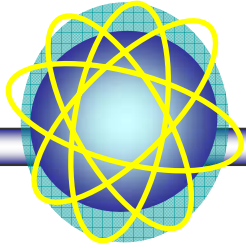




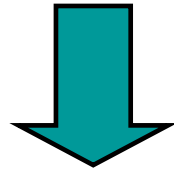
100Gb/s DQPSK Transmission on SMF

Noriyuki Takeda and Itsuro Morita
KDDI R&D Laboratories Inc.

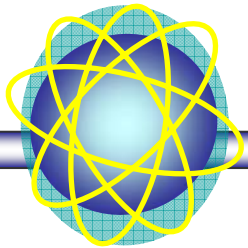


Marcus Duelk and Peter Winzer, Duelk_01_1106.pdf

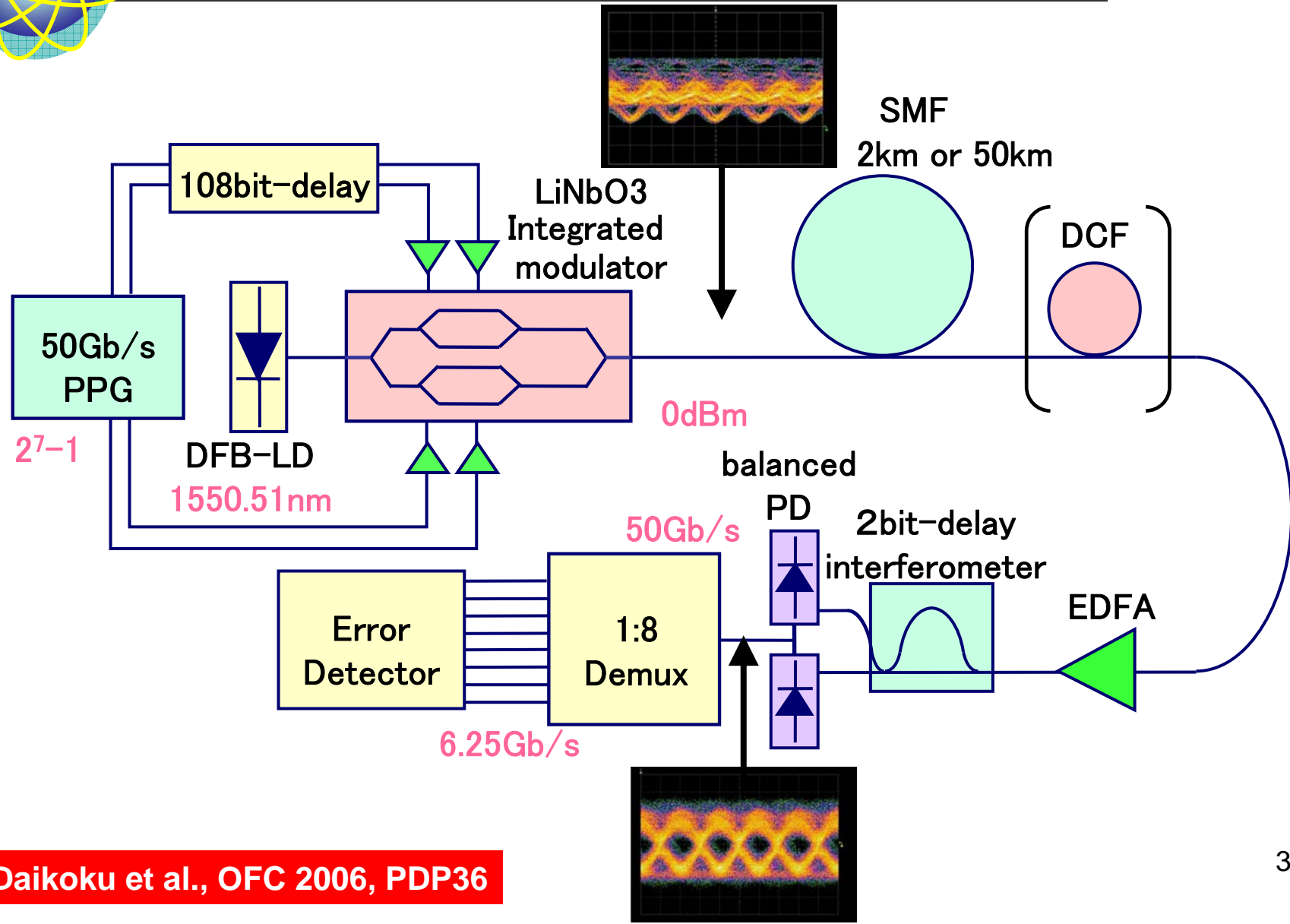
- 107 Gb/s DQPSK ULH WDM transmission
 - RZ-DQPSK
 - Repeated transmission over 2000km

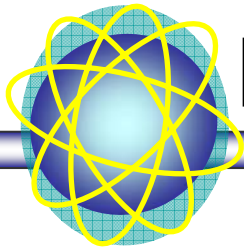


100 Gb/s DQPSK transmission on ~50km SMF ?
- Without RZ carving for simpler configuration



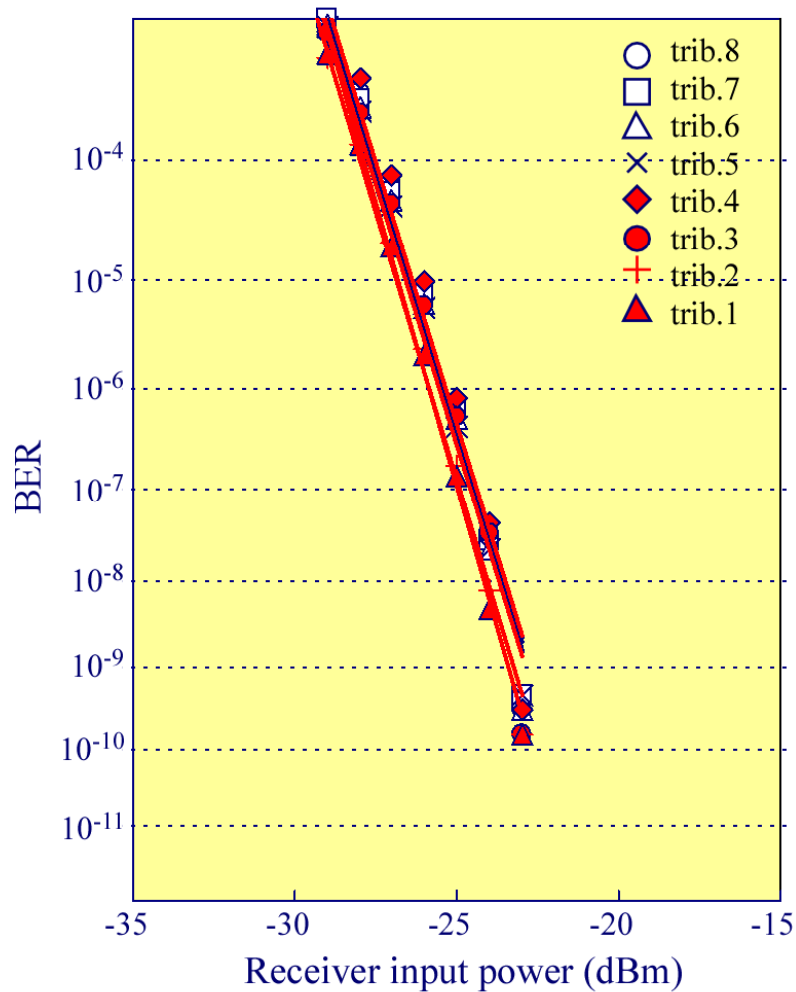
Experimental setup



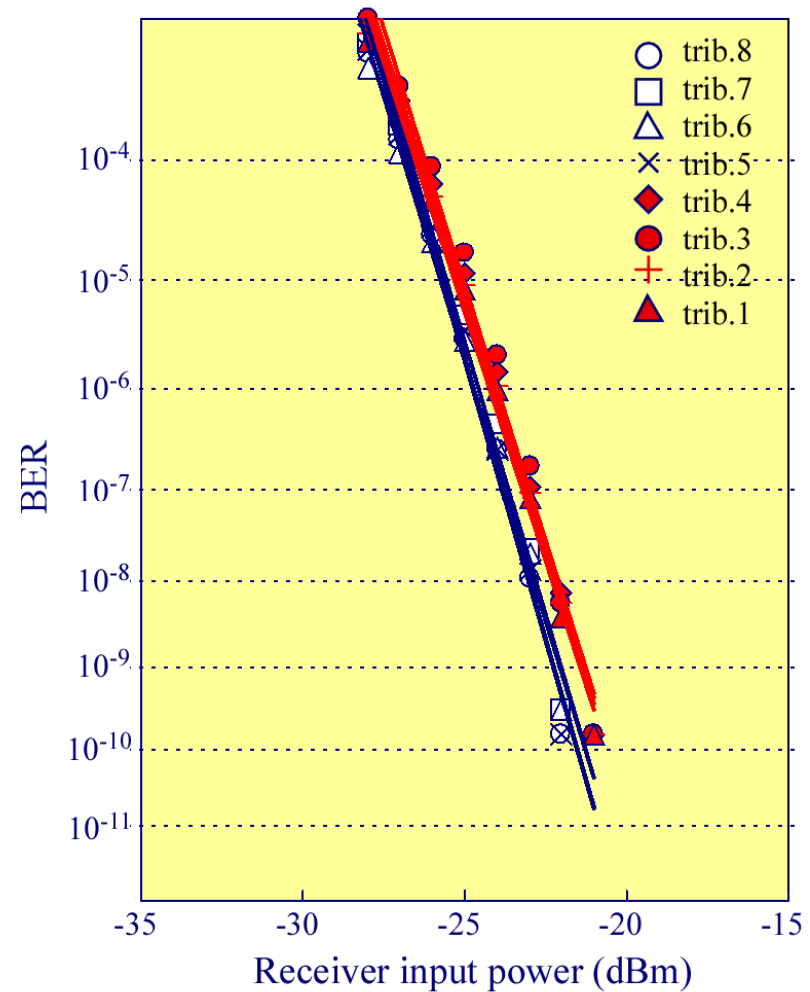


Back-to-back BER performance

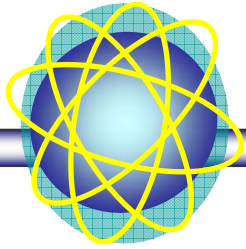
M. Daikoku et al., OFC 2006, PDP36



I arm

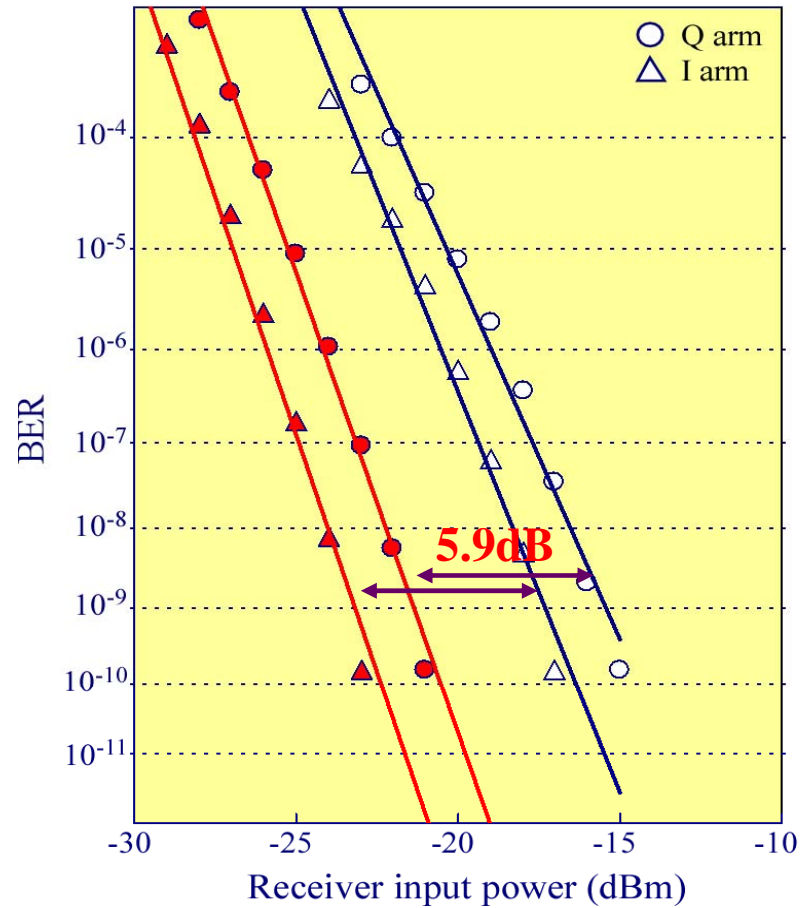
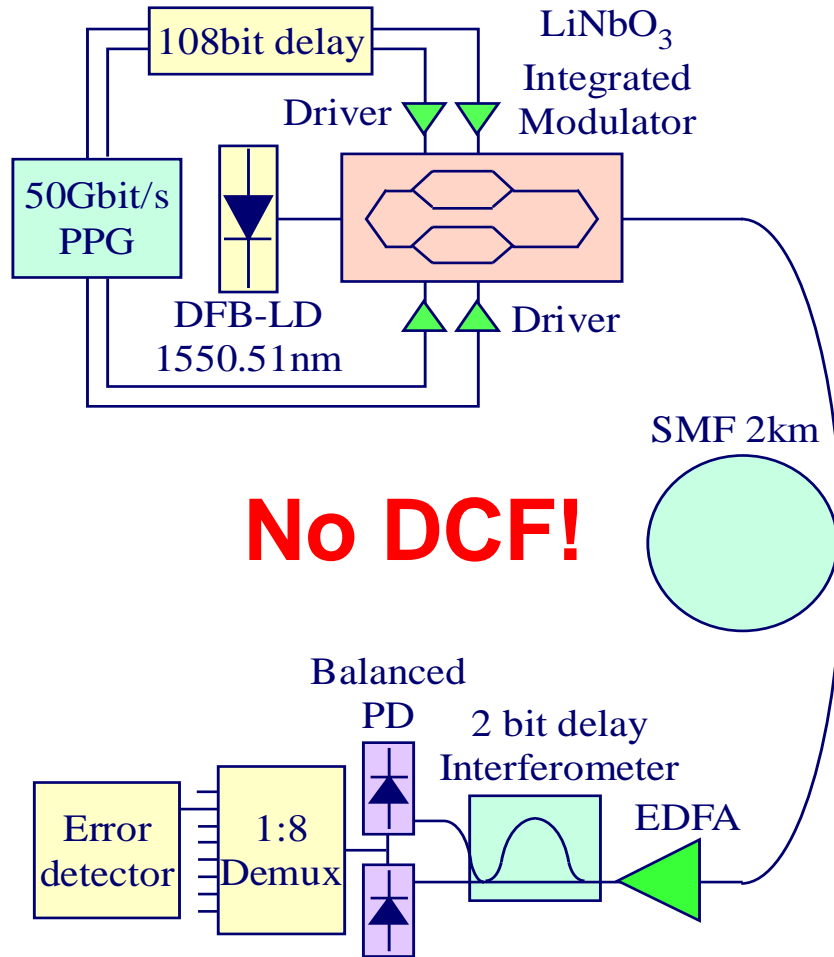


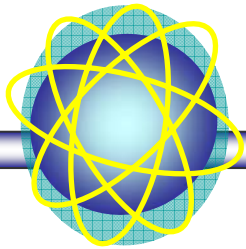
Q arm



2km SMF transmission

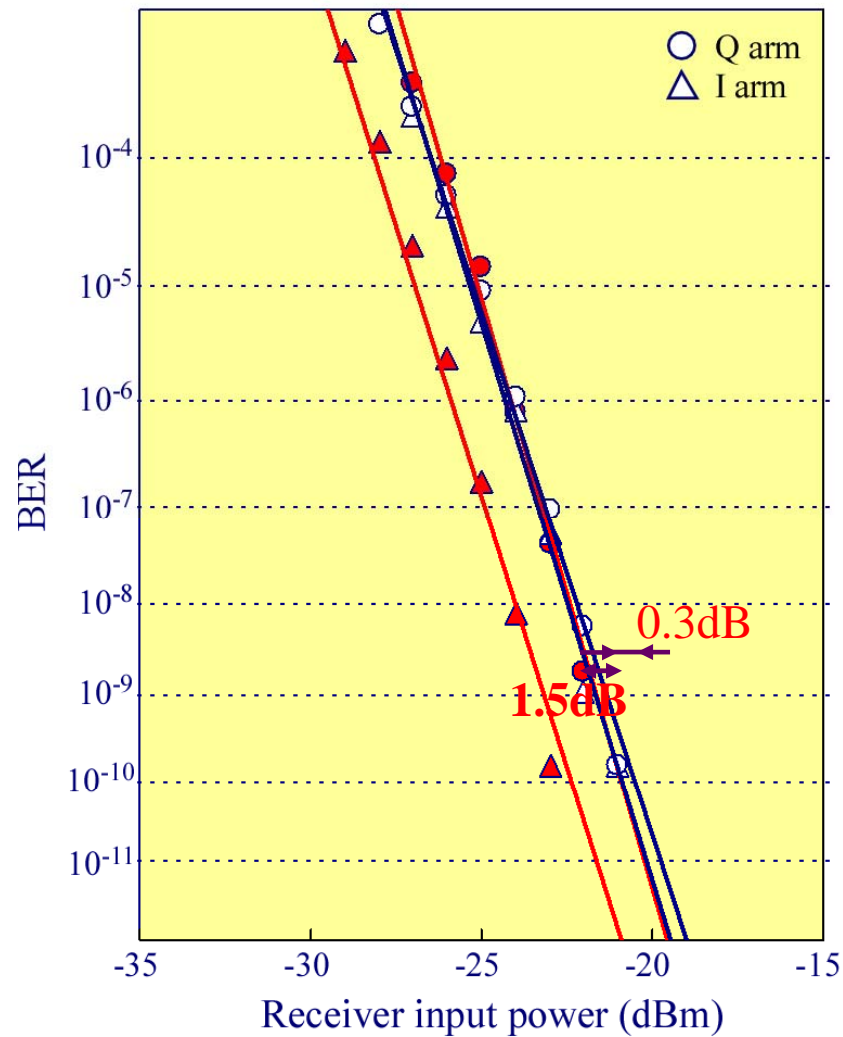
M. Daikoku et al., OFC 2006, PDP36



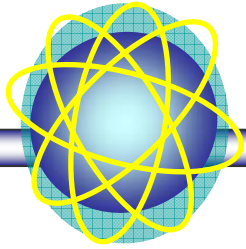


50km SMF transmission

M. Daikoku et al., OFC 2006, PDP36



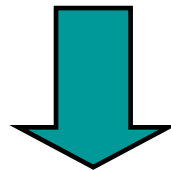
with DCF



Conclusions

100Gb/s DQPSK transmission on SMF
without RZ carving

- 2km transmission without DCF
- 50km transmission with DCF



**DQPSK format is one of the candidates
for 100 Gb/s transmission on 10km SMF**