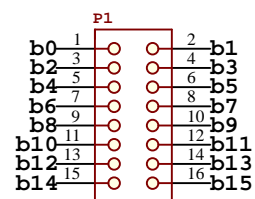
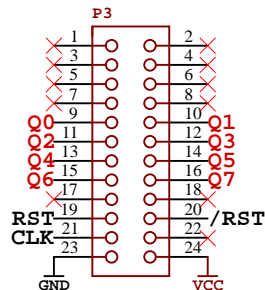
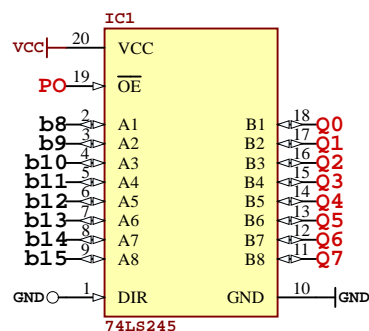


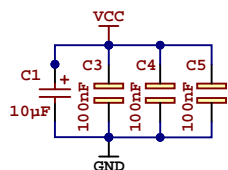
Pinout diagram for the P2 port of the 68000 microprocessor. The diagram shows a 32-bit bus with pins 1 through 32. Pins 1-15 are on the left, and pins 16-32 are on the right. Signals are labeled on both sides: HLT, EO, AO, BO, CO, IO, RST, SU, AI, BI, CI, II, FI, PE, OI, RI, SI, MI, FN, FZ, and CLK. Power pins VCC and GND are also indicated.



△ Counts operation goes from QA to QD, A is less significative bit.



Pin DIR to GND means data flow from B >> A when a low PO signal comes.

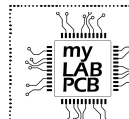


The diagram shows two 74LS161 counters, IC3 and IC2, connected in a cascaded fashion. IC3 (top) has its Q0-Q3 outputs connected to b8-b11. Its TC output (pin 15) is connected to the PE input (pin 7) of IC2. IC2 (bottom) has its Q4-Q7 outputs connected to b12-b15. Its TC output (pin 15) is connected to the PE input (pin 7) of IC3. Both counters have their CLK inputs connected to a common CLK signal (pin 2). The PE inputs of both counters are also connected to a common PE signal (pin 9). The CLR inputs of both counters are connected to a common /RST signal (pin 1). The VCC and GND pins of both counters are connected to a common power supply (pins 16 and 8).

△ Cascade goes from IC2 to IC3 through pin TC (Terminal Count Output) to pin CET/CEP (10) forcing a count step.

PI is the control signal to load the current value on the DataBUS to the counters.

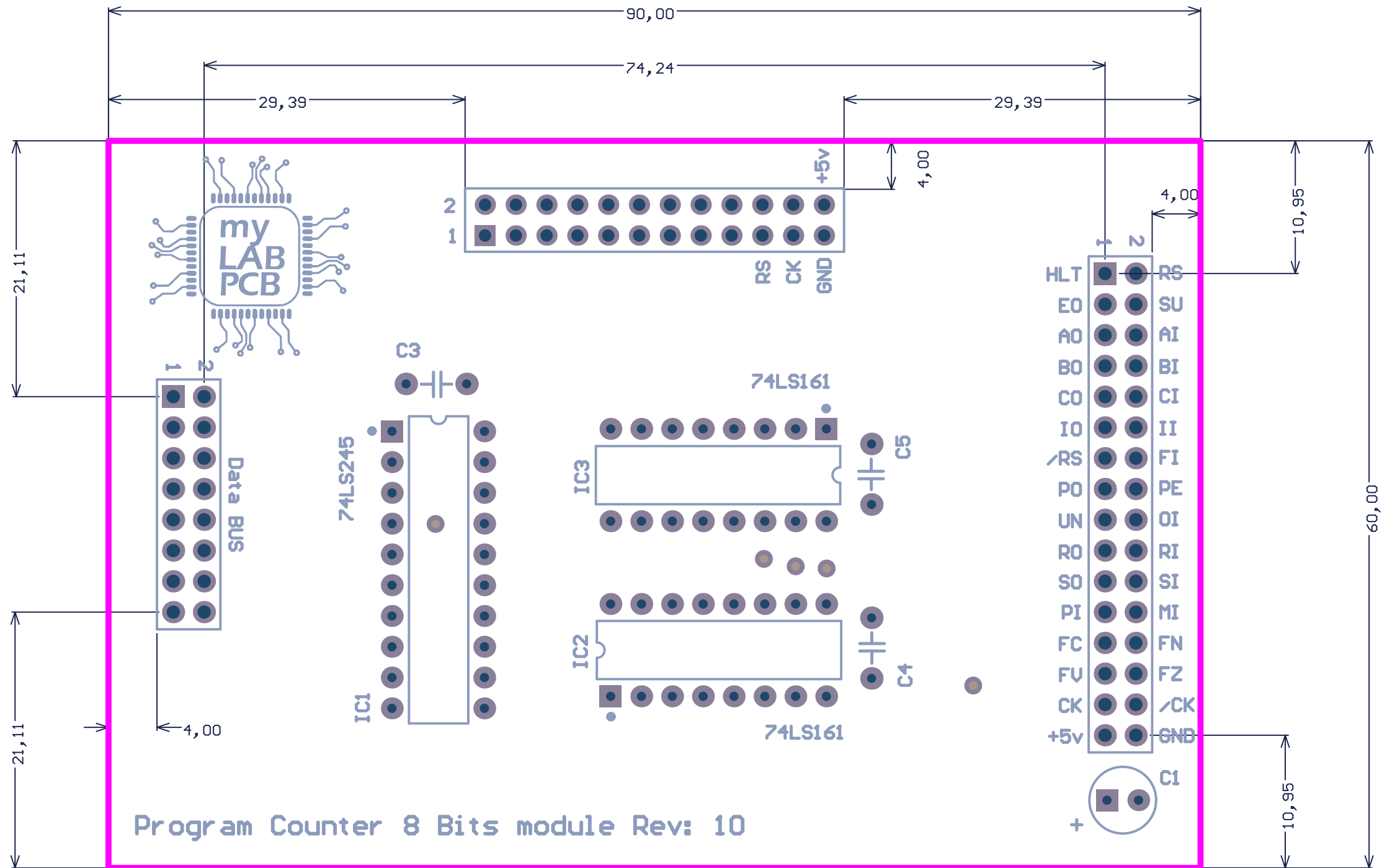
****PE signal is not related to /PE pin**

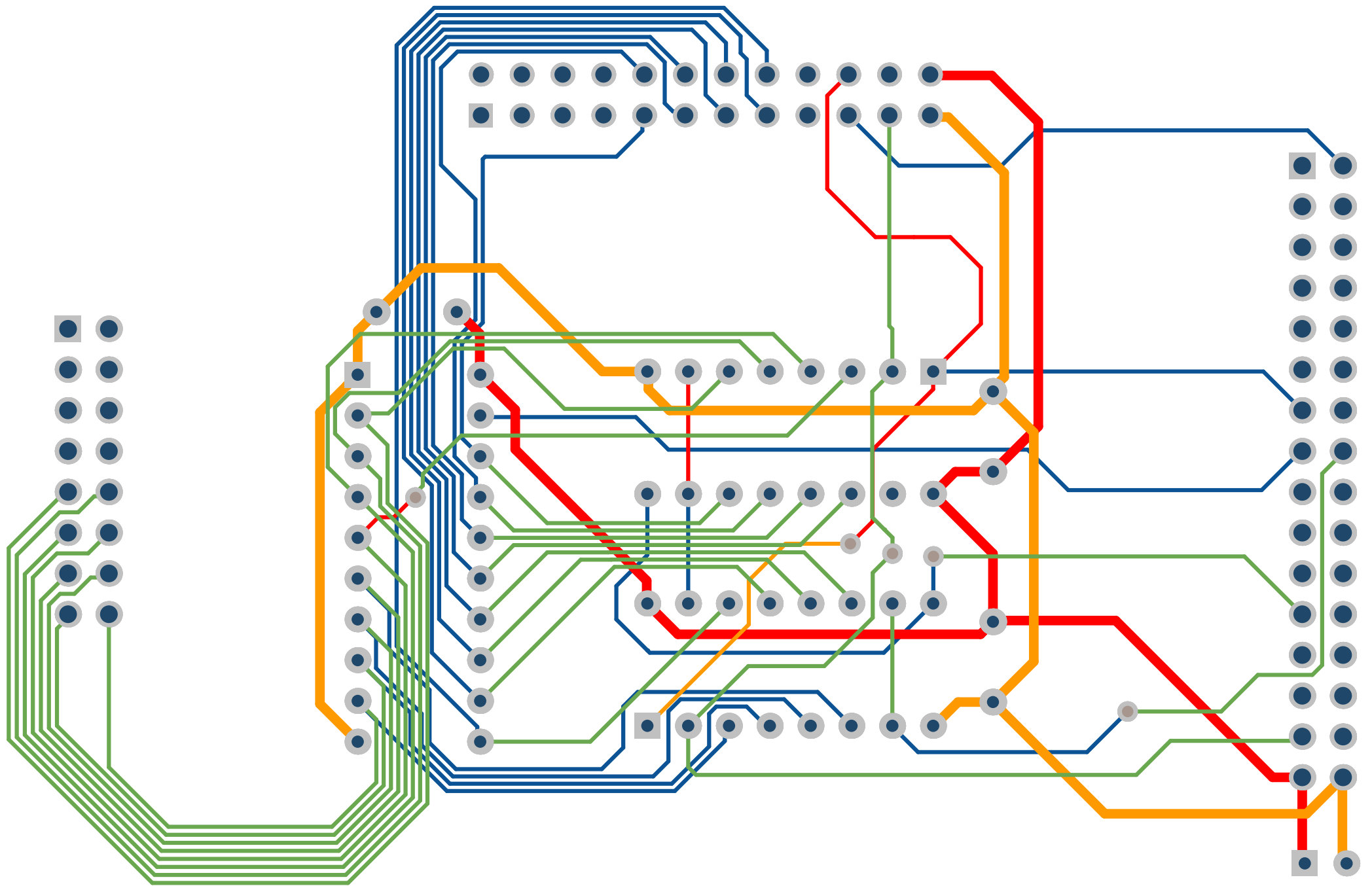


Revision: 10

Date: 07/10/2021

Author: Rafa Hernández







Bill of Materials

Designator	Description	Value	Q
C1	Electrolytic capacitor 16v/50v	10 μ F	1
C3, C4, C5	Ceramic or tantalum capacitor	100nF	3
IC1	Non inverting bus transceiver	74LS245	1
IC2, IC3	4-Bit sync counter	74LS161	2
P1	Pin Header, THT, pitch 2.54mm, Dual Row, Vertical	16p	1
P2	Pin Header, THT, pitch 2.54mm, Dual Row, Vertical	32p	1
P3	Socket Header, THT, pitch 2.54mm, Dual Row, Vertical	24p	1



Assembly List

Desig.	Description	Value
C1	Electrolytic capacitor 16v/50v	10 μ F
C3	Ceramic or tantalum capacitor	100nF
C4	Ceramic or tantalum capacitor	100nF
C5	Ceramic or tantalum capacitor	100nF
IC1	Non inverting bus transceiver	74LS245
IC2	4-Bit sync counter	74LS161
IC3	4-Bit sync counter	74LS161
P1	Pin Header, THT, pitch 2.54mm, Dual Row, Vertical	16p
P2	Pin Header, THT, pitch 2.54mm, Dual Row, Vertical	32p
P3	Socket Header, THT, pitch 2.54mm, Dual Row, Vertical	24p