

## DDRIII SDRAM 1600/1333 204-PIN ECC SO-DIMM 8GB 512MBx8

### DESCRIPTION:

This document describes Aplus 1G x 72-bit 8GB DDR3 SDRAM (Synchronous DRAM) Dual In-Line Memory Module with ECC. The components on this module include eighteen 512MB 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:

RoHS compliant products

$V_{DD} = 1.35V$  (1.283 – 1.45V)

$V_{DD} = 1.5V$  (1.425 – 1.575V)

Backward compatible to  $V_{DD} = 1.5V \pm 0.075V$

$V_{DDSPD} = 3.0V$  to 3.6V

Fast data transfer rates: PC3-12800, PC3-10600

Nominal and dynamic on-die termination (ODT) for data strobe and mask signals

Dual 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

Operating temperature – Commercial ( $0^{\circ}C \leq TA \leq +70^{\circ}C$ )

### DDR3 DRAM Speed

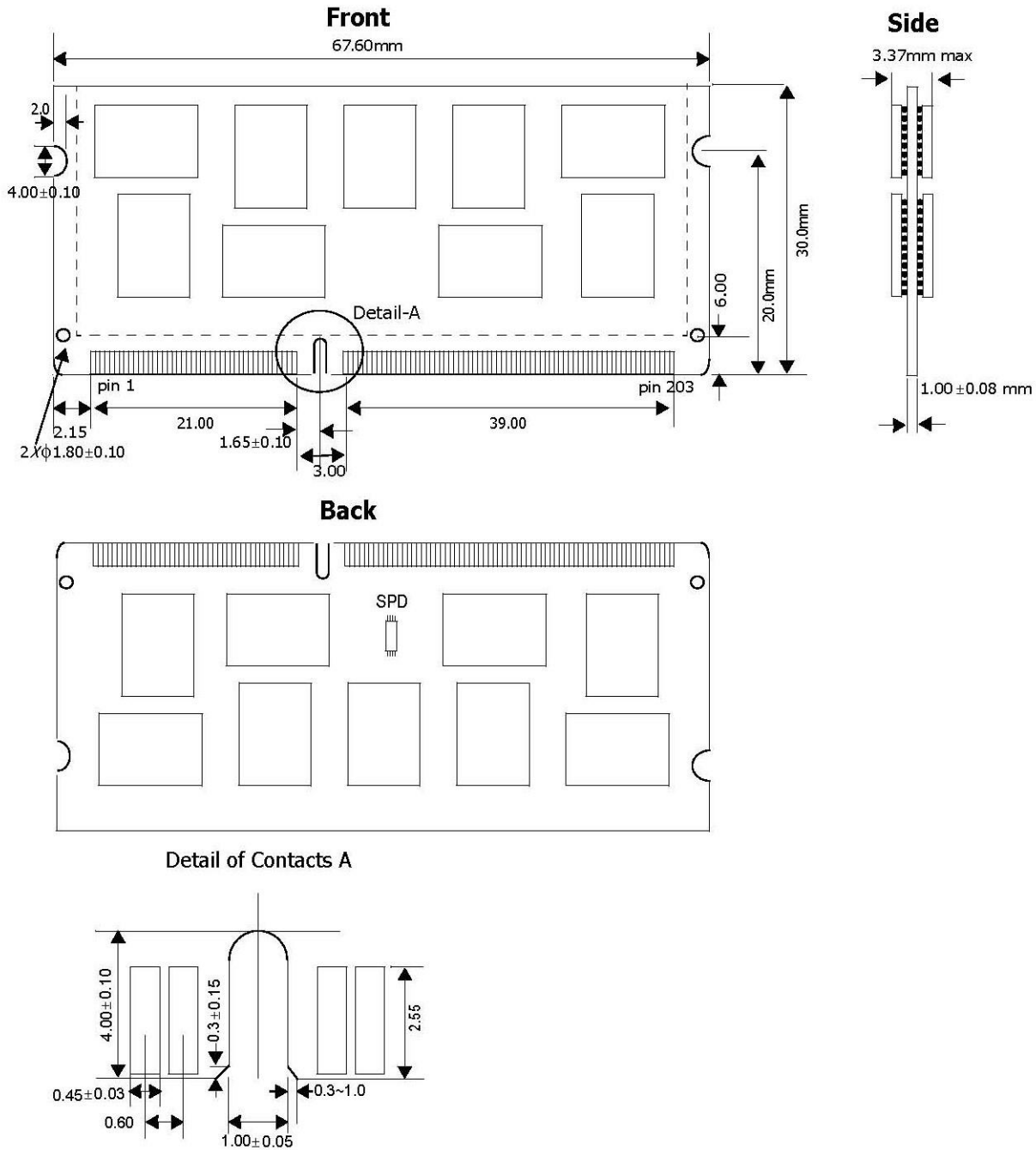
DDR3-1600 CL-tRCD-tRP 11-11-11

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

### PERFORMANCE:

Industry Nomenclature	Data Rate (MT/s)							tRCD (ns)	tRP (ns)	tRC (ns)
	CL=11	CL=10	CL=9	CL=8	CL=7	CL=6	CL=5			
PC3-12800	1600	1333	1333	1066	1066	800	667	13.125	13.125	48.125
PC3-10600		1333	1333	1066	1066	800	667	13.125	13.125	49.125

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**Note:**

1. ±0.13 tolerance on all dimensions unless otherwise stated.