



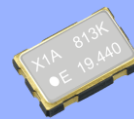
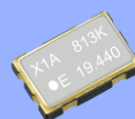
CRYSTAL OSCILLATOR SPXO

TCO - 710x series

- Frequency range : 1.5 MHz to 75 MHz
- Supply voltage : 2.5 V / 3.3 V
- External dimensions: 5.0 × 3.2 × 1.0 mm
- Function : Standby ($\overline{ST}$)



Product Number (please contact us)
X1G00xxx1xxxx00



Actual size



Specifications (characteristics)

Item	Symbol	TCO-710*X3A*	TCO-710*X1A*	Conditions / Remarks
Output frequency range	f_o	1.500 MHz to 75.000 MHz		Please contact us for inquiries regarding the available frequencies.
Supply voltage	V_{CC}	2.5 V ± 0.25 V	3.3 V ± 0.33 V	
Storage temperature range	T_{stg}	-55 °C to +125 °C		Store as bare product..
Operating temperature range	T_{use}	As per below description		
Frequency tolerance	f_{tol}	As per below description.		
Current consumption	I_{CC}	15 mA Max.	20 mA Max.	No load condition
Symmetry	SYM	40 % to 60 %		50 % V_{CC} level
Output voltage	V_{OH}	90 % V_{CC} Min.		
	V_{OL}	10 % V_{CC} Max.		
Output load condition (CMOS)	L_{CMOS}	15 pF Max.		
Input voltage	V_{IH}	70 % V_{CC} Min.		V_{IH} or OPEN : Enable
	V_{IL}	30 % V_{CC} Max.		V_{IL} or GND : Disable
Rise time / Fall time	t_r / t_f	7 ns Max.	6 ns Max.	10 % V_{CC} to 90 % V_{CC} level
Start-up time	t_{str}	10 ms Max.		Time at minimum supply voltage to be 0 s
Frequency aging	f_{aging}	$\pm 5 \times 10^{-6}$ / year Max.		+25 °C, First year

* Part Number

TCO - 7 1 0

A

<Frequency tolerance / V_{CC} tolerance>
 $\pm 50 \times 10^{-6}$ Max. / $V_{CC} \pm 10\%$: 6
 $\pm 100 \times 10^{-6}$ Max. / $V_{CC} \pm 10\%$: 7

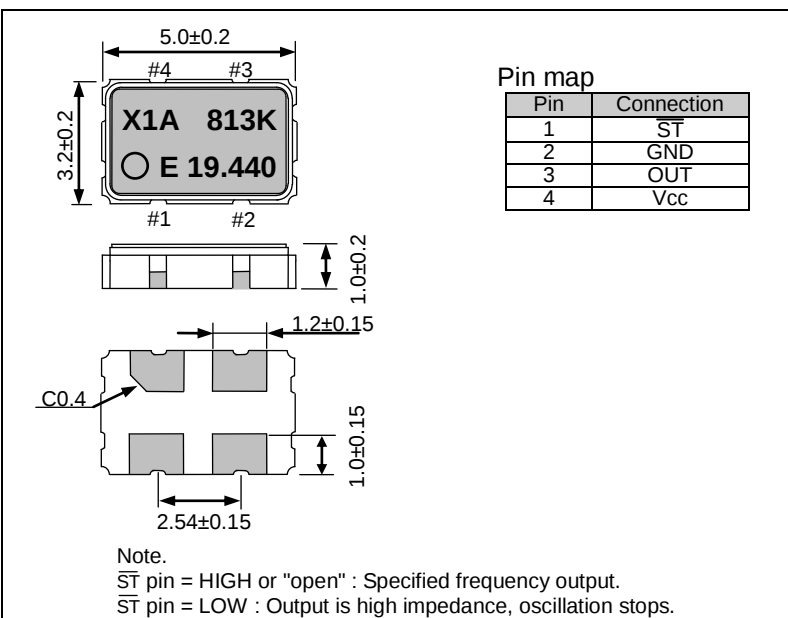
<Operating temperature range>

BLANK : 0 °C ~ +70 °C
 1 : -10 °C ~ +70 °C
 2 : -20 °C ~ +70 °C
 4 : -40 °C ~ +85 °C

< Supply voltage >
 X1 : $V_{CC}=3.3$ V
 X3 : $V_{CC}=2.5$ V

External dimensions

(Unit:mm)



Footprint (Recommended)

(Unit:mm)

