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100 Chelmsford Street
Lowell, MA 01851
Cage Code: 55NN2

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Revision History

See Agile for Approvers and Approval Dates

Rev.	Description of Change
A	Initial Release or {add brief summary of changes}

PRODUCTION RELEASE

TITLE:

Product Specification,MACS-007802-0M1JD7

DOCUMENT NO:

PS-MACS-007802-0M1JD7

REV: A

SHEET 1 of 2

The MACS-007802-0M1JD7 is a RoHS Compliant K-Band Stereo Doppler Transceiver consisting of a Gunn Diode oscillator and two Schottky Diode mixers assembled into a diecast waveguide package. It is designed for commercial applications, for ground speed sensing.

ELECTRICAL SPECIFICATIONS

Center Frequency:	24.300 GHz $\pm$ 5 MHz
Power Output:	2.0 mW $\pm$ 0.2 mW @ +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 Phase:	90° $\pm$ 15°
Mixer Sensitivity: (3)	-93 dBc minimum
Mixer Load Resistor: (not supplied)	1000 ohms
Operating Temperature:	-30°C to +85°C
Frequency Temperature Coefficient:	1 MHz/°C maximum
Schottky Diode Output Polarity:	Negative

MECHANICAL SPECIFICATIONS

Outline Drawing:	See MACS-007802-0M1JD7
D.C. Bias (Gunn):	Via Molex P/N 50556-50501 Connector
Mixer Outputs:	Via Molex P/N 50556-50501 Connector
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.

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Revision History

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Rev.	Description of Change
A	Initial Release

PRODUCTION RELEASE

TITLE:
Product Specification,MACS-007802-0M1JD8

DOCUMENT NO:
PS-MACS-007802-0M1JD8

REV: A

SHEET 1 of 2

The MACS-007802-0M1JD8 is a RoHS Compliant K-Band Stereo Doppler Transceiver consisting of a Gunn Diode oscillator and two Schottky Diode mixers assembled into a diecast waveguide package. It is designed for commercial applications, for ground speed sensing.

ELECTRICAL SPECIFICATIONS

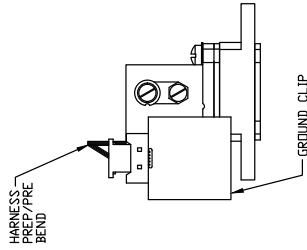
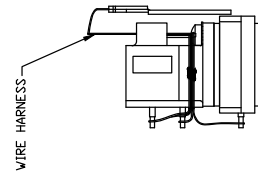
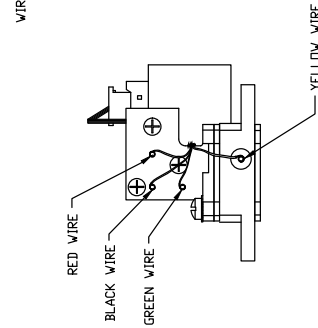
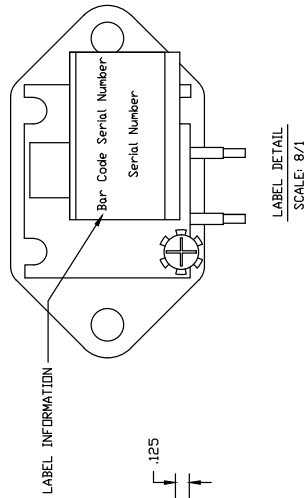
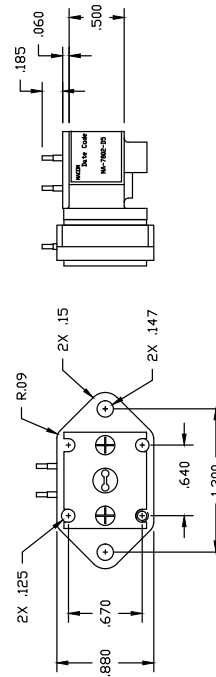
Center Frequency:	24.125 GHz $\pm$ 5 MHz
Power Output:	0.25 mW $\pm$ 0.05 mW @ +25°C
Operating Voltage:	+5.0 $\pm$.15Vdc
Operating Current:	100 mA @ +25°C 110 mA @ -30°C
Mixer Noise: (3)	5.0 millivolts maximum
Mixer Phase:	60° minimum --105° maximum
Mixer Diode Forward Bias:	+5.0VDC in series with a 100K Ω Resistor
Mixer Sensitivity: (3)	-70 dBc minimum
Mixer Load Resistor: (not supplied)	1000 ohms
Operating Temperature:	-30°C to +85°C
Frequency Temperature Coefficient:	1 MHz/°C maximum
Schottky Diode Output Polarity:	Negative

MECHANICAL SPECIFICATIONS

Outline Drawing:	See MACS-007802-0M1JD8
D.C. Bias (Gunn):	Via Molex P/N 50556-50501 Connector
Mixer Outputs:	Via Molex P/N 50556-50501 Connector
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.



WIRE HARNESS VIEWS

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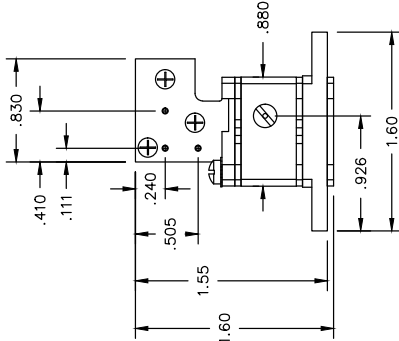
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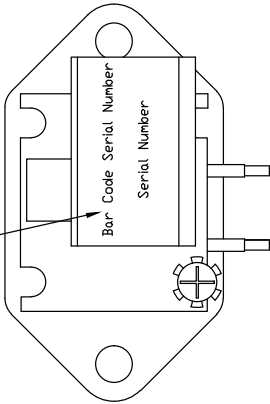
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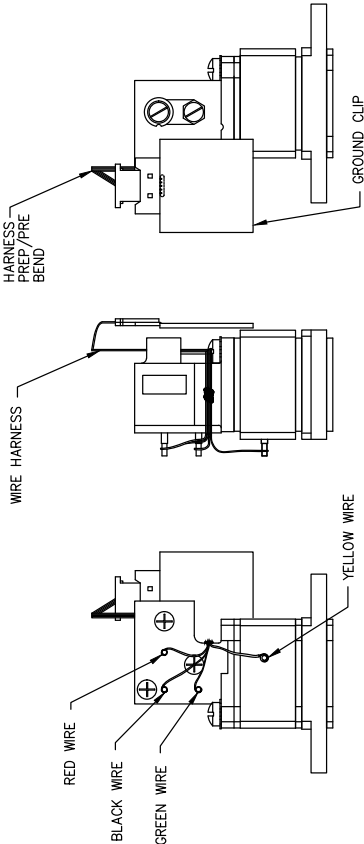
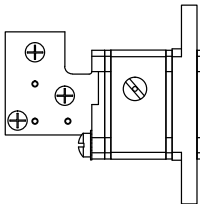
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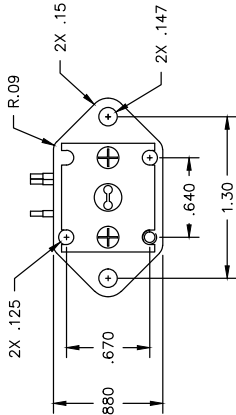
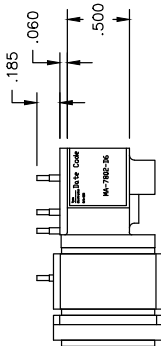
LABEL INFORMATION



LABEL DETAIL
SCALE: 2/1

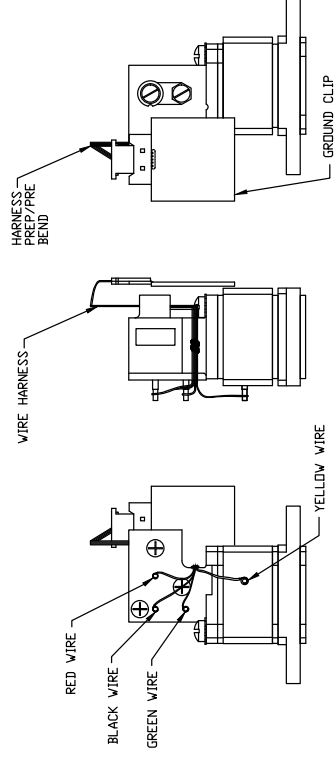
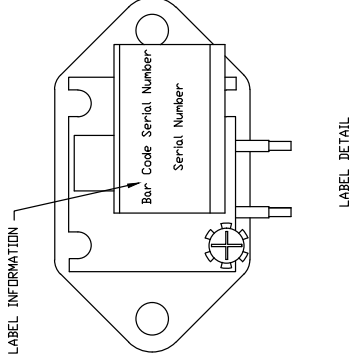
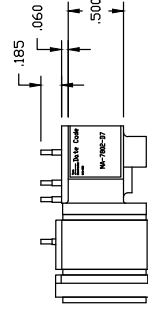


WIRE HARNESS VIEWS



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THIS DRAWING INCORPORATES THIRD ANGLE PROJECTION		DECIMALS		ANGLES	
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UNLESS OTHERWISE SPECIFIED MATERIAL		UNLESS OTHERWISE SPECIFIED FINISH		UNLESS OTHERWISE SPECIFIED REVISION	
MACOM Technology Solutions The information contained in this drawing is the property of MACOM Technology Solutions and is to be used for the specific project and application only. It is not to be used for any other purpose without the written consent of MACOM Technology Solutions. This drawing is the property of MACOM Technology Solutions and is to be used for the specific project and application only. It is not to be used for any other purpose without the written consent of MACOM Technology Solutions.		MACOM Technology Solutions The information contained in this drawing is the property of MACOM Technology Solutions and is to be used for the specific project and application only. It is not to be used for any other purpose without the written consent of MACOM Technology Solutions. This drawing is the property of MACOM Technology Solutions and is to be used for the specific project and application only. It is not to be used for any other purpose without the written consent of MACOM Technology Solutions.		MACOM Technology Solutions The information contained in this drawing is the property of MACOM Technology Solutions and is to be used for the specific project and application only. It is not to be used for any other purpose without the written consent of MACOM Technology Solutions. This drawing is the property of MACOM Technology Solutions and is to be used for the specific project and application only. It is not to be used for any other purpose without the written consent of MACOM Technology Solutions.	
TITLE		SIZE		SCALE	
OUTLINE, TRANSCIVER, STEREO, 24GHZ		B		1/1	
DRAWING NO.		PACKAGE TYPE		SHEET 1 OF 1	
MACS-007802-0M1JD6		-		1	

NEXT ASSY		APPLICATION	
MACS-07802		USED ON	

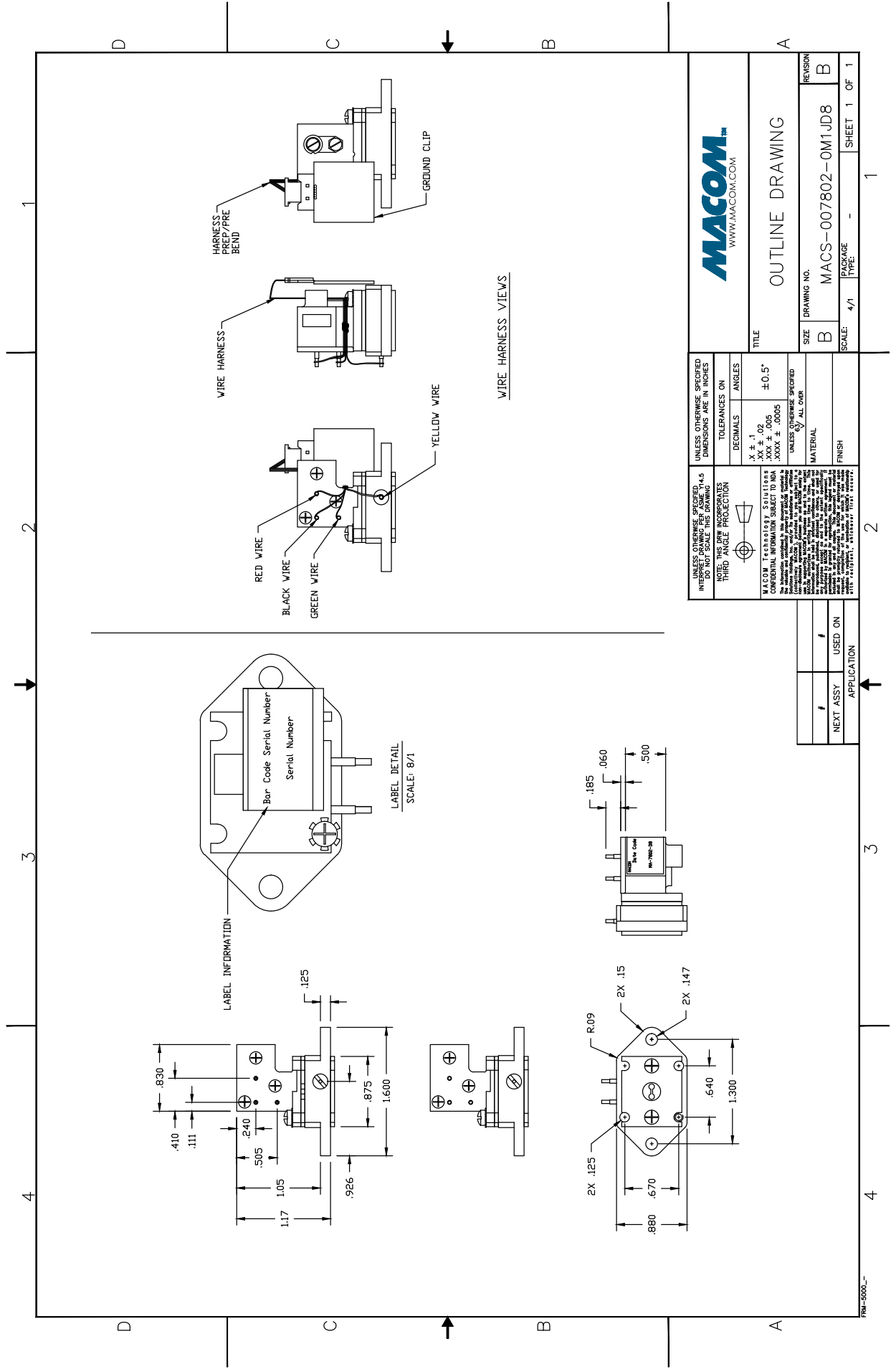


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PRODUCTION
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FINISH		FINISH	
TITLE		TITLE	
OUTLINE DRAWING		OUTLINE DRAWING	
SIZE		SIZE	
B		B	
DRAWING NO.		DRAWING NO.	
MACS-007802-0M1JD8		MACS-007802-0M1JD8	
SCALE		SCALE	
4/1		4/1	
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SHEET 1 OF 1		SHEET 1 OF 1	
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UNLESS OTHERWISE SPECIFIED, DIMENSIONS ARE IN INCHES. TOLERANCES ON DECIMALS ANGLES		UNLESS OTHERWISE SPECIFIED, DIMENSIONS ARE IN INCHES. TOLERANCES ON DECIMALS ANGLES	
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XXXX ± .0005		XXXX ± .0005	
ALL OVER		ALL OVER	
MATERIAL		MATERIAL	
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TITLE		TITLE	
OUTLINE DRAWING		OUTLINE DRAWING	
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DRAWING NO.		DRAWING NO.	
MACS-007802-0M1JD8		MACS-007802-0M1JD8	
SCALE		SCALE	
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SHEET 1 OF 1		SHEET 1 OF 1	
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UNLESS OTHERWISE SPECIFIED, DIMENSIONS ARE IN INCHES. TOLERANCES ON DECIMALS ANGLES		UNLESS OTHERWISE SPECIFIED, DIMENSIONS ARE IN INCHES. TOLERANCES ON DECIMALS ANGLES	
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SHEET 1 OF 1		SHEET 1 OF 1	
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Revision History	
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Rev.	Description of Change
A	Initial Release or {add brief summary of changes}

PRODUCTION RELEASE

TITLE: Product Specification,MACS-007802-0M1JD5	
DOCUMENT NO: PS-MACS-007802-0M1JD5	REV: A SHEET 1 of 2

The MACS-007802-0M1JD5 is a RoHS Compliant K-Band Stereo Doppler Transceiver consisting of a Gunn Diode oscillator and two Schottky Diode mixers assembled into a diecast waveguide package. It is designed for commercial applications, for ground speed sensing applications.

ELECTRICAL SPECIFICATIONS

Center Frequency:	24.125 GHz $\pm$ 5 MHz
Power Output:	4.0 mW +/- 0.4 mW @ +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 Phase:	90° $\pm$ 15°
Mixer Sensitivity: (3)	-93 dBc minimum
Mixer Load Resistor: (not supplied)	1000 ohms
Operating Temperature:	-30°C to +85°C
Frequency Temperature Coefficient:	1 MHz/°C maximum
Schottky Diode Output Polarity:	Negative

MECHANICAL SPECIFICATIONS

Outline Drawing:	See MACS-007802-0M1JD5
D.C. Bias (Gunn):	Via Molex P/N 50556-50501 Connector
Mixer Outputs:	Via Molex P/N 50556-50501 Connector
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.

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Rev.	Description of Change
A	Initial Release

PRODUCTION RELEASE

TITLE: Product Specification,MACS-007802-0M1JD6	
DOCUMENT NO: PS-MACS-007802-0M1JD6	REV: A
SHEET 1 of 2	

The MACS-007802-0M1JD6 is a RoHS Compliant K-Band Stereo Doppler Transceiver consisting of a Gunn Diode oscillator and two Schottky Diode mixers assembled into a diecast waveguide package. It is designed for commercial applications, for ground speed sensing.

ELECTRICAL SPECIFICATIONS

Center Frequency:	24.125 GHz $\pm$ 5 MHz
Power Output:	2.0 mW +/- 0.2 mW @ +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 Phase:	90°+/-15°
Mixer Sensitivity: (3)	-93 dBc minimum
Mixer Load Resistor: (not supplied)	1000 ohms
Operating Temperature:	-30°C to +85°C
Frequency Temperature Coefficient:	1 MHz/°C maximum
Schottky Diode Output Polarity:	Negative

MECHANICAL SPECIFICATIONS

Outline Drawing:	See MACS07802-0M1JD6
D.C. Bias (Gunn):	Via Molex P/N 50556-50501 Connector
Mixer Outputs:	Via Molex P/N 50556-50501 Connector
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.