

DC Pass

Bi-Directional Coupler

ZBDC25-ED12228/2

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 : HT1180

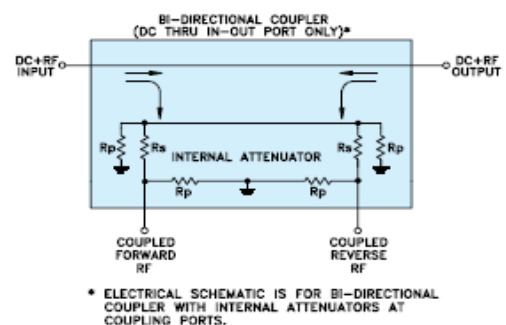
ELECTRICAL SPECIFICATIONS 50Ω @ +25°C				
Parameter		Min.	Typ.	Max. Units
Frequency		1270		2575 MHz
Coupling	Nominal		24.9±1.1	dB
	Flatness		± 0.64	dB
Mainline Loss **	1270-2575 MHz		0.30	dB
Directivity	1270-2575 MHz		28	dB
VSWR	1270-2575 MHz		1.05	(:1)
RF Power Input	1270-2575 MHz			20 W

Note: **Mainline loss includes theoretical coupled power loss of 0.014dB at 24.9dB coupling.

MAXIMUM RATINGS	
Operating Temperature	-55°C to 100°C
Storage Temperature	-55°C to 100°C
DC Current	2.5A

COAXIAL CONNECTIONS	
INPUT	J1
OUTPUT	J2
COUPLED FORWARD	J4
COUPLED REVERSE	J3

Electrical Schematic



Bi-Directional Coupler

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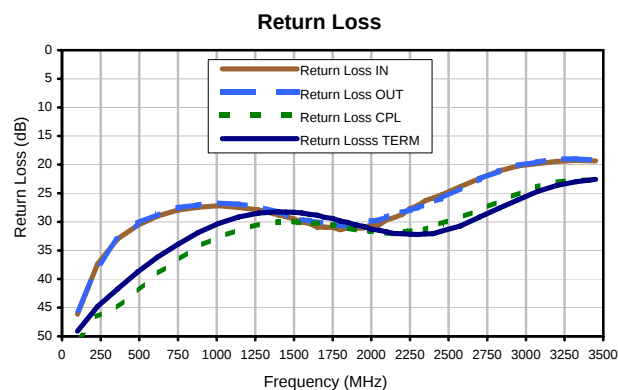
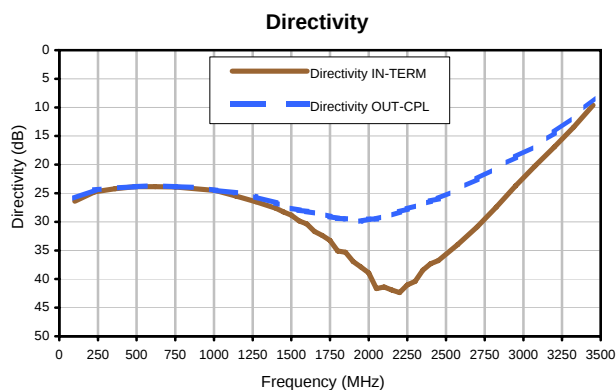
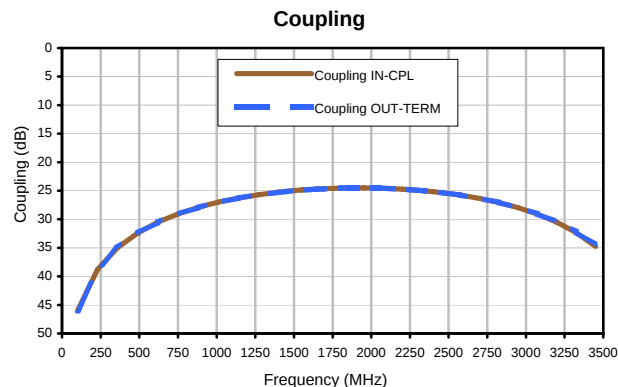
Typical Performance Data

FREQ. (MHz)	INSERTION LOSS (dB) IN-OUT	COUPLING (dB)		DIRECTIVITY (dB)		RETURN LOSS (dB)			
		IN-CPL	OUT-TERM	IN-TERM	OUT-CPL	IN	OUT	CPL	TERM
100.0	0.03	46.03	46.04	26.39	25.88	46.13	45.45	50.35	49.11
230.0	0.07	38.80	38.81	24.74	24.42	37.40	37.78	46.55	44.80
360.0	0.09	34.96	34.96	24.23	24.11	32.98	33.05	44.99	41.72
490.0	0.11	32.39	32.40	23.85	23.86	30.59	30.23	42.17	38.72
620.0	0.14	30.50	30.52	23.84	23.69	28.97	28.62	39.07	36.12
750.0	0.16	29.05	29.08	23.92	23.84	27.95	27.53	36.73	33.92
880.0	0.18	27.91	27.93	24.21	24.00	27.46	27.03	34.28	31.87
1010.0	0.20	27.00	27.03	24.52	24.51	27.18	26.74	32.72	30.31
1140.0	0.21	26.28	26.29	25.48	24.93	27.50	26.89	31.42	29.17
1270.0	0.23	25.70	25.71	26.48	25.63	27.91	27.32	30.41	28.47
1400.0	0.24	25.25	25.27	27.62	26.71	28.79	28.34	30.04	28.25
1450.0	0.24	25.11	25.13	28.26	27.14	29.10	28.76	30.05	28.31
1500.0	0.25	24.98	25.00	28.83	27.60	29.51	29.14	29.95	28.34
1550.0	0.25	24.87	24.89	29.84	27.97	30.05	29.63	30.22	28.44
1600.0	0.26	24.78	24.79	30.37	28.20	30.28	29.78	30.32	28.69
1650.0	0.26	24.70	24.71	31.68	28.48	30.94	30.11	30.21	28.84
1700.0	0.26	24.63	24.65	32.37	28.63	30.94	30.10	30.62	29.23
1750.0	0.27	24.58	24.59	33.25	29.08	30.99	30.43	30.52	29.43
1800.0	0.27	24.54	24.56	35.10	29.38	31.38	30.65	30.95	29.87
1850.0	0.28	24.51	24.53	35.31	29.48	31.05	30.69	31.09	30.11
1900.0	0.28	24.50	24.52	36.93	29.67	31.14	30.47	31.42	30.57
1950.0	0.29	24.50	24.53	37.88	29.90	31.08	30.44	31.41	30.80
2000.0	0.29	24.52	24.54	38.94	29.53	30.50	29.82	31.68	31.29
2050.0	0.30	24.55	24.56	41.68	29.51	30.53	29.72	31.71	31.46
2100.0	0.30	24.59	24.61	41.38	29.04	29.61	29.12	31.92	31.77
2150.0	0.30	24.65	24.66	41.93	28.85	29.25	28.65	32.15	32.05
2200.0	0.31	24.72	24.74	42.36	28.23	28.70	28.31	31.73	32.08
2250.0	0.31	24.81	24.82	41.01	27.73	27.68	27.97	31.58	32.17
2300.0	0.31	24.91	24.92	40.40	27.21	27.14	27.50	31.46	32.21
2350.0	0.32	25.03	25.04	38.46	26.90	26.30	27.07	31.31	32.11
2400.0	0.32	25.17	25.16	37.32	26.36	25.83	26.47	30.79	32.08
2450.0	0.33	25.31	25.31	36.77	25.94	25.34	25.94	30.35	31.66
2575.0	0.34	25.77	25.75	33.99	24.33	23.84	24.15	29.24	30.72
2700.0	0.35	26.34	26.33	30.89	22.50	22.42	22.50	27.90	29.17
2825.0	0.36	27.07	27.05	27.44	20.56	21.11	21.17	26.39	27.63
2950.0	0.37	27.97	27.95	23.71	18.69	20.23	20.12	24.98	26.15
3075.0	0.37	29.10	29.06	20.26	16.77	19.82	19.56	23.89	24.70
3200.0	0.38	30.53	30.45	16.91	14.36	19.44	19.02	23.07	23.62
3325.0	0.38	32.34	32.20	13.46	11.58	19.27	18.98	22.67	22.99
3450.0	0.38	34.74	34.46	9.61	8.45	19.34	19.22	22.77	22.58

Bi-Directional Coupler

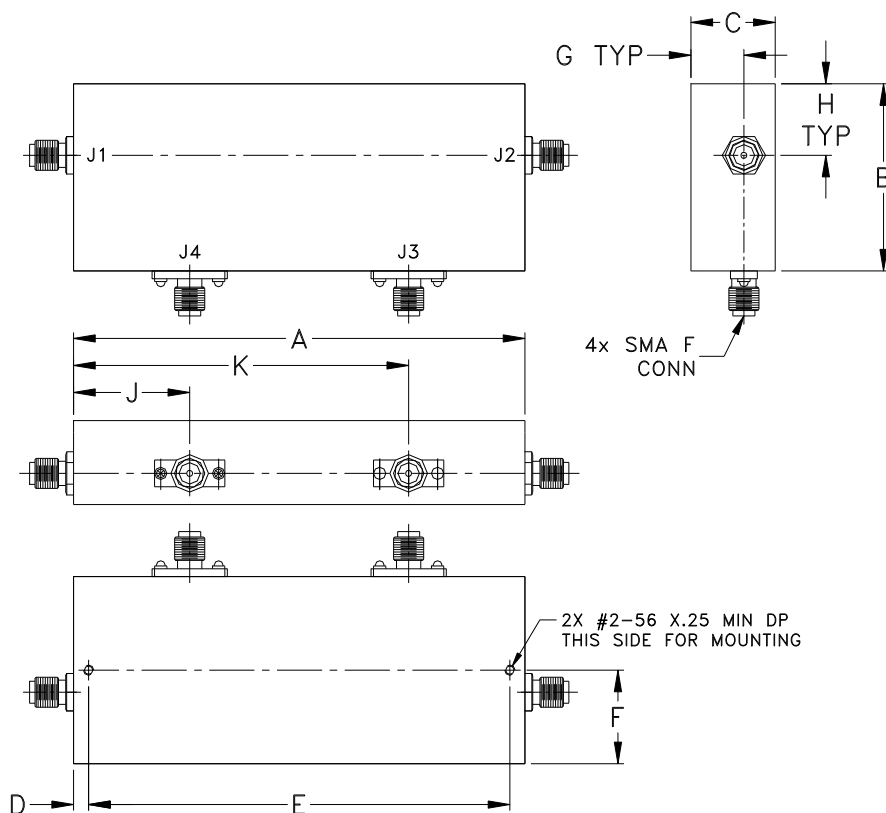
Typical Performance Curves

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Outline Dimensions

HT1180



CASE #	A	B	C	D	E	F	G	H	J	K	WT. GRAM
HT1180	3.75 (95.25)	1.56 (39.62)	.70 (17.78)	.125 (3.18)	3.500 (88.90)	.780 (19.81)	.44 (11.18)	.60 (15.24)	.97 (24.64)	2.78 (70.61)	130.0

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

Notes:

1. Case material: Aluminum alloy.
2. Case finish:

For RoHS Case Styles: Clear Chemical conversion coating, non-chrome or trivalent chrome based.



P.O. Box 350166, Brooklyn, New York 11235-0003 (718) 934-4500 Fax (718) 332-4661 For detailed performance specs & shopping online see Mini-Circuits web site



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RF/IF MICROWAVE COMPONENTS



All Mini-Circuits products are manufactured under exacting quality assurance and control standards, and are capable of meeting published specifications after being subjected to any or all of the following physical and environmental test.

Specification	Test/Inspection Condition	Reference/Spec
Operating Temperature	-55° to 100°C Ambient Environment	Individual Model Data Sheet
Storage Temperature	-55° to 100° C Ambient Environment	Individual Model Data Sheet
Barometric Pressure	100,000 Feet	MIL-STD-202, Method 105, Condition D
Humidity	90% RH, 65°C Units may require bake-out after humidity to restore full performance.	MIL-STD-202, Method 103
Thermal Shock	-65° to 125°C, 5 cycles	MIL-STD-202, Method 107, Condition B
Vibration (High Frequency)	20g peak, 10-2000 Hz, 12 times in each of three perpendicular directions (total 36)	MIL-STD-202, Method 204, Condition D
Mechanical Shock	100g, 6ms sawtooth, 3 shocks each direction 3 axes (total 18)	MIL-STD-202, Method 213, Condition I