



VOLTAGE-CONTROLLED CRYSTAL OSCILLATOR (VCXO) OUTPUT : CMOS

VG-4501CA VG-4502CA

- Frequency range : 80 MHz to 170 MHz (VG-4501CA)
: 80 MHz to 125 MHz (VG-4502CA)
- Supply voltage : 3.3 V
- Absolute pull range : $\pm 50 \times 10^{-6}$ Min./ $\pm 100 \times 10^{-6}$ Min.
- External dimensions: 7.0 x 5.0 x 1.6 mm
- Function : Output enable (OE), Active High



Product Number (please contact us)

VG-4501CA :

X1G003771xxxx00 ($f_0 \leq 125\text{MHz}$)X1G004191xxxx00 ($125\text{MHz} < f_0$)

VG-4502CA :

X1G003751xxxx00



Actual size



Specifications (characteristics)

Item	Symbol	VG-4501CA	VG-4502CA	Conditions / Remarks
Output frequency range	f_0	80.000 to 170.000 MHz	80.000 to 125.000 MHz	Please contact us about available frequencies.
Supply voltage	V _{cc}	3.3 V ± 0.165 V		
Storage temperature	T _{stg}	-55 °C to +125 °C		Storage as single product.
Operating temperature	T _{use}	G: -40 to +85°C, J: -20 to +70°C, K: 0 to +70°C		
Frequency tolerance	f _{tol}	$\pm 50 \times 10^{-6}$ Max.		-40 °C to +85 °C
Current consumption	I _{cc}	25 mA Max. ($f_0 \leq 125\text{MHz}$) 35 mA Max. ($125\text{MHz} < f_0$)	25 mA Max.	L _{CMOS} = 15pF
Absolute pull range*1	APR	G: $\pm 50 \times 10^{-6}$ Min. (80 MHz $\leq f_0 \leq 170\text{MHz}$) H: $\pm 100 \times 10^{-6}$ Min. (125 MHz $< f_0$)	H: $\pm 100 \times 10^{-6}$ Min.	V _c = 1.65 V ± 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	45 % to 55 %		50 % V _{cc} level
Output voltage	V _{OH}	90 % V _{cc} Min.		I _{OH} = -0.8 mA
	V _{OL}	10 % V _{cc} Max.		I _{OL} = 3.2 mA
Output load condition (CMOS)	L _{CMOS}	15 pF Max.		
Input voltage	V _{IH}	70 % V _{cc} Min.		
	V _{IL}	30 % V _{cc} Max.		
Rise time / Fall time	t _r / t _f	4 ns Max. ($f_0 \leq 125\text{MHz}$) 2 ns Max. ($125\text{MHz} < f_0$)	4 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 Absolute pull range		+25 °C, V _{cc} = 3.3 V, 20 years

*1 Absolute pull range = Frequency control range - Frequency tolerance

* Please keep V_c pin open or ground while powering up V_{cc}.

Product Name VG-4501CA - 122.880000 - G G C T

(Standard form) ① ② ③ ④⑤⑥⑦

① Model ② Package type ③ Frequency(MHz) ④ Operating temperature ⑤ Absolute pull range

⑥ Supply voltage (C: 3.3V Typ.) ⑦ OE function

④ Operating temperature	
G	-40 to +85°C
J	-20 to +70°C
K	0 to +70°C

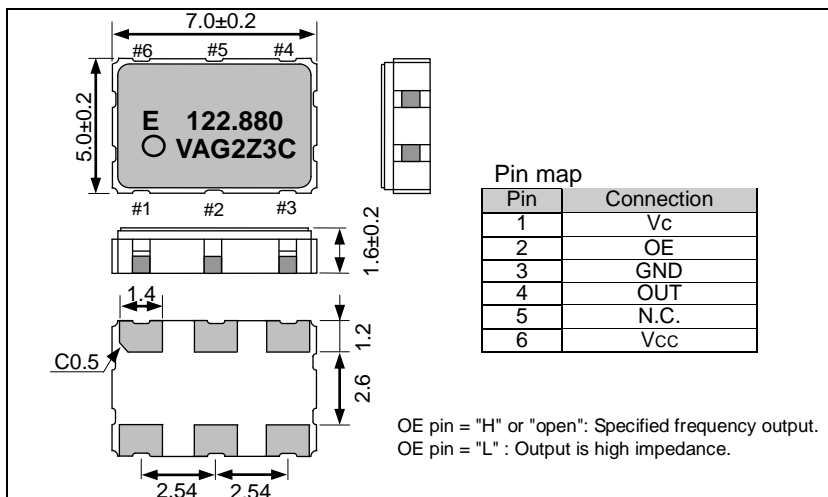
⑤ Absolute pull range	
H	$\pm 100 \times 10^{-6}$ Min.
G	$\pm 50 \times 10^{-6}$ Min.

*As for VG-4502 only H is available

⑦ OE function	
T	Active High

External dimensions

(Unit : mm)



Footprint (Recommended)

(Unit : mm)

