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REVISIONS

REV	DESCRIPTION	DATE	APPV'D
-	Create per ECO 20065083	2/16/07	See Below



1011 Pawtucket Blvd.,
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Cage Code 96341

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Manufacturing

Approved By: M. Donoghue Date 2/16/07
Quality

PRODUCTION

TITLE: PRODUCT SPECIFICATION	
DWG NO: PS-MACS-007801-0M1R16	REV: -
SHEET 1 of 2	

Matrix

The MACS-007801-0M1R16 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 ± 10 MHz
Power Output:	2.5 mW minimum @ +25°C 4.0 mW maximum @ +25°C
Operating Voltage:	+5.0 Vdc
Operating Current:	100 mA @ +25°C 110 mA @ -30°C
Mixer Noise:(3)	6 mV R.M.S. maximum.
Mixer Sensitivity: (3)	65 mV minimum for an IF bandwidth of 10 Hz to 750 Hz
Mixer Load Resistor: (not 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 OD-MACS-007801-0M1R16
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 X1000.

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