

Coaxial Directional Coupler

50Ω 18dB 800 to 2000 MHz

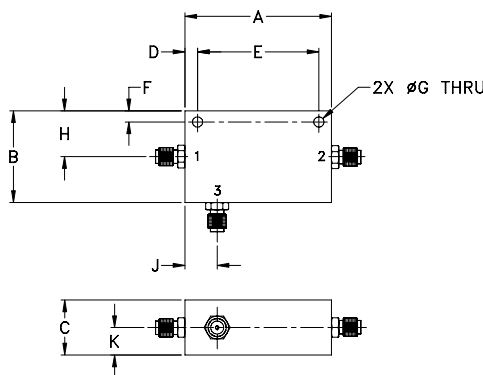
Maximum Ratings

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, 1.15:1 typ.
- very flat coupling ± 0.3 dB typ.

Applications

- cellular
- PCS
- ISM

ZNDC-18-2G-S+



Generic photo used for illustration purposes only

CASE STYLE: FM587

Connectors Model No.
SMA ZNDC-18-2G-S+

+RoHS Compliant

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

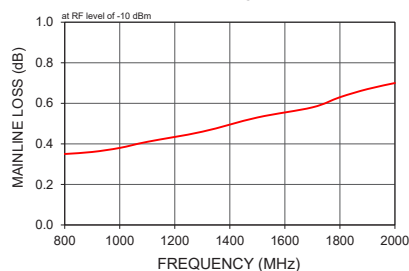
Directional Coupler Electrical Specifications

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	18.5 $\pm$ 0.5	$\pm$ 0.3	0.3	0.6	22	17	1.1	3
1000-1700	18.2 $\pm$ 0.5	$\pm$ 0.4	0.5	0.9	22	18	1.2	3
1700-2000	18.0 $\pm$ 0.5	$\pm$ 0.35	0.6	1.1	25	14	1.3	3

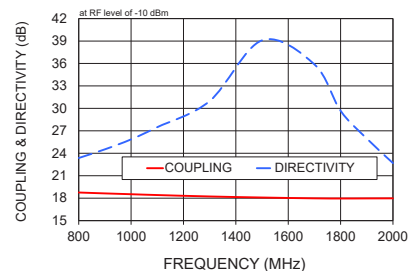
Typical Performance Data

Frequency (MHz)	Mainline Loss (dB) In-Out	Coupling (dB) In-Cpl	Directivity (dB)	Return Loss (dB)		
				In	Out	Cpl
800.00	0.35	18.76	23.37	21.37	21.29	21.05
900.00	0.36	18.64	24.53	22.59	22.52	21.97
1000.00	0.38	18.53	25.86	24.03	23.48	22.73
1100.00	0.41	18.42	27.49	25.01	24.10	23.40
1300.00	0.46	18.23	30.98	25.09	23.78	23.61
1500.00	0.53	18.09	39.09	23.97	22.61	21.52
1700.00	0.58	17.98	35.88	23.18	21.27	19.43
1800.00	0.63	17.96	29.68	22.92	20.69	18.20
1900.00	0.67	17.97	25.97	22.85	20.31	16.89
2000.00	0.70	17.98	22.69	23.35	20.36	15.85

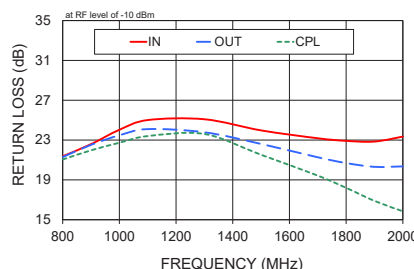
ZNDC-18-2G-S+
MAINLINE LOSS



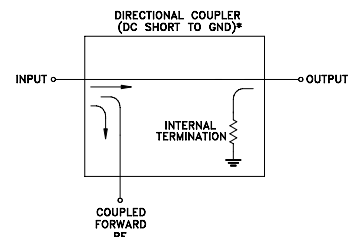
ZNDC-18-2G-S+
COUPLING & DIRECTIVITY



ZNDC-18-2G-S+
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.
- 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/MCLStore/terms.jsp



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