

### **DESCRIPTION:**

This document describes Aplus 1G x 64-bit 8GB DDR3 SDRAM (Synchronous DRAM) Dual In-Line Memory Module. The components on this module include sixteen 512M x 8-bit DDR3 SDRAMs in FBGA packages and a 2048-bit serial EEPROM. Those components were mounted on a 240-pin printed circuit board. This 240-pin DIMM is used to be mounted into 240-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:**

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

Fast data transfer rates: PC3-10600, 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)

Gold edge contacts

Terminated control, command, and address bus

### **DDR3 DRAM Speed**

DDR3-1333 1333Mbps CL-tRCD-tRP 9-9-9

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

### **PERFORMANCE:**

**Clock Cycle Time (tCK) CL(1) 667**

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

**Row Cycle Time (tRC) 49.125ns for 1333**

**48.125ns for 1600**

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

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

