Delta Modulation

The idea of delta modulation is to use a linear sequence to represent a signal.

Concept: Consider an up/down counter configuration.

\[ m(t) \]

\[ m_s(t) \]

\[ x(t) \]

\[ y(t) \]

\[ D/A \]

Clock

1 bit = \( \frac{1}{4} \) power

Receiver ladder
Practical Design

Advantages:
1. Binary signals can be generated at extremely high frequencies and do not need additional modulation.
2. Binary signals are either on or off which is 0 or $\infty$ impedance. Thus, very low heat loss.