

Coaxial Directional Coupler

50Ω

0.5 to 500 MHz

ZMDC-10-1+
ZMDC-10-1



CASE STYLE: M21

Connectors	Model	Price	Qty.
SMA	ZMDC-10-1(+)	\$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.

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, 0.65 dB typ.
- excellent directivity, 32 dB typ.
- rugged shielded case

Applications

- HF/VHF/UHF
- amateur radio
- instrumentation

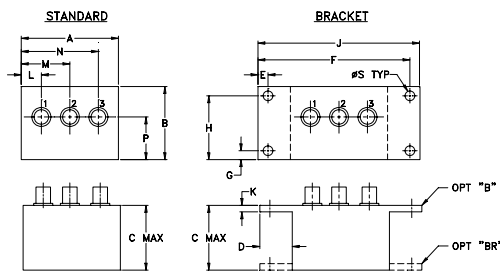
Directional Coupler Electrical Specifications

FREQ. RANGE (MHz)	COUPLING (dB)		MAINLINE LOSS ¹ (dB)						DIRECTIVITY (dB)						VSWR (:1)	POWER INPUT (W)	
	Nom.	Flatness	L		M		U		L		M		U			L	MU
f_L - f_U			Typ.	Max.	Typ.	Max.	Typ.	Max.	Typ.	Min.	Typ.	Min.	Typ.	Min.	Typ.	Max.	Max.
0.5-500	11.5±0.5	±0.6	0.85	1.3	0.65	1.0	0.85	1.3	32	25	32	25	22	15	1.2	1.5	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

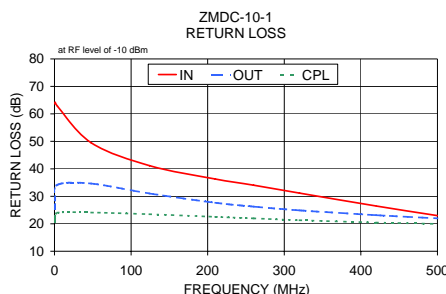
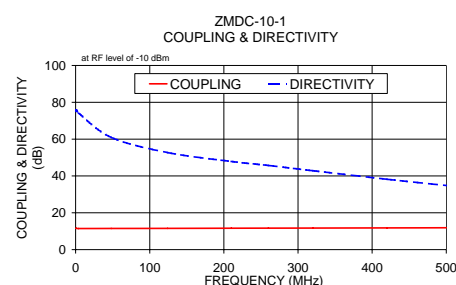
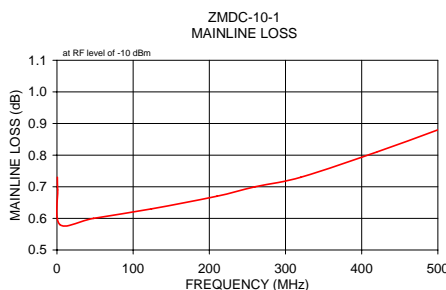


Outline Dimensions (inch/mm)

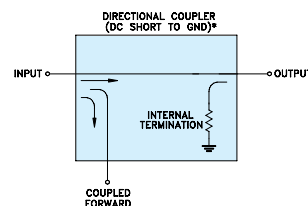
A	B	C	D	E	F	G	H
1.50	1.13	1.00	.50	.155	2.345	.138	.987
38.10	28.70	25.40	12.70	3.94	59.56	3.51	25.07
J	K	L	M	N	P	S	wt
2.50	.10	.31	.75	1.19	.66	.150	grams
63.50	2.54	7.87	19.05	30.23	16.76	3.81	40.0

Typical Performance Data

Frequency (MHz)	Mainline Loss (dB) In-Out	Coupling (dB) In-Cpl	Directivity (dB)	Return Loss (dB)		Cpl
				In	Out	
0.50	0.73	11.62	75.22	63.60	25.33	20.56
0.90	0.69	11.57	75.75	64.18	28.71	21.79
4.00	0.58	11.45	74.20	62.75	34.21	24.05
48.00	0.60	11.49	60.95	49.46	34.66	24.10
124.00	0.63	11.55	52.70	41.15	31.03	23.50
210.00	0.67	11.62	47.91	36.29	27.67	22.54
260.00	0.70	11.66	45.71	34.05	26.27	21.97
320.00	0.73	11.71	42.88	31.17	24.90	21.32
420.00	0.81	11.80	38.25	26.46	23.14	20.45
500.00	0.88	11.86	34.83	22.98	21.97	19.97



Electrical Schematic



* ELECTRICAL SCHEMATIC IS FOR DIRECTIONAL COUPLER WITH INTERNAL TRANSFORMER(S) THAT ROUTES DC FROM RF PORTS TO GROUND.

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