ECLIPTEK® CORPORATION

# Marketing Bulletin

**DATE:** August 25th, 2005

**TO:** All Sales Personnel

**FROM:** Mark Stoner

**RE:** Product Termination

To all concerned parties,

This bulletin is to notify all customers of the discontinuation of the following Ecliptek series effective August 25th, 2005:

| Series | Description | Recommended Replacement |
|---|---|---|
| E31W2 | 5V 6 pad SMD LVPECL VCXO | E32D1 |
| E32W2 | 3.3V 6 pad SMD LVPECL VCXO | E32D1 |

In compliance with our End of Life (EOL) policy, this will serve as advanced notice of product termination. New orders will not be accepted after November 25th, 2005, with delivery to conclude by February 25th 2006.

If there are any questions pertaining to this bulletin, please fell free to contact me. Thank you again for your cooperation.

Best Regards,

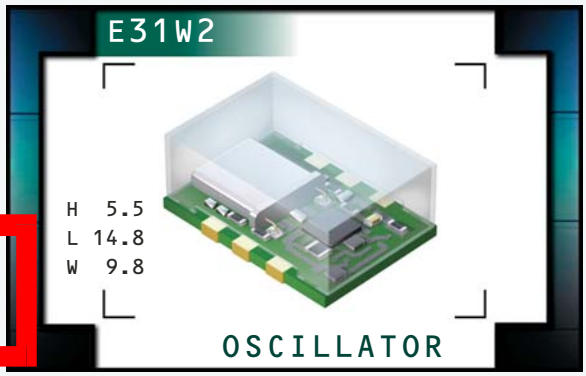
Mark W. Stoner
Director of Marketing
Ecliptek Corporation

3545 CADILLAC AVENUE • COSTA MESA, CA 92626-1401 • (714) 433-1200 • Fax (714) 433-1234

# E31W2 Series

- PECL Output VCXO
- 5.0V supply voltage
- 6 pad PCB SMD package
- Stability to 20ppm
- Output Enable/Disable available
- Complementary Output available
- Available on Tape and Reel

OBSOLETE




## ELECTRICAL SPECIFICATIONS

| | | |
|---|---|---|
| **Frequency Range** | | 19.440MHz to 212.500MHz |
| **Operating Temperature Range** | | 0°C to 70°C or -40°C to 85°C |
| **Storage Temperature Range** | | -55°C to 125°C |
| **Supply Voltage ($V_{CC}$)** | | 5.0$V_{DC}$ ±5% |
| **Input Current** | | 100mA Maximum |
| **Logic Type** | | 100KH |
| **Frequency Tolerance / Stability** | Inclusive of Operating Temp Range, Supply Voltage, Load, and Aging @25°C over 10 years | ±50ppm, ±25ppm, or ±20ppm Maximum |
| **Output Voltage Logic High ($V_{OH}$)** | | $V_{CC}$-1.025$V_{DC}$ Minimum |
| **Output Voltage Logic Low ($V_{OL}$)** | | $V_{CC}$-1.620$V_{DC}$ Maximum |
| **Rise Time / Fall Time** | 20% to 80% of waveform | 2 nSeconds Maximum |
| **Duty Cycle** | at 50% of waveform | 50 ±10(%)<br>50 ±5(%) |
| **Load Drive Capability** | | 50 Ohms into $V_{CC}$-2.0$V_{DC}$ |
| **Additional Output / Logic Control** | | No Connect and Single Output<br>Enable/Disable and Single Output<br>No Connect and Complementary Output or<br>Enable/Disable and Complementary Output |
| **Enable/Disable Input Voltage** | $V_{IL}$ of $V_{CC}$-1.475$V_{DC}$ Maximum<br>No Connection<br>$V_{IH}$ of $V_{CC}$-1.165$V_{DC}$ Minimum | Enables Output<br>Enables Output<br>Disables Output: Logic Low<br>Disables Complementary Output: Logic High |
| **Start Up Time** | | 10 mSeconds Maximum |
| **RMS Phase Jitter** | FJ = 12kHz to 20MHz | 1 pSec Maximum |
| **Absolute Pull Range (APR)** | Inclusive of Operating Temp Range, Supply Voltage, Load, and Aging @25°C over 10 years | ±50ppm Minimum |
| **Linearity** | | 20%, 15%, or 10% Maximum |
| **Control Voltage ($V_C$): Test Conditions for APR** | | 2.5$V_{DC}$ ±2.0$V_{DC}$ |
| **Control Voltage Range ($V_{CR}$)** | | 0.0$V_{DC}$ to $V_{CC}$ |
| **Center Control Voltage** | | 2.5$V_{DC}$ |
| **Transfer Function** | | Positive Transfer Characteristic |
| **Input Impedance** | | 50kOhms Typical |
| **Modulation Bandwidth** | at -3dB with Control Voltage of +2.5$V_{DC}$ | 10kHz Minimum |

| MANUFACTURER | CATEGORY | SERIES | PACKAGE | VOLTAGE | CLASS | REV. DATE |
|---|---|---|---|---|---|---|
| ECLIPTEK CORP. | OSCILLATOR | E31J2 | 6-PCB | 5.0V | OS80 | 01/03 |

OBSOLETE

# PART NUMBERING GUIDE

**E31W2 F 3 A 2 C - 155.520M TR**

**FREQUENCY TOLERANCE & STABILITY/ OPERATING TEMPERATURE RANGE**
D=±50ppm Maximum over 0°C to +70°C
E=±25ppm Maximum over 0°C to +70°C
F=±20ppm Maximum over 0°C to +70°C
H=±50ppm Maximum over -40°C to +85°C

**APR**
3=±50ppm Minimum

**LINEARITY**
A=20%
B=15%
C=10%

**AVAILABLE OPTIONS**
Blank=Tubes
TR = Tape and Reel (Standard)

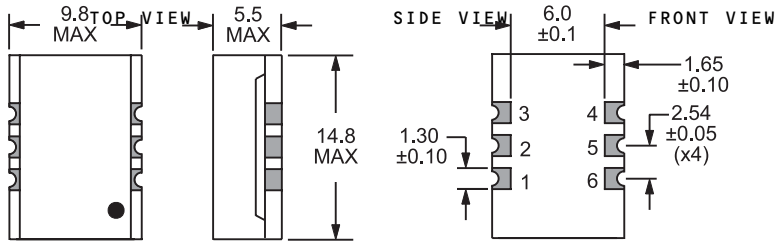
**FREQUENCY**

**ADDITIONAL OUTPUT/LOGIC CONTROL**
A=No Connect and Single Output
B=Enable/Disable and Single Output
C=No Connect and Complementary Output
D=Enable/Disable and Complementary Output

**DUTY CYCLE**
1=50 ±10(%), 2=50 ±5(%)

## MECHANICAL DIMENSIONS

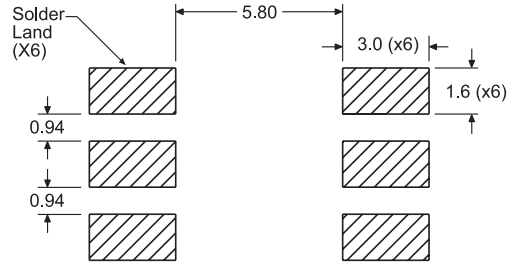
ALL DIMENSIONS IN MILLIMETERS




Pin 1: Voltage Control
Pin 2: Enable/Disable or No Connect
Pin 3: Case Ground
Pin 4: Output
Pin 5: Complementary Output or No Connect
Pin 6: Supply Voltage

## SUGGESTED SOLDER PAD LAYOUT

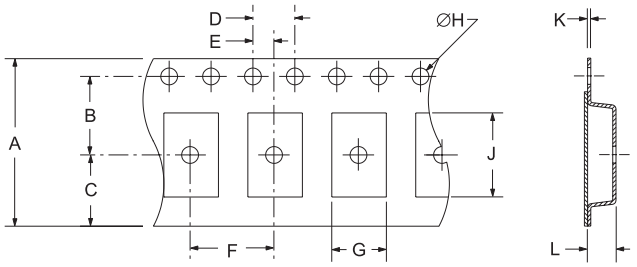
ALL DIMENSIONS IN MILLIMETERS

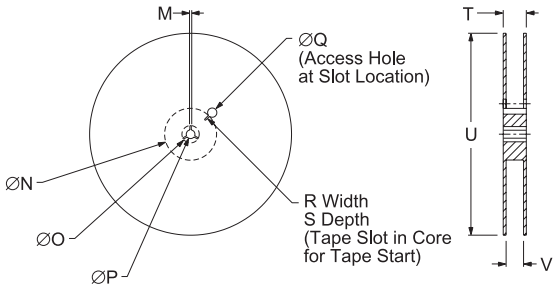



Tolerances = ±0.1

## TAPE AND REEL DIMENSIONS

ALL DIMENSIONS IN MILLIMETERS




| TAPE | A | B | C | D | E |
|---|---|---|---|---|---|
| | 24 ±.3 | 11.5 ±.1 | 10.75 ±.1 | 4 ±.2 | 2±.1 |
| F | G | H | J | K | L |
| 12 ±.1 | B0* | 1.5 +.1-0 | A0* | .4 ±.05 | K0* |

| REEL | M | N | O | P | Q |
|---|---|---|---|---|---|
| | 1.5 MIN | 50 MIN | 20.2 MIN | 13±.2 | 40 MIN |
| R | S | T | U | V | QTY/REEL |
| 2.5 MIN | 10 MIN | 30.4 MAX | 360 MAX | 24.4+2-0 | 1000 |

*Compliant to EIA 481A

## ENVIRONMENTAL/MECHANICAL SPECIFICATIONS

| Characteristic | Specification |
|---|---|
| Seal Integrity | Bubble test in Perfluorocarbon at +125°C ±5°C for 60 seconds minimum (internal crystal only). |
| Solderability | Sn63 Solder dip at +230°C ±5°C for 5 seconds/95% coverage. |
| Marking Permanency | 10 Strokes with brush after 1 minute soak in solvent, 3 times. |
| Shock | Random drop on hard wooden plate 3 times from a height of 20cm. |
| Vibration | Frequency with an amplitude of 1.5mm sweeping between 10Hz to 55Hz within 1 minute (approximately) for 2 hours minimum on each axis (X, Y and Z) for a total of 6 hours. |

## MARKING SPECIFICATIONS

Line 1: ECLIPTEK

Line 2: XX.XXX M
- Frequency in MHz (5 Digits Maximum + Decimal)

Line 3: XX Y ZZ
- Week of Year
- Last Digit of Year
- Ecliptek Manufacturing Identifier

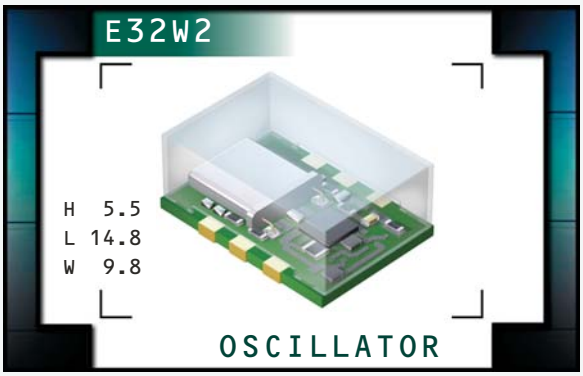
| MANUFACTURER | CATEGORY | SERIES | PACKAGE | VOLTAGE | CLASS | REV - DATE |
|---|---|---|---|---|---|---|
| ECLIPTEK CORP. | OSCILLATOR | E31W2 | 6-PCB | 5.0V | OS80 | 01/03 |

ECLIPTEK CORPORATION

# E32W2 Series

- PECL Output VCXO
- 3.3V supply voltage
- 6 pad PCB SMD package
- Stability to 20ppm
- Output Enable/Disable available
- Complementary Output available
- Available on Tape and Reel

OBSOLETE




## ELECTRICAL SPECIFICATIONS

| | | |
|---|---|---|
| **Frequency Range** | | 19.440MHz to 212.500MHz |
| **Operating Temperature Range** | | 0°C to 70°C or -40°C to 85°C |
| **Storage Temperature Range** | | -55°C to 125°C |
| **Supply Voltage ($V_{CC}$)** | | 3.3$V_{DC}$ ±5% |
| **Input Current** | | 75mA Maximum |
| **Logic Type** | | 100KH |
| **Frequency Tolerance / Stability** | Inclusive of Operating Temp Range, Supply Voltage, Load, and Aging @25°C over 10 years | ±50ppm, ±25ppm, or ±20ppm Maximum |
| **Output Voltage Logic High ($V_{OH}$)** | | $V_{CC}$-1.025$V_{DC}$ Minimum |
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| **Rise Time / Fall Time** | 20% to 80% of waveform | 2 nSeconds Maximum |
| **Duty Cycle** | at 50% of waveform | 50 ±10(%)<br>50 ±5(%) |
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| **Absolute Pull Range (APR)** | Inclusive of Operating Temp Range, Supply Voltage, Load, and Aging @25°C over 10 years | ±50ppm Minimum |
| **Linearity** | | 20%, 15%, or 10% Maximum |
| **Control Voltage ($V_C$): Test Conditions for APR** | | 1.65$V_{DC}$ ±1.35$V_{DC}$ |
| **Control Voltage Range ($V_{CR}$)** | | 0.0$V_{DC}$ to $V_{CC}$ |
| **Center Control Voltage** | | 1.65$V_{DC}$ |
| **Transfer Function** | | Positive Transfer Characteristic |
| **Input Impedance** | | 50kOhms Typical |
| **Modulation Bandwidth** | at -3dB with Control Voltage of +1.65$V_{DC}$ | 10kHz Minimum |

| MANUFACTURER | CATEGORY | SERIES | PACKAGE | VOLTAGE | CLASS | REV. DATE |
|---|---|---|---|---|---|---|
| ECLIPTEK CORP. | OSCILLATOR | E32W2 | 6-PCB | 3.3V | OS79 | 01/03 |

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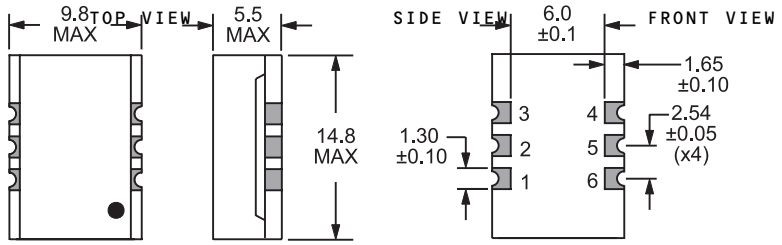


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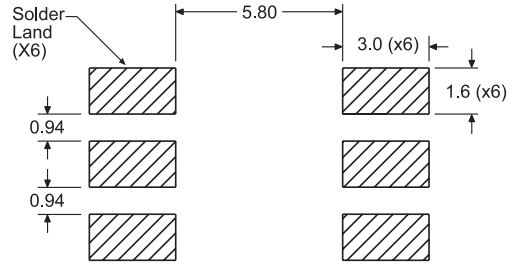


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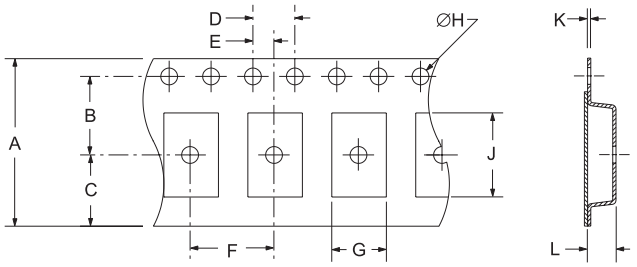


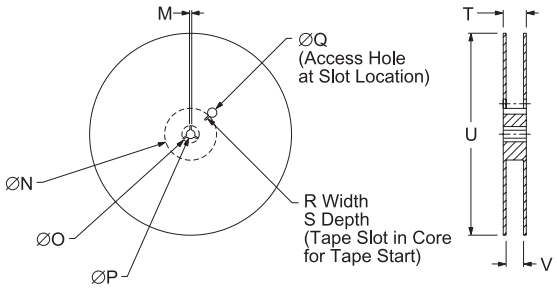


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