

# Toning

Kevin Brown

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# 1394b Toning

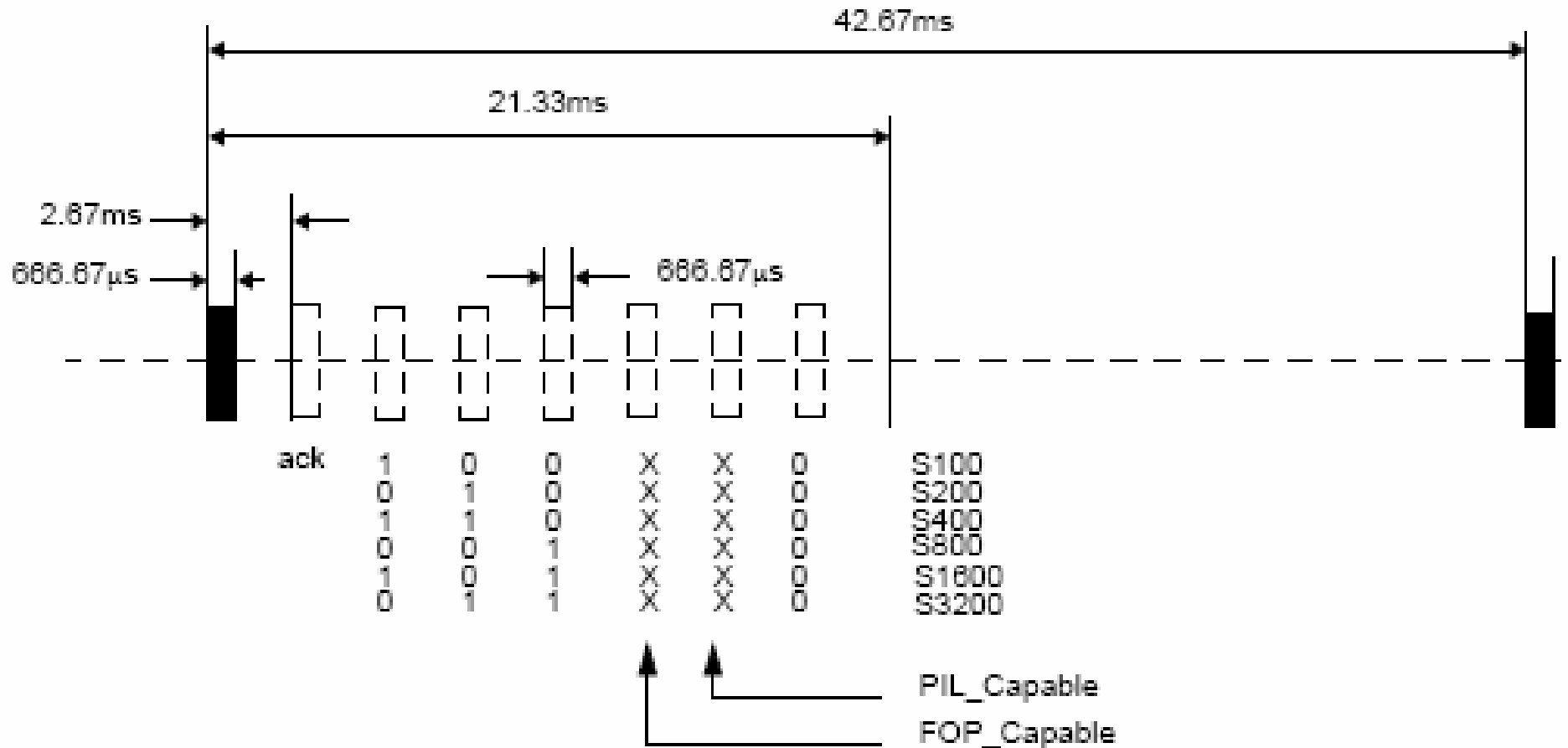
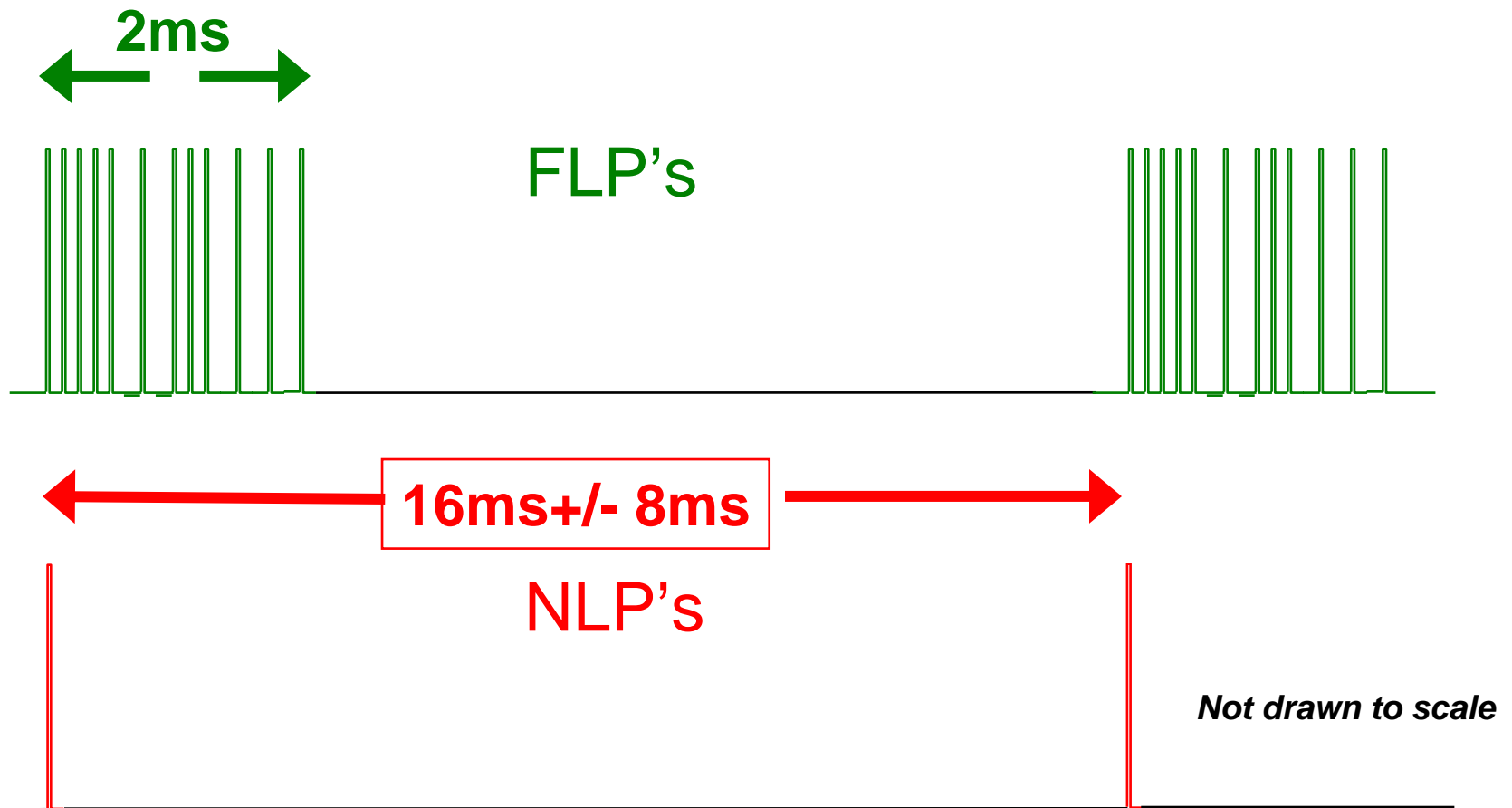
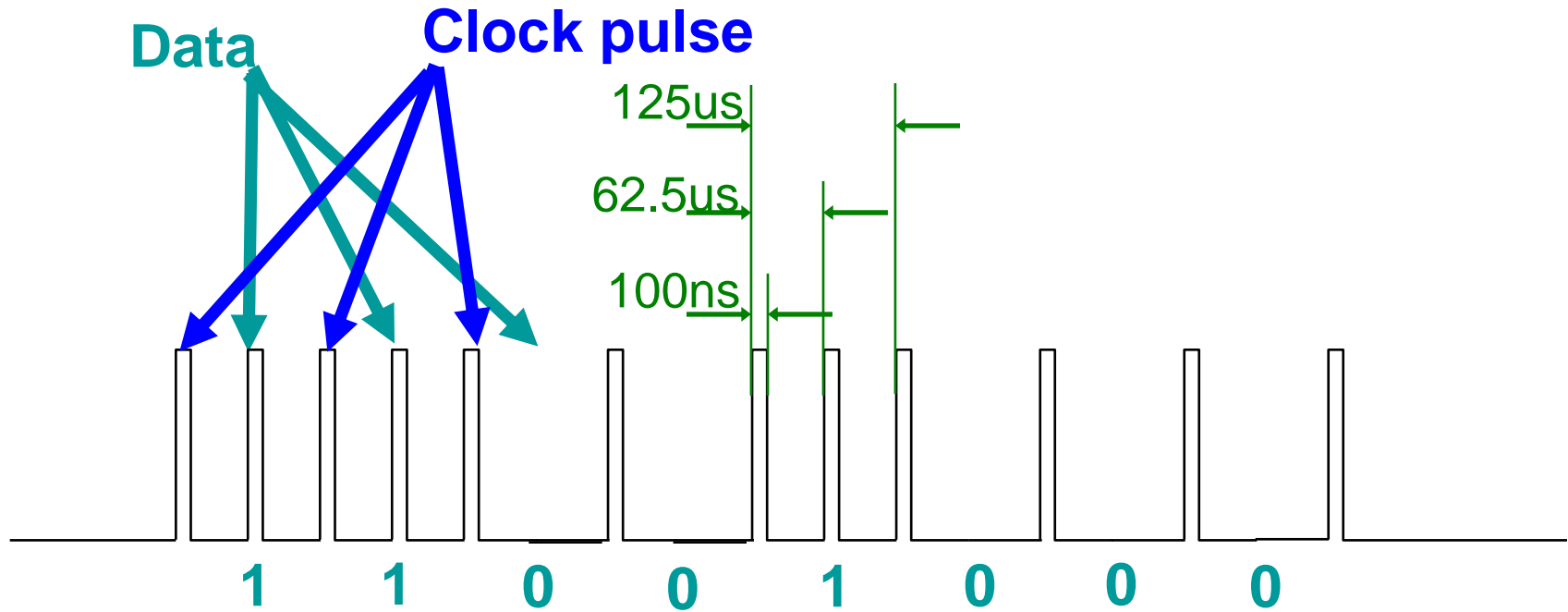


Figure 11-4—Speed code timing diagram

Fast Link Pulses (100BASE-TX)  
and  
Normal Link Pulses (10BASE-T)



# Fast Link Pulses

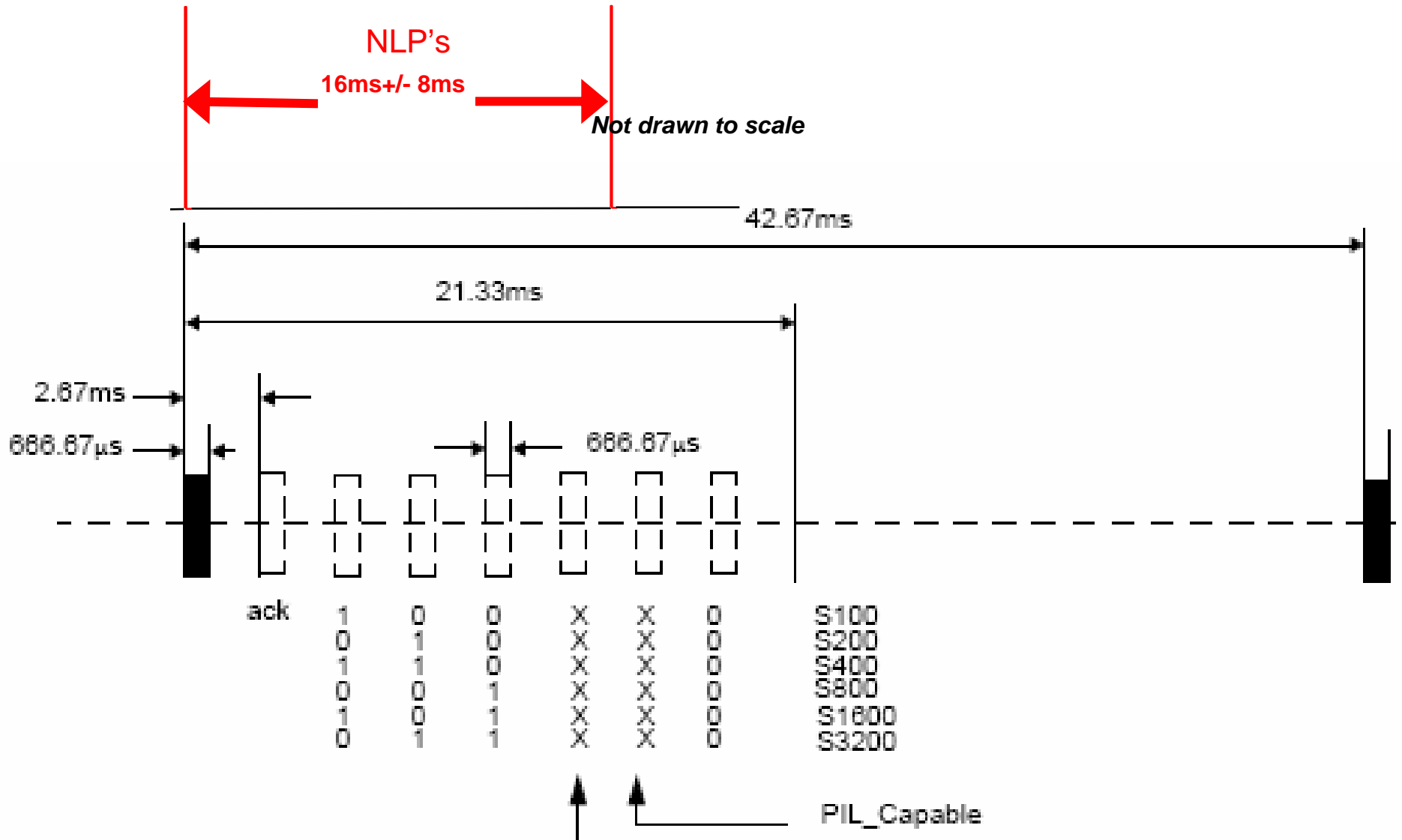


*Not drawn to scale*

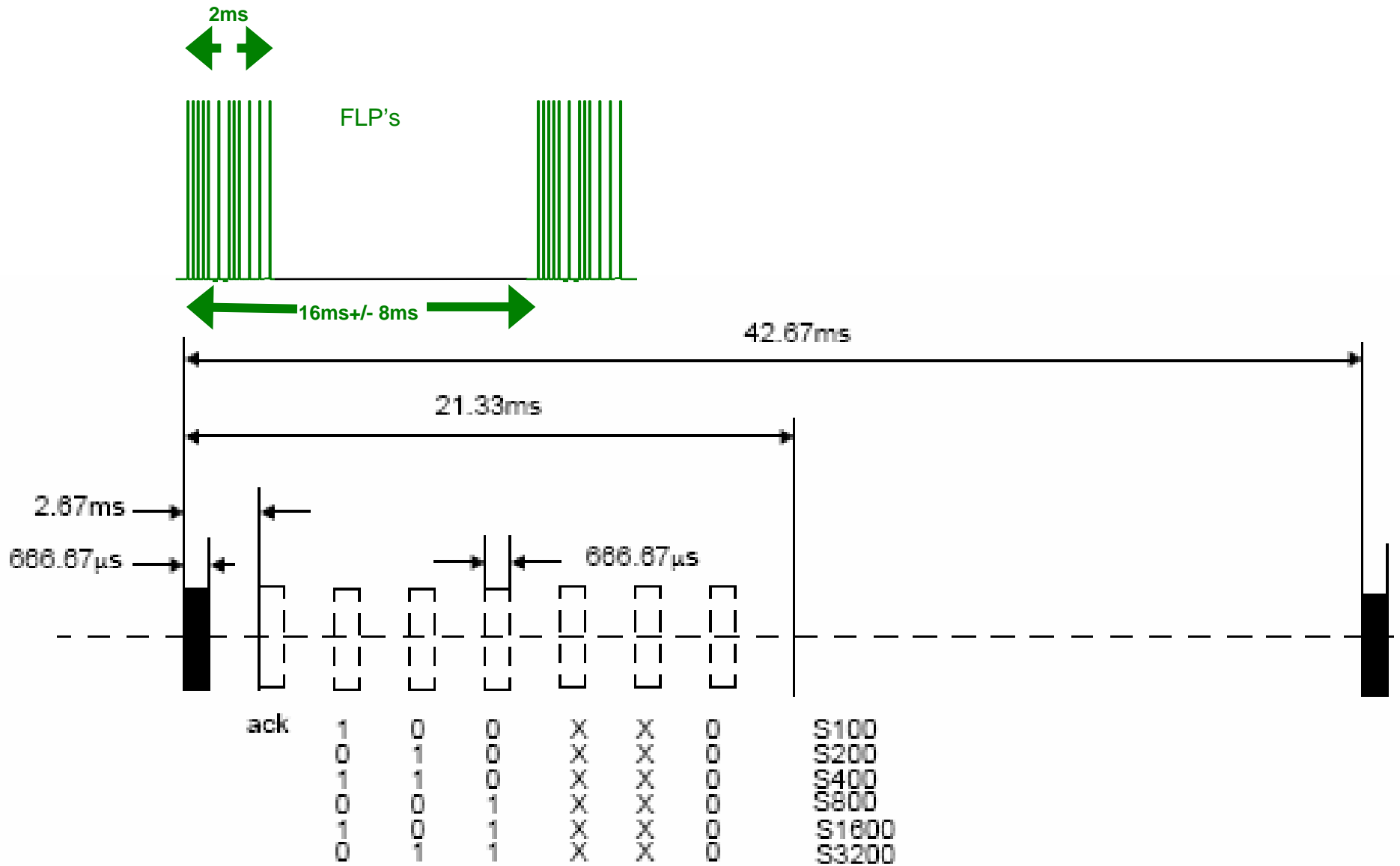
# Tones versus Link Pulses

- 1394b tone width: 667us
- Link pulse (fast or normal): 100ns
- 1394b tone spacing: 2.67ms
- Normal link pulse spacing: 16ms +/- 8ms
- Fast link pulse spacing:
  - 62.5us inside burst
  - 2ms burst width
  - 16ms +/- 8ms burst-to-burst

# Normal Link Pulses (10BASE-T)



# Fast Link Pulses (100BASE-TX)



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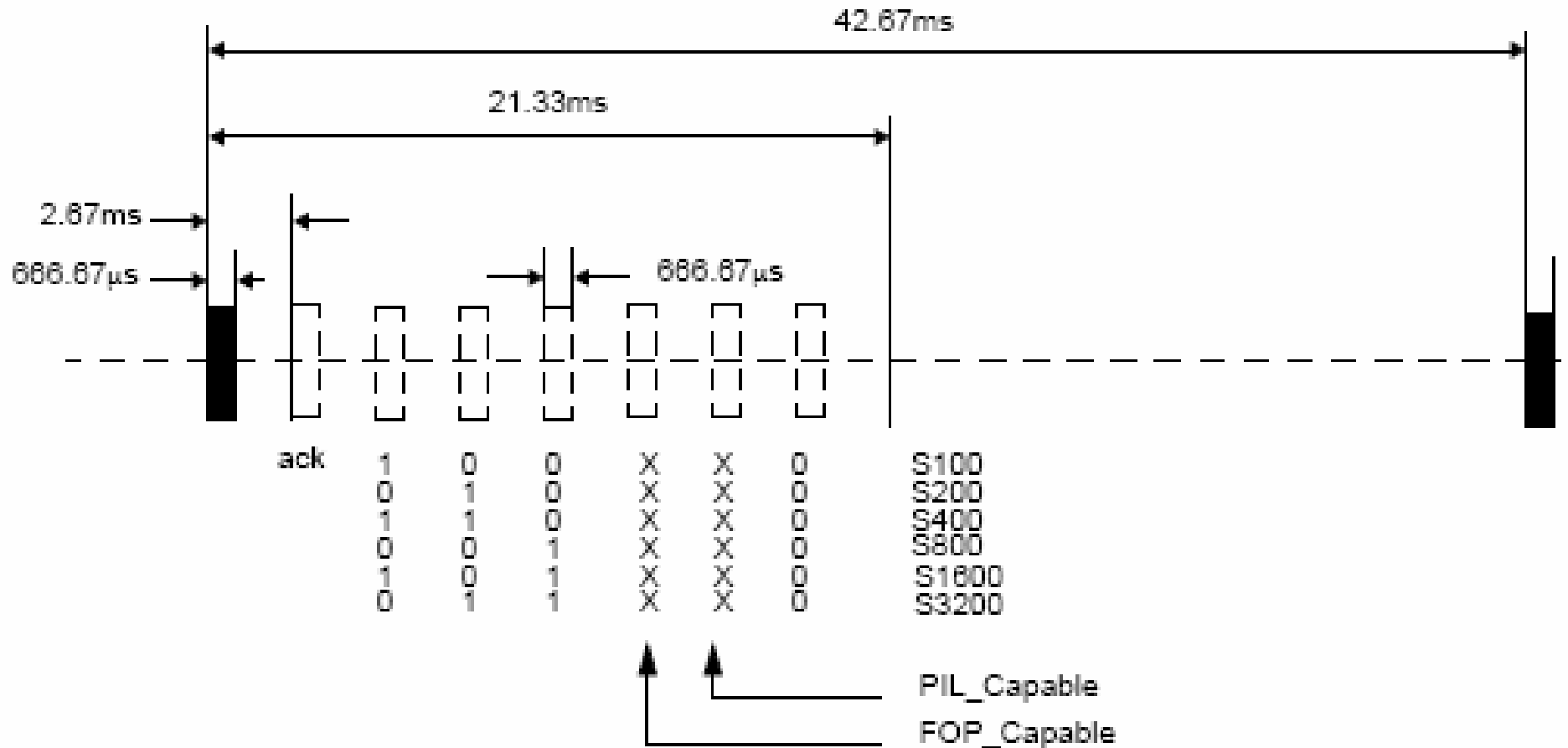


Figure 11-4—Speed code timing diagram



# Conclusions

- 1394b tone frequencies have some overlap with link pulses
  - Longer tone widths (267us vs. 100ns) can allow them to be distinguished from link pulses
  - Actual Ethernet devices will NOT detect 1394b tones as link pulses