

# The difference between Bluetooth 4.0 and 5.0

## What is Bluetooth?

Bluetooth is a wireless technology standard used for exchanging data between fixed and mobile devices over short distances using short-wavelength UHF radio waves in the industrial, scientific and medical radio bands, from 2.402 GHz to 2.480 GHz, and building personal area networks (PANs).

Bluetooth 5.0 is the latest version of the Bluetooth wireless communication standard. It's commonly used for wireless headphones and other audio hardware, as well as wireless keyboards, mice, and game controllers.



## The comparisons

Bluetooth 4.0 and 5.0 do almost all the same things, but they have their own features and differences.

### Speed

Bluetooth 5.0 is faster than Bluetooth 4.0. The speed of Bluetooth 5.0 is 2Mbps, twice the speed of the Bluetooth 4.0 of about 1Mbps.

### **Range**

Bluetooth 4.0 supports 50m in outdoor range and 10m in the indoor range, while Bluetooth 5.0 supports 200m in Line Of Sight path in the outdoor environment and 40m in the indoor environment.

### **Power requirement**

With the low energy designed, Bluetooth 5.0 uses less power on your device compared to the Bluetooth 4.0.

### **Message capacity**

The Bluetooth 4.0 has a small message capacity of about 31bytes, which gives just 17 to 20 bytes for actual data payload. While the Bluetooth 5.0 with a large capacity of 255bytes gives more bytes for actual data payload.

### **Bluetooth beacon**

With Bluetooth 5.0, beacons have become more popular due to the speed and range increase while with Bluetooth 4, they are less popular due to the less speed and range as well as low message capacity of 31bytes.

### **Support for IoT devices**

Bluetooth 5 easily meets the requirements for IoT devices with its good range and increase in speed while Bluetooth 4 does not due to its low speed and short working range. That means IoT devices will work well with Bluetooth 5 and utilize all its features properly.

### **Compatibility**

Bluetooth 4 works best with devices that are compatible with

version 4 series but will not work with devices that have Bluetooth 5 while Bluetooth 5 is backward compatible with v1, v2, v3, v4, v4.1 and version 4.2 but will not utilize all the features of Bluetooth 5.

All in all, the car radios with Bluetooth 5.0 can meet the more requirements and work better. Besides, [Pumpkin 12.8" Tesla Style Universal Car Stereo](#) possesses the Bluetooth 5.0 feature.

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## **A New Way to Use the Bluetooth of a Car Head Unit**



Music streaming is the most widely and frequently used Bluetooth function in the car that installs a multimedia player. Many car radios support Bluetooth hands-free calling and phonebook accessing, which is very handy for driving. There are other unexpected ways to use the Bluetooth music sharing function especially when you are with an enamored companion.

Music really helps tremendously if you take a serious observation, you can definitely ask this friend out again if he/ she sings and even swings with every song in your favorite playlist. Likewise, ask the friend to play her playlist via Bluetooth is a genius idea to find out what type of person is this companion, if she/he likes hip-hop, while you prefer classical music, you may need to pay some attention to other aspects of your lifestyle differences before getting involved in this relationship too deep.

Who else could think to use the Bluetooth function of a car radio in such a romantic way? (:

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