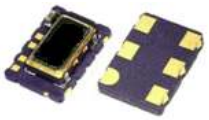
(V)TPL75 Series

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

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

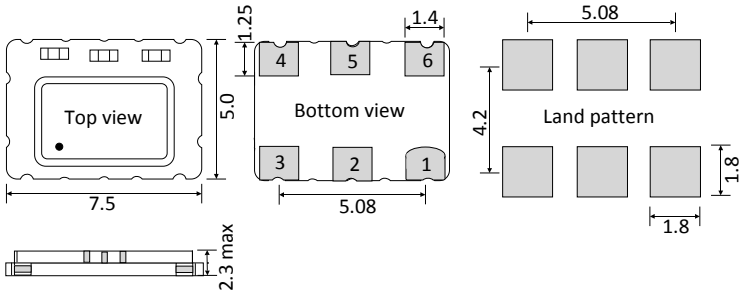


Parameters			Specification	Remarks
Frequency range		F_nom	12.0MHz ~ 800.0MHz	
Supply voltage		Vcc	3.3V	
Initial frequency tolerance		F_tol	<±2.0ppm	at +25°C±2°C
Frequency stability	vs Temperature	F_stb	±1.0ppm ~ ±5.0ppm	Table 1
	vs Load	F_load	±0.3ppm max.	±10% load condition change
	vs Voltage	F_Vcc	±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 Wave Form / Output load			LVPECL	
Output voltage high		Voh	Vcc - 1.025V (min)	Output load condition: 50Ω to Vcc - 2V
Output voltage low		Vol	Vcc - 1.620V (max)	Output load condition: 50Ω to Vcc - 2V
Output load		Vod	50Ω to Vcc - 2V	
Current Consumption		Icc	10~25MHz : 65mA max ; 25~100MHz : 85mA 100~800MHz : 115mA	Max ; measured with PECL thevenin equivalent load
Rise and fall time		Tr, Tf	1.5ns max.	20% to 80% of wave form.
Duty cycle		SYM	45%/55%	Measured at Vcc - 1.3V
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 (typical) , 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

Table 1 Frequency Stability vs Temperature

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.	√

Dimensions (Unit:mm)



Phase noise at 25°C (dBc/Hz)	155.52MHz	622.08MHz
10Hz	-65	-55
100Hz	-95	-85
1kHz	-120	-109
10kHz	-125	-115
100kHz	-121	-110

Pad 1: Control voltage for VCTCXO
No connection for TCXO
Pad 2: Tristate
Pad 3: GND
Pad 4: LVPECL 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

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ISO9001 Registered

Specifications subject to change without notification

(V)TPL75 Series

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

TCXO part number generation											
TPL75	**2600**	**M**	**B**	**X**	**N**	**M**	**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 waveform	Mechanical tuning (±ppm)	Polarity	Duty cycle (%/%)	Tape & Reel	RoHS
TPL75	< 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	LVPECL = M	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 : **TPL752600MBXNMXXHL-PF [26MHz], TPL751474MBXNMXXHL-PF [14.7456MHz]**

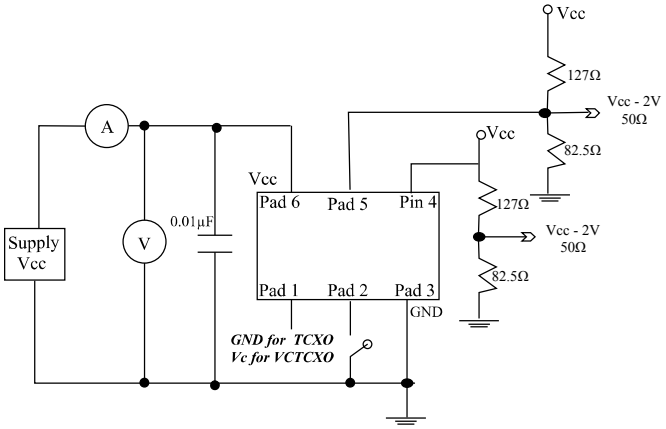
VC-TCXO part number generation													
VTP75	**1474**	**M**	**B**	**X**	**E**	**M**	**X**	**D**	**P**	**E**	**H**	**L**	**-PF**
ACT series Code	Frequency (MHz) Eg. 14.7456MHz	Temp. stability (±ppm)	Supply voltage (V)	Operating temp. range (°C)	Frequency tuning (±ppm)	Output waveForm	Mechanical tuning (±ppm)	Electrical tuning (±ppm)	Polarity	Linearity	Duty cycle	Tape & Reel	RoHS code
VTP75	< 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	LVPECL = M	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 : **VTP751474MBXEMXDPEHL-PF (14.7456MHz)**

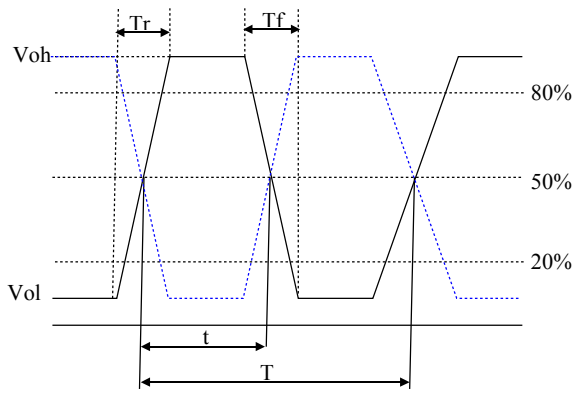
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TCXO/VC-TCXO, 7.0 x 5.0mm, LVPECL output

Test circuit

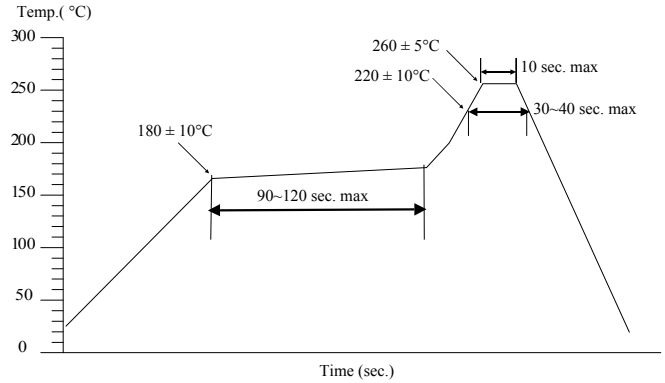


Test waveform



Duty cycle = (t/T) x 100%

Solder reflow profile



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