

# Directional Coupler

## ZMDC-20-1



Frequency MHz	Coupling dB		Mainline Loss dB						Directivity dB			VSWR (:1)	Power INPUT, W				
	Nom.	Flatness	L		M		U		L	M	U		Typ.	L Max.	MU Max.		
$f_L - f_U$			Typ.	Max.	Typ.	Max.	Typ.	Max.	Typ.	Min.	Typ.	Min.	Typ.	Min.	Typ.	Min.	
25-400	21.0±0.75	±0.5	0.20	0.25	0.30	0.35	0.35	0.50	25	20	35	25	25	20	1.25	3.0	5.0

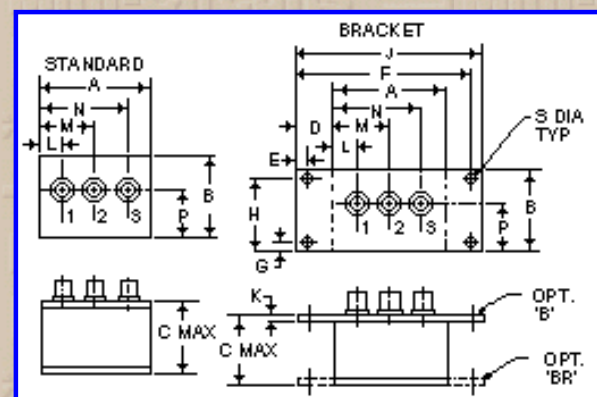
L=low range( $f_L$  to  $10f_L$ ) M=mid range( $10f_L$  to  $f_U/2$ ) U=upper range( $f_U/2$  to  $f_U$ )

### Pin Connections

Port	Input	Output	Coupled (forward)	Coupled (reverse)
dd	3	2	1	-
Not Used	Case GND	Termination	GND	
-	-	-	-	-

### Notes:

- Mainline Loss includes theoretical power loss at coupled port.
- L = 25-50 MHz, M = 50-300 MHz, U = 300-400 MHz
- General Quality Control Procedures and Environmental Specifications are given in [Mini-Circuits Guarantees Quality](#). Hi-Rel, MIL description are given in [Hi-Rel and MIL](#)
- Prices and Specifications subjects to change without notice.



FREQ (MHz)	I. Loss (dB) In-Out	Coupling (dB) In-CPL	Directivity (dB)	Return Loss (dB)		
				In	Out	CPL
25.00	0.14	20.90	39.03	38.82	46.83	46.62
50.00	0.18	20.91	38.76	38.41	43.91	43.34
100.00	0.22	20.98	36.87	37.98	38.48	37.78
118.75	0.23	21.05	35.93	37.56	36.95	36.63
200.00	0.24	21.03	31.74	35.84	32.57	32.64
212.51	0.27	21.04	31.42	35.51	32.18	32.20
254.17	0.27	21.06	30.87	34.98	30.91	31.28
316.68	0.27	21.07	29.28	33.88	29.06	30.42
389.60	0.31	21.07	28.01	32.78	27.58	30.10
400.00	0.32	21.07	27.86	32.68	27.39	30.03

### Case Style - M21 (inch,mm) weight: 40 grams.

A	B	C	D	E	F	G	H	J
1.50	1.13	1.00	.50	.155	2.345	.138	.987	2.50
38.100	28.702	25.400	12.700	3.937	59.563	3.505	25.070	63.500
K	L	M	N	P	Q	R	S	T
.10	.31	.75	1.19	.66			.150	
2.540	7.874	19.050	30.226	16.764			3.810	

Tolerance: .x ± .1 .xx ± .03 .xxx ± .015 inch.

### Material and Finish:

Case material: aluminum alloy. Finish: blue anodized.

Mounting bracket finish: iridite or clear anodize.

Case material: aluminum alloy. Finish: blue paint over iridite.

### Mounting:

Mounting bracket available on request. For bracket mounted on connector end add suffix B to part number and \$5.00 to unit cost. For bracket mounted on the rear, add suffix BR to part number and add \$1.50 to unit cost.

### Marking:

For port markings 1, 2, and 3 see specification data sheet.

### Connectors:

Connectors: Female SMA only. Male SMA available on request, consult factory.



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