

TX14T

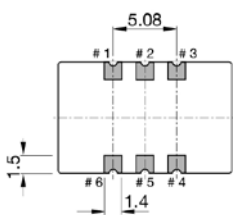
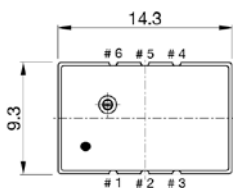
High accurate, reliable
(LV)HCMOS or Sine wave TCXO with internal trimmer



Frequency range	10.000 to 100.000 MHz		
Standard frequencies	10, 20, 25, 32, , 38.88, 40, 48, 50, 60, 100 MHz		
Frequency stability:			
vs. temperature referenced to (F _{MAX} +F _{MIN})/2	≤ ±0.5 ppm	over -40 to +85 °C	(*)
vs. supply voltage changes referenced to frequency at nominal supply	≤ ±0.05 ppm	±5 %	
vs. load changes referenced to frequency at nominal load	≤ ±0.05 ppm	±10 %	
vs. aging @ +40 °C	≤ ±1.0 ppm	1 st year	
G-sensitivity	2.0 ppb/g	per axis	
Short term stability ADEV	< 1*10 ⁻¹⁰	τ = 1.0 s	
Frequency tolerance ex factory	0 ~ +1.0 ppm	@ +25 °C	
Supply voltage	+3.3 V or 5.0 V		(*)
Output signal	Sine wave	(LV)HCMOS	(*)
Frequency range	20 to 100 MHz	10 to 100 MHz	
Output level	+3 to +6 dBm	VOH > 0.9*V _{CC} / VOL < 0.1*V _{CC}	
Output load	50 Ω	15 pF max.	
Current consumption	< 15 mA	< 10 mA	
Frequency adjustment (trimming)	≥ 5 ppm	by internal trimmer	
Phase noise (typical value for 40 MHz)	-85 dBc/Hz	@ 10 Hz	
	-112 dBc/Hz	@ 100 Hz	
	-140 dBc/Hz	@ 1 kHz	
	-150 dBc/Hz	@ 10 kHz	
	-154 dBc/Hz	@ 100 kHz	
	-155 dBc/Hz	@ 1 MHz	
Operating temperature range	-40 ~ +85 °C		(*)
Reflow profiles as per IPC/JEDEC J-STD-020C	≤ 245 °C over 10 s max.		

(*) See available options on page #2

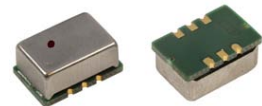
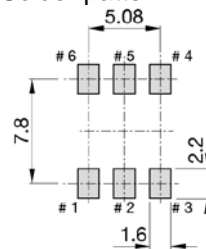
Note: Unless otherwise specified conditions are @+25 °C



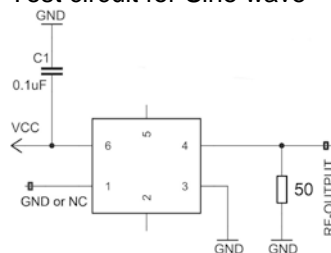
Pin function

- # 1 GND or NC
- # 2 NC or GND
- # 3 GND
- # 4 RF output
- # 5 NC or GND
- # 6 Vcc

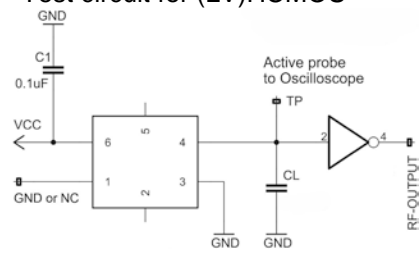
Solder pattern



Test circuit for Sine wave



Test circuit for (LV)HCMOS

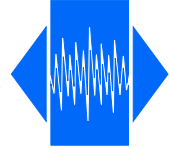


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(LV)HCMOS or Sine wave TCXO with internal trimmer

QuartzCom
the communications company



Ordering code

TX14T-(1)(2)-(3)(4)-50.000MHz

Example: TX14T-H33-EKu50-50.000MHz

Oscillator type	(1) Output signal	(2) Supply voltage	(3) Operating temperature
TX = TCXO	H = (LV)CMOS S = Sine wave	33 = 3.3 V 50 = 5.0 V	EK = -0 to +70 °C JK = -20 to +70 °C NN = -40 to +85 °C NP = -40 to +95 °C NR = -40 to +105 °C QN = -55 to +85 °C
		(4) Frequency stability	
		u10 = ± 0.10 ppm u25 = ± 0.25 ppm u50 = ± 0.50 ppm 1u0 = ± 1.00 ppm 1u5 = ± 1.50 ppm	

Frequency stability vs. temperature

ppm	≤± 0.10	≤± 0.25	≤± 0.50	≤± 1.00	≤± 1.50
-20 to +70 °C	Δ	○	○	○	○
-40 to +85 °C	Δ	Δ	○	○	○
-40 to +95 °C	Δ	Δ	Δ	Δ	○
-40 to +105 °C	Δ	Δ	Δ	Δ	Δ
-55 to +85 °C	X	X	Δ	Δ	Δ

Δ Ask factory
○ Available
X Not available

Absolute max. ratings

Supply voltage (Vcc)	6.0 V
Storage temperature range	-55 ~ +105 °C
Control voltage (Vc)	0 / Vcc

