

3.5-IN LCD

BOARD CONNECTOR

IO DRIVER

PUSHBUTTONS

TESTPOINTS

Display Board
Rev 2.0
David Sipos / DvidMakesThings

Display-Board_Rack-PDU_2.0
22/02/2025 22:20
Sheet: 1/1

The schematic diagram illustrates the electrical connections for a Display Board. It includes a 3.5-inch LCD module connected to a board connector, which is then linked to an IO driver (MCP23017) and four pushbuttons. Testpoints are provided for various signals and power rails. The board is powered by +3V3 and +5V rails, with decoupling capacitors (C15, C16, C1, C2) and a pull-up resistor (R4) for the LCD backlight. The IO driver is configured with I2C and GPIO pins, and the pushbuttons are connected to the driver's outputs. The board is labeled with a title block indicating it is Rev 2.0, designed by David Sipos / DvidMakesThings, and is part of the Display-Board_Rack-PDU_2.0 project, dated 22/02/2025 22:20, sheet 1/1.

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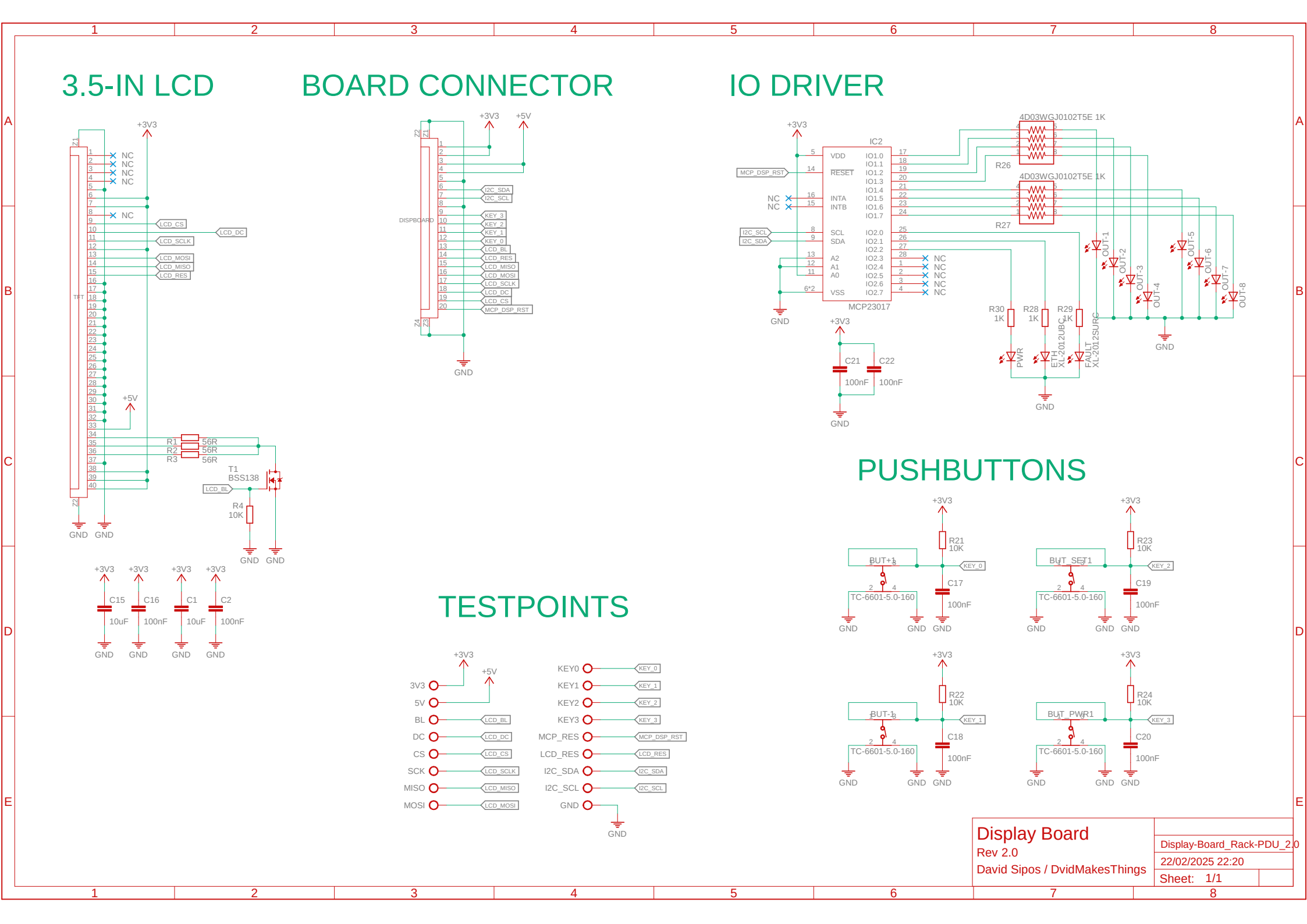
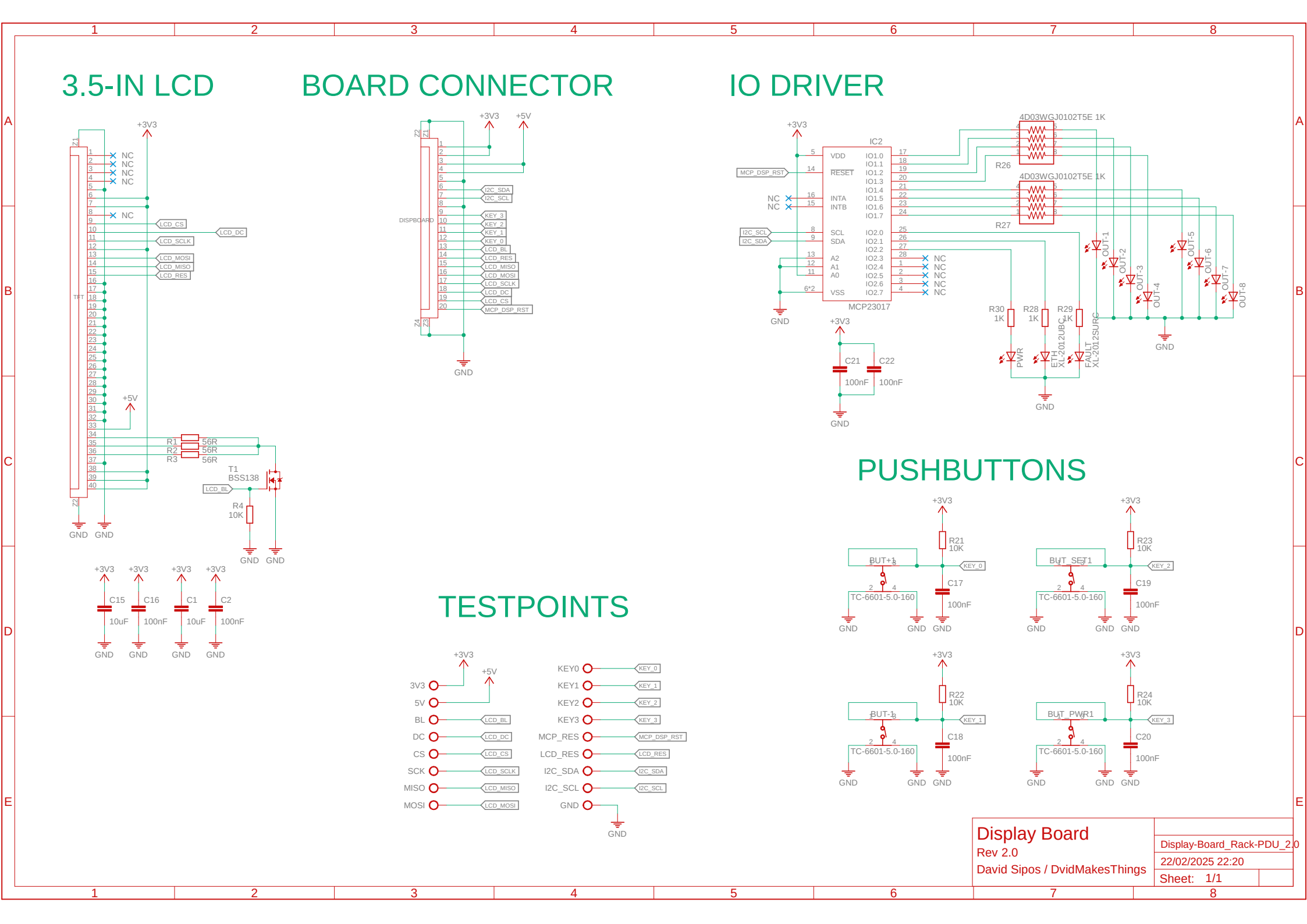
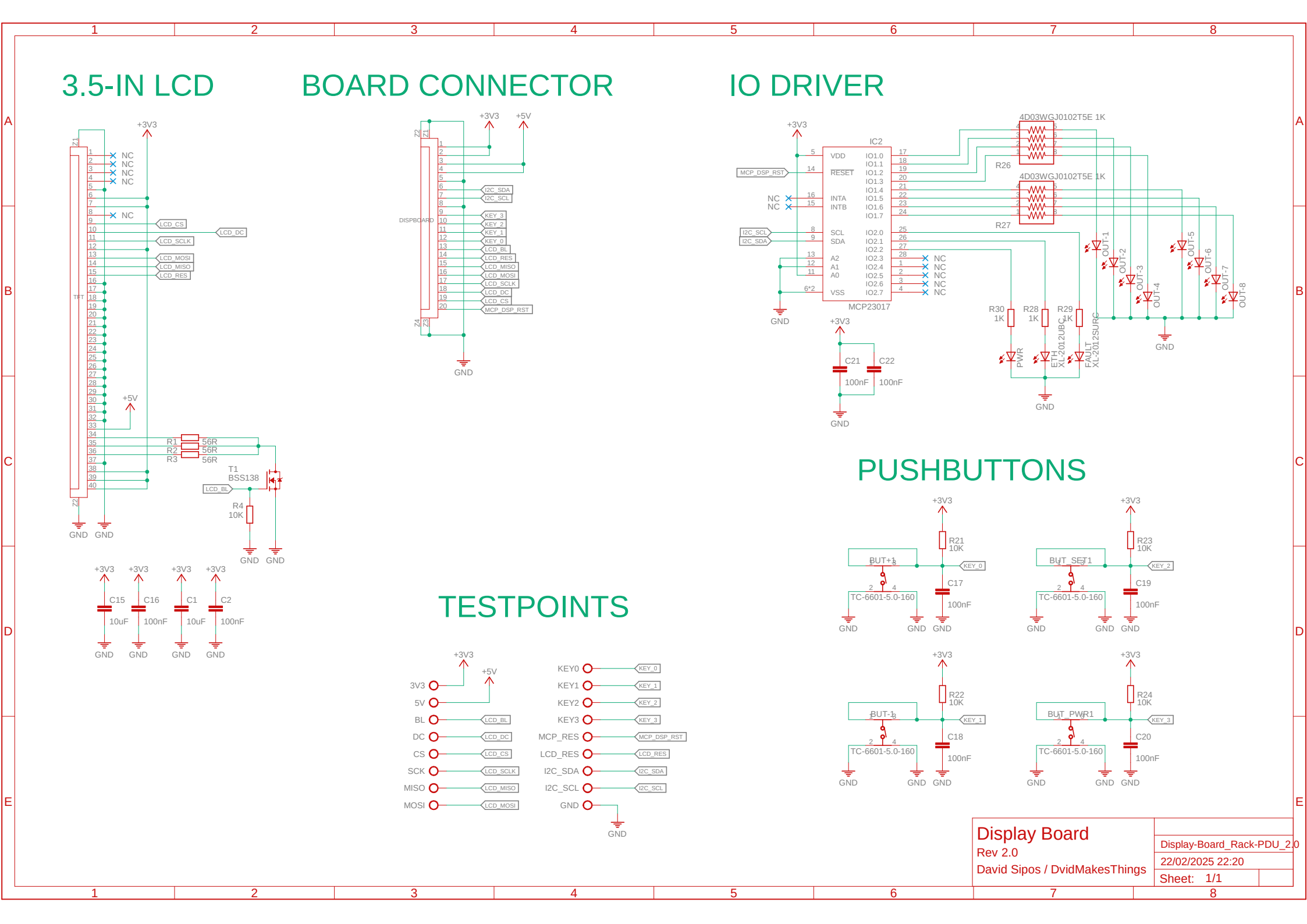
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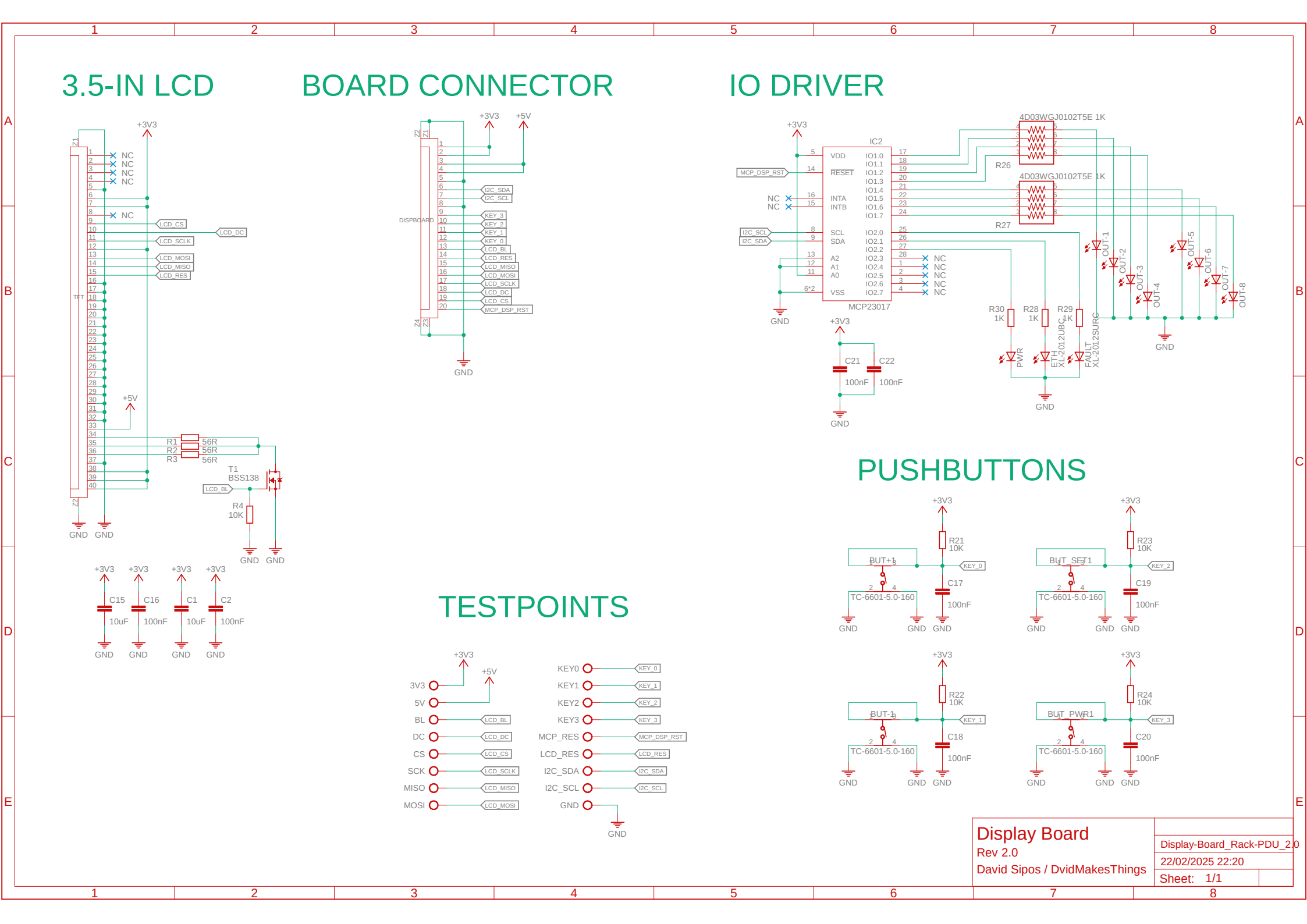
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The schematic diagram illustrates the electrical connections for a Display Board, organized into five main functional blocks: 3.5-IN LCD, BOARD CONNECTOR, IO DRIVER, PUSHBUTTONS, and TESTPOINTS. The board is populated with an MCP23017 I/O expander (IC2) and an MCP_DSP_RST reset button. The 3.5-IN LCD section shows the connection of the TFT display's pins to the board connector, including power (+3V3, +5V), ground (GND), and data/control signals (NC, LCD_CS, LCD_SCLK, LCD_DC, LCD_MOSI, LCD_MISO, LCD_RES, LCD_SDA, LCD_SCL). The BOARD CONNECTOR section details the connections for the display's pins, including power, ground, and data/control signals. The IO DRIVER section shows the connection of the MCP23017's I/O pins to the display's pins, including power, ground, and data/control signals. The PUSHBUTTONS section shows the connection of four pushbuttons (BUT+1, BUT-1, BUT_SEJ1, BUT_PWR1) to the MCP23017's I/O pins, including power, ground, and data/control signals. The TESTPOINTS section shows the connection of testpoints for power, ground, and data/control signals.



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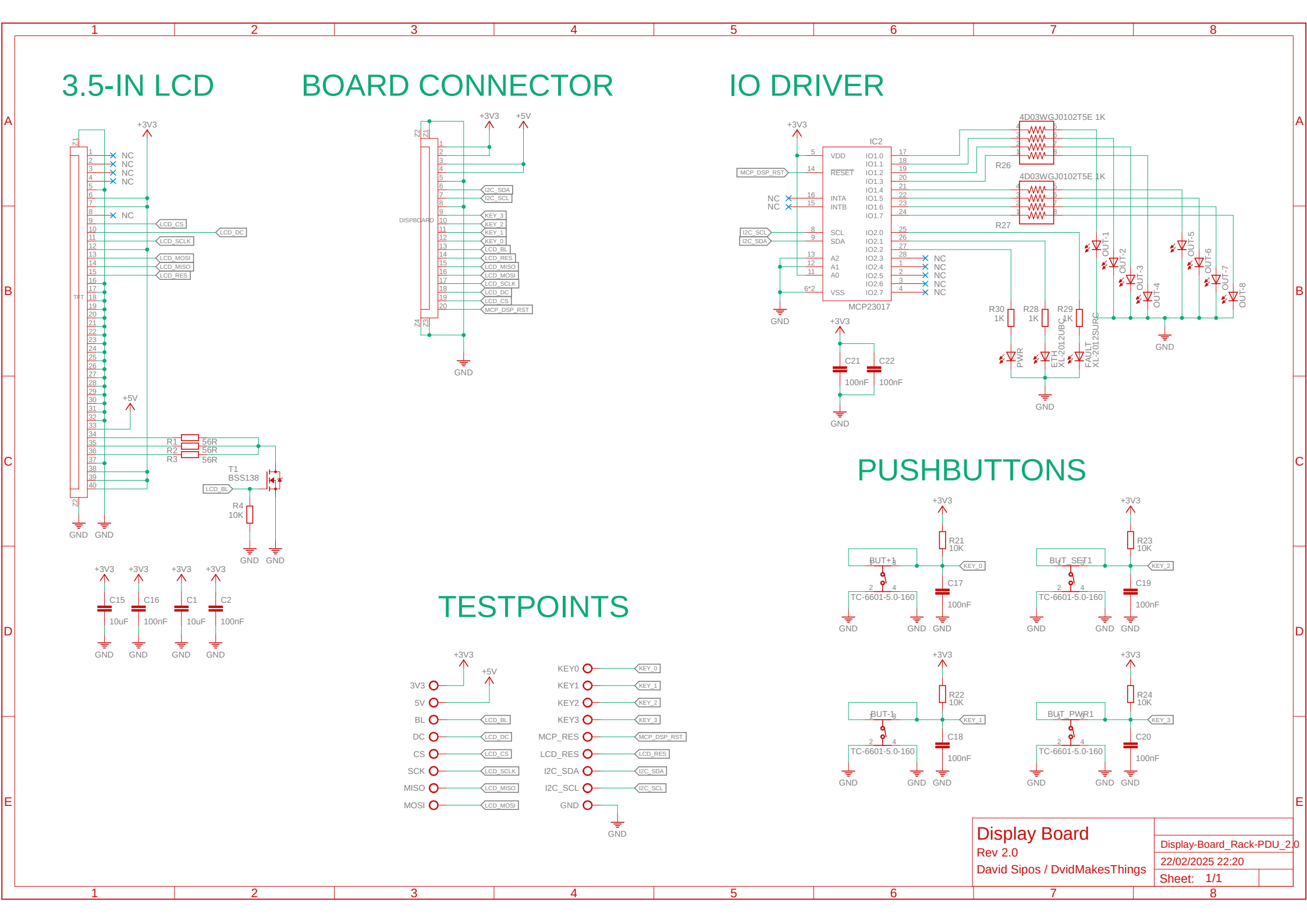
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