Apple IIc Plus: External Pinouts (6/94)

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TOPIC --
This article gives the pinouts for the following ports for Apple IIc Plus:

- DB-9 Mouse or Joystick Port

- DB-19 Disk Drive Port

- DB-15 Video Expansion Connector

- MiniDin-8 Modem Port (with startup characteristics)

- MiniDin-8 Printer Port (with startup characteristics)

DISCUSSION ---

DB-9 Mouse or Joystick Port

1- MOUSEID* Mouse identifier: when active, disables NE556 hand controller
   timer.
2- +5V total current drain from this pin must not exceed 100 mA.
3- GND System Ground.
4- XDIR Mouse X-direction indicator.
5- XMOVE Mouse x-movement interrupt.
6- N.C. Not connected.
7- MSW* Mouse button.
8- YDIR Mouse Y-direction indicator.
9- YMOVE Mouse Y-movement interrupt.

1- GAMESW1 Switch input 1 (sometimes called paddle button 1).
2- +5V total current drain from this pin must not exceed 100mA.
3- GND System ground.
4- Not Used for hand controller.
5- PDL0 hand controller input. Must be connected to a 150K ohm variable
   resistor connected to +5V.
6- N.C. Not connected.
7- GAMESW0 Switch input 0 (sometimes called paddle button 0).
8- PDL1 hand controller input; must be connected to a 150K ohm variable
   resistor connected to +5V.
9- Not used with hand controller.

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DB-19 Disk Drive Port
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 1,2,3- Ground.
 4- 3.5DISK 3.5 or 5.25-inch drive select.
 5- -12V  -12 volt supply.
 6- +5V +5 volt supply.
 7- +12V  +12 volt supply.
 8- +12V  +12 volt supply.
 9- DR2 Drive 2 Select.
10- WRPTOTECT Write protect input.
11- PHASE0 Motor Phase 0 output.
12- PHASE1 Motor Phase 1 output.
13- PHASE2 Motor Phase 2 output.
14- PHASE3 Motor Phase 3 output.
15- WREQ Write request.
16- HDSEL Head Select.
17- DR1 Drive 1 select.
18- RDDATA Read data input.
19- WDATA Write data output.


Note: Power connectors on this port are for use by the disk drive only.


DB-15 Video Expansion Connector
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 1- TEXT Video text signal from TMG; set to inverse of GR, except in double
    high-resolution mode.
 2- 14M 14M master timing signal from the system oscillator.
 3- SYNC* Displays horizontal and vertical synchronization signal from IOU
    pin 39.
 4- SEGB Displays vertical counter bit from IOU pin 4; in text mode,
    indicates second low-order vertical counter; in graphics mode, indicates
    low-resolution.
 5- 1VSOUND One-volt sound signal from pin 5 of the audio hybrid circuit
    (AUD).
 6- LDPS* Video shift-register load enable from pin 12 of TMG.
 7- WNDW* Active area display blanking; includes both horizontal and
    vertical blanking.
 8- +12V Regulated +12 volts DC; can drive 300mA.
 9- PRAS* RAM row-address strobe from TMG pin 19.
10- GR Graphics mode enable from IOU pin 2.
11- SEROUT* Serialized character generator output from pin 1 of the 74LS166
    shift register.
12- NTSC Composite NTSC video signal from VID hybrid chip.
13- GND Ground reference and supply.
14- VIDD7 From 74LS374 video latch; causes half-dot shift high.
15- CREF Color reference signal from TMG pin 3; 3.58 MHz.


Note: The signals at the DB-15 on the Apple IIc are not the same as those
      at the DB-15 end of the Apple III, Apple IIGS, and Macintosh II.  Do
      not attempt to plug a cable intended for one into the other.


Several of these signals, such as the 14 MHz, must be buffered within about
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4 inches of the back panel connector--preferably inside a container
directly connected to the back panel.

MiniDin-8 Modem Port

1- DTR Data Terminal Ready (output).
2- DSR Data Set Ready (input).
3- TD Transmit Data (output).
4,6,8- Ground.
5- RD Read Data (input).
7- N.C. Not connected.

Start-up Characteristics
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300 baud
8 data bits
No parity
1 stop bit
No screen echo
No Line Feed after Carriage Return (no LF after CR)
No Carriage Returns in output stream
Command Char= Control-A

MiniDin-8 Printer Port

1- DTR Data Terminal Ready (output).
2- DSR Data Set Ready (input).
3- TD Transmit Data (output).
4,6,8- Ground.
5- RD Read Data (input).
7- N.C. Not connected.

Start-up Characteristics

9600 baud
8 data bits
No parity
2 stop bits
80-column line
No screen echo
Line Feed after Carriage Return
Command Char= Control-I

The MiniDin-8 pin configuration is this: As you look at the back of the
machine, pin 1 being lower-right, pin 3 middle-right, pin 6 upper-right.

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      8  7  6
    5    4  3
      2    1
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