

Coaxial

Directional Coupler

ZX30-20-4

50Ω

5 to 1000 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

Features

- very flat coupling
- very broad, multi-octave
- all welded construction
- protected by U.S. Patent 6,140,887 & 6,784,531

Applications

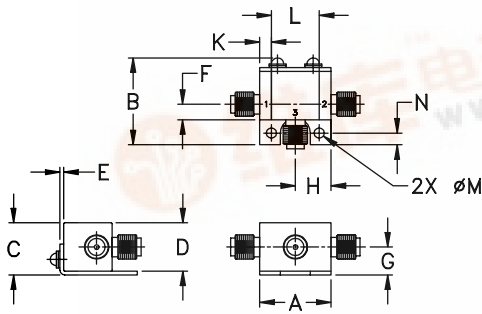
- VHF/UHF
- instrumentation
- communication receivers & transmitters
- cable tv



CASE STYLE: FL905

Connectors	Model	Price	Qty.
SMA	ZX30-20-4-S	\$29.95	(1-24)

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

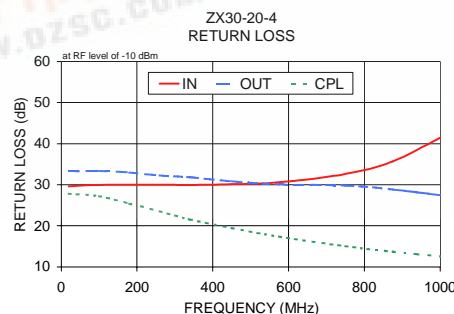
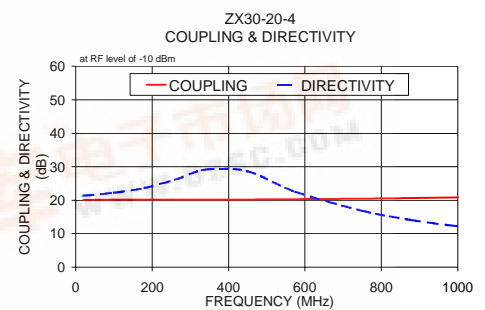
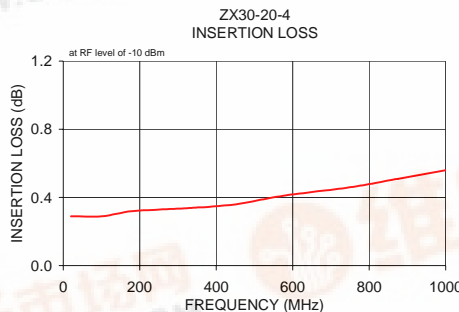
Directional Coupler Electrical Specifications (T_{AMB}= 25°C)

FREQ. RANGE (MHz)	COUPLING (dB)		MAINLINE LOSS ¹ (dB)			DIRECTIVITY (dB)			VSWR (:1)	POWER INPUT, W							
	Nom.	Typ.	L	M	U	L	M	U		L	MU						
f _L -f _U		Flatness	Typ. Max.	Typ. Max.	Typ. Max.	Typ. Min.	Typ. Min.	Typ. Min.	Typ.	Max.	Max.						
5-1000	20.5±0.6	±0.5	0.3	0.5	0.35	0.6	0.6	0.9	21	19	22	19	19	11	1.11	1.0	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
20.00	0.29	20.09	21.35	29.65	33.25	27.81
100.00	0.29	20.12	22.22	29.95	33.34	27.20
180.00	0.32	20.16	23.67	30.03	32.96	25.43
260.00	0.33	20.17	26.11	30.01	32.22	23.53
340.00	0.34	20.18	29.14	29.95	31.83	21.53
450.00	0.36	20.20	28.63	30.13	30.82	19.44
575.00	0.41	20.29	22.50	30.59	30.09	17.36
750.00	0.46	20.46	16.86	32.61	29.81	15.04
875.00	0.51	20.63	14.14	35.69	28.84	13.69
1000.00	0.56	20.85	12.18	41.42	27.44	12.56



electrical schematic

