

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

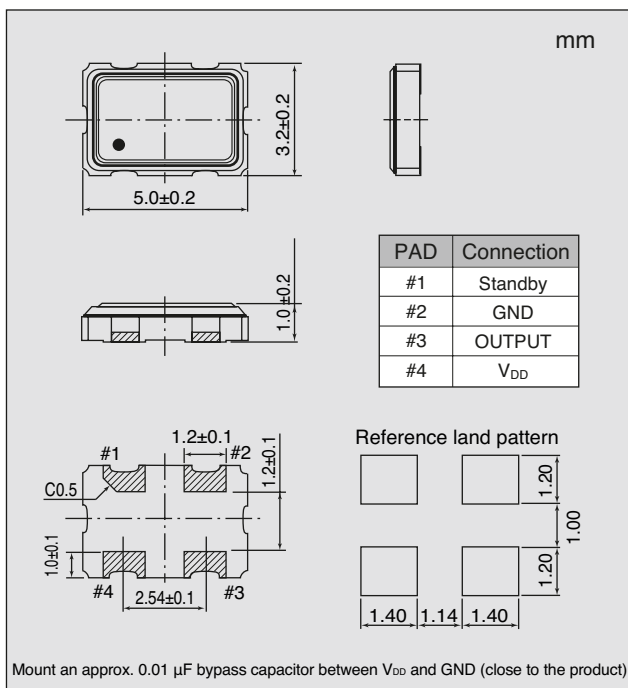


Specifications

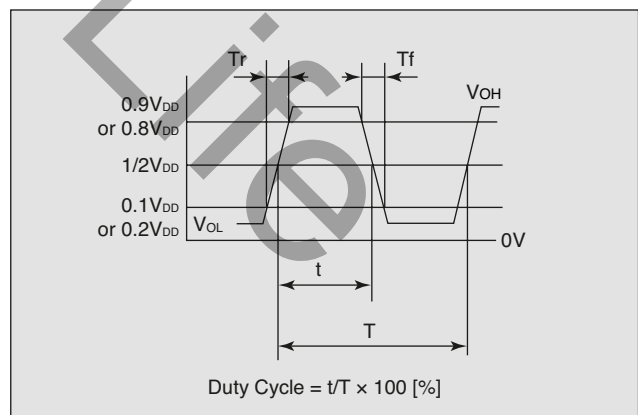
| Item | Model | 2775Y | | | |
|--|----------------------|-------------------------------------|------------------|-------------------------------------|--------------------|
| Output level | | C-MOS | | | |
| Frequency range ^{*1} | (MHz) | $1 \leq F \leq 40$ | $40 < F \leq 70$ | $70 < F \leq 125$ | $125 < F \leq 181$ |
| Operating temperature range ^{*2} | (°C) | -20 to +70 | | | |
| Frequency stability | ($\times 10^{-6}$) | ± 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 | (μ 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/>).