

# MAPDCT0032



## 3 Way 0 Degree Power Divider 5 to 1200 MHz

Rev. V6

### Features

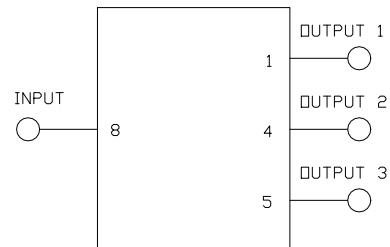
- Surface mount
- 3 Way 0 Degree
- RoHS Compliant and is 260°C reflow compatible
- RoHS version of MAPDCT0005 & MAPDCT0017
- Available on tape and reel, reel quantity 500

### Description

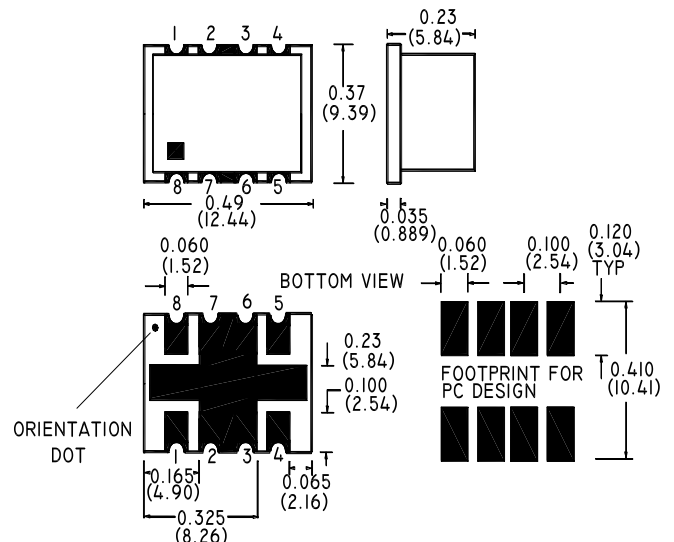
M/A-COM's MAPDCT0032 is a 3 way 0 degree Power Divider in a low cost, surface mount package. Ideally suited for high volume CATV/Broadband applications. No external components are required with this product.



### Schematic



### Case Style SM-4



\* Dimensions are inches (millimeters)  $\pm 0.015$  (0.38) unless otherwise specified.

### Pin Configuration

Function	Pin Number
1	Output 1
2,3,6,7	Ground
4	Output 2
5	Output 3
8	Input

### Ordering Information

Part Number	Package
MAPDCT0032	500 piece reel
MAPD-008112-CT32TB	Customer Test Board

### Absolute Maximum Ratings <sup>1,2</sup>

Parameter	Absolute Maximum
RF Power	250 mW
DC Current	30 mA
Operating Temperature	-40°C to +85°C
Storage Temperature	-40°C to +85°C

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

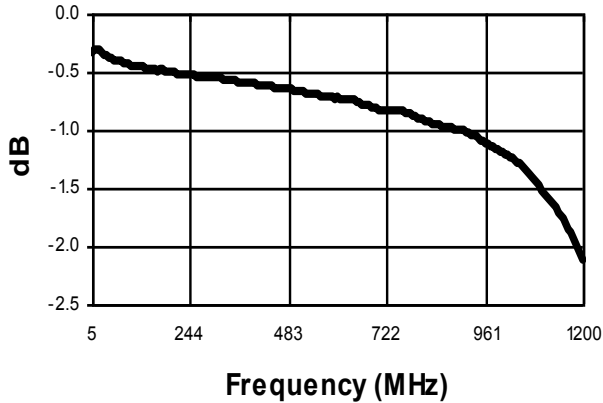
Parameter	Frequency	Units	Min	Typ	Max
Insertion Loss 1 (pin8 - pin1) Ref value -4.77dB	5 - 46 MHz	dB	-	0.37	0.5
	46 - 870 MHz	dB	-	1.23	1.5
	870 - 1002 MHz	dB	-	1.50	1.8
	1002 - 1200 MHz	dB	-	2.23	3.2
Insertion Loss 2 (pin8 - pin4) Ref value -4.77dB	5 - 46 MHz	dB	-	0.37	0.5
	46 - 870 MHz	dB	-	1.0	1.3
	870 - 1002 MHz	dB	-	1.2	1.5
	1002 - 1200 MHz	dB	-	2.0	2.8
Insertion Loss 3 (pin8 - pin5) Ref value -4.77dB	5 - 46 MHz	dB	-	0.38	0.5
	46 - 870 MHz	dB	-	1.5	1.8
	870 - 1002 MHz	dB	-	1.8	2.2
	1002 - 1200 MHz	dB	-	2.8	3.3
Input Return Loss	5 - 8 MHz	dB	26	28	-
	8 - 46 MHz	dB	27	31	-
	46 - 405MHz	dB	20	25	-
	405 - 1002 MHz	dB	17.5	20	-
	1002 - 1200 MHz	dB	11	18	-
Output Return Loss 1&2 (Pin1, Pin4)	5 - 46 MHz	dB	11	18	-
	46 - 1200 MHz	dB	20	25	-
Output Return Loss 3 (Pin5)	5 - 46 MHz	dB	11	18	-
	46 - 740 MHz	dB	20	20	-
	740 - 1002 MHz	dB	17	25	-
	1002 - 1200 MHz	dB	14	18	-
Isolation Between all Outputs	5 - 46 MHz	dB	18	28	-
	46 - 1002 MHz	dB	20	25	-
	1002 - 1200 MHz	dB	18	24	-
Amplitude Unbalance, Output 1 to Output 2 (pin 1, 4)	5 - 46 MHz	dB	-	0.0	-0.1
	46 - 1002 MHz	dB	-	0.3	0.5
Amplitude Unbalance, Output 1 to Output 3 (pin 1, 5) & Output 2 to Output 3 (pin 4, 5)	5 - 46 MHz	dB	-	-0.1	-0.2
	46 - 1002 MHz	dB	-	-0.3	-0.5
Phase Unbalance between all Outputs	5 - 50 MHz	°	-	0.4	0.5
	50 - 1200 MHz	°	-	3.0	4.0

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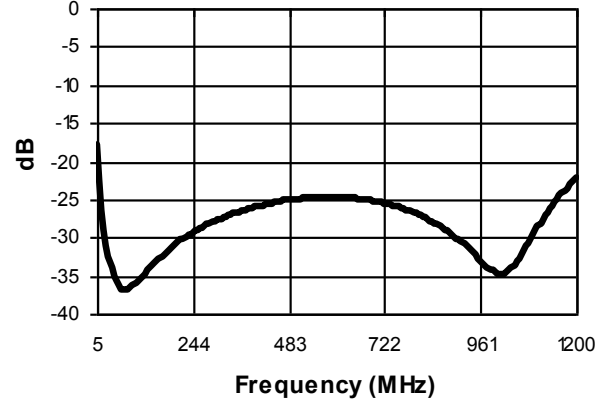
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Typical Performance Curves @  $T_A = 25^\circ\text{C}$ ,  $Z_0 = 75\Omega$

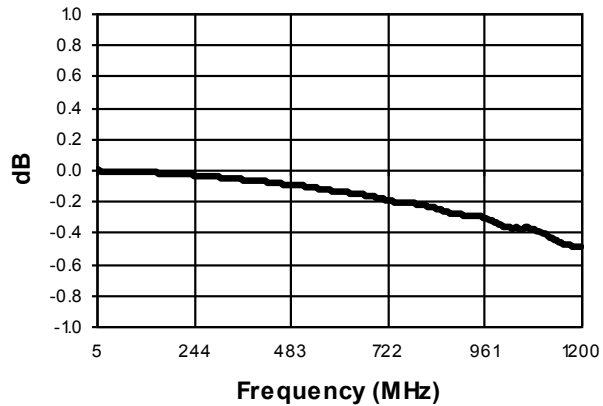
**Insertion Loss**



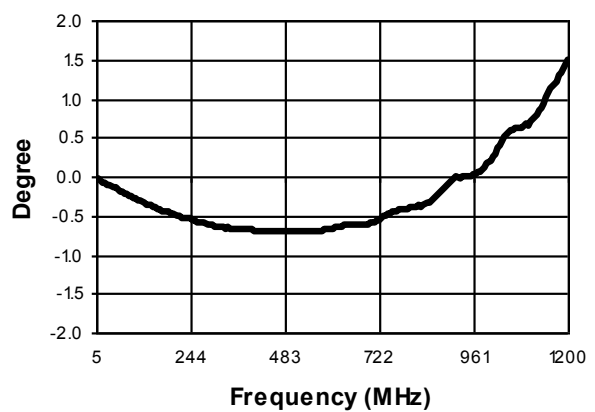
**Isolation**



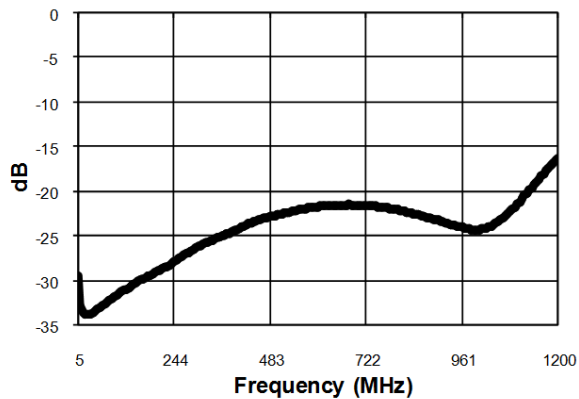
**Amplitude Balance**



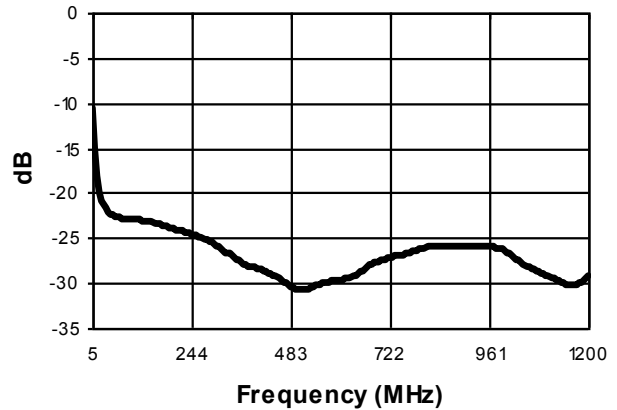
**Phase Balance**



**Return Loss: Input**



**Return Loss: Output**

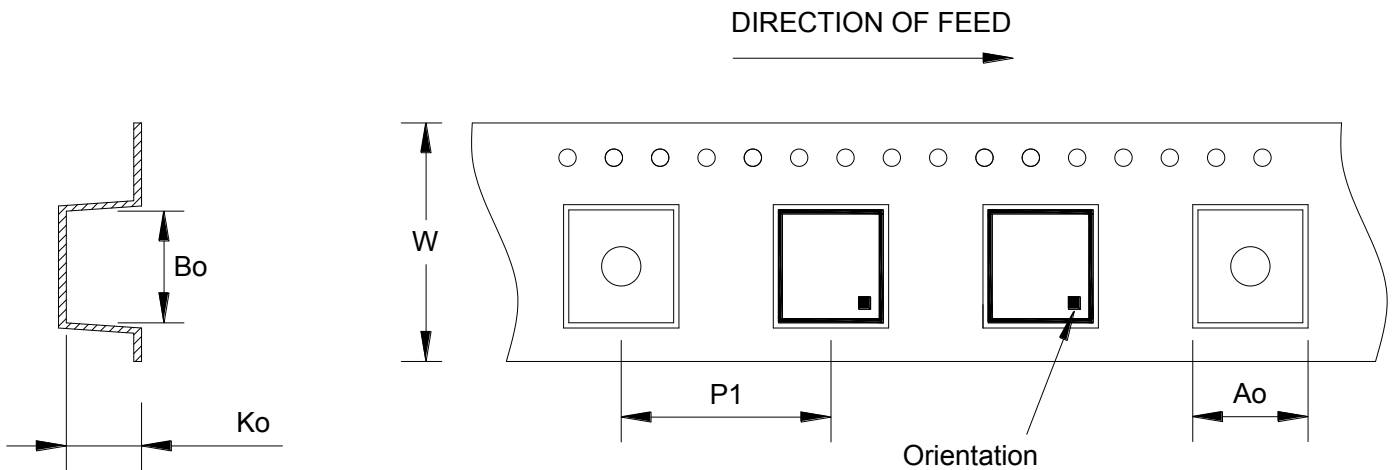


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Item	Dimension
Ao	10.26mm +/-0.1mm
Bo	13.46mm +/-0.1mm
Ko	6.10mm +/-0.1mm
W	24.00mm +/-0.3mm
P1	16.00mm +/-0.1mm

## Ordering Information

Part Number	Package
MAPDCT0032	500

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