Toning

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1394b Toning

Figure 11-4—Speed code timing diagram
Fast Link Pulses (100BASE-TX) and Normal Link Pulses (10BASE-T)

FLP’s

2ms

NLP’s

16ms +/- 8ms

Not drawn to scale
Fast Link Pulses

Data

Clock pulse

125us

62.5us

100ns

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)

NLP’s
16ms +/- 8ms

Not drawn to scale
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