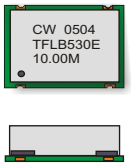
CONNOR WINFIELD
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PRODUCT DATA SHEET

CRYSTAL CONTROLLED OSCILLATORS

SURFACE MOUNT 3.3V HCMOS TCXO with TRI-STATE OUTPUT



TFLB530E

ABSOLUTE MAXIMUM RATINGS

TABLE 1.0

PARAMETER	UNITS	MINIMUM	NOMINAL	MAXIMUM	UNITS	NOTE
Storage Temperature		-40	-	85	°C	
Supply Voltage	(Vcc)	-0.5	-	7	Vdc	
Enable / Disable Voltage		-0.5	-	7	Vdc	

OPERATING SPECIFICATIONS

TABLE 2.0

PARAMETER		MINIMUM	NOMINAL	MAXIMUM	UNITS	NOTE
Frequency Range	(Fo)	6.4	-	50.00	MHz	
Frequency Tolerance		-3.0	-	3.0	ppm	1
Operating Temperature Range		0	-	70	°C	
Supply Voltage	(Vcc)	3.135	3.3	3.465	Vdc	
Supply Current	(Icc)	-	8	20	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		-	-125	-	dBc/Hz	
SSB Phase Noise at 10KHz offset		-	-135	-	dBc/Hz	
SSB Phase Noise at 100KHz offset		-	-145	-	dBc/Hz	

INPUT CHARACTERISTICS

TABLE 3.0

Enable Voltage (High)	(Vih)	≥ 70% Vdd	-	-	Vdc	2
Disable Voltage (Low)	(Vil)	-	-	≤ 30% Vdd	Vdc	

HCMOS OUTPUT CHARACTERISTICS

TABLE 4.0

PARAMETER			MINIMUM	NOMINAL	MAXIMUM	UNITS	NOTE
LOAD				-	-	15	pF	
Voltage	(High)	(Voh)	2.2	-	-	Vdc	
	(Low)	(Vol)	-	-	0.4	Vdc	
Current	(High)	(Ioh)	-4	-	-	mA	
	(Low)	(Ioh)	-	-	4	mA	
Duty Cycle at 50% of Vcc			45	50	55	%	
Rise / Fall Time 10% to 90%			-	3	5	nS	

PACKAGE CHARACTERISTICS

TABLE 5.0

Package	Non-hermetic package consisting of an FR4 substrate with grounded metal cover.

PROCESS RECOMMENDATIONS

TABLE 6.0

Solder Reflow	The component solder used internal to this device has a melting point of 221 C. The peak temperature inside the device should be less than or equal to 220 C for a maximum of 10 seconds
Wash	Ultrasonic cleaning is not recommended.

Note:
1) Inclusive of calibration, frequency vs. temperature stability, supply voltage change, load change, shock and vibration, 15 years aging.
2) Oscillator output is enabled with no connection on pad 6

DESCRIPTION

The Connor-Winfield TFLB530E is a Surface Mount Temperature Compensated Crystal Oscillator (TCXO). Operating at 3.3Vdc, the TFLB530E will maintain ±3.0ppm frequency tolerance over 15 years. The TFLB530E is offered in a surface mount package for automated assembly.

FEATURES

3.3V OPERATION

OVERALL FREQUENCY TOLERANCE: ±3.0ppm OVER 15 YEARS.

TEMPERATURE RANGE: 0 to 70°C

LOW JITTER <1pS RMS

TRI-STATE ENABLE/DISABLE

SURFACE MOUNT PACKAGE

TAPE AND REEL PACKAGING

ORDERING INFORMATION

TFLB530E - 10.00MHz

TCXO SERIES — CENTER FREQUENCY

Specifications subject to change without notice.

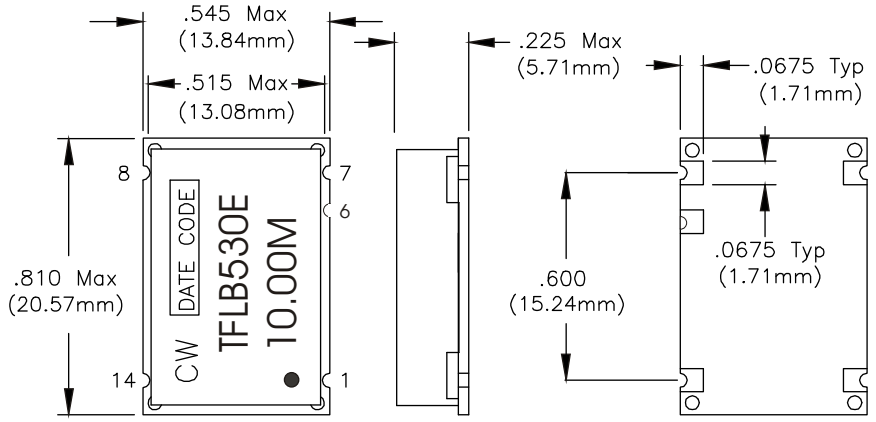
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PRODUCT DATA SHEET

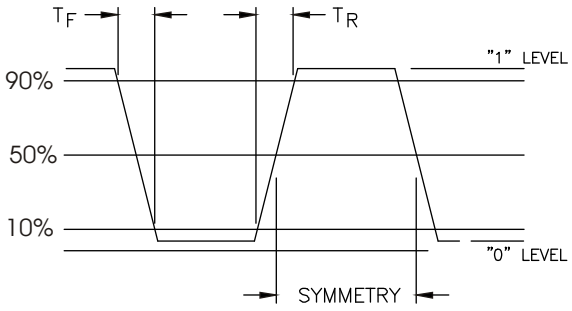
CRYSTAL CONTROLLED OSCILLATORS



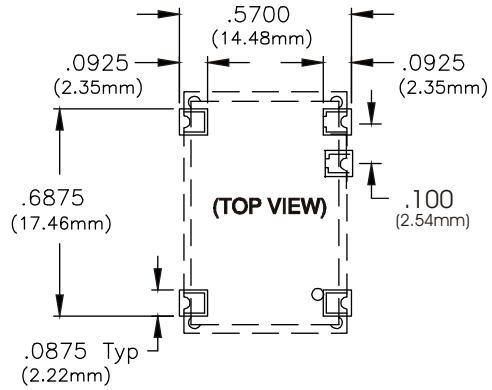
Pin	Connection
1	N/C
6	Enable / Disable
7	Ground
8	Output
14	Vcc

Dimensional Tolerance:
±.005 (.127mm)

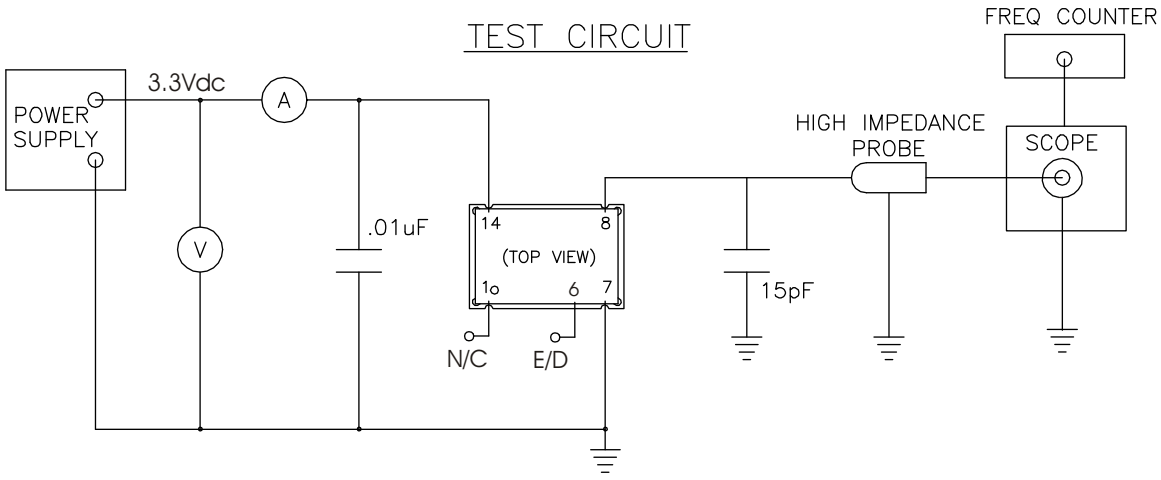
OUTPUT WAVEFORM



SUGGESTED PAD LAYOUT



TEST CIRCUIT



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