



CRYSTAL OSCILLATOR SPXO

TCO-710x series

- Frequency range : 1.5 MHz to 75 MHz
- Supply voltage : 3.3 V
- Thickness : 1.0 mm Typ.
- Function : Standby (ST)



Actual size



Specifications (characteristics)

Item	Symbol	TCO-710*X1A*	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}	3.3 V ±0.33 V	
Storage temperature range	T _{stg}	-40 °C to +85 °C	Store as bare product after unpacking.
Operating temperature range	T _{use}	As per below description	
Frequency tolerance	f _{tol(osc)}	As per below description.	
Current consumption	I _{cc}	20 mA Max.	No load condition
Symmetry	SYM	40 % to 60 %	50 % V _{cc} level
High output voltage	V _{OH}	90 % V _{cc} Min.	I _{OH} =5 mA
Low output voltage	V _{OL}	10 % V _{cc} Max.	I _{OL} =5 mA
Output load condition (CMOS)	L _{CMOS}	15 pF Max.	
Output enable / disable 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	6 ns Max.	10 % V _{cc} to 90 % V _{cc} level
Oscillation start up time	t _{osc}	10 ms Max.	Time at minimum supply voltage to be 0 s
Frequency aging	f _{aging}	±5 × 10 ⁻⁶ / year Max.	+25 °C, V _{cc} =3.3 V, First year

* Part Number

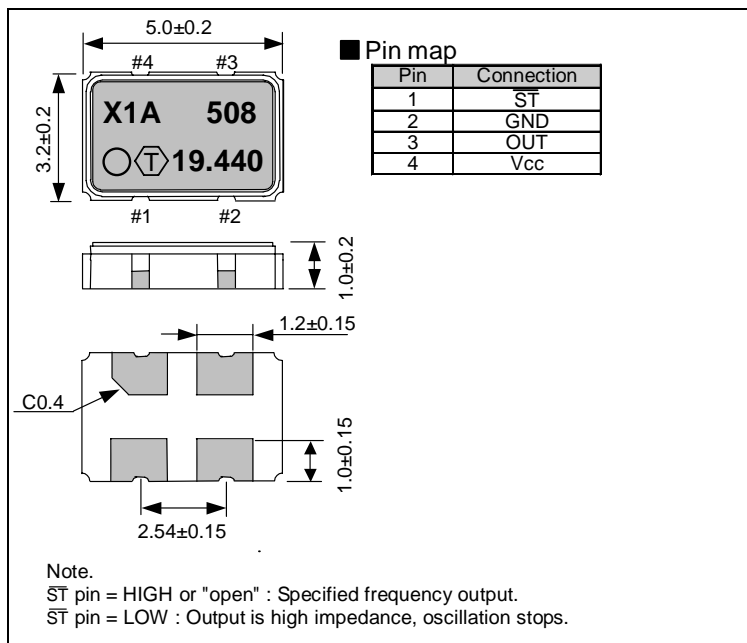
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<Frequency tolerance / V_{cc} tolerance>
 ±50 × 10⁻⁶ Max. / V_{cc} ±10 % : 6
 ±100 × 10⁻⁶ Max. / V_{cc} ±10 % : 7

<Operating temperature range>
 BLANK: 0 °C to +70 °C
 1: -10 °C to +70 °C
 2: -20 °C to +70 °C
 4: -40 °C to +85 °C

External dimensions

(Unit:mm)



Footprint (Recommended)

(Unit:mm)

