# SMD Temperatured Compensated Crystal Oscillators 3.2 x 2.5 x 1.0 mm 7Q Series



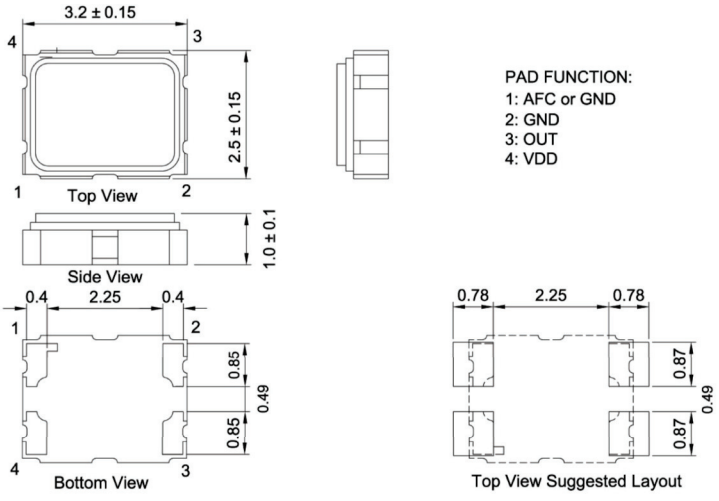
## Features

- Temperature Stability: ± 0.5 ppm ~ ± 2.0 ppm
- Operating Temperature Range: - 30 ℃ ~ 85 ℃
- 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 Ω // 10 pF |
| Oscillation Mode | | Fundamental |
| Supply Voltage | | 1.8 ~ 3.3 V |
| Frequency Range | | 13 ~ 52 MHz |
| Clipped Sinewave Output Voltage | | 0.8 Vp-p typical |
| Frequency Stability | Vs. Temperature ( - 30 ~ + 85 ℃ ) | ± 0.5 / ± 2.0 ppm |
| | Vs. Load ( Load varies ± 10 % ) | ± 0.2 ppm Max. |
| | Vs. Supply Voltage ( Vcc = Typical ± 0.1 V ) | ± 0.2 ppm Max. |
| Frequency Tolerance | at 25 ℃ after 2 Reflows with Typical Applied to Auto Frequency Control Pin | ± 2.5 ppm Max. |
| Slope of Frequency Drift | | ± 0.1 ppm / ℃ Typical ; ± 0.5 ppm / ℃ Max. |
| Storage Temperature Range | | - 40 ~ + 85 ℃ |
| Auto Frequency Control ( AFC ) Range (Center @ 1.4 V) | | ± 7 ~ ± 16 ppm / V |
| 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 ℃ ) | | ± 1 ppm / year Max. |

## Dimensions




Units: mm

Remark : Specification subject to change without prior notice. Please confirm with our sales.