DS-112 / DS-312

Four-Way Power Divider, 10 - 500 MHz

Rev. V5

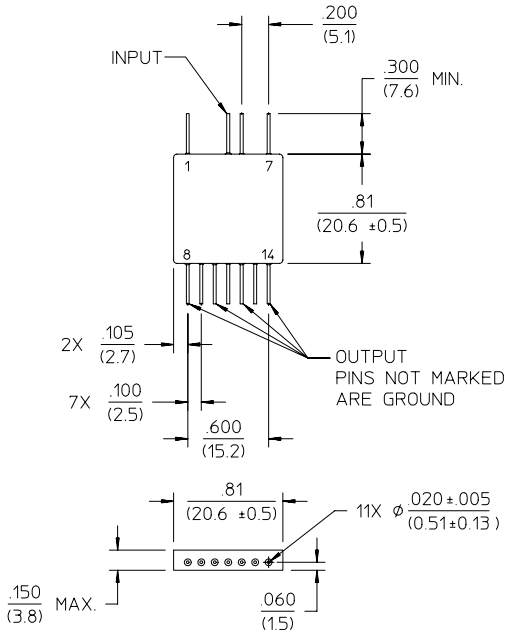
Features

- 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

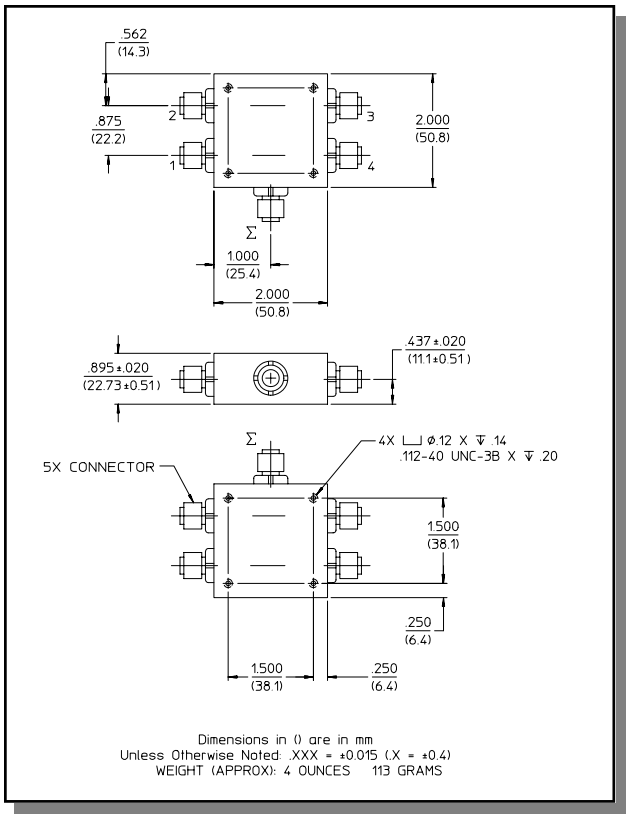
A Power Divider is ideally a lossless reciprocal device which can also perform vector summation of two or more signals and thus is sometimes called a power combiner or summer.

FP-5 (DS-112)



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

C-14 (DS-312)



Dimensions in () are in mm
Unless Otherwise Noted: .XXX = ±0.015 (.X = ±0.4)
WEIGHT (APPROX): 4 OUNCES 113 GRAMS

Pin Configuration (DS-112)

Pin No.	Function	Pin No.	Function
1	GND	8	Output
2	None	9	GND
3	None	10	Output
4	Input	11	GND
5	GND	12	Output
6	None	13	GND
7	GND	14	Output

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PRELIMINARY: Data Sheets contain information regarding a product M/A-COM Technology Solutions has under development. Performance is based on engineering tests. Specifications are typical. Mechanical outline has been fixed. Engineering samples and/or test data may be available. Commitment to produce in volume is not guaranteed.

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DS-112 Electrical Specifications[1]: T_A = -55°C to +85°C

Parameter	Test Conditions	Frequency	Units	Min	Typ	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	°	—	—	5
VSWR	All Ports	10 - 25 MHz 25 - 500 MHz	Ratio Ratio	— —	— —	1.5:1 1.35:1

DS-312 Electrical Specifications[1]: T_A = -55°C to +85°C

Parameter	Test Conditions	Frequency	Units	Min	Typ	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	°	—	—	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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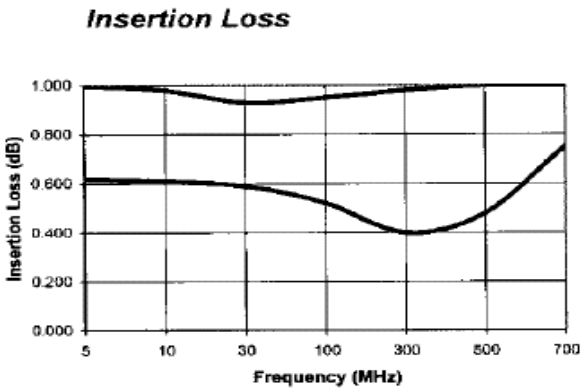
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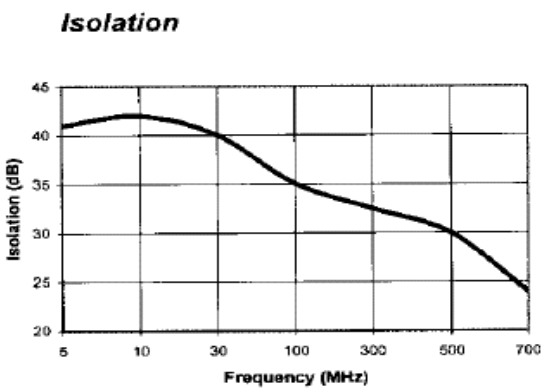
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Typical Performance Curves

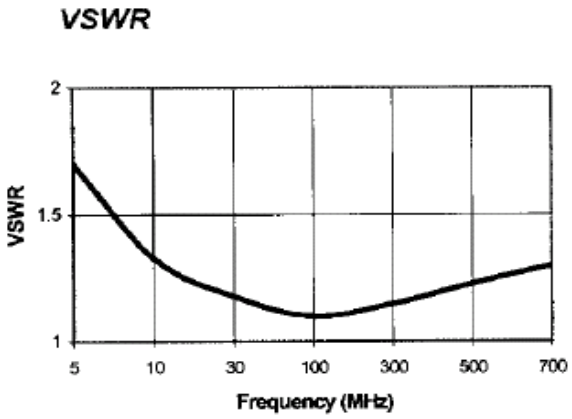
Insertion Loss



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

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