

The diagram illustrates the electrical connections for an LCD module. It is divided into two primary parts: the TFTLCD interface and the TFT_LCD2 control logic.

- TFTLCD Interface:** This section maps the LCD's pins to the system's power and signal rails.
 - Power/Ground:** VDD connects to IOVCC, while GND and FMARK connect to common ground points.
 - Control Signals:** RST, CS, RS, WR, and RD are connected to specific microcontroller pins.
 - Data Bus:** DB0 through DB15 are connected to the microcontroller's data bus pins.
 - Backlight Control:** LEDK1 through LEDK6 are connected to the microcontroller's output pins, and LEDA is connected to the backlight driver circuit.
 - Other Pins:** X+, Y+, X-, and Y- are connected to the microcontroller's input/output pins.
- TFT_LCD2 Control Logic:** This section details the internal control signals for the LCD.
 - Signal Connections:** CS, RS, WR, RD, RST, DB0-DB15, BL_CTR, VDD3.3, GND, BL_VDD, T_MISO, T_PEN, T_CS, MISO, MOSI, MO, and CLK are all mapped to their respective microcontroller pins.
 - Backlight Circuitry:** A detailed schematic shows the backlight LEDs connected to a transistor driver (Q1, S8050). The base of the transistor is driven by the BL_CTR signal through a network of resistors (R1, R2, R7, R9, R10) and a potentiometer (R11) used for adjusting the backlight voltage (TVDD).

