

Engineering Development Model

Bi-Directional Coupler

SYDC-ED12537/2

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.



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CASE STYLE : AH202-1

ELECTRICAL SPECIFICATIONS 50Ω @ +25°C				
Parameter		Min.	Typ.	Max. Units
Frequency		5		700 MHz
Coupling	Nominal		20±0.5	dB
	Flatness		±0.595	dB
Mainline Loss **	5-50 MHz		0.1	dB
	50-350 MHz		0.2	dB
	350-700 MHz		0.3	dB
Directivity	5-50 MHz		37	dB
	50-350 MHz		40	dB
	350-700 MHz		24	dB
VSWR	5-700 MHz		1.05	(:1)
RF Power Input***	5-700 MHz			25 W

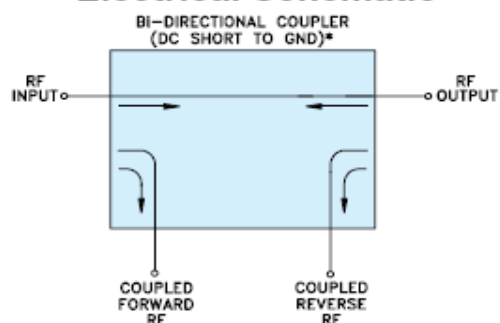
** Mainline loss includes theoretical coupled power loss of 0.0436 dB at 20 dB coupling.

***The user must provide adequate means of heat removal to limit the temperature of ground connections 2,3,6,7 to 85°C, in order to ensure proper performance. At 25°C ambient temperature this requires thermal resistance of the user's PC board heat sink to be 20°C/W or less when the unit is driven at maximum specified RF input power, 25W. At higher ambient temperature, with the same heat sink, input power in watts must not exceed $25W \times (85^{\circ}\text{C} - T_{\text{ambient}}) \div 60^{\circ}\text{C}$.

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

PIN CONNECTIONS	
INPUT	8
OUTPUT	1
COUPLED FORWARD	5
COUPLED REVERSE	4
GROUND	2,3,6,7

Electrical Schematic



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