

MITSUBISHI MICROCOMPUTERS

M37704M2EXXFP M37704S1EFP

SINGLE-CHIP 16-BIT CMOS MICROCOMPUTER

DESCRIPTION

The M37704M2EXXFP and M37704S1EFP are single-chip microcomputers designed with high-performance CMOS silicon gate technology. These are housed in a 80-pin plastic molded QFP. These single-chip microcomputers have a large 16M bytes address space, three instruction queue buffers, and two data buffers for high-speed instruction execution. The CPU is a 16-bit parallel processor that can also be switched to perform 8-bit parallel processing. These microcomputers are suitable for office, business, and industrial equipment controller that require high-speed processing of large data.

Also, the incorporated motor control circuit makes these microcomputers suitable for control of equipment that requires motor control.

The differences between M37704M2EXXFP and M37704S1EFP are the ROM size as shown below.

Therefore, the following descriptions will be for the M37704M2EXXFP unless otherwise noted.

Type name	ROM size	External clock input frequency
M37704M2EXXFP	16K bytes	16MHz
M37704S1EFP	External	16MHz

The M37704M2EXXFP is the wide operating temperature range version of the M37704M2AXXFP.

DISTINCTIVE FEATURES

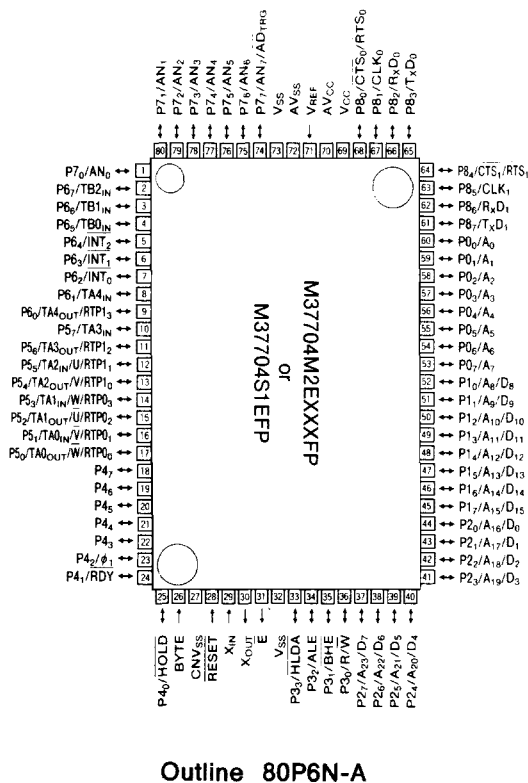
- Number of basic instructions 103
- Memory size ROM 16K bytes
 RAM 512 bytes
- Instruction execution time
The fastest instruction at 16 MHz frequency 250ns
- Single power supply 5V±10%
- Low power dissipation (at 16 MHz frequency)
..... 60mW (Typ.)
- Wide operating temperature range -40~85°C
- Interrupts 19 types 7 levels
- Multiple function 16-bit timer 5+3
(Three-phase motor drive waveform or pulse motor drive waveform can be output.)
- UART (may also be synchronous) 2
- 8-bit A-D converter 8-channel inputs
- 12-bit watchdog timer
- Programmable input/output
(ports P0, P1, P2, P3, P4, P5, P6, P7, P8) 68

APPLICATION

Motor control devices such as inverter type air conditioners and general purpose inverters

Control devices for office equipment such as copiers, printers, typewriters, facsimiles, word processors, and personal computers

PIN CONFIGURATION (TOP VIEW)



THE FUNCTIONS AND CHARACTERISTICS

The M37704M2EXXFP has the same functions and characteristics as the M37704M2AXXFP except for the following. Refer to the section on the M37704M2AXXFP.

Operating temperature range	-40~85°C
Storage temperature	-65~150°C
A-D converter absolute accuracy	Max. ±3LSB

NOTE

Refer to "Chapter 5 PRECAUTIONS" when using this microcomputer.

