Bi-Directional Coupler SYBD-16-172HP+

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
1000	0.07	0.06	20.00	20.03	32.18	30.45	32.03	32.75	33.99	34.72
1100	0.09	0.08	19.23	19.26	30.55	29.31	31.49	31.70	33.40	33.96
1200	0.12	0.11	18.53	18.56	30.05	28.22	31.66	31.20	33.28	33.61
1300	0.13	0.12	17.95	17.99	28.34	26.71	32.90	32.18	33.90	33.91
1400	0.15	0.15	17.32	17.36	28.79	26.84	34.69	33.63	34.54	34.07
1450	0.15	0.14	17.04	17.08	28.31	26.21	36.11	34.70	35.87	34.85
1500	0.15	0.15	16.85	16.90	26.79	25.24	39.23	37.80	37.34	35.29
1550	0.16	0.16	16.55	16.60	27.73	26.10	41.04	39.99	38.43	35.54
1580	0.18	0.19	16.47	16.51	26.09	24.17	43.55	44.51	40.87	37.48
1600	0.17	0.16	16.40	16.45	25.59	23.79	42.72	50.89	42.53	37.11
1700	0.19	0.19	15.88	15.92	27.15	25.11	36.95	44.51	51.25	37.42
1750	0.19	0.18	15.66	15.71	27.10	25.12	34.11	38.49	57.77	37.40
1800	0.21	0.21	15.45	15.49	27.74	25.34	32.34	35.10	48.52	37.34
1850	0.23	0.23	15.22	15.27	28.70	26.34	31.04	33.18	42.71	37.70
1900	0.24	0.25	15.09	15.14	27.86	25.17	29.36	31.05	37.84	36.68
1950	0.24	0.24	14.98	15.00	26.04	24.27	27.90	29.03	35.50	34.43
2000	0.26	0.27	14.75	14.79	28.35	25.27	27.31	28.23	34.34	34.35
2100	0.30	0.28	14.41	14.43	30.09	26.91	26.24	26.52	32.13	32.54
2200	0.31	0.33	14.21	14.28	27.60	24.89	24.93	24.95	30.07	30.72
2300	0.33	0.32	13.99	14.03	26.85	24.20	24.45	24.20	28.78	29.48
2400	0.36	0.35	13.66	13.72	28.56	25.54	24.86	24.47	28.56	29.07
2500	0.37	0.37	13.44	13.49	29.51	26.73	25.41	24.78	28.57	28.68
2600	0.41	0.39	13.22	13.25	31.39	28.86	25.96	26.20	29.12	28.79
2700	0.44	0.43	12.98	13.02	37.97	33.19	27.40	27.08	30.55	29.81
2800	0.43	0.44	12.84	12.93	31.41	29.99	29.09	29.05	30.64	29.82
2900	0.46	0.45	12.63	12.71	34.29	34.60	30.64	31.14	33.09	31.56
3000	0.47	0.48	12.40	12.49	37.54	38.72	33.77	36.25	36.79	34.59
3100	0.49	0.48	12.23	12.32	38.04	54.75	35.27	38.47	41.70	37.90
3200	0.51	0.51	12.05	12.13	35.17	40.32	34.08	35.59	50.15	45.43
3300	0.53	0.53	11.92	11.97	31.68	32.30	32.46	33.17	52.11	46.18
3400	0.55	0.55	11.80	11.89	27.96	30.24	32.57	31.64	43.89	40.18
3500	0.57	0.58	11.68	11.70	26.53	27.98	32.35	31.32	41.12	39.38
3600	0.60	0.60	11.55	11.58	25.57	26.78	33.74	32.76	43.62	38.40
3700	0.60	0.62	11.39	11.41	24.81	25.03	37.31	34.31	45.34	37.44
3800	0.63	0.63	11.29	11.36	23.58	23.41	40.13	37.54	44.52	37.85
3900	0.64	0.65	11.15	11.22	22.89	22.86	40.29	40.80	36.72	35.58
4000	0.67	0.67	11.09	11.14	21.92	21.54	35.37	38.28	32.50	32.94
4500	0.82	0.85	10.77	10.85	18.73	18.89	23.72	24.10	20.85	20.95
4750	0.85	0.90	10.74	10.90	18.32	18.47	22.47	22.93	18.77	19.17
5000	0.90	0.95	10.68	10.82	17.96	18.19	21.77	22.59	17.77	17.93
5250	0.92	0.98	10.69	10.80	17.57	19.55	21.71	22.83	17.49	17.95
5500	0.97	1.05	10.59	10.77	17.99	19.11	22.12	22.80	17.63	18.43
5750	1.01	1.06	10.58	10.74	17.93	18.89	22.71	23.19	18.20	18.34
6000	1.05	1.13	10.44	10.72	18.10	18.76	23.40	23.61	17.65	17.77
6250	1.13	1.23	10.42	10.70	16.91	17.34	23.91	23.96	16.68	16.88
6500	1.27	1.40	10.26	10.80	15.44	16.18	23.09	23.39	15.35	16.11
6750	1.34	1.61	10.28	10.62	14.34	14.43	20.75	21.97	13.98	14.55
7000	1.65	1.85	10.39	10.84	12.81	13.34	17.61	19.99	12.60	13.74
7250	1.85	2.06	10.45	11.07	10.56	11.29	14.40	17.04	12.08	13.03
7500	2.08	2.23	10.49	11.67	8.94	9.67	12.78	14.68	11.73	13.22
7750	2.36	2.44	10.81	11.61	9.19	9.33	12.80	15.10	12.88	14.33
8000	2.31	2.27	11.92	11.71	8.97	7.39	15.80	16.86	18.78	17.38
8500	2.80	3.54	15.76	12.62	14.15	16.39	10.40	14.22	8.19	11.07

Bi-Directional Coupler SYBD-16-172HP+

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
1000	0.01	0.06	19.96	19.99	33.28	31.19	32.62	33.37	34.40	35.29
1100	0.04	0.06	19.18	19.20	30.93	29.49	31.32	31.51	32.87	33.55
1200	0.05	0.04	18.48	18.50	30.32	28.22	31.11	30.72	32.16	32.64
1300	0.07	0.03	17.90	17.93	27.95	26.54	32.70	31.97	31.38	31.70
1400	0.08	0.02	17.25	17.28	28.41	26.52	34.37	33.30	32.63	32.46
1450	0.09	0.02	17.00	17.01	27.67	25.58	35.21	33.77	34.59	33.94
1500	0.08	0.02	16.79	16.83	26.53	24.83	37.10	35.75	35.66	34.17
1550	0.08	0.01	16.48	16.52	27.12	25.82	38.45	36.55	36.99	34.92
1580	0.11	0.02	16.42	16.44	25.01	23.67	41.67	39.07	39.78	37.27
1600	0.10	0.00	16.34	16.37	24.96	23.35	44.35	41.52	41.42	36.17
1700	0.11	0.00	15.80	15.83	26.21	24.75	41.06	42.04	46.39	35.68
1750	0.12	0.00	15.58	15.62	25.79	24.94	36.20	38.57	55.32	37.28
1800	0.13	0.02	15.36	15.39	26.47	25.15	33.26	35.00	46.65	38.19
1850	0.15	0.04	15.12	15.16	27.50	26.40	31.21	33.03	41.90	38.19
1900	0.16	0.06	15.00	15.03	26.70	24.87	29.01	30.49	37.80	35.98
1950	0.16	0.04	14.88	14.91	25.24	23.66	27.46	28.53	35.04	34.52
2000	0.17	0.06	14.65	14.68	26.67	24.88	26.89	27.86	32.21	34.10
2100	0.22	0.08	14.30	14.31	28.54	26.90	25.99	26.34	29.62	31.34
2200	0.22	0.10	14.09	14.15	27.43	24.89	24.57	24.70	28.53	29.38
2300	0.25	0.09	13.89	13.91	26.86	23.81	24.09	24.00	27.23	27.70
2400	0.26	0.13	13.55	13.59	29.76	25.12	24.36	24.17	28.29	28.52
2500	0.27	0.12	13.31	13.33	30.12	26.25	24.86	24.59	28.10	28.34
2600	0.31	0.14	13.08	13.08	32.87	29.53	25.83	25.74	27.75	27.29
2700	0.32	0.17	12.83	12.86	41.01	36.50	27.09	26.49	34.78	33.35
2800	0.31	0.17	12.72	12.75	31.21	30.93	28.35	27.77	31.04	30.50
2900	0.35	0.17	12.48	12.54	34.12	35.31	30.49	31.20	34.45	32.51
3000	0.35	0.20	12.24	12.30	35.18	41.48	34.78	37.03	34.50	32.45
3100	0.38	0.20	12.06	12.11	36.03	41.29	34.47	37.01	35.04	33.32
3200	0.38	0.22	11.87	11.94	35.24	41.64	33.19	35.21	35.81	35.59
3300	0.41	0.24	11.72	11.77	32.18	34.41	31.73	33.91	36.06	38.70
3400	0.41	0.24	11.62	11.69	26.98	30.84	31.80	31.79	42.67	43.86
3500	0.43	0.26	11.47	11.49	26.41	27.43	32.72	32.26	37.88	37.90
3600	0.46	0.27	11.35	11.35	24.40	27.51	35.00	34.25	37.23	46.07
3700	0.46	0.29	11.20	11.20	24.31	25.52	37.31	36.48	35.37	38.79
3800	0.48	0.29	11.08	11.12	24.25	24.25	38.22	39.45	35.51	38.59
3900	0.49	0.31	10.94	10.99	24.08	23.93	40.35	44.69	34.88	35.07
4000	0.53	0.31	10.87	10.90	23.23	22.56	35.63	39.95	34.86	35.29
4500	0.64	0.46	10.52	10.62	18.39	19.07	24.24	24.78	21.21	21.70
4750	0.65	0.48	10.45	10.56	18.80	18.79	22.64	22.82	19.09	19.56
5000	0.72	0.52	10.36	10.47	18.03	18.14	21.21	21.78	17.30	17.50
5250	0.72	0.55	10.38	10.47	17.42	18.63	21.15	22.00	16.24	16.44
5500	0.76	0.60	10.30	10.45	17.78	18.16	21.61	22.35	16.20	16.81
5750	0.78	0.60	10.30	10.42	17.69	18.28	23.49	23.92	17.09	17.29
6000	0.82	0.62	10.08	10.34	18.46	18.84	23.79	23.95	17.78	18.05
6250	0.87	0.67	10.08	10.24	17.03	18.69	24.52	23.83	17.27	17.64
6500	0.98	0.81	9.99	10.32	15.67	16.71	23.00	22.85	15.50	16.27
6750	1.06	1.07	9.93	10.26	14.18	14.07	19.70	21.08	13.23	13.65
7000	1.24	1.23	10.01	10.36	13.56	13.09	17.10	18.92	11.75	12.13
7250	1.50	1.52	10.03	10.56	11.17	11.45	14.27	16.33	10.58	10.78
7500	1.65	1.55	10.06	10.79	10.26	10.13	12.95	14.82	10.91	11.90
7750	1.96	1.65	10.15	10.63	11.52	10.18	12.77	14.67	13.06	14.37
8000	2.01	1.55	11.04	10.83	10.60	9.68	14.63	15.76	16.90	17.23
8500	2.70	2.95	17.17	10.76	12.63	9.25	11.26	17.70	7.64	13.89

Bi-Directional Coupler SYBD-16-172HP+

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
1000	0.09	0.12	20.02	20.06	32.90	30.50	32.63	33.34	35.63	36.52
1100	0.11	0.15	19.25	19.29	31.60	29.62	32.56	32.70	35.71	36.41
1200	0.14	0.17	18.57	18.59	31.33	28.73	33.18	32.57	36.23	36.58
1300	0.16	0.20	17.98	18.03	29.67	27.31	34.77	33.86	37.24	36.88
1400	0.18	0.22	17.35	17.40	30.29	27.63	37.00	35.65	37.67	36.46
1450	0.18	0.22	17.07	17.11	29.64	26.91	38.53	36.90	39.37	37.36
1500	0.18	0.23	16.89	16.94	28.20	25.91	41.80	41.87	41.57	37.38
1550	0.19	0.24	16.59	16.65	29.25	26.91	42.72	45.75	42.58	37.09
1580	0.21	0.27	16.48	16.53	28.50	25.54	43.06	48.43	43.11	38.56
1600	0.20	0.26	16.45	16.50	27.15	24.22	40.73	51.61	45.50	38.05
1700	0.22	0.27	15.93	15.98	28.98	25.92	35.22	40.92	53.63	37.32
1750	0.23	0.28	15.73	15.78	28.93	25.91	33.44	37.25	54.01	37.18
1800	0.25	0.30	15.50	15.55	29.96	26.33	32.07	34.58	48.09	37.22
1850	0.27	0.33	15.30	15.36	30.39	26.68	31.04	33.00	43.73	37.98
1900	0.28	0.35	15.16	15.21	29.36	25.72	29.87	31.46	40.67	38.06
1950	0.28	0.35	15.05	15.08	27.55	24.80	28.63	29.67	38.33	36.15
2000	0.30	0.37	14.80	14.85	30.01	26.08	28.20	29.05	37.23	36.21
2100	0.35	0.39	14.48	14.52	31.66	27.36	27.19	27.26	35.78	35.20
2200	0.36	0.43	14.28	14.35	28.56	25.15	26.13	25.97	33.70	34.08
2300	0.39	0.44	14.07	14.10	27.03	24.44	25.89	25.55	32.01	32.51
2400	0.41	0.48	13.74	13.78	27.84	25.54	26.35	25.81	31.98	31.99
2500	0.43	0.50	13.52	13.59	29.16	27.35	26.60	26.39	30.97	30.92
2600	0.47	0.53	13.32	13.34	28.93	28.23	26.94	27.74	31.37	30.59
2700	0.50	0.56	13.04	13.09	32.80	32.02	28.41	28.59	31.59	30.38
2800	0.50	0.58	12.98	13.09	28.44	28.62	29.87	30.40	30.91	29.80
2900	0.53	0.61	12.74	12.83	30.65	32.68	30.56	32.19	33.10	31.40
3000	0.54	0.64	12.50	12.59	32.56	34.75	32.93	34.42	35.59	33.70
3100	0.57	0.66	12.36	12.43	32.93	44.92	34.39	35.11	37.83	36.18
3200	0.59	0.69	12.16	12.26	34.07	47.25	35.45	33.93	41.21	41.50
3300	0.62	0.72	12.04	12.10	32.81	34.96	34.42	32.90	40.52	41.03
3400	0.63	0.73	11.94	12.01	29.15	31.92	35.64	32.14	45.00	38.27
3500	0.66	0.76	11.82	11.84	27.78	29.44	36.12	32.34	48.73	37.69
3600	0.69	0.79	11.68	11.72	27.71	27.52	38.26	33.64	49.82	33.25
3700	0.71	0.81	11.54	11.61	26.78	25.56	43.37	34.96	68.76	32.36
3800	0.72	0.83	11.45	11.53	24.97	24.11	42.60	37.59	46.91	33.36
3900	0.75	0.87	11.31	11.40	24.15	23.42	38.62	38.95	37.54	33.41
4000	0.78	0.88	11.24	11.31	22.72	22.04	33.39	34.81	32.21	32.21
4500	0.91	1.08	10.95	11.06	19.29	19.01	25.41	25.62	22.53	21.94
4750	0.97	1.14	10.94	11.10	17.91	18.44	23.67	24.81	19.53	19.54
5000	1.05	1.22	10.89	11.01	17.33	18.18	22.54	24.37	18.39	18.70
5250	1.09	1.29	10.98	11.12	16.48	18.85	22.09	23.51	18.06	18.83
5500	1.15	1.36	10.82	11.20	16.54	17.95	21.77	22.35	17.77	18.72
5750	1.20	1.41	10.84	11.17	16.18	17.58	21.48	21.46	17.92	18.14
6000	1.26	1.50	10.71	11.20	16.49	17.43	22.31	22.46	17.12	17.47
6250	1.37	1.61	10.60	11.19	16.08	16.32	23.52	23.89	16.34	16.66
6500	1.54	1.86	10.50	11.32	14.28	14.16	23.32	23.88	15.60	16.19
6750	1.70	2.04	10.45	11.55	11.60	13.38	21.15	24.63	14.58	16.08
7000	2.00	2.42	10.39	11.79	9.13	11.23	18.14	25.69	13.38	15.76
7250	2.35	2.69	10.79	12.62	6.58	9.00	14.42	19.90	12.89	15.55
7500	2.54	2.84	11.52	13.72	4.80	7.25	12.36	15.99	12.34	14.89
7750	2.59	2.84	11.94	13.72	5.88	7.42	13.36	15.30	13.27	15.21
8000	2.32	2.49	12.71	13.42	7.45	7.68	16.39	17.27	18.75	17.56
8500	3.19	3.98	12.84	15.45	16.56	23.04	11.88	10.96	10.35	8.38