

MS7724 Beginners Guide

Introduction

This page describes everything you need to know to get started with the MS7724 Evaluation Board (R0P7724LC001/21RL & R0P7724LC002/21RL).

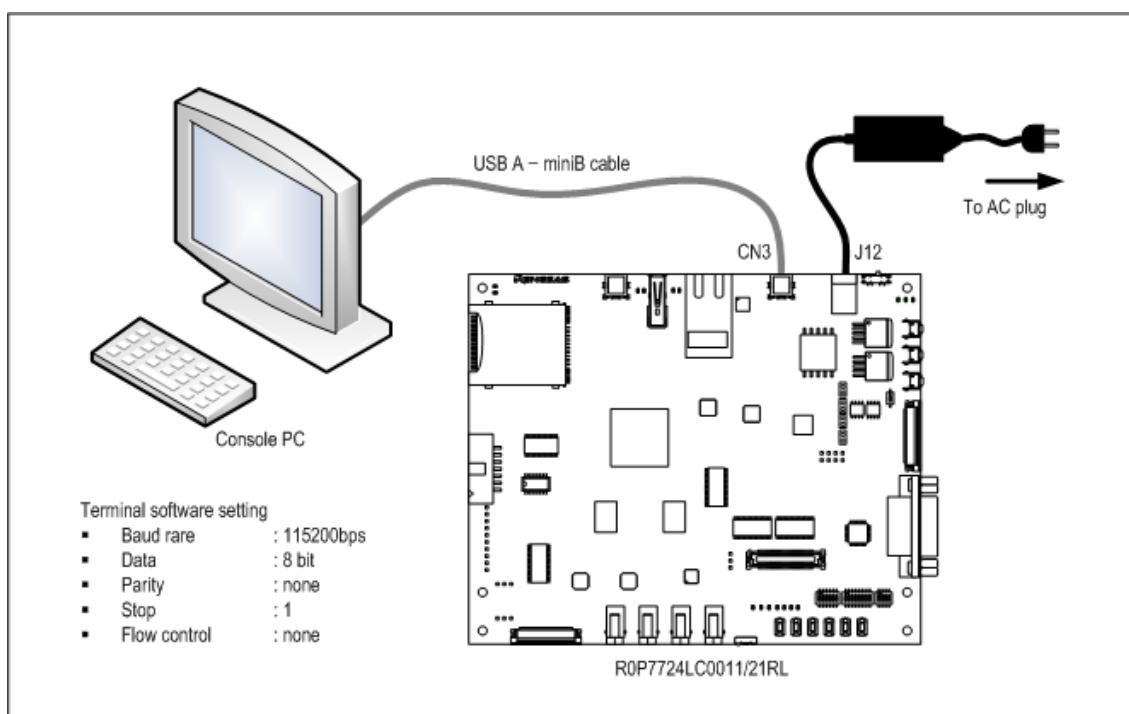
Hardware Inventory

The following items are included in your evaluation kit or may be ordered as accessory items from Renesas directly:

Item	Description	Quantity
MS7724 Board (R0P7724LC0011RL)	SH7724 Board limited spec version	1
MS7724 Board (R0P7724LC0021RL)	SH7724 Board full spec version	1
R0P7724LE0011RL (available accessory)	Wide-VGA LCD extension board	1
R0P7724LE0021RL (available accessory)	HD(720p) camera module extension board	1 or 2
CD-ROM	User's Manual u-boot source code and binary SH-Linux BSP (kernel 2.6.31*)	1
AC/DC Adapter	DC5V/4A	1
USB Memory	Thumb Drive The following content is written on the USB Memory Thumbdrive: - Linux root file system	1

Hardware Set Up

The following diagram describes basic configuration of the hardware prior to initial power up. Additional hardware such as a DVI Monitor, network cable, etc. can be attached as required. Use of additional hardware is described below.



Hook Up Steps

1. Connect the mini-USB cable to the MS7724 Mini-USB connector (CN3) right next to the DC-IN power connector and the other end to your PC USB port.
2. Ensure the Power Switch (to the right of DC-IN power connector) is switched off (pushed to right).
3. Connect AC/DC power adapter to the DC-IN (J12) and plug the other end into a power outlet.
4. Set up Terminal Software on your PC with the following settings.

Baud Rate: 115200bps

Data: 8 bit

Parity: none (N)

Stop Control: 1

Flow Control: none

For detailed instructions on configuring Minicom, see the Terminal Software page.

5. Start the Terminal Software on your PC. Using Minicom on a Linux PC.

```
$ minicom <return>
```

You should see the following on your Linux screen (or something very similar depending on your version of Minicom).

```
Welcome to minicom 2.3

OPTIONS: I18n

Compiled on Oct 24 2008, 06:47:12.

Port /dev/ttyUSB0

Press CTRL-A Z for help on special keys
```

6. Power On board with the Power Switch by pushing it to the left.

At this point the Terminal Screen will beginning listing the boot sequence output.

Following boot the system presents the following Login prompt:

```
(none) login:
```

Using Additional Hardware

USB Memory Thumbdrive

Provided with your MS7724 Development Kit is a USB key containing a complete Debian-based Linux environment and a set of Demos that illustrate the hardware capabilities of the board.

NOTE: The following assumes the MS7724 is connect to a Host Linux system via the mini-USB cable provided and described above:

To boot using the USB key:

- Power OFF the board.
- Insert USB key into the USB port located beside the ethernet port.
- Power ON the board.

At this point the terminal window on the host system will show the MS7724 Linux boot messages.

LAN connection

Simply plug in an ethernet cable to the ethernet port on the MS7724 board for use.

DVI Monitor

To use an external monitor with the MS7724 board plug a DVI cable from the monitor to the DVI in adapter on the board. Rebooting may be necessary to detect the newly connected monitor. DVI-D output will not work when a LCD such as the R0P7724LE0011RL is attached to the board via the LCD I/F Connector.

Next Steps

HOWTO Run the Demos

HOWTO Build a Bootable USB Thumbdrive from a New BSP