Signal sampling

Typical sampling rates and samples

Sampling rate	Use cases
8 kHz	Telephone and encrypted walkie-talkie, wireless intercom and wireless microphone transmission
16 kHz	Used in most modern VoIP and VVoIP communication products. Wideband extension over standard telephone narrowband.
22.05 kHz	One half the sampling rate of audio CDs; used for lower-quality PCM and MPEG audio.
44.1 kHz	Audio CD, also most commonly used with MPEG-1 audio (VCD, SVCD, MP3).

https://en.wikipedia.org/wiki/Sampling_(signal_processing)

Analog signal to digital signal: Quantization



