

**Four-Way Power Divider,
10 - 500 MHz**

**DS-112/DS-312
V4**

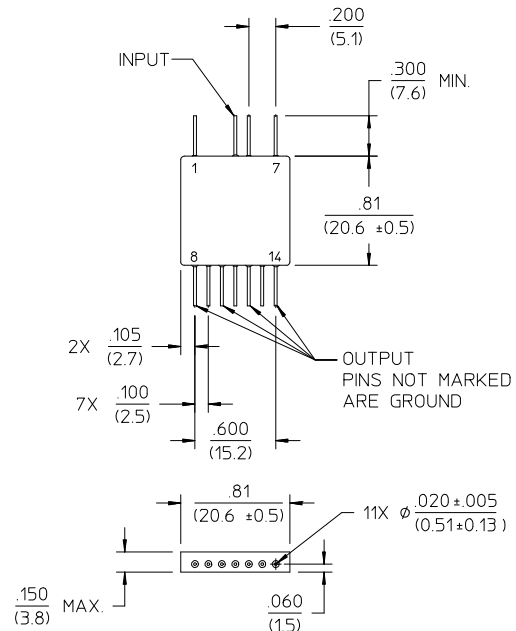
Features

- Low Loss: 0.6 dB Typical
- High Isolation: 30 dB Typical
- Low VSWR: 1.2:1 Typical
- Impedance: 50 Ohms Nominal
- Maximum Power Rating or Input Power: 1W Max.
- Internal Load Dissipation: DS-112 -0.05 W Max.
DS-312- 0.25 Watts Max.
- MIL-STD-202 Screening Available

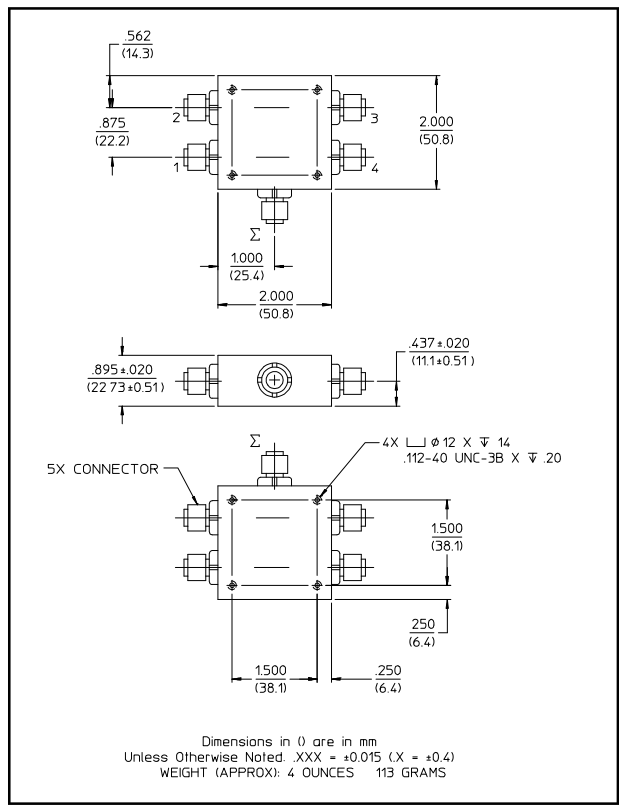
Description

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.

FP-5 (DS-112)



C-14 (DS-312)



Pin Configuration (DS-112)

Pin No.	Function	Pin No.	Function
1	GND	8	Output
2	GND	9	GND
3	GND	10	Output
4	Input	11	GND
5	GND	12	Output
6	GND	13	GND
7	GND	14	Output

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DS-112 Electrical Specifications¹: $T_A = -55^{\circ}\text{C}$ to $+85^{\circ}\text{C}$

Parameter	Test Conditions	Frequency	Units	Min	Typ	Max
Insertion Loss	Less Coupling	10 - 400 MHz	dB	—	—	0.75
		400 - 500 MHz	dB	—	—	0.85
Isolation	—	10 - 500 MHz	dB	25	—	—
Amplitude Balance	—	10 - 500 MHz	dB	—	—	0.2
Phase Balance	—	10 - 500 MHz	°	—	—	5
VSWR	All Ports	10 - 25 MHz	Ratio	—	—	1.5:1
		25 - 500 MHz	Ratio	—	—	1.35:1

DS-312 Electrical Specifications¹: $T_A = -55^{\circ}\text{C}$ to $+85^{\circ}\text{C}$

Parameter	Test Conditions	Frequency	Units	Min	Typ	Max
Insertion Loss	Less Coupling	10 - 400 MHz	dB	—	—	0.75
		400 - 500 MHz	dB	—	—	0.85
Isolation	—	10 - 500 MHz	dB	25	—	—
Amplitude Balance	—	10 - 500 MHz	dB	—	—	0.2
Phase Balance	—	10 - 500 MHz	°	—	—	2
VSWR	All Ports	10 - 400 MHz	Ratio	—	—	1.5:1
		400 - 500 MHz	Ratio	—	—	1.35:1

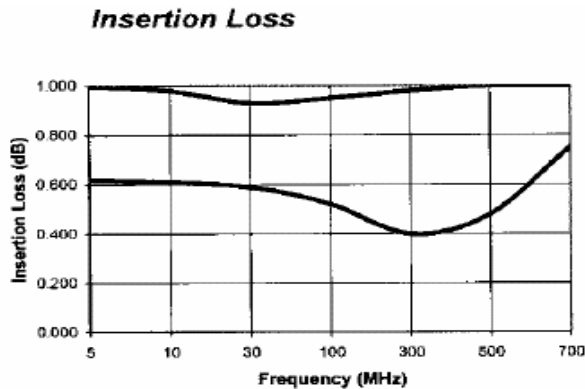
1. All specifications apply with 50 ohm source and load impedance.

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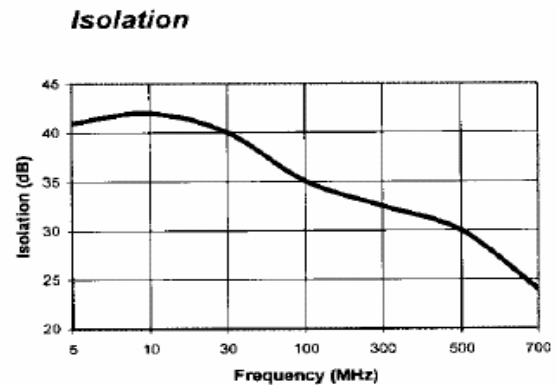
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Typical Performance Curves

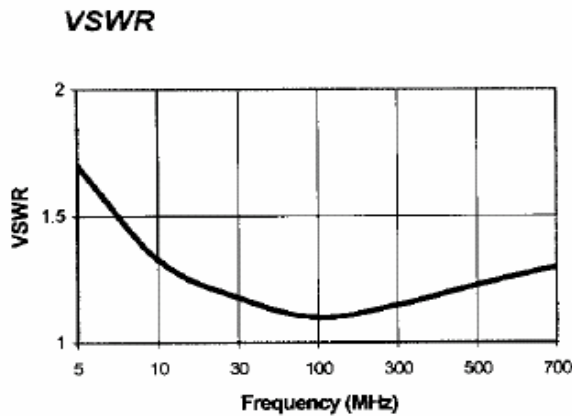
Insertion Loss



Isolation



VSWR



Ordering Information

Part Number	Package
DS-112 PIN	FP-2
DS-312 BNC	C-14
DS-312 TNC	C-14
DS-312 N	C-14
DS-312 SMA	C-14