

±5 ppb stability, ±40 ppt/°C ΔF/ΔT

Smallest in class, 9 x 7 mm²

Unmatched ease-of-use



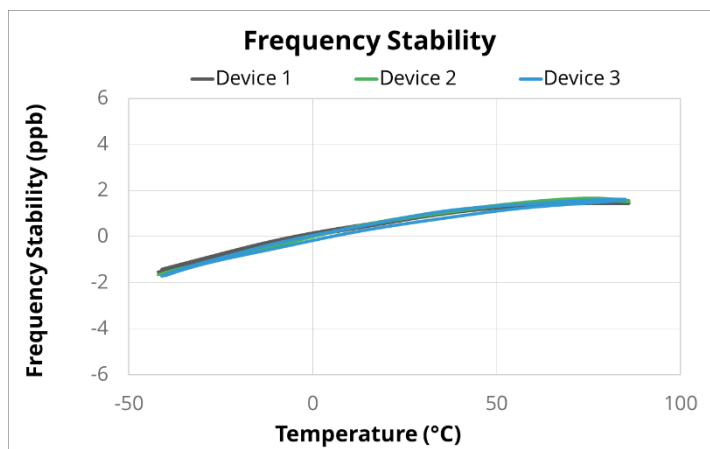
SiTime’s Emerald Platform™ Stratum 3E OCXOs and Digitally Controlled OCXOs are designed to solve the long-standing problems of quartz OCXOs, which are sensitive to environmental conditions, require protective components, and are difficult to use. Emerald OCXOs provide the best dynamic performance (under airflow, thermal shock, vibration, shock, and EMI), programmability for the shortest lead time, and the smallest size in its class. The Emerald Platform also includes the industry’s only fully digitally controlled OCXO, offering class leading performance with frequency control at an ultra-fine resolution.

Benefits

- Enhance system robustness/performance in harsh environments
- Reduce design/manufacturing overhead by eliminating placement constraints and shielding requirements
- Shrink system size with smallest Stratum 3E OCXO package, fewer supporting components
- Minimize time error in time synchronization applications

Applications

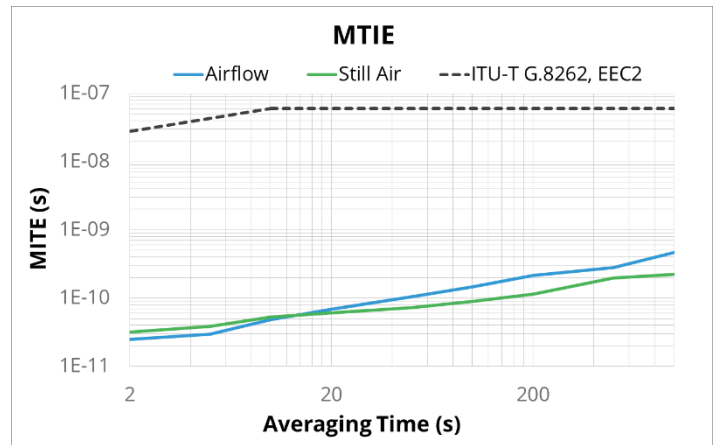
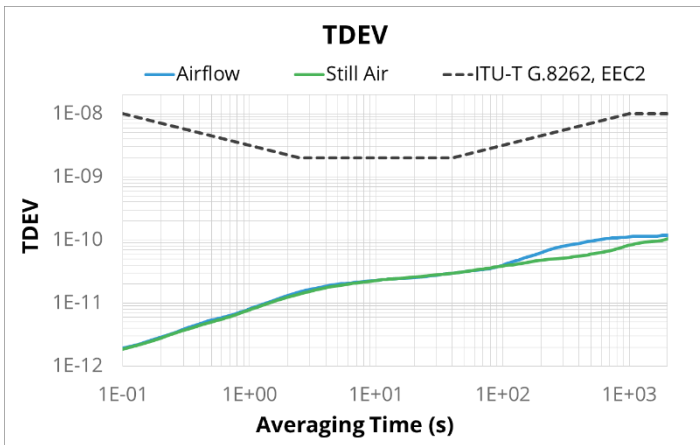
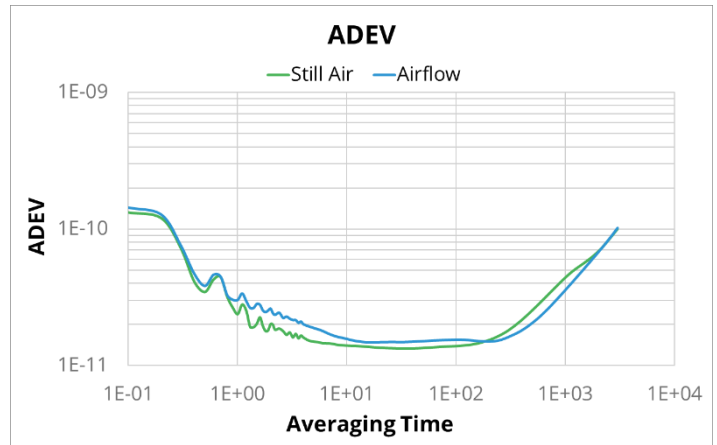
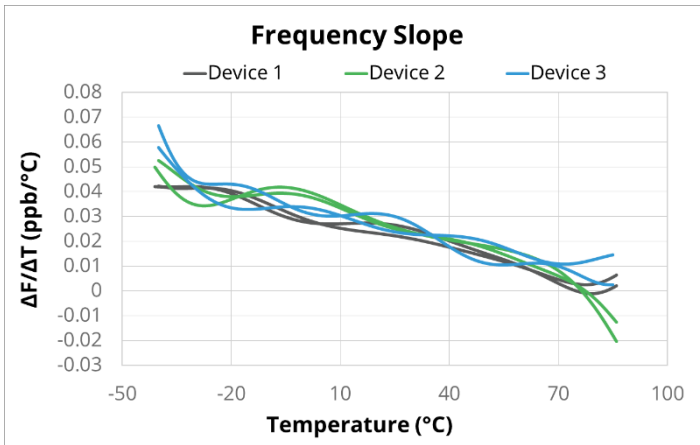
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|--|-------------------------|
| ▪ SONET/SDH Stratum 3E | ▪ Carrier Class Routers |
| ▪ 4G/5G RRH, DU | ▪ Optical Transport |
| ▪ IEEE 1588 Boundary Clocks and Grandmasters | ▪ Digital Switching |
| ▪ Macro Base Stations | ▪ Test Instrumentation |
| | ▪ Synchronous Ethernet |



Features

- Exceptional dynamic stability under airflow, fast temp ramp
 - ±5 to ±8 ppb over-temp stability
 - ±40 ppt/°C frequency slope (ΔF/ΔT)
 - 2e-11 ADEV at 10 seconds averaging time, under airflow
 - Accuracy under vibration for pole mounted equipment
 - Resistant to microphonic and/or board bending effects
- ±0.6 ppb typical daily aging
- Fully digital I²C frequency tuning, ±5 ppt pulling resolution
- On-chip regulators for power supply noise filtering
- Excellent holdover through a wide range of conditions
- Programmable platform, any frequency from 1 to 60 MHz
- LVCMOS or clipped sinewave output
- No activity dips or micro jumps
- GR-1244 Stratum 3E compliant

Contact SiTime for ±3 ppb or better stability options



Device Type	Device	Frequency (MHz)	Temp. Range (°C)	Stability (ppb)	Output Type	Package Size (mm ²)
Precision OCXO	SIT5711	1 to 60	-20 to 70 -40 to 85	±5 to ±8 ^[1]	LVCMOS, Clipped Sine Wave	9.0 x 7.0
Digitally-Controlled Precision OCXO	SIT5721					

1. [Contact SiTime](#) for tighter stability options.

SiTime is a leader in MEMS timing solutions. We combine innovative MEMS and programmable analog technologies with our systems expertise to deliver industry-best timing solutions that overcome the limitations of traditional quartz products. Our configurable products enable customers to differentiate their systems with higher performance, small size, and better reliability.