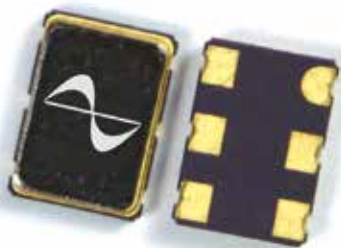


VC07-Series Specifications

7.00L x 5.00W x 1.80H (mm)



PDI VC07-Series Voltage Controlled Crystal Oscillator (VCXO) ensure a precise frequency under demanding circumstances. With ultra-low phase noise, low jitter, and excellent performance in high vibration environments, this VCXO is offered in both standard and custom frequencies. PDI provides quick-turn sampling for your proto-typing needs, mass production capability, and competitive pricing.

ex) **VC-0-7-25000X-C-B-B-3-R-X***

ENABLE

T = Tri-State
(6-Pad Only)
O = No/Connect
(4-Pad Only)

FREQUENCY

00750X-99999X =
0.7500 MHz –
99.000 MHz
C10000-C16000 =
100.00 MHz –
160.00 MHz

OUTPUT

C = TTL/CMOS
O = LVCMOS

FREQUENCY STABILITY

B = ±25
C = ±50
D = ±100
S = Special

OPERATING TEMPERATURE

A = 0 to +70°C
B = -20 to +70°C
D = -40 to +85°C
S = Special

SUPPLY VOLTAGE

3 = 3.3
5 = 5.0

PACKAGE

R = Tape & Reel

* - for standard or assigned for customization.

| Parameter | | Supply Voltage*1 (±10%) | | Units |
|---------------------------------------|-------------------------------------|------------------------------|-----|--------|
| | | 5.0 | 3.3 | V |
| Frequency Range*1 | | 0.750000-160.000000 | | MHz |
| Frequency Stability*1 | All Causes (Maximum)*2 | Per Option | | ppm |
| Frequency Adjustment | Control Voltage Range | 10 to 90 | | %Vcc |
| | Absolute Pull Range (APR) (Minimum) | ±50 | | ppm |
| | Linearity (Maximum) | 10 | | % |
| | Input Impedance (Minimum) | 50K | | Ω |
| | Modulation Bandwidth (Minimum) | 10 | | KHz |
| Temperature Range*1 | Operating | Per Option | | °C |
| | Storage | -55 to +125 | | |
| Supply Current (Maximum) | 0.750000 to 29.999999 MHz | 25 | 20 | mA |
| | 30.000000 to 69.999999 MHz | 30 | 25 | |
| | 70.000000 to 160.000000 MHz | 60 | 50 | |
| Output | | Per Option | | |
| Load | | 15pF/10 TTL gates | | |
| Duty Cycle (at 50% Vcc) | | 40 to 60% (45 to 55% option) | | |
| Rise/Fall Times (Maximum) | Rise Time (10% to 90% Vcc) | 5.0 | | ns |
| | Fall Time (90% to 10% Vcc) | 5.0 | | |
| Start up Time (Maximum) | | 10 | | ms |
| Output Voltage Levels | High (Minimum) | 90 | | % Vcc |
| | Low (Maximum) | 10 | | |
| Pin 2 (Tri-State) (6-Pad Option Only) | Enable (High Voltage) (Minimum) | 70 | | % Vcc |
| | Disable (Low Voltage) (Maximum) | 30 | | % Vcc |
| Phase Noise (Typical For 38.4 MHz) | @ 100Hz Offset | -110 | | dBc/Hz |
| | @ 1KHz Offset | -130 | | |
| | @ 10KHz Offset | -140 | | |

*1 - Not all Frequency/Temperature/Voltage combinations are available.

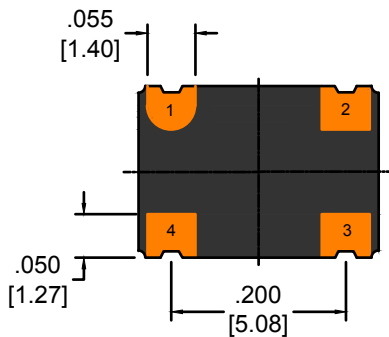
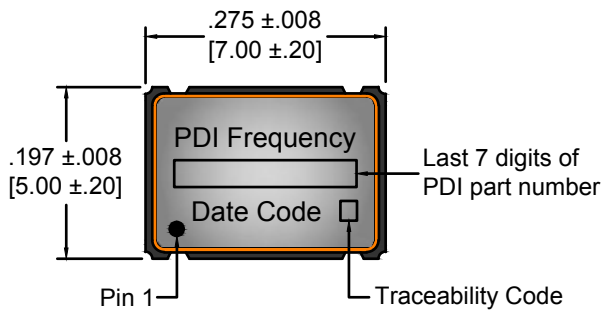
*2 - Inclusive of Tolerance @25°C, Operating Temperature, Supply Voltage, Load, Aging, Shock and Vibration.

VC07-Series 7.00 x 5.00 x 1.80 (mm)

PACKAGE DIMENSIONS

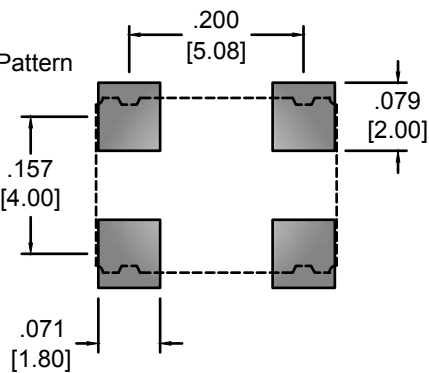
Decimal XXX = $\pm .008$, XX = $\pm .02$ Metric [XXX = $\pm .20$], [XX = $\pm .50$]

4-Pad Option
(No Connect)

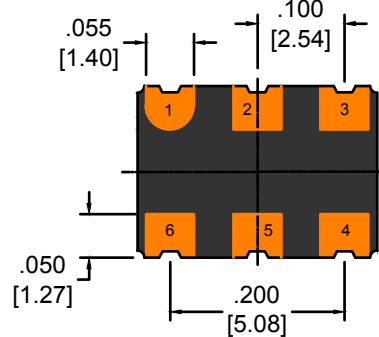
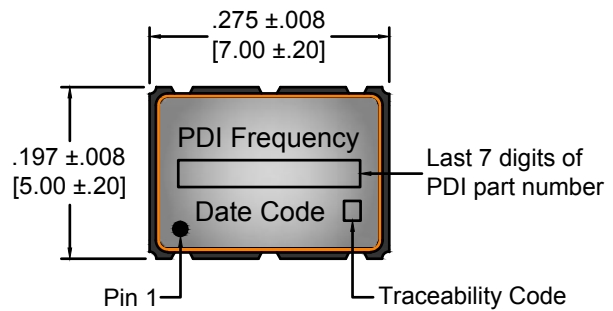


Recommended Land Pattern
(Top View)

| PIN | CONNECTION |
|-----|-----------------|
| 1 | Voltage Control |
| 2 | Ground/Case |
| 3 | Output |
| 4 | Supply Voltage |

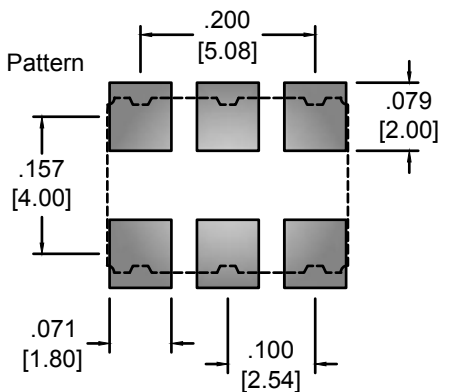


6-Pad Option
(Tri-State)



Recommended Land Pattern
(Top View)

| PIN | CONNECTION |
|-----|-----------------|
| 1 | Voltage Control |
| 2 | Tri-state |
| 3 | Ground/Case |
| 4 | Output |
| 5 | No Connect |
| 6 | Supply Voltage |



NOTES:

Terminals are Au.

Other options are available, please consult factory.

All product is supplied RoHS and REACH compliant.

Product can be supplied on Tape and Reel, on reels of 1,000 units.

Specifications subject to change without notice, last updated 4/1/13.

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