
How to Modify the PICDEM LIN for the MCP201

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SCOPE

This document describes how to modify the PICDEM LIN for use with a MCP201. The PICDEM LIN is equipped with an engineering version of the Microchip LIN bus transceiver. The transceiver can be replaced by the MCP201 LIN bus transceiver.

MASTER BOARD MODIFICATIONS

The following modifications are required to use a MCP201.

- Remove the existing LIN bus transceiver from the Master, Prototype, and RKE Nodes on Panel 1. Place MCP201 for the Master Node on U5 (see Figure 1), the Prototype Node on U11 (see Figure 2), the RKE Node on U14 (see Figure 3), and the Seat Memory Node on U9 (see Figure 4).
- Solder the MCP201 onto all desired nodes.

Note: Since Pin 3 (VDD) is a regulated output on the MCP201, be sure it is electrically isolated from the PCB.

- Change the firmware so that the MCP201 recognizes one falling and one rising edge after power-up on RESET on CS/Wake pin (see Example 1).
- Ensure that Pin 8 of MCP201 is connected via a 100 K Ω resistor to VDD. For further options, please refer to the MCP201 Data Sheet (DS21730).

EXAMPLE 1: CS CONNECTED TO RC0

```
bsf    PORTC,0    ;
bsf    STATUS,RP0 ;select Bank1
bcf    TRISC,0    ;make RC0 an output
bcf    STATUS,RP0 ;select Bank0
bcf    PORTC,0    ;enable MCP201 by
bsf    PORTC,0    ;toggling CS/Wake pin
```

FIGURE 1: LIN BUS MASTER NODE

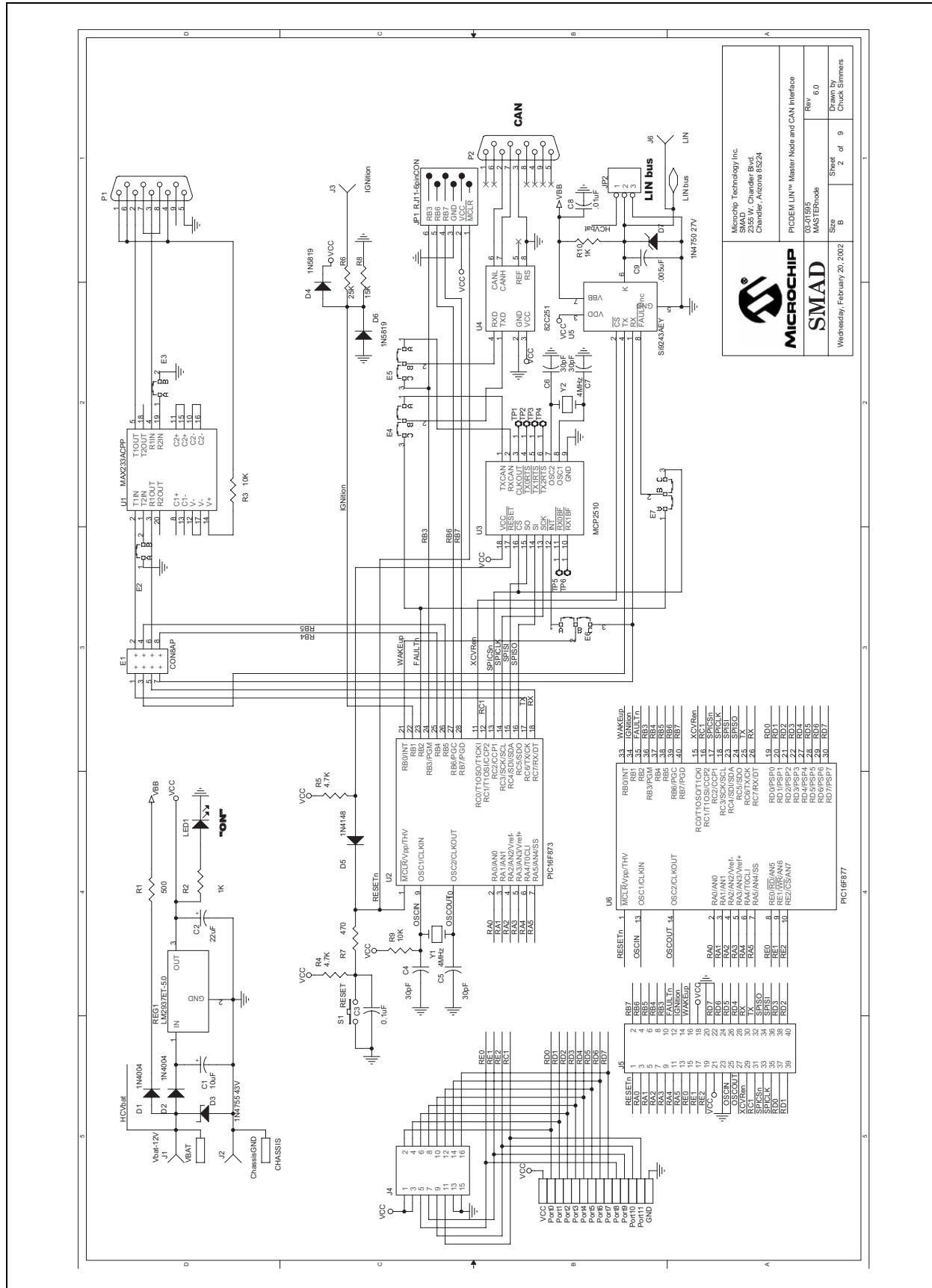


FIGURE 2: PROTOTYPE NODE

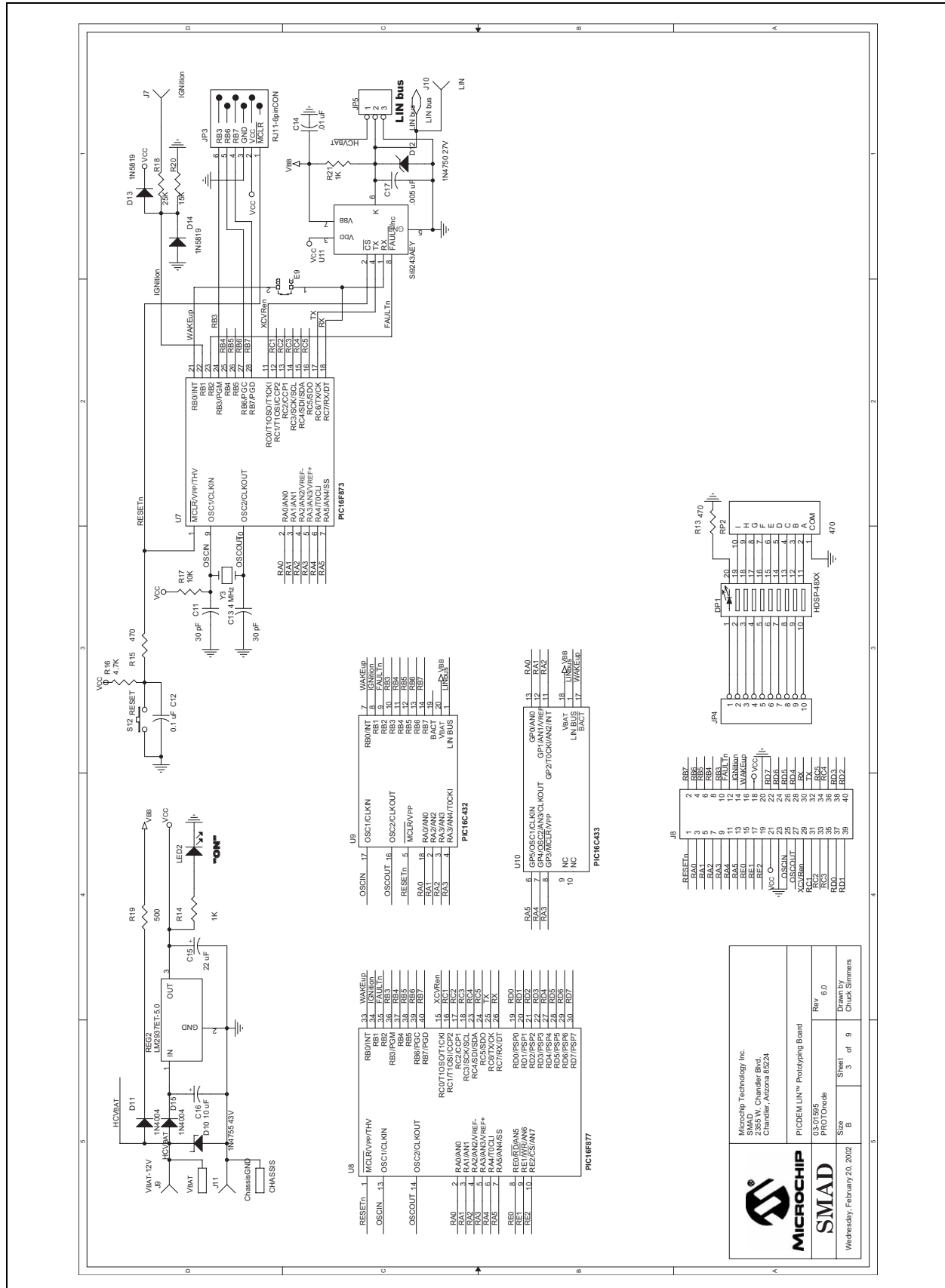
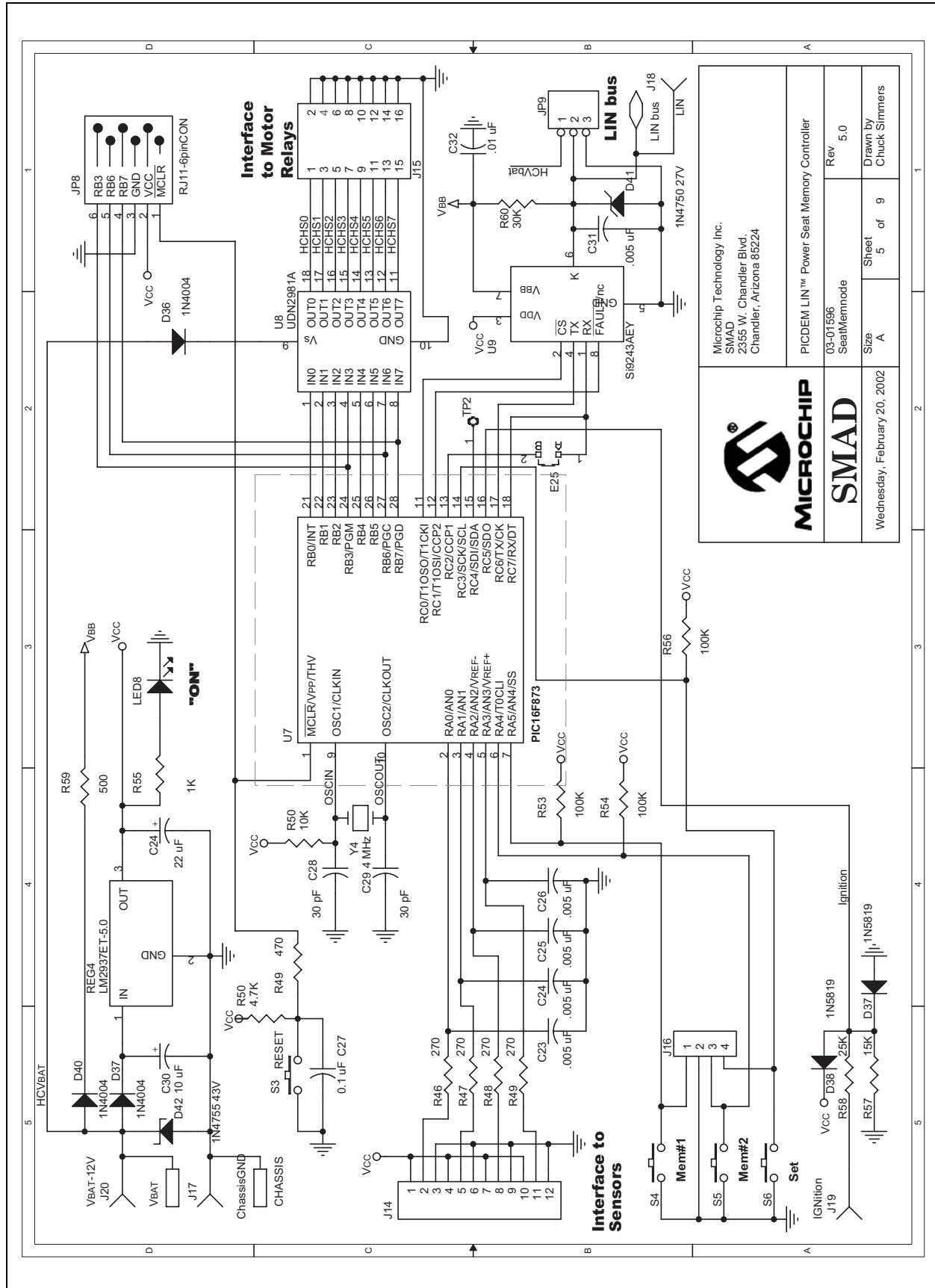




FIGURE 4: SEAT MEMORY NODE



TB068

NOTES:

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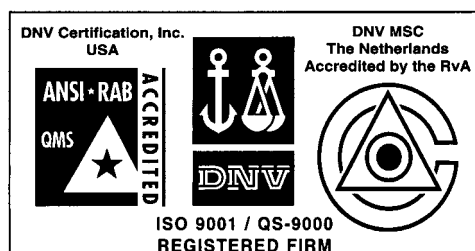
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