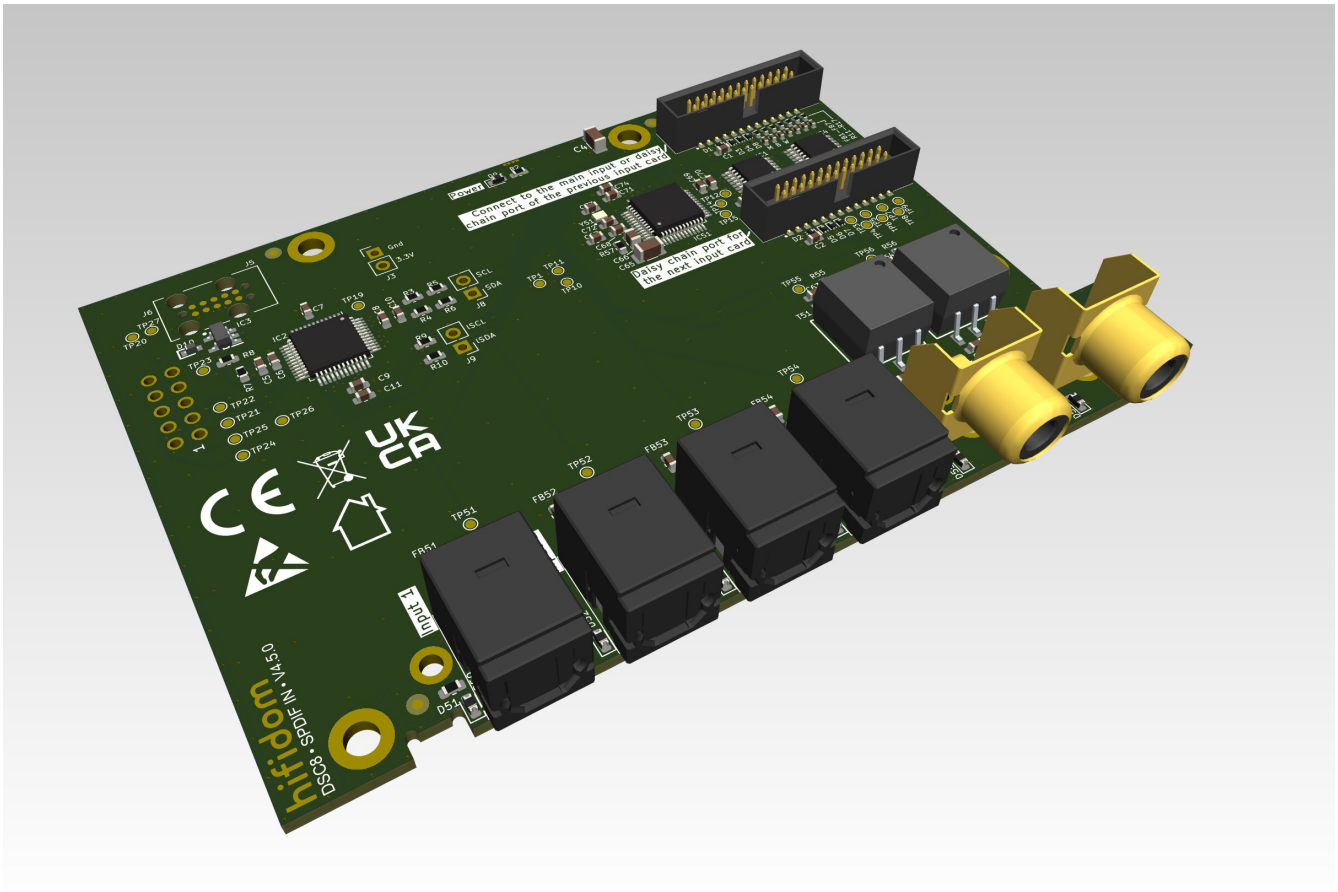
hifidom

User manual (English)

Product group: DSC8

Product Name: SPDIF IN

2025-12-05



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Foreword

Intended use

This product and its accessories are intended exclusively for processing electrical audio signals in connection with a computer and the sound card **DSC8 MAIN** in dry indoor rooms. The product is intended for installation in a housing in conjunction with further electronics.

The product and accessories may only be used as described in this document. Any other use, e.g. outdoors, in safety-related or medical applications, is not in accordance with the intended use and may result in damage to property or personal injury. The manufacturer hifidom accepts no liability for damage caused by improper use.

User target group

The product and this related document are intended for users who possess the following characteristics:

- A general, basic technical knowledge is available.
- The safe handling of tools, such as screwdrivers, is known.
- Knowledge of computers and operating systems is advanced.
- The user is aware of the dangers and safety regulations regarding the handling of electronics and audio technology.
- Is aware of all potential hazards and acts prudently accordingly.
- The user has read and fully understood the instructions.

If the user does not meet at least one of these requirements, then the product is not suitable for the user and the user must refrain from using the product.

Legal notices

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The following exceptions **do not** require the express written consent of the manufacturer:

- The customer prints a copy of this document.
- The Customer shall keep a copy of this document for backup purposes.
- The authorized dealer shall make these instructions available to his customers.
- The authorized dealer may take information from this document for his own product

description.

The general terms and conditions of purchase for products from hifidom Inh. Dieter Steinwedel apply.

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The current version of this document can be found here:
https://www.hifidom.com/res.php?lang=en&t=man&g=dsc8&p=spdif-in

Conventions in the document

The following formatting conventions are used in this document:

Bold

Names of product elements, commands, options, programs, processes, services, and utilities, names of user interface elements (e.g., windows, dialog boxes, buttons, fields, and menus), user interface elements that the user selects, clicks, presses, or enters

italic

Publication titles referenced in the text, highlighting (e.g., a new term), variables

`Courier`

System output such as error messages or script URLs, formulas, full paths, filenames, prompts, and syntax

< >

Pointed brackets represent a placeholder for user-supplied values.

[ ]

Square brackets represent a placeholder for values optionally provided by the user.

|

A vertical bar in angle or square brackets indicates that the user can choose between alternative inputs or values.

A tip to help the user achieve success more easily and quickly

A note that the user should also keep in mind when skimming

Hazard with a low level of risk which, if ignored, will result in injury and/or

damage to property and may even be fatal

Hazard with a medium risk which, if ignored, will result in injury and/or damage to property and may even be fatal

Hazard with a high level of risk which, if ignored, will result in serious injury and/or damage to property and may even be fatal

Product labels

With this marking, the manufacturer declares that the product complies with the applicable directives of the *European Community*, provided that it is installed and used in accordance with the manufacturer's instructions.

This mark identifies communication devices that have permission to participate in the movement of goods in the USA. The permission is granted by the authority *Federal Communications Commission*. The permit also confirms the electromagnetic compatibility of the device.

With this marking, the manufacturer declares that the product complies with the applicable conformity requirements of Great Britain and may thus be placed on its market. The permission also confirms the electromagnetic compatibility of the device.

The device can be damaged or destroyed by electrostatic discharge (ESD). The user is required to take appropriate protective measures during installation and use.

The product must not be disposed of in household waste, but must be taken to an appropriate collection point for reuse and recycling.

The product may only be used in dry and closed rooms.

This symbol may be attached to the packaging or electronic board, for example, in addition to the operating instructions. It indicates a hazard which, if ignored, will result in personal injury and/or damage to property.

This symbol can be attached to the packaging or electronic circuit board in addition to the operating instructions. It indicates an important fact for successful commissioning of the product.

Safety instructions

Read and understand this document and its safety instructions before using the product. Follow all instructions, otherwise failure to do so may result in property damage and/or serious or fatal injury. No work may be carried out on the product by the user other than the described manual operations.

The product may only be used by persons who have fully read and understood the contents of this document.

Observe the section **Technical Data** for safe operation of the product.

Danger of suffocation!

Never allow children to play with the packaging material of the product or accessories unsupervised! There is a risk of children getting caught in the packaging film and suffocating in it. Make sure that children cannot detach any small parts from the equipment! These parts could be swallowed and cause suffocation. In case of swallowing any parts, contact a doctor immediately!

Risk of injury!

Never allow children to use the product or accessories unsupervised!

Danger of explosion!

Do not use the product and accessories in the following situations:

- In environments subject to fire or explosion hazards
- Near easily combustible materials
- In the vicinity of flammable gases or vapors
- At extremely low or extremely high temperatures
- Near strong dust

Caution

Protect the product and accessories from destructive radiation, mechanical effects and conductive or reactive substances!

Caution

Only accessories and devices that comply with all legal requirements and are approved may be connected!

Caution

If any of the following conditions exist, immediately disconnect all cable connections to the product and accessories: The product or accessory does not function properly, exhibits a significant reduction in performance, smells burnt, emits smoke or makes unusual noises. In these cases, contact the manufacturer immediately (info@hifidom.com)!

Risk of injury!

The product and accessories may have sharp edges!

Risk of injury!

Lay the cables so that they do not become a tripping hazard.

Risk of burns!

Certain components of the product can become very hot due to the situation. Ensure that the user cannot touch the hot components by mounting them appropriately, e.g. in an enclosure. Ensure that the product is adequately ventilated.

Warning

Only connect devices that comply with the connection specifications of this product!

Warning

Only use cables that comply with the connection specifications of this product!

Warning

Never operate the product and accessories unattended!

Warning

Do not change the firmware, otherwise any warranty and liability by the manufacturer is excluded. When updating the firmware, only original firmware from the manufacturer may be used.

Warning

Do not use the product immediately after a rapid temperature change!

Important!

The product and accessories may only be used for the applications specified in the section **Intended use**.

Important!

Only use accessories recommended by hifidom! Otherwise, performance may be reduced.

Important!

Make sure that all plugs are firmly seated in the sockets!

Storage instructions

Keep this document and the associated safety instructions for future reference. Pass on all documents and safety instructions associated with this product to subsequent users.

Waste disposal

The product must not be disposed of in household waste, but must be taken to an appropriate collection point for reuse and recycling.

The product packaging must be disposed of separately. The product packaging includes the cardboard, foam and plastic bags. The cardboard must be disposed of with the paper waste. The foam and plastic bags must be disposed of as plastic waste.

Avoid waste and reuse the packaging material for other purposes.

The foam is antistatic. Thanks to this property, the material does not become electrostatically charged, e.g. due to friction during transportation. Electrostatic charges can destroy electronics.

The plastic bag serves to protect against electrostatic discharges that can occur during shipping.

Application examples

Please note that the inputs of this card can only be used if the sound card **DSC8 MAIN** is operated in **Full-Featured Mode**. This mode is not available for all operating systems. For more information, please refer to the operating instructions for the sound card **DSC8 MAIN**.

The following devices, for example, can be connected to this expansion card, provided they have a digital S/DPIF output:

- CD player
- DVD player
- BluRay player
- DAB®-Receiver
- Web radio
- Satellite receiver
- TVs
- Multimedia Center
- Game consoles
- Analog/Digital Converter

Commissioning

System requirements

- The computer must have at least a USB interface version 2.0 or higher.
- The expansion card is operated in conjunction with the sound card **DSC8 MAIN**.
- The requirements for the computer hardware, e.g. CPU or main memory, depend on the requirements of the operating system used. These can be found in the operating instructions for the operating system.
- The driver of the operating system must support the features of the expansion card. Unfortunately, this is not currently the case for every operating system. Compatibility (as of November 2023) has been determined for the following operating systems
  - **Linux, Kernel 3.0 or newer (available since 2012):** This operating system supports all features of the expansion card.
  - *Windows*this expansion card is currently not supported by this operating system.
  - *macOS*this expansion card is currently not supported by this operating system.

Unpacking

Do not use sharp or pointed objects to unpack the product. Also avoid deep penetration of objects into the product packaging to avoid possible damage to the product.

Please keep the packaging in case the product is transported later.

Scope of delivery

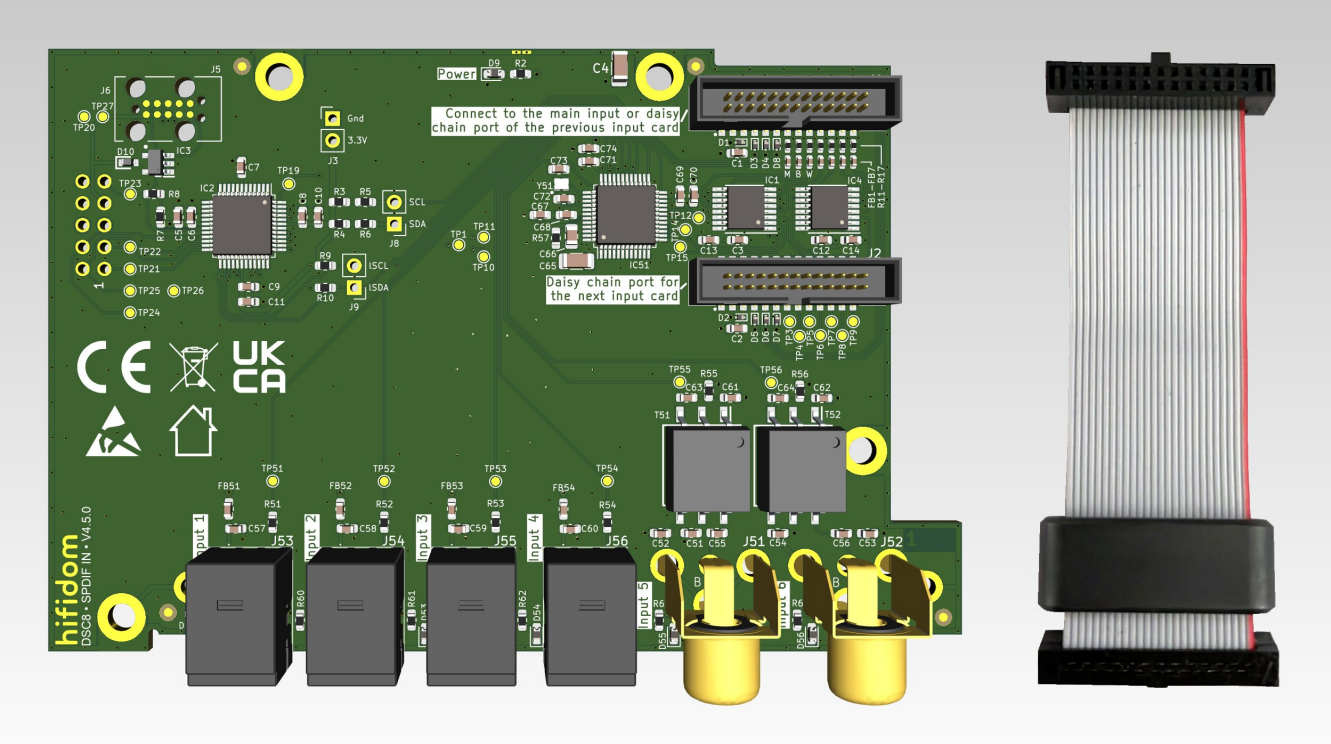


Figure 1. The expansion card with ribbon cable

Further accessories are deliberately omitted in order to avoid waste. We do not want a customer to throw unused new goods in the trash just because he has no use for the accessories. The scope of delivery includes only the expansion card and a ribbon cable as shown.

Product ID

The product identification is located in the same place on the printed circuit board of all DSC8 products from hifidom:

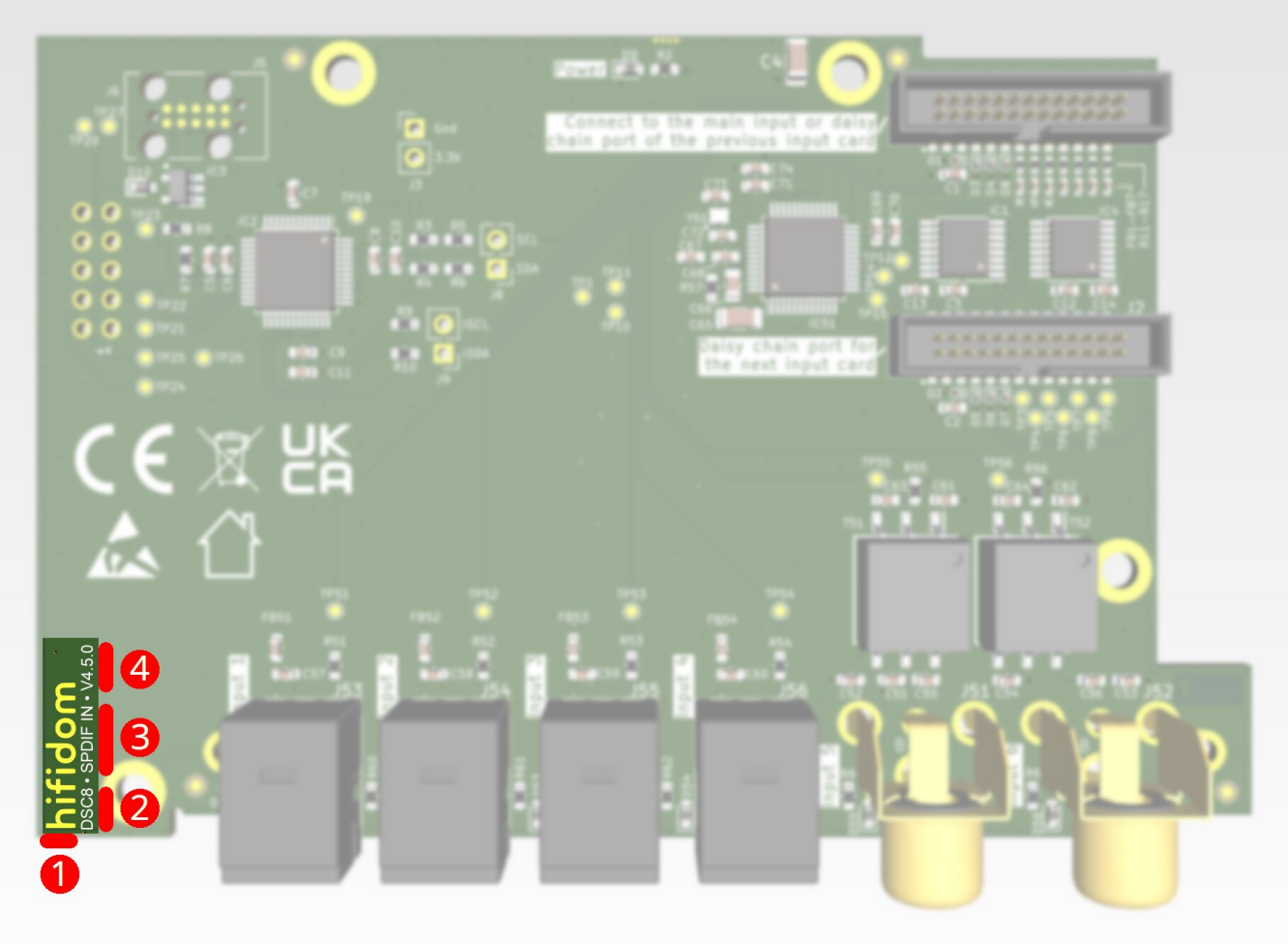


Figure 2. The position of the product labeling

Explanations of the image markings:

1. Manufacturer name
2. Product group
3. Product name
4. Hardware version

Operating Environment

The product may only be used in dry and closed rooms.

Further information can be found in the Technical Data section.

Assembly

The device can be damaged or destroyed by electrostatic discharge (ESD). The user is required to take appropriate protective measures during installation and use.

There are two ways to attach the PCB:

In the first option, the PCB is attached using the following four mounting holes, which are color-

coded in the following figure:

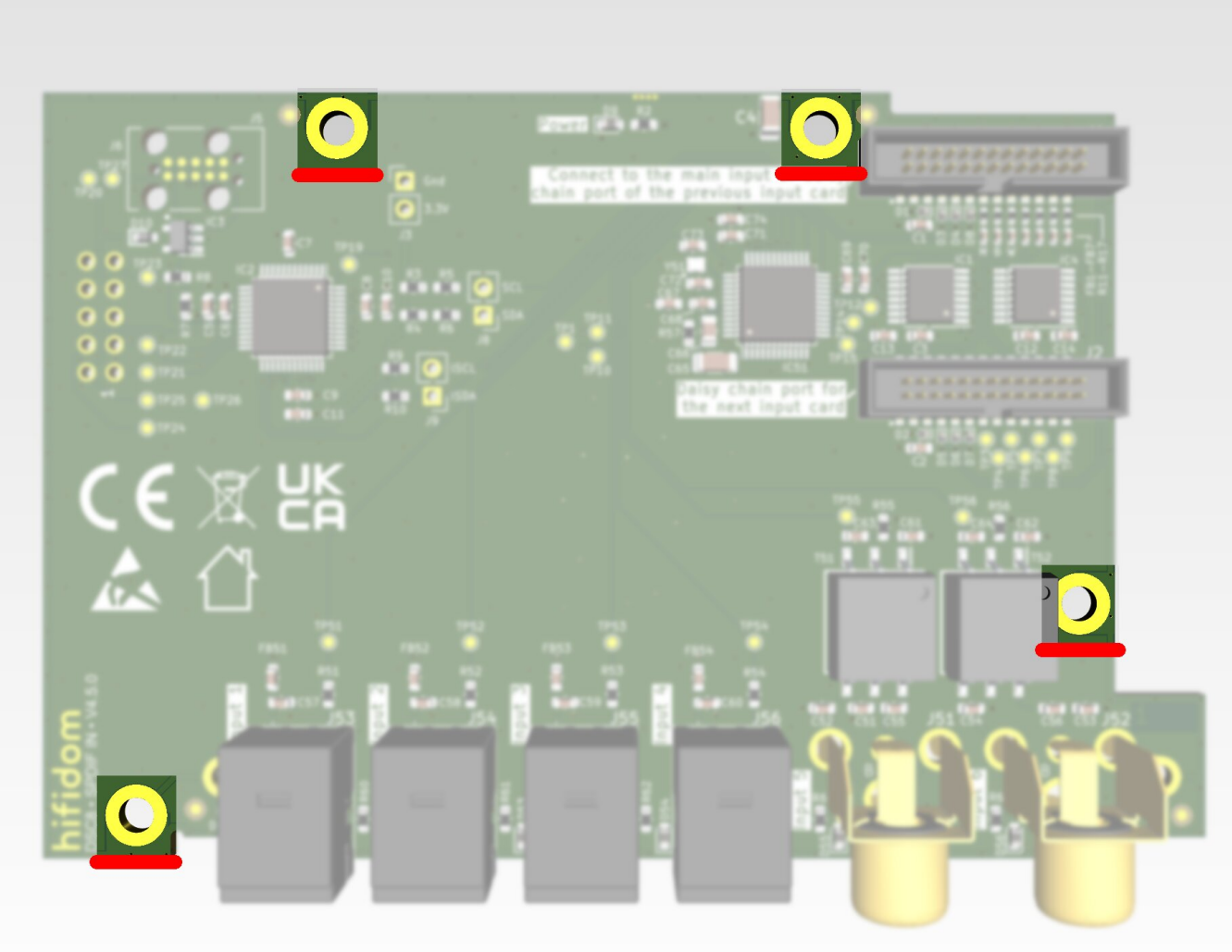


Figure 3. The position of the mounting holes on the sound card

M3 screws are suitable for these mounting holes.

In the second variant, a cover is mounted on the PCB (see also Accessories / Resources). This cover allows the PCB to be installed in PC housings with PCIe slots. The cover is supplied with the appropriate M2 screws. The cover is mounted on the PCB through the following mounting holes:

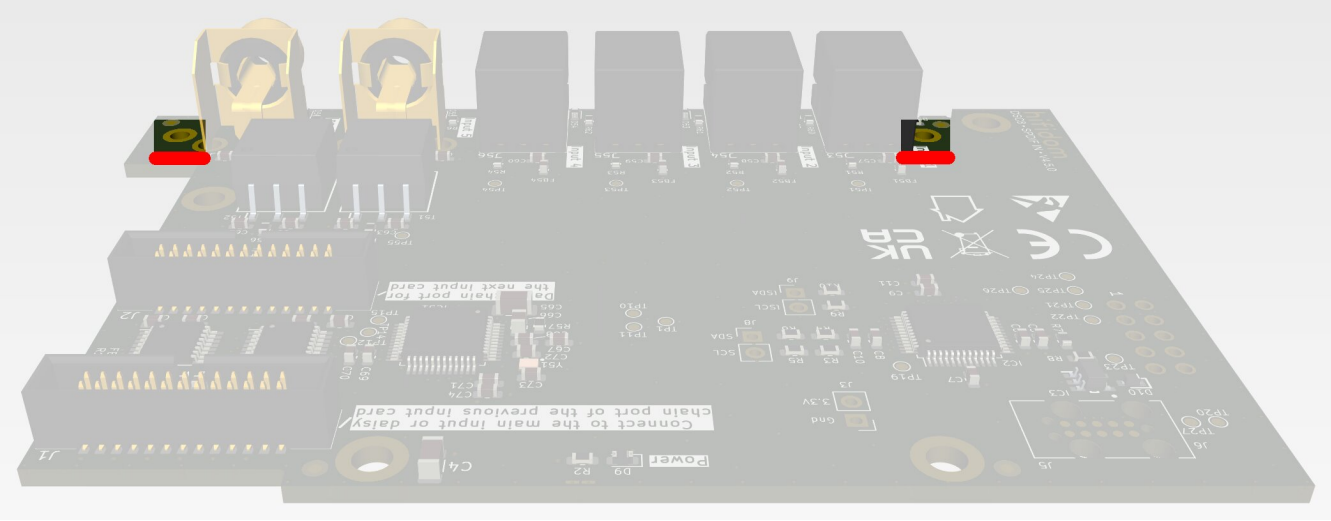


Figure 4. The position of the mounting holes for the bezel

Connectors, interfaces, LEDs and switches

Audio inputs

This card expands the sound card **DSC8 MAIN** with 6 digital audio inputs. The inputs support signals in S/PDIF format. Analog audio sources cannot be processed by this card.

There are 4 so-called TOSLINK connections available. With these connections, the S/PDIF signal is transmitted optically.

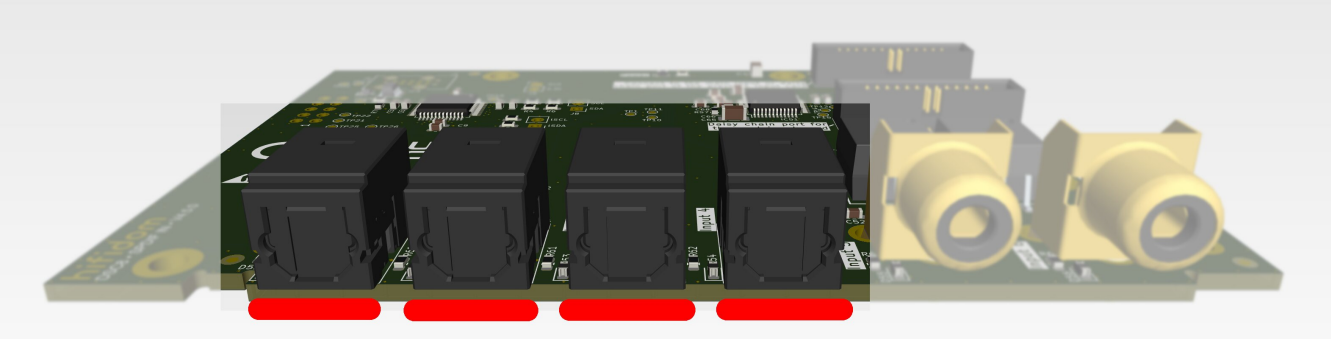


Figure 5. The 4 TOSLINK inputs

In addition, S/PDIF signals can be received electrically via 2 Cinch connections.

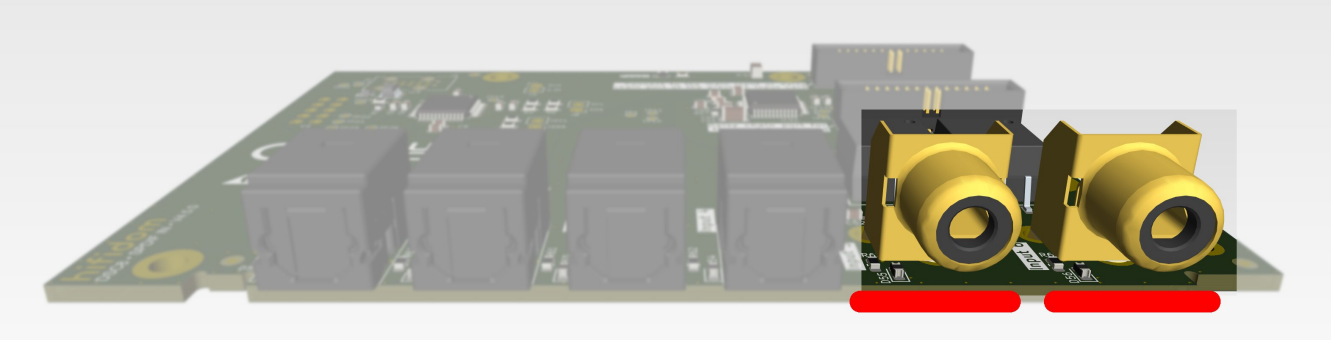


Figure 6. The 2 Cinch inputs

You can look up the technical data of these connectors in the Technical Data section.

Interfaces to other cards

Connect to the sound card

The connector for the input expansion cards is located here on the circuit board of the sound card **DSC8 MAIN**:

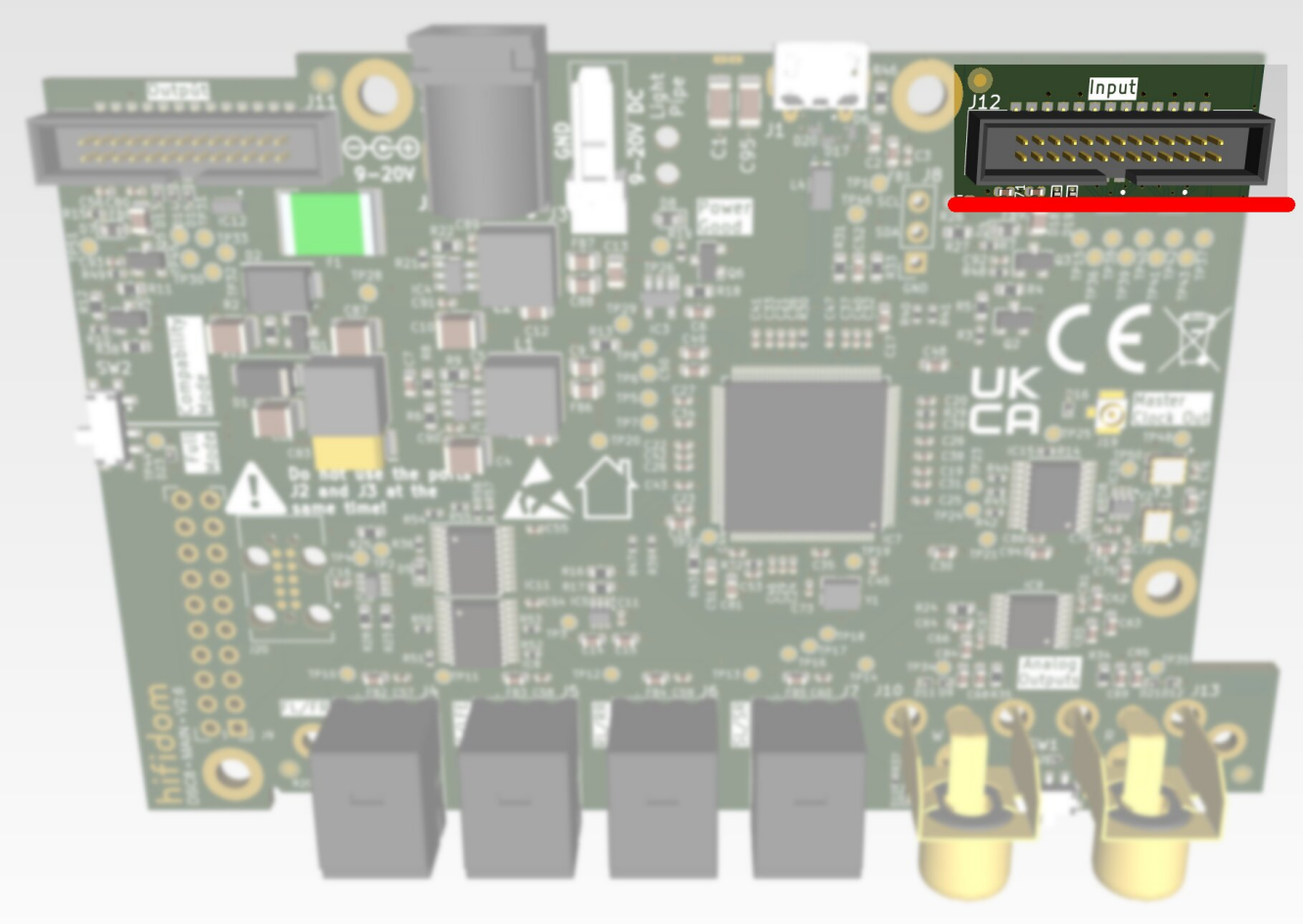


Figure 7. The position of the connector for the input expansion cards

The sound card is connected to the expansion card by a ribbon cable:

Figure 8. Ribbon cable for daisy chaining with expansion cards

The connector and the cable are protected against reverse polarity. Due to the lug on the connector and the notch in the connector, the ribbon cable can only be pushed into the connector in one way:

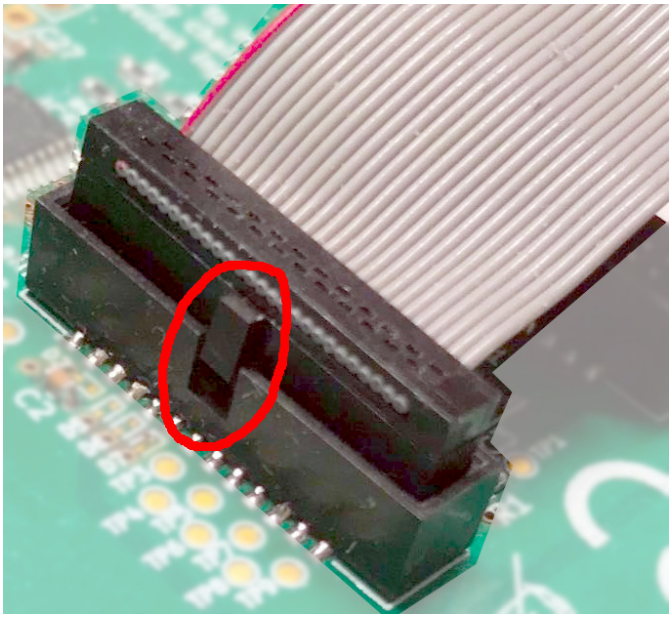
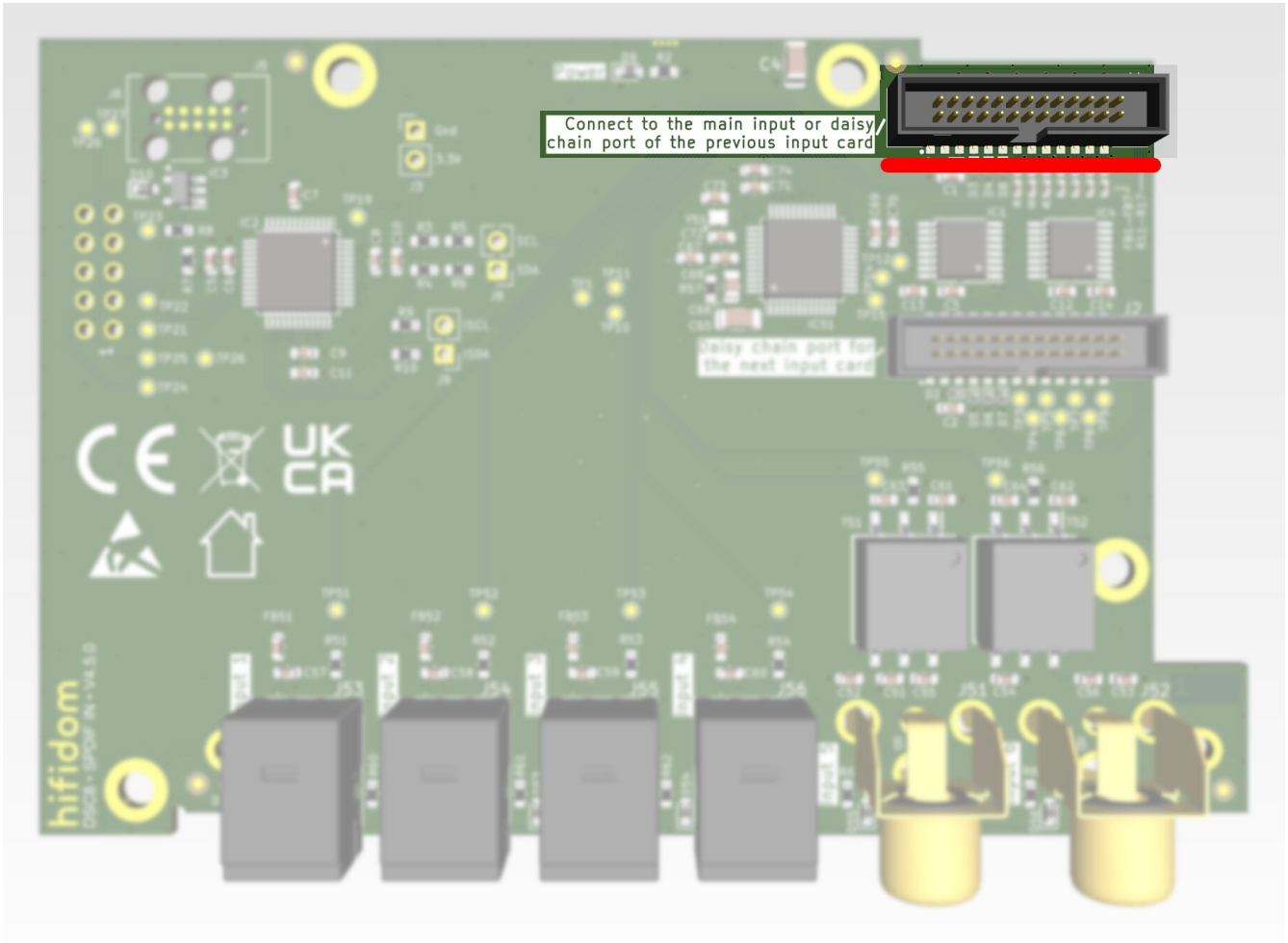


Figure 9. Reverse polarity protection on ribbon cable and connector

Do not use force when connecting, otherwise the plug connection will be damaged.

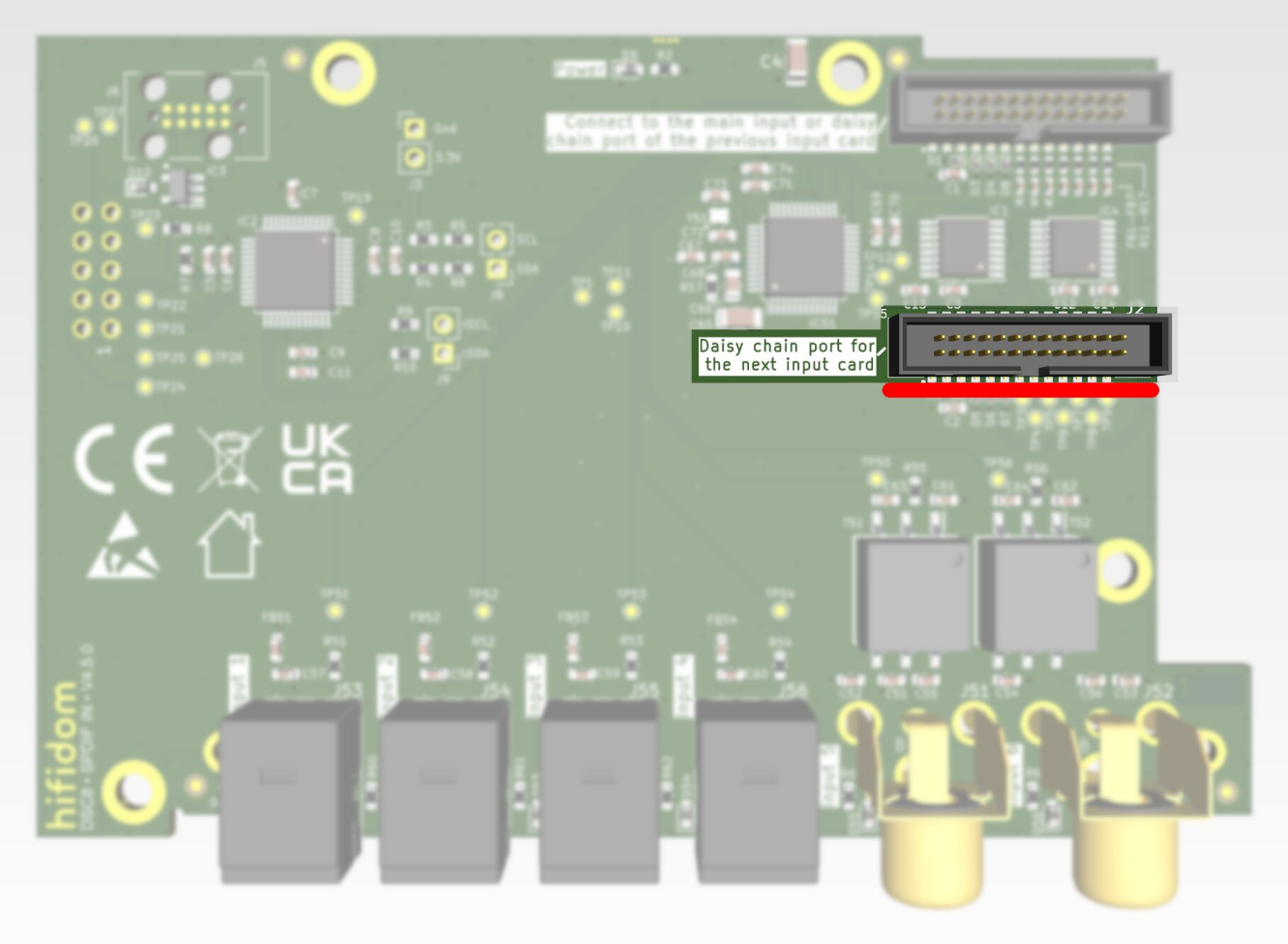
On the sound card, the ribbon cable is plugged into the connector labeled **Input**.

For the expansion card, the other end of the ribbon cable is plugged into the connector labeled **Connect to main input or daisy chain port of previous input card**:



Connect with an input expansion card

If another input expansion card is to be connected to the input expansion card, another ribbon cable is plugged into the still free connector of the first expansion card labeled **Daisy chain port for the next input card**::



For the next card, the other end of the ribbon cable is plugged into the connector labeled **Connect to main input or daisy chain port of previous input card**. This daisy chain can be extended up to 6 expansion cards.

The connections of input and output expansion cards must not be interchanged. Also the input and output expansion cards must not be mixed in the interlinking. The company hifidom is not liable for damages caused by a faulty connection of the expansion cards!

LEDs

Position and meaning

As soon as the expansion card is supplied with voltage, the Power LED lights up permanently:

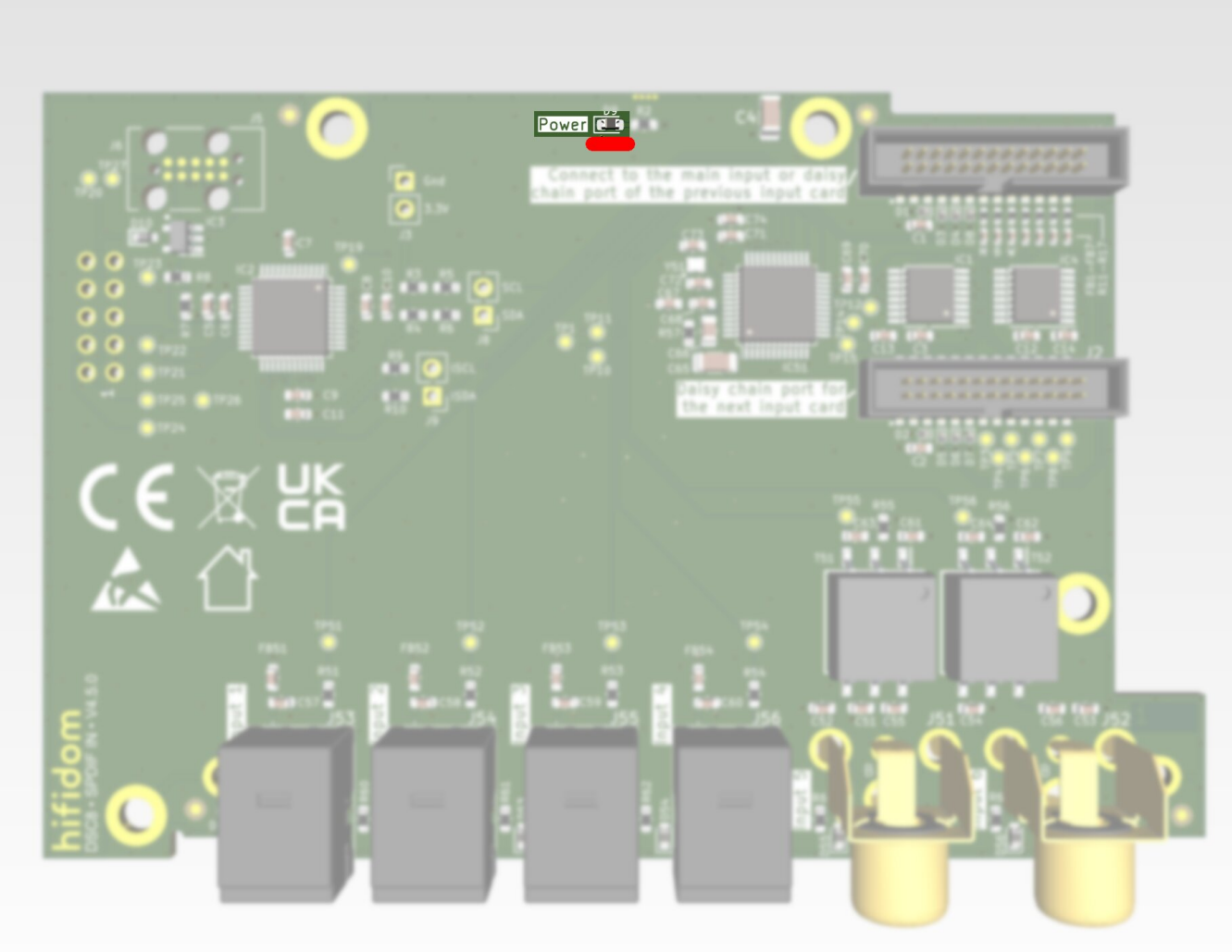


Figure 10. The position of the Power LED

A green illuminated LED is placed on the circuit board at each input:

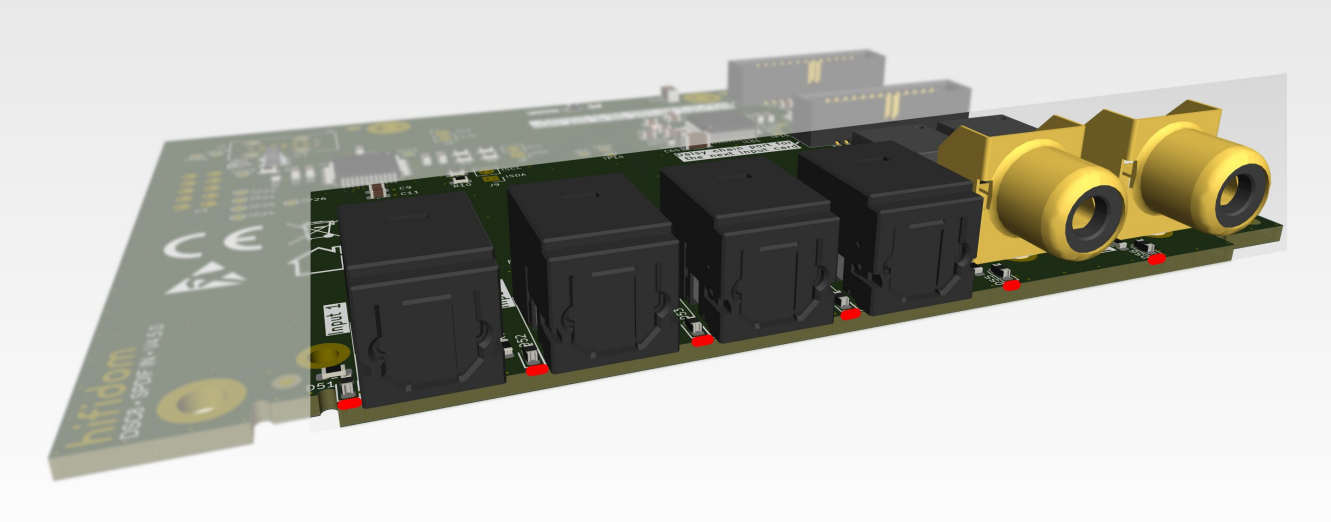


Figure 11. The position of the LEDs at the inputs

Only if an input is selected, then the LED of this input is permanently lit. Otherwise the LED is switched off.

Blinking pattern

In normal operation, the LEDs on the inputs indicate whether the input is selected or not. In exceptional situations, all LEDs on the inputs flash in certain patterns, which are described below:

- **The LEDs flash regularly approx. 5 times per second:** The card is currently in **Firmware Update** mode.
- **The LEDs flash briefly approx. 1 time per second:** The expansion card is connected incorrectly, i.e. the card is connected to the **Output** connection of the sound card or an output expansion card. However, the expansion card may only be connected to the **Input** connection of the sound card or to an input expansion card.
- **All LEDs light up continuously and go out briefly once per second:** Another card in the expansion card daisy chain is connected incorrectly.
- **The LEDs flash regularly approx. 2 times per second:** The expansion card is not supplied with sufficient voltage. Connect an external power supply unit to the sound card **DSC8 MAIN**. Further information on this can be found in the user manual for the sound card **DSC8 MAIN** in the **Power supply** section.
- **The LEDs flash in quick succession approx. 2 times per second:** The expansion card is supplied with power but has not yet been initialized by the sound card. Possible causes are that the ribbon cable plug is not inserted correctly or the ribbon cable is damaged.

Audio functions

The selection of an input is described in detail in the user manual for the sound card **DSC8 MAIN** in the section **"Input Capture Source"-selection.**

Firmware Update

The firmware of the expansion card can be updated. This process can be initiated only in connection with the sound card. Read the corresponding section in the **DSC8 MAIN** sound card user manual.

The manufacturer hifidom excludes the warranty in case of improper firmware update.

Firmware should only be updated when necessary (e.g. to fix a troublesome error).

Accessories / Resources

PCIe slot bracket

A slot bracket is available as an optional accessory for the card, with which the card can be installed in the PCIe slot of a PC.

Figure 12. The mounted PCIe slot bracket in use

You can find more information about the product here:

https://www.hifidom.com/res.php?lang=en&t=accessories&g=dsc8&p=spdif-in&goto=bracket

Downloads

You can find an overview of all downloads for the map here:

https://www.hifidom.com/res.php?lang=en&t=downloads&g=dsc8&p=spdif-in

Here we provide you with various resources that may be useful for your project. For example, you will find a 3D model of the map in this section. Of course, there is much more to discover here, as we are constantly expanding this section.

Technical Data

External dimensions

106mm x 70mm

Weight

approx. 45 g

permissible ambient conditions

at 5 % to 95 % relative humidity (non-condensing)
0 °C to +45 °C (operation)
-30 °C to +70 °C (storage)

Power consumption

maximum 1.5 W

External voltage source required for the sound card

no

Number of inputs

4 TOSLINK
2 Cinch (digital signals only)

Supported sample rates

44100Hz, 48000Hz, 88200Hz, 96000Hz, 176400Hz, 192000Hz
(Cinch and TOSLINK)

Supported sample widths

16Bit and 24Bit
(Cinch and TOSLINK)

Supported signal formats

S/PDIF

Impedance of the cinch connections

75 Ω

Voltage level at the cinch connections

minimum 0.2 $V_{peak\text{-}to\text{-}peak}$
maximum 0.6 $V_{peak\text{-}to\text{-}peak}$

Manufacturer information & declarations

Company	hifidom Inh. Dieter Steinwedel
Address	Konrad-Adenauer-Str. 20 30823 Garbsen Germany
Web site	https://www.hifidom.com
email	info@hifidom.com
Telephone number	+49 (0) 5137 - 14 72 660
*WEEE-Number	38732311

Warranty and liability exclusions

The national regulations apply to the warranty. The warranty does not apply if one of the following conditions applies:

- The product has been repaired, modified or altered unless such repair, modification or alteration has been authorized in writing by the manufacturer.
- The serial number on the product is missing or no longer fully legible.
- The date of purchase cannot be supported by an invoice.

Declarations of Conformity

The product complies with the essential requirements of the following European Community directives: 2014/35/EU, 2011/65/EU, 2009/125/EU.
The product is intended for use in the EU, Switzerland and Norway.
The complete CE declaration for this product can be found here:
https://www.hifidom.com/res.php?lang=en&t=ce&g=dsc8&p=spdif-in

This product complies with the essential requirements of the following directives in the United Kingdom: 2014/35/EU, 2011/65/EU, 2009/125/EU.
The complete UKCA statement for this product can be found here:
https://www.hifidom.com/res.php?lang=en&t=ukca&g=dsc8&p=spdif-in

Troubleshooting

The LED *POWER* does not light up or only lights up weakly

Possibly the expansion card is not supplied with voltage or power or not sufficiently. Please check:

- It is possible that the connector of the ribbon cable is not inserted correctly into the port. Check all connections.

The inputs of the expansion card are not displayed

- The inputs of the expansion card are only visible when the sound card **DSC8 MAIN** is operated in **Full-Featured Mode**. Please also read the section **Audio functions** in the user manual for the sound card **DSC8 MAIN**.
- It is possible that the connector of the ribbon cable is not inserted correctly into the port. Check all connections.

No signal during recording

- Check if the sound source provides a signal.
- Check if the sound source is correctly connected to the expansion card.
- Does the audio source deliver the signals in the correct format? The Technical Data section lists the signal formats that this expansion card supports.
- Is the correct input selected on the expansion card?
- Did the sample rate of the audio source change during recording? You can also check this using the **"Input Mismatch" display control.** Please also read the section **"Input Mismatch" display** in the user manual for the sound card **DSC8 MAIN**. If the sample rate has changed, then restart the recording.

The LEDs of the outputs flash

Please read the meaning in the Blinking pattern section.

Glossary

Analog/Digital Converter

Converts analog signals to digital signals.

BluRay player

A BluRay player plays digital media called a BluRay disc. Typically, these players also support other media.

CD player

A CD player plays digital data carriers, which are referred to as Compact Disk.

DAB®-Receiver

DAB receivers receive digital broadcasting.

DFU

Is the abbreviation for **Device Firmware Update**.

Device Firmware Update

Also abbreviated as **DFU**. This standard specifies how the firmware of a USB device, e.g. a sound card, is updated from a USB host.

DSC8 MAIN

This is the sound card named **MAIN** in the product group **DSC8**.

DVD®-Player

A DVD® player plays digital media called DVD® discs. Typically, these players also support other media.

Firmware

Firmware is the software that runs on the microprocessor of an electronic device, such as a sound card.

HiFi

Is the abbreviation for **High Fidelity**.

coaxial

Describes the geometrical arrangement of conductors. In a coaxial connection or conductor, the center conductor is shielded by a surrounding (or coaxial) conductor.

LED

Is the abbreviation for **Light Emitting Diode**. It is an electronic component that emits light when a voltage is applied.

Multimedia Center

A device that can store and play back various media, such as audio, video, or images.

Sample

The single, digitized measured value that results from the digitization of an analog audio signal.

Sample frequency

Synonym for sample rate

Sample rate

The **sample rate** specifies the rate per second at which an analog audio signal is sampled and the measured value is converted to a digital value with each sample.

S/PDIF

S/PDIF is an interface for the digital transmission of audio signals by electrical or optical means.

TOSLINK

TOSLINK is a connection system for fiber optic cables. At **TOSLINK**, data is therefore transmitted optically. Therefore, electromagnetic interference signals do not affect data transmission.

Web radio

A device that receives broadcasts from radio stations via the Internet.

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