Usb 3.0 cable types comparison guide printable

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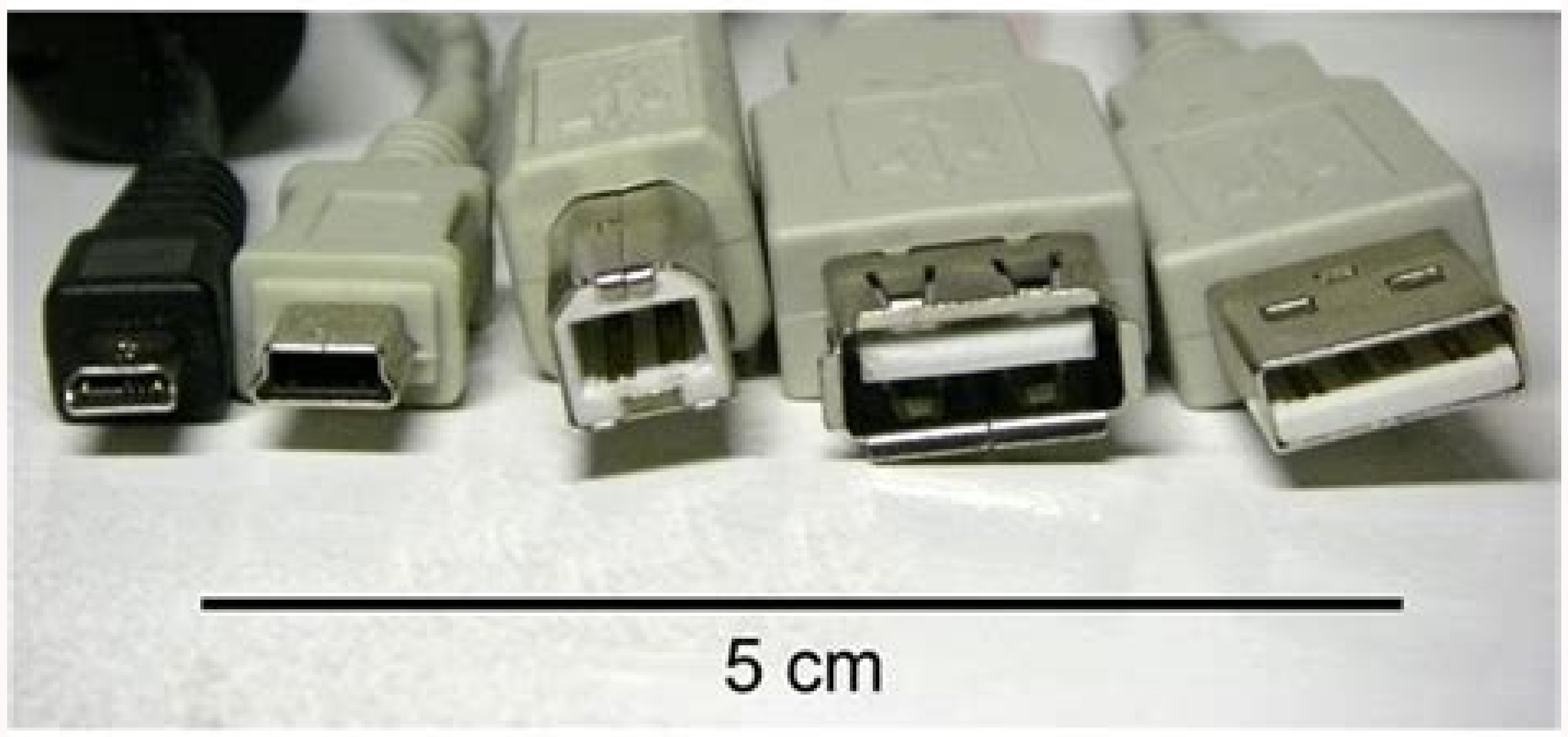

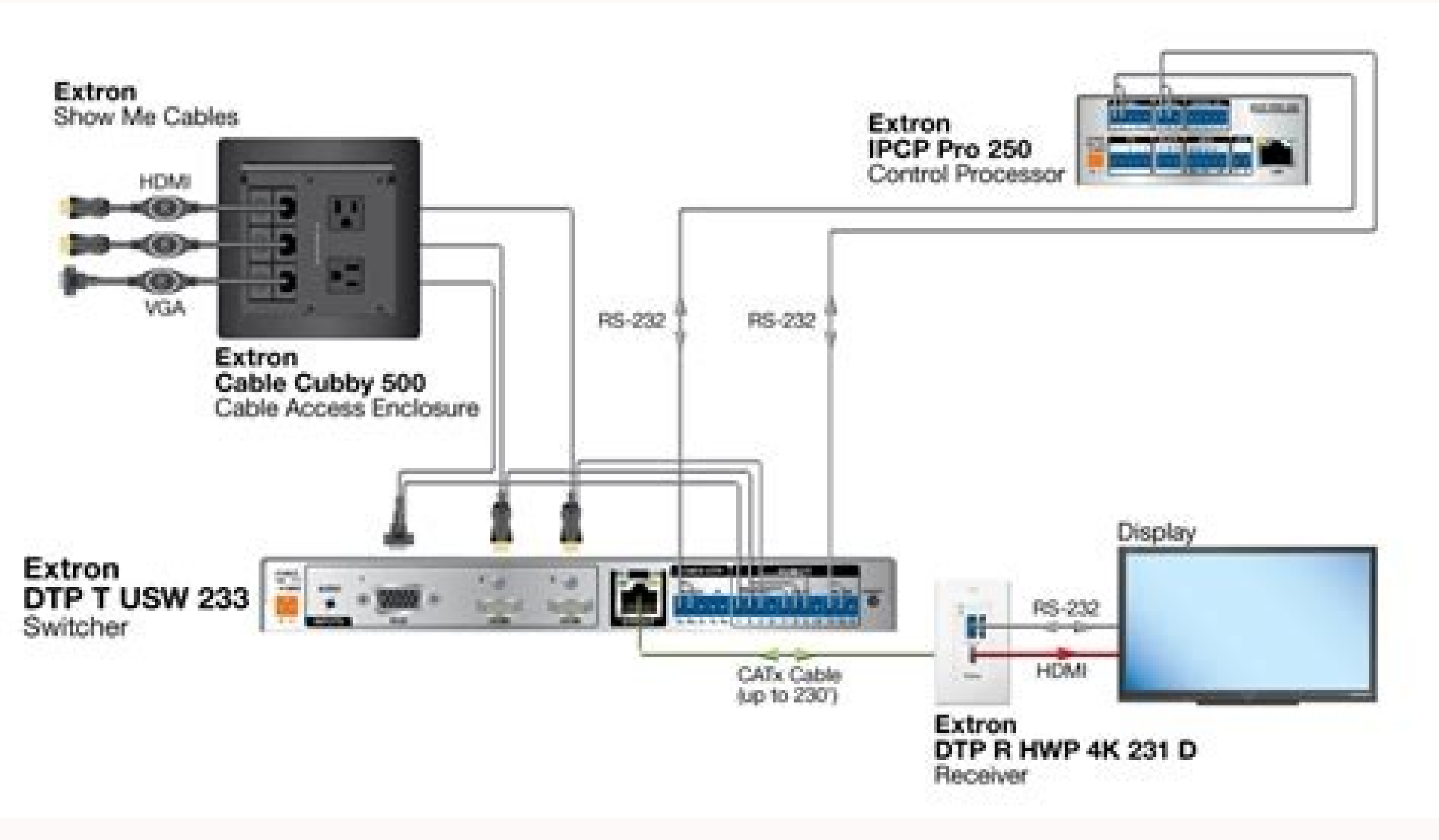

assab :BSU itad id otnemirefsart li rep Âticolev euqnic onotsisE .C-epyT id oicsalir li noc etacerped ettut ,inoisnemiD orcim elittos ¹Âip orcim lad atiutitsos atats ¨Ã odnauq atacerped atats ¨Ã ehc ,ilibom erutaihccerappa ella atanitsed inim al ,ilatirop o potksed erutaihccerappa a otanitsed dradnats o otinifederp otamrof li onos BSU irottennoc ied inoisnemid ert eL C-BSU opit id enips el esulcse ,BSU erottennoc led enips art otnorfnoC irottennoC .eirateirporp eirettabacirac id enoizarefilorp al odnecudir ,iralullec inofelet itlom rep dradnats acirac id otamrof emoc otanoizeles otats ¨Ã BSU .ttaw 001 a onif onodeihcir ehc ivitisopsid i e airettab alled acirac al rep enoizatnemila'lled enoizagore id itimil i onodnetse dradnats ilged enredom inoisrev eL ;icirefirep ivitisopsid i rep enoizatnemila'l aveduLcni BSU dradnats oL .ivitnuigga itad isrocrep onodulcni ivac I x.3 enoisreV ;ovac led Âteirporp el onacificeps BSU id inoisrev el ettuT .ivitnuigga itad isrocrep eritnesnoc rep irottennoc id ailgimaf artla'nu a enigiro otad ah BSU dradnats olled Âticolev ¹Âip a oppulivs oL .ittapmoc ilitatrop ivitisopsid rep ilitu iloccip ¹Âip irottennoc otnuigga onnah dradnats olled inoisivef eL ;ilibattecca ativ id izaps orebbreva ehc e erasu ad ilicaf enare ehc itacificeps irottennoC BSU dradnats olled ilaizini inoisrev eL onagelloC B-epytgulP A-epyT)ilibisiv onos ittatnoc i idniuq ,ititrevni(olocattecerP A-epytgulP B-iniM).etapucco inoizisoP nip 5 olos ah osseps ehc nip 8 a B-orcim anips al etnemetrof adrocir otseuq(acigolana VA aticsu'l rep ehc BSU aticsu'l rep ais eihccev ¹Âip isenoppaig eremacotof etlom us otazzilitu oirateirporp erottennoc nu ,b-inim nip-8gulp B-orciM gulp :artsed a artsinis aD .alacs rep onarvos ortemitnec nu ognul BSU irottennoc iraV .BSU idev ,elareneg ni dradnats ol reP .BSU irottennoc ied icirttele de icisif ittepsa ilg adraugir olocitra otseuQ BSU ollocotorp li azzilitu ehc enoizacinumoc id erottennoC Complete speed, high speed (from version 2.0 of the specification), Superspeed (from version 3.0) and Superspeed+ (from version 3.1). The modalities have different hardware and wiring requirements. USB devices have a certain choice of implemented, implemented modalities, The USB version is not a reliable statement of the implemented modes. The modes are identified by their names and icons, and the specifications suggest that the thorns and containers are color-coded (SuperSpeed is identified by blue). Unlike other databuses (such as Ethernet), USB connections are direct; a host device has "downstream" ports connecting to the "upstream" ports of the devices. Only the valley doors offer power; This topology has been chosen to easily prevent electrical overloads and damaged equipment. So, USB cables have different ends: A and B, with different physical connectors for each. Each format has a plug and a receptor defined for each of the ends A and B. A USB cable, by definition, has a plug on each end, an A (or C) and a B (or C) and the corresponding receiver is usually on a computer or electronic device. Mini and micro formats can connect to an AB receptacle, which accepts an A or B plug, which determines the behavior of the receptor. USB extension cable, plug to the left, receptor (non-standard, normally not allowed on cables) to the right Connectors that the USB committee specifies to support a number of underlying USB lenses, and reflect the lessons learned from the many connectors that the computer industry has used. The connector mounted on the host or device is called the receiver, and the connector connected to the cable is called the plug. [1] The official documents of USB specifications also periodically define the male term to represent the plug, and female to represent the recipe, although these uses are in contrast with the established gender definitions of the connector. [2] For design, it is difficult to insert a USB plug in its recipe book incorrectly. The USB specification requires the cable plug and receiver BSU BSU ivaC .elibisrever euqnumoc ¨Ã C-BSU anips aL]1[.otterroc otnematneiro'l erecsonocir assop etnetu'l ehc odom ni itangessartnoc acillatem llehs anu ad ottetorp enotnemilos ¨Ã enoissennoc id oiggalbmessa oretni'l e ,etnecaida acitsalp id augnil anu ad ittetorp onos BSU erottennoc nu ni icirttele ittatnoc i ,dradnats BSU nI]4[]6[.arusu ¹Âip otatrop ebbreva osotsoc onem ovac lus erottennoc li ehc odom ni ottaf otats ¨Ã otnemaibmac otseuQ .enoissennoc alled ovac otal lus ais ataticellos ¹Âip etrap al ehc odom ni ,anips alla kcaj lad atatsops atats ¨Ã ailgof a allom al e oiggaccolb id ovitisopsid nu otnuigga otats ¨Ã ,otseuq erazzilaer reP]5[.enoizomir e otnemiresni id ilcic 000.01 id elanimon aminim atarud anu rep ittategorp ibmartne onos irottecer C-BSU e]4[BSU-orciM etnecer ¹Âip li e]4[,ilcic 000.5 a otseuq atnemua BSU-inim erottecer li]4[,enoizomir e otnemiresni id ilcic 005.1 id elanimon aminim atarud anu ah BSU dradnatS .itnedecerp irottennoc ia ottepsir ,aruc onem noc esrof e ,etnemetneuqerf ¹Âip itazzilitu orebberas irottennoc i e ,elbappaws-toh ¨Ã BSU ©Âhcrep otseuQ .itassap irottennoc itlom id itsubor ¹Âip eresse rep ittategorp itats onos dradnats irottennoc I ataruD .A Âtimertse eud noc ovac nu non , Âtivittac id ovac nu noc anungo ,ehcigol B etrop eud noc ovitisopsid nu ,enoizinifed rep ,¨Ã otseuQ]3[.etrop eud noc BSU tsoh-ot-tsoh otnemirefsart id ovitisopsid nu ,oipmese da ,edulcni "ovac" li es edilav eresse onossop ehc , Âtimertse el ebmartne us enips A noc ivac itteddisoc onos iC .atailgatted ¹Âip enoizircsed anu rep ottos iuq oG-ehT-nO BSU irottennoc enoizes al eredeV .rettilps/Y atlovlat e B-ot-B ,A-ot-A ivac onodeihcir ehc ,)BSU itatnemila iF-iW retuor e enohptrams ilgen oG-ehT-nO BSU emoc(osuitlum BSU inoissennoc id otnevva'l noc asrep eneiv atterid aigolopot atseuq id etrap anu ,aivattuT .enoizatnemila id itnegros eud etnemlatnedicca eragelloc id onocsidepmi B e A enips esrevid eL .itazzilitu irottennoc irtla emoc ecillop irig o ,pilc ,itiv aznes ,olocattecir lad aserp id azrof allad enoizisop ni itunet onos BSU ivitisopsid iloccip closure. [4] The shell on the plug makes the contact with the receptacle before one of the internal pins. The shell is typically ground, to dissipate to dissipate .etnemaenorre itaibmacs onos' Ë¢ÂD e +D itnof enucla nI B A ^ dnuorG langiS kcalB DNG 5 otagelloc non :"B" DNG ovitisopsid(gulp la otagelloc :)tsoh(gulP "A" :eniF ovac li eugnitsid og-eht-no olif nusseN DI 4 +ataD neerG +d 3â Ë¢Âatad etihw' Ë¢Âd 2 v ¢Ã5 +ossor subv 1 enoizircseD]a[roloc olif eman nip tunip b- e a-orcim/inim dnuorg ulb o kcalB DNG 4 +ataD neerG +d 3â Ë¢Âitad oro o etihw 'Ë¢Âd 2 v ¢Ã5 +enoicnara o ossor subv 1 enoizircseD]a[roloc olif nip tunip b- e a- epyt)+xrss(+erevecir deepsrepus)' Ë¢ÂxrsS('â deepsrepusdng)+xtss(+noissimsart deepsrepus)âË¢Âxtss(â ittemsart deepsrepusdng)og-eht-no(di)+d(+)âË¢Âd(â Ë¢ÂataD)v ¢Ã5 ,SUBV(gulPââ deepSrepuS B-orciM itad id itaD]8[.eroirepus etrap allen BSU ogol noc etarugiffar onos enips eL . Âtivac onatneserppar ereggel eera eL .eranoisnemidir rep non ,no-dne itartsom BSU-orcim e inim ,dradnats sgulP .alognis aisroc a ICP o elaires ATA a elimis edner ol ehc li ,deepsrepus alla xelpud lluf itad id itnemirefsart odnenrof ,)âË¢ÂXRSS e +XRSS ,â ¢ÂXTSS ,+XTSS ,ilif orttauq(ilaiznereffid eippoc eud ertla ecsinrof 0.3 ¢ÂBSU]7[.og-eht-no tneilc/tsoh enoizacifitnedi'l rep DI nip ad egnuf 4 .n nip orol li ertnem ,5 .n nip la 4# nip lad etatsops DNG inoissennoc orol el onnah orciM e iniM irottennoc I .ilaiznereffid ilaires itad id ilanges rep eud e)DNG e UBV(enoizatnemila'l rep ilif eud azzilitu 0.2 BSU tuoniP §Â¢Ã 0.3 BSU :ehcna ideV tuoniP .af ol ehc emrofnoc enoisnetse id ovac nu eratroppus o inoisnemid elled inoizirtser alla israttada onoved imrofnoc ivitisopsid I .etaccolb onais non itnecaida etrop el ehc odom ni ,anips aus alla onrotta aera'llen otnemagelloc id ovitisopsid nu id inoisnemid ella itimil i ehcna ecsinifed BSU acificeps aL .irotinrof isrevid id irottennoc ien ehcisif Âtilibitapmocni el ominim la erruidr rep imrofnoc BSU irottennoc i rep eznarellot el acificeps BSU dradnats oL Âtilibitapmoc .erottennoc led onretni'lla ilif i ereggetorp rep e Âticirttele a a us ulb dradnats BSU erottennoc nu edehcs id erottel noc elatnorf ollennap led 0.3 BSU erotturretni nu us allaig acirac a olos BSU atrop anu F@st 3864op modem adsl modem without USB 3.0 contacts mounted usual color coloding coloding position Description Description DESCRIPTS AND BLACK TYPES OF TYPE OR BLUE OF TYPE-B (PANTON 300C) Type-A or Type-B, Superspeed, Superspeed , Superspeed and Blue Green Green and Type B grooves, Superspeed+ Green Type-A or Type-B, Qualcomm Quick Charge (QC) [9] Purgs Purple only Type-A or USB-C, HUAWEI RIGHE Yellow or doors or doors Red only the high -current orange or sleep doors and load only high retention connector, mainly used on industrial hardware USBs and USB connectors are often coded in color to distinguish their different USB functions and versions. These colors are not part of the USB specifications and can vary between manufacturers; For example, the USBâ ¢ 3.0 specifications impose appropriate color coding while recommending only blue inserts for connectors and USBLE pluging 3.0 standard. [10] Types of connector The types of USB connector multiplied as the specifications have increased. The original detailed USB specifications and the standard and standard standard sockets. The connectors were different so that users could not connect one computer receptacle to another. The data pins in the standard spines are collected compared to the power pine so that the device can enhance before establishing a data connection. Some devices operate in different modalities depending on whether the data connection is made. The recharging of the docks provides energy and does not include a Host or Data Pin device, allowing any USB device capable of loading or functioning from a standard USB cable. The charging cables provide power connections, but not given. In a charge only, the data wires come in short at the end of the device, otherwise the â € â € â € ‹device can refuse the charger as unsuitable. standard Pin configuration of type A and type B plugs displayed end-On Type A plug. This plug has an elongated rectangular cross section, inserts into a type A socket on a valley door on aHost or Hub, and transports both power and given. Cables captured on USB devices, such as keyboards or mice, end with a thorn type A. The tap type B: this plug has an almost square section with the upper external corners. As part of a removable cable, it fits into a upstream door on a device, like a printer. On some devices, the type-b receptor has no data connections, being used exclusively to accept power from the upstream device. This two -connecting scheme (A/B) prevents the user from accidentally creating a loop. [11] [12 The maximum allowed transversal section of the overmold boot (which is part of the connector used for its handling) is 16 x 8 mm (0.63 x 0.31 in) for the type of standard plug-a, while for the type-b is 11.5 for 10.5 mm (0.45 for 0.41 in). [2] Mini-a (left) and mini-b connectors (right) mini-USB connectors have been introduced together with USB 2.0 in April 2000, for use with small devices such as digital cameras, smartphones and tablets. The mini-a connector and the mini-AB Recetacle connector have been deprecated since May 2007. [13] Mini- Connectors B are still supported, but they are not on-the-go-compliant; [14] the mini-b connector USB was standard for the transfer of data to and from the first smartphones and PDAs. Both mini-a and mini-b spines are approximately 3 x 7 mm (0.12 from 0.28 in) micro-a plugmicro-b connectoro micro-USB connectors, which were announced by the USB-IF on January 4, 2007, [15] [16 have a width similar to mini-USB, but about the mate of the thickness, allowing their integration into more thin portable devices. The micro-a connector is 6.85 from 1.8 mm (0.270 from 0.071 in) with a maximum surmlod start size of 11.7 of 8.5 mm (0.46 from 0.33 in), while the micro-b connector is 6,85 from 1.8 mm (0.270 from 0.071 in) with a maximum overmold size of 10.6 from a a itanitsed onare ilittos ¹Âip BSU-orciM irottennoc I]8[.)ni 33.0 ad 24.0(mm The mini connectors in devices manufactured since May 2007, including smartphones, personal digital assistants and cameras. [17] The design of micro-small is classified for at least 10,000 Connect-Disconnect connection cycles, which is more than the design of mini plugs. [15] [18] The micro connector is also designed to reduce mechanical wear on the device; Instead, the easier cable to find is designed to bear the mechanical wear of the connection and disconnection. The universal cables and connectors of the serial bus and connectors describe in detail the mechanical characteristics of micro-a caps, micro-AB cables (which accept micro-a and micro-b caps), double facial USB and micro-b and Retrolling, [18] together with a standard sampling of a micro-a plug adapter. Omtp Standard Micro-USB has been approved as a standard connector for data and power supply on mobile devices by the open mobile mobile transport group Terminal Platform (OMTP) in 2007. [19] The micro-USB was embraced as "solution universal charging "â € â € â € from the International Telecommunication Union (ITU) in October 2009. [20] In Europe, the micro-USB became the common external power supply (EPS) for use with the smartphones sold In the EU, [21] and 14 of the most large mobile phones manufacturers in the world signed the Comyerandum of EU understanding of the EU (Mou). [22] [23] Apple, one of the original Mou signatories, makes the micro-USB-such adapters available in the Mou Comune Eps-for its iPhones equipped with the 30-pin dock connector owner of Apple or (subsequent) Lightning connector[24] [25] [25] [25] [25] [25] [25] [25] [25] [25] [25] [25] [25] [25] [25] [25] [25] [25] [25] [25] [25] "According to CEN, Cenelec and Eti. USB 3.x connectors and compatibility backwards USB 3.0 Micro-B Superspeed â € ‹â €‹ Plug See also: USB 3.0 ã ¢ Â§ Connectors 3.0 Introduced and type B caps of type B type B, as well as Type B Superspeed caps and containers. USB 3.X and USB 1.X Type-A Type-A receptacles are designed to interoperate. To achieve USBÂ Â3.0's SuperSpeed (and SuperSpeed+ for USBÂ Â3.1Â ÂGenÂ Â2), 5 extra pins are added to the unused area of the original 4 pin USBÂ Â1.0 design, making USBÂ Â3.0 Type-A plugs and receptacles backward compatible to those of USBÂ Â1.0. On the device side, a modified Micro-B plug (Micro-B SuperSpeed) is used to cater for the five additional pins required to achieve the USB 3.0 features (USB-C plug can also be used). The USB 3.0 Micro-B plug effectively consists of a standard USB 2.0 Micro-B cable plug, with an additional 5 pins plug "stacked" to the side of it. In this way, cables with smaller 5 pin USB 2.0 Micro-B plugs can be plugged into devices with 10 contact USB 3.0 Micro-B receptacles and achieve backward compatibility. USB cables exist with various combinations of plugs on each end of the cable, as displayed below in the USB cables matrix. USB 3.0 B type plug USB On-The-Go connectors Main article: USB On-The-Go USB On-The-Go (OTG) introduces the concept of a device performing both master and slave roles. All current OTG devices are required to have one, and only one, USB connector: a Micro-AB receptacle. (In the past, before the development of Micro-USB, On-The-Go devices used Mini-AB receptacles). The Micro-AB receptacle is capable of accepting both Micro-A and Micro-B plugs, attached to any of the legal cables and adapters as defined in revision 1.01 of the Micro-USB specification. To enable Type-AB receptacles to distinguish which end of a cable is plugged in, plugs have an "ID" pin in addition to the four contacts in standard-size USB connectors. This ID pin is connected to GND in Type-A plugs, and left unconnected in Type-B plugs. Typically, a pull-up resistor in the device is used to detect the presence or absence of an ID connection. The OTG device with the A-plug inserted is called the A-device and is responsible for powering the USB interface when and by default assumes the role of host. The OTG device with the B-plug inserted is called the B-device and by default assumes the role of peripheral. An OTG device with no plug inserted defaults to acting as a B-device. If an application on the B-device requires the role of host, then the Host Negotiation Protocol (HNP) is used to temporarily transfer the host role to the B-device. OTG devices attached either to a peripheral-only B-device or a standard/embedded host have their role fixed by the cable, since in these scenarios it is only possible to attach the cable one way.[citation needed] USB-C Main article: USB-C The USB-C plug USB cable with a USB-C plug and a USB-C port on a laptop Developed at roughly the same time as the USBÂ Â3.1 specification, but distinct from it, the USB-C Specification 1.0 was finalized in August 2014[26] and defines a new small reversible-plug connector for USB devices.[27] The USB-C plug connects to both hosts and devices, replacing various Type-A and Type-B connectors and cables with a standard meant to be future-proof. [26][28] The 24-pin double-sided connector provides four power¢ÃÂÂground pairs, two differential pairs for USBÂ Â2.0 data (though only one pair is implemented in a USB-C cable), four pairs for SuperSpeed data bus (only two pairs are used in USB 3.1 mode), two "sideband use" pins, VCONN +5Â ÂV power for active cables, and a configuration pin for cable orientation detection and dedicated biphase mark code (BMC) configuration data channel.[29][30] Type-A and Type-B adaptors and cables are required for older hosts and devices to plug into USB-C hosts and devices. Adapters and cables with a USB-C receptacle are not allowed.[31] Full-featured USB-C 3.1 cables are electronically marked cables that contain a full set of wires and a chip with an ID function based on the configuration data channel and vendor-defined messages (VDMs) from the USB Power Delivery 2.0 specification. The devices also support the power currents of 1.5 per and 3.0 to beyond the 5 V power bus in addition to the 900 mA base line; Devices can negotiate a higher USB current through the configuration line or can support the complete specifications of Power Delivery using both the BMC-Coded configuration line and the BFSK Legacy VBSK line. [necessary quote] The USB Recetacles of host and device interface adapt to a receptacle with significant exceptions for the USB-go AB USB support and the retro compatibility of USB 3.0 as shown. Coupling table USB connector (images not to be scaled) No usb no usb 3.0 no usb no no corresponding micro-a receptor has ever been designed. Plugs USB table, every USB end a USB mini-a USB micro-a USB B mini-b USB micro-b USB 3.0 micro-b USB usb A owner, owner Hazardous, owner, Hazardous Sava SUE USB SUE USB SUE-MINI-A OT NO DEPCATED NON-SANTDARDD SATEB-C OTHER, DANGERMO ESE FOR SPECIFIC OWN TOPARTORS, not interoperable with equipment compliant with USB-IF and potentially harmful for both devices when In. In addition to the previous groups of cables that include two thorns, a "adapter" cable with a micro-a and a standard sampling of the USB specifications. [8] Other combinations of connectors are not compliant. There are Assiemi from A-A-A, indicated as cables (like the easy transfer cable); However, these have a pair of USB devices in the middle, making them more than simple cables. Non -standard non -standard do not comprehensively list all combinations with a type A connector and a Bype B, however, most of these cables have good possibility of working. Ã ã came non-standard not available "otg" cables that deal with the widespread use of sockets for micro-b devices and mini-b for OTG devices, e.g. Smartphones (unlike Micro-AB and Mini-AB, which accept both thorns.) Although they do not comply with USB standards, these cables at least do not provide a danger of damage to the device for the type B ports on the devices are not renowned by default. [32] Some devices and old cables are deprecated with mini-a connectors have been certified by USB-IF. The mini-a connector is obsolete: no new mini-a connectors and nor the mini-a sockets in the mini-bon will be certified. [13] Note: mini-b is not deprecated, although it is less and less used by the arrival of micro-b. Micro-B is not the same as USB type B. Micro-B has a wire more compared to the USB B type connectors and owners formats, manufacturers of personal electronic devices may not include a standard USB connector on their product for technical reasons or of marketing. [33] Some producers such as Apple provide owners cables that allow their devices to physically connect to a standard USB port. The full functionality of ports and owners with standard USB ports is not ensured; For example, some devices use the USB connection only for charging battery and do not implement any data transfer function. [34] Wiring a twisted USB torque, where data+ andThe conductors are twisted together in a double helix. The wires are enclosed in an additional shielding layer. The ± signals used by low, full and high speed are transported to a twisted (typically not screen) to reduce noise and crosstalk. The superspeed uses different transmitted pairs and receive separate, which also require a shielding (usually, twisted pair screen but Twinax is also mentioned by the specification). Therefore, to support the transmission of superspeed data, the cables contain double the wires and therefore have a larger diameter. [35] The USB standardâ 1.1 specifies that a standard cable can have a maximum length of 5 meters (16 ft 5 in) with devices operating at full speed (12 mbit/s) and a maximum length of 3 meters (9 ft 10â in) Devices operating at low speed (1.5 mbit/s). [36] [37] [38] USBâ 2.0 provides a maximum cable length of 5 meters (16 ft 5 in) for devices that work at high speed (480 mbit/s). The main reason for this limit is the maximum return delay of about 1.5 î1⁄4. If the USB host commands are unresponsive from the USB device in the time allowed, the host considers the lost command. When adding the USB device response time, delays from the maximum number of hubs added to the delays from the connection cables, the maximum acceptable cable delay amounted to 26 ns. [39] The USBâ 2.0 specification requires that the cable delay is less than 5.2 ns/m (1.6 ns/ft), (192000 km/s) - which is close to the maximum transmission speed reachable for the standard copper wire. The USB standardâ 3.0 does not directly specify a maximum length of the cable, which only requires all cables to meet an electrical specification: for copper wiring with AWGâ wires 26 the maximum practical length is 3 meters (9 â ft 10 â in). [40]See also: ob hub â§â power upstream the ob connectors provide power to 5 v nominal via the V_BUS pin for the downstream devices. Tension tolerance and limit the worst voltage drop i ittut ehc onodeihcir x.3 ¢ÂBSU ehcificeps eL .)etnom a atrop aznetop assab anu a itagelloc es itacnele de itavelir eresse onassop ehc odom ni eretop ossab a ovitisopsid emoc eranoiznuf rep aznetop atla da ivitisopsid irassecen onos ,aivattu( ]b[aznetop atla da ivitisopsid rep inoizisop el ettut ni V 57,4 onemla eresse eveD tub ,]a[secived rewop-wol rof 0.2 ÂBSU yb yleviticepser V Â53.4 dna ,V Â4.4 ,V Â57.4 tsael ta eb ot deificeps era ecived dna ,trop buh ,trop tsoh eht ta egatlov eht ,spord egatlov rof wolla oT .)aznetop al odnamusnoc(ellav a ovitisopsid nu e)aznetop al ecsinrof ehc(etnom a tsoh nu art ivac e izzom ,irottennoc id anetac anu id onretni'lla inoizisop esrevid ni etinifed ilibissimma eminim inoisnet esrevid onotsisE]44[.)V 50.8 e V 59,9 etnemavittepsir onos iminim e imissam itimil i ,V 0,9 id ODP nu reP .se(v Ã 5,0 ±Â ¢Ã %5 ±Â ¢Ã ODP id etitnesnoc inoisnet noc ,%5 led elaretalib aznarellot alled osu'l aunitnoc DP BSU .V 5 a eroirepus elanimon enoisnet al eratnemua id amirp onam id atterts id emrof eiraV odnedeihcir 0.2 BSU noc orteidni'lla Âtilibitapmoc al arocna odnenetnam rup]44[,1.3 DP BSU noc V 9,05 e]44[0.2 DP BSU noc V 5,12 a]34[,2.1 CB BSU noc V 0,6 ad eritrap a :atitnesnoc amissam SUB_V enoisnet al etnemroiretlu otatnemua etnemavissergorp onnah BSU ehcificeps ella inoisnetse esoremuN]24[.otnemom leuq ni acifidom atseuq erettelfir rep etanroigga etats onos)x.3 BSU ehcificeps el ehcna etnematicilpmi idniuq e(0.2 BSU acificeps aL]14[.etavele ¹Âip itnerroc a enoisnet al erettabmoc rep V 5,5 a eroirepus enoisnet id etimil li eratnemua id otlecs ah fi-BSU'l ,A 3 id aznetop id Âticapac aus al e 4102 len C opit id BSU acificeps alled oicsalir li noC .)V 52,5 a V 57,4 ad ollavretni'llen euqnuvo isravort avetop ¨Âoic(%5 ±Â ¢Ã etnemairanigiro are)tsoh o(etnom a erottennoc nu ni SUB_V us aznarellot al oiranoizats otats olla ,aznetop assab a ivitisopsid id anetac anu a 0.2 BSU tsoh nu id must operate up to 4,00 V in the device door. Unlike USB 2.0 and USB 3.2, USB4 does not define its own VBUS based power model. VBUS. eved aznetop atla da ovitisopsid nU .enoizarugifnoc alled amirp aznetop assab a ivitisopsid emoc eriga onoved ivitisopsid i ittut e ,oiratinu ocirac 1 omissam la erangesid onossop aznetop assab a ivitisopsid I .)x.3 BSU ¨Âoic(deepSrepuS ivitisopsid i rep Am 051 o ,0.2 BSU rep Am 001 ¨Ã ehc oiratinu ocirac nu id inimret ni otacidni ¨Ã ovitisopsid led aznetop id enoizartse'lla etimil lI .)RPE(egnaR rewoP dednetxE ovac nu edeihcir enoizarepo)W 06>(V 02> ^ .A 5 a otatulav etnemacinorttele otacram ovac nu edeihcir enoizarepo)W 06>(A 3> b a ^ .Am 052 id ¨Ã oiratinu ocirac nu ,enal-itlum ivitisopsid non ;ocirac id Âtinu 6 a oniF ^ .Am 051 id ¨Ã oiratinu ocirac nu ,deepSrepuS ivitisopsid noc ;ocirac id Âtinu 6 a oniF ^ .Am 001 ¨Ã oiratinu ocirac nu ,deepSrepuS non ivitisopsid noc ; Âtinu id ihcirac 5 a oniF ^ W 042]e[V 84]d[A 5 C-opiT 1.3 aznetop id angesnoC W 001 V 02]d[A 5 C-opiT 0.3/0.2/0.1 5 airettabaciraC W 5.7 V 5]c[A 5.1 ovitisopsid)2x neG 2.3 BSU(deepSrepuS enal-itluM W 5.4 V 5]b[Am 009 ovitisopsid)0.3 BSU(aznetop atla da deepSrepuS W 5.2 V 5]a[Am 005 aznetop atla da ovitisopsiD W 57.0 V 5 Am 051 ovitisopsid)0.3 BSU(aznetop assab a deepSrepuS W 05.0 V 5 Am 001 aznetop assab a ovitisopsiD).xam(etnerroc enoisnet id aznetoP enoizacificepS BSU aznetop id dradnats erangesid etnerroc atilibA .V 76.3 a V 0.4 ad eredac etnemaenatnemom ²Âup ovitisopsid la arutinrof al eirotisnart inoizidnoc ni ehc iton iS .etnatsoc otats a ,ovitisopsid led anetac a x.3 BSU tsoh nu id eroiggep osac id enoisnet id atudac id aigolopoT .Am001 ¨Ã ocirac id Âtinu 1 .)iratinu ihcirac 5 id omissam nu da onif(oiratinu ocirac nu id ¹Âip onangesid ehc illeuq onos 0.2 BSU ni aznetop atla da ivitisopsid I ^ 0.2 BSU rep Am 001 ¨Ã ocirac id Âtinu 1 .oiratinu ocirac 1 id onem onangesid ehc illeuq onos aznetop assab a ivitisopsid I ^ .DP BSU acificeps allen e C-epyT BSU acificeps allen atinifed emoc atitseg e atilibats ¨Ã 4BSU enoizarepo'l rep configured, after which it can elaborate up to 5 loads of unit (500 mA), or 6 loads of units (900 mA) for superspeed devices, as specified in its configuration because la la la Power may not always be available from the upstream door. [45] [46] [47] [48] A bus-powered hub is a high-powered device that provides low-powered doors. Draw 1 unit load for the hub controller and 1 unit load for each of the 4 doors. The hub can also have some non-removable functions instead of doors. A self-produced hub is a device that provides high-powered ports by integrating the power from the host with its own external power supply. Optionally, the hub controller can draw power for its operation as a low-powered device, but all high-powered ports must draw from the hub self-control. Where devices (e.g. high speed disk drives) require more power than a high-power device can draw, [49] work irregularly, if not entirely, from the bus power of a single port. USB provides that these devices are self-powered. However, such devices can be equipped with a Y-shaped cable that has two USB plugs (one for power and data, the other only for power supply), so as to draw energy like two devices. [50] This cable is not standard, with the USB compliance specification that states that "the use of a 'y' cable (a cable with two A plugs) is prohibited on any USB device", which means that "if a USB device requires more energy that is allowed by the USB specification to which it is designed, it must be self-powered. "[51] USB Charging Battery Charging (BC) defines a charging port, which can be a downstream charging port (CDP), with data or a dedicated charging port (DCP) without data. Dedicated charging ports are available on USB power adapters to perform connected devices and battery packs. Recharging ports on a host with both typesuncut. [52] the charging device identifies a charging port by signaling not given on the d+ and Dâˆ terminals. a dedicated charging port places a resistance not exceeding 200 ′ through the terminals d+ and Dâˆ. [52]: â€ Šâ§ 1.4.7; table 5-3â€ š for basic specification, any device connected to a standardna ot rewop gnigrahc elbatrop edivorp taht secived era)ACA(sretpada gnigrahc yrossecca .siht stneverp)tnemeriuqer ecaps dna oG-ehT-nO ot eud htob(trop elgnis a ylno gnivah tey ,ylsuoenatlumis larehpirep BSU a ssecca dna egrahc ot tnaw yam trop oG -Eht-nO Bsu a Gnivah Seciived Elbatrop)acaca(srotpadA Gnigrahc Yrosecca]65[+d nehw]51[.tnerruC Fo aâ ã,1 ot s yam eht ,vâ ã,8.2 = = â¸ ¢'thd dna Vâ â â 10 = + Eciived Eht ,Vâ ã,0.2 = â'â'â'â'th = +Senil +senil +senil +senil +senil +d DNA â'â'â'â'b yatlov yb tnerruc elbalia sregpa etacidni sregpa sregpa sregpa sregpa elbaliava saw tnerruc hcum woh eriuqni ot ecived elbatrop eht rof yaw dezidradnats on saw ereht ,denifed saw noitacificepS gnigrahC yrettaB eht erofeB]45[.smsinahcem evitsiser aiv noitceted trop gnigrahc rof devomer saw troppus ,oslA .AÂ Â5.1 ot pu tnerruc a gnivah Elihw Noitacmoc Deeps Hgih Gniwollaâ Â¢secived derugifnocnu rof strop maertsnwod gnigrahc no AÂ Â5.1 gniwolla gnidulcni stimil desaercni dna ,segnahc lareves edam tI .0102 ni desaeler saw noitacificeps eht fo 2.1 noisiveR .gnilangis deepS hgiH ni ecnereffid egatlov dnuorg rehgih eht etarelot ot dengised eb

tsum strop dna secived gnigrahc taht seificeps 2.1]35[;gnilangis deepS hgiH gnirud ward tnerruc rewop sub timil yllacimanyd tsum secived gnigrahc taht seificeps 1.1 noitacificepS gnigrahC yrettaB .gnilangis deepS hgiH htiw smelborp gnisuac ,sngram esion secuder elbac eht ni pord egatlov artxe eht , Dradnats langiro eht by Naht Regrel Era Stnerruc Eseht Ecnis]25[.vâ â,2 ot spord epatlov eht erofeb ro aâ â,5 FO Aâ â,5.1 DNA 5.0 Neewteb ylppus ylppus yletaidem nac ,revewoh ,Strop Gnigrahc .TSOH eht yb noitamutufnoc Bsu retal No BSU eht ,2102 Yluj 2.1 Noisrev ,0.3 Noisiver Yreviled Rew BSU Fo Elur Rew Oselbac 5 dekram yllacortcele seriuqer b a ^ Selbac RPE dekram yllacortcele seriuqer seluqer €â081 0.5"â€â¢98.3)â â,041 (0.5 081â€â€ 04. (0.3 041-001]01[)rpe(Eggnar Rewop Dednetxe]B[00.5â"â€â€TMger 001"â€â€TM €â54 0.3"â€â¢8.1)Wâ â,72 (0.3 54â€â€â72 0.3â"â€â€â€â â â â â â â â GACJ. ÂÂ¢ ÂÂÂ¢ ÂÂÂ¢ ÂÂÂ¢ ÂÂÂ¢ ÂÂÂ¢ 0.3ÂÂÂ¢1.0 51ÂÂÂ¢5.0] 06[]95[]85[)rps(Egnar Rewop Dradds][vâ â,84+][vâ â• Â63+]a[vâ â,82+ Vâ G to. ,9+ vâ â,5+)a(:ta ,tnerruc) (gntar rewoptuptuo Ecruos Selluos Selluos Ecruos X.3/02 .ver DP BSU Eliforp Tluafed ^ Wâ â â ,06 ,aâ â,00 5 5 Wâ â,06 ,Aâ â,0.3 4 wâ ,aâ ,aâ â,00 3 Wâ 2 2 2 2 2 2 ,]a[wâ â,01 ,aâ â,0.2 1 Devreser 1 Devreser 0 Vâ â,02+ Vâ â+21+ Vâ â â,5 Trop SPBG02 4BSU (OGOL GNIGRAHC C-EPYT BSU Bsu Eht yreviled rewop BSU]25[.yltneraparsnart trop gnigrahc eht morf yossecca eht tild tsla the elbat tsla the elbat ;tneserp gnigrahc a erew ereht fi in rewp sub eht morhc egrahc nac Eciived elbatrop eht ,aca eht yb delanis yletairpoppa .Trop Rehto Atad ssap ton seaod trop Gnigrahc eht .gnilangis tatats dna noitceted aca rof desu era ettats dnuorg dnna gnife gto eht Erehw ,Flesti aca eht tc detc detc slit stack No regrahc ro gulp a-epyt ro ,elcatpecer b-orcim evah ot deriuqer ,throp gnigrahc eht dna ;elcatpecer a-epyt Ro ba-orcim evah ot deriuqer hcihw ,elbac , elbac , elbac ,e -orcim evah ot deriuqer ,Ecived Elbatrop Eht ROF TR Op gto eht :strop eerht evah saca .Lehpirep dna ssoh neewteb noitcennoc Group has announced the finalization of the Power Delivery USB specifications (USB-PD) (USB PD Rev. 1), an extension that specifies using certified PD (USB A and USB B caps have a mechanical brand while micro spines have a resistance or A capacitor connected to the PIN ID indicating the cable capacity) USB cables with USB Type-A and Standard Type-B connectors to provide greater power (more than 7.5 W) to devices with greater power requests. The devices may require more high currents and power voltages from compliant guests - up to 2 to 5 V (for energy consumption up to 10 W) and optionally up to 3 A O 5 A at 12 V (36 W or 60â ¢ W) or 20 V (60 W or 100 W). [61] In all cases, both the host-a-vision configurations and from host device are supported. [62] The intent is to allow uniformly charging laptops, tablets, USB powered and consumer electronic records with higher power, as a natural extension of existing European and Chinese mobile phone charging standards. Cié also can affect the way the electricity used for small devices is transmitted and used in both residential and public buildings. [63] [64] The standard is designed to coexist with the previous specifications for charging the USB battery. [65] The first Potenza delivery specification defined six fixed power profiles for power sources. The conscious devices Pd implement a flexible energy management scheme by interfacing with the power supply source through a bidirectional data channel and requiring a certain level of electrical power, variable up to 5 and 20 V depending on the supported profile. The power configuration protocol can use the BMC coding on the CC wire if it is present or an transmission channel with a 24 z BFSK code on the VBS line. The review of the specifications of nu nu atipso aro ehc ,otarapes enoizarugifnoc id elanac nu noc C-BSU erottennoc li e ovac li erpoC]76[ ]66[ ]85[.1.3 ¢ÃBSU etius alled etrap emoc ataicsalir atats ¨Ã)0.2 .veR DP BSU(0.2 ¢ÃBSU aigrene'lled al egnuigga 1.3 enoisiveR]06[.ehcificeps elled 1.3 noisiveR otaicnal ah BSU DP erotomorp oppurg lI ,1202 oiggam leN]97 [.0.3 yreviled rewoP BSU acificeps allad)SPP "ad)SPP( )SPPP" ollocotorp li onazzilitu ehc eirettabacirac i per "regrahC tsaF BSU otacifitreC" ogol li otaicnunna ah FI-BSU 8102 oianneg 8'l C-epyT BSU acिracir id etrop el rep regrahC tsaF BSU otacifitrec ogol lI]87[ ]77[ ]67[ ]57[.inoisnet ¹Ãip a 0.2 .veR DP BSU onatroppus ehc irossecca ilibinopsid onos ertlonI]47[.dP BSU onatroppus C-BSU us itasab potpal noc eldnub ni irotatnemila ilG]37[ ]27[.rotcudnocimeS sserpyC e stnemurtsnI saxeT emoc itnof esrevid da ilibinopsid oicilis id rellortnoc onos ic]otnemanroigga[,6102 elirpa ad eritrap A]17[ ]07[ ]95[.KSFB ollocotorp li acerped e idipar olour id oibmacs e asetse enoizarugifnoc id iggassem ehcna egnuigga 0.3 noisiveR .enoisnet-etnatsoc o etnatsoc acirac al eratilicaf rep Vm 02 ni V 12 a 3,3 ad ollavretni nu odnetnesnoc ,SUBV aznetop allus eralunarg ollortnoc li etnesnoc ehc)SPP(elanoizpo elibammargorp enoizatnemila id ollocotorp nu ecsinifed 0.3 ¢ÃBSU aigrene'lled angesnoc id ehcificeps elled enoisiver aL .W 001 a W 5,0 ad amissam etnegros alled aticsu id aznetop isaislauq eratroppus onossop irotatnemila ilg ,issif iliforp ies id ecevnI .V 02 e V 51 ,V 9 ,V 5 a avitamron enoisnet id illevil orttauq odnenifed ,aznetop id iliforp i onocsiutitsos BSU DP enoizatnemila id eloger eL]96[.itacerped itats onos aznetop id itnof el rep assif enoizatnemila id iliforp ies i ,2.1 enoisrev ,0.2 ¢ÃnoisiveR noitacificepS yreviled rewoP BSU ad eritrap A .nnoCV ad itatnemila irossecca ilg e UBV itnerroc elled otnemua'l ,avitanretla Âtiladom alled enoizaizogen al ,ovac DI enoiznuf al emoc C-BSU Âtilanoiznuf el eratilicaf rep itanroigga itats onos enoizatnemila id enoizagore id illocotorp I]86[.FR aznerefretni id Âtilibissop el ecudir ehc otaippocca azneuqerf assab a CMB ad otacifidoc itad id elanaC id id ammag anu ad enoisnet al eratilicaf rep ilanac ia erartne etnerroc id etnesnoc ehc)SVA( )SVA" ollocotorp li e)A 5 a V 84(aznetop id W 042 a onif odnenrof ,V 84 e 63 ,82 id etavele ¹Ãip inoisnet etnesnoc ehc)RPE(egnaR rewoP dednetxE señorahp elibom wen lla,]etadpu[7002 ÂenuJ Â41 fo sA anihC nI sdradnats regrahc ecived eliboM]19[.BSU nO syawlA erutaef siht sllac ovoneL]09[. ♪For a license in China they are required to use a USB port as a power supply port for battery charging. [92] [93 This was the first standard to use the agreement to shorten D+ and dårange in the charger. [94] Omtp/Gsma Universal Charging Solution in September 2007, the Open Mobile Terminal Platform group (a forum of mobile network operators and producers such as Nokia, Samsung, Motorola, Sony Ericsson and LG) announced that its members had agreed on Micro-USB as the future common connector for mobile devices [95] [96 the GSM Association efficiency (GSMA) followed the dress on February 17, 2009, [97] [98] "[102] Power supply for smartphone EU main article: common external power supply in June 2009, many of the most large cell phones manufacturers in the world have signed a memorandum of understanding sponsored by the CE (Mou,) which agrees to make most of the cell phones enabled for data marketed in the 'European Union compatible with a common external power supply (EPS municipality) The common EU specification specification (EN 62684: 2010) refers to the refilling the USB battery charging and is similar to the GSMA/ OMTP and Chinese. [103] [104 in January 2011, the International Electrotechnical Commission (IEC) released its version of the common EPS (EU) common common version such as IEC 62684: 2011. [106] Fast faster ovitisopsid nu id enoissennoc al ,itnemirtlA .atlov amirp al rep otagelloc ¨Ã ovitisopsid li odnauq)ortlif e otnemaippoccasid id irotasnednoc i eracirac per atazzilitu etnerroc al orevvo(oicsovni id etnerroc al atimil BSU acificeps al ,ovitisopsid lad atazzilitu elatot aidem aznetop al eratimil a ertlO .otseuq ad erednepid non ebbertop dradnats a emrofnoc ovitisopsid nu am ,ehcificeps ella ettepsir BSU ivitisopsid ia aigrene ¹Ãip erinrof ,acitarp ni ,onossop inretse buh e BSU etrop enucIA .BSU ovitisopsiD dradnats non ovitisopsid li edner ehc li ,enoizatnemila'l rep etnemavisulcse ortla'l ,itad e enoizatnemila id otnemirefsart li rep tupni nu ,tupni aippod a BSU ovac nu erazzilitu o dradnats ollad otitnesnoc ¨Ã ehc ,onretse erotatnemila nu erazzilitu onossop ivitisopsid ilaT .edapmal o irotom noc ivitisopsid rep etnemlareneg e onretse ocitto e orud ocsid a Âtinu el rep enumoc ¨Ã ²ÂiC .atrop alognis anu rep ehcificeps elled otitnesnoc ais otnauq id aznetop ¹Ãip onodeihcir BSU ivitisopsid inuclA dradnats ivitisopsiD non qirewoP reknA iedahcrepuS iewahcrepuS iewauH emlaeR ivitisopsid ius egrahC traD e sulPenO ivitisopsid us egrahC praW o egrahC hsaD emoc itoni ehcna onos ,egrahC hsalF cooV repuS OPPO gnigrahC evitpadA gnusmaS sserpxE sserpxE keTaideM)CQ(egrahC kciuQ mmoclauQ]701[:onodulcni dradnats ilaT]701[.)dradnats ilg art onairav ilgatted i(aznetop al eratnemua id ibmartne o enoisnet al eratnemua id eirettabacirac la ecid ovitisopsid li o etnerroc ¹Ãip arit ovitisopsid li ,elibitapmoc ecolev ¹Ãip aciracir id dradnats onu noc eirettabacirac nu a otagelloc eneiv ,avelir ovitisopsid nu odnauQ .)W 5,7(a 5,1 a V 5 id BSU airettab alled aciracir id dradnats olla onartneir eirettabacirac li e ovitisopsid li etnemlareneg ,ecolev ¹Ãip aciracir id dradnats ol ecsonocir non ovitisopsid nu odnauQ .BSU airettab alled aciracir id dradnats olled etnemecolev ¹Ãip aciracir id ivitisopsid i atroppus)BSU non(dradnats id Âteirav anU cause problems to the internal power of the host. USB devices are also required to automatically insert the low -power suspension mode when the USB host is suspended. However, many USB host interfaces do not cut power on USB devices when when [108] Some non -standard USB devices use the 5 V power supply without participating in a correct USB network, which negotiates power extraction with the host interface. These are usually called USB decorations. [necessary quotation] Examples include keyboard lights powered with USB, fans, cup colds and heaters, charger, miniature vacuum cleaner and also miniature lamps. In most cases, these elements do not contain digital circuits, and therefore they are not USB devices compliant with the norm. This can cause problems with some computers, such as the too current design and harmful circuit. Before charging the USB battery, the necessary USB specification that the devices connect to a low -power mode (maximum 100 mA) and communicate the current requirements to the host, which therefore allows the device to switch to high -power modalitiesSome devices, when they connect to the top -up doors, draw even more power (10 watts at 2.1 amps) compared to the battery charge specification allows à à ivad is such a device; [109] negotiate the current drive with The tensions of the data pin. [55] The Barnes & Noble Nook Color devices also require a special charger that works at 1.9 amps. [110] Poweredusb Main article: Poweredusb Potenza USB power is a proprietary extension that adds four pins that provide up to 6 to 5 V, 12 V, or 24 V. It is commonly used in point sales systems to feed peripherals such as codes readers Bars, credit card terminals and printers. References ^ a B Universal Serial Bus 3.0 Specific: Revision 1.0. Contribution: Hewlett-Packard, Intel, Microsoft, Nec, St-Ericsson, Texas Instruments. June 6, 2011. p. 531. Filed by the original on December 30, 2013. URL consulted on April 28, 2019. {{Cite Book}}: CS1 MAINT: Others ^ a b "USB 2.0 Specification Engineering Change Notte (ECN) #1: Mini-B Connector" (PDF). 20 October 2000. Archived from the original (PDF) on 12 April 2015. Retrieved 28 April 2019 – via via ^ ^ "USB connector guide". C2G. Archived from the original on 21 April 2014. Retrieved 2 December 2013. ^ a b c d e "Universal Serial Bus Cables and Connectors Class Document Revision 2.0" (PDF). USB.org. August 2007. Archived from the original (PDF) on 11 June 2014. Retrieved 28 April 2019. ^ Howse, Brett. "USB Type-C Connector Specifications Finalized". AnandTech. Anadtech. Archived from the original on 18 March 2017. Retrieved 24 April 2017. ^ "Why was Mini-USB deprecated in favor of Micro-USB?". Stack exchange. 2011. Archived from the original on 7 December 2013. Retrieved 3 December 2013.[unreliable source?] ^ "USB Pinout". usbpinout.net. Archived from the original on 17 June 2014. Retrieved 28 April 2019. ^ a b c "Universal Serial Bus Micro-USB Cables and Connectors Specification" (PDF). USB Implementers Forum. 2007-04-04. Archived (PDF) from the original on 2015-11-15. Retrieved 2015-01-31. ^ "Qualcomm Certified Nekteck Quick Charge 2.0 54W 4 Ports USB Rapid Turbo Car Charger". Amazon. Retrieved 19 July 2017. ^ "Universal Serial Bus Revision 3.0 Specification, Sections 3.1.1.1 and 5.3.1.3". usb.org. Archived from the original (ZIP) on 19 May 2014. Retrieved 28 April 2019. ^ Quinnell, Richard A (24 October 1996). "USB: a neat package with a few loose ends". EDN Magazine. Reed. Archived from the original on 23 May 2013. Retrieved 18 February 2013. ^ "What is the Difference between USB Type A and USB Type B Plug/Connector?". Archived from the original on 7 February 2017. ^ a b "Deprecation of the Mini-A and Mini-AB Connectors" (PDF) (Press release). USB Implementers Forum. 27 May 2007. Archived (PDF) from the original on 6 March 2009. Retrieved 13 January 2009. ^ "ID Pin Resistance on Mini B-plugs and Micro B-plugs Increased to 1 Mohm". USB IF Compliance Updates. December 2009. Archived from the original on 20 July 2011. Retrieved 1 March 2010. ^ a b Universal Serial Bus Cables and Connectors Class Document (PDF), 2.0, Forum USB Implementrs, August 2007, P.â 6, archived (PDF) from the original on April 27, 2015, recovered on August 17, 2014 "cellular phones to adopt new smaller USB connectors" (PDF) (print communication). USB implementing forums. January 4, 2007. Archived (PDF) from the original on January 8, 2007. Excerpt on 8 January 2007. ^ "Pinout micro-USB and list of compatible smartphones and other devices". PinoutsGuide.com. Archived from the original on October 10, 2013. ^ A B "Micro-USB ports of the universal serial bus and connectors specification to USB 2.0, Review 1.01". USB implementing forums. 7 April 2007. Archived from the original (ZIP) on February 7, 2012. Excerpt on 18 November 2010. Section 1.3: Additional requirements for a more robust connector that lasts over 10,000 cycles and still meets the USB 2.0 specification for mechanical and electrical performance. also a consideration. The mini-USB cannot be modified and remains backward compatible with the existing connector as defined in the USB OTG specification. Open the mobile terminal platform. 17 September 2007. Archived from the original on 15 October 2008. Extract 2009-02-11. ^ "Universal standard of approved charger-The solution of a size of all will drastically cut waste and greenhouse gas emissions." ITU (print communication). Pressinfo. 22 October 2009. Archived from the original on November 5, 2009. Excerpt on 4 November 2009. ^ "The Commission welcomes new EU standards for the common mobile phone charger". Press releases. Europe. 29 December 2010. Archived from the original on 19 March 2011. Excerpt on 22 May 2011. ^ New EU standard for the common mobile phone charger (print communication), Europe, archived by the original on 3 January 2011 ^ The following 10 largest companies of sserP(sserP(stnemurtsnI saxeT ,nosscirE ynoS ,gnusmaS ,noitoM ni hcraeseR ,mmoclauQ ,aikoN ,CEN ,alorotoM ,GL ,elppA :asetni'd ollocotorp li otamrif onnah elibom Europe, archived by the original on 2009-07-04 "Nice Adapter Micro-USB Apple, now selling everywhere", Giga Om, 5 October 2011, archived by the original on 26 August 2012 "Apple's Lightning to the micro-USB Adapter now available in the United States, not only in Europe ", Engadget, 3 November 2012, archived by the original on 26 June 2017 "A B Howse, Brett (12 August 2014). "Specific USB Type C Connector". Archived from the original on 28 December 2014. Excerpt on 28 December 2014. ^ Hruska, Joel (13 March 2015). "USB-C vs. USB 3.1: What's the difference?" Extretetech. Archived from the original on 11 April 2015. Excerpt on 9 April 2015. NGO, Dong (August 22, 2014). "USB Type-C: a cable to connect them all." c | net. Archived from the original on 2015-03-07. Excerpt on 28 December 2014. ^ "Technical introduction of the new type C USB connector". Archived from the original on 29 December 2014. recovered on 29 December 2014. Smith, Ryan (September 22, 2014). "DisplayPort Alternative Mode for USB Type-C announced: video, power and data on Type-C". Anandtech. Archived from the original on 18 December 2014. Excerpt on 28 December 2014. ^ Universal serial type-C cable Revision of specifications 1.1 (3 April 2015), section 2.2, page 20 "Su-the-go and host integrator incorporated into USB Revision 3.0"(PDF). USB.org. 10 May 2012. ^ "Cavi Owner vs USB Standard". AnythingButipod.com. 30 April 2008. Archived from the original on 13 November 2013. Excerpt on 29 October 2013. Lex Friedman (25 February 2013). "Review: Logitech's Ultrathin Mini keyboard cover makes the wrong compromises." macworld.com. Archived from the original on 3 November 2013. Excerpt on 29 October 2013. ^ "What is the difference via USB 3.0 cable". Hant. 18 May 2009. Archived from the original on 11 December 2011. Excerpt on 12 December 2011. ^ "Limite of .)FDP(.)FDP("BSU ovac led 3 November 2010. Archived from the original (PDF) on 11 October 2014. Excerpt on February 2, 2014. ^ "What is the maximum length of a USB cable?" Techwalla.com. Archived from the original on 1 December 2017. Excerpt on 18 November 2017. "Cavi and long-range solutions." USB.org. Archived from the original on January 15, 2014. Excerpt on February 2, 2014. "USB asked frequent questions." USB implementing forums. Archived from the original on 18 January 2011. Excerpt on 10 December 2010. {{Cite Journal}}: Cite Journal requires | Journal = (Help) Axelson, January "FAQ of USB 3.0 developers". Archived from the original on 20 December 2016. Excerpt on 20 October 2016. "USB Type-C Revision 1.0" (PDF). USB 3.0. 2021-03-01. Archived (PDF) from the original on 2021-11-03. "USB ECN USB 2.0 VBUS Max Limite". USB-if. 2021-11-03. Archived from the original on 2021-11-03. Extract 2021-11-03. ^ "Debit Agreement for specifications and battery adopters" (PDF (zipped)). USB se. 2015-03-15. Table 5-1 voltages. Archived (PDF) from the original on 2021-11-03. Extract 2021-11-03. ^ A B C "Specifices of delivery of USB 2.0 and 3.1" power (PDF (zipped)). USB se. 2021-10-26. Archived (PDF) from the original on 2021-11-03. "USB.org". USB.org. Archived from the original on 19 June 2012. Excerpt on 22 June 2010. ^ "Serial Bus 1.1". cs.ucr.edu. 23 September 1998. pp. 150, 158. Archived from the original on 2 January 2015. Excerpt on 24 November 2014. ^ "Universal Specifications Serial Bus 2.0, Section 7.2.1.3 Low-power bus functions" (ZIP "). USB.org. 27 April 2000. Archived from the original on September 10, 2013. Excerpt on 11 January 2014. ^ "Specifiche universal serial Bus 2.0, Section 7.2.1.4 Functions powered by high-power bus" (ZIP). USB.org. 27 April 2000.from the original on September 10, 2013. Extract 112014. ^ "RoundP: 2.5-Iin Hard Disk Drives with 500 GB, 640 GB and 750 GB Storage Capacities (page 17)". xbitlabs.com. June 16, 2010. Filed by the original on June 28, 2010. URL consulted on 9 July 2010. ^ "I have the drive connected, but I can't find the drive in" My computer ", why?". Hitachigst.com. Filed under the original on February 15, 2011. URL consulted on March 30, 2012. ^ "USB-IF Compliance Updates". Compliance.usb.org. September 1, 2011. Filed by the original on February 3, 2014. URL consulted on January 22, 2014. ^ a b C d "Battery Charging Specification, Revision 1.2". USB Implementers Forum. March 15, 2012. Filed by the original on March 10, 2021. URL consulted on August 13, 2021. ^ "Battery Charging Specification, Revision 1.1". USB Implementers Forum. April 15, 2009. Filed by the original on March 29, 2014. URL consulted 2009-09-23. ^ "Speculation contract and adoptions of the battery V1.2" (zip). USB Implementers Forum. March 15, 2012. Filed by the original on 6 October 2014. URL consulted on May 13, 2021. ^ a B "MINTY BOOST â €" The Mysteries of Apple Device Charge ". Lady Ada. May 17, 2011. Filed by the original on March 28, 2012. ^ "modify a cheap USB charger to power an iPod, iPhone". 5 October 2011. URL consulted on 7 October 2011 (archived by the original URL on 7 October 2011. ^ "PD_1.0" (PDF). Filed (PDF) by the original on April 4, 2016. URL consulted on April 27, 2016. ^ a B "10 Power Rules", Universal Serial Bus Power Delivery Specification Revision 2.0, version 1.2, USB Implementers Forum, 25 March 2016, archived by the original on June 1, 2012, recovered April 9, 2016 ^ a B "10 Power Rules", Universal Serial Bus Power Delivery Specification Revision 3.0, version 1.1, USB Implementers Forum, archived by the original on June 1, 2012, "USB 3.0 Update to eliminate the need for chargers." "USB 3.0 Promoter Group announces the availability of USB Power Delivery Specification" (PDF). 18 July 2012. Archived from the original on 20 January 2013. Retrieved 16 January 2013. Edison's revenge. Economist. 19 October 2013. Archived from the original on 22 October 2013. Retrieved 23 October 2013. "USB Power Delivery — Introduction" (PDF). 16 July 2012. Archived from the original on 23 January 2013. Retrieved 6 January 2013. "USB Power Delivery". USB 3.1 Specification. Archived from the original on 19 June 2012. Retrieved 11 November 2014. "USB Power Delivery v2.0 Specification Finalized - USB Gains Alternate Modes". "USB Future Specifications Industry Reviews" (PDF). Archived from the original on 29 July 2014. Retrieved August 10, 2014. "A. Power Profiles", Universal Serial Bus Power Delivery Specification revision 2.0, version 1.2, USB Implementers Forum, 25 March 2016, archived from the original on 12 April 2016, recovered 9 April 2016 "USB Power Delivery" (PDF). usb.org. USB-IF. 20 October 2016. Archived from the original (PDF) on 20 December 2016. Waters, Deric (14 July 2016). "USB Power Delivery 2.0 vs 3.0". E2E.TI.com. Archived from the original on 30 July 2017. "Texas Instruments" (PDF). Archived from the original on 15 April 2016. Retrieved 1 April 2016. "Cypess." Archived from the original on 30 March 2016. Retrieved 1 April 2016. "USB-C charge: Universal or bust! We connect to every device we must pursue the dream." Retrieved 30 December 2016. "Charge All Your Devices Using the Anker PowerPort+ 5 USB-C with USB Power Delivery". Archived from the original on November 10, 2016. Belkin. "Belkin launchescar charger + cable with power delivery". Retrieved 30 December 2016. "Belkin USB-C Car Charger + Cable – The World's World's World'sCharger of the car with energy delivery Goes the Distance ". Excerpt on 30 December 2016. "Asus Update 3.1 ". ^" USB-If introduces a fast charging to expand its certified USB Charger initiative ". 9 January 2018. Excerpt on 10 January 2018. USB -PD increases USB-C power delivery to 240 W at 48v. Nick Flaherty, Eenews. May 28, 2021 USB-C Delivery Hits 240W with an extended power range. Ganesh T S, Anandtech. 28 May 2021 "New Apple 140W USB-C GAN Charger". Excerpt on 15 November 2021. ^"""""""" How fast can a fast charging phone charge if a fast charging phone can charge very quickly? ". CNET. Extract 2016-12-04. " Qualcommmmmmmmmmm Announce Quick Charge 4: Supports USB Type-C power delivery. Anandtech. Extract 2016-12-13. "Thinpad Ultra Dock." Lenovo.com. Archived from the original on 17 September 2016. Excerpt on September 16, 2016. ^ "Toshiba NB200 User Manual "(PDF). UK. 1 March 2009. Archived (PDF) from the original on 19 February 2014. Excerpt on 26 January 2014. USB PowerShare featu rif. 15 September 2019. Excerpt on 15 June 2020. USB PowerShare. of 5 June 2013. Archived from the original on 8 November 2013. Excerpt on 4 December 2013. ^ "Sleep and USB charge ports". toshiba.com. Archived from the original on 14 December 2014. Excerpt on 21 December 2014. "USB Charge Manager". packardbell.com. Extract 2014-04-25. ^ "How to configure the system to charge devices on the USB port when switched off - Idea/Lenovo Laptop - NL". support.lenovo.com. "Cai Yan" (31 May 2007). "That's to enforce the charger of the universal mobile phone." EE Times. Archived from the original on 29 September 2007. Excerpt on 25 August 2007. ^ Chinese technical standard: "YD/T 1591-2006, technical requirements and battery test method andfor mobile telecommunication terminal equipment" (PDF) (in Chinese) . Dian Yuan. Archived from the original (PDF) on 15 May 2011. {{Cite Journal}}: Cite Journal Journal| Journal = (Help) Lam, Crystal; Liu, Harry (22 October 2007). "How to conform to China's new cell phone interface standards." Wireless net design line. Archived from the original on 14 May 2014. Excerpt on 22 June 2010. ^ "Professionals seem to exceed the standard of phone chargers." News. 20 September 2007. Extract 2007-11-26. ^ "The wide-ranging agreement provides the green light of the universal phone cable" (print communication). October 17th, 2007. Archived from the original on 29 June 2009. Excerpt on 26 November 2007. ^ "Agreement on standard cell phone charger" (print communication). GSM World. Archived from the original on 17 February 2009. ^ "Common reload and local data connectivity". Open the mobile terminal platform. 11 February 2009. Archived from the original on 29 March 2009. Extract 2009-02-11. "Universal charging solution ~ GSM World". GSM World. Archived from the original on 26 June 2010. Excerpt on 22 June 2010. ^ "According to the challenge of the universal charge standard in mobile phones". Planet Analog. Archived from the original on 2012-09. Extract 2010-06-22. "The Wireless Association announces a universal battery charger solution to celebrate Earth Day" (print communication). CTIA. 22 April 2009. Archived from the original on 14 December 2010. Excerpt on 22 June 2010. ^ "Itu" (print communication). 22 October 2009. Archived from the original on March 27, 2010. Excerpt on 22 June 2010. "Chargers." EU: EC. 29 June 2009. Archived from the original on 23 October 2009. Excerpt on 22 June 2010. ^ "Europe gets a universal cell phone charger in 2010". Cabled. 13 June 2009. Archived from the original on 18 August 2010. Excerpt on 22 June 2010. ^ "Mobile telephony to a dimension: IEC publishes the first relevant standardGlobal ". International electrotechnical commission. February 1, 2011. Filed by the original on January 3, 2012. Extract on February 20, 2012. ^ common charger: deputies agree on the proposal to reduce electronic waste". Electronic ". Parliament. 2022-04-20. Archived from the original on 2022-04-22. Retrieved 2022-04-20. Ajay Kumar. "What is the fast charge?" "Part 2 - Electric". MQP Electronics Ltd. Archived from the original on 24 December 2014. Retrieved 29 December 2014. "Watt to Know About iPhone & iPad Power Adapters | Analysis". Mac Observer. Archived from the original on December 10, 2011. Retrieved 12 December 2011. ^ Nook Color charger using special Micro-USB connector. barnesandnoble.com. 3 July 2011. Archived from the original on 11 February 2012. Retrieved 19 November 2012. ^ three sizes of USB connectors are the default or standard format intended for desktop or portable equipment, the mini intended for mobile equipment, which was deprecated when it was replaced by the thinner micro size, all of which were deprecated with the release of Type-C. There are five speeds for USB data transfer: Low Speed, Full Speed, High Speed (from version 2.0 of ... The Beagle™ USB 5000 SuperSpeed Protocol Analyzer, the winner of Best in Test 2012, is a world-class USB 3.0 bus monitor that provides real-time interactive capture and analysis of USB 3.0 and USB 2.0 traffic (up to 5 Gbps). The Beagle™ USB 5000 v2 SuperSpeed Protocol Analyzer - Ultimate Edition is our newest flagship model. The Hitchhiker's Guide to Online Anonymity. ... (charging cable, mouse, keyboard, USB key ...) by an adversary and can be used to track you or compromise your computer or smartphone. ... Usually, these types of malware are harder to detect and mitigate as they are implemented at a lower level than the userspace 220 and often in the firmware ...

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