ASCII V100 Terminal

Jumper to select power from the USB connector

External Power Connector 5V at 50mA

USB Connector
The terminal creates a serial over USB connection (CDC protocol)

VGA video output connector

Bootload Jumper
Place a jumper on here when upgrading the firmware

Power/Activity LED
Illuminates when powered
Flickers off with data

Composite video output connector

Connector for a PS2 style keyboard

Serial Interface
Tx is data from the terminal
Rx is data to the terminal

BAUD RATE SELECT

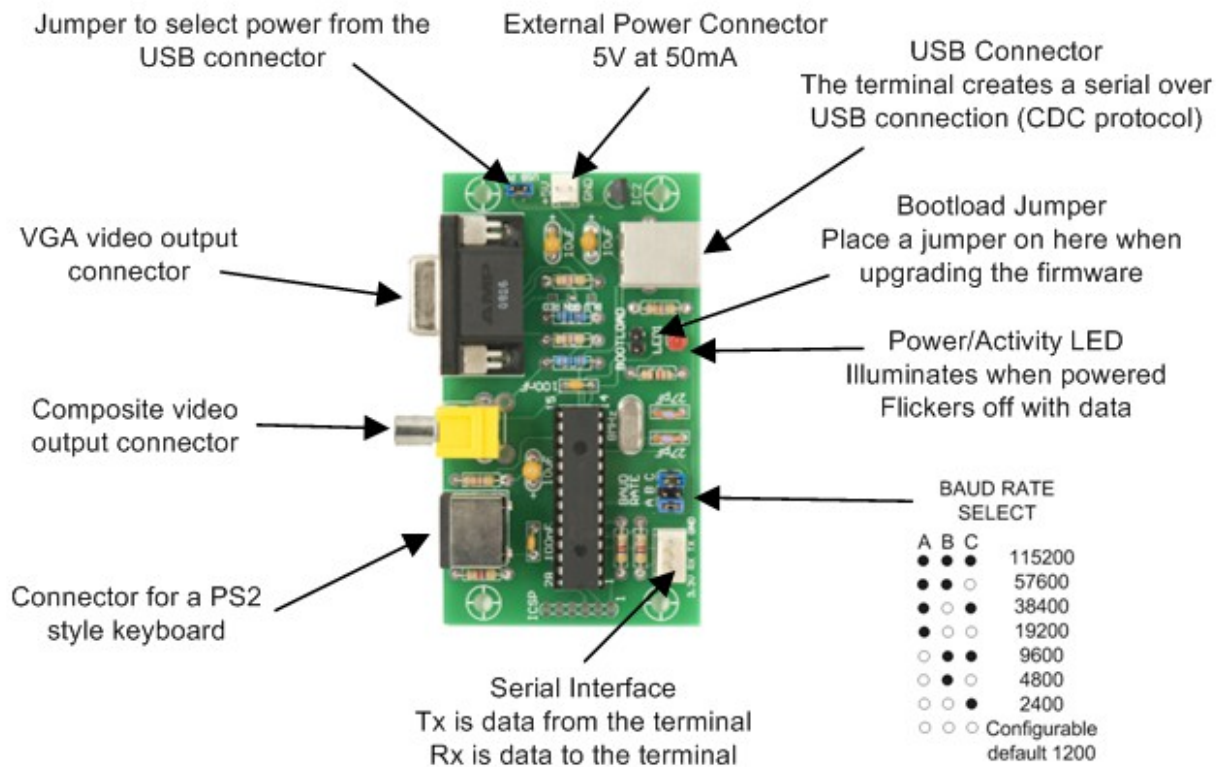| A	B	C	
●	●	●	115200
●	●	○	57600
●	○	●	38400
●	○	○	19200
○	●	●	9600
○	●	○	4800
○	○	●	2400
○	○	○	Configurable default 1200

Specifications

- Single chip ASCII video display terminal with VT100 and VT52 emulation
- VGA or Composite Video output with automatic switch over. Composite can be PAL or NTSC.
- VGA can display 24 lines x 80 characters or an extended resolution of 36 lines x 80 characters
- Composite video can display 18 lines x 48 characters (PAL) or 15 lines x 44 characters (NTSC)
- Standard PS2 compatible keyboard input with support for standard US keyboard layout or French, German, Italian, Belgian, Russian or United Kingdom keyboard layouts
- TTL or RS232 serial input/output. Baud rates from 40 to 1,000,000 bits per second with odd, even or no parity and one or two stop bits
- USB input with serial emulation. This can be used as a USB to serial converter
- Extended VT100 terminal emulation. Extensions include graphics codes for drawing lines, boxes and circles (which can be hollow or filled)
- Graphics resolution is 480x288 pixels in VGA 25 line mode, 480x432 pixels in VGA 36 line mode, 288x216 in PAL composite and 264x180 pixels in NTSC composite mode
- Three built in fonts (standard, large and jumbo) and four character attributes (normal, underline, reverse and invisible)

- Power requirement is 5V at 50mA plus any current drawn from the 3.3V pin on the serial connector

Set-Up Menu

The terminal can be configured with a number of options on the Set Up menu. This menu is invoked by using SHIFT- F12 on the keyboard and the menu will be displayed on the video display.

In the Set-Up menu you can select the number of lines to display in VGA mode (24 or 36), the type of composite output (PAL or NTSC) and the type of keyboard connected (French, German, US, etc). For the serial interface you can select the number of bits, parity and the number of stop bits.

If you are connecting to a RS232 circuit you can invert the serial data stream. No other changes are required as the 10K resistor on pin 5 of the microcontroller will protect the micro from the ±12V signals used by RS232. The output from the microcontroller is only 0 to 3.3V but most RS232 systems will accept this as a valid signal.

The configurable baudrate option lets you select the baudrate when there are no jumpers placed on the baudrate jumper block. The baud rate can be any number from 40 to 1,000,000 bits per second.

Finally, you can suppress the startup message (version number and copyright) with option H.

All these options are permanently saved and recalled at start up.

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