

## SiTime MEMS timing benefits

### Complete MEMS clock tree

- Precision MEMS TCXO
- Stratum 3E MEMS OCXO
- MEMS clock IC/PLL

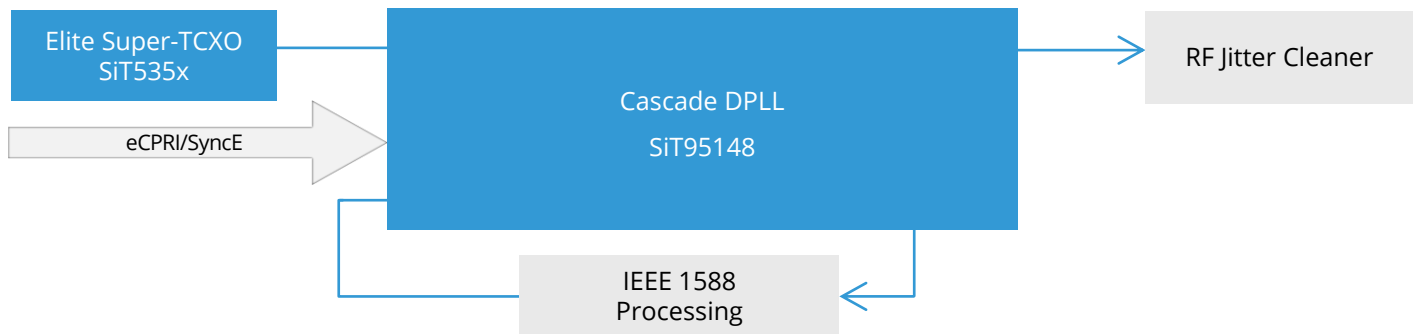
### More robust in real world conditions

- 4x better dF/dT for best IEEE 1588/eCPRI
- Resistant to airflow, heat, vibration
- Graceful degradation up to 125°C

### Thin profile, easy to use

- No external quartz
- No quartz reliability issues
- No cover or shielding needed

## IEEE1588/eCPRI Enabled RRU/AAU/mMIMO



## Replacing Quartz OCXO with MEMS Super-TCXO

### Challenges with Quartz OCXO



- Large, 9 x 7 x 4 mm
- Need cover, sensitive to air flow & temp change
- No 105°C
- Prone to failure

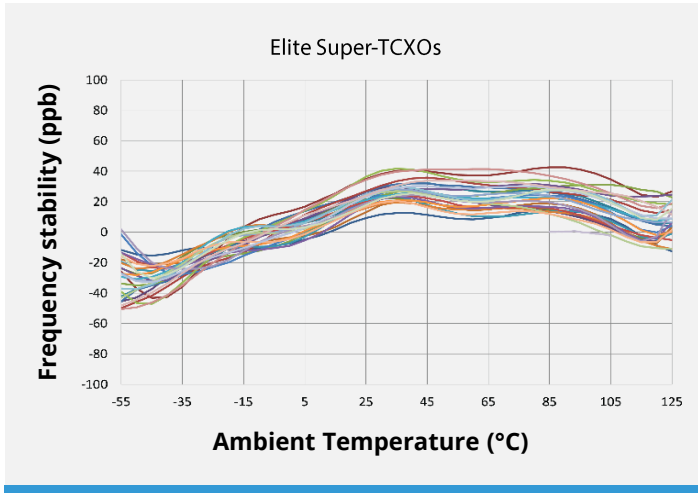
### Solution MEMS Elite Super-TCXO



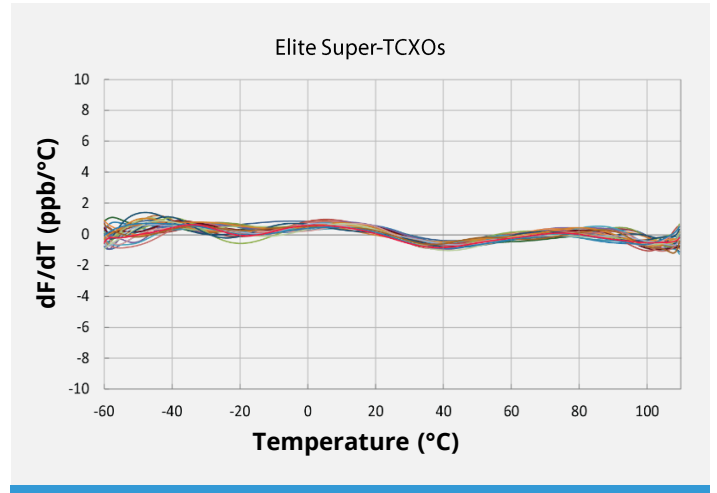
- 3x smaller, 4x thinner, 5.0 x 3.2 x 1.0 mm
- No cover, airflow and temp change resistant
- 105°C
- Semiconductor-level reliability

Application	Devices	Type	Function	Key Features
RRU/AAU/ mMIMO	<a href="#">SiT535x</a>	Super-TCXO	Reference clock for jitter cleaner, IEEE 1588/eCPRI	1 to 220 MHz, ±100 ppb, ±1 ppb/°C, 105°C
	<a href="#">SiT9514x</a>	Network synchronizer, jitter cleaner	Ethernet, PCIe, processor & IEEE 1588/eCPRI clocking	4-in, 11-out, 4-PLL, 8 kHz to 2.1GHz

## Better Stability



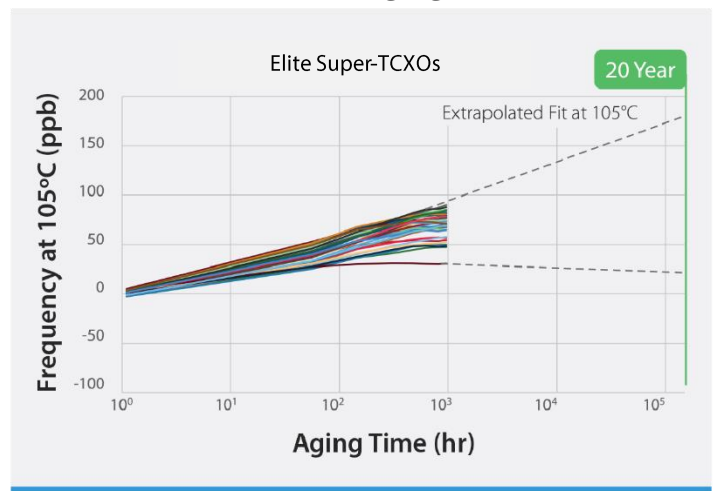
## Better Frequency Slope



## Better Vibration Resistance



## Better Aging



## Better Allan Deviation



## Better PSNR (Power Supply Noise Rejection)

