Manufacturing Test Program

(Mass Production Utility)

For

MCS7840 – High Speed USB to Four Serial

Introduction:

This document explains the usage of Mass production utility, also referred as Diagnostics/Manufacturing test program. This utility tests the functionality of MCS7840 by sending and receiving the data at 75bps to 921600bps.

*We recommend using the Mass production utility on Windows XP or Windows 2000 operating system.*

The procedure explained for MCS7840 will be exactly same for MCS7820.

Getting Started:

Install the MCS7840 drivers on the PC. If required, please refer to our Installation guide available along with the driver disk. Ensure proper detection of MCS7840 before using the utility. A shortcut of **"MULTIMP"** is created on the desktop of the PC after installing the driver. The shortcut of "MULTIMP" is shown below.

Double click on **"MULTIMP.EXE"** to start the diagnostics.
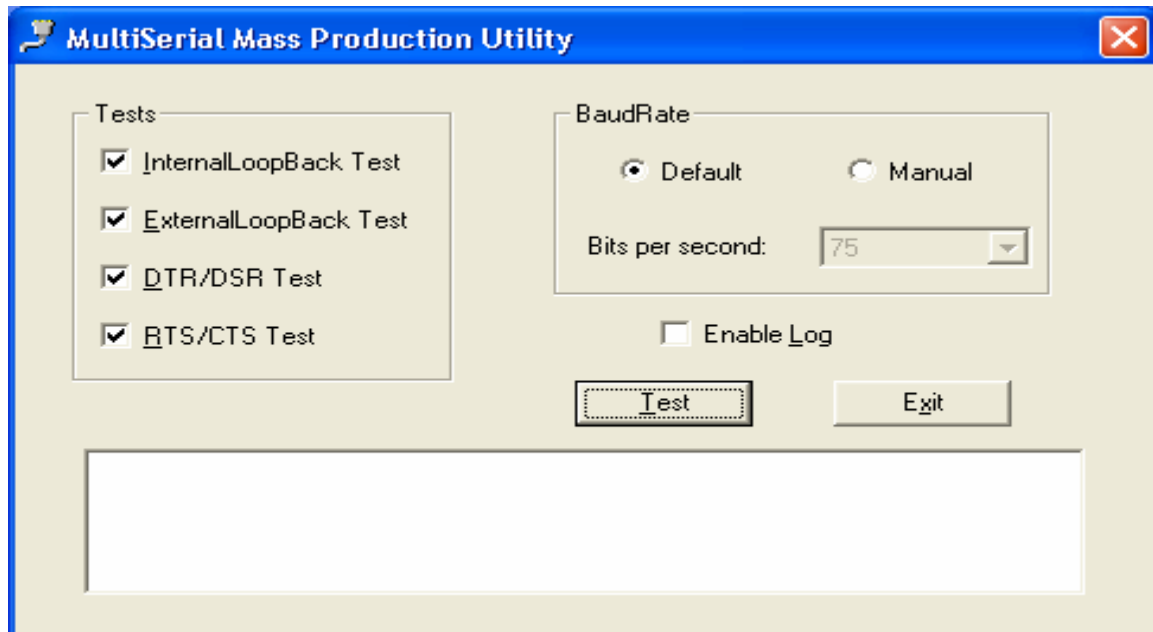
Following tests can be executed by using the MULTIMP utility.

> Internal LoopBack Test
> External LoopBack Test
> DTR/DSR Test
> RTS/CTS Test

External LoopBack, DTR/DSR and RTS/CTS tests require Serial External LoopBack connector attached to the serial port.
Select the tests you like to execute by clicking on the checkbox provided for each of the tests. By default all the tests are selected.

All the tests are executed at specific baud rates. The baud rates can be selected from the **"Baud Rate"** option of the diagnostics window. There are two options provided for the user, **"Default"** and **"Manual".**

Default Option: Following baud rates are tested with this option. There is no need of user intervention in this option as the utility will automatically execute the tests for below specified baud rates for each of the COM ports.
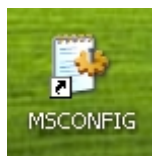
Default Baud rates			
1200	9600	57600	115200

Manual Option: Only one baud rate can be tested at a time in the manual option. Select the option **"Manual"** in the diagnostics window and choose the baud rate from the dropdown list. The following table shows the baud rates which can be selected through manual option.

Manual option Baud rates							
75	110	134	150	300	600	1200	1800
2400	4800	7200	9600	14400	19200	38400	57600
115200	230400	403200	460800	806400	921600		

Adding more baud rates to the Default baud rate option:
As specified earlier only four baud rates are tested by default baud rate option. Additional baud rates can be added to this by using **"MSCONFIG"** option. A shortcut of "MSCONFIG" is created when MCS7840 driver is installed. It is shown below.

Double click on "MSCONFIG". The following window will open displaying the default baud rates and tests. Add or Remove the baud rates which are not required for testing.
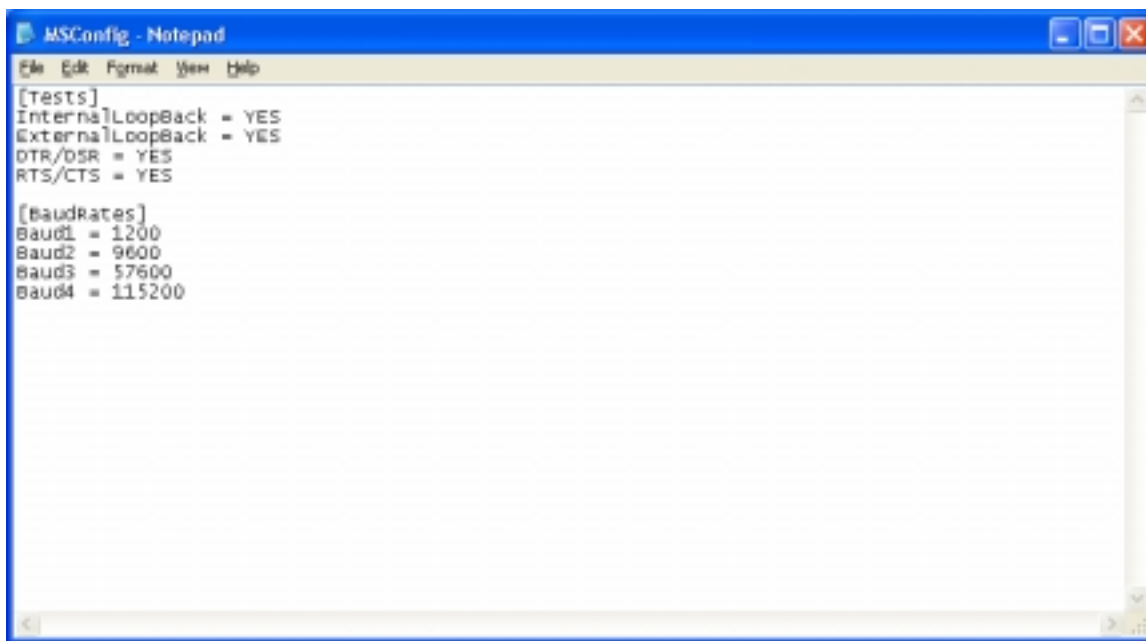
For example if you require testing 921600 baud rate, then add it to the MSCONFIG by using the following statement.
**Baud5 = 921600**
After adding the baud rate, save the file and close it. In this case if you run the Diagnostics with default option, you can see that the diagnostics test is executed for 921600 baud rate as well.
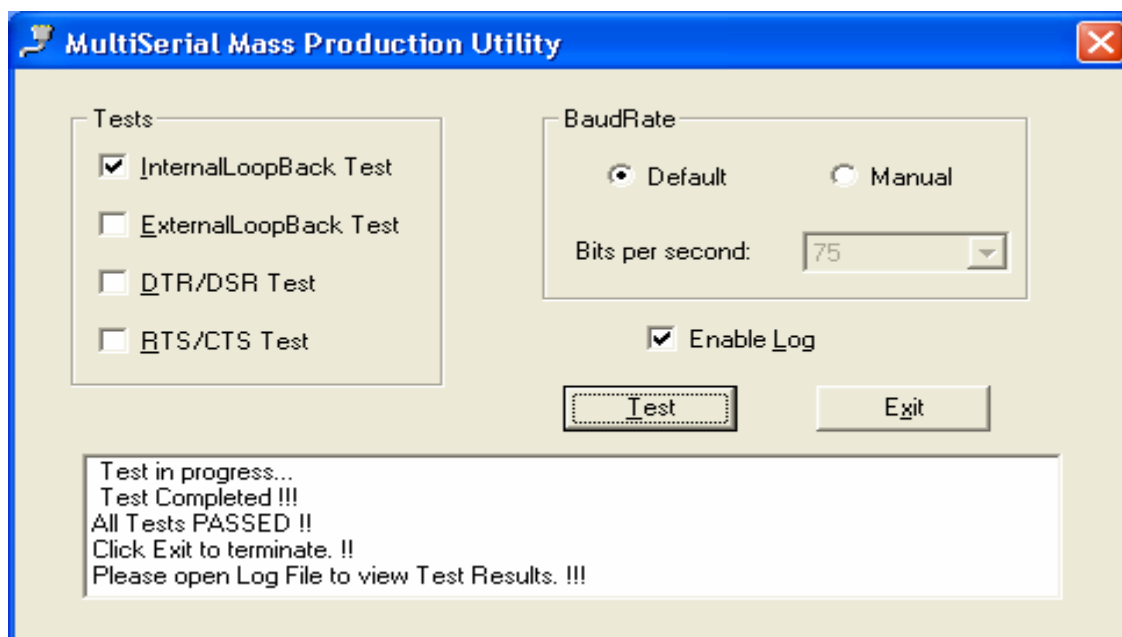
Enable Log Option:
If you prefer to record the tests been executed, you can do so by selecting the option **"Enable Log"** on the diagnostics window. Once the tests are executed a log file by name **"USBMultiSerialDiagnostics"** will be created on the desktop of your PC. This log file has the details of date and time of test execution, test selected, baud rate and test result.

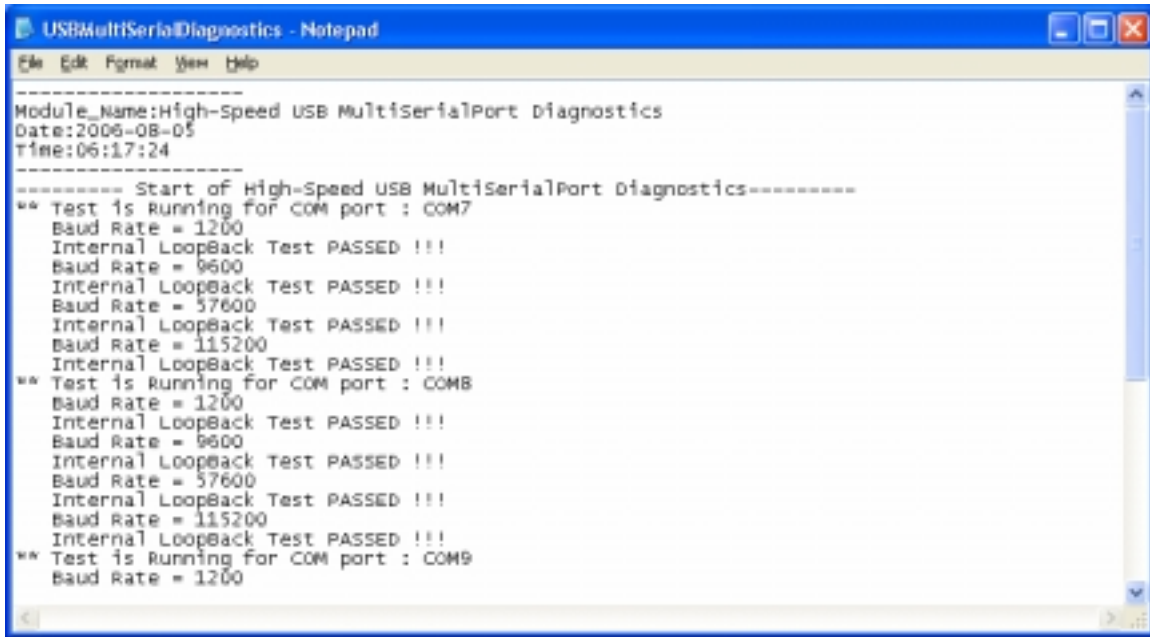## Running the Diagnostics Utility:

Click on the **"Test"** option after selecting the tests to be executed, baud rate option and enabling the log file option, if required. You can run the tests with the default options without changing any settings.
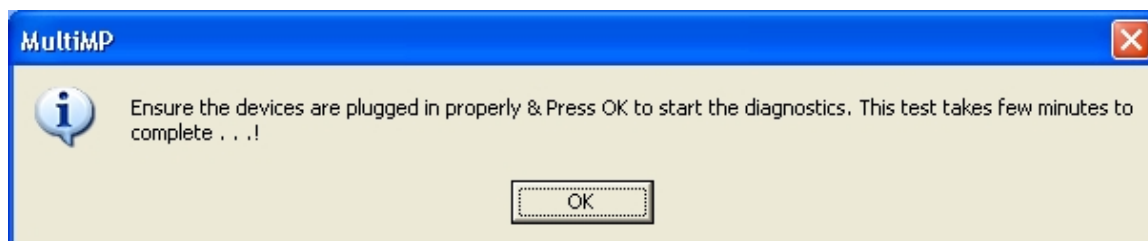
The utility prompts the user to ensure whether the device is plugged in properly. Click on **"OK"** to start the test. The utility will take few seconds to complete the tests. The following screen shows the test result of the diagnostics utility.

The log file generated after the test execution is shown below.

Please get in touch for any questions that you may have for us at
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