



# *Transmitter Specification Relaxation*

*Supporting material for comments related to TWDP, Extinction Ratio, and Eye Mask*

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# Summary

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- Description: 10.3125 Gbps waveforms were captured for an off-the-shelf 1310nm TOSA that is nominally rated for 4 Gbps operation
- Results:
  - A passing eye diagram with a “reasonable” TWDP value is obtained for higher OMA and lower extinction ratio (see next slide)
  - The lowest TWDP does not correspond to the best eye diagram
- Observations:
  - There is no apparent reason for the extinction ratio specification; maximum peak power, minimum OMA, and maximum average power are already specified
    - By the way, 10GBASE-SR uses 3 dB as minimum ER, and there is no apparent justification for LRM to be higher
  - A relaxation of the TWDP specification and elimination or relaxation of the extinction ratio specification would facilitate low cost transceiver design

# 4G 1310nm TOSA Results

