

DVB-Shop TT Premium S2300 (Rev 2.3), „modified“ Satellite Afterburner for a PC

Media PC's have been increasingly finding a home in many a living room. This continually places new requirements on PC cards for satellite reception. The most important of these requirements is that there should be absolutely no cooling fan noise in the living room. The PC in our test labs is for the most part quiet but has obsolete hardware. A processor equipped, hardware based MPEG-DVB-S card always has to face these two arguments.

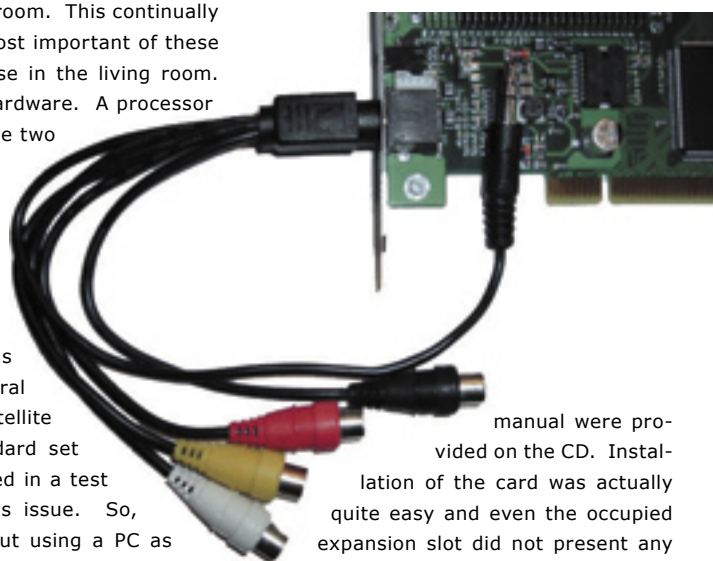
Technotrend cards are typically the first choice in these scenarios - they don't manufacture the NEXUS-S card for no reason. Over the years however we saw the appearance of the FBAS output as well as other small inadequacies that, when used with high-quality displays such as projection systems or large screen TV's, didn't really help all that much. It was just a matter of time before someone would take a satellite PC card and modify it so that it meets today's requirements.

The Technotrend Premium S2300 (Rev 2.3) "modified" is distributed exclusively by DVB-Shop. The significant improvements to the otherwise identical card to the NEXUS-S from Hauppauge are summarized here: the Technotrend Premium S2300 (Rev 2.3) "modified" from DVBSshop comes with a Crystal Audio DAC as well as RGB/S-Video outputs via Scart thanks to a modified J2 jumper block (this is where the "modified" term comes

from). Even the LNB power supply through a rebuilt LNBP20 was improved. The general advantages of a satellite PC card over a standard set top box were discussed in a test report in the previous issue. So, if you're thinking about using a PC as a media server via a local network (UPnP and wireless LAN, for example), you should choose to use a robust satellite PC card such as the Technotrend Premium S2300.

The Card

The PC card is supplied with a cable cluster from which the audio output can be connected to the Line-In of the soundcard as long as the internal audio connector wasn't already connected to the card. Additionally, the expansion of the J2 connector was also available. The Windows drivers and a user



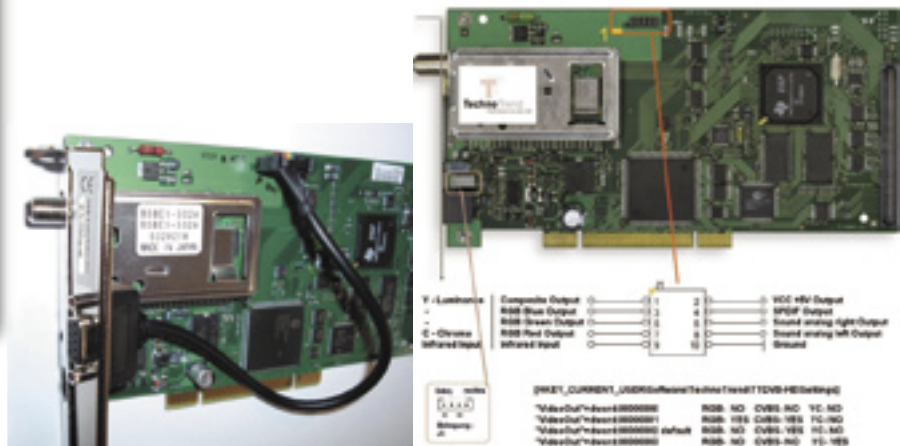
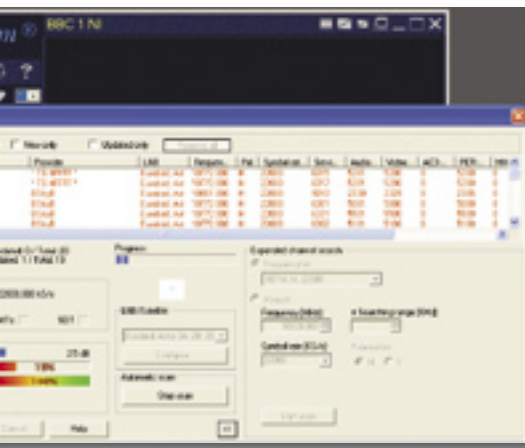
manual were provided on the CD. Installation of the card was actually quite easy and even the occupied expansion slot did not present any problems. A disadvantage could be the full height of the installed PC card (also called full profile) since most living room PC's only come with a half-sized PCI expansion slots. This mechanical hurdle does not exist with most office and work-room computers.

Installation

The installation of the card's drivers was accomplished on our test PC (HP Pavillion with 3 GHz processor, 512 MB RAM and Windows XP Professional SP2) without any difficulties. According to DVBSshop, 80% of these cards are built into HTPC's; Linux computers based on LinVDR (see also www.vdr-portal.de). Set top box manufacturers are also being shipped these cards from DVBSshop since under Linux a hardware MPEG-2 card with a video output must be available.

Back to our test PC: after the successful installation of the drivers, we loaded the software that was on the included DVD. On the one hand this consisted of the application "Digital TV" and on the other it was "DVB data." "Digital TV" (we had version 2.19 with "Direct Show Filter") is not all that user-friendly but, aside from the logo, is identical to the Hauppauge Nexus-S software.





Watching TV

With the card in operational mode, only 3% of the system resources were in use. A scan of the Eurobird 1 and Astra 2 positions at 28.2° and 28.5° east was completed in just about 15 minutes. It's obvious that this record speed might present a problem: overlooked channels. But a comparison with a list of all channels that are actually available showed that there were no errors. It's interesting to note that the manual comparison of the lists took roughly 45 minutes. Unfortunately, "Digital TV" only supports Simple DiSEqC or DiSEqC 1.0 thus limiting the number of active satellites to four. An alternative for DiSEqC 1.2 is the free ProgDVB software (www.progdvb.com) allowing this card to also handle DiSEqC 1.2 signals. Especially noteworthy are the various data formats that this card supports in recording mode:

- PVA: Recording of data in PES audio/video format
- MPG / MPEG-2
- PSV: PES video format (only video)
- MP2 audio format (only audio)

The highlight of TV Mode is without a doubt the "Program Guide", a compilation of EPG data that is displayed in HTML format. Unfortunately, Internet Explorer (with its activated Javascript) is implied here - something that is not exactly modern anymore and somewhat takes away from the otherwise good impression we had. Alternative software is readily available (www.dvbsoft.net/content.php?article.11). The recordings that were selected via the EPG were correctly executed.

Of course "Digital TV" also supports Time Shift although actually using it might take a little getting used to. It functions only if Intervideo WinDVD is installed on the system. For time-shifted recordings the video is software decoded. Therefore the use of the time-shift function requires a Pentium III, 500 MHz, 128 MB RAM or higher system.

DVB-S PCI Sat Card

The above-mentioned requirements don't sound all that much; the last time a Pentium III 500 MHz machine could be found in your local computer store was back in the summer of 2005. It will be difficult not to meet the minimum requirements for time-shift recording. The picture quality of the Technotrend Premium S2300 (Rev 2.3) "modified" was tested on a 42" plasma TV. We were not surprised with the results. The difference between the composite signal of a Hauppauge Nexus-S was not only measurable, but also visible. According to DVBSHOP, an expansion of the component output is being worked on that will eventually allow connection to high-quality projection systems.

Data Software

The "DVB Data" software that is also included with the Premium S2300 naturally supports Internet-via-Satellite and comes already preconfigured with a number of service profiles for Astra and Hotbird. IP radio, IPTV as well as one-way Internet services are also possible with this software. By means of an automatic configuration mechanism - based on the DVB specification for radiating data via satellite (EN 301,192) - according to the SES Astra "multi-transponder implementation guideline for IP multicast of services", this can automatically access the IP/MAC multicast stream,

which can be on one or more transponders. Naturally this can take place via other networks if an IP/MAC Notification Table (INT) is available. The official software and drivers as well as tips on third-party applications plus additional links are available in DVBSHOP's Support forum (www.dvb-shop.net/forum). There are plenty of supporters for the Nexus-like cards in this forum and also quite a bit of helpful information when it comes to exotic configurations.

The FAQ's are actively being kept up-to-date by DVBSHOP; something that with other manufacturers and dealers is more the exception than the rule.

Conclusion

If the PC's processor is running at less than 1.2 GHz or if it's questionable if the Linux (VDR) operating system is in use or if a projection system, flat screen TV or AC3 receiver is to be used, then there's no getting past this card. And let's not forget that the picture quality of a digital signal is not hinged on the tuner itself but rather on the various filters and (MPEG-2) decoders. Since the Technotrend Premium S2300 (Rev 2.3) "modified" is built around an MPEG-2 hardware decoder, it is relatively comfortable in handling the moderately coded transport streams of many smaller TV stations. If you are interested in quality, trouble-free satellite reception on your PC, you should definitely take a closer look at the modified version of the Technotrend Premium S2300 (Rev 2.3).

Expert conclusion



As a hardware MPEG-2 DVB-S card, it is predestined for rigorous work in media servers or for upgrading older PC's. Outstanding RGB picture quality on plasma TV's and projection systems.



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There might be a problem installing this "Full Profile" card in many living room media PC's. The TV application only supports DiSEqC 1.0 and Simple DiSEqC.

DVB-Shop TT Premium S2300 v2.3 „modded“ DVB-S PCI-card

TECHNICAL DATA

Distributor	DVB Shop
Website	www.dvbshop.net
Model	TT Premium S2300 v2.3 "modded"
Function	Digital satellite tuner PCI card
System Requirements	Windows 98SE/ME/2000/XP, 500MHz PIII or above, 128MB RAM or above, VGA Card with at least 16MB Memory
Input frequency range	950~2150 MHz
Symbol rate	2~45MSPS
SCPC compatible	yes
C-band compatible	yes
DiSEqC	1.0
IP multicast	yes, EN 301 192
Teletext	yes
EPG	yes
Channel memory	unlimited

