

2-Way Power Divider 10 - 2000 MHz



DS-313 / DSS-313

Rev. V4

Features

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

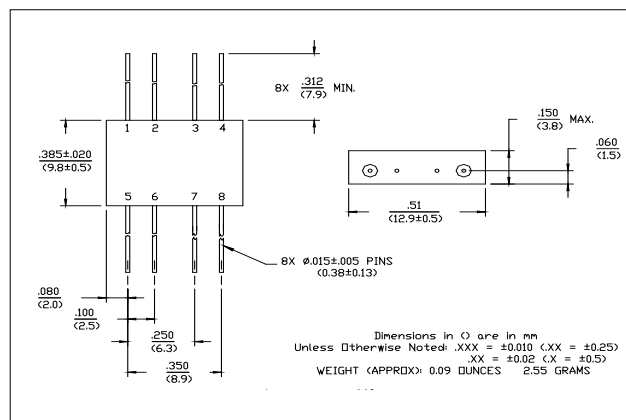
Applications

- Aerospace & Defense
- ISM

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.

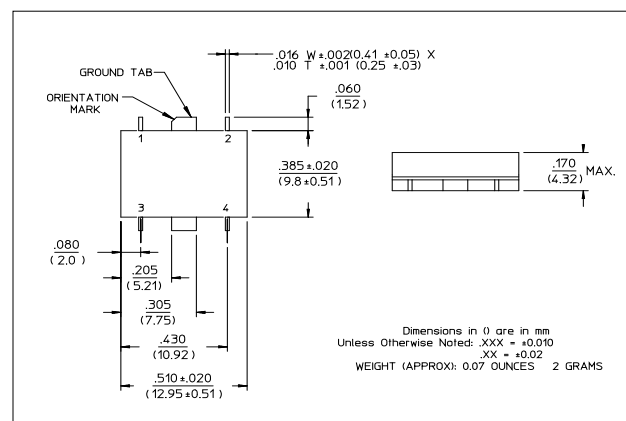
FP-2 (DS-313)



Pin Configuration (DS-313)

Pin #	Function
1	Σ
2,3,5,6,7	GND
4	Output C
8	Output D

SF-1 (DSS-313)



Pin Configuration (DSS-313)

Pin #	Function
1	Σ
2	Output C
3	GND
4	Output D

Ordering Information

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

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DS-313 Electrical Specifications¹: T_A = -55°C to +85°C

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

DSS-313 Electrical Specifications¹: T_A = -55°C to +85°C

Parameter	Test Conditions Frequency (MHz)	Units	Min.	Typ.	Max.	
Insertion Loss	Less Coupling	dB	—	—	1.1	
	20 - 1000					1.3
	10 - 1500					1.8
Isolation	20 - 1000	dB	22	—	—	
	10 - 1500		18			
	1500 - 2000		12			
Amplitude Balance	20 - 1000	dB	—	—	0.3	
	10 - 1500				0.4	
	1500 - 2000				0.6	
Phase Balance	20 - 1000	°	—	—	5	
	10 - 1500				8	
	1500 - 2000				11	
VSWR	All Ports	Ratio	—	—	1.5:1	
	20 - 1000				1.6:1	
	10 - 1500				1.8:1	

1. All specifications apply with 50 ohm source and load impedance.

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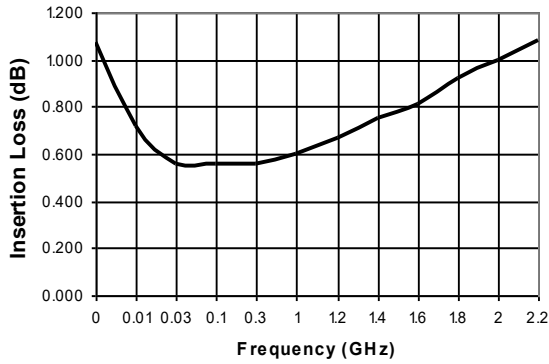


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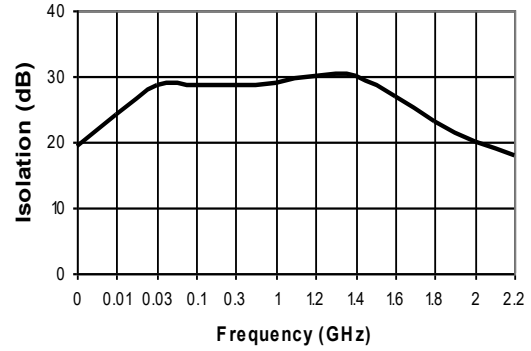
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Typical Performance Curves

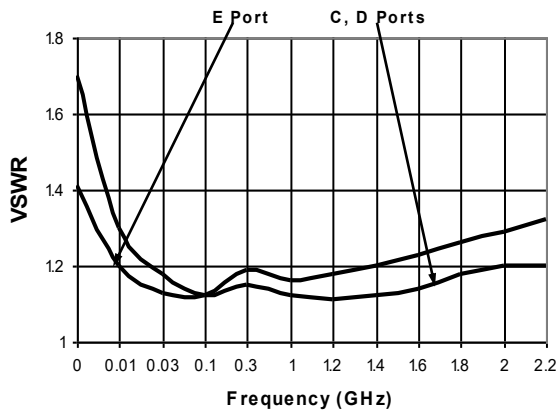
Insertion Loss - Ports Σ -C, Σ -D



Isolation - Ports C-D



VSWR



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