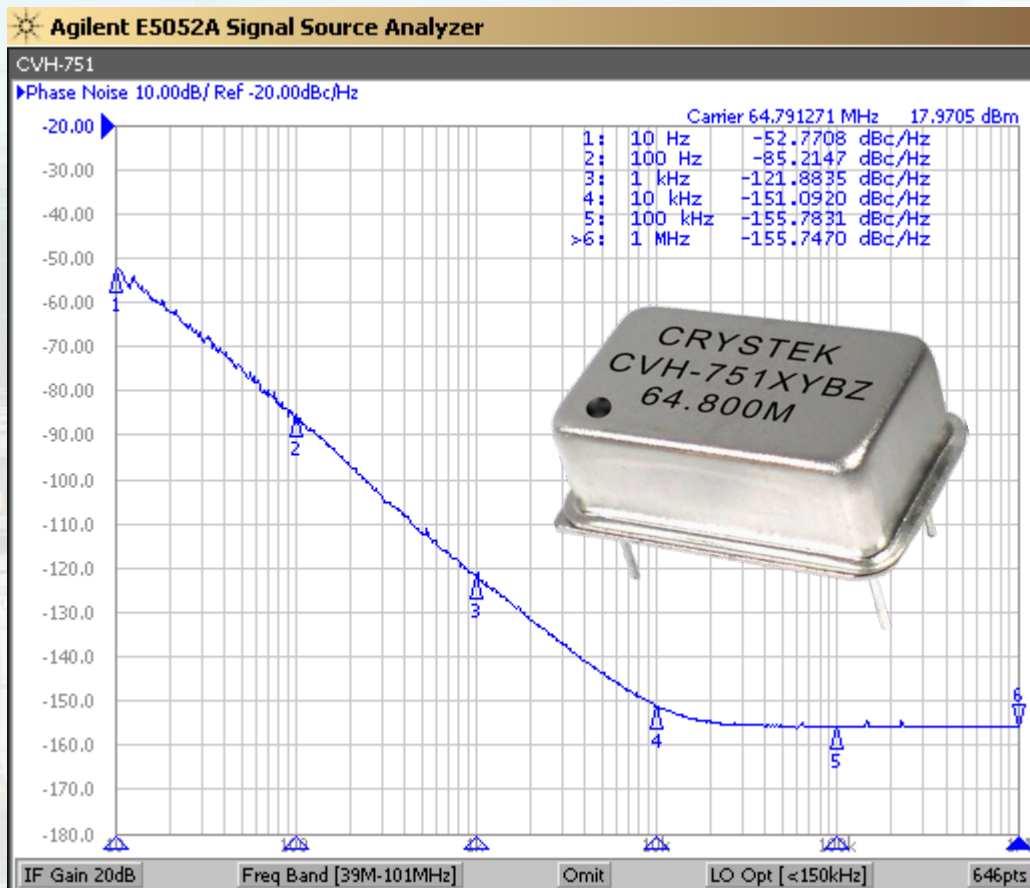




CRYSTEK
CRYSTALS
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CVH-731/751 Straight Multiplication HCMOS VCXO



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 to +85C 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:	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 Chage ±5%	±5ppm Max
VS Load Chage ±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 @ -85dBc/Hz
	1KHz @ -120 dBc/Hz
	10KHz @ -150 dBc/Hz
	100KHz @ -155 dBc/Hz
Aging:	<3ppm 1st/yr, <1ppm thereafter



CVH-731/751

Straight Multiplication

HCMOS VCXO



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

PART NUMBER GUIDE

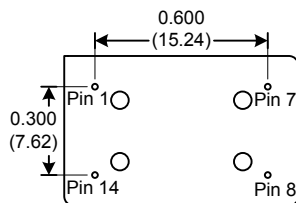
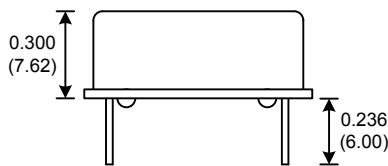
CVH - 751 X Y B Z - 125.000

- #1 #2 #3 #4 #5 #6 #7
- #1 Crystek 14 Pin Dip VCXO
- #2 Model = Straight Multiplication 3.3V OR 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

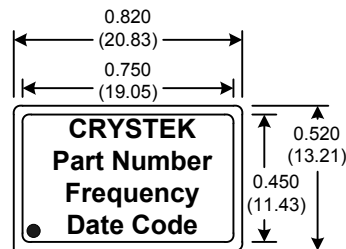
Example:

CVH-751XYBW-125.000

5.0V, -40/85°C, 45/55%, ±20ppm, ±50ppm, 125.000 MHz



Pad	Connection
1	Volt. Cntrl.
2	GND
3	Output
4	Vdd



Dimensions inches (mm)
All dimensions are Max unless otherwise specified.