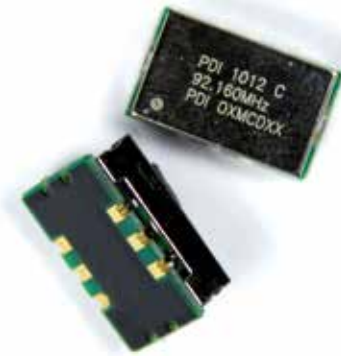


# VC40-Series Specifications



**14.00L x 9.10W x 4.70H (mm)**

PDI VC40-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) **V40-T-25000X-P-B-B-3-R-X\***

**ENABLE**

**T** = Tri-State  
(6-Pad & Higher)  
**0** = No/Connect

**FREQUENCY**

**00500X-99999X** =  
0.500 MHz –  
99.000 MHz  
**C10000-C16000** =  
100.000 MHz –  
160.000 MHz

**OUTPUT**

**M** = LVDS  
**P** = LVPECL

**FREQUENCY STABILITY**

**B** = +/-25  
(Temp A & B)  
**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

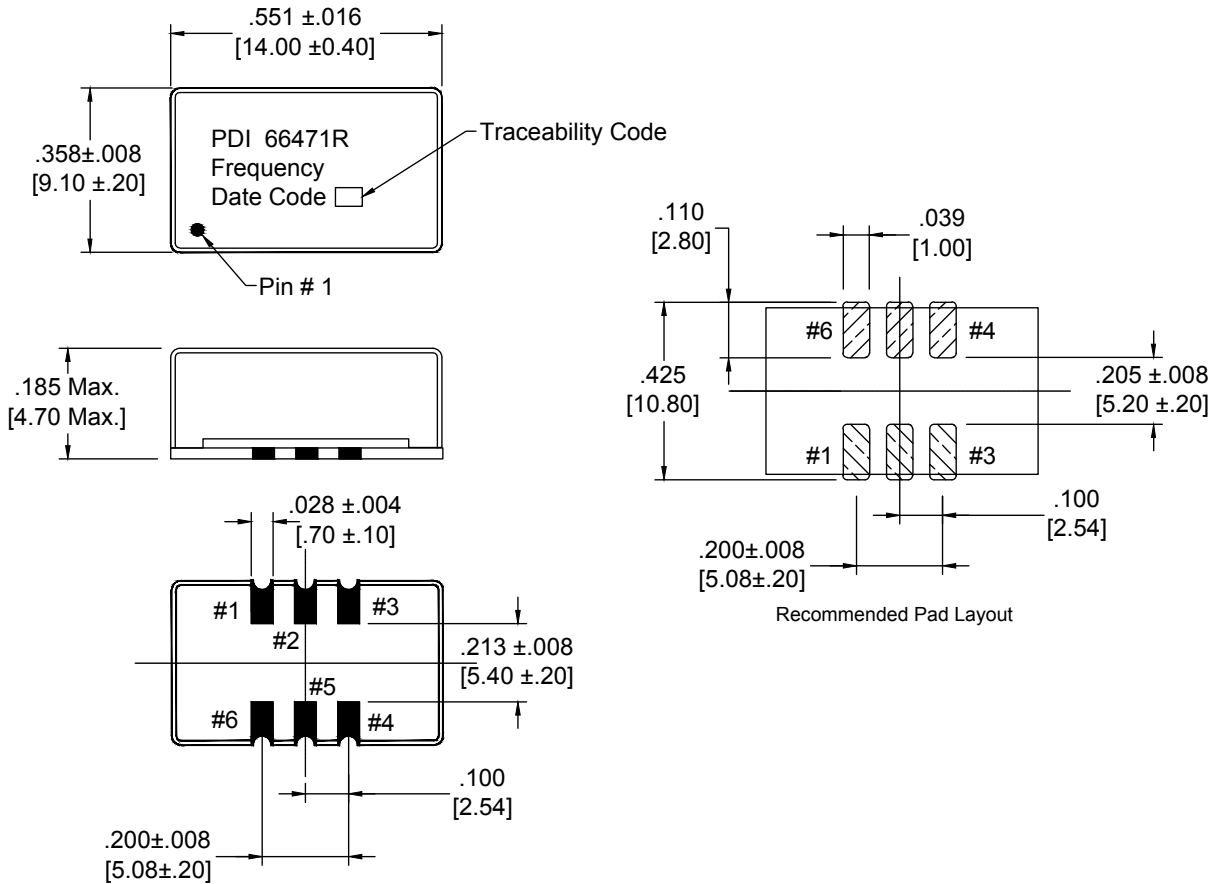
\*(X) for standard or assigned for customization.

Parameter	Frequency Range*1			Units	
	0.5000 to 30.0000	30.0001 to 70.0000	70.0001 to 160.0000	MHz	
Frequency Stability*1	Temp Range A and B			±25	ppm
	All Temp Ranges			±50	
Frequency Adjustment	Voltage Control Range			10 to 90	%Vcc
	Tuning Sensitivity			80 ±20	ppm/V
	Slope			Monotonic and Positive*2	
	Linearity (Max.)			10	%
	Input Impedance (Min.)			50k	Ohm
	Modulation Bandwidth (Min.)			25	kHz
Temperature Range*1	Operating			Per Option	
	Storage			-55 to +125	
Supply Voltage*1	Vcc			Per Option	
Supply Current	3.3V	20	25	40	mA
	5.0V	25	30	45	
Load (Max.)	3.3V	15			pF
	5.0V	25			
Rise/Fall Times (Max.)	3.3V	10	5		ns
	5.0V				
Logic "1" (Min.)	TTL/CMOS	2.4			Vdc
	HCMOS	90			%Vcc
Logic "0" (Max.)	TTL/CMOS	0.4			Vdc
	HCMOS	10			%Vcc
Tri-State	High (≥ 70% Vcc) or Open	Enable			
	High (≤ 30% Vcc)	Disable			
Typical Phase Noise	At 10 Hz	-78	-63	-48	dBc/Hz
	At 100 Hz	-103	-88	-73	
	At 1 kHz	-136	-121	-106	
	At 10 kHz	-143	-133	-127	
	At 100 kHz	-146	-143	-140	

# VC40-Series 14.00 x 9.10 x 4.70 (mm)

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PIN	CONNECTION
1	Voltage Control
2	E/D or NC
3	Ground/Case
4	Output
5	Complimentary Output
4	Supply Voltage



\*1 Not all Frequency/Temperature/Voltage combinations are available.  
 \*2 Increasing control voltage increases output frequency.

**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.  
 Not all Frequency/Temperature combinations are available.  
 Decimal XXX = ± .008, XX = ± .020 Metric [XXX = ± .20], [XX = ± .50]  
 Specifications subject to change without notice, last updated 4/1/13.

