

Coaxial Directional Coupler

50Ω 5 to 1200 MHz

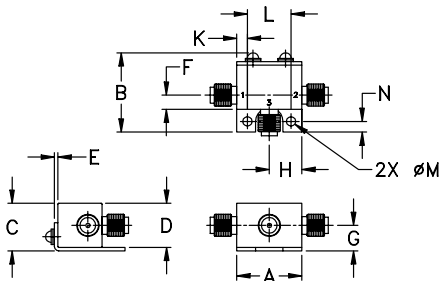
Maximum Ratings

Operating Temperature	-40°C to 85°C
Storage Temperature	-55°C to 100°C

Coaxial Connections

INPUT	1
OUTPUT	2
COUPLED	3

Outline Drawing



Outline Dimensions (inch/mm)

A	B	C	D	E	F	G
.74	.90	.54	.50	.04	.16	.29
18.80	22.86	13.72	12.70	1.02	4.06	7.37
H	J	K	L	M	N	wt
.37	--	.122	.496	.106	.122	grams
9.40	--	3.10	12.60	2.69	3.10	20.0

Features

- very flat coupling
- very broad, multi-octave
- all welded construction
- protected by U.S. Patents 6,140,887 & 6,784,521 & 6,790,049

Applications

- VHF/UHF
- communications receivers & transmitters
- cellular
- instrumentation

ZX30-13-4+
ZX30-13-4



CASE STYLE: FL905

Connectors	Model	Price	Qty.
SMA	ZX30-13-4-S(+)	\$29.95 ea.	(1-24)

+ 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.

Directional Coupler Electrical Specifications (T_{AMB} = 25°C)

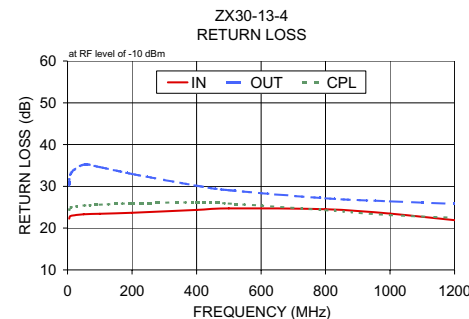
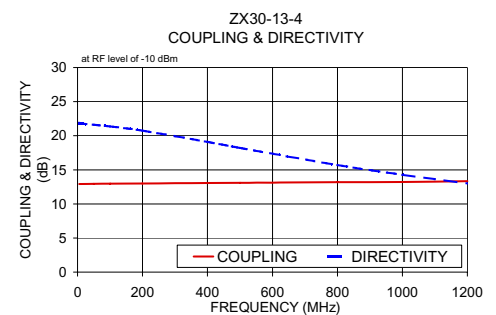
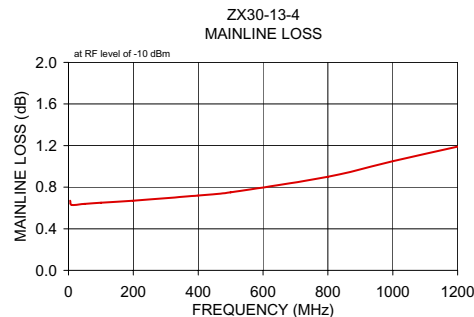
FREQ. (MHz)	COUPLING (dB)		MAINLINE LOSS ¹ (dB)						DIRECTIVITY (dB)						VSWR (:1)	POWER INPUT, W					
			L		M		U		L		M		U								
	f _L -f _U	Nom.	Typ. Flatness	Typ.	Max.	Typ.	Max.	Typ.	Max.	Typ.	Min.	Typ.	Min.	Typ.		Min.	Typ.	Max.	L	MU	Max.
5-1200	13.0±0.5	±0.3	06	0.9	0.7	1.1	0.9	1.5	21	18	19	15	15	10	1.15	0.5	1.0				

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]

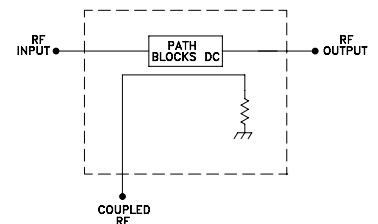
1. Mainline loss includes theoretical power loss at coupled port.

Typical Performance Data

Frequency (MHz)	Mainline Loss (dB) In-Out	Coupling (dB) In-Cpl	Directivity (dB)	Return Loss (dB)		
				In	Out	Cpl
5.00	0.67	12.93	21.86	22.28	30.20	24.37
10.00	0.63	12.92	21.79	22.90	33.04	24.96
50.00	0.64	12.94	21.62	23.33	35.18	25.41
100.00	0.65	12.97	21.36	23.44	34.61	25.60
200.00	0.67	13.00	20.75	23.69	32.95	25.93
400.00	0.72	13.06	19.10	24.38	30.15	26.19
500.00	0.75	13.10	18.21	24.74	29.05	25.88
800.00	0.90	13.20	15.71	24.52	27.13	24.26
1000.00	1.05	13.22	14.27	23.46	26.43	23.13
1200.00	1.19	13.34	12.99	21.92	25.81	22.53



electrical schematic



Mini-Circuits®
ISO 9001 ISO 14001 CERTIFIED

ALL NEW
minicircuits.com

P.O. Box 350166, Brooklyn, New York 11235-0003 (718) 934-4500 Fax (718) 332-4661 For detailed performance specs & shopping online see Mini-Circuits web site



The Design Engineers Search Engine Provides ACTUAL Data Instantly From MINI-CIRCUITS At: www.minicircuits.com

RF/IF MICROWAVE COMPONENTS

REV. G
M98898
ED-10213A/3
ZX30-13-4
WZ/TD/CP/AM
070604