

PROGRAMMABLE OSCILLATOR

14 Pin and 8 Pin DIP *EP11* Series 5.0V_{DC}



PART NUMBERING GUIDE

EP11 00 HS ET T TS L- 24.000M - CL125 TR

FREQUENCY TOLERANCE / STABILITY

00=±100ppm Maximum (Standard)
45=±50ppm Maximum

PACKAGE

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

OPERATING TEMP. RANGE

Blank=-20°C to 70°C (Standard), ET=-40°C to 85°C

DUTY CYCLE

Blank=50 ±10% (Standard), T=50 ±5%

PIN 1 CONNECTION

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

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

OUTPUT TYPE

L=TTL, C=HCMOS

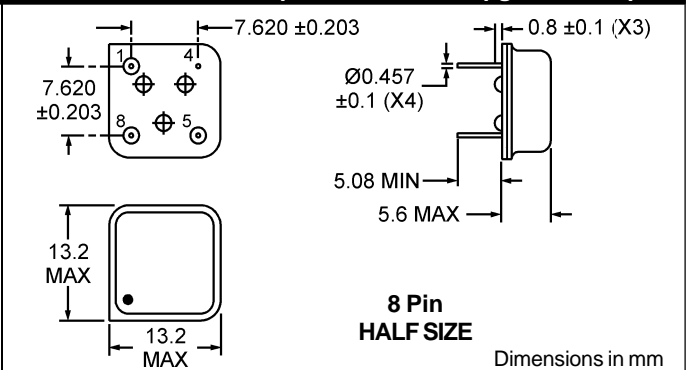
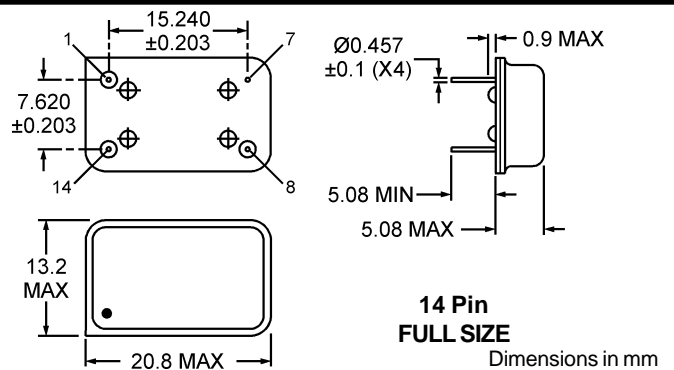
ELECTRICAL SPECIFICATIONS

Marking Specifications See pg. G2, Group F

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)	50uA Maximum (Pin 1=Ground)	
Frequency Tolerance / Stability	±100ppm or ±50ppm Maximum	
Output Voltage Logic High (V _{OH})	w/TTL Load	2.4V _{DC} Minimum I _{OH} =-16mA
	w/HCMOS Load	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	4 nSeconds Maximum
	20% to 80% of Waveform w/HCMOS Load	4 nSeconds 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 (≤ 27.000MHz only), or at 50% of waveform w/HCMOS Load (≤ 50.000MHz Only)	50 ±5% (Optional)
Load Drive Capability / Output Type-HCMOS	≤ 50.000MHz	50pF HCMOS Load Maximum
	>50.000MHz	15pF HCMOS Load Maximum
Load Drive Capability / Output Type-TTL	≤ 40.000MHz	10TTL Load Maximum
	>40.000MHz	5TTL Load Maximum
Pin 1 Connection	TS	Tri-State
	PD	Power Down
Pin 1 Input Voltage	V _{IH} : No Connection or ≥+2.0V _{DC}	Enables Output
	V _{IL} : (TS Option) ≤+0.8V _{DC}	Disables Output: High Impedence
	V _{IL} : (PD Option) ≤+0.8V _{DC}	Disables Output: Logic Low
Aging (at 25°C)	±5ppm / year Maximum	
Start Up Time	10 mSeconds Maximum	
Absolute Clock Period Jitter	≤ 33.000MHz	±250pSec Maximum, ±100pSec Typical
	>33.000MHz	±100pSec Maximum, ±50pSec Typical
One Sigma Clock Period Jitter	≤33.000MHz	±50pSeconds Maximum
	>33.000MHz	±30pSeconds Maximum

MECHANICAL DIMENSIONS

Environmental / Mechanical Specifications See pg. H1, Group C



Pin 1: Tri-State or Power Down
Pin 7: Case Ground

Pin 8: Output
Pin 14: Supply Voltage

Pin 1: Tri-State or Power Down
Pin 4: Case Ground

Pin 5: Output
Pin 8: Supply Voltage

E 3

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Specifications subject to change without notice. • Contact factory for latest revision • 1/99 (OS44)(OS45)