

DYNAMIC RAM MODULE

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MT88512DM MEMORY, 41M, 512K x 8 BIT DYNAMIC RAM
MT89512DM MEMORY 4608K, 512K x 9 BIT DYNAMIC RAM

FEATURES

- Industry standard pin out in a 30-pin single-in-line memory module (SIMM)
- Single 5V±10% power supply
- All inputs, outputs and clocks are fully TTL compatible
- Low power, 270 mW standby, 2700 mW active, typical
- On-board power supply decoupling capacitors (0.2µf) for low noise
- Refresh modes: $\overline{RAS}$ only, $\overline{CAS}$ before $\overline{RAS}$, and Hidden
- 256 cycle refresh distributed across 4 ms
- Optional Page Mode access cycle

OPTIONS

- Timing
 - 80 ns access
 - 100 ns access
 - 120 ns access
 - 150 ns access
- Organization
 - 512K x 8
 - 512K x 9
- Package: Leadless 30-pin SIMM
- Order example: 512K x 9, 120 ns access, Leadless SIMM = MT89512DM - 12

MARKING

-8
-10
-12
-15
MT88512
MT89512
DM

A0 - A8	Address Inputs
CAS0, CAS1	Column Address Strobe, bank 0 and 1
DQ1 - DQ8	Data-In/Data-Out
D9	Data In
Q9	Data Out
RAS0, RAS1	Row Address Strobe, bank 0 and 1
$\overline{W}$	Write Enable
V _{CC}	Power (+5V)
V _{SS}	Ground

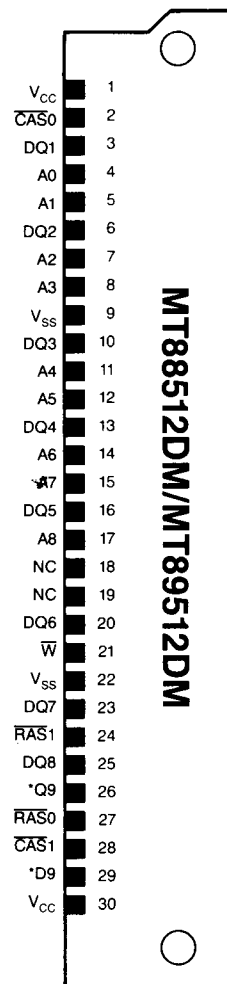
GENERAL DESCRIPTION

The MT88512/MT89512 is a randomly accessed solid-state memory module organized in a 524,288 word x 8 or x 9 bit configuration. The 18 address bits are entered into one of two 256K memory banks (bank 0 or bank 1). The address bits are entered 9 bits at a time using $\overline{RAS0}$ or $\overline{RAS1}$ to latch the first 9 bits and $\overline{CAS0}$ or $\overline{CAS1}$ the latter 9 bits. The ninth data bit D9, Q9 on the MT89512 is generally used for parity.

The MT88512/MT89512 is a 30-pin single-in-line memory module comprised of eighteen MT1259 DRAMs in 18-pin plastic leaded chip carriers together with eighteen 0.2µf decoupling capacitors. Each MT1259 is described in its data sheet and is manufactured, fully tested and quality controlled in Micron's modern Boise, Idaho USA facility. Each unit receives accelerated burn-in and several hours of AMBYX™ system level test prior to assembly onto the SIMM package. After assembly a further set of electrical tests is performed.

Please contact the factory for technical, test, and application assistance. Micron can also furnish the sales representative and distributors nearest you. The success of our business depends on the success of your application.

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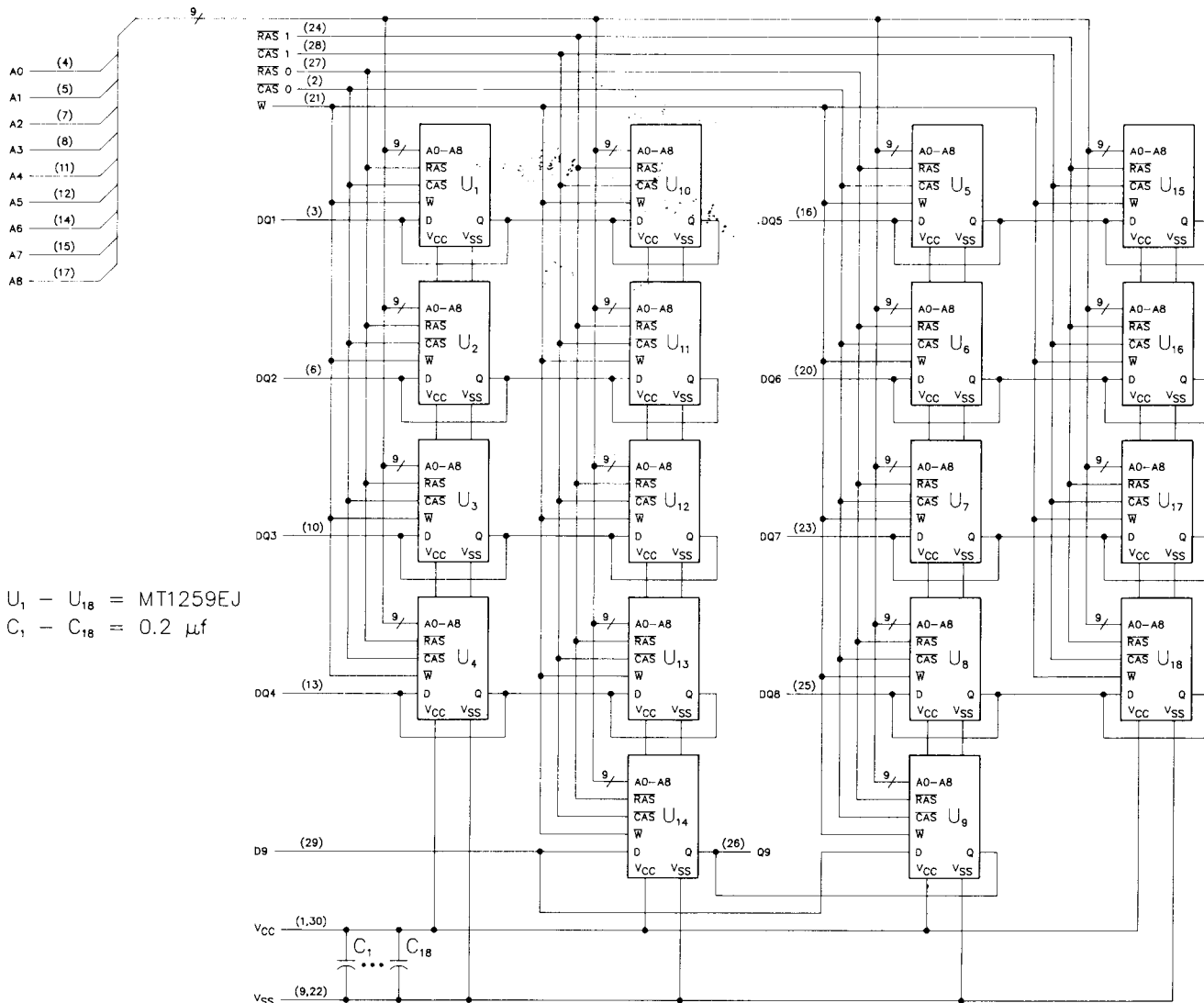


*MT89512 only
NC on MT88512

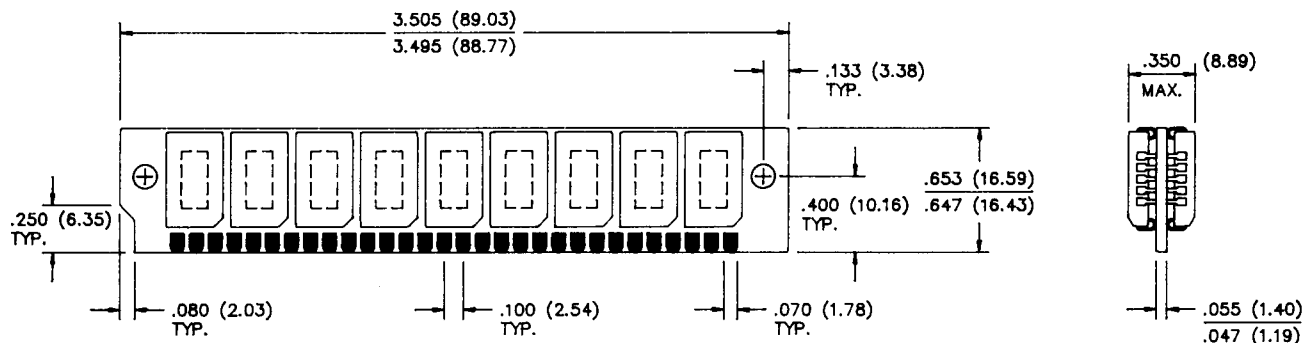
ELECTRICAL SPECIFICATION

Refer to the MT1259 data sheet for all electrical specifications. Combining these devices in a SIMM configuration slightly increases load capacitance. The common input/output feature requires the use of an early write cycle to prevent data contention on DQ lines. The MT88512DM/MT89512DM is rated for operation from 0°C to 70°C.

FUNCTIONAL BLOCK DIAGRAM



MECHANICAL DATA



All dimensions in inches (millimeters) Max. Min.