*P1.1.2*

Test Plan *Template*

Version *<1>*

*<10/17/2014>*

VERSION HISTORY

**EmbedIT Template Version:** 09/15/17

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| --- | --- | --- | --- | --- | --- | --- |
| **Version #** | **Implemented**  **By** | **Revision**  **Date** | **Approved**  **By** | **Approval**  **Date** | **Reason** | **Mark** |
| 1 | *Oghenekome Michael* | *10/17/2017* | *<name>* | *<mm/dd/yy>* | Original test plan |  |
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# Introduction

## Purpose of The Test Plan Template Document

The purpose of this test plan document is to test the connection between the MX7cK board and a host computer by pinging the board with the command line and getting a success response from the IP address pinged.

# REFACTORING Testing

## Test Plan and Cases

|  |  |  |  |
| --- | --- | --- | --- |
| **Item to Test** | **Test Description** | **Test Date** | **Responsibility** |
| Connection between the MX7cK board and a host computer running MPLAB X IDE. | The TCPIP project is run and then the tester pings the board by pinging the IP address of the board to see if they get a response. If there is a response, a success message is going to show and if there is no connectivity, an error message is going to be outputted. | 10/17/2017 | Oghenekome Michael |
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|  |  |  |  |

## Test Procedure

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| --- | --- |
| Instruction | P/F |
| 1. Extract the folder called v1 from the P1.1.2.zip file, and place the folder v1 and its contents in a directory called OghenekomeMichael\MPLABXProjects \P1\P1.1.2\ of a windows computer. |  |
| 1. Make sure your host TCP-IP v4 configuration of your windows computer is set to obtain IP addresses automatically. |  |
| 1. Start MPLAB X: click on MPLAB X in the taskbar, as explained by Step 1 of [1]. |  |
| 1. Connect the MX7cK board to the PC using the USB cable, as explained by Steps 2-3 of [1], and switch the board to the ON position. |  |
| 1. Connect an Ethernet cable from your host computer to the MX7cK board through the ethernet port. |  |
| 1. Open the project called X32-PIC32\_ETH\_SK\_ETH795 by selecting File->Open Project, and then browsing to OghenekomeMichael\MPLABXProjects \P1\P1.1.2\v1\TCPIPStack\TCPIP\Demo App, and then selecting the project X32-PIC32\_ETH\_SK\_ETH795. |  |
| 1. Get the MAC address of your MK7cK board by looking at the bottom of your board for a sticker with 12-character alphanumeric code. |  |
| 1. Change the last four digits of the MAC address in the code to the MAC address gotten in [step 7]. This is done by opening the TCPIP ETH795.h file in the Header files of the Projects window and double clicking it. Find MY\_DEFAULT\_MAC\_BYTE5 and MY\_DEFAULT\_MAC\_BYTE6 in the code and change their values to the second last two and last two hexadecimal digits respectively. Just like (0xXX) where XX ix the two digit of the MAC address. |  |
| 1. Select the X32-PIC32\_ETH\_SK\_ETH795 project by clicking on the X32-PIC32\_ETH\_SK\_ETH795 project name in the Projects folder of MPLAB X. |  |
| 1. Build the Demo App project by selecting Run->Build Project. You should see the message “BUILD SUCCESSFUL” in the Output window. |  |
| 1. Run the project by selecting Run->Run Project. You should see the message “Programming/Verify complete” in the output window and the LEDs should be rotating. |  |
| 1. You should see one of the green LED’s blinking as well as the Ethernet port area light up. |  |
| 1. On your Windows computer, click on start and then type “CMD” then click on the command prompt icon. |  |
| 1. On the command prompt, type in “ping 192.168.1.17” and press Enter, you should get a response. There should be “bytes=32 time<1ms TTL=100” in the string of the response. |  |

# Approval

The undersigned acknowledge they have reviewed the *P1.1* **Test Plan Template** document and agree with the approach it presents. Any changes to this Requirements Definition will be coordinated with and approved by the undersigned or their designated representatives.

[List the individuals whose signatures are required. Examples of such individuals are the TA, Business Steward, Technical Steward, and Project Manager. Add additional signature lines as necessary.]

|  |  |  |  |
| --- | --- | --- | --- |
| Signature: |  | Date: |  |
| Print Name: |  |  |  |
| Title: |  |  |  |
| Role: |  |  |  |

# References

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| [1] | K. Ferens, "ECE 3740 Systems Engineering Principles 1," 15 September 2001. [Online]. Available: http://ece.eng.umanitoba.ca/undergraduate/ECE3740/. [Accessed 15 September 2017]. |