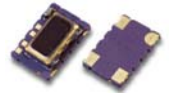


(V)TFCT75 Series

TCXO/VC-TCXO, 7.0 x 5.0mm, HCMOS, Programmable



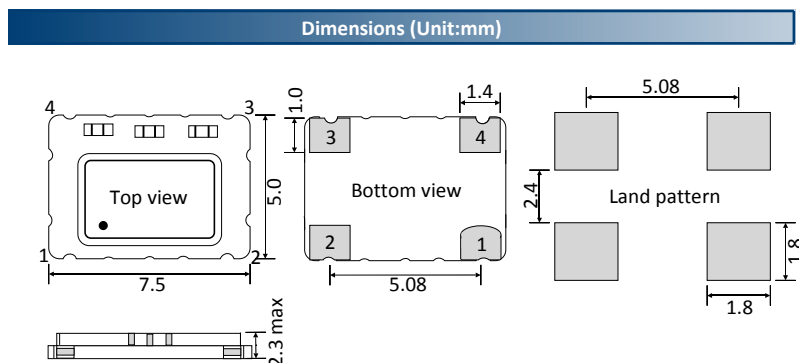
Programmable device, fast lead time
Recommended for non standard frequency
Low jitter and low phase noise



Parameters		Specification		Remarks
Frequency range	F_nom	3.0MHz ~ 200.0MHz		
Supply voltage	Vcc	2.8V, 3.0V, 3.3V		
Initial frequency tolerance	F_tol	$\pm 2.0\text{ppm}$		At +25°C±2°C
Frequency stability	vs Temperature	F_stb	$\pm 0.5\text{ppm} \sim \pm 3.0\text{ppm}$	Table 1
	vs Load	F_load	$\pm 0.3\text{ppm max}$	$\pm 10\%$ load condition change
	vs Voltage	F_Vcc	$\pm 0.3\text{ppm max}$	$\pm 5\%$ input voltage change
	vs Aging	F_age	$\pm 1.0\text{ppm/year max}$	At +25°C
	vs Reflow		$\pm 1.0\text{ppm/year max}$	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 Waveform		HCMOS		
Output voltage high	Voh	90% Vcc min		
Output voltage low	Vol	10% Vcc max		
Output load		15pF		
Current consumption	Icc	10mA max [25MHz] ; 20mA max [200MHz]		At +25°C
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 (typical), 10.0m sec. (Max)		Reach 90% amplitude at +25°C±2°C
VC-TCXO option only				
Control voltage	Vc	1.5V ± 1.0V		For all supply voltages
Frequency tuning (ppm)		$\pm 5.0\text{ppm min}$		
Linearity/Slope polarity		$\pm 10.0\%$ max/Positive slope		Positive voltage for positive frequency shift
Input impedance		50.0MΩ min		
Modulation bandwidth		20.0kHz min		

ESD sensitive device, Moisture sensitive level (MSL) - 1

Temp. (°C)	Stability in ppm					
	±0.5	±1.0	±1.5	±2.0	±2.5	±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.	✓	✓	✓	✓



Phase Noise (133.33MHz example)	dBc/Hz typical
10Hz	-70
100Hz	-91
1kHz	-95
10kHz	-91
100kHz	-85

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

(V)TFCT75 Series

TCXO/VC-TCXO, 7.0 x 5.0mm, HCMOS, Programmable



TCXO part number generation											
FT75	2600	M	B	X	N	E	X	X	H	L	-PF
ACT series Code	Frequency (MHz) Eg. 26.00MHz	Temp. stability (±ppm)	Supply voltage (V)	Operating temp. range (°C)	Frequency tuning (±ppm)	Output wave	Mechanical tuning (±ppm)	Polarity	Duty cycle (%/%)	Tape & Reel	RoHS code
FT75	< 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	2.8V = H 3.0V = E 3.3V = B	0 ~ +50 = D -10 ~ +60 = F -20 ~ +70 = B -30 ~ +75 = W -30 ~ +85 = X -40 ~ +85 = K	None = N	HCMOS = E	None = X	None = X	40/60 = S 45/55 = H	Loose = L 1000 = C 2000 = E	-PF
<p>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 : FT752600MBXNEXXHL-PF [26MHz], FT751474MBXNEXXHL-PF-PF [14.7456MHz]</p>											

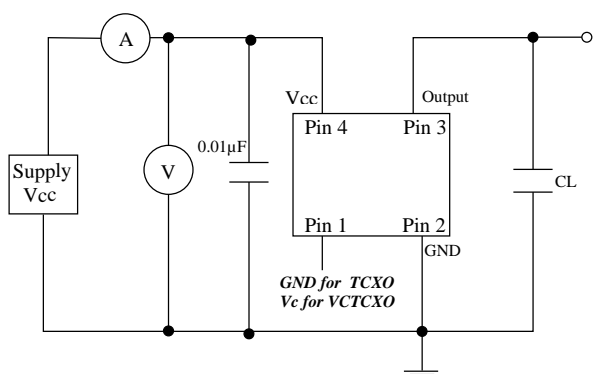
VC-TCXO part number generation													
VFT75	1474	M	B	X	E	E	X	D	P	E	H	L	-PF
ACT Series code	Frequency (MHz) Ex. 14.7456MHz	Temp. stability (±ppm)	Supply voltage (V)	Operating temp. range (°C)	Frequency tuning (±ppm)	Output wave	Mechanical tuning (±ppm)	Electrical tuning (±ppm)	Polarity	Linearity	Duty cycle (%/%)	Tape & Reel	RoHS code
VFT75	< 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	2.8V = H 3.0V = E 3.3V = B	0 ~ +50 = D -10 ~ +60 = F -20 ~ +70 = B -30 ~ +75 = W -30 ~ +85 = X -40 ~ +85 = K	Voltage Control Only = E	HCMOS = E	None = X	±5.0 = D	Positive = P	±10% = E	40/60 = S 45/55 = H	Loose = L 1000 = C 2000 = D	-PF
<p>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 : VFT751474MBXEEXDPEHL-PF (14.7456MHz)</p>													

(V)TFCT75 Series

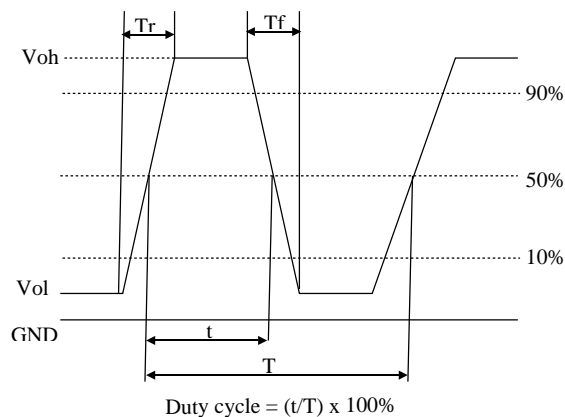
TCXO/VC-TCXO, 7.0 x 5.0mm, HCMOS, Programmable



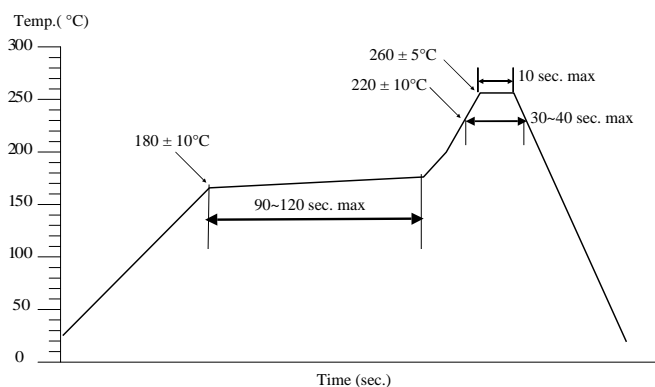
Test circuit



Test waveform



Solder reflow profile



Drawing control: (Internal use only)
Commodity code: 854370 90 99
Issue number : N1
Date : 01/02/2017
Internal reference : M6