From the corporate office to the modern classroom, the ability to share ideas efficiently and effectively among colleagues and classmates is essential for boosting productivity and collaboration. The next generation of interactive, visually-driven communication solutions – spanning digital whiteboards, video conferencing systems, and smart projectors – will enable new levels of collaboration. Seamless video will connect us together from anywhere in the world and transform productivity for small businesses, large enterprises, primary schools and universities.

Supporting a host of rich multimedia capabilities ranging from touchscreen annotation to advanced 3D modeling and beyond, these systems require a processing platform that’s optimized for high-performance graphics and video resolution up to 4K. The ability to simultaneously power multiple graphics-intensive functions and core productivity software with ultra-low latency is critical to ensuring a smooth, high-quality user experience.

The AMD Advantage

AMD offers a broad portfolio of embedded solutions designed to meet the demanding multimedia and compute needs of next-generation productivity and collaboration systems. Designers can leverage the AMD Embedded SoCs as an all-in-one, scalable platform targeting a range of system performance profiles. The AMD Embedded Radeon™ series of discrete GPUs provide additional processing performance and multimedia versatility that complements AMD Embedded SoCs for enhanced 4K encode/decode acceleration and 3D graphics functionality.
Key AMD Benefits:

4K Multimedia Performance
Full 4K multimedia support enables unparalleled video conferencing quality. Hardware acceleration for 4K video, leveraging video codecs such as HEVC/H.265 and VP9, combined with multi-display capabilities enable innovative multi-stream collaboration solutions.

Scalable Solutions
Pin and software stack compatibility among select AMD Embedded SoCs enables platform scalability and streamlined design cycles, helping reduce development costs for OEM system portfolios spanning from low-end to high-end offerings.

Optimal Performance and Power Profiles
The AMD Embedded SoCs provide single-chip CPU, GPU and I/O controller integration, and are available in a wide range of performance and thermal design power (TDPs) profiles, helping designers achieve optimal performance-per-watt and enabling myriad deployment and configuration possibilities that reduce system hardware footprints. By adding an AMD Embedded Radeon™ discrete GPU designers can achieve a significant performance boost to power advanced multimedia capabilities.

Power and Space Efficiency
Power-efficient AMD Embedded solutions minimize thermal constraints thereby enabling sleek, compact flat-panel systems. Support for popular media device and display interface standards further improves design flexibility.

Broad Ecosystem Support and End-to-End Secure Media Protection
AMD provides support for Windows™ and multiple Linux® distributions on its AMD Embedded SoCs and Embedded Radeon™ discrete GPUs. The on-chip AMD Secure Processors integrated within AMD Embedded SoCs enable the encryption of video and audio to help protect against unauthorized access to sensitive data, with secure media playback of protected premium content, and secure boot functionality.

GPU Computing Versatility
The Radeon™ Open Compute Platform (ROCm), based on the GPUOpen initiative, equips designers to achieve breakthrough innovations in GPU-driven imaging and parallel processing capabilities leveraging open development tools and software. CPU and GPU workloads can be balanced for optimal processing performance, reducing latencies and maximizing access to shared memory resources. This feature is currently supported on select AMD Embedded solutions, with additional support planned.

For more information about the specific features and specifications supported by select products in AMD’s solution portfolio, or to learn more about AMD’s media and collaboration solutions, visit www.amd.com/media-collaboration

AMD.com/embedded

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