

MACS-007801-0M1R1V



Mono Voltage Controlled Doppler Transceiver 24.125 GHz

Rev. C

Features

- Low Cost
- 8.0mW Output Power
- 300MHz of Electronic Tuning
- Rugged Die cast Construction
- 10Hz - 5000Hz IF Bandwidth
- Lead Free (RoHS* Compliant)

Description and Applications

M/A-COM's MACS-007801-0M1R1V is a RoHS Compliant K-Band Mono Doppler Transceiver consisting of a Gunn Diode oscillator, a Schottky Diode mixer and a Varactor Diode assembled into a die cast waveguide package. These Transceivers are well suited for high volume applications where small size and reliability are required.

Product Specifications

Parameter	Test Conditions	Units	Min.	Typ.	Max.
Operating Frequency	+25 °C	GHz	24.1	24.125	24.15
Output Power	+25 °C	mW	8.0		
Operating Current	+25 °C	mA	150	175	200
Operating Voltage	+25 °C	VDC		5	
Schottky Diode Noise	+25 °C	microVolts		2.5	5
Transceiver Sensitivity	+25 °C	-dBc	-93	-103	
Electronic Tuning	+25 °C	MHz	300		
Electronic Tuning Voltage	+25 °C	VDC	0.5		10

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

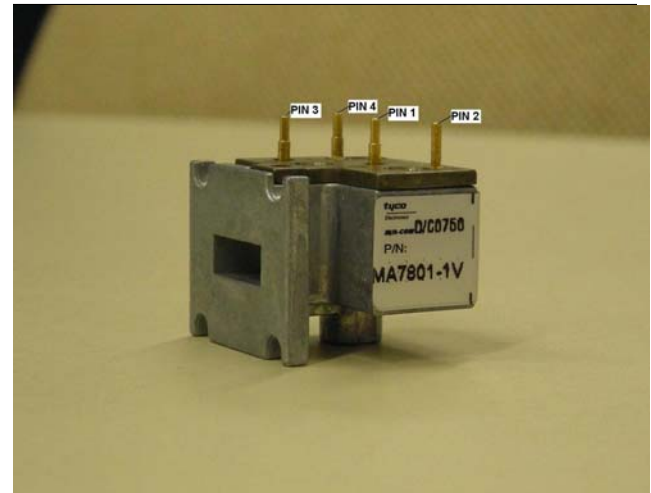
Absolute Maximum Ratings¹

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..

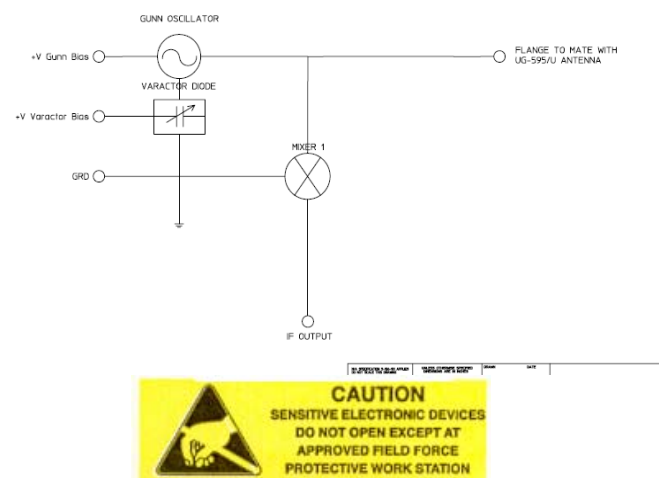
Package Outline



PIN Configuration

PIN	Function
1	DC Input
2	GND
3	IF Output
4	Vtune input

Functional Block Diagram



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

ADVANCED: Data Sheets contain information regarding a product M/A-COM Technology Solutions is considering for development. Performance is based on target specifications, simulated results, and/or prototype measurements. Commitment to develop is not guaranteed.
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