

VN04-Series Specifications



20.60L x 13.00W x 8.00H (mm)

PDI *VN04-Series* Oven Controlled Crystal Oscillators (OCXO) ensures precise frequency under the most demanding circumstances. With ultra-low phase noise, excellent performance in high vibration environments, and double-hermetically sealed quartz crystal, this OCXO can also be made available in custom frequencies. PDI provides fast sampling for your proto-typing needs, mass production capability, and competitive pricing.

ex) **VN04—12000X—C—R—D—5—XX***

FREQUENCY
10000X – 20000X =
 10.000MHz – 20.000MHz

OUTPUT
C = TTL/CMOS
O = LVCMOS
W = Sinewave

FREQUENCY STABILITY
O = +/-5 PPB
P = +/-10 PPB
Q = +/-20 PPB
R = +/-50 PPB
T = +/-100 PPB
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
12 = 12.0
15 = 15.0
28 = 28.0

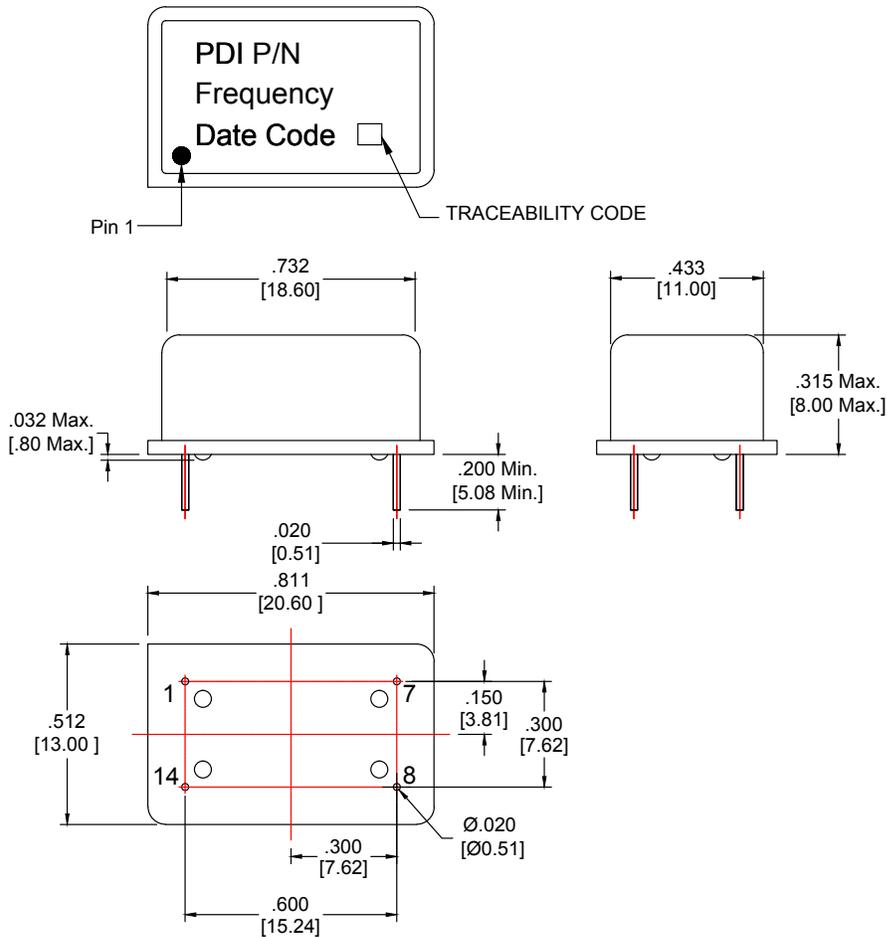
*(XX) for standard or assigned for customization.

Parameter		Supply Voltage Range (±5%)	Units
		3.3 to 28.0	V
Frequency Range		10.000000 to 20.000000	MHz
Frequency Stability	vs Temperature (Max.)	±5.0 to ±100	ppb
	vs Supply Voltage (Max. for a 5% change)	±2.0	
	vs Load (Max. for a 10% charge)	±2.0	
	vs Aging (Max. per year)	±200	
	Calibration (@ +25°C) 3 Minutes After Switch On (Max.)	±100	
Temperature Range	Operating	Per Option	°C
	Storage	-55 to +85	
Frequency Adjustment	Frequency Tuning (Min.)	±500	ppb
	Voltage Control Range	0.0 to Vcc	V
	Slope	Monotonic and Positive	
	Linearity (Max.)	10	%
Supply Power	During 3 Minutes After Switch On (Max.)	5	W
	Steady State @ 25°C (Max.)	1.5	W
Output	TTL/CMOS or LVCMOS	3.3 to 5.0	V
	Sinewave	0.0 to 6.0	dBm
Load (±10%)	TTL/CMOS or LVCMOS	15	pF
	Sinewave	50	Ω
Phase Noise (Typical)	@ 1 Hz	-90	dBc/Hz
	@ 10 Hz	-120	
	@ 100 Hz	-140	
	@ 1 kHz	-150	
	@ 10 kHz	-150	

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PIN	CONNECTION
1	EFC or No Connect
7	Ground/Case
8	Output
14	Supply Voltage



NOTES:
 All product supplied in anti-static packaging.
 All product is supplied *RoHS* and *REACH* compliant.
 All tests are performed in Still Air test conditions, unless otherwise stated.
 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.