

40G EEE Changes

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EEE Changes – Included in legacy and Fast Wake



- Increase Refresh length from 4 to 6 LDPC frames
 - Longer echo
- Decrease number of Sleep frames from 9 to 5
 - Decrease case 2 latency
- LPI back channel
 - Info field type of data
 - Use to ask link partner to cease transmitting LPI mode for x minutes

Fast Wake



- Auto-negotiable
- Reduce Alert from 4 to 3 LDPC frames
 - 5 of the repeating $\frac{1}{2}$ LDPC frames, $\frac{1}{2}$ LDPC frame quiet
- No Wake. Data starts after Alert
- Latencies including change to Sleep length
 - Case 1: $3 + 1 = 4$ LDPC frames $\Rightarrow 0.320\mu\text{s}$
 - Case 2: $5 + 3 + 1 = 9$ LDPC frames $\Rightarrow 0.720\mu\text{s}$
- 10G latencies
 - Case 1: $4 + 1 + 9 = 14$ LDPC frames $\Rightarrow 4.48\mu\text{s}$
 - Case 2: $8 + 4 + 1 + 9 = 23$ LDPC frames $\Rightarrow 7.36\mu\text{s}$