MEMS Timing Solutions for
Servers Load Balancing and IEEE1588 Support

SiTime MEMS timing benefits

Engineered for time sync

- ±1 ppb/°C dF/dT
- 1.5e-11 ADEV
- ±50 to 100 ppb stability

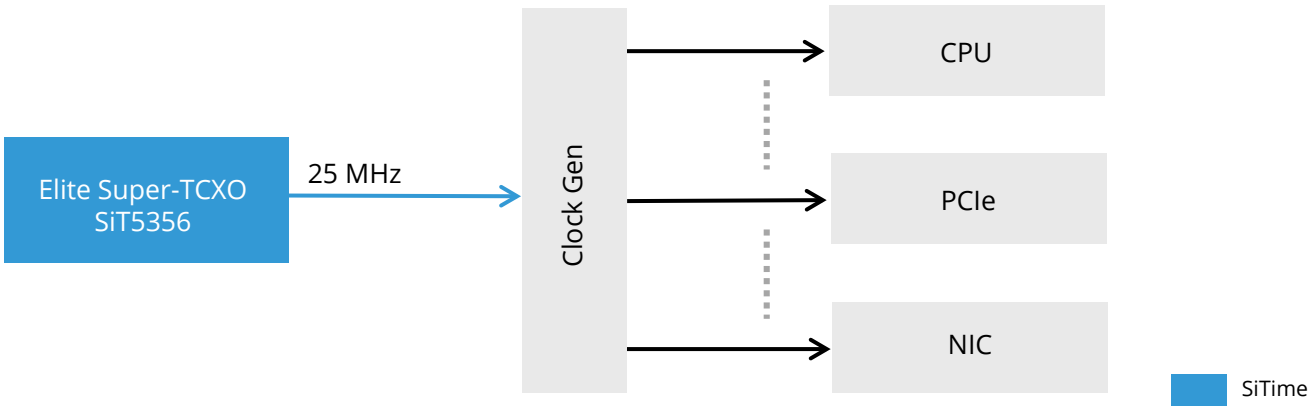
Most Robust in real world conditions

- Resistant to airflow, thermal shock
- Resistant to board bending
- Immune to power supply noise

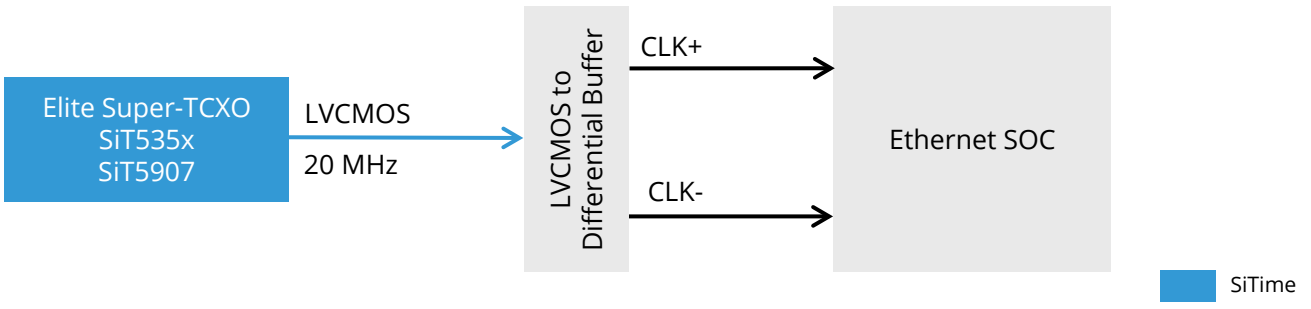
Thin profile, easy to use

- No cover or shielding
- No heat sink
- ≤1 mm thin for back side of PCIe card

Time synchronization on mother board IEEE 1588 or load balancing



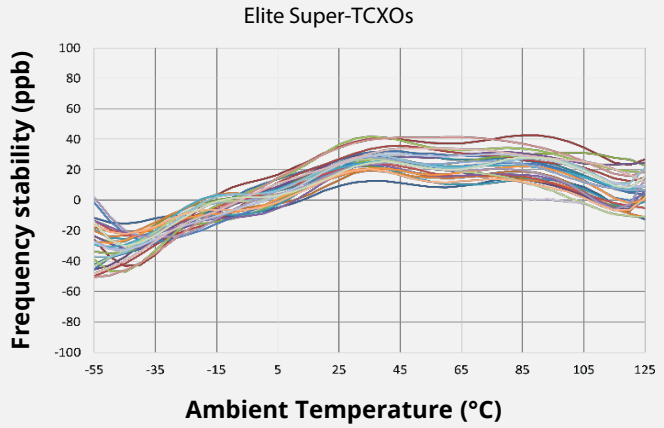
Network interface card (NIC) IEEE 1588-enabled



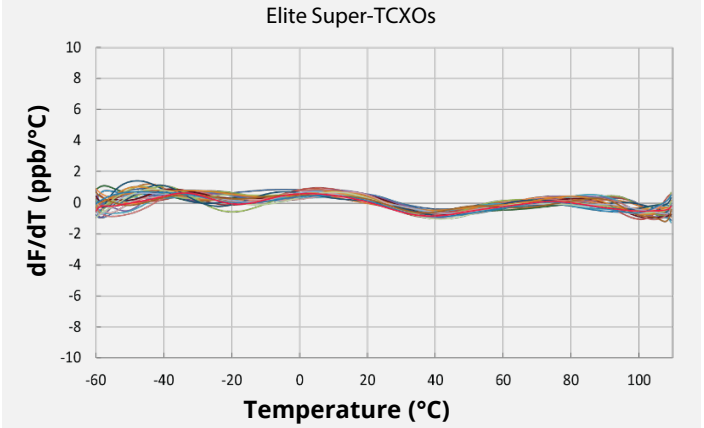
Application	Devices	Type	Function	Key Features
Server Motherboard	SiT5356	Super-TCXO	IEEE 1588 and load balancing RefClk	25 MHz, ±100 ppb, ±1 ppb/°C 105°C
Intel Fortville NIC	SiT5907	Super-TCXO	IEEE 1588 and high-speed SERDES RefClk	20 MHz, ±20 ppb up to 70°C, operable to 105°C
Other Smart NIC	SiT535x	Super-TCXO		1 to 220 MHz, ±100 ppb, ±1 ppb/°C 105°C

MEMS Timing Outperforms Quartz

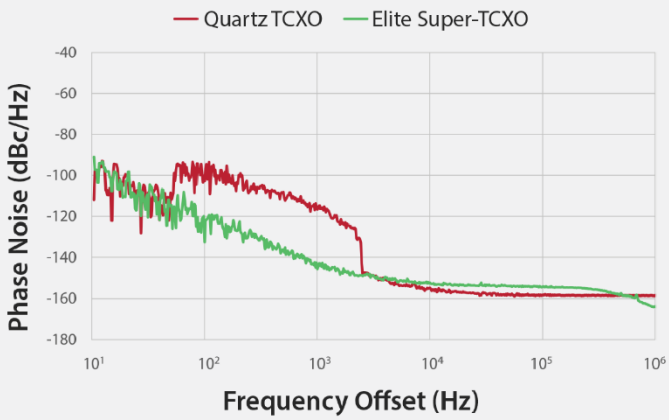
Better Stability



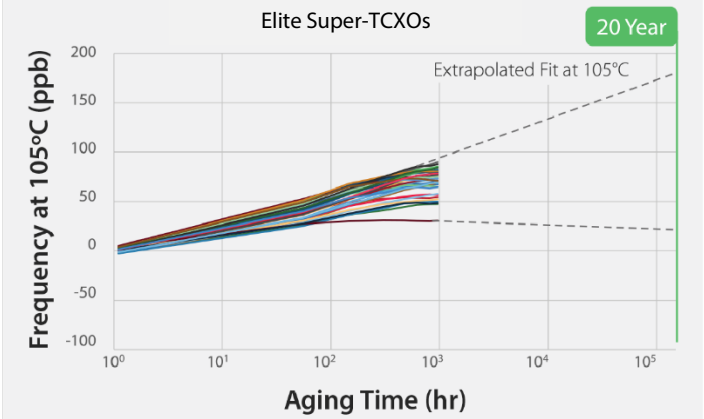
Better Frequency Slope



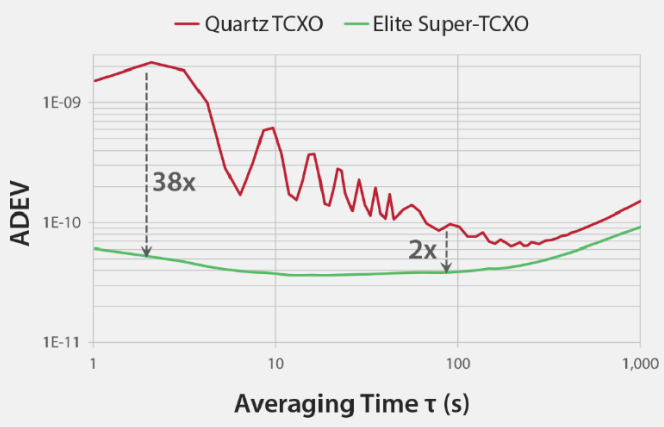
Better Vibration Resistance



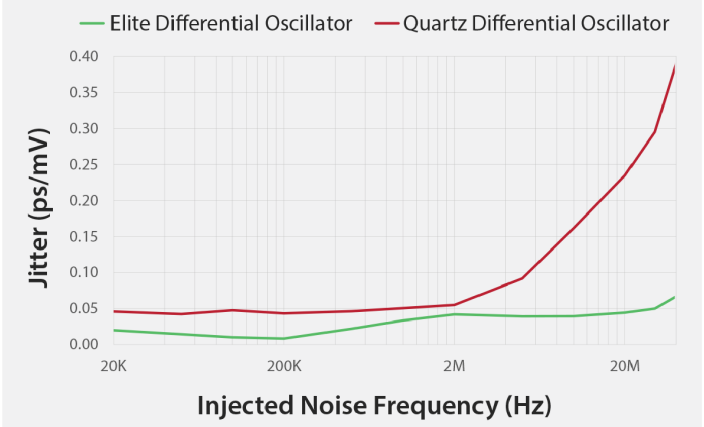
Better Aging



Better Allan Deviation



Better PSNR (Power Supply Noise Rejection)



Learn more about SiTime's Comms-Enterprise timing solutions

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