

RoHS Compliant

CATV Diplex Filter
5 - 30 / 46 - 870MHz

MAFLCT0066
V3

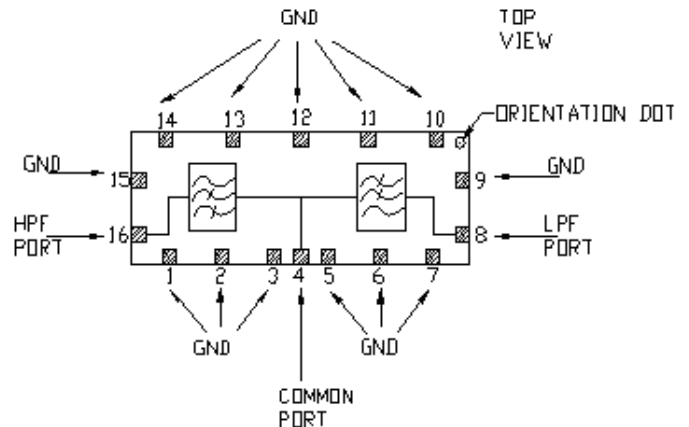
Features

- 75 Ohm
- SMT unit
- Excellent temperature stability
- Excellent repeatability
- Lead Free

Description

M/A-COM's MAFLCT0066 is a low cost, surface mount diplex filter unit designed for CATV FTTx, Home Gateway and Distribution applications.

Functional Schematic



Pin Configuration

Function	Pin Number
Common Port	4
Low Pass Port	8
High Pass Port	16
Ground	1-3, 5-7, 10-15
Not connected	-

Absolute Maximum Ratings ^{1,2}

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

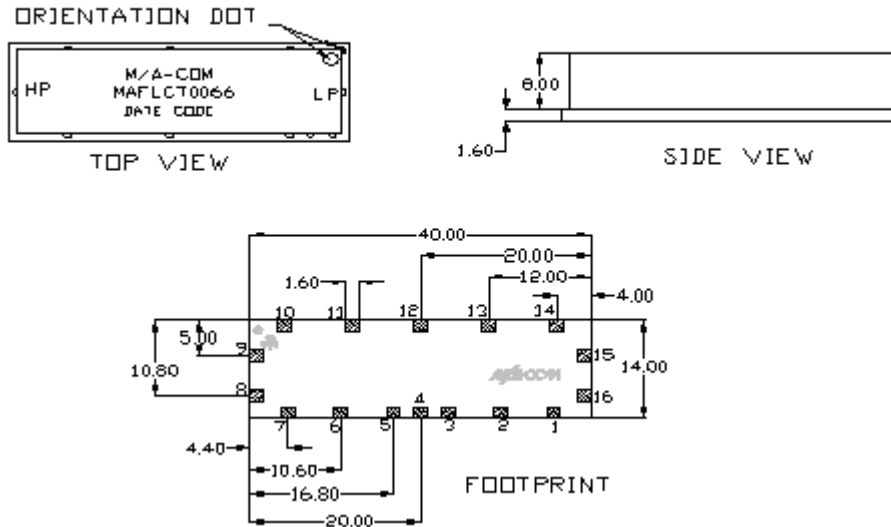
1. Exceeding any one or combination of these limits may cause permanent damage to this device.
2. M/A-COM does not recommend sustained operation near these survivability limits.

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

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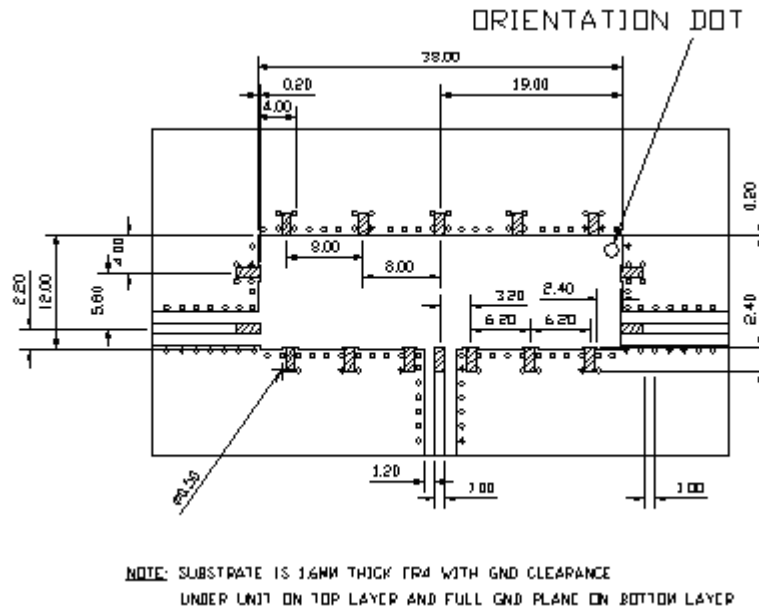
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SM-160 Case Style



Dimensions in mm. Tolerance: .xx ± 0.02, .xxx ± 0.010

Recommended PCB Configuration



Dimensions in mm. Tolerance: .xx ± 0.02, .xxx ± 0.010

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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	5 - 30MHz / 46 - 870MHz				
Insertion Loss	5 - 30MHz	dB		-0.7	-0.9
Insertion Loss	46 - 870MHz	dB		-0.75	-0.9
Isolation	5 - 30MHz	dB	-45	-47	
Isolation	31 - 45MHz	dB	-15	-20	
Isolation	46 - 870MHz	dB	-45	-46	
Input Return Loss	5 - 30MHz	dB	-17	-18	
Input Return Loss	46 - 870MHz	dB	-20	-20	

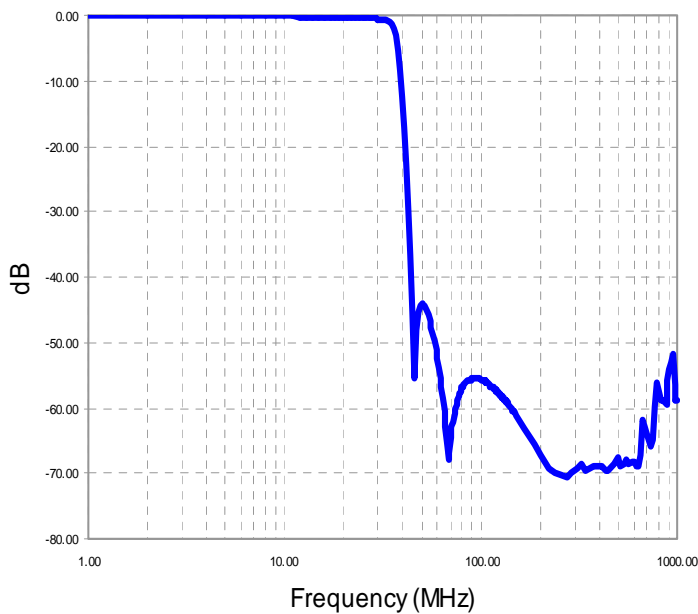
Additional Specifications	Group Delay (nSec)	
	TYP	MAX
28.5 – 30MHz	5ns	10ns
46 – 47.5MHz	10ns	15ns
55.25 – 58.83MHz	5ns	10ns
61.25 – 64.83MHz	5ns	10ns

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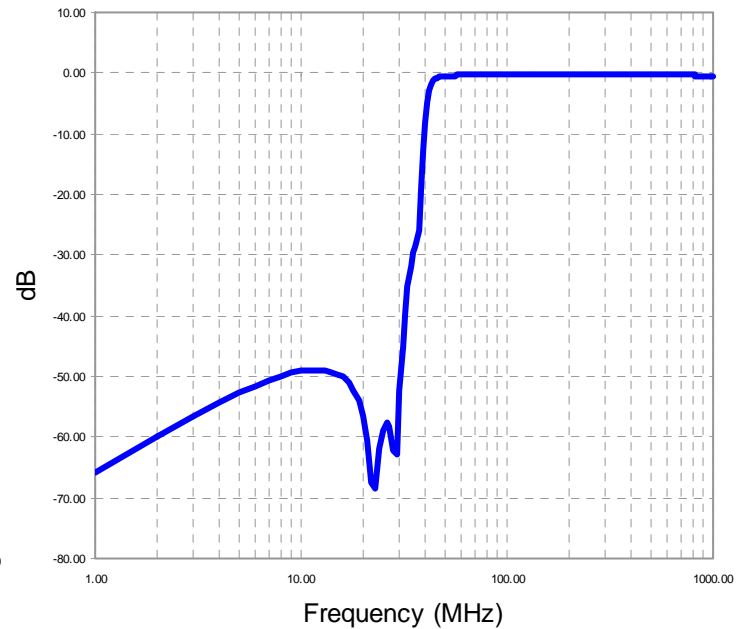
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Typical Performance Curves

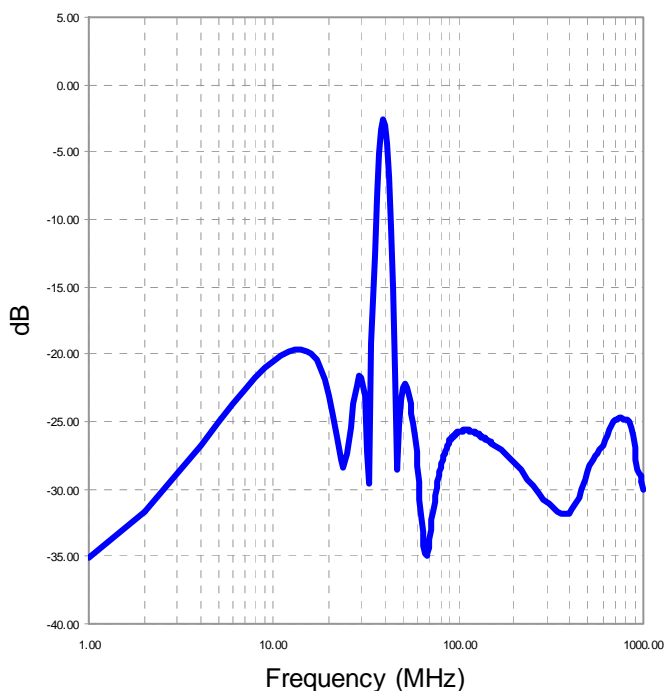
Low Pass Filter Insertion Loss



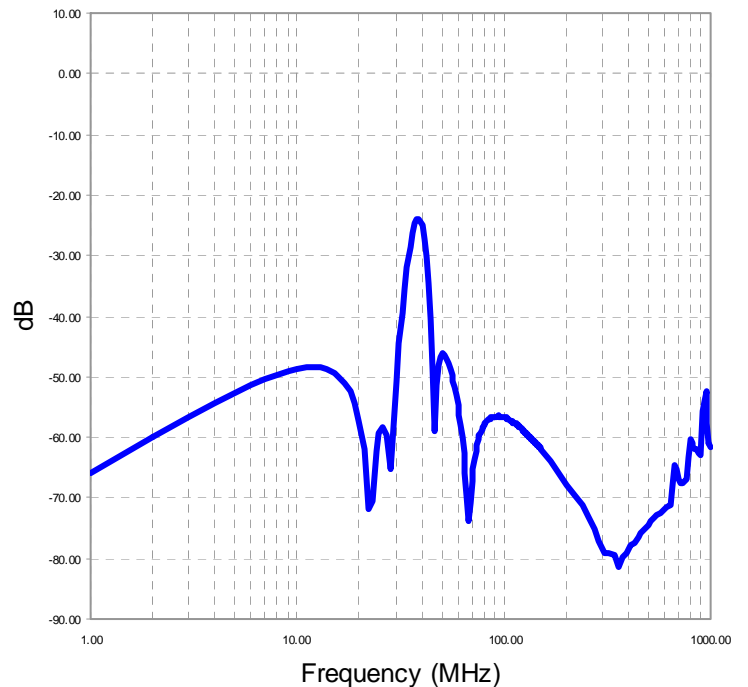
High Pass Filter Insertion Loss



Input Return Loss



Isolation



ADVANCED: Data Sheets contain information regarding a product M/A-COM Technology Solutions is considering for development. Performance is based on target specifications, simulated results, and/or prototype measurements. Commitment to develop is not guaranteed.

PRELIMINARY: Data Sheets contain information regarding a product M/A-COM Technology Solutions has under development. Performance is based on engineering tests. Specifications are typical. Mechanical outline has been fixed. Engineering samples and/or test data may be available. Commitment to produce in volume is not guaranteed.

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