



Product EOL Announcement

The Product EOL Announcement signifies that a product series has entered the final phase of the Ecliptek Product Life Cycle, and serves as advance notice of product termination per the Ecliptek End of Life (EOL) policy.

Ecliptek Corporation announces End of Life initiation for the following product series with the intent of discontinuing its availability.

EOL Series	Description
EB51F3	5.0Vdc 14-Pin DIP HCMOS/TTL TCXO

EOL Timeline

The last date Ecliptek will accept orders (Stage 2) and the last date orders may be scheduled for shipment (Stage 3) are listed in the table below.

Stage 1 EOL Announce Date	Stage 2 Last Date to Order	Stage 3 Last Date to Ship
10-May-2011	28-February-2012	31-May-2012

Alternative Products

In order to fulfill your requirements beyond this product's discontinuation, we invite you to evaluate alternative Ecliptek products. Because this series does not have a recommended alternative Ecliptek product series, please contact one of our Global Customer Support Executives to assist you with finding the best Ecliptek product for your application.

Automated EOL Notification

Ecliptek offers automated notification of Product EOL Announcements. Place part numbers for which you'd like to receive EOL Notifications into your personalized [Parts List](#) on our website and we'll email you when EOL is announced.

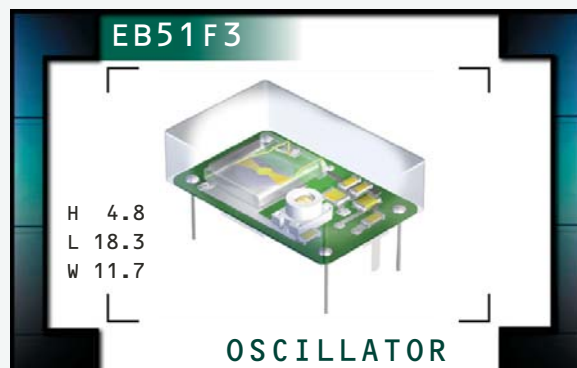
Please do not hesitate to contact us if you have any questions or need further assistance.

Ecliptek Global Customer Support Team
(800) 433-1280 x300
customersupport@ecliptek.com

All product warranties for discontinued products will be honored in full according to Ecliptek [Terms and Conditions of Sale](#).

EB51F3 Series

- Temperature Compensated Crystal Oscillators (TCX0)
- HCMOS/TTL Output
- +5.0V Supply Voltage
- Internal Mechanical Trim Function
- External Voltage Control Option
- 14 pin DIP Metal Package



NOTES

ELECTRICAL SPECIFICATIONS

Frequency Range		1.544MHz to 44.736MHz
Operating Temperature Range		See Table 1
Storage Temperature Range		-40°C to 85°C
Supply Voltage (V_{DD})		5.0V _{DC} ±5%
Input Current		30mA Maximum
Frequency Stability	vs. Operating Temperature Range	See Table 1
	vs. Input Voltage (V_{DD} ±5%)	±0.3ppm Maximum
	vs. Load (±2pF)	±0.2ppm Maximum
Aging (at 25°C)		±1ppm / year Maximum
Output Voltage Logic High (V_{OH})	w/TTL Load	2.4V _{DC} Minimum
	w/CMOS Load	$V_{DD} - 0.5V_{DC}$ Minimum
Output Voltage Logic Low (V_{OL})	w/TTL Load	0.4V _{DC} Maximum
	w/CMOS Load	0.5V _{DC} Maximum
Rise Time / Fall Time		0.4V _{DC} to 2.4V _{DC} w/TTL Load or 20% to 80% of Waveform w/CMOS Load
Duty Cycle		at 1.4V _{DC} w/TTL Load or at 50% of Waveform w/CMOS Load
Load Drive Capability		10TTL Load 15pF CMOS Load Maximum
Internal Trim (Top of Can)		±3ppm Minimum
Control Voltage (External)		2.5V _{DC} ±2.0V _{DC} , Positive Transfer Characteristic
Frequency Deviation		Referenced to F_0 at $V_C = 2.5V_{DC}$; $V_{DD} = 5.0V_{DC}$
Input Impedance		10kOhms Typical
Modulation Bandwidth		Measured at -3dB, $V_C = 2.5V_{DC}$
Typical Phase Noise		at 10Hz Offset at 100Hz Offset at 1kHz Offset at 10kHz Offset at 100kHz Offset
		-70dBc/Hz -100dBc/Hz -130dBc/Hz -140dBc/Hz -145dBc/Hz

MANUFACTURER	CATEGORY	SERIES	PACKAGE	VOLTAGE	CLASS	REV. DATE
ECLIPTEK CORP.	OSCILLATOR	EB51F3	14-PIN DIP	5.0V	OS1V	10/06

PART NUMBERING GUIDE

EB51F3 A 15 V - 12.800M

OPERATING TEMP. RANGE
One Letter Code Per Table 1

FREQUENCY STABILITY
Two Digit Code Per Table 1

FREQUENCY

EXTERNAL TRIM
N=None (No Connection on Pin 1)
V=Voltage Control on Pin 1

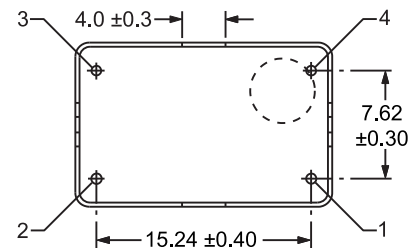
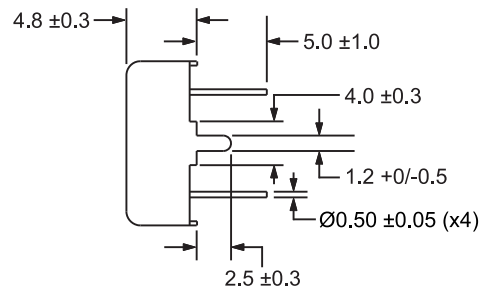
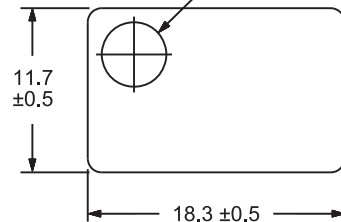
TABLE 1: PART NUMBERING CODES

Operating Temperature Range	Code	Frequency Stability			
		X = Available from 1.544MHz to 32.768MHz Y = Available at any Frequency			
		±1.5ppm	±2.0ppm	±3.0ppm	±5.0ppm
		15	20	30	50
0°C to +50°C	A	Y	Y	Y	Y
0°C to 70°C	B	X	Y	Y	Y
-20°C to +70°C	C	X	Y	Y	Y
-30°C to +75°C	D		X	Y	Y
-40°C to +85°C	E			X	Y

NOTES

MECHANICAL DIMENSIONS ALL DIMENSIONS IN MILLIMETERS

Internal Trim Access
Hole $\varnothing 3.5 \pm 0.5$



Pin 1: Voltage Control or No Connect
Pin 2: Case Ground
Pin 3: Output
Pin 4: Supply Voltage

ENVIRONMENTAL/MECHANICAL SPECIFICATIONS

Characteristic

Fine Leak Test
Gross Leak Test
Lead Integrity
Mechanical Shock
Resistance to Soldering Heat
Resistance to Solvents
Solderability
Temperature Cycling
Vibration

Specification

MIL-STD-883, Method 1014, Condition A (Internal Crystal Only)
MIL-STD-883, Method 1014, Condition C (Internal Crystal Only)
MIL-STD-883, Method 2004
MIL-STD-202, Method 213 Condition C
MIL-STD-202, Method 210
MIL-STD-202, Method 215
MIL-STD-883, Method 2003
MIL-STD-883, Method 1010
MIL-STD-883, Method 2007 Condition A

MARKING SPECIFICATIONS

Line 1: ECLIPTEK

Line 2: XX.XXX M

M=MHz

Frequency (5 Digits Maximum + Decimal)

Line 3: 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
EB51F3

PACKAGE
14 pin DIP

VOLTAGE
5.0V

CLASS
OS1V

REV. DATE
10/06