

DC Pass Bi-Directional Coupler

ZBDC25-2575W+

50Ω Up to 20W 1270 to 2575 MHz

Maximum Ratings

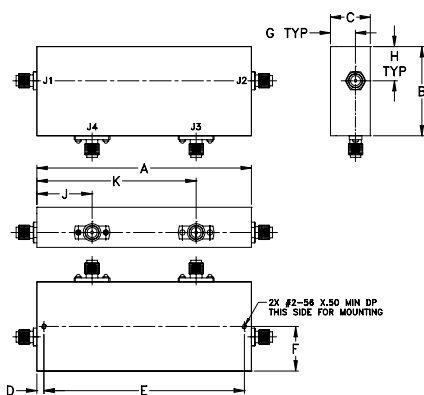
Operating Temperature	-55°C to 100°C
Storage Temperature	-55°C to 100°C
DC Current	2.5A

Permanent damage may occur if any of these limits are exceeded.

Coaxial Connections

INPUT	J1
OUTPUT	J2
COUPLED (forward)	J4
COUPLED (reverse)	J3

Outline Drawing



Outline Dimensions (inch/mm)

A	B	C	D	E	F
3.75	1.56	.70	.125	3.500	.780
95.25	39.62	17.78	3.18	88.90	19.81
G	H	J	K	wt	
.44	.60	.97	2.78	grams	
11.18	15.24	24.64	70.61	130.0	

Features

- wide frequency range, 1270 to 2575 MHz
- good coupling flatness, ± 0.1 dB typ over 1700-2200 MHz
- high directivity, 30 dB typ.
- very good VSWR, 1.05:1 typ.
- high power, 20W
- DC Current through input to output 2.5A Max. at 1.0 watt RF input.

Applications

- GPS
- PCS
- LAB use

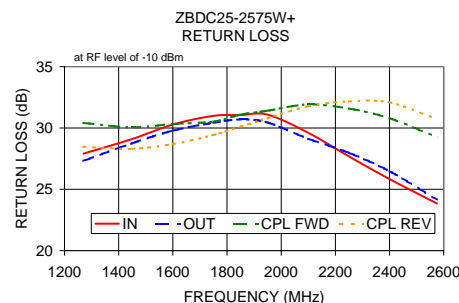
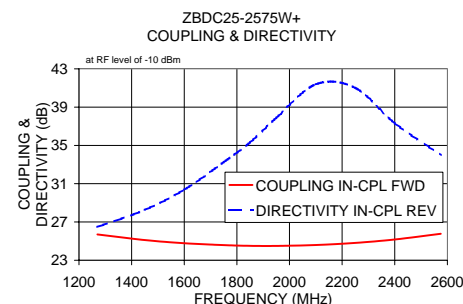
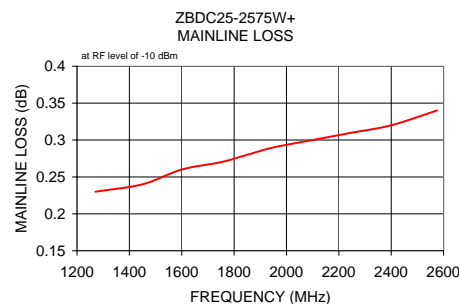
Bi-Directional Coupler Electrical Specifications

FREQ. (MHz)	COUPLING (dB)		MAINLINE LOSS ¹ (dB)		DIRECTIVITY (dB)		VSWR (:1)	POWER INPUT (W)
	Nom.	Flatness	Typ.	Max.	Typ.	Min.		
1270-2575	24.9 \pm 1.1	\pm 0.8	0.3	0.4	28	20	1.05	20
1700-2200	24.3 \pm 0.5	\pm 0.3	0.3	0.45	30	24	1.05	20

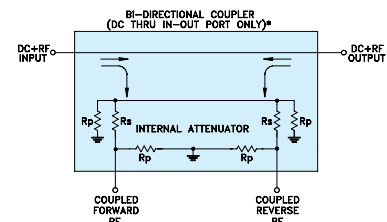
1. Mainline loss includes theoretical power loss at coupled port.

Typical Performance Data

Frequency (MHz)	Mainline Loss (dB) In-Out	Coupling (dB)		Directivity (dB)		Return Loss (dB)			
		In-Cpl Fwd	Out-Cpl Rev	Out-Cpl Fwd	In-Cpl Rev	In	Out	Cpl Fwd	Cpl Rev
1270.00	0.23	25.70	25.71	25.63	26.48	27.91	27.32	30.41	28.47
1450.00	0.24	25.11	25.13	27.14	28.26	29.10	28.76	30.05	28.31
1600.00	0.26	24.78	24.79	28.20	30.37	30.28	29.78	30.32	28.69
1750.00	0.27	24.58	24.59	29.08	33.25	30.99	30.43	30.52	29.43
1850.00	0.28	24.51	24.53	29.48	35.31	31.05	30.69	31.09	30.11
1950.00	0.29	24.50	24.53	29.90	37.88	31.08	30.44	31.41	30.80
2100.00	0.30	24.59	24.61	29.04	41.38	29.61	29.12	31.92	31.77
2250.00	0.31	24.81	24.82	27.73	41.01	27.68	27.97	31.58	32.17
2400.00	0.32	25.17	25.16	26.36	37.32	25.83	26.47	30.79	32.08
2575.00	0.34	25.77	25.75	24.33	33.99	23.84	24.15	29.24	30.72



Electrical Schematic



For detailed performance specs & shopping online see web site

Mini-Circuits
ISO 9001 ISO 14001 AS 9100 CERTIFIED
IF/RF MICROWAVE COMPONENTS

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Notes: 1. Performance and quality attributes and conditions not expressly stated in this specification sheet are intended to be excluded and do not form a part of this specification sheet. 2. Electrical specifications and performance data contained herein are based on Mini-Circuit's applicable established test performance criteria and measurement instructions. 3. The parts covered by this specification sheet are subject to Mini-Circuits standard limited warranty and terms and conditions (collectively, "Standard Terms"); Purchasers of this part are entitled to the rights and benefits contained therein. For a full statement of the Standard Terms and the exclusive rights and remedies thereunder, please visit Mini-Circuits' website at www.minicircuits.com/MCLStore/terms.jsp.

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