IEEE P802.3cn Task Force:
50 Gb/s, 100 Gb/s, 200 Gb/s, and 400 Gb/s over Single-Mode Fiber and DWDM

80km Objectives Progress

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Intro

- The following presentation provides summary of motions / straw polls from November.

- Reference Stassar_3cn_02a_1118 for high level decisions

Per stassar_3cn_02a_1118

High Level Decisions

- **What is the reference model for the link?**
  - Purely 80 km? Is it using the same model as in OIF for 400ZR?
  - Loss assumption? 0.25 dB/km? Amplified and unamplified?
- **Number of channels and spacing?**
  - 40 Channels? 75 GHz or 100GHz or both?
  - C-band, L-band or both?
- **What is the modulation format?**
  - DP-DQPSK for 100G? DP-16QAM for 400G?
- **What are the frame assumptions?**
  - 400G – Same as OIF? 400ZR frame, GMP, CFEC, 20ppm?
  - 100G – Similar choices to 400G? FEC?
- **Then before being able to take decisions on OSNR values, we need to agree on a metric to specify the quality of the transmitter.**

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Motion Summary

#8	**I support adopting DP-16QAM modulation format for the 400 GbE 80km objective**	Y: 65 N: 0 A: 7
#9	**I support adopting the FEC proposal made in lyubomirsky_3cn_02a_1118 (CFEC) for 400GbE 80km Objective**	Y: 51 N: 0 A: 15

Strawpoll Summary

#6	For the 400 GbE 80km objective - I would support the black link approach, noted in lyubomirsky_3cn_02a_1118 and defined in stassar_b10k_01_0318	Y: 55 N: 0 Need More Info: 3 A: 4
#7	For the 400 GbE – 80km objective I would support the following channel spacing (Chicago rules)	75 GHz: 0 100 GHz: 51 Need More Info: 4 A: 9
#8	For 100 GbE 80km objectives I would support the following channel spacing (Chicago rules)	50 GHz: 6 75 GHz: 0 100 GHz: 37 Need More Info: 11 A: 9
#11	I would support the frame assumptions made in lyubomirsky_3cn_02a_1118 (400ZR Frame, GMP, 20ppm, DSP Frame) for 400GbE 80km Objective	Y: 38 N: 0 Need More Info: 7 A: 9

High Level Decisions

	100GbE	400 GbE
Channel Model	?	?
# of Channels	?	?
Channel Spacing	100 GHz?	100 GHz?
Modulation Format	?	**DP-16QAM**
Frame Assumption	?	400ZR Frame, GMP, 20ppm, DSP Frame?
FEC	?	**CFEC**
Tx Metric	?	**?**