

DC Pass Bi-Directional Coupler

ZABDC20-25H75+

75Ω Up to 100W 700 to 2500 MHz

Maximum Ratings

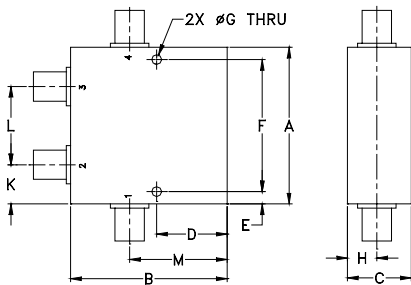
Operating Temperature	-55°C to 100°C
Storage Temperature	-55°C to 100°C
DC Current	2.0 A

* Case temperature is defined as temperature on ground leads. Permanent damage may occur if any of these limits are exceeded.

Coaxial Connections

INPUT	1
OUTPUT	4
COUPLED (forward)	2
COUPLED (reverse)	3

Outline Drawing



Outline Dimensions (inch/mm)

A	B	C	D	E	F	G	H	J	K	L	M	wt
2.00	2.00	.88	.90	.156	1.688	.125	.38	---	.50	1.00	1.25	grams
50.80	50.80	22.35	22.86	3.96	42.88	3.18	9.65	---	12.70	25.40	31.75	225

Features

- excellent mainline loss, 0.15 dB typ.
- excellent directivity, 25 dB typ.
- high power, up to 100W
- rugged shielded case
- DC current through input to output 2.0A Max. at 50 watt RF input power

Applications

- cable tv
- power leveling & monitoring
- VSWR measurement



Generic photo used for illustration purposes only

CASE STYLE: DD477-1

Connectors	Model
N-TYPE	ZABDC20-25H75+

+RoHS Compliant

The +Suffix identifies RoHS Compliance. See our web site for RoHS Compliance methodologies and qualifications

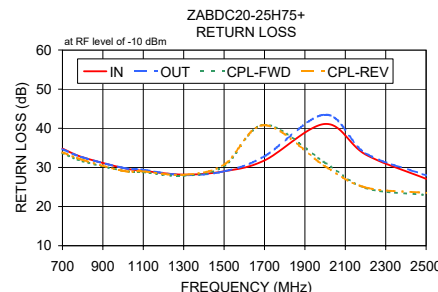
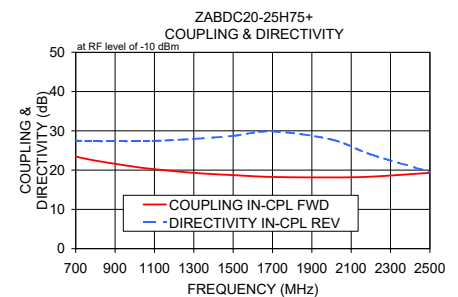
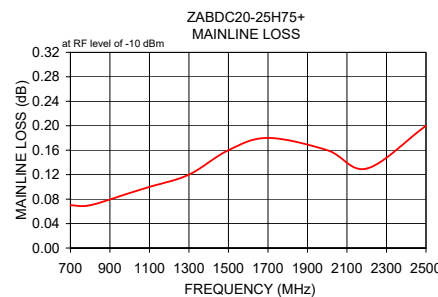
Bi-Directional Coupler Electrical Specifications

FREQ. (MHz)	COUPLING (dB)		MAINLINE LOSS ¹ (dB)		DIRECTIVITY (dB)		VSWR (:1)	POWER INPUT (W)
	Nom.	Flatness	Typ.	Max.	Typ.	Min.		
f_L - f_U							Typ.	Max.
700-2500			0.15	0.35	25	15	1.08	25
800-1000	21.5±1.0	±0.95	0.10	0.30	27	22	1.08	100
1000-1300	20±0.8	±0.95	0.15	0.35	27	20	1.08	50
1300-2200	18.5±1.0	±0.7	0.15	0.35	25	17	1.08	50
2200-2500	18.5±1.0	±0.7	0.15	0.35	18	15	1.08	25

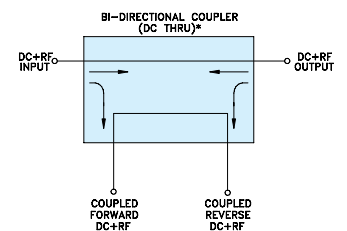
1. Mainline loss includes theoretical power loss at coupled port.

Typical Performance Data

Frequency (MHz)	Mainline Loss (dB)	Coupling (dB)		Directivity (dB)		Return Loss (dB)			
		In-Out	In-Cpl Fwd	Out-Cpl Rev	Out-Cpl Fwd	In-Cpl Rev	In	Out	Cpl Fwd
700.00	0.07	23.45	23.45	27.55	27.50	34.81	34.65	33.64	33.85
800.00	0.07	22.41	22.41	27.34	27.33	32.60	32.55	31.58	31.93
1000.00	0.09	20.85	20.86	26.91	27.33	29.85	29.89	29.17	29.13
1100.00	0.10	20.24	20.25	26.77	27.44	29.14	29.39	28.78	28.99
1300.00	0.12	19.29	19.29	26.66	27.95	28.17	28.04	27.88	28.11
1500.00	0.16	18.72	18.71	26.90	28.73	29.02	29.00	30.31	30.70
1700.00	0.18	18.26	18.24	27.53	29.85	31.79	32.85	40.91	40.80
2000.00	0.16	18.13	18.11	26.08	27.79	41.10	43.50	31.19	30.29
2200.00	0.13	18.33	18.32	22.74	23.99	33.31	33.65	24.74	24.89
2500.00	0.20	19.29	19.29	18.56	19.52	27.08	27.97	22.95	23.50



Electrical Schematic



* ELECTRICAL SCHEMATIC IS FOR BI-DIRECTIONAL COUPLER WITHOUT INTERNAL TRANSFORMERS AND RESISTORS.

Notes

- Performance and quality attributes and conditions not expressly stated in this specification document are intended to be excluded and do not form a part of this specification document.
- Electrical specifications and performance data contained in this specification document are based on Mini-Circuit's applicable established test performance criteria and measurement instructions.
- The parts covered by this specification document are subject to Mini-Circuit's 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 exclusions thereof, please visit Mini-Circuit's website at www.minicircuits.com/WCLStore/terms.jsp



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