

The schematic diagram for board 02 shows four 74LS157 decoders and one 74LS245 transceiver. The decoders are connected to registers r00-r07 and r04-r07. The transceiver is connected to registers r00-r03 and r04-r07. The diagram shows the internal connections and pin numbers for each component.

**74LS157 Decoder 1 (Top Left):** Inputs: r00 (2), r01 (5), r02 (6), r03 (9), r04 (12), r05 (15), r06 (16), r07 (19). Outputs: a0 (4), a1 (7), a2 (9), a3 (12). Control: OE (11) to GND, S (1) to GND.

**74LS157 Decoder 2 (Top Right):** Inputs: r00 (2), r01 (5), r02 (6), r03 (9), r04 (12), r05 (15), r06 (16), r07 (19). Outputs: a0 (4), a1 (7), a2 (9), a3 (12). Control: OE (11) to GND, S (1) to GND.

**74LS157 Decoder 3 (Bottom Left):** Inputs: r04 (2), r05 (5), r06 (6), r07 (9), r08 (12), r09 (15), r10 (16), r11 (19). Outputs: a4 (4), a5 (7), a6 (9), a7 (12). Control: OE (11) to GND, S (1) to GND.

**74LS157 Decoder 4 (Bottom Right):** Inputs: r04 (2), r05 (5), r06 (6), r07 (9), r08 (12), r09 (15), r10 (16), r11 (19). Outputs: a4 (4), a5 (7), a6 (9), a7 (12). Control: OE (11) to GND, S (1) to GND.

**74LS245 Transceiver:** Inputs: r00 (2), r01 (5), r02 (6), r03 (9), r04 (12), r05 (15), r06 (16), r07 (19). Outputs: b0 (18), b1 (17), b2 (16), b3 (15), b4 (14), b5 (13), b6 (12), b7 (11). Control: OE (11) to GND, S (1) to GND.

board 12

clk

74LS08

ctrlReg0WE

74LS08

ctrlReg1WE

[illegible]