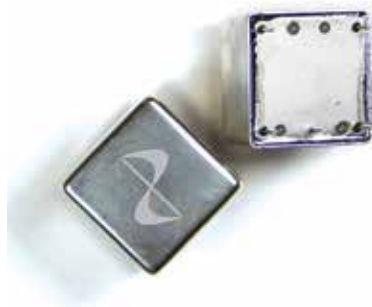


# VN03-Series Specifications



**25.80L x 25.80W x 16.81H (mm)**

**1.425L x 1.070W x 0.662H (in)**

PDI VN03-Series Oven Controlled Crystal Oscillators (OCXO) ensures precise frequency under the most demanding circumstances. With low phase noise, 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) **VN03—12000X—C—R—D—5—XX\***

## FREQUENCY

**10000X – 50000X =**  
10.000MHz – 50.000MHz

## 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  
**F** = -20 to +90°C  
**D** = -40 to +85°C  
**G** = -40 to +90°C  
**S** = Special

## SUPPLY VOLTAGE

**5** = 5.0  
**12** = 12.0  
**15** = 15.0  
**28** = 28.0

\*\* - Only available with A and B Operating Temperature Options.

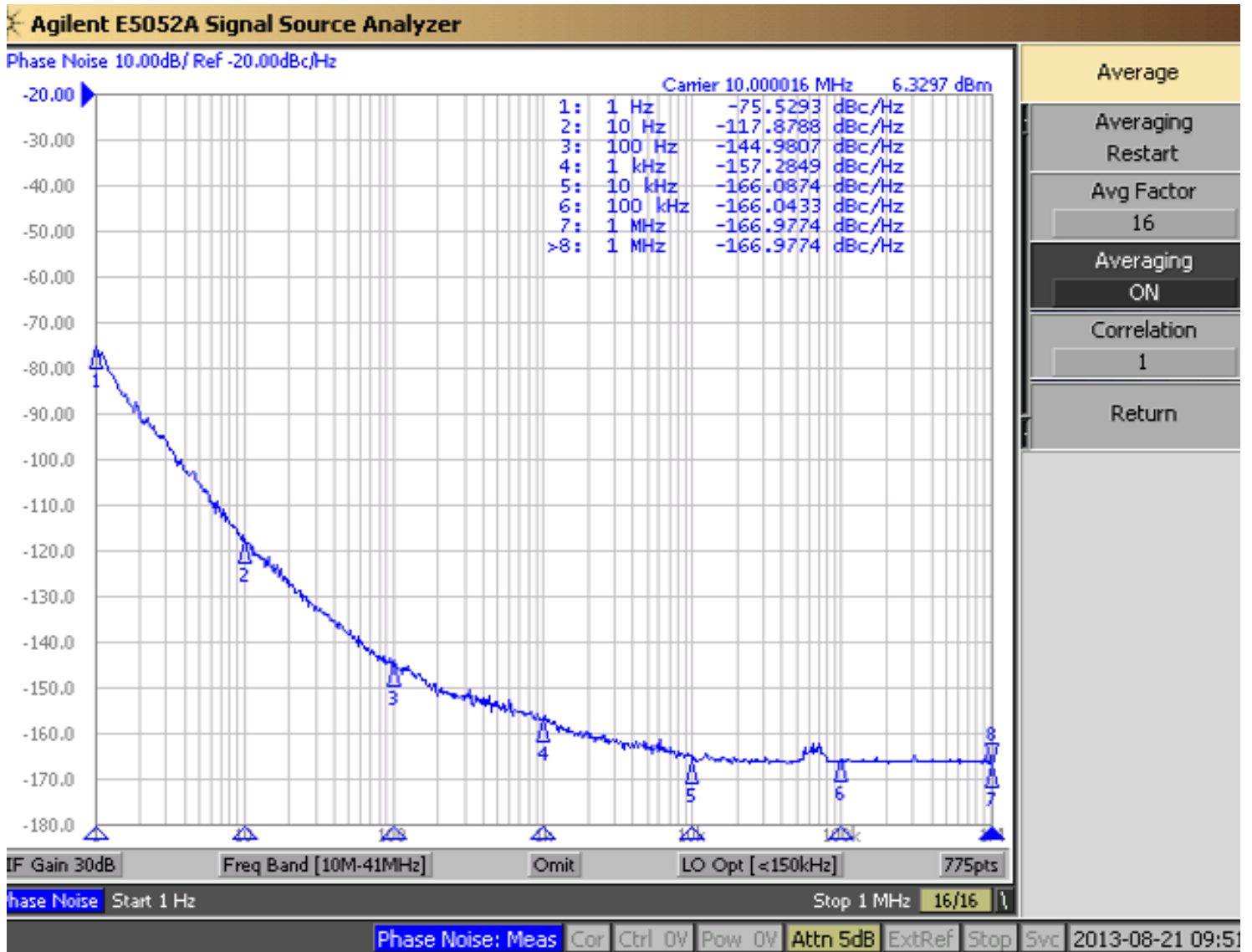
\* - for standard or assigned for customization.

Parameter		Supply Voltage Range (±5%)	Units
		5.0 to 28.0	V
Frequency Range		10.000000 to 50.000000	MHz
Frequency Stability	vs Temperature (Max.)	Per Option	ppb
	vs Supply Voltage (Max. for a 5% charge)	±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 Vref	V
	Reference Voltage Output (±2.0%)	+5.0	V
	Slope	Monotonic and Positive	
	Linearity (Max.)	10	%
Supply Power	During 3 Minutes After Switch On (Max.)	6.0	W
	Steady State @ 25°C (Max.)	2.5	W
Output	TTL/CMOS or LVCMOS	5.0	V
	Sinewave	0.0 to 6.0	dBm
Load (±10%)	TTL/CMOS or LVCMOS	15	pF
	Sinewave	50	Ω
Phase Noise (Typical) (10MHz @ +12Vdc)	@ 1 Hz	-77	dBc/Hz
	@ 10 Hz	-118	
	@ 100 Hz	-144	
	@ 1 kHz	-156	
	@ 10 kHz	-164	
	@ 100KHz	-165	

VN03-Series 25.80 x 25.80 x 16.81 (mm)



## PHASE NOISE PLOT



### NOTES:

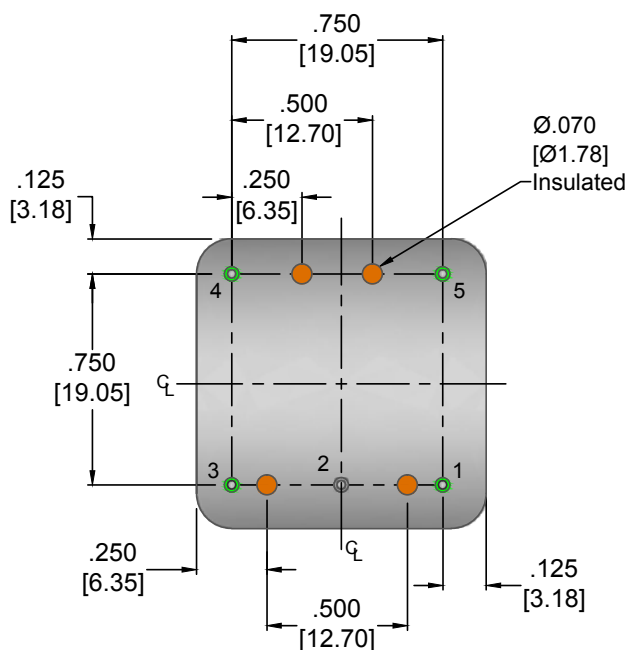
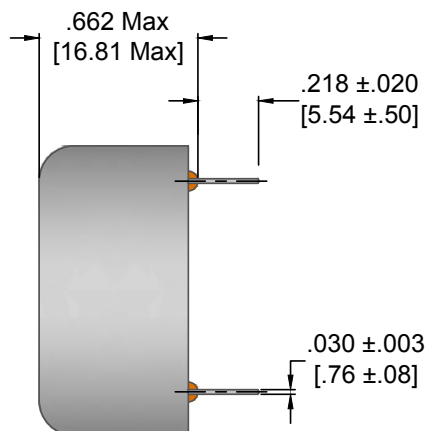
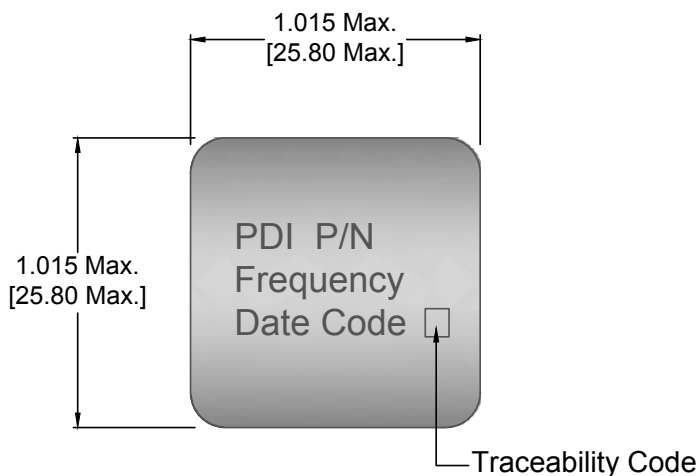
All product supplied in anti-static packaging.  
 All product is supplied RoHS and REACH compliant.  
 All tests are performed in Still Air test conditions, unless otherwise stated.  
 Specifications subject to change without notice, last updated 4/1/13.

# VN03-Series 25.80 x 25.80 x 16.81 (mm)

## PACKAGE DIMENSIONS

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

PIN	CONNECTION
1	Output
2	Ground/Case
3	EFC or No Connect
4	Vref or No Connect
5	Supply Voltage



### NOTES:

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All product is supplied *RoHS* and *REACH* compliant.  
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