40GE 10km SMF PMD
Gen1 Serial Cost Analysis

IEEE 802.3ba Task Force

16-19 September 2008

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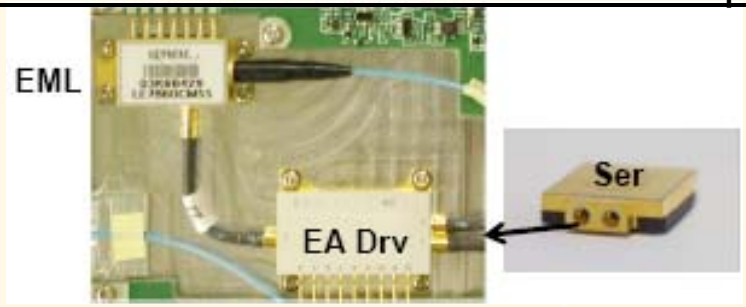
Gen1 40GE-Serial cost analysis

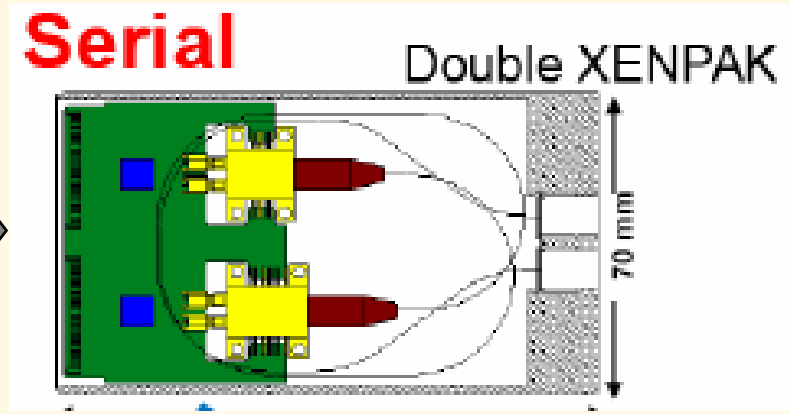
2008 OC-768 VSR 40G Serial 300-pin



OC-768 TX , mori_01_0908, p.10

OC-768 RX

2010 Gen1 40GE-LR, mori_01_0908, p.19



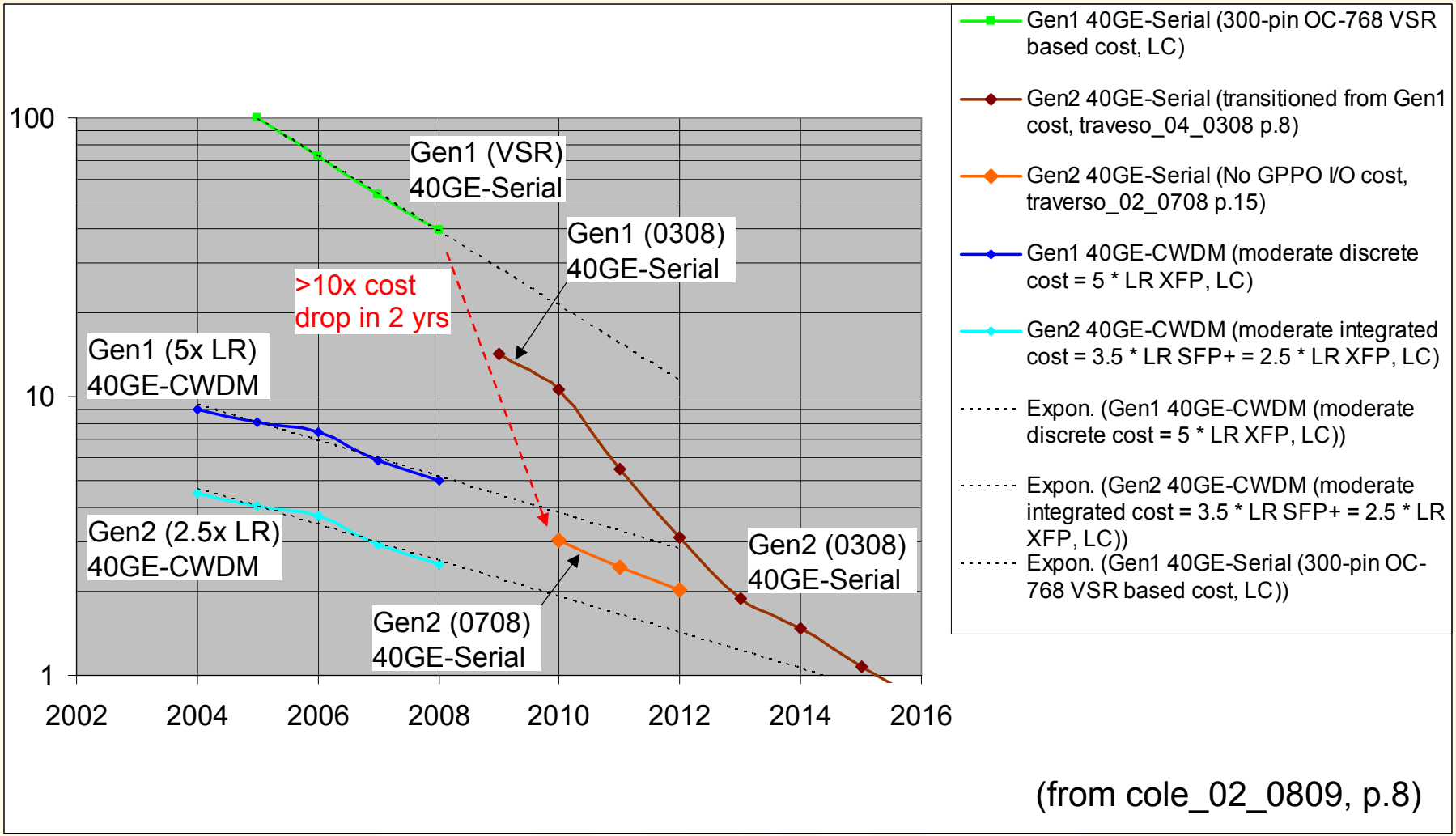
Component	2008 OC-768 VSR	Projected Cost Reduction	2010 Gen1 40GE-LR
EA Driver	20		
EML TOSA	20	mori_01_0809, p.10: 75%	10
PIN ROSA	20	0%	20
Ser Des ICs	30	mori_01_0809, p.10: 85%	5
All other	10	50%	5
TOTAL	**100**	**60%**	**40**

Assume additional typical 1.4x cost drop for other effects.

Discussion

- Gen1 40GE-Serial 2010 cost (per previous page using individual component cost drops in mori_01_0908, p.10, and other effects)
  = 2008 OC-768 VSR cost / (2.5x * 1.4x)
  = 40x 10GE LR XFP 2008 cost / (2.5x * 1.4x)
  = **11.5x** 10GE LR XFP 2008 cost
- Gen1 40GE-Serial 2010 cost (per total cost in mori_01_0908, p.9)
  = 5.9x 10GE LR XFP 2010 cost
  = **4.2x** 10GE LR XFP 2008 cost
- The total cost projections for Gen1 40GE-Serial in mori_01_0908, p.9 are a factor of **~3x** greater then supported by individual component cost drops in mori_01_0908, p.10, and from technical standpoint in mori_01_0908, p.13.

Appendix1: 40GE 10km SMF PMD Alternatives Cost



(from cole_02_0809, p.8)

All costs relative to 2008 10GE LR XFP cost (LC = Lightcounting)