



Link Cost Analyses: PSM4, LR4, and SR10

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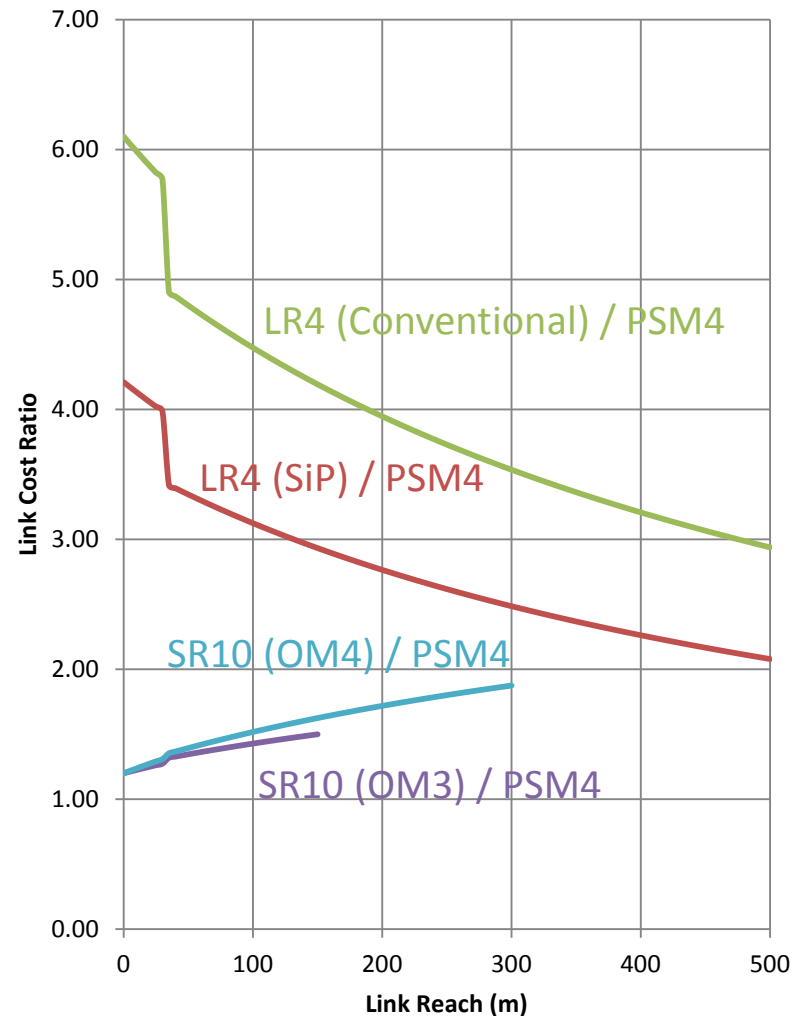
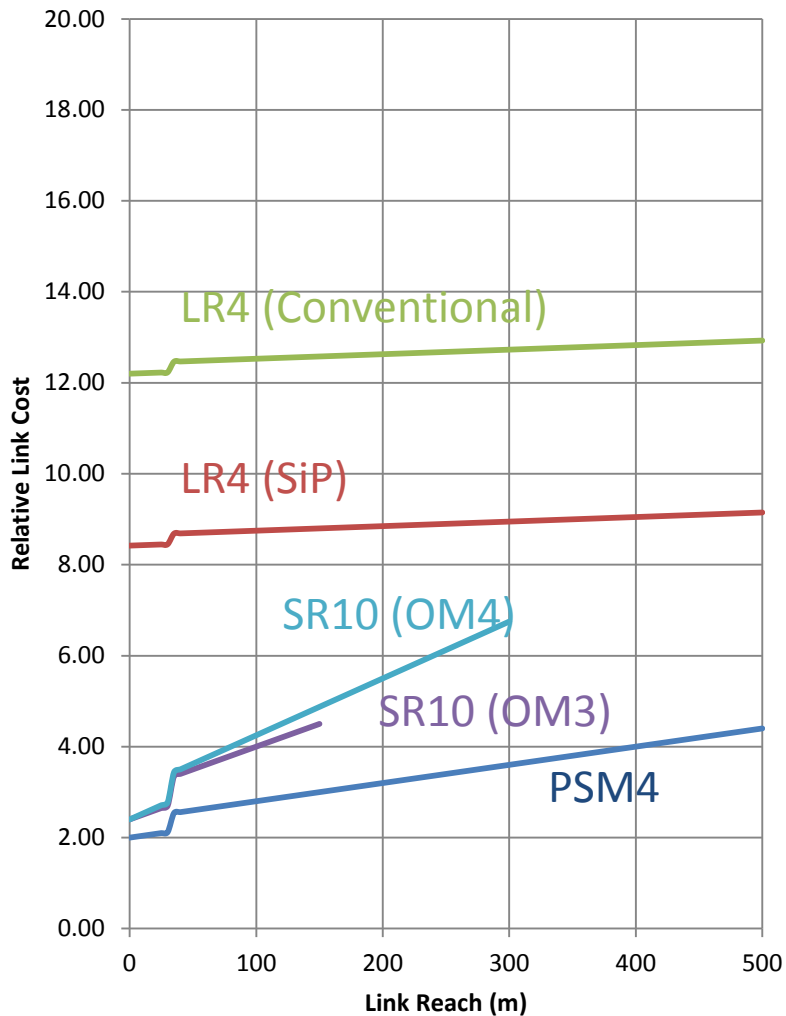
Full Link Cost

- Using module cost comparison from welch_01b_0113_optx, models full link costs.
- Compares PSM4, LR4 (using Silicon Photonics and conventional technologies) and SR10 (using both OM3 and OM4) link costs.
- Assumes links 30m or less are point to point (no patch panels)
- Above 30m assumes the fiber plant configurations show in kolesar_01_0213_smf
- Three Skews: Nominal Module + Fiber, Nominal Module + High Fiber (+50%) , High Module (+50%) + Nominal Fiber

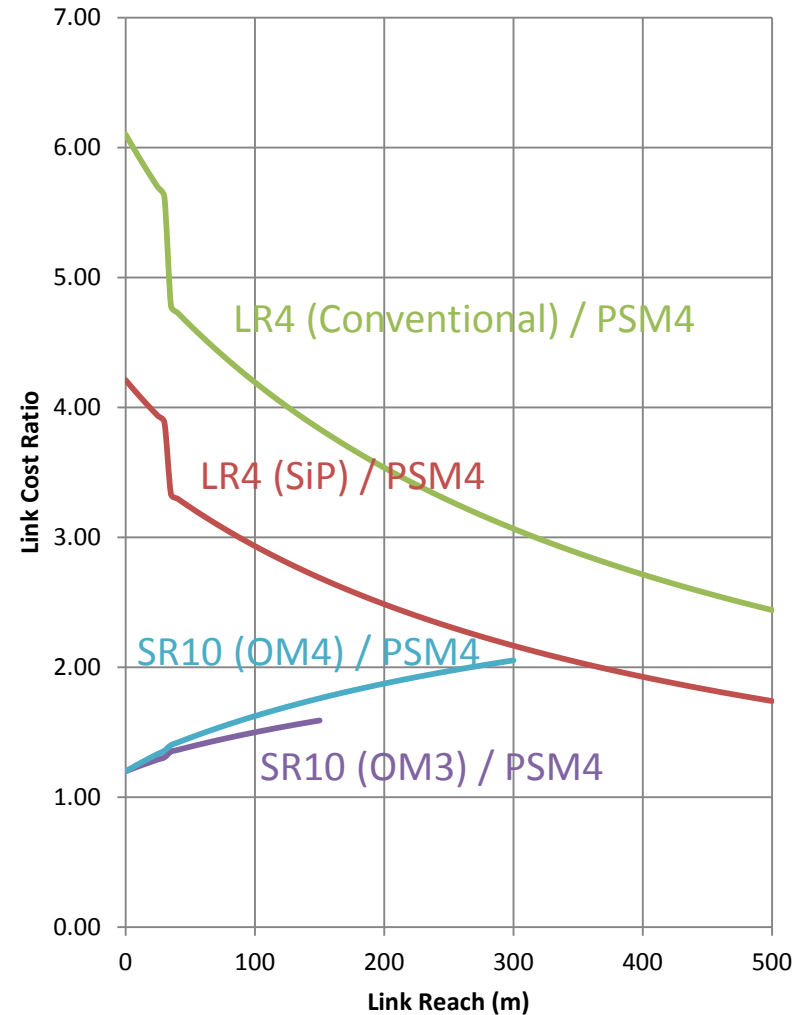
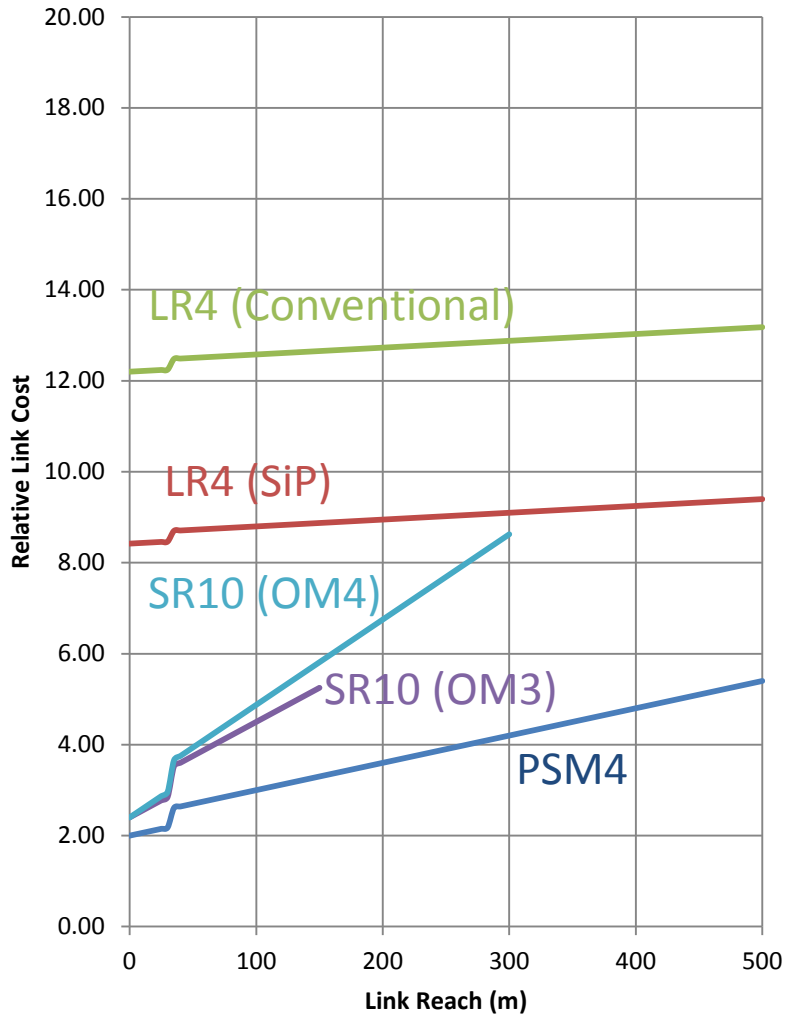
From welch_01b_0113_optx	Module Cost (Mean)†	Renormalized
PSM4	1.17	1
LR4 (Silicon Photonics)	4.93	4.21
LR4 (Conventional)	7.1	6.07
SR10	1.42	1.21

† Assumes all solutions at a mature cost point.

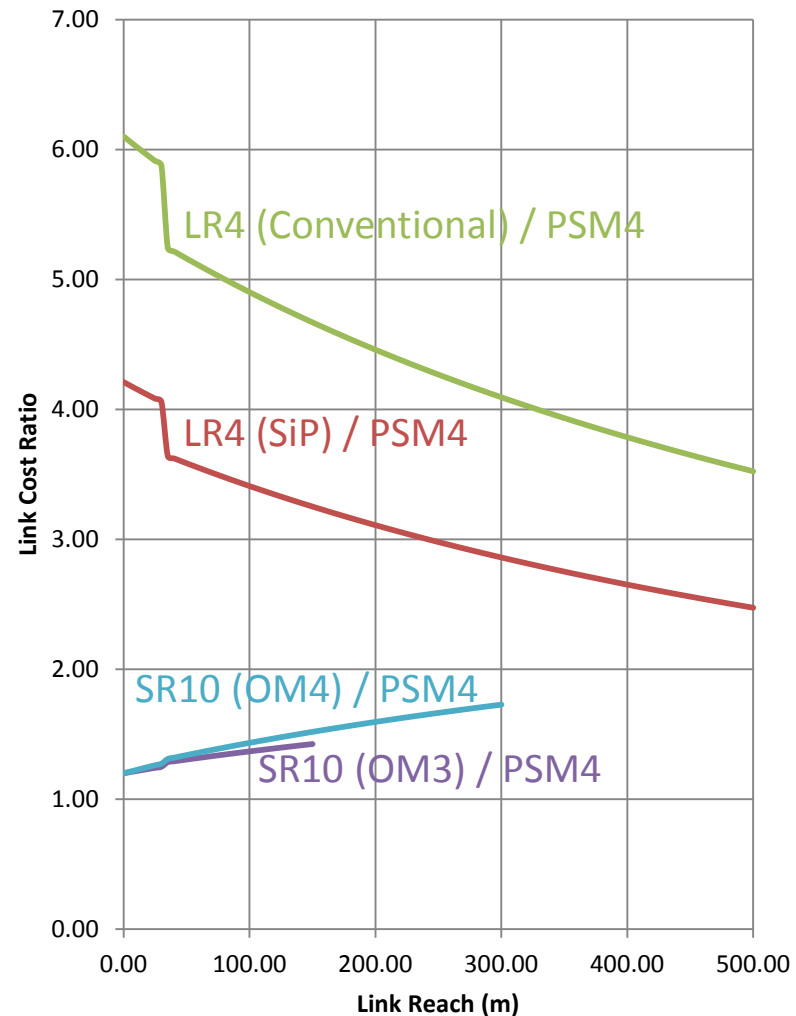
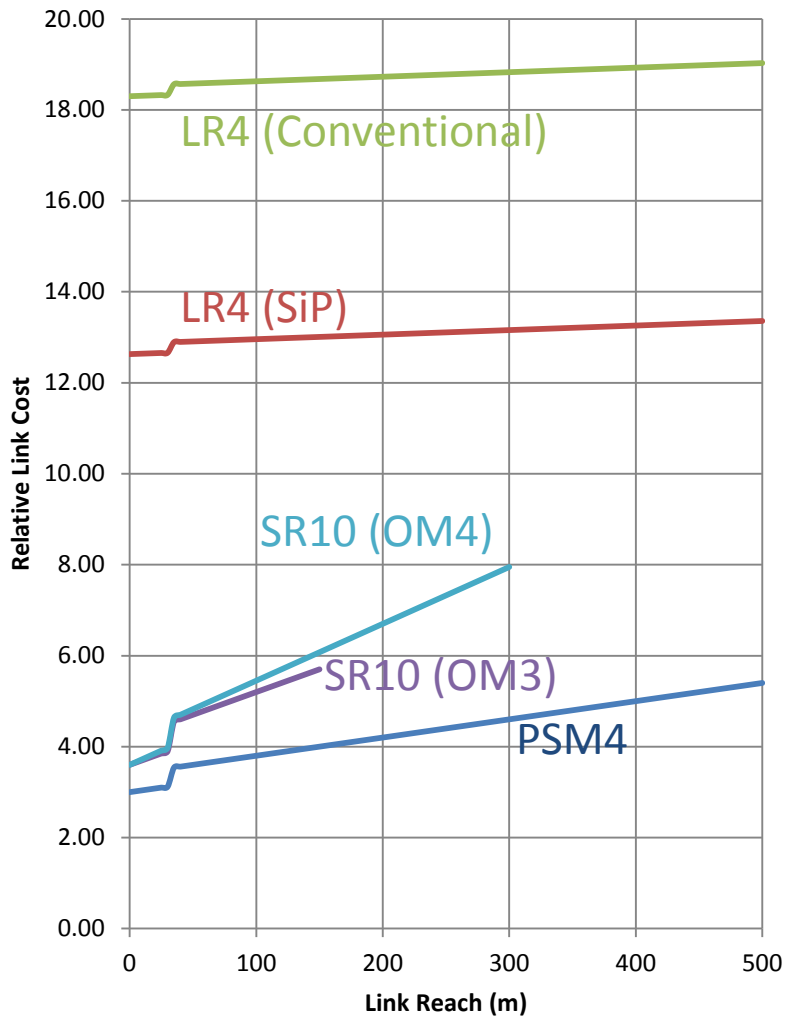
Nominal Module + Nominal Fiber



Nominal Module + High Fiber



High Module + Nominal Fiber



Link Cost Ratios

150 m	Module (Nom) + Fiber (Nom)	Module (Nom) + Fiber (High)	Module (High) + Fiber (Nom)
LR4 (Conventional) / PSM4	4.3	3.8	4.7
LR4 (SiP) / PSM4	2.9	2.7	3.3
SR10 (OM4) / PSM4	1.63	1.76	1.5
SR10 (OM3) / PSM4	1.5	1.59	1.4
300 m	Module (Nom) + Fiber (Nom)	Module (Nom) + Fiber (High)	Module (High) + Fiber (Nom)
LR4 (Conventional) / PSM4	3.5	3.1	4.1
LR4 (SiP) / PSM4	2.5	2.2	2.9
SR10 (OM4) / PSM4	1.9	2.1	1.7
500 m	Module (Nom) + Fiber (Nom)	Module (Nom) + Fiber (High)	Module (High) + Fiber (Nom)
LR4 (Conventional) / PSM4	2.9	2.4	3.5
LR4 (SiP) / PSM4	2.1	1.7	2.5