

Features

- Low Cost
- 8.0mW Output Power
- Gold Plated Solder Pins
- Rugged Die cast Construction
- 10Hz to 5000Hz IF Bandwidth
- Lead Free (RoHS Compliant)
-

Description and Applications

M/A-COM's MACS-007801-0M1R10 is a RoHS Compliant K-Band Mono Transceiver consisting of a Gunn Diode oscillator and Schottky Diode assembled into a die cast waveguide package.

These Mono Transceivers are well suited for high volume applications where small size and reliability are required. Typical applications include police radar and presence sensing applications.

Product Specifications

| Parameter | Test Conditions | Units | Min. | Typ. | Max. |
|-------------------------|-----------------|-------------|--------|--------|--------|
| Operating Frequency | +25 °C | GHz | 24.100 | 24.125 | 24.150 |
| Output Power | +25 °C | mW | 8.0 | | |
| Operating Current | +25 °C | mA | 140 | 175 | 200 |
| Operating Voltage | +25 °C | VDC | | 5.0 | |
| Schottky Diode Noise | +25 °C | micro-Volts | | 2.5 | 5.0 |
| Transceiver Sensitivity | +25 °C | -dBc | -93 | -103 | |

Operating temperature to full specification -30°C to +70°

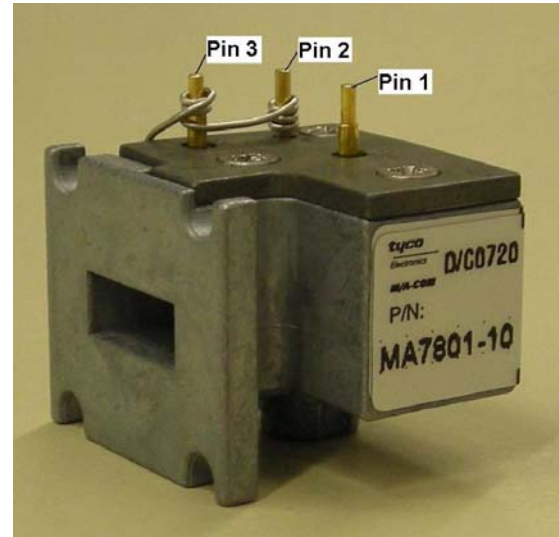
Absolute Maximum Ratings¹

| Parameter | Maximum Ratings |
|-------------------------|-------------------|
| Operating Temperature | -40 °C to +85 °C |
| Storage Temperature | -65 °C to +150 °C |
| Incident RF Input Power | +20 dBm |
| DC Input (Gunn Diode) | +5.5VDC |
| Soldering Temperature | +260 °C max. |

1. Exceeding these limits may cause permanent damage.

Note: Device is ESD Sensitive.
Proper ESD Precautions should be used when handling this Device..

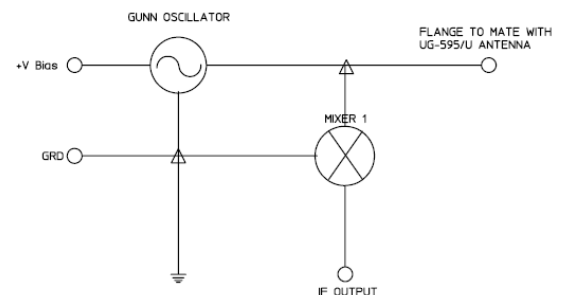
Package Outline



PIN Configuration

| PIN | Function |
|-----|-----------|
| 1 | DC Input |
| 2 | GND |
| 3 | IF Output |

Functional Block Diagram



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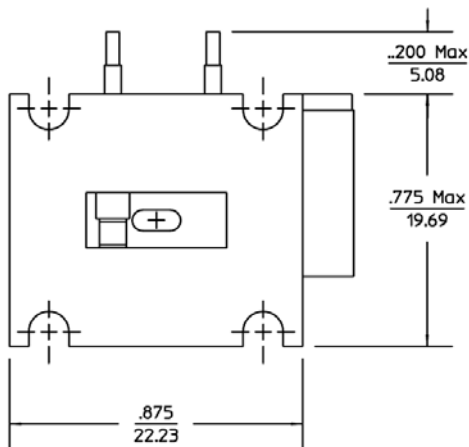
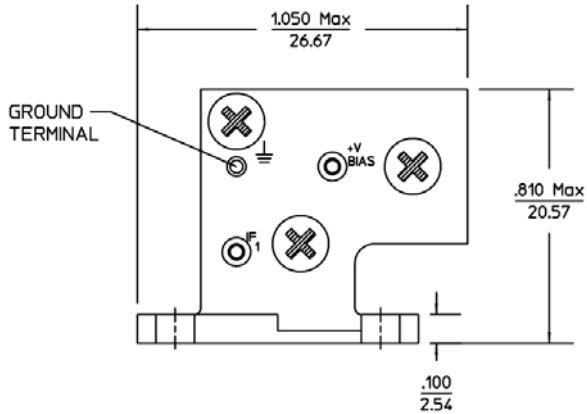
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MACS-007801-0M1R10

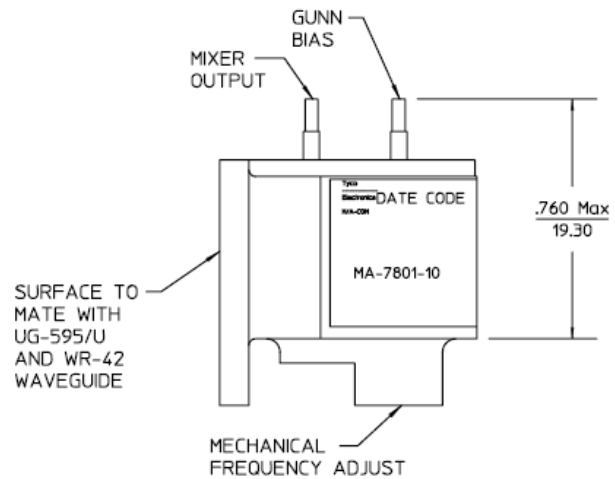
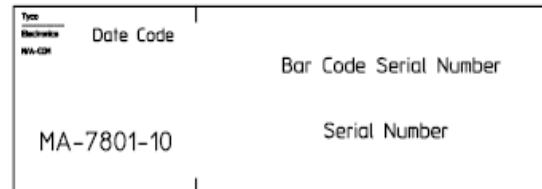


Mono Doppler Transceiver
24.125 GHz

Rev. V1



Label Information



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