

## Marketing Bulletin

**DATE:** December 27<sup>th</sup>, 2006  
**TO:** All Sales Personnel  
**FROM:** Isaac Gonzalez  
**RE:** Product Termination

To all concerned parties,

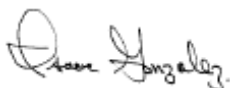
This bulletin is to notify all customers of the discontinuation of the following Ecliptek series effective December 27<sup>th</sup>, 2006:

<b>Series</b>	<b>Description</b>	<b>Recommended Replacement</b>
EC20	3.3V 14 pin DIP Oscillator	<a href="#">EB52F3</a> or <a href="#">EB52F5</a>

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.

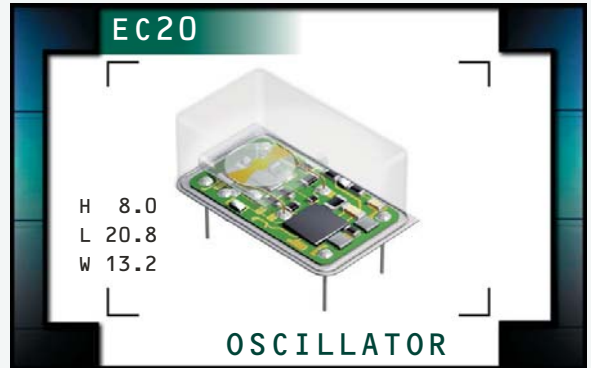
Best Regards,



Isaac Gonzalez  
Configuration Manager  
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
--------------------------------	------------------------	----------------	-----------------------	-----------------	---------------	--------------------

# 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**

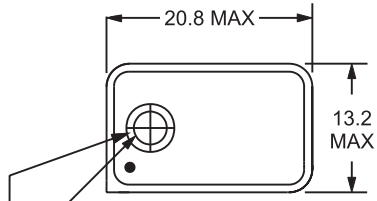
**OUTPUT CONTROL FUNCTION**  
TS=Tri-State Enable High

**OBSOLETE**

**TABLE 1: PART NUMBERING CODES**

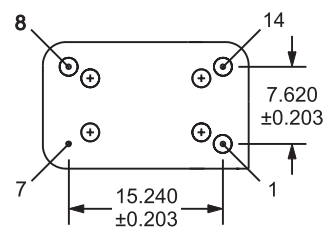
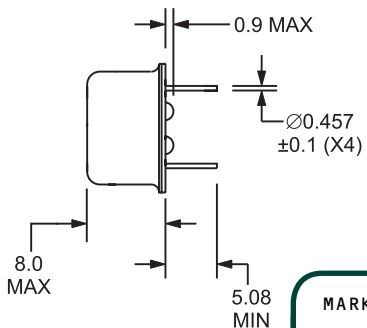
Operating Temperature Range	Code	Frequency Stability				
		X = Availability with Internal Trim Option "Blank" Y = Availability with Internal Trim Option "R"				
		±5ppm	±7ppm	±10ppm	±15ppm	±20ppm
0°C to +50°C	A	Y	X, Y	X, Y	X, Y	X, Y
-10°C to +60°C	B		X, Y	X, Y	X, Y	X, Y
-20°C to +70°C	C			X, Y	X, Y	X,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