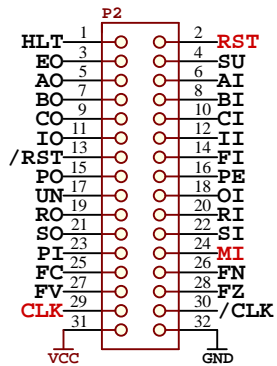
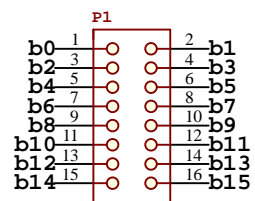


Control BUS Connector

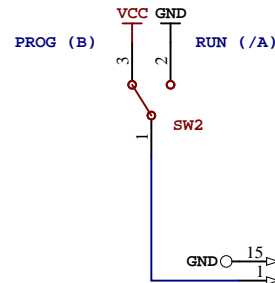


Data BUS Connector

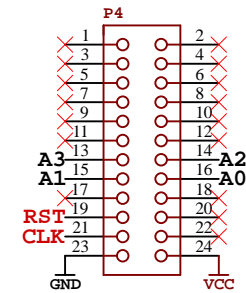


A Pin 15 to GND of 74LS157 to enable input

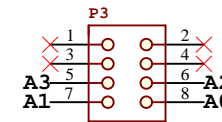
Programming Mode Switch



Output Connector

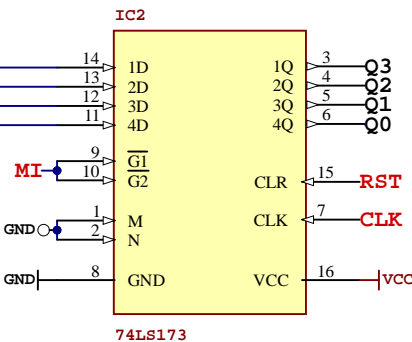
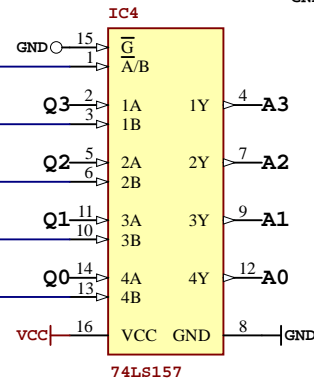
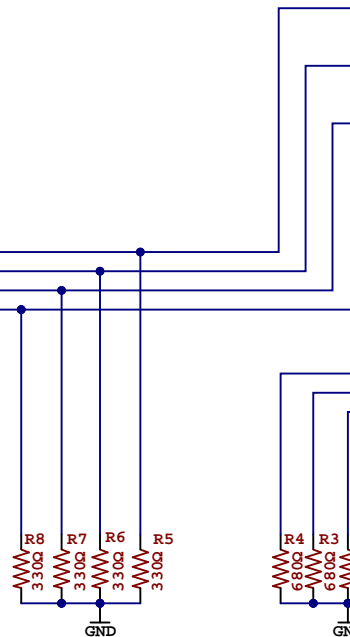
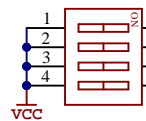


Address OUTPUT Connector

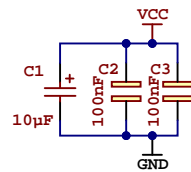


A 4 bits MAR version uses only less significative 4 bits of the data exposed on the data BUS.

SW1



A Pull-down resistors on inputs are optional due data bus pull-down resistors were placed on the BUS module.
If you try to place pull-down resistors also here try to use a value for R1 to R4 according the parallel resistors formula.
 $1/RT = 1/R1 + 1/R2 + \dots + 1/RN$ to get a final value between 100 and 200Ω



Decoupling Capacitors

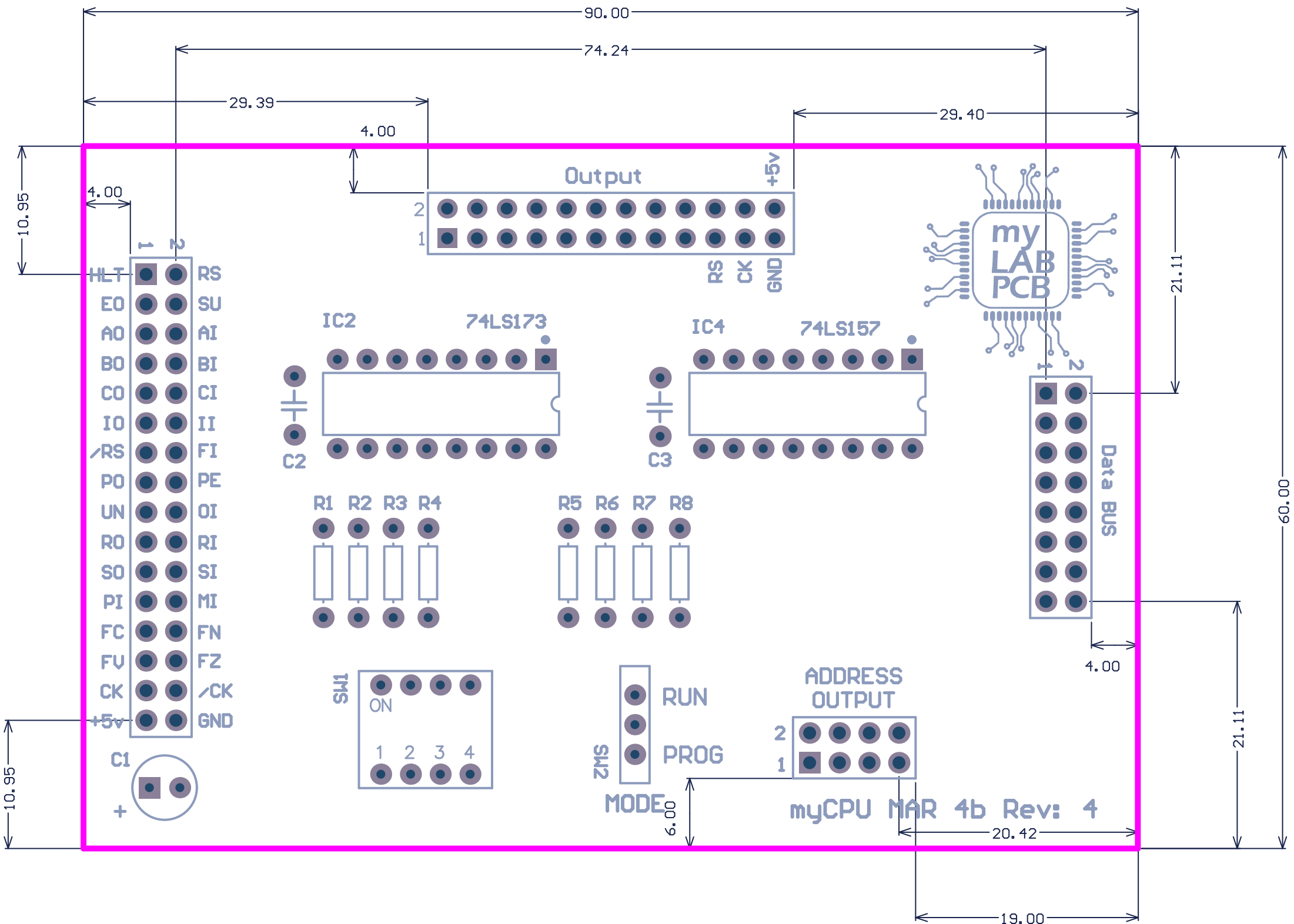


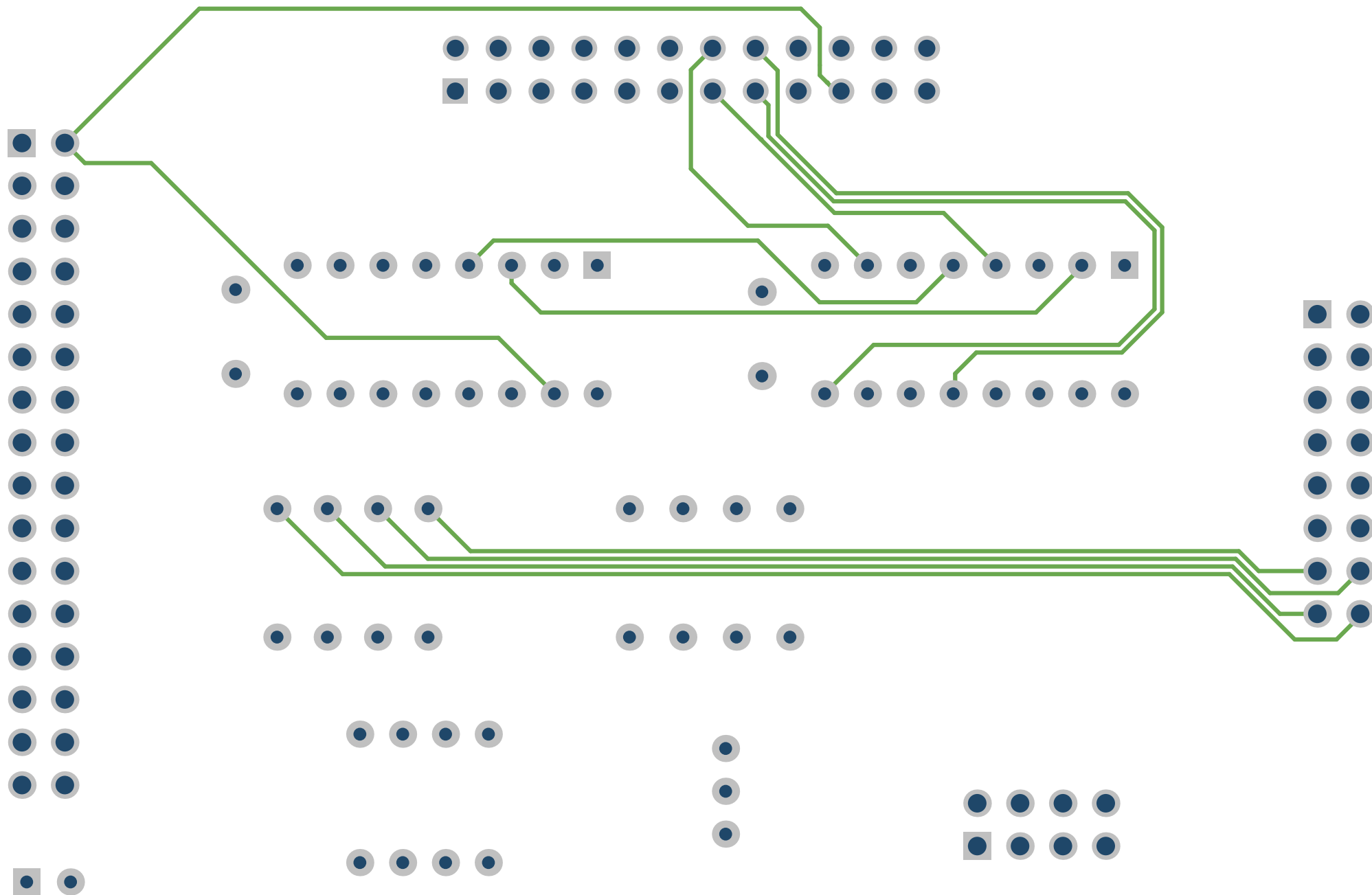
Project: myCPU MAR Module 4 bits

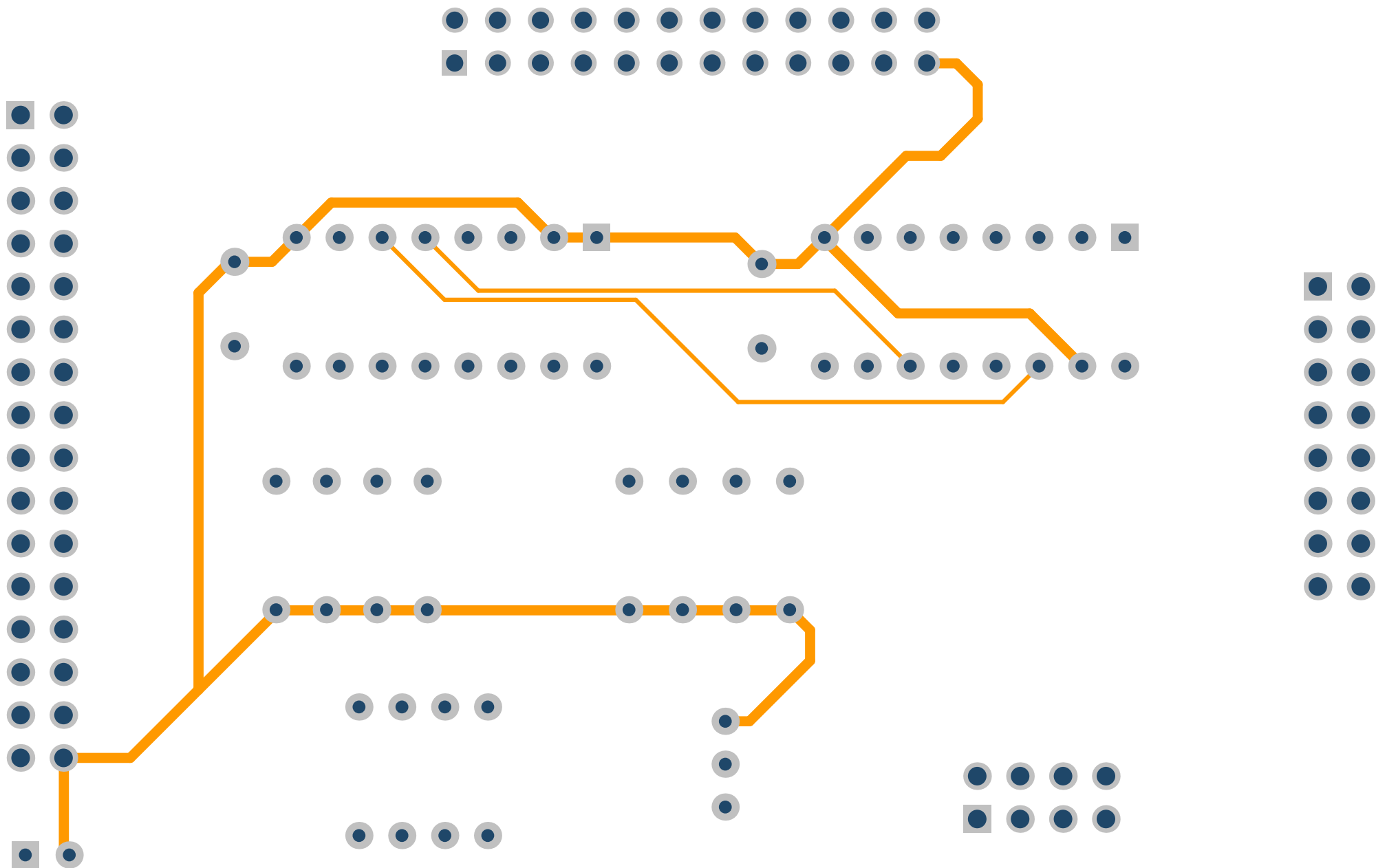
Revision: 4

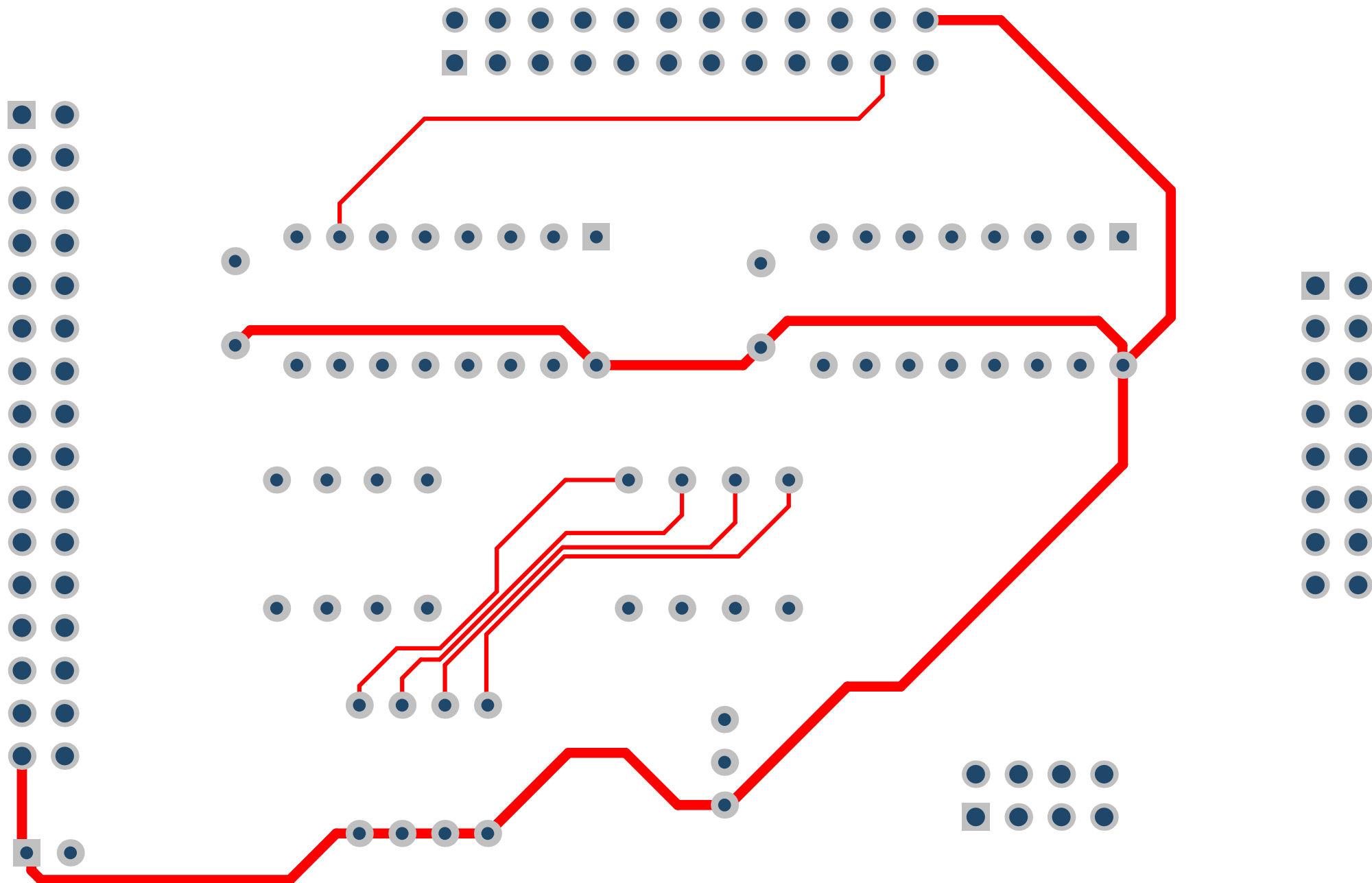
Date: 03-Jun-23

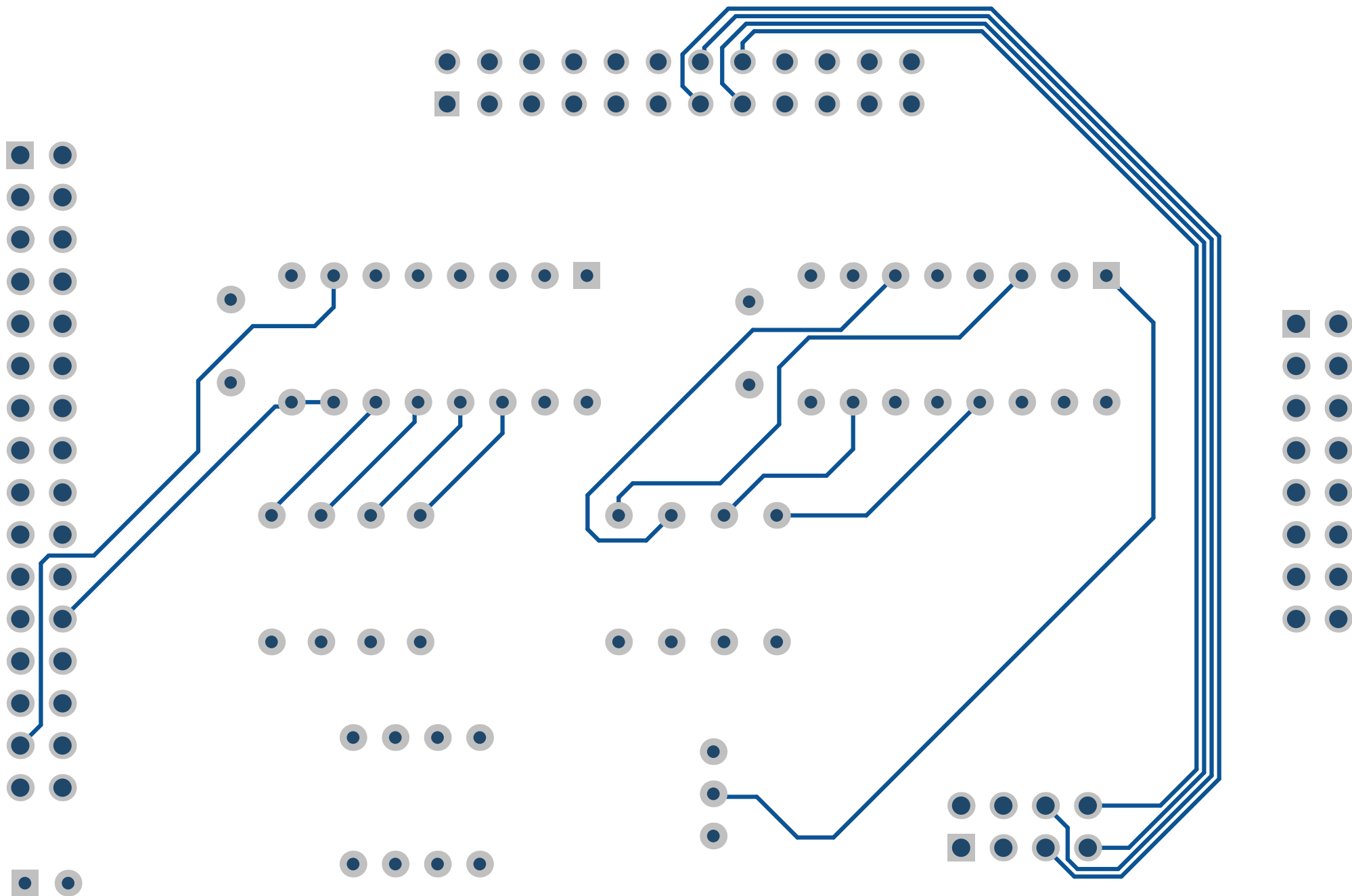
Author: Rafa Hernández













Bill of Materials

Designator	Description	Value	Q
C1	Electrolytic capacitor 16v/50v	10μF	1
C2, C3	Ceramic or tantalum capacitor	100nF	2
IC2	4-bit D-Type Register with 3 state outputs	74LS173	1
IC4	4-Bits 2-Line to 1 Line data selector	74LS157	1
P1	Pin Header, THT, pitch 2.54mm, Dual Row, Vertical, 16p	16p	1
P2	Pin Header, THT, pitch 2.54mm, Dual Row, Vertical, 32p	32p	1
P3	Pin Header, THT, pitch 2.54mm, Dual Row, Vertical, 8p	8p	1
P4	Socket Header, THT, pitch 2.54mm, Dual Row, Vertical,	24p	1
R1, R2, R3, R4	Resistor Axial	680Ω	4
R5, R6, R7, R8	Resistor Axial	330Ω	4
SW1	DIP switch 4 positions	4 pos	1
SW2	Mini slide switch 2 pos, 3 pins		1



Assembly List

Designator	Description	Value
C1	Electrolytic capacitor 16v/50v	10 μ F
C2	Ceramic or tantalum capacitor	100nF
C3	Ceramic or tantalum capacitor	100nF
IC2	4-bit D-Type Register with 3 state outputs	74LS173
IC4	4-Bits 2-Line to 1 Line data selector	74LS157
P1	Pin Header, THT, pitch 2.54mm, Dual Row, Vertical, 16p	16p
P2	Pin Header, THT, pitch 2.54mm, Dual Row, Vertical, 32p	32p
P3	Pin Header, THT, pitch 2.54mm, Dual Row, Vertical, 8p	8p
P4	Socket Header, THT, pitch 2.54mm, Dual Row, Vertical, 24p	24p
R1	Resistor Axial	680 Ω
R2	Resistor Axial	680 Ω
R3	Resistor Axial	680 Ω
R4	Resistor Axial	680 Ω
R5	Resistor Axial	330 Ω
R6	Resistor Axial	330 Ω
R7	Resistor Axial	330 Ω
R8	Resistor Axial	330 Ω
SW1	DIP switch 4 positions	4 pos
SW2	Mini slide switch 2 pos, 3 pins	