Engineering Development Model

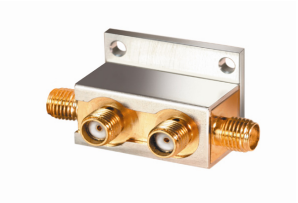
DC PASS

Bi-Directional Coupler ZX30-ED13790

Important Note

This model has been designed, built and tested in our engineering department. Performance data represents model capability.
At present it is a non-catalog model. On request, we can supply a final specification sheet, part number and price/delivery information.

Please click "Back", and then click "Contact Us" for Applications support.



CASE STYLE : GW1052

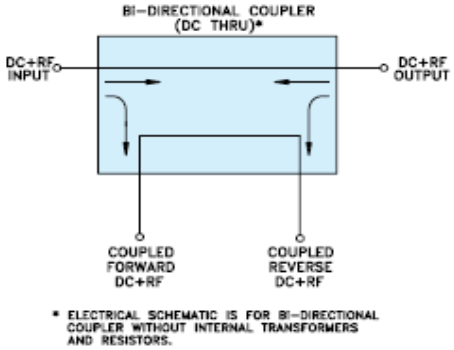
ELECTRICAL SPECIFICATIONS 50 @ +25°C					
Parameter		**Min.**	**Typ.**	**Max.**	**Units**
Frequency		2600		4600	MHz
Coupling	**Nominal**		19.3±0.8		dB
	Flatness		±0.4		dB
Mainline Loss**	**2600-4600 MHz**		0.35		dB
	3000-4200 MHz		0.30		dB
Directivity	**2600-4600 MHz**		20		dB
	3000-4200 MHz		25		dB
VSWR	**2600-4600 MHz**		1.20		(:1)
RF Power Input	**2600-4600 MHz**			40	W

Note: ** Mainline loss includes theoretical coupled power loss of 0.051 dB at 19.3 dB coupling.

MAXIMUM RATINGS	
Operating Temperature	-40°C to 85°C
Storage Temperature	-55°C to 100°C
DC Current	2.0A

COAXIAL CONNECTIONS	
INPUT	1
OUTPUT	4
COUPLED FORWARD	2
COUPLED REVERSE	3

Electrical Schematic



Bi-Directional Coupler ZX30-ED13790

Typical Performance Data

FREQUENCY (MHz)	INSERTION LOSS (dB)		COUPLING (dB)		DIRECTIVITY (dB)		RETURN LOSS (dB)			
	IN-OUT	FWD-REV	IN-FWD	OUT-REV	IN-REV	OUT-FWD	IN	OUT	FWD	REV
2600.0	0.25	0.26	19.48	19.43	17.38	17.70	20.48	20.32	16.57	16.66
2700.0	0.24	0.26	19.36	19.31	17.90	18.43	22.55	22.49	16.87	16.99
2800.0	0.24	0.26	19.24	19.21	18.83	19.31	25.39	25.24	17.34	17.46
2900.0	0.22	0.25	19.13	19.10	20.16	21.23	29.92	29.50	17.91	17.95
3000.0	0.23	0.25	19.06	19.03	22.18	22.71	38.65	34.44	18.51	18.50
3100.0	0.23	0.25	18.99	18.95	24.43	25.26	44.45	33.27	19.23	19.13
3200.0	0.24	0.25	18.93	18.91	27.60	29.28	33.38	29.75	20.06	19.97
3300.0	0.26	0.24	18.93	18.87	31.58	32.80	28.54	26.31	21.09	20.97
3400.0	0.27	0.24	18.92	18.90	40.03	34.75	25.62	24.73	22.25	22.06
3500.0	0.28	0.23	18.94	18.90	45.08	37.88	23.42	22.71	23.91	23.57
3600.0	0.30	0.24	18.94	18.90	35.61	32.61	22.34	21.58	26.21	25.84
3700.0	0.29	0.24	18.99	18.92	30.69	29.66	21.37	20.83	29.20	28.81
3800.0	0.30	0.25	19.01	18.99	27.76	26.13	20.93	20.59	33.06	33.55
3900.0	0.31	0.25	19.06	19.02	23.94	22.57	20.65	20.16	38.79	43.04
4000.0	0.31	0.25	19.09	19.10	21.28	20.76	20.88	20.46	36.04	40.31
4100.0	0.31	0.25	19.15	19.14	19.50	19.26	21.38	20.85	30.51	32.55
4200.0	0.30	0.25	19.23	19.18	18.29	18.35	22.37	22.10	26.56	27.56
4300.0	0.29	0.26	19.29	19.27	17.19	17.50	23.61	23.34	23.84	24.56
4400.0	0.28	0.26	19.38	19.31	16.60	17.16	26.13	25.28	21.74	22.30
4500.0	0.28	0.25	19.42	19.39	16.69	17.09	29.02	29.59	20.05	20.46
4600.0	0.29	0.27	19.52	19.47	16.11	17.13	33.27	37.32	18.77	19.22

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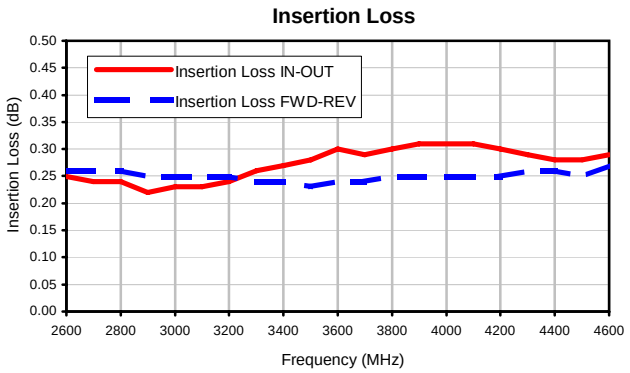
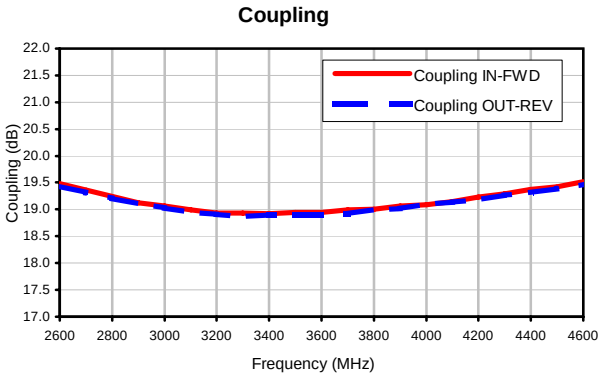
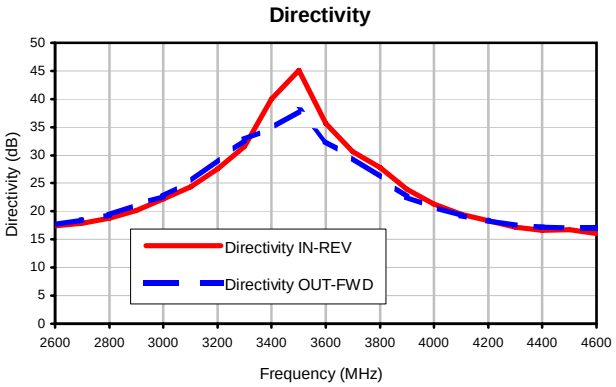
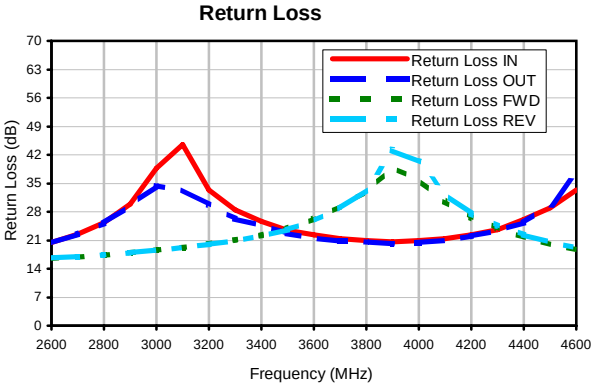
Typical Performance Curves





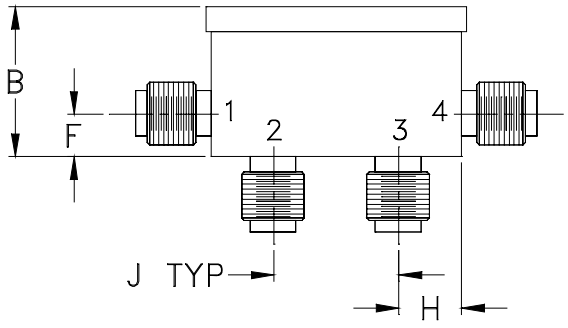


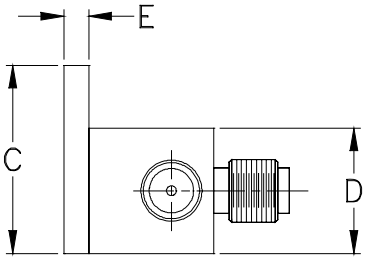


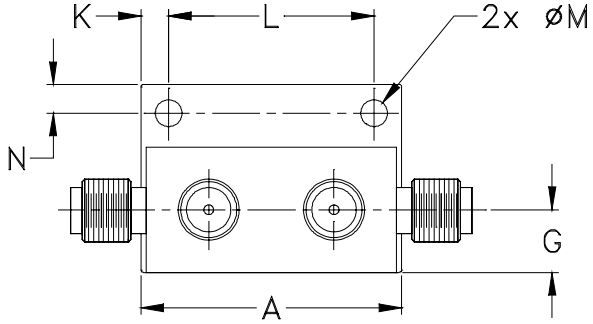
Case Style GW

GW1052

Outline Dimensions







CASE#	A	B	C	D	E	F	G	H	J	K	L	M	N	WT. GRAM
GW1052	1.04 (26.42)	.60 (15.24)	.75 (19.05)	.50 (12.70)	.10 (2.54)	.17 (4.32)	.25 (6.35)	.25 (6.35)	.50 (12.70)	.11 (2.79)	.820 (20.83)	.106 (2.69)	.12 (3.05)	21.0

Dimensions are in inches (mm). Tolerances: 2Pl. ± .03; 3Pl. ± .015.
Tolerance on hole size and interaxes dimensions to be ±.005.

Notes:

1. Case material: Brass.
2. Case finish: Nickel plate.

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Environmental Specifications **ENV28T5**

All Mini-Circuits products are manufactured under exacting quality assurance and control standards, and are capable of meeting published specifications after being subjected to any or all of the following physical and environmental test.

Specification	Test/Inspection Condition	Reference/Spec
Operating Temperature	-40° to 85°C	Individual Model Data Sheet
Storage Temperature	-55° to 100° C Ambient Environment	Individual Model Data Sheet
Barometric Pressure	100,000 Feet	MIL-STD-202, Method 105, Condition D
Humidity	90% RH, 65°C Units may require bake-out after humidity to restore full performance.	MIL-STD-202, Method 103
Thermal Shock	-65° to 125°C, 5 cycles	MIL-STD-202, Method 107, Condition B
Vibration (High Frequency)	20g peak, 10-2000 Hz, 12 times in each of three perpendicular directions (total 36)	MIL-STD-202, Method 204, Condition D
Mechanical Shock	100g, 6ms sawtooth, 3 shocks each direction 3 axes (total 18)	MIL-STD-202, Method 213, Condition I