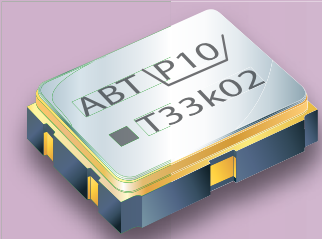


# SMD Temperature Compensated Crystal Oscillators

## 3.2 x 2.5 x 1.0 mm AQ Series



### Features

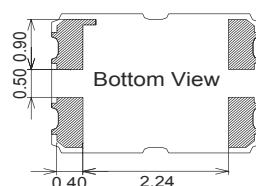
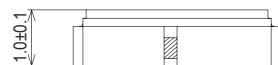
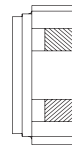
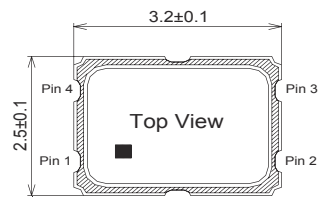
- Temperature Stability:  $\pm 0.5 \text{ ppm} \sim \pm 2.5 \text{ ppm}$ .
- Operating Temperature Range:  $-40 \text{ }^\circ\text{C} \sim 105 \text{ }^\circ\text{C}$ .
- Supply Voltage: 1.68 V ~ 3.63 V.
- Voltage Control Function Available.
- Frequencies: 6 MHz ~ 52 MHz.
- Applications: GPS, WiMAX, 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 $\Omega$ // 10 pF and 5 K $\Omega$ // 40 pF
Oscillation Mode		Fundamental
Supply Voltage		1.68 ~ 3.63 V
Frequency Range		6 ~ 52 MHz
Clipped Sinewave Output Voltage		0.8 V <sub>p-p</sub> typical
Frequency Stability	Vs. Temperature ( - 40 ~ + 85 $^\circ\text{C}$ )	$\pm 0.5 \sim \pm 2.5 \text{ ppm}$
	Vs. Temperature ( - 40 ~ + 105 $^\circ\text{C}$ )	
	Vs. Load ( Load varies $\pm 10 \%$ )	$\pm 0.2 \text{ ppm Max.}$
	Vs. Supply Voltage ( V <sub>cc</sub> = 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		- 55 ~ + 125 $^\circ\text{C}$
Auto Frequency Control ( AFC ) Range *		$\pm 5 \text{ ppm} \sim \pm 16 \text{ ppm}$
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 $^\circ\text{C}$ )		$\pm 1 \text{ ppm} / \text{year Max.}$

\* AFC Range is selective and disable is acceptable.

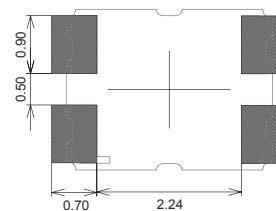
### Dimensions



### Pic Connection

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

### Recommended Land Pattern



Units: mm

Remark : Specification subject to change without prior notice. Please confirm with our sales. <http://www.txccorp.com>