

Non-Catalog Model

Directional Coupler

ZMDC-20-1

Important Note

This is a non-catalog model and can be manufactured on specific request.
Pricing and delivery information can be supplied upon request.

Please click "Back", and then click "Contact Us" for Applications support.



CASE STYLE : M21

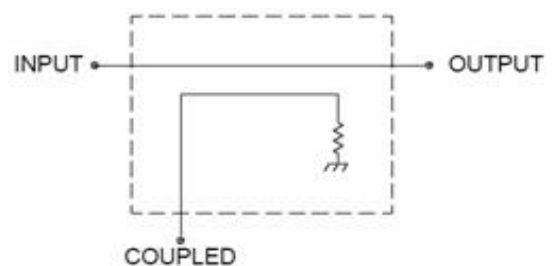
ELECTRICAL SPECIFICATIONS 50Ω @ +25°C					
Parameter		Min.	Typ.	Max.	Units
Frequency		25		400	MHz
Coupling	Nominal		21.0 ± 0.75		dB
	Flatness		± 0.5		dB
Mainline Loss *	25-50 MHz		0.20	0.25	dB
	50-300 MHz		0.30	0.35	dB
	300-400 MHz		0.35	0.50	dB
Directivity	25-50 MHz	20	25		dB
	50-300 MHz	25	35		dB
	300-400 MHz	20	25		dB
VSWR			1.3		(:1)
Power Input	25-50 MHz		3.0		W
	50-400 MHz		5.0		W

Notes: * Mainline loss includes theoretical coupled power loss of 0.035 dB at 21 dB coupling.

MAXIMUM RATINGS	
Operating Temperature	-55°C to 85°C
Storage Temperature	-55°C to 100°C

PIN CONNECTIONS	
INPUT	3
OUTPUT	2
COUPLED FORWARD	1

Functional Diagram



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Typical Performance Data

FREQUENCY (MHz)	INSERTION LOSS (dB)	COUPLING (dB)	DIRECTIVITY (dB)	RETURN LOSS		
				IN	(dB) OUT	CPL
25.0	0.14	20.90	39.03	38.82	46.83	46.62
50.0	0.18	20.91	38.76	38.41	43.91	43.34
100.0	0.22	20.98	36.87	37.98	38.48	37.78
118.8	0.23	21.05	35.93	37.56	36.95	36.63
200.0	0.24	21.03	31.74	35.84	32.57	32.64
212.5	0.27	21.04	31.42	35.51	32.18	32.20
254.2	0.27	21.06	30.87	34.98	30.91	31.28
316.7	0.27	21.07	29.28	33.88	29.06	30.42
389.6	0.31	21.07	28.01	32.78	27.58	30.10
400.0	0.32	21.07	27.86	32.68	27.39	30.03

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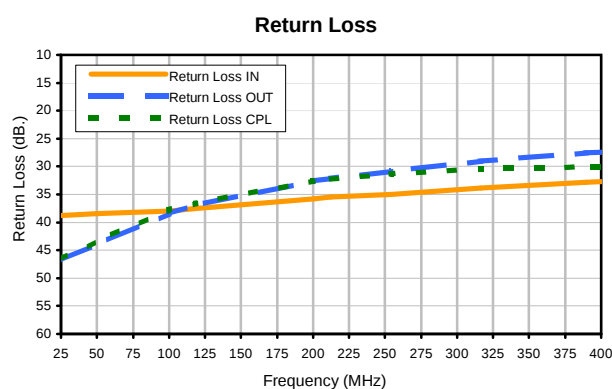
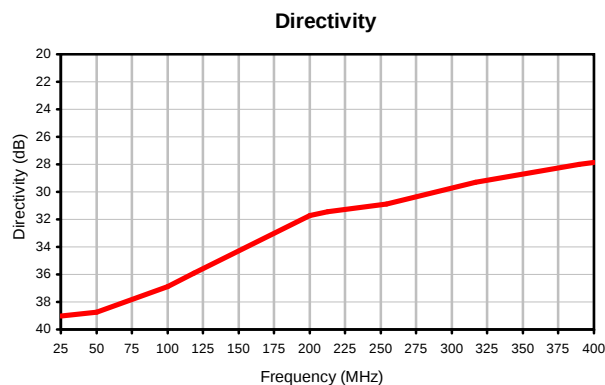
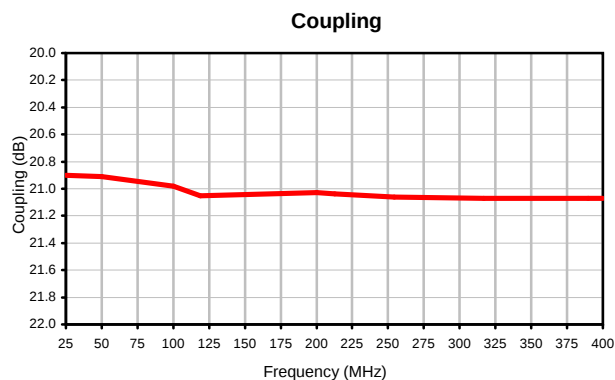
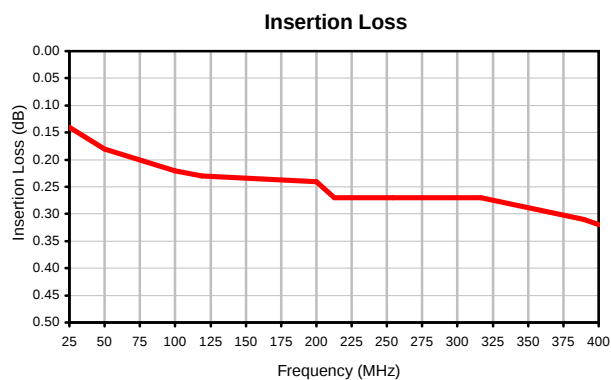
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Directional Coupler

Typical Performance Curves

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Outline Dimensions

M21

M22

M23



CASE#	A	B	C	D	E	F	G	H	J	K	L	M	N
M21	1.50 (38.10)	1.13 (28.70)	1.00 (25.40)	.50 (12.70)	.155 (3.94)	2.345 (59.56)	.138 (3.51)	.987 (25.07)	2.50 (63.50)	.10 (2.54)	.31 (7.87)	.75 (19.05)	1.19 (30.23)
M22	2.25 (57.15)	1.38 (35.05)	1.24 (31.50)		.150 (3.81)	3.100 (78.74)		1.238 (31.45)	3.25 (82.55)		.40 (10.16)	1.15 (29.21)	1.86 (47.24)
M23	2.25 (57.15)	1.38 (35.05)	1.24 (31.50)		.150 (3.81)	3.100 (78.74)		1.238 (31.45)	3.25 (82.55)		.63 (16.00)	1.06 (26.92)	1.63 (41.40)

CASE#	P	Q	R	S	WT. GRAMS
M21	.66 (16.76)	--	--	.150 (3.81)	40.0
M22	.64 (16.26)	--	--		74.0
M23	.69 (17.53)	--	--		70.0

Dimensions are in inches (mm). Tolerances: 2 Pl. $\pm .03$; 3 Pl. $\pm .015$

Notes:

- Case material: Aluminum alloy.
- Case finish:
 - For RoHS Case Styles: Clear chemical conversion coating, non-chrome or trivalent chrome based.
 - For Non-RoHS Case Styles: Yellow hexavalent chrome based conversion coating.

Due to transition from non-RoHS to RoHS, models will be supplied with either case style finish until the non-RoHS case inventory is depleted.
- Mounting bracket available on request. For bracket mounted on connector end add suffix B to part number and add \$5.00 to unit cost. For bracket mounted on the rear, add suffix BR to part number and add \$1.50 to unit cost.