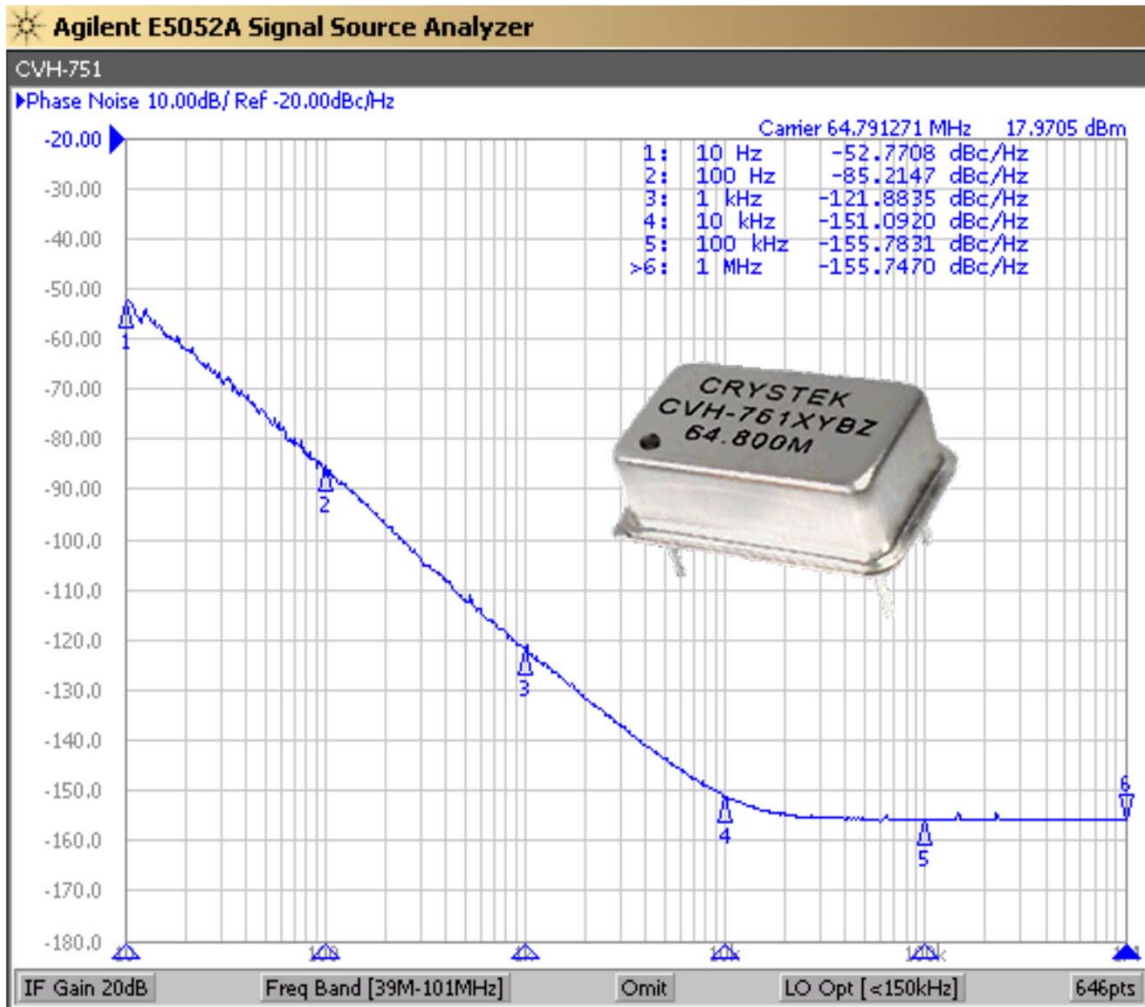


CVH-731/751

Straight Multiplication

HCMOS VCXO



Model CVH-731/751 is a 50 MHz to 180 MHz 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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CVH-731/751

Straight Multiplication

HCMOS VCXO



Frequency Range:	50 MHz to 180 MHz
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:	3.3V ±0.3V
(731)	
(751)	5.0V ±0.5V
Input Current:	25~60mA (Frequency Dependent)
Input Impedance:	10k ohms Min
Control Voltage:	1.65V ±1.65V
(731)	
(751)	2.5V ±2.5V
Settability At Nominal:	1.65V ±0.25V
(731)	
(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 (Frequency 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:	>10 kHz @ -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 year, <1ppm thereafter

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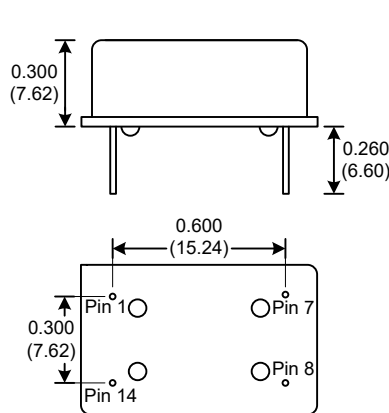
Crystek Part Number Guide						
<u>CVH - 731 X Y B X - 125.000</u>						
#1	#2	#3	#4	#5	#6	#7
<p>#1 Crystek 14 Pin Dip VCXO</p> <p>#2 Model = Straight Multiplication: 731=3.3V or 751=5.0V</p> <p>#3 Temp. Range: (Blank=0/70°C) (M=-20/70°C) (X=-40/85°C)</p> <p>#4 Duty Cycle: Blank=40/60%, Y=45/55%</p> <p>#5 Frequency Stability: A= ±15, B= ±20, C= ±25, D= ±50, E= ±100</p> <p>#6 Frequency Pullability (APR Min): Z= ±50, Y= ±100, X= ±150, W= ±200</p> <p>#7 Frequency in MHz: 3 or 6 decimal places</p>						
<p>Example:</p> <p>CVH-751XYBX-125.000</p> <p>5.0V, -40/85°C, 45/55%, ±20ppm, ±150ppm, 125.000 MHz</p>						

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

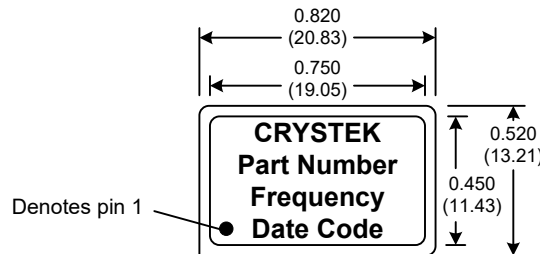
Environmental:

- 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



Dimensions inches (mm)

All dimensions are Max unless otherwise specified.



PIN	Connection
1	Voltage Control
7	GND
8	Output
14	Vdd

Crystek Corporation reserves the right to make changes to its products and/or information contained herein without notice.
No liability is assumed as a result of its use or application.

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