

Coaxial Directional Coupler

ZMDC-30-1

50Ω

0.1 to 250 MHz



CASE STYLE: M21

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	3
OUTPUT	2
COUPLED	1

Features

- excellent mainline loss, 0.5 dB typ.
- rugged shielded case

Applications

- HF/VHF
- amateur radio
- instrumentation

Connectors	Model	Price	Qty.
SMA	ZMDC-30-1	\$51.95	(1-9)
BRACKET (OPTION "B")		\$5.00	(1+)
BRACKET (OPTION "BR")		\$1.50	(1+)

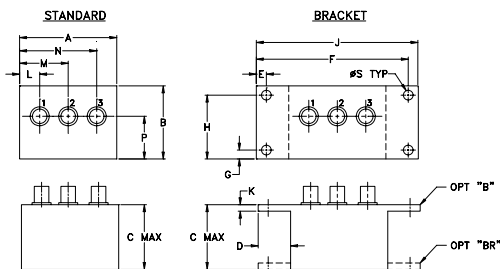
Directional Coupler Electrical Specifications

FREQ. RANGE (MHz)	COUPLING (dB)		MAINLINE LOSS ¹ (dB)						DIRECTIVITY (dB)						VSWR (:1)	POWER INPUT (W)		
	Nom.	Flatness	L		M		U		L		M		U			Typ.	L	MU
			Typ.	Max.	Typ.	Max.	Typ.	Max.	Typ.	Min.	Typ.	Min.	Typ.	Min.				
f _L -f _U	30±0.5	±0.5	0.4	0.6	0.5	0.8	0.55	0.85	23	18	20	15	17	10	1.5	1.0	3.0	

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.

Outline Drawing



Outline Dimensions (inch/mm)

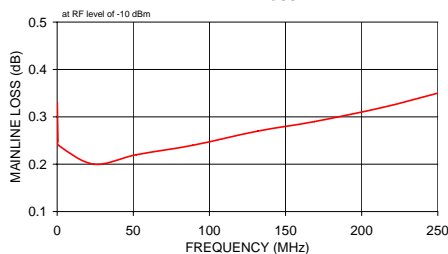
A	B	C	D	E	F	G	H
1.50	1.13	1.00	.50	.155	2.345	.138	.987
38.10	28.70	25.40	12.70	3.94	59.56	3.51	25.07

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

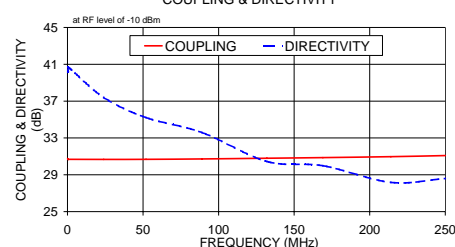
Typical Performance Data

Frequency (MHz)	Mainline Loss (dB) In-Out	Coupling (dB) In-Cpl	Directivity (dB)	Return Loss (dB)		Cpl
				In	Out	
0.10	0.33	30.77	40.14	14.97	14.57	22.19
0.50	0.25	30.66	40.18	28.11	24.39	22.07
0.90	0.24	30.68	40.64	31.51	26.80	22.06
24.00	0.20	30.67	37.39	37.30	29.40	21.95
52.00	0.22	30.68	35.22	31.72	28.95	21.94
89.00	0.24	30.72	33.59	27.65	27.78	21.97
132.00	0.27	30.80	30.45	24.51	26.44	22.01
169.00	0.29	30.87	29.99	22.53	24.92	22.09
214.00	0.32	30.97	28.18	20.61	23.40	22.22
250.00	0.35	31.09	28.60	19.35	22.21	22.35

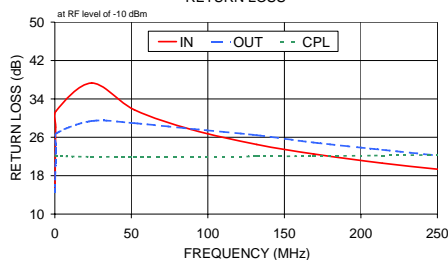
ZMDC-30-1 MAINLINE LOSS



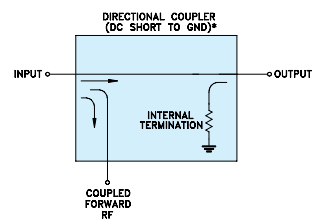
ZMDC-30-1 COUPLING & DIRECTIVITY



ZMDC-30-1 RETURN LOSS



Electrical Schematic



* ELECTRICAL SCHEMATIC IS FOR DIRECTIONAL COUPLER WITH INTERNAL TRANSFORMERS THAT ROUTES DC FROM RF PORTS TO GROUND.

For detailed performance specs & shopping online see web site



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