



CRYSTAL OSCILLATOR

SPXO

SG-770 / SG-771 series

- Frequency range : 50 MHz to 230 MHz
- Supply voltage : 2.5 V / 3.3 V
- Output : Differential LV-PECL
- External dimensions: 7.0 × 5.0 × 1.6 mm
- Features : Fundamental mode oscillator with HFF-XTAL
- Function : Standby (\overline{ST}) ...SG-770 series
: Output enable (OE) ...SG-771 series



Product Number (please contact us)

SG-770: X1G0023x1xxxx00

SG-771: X1G00282xxxxx00



Actual size



Specifications (characteristics)

Item	Symbol	Specifications			Conditions / Remarks
		SG-770SDD	SG-770SCD	SG-771PCD	
Output frequency range	f_o	50.000 MHz to 230.000 MHz		80.000 MHz to 175.000 MHz	Please contact us for inquiries regarding the available frequencies.
Supply voltage	V_{CC}	2.5 V \pm 0.125 V	3.3 V \pm 0.165 V	3.3 V \pm 0.165 V	
Storage temperature	T_{stg}	-55 °C to +125 °C			Store as bare product.
Operating temperature	T_{use}	As per below table			
Frequency tolerance	f_{tol}	$\pm 50 \times 10^{-6}$ Max.		As per below table	
Current consumption	I_{CC}	90 mA Max.		70 mA Max.	50 Ω
Symmetry	SYM	45 % to 55 %		40 % to 60 %	at outputs crossing point
Output voltage	V_{OH}	V_{CC} -1.1 V Min.			
	V_{OL}	V_{CC} -1.5 V Max.			
Output load condition (ECL)	L_{ECL}	LV-PECL			
Input voltage	V_{IH}	70 % V_{CC} Min.			\overline{ST} terminal or OE terminal
	V_{IL}	30 % V_{CC} Max.			
Rise time / Fall time	t_r / t_f	1 ns Max.			20 % to 80 % (V_{OH} - V_{OL})
Start-up time	t_{str}	10 ms Max. *1			Time at minimum supply voltage to be 0 s
Frequency aging	f_{aging}	$\pm 5 \times 10^{-6}$ / year Max.		This is included in frequency tolerance specification.	+25 °C, V_{CC} =2.5 V or 3.3 V, First year.

*1 Rise time (0 V to 2.13 V or 3.15 V) of $V_{CC} > 150 \mu s$

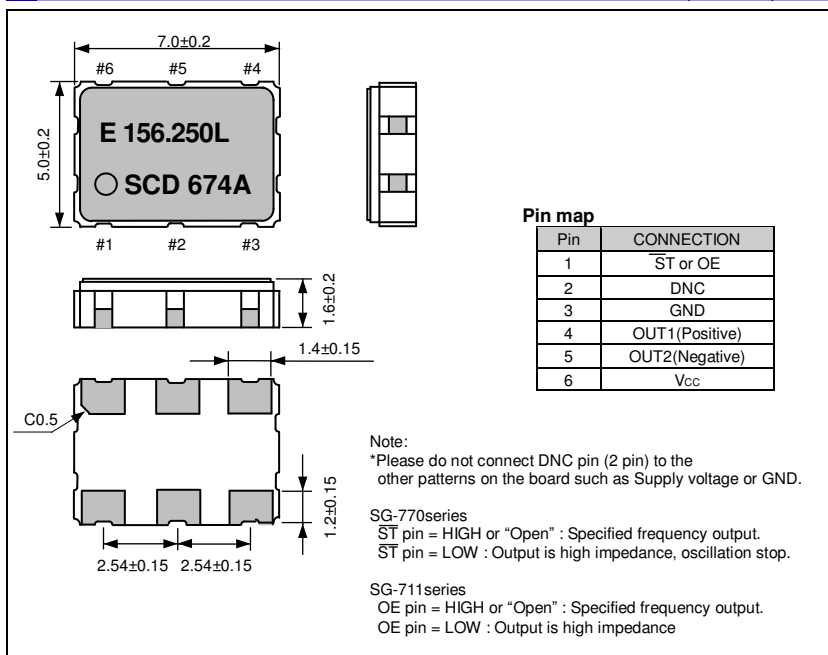
Operating temperature range / Frequency tolerance

SG-770series	Operating temperature range
L	-40 °C to +85 °C
B	-20 °C to +70 °C
P	-10 °C to +70 °C
Q	0 °C to +70 °C

SG-771series	Frequency tolerance	Operating temperature range	Aging
A	$\pm 30 \times 10^{-6}$ Max.	-40 °C to +85 °C	10 years
B	$\pm 35 \times 10^{-6}$ Max.	-40 °C to +85 °C	20 years
C	$\pm 20 \times 10^{-6}$ Max.	-10 °C to +70 °C	10 years
D	$\pm 25 \times 10^{-6}$ Max.	-10 °C to +70 °C	20 years

External dimensions

(Unit:mm)



Footprint (Recommended)

(Unit:mm)

