CONNOR WINFIELD

THE CONNOR-WINFIELD CORP.
2111 COMPREHENSIVE DRIVE.
AURORA, IL 60505.
FAX (630) 851-5040.
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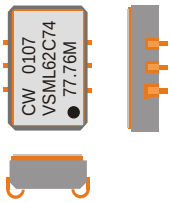
PRODUCT DATA SHEET

CRYSTAL CONTROLLED OSCILLATORS

6 PIN SURFACE MOUNT 3.3V VCXO



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	
Control Voltage	(Vc)	-0.5	-	7	Vdc	

OPERATING SPECIFICATIONS

TABLE 2.0

PARAMETER		MINIMUM	NOMINAL	MAXIMUM	UNITS	NOTE
Frequency Range	(Fo)	55.0	-	80.0	MHz	
Total Frequency Tolerance (Vc=1.65V)		-50		50	ppm	1
Operating Temperature Range		-40	-	85	°C	
Supply Voltage	(Vcc)	3.15	3.30	3.45	Vdc	
Supply Current	(Icc)	-	-	30	mA	
Jitter (BW=10Hz to 20MHz)		-	-	5	ps rms	
Jitter (BW=12kHz to 20MHz)		-	-	1	ps rms	
SSB Phase Noise at 10Hz offset		-	-70	-	dBc/Hz	
SSB Phase Noise at 100Hz offset		-	-100	-	dBc/Hz	
SSB Phase Noise at 1KHz offset			-120		dBc/Hz	
SSB Phase Noise at 10KHz offset			-140		dBc/Hz	
SSB Phase Noise at 100KHz offset		-	-150	-	dBc/Hz	

INPUT CHARACTERISTICS

TABLE 3.0

PARAMETER		MINIMUM	NOMINAL	MAXIMUM	UNITS	NOTE
Control Voltage Range	(Vc)	0.3	1.65	3.0	Vdc	
Frequency Pullability @ 25°C.		+/-80	-	+/-160	ppm	
Absolute Pull Range (APR)		+/-30	-	-	ppm	2
Monotonic Linearity		-10		10	%	
Input Impedance			50K		Ohm	
DC Input Resistance (Pin 1)		10M	-	-	Ohm	
Modulation Bandwidth (3dB)		10			KHz	
Enable Voltage (High)	(Vih)	2.0			Vdc	3
Disable Voltage (Low)	(Vil)			0.8	Vdc	3

HCMOS OUTPUT CHARACTERISTICS

TABLE 4.0

PARAMETER		MINIMUM	NOMINAL	MAXIMUM	UNITS	NOTE
LOAD		-	-	30	pF	
Voltage (High)	(Voh)	Vcc-0.5V	-	-	Vdc	
(Low)	(Vol)	-	-	0.4	Vdc	
Current (High)	(Ioh)	-8		-	mA	
(Low)	(Ioh)	-	-	8	mA	
Duty Cycle at 50% of Vcc		45	50	55	%	
Rise / Fall Time 10% to 90%		-	-	2	nS	

PACKAGE CHARACTERISTICS

TABLE 50

Package	Hermetically sealed, ceramic package with gold plated J-leads.

Note:

1) Inclusive of frequency calibration, frequency vs. temperature stability, supply voltage change, load change, shock and vibration, and aging for 10 years.
2) Absolute pull range (APR) is the minimum guaranteed pull range of the VCXO under all conditions over lifetime operation. The APR is referenced to Fo. Positive Slope
3) Output is enabled with no connection pad 2.

VSML62C74

DESCRIPTION

The Connor-Winfield VSML62C74 is a surface mount 3.3V Voltage Controlled Crystal Oscillator (VCXO) with HCMOS/TTL Compatible output. Based on a fundamental design the VSML62C74 is designed for phased lock loop applications requiring low jitter and tight stability.

FEATURES

3.3V OPERATION

LOW JITTER <1ps RMS

TOTAL FREQUENCY TOLERANCE: ±50ppm

TEMPERATURE RANGE: -40 to 85°C

HCMOS/TTL COMPATIBLE OUTPUT

TRI-STATE ENABLE/DISABLE FUNCTION

J LEAD SURFACE MOUNT PACKAGE

TAPE AND REEL PACKAGING

ORDERING INFORMATION

VSML62C74 - 77.76 MHz

VCXO SERIES

CENTER FREQUENCY

Specifications subject to change without notice.

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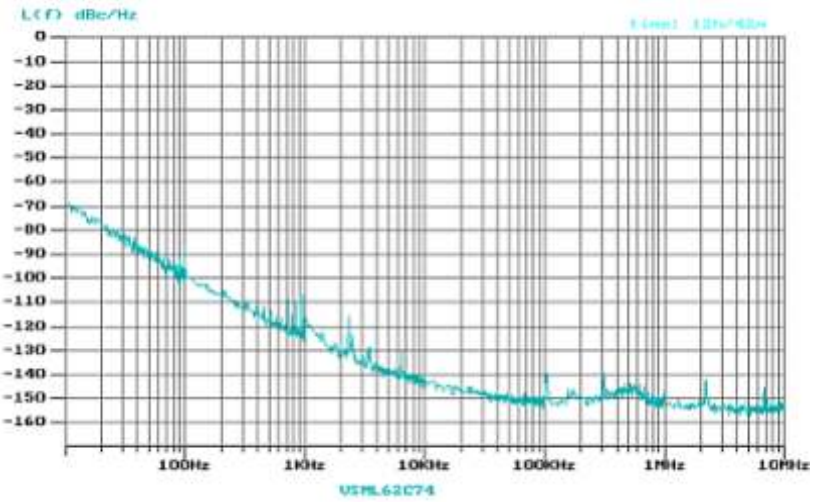
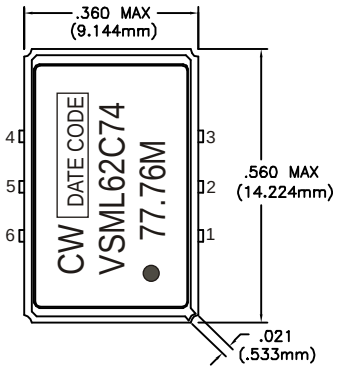
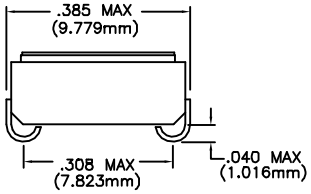
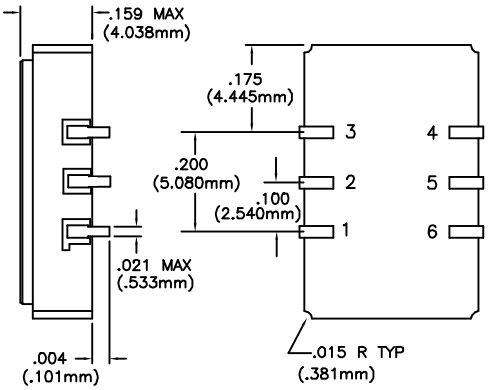


Pin	Function
1	Control Voltage
2	Enable / Disable
3	Ground (Case)
4	Output
5	N/C
6	Vcc

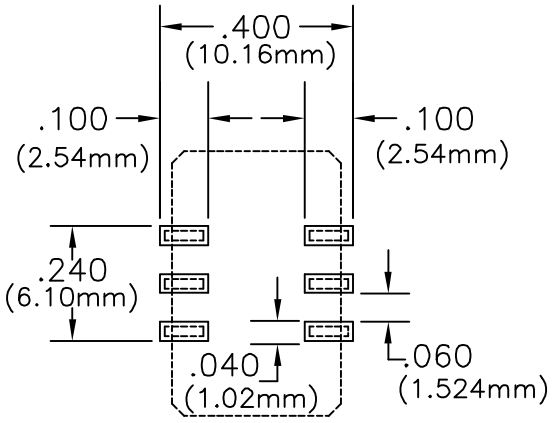




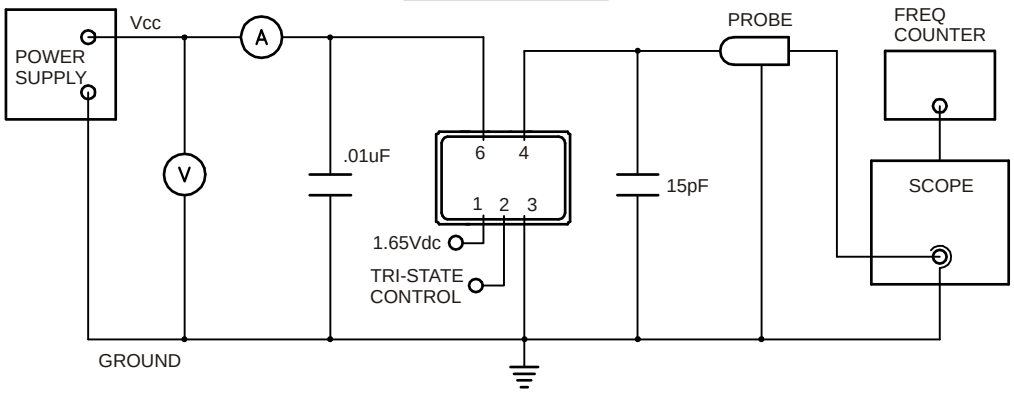


J Leads Gold-Plated
6 Places

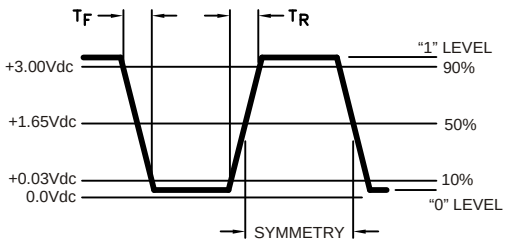
SUGGESTED PAD LAYOUT



TEST CIRCUIT



OUTPUT WAVEFORM



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