

## **SiTime MEMS Timing Benefits**

#### **Leading vendor in Industrial**

- Infrastructure fault detection
- Earthquake detection
- Geological exploration

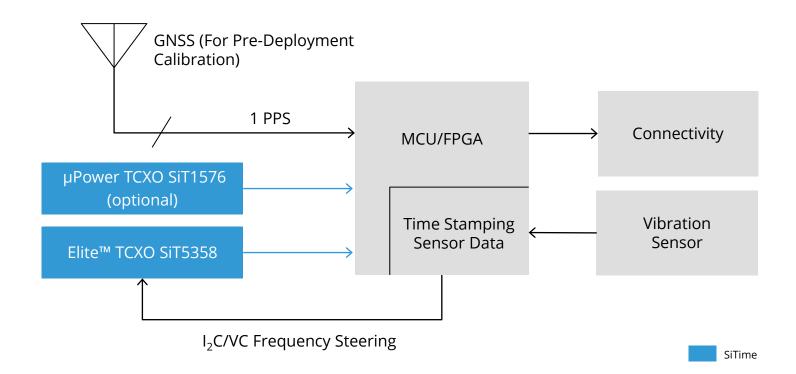
#### Most robust in real world conditions

- 4x better dF/dT for best time stamping
- 70 g vibration and 30,000 g shock
- 6 μA current for extended deployment

#### Easy to use, built to last

- Custom configured solution
- No quartz reliability issues
- 1 billion hour MTBF

## **MEMS Timing Solution for Seismic Sensors**



Devices	Туре	Function	Key Features
<u>SiT535x</u>	Super-TCXO	Time Stamping and Reference	1 to 220 MHz, ±50 to ±250 ppb , ±1 ppb/°C, ±80 ppb 20-year aging, 70g vibration survivability
<u>SiT1576</u>	μPower TCXO	Low Power Reference	1 Hz to 2.5 MHz, ±5 ppm total stability, 6 μA current consumption

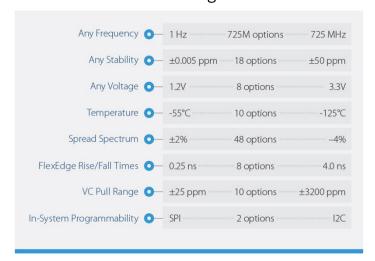


# **MEMS Timing Outperforms Quartz**

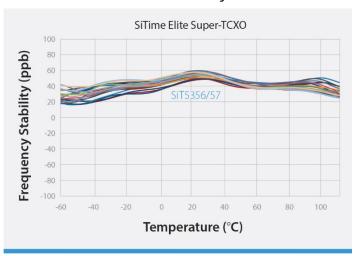
### Better Quality, More Robust



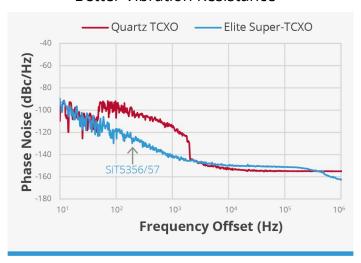
## Millions of Configurations



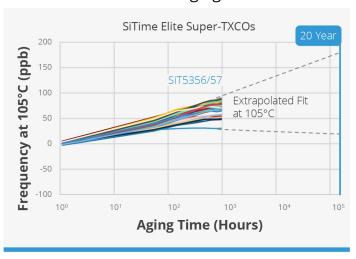
## **Better Stability**



#### **Better Vibration Resistance**



# **Better Aging**



# Better PSNR (Power Supply Noise Rejection)

