

DESCRIPTION:

This document describes Aplus 64M x 72-bit 512MB DDR2-400 CL3 SDRAM (Synchronous DRAM) ECC memory module. The components on this module include nine 64M x 8-bit (4Banks) DDR2-400 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: 200Mhz
- 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 3 (clock)
- Programmable Burst length (4,8)
- Programmable Burst type (sequential & interleave)
- Timing Reference: CL-tRCD-tRP (3-3-3)
- Edge aligned data output, center aligned data input
- Auto & Self refresh, 7.8us refresh interval (8K/64ms refresh)
- PASR (Partial array self refresh)
- OCD (Off-chip driver impedance adjustment)
- ODT (On-die termination)
- Serial presence detect with EEPROM

PERFORMANCE:

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|---------------------------------|------------------------------|
| Clock Cycle Time (tCK) | 5ns (min.) /8ns (max.) |
| Row Cycle Time (tRC) | 55ns (min.) |
| Refresh Row Cycle Time (tRFC) | 105ns (min.) |
| Row Active Time (tRAS) | 40ns (min.) /70,000ns (max.) |
| Operating Temperature | 0°C ~ 85°C |
| Storage Temperature | -55°C ~ +100°C |

