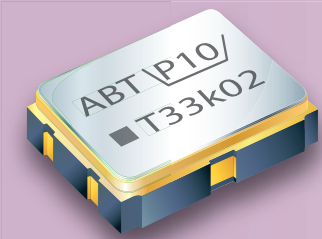


SMD Temperature Compensated Crystal Oscillators

3.2 x 2.5 x 1.0 mm AQ Series



Features

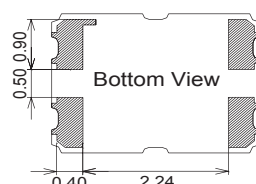
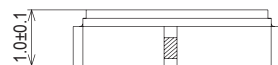
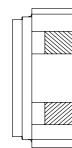
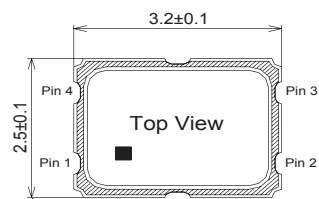
- Temperature Stability: ± 0.5 ppm ~ ± 2.5 ppm.
- Operating Temperature Range: -40 °C ~ 105 °C.
- Supply Voltage: 1.68 V ~ 3.63 V.
- Voltage Control Function Available.
- Frequencies: 6 MHz ~ 52 MHz.
- Applications: GPS, WiMAX, LTE and Wifi Communications.
- RoHS Compliant/Pb Free.
- AEC-Q200/AEC-Q100 Compliant.

Electrical Specifications

Item / Type		AQ
Output Type		Clipped Sinewave
Output Load		10 K Ω // 10 pF and 5 K Ω // 40 pF
Oscillation Mode		Fundamental
Supply Voltage		1.68 ~ 3.63 V
Frequency Range		6 ~ 52 MHz
Clipped Sinewave Output Voltage		0.8 V _{p-p} typical
Frequency Stability	Vs. Temperature (- 40 ~ + 85 °C)	± 0.5 ~ ± 2.5 ppm
	Vs. Temperature (- 40 ~ + 105 °C)	
	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		- 55 ~ + 125 °C
Auto Frequency Control (AFC) Range *		± 5 ppm ~ ± 16 ppm
Supply Current		2.5 mA Max.
Start-up Time		3 ms Max.
Harmonics		- 5 dBc Max.
Phase Noise at 1 kHz offset		- 130 dBc / Hz
Aging (at 25 °C)		± 1 ppm / year Max.

* AFC Range is selective and disable is acceptable.

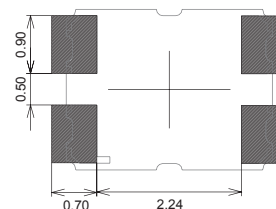
Dimensions



Pic Connection

Name	Connection
Pin 1	AFC or GND
Pin 2G	ND
Pin 3O	UTPUT
Pin 4	VCC

Recommended Land Pattern



Units: mm