

Bi-Directional Coupler

BDCA-7-25+

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	0.41	0.39	13.17	13.18	22.71	22.74	26.96	26.98	29.95	29.88
600	0.51	0.49	11.82	11.83	23.25	23.28	25.86	26.16	29.16	29.54
700	0.62	0.60	10.74	10.75	23.83	24.02	25.34	25.39	29.09	29.29
800	0.74	0.72	9.85	9.86	24.67	24.89	25.29	25.37	29.28	29.80
900	0.85	0.83	9.12	9.13	25.51	25.88	25.59	25.54	30.44	31.01
1000	0.96	0.94	8.51	8.52	26.34	27.04	26.36	26.15	32.61	33.28
1100	1.07	1.05	8.01	8.01	26.79	27.99	27.55	27.07	35.74	36.54
1150	1.12	1.10	7.79	7.79	26.91	28.38	28.33	27.71	37.91	38.60
1200	1.16	1.15	7.58	7.60	26.89	28.53	29.63	28.52	39.57	40.14
1250	1.21	1.20	7.40	7.41	26.78	28.32	30.96	29.39	39.26	39.77
1300	1.26	1.25	7.24	7.25	26.46	28.23	32.75	30.36	36.34	37.52
1350	1.30	1.29	7.10	7.11	26.14	27.68	35.23	31.55	34.00	34.51
1400	1.34	1.34	6.98	6.98	25.60	27.04	38.48	32.22	31.63	32.02
1450	1.38	1.38	6.86	6.87	25.14	26.27	40.70	32.44	29.83	29.78
1500	1.42	1.42	6.77	6.77	24.49	25.51	38.47	31.84	28.04	28.13
1550	1.45	1.46	6.68	6.69	23.97	24.86	35.17	30.48	26.78	26.57
1600	1.48	1.49	6.61	6.62	23.36	24.12	32.28	29.04	25.59	25.31
1650	1.51	1.52	6.56	6.57	22.85	23.41	29.85	27.58	24.51	24.29
1700	1.54	1.55	6.51	6.52	22.15	22.69	27.83	26.21	23.64	23.44
1750	1.56	1.57	6.48	6.50	21.67	22.16	26.36	25.08	22.86	22.66
1800	1.59	1.59	6.47	6.48	21.17	21.49	24.96	24.04	22.09	21.97
1850	1.60	1.61	6.46	6.47	20.67	20.92	23.84	23.14	21.35	21.29
1900	1.61	1.63	6.47	6.48	20.08	20.30	22.78	22.21	20.61	20.56
1950	1.63	1.64	6.49	6.49	19.71	19.78	21.92	21.40	20.13	20.05
2000	1.63	1.65	6.51	6.52	19.22	19.30	21.12	20.72	19.51	19.58
2050	1.64	1.66	6.55	6.56	18.81	18.75	20.41	20.13	19.08	19.11
2100	1.65	1.66	6.60	6.60	18.42	18.34	19.78	19.55	18.69	18.72
2150	1.65	1.66	6.65	6.65	18.03	17.93	19.25	19.07	18.46	18.48
2200	1.64	1.65	6.72	6.73	17.68	17.54	18.80	18.71	18.23	18.27
2250	1.64	1.64	6.79	6.78	17.41	17.17	18.32	18.28	17.99	18.00
2300	1.63	1.64	6.87	6.86	17.05	16.81	18.00	18.01	17.82	17.86
2350	1.63	1.62	6.96	6.94	16.69	16.45	17.70	17.70	17.70	17.77
2400	1.62	1.61	7.05	7.05	16.33	16.11	17.51	17.55	17.61	17.71
2450	1.59	1.58	7.17	7.16	16.08	15.73	17.36	17.42	17.59	17.64
2500	1.58	1.58	7.28	7.27	15.74	15.33	17.21	17.29	17.52	17.60
2550	1.56	1.55	7.42	7.38	15.43	15.06	17.12	17.21	17.54	17.63
2600	1.53	1.52	7.54	7.52	15.18	14.76	17.08	17.26	17.46	17.59
2700	1.49	1.47	7.86	7.81	14.51	14.02	17.27	17.40	17.67	17.86
2800	1.42	1.41	8.24	8.20	13.90	13.40	17.51	17.74	18.06	18.22
2900	1.34	1.33	8.68	8.64	13.22	12.77	17.99	18.27	18.50	18.78
3000	1.26	1.26	9.18	9.13	12.71	12.26	18.66	18.93	19.00	19.28
3250	1.05	1.05	11.05	10.98	10.68	10.36	20.78	20.94	20.78	21.13
3500	0.88	0.92	14.07	13.98	7.31	7.20	21.91	21.68	20.14	20.71
3750	0.80	0.83	19.88	19.41	0.59	0.21	19.53	19.50	17.56	18.01
4000	0.90	0.97	30.34	26.86	8.04	11.55	15.14	15.24	13.82	14.02
4250	1.17	1.26	20.75	20.26	2.41	3.18	11.72	11.78	10.93	10.94
4500	1.55	1.63	16.38	16.18	1.30	0.70	9.46	9.51	8.96	8.97
4750	1.86	1.94	14.17	14.17	3.12	2.62	8.28	8.36	8.06	7.94
5000	2.04	2.11	12.81	12.87	4.57	4.12	7.93	7.97	7.80	7.67
5250	2.10	2.16	11.65	11.73	5.94	5.57	8.33	8.36	8.16	8.09
5500	2.06	2.12	10.52	10.51	7.54	7.19	9.48	9.43	9.23	9.18
5750	2.02	2.05	9.39	9.38	9.31	9.17	11.34	11.34	11.15	11.34
6000	2.02	2.04	8.43	8.33	10.96	11.04	14.18	14.43	14.20	15.09

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Bi-Directional Coupler

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Typical Performance Data

TEST CONDITIONS: INPUT POWER =0 dBm @Temperature = -55°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	0.34	0.33	13.17	13.14	23.66	23.65	28.33	28.28	31.94	31.83
600	0.43	0.42	11.80	11.77	24.16	24.12	27.08	27.41	30.71	31.20
700	0.54	0.52	10.71	10.68	24.82	24.89	26.40	26.41	30.80	30.90
800	0.64	0.63	9.82	9.78	25.44	25.77	25.95	25.95	30.84	31.40
900	0.75	0.73	9.08	9.04	26.61	26.81	26.53	26.46	32.00	32.58
1000	0.85	0.84	8.47	8.42	27.21	27.87	26.65	26.42	34.86	35.61
1100	0.95	0.93	7.96	7.91	27.68	28.48	27.68	27.32	38.38	39.03
1150	1.00	0.99	7.73	7.68	27.95	28.67	28.47	28.22	40.09	40.81
1200	1.04	1.03	7.53	7.48	27.52	28.56	29.50	28.72	42.04	41.54
1250	1.09	1.08	7.34	7.29	27.07	28.26	31.50	29.82	42.62	40.14
1300	1.13	1.13	7.17	7.12	26.93	28.19	34.59	31.97	39.39	38.80
1350	1.17	1.17	7.03	6.97	26.58	27.54	36.94	33.20	36.54	36.01
1400	1.21	1.20	6.90	6.84	25.62	26.89	40.96	33.21	33.06	33.07
1450	1.25	1.25	6.78	6.72	25.25	26.20	41.25	34.01	30.34	30.47
1500	1.28	1.28	6.68	6.62	24.50	25.38	40.72	32.74	28.20	28.17
1550	1.31	1.32	6.59	6.53	23.75	24.51	37.41	30.38	26.78	26.16
1600	1.34	1.35	6.52	6.46	23.27	23.65	32.96	29.11	25.60	24.83
1650	1.37	1.38	6.46	6.40	22.92	22.99	29.96	27.70	24.68	24.05
1700	1.39	1.40	6.42	6.35	22.30	22.40	27.82	26.43	23.95	23.45
1750	1.41	1.42	6.38	6.31	21.83	22.05	26.70	25.51	23.14	22.81
1800	1.43	1.44	6.35	6.28	21.23	21.59	25.53	24.51	22.34	22.23
1850	1.44	1.46	6.34	6.27	20.65	21.06	24.47	23.57	21.59	21.55
1900	1.46	1.48	6.34	6.27	20.00	20.31	23.15	22.41	20.82	20.75
1950	1.47	1.48	6.36	6.28	19.78	19.76	22.20	21.67	20.44	20.23
2000	1.47	1.49	6.38	6.30	19.45	19.15	21.51	21.11	19.78	19.54
2050	1.48	1.50	6.42	6.34	18.81	18.41	20.61	20.21	19.06	18.77
2100	1.48	1.50	6.46	6.38	18.27	17.91	19.95	19.60	18.39	18.19
2150	1.48	1.50	6.52	6.42	17.79	17.60	19.35	19.02	18.14	17.98
2200	1.48	1.49	6.58	6.49	17.35	17.33	18.79	18.49	18.02	17.97
2250	1.47	1.47	6.64	6.54	17.31	17.01	18.31	18.16	17.97	17.84
2300	1.47	1.46	6.71	6.61	17.03	16.59	17.72	17.66	17.97	17.80
2350	1.46	1.45	6.79	6.69	16.68	16.20	17.28	17.25	17.89	17.74
2400	1.44	1.44	6.88	6.79	16.49	15.73	17.21	17.36	17.68	17.57
2450	1.43	1.41	7.00	6.88	16.19	15.33	17.03	17.17	17.53	17.39
2500	1.41	1.40	7.09	6.97	15.71	15.15	17.01	17.01	17.34	17.32
2550	1.38	1.37	7.22	7.08	15.53	14.97	17.28	17.26	17.56	17.51
2600	1.34	1.34	7.34	7.22	15.31	14.84	17.19	17.14	17.67	17.66
2700	1.29	1.28	7.61	7.48	14.92	14.13	17.32	17.48	17.68	17.54
2800	1.24	1.21	8.00	7.86	14.05	13.40	17.02	17.01	18.03	18.16
2900	1.14	1.14	8.42	8.27	13.28	12.78	17.76	18.00	18.27	18.47
3000	1.06	1.06	8.90	8.73	13.02	12.05	18.09	18.65	18.57	18.84
3250	0.83	0.84	10.68	10.51	10.94	10.56	20.93	20.99	21.11	21.36
3500	0.63	0.66	13.55	13.34	7.86	7.57	22.60	22.71	19.92	20.48
3750	0.55	0.58	19.06	18.64	1.17	0.90	19.65	19.55	17.43	17.92
4000	0.64	0.68	30.57	26.85	8.08	11.86	15.14	15.13	14.22	14.26
4250	0.87	0.93	21.37	20.82	3.09	3.90	11.93	11.76	11.34	11.13
4500	1.21	1.29	16.48	16.19	1.09	0.37	9.50	9.41	9.02	8.79
4750	1.49	1.56	14.13	13.95	3.04	2.59	8.41	8.26	8.02	7.88
5000	1.66	1.78	12.67	12.56	4.58	3.93	7.93	7.77	7.58	7.28
5250	1.73	1.86	11.50	11.39	5.91	5.51	8.22	7.99	7.71	7.50
5500	1.73	1.78	10.38	10.21	7.38	7.05	8.94	8.74	8.80	8.61
5750	1.68	1.74	9.33	9.13	8.92	8.63	10.52	10.31	10.18	10.13
6000	1.68	1.68	8.34	8.04	10.50	10.14	12.79	12.94	13.16	13.77

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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	0.46	0.44	13.15	13.17	21.73	21.76	25.86	25.91	28.33	28.43
600	0.57	0.55	11.80	11.83	22.35	22.41	24.92	25.21	27.82	28.23
700	0.69	0.67	10.73	10.76	22.91	23.10	24.38	24.44	27.79	28.02
800	0.80	0.79	9.86	9.88	23.89	24.03	24.54	24.64	28.19	28.72
900	0.92	0.91	9.13	9.16	24.81	25.14	24.93	24.92	29.51	30.08
1000	1.04	1.02	8.53	8.57	25.85	26.54	26.03	25.86	31.77	32.48
1100	1.15	1.13	8.03	8.07	26.46	27.88	27.42	26.90	35.18	36.11
1150	1.20	1.19	7.82	7.85	26.72	28.49	28.20	27.47	37.58	38.34
1200	1.25	1.24	7.62	7.66	26.82	28.85	29.54	28.21	39.00	39.60
1250	1.30	1.30	7.44	7.48	26.93	28.79	30.99	29.18	38.06	38.88
1300	1.35	1.34	7.29	7.33	26.79	28.85	32.76	30.15	35.26	36.35
1350	1.39	1.39	7.15	7.19	26.60	28.43	35.37	31.28	32.93	33.43
1400	1.44	1.44	7.03	7.07	26.23	27.93	38.91	32.05	30.92	31.42
1450	1.48	1.48	6.92	6.96	25.94	27.14	40.53	32.23	29.53	29.44
1500	1.52	1.52	6.83	6.87	25.36	26.40	37.77	31.75	27.90	27.95
1550	1.56	1.56	6.74	6.79	24.83	25.89	34.81	30.44	26.81	26.80
1600	1.59	1.60	6.68	6.73	24.07	25.18	32.07	28.85	25.72	25.74
1650	1.62	1.63	6.63	6.68	23.55	24.37	29.77	27.60	24.55	24.62
1700	1.64	1.66	6.59	6.64	22.86	23.60	27.92	26.43	23.65	23.67
1750	1.67	1.69	6.57	6.62	22.41	23.09	26.53	25.41	22.97	22.98
1800	1.69	1.71	6.55	6.61	21.97	22.32	25.22	24.38	22.32	22.31
1850	1.71	1.73	6.55	6.61	21.45	21.65	24.04	23.41	21.61	21.60
1900	1.73	1.74	6.56	6.61	20.86	21.10	23.04	22.53	20.97	21.04
1950	1.74	1.76	6.58	6.63	20.48	20.65	22.26	21.80	20.58	20.67
2000	1.75	1.77	6.61	6.66	19.96	20.14	21.53	21.20	19.94	20.17
2050	1.76	1.77	6.65	6.70	19.62	19.60	20.88	20.71	19.61	19.78
2100	1.77	1.78	6.69	6.74	19.27	19.20	20.26	20.15	19.40	19.56
2150	1.76	1.78	6.76	6.80	18.91	18.73	19.73	19.73	19.26	19.35
2200	1.76	1.77	6.83	6.88	18.58	18.32	19.30	19.36	18.93	19.05
2250	1.76	1.76	6.90	6.95	18.13	17.96	18.89	18.92	18.59	18.75
2300	1.75	1.76	6.98	7.03	17.73	17.67	18.70	18.73	18.33	18.61
2350	1.75	1.75	7.08	7.13	17.27	17.36	18.47	18.50	18.22	18.52
2400	1.73	1.74	7.18	7.23	17.01	17.01	18.26	18.34	18.20	18.46
2450	1.72	1.72	7.32	7.35	16.70	16.51	18.02	18.16	18.27	18.43
2500	1.71	1.70	7.44	7.48	16.34	16.08	17.72	17.91	18.18	18.37
2550	1.70	1.68	7.60	7.63	15.92	15.59	17.50	17.77	18.15	18.33
2600	1.67	1.66	7.73	7.76	15.59	15.28	17.43	17.68	17.85	18.11
2700	1.62	1.62	8.07	8.08	14.79	14.62	17.69	17.83	18.00	18.44
2800	1.55	1.56	8.48	8.49	14.06	13.82	17.94	18.26	18.16	18.45
2900	1.48	1.49	8.96	8.97	13.39	13.12	18.36	18.64	18.62	19.05
3000	1.43	1.42	9.53	9.52	12.67	12.51	19.05	19.10	19.30	19.50
3250	1.23	1.24	11.46	11.45	10.45	10.25	20.23	20.21	19.97	20.28
3500	1.09	1.13	14.79	14.69	6.39	6.24	20.72	20.32	19.34	19.81
3750	1.03	1.08	20.81	20.30	0.21	0.77	18.46	18.46	16.85	17.30
4000	1.16	1.24	29.81	26.52	7.63	11.00	14.72	14.90	13.38	13.67
4250	1.45	1.55	20.28	19.80	1.75	2.56	11.42	11.74	10.61	10.80
4500	1.83	1.92	16.11	16.13	1.50	1.05	9.50	9.72	9.02	9.11
4750	2.15	2.25	14.08	14.27	3.20	2.79	8.34	8.53	8.10	8.07
5000	2.35	2.42	12.84	13.07	4.52	4.24	8.09	8.22	8.05	7.99
5250	2.42	2.48	11.77	11.95	5.95	5.61	8.57	8.67	8.47	8.46
5500	2.38	2.46	10.65	10.75	7.59	7.20	9.90	9.93	9.70	9.64
5750	2.36	2.36	9.49	9.60	9.35	9.15	11.93	11.97	12.15	12.18
6000	2.36	2.38	8.55	8.61	10.83	11.35	15.43	15.48	15.52	16.40

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