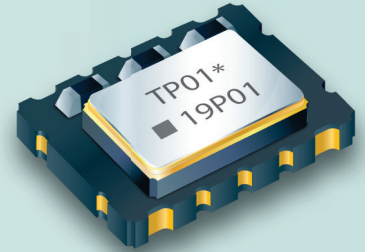


Precise SMD Temperature Compensated Crystal Oscillators

7.0 x 5.0 x 2.0 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



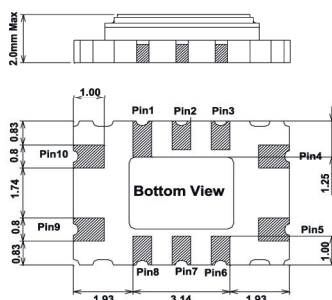
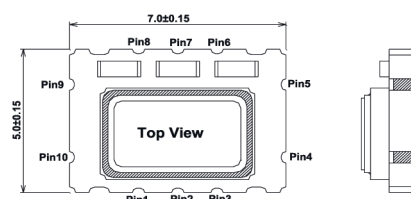
Electrical Specifications

Item / Type		7N		
Output Type		Clipped Sinewave	CMOS	
Output Load		10K Ω //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		± 2.0 ppm		
Frequency Tolerance	Vs. Temperature (- 40 ~ + 85 °C)	$\pm 0.14 / \pm 0.28$ ppm		
	Vs. Load (± 5 %)	± 0.1 ppm Max.		
	Vs. Supply Voltage (± 5 %)	± 0.1 ppm Max.		
Storage Temperature Range		$-55 \sim +125^{\circ}\text{C}$		
Auto Frequency Control Range (Option)		$\pm 5 \sim \pm 16$ 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		± 1 ppm / year Max.		
24 Hr Holdover Stability (Option) [#1]		± 40 ppb		
Free Run Stability for 20 Years (Option) [#2]		± 4.6 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.

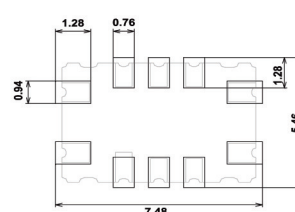
Dimensions



Pin Connection

Name	Function
Pin 1	NC
Pin 2	NC
Pin 3	NC
Pin 4	GND
Pin 5	Output
Pin 6	NC
Pin 7	NC
Pin 8	Tri-State
Pin 9	VCC
Pin 10	AFC or GND

Recommended Land Pattern



Units: mm