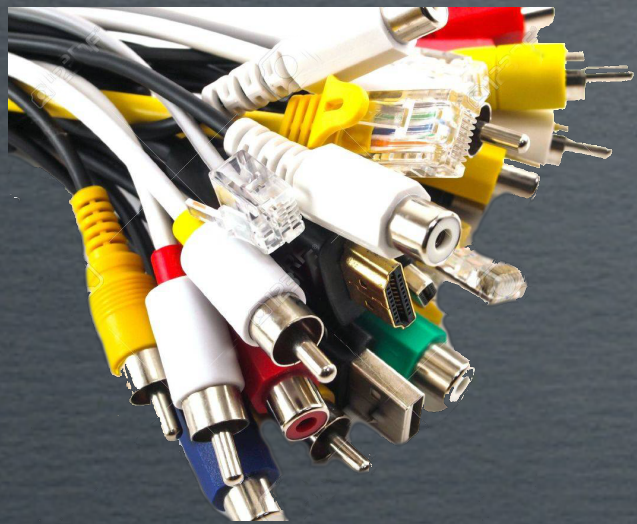


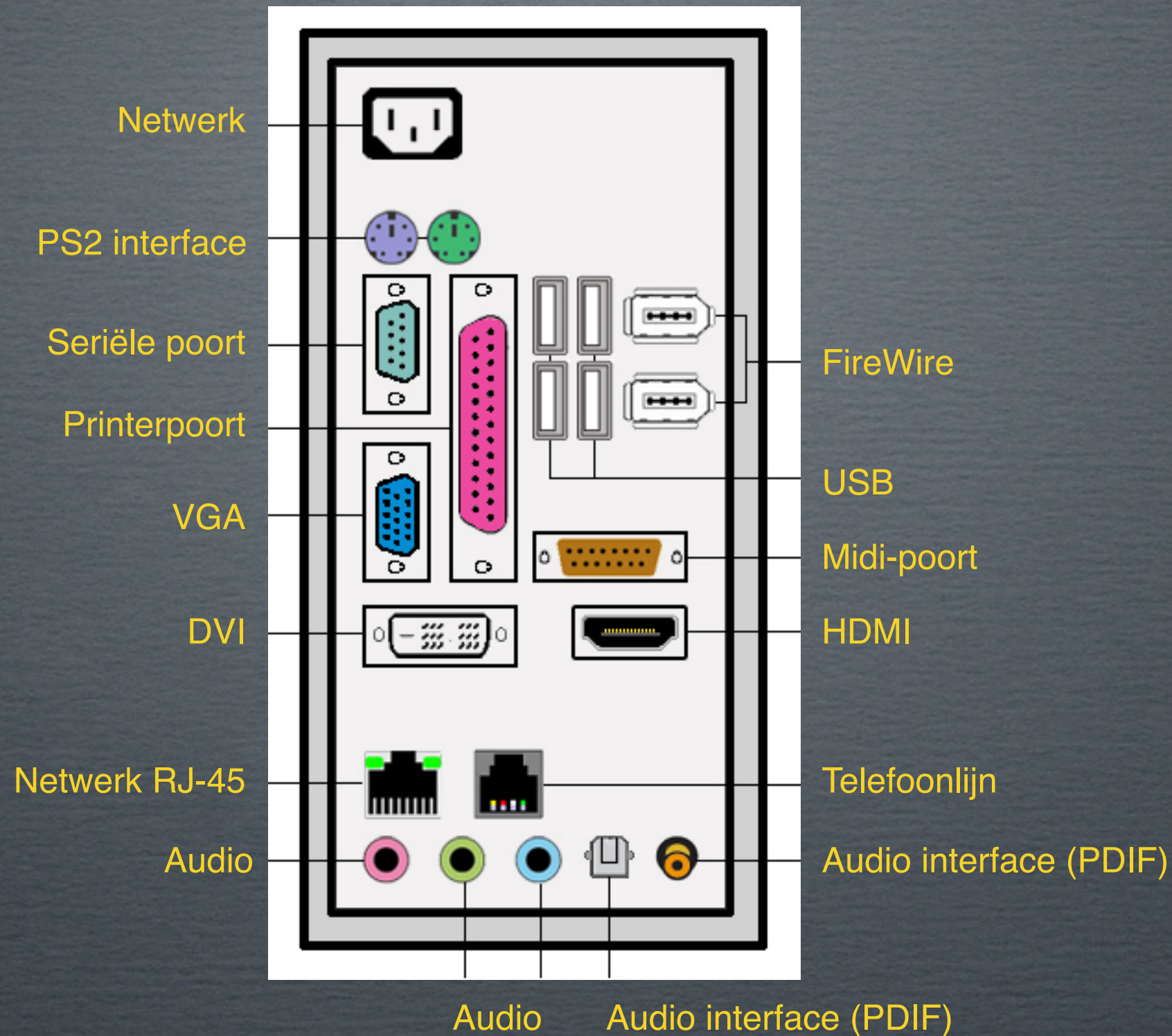
Videoclub Bedum



Stekkers
en
poorten

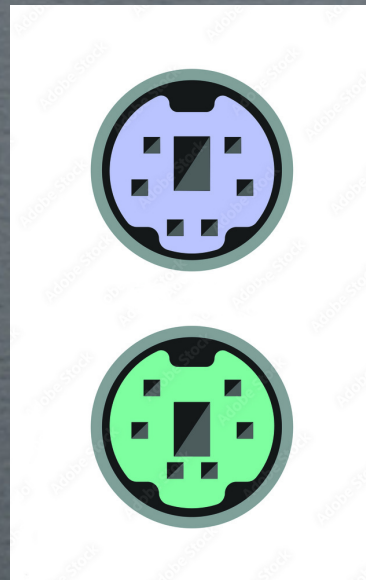


Poorten achter een PC



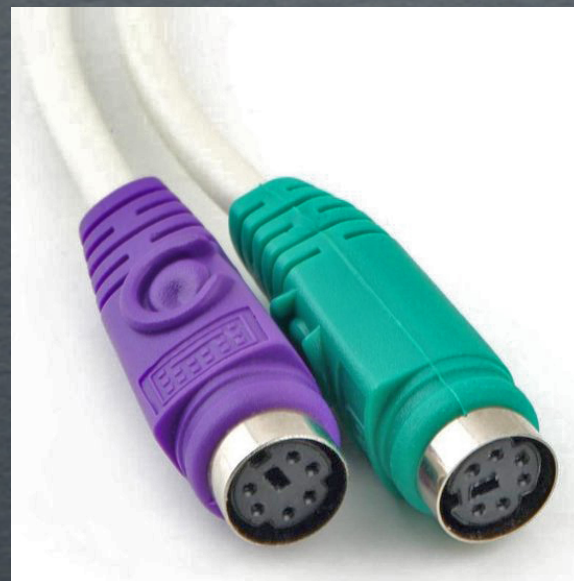
Uyt den ouden doosch

PS2 - stekkers



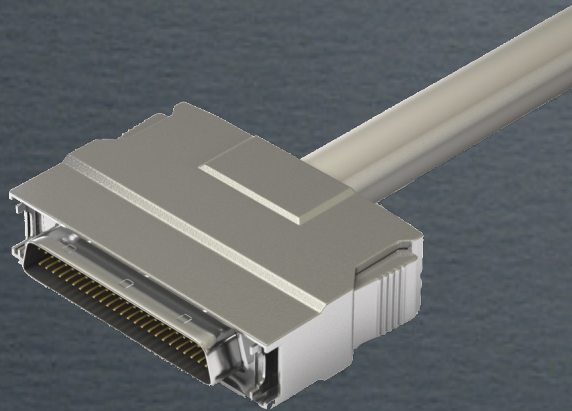
PS2 - poort
toetsenbord

PS2 - poort
muis

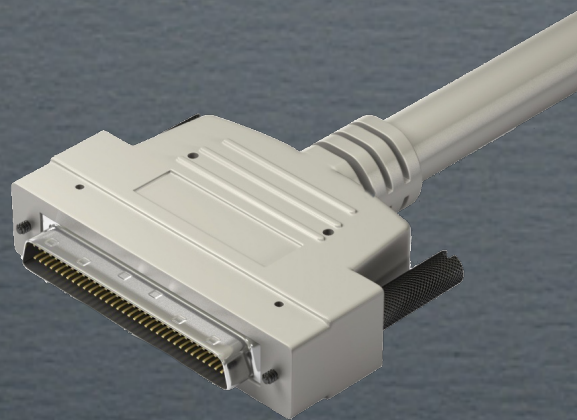


Uyt den ouden doosch

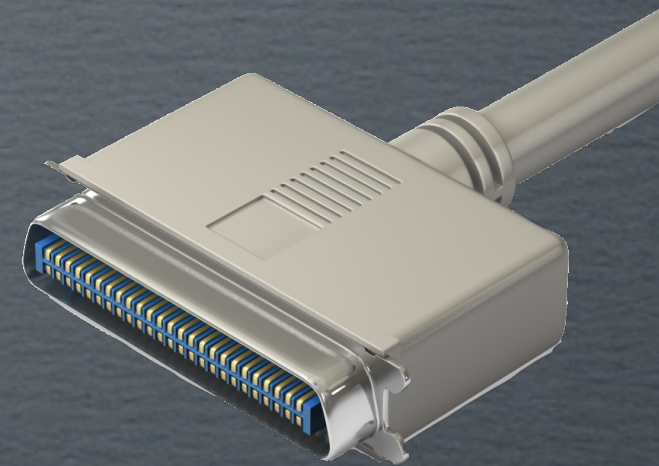
Parallele SCSI en Seriële SCSI



SCSI Micro DB50



SCSI Micro DB68

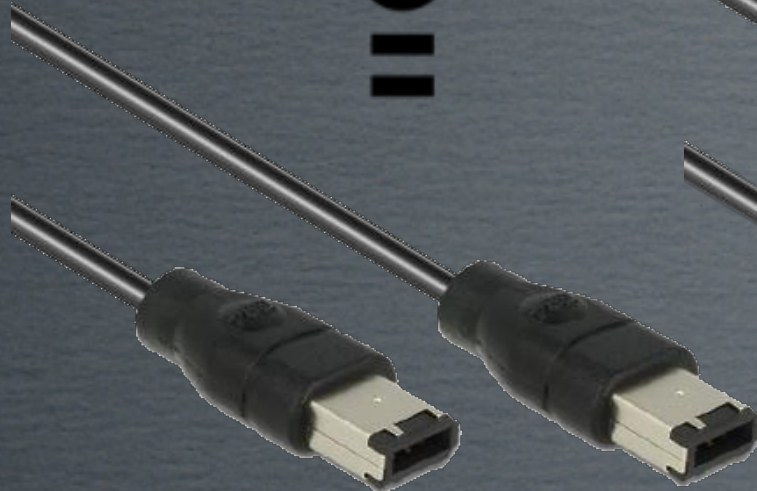


SCSI Centronics 50

Wat minder oud



FireWire (IEEE 1394)



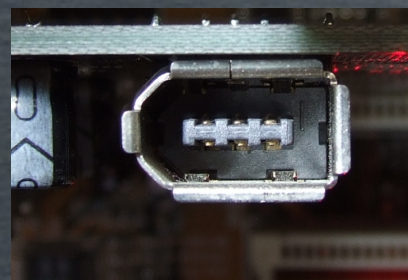
FireWire 400 (6 pin)
Doorvoer tot 400 Mbit/s



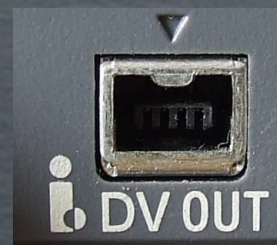
iLink naar FireWire 400
(4 pin naar 6 pin)
Doorvoer tot 400 Mbit/s



FireWire 800 naar iLink
(9 pin naar 4 pin)
Doorvoer tot 400 Mbit/s



FireWire 400-poort
Doorvoer tot 400 Mbit/s



iLink-poort
Doorvoer tot 400 Mbit/s



FireWire 800-poort
Doorvoer tot 800 Mbit/s

Wat minder oud

Analoog



Scart



Scart-poort

Analoog



VGA



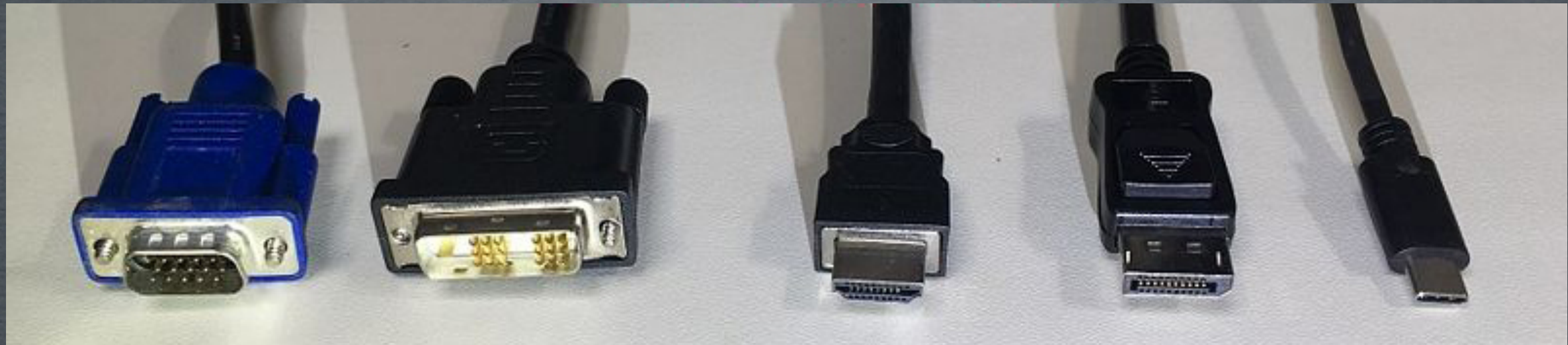
SVGA-poort

DVI-D



Was analoog
soms
digitaal

Aansturing van scherm



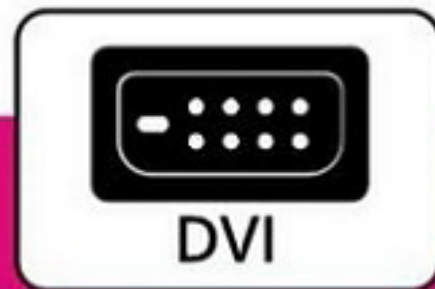
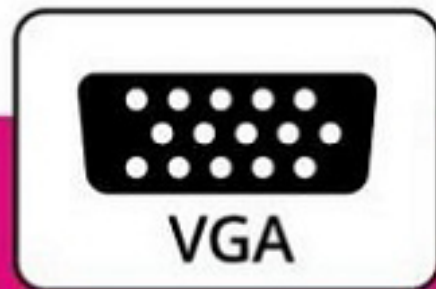
VGA

DVI

HDMI

Displaypoort

USB-C



Aansturing van scherm

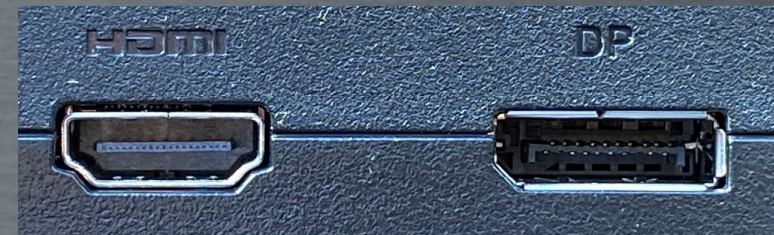
Analoog
en stuurt
geen audiosignaal



VGA

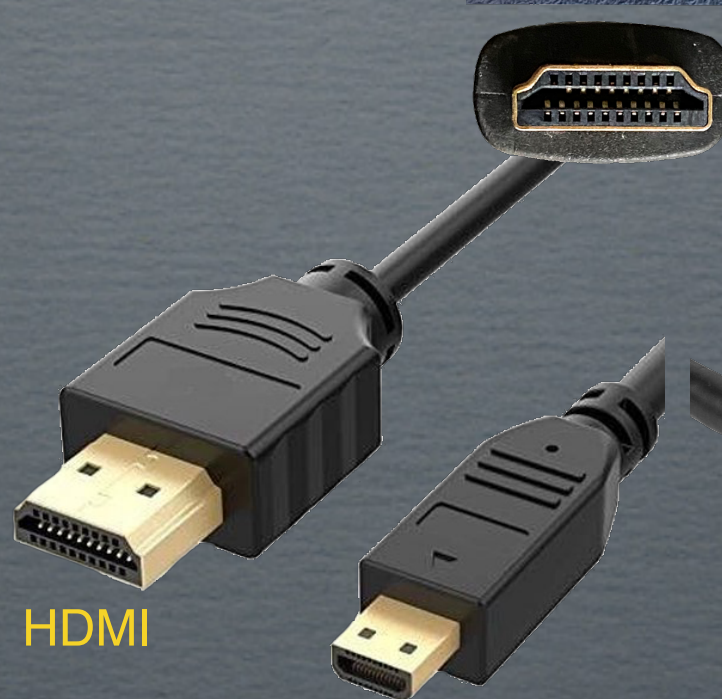


DVI



DVI

Display-poort



HDMI

micro HDMI

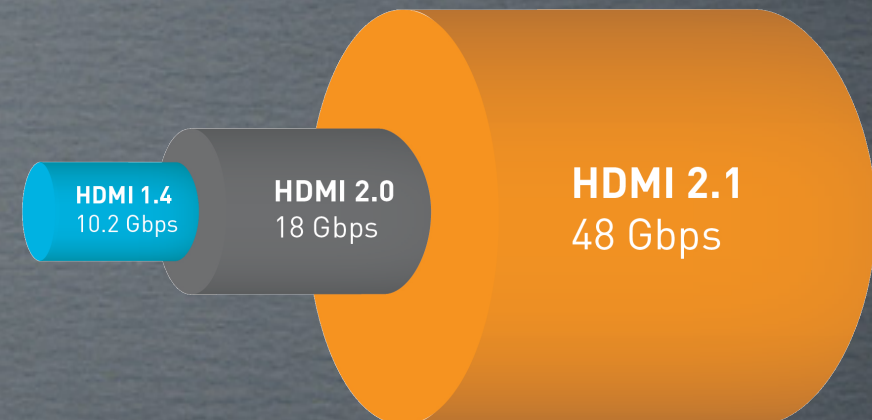
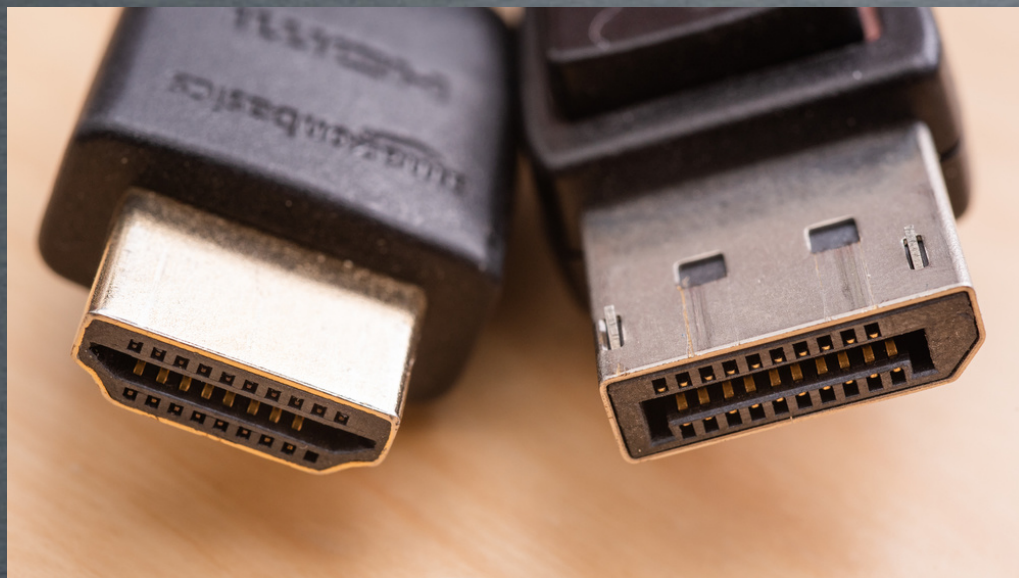


Display-poort

mini-
Display-poort



Aansturing van scherm



	Displaypoort		HDMI		
	1.4	2.0	1.4	2.0	2.1
Max. resolutie	8 k / 60 Hz	16 k / 60 Hz	4 k / 30 Hz	4 k / 60 Hz	10 k / 30 Hz
Overdracht	32 Gb/sec.	77 Gb/sec.	10 Gb/sec.	18 Gb/sec.	48 Gb/sec.
Aantal monitoren	2 (4k)	3 (10k)	1	1	1
Audiokanalen	32 (1536 Hz)		8 (1536 Hz)	32 (1536 Hz)	32 (1536 Hz)

Universal serial bus



USB 2.0

USB 3.0

USB-snelheden

Versie	Snelheid	Naam	Andere naam	Jaar van uitkomst	Kleur	Stroom
USB 1.0	1,5 Mbit/s	LowSpeed		1996	Wit	500 mA
USB 1.1	12 Mbit/s	FullSpeed	Universal	1998	Wit	500 mA
USB 2.0	480 Mbit/s	HighSpeed	Enhanced	2000	Zwart	500 mA
USB 3.0	5 Gbit/s	SuperSpeed	USB 3.1 Gen 1	2008	Zwart (SS) of blauw of geel of groen	900 mA
USB 3.1	10 Gbit/s	SuperSpeed+	USB 3.1 Gen 2	2013	Niet vastgesteld (kan variëren per fabrikant) ^[1]	2000 mA
USB 3.2 ^[2]	20 Gbit/s ^[3]		USB 3.2 Gen 2x2	2017		2000 mA
USB 4.0	40 Gbit/s		USB 4 versie 1	2019		
USB 4.0 2.0	80 Gbit/s		USB 4 versie 2	2022		5A 48V 240W PD3.1

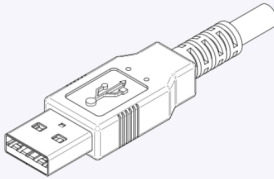
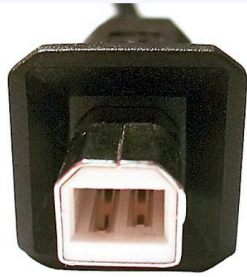
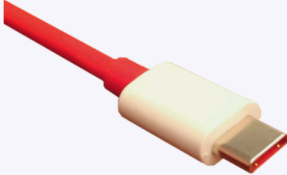
Universal serial bus

Soorten USB (niet uitputtend)



Universal serial bus

USB onderverdeeld naar toepassing

	USB 1.x en USB 2.x	USB 3.x
A-stekker computerzijde netvoedingsapparaat		
B-stekker printer externe harde schijf RS232-adapter		
mini-B-stekker scanner muis ^[6] gps-ontvanger e-identificatie		
micro-B-stekker powerbank videokaart e-reader		
C-stekker		

USB type C



USB-C

USB-A 3.x



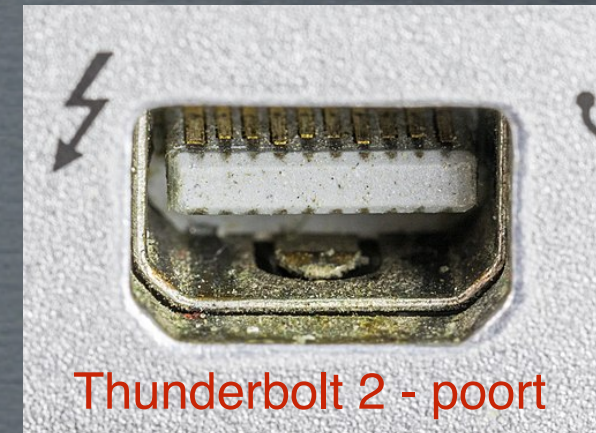
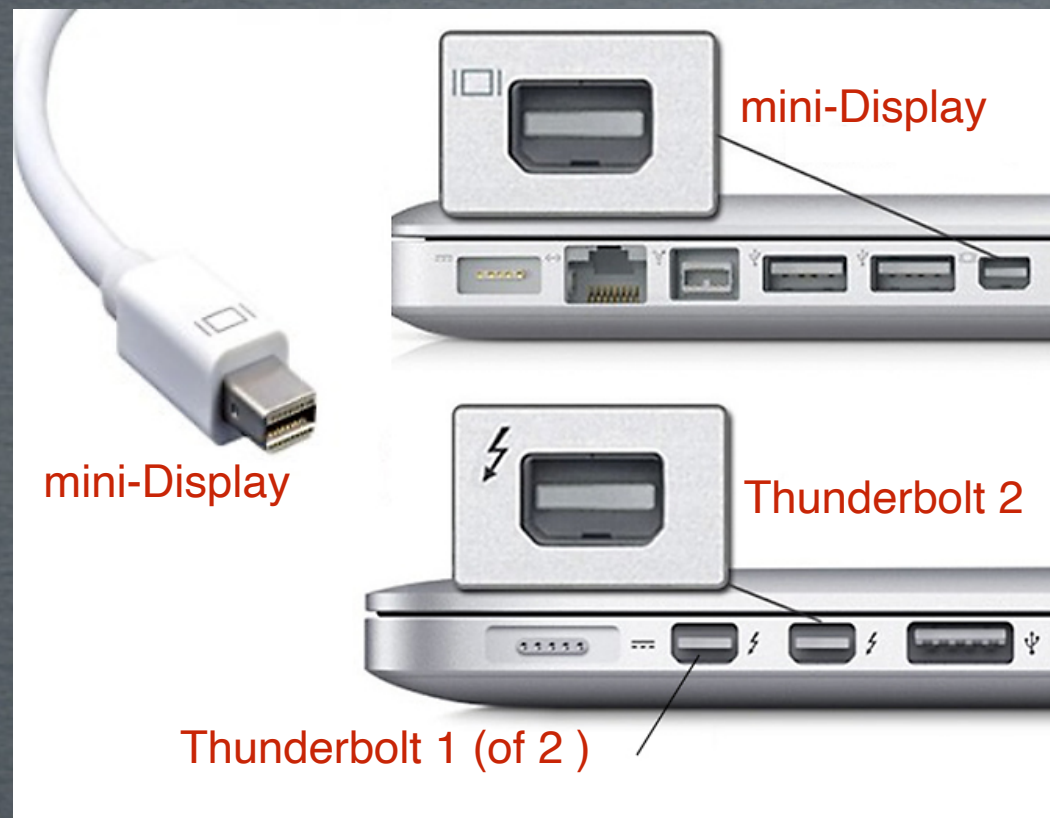
Lightning



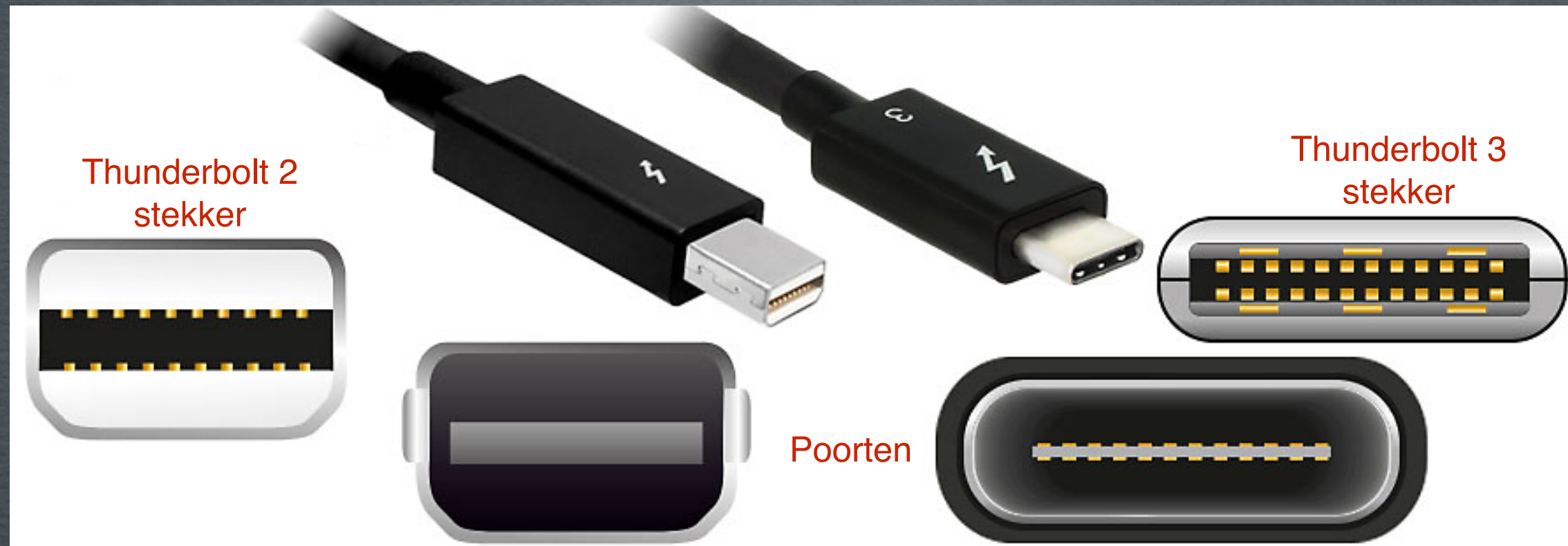
USB-C-poort



Thunderbolt



Thunderbolt



Thunderbolt 3-kabel



USB-C-kabel

Thunderbolt



Thunderbolt 1 (of 2)



Thunderbolt 3 (of 4)



Welke poort?

Thunderbolt



Thunderbolt



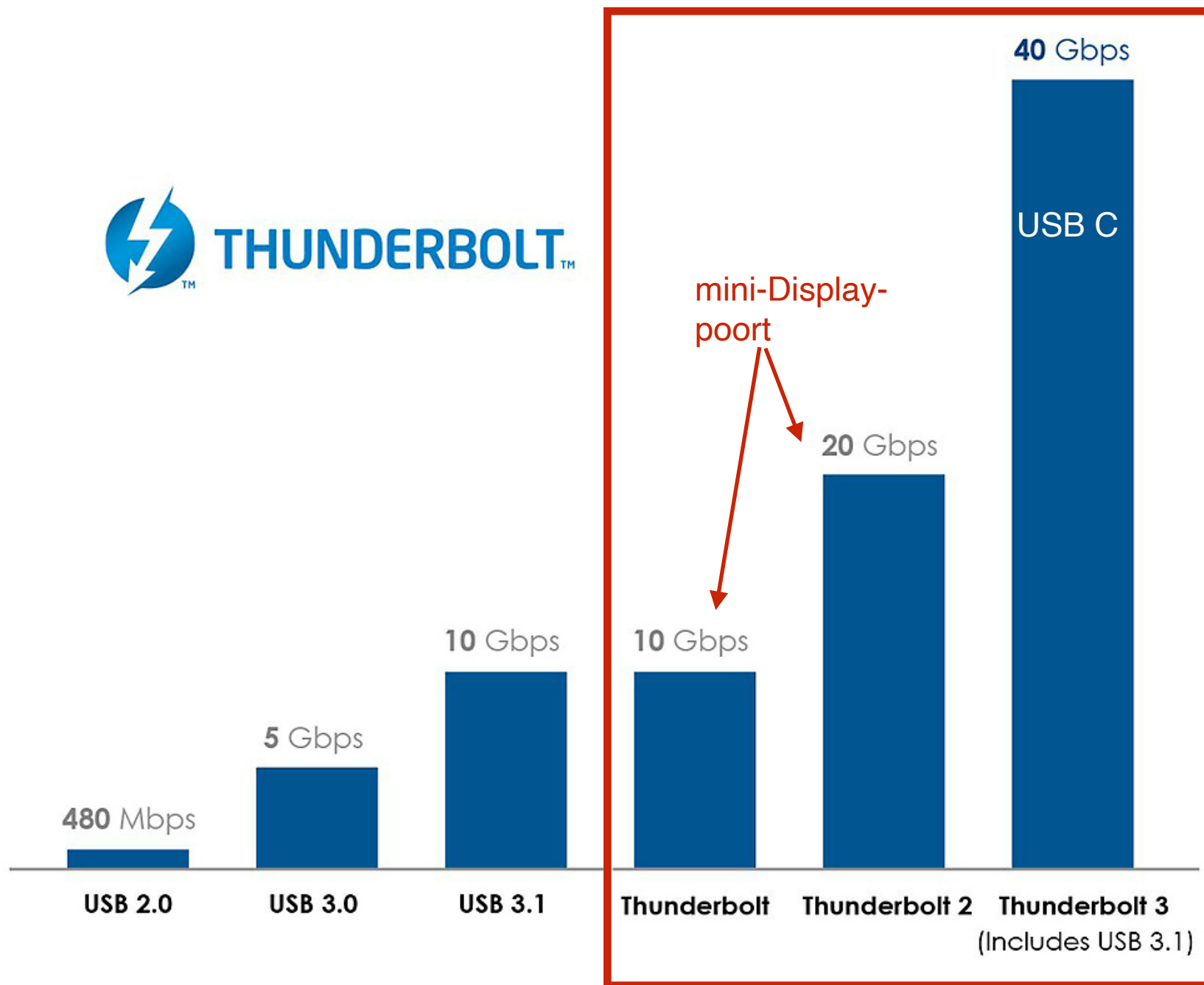
Thunderbolt 3
40 Gb/s

USB 3.1 gen. 2 type C
10 Gb/s

USB 3.1 gen. 1 type C
5 Gb/s

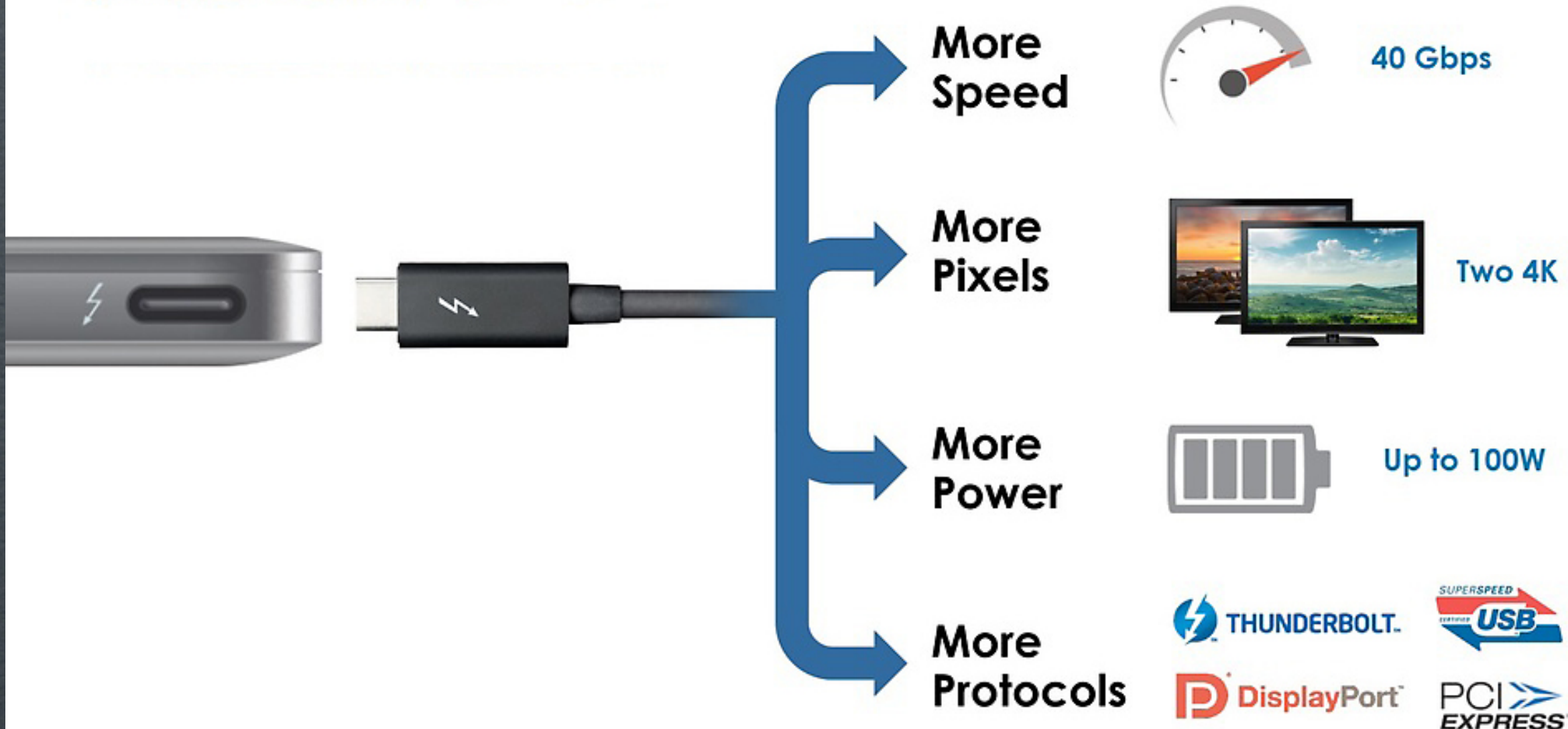
	Thunderbolt 3	USB type C
Snelheid	Tot 40 Gb/sec.	Tot 10 Gb/sec.
Aantal schermen	2 (4k)	1 (4k)
Max aantal apparaten	6	1

Thunderbolt



Thunderbolt

Thunderbolt™ 3





Videoclub Bedum

November 2023

Pick