PRODUCT BRIEF

256 Kbit and 1 Mbit non-volatile SRAMs

Infineon HiRel's memories perform in the most extreme environments

Infineon's 256-kbit and 1-Mbit non-volatile SRAMs (nvSRAMs) combines Infineon's industry leading SRAM technology with best-in-class SONOS non-volatile technology. The 256-kbit nvSRAM is organized as 32-kbit x8 and the 1-Mbit nvSRAM is organized as 128-kbit x8. Under normal operations, nvSRAM behaves like a conventional asynchronous SRAM using standard signals and timing. On a power fail, nvSRAM automatically saves a copy of the SRAM data into non-volatile memory, where the data is protected for over 20 years. On subsequent power up, the content of the flash is automatically restored and loaded into the SRAM. The functionality provided by the nvSRAM is critical in multiple data-intensive applications that face the possibility of data loss in case of errors and power failures.

Our HiRel nvSRAMs are ideal for high-reliability customers requiring a reliable, non-volatile memory solution in a ceramic package. Well suited for defense applications such data acquisition and communication systems, avionics flight display applications, and industrial electronics applications which require higher temperature memory devices such as industrial furnaces or railroad systems. Wafer sales are supported for Systems in a Package (SiP) solutions.



Key features

Certified reliability
- DLAM QML-Q
- Custom upscreen
- Obsolescence solutions
- Die/wafer portfolio

Product features
- 256-kbit (32-kbit x8)
- 1-Mbit (128-kbit x8)
- Infinite endurance
- 35 ns access time
- 100 Year data retention
- Military temperature grade
- 32-pin CERDIP

Key applications
- Calibration data storage
- Data logging
- Battery backup

Differentiated memory portfolio
- Performance
- Density
- Reliability
- Longevity

www.infineon.com/hirelmemory

Defense technology

Key Features

256-Kbit nvSRAM

- 256-kbit density
- 32-kbit x8 bus-width configuration
- 35 ns access time
- Infinite endurance
- 100-Year data retention @ 85°C
- Single 5 V or 3 V supply voltage support options
- -55 to +125°C military temperature grade
- 32-pin ceramic dual in-line package
- QML-Q qualification
- Wafer sales for Systems in a Package (SiP) solutions

1-Mbit nvSRAM

- 1-Mbit density
- 32-kbit x8 bus-width configuration
- 35 ns access time
- Infinite endurance
- 100-Year data retention @ 85°C
- Single 5 V or 3 V supply voltage support options
- -55 to +125°C military temperature grade
- 32-pin ceramic dual in-line package
- QML-Q qualification
- Wafer sales for Systems in a Package (SiP) solutions

Product Table

Density	Description	Infineon P/N DLAM P/N	Supply voltage [V]	Operating temp. [°C]	Qual level
256-kbit	Parallel non-volatile SRAM	5962-1821101QXC	+5	-55 to +125	QML-Q
	Parallel non-volatile SRAM	STK14C88C-5C35M	+5	-55 to +125	QML-Q
	Parallel non-volatile SRAM	STK14C88C-35C35M	+3	-55 to +125	
	256-kbit nvSRAM die	STK14C88C-1XWI	+3/+5	-55 to +125	
1-Mbit	Parallel non-volatile SRAM	5962-1821201QXC	+5	-55 to +125	QML-Q
	Parallel non-volatile SRAM	STK14CA8C-5C35M	+5	-55 to +125	QML-Q
	Parallel non-volatile SRAM	STK14CA8C-35C35M	+3	-55 to +125	
	1-Mbit nvSRAM die	STK14CA8C-1XWI	+3/+5	-55 to +125	

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