

SiTime MEMS timing benefits

Precision Timing

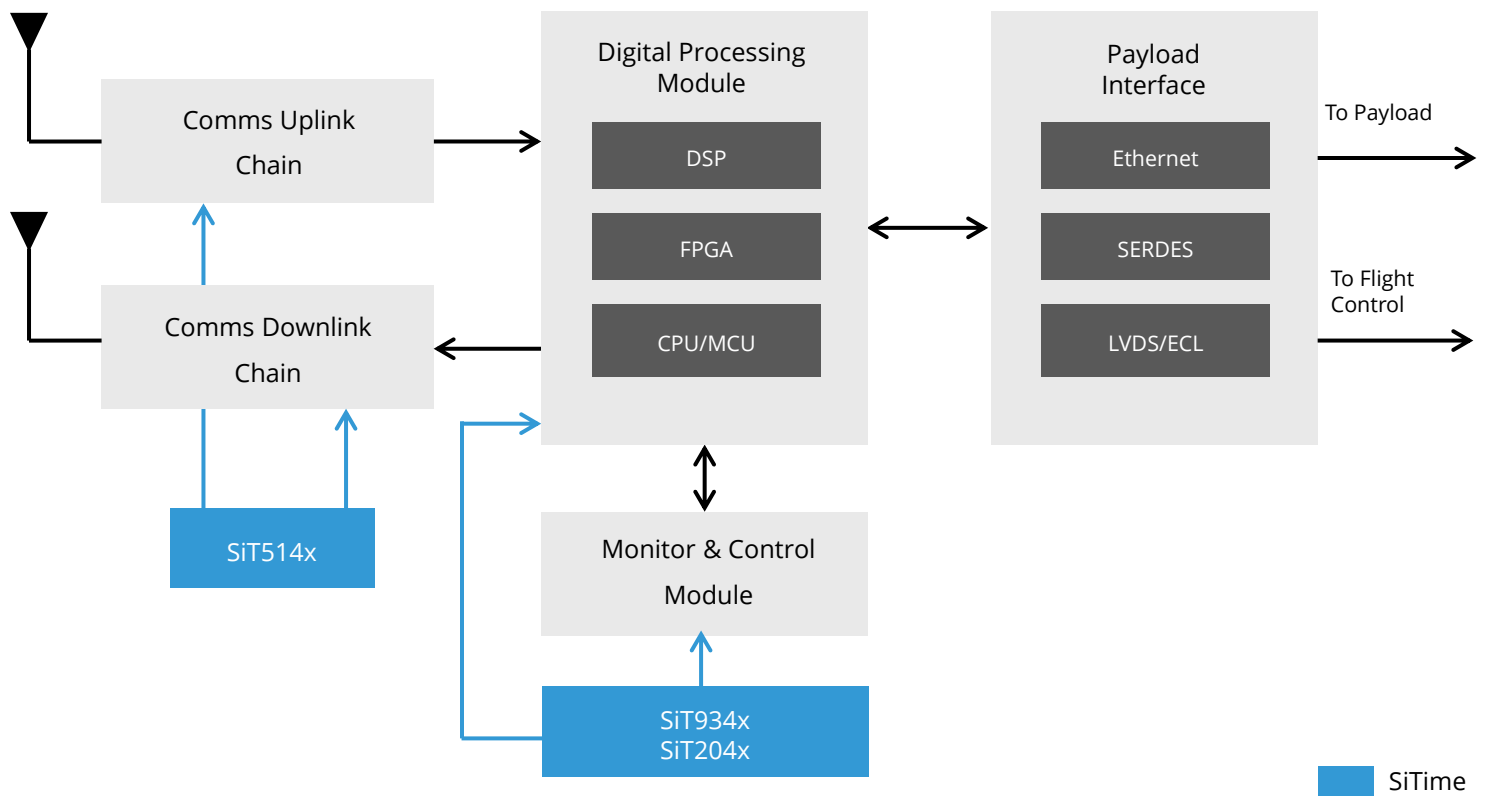
- 50x better acceleration sensitivity
- ± 0.5 ppm up to 105°C
- No activity dips

Most Robust in Harsh Conditions

- 20x better mechanical shock survivability
- 4x better vibration resistance
- Extended operating temperature range

Higher Reliability

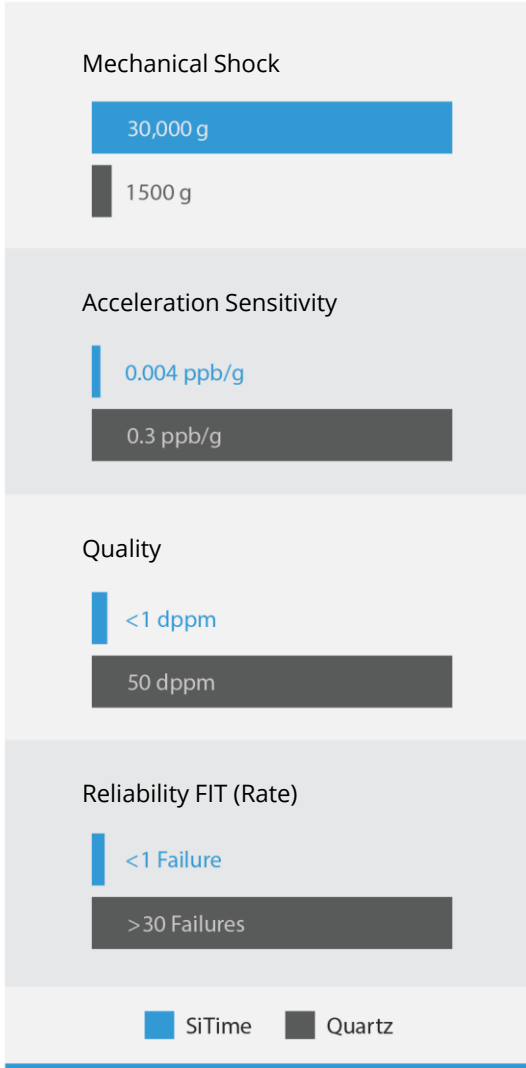
- Conforms to MIL-PRF-55310
- No quartz reliability issues
- No cover or shielding



SiTime

Application	Devices	Type	Function	Key Features
LEO satellite communications	SiT5146 SiT5147	Super-TCXOs	Reference clock for uplink/downlink comms	1 to 220 MHz, 0.004 ppb/g, ± 0.5 ppm, ± 15 ppb/°C
	SiT9346 SiT9347	Differential XOs	DSP, FPGA & processor clocking	1 to 725 MHz, ± 10 ppm, 0.1 ps RMS phase jitter
	SiT2044 SiT2045	Single ended XOs		1 to 137 MHz, ± 20 ppm, -55°C to 125°C

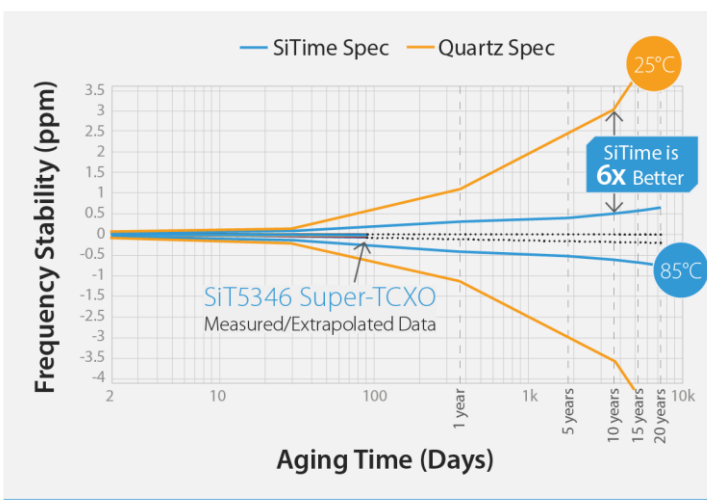
Outperform Quartz



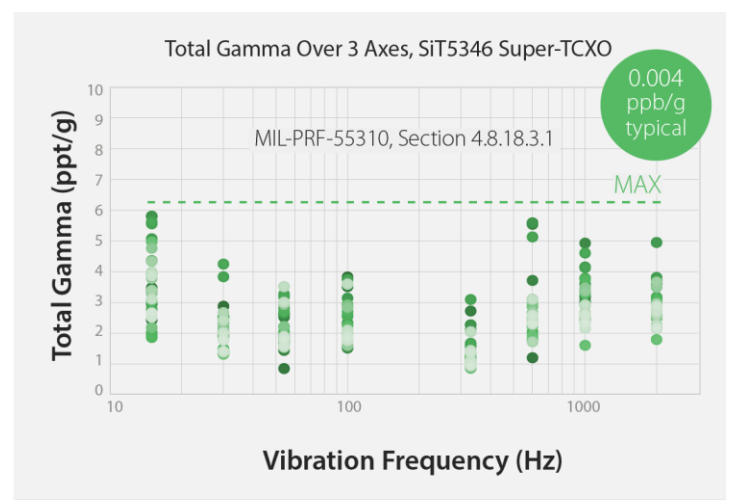
Conforms to MIL Specifications

MIL-PRF-55310	Test	Single-ended XO	Differential XO/ VCXO/DCXO	TCXO
3.6.40.1	Shock	●	●	●
4.8.18.3.1	g-Sensitivity	●	●	●
3.6.34.1	Frequency aging	●	●	●
3.6.17.1	g-sensitivity, constant acceleration	●	●	●
3.6.38.3	Phase noise under vibration	●	●	●
3.6.10.2	Frequency-temperature stability with hysteresis	●	●	●
3.6.45.2	Ambient pressure	●	●	●
3.6.16.5	Allan deviation	n/a	n/a	●
3.6.10.4	Frequency-temperature stability with hysteresis and trim effect	n/a	●	●
3.6.15	Retrace	n/a	n/a	●
3.6.30.7	Modulation frequency response	n/a	●	●
3.6.41.1	Acceleration survivability	●	●	●
3.6.7	Frequency warm up	n/a	n/a	●

Best-In-Class-Aging



Lower Acceleration (g) Sensitivity



[Learn more](#) about SiTime Aerospace-Defense Timing Solutions



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