Bi-Directional Coupler BDCH-20-63A+

Typical Performance Data

TEST CONDITIONS: INPUT POWER =+5 dBm @Temperature = -55°C, Configuration A

FREQ. (MHz)	INSERTION LOSS[1] (dB)	COUPLING (dB)		DIRECTIVITY (dB)	RETURN LOSS (dB)			
	In - Out	In - Fwd	Out - Rev	In - Fwd	In	Out	Rev	Fwd
1000	0.07	23.16	23.19	29.32	33.72	33.26	34.17	34.01
1200	0.07	21.84	21.87	27.72	33.36	33.91	37.79	35.72
1500	0.07	20.39	20.43	27.10	33.67	36.84	38.96	33.85
1800	0.07	19.39	19.42	24.77	30.88	37.35	36.15	30.72
1900	0.07	19.13	19.18	24.19	29.92	35.54	32.83	29.26
2000	0.07	18.92	18.96	23.98	28.95	33.85	30.44	27.75
2100	0.07	18.74	18.78	23.88	28.21	32.17	28.63	26.55
2200	0.07	18.58	18.62	23.81	27.46	30.42	27.02	25.61
2300	0.08	18.48	18.50	23.45	26.67	28.70	25.84	24.80
2400	0.08	18.36	18.39	23.52	26.23	27.62	24.87	24.14
2500	0.08	18.29	18.32	23.33	25.93	26.90	24.08	23.58
2600	0.09	18.24	18.25	23.58	25.80	26.38	23.55	23.03
2700	0.09	18.20	18.21	23.65	25.63	25.88	23.13	22.76
2800	0.09	18.16	18.18	23.63	25.46	25.23	22.99	22.73
2900	0.09	18.13	18.16	23.77	25.69	25.01	23.06	22.83
3000	0.09	18.15	18.14	24.35	26.21	25.65	23.40	23.27
3100	0.09	18.15	18.17	24.10	26.65	26.00	23.89	23.98
3200	0.09	18.15	18.18	24.31	27.31	26.32	25.07	25.32
3300	0.08	18.16	18.19	24.88	28.19	27.00	26.62	26.98
3400	0.08	18.17	18.20	25.36	29.77	28.15	28.68	30.43
3500	0.08	18.20	18.23	25.79	31.54	29.54	30.77	32.78
3600	0.08	18.21	18.25	26.35	33.57	31.16	32.11	35.39
3700	0.08	18.24	18.30	27.35	35.55	32.67	32.57	35.62
3800	0.08	18.25	18.34	27.72	37.68	33.84	31.47	32.71
3900	0.08	18.25	18.35	28.21	37.57	34.76	28.85	29.37
4000	0.08	18.26	18.34	28.50	33.80	32.90	26.38	26.40
4100	0.08	18.23	18.37	29.92	29.98	29.98	24.37	24.20
4200	0.09	18.27	18.40	31.50	26.65	26.88	22.51	22.28
4300	0.09	18.20	18.41	32.41	24.16	24.44	20.96	20.77
4400	0.10	18.17	18.38	35.10	22.46	22.87	19.66	19.50
4500	0.11	18.15	18.38	34.82	21.33	21.69	18.76	18.42
4600	0.11	18.08	18.40	37.17	20.59	20.77	18.09	17.79
4700	0.12	18.05	18.37	41.80	19.99	20.14	17.81	17.62
4800	0.13	17.98	18.38	46.36	19.80	19.91	17.73	17.71
4900	0.12	17.98	18.26	40.60	19.96	19.97	17.82	17.96
5000	0.12	17.93	18.25	38.89	20.19	20.38	17.87	18.09
5100	0.12	17.89	18.22	40.47	20.72	20.86	18.17	18.37
5200	0.12	17.86	18.16	37.80	21.07	21.32	18.89	19.11
5300	0.11	17.83	18.06	34.45	21.43	21.69	19.51	19.66
5400	0.11	17.78	18.11	31.57	22.22	22.50	20.09	20.17
5500	0.10	17.80	18.01	32.46	23.22	23.56	21.40	21.36
5600	0.11	17.82	17.97	28.84	24.37	25.07	23.66	23.17
5700	0.10	17.84	18.00	27.59	26.12	26.86	25.86	25.51
5800	0.10	17.89	17.98	27.96	28.72	28.60	29.19	28.74
5900	0.10	17.89	17.93	27.70	31.32	31.07	34.90	33.08
6000	0.10	17.94	18.02	25.89	35.68	34.95	46.17	39.42
6100	0.10	18.04	18.10	24.22	44.96	42.72	34.10	32.57
6300	0.10	18.30	18.17	22.98	32.94	33.45	25.07	25.40
6500	0.13	18.46	18.48	20.72	25.13	25.79	20.62	20.59
6700	0.14	18.89	18.93	19.05	21.84	22.10	17.23	17.80
6900	0.17	19.45	19.24	16.34	19.28	19.76	14.57	14.96
7100	0.19	19.82	19.89	16.19	17.49	17.96	13.68	13.78
7300	0.23	20.62	20.52	14.64	16.01	16.48	13.12	13.23
7500	0.29	21.32	21.19	12.78	14.93	15.18	12.73	12.69

(Note 1) Does not include theoretical loss. Nominal theoretical loss 0.07 dB.

Bi-Directional Coupler BDCH-20-63A+

Typical Performance Data

TEST CONDITIONS: INPUT POWER =+5 dBm @Temperature = -55°C, Configuration B

FREQ. (MHz)	INSERTION LOSS[1] (dB)	COUPLING (dB)		DIRECTIVITY (dB)	RETURN LOSS (dB)			
	In - Out	In - Fwd	Out - Rev	In - Fwd	In	Out	Rev	Fwd
1000	0.07	23.19	23.16	30.60	33.26	33.72	34.01	34.17
1200	0.07	21.87	21.84	29.32	33.91	33.36	35.72	37.79
1500	0.07	20.43	20.39	27.15	36.84	33.67	33.85	38.96
1800	0.08	19.42	19.39	25.19	37.35	30.88	30.72	36.15
1900	0.08	19.18	19.13	24.67	35.54	29.92	29.26	32.83
2000	0.08	18.96	18.92	24.44	33.85	28.95	27.75	30.44
2100	0.08	18.78	18.74	24.13	32.17	28.21	26.55	28.63
2200	0.08	18.62	18.58	23.97	30.42	27.46	25.61	27.02
2300	0.08	18.50	18.48	24.01	28.70	26.67	24.80	25.84
2400	0.09	18.39	18.36	24.11	27.62	26.23	24.14	24.87
2500	0.09	18.32	18.29	23.97	26.90	25.93	23.58	24.08
2600	0.09	18.25	18.24	24.39	26.38	25.80	23.03	23.55
2700	0.09	18.21	18.20	24.65	25.88	25.63	22.76	23.13
2800	0.09	18.18	18.16	24.77	25.23	25.46	22.73	22.99
2900	0.09	18.16	18.13	24.98	25.01	25.69	22.83	23.06
3000	0.10	18.14	18.15	26.49	25.65	26.21	23.27	23.40
3100	0.09	18.17	18.15	26.87	26.00	26.65	23.98	23.89
3200	0.09	18.18	18.15	27.48	26.32	27.31	25.32	25.07
3300	0.09	18.19	18.16	28.75	27.00	28.19	26.98	26.62
3400	0.09	18.20	18.17	29.68	28.15	29.77	30.43	28.68
3500	0.08	18.23	18.20	31.61	29.54	31.54	32.78	30.77
3600	0.08	18.25	18.21	32.30	31.16	33.57	35.39	32.11
3700	0.08	18.30	18.24	34.81	32.67	35.55	35.62	32.57
3800	0.08	18.34	18.25	36.83	33.84	37.68	32.71	31.47
3900	0.08	18.35	18.25	36.25	34.76	37.57	29.37	28.85
4000	0.08	18.34	18.26	37.63	32.90	33.80	26.40	26.38
4100	0.09	18.37	18.23	40.63	29.98	29.98	24.20	24.37
4200	0.09	18.40	18.27	35.96	26.88	26.65	22.28	22.51
4300	0.10	18.41	18.20	35.22	24.44	24.16	20.77	20.96
4400	0.11	18.38	18.17	34.23	22.87	22.46	19.50	19.66
4500	0.11	18.38	18.15	34.22	21.69	21.33	18.42	18.76
4600	0.12	18.40	18.08	30.54	20.77	20.59	17.79	18.09
4700	0.13	18.37	18.05	31.42	20.14	19.99	17.62	17.81
4800	0.14	18.38	17.98	30.54	19.91	19.80	17.71	17.73
4900	0.13	18.26	17.98	32.21	19.97	19.96	17.96	17.82
5000	0.13	18.25	17.93	32.15	20.38	20.19	18.09	17.87
5100	0.13	18.22	17.89	30.11	20.86	20.72	18.37	18.17
5200	0.12	18.16	17.86	31.08	21.32	21.07	19.11	18.89
5300	0.12	18.06	17.83	31.24	21.69	21.43	19.66	19.51
5400	0.13	18.11	17.78	33.07	22.50	22.22	20.17	20.09
5500	0.11	18.01	17.80	30.27	23.56	23.22	21.36	21.40
5600	0.12	17.97	17.82	30.00	25.07	24.37	23.17	23.66
5700	0.11	18.00	17.84	28.50	26.86	26.12	25.51	25.86
5800	0.11	17.98	17.89	27.94	28.60	28.72	28.74	29.19
5900	0.10	17.93	17.89	26.27	31.07	31.32	33.08	34.90
6000	0.10	18.02	17.94	25.32	34.95	35.68	39.42	46.17
6100	0.10	18.10	18.04	23.68	42.72	44.96	32.57	34.10
6300	0.11	18.17	18.30	23.64	33.45	32.94	25.40	25.07
6500	0.13	18.48	18.46	21.44	25.79	25.13	20.59	20.62
6700	0.14	18.93	18.89	19.49	22.10	21.84	17.80	17.23
6900	0.17	19.24	19.45	16.61	19.76	19.28	14.96	14.57
7100	0.20	19.89	19.82	16.13	17.96	17.49	13.78	13.68
7300	0.24	20.52	20.62	14.25	16.48	16.01	13.23	13.12
7500	0.29	21.19	21.32	12.32	15.18	14.93	12.69	12.73

(Note 1) Does not include theoretical loss. Nominal theoretical loss 0.07 dB.

Bi-Directional Coupler BDCH-20-63A+

Typical Performance Data

TEST CONDITIONS: INPUT POWER =+5 dBm @Temperature = -55°C, Configuration C

FREQ. (MHz)	INSERTION LOSS[1] (dB)	COUPLING (dB)		DIRECTIVITY (dB)	RETURN LOSS (dB)			
	In - Out	In - Fwd	Out - Rev	In - Fwd	In	Out	Rev	Fwd
1000	0.07	23.19	23.17	29.60	34.17	34.01	33.72	33.26
1200	0.07	21.88	21.85	27.77	37.79	35.72	33.36	33.91
1500	0.07	20.43	20.39	26.88	38.96	33.85	33.67	36.84
1800	0.08	19.42	19.40	24.79	36.15	30.72	30.88	37.35
1900	0.08	19.18	19.14	24.29	32.83	29.26	29.92	35.54
2000	0.08	18.96	18.92	24.14	30.44	27.75	28.95	33.85
2100	0.08	18.77	18.75	24.09	28.63	26.55	28.21	32.17
2200	0.08	18.62	18.59	23.93	27.02	25.61	27.46	30.42
2300	0.09	18.49	18.49	23.50	25.84	24.80	26.67	28.70
2400	0.09	18.39	18.37	23.42	24.87	24.14	26.23	27.62
2500	0.10	18.32	18.30	23.27	24.08	23.58	25.93	26.90
2600	0.11	18.25	18.25	23.50	23.55	23.03	25.80	26.38
2700	0.11	18.21	18.21	23.53	23.13	22.76	25.63	25.88
2800	0.11	18.18	18.17	23.45	22.99	22.73	25.46	25.23
2900	0.11	18.16	18.14	23.55	23.06	22.83	25.69	25.01
3000	0.11	18.14	18.15	24.18	23.40	23.27	26.21	25.65
3100	0.10	18.17	18.16	23.99	23.89	23.98	26.65	26.00
3200	0.10	18.18	18.15	24.32	25.07	25.32	27.31	26.32
3300	0.09	18.19	18.17	24.94	26.62	26.98	28.19	27.00
3400	0.09	18.20	18.18	25.46	28.68	30.43	29.77	28.15
3500	0.09	18.23	18.21	25.98	30.77	32.78	31.54	29.54
3600	0.09	18.24	18.22	26.61	32.11	35.39	33.57	31.16
3700	0.09	18.31	18.25	27.56	32.57	35.62	35.55	32.67
3800	0.09	18.34	18.26	27.82	31.47	32.71	37.68	33.84
3900	0.09	18.35	18.26	28.08	28.85	29.37	37.57	34.76
4000	0.10	18.34	18.27	28.24	26.38	26.40	33.80	32.90
4100	0.11	18.37	18.24	29.66	24.37	24.20	29.98	29.98
4200	0.12	18.40	18.27	31.29	22.51	22.28	26.65	26.88
4300	0.13	18.41	18.21	32.34	20.96	20.77	24.16	24.44
4400	0.14	18.38	18.18	34.92	19.66	19.50	22.46	22.87
4500	0.15	18.38	18.16	34.63	18.76	18.42	21.33	21.69
4600	0.17	18.41	18.09	36.46	18.09	17.79	20.59	20.77
4700	0.18	18.37	18.05	39.80	17.81	17.62	19.99	20.14
4800	0.18	18.38	17.98	42.02	17.73	17.71	19.80	19.91
4900	0.17	18.27	17.99	37.89	17.82	17.96	19.96	19.97
5000	0.18	18.25	17.94	35.94	17.87	18.09	20.19	20.38
5100	0.18	18.22	17.89	37.82	18.17	18.37	20.72	20.86
5200	0.16	18.16	17.86	36.31	18.89	19.11	21.07	21.32
5300	0.16	18.06	17.84	33.45	19.51	19.66	21.43	21.69
5400	0.16	18.10	17.78	31.58	20.09	20.17	22.22	22.50
5500	0.14	18.00	17.81	32.70	21.40	21.36	23.22	23.56
5600	0.13	17.96	17.83	29.25	23.66	23.17	24.37	25.07
5700	0.12	17.99	17.85	27.83	25.86	25.51	26.12	26.86
5800	0.12	17.98	17.89	27.95	29.19	28.74	28.72	28.60
5900	0.11	17.93	17.89	27.68	34.90	33.08	31.32	31.07
6000	0.11	18.03	17.95	25.76	46.17	39.42	35.68	34.95
6100	0.12	18.10	18.05	24.08	34.10	32.57	44.96	42.72
6300	0.13	18.17	18.31	23.15	25.07	25.40	32.94	33.45
6500	0.17	18.49	18.47	20.51	20.62	20.59	25.13	25.79
6700	0.22	18.93	18.90	18.45	17.23	17.80	21.84	22.10
6900	0.31	19.25	19.47	16.50	14.57	14.96	19.28	19.76
7100	0.33	19.90	19.84	16.44	13.68	13.78	17.49	17.96
7300	0.38	20.53	20.66	15.33	13.12	13.23	16.01	16.48
7500	0.45	21.20	21.34	13.03	12.73	12.69	14.93	15.18

(Note 1) Does not include theoretical loss. Nominal theoretical loss 0.07 dB.

Bi-Directional Coupler BDCH-20-63A+

Typical Performance Data

TEST CONDITIONS: INPUT POWER =+5 dBm @Temperature = -55°C, Configuration D

FREQ. (MHz)	INSERTION LOSS[1] (dB)	COUPLING (dB)		DIRECTIVITY (dB)	RETURN LOSS (dB)			
	In - Out	In - Fwd	Out - Rev	In - Fwd	In	Out	Rev	Fwd
1000	0.07	23.17	23.19	30.63	34.01	34.17	33.26	33.72
1200	0.07	21.85	21.88	29.27	35.72	37.79	33.91	33.36
1500	0.07	20.39	20.43	26.91	33.85	38.96	36.84	33.67
1800	0.07	19.40	19.42	25.14	30.72	36.15	37.35	30.88
1900	0.08	19.14	19.18	24.72	29.26	32.83	35.54	29.92
2000	0.08	18.92	18.96	24.62	27.75	30.44	33.85	28.95
2100	0.08	18.75	18.77	24.49	26.55	28.63	32.17	28.21
2200	0.09	18.59	18.62	24.36	25.61	27.02	30.42	27.46
2300	0.09	18.49	18.49	24.33	24.80	25.84	28.70	26.67
2400	0.09	18.37	18.39	24.21	24.14	24.87	27.62	26.23
2500	0.10	18.30	18.32	23.97	23.58	24.08	26.90	25.93
2600	0.10	18.25	18.25	24.21	23.03	23.55	26.38	25.80
2700	0.11	18.21	18.21	24.27	22.76	23.13	25.88	25.63
2800	0.11	18.17	18.18	24.50	22.73	22.99	25.23	25.46
2900	0.11	18.14	18.16	24.74	22.83	23.06	25.01	25.69
3000	0.11	18.15	18.14	26.56	23.27	23.40	25.65	26.21
3100	0.10	18.16	18.17	27.29	23.98	23.89	26.00	26.65
3200	0.10	18.15	18.18	28.16	25.32	25.07	26.32	27.31
3300	0.09	18.17	18.19	29.21	26.98	26.62	27.00	28.19
3400	0.09	18.18	18.20	29.84	30.43	28.68	28.15	29.77
3500	0.09	18.21	18.23	31.53	32.78	30.77	29.54	31.54
3600	0.09	18.22	18.24	32.12	35.39	32.11	31.16	33.57
3700	0.09	18.25	18.31	34.43	35.62	32.57	32.67	35.55
3800	0.09	18.26	18.34	36.56	32.71	31.47	33.84	37.68
3900	0.10	18.26	18.35	36.39	29.37	28.85	34.76	37.57
4000	0.10	18.27	18.34	37.26	26.40	26.38	32.90	33.80
4100	0.10	18.24	18.37	39.79	24.20	24.37	29.98	29.98
4200	0.12	18.27	18.40	35.67	22.28	22.51	26.88	26.65
4300	0.13	18.21	18.41	35.17	20.77	20.96	24.44	24.16
4400	0.14	18.18	18.38	34.34	19.50	19.66	22.87	22.46
4500	0.15	18.16	18.38	34.40	18.42	18.76	21.69	21.33
4600	0.17	18.09	18.41	30.96	17.79	18.09	20.77	20.59
4700	0.17	18.05	18.37	31.84	17.62	17.81	20.14	19.99
4800	0.18	17.98	18.38	31.27	17.71	17.73	19.91	19.80
4900	0.17	17.99	18.27	33.31	17.96	17.82	19.97	19.96
5000	0.17	17.94	18.25	33.84	18.09	17.87	20.38	20.19
5100	0.17	17.89	18.22	31.16	18.37	18.17	20.86	20.72
5200	0.16	17.86	18.16	31.53	19.11	18.89	21.32	21.07
5300	0.16	17.84	18.06	30.66	19.66	19.51	21.69	21.43
5400	0.15	17.78	18.10	31.66	20.17	20.09	22.50	22.22
5500	0.14	17.81	18.00	28.83	21.36	21.40	23.56	23.22
5600	0.13	17.83	17.96	29.11	23.17	23.66	25.07	24.37
5700	0.12	17.85	17.99	28.87	25.51	25.86	26.86	26.12
5800	0.12	17.89	17.98	29.35	28.74	29.19	28.60	28.72
5900	0.11	17.89	17.93	27.86	33.08	34.90	31.07	31.32
6000	0.12	17.95	18.03	26.58	39.42	46.17	34.95	35.68
6100	0.12	18.05	18.10	24.31	32.57	34.10	42.72	44.96
6300	0.14	18.31	18.17	22.97	25.40	25.07	33.45	32.94
6500	0.17	18.47	18.49	20.64	20.59	20.62	25.79	25.13
6700	0.22	18.90	18.93	19.33	17.80	17.23	22.10	21.84
6900	0.32	19.47	19.25	16.70	14.96	14.57	19.76	19.28
7100	0.33	19.84	19.90	16.41	13.78	13.68	17.96	17.49
7300	0.39	20.66	20.53	14.19	13.23	13.12	16.48	16.01
7500	0.45	21.34	21.20	12.11	12.69	12.73	15.18	14.93

(Note 1) Does not include theoretical loss. Nominal theoretical loss 0.07 dB.

Bi-Directional Coupler BDCH-20-63A+

Typical Performance Data

TEST CONDITIONS: INPUT POWER =+5 dBm @Temperature = +25°C, Configuration A

FREQ. (MHz)	INSERTION LOSS[1] (dB)	COUPLING (dB)		DIRECTIVITY (dB)	RETURN LOSS (dB)			
	In - Out	In - Fwd	Out - Rev	In - Fwd	In	Out	Rev	Fwd
1000	0.07	23.15	23.17	31.37	37.42	35.92	35.55	36.16
1200	0.08	21.83	21.86	29.62	35.14	35.73	35.98	35.10
1500	0.08	20.38	20.41	27.96	32.61	35.49	38.05	34.34
1800	0.08	19.39	19.41	26.71	30.60	35.00	34.70	31.58
1900	0.09	19.14	19.17	26.42	30.12	34.75	33.19	30.63
2000	0.09	18.92	18.95	26.22	29.61	34.31	32.07	29.84
2100	0.09	18.73	18.76	26.10	29.16	33.46	30.91	28.91
2200	0.09	18.58	18.60	25.91	28.67	32.54	29.55	28.05
2300	0.09	18.45	18.47	25.68	28.38	31.67	28.51	27.26
2400	0.09	18.35	18.37	25.61	28.25	30.84	27.79	26.83
2500	0.09	18.28	18.28	25.45	28.09	30.17	27.25	26.44
2600	0.10	18.22	18.22	25.56	28.11	29.60	26.84	26.23
2700	0.10	18.18	18.18	25.75	28.33	29.21	26.73	26.35
2800	0.10	18.15	18.15	26.13	28.60	28.88	26.74	26.42
2900	0.10	18.14	18.14	26.49	29.05	28.60	26.81	26.80
3000	0.10	18.13	18.14	27.34	29.74	28.84	27.29	27.30
3100	0.10	18.14	18.15	27.63	29.82	29.12	27.80	27.82
3200	0.10	18.15	18.16	28.07	30.54	29.32	28.24	28.39
3300	0.10	18.17	18.18	28.64	31.40	29.52	28.76	29.37
3400	0.10	18.20	18.21	29.12	32.54	29.79	29.74	30.80
3500	0.10	18.22	18.23	29.32	33.39	30.57	31.11	32.44
3600	0.10	18.24	18.27	29.60	34.59	31.49	32.70	35.00
3700	0.10	18.25	18.31	30.59	36.65	32.62	34.57	37.42
3800	0.10	18.26	18.33	30.92	38.40	34.39	35.37	36.42
3900	0.10	18.25	18.35	31.58	40.26	36.30	33.70	33.95
4000	0.10	18.24	18.38	32.39	41.20	37.92	31.37	31.58
4100	0.10	18.24	18.38	32.83	38.72	38.20	29.06	29.01
4200	0.10	18.23	18.39	34.25	35.14	35.92	26.86	26.83
4300	0.11	18.19	18.41	34.70	32.64	33.14	25.05	25.19
4400	0.11	18.16	18.40	35.69	30.87	31.11	23.74	23.89
4500	0.11	18.12	18.38	37.78	28.92	29.07	22.67	22.72
4600	0.12	18.06	18.37	37.72	27.60	27.90	21.80	21.85
4700	0.12	18.03	18.33	38.38	26.61	26.94	21.11	21.18
4800	0.11	17.99	18.29	38.81	25.91	26.07	20.80	20.75
4900	0.12	17.93	18.27	36.91	25.41	25.47	20.69	20.53
5000	0.12	17.90	18.21	35.78	24.96	25.09	20.49	20.32
5100	0.12	17.86	18.17	35.90	24.44	24.50	20.54	20.23
5200	0.14	17.81	18.16	34.17	24.25	24.26	20.69	20.26
5300	0.13	17.81	18.11	34.08	24.32	24.32	21.05	20.61
5400	0.13	17.82	18.07	33.23	24.15	24.21	21.45	20.94
5500	0.14	17.81	18.06	32.88	24.18	24.34	22.18	21.71
5600	0.14	17.81	18.05	31.87	24.56	24.48	23.28	22.85
5700	0.14	17.84	18.02	31.32	25.12	25.03	24.97	24.77
5800	0.14	17.89	18.01	30.62	25.72	25.93	26.90	26.51
5900	0.14	17.95	18.01	29.64	27.10	27.24	29.67	29.22
6000	0.13	18.01	18.03	29.81	28.28	28.61	35.01	33.95
6100	0.13	18.06	18.07	28.15	31.09	31.14	38.75	34.27
6300	0.14	18.24	18.23	24.56	41.10	47.75	27.62	26.88
6500	0.15	18.51	18.46	22.69	31.78	32.93	22.10	21.69
6700	0.18	18.88	18.79	20.37	25.04	25.62	18.74	18.58
6900	0.20	19.31	19.24	18.98	21.34	21.65	16.83	16.52
7100	0.23	19.92	19.80	17.35	18.86	19.16	15.67	15.38
7300	0.28	20.57	20.38	15.37	17.21	17.26	14.93	14.64
7500	0.33	21.26	21.10	13.67	16.05	16.16	14.54	14.33

(Note 1) Does not include theoretical loss. Nominal theoretical loss 0.07 dB.

Bi-Directional Coupler BDCH-20-63A+

Typical Performance Data

TEST CONDITIONS: INPUT POWER =+5 dBm @Temperature = +25°C, Configuration B

FREQ. (MHz)	INSERTION LOSS[1] (dB)	COUPLING (dB)		DIRECTIVITY (dB)	RETURN LOSS (dB)			
	In - Out	In - Fwd	Out - Rev	In - Fwd	In	Out	Rev	Fwd
1000	0.07	23.17	23.15	32.55	35.92	37.42	36.16	35.55
1200	0.08	21.86	21.83	30.63	35.73	35.14	35.10	35.98
1500	0.08	20.41	20.38	29.49	35.49	32.61	34.34	38.05
1800	0.09	19.41	19.39	28.34	35.00	30.60	31.58	34.70
1900	0.09	19.17	19.14	27.93	34.75	30.12	30.63	33.19
2000	0.09	18.95	18.92	27.59	34.31	29.61	29.84	32.07
2100	0.09	18.76	18.73	27.49	33.46	29.16	28.91	30.91
2200	0.09	18.60	18.58	27.21	32.54	28.67	28.05	29.55
2300	0.09	18.47	18.45	27.11	31.67	28.38	27.26	28.51
2400	0.10	18.37	18.35	27.25	30.84	28.25	26.83	27.79
2500	0.10	18.28	18.28	27.53	30.17	28.09	26.44	27.25
2600	0.10	18.22	18.22	27.91	29.60	28.11	26.23	26.84
2700	0.10	18.18	18.18	28.36	29.21	28.33	26.35	26.73
2800	0.10	18.15	18.15	29.02	28.88	28.60	26.42	26.74
2900	0.10	18.14	18.14	29.65	28.60	29.05	26.80	26.81
3000	0.10	18.14	18.13	30.80	28.84	29.74	27.30	27.29
3100	0.10	18.15	18.14	31.36	29.12	29.82	27.82	27.80
3200	0.10	18.16	18.15	32.03	29.32	30.54	28.39	28.24
3300	0.10	18.18	18.17	32.38	29.52	31.40	29.37	28.76
3400	0.11	18.21	18.20	33.34	29.79	32.54	30.80	29.74
3500	0.10	18.23	18.22	35.51	30.57	33.39	32.44	31.11
3600	0.10	18.27	18.24	37.70	31.49	34.59	35.00	32.70
3700	0.11	18.31	18.25	39.49	32.62	36.65	37.42	34.57
3800	0.10	18.33	18.26	40.69	34.39	38.40	36.42	35.37
3900	0.10	18.35	18.25	37.89	36.30	40.26	33.95	33.70
4000	0.11	18.38	18.24	35.63	37.92	41.20	31.58	31.37
4100	0.10	18.38	18.24	33.89	38.20	38.72	29.01	29.06
4200	0.11	18.39	18.23	32.92	35.92	35.14	26.83	26.86
4300	0.12	18.41	18.19	32.40	33.14	32.64	25.19	25.05
4400	0.11	18.40	18.16	32.25	31.11	30.87	23.89	23.74
4500	0.11	18.38	18.12	32.38	29.07	28.92	22.72	22.67
4600	0.13	18.37	18.06	32.31	27.90	27.60	21.85	21.80
4700	0.12	18.33	18.03	31.70	26.94	26.61	21.18	21.11
4800	0.12	18.29	17.99	30.54	26.07	25.91	20.75	20.80
4900	0.13	18.27	17.93	30.29	25.47	25.41	20.53	20.69
5000	0.13	18.21	17.90	30.08	25.09	24.96	20.32	20.49
5100	0.13	18.17	17.86	29.95	24.50	24.44	20.23	20.54
5200	0.14	18.16	17.81	30.81	24.26	24.25	20.26	20.69
5300	0.14	18.11	17.81	31.40	24.32	24.32	20.61	21.05
5400	0.14	18.07	17.82	31.68	24.21	24.15	20.94	21.45
5500	0.14	18.06	17.81	33.77	24.34	24.18	21.71	22.18
5600	0.14	18.05	17.81	35.78	24.48	24.56	22.85	23.28
5700	0.15	18.02	17.84	36.64	25.03	25.12	24.77	24.97
5800	0.14	18.01	17.89	36.29	25.93	25.72	26.51	26.90
5900	0.14	18.01	17.95	34.61	27.24	27.10	29.22	29.67
6000	0.14	18.03	18.01	32.18	28.61	28.28	33.95	35.01
6100	0.13	18.07	18.06	30.14	31.14	31.09	34.27	38.75
6300	0.14	18.23	18.24	25.75	47.75	41.10	26.88	27.62
6500	0.15	18.46	18.51	22.67	32.93	31.78	21.69	22.10
6700	0.18	18.79	18.88	20.86	25.62	25.04	18.58	18.74
6900	0.20	19.24	19.31	19.46	21.65	21.34	16.52	16.83
7100	0.23	19.80	19.92	17.39	19.16	18.86	15.38	15.67
7300	0.27	20.38	20.57	15.06	17.26	17.21	14.64	14.93
7500	0.32	21.10	21.26	13.43	16.16	16.05	14.33	14.54

(Note 1) Does not include theoretical loss. Nominal theoretical loss 0.07 dB.

Bi-Directional Coupler BDCH-20-63A+

Typical Performance Data

TEST CONDITIONS: INPUT POWER =+5 dBm @Temperature = +25°C, Configuration C

FREQ. (MHz)	INSERTION LOSS[1] (dB)	COUPLING (dB)		DIRECTIVITY (dB)	RETURN LOSS (dB)			
	In - Out	In - Fwd	Out - Rev	In - Fwd	In	Out	Rev	Fwd
1000	0.06	23.17	23.15	31.46	35.55	36.16	37.42	35.92
1200	0.07	21.86	21.83	29.67	35.98	35.10	35.14	35.73
1500	0.07	20.41	20.38	28.18	38.05	34.34	32.61	35.49
1800	0.07	19.42	19.39	26.63	34.70	31.58	30.60	35.00
1900	0.08	19.17	19.14	26.23	33.19	30.63	30.12	34.75
2000	0.08	18.96	18.92	25.77	32.07	29.84	29.61	34.31
2100	0.08	18.77	18.73	25.67	30.91	28.91	29.16	33.46
2200	0.08	18.61	18.58	25.50	29.55	28.05	28.67	32.54
2300	0.09	18.48	18.46	25.40	28.51	27.26	28.38	31.67
2400	0.09	18.37	18.35	25.49	27.79	26.83	28.25	30.84
2500	0.09	18.29	18.28	25.63	27.25	26.44	28.09	30.17
2600	0.10	18.23	18.22	25.86	26.84	26.23	28.11	29.60
2700	0.10	18.19	18.18	26.21	26.73	26.35	28.33	29.21
2800	0.10	18.16	18.16	26.51	26.74	26.42	28.60	28.88
2900	0.10	18.15	18.14	26.77	26.81	26.80	29.05	28.60
3000	0.10	18.14	18.13	27.35	27.29	27.30	29.74	28.84
3100	0.10	18.15	18.14	27.34	27.80	27.82	29.82	29.12
3200	0.10	18.16	18.15	27.53	28.24	28.39	30.54	29.32
3300	0.10	18.19	18.17	27.91	28.76	29.37	31.40	29.52
3400	0.10	18.22	18.20	28.37	29.74	30.80	32.54	29.79
3500	0.10	18.24	18.22	28.55	31.11	32.44	33.39	30.57
3600	0.10	18.28	18.24	29.11	32.70	35.00	34.59	31.49
3700	0.10	18.32	18.25	30.30	34.57	37.42	36.65	32.62
3800	0.10	18.34	18.26	31.00	35.37	36.42	38.40	34.39
3900	0.11	18.36	18.25	32.03	33.70	33.95	40.26	36.30
4000	0.10	18.39	18.24	33.26	31.37	31.58	41.20	37.92
4100	0.11	18.39	18.24	34.05	29.06	29.01	38.72	38.20
4200	0.12	18.40	18.23	35.42	26.86	26.83	35.14	35.92
4300	0.12	18.41	18.20	35.42	25.05	25.19	32.64	33.14
4400	0.13	18.40	18.17	35.64	23.74	23.89	30.87	31.11
4500	0.13	18.38	18.12	36.22	22.67	22.72	28.92	29.07
4600	0.14	18.38	18.06	35.36	21.80	21.85	27.60	27.90
4700	0.15	18.33	18.03	35.98	21.11	21.18	26.61	26.94
4800	0.15	18.29	18.00	36.87	20.80	20.75	25.91	26.07
4900	0.15	18.27	17.94	37.31	20.69	20.53	25.41	25.47
5000	0.15	18.22	17.90	37.19	20.49	20.32	24.96	25.09
5100	0.16	18.18	17.87	38.43	20.54	20.23	24.44	24.50
5200	0.17	18.16	17.82	35.57	20.69	20.26	24.25	24.26
5300	0.16	18.11	17.81	34.98	21.05	20.61	24.32	24.32
5400	0.17	18.08	17.82	33.47	21.45	20.94	24.15	24.21
5500	0.16	18.07	17.81	31.72	22.18	21.71	24.18	24.34
5600	0.16	18.06	17.81	30.43	23.28	22.85	24.56	24.48
5700	0.15	18.04	17.84	29.64	24.97	24.77	25.12	25.03
5800	0.14	18.03	17.89	29.51	26.90	26.51	25.72	25.93
5900	0.14	18.03	17.95	29.15	29.67	29.22	27.10	27.24
6000	0.13	18.04	18.01	30.07	35.01	33.95	28.28	28.61
6100	0.13	18.08	18.06	28.85	38.75	34.27	31.09	31.14
6300	0.15	18.23	18.24	25.53	27.62	26.88	41.10	47.75
6500	0.18	18.46	18.51	23.12	22.10	21.69	31.78	32.93
6700	0.22	18.78	18.88	20.48	18.74	18.58	25.04	25.62
6900	0.27	19.23	19.32	18.96	16.83	16.52	21.34	21.65
7100	0.32	19.79	19.93	17.32	15.67	15.38	18.86	19.16
7300	0.36	20.39	20.58	15.57	14.93	14.64	17.21	17.26
7500	0.38	21.10	21.26	13.77	14.54	14.33	16.05	16.16

(Note 1) Does not include theoretical loss. Nominal theoretical loss 0.07 dB.

Bi-Directional Coupler BDCH-20-63A+

Typical Performance Data

TEST CONDITIONS: INPUT POWER =+5 dBm @Temperature = +25°C, Configuration D

FREQ. (MHz)	INSERTION LOSS[1] (dB)	COUPLING (dB)		DIRECTIVITY (dB)	RETURN LOSS (dB)			
	In - Out	In - Fwd	Out - Rev	In - Fwd	In	Out	Rev	Fwd
1000	0.06	23.15	23.17	32.26	36.16	35.55	35.92	37.42
1200	0.06	21.83	21.86	30.56	35.10	35.98	35.73	35.14
1500	0.07	20.38	20.41	29.27	34.34	38.05	35.49	32.61
1800	0.07	19.39	19.42	28.22	31.58	34.70	35.00	30.60
1900	0.07	19.14	19.17	27.95	30.63	33.19	34.75	30.12
2000	0.07	18.92	18.96	27.84	29.84	32.07	34.31	29.61
2100	0.08	18.73	18.77	27.75	28.91	30.91	33.46	29.16
2200	0.08	18.58	18.61	27.51	28.05	29.55	32.54	28.67
2300	0.08	18.46	18.48	27.43	27.26	28.51	31.67	28.38
2400	0.09	18.35	18.37	27.39	26.83	27.79	30.84	28.25
2500	0.09	18.28	18.29	27.51	26.44	27.25	30.17	28.09
2600	0.09	18.22	18.23	27.81	26.23	26.84	29.60	28.11
2700	0.09	18.18	18.19	28.20	26.35	26.73	29.21	28.33
2800	0.10	18.16	18.16	28.67	26.42	26.74	28.88	28.60
2900	0.10	18.14	18.15	29.34	26.80	26.81	28.60	29.05
3000	0.10	18.13	18.14	30.70	27.30	27.29	28.84	29.74
3100	0.10	18.14	18.15	32.00	27.82	27.80	29.12	29.82
3200	0.10	18.15	18.16	32.79	28.39	28.24	29.32	30.54
3300	0.10	18.17	18.19	33.36	29.37	28.76	29.52	31.40
3400	0.10	18.20	18.22	34.20	30.80	29.74	29.79	32.54
3500	0.09	18.22	18.24	35.98	32.44	31.11	30.57	33.39
3600	0.09	18.24	18.28	36.84	35.00	32.70	31.49	34.59
3700	0.10	18.25	18.32	37.96	37.42	34.57	32.62	36.65
3800	0.10	18.26	18.34	38.52	36.42	35.37	34.39	38.40
3900	0.10	18.25	18.36	37.04	33.95	33.70	36.30	40.26
4000	0.10	18.24	18.39	35.67	31.58	31.37	37.92	41.20
4100	0.10	18.24	18.39	34.71	29.01	29.06	38.20	38.72
4200	0.11	18.23	18.40	33.70	26.83	26.86	35.92	35.14
4300	0.11	18.20	18.41	33.08	25.19	25.05	33.14	32.64
4400	0.12	18.17	18.40	31.94	23.89	23.74	31.11	30.87
4500	0.13	18.12	18.38	31.61	22.72	22.67	29.07	28.92
4600	0.13	18.06	18.38	31.54	21.85	21.80	27.90	27.60
4700	0.14	18.03	18.33	30.91	21.18	21.11	26.94	26.61
4800	0.14	18.00	18.29	30.37	20.75	20.80	26.07	25.91
4900	0.14	17.94	18.27	31.21	20.53	20.69	25.47	25.41
5000	0.15	17.90	18.22	31.87	20.32	20.49	25.09	24.96
5100	0.15	17.87	18.18	31.90	20.23	20.54	24.50	24.44
5200	0.15	17.82	18.16	32.91	20.26	20.69	24.26	24.25
5300	0.15	17.81	18.11	33.39	20.61	21.05	24.32	24.32
5400	0.15	17.82	18.08	32.48	20.94	21.45	24.21	24.15
5500	0.15	17.81	18.07	33.38	21.71	22.18	24.34	24.18
5600	0.14	17.81	18.06	34.73	22.85	23.28	24.48	24.56
5700	0.14	17.84	18.04	35.77	24.77	24.97	25.03	25.12
5800	0.14	17.89	18.03	36.80	26.51	26.90	25.93	25.72
5900	0.13	17.95	18.03	36.50	29.22	29.67	27.24	27.10
6000	0.13	18.01	18.04	33.62	33.95	35.01	28.61	28.28
6100	0.13	18.06	18.08	30.79	34.27	38.75	31.14	31.09
6300	0.15	18.24	18.23	25.86	26.88	27.62	47.75	41.10
6500	0.18	18.51	18.46	22.67	21.69	22.10	32.93	31.78
6700	0.23	18.88	18.78	20.76	18.58	18.74	25.62	25.04
6900	0.27	19.32	19.23	19.05	16.52	16.83	21.65	21.34
7100	0.32	19.93	19.79	17.09	15.38	15.67	19.16	18.86
7300	0.36	20.58	20.39	14.88	14.64	14.93	17.26	17.21
7500	0.38	21.26	21.10	13.37	14.33	14.54	16.16	16.05

(Note 1) Does not include theoretical loss. Nominal theoretical loss 0.07 dB.

Bi-Directional Coupler BDCH-20-63A+

Typical Performance Data

TEST CONDITIONS: INPUT POWER =+5 dBm @Temperature = +105°C, Configuration A

FREQ. (MHz)	INSERTION LOSS[1] (dB)	COUPLING (dB)		DIRECTIVITY (dB)	RETURN LOSS (dB)			
	In - Out	In - Fwd	Out - Rev	In - Fwd	In	Out	Rev	Fwd
1000	0.07	23.13	23.15	30.01	36.03	35.89	36.66	36.87
1200	0.08	21.82	21.84	29.59	35.48	36.05	38.74	37.08
1500	0.08	20.37	20.39	28.91	32.72	35.90	39.57	34.40
1800	0.09	19.39	19.41	28.97	30.49	35.07	35.20	30.42
1900	0.09	19.13	19.16	28.96	30.14	34.92	34.29	29.86
2000	0.09	18.91	18.94	29.20	29.91	34.56	33.60	29.32
2100	0.09	18.73	18.76	28.87	29.78	34.41	32.99	29.38
2200	0.09	18.57	18.60	29.00	29.95	34.21	32.14	29.37
2300	0.09	18.44	18.47	28.80	29.93	33.81	30.97	28.85
2400	0.09	18.34	18.36	28.80	30.05	32.79	29.97	28.54
2500	0.09	18.25	18.27	28.54	30.11	32.13	29.58	28.62
2600	0.10	18.20	18.21	28.92	30.45	31.71	29.11	28.57
2700	0.10	18.16	18.17	28.93	30.79	31.21	28.58	28.20
2800	0.10	18.14	18.15	29.02	31.05	30.69	28.23	27.86
2900	0.10	18.13	18.14	28.86	31.03	30.11	27.96	27.81
3000	0.10	18.12	18.14	29.35	31.01	30.04	28.43	28.78
3100	0.10	18.12	18.15	29.91	30.83	30.36	29.25	29.29
3200	0.10	18.15	18.17	30.39	30.98	30.55	29.84	29.92
3300	0.10	18.16	18.20	30.36	31.13	30.46	30.23	30.83
3400	0.10	18.19	18.23	30.56	31.66	30.95	30.98	32.09
3500	0.10	18.20	18.27	31.51	32.58	31.42	32.61	33.50
3600	0.10	18.21	18.31	31.63	33.62	32.57	34.14	35.20
3700	0.10	18.23	18.33	32.80	35.31	34.05	36.19	37.50
3800	0.11	18.24	18.37	34.26	37.27	35.39	39.30	42.98
3900	0.11	18.24	18.38	34.52	38.80	36.16	41.84	46.80
4000	0.10	18.23	18.41	35.10	41.74	38.06	41.50	41.03
4100	0.11	18.23	18.42	36.02	46.18	39.88	36.63	35.50
4200	0.11	18.21	18.43	36.88	46.91	43.14	33.18	32.04
4300	0.11	18.16	18.42	38.01	43.28	45.91	30.61	29.57
4400	0.11	18.13	18.42	39.96	40.93	45.08	28.84	27.89
4500	0.11	18.07	18.42	45.00	37.15	40.01	27.22	26.48
4600	0.11	18.06	18.37	41.43	35.05	37.03	25.58	25.20
4700	0.11	18.02	18.35	44.91	33.57	34.62	24.15	23.98
4800	0.11	17.98	18.30	43.55	32.72	33.34	23.14	23.12
4900	0.11	17.92	18.25	39.55	31.46	31.60	22.48	22.34
5000	0.12	17.86	18.25	37.22	29.70	30.07	21.57	21.50
5100	0.12	17.84	18.20	35.91	28.83	29.22	21.10	20.99
5200	0.12	17.81	18.17	35.91	27.89	28.10	21.08	20.97
5300	0.13	17.82	18.13	35.41	26.69	26.94	20.88	20.51
5400	0.13	17.80	18.07	33.28	25.65	26.05	21.22	20.77
5500	0.14	17.79	18.05	32.47	25.23	25.74	21.70	21.29
5600	0.14	17.84	18.03	32.87	25.26	25.74	22.87	22.56
5700	0.15	17.88	18.01	31.36	25.15	25.60	24.12	23.47
5800	0.15	17.94	18.00	29.66	24.98	25.43	25.89	25.09
5900	0.15	18.02	18.02	28.96	25.30	25.77	28.28	27.31
6000	0.15	18.10	18.02	29.45	26.23	26.55	33.15	31.97
6100	0.15	18.17	18.05	27.64	27.59	27.98	34.70	32.54
6300	0.15	18.34	18.22	25.82	31.68	31.92	27.70	27.69
6500	0.16	18.68	18.41	22.73	52.54	44.38	21.81	21.99
6700	0.19	18.97	18.69	20.48	28.82	29.53	18.88	19.09
6900	0.21	19.32	19.14	19.44	22.92	23.79	17.29	16.96
7100	0.25	19.91	19.74	17.70	19.64	20.21	16.22	15.82
7300	0.30	20.47	20.33	15.33	17.57	17.88	15.31	15.04
7500	0.35	21.17	21.07	14.04	16.37	16.60	15.27	15.17

(Note 1) Does not include theoretical loss. Nominal theoretical loss 0.07 dB.

Bi-Directional Coupler BDCH-20-63A+

Typical Performance Data

TEST CONDITIONS: INPUT POWER =+5 dBm @Temperature = +105°C, Configuration B

FREQ. (MHz)	INSERTION LOSS[1] (dB)	COUPLING (dB)		DIRECTIVITY (dB)	RETURN LOSS (dB)			
	In - Out	In - Fwd	Out - Rev	In - Fwd	In	Out	Rev	Fwd
1000	0.06	23.15	23.13	31.36	35.89	36.03	36.87	36.66
1200	0.07	21.84	21.82	31.03	36.05	35.48	37.08	38.74
1500	0.07	20.39	20.37	30.74	35.90	32.72	34.40	39.57
1800	0.08	19.41	19.39	29.77	35.07	30.49	30.42	35.20
1900	0.08	19.16	19.13	29.61	34.92	30.14	29.86	34.29
2000	0.08	18.94	18.91	29.57	34.56	29.91	29.32	33.60
2100	0.08	18.76	18.73	29.48	34.41	29.78	29.38	32.99
2200	0.08	18.60	18.57	29.52	34.21	29.95	29.37	32.14
2300	0.08	18.47	18.44	29.47	33.81	29.93	28.85	30.97
2400	0.08	18.36	18.34	29.72	32.79	30.05	28.54	29.97
2500	0.08	18.27	18.25	30.02	32.13	30.11	28.62	29.58
2600	0.08	18.21	18.20	30.55	31.71	30.45	28.57	29.11
2700	0.08	18.17	18.16	30.66	31.21	30.79	28.20	28.58
2800	0.09	18.15	18.14	31.13	30.69	31.05	27.86	28.23
2900	0.09	18.14	18.13	31.42	30.11	31.03	27.81	27.96
3000	0.09	18.14	18.12	32.62	30.04	31.01	28.78	28.43
3100	0.09	18.15	18.12	32.87	30.36	30.83	29.29	29.25
3200	0.09	18.17	18.15	33.92	30.55	30.98	29.92	29.84
3300	0.09	18.20	18.16	35.59	30.46	31.13	30.83	30.23
3400	0.09	18.23	18.19	38.15	30.95	31.66	32.09	30.98
3500	0.09	18.27	18.20	39.99	31.42	32.58	33.50	32.61
3600	0.09	18.31	18.21	41.65	32.57	33.62	35.20	34.14
3700	0.09	18.33	18.23	41.19	34.05	35.31	37.50	36.19
3800	0.09	18.37	18.24	39.14	35.39	37.27	42.98	39.30
3900	0.09	18.38	18.24	36.78	36.16	38.80	46.80	41.84
4000	0.09	18.41	18.23	35.02	38.06	41.74	41.03	41.50
4100	0.10	18.42	18.23	32.97	39.88	46.18	35.50	36.63
4200	0.10	18.43	18.21	31.21	43.14	46.91	32.04	33.18
4300	0.10	18.42	18.16	29.69	45.91	43.28	29.57	30.61
4400	0.10	18.42	18.13	29.73	45.08	40.93	27.89	28.84
4500	0.11	18.42	18.07	28.83	40.01	37.15	26.48	27.22
4600	0.10	18.37	18.06	28.39	37.03	35.05	25.20	25.58
4700	0.11	18.35	18.02	27.58	34.62	33.57	23.98	24.15
4800	0.11	18.30	17.98	27.86	33.34	32.72	23.12	23.14
4900	0.11	18.25	17.92	28.94	31.60	31.46	22.34	22.48
5000	0.12	18.25	17.86	28.35	30.07	29.70	21.50	21.57
5100	0.12	18.20	17.84	28.41	29.22	28.83	20.99	21.10
5200	0.12	18.17	17.81	28.35	28.10	27.89	20.97	21.08
5300	0.13	18.13	17.82	27.90	26.94	26.69	20.51	20.88
5400	0.13	18.07	17.80	29.28	26.05	25.65	20.77	21.22
5500	0.13	18.05	17.79	30.25	25.74	25.23	21.29	21.70
5600	0.13	18.03	17.84	30.14	25.74	25.26	22.56	22.87
5700	0.14	18.01	17.88	32.74	25.60	25.15	23.47	24.12
5800	0.14	18.00	17.94	33.92	25.43	24.98	25.09	25.89
5900	0.14	18.02	18.02	35.20	25.77	25.30	27.31	28.28
6000	0.13	18.02	18.10	32.96	26.55	26.23	31.97	33.15
6100	0.14	18.05	18.17	31.19	27.98	27.59	32.54	34.70
6300	0.14	18.22	18.34	27.76	31.92	31.68	27.69	27.70
6500	0.15	18.41	18.68	24.55	44.38	52.54	21.99	21.81
6700	0.18	18.69	18.97	21.16	29.53	28.82	19.09	18.88
6900	0.21	19.14	19.32	19.41	23.79	22.92	16.96	17.29
7100	0.25	19.74	19.91	17.51	20.21	19.64	15.82	16.22
7300	0.29	20.33	20.47	15.39	17.88	17.57	15.04	15.31
7500	0.34	21.07	21.17	14.05	16.60	16.37	15.17	15.27

(Note 1) Does not include theoretical loss. Nominal theoretical loss 0.07 dB.

Bi-Directional Coupler BDCH-20-63A+

Typical Performance Data

TEST CONDITIONS: INPUT POWER =+5 dBm @Temperature = +105°C, Configuration C

FREQ. (MHz)	INSERTION LOSS[1] (dB)	COUPLING (dB)		DIRECTIVITY (dB)	RETURN LOSS (dB)			
	In - Out	In - Fwd	Out - Rev	In - Fwd	In	Out	Rev	Fwd
1000	0.06	23.15	23.13	30.34	36.66	36.87	36.03	35.89
1200	0.06	21.84	21.81	29.50	38.74	37.08	35.48	36.05
1500	0.07	20.40	20.36	28.77	39.57	34.40	32.72	35.90
1800	0.08	19.41	19.38	28.97	35.20	30.42	30.49	35.07
1900	0.08	19.16	19.13	29.15	34.29	29.86	30.14	34.92
2000	0.08	18.94	18.91	29.33	33.60	29.32	29.91	34.56
2100	0.08	18.76	18.73	29.28	32.99	29.38	29.78	34.41
2200	0.08	18.60	18.57	29.14	32.14	29.37	29.95	34.21
2300	0.08	18.47	18.44	28.96	30.97	28.85	29.93	33.81
2400	0.09	18.37	18.34	28.88	29.97	28.54	30.05	32.79
2500	0.09	18.28	18.24	28.65	29.58	28.62	30.11	32.13
2600	0.09	18.21	18.19	28.94	29.11	28.57	30.45	31.71
2700	0.10	18.18	18.15	28.81	28.58	28.20	30.79	31.21
2800	0.10	18.16	18.13	28.73	28.23	27.86	31.05	30.69
2900	0.10	18.14	18.13	28.59	27.96	27.81	31.03	30.11
3000	0.10	18.14	18.12	29.00	28.43	28.78	31.01	30.04
3100	0.10	18.15	18.11	29.63	29.25	29.29	30.83	30.36
3200	0.10	18.17	18.14	30.31	29.84	29.92	30.98	30.55
3300	0.10	18.21	18.16	30.30	30.23	30.83	31.13	30.46
3400	0.10	18.23	18.18	30.77	30.98	32.09	31.66	30.95
3500	0.10	18.27	18.20	31.91	32.61	33.50	32.58	31.42
3600	0.10	18.31	18.21	32.10	34.14	35.20	33.62	32.57
3700	0.10	18.33	18.22	33.15	36.19	37.50	35.31	34.05
3800	0.10	18.37	18.23	34.48	39.30	42.98	37.27	35.39
3900	0.10	18.38	18.23	34.29	41.84	46.80	38.80	36.16
4000	0.11	18.41	18.22	34.69	41.50	41.03	41.74	38.06
4100	0.11	18.42	18.22	35.65	36.63	35.50	46.18	39.88
4200	0.12	18.43	18.19	36.57	33.18	32.04	46.91	43.14
4300	0.12	18.42	18.15	38.31	30.61	29.57	43.28	45.91
4400	0.12	18.42	18.12	40.25	28.84	27.89	40.93	45.08
4500	0.13	18.42	18.06	44.49	27.22	26.48	37.15	40.01
4600	0.13	18.38	18.05	40.79	25.58	25.20	35.05	37.03
4700	0.14	18.35	18.02	42.32	24.15	23.98	33.57	34.62
4800	0.14	18.31	17.98	39.98	23.14	23.12	32.72	33.34
4900	0.14	18.25	17.92	37.71	22.48	22.34	31.46	31.60
5000	0.16	18.25	17.86	36.70	21.57	21.50	29.70	30.07
5100	0.17	18.20	17.83	36.52	21.10	20.99	28.83	29.22
5200	0.17	18.17	17.81	37.11	21.08	20.97	27.89	28.10
5300	0.18	18.13	17.82	36.79	20.88	20.51	26.69	26.94
5400	0.17	18.07	17.80	33.86	21.22	20.77	25.65	26.05
5500	0.18	18.06	17.79	32.40	21.70	21.29	25.23	25.74
5600	0.17	18.04	17.83	32.30	22.87	22.56	25.26	25.74
5700	0.17	18.02	17.87	30.73	24.12	23.47	25.15	25.60
5800	0.16	18.00	17.93	29.34	25.89	25.09	24.98	25.43
5900	0.16	18.02	18.00	28.62	28.28	27.31	25.30	25.77
6000	0.15	18.04	18.08	29.18	33.15	31.97	26.23	26.55
6100	0.15	18.06	18.16	27.43	34.70	32.54	27.59	27.98
6300	0.16	18.23	18.33	25.56	27.70	27.69	31.68	31.92
6500	0.18	18.41	18.68	22.72	21.81	21.99	52.54	44.38
6700	0.23	18.69	18.98	21.02	18.88	19.09	28.82	29.53
6900	0.28	19.14	19.33	20.18	17.29	16.96	22.92	23.79
7100	0.34	19.74	19.90	18.30	16.22	15.82	19.64	20.21
7300	0.37	20.34	20.46	15.50	15.31	15.04	17.57	17.88
7500	0.38	21.07	21.16	13.90	15.27	15.17	16.37	16.60

(Note 1) Does not include theoretical loss. Nominal theoretical loss 0.07 dB.

Bi-Directional Coupler BDCH-20-63A+

Typical Performance Data

TEST CONDITIONS: INPUT POWER =+5 dBm @Temperature = +105°C, Configuration D

FREQ. (MHz)	INSERTION LOSS[1] (dB)	COUPLING (dB)		DIRECTIVITY (dB)	RETURN LOSS (dB)			
	In - Out	In - Fwd	Out - Rev	In - Fwd	In	Out	Rev	Fwd
1000	0.06	23.13	23.15	31.46	36.87	36.66	35.89	36.03
1200	0.06	21.81	21.84	30.98	37.08	38.74	36.05	35.48
1500	0.07	20.36	20.40	30.36	34.40	39.57	35.90	32.72
1800	0.08	19.38	19.41	29.78	30.42	35.20	35.07	30.49
1900	0.08	19.13	19.16	29.86	29.86	34.29	34.92	30.14
2000	0.08	18.91	18.94	29.92	29.32	33.60	34.56	29.91
2100	0.08	18.73	18.76	30.12	29.38	32.99	34.41	29.78
2200	0.08	18.57	18.60	30.17	29.37	32.14	34.21	29.95
2300	0.08	18.44	18.47	29.91	28.85	30.97	33.81	29.93
2400	0.08	18.34	18.37	29.75	28.54	29.97	32.79	30.05
2500	0.08	18.24	18.28	29.79	28.62	29.58	32.13	30.11
2600	0.09	18.19	18.21	30.22	28.57	29.11	31.71	30.45
2700	0.09	18.15	18.18	30.14	28.20	28.58	31.21	30.79
2800	0.10	18.13	18.16	30.67	27.86	28.23	30.69	31.05
2900	0.10	18.13	18.14	31.01	27.81	27.96	30.11	31.03
3000	0.10	18.12	18.14	32.65	28.78	28.43	30.04	31.01
3100	0.09	18.11	18.15	33.48	29.29	29.25	30.36	30.83
3200	0.10	18.14	18.17	35.13	29.92	29.84	30.55	30.98
3300	0.10	18.16	18.21	36.69	30.83	30.23	30.46	31.13
3400	0.10	18.18	18.23	38.42	32.09	30.98	30.95	31.66
3500	0.10	18.20	18.27	39.59	33.50	32.61	31.42	32.58
3600	0.10	18.21	18.31	40.15	35.20	34.14	32.57	33.62
3700	0.10	18.22	18.33	40.79	37.50	36.19	34.05	35.31
3800	0.10	18.23	18.37	39.05	42.98	39.30	35.39	37.27
3900	0.10	18.23	18.38	36.85	46.80	41.84	36.16	38.80
4000	0.10	18.22	18.41	35.01	41.03	41.50	38.06	41.74
4100	0.10	18.22	18.42	32.90	35.50	36.63	39.88	46.18
4200	0.11	18.19	18.43	31.32	32.04	33.18	43.14	46.91
4300	0.11	18.15	18.42	30.10	29.57	30.61	45.91	43.28
4400	0.11	18.12	18.42	30.14	27.89	28.84	45.08	40.93
4500	0.12	18.06	18.42	29.40	26.48	27.22	40.01	37.15
4600	0.12	18.05	18.38	28.93	25.20	25.58	37.03	35.05
4700	0.14	18.02	18.35	28.08	23.98	24.15	34.62	33.57
4800	0.14	17.98	18.31	28.40	23.12	23.14	33.34	32.72
4900	0.14	17.92	18.25	29.61	22.34	22.48	31.60	31.46
5000	0.16	17.86	18.25	29.20	21.50	21.57	30.07	29.70
5100	0.17	17.83	18.20	29.10	20.99	21.10	29.22	28.83
5200	0.17	17.81	18.17	28.99	20.97	21.08	28.10	27.89
5300	0.17	17.82	18.13	28.19	20.51	20.88	26.94	26.69
5400	0.17	17.80	18.07	28.98	20.77	21.22	26.05	25.65
5500	0.17	17.79	18.06	29.53	21.29	21.70	25.74	25.23
5600	0.16	17.83	18.04	29.19	22.56	22.87	25.74	25.26
5700	0.16	17.87	18.02	31.62	23.47	24.12	25.60	25.15
5800	0.16	17.93	18.00	34.43	25.09	25.89	25.43	24.98
5900	0.16	18.00	18.02	37.39	27.31	28.28	25.77	25.30
6000	0.15	18.08	18.04	34.59	31.97	33.15	26.55	26.23
6100	0.15	18.16	18.06	31.38	32.54	34.70	27.98	27.59
6300	0.17	18.33	18.23	26.78	27.69	27.70	31.92	31.68
6500	0.20	18.68	18.41	24.11	21.99	21.81	44.38	52.54
6700	0.25	18.98	18.69	21.42	19.09	18.88	29.53	28.82
6900	0.29	19.33	19.14	19.32	16.96	17.29	23.79	22.92
7100	0.34	19.90	19.74	17.14	15.82	16.22	20.21	19.64
7300	0.38	20.46	20.34	15.08	15.04	15.31	17.88	17.57
7500	0.40	21.16	21.07	13.79	15.17	15.27	16.60	16.37

(Note 1) Does not include theoretical loss. Nominal theoretical loss 0.07 dB.