

# Directional Coupler

# JYDC-7-1HP

## Typical Performance Data

TEST CONDITIONS: INPUT POWER =0 dBm @Temperature = +25°C

FREQUENCY (MHz)	INSERTION LOSS (dB)	COUPLING LOSS (dB)	DIRECTIVITY (dB)	RETURN LOSS		
				IN	(dB) OUT	CPL
30	1.11	7.27	25.25	20.80	17.88	16.19
40	1.14	7.29	27.28	21.43	18.93	16.65
45	1.16	7.31	27.83	21.54	19.26	16.71
50	1.18	7.32	28.13	21.61	19.49	16.76
75	1.22	7.37	28.65	21.68	19.92	16.82
100	1.24	7.39	28.55	21.66	19.85	16.86
150	1.26	7.42	27.82	21.48	19.43	16.83
175	1.28	7.43	27.42	21.30	19.15	16.77
200	1.29	7.43	26.86	21.12	18.87	16.69
225	1.31	7.44	26.28	20.91	18.61	16.59
250	1.32	7.43	25.72	20.70	18.36	16.46
275	1.34	7.43	25.10	20.48	18.11	16.34
300	1.36	7.42	24.46	20.29	17.86	16.22
325	1.39	7.42	23.86	20.08	17.64	16.08
350	1.40	7.41	23.25	19.90	17.40	15.95
375	1.42	7.40	22.63	19.72	17.17	15.82
400	1.45	7.38	22.02	19.54	16.93	15.70
450	1.50	7.36	20.86	19.24	16.53	15.46
475	1.53	7.34	20.30	19.07	16.33	15.33
500	1.56	7.33	19.73	18.89	16.14	15.22
525	1.59	7.31	19.22	18.73	15.96	15.09
550	1.63	7.30	18.71	18.57	15.77	14.98
600	1.70	7.27	17.72	18.22	15.45	14.73
625	1.75	7.26	17.27	18.04	15.32	14.60
650	1.79	7.25	16.83	17.85	15.19	14.46
675	1.83	7.24	16.42	17.63	15.08	14.31
700	1.89	7.25	15.97	17.36	14.98	14.18
750	1.99	7.23	15.22	16.73	14.77	13.81
800	2.11	7.24	14.53	16.03	14.65	13.42
850	2.26	7.27	13.91	15.26	14.59	12.98
900	2.43	7.33	13.35	14.41	14.58	12.52
950	2.61	7.40	12.85	13.53	14.63	12.04
1000	2.84	7.51	12.44	12.66	14.76	11.56
1050	3.11	7.66	12.12	11.80	14.97	11.11
1100	3.40	7.83	11.85	11.00	15.24	10.72
1150	3.75	8.04	11.69	10.25	15.54	10.42
1200	4.14	8.30	11.63	9.58	15.87	10.22
1250	4.59	8.59	11.65	8.99	16.14	10.18
1300	5.11	8.93	11.71	8.50	16.22	10.33
1350	5.71	9.30	11.74	8.10	16.07	10.75
1400	6.42	9.72	11.52	7.81	15.62	11.54
1450	7.28	10.16	10.77	7.64	14.88	12.84
1500	8.35	10.59	9.34	7.61	13.94	14.91
1550	9.75	10.95	7.47	7.76	12.92	18.18
1600	11.59	11.14	5.66	8.13	11.91	22.75
1650	14.07	11.04	4.29	8.85	10.98	23.49
1700	17.00	10.98	3.23	9.83	10.21	19.02
1750	18.64	10.93	2.47	11.00	9.49	15.27
1800	16.89	11.29	1.71	11.69	8.84	12.15
1900	13.00	13.29	0.12	10.11	7.79	7.77
2000	11.95	16.86	2.87	7.61	7.10	5.36

**Notes**

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- B. Electrical specifications and performance data contained in this specification document are based on Mini-Circuits' applicable established test performance criteria and measurement instructions.
- C. The parts covered by this specification document are subject to Mini-Circuits' standard limited warranty and terms and conditions (collectively, "Standard Terms"); Purchasers of this part are entitled to the rights and benefits contained therein. For a full statement of the Standard Terms and the exclusive rights and remedies thereunder, please visit Mini-Circuits' website at [www.minicircuits.com/MCLStore/terms.jsp](http://www.minicircuits.com/MCLStore/terms.jsp)



# Directional Coupler

# JYDC-7-1HP

## Typical Performance Data

TEST CONDITIONS: INPUT POWER =0 dBm @Temperature = -40°C

FREQUENCY (MHz)	INSERTION LOSS (dB)	COUPLING LOSS (dB)	DIRECTIVITY (dB)	RETURN LOSS		
				IN	(dB) OUT	CPL
30	1.08	7.22	25.31	21.02	17.83	16.36
40	1.11	7.24	27.88	21.80	18.82	16.95
45	1.12	7.25	28.81	21.96	19.15	17.05
50	1.14	7.26	29.42	22.05	19.38	17.11
75	1.18	7.31	30.50	21.87	19.74	17.05
100	1.20	7.33	29.84	21.52	19.49	16.92
150	1.22	7.34	28.80	21.21	19.04	16.91
175	1.23	7.35	28.55	20.97	18.76	16.83
200	1.25	7.35	27.82	20.62	18.41	16.63
225	1.26	7.35	26.89	20.29	18.09	16.44
250	1.27	7.34	26.17	20.08	17.85	16.31
275	1.29	7.34	25.54	19.91	17.65	16.20
300	1.30	7.33	24.91	19.72	17.44	16.04
325	1.32	7.32	24.22	19.47	17.20	15.85
350	1.33	7.31	23.49	19.26	16.95	15.70
375	1.35	7.30	22.82	19.09	16.73	15.59
400	1.38	7.28	22.22	18.91	16.49	15.44
450	1.42	7.25	20.94	18.54	16.05	15.11
475	1.45	7.23	20.33	18.38	15.84	14.96
500	1.47	7.22	19.75	18.26	15.67	14.85
525	1.50	7.20	19.25	18.14	15.51	14.73
550	1.53	7.18	18.74	18.00	15.34	14.62
600	1.59	7.14	17.72	17.72	15.04	14.41
625	1.63	7.13	17.27	17.60	14.93	14.28
650	1.66	7.12	16.86	17.46	14.81	14.13
675	1.70	7.10	16.43	17.26	14.69	13.98
700	1.75	7.10	15.96	17.01	14.58	13.90
750	1.84	7.08	15.20	16.44	14.36	13.57
800	1.95	7.08	14.51	15.85	14.23	13.16
850	2.08	7.09	13.87	15.14	14.17	12.75
900	2.23	7.12	13.30	14.32	14.17	12.35
950	2.40	7.18	12.79	13.49	14.23	11.93
1000	2.61	7.27	12.36	12.62	14.34	11.45
1050	2.85	7.39	12.00	11.73	14.51	11.01
1100	3.13	7.55	11.74	10.94	14.76	10.56
1150	3.45	7.74	11.52	10.14	15.01	10.27
1200	3.83	7.99	11.36	9.39	15.25	9.98
1250	4.27	8.27	11.31	8.74	15.51	9.75
1300	4.75	8.58	11.33	8.22	15.63	9.96
1350	5.33	8.95	11.28	7.73	15.51	10.22
1400	6.02	9.38	11.05	7.34	15.15	10.79
1450	6.83	9.82	10.43	7.08	14.54	11.88
1500	7.85	10.29	9.18	6.88	13.69	13.58
1550	9.14	10.70	7.43	6.84	12.76	16.65
1600	10.84	10.96	5.65	6.99	11.82	21.12
1650	13.12	10.88	4.22	7.37	10.93	24.06
1700	15.97	10.75	3.19	7.97	10.25	20.09
1750	18.59	10.47	2.53	8.91	9.57	16.44
1800	17.71	10.54	1.95	9.79	8.95	13.13
1900	12.96	11.94	0.51	9.67	7.81	8.31
2000	11.34	15.24	1.94	7.63	7.05	5.40

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# Directional Coupler

# JYDC-7-1HP

## Typical Performance Data

TEST CONDITIONS: INPUT POWER =0 dBm @Temperature = +85°C

FREQUENCY (MHz)	INSERTION LOSS (dB)	COUPLING LOSS (dB)	DIRECTIVITY (dB)	RETURN LOSS		
				IN	(dB) OUT	CPL
30	1.14	7.30	25.40	20.61	18.07	16.05
40	1.19	7.34	26.81	21.05	19.08	16.36
45	1.20	7.35	27.08	21.13	19.37	16.40
50	1.22	7.37	27.21	21.20	19.57	16.44
75	1.26	7.41	27.48	21.47	20.00	16.60
100	1.27	7.44	27.73	21.73	20.04	16.79
150	1.30	7.48	27.22	21.60	19.60	16.75
175	1.32	7.49	26.68	21.43	19.31	16.68
200	1.34	7.49	26.19	21.37	19.09	16.65
225	1.35	7.50	25.83	21.27	18.88	16.61
250	1.37	7.50	25.42	21.06	18.62	16.49
275	1.39	7.50	24.82	20.77	18.33	16.34
300	1.41	7.50	24.19	20.56	18.06	16.21
325	1.44	7.49	23.65	20.38	17.84	16.10
350	1.45	7.49	23.13	20.22	17.62	15.98
375	1.48	7.48	22.58	20.02	17.38	15.86
400	1.51	7.47	21.99	19.81	17.12	15.72
450	1.57	7.45	20.89	19.50	16.72	15.50
475	1.60	7.44	20.35	19.33	16.52	15.39
500	1.63	7.43	19.80	19.13	16.33	15.28
525	1.67	7.42	19.29	18.93	16.13	15.16
550	1.71	7.41	18.77	18.75	15.94	15.04
600	1.79	7.39	17.77	18.37	15.59	14.77
625	1.83	7.38	17.32	18.19	15.44	14.63
650	1.88	7.38	16.90	17.98	15.30	14.47
675	1.93	7.37	16.46	17.75	15.18	14.33
700	1.98	7.38	16.02	17.48	15.07	14.19
750	2.09	7.38	15.28	16.87	14.87	13.82
800	2.23	7.40	14.59	16.20	14.75	13.42
850	2.38	7.44	13.97	15.44	14.70	12.98
900	2.55	7.51	13.43	14.58	14.70	12.50
950	2.75	7.59	12.93	13.71	14.78	12.02
1000	2.98	7.71	12.54	12.85	14.94	11.54
1050	3.26	7.87	12.21	11.97	15.16	11.10
1100	3.56	8.06	11.99	11.18	15.52	10.72
1150	3.91	8.27	11.88	10.48	15.92	10.44
1200	4.30	8.53	11.92	9.86	16.36	10.26
1250	4.75	8.82	12.05	9.32	16.72	10.21
1300	5.26	9.14	12.27	8.86	16.88	10.33
1350	5.84	9.49	12.52	8.52	16.74	10.71
1400	6.52	9.88	12.55	8.29	16.27	11.45
1450	7.34	10.27	11.99	8.20	15.45	12.57
1500	8.37	10.65	10.60	8.27	14.43	14.33
1550	9.69	10.97	8.64	8.55	13.35	16.91
1600	11.44	11.14	6.70	9.10	12.26	20.38
1650	13.77	11.13	5.13	10.05	11.25	22.80
1700	16.61	11.12	3.89	11.35	10.41	20.27
1750	18.53	11.18	2.97	12.79	9.65	16.33
1800	17.36	11.63	2.05	13.26	9.01	12.91
1900	13.67	13.74	0.00	10.67	8.02	8.29
2000	12.54	17.28	2.82	7.95	7.38	5.83

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