

Directional Coupler

50Ω

5 to 1000 MHz

ZX30-12-4+ ZX30-12-4



Maximum Ratings

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

Coaxial Connections

INPUT	1
OUTPUT	2
COUPLED	3

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
- communication receivers & transmitters
- cellular
- instrumentation

CASE STYLE: FL905			
Connectors	Model	Price	Qty.
SMA	ZX30-12-4-S(+)	\$29.95	(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. RANGE (MHz)	COUPLING (dB)		MAINLINE LOSS ¹ (dB)			DIRECTIVITY (dB)			VSWR (:1)	POWER INPUT, W	
	Nom.	Typ. Flatness	L Typ. Max.	M Typ. Max.	U Typ. Max.	L Typ. Min.	M Typ. Min.	U Typ. Min.		L Max.	MU Max.
f _L -f _U											
5-1000	12.0±0.5	±0.3	0.7 1.0	0.85 1.0	0.9 1.2	35 28	25 20	20 13	1.15	0.5	1.0

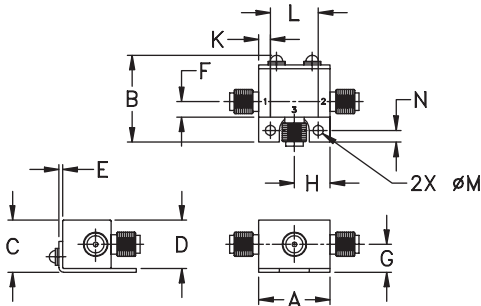
L = low range [f_L to 10 f_L] M = mid range [10 f_L to f_U/2] U = upper range [f_U/2 to f_U]

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

Typical Performance Data

Frequency (MHz)	Insertion Loss (dB) In-Out	Coupling (dB) In-Cpl	Directivity (dB)	Return Loss (dB)		
				In	Out	Cpl
5.00	0.71	11.86	35.40	22.64	33.41	20.06
8.00	0.69	11.83	36.14	23.06	36.92	20.62
10.00	0.68	11.82	36.32	23.20	38.67	20.80
50.00	0.69	11.83	36.87	23.58	54.57	21.25
100.00	0.69	11.85	37.20	23.75	54.41	21.28
200.00	0.71	11.88	36.97	24.03	42.79	21.20
400.00	0.74	11.94	29.96	24.56	33.53	20.33
600.00	0.80	12.02	23.72	24.68	28.55	18.76
800.00	0.89	12.15	19.26	24.44	24.79	16.99
1000.00	1.02	12.37	16.05	23.85	22.08	15.31

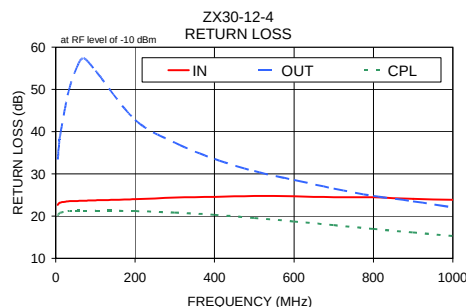
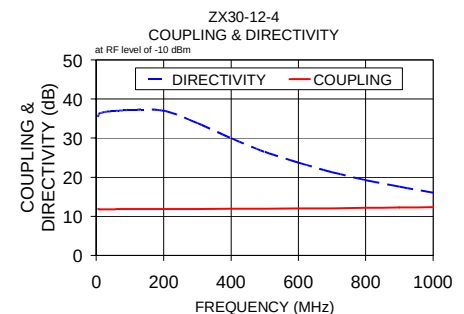
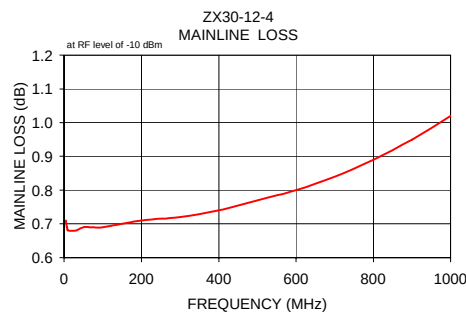
Outline Drawing



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



electrical schematic

