

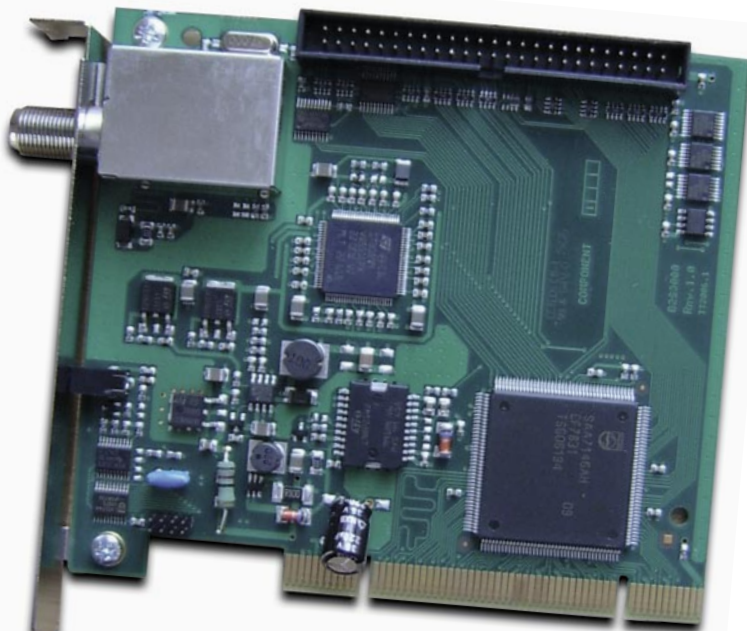
# TechnoTrend S2-3200

## Inexpensive HDTV on Your PC

While many of the larger TV networks are slowly catching on to the HDTV idea, the necessary receivers are very hard to find much like the proverbial needle in a haystack. After introducing the first DVB-S2 set top box in a previous issue of TELE-satellite magazine, it only makes sense to take the next step and introduce in this issue the DVB-S2 PC card. The German company DVBSHOP distributes this model

worldwide exclusively under the model number S2-3200. TechnoTrend needed to delay the release of this new card to the market because the required MPEG-4 chips were simply not available. Fortunately, the manufacturer used this extra time wisely by developing software that is truly bug-free and problem-free.

though, actually using one of these motors with the card may not be a good idea. The 14/18-volt control voltage for the LNB is derived from the 5-volt supply voltage on the PCI bus. The motor would use this same voltage and could overwhelm the card.



The card itself at first glance does not appear special and does not give you any idea as to what its potential really is. The first thing you notice would be the satellite IF input and the IR receiver. A 50-pin connector for use with an optional CI interface is also visible. The included remote control is somewhat small in size but after getting used to it, it will let you control the card without any problem. The detailed user manual for operation of the TechnoTrend Media Center Software can be found on the included installation CD in PDF format.

### Everyday Use

The installation of the card and associated software is nothing more than plug-and-play. After plugging the card into an empty slot and turning the PC back on, Windows immediately recognizes the new hardware and asks for the appropriate driver. As soon as this is taken care of, all that remains is the installation of TechnoTrend's Media Center software.

Not even a restart of the PC is needed; the card can be used immediately. On the hardware end, TechnoTrend recommends a 1 GHz Intel Pentium 3 for normal DVB-S; for HDTV content it should be at least a 3.4 GHz Pentium or AMD 3500+/Dualcore with a powerful graphics card (AGP or PCI Express with a minimum of 64 MB RAM). Microsoft Windows XP is also required. The S2-3200 needs a PCI slot all by itself; if you also use the optional CI interface, you will need a second empty slot. But this will let you easily insert all the different CI modules in the back of the PC.

The included software is actually divided into two parts: the first is the TechnoTrend Media Center for TV reception and the second is a tool for reception of data services such as Internet via satellite. The Media Center comes preprogrammed with a nearly complete channel list for the Astra position (19.2° east) in Europe. This channel list is conveniently sorted by provider allow-

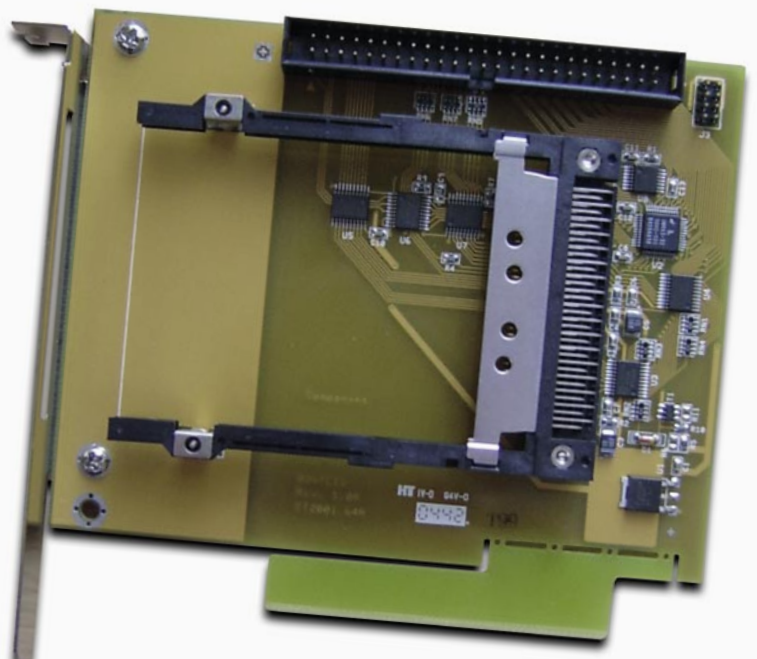
ing you to easily find all of your favorite programs. If you want to receive other satellites besides Astra, this is easily accomplished via the Channel Search menu. A total of 141 European, Asian and American satellites are preprogrammed into memory. The fact that the transponder data of a few of these satellites might not be all that up-to-date, is more than made up for by the sheer number of satellites available. Editing or adding new transponder data to any satellite is simple. Every possible local oscillator frequency (LOF) is also freely selectable. In addition to a manual transponder scan, an entire orbital position can of course also be scanned; an 80-transponder satellite required roughly nine minutes for just such a scan.

The integrated DiSEqC 1.0 protocol lets you use this card with up to four individual LNBs. The DiSEqC 1.1 protocol, that would have allowed up to 16 LNBs to be controlled, is unfortunately not available. If you have a DiSEqC motor that you can call your own, the integrated DiSEqC 1.2 protocol lets you also operate your motor with this card. In general

The Media Center software is divided into three sections: in the upper left side you will find the Control Bar from which all available functions can be activated with a single click. On the right side is the channel list and in the center is of course the TV screen from which you can view the currently selected channel.

Thanks to the preprogrammed channel list, the user can get started immediately after the installation with the first channel appearing on the screen in less than two seconds. For a PC, this switching time is actually quite good; switching between two channels on the same transponder required just under one second while switching between two different transponders took just about two seconds.

The EPG is especially appealing in that it could make some owners of normal set top boxes turn green with envy. The EPG needed just a few seconds after switching to a channel to gather all of the necessary EPG data. This data, including expanded EPG info (assuming the provider makes this data available) can



then be logically arranged with just the push of a button.

Thankfully, the EPG window lists all the other channels and has already downloaded the EPG data. Now a simple push of a button displays the selected data.

Should the telephone ring while enjoying an evening in front of the TV or if someone should ring the doorbell and pay you an unexpected visit, the integrated Time Shift function lets you pause the program you were watching and continue it after you have taken care of business. With the help of the Timer function, numerous programs can be marked in advance for recording. Both weekly and daily timers are supported. Of course, this will only work if the PC happens to be turned on at the time the recording is supposed to take place.

The TechnoTrend manufactured tuner is sensitive although it does have its problems with narrow-band SCPC signals. Our 1.3 Ms/sec. test transponder could not be scanned; only with signals starting at 4 to 5 Ms/sec. the S2-3200 could play along.

After exploring all of its basic SDTV functions, we naturally wanted to finally check out its HDTV reception. We quickly found the HD services from the German Pro7 and Sat1 channels and in less than two seconds, the channels were on the screen with outstanding picture quality. Thanks to the CI interface even encrypted programs such as the German Premiere HD PayTV package can be received.

While the playback of SDTV transmissions put hardly any workload on our P4 3.7 GHz processor, the much higher requirements for HDTV reception were clearly recognizable. As long as no other

programs were open aside from the Media Center, audio and video could be synchronously displayed without any problems. But as soon as additional programs were started that put an added load on the CPU, the quality of the HDTV picture paid a price.

TechnoTrend certainly cannot be held responsible for this considering the PC in our test lab lies at the bottom end of the power scale.

If you have an AC3 or Dolby Digital stereo speaker system linked to your PC, you can naturally enjoy crystal clear audio along with your super sharp picture. Contrary to other S2-DVB set top boxes, the TechnoTrend Media Center even has no difficulty recognizing the British Sky Digital and BBC transponders on Astra2 at 28.2° east. First class documentaries in high-quality HDTV are no longer an obstacle.

In addition to TV reception, the Media Center also comes with the ability to play back a variety of video formats on the PC and thanks to the integrated picture-in-picture function (PIP) you can even watch TV in a small window while playing back a video. Annoying commercial blocks can thus be easily skipped over.

The CI expansion module allows the S2-3200 to also receive PayTV services in addition to free TV. The three CI modules we tested (Alphacrypt CI with a Premiere card, Viaccess CI and Irdeto CI) functioned perfectly.

The Media Center Software comes with a separate menu selection that gives the user the ability to program every button on the remote control to their liking. Because of this, it is necessary to "teach" the remote before its used for the first time and to save all button settings. Once this is taken

care of, the remote control is much more fun to use thanks to the individual button programming.

In addition to TechnoTrend's Media Center software, a number of extra programs are available that can be used with this card. For DXer's out there that simply can't do without their ProgDVB, you can rest easy because it works very well with this card. Even HDTV programs in S2-DVB can be presented despite the lack of support in ProgDVB. The data application that in this case operates in the background as a Tuning Helper makes it possible. If DVbViewer is your program of choice, you will

not be disappointed either. This program also worked very well together with the S2-3200.

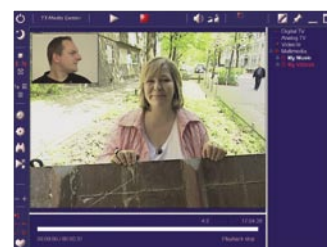
In this issue of TELE-satellite we looked at different MPEG 4:2:2 reception possibilities and with that in mind it certainly made sense to put the S2-3200 under a microscope and check this out very closely as well. It didn't take long at all for us to realize that the TechnoTrend Media Software could not handle MPEG 4:2:2 reception but thanks to ProgDVB all is not lost. Even other programs that have been used for MPEG 4:2:2 feed reception worked quite well with this card in our tests.



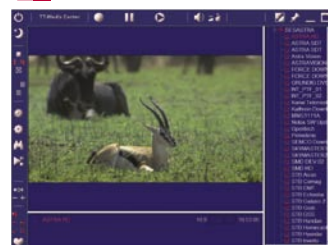
| TECHNIC DATA         |  |
|----------------------|--|
| Distributor          | DVB-Shop, Germany  |
| Telephone            | +49-34954-31960  |
| Fax                  | +49-34954-49233  |
| Internet             | www.dvbshop.net  |
| Model                | S2-3200  |
| Function             | PC card for reception of DVB and DVB-S2 signals in SDTV/HDTV |
| Channel Memory       | Unlimited  |
| Satellites           | 141  |
| Symbolrate           | 4-45 Ms/sec.   |
| SCPC Compatible      | yes, starting at 4-5 Ms/sec.                                 |
| USALS                | no   |
| DiSEqC               | 1.0 and 1.2  |
| EPG                  | yes  |
| C/Ku-band Compatible | yes  |



Media Center Software |



Picture in Picture |



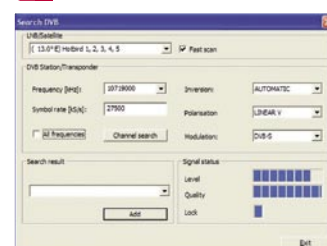
HDTV Reception in DVB-S |



MPEG 4:2:2 |



SAT1 HD in DVB-S2 |



Channel Scan |

## Expert conclusion



The TechnoTrend S2-3200 is a multifaceted card that despite being introduced only a few weeks ago has already made quite an impression. TechnoTrend used the waiting time for the necessary chips very wisely and is thus able to offer a perfectly functioning software package. The presentation of HDTV programs in DVB and DVB-S2 functions correctly, and on top of all this, DVBSHOP offers this card at a very attractive price.



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Test Center  
Austria

None