# Miniature Surface Mount

# **Fixed Attenuator**

# LAT-9+

# 50Ω 0.5W 9dB DC to 2500 MHz

## **Maximum Ratings**

Operating Temperature	-55°C to 85°C
Storage Temperature	-55°C to 100°C

### Permanent damage may occur if any of these limits are exceeded

## **Pin Connections**

INPUT	4
OUTPUT	2
GROUND	1,3

### **Features**

- wideband, DC to 2500 MHz
- excellent VSWR, through entire band
- miniature size, SOT143 package
- · aqueous washable

# **Applications**

- cellular
- PCS
- ISM
- VHF/UHF

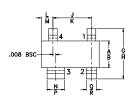
CASE STYLE: MMM168 PRICE: \$1.95 ea. QTY (10-49)

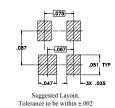
# + RoHS compliant in accordance with EU Directive (2002/95/EC)

The +Suffix has been added in order to identify RoHS Compliance. See our web site for RoHS Compliance methodologies and qualifications.

# **Outline Drawing**

### PCB Land Pattern









# Outline Dimensions (inch )

Α	В	С	D	Е	F	G	Н	J	K
.045	.055	.105	.120	.047	.005	.083	.104	.070	.080
1.14	1.40	2.67	3.05	1.19	0.13	2.11	2.64	1.78	2.03
L	M	N	Р	Q	R	S	Т		wt
.018	.24	.030	.036	.015	.021	.023	.005	9	grams
0.46	6.10	0.76	0.91	0.38	0.53	0.58	0.13		0.01

# Electrical Specifications at 25°C

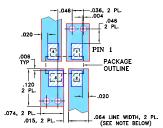
FREQ. RANGE (MHz)	ATTENUATION (dB) Flatness, Max.		VSWR (:1) Max.			MAX. INPUT POWER <sup>1</sup>		
		DC-0.5	DC-1	DC-2.5	DC-0.5	DC-1	DC-2.5	(W)
f <sub>L.</sub> -f <sub>U</sub>	Nom.	GHz	GHz	GHz	GHz	GHz	GHz	
DC-2500	9±0.4	0.3	0.5	0.8	1.3	1.4	1.5	0.5

- 1. RF power at 25°C case temperature: ½Watt. Derate linearly to 0.2 Watt at 85°C.
- 2. Flatness= variation over band divided by 2

# **Typical Performance Data**

Frequency (MHz)	Attenuation (dB)	VSWR (:1)
1.00	9.02	1.08
10.00	9.03	1.08
50.00	9.04	1.07
100.00	9.08	1.07
500.00	9.14	1.08
1000.00	9.18	1.09
1600.00	9.24	1.12
2000.00	9.34	1.15
2250.00	9.42	1.17
2500.00	9.55	1.19

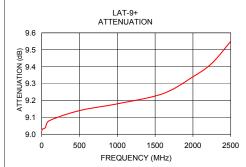
# Demo Board MCL P/N: TB-39 Suggested PCB Layout (PL-225)

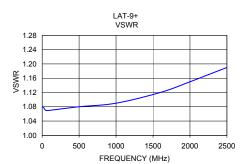


NOTES: 1. TRACE WIDTH IS SHOWN FOR ROGERS RO4350B WITH DIELECTRIC THICKNESS .030" ± .002"; COPPER: 1/2 02. EACH SIDE. FOR OTHER MATERIALS TRACE WIDTH MAY MEED TO BE MODIFIED. 2. BOTTOM SIDE OF THE POB IS CONTINUOUS GROUND PLANE.

DENOTES PCB COPPER LAYOUT WITH SMOBC (SOLDER MASK OVER BARE COPPER)

DENOTES COPPER LAND PATTERN FREE OF SOLDER MASK





Mini-Circuits
ISO 9001 ISO 14001 AS 9100 CERTIFIED

For detailed performance specs & shopping online see web site

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