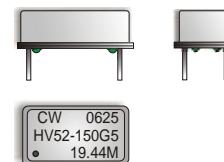


CRYSTAL CONTROLLED OSCILLATORS

14 PIN 5.0V HCMOS VCXO LOW FREQUENCY



ABSOLUTE MAXIMUM RATINGS

TABLE 1.0

PARAMETER	UNITS	MINIMUM	NOMINAL	MAXIMUM	UNITS	NOTE
Storage Temperature		-40	-	85	°C	
Supply Voltage	(Vcc)	-0.5	-	7	Vdc	
Control Voltage	(Vc)	-0.5	-	7	Vdc	

MODEL SPECIFICATIONS

MODEL NUMBER

TABLE 2.0

MODEL NUMBER	PARAMETER	MINIMUM	NOMINAL	MAXIMUM	UNITS	NOTE
HV51-xxxG5	Frequency Stability:	-25	-	25	ppm	1
HV52-xxxG5	Frequency Stability:	-50	-	50	ppm	1
HV53-xxxG5	Frequency Stability:	-100	-	100	ppm	1
HV54-xxxG5	Frequency Stability:	-20	-	20	ppm	1
HV55-xxxG5	Frequency Stability:	-10	-	10	ppm	1
HV56-xxxG5	Frequency Stability:	-5	-	5	ppm	1

Pullability Codes (xxx - Add code to the end of the Model Number)

TABLE 3.0

PULLABILITY CODE	PARAMETER	MINIMUM	NOMINAL	MAXIMUM	UNITS	NOTE
040	Frequency Pullability:	±20	-	-	ppm	2
100	Frequency Pullability:	±50	-	-	ppm	2
150	Frequency Pullability:	±75	-	-	ppm	2
160	Frequency Pullability:	±80	-	-	ppm	2
200	Frequency Pullability:	±100	-	-	ppm	2
250	Frequency Pullability:	±125	-	-	ppm	2
300	Frequency Pullability:	±150	-	-	ppm	2, 3
350	Frequency Pullability:	±175	-	-	ppm	2, 3
400	Frequency Pullability:	±200	-	-	ppm	2, 3

OPERATING SPECIFICATIONS

TABLE 4.0

PARAMETER	UNITS	MINIMUM	NOMINAL	MAXIMUM	UNITS	NOTE
Frequency Range	(Fo)	.080	-	29.999999	MHz	
Operating Temperature Range		0	-	70	°C	
Supply Voltage	(Vcc)	4.75	5.0	5.25	Vdc	
Supply Current	(Icc)	-	-	20	mA	
Jitter (BW=10Hz to 20MHz)		-	-	5	ps rms	
Jitter (BW=12kHz to 20MHz)		-	-	1	ps rms	
SSB Phase Noise at 100Hz offset		-	-90	-	dBc/Hz	
SSB Phase Noise at 1KHz offset		-	-100	-	dBc/Hz	
SSB Phase Noise at 10KHz offset		-	-125	-	dBc/Hz	
SSB Phase Noise at 100KHz offset		-	-135	-	dBc/Hz	

INPUT CHARACTERISTICS

TABLE 5.0

PARAMETER	UNITS	MINIMUM	NOMINAL	MAXIMUM	UNITS	NOTE
Control Voltage Range	(Vc)	0.5	2.5	4.5	Vdc	
Center Frequency		2.0	2.5	3.0	Vdc	
Monotonic Linearity		-15	-	15	%	
Input Impedance		-	50K	-	Ohm	
Modulation Bandwidth (3dB)		15	-	-	KHz	

HCMOS OUTPUT CHARACTERISTICS

TABLE 6.0

PARAMETER	UNITS	MINIMUM	NOMINAL	MAXIMUM	UNITS	NOTE
LOAD		-	-	15	pF	
Voltage (High)	(Voh)	4.5	-	-	Vdc	
Voltage (Low)	(Vol)	-	-	0.5	Vdc	
Current (80 KHz to 15.999 MHz) (High)	(Ioh)	-4	-	-	mA	
Current (80 KHz to 15.999 MHz) (Low)	(Iol)	-	-	4	mA	
Current (16 MHz to 29.999 MHz) (High)	(Ioh)	-8	-	-	mA	
Current (16 MHz to 29.999 MHz) (Low)	(Iol)	-	-	8	mA	
Duty Cycle at 50% of Vcc		45	50	55	%	
Rise / Fall Time 10% to 90%		-	3	5	nS	

PACKAGE CHARACTERISTICS

TABLE 7.0

Package	Hermetically sealed, metal package.
---------	-------------------------------------

HV51-xxxG5 Series
HV52-xxxG5 Series
HV53-xxxG5 Series
HV54-xxxG5 Series
HV55-xxxG5 Series
HV56-xxxG5 Series

DESCRIPTION

The Connor-Winfield HV5x-xxxG5 series is a 5.0V HCMOS, 14 Pin DIP hermetically sealed, Voltage Controlled Crystal Oscillator (VCXO). Based on a fundamental crystal design the HV5x-xxxG5 is designed for phased lock loop applications requiring low jitter and tight frequency stability.

FEATURES

5.0V OPERATION
FREQUENCY RANGE:
80 KHz to 29.999 MHz
FREQUENCY STABILITY
HV51-xxxG5 SERIES ±25PPM
HV52-xxxG5 SERIES ±50PPM
HV53-xxxG5 SERIES ±100PPM
HV54-xxxG5 SERIES ±20PPM
HV55-xxxG5 SERIES ±10PPM
HV56-xxxG5 SERIES ±5PPM
TEMPERATURE RANGE: 0 to 70°C
LOW JITTER <1ps RMS
HERMETICALLY SEALED PACKAGE
RoHS 5/6 COMPLIANT

ORDERING INFORMATION

HV52-150G5 - 19.44MHz

VCXO SERIES | CENTER FREQUENCY

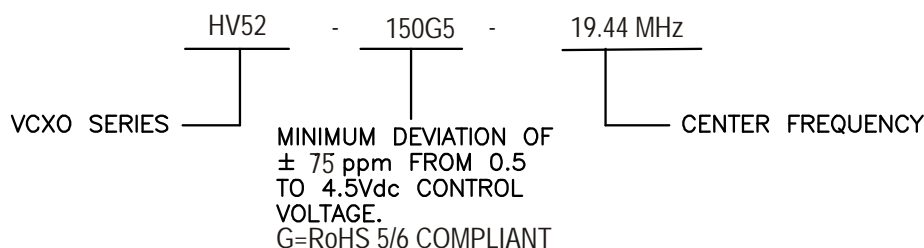
Specifications subject to change without notice.

CRYSTAL CONTROLLED OSCILLATORS

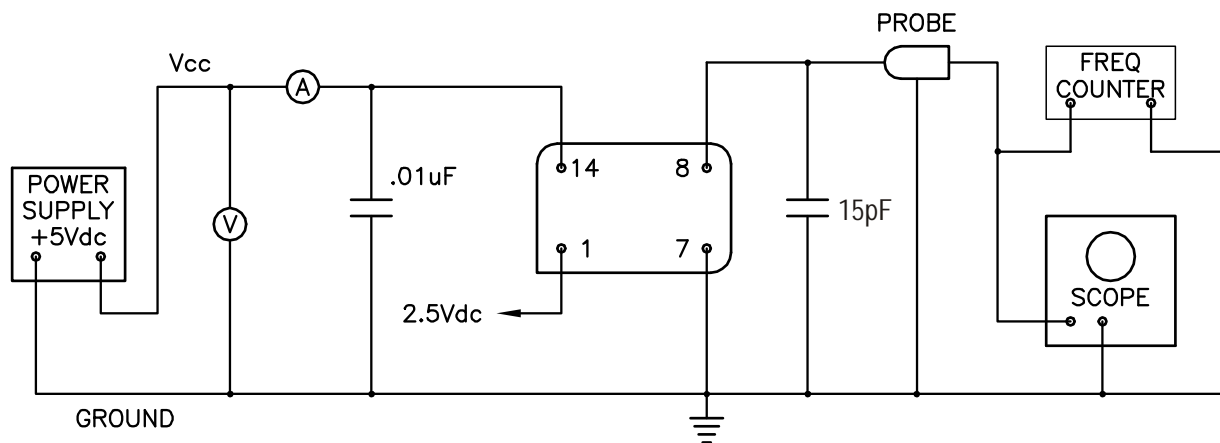
Note:

- 1) Frequency stability vs. change in temperature, referenced to frequency measured at 25°C with control voltage @ 2.50Vdc.
- 2) Referenced to Fo @ 25°C. Positive Slope.
- 3) The wider frequency deviations are not available with models HV55 or HV56 series.

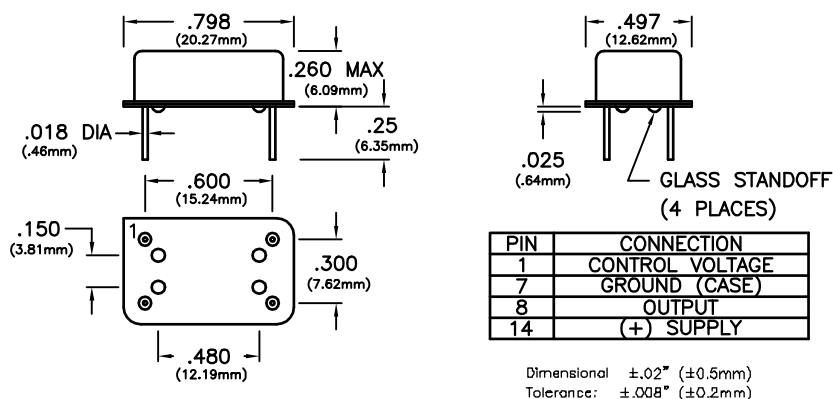
Example Part Number



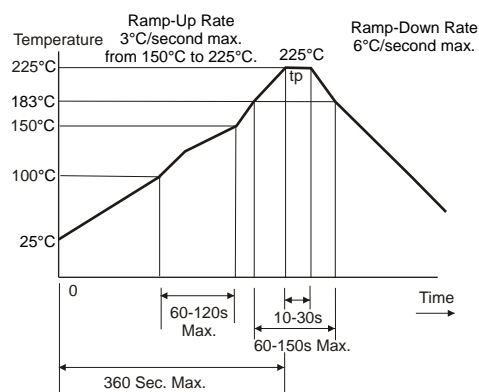
Test Circuit



Package Outline and Pin Connections



Solder Profile



Specifications subject to change without notice.