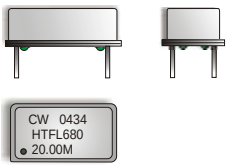
CONNOR WINFIELD

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PRODUCT DATA SHEET

CRYSTAL CONTROLLED OSCILLATORS

3.3V 14 PIN DIP HCMOS TCXO



HTFL680

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)	2.0	-	77.76	MHz	
Frequency Tolerance		-8.0	-	8.0	ppm	1
Operating Temperature Range		-40	-	85	°C	
Supply Voltage	(Vcc)	3.135	3.3	3.465	Vdc	
Supply Current	(Icc)	-	9	25	mA	
Jitter (BW=10Hz to 20MHz)		-	-	5	ps rms	
Jitter (BW=12kHz to 20MHz)		-	-	1	ps rms	
SSB Phase Noise at 10Hz offset		-	-80	-		
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	

HCMOS OUTPUT CHARACTERISTICS

TABLE 3.0

PARAMETER		MINIMUM	NOMINAL	MAXIMUM	UNITS	NOTE
LOAD		-	-	15	pF	
Voltage (High)	(Voh)	2.4	-	-	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 4.0

Package	Hermetically sealed, metal package.

Note:

1) Inclusive of calibration, frequency vs. temperature stability, supply voltage change, load change, shock and vibration, 20 years aging.

DESCRIPTION

The Connor-Winfield HTFL680 is a 3.3V HCMOS, hermetically sealed, fixed frequency, Temperature Compensated Crystal Oscillator (TCXO). The HTFL680 is designed for applications that require tight Frequency Stability over the Industrial Temperature Range.

FEATURES

3.3V OPERATION

LOW JITTER <1pS RMS

OVERALL FREQUENCY TOLERANCE OF ±8.0ppm

TEMPERATURE RANGE -40 to 85°C

HERMETICALLY SEALED PACKAGE

ORDERING INFORMATION

HTFL680 - 20.00 MHz

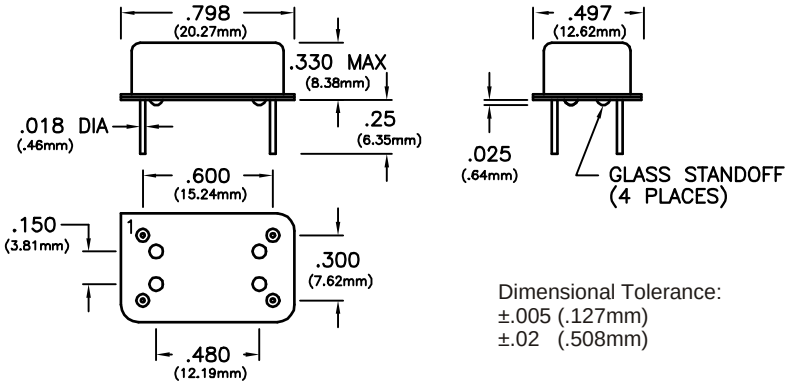
HTFL680: TCXO SERIES
20.00 MHz: CENTER FREQUENCY

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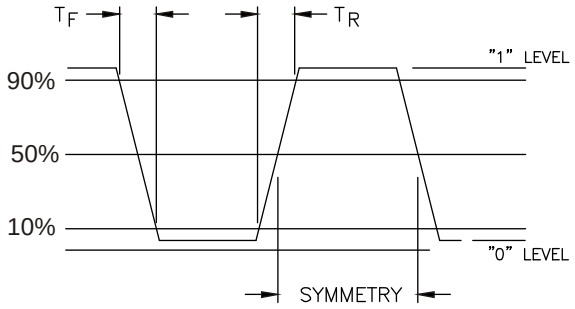
CRYSTAL CONTROLLED OSCILLATORS



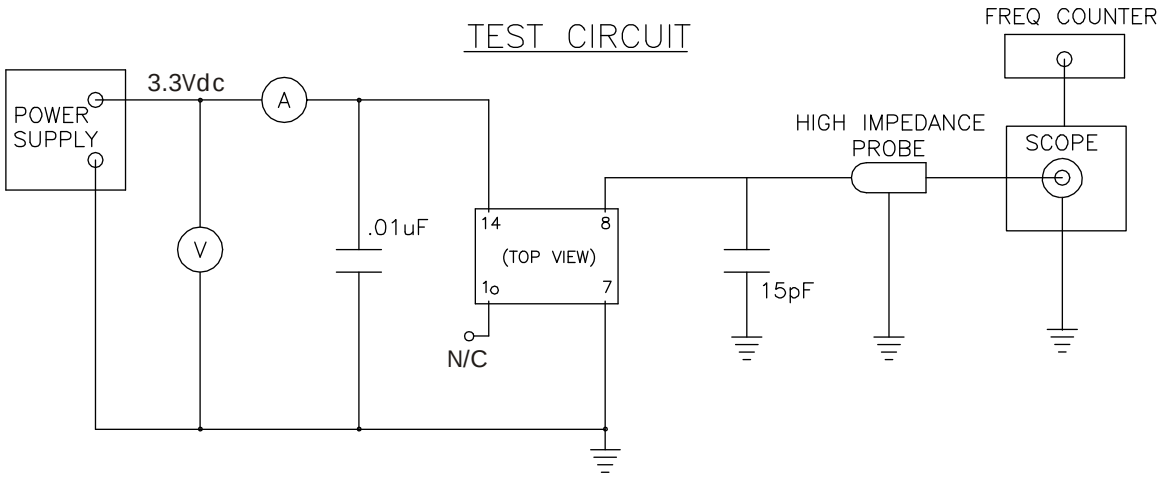
PIN	CONNECTION
1	N/C
7	GROUND
8	OUTPUT
14	Vcc

Dimensional Tolerance:
±.005 (.127mm)
±.02 (.508mm)

OUTPUT WAVEFORM



TEST CIRCUIT



Specifications subject to change without notice.

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