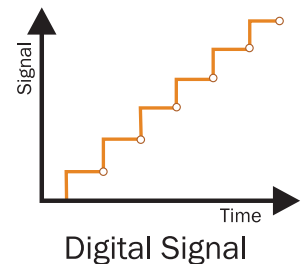
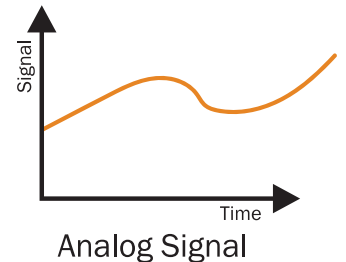


CONCEPT Analog and digital are two fundamental concepts in electronics and signal processing. Analog signals are continuous and are often represented by waves, such as sound waves or voltage waves, and can be measured as a continuous voltage or current. Digital signals have specific values at specific points in time and are represented by a sequence of 0s and 1s, or bits, and can be processed by computers or digital circuits.

Difference between Analog and Digital Signal



BACKGROUND

Analog signals were the first to be used for long-distance communication, with the invention of the telegraph in the 19th century and the development of telephone technology in the early 20th century. Analog signals continued to dominate in areas such as audio and video recording and transmission, where the smooth and continuous nature of the signal was valued for its high-fidelity reproduction of sound and images.

The digital revolution began in the mid-20th century with the invention of the transistor and the development of digital logic circuits. Digital technology gained ground rapidly in computing, where the use of binary signals made it possible to perform complex operations quickly and accurately. The development of digital audio and video recording and transmission technology in the latter half of the 20th century paved the way for the widespread adoption of digital signals in many areas, including telecommunications, broadcasting, and consumer electronics.