

| REVISIONS | | | |
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| | | DWN/CHK | DATE 07/28/2014 | TIDA-00293 DLP 3D Printer LCD to Translator Cable | | |
| | | SYS ENGR | | | | |
| | 0314CP | MANU | | | | |
| NHA | USED ON | QA | | SIZE A | DRAWING NO 2514182 | REV A |
| APPLICATION | | APVD | | SCALE NONE | SHEET 1 OF 3 | |

TIDA-00293 LCD to Translator Cable Assembly

1. Scope

The purpose of this document is to establish the assembly requirements for the cable between the HD44780 LCD controller and the logic level translator board used in TIDA-00293 DLP 3D Printer reference design.

2. Related Documents

3D Printer Level Translator Schematic

- ../Design Files/3D PRINTER LEVEL TRANSLATOR/3D Printer level translator schematic.pdf
- J3 (page 1)

Pololu – Dimensions (in mm) and pinout for the 20x4 white-on-blue character LCD with backlight

- <http://www.pololu.com/picture/view/0J3039>
- <http://www.pololu.com/product/1219>
- Read “Pinout” section

3. Connections

Connect the following signals described below to connect the LCD Controller to the 3D Printer Logic Level Translator board.

| Connection | LCD Controller | 3D Printer Level Translator Board Connector |
|------------|----------------|---|
| Vss | 1 | J2-1 |
| Vdd | 2 | J2-2 |
| Vo | 3 | J4-8 |
| LCD_RS | 4 | J4-5 |
| LCD_RW | 5 | J4-6 |
| LCD_EN | 6 | J4-7 |
| LCD_BIT3 | 11 | J4-4 |
| LCD_BIT2 | 12 | J4-3 |
| LCD_BIT1 | 13 | J4-2 |
| LCD_BIT0 | 14 | J4-1 |

4. Bill Of Materials

The following table lists the components necessary to construct the LCD Controller to Translator cable.

| Description | Manufacturer | Part Number | Qty |
|--|--------------|----------------|-----|
| 3D Printer Level Translator Board Connector J2 | JST | EHR-2 | 1 |
| 3D Printer Level Translator Board Crimps J2 | JST | SEH-001T-P0.6L | 2 |
| 3D Printer Level Translator Board Connector J4 | JST | EHR-8 | 1 |
| 3D Printer Level Translator Board Crimps J4 | JST | SEH-001T-P0.6L | 8 |
| LCD Controller Pins 1-6 | JST | EHR-6 | 1 |
| LCD Controller Pins 1-6 | JST | SEH-001T-P0.6L | 6 |
| LCD Controller Pins 11-14 | JST | EHR-4 | 1 |
| LCD Controller Pins 11-14 | JST | SEH-001T-P0.6L | 4 |

TIDA-00293 LCD to Translator Cable Assembly

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