

# Crystal Clock Oscillator

## 2775 Series

## Programmable Type

### Model name

2775Y Frequency stability of  $\pm 100 \times 10^{-6}$ .

### Application

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

### Features

- 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.

Pb Free

RoHS Compliant  
Directive 2002/95/EC

Absolute maximum rating  
Power supply voltage ( $V_{DD}$ ) -0.5 to +7.0 V  
Storage temperature range -55 to +125 °C

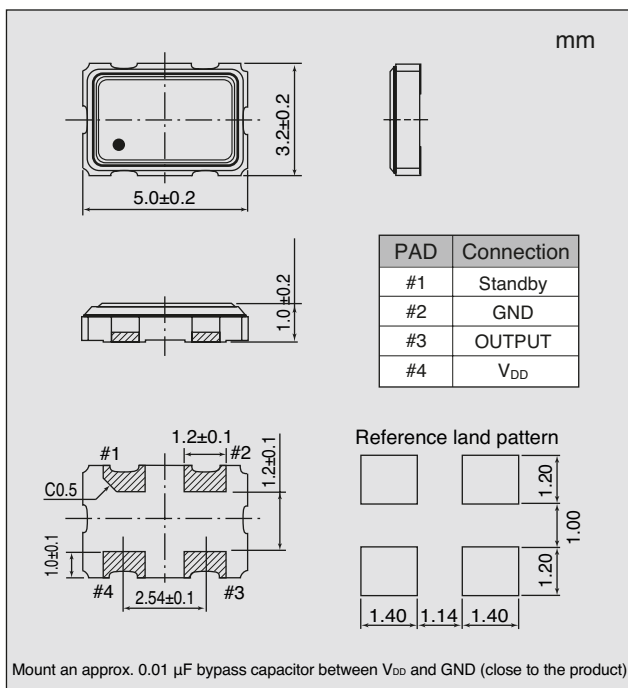


### Specifications

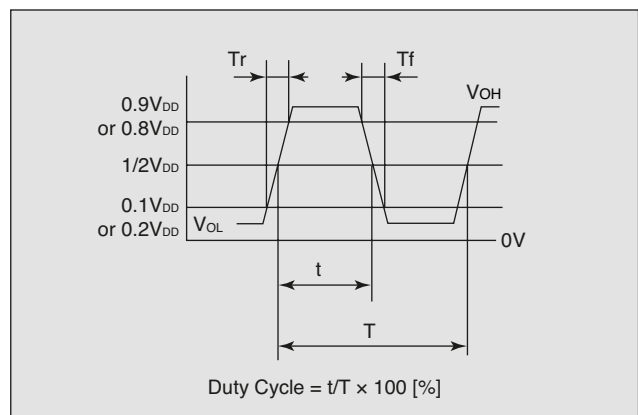
Item	Model	2775Y			
Output level		C-MOS			
Frequency range <sup>*1</sup>	(MHz)	$1 \leq F \leq 40$	$40 < F \leq 70$	$70 < F \leq 125$	$125 < F \leq 181$
Operating temperature range <sup>*2</sup>	(°C)	-20 to +70			
Frequency stability	( $\times 10^{-6}$ )	$\pm 100$			
Power supply voltage [ $V_{DD}$ ]	(V)	+3.3 $\pm$ 0.3			
Current consumption (+3.3 V, 25 °C) max	During operation	(mA)	15	22	30
	During standby	( $\mu$ A)	30		
$V_{OL}$ max/ $V_{OH}$ min	(V)	0.1 $V_{DD}$ /0.9 $V_{DD}$		0.2 $V_{DD}$ /0.8 $V_{DD}$	
$T_r$ max/ $T_f$ max	(ns)	5/5 (0.1 $V_{DD}$ to 0.9 $V_{DD}$ )		3/3 (0.2 $V_{DD}$ to 0.8 $V_{DD}$ )	
Duty Cycle min. to max.	(%)	45 to 55 (at 1/2 $V_{DD}$ )		40 to 60 (at 1/2 $V_{DD}$ )	
Load ( $C_L$ ) max	(pF)	15		10	
Oscillation start time max	(ms)	10			
Standby function		Available (tristate)			
Number for specifying an order		NSA5312A			

\*1: If you require a product with a frequency 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 $V_{DD} \leq V_{IH} \leq V_{DD}$ ) or OPEN is selected.	Oscillation output ON
Level L (+0.2 $V_{DD}$ 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:  $\pm 100 \times 10^{-6}$ , and power supply voltage: 3.3 V  
Ordering Code: 2775Y - 68.000000M - NSA5312A

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/>).