



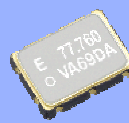
VOLTAGE-CONTROLLED CRYSTAL OSCILLATOR (VCXO)

VG-4511CA

- Frequency range : 80 MHz to 170 MHz LV-PECL
- Supply voltage : 3.3 V
- Absolute pull range : $\pm 50 \times 10^{-6}$
- External dimensions : $7.0 \times 5.0 \times 1.6$ t (mm) Typ.
- Function : Output enable(OE)



Product Number (please contact us)
X1G002781xxxx00



Actual size



Specifications (characteristics)

Item	Symbol	Specifications	Remarks
Output frequency range	f_o	80.000 MHz to 170.000 MHz	Please contact us for inquiries regarding available frequencies.
Supply voltage	V _{CC}	3.3 V ± 0.165 V	
Storage temperature range	T _{stg}	-55 °C to +125 °C	Store as bare product after unpacking
Operating temperature range	T _{use}	As per below table.	
Frequency tolerance	f _{tol}	$\pm 50 \times 10^{-6}$ Max.	Includes frequency aging (20 years)
Current consumption	I _{CC}	70 mA Max.	No load condition.
Absolute pull range	APR	GCT: $\pm 50 \times 10^{-6}$ Min.	V _C = 1.65 V $\pm$ 1.5 V
Input resistance	R _{in}	100 k Ω Min.	DC level
Frequency change polarity	—	Positive slope	V _C = 0 to 3.3 V
Symmetry	SYM	40 % to 60 %	—
High output voltage	V _{OH}	V _{CC} - 1.1 V Min.	—
Low output voltage	V _{OL}	V _{CC} - 1.5 V Max.	—
Output load condition (ECL)	L _{ECL}	LV-PECL	
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	1.5 ns Max.	20 % V _{CC} to 80 % V _{CC} level
Start-up time	t _{str}	10 ms Max.	Time at minimum supply voltage to be 0 s
Frequency aging	f _{aging}	This is included frequency tolerance	+25 °C, V _{CC} = 3.3 V, 20 years

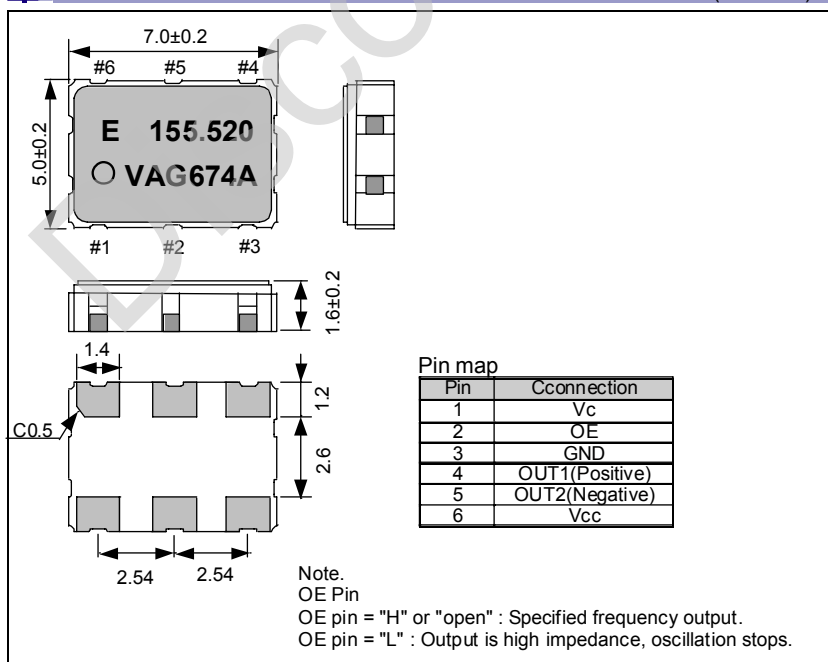
* Please keep V_C pin open or ground while powering up V_{CC}.

Operating temperature range

	Operating temperature range
GGCT	-40 °C ~ +85 °C
JGCT	-20 °C ~ +70 °C
KGCT	0 °C ~ +70 °C

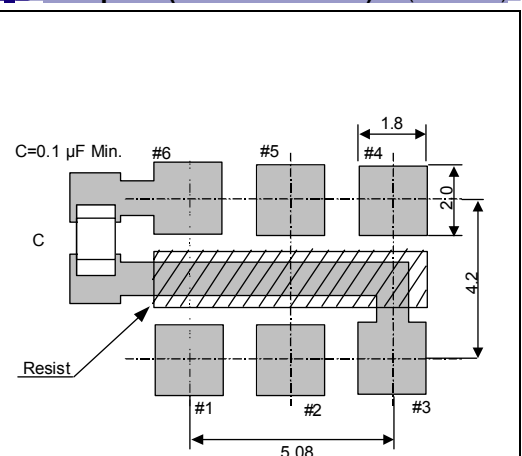
External dimensions

(Unit : mm)



Footprint (Recommended)

(Unit : mm)



To maintain stable operation, provide by-pass capacitor with more than 0.1 μ F at a location as near as possible to the power source terminal of the crystal products (between V_{CC} - GND).