

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

Oscillators
Series

Features

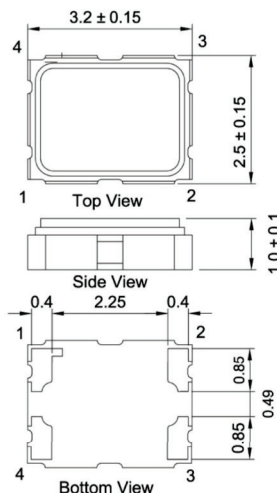
- Temperature Stability: $\pm 0.5 \text{ ppm} \sim \pm 2.0 \text{ ppm}$
- Operating Temperature Range: $-30^\circ\text{C} \sim 85^\circ\text{C}$
- Supply Voltage: $1.8 \text{ V} \sim 3.3 \text{ V}$
- Voltage Control Function Available
- Frequencies: 16.367667 MHz, 16.368 MHz, 16.369 MHz, 16.8 MHz, 19.2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



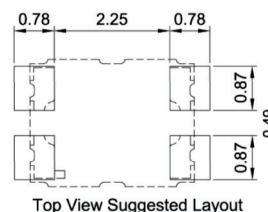
Electrical Specifications

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 V _{p-p} typical
Frequency Stability	Vs. Temperature ($-30 \sim +85^\circ\text{C}$)	$\pm 0.5 / \pm 2.0 \text{ ppm}$
	Vs. Load (Load varies $\pm 10\%$)	$\pm 0.2 \text{ ppm Max.}$
	Vs. Supply Voltage ($V_{cc} = \text{Typical} \pm 0.1 \text{ V}$)	$\pm 0.2 \text{ ppm Max.}$
Frequency Tolerance	at 25°C after 2 Reflows with Typical Applied to Auto Frequency Control Pin	$\pm 2.5 \text{ ppm Max.}$
Slope of Frequency Drift		$\pm 0.1 \text{ ppm} / ^\circ\text{C}$ Typical ; $\pm 0.5 \text{ ppm} / ^\circ\text{C}$ Max.
Storage Temperature Range		$-40 \sim +85^\circ\text{C}$
Auto Frequency Control (AFC) Range (Center @ 1.4 V)		$\pm 7 \sim \pm 16 \text{ ppm} / \text{V}$
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°C)		$\pm 1 \text{ ppm} / \text{year Max.}$

Dimensions



PAD FUNCTION:
1: AFC or GND
2: GND
3: OUT
4: VDD



Units: mm

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