Task1: comparison of PIE-D metrics for OM1 Monte Carlo sets Gen54,Gen67

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Summary

The 2nd iteration OM1 Monte Carlo set (Gen67) was presented at the Nov. San Antonio meeting, and addresses observations about the 1st iteration (Gen54) set at the Sept. Ottawa meeting. The 2nd iteration better matches both OFL distribution data from manufacturers as well as DMD slope data from manufacturers.

The procedure which has been used to generate the OM1 Monte Carlo distribution is essentially the same as the TIA OM3 Monte Carlo distribution during the development of the OM3 spec. The difference is that the IEEE OM1 Monte Carlo distributions have been compared much more rigorously to actual data and the purpose of the model requires the two agree.

Modeling using the OM1 Monte Carlo sets

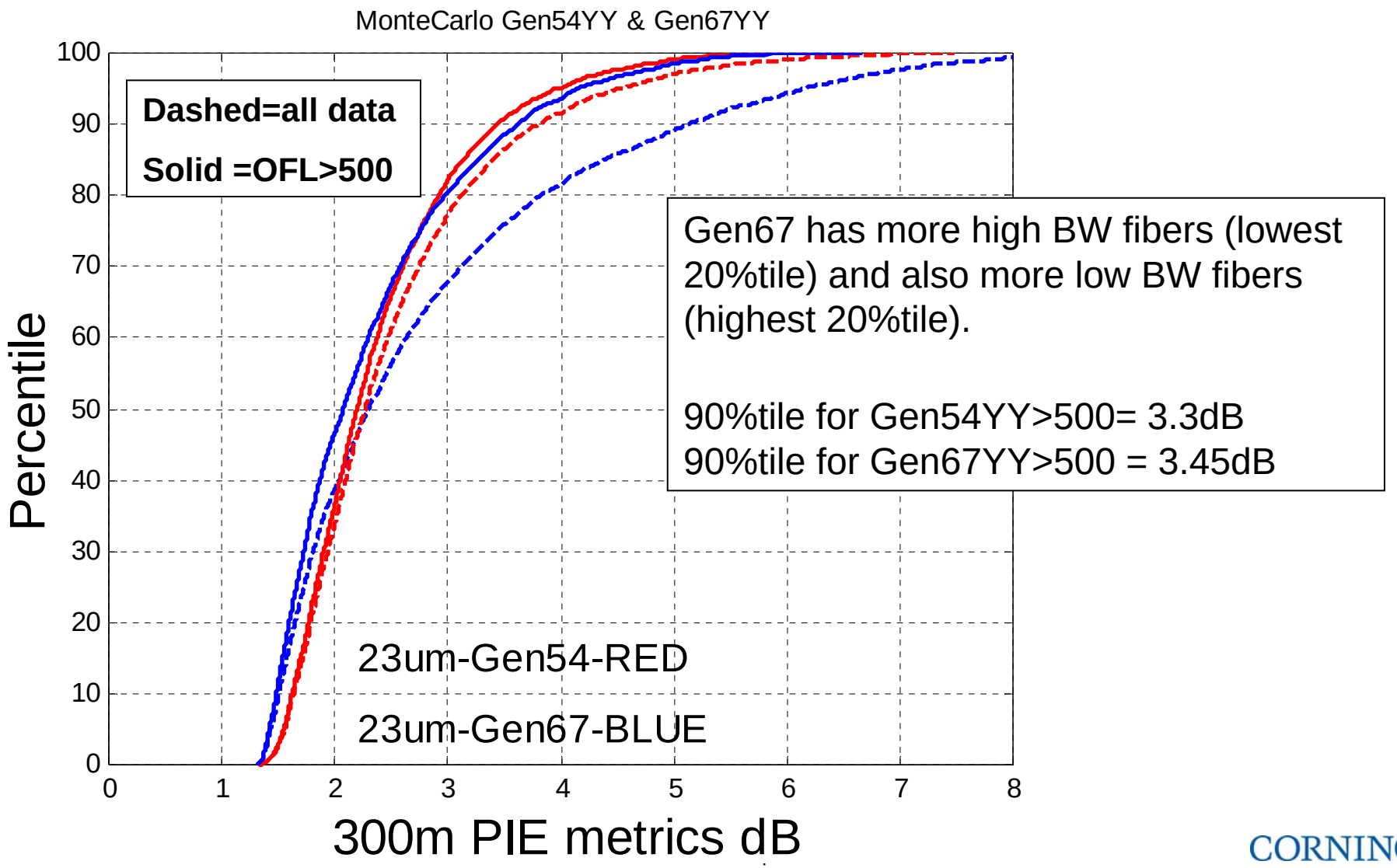
Both the Gen54 and Gen67 data sets include a “full” manufacturing distribution, including fibers which do not meet the OM1 spec of 500MHz.km at 1300nm [similarly, the OM3 Monte Carlo set has fibers which do not meet one or both of the 850 and 1300 OFL BW specs]

For purposes of simulating the installed base, the user needs to calculate the OFL BW1300 for the 5000 fibers and then exclude those fibers with OFL BW1300<500, under the assumption that these were sold as non-FDDI grade fibers and do not apply to the 802.3aq work.

This table can be supplied in the same *.zip file with the Gen67 set to expedite modeling work.

1a. Corning Results

PIE-D at 300 m for Gen54YY & Gen67YY offset of 23 μm



Gen67 has more high BW fibers (lowest 20%tile) and also more low BW fibers (highest 20%tile).

90%tile for Gen54YY>500= 3.3dB
90%tile for Gen67YY>500 = 3.45dB

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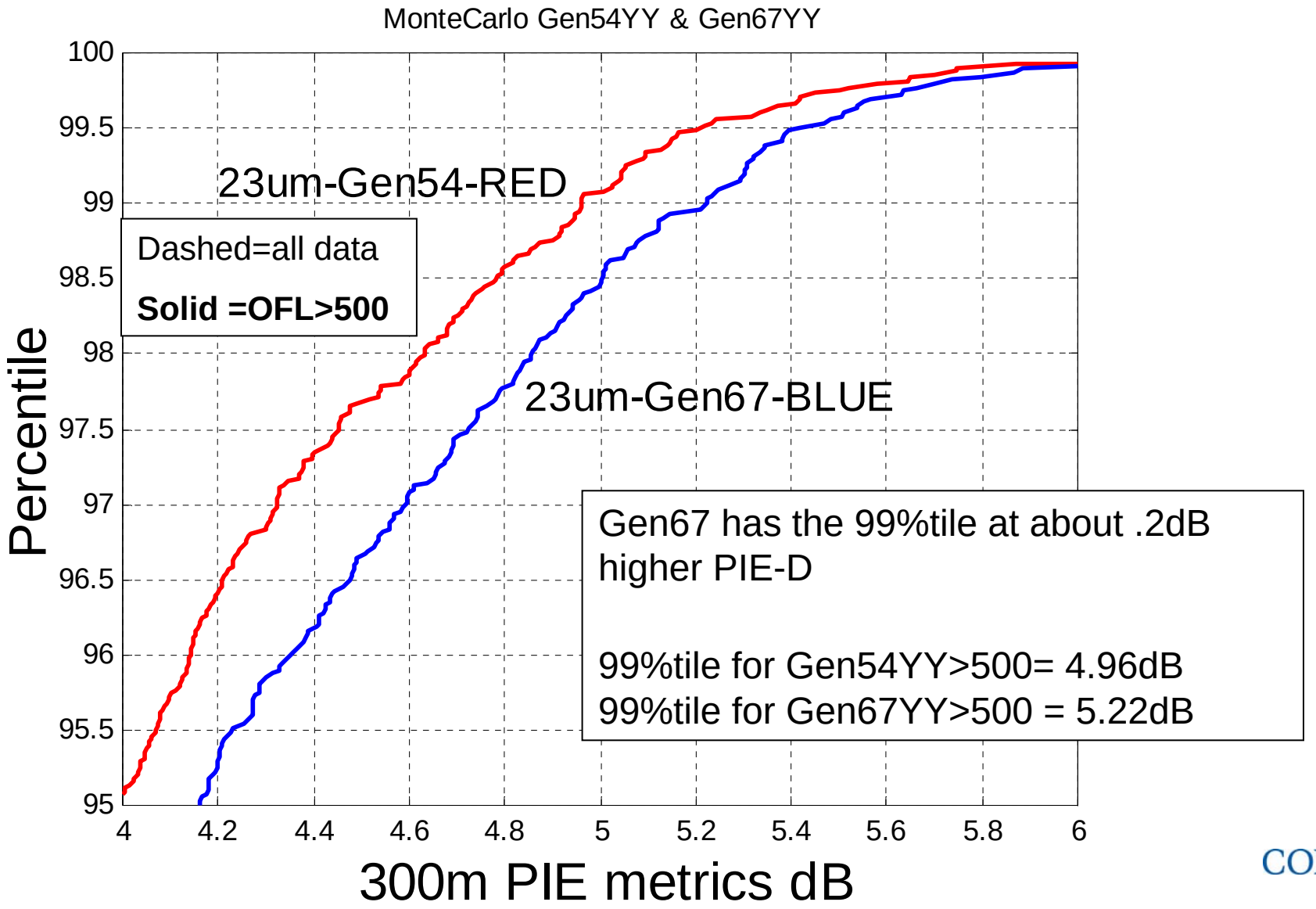
1b. Corning Results

PIE-D at 300 m for Gen54YY & Gen67YY offset of 23 μm



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