



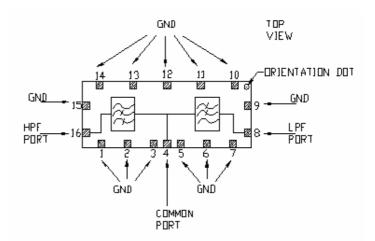
Features

- 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





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		

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

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	-		

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.

information.

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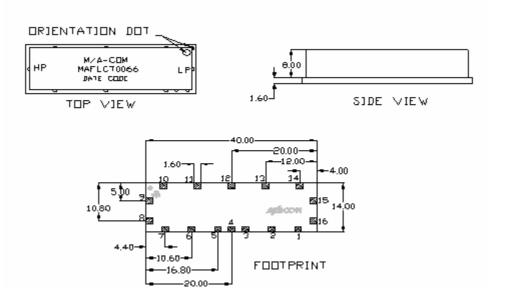




CATV Diplex Filter 5 - 30 / 46 - 870MHz

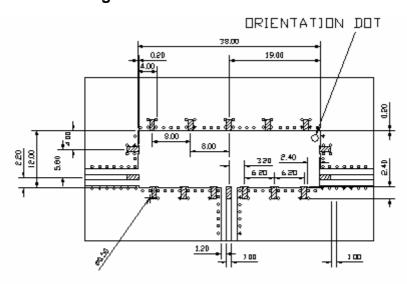
MAFLCT0066 V2P

SM-160 Case Style



Dimensions in mm. Tolerance: .xx \pm 0.02, .xxx \pm 0.010

Recommended PCB Configuration



NOTE: SUBSTRATE IS 16HM THICK FRA WITH GND CLEARANCE UNDER UNIT ON TOP LAYER AND FULL GND PLANE ON BOTTOM LAYER

Dimensions in mm. Tolerance: .xx $\pm~0.02,~.xxx \pm 0.010$

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Electrical Specifications: $T_A = 25$ °C, $Z_0 = 75\Omega$

Parameter	Test Conditions	Units	Min	Тур	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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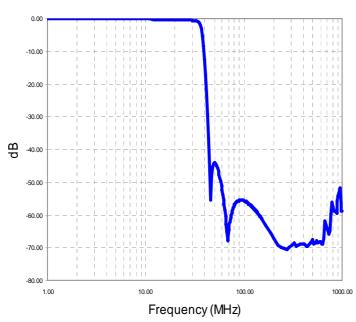


MAFLCT0066 V2P

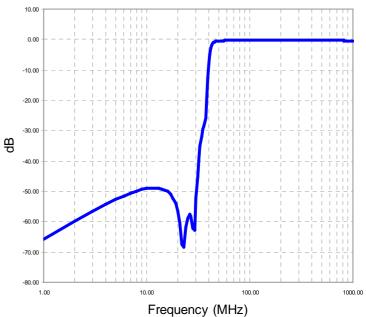
CATV Diplex Filter 5 - 30 / 46 - 870MHz

Typical Performance Curves

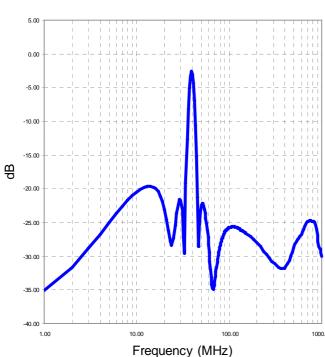
Low Pass Filter Insertion Loss



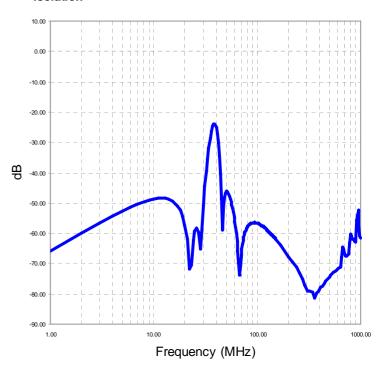
High Pass Filter Insertion Loss



Input Return Loss



Isolation



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