Cables, connectors and converters

Here you can find information about common and uncommon connectors used in the workshop and beyond and how to tidy up cables when finishing your work in the workshop.

- Cable management
- Connector types
- Converters, extenders and interfaces

Cable management

The standard way to roll-up cables with two examples to do it properly

Short example

https://www.youtube.com/embed/0yPcJD7RVuY

Longer example

https://www.youtube.com/embed/KHwPthJO5bo

step by step text and image (in dutch)

https://nl.wikihow.com/Een-snoer-oprollen#

Connector types

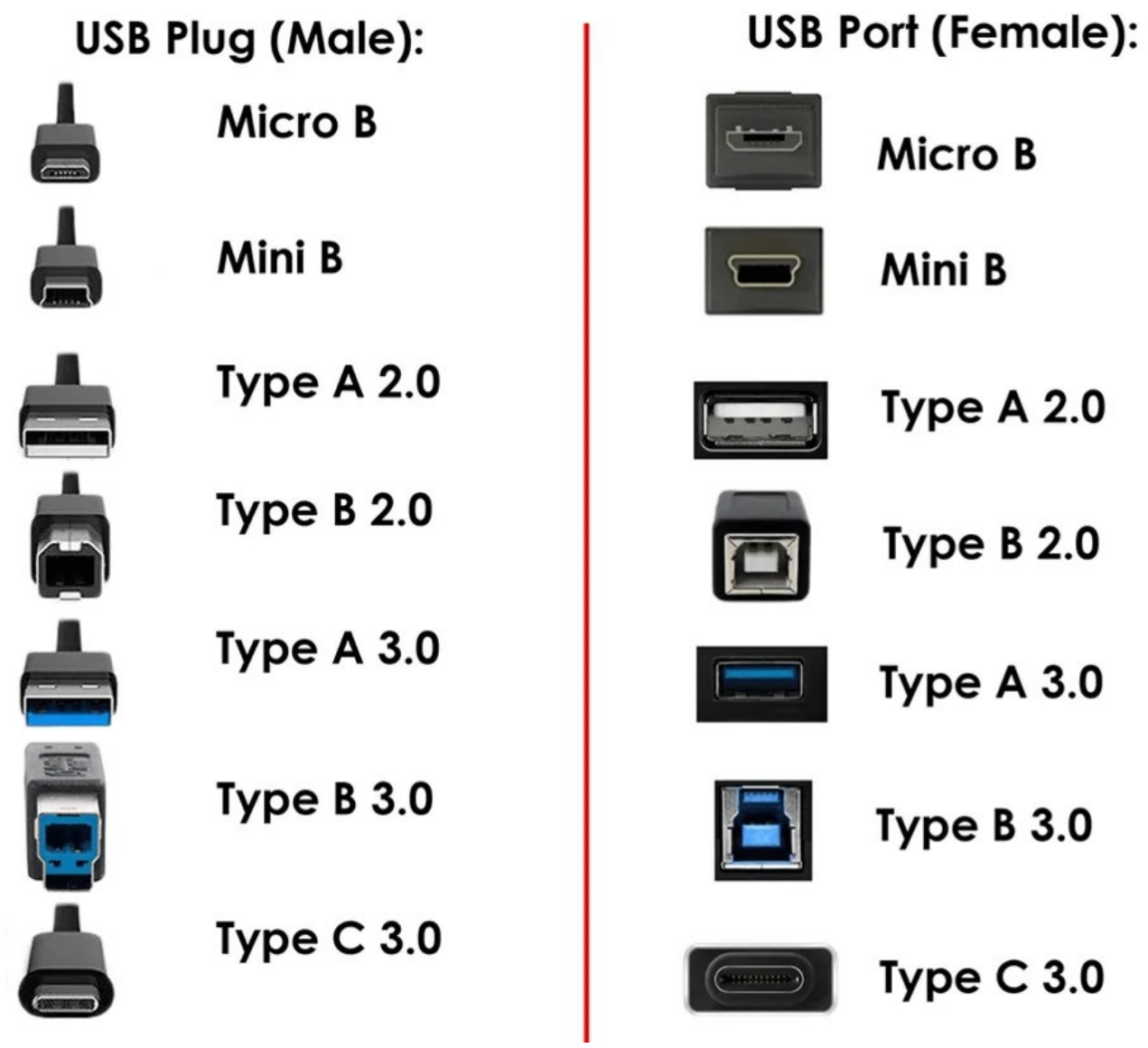
This page gives an overview of different categories and types of connectors with a short description and links to resources with more detailed descriptions. Sometimes the same connectors can seen within different categories depending on the type of category.

Power connectors

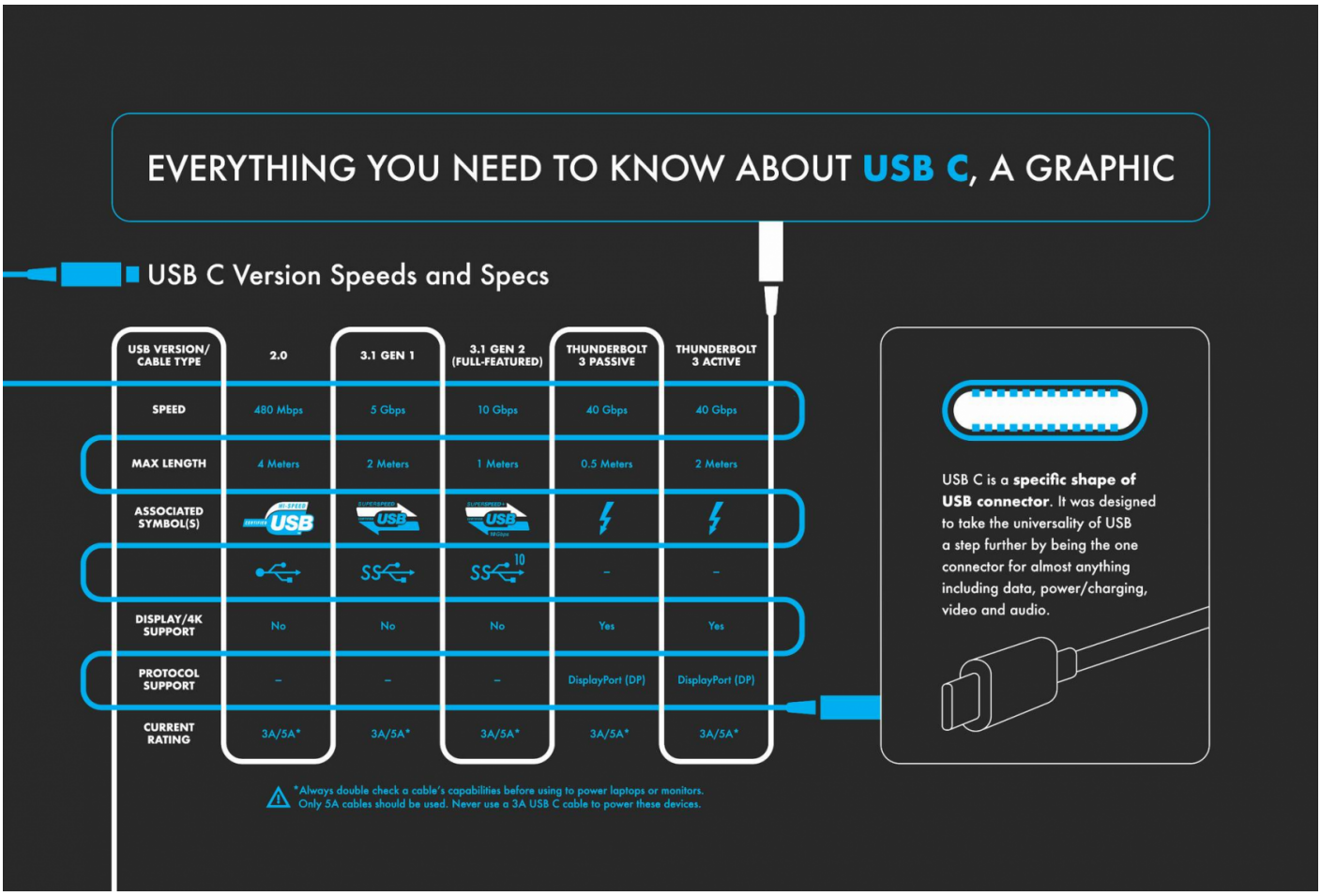


Resource: https://www.electronicconnectors.net/power-connectors/

USB connectors



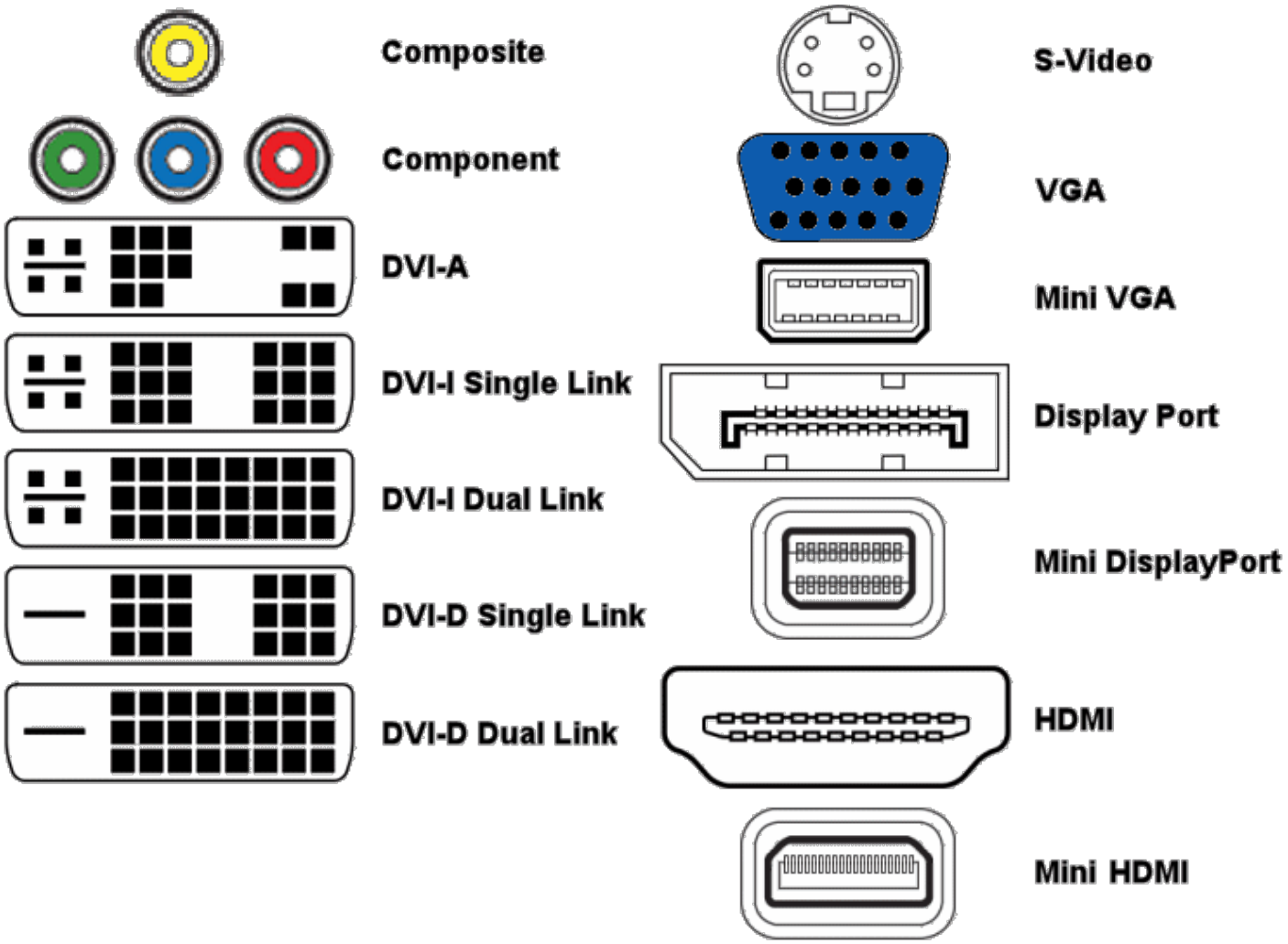
Resource: https://tvtropes.org/pmwiki/pmwiki.php/MediaNotes/UniversalSerialBus



Resource: Facebook

NOTE! If you are a HKU student or employe and need to test your USB-C cable? Contact the blackbox workshop @ blackbox.oudenoord@hku.nl

Video connectors

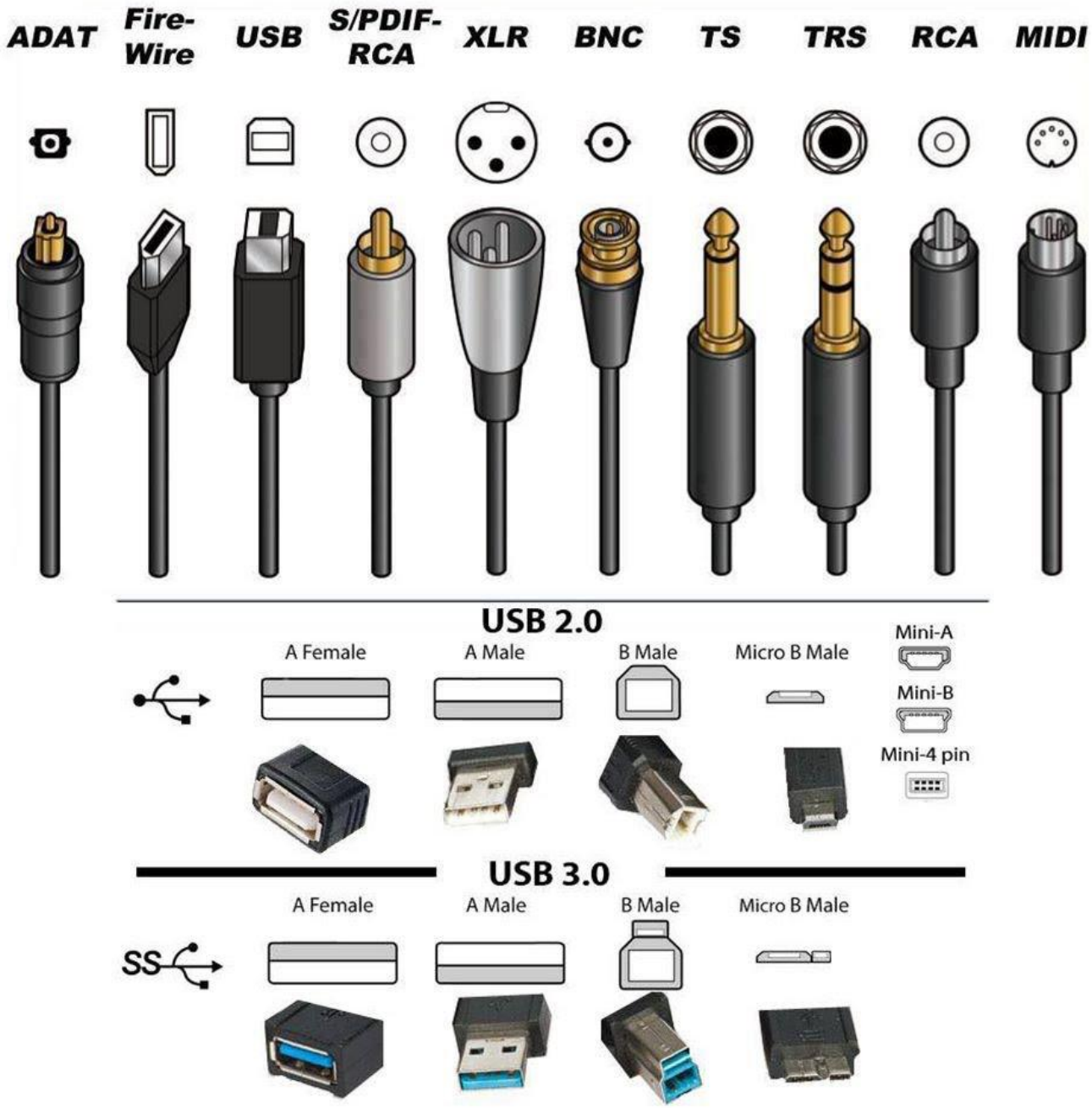


Resource: https://www.diyaudioandvideo.com/TV/WireCableConversions/

What is HDMI?

https://www.eaton.com/us/en-us/products/backup-power-ups-surge-it-power-distribution/backup-power-ups-it-power-distribution-resources/cpdi-vertical-marketing/hdmi-explained.html

Audio connectors



Computer connectors

Generic computer connectivity

NOTE! Click to enlarge image and text

Ultimate Chart of Computer Connectors and Ports

Updated for 2020

USB, Keyboard and Mouse


USB 2.0 Type A (male)


USB 2.0 Type A (female)


USB 2.0 Type B (male)


USB 2.0 Type B (female)


USB 2.0 Mini-A (male)


USB 2.0 Mini-B (male)


USB 2.0 Micro-A (male)


USB 2.0 Micro-B (male)


USB 3.0 Type A (male)


USB 3.0 Type A (female)


USB 3.0 Type B (male)


USB 3.0 Micro B (male)


USB 3.0 Type C (male)


USB 3.0 Type C (female)


PS/2 (male)

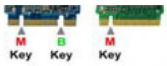

AT Keyboard (male)

Storage / Disk


SATA Type A


e-SATA


mSATA



M.2


U.2


SAS (Serial Attached SCSI)

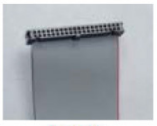

Lightning


Thunderbolt


Firewire 400 1394a 6-pin


Firewire 400 1394a 4-pin


Firewire 800/3200 1394b/c


IDE 40-pin


SCSI Micro DB68 (female)


SCSI Micro DB50 (male)


Internal 50-pin SCSI (f)


Internal 68-pin SCSI (f)

Network / Communications


GigE RJ-45 (SFP)


Ethernet RJ-45


Modem/Phone RJ-11


Serial/Parallel (f) DB-25


Serial RS232 (m) DE-9


Serial RS232 (f) DE-9


Centronics Parallel 36-pin


MIDI/gameport/DA-15

Audio

Line-Out, Headphones

Microphone

Stereo Line In

Subwoofer/Center Out

Rear Surround Speakers

Mid Surround Speakers

Digital Audio (RCA)

Optical Audio "Toslink"

Video

VGA/SVGA (male) DE-15

VGA/SVGA (female) DE-15

DisplayPort (male)

DisplayPort (female)

Mini DisplayPort (m)

Mini DisplayPort (f)

HDMI Type A (male)

HDMI Type A (female)

DVI-I Single Link

DVI-I Dual Link

DVI-D Single Link

DVI-D Dual Link LFH-60

DVI-D Dual Link DMS-59

Micro-DVI

Mini-DVI

Mini HDMI Type C

Composite A/V (RCA)

S-Video

Component Video (m)

Component Video (f)

RF/Coaxial (male)

RF/Coaxial (female)

Apple Display Conn (ADC)

Micro HDMI Type D

Power

IEC 320 C13/C14 Connector

IEC 320 C13 Socket (f)

IEC 320 C14 Plug (m)

IEC 320 C19 (f)

IEC 320 C20 (m)

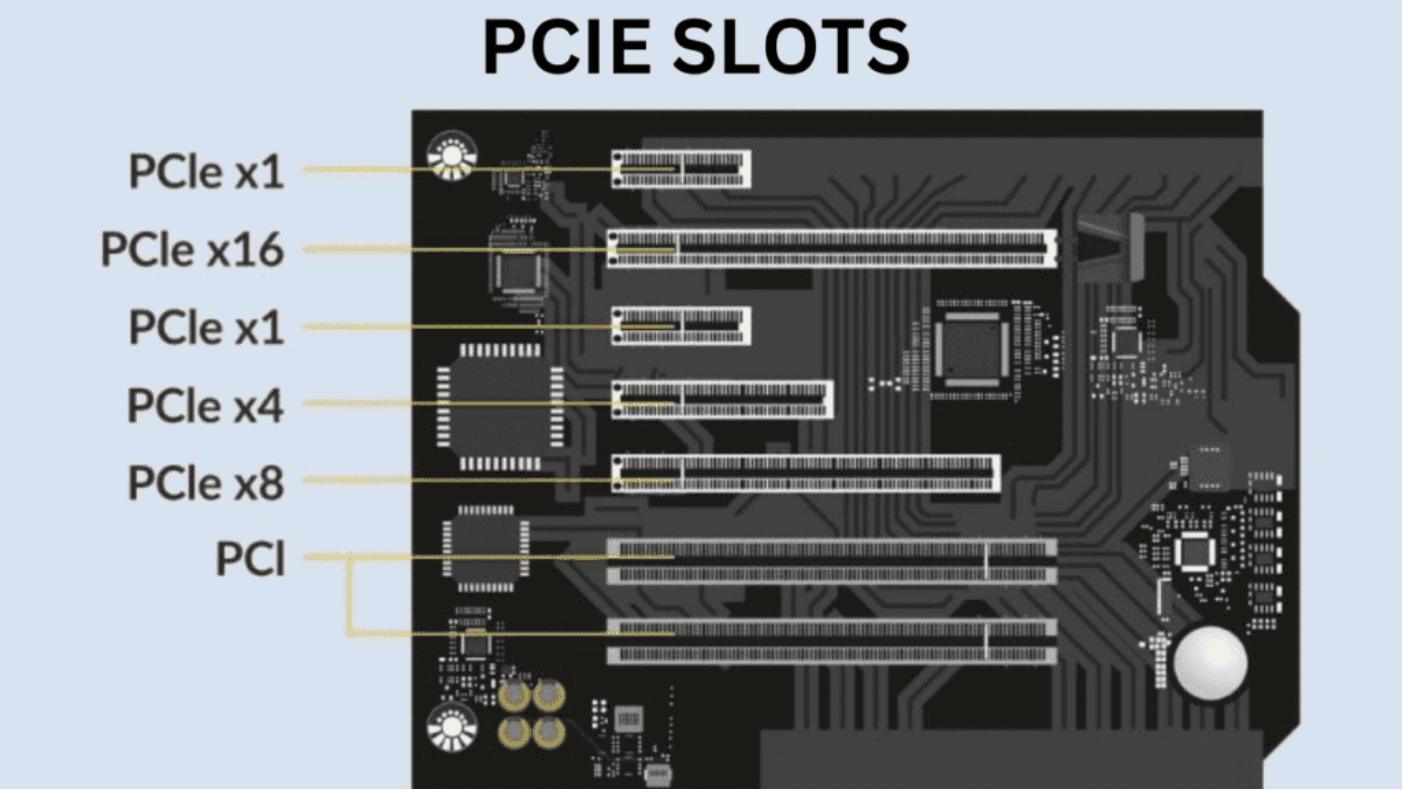
IEC 320 C5 Connector

SATA Power Connector

Molex 4-pin Connector

Resource: https://www.prrcomputers.com/blog/ultimate-connectors-chart/

Peripheral Component Interconnect (PCI) bus types for computer hardware expansion



Resource:

https://techrebooter.com/wp-content/uploads/2024/03/pcie-gpu-slots-1024x576.png

https://en.wikipedia.org/wiki/Peripheral_Component_Interconnect

Converters, extenders and interfaces

A list of useful devices for converting signals

Video

Dell D3100 and D6000 docking station

The Dell Docking Station allows you to connect your laptop to up to three additional monitors (you need to install the Displaylink software), various external devices and the Internet with just one cable.



info: https://www.dell.com/nl-nl/shop/dell-dockingstation-usb-30-d3100/apd/452-bbot/docks-and-stands

available in the blackbox workshop and 'HKU uitleen':

https://www.synaptics.com/products/displaylink-graphics/downloads/macos

https://www.synaptics.com/products/displaylink-graphics/downloads/windows