



Synaptics Introduces Spyder Family of Video Protocol Converters to Seamlessly Connect USB Type-C Devices to HDMI 2.1 High-Performance Displays

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Ultra-low-power, small-footprint, single-chip solution easily integrates into motherboards and USB-C adapters to drive 4K 120/144 Hz gaming monitors and 8K/10K UHD displays

LAS VEGAS, Jan. 06, 2022 (GLOBE NEWSWIRE) -- **CES® 2022** – Synaptics® Incorporated (Nasdaq: [SYNA](#)), today announced the Spyder family, the world's first single-chip DisplayPort/USB Type-C-to-HDMI 2.1 and HDMI 2.0 video protocol converters with Power Delivery and Billboard features on chip. The ultra-low-power, tightly integrated solutions address the growing user need to efficiently connect high-resolution, ultra-wide displays with variable refresh rates (VRRs) to PCs, tablets, mobile phones and gaming consoles over DisplayPort or USB Type-C interfaces.

Already verified by Intel, AMD and NVIDIA, the small-form-factor ICs provide OEMs and ODMs a compact, cost-effective path to HDMI 2.1 (VMM7100) or HDMI 2.0 (VMR7100) connectivity using either adapters/dongles or integrated on notebook or PC motherboards.

According to research firm OMDIA, the TAM for discrete protocol adapters is expected to total 35 million for 2021¹. Adding adapter usage in PC motherboards, game consoles, and OTT devices, Synaptics estimates that in 2022 the unit number will reach 80.8 million, and that DisplayPort or USB Type-C to HDMI 2.1 converters will comprise over half of that. To meet this demand, OEMs and ODMs need to implement designs quickly to accommodate tight time-to-market schedules—while lowering cost and power consumption.

"With Spyder, developers have a future-proof platform upon which to enable connectivity to the latest ultra-high-definition (UHD) 8K/10K displays and 4K120 monitors with half the power consumption of competitive offerings," said Jeff Lukanc, Sr. Director, Video Interface Marketing at Synaptics. "While other solutions split USB-C Power Delivery and USB Billboard functionality across multiple ICs, Spyder provides a single-chip solution to lower the BoM and board footprint, while also eliminating the dependency on multiple suppliers," Awsare added.

Spyder features high-bandwidth video coupled with Dynamic HDR content transport—including Dolby Vision®—and variable frame rate modes. These ensure the highest quality video in terms of pixel depth, detail, brightness, contrast, and color gamuts for professional content creators and gamers on their chosen displays.

"Intel has verified the Synaptics Spyder HDMI 2.1 protocol converter with the Intel® Arc™ Alchemist GPU family, for driving 8K TVs and 4K120 gaming TVs with VRR support," said Chris Silva, Director of Discrete Graphics Product Management, Intel Corp. "We are currently building a reference design with HDMI 2.1 based on that converter and will support Alchemist customer designs that implement HDMI 2.1 using the Synaptics Spyder."

Availability:

The Spyder family of products are available now in mass production. The VMM7100 is a DisplayPort/USB Type-C-to-HDMI 2.1 protocol converter; the VMR7100 is a DisplayPort/USB Type-C-to-HDMI 2.0 protocol converter.

For more information or review the Synaptics [video interface portfolio](#) or [contact your local Synaptics sales representative](#).

About Synaptics Incorporated:

Synaptics (Nasdaq: [SYNA](#)) is changing the way humans engage with connected devices and data, engineering exceptional experiences throughout the home, at work, in the car, and on the go. Synaptics is the partner of choice for the world's most innovative intelligent system providers who are integrating multiple experiential technologies into platforms that make our digital lives more productive, insightful, secure, and enjoyable. These customers combine Synaptics' differentiated technologies in touch, display, and biometrics with a new generation of advanced connectivity and AI-enhanced video, vision, audio, speech, and security processing. Follow Synaptics on [LinkedIn](#), [Twitter](#) and [Facebook](#), or visit [www.synaptics.com](#).

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References:

1: Source – Omdia, USB Type-C Report, June 2021 ([link](#)). Results are not an endorsement of Synaptics. Any reliance on these results is at the third-party's own risk.