

1. What types of interfaces is possible to use in the access and backbone networks?

1. _____
 2. _____
 3. _____
-

2. Match the four different interfaces shown on the left column to the corresponding theoretically reachable transfer rate on the right column.

USB 3.0	Up to 600 Mbit/s
Thunderbolt	Up to 5 Gbit/s
Bluetooth 2.0	Up to 10 Gbit/s
Wi-Fi (802.11n)	Up to 3 Mbit/s

3. Modify the following texts so that the statements will be true.

USB interface is a $\left(\begin{smallmatrix} \text{serial} \\ \text{parallel} \end{smallmatrix}\right)$ interface type $\left(\begin{smallmatrix} \text{bus} \\ \text{ring} \end{smallmatrix}\right)$. All devices connected to the USB interface $\left(\begin{smallmatrix} \text{don't share} \\ \text{share} \end{smallmatrix}\right)$ among themselves the entire bandwidth.

4. Match the four different transfer modes shown on the left column to the corresponding type of their specification on the right column.

Super Speed + Mode	specification USB 3.0
High Speed Mode	specification USB 2.0
Full Speed Mode	specification USB 3.1
Super Speed Mode	specification USB 1.1

5. Select the USB device that is used for the extension of USB bus.

- USB HUB
- USB function

6. Modify the following texts so that the statements will be true.

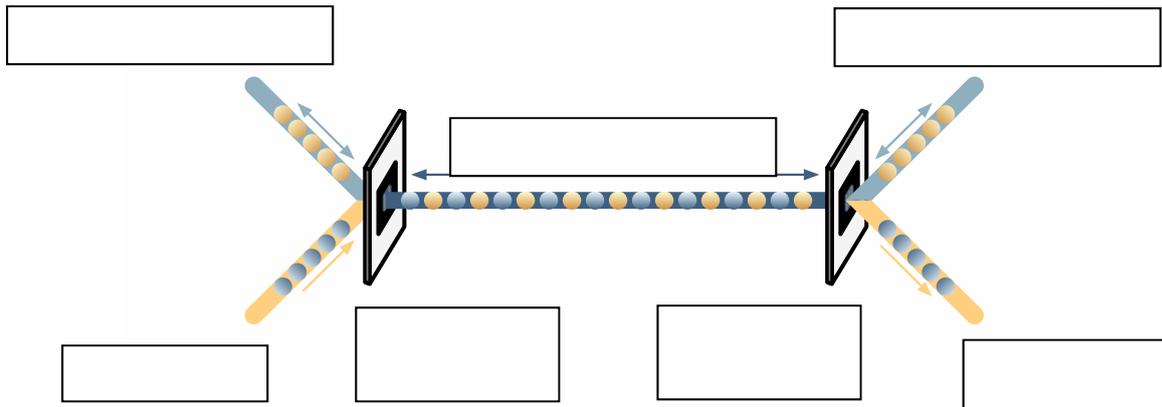
Interface USB 3.0 is a $\left(\begin{smallmatrix} \text{dual} \\ \text{single} \end{smallmatrix}\right)$ bus, which is a $\left(\begin{smallmatrix} \text{parallel connection} \\ \text{bridging} \end{smallmatrix}\right)$ of interface USB 2.0 and the new interface USB Superspeed. This concept $\left(\begin{smallmatrix} \text{allow} \\ \text{don't allow} \end{smallmatrix}\right)$ the usage of USB 2.0 terminal equipments on USB 3.0 controllers. However, there is one fundamental restriction. $\left(\begin{smallmatrix} \text{It's not possible} \\ \text{It is possible} \end{smallmatrix}\right)$ to use both buses simultaneously at one terminal device.

7. What kind of packets are used by USB SuperSpeed?

1. _____
2. _____
3. _____
4. _____



8. Fill in the following figure the correct labels into individual parts:



9. Modify the following texts so that the statements will be true.

(Controller)
(End device) is a key component for data transfer on Thunderbolt interface.

The (Controller)
(End device) is part of transmitting and receiving equipment.

The (End device)
(Controller) is designed for communication with (great
very small) delay and

(with the support)
(without support) of QoS (Quality of Service) requests.