Transmit Specification Discussion based on Receiver Performance

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Background

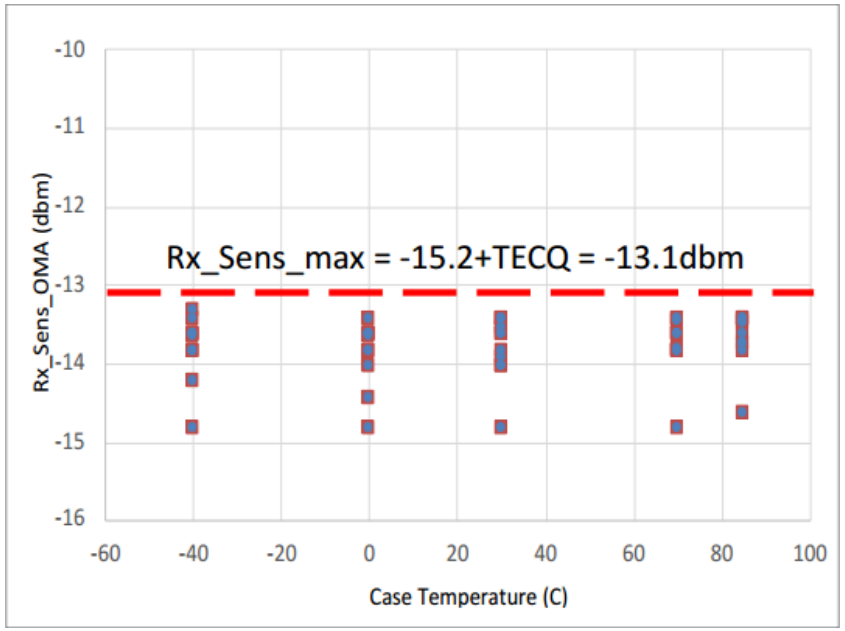
- One new “Outer Optical Modulation Amplitude” and “Receiver sensitivity” specification proposal was discussed on last meeting.
- The comparison as shown below:

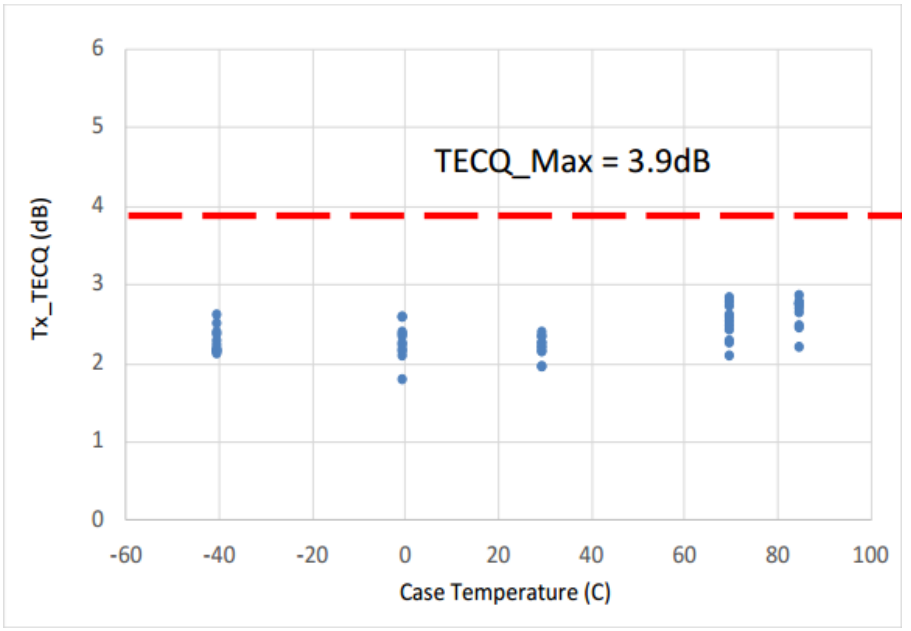
Parameters Description	Baseline	Proposal on April meeting	Unit
Outer Optical Modulation Amplitude (OMAouter) (min):			
for TDECQ < 1.4 dB	5.7	4.7	dBm
for 1.4 dB ≦TDECQ ≦ 3.9 dB or TDECQ (max)	4.3 + TDECQ	3.3 + TDECQ	
Receiver sensitivity(OMAouter)(max)			
for TECQ < 1.4 dB	-12.8	-13.8	dBm
for 1.4 dB ≦TECQ ≦ 3.9 dB or TDECQ (max)	-14.2 + TECQ	-15.2 + TECQ	

Motivation and data support

- Receiver performance have the margin to support the “April proposal”.
- Transfer 1dB stress to receiver side, then EML supply chain will have more opportunities to meet the specification.

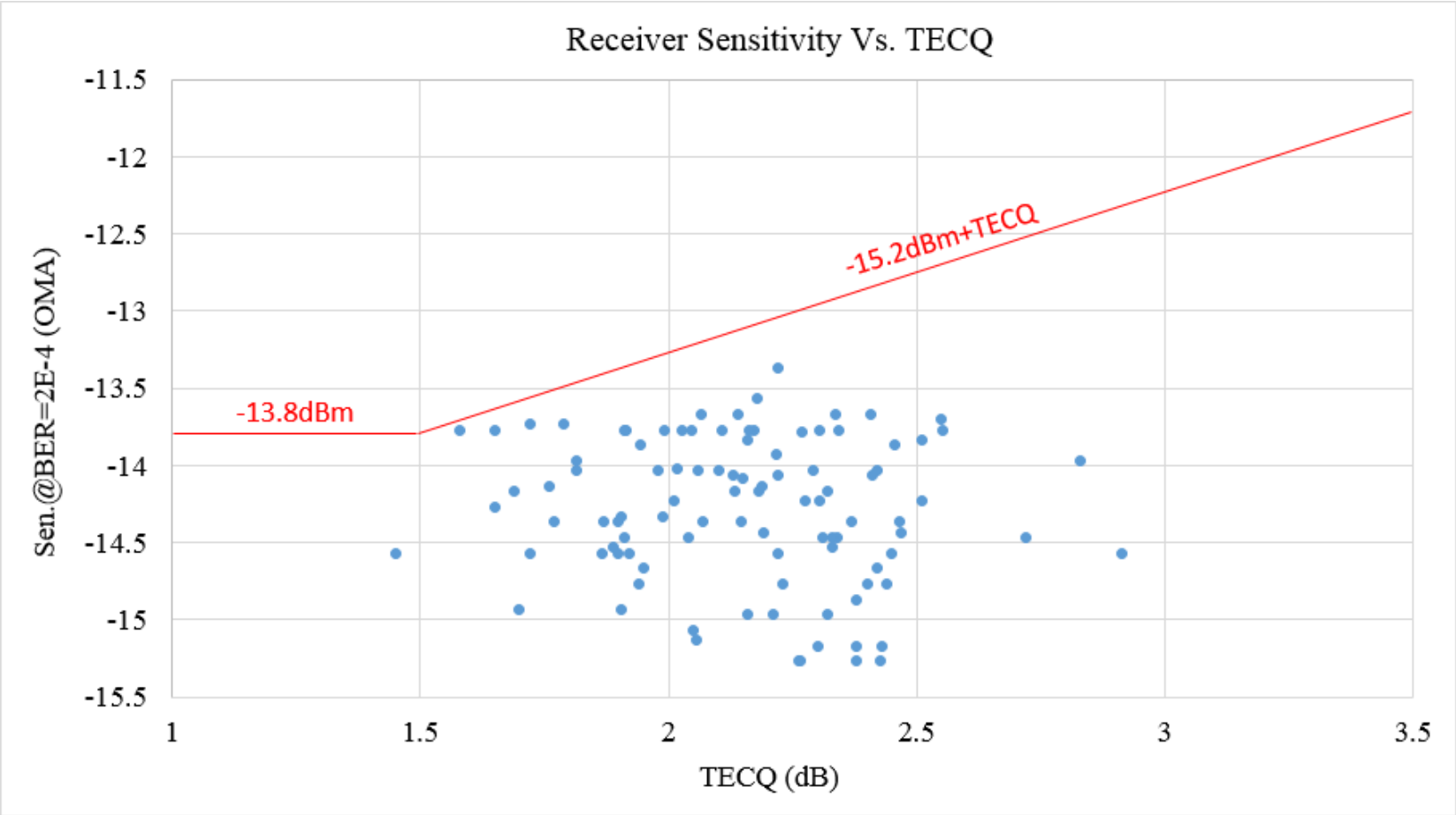
➢ Some testing results have been shown to support the “April proposal”.





➢ More testing data on different TECQ condition was expected to support the “April proposal”.

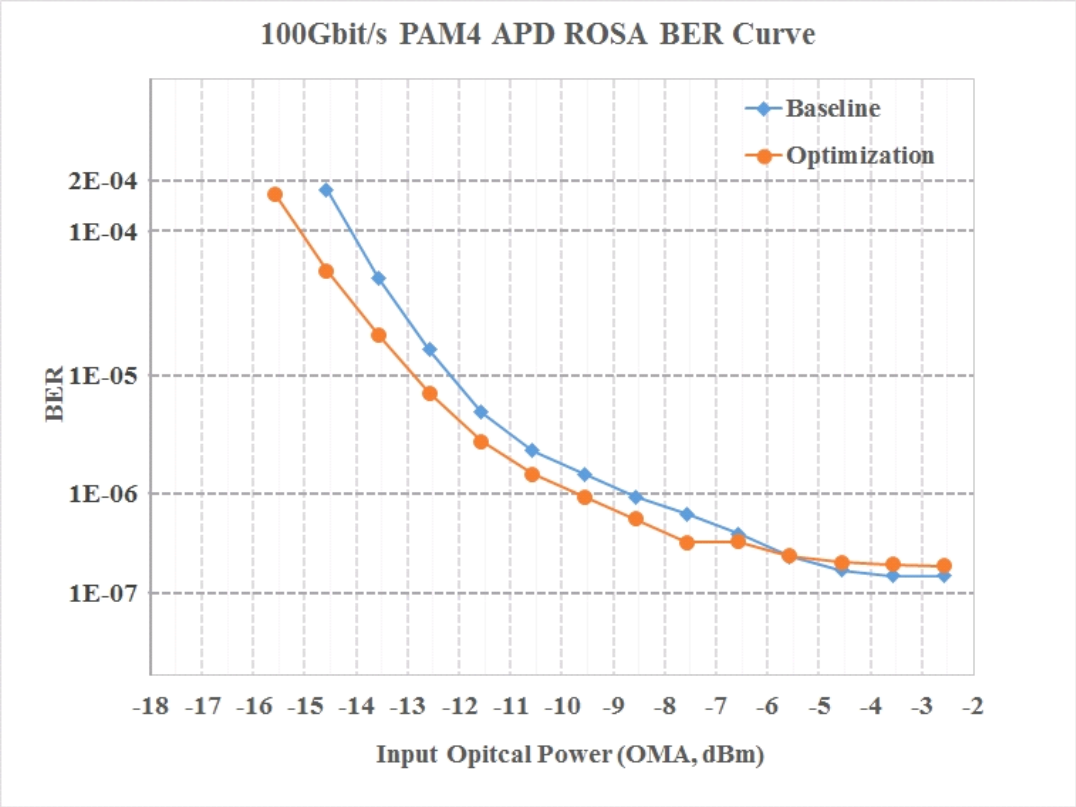
Testing data on different TECQ condition

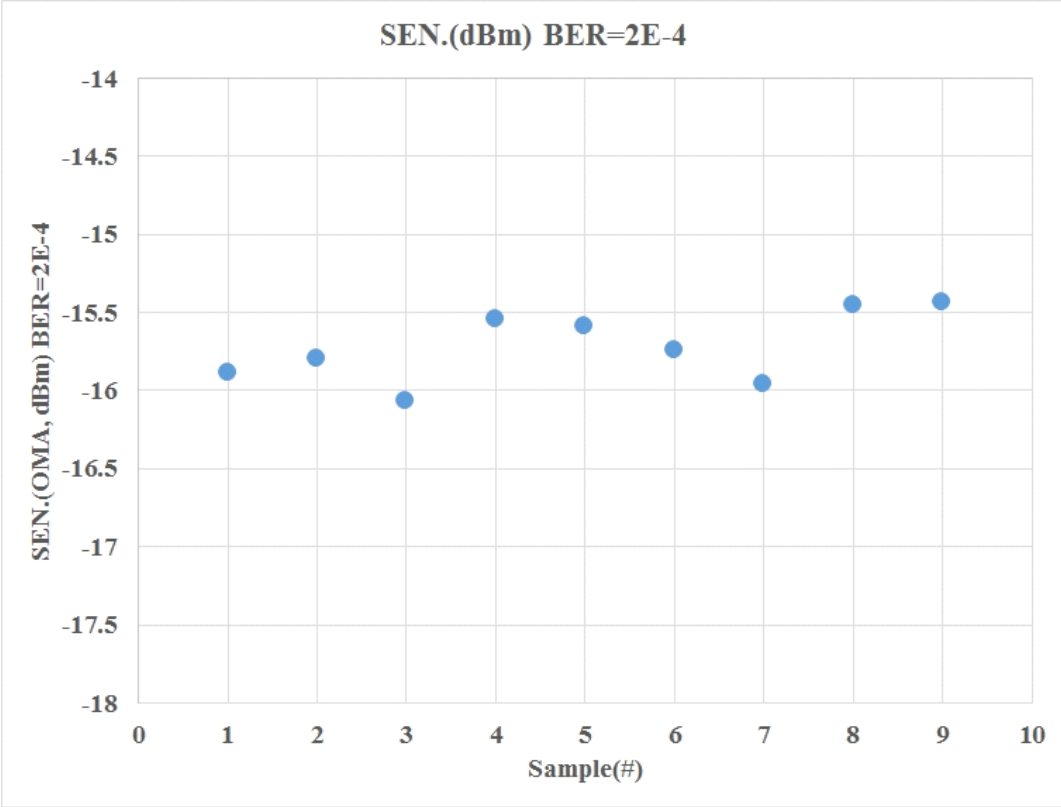


- 100pcs samples.

Further optimization is on going

- Continuous improvement bring more margin.
- ROSA level testing results as shown below.
- Blue line in the left figure refers to the receiver performance in page 3 and page 4.
- New optimized APD chip shows ~1dB improvement (orange line in left figure, and 10 samples batch results on right figure).





Thanks