Clause 47 – XAUI
Electrical

Jonathan:

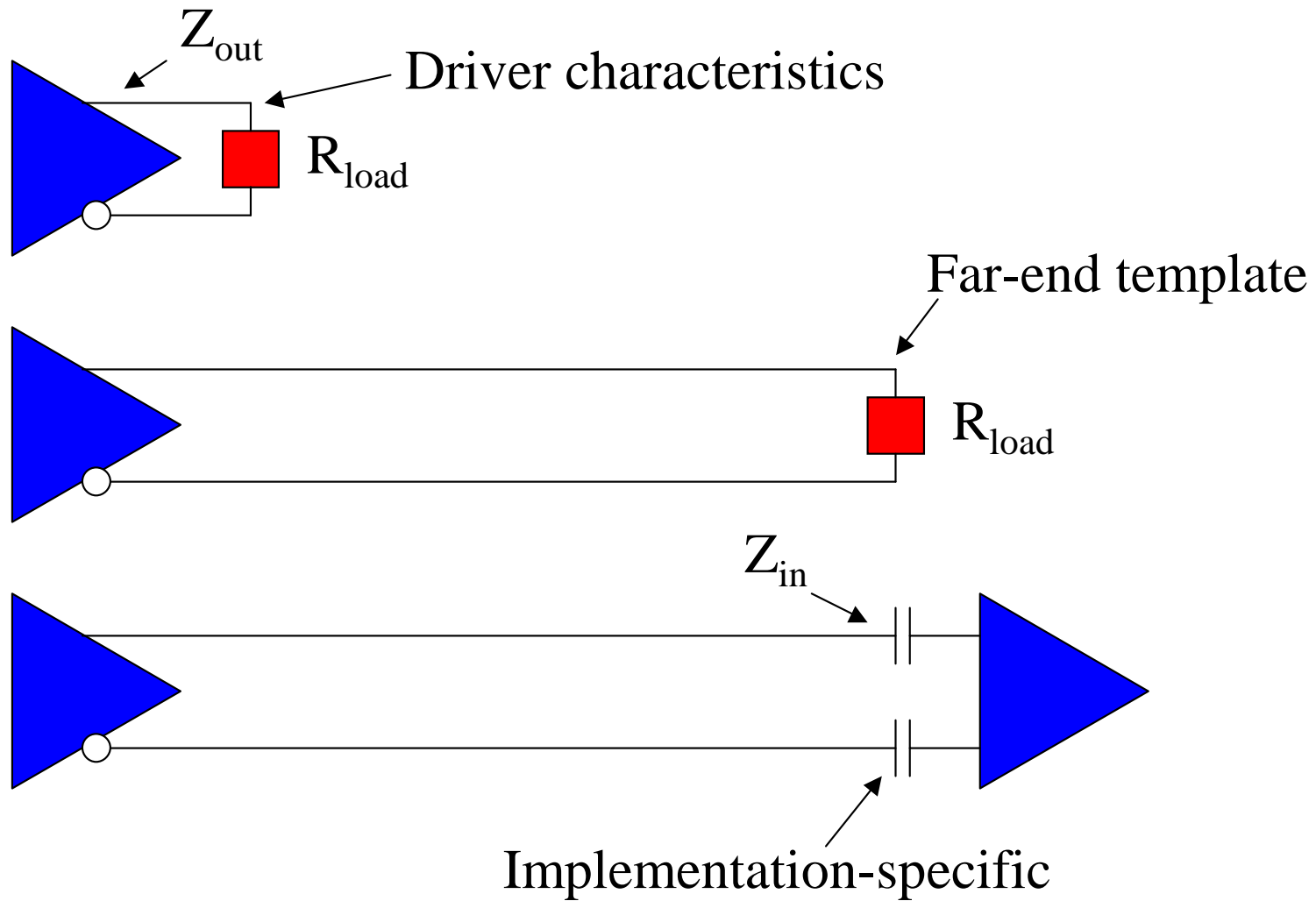Goal of this week is to prepare for Task Force Ballot!

Brad:

- Must resolve electrical interfaces and specs this week

- Must develop roadmap to close on jitter by March

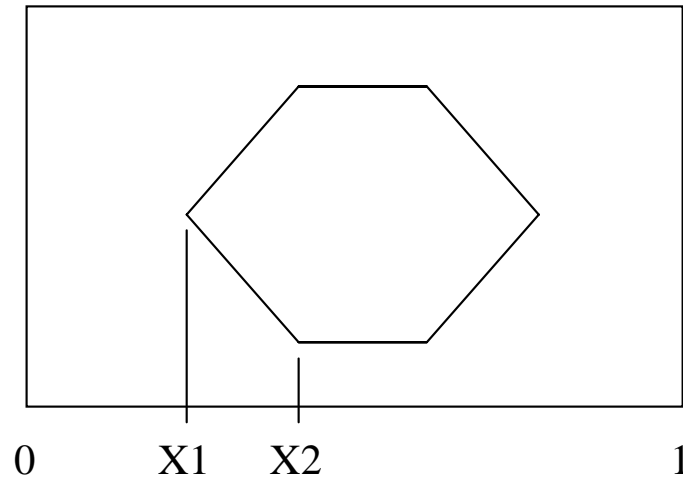- Must develop roadmap to close compliance and testing

Electrical Issues

- ## Receive eye (Jeff, Shawn)
  - Approve complete eye definition

- ## Transmit amplitude (Ali, Richard)
  - Agree on (and approve) min and max amplitudes

- ## **Compliance channel** (Dawson)
  - Agree to method
  - Enlist volunteers to make measurements

- ## **Jitter specification** (Tord)
  - Form XAUI jitter ad hoc to parallel optical jitter ad hoc

- ## Common mode specifications (Dawson)
  - Agree on (and approve)

- ## PICS
  - Don't need until Draft 2

Compliance Points

Z_{out}

Driver characteristics

R_{load}

Far-end template

R_{load}

Z_{in}

Implementation-specific

Receive eye

0   X1   X2   1

Driver spec's

- Min amplitude
  - Loss budget (Ali)
  - Simulations (Richard)
- Max amplitude

Compliance channel

- Measured data
- Specification method
- Compliance limits

Jitter specification

- Transmit output and Receive tolerance
  - Low frequency jitter
  - Loop bandwidth
  - Sinusoidal jitter tolerance validity
  - CMR, PSRR
  - Compliance test method
- Form focus group
  - Identify leader
  - Enlist participants
  - Coordinate with PMD Jitter ad hoc

Common mode spec's

- AC CM spec to replace skew spec
  - Jitter is spec'ed already, without skew
  - EMI is more fully described by CM
  - Fibre Channel and InifiniBand spec's

- DC CM spec at driver
  - Limit AC coupling isolation
  - Allow DC coupled design

- CM impedance match
  - Driver, receiver, PCB (channel)

PICS

- Will not discuss in Tampa
- Less critical than technical content
- Needed for Draft 2