

## Marketing Bulletin

**DATE:** December 27<sup>th</sup>, 2006

**TO:** All Sales Personnel

**FROM:** Mark Stoner

**RE:** Product Termination

To all concerned parties,

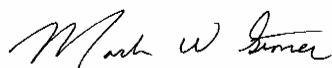
This bulletin is to notify all customers of the discontinuation of the following Ecliptek series effective December 27<sup>th</sup>, 2006:

<b>Series</b>	<b>Description</b>	<b>Recommended Replacement</b>
EC20	3.3V 14 pin DIP Oscillator	EB52F3 or EB52F5

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 March 31<sup>st</sup>, 2007, with delivery to conclude by June 30<sup>th</sup> 2007.

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

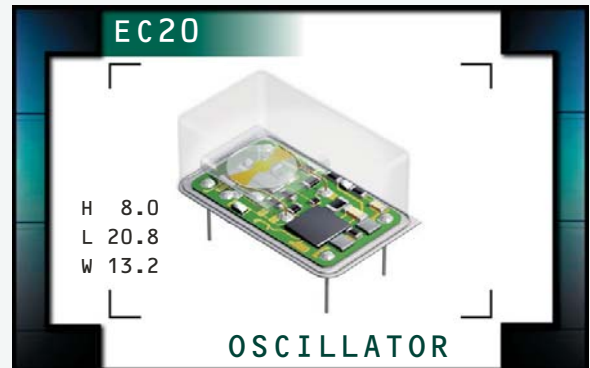
Best Regards,



Mark W. Stoner  
Vice President of Marketing  
Ecliptek Corporation

# EC20 Series

- RoHS Compliant (Pb-free)
- HCMOS output
- 3.3V supply voltage
- 14 pin DIP package
- Stability to  $\pm 5$ ppm
- Custom lead length, gull wing options available



OBSOLETE

## ELECTRICAL SPECIFICATIONS

<b>Frequency Range (MHz)</b>	1.000MHz to 50.000MHz	
<b>Operating Temperature Range</b>	Per Table 1	
<b>Storage Temperature Range</b>	-55°C to 125°C	
<b>Supply Voltage (V<sub>DD</sub>)</b>	3.3V <sub>DC</sub> $\pm 10\%$	
<b>Input Current</b>	1.000MHz to 20.000MHz	10mA Maximum
	20.001MHz to 50.000MHz	20mA Maximum
<b>Frequency Tolerance / Stability</b>	vs. Operating Temperature Range	Per Table 1
	vs. Input Voltage (V <sub>DD</sub> $\pm 5\%$ )	$\pm 2.0$ ppm Maximum
	vs. Load ( $\pm 2$ pF)	$\pm 1.0$ ppm Maximum
<b>Internal Trim (Top of Can)</b>	$\pm 5$ ppm Minimum	
<b>Output Voltage Logic High (V<sub>OH</sub>)</b>	w/HCMOS Load	2.7V <sub>DC</sub> Minimum I <sub>OH</sub> = -8mA
<b>Output Voltage Logic Low (V<sub>OL</sub>)</b>	w/HCMOS Load	0.5V <sub>DC</sub> Maximum I <sub>OL</sub> = +8mA
<b>Rise Time / Fall Time</b>	10% to 90% of Waveform $\leq 20.000$ MHz	10 nSeconds Maximum
	10% to 90% of Waveform $> 20.000$ MHz	6 nSeconds Maximum
<b>Duty Cycle</b>	at 50% of Waveform	50 $\pm 10\%$ (Standard) or 50 $\pm 5\%$ (Optional)
<b>Load Drive Capability</b>	15pF HCMOS Load	
<b>Tri-State Input Voltage</b>	V <sub>IH</sub> : No Connection	Enables Output
	V <sub>IH</sub> : $\geq 2.2V_{DC}$	Enables Output
	V <sub>IL</sub> : $\leq 0.8V_{DC}$	Disables Output: High Impedance
<b>Aging (at 25°C)</b>	$\pm 1$ ppm / year Maximum	
<b>Start Up Time</b>	10 mSeconds Maximum	
<b>Period Jitter: Absolute</b>	$\pm 100$ pSeconds Maximum	
<b>Period Jitter: One Sigma</b>	$\pm 25$ pSeconds Maximum	

MANUFACTURER ECLIPTEK CORP.	CATEGORY OSCILLATOR	SERIES EC20	PACKAGE 14 pin DIP	VOLTAGE 3.3V	CLASS 0561	REV. DATE 08/06
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# PART NUMBERING GUIDE

## EC20 07 A R TS - 24.000M - CL125

**FREQUENCY STABILITY**  
2 Digit Code Per Table 1

**OPERATING TEMPERATURE RANGE**  
1 Letter Code Per Table 1

**INTERNAL TRIM OPTIONS**  
Blank=No Internal Trim  
R=±5ppm Minimum (Top of Can)

**DUTY CYCLE**  
Blank=50 ±10(%) (Standard)  
T=50 ±5(%)

**AVAILABLE OPTIONS**

Blank=None (Standard)  
CLXXX=Custom Lead Length (See Page 133)  
G=Full Size Gull Wing (See Page 132)

**FREQUENCY**

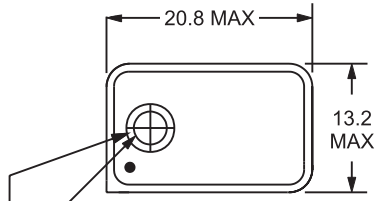
**OUTPUT CONTROL FUNCTION**  
TS=Tri-State Enable High

**OBSOLETE**

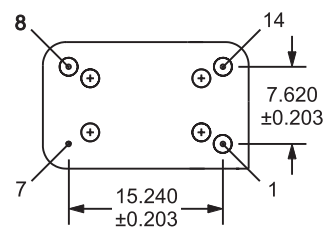
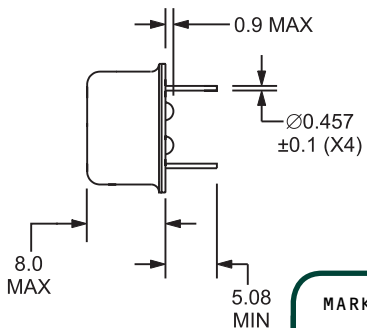
**TABLE 1: PART NUMBERING CODES**

Operating Temperature Range	Code	Frequency Stability				
		X = Availability with Internal Trim Option "Blank" Y = Availability with Internal Trim Option "R"				
		±5ppm	±7ppm	±10ppm	±15ppm	±20ppm
0°C to +50°C	A	Y	X, Y	X, Y	X, Y	X, Y
-10°C to +60°C	B		X, Y	X, Y	X, Y	X, Y
-20°C to +70°C	C			X, Y	X, Y	X, Y
-40°C to +85°C	D					X, Y

**MECHANICAL DIMENSIONS**  
ALL DIMENSIONS IN MILLIMETERS



Internal Trim Hole (not present when Internal Trim is specified as "Blank")  
Internal Trim Hole is covered by a sticker.



Pin 1: Tri-State  
Pin 7: Case Ground  
Pin 8: Output  
Pin 14: Supply Voltage

**ENVIRONMENTAL/MECHANICAL SPECIFICATIONS**

Characteristic	Specification
Mechanical Shock	MIL-STD-202, Method 213, Condition C
Vibration	MIL-STD-883, Method 2007, Condition A
Lead Integrity	MIL-STD-883, Method 2004
Solderability	MIL-STD-883, Method 2002
Temperature Cycling	MIL-STD-883, Method 1010
Resistance to Soldering Heat	MIL-STD-883, Method 210
Resistance to Solvents	MIL-STD-883, Method 215

**MARKING SPECIFICATIONS**

Line 1: ECLIPTEK  
Line 2: EC20 TS  
    — Output Control Function  
    TS = Tri-State Enable High  
    — Series Designator  
Line 3: XX.XXX M  
    — Frequency in MHz  
    (5 Digits Maximum + Decimal)  
Line 4: XX Y ZZ  
    — Week of Year  
    — Last Digit of Year  
    — Ecliptek Manufacturing Identifier

Note: Pin 1 shall be designated with a dot

MANUFACTURER ECLIPTEK CORP.	CATEGORY OSCILLATOR	SERIES EC20	PACKAGE 14 pin DIP	VOLTAGE 3.3V	CLASS OS61	REV. DATE 08/06
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