

# Directional Coupler

## ZADC-6-2G-5W+

50Ω up to 5W 800 to 2000 MHz

### Maximum Ratings

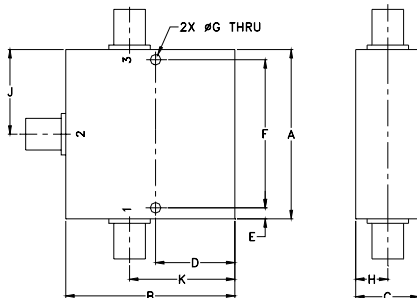
Operating Temperature	-55°C to 100°C
Storage Temperature	-55°C to 100°C
DC Current	1.0A

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, 800-2000 MHz
- low mainline loss, 1.5 dB typ.
- good directivity, 22 dB typ.
- good power handling, 5W max.
- DC current through input to output 1.0A Max.

### Applications

- AMPS/GSM
- PCS/DCS
- ISM/GPS



CASE STYLE: CC51-1

Connectors	Model
SMA	ZADC-6-2G-5W-S+

### +RoHS Compliant

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

### Directional Coupler Electrical Specifications

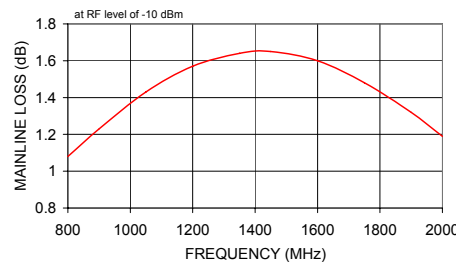
FREQ. RANGE (MHz)	COUPLING (dB)		MAINLINE LOSS <sup>1</sup> (dB)		DIRECTIVITY (dB)		VSWR (:1)	POWER INPUT (W) Max.
	Nom.	Flatness	Typ.	Max.	Typ.	Min.		
800-1000	6.7±1.0	±0.7	1.3	1.6	35	20	1.15	5
1700-2000	6.7±1.0	±1.0	1.3	1.8	22	17	1.15	5
800-2000	6.7±1.0	±1.3	1.6	1.9	25	17	1.15	5

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

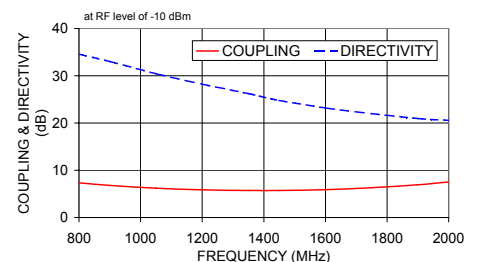
### Typical Performance Data

Frequency (MHz)	Mainline Loss (dB) In-Out	Coupling (dB) In-Cpl	Directivity (dB)	Return Loss (dB)		
				In	Out	Cpl
800.00	1.08	7.35	34.57	31.46	28.00	31.82
900.00	1.23	6.80	33.05	30.33	26.86	32.77
1050.00	1.43	6.22	30.44	29.07	25.50	38.53
1200.00	1.57	5.87	28.24	28.76	24.40	52.27
1350.00	1.64	5.72	26.23	29.40	24.00	32.86
1450.00	1.65	5.73	24.80	30.92	24.43	27.94
1600.00	1.60	5.90	23.21	33.42	25.80	23.38
1750.00	1.48	6.30	21.99	40.23	28.68	20.45
1900.00	1.32	6.93	20.97	34.51	29.80	18.89
2000.00	1.19	7.52	20.58	28.75	26.56	18.21

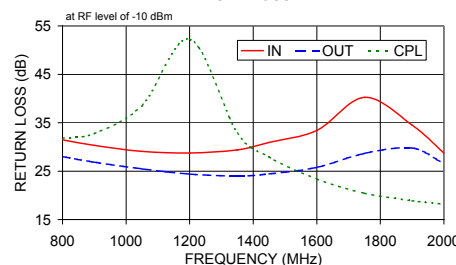
ZADC-6-2G-5W+ MAINLINE LOSS



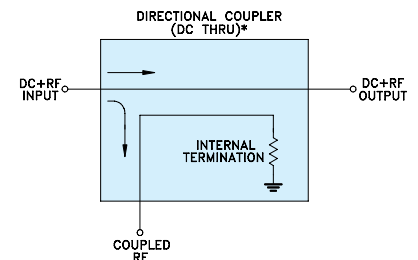
ZADC-6-2G-5W+ COUPLING & DIRECTIVITY



ZADC-6-2G-5W+ RETURN LOSS



### 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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