NXP Semiconductors
User's Guide

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QWKS Ethernet Accessory Card, User's Guide

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Chapter 1
Introduction

This document provides a brief overview on how to use the Ethernet Accessory card (QWKS-ETHACC) for the QWKS board. The Ethernet Accessory card provides Ethernet enablement as well as a converter for the LVDS panel (NXP MCIMX-LVDS1).

NOTE

QWKS Ethernet Accessory Card only works with QWKS board Rev C and later.

Chapter 2
QWKS Ethernet Accessory Card Enablement

2.1 Section 1 – Ethernet Enablement

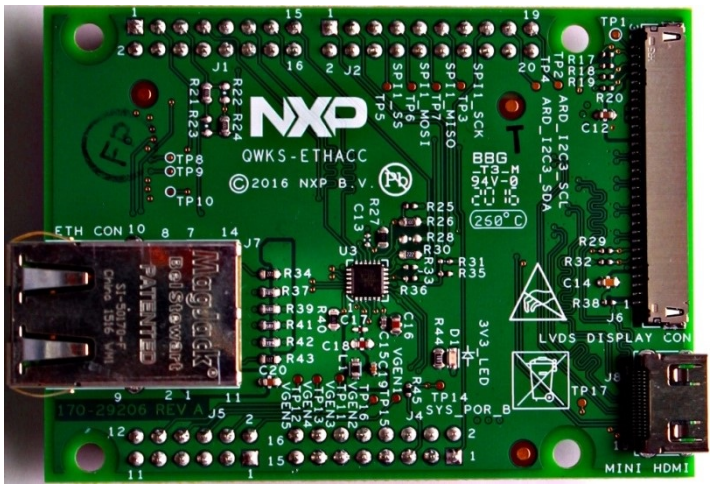

Figure 1. Front of the QWKS-ETHACC card

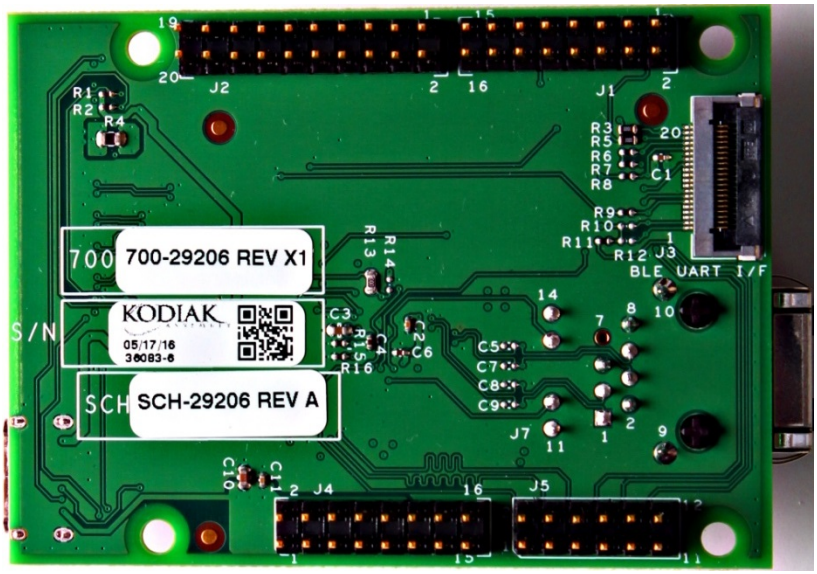

Figure 2. Back of the QWKS-ETHACC card

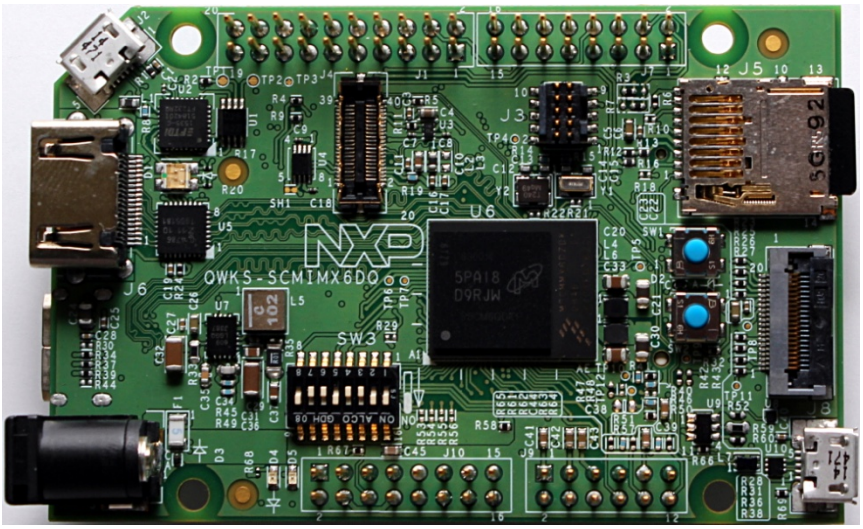

Figure 3. QWKS board Rev C for SCM-i.MX 6D/Q

First, make sure that your QWKS board is Rev C by looking at the back of the board and finding the “SCH –xxxxx RevXX” Rev Number.

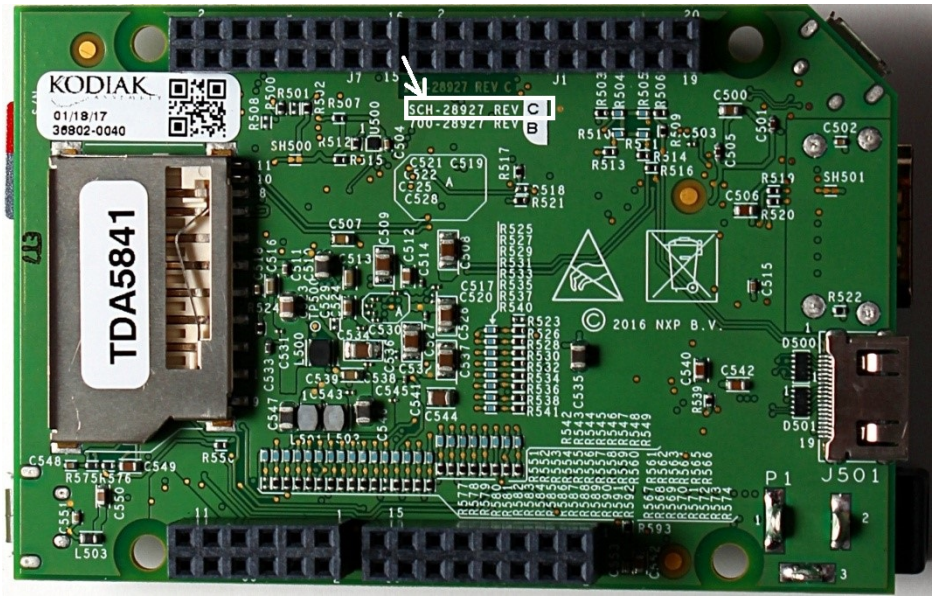

Figure 4. Back of the QWKS Board Rev C

Steps to enable the ethernet card:

1. Plug in the Ethernet card (on the left) into the back of the QWKS board (on the right)

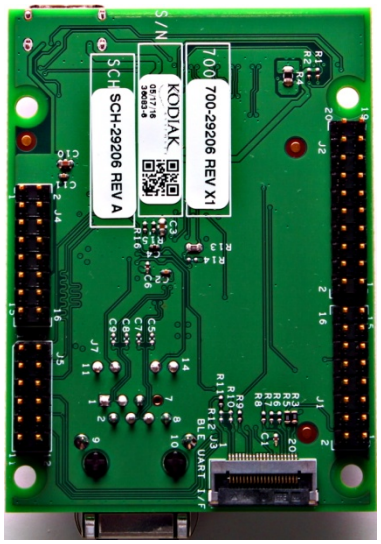

Figure 5. Back of the QWKS-ETHACC card

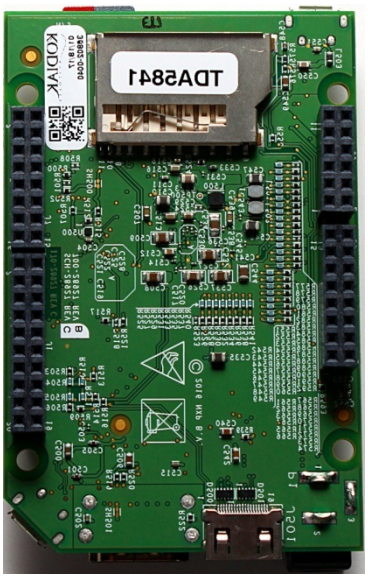

Figure 6. Back of the QWKS Board Rev C

2. Insert an Ethernet cable into the Ethernet port on the Ethernet card. Plug in the power cable and a USB cable for debug into the QWKS board.

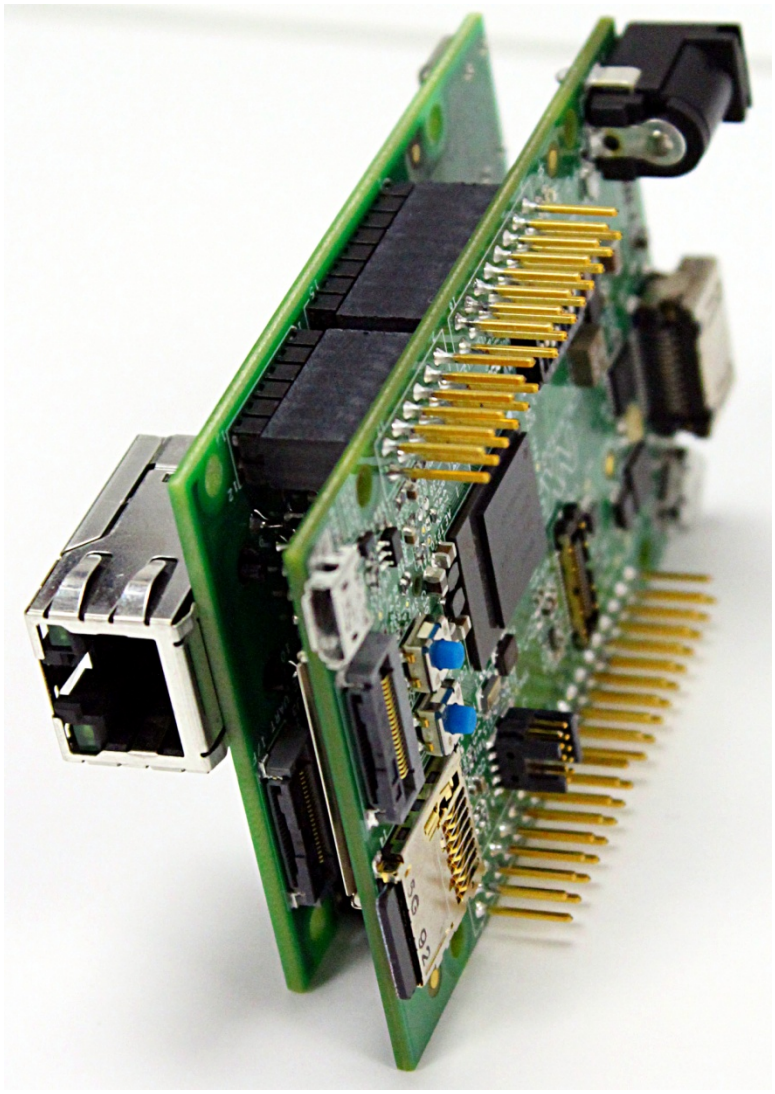

Figure 7. QWKS-ETHACC card plugged into the QWKS Board

3. In your serial console, type in “ifconfig” to get the inet address.

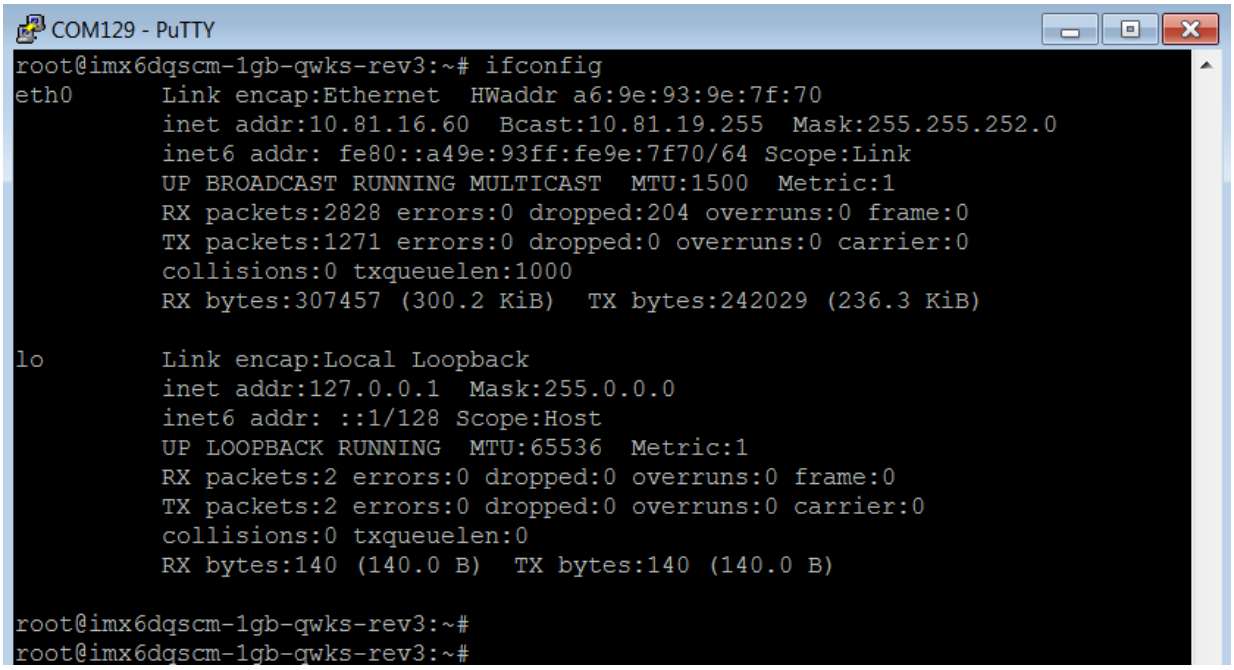

Figure 8. Screenshot of debug console

4. SSH into the device. Use “root” for username and password.

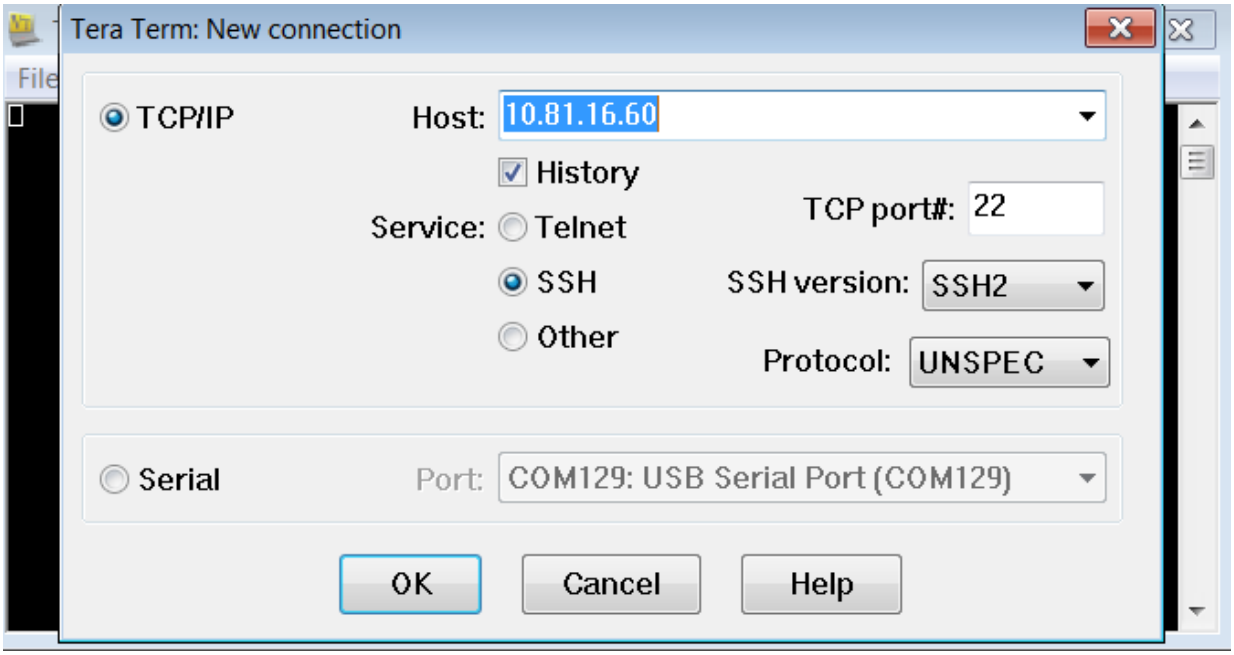

Figure 9. Screenshot of Tera Term

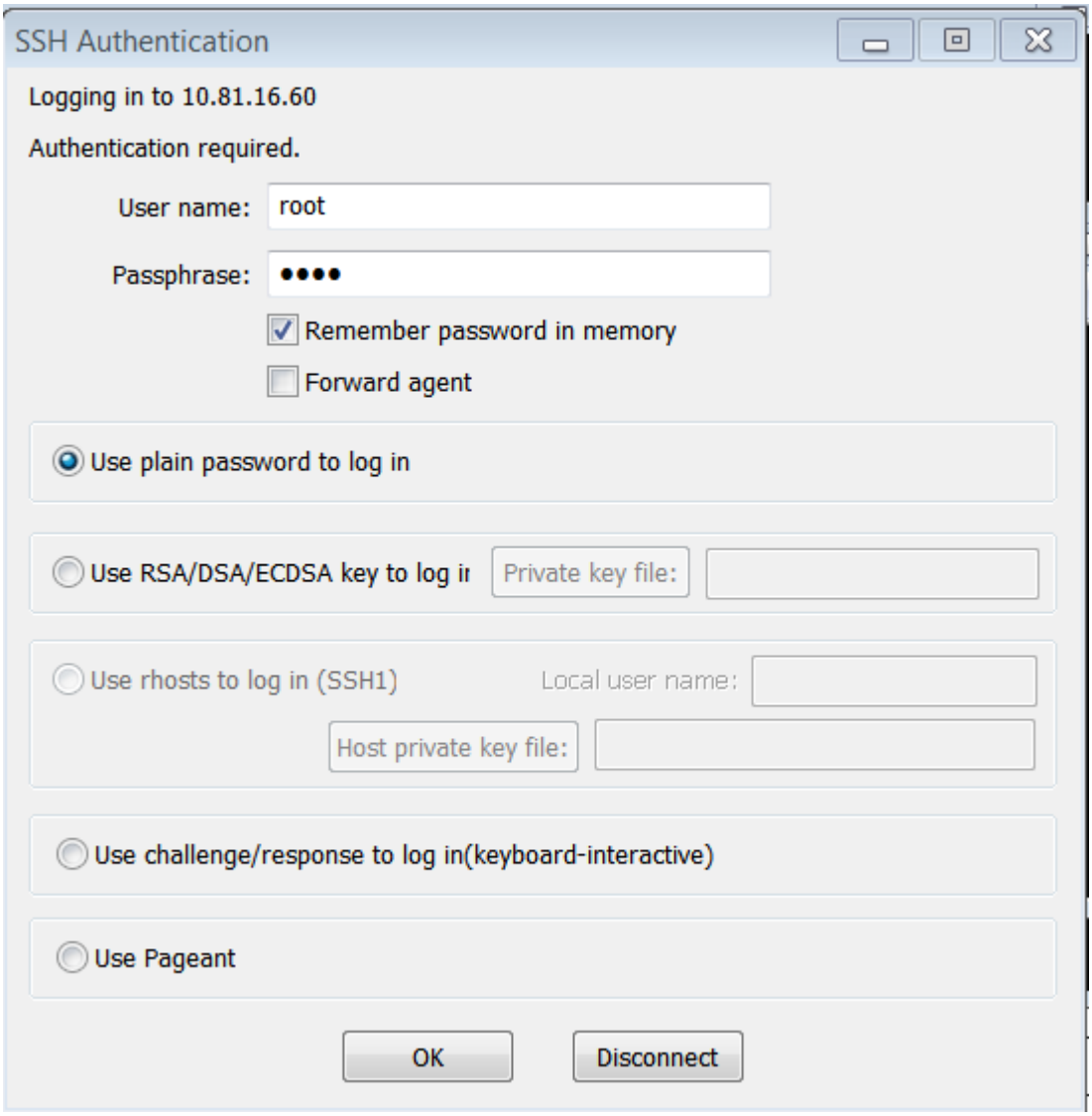

Figure 10. Screenshot of SSH Authentication

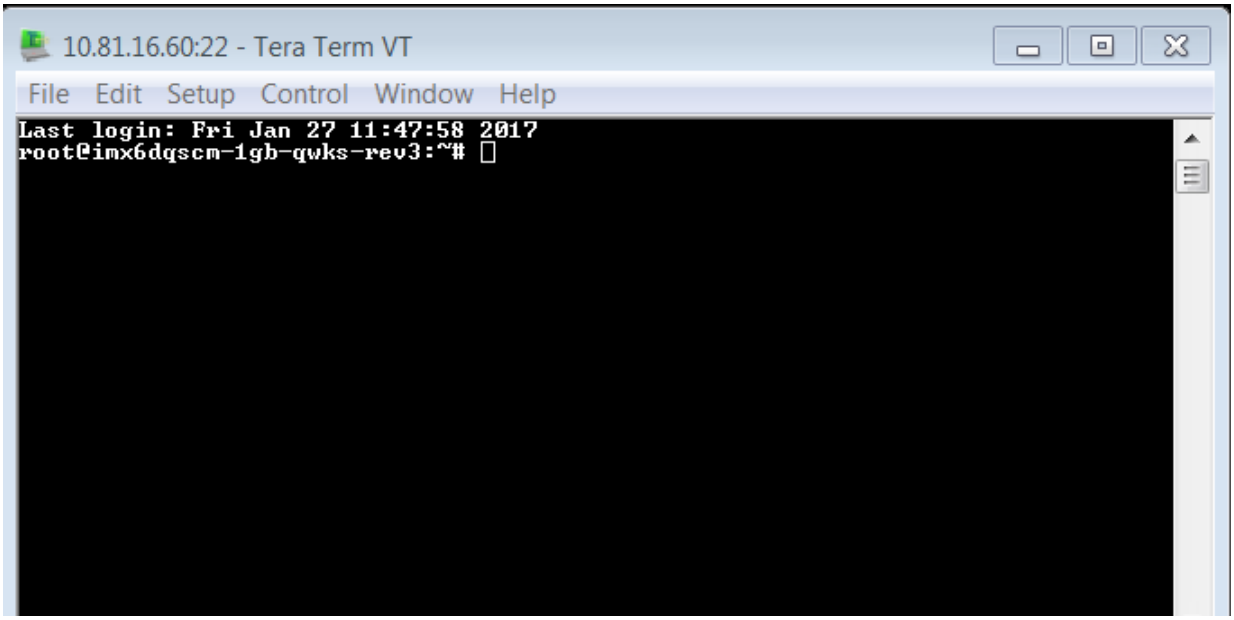

Figure 11. Screenshot of Tera Term once authenticated

2.2 Section 2 – LVDS Enablement

For the LVDS converter, plugging in the Ethernet card to the back of the QWKS board is not necessary.

1. Plug in the LVDS panel (NXP MCIMX-LVDS1) into the Ethernet accessory card. Next, use a mini-HDMI cable to connect the Ethernet accessory card to the QWKS board.

Figure 12. Setup of NXP MCIMX-LVDS1 with the QWKS board and QWKS-ETHACC card

2. The QWKS board by default uses HDMI as display. To use LVDS, change the parameters in uboot. Interrupt the auto-boot by pressing any key and enter the following command.
3. Change the parameters in uboot:

```
U-Boot > setenv mmcargs 'setenv bootargs console=${console},${baudrate} ${smp} root=${mmcroot} ${dmfc}
video=mxcfb0:dev=ldb,1024x768M@60,if=RGB666 ldb=sep0'
U-Boot > run bootcmd
```

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