

# Coaxial Directional Coupler

## ZNDC-13-2G-S+

50Ω 13dB 800 to 2000 MHz

### Maximum Ratings

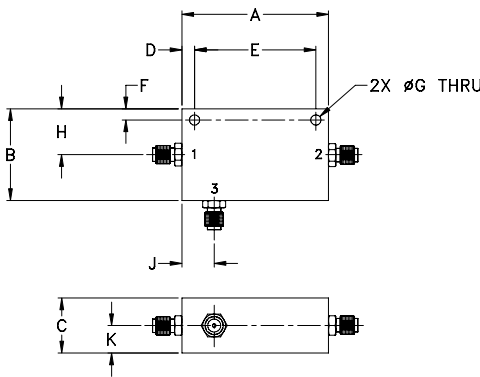
Operating Temperature	-55°C to 100°C
Storage Temperature	-55°C to 100°C
Power input	3W Max.

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

### Features

- excellent mainline loss, 0.8 dB typ.
- very flat coupling  $\pm 0.2$  dB typ.

### Applications

- cellular
- PCS
- ISM



Generic photo used for illustration purposes only

CASE STYLE: FM587

Connectors Model No.  
SMA ZNDC-13-2G-S+

**+RoHS Compliant**

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

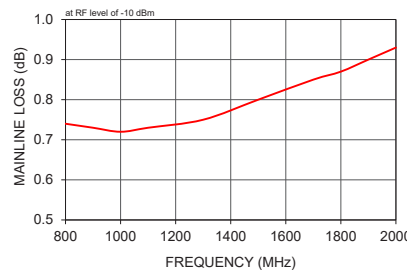
### Directional Coupler Electrical Specifications

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	13 $\pm$ 0.5	$\pm$ 0.3	0.8	1.1	20	17	1.4	3
1000-1700	13 $\pm$ 0.5	$\pm$ 0.3	0.8	1.3	20	18	1.15	3
1700-2000	13 $\pm$ 0.5	$\pm$ 0.35	0.8	1.3	25	14	1.2	3

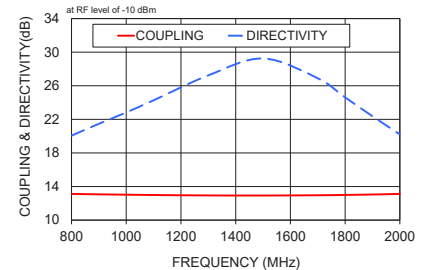
### Typical Performance Data

Frequency (MHz)	Mainline Loss (dB) In-Out	Coupling (dB) In-Cpl	Directivity (dB)	Return Loss (dB)		
				In	Out	Cpl
800.00	0.74	13.12	20.06	14.58	14.10	14.22
900.00	0.73	13.07	21.47	15.88	15.36	15.17
1000.00	0.72	13.03	22.82	17.25	16.66	16.13
1100.00	0.73	12.99	24.27	18.63	18.00	17.12
1300.00	0.75	12.94	27.24	21.86	20.85	19.17
1500.00	0.80	12.93	29.25	25.65	23.33	20.92
1700.00	0.85	12.96	26.89	29.51	24.07	21.11
1800.00	0.87	13.00	24.62	31.04	23.92	20.31
1900.00	0.90	13.05	22.37	32.35	23.61	19.06
2000.00	0.93	13.12	20.21	33.35	23.36	17.61

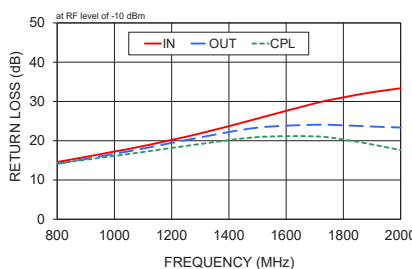
ZNDC-13-2G-S+ MAINLINE LOSS



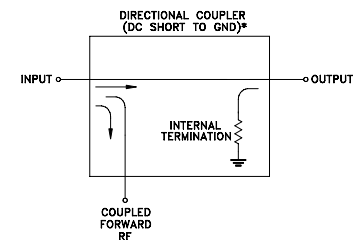
ZNDC-13-2G-S+ COUPLING & DIRECTIVITY



ZNDC-13-2G-S+ RETURN LOSS



### Electrical Schematic



\* ELECTRICAL SCHEMATIC IS FOR DIRECTIONAL COUPLER WITH INTERNAL TRANSFORMERS 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.
- 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/WCLStore/terms.jsp](http://www.minicircuits.com/WCLStore/terms.jsp)

