

Comparison between Power, Distance and Frequency:

1-NFC

POWER: 50Mw or less

DISTANCE: 4cm (1.57 in) or less

FREQUENCY: 13.56 MHz

2-RFID

POWER: can be either passive or active. Passive

DISTANCE: depends on several factors, including the type of RFID technology used, the power output of the RFID reader, and the environment

FREQUENCY: LF RFID: 125 kHz and 134 kHz

HF RFID: 13.56 MHz

UHF RFID: 860 MHz and 960 MHz

3-BLE

POWER: 1.8V to 3.6V

DISTANCE: 100 m

FREQUENCY: 2.4 GHz and 2.483 GHz

4-ZigBee

POWER: 0.1 W

DISTANCE: 10–100 m

FREQUENCY: 868 MHz, 902-928 MHz, and 2.4 GHz frequencies depending upon the requirement of application

5-WiFi

POWER: between 5 and 20 watts

DISTANCE: 50 m or less

FREQUENCY: 860/900 MHz, 2.4 GHz, 3.6 GHz, 4.9 GHz, 5 GHz, 5.9 GHz, 6 GHz, 45 GHz and 60 GHz

6-LoRa

POWER: averaged 5.5 watts

DISTANCE: up to 3 miles (4.8 km) in urban areas, and up to 10 miles (16 km) or more in rural areas

FREQUENCY: 169 MHz, 433 MHz (Asia), 868 MHz (Europe) and 915 MHz (North America)

7-Sigfox

POWER: low power

DISTANCE: up 40 km outdoors, and 10 km in urban areas

FREQUENCY: 862 to 928 MHz