

Crystal Oscillator

Model Name NH25M22WA Oven-Controlled Crystal Oscillator (OCXO) for Fixed Communication Equipment

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Main Application

- Mobile communication base station
- Exchanger
- Measuring instrument
- High-end router
- Synthesizer

Features

- Compact.
- A surface-mount (SMD) package.
- Reflow soldering is possible.
- Excellent phase noise characteristics.
- Excellent aging characteristics.



RoHS Compliant
Directive 2002/95/EC

Specifications

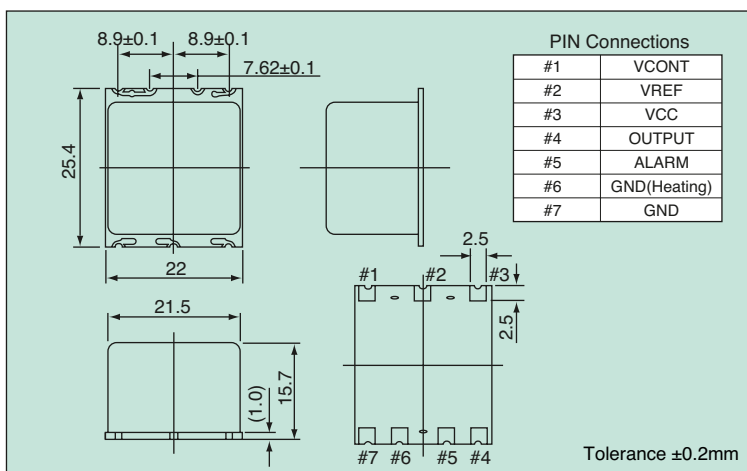
| Item | Measurement condition | Model | NH25M22WA |
|----------------------------------|----------------------------------------|--------------------------------------------|------------------------------------------------------------------|
| Standard nominal frequency (MHz) | | | 32.768 |
| Power supply voltage | | | DC +3.3V |
| Power consumption | | | 3.0 W max. at the start and 1.3 W max. when stable (+25°C) |
| Output level | | | HCMOS (V _{OL} : 0.4V max., V _{OH} : 2.4V min.) |
| Load | | | 10kΩ//15pF |
| Duty Cycle (1/2V _{cc}) | | | 45 to 55% |
| Operating temperature range | | | -10 to +70°C |
| Frequency stability | Aging | Based on frequency after 30 days operation | ±2×10 ⁻⁹ /day max. |
| | | Based on frequency after 30 days operation | ±50×10 ⁻⁹ /year max. |
| | Frequency / temperature characteristic | -10 to +70°C | ±20×10 ⁻⁹ max. |
| | Power supply variation characteristics | DC +3.3V±5% | ±3×10 ⁻⁹ max. |
| | Frequency control characteristic | 0 to +2.8 V, positive polarity | ±0.9×10 ⁻⁶ min. |

Reference Value

| Phase noise (@32.768MHz) | Offset frequency | dBc/Hz |
|--------------------------|------------------|-----------|
| | 1 Hz | -65 max. |
| | 10 Hz | -95 max. |
| | 100 Hz | -115 max. |
| | 1k Hz | -125 max. |
| | 10k Hz | -140 max. |

The value of phase noise changes when the frequency changes.

Dimensions



List of Options

| | |
|-------------------------|----------|
| Power supply voltage | DC +5V |
| Nominal frequency (MHz) | 10 to 40 |

For details of options, please feel free to contact our sales representatives.

List of Ordering Codes

| Frequency (MHz) | Ordering Code |
|-----------------|----------------------------|
| 32.768 | NH25M22WA-32.768M-NSA3425A |

The above frequencies are NDK's standard frequencies. Frequencies other than the above are available. Feel free to contact our sales representatives.