

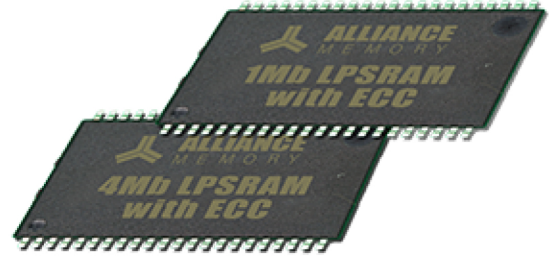
New 1Mb and 4Mb LPSRAM

The News: Alliance Memory has expanded its portfolio of low power asynchronous SRAM (LPSRAM) products with new 1Mb and 4Mb devices that feature embedded error-correction code (ECC). Compared to previous-generation devices, the new AS6CE1016A (1Mb) and AS6CE4016B (4Mb) offer better failure in time (FIT) and mean time to failure (MTTF) characteristics with reduced soft error rates (SER) for more reliable operation in a wide range of consumer, industrial, communications, and medical applications.

Part Numbers: AS6CE4016B-45ZIN, AS6CE4016B-45BIN, AS6CE1016A-45ZIN

Key Benefits:

- Available in densities of 1Mb and 4Mb
- Embedded ECC provides 1-bit error correction per byte
- 1.5V data retention voltage
- Typical data retention current:
 - 1µA for the 1Mb AS6CE1016A
 - 2µA for the 4Mb AS6CE4016B
- Operate from a single power supply of 2.7V to 3.6V
- All inputs and outputs are fully TTL compatible



Device Specification Table:

Part number	Organization	VCC range	Access time	Operating temperature	Package
AS6CE4016B-45ZIN	256K x 16	2.7 – 3.6V	45 ns	-40 ~ 85°C	44-pin 400 mil TSOP II
AS6CE4016B-45BIN	256K x 16	2.7 – 3.6V	45 ns	-40 ~ 85°C	48-ball 6mm x 8mm FBGA
AS6CE1016A-45ZIN	64K x 16	2.7 – 3.6V	45 ns	-40 ~ 85°C	44-pin 400 mil TSOP II

Target Applications:

- Routers and switches in communications systems; programmable logic controllers in industrial automation systems; printers, gaming machines, musical instruments, and calculators; vending machines and ATMs; and elevator systems, control panels, and fire control systems

The Context: The ECC feature of Alliance Memory's new LPSRAMs provides 1-bit error correction per byte, which makes the devices particularly suitable for low-power applications and battery backup non-volatile memory applications. Compared to previous generation solutions, the AS6CE1016A (1Mb) and AS6CE4016B (4Mb) offer better FIT and MTTF characteristics, with reduced SER for more reliable operation in a very wide range of applications.

Availability: Samples and production quantities of the AS6CE1016A (1Mb) and AS6CE4016B (4Mb) are in stock and available now.