

Alliance Memory's new High-Speed DDR3 CMOS SDRAMs



Alliance Memory introduces a new line of high-speed CMOS double data rate 3 synchronous DRAM (DDR3 SDRAM) and low-voltage DDR3L SDRAMs with densities of 1Gb, 2Gb, and 4Gb in 78-ball 9mm by 10.5mm by 1.2mm and 96-ball 9mm by 13mm by 1.2mm FBGA packages.

Key Specifications:

- Internally configured as eight banks of 64M, 128M, 256M, and 512M x 8bits and/or 16 bits
- Offered in 78-ball and 96-ball FBGA packages
- Double data rate architecture for extremely fast transfer rates of up to 1600Mbps/pin and clock rates of 800 MHz
- Power Supply:
 - +1.5V (+/- 0.075): AS4C64M16D3, AS4C128M8D3, AS4C128M16D3, AS4C256M8D3, AS4C256M16D3, and AS4C512M8D3 DDR3 SDRAMs
 - +1.35V: AS4C64M16D3L, AS4C128M8D3L, AS4C128M16D3L, AS4C256M8D3L, AS4C256M16D3L, and AS4C512M8D3L DDR3L SDRAMs
- Available in commercial (0 °C to +95 °C) and industrial (-40 °C to +95 °C) temperature ranges
- Fully synchronous operation
- Programmable read or write burst lengths of 4 or 8
- Auto pre-charge function provides a self-timed row pre-charged initiated at the end of the burst sequence
- Easy-to-use refresh functions include auto- or self-refresh
- Programmable mode register allows the system to choose the most suitable modes to maximize performance
- RoHS compliant
- Lead (Pb)- and halogen-free

Target Application

- Industrial, consumer, and telecoms products

The Context

With minimal die shrinks, our DDR3 (1.5V) and DDR3L (1.35V) SDRAMs provide reliable drop-in, pin-for-pin-compatible replacements for a number of similar solutions used in conjunction with newer generation microprocessors, eliminating the need for costly redesigns and part requalification.

SPQ (pack size)

190 for X16 devices
242 for X8 devices

Datasheets and additional information can be found on www.alliancememory.com