:	(1) 1 W CW, Max. (2) 100 W Peak @ PW = 1 us & 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	34.9 dB	
9	RF OUT Frequency Flatness:	±2.0 dB MAX	1.1 dB	
10	RF OUT 1 dB Compression Point:	+3 dBm MIN	10.98 dBm	
11	RF OUT Second Harmonic:	-9 dBc MIN	-21.2 dBc	
12	RF OUT Third Harmonic:	-12 dBc MIN	-28.8 dBc	

7311-F Grove Road Frederick, MD 21704 USA

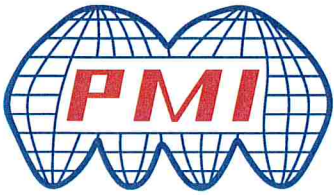
Phone: (301)662-5019 Fax: (301)662-1731

Website: www.pmi-rf.com Email: sales@pmi-rf.com



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

13	SW Linear Gain	+7 dB MIN, 15 dB MAX	10.5 dB	PMI QA3
14	SW Frequency Flatness:	±1.2 dB MAX	0.9 dB	
15	SW 1 dB Compression Point:	+3 dBm MIN	4.43 dBm	
16	SW Second Harmonic:	-9 dBc MIN	-24.4 dBc	
17	SW Third Harmonic:	-12 dBc MIN	-33.2 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	70.7 mV/dB	
21	VIDEO OUT Log Linearity:	±0.75 dB MAX @ 4 GHZ	0.39 dB	
22	VIDEO OUT Log Accuracy:	±1.25 dB MAX	1.16 dB	
23	VIDEO OUT Absolute Log Accuracy:	±1.5 dB MAX	1.42 dB	
24	VIDEO OUT DC Offset:	0 ±70 mV (RF Input Terminated & DC Power On)	10 mV	
25	VIDEO OUT Rise Time (10% to 90%):	25 ns TYP 28 ns MAX	20.5 ns	
26	VIDEO OUT Fall Time (90% to 10%):	300 ns MAX	131 ns	
27	VIDEO OUT Settling Time:	50 ns With in ±70 mV of final value, MAX	14.8 ns	
28	VIDEO OUT Recovery Time:	0.5 us MAX to within 1 dB of baseline	496 ns	



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

29	VIDEO OUT Video Frequency Flatness:	± 1.0 dB MAX	0.88 dB	PMI QA3
30	VIDEO OUT CW Immunity:	A. CW Immune Power TSS to -40 dBm Baseline Shift: 200 mV MAX	160 mV	
		B. Pulse Peak Amplitude Loss; 2 dB MAX	< 2 dB	
		CW Immunity Time at CW = -40 dBm, ≤ 4 ms	3.2 ms	
		CW Recovery Time at CW = -40 dBm, ≤ 50 us	40 us	
31	VIDEO OUT Pulse Response, input Signal:	100 ns to 300 us	Pass	
32	VIDEO OUT load Impedance:	$75 \pm 1 \Omega$	Pass	
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	127 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	<50 ns	
38	Power Supply	+15 V @ 1000 mA MAX -15 V @ 500 mA MAX	+15 V @ 640 mA -15 V @ 150 mA	
39	Power Supply Ripple From DC to 10 MHz	100 mV MAX	Pass	

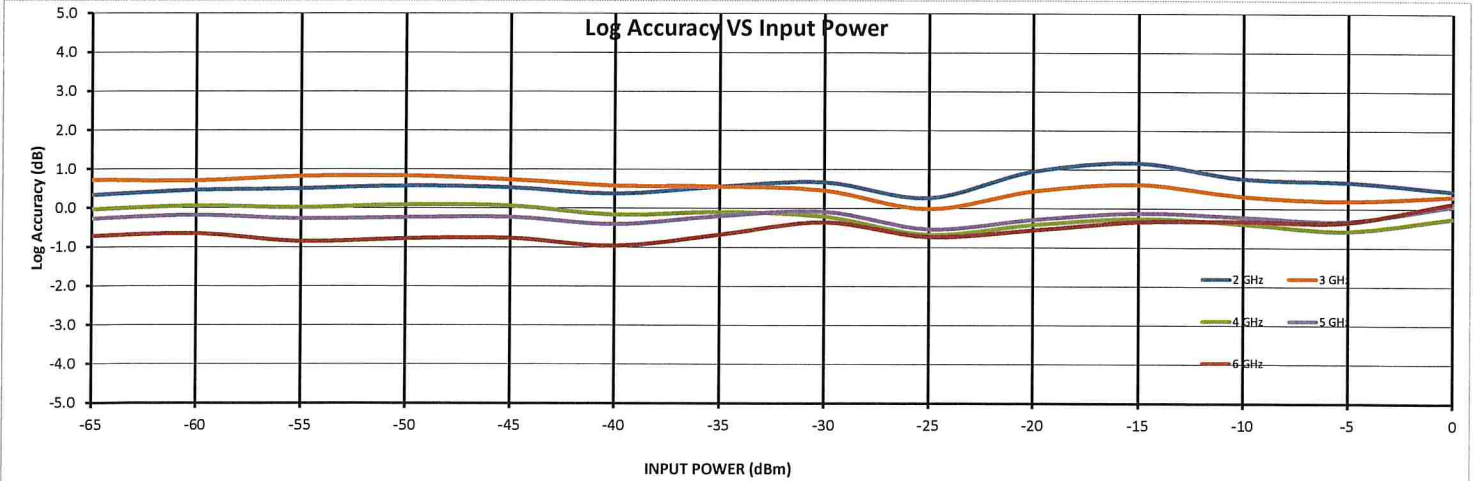
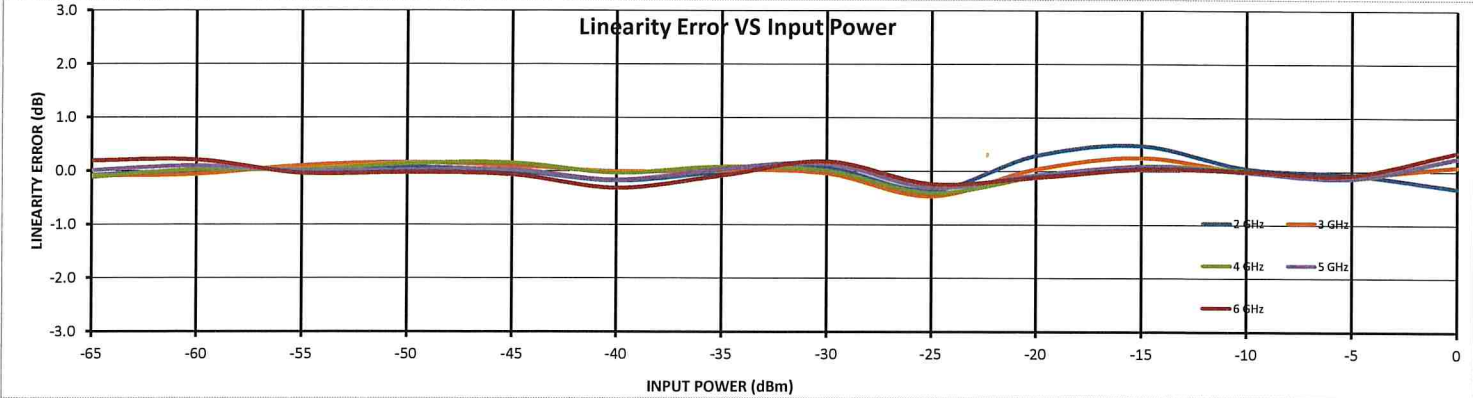
QA/QC Approval: H. Hunter NLR Date: 3.29.22

Model: EWDM-2G6G-65-70MV-1
Serial No: PL35774
Date: 03/09/22
Tested By: J. Monley
Test Temp: +25°C
Input Port: BIT Port



DC Offset: -51 mV

Frequency			-65	-60	-55	-50	-45	-40	-35	-30	-25	-20	-15	-10	-5	0	RF Input Power (dBm)
2 GHz	INTERCEPT (mV)	4898	317	676	1029	1384	1731	2070	2433	2791	3113	3511	3876	4198	4542	4876	Measured Value (mV)
	SLOPE (mV/dB)	70.39	-6	1	2	5	0	-13	-2	5	-25	21	34	4	-4	-22	ERROR (mV)
	MAX LIN ERROR	0.48	-0.08	0.02	0.03	0.08	0.01	-0.18	-0.02	0.06	-0.36	0.29	0.48	0.05	-0.06	-0.32	LINEARITY ERROR (dB)
	MAX ACC ERROR	1.17	0.34	0.46	0.51	0.58	0.53	0.37	0.56	0.67	0.27	0.96	1.17	0.77	0.68	0.45	LOG ACCURACY (dB)
3 GHz	INTERCEPT (mV)	4860	344	693	1051	1402	1745	2084	2433	2776	3093	3475	3837	4166	4508	4866	Measured Value (mV)
	SLOPE (mV/dB)	69.39	-6	-4	7	11	7	-1	1	-3	-33	2	18	0	-5	6	ERROR (mV)
	MAX LIN ERROR	0.47	-0.09	-0.06	0.10	0.16	0.10	-0.01	0.02	-0.04	-0.47	0.04	0.25	-0.01	-0.08	0.08	LINEARITY ERROR (dB)
	MAX ACC ERROR	0.833	0.72	0.71	0.82	0.83	0.73	0.57	0.56	0.46	-0.01	0.44	0.61	0.31	0.20	0.31	LOG ACCURACY (dB)
4 GHz	INTERCEPT (mV)	4810	291	648	995	1350	1698	2032	2387	2729	3047	3415	3776	4117	4454	4827	Measured Value (mV)
	SLOPE (mV/dB)	69.4	-8	2	2	10	11	-2	6	1	-28	-7	7	1	-9	17	ERROR (mV)
	MAX LIN ERROR	0.407	-0.12	0.03	0.03	0.14	0.16	-0.03	0.08	0.01	-0.41	-0.10	0.10	0.01	-0.13	0.24	LINEARITY ERROR (dB)
	MAX ACC ERROR	0.672	-0.04	0.06	0.02	0.09	0.06	-0.17	-0.10	-0.21	-0.67	-0.42	-0.26	-0.39	-0.58	-0.25	LOG ACCURACY (dB)
5 GHz	INTERCEPT (mV)	4832	274	631	975	1327	1678	2015	2380	2738	3057	3424	3786	4129	4472	4849	Measured Value (mV)
	SLOPE (mV/dB)	70.13	1	7	0	2	2	-12	3	10	-21	-5	6	-1	-9	17	ERROR (mV)
	MAX LIN ERROR	0.306	0.01	0.10	0.01	0.02	0.03	-0.16	0.04	0.15	-0.31	-0.07	0.09	-0.02	-0.13	0.25	LINEARITY ERROR (dB)
	MAX ACC ERROR	0.529	-0.28	-0.18	-0.27	-0.24	-0.23	-0.41	-0.20	-0.09	-0.53	-0.29	-0.12	-0.22	-0.32	0.07	LOG ACCURACY (dB)
6 GHz	INTERCEPT (mV)	4829	243	598	934	1289	1640	1976	2346	2719	3043	3405	3770	4121	4470	4854	Measured Value (mV)
	SLOPE (mV/dB)	70.76	14	15	-3	-2	-5	-22	-6	13	-17	-9	3	0	-5	25	ERROR (mV)
	MAX LIN ERROR	0.355	0.19	0.21	-0.04	-0.03	-0.07	-0.32	-0.09	0.18	-0.24	-0.12	0.04	0.00	-0.07	0.35	LINEARITY ERROR (dB)
	MAX ACC ERROR	0.969	-0.72	-0.65	-0.85	-0.78	-0.77	-0.97	-0.68	-0.36	-0.73	-0.56	-0.35	-0.33	-0.35	0.14	LOG ACCURACY (dB)
AVG. SLOPE: 70 mV/dB			0.72	0.68	0.84	0.81	0.75	0.77	0.62	0.51	0.50	0.76	0.76	0.58	0.63	0.35	Flatness dB: ±0.84 dB

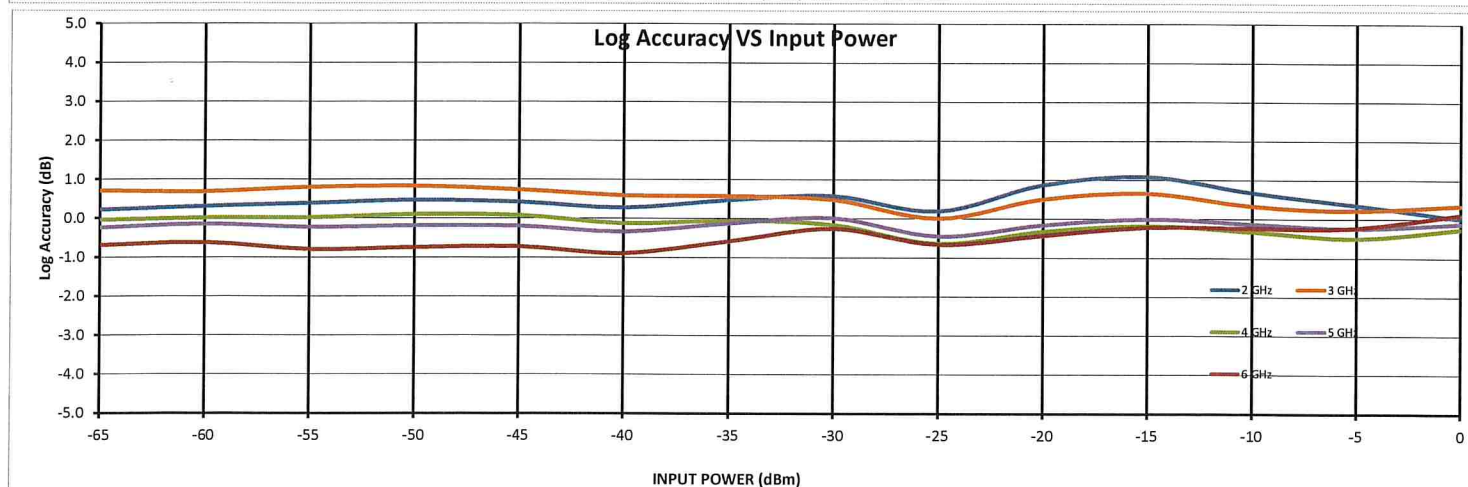
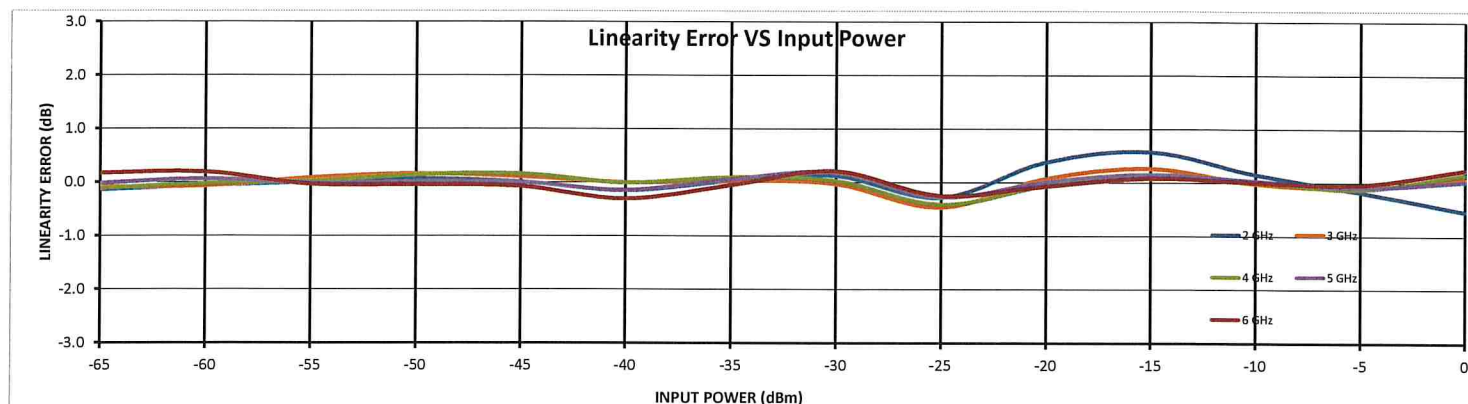


Model: EWDM-2G6G-65-70MV-1
 Serial No: PL35774
 Date:: 03/09/22
 Tested By: J. Monley
 Test Temp: +25°C
 Input Port: RF Port

DC Offset: -45 mV



Frequency		-65	-60	-55	-50	-45	-40	-35	-30	-25	-20	-15	-10	-5	0	RF Input Power (dBm)
2 GHz	INTERCEPT (mV)	4891	326	682	1037	1392	1738	2077	2440	2797	3119	3516	3880	4201	4528	4853
	SLOPE (mV/dB)	70.08	-10	-4	0	5	1	-11	2	9	-20	27	40	11	-12	-38
	MAX LIN ERROR	0.58	-0.14	-0.06	0.01	0.07	0.01	-0.15	0.03	0.12	-0.28	0.38	0.58	0.16	-0.18	-0.54
	MAX ACC ERROR	1.08	0.21	0.31	0.39	0.47	0.42	0.28	0.47	0.58	0.19	0.87	1.08	0.68	0.36	0.01
3 GHz	INTERCEPT (mV)	4871	360	708	1065	1417	1760	2099	2447	2790	3106	3490	3850	4177	4518	4876
	SLOPE (mV/dB)	69.31	-6	-5	6	11	8	0	1	-2	-33	5	18	-1	-7	5
	MAX LIN ERROR	0.47	-0.09	-0.07	0.08	0.16	0.11	0.00	0.02	-0.03	-0.47	0.07	0.26	-0.02	-0.10	0.07
	MAX ACC ERROR	0.83	0.70	0.68	0.79	0.83	0.74	0.59	0.57	0.48	0.00	0.50	0.65	0.33	0.21	0.34
4 GHz	INTERCEPT (mV)	4823	308	661	1011	1366	1714	2049	2403	2745	3061	3432	3792	4131	4468	4834
	SLOPE (mV/dB)	69.34	-8	-2	1	10	11	-1	7	2	-29	-4	9	1	-8	11
	MAX LIN ERROR	0.414	-0.12	-0.03	0.02	0.14	0.16	-0.01	0.10	0.03	-0.41	-0.06	0.13	0.02	-0.12	0.16
	MAX ACC ERROR	0.639	-0.04	0.01	0.02	0.10	0.08	-0.12	-0.06	-0.16	-0.64	-0.33	-0.18	-0.32	-0.50	-0.26
5 GHz	INTERCEPT (mV)	4842	294	650	994	1346	1695	2034	2398	2757	3074	3444	3804	4145	4486	4844
	SLOPE (mV/dB)	69.95	-2	5	-1	1	0	-10	4	13	-20	1	11	2	-7	2
	MAX LIN ERROR	0.279	-0.02	0.07	-0.02	0.02	0.01	-0.15	0.06	0.19	-0.28	0.01	0.16	0.03	-0.09	0.02
	MAX ACC ERROR	0.453	-0.24	-0.15	-0.22	-0.19	-0.19	-0.34	-0.13	0.01	-0.45	-0.16	-0.01	-0.12	-0.24	-0.12
6 GHz	INTERCEPT (mV)	4843	262	617	954	1307	1658	1995	2366	2738	3059	3425	3789	4137	4487	4860
	SLOPE (mV/dB)	70.67	12	14	-3	-3	-5	-22	-4	15	-18	-5	6	0	-3	17
	MAX LIN ERROR	0.307	0.17	0.19	-0.04	-0.04	-0.08	-0.31	-0.06	0.21	-0.25	-0.07	0.08	0.00	-0.04	0.24
	MAX ACC ERROR	0.897	-0.70	-0.62	-0.80	-0.74	-0.72	-0.90	-0.59	-0.26	-0.67	-0.43	-0.22	-0.24	-0.23	0.11
AVG. SLOPE: 69.9 mV/dB		0.70	0.65	0.79	0.79	0.73	0.74	0.58	0.42	0.43	0.65	0.65	0.50	0.43	0.30	Flatness dB: ±0.79 dB

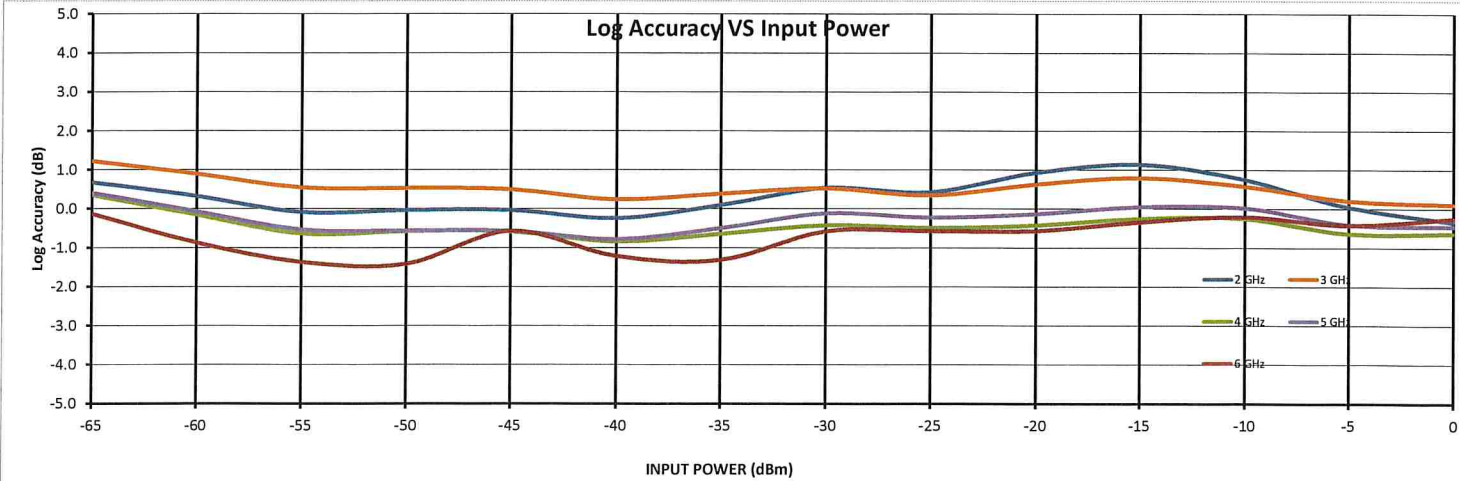
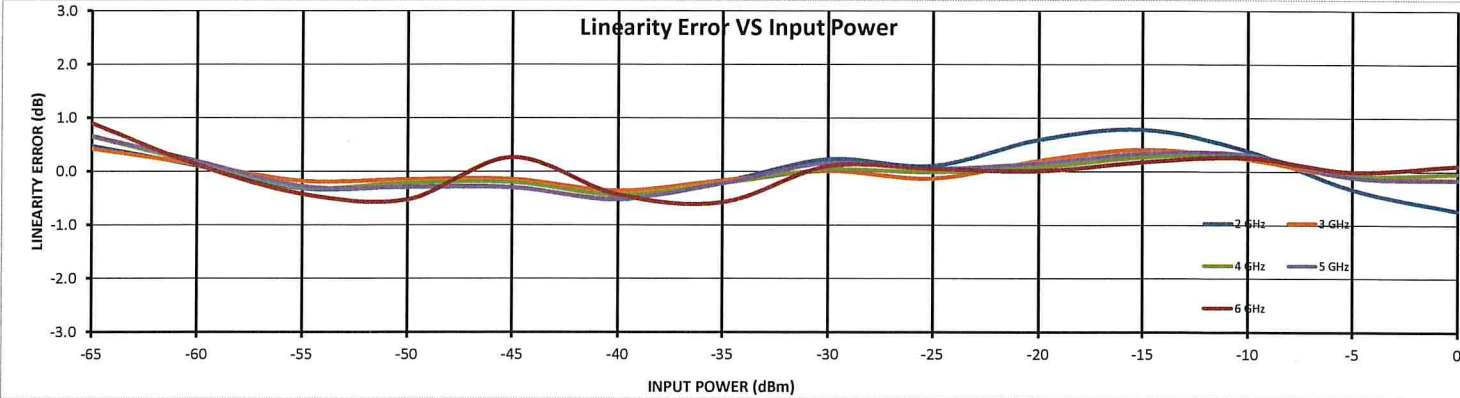


Model: EWDM-2G6G-65-70MV-1
Serial No: PL35774
Date: 03/21/22
Tested By: J. Monley
Test Temp: +85°C
Input Port: RF Port



DC Offset: -67 mV

Frequency			-65	-60	-55	-50	-45	-40	-35	-30	-25	-20	-15	-10	-5	0	RF Input Power (dBm)
2 GHz	INTERCEPT (mV)	4637	190	509	824	1171	1515	1844	2211	2585	2921	3299	3657	3974	4269	4586	Measured Value (mV)
	SLOPE (mV/dB)	68.92	33	7	-22	-20	-20	-36	-13	16	7	41	54	27	-23	-51	Error (mV)
	MAX LIN ERROR	0.79	0.48	0.11	-0.32	-0.29	-0.29	-0.52	-0.20	0.23	0.11	0.59	0.79	0.39	-0.33	-0.73	LINEARITY ERROR (dB)
	MAX ACC ERROR	1.14	0.68	0.33	-0.09	-0.04	-0.03	-0.25	0.09	0.54	0.43	0.93	1.14	0.75	0.04	-0.34	LOG ACCURACY (dB)
3 GHz	INTERCEPT (mV)	4628	227	548	867	1210	1551	1877	2231	2584	2915	3278	3633	3962	4280	4617	Measured Value (mV)
	SLOPE (mV/dB)	68.15	29	9	-12	-10	-10	-25	-11	1	-9	13	28	16	-7	-11	Error (mV)
	MAX LIN ERROR	0.426	0.43	0.14	-0.18	-0.15	-0.15	-0.36	-0.17	0.01	-0.13	0.19	0.40	0.23	-0.10	-0.16	LINEARITY ERROR (dB)
	MAX ACC ERROR	1.222	1.22	0.89	0.54	0.53	0.49	0.23	0.39	0.52	0.34	0.62	0.79	0.58	0.20	0.11	LOG ACCURACY (dB)
4 GHz	INTERCEPT (mV)	4569	167	476	786	1134	1477	1803	2160	2519	2858	3206	3561	3905	4222	4566	Measured Value (mV)
	SLOPE (mV/dB)	68.41	44	11	-21	-15	-14	-30	-15	2	-1	5	18	20	-5	-3	Error (mV)
	MAX LIN ERROR	0.65	0.65	0.17	-0.30	-0.21	-0.20	-0.43	-0.21	0.03	-0.01	0.08	0.27	0.29	-0.07	-0.04	LINEARITY ERROR (dB)
	MAX ACC ERROR	0.843	0.35	-0.15	-0.64	-0.58	-0.59	-0.84	-0.65	-0.42	-0.49	-0.43	-0.26	-0.25	-0.64	-0.63	LOG ACCURACY (dB)
5 GHz	INTERCEPT (mV)	4589	171	482	793	1135	1478	1807	2170	2540	2876	3226	3582	3924	4238	4578	Measured Value (mV)
	SLOPE (mV/dB)	68.67	46	13	-19	-20	-21	-35	-15	11	4	10	23	22	-8	-11	Error (mV)
	MAX LIN ERROR	0.666	0.67	0.19	-0.28	-0.30	-0.30	-0.51	-0.23	0.16	0.06	0.15	0.34	0.32	-0.11	-0.16	LINEARITY ERROR (dB)
	MAX ACC ERROR	0.785	0.41	-0.07	-0.54	-0.56	-0.57	-0.78	-0.50	-0.12	-0.23	-0.13	0.05	0.02	-0.41	-0.46	LOG ACCURACY (dB)
6 GHz	INTERCEPT (mV)	4585	134	427	736	1076	1478	1777	2114	2508	2852	3196	3555	3908	4237	4592	Measured Value (mV)
	SLOPE (mV/dB)	69.44	63	9	-29	-37	18	-30	-40	7	3	0	12	18	0	7	Error (mV)
	MAX LIN ERROR	0.906	0.91	0.13	-0.42	-0.53	0.26	-0.43	-0.58	0.09	0.05	0.00	0.17	0.26	-0.01	0.11	LINEARITY ERROR (dB)
	MAX ACC ERROR	1.423	-0.13	-0.87	-1.37	-1.42	-0.57	-1.22	-1.32	-0.58	-0.58	-0.57	-0.35	-0.21	-0.42	-0.26	LOG ACCURACY (dB)
AVG. SLOPE: 68.7 mV/dB			0.68	0.88	0.95	0.98	0.54	0.73	0.85	0.56	0.50	0.75	0.74	0.50	0.42	0.37	Flatness dB: ±0.98 dB



Model: EWDM-2G6G-65-70MV-1
Serial No: PL35774
Date:: 03/18/22
Tested By: J. Monley
Test Temp: 0°C
Input Port: RF Port

DC Offset: -86 mV



Frequency			-65	-60	-55	-50	-45	-40	-35	-30	-25	-20	-15	-10	-5	0	RF Input Power (dBm)
2 GHz	INTERCEPT (mV)	4959	315	691	1059	1420	1767	2115	2481	2845	3164	3567	3934	4253	4587	4917	Measured Value (mV)
	SLOPE (mV/dB)	71.01	-28	-7	6	12	3	-4	7	16	-20	28	40	4	-17	-42	Error (mV)
	MAX LIN ERROR	0.59	-0.40	-0.10	0.08	0.16	0.05	-0.05	0.10	0.23	-0.28	0.40	0.57	0.06	-0.24	-0.59	LINEARITY ERROR (dB)
	MAX ACC ERROR	0.99	-0.14	0.17	0.37	0.47	0.37	0.29	0.46	0.60	0.11	0.80	0.99	0.49	0.21	-0.12	LOG ACCURACY (dB)
3 GHz	INTERCEPT (mV)	4932	335	706	1077	1435	1777	2126	2480	2833	3145	3534	3900	4225	4565	4928	Measured Value (mV)
	SLOPE (mV/dB)	70.3	-28	-8	11	18	8	6	8	10	-30	8	22	-4	-16	-4	Error (mV)
	MAX LIN ERROR	0.425	-0.39	-0.12	0.16	0.25	0.12	0.08	0.12	0.14	-0.42	0.11	0.31	-0.06	-0.23	-0.06	LINEARITY ERROR (dB)
	MAX ACC ERROR	0.682	0.14	0.38	0.62	0.68	0.51	0.44	0.45	0.43	-0.16	0.34	0.51	0.10	-0.10	0.03	LOG ACCURACY (dB)
4 GHz	INTERCEPT (mV)	4884	292	668	1033	1393	1742	2085	2442	2790	3103	3475	3843	4180	4517	4887	Measured Value (mV)
	SLOPE (mV/dB)	70.16	-31	-6	8	17	15	8	14	11	-27	-6	12	-2	-16	3	Error (mV)
	MAX LIN ERROR	0.447	-0.45	-0.09	0.11	0.25	0.22	0.11	0.20	0.16	-0.38	-0.08	0.17	-0.03	-0.23	0.05	LINEARITY ERROR (dB)
	MAX ACC ERROR	0.775	-0.47	-0.15	0.00	0.09	0.02	-0.13	-0.09	-0.17	-0.75	-0.50	-0.30	-0.54	-0.78	-0.55	LOG ACCURACY (dB)
5 GHz	INTERCEPT (mV)	4903	268	644	1004	1363	1715	2060	2431	2798	3112	3484	3852	4191	4532	4898	Measured Value (mV)
	SLOPE (mV/dB)	70.96	-22	-1	4	8	5	-4	12	24	-17	0	14	-2	-16	-5	Error (mV)
	MAX LIN ERROR	0.339	-0.32	-0.02	0.06	0.12	0.08	-0.06	0.17	0.34	-0.24	0.01	0.19	-0.03	-0.22	-0.07	LINEARITY ERROR (dB)
	MAX ACC ERROR	0.805	-0.81	-0.49	-0.41	-0.34	-0.36	-0.49	-0.25	-0.06	-0.63	-0.37	-0.17	-0.38	-0.56	-0.39	LOG ACCURACY (dB)
6 GHz	INTERCEPT (mV)	4904	245	623	978	1337	1689	2032	2406	2784	3101	3469	3840	4187	4536	4913	Measured Value (mV)
	SLOPE (mV/dB)	71.48	-13	7	5	6	1	-13	3	24	-17	-6	8	-3	-11	9	Error (mV)
	MAX LIN ERROR	0.334	-0.19	0.10	0.07	0.09	0.01	-0.19	0.05	0.33	-0.23	-0.08	0.11	-0.04	-0.16	0.12	LINEARITY ERROR (dB)
	MAX ACC ERROR	1.13	-1.13	-0.79	-0.77	-0.70	-0.73	-0.88	-0.60	-0.26	-0.78	-0.58	-0.34	-0.44	-0.51	-0.18	LOG ACCURACY (dB)
AVG. SLOPE: 70.8 mV/dB			0.64	0.59	0.70	0.69	0.62	0.66	0.53	0.43	0.45	0.69	0.66	0.52	0.49	0.29	Flatness dB: ±0.7 dB

