Coaxial

Directional Coupler

50Ω 10 to 1000 MHz

ZFDC-20-4L

Generic photo used for illustration purposes only

CASE STYLE: K18

Connectors	Model
SMA	ZFDC-20-4L
BRACKET (OPTION"B")	

Maximum Ratings

Operating Temperature	-55°C to 100°C
Storage Temperature	-55°C to 100°C

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

Coaxial Connections

INPUT	1
OUTPUT	2
COUPLED	3

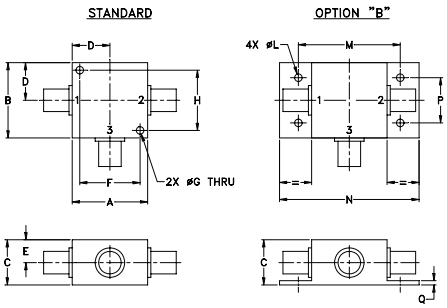
Features

- wideband, 10 to 1000 MHz
- excellent directivity, 30 dB typ.
- excellent mainline loss, 0.3 dB typ.
- excellent VSWR, 1.1:1 typ.
- rugged shielded case

Applications

- VSWR measurement
- power monitoring
- power leveling

Outline Drawing



Outline Dimensions (inch / mm)

A	B	C	D	E	F	G	H
1.25	1.25	.75	.63	.38	1.00	.125	1.000
31.75	31.75	19.05	16.00	9.65	25.40	3.18	25.40

J	K	L	M	N	P	Q	wt
--	--	.125	1.688	2.18	.75	.07	grams
--	--	3.18	42.88	55.37	19.05	1.78	70.0

Electrical Specifications

FREQ. RANGE (MHz)	COUPLING (dB)		MAINLINE LOSS[1] (dB)						DIRECTIVITY (dB)						VSWR (:1)	POWER INPUT (W)	
			L		M		U		L		M		U			L	MU
f_L-f_U	Nom.	Flatness	Typ.	Max.	Typ.	Max.	Typ.	Max.	Typ.	Min.	Typ.	Min.	Typ.	Min.	Typ.	Max.	Max.
10-1000	20.2±0.5	±0.5	0.2	0.5	0.3	0.7	0.7	1.2	40	20	30	16	20	14	1.1	1.0	1.0

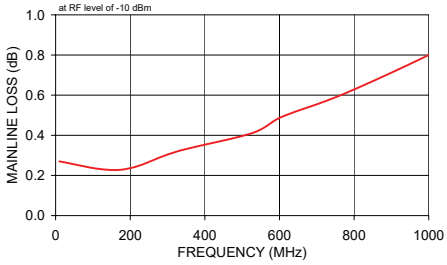
L = low range [f_L to 10 f_L] M = mid range [10 f_L to f_U/2] U= upper range [f_U/2 to f_U]

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

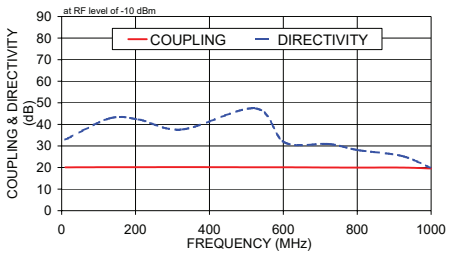
Typical Performance Data

Frequency (MHz)	Mainline Loss (dB) In-Out	Coupling (dB) In-Cpl	Directivity (dB)	Return Loss (dB) In	Return Loss (dB) Out	Return Loss (dB) Cpl
10.00	0.27	20.09	32.95	28.83	28.03	30.63
128.80	0.23	20.16	42.77	33.41	39.14	33.55
208.00	0.24	20.16	42.27	44.88	42.27	37.03
326.80	0.32	20.21	37.67	33.89	30.03	28.43
524.80	0.41	20.12	47.40	30.41	28.13	24.44
604.00	0.49	20.13	31.59	27.05	36.95	25.93
722.80	0.57	20.01	30.93	25.57	33.97	20.69
802.00	0.63	19.96	28.10	22.83	31.91	24.67
920.80	0.73	19.96	25.36	22.22	22.46	20.64
1000.00	0.80	19.57	19.77	21.71	22.17	15.92

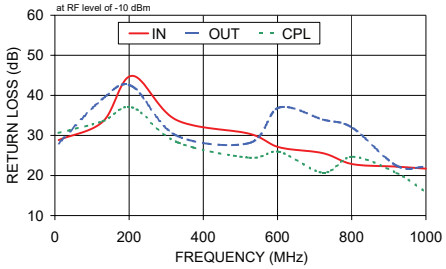
ZFDC-20-4L
MAINLINE LOSS



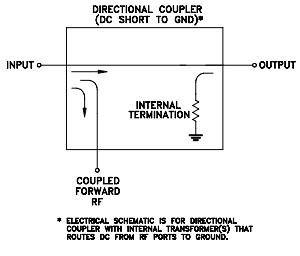
ZFDC-20-4L
COUPLING & DIRECTIVITY



ZFDC-20-4L
RETURN LOSS



Electrical Schematic



Notes

A. 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.
B. Electrical specifications and performance data contained in this specification document are based on Mini-Circuit's applicable established test performance criteria and measurement instructions.
C. 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