



CRYSTAL OSCILLATOR

LOW-JITTER SAW OSCILLATOR

EG-2121 / 2102CA series

- Frequency range : 100 MHz to 350 MHz
- Supply voltage : 2.5 V (EG-2121CA)
3.3 V (EG-2102CA)
- Output : HCSL
- Function : Output enable(OE)
- External dimensions : 7.0 × 5.0 × 1.4 t (mm)
- Application : PCI Express™ 2.0, FB-DIMM
- Very low jitter and low phase noise by SAW unit.



Product Number (please contact us)
EG-2121CA:X1M000101xxxx00
EG-2102CA:X1M000091xxxx00



Actual size

EG-2121CA

EG-2102CA

NEW

Specifications (characteristics)

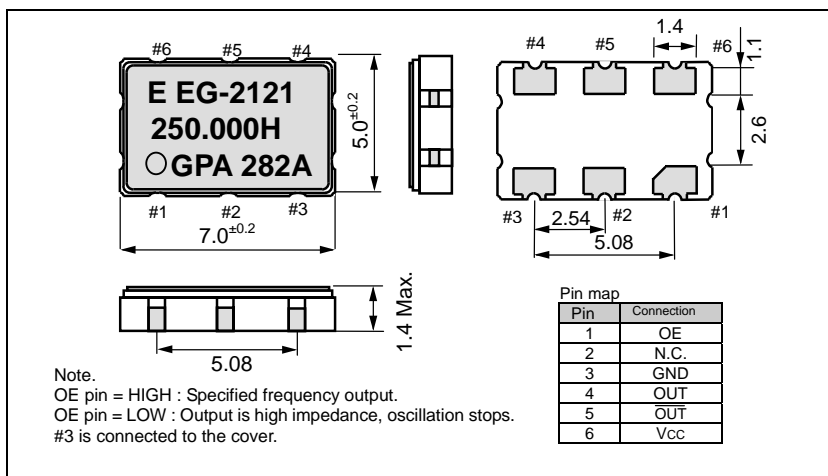
Item	Symbol	EG-2121CA	EG-2102CA	Remarks
		HCSL		
Output frequency range	f_0	100 MHz to 350 MHz		Please contact us for inquiries regarding available frequencies.
Supply voltage	V_{cc}	2.5 V ± 0.125 V	3.3 V ± 0.3 V	
Temperature range	Storage temperature	T_{stg} -40 °C to +125 °C		Store as bare product after unpacking
	Operating temperature	T_{use} P:0 °C to +70 °C ,R:-5 °C to +85 °C ,S:-20 °C to +70 °C		
Frequency tolerance *1	f_{tol}	G: $\pm 50 \times 10^{-6}$,H: $\pm 100 \times 10^{-6}$		
Current consumption	I_{cc}	80 mA Max.	85 mA Max.	OE= V_{cc} ,L_HCSL=50 Ω
Disable current	I_{dis}	20 mA Max.	35 mA Max	OE=GND
Symmetry	SYM	45 % to 55 %		at outputs crossing point
High output voltage	V_{OH}	0.75 V Typ.		DC characteristics
Low output voltage	V_{OL}	-0.3 V Typ.		
Output load condition	L_{HCSL}	50 Ω		Terminated to GND
Output enable input voltage	V_{IH}	70 % V_{cc} Min.		OE terminal
Output disable input voltage	V_{IL}	30 % V_{cc} Max.		OE terminal
Rise time / Fall time	t_r / t_f	500 ps Max.		Between 0.175 V and 0.525 V of output
Start-up time	t_{str}	10 ms Max.		Time at minimum supply voltage to be 0 s
Jitter *2	t_{DJ}	0.2 ps Typ.		Deterministic Jitter
	t_{RJ}	3 ps Typ.		Random Jitter
	t_{RMS}	3 ps Typ.		σ (RMS of total distribution)
	t_{p-p}	25 ps Typ.		Peak to Peak
	t_{acc}	4 ps Typ.		Accumulated Jitter(σ) n=2 to 50000 cycles
Phase Jitter	t_{PJ}	1 ps Max.		Offset frequency: 12 kHz to 20 MHz
Frequency aging	f_{aging}	$\pm 10 \times 10^{-6}$ / year Max.		+25 °C,First year, V_{cc} =2.5 V,3.3 V

*1 This includes initial frequency tolerance, temperature variation, supply voltage variation, and reflow drift(except aging).

*2 Based on SIA-3100C signal integrity analyzer made from WAVECREST.

External dimensions

(Unit:mm)



Footprint (Recommended)

(Unit:mm)

