MAFLCC0007



Low Cost SMT Low Pass Filter DC - 2000 MHz

Rev. V2

Features

- Small Size and Low Profile
- Superior Repeatability
- Typical Insertion Loss 0.6 dB
- Typical Rejection 20 dB
- 2 Watt Power Handling
- Lead-Free SO-8 Package
- 100% Matte Tin Plating over Copper
- Halogen-Free "Green" Mold Compound
- 260°C Reflow Compatible
- RoHS* Compliant Version of FL07-0002-G

Description

M/A-COM's MAFLCC0007 is an IC-based monolithic low pass filter in a low cost SOIC-8 plastic package. The filter is ideally suited for applications where small size, low cost and low loss are required.

Typical applications include base station switching networks and portable phones where size and PCB real estate are at a premium. Available in tape and reel.

The MAFLCC0007 is fabricated using a passiveintegrated circuit process. The process features fullchip passivation for increased performance and reliability.

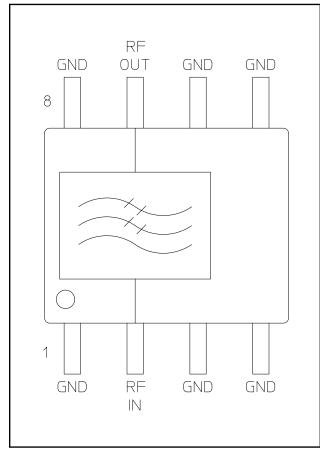
Ordering Information

Part Number	Package
MAFLCC0007	Bulk Packaging
MAFLCC0007-TR	1000 piece reel
MAFLCC0007-TB	Sample Test Board

Note: Reference Application Note M513 for reel size information.

Commitment to produce in volume is not guaranteed.

Functional Block Diagram



- All unused pins must be RF and DC grounded.
- Pins 1 and 4 are thermal ground contacts.

Pin Configuration

Pin No.	Function	Pin No.	Function
1	GND	5	GND
2	RF IN	6	GND
3	GND	7	RF OUT
4	GND	8	GND

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

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Electrical Specifications: $T_A = 25$ °C, $Z_0 = 50\Omega$

	Parameter	Units	Min	Тур	Max
Insertion Loss:	DC – 2000 MHz	dB	_	0.6	1.0
VSWR:	DC – 2000 MHz	_	_	1.6:1	2.0:1
Rejection:	3500 – 4000 MHz 4000 – 6000 MHz	dB dB	15 20	20 30	

Absolute Maximum Ratings 3,4

Parameter	Absolute Maximum
Input Power	2 W CW
Operating Temperature	-40°C to +85°C
Storage Temperature	-65°C to +150°C

- 3. 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.

Handling Procedures

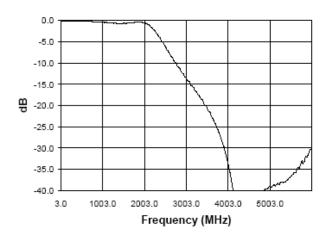
Please observe the following precautions to avoid damage:

Static Sensitivity

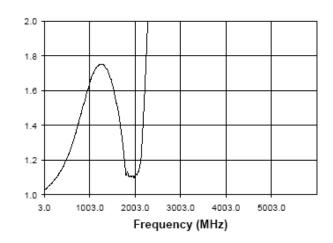
GMIC Circuits are sensitive to electrostatic discharge (ESD) and can be damaged by static electricity. Proper ESD control techniques should be used when handling these devices.

Typical Performance Curves

Insertion Loss vs. Frequency



VSWR vs. Frequency



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Visit www.macomtech.com for additional data sheets and product information.

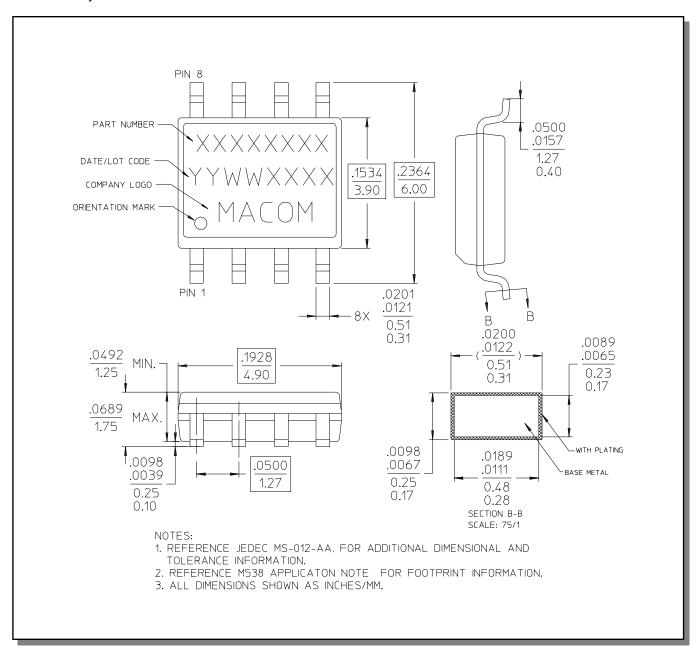
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Lead-Free, SOIC-8[†]



[†] Reference Application Note M538 for lead-free solder reflow recommendations.

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