

Bi-Directional Coupler

BDCA1-6-22+

Typical Performance Data

TEST CONDITIONS: INPUT POWER =0 dBm @Temperature = +25°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	0.53	0.52	11.72	11.73	18.07	18.18	24.11	24.10	25.66	25.54
600	0.67	0.66	10.45	10.46	18.49	18.56	23.08	23.23	24.69	24.73
700	0.81	0.80	9.45	9.45	19.00	19.13	22.61	22.60	24.18	24.24
800	0.95	0.94	8.65	8.65	19.71	19.83	22.43	22.46	24.07	24.22
900	1.09	1.07	8.00	8.00	20.55	20.70	22.56	22.50	24.41	24.66
925	1.12	1.11	7.86	7.86	20.77	20.92	22.70	22.60	24.56	24.71
940	1.14	1.12	7.78	7.78	20.92	21.06	22.76	22.67	24.68	24.83
950	1.15	1.13	7.72	7.73	21.02	21.17	22.83	22.74	24.77	24.96
960	1.16	1.15	7.67	7.68	21.14	21.29	22.90	22.82	24.86	25.05
1000	1.21	1.20	7.48	7.48	21.61	21.81	23.17	23.12	25.24	25.34
1050	1.27	1.26	7.25	7.25	22.17	22.36	23.59	23.42	25.71	25.85
1100	1.33	1.32	7.05	7.06	22.79	23.02	24.01	23.85	26.41	26.56
1150	1.38	1.37	6.87	6.87	23.56	23.87	24.67	24.48	27.38	27.28
1200	1.43	1.42	6.71	6.72	24.38	24.66	25.63	25.32	28.37	27.96
1250	1.48	1.47	6.57	6.57	25.32	25.44	26.54	26.12	29.63	28.97
1300	1.52	1.51	6.45	6.45	26.35	26.47	27.67	27.08	31.45	30.16
1350	1.56	1.55	6.34	6.35	27.61	27.52	29.11	28.25	33.82	31.12
1400	1.59	1.58	6.25	6.26	28.95	28.62	31.32	29.83	37.08	31.96
1450	1.62	1.62	6.18	6.19	30.41	29.37	33.81	31.69	41.87	32.63
1500	1.65	1.65	6.13	6.13	31.72	29.90	37.00	33.40	50.98	32.34
1550	1.67	1.67	6.09	6.10	32.54	30.09	39.77	34.59	42.39	31.42
1600	1.69	1.69	6.06	6.07	32.38	29.56	38.12	34.26	36.68	30.33
1650	1.71	1.71	6.06	6.06	31.61	28.67	34.34	32.70	33.05	29.03
1700	1.72	1.72	6.06	6.07	30.06	27.52	31.46	30.84	30.44	27.55
1750	1.73	1.72	6.09	6.09	28.63	26.32	29.09	29.05	28.37	26.25
1800	1.73	1.73	6.12	6.13	27.05	25.01	27.18	27.35	26.62	25.09
1850	1.73	1.73	6.18	6.18	25.64	23.90	25.59	25.82	25.19	24.07
1900	1.72	1.72	6.24	6.25	24.33	22.87	24.20	24.54	24.02	23.11
1950	1.71	1.71	6.32	6.33	23.21	21.84	23.08	23.49	23.01	22.33
2000	1.70	1.70	6.42	6.42	22.22	20.92	22.14	22.55	22.13	21.55
2050	1.68	1.68	6.54	6.54	21.22	19.95	21.30	21.73	21.34	20.80
2100	1.66	1.66	6.66	6.66	20.24	19.17	20.50	20.87	20.62	20.14
2150	1.64	1.65	6.80	6.81	19.35	18.25	19.83	20.22	20.05	19.63
2190	1.63	1.63	6.93	6.93	18.65	17.57	19.47	19.84	19.68	19.13
2200	1.62	1.62	6.98	6.99	18.37	17.43	19.46	19.86	19.64	19.15
2210	1.60	1.61	7.00	7.01	18.41	17.39	19.31	19.68	19.46	19.00
2225	1.60	1.61	7.05	7.05	18.15	17.10	19.13	19.50	19.27	18.83
2250	1.58	1.58	7.14	7.15	17.82	16.79	18.95	19.24	19.08	18.57
2300	1.56	1.56	7.33	7.33	17.01	15.94	18.47	18.79	18.62	18.12
2400	1.48	1.48	7.76	7.77	15.63	14.76	17.98	18.19	18.00	17.45
2500	1.40	1.41	8.26	8.29	14.25	13.38	17.52	17.77	17.48	16.98
2600	1.32	1.33	8.89	8.94	12.79	11.98	17.38	17.70	17.32	16.73
2700	1.23	1.24	9.61	9.63	11.62	10.66	17.22	17.62	17.18	16.57
2800	1.16	1.17	10.58	10.58	9.88	8.96	17.41	17.87	17.36	16.63
2900	1.05	1.06	11.63	11.63	8.63	7.64	17.35	18.11	17.40	16.78
3000	0.98	1.00	13.05	12.96	6.88	5.86	17.52	18.42	17.41	16.78
3100	0.91	0.92	14.95	14.83	4.45	3.55	17.64	18.77	17.72	17.23
3200	0.85	0.87	17.36	17.17	1.76	0.95	17.48	18.55	17.59	17.29
3300	0.84	0.83	20.81	20.36	1.84	2.73	17.13	18.06	17.46	17.36
3400	0.87	0.86	26.31	25.19	7.15	8.48	16.75	17.04	16.89	17.13
3500	0.92	0.87	29.02	28.78	11.27	11.46	16.18	15.99	16.45	16.78
3750	1.10	1.04	17.55	18.32	1.87	0.45	14.38	13.51	14.73	15.10
4000	1.40	1.33	13.14	13.67	2.24	3.92	12.72	11.59	12.98	13.25

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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		COUPLING		DIRECTIVITY		RETURN LOSS			
	(dB) IN-OUT	(dB) FWD-REV	(dB) IN-FWD	(dB) OUT-REV	(dB) IN-REV	(dB) OUT-FWD	(dB) IN	(dB) OUT	(dB) FWD	(dB) REV
500	0.45	0.44	11.71	11.67	18.57	18.58	24.96	24.75	26.70	26.56
600	0.58	0.57	10.43	10.39	19.11	18.89	23.94	23.98	25.40	25.42
700	0.71	0.70	9.41	9.37	19.65	19.49	23.47	23.37	25.03	25.02
800	0.85	0.84	8.61	8.55	20.21	20.12	23.18	23.16	24.49	24.58
900	0.98	0.97	7.95	7.89	21.08	21.05	23.33	23.24	24.69	24.91
925	1.00	1.00	7.81	7.75	21.34	21.24	23.50	23.40	24.83	24.93
940	1.02	1.02	7.73	7.66	21.49	21.35	23.56	23.48	24.93	25.00
950	1.03	1.03	7.67	7.61	21.58	21.43	23.61	23.54	24.98	25.07
960	1.05	1.04	7.62	7.56	21.69	21.51	23.67	23.62	25.02	25.10
1000	1.09	1.09	7.42	7.36	22.12	21.94	23.86	23.89	25.23	25.17
1050	1.15	1.14	7.19	7.13	22.51	22.56	24.06	23.92	25.70	25.78
1100	1.20	1.20	6.99	6.92	23.11	23.29	24.33	24.19	26.52	26.71
1150	1.26	1.25	6.80	6.74	23.97	24.02	24.96	24.90	27.41	27.30
1200	1.30	1.30	6.64	6.57	24.83	24.64	25.79	25.75	28.25	27.76
1250	1.35	1.34	6.49	6.42	25.71	25.40	26.49	26.39	29.46	28.76
1300	1.39	1.38	6.37	6.30	26.35	26.67	27.14	26.73	31.63	30.63
1350	1.42	1.42	6.26	6.19	27.64	28.11	28.61	27.98	34.68	32.69
1400	1.46	1.45	6.17	6.09	29.69	29.25	31.04	30.80	37.53	34.53
1450	1.48	1.48	6.09	6.01	31.04	29.39	32.24	32.47	40.67	35.12
1500	1.51	1.51	6.03	5.95	32.07	29.32	35.07	33.80	59.92	33.01
1550	1.52	1.53	5.99	5.91	33.32	29.50	39.36	36.34	42.19	31.45
1600	1.54	1.55	5.96	5.87	33.66	28.97	38.11	37.54	37.15	30.53
1650	1.55	1.56	5.95	5.86	33.59	28.19	34.40	37.10	33.74	29.57
1700	1.56	1.57	5.95	5.86	31.79	27.67	32.90	34.46	31.88	28.85
1750	1.57	1.57	5.96	5.87	29.02	26.20	30.18	30.00	29.70	27.01
1800	1.57	1.58	6.00	5.90	27.03	24.55	27.77	28.04	26.81	25.11
1850	1.56	1.58	6.04	5.94	25.72	23.92	26.49	26.73	25.38	24.39
1900	1.55	1.56	6.11	6.01	24.23	22.86	24.86	24.98	24.17	23.17
1950	1.54	1.56	6.18	6.08	23.37	21.64	23.69	24.25	23.08	22.16
2000	1.52	1.54	6.26	6.16	23.02	20.91	22.94	23.72	22.60	21.70
2050	1.51	1.52	6.38	6.27	21.77	19.66	21.63	22.20	21.58	20.58
2100	1.49	1.50	6.49	6.39	20.42	18.80	20.55	20.99	20.72	19.93
2150	1.46	1.48	6.62	6.52	19.72	18.03	20.18	20.74	20.12	19.45
2190	1.45	1.47	6.75	6.63	19.26	17.38	19.97	20.60	19.63	18.78
2200	1.44	1.47	6.79	6.68	18.99	17.17	19.89	20.53	19.57	18.74
2210	1.43	1.45	6.83	6.72	18.87	17.12	19.82	20.46	19.51	18.78
2225	1.42	1.44	6.86	6.75	18.75	16.98	19.53	20.07	19.34	18.67
2250	1.40	1.42	6.96	6.84	18.29	16.71	19.11	19.48	19.29	18.60
2300	1.38	1.39	7.14	7.02	17.16	15.93	18.32	18.48	18.73	18.12
2400	1.29	1.31	7.56	7.43	15.98	14.80	18.02	18.31	18.00	17.43
2500	1.21	1.25	8.03	7.93	14.10	13.16	17.73	17.94	17.11	16.44
2600	1.13	1.14	8.63	8.52	13.14	12.11	17.32	17.76	17.55	17.02
2700	1.02	1.04	9.32	9.18	12.29	10.75	17.12	17.75	17.58	16.77
2800	0.94	0.97	10.24	10.07	10.53	9.14	17.17	17.71	17.25	16.24
2900	0.83	0.85	11.26	11.10	9.15	7.94	16.91	17.41	17.71	16.98
3000	0.75	0.78	12.62	12.37	7.52	6.22	17.15	17.93	17.28	16.56
3100	0.67	0.70	14.38	14.12	5.06	3.95	17.42	18.38	17.29	16.64
3200	0.62	0.64	16.69	16.34	2.52	1.38	16.95	17.56	17.40	16.91
3300	0.58	0.60	19.85	19.37	0.94	2.00	16.78	17.39	17.27	16.96
3400	0.59	0.60	24.84	23.82	5.84	7.11	16.72	17.02	16.94	16.98
3500	0.63	0.60	29.90	28.96	11.51	12.48	15.93	15.63	16.74	16.86
3750	0.79	0.76	18.06	18.64	2.31	1.24	14.55	13.63	14.89	15.02
4000	1.06	1.02	13.36	13.58	2.36	3.37	12.77	11.79	13.24	13.32

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Bi-Directional Coupler

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Typical Performance Data

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

FREQ. (MHz)	INSERTION LOSS		COUPLING		DIRECTIVITY		RETURN LOSS			
	(dB) IN-OUT	(dB) FWD-REV	(dB) IN-FWD	(dB) OUT-REV	(dB) IN-REV	(dB) OUT-FWD	(dB) IN	(dB) OUT	(dB) FWD	(dB) REV
500	0.59	0.58	11.72	11.74	17.55	17.66	23.25	23.22	24.72	24.60
600	0.73	0.72	10.45	10.48	18.06	18.12	22.42	22.55	23.92	23.92
700	0.88	0.87	9.46	9.49	18.63	18.71	22.09	22.09	23.56	23.59
800	1.02	1.01	8.67	8.70	19.37	19.48	21.94	21.97	23.60	23.74
900	1.16	1.15	8.03	8.06	20.26	20.41	22.22	22.17	24.08	24.32
925	1.20	1.18	7.89	7.92	20.51	20.69	22.40	22.32	24.29	24.47
940	1.22	1.20	7.81	7.84	20.66	20.86	22.49	22.41	24.48	24.65
950	1.23	1.22	7.76	7.78	20.76	20.99	22.57	22.47	24.60	24.82
960	1.24	1.23	7.70	7.73	20.88	21.12	22.65	22.56	24.70	24.96
1000	1.29	1.28	7.51	7.54	21.38	21.66	22.97	22.89	25.15	25.29
1050	1.35	1.34	7.29	7.32	22.02	22.22	23.52	23.36	25.64	25.81
1100	1.41	1.40	7.09	7.12	22.74	22.95	24.12	24.00	26.43	26.59
1150	1.47	1.46	6.91	6.95	23.51	23.84	24.86	24.68	27.43	27.31
1200	1.52	1.51	6.76	6.79	24.41	24.68	25.95	25.68	28.43	27.94
1250	1.57	1.56	6.62	6.66	25.37	25.60	26.97	26.57	29.79	29.11
1300	1.61	1.61	6.51	6.55	26.47	26.82	28.16	27.56	31.76	30.39
1350	1.65	1.65	6.40	6.45	27.88	28.01	29.67	28.81	34.23	31.15
1400	1.69	1.68	6.32	6.37	29.24	29.26	31.85	30.08	37.71	31.78
1450	1.72	1.72	6.26	6.30	31.07	30.42	34.68	32.01	42.75	32.42
1500	1.75	1.75	6.20	6.25	33.04	31.49	37.34	34.16	48.44	32.55
1550	1.77	1.77	6.17	6.22	34.27	31.90	39.41	34.94	41.65	31.78
1600	1.79	1.80	6.15	6.20	34.57	31.30	37.88	34.49	35.98	30.48
1650	1.81	1.81	6.15	6.20	33.76	30.41	34.94	32.95	32.32	29.02
1700	1.82	1.82	6.16	6.21	31.46	29.14	31.91	30.67	29.96	27.57
1750	1.83	1.83	6.19	6.24	29.95	27.70	29.25	29.20	28.23	26.46
1800	1.83	1.84	6.23	6.28	28.63	26.20	27.58	28.01	26.87	25.43
1850	1.83	1.84	6.29	6.34	27.13	24.92	26.01	26.42	25.67	24.49
1900	1.83	1.83	6.36	6.42	25.68	23.80	24.76	25.27	24.58	23.66
1950	1.82	1.82	6.44	6.50	24.43	22.78	23.74	24.21	23.57	22.98
2000	1.81	1.81	6.55	6.61	23.07	21.80	22.80	23.18	22.60	22.15
2050	1.79	1.79	6.66	6.72	22.14	20.85	22.14	22.59	21.81	21.39
2100	1.77	1.78	6.78	6.86	21.16	19.93	21.39	21.85	21.15	20.79
2150	1.75	1.76	6.95	7.01	20.12	19.01	20.61	21.07	20.67	20.36
2190	1.73	1.73	7.09	7.15	19.43	18.46	20.16	20.56	20.30	19.92
2200	1.72	1.73	7.12	7.18	19.24	18.28	20.02	20.40	20.16	19.77
2210	1.72	1.73	7.15	7.22	19.01	18.05	19.92	20.33	20.06	19.70
2225	1.71	1.72	7.21	7.28	18.71	17.82	19.76	20.16	19.88	19.54
2250	1.69	1.70	7.29	7.36	18.45	17.47	19.52	19.84	19.59	19.15
2300	1.67	1.69	7.50	7.56	17.52	16.55	19.27	19.70	19.12	18.69
2400	1.59	1.60	7.95	8.02	16.24	15.28	18.69	19.10	18.38	17.89
2500	1.52	1.54	8.50	8.58	14.84	13.87	17.85	18.27	17.82	17.44
2600	1.44	1.46	9.18	9.26	12.93	12.35	17.52	17.80	17.37	16.87
2700	1.37	1.39	9.96	10.06	11.41	10.80	17.37	17.88	17.21	16.80
2800	1.28	1.30	10.96	11.03	9.82	9.14	17.31	18.00	17.42	16.86
2900	1.20	1.23	12.13	12.17	8.39	7.57	17.06	18.01	17.19	16.67
3000	1.17	1.18	13.59	13.62	6.40	5.62	16.93	17.80	17.20	16.71
3100	1.10	1.11	15.64	15.55	3.88	3.12	16.84	17.80	17.38	17.01
3200	1.06	1.08	18.18	18.00	1.01	0.31	16.73	17.58	17.04	16.89
3300	1.07	1.06	21.85	21.30	2.67	3.51	16.36	16.93	16.85	16.83
3400	1.11	1.12	27.59	26.67	8.68	9.66	16.21	16.11	16.28	16.65
3500	1.15	1.12	27.49	27.77	10.14	9.69	15.76	15.45	15.64	16.06
3750	1.35	1.31	17.19	17.98	1.37	0.25	14.19	13.22	13.97	14.57
4000	1.63	1.59	12.92	13.58	2.49	4.38	13.13	11.85	12.80	13.31

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