

# CRYSTAL CONTROLLED OSCILLATORS

## 5.0V Surface Mount 8 Pin DIP HCMOS Clock Oscillator



JH54RG5  
JH64RG5

### 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 JH54RG5

PARAMETER		MINIMUM	NOMINAL	MAXIMUM	UNITS	NOTE
Frequency Range	(Fo)	1.8432	-	70	MHz	
Frequency Tolerance:		-20	-	20	ppm	1
Operating Temperature Range		0	-	70	°C	

#### MODEL JH64RG5

PARAMETER		MINIMUM	NOMINAL	MAXIMUM	UNITS	NOTE
Frequency Range	(Fo)	1.8432	-	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	(Icc)	-	-	70	mA	
Jitter (BW=10Hz to 20MHz)		-	-	5	ps rms	
Jitter (BW=12kHz to 20MHz)		-	-	1	ps rms	

### INPUT CHARACTERISTICS

TABLE 4.0

PARAMETER		MINIMUM	NOMINAL	MAXIMUM	UNITS	NOTE
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)	(Iol)	-	-	16	mA	
Duty Cycle at 50% of Vcc		45	50	55	%	
Rise / Fall Time 10% to 90%		-	-	7	ns	
Start-Up Time		-	-	10	ms	

### PACKAGE CHARACTERISTICS

TABLE 6.0

Package	Hermetically sealed, welded metal package
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### PROCESS RECOMMENDATIONS

TABLE 7.0

Soldering Process	See solder profile page 2.
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### DESCRIPTION

Connor Winfield models JH54RG5 and JH64RG5 are 5.0V HCMOS, surface mount, 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: 1.8432 to 70 MHz

OVERALL FREQUENCY TOLERANCE: ±20ppm

TEMPERATURE RANGE:  
JH54RG5: 0 to 70°C  
JH64RG5: -40 to 85°C

TRI-STATE ENABLE / DISABLE FUNCTION

HERMETICALLY SEALED PACKAGE

RoHS 5/6 COMPLIANT

### ORDERING INFORMATION

JH64RG5 - 34.368MHz

HCMOS  
CLOCK  
SERIES

CENTER  
FREQUENCY

Specifications subject to change without notice.

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**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.

Enable / Disable Function

**TABLE 8.0**

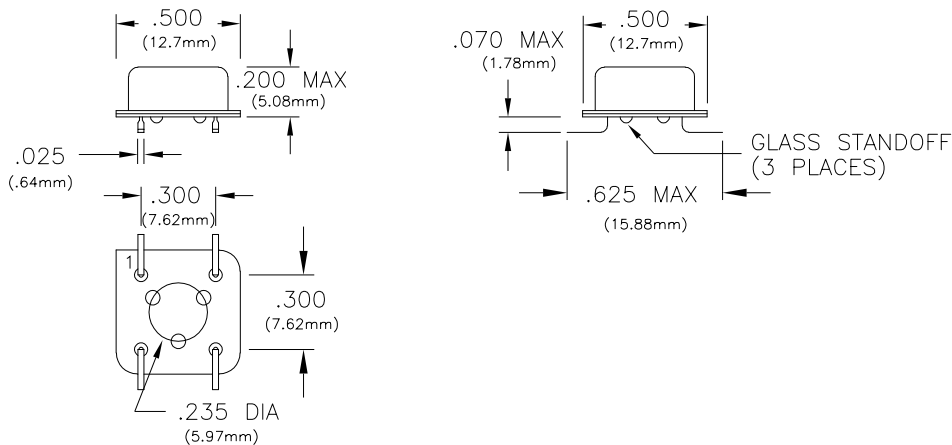
Tri-State Enable / Disable Function (Pin 1)	Output
High or Open	Enable
Low	Disable (High Impedance)

Pin Connections

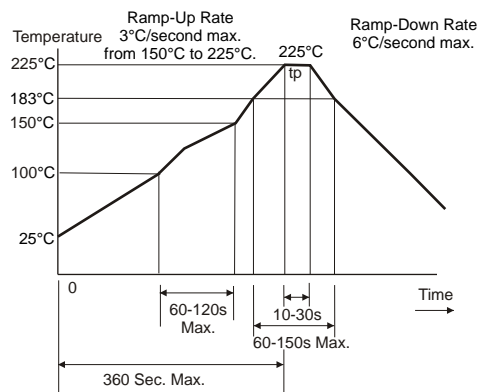
**TABLE 9.0**

Pin	Connection
1	Enable /Disable
2	Ground
3	Output
4	Vcc

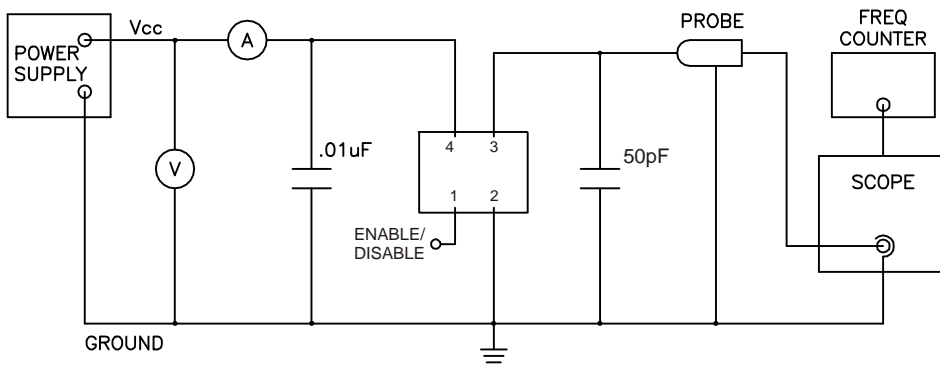
Package Outline and Dimensions



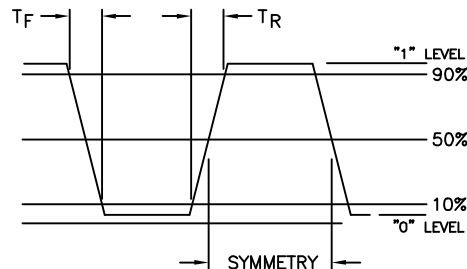
Solder Profile



Test Circuit



Output Waveform



Specifications subject to change without notice.