

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
EC11	5.0V 8 Pin or 14 Pin DIP Metal Thru-Hole HCMOS/TTL Oscillator

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
20-April-2010	1-September-2010	1-December-2010

Alternative Products

In order to fulfill your requirements beyond this product's discontinuation, we invite you to evaluate the recommended alternative Ecliptek product series referenced below. Please click on the link to view the data sheet.

Alternative Series	Description
EH11	5.0V 8 Pin or 14 Pin DIP Metal Thru-Hole CMOS/TTL High Frequency Oscillator

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.

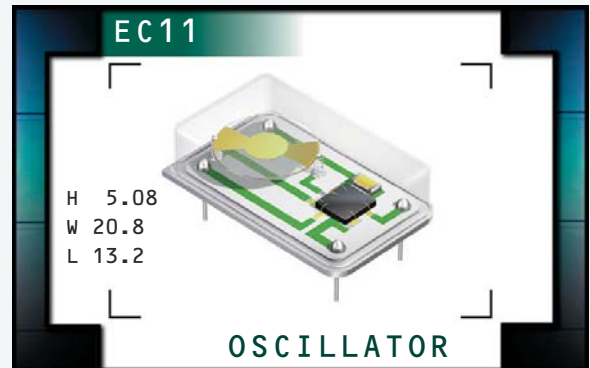
Ecliptek Global Customer Support Team
(800) 433-1280 x300
customersupport@ecliptek.com

EC11 Series



ECLIPTEK[®]
CORPORATION

- Crystal Clock Oscillators
- CMOS/TTL Output
- +5.0V Supply Voltage
- Tri-State Output Option
- Custom Lead Length & Gull Wing Options
- 14 pin DIP Metal Package
- RoHS Compliant (Pb-free)



ELECTRICAL SPECIFICATIONS

Frequency Range (MHz)		0.250MHz to 106.250MHz
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_{DD})		5.0V _{DC} ±10%
Input Current	250.000kHz to 24.000MHz	45mA Maximum
	24.001MHz to 50.000MHz	55mA Maximum
	50.001MHz to 66.667MHz	65mA Maximum
	66.668MHz to 106.250MHz	85mA Maximum
Frequency Tolerance / Stability	Inclusive of Operating Temperature Range, Supply Voltage, and Load	±100ppm, ±50ppm, ±25ppm, or ±20ppm Max. (0°C to 70°C Only)
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; 20% to 80% of Waveform w/CMOS Load	6 nSeconds Maximum
Duty Cycle	at 1.4V _{DC} w/TTL Load; at 50% of Waveform w/CMOS Load	50 ±10(%) (Standard)
	at 1.4V _{DC} w/TTL Load or w/CMOS Load ≤ 70.000MHz	50 ±5(%) (Optional)
	at 50% of Waveform w/TTL Load or w/CMOS Load > 70.000MHz	50 ±5(%) (Optional)
Load Drive Capability	250.000kHz to 24.000MHz	10TTL Load or 50pF CMOS Load
	24.001MHz to 70.000MHz	10TTL Load or 15pF CMOS Load
	70.001MHz to 106.250MHz	10LSTTL Load or 15pF HCMOS Load
Tri-State Input Voltage	V _{IH} : No Connection	Enables Output
	V _{IH} : ≥2.2V _{DC}	Enables Output
	V _{IL} : ≤0.8V _{DC}	Disables Output: High Impedance
Aging (at 25°C)		±5ppm / year Maximum
Start Up Time		10mSeconds Maximum
Period Jitter: Absolute		±100pSeconds Maximum
Period Jitter: One Sigma		±25pSeconds Maximum

MANUFACTURER
ECLIPTEK CORP.

CATEGORY
OSCILLATOR

SERIES
EC11

PACKAGE
14 pin DIP

VOLTAGE
5.0V

CLASS
OS04

REV. DATE
08/06

PART NUMBERING GUIDE

EC11 00 ETTTS - 60.000M - G

FREQUENCY TOLERANCE / STABILITY

00=±100ppm Max., 45=±50ppm Max.
25=±25ppm Max., 20=±20ppm Max.

OPERATING TEMP. RANGE

Blank=0°C to 70°C, ET=-40°C to 85°C

DUTY CYCLE

Blank=50 ±10(%) , T=50 ±5(%)

AVAILABLE OPTIONS

Blank=None
CLXXX=Custom Lead Length
G=Full Size Gull Wing

FREQUENCY

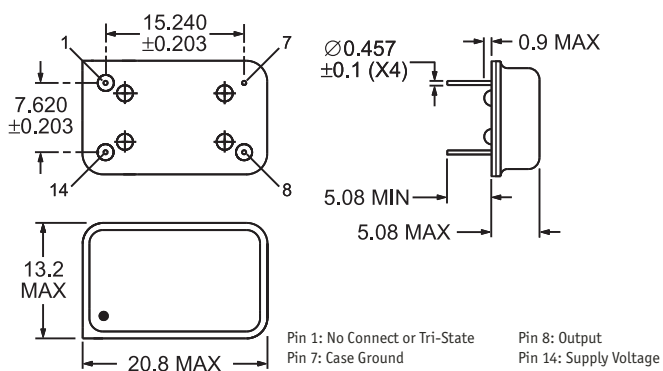
K=kHz, M=MHz

OUTPUT CONTROL FUNCTION

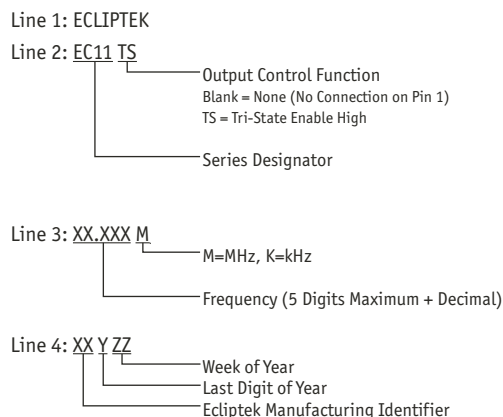
Blank=None (No Connection on Pin 1)
TS=Tri-State Enable High

NOTES

MECHANICAL DIMENSIONS
ALL DIMENSIONS IN MILLIMETERS



MARKING SPECIFICATIONS



Note: Pin 1 shall be designated with a dot

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
Lead Integrity	MIL-STD-883, Method 2004

Characteristic	Specification
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

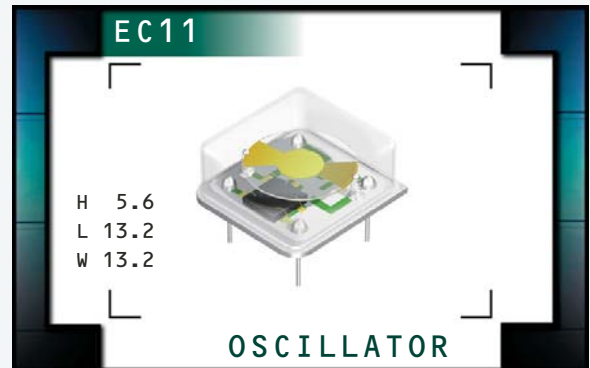
MANUFACTURER	CATEGORY	SERIES	PACKAGE	VOLTAGE	CLASS	REV. DATE
ECLIPTEK CORP.	OSCILLATOR	EC11	14 pin DIP	5.0V	OS04	08/06

EC11 Series



ECLIPTEK[®]
CORPORATION

- Crystal Clock Oscillators
- CMOS/TTL Output
- +5.0V Supply Voltage
- Tri-State Output Option
- Custom Lead Length & Gull Wing Options
- 8 pin DIP Metal Package
- RoHS Compliant (Pb-free)



ELECTRICAL SPECIFICATIONS

Frequency Range (MHz)		0.250MHz to 106.250MHz
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_{DD})		5.0V _{DC} ±10%
Input Current	250.000kHz to 24.000MHz	45mA Maximum
	24.001MHz to 50.000MHz	55mA Maximum
	50.001MHz to 66.667MHz	65mA Maximum
	66.668MHz to 106.250MHz	85mA Maximum
Frequency Tolerance / Stability	Inclusive of Operating Temperature Range, Supply Voltage, and Load	±100ppm, ±50ppm, ±25ppm, or ±20ppm Max. (0°C to 70°C Only)
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; 20% to 80% of Waveform w/CMOS Load	6 nSeconds Maximum
Duty Cycle	at 1.4V _{DC} w/TTL Load; at 50% of Waveform w/CMOS Load	50 ±10(%) (Standard)
	at 1.4V _{DC} w/TTL Load or w/CMOS Load ≤ 70.000MHz	50 ±5(%) (Optional)
	at 50% of Waveform w/TTL Load or w/CMOS Load > 70.000MHz	50 ±5(%) (Optional)
Load Drive Capability	250.000kHz to 24.000MHz	10TTL Load or 50pF CMOS Load
	24.001MHz to 70.000MHz	10TTL Load or 15pF CMOS Load
	70.001MHz to 106.250MHz	10LSTTL Load or 15pF CMOS Load
Tri-State Input Voltage	V _{IH} : No Connection	Enables Output
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	V _{IL} : ≤0.8V _{DC}	Disables Output: High Impedance
Aging (at 25°C)		±5ppm / year Maximum
Start Up Time		10mSeconds Maximum
Period Jitter: Absolute		±100pSeconds Maximum
Period Jitter: One Sigma		±25pSeconds Maximum

MANUFACTURER
ECLIPTEK CORP.

CATEGORY
OSCILLATOR

SERIES
EC11

PACKAGE
8 pin DIP

VOLTAGE
5.0V

CLASS
OS05

REV. DATE
08/06

PART NUMBERING GUIDE

EC11 00 HS ETTS - 60.000M - G TR

FREQUENCY TOLERANCE / STABILITY

00=±100ppm Max., 45=±50ppm Max.
25=±25ppm Max., 20=±20ppm Max.

PACKAGE

HS=Half Size 8 Pin DIP

OPERATING TEMP. RANGE

Blank=0°C to 70°C, ET=-40°C to 85°C

DUTY CYCLE

Blank=50 ±10(%), T=50 ±5(%)

OUTPUT CONTROL FUNCTION

Blank=None (No Connection on Pin 1), TS=Tri-State Enable High

PACKAGING OPTIONS

Blank=Bulk
TR=Tape & Reel (only offered with
Half Size G and Half Size G2 Options)

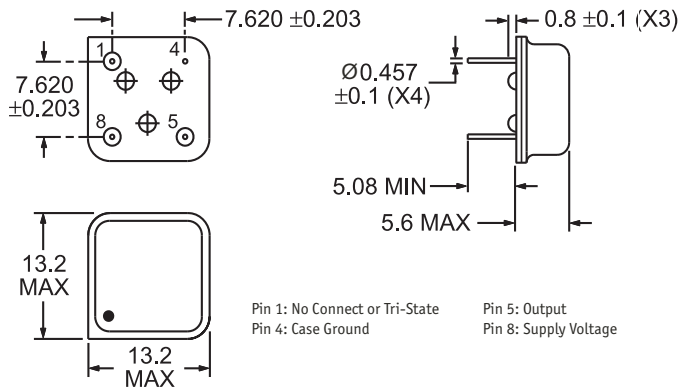
AVAILABLE OPTIONS

Blank=None
CLXXX=Custom Lead Length
G=Half Size Gull Wing
G2=Half Size Gull Wing

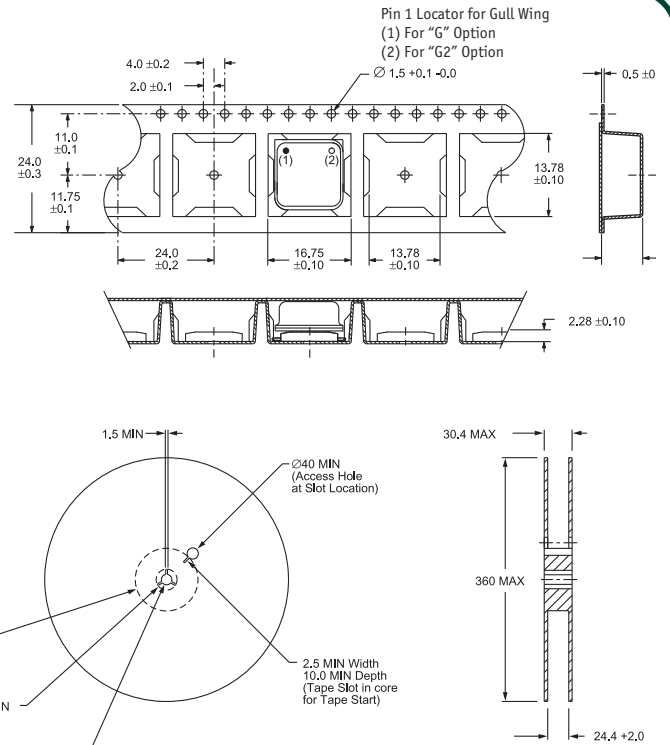
FREQUENCY

K=kHz, M=MHz

MECHANICAL DIMENSIONS ALL DIMENSIONS IN MILLIMETERS



TAPE AND REEL DIMENSIONS ALL DIMENSIONS IN MILLIMETERS



MARKING SPECIFICATIONS

Line 1: ECLIPTEK

Line 2: EC11 TS

Output Control Function
Blank = None (No Connection on Pin 1)
TS = Tri-State Enable High

Series Designator

Line 3: XX.XXX M

M=MHz, K=kHz

Frequency (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

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
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

700 Pieces Per Reel
Compliant to EIA-481A

MANUFACTURER	CATEGORY	SERIES	PACKAGE	VOLTAGE	CLASS	REV. DATE
ECLIPTEK CORP.	OSCILLATOR	EC11	8 pin DIP	5.0V	OS05	08/06