

# Directional Coupler

# DBTC-10-4-75X+

## 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	1.53	10.24	20.26	16.21	22.03	16.09
10.0	1.51	10.24	20.48	16.48	23.17	16.36
15.0	1.49	10.23	20.70	16.75	24.29	16.63
20.0	1.50	10.24	20.70	16.76	24.36	16.64
25.0	1.50	10.25	20.69	16.77	24.43	16.64
50.0	1.52	10.27	20.64	16.81	24.47	16.64
75.0	1.52	10.29	20.61	16.90	24.55	16.66
100.0	1.53	10.31	20.64	17.00	24.61	16.68
150.0	1.53	10.32	20.57	17.16	24.44	16.53
200.0	1.52	10.34	20.46	17.25	24.02	16.30
250.0	1.51	10.36	20.37	17.34	23.50	15.98
300.0	1.51	10.38	20.24	17.48	22.86	15.61
350.0	1.50	10.40	20.07	17.56	22.23	15.21
400.0	1.50	10.42	19.96	17.58	21.64	14.81
450.0	1.49	10.45	19.73	17.66	21.13	14.41
475.0	1.49	10.46	19.73	17.76	20.92	14.21
500.0	1.49	10.48	19.44	17.82	20.71	14.03
550.0	1.49	10.51	19.26	17.92	20.38	13.68
600.0	1.49	10.54	19.18	18.08	20.17	13.39
650.0	1.50	10.58	18.96	18.40	20.04	13.13
700.0	1.50	10.61	18.82	18.77	20.02	12.90
750.0	1.49	10.64	18.78	19.03	20.03	12.68
800.0	1.49	10.68	18.82	19.44	20.18	12.48
850.0	1.48	10.72	18.97	20.08	20.45	12.33
900.0	1.48	10.75	18.90	20.71	20.79	12.20
950.0	1.48	10.81	18.42	21.22	21.18	12.05
1000.0	1.48	10.87	18.00	21.76	21.55	11.90
1050.0	1.48	10.92	17.57	22.33	22.01	11.72
1100.0	1.48	10.99	17.01	22.90	22.56	11.56
1150.0	1.48	11.06	16.28	23.36	23.12	11.39
1200.0	1.50	11.17	15.11	23.66	23.59	11.19
1250.0	1.51	11.25	14.06	23.79	23.96	10.94
1300.0	1.54	11.35	13.10	23.61	24.38	10.69
1350.0	1.57	11.43	12.12	23.35	24.55	10.43
1400.0	1.61	11.53	11.22	23.27	24.61	10.15
1450.0	1.65	11.61	10.68	22.96	24.41	9.82
1500.0	1.69	11.70	10.33	22.32	24.10	9.51
1600.0	1.82	11.90	9.45	21.61	22.91	8.94
1700.0	1.97	12.12	9.05	20.56	21.26	8.38
1800.0	2.18	12.36	9.23	19.85	19.51	7.90
1900.0	2.36	12.69	9.29	18.87	17.69	7.52
2000.0	2.49	13.04	9.82	18.26	16.15	7.19
2100.0	2.58	13.47	9.59	17.33	14.74	6.95
2200.0	2.59	13.92	9.21	16.47	13.30	6.81
2300.0	2.52	14.47	7.88	15.53	11.95	6.71
2400.0	2.58	14.97	6.56	14.87	10.94	6.65
2500.0	2.98	15.25	5.19	14.35	10.15	6.67
2750.0	4.47	15.73	4.30	13.82	8.70	6.78
3000.0	5.84	15.71	6.68	13.01	7.71	6.89
3250.0	5.29	15.46	9.29	12.77	7.54	6.71
3500.0	4.33	17.47	3.04	11.61	6.59	6.43
3750.0	6.56	18.26	0.25	10.96	6.27	6.26
4000.0	9.64	15.96	3.42	10.95	5.72	6.33



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# Directional Coupler

# DBTC-10-4-75X+

## 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	1.76	10.39	18.53	13.90	16.35	13.58
10.0	1.55	10.23	19.07	15.74	20.04	15.24
15.0	1.33	10.07	19.62	17.57	23.73	16.90
20.0	1.32	10.06	19.72	17.95	25.14	17.26
25.0	1.30	10.05	19.82	18.34	26.55	17.62
50.0	1.29	10.06	20.06	19.30	28.78	18.53
75.0	1.29	10.07	20.09	19.53	29.36	18.77
100.0	1.29	10.09	20.12	18.95	29.40	18.31
150.0	1.30	10.09	20.09	18.48	28.43	17.31
200.0	1.31	10.11	20.10	18.97	27.14	17.39
250.0	1.31	10.12	19.98	18.09	25.95	16.43
300.0	1.31	10.14	19.93	17.93	24.57	15.61
350.0	1.31	10.16	19.81	17.73	23.31	15.28
400.0	1.31	10.18	19.76	17.11	22.07	14.45
450.0	1.31	10.20	19.63	17.01	21.01	13.92
475.0	1.30	10.20	19.63	16.96	20.59	13.73
500.0	1.31	10.23	19.42	16.84	20.16	13.50
550.0	1.31	10.26	19.35	16.89	19.50	12.98
600.0	1.32	10.27	19.37	17.08	19.08	12.70
650.0	1.32	10.30	19.26	17.33	18.82	12.46
700.0	1.32	10.31	19.29	17.85	18.77	12.33
750.0	1.31	10.34	19.31	18.45	18.85	12.27
800.0	1.31	10.35	19.46	19.55	19.20	12.27
850.0	1.30	10.36	19.70	20.77	19.75	12.39
900.0	1.30	10.38	19.67	22.24	20.42	12.47
950.0	1.29	10.41	19.14	23.92	21.22	12.59
1000.0	1.29	10.45	18.46	25.63	22.13	12.60
1050.0	1.27	10.50	17.75	26.07	23.36	12.43
1100.0	1.27	10.54	16.93	24.51	24.85	12.25
1150.0	1.27	10.60	16.06	22.79	26.51	11.76
1200.0	1.28	10.69	14.73	20.98	28.07	11.21
1250.0	1.29	10.76	13.61	20.05	28.99	10.65
1300.0	1.31	10.84	12.58	19.06	29.70	10.00
1350.0	1.33	10.93	11.55	17.98	29.21	9.41
1400.0	1.36	11.02	10.62	17.75	28.47	8.90
1450.0	1.38	11.09	10.10	17.90	27.41	8.49
1500.0	1.42	11.16	9.79	18.44	26.23	8.17
1600.0	1.52	11.35	8.99	18.56	23.51	7.78
1700.0	1.66	11.57	8.75	20.58	20.61	7.90
1800.0	1.88	11.79	9.15	22.21	18.40	8.17
1900.0	2.07	12.10	9.40	28.98	16.60	8.56
2000.0	2.21	12.41	10.23	27.54	15.57	8.42
2100.0	2.28	12.77	9.93	20.17	14.74	7.67
2200.0	2.26	13.23	9.24	16.15	13.58	6.63
2300.0	2.16	13.79	7.58	13.10	12.15	5.45
2400.0	2.21	14.27	6.12	11.30	10.97	4.65
2500.0	2.63	14.65	4.65	9.68	9.99	4.32
2750.0	4.21	15.32	4.00	9.44	8.06	5.51
3000.0	5.82	15.17	7.16	13.90	6.95	8.85
3250.0	5.17	14.90	9.85	17.59	6.93	7.24
3500.0	3.80	17.17	1.38	9.30	6.12	3.70
3750.0	5.97	17.85	0.94	5.87	6.17	2.96
4000.0	8.97	15.03	3.25	5.70	5.92	4.83



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IF/RF MICROWAVE COMPONENTS

# Directional Coupler

# DBTC-10-4-75X+

## 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	1.87	10.47	19.79	14.68	18.96	14.83
10.0	1.85	10.46	19.96	14.92	19.73	15.06
15.0	1.83	10.46	20.14	15.16	20.50	15.29
20.0	1.83	10.47	20.11	15.10	20.55	15.24
25.0	1.83	10.48	20.08	15.05	20.60	15.20
50.0	1.84	10.51	20.03	14.77	20.69	14.89
75.0	1.85	10.53	20.01	14.83	20.75	14.84
100.0	1.84	10.54	20.03	15.28	20.79	15.12
150.0	1.83	10.56	19.94	15.83	20.89	15.63
200.0	1.82	10.59	19.76	15.76	21.00	15.34
250.0	1.80	10.61	19.68	16.46	21.04	15.50
300.0	1.79	10.64	19.47	16.78	21.07	15.59
350.0	1.78	10.67	19.25	16.94	21.02	15.25
400.0	1.76	10.71	19.03	17.44	20.92	15.14
450.0	1.76	10.76	18.74	17.71	20.87	15.04
475.0	1.75	10.77	18.66	17.84	20.89	14.86
500.0	1.75	10.81	18.36	17.94	20.81	14.69
550.0	1.74	10.86	18.11	18.22	20.75	14.45
600.0	1.74	10.91	17.96	18.33	20.74	14.20
650.0	1.73	10.97	17.71	18.50	20.68	13.84
700.0	1.73	11.03	17.52	18.74	20.56	13.53
750.0	1.73	11.09	17.42	18.65	20.41	13.16
800.0	1.72	11.14	17.42	18.68	20.27	12.71
850.0	1.72	11.20	17.51	19.11	20.26	12.40
900.0	1.72	11.26	17.42	19.33	20.27	12.19
950.0	1.72	11.34	17.09	19.60	20.28	11.90
1000.0	1.72	11.43	16.79	19.90	20.26	11.69
1050.0	1.73	11.50	16.68	20.38	20.38	11.51
1100.0	1.73	11.59	16.31	21.35	20.66	11.33
1150.0	1.75	11.68	15.75	22.44	21.10	11.26
1200.0	1.77	11.79	14.85	23.74	21.60	11.26
1250.0	1.79	11.89	13.95	25.41	22.12	11.20
1300.0	1.84	11.98	13.10	26.96	22.85	11.17
1350.0	1.88	12.08	12.21	27.91	23.49	11.13
1400.0	1.92	12.17	11.37	28.15	24.21	11.00
1450.0	1.98	12.25	10.87	26.50	24.88	10.76
1500.0	2.03	12.34	10.50	24.45	25.37	10.47
1600.0	2.18	12.54	9.51	21.53	24.83	9.79
1700.0	2.32	12.78	9.09	19.01	22.55	8.75
1800.0	2.50	12.99	9.10	17.72	20.17	7.90
1900.0	2.66	13.34	9.05	16.48	17.69	7.25
2000.0	2.75	13.68	9.45	16.17	15.70	6.82
2100.0	2.82	14.09	9.36	15.97	14.24	6.70
2200.0	2.83	14.50	9.24	16.04	12.97	6.91
2300.0	2.79	14.99	8.16	16.35	11.91	7.32
2400.0	2.86	15.44	7.05	17.28	11.39	7.56
2500.0	3.24	15.64	5.69	17.83	10.96	7.81
2750.0	4.59	16.00	4.57	16.39	10.05	7.15
3000.0	5.76	16.01	6.43	12.44	8.25	6.18
3250.0	5.13	15.61	9.34	11.43	7.49	6.22
3500.0	4.13	17.25	4.05	11.67	6.71	7.07
3750.0	6.05	18.31	0.39	12.66	6.87	7.24
4000.0	9.32	16.35	3.29	12.92	6.27	6.34



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