

# Coaxial Directional Coupler

## ZADC-20-18-75

75Ω 800 to 1750 MHz

### Maximum Ratings

Operating Temperature	-55°C to 100°C
Storage Temperature	-55°C to 100°C

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

### Coaxial Connections

INPUT	S
OUTPUT	1
COUPLED	2

### Features

- wideband, 800 to 1750 MHz
- excellent mainline loss, 0.4 dB typ.
- excellent VSWR, 1.2:1 typ.
- rugged shielded case

### Applications

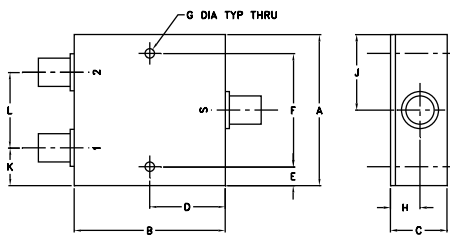
- catv
- GPS/cellular
- instrumentation



CASE STYLE: F14

Connectors	Model	Price	Qty.
BNC	ZADC-20-18-75	\$54.95 ea.	(1-9)

### Outline Drawing



### Outline Dimensions (inch/mm)

A	B	C	D	E	F	G	
2.00	2.00	0.75	1.00	0.25	1.500	0.125	
50.80	50.80	19.05	25.40	6.35	38.10	3.18	
H	J	K	L				wt
0.39	1.00	0.50	1.00				grams
9.91	25.40	12.70	25.40				170.0

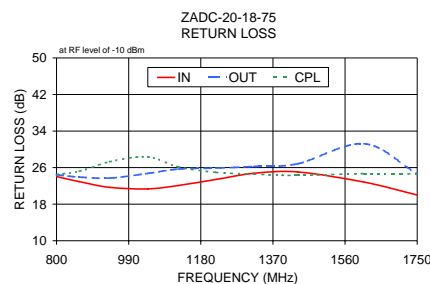
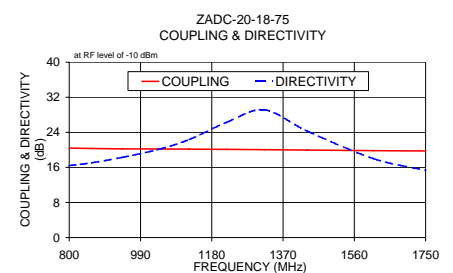
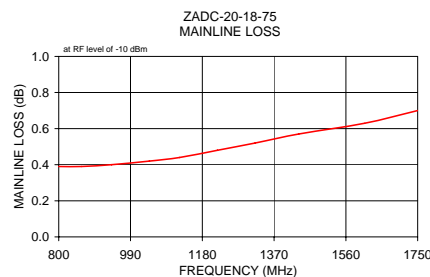
### Directional Coupler Electrical Specifications

FREQ. RANGE (MHz)	COUPLING (dB)		MAINLINE LOSS <sup>1</sup> (dB)		DIRECTIVITY (dB)		VSWR (:1)	POWER INPUT (W)
	Nom.	Flatness	Typ.	Max.	Typ.	Min.		
f <sub>L</sub> -f <sub>U</sub>								
800-1750	19.8±0.6	±0.7	0.4	0.9	22	13	1.2	1.0

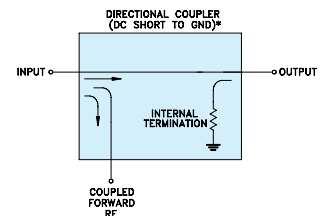
1. Mainline loss includes theoretical power loss at coupled port.

### Typical Performance Data

Frequency (MHz)	Mainline Loss (dB) In-Out	Coupling (dB) In-Cpl	Directivity (dB)	Return Loss (dB)		
				In	Out	Cpl
800.00	0.39	20.40	16.42	24.06	24.43	24.51
860.00	0.39	20.32	17.06	22.94	23.93	25.20
940.00	0.40	20.23	18.28	21.68	23.71	27.29
1040.00	0.42	20.19	20.17	21.34	24.73	28.36
1120.00	0.44	20.16	22.38	22.08	25.68	26.18
1220.00	0.48	20.11	26.29	23.42	25.91	24.97
1320.00	0.52	20.05	29.14	24.76	26.25	24.58
1435.00	0.57	19.95	24.27	25.05	26.85	24.31
1610.00	0.63	19.82	18.04	22.84	31.24	24.71
1750.00	0.70	19.75	15.32	20.01	24.63	24.61



### Electrical Schematic



\* ELECTRICAL SCHEMATIC IS FOR DIRECTIONAL COUPLER WITH INTERNAL TRANSFORMER(S) THAT ROUTES DC FROM RF PORTS TO GROUND.



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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](http://www.minicircuits.com/MCLStore/terms.jsp).

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