## REVISIONS

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### PRODUCTION

**TITLE:**

Product Specification, MACS-007801-0M1RMR

**DWG. NO:**

PS-MACS-007801-0M1RMR

**REV.:** -

**SHEET 1 OF 2**
The MACS-007801-0M1RMR is a RoHS Compliant K-Band Mono Doppler transceiver consisting of a Gunn Diode oscillator and Schottky Diode mixer assembled into a diecast waveguide package. It is designed for commercial applications, for speed measurements or motion sensing.

**ELECTRICAL SPECIFICATIONS**

Center Frequency: 24.125 GHz ± 25 MHz  
Power Output: 5 mW minimum @ +25°C  
Operating Voltage: +5.0 Vdc  
Operating Current: 100 mA @ +25°C 110 mA @ -30°C  
Mixer Noise: (3) 5.0 millivolts maximum  
Mixer Sensitivity: (3) -90 dBc minimum  
Mixer Load Resistor: (supplied) 1000 ohms  
Operating Temperature: -30°C to +70°C  
Frequency Temperature Coefficient: 1 MHz/°C maximum  
Schottky Diode Output Polarity: Negative

**MECHANICAL SPECIFICATIONS**

Outline Drawing: See MACS-007801-0M1RMR  
D.C. Bias (Gunn): Solder pin  
Mixer Output: Solder pin  
RF Output: WR-42 waveguide mates with UG-595/U flange

Notes:

1. Maximum solder temperature to pins is 250°C max for a 5 second duration.
2. Units are extremely ESD sensitive. Parts should only be handled in an appropriate ESD protected manner. Failure to do so may void manufacturer warranty.
3. As measured at the output of a standard low noise amplifier with a voltage gain of 60 dB. Amplifier bandwidth is 10 Hz to 1000 Hz.