

Changing USB ComPort for **DAC-4x(A)**



DIGITAL AMPLIFIER AND CONTROLLER CARD FOR ALL KIND OF PROPORTIONAL VALVES

Only applies if the DAC4(A) is equipped with a USB-C port

**Applicable for all SW Versions with
index "e" or firmware date since 2023-10-16
and Bootloader V2.51**



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Revision History

Revision	Date	Description
R 1.0	16.10.23	First preliminary release

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1 General information

1.1 About this manual

This document describes how to change the serial identification of the DAC4(A) USB interface. This allows the user to assign a defined USB identifier to the DAC4(A) device. This means that, if several DAC4(A) devices are connected to the USB port of the PC, each DAC4(A) is always assigned to the same virtual COM port by Windows. Via the virtual COM port (VCP), the USB device appears as an additional COM port that is available to the PC. An application software such as the HCSTool or a terminal program can therefore access the DAC4(A).

Background information regarding USB port handling by Windows:

The Universal Serial Bus, also known as USB for short, is a serial bus system that is used to connect external devices (printers, headsets, scanners, cameras, etc.) to the computer.

As soon as a device is plugged into the USB port, the corresponding driver is searched for under Windows.

- If the USB identification is already known and a driver is available, the already assigned COM port is activated and the user can use it.
- If the device is new, i.e. the identification is not yet known, the corresponding driver is activated and the next free unused COM port is assigned to the device. The user can now use this COM port.

In order to assign a dedicated COM connection to the connected DAC4(A) modules under Windows, it is necessary to assign a different USB identification to each connected DAC4(A) modules. This can be done with the following commands described under point [“3 Procedure and available command, page 6”](#)

A separate terminal program on PC like TeraTerm is needed. In this document the handling with TeraTerm is described.

1.1.1 Reservation of changes and validity

The information contained in this manual is valid at the time of this version's release. See footer for version number and release date of this manual.

We reserve the right to make changes to this manual at any time without specified reasons.

1.1.2 Completeness

This manual is complete only when used in conjunction with the product related hardware and software documentation required for the relevant application.

1.1.3 Place of storage

This manual and all other associated documentation for hardware and software must always be kept in a location where they will be readily accessible and close to the amplifier or the equipment in which it is installed.

1.1.4 Warranty and liability

This manual only describes the functionality and influence of the parameters. The described software functionality can be used in various amplifier models which can be implemented in a vast range of applications. Hence it is not possible to assume liability for the influence of the parameters. Please refer to the safety instructions and remarks in the related operating instructions.

1.1.5 Typographical conventions

NOTICE

Failure to observe this safety notice can result in property damage!

2 Terminal program “TeraTerm”

You can find the terminal program “TeraTerm” *1 at our webpage by using the following link:

http://www.h-c-s-gmbh.de/images/download/software/archiv/Tools/Setup_Teraterm_4.106.0.0.exe

Please download and install: “**Setup_Teraterm_4.106.0.0.exe**”

“TeraTerm” is an product of © TeraTerm project

2.1 Connection of DAC4(A) to PC

Connect the DAC4(A) with a USB cable to your computer. An USB connector type USB-C is needed
An external supply is not needed. The USB connection is able to supply the DAC4(A)

NOTICE
No extra Supply is needed

The Power LED shows if the power is connected to the DAC4(A) and USB communication is possible.

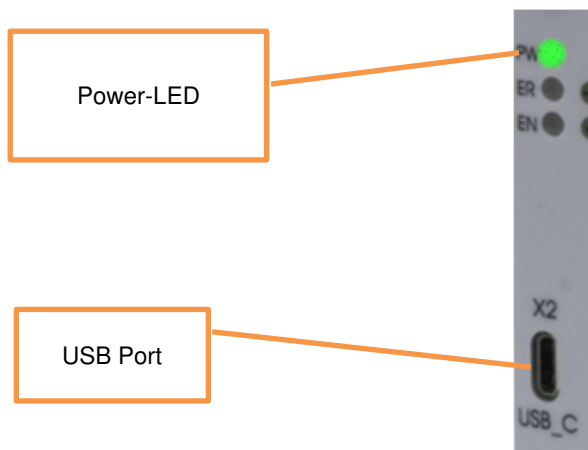


Figure 1: Top view, status LEDs and USB port

2.2 Setup “TeraTerm” for communication

TeraTerm is set automatically during installation to the following values:

Feature	Data
Speed	19200
Data	8
Parity	none
Stop bits	1
Flow control	none

To open the setup feature of “TeraTerm” please open Setup→ serial port..

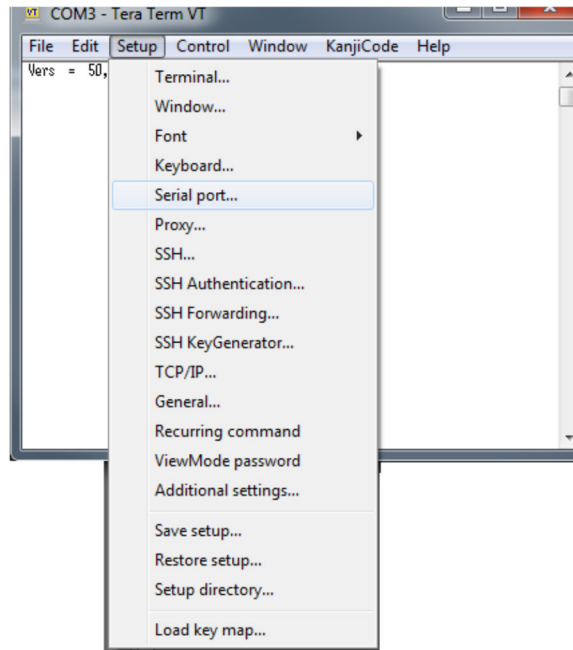


Figure 2: TeraTerm setup selection

2.3 Connected to DAC4(A)

Select the proper "COM Port" (In this example "COM3" as USB communication port is used)

Here the STM driver for windows is used. This driver is included in the installation package of the HCSTool.

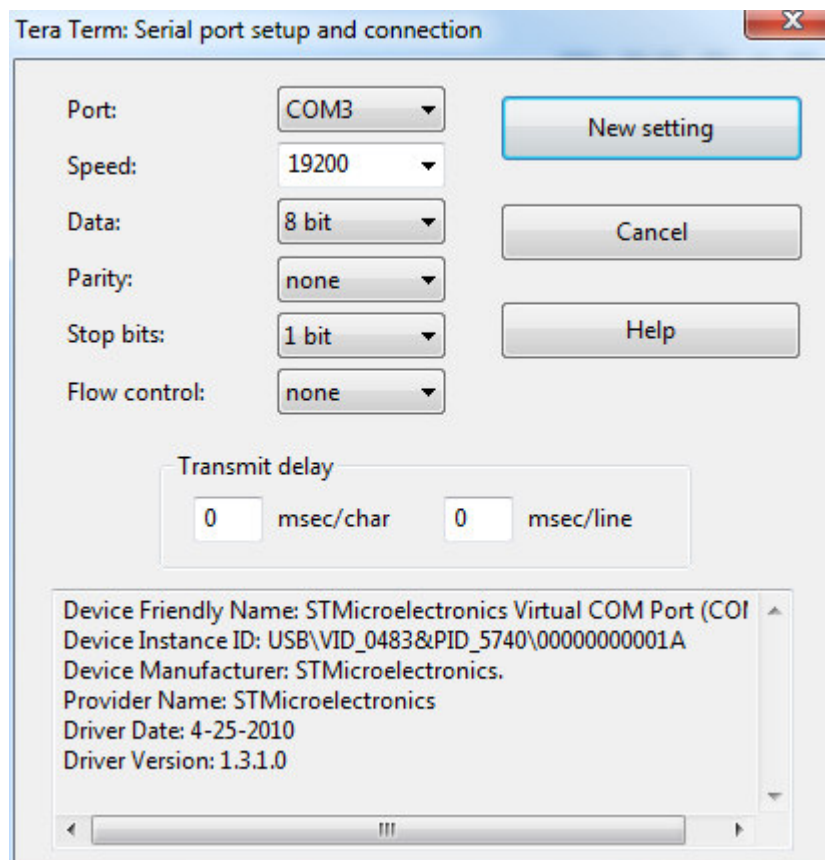


Figure 3: TeraTerm setup with DAC4(A) connected

3 Procedure and available command

To change and check the USB identification of the DAC4(A) device two commands are available.

3.1 First check the SW version

Please check the bootloader version first to be sure that the USB port identification can be changed. To do this, enter the command "@info" in the TeraTerm.

Command: @info <Enter>

The line has to be finished with the <enter> key

```

VT COM3 - Tera Term VT
File Edit Setup Control Window KanjiCode Help
Vers = 1,12 e
@info
----File info Bootversion ----
BootV02.51
----File info STM32 firmware----
Type: DAC-4(A) Release firmware u.o. bootloader
Version: V01.12e
Date: Oct 16 2023
Time: 14:11:52
Checksum:AA55AA55
EndByte: 12345678
Interface: USB is used
HW Compatible: Yes
----File info file0 firmware----
Error: file is empty, invalid, or incompatible with this device !
----File info file1 firmware----
Error: file is empty, invalid, or incompatible with this device !
<Press any key> to finish
  
```

Figure 4: Example, screen of TeraTerm with @info

3.2 Set the USB identification @susb

Command: @susb xxx <Enter>

Answer: > ok (if change is successful)

Set the usb identification to the xxx value. Xxx can be a number between 0 and 255.

If xxx = 0 the identification is empty or set to the default value.

The line has to be finished with the <enter> key

NOTICE

After changing the identification, the device must be restarted (USB disconnection) to activate the new identification, i.e., to assign a new COM port to the device.

3.3 Read the USB identification @susb

Command: @gusb <Enter>

The line has to be finished with the <enter> key

Answer: empty or 1...255

[illegible]

Please refer to:

on our web side.

- End