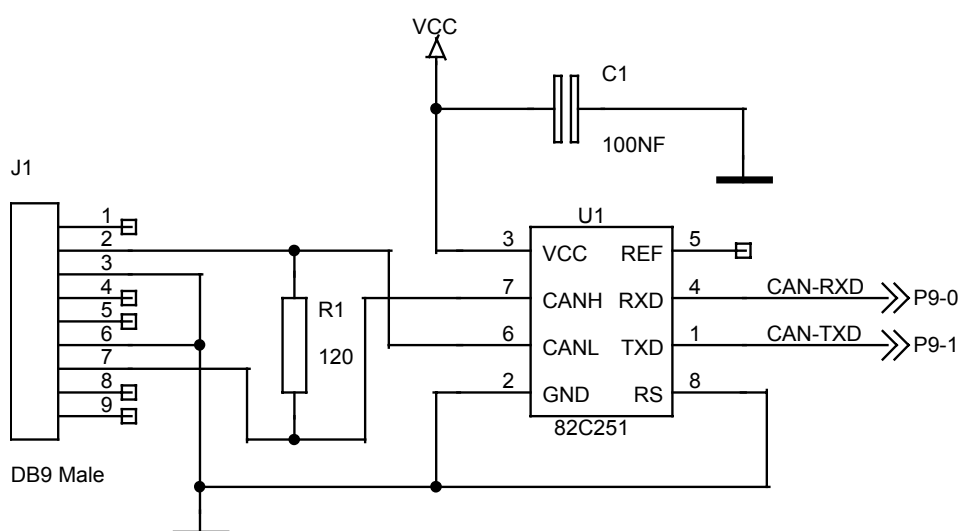


Application Note GTAP01

Adding a second CAN bus interface to the XC164CS Prototype Board

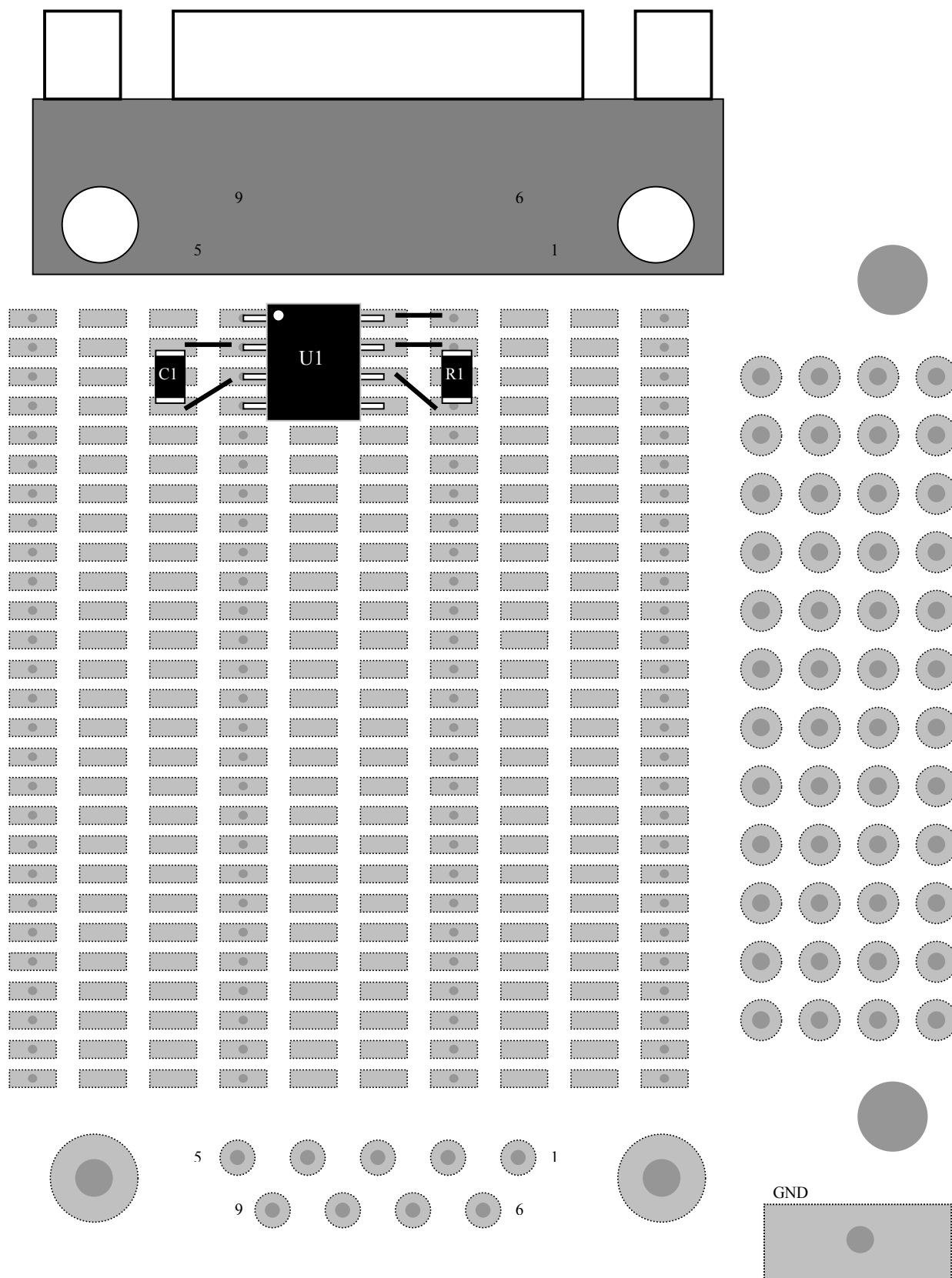
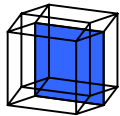
The XC164CS has a TwinCAN module that contains two Full-CAN nodes operating independently or exchanging data and remote frames via a gateway function. Transmission and reception of CAN frames is handled in accordance to CAN specification V2.0 part B (active). Each of the two Full-CAN nodes can receive and transmit standard frames with 11-bit identifiers as well as extended frames with 29-bit identifiers.

The Prototype Board already has one CAN interface. The second interface can be added by mounting a few components and wires on the prototype area. The schematics and layout below show how this can be done. The CAN interface is connected to port-9 of the microcontroller just like the first CAN interface. But the XC164CS offers alternative connections, which of course you can choose too. For further details please refer to the XC164CS User's Manual from Infineon.

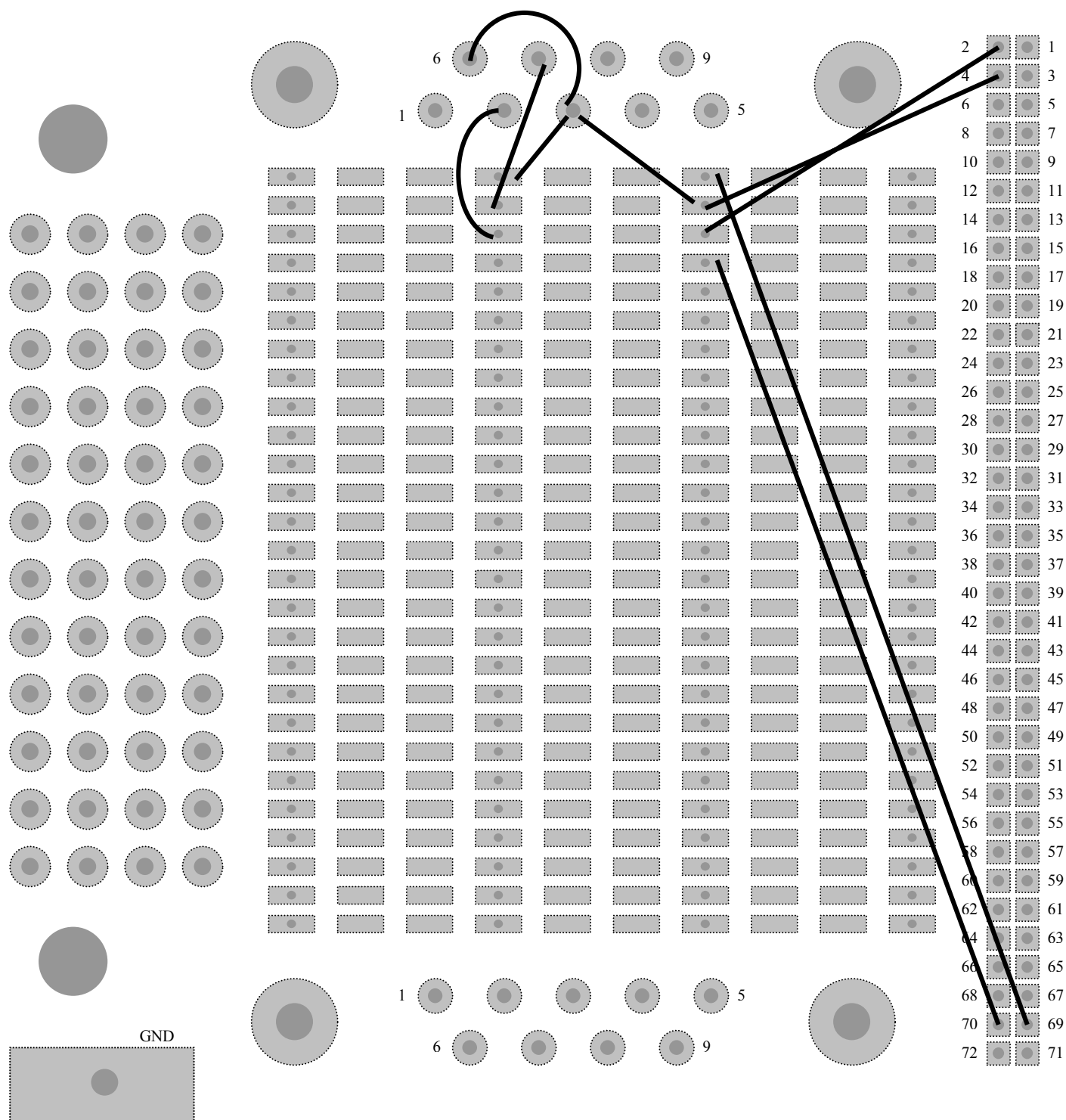
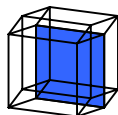


J1	SDEX9PNTD	McMurdo
U1	PCA82C251T	Philips Semiconductors
C1	100 nF ceramic	Case 0805
R1	120 Ω	Case 0805

Standard components are used. Although several manufacturers offer compatible parts the parts in the table above are recommended. When the terminating resistor is not needed simply leave R1 out. AWG 30 solid core wires are suggested for the connections such as wire wrapping wire. A solder iron with a fine tip and some desoldering braid will be handy. First mount the components and then the wires.



Components are mounted on the top side of the experimental area.



Most connections are made on the bottom side of the experimental area.