

# Two-Way Power Divider 10-2000MHz

Rev. V3

#### **Features**

- Fully Hermetic Package
- Loss: 0.6 dB Typical Mid-band
- · Isolation: 28 dB Typical Mid-band
- VSWR: 1.2:1 Typical Mid-band
- Impedance: 50 Ohms Nominal
- Maximum Power Rating or Input Power: 250 mW
- Internal Load Dissipation: 50 mW Max.
- MIL-STD-202 Screening Available

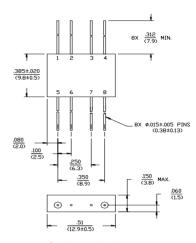
## **Description**

A Power Divider is ideally a lossless reciprocal device which can also perform vector summation of two or more signals and thus is sometimes called a power combiner or summer.

## **Ordering Information**

Part Number	Package
DS-313 PIN	FP-2
DSS-313 PIN	SF-1

## FP-2 (DS-313)

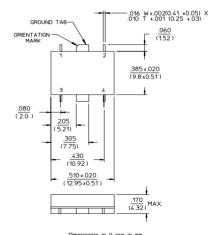


Dimensions in () are in mm Unless Dtherwise Noted:  $(XXX = \pm 0.010 (XX = \pm 0.25) (X = \pm 0.5)$  WEIGHT (APPRDX): 0.09 DUNCES 2.55 GRAMS

### Pin Configuration (DS-313)

, ,						
Pin No.	Function	Pin No.	Function			
1	Σ	5	GND			
2	GND	6	GND			
3	GND	7	GND			
4	Output C	8	Output D			

### SF-1 (DSS-313)



Dimensions in 0 are in mm Unless Otherwise Noted: .XXX =  $\pm 0.010$  .XX =  $\pm 0.02$  WEIGHT (APPROX): 0.07 OUNCES 2 GRAMS

## Pin Configuration (DSS-313)

Pin No.	Function	Pin No.	Function
1	Σ	3	GND
2	Output C	4	Output D

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## DS-313 Electrical Specifications<sup>1</sup>: $T_A = -55$ °C to +85°C

Parameter	Test Conditions	Frequency	Units	Min	Тур	Max
Insertion Loss	Less Coupling	20 - 1000 MHz 10 - 1500 MHz 1500 - 2000 MHz	dB dB dB	_ _ _	_ _ _	1.1 1.3 1.8
Isolation	_	20 - 1000 MHz 10 - 1500 MHz 1500 - 2000 MHz	dB dB dB	23 18 12	_ _ _	_ _ _
Amplitude Balance	_	20 - 1000 MHz 10 - 1500 MHz 1500 - 2000 MHz	dB dB dB			0.3 0.4 0.6
Phase Balance	_	20 - 1000 MHz 10 - 1500 MHz 1500 - 2000 MHz	0	_ _ _	_ _ _	4 6 8
VSWR	All Ports	20 - 1000 MHz 10 - 1500 MHz 1500 - 2000 MHz	Ratio Ratio Ratio		_ _ _	1.5:1 1.6:1 1.8:1

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Phase Balance	_	20 - 1000 MHz 10 - 1500 MHz 1500 - 2000 MHz	0			5 8 11
VSWR	All Ports	20 - 1000 MHz 10 - 1500 MHz 1500 - 2000 MHz	Ratio Ratio Ratio		_ _ _	1.5:1 1.6:1 1.8:1

<sup>1.</sup> All specifications apply with 50 ohm source and load impedance.

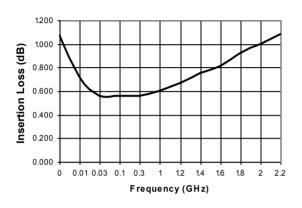


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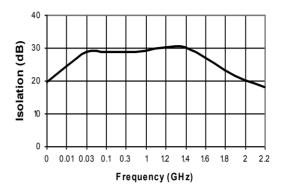
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## **Typical Performance Curves**

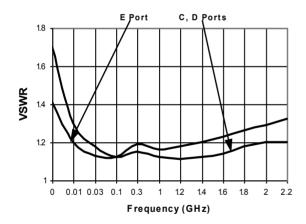
Insertion Loss - Ports  $\Sigma$ -C,  $\Sigma$ -D



#### Isolation - Ports C-D



#### **VSWR**



## **DS-DSS-313**



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