

# Bi-Directional Coupler

# BDCH-25-272

## 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	0.07	0.07	28.61	28.58	26.79	26.74	29.03	29.19	27.62	27.57
550	0.07	0.07	28.03	27.99	26.56	26.49	29.61	29.70	27.54	27.43
600	0.08	0.08	27.54	27.50	26.25	26.14	29.62	29.87	27.98	27.82
650	0.08	0.08	27.14	27.09	26.08	25.64	29.08	29.43	28.99	28.86
700	0.09	0.08	26.80	26.75	26.01	25.22	28.65	28.85	29.92	29.78
750	0.09	0.08	26.54	26.49	25.43	24.50	28.54	28.61	30.03	29.93
800	0.09	0.09	26.36	26.31	25.39	24.46	28.71	28.70	29.77	29.57
850	0.09	0.09	26.19	26.12	24.27	23.36	29.31	29.56	30.41	30.29
900	0.10	0.09	26.09	26.03	24.02	22.94	30.01	30.16	31.38	31.26
950	0.10	0.09	26.03	25.96	23.34	22.21	31.32	31.38	33.35	33.69
1000	0.10	0.09	26.02	25.95	22.97	21.83	33.43	32.92	36.24	37.04
1050	0.10	0.10	26.05	25.97	22.70	21.56	37.01	36.16	38.52	41.46
1100	0.11	0.10	26.09	26.01	22.39	21.28	45.05	39.30	37.85	40.89
1150	0.11	0.11	26.19	26.16	22.80	21.79	44.75	38.19	34.91	36.42
1200	0.11	0.11	26.29	26.23	22.43	21.54	37.08	34.69	32.12	32.99
1250	0.12	0.11	26.40	26.34	22.33	21.38	32.99	31.64	29.58	29.87
1300	0.12	0.12	26.54	26.46	22.61	21.75	30.41	29.52	27.83	28.24
1350	0.13	0.12	26.69	26.59	23.77	22.67	29.06	28.35	26.77	27.00
1400	0.13	0.13	26.79	26.70	23.39	22.39	27.93	27.40	26.35	26.62
1450	0.14	0.13	26.89	26.77	23.10	22.25	27.42	26.92	26.08	26.24
1500	0.14	0.13	26.87	26.94	22.37	21.61	27.09	26.53	25.86	26.21
1550	0.14	0.13	27.01	26.88	23.40	22.61	26.85	26.38	25.87	26.15
1600	0.15	0.13	27.02	26.87	22.55	22.50	26.61	26.15	26.02	26.32
1650	0.15	0.14	26.98	26.84	21.88	22.00	26.45	26.11	26.24	26.47
1700	0.15	0.14	26.90	26.77	21.37	21.59	26.47	26.07	26.75	27.03
1750	0.16	0.14	26.80	26.70	20.70	21.09	26.51	26.16	27.41	27.66
1800	0.16	0.15	26.72	26.56	20.47	21.28	26.79	26.44	28.38	28.60
1850	0.16	0.15	26.56	26.44	20.09	20.64	27.01	26.69	29.09	29.26
1900	0.16	0.15	26.44	26.30	19.56	20.33	27.52	27.04	29.90	30.19
1950	0.16	0.14	26.29	26.18	19.04	19.69	27.87	27.69	30.53	30.62
2000	0.17	0.15	26.16	26.02	18.61	19.58	29.12	28.58	32.18	32.63
2050	0.17	0.15	26.07	25.89	18.65	19.11	30.08	29.77	34.35	34.70
2100	0.17	0.16	25.97	25.80	18.06	18.65	32.03	31.30	37.50	38.82
2150	0.17	0.15	25.89	25.72	17.78	18.24	34.06	33.51	40.41	42.59
2200	0.17	0.16	25.85	25.70	17.82	17.96	37.41	36.25	40.16	44.53
2250	0.18	0.16	25.87	25.71	17.44	17.86	40.79	39.02	38.41	41.69
2300	0.18	0.17	25.90	25.74	17.18	17.70	41.19	39.72	36.75	38.78
2350	0.18	0.17	26.01	25.83	16.88	17.49	41.03	38.17	34.09	35.55
2400	0.18	0.17	26.15	25.99	16.80	17.59	37.46	37.13	33.02	33.96
2450	0.18	0.17	26.32	26.19	16.54	17.28	36.15	35.32	31.72	32.37
2500	0.18	0.16	26.55	26.43	15.98	16.86	33.71	33.72	31.36	31.99
2550	0.19	0.18	26.85	26.74	15.77	16.65	32.62	31.96	30.75	31.22
2600	0.19	0.18	27.20	27.07	15.09	16.12	30.69	30.77	30.49	30.86
2650	0.19	0.18	27.66	27.49	14.77	15.82	29.63	29.15	29.14	29.49
2700	0.20	0.19	28.22	28.22	13.22	14.38	28.09	28.34	28.64	28.76
2750	0.20	0.20	28.70	28.70	13.05	14.40	26.80	26.44	27.12	27.33
2800	0.21	0.19	29.50	29.35	12.57	13.91	25.51	25.56	26.32	26.58
2850	0.23	0.21	30.40	30.31	10.53	11.73	24.18	24.09	25.06	25.50
2900	0.22	0.21	30.95	31.12	11.26	13.79	22.87	22.94	24.21	24.26
2950	0.24	0.22	32.38	32.56	9.57	11.12	21.90	21.87	23.05	23.29
3000	0.24	0.23	34.13	33.82	7.20	9.14	21.03	21.05	22.06	22.39

**Notes**

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# Bi-Directional Coupler

# BDCH-25-272

## 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	0.08	28.58	28.55	26.45	26.02	27.16	27.23	26.47	26.49
550	0.08	0.08	28.01	27.97	26.00	25.39	27.08	27.04	26.80	26.75
600	0.08	0.08	27.52	27.47	25.34	24.89	27.35	27.40	27.06	26.95
650	0.08	0.09	27.12	27.07	24.97	24.46	27.49	27.68	27.70	27.60
700	0.09	0.09	26.79	26.73	24.52	24.01	28.25	28.34	28.34	28.29
750	0.09	0.09	26.52	26.46	24.14	23.55	29.09	29.02	29.60	29.53
800	0.09	0.10	26.32	26.26	23.77	23.21	29.92	29.79	30.87	30.76
850	0.10	0.10	26.17	26.11	23.61	22.94	31.28	31.35	33.15	32.89
900	0.10	0.10	26.07	26.01	23.28	22.56	32.83	32.71	35.08	34.95
950	0.10	0.10	26.03	25.96	23.17	22.40	35.51	34.75	38.13	38.56
1000	0.10	0.11	26.02	25.95	22.96	22.09	38.44	36.38	40.05	41.88
1050	0.11	0.11	26.05	25.98	22.84	22.02	43.47	38.52	38.58	41.02
1100	0.11	0.12	26.11	26.04	22.90	21.85	46.58	38.71	36.13	38.02
1150	0.12	0.12	26.20	26.13	22.74	21.75	41.51	37.34	33.57	34.72
1200	0.12	0.13	26.31	26.24	22.80	21.66	37.74	35.06	31.61	32.54
1250	0.12	0.13	26.44	26.36	22.74	21.60	34.99	33.57	30.30	30.90
1300	0.13	0.14	26.57	26.49	22.86	21.60	32.73	31.59	28.89	29.60
1350	0.13	0.14	26.70	26.61	22.75	21.54	31.49	30.77	28.35	28.81
1400	0.14	0.14	26.82	26.72	22.81	21.61	29.99	29.47	27.43	27.86
1450	0.14	0.15	26.92	26.81	22.70	21.53	29.37	28.89	27.25	27.54
1500	0.14	0.15	26.99	26.88	22.61	21.65	28.38	27.90	26.71	27.13
1550	0.15	0.15	27.04	26.91	22.27	21.46	28.08	27.72	26.76	27.07
1600	0.15	0.16	27.04	26.91	21.91	21.60	27.43	27.08	26.72	27.04
1650	0.16	0.16	27.02	26.87	21.65	21.31	27.49	27.18	26.88	27.11
1700	0.16	0.16	26.96	26.80	21.10	21.31	27.02	26.72	27.27	27.46
1750	0.16	0.17	26.86	26.70	20.65	20.94	27.23	26.95	27.64	27.81
1800	0.17	0.17	26.75	26.58	20.19	20.79	27.25	26.83	28.55	28.79
1850	0.17	0.17	26.62	26.44	19.79	20.45	27.53	27.23	29.10	29.23
1900	0.17	0.17	26.48	26.30	19.32	20.27	27.82	27.32	30.43	30.53
1950	0.18	0.17	26.35	26.16	19.00	19.82	28.20	27.89	31.22	31.27
2000	0.18	0.18	26.21	26.03	18.61	19.61	29.04	28.33	33.18	33.55
2050	0.18	0.18	26.10	25.92	18.32	19.22	29.43	29.03	34.52	34.85
2100	0.18	0.18	26.01	25.83	17.91	18.86	30.79	29.89	37.30	38.33
2150	0.18	0.18	25.94	25.77	17.67	18.62	31.49	30.92	40.05	41.57
2200	0.19	0.19	25.91	25.73	17.31	18.17	33.74	32.51	41.97	46.68
2250	0.19	0.19	25.91	25.74	17.07	17.97	34.97	34.01	42.28	49.07
2300	0.19	0.20	25.96	25.78	16.70	17.47	38.49	36.30	39.82	43.08
2350	0.19	0.20	26.05	25.88	16.50	17.32	40.31	38.26	36.58	38.23
2400	0.20	0.20	26.18	26.01	16.10	16.84	42.51	40.28	35.42	36.25
2450	0.20	0.20	26.37	26.21	15.77	16.61	38.97	37.41	32.59	33.18
2500	0.20	0.20	26.61	26.46	15.44	16.19	35.26	35.40	31.78	32.22
2550	0.20	0.21	26.91	26.77	14.98	15.89	32.53	31.83	29.66	30.04
2600	0.21	0.22	27.29	27.14	14.58	15.48	30.38	30.56	29.12	29.34
2650	0.21	0.22	27.72	27.60	14.10	15.13	28.19	27.96	27.50	27.66
2700	0.22	0.22	28.25	28.13	13.56	14.66	27.15	27.24	27.10	27.19
2750	0.22	0.23	28.86	28.75	12.90	14.14	25.37	25.17	25.78	25.93
2800	0.23	0.24	29.58	29.48	12.32	13.62	24.75	24.82	25.28	25.41
2850	0.24	0.24	30.41	30.32	11.49	12.99	23.42	23.28	24.48	24.57
2900	0.24	0.25	31.40	31.31	10.68	12.24	23.06	23.07	23.96	24.17
2950	0.25	0.26	32.56	32.47	9.61	11.32	22.14	22.00	23.41	23.56
3000	0.26	0.26	33.98	33.87	8.29	10.10	21.72	21.76	22.88	23.14

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# Bi-Directional Coupler

# BDCH-25-272

## 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	0.07	28.54	28.50	28.74	27.93	28.49	28.63	28.06
550	0.09	0.07	27.96	27.92	27.91	27.16	28.21	28.16	28.26	28.29
600	0.10	0.08	27.48	27.43	27.33	26.61	28.08	28.21	28.41	28.26
650	0.10	0.08	27.08	27.03	26.53	25.99	27.84	28.03	28.22	28.16
700	0.11	0.09	26.75	26.70	25.99	25.37	28.12	28.25	28.25	28.11
750	0.11	0.09	26.50	26.43	25.10	24.44	27.94	27.87	28.38	28.37
800	0.11	0.09	26.29	26.22	24.45	23.81	28.21	28.14	29.40	29.22
850	0.12	0.09	26.16	26.09	24.21	23.29	28.24	28.32	30.58	30.48
900	0.12	0.10	26.07	25.98	23.69	22.78	29.25	29.26	32.43	32.19
950	0.12	0.10	26.02	25.94	23.38	22.40	30.37	30.20	33.72	33.98
1000	0.13	0.10	26.01	25.93	22.93	21.99	32.54	31.84	36.03	36.32
1050	0.13	0.11	26.05	25.95	22.66	21.78	35.07	34.05	37.54	39.20
1100	0.13	0.11	26.10	26.01	22.29	21.31	38.91	36.20	39.08	41.84
1150	0.14	0.11	26.19	26.10	22.05	21.20	45.58	38.37	36.84	40.00
1200	0.14	0.12	26.32	26.21	22.04	21.03	44.61	37.33	34.31	35.93
1250	0.14	0.12	26.44	26.32	21.85	20.78	37.60	35.10	31.79	32.84
1300	0.14	0.13	26.56	26.45	21.52	20.56	33.70	32.26	29.98	30.87
1350	0.15	0.13	26.68	26.61	21.53	20.68	30.91	30.22	28.63	29.27
1400	0.16	0.14	26.83	26.69	21.76	21.09	29.02	28.55	27.58	28.04
1450	0.16	0.14	26.93	26.79	21.53	20.98	27.46	27.14	26.58	26.94
1500	0.16	0.14	27.02	26.85	21.38	20.86	26.45	26.08	25.86	26.28
1550	0.17	0.15	27.02	26.94	21.34	21.20	25.70	25.49	25.42	25.75
1600	0.18	0.16	27.04	26.94	21.34	21.27	25.15	24.92	25.14	25.43
1650	0.18	0.16	27.02	26.84	21.23	21.32	25.06	24.89	25.16	25.35
1700	0.18	0.16	26.96	26.79	20.69	20.77	24.79	24.59	25.16	25.36
1750	0.19	0.16	26.85	26.69	20.24	20.51	25.12	24.94	25.58	25.74
1800	0.19	0.16	26.76	26.56	19.71	20.11	25.14	24.86	25.95	26.19
1850	0.19	0.17	26.61	26.43	19.28	19.81	25.86	25.69	27.09	27.21
1900	0.20	0.17	26.49	26.28	18.80	19.38	26.24	25.93	27.84	28.07
1950	0.19	0.17	26.34	26.17	18.40	18.79	27.43	27.14	29.53	29.67
2000	0.20	0.17	26.22	26.00	18.14	18.47	28.39	27.91	30.70	31.22
2050	0.20	0.17	26.12	25.90	17.57	18.17	30.11	29.60	33.19	33.63
2100	0.20	0.18	25.99	25.81	17.51	17.89	31.82	31.06	34.71	35.71
2150	0.20	0.18	25.94	25.75	17.09	17.63	34.35	33.23	37.88	39.82
2200	0.21	0.18	25.92	25.71	16.86	17.28	38.16	36.32	38.31	41.23
2250	0.21	0.18	25.91	25.72	16.53	17.02	42.37	38.36	36.87	39.28
2300	0.21	0.19	25.96	25.78	16.47	16.89	46.57	42.10	35.39	36.89
2350	0.22	0.20	26.07	25.88	16.09	16.63	41.18	38.89	32.75	33.86
2400	0.21	0.20	26.21	26.03	15.86	16.31	36.28	36.27	31.83	32.60
2450	0.22	0.20	26.40	26.26	15.75	16.14	33.94	33.73	30.02	30.63
2500	0.22	0.19	26.63	26.47	15.25	15.88	31.49	31.61	29.19	29.57
2550	0.23	0.21	26.95	26.75	14.94	15.65	30.16	29.98	27.89	28.33
2600	0.23	0.21	27.38	27.18	14.18	15.03	28.58	28.72	27.40	27.59
2650	0.24	0.22	27.69	27.58	14.11	15.26	27.48	27.54	26.43	26.63
2700	0.23	0.21	28.31	28.13	13.67	14.85	26.61	26.70	26.00	26.13
2750	0.24	0.21	28.92	28.83	12.91	13.81	25.68	25.65	25.26	25.49
2800	0.25	0.23	29.58	29.46	12.37	13.86	25.21	25.31	24.85	24.94
2850	0.26	0.23	30.52	30.36	11.27	13.03	24.28	24.19	24.25	24.34
2900	0.26	0.23	31.34	31.33	10.74	12.40	23.99	24.11	23.79	23.99
2950	0.27	0.24	32.60	32.41	9.64	11.68	23.22	23.10	23.27	23.39
3000	0.27	0.25	33.89	33.61	9.08	11.45	23.03	23.01	22.81	23.02

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