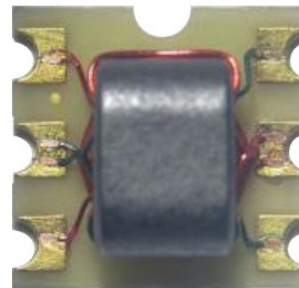


Features

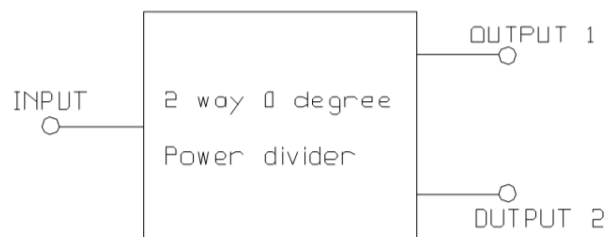
- 2 Way 0 Degree
- Surface mount
- Available on tape and reel
- 260° reflow compatible
- RoHS compliant and Pb free
- Excellent temperature stability
- Suitable for all CATV, Broadband and FTTX applications



Description

The MAPD-011040 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-011040	Tape & Reel
MAPD-011040-TB	Customer Test Board

Pin Configuration

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

2 Way 0° Power Divider 5 - 1225 MHz

Rev. V3

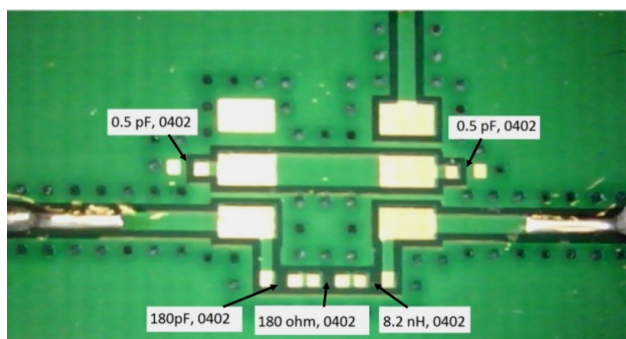
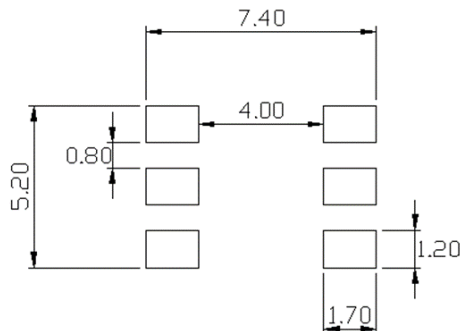
Electrical Specifications: $T_A = 25^\circ\text{C}$, $Z_0 = 75 \Omega$, $P_{in} = 0 \text{ dBm}$

Parameter	Conditions	Units	Min.	Typ.	Max.
Impedance	—	Ω	—	75	—
Power Split	—	dB	—	3	—
Insertion Loss 1 (Above 3 dB) (pin 6 - pin 3)	5 - 1000 MHz	dB	—	1.1	1.4
	1000 - 1225 MHz			1.6	1.9
Insertion Loss 1 (Above 3 dB) (pin 6 - pin 4)	5 - 1000 MHz	dB	—	1.4	1.5
	1000 - 1225 MHz			1.9	2.1
Amplitude Balance	5 - 1000 MHz	dB	-0.6	0.35	0.6
	1000 - 1225 MHz		-0.6	0.35	0.6
Phase Balance	5 - 1000 MHz	°	-6.0	5.0	6.0
	1000 - 1225 MHz		-7.0	6.0	7.0
Input Return Loss (pin 6)	5 - 1000 MHz	dB	12	14	—
	1000 - 1225 MHz		10	12	—
Output Return Loss 1 (pin 3)	5 - 1000 MHz	dB	13	15	—
	1000 - 1225 MHz		11	13	—
Output Return Loss 2 (pin 4)	5 - 1000 MHz	dB	16	18	—
	1000 - 1225 MHz		13	15	—
Isolation (between outputs) (pin 3 - pin 4)	5 - 1000 MHz	dB	17	19	—
	1000 - 1225 MHz		15	17	—

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

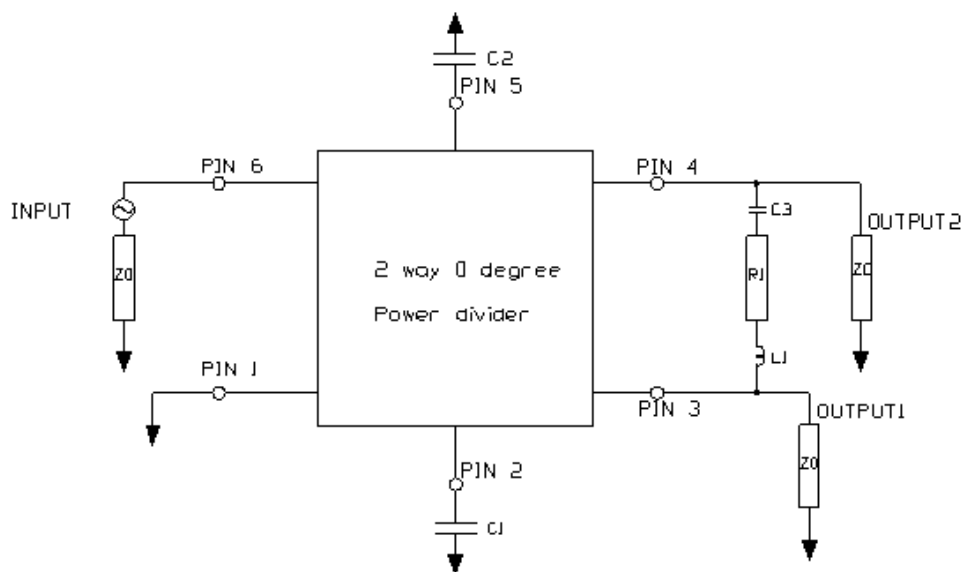


Connect centre pad to centre pad

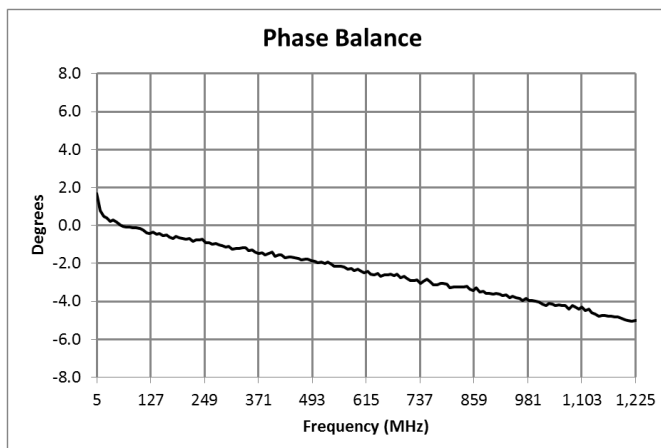
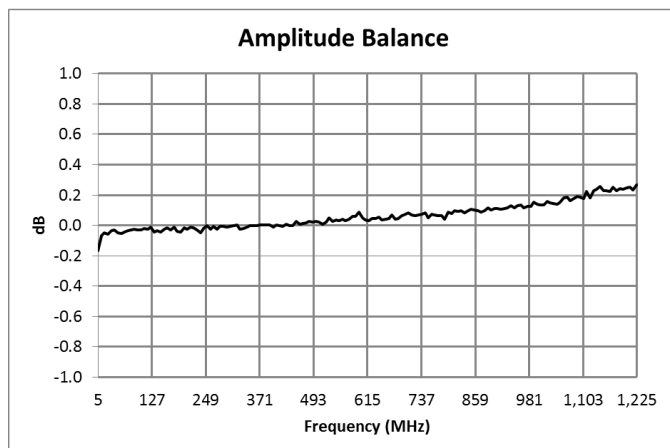
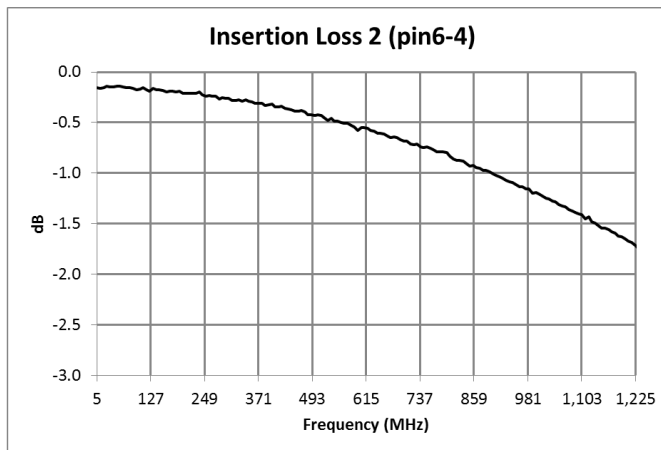
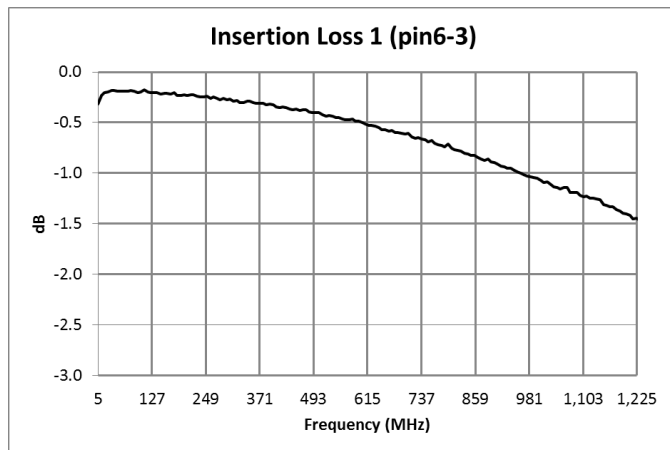
Parts List

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

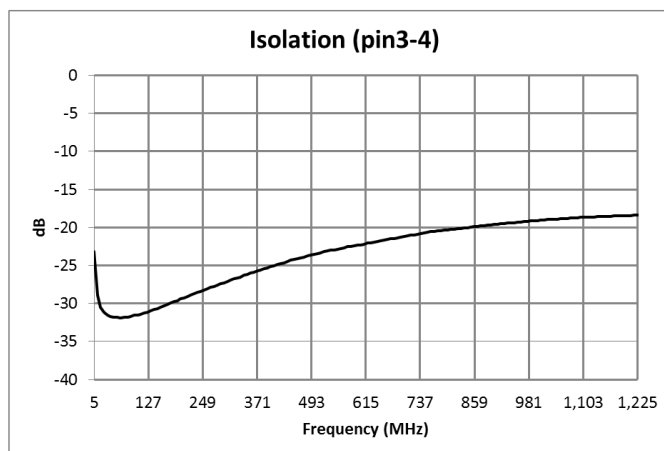
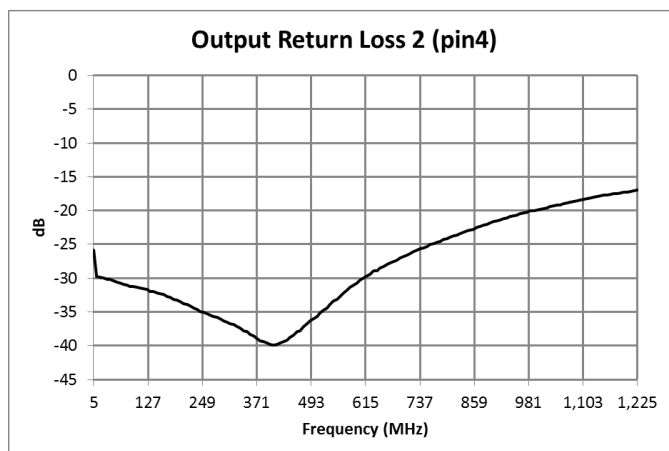
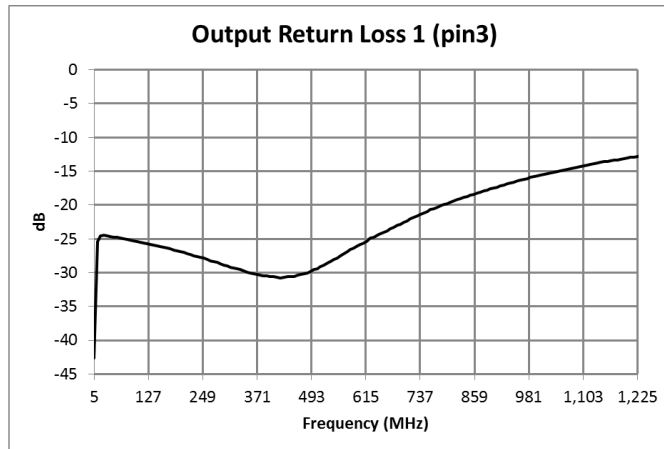
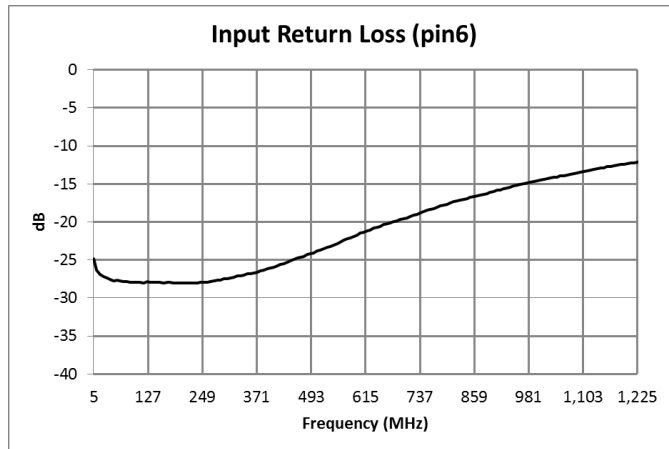


Typical Performance Curves: $T_A = 25^\circ\text{C}$, $Z_0 = 75 \Omega$, $P_{in} = 0 \text{ dBm}$



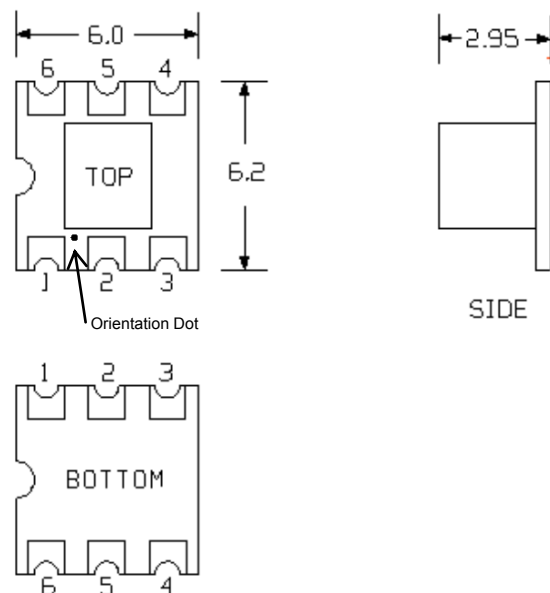
Full temperature plots available on request

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



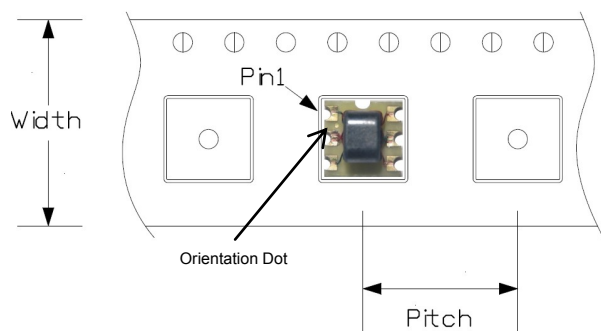
Full temperature plots available on request

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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