

# SMD TCXO Crystal Oscillators 2.0x1.6x0.8mm W21 Series



## Features

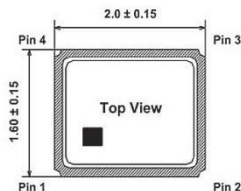
- Temperature Stability:  $\pm 0.5$  ppm~ $\pm 2.0$  ppm.
- Operating Temperature Range:  $-30^{\circ}\text{C}$ ~ $85^{\circ}\text{C}$ .
- Supply Voltage: 1.8V~3.3V.
- Voltage Control Function Available.
- Applications: GPS, WiMAX, Cellular and Wireless Communications.
- RoHS Compliant / Pb Free.



## Crystals specifications

ITEMS/TYPE		W21
Frequency Range		26~52MHz
Output Load		10K $\Omega$ // 10pF
Oscillation Mode		Fundamental
Supply Voltage		1.8~3.3 V
Output Type		Clipped Sinewave
Clipped Sinewave Output Voltage		0.8 Vp-p min
Supply Current		2.0mA max.
Harmonics		- 5 dBc Max.
Output Level		0.8 Vp-p min
Frequency Stability	Vs Temperature( $-30\sim+85^{\circ}\text{C}$ )	$\pm 0.5$ ppm / $\pm 2.0$ ppm
	Supply Voltage ( $V_{cc}=\text{Typical } \pm 0.1\text{V}$ )	$\pm 0.2$ ppm max.
	Load ( Load varies $\pm 10\%$ )	$\pm 0.2$ ppm max. (10K $\Omega$ / 10pF $\pm 10\%$ )
Slope of Frequency Drift		$\pm 0.1$ ppm / $^{\circ}\text{C}$ Typical ; $\pm 0.5$ ppm / $^{\circ}\text{C}$ Max.
Initial Frequency Tolerance at $25^{\circ}\text{C}$ after 2 Reflows		$\pm 2.5$ ppm max. (After 2 times reflow )
Storage Temperature Range		$- 40\sim+85^{\circ}\text{C}$
Auto Frequency Control Range		$\pm 7 \sim \pm 16$ ppm (1.4+/- 1V)
Start-up Time		5 ms max.
Phase Noise at 1 kHz offset		- 130 dBc / Hz
Aging(at $25^{\circ}\text{C}$ )		$\pm 1$ ppm / year
Packing Unit		3,000pcs/Reel

## Dimensions and patterns(unit:mm)

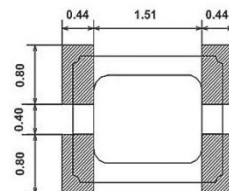
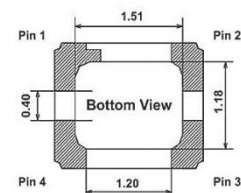


Pin Connection

Name	Connection
Pin 1	AFC or GND
Pin 2	GND
Pin 3	OUTPUT
Pin 4	VCC



Recommended Land Pattern



Units:mm