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Overview

This file provides additional information about the M205/M206's hardware. It should be used if you cannot find what you need in the M205/M206 *Quick Installation and Configuration Guide*.

- network connector pinouts - *Network Connectors* on page F-2.
- parallel port pinouts - *Parallel Port (PRN)* on page F-3.
- power socket pinouts - *Power Socket* on page F-2
- LED's - *M205/M206 LEDs* on page F-7
- Variable Definitions - *Variable Definitions* on page F-7

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Network Connectors

The M205/M206 provides compatibility with TCP/ICMP/IP and 802.3 Ethernet protocols as follows:

M205 IEEE 802.3 10Base-T UTP Ethernet female RJ45 connector.

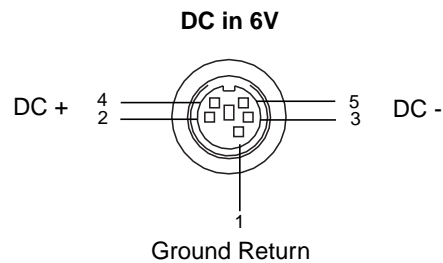
M206 IEEE 802.3 10Base-2 thin-wire Ethernet female BNC connector.

Table 1: UTP (RJ45) Connector Pinout

| Pin | Signal | Source |
|-----|-----------|-----------|
| 1 | Transmit+ | M205/M206 |
| 2 | Transmit- | M205/M206 |
| 3 | Receive+ | Network |
| 4 | none | none |
| 5 | none | none |
| 6 | Receive- | Network |
| 7 | none | none |
| 8 | none | none |

Power Socket

Figure 1: Power Socket Pinout



**Parallel Port
(PRN)**

One IBM PC compatible parallel interfaces (Centronics), IEEE 1284-I compliant, male 36 pin connector. DMA--driven state-machine implementation supports data rates in excess of 65,000 characters per second.

Figure 2: Parallel Port Timing in Fast Mode

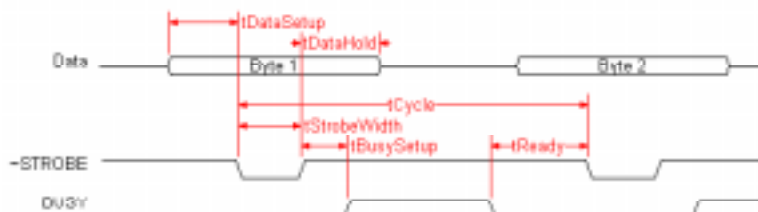


Table 2: Parallel Port Timing in Fast Mode.

| # | Parameter | fast (μ S) | | | Comment |
|---|--------------|-----------------|-----|-----|---|
| | | min | max | typ | |
| 1 | Data Setup | - | - | 1 | Time data driven before asserting \sim STROBE |
| 2 | Strobe Width | - | - | 1 | Width of \sim STROBE signal assertion |
| 3 | Data Hold | 1 | - | - | Time data held on bus after negation of \sim STROBE |
| 4 | BusySetup | - | 1 | - | Time in which BUSY must be asserted by peripheral (if it wishes to do so) after \sim STROBE negated |
| 5 | Ready | 1 | - | - | Period from negation of BUSY until \sim STROBE asserted for next character |
| 6 | Cycle | 5 | - | - | Minimum time between consecutive characters if BUSY is not asserted or asserted for a negligible period of time by the peripheral |

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Figure 3: Parallel Port Timing in Other Modes Diagram

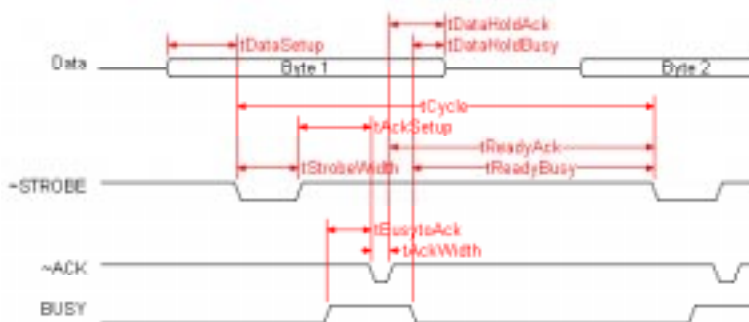


Table 3: Parallel Port Timing in Other Modes

| # | Parameter | pc (μS) | | | cen (μS) | | | slow (μS) | | |
|----|--------------|---------|-----|-----|----------|-----|-----|-----------|-----|-----|
| | | min | max | typ | min | max | typ | min | max | typ |
| 1 | Data Setup | - | - | 0.5 | - | - | 1.0 | - | - | 4.0 |
| 2 | Strobe Width | - | - | 0.5 | - | - | 1.0 | - | - | 4.0 |
| 3 | Data HoldAck | 0 | - | - | 0 | - | - | 0 | - | - |
| 4 | DataHoldBusy | 0 | - | - | 0 | - | - | 0 | - | - |
| 5 | AckSetup | 0.1 | - | - | 0.1 | - | - | 0.1 | - | - |
| 6 | BusytoAck | 0 | - | - | 0 | - | - | 0 | - | - |
| 7 | AckWidth | 0.1 | - | - | 0.1 | - | - | 0.1 | - | - |
| 8 | ReadyAck | 1.5 | - | - | 1.0 | - | - | 6.0 | - | - |
| 9 | Ready Busy | 1.5 | - | - | 1.0 | - | - | 6.0 | - | - |
| 10 | Cycle Time | 2.5 | - | - | 5.0 | - | - | 20.0 | - | - |

Note: Please refer to Table 4 on page 5 for a description of the Parameters.

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Table 4: Definition of Parameters (except Fast Mode)

| | Parameter | Comment |
|----|------------------|--|
| 1 | DataSetup | Time data driven before asserting ~STROBE |
| 2 | StrobeWidth | Width of ~STROBE signal assertion |
| 3 | DataHoldAck | Time data held on the on bus after peripheral negates ~ACK |
| 4. | DataHoldBusy | Time data held on bus after peripheral negates BUSY |
| 5 | AckSetup | Minimum length of time after ~STROBE is negated that ~ACK may be asserted by a peripheral |
| 6 | BusytoAck | Minimum period of time that ~ACK may be asserted after BUSY (if BUSY must be asserted) in order for BUSY signal to be recognized after assertion of ~ACK |
| 7 | AckWidth | Period which ~ACK must be asserted by peripheral to be recognized by the print server |
| 8. | ReadyAck | Period from negation of ~ACK until ~STROBE asserted for next character |
| 9 | ReadyBusy | Period from negation of BUSY until ~STROBE asserted for next character |
| 10 | Cycle | Minimum time between consecutive characters if BUSY is not asserted or asserted for a negligible period of time by the peripheral |

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Figure 4: Parallel Port Pinout

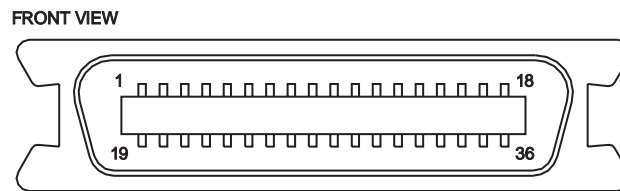


Table 5: PRN Pinout

| Pin | Signal | Source |
|-------|----------------|-----------|
| 1 | -STROBE | M205/M206 |
| 2 | DATA 1 | M205/M206 |
| 3 | DATA 2 | M205/M206 |
| 4 | DATA 3 | M205/M206 |
| 5 | DATA 4 | M205/M206 |
| 6 | DATA 5 | M205/M206 |
| 7 | DATA 6 | M205/M206 |
| 8 | DATA 7 | M205/M206 |
| 9 | DATA 8 | M205/M206 |
| 10 | -ACK | Printer |
| 11 | BUSY | Printer |
| 12 | PE | Printer |
| 13 | SLCT | Printer |
| 14 | ~AUTOFD | Printer |
| 15 | not connected | - |
| 16 | GND | - |
| 17 | not connected | - |
| 18 | VCC (optional) | Printer |
| 19-30 | GND | - |
| 31 | ~INIT | M205/M206 |
| 32 | ~ERROR | Printer |
| 33-35 | GND | - |
| 36 | ~SLCTIN | M205/M206 |

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M205/M206 LEDs

LED Indicators:

STAT System Status
ERR System Error
NET Data to Network

Table 6: LED Patterns

| STAT | ERR | NET | Mode |
|-------|-------|-----|------------------------|
| ON | ON | ON | PIA/CPU Test |
| ON | OFF | ON | RAM Test |
| ON | OFF | OFF | ROM Test |
| ON | ON | OFF | EEPROM Test |
| OFF | ON | OFF | COM1/COM2 Test |
| OFF | ON | ON | Network Interface Test |
| OFF | OFF | ON | PRN1/PRN2 Test |
| FLASH | OFF | - | Run Mode |
| FLASH | ON | - | Auto-Reset Mode |
| OFF | FLASH | ON | License Violation |
| FLASH | FLASH | OFF | Firmware Panic |
| OFF | FLASH | OFF | Watchdog Alarm |
| ON | FLASH | OFF | Spurious Interrupt |
| ON | FLASH | ON | Hardware Exception |

Variable Definitions

Table 7: Variable Definitions

| Name | Hexadecimal | Description |
|------|-------------|-----------------|
| BS | 08 | backspace |
| FF | 0C | formfeed |
| CR | 0D | carriage return |
| SP | 20 | space |
| LF | 0A | linefeed |
| TAB | 09 | tab |
| ESC | 1B | escape |

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| Name | Hexadecimal | Description |
|-----------|--|--|
| DEL | 7F | delete |
| EOT | 04 | end of transmission |
| NUL | 00 | NULL character |
| PCL-POP | 1B 26 6C 30 4F | portrait page orientation |
| PCL-POL | 1B 26 6C 31 4F | landscape page orientation |
| PCL-PORP | 1B 26 6C 32 4F | reverse portrait page orientation |
| PCL-PORL | 1B 26 6C 33 4F | reverse landscape page orientation |
| PCL-PSZ1 | 1B 26 6C 31 41 | executive page size |
| PCL-PSZ2 | 1B 26 6C 32 41 | letter page size |
| PCL-PSZ3 | 1B 26 6C 33 41 | legal page size |
| PCL-PSZ4 | 1B 26 6C 32 36 41 | A4 page size |
| PCL-PSRC0 | 1B 26 6C 30 48 | eject page paper source |
| PCL-PSRC1 | 1B 26 6C 31 48 | upper tray paper source |
| PCL-PSRC2 | 1B 26 6C 32 48 | manual feed paper source |
| PCL-PSRC3 | 1B 26 6C 33 48 | manual envelope feed paper source |
| PCL-PSRC4 | 1B 26 6C 34 48 | lower tray paper source |
| PCL-PSRC6 | 1B 26 6C 36 48 | envelope feeder paper source |
| PCL-PDST1 | 1B 26 6C 31 47 | upper output bin paper destination |
| PCL-PDST2 | 1B 26 6C 32 47 | reader output bin paper destination |
| PCL-RST | 1B 45 | printer reset |
| PCL-JSEP | 1B 26 6C 31 54 | job separation |
| HP3-SWPCL | 1B 25 2D 31 32 33 34 35 58 40 50 4A 4C 20 45 4E 54 45 52 20 4C 41 4E 47 55 41 47 45 20 3D 20 50 43 4C 0A | PCL-5 PCL command to switch printer into PCL Language mode |
| HP3-SWPS | 1B 25 2D 31 32 33 34 35 58 40 50 4A 4C 20 45 4E 54 45 52 20 4C 41 4E 47 55 41 47 45 20 3D 20 50 6F 73 74 53 63 72 69 70 74 0A | PCL-5 PCL command to switch printer into PostScript Language mode |
| PAC-SWPCL | 1B 26 6C 31 30 35 37 2E 33 32 32 35 39 4A | PacificPage PE cartridge command to switch printer into PCL Language mode |
| PAC-SWPS | 1B 26 6C 35 30 35 37 2E 31 30 35 38 4A | PacificPage PE cartridge command to switch printer into PostScript Language mode |

