How CAN works in the U2C DC/DC Converter

Here is the way that CAN works for the U2C:

Pins 1-4 (CAN LOW) are connected internally inside the U2C.

Pins 2-5 (CAN HI) are also connected internally inside the U2C.

Pin 6 (CAN Term 1) and Pin 7 (CAN Term 2) are each connected to a 60Ω resistor and then to ground thru the same 1µF capacitor. All of that is inside the U2C.

This design allows the U2C great versatility.

If there are more "boxes" downstream in the car that need CAN lines, then our second pair of CAN lines would be continued to that box. For instance, if the incoming CAN lines in the vehicle harness were connected to Pins 1 and 2, then the outgoing lines that continue to the next box would be 4 and 5.

If, however, there are no more "boxes" to be connected to the CAN stream, then the second pair of our CAN pins would be connected to Pin 6 (CAN Termination 1) and Pin 7 (CAN Termination 2). For instance, to expand on the first example, if your incoming CAN lines in the vehicle harness were connected to Pins 1 and 2, then Pins 4 and 5 would be connected to Pins 6 and 7.

If you decide you need to connect Pins 4 and 5 to Pins 6 and 7, it won't matter which way you hook them up. As I described above, Pins 6 and 7 are both the same inside the U2C.

To verify that you have made this connection correctly, use a DMM to measure across Pin 6 and 7. You should read 60Ω's. Why? Because the two 60Ω resistors in our box are in parallel with two other 60Ω resistors in the CAN transmitter (it's an impedance match).

The Transceiver that is used on our U2C board is an Infineon part. The part number is TLE 6250G - V33. It's a very robust, high speed device that has worked extremely well in the U2C.