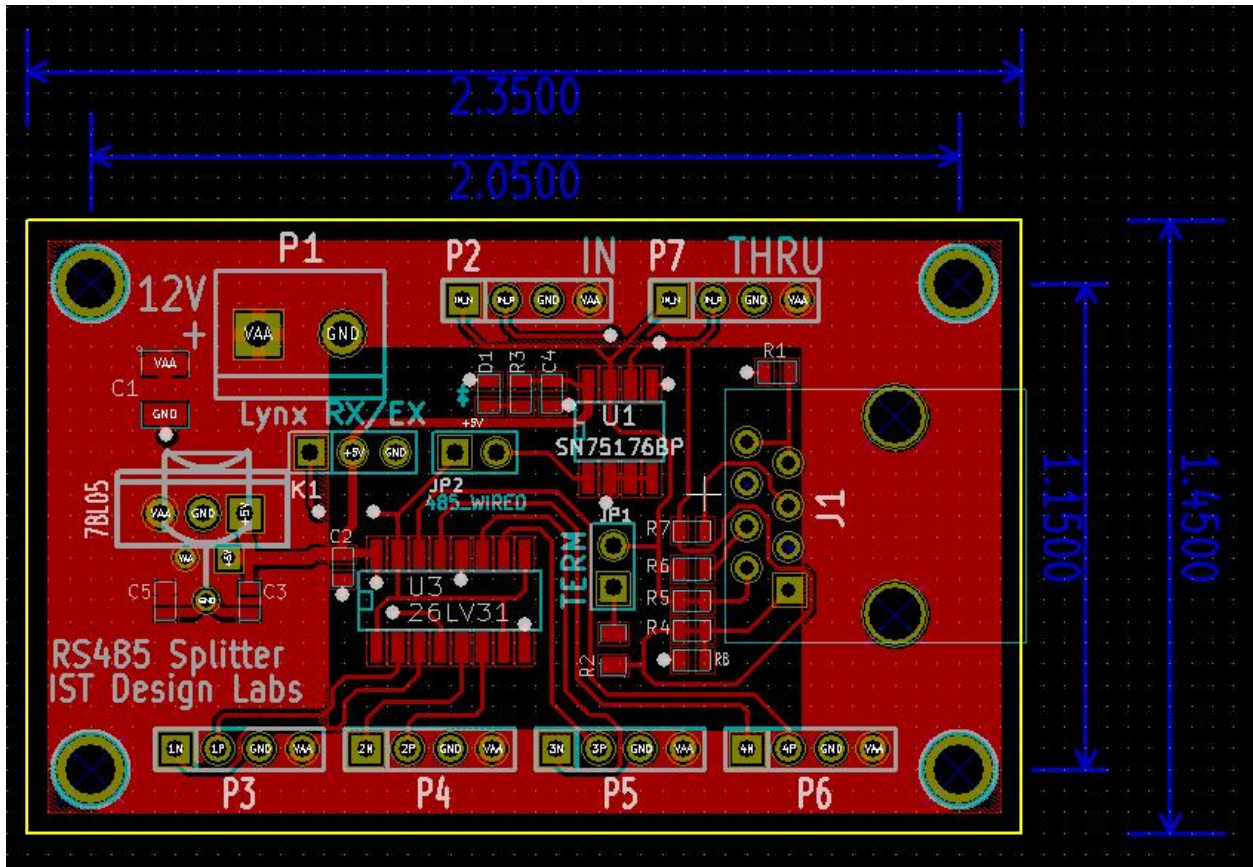RS485 Splitter assembly instructions

10/27/2010

1) If loading board for Renard pinout on the RJ45 (RS485 data on pins 4&5), carefully cut the trace between the two pads of R4 and between the two pads of R5 with an exacto knife or similar. Use an ohm-meter to verify that there is no mode connection between these two pads.
2) Load C1 (10uF)
3) Load C2, C3, C4 (100nF)
4) Load C5 (330nF – you may use a 100nF here instead)
5) Load R2 (120 ohms)
6) If you want a power-on indicator, load R3 (1k) and D1 (LED, polarity as shown)
7) Load U1 (SN75176 or ST485)
8) Load U3 (26LV31)
9) Load U4. Use a 78L05 (TO-92 case, flat side towards board). If you will be adding a Lynx RX/EX receiver to this board, use a 7805 (TO220 case, flat side towards C1) instead.
10) Load two-pin headers at JP1 and JP2
11) Load DC In connector at P1
12) If wiring the board for Renard pinout, load R6 and R7 (0 ohms) and R8 (100 ohms)
13) If wiring the board for DMX pinout on the RJ45, load R1 (100 ohms)

14) If using the RJ45 input connector, load it at J1
15) If using the output connectors, load them at P3-P6, otherwise, hard-wire P3-P6 to your RS485 devices. The pinout matches the one on the color stick.
16) If using the input and through connectors, load them at P2 and P7.
17) If adding a Lynx RX/EX (currently not tested…), wire it to connector K1.
18) If not using a Lynx RX/EX, place a 2-pin jumper on JP2
19) If this will be the last board on the DMX input chain, place a 2-pin jumper on JP1 to terminate the input.