| DEC | HEX | | | +7 | +6 | +5 | +4 | +3 | +2 | +1 | +0 | INIT | DEFAULT |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 0 | 00 | R0 | GPR0 | general purpose register | | | | | | | | | x |
| 1 | 01 | R1 | | general purpose register | | | | | | | | | x |
| 2 | 02 | R2 | | general purpose register | | | | | | | | | x |
| 3 | 03 | R3 | | general purpose register | | | | | | | | | x |
| 4 | 04 | R4 | | general purpose register | | | | | | | | | x |
| 5 | 05 | R5 | | general purpose register | | | | | | | | | x |
| 6 | 06 | R6 | | general purpose register | | | | | | | | | x |
| 7 | 07 | R7 | | general purpose register | | | | | | | | | x |
| 8 | 08 | R0 | GPR1 | msxPtr / msxTmp | | | | | | | | | x |
| 15 | 0F | R7 | | msxCnt | | | | | | | | | x |
| 16 | 10 | R0 | GPR2 | PS2RxPTR | | | | | | | | | x |
| 17 | 11 | R1 | | PS2RdPTR | | | | | | | | | x |
| 18 | 12 | R2 | | PS2ErrCnt | | | | | | | | | x |
| 20 | 14 | R4 | | PS2TXBUF | | | | | | | | | x |
| 21 | 15 | R5 | | PS2RxBUF | | | | | | | | | x |
| 22 | 16 | R6 | | PS2TxCnt | | | | | | | | | x |
| 23 | 17 | R7 | | PS2RxCnt | | | | | | | | | x |
| 24 | 18 | R0 | GPR3 | reserved | | | | | | | | | x |
| 25 | 19 | R1 | | reserved | | | | | | | | | x |
| 26 | 1A | R2 | | reserved | | | | | | | | | x |
| 27 | 1B | R3 | | reserved | | | | | | | | | x |
| 32 | 20 | Mouse ID | | 07 | 06 | 05 | 04 | 03 | 02 | 01 | 00 | | |
| | | | | | | | | | | | | | x |
| 33 | 21 | PS/2 Cmd | | 0F | 0E | 0D | 0C | 0B | 0A | 09 | 08 | | |
| | | | | PS/2 DATA BUFFER start | | | | | | | | | x |
| 34 | 22 | Mouse State | | 17 | 16 | 15 | 14 | 13 | 12 | 11 | 10 | | |
| | | | | mouseYovr | mouseXovr | mouseYsgn | mouseXsgn | | mouseBtMiddle | mouseBtRight | mouseBtLeft | | x |
| 35 | 23 | Mouse X | | 1F | 1E | 1D | 1C | 1B | 1A | 19 | 18 | | |
| | | | | | | | | | | | | | x |
| 36 | 24 | Mouse Y | | 27 | 26 | 25 | 24 | 23 | 22 | 21 | 20 | | |
| | | | | | | | | | | | | | x |
| 37 | 25 | Mouse Z | | 2F | 2E | 2D | 2C | 2B | 2A | 29 | 28 | | |
| | | | | | | mouseBt5 | mouseBt4 | mouseZsgn | | | | | x |
| 40 | 28 | | | 47 | 46 | 45 | 44 | 43 | 42 | 41 | 40 | | |
| | | | | reserved | | | | | | | | | x |
| 45 | 2D | joystick Data | | 6F | 6E | 6D | 6C | 6B | 6A | 69 | 68 | | |
| | | | | cmpYS | cmpXS | joyCntYS | joyCntXS | joystickYS | joystickXS | joystickDC | joystickMode | | x |
| 46 | 2E | | | 77 | 76 | 75 | 74 | 73 | 72 | 71 | 70 | | |
| | | | | dcY | dcX | mousePollReq | mouseReady | PS2TxON | PS2Error | PS2TxPE | PS2RxPE | | x |
| 47 | 2F | outBuff | | 7F | 7E | 7D | 7C | 7B | 7A | 79 | 78 | | |
| | | | | msxData3 | msxData2 | msxData1 | msxData0 | msxBtRight | msxBtLeft | ledGreen | ledRed | | x |
| 48 | 30 | MSX data buffer | | msxX | | | | | | | | | x |
| 49 | 31 | | | msxY | | | | | | | | | x |
| 50 | 32 | | | msxBtn | | | | | | | | | x |
| 51 | 33 | | | msxZ | | | | | | | | | x |
| 52 | 34 | | | msxInfoEx | | | | | | | | | x |
| 53 | 35 | | | msxHwVer | | | | | | | | | x |
| 54 | 36 | | | msxFwVer | | | | | | | | | x |
| 55 | 37 | | | msxVendorID | | | | | | | | | x |
| 56 | 38 | | | reserved for future | | | | | | | | | x |
| 57 | 39 | | | reserved for future | | | | | | | | | x |
| 58 | 3A | | | reserved for future | | | | | | | | | x |
| 59 | 3B | | | reserved for future | | | | | | | | | x |

| | | | |
|---|---|---|---|
| CLOCK | 0000 | RESET | |
| 12000000 Hz | 0003 | ~INT0 | |
| CPU TACT | 000B | T0 | Real Time Clock Interrupt 200 Hz |
| 1000000 Hz | 0013 | ~INT1 | |
| TACT TIME | 001B | T1 | |
| 1,00 us | 0023 | SERIAL | |

INTERRUPTS

| | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 60 | 3C | | reserved for future | | | | | | | | | x |
| 61 | 3D | | reserved for future | | | | | | | | | x |
| 62 | 3E | | reserved for future | | | | | | | | | x |
| 63 | 3F | | reserved for future | | | | | | | | | x |
| 64 | 40 | local data | joystickX | | | | | | | | | x |
| 65 | 41 | | joystickY | | | | | | | | | x |
| 66 | 42 | | joyDeltaMinSc | | | | | | | | | x |
| 67 | 43 | | joyTmrL/joyCntX | | | | | | | | | x |
| 68 | 44 | | joyTmrH/joyCntY | | | | | | | | | x |
| 69 | 45 | | joyInerVal/joyAccVal | | | | | | | | | x |
| 70 | 46 | | | | | | | | | | | x |
| 71 | 47 | | | | | | | | | | | x |
| 72 | 48 | | reserved | | | | | | | | | x |
| 73 | 49 | | STACK | | | | | | | | | x |
| 127 | 7F | | | | | | | | | | | x |
| 129 | 81 | SP | | | | | | | | | 48 | 07 |
| 130 | 82 | DPL | | | | | | | | | | 00 |
| 131 | 83 | DPH | | | | | | | | | | 00 |
| 135 | 87 | PCON | SMOD | - | - | - | GF1 | GF0 | PD | IDL | default | 0xxx 0000 |
| 136 | 88 | TCON | 8F | 8E | 8D | 8C | 8B | 8A | 89 | 88 | | 00 |
| | | | TF1 | TR1 | TF0 | TR0 | IE1 | IT1 | IE0 | IT0 | 0001 0001 | 0000 0000 |
| 137 | 89 | TMOD | T1.GATE | T1.C/~T | T1.M1 | T1.M0 | T0.GATE | T0.C/~T | T0.M1 | T0.M0 | 0001 0001 | 00 |
| 138 | 8A | TL0 | | | | | | | | | | 00 |
| 139 | 8B | TL1 | | | | | | | | | default | 00 |
| 140 | 8C | TH0 | | | | | | | | | | 00 |
| 141 | 8D | TH1 | | | | | | | | | default | 00 |
| 144 | 90 | P1 | 97 | 96 | 95 | 94 | 93 | 92 | 91 | 90 | | |
| | | | P1.7 | P1.6 | P1.5 | P1.4 | P1.3 | P1.2 | P1.1 | P1.0 | | pullup |
| | | | | | | | | | AIN1 | AIN0 | | |
| | | | MD3 | MD2 | MD1 | MD0 | MBR | MBL | LED1 | LED0 | default | 1111 1111 |
| 152 | 98 | SCON | 9F | 9E | 9D | 9C | 9B | 9A | 99 | 98 | | |
| | | | SM0 | SM1 | SM2 | REN | TB8 | RB8 | TI | RI | default | 0000 0000 |
| 153 | 99 | SBUF | | | | | | | | | | x |
| 168 | A8 | IE | AF | AE | AD | AC | AB | AA | A9 | A8 | | |
| | | | EA | - | - | ES | ET1 | EX1 | ET0 | EX0 | 1000 0111 | 0x00 0000 |
| 176 | B0 | P3 | B7 | B6 | B5 | B4 | B3 | B2 | B1 | B0 | | |
| | | | P3.7 | P3.6 | P3.5 | P3.4 | P3.3 | P3.2 | P3.1 | P3.0 | | pullup |
| | | | | AO | T1 | T0 | INT1 | INT0 | TXD | RXD | | |
| | | | DipSw2 | internal | DipSw3 | PS2DAT | NEOSINT | PS2CLK | DipSw4 | DipSw5 | default | 1111 1111 |
| 184 | B8 | IP | BF | BE | BD | BC | BB | BA | B9 | B8 | | |
| | | | - | - | - | PS | PT1 | PX1 | PT0 | PX0 | 0000 0100 | xxx0 0000 |
| 208 | D0 | PSW | D7 | D6 | D5 | D4 | D3 | D2 | D1 | D0 | | |
| | | | CY | AC | F0 | RS1 | RS0 | OV | | P | default | 0000 0000 |
| 224 | E0 | ACC | E7 | E6 | E5 | E4 | E3 | E2 | E1 | E0 | | |
| | | | ACC.7 | ACC.6 | ACC.5 | ACC.4 | ACC.3 | ACC.2 | ACC.1 | ACC.0 | default | 0000 0000 |
| 240 | F0 | B | F7 | F6 | F5 | F4 | F3 | F2 | F1 | F0 | | |
| | | | B.7 | B.6 | B.5 | B.4 | B.3 | B.2 | B.1 | B.0 | default | 0000 0000 |

| | |
|---|---|
| IN | OUT |