

## 8G DDR3 – AS4C512M16D3L: Monolithic High-Speed, Low-Voltage CMOS DDR3L SDRAM



Alliance Memory introduces a new monolithic high-speed, low-voltage CMOS double data rate 3 synchronous DRAM (DDR3L SDRAM) with an 8-Gb density in the 96-ball, 9-mm by 14-mm, lead (Pb)-free FBGA package.

### Key Specifications and Benefits:

- Offered in the 96-ball, 9-mm by 14-mm, lead (Pb)-free FBGA package
- Features state-of-the-art silicon provided by Micron Technology, Inc.
- Extremely fast transfer rates of up to 1600 Mbps/pin and clock rates of 800 MHz
- Operates from a single +1.35-V power supply
- Available in commercial (0 °C to +95 °C) and industrial (-40 °C to +95 °C) temperature ranges
- Internally configured as eight banks of 512M x 16 bits
- Fully synchronous operation
- Programmable read or write burst lengths of 4 or 8
- Auto pre-charge function provides a self-timed row pre-charge 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

### Target Applications:

Industrial, medical, networking, telecom, and aerospace applications

### The Context:

With minimal die shrinks, the single-die AS4C512M16D3L provides a reliable drop-in, pin-for-pin-compatible replacement for a number of similar solutions used in conjunction with newer-generation microprocessors for industrial, medical, networking, telecom, and aerospace applications — eliminating the need for costly redesigns and part requalification. This 8-Gb DDR3 is a logical choice for customers that require increased memory yet face board space constraints.

Datasheets and additional information can be found on [www.alliancememory.com](http://www.alliancememory.com)