

=====MT7621 QUICK START=====

1. cd RT288x_SDK/toolchain
tar jxvf mips-2012.03.tar.bz2 -C /opt
tar jxvf buildroot-gcc463_{32bits,64bits}.tar.bz2 -C /opt

2. Uboot configuration

3.1 NAND: please burn uboot.img into flash
(ASIC) Chip Type
(MT7621) Chip ID
(GMAC1) Use GE1 or GE2
(GE_RGMII_FORCE_1000) GE1 connected to
(NAND) Flash Type
(1200Mhz) DRAM Speed
(800Mhz) CPU Frequency

☐ Dual Image
☒ Dual Core Support
☐ Partition LAN/WAN

3.2 SPI: please burn uboot.bin into flash
(ASIC) Chip Type
(MT7621) Chip ID
(GMAC1) Use GE1 or GE2
(GE_RGMII_FORCE_1000) GE1 connected to
(SPI) Flash Type
(1200Mhz) DRAM Speed
(800Mhz) CPU Frequency

(ROM) Ram/Rom version
☐ Dual Image
☒ Dual Core Support
☐ Partition LAN/WAN

3. Linux configuration

3.1. tar jxvf MT7612E_AP_Linux_WiFi_w.x.y.z_{version}_{date}.tar.bz2 -C
RT288x_SDK/source/linux-2.6.36.x/drivers/net/wireless

3.2. make menuconfig
(MT7621) Ralink Products
() 8M/64M(AP) //AP only
(X) 8M/128M(NAS) // pure NAS (single port, no NAT)
() 128M/128M(AP+NAS) // AP router + NAS

Cross Compiler Path: "/opt/buildroot-gcc463/usr/bin"
(0.9.33.2) uClibc

☒ Default all settings (lose changes)

3.3. modify linux-2.6.36.x/ralink/Kconfig if you need MT7612E wifi driver
source "drivers/net/wireless/rtl_wifi/Kconfig"

3.4 make dep

3.5 make

3.6 burn {user}_ulmage into flash

=====

FAQ:

1. Ubuntu 10.x compile error.
 - a). rm /bin/sh; ln -sf /bin/bash /bin/sh
 - b). apt-get install zlib1g-dev
 - c). apt-get install gawk
 - d). apt-get install liblzma-dev

2. trace32 script

```
B::RES
B::SYS.CPU MIPS1004KMT
B::SYS.O E Little
B::sys.jc 25.mhz
B::SYS.M UP

B::DATA.OUT 0xBE100004 %LONG 0x1 //reset PSE SRAM
wait 20ms
B::DATA.OUT 0xBE100004 %LONG 0x6 //full use PSE SRAM
B::DATA.OUT 0xBE00001C %LONG 0x6 //set ICE_MODE+DDR calibration
B::D.LOAD c:\mt7621_stage_sram.bin 0xbe108800 //copy from /Uboot directory
B::DATA.OUT 0xBE108824 %LONG 0x20000000 //DDR-800
B::B::R.S PC 0xBE108800
break 0xBE108008 /write /onchip
go;
wait !state.run()
break 0xBE108008 /disable
DATA.OUT 0xBE100004 %LONG 0x1 //reset PSE SRAM
B::D.LOAD c:\*
```