



Four-Way Power Divider, 10 - 500 MHz

DS-112/DS-312 V4

Features

Low Loss: 0.6 dB TypicalHigh Isolation: 30 dB TypicalLow VSWR: 1.2:1 Typical

• Impedance: 50 Ohms Nominal

Maximum Power Rating or Input Power: 1W Max.

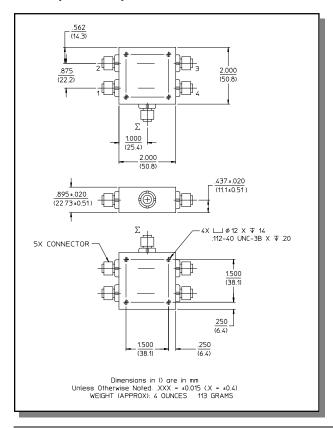
 Internal Load Dissipation: Ds-112 -0.05 W Max. DS-312- 0.25 Watts Max.

• MIL-STD-202 Screening Available

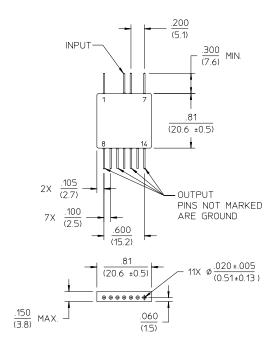
Description

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.

C-14 (DS-312)



FP-5 (DS-112)



Dimensions in () are in mm Unless Otherwise Noted: .XXX = ± 0.010 (.XX = ± 0.25) .XX = ± 0.02 (.X = ± 0.5) WEIGHT (APPROX): 0.21 OUNCES 6 GRAMS

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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Four-Way Power Divider, 10 - 500 MHz

DS-112/DS-312 VA

DS-112 Electrical Specifications¹: $T_A = -55$ °C to +85°C

Parameter	Test Conditions	Frequency	Units	Min	Тур	Max
Insertion Loss	Less Coupling	10 - 400 MHz 400 - 500 MHz	dB dB	_	_ _	0.75 0.85
Isolation	_	10 - 500 MHz	dB	25	_	
Amplitude Balance	_	10 - 500 MHz	dB		_	0.2
Phase Balance	_	10 - 500 MHz	۰		_	5
VSWR	All Ports	10 - 25 MHz 25 - 500 MHz	Ratio Ratio		_	1.5:1 1.35:1

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

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

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Four-Way Power Divider, 10 - 500 MHz

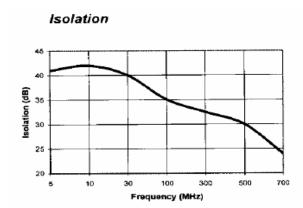
DS-112/DS-312

Typical Performance Curves

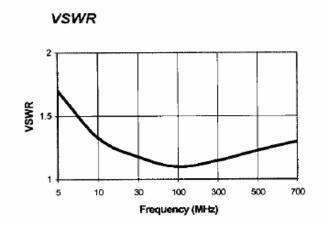
Insertion Loss

1.000 0.800 0.800 0.000 0.000 5 10 30 100 300 500 700 Frequency (MHz)

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

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