

Bi-Directional Coupler

BDCH-10-63

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
	1000	0.02	0.01	15.98	15.98	24.28	24.41	36.83	35.93	34.79
1200	0.02	0.02	14.55	14.55	24.00	24.14	36.54	36.58	36.52	38.30
1500	0.03	0.02	12.89	12.89	23.78	23.58	30.54	30.71	28.45	29.18
1800	0.04	0.02	11.64	11.63	22.45	22.53	26.03	26.46	25.13	25.36
1900	0.04	0.03	11.31	11.29	22.21	22.02	25.66	25.97	24.18	24.26
2000	0.04	0.03	10.99	10.98	22.01	21.80	25.36	25.53	23.91	23.83
2100	0.05	0.03	10.70	10.69	22.02	21.58	25.00	25.08	23.44	23.36
2200	0.05	0.03	10.44	10.43	22.13	21.52	24.47	24.66	23.02	22.99
2300	0.05	0.03	10.17	10.16	22.19	21.61	23.68	23.84	22.88	22.77
2400	0.06	0.03	9.98	9.97	22.15	21.83	23.36	23.41	22.88	22.58
2500	0.05	0.02	9.76	9.76	22.52	21.94	23.22	23.11	22.54	22.10
2600	0.04	0.02	9.57	9.57	22.71	22.53	23.63	23.44	22.78	22.29
2700	0.03	0.02	9.43	9.42	22.59	22.39	24.48	24.32	23.10	22.68
2800	0.04	0.02	9.28	9.27	22.31	22.18	25.36	25.29	23.94	23.68
2900	0.04	0.02	9.11	9.09	22.31	21.82	25.97	25.69	25.19	24.75
3000	0.04	0.02	8.98	8.97	23.18	22.56	27.19	26.91	27.17	26.62
3100	0.05	0.02	8.85	8.85	24.41	22.93	28.97	28.65	28.93	28.60
3200	0.06	0.03	8.78	8.77	26.20	23.67	31.35	30.52	31.73	31.92
3300	0.05	0.03	8.67	8.67	29.40	25.18	31.92	31.09	31.76	31.64
3400	0.06	0.03	8.64	8.63	30.10	25.46	32.13	31.06	33.01	32.15
3500	0.04	0.02	8.58	8.58	32.14	26.56	30.90	30.79	31.09	31.37
3600	0.06	0.03	8.52	8.51	32.74	28.66	30.95	31.70	31.03	32.10
3700	0.05	0.03	8.49	8.48	35.36	30.08	32.25	34.89	31.31	33.59
3800	0.05	0.02	8.48	8.47	36.69	31.19	34.56	41.04	31.33	36.98
3900	0.06	0.03	8.49	8.48	37.41	31.12	36.13	50.69	30.52	35.78
4000	0.07	0.04	8.53	8.52	38.24	31.55	36.16	49.30	29.83	33.10
4100	0.07	0.04	8.63	8.62	40.30	30.88	34.00	39.68	28.12	30.97
4200	0.06	0.03	8.56	8.55	34.59	40.83	35.21	41.16	28.04	31.96
4300	0.04	0.00	8.61	8.60	32.35	48.48	36.31	39.19	28.69	33.32
4400	0.04	0.01	8.70	8.68	31.60	42.64	37.79	37.27	30.87	34.27
4500	0.05	0.02	8.71	8.71	28.13	33.09	40.08	36.07	31.80	34.04
4600	0.06	0.04	8.80	8.81	26.01	30.45	40.41	34.39	32.63	33.84
4700	0.08	0.04	8.88	8.88	23.85	29.05	42.62	36.92	30.18	32.05
4800	0.09	0.03	8.96	8.96	24.02	26.65	54.27	42.08	31.13	34.68
4900	0.08	0.04	9.07	9.07	23.94	26.51	50.12	49.28	32.00	34.57
5000	0.07	0.04	9.16	9.19	23.65	25.99	40.88	40.59	35.28	40.63
5100	0.09	0.07	9.42	9.40	25.29	29.35	34.85	33.50	40.84	48.64
5200	0.08	0.05	9.48	9.49	25.37	28.86	30.06	29.73	44.27	42.78
5300	0.09	0.05	9.71	9.71	26.81	34.00	30.07	29.45	44.04	55.05
5400	0.10	0.06	9.89	9.88	24.43	33.12	28.76	28.66	44.79	46.00
5500	0.11	0.07	10.20	10.16	23.01	28.45	27.34	28.18	36.97	35.56
5600	0.11	0.03	10.42	10.37	22.47	30.17	27.74	29.28	33.35	33.24
5700	0.11	0.04	10.70	10.64	23.63	29.03	26.81	28.38	41.71	45.48
5800	0.11	0.03	10.90	10.88	22.52	25.82	24.61	26.43	33.28	32.54
5900	0.10	0.04	11.20	11.13	22.57	24.50	23.86	24.61	29.69	30.37
6000	0.11	0.05	11.39	11.44	22.80	24.92	22.97	23.15	30.62	31.63
6100	0.09	0.05	11.74	11.72	23.08	26.20	21.82	22.41	30.78	31.07
6200	0.13	0.09	12.03	12.11	23.95	27.94	21.12	21.24	27.37	26.02
6300	0.16	0.08	12.40	12.41	23.80	28.84	20.27	20.75	26.25	25.20
6400	0.15	0.09	12.74	12.74	22.86	27.27	19.86	20.19	25.07	24.20
6500	0.16	0.10	13.22	13.21	21.17	23.53	18.78	19.34	23.91	23.14
6700	0.20	0.13	14.14	14.18	19.01	19.88	17.53	17.67	22.37	22.09
6900	0.24	0.17	15.28	15.35	15.98	16.34	16.32	16.53	19.12	19.20
7000	0.27	0.19	15.88	16.17	15.26	16.83	15.46	15.57	17.96	17.85

Notes

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Bi-Directional Coupler

BDCH-10-63

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
	1000	0.02	0.03	15.99	16.00	22.45	22.52	42.05	41.62	39.36
1200	0.03	0.04	14.57	14.58	22.11	22.28	35.24	34.85	33.79	34.87
1500	0.04	0.04	12.92	12.93	22.79	22.28	29.26	29.12	28.53	28.91
1800	0.04	0.05	11.69	11.70	21.80	21.19	26.03	26.00	25.20	25.20
1900	0.04	0.06	11.35	11.36	21.17	20.64	25.07	25.02	24.26	24.32
2000	0.05	0.07	11.04	11.05	20.77	20.32	24.24	24.19	23.60	23.60
2100	0.06	0.07	10.75	10.77	20.53	20.13	23.48	23.37	23.05	22.96
2200	0.06	0.07	10.49	10.50	20.58	20.10	23.04	22.88	22.47	22.33
2300	0.06	0.07	10.24	10.26	20.90	20.37	22.84	22.58	22.08	21.90
2400	0.06	0.07	10.01	10.03	21.19	20.57	22.69	22.40	21.77	21.51
2500	0.06	0.07	9.83	9.85	21.41	20.91	22.72	22.37	21.70	21.30
2600	0.05	0.07	9.65	9.67	21.62	21.20	22.58	22.31	21.56	21.12
2700	0.06	0.08	9.49	9.51	21.58	21.11	22.57	22.35	21.64	21.25
2800	0.06	0.08	9.35	9.37	21.30	20.66	22.76	22.54	21.78	21.49
2900	0.07	0.09	9.22	9.23	21.04	20.29	23.01	22.79	22.03	21.74
3000	0.07	0.09	9.09	9.10	21.03	20.13	23.48	23.15	22.52	22.28
3100	0.08	0.09	8.99	9.01	21.13	20.16	24.09	23.71	23.13	22.93
3200	0.08	0.09	8.89	8.91	21.37	20.63	24.76	24.44	23.51	23.48
3300	0.07	0.09	8.81	8.83	21.94	21.51	25.43	25.34	24.23	24.09
3400	0.07	0.08	8.73	8.76	23.05	22.51	26.21	26.17	24.96	24.89
3500	0.07	0.07	8.66	8.68	24.16	23.58	26.88	27.02	25.59	25.64
3600	0.06	0.07	8.63	8.65	25.70	24.74	27.86	28.15	26.38	27.05
3700	0.05	0.06	8.58	8.61	27.31	25.83	28.28	28.98	27.34	28.49
3800	0.05	0.06	8.59	8.61	28.77	26.56	28.83	29.70	28.16	30.53
3900	0.05	0.05	8.57	8.59	29.08	27.06	29.44	30.86	29.15	32.86
4000	0.04	0.05	8.61	8.63	29.56	27.19	30.33	32.97	29.51	35.57
4100	0.03	0.06	8.61	8.64	30.07	27.51	31.46	35.67	29.94	38.35
4200	0.03	0.05	8.69	8.72	31.25	28.02	32.96	38.25	30.22	42.25
4300	0.05	0.07	8.73	8.76	31.83	29.85	33.91	40.19	30.52	40.54
4400	0.05	0.08	8.78	8.79	32.42	32.34	34.36	41.13	30.64	38.88
4500	0.08	0.10	8.87	8.89	33.17	34.46	35.73	45.12	30.28	35.44
4600	0.07	0.10	8.92	8.94	32.52	35.94	36.06	44.90	30.70	34.70
4700	0.09	0.12	9.04	9.05	31.46	39.59	37.50	44.92	30.83	33.77
4800	0.08	0.11	9.14	9.16	30.99	41.63	38.23	41.95	30.77	33.61
4900	0.09	0.11	9.25	9.26	31.18	39.30	36.35	38.64	31.28	32.78
5000	0.09	0.11	9.36	9.38	32.33	41.01	35.06	37.59	32.42	34.07
5100	0.09	0.11	9.52	9.54	35.08	43.76	33.34	35.73	32.67	34.04
5200	0.09	0.10	9.67	9.70	35.00	46.38	32.75	34.01	33.28	33.88
5300	0.10	0.09	9.87	9.92	33.10	38.75	32.50	34.17	33.70	33.62
5400	0.10	0.09	10.09	10.13	30.47	35.74	30.29	32.25	35.42	34.78
5500	0.11	0.10	10.32	10.33	27.39	32.31	27.72	29.98	39.23	37.71
5600	0.11	0.10	10.55	10.59	25.92	31.43	26.97	28.90	43.55	36.94
5700	0.11	0.10	10.77	10.83	25.31	31.49	26.15	27.62	53.13	39.63
5800	0.12	0.13	11.04	11.07	24.15	30.99	24.90	25.92	44.68	34.48
5900	0.13	0.14	11.33	11.36	24.97	31.96	24.07	24.84	35.48	33.87
6000	0.12	0.13	11.60	11.62	24.87	33.80	22.87	23.76	33.42	32.13
6100	0.12	0.13	11.93	11.95	24.89	34.36	21.90	22.79	31.46	30.23
6200	0.13	0.14	12.23	12.26	24.79	31.93	21.23	21.91	27.67	27.54
6300	0.14	0.14	12.57	12.60	24.09	28.65	20.78	21.56	26.13	26.07
6400	0.16	0.15	12.94	12.99	22.70	25.71	20.17	20.98	24.94	24.63
6500	0.17	0.16	13.33	13.43	20.92	23.46	19.67	20.21	23.60	23.21
6700	0.19	0.18	14.34	14.44	17.58	19.79	18.16	18.37	21.32	21.00
6900	0.22	0.23	15.53	15.68	15.61	17.83	16.78	16.95	18.66	18.65
7000	0.24	0.25	16.09	16.33	15.09	17.62	16.30	16.49	17.78	17.72

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Bi-Directional Coupler

BDCH-10-63

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
	1000	0.02	0.04	16.00	15.99	22.77	22.81	41.24	42.55	41.03
1200	0.03	0.05	14.58	14.57	22.50	22.49	38.47	40.26	36.41	39.83
1500	0.03	0.05	12.92	12.92	22.46	22.24	33.01	32.99	30.86	31.79
1800	0.04	0.06	11.68	11.68	20.74	20.56	28.16	27.99	26.48	26.39
1900	0.04	0.06	11.35	11.35	20.17	19.94	26.68	26.50	25.24	25.02
2000	0.05	0.07	11.04	11.04	19.61	19.41	25.37	25.20	24.21	23.86
2100	0.06	0.08	10.75	10.76	19.32	19.13	24.21	24.03	23.21	22.85
2200	0.05	0.07	10.51	10.52	19.24	19.09	23.36	23.24	22.40	22.03
2300	0.06	0.08	10.25	10.26	19.09	18.97	22.46	22.35	21.59	21.24
2400	0.08	0.10	10.09	10.09	19.16	19.02	21.96	21.83	21.12	20.78
2500	0.07	0.09	9.88	9.88	19.34	19.09	21.28	21.18	20.58	20.24
2600	0.07	0.10	9.71	9.72	19.36	19.15	20.88	20.77	20.18	19.93
2700	0.08	0.11	9.60	9.60	19.32	18.88	20.67	20.59	20.13	19.96
2800	0.09	0.12	9.44	9.45	18.82	18.38	20.44	20.44	19.89	19.75
2900	0.10	0.13	9.31	9.31	18.30	17.92	20.36	20.32	19.78	19.61
3000	0.10	0.13	9.19	9.20	18.47	17.93	20.45	20.41	20.00	19.85
3100	0.11	0.13	9.07	9.08	18.56	17.91	20.63	20.55	20.17	20.03
3200	0.10	0.13	8.99	9.00	18.56	18.02	20.99	20.91	20.36	20.37
3300	0.09	0.12	8.90	8.90	18.99	18.66	21.25	21.28	20.62	20.69
3400	0.08	0.11	8.83	8.85	19.55	19.24	21.70	21.76	21.07	21.27
3500	0.08	0.10	8.78	8.79	20.55	20.18	22.02	22.17	21.54	21.81
3600	0.08	0.10	8.71	8.71	20.88	20.78	22.46	22.59	21.99	22.26
3700	0.07	0.10	8.67	8.67	21.82	21.17	23.00	23.11	22.90	23.29
3800	0.07	0.10	8.67	8.67	22.34	21.40	23.88	23.99	23.75	24.35
3900	0.07	0.10	8.65	8.65	22.52	21.43	24.56	24.58	24.50	25.27
4000	0.06	0.10	8.70	8.70	21.80	20.83	25.55	25.61	25.91	26.57
4100	0.09	0.11	8.69	8.69	22.05	21.03	26.51	26.58	26.60	27.78
4200	0.07	0.10	8.73	8.74	23.37	22.30	27.36	27.52	28.09	29.78
4300	0.08	0.10	8.82	8.81	24.05	23.07	28.88	28.95	29.96	34.52
4400	0.09	0.13	8.90	8.89	25.17	24.10	30.25	30.27	32.67	41.78
4500	0.11	0.14	8.95	8.94	26.44	25.57	32.23	32.39	33.53	46.08
4600	0.09	0.12	9.00	9.01	29.97	28.05	33.88	33.66	33.22	40.41
4700	0.10	0.11	9.09	9.09	32.26	28.04	35.47	34.52	31.53	34.55
4800	0.09	0.10	9.19	9.22	30.97	26.94	37.61	36.06	30.98	33.39
4900	0.08	0.09	9.29	9.32	30.70	25.55	38.73	37.50	29.78	30.80
5000	0.07	0.10	9.41	9.44	30.22	25.51	37.96	37.36	29.22	29.40
5100	0.09	0.14	9.65	9.67	28.05	23.77	43.12	40.76	27.61	26.43
5200	0.07	0.10	9.72	9.76	31.82	25.35	45.06	40.84	26.71	26.17
5300	0.08	0.11	9.93	9.94	35.51	26.74	46.49	43.39	26.72	26.11
5400	0.07	0.10	10.14	10.14	46.07	28.59	38.23	40.87	26.87	26.06
5500	0.10	0.14	10.43	10.42	35.90	32.39	33.68	38.87	28.21	26.88
5600	0.10	0.11	10.64	10.62	34.58	34.34	34.18	38.79	28.63	26.93
5700	0.14	0.16	10.91	10.88	31.81	38.12	31.21	33.97	30.03	27.72
5800	0.13	0.15	11.12	11.11	26.13	39.72	27.48	31.14	34.55	27.58
5900	0.14	0.17	11.41	11.36	26.50	42.25	26.02	28.30	43.14	28.60
6000	0.14	0.18	11.58	11.72	25.38	41.02	24.55	26.38	38.82	28.07
6100	0.12	0.16	11.96	12.02	24.17	31.00	22.97	25.30	32.10	27.02
6200	0.16	0.18	12.34	12.42	23.64	28.95	21.80	23.36	28.78	25.46
6300	0.17	0.18	12.70	12.73	21.72	27.30	20.73	22.60	26.34	24.48
6400	0.16	0.21	13.03	13.07	19.57	25.56	20.15	21.39	23.73	22.80
6500	0.16	0.21	13.51	13.54	17.46	21.15	19.23	20.57	21.88	21.16
6700	0.20	0.26	14.53	14.54	14.86	19.59	17.49	18.48	19.04	18.51
6900	0.27	0.32	15.65	15.78	13.07	16.50	16.48	17.06	16.99	16.47
7000	0.29	0.34	16.13	16.42	13.27	17.35	15.93	16.33	16.25	15.79

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