

Directional Coupler

DBTC-20-4+

Typical Performance Data

TEST CONDITIONS: INPUT POWER =0 dBm @Temperature = +25°C

FREQUENCY (MHz)	INSERTION LOSS (dB)	COUPLING LOSS (dB)	DIRECTIVITY (dB)	RETURN LOSS		
				IN	(dB) OUT	CPL
5.0	0.30	20.07	23.25	28.99	31.76	26.24
10.0	0.30	20.06	23.40	29.76	33.03	26.98
15.0	0.29	20.04	23.51	30.37	34.03	27.55
20.0	0.29	20.04	23.52	30.51	34.28	27.67
50.0	0.31	20.06	23.55	31.05	34.92	27.78
100.0	0.32	20.09	23.93	31.49	35.94	27.30
150.0	0.33	20.11	24.54	31.85	37.09	26.31
200.0	0.34	20.12	25.40	32.12	38.45	25.08
250.0	0.35	20.14	26.45	32.43	40.40	23.86
300.0	0.36	20.15	27.94	32.77	42.98	22.67
350.0	0.38	20.16	29.79	32.79	44.62	21.55
400.0	0.39	20.17	32.01	33.31	44.59	20.56
450.0	0.40	20.17	33.80	33.45	41.62	19.66
500.0	0.42	20.19	33.34	33.88	38.03	18.84
525.0	0.43	20.19	32.12	34.06	36.47	18.45
550.0	0.44	20.20	30.78	34.13	35.18	18.09
600.0	0.46	20.21	28.18	34.48	33.16	17.39
650.0	0.48	20.24	25.97	34.52	31.25	16.75
700.0	0.51	20.27	24.12	34.24	29.47	16.18
750.0	0.53	20.30	22.51	33.98	28.12	15.65
800.0	0.56	20.35	21.14	33.52	26.93	15.14
850.0	0.59	20.39	19.99	32.80	25.82	14.66
900.0	0.62	20.45	18.98	31.67	24.73	14.22
950.0	0.65	20.52	18.10	30.72	23.66	13.80
1000.0	0.68	20.59	17.36	29.83	22.89	13.41
1050.0	0.71	20.66	16.67	28.93	22.13	13.05
1100.0	0.74	20.75	16.06	27.99	21.34	12.70
1150.0	0.78	20.85	15.57	27.01	20.62	12.37
1200.0	0.82	20.95	15.05	26.24	19.94	12.06
1250.0	0.86	21.06	14.61	25.41	19.31	11.78
1300.0	0.89	21.18	14.23	24.58	18.69	11.51
1400.0	0.97	21.45	13.54	23.08	17.62	11.00
1500.0	1.06	21.76	12.89	21.69	16.55	10.55
1600.0	1.15	22.12	12.24	20.53	15.69	10.16
1700.0	1.26	22.54	11.43	19.36	14.77	9.79
1800.0	1.37	23.01	10.48	18.42	14.02	9.48
1900.0	1.50	23.57	9.15	17.45	13.25	9.20
2000.0	1.64	24.19	7.57	16.64	12.59	8.95
2100.0	1.79	24.92	5.58	15.83	11.98	8.72
2200.0	1.97	25.80	3.35	15.02	11.35	8.52
2300.0	2.17	26.81	0.88	14.33	10.81	8.33
2400.0	2.41	27.93	1.74	13.59	10.25	8.18
2500.0	2.69	29.20	4.46	12.95	9.74	8.01
2600.0	3.01	30.53	7.20	12.33	9.24	7.86
2700.0	3.38	31.09	9.11	11.71	8.80	7.72
2800.0	3.83	30.58	9.87	11.16	8.35	7.55
2900.0	4.36	29.06	9.55	10.63	7.95	7.43
3000.0	4.96	27.14	8.74	10.14	7.61	7.24
3100.0	5.67	25.21	7.84	9.70	7.30	7.08
3200.0	6.47	23.52	7.08	9.25	7.02	6.88
3300.0	7.35	21.98	6.37	8.88	6.84	6.65
3400.0	8.27	20.69	5.80	8.53	6.69	6.45
3500.0	9.09	19.57	5.29	8.23	6.61	6.19



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IF/RF MICROWAVE COMPONENTS

Directional Coupler

DBTC-20-4+

Typical Performance Data

TEST CONDITIONS: INPUT POWER =0 dBm @Temperature = -40°C

FREQUENCY (MHz)	INSERTION LOSS (dB)	COUPLING LOSS (dB)	DIRECTIVITY (dB)	RETURN LOSS		
				IN	(dB) OUT	CPL
5.0	0.38	20.23	21.33	24.93	26.29	21.97
10.0	0.30	20.06	23.61	27.75	29.98	24.56
15.0	0.25	19.92	25.43	30.06	33.19	26.71
20.0	0.24	19.90	25.86	30.87	35.00	27.56
50.0	0.24	19.89	26.22	32.12	40.15	29.42
100.0	0.24	19.91	26.32	34.00	38.68	28.80
150.0	0.24	19.92	26.76	35.52	39.39	26.99
200.0	0.25	19.92	27.72	34.20	41.03	25.92
250.0	0.26	19.93	28.94	34.68	40.14	24.41
300.0	0.27	19.94	30.71	34.52	42.44	23.08
350.0	0.28	19.95	32.84	34.28	40.99	22.04
400.0	0.29	19.96	35.09	35.12	40.95	20.94
450.0	0.30	19.97	36.38	34.88	38.48	20.08
500.0	0.31	19.99	34.53	35.61	36.63	19.26
525.0	0.32	20.00	32.77	35.57	35.41	18.85
550.0	0.33	20.01	31.19	35.28	34.03	18.50
600.0	0.34	20.04	28.32	35.98	32.76	17.80
650.0	0.36	20.07	26.22	37.42	31.82	17.14
700.0	0.38	20.11	24.44	37.62	30.23	16.62
750.0	0.40	20.15	22.88	38.00	29.04	16.10
800.0	0.42	20.20	21.48	37.38	27.59	15.64
850.0	0.45	20.25	20.21	37.36	26.63	15.21
900.0	0.48	20.32	19.16	36.36	25.67	14.77
950.0	0.50	20.40	18.20	35.47	24.61	14.39
1000.0	0.53	20.48	17.42	34.74	24.02	13.98
1050.0	0.55	20.58	16.65	33.18	23.08	13.61
1100.0	0.59	20.68	15.95	32.16	22.26	13.32
1150.0	0.62	20.80	15.31	30.46	21.41	12.99
1200.0	0.66	20.93	14.67	29.33	20.52	12.68
1250.0	0.69	21.07	14.13	28.70	20.11	12.42
1300.0	0.73	21.22	13.62	27.28	19.34	12.16
1400.0	0.81	21.56	12.62	25.77	18.06	11.67
1500.0	0.90	21.94	11.56	24.43	17.19	11.32
1600.0	1.00	22.42	10.44	22.28	15.73	10.96
1700.0	1.10	22.94	9.13	21.28	14.97	10.66
1800.0	1.22	23.55	7.61	20.09	14.06	10.39
1900.0	1.36	24.28	5.81	18.87	13.10	10.13
2000.0	1.50	25.09	3.81	18.14	12.49	9.92
2100.0	1.67	26.06	1.55	17.05	11.64	9.73
2200.0	1.83	27.04	0.82	16.73	11.45	9.59
2300.0	2.07	28.28	3.44	15.67	10.56	9.44
2400.0	2.29	29.36	5.87	15.22	10.20	9.27
2500.0	2.59	30.19	8.02	14.45	9.59	9.09
2600.0	2.90	30.02	9.19	13.94	9.22	9.01
2700.0	3.27	28.92	9.32	13.32	8.80	8.87
2800.0	3.75	27.24	8.81	12.61	8.20	8.69
2900.0	4.27	25.31	8.01	11.92	7.85	8.49
3000.0	4.87	23.64	7.36	11.31	7.53	8.21
3100.0	5.57	21.92	6.56	10.96	7.14	7.92
3200.0	6.32	20.54	6.07	10.49	6.95	7.71
3300.0	7.13	19.26	5.54	10.16	6.76	7.38
3400.0	7.95	18.14	5.08	9.82	6.63	7.04
3500.0	8.70	17.22	4.70	9.36	6.58	6.63



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IF/RF MICROWAVE COMPONENTS

Directional Coupler

DBTC-20-4+

Typical Performance Data

TEST CONDITIONS: INPUT POWER =0 dBm @Temperature = +85°C

FREQUENCY (MHz)	INSERTION LOSS (dB)	COUPLING LOSS (dB)	DIRECTIVITY (dB)	RETURN LOSS		
				IN	(dB) OUT	CPL
5.0	0.40	20.30	21.38	26.76	28.94	24.74
10.0	0.39	20.27	21.58	27.42	29.77	25.39
15.0	0.39	20.25	21.73	27.96	30.43	25.90
20.0	0.39	20.25	21.75	28.13	30.55	26.00
50.0	0.40	20.27	21.95	28.93	30.58	25.96
100.0	0.42	20.31	22.53	29.08	31.89	25.78
150.0	0.43	20.34	23.37	28.97	33.74	25.53
200.0	0.44	20.37	24.51	29.59	34.58	24.48
250.0	0.45	20.39	25.89	30.00	36.90	23.39
300.0	0.46	20.42	27.87	30.34	40.28	22.41
350.0	0.47	20.45	30.56	30.68	43.70	21.33
400.0	0.49	20.48	33.75	31.29	52.92	20.34
450.0	0.51	20.52	34.00	31.51	46.77	19.48
500.0	0.53	20.56	30.56	32.01	40.06	18.64
525.0	0.54	20.59	28.60	32.16	37.63	18.23
550.0	0.55	20.61	26.88	32.22	35.90	17.86
600.0	0.57	20.67	24.06	32.49	33.29	17.14
650.0	0.60	20.73	21.89	32.47	31.08	16.44
700.0	0.63	20.80	20.08	32.06	29.06	15.81
750.0	0.65	20.88	18.59	31.76	27.76	15.22
800.0	0.68	20.96	17.30	31.12	26.56	14.65
850.0	0.71	21.05	16.21	30.20	25.34	14.12
900.0	0.74	21.14	15.29	29.10	24.22	13.62
950.0	0.76	21.23	14.42	28.20	23.21	13.14
1000.0	0.79	21.33	13.72	27.41	22.51	12.70
1050.0	0.82	21.43	13.07	26.53	21.76	12.30
1100.0	0.85	21.55	12.49	25.70	21.01	11.91
1150.0	0.88	21.66	11.99	24.95	20.43	11.54
1200.0	0.92	21.77	11.53	24.23	19.80	11.21
1250.0	0.95	21.90	11.12	23.45	19.14	10.90
1300.0	0.98	22.02	10.76	22.83	18.66	10.61
1400.0	1.05	22.29	10.17	21.54	17.72	10.06
1500.0	1.13	22.59	9.69	20.30	16.71	9.57
1600.0	1.20	22.93	9.29	19.30	15.95	9.15
1700.0	1.30	23.33	8.95	18.14	14.98	8.73
1800.0	1.39	23.77	8.68	17.41	14.37	8.38
1900.0	1.50	24.28	8.30	16.65	13.75	8.08
2000.0	1.62	24.84	7.81	15.88	13.09	7.83
2100.0	1.75	25.56	6.88	15.21	12.55	7.58
2200.0	1.91	26.39	5.66	14.35	11.83	7.35
2300.0	2.08	27.35	3.87	13.70	11.34	7.15
2400.0	2.28	28.53	1.54	13.01	10.81	6.99
2500.0	2.51	30.09	1.36	12.42	10.30	6.80
2600.0	2.79	32.16	4.80	11.72	9.70	6.65
2700.0	3.11	34.80	8.87	11.07	9.22	6.50
2800.0	3.48	37.91	13.33	10.52	8.77	6.33
2900.0	3.91	38.88	15.62	10.06	8.36	6.25
3000.0	4.44	35.63	13.61	9.57	7.91	6.11
3100.0	5.06	31.94	11.10	9.11	7.59	6.02
3200.0	5.80	29.06	9.28	8.56	7.18	5.86
3300.0	6.67	26.69	7.89	8.08	6.84	5.72
3400.0	7.63	24.81	6.90	7.62	6.56	5.61
3500.0	8.62	23.23	6.13	7.27	6.37	5.47



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