

Typical Performance Data

Test Conditions @ +25°C										
FREQUENCY	LOW INPUT POWER		POWER OUTPUT (dBm)				DELTA OUTPUT/1dB DELTA INPUT (dB/dB)			
	INSERTION LOSS	VSWR		+12 dBm	+20 dBm	+25 dBm	+32 dBm	+12 to +20 dBm	+20 to +25 dBm	+25 to +32 dBm
(MHz)	(dB)	Input	Output	INPUT	INPUT	INPUT	INPUT	INPUT	INPUT	INPUT
		(:1)								
30.0	0.07	1.22	1.22	9.58	10.45	11.07	11.58	0.11	0.12	0.07
90.0	0.03	1.06	1.06	9.28	10.39	10.69	11.32	0.14	0.06	0.09
100.0	0.03	1.06	1.06	9.26	10.46	10.68	11.38	0.15	0.04	0.10
250.0	0.05	1.02	1.02	8.96	9.95	10.66	11.85	0.12	0.14	0.17
400.0	0.06	1.02	1.03	8.82	10.15	10.63	12.19	0.17	0.10	0.22
550.0	0.08	1.02	1.03	8.63	10.00	10.71	12.28	0.17	0.14	0.22
700.0	0.11	1.03	1.04	8.27	10.20	10.73	12.10	0.24	0.11	0.20
850.0	0.14	1.03	1.05	8.21	10.19	11.37	11.31	0.25	0.24	-0.01
1000.0	0.12	1.03	1.06	8.56	10.65	11.93	9.71	0.26	0.26	-0.32
1100.0	0.13	1.03	1.06	8.33	11.05	11.59	11.08	0.34	0.11	-0.07
1200.0	0.14	1.04	1.07	8.78	10.16	11.66	9.52	0.17	0.30	-0.31
1800.0	0.18	1.10	1.13	9.00	10.89	10.40	7.62	0.24	-0.10	-0.40
1900.0	0.19	1.11	1.14	8.77	11.29	10.22	7.86	0.32	-0.21	-0.34
2000.0	0.20	1.12	1.15	8.70	11.27	10.17	8.05	0.32	-0.22	-0.30
2200.0	0.21	1.15	1.17	8.70	11.30	9.67	7.60	0.33	-0.33	-0.30
2400.0	0.22	1.16	1.19	8.98	10.59	8.40	8.09	0.20	-0.44	-0.04
2600.0	0.23	1.18	1.20	9.13	10.72	7.95	8.38	0.20	-0.55	0.06
2800.0	0.24	1.19	1.21	9.09	10.23	8.02	7.74	0.14	-0.44	-0.04
3000.0	0.25	1.20	1.22	9.11	9.61	7.56	7.89	0.06	-0.41	0.05
3200.0	0.25	1.19	1.21	9.31	9.73	6.89	8.49	0.05	-0.57	0.23
3400.0	0.25	1.19	1.21	9.64	8.78	6.20	9.34	-0.11	-0.52	0.45
3600.0	0.25	1.18	1.20	9.68	7.90	6.47	9.16	-0.22	-0.29	0.38
3800.0	0.25	1.17	1.19	9.78	8.87	6.18	8.82	-0.11	-0.54	0.38
4000.0	0.24	1.14	1.16	9.83	8.44	6.57	9.00	-0.17	-0.37	0.35
4200.0	0.23	1.13	1.14	10.01	8.03	6.65	9.96	-0.25	-0.28	0.47
4400.0	0.24	1.12	1.13	10.11	7.77	6.64	10.01	-0.29	-0.23	0.48
4600.0	0.23	1.10	1.10	9.97	7.40	6.63	9.50	-0.32	-0.15	0.41
4800.0	0.24	1.11	1.10	9.89	6.07	6.40	9.13	-0.48	0.07	0.39
5000.0	0.25	1.10	1.09	10.03	6.86	6.76	10.04	-0.40	-0.02	0.47
5200.0	0.27	1.11	1.08	9.87	6.01	6.84	10.22	-0.48	0.17	0.48
5400.0	0.28	1.12	1.08	9.86	5.28	6.68	9.55	-0.57	0.28	0.41
5600.0	0.30	1.13	1.08	9.95	5.87	6.18	7.95	-0.51	0.06	0.25
5800.0	0.34	1.14	1.08	9.77	5.54	5.78	7.81	-0.53	0.05	0.29
6000.0	0.35	1.14	1.09	9.82	5.11	6.05	7.90	-0.59	0.19	0.26
6200.0	0.37	1.14	1.09	9.92	5.30	6.00	8.11	-0.58	0.14	0.30
6400.0	0.39	1.14	1.09	9.95	5.16	6.21	8.44	-0.60	0.21	0.32
6600.0	0.41	1.15	1.09	9.86	5.09	6.07	8.08	-0.60	0.20	0.29
6800.0	0.42	1.16	1.12	9.86	5.11	6.29	8.24	-0.59	0.24	0.28
7000.0	0.45	1.17	1.13	10.05	5.60	6.46	8.92	-0.56	0.17	0.35
7200.0	0.48	1.18	1.15	9.94	5.22	6.82	9.57	-0.59	0.32	0.39
7400.0	0.50	1.19	1.17	9.55	5.04	6.46	8.56	-0.56	0.28	0.30
7600.0	0.53	1.21	1.20	9.56	5.74	5.95	7.96	-0.48	0.04	0.29
7800.0	0.55	1.21	1.22	9.29	5.44	6.07	8.09	-0.48	0.13	0.29
8000.0	0.59	1.24	1.25	9.42	5.42	6.46	9.46	-0.50	0.21	0.43
8200.0	0.61	1.22	1.25	8.41	4.47	4.96	7.29	-0.49	0.10	0.33



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 The Design Engineers Search Engine Provides ACTUAL Data Instantly From MINI-CIRCUITS At: www.minicircuits.com



IF/RF MICROWAVE COMPONENTS

Typical Performance Data

Test Conditions @ -55°C										
FREQUENCY	LOW INPUT POWER			POWER OUTPUT (dBm)				DELTA OUTPUT/1dB DELTA INPUT (dB/dB)		
	INSERTION LOSS	VSWR		+12 dBm	+20 dBm	+25 dBm	+32 dBm	+12 to +20 dBm	+20 to +25 dBm	+25 to +32 dBm
(MHz)		(dB)	Input							
		(:1)								
30.0	0.06	1.23	1.23	10.48	11.38	11.95	12.31	0.11	0.11	0.05
90.0	0.02	1.07	1.07	10.45	11.53	11.65	12.05	0.14	0.02	0.06
100.0	0.02	1.07	1.07	10.42	11.60	11.63	12.07	0.15	0.01	0.06
250.0	0.03	1.02	1.02	10.24	11.05	11.51	12.24	0.10	0.09	0.10
400.0	0.04	1.01	1.03	10.22	11.25	11.45	12.58	0.13	0.04	0.16
550.0	0.05	1.03	1.02	10.09	10.98	11.41	12.80	0.11	0.09	0.20
700.0	0.07	1.03	1.04	9.68	11.11	11.27	12.80	0.18	0.03	0.22
850.0	0.12	1.03	1.05	9.53	10.86	11.89	12.02	0.17	0.21	0.02
1000.0	0.07	1.03	1.04	9.73	11.21	12.52	9.96	0.19	0.26	-0.37
1100.0	0.07	1.01	1.05	9.70	11.55	12.14	11.69	0.23	0.12	-0.06
1200.0	0.08	1.01	1.05	10.13	10.66	12.34	9.44	0.07	0.34	-0.41
1800.0	0.11	1.07	1.10	10.02	11.47	10.74	7.89	0.18	-0.15	-0.41
1900.0	0.12	1.08	1.11	9.73	11.85	10.48	7.79	0.27	-0.27	-0.38
2000.0	0.13	1.11	1.13	9.62	11.77	10.55	7.35	0.27	-0.24	-0.46
2200.0	0.14	1.14	1.17	9.47	11.73	9.64	7.14	0.28	-0.42	-0.36
2400.0	0.15	1.18	1.20	9.55	10.68	6.19	10.45	0.14	-0.90	0.61
2600.0	0.16	1.21	1.24	9.61	11.04	4.60	9.37	0.18	-1.29	0.68
2800.0	0.16	1.22	1.24	9.45	10.68	7.04	8.36	0.15	-0.73	0.19
3000.0	0.17	1.23	1.25	9.47	9.91	6.54	9.42	0.05	-0.67	0.41
3200.0	0.16	1.24	1.27	9.65	9.95	5.84	8.74	0.04	-0.82	0.41
3400.0	0.15	1.20	1.22	9.93	8.15	5.55	8.60	-0.22	-0.52	0.44
3600.0	0.13	1.18	1.21	10.06	7.42	5.55	8.83	-0.33	-0.37	0.47
3800.0	0.12	1.14	1.16	10.28	8.72	5.72	7.57	-0.20	-0.60	0.26
4000.0	0.10	1.09	1.12	10.43	7.91	5.53	8.86	-0.32	-0.48	0.48
4200.0	0.10	1.07	1.10	10.52	7.08	6.14	7.74	-0.43	-0.19	0.23
4400.0	0.10	1.06	1.08	10.64	5.54	6.27	7.73	-0.64	0.15	0.21
4600.0	0.11	1.09	1.09	10.44	5.16	6.15	7.34	-0.66	0.20	0.17
4800.0	0.12	1.10	1.10	10.47	3.61	6.62	7.01	-0.86	0.60	0.06
5000.0	0.14	1.11	1.09	10.52	4.51	6.84	7.27	-0.75	0.47	0.06
5200.0	0.16	1.15	1.13	10.37	3.93	6.68	7.62	-0.81	0.55	0.13
5400.0	0.17	1.13	1.10	10.29	3.32	6.40	7.24	-0.87	0.62	0.12
5600.0	0.18	1.13	1.12	10.37	3.82	6.36	5.23	-0.82	0.51	-0.16
5800.0	0.20	1.12	1.09	10.13	3.69	5.91	4.94	-0.81	0.44	-0.14
6000.0	0.21	1.13	1.10	10.26	3.15	6.15	5.51	-0.89	0.60	-0.09
6200.0	0.22	1.13	1.10	10.34	3.68	5.87	6.10	-0.83	0.44	0.03
6400.0	0.22	1.12	1.09	10.54	3.71	5.95	5.66	-0.85	0.45	-0.04
6600.0	0.25	1.14	1.11	10.50	3.72	5.62	4.48	-0.85	0.38	-0.16
6800.0	0.25	1.13	1.11	10.63	3.39	5.77	4.95	-0.91	0.48	-0.12
7000.0	0.28	1.14	1.14	10.79	3.91	5.63	5.38	-0.86	0.34	-0.04
7200.0	0.28	1.15	1.15	10.72	3.57	5.89	6.06	-0.89	0.46	0.02
7400.0	0.29	1.17	1.19	10.47	3.60	5.83	5.57	-0.86	0.45	-0.04
7600.0	0.30	1.19	1.19	10.40	4.62	5.42	3.69	-0.72	0.16	-0.25
7800.0	0.32	1.22	1.23	10.23	3.40	5.71	5.27	-0.85	0.46	-0.06
8000.0	0.34	1.23	1.25	10.26	3.53	5.32	6.04	-0.84	0.36	0.10
8200.0	0.37	1.27	1.29	9.36	2.66	5.25	3.72	-0.84	0.52	-0.22



Typical Performance Data

Test Conditions @ +100°C										
FREQUENCY	LOW INPUT POWER			POWER OUTPUT (dBm)				DELTA OUTPUT/1dB DELTA INPUT (dB/dB)		
	INSERTION LOSS	VSWR		+12 dBm INPUT	+20 dBm INPUT	+25 dBm INPUT	+32 dBm INPUT	+12 to +20 dBm INPUT	+20 to +25 dBm INPUT	+25 to +32 dBm INPUT
(MHz)		(dB)	Input							
		(:1)								
30.0	0.07	1.22	1.22	8.530	9.44	10.16	10.85	0.11	0.14	0.10
90.0	0.04	1.06	1.06	7.960	9.21	9.76	10.72	0.16	0.11	0.14
100.0	0.04	1.05	1.05	7.930	9.28	9.77	10.83	0.17	0.10	0.15
250.0	0.06	1.02	1.03	7.610	8.91	10.00	11.65	0.16	0.22	0.24
400.0	0.08	1.04	1.03	7.400	9.23	10.07	11.74	0.23	0.17	0.24
550.0	0.11	1.04	1.04	7.260	9.32	10.30	11.78	0.26	0.20	0.21
700.0	0.15	1.05	1.06	7.020	9.70	10.49	11.59	0.34	0.16	0.16
850.0	0.17	1.06	1.08	7.180	9.93	11.02	10.94	0.34	0.22	-0.01
1000.0	0.17	1.07	1.08	7.780	10.43	11.61	10.05	0.33	0.24	-0.22
1100.0	0.18	1.08	1.09	7.380	10.88	11.42	11.07	0.44	0.11	-0.05
1200.0	0.20	1.09	1.10	8.030	10.09	11.55	10.37	0.26	0.29	-0.17
1800.0	0.27	1.15	1.17	8.570	11.16	11.65	8.89	0.32	0.10	-0.39
1900.0	0.28	1.16	1.18	8.320	11.47	11.59	8.75	0.39	0.02	-0.41
2000.0	0.30	1.17	1.19	8.170	11.66	11.53	9.26	0.44	-0.03	-0.32
2200.0	0.32	1.19	1.21	8.110	11.54	11.45	9.76	0.43	-0.02	-0.24
2400.0	0.34	1.21	1.22	8.370	11.15	10.78	9.76	0.35	-0.07	-0.15
2600.0	0.36	1.21	1.22	8.450	11.77	10.39	9.94	0.42	-0.28	-0.06
2800.0	0.38	1.22	1.23	8.320	11.28	10.70	9.76	0.37	-0.12	-0.13
3000.0	0.40	1.22	1.23	8.240	11.04	10.40	9.49	0.35	-0.13	-0.13
3200.0	0.42	1.23	1.23	8.370	11.41	10.10	9.87	0.38	-0.26	-0.03
3400.0	0.45	1.22	1.23	8.650	10.90	9.31	11.13	0.28	-0.32	0.26
3600.0	0.45	1.22	1.22	8.610	10.69	9.75	10.88	0.26	-0.19	0.16
3800.0	0.46	1.22	1.22	8.660	10.96	9.34	10.54	0.29	-0.32	0.17
4000.0	0.48	1.21	1.21	8.650	10.64	9.90	10.69	0.25	-0.15	0.11
4200.0	0.48	1.20	1.20	8.870	10.38	9.19	12.02	0.19	-0.24	0.40
4400.0	0.50	1.20	1.19	8.880	10.54	9.08	12.20	0.21	-0.29	0.45
4600.0	0.50	1.19	1.16	8.660	10.31	9.03	11.73	0.21	-0.26	0.39
4800.0	0.52	1.20	1.16	8.510	9.97	8.71	11.38	0.18	-0.25	0.38
5000.0	0.52	1.19	1.14	8.580	9.99	8.60	12.05	0.18	-0.28	0.49
5200.0	0.55	1.18	1.10	8.350	9.58	8.41	12.23	0.15	-0.23	0.55
5400.0	0.57	1.18	1.09	8.240	9.25	8.09	11.67	0.13	-0.23	0.51
5600.0	0.59	1.19	1.08	8.340	9.06	8.06	10.08	0.09	-0.20	0.29
5800.0	0.64	1.19	1.08	8.070	8.88	7.75	9.65	0.10	-0.23	0.27
6000.0	0.66	1.19	1.07	8.090	8.31	7.86	10.03	0.03	-0.09	0.31
6200.0	0.70	1.18	1.08	8.140	8.41	7.84	10.36	0.03	-0.11	0.36
6400.0	0.74	1.20	1.10	8.200	7.86	8.20	10.83	-0.04	0.07	0.38
6600.0	0.79	1.21	1.11	8.050	8.02	8.09	10.28	0.00	0.01	0.31
6800.0	0.84	1.20	1.12	8.000	7.69	8.29	10.39	-0.04	0.12	0.30
7000.0	0.88	1.23	1.14	8.100	7.84	8.41	11.12	-0.03	0.11	0.39
7200.0	0.92	1.21	1.16	7.960	7.53	8.69	11.83	-0.05	0.23	0.45
7400.0	0.98	1.25	1.20	7.500	7.31	8.34	11.01	-0.02	0.21	0.38
7600.0	1.02	1.22	1.18	7.400	7.52	7.97	10.25	0.01	0.09	0.33
7800.0	1.08	1.24	1.24	7.230	7.28	7.87	10.57	0.01	0.12	0.39
8000.0	1.14	1.23	1.24	7.340	7.18	8.24	11.90	-0.02	0.21	0.52
8200.0	1.20	1.24	1.26	6.790	6.70	7.22	9.78	-0.01	0.10	0.37



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 The Design Engineers Search Engine Provides ACTUAL Data Instantly From MINI-CIRCUITS At: www.minicircuits.com



IF/RF MICROWAVE COMPONENTS

# Surface Mount Limiter

# CLM-83-2W+

## Typical Performance Data

### Test Conditions @ 25°C

POWER INPUT	POWER OUTPUT	POWER INPUT	POWER OUTPUT	POWER INPUT	POWER OUTPUT
@ 30 MHz		@ 3000 MHz		@ 8200 MHz	
(dBm)		(dBm)		(dBm)	
-10	-10.07	-10	-10.25	-10	-10.61
12	9.58	12	9.11	12	8.41
20	10.45	20	9.61	20	4.47
25	11.07	25	7.56	25	4.96
32	11.58	32	7.89	32	7.29

### Test Conditions @ -55°C

POWER INPUT	POWER OUTPUT	POWER INPUT	POWER OUTPUT	POWER INPUT	POWER OUTPUT
@ 30 MHz		@ 3000 MHz		@ 8200 MHz	
(dBm)		(dBm)		(dBm)	
-10	-10.06	-10	-10.17	-10	-10.37
12	10.48	12	9.47	12	9.36
20	11.38	20	9.91	20	2.66
25	11.95	25	6.54	25	5.25
32	12.31	32	9.42	32	3.72

### Test Conditions @ 100°C

POWER INPUT	POWER OUTPUT	POWER INPUT	POWER OUTPUT	POWER INPUT	POWER OUTPUT
@ 30 MHz		@ 3000 MHz		@ 8200 MHz	
(dBm)		(dBm)		(dBm)	
-10	-10.07	-10	-10.40	-10	-11.20
12	8.53	12	8.24	12	6.79
20	9.44	20	11.04	20	6.70
25	10.16	25	10.4	25	7.22
32	10.85	32	9.49	32	9.78

