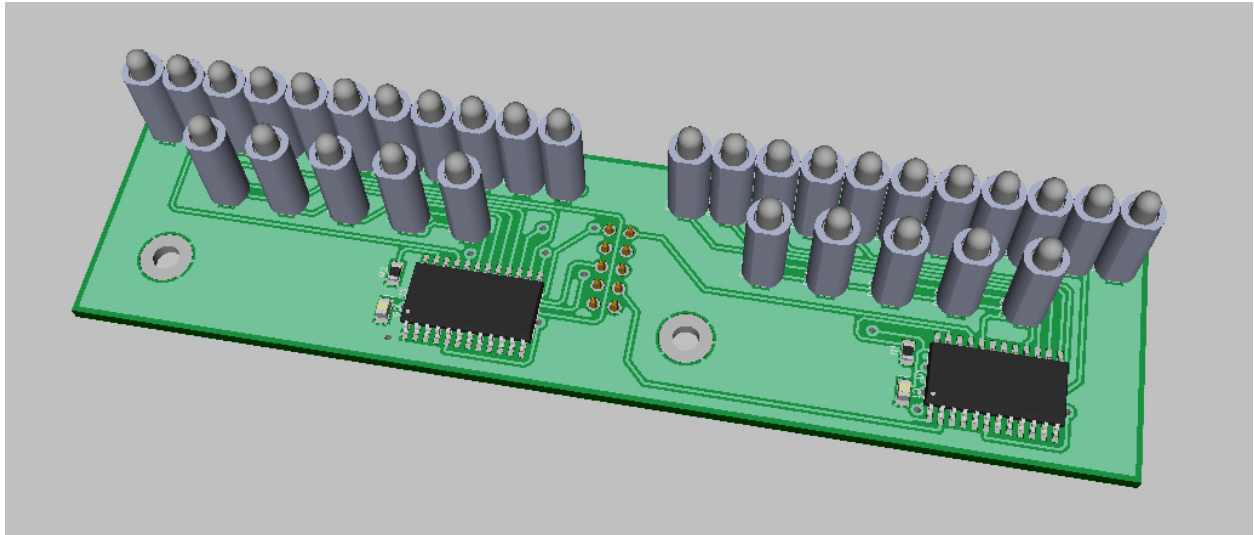


DS1 board assembly:



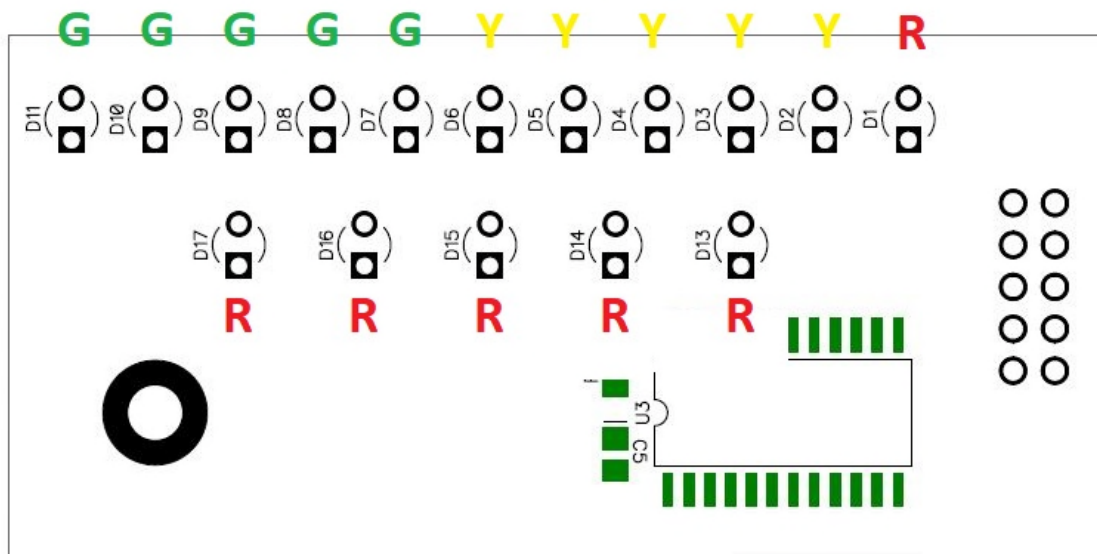
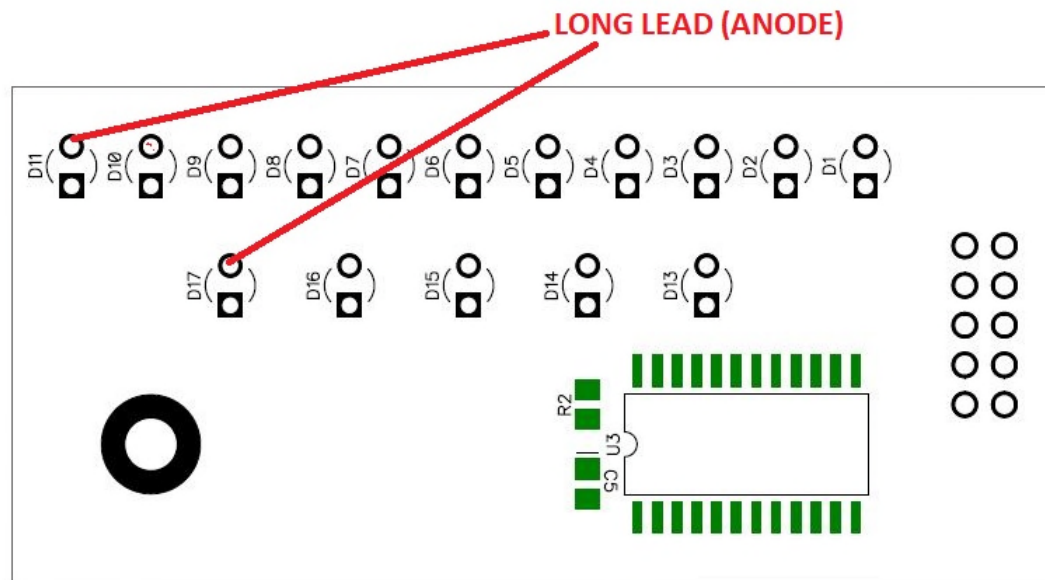
The DS1 is a two bargraph and status display for the TPC-100 Prism Clone. 11 LEDs are used for expand/compress indication and 5 red LEDs are used for status. The PCB connects to the BP1 band processor board using a 10 conductor ribbon cable with two IDC headers.

The PCB is supplied with the display ICs and supporting SMD components installed. Your board may be single or a 2-up panel however assembly is shown for a single board.

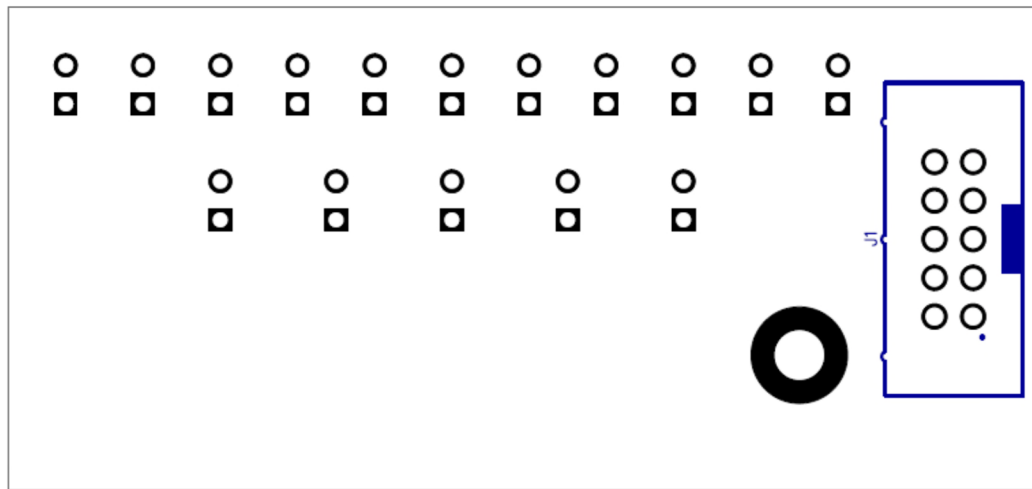
LED Placement

1. For each display there are 5 green, 5 yellow and 6 red leds. The long lead on the LED is the anode and is oriented to be in the upper holes as shown. Using the keystone LED spacers, place the led into the spacer on the side with the funnel lead-in. After assembling all of the spacers onto the LEDs, install them according to

color in the diagram shown. After placement, use either the front panel holes or the supplied jig to align them and hold them in place while soldering the leads.

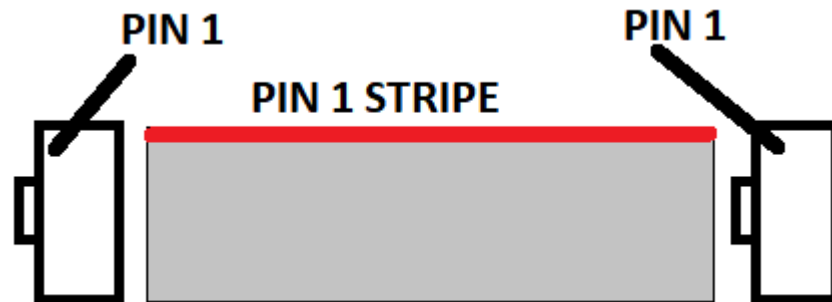


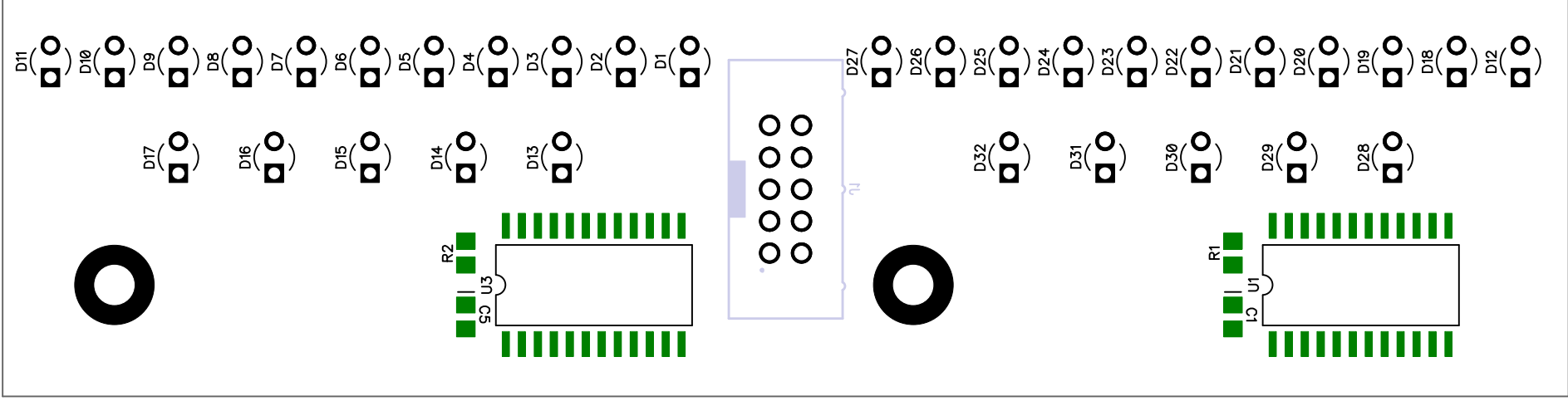
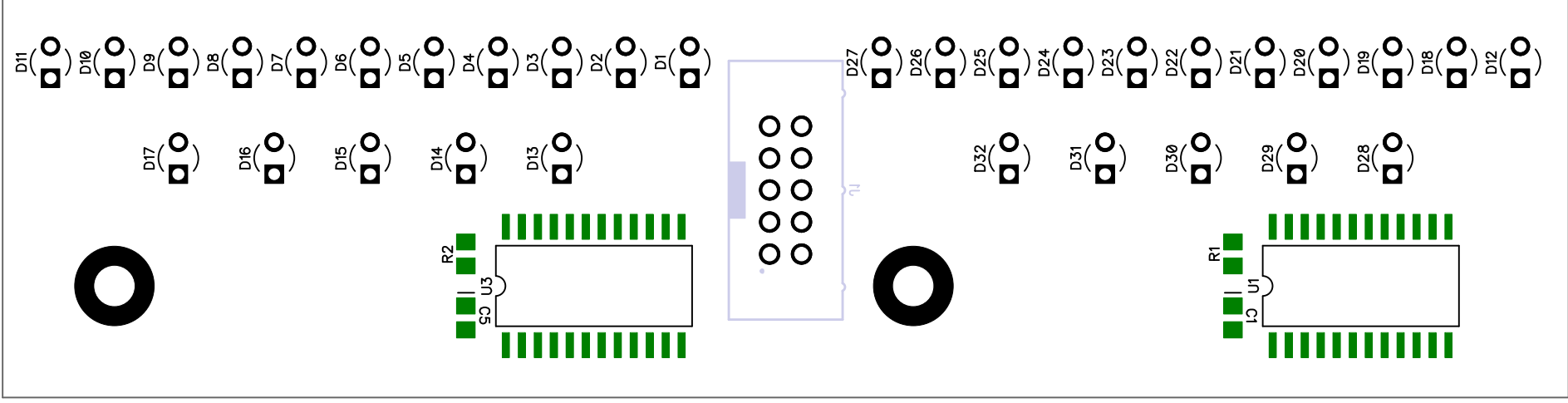
2. Flip the board over to the non-component side and align the 10 pin box header with the keying slot oriented as shown on the silkscreen pattern. Clean the PCB and inspect for any issues.

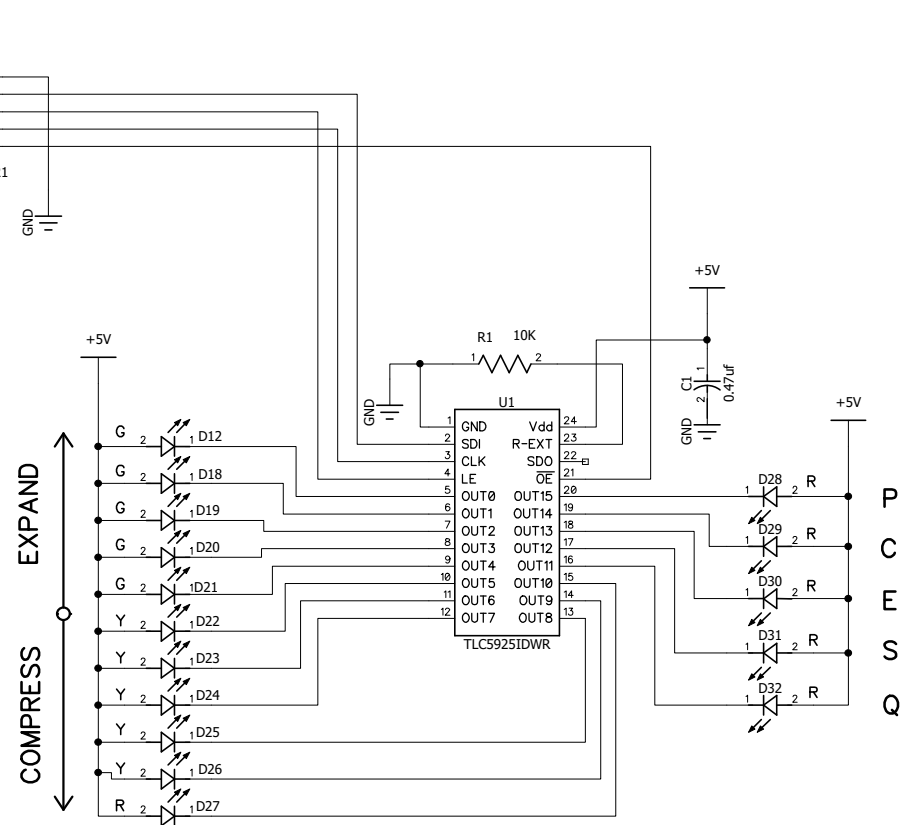
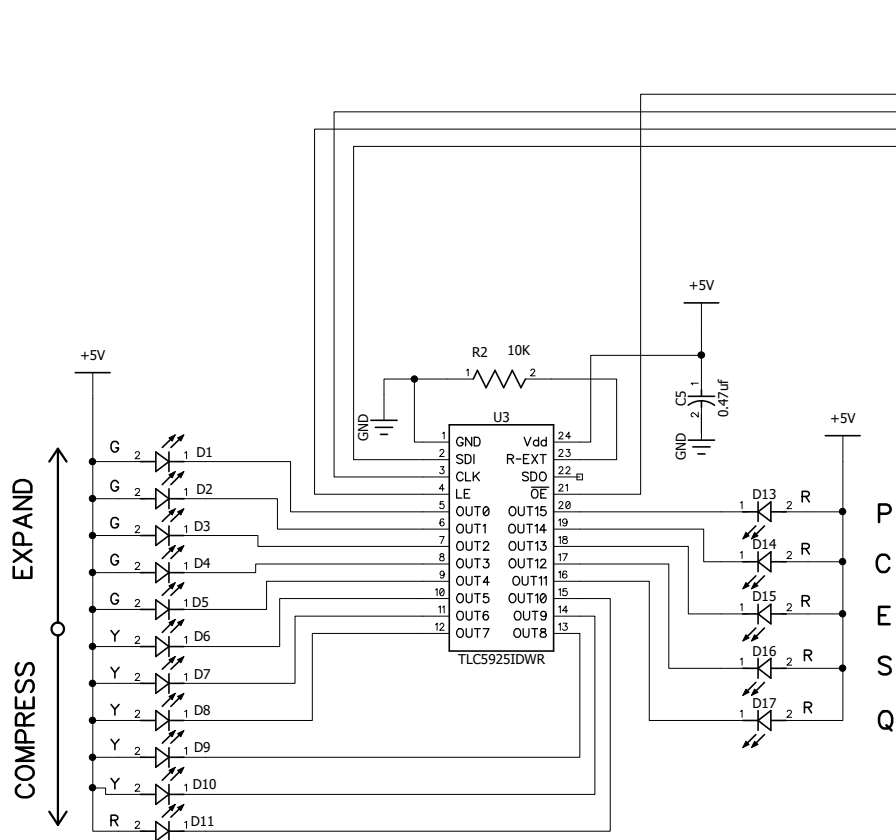


3. If the PCB is a 2-up array, it may only be necessary to remove the outermost border and leave the boards attached with the mouse bites connecting them. They should align to the panel holes and standoffs in this configuration and this makes assembly easier.

4. A suitable length for the ribbon cable is about 4 inches but not greater than 6 inches in length. Pin 1 is indicated on the cable as a single colored conductor. The connectors must be oriented pin-to-pin as shown (view is top (*ribbon*) side of connectors). Check continuity pin-to-pin after assembly.







DISPLAY BOARD DS-1

SIZE	FSCM NO.	DWG NO.	REV
SCALE		Sheet 1	

#	RefDes	Name	Value	Manufacturer	Manufacturer PN	Part Number (Digi-Key)	Quantity
1	C1,C5	CAP 4.7uf	4.7uf	TDK	C2012X5R1V475K125AC	445-14431-1-ND	4
	R1, R2	RES 10K		Vishay	CRCW080510K0JNEAC	541-4163-1-ND	4
2		CONN HEADER VERT 10POS 2.54MM		Würth	61201021621	732-2094-ND	2
3		HLMP1790	GRN LED	Everlight	HLMP1790	1080-1050-ND	20
4		HLMP1719	YEL LED	Everlight	HLMP1719	1080-1049-ND	20
5		HLMP1700	RED LED	Everlight	HLMP1700	1080-1047-ND	24
6		TLC5925IPWR		TI	TLC5925IDWR	296-24465-1-ND	4
7		SPACER MOUNTS LED T-1 .380"		Keystone	7366	36-7366-ND	64
8	ribbon conn	10 POS IDC PLUG		Würth	61201023021	732-2102-ND	4
9	ribbon cable	10 COND RIBBON 0.050 1ft length		3M	3365/10 300	3M157815-1-ND	2

Quantities are for a 2-up array

Highlighted parts are SMD pre-placed