

Miniature Plastic Fixed Attenuator

50Ω 0.5W 12dB DC to 8000 MHz

GAT-12+



CASE STYLE: FG873
PRICE: \$2.35 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.

Maximum Ratings

| | |
|-----------------------|----------------|
| Operating Temperature | -45°C to 85°C |
| Storage Temperature | -55°C to 100°C |

Pin Connections

| | |
|--------|-----|
| INPUT | 1 |
| OUTPUT | 3 |
| GROUND | 2,4 |

Features

- miniature package MCLP™ 3x3 mm
- specified to 8000 MHz, useable to 10000 MHz
- excellent VSWR, 1:15:1 typ.

Applications

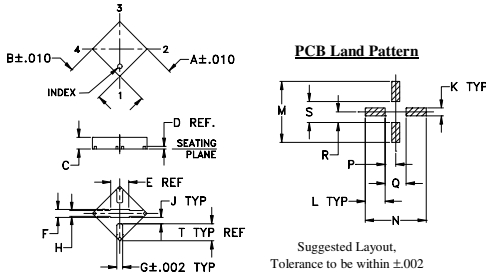
- cellular
- PCS
- communications
- radar
- defense

Electrical Specifications at 25°C

| FREQ. RANGE (MHz) | ATTENUATION (dB) | | | VSWR (:1) | | | MAX. INPUT POWER ¹ (W) | | | |
|-------------------|------------------|---------|---------|-----------|---------|---------|-----------------------------------|-----|-----|-----|
| | Flatness | | | | | | | | | |
| | DC-1 GHz | 1-5 GHz | 5-8 GHz | DC-1 GHz | 1-5 GHz | 5-8 GHz | | | | |
| f_L - f_U | Nom. | Typ. | Typ. | Typ. | Max. | Typ. | | | | |
| DC-8000 | 12±0.4 | 0.15 | 0.2 | 0.3 | 1.05 | 1.2 | 1.15 | 1.3 | 1.3 | 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

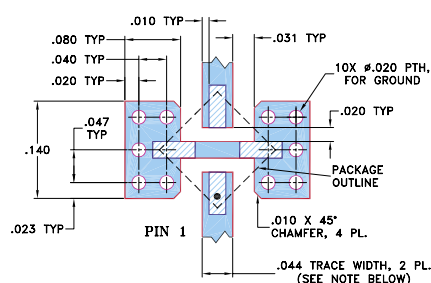
Outline Drawing



Outline Dimensions (inch/mm)

| A | B | C | D | E | F | G | H | J | |
|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| 0.118 | 0.118 | 0.035 | 0.008 | 0.07 | 0.024 | 0.017 | 0.018 | 0.021 | |
| 3.00 | 3.00 | 0.89 | 0.20 | 1.78 | 0.61 | 0.43 | 0.46 | 0.53 | |
| K | L | M | N | P | Q | R | S | T | wt |
| 0.024 | 0.061 | 0.186 | 0.186 | 0.032 | 0.064 | 0.032 | 0.064 | 0.05 | grams |
| 0.61 | 1.55 | 4.72 | 4.72 | 0.81 | 1.63 | 0.81 | 1.63 | 1.27 | 0.02 |

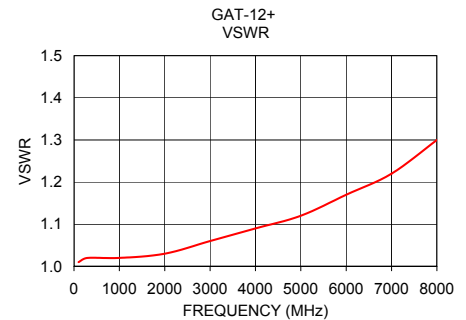
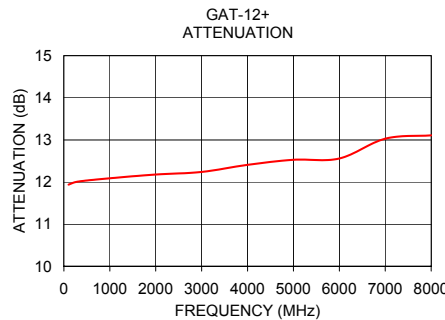
Demo Board MCL P/N: TB-154 Suggested PCB Layout (PL-126)



- NOTES:
1. TRACE WIDTH IS SHOWN FOR ROGERS R04350B WITH DIELECTRIC THICKNESS .020" ± .0015"; COPPER: 1/2 OZ. EACH SIDE. FOR OTHER MATERIALS TRACE WIDTH MAY NEED TO BE MODIFIED.
 2. BOTTOM SIDE OF THE PCB IS CONTINUOUS GROUND PLANE.
- DENOTES PCB COPPER LAYOUT WITH SMOBC (SOLDER MASK OVER BARE COPPER)
 DENOTES COPPER LAND PATTERN FREE OF SOLDER MASK

Typical Performance Data

| Frequency (MHz) | Attenuation (dB) | VSWR (:1) |
|-----------------|------------------|-----------|
| 100.00 | 11.94 | 1.01 |
| 300.00 | 12.01 | 1.02 |
| 1000.00 | 12.09 | 1.02 |
| 2000.00 | 12.18 | 1.03 |
| 3000.00 | 12.24 | 1.06 |
| 4000.00 | 12.41 | 1.09 |
| 5000.00 | 12.53 | 1.12 |
| 6000.00 | 12.56 | 1.17 |
| 7000.00 | 13.03 | 1.22 |
| 8000.00 | 13.11 | 1.30 |



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