



## Lattice Semiconductor Announces Design Wins with Pioneer & Onkyo Corporation for Prosumer A/V Home Entertainment Receiver Systems

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*Pioneer Selects Lattice Sil9437 Receiver IC for Enhanced Audio Return Channel (eARC) HDMI® 2.1 Capabilities*

PORTLAND, Ore.--(BUSINESS WIRE)--Apr. 2, 2019-- Lattice Semiconductor (NASDAQ: LSCC), a leading provider of customizable smart connectivity solutions, today announced that Pioneer & Onkyo Corporation has selected the [Lattice HDMI eARC Receiver IC](#) to provide "eARC" features for its Pioneer Elite 7.2 channel [SC-LX502](#) and Elite 9.2 channel [VSX-LX503](#) home A/V receivers (AVR), which provide multiple wired and wireless connectivity options for audio, video and gaming components.

"Adding HDMI eARC to our cutting-edge Elite line of A/V receivers gives our customers a forward-compatible home theater solution, designed to support enhanced 4K and 8K televisions of the future," said Akira Takahashi, Director of Pioneer & Onkyo Corporation. "With HDMI eARC, our A/V Receiver can play surround-sound audio, including high-bitrate audio, from the television's built-in streaming apps, as well as from devices attached directly to the TV."

"We are pleased that Pioneer selected the Lattice eARC ICs to help them deliver an uncompromised A/V experience to consumers," said Marshall Goldberg, Product Marketing Manager, Lattice Semiconductor. "Lattice worked with leading companies to develop eARC to prevent forward-compatibility issues as the HDMI standard evolves. Our eARC ICs are designed to work with any existing HDMI transmitter or receiver IC and any version of HDMI. They are part of Lattice's comprehensive portfolio of low-power FPGAs and connectivity ASSPs designed to make prosumer A/V products smarter, sleeker and longer lasting."

### Why HDMI 2.1 eARC?

The new eARC feature in HDMI Specification 2.1 solves the problem of forward compatibility between the AVR and newer televisions. The eARC feature offers higher audio quality and simpler connectivity features that improve upon existing home theater interconnections. It is also backward-compatible with the previous HDMI-ARC specification and supports all HDMI Home Theater Formats, including Dolby Atmos® and DTS-X®.

Released in November 2017, the [HDMI Specification 2.1](#) is the most recent update of the HDMI specification and supports a range of higher video resolutions and refresh rates including 8K60 and 4K120. Dynamic HDR formats are also supported, and bandwidth capability is increased to 48Gbps. Because HDMI 2.1 features will roll out gradually in products released over the next several years, it's important to have a way to connect audio devices which preserves compatibility. Using the eARC feature, the AVR does not need to be connected in-between the Source device and television. For example, if a gamer purchases a new TV and game console with HDMI 2.1 VRR (variable refresh rate), an AVR with eARC will not need to be upgraded. The eARC feature thus preserves the AVR's compatibility with new televisions as these new HDMI 2.1 features roll out.

### Lattice Solutions for Prosumer A/V

Lattice has a broad range of small form factor, low-power FPGAs, including the [CrossLink™ and iCE FPGA™ families](#) to enable connectivity and computing in prosumer A/V equipment such as HDTVs, home theater receivers and AR/VR headsets. In addition to its HDMI eARC receiver ASSPs, Lattice offers [a range of port processors and video processors](#) that reduce the workload for the TV's primary processor, ensure interoperability and faster switching between device ports, enhance picture quality, and upscale lower-resolution video content to UltraHD (4K). These FPGAs and ASSPs help prosumer A/V device OEMs create products that deliver uncompromised performance for the ultimate consumer A/V experience.

### About Lattice Semiconductor

Lattice Semiconductor (NASDAQ: LSCC) is a leader in low power, small form factor programmable logic devices. Our FPGAs deliver intelligence, connectivity, and control solutions to the industrial, compute, communications, consumer, and automotive markets. Our unwavering commitment to our global customers enables them to accelerate their innovation, creating an even better and more connected world.

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

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