

# LG Electronics Selects Synopsys HDMI 2.1 IP with HDCP 2.3 Content Protection to Deliver Immersive Viewing Experiences

Silicon-Proven DesignWare IP Enables Ultra-High-Definition 8K Video and High-Fidelity Audio in Multimedia SoCs

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## Highlights

- LG selects DesignWare HDMI 2.1 Controller IP with HDCP 2.3 content protection to implement secure, high-quality digital video and audio links in their new multimedia SoC
- Compliant HDMI 2.1 IP delivers 48 Gbps aggregate bandwidth for uncompressed 8K resolution at 60 Hz refresh rate to meet high-performance design requirements
- DesignWare HDCP 2.3 Content Protection IP supports the latest standard to secure data transmission across HDMI links

Synopsys, Inc. (Nasdaq: SNPS) today announced that LG Electronics (LG) has selected silicon-proven DesignWare® [HDMI 2.1](#) Controller IP with [HDCP 2.3](#) content protection to deliver ultra-high-definition (UHD) video and high-fidelity audio in its latest generation of multimedia system-on-chips (SoCs). LG selected Synopsys' HDMI 2.1 IP for its advanced features, such as uncompressed 8K resolution with 60 Hz refresh rate and dynamic HDR to deliver immersive, cinematic viewing experiences of the latest premium content. The HDMI 2.1 IP combined with the DesignWare HDCP 2.3 Embedded Security Module ensures that the data transmitted through the HDMI links is highly secure and meets digital content protection requirements as specified by the DCP LLC. LG is also integrating silicon-proven DesignWare [Logic Libraries](#), [Embedded Memories](#), [USB](#), [Mobile Storage](#), and [Ethernet](#) IP into their SoC to incorporate the necessary functionality with less risk and faster time-to-market.

"As a leading provider of the world's most advanced electronic devices, we need to collaborate with a trusted IP provider to support the latest features in our SoCs with the least amount of risk," said LG. "We selected Synopsys' compliant HDMI 2.1 IP with HDCP 2.3 content protection due to their advanced features, enabling us to quickly deliver lifelike color and cinematic audio to our customers while meeting the high-grade content protection standards of major production companies. Working with Synopsys allows us to deliver a full suite of differentiated home electronics that meet our customers' ultra-high-resolution picture quality needs."

"The HDMI 2.1 specification is gaining rapid adoption and is becoming a must-have for next-generation ultra-high definition multimedia devices requiring significantly more bandwidth, higher frame rates and resolution up to 8K and beyond from source to screen," said Rob Tobias, chief executive officer of HDMI Licensing Administrator, Inc. "Synopsys' HDMI 2.1 IP with content protection, enables the ecosystem to quickly adopt the latest specification, ensure secure data communication and deliver advanced functionality to the market."

"To provide more secure, ultra-high-quality audio and video content in modern multimedia devices, companies like LG are turning to Synopsys for integrated solutions, such as HDMI 2.1 IP with HDCP 2.3 content protection, that offer the required features and are compliant with the latest specifications," said John Koeter, vice president of marketing for IP at Synopsys. "As active members of key standards organizations, Synopsys is focused on developing high-quality, complete IP solutions that help designers create differentiated products with lower integration risk and get to market faster."

## Availability

DesignWare [HDMI 2.1 IP](#), [HDCP 2.3 Embedded Security Modules with Hardware Root of Trust](#), [Logic Libraries](#), [Embedded Memories](#), and [USB](#), [Mobile Storage \(SD/eMMC\)](#), and [Ethernet](#) IP are available now.

## About DesignWare IP

Synopsys is a leading provider of high-quality, silicon-proven IP solutions for SoC designs. The broad DesignWare IP portfolio includes logic libraries, embedded memories, embedded test, analog IP, wired and wireless interface IP, security IP, embedded processors, and subsystems. To accelerate prototyping, software development and integration of IP into SoCs, Synopsys' IP Accelerated initiative offers IP prototyping kits, IP software development kits, and IP subsystems. Synopsys' extensive investment in IP quality, comprehensive technical support and robust IP development methodology enable designers to reduce integration risk and accelerate time-to-market. For more information on DesignWare IP, visit [www.synopsys.com/designware](http://www.synopsys.com/designware).

## About Synopsys

Synopsys, Inc. (Nasdaq: SNPS) is the Silicon to Software™ partner for innovative companies developing the electronic products and software applications we rely on every day. As the world's 15<sup>th</sup> largest software company, Synopsys has a long history of being a global leader in electronic design automation (EDA) and semiconductor IP and is also growing its leadership in software security and quality solutions. Whether you're a system-on-chip (SoC) designer creating advanced semiconductors, or a software developer writing applications that require the highest security and quality, Synopsys has the solutions needed to deliver innovative, high-quality, secure products. Learn more at [www.synopsys.com](http://www.synopsys.com).

**Editorial Contact:**

Norma Sengstock  
Synopsys, Inc.  
650-584-2890  
[norma@synopsys.com](mailto:norma@synopsys.com)

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