

DC Pass Bi-Directional Coupler

ZABDC20-25H75F+

75Ω Up to 100W 700 to 2500 MHz

Maximum Ratings

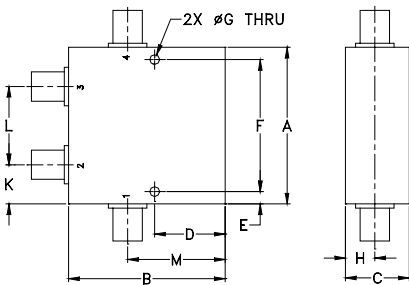
Operating Temperature	-55°C to 100°C
Storage Temperature	-55°C to 100°C
DC Current	2.0 A

* 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

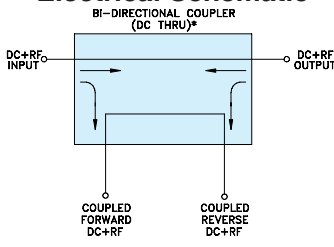
Outline Drawing



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

Electrical Schematic



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

Features

- excellent mainline loss, 0.3 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



CASE STYLE: DD477-1

Connectors	Model
F-TYPE	ZABDC20-25H75F+

+RoHS Compliant

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

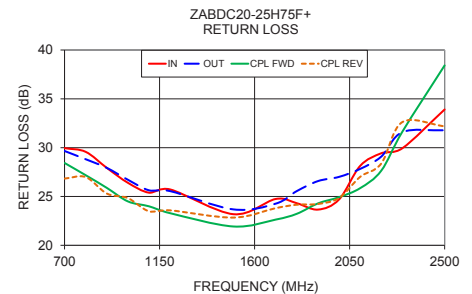
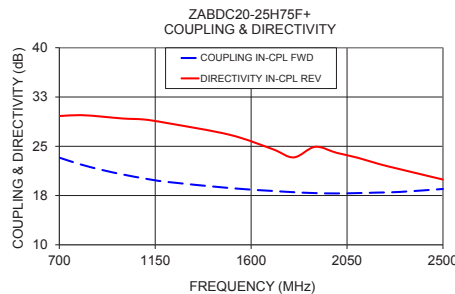
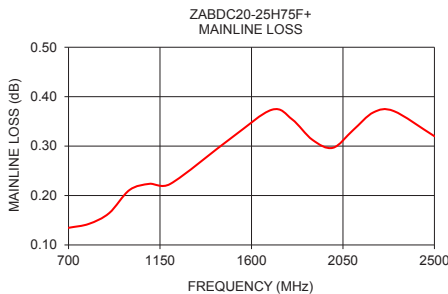
Electrical Specifications

Parameter	Condition (MHz)	Min.	Typ.	Max.	Unit
Frequency Range		700	—	2500	MHz
Mainline Loss	700 - 1000	—	0.2	0.4	dB
	1000 - 1300	—	0.3	0.5	
	1300 - 2200	—	0.3	0.5	
	2200 - 2500	—	0.3	0.5	
Coupling	700 - 800	—	22.7±1.0	—	dB
	800 - 1000	—	21.5±1.0	—	
	1000 - 1300	—	20±0.8	—	
	1300 - 2200	—	18.5±1.0	—	
Coupling Flatness(±)	700 - 800	—	±0.7	—	dB
	800 - 1000	—	±0.95	—	
	1000 - 1300	—	±0.95	—	
	1300 - 2200	—	±0.9	—	
Directivity	700 - 1000	22	27	—	dB
	1000 - 1300	20	27	—	
	1300 - 2200	17	25	—	
	2200 - 2500	15	18	—	
Return Loss (Input)	700 - 2500	—	23.0	—	dB
Return Loss (Output)	700 - 2500	—	23.0	—	dB
Return Loss (Coupling)	700 - 2500	—	23.0	—	dB
Input Power	700 - 1000	—	—	100	W
	1000 - 1300	—	—	50	
	1300 - 2200	—	—	50	
	2200 - 2500	—	—	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	In-Cpl Rev	Out-Cpl Fwd	In-Cpl Rev	In	Out	Cpl Fwd	Cpl Rev
700.0	0.13	23.27	23.28	28.60	29.60	29.95	29.66	28.43	26.83
800.0	0.14	22.24	22.26	28.66	29.74	29.57	28.82	27.18	26.99
1000.0	0.21	20.69	20.71	27.91	29.22	26.40	26.71	24.50	24.83
1100.0	0.22	20.09	20.10	27.59	29.06	25.39	25.63	24.00	23.48
1200.0	0.22	19.60	19.57	26.95	28.56	25.72	25.55	23.29	23.58
1700.0	0.37	18.21	18.27	24.40	24.57	24.75	24.27	22.64	23.81
1900.0	0.31	17.87	17.96	23.13	24.92	23.66	26.58	24.29	24.24
2000.0	0.30	17.82	17.95	22.36	24.01	24.70	27.01	24.93	24.84
2200.0	0.37	17.96	18.16	21.16	22.30	29.43	29.09	27.65	28.37
2300.0	0.37	18.06	18.30	20.55	21.49	29.94	31.59	31.64	32.62
2500.0	0.32	18.50	18.82	19.55	19.94	33.91	31.78	38.42	32.19



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 exclusive rights and remedies thereunder, please visit Mini-Circuit's website at www.minicircuits.com/WCLStore/terms.jsp



www.minicircuits.com P.O. Box 350166, Brooklyn, NY 11235-0003 (718) 934-4500 sales@minicircuits.com

REV. A
M151107
ED-13230A
ZABDC20-25H75F+
WP/CP/AM
151007
Page 1 of 1