Engineering Development Model

DC Pass, High Power

Directional Coupler ZGDC10-ED13569

Important Note

This model has been designed, built and tested in our engineering department. Performance data represents model capability.
At present it is a non-catalog model. On request, we can supply a final specification sheet, part number and price/delivery information.

Please click "Back", and then click "Contact Us" for Applications support.

CASE STYLE : HT1394

ELECTRICAL SPECIFICATIONS 50Ω @ +25°C					
Parameter		**Min.**	**Typ.**	**Max.**	**Units**
Frequency		380		3600	MHz
Coupling	**Nominal**		11.3±1.8		dB
	Flatness		±1.2		dB
Mainline Loss (1)	**380-5000 MHz**		0.50		dB
Directivity	**380-5000 MHz**		27		dB
VSWR	**380-5000 MHz**		1.10		(:1)
RF Power Input (2)	**380-2700 MHz**			250	W
	2700-3600 MHz			160	

(1) Mainline loss includes theoretical coupled power loss of 0.335 dB at 11.3 dB coupling.

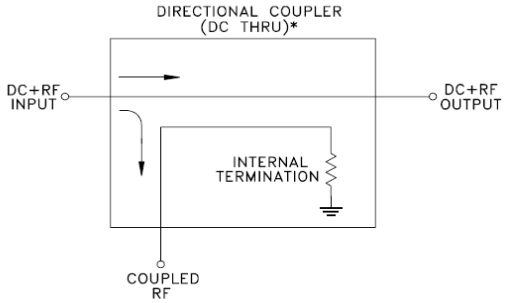
(2) At 20°C, derate linearly to 100W (380-2700 MHz) and to 64W (2700-3600 MHz) from 25°C to 100°C. Output load VSWR 2.0:1 Max.

MAXIMUM RATINGS	
Operating Temperature	-55°C to 100°C
Storage Temperature	-55°C to 100°C
DC Current	3A
Supplied Termination (3)	10W

(3) Derate linearly by 0.18W/°C from 70°C to 100°C

COAXIAL CONNECTIONS	
INPUT	IN
OUTPUT	OUT
COUPLED	CPL
INTERNAL TERMINATION (50 Ω)	TERM

Electrical Schematic



* ELECTRICAL SCHEMATIC FOR DIRECTIONAL COUPLER THAT IS DESIGNED WITHOUT INTERNAL TRANSFORMERS.

Directional Coupler ZGDC10-ED13569

Typical Performance Data

FREQUENCY (MHz)	INSERTION LOSS (dB)	COUPLING (dB)	DIRECTIVITY (dB)	RETURN LOSS (dB)		
				IN	OUT	CPL
380.0	0.28	12.71	30.18	34.76	35.60	34.27
390.0	0.29	12.57	30.44	34.71	35.67	33.89
400.0	0.30	12.42	30.17	34.78	35.71	33.52
500.0	0.38	11.34	30.06	35.24	36.86	31.37
600.0	0.43	10.76	30.77	34.53	36.18	30.79
700.0	0.46	10.50	33.16	34.15	34.76	31.19
800.0	0.45	10.45	39.59	34.18	33.04	31.56
900.0	0.47	10.56	39.26	33.72	31.78	31.51
1000.0	0.45	10.68	30.68	33.32	31.81	32.06
1200.0	0.47	10.71	24.28	33.36	37.86	36.87
1400.0	0.52	10.47	24.28	29.81	33.41	25.04
1600.0	0.52	10.43	30.07	24.59	25.41	22.41
1800.0	0.51	10.55	29.32	26.57	26.85	29.13
2000.0	0.50	10.60	19.70	29.45	32.06	26.88
2200.0	0.54	10.50	18.36	21.48	21.34	21.45
2400.0	0.58	10.32	20.76	20.31	20.75	27.21
2500.0	0.56	10.24	23.18	22.87	23.28	36.08
2600.0	0.54	10.28	26.81	28.21	30.09	25.97
2700.0	0.55	10.39	33.43	26.97	25.44	21.57
2800.0	0.56	10.44	30.35	21.99	19.96	20.17
2900.0	0.58	10.46	24.61	19.52	18.01	20.94
3000.0	0.59	10.46	21.77	18.53	17.83	24.08
3200.0	0.56	10.29	22.30	22.29	23.04	27.18
3400.0	0.53	10.19	29.89	31.39	28.96	20.75
3600.0	0.56	10.31	32.25	23.06	21.77	21.79
3800.0	0.53	10.42	28.68	24.79	23.12	25.33
4000.0	0.48	10.36	24.12	32.05	29.77	26.66
4200.0	0.49	10.36	19.75	33.56	33.10	32.64
4400.0	0.51	10.13	21.13	28.67	31.15	28.36
4600.0	0.47	10.28	22.92	26.02	34.54	25.57
4800.0	0.49	10.44	21.51	20.22	20.34	22.73
5000.0	0.56	10.36	17.89	15.74	15.64	23.33

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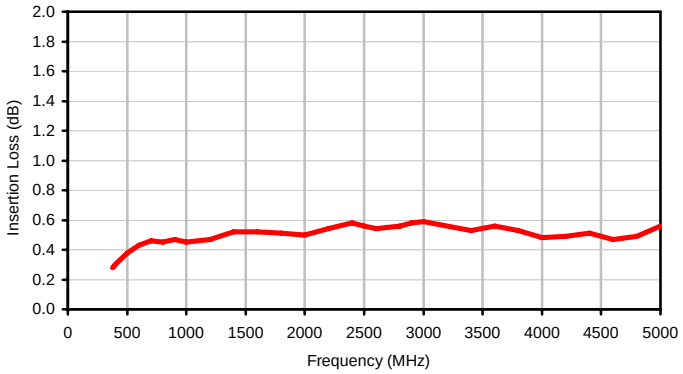
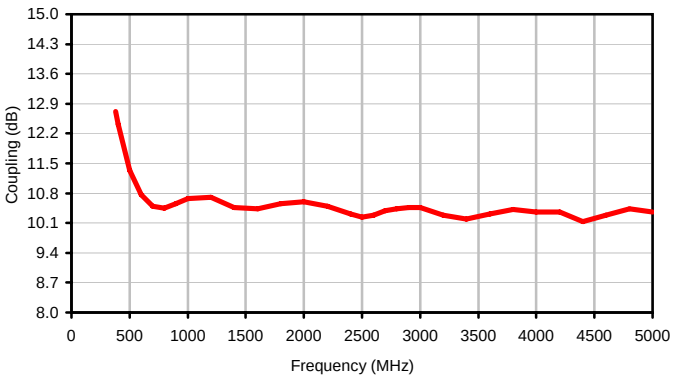
Typical Performance Curves

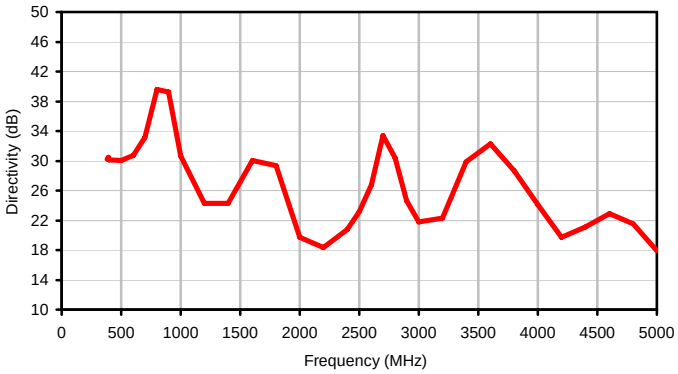
Insertion Loss



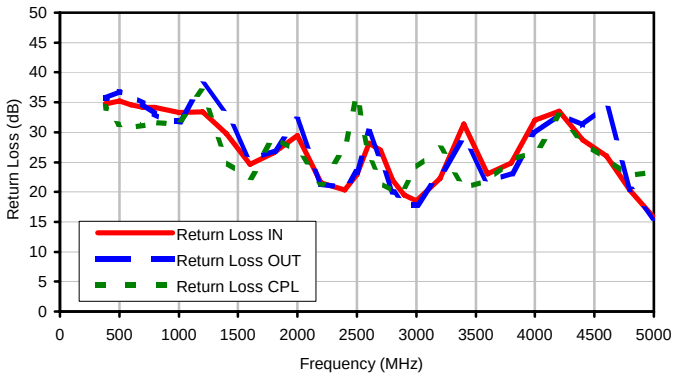
Coupling



Directivity



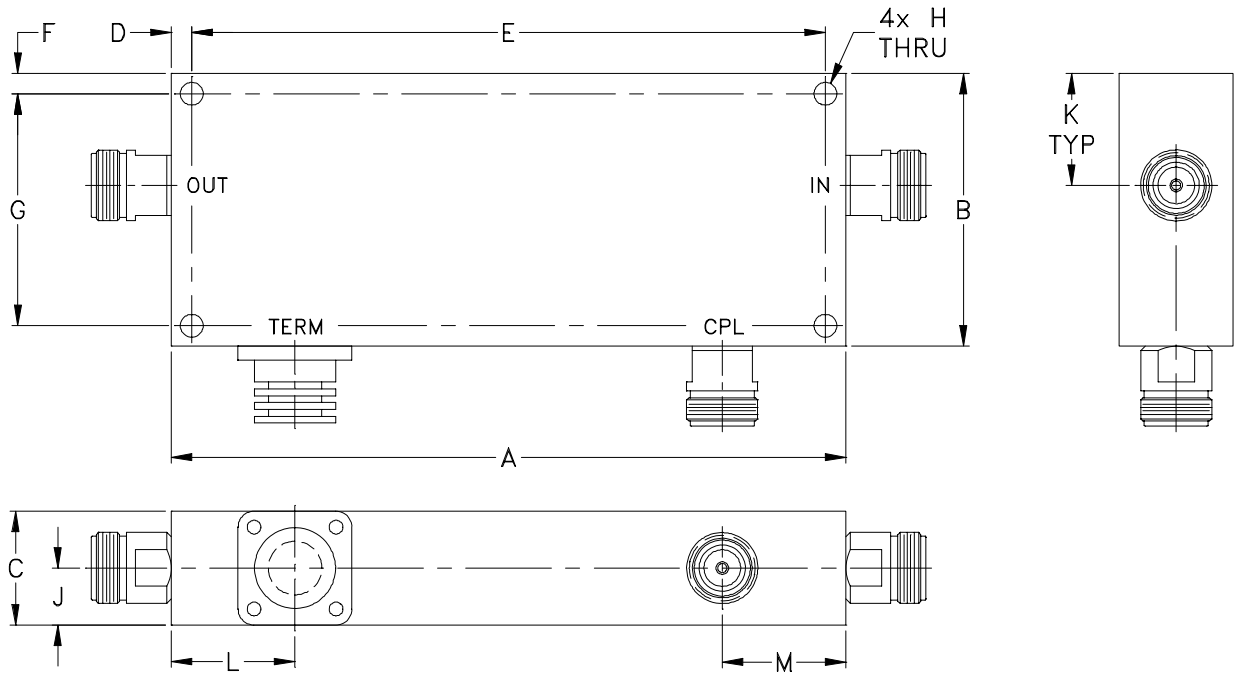
Return Loss



Case Style HT

HT1394
HT1412

Outline Dimensions



CASE #	A	B	C	D	E	F	G	H	J	K	L	M	WT. GRAM
HT1394	5.93 (150.62)	2.40 (60.96)	1.00 (25.40)	.18 (4.57)	5.565 (141.35)	.18 (4.57)	2.040 (51.82)	.200 (5.08)	.50 (12.70)	.99 (25.15)	1.09 (27.69)	1.09 (27.69)	700.0
HT1412	5.58 (141.73)	2.50 (63.50)			5.215 (132.46)		2.140 (54.36)						

Dimensions are in inches (mm). Tolerances: 2Pl. ± .03; 3Pl. ± .015

Notes:

1. Case material: Aluminum alloy.
2. Case finish:
   For RoHS Case Styles: Clear Chemical conversion coating, non-chrome or trivalent chrome based.

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INTERNET http://www.minicircuits.com
P.O. Box 350166, Brooklyn, New York 11235-0003 (718) 934-4500 Fax (718) 332-4661
Distribution Centers NORTH AMERICA 800-654-7949 • 417-335-5935 • Fax 417-335-5945 • EUROPE 44-1252-832600 • Fax 44-1252-837010
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