

MAPDCT0028



4 Way 0° Power Divider
5 – 1000 MHz

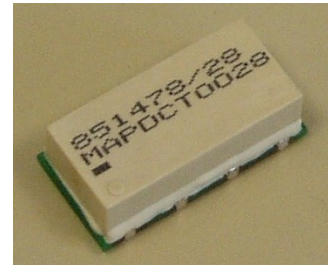
Rev. V2

Features

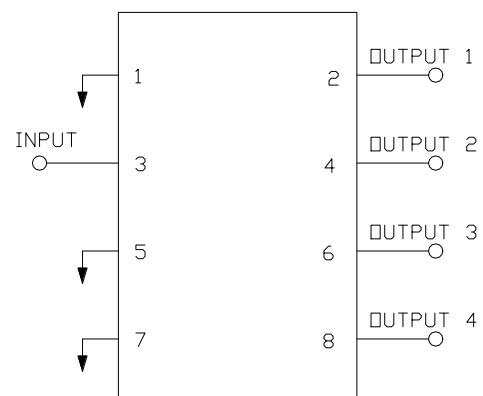
- 4 Way 0 degree
- Surface mount
- 260° reflow compatible
- RoHS compliant
- Available on tape and reel

Description

MACOM's MAPDCT0028 is a 4 way high performance 0 degree RF power divider, in a low cost surface package. Ideally suited for CATV and Broadband applications.



Functional Schematic



Ordering Information

Part Number	Package
MAPDCT0028	Tape & Reel

Pin Configuration

Pin No.	Function
1	Ground
2	Output 1
3	Input
4	Output 2
5	Ground
6	Output 3
7	Ground
8	Output4

* Restrictions on Hazardous Substances, European Union Directive

**4 Way 0° Power Divider
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Rev. V2

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

Parameter	Test Conditions	Units	Min.	Typ.	Max.
Frequency Range		MHz	5		1000
Impedance		Ω		75	
Insertion Loss	5 - 80 MHz	dB	-	0.6	0.7
	80 - 870 MHz	dB	-	0.7	1.2
	870 - 1000 MHz	dB	-	1.1	1.4
Amplitude Balance	5 - 80 MHz	dB	-	0.0	0.1
	80 - 1000 MHz	dB	-	0.3	0.5
Phase Balance	5 - 80 MHz	$^\circ$	-	0.1	1.0
	80 - 500 MHz	$^\circ$	-	0.5	3.0
	500 - 870 MHz	$^\circ$	-	1.0	6.0
	870 - 1000 MHz	$^\circ$	-	1.0	8.0
Input Return Loss	5 - 80 MHz	dB	21	25	-
	80 - 870 MHz	dB	17	21	-
	870 - 1000 MHz	dB	15	17	-
Output Return Loss	5 - 10 MHz	dB	13	18	-
	10 - 1000 MHz	dB	16	19	-
Isolation (between all outputs)	5 - 800 MHz	dB	20	40	-
	800 - 1000 MHz	dB	18	21	-
Isolation (between outputs 1&2 & 3&4)	5 - 10 MHz	dB	17	25	-

Recommended Maximum Ratings

Parameter	Units	Min	Max
Input Power	W		1
DC Current	mA		240
Operating Temperature Range	$^\circ\text{C}$	-40	+85

Full temperature plots available on request

MAPDCT0028

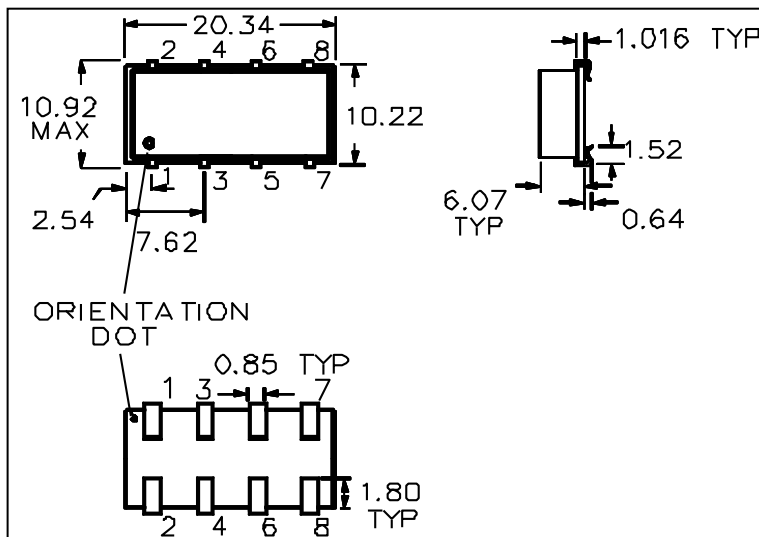


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Outline Drawing

PCB Layout



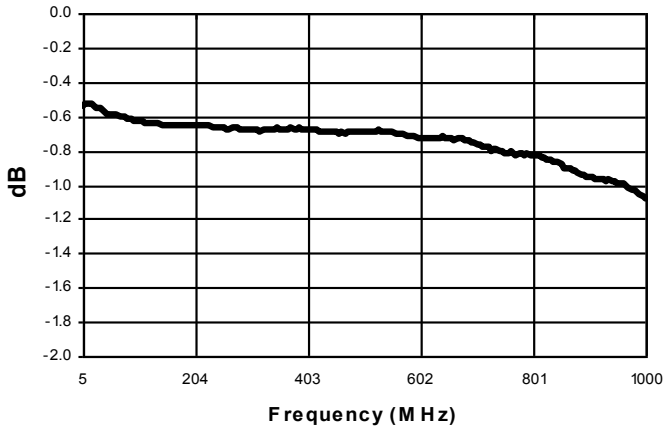
1. Dimensions in mm.
2. Tolerance: ± 0.2 mm unless otherwise noted.
3. Model number and lot code are printed on the reel.
4. Lead plating: Tin.

Tape & Reel Information

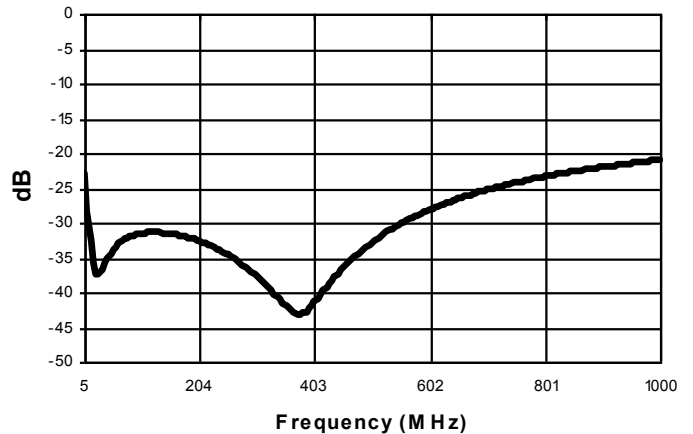
Parameter	Units	Value
Qty per reel	-	300
Reel Size	mm	330
Tape Width	mm	32
Pitch	mm	24.0
Ao	mm	20.9
Bo	mm	11.4
Ko	mm	6.8
Orientation	-	F11
Reference Application Note ANI-019 for orientation		

Typical Performance Curves

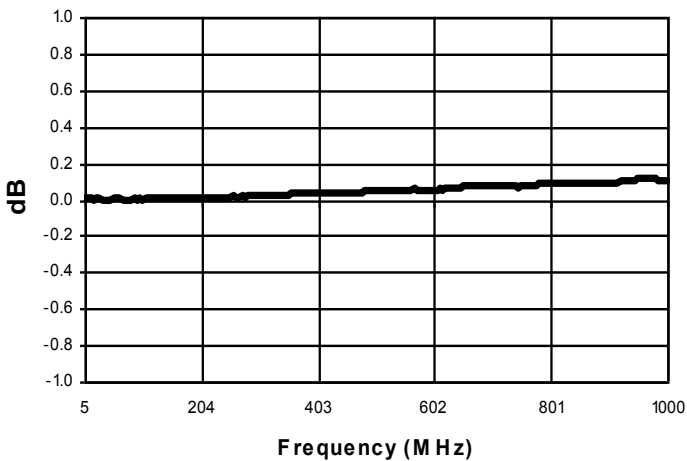
Insertion Loss



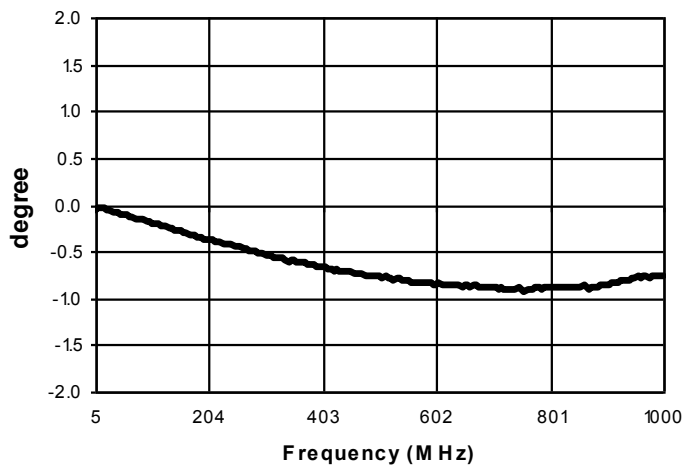
Isolation



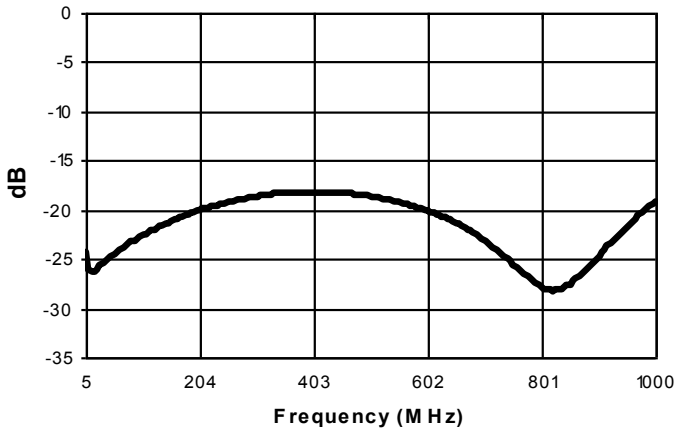
Amplitude Balance



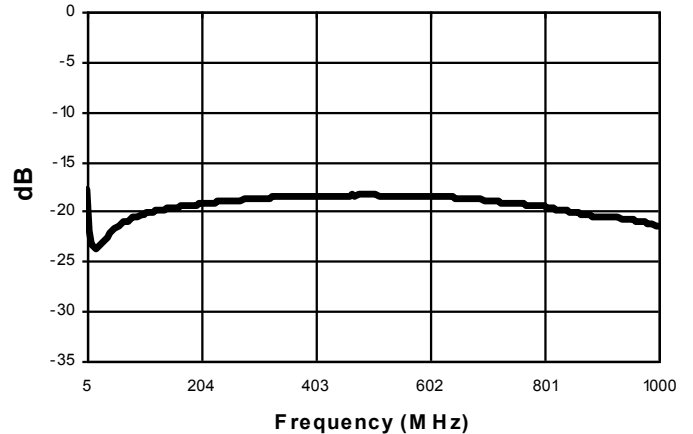
Phase Balance



Return Loss: Input



Return Loss: Output



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