

Broadband CATV 3 way 0 Degree Power Divider

Rev. V2

Features

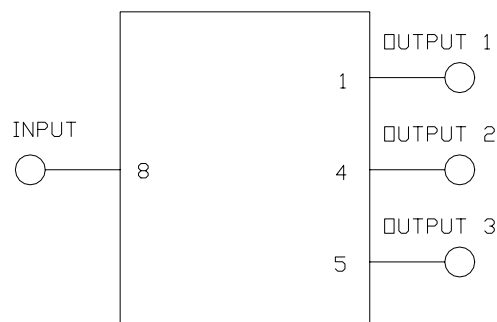
- SMT unit
- 3 Way 0 Degree Power Divider
- Excellent Temperature Stability
- Tape and Reel

Description

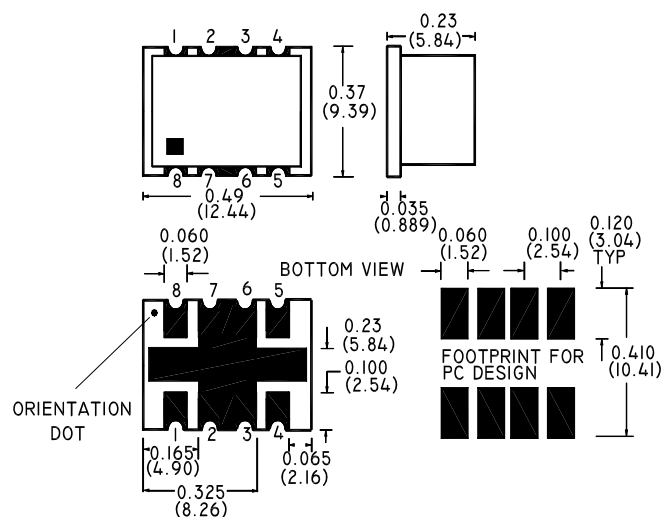
M/A-COM Technology Solutions MAPDCT0017 is a 3 Way 0° Power Divider in a low cost, surface mount package. Ideally suited for high volume CATV & VSAT applications. No external components are required with this product



Schematic



Component Dimensions:



Dimensions in inches [mm] Tolerance: .xx ± .02, .xxx ± .010

Pin Configuration

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

* Restrictions on Hazardous Substances, European Union Directive 2002/95/EC.

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

Parameter	Test Conditions	Units	Min.	Typ.	Max.
Frequency Range: 46-1200 MHz	MHz				
Insertion Loss 1 (pin 8 to 1) *	46 – 870	dB	-	1.23	1.50
Ref value -4.77dB	870 – 1002	dB	-	1.50	1.80
	1002 - 1200	dB	-	2.23	3.20
Insertion Loss 2 (pin 8 to 4) *	46 – 870	dB	-	1.00	1.30
Ref value -4.77dB	870 – 1002	dB	-	1.20	1.50
	1002 - 1200	dB	-	2.00	2.80
Insertion Loss 3 (pin 8 to 5) *	46 – 870	dB	-	1.50	1.80
Ref value -4.77dB	870 – 1002	dB	-	1.80	2.20
	1002 - 1200	dB	-	2.80	3.30
Input Return Loss *	46 – 405	dB	20	25	-
	405 – 1002	dB	17.5	20	-
	1002 – 1200	dB	11	18	-
Output return Loss 1 & 2* (Pin 1, 4)	46 - 1200	dB	20	25	-
Output return Loss 3 *	46 – 740	dB	20	25	-
(Pin 5)	740 – 1002	dB	17	20	-
	1002 - 1200	dB	14	18	-
Isolation between outputs	46 - 1002	dB	20	25	-
	1002 - 1200	dB	18	24	-
Amplitude Unbalance Output 1 to Output 2 (pin 1, 4)	46 - 1002	dB	-	0.3	0.5
Amplitude Unbalance Output 1 to Output 3 (pin 1, 5)	46 - 1002	dB	-	-0.3	-0.5
Phase Unbalance	50 – 1200	°	-4.0	3.0	4.0

* Monitored during production tune/test

Recommended Maximum Ratings ^{1,2}

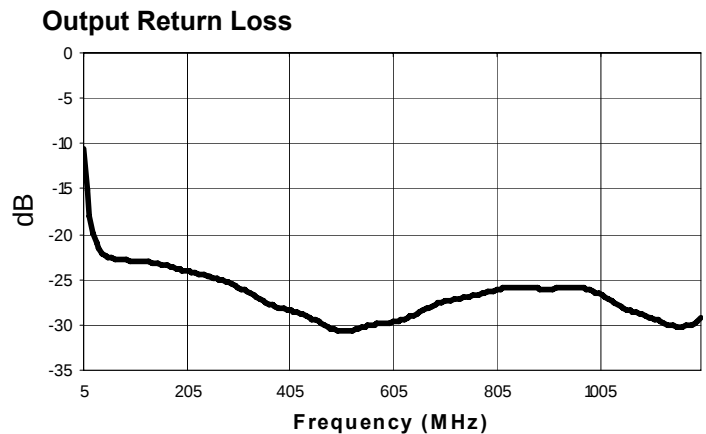
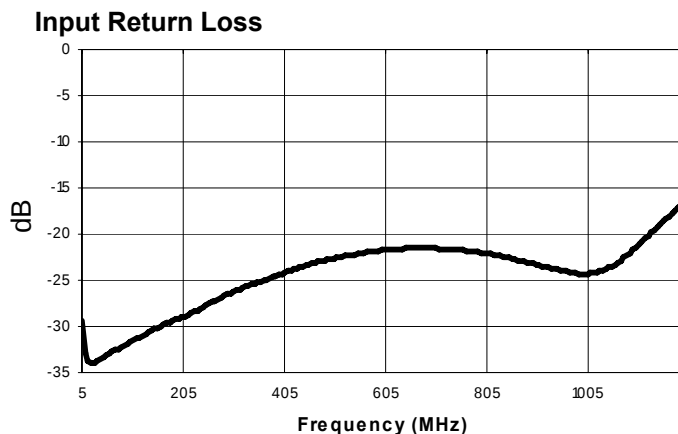
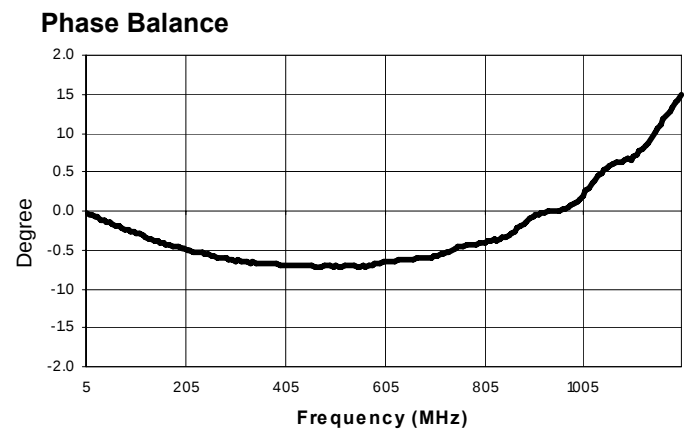
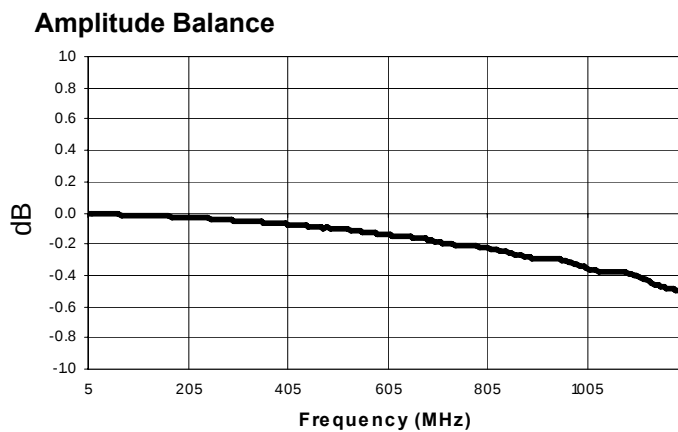
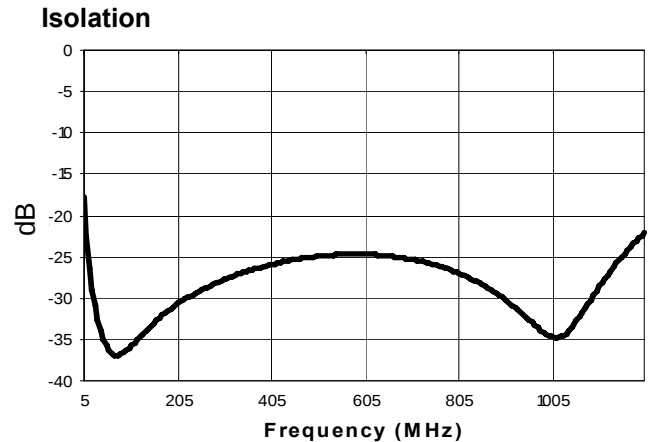
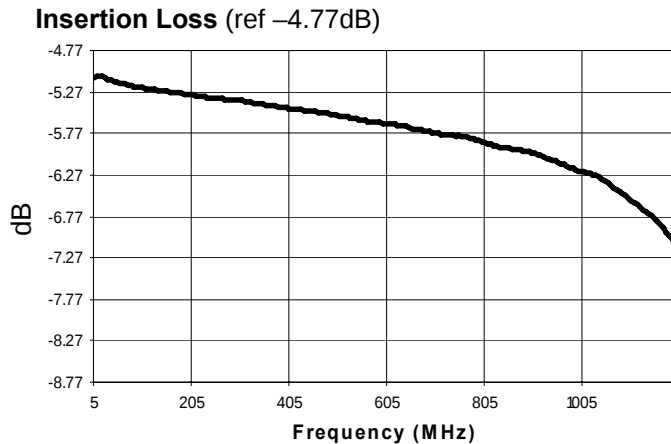
Parameter	Value
RF Power	250 mW
DC Current	30 mA
Operating/Storage Temperature	-40° C to +85° C

- Exceeding any one or combination of these limits may cause permanent damage to this device.
- M/A-COM Technology Solutions does not recommend sustained operation near these survivability limits.

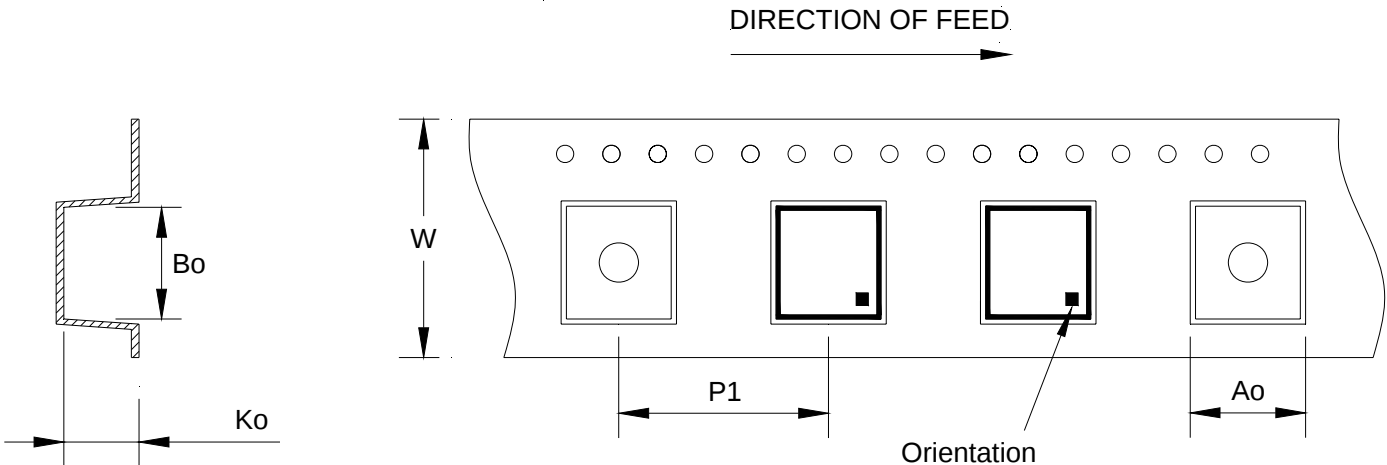
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Typical Performance Curves: $T_A = 25^\circ\text{C}$, $Z_0 = 75\Omega$



Tape Specification:



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
MAPDCT0017	500