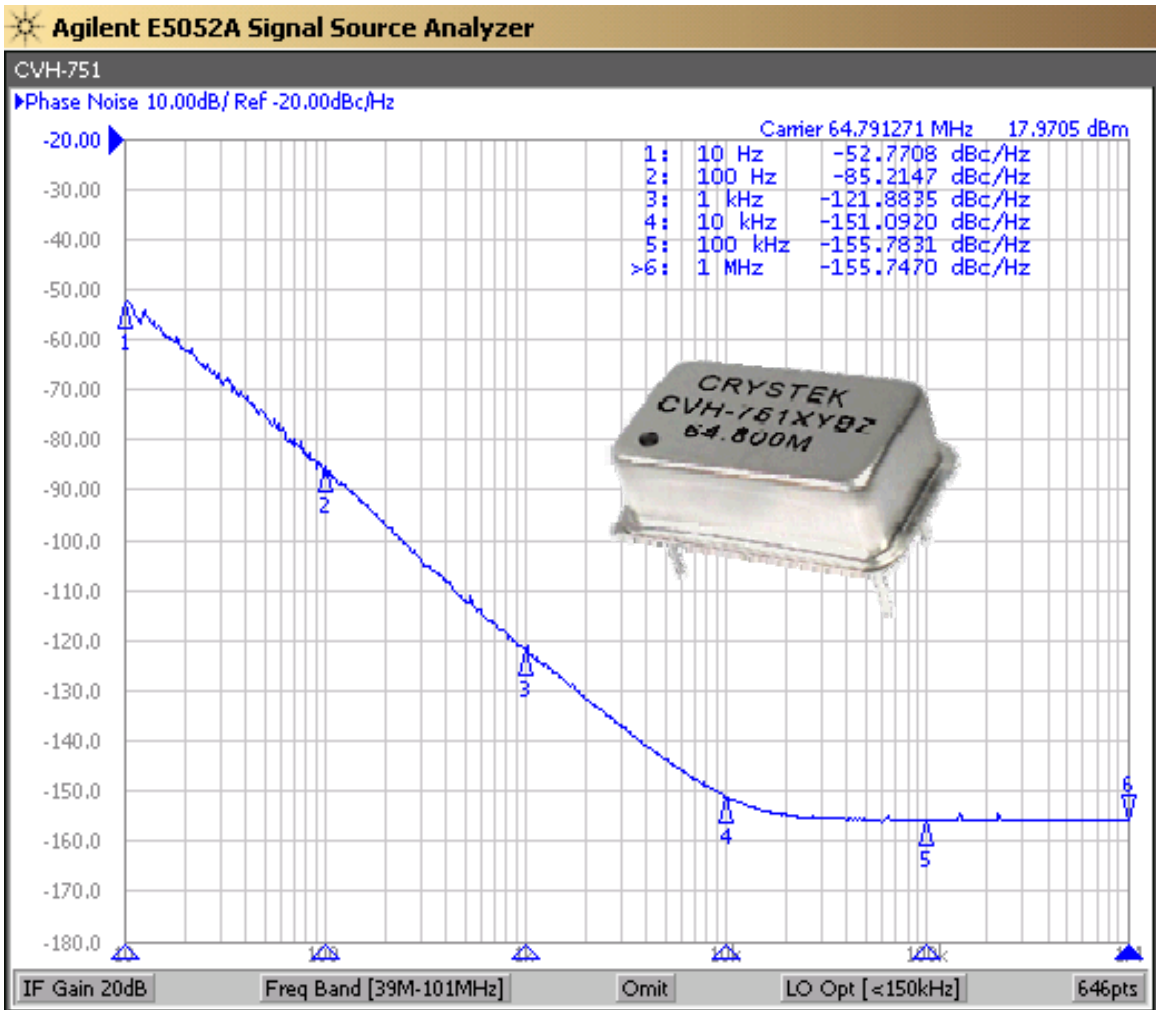
CRYSTEK CRYSTALS
A Division of Crystek Corporation

CVH-731/751
Straight Multiplication
HCMOS VCXO

RoHS Compliant



Model CVH-731/751 is a 50MHz to 180MHz HCMOS Voltage Controlled Crystal Oscillator. Designed using straight multiplication operating at 3.3Vdc or 5.0Vdc and -40°C to +85°C operating temperature. This design provides cost advantage over the HFF mesa design and superior performance over PLL designs. This VCXO is also available in 3.3Vdc and 5.0Vdc Clock Oscillator versions.

Applications include Broad band Networks, SONET/SDH/DWD, ATM, Network/switch and Base Stations

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Frequency Range:		**50MHz to 180MHz**
Temperature Range:		**0°C to +70°C (standard)**
	(Option M)	**-20°C to +70°C**
	(Option X)	**-40°C to +85°C**
Storage:		**-45°C to 120°C**
Frequency Stability: (ppm)		
VS Temp.(ref. to +25°C)		**±15, ±20, ±25, ±50, ±100 Max**
VS Supply Change ±5%		**±5ppm Max**
VS Load Change ±10%		**±3ppm Max**
Input Voltage:	**(731)**	**3.3V ±0.3V**
	(751)	**5.0V ±0.5V**
Input Current:		**25~60mA (Freq. Dependent)**
Input Impedance:		**10k ohms Min.**
Control Voltage:	**(731)**	**1.65V ±1.65V**
	(751)	**2.5V ±2.5V**
Settability At Nominal:	**(731)**	**1.65V ±0.25V**
	(751)	**2.5V ±0.5V**
Output:		**HCMOS**
Symmetry:		**40/60% Max @ 50%Vdd**
(Option Y)		**45/55% Max @ 50%Vdd**
Rise/Fall Time:		**2~10nsec @ 20% to 80% Vdd (Freq. Dependent)**
Pullability APR: (ppm)		**±50, ±100, ±150, ±200 Min (see table)**
Linearity:		**±10% Max**
Logic:		**"0" = 10% Vdd Max**
		"1" = 90% Vdd Min.
Load:		**15pF Typical**
Start-up Time:		**2msec Typical, 5msec Max**
Modulation BW:		**>10kHz @ -3dB**
Sub-harmonics:		**-35dBc Typical**
Phase Noise Typical:		
10Hz		**-52 dBc/Hz**
100Hz		**-85 dBc/Hz**
1kHz		**-120 dBc/Hz**
10kHz		**-150 dBc/Hz**
100kHz		**-155 dBc/Hz**
Aging:		**<3ppm 1st/yr, <1ppm thereafter**

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Crystek Part Number Guide

CVH - 731 X Y B X - 125.000
#1 #2 #3 #4 #5 #6 #7

#1 Crystek 14 Pin Dip VCXO
#2 Model = Straight Multiplication: 731=3.3V or 751=5.0V
#3 Temp. Range: (Blank=0/70°C) (M=-20/70°C) (X=-40/85°C)
#4 Duty Cycle: Blank=40/60%, Y=45/55%
#5 Frequency Stability: A= ±15, B= ±20, C= ±25, D= ±50, E= ±100
#6 Frequency Pullability (APR Min.): Z= ±50, Y= ±100, X= ±150, W= ±200
#7 Frequency in MHz: 3 or 6 decimal places

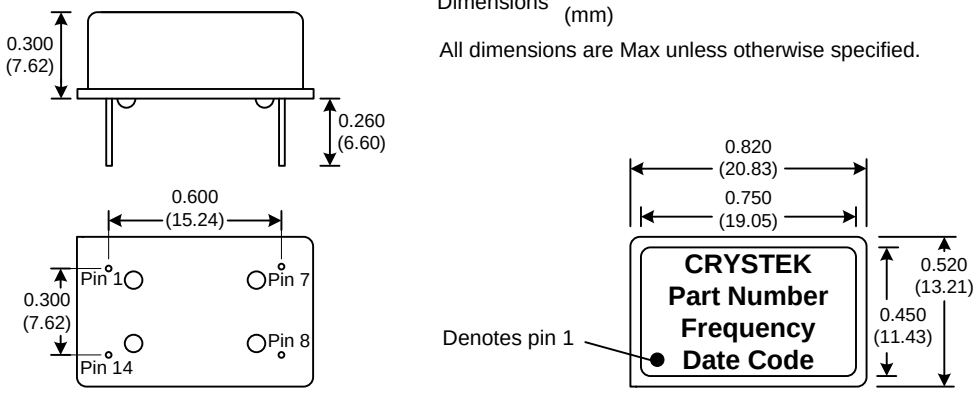
Example:
CVH-751XYBX-125.000
5.0V, -40/85°C, 45/55%, ±20ppm, ±150ppm, 125.000 MHz

Mechanical:

Shock:	MIL-STD-883, Method 2002, Condition B
Solderability:	MIL-STD-883, Method 2003
Vibration:	MIL-STD-883, Method 2007, Condition A
Solvent Resistance:	MIL-STD-202, Method 215
Resistance to Soldering Heat:	MIL-STD-202, Method 210, Condition A, B or C

Environmental:

Gross Leak:	MIL-STD-883, Method 1014, Condition C
Fine Leak:	MIL-STD-883, Method 1014, Condition A1
Thermal Shock:	MIL-STD-883, Method 1011, Condition A
Moisture Resistance:	MIL-STD-883, Method 1004



PIN	Connection
1	Volt Cntrl
7	GND
8	Output
14	Vdd

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