

Directional Coupler

ZADC-ED7273A/1

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 : F14

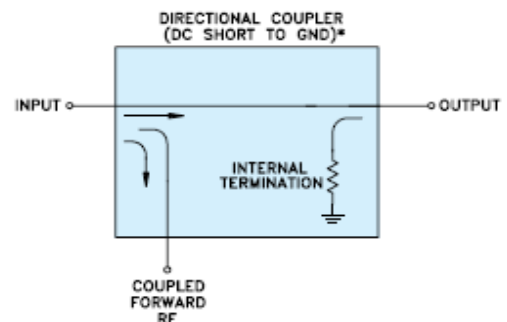
ELECTRICAL SPECIFICATIONS 75Ω @ +25°C				
Parameter		Min.	Typ.	Max. Units
Frequency		500		2000 MHz
Coupling	Nominal		19 ± 1	dB
	Flatness		± 0.7	dB
Mainline Loss *	500-2000 MHz		0.70	dB
Directivity	500-2000 MHz		16	dB
VSWR	500-2000 MHz		1.7	(:1)
RF Power Input	500-2000 MHz			1.0 W

Note: * Mainline loss includes theoretical coupled power loss of 0.055 dB at 19 dB coupling.

MAXIMUM RATINGS	
Operating Temperature	-55°C to 100°C
Storage Temperature	-55°C to 100°C

COAXIAL CONNECTIONS	
INPUT	S
OUTPUT	1
COUPLED	2

Electrical Schematic



* ELECTRICAL SCHEMATIC IS FOR DIRECTIONAL COUPLER WITH INTERNAL TRANSFORMER(S) THAT ROUTES DC FROM RF PORTS TO GROUND.

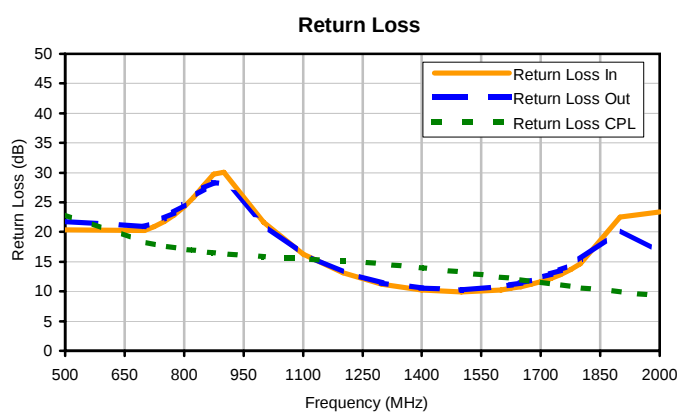
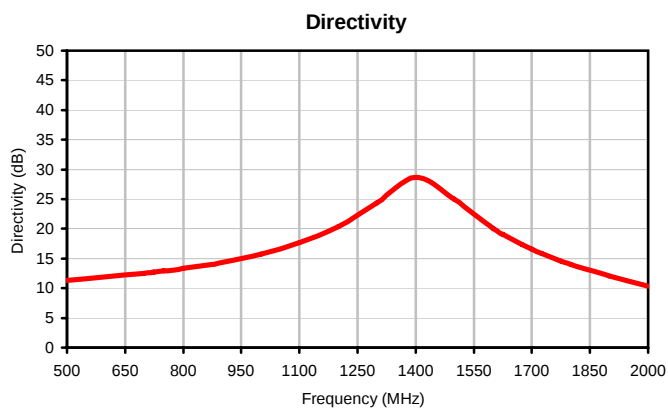
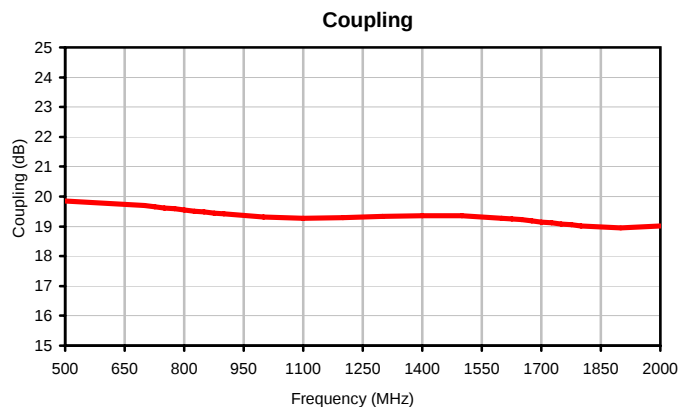
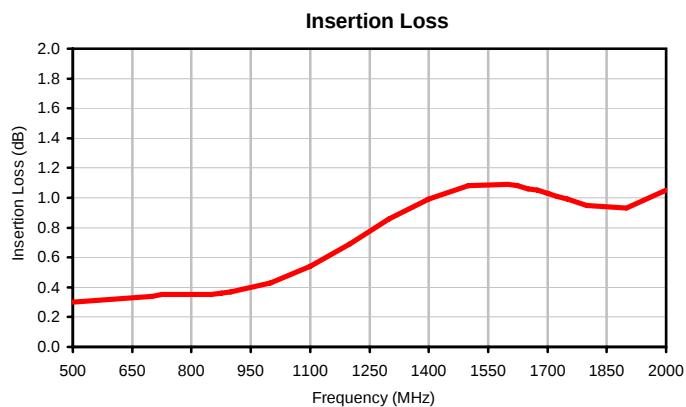
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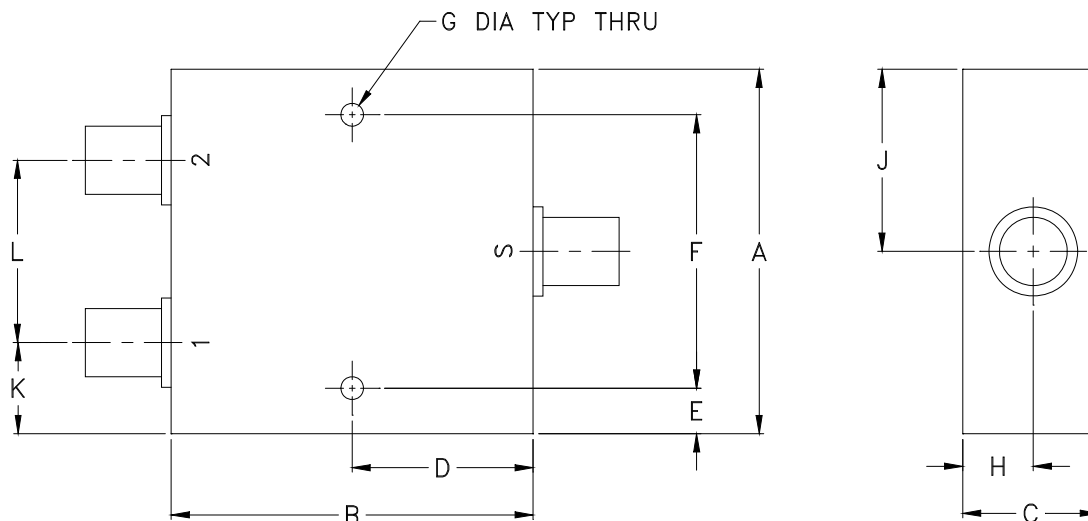
Typical Performance Data

FREQUENCY (MHz)	INSERTION LOSS (dB)	COUPLING (dB)	DIRECTIVITY (dB)	RETURN LOSS		
				(dB)		
				IN	OUT	CPL
500.0	0.30	19.85	11.30	20.39	21.76	22.98
700.0	0.34	19.70	12.50	20.25	20.87	18.31
725.0	0.35	19.66	12.70	20.93	21.50	17.94
750.0	0.35	19.62	12.89	21.77	22.32	17.63
775.0	0.35	19.59	13.09	22.87	23.32	17.33
800.0	0.35	19.55	13.31	24.23	24.55	17.10
825.0	0.35	19.51	13.54	25.88	25.95	16.95
850.0	0.35	19.48	13.78	27.88	27.38	16.75
875.0	0.36	19.44	14.05	29.75	28.38	16.51
900.0	0.37	19.41	14.34	30.08	28.28	16.37
1000.0	0.43	19.32	15.71	21.70	21.32	15.89
1100.0	0.54	19.28	17.64	16.30	16.29	15.50
1200.0	0.69	19.29	20.33	13.14	13.29	15.06
1300.0	0.86	19.33	24.31	11.24	11.47	14.64
1400.0	0.99	19.36	28.68	10.20	10.53	14.01
1500.0	1.08	19.35	25.02	9.88	10.29	13.24
1600.0	1.09	19.28	20.02	10.28	10.80	12.43
1625.0	1.08	19.25	19.07	10.51	11.07	12.21
1650.0	1.06	19.22	18.20	10.81	11.40	11.97
1675.0	1.05	19.19	17.37	11.17	11.82	11.75
1700.0	1.03	19.15	16.60	11.62	12.33	11.54
1725.0	1.01	19.12	15.89	12.17	12.93	11.30
1750.0	0.99	19.08	15.23	12.83	13.62	11.07
1775.0	0.97	19.05	14.60	13.65	14.46	10.88
1800.0	0.95	19.02	14.02	14.66	15.44	10.71
1900.0	0.93	18.94	12.03	22.57	20.37	9.90
2000.0	1.05	19.02	10.36	23.36	16.55	9.23

Typical Performance Curves



Outline Dimensions



CASE #	A	B	C	D	E	F	G	H	J	K	L	WT. GRAM
F14	2.00 (50.80)	2.00 (50.80)	.75 (19.05)	1.00 (25.40)	.25 (6.35)	1.500 (38.10)	.125 (3.18)	.39 (9.91)	1.00 (25.40)	.50 (12.70)	1.00 (25.40)	170.0

Dimensions are in inches (mm). Tolerances: 2Pl. $\pm .03$; 3Pl. $\pm .015$

Notes:

- Case material: Aluminum alloy.
- Case finish:
For RoHS Case Styles: Clear chemical conversion coating, non-chrome or trivalent chrome based.
- Refer to the individual model data sheet for the type of connectors available.



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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	-55° to 100°C Ambient Environment	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