SiTime MEMS Timing Solutions

LIFETIME WARRANTY

RoHS compliant 2002/95/EC

High-Temp Oscillators for Industrial & Hi-Reliability Applications

Static sensitive device

SiTime's high-temp oscillators deliver ±20 PPM frequency stability from -55 °C to 125 °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 °C), Automotive (-40 to 125 °C), Ext. Industrial (-40 to 105 °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)
SiT1618B	LVCMOS/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^{0}C to +105^{0}C -40^{0}C to +125^{0}C	±20 ±25 ±30 ±50	2.0x1.6 2.5x2.0 3.2x2.5 5.0x3.2 7.0x5.0
SiT8918B	LVCMOS/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^{0}C to +105^{0}C -40^{0}C to +125^{0}C	±10, ±25, ±50	2.0x1.6 2.5x2.0 3.2x2.5 5.0x3.2 7.0x5.0
SiT8919B	LVCMOS/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^{0}C to +105^{0}C -40^{0}C to +125^{0}C	±10 ±20 ±25 ±50	2.0x1.6 2.5x2.0 3.2x2.5 5.0x3.2 7.0x5.0
SiT8920B	Ruggedised LVCMOS/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^{0}C to +125^{0}C	±10 ±15 ±20 ±25 ±50	2.0x1.6 2.5x2.0 3.2x2.5 5.0x3.2 7.0x5.0
SiT8921B	High Frequency Ruggedised LVCMOS/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^{0}C to +125^{0}C	±10 ±20 ±25 ±50	2.0x1.6 2.5x2.0 3.2x2.5 5.0x3.2 7.0x5.0

© AEL Crystals Ltd Tel: +44 (0) 1293 789200 Fax: +44 (0) 1293 789490 email: sales@aelcrystals.co.uk