Coaxial

Bi-Directional Coupler

ZFDC-20-1H+

50Ω Up to 25W 30 to 400 MHz

BNC version shown

CASE STYLE: J17

Connectors	Model
BNC	ZFDC-20-1H+
SMA	ZFDC-20-1H-S+
N-TYPE	ZFDC-20-1H-N+
BRACKET (OPTION"B")	

+RoHS Compliant

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

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	S
OUTPUT	1
COUPLED (forward)	3
COUPLED (reverse)	2

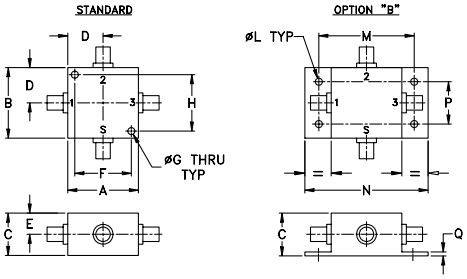
Features

- high power, up to 25W
- wideband, 30 to 400 MHz
- excellent directivity, 30 dB typ.
- low mainline loss, 0.15 dB typ.
- rugged shielded case

Applications

- VHF/UHF
- instrumentation
- communication receivers & transmitters
- power leveling

Outline Drawing



Outline Dimensions (inch / mm)

A	B	C	D	E	F	G	H
1.25	1.25	.75	.63	.38	1.000	.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	75.0

For option "B" with N-type connectors, dimension "C" increases to 0.94 inches.

Electrical Specifications at 25°C

FREQ. (MHz)	COUPLING (dB)		MAINLINE LOSS[1] (dB)						DIRECTIVITY (dB)						VSWR (:1)	POWER INPUT[2], W	
			L		M		U		L		M		U				
f_L-f_U	Nom.	Flatness	Typ.	Max.	Typ.	Max.	Typ.	Max.	Typ.	Min.	Typ.	Min.	Typ.	Min.	Typ.	L Max.	MU Max.
30-400	20.5±0.5	±0.4	0.15	0.4	0.15	0.4	0.3	0.4	30	25	30	25	30	23	1.2	25	25

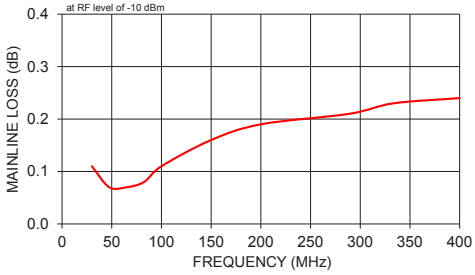
L= 30-100 MHz M= 100-200 MHz U= 200-400 MHz

1. Mainline loss includes theoretical power loss at coupled port.
2. Power input will be derating linearly to 50% of rating at 100°C.

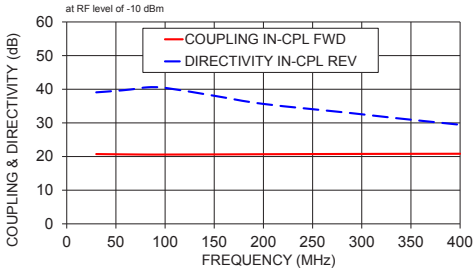
Typical Performance Data

Frequency (MHz)	Mainline Loss (dB)	Coupling (dB)		Directivity (dB)		Return Loss (dB)			
	In-Out	In-Cpl Fwd	Out-Cpl Rev	Out-Cpl Fwd	In-Cpl Rev	In	Out	Cpl Fwd	Cpl Rev
30.00	0.11	20.74	20.73	36.33	39.08	17.88	17.93	17.83	17.78
47.50	0.07	20.68	20.66	36.66	39.46	21.75	21.84	22.02	21.88
65.00	0.07	20.63	20.62	36.97	39.93	24.43	24.65	25.33	25.13
82.50	0.08	20.59	20.58	37.14	40.58	26.31	27.05	28.32	28.10
100.00	0.11	20.59	20.58	37.19	40.42	27.24	28.65	30.88	30.36
150.00	0.16	20.63	20.62	38.74	38.06	27.92	30.48	33.62	34.39
200.00	0.19	20.69	20.67	36.80	35.64	29.69	30.30	33.78	39.07
288.89	0.21	20.77	20.74	33.49	32.92	29.81	29.10	30.60	35.64
333.33	0.23	20.80	20.77	31.88	31.46	29.73	28.43	28.85	31.36
400.00	0.24	20.83	20.80	29.81	29.45	28.38	27.54	26.14	26.41

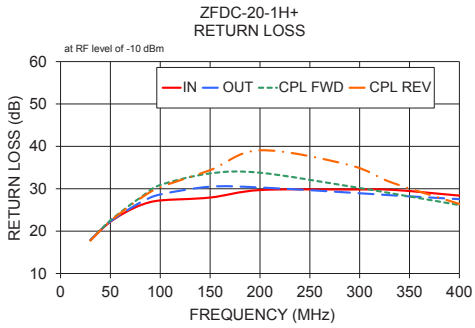
ZFDC-20-1H+
MAINLINE LOSS



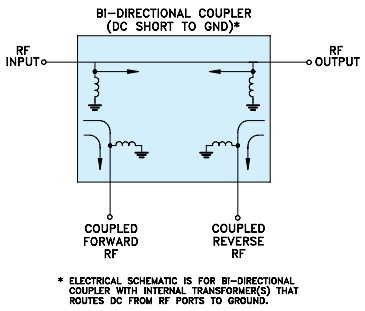
ZFDC-20-1H+
COUPLING & DIRECTIVITY



ZFDC-20-1H+
RETURN LOSS



Electrical Schematic



Notes

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