Synopsys and Parade Technologies

Parade Technologies Successfully Tapes Out USB4 Retimer DUT with
VC Verification IP for USB4, Verdi and VCS

" *Synopsys' verification solutions were critical to our success – allowing us to get up
and running within hours, enabling us to find bugs quickly, and supporting us with
custom enhancements per our DUT.* "

~George Qian, Director, Parade Technologies

Business

Parade Technologies, Ltd. is a leading supplier of mixed-signal ICs for a variety of popular display and high-speed interface standards such as USB, DisplayPort™, HDMI™ and PCIe®. Parade's portfolio of IC products serves the growing demand for USB Type-C ® devices, including port configuration switches with integrated redriver, retimer, and port controller functions.

Challenges

- Acquire a verification solution to meet an aggressive design schedule and deliver high-performance server systems-on-chips (SoCs)
- Custom support specific to DUT requirements
- Easy to integrate end-to-end VIP solution with exhaustive debug, log and trace files

Synopsys Verification Solutions

- VC Verification IP (VIP) for USB4
- VCS® Simulator
- Verdi® Debug

Benefits

- Ease-of-use enabled delivery against an aggressive time-to-market schedule
- Seamless integration of VIP with Verdi and VCS accelerated verification environment setup
- Enabled a scalable and reusable UVM verification environment
- First design bugs were flagged within an hour of connecting the VIP
- Customer was able to tape out their first USB4™ retimer DUT design in a span of less than one year