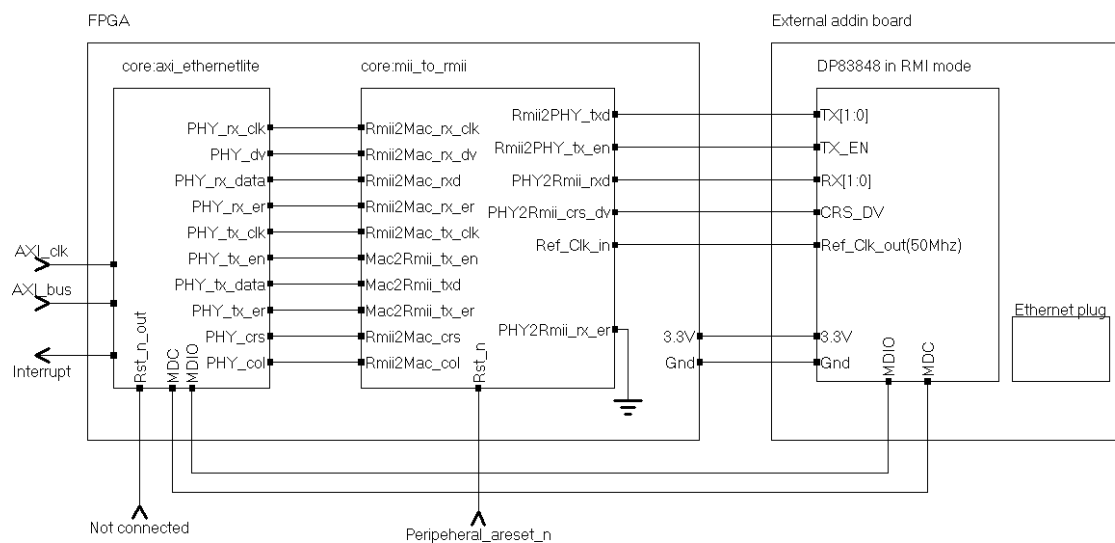


# Ethernet

## A-Using a RMII ethernet addin board



The ethernet addin card use DP83848 in reduced MII mode. this mean fewer connections and a 50Mhz bus between the FPPGA and the Addin card.

The FPGA project use use axi\_uartlite core + mii\_to\_rmii core.

Interrupts must be connected from the axi\_uartlite to the axi\_intc interrupt controller.

9 IO pins are used on the FPGA , 1 of it must be a GCLK pin:

RXD[1:0]

RX\_DV

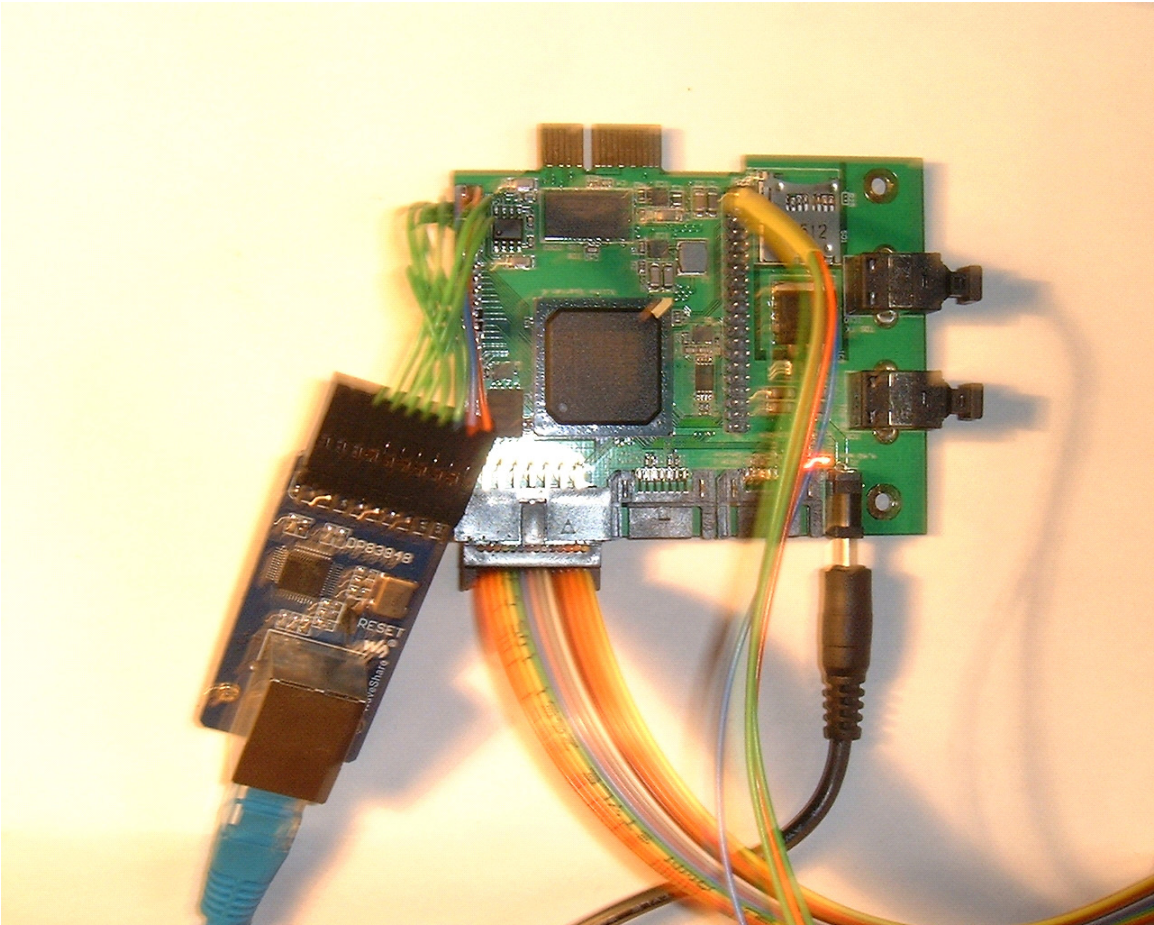
TXD[1:0]

TX\_EN

MDIO

MDC

Ref\_Clk ( a 50Mhz clock provided by the external board)



## B-Building and running Linux (Petalinux)

The new hardware design including axi\_uartlite core must be compiled.  
Linux rebuilt with this new design.

With default application configuration IP address is configured with DHCP and a web server (uWeb) start automatically.

You can the connect to the Xilinx card from any Web client :  
http:// dhcp\_assigned\_ip\_address for example <http://192.168.1.18>

Petalinux Web - Welcome x  
192.168.1.18/cgi-bin/petalinux/overview

**XILINX**

**NAVIGATION**

- Welcome
- Network Settings
- Security
- Configuration
- Admin
- Diagnostics
- Debug

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### Welcome to $\mu$ Web on PetaLinux

[View Code](#) ?

Welcome About  $\mu$ Web About PetaLinux

#### $\mu$ Web on PetaLinux

This web application is running on your PetaLinux system, and is built with the  $\mu$ Web (micro-Web) application framework from WorkWare Systems.

It demonstrates the power and ease of creating a fully customised web interface for your next embedded product - logo, menu structure, tabs, in fact everything you see here can be easily modified to your requirements.

This demonstration allows you to examine the system status, modify the system configuration and remotely upgrade the system firmware.



Use the navigation menu on the left, or go directly to:

- [Network Settings](#)
- [Firmware Upgrade](#)
- [System Log](#)

See the tabs above for more information about  $\mu$ Web and PetaLinux, or click below to go straight to the  $\mu$ Web and PetaLinux product pages.

Web Interface by:  Embedded Linux by: **XILINX**

```
COM1:115200baud - Tera Term VT
File Edit Setup Control Window Help
mdev: initialising /dev
Creating /dev/flash/* device nodes
Mounting /etc/config:
Populating /etc/config:
flatfsd: Nonexistent or bad flatfs (-48), creating new one...
flatfsd: Failed to write flatfs (-48): No such file or directory
flatfsd: Created 7 configuration files (160 bytes)
Mounting devpts:
Mounting all filesystem
Setting hostname:
Bringing up network interfaces:
udhcpd (v1.14.3) started
Sending discover...
Sending select for 192.168.1.18...
Lease of 192.168.1.18 obtained, lease time 86400
adding dns 192.168.1.254
Starting portmap:
Starting uWeb server:

Welcome to
Penguin Linux
```