

Bi-Directional Coupler

BDCH-15-272

Typical Performance Data

TEST CONDITIONS: INPUT POWER =+10 dBm @ Temperature = -55°C, In port at pad 1

FREQ. (MHz)	INSERTION LOSS (dB)	COUPLING		DIRECTIVITY (dB) In - Rev	RETURN LOSS (dB)			
		(dB)			In	Out	Rev	Fwd
		In Fwd	Rev - Out					
100.00	0.02	30.21	30.21	27.60	35.13	34.96	35.38	35.03
200.00	0.05	24.39	24.38	24.65	25.36	25.53	24.64	24.44
300.00	0.06	21.13	21.11	24.21	23.20	23.54	24.31	23.99
400.00	0.07	18.95	18.93	23.73	23.78	23.94	24.79	24.50
500.00	0.08	17.43	17.39	23.36	25.22	25.49	26.29	25.82
550.00	0.08	16.84	16.80	23.05	26.29	26.49	26.99	26.48
600.00	0.08	16.34	16.30	22.75	27.42	27.73	27.83	27.39
650.00	0.09	15.93	15.88	22.53	28.46	28.88	28.87	28.23
700.00	0.09	15.58	15.53	22.39	29.60	30.30	30.83	30.00
750.00	0.09	15.30	15.25	22.20	31.07	31.80	33.01	31.82
800.00	0.09	15.08	15.03	21.82	33.40	34.45	35.18	33.83
850.00	0.10	14.91	14.86	21.33	37.28	41.19	38.46	36.56
900.00	0.10	14.79	14.74	21.00	39.72	52.76	44.55	39.80
950.00	0.10	14.72	14.66	20.73	35.96	37.99	46.66	43.09
1000.00	0.11	14.68	14.63	20.60	32.49	33.06	37.33	37.24
1100.00	0.12	14.72	14.67	20.36	27.96	27.73	29.94	30.01
1200.00	0.13	14.86	14.82	20.54	24.79	24.82	26.02	26.07
1300.00	0.14	15.07	15.01	21.01	22.84	22.96	23.87	23.80
1400.00	0.15	15.29	15.20	22.00	22.35	22.36	22.79	22.75
1500.00	0.16	15.45	15.34	22.86	22.72	22.58	22.36	22.40
1600.00	0.16	15.53	15.40	23.70	23.74	23.37	22.63	22.83
1700.00	0.16	15.50	15.34	23.45	25.66	24.77	23.82	24.33
1800.00	0.16	15.39	15.22	22.33	29.54	27.53	26.13	27.25
1900.00	0.17	15.19	15.02	21.19	37.46	31.54	29.70	33.12
2000.00	0.18	15.05	14.83	20.11	35.07	32.35	33.00	42.22
2100.00	0.19	14.92	14.70	19.75	28.27	28.53	30.94	31.65
2200.00	0.20	14.88	14.67	19.53	25.27	25.68	27.68	27.68
2250.00	0.21	14.91	14.70	19.65	24.05	24.23	26.58	26.37
2300.00	0.21	14.98	14.77	19.74	23.77	24.18	26.06	25.76
2350.00	0.22	15.09	14.89	19.70	23.27	23.37	25.32	25.03
2400.00	0.22	15.24	15.04	19.98	23.21	23.56	25.46	25.10
2450.00	0.22	15.43	15.25	19.96	23.30	23.40	25.06	24.81
2500.00	0.22	15.68	15.51	20.12	23.47	23.61	25.33	25.09
2550.00	0.22	15.97	15.83	20.14	24.03	24.12	25.45	25.21
2600.00	0.22	16.35	16.20	20.06	24.60	24.67	25.81	25.80
2650.00	0.21	16.78	16.64	20.11	25.73	25.74	26.46	26.70
2700.00	0.22	17.32	17.21	19.40	26.66	26.68	27.32	27.51
2750.00	0.22	17.91	17.84	18.79	28.33	28.21	27.65	27.92
2800.00	0.22	18.66	18.57	17.90	29.56	29.51	28.67	29.23
2850.00	0.21	19.58	19.45	16.72	31.45	31.28	28.92	29.59
2900.00	0.23	20.63	20.52	14.97	33.71	33.30	29.47	30.79
2950.00	0.21	21.82	21.74	14.02	33.94	33.97	29.41	30.74
3000.00	0.22	23.40	23.25	12.10	36.73	38.39	30.00	31.52
3050.00	0.23	25.34	25.21	9.78	35.16	36.78	29.47	30.89
3100.00	0.23	28.18	28.08	6.22	37.82	45.87	30.66	33.21
3200.00	0.24	37.40	36.95	2.21	34.81	45.48	30.33	32.96
3300.00	0.22	35.49	35.37	0.53	35.13	38.55	30.49	32.74
3400.00	0.22	26.60	26.52	7.15	33.80	36.58	29.93	33.02
3500.00	0.24	22.53	22.44	10.39	32.61	36.12	30.74	32.83
3600.00	0.21	20.03	19.92	12.59	32.53	34.25	30.78	32.98
3700.00	0.21	18.29	18.24	13.87	32.05	33.79	30.77	32.55
3800.00	0.19	17.09	17.00	14.92	32.21	34.02	28.39	31.57
3900.00	0.21	16.16	16.13	14.98	30.91	36.50	26.68	28.81
4000.00	0.19	15.61	15.53	15.49	29.89	31.54	25.18	27.01

Notes

- A. Performance and quality attributes and conditions not expressly stated in this specification document are intended to be excluded and do not form a part of this specification document.
- 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-15-272

Typical Performance Data

TEST CONDITIONS: INPUT POWER =+10 dBm @ Temperature = -55°C, In port at pad 2

FREQ. (MHz)	INSERTION LOSS (dB)	COUPLING		DIRECTIVITY (dB) In - Rev	RETURN LOSS (dB)			
		In Fwd	Rev - Out		In	Out	Rev	Fwd
100.00	0.02	30.21	30.21	27.99	34.96	35.13	35.03	35.38
200.00	0.04	24.38	24.39	24.87	25.53	25.36	24.44	24.64
300.00	0.06	21.11	21.13	24.38	23.54	23.20	23.99	24.31
400.00	0.07	18.93	18.95	24.11	23.94	23.78	24.50	24.79
500.00	0.07	17.39	17.43	23.65	25.49	25.22	25.82	26.29
550.00	0.08	16.80	16.84	23.27	26.49	26.29	26.48	26.99
600.00	0.08	16.30	16.34	22.92	27.73	27.42	27.39	27.83
650.00	0.08	15.88	15.93	22.58	28.88	28.46	28.23	28.87
700.00	0.08	15.53	15.58	22.26	30.30	29.60	30.00	30.83
750.00	0.09	15.25	15.30	21.85	31.80	31.07	31.82	33.01
800.00	0.09	15.03	15.08	21.58	34.45	33.40	33.83	35.18
850.00	0.09	14.86	14.91	21.15	41.19	37.28	36.56	38.46
900.00	0.09	14.74	14.79	21.10	52.76	39.72	39.80	44.55
950.00	0.10	14.66	14.72	20.95	37.99	35.96	43.09	46.66
1000.00	0.10	14.63	14.68	21.02	33.06	32.49	37.24	37.33
1100.00	0.11	14.67	14.72	21.01	27.73	27.96	30.01	29.94
1200.00	0.13	14.82	14.86	21.11	24.82	24.79	26.07	26.02
1300.00	0.14	15.01	15.07	21.85	22.96	22.84	23.80	23.87
1400.00	0.15	15.20	15.29	23.05	22.36	22.35	22.75	22.79
1500.00	0.15	15.34	15.45	23.42	22.58	22.72	22.40	22.36
1600.00	0.15	15.40	15.53	23.46	23.37	23.74	22.83	22.63
1700.00	0.15	15.34	15.50	22.66	24.77	25.66	24.33	23.82
1800.00	0.15	15.22	15.39	21.68	27.53	29.54	27.25	26.13
1900.00	0.16	15.02	15.19	20.31	31.54	37.46	33.12	29.70
2000.00	0.16	14.83	15.05	19.31	32.35	35.07	42.22	33.00
2100.00	0.17	14.70	14.92	18.84	28.53	28.27	31.65	30.94
2200.00	0.19	14.67	14.88	18.60	25.68	25.27	27.68	27.68
2250.00	0.19	14.70	14.91	18.58	24.23	24.05	26.37	26.58
2300.00	0.20	14.77	14.98	18.69	24.18	23.77	25.76	26.06
2350.00	0.20	14.89	15.09	18.70	23.37	23.27	25.03	25.32
2400.00	0.21	15.04	15.24	18.73	23.56	23.21	25.10	25.46
2450.00	0.21	15.25	15.43	18.80	23.40	23.30	24.81	25.06
2500.00	0.21	15.51	15.68	18.92	23.61	23.47	25.09	25.33
2550.00	0.22	15.83	15.97	18.97	24.12	24.03	25.21	25.45
2600.00	0.21	16.20	16.35	19.14	24.67	24.60	25.80	25.81
2650.00	0.21	16.64	16.78	19.21	25.74	25.73	26.70	26.46
2700.00	0.22	17.21	17.32	19.04	26.68	26.66	27.51	27.32
2750.00	0.21	17.84	17.91	18.73	28.21	28.33	27.92	27.65
2800.00	0.22	18.57	18.66	17.82	29.51	29.56	29.23	28.67
2850.00	0.21	19.45	19.58	17.09	31.28	31.45	29.59	28.92
2900.00	0.22	20.52	20.63	15.55	33.30	33.71	30.79	29.47
2950.00	0.21	21.74	21.82	14.45	33.97	33.94	30.74	29.41
3000.00	0.21	23.25	23.40	12.76	38.39	36.73	31.52	30.00
3050.00	0.23	25.21	25.34	10.49	36.78	35.16	30.89	29.47
3100.00	0.22	28.08	28.18	6.90	45.87	37.82	33.21	30.66
3200.00	0.24	36.95	37.40	1.76	45.48	34.81	32.96	30.33
3300.00	0.22	35.37	35.49	0.56	38.55	35.13	32.74	30.49
3400.00	0.22	26.52	26.60	6.61	36.58	33.80	33.02	29.93
3500.00	0.24	22.44	22.53	9.51	36.12	32.61	32.83	30.74
3600.00	0.22	19.92	20.03	11.08	34.25	32.53	32.98	30.78
3700.00	0.21	18.24	18.29	12.19	33.79	32.05	32.55	30.77
3800.00	0.20	17.00	17.09	12.78	34.02	32.21	31.57	28.39
3900.00	0.21	16.13	16.16	12.70	36.50	30.91	28.81	26.68
4000.00	0.18	15.53	15.61	12.83	31.54	29.89	27.01	25.18

Notes

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Bi-Directional Coupler

BDCH-15-272

Typical Performance Data

TEST CONDITIONS: INPUT POWER =+10 dBm @ Temperature = -55°C, In port at pad 3

FREQ. (MHz)	INSERTION LOSS (dB)	COUPLING		DIRECTIVITY (dB) In - Rev	RETURN LOSS (dB)			
		(dB)			In	Out	Rev	Fwd
		In Fwd	Rev - Out					
100.00	0.02	30.21	30.21	27.60	35.38	35.03	35.13	34.96
200.00	0.04	24.38	24.39	24.65	24.64	24.44	25.36	25.53
300.00	0.05	21.11	21.13	24.21	24.31	23.99	23.20	23.54
400.00	0.06	18.93	18.95	23.73	24.79	24.50	23.78	23.94
500.00	0.07	17.39	17.43	23.36	26.29	25.82	25.22	25.49
550.00	0.07	16.80	16.84	23.05	26.99	26.48	26.29	26.49
600.00	0.07	16.30	16.34	22.75	27.83	27.39	27.42	27.73
650.00	0.08	15.88	15.93	22.53	28.87	28.23	28.46	28.88
700.00	0.08	15.53	15.58	22.39	30.83	30.00	29.60	30.30
750.00	0.08	15.25	15.30	22.20	33.01	31.82	31.07	31.80
800.00	0.09	15.03	15.08	21.82	35.18	33.83	33.40	34.45
850.00	0.09	14.86	14.91	21.33	38.46	36.56	37.28	41.19
900.00	0.09	14.74	14.79	21.00	44.55	39.80	39.72	52.76
950.00	0.09	14.66	14.72	20.73	46.66	43.09	35.96	37.99
1000.00	0.10	14.63	14.68	20.60	37.33	37.24	32.49	33.06
1100.00	0.11	14.67	14.72	20.36	29.94	30.01	27.96	27.73
1200.00	0.12	14.82	14.86	20.54	26.02	26.07	24.79	24.82
1300.00	0.13	15.01	15.07	21.01	23.87	23.80	22.84	22.96
1400.00	0.14	15.20	15.29	22.00	22.79	22.75	22.35	22.36
1500.00	0.15	15.34	15.45	22.86	22.36	22.40	22.72	22.58
1600.00	0.15	15.40	15.53	23.70	22.63	22.83	23.74	23.37
1700.00	0.15	15.34	15.50	23.45	23.82	24.33	25.66	24.77
1800.00	0.15	15.22	15.39	22.33	26.13	27.25	29.54	27.53
1900.00	0.15	15.02	15.19	21.19	29.70	33.12	37.46	31.54
2000.00	0.16	14.83	15.05	20.11	33.00	42.22	35.07	32.35
2100.00	0.16	14.70	14.92	19.75	30.94	31.65	28.27	28.53
2200.00	0.18	14.67	14.88	19.53	27.68	27.68	25.27	25.68
2250.00	0.18	14.70	14.91	19.65	26.58	26.37	24.05	24.23
2300.00	0.18	14.77	14.98	19.74	26.06	25.76	23.77	24.18
2350.00	0.18	14.89	15.09	19.70	25.32	25.03	23.27	23.37
2400.00	0.19	15.04	15.24	19.98	25.46	25.10	23.21	23.56
2450.00	0.19	15.25	15.43	19.96	25.06	24.81	23.30	23.40
2500.00	0.19	15.51	15.68	20.12	25.33	25.09	23.47	23.61
2550.00	0.20	15.83	15.97	20.14	25.45	25.21	24.03	24.12
2600.00	0.19	16.20	16.35	20.06	25.81	25.80	24.60	24.67
2650.00	0.20	16.64	16.78	20.11	26.46	26.70	25.73	25.74
2700.00	0.20	17.21	17.32	19.40	27.32	27.51	26.66	26.68
2750.00	0.20	17.84	17.91	18.79	27.65	27.92	28.33	28.21
2800.00	0.20	18.57	18.66	17.90	28.67	29.23	29.56	29.51
2850.00	0.20	19.45	19.58	16.72	28.92	29.59	31.45	31.28
2900.00	0.21	20.52	20.63	14.97	29.47	30.79	33.71	33.30
2950.00	0.20	21.74	21.82	14.02	29.41	30.74	33.94	33.97
3000.00	0.20	23.25	23.40	12.10	30.00	31.52	36.73	38.39
3050.00	0.21	25.21	25.34	9.78	29.47	30.89	35.16	36.78
3100.00	0.21	28.08	28.18	6.22	30.66	33.21	37.82	45.87
3200.00	0.22	36.95	37.40	2.21	30.33	32.96	34.81	45.48
3300.00	0.21	35.37	35.49	0.53	30.49	32.74	35.13	38.55
3400.00	0.21	26.52	26.60	7.15	29.93	33.02	33.80	36.58
3500.00	0.22	22.44	22.53	10.39	30.74	32.83	32.61	36.12
3600.00	0.22	19.92	20.03	12.59	30.78	32.98	32.53	34.25
3700.00	0.20	18.24	18.29	13.87	30.77	32.55	32.05	33.79
3800.00	0.22	17.00	17.09	14.92	28.39	31.57	32.21	34.02
3900.00	0.20	16.13	16.16	14.98	26.68	28.81	30.91	36.50
4000.00	0.18	15.53	15.61	15.49	25.18	27.01	29.89	31.54

Notes

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Bi-Directional Coupler

BDCH-15-272

Typical Performance Data

TEST CONDITIONS: INPUT POWER =+10 dBm @ Temperature = -55°C, In port at pad 4

FREQ. (MHz)	INSERTION LOSS (dB)	COUPLING		DIRECTIVITY (dB) In - Rev	RETURN LOSS (dB)			
		(dB)			In	Out	Rev	Fwd
		In Fwd	Rev - Out					
100.00	0.01	30.21	30.21	27.99	35.03	35.38	34.96	35.13
200.00	0.03	24.39	24.38	24.87	24.44	24.64	25.53	25.36
300.00	0.04	21.13	21.11	24.38	23.99	24.31	23.54	23.20
400.00	0.05	18.95	18.93	24.11	24.50	24.79	23.94	23.78
500.00	0.06	17.43	17.39	23.65	25.82	26.29	25.49	25.22
550.00	0.06	16.84	16.80	23.27	26.48	26.99	26.49	26.29
600.00	0.06	16.34	16.30	22.92	27.39	27.83	27.73	27.42
650.00	0.07	15.93	15.88	22.58	28.23	28.87	28.88	28.46
700.00	0.07	15.58	15.53	22.26	30.00	30.83	30.30	29.60
750.00	0.07	15.30	15.25	21.85	31.82	33.01	31.80	31.07
800.00	0.08	15.08	15.03	21.58	33.83	35.18	34.45	33.40
850.00	0.08	14.91	14.86	21.15	36.56	38.46	41.19	37.28
900.00	0.08	14.79	14.74	21.10	39.80	44.55	52.76	39.72
950.00	0.08	14.72	14.66	20.95	43.09	46.66	37.99	35.96
1000.00	0.09	14.68	14.63	21.02	37.24	37.33	33.06	32.49
1100.00	0.10	14.72	14.67	21.01	30.01	29.94	27.73	27.96
1200.00	0.11	14.86	14.82	21.11	26.07	26.02	24.82	24.79
1300.00	0.12	15.07	15.01	21.85	23.80	23.87	22.96	22.84
1400.00	0.13	15.29	15.20	23.05	22.75	22.79	22.36	22.35
1500.00	0.14	15.45	15.34	23.42	22.40	22.36	22.58	22.72
1600.00	0.14	15.53	15.40	23.46	22.83	22.63	23.37	23.74
1700.00	0.14	15.50	15.34	22.66	24.33	23.82	24.77	25.66
1800.00	0.14	15.39	15.22	21.68	27.25	26.13	27.53	29.54
1900.00	0.14	15.19	15.02	20.31	33.12	29.70	31.54	37.46
2000.00	0.15	15.05	14.83	19.31	42.22	33.00	32.35	35.07
2100.00	0.16	14.92	14.70	18.84	31.65	30.94	28.53	28.27
2200.00	0.17	14.88	14.67	18.60	27.68	27.68	25.68	25.27
2250.00	0.17	14.91	14.70	18.58	26.37	26.58	24.23	24.05
2300.00	0.18	14.98	14.77	18.69	25.76	26.06	24.18	23.77
2350.00	0.18	15.09	14.89	18.70	25.03	25.32	23.37	23.27
2400.00	0.18	15.24	15.04	18.73	25.10	25.46	23.56	23.21
2450.00	0.19	15.43	15.25	18.80	24.81	25.06	23.40	23.30
2500.00	0.19	15.68	15.51	18.92	25.09	25.33	23.61	23.47
2550.00	0.19	15.97	15.83	18.97	25.21	25.45	24.12	24.03
2600.00	0.19	16.35	16.20	19.14	25.80	25.81	24.67	24.60
2650.00	0.19	16.78	16.64	19.21	26.70	26.46	25.74	25.73
2700.00	0.19	17.32	17.21	19.04	27.51	27.32	26.68	26.66
2750.00	0.19	17.91	17.84	18.73	27.92	27.65	28.21	28.33
2800.00	0.19	18.66	18.57	17.82	29.23	28.67	29.51	29.56
2850.00	0.19	19.58	19.45	17.09	29.59	28.92	31.28	31.45
2900.00	0.20	20.63	20.52	15.55	30.79	29.47	33.30	33.71
2950.00	0.19	21.82	21.74	14.45	30.74	29.41	33.97	33.94
3000.00	0.19	23.40	23.25	12.76	31.52	30.00	38.39	36.73
3050.00	0.19	25.34	25.21	10.49	30.89	29.47	36.78	35.16
3100.00	0.20	28.18	28.08	6.90	33.21	30.66	45.87	37.82
3200.00	0.20	37.40	36.95	1.76	32.96	30.33	45.48	34.81
3300.00	0.20	35.49	35.37	0.56	32.74	30.49	38.55	35.13
3400.00	0.20	26.60	26.52	6.61	33.02	29.93	36.58	33.80
3500.00	0.20	22.53	22.44	9.51	32.83	30.74	36.12	32.61
3600.00	0.19	20.03	19.92	11.08	32.98	30.78	34.25	32.53
3700.00	0.18	18.29	18.24	12.19	32.55	30.77	33.79	32.05
3800.00	0.20	17.09	17.00	12.78	31.57	28.39	34.02	32.21
3900.00	0.17	16.16	16.13	12.70	28.81	26.68	36.50	30.91
4000.00	0.16	15.61	15.53	12.83	27.01	25.18	31.54	29.89

Notes

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Bi-Directional Coupler

BDCH-15-272

Typical Performance Data

TEST CONDITIONS: INPUT POWER =+10 dBm @Temperature = 25°C, In port at pad 1

FREQ. (MHz)	INSERTION LOSS (dB)	COUPLING		DIRECTIVITY (dB) In - Rev	RETURN LOSS (dB)			
		(dB)			In	Out	Rev	Fwd
		In Fwd	Rev - Out					
100.00	0.03	30.17	30.16	32.22	32.53	32.41	33.49	33.30
200.00	0.05	24.34	24.32	29.38	27.74	27.61	28.61	28.31
300.00	0.07	21.08	21.06	27.22	25.80	25.53	26.47	26.10
400.00	0.09	18.93	18.90	25.22	24.74	24.52	25.33	25.02
500.00	0.10	17.42	17.38	23.89	24.95	24.62	25.43	24.98
550.00	0.10	16.84	16.79	23.30	25.35	25.06	25.89	25.47
600.00	0.10	16.35	16.29	22.58	25.89	25.80	26.34	25.91
650.00	0.11	15.94	15.88	22.20	27.11	26.96	27.34	26.82
700.00	0.11	15.59	15.53	21.68	28.41	28.37	28.63	27.88
750.00	0.11	15.32	15.25	21.41	30.47	30.88	30.53	29.68
800.00	0.11	15.10	15.03	21.07	32.97	34.16	33.10	31.82
850.00	0.12	14.93	14.86	20.72	37.29	40.81	37.14	35.57
900.00	0.12	14.82	14.75	20.58	40.67	51.12	44.04	39.99
950.00	0.13	14.75	14.68	20.35	36.93	37.93	43.20	42.85
1000.00	0.13	14.72	14.65	20.31	33.28	32.78	36.55	37.34
1100.00	0.15	14.77	14.70	20.21	27.73	27.37	29.73	30.02
1200.00	0.16	14.92	14.84	20.37	25.02	24.49	26.10	26.33
1300.00	0.17	15.13	15.04	20.78	23.50	23.05	24.24	24.27
1400.00	0.18	15.35	15.24	21.48	22.91	22.45	23.25	23.28
1500.00	0.19	15.53	15.38	22.15	23.13	22.62	22.94	23.06
1600.00	0.20	15.61	15.43	22.62	24.21	23.61	23.41	23.64
1700.00	0.20	15.58	15.38	22.52	26.54	25.55	24.59	25.15
1800.00	0.20	15.45	15.24	21.75	30.45	28.45	26.61	27.82
1900.00	0.21	15.28	15.05	20.88	38.19	32.46	29.56	32.56
2000.00	0.21	15.10	14.87	20.12	38.30	33.61	32.89	42.65
2100.00	0.22	14.98	14.74	19.61	30.95	30.52	33.39	36.28
2200.00	0.23	14.95	14.71	19.27	27.39	27.49	30.45	30.61
2250.00	0.24	14.99	14.74	19.24	25.74	25.88	28.72	28.51
2300.00	0.25	15.05	14.81	19.08	25.55	25.72	28.07	27.62
2350.00	0.25	15.16	14.93	19.05	24.65	24.84	26.77	26.39
2400.00	0.26	15.31	15.09	18.97	24.63	24.79	26.66	26.10
2450.00	0.26	15.51	15.30	18.88	24.39	24.44	25.70	25.36
2500.00	0.26	15.77	15.57	18.85	24.42	24.62	25.95	25.48
2550.00	0.27	16.08	15.89	18.75	24.66	24.63	25.42	25.10
2600.00	0.27	16.46	16.28	18.43	25.01	25.12	25.75	25.49
2650.00	0.27	16.92	16.74	18.26	25.48	25.40	25.59	25.52
2700.00	0.27	17.45	17.29	17.73	26.20	26.32	26.25	26.11
2750.00	0.27	18.09	17.94	17.24	26.89	26.78	26.29	26.32
2800.00	0.28	18.84	18.70	16.37	27.95	28.32	27.19	27.31
2850.00	0.28	19.73	19.59	15.47	29.01	28.87	27.39	27.73
2900.00	0.28	20.80	20.66	14.14	30.18	30.93	28.40	28.94
2950.00	0.28	22.08	21.94	12.64	31.27	31.68	28.72	29.58
3000.00	0.28	23.65	23.53	10.68	32.36	34.23	29.40	30.72
3050.00	0.29	25.68	25.53	8.46	32.64	33.79	29.54	30.91
3100.00	0.29	28.38	28.21	5.48	33.28	37.39	30.02	32.46
3200.00	0.29	39.86	38.93	6.46	33.05	38.61	30.43	33.60
3300.00	0.29	33.88	33.63	0.83	32.32	37.08	30.21	33.68
3400.00	0.30	26.34	26.28	6.46	31.70	35.91	29.42	32.68
3500.00	0.30	22.54	22.46	10.06	31.39	35.18	28.99	31.84
3600.00	0.29	20.09	20.00	12.21	31.45	35.19	28.69	31.10
3700.00	0.29	18.36	18.29	13.45	31.86	35.90	28.49	30.88
3800.00	0.29	17.15	17.05	14.06	31.76	35.60	28.26	31.18
3900.00	0.28	16.27	16.15	14.17	30.63	32.50	27.55	30.76
4000.00	0.28	15.66	15.54	13.97	27.97	28.12	26.11	29.01

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Bi-Directional Coupler

BDCH-15-272

Typical Performance Data

TEST CONDITIONS: INPUT POWER =+10 dBm @Temperature = 25°C, In port at pad 2

FREQ. (MHz)	INSERTION LOSS (dB)	COUPLING		DIRECTIVITY (dB) In - Rev	RETURN LOSS (dB)			
		(dB)			In	Out	Rev	Fwd
		In Fwd	Rev - Out					
100.00	0.02	30.16	30.17	31.00	32.41	32.53	33.30	33.49
200.00	0.04	24.32	24.34	28.75	27.61	27.74	28.31	28.61
300.00	0.06	21.06	21.08	26.73	25.53	25.80	26.10	26.47
400.00	0.07	18.90	18.93	24.92	24.52	24.74	25.02	25.33
500.00	0.08	17.38	17.42	23.58	24.62	24.95	24.98	25.43
550.00	0.09	16.79	16.84	23.11	25.06	25.35	25.47	25.89
600.00	0.09	16.29	16.35	22.39	25.80	25.89	25.91	26.34
650.00	0.09	15.88	15.94	22.11	26.96	27.11	26.82	27.34
700.00	0.09	15.53	15.59	21.55	28.37	28.41	27.88	28.63
750.00	0.10	15.25	15.32	21.36	30.88	30.47	29.68	30.53
800.00	0.10	15.03	15.10	21.02	34.16	32.97	31.82	33.10
850.00	0.10	14.86	14.93	20.72	40.81	37.29	35.57	37.14
900.00	0.11	14.75	14.82	20.56	51.12	40.67	39.99	44.04
950.00	0.11	14.68	14.75	20.40	37.93	36.93	42.85	43.20
1000.00	0.12	14.65	14.72	20.45	32.78	33.28	37.34	36.55
1100.00	0.13	14.70	14.77	20.49	27.37	27.73	30.02	29.73
1200.00	0.14	14.84	14.92	20.80	24.49	25.02	26.33	26.10
1300.00	0.16	15.04	15.13	21.36	23.05	23.50	24.27	24.24
1400.00	0.17	15.24	15.35	22.20	22.45	22.91	23.28	23.25
1500.00	0.17	15.38	15.53	22.77	22.62	23.13	23.06	22.94
1600.00	0.18	15.43	15.61	22.84	23.61	24.21	23.64	23.41
1700.00	0.18	15.38	15.58	22.18	25.55	26.54	25.15	24.59
1800.00	0.18	15.24	15.45	21.10	28.45	30.45	27.82	26.61
1900.00	0.19	15.05	15.28	20.04	32.46	38.19	32.56	29.56
2000.00	0.19	14.87	15.10	19.21	33.61	38.30	42.65	32.89
2100.00	0.20	14.74	14.98	18.64	30.52	30.95	36.28	33.39
2200.00	0.21	14.71	14.95	18.30	27.49	27.39	30.61	30.45
2250.00	0.22	14.74	14.99	18.29	25.88	25.74	28.51	28.72
2300.00	0.23	14.81	15.05	18.11	25.72	25.55	27.62	28.07
2350.00	0.23	14.93	15.16	18.16	24.84	24.65	26.39	26.77
2400.00	0.24	15.09	15.31	18.02	24.79	24.63	26.10	26.66
2450.00	0.24	15.30	15.51	18.09	24.44	24.39	25.36	25.70
2500.00	0.24	15.57	15.77	18.02	24.62	24.42	25.48	25.95
2550.00	0.25	15.89	16.08	18.00	24.63	24.66	25.10	25.42
2600.00	0.25	16.28	16.46	17.90	25.12	25.01	25.49	25.75
2650.00	0.26	16.74	16.92	17.77	25.40	25.48	25.52	25.59
2700.00	0.25	17.29	17.45	17.54	26.32	26.20	26.11	26.25
2750.00	0.26	17.94	18.09	17.16	26.78	26.89	26.32	26.29
2800.00	0.26	18.70	18.84	16.65	28.32	27.95	27.31	27.19
2850.00	0.26	19.59	19.73	15.86	28.87	29.01	27.73	27.39
2900.00	0.26	20.66	20.80	14.83	30.93	30.18	28.94	28.40
2950.00	0.27	21.94	22.08	13.42	31.68	31.27	29.58	28.72
3000.00	0.27	23.53	23.65	11.61	34.23	32.36	30.72	29.40
3050.00	0.27	25.53	25.68	9.31	33.79	32.64	30.91	29.54
3100.00	0.27	28.21	28.38	6.35	37.39	33.28	32.46	30.02
3200.00	0.28	38.93	39.86	5.09	38.61	33.05	33.60	30.43
3300.00	0.28	33.63	33.88	6.00	37.08	32.32	33.68	30.21
3400.00	0.28	26.28	26.34	6.04	35.91	31.70	32.68	29.42
3500.00	0.28	22.46	22.54	9.10	35.18	31.39	31.84	28.99
3600.00	0.28	20.00	20.09	10.81	35.19	31.45	31.10	28.69
3700.00	0.28	18.29	18.36	11.76	35.90	31.86	30.88	28.49
3800.00	0.27	17.05	17.15	12.29	35.60	31.76	31.18	28.26
3900.00	0.26	16.15	16.27	12.52	32.50	30.63	30.76	27.55
4000.00	0.26	15.54	15.66	12.54	28.12	27.97	29.01	26.11

Notes

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Bi-Directional Coupler

BDCH-15-272

Typical Performance Data

TEST CONDITIONS: INPUT POWER =+10 dBm @Temperature = 25°C, In port at pad 3

FREQ. (MHz)	INSERTION LOSS (dB)	COUPLING		DIRECTIVITY (dB) In - Rev	RETURN LOSS (dB)			
		(dB)			In	Out	Rev	Fwd
		In Fwd	Rev - Out					
100.00	0.02	30.17	30.17	32.25	33.49	33.30	32.53	32.41
200.00	0.04	24.33	24.33	29.39	28.61	28.31	27.74	27.61
300.00	0.06	21.07	21.08	27.32	26.47	26.10	25.80	25.53
400.00	0.07	18.91	18.93	25.29	25.33	25.02	24.74	24.52
500.00	0.09	17.39	17.42	23.98	25.43	24.98	24.95	24.62
550.00	0.09	16.80	16.84	23.45	25.89	25.47	25.35	25.06
600.00	0.09	16.30	16.34	22.65	26.34	25.91	25.89	25.80
650.00	0.10	15.88	15.93	22.27	27.34	26.82	27.11	26.96
700.00	0.10	15.53	15.59	21.75	28.63	27.88	28.41	28.37
750.00	0.10	15.26	15.31	21.40	30.53	29.68	30.47	30.88
800.00	0.11	15.03	15.09	21.10	33.10	31.82	32.97	34.16
850.00	0.11	14.87	14.93	20.73	37.14	35.57	37.29	40.81
900.00	0.11	14.75	14.81	20.55	44.04	39.99	40.67	51.12
950.00	0.12	14.68	14.74	20.34	43.20	42.85	36.93	37.93
1000.00	0.12	14.65	14.71	20.32	36.55	37.34	33.28	32.78
1100.00	0.13	14.70	14.76	20.24	29.73	30.02	27.73	27.37
1200.00	0.15	14.85	14.91	20.44	26.10	26.33	25.02	24.49
1300.00	0.16	15.04	15.12	20.84	24.24	24.27	23.50	23.05
1400.00	0.18	15.24	15.35	21.58	23.25	23.28	22.91	22.45
1500.00	0.18	15.38	15.52	22.28	22.94	23.06	23.13	22.62
1600.00	0.19	15.44	15.60	22.74	23.41	23.64	24.21	23.61
1700.00	0.19	15.39	15.57	22.67	24.59	25.15	26.54	25.55
1800.00	0.20	15.25	15.45	21.93	26.61	27.82	30.45	28.45
1900.00	0.20	15.06	15.27	21.04	29.56	32.56	38.19	32.46
2000.00	0.20	14.87	15.09	20.28	32.89	42.65	38.30	33.61
2100.00	0.21	14.74	14.97	19.77	33.39	36.28	30.95	30.52
2200.00	0.22	14.71	14.94	19.41	30.45	30.61	27.39	27.49
2250.00	0.23	14.75	14.97	19.33	28.72	28.51	25.74	25.88
2300.00	0.23	14.82	15.04	19.22	28.07	27.62	25.55	25.72
2350.00	0.24	14.94	15.16	19.10	26.77	26.39	24.65	24.84
2400.00	0.24	15.09	15.30	19.04	26.66	26.10	24.63	24.79
2450.00	0.25	15.31	15.50	18.89	25.70	25.36	24.39	24.44
2500.00	0.25	15.57	15.76	18.88	25.95	25.48	24.42	24.62
2550.00	0.25	15.89	16.07	18.73	25.42	25.10	24.66	24.63
2600.00	0.26	16.29	16.45	18.43	25.75	25.49	25.01	25.12
2650.00	0.26	16.75	16.91	18.27	25.59	25.52	25.48	25.40
2700.00	0.26	17.30	17.44	17.75	26.25	26.11	26.20	26.32
2750.00	0.27	17.95	18.08	17.25	26.29	26.32	26.89	26.78
2800.00	0.27	18.70	18.83	16.41	27.19	27.31	27.95	28.32
2850.00	0.28	19.60	19.72	15.53	27.39	27.73	29.01	28.87
2900.00	0.28	20.67	20.79	14.20	28.40	28.94	30.18	30.93
2950.00	0.28	21.95	22.07	12.75	28.72	29.58	31.27	31.68
3000.00	0.28	23.53	23.64	10.79	29.40	30.72	32.36	34.23
3050.00	0.28	25.55	25.67	8.58	29.54	30.91	32.64	33.79
3100.00	0.29	28.23	28.36	5.64	30.02	32.46	33.28	37.39
3200.00	0.29	38.92	39.88	5.50	30.43	33.60	33.05	38.61
3300.00	0.30	33.65	33.88	0.59	30.21	33.68	32.32	37.08
3400.00	0.30	26.28	26.35	6.51	29.42	32.68	31.70	35.91
3500.00	0.30	22.46	22.53	10.07	28.99	31.84	31.39	35.18
3600.00	0.30	20.00	20.09	12.15	28.69	31.10	31.45	35.19
3700.00	0.29	18.29	18.36	13.38	28.49	30.88	31.86	35.90
3800.00	0.28	17.05	17.14	13.89	28.26	31.18	31.76	35.60
3900.00	0.28	16.16	16.26	14.00	27.55	30.76	30.63	32.50
4000.00	0.28	15.54	15.66	13.88	26.11	29.01	27.97	28.12

Notes

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Bi-Directional Coupler

BDCH-15-272

Typical Performance Data

TEST CONDITIONS: INPUT POWER =+10 dBm @Temperature = 25°C, In port at pad 4

FREQ. (MHz)	INSERTION LOSS (dB)	COUPLING		DIRECTIVITY (dB) In - Rev	RETURN LOSS (dB)			
		(dB)			In	Out	Rev	Fwd
		In Fwd	Rev - Out					
100.00	0.02	30.17	30.17	31.05	33.30	33.49	32.41	32.53
200.00	0.03	24.33	24.33	28.77	28.31	28.61	27.61	27.74
300.00	0.05	21.08	21.07	26.75	26.10	26.47	25.53	25.80
400.00	0.07	18.93	18.91	24.95	25.02	25.33	24.52	24.74
500.00	0.08	17.42	17.39	23.59	24.98	25.43	24.62	24.95
550.00	0.08	16.84	16.80	23.00	25.47	25.89	25.06	25.35
600.00	0.09	16.34	16.30	22.31	25.91	26.34	25.80	25.89
650.00	0.09	15.93	15.88	21.91	26.82	27.34	26.96	27.11
700.00	0.10	15.59	15.53	21.44	27.88	28.63	28.37	28.41
750.00	0.10	15.31	15.26	21.19	29.68	30.53	30.88	30.47
800.00	0.10	15.09	15.03	20.87	31.82	33.10	34.16	32.97
850.00	0.11	14.93	14.87	20.54	35.57	37.14	40.81	37.29
900.00	0.11	14.81	14.75	20.45	39.99	44.04	51.12	40.67
950.00	0.11	14.74	14.68	20.27	42.85	43.20	37.93	36.93
1000.00	0.12	14.71	14.65	20.33	37.34	36.55	32.78	33.28
1100.00	0.13	14.76	14.70	20.35	30.02	29.73	27.37	27.73
1200.00	0.14	14.91	14.85	20.71	26.33	26.10	24.49	25.02
1300.00	0.16	15.12	15.04	21.26	24.27	24.24	23.05	23.50
1400.00	0.17	15.35	15.24	22.06	23.28	23.25	22.45	22.91
1500.00	0.18	15.52	15.38	22.67	23.06	22.94	22.62	23.13
1600.00	0.19	15.60	15.44	22.69	23.64	23.41	23.61	24.21
1700.00	0.19	15.57	15.39	21.98	25.15	24.59	25.55	26.54
1800.00	0.20	15.45	15.25	20.87	27.82	26.61	28.45	30.45
1900.00	0.20	15.27	15.06	19.82	32.56	29.56	32.46	38.19
2000.00	0.21	15.09	14.87	18.97	42.65	32.89	33.61	38.30
2100.00	0.21	14.97	14.74	18.34	36.28	33.39	30.52	30.95
2200.00	0.22	14.94	14.71	17.97	30.61	30.45	27.49	27.39
2250.00	0.23	14.97	14.75	17.89	28.51	28.72	25.88	25.74
2300.00	0.23	15.04	14.82	17.73	27.62	28.07	25.72	25.55
2350.00	0.24	15.16	14.94	17.71	26.39	26.77	24.84	24.65
2400.00	0.24	15.30	15.09	17.64	26.10	26.66	24.79	24.63
2450.00	0.25	15.50	15.31	17.62	25.36	25.70	24.44	24.39
2500.00	0.25	15.76	15.57	17.60	25.48	25.95	24.62	24.42
2550.00	0.25	16.07	15.89	17.59	25.10	25.42	24.63	24.66
2600.00	0.26	16.45	16.29	17.49	25.49	25.75	25.12	25.01
2650.00	0.26	16.91	16.75	17.44	25.52	25.59	25.40	25.48
2700.00	0.26	17.44	17.30	17.20	26.11	26.25	26.32	26.20
2750.00	0.27	18.08	17.95	16.91	26.32	26.29	26.78	26.89
2800.00	0.27	18.83	18.70	16.38	27.31	27.19	28.32	27.95
2850.00	0.27	19.72	19.60	15.69	27.73	27.39	28.87	29.01
2900.00	0.27	20.79	20.67	14.63	28.94	28.40	30.93	30.18
2950.00	0.27	22.07	21.95	13.28	29.58	28.72	31.68	31.27
3000.00	0.28	23.64	23.53	11.46	30.72	29.40	34.23	32.36
3050.00	0.28	25.67	25.55	9.21	30.91	29.54	33.79	32.64
3100.00	0.28	28.36	28.23	6.22	32.46	30.02	37.39	33.28
3200.00	0.29	39.88	38.92	6.01	33.60	30.43	38.61	33.05
3300.00	0.29	33.88	33.65	0.87	33.68	30.21	37.08	32.32
3400.00	0.29	26.35	26.28	5.89	32.68	29.42	35.91	31.70
3500.00	0.29	22.53	22.46	8.89	31.84	28.99	35.18	31.39
3600.00	0.29	20.09	20.00	10.52	31.10	28.69	35.19	31.45
3700.00	0.28	18.36	18.29	11.44	30.88	28.49	35.90	31.86
3800.00	0.28	17.14	17.05	12.00	31.18	28.26	35.60	31.76
3900.00	0.28	16.26	16.16	12.20	30.76	27.55	32.50	30.63
4000.00	0.27	15.66	15.54	12.26	29.01	26.11	28.12	27.97

Notes

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- 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-15-272

Typical Performance Data

TEST CONDITIONS: INPUT POWER =+10 dBm @Temperature = 105°C, In port at pad 1

FREQ. (MHz)	INSERTION LOSS (dB)	COUPLING		DIRECTIVITY (dB) In - Rev	RETURN LOSS (dB)			
		In Fwd	Rev - Out		In	Out	Rev	Fwd
100.00	0.03	30.12	30.11	32.15	30.45	30.59	31.35	31.28
200.00	0.06	24.29	24.27	32.35	30.06	30.26	32.29	31.85
300.00	0.08	21.04	21.01	30.86	28.67	29.17	30.14	29.56
400.00	0.10	18.90	18.87	27.27	26.48	26.76	27.34	26.96
500.00	0.11	17.40	17.36	25.27	25.81	26.20	26.74	26.26
550.00	0.12	16.82	16.78	24.52	26.01	26.33	26.79	26.34
600.00	0.13	16.34	16.28	23.71	26.26	26.59	27.00	26.57
650.00	0.13	15.93	15.87	23.07	26.87	27.22	27.40	26.86
700.00	0.14	15.60	15.53	22.50	27.85	28.35	28.06	27.37
750.00	0.14	15.33	15.25	21.93	29.04	29.46	28.96	28.13
800.00	0.15	15.11	15.03	21.31	30.64	31.26	30.10	29.19
850.00	0.15	14.95	14.87	20.89	32.90	34.11	32.19	31.09
900.00	0.16	14.84	14.75	20.52	35.36	38.35	35.11	33.41
950.00	0.16	14.77	14.68	20.20	37.80	52.68	41.15	37.23
1000.00	0.17	14.74	14.65	19.95	37.52	42.70	53.92	41.67
1100.00	0.18	14.79	14.70	19.56	30.51	30.59	33.79	33.95
1200.00	0.20	14.95	14.86	19.53	26.34	26.31	27.77	28.02
1300.00	0.22	15.17	15.07	19.69	23.87	23.80	24.68	24.79
1400.00	0.23	15.41	15.28	20.50	22.61	22.46	22.88	22.96
1500.00	0.25	15.59	15.43	21.32	22.18	21.96	21.95	22.08
1600.00	0.25	15.67	15.49	22.05	22.76	22.41	22.06	22.24
1700.00	0.25	15.65	15.44	21.78	24.38	23.70	22.91	23.30
1800.00	0.26	15.52	15.30	20.91	27.29	26.02	24.80	25.56
1900.00	0.26	15.34	15.09	19.82	33.40	29.96	28.05	29.97
2000.00	0.27	15.17	14.90	18.98	40.07	33.70	32.47	39.11
2100.00	0.28	15.05	14.78	18.27	30.93	30.67	34.45	36.81
2200.00	0.30	15.03	14.76	17.97	26.83	27.12	29.94	29.80
2250.00	0.31	15.07	14.79	17.79	25.12	25.36	27.98	27.59
2300.00	0.31	15.14	14.87	17.77	24.74	25.10	26.95	26.62
2350.00	0.32	15.26	15.00	17.63	23.82	24.01	25.68	25.36
2400.00	0.33	15.43	15.16	17.76	23.75	24.02	25.41	25.09
2450.00	0.33	15.63	15.38	17.59	23.44	23.70	24.69	24.49
2500.00	0.34	15.89	15.66	17.75	23.55	23.62	24.85	24.61
2550.00	0.34	16.21	15.99	17.68	23.71	23.98	24.65	24.52
2600.00	0.34	16.61	16.38	17.61	24.13	24.18	24.91	24.91
2650.00	0.34	17.06	16.86	17.52	24.53	24.84	24.99	25.10
2700.00	0.34	17.61	17.43	17.13	25.20	25.45	25.68	25.81
2750.00	0.34	18.29	18.10	16.42	26.14	26.50	25.76	26.05
2800.00	0.35	19.03	18.85	15.74	27.20	27.44	26.81	27.19
2850.00	0.35	19.98	19.80	14.54	28.21	28.81	27.15	27.58
2900.00	0.36	20.91	20.71	13.95	29.48	29.83	27.65	28.43
2950.00	0.36	22.38	22.24	11.56	30.95	31.65	28.83	29.45
3000.00	0.35	23.80	23.62	10.69	32.14	33.64	29.04	29.85
3050.00	0.36	25.99	25.82	7.74	32.22	33.75	29.45	30.36
3100.00	0.36	28.89	28.68	4.37	34.00	37.98	29.43	31.16
3200.00	0.36	41.46	40.32	7.68	33.08	37.95	29.69	31.95
3300.00	0.38	32.90	32.63	0.61	30.63	36.50	29.38	32.38
3400.00	0.36	26.07	25.97	5.90	29.74	34.07	28.58	32.18
3500.00	0.37	22.40	22.34	9.23	28.81	33.70	27.85	33.23
3600.00	0.36	20.08	19.95	11.55	28.75	34.00	28.15	33.38
3700.00	0.36	18.37	18.20	12.58	29.21	35.05	27.65	34.10
3800.00	0.36	17.20	17.10	13.32	29.46	35.18	27.08	33.12
3900.00	0.38	16.37	16.21	13.46	28.62	30.56	26.06	30.32
4000.00	0.37	15.78	15.64	13.36	26.20	26.34	24.21	26.99

Notes

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Bi-Directional Coupler

BDCH-15-272

Typical Performance Data

TEST CONDITIONS: INPUT POWER =+10 dBm @Temperature = 105°C, In port at pad 2

FREQ. (MHz)	INSERTION LOSS (dB)	COUPLING		DIRECTIVITY (dB) In - Rev	RETURN LOSS (dB)			
		(dB)			In	Out	Rev	Fwd
		In Fwd	Rev - Out					
100.00	0.03	30.11	30.12	32.33	30.59	30.45	31.28	31.35
200.00	0.05	24.27	24.29	32.68	30.26	30.06	31.85	32.29
300.00	0.08	21.01	21.04	31.33	29.17	28.67	29.56	30.14
400.00	0.10	18.87	18.90	27.54	26.76	26.48	26.96	27.34
500.00	0.11	17.36	17.40	25.31	26.20	25.81	26.26	26.74
550.00	0.12	16.78	16.82	24.42	26.33	26.01	26.34	26.79
600.00	0.12	16.28	16.34	23.60	26.59	26.26	26.57	27.00
650.00	0.13	15.87	15.93	23.03	27.22	26.87	26.86	27.40
700.00	0.13	15.53	15.60	22.50	28.35	27.85	27.37	28.06
750.00	0.14	15.25	15.33	22.00	29.46	29.04	28.13	28.96
800.00	0.14	15.03	15.11	21.49	31.26	30.64	29.19	30.10
850.00	0.15	14.87	14.95	21.00	34.11	32.90	31.09	32.19
900.00	0.15	14.75	14.84	20.64	38.35	35.36	33.41	35.11
950.00	0.16	14.68	14.77	20.25	52.68	37.80	37.23	41.15
1000.00	0.16	14.65	14.74	20.04	42.70	37.52	41.67	53.92
1100.00	0.18	14.70	14.79	19.85	30.59	30.51	33.95	33.79
1200.00	0.19	14.86	14.95	19.88	26.31	26.34	28.02	27.77
1300.00	0.21	15.07	15.17	20.13	23.80	23.87	24.79	24.68
1400.00	0.23	15.28	15.41	20.83	22.46	22.61	22.96	22.88
1500.00	0.24	15.43	15.59	21.52	21.96	22.18	22.08	21.95
1600.00	0.24	15.49	15.67	21.94	22.41	22.76	22.24	22.06
1700.00	0.24	15.44	15.65	21.12	23.70	24.38	23.30	22.91
1800.00	0.25	15.30	15.52	20.08	26.02	27.29	25.56	24.80
1900.00	0.25	15.09	15.34	18.91	29.96	33.40	29.97	28.05
2000.00	0.25	14.90	15.17	17.90	33.70	40.07	39.11	32.47
2100.00	0.27	14.78	15.05	17.17	30.67	30.93	36.81	34.45
2200.00	0.28	14.76	15.03	16.89	27.12	26.83	29.80	29.94
2250.00	0.29	14.79	15.07	16.71	25.36	25.12	27.59	27.98
2300.00	0.30	14.87	15.14	16.68	25.10	24.74	26.62	26.95
2350.00	0.31	15.00	15.26	16.66	24.01	23.82	25.36	25.68
2400.00	0.32	15.16	15.43	16.70	24.02	23.75	25.09	25.41
2450.00	0.33	15.38	15.63	16.63	23.70	23.44	24.49	24.69
2500.00	0.33	15.66	15.89	16.71	23.62	23.55	24.61	24.85
2550.00	0.33	15.99	16.21	16.69	23.98	23.71	24.52	24.65
2600.00	0.34	16.38	16.61	16.65	24.18	24.13	24.91	24.91
2650.00	0.34	16.86	17.06	16.62	24.84	24.53	25.10	24.99
2700.00	0.34	17.43	17.61	16.32	25.45	25.20	25.81	25.68
2750.00	0.34	18.10	18.29	15.80	26.50	26.14	26.05	25.76
2800.00	0.35	18.85	19.03	15.41	27.44	27.20	27.19	26.81
2850.00	0.35	19.80	19.98	14.48	28.81	28.21	27.58	27.15
2900.00	0.36	20.71	20.91	13.94	29.83	29.48	28.43	27.65
2950.00	0.36	22.24	22.38	11.83	31.65	30.95	29.45	28.83
3000.00	0.35	23.62	23.80	11.08	33.64	32.14	29.85	29.04
3050.00	0.36	25.82	25.99	8.31	33.75	32.22	30.36	29.45
3100.00	0.36	28.68	28.89	4.77	37.98	34.00	31.16	29.43
3200.00	0.36	40.32	41.46	8.65	37.95	33.08	31.95	29.69
3300.00	0.38	32.63	32.90	0.92	36.50	30.63	32.38	29.38
3400.00	0.37	25.97	26.07	5.29	34.07	29.74	32.18	28.58
3500.00	0.38	22.34	22.40	8.20	33.70	28.81	33.23	27.85
3600.00	0.37	19.95	20.08	9.92	34.00	28.75	33.38	28.15
3700.00	0.37	18.20	18.37	10.70	35.05	29.21	34.10	27.65
3800.00	0.37	17.10	17.20	11.55	35.18	29.46	33.12	27.08
3900.00	0.37	16.21	16.37	11.97	30.56	28.62	30.32	26.06
4000.00	0.36	15.64	15.78	11.92	26.34	26.20	26.99	24.21

Notes

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Bi-Directional Coupler

BDCH-15-272

Typical Performance Data

TEST CONDITIONS: INPUT POWER =+10 dBm @Temperature = 105°C, In port at pad 3

FREQ. (MHz)	INSERTION LOSS (dB)	COUPLING		DIRECTIVITY (dB) In - Rev	RETURN LOSS (dB)			
		(dB)			In	Out	Rev	Fwd
		In Fwd	Rev - Out					
100.00	0.03	30.11	30.12	32.15	31.35	31.28	30.45	30.59
200.00	0.05	24.27	24.29	32.35	32.29	31.85	30.06	30.26
300.00	0.08	21.01	21.04	30.86	30.14	29.56	28.67	29.17
400.00	0.10	18.87	18.90	27.27	27.34	26.96	26.48	26.76
500.00	0.11	17.36	17.40	25.27	26.74	26.26	25.81	26.20
550.00	0.12	16.78	16.82	24.52	26.79	26.34	26.01	26.33
600.00	0.12	16.28	16.34	23.71	27.00	26.57	26.26	26.59
650.00	0.13	15.87	15.93	23.07	27.40	26.86	26.87	27.22
700.00	0.14	15.53	15.60	22.50	28.06	27.37	27.85	28.35
750.00	0.14	15.25	15.33	21.93	28.96	28.13	29.04	29.46
800.00	0.15	15.03	15.11	21.31	30.10	29.19	30.64	31.26
850.00	0.15	14.87	14.95	20.89	32.19	31.09	32.90	34.11
900.00	0.16	14.75	14.84	20.52	35.11	33.41	35.36	38.35
950.00	0.16	14.68	14.77	20.20	41.15	37.23	37.80	52.68
1000.00	0.17	14.65	14.74	19.95	53.92	41.67	37.52	42.70
1100.00	0.18	14.70	14.79	19.56	33.79	33.95	30.51	30.59
1200.00	0.19	14.86	14.95	19.53	27.77	28.02	26.34	26.31
1300.00	0.21	15.07	15.17	19.69	24.68	24.79	23.87	23.80
1400.00	0.23	15.28	15.41	20.50	22.88	22.96	22.61	22.46
1500.00	0.25	15.43	15.59	21.32	21.95	22.08	22.18	21.96
1600.00	0.25	15.49	15.67	22.05	22.06	22.24	22.76	22.41
1700.00	0.26	15.44	15.65	21.78	22.91	23.30	24.38	23.70
1800.00	0.27	15.30	15.52	20.91	24.80	25.56	27.29	26.02
1900.00	0.26	15.09	15.34	19.82	28.05	29.97	33.40	29.96
2000.00	0.27	14.90	15.17	18.98	32.47	39.11	40.07	33.70
2100.00	0.28	14.78	15.05	18.27	34.45	36.81	30.93	30.67
2200.00	0.30	14.76	15.03	17.97	29.94	29.80	26.83	27.12
2250.00	0.30	14.79	15.07	17.79	27.98	27.59	25.12	25.36
2300.00	0.31	14.87	15.14	17.77	26.95	26.62	24.74	25.10
2350.00	0.32	15.00	15.26	17.63	25.68	25.36	23.82	24.01
2400.00	0.32	15.16	15.43	17.76	25.41	25.09	23.75	24.02
2450.00	0.34	15.38	15.63	17.59	24.69	24.49	23.44	23.70
2500.00	0.33	15.66	15.89	17.75	24.85	24.61	23.55	23.62
2550.00	0.34	15.99	16.21	17.68	24.65	24.52	23.71	23.98
2600.00	0.35	16.38	16.61	17.61	24.91	24.91	24.13	24.18
2650.00	0.35	16.86	17.06	17.52	24.99	25.10	24.53	24.84
2700.00	0.35	17.43	17.61	17.13	25.68	25.81	25.20	25.45
2750.00	0.36	18.10	18.29	16.42	25.76	26.05	26.14	26.50
2800.00	0.36	18.85	19.03	15.74	26.81	27.19	27.20	27.44
2850.00	0.37	19.80	19.98	14.54	27.15	27.58	28.21	28.81
2900.00	0.37	20.71	20.91	13.95	27.65	28.43	29.48	29.83
2950.00	0.37	22.24	22.38	11.56	28.83	29.45	30.95	31.65
3000.00	0.37	23.62	23.80	10.69	29.04	29.85	32.14	33.64
3050.00	0.37	25.82	25.99	7.74	29.45	30.36	32.22	33.75
3100.00	0.38	28.68	28.89	4.37	29.43	31.16	34.00	37.98
3200.00	0.39	40.32	41.46	7.68	29.69	31.95	33.08	37.95
3300.00	0.39	32.63	32.90	0.61	29.38	32.38	30.63	36.50
3400.00	0.39	25.97	26.07	5.90	28.58	32.18	29.74	34.07
3500.00	0.42	22.34	22.40	9.23	27.85	33.23	28.81	33.70
3600.00	0.39	19.95	20.08	11.55	28.15	33.38	28.75	34.00
3700.00	0.40	18.20	18.37	12.58	27.65	34.10	29.21	35.05
3800.00	0.39	17.10	17.20	13.32	27.08	33.12	29.46	35.18
3900.00	0.39	16.21	16.37	13.46	26.06	30.32	28.62	30.56
4000.00	0.39	15.64	15.78	13.36	24.21	26.99	26.20	26.34

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-15-272

Typical Performance Data

TEST CONDITIONS: INPUT POWER =+10 dBm @Temperature = 105°C, In port at pad 4

FREQ. (MHz)	INSERTION LOSS (dB)	COUPLING		DIRECTIVITY (dB) In - Rev	RETURN LOSS (dB)			
		(dB)			In	Out	Rev	Fwd
		In Fwd	Rev - Out					
100.00	0.03	30.12	30.11	32.33	31.28	31.35	30.59	30.45
200.00	0.05	24.29	24.27	32.68	31.85	32.29	30.26	30.06
300.00	0.07	21.04	21.01	31.33	29.56	30.14	29.17	28.67
400.00	0.09	18.90	18.87	27.54	26.96	27.34	26.76	26.48
500.00	0.11	17.40	17.36	25.31	26.26	26.74	26.20	25.81
550.00	0.12	16.82	16.78	24.42	26.34	26.79	26.33	26.01
600.00	0.12	16.34	16.28	23.60	26.57	27.00	26.59	26.26
650.00	0.13	15.93	15.87	23.03	26.86	27.40	27.22	26.87
700.00	0.13	15.60	15.53	22.50	27.37	28.06	28.35	27.85
750.00	0.14	15.33	15.25	22.00	28.13	28.96	29.46	29.04
800.00	0.15	15.11	15.03	21.49	29.19	30.10	31.26	30.64
850.00	0.15	14.95	14.87	21.00	31.09	32.19	34.11	32.90
900.00	0.16	14.84	14.75	20.64	33.41	35.11	38.35	35.36
950.00	0.16	14.77	14.68	20.25	37.23	41.15	52.68	37.80
1000.00	0.17	14.74	14.65	20.04	41.67	53.92	42.70	37.52
1100.00	0.18	14.79	14.70	19.85	33.95	33.79	30.59	30.51
1200.00	0.19	14.95	14.86	19.88	28.02	27.77	26.31	26.34
1300.00	0.21	15.17	15.07	20.13	24.79	24.68	23.80	23.87
1400.00	0.23	15.41	15.28	20.83	22.96	22.88	22.46	22.61
1500.00	0.25	15.59	15.43	21.52	22.08	21.95	21.96	22.18
1600.00	0.25	15.67	15.49	21.94	22.24	22.06	22.41	22.76
1700.00	0.26	15.65	15.44	21.12	23.30	22.91	23.70	24.38
1800.00	0.27	15.52	15.30	20.08	25.56	24.80	26.02	27.29
1900.00	0.27	15.34	15.09	18.91	29.97	28.05	29.96	33.40
2000.00	0.27	15.17	14.90	17.90	39.11	32.47	33.70	40.07
2100.00	0.28	15.05	14.78	17.17	36.81	34.45	30.67	30.93
2200.00	0.30	15.03	14.76	16.89	29.80	29.94	27.12	26.83
2250.00	0.31	15.07	14.79	16.71	27.59	27.98	25.36	25.12
2300.00	0.31	15.14	14.87	16.68	26.62	26.95	25.10	24.74
2350.00	0.33	15.26	15.00	16.66	25.36	25.68	24.01	23.82
2400.00	0.33	15.43	15.16	16.70	25.09	25.41	24.02	23.75
2450.00	0.34	15.63	15.38	16.63	24.49	24.69	23.70	23.44
2500.00	0.34	15.89	15.66	16.71	24.61	24.85	23.62	23.55
2550.00	0.34	16.21	15.99	16.69	24.52	24.65	23.98	23.71
2600.00	0.35	16.61	16.38	16.65	24.91	24.91	24.18	24.13
2650.00	0.34	17.06	16.86	16.62	25.10	24.99	24.84	24.53
2700.00	0.35	17.61	17.43	16.32	25.81	25.68	25.45	25.20
2750.00	0.35	18.29	18.10	15.80	26.05	25.76	26.50	26.14
2800.00	0.36	19.03	18.85	15.41	27.19	26.81	27.44	27.20
2850.00	0.36	19.98	19.80	14.48	27.58	27.15	28.81	28.21
2900.00	0.37	20.91	20.71	13.94	28.43	27.65	29.83	29.48
2950.00	0.37	22.38	22.24	11.83	29.45	28.83	31.65	30.95
3000.00	0.36	23.80	23.62	11.08	29.85	29.04	33.64	32.14
3050.00	0.36	25.99	25.82	8.31	30.36	29.45	33.75	32.22
3100.00	0.38	28.89	28.68	4.77	31.16	29.43	37.98	34.00
3200.00	0.38	41.46	40.32	8.65	31.95	29.69	37.95	33.08
3300.00	0.38	32.90	32.63	0.92	32.38	29.38	36.50	30.63
3400.00	0.38	26.07	25.97	5.29	32.18	28.58	34.07	29.74
3500.00	0.41	22.40	22.34	8.20	33.23	27.85	33.70	28.81
3600.00	0.38	20.08	19.95	9.92	33.38	28.15	34.00	28.75
3700.00	0.39	18.37	18.20	10.70	34.10	27.65	35.05	29.21
3800.00	0.38	17.20	17.10	11.55	33.12	27.08	35.18	29.46
3900.00	0.38	16.37	16.21	11.97	30.32	26.06	30.56	28.62
4000.00	0.38	15.78	15.64	11.92	26.99	24.21	26.34	26.20

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