

Miniature Plastic Fixed Attenuator

50Ω 0.5W 20dB DC to 8000 MHz

GAT-20+



Generic photo used for illustration purposes only

CASE STYLE: FG873

+RoHS Compliant

The +Suffix identifies RoHS Compliance. See our web site for RoHS Compliance methodologies and qualifications

| Available Tape and Reel at no extra cost | |
|--|-----------------------------|
| Reel Size | Devices/Reel |
| 7" | 20, 50, 100, 200, 500, 1000 |
| 13" | 2000, 3000, 4000 |

Maximum Ratings

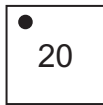
| | |
|-----------------------|----------------|
| Operating Temperature | -45°C to 85°C |
| Storage Temperature | -55°C to 100°C |

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

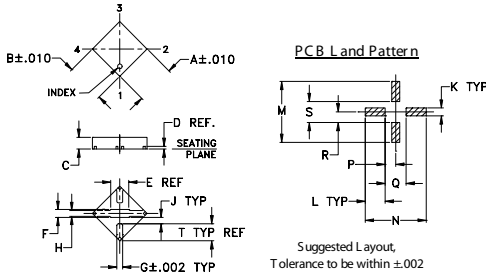
Pin Connections

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

Product Marking



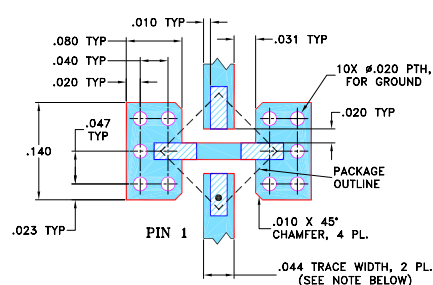
Outline Drawing



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)



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

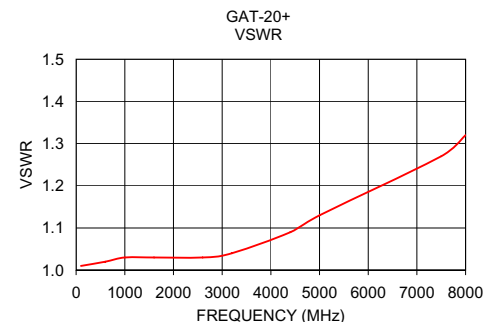
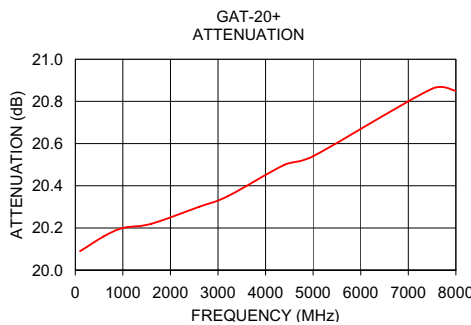
Electrical Specifications at 25°C

| FREQ. RANGE (MHz) | ATTENUATION (dB) Flatness | VSWR (:1) | | | MAX. INPUT POWER ¹ (W) | |
|-------------------|---------------------------|-----------|-----------|---------|-----------------------------------|-----|
| | | DC-1 GHz | 1-5 GHz | 5-8 GHz | | |
| f_L - f_U | Nom. | Typ. Max. | Typ. Max. | Typ. | | |
| DC-8000 | 20±0.4 | 0.15 | 0.2 | 0.2 | 1.05 1.2 1.15 1.3 1.35 | 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) |
|-----------------|------------------|-----------|
| 100.00 | 20.09 | 1.01 |
| 600.00 | 20.16 | 1.02 |
| 1000.00 | 20.20 | 1.03 |
| 1600.00 | 20.22 | 1.03 |
| 2600.00 | 20.30 | 1.03 |
| 3200.00 | 20.35 | 1.04 |
| 4400.00 | 20.50 | 1.09 |
| 5000.00 | 20.54 | 1.13 |
| 7500.00 | 20.86 | 1.27 |
| 8000.00 | 20.85 | 1.32 |



Notes

- Performance and quality attributes and conditions not expressly stated in this specification document are intended to be excluded and do not form a part of this specification document.
- Electrical specifications and performance data contained in this specification document are based on Mini-Circuit's applicable established test performance criteria and measurement instructions.
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