

EE 308 – Homework 10

Due Apr. 5, 2010

For all problems below assume you are using a MCS12DP256 chip with a 24 MHz bus clock and a 8 MHz oscillator clock.

1. Write a C function `unsigned char iic_receive(void)` which receives all but the last two bytes of a read sequence three or more bytes long, and returns the character read from the slave device. (See the lecture notes from March 31 for a detailed list of what this function should do.)
2. Write a C function `unsigned char iic_receive_m1(void)` which receives the next to the last byte of a read sequence two or more bytes long, and returns the character read from the slave device. (See the lecture notes from March 31 for a detailed list of what this function should do.)
3. Write a C function `unsigned char iic_receive_last(void)` which receives the last byte of a read sequence two or more bytes long, and returns the character read from the slave device. (See the lecture notes from March 31 for a detailed list of what this function should do.)
4. Write a C function `void iic_swrcv(void)` which switches the I²C bus from transmit to receive, and starts the serial clock for the reception of the first byte from the slave.