

Freescale MQX Example Guide

io_expander example

This document describes the io_expander component example application. The io_expander example demonstrates how to control external MAX7310 pins via io_expander api.

Running the example

Start a terminal application on your PC and set the serial connection for 115200 baud, 8 data bits, 1 stop bit, no parity and no flow control.

Start io_expander example on the target platform. For instructions how to do that in different IDEs and for different debuggers, see the MQX documentation (<MQX installation folder>/doc/tools).

If the example is executed, you will see the printed message as the following:

```
IO expander EXAMPLE BEGIN  
IO expander EXAMPLE END
```

The example now successfully passed the pin control tests without any failure. If any failure happens, a failure warning will print on the terminal.

Explanation of the example

There is just one task (test task) which calls the example to run the program. The example function opens three file handlers to access the MAX7310 IO expander device. Each handler will be assigned for one pin(U12 in vybrid auto evb board. I/O 0, 1, 2(pin 6,7,9)), and control the pin independently. Users can monitor the pin level output by using oscilloscope.

In the second part of the example, the program exchanges the pins among three handlers to demonstrate the pin number set and clear functionality.