Coaxial

Directional Coupler

ZMDC-10-1+

50Ω 0.5 to 500 MHz

HT-Series Tight Spot SMA Wrench From $24.95

CASE STYLE: M21

Connectors	Model
SMA	ZMDC-10-1+
BRACKET (OPTION"B")	
BRACKET (OPTION "BR")	

+RoHS Compliant

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

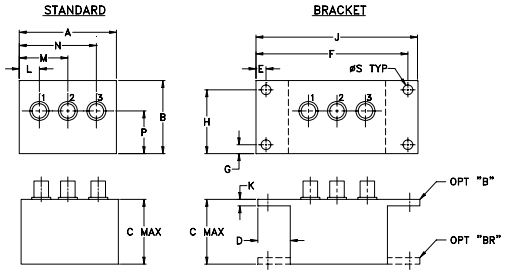
Features

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

Applications

- HF/VHF/UHF
- amateur radio
- instrumentation

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

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			L	MU
f_L-f_U	Nom.	Flatness	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

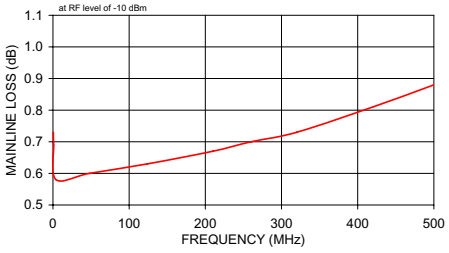
L = low range [f_L to 10 f_L] M = mid range [10 f_L to f_U/2] U= upper range [f_U/2 to f_U]

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

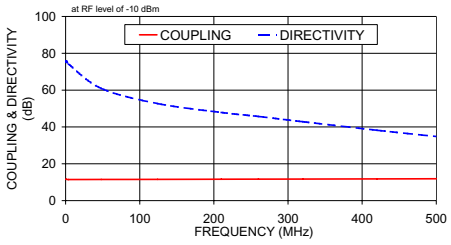
Typical Performance Data

Frequency (MHz)	Mainline Loss (dB) In-Out	Coupling (dB) In-Cpl	Directivity (dB)	Return Loss (dB) In	Return Loss (dB) Out	Return Loss (dB) Cpl
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

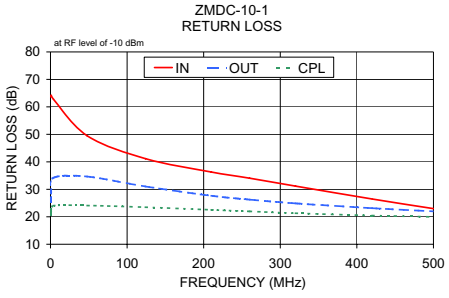
ZMDC-10-1
MAINLINE LOSS



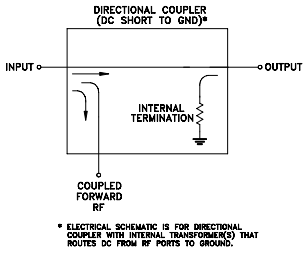
ZMDC-10-1
COUPLING & DIRECTIVITY



ZMDC-10-1
RETURN LOSS



Electrical Schematic



Notes

A. Performance and quality attributes and conditions not expressly stated in this specification document are intended to be excluded and do not form a part of this specification document.
B. Electrical specifications and performance data contained in this specification document are based on Mini-Circuit's applicable established test performance criteria and measurement instructions.
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