

## Local Oscillator 24.125 GHz

Rev. V3

### Features

- Low Cost
- Compact Size
- Gold Plated Solder Pins
- Rugged Die cast Construction
- RoHS\* Compliant

### Description and Applications

M/A-COM's MACS-007800-0M1R00 is a RoHS Compliant K-Band Local Oscillator consisting of a Gunn Diode oscillator assembled into a die cast waveguide package.

These Local Oscillators are well suited for high volume applications where small size and reliability are required. This local oscillator is an inexpensive low power transmitter suitable for use in CW Doppler radar systems. Typical applications include, Speed radars, traffic control, and industrial process control.

### Product Specifications

Parameter	Test Conditions	Units	Min.	Typ.	Max.
Operating Frequency	+25 °C	GHz	24.12	24.150	24.17
Output Power	+25 °C	mW	8.0		
Operating Current	+25 °C	mA		175	250
Operating Voltage	+25 °C	VDC		5.0	

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

### Absolute Maximum Ratings <sup>1</sup>

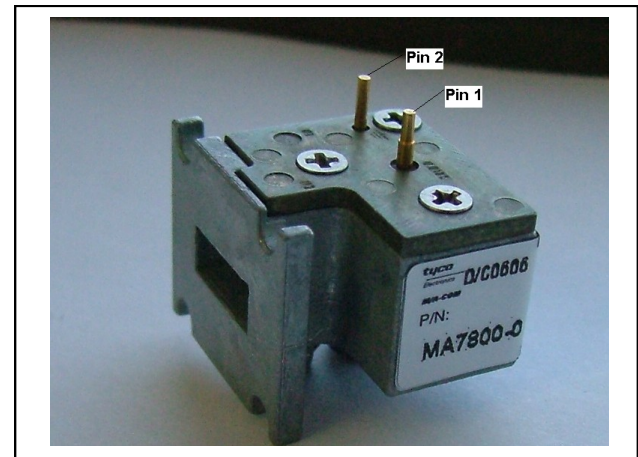
Parameter	Maximum Ratings
Operating Temperature	-40 °C to +85 °C
Storage Temperature	-65 °C to +150 °C
Incident RF Input Power	+20 dBm
DC Input (Gunn Diode)	+5.5VDC
Soldering Temperature	+260 °C max.

1. Exceeding these limits may cause permanent damage.

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

\* Restrictions on Hazardous Substances, European Union Directive 2002/95/EC.

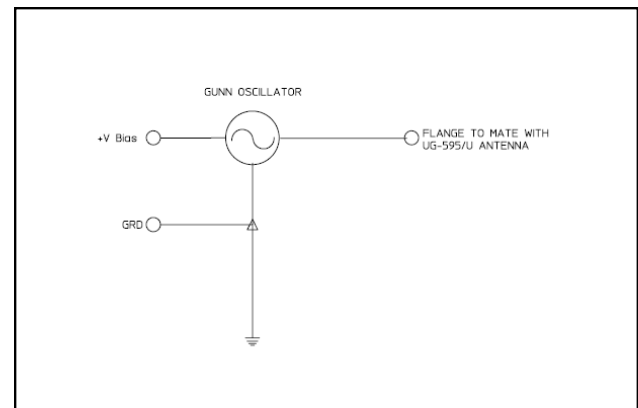
### Package Outline



### PIN Configuration

Pin	Function
1	DC Input
2	GND

### Functional Block Diagram

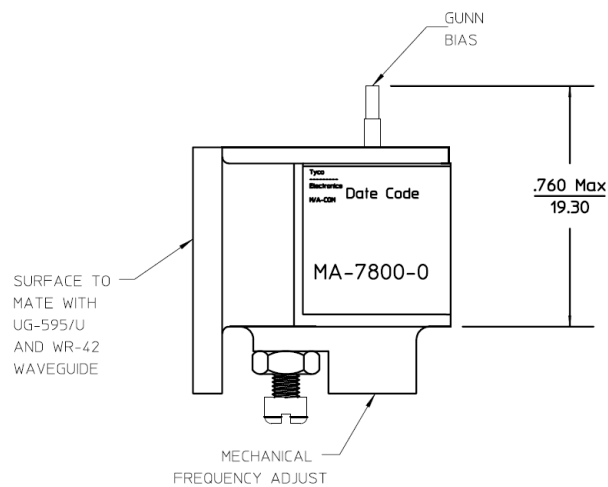
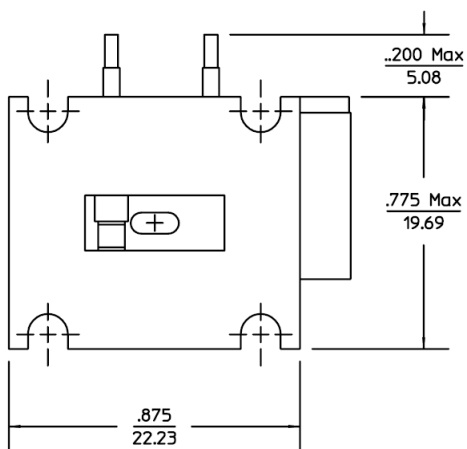
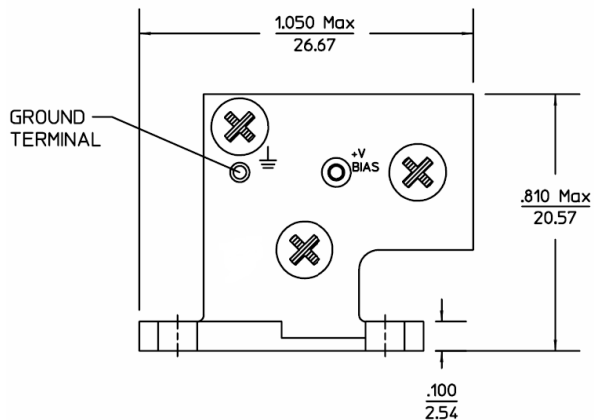


# MACS-007800-0M1R00



## Local Oscillator 24.125 GHz

Rev. V3



M/A-COM Technology Solutions Inc. All rights reserved.

Information in this document is provided in connection with M/A-COM Technology Solutions Inc ("MACOM") products. These materials are provided by MACOM as a service to its customers and may be used for informational purposes only. Except as provided in MACOM's Terms and Conditions of Sale for such products or in any separate agreement related to this document, MACOM assumes no liability whatsoever. MACOM assumes no responsibility for errors or omissions in these materials. MACOM may make changes to specifications and product descriptions at any time, without notice. MACOM makes no commitment to update the information and shall have no responsibility whatsoever for conflicts or incompatibilities arising from future changes to its specifications and product descriptions. No license, express or implied, by estoppel or otherwise, to any intellectual property rights is granted by this document.

THESE MATERIALS ARE PROVIDED "AS IS" WITHOUT WARRANTY OF ANY KIND, EITHER EXPRESS OR IMPLIED, RELATING TO SALE AND/OR USE OF MACOM PRODUCTS INCLUDING LIABILITY OR WARRANTIES RELATING TO FITNESS FOR A PARTICULAR PURPOSE, CONSEQUENTIAL OR INCIDENTAL DAMAGES, MERCHANTABILITY, OR INFRINGEMENT OF ANY PATENT, COPYRIGHT OR OTHER INTELLECTUAL PROPERTY RIGHT. MACOM FURTHER DOES NOT WARRANT THE ACCURACY OR COMPLETENESS OF THE INFORMATION, TEXT, GRAPHICS OR OTHER ITEMS CONTAINED WITHIN THESE MATERIALS. MACOM SHALL NOT BE LIABLE FOR ANY SPECIAL, INDIRECT, INCIDENTAL, OR CONSEQUENTIAL DAMAGES, INCLUDING WITHOUT LIMITATION, LOST REVENUES OR LOST PROFITS, WHICH MAY RESULT FROM THE USE OF THESE MATERIALS.

MACOM products are not intended for use in medical, lifesaving or life sustaining applications. MACOM customers using or selling MACOM products for use in such applications do so at their own risk and agree to fully indemnify MACOM for any damages resulting from such improper use or sale.

3

---

M/A-COM Technology Solutions Inc. (MACOM) and its affiliates reserve the right to make changes to the product(s) or information contained herein without notice.  
Visit [www.macom.com](http://www.macom.com) for additional data sheets and product information.