

Bi-Directional Coupler

BDCA-6-16+

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	0.72	0.71	9.74	9.75	26.46	27.00	33.83	33.71	36.44	39.18
600	0.91	0.90	8.60	8.61	27.93	28.98	35.53	34.84	37.38	42.10
700	1.09	1.08	7.76	7.77	29.72	31.97	38.21	37.47	39.08	51.95
750	1.17	1.17	7.42	7.43	31.11	34.07	41.00	40.15	40.15	61.36
775	1.22	1.21	7.27	7.28	31.76	35.36	42.08	41.03	40.35	50.66
780	1.22	1.22	7.24	7.25	31.95	35.64	42.68	41.23	40.34	49.98
790	1.24	1.23	7.18	7.20	32.34	36.18	43.82	41.68	40.31	48.63
800	1.26	1.25	7.13	7.14	32.77	36.53	44.53	42.43	40.20	47.26
810	1.27	1.26	7.07	7.09	33.08	37.06	44.59	43.51	40.15	45.69
820	1.29	1.28	7.02	7.04	33.34	37.65	44.43	44.74	40.10	44.21
830	1.31	1.30	6.97	6.98	33.58	38.24	44.26	46.04	40.01	42.96
840	1.32	1.31	6.92	6.94	33.96	38.93	44.20	46.03	39.84	41.98
850	1.33	1.32	6.88	6.89	34.45	39.26	43.96	45.89	39.52	41.03
860	1.35	1.34	6.83	6.85	35.08	39.35	43.45	45.66	39.14	40.18
870	1.37	1.35	6.78	6.80	35.94	39.37	42.43	45.42	38.84	39.52
875	1.37	1.36	6.76	6.78	36.23	39.34	42.00	45.44	38.64	39.16
900	1.41	1.40	6.66	6.68	37.36	38.73	40.32	46.05	37.68	37.22
925	1.44	1.43	6.57	6.58	39.15	37.59	38.93	43.56	36.74	35.83
950	1.47	1.46	6.49	6.50	41.52	36.20	36.69	40.27	35.73	34.70
960	1.48	1.47	6.46	6.47	42.35	35.52	36.10	39.73	35.28	34.20
970	1.50	1.49	6.43	6.44	43.15	34.90	35.66	39.48	34.88	33.69
1000	1.53	1.52	6.34	6.35	46.70	33.01	33.88	36.99	33.77	32.51
1050	1.58	1.57	6.22	6.24	46.55	30.45	31.60	34.56	32.04	30.55
1100	1.62	1.61	6.14	6.15	39.85	28.45	29.53	31.82	30.45	28.92
1150	1.66	1.65	6.08	6.09	35.55	26.58	27.73	29.75	28.94	27.44
1200	1.69	1.68	6.04	6.06	32.81	25.04	26.38	28.48	27.56	26.14
1250	1.70	1.70	6.04	6.05	30.42	23.62	25.05	27.02	26.36	24.95
1300	1.72	1.71	6.06	6.07	28.20	22.45	23.85	25.40	25.26	23.87
1350	1.72	1.71	6.10	6.12	26.47	21.21	22.77	24.29	24.19	22.87
1400	1.72	1.71	6.17	6.19	25.06	20.14	21.85	23.43	23.26	21.91
1450	1.71	1.70	6.26	6.28	23.75	19.11	21.07	22.33	22.38	21.05
1500	1.70	1.68	6.39	6.41	22.38	18.20	20.18	21.34	21.56	20.29
1600	1.64	1.63	6.71	6.73	20.24	16.44	18.85	20.00	20.11	18.85
1700	1.57	1.56	7.15	7.18	18.08	14.75	17.61	18.52	18.93	17.71
1800	1.48	1.46	7.71	7.75	16.22	13.26	16.72	17.62	18.08	16.89
1900	1.39	1.36	8.43	8.48	14.32	11.75	16.00	16.77	17.40	16.27
2000	1.27	1.25	9.33	9.39	12.52	10.30	15.66	16.43	17.09	15.96
2250	0.97	0.93	12.93	13.04	7.22	6.06	16.08	16.59	18.14	16.94
2500	0.74	0.70	21.79	22.13	2.24	2.20	19.19	19.59	22.48	21.53
2750	0.73	0.72	20.67	20.91	0.47	0.04	27.89	27.09	36.62	39.85
3000	1.01	1.01	12.38	12.47	8.84	8.20	28.80	37.28	32.69	24.84
3250	1.40	1.38	9.10	9.17	12.26	11.01	25.23	31.30	35.24	22.82
3500	1.77	1.75	7.42	7.45	13.40	12.33	23.92	28.63	29.99	22.23
3750	2.01	2.00	6.78	6.80	14.50	13.85	24.45	26.56	24.84	22.92
4000	2.05	2.04	6.75	6.73	15.55	15.29	25.99	30.03	24.46	24.74
4250	1.95	1.94	7.38	7.34	18.19	14.67	22.34	35.39	28.67	25.42
4500	1.79	1.76	8.87	8.81	21.43	10.67	16.31	20.28	20.80	17.63
4750	1.75	1.75	11.85	11.66	15.27	5.57	11.65	13.24	12.76	11.61
5000	1.97	2.05	17.10	15.94	7.25	0.13	8.49	9.09	8.56	8.22
5250	2.30	2.46	26.76	19.69	1.31	7.58	6.98	7.27	6.51	6.60
5500	2.49	2.71	26.81	19.86	0.54	3.16	6.65	6.62	5.83	6.18
5750	2.49	2.69	18.37	17.51	0.30	20.92	7.22	6.69	6.16	6.70
6000	2.39	2.52	13.89	14.19	0.76	9.60	9.12	7.97	7.29	8.23

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Bi-Directional Coupler

BDCA-6-16+

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	0.65	0.64	9.72	9.70	27.64	27.95	36.42	36.44	39.88	45.72
600	0.82	0.81	8.58	8.55	29.11	29.97	38.12	37.69	40.07	51.00
700	0.99	0.98	7.72	7.69	31.27	32.68	42.23	42.05	41.06	51.29
750	1.08	1.07	7.38	7.34	32.70	34.21	45.30	45.67	41.39	46.60
775	1.11	1.11	7.22	7.18	33.48	35.39	47.27	46.64	41.62	43.92
780	1.12	1.12	7.20	7.15	33.78	35.64	48.19	46.93	41.64	43.70
790	1.14	1.13	7.14	7.10	34.36	36.11	49.64	47.54	41.65	43.22
800	1.15	1.14	7.08	7.04	34.89	36.33	48.48	48.37	41.31	42.48
810	1.17	1.16	7.02	6.99	35.23	36.73	47.04	49.90	41.05	41.47
820	1.18	1.18	6.97	6.93	35.45	37.17	45.87	52.48	40.78	40.47
830	1.20	1.19	6.92	6.88	35.57	37.56	45.31	56.41	40.49	39.64
840	1.21	1.21	6.87	6.83	36.14	37.83	44.67	57.21	40.04	38.89
850	1.23	1.22	6.82	6.79	36.75	37.70	43.62	55.00	39.44	38.18
860	1.25	1.23	6.78	6.74	37.47	37.34	42.34	51.25	38.79	37.50
870	1.26	1.25	6.73	6.69	38.51	37.01	41.15	48.28	38.25	36.92
875	1.27	1.25	6.71	6.67	38.81	36.86	40.76	47.38	38.00	36.64
900	1.30	1.29	6.61	6.56	40.21	36.01	39.50	45.45	36.94	35.24
925	1.33	1.32	6.51	6.48	43.42	35.43	38.04	43.34	36.19	34.55
950	1.36	1.35	6.42	6.38	46.43	34.82	36.17	39.74	35.64	34.06
960	1.37	1.36	6.39	6.35	47.26	34.50	35.77	39.19	35.40	33.80
970	1.38	1.37	6.36	6.32	48.40	34.19	35.48	39.08	35.21	33.50
1000	1.42	1.41	6.28	6.23	59.42	32.88	33.94	37.48	34.46	32.65
1050	1.46	1.45	6.15	6.10	49.02	30.51	31.98	35.38	32.84	30.72
1100	1.50	1.49	6.06	6.01	40.55	28.40	29.81	32.54	31.17	29.05
1150	1.53	1.53	5.99	5.94	35.94	26.49	27.84	30.25	29.68	27.66
1200	1.56	1.55	5.95	5.90	32.91	24.86	26.40	28.73	28.23	26.28
1250	1.58	1.57	5.94	5.88	30.37	23.18	25.08	27.25	26.54	24.61
1300	1.59	1.58	5.95	5.89	28.28	22.13	24.06	25.76	25.37	23.58
1350	1.59	1.58	5.99	5.93	26.74	21.16	23.10	24.73	24.54	22.90
1400	1.59	1.58	6.05	5.99	25.41	20.05	22.13	23.87	23.58	21.90
1450	1.57	1.56	6.13	6.08	24.17	19.10	21.30	22.64	22.83	21.20
1500	1.56	1.54	6.25	6.19	22.76	18.27	20.35	21.53	22.03	20.54
1600	1.50	1.49	6.55	6.49	20.34	16.52	18.96	20.04	20.31	18.96
1700	1.43	1.41	6.97	6.92	18.21	14.71	17.59	18.42	19.14	17.70
1800	1.34	1.31	7.51	7.46	16.51	13.33	16.71	17.56	18.44	17.04
1900	1.22	1.21	8.22	8.16	14.68	11.84	16.10	16.84	17.25	16.02
2000	1.12	1.08	9.07	9.04	12.89	10.37	15.52	16.19	17.04	15.83
2250	0.79	0.76	12.49	12.49	7.61	6.32	16.21	16.52	17.61	16.38
2500	0.54	0.49	20.63	20.72	0.98	1.32	18.90	19.22	23.37	22.27
2750	0.50	0.49	21.76	21.77	1.38	1.40	26.85	26.72	39.02	43.34
3000	0.75	0.75	12.58	12.57	8.73	7.74	30.31	36.67	30.13	23.51
3250	1.11	1.10	9.09	9.05	12.12	10.68	26.05	29.85	37.02	21.92
3500	1.48	1.47	7.34	7.22	13.25	12.33	24.39	27.77	29.01	22.36
3750	1.73	1.72	6.64	6.47	14.61	14.07	23.99	27.08	24.09	23.17
4000	1.77	1.76	6.52	6.33	15.61	15.50	25.18	28.64	24.55	25.46
4250	1.67	1.67	7.04	6.85	18.08	14.26	22.81	49.56	28.76	23.37
4500	1.50	1.47	8.41	8.20	23.33	10.84	16.87	20.86	21.56	17.80
4750	1.40	1.40	11.12	10.83	16.38	6.03	12.16	13.88	13.37	11.93
5000	1.57	1.60	16.03	14.99	8.32	0.74	8.73	9.22	9.02	8.41
5250	1.91	1.96	25.17	19.06	1.91	6.78	6.84	6.96	6.72	6.53
5500	2.08	2.29	28.43	19.67	0.35	6.08	6.39	6.24	5.67	5.71
5750	2.12	2.36	19.11	17.72	0.46	17.01	6.72	6.07	5.68	5.91
6000	2.05	2.24	14.20	14.28	0.63	9.73	8.27	7.02	6.53	7.05

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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)		(dB)		(dB)		(dB)			
	IN-OUT	FWD-REV	IN-FWD	OUT-REV	IN-REV	OUT-FWD	IN	OUT	FWD	REV
500	0.79	0.78	9.74	9.77	25.06	25.79	31.57	31.46	33.69	35.21
600	0.98	0.97	8.61	8.65	26.66	27.79	33.47	32.64	34.56	37.43
700	1.17	1.16	7.78	7.81	28.33	30.74	35.82	35.15	36.35	42.36
750	1.25	1.25	7.45	7.48	29.78	32.88	38.54	37.64	37.56	47.64
775	1.30	1.29	7.30	7.33	30.26	34.27	39.40	38.36	37.99	55.96
780	1.30	1.30	7.27	7.30	30.46	34.57	39.98	38.47	38.05	57.79
790	1.32	1.32	7.22	7.25	30.88	35.16	41.12	38.76	38.17	61.17
800	1.34	1.33	7.16	7.19	31.34	35.67	42.00	39.47	38.26	62.70
810	1.35	1.35	7.10	7.14	31.66	36.33	42.14	40.58	38.43	58.45
820	1.37	1.36	7.05	7.09	31.87	37.06	42.02	41.78	38.59	53.24
830	1.39	1.38	7.00	7.04	31.99	37.85	41.90	42.90	38.74	49.66
840	1.41	1.39	6.96	7.00	32.32	38.86	42.34	42.56	38.84	47.33
850	1.42	1.41	6.91	6.95	32.80	39.72	42.88	42.14	38.85	45.26
860	1.44	1.42	6.87	6.91	33.45	40.46	43.15	41.77	38.80	43.55
870	1.45	1.44	6.83	6.87	34.33	41.17	42.46	41.72	38.70	42.44
875	1.46	1.45	6.81	6.85	34.63	41.35	42.03	41.92	38.56	41.85
900	1.50	1.48	6.71	6.74	35.63	41.17	40.27	43.57	37.84	38.73
925	1.53	1.52	6.62	6.66	37.30	39.49	39.05	41.41	36.76	36.63
950	1.56	1.55	6.54	6.57	39.78	37.35	36.33	38.78	35.54	35.21
960	1.58	1.56	6.51	6.55	40.42	36.52	35.72	38.56	35.05	34.63
970	1.59	1.58	6.48	6.52	40.96	35.77	35.31	38.59	34.63	34.06
1000	1.62	1.61	6.40	6.44	44.18	33.64	33.50	36.11	33.57	32.92
1050	1.68	1.66	6.29	6.33	46.66	30.75	31.12	33.78	31.95	30.80
1100	1.72	1.71	6.21	6.25	40.13	28.51	28.91	30.86	30.30	29.04
1150	1.76	1.74	6.16	6.20	35.29	26.68	27.08	28.76	28.91	27.71
1200	1.79	1.77	6.13	6.17	32.52	25.06	25.87	27.75	27.45	26.22
1250	1.81	1.80	6.13	6.18	30.16	23.64	24.72	26.50	26.15	24.91
1300	1.82	1.81	6.15	6.20	27.76	22.52	23.57	24.86	25.06	23.87
1350	1.83	1.82	6.20	6.26	25.99	21.27	22.55	23.90	23.99	22.83
1400	1.83	1.81	6.28	6.33	24.75	20.19	21.78	23.30	23.11	21.88
1450	1.82	1.81	6.38	6.44	23.48	19.12	21.05	22.25	22.25	20.95
1500	1.81	1.79	6.51	6.57	22.09	18.25	20.20	21.26	21.54	20.33
1600	1.75	1.74	6.85	6.92	20.14	16.49	19.02	20.23	20.19	18.93
1700	1.69	1.67	7.31	7.39	17.93	14.83	17.84	18.77	19.06	17.89
1800	1.60	1.58	7.90	7.99	16.12	13.29	17.11	18.07	18.31	17.12
1900	1.50	1.47	8.66	8.75	14.20	11.84	16.44	17.24	17.91	16.77
2000	1.39	1.36	9.60	9.72	12.36	10.35	16.20	17.09	17.57	16.44
2250	1.11	1.06	13.47	13.65	6.82	5.85	16.53	17.12	18.73	17.56
2500	0.92	0.88	23.34	23.96	3.96	3.49	19.31	19.80	22.22	21.33
2750	0.95	0.93	19.49	19.84	0.55	1.35	26.75	25.64	32.36	35.25
3000	1.26	1.23	12.13	12.30	9.00	8.82	28.03	31.34	34.71	26.98
3250	1.66	1.63	9.10	9.24	12.54	11.64	25.03	29.50	34.23	23.43
3500	2.03	2.01	7.51	7.63	14.08	12.53	23.29	30.61	31.66	21.88
3750	2.26	2.25	6.93	7.06	15.16	13.97	25.11	27.99	26.11	23.02
4000	2.30	2.28	7.00	7.09	16.01	15.07	26.55	33.03	25.41	25.06
4250	2.21	2.18	7.76	7.80	18.39	14.51	20.73	28.04	29.44	26.48
4500	2.08	2.03	9.40	9.42	19.28	10.11	15.32	19.13	19.53	16.88
4750	2.07	2.07	12.67	12.47	13.43	4.99	11.18	12.80	12.31	11.43
5000	2.34	2.44	18.36	16.87	5.98	0.60	8.38	9.00	8.33	8.16
5250	2.69	2.91	28.73	20.11	0.78	8.64	7.12	7.58	6.45	6.69
5500	2.89	3.14	24.99	19.80	0.58	0.52	7.02	7.08	6.03	6.56
5750	2.90	3.08	17.74	17.30	0.29	20.65	7.79	7.19	6.52	7.28
6000	2.81	2.88	13.62	14.11	0.74	9.10	9.70	8.70	7.91	9.29

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