

Bi-Directional Coupler

BDCA-10-25+

Typical Performance Data

TEST CONDITIONS: INPUT POWER =0 dBm @Temperature = +25°C

FREQ. (MHz)	INSERTION LOSS		COUPLING		DIRECTIVITY		RETURN LOSS			
	(dB)		(dB)		(dB)		(dB)			
	IN-OUT	FWD-REV	IN-FWD	OUT-REV	IN-REV	OUT-FWD	IN	OUT	FWD	REV
500	0.32	0.32	15.39	15.39	21.18	21.23	31.12	30.83	32.46	31.28
600	0.39	0.39	14.02	14.01	21.53	21.78	29.61	29.85	31.22	30.60
700	0.47	0.46	12.91	12.91	21.99	22.29	28.57	28.54	30.33	29.70
750	0.51	0.49	12.44	12.44	22.46	22.67	28.42	28.37	29.97	29.72
800	0.54	0.54	12.01	12.01	22.79	23.07	28.26	28.39	29.74	29.61
850	0.58	0.57	11.62	11.62	23.16	23.41	28.11	28.21	29.68	29.54
900	0.61	0.61	11.26	11.26	23.59	23.91	27.95	28.00	29.82	29.73
1000	0.69	0.68	10.64	10.64	24.47	24.95	28.12	28.17	30.19	30.28
1050	0.72	0.72	10.38	10.38	24.98	25.47	28.24	28.18	30.54	30.61
1100	0.76	0.75	10.13	10.13	25.44	26.15	28.42	28.47	30.73	30.88
1150	0.79	0.78	9.91	9.91	25.89	26.81	28.61	28.69	31.15	31.25
1200	0.82	0.81	9.71	9.72	26.56	27.57	29.21	29.16	31.45	31.57
1250	0.85	0.85	9.53	9.53	27.30	28.40	29.68	29.63	31.98	31.98
1300	0.88	0.87	9.36	9.37	28.03	29.47	30.19	30.21	33.00	32.86
1350	0.90	0.90	9.22	9.22	28.81	30.94	30.97	31.07	34.12	33.94
1400	0.93	0.92	9.09	9.10	29.89	32.10	32.05	32.24	35.24	34.56
1450	0.95	0.95	8.98	8.99	30.57	33.69	33.30	33.50	35.81	35.08
1500	0.97	0.97	8.88	8.89	31.28	36.16	34.20	34.43	37.35	36.17
1550	0.99	0.99	8.80	8.81	31.46	38.82	35.50	36.05	37.73	36.46
1600	1.01	1.01	8.73	8.74	32.04	41.53	36.79	38.06	37.99	36.52
1650	1.03	1.03	8.68	8.69	31.81	48.19	38.13	40.31	37.92	36.29
1700	1.04	1.04	8.64	8.65	31.91	62.23	38.74	42.28	39.04	37.23
1800	1.06	1.06	8.60	8.61	31.06	45.84	38.63	44.84	38.30	36.42
1850	1.07	1.07	8.59	8.61	30.70	41.08	38.37	45.44	38.72	37.06
1900	1.07	1.08	8.60	8.62	30.48	38.34	38.10	44.31	39.43	37.57
1950	1.08	1.08	8.63	8.64	29.43	37.53	37.58	43.32	38.12	37.21
2000	1.08	1.08	8.66	8.67	28.67	36.37	37.59	42.64	38.17	37.66
2050	1.08	1.08	8.71	8.72	27.78	34.60	38.03	43.26	37.25	37.99
2100	1.08	1.08	8.77	8.77	27.21	34.50	38.93	44.43	36.32	38.13
2200	1.06	1.07	8.93	8.95	25.64	32.34	41.87	43.01	33.18	36.12
2250	1.05	1.06	9.03	9.04	24.87	31.81	43.70	40.83	31.49	34.68
2300	1.05	1.06	9.15	9.16	24.09	30.83	41.50	37.40	29.76	32.11
2350	1.04	1.05	9.27	9.28	23.28	30.12	38.19	34.80	27.97	30.15
2400	1.03	1.04	9.42	9.43	22.51	29.02	34.59	31.86	26.47	28.33
2450	1.02	1.03	9.60	9.60	21.66	27.94	31.44	29.77	25.05	26.83
2500	1.01	1.03	9.79	9.79	20.81	26.60	29.22	27.69	23.88	25.23
2550	0.99	1.01	9.98	9.97	20.18	25.70	27.34	26.16	22.80	23.97
2600	0.98	0.99	10.19	10.21	19.29	24.38	25.32	24.41	21.95	22.92
2700	0.96	0.98	10.70	10.70	17.66	22.30	22.18	21.58	19.85	20.57
2800	0.95	0.97	11.30	11.32	16.23	20.52	19.83	19.21	18.22	18.78
2900	0.93	0.96	12.05	12.04	14.56	18.22	17.57	17.27	16.59	17.01
3000	0.94	0.96	12.85	12.83	13.17	16.51	15.93	15.69	15.38	15.74
3250	0.97	0.97	15.47	15.42	10.01	12.33	13.32	13.15	13.30	13.57
3500	0.99	0.95	19.27	19.15	7.21	8.70	12.42	12.20	12.98	13.19
3750	0.91	0.86	27.00	26.52	3.65	3.88	13.14	12.76	14.13	14.31
4000	0.80	0.76	31.72	30.75	16.89	10.52	16.76	15.92	18.36	19.07
4250	0.80	0.80	20.26	20.37	9.58	12.34	27.97	21.03	25.53	44.68
4500	1.01	1.01	16.09	16.21	7.49	9.21	18.53	16.46	16.67	17.51
4750	1.32	1.34	13.99	14.16	6.02	7.73	12.70	11.96	12.09	12.33
5000	1.66	1.68	13.08	13.23	5.33	6.85	10.08	9.71	9.80	9.97
5250	1.92	1.99	12.68	12.82	4.99	6.47	8.84	8.63	8.44	8.64
5500	2.10	2.21	12.51	12.58	4.84	6.31	8.33	8.11	7.79	7.96
6000	2.21	2.35	11.93	11.95	5.34	7.03	8.34	8.12	7.73	8.07

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Typical Performance Data

TEST CONDITIONS: INPUT POWER =0 dBm @Temperature = -55°C

FREQ. (MHz)	INSERTION LOSS		COUPLING		DIRECTIVITY		RETURN LOSS			
	(dB)		(dB)		(dB)		(dB)			
	IN-OUT	FWD-REV	IN-FWD	OUT-REV	IN-REV	OUT-FWD	IN	OUT	FWD	REV
500	0.25	0.24	15.39	15.36	21.83	21.91	33.40	33.05	35.12	33.71
600	0.32	0.30	14.00	13.96	22.12	22.36	31.53	31.97	33.29	32.71
700	0.38	0.37	12.89	12.85	22.54	22.88	30.08	30.05	32.19	31.45
750	0.42	0.40	12.41	12.37	22.82	23.22	29.62	29.59	31.53	31.37
800	0.45	0.44	11.98	11.93	23.23	23.65	29.24	29.35	31.14	31.21
850	0.48	0.47	11.58	11.54	23.76	23.96	29.39	29.49	31.09	31.17
900	0.51	0.50	11.23	11.18	24.13	24.38	29.23	29.27	31.06	31.14
1000	0.58	0.57	10.59	10.54	24.89	25.16	28.68	28.68	31.67	31.96
1050	0.61	0.60	10.32	10.27	25.44	25.52	28.50	28.47	31.57	31.80
1100	0.64	0.63	10.08	10.02	25.93	26.15	28.84	28.98	31.41	31.74
1150	0.67	0.66	9.85	9.80	26.06	26.72	28.91	28.93	31.31	31.60
1200	0.70	0.69	9.65	9.60	26.57	27.57	29.34	29.10	31.00	31.37
1250	0.72	0.72	9.46	9.41	27.66	28.60	30.49	30.28	30.99	31.32
1300	0.75	0.74	9.29	9.24	28.42	29.82	31.78	31.58	31.44	31.74
1350	0.77	0.77	9.15	9.09	28.88	31.42	32.29	31.96	32.18	32.71
1400	0.80	0.79	9.01	8.95	30.57	32.78	33.53	33.30	33.69	33.92
1450	0.82	0.81	8.90	8.83	31.40	34.31	34.33	34.01	35.27	35.77
1500	0.83	0.83	8.80	8.73	32.04	36.38	33.92	33.44	36.73	37.25
1550	0.85	0.85	8.71	8.65	32.83	39.35	35.73	35.64	35.70	36.02
1600	0.87	0.86	8.64	8.57	33.15	43.73	38.57	38.92	35.13	35.57
1650	0.88	0.88	8.58	8.51	32.12	52.62	40.89	41.55	35.40	36.30
1700	0.89	0.89	8.53	8.46	31.76	46.71	40.27	40.77	37.40	38.83
1800	0.91	0.91	8.48	8.41	31.85	44.68	39.86	42.13	38.62	38.57
1850	0.91	0.91	8.47	8.40	31.47	42.20	38.51	42.13	38.62	38.18
1900	0.92	0.92	8.48	8.41	31.07	38.85	37.67	41.91	38.25	37.22
1950	0.92	0.92	8.49	8.42	29.52	36.91	35.90	39.35	36.60	36.01
2000	0.92	0.91	8.52	8.44	29.17	35.11	37.05	41.55	36.84	35.80
2050	0.92	0.91	8.57	8.49	29.10	32.87	38.34	45.27	37.44	36.18
2100	0.91	0.91	8.62	8.53	28.32	32.21	38.82	44.44	38.37	37.57
2200	0.89	0.89	8.77	8.69	26.04	31.09	40.09	42.32	34.75	37.90
2250	0.88	0.88	8.86	8.77	24.71	31.39	40.80	39.96	31.44	34.65
2300	0.88	0.87	8.96	8.88	24.31	30.87	44.07	40.91	29.54	32.01
2350	0.86	0.86	9.08	8.99	23.39	30.10	44.64	38.71	27.89	30.12
2400	0.85	0.86	9.22	9.13	22.75	28.68	37.96	33.24	26.84	28.92
2450	0.83	0.84	9.38	9.28	22.28	27.28	32.55	30.46	25.78	27.81
2500	0.83	0.83	9.56	9.44	21.66	26.24	29.55	28.56	24.58	26.12
2550	0.81	0.82	9.76	9.65	20.21	24.81	26.81	25.74	22.96	24.07
2600	0.78	0.80	9.97	9.88	19.57	24.03	25.35	24.40	21.77	22.60
2700	0.77	0.77	10.44	10.34	17.64	23.01	22.25	21.20	20.09	20.75
2800	0.75	0.77	11.02	10.92	17.06	20.79	20.40	19.81	18.28	18.61
2900	0.73	0.75	11.73	11.63	14.89	18.86	17.80	17.22	16.74	17.05
3000	0.73	0.73	12.52	12.40	13.30	16.77	15.87	15.53	15.51	15.72
3250	0.75	0.74	15.07	14.92	10.24	12.35	13.17	12.85	13.05	13.10
3500	0.75	0.69	18.66	18.49	7.35	8.77	12.00	11.64	12.87	12.76
3750	0.66	0.61	25.62	25.10	4.32	4.35	12.88	12.49	14.01	13.94
4000	0.54	0.51	34.43	32.95	9.23	5.70	16.21	15.37	17.30	17.50
4250	0.50	0.49	20.92	20.85	10.51	13.67	24.51	19.86	25.66	34.78
4500	0.64	0.65	16.21	16.17	7.73	9.59	19.81	17.20	17.25	18.17
4750	0.93	0.94	13.96	13.91	6.45	8.25	13.47	12.33	12.48	12.81
5000	1.26	1.30	12.89	12.80	5.63	7.04	10.46	9.83	9.73	9.73
5250	1.53	1.62	12.43	12.34	5.11	6.65	8.88	8.44	8.21	8.26
5500	1.74	1.81	12.21	12.12	4.87	6.33	8.03	7.64	7.64	7.64
6000	1.92	1.98	11.78	11.55	5.28	6.47	7.73	7.35	7.44	7.51

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Typical Performance Data

TEST CONDITIONS: INPUT POWER =0 dBm @Temperature = +100°C

FREQ. (MHz)	INSERTION LOSS (dB)		COUPLING (dB)		DIRECTIVITY (dB)		RETURN LOSS (dB)			
	IN-OUT	FWD-REV	IN-FWD	OUT-REV	IN-REV	OUT-FWD	IN	OUT	FWD	REV
500	0.37	0.37	15.36	15.38	20.43	20.48	29.45	29.19	30.43	29.62
600	0.45	0.44	14.00	14.01	20.89	21.13	28.19	28.35	29.45	28.91
700	0.53	0.53	12.90	12.93	21.40	21.61	27.18	27.10	28.93	28.38
750	0.57	0.57	12.44	12.46	21.90	22.07	27.08	26.99	28.73	28.44
800	0.61	0.61	12.01	12.03	22.28	22.51	27.08	27.17	28.81	28.65
850	0.65	0.65	11.62	11.65	22.66	22.83	26.96	27.06	28.85	28.63
900	0.69	0.69	11.27	11.30	23.13	23.42	26.90	26.95	29.08	28.86
1000	0.76	0.76	10.66	10.69	24.07	24.60	27.44	27.50	29.84	29.77
1050	0.80	0.80	10.40	10.43	24.53	25.19	27.65	27.62	30.29	30.15
1100	0.84	0.84	10.16	10.18	24.97	25.92	27.83	27.88	30.81	30.77
1150	0.87	0.87	9.94	9.97	25.46	26.55	27.97	28.06	31.64	31.49
1200	0.90	0.91	9.75	9.78	26.18	27.25	28.53	28.55	32.25	31.98
1250	0.93	0.94	9.57	9.60	26.92	28.01	29.02	29.13	33.06	32.56
1300	0.96	0.97	9.41	9.45	27.46	29.04	29.48	29.67	34.40	33.65
1350	0.99	1.00	9.27	9.31	28.06	30.41	30.29	30.55	35.65	34.67
1400	1.02	1.03	9.15	9.18	28.83	31.43	31.42	31.79	36.53	34.87
1450	1.05	1.06	9.04	9.08	29.13	32.84	32.71	33.14	36.66	34.98
1500	1.07	1.08	8.95	8.99	29.32	34.70	33.50	33.89	37.97	36.06
1550	1.09	1.10	8.87	8.92	29.27	35.97	34.40	34.93	38.10	36.41
1600	1.11	1.12	8.81	8.85	29.81	37.36	35.61	36.72	38.37	36.55
1650	1.13	1.14	8.76	8.81	29.60	39.19	36.71	38.35	38.61	36.67
1700	1.14	1.16	8.72	8.77	29.55	41.33	37.14	39.44	39.23	37.57
1800	1.17	1.18	8.69	8.75	28.66	43.27	38.01	41.30	37.02	36.33
1850	1.18	1.19	8.70	8.75	28.27	42.50	38.83	42.81	36.79	37.23
1900	1.18	1.20	8.71	8.77	28.09	39.82	39.33	43.14	36.89	38.07
1950	1.19	1.21	8.74	8.80	27.31	39.03	38.65	42.35	35.28	36.93
2000	1.19	1.21	8.78	8.84	26.84	37.88	38.26	40.98	35.12	37.14
2050	1.19	1.21	8.84	8.89	25.98	36.04	38.42	39.96	33.40	36.01
2100	1.19	1.22	8.90	8.96	25.46	35.50	38.72	39.62	31.58	33.91
2200	1.18	1.21	9.09	9.15	24.26	32.47	38.35	36.16	29.14	31.34
2250	1.18	1.20	9.20	9.25	23.79	31.28	36.97	34.69	28.16	30.17
2300	1.17	1.20	9.32	9.39	23.04	29.87	33.93	32.16	27.01	28.46
2350	1.16	1.20	9.46	9.53	22.38	28.98	32.02	30.48	25.58	26.95
2400	1.16	1.20	9.62	9.68	21.53	28.02	30.18	28.70	24.21	25.54
2450	1.15	1.19	9.82	9.87	20.63	27.23	28.53	27.26	22.99	24.29
2500	1.14	1.18	10.02	10.07	19.94	26.12	27.43	26.07	22.07	23.20
2550	1.13	1.17	10.22	10.28	19.37	25.20	26.23	25.00	21.37	22.33
2600	1.11	1.16	10.44	10.50	18.66	23.94	24.45	23.65	20.85	21.76
2700	1.10	1.15	10.97	11.03	17.11	21.72	21.43	20.94	19.07	19.75
2800	1.10	1.15	11.58	11.66	15.76	20.39	19.44	18.84	17.89	18.55
2900	1.09	1.14	12.37	12.44	14.19	17.97	17.37	17.07	16.43	16.94
3000	1.09	1.13	13.20	13.24	12.70	16.05	16.07	15.79	15.32	15.87
3250	1.12	1.12	15.89	15.97	9.76	12.26	13.62	13.50	13.83	14.25
3500	1.13	1.13	20.23	20.16	7.27	8.75	12.81	12.66	13.55	13.98
3750	1.09	1.06	29.05	28.17	2.92	2.86	13.74	13.42	14.98	15.58
4000	1.00	1.00	29.32	28.90	26.00	16.73	17.78	16.89	19.46	21.31
4250	1.01	1.05	19.69	19.87	9.35	11.65	33.92	22.35	23.83	31.09
4500	1.26	1.29	15.81	16.05	6.97	8.81	17.54	15.94	16.26	17.15
4750	1.63	1.67	13.98	14.26	5.93	7.29	12.01	11.61	11.96	12.15
5000	1.99	2.03	13.26	13.49	5.14	6.57	9.71	9.56	9.96	10.15
5250	2.26	2.35	12.90	13.20	4.75	6.19	8.72	8.66	8.68	8.91
5500	2.40	2.59	12.74	12.95	4.69	6.15	8.47	8.38	8.01	8.22
6000	2.48	2.73	12.09	12.20	5.23	7.45	8.82	8.67	7.97	8.41

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