

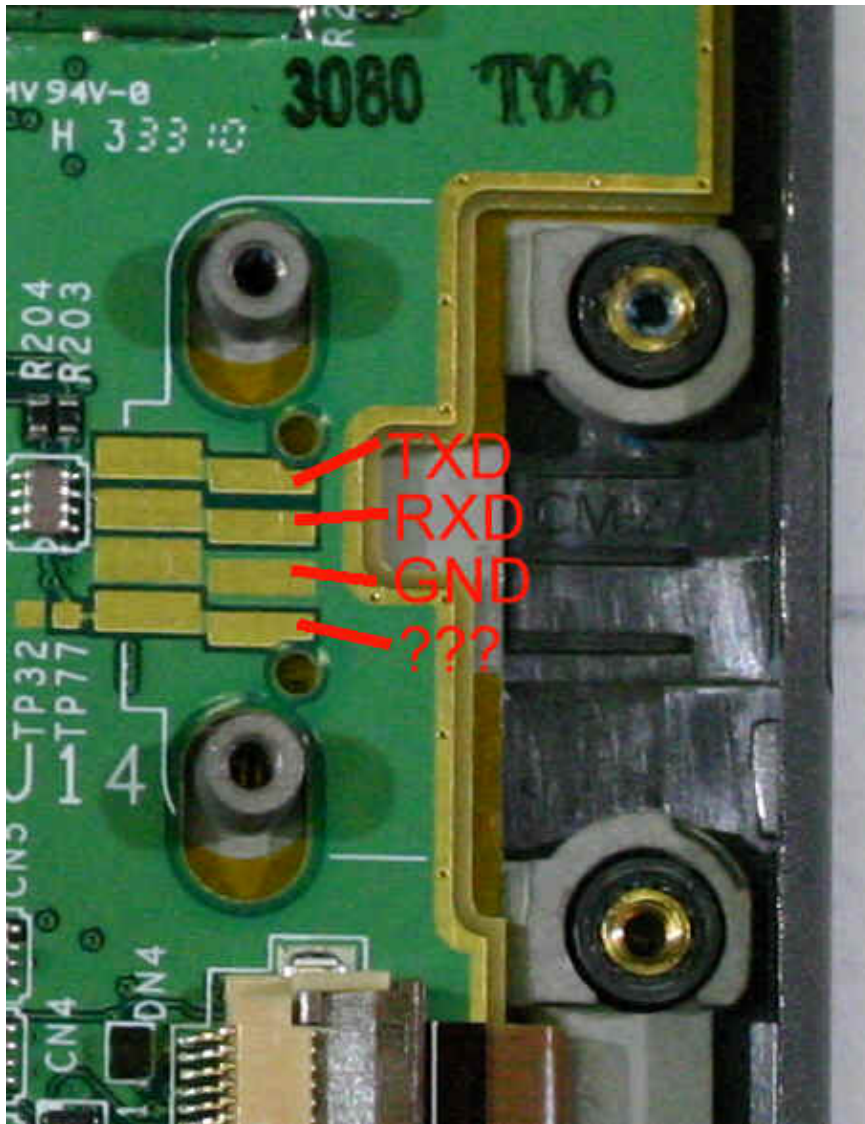
hack-B008-k3w.txt

0x058ee48 [0, 0]

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## Kindle 3 serial pinout



from <http://www.electricstuff.co.uk/kindlehack.html>

## Bus Pirate connection

TX	RxD	black
RX	TxD	gray
GND	GND	brown
1.7V	VPU	green

HiZ>v

Pinstates:

1. (BR)	2. (RD)	3. (OR)	4. (YW)	5. (GN)	6. (BL)	7. (PU)	8. (GR)	9. (WT)	0. (Blk)
GND	3.3V	5.0V	ADC	VPU	AUX	CLK	MOSI	CS	MISO
P	P	P	I	I	I	I	I	I	I
GND	0.00V	0.00V	0.00V	0.50V	L	L	H	L	H

HiZ>m

1. HiZ
2. 1-WIRE
3. UART

4. I2C
5. SPI
6. 2WIRE
7. 3WIRE
8. LCD
- x. exit (without change)

```
(1)>3
Set serial port speed: (bps)
 1. 300
 2. 1200
 3. 2400
 4. 4800
 5. 9600
 6. 19200
 7. 38400
 8. 57600
 9. 115200
10. BRG raw value
```

```
(1)>9
Data bits and parity:
 1. 8, NONE *default
 2. 8, EVEN
 3. 8, ODD
 4. 9, NONE
```

```
(1)>1
Stop bits:
 1. 1 *default
 2. 2
```

```
(1)>1
Receive polarity:
 1. Idle 1 *default
 2. Idle 0
```

```
(1)>1
Select output type:
 1. Open drain (H=Hi-Z, L=GND)
 2. Normal (H=3.3V, L=GND)
```

```
(1)>1
Ready
UART>P
Pull-up resistors ON
UART>v
Pinstates:
1.(BR) 2.(RD) 3.(OR) 4.(YW) 5.(GN) 6.(BL) 7.(PU) 8.(GR) 9.(WT) 0.(Blk)
GND    3.3V    5.0V    ADC    VPU    AUX    -    TxD    -    RxD
P      P      P      I      I      I      I      I      I      I
GND    0.00V    0.00V    0.00V    1.31V    L      L      H      L      H
UART>(1)
UART bridge
Reset to exit
Are you sure? y
```

## Links

- <http://www.mobilerread.com/forums/showthread.php?t=88004> - download jailbreak and usbnetwork

- <http://www.cowlark.com/kindle/getting-started.html>
- <http://trac.ak-team.com/browser/Configs/trunk/Kindle/Hacks>

fetchrss: <http://feeds.delicious.com/v2/rss/dpavlin/kindle?count=15>

- There was an error: 500 Can't connect to feeds.delicious.com:80 (Bad hostname 'feeds.delicious.com')

## Kindle 2.5.8 update to 3.1

- <http://yifan.lu/tag/kindle/>
- <http://www.mobileread.com/forums/showthread.php?t=127969>

```
# mount DXG
```

```
cp update_dxg-2.5.8-prepare_kindle.bin /mnt/usb/
```

```
# Update Your Kindle
```

```
dpavlin@t61p:~$ ls -al /mnt/usb/output/
```

```
total 694948
```

```
drwxr-xr-x 2 dpavlin dpavlin 4096 May 11 17:51 .
```

```
drwxr-xr-x 9 dpavlin dpavlin 4096 Jan 1 1970 ..
```

```
-rwxr-xr-x 1 dpavlin dpavlin 474 May 11 17:44 make-backup.log
```

```
-rwxr-xr-x 1 dpavlin dpavlin 297 May 11 16:56 make-image.log
```

```
-rwxr-xr-x 1 dpavlin dpavlin 419454976 May 11 17:51 rootfs.img
```

```
-rwxr-xr-x 1 dpavlin dpavlin 292155092 May 11 17:44 update_restore-os.bin
```

```
mkdir -p /mnt/backupper/kindle-dxg
```

```
cp -rv /mnt/usb/output /mnt/backupper/kindle-dxg/
```

```
# mount K3G
```

```
dpavlin@t61p:~/Downloads/kindle/kindle-updater-beta-3$ cp update_k3g-3.1-create_updater.bin /mnt/
```

```
dpavlin@t61p:~$ cp /backup/kindle-dxg-output/rootfs.img /mnt/usb/
```

```
dpavlin@t61p:~$ touch /mnt/usb/NO_TTS
```

```
dpavlin@t61p:~$ sudo eject /dev/sdb
```

```
# Update Your Kindle
```

```
dpavlin@t61p:~$ mount /mnt/usb
```

```
dpavlin@t61p:~$ cp /mnt/usb/output/* /backup/kindle-k3g-output/
```

```
dpavlin@t61p:~$ sudo eject /dev/sdb
```

```
# mount DXG
```

```
dpavlin@t61p:~$ mount /mnt/usb
```

```
dpavlin@t61p:~$ cp /backup/kindle-k3g-output/update_dxg-update-os.bin /mnt/usb/
```

```
dpavlin@t61p:~$ cp /backup/kindle-k3g-output/tts-files.tar /mnt/usb/
```

```
dpavlin@t61p:~$ sudo eject /dev/sdb
```

```
# Update Your Kindle
```

## client: Kindle DXG D00801 - 2.5.8 555370010

```
[root@kindle root]# cat /proc/cpuinfo
Processor       : ARMv6-compatible processor rev 4 (v6l)
BogoMIPS       : 1593.88
Features        : swp half thumb fastmult vfp edsp java
CPU implementer : 0x41
CPU architecture: 6TEJ
CPU variant     : 0x0
CPU part       : 0xb36
CPU revision    : 4
Cache type      : write-back
Cache clean     : cp15 c7 ops
Cache lockdown  : format C
Cache format    : Harvard
I size         : 16384
I assoc        : 4
I line length   : 32
I sets         : 128
D size         : 16384
D assoc        : 4
D line length   : 32
D sets         : 128

Hardware       : Mario Platform
Revision      : 31020
Serial        : "B009A1A010860A1B"
```

```
[root@kindle root]# cat /proc/partitions
major minor #blocks name
```

```
 7      0    3510232 loop0
31      0         128 mtdblock0
31      1         3584 mtdblock1
31      2          32 mtdblock2
31      3         128 mtdblock3
31      4         3584 mtdblock4
31      5          64 mtdblock5
31      6         128 mtdblock6
31      7          24 mtdblock7
31      8          64 mtdblock8
179     0    3952640 mmcblk0
179     1    409624  mmcblk0p1
179     2    24576  mmcblk0p2
179     3     8192  mmcblk0p3
179     4    3510240 mmcblk0p4
```

```
[root@kindle root]# cat /proc/meminfo | head -1
MemTotal:      127128 kB
```

```
[root@kindle root]# cat /proc/cmdline
console=ttymx0,115200 mem=128M ro ip=none root=/dev/mmcblk0p1 lpj=2654208 panic=10 quiet
```

## Host: Kindle 3G+Wifi D00901 - 3.1 558700031

```
[root@kindle root]# cat /proc/cpuinfo
Processor       : ARMv6-compatible processor rev 3 (v6l)
BogoMIPS       : 511.18
```

```
Features      : swp half thumb fastmult vfp edsp java
CPU implementer : 0x41
CPU architecture: 6TEJ
CPU variant   : 0x1
CPU part      : 0xb36
CPU revision  : 3
Cache type    : write-back
Cache clean   : cp15 c7 ops
Cache lockdown : format C
Cache format  : Harvard
I size       : 16384
I assoc      : 4
I line length : 32
I sets       : 128
D size       : 16384
D assoc      : 4
D line length : 32
D sets       : 128
```

```
Hardware      : Amazon MX35 Luigi Board
Revision      : 35020
Serial        : "B006A0A0117503RS"
BoardId       : "SP1B000000000000"
```

```
[root@kindle root]# cat /proc/meminfo | head -1
MemTotal:      256536 kB
```

```
[root@kindle root]# cat /proc/partitions
major minor #blocks name
```

```
 7      0    3205336 loop0
179     0    3907584 mmcblk0
179     1     665628 mmcblk0p1
179     2     24576  mmcblk0p2
179     3      8192  mmcblk0p3
179     4    3205344 mmcblk0p4
```

```
[root@kindle root]# cat /proc/cmdline
console=ttyxc0,115200 mem=256M panic=10 root=/dev/mmcblk0p1 ro ip=none quiet lpj=2555904
```

## API

- <http://kdk-javadocs.s3.amazonaws.com/index.html?overview-summary.html>
- <http://download.oracle.com/javame/config/cdc/ref-impl/pbp1.1.2/jsr217/index.html>

fetchrss: <http://adq.livejournal.com/data/rss?tag=kindle>

- There was an error: 500 SSL negotiation failed:

- <http://code.google.com/p/adqmisc/>

## Source

## Amazon

- <http://www.amazon.com/gp/help/customer/display.html?ie=UTF8&nodeId=200203720>

## Open Source

- <https://github.com/apetresc/Kindle-Widget-Toolkit>
- <https://github.com/proDOOMman/KindleNote>
- <http://code.google.com/p/kdk-emulator/>
- <http://www.mobileread.com/forums/showthread.php?t=103867>
- <http://code.google.com/p/kindleflow/>
- [http://www.reddit.com/r/kindle/comments/dsrjm/readabilitymod\\_article\\_mode\\_update\\_for\\_kindle\\_3/](http://www.reddit.com/r/kindle/comments/dsrjm/readabilitymod_article_mode_update_for_kindle_3/)

## standalone kindle terminal

- <http://info.iet.unipi.it/~luigi/kindle/>
- <http://www.mobileread.com/forums/showthread.php?t=125860>

## Download Java2ME

Last version available for Linux: <http://www.oracle.com/technetwork/java/download-135801.html>

## Web server mobi mime type

```
AddType application/x-mobipocket-ebook .mobi
```

## wpa\_supplicant

- <http://www.mobileread.com/forums/showthread.php?t=99681>

```
id="$(wpa_cli add_network | sed -n '2p')"
```

```
wpa_cli \  
set_network $id ssid "UIC-Wireless" \  
set_network $id key_mgmt IEEE8021X \  
set_network $id eap TTLS \  
set_network $id identity "netid-here" \  
set_network $id anonymous_identity "anonymous" \  
set_network $id password "password-here" \  
set_network $id ca_cert "/mnt/us/certs/Thawte_Premium_Server_CA.pem" \  
set_network $id phase2 "auth=PAP" \  
enable_network $id \  
quit
```

# X patch

- <http://code.google.com/p/savory/source/browse/trunk/x11-on-kindle/xorg-1.6.patch>

# Kindle diagnostic mode

- <http://www.mobilerread.com/forums/showthread.php?t=122362>

```
touch /mnt/us/ENABLE_DIAGS
```

# Duokan

- <http://www.mobilerread.com/forums/showthread.php?t=105316>

# QEmu

- <http://people.debian.org/~aurel32/qemu/armel/>

```
wget http://people.debian.org/~aurel32/qemu/armel/debian_lenny_armel_standard.qcow2 \  
http://people.debian.org/~aurel32/qemu/armel/initrd.img-2.6.26-2-versatile \  
http://people.debian.org/~aurel32/qemu/armel/vmlinuz-2.6.26-2-versatile \  

```

```
qemu-system-arm -M versatilepb -kernel vmlinuz-2.6.26-2-vert=/dev/sda1" -m 256
```

Convert image to ext3 image and it will also work on Kindle using loopback mount

# rootfs images

```
qemu-img convert -f raw -O qcow2 /backup/kindle-dxg-output/rootfs.img dxg.qcow2  
sudo mount /backup/kindle-dxg-output/rootfs.img rootfs/ -o loop,ro
```

# HTML to mobi

- <https://dev.mobilerread.com/trac/mobiperl/wiki>

```
#!/bin/sh  
  
dir=/home/dpavlin/Downloads/pdf/aosabook.org/www.aosabook.org/en/  
list=/tmp/list  
echo index.html > $list  
grep '<td><a href="' $dir/index.html | cut -d\" -f2 | grep -v \# >> $list  
ls $dir/*.html | sed "s!$dir/!!" > /tmp/list.all  
  
sort /tmp/list /tmp/list.s  
sort /tmp/list.all /tmp/list.all.s  
diff /tmp/list.s /tmp/list.all.s | grep '^> ' | cut -d\" \" -f2 >> $list  
  
tool_dir=`pwd`  
cd $dir
```



```
$tool_dir/html2mobi \  
  --mobifile /tmp/aosa.mobi \  
  --title "The Architecture of Open Source Applications" \  
  --author "Amy Brown and Greg Wilson (eds.)" \  
  --coverimage $dir/../images/cover.jpg \  
  --removejavascript \  
  --imagerescale 0 \  
  --gentoc \  
  `cat $list`
```

## manual network setup using wifi

```
# add wireless network  
[root@kindle root]# vi /var/local/system/wpa_supplicant.conf  
[root@kindle root]# /etc/init.d/wpa_supplicant restart  
[root@kindle root]# udhcpc -i wlan0  
  
# ip route add default via ip.of.gw  
  
[root@kindle root]# cat /etc/resolv.conf  
nameserver 8.8.8.8  
  
[root@kindle root]# iptables -A INPUT -i wlan0 -j ACCEPT  
[root@kindle root]# iptables -A OUTPUT -o wlan0 -j ACCEPT
```