

Directional Coupler

TCD-9-1W-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 (dB)		
				IN	OUT	CPL
5.0	1.29	8.93	20.25	17.98	28.46	18.08
10.0	1.26	8.93	20.44	18.34	34.66	18.43
20.0	1.25	8.94	20.55	18.59	45.81	18.68
50.0	1.27	8.96	20.36	18.59	38.89	18.69
100.0	1.29	8.98	19.73	18.36	30.57	18.54
150.0	1.31	8.99	18.88	17.87	26.57	18.22
200.0	1.33	9.00	17.87	17.20	23.96	17.77
250.0	1.35	9.01	16.92	16.42	22.01	17.27
300.0	1.37	9.02	15.98	15.73	20.51	16.69
350.0	1.40	9.03	15.10	15.12	19.29	16.16
400.0	1.43	9.02	14.38	14.47	18.32	15.67
450.0	1.47	9.04	13.60	13.87	17.53	15.18
500.0	1.50	9.05	12.88	13.47	16.90	14.74
550.0	1.54	9.05	12.28	13.13	16.39	14.34
600.0	1.59	9.05	11.78	12.75	15.97	13.98
650.0	1.64	9.06	11.33	12.42	15.64	13.65
700.0	1.68	9.05	10.96	12.30	15.43	13.36
750.0	1.72	9.03	10.71	12.19	15.29	13.13
800.0	1.74	8.98	10.43	12.01	15.18	12.90
850.0	1.78	8.96	10.15	11.90	15.14	12.75
900.0	1.80	8.92	9.90	11.93	15.14	12.60
950.0	1.82	8.88	9.76	11.87	15.18	12.49
1000.0	1.86	8.81	9.76	11.68	15.15	12.37
1050.0	1.85	8.70	9.88	11.70	15.24	12.23
1100.0	1.85	8.63	9.78	11.79	15.33	12.08
1150.0	1.85	8.56	9.60	11.65	15.40	11.90
1200.0	1.86	8.50	9.43	11.49	15.48	11.70
1300.0	1.92	8.44	8.84	11.47	15.58	11.24
1350.0	1.98	8.43	8.53	11.21	15.57	11.00
1400.0	2.05	8.43	8.07	11.02	15.56	10.77
1450.0	2.12	8.42	7.69	10.96	15.48	10.51
1500.0	2.21	8.44	7.35	10.78	15.35	10.26
1550.0	2.33	8.55	6.75	10.41	15.13	9.99
1600.0	2.48	8.66	6.25	10.15	14.88	9.71
1650.0	2.63	8.73	6.06	9.98	14.58	9.39
1700.0	2.80	8.84	5.77	9.72	14.28	9.10
1750.0	2.97	8.93	5.52	9.38	13.91	8.80
1800.0	3.14	9.00	5.42	9.21	13.58	8.51
1850.0	3.28	9.07	5.37	9.10	13.23	8.26
1900.0	3.37	8.99	5.53	8.90	12.88	8.03
1950.0	3.43	8.89	5.87	8.71	12.50	7.83
2000.0	3.51	8.92	5.87	8.66	12.16	7.67
2050.0	3.55	8.93	5.90	8.54	11.76	7.53
2100.0	3.55	8.87	6.35	8.29	11.38	7.40
2200.0	3.50	8.79	7.24	8.06	10.63	7.19
2300.0	3.62	8.97	7.36	7.87	9.94	7.05
2400.0	3.80	9.22	6.96	8.00	9.43	6.97
2500.0	4.17	9.62	6.00	8.09	9.03	6.96
2600.0	4.61	9.84	5.67	8.34	8.64	7.05
2700.0	5.43	10.35	4.90	8.35	8.22	7.22
2800.0	6.04	10.56	4.96	8.62	7.93	7.42
2900.0	6.37	10.11	5.61	8.89	7.76	7.65
3000.0	6.60	9.66	5.77	9.39	7.72	7.94



Directional Coupler

TCD-9-1W-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	1.45	8.99	19.35	16.12	20.55	16.19
10.0	1.29	8.89	19.86	17.86	25.20	17.94
20.0	1.16	8.82	20.30	19.53	32.14	19.59
50.0	1.13	8.82	20.37	20.87	37.04	20.94
100.0	1.14	8.83	19.82	20.19	29.65	20.39
150.0	1.16	8.84	18.99	18.78	26.32	19.20
200.0	1.18	8.85	18.06	18.49	24.63	19.18
250.0	1.21	8.85	17.11	16.95	23.05	17.84
300.0	1.23	8.87	16.19	15.96	21.49	16.96
350.0	1.26	8.87	15.34	15.25	19.98	16.39
400.0	1.29	8.87	14.62	14.21	18.64	15.45
450.0	1.32	8.88	13.86	13.60	17.56	14.91
500.0	1.36	8.89	13.12	13.05	16.76	14.29
550.0	1.40	8.90	12.53	12.61	16.13	13.76
600.0	1.44	8.89	12.05	12.23	15.63	13.39
650.0	1.49	8.89	11.58	11.89	15.21	13.03
700.0	1.53	8.87	11.26	11.90	14.92	12.88
750.0	1.57	8.84	11.02	11.87	14.73	12.74
800.0	1.58	8.79	10.79	11.88	14.65	12.76
850.0	1.61	8.75	10.53	11.98	14.70	12.85
900.0	1.63	8.70	10.33	12.21	14.87	12.91
950.0	1.63	8.64	10.24	12.50	15.18	13.13
1000.0	1.66	8.59	10.28	12.43	15.38	13.19
1050.0	1.64	8.43	10.49	12.61	15.80	13.21
1100.0	1.63	8.34	10.45	12.72	16.14	13.08
1150.0	1.62	8.25	10.31	12.38	16.45	12.76
1200.0	1.61	8.18	10.16	12.04	16.71	12.37
1300.0	1.66	8.11	9.49	11.21	16.92	11.11
1350.0	1.71	8.10	9.10	10.64	16.85	10.47
1400.0	1.76	8.10	8.53	10.10	16.67	9.88
1450.0	1.83	8.09	8.08	9.66	16.35	9.35
1500.0	1.92	8.11	7.66	9.33	15.91	8.93
1550.0	2.03	8.24	6.96	8.95	15.36	8.61
1600.0	2.17	8.36	6.41	8.56	14.78	8.30
1650.0	2.32	8.43	6.17	8.52	14.20	8.12
1700.0	2.49	8.55	5.87	8.64	13.69	8.11
1750.0	2.67	8.65	5.65	8.63	13.22	8.14
1800.0	2.83	8.71	5.54	8.97	12.85	8.27
1850.0	2.98	8.77	5.50	9.36	12.59	8.50
1900.0	3.05	8.70	5.69	9.60	12.42	8.81
1950.0	3.09	8.59	6.11	10.17	12.30	9.14
2000.0	3.17	8.59	6.17	10.45	12.21	9.38
2050.0	3.18	8.57	6.24	10.29	12.05	9.38
2100.0	3.13	8.50	6.76	10.18	11.89	9.17
2200.0	3.04	8.44	7.77	9.17	11.41	8.14
2300.0	3.10	8.60	7.87	7.60	10.81	6.79
2400.0	3.24	8.87	7.25	6.56	10.19	5.61
2500.0	3.60	9.34	5.86	5.46	9.52	4.78
2600.0	4.03	9.61	5.26	5.32	8.81	4.50
2700.0	4.85	10.15	4.38	5.33	8.07	4.86
2800.0	5.48	10.52	4.16	6.07	7.53	5.78
2900.0	5.88	10.02	4.98	8.01	7.22	7.39
3000.0	6.13	9.70	5.05	10.59	7.20	9.72



Directional Coupler

TCD-9-1W-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 (dB)		
				IN	OUT	CPL
5.0	1.49	9.11	20.00	16.94	26.92	17.05
10.0	1.46	9.10	20.14	17.19	29.78	17.31
20.0	1.46	9.10	20.19	17.29	32.27	17.39
50.0	1.47	9.12	19.96	16.77	32.12	16.83
100.0	1.48	9.14	19.40	16.86	29.12	16.93
150.0	1.49	9.14	18.66	17.26	26.10	17.52
200.0	1.51	9.15	17.67	16.46	23.64	17.00
250.0	1.52	9.15	16.82	16.17	21.76	17.07
300.0	1.54	9.15	15.92	15.92	20.41	17.03
350.0	1.57	9.15	15.07	15.29	19.39	16.41
400.0	1.59	9.15	14.38	14.96	18.65	16.32
450.0	1.63	9.16	13.63	14.59	18.08	16.19
500.0	1.66	9.16	12.92	14.23	17.66	15.69
550.0	1.70	9.17	12.33	13.98	17.30	15.35
600.0	1.74	9.17	11.81	13.58	16.99	14.97
650.0	1.78	9.18	11.34	13.14	16.70	14.45
700.0	1.83	9.17	10.98	12.96	16.45	14.09
750.0	1.87	9.16	10.68	12.70	16.22	13.77
800.0	1.89	9.12	10.41	12.35	16.01	13.34
850.0	1.92	9.09	10.13	12.11	15.78	13.11
900.0	1.95	9.08	9.85	12.02	15.61	12.92
950.0	1.98	9.04	9.69	11.89	15.47	12.51
1000.0	2.01	8.99	9.67	11.65	15.28	12.25
1050.0	2.02	8.89	9.77	11.61	15.18	12.16
1100.0	2.04	8.83	9.65	11.76	15.12	11.97
1150.0	2.04	8.77	9.44	11.84	15.13	11.78
1200.0	2.05	8.72	9.27	11.83	15.18	11.74
1300.0	2.13	8.67	8.67	12.34	15.43	11.69
1350.0	2.19	8.66	8.37	12.30	15.60	11.65
1400.0	2.27	8.65	7.93	12.24	15.81	11.64
1450.0	2.35	8.64	7.58	12.38	16.00	11.68
1500.0	2.45	8.66	7.27	12.24	16.13	11.67
1550.0	2.56	8.74	6.71	11.84	16.15	11.45
1600.0	2.72	8.83	6.25	11.42	16.06	11.11
1650.0	2.87	8.90	6.06	11.01	15.87	10.70
1700.0	3.03	8.98	5.82	10.56	15.52	10.16
1750.0	3.19	9.05	5.59	9.95	15.05	9.48
1800.0	3.35	9.10	5.49	9.49	14.51	8.85
1850.0	3.49	9.15	5.46	9.21	13.94	8.37
1900.0	3.58	9.08	5.60	8.87	13.35	7.93
1950.0	3.63	8.98	5.93	8.56	12.75	7.54
2000.0	3.70	9.00	5.93	8.46	12.21	7.34
2050.0	3.75	9.03	5.94	8.40	11.68	7.19
2100.0	3.74	8.96	6.37	8.24	11.21	7.09
2200.0	3.70	8.89	7.20	8.31	10.45	7.23
2300.0	3.84	9.06	7.25	8.60	9.93	7.61
2400.0	4.03	9.28	6.83	9.22	9.70	8.20
2500.0	4.42	9.61	5.91	9.64	9.60	8.65
2600.0	4.86	9.79	5.60	9.99	9.44	8.89
2700.0	5.64	10.23	4.90	9.68	9.08	8.76
2800.0	6.20	10.42	5.00	9.41	8.67	8.19
2900.0	6.46	10.05	5.67	9.05	8.25	7.64
3000.0	6.59	9.69	5.88	9.04	7.98	7.28



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IF/RF MICROWAVE COMPONENTS

REV. X1

TCD-9-1W-75X+

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