

Coaxial Directional Coupler

50Ω

0.2 to 250 MHz

ZMDC-20-3+
ZMDC-20-3



Maximum Ratings

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

Coaxial Connections

INPUT	3
OUTPUT	2
COUPLED	1

Features

- excellent mainline loss, 0.35 dB typ.
- excellent directivity, 33 dB typ.
- high input power, up to 4W max.
- rugged shielded case

Applications

- HF/VHF
- amateur radio
- instrumentation

CASE STYLE: M21

Connectors	Model	Price	Qty.
SMA	ZMDC-20-3(+)	\$49.95	(1-9)
BRACKET (OPTION "B")		\$5.00	(1+)
BRACKET (OPTION "BR")		\$1.50	(1+)

+ RoHS compliant in accordance
with EU Directive (2002/95/EC)

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 ¹ (dB)						DIRECTIVITY (dB)						VSWR (:1)	POWER INPUT (W)	
			L*		M		U		L		M		U				
	f _c -f ₀	Nom.	Flatness	Typ.	Max.	Typ.	Max.	Typ.	Max.	Typ.	Min.	Typ.	Min.	Typ.	Min.	Typ.	Max.
0.2-250	19.5±0.5	±0.5	0.35	0.6	0.35	0.5	0.35	0.6	36	30	33	25	25	20	1.2	1.5	4.0

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]

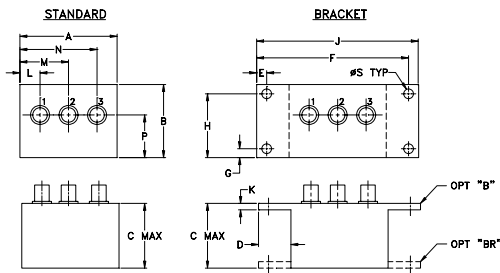
1. Mainline loss includes theoretical power loss at coupled port.

*Insertion loss specification in L range may degrade up to 1 dB at cold temperature (-55°C)

Typical Performance Data

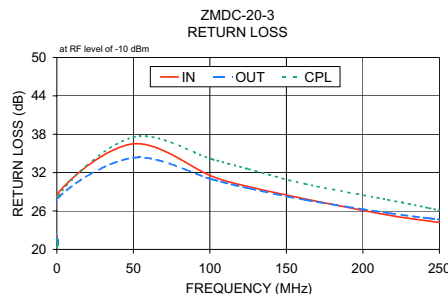
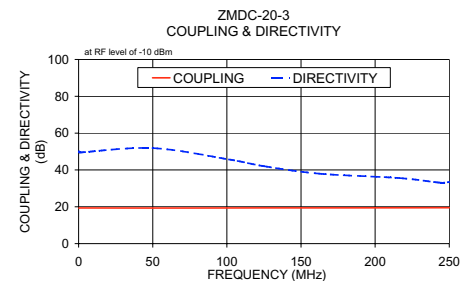
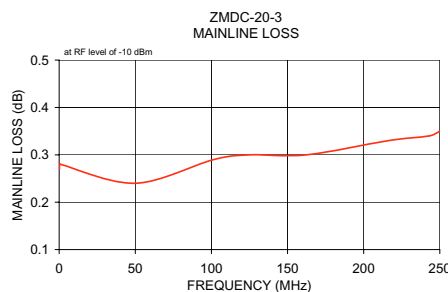
Frequency (MHz)	Mainline Loss (dB) In-Out	Coupling (dB) In-Cpl	Directivity (dB)	Return Loss (dB) In Out	Cpl
0.20	0.27	19.30	50.00	21.66 21.23	20.44
0.30	0.28	19.34	49.89	21.42 21.34	20.83
0.92	0.28	19.36	49.51	28.84 28.04	28.38
49.93	0.24	19.33	51.88	36.50 34.32	37.55
101.43	0.29	19.39	45.73	31.41 30.95	34.11
125.15	0.30	19.40	42.05	29.83 29.57	32.57
162.29	0.30	19.42	38.02	27.88 27.75	30.24
216.29	0.33	19.46	35.65	25.38 25.70	27.77
243.13	0.34	19.49	33.18	24.43 24.88	26.47
250.00	0.35	19.50	33.42	24.21 24.67	26.09

Outline Drawing

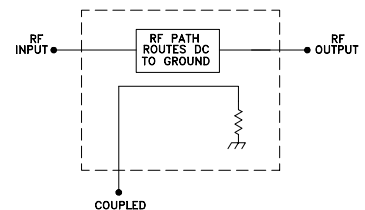


Outline Dimensions (inch)

A	B	C	D	E	F	G	H
1.50	1.13	1.00	.50	.155	2.345	.138	.987
38.10	28.70	25.40	12.70	3.94	59.56	3.51	25.07
J	K	L	M	N	P	S	wt
2.50	.10	.31	.75	1.19	.66	.150	grams
63.50	2.54	7.87	19.05	30.23	16.76	3.81	40.0



electrical schematic



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RF/IF MICROWAVE COMPONENTS

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