

Bluetooth Specifications

Below, you'll find several specifications for the well known Bluetooth:

1. Throughout the United States and even Europe, the range of frequency is 2,400 - 2,483.5 MHz, with 79 1-MHz RF (radio frequency) channels. The frequency range in Japan is 2,472 to 2,497 MHz with 23 1-MHz RF channels.
2. A data channel of Bluetooth randomly hops 1,600 times per second between the 79 RF channels.
3. Each Bluetooth channel is divided into time slots, with each one being 625 microseconds long.
4. A Bluetooth piconet has one master and up to seven slaves. The master will transmit in even time slots, while the slaves will transmit in odd time slots.
5. The data in a single packet can be up to 2,745 bits in length.
6. Currently, there are two types of data transfer between devices - SCO (synchronous connection oriented) and ACL (asynchronous connectionless).
7. In a Bluetooth piconet, there can be up to three SCO links containing 64,000 bits per second with each one. To help avoid collision and timing problems, the links of the SCO will use reserved slots set up by the master.
8. A master can support up to three SCO links with either one, two, or even three slaves.
9. The slots not reserved for the SCO links can be used for ACL links.
10. A single master and slave can have one ACL link.

11. ACL is either master to one slave (point to point) or it broadcasts to all of the slaves.

12. The ACL slaves will only transmit when it has been requested by the master. If the master doesn't make the request, the ACL slaves won't transmit anything at all.

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