



SiTime's programmable, voltage controlled, temperature compensated oscillators (VCTCXO) are the most flexible and reliable solutions for telecom, networking, wireless and embedded applications. They are pin compatible with crystal oscillators and crystal-based TCXO oscillators, enabling 100% drop-in replacement for crystal-based products with no design or layout changes.

SiTime's Temperature Compensated Oscillators (TCXO)

- Wide frequency range from 1 MHz to 625 MHz
- High frequency stability as precise as ± 2.5 PPM
- Option to voltage control with a wide pull range
- Broad temperature support from -40C to +85°C
- Complete single ended and differential output support
- Industry standard packages as small as 2.5 x 2.0 mm

Model	Output Type & Description	Frequency & Characteristics	Op Temp. Range & Stability Option (PPM)	Pulling Range (PPM)	Control Voltage	Package Size (mm)
SiT5000	LVC MOS/LVTTL/HCMOS High Performance Programmable Freqs Smallest Size	26 Standard Freqs 1.8V & 2.5-3.3V RMS Phase Jitter <1ps Softedge™ 1-6ns	-20°C to +70°C -40°C to +85°C $\pm 1.5, \pm 2.0, \pm 2.5, \pm 5$ PPM	± 12.5 or Off	0-Vdd	2.5x2.0x0.75 3.2x2.5x0.75 5.0x3.2x0.75 7.0x5.0x0.9
SiT5001	LVC MOS/LVTTL/HCMOS High Performance Programmable Freqs	1-80MHz 1.8V & 2.5-3.3V RMS Phase Jitter <1ps Softedge™ 1-6ns	-20°C to +70°C -40°C to +85°C $\pm 1, \pm 1.5, \pm 2.5, \pm 5$ PPM	± 12.5 ± 25 ± 50 or off	0-Vdd	2.5x2.0x0.75 3.2x2.5x0.75 5.0x3.2x0.75 7.0x5.0x0.9
SiT5002	LVC MOS/LVTTL/HCMOS High Frequency High Performance Programmable Freqs	80-220MHz 1.8V & 2.5-3.3V RMS Phase Jitter <1ps Softedge™ 1-6ns	-20°C to +70°C -40°C to +85°C $\pm 1, \pm 1.5, \pm 2.5, \pm 5$ PPM	± 12.5 ± 25 ± 50 or off	0-Vdd	3.2x2.5x0.75, 5.0 x 3.2 x 0.75 7.0 x 5.0 x 0.9
SiT5021	LVPECL & LVDS High Frequency High Performance Programmable Freqs	1-220MHz 2.5, 3.3 & 2.25-3.63 RMS Phase Jitter <0.6ps	-20°C to +70°C -40°C to +85°C $\pm 2.5, \pm 5$ PPM	± 12.5 ± 25 ± 50 or off	0-Vdd	3.2x2.5x0.75, 5.0 x 3.2 x 0.75 7.0 x 5.0 x 0.9
SiT5022	LVPECL & LVDS High Frequency High Performance Programmable Freqs	220-625MHz 2.5, 3.3 & 2.25-3.63 RMS Phase Jitter <0.6ps	-20°C to +70°C -40°C to +85°C $\pm 2.5, \pm 5$ PPM	± 12.5 ± 25 ± 50 or off	0-Vdd	3.2x2.5x0.75, 5.0 x 3.2 x 0.75 7.0 x 5.0 x 0.9