



SiTime's AEC-Q100 timing solutions offer unmatched <2 DPPM quality level and are ideal for replacing legacy quartz oscillators in automotive and other high-rel applications.

These devices are 2x tighter in frequency stability, 30x more reliable and 30x more resistant to shock and vibration than quartz. They come with flexible features such as rise/fall time control that enables EMI reduction without any PCB changes.

Key Features:

- Extended AEC-Q100 temperature range (-55 to +125 °C)
- Widest frequency range from 1 MHz to 137 MHz
- Tightest frequency stability at ±20 ppm in the smallest 2.0 x 1.6 mm package
- Low vibration sensitivity (g-sensitivity) of 0.1 ppb/g
- 50kg shock and 70g vibration resistance
- 1000 million hours MTBF

Model	Description	Characteristics	Operating Temperature Range	Frequency Stability (PPM)	Package Size (mm)
SiT2024	LVC MOS/LVTTL O/P AEC-Q100 Grade 1 qualified Programmable Rise/Fall Time 0.24 to 0.40ns	1-110 MHz 1.8V, 2.5V & 3.3V continuous 0.1ppb/G (G-Sensitivity) 50g Shock & 70g vibration 1000 Million Hrs MTBF	-40°C to +105°C -40°C to +125°C -55°C to +125°C	±25 ±30 ±50	SOT23-5 2.9 x 2.8 x 1.2
SiT2025	LVC MOS/LVTTL O/P High Frequency AEC-Q100 Grade 1 qualified Programmable Rise/Fall Time 0.25 to 1.50ns	Frequencies 115-137MHz 1.8V, 2.5V & 3.3V continuous 0.1ppb/G (G-Sensitivity) 50g Shock & 70g vibration 1000 Million Hrs MTBF	-40°C to +105°C -40°C to +125°C -55°C to +125°C	±25 ±30 ±50	SOT23-5 2.9 x 2.8 x 1.2

SiT8924	LVC MOS/LVTTL O/P AEC-Q100 Grade 1 qualified Programmable Rise/Fall Time 0.24 to 0.40ns Ind. Std. Oscillator SMD Packaging	1-110 MHz 1.8V, 2.5V & 3.3V continuous 0.1ppb/G (G-Sensitivity) 50g Shock & 70g vibration 1000 Million Hrs MTBF	-40°C to +105°C -40°C to +125°C -55°C to +125°C	±25 ±30 ±50	2.0x1.6 2.5x2.0 3.2x2.5 5.0x3.2 7.0x5.0
SiT8925	LVC MOS/LVTTL O/P High Frequency AEC-Q100 Grade 1 qualified Programmable Rise/Fall Time 0.24 to 0.40ns Ind. Std. Oscillator SMD Packaging	Frequencies 115-137MHz 1.8V, 2.5V & 3.3V continuous 0.1ppb/G (G-Sensitivity) 50g Shock & 70g vibration 1000 Million Hrs MTBF	-40°C to +105°C -40°C to +125°C -55°C to +125°C	±25 ±30 ±50	2.0x1.6 2.5x2.0 3.2x2.5 5.0x3.2 7.0x5.0