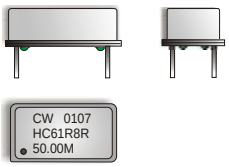
CONNOR WINFIELD

THE CONNOR-WINFIELD CORP.
2111 COMPREHENSIVE DRIVE.
AURORA, IL 60505.
FAX (630) 851-5040.
PHONE (630) 851-4722.
www.conwin.com

PRODUCT DATA SHEET

CRYSTAL CONTROLLED OSCILLATORS

5.0V HCMOS/TTL COMPATIBLE14 PIN DIP CRYSTAL CLOCK OSCILLATOR



HC61R8R

ABSOLUTE MAXIMUM RATINGS — TABLE 1.0

PARAMETER	UNITS	MINIMUM	NOMINAL	MAXIMUM	UNITS	NOTE
Storage Temperature		-55	-	125	°C	
Supply Voltage	(Vcc)	-0.5	-	7.0	Vdc	

MODEL SPECIFICATIONS:
MODEL HC61R8R — TABLE 2.0

Frequency Range	(Fo)	1.0	-	70	MHz	
Frequency Tolerance:		-25	-	25	ppm	1

OPERATING SPECIFICATIONS — TABLE 3.0

PARAMETER		MINIMUM	NOMINAL	MAXIMUM	UNITS	NOTE
Operating Temperature Range		-40	-	85	°C	
Supply Voltage	(Vdd)	4.5	5.0	5.5	Vdc	
Supply Current 1.0 to 24.999 MHz	(Icc)	-	-	25	mA	
25 to 49.999 MHz	(Icc)	-	-	45	mA	
50 to 70.000 MHz	(Icc)	-	-	60	mA	

INPUT CHARACTERISTICS — TABLE 4.0

Enable Voltage	(Vih)	2.2	-	-	Vdc	2
Disable Voltage	(Vil)	-	-	0.8	Vdc	
Enable Time		-	-	100	nS	
Disable Time		-	-	100	nS	

HCMOS OUTPUT CHARACTERISTICS — TABLE 5.0

PARAMETER		MINIMUM	NOMINAL	MAXIMUM	UNITS	NOTE
LOAD		-	-	50	pF	3
Voltage (High)	(Voh)	4.5	-	-	Vdc	
(Low)	(Vol)	-	-	0.5	Vdc	
Current (High)	(Ioh)	-16	-	-	mA	
(Low)	(Ioh)	-	-	16	mA	
Duty Cycle measured at 50% of Vcc		45	50	55	%	
Rise / Fall Time measured at 10% to 90%		-	4	5	nS	
Start-Up Time		-	3	10	mS	
Jitter		-	-	5	pS RMS	

PACKAGE CHARACTERISTICS — TABLE 6.0

Package	Hermetically sealed metal package

Note:

1) Inclusive of calibration @ 25°C, frequency vs. temperature stability, supply voltage change, load change, shock and vibration, 10 years aging.
2) Oscillator output is enabled with no connection on pin 1
3) Output drives 10 TTL loads.

DESCRIPTION

The Connor-Winfield HC61R8R is a 5.0V HCMOS/TTL Compatible, Fixed Frequency Crystal Oscillator (XO) with Tri-state output. The HC61R8R is designed for use in all applications requiring a precision clock.

FEATURES

1.0 to 70 MHz

5.0V OPERATION

TRI-STATE ENABLE / DISABLE FUNCTION

OVERALL FREQUENCY TOLERANCE OF ±25ppm

TEMPERATURE RANGE -40 to 85°C

HERMETICALLY SEALED PACKAGE

ORDERING INFORMATION

HC61R8R - 50.00 MHz

CLOCK SERIES

CENTER FREQUENCY

Specifications subject to change without notice.

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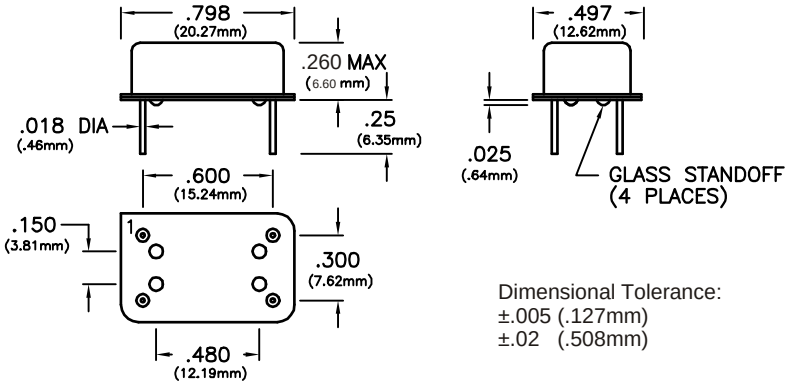
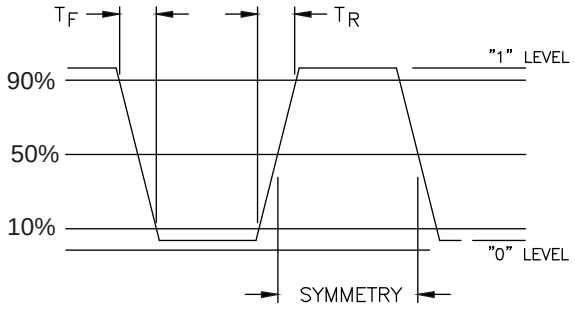
CRYSTAL CONTROLLED OSCILLATORS



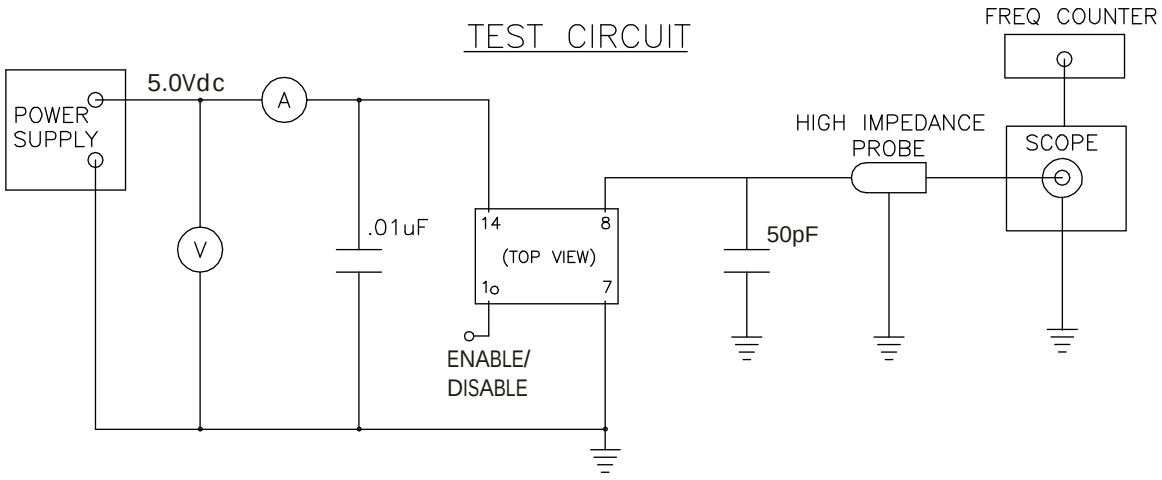
PIN	CONNECTION
1	ENABLE/DISABLE
7	GROUND
8	OUTPUT
14	Vcc

Dimensional Tolerance:
±.005 (.127mm)
±.02 (.508mm)

OUTPUT WAVEFORM



TEST CIRCUIT



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