

# DC Pass Directional Coupler

## ZFDC-15-10-S+

50Ω

800 to 1000 MHz

### Maximum Ratings

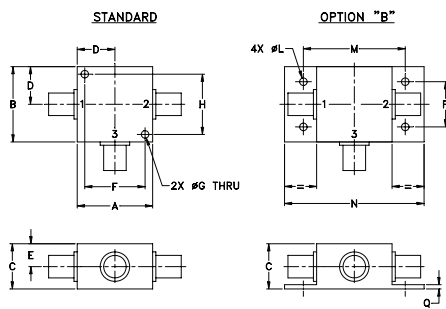
Operating Temperature	-55°C to 100°C
Storage Temperature	-55°C to 100°C
DC Current	1.0A

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

### Coaxial Connections

INPUT	1
OUTPUT	2
COUPLED	3

### 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

### Features

- excellent mainline loss, 0.3 dB typ.
- high input power, 5 watts
- rugged shielded case
- DC current through input to output 1.0A Max.

### Applications

- cellular
- instrumentation
- communications receivers & transmitters



Generic photo used for illustration purposes only

CASE STYLE: K18

Connectors	Model
SMA	ZFDC-15-10-S+

### +RoHS Compliant

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

### Directional Coupler Electrical Specifications

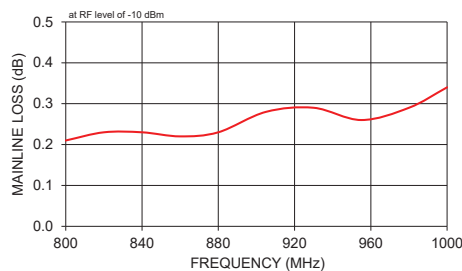
FREQ. RANGE (MHz)	COUPLING (dB)		MAINLINE LOSS <sup>1</sup> (dB)		DIRECTIVITY (dB)		VSWR (:1)	POWER INPUT (W)
	Nom.	Flatness	Typ.	Max.	Typ.	Min.		
f <sub>L</sub> -f <sub>U</sub>								
800-1000	15±1.0	±1.0	0.3	0.7	23	17	1.2	5.0

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

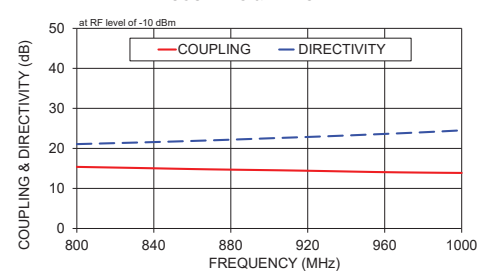
### Typical Performance Data

Frequency (MHz)	Mainline Loss (dB) In-Out	Coupling (dB) In-Cpl	Directivity (dB)	Return Loss (dB)		Cpl
				In	Out	
800.00	0.21	15.38	21.07	23.74	21.63	23.17
820.00	0.23	15.21	21.32	23.22	21.60	22.68
840.00	0.23	15.03	21.58	22.71	21.56	22.18
860.00	0.22	14.84	21.86	22.21	21.55	21.72
880.00	0.23	14.69	22.18	21.74	21.54	21.24
905.00	0.28	14.53	22.61	21.12	21.52	20.65
930.00	0.29	14.33	23.03	20.54	21.54	20.07
955.00	0.26	14.10	23.52	19.95	21.58	19.51
980.00	0.29	13.95	24.03	19.38	21.62	18.95
1000.00	0.34	13.87	24.51	18.94	21.67	18.52

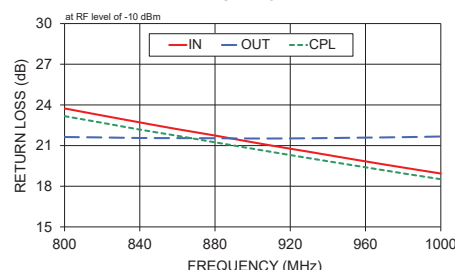
ZFDC-15-10-S+ MAINLINE LOSS



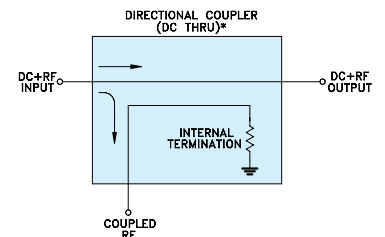
ZFDC-15-10-S+ COUPLING & DIRECTIVITY



ZFDC-15-10-S+ 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.
- The parts covered by this specification document are subject to Mini-Circuit's 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-Circuit's website at [www.minicircuits.com/MCLStore/terms.jsp](http://www.minicircuits.com/MCLStore/terms.jsp)

