

# TEMPERATURE-COMPENSATED CRYSTAL OSCILLATOR

## TXO83, VTX83

### Applications

- Cellular / PHS / GPS / Communication Equipment

### Features

- Dimensions (5.0×3.2×1.05)
- Seam sealed
- Low phase noise / Low power consumption
- High stability  $\pm 2.5\text{ppm} / -30^{\circ}\text{C} \sim +75^{\circ}\text{C}$
- Clipped sine output (DC coupled)

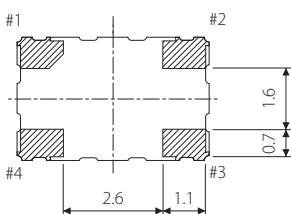
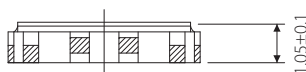
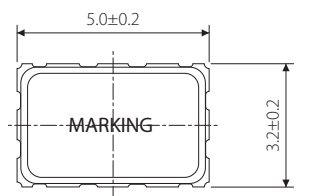
### Specifications



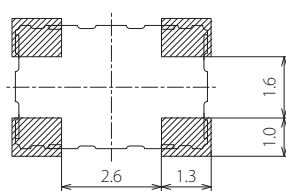
Model	TXO83	VTX83	
Frequency range	6.000~45.000 MHz		
Nominal frequency (MHz)	8, 10, 12, 12.8, 13, 14.4, 16.368, 19.2, 19.8, 20, 24.5535, 26, 40		
Frequency stability	Tolerance at 25°C	$\pm 2.0 \times 10^{-6}$ (Sixty minutes after reflow)	
	Temperature (Ref.to+25°C)	$\pm 2.5 \times 10^{-6} / -30 \sim +75^{\circ}\text{C}$	
	Supply voltage change	$\pm 0.2 \times 10^{-6} / V_{\text{dd}} \pm 5\%$	
	Load change	$\pm 0.2 \times 10^{-6} / Z_L \pm 10\%$	
Aging (at 25°C)	$\pm 1.0 \times 10^{-6} / \text{First year}$		
Storage temperature range	-40~+85°C		
Power supply voltage (Vcc)	+2.8V, +3.0V, +3.3V, +5.0V DC $\pm 5\%$		
Current consumption	1.5mA max. (~20MHz), 2.0mA max. (~32MHz), 2.5mA max. (~45MHz)		
Output	Load (ZL)	10kΩ//10pF	
	Voltage	0.8V p-p min.	
	Waveform	Clipped Sine Wave (DC-coupled output)	
External controlfunction	Frequency tuning range	—	$\pm 8.0 \times 10^{-6}$ min. (Positive)
	External control voltage	—	+1.5V $\pm 1.0\text{V}$ DC
	Input impedance (Zvin)	—	500kΩ min. (650kΩ typ.)
Phase noise	-135dBc typ. at 1kHz offset		

Package quantity: 1,000pcs max./Reel.

### Outline and Dimensions [unit:mm]



Example of a Terminal Land Pattern



Terminal	Connection	
	TCXO	VC-TCXO
#1	GND	Vcont
#2	GND	
#3	OUTPUT	
#4	Vdd	