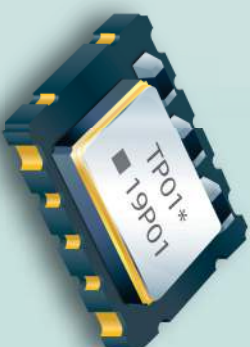


# Precise SMD Temperature Compensated Crystal Oscillators 7.0x5.0x2.0 mm 7N Series (10 pad)

## Features

- High Stability Over Temperature:  $\pm 0.14\text{ppm} \sim \pm 0.28\text{ppm}$
- Operating Temperature Range:  $-40^{\circ}\text{C} \sim 85^{\circ}\text{C}$
- Holdover 24Hr:  $\pm 0.40\text{ppb}$  (Option)
- Free Run Stability for 20 years:  $\pm 4.6\text{ppm}$  (Option)
- Frequency: 10 ~ 52MHz
- Supply Voltage: 2.7V ~ 5.5V
- Voltage Control Function Available
- Output Enable/Disable Function Available
- Support Clipped Sinewave and CMOS Output Waveform
- Application: Small Cell, Base Station, Networking Infrastructure
- ROHS Compliant / Pb Free



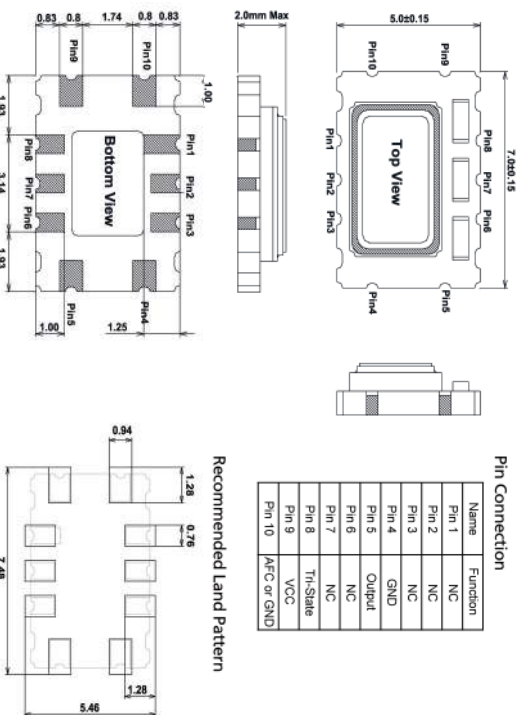
Oscillators Series

Electrical Specifications		Item / Type	7N
Output Type		Clipped Sinewave	CMOS
Output Load		10K $\Omega$ //10pF	15pF
Output Voltage		0.8 Vp-p Min.	Output Low (VOL) 0.1 * Vcc Max. Output High (VOH) 0.9 * Vcc Min.
Supply Current		5 mA Max.	10 mA Max.
Oscillation Mode			Fundamental
Supply Voltage			2.7 ~ 5.5 V
Frequency Range			10 ~ 52 MHz
Initial Frequency Tolerance at 25°C after 2 Reflows			$\pm 2.0\text{ ppm}$
Frequency Tolerance		Vs. Temperature ( - 40 ~ + 85 °C )	$\pm 0.14 / \pm 0.28\text{ ppm}$
		Vs. Load ( $\pm 5\%$ )	$\pm 0.1\text{ ppm Max.}$
		Vs. Supply Voltage ( $\pm 5\%$ )	$\pm 0.1\text{ ppm Max.}$
Storage Temperature Range			-55 ~ +125 °C
Auto Frequency Control Range (Option)			$\pm 5 \sim \pm 16\text{ ppm}$ (1.5 $\pm$ 1 V)
Start-up Time			2.5 ms Max.
Harmonics			-5 dBc Max.
Phase Noise at 1KHz Offset			-130 dBc/Hz
Aging			$\pm 1\text{ ppm / year Max.}$
24 Hr Holdover Stability (Option) [#1]			$\pm 40\text{ ppb}$
Free Run Stability for 20 Years (Option) [#2]			$\pm 4.6\text{ ppm}$

[#1] 24 hours at constant temperature after 48 hours operation.

[#2] Inclusive of initial tolerance at 25°C, temperature, supply voltage  $\pm 5\%$ , load  $\pm 5\%$ , reflow soldering and ageing 20 years.

## Dimensions



Units: mm

Remark : Specification subject to change without prior notice. Please confirm with our sales.