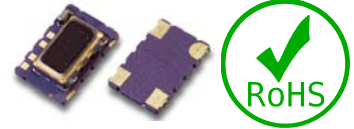


# (V)TFCT75 Series



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

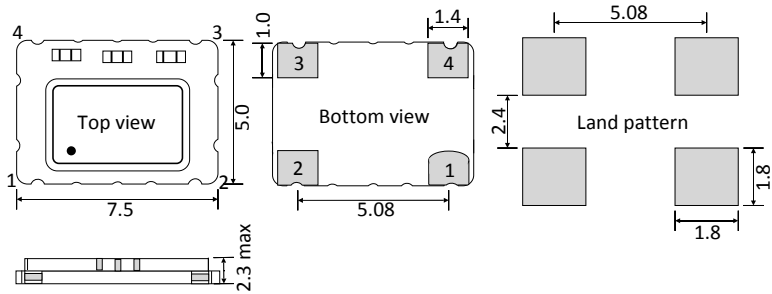
Programmable device, Fast lead time  
 Recommended for non standard frequency  
 Low jitter and low phase noise  
 ESD sensitive device, Moisture sensitive level (MSL) - 1



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	<math>\pm 2.0\text{ppm}</math>	at +25°C±2°C
Frequency stability	vs Temperature	F_stb ±0.5ppm ~ ±3.0ppm	Table 1
	vs Load	F_load ±0.3ppm max.	±10% load condition change
	vs Voltage	F_Vcc ±0.3ppm max.	±5% input voltage change
	vs Aging	F_age ±1.0ppm/year max.	at +25°C
	vs Reflow	±1.0ppm/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	
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 (typ.), 10.0m sec. (Max.)	Reach 90% amplitude at +25°C±2°C
<b>VC-TCXO Option Only</b>			
Control voltage	Vc	1.5V ± 1.0V	for all supply voltages
Frequency tuning (ppm)		±5.0ppm min.	
Linearity/Slope polarity		±10.0% max/Positive slope	Positive voltage for positive frequency shift
Input impedance		50.0MΩ min	
Modulation bandwidth		20.0kHz min	

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.	✓	✓	✓	✓

### Dimensions (Unit:mm)



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

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# (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 : <b>FT752600MBXNEXHL-PF [26MHz]</b>, <b>FT751474MBXNEXHL-PF-PF [14.7456MHz]</b></p>											

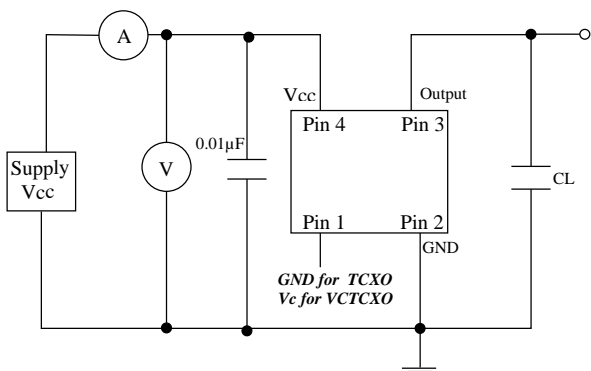
VC-TCXO part number generation													
VFT75	1474	M	B	X	E	E	X	D	P	E	H	L	-PF
ACT Series code	Frequency (MHz) Ex. 14.7456MHz	Temp. stability (±ppm)	Supply voltage (V)	Operating temp. range (°C)	Frequency tuning (±ppm)	Output wave	Mechanical tuning (±ppm)	Electrical tuning (±ppm)	Polarity	Linearity	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 : <b>VFT751474MBXEEXDPEHL-PF (14.7456MHz)</b></p>													

# (V)TFCT75 Series

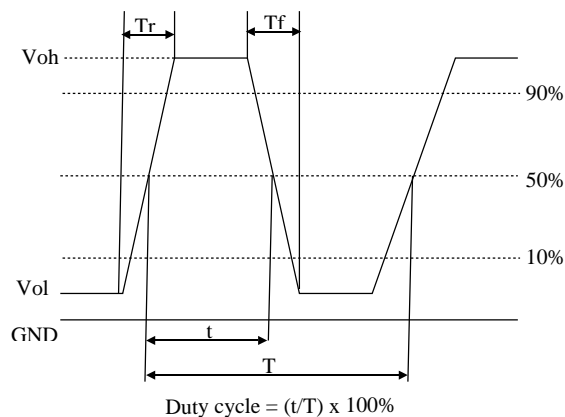
TCXO/VC-TCXO, 7.0 x 5.0mm, HCMOS, Programmable



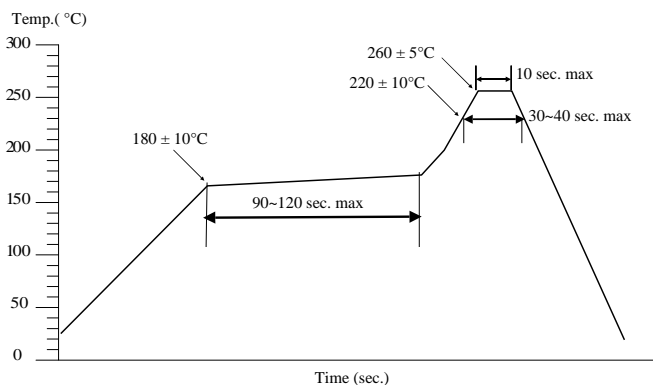
Test circuit



Test waveform



Solder reflow profile



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

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