

Coaxial

Bi-Directional Coupler

ZX30-20-20BD+

50Ω, 20dB Coupling, 500 to 2000 MHz

Maximum Ratings

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

Coaxial Connections

INPUT	1
OUTPUT	4
COUPLED (forward)	2
COUPLED (reverse)	3

Features

- very broadband, multi octave
- low insertion loss, 0.2 dB typ.
- power handling, 2 watts
- low cost
- protected by US patent, 6,790,049

Applications

- UHF, GSM, ISM, GPS & PCN
- cellular



CASE STYLE: GW1052

Connectors	Model	Price	Qty.
SMA	ZX30-20-20BD-S+	\$31.95	(1-9)

+ RoHS compliant in accordance with EU Directive (2002/95/EC)

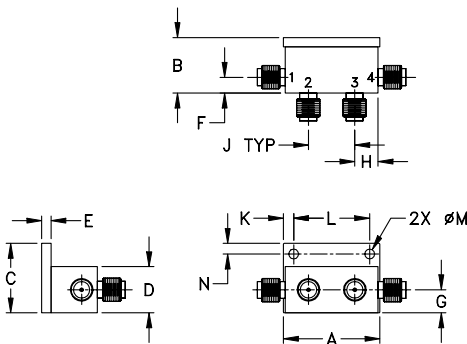
The +Suffix identifies RoHS Compliance. See our web site for RoHS Compliance methodologies and qualifications.

Bi-Directional Coupler Electrical Specifications

FREQ. (MHz)	COUPLING (dB)		MAINLINE LOSS ¹ (dB)		DIRECTIVITY (dB)		VSWR (:1)	POWER INPUT (W)
	Nom.	Typ. Flatness	Typ.	Max.	Typ.	Min.		
500-800	22.5±1.0	±0.5	0.2	0.4	21	16	1.2	2
800-1000	21.5±1.0	±0.4	0.15	0.35	21	16	1.2	2
1000-1500	20.5±1.0	±0.8	0.2	0.4	20	16	1.2	2
1700-2000	19.0±1.0	±0.4	0.25	0.5	20	14	1.2	2

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

Outline Drawing

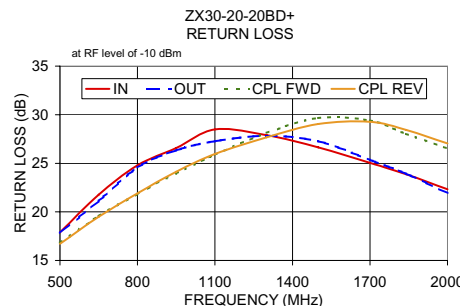
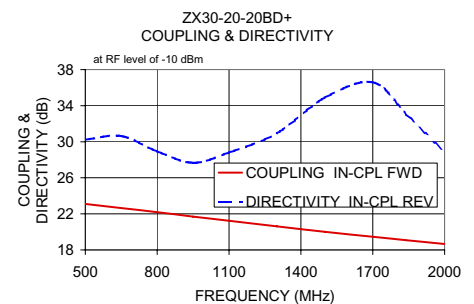
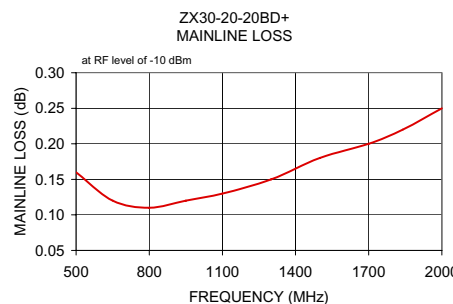


Typical Performance Data

Frequency (MHz)	Mainline Loss (dB) In-Out	Coupling (dB)		Directivity (dB)		Return Loss (dB)			
		In-Cpl Fwd	Out-Cpl Rev	Out-Cpl Fwd	In-Cpl Rev	In	Out	Cpl Fwd	Cpl Rev
500.00	0.16	23.10	23.06	20.43	30.23	17.89	17.83	16.81	16.72
650.00	0.12	22.64	22.58	20.14	30.64	21.76	21.12	19.56	19.50
800.00	0.11	22.18	22.12	19.89	28.94	24.79	24.56	21.83	21.91
950.00	0.12	21.70	21.60	19.86	27.68	26.57	26.33	23.96	24.12
1100.00	0.13	21.23	21.15	20.23	28.80	28.48	27.27	25.88	25.95
1300.00	0.15	20.61	20.50	20.96	30.94	27.89	27.83	28.13	27.68
1500.00	0.18	20.02	19.92	21.68	34.89	26.64	27.27	29.66	29.05
1700.00	0.20	19.46	19.36	22.08	36.59	25.04	25.34	29.41	29.26
1840.00	0.22	19.08	18.98	21.62	33.05	23.87	23.92	28.03	28.44
2000.00	0.25	18.66	18.54	20.89	28.80	22.33	21.94	26.51	27.04

Outline Dimensions (inch/mm)

A	B	C	D	E	F	G
1.04	.60	.75	.50	.10	.17	.25
26.42	15.24	19.05	12.70	2.54	4.32	6.35
H	J	K	L	M	N	wt.
.25	.50	.11	.820	.106	.12	grams
6.35	12.70	2.79	20.83	2.69	3.05	21.0



electrical schematic

