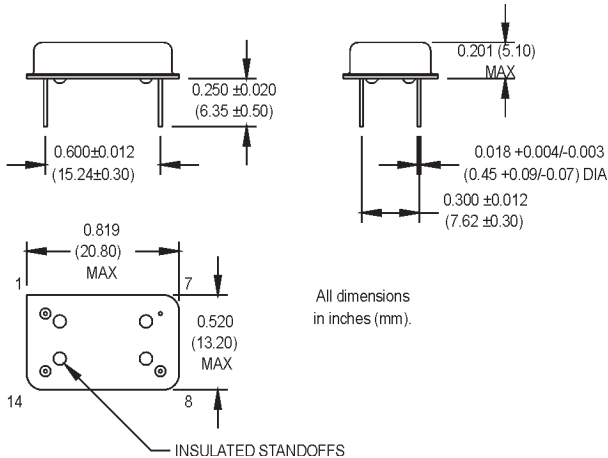


# ME Series

## 14 pin DIP, 5.0 Volt, ECL, PECL, Clock Oscillator



### ME Series ECL/PECL Clock Oscillators, 10 KH Compatible with Optional Complementary Outputs



### Pin Connections

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

### Ordering Information

ME	1	3	X	A	D	-R	00.0000	MHz
<b>Product Series</b>								
<b>Temperature Range</b>								
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
<b>Stability</b>								
1: ±1000 ppm		2: ±500 ppm		3: ±100 ppm		4: ±50 ppm		6: ±25 ppm
								*8: ±20 ppm
<b>Output Type</b>								
X: Single Output			Z: Dual Output					
<b>Symmetry/Logic Compatibility</b>								
A: 40/60 (std.)			B: 45/55					
<b>Package/Lead Configurations</b>								
A: DIP; Gold Flash Header			D: DIP; Nickel Header			G: Gull Wng; Nickel Header		
						X: Gull Wing; Gold Flash Header		
<b>RoHS Compliance</b>								
Blank: non-RoHS compliant part								
-R: RoHS compliant part								
<b>Frequency (customer specified)</b>								

\*Contact factory for availability.

	PARAMETER	Symbol	Min.	Typ.	Max.	Units	Condition	
Electrical Specifications	Frequency Range	F	19.44		155.52	MHz		
	Frequency Stability	$\Delta F/F$	(See Ordering Information)					
	Operating Temperature	T <sub>A</sub>	(See Ordering Information)					
	Storage Temperature	T <sub>S</sub>	-55		+125	°C		
	Input Voltage	V <sub>cc</sub>	4.75	5.0	5.25	V		
	Input Current	I <sub>ee</sub> /I <sub>cc</sub>		35	60	mA		
	Symmetry (Duty Cycle)		(See Ordering Information)					V <sub>cc</sub> -1.3 V level
	Load		130 Ω to V <sub>cc</sub> -2V or Thevenin Equivalent					See Note 1
	Rise/Fall Time	T <sub>r</sub> /T <sub>f</sub>			2.5	ns	See Note 2	
	Logic "1" Level	V <sub>oh</sub>	V <sub>cc</sub> -0.98			V		
	Logic "0" Level	V <sub>ol</sub>			V <sub>cc</sub> -1.63	V		
	Cycle to Cycle Jitter			11	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 secs. Max.						
	Hermeticity	Per MIL-STD-202, Method 112 (1 x 10 <sup>-8</sup> atm.cc/s of helium)						
	Solderability	Per EIAJ-STD-002						

- Internally terminated outputs. See load circuit diagram #4.
- Rise/Fall times are measured between V<sub>cc</sub> -0.98 V and V<sub>cc</sub> -1.63 V.

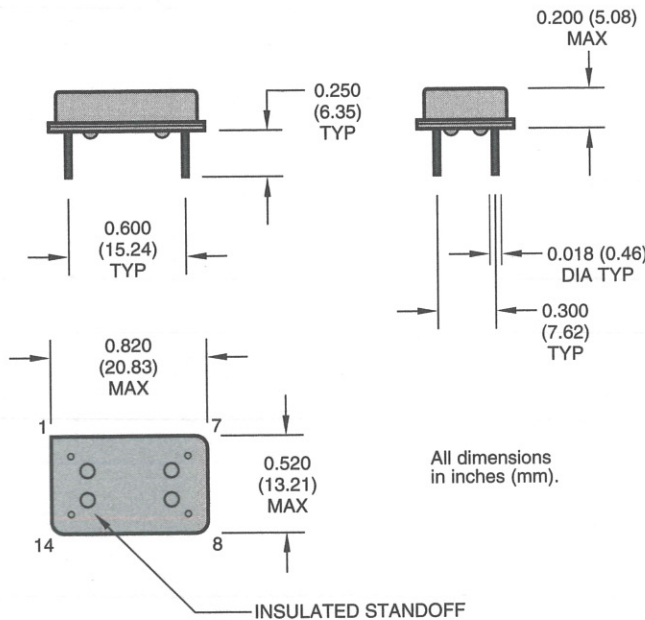
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# ME Series ECL Oscillators



## ME Series ECL Clock Oscillators, 10KH Compatible with Optional Complementary Outputs



### Pin Connections

Pin	Function(s) (Model Dependent)
1	N/C Output #2, E/D, GRD
7	-V <sub>EE</sub> or +V <sub>CC</sub> , GRD
8	Output #1
14	+V <sub>CC</sub> or -V <sub>EE</sub> , GRD

<b>Part Marking and Numbering</b>	ME 1 3 W A D 00.0000 MHz
<b>Product Series</b>	ME
<b>Temperature Range</b>	1: 0°C to +70°C 2: -40°C to +85°C 7: 0°C to +85°C
<b>Stability</b>	1: ±1000 ppm 2: ±500 ppm 3: ±100 ppm 4: ±50 ppm
<b>Output Type</b>	See additional information (Table 1)
<b>Symmetry/Logic Compatibility</b>	A: 40/60 (std.) B: 45/55
<b>Package/Lead Configurations</b>	A: DIP; Gold Flash Header D: DIP; Nickel Header G: Gull Wing; Nickel Header X: Gull Wing; Gold Flash Header
<b>Frequency (customer specified)</b>	

### ME ECL Output Type

Table 1

Pin Functions:	A	B	C	H	J	K	L	M	N	R	W	X	Y	Z
Single Output Pin 8	■													
Dual Output Pin 1 & 8		■												
Enable/Disable Pin 1			■											
Pin 7 Case Grd				■	■									
Pin 14 Case Grd											■	■		
No Pin Case Grd	■	■												
Pin 7 + V <sub>CC</sub>						■	■							
Pin 7 - V <sub>EE</sub>	■	■										■	■	
Pin 14 + V <sub>CC</sub>	■	■												■
Pin 14 - V <sub>EE</sub>					■	■								

### Electrical Specifications

(Standard Operating Conditions 0°C to +70°C; V<sub>CC</sub> = 5.0 ±5% V DC)

PARAMETERS	MIN.	TYP.	MAX.	UNITS
Frequency Range	8.000		250.000	MHz
Output Load *				
Symmetry	40/60		60/40	%
Logic "0" Level			V <sub>CC</sub> -1.63	V
Logic "1" Level	V <sub>CC</sub> -0.98			V
Rise/Fall Time			2.5	ns
Supply Current		35	60	mA

\*Internally terminated outputs. See load circuit #4 on page 63.

### \*Available Stabilities vs Temperature

T	S	1	2	3	4
1	A	A	S	A	
2	A	A	A	A	
7	A	A	A	A	

A = AVAILABLE S = STANDARD  
\*Contact factory for other temperature and stability combinations.

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