

DESCRIPTION:

This document describes Aplus 512M x 72-bit 4GB DDR2-667 CL5 SDRAM (Synchronous DRAM) Registered ECC memory module. The components on this module include thirty-six 256M x 4-bit (8Banks) DDR2-667 SDRAM in FBGA packages. This 240-pin DIMM uses gold contact fingers and requires +1.8V. The electrical and mechanical specifications are as follows:

FEATURES:

- JEDEC standard 1.8V \pm 0.1V Power supply
- All inputs and outputs SSTL_1.8 compatible
- Max clock Freq: 334Mhz
- Double-data-rate architecture; two data transfers per clock cycle
- Bidirectional data strobe (DQS)
- Differential clock inputs (CK and CK)
- DLL aligns DQ and DQS transition with CK transition
- Programmable Read latency 5 (clock)
- Programmable Burst length (4,8)
- Programmable Burst type (sequential & interleave)
- Timing Reference: CL-tRCD-tRP (5-5-5)
- Edge aligned data output, center aligned data input
- Auto & Self refresh, 7.8 μ s refresh interval (8K/64ms refresh)
- Error Check Correction (ECC) Capability
- High temperature self-refresh Entry enableble features
- PASR (Partial array self refresh)
- OCD (Off-chip driver impedance adjustment)
- ODT (On-die termination)
- Serial presence detect with EEPROM

PERFORMANCE:

Clock Cycle Time (tCK)	5ns (min.) /8ns (max.)
Row Cycle Time (tRC)	55ns (min.)
Refresh Row Cycle Time (tRFC)	150ns (min.)
Row Active Time (tRAS)	40ns (min.) /70,000ns (max.)
Operating Temperature	0 $^{\circ}$ C ~ 85 $^{\circ}$ C
Storage Temperature	-55 $^{\circ}$ C ~ +100 $^{\circ}$ C

