

Bi-Directional Coupler

SYBD-26-62HP+

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
100	0.04	0.04	39.85	39.88	34.75	34.31	45.49	46.96	46.70	46.91
200	0.01	0.01	33.89	33.89	36.86	36.28	43.03	44.27	45.09	44.63
300	0.01	0.01	30.41	30.40	36.79	35.07	43.68	44.69	46.52	44.31
400	0.03	0.03	27.95	27.94	35.26	34.20	44.77	45.84	46.10	43.01
410	0.01	0.01	27.72	27.72	34.90	34.13	44.64	45.82	46.38	42.77
420	0.01	0.01	27.50	27.51	34.99	33.79	45.01	45.71	46.13	42.58
430	0.02	0.02	27.31	27.30	34.41	33.70	45.01	46.03	45.95	42.55
440	0.02	0.02	27.11	27.11	34.61	33.56	45.05	45.90	45.57	42.18
450	0.02	0.02	26.91	26.92	34.11	33.38	44.85	45.77	45.54	42.04
460	0.02	0.02	26.73	26.74	34.08	33.53	45.14	45.36	44.96	41.78
470	0.02	0.02	26.55	26.55	33.88	33.27	44.86	45.10	44.33	41.48
480	0.02	0.02	26.37	26.37	33.86	33.04	44.71	44.93	44.02	41.26
490	0.03	0.03	26.19	26.20	33.43	32.75	44.54	44.85	43.62	40.92
500	0.03	0.03	26.02	26.03	33.43	32.81	44.30	44.71	43.20	40.64
510	0.04	0.03	25.85	25.86	33.02	32.55	44.25	44.74	43.05	40.51
520	0.03	0.03	25.69	25.69	33.08	32.19	44.30	44.75	42.75	40.31
530	0.04	0.04	25.53	25.54	32.58	32.13	44.23	44.76	42.58	40.02
540	0.04	0.04	25.37	25.38	32.52	31.96	44.05	44.38	42.24	39.87
550	0.04	0.04	25.21	25.22	32.37	31.74	43.85	44.12	41.88	39.64
560	0.04	0.04	25.06	25.07	32.03	31.78	43.50	43.89	41.48	39.36
570	0.05	0.05	24.92	24.93	31.95	31.42	43.45	43.70	41.03	39.26
580	0.05	0.04	24.76	24.77	31.74	31.33	43.42	43.30	40.84	38.92
590	0.05	0.05	24.62	24.63	31.62	31.25	43.31	43.00	40.44	38.70
600	0.05	0.05	24.48	24.48	31.75	31.16	43.30	42.72	40.12	38.30
610	0.05	0.05	24.34	24.34	31.64	31.06	42.96	42.46	39.86	38.10
620	0.06	0.05	24.20	24.21	31.38	30.83	42.70	42.30	39.75	38.05
630	0.06	0.06	24.07	24.07	30.96	30.53	42.42	42.05	39.61	37.89
640	0.06	0.06	23.94	23.95	30.78	30.76	42.06	41.95	39.30	37.78
650	0.06	0.06	23.80	23.81	30.82	30.58	42.07	41.88	39.04	37.42
700	0.07	0.07	23.18	23.19	29.79	29.77	41.43	40.76	37.73	36.62
800	0.09	0.09	22.06	22.08	28.39	28.58	39.79	39.32	36.34	35.56
900	0.11	0.11	21.10	21.12	26.94	27.23	39.40	39.22	35.51	35.17
1000	0.13	0.13	20.22	20.24	26.15	26.54	38.93	39.18	35.24	35.16
1100	0.16	0.15	19.46	19.49	24.97	25.40	39.56	40.34	36.02	36.42
1200	0.18	0.18	18.76	18.80	24.13	24.79	40.03	42.33	38.56	38.79
1300	0.20	0.20	18.14	18.19	23.14	23.77	42.45	43.34	44.34	44.07
1400	0.22	0.22	17.58	17.62	22.48	23.10	40.08	38.95	50.30	43.96
1500	0.24	0.25	17.05	17.10	22.10	22.75	35.79	34.44	37.60	36.37
1600	0.27	0.27	16.57	16.63	21.81	22.44	32.04	31.25	32.01	31.61
1700	0.29	0.29	16.16	16.21	21.55	22.33	29.51	28.69	28.57	28.26
1800	0.32	0.33	15.75	15.80	21.78	22.68	27.46	26.94	25.99	26.02
1900	0.35	0.36	15.40	15.47	21.85	22.71	25.69	25.35	24.18	24.35
2000	0.37	0.38	15.13	15.20	21.34	22.33	24.33	24.23	22.74	23.02
2500	0.47	0.48	13.75	13.85	23.78	24.93	24.10	24.21	22.65	23.25
3000	0.57	0.57	12.74	12.81	35.35	37.77	38.78	42.47	37.94	53.65
3500	0.67	0.68	11.96	11.98	23.54	27.88	27.27	27.53	26.81	27.60
4000	0.77	0.79	11.38	11.35	18.19	21.76	31.75	28.63	32.08	36.78
4500	0.90	0.92	11.07	10.98	16.71	19.75	28.17	26.19	20.58	20.78
5000	1.00	1.04	10.97	10.82	17.09	19.33	21.90	21.18	19.74	20.14
5500	1.11	1.10	10.89	10.71	18.67	19.69	22.02	20.87	24.69	23.80
6000	1.16	1.18	10.82	10.57	17.59	20.25	23.26	21.90	22.63	21.90
6500	1.34	1.42	10.84	10.54	13.44	16.73	20.90	19.58	16.54	16.55
7000	1.72	1.73	11.27	10.84	10.67	13.10	14.63	13.60	13.07	13.49

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Bi-Directional Coupler

SYBD-26-62HP+

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
100	0.04	0.07	39.91	39.87	31.09	30.62	48.56	50.74	41.37	40.81
200	0.03	0.06	33.91	33.91	32.09	31.93	41.36	41.72	42.21	41.58
300	0.01	0.05	30.41	30.41	34.25	32.92	41.68	41.83	44.76	42.96
400	0.00	0.05	27.94	27.94	34.28	33.01	45.09	44.27	49.56	43.46
410	0.02	0.06	27.69	27.71	34.31	33.47	45.68	44.53	50.62	43.75
420	0.02	0.06	27.50	27.50	34.03	33.37	45.90	44.92	50.44	43.96
430	0.02	0.06	27.30	27.29	33.95	33.32	46.33	45.27	50.19	44.23
440	0.02	0.06	27.09	27.10	34.07	33.28	46.88	45.60	51.33	44.23
450	0.02	0.06	26.90	26.90	34.08	33.25	47.12	45.67	52.27	44.30
460	0.01	0.06	26.72	26.72	33.87	33.42	47.72	45.82	53.20	44.43
470	0.01	0.06	26.54	26.54	34.11	33.26	47.65	45.99	54.85	44.34
480	0.01	0.06	26.36	26.35	34.15	33.51	48.12	45.78	54.29	44.50
490	0.01	0.05	26.17	26.18	33.83	33.22	49.00	46.02	53.33	44.07
500	0.01	0.06	26.00	26.01	33.79	33.02	49.15	46.20	52.29	43.67
510	0.01	0.05	25.84	25.83	33.66	32.85	49.53	46.51	51.80	43.45
520	0.00	0.05	25.67	25.67	33.45	32.79	50.82	47.13	51.83	43.50
530	0.00	0.05	25.51	25.51	33.18	32.65	52.11	47.56	51.80	43.31
540	0.00	0.05	25.35	25.35	33.00	32.66	53.20	48.43	51.36	43.37
550	0.00	0.05	25.19	25.20	33.01	32.52	53.12	48.54	50.72	43.34
560	0.00	0.05	25.04	25.04	32.84	32.45	53.81	48.78	49.54	43.07
570	0.01	0.05	24.89	24.90	32.85	32.31	54.18	49.25	48.10	42.97
580	0.00	0.05	24.74	24.75	32.63	32.13	54.91	49.41	47.09	42.42
590	0.01	0.04	24.60	24.60	32.28	31.93	54.84	49.38	45.93	42.04
600	0.01	0.05	24.46	24.45	32.54	31.97	53.52	49.07	45.05	41.32
610	0.01	0.05	24.31	24.31	32.46	32.00	52.67	48.63	44.58	41.06
620	0.01	0.04	24.17	24.18	32.16	31.62	52.04	48.41	44.54	41.06
630	0.02	0.04	24.05	24.04	31.88	31.29	51.10	48.34	44.57	40.97
640	0.01	0.04	23.91	23.91	31.87	31.50	50.02	47.98	44.37	41.09
650	0.02	0.04	23.77	23.77	31.62	31.39	49.85	47.67	44.31	40.84
700	0.02	0.04	23.15	23.16	30.74	30.80	48.14	46.04	41.86	40.01
800	0.04	0.02	22.03	22.04	29.01	29.59	43.52	43.00	39.04	38.00
900	0.06	0.01	21.05	21.07	27.91	28.34	41.47	41.43	37.26	37.05
1000	0.08	0.00	20.17	20.19	26.87	27.19	39.74	39.88	35.84	36.10
1100	0.10	0.02	19.41	19.43	25.56	25.73	38.59	39.12	35.48	36.30
1200	0.12	0.03	18.70	18.72	24.37	25.11	39.07	40.68	37.15	37.99
1300	0.14	0.04	18.08	18.11	23.31	23.76	43.26	43.13	40.26	40.73
1400	0.15	0.05	17.48	17.51	23.10	23.51	42.71	40.36	51.99	44.88
1500	0.17	0.07	16.96	16.98	22.06	22.86	36.72	34.54	39.11	37.57
1600	0.19	0.10	16.50	16.53	21.61	22.72	33.01	31.51	31.92	31.63
1700	0.22	0.12	16.09	16.12	21.53	22.30	30.44	29.35	28.48	28.26
1800	0.23	0.13	15.67	15.70	21.34	22.00	28.47	27.64	25.96	25.88
1900	0.27	0.17	15.21	15.24	23.38	23.82	26.30	25.99	24.39	24.73
2000	0.30	0.17	15.02	15.05	21.16	21.50	23.80	23.68	22.58	22.98
2500	0.36	0.23	13.62	13.71	23.75	24.93	23.64	23.87	22.68	22.88
3000	0.44	0.28	12.59	12.67	37.14	43.59	36.78	39.82	35.91	44.84
3500	0.54	0.36	11.83	11.83	22.52	25.72	26.30	26.34	28.53	28.93
4000	0.62	0.42	11.18	11.17	17.80	21.35	32.23	28.80	29.44	40.03
4500	0.73	0.53	10.83	10.75	17.12	19.50	28.71	26.33	22.50	22.36
5000	0.83	0.60	10.76	10.55	16.82	19.12	22.56	21.67	18.49	18.56
5500	0.90	0.64	10.69	10.46	18.00	19.23	22.03	20.52	23.26	21.91
6000	0.98	0.72	10.61	10.17	16.38	19.46	23.30	21.05	22.83	21.60
6500	1.13	0.90	10.62	9.99	13.15	15.24	20.68	18.85	16.39	15.93
7000	1.53	1.31	10.99	10.37	10.49	11.77	14.58	13.76	11.97	11.94

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Bi-Directional Coupler

SYBD-26-62HP+

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
100	0.03	0.01	39.93	39.95	41.63	42.59	42.56	43.30	46.71	47.72
200	0.01	0.02	33.97	33.97	54.18	48.26	42.77	44.32	44.09	44.26
300	0.03	0.05	30.49	30.49	41.48	40.02	42.30	43.95	44.18	43.27
400	0.05	0.07	28.03	28.03	36.56	35.62	41.67	43.55	41.90	40.38
410	0.04	0.06	27.79	27.79	35.57	35.70	41.32	43.49	42.12	40.36
420	0.04	0.06	27.59	27.59	35.73	34.97	41.58	43.24	42.10	40.28
430	0.04	0.06	27.39	27.39	35.45	34.78	41.47	43.22	42.02	40.31
440	0.04	0.06	27.20	27.19	35.31	34.31	41.43	42.99	41.72	40.03
450	0.04	0.06	27.00	27.01	34.85	34.26	41.22	42.87	41.54	39.79
460	0.04	0.07	26.82	26.82	34.59	34.17	41.37	42.53	40.99	39.40
470	0.04	0.07	26.63	26.63	34.60	33.84	41.19	42.40	40.38	39.05
480	0.05	0.07	26.46	26.45	34.19	33.80	40.97	42.30	39.96	38.67
490	0.05	0.08	26.28	26.28	33.65	33.27	40.88	42.18	39.61	38.32
500	0.05	0.08	26.11	26.11	33.46	32.97	40.68	41.98	39.27	38.07
510	0.05	0.08	25.94	25.94	33.34	32.95	40.60	41.93	39.17	37.98
520	0.06	0.08	25.77	25.77	33.02	32.66	40.53	41.81	39.08	37.89
530	0.06	0.09	25.62	25.61	32.78	32.48	40.40	41.86	39.04	37.77
540	0.06	0.09	25.46	25.45	32.52	32.07	40.28	41.41	39.00	37.81
550	0.06	0.09	25.30	25.30	32.59	32.11	40.13	41.23	38.88	37.72
560	0.06	0.09	25.15	25.15	32.38	32.01	39.90	40.95	38.67	37.55
570	0.07	0.10	25.00	25.00	32.22	31.78	39.87	40.72	38.30	37.40
580	0.07	0.10	24.85	24.85	32.01	31.44	39.77	40.40	38.13	37.09
590	0.07	0.10	24.71	24.71	31.79	31.38	39.70	40.16	37.76	36.81
600	0.07	0.10	24.57	24.56	31.76	31.30	39.65	40.01	37.46	36.46
610	0.07	0.11	24.43	24.42	31.52	31.17	39.52	39.83	37.27	36.31
620	0.08	0.11	24.29	24.29	31.33	30.90	39.36	39.70	37.15	36.23
630	0.08	0.11	24.17	24.16	31.18	30.77	39.15	39.44	36.99	36.05
640	0.08	0.11	24.03	24.02	30.84	30.70	38.90	39.43	36.73	35.95
650	0.08	0.12	23.89	23.88	30.80	30.58	38.94	39.40	36.55	35.71
700	0.10	0.13	23.28	23.27	29.56	29.62	38.71	38.61	35.73	35.29
800	0.12	0.15	22.15	22.16	28.33	28.49	38.10	38.09	34.61	34.45
900	0.14	0.18	21.18	21.18	27.05	27.58	38.48	38.77	34.35	34.49
1000	0.16	0.19	20.30	20.31	26.19	26.93	38.63	39.56	34.71	35.08
1100	0.18	0.22	19.54	19.54	25.43	25.87	40.47	42.74	35.80	36.69
1200	0.20	0.25	18.85	18.86	24.42	25.38	41.22	47.65	39.04	40.54
1300	0.23	0.27	18.23	18.25	23.52	24.54	40.60	43.37	46.15	50.59
1400	0.25	0.30	17.65	17.65	23.49	24.42	37.76	38.05	47.13	44.69
1500	0.28	0.33	17.12	17.13	23.05	23.86	34.75	34.02	37.51	36.09
1600	0.30	0.37	16.67	16.67	22.65	23.79	31.39	31.11	31.90	31.35
1700	0.33	0.38	16.28	16.29	22.01	22.87	28.81	28.32	28.64	28.30
1800	0.35	0.42	15.85	15.86	22.21	23.28	27.20	26.83	26.19	26.01
1900	0.40	0.48	15.42	15.43	24.61	25.92	26.13	25.89	24.90	25.02
2000	0.42	0.48	15.22	15.24	22.28	23.42	25.10	24.81	23.21	23.26
2500	0.51	0.60	13.83	13.86	24.43	26.03	24.92	25.01	23.09	23.61
3000	0.64	0.72	12.83	12.85	35.69	35.73	39.91	39.91	40.48	49.06
3500	0.74	0.87	12.09	12.09	24.57	29.13	30.35	29.87	26.76	27.94
4000	0.87	1.00	11.48	11.52	18.57	22.54	31.57	27.94	31.90	35.07
4500	0.99	1.16	11.11	11.13	17.40	21.24	27.72	26.48	19.77	20.45
5000	1.12	1.29	11.00	11.06	17.89	20.36	21.05	20.86	19.60	20.70
5500	1.24	1.35	10.89	10.95	19.93	21.45	20.89	20.50	24.32	25.18
6000	1.26	1.45	10.78	10.95	19.67	21.71	22.68	22.80	21.95	22.13
6500	1.46	1.71	10.82	10.97	14.10	18.62	20.61	20.07	15.76	16.51
7000	1.90	2.06	11.28	11.16	11.14	14.20	13.84	13.30	13.04	14.53

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