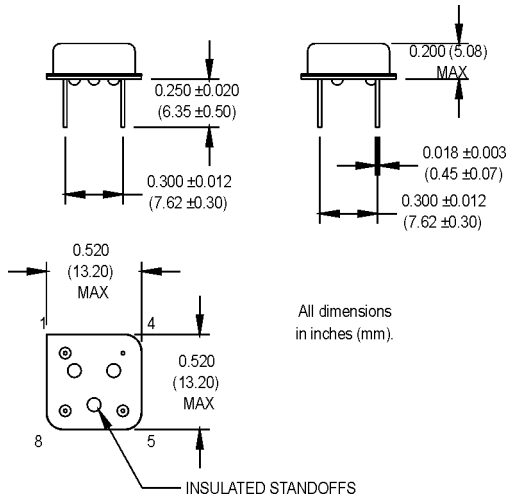


M3EH Series

8 pin DIP, 3.3 Volt, ECL/PECL, Clock Oscillator



All dimensions
in inches (mm).

Ordering Information

	M3EH	1	3	X	Q	D	-R	00.0000 MHz
Product Series								
Temperature Range								
1: 0°C to +70°C								
2: -40°C to +85°C								
5: -10°C to +85°C								
6: -20°C to +70°C								
7: 0°C to +85°C								
Stability								
1: ±1000 ppm								
2: ±500 ppm								
3: ±100 ppm								
4: ±50 ppm								
5: ±35 ppm								
6: ±25 ppm								
*8: ±20 ppm								
Output Type								
X: Single Output								
Z: Dual Output								
Symmetry/Logic Compatibility								
P: 45/55% PECL								
Q: 40/60% PECL								
Package/Lead Configurations								
A: DIP; Gold Flash Header								
D: DIP; Nickel Header								
G: Gull Wng; Nickel Header								
X: Gull Wing; Gold Flash Header								
RoHS Compliance								
Blank: non-RoHS compliant part								
-R: RoHS compliant part								
Frequency (customer specified)								

*Contact factory for availability.

Pin Connections

PIN	FUNCTION(S) (Model Dependent)
1	N/C, Output #2
4	-Vee, Ground
5	Output #1
8	+Vcc

Electrical Specifications	PARAMETER	Symbol	Min.	Typ.	Max.	Units	Condition
	Frequency Range	F	1.5		155.52	MHz	
	Frequency Stability	$\Delta F/F$	(See Ordering Information)				See Note 1
	Operating Temperature	T _A	(See Ordering Information)				
	Storage Temperature	T _S	-55		+125	°C	
	Input Voltage	V _{cc}	3.15	3.3	3.45	V	
	Input Current	I _{ee} /I _{cc}			100	mA	
	Symmetry (Duty Cycle)		(See Ordering Information)				V _{cc} -1.3 V level
	Load		50 Ω to V _{cc} -2V or Thevenin Equivalent				See Note 2
	Rise/Fall Time	T _r /T _f			2.5	ns	See Note 3
	Logic "1" Level	V _{oh}	V _{cc} -1.02			V	
	Logic "0" Level	V _{ol}			V _{cc} -1.63	V	
	Cycle to Cycle Jitter			13	25	ps RMS	1 Sigma
Environmental	Mechanical Shock	Per MIL-STD-202, Method 213, Condition C					
	Vibration	Per MIL-STD-202, Method 201 & 204					
	Wave Solder Conditions	260°C for 10 s max.					
	Hermeticity	Per MIL-STD-202, Method 112 (1 x 10 ⁻⁸ atm.cc/s of helium)					
	Solderability	Per EIAJ-STD-002					

1. Calibration, deviation over temperature, shock, vibration, and aging.

2. Internally terminated outputs. See load circuit diagram #5.

3. Rise/Fall times are measured between V_{cc} -1.02 V and V_{cc} -1.63 V.

MtronPTI reserves the right to make changes to the product(s) and service(s) described herein without notice. No liability is assumed as a result of their use or application.

Please see www.mtronpti.com for our complete offering and detailed datasheets. Contact us for your application specific requirements: MtronPTI 1-800-762-8800.