

MAPD-010638-C2WSOT

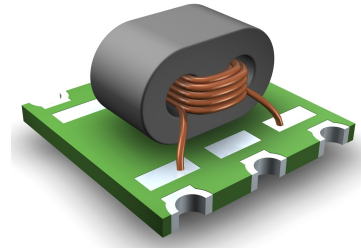


2 way 0° Power Divider
5 MHz - 1600 MHz

Rev. V4

Features

- ◆ 2 way 0 degree
- ◆ Surface mount
- ◆ Available on tape and reel
- ◆ 260°C reflow compatible
- ◆ RoHS Compliant and **Pb** free
- ◆ Suitable for all CATV, Broadband and FTTx applications.



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

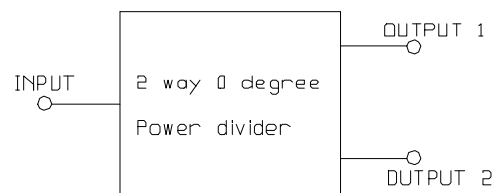
Parameter	Conditions	Units	Min	Typ	Max
Frequency Range		MHz	5		1600
Impedance		Ω		75	
Power split		dB	-	3	
Insertion Loss 1 (pin6 - pin4)	5 - 1002 MHz	dB	-	0.35	0.7
	1003 - 1600 MHz	dB	-	0.70	1.2
Insertion Loss 2 (pin6 - pin3)	5 - 1002 MHz	dB	-	0.65	1.0
	1003 - 1600 MHz	dB	-	1.00	1.6
Amplitude Balance	5 - 1002 MHz	dB	-	0.30	± 0.6
	1003 - 1600 MHz	dB	-	0.30	± 0.8
Phase Balance	5 - 1002 MHz	degree	-	1.0	± 4
	1003 - 1600 MHz	degree	-	1.3	± 6
Input Return Loss (pin6)	5 - 1002 MHz	dB	18	35	-
	1003 - 1600 MHz	dB	16	23	-
Output Return Loss (pin3)	5 - 1002 MHz	dB	18	25	-
	1003 - 1600 MHz	dB	15	21	-
Output Return Loss (pin4)	5 - 1002 MHz	dB	18	34	-
	1003 - 1600 MHz	dB	16	27	-
Isolation (pin4—pin3)	5 - 9 MHz	dB	24	30	-
	10 - 65 MHz	dB	30	42	-
	66 - 870 MHz	dB	26	35	-
	871 - 1002 MHz	dB	24	30	-
	1003 - 1600 MHz	dB	22	30	-

NOTE: Intermodulation distortions per 'ANSI/SCTE 1452008' -95dBc Min. & not tested in production

Pin Configuration

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

Schematic



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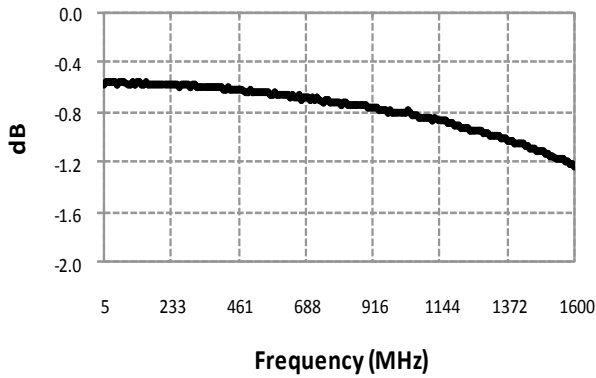
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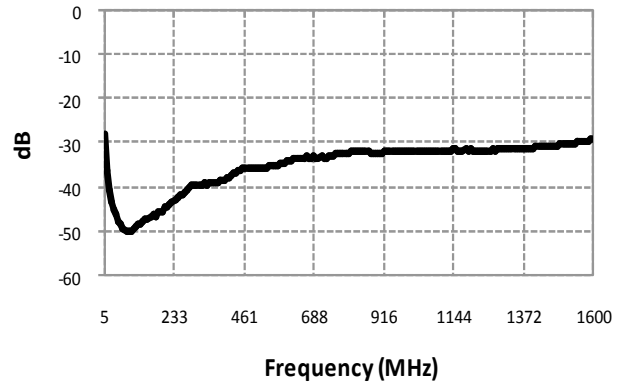
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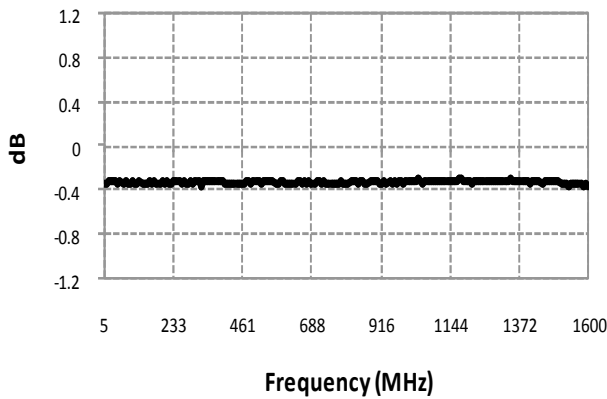
Insertion Loss : Pin6—Pin4



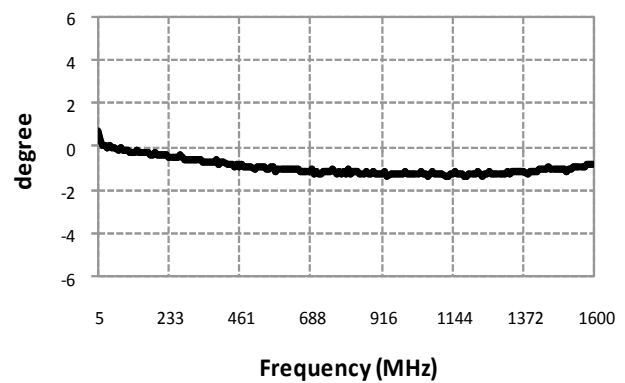
Isolation:



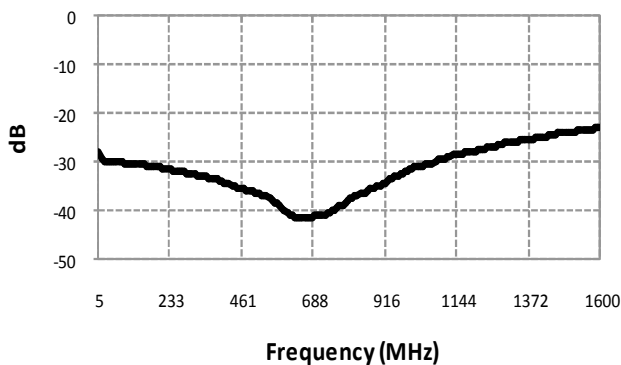
Amplitude Balance:



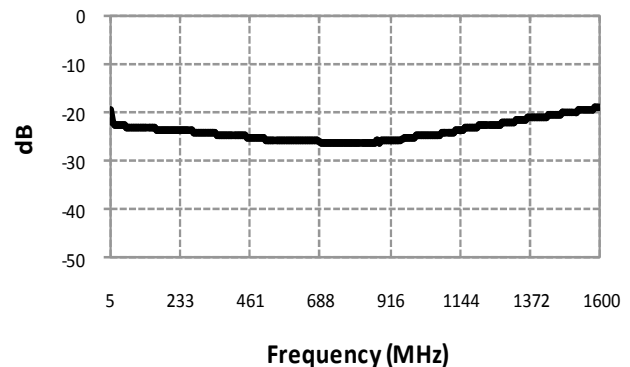
Phase Balance :



Input Return Loss:



Output Return loss:



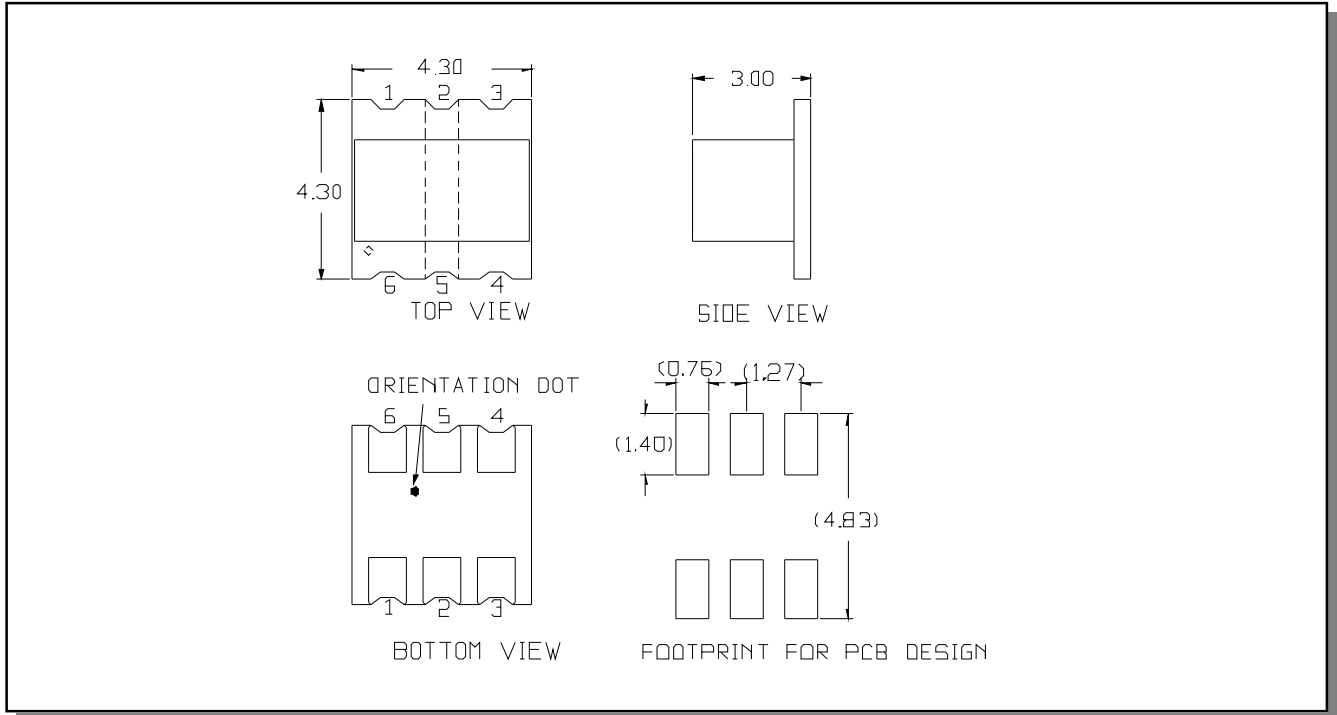
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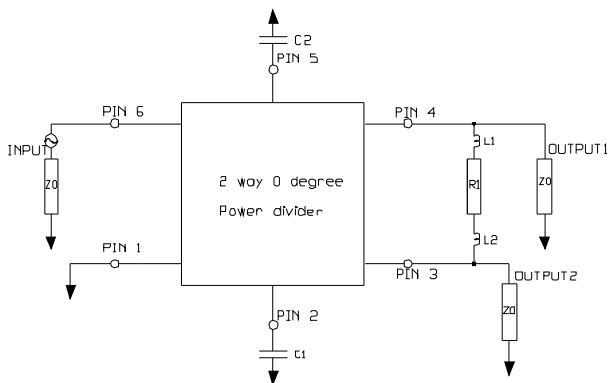
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Outline Drawing

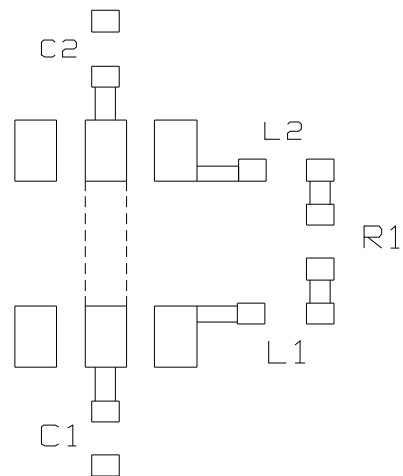


1. Dimensions in mm.
2. Tolerance: $\pm 0.2\text{mm}$ unless otherwise noted.
3. Model number and lot code printed on reel.
4. Plating finish: ENIG on both sides, 0.05 to 0.1 μm gold over 3 to 6 μm nickel

Application Circuit



Recommended Layout



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Tape & Reel Information

Parameter	Units	Value
Qty per reel	-	2000
Reel size	mm	330
Tape width (W)	mm	12.00
Pitch (P ₁)	mm	8.00
A ₀	mm	4.50
B ₀	mm	4.50
K ₀	mm	3.20
Orientation	-	F18
Reference Application note ANI-019 for orientation		

Ordering Information

Part Number	Description
MAPD-010638-C2WSOT	Tape & Reel
MAPD-010638-C2WSTB	Customer test board

Recommended Maximum Ratings

Parameter	Units	Min	Max
Input Power	mW		250
DC Current	mA		30
Operating Temperature Range	°C	-40	+85
Storage Temperature Range	°C	-55	+125

Temperature data available on request

Component BOM:

REF	DESCRIPTION	Value
R1	RES,0402	240Ω
L1	IND,0402	8.2nH
L2	IND,0402	8.2nH
C1	CAP,0402	0.5pF
C2	CAP,0402	0.5pF