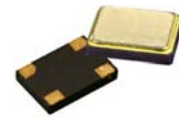


# (V)TX32CC Series

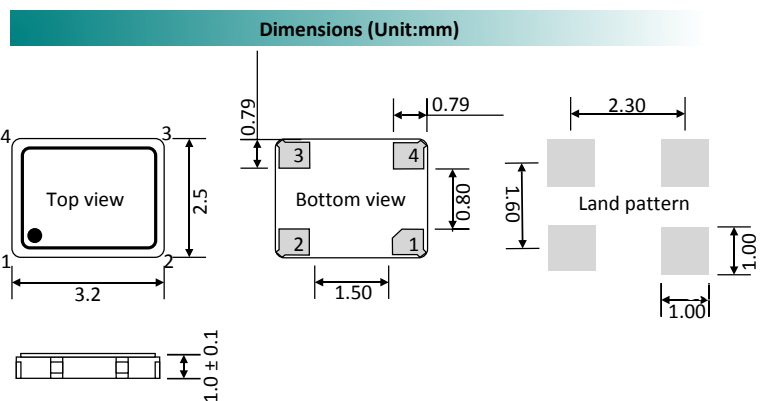
TCXO/VC-TCXO, 3.2 x 2.5mm, HCMOS/TTL

From  $\pm 0.5$ ppm stability over 0°C to 50°C  
 ESD sensitive device  
 Moisture sensitive level (MSL)-1



Parameters		Specification		Remarks
Frequency range	F_nom	8.192MHz ~ 40.0MHz		
Supply voltage	Vcc	2.5V, 3.0V, 3.3V, 5.0V		
Initial frequency tolerance	F_tol	$\pm 2.0$ ppm		at +25°C $\pm 2$ °C
Frequency stability	vs Temperature	F_stb	$\pm 0.5$ ppm ~ $\pm 3.0$ ppm	Table 1
	vs Load	F_load	$\pm 0.3$ ppm max.	$\pm 10\%$ load condition change
	vs Voltage	F_Vcc	$\pm 0.3$ ppm max.	$\pm 5\%$ input voltage change
	vs Aging	F_age	$\pm 1.0$ ppm/year max.	at +25°C
	vs Reflow		$\pm 1.0$ ppm/year max.	1 reflow and measured after 24hrs
Operating temperature range (°C)	Topr	0°C ~ +50°C to -40°C ~ +85°C		Table 1
Storage temperature (°C)	Tstg	-55°C ~ +125°C		
Output Wave Form		HCMOS/TTL		
Output voltage high	Voh	90% Vcc min.		
Output voltage low	Vol	10% Vcc max.		
Output load		15pF		
Current consumption	Icc	6mA max.		Over operating temperature range
Rise and fall time	Tr, Tf	10ns max.		20% to 80% of wave form.
Duty cycle	SYM	45%/55%, 40%/60%		Measured at 50% Vcc.
Start-up time	T_str	5.0m sec (typ.), 10.0m sec. (Max.)		Reach 90% amplitude at +25°C $\pm 2$ °C
<b>VC-TCXO option only</b>				
Control voltage	Vc	1.5V $\pm$ 1.0V		for all supply voltages
Frequency tuning (ppm)		$\pm 5.0$ ppm min.		
Linearity/Slope polarity		$\pm 10.0\%$ max/Positive slope		Positive voltage for positive frequency shift
Input impedance		50.0M $\Omega$ min		
Modulation bandwidth		20.0kHz min		

Temp. (°C)	Stability in ppm					
	$\pm 0.5$	$\pm 1.0$	$\pm 1.5$	$\pm 2.0$	$\pm 2.5$	$\pm 3.0$
0°C to 50°C	✓	✓	✓	✓	✓	✓
-10°C to 60°C	Enq.	✓	✓	✓	✓	✓
-20°C to 70°C	X	✓	✓	✓	✓	✓
-30°C to 75°C	X	✓	✓	✓	✓	✓
-30°C to 85°C	X	✓	✓	✓	✓	✓
-40°C to 85°C	X	Enq.	✓	✓	✓	✓



Pad 1 : Control voltage (VCTCXO). No connection(TCXO)  
 Pad 2 : Ground  
 Pad 3 : Output  
 Pad 4 : Supply Voltage

# (V)TX32CC Series

TCXO/VC-TCXO, 3.2 x 2.5mm, HCMOS/TTL

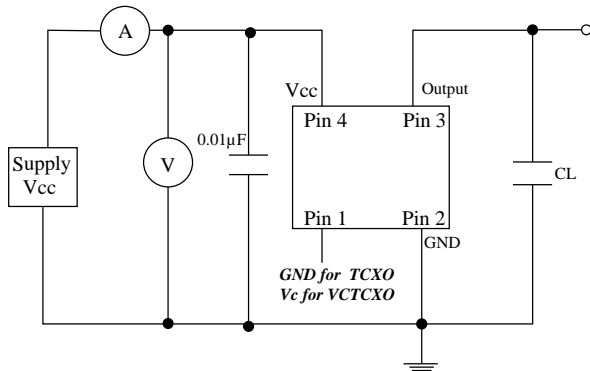


### TCXO/VC-TCXO part number generation

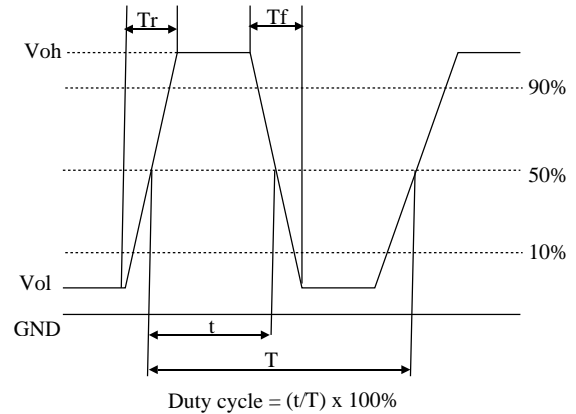
TX32CC	2600	M	B	X	B	X	Z	L	-PF
ACT series Code	Frequency (MHz) Ex. 26.00MHz = 2600 8.00MHz = 0800 14.7456MHz = 1474	Temp. stability (±ppm)	Supply voltage (V)	Operating temp. range (°C)	Output wave	Electrical tuning (±ppm)	Duty Cycle	Tape & Reel	RoHS Code
TCXO = TX32CC VCTCXO = VTX32CC	< 100MHz First 4 digit of frequency  > 100MHz First 5 digit of frequency	0.5 = R 1.0 = P 1.5 = O 2.0 = N 2.5 = M 3.0 = L	2.5V = C 3.0V = E 3.3V = B 5.0V = A	0 ~ 50 = D -10 ~ +60 = F -20 ~ +70 = B -30 ~ +75 = W -30 ~ +85 = X -40 ~ +85 = K	HCMOS = E HCMOS/TTL = J	For <b>TCXO</b> None = X  For <b>VCTCXO</b> ±5.0 = D	40/60 = S 45/55 = H	Loose = L 1000 = C 2000 = E	-PF

Note: It is important to suffix the above part number with full frequency required to give a completed part number as illustrated below.  
Full Example part number : **TX32CC2600MBXEXSL-PF [26MHz]**, **TX32CC1474MBXEXSL-PF [14.7456MHz]**

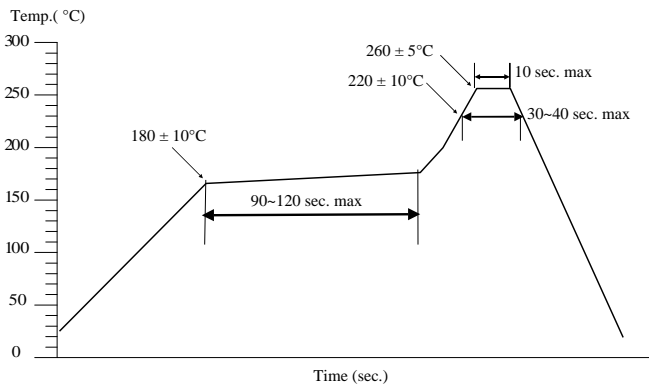
#### Test circuit



#### Test waveform



#### Solder reflow profile



Drawing control: (Internal use only)  
Commodity code: 854370 90 99  
Issue number : 1  
Date : 25042016  
Internal reference : M6

Advanced Crystal Technology (A wholly owned Acal BFi Company)  
Tel: +44 (0) 118 978 8878 Email [info@actcrystals.com](mailto:info@actcrystals.com) / [www.actcrystals.com](http://www.actcrystals.com)

ISO9001 Registered

Specifications subject to change without notification