BR20 power budget (redux)

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Introduction

- Power budget for BR10 is baselined
- Power budget for BR40 is mature (expect adoption this meeting)
- This leaves BR20 to be determined

BR20 loss budget

- As previously presented, defining the BR20 loss range to be 0 to 10 dB has two nice properties
  - It coincides with the ITU-T G.9806 Amd. 3 B_{lower} budget
  - It shares a loss model with BR10 and BR40, such that the maximum link loss is given by the formula MaxLoss = 2 + 0.4 * Reach
- This proposal had some support at the Jan meeting
  - Straw poll showed 5 agree, 0 disagree, 2 need more information

Motion X

- Move to define the BR20 loss range to be 0 to 10 dB

- M: Frank Effenberger
  S:
  (Technical >=75%)
  Results: Y: / N: / A:

BR20 optical specifications

- As presented before, it would be useful if the S_{lower} and S_{upper} budgets could be achieved with the same receiver, as it enables a module that supports both (Tx power would have two modes)

- This is very possible if we base the BR20 on the BR40 receiver
  - Using this, S_{lower} Tx OMA > -2.3 dBm, and S_{upper} OMA > 2.7 dBm
- For this reason, using the BR40 Rx table as a basis is preferred

Proposed BR20 power budget values

Description	100GBASE-BR20	Unit
Average launch power MAX	-0.2	dBm
Average launch power MIN	-5.3	dBm
OMA MAX	0.0	dBm
OMA MIN (TDEC<=1.4 dB)	-2.3	dBm
Average receive power MAX	-0.2	dBm
Average receive power MIN	-15.3	dBm
Receiver OMA MIN	-12.8	dBm
Receive OMA MAX	0.0	dBm
Receiver damage threshold	1.0	dBm

Motion X+1

- Move to define the BR20 receiver parameters to be the same as BR40, and the transmitter levels 8 dB less than BR40

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  Results: Y: / N: / A:

Thank you

Any questions?