

Bi-Directional Coupler

BDCH-35-272

Typical Performance Data

TEST CONDITIONS: INPUT POWER =+10 dBm @Temperature = -55°C

FREQ. (MHz)	INSERTION LOSS (dB)		COUPLING (dB)		DIRECTIVITY (dB)		RETURN LOSS (dB)			
	In - Out	Rev - Fwd	In - Fwd	Rev - Out	In - Rev	Out - Fwd	In	Out	Rev	Fwd
	500	0.09	0.06	37.47	37.46	27.96	28.08	27.83	28.79	26.89
550	0.09	0.06	36.90	36.89	27.77	28.08	28.01	28.78	26.65	25.98
600	0.09	0.06	36.43	36.43	27.95	28.30	27.60	28.51	26.74	25.91
650	0.10	0.07	36.05	36.04	27.71	27.52	27.15	27.75	26.44	25.74
700	0.10	0.07	35.74	35.73	27.78	27.29	26.90	27.34	26.52	25.87
750	0.10	0.07	35.50	35.49	27.25	26.70	26.65	26.65	26.10	25.64
800	0.11	0.08	35.30	35.30	26.38	26.39	26.25	26.19	25.92	25.42
850	0.11	0.08	35.23	35.23	26.54	26.48	26.11	25.70	25.32	25.09
900	0.12	0.08	35.16	35.18	26.37	27.12	25.81	25.33	25.01	24.86
950	0.12	0.09	35.17	35.17	25.48	25.97	25.59	24.86	24.60	24.78
1000	0.13	0.09	35.20	35.22	25.49	25.86	24.69	23.94	24.28	24.54
1050	0.14	0.10	35.32	35.31	25.13	26.15	23.83	23.02	23.75	24.22
1100	0.14	0.10	35.43	35.43	24.78	26.01	22.72	22.00	23.12	23.50
1150	0.15	0.11	35.51	35.55	23.53	25.07	21.96	21.28	22.52	23.01
1200	0.16	0.12	35.73	35.85	25.00	26.99	21.31	20.70	21.91	22.35
1250	0.16	0.12	35.99	36.00	25.46	26.98	20.83	20.27	21.37	21.84
1300	0.17	0.13	36.15	36.40	27.42	28.56	20.39	19.84	20.89	21.32
1350	0.18	0.13	36.49	36.48	27.59	28.90	20.01	19.53	20.50	20.90
1400	0.18	0.14	36.69	36.67	26.38	27.30	19.64	19.26	20.22	20.52
1450	0.19	0.14	36.87	36.80	24.26	26.02	19.42	19.04	19.97	20.33
1500	0.19	0.14	37.04	36.96	22.81	23.50	19.30	18.97	19.91	20.21
1550	0.20	0.15	36.90	37.42	26.37	31.85	19.33	19.01	19.89	20.32
1600	0.20	0.15	37.07	37.17	22.61	23.82	19.49	19.26	20.10	20.39
1650	0.19	0.15	37.07	37.07	22.35	21.77	19.92	19.68	20.30	20.67
1700	0.19	0.15	37.05	37.01	21.07	20.52	20.36	20.15	20.67	20.90
1750	0.19	0.14	36.99	36.84	19.57	20.13	20.91	20.68	21.07	21.41
1800	0.19	0.15	36.79	36.75	19.13	19.50	21.31	21.15	21.67	21.78
1850	0.18	0.14	36.59	36.46	18.68	18.86	21.82	21.66	22.18	22.48
1900	0.19	0.14	36.37	36.20	18.31	18.68	22.17	22.11	22.86	22.88
1950	0.19	0.13	36.17	36.04	17.15	17.91	22.81	22.82	23.49	23.59
2000	0.19	0.14	36.11	35.88	17.29	17.46	23.56	23.58	24.24	24.13
2050	0.18	0.15	35.81	35.50	17.04	17.98	24.81	24.83	25.17	25.06
2100	0.18	0.14	35.63	35.38	16.33	16.77	26.01	26.21	26.20	25.85
2150	0.18	0.14	35.50	35.18	16.21	16.68	28.07	28.25	27.26	26.88
2200	0.18	0.14	35.42	35.14	16.43	17.11	29.84	30.29	28.58	27.68
2250	0.18	0.14	35.31	35.12	15.71	16.84	32.64	33.37	29.26	28.35
2300	0.18	0.16	35.32	35.08	15.90	17.25	34.04	35.29	29.57	28.40
2350	0.18	0.15	35.36	35.14	15.65	16.77	35.87	36.92	28.91	28.13
2400	0.19	0.15	35.43	35.14	14.96	16.34	35.44	36.53	28.29	27.47
2450	0.19	0.16	35.54	35.42	14.92	16.50	34.34	35.11	27.43	26.81
2500	0.20	0.15	35.67	35.62	14.68	16.07	32.87	33.26	26.58	26.12
2550	0.20	0.16	36.03	35.82	14.30	16.08	31.20	31.30	25.70	25.43
2600	0.21	0.18	36.20	36.40	13.33	16.02	29.42	29.61	24.89	24.47
2650	0.21	0.17	36.76	36.61	12.83	14.78	28.04	28.15	24.04	23.90
2700	0.22	0.18	37.08	37.03	12.16	15.39	26.82	26.69	23.12	22.88
2750	0.22	0.18	37.61	37.50	12.32	13.61	25.70	25.64	22.38	22.35
2800	0.24	0.19	38.04	38.25	10.43	13.56	24.61	24.47	21.39	21.37
2850	0.24	0.20	38.65	38.51	11.62	14.56	23.36	23.24	20.68	20.68
2900	0.26	0.21	39.22	39.61	10.89	12.56	22.17	22.10	19.70	19.73
2950	0.26	0.23	40.45	40.49	10.47	13.52	21.20	21.03	18.99	19.06
3000	0.29	0.25	42.16	40.90	7.49	7.56	20.14	19.98	18.10	18.32

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



Bi-Directional Coupler

BDCH-35-272

Typical Performance Data

TEST CONDITIONS: INPUT POWER = +10 dBm @Temperature = +25°C

FREQ. (MHz)	INSERTION LOSS (dB)		COUPLING (dB)		DIRECTIVITY (dB)		RETURN LOSS (dB)			
	In - Out	Rev - Fwd	In - Fwd	Rev - Out	In - Rev	Out - Fwd	In	Out	Rev	Fwd
	500	0.07	0.07	37.42	37.39	26.60	27.53	26.12	27.16	26.05
550	0.08	0.07	36.86	36.83	26.33	27.25	26.12	27.00	25.69	25.52
600	0.08	0.08	36.40	36.37	26.05	27.02	25.94	26.77	26.00	25.60
650	0.09	0.08	36.01	35.98	25.86	26.82	26.23	27.04	25.91	25.61
700	0.09	0.08	35.70	35.68	25.81	26.75	26.14	26.88	25.98	25.78
750	0.09	0.09	35.47	35.45	25.58	26.38	26.29	26.78	26.00	25.91
800	0.10	0.09	35.30	35.29	25.57	26.50	26.07	26.27	25.84	25.72
850	0.10	0.10	35.19	35.18	25.35	26.35	25.90	25.89	25.78	25.82
900	0.11	0.10	35.14	35.12	25.19	26.62	25.28	25.28	25.38	25.51
950	0.11	0.10	35.14	35.12	25.02	26.32	24.93	24.64	24.93	25.33
1000	0.12	0.11	35.18	35.17	25.05	26.57	24.05	23.79	24.44	24.81
1050	0.13	0.12	35.28	35.29	25.48	27.07	23.53	23.14	23.76	24.30
1100	0.13	0.12	35.42	35.42	25.11	27.00	22.70	22.37	23.20	23.72
1150	0.14	0.13	35.58	35.57	25.06	26.64	22.13	21.85	22.65	23.21
1200	0.15	0.13	35.77	35.77	24.99	26.88	21.60	21.28	22.11	22.70
1250	0.16	0.14	35.97	35.98	24.76	26.47	21.00	20.77	21.61	22.10
1300	0.16	0.15	36.14	36.26	24.62	26.72	20.70	20.44	21.24	21.79
1350	0.17	0.15	36.45	36.51	25.96	27.82	20.26	20.09	20.91	21.38
1400	0.17	0.16	36.65	36.77	26.09	27.34	20.18	19.99	20.76	21.19
1450	0.18	0.16	36.89	36.89	25.30	25.64	19.82	19.67	20.48	20.82
1500	0.18	0.16	37.03	36.99	24.08	24.27	19.95	19.83	20.49	20.82
1550	0.19	0.17	37.12	37.08	23.29	23.01	19.74	19.64	20.37	20.66
1600	0.19	0.17	37.22	37.11	21.67	22.36	20.02	19.88	20.52	20.75
1650	0.19	0.17	37.21	37.01	20.07	20.73	19.99	19.92	20.64	20.82
1700	0.19	0.17	37.14	36.96	19.85	19.74	20.38	20.28	20.94	21.08
1750	0.19	0.17	37.02	36.85	19.02	19.14	20.63	20.50	21.20	21.28
1800	0.19	0.17	36.85	36.67	18.76	19.23	21.07	20.96	21.55	21.60
1850	0.19	0.17	36.59	36.47	18.36	18.73	21.62	21.55	22.10	22.02
1900	0.19	0.17	36.42	36.23	18.04	18.35	22.10	21.94	22.53	22.44
1950	0.19	0.17	36.21	36.03	17.37	17.86	22.91	22.88	23.38	23.18
2000	0.19	0.17	36.01	35.79	16.97	17.45	23.54	23.33	23.94	23.70
2050	0.19	0.17	35.83	35.57	16.69	17.23	24.76	24.69	25.05	24.61
2100	0.19	0.17	35.66	35.38	16.23	16.97	25.62	25.29	25.74	25.26
2150	0.19	0.17	35.52	35.25	15.91	16.70	27.23	27.27	26.96	26.25
2200	0.19	0.17	35.40	35.15	15.60	16.65	28.53	28.08	27.86	27.09
2250	0.18	0.18	35.31	35.04	15.28	16.23	30.65	30.67	28.98	27.96
2300	0.19	0.18	35.31	35.04	15.16	16.54	32.97	32.59	29.11	28.38
2350	0.19	0.18	35.34	35.07	14.73	15.94	35.13	36.25	29.56	28.60
2400	0.19	0.18	35.44	35.16	14.51	15.83	37.81	39.98	28.79	28.22
2450	0.19	0.19	35.57	35.36	14.22	15.31	36.13	40.22	27.92	27.28
2500	0.20	0.19	35.74	35.53	13.83	15.14	32.92	35.13	26.73	26.52
2550	0.20	0.20	36.00	35.77	13.42	14.96	31.37	32.97	25.75	25.44
2600	0.21	0.20	36.30	36.07	13.14	14.54	28.20	29.15	24.37	24.25
2650	0.21	0.21	36.78	36.44	12.40	13.91	27.55	28.18	23.51	23.36
2700	0.22	0.22	37.27	36.98	12.11	14.09	25.19	25.75	22.36	22.28
2750	0.22	0.22	37.73	37.50	11.61	13.53	24.57	24.82	21.67	21.65
2800	0.23	0.24	38.34	38.19	10.98	12.88	23.07	23.38	20.77	20.74
2850	0.24	0.24	38.94	39.00	10.28	12.59	22.39	22.44	20.14	20.13
2900	0.25	0.25	39.61	39.75	9.90	12.26	21.42	21.60	19.46	19.44
2950	0.26	0.26	40.66	40.80	9.13	11.69	20.78	20.73	18.82	18.88
3000	0.26	0.27	41.93	42.00	7.98	10.19	20.35	20.42	18.38	18.46

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Bi-Directional Coupler

BDCH-35-272

Typical Performance Data

TEST CONDITIONS: INPUT POWER =+10 dBm @Temperature = +105°C

FREQ. (MHz)	INSERTION LOSS (dB)		COUPLING (dB)		DIRECTIVITY (dB)		RETURN LOSS (dB)			
	In - Out	Rev - Fwd	In - Fwd	Rev - Out	In - Rev	Out - Fwd	In	Out	Rev	Fwd
500	0.09	0.08	37.33	37.31	28.93	29.09	27.59	28.51	27.31	26.55
550	0.09	0.08	36.78	36.76	28.13	28.81	27.01	27.83	27.12	26.46
600	0.10	0.09	36.31	36.29	28.00	28.39	26.96	27.54	26.96	26.16
650	0.10	0.09	35.93	35.91	27.22	27.91	26.82	27.15	26.36	25.73
700	0.11	0.10	35.63	35.61	26.66	27.51	26.76	26.93	25.92	25.40
750	0.11	0.10	35.40	35.38	25.88	26.94	26.57	26.58	25.49	25.13
800	0.11	0.10	35.21	35.20	25.32	26.10	26.39	26.21	25.43	25.10
850	0.12	0.11	35.15	35.13	25.62	26.50	26.11	25.63	25.27	25.09
900	0.13	0.11	35.06	35.06	24.70	25.68	25.64	25.05	25.15	25.04
950	0.13	0.12	35.07	35.07	24.58	25.65	25.21	24.50	24.78	24.92
1000	0.14	0.12	35.16	35.16	24.73	25.99	24.64	23.91	24.47	24.66
1050	0.14	0.13	35.25	35.23	24.17	25.42	24.06	23.28	24.00	24.41
1100	0.15	0.14	35.36	35.34	23.44	24.75	23.36	22.64	23.61	24.03
1150	0.16	0.14	35.43	35.57	23.08	24.72	22.76	22.06	23.10	23.67
1200	0.17	0.15	35.77	35.78	24.26	25.81	22.20	21.51	22.60	23.15
1250	0.17	0.15	35.98	35.96	23.70	24.82	21.58	21.05	22.08	22.59
1300	0.18	0.16	36.15	36.16	22.43	23.58	21.04	20.59	21.57	22.05
1350	0.19	0.17	36.45	36.53	25.13	26.06	20.62	20.21	21.13	21.63
1400	0.19	0.17	36.72	36.71	25.28	26.05	20.25	19.90	20.76	21.19
1450	0.20	0.18	36.80	36.86	22.23	23.32	19.95	19.61	20.41	20.82
1500	0.20	0.18	37.06	36.97	22.50	22.50	19.74	19.51	20.16	20.51
1550	0.21	0.19	37.01	37.11	21.40	21.29	19.61	19.45	19.96	20.33
1600	0.21	0.19	37.04	37.13	21.44	21.60	19.61	19.45	19.88	20.21
1650	0.21	0.20	37.19	37.07	20.20	20.45	19.71	19.63	19.89	20.17
1700	0.21	0.20	37.13	36.89	19.41	19.12	19.80	19.77	20.01	20.20
1750	0.21	0.20	37.06	36.80	18.50	18.57	20.13	20.10	20.25	20.44
1800	0.21	0.20	36.85	36.60	17.65	18.21	20.43	20.48	20.62	20.75
1850	0.21	0.20	36.63	36.50	17.66	17.92	20.99	21.04	21.16	21.27
1900	0.21	0.20	36.37	36.21	17.31	17.65	21.51	21.61	21.78	21.85
1950	0.21	0.20	36.16	35.94	16.73	17.08	22.26	22.41	22.54	22.54
2000	0.21	0.20	36.06	35.67	15.51	15.83	23.11	23.34	23.44	23.41
2050	0.20	0.20	35.85	35.62	15.44	16.47	24.16	24.36	24.53	24.40
2100	0.21	0.20	35.60	35.33	15.97	16.35	25.36	25.65	25.66	25.44
2150	0.21	0.20	35.51	35.22	14.83	16.13	26.87	27.24	26.85	26.48
2200	0.21	0.20	35.40	35.03	14.90	15.95	28.68	29.06	28.01	27.29
2250	0.21	0.20	35.27	34.98	14.21	15.44	30.75	31.51	28.75	27.88
2300	0.21	0.21	35.31	34.96	14.28	15.77	32.95	34.22	28.80	27.75
2350	0.22	0.21	35.30	34.94	13.56	14.87	35.23	37.24	28.22	27.23
2400	0.21	0.21	35.50	35.13	13.63	15.34	35.28	37.25	27.27	26.44
2450	0.21	0.22	35.57	35.34	13.55	15.39	33.43	34.44	26.09	25.40
2500	0.22	0.22	35.74	35.50	13.58	14.86	31.08	31.69	24.90	24.32
2550	0.22	0.23	36.03	35.78	12.92	14.57	29.06	29.60	23.78	23.34
2600	0.23	0.25	36.35	35.89	12.11	13.95	27.46	27.65	22.77	22.46
2650	0.24	0.25	36.62	36.57	13.01	14.00	26.08	26.33	21.99	21.65
2700	0.23	0.24	37.34	37.13	11.51	13.97	24.94	25.13	21.21	21.00
2750	0.24	0.25	37.92	37.62	10.55	12.67	23.91	24.06	20.58	20.42
2800	0.25	0.27	38.28	38.22	10.67	12.76	23.10	23.23	19.98	19.83
2850	0.26	0.28	39.23	39.19	9.41	11.27	22.32	22.45	19.58	19.42
2900	0.26	0.28	40.04	40.47	7.99	10.34	21.78	21.92	19.16	19.09
2950	0.30	0.31	42.70	43.70	-0.03	1.18	21.50	21.52	18.97	19.06
3000	0.29	0.30	41.49	41.16	10.40	14.16	20.76	20.75	18.40	18.43

Notes

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