# **Crystal Clock Oscillator**



## 2775 Series

### **Programmable Type**

#### ■ Model name

2775Y Frequency stability of ±50 x 10<sup>-6</sup>.

#### Application

For compact mobile information equipment, such as a notebook PC, mobile information terminal, and PC card

- PLL technology allows this crystal oscillator to support 1 to 181 MHz.
  With the adoption of frequency-writing technology, even the tightest delivery deadline can be met.
- Automatic mounting by taping and IR reflow (lead-free) are possible.
  Compact and light. Dimensions and weight: 5.0 x 3.2 mm, 1.0 mm, and 0.06 g.



RoHS Compliant Directive 2002/95/EC

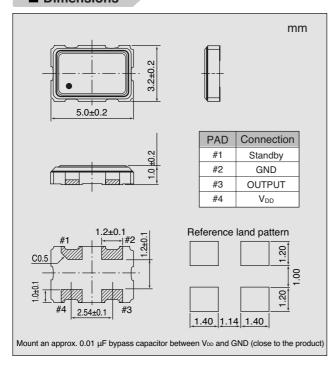
Absolute maximum rating Power supply voltage (VDD) -0.5 to +7.0 V Storage temperature range -55 to +125 °C

#### ■ Specifications

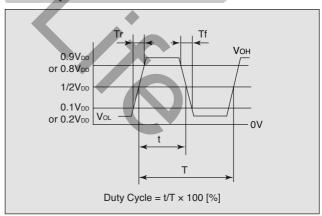
Item	Model			2775Y		
Item		LITOI				
Output level		C-MOS				
Frequency range *1	(MHz)	1 ≤ F ≤ 40	40 < F ≤ 70	70 < F ≤ 125	125 < F ≤ 181	
Operating temperature range *2	(°C)	-10 to +70				
Frequency stability	(×10 <sup>-6</sup> )	±50				
Power supply voltage [V <sub>DD</sub> ]	(V)	+3.3±0.3				
Current consumption   During operation	(mA)	15	22	3	30	
(+3.3 V, 25 °C) max During standby	(μΑ)	30				
V <sub>OL</sub> max/V <sub>OH</sub> min	(V)	0.1 V <sub>DD</sub> /0.9 V <sub>DD</sub> 0.2 V <sub>DD</sub> /0.8		0.2 V <sub>DD</sub> /0.8 V <sub>DD</sub>		
Tr max/Tf max	(ns)	5/5 (0.1 V <sub>DD</sub> to 0.9 V <sub>DD</sub> )		3/3 (0.2 V <sub>DD</sub>	3/3 (0.2 V <sub>DD</sub> to 0.8 V <sub>DD</sub> )	
Duty Cycle min. to max.	(%)	45 to 55 (at 1/2 V <sub>DD</sub> )		40 to 60 (a	40 to 60 (at 1/2 V <sub>DD</sub> )	
Load (CL) max	(pF)		15		10	
Oscillation start time max	(ms)		10			
Standby function		Available (tristate)				
Number for specifying an order		NSA5312B				

<sup>\*1:</sup> If you require a product with an operating temperature range not given above, please contact us. \*2: If you require a product with an operating temperature range not given above, please contact us.

### ■ Dimensions



#### ■ Output Waveform <C-MOS>



#### ■ Standby Function

#1 Input	#3 Output	
Level H (0.7 V <sub>DD</sub> ≤ V <sub>IH</sub> ≤ V <sub>DD</sub> ) or OPEN is selected.	Oscillation output ON	
Level L (+0.2 V <sub>DD</sub> max.) is selected.	High impedance (weak pull-down)	

#### ■ How to Specify an Order

When ordering our products, specify them with an "Ordering Code" that consists of the following:

Model name – Frequency (up to 9 digits) M– Number for specifying an order

Example 1: When ordering a product with model name: 2775Y, frequency: 68 MHz, frequency stability:  $\pm 50 \times 10^{-6}$ , and power supply voltage: 3.3 V Ordering Code: 2775Y – 68.000000M – NSA5312B

If you have any queries concerning our standard frequencies and numbers for specifying orders, please contact our sales representatives or visit our homepage (http://www.ndk.com/).