



Tested By: Joshua Monley

Temperature: 0°C TO +85°C

Date 6/27/2024

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	PMI QA3
2	VSWR:	2.0:1 MAX @ 50 Ω	1.44:1 @ 50 Ω (RF IN) 1.29:1 @ 50 Ω (BIT IN) 1.19:1 @ 50 Ω (RF OUT) 1.43:1 @ 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 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	+36.2 dB MAX +34.1 dB MIN	
9	RF OUT Frequency Flatness:	±2.0 dB MAX	±1.1 dB	
10	RF OUT 1 dB Compression Point:	+3 dBm MIN	+11.28 dBm	
11	RF OUT Second Harmonic:	-9 dBc MIN	-42 dBc	
12	RF OUT Third Harmonic:	-12 dBc MIN	-54 dBc	



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

13	SW Linear Gain	+7 dB MIN, 15 dB MAX	+12.99 dB MAX +10.52 dB MIN	PMI QA3
14	SW Frequency Flatness:	±1.2 dB MAX	±1.2 dB	
15	SW 1 dB Compression Point:	+3 dBm MIN	+7.38 dBm	
16	SW Second Harmonic:	-9 dBc MIN	-28 dBc	
17	SW Third Harmonic:	-12 dBc MIN	-47 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	67.9 mV/dB	
21	VIDEO OUT Log Linearity:	±0.75 dB MAX @ 4 GHZ	±0.46 dB	
22	VIDEO OUT Log Accuracy:	±1.25 dB MAX	±1.14 dB	
23	VIDEO OUT Absolute Log Accuracy:	±1.5 dB MAX	±1.45 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	27.3 ns	
26	VIDEO OUT Fall Time (90% to 10%):	300 ns MAX	157.2 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	± 0.81 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	1.9 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 @ 630 mA -15 V @ 133 mA	
39	Power Supply Ripple From DC to 10 MHz	100 mV MAX	PASS	

QA/QC Approval:

K. Lister

Date:

6-27-24



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

Model: EWDM-2G6G-65-70MV-1
Serial No: PL42376
Date: 06/27/2024
Tested By: J. Monley
Test Temp: +25°C
Input Port: RF Port

DC Offset: 10 mV



Frequency

2 GHz	INTERCEPT (mV)	4830
	SLOPE (mV/dB)	68.9
	MAX LIN ERROR	0.63
	MAX ACC ERROR	0.78

3 GHz	INTERCEPT (mV)	4897
	SLOPE (mV/dB)	69.9
	MAX LIN ERROR	0.34
	MAX ACC ERROR	0.59

4 GHz	INTERCEPT (mV)	4883
	SLOPE (mV/dB)	70
	MAX LIN ERROR	0.32
	MAX ACC ERROR	0.53

5 GHz	INTERCEPT (mV)	4887
	SLOPE (mV/dB)	70.4
	MAX LIN ERROR	0.44
	MAX ACC ERROR	0.55

6 GHz	INTERCEPT (mV)	4863
	SLOPE (mV/dB)	70.8
	MAX LIN ERROR	0.44
	MAX ACC ERROR	0.94

AVG. SLOPE: 70 mV/dB

-65	-60	-55	-50	-45	-40	-35	-30	-25	-20	-15	-10	-5	0
353	704	1053	1386	1739	2075	2425	2744	3064	3426	3804	4161	4516	4826
0	7	12	0	9	0	8	-19	-44	-26	7	20	31	-4
0.01	0.10	0.17	0.00	0.13	0.01	0.09	-0.28	-0.63	-0.38	0.11	0.29	0.45	-0.05
0.48	0.49	0.48	0.24	0.28	0.09	0.09	-0.35	-0.78	-0.61	-0.21	-0.11	-0.03	-0.60

-65	-60	-55	-50	-45	-40	-35	-30	-25	-20	-15	-10	-5	0
357	708	1059	1392	1745	2086	2458	2805	3125	3488	3860	4199	4551	4904
6	7	8	-8	-5	-14	9	6	-24	-10	12	1	4	7
0.08	0.10	0.12	-0.12	-0.07	-0.19	0.13	0.09	-0.34	-0.15	0.17	0.02	0.05	0.10
0.54	0.55	0.57	0.33	0.37	0.24	0.56	0.52	0.09	0.28	0.59	0.44	0.47	0.51

-65	-60	-55	-50	-45	-40	-35	-30	-25	-20	-15	-10	-5	0
335	690	1037	1374	1727	2071	2453	2806	3121	3476	3832	4174	4521	4902
1	6	3	-10	-7	-13	19	23	-12	-7	-1	-9	-12	19
0.01	0.08	0.04	-0.14	-0.10	-0.18	0.28	0.32	-0.18	-0.10	-0.02	-0.13	-0.17	0.27
0.22	0.29	0.25	0.07	0.11	0.03	0.49	0.53	0.03	0.11	0.19	0.08	0.04	0.48

-65	-60	-55	-50	-45	-40	-35	-30	-25	-20	-15	-10	-5	0
317	672	1016	1356	1710	2054	2444	2807	3121	3475	3826	4172	4522	4905
4	7	-1	-12	-10	-18	20	31	-7	-4	-5	-11	-13	18
0.06	0.10	-0.01	-0.18	-0.15	-0.26	0.29	0.44	-0.09	-0.06	-0.07	-0.16	-0.18	0.26
-0.04	0.04	-0.05	-0.19	-0.13	-0.21	0.36	0.55	0.03	0.09	0.11	0.05	0.05	0.53

-65	-60	-55	-50	-45	-40	-35	-30	-25	-20	-15	-10	-5	0
282	632	969	1316	1658	2003	2396	2772	3094	3445	3785	4144	4501	4894
18	14	-3	-10	-21	-30	9	31	0	-3	-17	-12	-8	31
0.25	0.20	-0.04	-0.13	-0.30	-0.42	0.13	0.44	0.00	-0.04	-0.24	-0.16	-0.12	0.44
-0.54	-0.53	-0.72	-0.76	-0.87	-0.94	-0.33	0.05	-0.35	-0.34	-0.48	-0.35	-0.25	0.37

-65	-60	-55	-50	-45	-40	-35	-30	-25	-20	-15	-10	-5	0
0.54	0.54	0.64	0.54	0.62	0.59	0.44	0.45	0.44	0.44	0.54	0.39	0.36	0.56

RF Input Power (dBm)

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

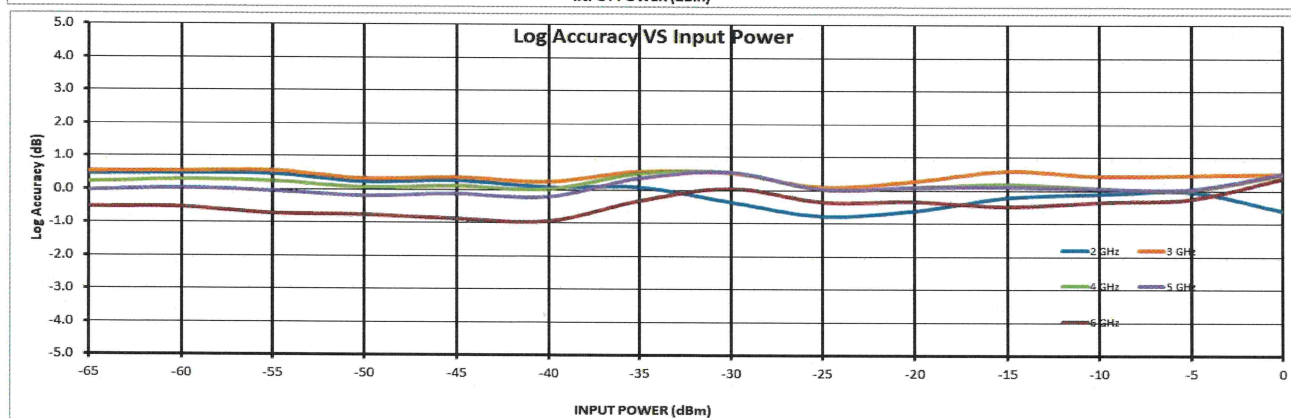
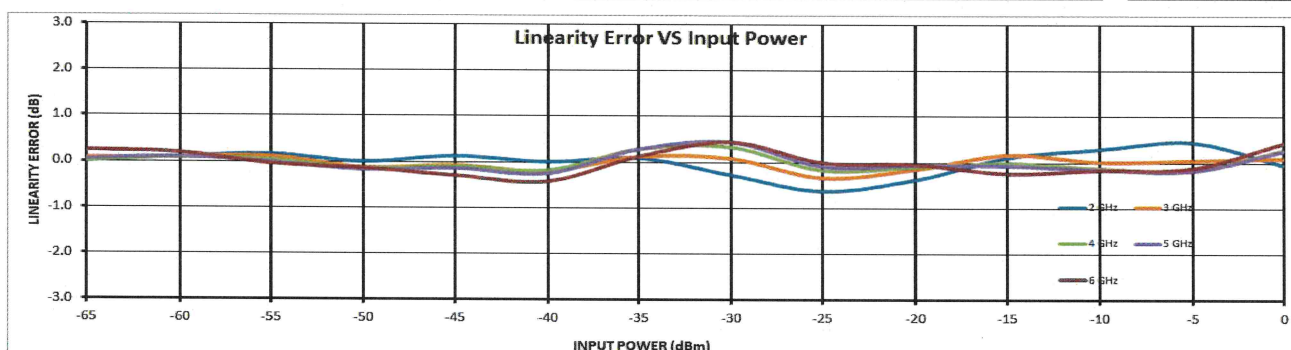
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Measured Value (mV)
ERROR (mV)
LINEARITY ERROR (dB)
LOG ACCURACY (dB)

Flatness dB: ±0.64 dB





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

Model: EWDM-2G6G-65-70MV-1
Serial No: PL42376
Date: 06/27/2024
Tested By: J. Monley
Test Temp: +25°C
Input Port: BIT Port

DC Offset: 9 mV



Frequency

2 GHz	INTERCEPT (mV)	4796
	SLOPE (mV/dB)	67.9
	MAX LIN ERROR	0.45
	MAX ACC ERROR	1.00

3 GHz	INTERCEPT (mV)	4900
	SLOPE (mV/dB)	69.6
	MAX LIN ERROR	0.36
	MAX ACC ERROR	1.14

4 GHz	INTERCEPT (mV)	4880
	SLOPE (mV/dB)	69.6
	MAX LIN ERROR	0.46
	MAX ACC ERROR	0.93

5 GHz	INTERCEPT (mV)	4870
	SLOPE (mV/dB)	69.8
	MAX LIN ERROR	0.61
	MAX ACC ERROR	0.83

6 GHz	INTERCEPT (mV)	4852
	SLOPE (mV/dB)	70.2
	MAX LIN ERROR	0.57
	MAX ACC ERROR	0.75

AVG. SLOPE: 69.4 mV/dB

-65	-60	-55	-50	-45	-40	-35	-30	-25	-20	-15	-10	-5	0
356	712	1067	1399	1750	2084	2433	2757	3076	3441	3807	4132	4435	4774
-23	-7	8	1	12	6	15	0	-21	4	31	15	-21	-22
-0.34	-0.10	0.12	0.01	0.18	0.09	0.23	0.00	-0.31	0.06	0.45	0.23	-0.31	-0.32
0.37	0.49	0.51	0.39	0.44	0.26	0.28	-0.05	-0.46	-0.20	0.07	-0.25	-0.88	-1.00
368	726	1080	1411	1762	2105	2478	2829	3149	3512	3881	4209	4537	4887
-8	2	8	-9	-6	-11	14	17	-11	4	25	5	-15	-13
-0.11	0.03	0.11	-0.13	-0.09	-0.16	0.20	0.24	-0.16	0.05	0.36	0.07	-0.22	-0.19
0.54	0.70	0.79	0.56	0.62	0.56	0.93	0.99	0.59	0.82	1.14	0.86	0.59	0.63
349	706	1067	1390	1741	2086	2469	2825	3140	3495	3846	4181	4510	4872
-10	0	3	-12	-9	-11	24	32	-1	6	10	-3	-22	-8
-0.14	0.00	0.04	-0.17	-0.12	-0.16	0.34	0.46	-0.01	0.09	0.14	-0.04	-0.31	-0.11
0.27	0.41	0.46	0.26	0.32	0.28	0.80	0.93	0.46	0.58	0.63	0.46	0.20	0.41
323	681	1028	1365	1718	2063	2454	2818	3130	3480	3831	4169	4497	4856
-9	0	-2	-14	-10	-14	28	43	6	6	8	-3	-24	-14
-0.13	0.00	-0.03	-0.20	-0.15	-0.21	0.40	0.61	0.08	0.09	0.12	-0.04	-0.34	-0.20
-0.11	0.05	0.05	-0.10	-0.02	-0.05	0.58	0.83	0.32	0.36	0.42	0.29	0.01	0.18
293	648	987	1327	1671	2014	2410	2785	3104	3455	3796	4146	4485	4855
6	10	-2	-14	-21	-29	16	40	7	7	-3	-4	-16	3
0.09	0.14	-0.03	-0.19	-0.30	-0.41	0.23	0.57	0.11	0.10	-0.04	-0.06	-0.23	0.04
-0.54	-0.43	-0.54	-0.65	-0.69	-0.75	-0.05	0.35	-0.05	0.00	-0.09	-0.05	-0.16	0.17
0.54	0.56	0.67	0.60	0.66	0.66	0.49	0.52	0.53	0.51	0.61	0.55	0.73	0.81

RF Input Power (dBm)

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

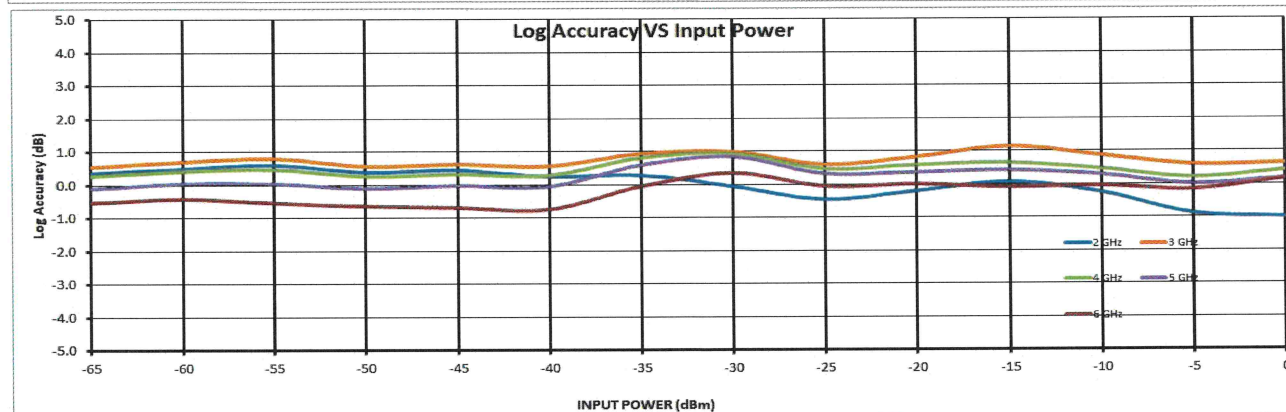
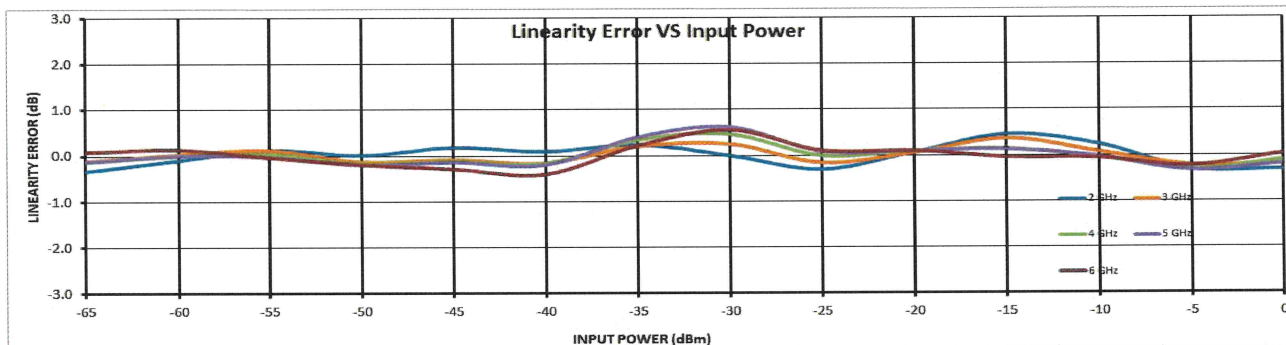
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ERROR (mV)
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ERROR (mV)
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Measured Value (mV)
ERROR (mV)
LINEARITY ERROR (dB)
LOG ACCURACY (dB)

Flatness dB: ±0.81 dB





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

Model: EWDM-2G6G-65-70MV-1
Serial No: PL42376
Date:: 06/27/2024
Tested By: J. Monley
Test Temp: 0°C
Input Port: RF Port

DC Offset: 18 mV



Frequency

2 GHz	INTERCEPT (mV)	4881
	SLOPE (mV/dB)	69.6
	MAX LIN ERROR	0.67
	MAX ACC ERROR	0.78

3 GHz	INTERCEPT (mV)	4944
	SLOPE (mV/dB)	70.5
	MAX LIN ERROR	0.35
	MAX ACC ERROR	0.61

4 GHz	INTERCEPT (mV)	4923
	SLOPE (mV/dB)	70.4
	MAX LIN ERROR	0.32
	MAX ACC ERROR	0.52

5 GHz	INTERCEPT (mV)	4926
	SLOPE (mV/dB)	70.8
	MAX LIN ERROR	0.44
	MAX ACC ERROR	0.52

6 GHz	INTERCEPT (mV)	4901
	SLOPE (mV/dB)	71.1
	MAX LIN ERROR	0.45
	MAX ACC ERROR	0.88

-65	-60	-55	-50	-45	-40	-35	-30	-25	-20	-15	-10	-5	0
352	712	1067	1404	1760	2096	2448	2770	3094	3460	3841	4204	4565	4883
-4	8	16	4	12	0	4	-22	-48	-29	4	19	32	2
-0.05	0.12	0.22	0.06	0.17	0.00	0.05	-0.32	-0.67	-0.41	0.06	0.28	0.46	0.03
0.33	0.43	0.47	0.25	0.30	0.07	0.06	-0.37	-0.78	-0.58	-0.18	-0.03	0.09	-0.40

-65	-60	-55	-50	-45	-40	-35	-30	-25	-20	-15	-10	-5	0
363	721	1074	1411	1767	2110	2484	2833	3156	3522	3896	4239	4594	4954
3	9	9	-7	-3	-13	9	5	-25	-11	10	1	3	10
0.04	0.12	0.13	-0.09	-0.05	-0.18	0.12	0.07	-0.35	-0.16	0.14	0.01	0.04	0.15
0.48	0.56	0.57	0.35	0.40	0.26	0.57	0.52	0.10	0.30	0.60	0.47	0.50	0.61

-65	-60	-55	-50	-45	-40	-35	-30	-25	-20	-15	-10	-5	0
346	703	1052	1392	1748	2094	2478	2833	3160	3508	3865	4209	4568	4943
0	6	3	-10	-6	-12	20	23	-12	-7	-2	-10	-13	20
0.00	0.08	0.04	-0.14	-0.08	-0.17	0.28	0.32	-0.18	-0.09	-0.02	-0.14	-0.18	0.28
0.23	0.31	0.26	0.08	0.13	0.04	0.49	0.52	0.02	0.10	0.16	0.04	-0.01	0.45

-65	-60	-55	-50	-45	-40	-35	-30	-25	-20	-15	-10	-5	0
327	685	1032	1375	1731	2078	2470	2833	3149	3504	3858	4207	4568	4946
2	7	0	-11	-9	-16	22	31	-7	-6	-8	-11	-14	20
0.03	0.09	-0.01	-0.16	-0.13	-0.23	0.31	0.44	-0.10	-0.09	-0.09	-0.16	-0.20	0.28
-0.03	0.05	-0.03	-0.16	-0.11	-0.19	0.37	0.62	0.00	0.04	0.06	0.01	-0.01	0.50

-65	-60	-55	-50	-45	-40	-35	-30	-25	-20	-15	-10	-5	0
295	649	988	1335	1681	2029	2424	2798	3121	3474	3817	4178	4537	4933
16	14	-2	-11	-20	-28	12	30	-2	-6	-17	-12	-8	32
0.22	0.20	-0.03	-0.15	-0.28	-0.39	0.17	0.43	-0.03	-0.07	-0.24	-0.17	-0.12	0.45
-0.48	-0.46	-0.65	-0.73	-0.82	-0.88	-0.28	0.02	-0.39	-0.39	-0.52	-0.40	-0.31	0.31

AVG. SLOPE: 70.5 mV/dB

-65	-60	-55	-50	-45	-40	-35	-30	-25	-20	-15	-10	-5	0
0.48	0.51	0.61	0.54	0.61	0.57	0.43	0.45	0.44	0.44	0.56	0.43	0.40	0.50

RF Input Power (dBm)

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

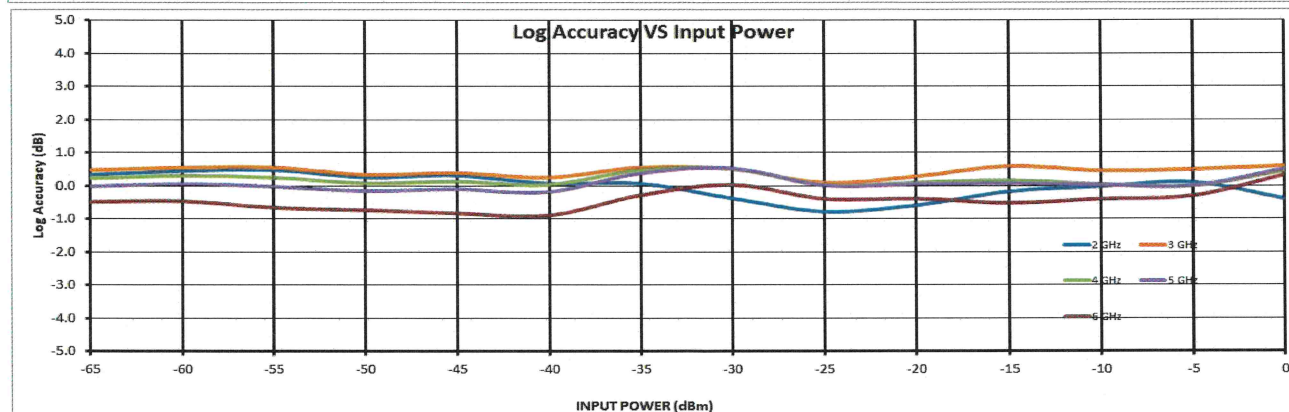
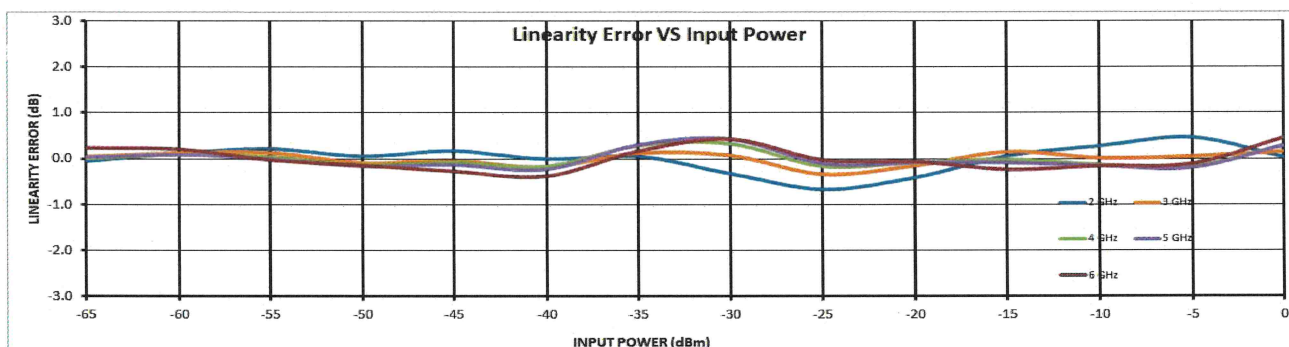
Measured Value (mV)	
ERROR (mV)	
LINEARITY ERROR (dB)	
LOG ACCURACY (dB)	

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ERROR (mV)	
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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: ±0.61 dB





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

Model: EWDM-2G6G-65-70MV-1
Serial No: PL42376
Date: 06/27/2024
Tested By: J. Monley
Test Temp: +85°C
Input Port: RF Port

DC Offset: 64 mV



Frequency

2 GHz	INTERCEPT (mV)	4679
	SLOPE (mV/dB)	67.5
	MAX LIN ERROR	0.67
	MAX ACC ERROR	1.43

3 GHz	INTERCEPT (mV)	4767
	SLOPE (mV/dB)	68.7
	MAX LIN ERROR	0.42
	MAX ACC ERROR	0.93

4 GHz	INTERCEPT (mV)	4746
	SLOPE (mV/dB)	69.1
	MAX LIN ERROR	0.6
	MAX ACC ERROR	0.6

5 GHz	INTERCEPT (mV)	4748
	SLOPE (mV/dB)	69.2
	MAX LIN ERROR	0.66
	MAX ACC ERROR	0.63

6 GHz	INTERCEPT (mV)	4722
	SLOPE (mV/dB)	69.8
	MAX LIN ERROR	0.61
	MAX ACC ERROR	1.45

AVG. SLOPE: 68.9 mV/dB

	-65	-60	-55	-50	-45	-40	-35	-30	-25	-20	-15	-10	-5	0
285	631	968	1307	1641	1970	2321	2659	2981	3325	3690	4039	4341	4641	
-7	1	1	3	-1	-9	4	5	-11	-4	23	35	-1	-38	
-0.10	0.02	0.01	0.04	-0.01	-0.14	0.06	0.07	-0.16	-0.06	0.34	0.51	-0.01	-0.57	
0.30	0.33	0.22	0.15	0.00	-0.22	-0.12	-0.22	-0.54	-0.54	-0.24	-0.17	-0.79	-1.43	
303	657	991	1327	1664	1998	2370	2731	3050	3396	3752	4093	4426	4738	
-1	10	0	-7	-13	-23	6	24	0	2	16	13	3	-29	
-0.02	0.14	0.00	-0.10	-0.19	-0.33	0.09	0.35	0.00	0.04	0.22	0.19	0.04	-0.42	
0.57	0.71	0.56	0.44	0.33	0.18	0.59	0.83	0.46	0.49	0.66	0.61	0.45	-0.02	
269	604	943	1282	1616	1956	2338	2715	3032	3369	3710	4056	4391	4738	
13	2	-4	-10	-23	-28	10	41	13	4	0	0	-10	-8	
0.18	0.03	-0.06	-0.15	-0.33	-0.41	0.14	0.60	0.19	0.06	0.00	0.00	-0.14	-0.11	
0.07	-0.06	-0.14	-0.21	-0.38	-0.44	0.12	0.60	0.20	0.10	0.05	0.06	-0.06	-0.02	
261	597	935	1276	1608	1950	2335	2717	3032	3366	3708	4055	4390	4741	
13	3	-5	-11	-25	-29	10	48	16	3	-1	0	-12	-7	
0.19	0.04	-0.08	-0.15	-0.36	-0.42	0.15	0.66	0.22	0.04	-0.02	-0.01	-0.17	-0.10	
-0.04	-0.16	-0.25	-0.30	-0.48	-0.51	0.08	0.63	0.20	0.05	0.02	0.06	-0.08	0.02	
225	533	878	1221	1541	1886	2269	2669	2998	3329	3660	4021	4368	4735	
42	1	-3	-9	-39	-43	-9	42	22	4	-14	-2	-5	13	
0.60	0.01	-0.05	-0.14	-0.55	-0.61	-0.13	0.60	0.31	0.05	-0.20	-0.03	-0.06	0.19	
-0.57	-1.09	-1.08	-1.10	-1.45	-1.44	-0.88	-0.07	-0.29	-0.48	-0.68	-0.43	-0.39	-0.06	
0.57	0.90	0.82	0.77	0.89	0.81	0.73	0.52	0.50	0.52	0.67	0.52	0.62	0.73	

RF Input Power (dBm)

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

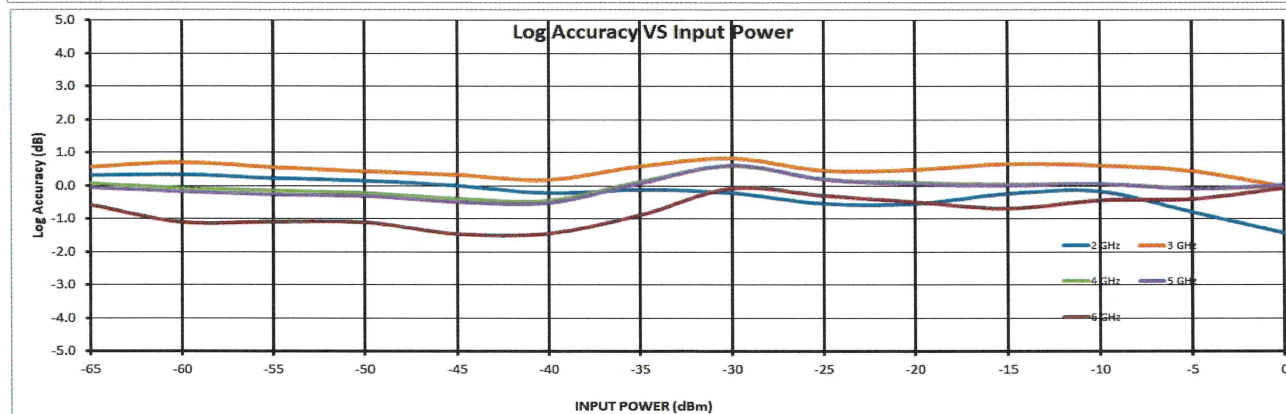
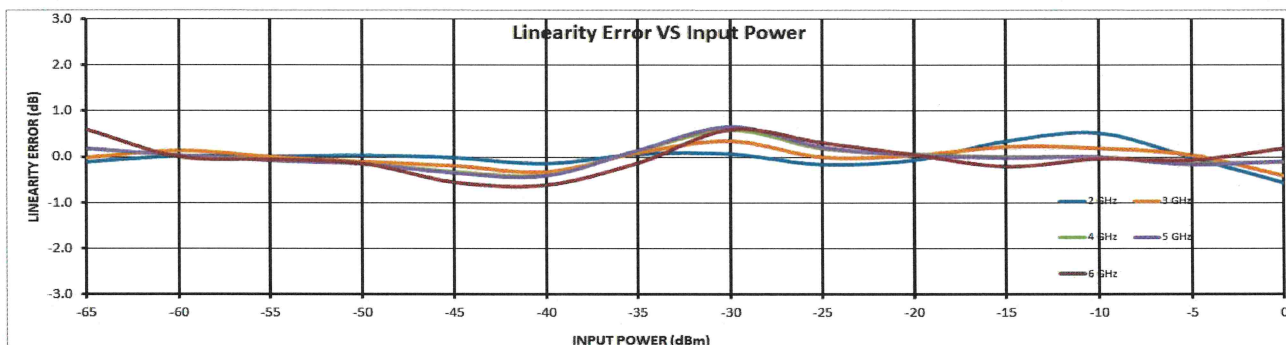
Measured Value (mV)	
ERROR (mV)	
LINEARITY ERROR (dB)	
LOG ACCURACY (dB)	

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)	

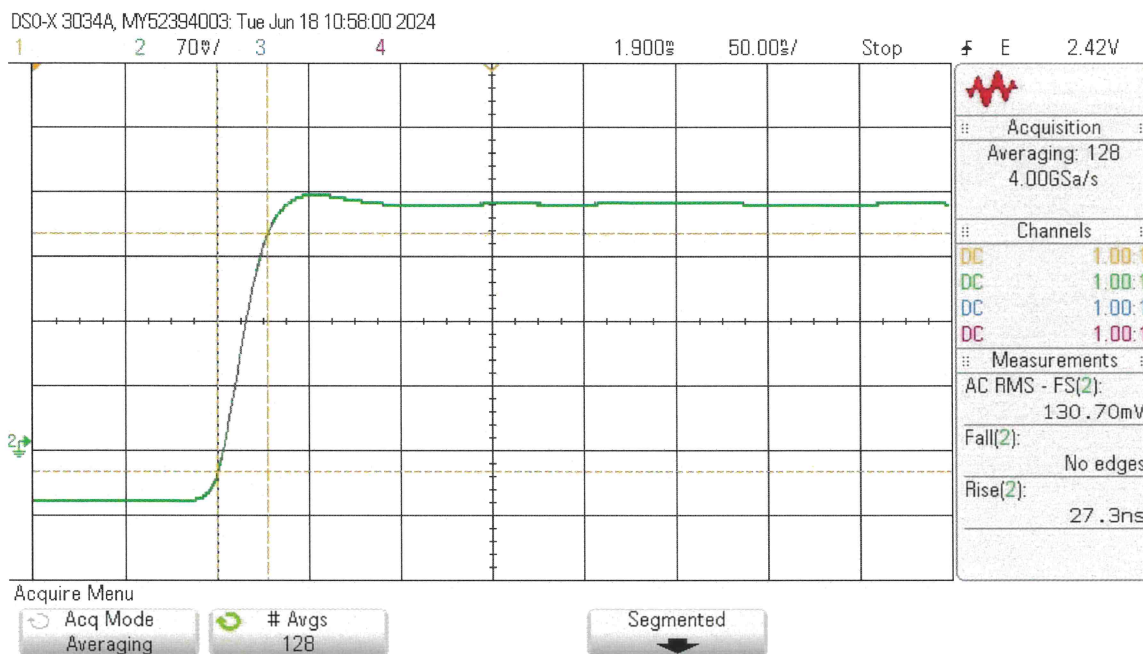
Flatness dB: ±0.9 dB



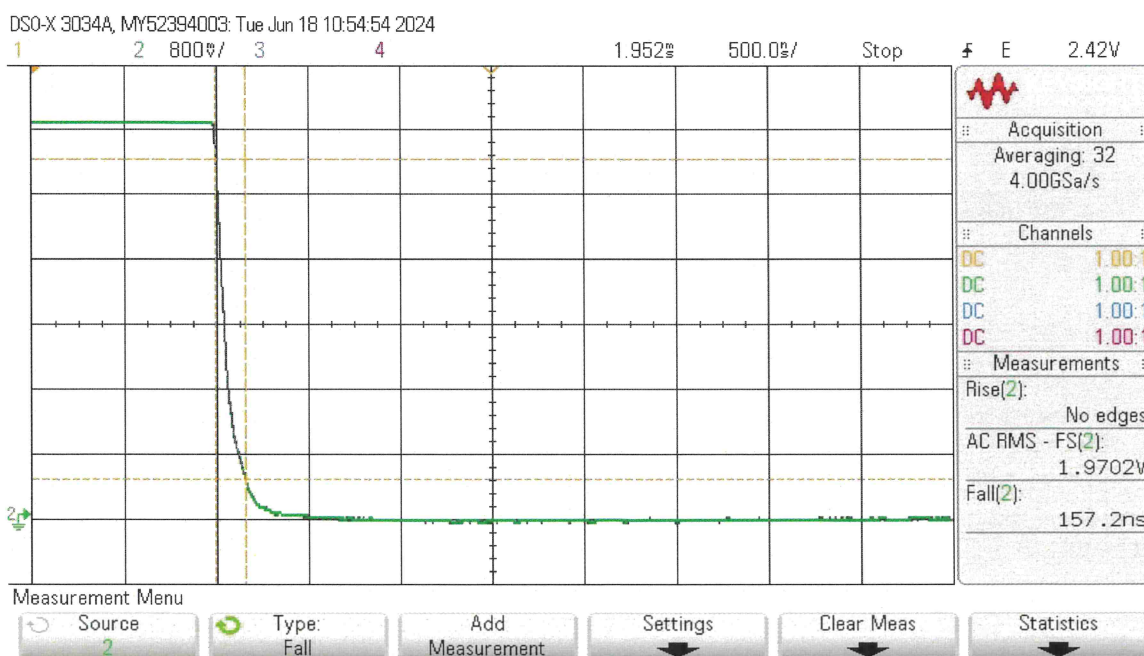


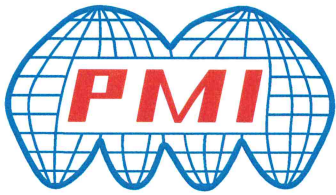
Summary Data
For
EWDM-2G6G-65-70MV-1

Rise Time



Fall and Recovery Time





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

Settling Time

