

**CATV Diplex Filter**  
5 - 30 / 46 - 870MHz

MAFLCT0066  
V2P

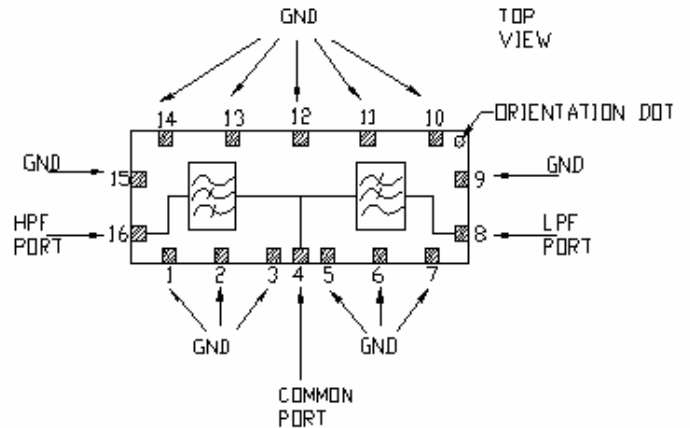
**Features**

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

**Description**

M/A-COM's MAFLCT0066 is a low cost, surface mount diplex filter unit designed for CATV FTTx, Home Gateway and Distribution applications. The technology used in this design is patent pending.

**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** <sup>1,2</sup>

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.

***This PRELIMINARY Data Sheet contains information regarding a product M/A-COM has under development. Performance is based on measured results and target specifications. Commitment to produce in volume is not guaranteed.***

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

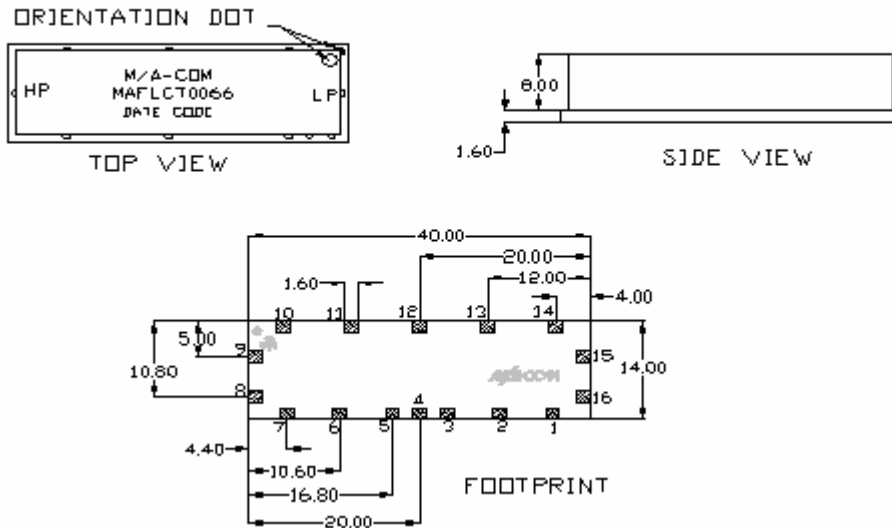
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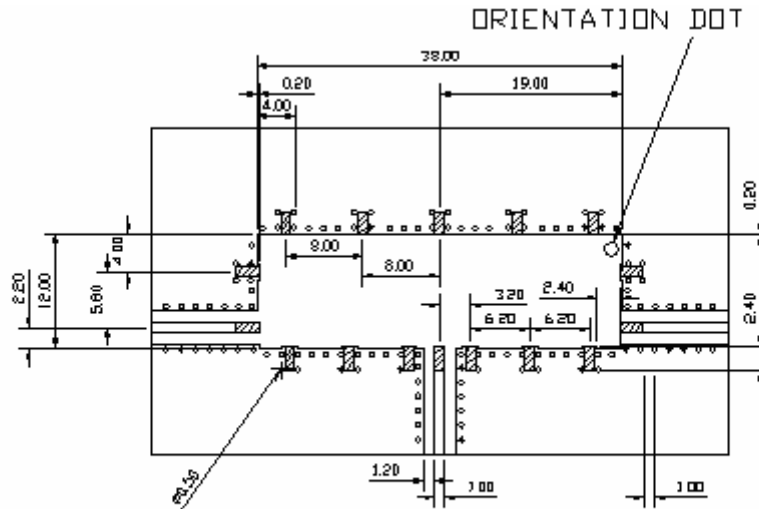
Visit [www.macom.com](http://www.macom.com) for additional data sheets and product information.

**SM-160 Case Style**



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

**Recommended PCB Configuration**



**NOTE:** SUBSTRATE IS 1.6MM THICK FR4 WITH GND CLEARANCE UNDER UNIT ON TOP LAYER AND FULL GND PLANE ON BOTTOM LAYER

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

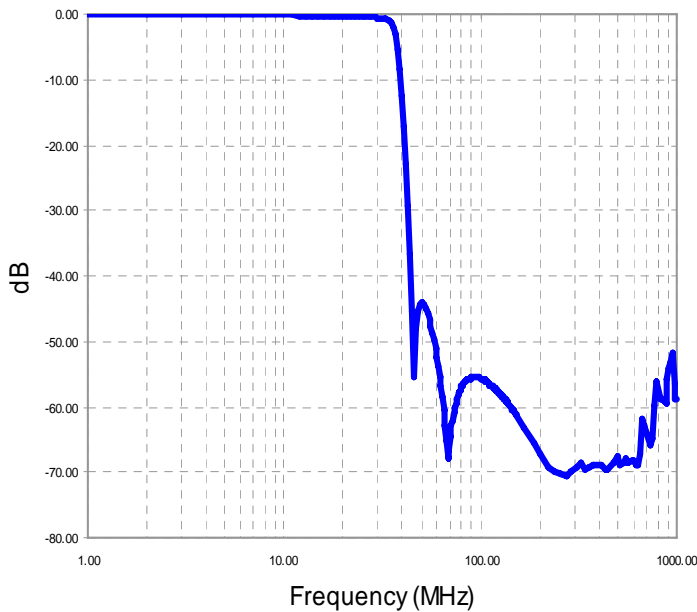
**Electrical Specifications:  $T_A = 25^\circ\text{C}$ ,  $Z_0 = 75\Omega$**

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	

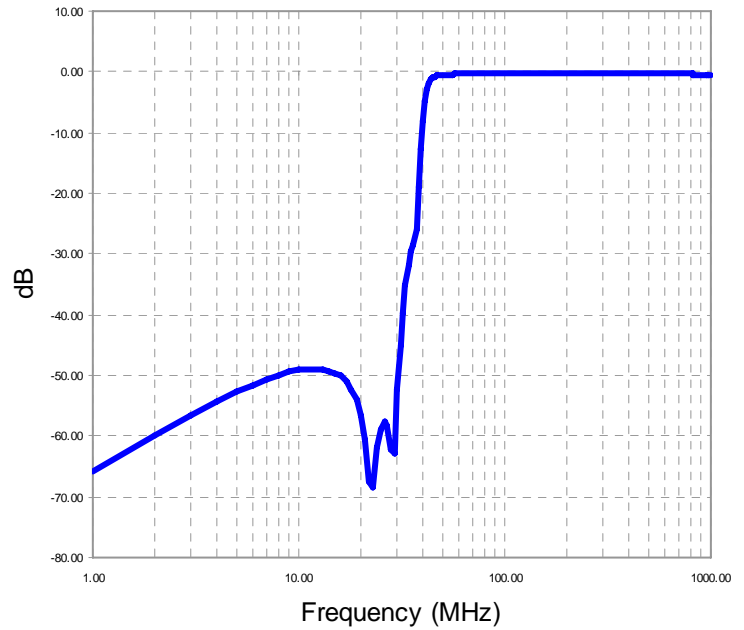
Additional Specifications	Group Delay (nSec)	
	TYP	MAX
28.5 – 30MHz	5ns	10ns
46 – 47.5MHz	10ns	15ns
55.25 – 58.83MHz	5ns	10ns
61.25 – 64.83MHz	5ns	10ns

**Typical Performance Curves**

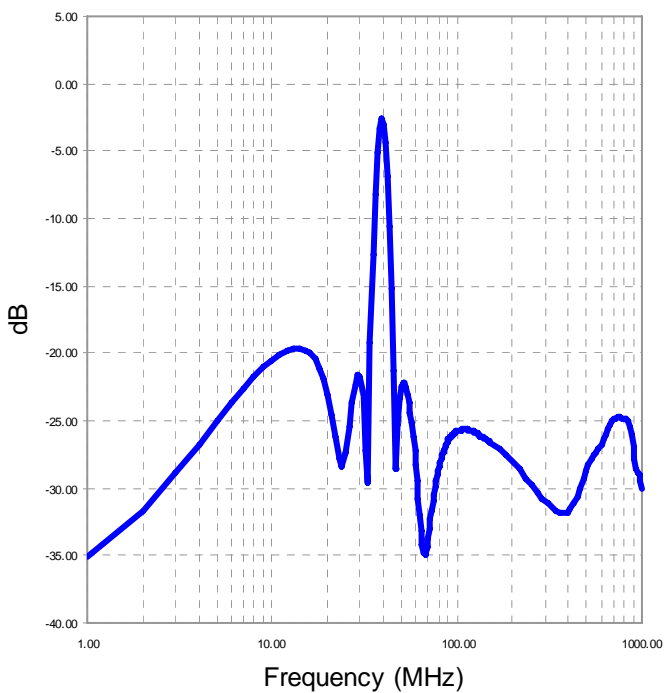
**Low Pass Filter Insertion Loss**



**High Pass Filter Insertion Loss**



**Input Return Loss**



**Isolation**

