

Programming the Flashlite186 Watchdog Timer

The processor on the Flashlite186 has a watchdog timer that can be enabled and then periodically reset to provide an automatic reset function.

Initial configuration

First of all, send 2 hex words of 0xAAAA and 0x5555 to the WDTCON register at I/O port 0xFFE6 in that order. This will reset the watchdog counter register.

Next, send 2 hex words of 0x3333 and 0xCCCC to the WDTCON register in that order. This will unlock the the register so that it can receive a command.

Finally, send the enable command to the WDTCON register. This is of the form 0xC0nn where nn is equal to the watchdog timeout delay specified in this table:

0x01	30us.
0x02	31ms.
0x04	62ms.
0x08	125ms.
0x10	251ms.
0x20	503ms.
0x40	1 sec
0x80	2 sec

For example, a command to enable the watchdog timer with a 1 second timeout would consist of sending a word of 0xC040 to 0xFFE6.

Periodic Watchdog Reset

To periodically reset the watchdog timer, send 2 hex words of 0xAAAA and 0x5555 to the WDTCON register at I/O port 0xFFE6 in that order.