



Timing Solutions for **Industrial**

Lower maintenance costs with reliable timing devices

Better stability under wide and rapid temperature changes

Programmable for broad range of frequencies and short lead times

Timing you
can trust



AUTOMATION

Single Ended, Differential, and Spread Spectrum Oscillators

SiT8918/19 | SiT9366/67 | SiT9005 | SiT9025

- High temperature operation | Up to -55 to +125°C
- Vibration | 0.1 ppb/g typical
- EMI reduction | Up to 30 dB lower



ENERGY

MHz Super-TCXOs and 32-kHz Oscillators

SiT5356 | SiT5357 | SiT1580 | SiT1630

- Precision timing | ± 100 ppb up to 105°C
- Airflow and thermal shock resistant | 1 ppb/°C
- Low power for longer battery life | 4.5 μ A at 100 kHz



TEST AND MEASUREMENT

OCXOs, Super-TCXOs, and Oscillators

SiT5801/02/11/12 | SiT5358/59 | SiT5356/57 | SiT8008/09 | SiT9366/67

- Lower aging | ± 0.1 ppb/day aging
- Factory programmable | Any frequency, stability, voltage within wide range
- Reduce size and power | Smallest 9.0 x 7.0 x 3.6 mm OCXO, 420 mW



INDUSTRIAL IOT & SENSING

MHz Super-TCXOs and 32-kHz Oscillators

SiT5356/57 | SiT1580 | SiT1532/33 | SiT1630

- Precision timing | ± 100 ppb, 3e-11 ADEV
- Lower power for longer battery life
- Smallest 32 kHz TCXO | 1.5 mm x 0.8 mm



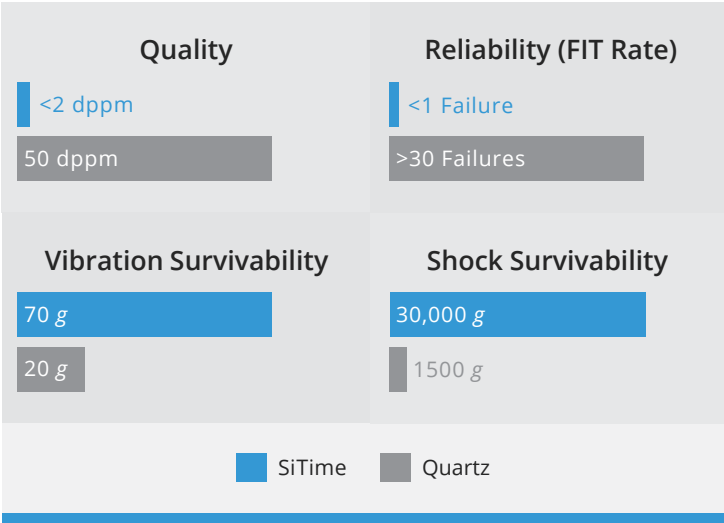
PRECISION GNSS

OCXOs and Super-TCXOs

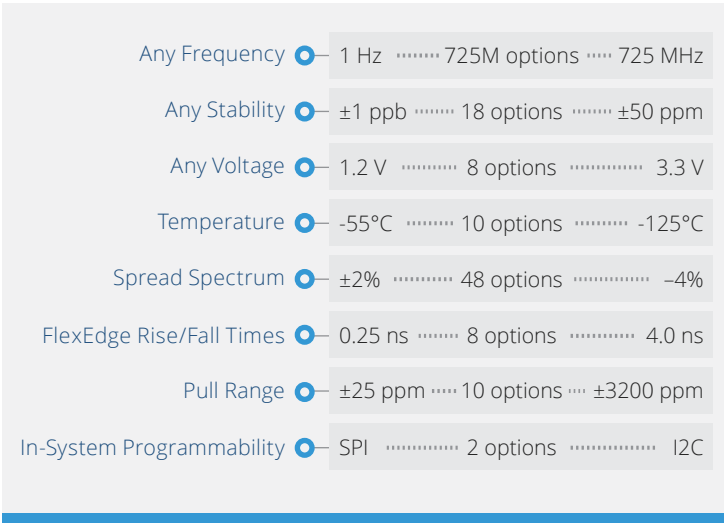
SiT5801/02/11/12 | SiT5358/59 | SiT5356/57

- Precision timing | ± 1 ppb to ± 100 ppb
- Vibration resistant | 0.1 ppb/g typical
- High reliability | >1 billion hour MTBF

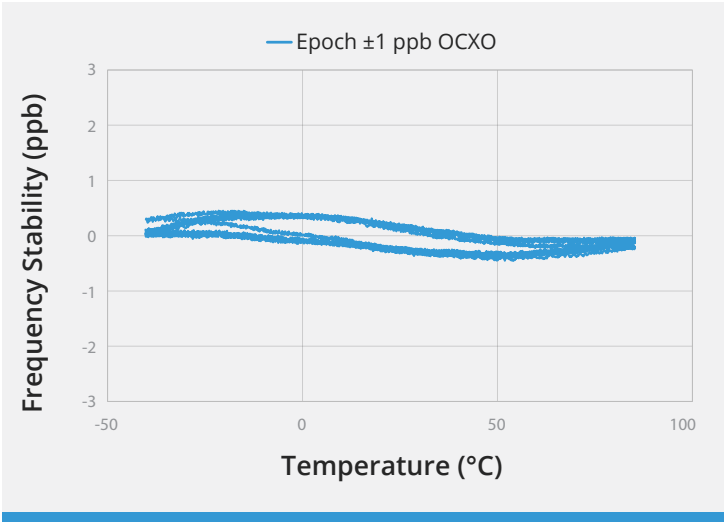
Better Quality, Reliability, and Robustness



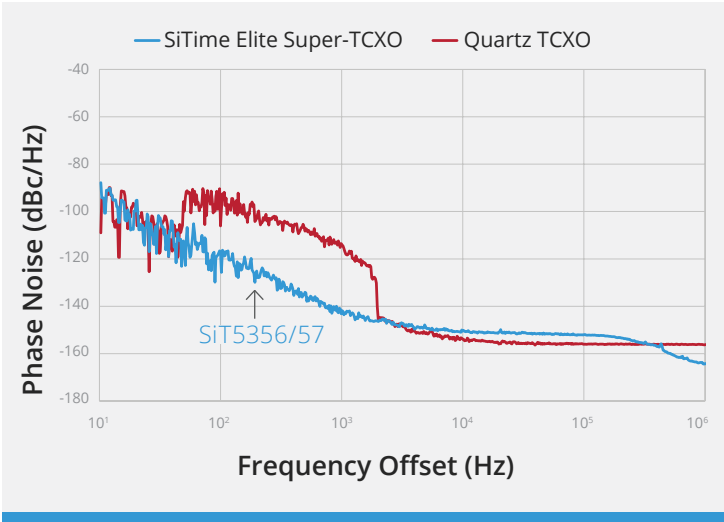
Rich Programmable Features



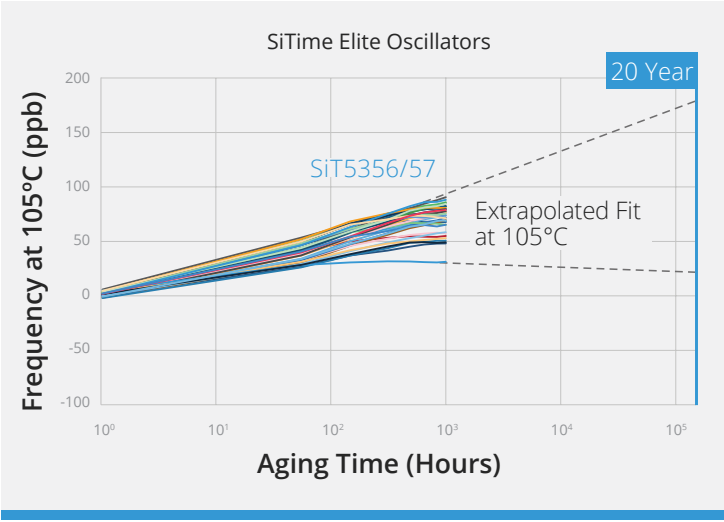
Better Stability



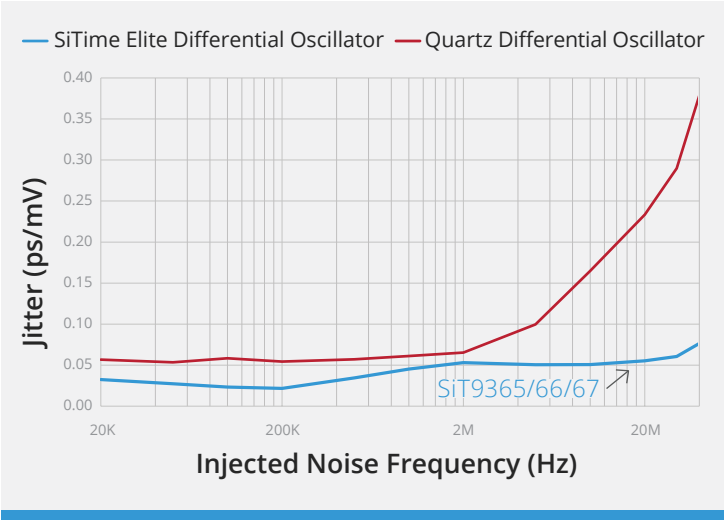
Better Vibration Resistance



Better Aging



Better PSNR (Power Supply Noise Rejection)



SiTime Base Part No.	Output Frequency	Frequency Stability (ppm)	Supply Volt. (V)	Supply Current (Typical)	Packages (mm x mm)	Output Logic	Features
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µPower Oscillators | Low current: 510 nA | Small footprint: 1.32 mm²

SiT1811	32.768 kHz	±20	1.35 to 1.98	510 nA	1.2 x 1.1	LVC MOS Reduced Swing	Low current 510 nA, Small footprint 1.32 mm ²
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Single-Ended Oscillators | Better reliability | Pin-compatible footprints

SiT1602, SiT8008/09	1 MHz to 137 MHz	±20, ±25, ±50	1.8, 2.5 to 3.3	3.1 to 5.5 mA (0.6 - 1.0 µA stby)	2.0 x 1.6, 2.5 x 2.0, 3.2 x 2.5, 5.0 x 3.2, 7.0 x 5.0	LVC MOS	1.3 ps RMS phase jitter, Field Programmable
SiT1618, SiT8918/19	1 MHz to 137 MHz	±20, ±25, ±30, ±50		3.6 to 5.4 mA (1.0 µA stby)	SOT23 2.9 x 2.8		
SiT2018/19							
SiT1630	32.768, 16.384 kHz	75, 100, 150	1.5 to 3.63	1.0 µA	2.0 x 1.2		Small 2012 QFN package

Differential Oscillators | Better reliability | 0.2 ps/mV power supply noise rejection (PSNR)

SiT9501	14 standard frequencies	±20, ±25, ±30, ±50	1.8, 2.5, 2.8, 3.3, 1.71 to 3.63, 2.25 to 3.63	25.5 to 66 mA	2.0x1.6, 2.5x2.0, 3.2x2.5	LVPECL, LVDS, HCSL, FlexSwing, Low-power HCSL	Ultra-low jitter, small size
SiT9120/21/22	1 MHz to 625 MHz	±10, ±20, ±25, ±50	2.5, 3.3, 2.25 to 3.63	54 to 69 mA	3.2 x 2.5, 5.0 x 3.2, 7.0 x 5.0	LVPECL, LVDS	0.6 ps RMS phase jitter
SiT9365/66/67*	1 MHz to 725 MHz		2.5 to 3.3	76 to 84 mA		Low-swing LVPECL, LVPECL, LVDS, HCSL	0.21 ps RMS phase jitter

EMI Reduction Oscillators | Most flexible EMI reduction options | Low cycle-cycle jitter

SiT9005	1 MHz to 150 MHz	±20, ±25, ±50	1.8, 2.5 to 3.3	5.0 to 5.6 mA (0.4 - 2.1 µA stby)	2.0 x 1.6, 2.5 x 2.0, 3.2 x 2.5	LVC MOS	40 spread options, up to ±2.0%, down to -4.0%, Smallest, Field Programmable
SiT9025							

VXOs | ±25 to ±3200 ppm pull range, <1% linearity | Better reliability | 0.1 ppb/g accelerator sensitivity

SiT3372/73*	1 MHz to 700 MHz	±15, ±25, ±30, ±50	2.5 to 3.3	76 to 84 mA	3.2 x 2.5, 5.0 x 3.2, 7.0 x 5.0	LVPECL, LVDS, HCSL	0.21 ps RMS phase jitter
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DCXOs | In-System Programmable | Digital pull for lower noise | Up to ±1600 ppm pull range, 5 ppt pull resolution, <1% linearity

SiT3521/22*	1 MHz to 725 MHz	±20, ±25, ±50	2.5 to 3.3	70 to 82 mA	5.0 x 3.2	LVPECL, LVDS, HCSL	I ² C programmable, 0.23 ps RMS phase jitter
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Super-TCXOs | Frequency slope (ΔF/ΔT) down to ±0.3 ppb/°C | I²C programmable | 5 ppt resolution frequency control | Low aging down to 0.5 ppb/day

SiT5155/56/57*	1 MHz to 625 MHz	±0.5, ±1, ±2.5	2.5, 2.8, 3.0, 3.3	40 to 45 mA	5.0 x 3.2	LVC MOS, Clipped Sinewave	-40 to 105°C
SiT5356/57*	1 MHz to 220 MHz	±0.1, ±0.2, ±0.25					
SiT5501	1 to 60 MHz	±0.01 (±10 ppb) ±0.02 (±20 ppb)	2.5, 2.8, 3.0, 3.3	See datasheet	7.0 x 5.0	LVC MOS, Clipped sinewave	110 mW typical (2.5V) Up to -40 to 105°C
SiT5503	1 to 60 MHz	±0.005 (±5 ppb)	2.5, 2.8, 3.0, 3.3				
SiT5376/77	1 to 220 MHz	±0.1, ±0.2, ±0.25	1.8, 2.5, 2.8, 3.0, 3.3	See datasheet	5.0 x 3.5	LVC MOS, Clipped sinewave	Low-phase-noise, -40 to 105°C

Holdover OXOs | Airflow and thermal shock resistant | 8 to 12 hours holdover (1.5 µs)- better holdover in dynamic conditions | Smallest OXO

SiT5801/02	10 to 220 MHz	±0.003 (±3 ppb) ±0.005 (±5 ppb)	2.5, 2.8, 3.3	See datasheet	9.0 x 7.0	Regulated LVC MOS, Clipped sinewave	420/460 mW, ±20 ppt/°C (ΔF/ΔT) slope
SiT5811/12	10 to 220 MHz	±0.001 (±1 ppb)					420/460 mW, ±10 ppt/°C (ΔF/ΔT) slope

All products are available in -40 to +85°C or higher.
Single-ended oscillators are available up to +125°C.

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