



ECS Inc. International offers one of the world's smallest quartz tuning forks in the industry in a 1.2 mm x 1.0 mm package; The ECX-1210 is the two pad offering and the ECX-1210B is the four pad offering. These packages come in low profile options such as 0.35 mm. The operating temperature is traditionally the industrial $-40^{\circ}\text{C} \sim +85^{\circ}\text{C}$ with an extended temperature range options up to $+105^{\circ}\text{C}$. These 32.768 kHz surface mount tuning forks are ideal for wearable, drug delivery devices and hearing aids.

| Model Information | Package Code | Frequency Range | Frequency Tolerance | Operating Temperature Range | Package Size (mm) | Inventory |
|-------------------|--------------|-----------------|---------------------|---------------------------------|-------------------|---------------------------|
| ECX-1210 | 1210 | 32.768 kHz | ± 20 PPM | $-40 \sim +85^{\circ}\text{C}$ | 1.2 x 1.0 x 0.5 | Inventory |
| ECX-1210B | 1210B | 32.768 kHz | ± 20 PPM | $-40 \sim +105^{\circ}\text{C}$ | 1.2 x 1.0 x 0.35 | Inventory |
| ECX-16 | 16 | 32.768 kHz | ± 20 PPM | $-40 \sim +85^{\circ}\text{C}$ | 1.6 x 1.0 x 0.86 | Inventory |
| ECX-16R | 16R | 32.768 kHz | ± 20 PPM | $-40 \sim +85^{\circ}\text{C}$ | 1.6 x 1.0 x 0.86 | Inventory |
| ECX-12 | 12 | 32.768 kHz | ± 20 PPM | $-40 \sim +85^{\circ}\text{C}$ | 2.0 x 1.2 x 0.6 | Inventory |
| ECX-12R | 12R | 32.768 kHz | ± 20 PPM | $-40 \sim +85^{\circ}\text{C}$ | 2.0 x 1.2 x 0.6 | Inventory |
| ECX-12RR | 12RR | 32.768 kHz | ± 20 PPM | $-40 \sim +85^{\circ}\text{C}$ | 2.0 x 1.2 x 0.5 | Inventory |
| ECX-12Q | 12Q | 32.768 kHz | ± 20 PPM | $-40 \sim +125^{\circ}\text{C}$ | 2.0 x 1.2 x 0.55 | Inventory |
| ECX-34R | 34R | 32.768 kHz | ± 20 PPM | $-40 \sim +85^{\circ}\text{C}$ | 3.2 x 1.5 x 0.9 | Inventory |
| ECS-34RR | 34RR | 32.768 kHz | ± 20 PPM | $-40 \sim +85^{\circ}\text{C}$ | 3.2 x 1.5 x 0.9 | Inventory |
| ECS-34S | 34S | 32.768 kHz | ± 20 PPM | $-40 \sim +125^{\circ}\text{C}$ | 3.2 x 1.5 x 0.9 | Inventory |
| ECX-31B | 34B | 32.768 kHz | ± 20 PPM | $-40 \sim +85^{\circ}\text{C}$ | 3.2 x 1.5 x 0.9 | Inventory |

Technical Resources:

- [ECS Inc. International Product Catalog](#)
- [Video Learning Resources](#)
- [Technical Guides + White Papers](#)
- [ECS Inc. International Website](#)

Applications:

- [Wearable Devices](#)
- [IoT / IoT Thermostats](#)
- [Wireless Modules](#)
- [Bluetooth / BLE](#)
- [M2M Connectivity](#)