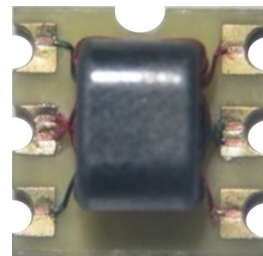


Features

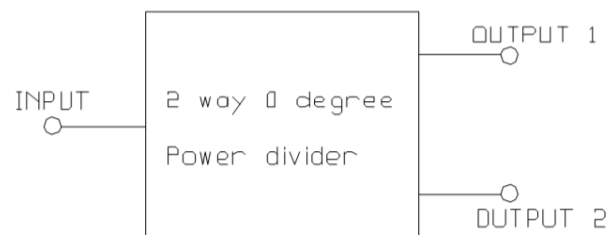
- 2 Way 0 Degree
- Surface mount
- Available on tape and reel
- 260° reflow compatible
- RoHS compliant and Pb free
- Excellent temperature stability
- Suitable for all CATV, Broadband and FTTX applications



Description

The MAPD-011035 is a 2 way 0 degree power divider in a low cost surface mount package. Ideally suited for high volume CATV/VSAT applications.

Functional Schematic



Ordering Information

Part Number	Package
MAPD-011035	900 piece reel
MAPD-011035-TB	Customer test board

Pin Configuration

Pin No.	Function
1	Input
2	External 0.5 pF Capacitor
3	Output 1
4	Output 2
5	External 0.5 pF Capacitor
6	Ground

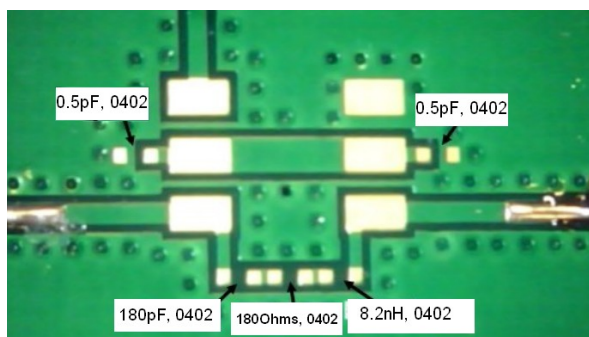
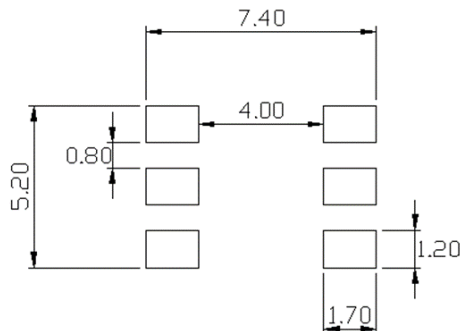
Electrical Specifications: $T_A = 25^\circ\text{C}$, $Z_0 = 75 \Omega$, $P_{in} = 0 \text{ dBm}$

Parameter	Conditions	Units	Min.	Typ.	Max.
Impedance	—	Ω	—	75	—
Power Split	—	dB	—	3	—
Insertion Loss 1 (Above 3 dB) (pin 1 - pin 3)	5 - 1000MHz 1000 - 1225 MHz	dB	—	1.0 1.4	1.3 1.8
Insertion Loss 1 (Above 3 dB) (pin 1 - pin 4)	5 - 1000MHz 1000 - 1225 MHz	dB	—	1.4 1.9	1.7 2.3
Amplitude Balance	5 - 1000MHz 1000 - 1225MHz	dB	-0.6 -0.8	0.5 0.6	0.6 0.8
Phase Balance	5 - 1000MHz 1000 - 1225MHz	°	-6.0 -7.0	5.0 6.0	6.0 7.0
Input Return Loss (pin 1)	5 - 1000 MHz 1000 - 1225 MHz	dB	14 11	16 13	—
Output Return Loss 1 (pin 3)	5 - 1000 MHz 1000 - 1225 MHz	dB	15 12	17 14	—
Output Return Loss 2 (pin 4)	5 - 1000 MHz 1000 - 1225 MHz	dB	16 13	18 14	—
Isolation (between outputs) (pin 3 - pin 4)	5 - 1000 MHz 1000 - 1225 MHz	dB	17 16	19 18	—

Recommended Maximum Ratings

Parameter	Absolute Maximum
Input Power	1 W
Internal Load Dissipation	0.125 W
Operating Temperature	-40°C to +85°C

PCB Layout

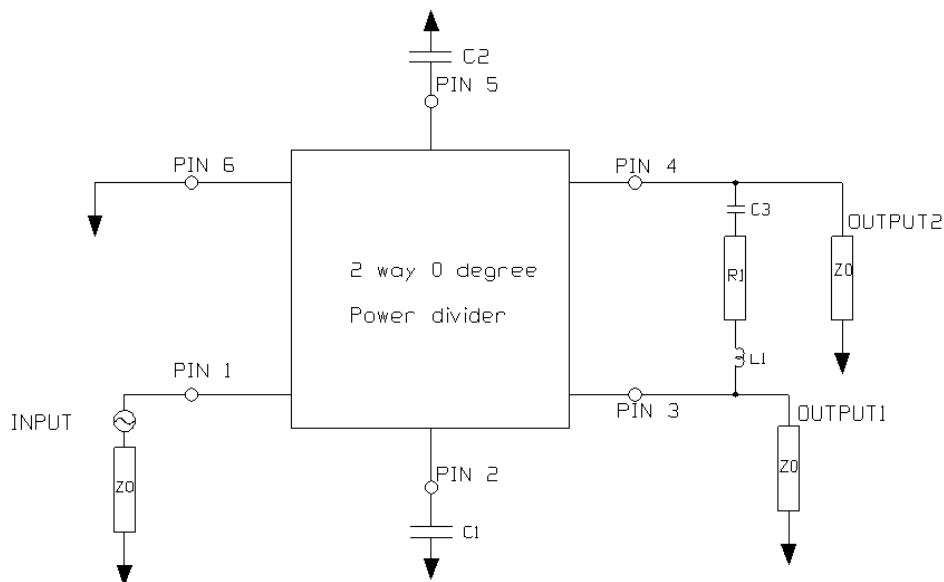


Connect centre pad to centre pad

Parts List

Part	Value	Case Style
C1, C2	0.5 pF	0402
C3	180 pF	0402
L1	8.2 nH	0402
R1	180 Ω	0402

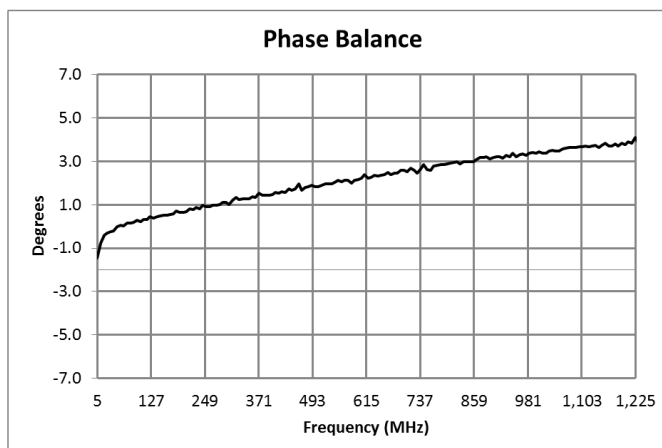
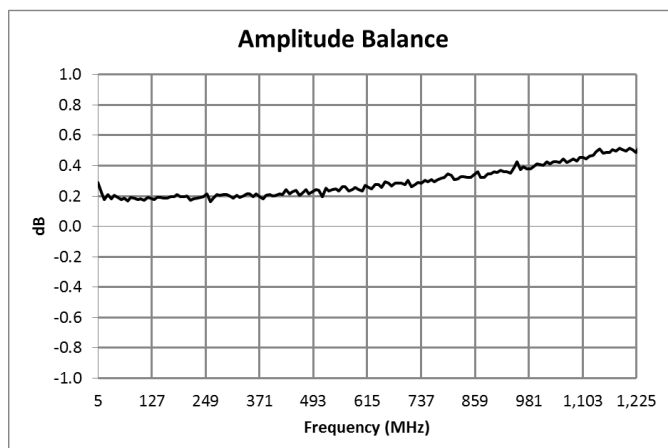
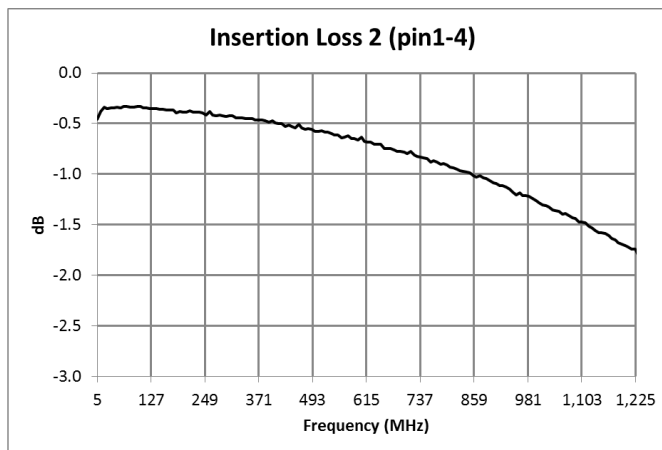
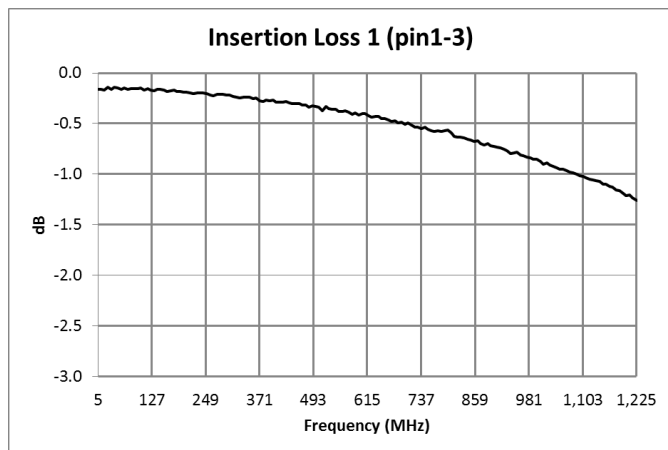
Application Schematic



2 Way, 0° Power Divider 5 - 1225 MHz

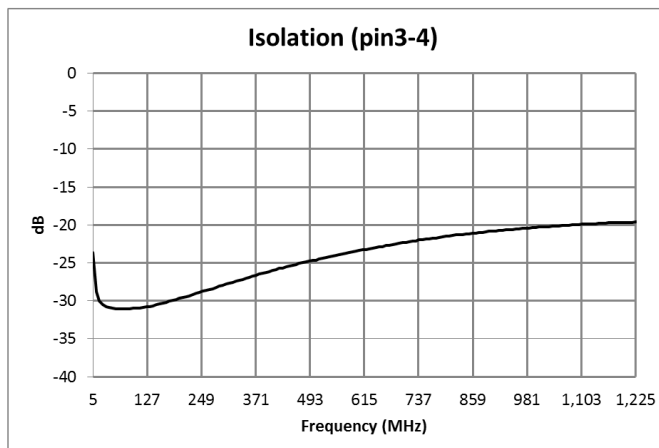
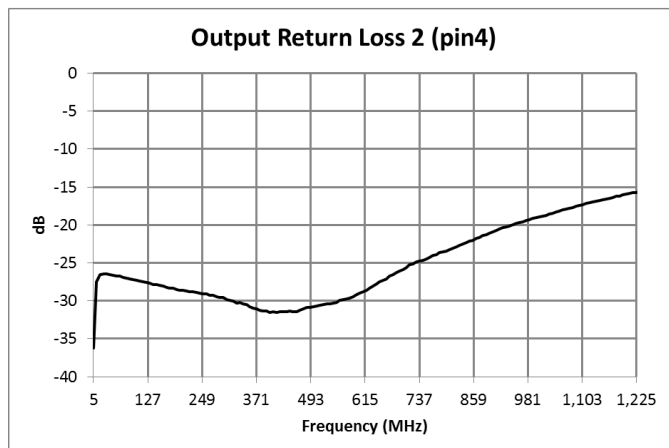
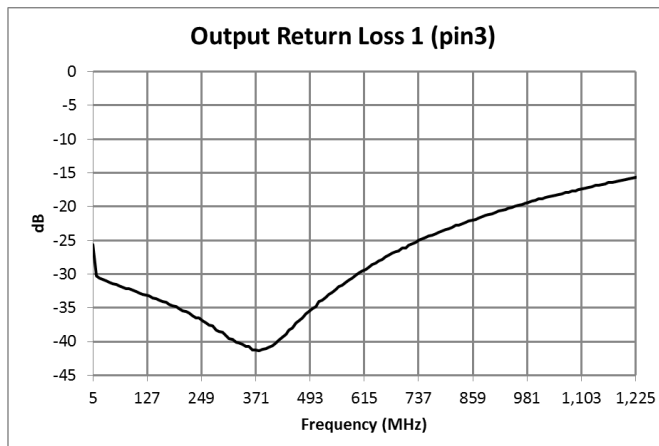
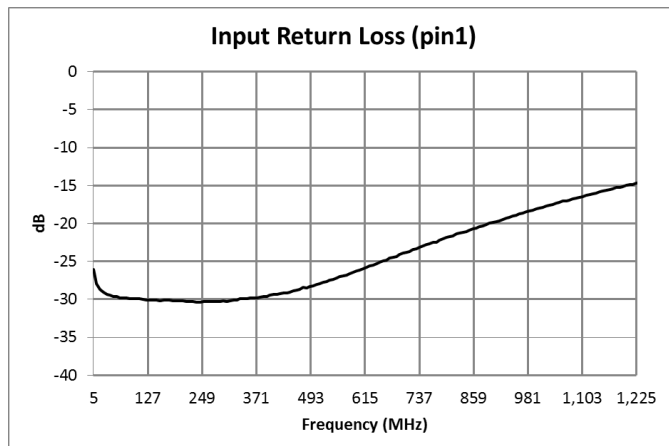
Rev. V3

Typical Performance Curves: $T_A = 25^\circ\text{C}$, $Z_0 = 75 \Omega$, $P_{in} = 0 \text{ dBm}$



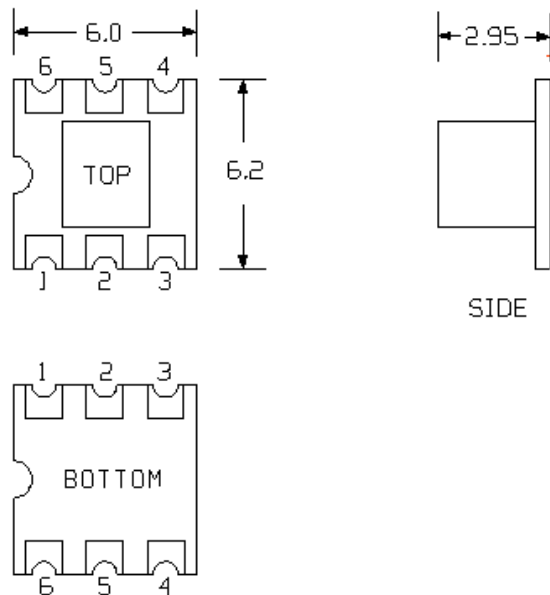
Full temperature plots available on request

Typical Performance Curves: $T_A = 25^\circ\text{C}$, $Z_0 = 75 \Omega$, $P_{in} = 0 \text{ dBm}$



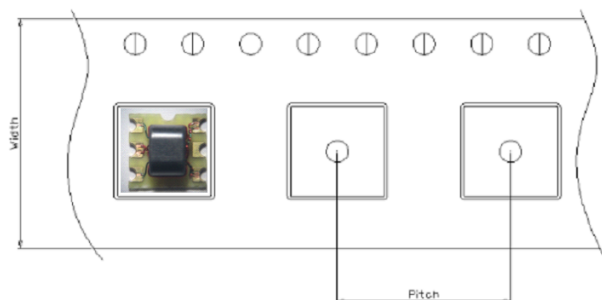
Full temperature plots available on request

Outline Drawing



1. Dimensions in mm.
2. Tolerance: ± 0.2 mm unless otherwise noted.
3. Model number and lot code are printed on the reel.
4. Plating finish: ENIG on both sides, 0.05 to 0.1 μm gold over 3 to 6 μm nickel

Carrier Tape Orientation



Tape & Reel Information

Parameter	Units	Value
Qty per reel	—	900
Reel Size	mm	330
Tape Width	mm	16.00
Pitch	mm	12.00
Orientation	—	F45
Reference Application Note ANI-019 for orientation		

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