Xtrend ET9200 Review

Last week I received the latest twin Tuner satellite receiver from Xtrend with the the name **ET9200**.
Being a Clake-tech ET9000 owner since December 2010, I was curious about the differences with the ET9000, especially under the hood.
For users not familiar with the ET9000 model, I will include general information regarding the et9x00 series as well.

The ET9x00 is a Linux based twin tuner PVR with two fixed DVB-S2 tuners.
The receiver comes with a PLi Image pre-installed, which is based on Linux 3.1.0 at the time of writing.
With Linux kernel 3.1.0, Xtrend is years ahead of other manufacturers of Linux based receivers, that are still stuck on kernel 2.6.18 most of the time.
Another important feature that puts the Xtrend ET9200 ahead of the competition, is its integrated HbbTV Web-Browser.

Unboxing

The ET9200 comes in a nice cardboard box, with a big Xtrend logo on it, but in an unobtrusive way. Xtrend - The smart Gateway for Linux TV. The packaging contains the following items:

- **XtrendET9200 receiver**
- **ET9200 Remote Control (2 AAA Batteries included)**
- **Hdmi Cable**
- **Sata cable for connecting a Hard Disk Drive**
- **Loop through Cable**
- **Printed English and German Manuals**
- **4 Screws to fix a 3.5" HDD in the included bracket (bracket is pre-mounted inside the receiver)**

Externals - Front

The receiver looks quite good. The front has a black finish and a chrome coloured Xtrend logo on the top left. Top right we see a label with the text: HD Digital Satellite receiver ET9200. The letters on the label show different colours when light is falling on them.
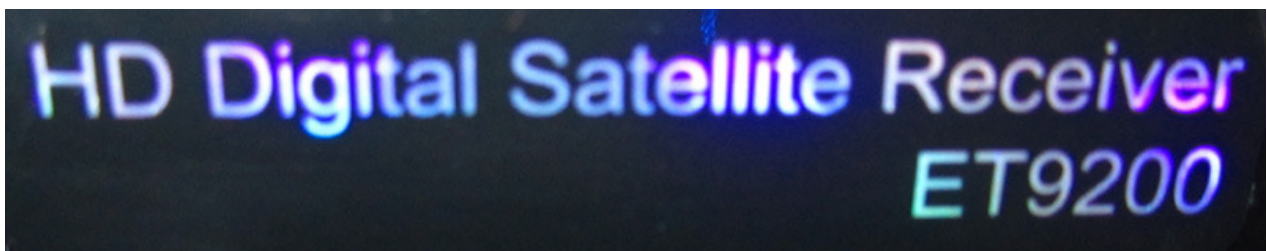
On the left side of the receiver's front we see a VFD (Vacuum Fluorescent Display), which is a 12-digit, non-graphical display. Most information on this display is in blue, and apart from (scrolling) text it has some fixed status icons as well. A few of these status icons are in red (mute and recording indicators). The recording icon has a nice touch to it; it's animated (a moving circle).

On the right side of the receiver's front, there is a flap (door) which is held in place by a small magnet. Behind this flap we find **two Cardreaders, two CI slots and a USB 2.0 Port**, as well as seven buttons for controlling the receiver without using a remote (**Volume-down, Volume-up, OK, Channel-down, Channel-up, Menu, Cancel**). These buttons are also used when flashing new software and/or bootloaders.

Right in the middle there's the standby button, which has a nice blue glow when in deepstandby mode.

Externals - Back

On the backside we see a plethora of connections. From left to right there are: **- Tuner 1 in & out - Tuner 2 in & out - HDMI Connector - E-SATA Connector - Ethernet (100 Mbit) - 2 USB 2.0 Ports - S/PDIF Optical Output - Composite Video output - Analog Audio L/R Outputs - Component Video Outputs (YPbPr) - 2 SCART Connectors - RS-232 Serial Port** On the right side we see a Power switch and a fixed power lead.

Overall, build quality is pretty good. My only complaint here is that the label and logo on the front could have been aligned better horizontally.

Remote Control

The remote is a Piano-Black, non branded, *Made in China* remote. It contains a lot of (small) buttons, so a lot of functions of the STB can be accessed directly. We see dedicated PiP, Mark, Timer, TimeShift, Filelist, Playlist buttons, and many more (see Picture).

The remote can also be used as a universal remote, to control your TV, DVD-Player and Auxiliary equipment (i.e. amplifier), being somewhat limited regarding functions that can be controlled. Nonetheless, this is a welcome feature. Because of the slight 'slope' on the front of the remote, you have to keep a low aim at your box, otherwise the IR beam will 'shoot' over. Because of the Piano-Black finish, the remote is pretty receptive to fingerprints.

Internals

Opening the ET9200 is easy. There are three screws on the back and one on each side. After removing the screws you can slide the topside off towards the back.

One documented difference of the ET9200 as compared to the ET9000, is that the ET9200 has twice as much NAND flash memory (256MB vs 128MB on the ET9000). This results in GSU (Glass System Utilities) reporting ~217MB of available root memory, using the UBIFS file system. On my ET9000, GSU reported ~104MB of available root mem.

There are also some undocumented *upgrades* that I will mention here;
The first thing I noticed when opening the ET9200 is the design of the power supply. It has a different layout and the heatsinks used are a bit larger. The location of some of the capacitors has also changed. It looks a bit *cleaner* somehow.
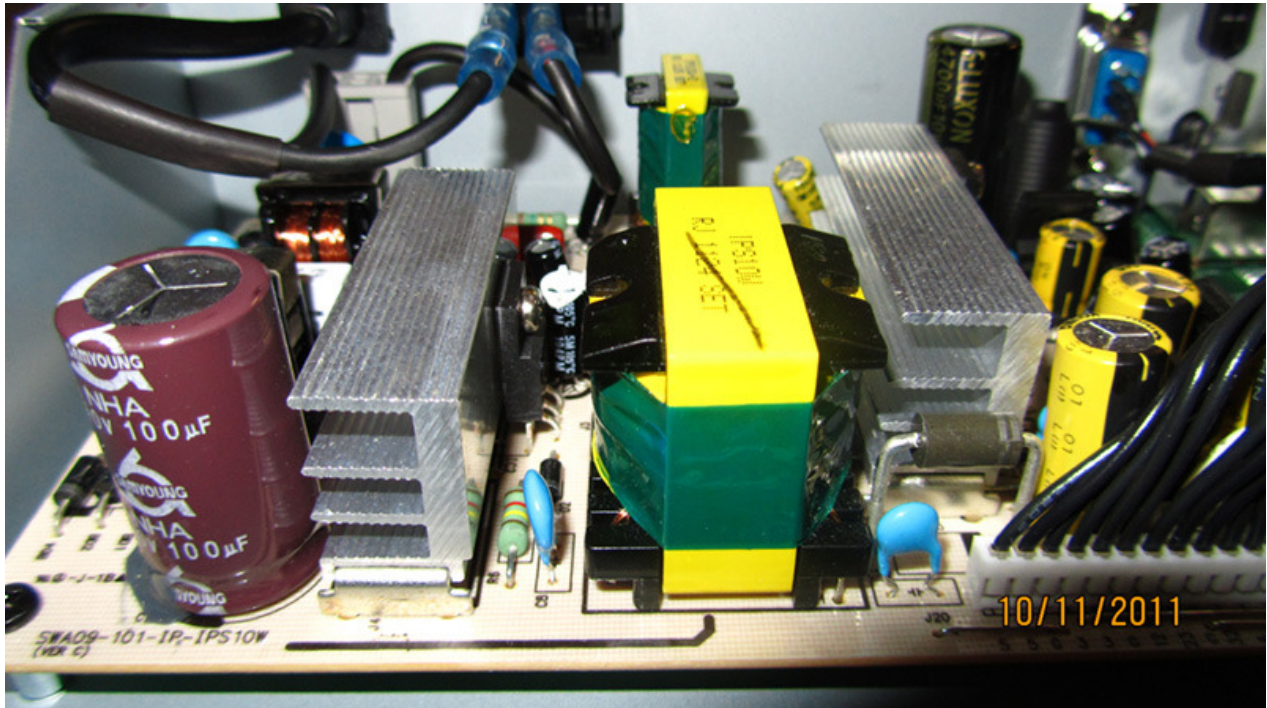

Secondly, there is the newer revision of the tuners. The same tuners are used, but with a different revision number. The 'old' ET9000 has tuners with revision code **100925 BAAATR**, and the tuners in the ET9200 have code **110521 HAAATR**.

Whether these tuners are more sensitive than the ones used in the ET9000 is hard to tell. I noticed, however, a slight improvement on Astra1 12343 MHz H 3/4 SR27500 and 12515 MHz H 5/6 SR22000, of about 0.5 to 1 DB. Don't know if this was a coincidence of some kind. An automatic scan of all satellites of my Multifeed setup (13e, 19.2e, 23.5e and 28.2) resulted in the exact same number of channels as on my ET9000, and were on par with the number of channels listed on KingofSat.
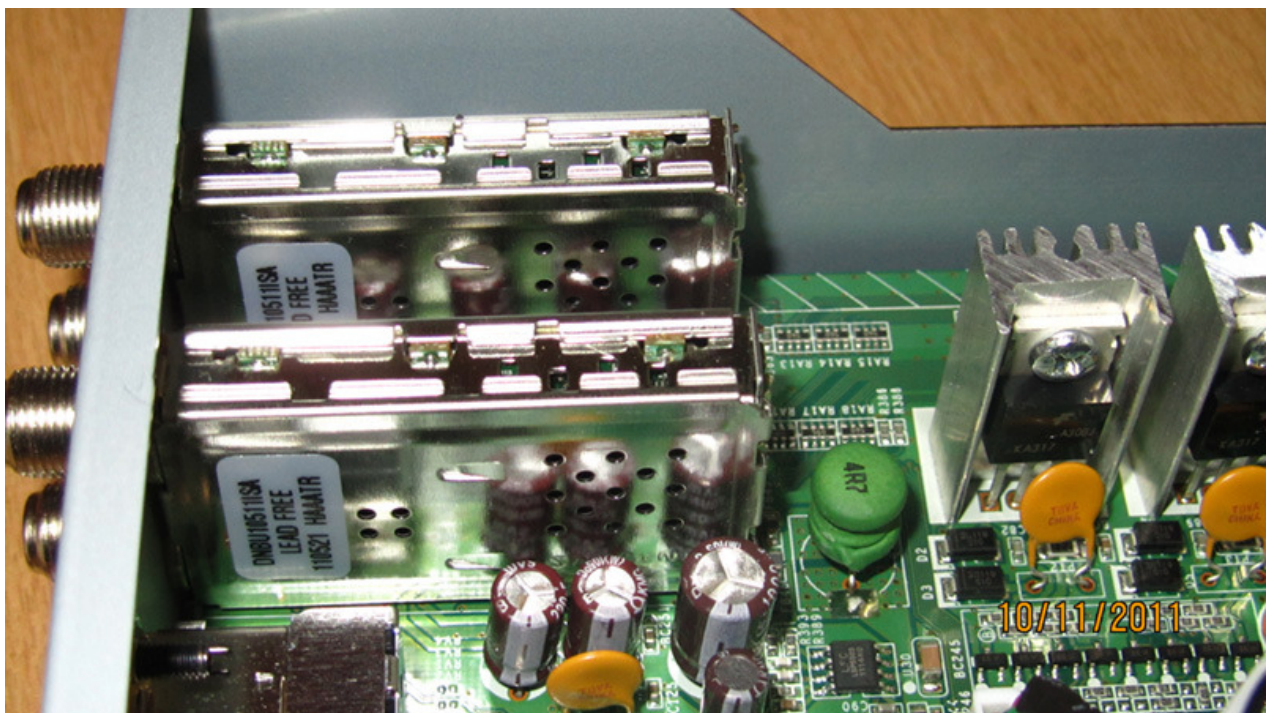
Taking a look at the security board, containing the much discussed Backup-battery, we see that the battery has a touch of glue on it. This was probably done to prevent users taking it out by accident or ignorance. It will at least make someone think twice before removing it. Furthermore, this is a clear statement from Xtrend that there is **no need** to swap out the backup battery, now or in the future!
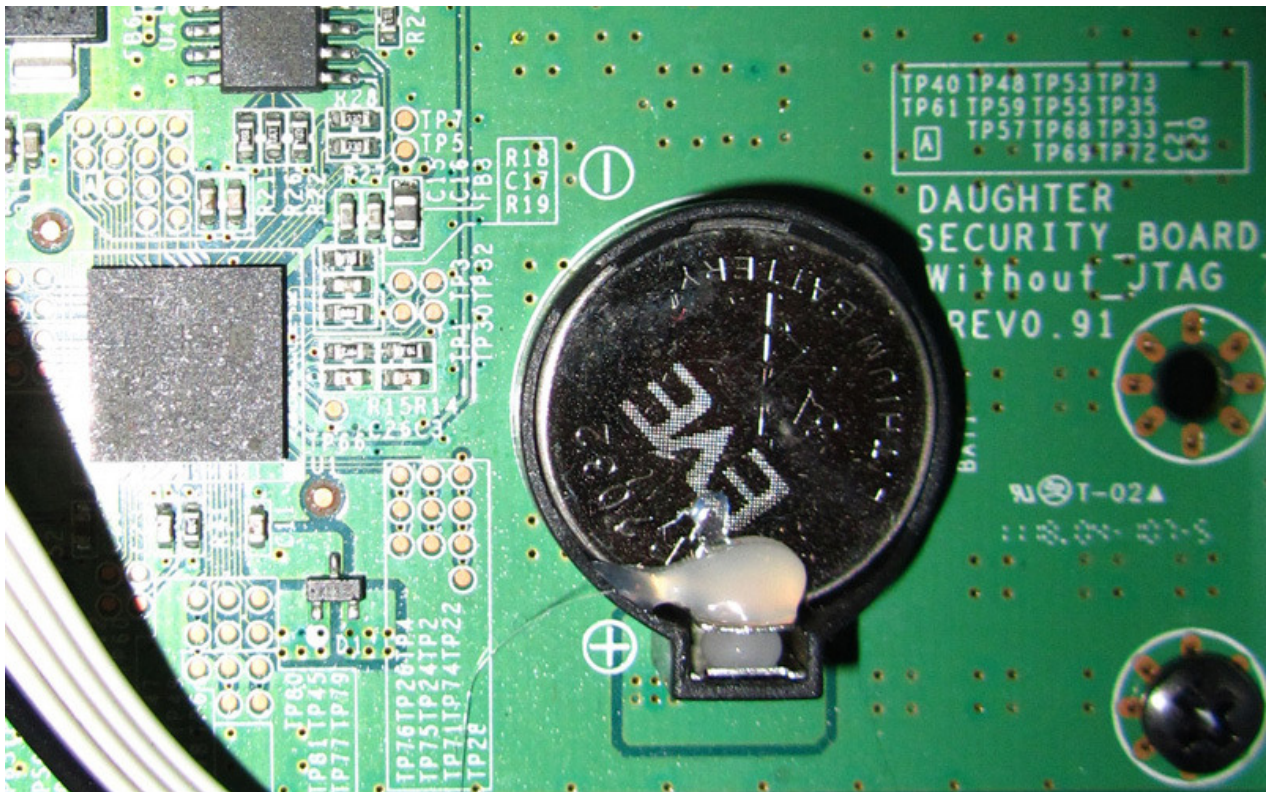
And then, last but certainly not the least: the capacitors.
Most capacitors used in the ET9x00 are of the brand Samyoung. In some reviews of the ET9000 it was mentioned that a lot of 85 degree capacitors were used. It was said that the use of these caps could reduce the lifetime of the STB. Whether this is really the case is difficult to say for a product that was launched about a year ago, but it's good to see that nXtrend, the manufacturer, has opted for only 105 degree capacitors in the ET9200.
In the ET9000 we could find the 85 degree capacitors on the mainboard near the hard drive and power supply, at the back in the area of the RCA outputs, and in the area of the tuners. These have all been replaced by 105 degree caps in the ET9200.
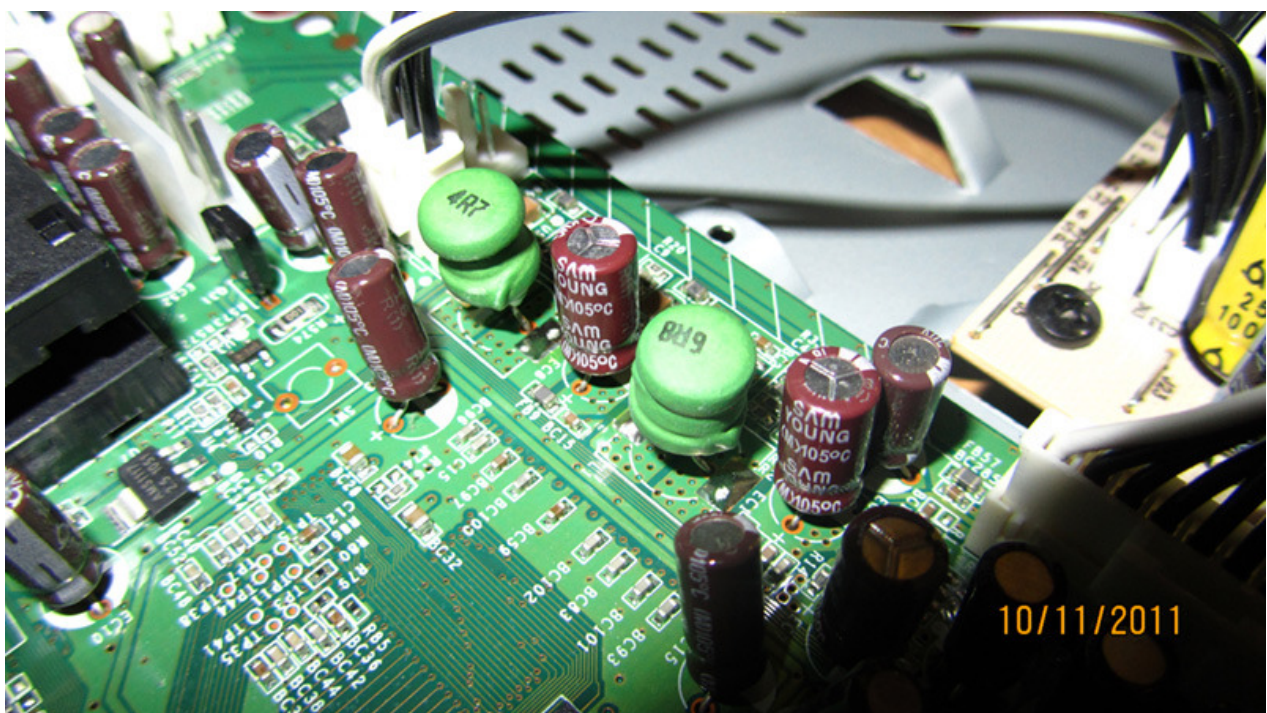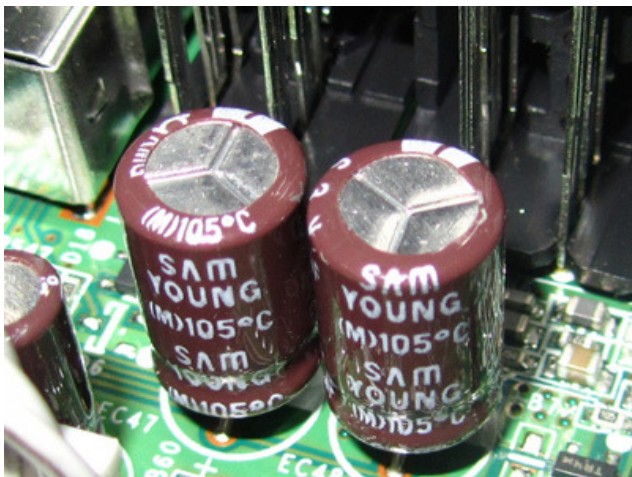

Capacitors on the ET9200...
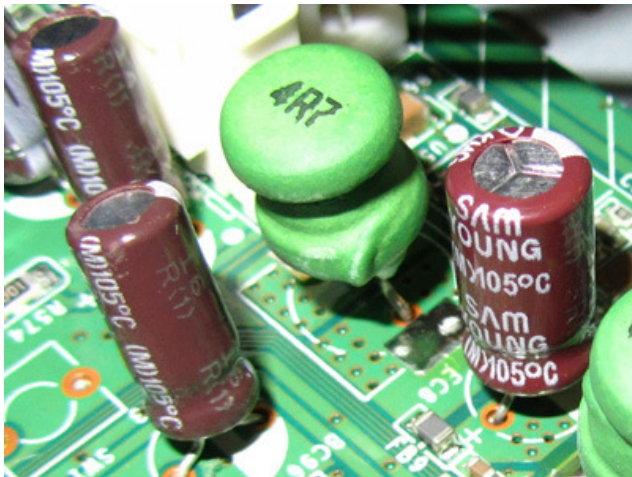
Zooming in on the caps near the power supply (ET9200 - Left | ET9000 -Right)...
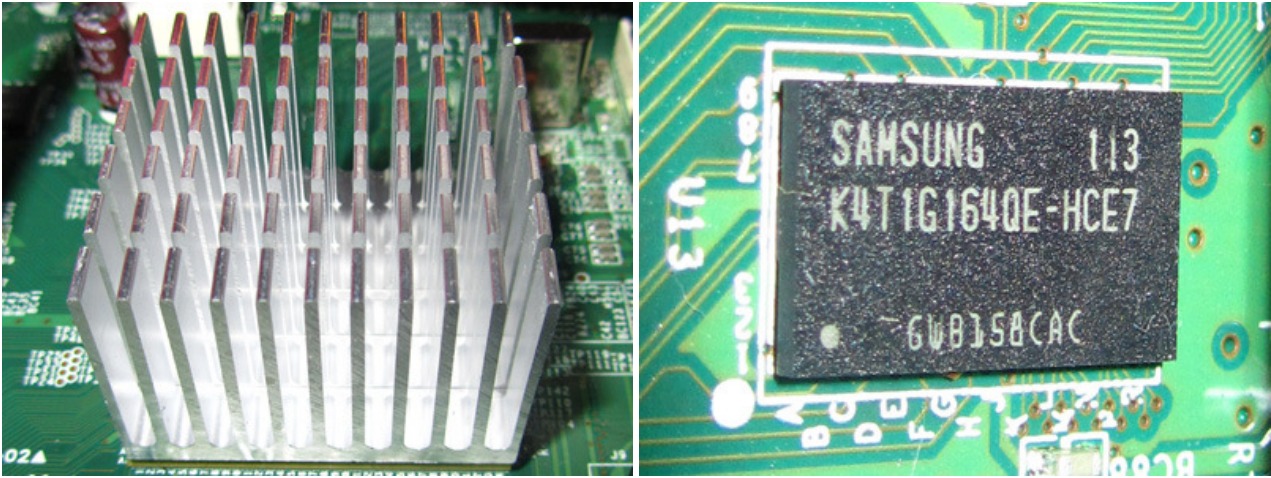

Zooming in on the caps at the rear (ET9200 - Left | ET9000 -Right)...

Zooming in on the caps near the tuners (ET9200 - Left | ET9000 -Right)...

Some things that did not need an upgrade, are the CPU (BCM 7413@405MHz), CPU Heatsink and the 512 MB of RAM (Samsung K4T1G164QE-HCE7 (2.5ns@CL5)).


Installing a Hard Drive

Installing an HDD is pretty straightforward. After taking the lid of the ET9200 off, and taking out the aforementioned five screws, you will see a mounting bracket on the lower left side of the receiver between the VFD on the front and the power supply.

This bracket is secured with three screws. Take it out and mount your HDD in the bracket with the supplied four screws. (If you're worried about temperatures, now is also the time to install a fan, but in most cases I don't think that's necessary).

Then remount the bracket with the Hard Drive installed. Connect the supplied SATA cable to the HDD and the mainboard, close the STB and tighten the screws. All set to go!
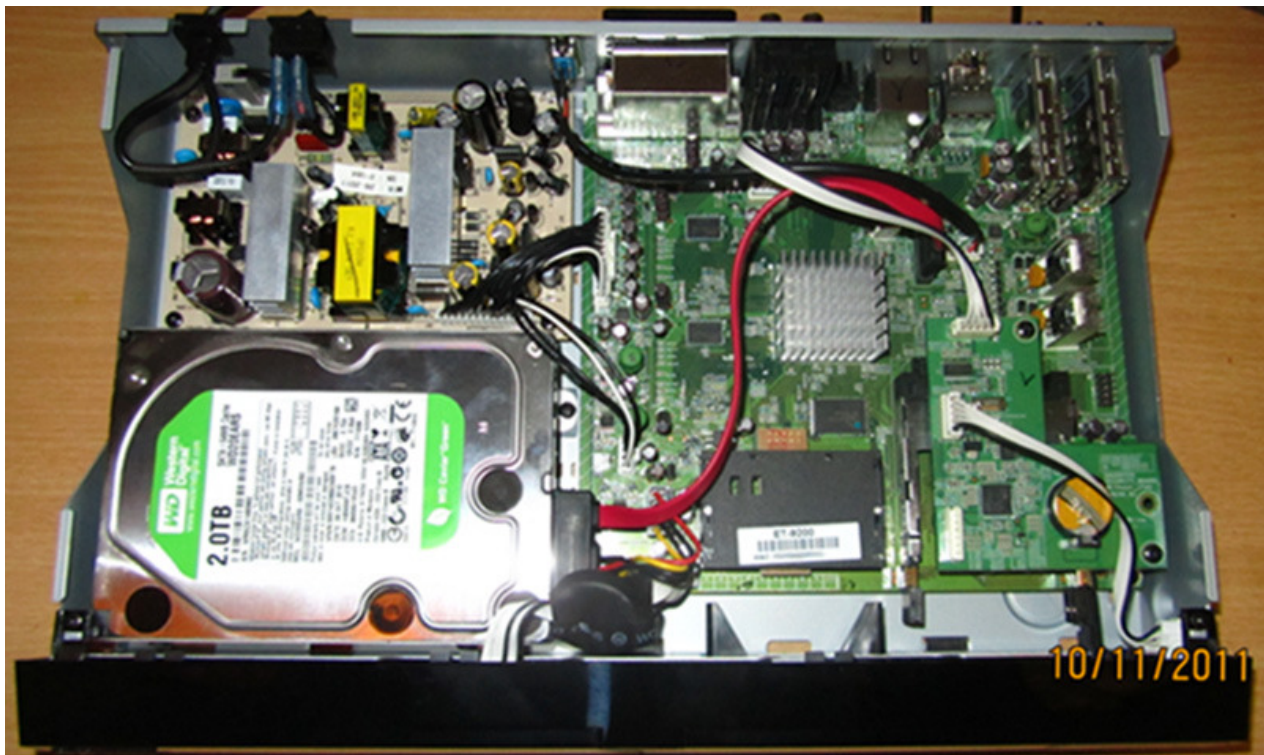
ET9200 with installed WD20EARS HDD...

Operation/Software

The ET9200 works like a charm. The sample I received came with the latest bootloader pre-installed and a PLi Image from the 10th of October. I've flashed both the Clarke-Xtrend Support V3 Image (Linux 3.03), and the Latest PLi (Linux 3.1.0).

Boot times are very quick. Starting up the ET9200 from the moment the switch on the back is flipped, until a picture is on the screen, takes about 60 seconds. This is with a fully functional Image of about 63MB, including several plugins, HDGlass16 skin and loading the Web-Browser in memory. The time it takes to wake up from Deep-Standby is the same.

Zapping is fast and picture quality is excellent! ECM times with my CanalDigitaal card were around 320ms. I didn't notice much difference here compared to my ET9000.

Linux 3.1.0 is the latest Linux Distribution, and as far as I know the Xtrend ET9200 is the only STB that runs this kernel. A previous step that put the ET9200 ahead of the competition, was the upgrade to kernel 2.6.31, which made Ext4, UBIFS and a Web-browsing available on the Xtrend.

The Xtrend ET9200 supports an HbbTV Web-Browser out of the box. This can also be achieved on the ET9000/ET9100, by turning it into a ET9X00 by means of software. HbbTV is a system for browser-based, interactive TV applications combined with DVB signalling protocols, for so called Red Button services.
Apart from accessing interactive services by means of pressing the Red-Button, it's also possible to access online services through the Weblinks Plugin. Services include **YouTubeXL, TomTom Traffic Info, Twitter, Uitzending Gemist and Buienradar**, to name a few.
Of course the Web-Browser can be used as a Full-HD stand-alone Web-Browser as well, featuring Mouse mode, select mode, customisable bookmarks, etc. Most keyboard/mouse combinations are supported as well. In the settings there is an option to choose whether a hardware or software (virtual) keyboard is preferred.
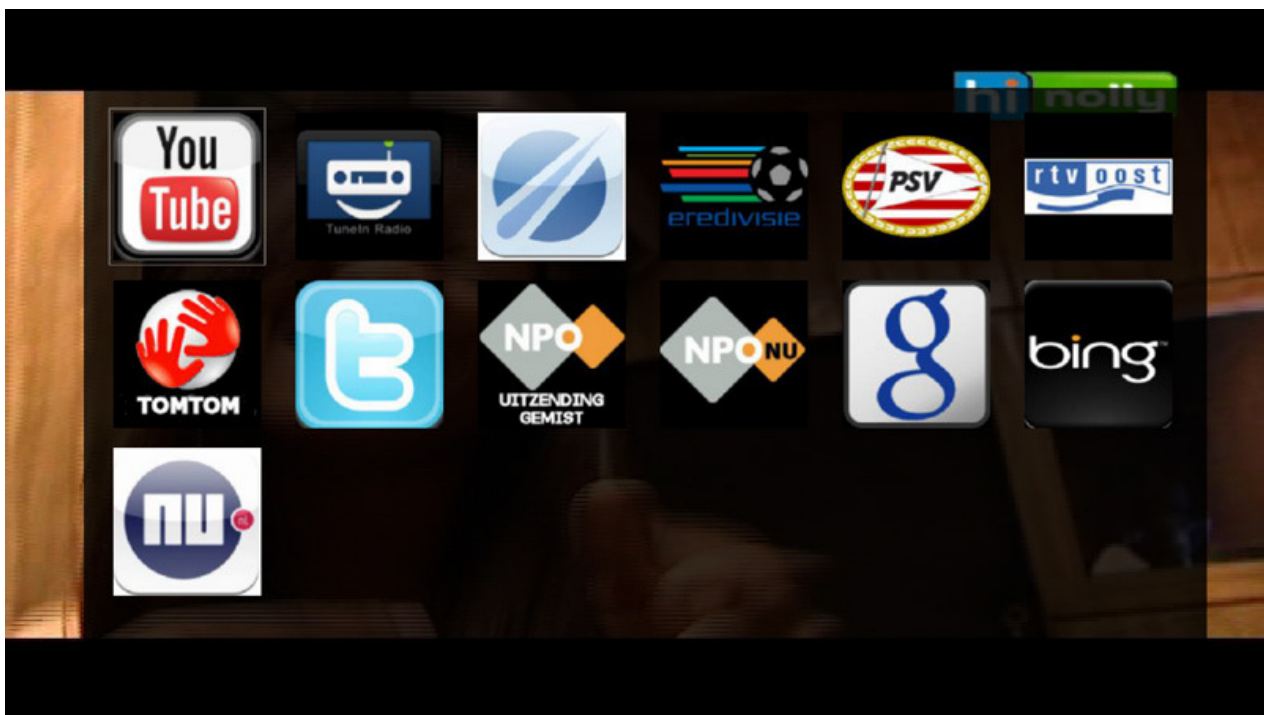
The Weblinks portal...

Conclusion

As you might know, the ET9200 costs about €100 more than the previous models ET9000 and ET9100, so the main question will be: is it worth the extra money?
I think the answer to this question is a definite yes!

The additional Flash memory in the ET9200 might not be a necessity right now, but we don't know what the future will bring. With the recent developments on the ET9x00 platform it might just come in handy in the future. I remember the frustration from the time I used a DM7025, a €500+ STB with way too little flash memory (on top of that it's obsolete already and it never really matured). Apart from being much happier with my ET9000 from day one, I never ran into small Flash memory troubles, and it feels good not having to worry about that with my new ET9200 for some years.

The newer revision of the tuners does not look like a big change, but it's always good to have the latest and the greatest.

Considering the re-worked power supply and the 105 degree capacitors used on the mainboard, this is the icing on the cake. It will be quite hard for any of the other manufacturers to state that their build quality and components are of higher quality, justifying a considerably higher retail price, because this is simply not the case. The ET9200 is a real bang for the buck. Only high quality components used!

I need to mention that part of the increased retail price of the ET9200 as compared to the ET9000/ET9100, is also related to the license for the HbbTV Web-browser. As you might know, the browser works without issues on the ET9000/ET9100 as well, but is not officially licensed on those boxes. Furthermore, the ET9200 supports Linux 3 and Web-Browsing out of the box, without having to go through any software modifications.

This is a Linux 3+ box! The rapid development, great driver support, and an ever growing Open source community, have drawn the attention of many well-known developers who are aware of the potential of this platform, and give the ET9200 a sound foundation for future development.

To summarise (six points on which the ET9200 beats the ET9000/ET9100):

- **256MB of NAND Flash (instead of 128MB)**
- **Improved Power Supply**
- **Higher quality capacitors**
- **New revision of the tuners**
- **Full HbbTV Web-Browser license**
- **Supports Linux 3+ and HbbTV out-of-the-box**

Things that could be improved:

The remote control needs a low aim to let the ET9200 pick up the IR signals every time.

Last Modified: November 19, 2011

Official Support site: http://www.clarke-xtrend-support.com