

HCMOS/TTL OSCILLATOR

14 Pin and 8 Pin DIP *ECH11* Series 5.0V_{DC}



PART NUMBERING GUIDE

ECH11 00 HS ET T TS - 70.000M - G TR

FREQUENCY TOLERANCE / STABILITY

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

PACKAGE

Blank=Full Size 14 Pin DIP, HS=Half Size 8 Pin DIP

OPERATING TEMP. RANGE

Blank=0°C to 70°C (Standard), ET=-40°C to 85°C

DUTY CYCLE

Blank=50 ±10(%) (Standard), T=50 ±5(%)

PIN 1 CONNECTION

Blank=No Connection (Standard), TS=Tri-State Enable High

PACKAGING OPTIONS

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

AVAILABLE OPTIONS

Blank=None (Standard)
CLXXX=Custom Lead Length (pg. F1)
G=Full Size Gull Wing (pg. F2)
G=Half Size Gull Wing (pg. F2),
G2=Half Size Gull Wing (pg. F2)

FREQUENCY

ELECTRICAL SPECIFICATIONS

Marking Specifications See pg. G2, Group F

Frequency Range		70.000MHz to 155.520MHz
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%
Load Drive Capability		10TTL Load or 50pF HCMOS Load Maximum
Input Current		50mA Maximum
Frequency Tolerance / Stability	Inclusive of Operating Temperature Range, Supply Voltage, and Load	±100ppm, ±50ppm, ±25ppm, or ±20ppm Maximum (0°C to 70°C Only)
Output Voltage Logic High (V_{OH})	w/TTL Load	2.4V _{DC} Minimum
	w/HCMOS Load	V _{DD} - 0.5V _{DC} Minimum
Output Voltage Logic Low (V_{OL})	w/TTL Load	0.4V _{DC} Maximum
	w/HCMOS Load	0.5V _{DC} Maximum
Duty Cycle	at 1.4V _{DC} w/TTL Load; at 50% of Waveform w/HCMOS Load	50 ±10(%) (Standard)
	at 1.4V _{DC} w/TTL Load or w/15pF HCMOS Load	50 ±5(%) (Optional)
Rise Time / Fall Time	0.4V _{DC} to 2.4V _{DC} w/TTL Load; 20% to 80% of Waveform w/HCMOS Load	3 nSeconds Maximum
Pin 1 Tri-State Input Voltage	No Connection	Enables Output
	V _{IH}	+2.4V _{DC} Minimum to Enable Output
	V _{IL}	+0.8V _{DC} Maximum to Disable Output
Aging (at 25°C)		±5ppm / year Maximum
Start Up Time		10 mSeconds Maximum
Absolute Clock Jitter		±200pSeconds Maximum
One Sigma Clock Period Jitter		±50pSeconds Maximum

MECHANICAL DIMENSIONS

Environmental / Mechanical Specifications See pg. H1, Group C

<p>14 Pin FULL SIZE Dimensions in mm</p>		<p>8 Pin HALF SIZE Dimensions in mm</p>	
Pin 1: No Connect or Tri-State Pin 7: Case Ground	Pin 8: Output Pin 14: Supply Voltage	Pin 1: No Connect or Tri-State Pin 4: Case Ground	Pin 5: Output Pin 8: Supply Voltage

3545 Cadillac Avenue, Costa Mesa, CA., 92626-1401 • Phone: (714) 433-1200 • Fax: (714) 433-1234

Email: sales@ecliptek.com • Internet: <http://www.ecliptek.com>

Specifications subject to change without notice. • Contact factory for latest revision • 1/99 • (OS04)(OS05)