Bi-Directional Coupler SYDC-20-62HP+

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
10	0.06	0.08	20.22	20.17	27.78	27.74	25.16	25.22	25.16	25.33
20	0.10	0.11	20.23	20.16	38.19	36.53	31.45	31.80	31.64	32.31
30	0.14	0.15	20.29	20.16	49.26	43.48	33.50	34.70	33.93	35.54
40	0.15	0.17	20.32	20.17	51.96	48.15	34.21	35.50	34.64	36.73
50	0.16	0.17	20.34	20.19	45.44	55.81	34.63	35.73	35.24	37.47
75	0.16	0.17	20.36	20.24	38.19	47.25	35.10	35.48	36.79	38.40
100	0.16	0.17	20.36	20.27	34.05	40.26	35.14	35.06	37.91	38.84
125	0.17	0.18	20.37	20.29	31.28	36.62	35.16	34.38	39.28	39.29
150	0.17	0.18	20.35	20.31	29.27	34.23	34.89	33.78	40.56	39.58
175	0.18	0.19	20.33	20.33	27.66	32.29	34.53	33.10	42.15	39.86
200	0.19	0.20	20.31	20.34	26.35	30.87	33.91	32.46	43.65	39.89
250	0.20	0.21	20.25	20.35	24.20	28.37	33.12	31.42	45.43	39.52
275	0.22	0.22	20.22	20.34	23.18	27.13	32.63	30.89	47.54	39.73
300	0.22	0.22	20.17	20.35	22.32	26.20	32.11	30.46	47.49	39.87
350	0.24	0.24	20.07	20.34	21.06	24.57	31.31	29.68	46.19	39.59
375	0.26	0.25	20.02	20.32	20.49	23.86	30.80	29.21	45.16	39.54
400	0.27	0.26	19.96	20.31	19.80	23.01	30.30	28.87	43.41	39.92
450	0.30	0.29	19.82	20.23	18.97	21.74	29.62	28.01	40.32	38.74
475	0.31	0.30	19.75	20.20	18.50	21.19	29.18	27.57	39.44	38.74
500	0.33	0.31	19.67	20.15	18.09	20.68	28.75	27.20	38.06	38.99
540	0.36	0.34	19.53	20.05	17.62	19.84	28.09	26.68	35.66	39.12
550	0.36	0.34	19.49	20.02	17.54	19.64	27.96	26.54	35.24	38.88
575	0.38	0.36	19.41	19.93	17.18	19.04	27.59	26.20	34.29	38.56
600	0.40	0.37	19.29	19.85	16.91	18.65	27.11	25.88	33.11	38.77
650	0.45	0.42	19.07	19.63	16.61	17.74	26.35	25.08	30.69	37.29
675	0.48	0.44	18.95	19.48	16.53	17.29	25.93	24.66	29.66	36.31
700	0.51	0.47	18.82	19.34	16.36	16.93	25.52	24.23	28.82	35.45
750	0.57	0.53	18.57	18.99	16.18	15.82	24.58	23.54	26.60	34.21
800	0.66	0.62	18.22	18.57	16.45	15.18	23.50	22.61	24.72	31.75
850	0.77	0.73	17.89	18.09	16.33	14.07	22.36	21.63	22.66	29.64
900	0.93	0.89	17.53	17.50	16.47	12.96	21.08	20.54	20.55	26.72
950	1.14	1.11	17.13	16.84	16.16	11.67	19.63	19.30	18.48	24.08
1000	1.46	1.45	16.81	16.11	14.89	9.87	18.00	17.90	16.21	21.53
1100	2.49	2.64	16.71	15.12	9.82	5.50	14.83	15.08	12.12	16.74
1200	2.92	3.53	17.37	17.46	4.80	3.04	13.66	13.49	9.89	13.54
1300	1.90	2.45	19.06	27.03	-1.46	3.69	15.46	13.74	10.65	12.58
1400	1.35	1.62	21.54	35.29	-6.83	3.06	17.63	14.59	12.36	13.01
1500	1.20	1.30	23.24	25.27	2.90	1.56	18.91	15.16	13.85	13.55
1600	1.21	1.22	23.97	21.61	5.59	0.40	19.43	15.38	15.14	13.98
1700	1.32	1.27	24.23	19.26	6.96	0.43	19.32	15.44	16.16	14.15
1800	1.50	1.38	24.30	17.42	7.96	1.12	18.88	15.46	17.15	14.27
1900	1.75	1.58	24.06	15.82	9.01	1.26	18.30	15.62	18.09	14.29
2000	2.08	1.86	23.76	14.38	10.11	0.98	17.70	16.15	18.92	14.38
2100	2.48	2.25	22.95	13.03	11.64	0.67	17.25	17.52	19.11	14.81
2200	2.91	2.74	21.65	11.86	14.29	5.07	17.10	20.30	17.49	15.72
2300	3.17	3.21	20.05	10.97	20.07	17.53	16.91	24.26	14.79	17.63
2400	3.11	3.34	18.88	10.42	35.93	13.09	15.62	22.72	13.09	21.02
2500	2.93	3.12	18.36	10.24	17.38	6.49	13.51	19.90	12.22	24.57
2600	2.90	2.94	18.31	10.04	12.53	3.06	11.59	18.49	11.51	24.24
2700	3.12	2.99	18.49	9.64	10.27	0.61	10.09	18.49	10.71	23.71
2800	3.52	3.25	18.70	9.08	9.21	1.21	8.92	19.66	9.84	25.04
2900	3.99	3.64	18.90	8.55	8.62	2.55	7.98	21.62	8.93	28.33
3000	4.50	4.05	19.13	8.14	8.36	3.57	7.26	23.02	8.34	33.18

Bi-Directional Coupler SYDC-20-62HP+

Typical Performance Data

TEST CONDITIONS: INPUT POWER =0 dBm @Temperature = -40°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
10	0.08	0.09	20.22	20.13	32.02	31.82	27.39	27.60	27.42	27.79
20	0.12	0.13	20.27	20.13	42.31	39.60	32.66	34.28	32.87	34.99
30	0.14	0.15	20.30	20.14	51.06	44.59	33.84	37.17	34.36	38.17
40	0.14	0.16	20.32	20.16	49.07	48.54	34.25	38.01	34.92	39.41
50	0.14	0.15	20.33	20.17	44.43	49.61	34.49	37.76	35.48	39.73
75	0.14	0.15	20.34	20.21	37.47	42.53	34.72	35.71	36.56	37.73
100	0.14	0.15	20.34	20.24	34.20	39.23	34.82	34.42	36.71	36.24
125	0.14	0.15	20.34	20.25	32.10	37.64	35.00	33.85	37.62	36.78
150	0.14	0.15	20.32	20.28	30.16	35.98	34.59	33.38	38.55	37.86
175	0.14	0.15	20.31	20.29	28.20	33.68	33.51	32.24	39.22	38.01
200	0.15	0.15	20.29	20.30	26.53	31.58	32.22	31.03	40.21	37.70
250	0.16	0.16	20.23	20.31	24.48	28.93	31.40	30.07	41.64	37.90
275	0.17	0.17	20.21	20.31	23.62	27.61	31.19	29.81	42.23	37.96
300	0.18	0.17	20.15	20.31	22.85	26.63	30.78	29.45	41.57	37.35
350	0.19	0.18	20.05	20.29	21.50	24.80	30.12	28.83	40.72	36.72
375	0.20	0.19	20.00	20.28	20.95	24.13	29.71	28.47	40.57	37.07
400	0.21	0.20	19.94	20.26	20.31	23.32	29.19	28.02	39.92	37.24
450	0.23	0.21	19.81	20.19	19.32	21.90	28.10	26.84	37.58	35.31
475	0.25	0.22	19.73	20.15	18.84	21.34	27.69	26.51	37.35	35.29
500	0.26	0.23	19.65	20.10	18.41	20.84	27.46	26.34	36.88	35.76
540	0.28	0.25	19.51	20.00	17.97	19.99	27.08	25.95	35.00	36.09
550	0.29	0.26	19.47	19.97	17.89	19.81	26.96	25.81	34.51	35.85
575	0.31	0.27	19.38	19.88	17.55	19.21	26.63	25.50	33.44	35.67
600	0.32	0.28	19.27	19.80	17.29	18.83	26.24	25.25	32.39	35.72
650	0.36	0.32	19.04	19.58	16.98	17.95	25.59	24.42	30.48	34.19
675	0.39	0.33	18.92	19.44	16.88	17.51	25.13	23.88	29.63	33.19
700	0.41	0.36	18.78	19.30	16.65	17.11	24.67	23.39	28.84	32.44
750	0.48	0.42	18.53	18.97	16.33	16.03	23.74	22.70	26.75	31.77
800	0.56	0.49	18.17	18.55	16.52	15.51	22.71	21.82	25.13	30.38
850	0.65	0.59	17.83	18.08	16.42	14.42	21.69	21.04	23.11	28.51
900	0.79	0.72	17.43	17.49	16.76	13.36	20.61	20.10	20.89	25.55
950	0.98	0.92	17.00	16.81	16.57	12.12	19.31	18.91	18.85	23.12
1000	1.28	1.23	16.62	16.03	15.41	10.39	17.81	17.53	16.65	20.94
1100	2.35	2.41	16.36	14.69	10.33	5.84	14.59	14.62	12.16	16.47
1200	3.03	3.63	16.96	16.29	5.11	2.73	13.04	13.05	9.45	13.23
1300	1.89	2.50	18.49	25.16	-0.28	3.60	14.79	13.16	10.11	12.00
1400	1.24	1.52	21.19	38.54	-9.94	3.14	17.23	14.22	11.97	12.48
1500	1.06	1.15	23.09	25.65	2.86	1.60	18.45	14.76	13.51	13.15
1600	1.06	1.04	23.89	21.72	5.72	0.39	19.32	15.30	15.07	13.83
1700	1.16	1.07	24.17	19.30	7.17	0.42	19.11	15.22	16.22	14.02
1800	1.34	1.17	24.15	17.39	8.07	1.16	18.68	15.19	17.61	14.28
1900	1.57	1.37	23.87	15.78	9.09	1.29	17.97	15.29	17.69	13.84
2000	1.89	1.63	23.35	14.31	10.02	1.04	17.69	15.85	19.13	14.12
2100	2.27	1.99	22.45	12.94	11.59	0.37	16.91	16.94	19.58	14.30
2200	2.72	2.46	20.99	11.73	13.63	4.08	17.01	19.27	18.63	15.30
2300	3.04	2.97	19.22	10.78	18.64	12.50	16.93	24.63	15.28	16.96
2400	3.01	3.20	17.88	10.17	31.26	16.10	16.11	24.17	13.13	20.19
2500	2.77	2.97	17.31	10.00	18.47	8.32	13.84	20.01	12.16	25.22
2600	2.66	2.71	17.28	9.84	12.52	4.33	11.82	18.32	11.21	24.53
2700	2.81	2.66	17.53	9.49	10.19	1.56	10.30	18.44	10.80	23.64
2800	3.19	2.92	17.86	8.88	9.05	0.50	9.00	19.19	9.55	23.72
2900	3.65	3.32	18.12	8.25	8.40	2.08	8.03	21.65	8.65	25.10
3000	4.20	3.71	18.37	7.78	8.23	3.29	7.22	24.48	8.15	33.86

Bi-Directional Coupler SYDC-20-62HP+

Typical Performance Data

TEST CONDITIONS: INPUT POWER =0 dBm @Temperature = +85°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
10	0.09	0.09	20.23	20.18	28.47	28.39	25.56	25.62	25.52	25.70
20	0.14	0.14	20.29	20.18	38.98	37.36	31.10	31.43	31.11	31.82
30	0.17	0.18	20.34	20.19	45.66	41.98	32.56	33.14	32.67	33.76
40	0.18	0.19	20.36	20.20	47.46	45.41	33.40	33.61	33.44	34.55
50	0.19	0.19	20.38	20.22	45.19	49.07	34.04	33.91	34.23	35.47
75	0.19	0.20	20.41	20.28	39.36	53.68	35.09	34.83	36.32	38.25
100	0.19	0.20	20.41	20.31	34.63	42.42	35.23	35.40	37.56	41.09
125	0.20	0.20	20.42	20.33	31.27	36.63	34.90	34.57	38.72	41.55
150	0.20	0.21	20.40	20.36	29.00	33.67	34.58	33.70	40.49	40.84
175	0.21	0.22	20.38	20.38	27.49	31.90	34.69	33.24	42.96	40.70
200	0.22	0.23	20.36	20.40	26.46	30.78	34.79	33.18	45.21	41.17
250	0.24	0.24	20.31	20.42	24.41	28.49	34.59	32.55	47.01	40.72
275	0.25	0.26	20.28	20.42	23.27	27.21	33.90	31.82	50.00	40.40
300	0.26	0.26	20.23	20.44	22.31	26.22	33.19	31.24	52.28	40.73
350	0.29	0.28	20.14	20.43	21.07	24.74	32.46	30.58	48.25	41.94
375	0.30	0.29	20.09	20.41	20.61	24.06	31.94	30.10	46.01	41.83
400	0.31	0.30	20.03	20.41	19.92	23.22	31.39	29.70	43.65	41.86
450	0.34	0.33	19.91	20.35	19.08	21.88	30.60	28.71	40.47	40.10
475	0.36	0.35	19.83	20.32	18.62	21.33	30.16	28.27	39.33	40.19
500	0.38	0.36	19.75	20.27	18.20	20.82	29.74	27.90	37.78	40.57
540	0.41	0.39	19.62	20.17	17.75	19.97	28.99	27.33	35.57	40.79
550	0.42	0.40	19.59	20.14	17.65	19.77	28.85	27.17	35.16	40.61
575	0.44	0.42	19.51	20.06	17.28	19.16	28.44	26.87	34.24	40.02
600	0.46	0.43	19.40	19.97	17.03	18.74	27.94	26.55	33.02	40.16
650	0.51	0.48	19.18	19.75	16.75	17.81	27.18	25.74	30.68	38.65
675	0.54	0.51	19.07	19.61	16.68	17.31	26.71	25.27	29.68	37.63
700	0.57	0.54	18.95	19.46	16.53	16.94	26.24	24.79	28.80	36.78
750	0.65	0.61	18.72	19.13	16.19	15.75	25.20	24.05	26.57	35.86
800	0.74	0.69	18.38	18.71	16.49	15.08	23.99	23.12	24.71	33.16
850	0.85	0.81	18.08	18.25	16.26	13.93	22.83	22.18	22.70	30.94
900	1.00	0.97	17.75	17.71	16.24	12.80	21.56	21.08	20.67	27.85
950	1.21	1.18	17.39	17.09	15.79	11.52	20.11	19.79	18.67	25.12
1000	1.51	1.51	17.10	16.44	14.50	9.80	18.52	18.43	16.54	22.54
1100	2.41	2.56	16.98	15.66	9.95	5.87	15.60	15.78	12.74	17.67
1200	2.85	3.39	17.55	17.78	5.20	3.47	14.48	14.09	10.54	14.38
1300	2.03	2.57	19.09	26.05	-0.49	3.74	16.06	14.15	11.02	13.15
1400	1.48	1.77	21.41	36.36	-8.04	3.18	18.14	14.85	12.64	13.43
1500	1.31	1.44	23.14	26.07	2.29	1.81	19.45	15.41	14.12	13.86
1600	1.32	1.34	23.98	22.17	5.38	0.69	19.85	15.59	15.36	14.26
1700	1.42	1.38	24.36	19.75	6.92	0.19	19.73	15.70	16.37	14.41
1800	1.59	1.49	24.56	17.91	8.02	0.87	19.15	15.68	17.27	14.55
1900	1.83	1.67	24.46	16.32	9.11	1.10	18.54	15.81	18.35	14.73
2000	2.14	1.94	24.43	14.92	10.25	1.06	17.83	16.25	18.90	14.75
2100	2.51	2.29	23.92	13.60	11.73	0.23	17.36	17.53	19.07	15.24
2200	2.92	2.74	22.97	12.47	14.33	3.90	16.93	19.50	17.79	16.06
2300	3.21	3.19	21.58	11.56	19.54	13.42	16.40	22.75	15.52	17.79
2400	3.24	3.40	20.38	10.97	32.24	14.51	15.15	22.17	13.73	20.73
2500	3.13	3.29	19.68	10.71	18.33	6.70	13.46	20.25	12.65	23.82
2600	3.11	3.14	19.43	10.48	13.32	3.12	11.73	18.63	11.95	24.70
2700	3.29	3.18	19.44	10.13	10.79	0.66	10.34	18.42	11.02	24.75
2800	3.62	3.38	19.52	9.65	9.56	1.08	9.26	19.34	10.34	25.84
2900	4.04	3.71	19.62	9.18	8.88	2.33	8.34	20.30	9.40	28.93
3000	4.50	4.08	19.73	8.83	8.48	3.26	7.66	21.46	8.85	36.16