Contact: www.sofics.com, www.hardent.com and www.mixel.com

Sofics and Hardent join Mixel's MIPI® ecosystem
to provide designers a complete MIPI solution

Mixel MIPI Central, founded in 2011, adds two more members
to round out product offering for MIPI IP customers

December 15, 2020 – Mixel (www.mixel.com), a leading provider of mixed-signal IPs, today announced new partnerships with Sofics bv (www.sofics.com), a leading provider of analog I/Os, specialty digital I/Os and ESD protection, and Hardent (www.hardent.com), a leading provider of video compression IP cores. Sofics and Hardent are the newest members of the Mixel MIPI ecosystem known as Mixel MIPI Central and each company's IP will bring new product offerings to Mixel MIPI IP customers.

Mixel's MIPI PHY supports multiple standards, including MIPI D-PHYSM, MIPI C-PHYSM, and M-PHY®, as well as dual-mode PHYs such as MIPI C-PHY/MIPI D-PHY combo and LVDS/MIPI D-PHY combo. These PHY IPs have been integrated by hundreds of customers all over the globe into thousands of products. IC designers have used the MIPI IP to build multimedia and chip-to-chip interfaces for lower-power applications such as mobile, IoT, wearables, and automotive.

Sofics' Electrostatic Discharge (ESD) portfolio is silicon proven on 10 foundries including the most advanced FinFET processes. More than 100 fabless companies rely on Sofics on-chip ESD protection solutions to enable higher performance, higher robustness while reducing design time and cost of SoC design. Together with Mixel's MIPI PHY IP, Sofics provides a complete and best-in-class MIPI solution protected with low-leakage ESD solutions in a small footprint.

Hardent's VESA Display Stream Compression (DSC) and VESA Display Compression (VDC-M) encoder and decoder IP cores enable designers to use visually lossless, ultra-low-latency video compression to reduce the display bandwidth needed for creating cutting-edge displays with higher resolutions, faster refresh rates, and greater color depths. Hardent's video compression IP cores can be used with the Mixel PHY IP and the Rambus MIPI DSI-2SM controller IP in applications such as mobile, AR/VR, and automotive.

Mixel has developed a deep relationship with its MIPI ecosystem partners spanning the complete spectrum of product development, to provide its potential MIPI customers with one stop shopping for MIPI product development. Sofics joins Mixel MIPI Central as the first IP provider of analog I/Os, specialty digital I/Os, and ESD protection. Hardent joins as the only video compression IP provider. Combined with the existing MIPI Central members' product portfolio, Sofics and Hardent round out the Mixel MIPI ecosystem with a more complete offering to customers interested in acquiring MIPI IP from Mixel.

"To ensure good signal integrity, the MIPI PHY interfaces need to be paired with analog I/Os with low parasitic capacitance. Moreover, products developed in advanced CMOS or FinFET nodes are very susceptible to ESD and thus require matching performance ESD protection clamps", said Koen Verhaege,

CEO of Sofics. "Sofics' ESD solutions have 30% lower parasitic capacitance and 2 to 3 orders lower leakage compared with conventional concepts."

"Hardent is pleased to begin this new partnership with Mixel as a member of the Mixel MIPI Central ecosystem," says Alain Legault, VP IP Products at Hardent. "Mixel IP customers will benefit greatly from our unique expertise in video compression when it comes to designing their next generation display products. Our video compression IP cores are silicon proven and have been successfully implemented in a wide range of target applications."

"It is clear that IC designers that integrate Mixel's MIPI IP can benefit from close collaboration between design teams at Mixel, Sofics, and Hardent," said Ashraf Takla, Mixel CEO and President. "For our customers targeting low-power, high-performance, SerDes applications, combining the strengths of companies with best-in-class synergistic IP portfolios focused on MIPI is a clear win for the ecosystem."

About Mixel – Mixel is a leading provider of mixed-signal IPs and offers a wide portfolio of high-performance mixed-signal connectivity IP solutions. Mixel's mixed-signal portfolio includes PHYs and SerDes, such as MIPI D-PHYSM, MIPI M-PHY®, MIPI C-PHYSM, LVDS, and many dual mode PHY supporting multiple standards. Mixel was founded in 1998 and is headquartered in San Jose, CA, with global operation to support a worldwide customer base. For more information contact Mixel at info@mixel.com or visit www.mixel.com

About Sofics – Sofics stands for "Solutions for ICs." Sofics is an IP provider with a track record in delivering on-chip robustness for ESD, EOS and EMC with an extensive patent portfolio, proven on more than 50 processes. Our more than 100 licensees have integrated Sofics IP into their IC products. Thanks to close cooperation with several leading semiconductor companies, more than 4500 mass-produced ICs are protected by Sofics ESD solutions.

About Hardent – Hardent is a professional services firm providing IP products, engineering services, and training solutions to leading electronics equipment and component manufacturers throughout the world. For more information, visit www.hardent.com.

About MIPI Alliance – MIPI Alliance (MIPI) develops interface specifications for mobile and mobile-influenced industries. There is at least one MIPI specification in every smartphone manufactured today. Founded in 2003, the organization has over 325 member companies worldwide and 14 active working groups delivering specifications within the mobile ecosystem. Members of the organization include handset manufacturers, device OEMs, software providers, semiconductor companies, application processor developers, IP tool providers, automotive OEMs and Tier 1 suppliers, test and test equipment companies, as well as camera, tablet and laptop manufacturers. For more information, please visit www.mipi.org.