

## Marketing Bulletin

**DATE:** March 24<sup>th</sup>, 2006  
**TO:** All Sales Personnel  
**FROM:** Mark Stoner  
**RE:** Product Termination

To all concerned parties,

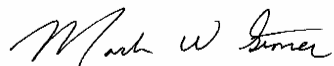
This bulletin is to notify all customers of the discontinuation of the following Ecliptek series effective March 24<sup>th</sup>, 2006:

<b>Series</b>	<b>Description</b>	<b>Recommended Replacement</b>
E13C4	3.3V 5 x 7mm SMD LVPECL Oscillator	E13C7 or E13D8

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 April 1<sup>st</sup>, 2007, with delivery to conclude by July 1<sup>st</sup> 2007.

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

Best Regards,



Mark W. Stoner  
Director of Marketing  
Ecliptek Corporation

# E13C4 Series



- RoHS Compliant (Pb-Free)
- LVPECL Output Oscillators
- 3.3V Supply Voltage
- AT-Cut Third Overtone Crystal
- Ceramic 6-Pad SMD Package
- Stability to 25ppm
- Tri-State Output
- Complementary Output



## NOTES

### ELECTRICAL SPECIFICATIONS

<b>Nominal Frequency</b>	100MHz, 106.250MHz, 125MHz, 133.333MHz, 155.52MHz, 156.25MHz, 161.1328MHz or 166MHz	
<b>Operating Temperature Range</b>	0°C to 70°C, -5°C to 85°C, or -40°C to +85°C	
<b>Storage Temperature Range</b>	-55°C to 125°C	
<b>Supply Voltage (V<sub>CC</sub>)</b>	3.3V <sub>DC</sub> ±5%	
<b>Input Current</b>	75mA Maximum	
<b>Frequency Tolerance / Stability</b>	Inclusive of Operating Temperature Range, Supply Voltag, Load, and 1st year Aging at 25°C	±100ppm, ±50ppm, or ±25ppm Maximum
<b>Output Voltage Logic High (V<sub>OH</sub>)</b>	V <sub>CC</sub> -1.025V <sub>DC</sub> Minimum	
<b>Output Voltage Logic Low (V<sub>OL</sub>)</b>	V <sub>CC</sub> -1.620V <sub>DC</sub> Maximum	
<b>Rise Time / Fall Time</b>	20% to 80% of waveform	1 nSeconds Maximum
<b>Duty Cycle</b>	at 50% of waveform	50 ±10(%) 50 ±5(%)
<b>Load Drive Capability</b>	50 Ohms into V <sub>CC</sub> -2.0V <sub>DC</sub>	
<b>Logic Control / Additional Output</b>	Complementary Output and Tri-State	
<b>Tri-State Input Voltage</b>	V <sub>IH</sub> of 70% of V <sub>CC</sub> Minimum No Connection V <sub>IL</sub> of 30% of V <sub>CC</sub> Maximum	Enables Output Enables Output Disables Output: High Impedance
<b>Standby Current</b>	Without Load	10µA Maximum
<b>Start Up Time</b>	10 mSeconds Maximum	
<b>RMS Phase Jitter</b>	FJ = 12kHz to 20MHz	0.24 pSec Typical, 1 pSec Maximum
<b>RMS Period Jitter</b>	3 pSec Typical, 5 pSec Maximum	

MANUFACTURER ECLIPTEK CORP.	CATEGORY OSCILLATOR	SERIES E13C4	PACKAGE CERAMIC	VOLTAGE 3.3V	CLASS OS1A	REV. DATE 04/03
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## PART NUMBERING GUIDE

### E13C4 E 2 F - 155.520M TR

#### FREQUENCY TOLERANCE & STABILITY/ OPERATING TEMPERATURE RANGE

C=±100ppm Maximum over 0°C to +70°C  
 D=±50ppm Maximum over 0°C to +70°C  
 E=±25ppm Maximum over 0°C to +70°C  
 G=±100ppm Maximum over -40°C to +85°C  
 H=±50ppm Maximum over -40°C to +85°C  
 J=±25ppm Maximum over -40°C to +85°C  
 L=±100ppm Maximum over -5°C to +85°C  
 M=±50ppm Maximum over -5°C to +85°C  
 N=±25ppm Maximum over -5°C to +85°C

#### AVAILABLE OPTIONS

Blank= Tubes  
 TR= Tape and Reel (Standard)

#### FREQUENCY

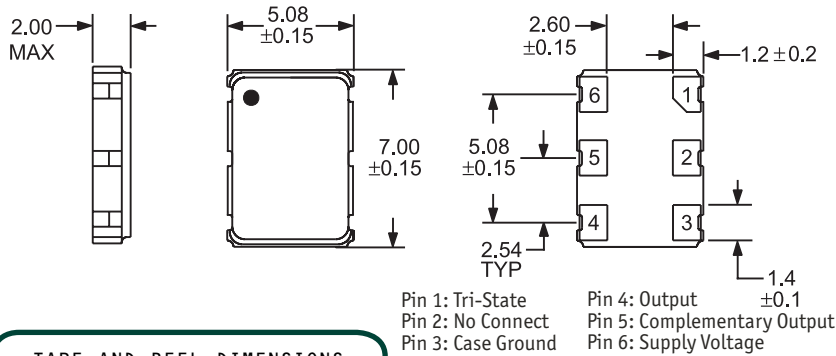
#### LOGIC CONTROL/ADDITIONAL OUTPUT

F= Complementary Output and Tri-State

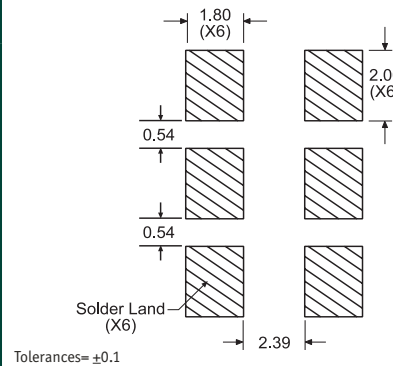
#### DUTY CYCLE

1=50%±10%, 2=50%±5%

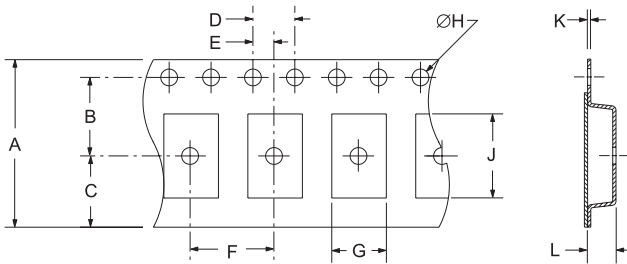
#### MECHANICAL DIMENSIONS ALL DIMENSIONS IN MILLIMETERS



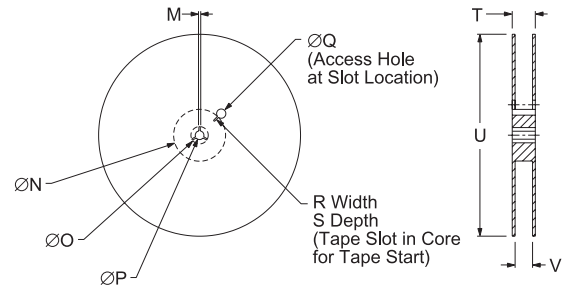
#### SUGGESTED SOLDER PAD LAYOUT ALL DIMENSIONS IN MILLIMETERS



#### TAPE AND REEL DIMENSIONS ALL DIMENSIONS IN MILLIMETERS



TAPE	A	B	C	D	E	
	16±.3-1	7.5±.1	6.75±.1	4 ±.1	2±.1	
	F	G	H	J	K	L
	8±.1	B0*	1.5 +.1-0	A0*	.3 ±.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	W
	2.5 MIN	10 MIN	22.4 MAX	360 MAX	16.4+2-0	QTY/REEL

\*Compliant to EIA 481A

#### ENVIRONMENTAL/MECHANICAL SPECIFICATIONS

Characteristic	Specification
Fine Leak Test	MIL-STD-883, Method 1014, Condition A
Gross Leak Test	MIL-STD-883, Method 1014, Condition C
Mechanical Shock	MIL-STD-202, Method 213, Condition C
Vibration	MIL-STD-883, Method 2007, Condition A
Solderability	MIL-STD-883, Method 2002
Temperature Cycling	MIL-STD-883, Method 1010
Resistance to Soldering Heat	MIL-STD-202, Method 210
Resistance to Solvents	MIL-STD-202, Method 215

#### 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	E13C4	CERAMIC	3.3V	OS1A	04/03