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Electronics

24.125GHz Stereo Doppler Transceiver

RoHS

Compliant

Features

- Low Cost
- Compact Size
- Gold Plated Solder Pins
- Detects Direction of Motion
- Rugged Die cast Construction
- 10Hz 5000Hz IF Bandwidth
- Lead Free (RoHS Compliant)

Description and Applications

M/A-COM's MACS-007802-0M1RS0 is a RoHS Compliant K-Band Stereo Doppler transceiver consisting of a Gunn Diode oscillator and two Schottky Diode mixers assembled into a die cast waveguide package.

These Transceivers are well suited for high volume applications where small size and reliability are required. Typical applications include automatic door openers, police radar and presence sensing applications. where Direction of motion is required

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Parameter	Test Condi- tions	Units	Min.	Тур.	Max.
Operating Frequency	+25 °C	GHz	24.100	24.125	24.150
Output Power	+25 ⁰C	mW	5.0		
Operating Current	+25 ⁰C	mA	60	85	100
Operating Voltage	+25 ⁰C	VDC		5.0	
Schottky Diode Noise	+25 °C	micro- Volts		2.5	5.0
Transceiver Sensitivity	+25 °C	-dBc	-90	-103	
Mixer Phas- ing	+25 °C	Degrees	50		120

Product Specifications

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.

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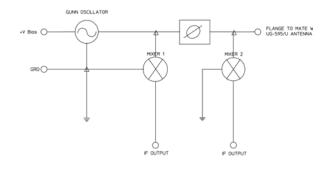
Package Outline



PIN Configuration

PIN	Function
1	DC Input
2	GND
3	IF Output (Mixer 1)
4	IF Output (Mixer 2)

Functional Block Diagram





- North America Tel: 800.366.2266 / Fax: 978.366.2266
- Europe Tel: 44.1908.574.200 / Fax: 44.1908.574.300
- Asia/Pacific Tel: 81.44.844.8296 / Fax: 81.44.844.8298

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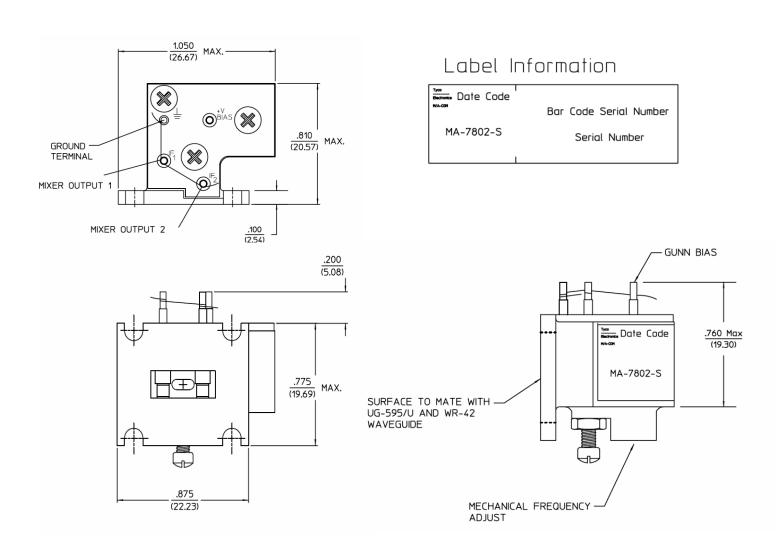


RoHS Compliant



24.125GHz Stereo Doppler Transceiver

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