



VOLTAGE-CONTROLLED CRYSTAL OSCILLATOR (VCXO)

TCO-7106X1Z4

- Frequency range : 1.75 MHz to 52 MHz
- Supply voltage : 3.3 V
- Frequency control range: $\pm 75 \times 10^{-6}$
- Thickness : 1.2mm Typ.
- Function : Output enable(OE)



Actual size



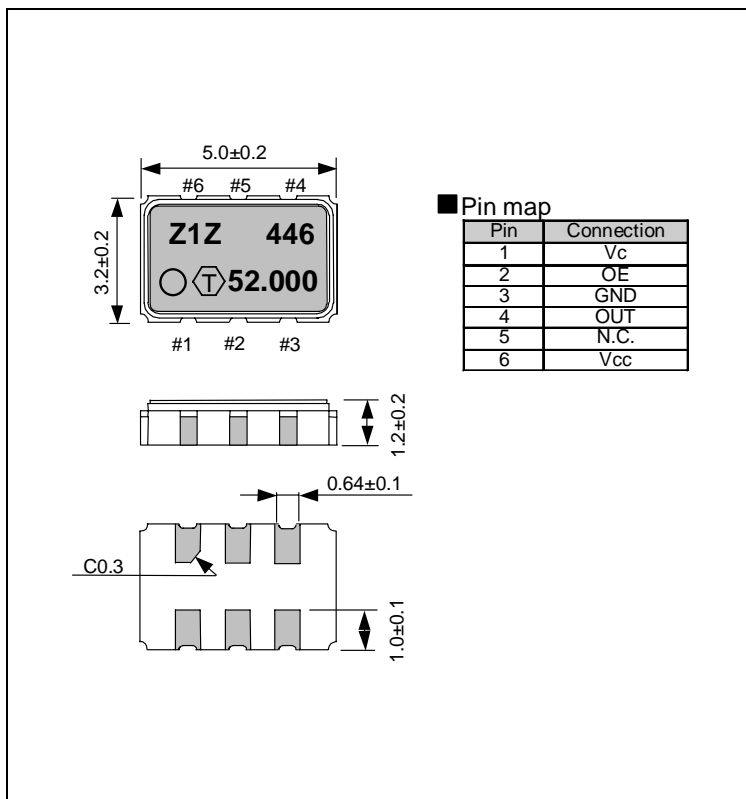
Specifications (characteristics)

Item	Symbol	TCO-7106X1Z4	Remarks
Output frequency range	f _o	1.750 MHz to 52.000 MHz	Please contact us for inquiries regarding available frequencies.
Supply voltage	V _{cc}	3.3 V ± 0.165 V	
Storage temperature range	T _{stg}	-40 °C to +85 °C	Store as bare product after unpacking
Operating temperature range	T _{use}	-40 °C to +85 °C	
Frequency tolerance	f _{tol(osc)}	$\pm 50 \times 10^{-6}$ Max.	V _c =1.65V
Current consumption	I _{cc}	20 mA Max.	No load condition.
Frequency control range	f _{cont}	$\pm 75 \times 10^{-6}$ Min.	V _c = 1.65 V \pm 1.65 V
Input resistance	R _{in}	80 k Ω Min.	DC level
Frequency change polarity	—	Positive slope	V _c = 0 to 3.3 V
Symmetry	SYM	40 % to 60 %	50 % V _{cc} level
High output voltage	V _{OH}	90 % V _{cc} Min.	I _{OH} = -0.8mA
Low output voltage	V _{OL}	10 % V _{cc} Max.	I _{OL} = 3.2mA
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	5 ns Max.	20 % V _{cc} to 80 % 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}	$\pm 5 \times 10^{-6}$ / year Max.	+25 °C, V _{cc} =3.3 V, First year

* Please keep Vc pin open or ground while powering up Vcc.

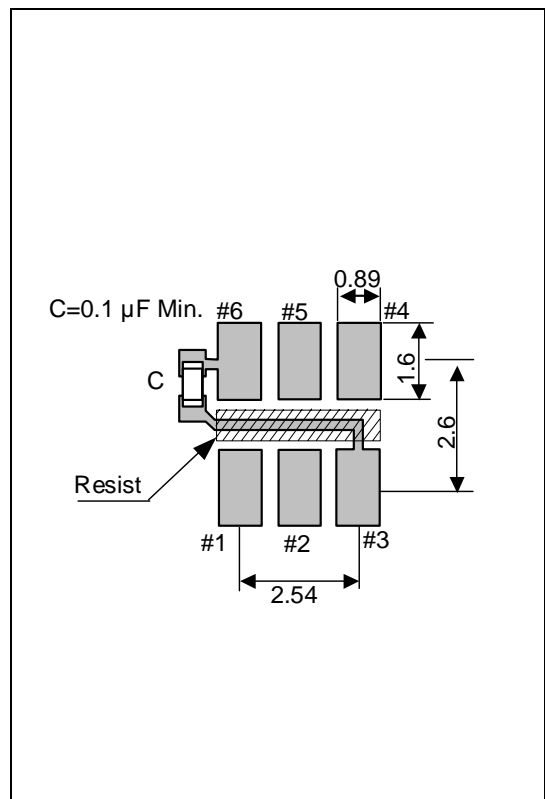
External dimensions

(Unit :mm)



Footprint (Recommended)

(Unit :mm)





Actual size