

# Directional Coupler

## ZADC-17-14HP-S

50Ω

500 to 1350 MHz



Generic photo used for illustration purposes only

CASE STYLE: F14

Connectors	Model
SMA	ZADC-17-14HP-S

### Maximum Ratings

Operating Temperature	-55°C to 100°C
Storage Temperature	-55°C to 100°C
DC Current	0.25A

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

### Coaxial Connections

INPUT	S
OUTPUT	1
COUPLED	2

### Features

- excellent mainline loss, 0.8 dB typ.
- excellent VSWR, 1.06:1 typ.
- useable over 300-2000 MHz
- input power up to 10W
- protected by US Patents 7,049,905 & 7,218,186
- DC current through input to output 0.25A Max. at 1.0 watt RF input power.

### Applications

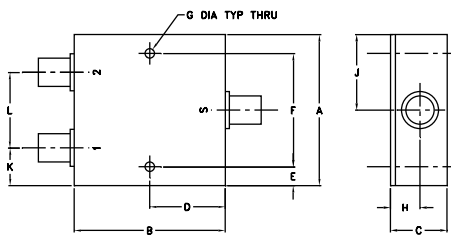
- cellular
- VHF/UHF
- instrumentation

### 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.		
$f_L$ - $f_U$								
500-1350	16.4±0.9	±1.3	0.8	1.5	29	16	1.06	10
800-1000	15.5±0.7	±0.5	0.8	1.3	30	20	1.06	10

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

### Outline Drawing

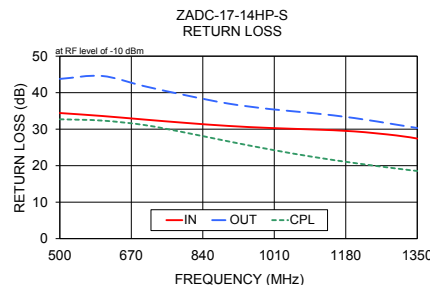
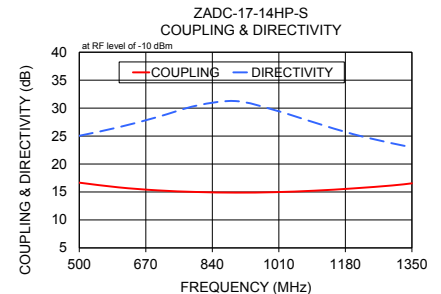
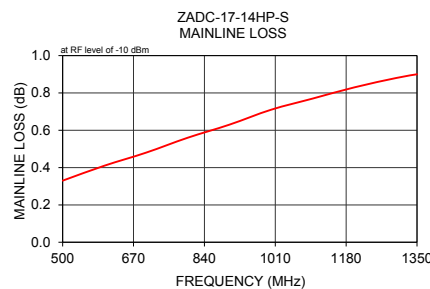


### Outline Dimensions (inch/mm)

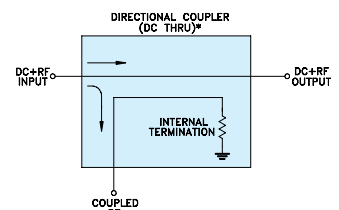
A	B	C	D	E	F	G
2.00	2.00	0.75	1.00	0.25	1.500	0.125
50.80	50.80	19.05	25.40	6.35	38.10	3.18
H	J	K	L	wt		
0.39	1.00	0.50	1.00	grams		
9.91	25.40	12.70	25.40	170.0		

### Typical Performance Data

Frequency (MHz)	Mainline Loss (dB) In-Out	Coupling (dB) In-Cpl	Directivity (dB)	Return Loss (dB)		Cpl
				In	Out	
500.00	0.33	16.67	25.05	34.42	43.77	32.71
600.00	0.41	15.83	26.57	33.61	44.58	32.35
700.00	0.48	15.29	28.41	32.64	41.80	31.15
800.00	0.56	15.00	30.45	31.71	39.27	29.02
900.00	0.63	14.89	31.26	30.89	37.02	26.67
1000.00	0.71	14.97	29.63	30.32	35.50	24.44
1100.00	0.77	15.23	27.45	29.92	34.41	22.44
1200.00	0.83	15.64	25.34	29.39	33.05	20.73
1300.00	0.88	16.17	23.70	28.28	31.24	19.22
1350.00	0.90	16.55	23.01	27.42	30.31	18.54



### Electrical Schematic



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

### 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.
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