

# DVB-BAUGRUPPE DVB BOARD

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*Betriebsanleitung*  
**OPERATING MANUAL**

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**DVB-BAUGRUPPE**  
**DVB board**

**Betriebsanleitung**  
**Operating Manual**

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# Introduction

The DVB board provides digital TV for your PC. The open concept enables receipt of Free-TV and multiple different Pay-TV stations (only with optional CA module) as well as receipt of digital radio.

Digital TV offers

- more programs (Free-TV and Pay-TV), therefore more choices for programs
- better monitor and sound quality via digital transmission technology
- additional functions depending on program offering as well as memory functions for TV/video or child safety functions
- options for digital services such as video text or information channel
- individual program structure with Electronic Program Guide (EPG)

The DVB board is available in two models: DVB-C (Cable) and DVB-S (Satellite).

Sections in this manual in which a general reference is made to the "DVB board" apply to both models.

Cable connection is required for digital TV reception with the DVB-C board. Contrary to many other digital TV stations, the DVB-C board with plugged in analog module (optional) allows you to receive analog TV via cable additionally.

Satellite connection is required for digital TV reception with the DVB-S board.

The comfortable user interface facilitates interaction with this new medium "digital TV". The software *DVB PCI TV* guides you in a user friendly manner through the multitude of new functions which are available with digital TV. A program overview shows all available channels on one screen, the actual screen size can be adjusted. The DVB board is prepared to support digital program functions such as language-dependent subtitles or information for movies. These are all new functions which improve the digital transmission of TV considerable, especially due to the extremely improved quality.

In addition to TV and radio the transmission standard DVB (Digital Video Broadcasting) offers other fascinating data transmission possibilities. Besides image and sound content, the DVB board can receive data at very high transmission speeds (multiple Mbit/s). Data transmission and Internet application speed is increased tremendously.

With an optional back channel (modem) the world of interactive services is available as well. This alternative to the telephone line may also be used in the future development of language communication.

The DVB board turns your PC into a multimedia center where computer technology and entertainment technology merge. A multicable enables you access for analog audio and video devices as well as connections for a digital audio device.

This manual contains all the information you require to install and operate the DVB board.

## Target group

You require some hardware knowledge in order to mount the DVB board. Knowledge of the operating system used is required for installing the software.

## Further information

The latest information on our products, tips, updates, etc., can be found on the Internet under: <http://www.fujitsu-siemens.com/computer>

Further information on your PC is contained in the PC Operating Manual and in the Technical Manual for the system board.

Information on boards, drives and other devices is contained in the manuals you received with these products.

Information on your operating system and the application programs you are using is contained in the associated manuals or help texts.

## Notational conventions

The meanings of the symbols and fonts used in this manual are as follows:



Pay particular attention to texts marked with this symbol. Failure to observe this warning endangers your life, destroys the system, or may lead to loss of data.



This symbol is followed by supplementary information, remarks and tips.

► Texts which follow this symbol describe activities that must be performed in the order shown.

*Italic text* highlights file names, menu items, command names and messages in the body of the manual text. In addition, inputs that you are required to make also appear in *italics*.

"Quotation marks" indicate names of chapters, disks, CDs and terms that are being emphasized.

# Important notes

Please read this page carefully if you want to change the settings on your DVB board or install/remove a board.



You must observe the safety information in the "Safety, Guarantee and Ergonomics" manual and in the Operating Manual of your PC.



Boards with electrostatic sensitive devices (ESD) may be identified by the label shown.

When you handle boards fitted with ESDs, you must observe the following points under all circumstances:

- You must always discharge yourself (e.g. by touching a grounded object) before working.
- The equipment and tools you use must be free of static charges.
- Pull out the power plug before inserting or pulling out boards containing ESDs.
- Always hold boards with ESDs by their edges.
- Never touch pins or conductors on boards fitted with ESDs.

## CE certificate



The shipped version of this board complies with the requirements of the EEC directive 89/336/EEC "Electromagnetic compatibility".

Compliance was tested in a typical system configuration.

When installing the board, refer to the specific installation information in the Operating Manual or Technical Manual of the receiving device.

Connecting cables for peripherals must be adequately insulated to avoid interference.

# DVB-C board

Please read this chapter if you wish to install a DVB board of the model DVB-C (cable).

## System requirements

Requirements for upgrading your PC by means of the DVB-C board are:

- a free busmaster-capable PCI slot for the DVB-C board
- a free slot for the connector bracket (connection for antenna cable and multicable)
- a PCI screen controller, that works with a linear driver (more than 32 K colors), e. g. S3 Trio, S3 Trio 64+, S3 Virge/DX/VX, Vision 968/868, Permedia, Permedia II, Rendition, Riva128, Riva128 TNT, ET6000, ARK2000, Alliance Promot, 65550, 65554, ATI Mach64, Rage II, Rage II +, Rage Pro, 9680/9685, GD5436/46, GD5464, GD5465, GD5480, Millennium, Millennium II, Mystique, Matrox G100, Matrox G200, Twister, Eclipse, I740, ALG2564, OTI64111, Voodoo Banshee)
- Windows 95 or Windows 98 as software platform (Windows NT is under preparation)
- a free interrupt and free memory address area
- P133 processor or higher
- at least 16 Mbyte main memory



If you use the DVB-C board without the optional CA module you save a slot (see section "[Notes regarding installation without CA module](#)").

## Delivery scope

The complete shipment comprises:

- a DVB-C board
- a connector bracket with mounted antenna and signal cable
- an internal audio cable
- a multicable with nine connectors for audio and video devices
- one CD with DVB software
- this Operating Manual

## Optional components

As optional components there are the following modules to add to the DVB-C board.

### CA module

When using the CA module (Conditional Access) you can use the Smartcard of a Pay-TV service provider and therefore receive Pay-TV stations.

### Analog module

With the analog module you can receive analog stations in addition to digital stations via cable.

## Features of the DVB-C board

- DVB compatible (according to ISO 13818, ETS 300 468)
- Receiver for DVB-C (Digital Video Broadcasting Cable)
- Scaleable video image (768 x 576/PAL), with specific screen controllers also 1024 x 768 (e. g.. Rendition2100/2200, Riva128, Riva128 TNT, ET6000, Rage Pro, I740, Voodoo Banshee)
- RGB/CVBS or Y/C/CVBS output
- PCI inlay technology for system graphics processor
- On-Screen Display (OSD) with maximally eight windows (transparent and color)
- Common Interface (CI) for High-Speed encoding module (only with CA module)
- second, internal CI prepared
- Electronic Program Guide (EPG) supported by SDK (Software Developer Kit) for special solutions
- SPDIF output (Digital Audio)
- Recording and playing of MPEG-2 files (<10 Mbit/s)
- DVB Common Descrambler for simple Conditional Access (CA)
- Analog TV in PAL B/G,/I/D/K and SECAM (only with analog module)
- Complete control via remote control

## Installation of the DVB-C board



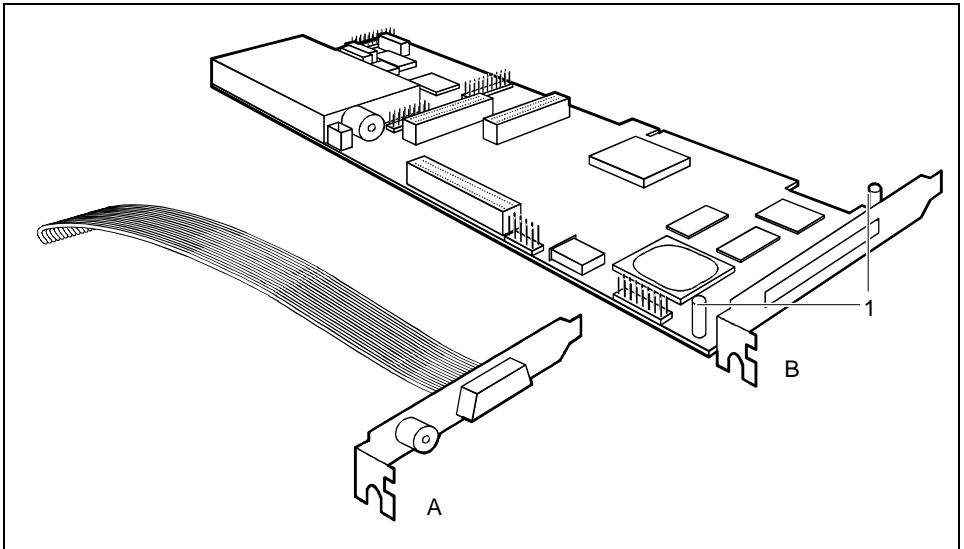
Please note the information provided in the chapter "Important notes" in the Operating Manual of the PC or in the manual "Safety, Guarantee and Ergonomics".

Please note the exact plug positions when plugging in cables and modules.

### Notes regarding installation without CA module

The DVB-C board comes, by default with a bracket with Smartcard slot (for use with CA module). The connector bracket with mounted antenna and signal cable requires an additional slot.

If you want to use the DVB-C board without CA module you do not need the bracket with the Smartcard slot and you can replace it with the connector bracket with mounted antenna and signal cables. This way you save a slot.



A = Connector bracket

B = Bracket with Smartcard slot

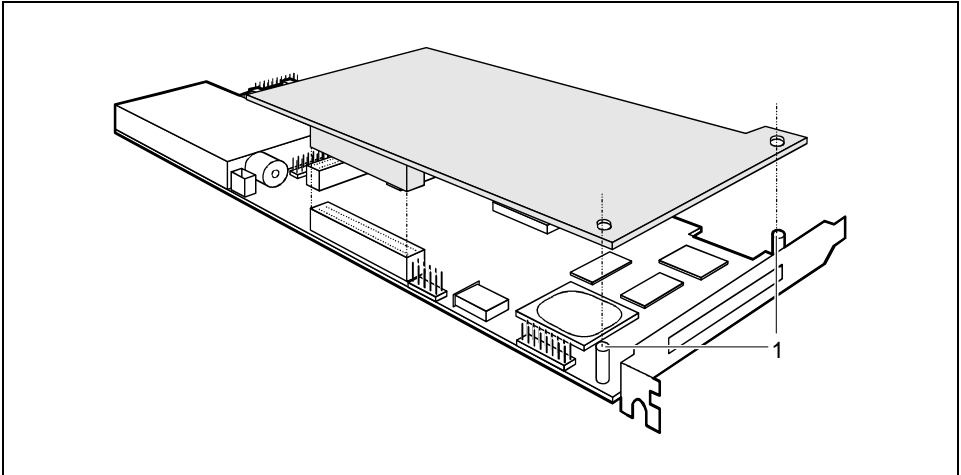
- ▶ Loosen the two large screws (1) with nuts and spring washer and remove the bracket with the Smartcard slot from the DVB-C board.
- ▶ Fasten the connector bracket with the two large screws on the DVB-C board.



Save the bracket with the Smartcard slot, the two spring washers and two nuts in case you would like to retrofit it later with the CA module.

## Installing modules (optional)

### Installing the CA module



- ▶ Loosen both of the Phillips screws (1).
- ▶ Connect the CA module with the DVB-C board as shown.

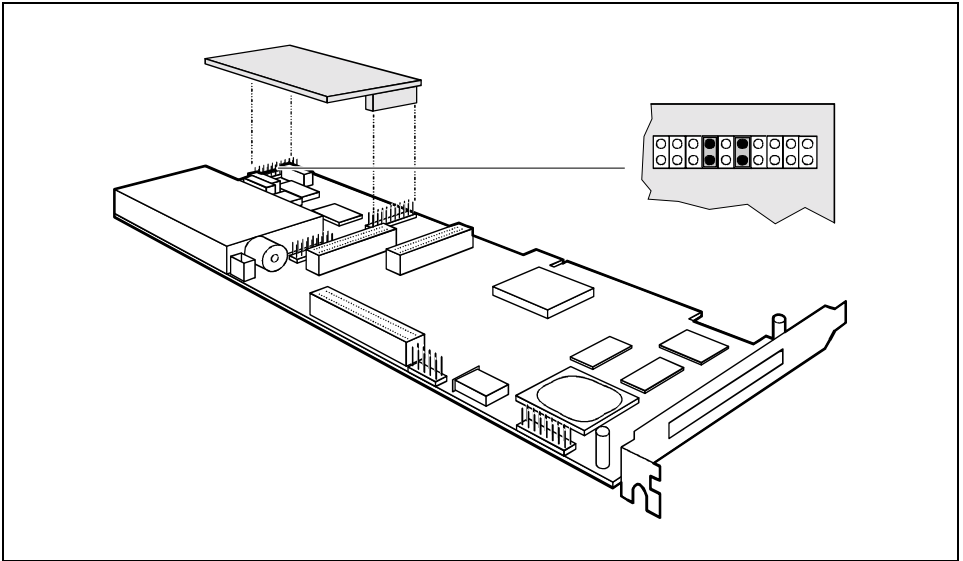


Please note exact line-up of connections.

- ▶ Fasten the CA module with the two Phillips screws (1).

With the Smartcard slot in the DVB-C board bracket you can plug in the Smartcard of the Pay-TV service provider. Since the DVB-C board is built in in reverse, like all PCI boards (with the unit part facing down), the Smartcard must face down when plugged in.

## Installing the analog module



- ▶ Remove the two jumpers from the jumper block X5.



If you remove the module again later, you have to replace the jumpers in their old position (position 4 and 6).

- ▶ Connect the analog module with the DVB-C board as shown.

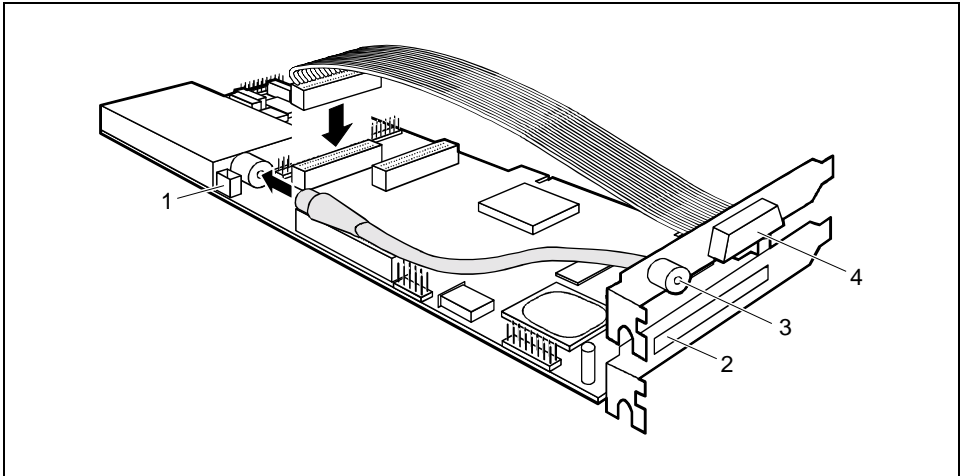


Please note exact line-up of connections.

## Installing the DVB-C board

- ▶ Open the system unit (see PC Operating Manual - "System expansions - Opening the system unit").
- ▶ Install the DVB-C board in a busmaster-capable PCI slot (see PC Operating Manual - "System expansions - Installing and removing boards").
- ▶ Install the connector bracket (if the brackets were not exchanged) in a free slot close to the DVB-C board. (This second slot must be close enough so that the length of the interior antenna and signal cables is long enough to reach.)

## Connecting internal cables



1 = Connector JP2 (AUDIO OUT)

2 = Smartcard slot

3 = Antenna port

4 = Signal port

- ▶ Plug the antenna cable of the connector bracket into the antenna port on the DVB-C board.
- ▶ Plug the signal cable of the connector bracket into the connector X3 on the DVB-C board.
- ▶ If an audio board (sound card) is installed on your PC with the respective connector, connect the delivered audio cable with the connector JP2 (1, AUDIO OUT) of the DVB-C board and the internal connector LINE IN of the audio board.
- ▶ Close the system unit (see PC Operating Manual - "System expansions - Assembling the system unit").

## Connecting external cables

- ▶ Plug your antenna cable (cable TV) into the antenna port (3) of the DVB-C board.
- ▶ Connect the 26-pin connector of the multi cable to the signal port (4) of the DVB-C board and secure the plug-in connection by tightening the safety screws.

The connectors of the multicable are labeled and offer the following connection possibilities:

- SCART (wide connector for connection to TV)
- AUDIO MAIN (connection to the audio board or TV AUDIO OUT)
- TV AUDIO L OUT (Connection to the audio board, AUDIO MAIN or stereo system)
- TV AUDIO R OUT (Connection to the audio board, AUDIO MAIN or stereo system)
- DIGITAL AUDIO (Connection to DAT recorder, stereo system)
- VIDEO IN (Connection to a camera to input analog data, only with analog module)
- VIDEO OUT (connection to video recorder/camera)
- Y/C IN (Connection to camera to input analog data, only with analog module)
- Y/C OUT (Connection to video recorder/camera)



Extension cables for video and audio devices are available at computer stores.

### TV connection

- ▶ Plug the SCART connector into the SCART port of your TV.



Even if you connect a TV via the SCART connector, you still need the monitor on you PC. The TV program is called up on the PC and set to "full screen". Then you can view the program on your TV as usual. On the PC monitor the movie stays in a Windows window without full screen.

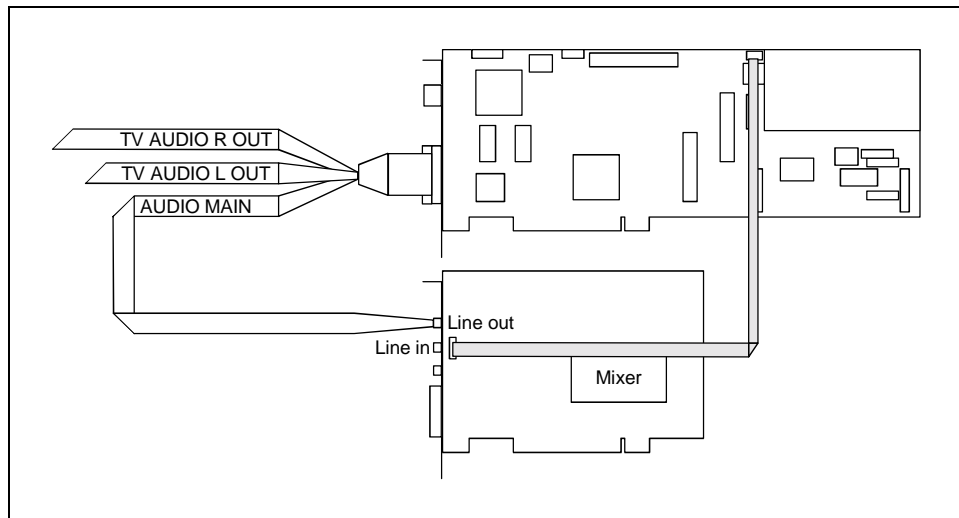
### Audio connection

The audio signal received by the DVB-C board must be run to the SCART connector of the multicable in order to view the TV program with sound. For cabling, there are a number of scenarios:

- Case A: The internal audio cable between DVB-C board and audio board is plugged.
- Case B: There is no internal audio cable connected.
- Case C: There is no audio board built in.



AUDIO MAIN is the input signal for the SCART socket of your television set. You will then only hear sound on your television when the AUDIO MAIN connector of the multicable is plugged in.

**Case A: The internal audio cable between DVB-C board and audio board is plugged.**

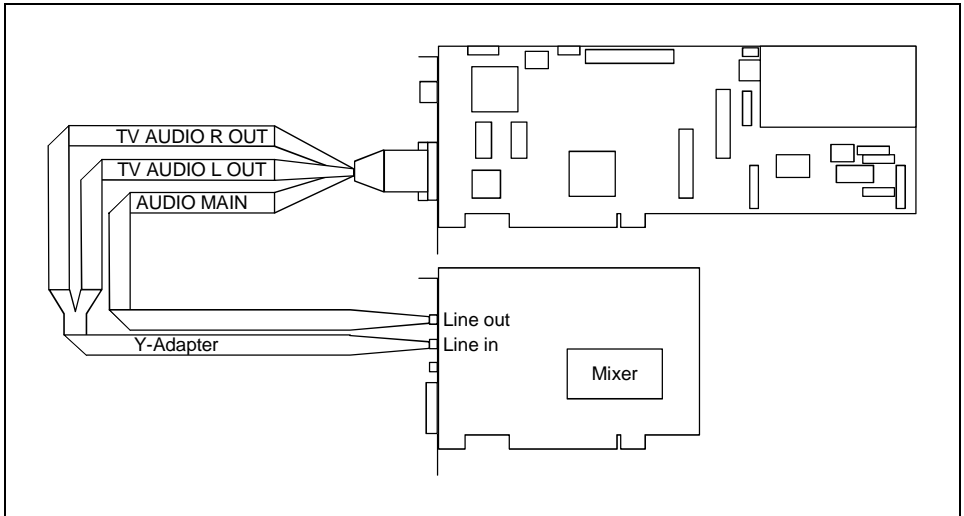
- ▶ Plug the AUDIO MAIN connector of the multicable into the LINE OUT port of the audio board. In this cabling scenario the TV AUDIO L OUT connector and TV AUDIO R OUT connector and of the multicable are free and can be connected, e. g. with the stereo system.
- ▶ Set the mixer of the internal audio input (e. g. CD, LINE IN, AUX 2) to the desired loudness.



Additional information can be found in the documentation for your audio board (sound card).

### Case B: There is no internal audio cable connected.

The DVB-C board and the audio board are not connected by an internal audio cable, e. g. because your audio board does not have an internal LINE IN connector. In this case you require a Y adapter (two cinch plugs on 3.5 mm stereo jack), available at your computer supply store.



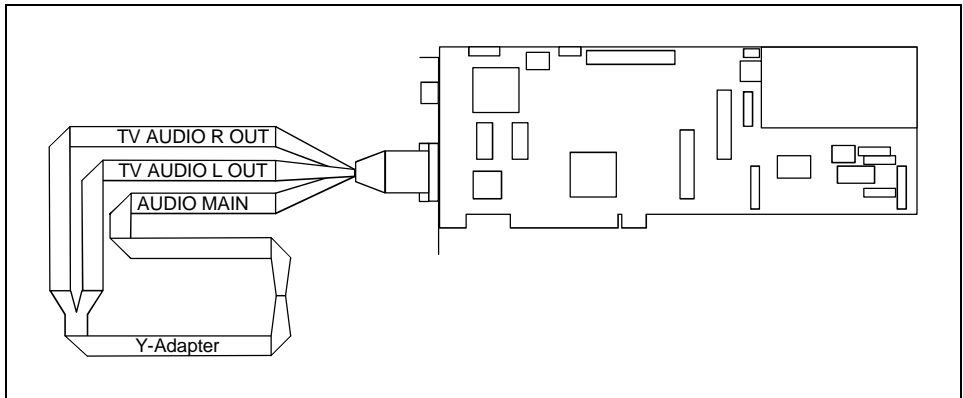
- ▶ Plug the TV AUDIO L OUT connector and TV AUDIO R OUT connector into the two cinch plugs for the Y adapter.
- ▶ Plug the jack plug of the Y adapter into the LINE IN port in the audio board.
- ▶ Plug the AUDIO MAIN connector of the multicable into the LINE OUT port of the audio board.
- ▶ Set the mixer of the external audio input (e. g. LINE IN) to the desired loudness.



Additional information can be found in the documentation for your audio board (sound card).

**Case C: There is no audio board built in.**

In this case you require a Y adapter (two cinch plugs on 3.5 mm stereo jack), available at your computer supply store.



- ▶ Plug the TV AUDIO L OUT connector and TV AUDIO R OUT connector into the two cinch plugs for the Y adapter.
- ▶ Plug the jack plug of the Y adapter into the AUDIO MAIN connector of the multicable.

**i** If you do not have a Y adapter you can also connect the TV AUDIO L OUT connector and TV AUDIO R OUT connector to your stereo system. In this case the SCART connector does not transmit sound signals. The AUDIO MAIN connector remains open.

**Digital audio connection**

The DIGITAL AUDIO connector of the multicable is a digital audio output (SPDIF OUT). You can connect this plug to a device with digital audio input, e. g. a DAT recorder or a state-of-the-art stereo system.

**Video connector**

- ▶ Plug the VIDEO OUT connector of the multicable on your video recorder or the Y/C OUT connector of the multicable on your TV.
- ▶ Plug the TV AUDIO L OUT connector and TV AUDIO R OUT connector to the respective video device (AUDIO IN).

**i** The VIDEO IN and Y/C IN connectors function only if the analog module is plugged in! Both connectors are used for input of analog signals from a camera or S-VHS/Hi8 camera.

Set the respective signal source in the program *DVB PCI TV* under *Options - Source*.

## Technical data

Frequency range:	48 - 862 MHz
Symbol rates:	0,6 - 8 MSymb/s
Demodulation:	16, 32, 64, 128 and 256 QAM
Minimal receipt sensitivity:	45 dB (64 QAM)
MPEG-2 decoder:	Main Profile, Main Level

### Video output

SCART:	Video + RGB switchable to Y/C Y/C (4-pin) and video (cinch) SCART and Y/C cannot be operated in parallel
Sound output:	1 V (RMS) on internal and external socket
Receipt:	DVB-C according to ISO 13818-1, ETS 300468
Digital output:	coaxial SPDIF

### Analog module

Tuner norms:	PAL, SECAM
External input:	PAL, SECAM, NTSC with 1 V <sub>pp</sub> (CCIR)
Sound norms:	PAL B/G, I, D/K, M/N stereo
Image scaling:	1024 x 572 (with graphic cards with Direct Draw Overlay up to 1024 x 768)

# DVB-S board

Please read this chapter if you wish to install a DVB board of the model DVB-S (satellite).

## System requirements

Requirements for upgrading your PC by means of the DVB-S board are:

- a free busmaster-capable PCI slot for the DVB-S board
- a PCI screen controller, that works with a linear driver (more than 32 K colors), e. g. S3 Trio, S3 Trio 64+, S3 Virge/DX/VX, Vision 968/868, Permedia, Permedia II, Rendition, Riva128, Riva128 TNT, ET6000, ARK2000, Alliance Promot, 65550, 65554, ATI Mach64, Rage II, Rage II +, Rage Pro, 9680/9685, GD5436/46, GD5464, GD5465, GD5480, Millennium, Millennium II, Mystique, Matrox G100, Matrox G200, Twister, Eclipse, I740, ALG2564, OTI64111, Voodoo Banshee)
- Windows 95 or Windows 98 as software platform (Windows NT is under preparation)
- a free interrupt and free memory address area
- P133 processor or higher
- at least 16 Mbyte main memory

## Delivery scope

The complete shipment comprises:

- a DVB-S board
- a SCART cable
- one CD with DVB software
- this Operating Manual

## Optional components

A CA module will be available for the DVB-S board as an optional component (in preparation). The condition is that your DVB-S board has a CA connection.

When using the CA module (Conditional Access) you can use the Smartcard of a Pay-TV service provider and therefore receive Pay-TV stations.

## Features of the DVB-S board

- DVB compatible (according to ISO 13818, ETS 300 468)
- Receiver for DVB-S (Digital Video Broadcasting Satellite)
- Scaleable video image (768 x 576/PAL), with specific screen controllers also 1024 x 768 (e. g.. Rendition2100/2200, Riva128, Riva128 TNT, ET6000, Rage Pro, I740, Voodoo Banshee)
- Video output

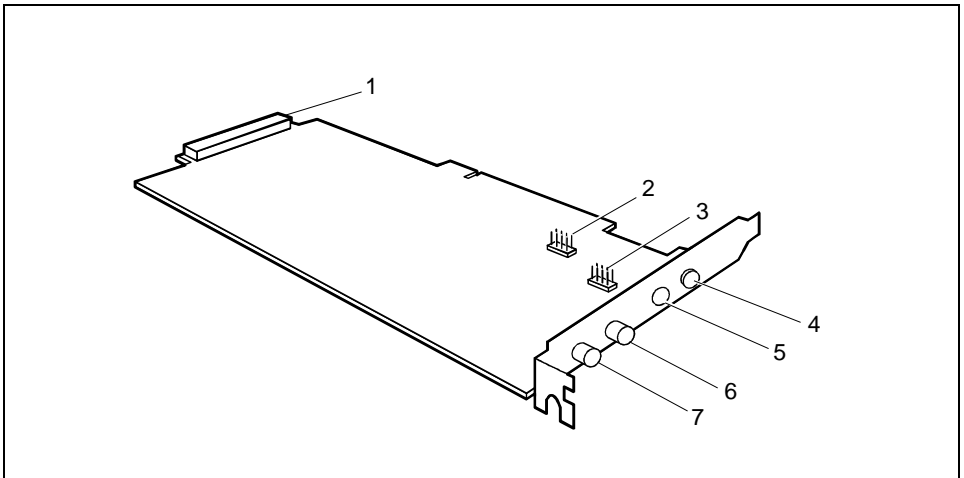
- PCI inlay technology for system graphics processor
- On-Screen Display (OSD) with maximally eight windows (transparent and color)
- Common Interface (CI) for High-Speed encoding module (only with CA module)
- second, internal CI prepared
- Electronic Program Guide (EPG) supported by SDK (Software Developer Kit) for special solutions
- Recording and playing of MPEG-2 files (<10 Mbit/s)
- DVB Common Descrambler for simple Conditional Access (CA)
- Complete control via remote control

## Installation of the DVB-S board



Please note the information provided in the chapter "Important notes" in the Operating Manual of the PC or in the manual "Safety, Guarantee and Ergonomics".

Please note the exact plug positions when plugging in cables and modules.



1 = Connector for CA module \*)

2 = CD IN connector

3 = AUDIO OUT internal connector

4 = VIDEO OUT connector

5 = AUDIO OUT port (external)

6 = Connection for additional receivers

7 = Connection for satellite antenna (data input)

\*) This connection is not yet present on some models of the DVB-S board.

## Installing the DVB-S board

- ▶ Open the system unit (see PC Operating Manual - "System expansions - Opening the system unit").
- ▶ Install the DVB-S board in a busmaster-capable PCI slot (see PC Operating Manual - "System expansions - Installing and removing boards").
- ▶ If necessary, connect internal cables (see the section "Connecting to audio board (internal cabling)" later in this manual).
- ▶ Close the system unit (see PC Operating Manual - "System expansions - Assembling the system unit").

## Connecting cables

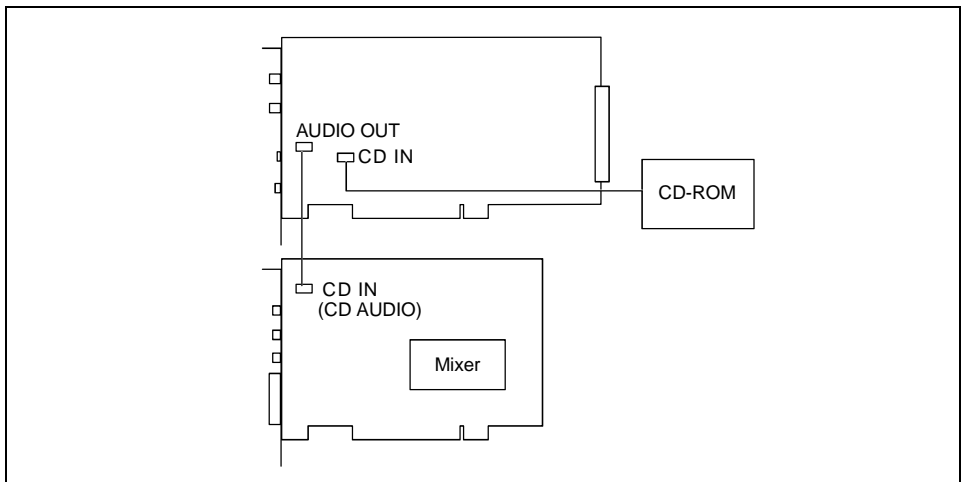
A few different cases must be differentiated for the cabling of the DVB-S board. The first three cases describe how you can receive television programs on your PC. The other two cases describe how you can receive television programs on your television set.

- ▶ Connect the cable of your satellite system to the connection for the satellite antenna (data input).

## Television on your PC

If your PC is equipped with an audio board (soundcard) or loudspeakers, you can also receive the picture and sound on your PC with the DVB-S board.

### Connecting to audio board (internal cabling)



- ▶ Connect the audio cable to the internal AUDIO OUT connector of the DVB-S board and to the internal CD IN (CD AUDIO) connection of the audio board.

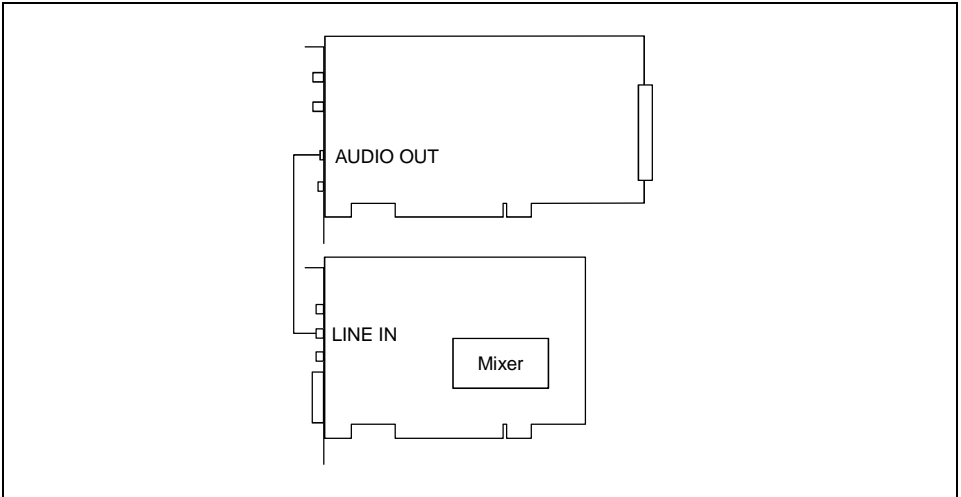
**i**

An audio cable is not included in the consignment of the DVB-S board. Corresponding cables are available from specialized dealers.

- ▶ If the internal CD IN (CD AUDIO) connection of the audio board was already occupied by the audio cable of a CD-ROM drive, plug the audio cable of the CD-ROM drive into the CD IN connector of the DVB-S board.

The audio signal will automatically be switched over. When the DVB-S board is active, the DVB sound is present on the audio board. When the CD-ROM drive is active, the CD-ROM sound is present on the audio board.

### Connecting to audio board (external cabling)

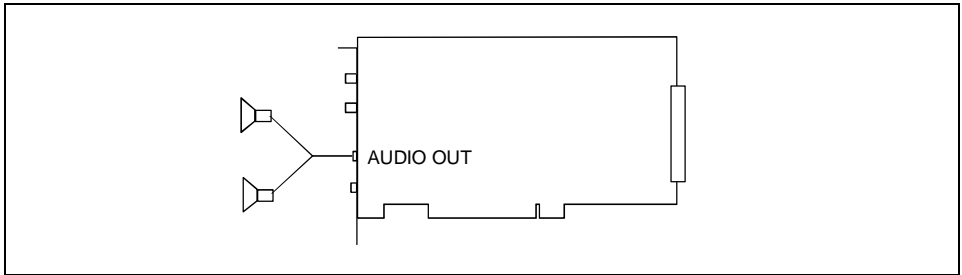


- ▶ Connect the audio cable to the AUDIO OUT connection of the DVB-S board and to the LINE IN connection of the audio board.

**i**

An audio cable is not included in the consignment of the DVB-S board. Corresponding cables are available from specialized dealers.

## Connecting to loudspeakers



- ▶ Connect the cable of your loudspeakers to the AUDIO OUT connection of the DVB-S board. Use a Y-adaptor if necessary.



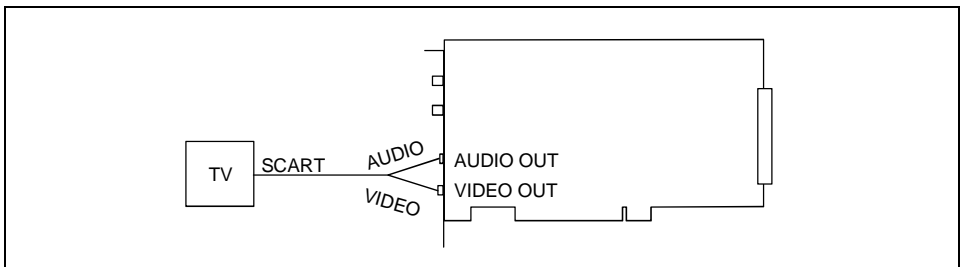
A Y adapter and extension cables for video and audio devices are available at computer stores.

## Television on your television set



Even if you connect a TV via the SCART connector, you still need the monitor on your PC. The TV program is called up on the PC and set to "full screen". Then you can view the program on your TV as usual. On the PC monitor the movie stays in a Windows window.

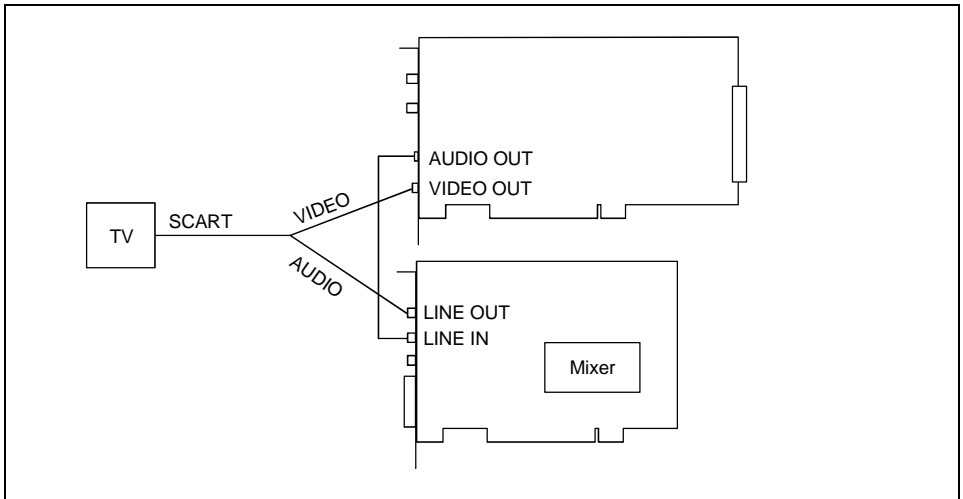
## Connecting to television set



- ▶ Plug the audio connector of the SCART cable provided into the AUDIO OUT connection of the DVB-S board.
- ▶ Plug the video connector of the SCART cable provided into the VIDEO OUT connection of the DVB-S board.
- ▶ Plug the SCART connector of the SCART cable supplied into the SCART port of your TV.

### Connecting to television set via audio board

This connection possibility is available to you for the purpose of processing the television sound on your PC.



- ▶ Plug the video connector of the SCART cable provided into the VIDEO OUT connection of the DVB-S board.
- ▶ Plug the audio connector of the SCART cable supplied into the LINE OUT port of the audio board.
- ▶ Connect an audio cable to the AUDIO OUT connection of the DVB-S board and to the LINE IN connection of the audio board.



An audio cable is not included in the consignment of the DVB-S board. Corresponding cables are available from specialized dealers.

- ▶ Plug the SCART connector of the SCART cable supplied into the SCART port of your TV.

## Technical data

Frequency range:	900 -2150 MHz
Symbol rates:	1 - 45 MSymb/s
Demodulation:	QPSK (SCPC and MCPC)
RF input power:	-65 to -25 dBm
MPEG-2 decoder:	Main Profile, Main Level
LNB control:	14/18/0 V, max. 400 mA

### Video output

SCART:	Video (Cinch) on SCART
Sound output:	1 V (RMS) on internal and external socket
Receipt:	DVB-S according to ISO 13818-1, ETS 300468
SAT control:	22 kHz, DiSEqC 1.0

## DVB software

The DVB software currently consists of an installation program, the *DVB PCI TV* program and the *MemText* program. The program *DVB Electronic Program Guide* is in preparation. There is comprehensive HTML help available for each program.



The DVB software is an innovative product that is constantly upgraded and developed further. Please look up the respective site on the Internet <http://www.fujitsu-siemens.com/computer> for current information and updates.

## Installation

The drivers and programs for the DVB board are on the delivered CD.

- ▶ Start Windows 95/98.

Windows 95/98 detects the DVB board automatically and displays the *New hardware found* dialog field.

- ▶ Insert the CD delivered with the DVB board.
- ▶ When prompted insert the path of the CD-ROM drive.
- ▶ Follow the instructions on the screen.

The DVB board is recognized as *PCI MultiMedia Device*. The drivers are installed automatically. During this process the DVB board is entered twice in the Device Manager, once under *Multi-function adapters* as *Digital Video Broadcasting Receiver* (TV card), and once under *Network adapters* as *Siemens DVB Card NDIS Driver* (network card).



During installation it may happen that you are prompted for the Windows 95/98 CD. Please follow the notes on the screen and change the CD if prompted.

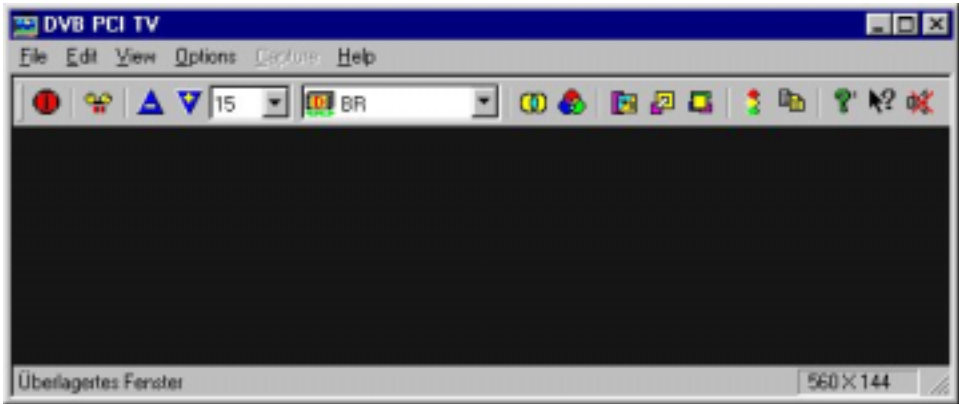
If you receive any messages during installation that files were not found, reset the path to the correct CD-ROM drive.

- ▶ After restarting Windows start the *Setup.exe* program of the DVB board CD.

## DVB PCI TV

The *DVB PCI TV* TV program offers full-quality TV and video functions with a scaleable TV/video image and capture.

- ▶ Click on the *DVB PCI TV* symbol in the DVB program group in order to start the *DVB PCI TV* program.



The TV functions of *DVB PCI TV* are based on the operation of a TV. After the first start of *DVB PCI TV* the sender table must first be set new. In order to accomplish this, start the automatic station search (*Options - TV Stations - Start*), which enters all recognized stations in the program table. The sequence of the stations in this program table can be randomly chosen. The program selection can occur via the buttons *Program+* and *Program-* or via the fields *Program number* or *Program name* in the TV symbol bar.

Further you can record and play individual images, image series and video sequences with *DVB PCI TV*. All important functions can be operated via remote control *SNI Remote*.

As long as the program *DVB PCI TV* is open the screen saver and power management of your PC are turned off automatically.

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Set the video input under *Options - OSD&Scart*.

Possible settings: *CVBS + RGB* (at the SCART connector), *Y/C* (at the SCART connector), *FBAS + Y/C* (at the cinch and S-Video socket (Y/C)).

At the SCART output *RGB* offers the best quality, but is not supported by every TV. If a TV does not support *RGB* it will automatically use *CVBS* with the settings *CVBS + RGB*. Alternatively, the SCART connector can also be set to *Y/C*. Then you receive an even better image than with *FBAS*.

Additional information for settings can be found in the operating instructions of your TV.

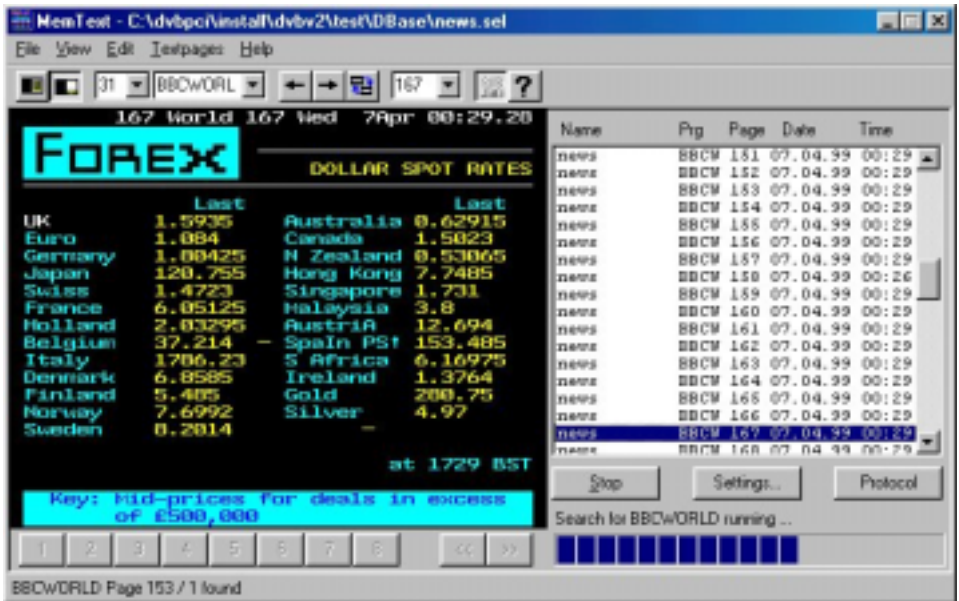
Do not plug the SCART connector and the Y/C OUT or VIDEO OUT connector into your TV simultaneously.

Further information is provided in the *DVB PCI TV* online help. Select the menu point *Help* or use context sensitive help in order to get help for a certain operation item (**F1** key or symbol ).

## MemText

The *MemText* program enables you to create a teletext database on the hard disk of your PC. In this database you can store and manage any teletext pages of a number of TV stations. You can also transfer the contents of the teletext pages as text or graphics into other programs. The *MemText* program can be operated using remote control.

- ▶ Click on the *MemText* icon in the DVB program group in order to invoke the *MemText* program. The main window of *MemText* is displayed.



- ▶ Select the menu item *Help* to obtain further information on the operation of the *MemText* program.

## Remote control

We recommend the Fujitsu Siemens remote control *SNI Remote*. On the CD delivered with the DVB board is the update for the *SNI Remote* remote control software which warranties the complete functionality of the remote control with the DVB board. The update is on the autostart screen of the CD.

# Glossary/Abbreviations

ADSL	Asymmetric Digital Subscriber Line, transmission for DVB
CI	Common Interface, default interface in receipt equipment for DVB
CVBS	Color Video Burst Signal
DiSEqC	Digital Satellite Equipment Control, System for controlling satellite reception systems
DVB	Digital Video Broadcasting, standard for digital transmission of TV signals. The variants DVB-C, DVB-S and DVB-T determine the respective modulation of transmission.
DVB-C	DVB Cable (transmission via cable)
DVB-S	DVB Satellite (transmission via satellite)
DVB-T	DVB Terrestrial (transmission via antenna)
DVD	Digital Versatile Disk, data carrier for DVD drive
Free-TV station	free of charge receivable station, financed by fees (public radio) or advertising.
HTML	Hyper Text Markup Language
ISDN	Integrated Services Digital Network, service integrated digital network
Linear driver	Monitor driver which defines every point on the screen uniquely through two coordinates. A linear driver is prerequisite if software writes directly on video memory in order to define the screen display. Non linear driver only divide the screen into sections. The display would not be predictable.
LNB	Low Noise Block (converter), receiving section on the satellite antenna
MCPC	Multiple Channel Per Carrier, transmission system which uses only one transponder for several channels.
MHEG5	standardized multimedia format, reduced HTML
MPEG-2	Motion Picture Expert Group, 2. Norm  MPEG is a methodology which allows strong compression of video, sound and data signals. This means this data requires very little storage space and all types of information can be transmitted through multiple channels.
OSD	On-Screen Display
PAL	Phase Alternate Line, video system. The letter behind it indicates the audio system, e. g. PAL I in Great Britain, PAL D/K in eastern European countries, PAL B/G in other European countries
Pay-TV station	TV program that can only be received by paying a special fee.
POTS	Plain Old Telephone Service (normal telephone service)
QAM	Quadrature Amplitude Modulation (channel coding method)
QPSK	Quadrature Phase Shift Keying, digital modulation method
RS 232	Serial port, connection possibility for a printer or external modem
SCART	21-pin norm connection for AV devices
SCPC	Single Channel Per Carrier, transmission system which uses one transponder per channel.

## DVB BOARD

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SECAM	Sequentiel Couleur a Mémoire (Standard system for France)
SPDIF	Sony Philips Digital Interface, corresponds to IEC 958, standard for digital audio connections (1 V <sub>pp</sub> , impedance 75 Ohm)
TV	Television
Y/C	Brightness and color signal (luminance/chrominance)