

Remote Controller User's Guide

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1. Components

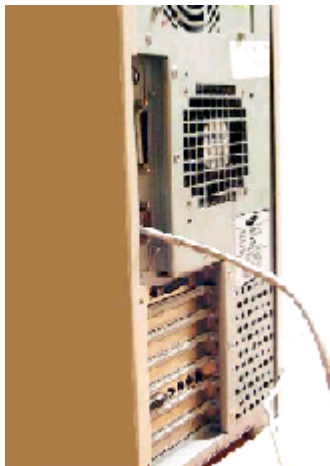
Item		Quantity	Remarks
8051EVB		1	Rev 1.2
Relay Board		1	Rev 1.1
LCD		1	16X2
Connector	5V Power	1	5V Power Cable
	220V Power	1	220V Power Cable
	220V Outlet	3	220V Outlet Cable
UTP Cable		1	Cross Cable
Serial Cable		1	Cross Cable
9V Adapter		1	Power Adapter
CD		1	Software CD for Remote Controller

2. How to configure hardware?

- ① Connect 9V Power Adapter to 8051EVB's CON1



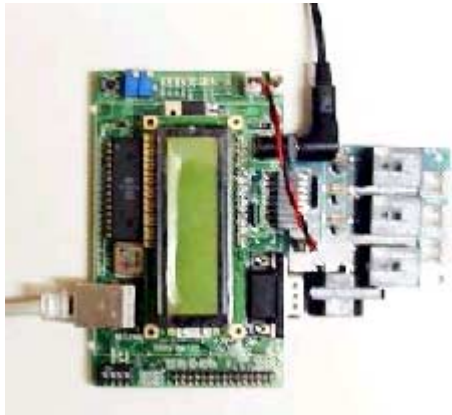
- ② Connect 8051EVB's U11 to PC's NIC(Network Interface Card, LAN Card) with UTP cable(Cross cable)



- ③ Connect Relay Board's CN2 to 8051EVB's CH1



- ④ Connect Relay Board's CN3 to 8051EVB's CN5 with 5V Power Cable



- ⑤ Connect 220V Outlet Cable to CON1, CON2, CON3 of Relay Board respectively and connect device which is to be controlled to outlet (let it turn on the device).



- ⑥ Connect 220V Power Cable which is connected to CN1 of Relay Board to 220V power



3. How to install firmware?

- ① ROM Version (In case that you have a ROM Writer)
 - A. Connect ROM writer and execute ROM writing program
 - B. Select ATMEL as Flash memory provider and select AT29C256 as part number
 - C. Separate Flash memory from 8051EVB and Plug it in ROM writer
 - D. Select WSoftwareWBoardWFlashWNRemoconWmain.hex in CD and Load it as HEX
 - E. Write it on the flash.
 - F. Plug the flash in 8051EVB
 - G. Put a cap on 1-2 of CN2 on 8051EVB
 - H. Put LCD on CN1 of 8051EVB
 - I. Turn on the 8051EVB (S2)

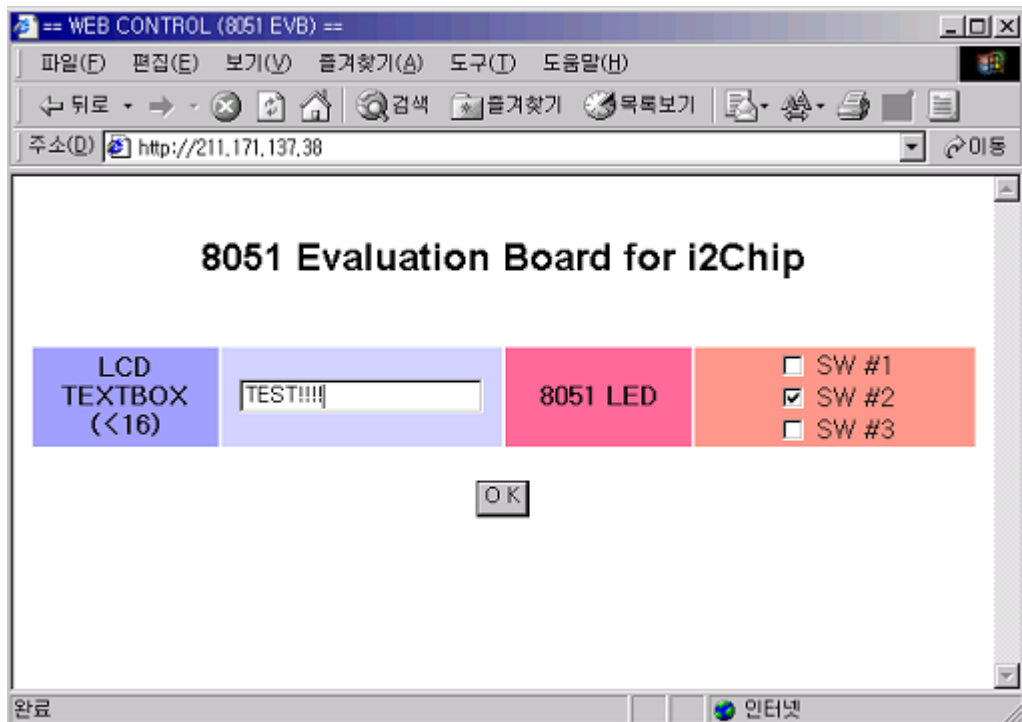
- ② RAM Version (Using serial cable)
 - A. Execute Hyper Terminal program on PC
 - B. Select COM port of serial cable in modem setting
 - C. Select as follows; data rate: 9600, data bit: 8, no parity, stop bit: 1, no flow control
 - D. Put a cap on 1-2 of CN2 on 8051EVB
 - E. Put LCD on CN1 of 8051EVB
 - F. Turn on the 8051EVB (S2)
 - G. Press 'D' on monitor program and select "Text file download" on Hyper Terminal
 - H. Select WSoftwareWBoardWRAMWNRemoconWmain.hex in CD and download it
 - I. After finishing download in Step G, press 'R' on monitor program
 - J. Remove serial cable which is connected to P1 of 8051EVB
 - K. Connect CN2 of Relay Board to CH1 of 8051EVB
 - L. Connect 5V Power Cable to CN3 of Relay Board and CN5 of 8051EVB
 - M. Connect **220V Outlet Cable** to CON1, CON2, CON3 of Relay Board respectively and connect device which is to be controlled to outlet (let it turn on the device).
 - N. Connect **220V Power Cable** which is connected to CN1 of Relay Board to 220V power

(☞ Step A.B.C are for usage Hyper Terminal. In case of other Null Modem program, you can set properly as above setting.)

(☞ Please follow above steps orderly, because of electric shock)

4. How to use?

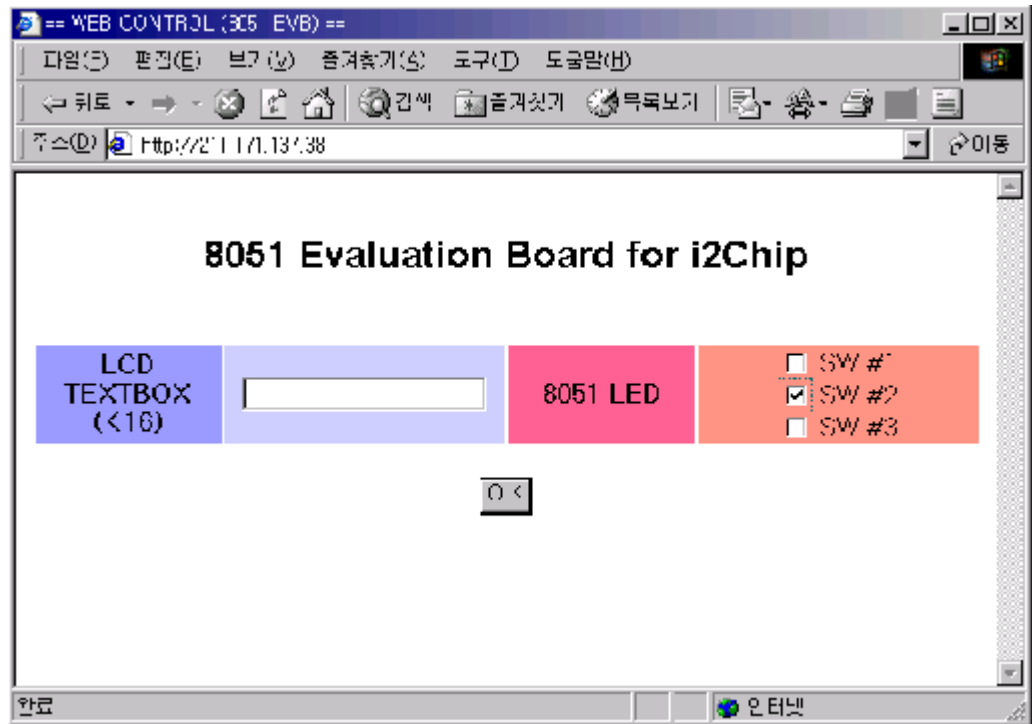
- ① After Firmware installation, run web browser on PC
- ② Input <http://211.171.137.38> on browser's URL field
- ③ LCD TEST
 - A. Write some text in text field on the browser for LCD testing and click "OK" button (Possible to enter only alphanumeric characters).



- B. Check it out to make sure whether the text is displayed on LCD of 8051EVB correctly.

④ Remote Controller TEST

A. Select a check box with free choice on the web page.



B. Check whether a device which is connected to Relay Board be turned ON/OFF.

5. FAQ

- ① Timeout occurs on PING execution for testing Ethernet connection.
 - > Check whether the UTP cable is correctly connected to U11.
 - > Provided UTP cable is cross type for direct connection. So you cannot use it for connecting to hub. In stead of it, please use normal UTP cable.
 - > If above all two steps are correct, turn on the 3rd switch (duplex) of S3 in 8051EVB.

- ② Cannot connect to web page of 8051EVB.
 - > After Turning the power of Remote Controller Application Module on and pressing S1 (reset) button, wait 5 seconds and try to reconnect to web page.

- ③ Cannot control the power of devices
 - > First, check whether the power cable of Remote Controller Application Module is correctly connected to power source.
 - > Check whether the power switch of the device which is to be controlled is turned on

- ④ Cannot download program through serial cable.
 - > Check whether the serial cable is correctly connected
 - > Check whether the setting of null modem program or hyper terminal is right.
 - > Check whether a cap is on the 1-2 pin of CN2 in 8051EVB