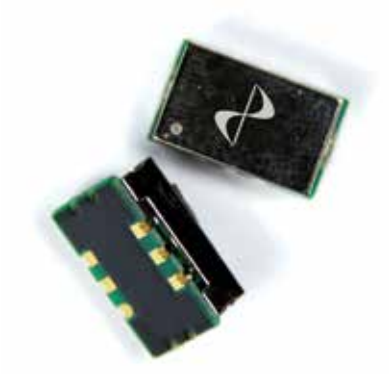
VC40-Series Specifications



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—50000X—C—B—B—3—R—X***

ENABLE
T = Tri-State
0 = No/Connect

FREQUENCY
40000X-99999X = 40.000 MHz – 99.000 MHz
C10000-C80000 = 100.00 MHz – 800.00 MHz

OUTPUT
M = LVDS
P = LVPECL

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

PACKAGE
R = Tape & Reel

* - for standard or assigned for customization.

Parameter		LVDS	LVPECL	Units
Frequency Range*1		40.000000-800.000000		MHz
Frequency Stability*1	All Causes (Max)*2	Per Option		ppm
Frequency Adjustment	Control Voltage Range	10 to 90		%Vcc
	Absolute Pull Range (APR) (Min)	±50		ppm
	Linearity (Max)	10		%
	Input Impedance (Min)	50K		Ω
	Modulation Bandwidth (Min)	10		KHz
Temperature Range*1	Operating	Per Option		°C
	Storage	-55 to +125		
Supply Current (Max)	No Load	40	65	mA
Load		100Ω Between Outputs	50Ω Into Vcc-2V	
Duty Cycle	@ 50% Level	40 to 60% (45 to 55% option)		
Rise/Fall Times (Max)	Rise Time (20% to 80% Vcc)	0.4	0.5	nS
	Fall Time (80% to 20% Vcc)	0.4	0.5	
Start up Time (Max)		10		mS
Output Voltage Levels	High	1.43 Typ , 1.60 Max	Vcc-1.025 Min, Vcc-0.95 Typ Vcc-0.88 Max	V
	Low	0.90 Min , 1.10 Typ	Vcc-1.81 Min, Vcc-1.70 Typ Vcc-1.62 Max	
Differential Voltage		250 Min, 350 Typ, 450 Max	595 Min, 750 Typ, 930 Max	mV
Pin 2 (Tri-State)	Enable (High Voltage) (Min)	70		% Vcc
	Disable (Low Voltage) (Max)	30		% Vcc
Integrated Phase Jitter	12KHz to 20MHz	0.3 Typical , 1.0 Maximum	0.2 Typical , 1.0 Maximum	pS
Phase Noise (Typical For 155.52 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.

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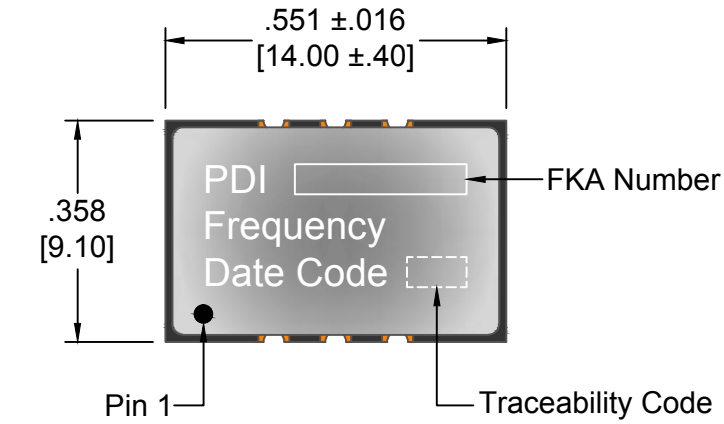
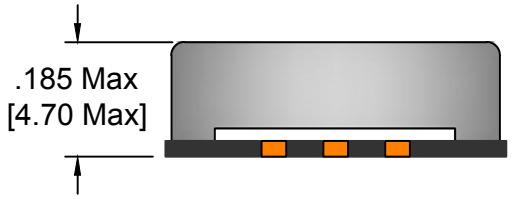
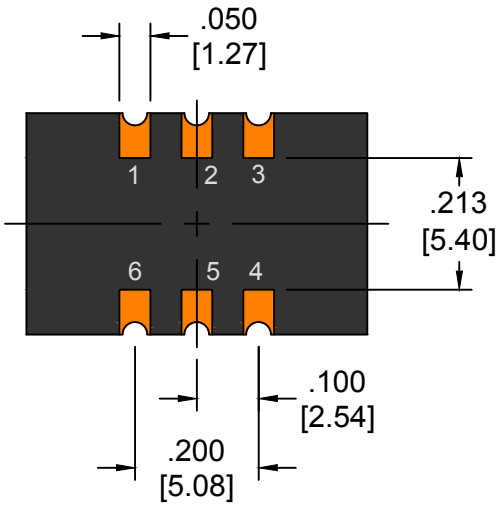
PACKAGE DIMENSIONS

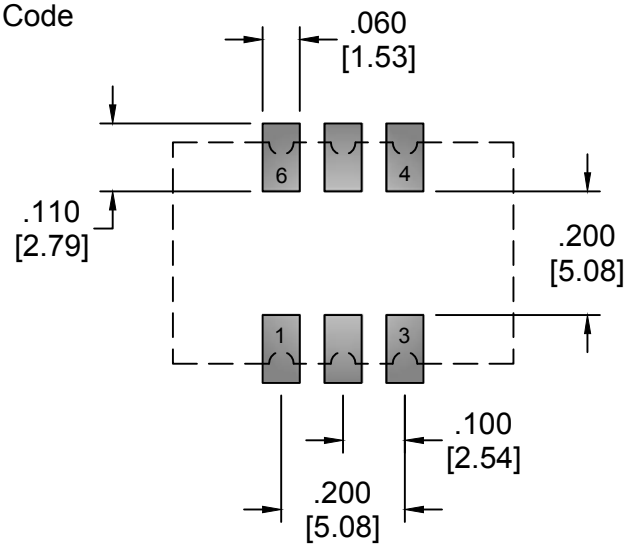
Decimal XXX = ± .008, XX = ± .02 Metric [XXX = ± .20], [XX = ± .50]

PIN	CONNECTION
1	Voltage Control
2	Tri-State or NC
3	Ground/Case
4	Output
5	Complementary Output
6	Supply Voltage









Recommended Pad Layout
(Top View)

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.

1. Material: Black Conductive Polystyrene or equivalent.
2. 10 Sprocket Hole pitch cumulative tolerance of ±.008.
3. Camber in compliance with EIA 481.
4. Empty pockets: Trailing end (Minimum) 200 mm. and Leading end (Minimum) 400 mm.
5. Pocket position relative to sprocket hole measured as true position of pocket, not pocket hole.