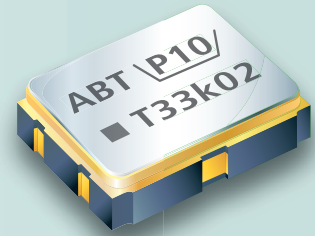


# SMD TCXO 3.2 X 2.5 X 1.0 mm 7Q Series

Oscillators  
 Series

## Features

- Temperature Stability:  $\pm 0.5$  ppm ~  $\pm 2.0$  ppm.
- Operating Temperature Range:  $-30$  °C ~  $85$  °C.
- Supply Voltage:  $1.8$  V ~  $3.3$  V.
- Voltage Control Function Available.
- Frequencies: 16.367667 MHz, 16.368 MHz, 16.369 MHz, 16.8 MHz, 19.2 MHz, 20 MHz, 26 MHz, 33.6 MHz, 38.4 MHz, 40 MHz.
- Applications: GPS, WiMAX, Cellular and Wireless Communications.
- RoHS Compliant / Pb Free.

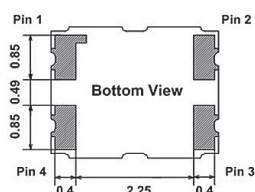
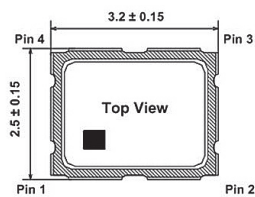


## Electrical Specifications

| Item / Type                            |   | 7Q   |
|--|---|--|
| Output Type                            |   | Clipped Sinewave                                     |
| Output Load                            |   | 10K $\Omega$ // 10 pF                                |
| Oscillation Mode                       |   | Fundamental  |
| Supply Voltage                         |   | 1.8 ~ 3.3 V  |
| Frequency Range                        |   | 13 ~ 52 MHz  |
| Clipped Sinewave Output Voltage        |   | 0.8 V <sub>p-p</sub> Min.                            |
| Frequency Stability                    | Vs. Temperature ( $-30$ ~ $+85$ °C )  | $\pm 0.5 / \pm 2.0$ ppm                              |
|  | Vs. Load ( Load varies $\pm 10$ % )   | $\pm 0.2$ ppm Max.                                   |
|  | Vs. Supply Voltage ( V <sub>cc</sub> = Typical $\pm 0.1$ V )                | $\pm 0.2$ ppm Max.                                   |
| Frequency Tolerance                    | at 25 °C after 2 Reflows with Typical Applied to Auto Frequency Control Pin | $\pm 2.5$ ppm Max.                                   |
| Slope of Frequency Drift               |   | $\pm 0.1$ ppm / °C Typical ; $\pm 0.5$ ppm / °C Max. |
| Storage Temperature Range              |   | $-40$ ~ $+85$ °C                                     |
| Auto Frequency Control ( AFC ) Range * |   | $\pm 7$ ~ $\pm 16$ ppm (1.4+/- 1V)                   |
| Supply Current                         |   | 2.0 mA Max.  |
| Start-up Time                          |   | 5 ms Max.  |
| Harmonics                              |   | - 5 dBc Max.   |
| Phase Noise at 1 kHz offset            |   | - 130 dBc / Hz                                       |
| Aging ( at 25 °C )                     |   | $\pm 1$ ppm / year Max.                              |

\* AFC Range is selective and disable is acceptable.

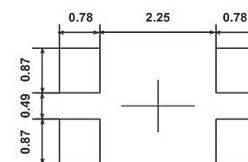
## Dimensions



### Pin Connection

| Name  | Connection |
|-------|------------|
| Pin 1 | AFC or GND |
| Pin 2 | GND        |
| Pin 3 | OUTPUT     |
| Pin 4 | VCC        |

### Recommended Land Pattern



Units: mm

Remark : Specification subject to change without prior notice. Please confirm with our sales. <http://www.txccorp.com>