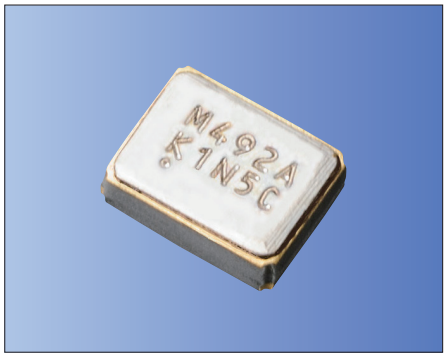
# Temperature Compensated Crystal Oscillators (TCXO, VCTCXO)
# Surface Mount Type TCXO KT1612 Series

1.6×1.2mm




AEC-Q200 RoHS Compliant

## Features

- Ultra-miniature SMD type (1.65×1.25×0.55mm)
- Freq. temp. characteristics.
  : ±2.0×10$^{-6}$/ −30 to +85°C
  : ±0.5×10$^{-6}$/ −30 to +85°C (for GNSS)
- 1.68 to 3.63V drive available
- Reflow compatible
- Operating Temp. −40 to +105°C (Option)
- Disable Function (Option)

## Applications

- Mobile Communications, W-LAN
- Low power radio communications
- GNSS Unit

## How to Order

KT1612A 26000 □ □ □ □□ □ xx
① ② ③ ④ ⑤ ⑥ ⑦ ⑧

① Series
② Output Frequency
③ Freq. Temp. Chrst.

| | |
|---|---|
| A | ±0.5×10$^{-6}$ |
| B | ±1.0×10$^{-6}$ |
| C | ±1.5×10$^{-6}$ |
| D | ±2.0×10$^{-6}$ |

④ Lower Operating Temp.

| | |
|---|---|
| C | −30°C |
| E | −20°C |
| G | −10°C |

⑤ Upper Operating Temp.

| | |
|---|---|
| W | +85°C |
| V | +80°C |
| U | +75°C |

⑥ Supply Voltage

| | | | |
|---|---|---|---|
| 18 | 1.8V | 28 | 2.8V |
| 30 | 3.0V | 33 | 3.3V |

⑦ Voltage Control Function

| | |
|---|---|
| T | TCXO |
| Spec. Code* | VCTCXO |

*Please contact us for Spec. Code.

⑧ Individual Specification

Packaging (Tape & Reel 18000 pcs./ reel)

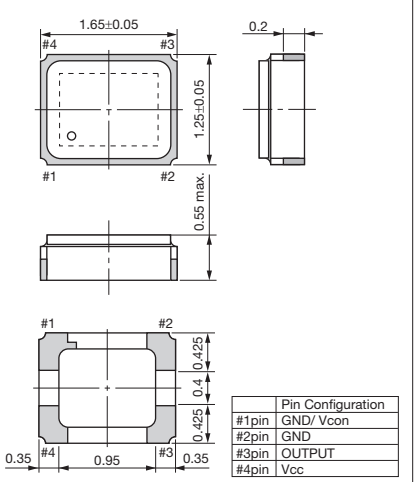
## Specifications

| Item | Symbol | Conditions | Min. | Max. | Units |
|---|---|---|---|---|---|
| Output Frequency Range | fo | | 10 | 52 | MHz |
| Frequency Tolerance | f_tol | vs Temperature | −0.5/ −2 | +0.5/ +2 | ×10$^{-6}$ |
| | | vs Load | −0.2 | +0.2 | |
| | | vs Voltage | −0.2 | +0.2 | |
| Frequency Aging | f_age | Per Year | −1 | +1 | ×10$^{-6}$ |
| Storage Temperature Range | T_stg | | −40 | +85 | °C |
| Operating Temperature Range | T_use | | −30 | +85 | °C |
| Voltage Control Range | f_cont | Positive | ±8 | ±15 | ×10$^{-6}$ |
| Supply Voltage | Vcc | | 1.68 | 3.63 | V |
| Output Level | Vpp | Clipped Sine*, Load: 10k ohm / / 10pF | 0.8 | — | Vp−p |
| Current Consumption | Icc | | — | 2 | mA |
| Harmonics | — | | — | −5 | dBc |

* : A DC-cut capacitor is not embedded in this crystal oscillator. Connect a DC-cut capacitor (≥1nF) to the line-out terminal of the oscillator.
* Please contact us for other specifications.

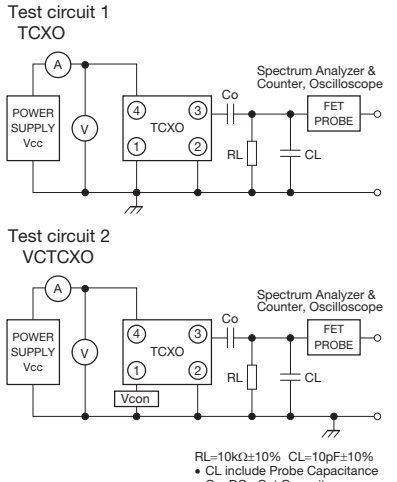
## Dimensions

(Unit: mm)



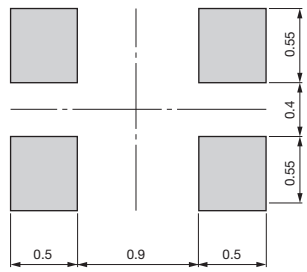

| | Pin Configuration |
|---|---|
| #1pin | GND/ Vcon |
| #2pin | GND |
| #3pin | OUTPUT |
| #4pin | Vcc |

## Test Circuit




## Recommended Land Pattern

(Unit: mm)




Note: A capacitor of value 0.01μF between Vcc and GND is recommended.

As of February 2019