Re-Certified: /28/21



### SUMMARY TEST DATA ON PLA-14D65G15G35G-20DB-SFF-250W

Customer:	Tested By:	J. Peacher	
SO No:	Temperature:	+25°C	
Model No: PLA-14D65G15G35G-20DB-SFF-250W	Date:	9/18/2020	
Serial No: PL30274/2038	Drawing No:	27630283	Rev: B1

TEST ITEM NO.	PARAMETERS	SPECIFIED VALUE	TEST DATA	QA QC
1	Frequency Range:	14.65 to 15.35 GHz	14.65 to 15.35 GHz	PMI QA 2
2	Insertion Loss:	3.59 dB Max <sup>1</sup>	3.04 dB See Graph	1
3	Peak Power Handling	Low Temp (-55°C) 100 W Max² Room Temp (+25°C) 125 W Max² High Temp (+85°C) 100 W Max²	Pass See Typical Characteristics	
4	Pulse Width	40 μs Typ²	Pass	
5	Average Power	Low Temp (-55°C) 10 W Max <sup>2</sup> Room Temp (+25°C) 12.5 W Max <sup>2</sup> High Temp (+85°C) 10 W Max <sup>2</sup>	Pass See Typical Characteristics	
6	Attenuation:	Logic TTL "0" - 0 dB Attenuation Logic TTL "1" - 20dB Attenuation	Pass	
7	Attenuation Flatness:	± 1 dB Max	0.23 dB See Graph	
8	Attenuation Accuracy:	± 1 dB Max	0.22 dB See Graph	
9	P1dB Limiting Threshold:	+5 dBm Min	Pass See Typical Characteristics	
10	Flat Leakage	(-55°C) +20 dBm Max @ 0 dB Attenuation And 100 W Max (+25°C) +20 dBm Max @ 0 dB Attenuation And 125 W Max (+85°C) +20 dBm Max @ 0 dB Attenuation And 100 W Max	Pass See Typical Characteristics	
11	Switching Speed	90 ns, 50% TTL To 10% RF Max 90 ns, 50% TTL To 90% RF Max	Pass See Typical Characteristics	
12	Phase Matching	15° Max (Unit To Unit)	5.1 ° See Graph	
13	DC Consumption	+5 V @ 150 mA Max	+5 V @ 27 mA	
14	DC Consumption	-15 V @ 150 mA Max	-15 V @ 24 mA	
15	VSWR	2.0:1 Max @ 10 dBm Input	1.85 :1 See Graph	PMI QA 2

@ -10 dBm Input & 0 dB Attenuation @ 0 dB & 20 dB Attenuation with 10% Duty Cycle

QA/QC Approval:



<b>Customer:</b>	Precision Tech	Tested By:	J. Peacher	
SO No:	SO16-117-P-PE	Temperature:	+25°C	
Model No:	PLA-14D65G15G35G-20DB-SFF-250W	Date:	9/18/2020	
Serial No:	PL30274/2038	Drawing No:	27630283	Rev: B1

TEST ITEM NO.	PARAMETERS	SPECIFIED VALUE	TEST DATA	Q
1	Frequency Range:	14.65 to 15.35 GHz	14.65 to 15.35 GHz	PM QA:
2	Insertion Loss:	3.59 dB Max <sup>1</sup>	3.04 dB See Graph	
3	Peak Power Handling	Low Temp (-55°C) 100 W Max <sup>2</sup> Room Temp (+25°C) 125 W Max <sup>2</sup> High Temp (+85°C) 100 W Max <sup>2</sup>	Pass See Typical Characteristics	
4	Pulse Width	40 μs Typ²	Pass	
5	Average Power	Low Temp (-55°C) 10 W Max² Room Temp (+25°C) 12.5 W Max² High Temp (+85°C) 10 W Max²	Pass See Typical Characteristics	
6	Attenuation:	Logic TTL "0" - 0 dB Attenuation Logic TTL "1" - 20dB Attenuation	Pass	
7	Attenuation Flatness:	± 1 dB Max	0.23 dB	
8	Attenuation Accuracy:	Attenuation Accuracy: ± 1 dB Max		
9	P1dB Limiting Threshold:	Shold: +5 dBm Min See Graph  Pass See Typical Characteristics		
10	Flat Leakage	(-55°C) +20 dBm Max @ 0 dB Attenuation And 100 W Max (+25°C) +20 dBm Max @ 0 dB Attenuation And 125 W Max (+85°C) +20 dBm Max @ 0 dB Attenuation And 100 W Max	Pass See Typical Characteristics	
11	Switching Speed	90 ns, 50% TTL To 10% RF Max 90 ns, 50% TTL To 90% RF Max	Pass See Typical Characteristics	
12	Phase Matching	15° Max (Unit To Unit)	5.1 ° See Graph	
13	DC Consumption	+5 V @ 150 mA Max	+5 V @ 27 mA	
14	DC Consumption	-15 V @ 150 mA Max	-15 V @ 24 mA	
15	VSWR 2.0:1 Max @ 10 dBm Input 1.85 :1 See Graph			PN

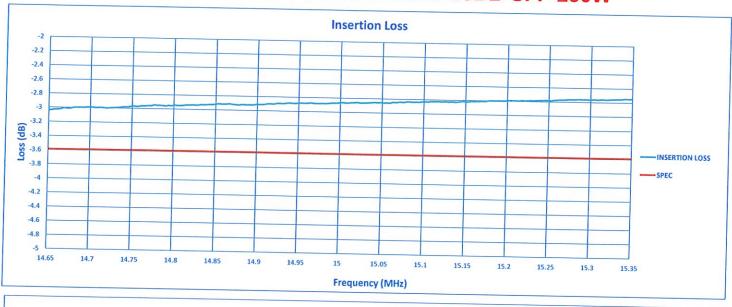
1 @ -10 dBm Input & 0 dB Attenuation

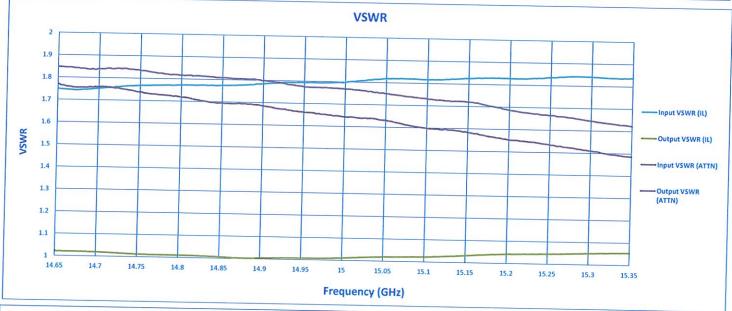
2 @ 0 dB & 20 dB Attenuation with 10% Duty Cycle

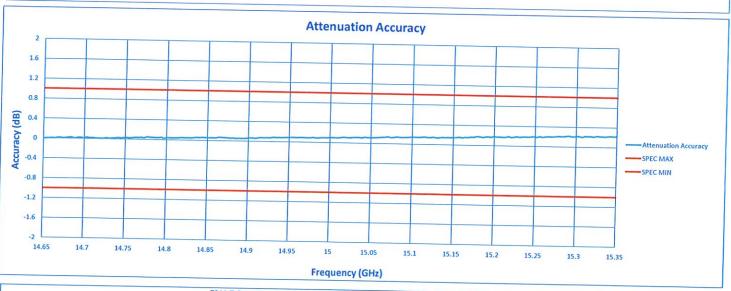
QA/QC Approval:

PMI QA 2 Date: /2/1

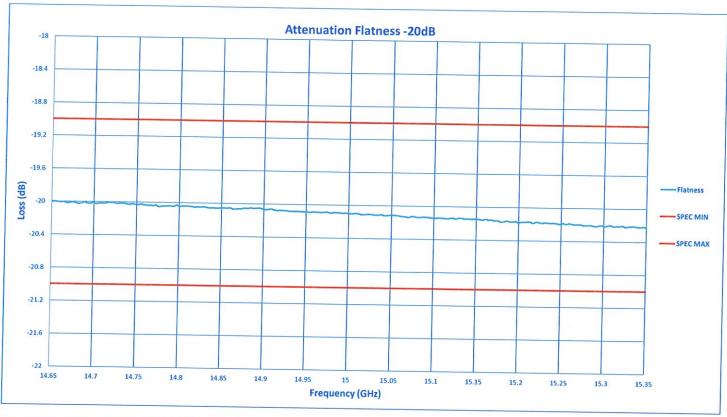














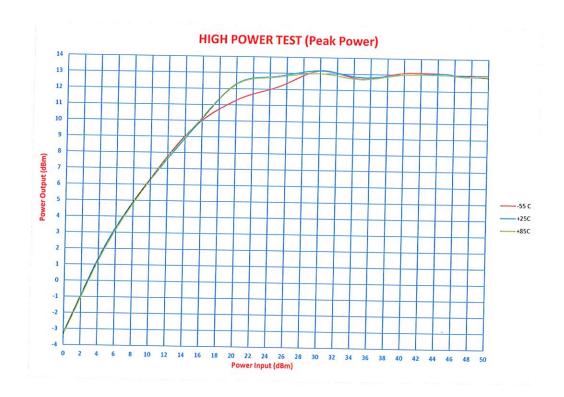




High Power Test (Pulsed)

		5500	15GH	Iz		
Power Input (dbm)	-55°C Power Output		+25°C		+85°C	
	(dbm)	Loss	Power Output (dbm)	Loss	Power Output (dbm)	Loss
0	-2.076	2.076	-2.866	-1.949	-3.385	
1	-0.984	1.984	-1.909	-0.849	-2.417	2.866
2	0.006	1.994	-0.949	0.136		2.9090
3	0.992	2.008	-0.007	1.115	-1.440	2.9490
4	1.980	2.020	0.932	2.091	-0.476	3.0070
5	2.963	2.037	1.868	3.057	0.479	3.0680
6	3.933	2.068	2.798	3.990	1.419	3.1320
7	4.860	2.140	3.723	4.832	2.339	3.2020
8	5.676	2.324	4.631	5.503	3.230	3.2770
9	6.320	2.680	5,500		4.084	3.369
10	6.793	3.207	6.297	5.986	4.890	3.5000
11	7.146	3.854	7.012	6.332	5.630	3.7030
12	7.431	4.569	7.668	6.599	6.313	3.9880
13	7.676	5.324	8.280	6.822	6.941	4.3320
14	7.894	6.106	8.845	7.020	7.530	4.7200
15	8.096	6.904		7.201	8.084	5.1550
16	9.073	7.701	9.374	7.374	8.599	5.6260
17	9.513	8.505	8.299	7.541	9.841	6.1590
18	9.941	9.311	8.495	7.708	10.283	6.7170
19	10.353	10.050	8.689	7.876	10.705	7.2950
20	10.717	10.500	8.950	8.049	11.087	7.9130
25	11.100	13.940	9.500	8.243	11.438	8.5620
30	11.420	18.000	11.060	11.250	11.480	13.5200
35	11.840	22.990	12.000	12.400	12.470	17.5300
36	12.300	23.830	12.010	12.050	12.160	22.8400
37	12.320		12.300	12.190	12.170	23.7000
38	12.390	24.860	12.400	12.120	12.140	24.6800
39	12.430	26.360	12.680	12.010	11.640	25.6100
40	12.520	27.500	12.890	12.000	11.500	26.5700
	12.320	28.520	13.000	11.950	11.480	27.4800





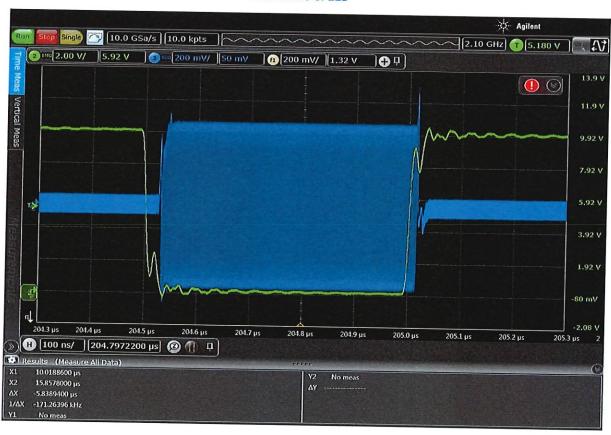
High Power Test (Peak Power)

	15GHz					
Power Input (dbm)	-55°C		+25°C		+85°C	
	Power Output (dbm)	Loss	Power Output (dbm)	Loss	Power Output	Loss
0.00	-3.280	3.260	-3.260	3.28	(dbm)	
5.00	2.380	2.600	2.400		-3.320	3.32
10.00	6.340	3.720	6.280	2.62	2.250	2.75
15.00	9.560	5.500		3.66	6.300	3.70
20.00	11.280	7.700	9.500	5.44	9.580	5.42
25.00	12.150		12.300	8.72	12.260	7.74
30.00	13.180	12.200	12.800	12.85	12.76	12.24
35.00		16.820	13.180	16.82	13.00	17.00
	12.700	22.300	12.800	22.20	12.68	
40.00	13.10	27.000	13.000	27.00		22.32
45.00	13.08	32.000	13.080	31.92	13.000	26.90
46.00	13.00	33.050	12.980		13.000	31.92
47.00	12.95	34.100	12.950	33.02	12.950	33.00
48.00	12.95	35.100		34.05	12.900	34.05
49.00	12.90	36.060	12.900	35.10	12.900	35.05
50.00	12.85		12.920	36.08	12.940	36.10
30.00	12.03	37.120	12.900	37.10	12.880	37.15





#### **SWITCHING SPEED**



Green Trace = Internal Pulse Signal Gen
Blue Trace = Output RF Signal, Use Crystal Detector