EBU & SMPTE LTC Readers

General description

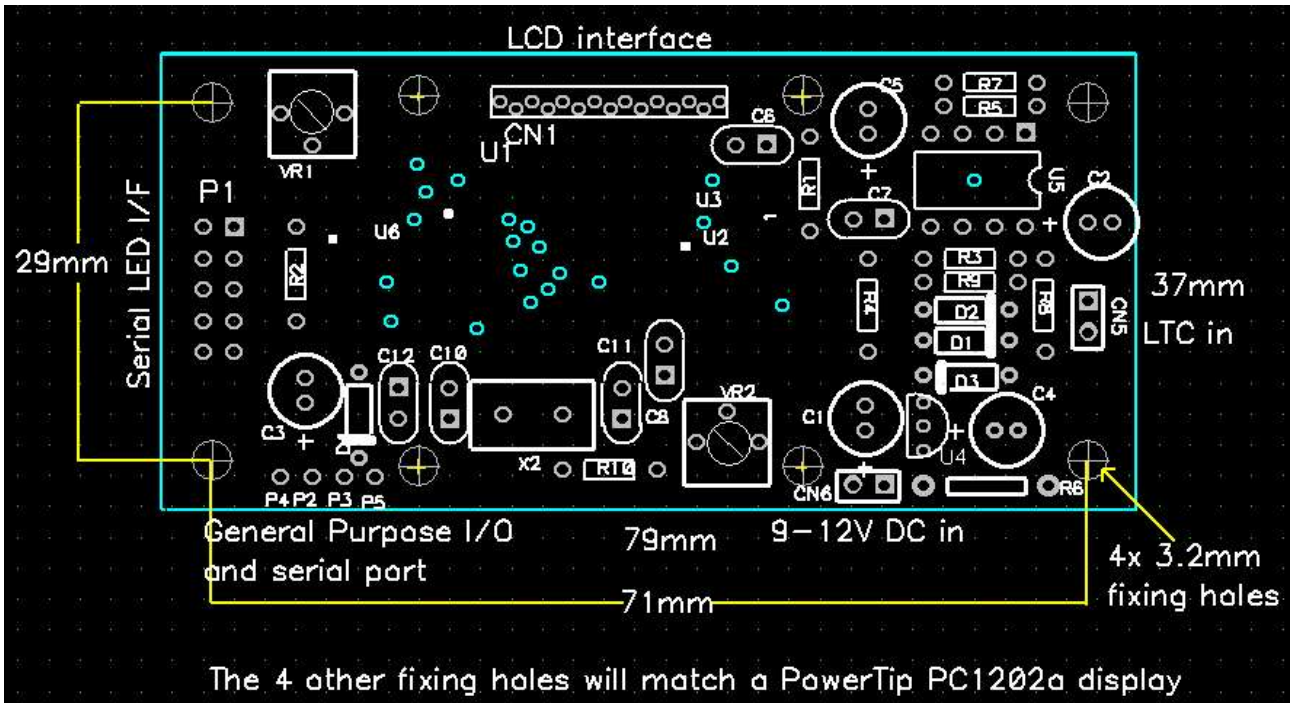
Two similar timecode reader printed circuit boards that can be configured for different types of display, 7 segment LED, 7 segment LCD or alphanumeric LCD´s. The circuit boards mainly differ in the onboard power supplies. The type of display has to be specified when ordering.

If a backlit LCD display is chosen the board with a small switch mode power supply should be selected. The nominal DC supply should be 12V.

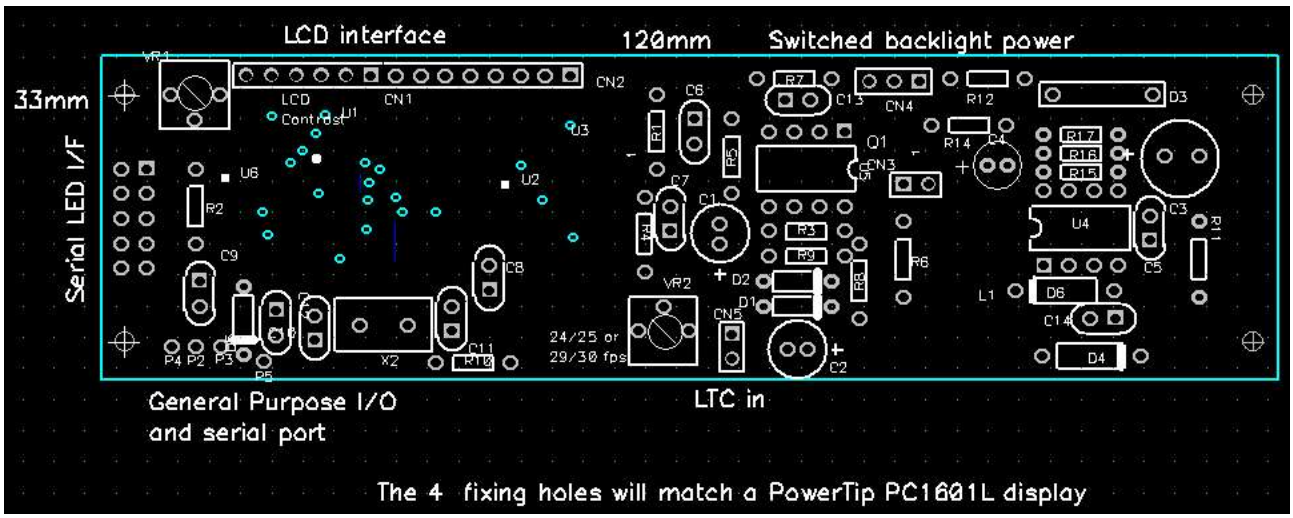
The second board can be run from a 9V PP3 battery, and is suitable for both types of LCD, without backlighting

Specifications

Frame rates: 23 to 30 frames per second. Play speed only.
Sensitivity: 20mV peak to peak to 10V peak to peak.
The input is unbalanced, nominal impedance 10K Ohm.
Sync time: typically 2 complete frames are required.
Typical current consumption without backlighting 40mA



Low power LCD printed circuit board dimensions



Higher power LCD printed circuit board dimensions

Displays

These modules should work with any “normal” alphanumeric displays and two Powertip versions PC1601L and the PC1202A were chosen, and will match the mounting holes on the boards. Both are quite inexpensive. The Varitronix 12.7 mm Vim-606 display may be supported in future

The LED Display incorporates Avago 7-segment red LED's with 14.2mm height characters

Software

All versions will decode drop frame and non-drop frame timecode. The software can only handle one type of display, so you cannot use a LCD and a LED display together

There are several simple software additions that can be included:

A freeze/hold function.

Frame rate TTL biphase out .

A RS232 ASCII output. An external RS232 line driver is required.Close contact activated, 9600 Baud rate is standard. Selectable <CR> <CR/LF> or <LF> text terminator.

A time code trigger. A time code number is stored by closing a contact, when this timecode number is detected again, a low power external relay can be activated, for one frame.

LED intensity can be increased for the duration of 1 frame, on a contact closure, a simple electronic slate.

This is a provisional specification. Issue1
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