

# HCMOS/TTL OSCILLATOR

14 Pin DIP Tight Tolerance/Stability *EC16* Series 5.0V<sub>DC</sub>



PART NUMBERING GUIDE		TABLE 1: PART NUMBERING CODES						
<b>EC16 07 A I TS - 24.000M - CL125</b>		OPERATING TEMPERATURE		FREQUENCY STABILITY (X Denotes Availability)				
<b>FREQUENCY STABILITY</b> 2 Digit Code Per Table 1  <b>OPERATING TEMPERATURE RANGE</b> 1 Letter Code Per Table 1  <b>DUTY CYCLE</b> Blank=50 ±10% (Standard) T=50 ±5%	<b>AVAILABLE OPTIONS</b> Blank=None (Standard) CLXXX=Custom Lead Length (pg. F1) G=Full Size Gull Wing (pg. F2)  <b>FREQUENCY</b>	<b>PIN 1 CONNECTION</b> Blank=No Connection TS=Tri-State Enable High	Range	Code	07	10	15	20
					±7ppm	±10ppm	±15ppm	±20ppm
			0°C to 50°C	A	X	X	X	X
			-10°C to 60°C	B	X	X	X	X
			-20°C to 70°C	C		X	X	X
							X	

ELECTRICAL SPECIFICATIONS		Marking Specifications See pg. G2, Group F	
Frequency Range	1.000MHz to 46.000MHz		
Storage Temperature Range	-55°C to 125°C		
Supply Voltage (V <sub>DD</sub> )	5.0V <sub>DC</sub> ±10%		
Aging (at 25°C)	±1ppm / year Maximum		
Load Drive Capability	10TTL Load or 50pF HCMOS Load		
Start Up Time	10 mSeconds Maximum		
Operating Temperature Range	See Table 1 Above		
Input Current	1.000MHz to 20.000MHz	15mA Maximum	
	20.001MHz to 46.000MHz	40mA Maximum	
Frequency Tolerance / Stability	vs. Operating Temperature	See Table 1 Above	
	vs. Input Voltage (V <sub>DD</sub> ±5%)	±2.0ppm Maximum	
	vs. Load (±2pF ±1TTL)	±1.0ppm Maximum	
Output Voltage Logic High (V <sub>OH</sub> )	w/TTL Load	2.4V <sub>DC</sub> Minimum	I <sub>OH</sub> = -16mA
	w/HCMOS Load	V <sub>DD</sub> - 0.5V <sub>DC</sub> Minimum	I <sub>OH</sub> = -16mA
Output Voltage Logic Low (V <sub>OL</sub> )	w/TTL Load	0.4 V <sub>DC</sub> Maximum	I <sub>OL</sub> = +16mA
	w/HCMOS Load	0.5V <sub>DC</sub> Maximum	I <sub>OL</sub> = +16mA
Duty Cycle	at 50% of Waveform w/HCMOS Load or at 1.4V <sub>DC</sub> w/TTL Load	50 ±10% (Standard)	
	at 1.4V <sub>DC</sub> w/HCMOS Load or w/TTL Load	50 ±5% (Optional)	
Rise Time / Fall Time	10% to 90% of Waveform w/HCMOS Load or 0.4V <sub>DC</sub> to 2.4V <sub>DC</sub> w/TTL Load	6 nSeconds Maximum	
Pin 1 Tri-State Input Voltage	No Connection	Enables Output	
	V <sub>IH</sub>	+2.2V <sub>DC</sub> Minimum to Enable Output	
	V <sub>IL</sub>	+0.8V <sub>DC</sub> Maximum to Disable Output	
Absolute Clock Jitter	±100pSeconds Maximum		
One Sigma Clock Period Jitter	±25pSeconds Maximum		

MECHANICAL DIMENSIONS	Environmental / Mechanical Specifications See pg. H1, Group C	
	Pin 1: No Connect or Tri-State Pin 7: Case Ground	Pin 8: Output Pin 14: Supply Voltage
<p>Dimensions in mm</p>		