

Directional Coupler

DBTC-9-4X+

Typical Performance Data

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

FREQUENCY (MHz)	INSERTION LOSS (dB)	COUPLING LOSS (dB)	DIRECTIVITY (dB)	RETURN LOSS (dB)		
				IN	OUT	CPL
5.0	1.06	8.81	21.08	19.70	29.29	19.54
10.0	1.03	8.81	21.30	20.11	31.39	19.98
20.0	1.04	8.82	21.32	20.27	32.33	20.14
50.0	1.06	8.84	21.22	20.41	32.51	20.21
100.0	1.08	8.86	21.03	20.62	32.07	20.28
150.0	1.09	8.88	20.83	20.82	31.69	20.22
200.0	1.10	8.89	20.55	20.98	31.23	20.08
250.0	1.11	8.89	20.24	21.09	30.83	19.85
300.0	1.12	8.90	19.88	21.23	30.39	19.52
350.0	1.12	8.90	19.52	21.30	29.99	19.15
400.0	1.14	8.90	19.11	21.42	29.41	18.75
450.0	1.15	8.90	18.67	21.47	28.92	18.31
500.0	1.16	8.90	18.26	21.55	28.42	17.82
550.0	1.18	8.90	17.84	21.62	27.99	17.36
600.0	1.19	8.89	17.41	21.68	27.45	16.91
650.0	1.21	8.89	16.99	21.65	26.83	16.45
700.0	1.23	8.89	16.56	21.61	26.30	15.98
750.0	1.25	8.89	16.15	21.60	25.84	15.54
800.0	1.27	8.89	15.75	21.53	25.28	15.15
850.0	1.29	8.88	15.34	21.44	24.68	14.73
900.0	1.32	8.88	14.96	21.27	24.16	14.30
950.0	1.35	8.88	14.59	21.16	23.56	13.92
1000.0	1.38	8.87	14.24	21.02	22.99	13.57
1050.0	1.41	8.87	13.89	20.85	22.48	13.21
1100.0	1.45	8.86	13.53	20.65	22.01	12.86
1150.0	1.49	8.85	13.21	20.43	21.45	12.54
1200.0	1.53	8.84	12.87	20.23	20.89	12.27
1250.0	1.57	8.83	12.55	19.98	20.37	11.98
1300.0	1.61	8.81	12.21	19.72	19.90	11.70
1400.0	1.72	8.78	11.59	19.14	18.84	11.25
1500.0	1.83	8.73	11.01	18.61	17.89	10.81
1600.0	1.96	8.67	10.47	18.14	16.98	10.51
1700.0	2.10	8.59	9.94	17.67	16.14	10.19
1800.0	2.25	8.50	9.41	17.28	15.35	9.99
1900.0	2.43	8.40	8.94	16.82	14.59	9.78
2000.0	2.62	8.28	8.50	16.48	13.86	9.66
2100.0	2.83	8.16	8.10	16.17	13.20	9.54
2200.0	3.06	8.03	7.76	16.06	12.57	9.51
2300.0	3.31	7.90	7.43	15.98	12.01	9.43
2400.0	3.59	7.77	7.16	15.89	11.43	9.45
2500.0	3.88	7.64	6.92	15.97	10.97	9.44
2600.0	4.19	7.54	6.71	16.06	10.49	9.46
2700.0	4.55	7.42	6.55	16.35	10.11	9.51
2800.0	4.92	7.34	6.40	16.66	9.71	9.57
2900.0	5.31	7.26	6.28	17.17	9.39	9.66
3000.0	5.76	7.22	6.14	17.66	9.06	9.80
3250.0	7.07	7.26	5.66	19.36	8.39	10.51
3500.0	8.74	7.59	4.77	18.77	7.90	12.06
3750.0	10.88	8.28	3.54	15.17	7.56	15.20
4000.0	13.47	9.29	2.44	12.02	7.32	20.51
4500.0	19.42	11.85	1.49	8.77	6.58	14.00
4750.0	20.88	13.04	1.09	7.83	5.90	11.11
5000.0	20.33	13.85	0.99	7.11	5.26	9.32



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IF/RF MICROWAVE COMPONENTS

Directional Coupler

DBTC-9-4X+

Typical Performance Data

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

FREQUENCY (MHz)	INSERTION LOSS (dB)	COUPLING LOSS (dB)	DIRECTIVITY (dB)	RETURN LOSS (dB)		
				IN	OUT	CPL
5.0	1.20	8.88	20.22	17.94	24.49	17.65
10.0	1.06	8.77	20.60	19.50	27.80	19.24
20.0	1.00	8.73	20.93	20.47	30.01	20.25
50.0	0.97	8.74	21.34	21.08	29.67	20.77
100.0	0.98	8.75	20.97	21.30	28.92	21.07
150.0	0.98	8.75	20.89	21.49	29.24	21.00
200.0	0.99	8.76	20.68	21.67	28.89	20.79
250.0	0.99	8.76	20.21	21.58	28.67	20.42
300.0	1.00	8.76	19.99	21.72	28.48	19.90
350.0	1.01	8.76	19.55	21.64	28.31	19.41
400.0	1.01	8.76	19.18	21.71	28.06	18.92
450.0	1.02	8.75	18.77	21.86	28.11	18.43
500.0	1.03	8.75	18.31	21.78	27.64	17.93
550.0	1.04	8.75	17.89	21.77	27.37	17.46
600.0	1.06	8.74	17.49	21.77	26.98	16.99
650.0	1.07	8.73	17.02	21.55	26.35	16.51
700.0	1.08	8.72	16.63	21.49	26.05	16.04
750.0	1.10	8.71	16.25	21.59	25.90	15.64
800.0	1.11	8.70	15.77	21.34	25.31	15.28
850.0	1.12	8.69	15.41	21.17	24.63	14.89
900.0	1.15	8.68	15.01	21.10	24.47	14.49
950.0	1.17	8.67	14.59	20.91	23.89	14.12
1000.0	1.20	8.66	14.25	20.90	23.52	13.78
1050.0	1.23	8.65	13.88	20.69	23.00	13.47
1100.0	1.26	8.63	13.54	20.54	22.61	13.16
1150.0	1.29	8.61	13.24	20.68	22.38	12.87
1200.0	1.32	8.58	12.86	20.39	21.45	12.64
1250.0	1.36	8.57	12.48	19.78	20.67	12.40
1300.0	1.39	8.54	12.18	19.58	20.29	12.16
1400.0	1.48	8.49	11.59	19.20	19.25	11.78
1500.0	1.57	8.43	10.88	18.64	18.39	11.42
1600.0	1.68	8.35	10.57	18.47	17.43	11.20
1700.0	1.79	8.27	10.02	18.23	16.79	10.97
1800.0	1.95	8.17	9.37	17.44	15.59	10.83
1900.0	2.09	8.04	8.99	17.49	15.02	10.72
2000.0	2.26	7.95	8.60	16.86	14.15	10.58
2100.0	2.44	7.81	8.18	16.99	13.66	10.49
2200.0	2.66	7.69	7.76	16.63	12.88	10.44
2300.0	2.88	7.56	7.50	16.99	12.28	10.26
2400.0	3.14	7.45	7.18	16.49	11.62	10.13
2500.0	3.39	7.35	6.93	16.83	11.36	9.98
2600.0	3.71	7.28	6.76	15.79	10.46	9.63
2700.0	4.01	7.18	6.59	16.81	10.23	9.42
2800.0	4.35	7.15	6.54	17.06	9.79	9.09
2900.0	4.70	7.09	6.42	17.22	9.44	8.84
3000.0	5.14	7.08	6.34	17.55	8.95	8.62
3250.0	6.38	7.20	5.89	18.82	8.21	8.38
3500.0	8.02	7.58	4.98	18.09	7.75	8.85
3750.0	10.20	8.24	3.65	15.34	7.27	10.84
4000.0	12.88	9.20	2.54	12.01	7.19	15.37
4500.0	18.99	11.80	1.93	8.74	6.51	18.28
4750.0	20.94	13.15	1.28	7.85	5.82	12.39
5000.0	20.67	14.07	0.76	7.30	5.20	9.70



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IF/RF MICROWAVE COMPONENTS

Directional Coupler

DBTC-9-4X+

Typical Performance Data

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

FREQUENCY (MHz)	INSERTION LOSS (dB)	COUPLING LOSS (dB)	DIRECTIVITY (dB)	RETURN LOSS (dB)		
				IN	OUT	CPL
5.0	1.20	8.91	21.22	18.81	32.67	18.89
10.0	1.20	8.91	21.22	19.05	36.81	19.11
20.0	1.21	8.92	21.08	19.13	39.43	19.19
50.0	1.24	8.95	20.76	19.22	41.25	19.27
100.0	1.25	8.98	20.74	19.47	41.84	19.36
150.0	1.26	8.99	20.50	19.77	38.53	19.40
200.0	1.27	9.01	20.08	19.99	38.06	19.41
250.0	1.27	9.01	19.86	20.24	36.81	19.31
300.0	1.28	9.02	19.40	20.40	35.77	19.13
350.0	1.29	9.03	19.05	20.56	34.94	18.89
400.0	1.30	9.04	18.64	20.78	33.61	18.62
450.0	1.31	9.04	18.17	20.90	32.48	18.29
500.0	1.33	9.05	17.75	21.07	31.34	17.89
550.0	1.35	9.07	17.34	21.24	30.59	17.51
600.0	1.37	9.07	16.93	21.41	29.75	17.10
650.0	1.38	9.08	16.54	21.51	28.73	16.66
700.0	1.40	9.09	16.14	21.62	27.98	16.20
750.0	1.43	9.10	15.73	21.64	27.26	15.77
800.0	1.45	9.11	15.37	21.65	26.40	15.37
850.0	1.47	9.11	15.04	21.73	25.66	14.95
900.0	1.50	9.12	14.68	21.62	25.02	14.52
950.0	1.54	9.13	14.31	21.57	24.30	14.12
1000.0	1.58	9.13	13.98	21.53	23.66	13.76
1050.0	1.62	9.14	13.64	21.34	23.06	13.42
1100.0	1.66	9.13	13.31	21.22	22.57	13.07
1150.0	1.71	9.13	12.97	20.99	21.86	12.74
1200.0	1.75	9.11	12.65	20.76	21.23	12.46
1250.0	1.80	9.10	12.36	20.61	20.72	12.18
1300.0	1.84	9.08	12.02	20.43	20.33	11.93
1400.0	1.95	9.05	11.38	19.84	19.17	11.48
1500.0	2.08	9.00	10.81	19.42	18.25	11.05
1600.0	2.22	8.94	10.22	19.02	17.38	10.79
1700.0	2.36	8.87	9.72	18.43	16.39	10.48
1800.0	2.52	8.79	9.20	18.24	15.79	10.30
1900.0	2.70	8.70	8.69	17.93	15.21	10.13
2000.0	2.89	8.60	8.28	17.56	14.34	9.99
2100.0	3.10	8.51	7.87	17.13	13.65	9.87
2200.0	3.32	8.40	7.59	17.01	13.09	9.84
2300.0	3.56	8.30	7.23	17.12	12.60	9.71
2400.0	3.81	8.20	6.99	16.94	11.99	9.73
2500.0	4.08	8.10	6.80	16.86	11.53	9.65
2600.0	4.35	8.02	6.61	17.42	11.13	9.63
2700.0	4.66	7.92	6.49	17.30	10.75	9.61
2800.0	4.97	7.82	6.34	17.74	10.39	9.60
2900.0	5.30	7.72	6.31	17.87	10.01	9.58
3000.0	5.66	7.65	6.28	18.22	9.68	9.63
3250.0	6.73	7.54	6.02	19.31	8.94	9.88
3500.0	8.07	7.58	5.41	19.37	8.29	10.65
3750.0	9.78	7.88	4.29	16.14	7.86	12.43
4000.0	11.92	8.47	2.94	12.59	7.50	15.69
4500.0	17.17	10.39	1.64	8.30	7.11	15.19
4750.0	19.30	11.44	1.36	7.26	6.42	11.67
5000.0	19.52	12.41	1.34	6.45	5.68	9.44



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