

SMD Temperature 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 °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 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 ~ $+85$ °C)	± 0.5 / ± 2.0 ppm
	Vs. Load (Load varies ± 10 %)	± 0.2 ppm Max.
	Vs. Supply Voltage (V _{cc} = Typical ± 0.1 V)	± 0.2 ppm Max.
Frequency Tolerance	at 25 °C after 2 Reflows with Typical Applied to Auto Frequency Control Pin	± 2.5 ppm Max.
Slope of Frequency Drift		± 0.1 ppm / °C Typical ; ± 0.5 ppm / °C Max.
Storage Temperature Range		-40 ~ $+85$ °C
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 °C)		± 1 ppm / year Max.

Dimensions



Units: mm