



1950 5<sup>th</sup> Street, Davis CA 95616, USA.

Tel: 530-758-0180 Fax: 530-758-0181

Email: sales@tern.com

<http://www.tern.com>

## CAN Echo 29-Bit Sample Program

This sample demonstrates using 29-bit identifiers with CANBus. The sample requires two modules that are equipped with a CAN transceiver. One module runs the echo\_can\_29bit sample program and the other runs the tx\_can\_29bit sample program. The sample programs can be found in “tern\186\samples\cane”.

### *echo\_can\_29bit:*

This program echoes all incoming packets with a 29-bit identifier. It increments each byte in the data field by 1. It then returns the modified packet. It also prints out a status message through serial port 1 at 19,200 baud. The software runs the CANBus at 250 kHz.

### *tx\_can\_29bit:*

This program transmits a single packet with a 29-bit identifier. It then listens for a reply packet. If it receives a reply packet, it retransmits that packet. The software runs the CANBus at 250 kHz.

When the two programs are loaded and linked via CANBus, packets should be going back and forth between the two devices and the data field should be incrementing. Below is a figure showing the output from serial port 1 on the echo device.

```
USBCOM_19200 - HyperTerminal
File Edit View Call Transfer Help
Can Echo 29-bit
[RX]:12345678 0001020304050607
[TX]:12345678 0102030405060708
[RX]:12345678 0102030405060708
[TX]:12345678 0203040506070809
[RX]:12345678 0203040506070809
[TX]:12345678 030405060708090A
[RX]:12345678 030405060708090A
[TX]:12345678 0405060708090A0B
[RX]:12345678 0405060708090A0B
[TX]:12345678 05060708090A0B0C
[RX]:12345678 05060708090A0B0C
[TX]:12345678 060708090A0B0C0D
[RX]:12345678 060708090A0B0C0D
[TX]:12345678 0708090A0B0C0D0E
-
```

Connected 0:13:48 VT100 19200 8-N-1 SCROLL CAPS NUM Capture Print echo