

CRYSTAL CONTROLLED OSCILLATORS

SURFACE MOUNT 5.0V PECL CLOCK



EH93-63*

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 EH93-63* (*see options table)

PARAMETER	UNITS	MINIMUM	NOMINAL	MAXIMUM	UNITS	NOTE
Center Frequency	(Fo)	13	-	200	MHz	
Total Frequency Tolerance		-100		100	ppm	1

OPERATING SPECIFICATIONS

TABLE 3.0

PARAMETER		MINIMUM	NOMINAL	MAXIMUM	UNITS	NOTE
Operating Temperature Range		-40	-	85	°C	
Supply Voltage	(Vcc)	4.75	5.0	5.5	Vdc	
Supply Current	(Icc)	-	-	85	mA	
Jitter (BW=10Hz to 20MHz)		-	-	5	ps rms	
Jitter (BW=12kHz to 20MHz)		-	-	1	ps rms	

PECL OUTPUT CHARACTERISTICS

TABLE 3.0

PARAMETER		MINIMUM	NOMINAL	MAXIMUM	UNITS	NOTE
LOAD		-	-	50	Ohms	2
Voltage (High)	(Voh)	3.98	-	-	Vdc	
(Low)	(Vol)	-	-	3.40	Vdc	
Duty Cycle		45	50	55	%	3
Rise / Fall Time 20% to 80%		-	-	2.3	nS	

* I/O Options

TABLE 4.0

(Add number to end of model number)	0	Pin 2 and Pin 6: No Connection.
1	Pin 6: Complementary Output, Pin 2: No Connection.	
2	Pin 2: Enable / Disable, Pin 6: No Connection. Enable Voltage: (Vi) 3.40V Max, Disable Voltage: (Vih) 3.87V Min. Note: When oscillator is disabled the output Pin 7 is in a low state. (Vol)	
3	Pin 2: Complementary Output, Pin 6: No Connection.	
4	Pin 2: Enable / Disable, Pin 6: Complementary Output. Enable Voltage: (Vi) 3.40V Max, Disable Voltage: (Vih) 3.87V Min. Note: When oscillator is disabled the complementary output Pin 6 is in a low state (Vol) and the output Pin 7 is in a high state. (Voh)	

PACKAGE CHARACTERISTICS

TABLE 5.0

Package	Hermetically sealed, leadless ceramic package.
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Notes

- Includes calibration, stability vs. temperature, supply and load variations, shock, vibration and aging (15 years).
- Output must be terminated into 50 ohms to Vcc - 2V or Thevenin equivalent.
- Duty Cycle measured at 3.6V.

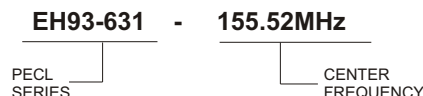
DESCRIPTION

The Connor-Winfield EH93-63* series are fixed frequency, surface mount Crystal Controlled Oscillators (XO) designed for applications requiring low jitter and tight frequency stability. Operating at 5.0V supply voltage, the EH93-63* series provides PECL Compatible Outputs with Enable/Disable function.

FEATURES

- 5.0V OPERATION
- DIFFERENTIAL PECL OUTPUTS
- LOW JITTER <1ps RMS
- OVERALL FREQUENCY TOLERANCE: ±100ppm
- INDUSTRIAL TEMPERATURE RANGE: -40 to 85°C
- ENABLE / DISABLE
- SURFACE MOUNT PACKAGE
- TAPE AND REEL PACKAGING

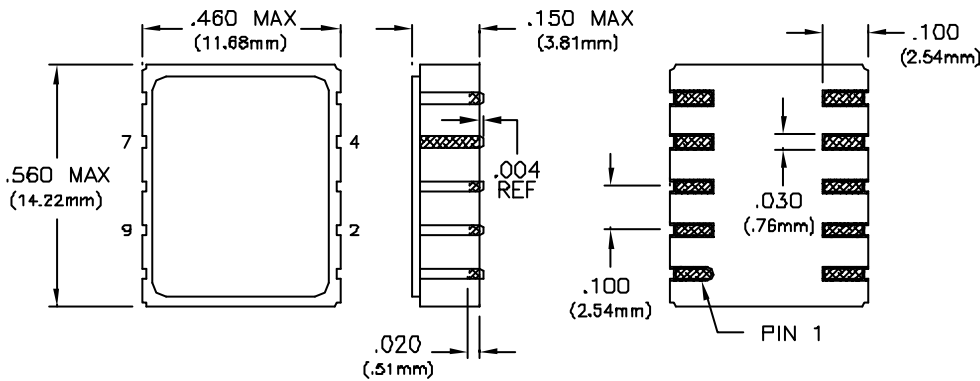
ORDERING INFORMATION



Specifications subject to change without notice.

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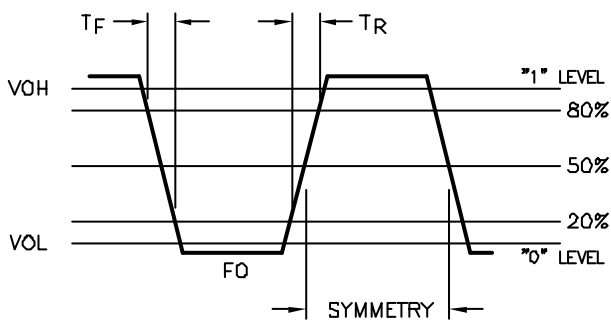
CRYSTAL CONTROLLED OSCILLATORS



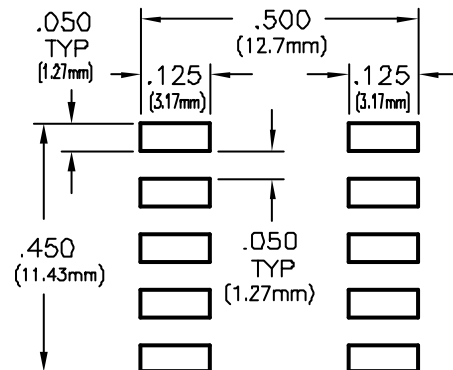
Pin	Connection
1	N/C
2	Option
3	Ground
4	Vee
5	N/C
6	Option
7	Q Output
8	N/C
9	Vcc
10	N/C

Dimensional Tolerance:
±.005 (.127mm)

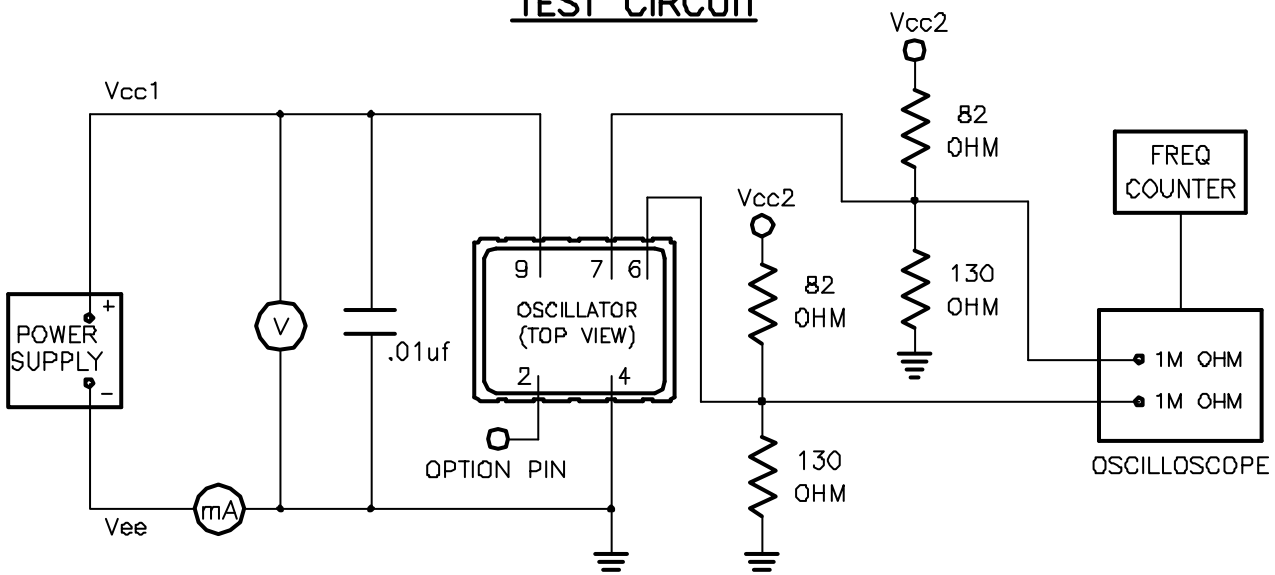
OUTPUT WAVEFORM



SUGGESTED PAD LAYOUT



TEST CIRCUIT



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