

DC Pass

Directional Coupler

50Ω Up to 5W 800 to 1600 MHz

Maximum Ratings

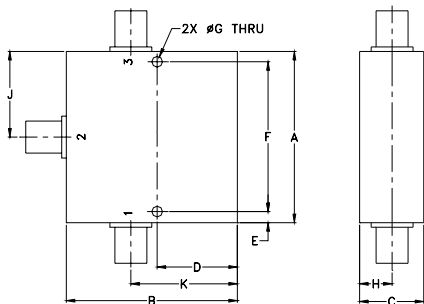
Operating Temperature	-55°C to 100°C
Storage Temperature	-55°C to 100°C
DC Current	2A

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

Coaxial Connections

INPUT	1
OUTPUT	3
COUPLED	2

Outline Drawing



Outline Dimensions (inch/mm)

A	B	C	D	E	F
2.00	2.00	.75	.938	.13	1.750
50.80	50.80	19.05	23.83	3.30	44.45

G	H	J	K	wt
.125	.38	1.00	1.25	grams
3.18	9.65	25.40	31.75	145.0

Features

- wideband, 800 to 1600 MHz
- low insertion loss, 0.8 dB typ.
- good directivity, 20 dB typ.
- Mainline Loss at 5 to 100 MHz 0.1 dB typ.
- DC current through input to output 2A Max.

Applications

- cellular
- PCS
- labs

ZADC-20-50DC+


SMA version shown

CASE STYLE: CC51-1

Connectors	Model	Price	Qty.
SMA	ZADC-20-50DC-S+	\$79.95 ea.	(1-9)

+RoHS Compliant

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

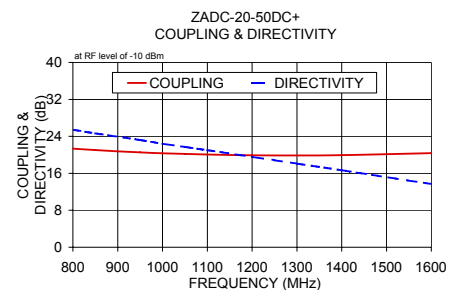
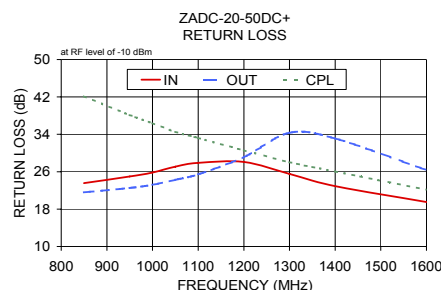
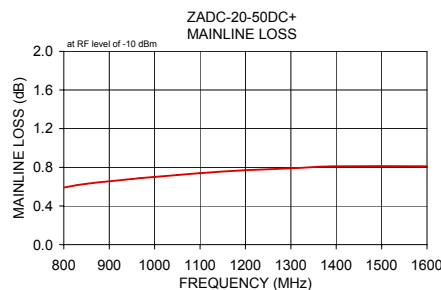
Directional Coupler Electrical Specifications

FREQ. RANGE (MHz)	COUPLING (dB)		MAINLINE LOSS ¹		DIRECTIVITY (dB)		VSWR (:1)	POWER INPUT (W)
	Nom.	Flatness	Typ.	Max.	Typ.	Min.	Typ.	Max.
f_L - f_U								
800-1600	20±1	±1.1	0.8	1.0	20	11	1.2	5
800-1000	20.5±1	±0.75	0.7	0.9	24	18	1.2	5
1000-1600	20±1	±0.5	0.8	1.0	18	11	1.2	5

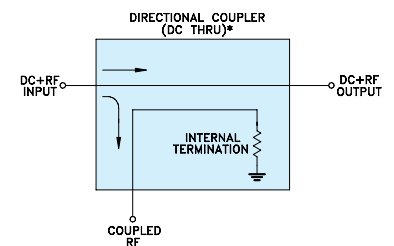
1. Mainline loss includes theoretical power loss at coupled port.

Typical Performance Data

Frequency (MHz)	Mainline Loss (dB) In-Out	Coupling (dB) In-Cpl	Directivity (dB)	Return Loss (dB)		
				In	Out	Cpl
800.00	0.59	21.32	25.44	23.23	21.47	44.11
850.00	0.63	21.02	24.65	23.57	21.59	42.12
950.00	0.68	20.53	23.21	24.98	22.52	38.12
1000.00	0.70	20.34	22.41	25.81	23.22	36.36
1050.00	0.72	20.19	21.69	27.08	24.26	34.54
1100.00	0.74	20.07	21.00	27.91	25.45	33.19
1200.00	0.77	19.91	19.55	28.08	29.13	30.57
1300.00	0.79	19.86	18.11	25.54	34.35	28.04
1400.00	0.81	19.92	16.65	22.92	33.12	26.05
1600.00	0.81	20.36	13.68	19.53	26.37	22.15



Electrical Schematic



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

Notes

- A. 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.
 B. Electrical specifications and performance data contained in this specification document are based on Mini-Circuits' applicable established test performance criteria and measurement instructions.
 C. The parts covered by this specification document 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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REV. A
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 WZ12/QL/AM
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