

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

Features

- Temperature Stability: $\pm 0.5 \text{ ppm} \sim \pm 2.0 \text{ ppm}$
- Operating Temperature Range: $- 30 \text{ }^\circ\text{C} \sim 85 \text{ }^\circ\text{C}$
- 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 Vp-p typical
Frequency Stability	Vs. Temperature ($- 30 \sim + 85 \text{ }^\circ\text{C}$)	$\pm 0.5 / \pm 2.0 \text{ ppm}$
	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 $^\circ\text{C}$ 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		$- 40 \sim + 85 \text{ }^\circ\text{C}$
Auto Frequency Control (AFC) Range (Center @ 1.4 V)		$\pm 7 \sim \pm 16 \text{ ppm / V}$
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 $^\circ\text{C}$)		$\pm 1 \text{ ppm / year Max.}$

Dimensions



Units: mm

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