

# Specify AEL VCXO



Quartz Crystal Oscillators

## FEATURES

- Wide Frequency Range
- Fast Turnaround Options
- 3.0V and 5.0V Devices
- Wide Pull Ranges

## APPLICATIONS

- IT Applications
- Datacommunications
- Telecommunications
- Automotive Electronics

## GENERAL SPECIFICATION

Parameter	3.3V Type	5.0V Type	Comments
Input Voltage (Vdd)	+3.3V	+5.0V	+5%
Frequency Range	500KHz to 125MHz		Package Dependant
Frequency Stability	+- 10ppm (Option Code A)		
	+- 25ppm (Option Code B)		
	+- 50ppm (Option Code C)		
	+- 100ppm (Option Code D)		
Vs Aging	+5ppm per year max		
Operating Temp	0 to +70 Deg C (Option Code E)		
	-40 to +85 Deg C (Option Code F)		
Storage Temp	-40 to +85 Deg C		
Linearity	10% max		6% Typical
Control Voltage	+1.65V +-1.35V	+2.5V +2.0V	
Pull Range	+30ppm to +-150ppm	+80ppm to +-200ppm	
Slope Polarity	Positive or Negative	Positive or Negative	Positive Std
Current Consumption	5 ~ 45mA max.		Frequency Dependant
Start-up Time	10mS max		5mS Typical
Modulation Bandwidth	10KHz min		
Input Impedance	50K Ohms @ 10KHz min		
<b>TTL Square Wave</b>			
Output Voltage Level			
High '1'	2.4V min		
Low '0'	0.4V max		
Rise & Fall Time	10nS max (measured between 0.4V and 2.4V)		3nS Typical
Duty Cycle	40% min , 60% max (measured at 1.4V)		
Output Load	5 ~ 10 TTL gates		
<b>CMOS Square Wave</b>			
Output Voltage Level			
High '1'	2.97V min	Vcc -0.5V min	
Low '0'	0.33V max	0.5V max	



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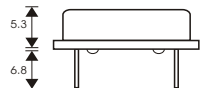
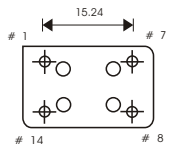
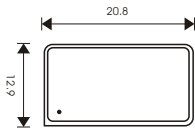
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# Specify AEL VCXO



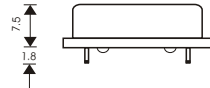
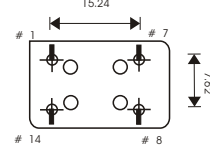
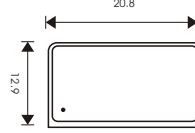
Quartz Crystal Oscillators

## Packages Available



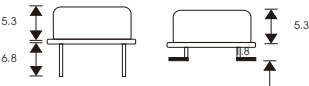
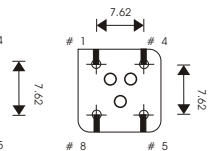
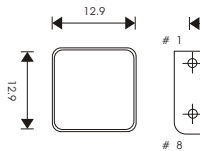
PIN CONNECTIONS	
PIN # 1	Voltage Control
# 7	Ground
# 8	Output
# 14	Supply Voltage

**DRAWING A**



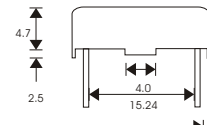
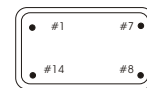
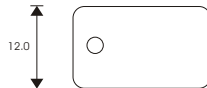
PIN CONNECTIONS	
PIN # 1	Voltage Control
# 7	Ground
# 8	Output
# 14	Supply Voltage

**DRAWING B**



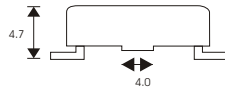
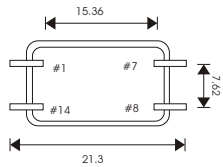
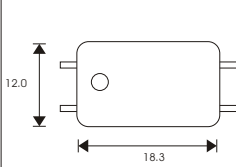
PIN CONNECTIONS	
PIN # 1	Voltage Control
# 4	Ground
# 5	Output
# 8	Supply Voltage

**DRAWING C (D With Gullwing Lead)**



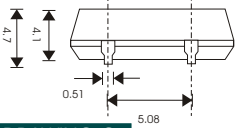
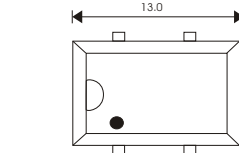
PIN CONNECTIONS	
PIN # 1	Voltage Control
# 7	Ground
# 8	Output
# 14	Supply Voltage

**DRAWING E**



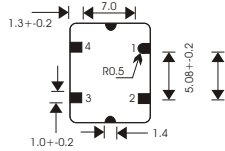
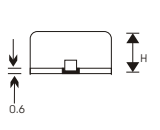
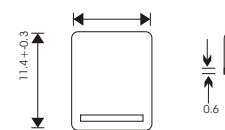
PIN CONNECTIONS	
PIN # 1	Voltage Control
# 7	Ground
# 8	Output
# 14	Supply Voltage

**DRAWING F**

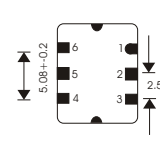


PIN CONNECTIONS	
PIN # 1	Voltage Control
# 7	Ground
# 8	Output
# 14	Supply Voltage

**DRAWING G**



4 Pad Version



6 Pad Version

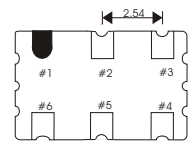
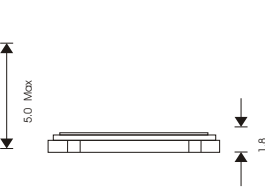
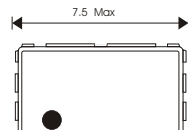
PIN CONNECTIONS (4 Pad)	
PIN # 1	Voltage Control
# 2	Ground
# 3	Output
# 4	Supply Voltage

H 1.85mm, 2.5mm and 4.7mm Available

PIN CONNECTIONS (6 Pad)	
PIN # 1	Voltage Control
# 2	Tri State
# 3	Output
# 4	Ground
# 5	No Connection
# 6	Supply Voltage

H 2.5mm and 4.7mm Available

**DRAWING H**



PIN CONNECTIONS	
PIN # 1	Voltage Control
# 2	Tri State
# 3	Ground
# 4	Output
# 5	No Connection
# 6	Supply Voltage

**DRAWING I**



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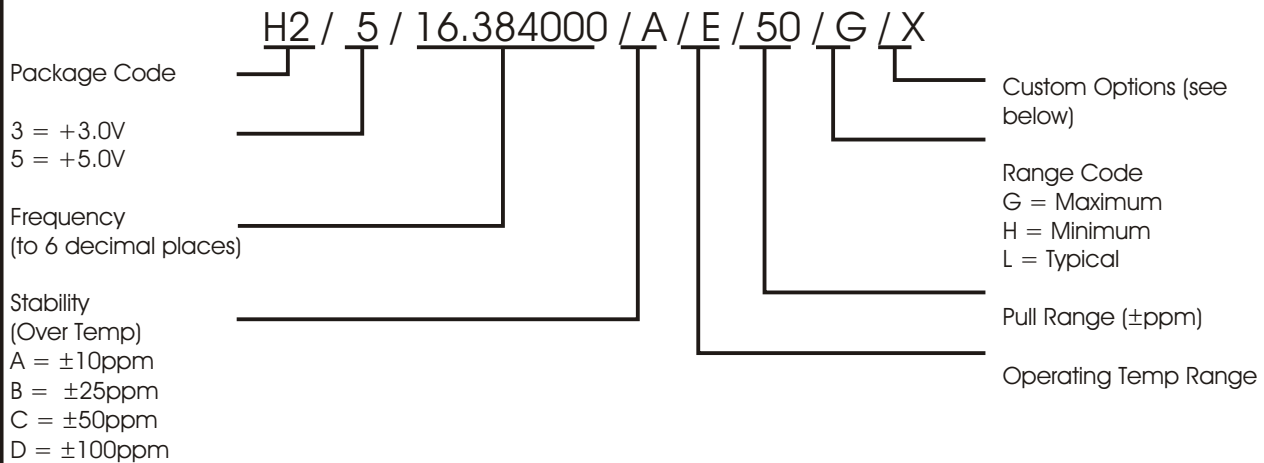


Quartz Crystal Oscillators

## PACKAGE CODES

Package Code	Drawing	Description
A1	A	14 Pin DIL Hermetically Sealed
B1	B	14 Pin SMD Gullwing - DIL Hermetically Sealed
C1	C	8-Pin DIL Hermetically Sealed
D1	D	8-Pin DIL Gullwing Hermetically Sealed
E1	E	14-Pin DIL Low Cost 4.7mm High
F1	F	14-Pin DIL Gullwing Low Cost 4.7mm High
G1	G	Plastic Moulded SMD
H1	H	9mm x 11mm SMD - 2.5mm High - 6 Pad
H2	H	9mm x 11mm SMD - 4.7mm High - 6 Pad
H3	H	9mm x 11mm SMD - 1.85mm High - 4 Pad
H4	H	9mm x 11mm SMD - 2.5mm High - 4 Pad
H5	H	9mm x 11mm SMD - 4.7mm High - 4 Pad
I1	I	7.5mm x 5mm SMD -1.8mm High - 6 Pad

## ORDERING CODE



## CUSTOM OPTIONS AVAILABLE

- |   |   |
|---|---|
| A - Tape and reeled                                 | E - Negative Slope Polarity (Inc Vc = dec Fo) |
| B - Customer Specified Adjustment Tolerance         | F - Customer Specified Power Consumption      |
| C - Tri State option                                | G - Specified Phase noise requirements        |
| D - Customer Specified Stability / Temp Combination | H - Custom Marking                            |



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