Aerospace and Defense Markets:
- Avionics Cockpit Displays
- Communications, Command and Control
- Unmanned Vehicles
- Vehicle Navigation and GPS
- Security and Surveillance

Mission Success from AMD and Third Party Partners:
- Chip and MCM/MXM/PCIe® Packaging
- Software Development Tools and Drivers
- OS/RTOS support from leading suppliers
- Firmware and Drivers
- Evaluation Boards and Systems

CASE STUDIES:
Real-Time Image Processing

AMD Embedded processors enable system designers to meet aggressive design targets for graphics and compute performance, with available 4K graphics support and versatile parallel processing capabilities that accelerate intelligence gathering and analysis, and optimize mission value. Leveraging AMD Embedded G-Series and R-Series processors and/or AMD Embedded Radeon™ discrete GPUs, system designers benefit from a wide range of performance-per-watt profiles and advanced features. As required by our customers, some AMD Embedded discrete GPUs and processors have also been certified by FAA, EASA and Transport Canada and are flying in many civil aviation primary flight display systems. With the help of our strategic partnerships a selected number of AMD Embedded GPUs have been certified up to Design Assurance Level A for mission critical systems.
KEY AMD BENEFITS

Safety Certifiable Graphics – UI for DO-178B/C and DO-254 up to level A with OpenGL® for the Embedded Radeon™ E4690 and E8860.

Breakthrough Performance – Processing speeds up to 5.5 TFLOPS with AMD embedded discrete graphic processors support the most demanding graphics and compute workloads – including advanced 3D visualization – with a wide range of performance-per-watt options to choose from.

4K Graphics Quality – Full 4K support enables consummate graphics and video quality, with hardware acceleration for 4K video leveraging supported next-generation video codecs like HEVC/H.265, and multiple 4K display capabilities.

GPU Compute Versatility & Parallel Processing – The Radeon™ Open Compute Platform (ROCm), part of the GPUOpen initiative, equips designers to achieve breakthrough innovations in GPU-driven imaging and parallel processing capabilities leveraging open development tools and software.

Power Efficiency – AMD Embedded processors and discrete graphics support a wide range of thermal design profiles (TDPs) – with embedded processors that scale to as low as 6W, helping designers achieve the optimal performance-per-watt, and minimizing thermal constraints.

Compact Form Factors – Available in chip and module packaging options, AMD embedded and discrete processors optimize space utilization inside and outside the system, accommodating designers’ space constraints and myriad deployment possibilities – particularly in densely-clustered cockpit displays, and system configurations requiring redundant componentry.

Advanced Security – AMD Embedded processors feature on-board AMD Secure Processors designed to help ensure a robust security architecture, with anti-tampering capabilities to detect intrusions and/or code anomalies.

Error Correction Capabilities – Available error-correction code (ECC) support helps ensure memory integrity and resiliency in environments affected by alpha particle emissions and electromagnetic interference (EMI).

Supply Longevity – AMD’s planned processor longevity extends to up to 10 years†, providing customers with a long-lifecycle support roadmap.

www.amd.com/embedded

† Find out more about specific product longevity at http://products.amd.com/en-us/embedded

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