



SiTime's Digitally Controlled MEMS Oscillators (DCXO) with 0.1% pull range linearity are the most flexible, highest performance solution for telecom, wireless, networking, video, audio, instrumentation and FPGA applications.

These oscillators eliminate the need for an external DAC used in traditional VCXO designs to allow the development of completely linear and low-noise solutions. Instead of using an external voltage to control the frequency, SiTime's DCXO family enables users to control output frequency up to ±1600 PPM by simply shifting a few bits into the device resulting in a more accurate and robust design.

Key features of SiTime's digitally controlled MEMS oscillators (DCXO) include:

- All digital, eliminating an external DAC used in traditional VCXO designs
- Best linearity of <1%, 100 times better than traditional quartz VCXO
- Pull range options of ±25, ±50, ±100, ±150, ±200, ±400, ±800 or ±1600 PPM
- Pull range resolution of 1 PPB
- Any combination of frequencies (up to 625 MHz), voltage (1.8V, 2.5V-3.3V), pull range (±25 PPM to ±1600 PPM) and industry-standard packages (3225, 5032 or 7050)
- Widest pull range from ±25 PPM to ±1600 PPM
- LVCMOS outputs (SiT3907) and differential outputs (SiT3921 and SiT3922)

Model	Output Type & Description	Frequency & Characteristics	Op Temp. Range & Stability Option	Pulling Range (PPM)	Pulling Linearity & Resolution	Package Size (mm)
SiT3907	LVCMOS/LVTTL O/P High Performance Programmable Frequency	1-220MHz 1.8V & 2.5-3.3V	-20°C to +70°C -40°C to +85°C ±10PPM, ±25PPM, ±50PPM	±25 to ±1600	<0.01% 1ppb	3.2x2.5x0.75 (4-pin) 5.0x3.2x0.75 (6-pin) 7.0x5.0x0.9 (6-pin)
SiT3921	LVPECL & LVDS O/P High Performance Programmable Frequency	1-220MHz 2.5V & 3.3V	-20°C to +70°C -40°C to +85°C ±10PPM, ±25PPM, ±50PPM	±25 to ±1600	<0.1% 1ppb	3.2x2.5x0.75, 5.0 x 3.2 x 0.75 7.0 x 5.0 x 0.9
SiT3922	LVPECL & LVDS O/P High Frequency High Performance Programmable Frequency	220-625MHz 2.5V & 3.3V	-20°C to +70°C -40°C to +85°C ±10PPM, ±25PPM, ±50PPM	±25 to ±1600	<0.1% 1ppb	3.2x2.5x0.75, 5.0 x 3.2 x 0.75 7.0 x 5.0 x 0.9