CONNOR WINFIELD

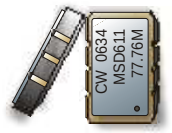
THE CONNOR-WINFIELD CORP.
2111 COMPREHENSIVE DRIVE.
AURORA, IL 60505.
FAX (630) 851-5040.
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WWW.CONWIN.COM

PRODUCT DATA SHEET

RoHS COMPLIANT

CRYSTAL CONTROLLED OSCILLATORS

LEADLESS SURFACE MOUNT HCMOS CLOCK OSCILLATOR



MSD611

ABSOLUTE MAXIMUM RATINGS TABLE 1.0

PARAMETER	UNITS	MINIMUM	NOMINAL	MAXIMUM	UNITS	NOTE
Storage Temperature		-55	-	125	°C	
Supply Voltage	(Vcc)	-0.5	-	7	Vdc	

OPERATING SPECIFICATIONS TABLE 2.0

PARAMETER		MINIMUM	NOMINAL	MAXIMUM	UNITS	NOTE
Frequency Range	(Fo)	1.8	-	80	MHz	
Total Frequency Tolerance		-25	-	25	ppm	1
Operating Temperature Range		-40	-	85	°C	
Supply Voltage	(Vcc)	4.50	5.00	5.50	Vdc	
Supply Current	(Icc)	-	-	50	mA	
Jitter (BW=10Hz to 20MHz)		-	-	5	ps rms	
Jitter (BW=12kHz to 20MHz)		-	-	1	ps rms	
SSB Phase Noise at 10Hz offset		-	-60	-	dBc/Hz	
SSB Phase Noise at 100Hz offset		-	-90	-	dBc/Hz	
SSB Phase Noise at 1KHz offset		-	-125	-	dBc/Hz	
SSB Phase Noise at 10KHz offset		-	-135	-	dBc/Hz	
SSB Phase Noise at 100KHz offset		-	-140	-	dBc/Hz	

INPUT CHARACTERISTICS TABLE 3.0

PARAMETER		MINIMUM	NOMINAL	MAXIMUM	UNITS	NOTE
Tri-state Enable Voltage	(Vih)	≥70%Vcc	-	-	Vdc	2
Tri-state Disable Voltage	(Vil)	-	-	≤30%Vcc	Vdc	2

HCMOS OUTPUT CHARACTERISTICS TABLE 4.0

PARAMETER			MINIMUM	NOMINAL	MAXIMUM	UNITS	NOTE
LOAD				-	-	50	pF	
Voltage	(High)	(Voh)	≥ 0.9(Vcc)	-	-	Vdc	
	(Low)	(Vol)	-	-	≤ 0.1(Vcc)	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%			-	1.5	3	nS	

PACKAGE CHARACTERISTICS TABLE 5.0

Package	Hermetically sealed, leadless ceramic package.

Note:
1) Inclusive of calibration, frequency vs. temperature stability, supply voltage change, load change, shock and vibration, 20 years aging.
2) Oscillator output is enabled with no connection on pad 1

DESCRIPTION

The Connor-Winfield MSD611 is a hermetically sealed surface mount 5.0V Crystal Controlled Oscillator (XO) HCMOS/TTL Compatible. The MSD611 is designed for applications requiring low jitter and tight frequency stability.

FEATURES

5.0V OPERATION

LOW JITTER <1ps RMS

FREQUENCY TOLERANCE: ±25ppm

TEMPERATURE RANGE: -40 to 85°C

TRI-STATE ENABLE / DISABLE FUNCTION

TAPE AND REEL PACKAGING

RoHS COMPLIANT / LEAD FREE

ORDERING INFORMATION

MSD611 - 77.76 MHz

CLOCK SERIES — CENTER FREQUENCY

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CONNOR WINFIELD

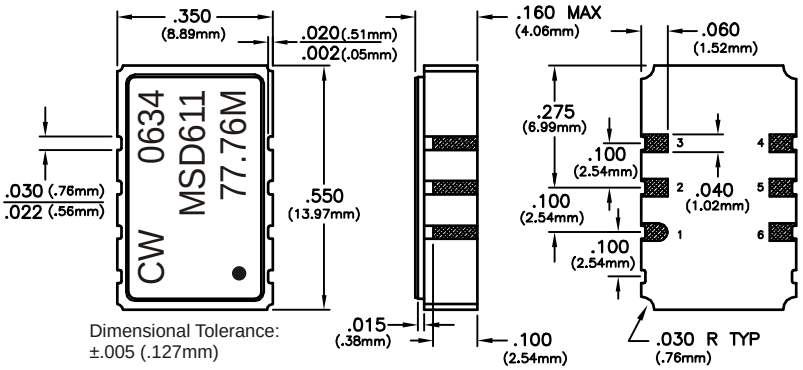
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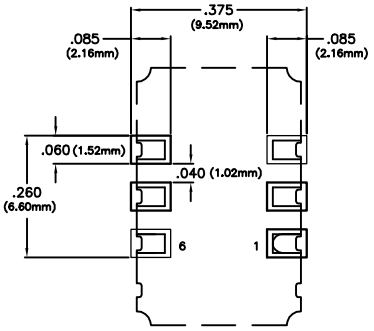
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CRYSTAL CONTROLLED OSCILLATORS

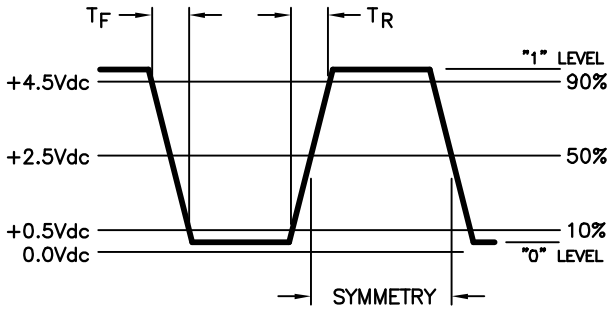
Package Outline



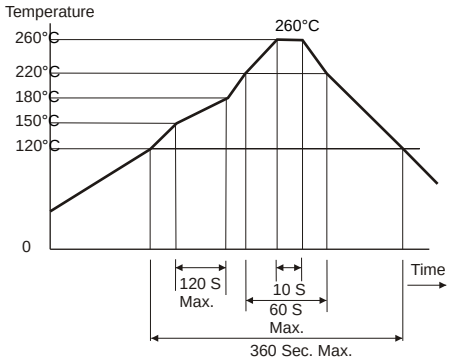
Suggested Pad Layout



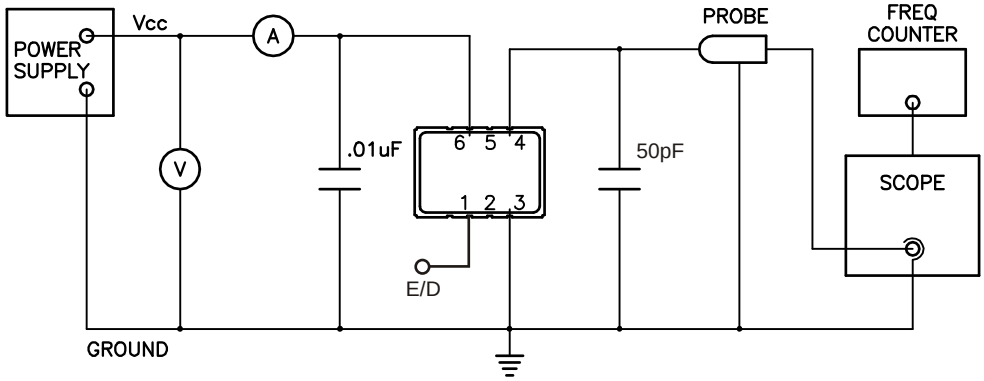
Output Waveform



Solder Profile



Test Circuit



Pin Connections

Pin	Connection
1	Enable / Disable
2	N/C
3	Ground
4	Output
5	N/C
6	Vcc

Specifications subject to change without notice.

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