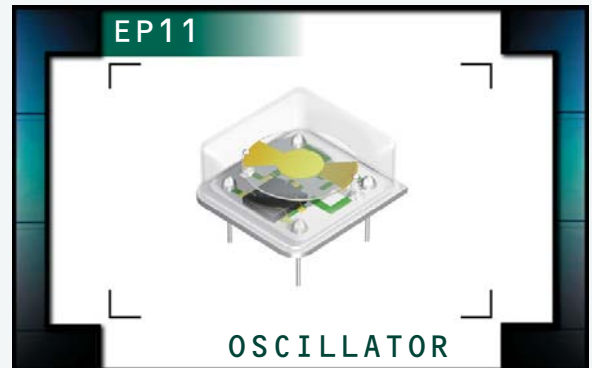


EP11 Series



- Programmable Crystal Oscillators
- HCMOS/TTL Output
- +5.0V Supply Voltage
- Tri-State and Power Down Options
- Custom Lead Length & Gull Wing Options
- 8 pin DIP Metal Package
- RoHS Compliant (Pb-free)



ELECTRICAL SPECIFICATIONS

Frequency Range		1.000MHz to 125.000MHz
Operating Temperature Range		-20°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		45mA Maximum (Unloaded)
Disable Current (TS Option)		30mA Maximum (Pin 1=Ground)
Standby Current (PD Option)		50µA Maximum (Pin 1=Ground)
Frequency Tolerance / Stability	Inclusive of all conditions: Calibration Tolerance at 25°C, Frequency Stability over the Operating Temperature Range, Supply Voltage Change, Output Load Change, First Year Aging at 25°C, Shock, and Vibration	±100ppm or ±50ppm Maximum
Output Voltage Logic High (V_{OH})	w/TTL Load w/CMOS Load	2.4V _{DC} Minimum I _{OH} =-16mA V _{DD} -0.4V _{DC} Minimum I _{OH} =-16mA
Output Voltage Logic Low (V_{OL})	w/TTL Load or w/HCMOS Load	0.4V _{DC} Maximum I _{OL} =+16mA
Rise Time / Fall Time	0.8V _{DC} to 2.0 V _{DC} w/TTL Load or 20% to 80% of Waveform w/CMOS Load	4 nSeconds Maximum
Duty Cycle	at 1.4V _{DC} w/TTL Load; at 50% of waveform w/CMOS Load at 1.4V _{DC} w/TTL Load (≤27.000MHz only), or 50% of waveform w/CMOS Load (≤50.000MHz only)	50 ±10(%) (Standard) 50 ±5(%) (Optional)
Load Drive Capability / Output Type-HCMOS	≤50.000MHz >50.000MHz	50pF CMOS Load Maximum 15pF CMOS Load Maximum
Load Drive Capability / Output Type-TTL	≤40.000MHz >40.000MHz	10TTL Load Maximum 5TTL Load Maximum
Output Control Function	TS PD	Tri-State Power Down
Output Control Function Input Voltage	V _{IH} : No Connection or ≥2.0V _{DC} V _{IL} : (TS Option) ≤0.8V _{DC} V _{IL} : (PD Option) ≤0.8V _{DC}	Enables Output Disables Output: High Impedence Disables Output: Logic Low
Aging (at 25°C)		±5ppm / year Maximum
Start Up Time		10 mSeconds Maximum
RMS Jitter	<12.000MHz ≥12.000MHz	50pSec Maximum, 13pSec Typical 13pSec Maximum, 8pSec Typical
Peak to Peak Jitter	<12.000MHz ≥12.000MHz	500pSec Maximum, 90pSec Typical 100pSec Maximum, 50pSec Typical

MANUFACTURER
ECLIPTEK CORP.

CATEGORY
OSCILLATOR

SERIES
EP11

PACKAGE
8 pin DIP

VOLTAGE
5.0V

CLASS
OS45

REV. DATE
08/05

PART NUMBERING GUIDE

EP11 00 HS ET TTS L - 24.000M - G TR

FREQUENCY TOLERANCE / STABILITY

00=±100ppm Maximum
45=±50ppm Maximum

PACKAGE

HS=Half Size 8 Pin DIP

OPERATING TEMP. RANGE

Blank=-20°C to 70°C, ET=-40°C to 85°C

DUTY CYCLE

Blank=50 ±10(%), T=50 ±5(%)

OUTPUT CONTROL FUNCTION

TS=Tri-State Enable High, PD=Power Down

PACKAGING OPTIONS

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

AVAILABLE OPTIONS

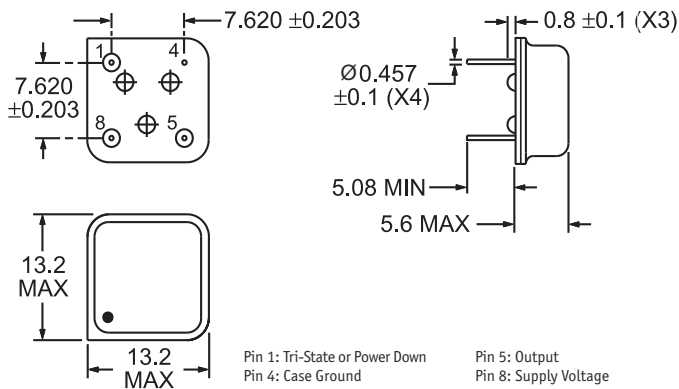
Blank=None
CLXXX=Custom Lead Length
G=Half Size Gull Wing
G2=Half Size Gull Wing

FREQUENCY

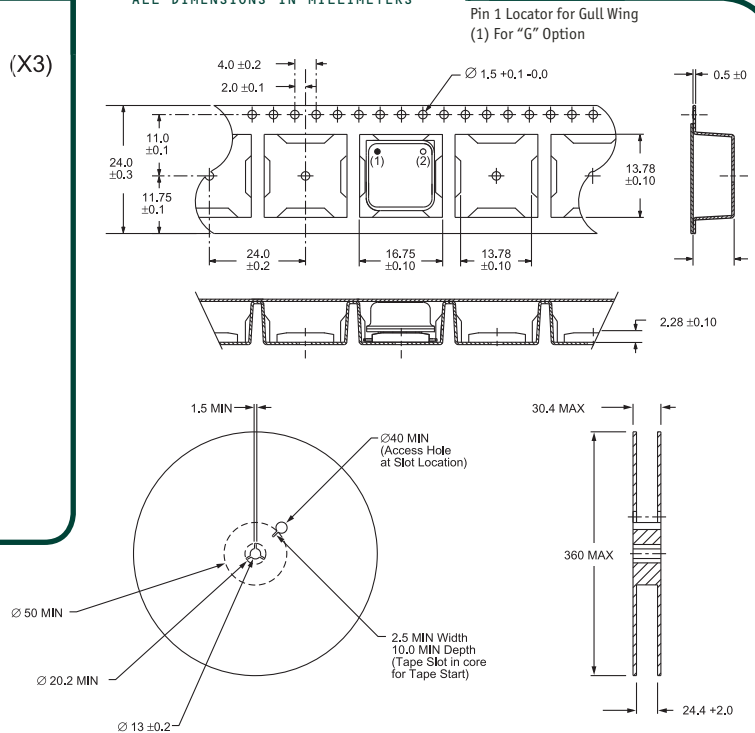
OUTPUT TYPE

L=TTL, C=CMOS

MECHANICAL DIMENSIONS ALL DIMENSIONS IN MILLIMETERS



TAPE AND REEL DIMENSIONS ALL DIMENSIONS IN MILLIMETERS



MARKING SPECIFICATIONS

Line 1: ECLIPTEK

Line 2: EP11 TS

Output Control Function

PD = Power Down

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

ENVIRONMENTAL/MECHANICAL SPECIFICATIONS

Characteristic

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

Specification

MIL-STD-883, Method 1014, Condition A
MIL-STD-883, Method 1014, Condition C
MIL-STD-202, Method 213, Condition C
MIL-STD-883, Method 2007, Condition A
MIL-STD-883, Method 2004
MIL-STD-883, Method 2002
MIL-STD-883, Method 1010
MIL-STD-883, Method 210
MIL-STD-883, Method 215

700 Pieces Per Reel
Compliant to EIA-481A

MANUFACTURER	CATEGORY	SERIES	PACKAGE	VOLTAGE	CLASS	REV. DATE
ECLIPTEK CORP.	OSCILLATOR	EP11	8 pin DIP	5.0V	OS45	08/05