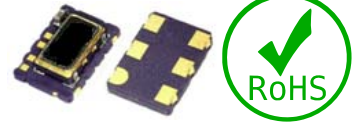


(V)TDLV75 Series

TCXO/VC-TCXO, 7.0 x 5.0mm, LVDS output

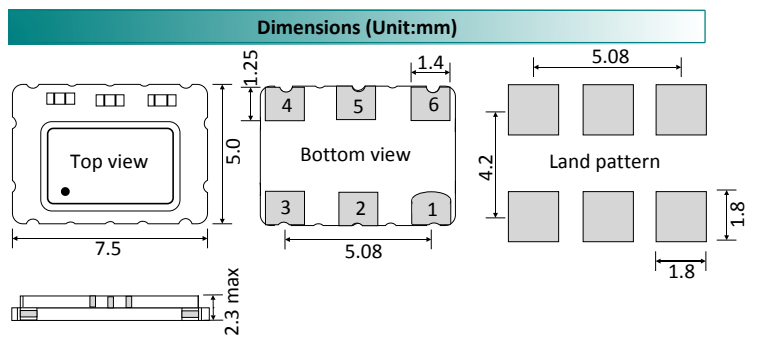
±2.0ppm stability over -30°C to 85°C
 Moderate jitter specification
 ESD sensitive device, Moisture sensitive level - 1



Parameters		Specification		Remarks
Frequency range	F_nom	12.0MHz ~ 800.0MHz		
Supply voltage	Vcc	3.3V		
Initial frequency tolerance	F_tol	<±2.0ppm		At +25°C±2°C
Frequency stability	vs Temperature	F_stb	±1.0ppm ~ ±5.0ppm	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 waveform / Output load		LVDS square wave/50Ω from each load		
Output voltage high	Voh	1.4V typical ; 1.6V min.		
Output voltage low	Vol	0.9V min ; 1.1V max.		
Output differential voltage	Vod	247mV min ; 355mV typical ; 454mV max.		Output 1 - Output 2
Output differential voltage error	Dvod	-50mV min ; 50mV max.		
Output offset voltage	Vos	1.125V min ; 1.2V typical ; 1.375V max.		
Output offset magnitude error	Dvos	0mV min ; 3mV typical ; 25mV max.		
Current consumption	Icc	12~24MHz : 33mA max ; 24~96MHz : 50mA 96~700MHz : 85mA		Max current measured with load
Rise and fall time	Tr, Tf	1.5ns max.		20% to 80% of wave form.
Duty cycle	SYM	45%/55%		Measured at 1.25V
Start-up time	T_str	5.0m sec (typ.), 10.0m sec. (Max.)		Reach 90% amplitude at +25°C±2°C
Phase jitter (RMS) (12kHz to 20MHz)		2.6ps (typ.) , 4.0ps (max)		For frequency 155.520MHz
Tristate		Yes, Pin 2		
VC-TCXO option only				
Control voltage	Vc	1.5V ± 1.0V		
Frequency tuning (ppm)		±5.0ppm min.		
Linearity/Slope polarity		6.0% typical;10%max/Positive slope		Positive voltage for positive frequency shift

Temp. (°C)	Stability in ppm					
	±1.0	±2.0	±2.5	±3.0	±4.0	±5.0
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	X	X	Enq.	Enq.	√

Phase noise at 25°C (dBc/Hz)	100MHz	622.08MHz
10Hz	-75	-55
100Hz	-104	-85
1kHz	-115	-109
10kHz	-120	-115
100kHz	-122	-110



- Pad 1: Control voltage for VCTCXO
No connection for TCXO
- Pad 2: Tristate
- Pad 3: GND
- Pad 4: LVDS output
- Pad 5: Complimentary output
- Pad 6: Supply voltage

Pad 2 (Tristate)	Pad 4/Pad 5 (Output)
No connection	Active
Enable (>Vcc*0.45)	Active
Disable (<Vcc*0.45)	High impedance

TCXO part number generation											
TLV75	2600	M	B	X	N	K	X	X	H	L	-PF
ACT series Code	Frequency (MHz) Ex. 26.00MHz	Temp. stability (±ppm)	Supply voltage (V)	Operating temp. range (°C)	Frequency tuning (±ppm)	Output waveform	Mechanical tuning (±ppm)	Polarity	Duty cycle (%/%)	Tape & Reel	RoHS
TLV75	< 100MHz First 4 digit of frequency > 100MHz First 5 digit of frequency	1.0 = P 2.0 = N 2.5 = M 3.0 = L 4.0 = J 5.0 = F	3.3V = B	0 ~ 50 = D -10 ~ +60 = F -20 ~ +70 = B -30 ~ +75 = W -30 ~ +85 = X -40 ~ +85 = K	None = N	LVDS = K	None = X	None = X	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 : **TLV752600MBXNKXXHL-PF [26MHz]**, **TLV751474MBXNKXXHL-PF [14.7456MHz]**

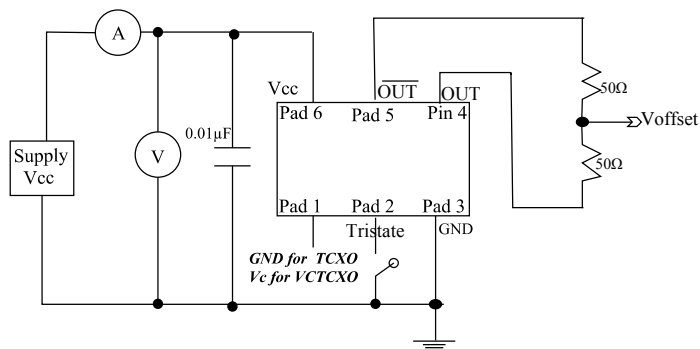
VC-TCXO part number generation													
VTLV75	1474	M	B	X	E	B	X	D	P	E	Z	L	-PF
ACT series Code	Frequency (MHz) Ex. 14.7456MHz	Temp. stability (±ppm)	Supply voltage (V)	Operating temp. range (°C)	Frequency tuning (±ppm)	Output waveform	Mechanical tuning (±ppm)	Electrical tuning (±ppm)	Polarity	Linearity	Duty cycle	Tape & Reel	RoHS
VTLV75	< 100MHz First 4 digit of frequency > 100MHz First 5 digit of frequency	1.0 = P 2.0 = N 2.5 = M 3.0 = L 4.0 = J 5.0 = F	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	LVDS = K	None = X	±5.0 = D	Positive = P	±10% = E	45/55 = H	Loose = L 1000 = C 2000 = D	-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 : **VTT751474MBXEKXDPEHL-PF (14.7456MHz)**

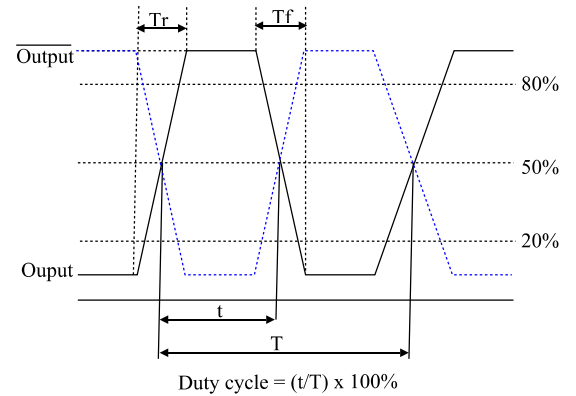
(V)TDLV75 Series

TCXO/VC-TCXO, 7.0 x 5.0mm, LVDS output

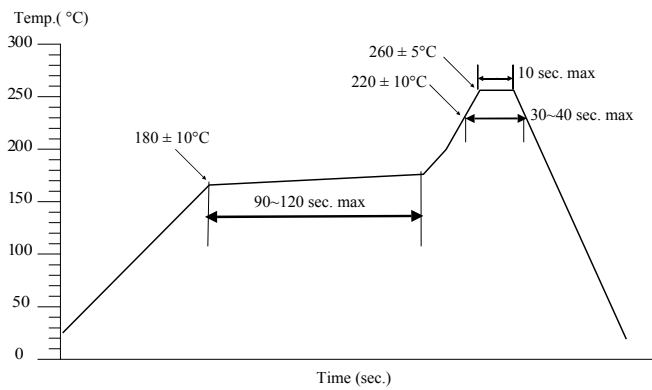
Test circuit



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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