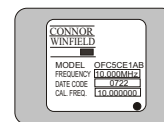


CRYSTAL CONTROLLED OSCILLATORS

High Stability HCMOS OCXO


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	

OPERATING SPECIFICATIONS
TABLE 2.0

PARAMETER		MINIMUM	NOMINAL	MAXIMUM	UNITS	NOTE
Center Frequency	(Fo)	-	10.000 12.800	-	MHz	1
Frequency Calibration		-2		2	ppm	2
Frequency Stability		-	-	10	ppb	3
Aging: Daily		-1	-	1	ppb/day	4
Aging: First Year		-30	-	30	ppb	
Aging: Short Term (1Sec.)		-	5.00E-11	-	RMS	5
Operating Temperature Range		0	-	70	°C	
Supply Voltage	(Vcc)	4.75	5.00	5.25	Vdc	
Voltage Stability (+/-1%)		-0.5	-	0.5	ppb	6
Load Stability (+/-20%)		-0.5	-	0.5	ppb	7
Power Consumption: Turn On		-	-	2.75	W	8
Power Consumption: Steady-State		-	-	1.50	W	8
Start-Up Time		-	-	500	ms	9
Warm Up		-100	-	100	ppb	10
2G Tip-over		-	5	-	ppb/G	
TDEV at 300 seconds		-	-	5	ns	11
TDEV at 40 seconds		-	-	1	ns	11

HCMOS OUTPUT CHARACTERISTICS
TABLE 3.0

PARAMETER		MINIMUM	NOMINAL	MAXIMUM	UNITS	NOTE
LOAD		12	15	18	pF	12
Voltage (High)	(Voh)	4.2	-	-	Vdc	
(Low)	(Vol)	-	-	0.4	Vdc	
Duty Cycle at 50% of Vcc		45	50	55	%	
Rise / Fall Time 10% to 90%		-	-	5	nS	
Spurious Output				-80	dBc	
SSB Phase Noise at 1Hz offset		-	-	-90	dBc/Hz	
SSB Phase Noise at 10Hz offset		-	-	-115	dBc/Hz	
SSB Phase Noise at 100Hz offset		-	-	-130	dBc/Hz	
SSB Phase Noise at 1KHz offset		-	-	-140	dBc/Hz	
SSB Phase Noise at 10KHz offset		-	-	-145	dBc/Hz	

RESTALLIZATION TIME
TABLE 4.0

Off Time	Restabilization Time	NOTE
< 1 Hour	< 2 Hours	13
< 6 Hours	< 12 Hours	13
< 24 Hours	< 48 Hours	13
1 to 16 Days	48 Hours + ¼ Off Time	13
> 16 Days	< 6 Days	13

PACKAGE CHARACTERISTICS
TABLE 5.0

Package	Metal package: solder sealed, grounded case, solder tinned pins.
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ENVIRONMENTAL CHARACTERISTICS
TABLE 6.0

Shock	100G's, 6mS, halfsine per MIL-STD-202F, Method 213B, Test Condition C
Vibration	0.06" D.A. or 10G peak 10 to 500 Hz, per MIL-STD-202F, Method 204D, Test condition A
Soldering Process	See solder profile page 2.

OFC5CE1AB

DESCRIPTION

The Connor-Winfield OFC5CE1AB is a 5V Oven Controlled Crystal Oscillator (OCXO) with a HCMOS output. The OFC5CE1AB is designed for applications requiring high frequency stability over the commercial temperature range.

FEATURES

Designed for Very High Stability Applications

Fixed Frequency OCXO

5.0V Operation

Frequency Stability: 10ppb Absolute

Temperature Range

HCMOS Output Logic

RoHS 5/6 Compliant

ORDERING INFORMATION

OFC5CE1AB - 10.0M

OCXO
SERIES

CENTER
FREQUENCY

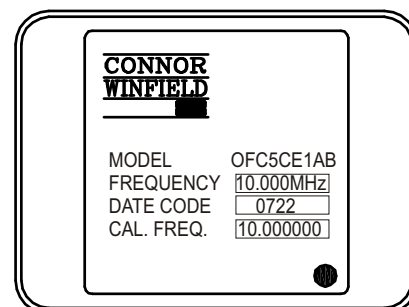
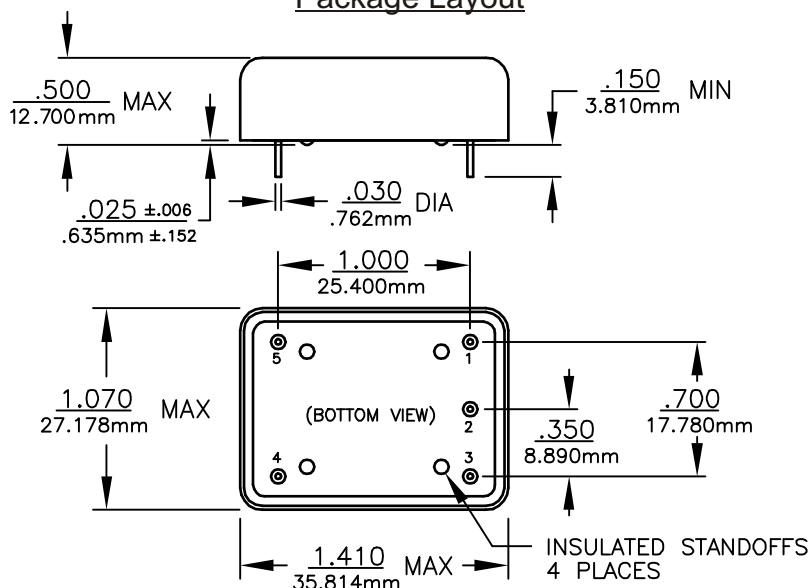
Specifications subject to change without notice.

CRYSTAL CONTROLLED OSCILLATORS

Notes:

- 1) Labels will include the calibration frequency at the time of ship.
- 2) Initial calibration @ 25°C.
- 3) Overall frequency stability, 0 to 70°C Absolute.
- 4) After ten days of continuous operation.
- 5) Allen Variance: 1 second, 100 average.
- 6) Frequency vs. change in supply voltage.
- 7) Frequency vs. change in load.
- 8) Vcc = 5.0Vdc.
- 9) From Vcc=90% of final value. No more than 16 transitions at start-up before oscillator has started.
- 10) Measured @ 0°C, within 5 minutes, referenced one hour after turn-on.
- 11) At time of delivery.
- 12) HCMOS load.
- 13) For a given off time, the time required to meet daily aging, short-term stability and TDEV requirements.

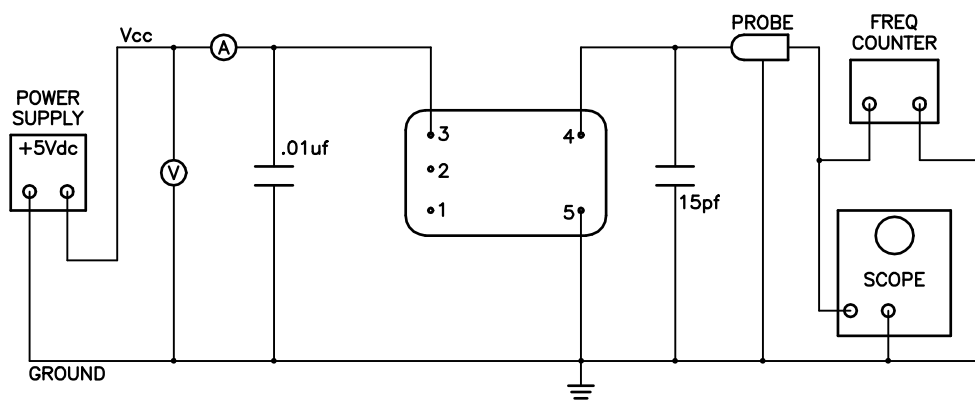
Package Layout



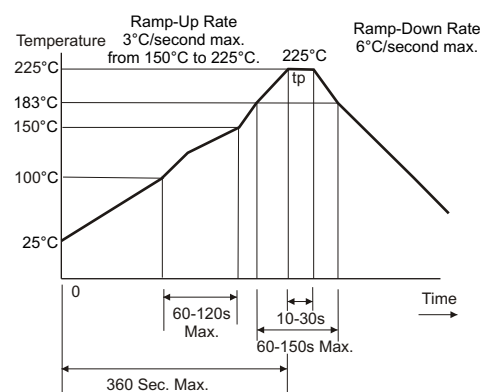
Pin Connections

PIN	CONNECTION
1	NO CONNECT
2	NO CONNECT
3	SUPPLY VOLTAGE
4	RF OUTPUT
5	CIRCUIT AND PACKAGE GROUND

Test Circuit



Solder Profile



Specifications subject to change without notice.