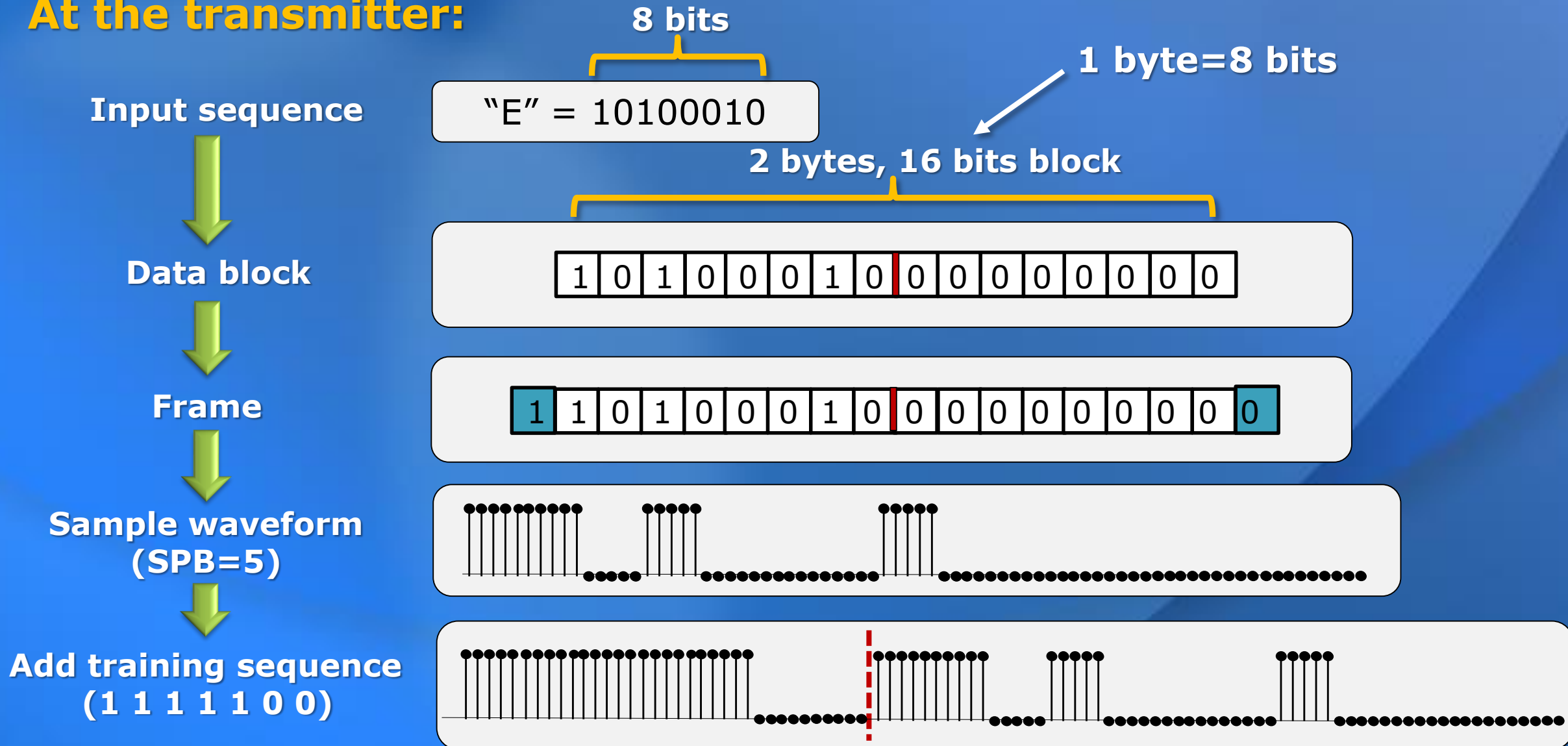


A Simple Protocol

A Simple Protocol

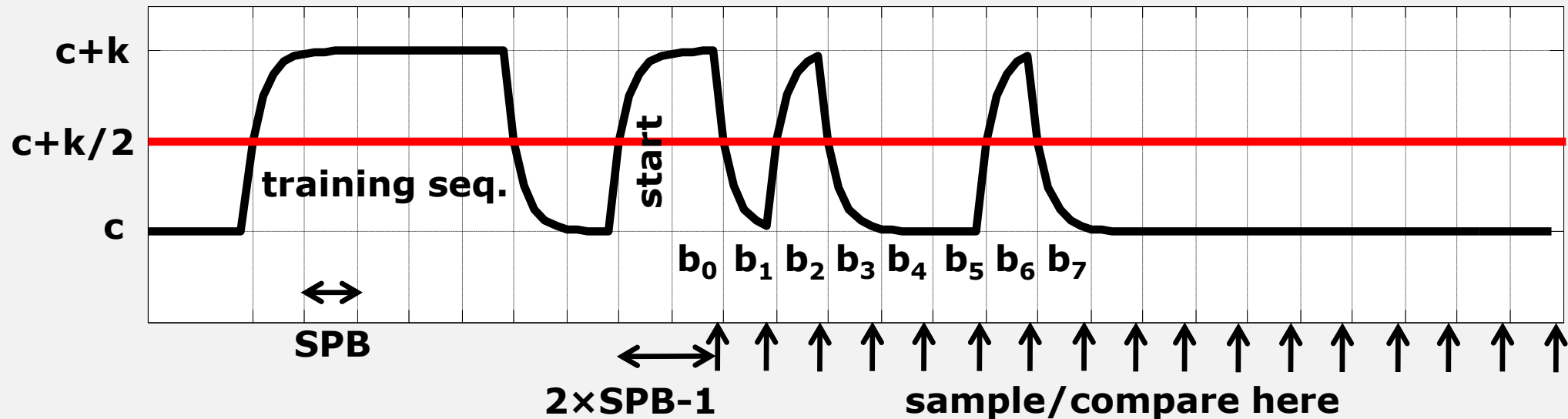
At the transmitter:



A Simple Protocol

At the receiver:

- Use the training sequence to estimate c and k
 - Define threshold = $c + k/2$
- Skip past the training sequence
- Find the beginning of the start bit.
- Decode (figure out) the bit stream by comparing samples spaced SPB apart starting from an estimate of the end of the first bit, which is the beginning of the start bit plus $2 \times \text{SPB} - 1$.



A Simple Protocol

At the transmitter:

- Take an input sequence of bits.
- Create a block of N bytes (1 byte=8 bits).
 - If the input sequence is too short,
 - > pad it with zeros (add extra zeros to the end)
 - If the input sequence is too long,
 - > cut it to N bytes (throw out the rest), or
 - > split it into multiple blocks.
- Add start and stop bits to beginning and end of each block
- Encode the resulting bit sequence as a sample waveform with SPB samples per bit.
- Add the training sequence before transmitting data.