Project Review Checklist

Re-timer Card

Clark Shao, Hardware Engineer, Facebook
Purpose

This slides is to confirm the retimer card spec as well as the design apply to the OCP requirements listed in row 17 column C in Facebook_PCIe_Retimer_Card Consolidated Checklist APR112017.
Orderable SKUs will be available from both Wiwynn and Quanta.

1) Meeting 3 tenets on the OCP Principles list

a) Efficiency: The retimer card consumes less than 10w, making it a very light power add-in-card to optimize PCIe signals for those applications with long PCIe traces.

b) Scale/Openness: The whole hardware design and spec is open sourced. Also the design is fully compliant with PCIe 3.0 CEM spec, making it usable in any servers that have a x16 PCIe slot. The architecture is very simple to be easy to scale-out. Currently both Facebook’s JBOF(Lightning) and JBOG(Big Basin) platforms are using retimer cards following this spec to optimize PCIe signals coming from servers.

c) Going forward as PCIe GEN4 has doubled data rates, the use of retimer card will be more important to data center products which usually have long PCIe traces.
Statements

2) will meet all criteria in the associated specification, and

Both JBOF version and JBOG version of retimer cards are fully complaint with this specification.

3) become recognized in the future as OCP Inspired™ or OCP Accepted™

Specification is submitted by Facebook and design files will be submitted by Wiwynn, as OCP Accepted™

4) will be available within a reasonable timeframe after acceptance, and

JBOF version has been in MP Lightning racks in Facebook data center starting from June. JBOG version will be available by end of July.

5) will be available for purchase by any member company.

Yes, it will be available for purchase by any member company.
Thank You!