



Lattice Semiconductor's iCE40 FPGA Enables Low Latency and Concurrent Sensor Processing in SteamVR Tracking

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Low Power, Small Form Factor and Low Cost iCE40 Devices Ideal for AR/VR Applications Where Real-time Data Capture and Parallel Processing Are Critical

- Lattice enables concurrent data capture and processing for SteamVR Tracking with its low power, small form factor and low cost iCE40 FPGA
- Lattice's iCE40 FPGA reduces the number of signals that need to be routed over PCB trace to AP/MCU

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PORTLAND, Ore.--(BUSINESS WIRE)--Sep. 18, 2017-- [Lattice Semiconductor Corporation](#) (NASDAQ: LSCC), the leading provider of customizable smart connectivity solutions, today announced that Valve has selected Lattice's low power and low cost [iCE40™ FPGA](#) to enable concurrent data capture and processing for its [SteamVR™ Tracking](#)

As a low power and low latency sensor hub on the SteamVR tracking platform, Lattice's iCE40 FPGA significantly reduces the number of signals that need to be routed from the sensors to the applications processor (AP) / microcontrollers (MCUs) on the printed circuit board (PCB), which in turn reduces EMI emissions, PCB congestion and improves signal integrity.

"Our low power, low cost, and small form factor iCE40 FPGA allows each sensor to have an independent interface for low latency data capture and parallel processing," said Ying Chen, senior business development manager at Lattice Semiconductor. "Our FPGA enables the host to accurately process simultaneous sensor events by providing the MCU with metadata such as time stamping. This capability can also be useful in other movement or flow related analysis where low latency and concurrency are required."

A complete hardware and software system, SteamVR tracking has three main components: the base station, sensors on tracked objects, and a host processor. The solution allows the host processor to determine where the tracked objects are located in space outlined by the base stations in real-time. Valve has announced over 500 licensees around the world creating with this royalty-free technology.

In addition to SteamVR, Lattice's devices are also used in many other VR/AR offerings including WirelessHD® connectivity for wireless VR applications allowing consumers to cut the cord for an immersive experience, multi-camera aggregation for 360 cameras, as well as inside-out cameras and MIPI® bridging for micro displays.

For more details on the SteamVR Tracking technology, please visit <https://partner.steamgames.com/vrtracking/>.

To learn more about the Lattice iCE40 family of low power, low cost and small footprint FPGAs, visit <http://www.latticesemi.com/Products/FPGAandCPLD/iCE40.aspx>.

About Lattice Semiconductor

Lattice Semiconductor (NASDAQ: LSCC) provides smart connectivity solutions powered by our low power FPGA, video ASSP, 60 GHz millimeter wave, and IP products to the consumer, communications, industrial, computing, and automotive markets worldwide. Our unwavering commitment to our customers enables them to accelerate their innovation, creating an ever better and more connected world.

For more information about Lattice please visit www.latticesemi.com. You can also follow us via [LinkedIn](#), [Twitter](#), [Facebook](#), [YouTube](#), [WeChat](#), [Weibo](#) or [Youku](#).

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