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

RoHS COMPLIANT

CRYSTAL CONTROLLED OSCILLATORS

Surface Mount 5.0V 14 Pin DIP HCMOS Clock Oscillator

JHC54R8RG
JHC64R8RG

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: — TABLE 2.0

MODEL JHC54R8RG

PARAMETER		MINIMUM	NOMINAL	MAXIMUM	UNITS	NOTE
Frequency Range	(Fo)	1.0	-	70	MHz	
Frequency Tolerance:		-20	-	20	ppm	1
Operating Temperature Range		0	-	70	°C	

MODEL JHC64R8RG

Frequency Range	(Fo)	1.0	-	70	MHz	
Frequency Tolerance:		-20	-	20	ppm	1
Operating Temperature Range		-40	-	85	°C	

OPERATING SPECIFICATIONS — TABLE 3.0

PARAMETER		MINIMUM	NOMINAL	MAXIMUM	UNITS	NOTE
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 MHz	(Icc)	-	-	60	mA	
Jitter (BW=10Hz to 20MHz)		-	-	5	ps rms	
Jitter (BW=12kHz to 20MHz)		-	-	1	ps rms	

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	
Voltage (High)	(Voh)	4.5	-	-	Vdc	
(Low)	(Vol)	-	-	0.5	Vdc	
Current (High)	(Ioh)	-16	-	-	mA	
(Low)	(Ioh)	-	-	16	mA	
Duty Cycle at 50% of Vcc		45	50	55	%	
Rise / Fall Time 10% to 90%		-	-	5	ns	
Start-Up Time		-	3	10	ms	

PACKAGE CHARACTERISTICS — TABLE 6.0

Package	Hermetically sealed, gull wing, metal package. (MI142)

PROCESS RECOMMENDATIONS — TABLE 7.0

Soldering Process	See solder profile page 2.

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.

DESCRIPTION

Connor Winfield models JHC54R8RG and JHC64R8RG are 5.0V HCMOS, fixed frequency Crystal Oscillator (XO) designed for use in all applications requiring precision clocks over the commercial or industrial temperature ranges.

FEATURES

5.0V OPERATION

FREQUENCY RANGE: 1.0 to 70 MHz

OVERALL FREQUENCY TOLERANCE: ±20ppm

TEMPERATURE RANGE:
JHC54R8RG: 0 to 70°C
JHC64R8RG: -40 to 85°C

TRI-STATE ENABLE / DISABLE FUNCTION

SURFACE MOUNT GULL WING PACKAGE

HERMETICALLY SEALED PACKAGE

RoHS COMPLIANT / LEAD FREE

ORDERING INFORMATION

JHC64R8RG - 49.408MHz

HCMOS CLOCK SERIES

CENTER FREQUENCY

Specifications subject to change without notice.

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Enable / Disable Function

TABLE 8.0

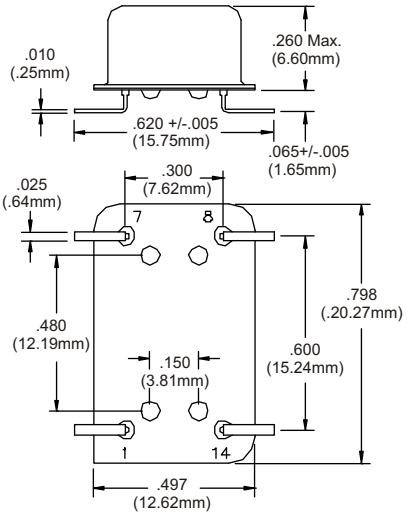
Tri-State Enable / Disable Function (Pin 1)	Output
High or Open	Enable
Low	Disable (High Impedance)

Pin Connections

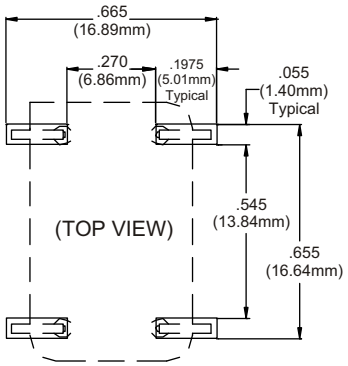
TABLE 9.0

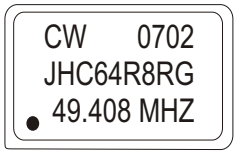
Pin	Connection
1	Enable/Disable
7	Ground
8	Output
14	Vcc

Package Outline and Dimensions



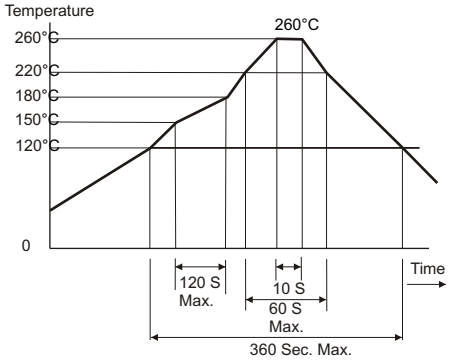
Suggested Pad Layout



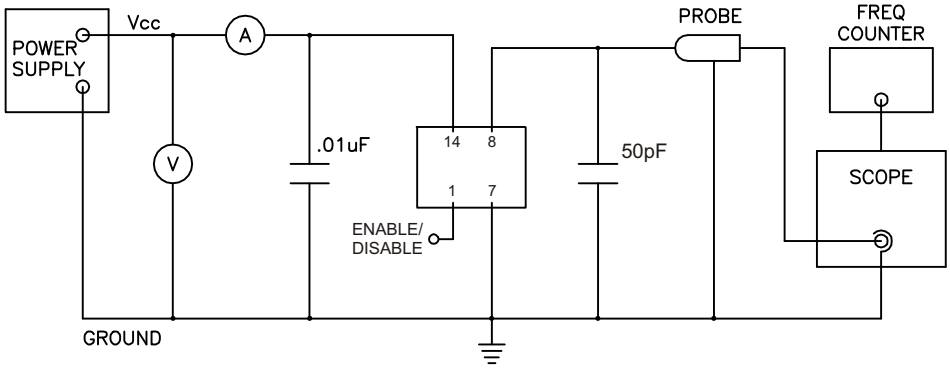


Dimensional Tolerance:
±.005 (.127mm)
±.02 (.508mm)

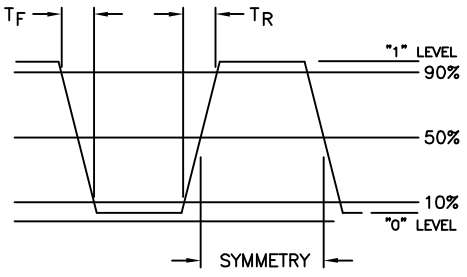
Solder Profile



Test Circuit



Output Waveform



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