



## **DDR3 SDRAM 1600 204-PIN SO\_DIMM Industrial 4GB 512Mx8**

### **DESCRIPTION:**

This document describes Aplus 512M x 64-bit 4GB DDR3 SDRAM (Synchronous DRAM) Dual In-Line Memory Module. The components on this module include eight 512M x 8-bit DDR3 SDRAMs in FBGA packages and a 2048-bit serial EEPROM. Those components were mounted on a 204-pin printed circuit board. This 204-pin SO\_DIMM is used to be mounted into 204-pin edge connector sockets and data I/O transactions could be apply on both edges of DQS. The electrical and mechanical specifications are as follows:

### **FEATURES:**

- Extra-thick 30 $\mu$  gold-plated contact PINS
- RoHS compliant products
- JEDEC standard 1.5V  $\pm$  0.075V power supply
- 1.5V  $\pm$  0.075V power supply VDDQ
- 3.0V to 3.6V VDDSPD
- Industrial grade capacitors ensure voltage stability
- Stable operation in extreme temperature -40 $^{\circ}$ C to +95 $^{\circ}$ C
- Fast data transfer rates: PC3-12800
- Nominal and dynamic on-die termination (ODT) for data strobe and mask signals
- Single Rank
- On-board IIC temperature sensor with integrated serial presence-detect (SPD) EEPROM
- 8 inter selectable burst chop BC4 and burst length BL8 on- the-fly (OTF)
- Terminated control, command, and address bus
- 100% tested for performance and reliability

### **DDR3 DRAM Speed**

DDR3-1600 1600Mbps CL-tRCD-tRP 11-11-11

### **PERFORMANCE:**

**Clock Cycle Time (tCK) CL(1) 800**

**Row Cycle Time (tRC) 48.125ns for 1600**

**REFRESH Row Cycle Time (tRCD) 13.125ns**

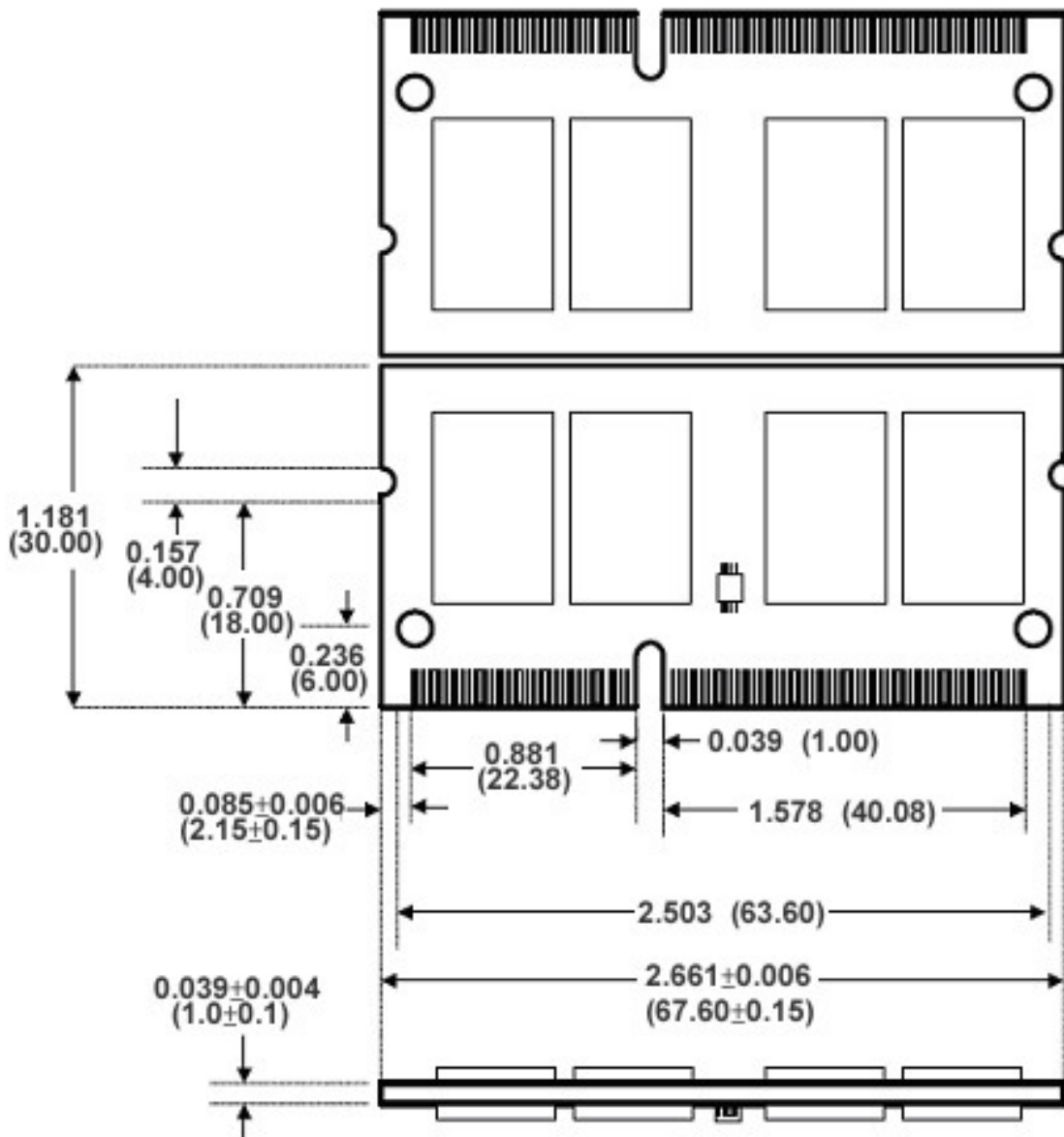
**Memory Clock/Data Rate: 1.5ns/1333MT/s, 1.25ns/1600MT/s**

**Operating Case temperature range: Industrial -40 $^{\circ}$ C  $\leq$ TC $\leq$  +95 $^{\circ}$ C**

## DDRIII SDRAM 1600 204-PIN SO\_DIMM Industrial 4GB 512Mx8

Operating Temperature **-40°C to +95°C**

Storage Temperature **-55°C to +100°C**



PCB: 30μ