

# Reach (Technical) Feasibility of 100GE Alternatives

SMF	10km 1310nm	40km 1310nm	10km 1550nm	40km 1550nm
10x10G DML	yes + CL	yes + CL + OA	yes	maybe + OA
10x10G ML	yes + CL	yes + CL + OA	yes	yes + OA
5x20G / 4x25G DML	yes	maybe + OA	maybe	maybe + DC
5x20G / 4x25G ML	yes	yes + OA	yes	yes + DC
2x50G DQPSK I/Q ML	yes + CL	yes + CL + OA + DC	yes + CL + DC	yes + CL + OA + DC
1x100G TDM ML	yes + CL + OA	yes + CL + OA + DC	yes + CL + OA + DC	yes + CL + OA + DC

CL = Cooling (or semi-cooling,) OA = Optical Amplification, DC = Dispersion Compensation

Green shading designates alternatives under detailed study by Fiber Optic Ad Hoc contributors