

3.1.11. Socket mounting shall be permitted **ONLY** for MCU, NRAM, UART, EPROM devices and Programmable device is used for address decoding. Each NRAM socket shall have machined pins and gold-plated contacts, and shall have its component identification permanently marked on the PCBA adjacent to the socket. EPROM sockets shall be a "Zero Insertion Force" Type. Sockets shall be:

3.1.11.1 For EPROM Socket:

- 28 pins BR Intec Garry ZIF #06-00084,
3M OEM ZIP DIP #228-1296-00-3303 or equal
- 32 pins 3M OEM ZIP DIP #232-1297-00-3303 or equal

3.1.11.2 DIP (Dual Inline Package) Sockets shall have: An open frame design. Stamped beryllium copper, four-finger inner clip screw-machined brass receptacle sleeves. Glass-filled thermoplastic polyester insulator, rated UL94V-0. Current Rating 3 Amps. Plating: Sleeve, 10 micro inches, Contact, 30 micro inches.

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| AMP Type: xxx-AG10D or equal |
| Mill-Max Type 110-13-xxx-41-001 or equal |

3.1.11.3 PLCC Sockets shall have an high temperature body/insulator rated UL94V-0. Phosphor bronze contacts with tin-over-nickel plating. Current rating, 1 Amp.

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| AMP PLCC socket-series HPT or equal |
| 3M PLCC socket series PLCC-SMT or equal |

3.1.11.4 For NRAM Socket:

- 28 pins Augat 828-AG10D or equal

3.1.11.5 For MCU Socket:

- 68 pin (MC68HC11F1 MCU) AMP PLCC socket #821574-1 series HPT or equal

3.1.12. QUAD UART:

- 68 pin (ST16C654) AMP PLCC socket #821574-1 series HPT or equal

3.6.1. SYSTEM MEMORY MAPS (with Type ATC-HC11 MCU BOARD) .

| MAP | BANK 2 | BANK 1 | MEMORY/SIZE | STANDARD ADDRESS |
|-----|--------|---------|------------------------------|------------------|
| 1 | HIGH | HIGH | NRAM (28K) | 0000-6FFF |
| | | | MCU REGISTERS (96 BYTES) | 7000-705F |
| | | | VOLATILE CPU RAM (928 BYTES) | 7060-73FF |
| | | | I/O and CONTROL (511 BYTES) | 7400-75FF |
| | | | NRAM 2K | 7600-7FFF |
| | | (1)xxxx | PROM 32K | (1)8000-(1)FFFF |

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| MAP | BANK 2 | BANK 1 | MEMORY/SIZE | STANDARD ADDRESS |
|-----|--------|---------|------------------------------|------------------|
| 2 | HIGH | LOW | NRAM 28K | 0000-6FFF |
| | | | MCU REGISTERS (96 BYTES) | 7000-705F |
| | | | VOLATILE CPU RAM (928 BYTES) | 7060-73FF |
| | | | I/O and CONTROL (511 BYTES) | 7400-75FF |
| | | | NRAM 2K | 7600-7FFF |
| | | (0)xxxx | PROM 32K | (0)8000-(0)FFFF |

| MAP | BANK 2 | BANK 1 | MEMORY/SIZE | STANDARD ADDRESS | |
|-----|--------|---------|------------------------------|------------------|-------------------------|
| 3 | LOW | HIGH | NRAM 8K | 0000-1FFF | |
| | | | (1)xxxx | PROM <u>16K</u> | (1)2000-(1) <u>5FFF</u> |
| | | | NRAM <u>4K</u> | <u>6000-6FFF</u> | |
| | | (1)xxxx | MCU REGISTERS (96 BYTES) | 7000-705F | |
| | | | VOLATILE CPU RAM (928 BYTES) | 7060-73FF | |
| | | | I/O and CONTROL (511 BYTES) | 7400-75FF | |
| | | | NRAM 2K | 7600-7FFF | |
| | | | PROM 32K | (1)8000-(1)FFFF | |

| MAP | BANK 2 | BANK 1 | MEMORY/SIZE | STANDARD ADDRESS | |
|---|--------|---------|------------------------------|------------------|-------------------------|
| 4 | LOW | LOW | NRAM 8K | 0000-1FFF | |
| | | | (0)xxxx | PROM <u>16K</u> | (0)2000-(0) <u>5FFF</u> |
| | | | NRAM <u>4K</u> | <u>6000-6FFF</u> | |
| | | | MCU REGISTERS (96 BYTES) | 7000-705F | |
| | | | VOLATILE CPU RAM (928 BYTES) | 7060-73FF | |
| | | (0)xxxx | I/O and CONTROL (511 BYTES) | 7400-75FF | |
| | | | NRAM 2K | 7600-7FFF | |
| | | | PROM 32K | (0)8000-0FFFF | |
| BANK 1 IS MCU PORT G BIT 0 OUTPUT BANK 2 IS MCU PORT G BIT 1 OUTPUT AFTER RESET, THE STATE OF BANK 1 IS HIGH AND BANK 2 IS LOW (MAP 3). | | | | | |

Figure Error! No text of specified style in document.-1: ATC-HC11 SYSTEM MEMORY MAPS

14.2.4. A 2 pole, normally open, 35 amp, mercury contactor with a 120-volt coil shall be provided for lighting. An equivalent approved by Los Angeles County Department of Public Works may be

~~substituted. A normally open mercury contactor shall have one mercury contactor, normally open, 35 amps, 2 pole with 120 volt relay coil for lighting.~~ A 2 pole or more, normally open, 35 amp or greater, lighting and heating control contactor with a 120-volt coil shall be provided for lighting. An equivalent, approved by Los Angeles County Department of Public Works, may be substituted. (Example: SIEMENS LEN00D003120A)

- 15.3.7. The system shall have two PE cells and sockets with test switches for ON/AUTO positions; no "OFF" position is required. ~~A normally open mercury contactor shall have one mercury contactor, normally open, 35 amps, 2 pole with 120 volt relay coil for lighting.~~ A 2 pole or more, normally open, 35 amp or greater, lighting and heating control contactor with a 120-volt coil shall be provided for lighting. An equivalent, approved by Los Angeles County Department of Public Works, may be substituted. (Example: SIEMENS LEN00D003120A) Each pole of the lighting contactor shall be fed separately by the "SAFETY LIGHT" circuit breaker.