

# Coaxial Directional Coupler

## ZNDC-23-2G+

50Ω    23dB    800 to 2000 MHz

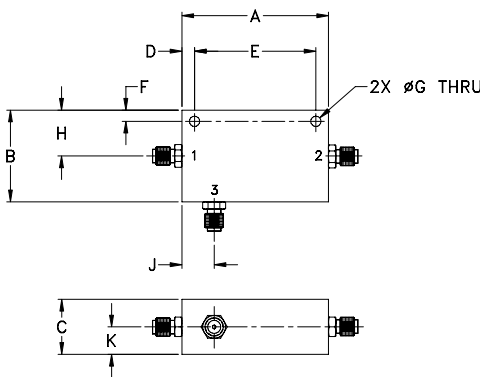
### Maximum Ratings

Operating Temperature	-55°C to 100°C
Storage Temperature	-55°C to 100°C
Power input	3W Max.
Permanent damage may occur if any of these limits are exceeded.	

### Coaxial Connections

INPUT	1
OUTPUT	2
COUPLED	3

### Outline Drawing



### Outline Dimensions (inch/mm)

A	B	C	D	E	F	
2.00	1.25	0.75	0.17	1.656	0.15	
50.80	31.75	19.05	4.32	42.06	3.81	
G	H	J	K		wt	
0.14	0.63	0.44	0.38		grams	
3.56	16.00	11.18	9.65		57.0	

### Features

- excellent mainline loss, 0.5 dB typ.
- excellent VSWR, 1.2:1 typ.
- useable over 800-2000 MHz
- very flat coupling  $\pm 0.3$  dB typ.

### Applications

- cellular
- PCS
- ISM



CASE STYLE: FM587  
Connectors Model  
SMA ZNDC-23-2G-S+

### +RoHS Compliant

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

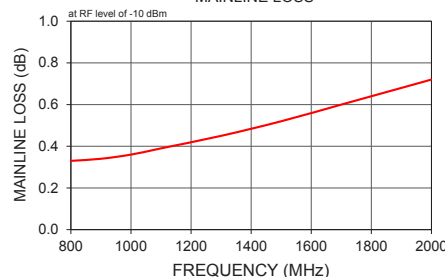
### Directional Coupler Electrical Specifications

FREQ. RANGE (MHz)	COUPLING (dB)		MAINLINE LOSS (dB)		DIRECTIVITY (dB)		VSWR (:1)	POWER INPUT (W)
	Nom.	Max. Flatness	Typ.	Max.	Typ.	Min.		
800-2000								
800-1000	23.2 $\pm$ 0.5	$\pm$ 0.4	0.3	0.6	25	17	1.2	3
1000-1700	23.0 $\pm$ 0.5	$\pm$ 0.4	0.5	0.9	22	17	1.2	3
1700-2000	22.7 $\pm$ 0.5	$\pm$ 0.4	0.6	1.1	20	14	1.2	3

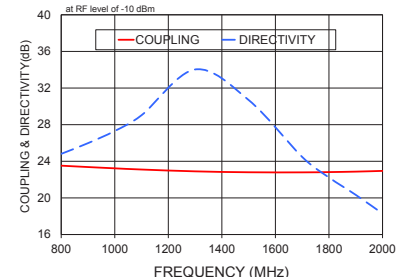
### Typical Performance Data

Frequency (MHz)	Mainline Loss (dB) In-Out	Coupling (dB) In-Cpl	Directivity (dB)	Return Loss (dB)		
				In	Out	Cpl
800.00	0.33	23.52	24.81	23.11	22.15	30.23
900.00	0.34	23.37	25.98	24.42	23.52	30.61
1000.00	0.36	23.23	27.31	25.52	24.59	30.96
1100.00	0.39	23.10	29.03	25.98	25.04	31.16
1300.00	0.45	22.90	34.03	24.89	24.32	32.65
1500.00	0.52	22.80	30.69	23.11	21.98	34.94
1700.00	0.60	22.79	24.47	22.07	20.06	38.33
1800.00	0.64	22.82	22.23	21.91	19.36	39.22
1900.00	0.68	22.87	20.33	21.98	18.71	37.67
2000.00	0.72	22.95	18.29	22.29	18.30	36.58

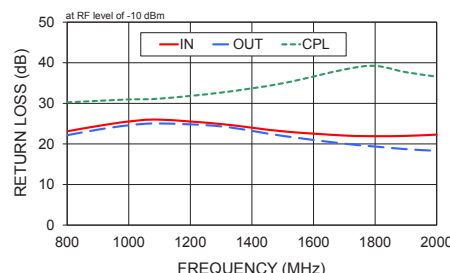
ZNDC-23-2G+ MAINLINE LOSS



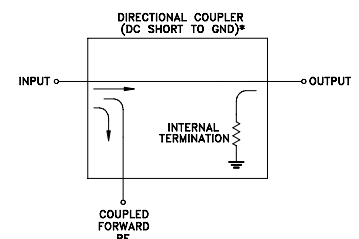
ZNDC-23-2G+ COUPLING & DIRECTIVITY



ZNDC-23-2G+ RETURN LOSS



### Electrical Schematic



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

### 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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