



# SiTime™

## MEMS Timing Solutions



### High-Temp Oscillators for Industrial & Hi-Reliability Applications



Static sensitive device

SiTime's high-temp oscillators deliver  $\pm 20$  PPM frequency stability from  $-55^{\circ}\text{C}$  to  $125^{\circ}\text{C}$ . They are 2x better in stability, 20x more reliable and 30x more resistant to shock and vibration compared to quartz.

SiTime oscillators enable higher system performance and reduce field failures in harsh environments.

#### Key Features:

- 1 to 137 MHz with 6 decimal places of accuracy
- Military ( $-55$  to  $125^{\circ}\text{C}$ ), Automotive ( $-40$  to  $125^{\circ}\text{C}$ ), Ext. Industrial ( $-40$  to  $105^{\circ}\text{C}$ )
- Low vibration sensitivity (g-sensitivity) of 0.1 ppb/g
- 50kg shock and 70g vibration resistance
- 500 million hours MTBF

Model	Description	Characteristics	Operating Temperature Range	Frequency Stability (PPM)	Package Size (mm)
<a href="#">SiT1618B</a>	LVC MOS/LVTTL O/P Std Freq/High Temp	33 Standard Frequencies 7.3728MHz to 48.0000MHz 1.8V & 2.5V to 3.3V 0.1ppb/G (G-Sensitivity)	$-40^{\circ}\text{C}$ to $+105^{\circ}\text{C}$ $-40^{\circ}\text{C}$ to $+125^{\circ}\text{C}$	$\pm 20$ $\pm 25$ $\pm 30$ $\pm 50$	2.0x1.6 2.5x2.0 3.2x2.5 5.0x3.2 7.0x5.0
<a href="#">SiT8918B</a>	LVC MOS/LVTTL O/P Programmable Rise/Fall Time 0.24 to 0.40ns	Frequencies 1-115MHz 1.8V & 2.5V to 3.3V 0.1ppb/G (G-Sensitivity)	$-40^{\circ}\text{C}$ to $+105^{\circ}\text{C}$ $-40^{\circ}\text{C}$ to $+125^{\circ}\text{C}$	$\pm 10$ , $\pm 25$ , $\pm 50$	2.0x1.6 2.5x2.0 3.2x2.5 5.0x3.2 7.0x5.0
<a href="#">SiT8919B</a>	LVC MOS/LVTTL O/P Programmable Rise/Fall Time 0.25 to 1.50ns	Frequencies 115-137MHz 1.8V, 2.5V & 3.3V continuous 0.1ppb/G (G-Sensitivity)	$-40^{\circ}\text{C}$ to $+105^{\circ}\text{C}$ $-40^{\circ}\text{C}$ to $+125^{\circ}\text{C}$	$\pm 10$ $\pm 20$ $\pm 25$ $\pm 50$	2.0x1.6 2.5x2.0 3.2x2.5 5.0x3.2 7.0x5.0
<a href="#">SiT8920B</a>	Ruggedised LVC MOS/LVTTL O/P For Harsh Environments Mil. Temp Range 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 500 Million Hrs MTBF	$-55^{\circ}\text{C}$ to $+125^{\circ}\text{C}$	$\pm 10$ $\pm 15$ $\pm 20$ $\pm 25$ $\pm 50$	2.0x1.6 2.5x2.0 3.2x2.5 5.0x3.2 7.0x5.0
<a href="#">SiT8921B</a>	High Frequency Ruggedised LVC MOS/LVTTL O/P For Harsh Environments Mil. Temp Range Programmable Rise/Fall Time 0.25 to 1.50ns	115-137MHz 1.8V, 2.5V & 3.3V continuous 0.1ppb/G (G-Sensitivity) 50g Shock & 70g vibration 500 Million Hrs MTBF	$-55^{\circ}\text{C}$ to $+125^{\circ}\text{C}$	$\pm 10$ $\pm 20$ $\pm 25$ $\pm 50$	2.0x1.6 2.5x2.0 3.2x2.5 5.0x3.2 7.0x5.0