COTS-D

Complete DO-254/ED-80/DO-178C/ED-12C Platforms for Safety Certifiable Solutions

CoreAVI's hardware solutions are offered as Commercial-Off-The-Shelf-Designs (COTS-D) in the form of Intellectual Property (IP), providing an alternative to developing hardware in-house or purchasing COTS hardware. These hardware solutions are part of CoreAVI's Platforms for Safety Certifiable Applications, where customers can purchase both COTS-D hardware IP and software components such as DO-178C/ED-12C certifiable Board Support Packages (BSP) and device drivers which have been pre-integrated and validated together to significantly de-risk the integration challenges typically faced when integrating hardware and software components from multiple suppliers.

WHAT IS COTS-D?

COTS-D is a revolutionary new way for system integrators to employ COTS products that meet the growing need to meet safety certification requirements demanded by many of today's military and avionics platforms with DO-254 and DO-178C customer requirements to satisfy. By accessing the COTS-D certifiable designs in the form of IP, customers are able to significantly reduce the overall cost of implementing a safety certifiable system without losing control of critical system components to a third-party COTS supplier. By maintaining design and manufacture control over the hardware, the security challenges often experienced when procuring third party products are also eliminated, reducing significant cost.

Similar in design and concept to other traditional COTS modules, the CoreAVI hardware designs are offered in the form of IP and are specifically focused on providing solutions which are low complexity and most critically, low certification risk.

The COTS-D hardware IP solutions provide the same time to market benefits that traditional Off The Shelf solutions offer. However, unlike traditional COTS products, the COTS-D designs are supported with DO-178C/ED-12C safety critical software components which have been pre-integrated and validated to lower the typical integration challenges and risks to program schedules.

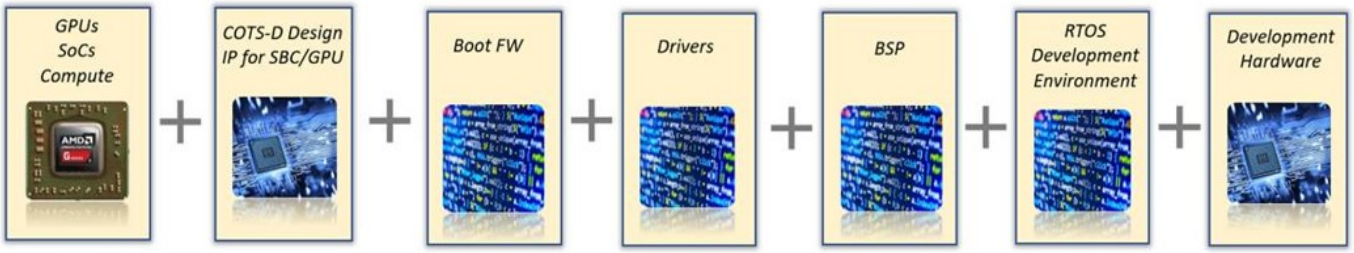

Figure 1: Components in CoreAVI's Platform for Safety Critical Solutions

HOW DOES COTS-D WORK AND WHAT IS INCLUDED?

With COTS-D solutions, integrators are granted a license to manufacture the designs in their own manufacturing facility or a contract manufacturer of their choice. The license includes the data for the design which is transferred to the integrator in the form of a comprehensive Technical Data Package (TDP), from which the design can be manufactured, supported and maintained as with any other internally developed product. Designed and developed in the same manner as traditional COTS hardware solutions, the COTS-D products are verified and qualified prior to the IP being available for manufacture.

COTS-D products are designed to DO-254 compliant development processes and relevant FAA and EASA guidance and are supported by software developed to DO-178C for firmware, board support packages, compute, graphics, safety monitoring and other required components. All COTS-D products are offered with DO-254 certification evidence to be used in conjunction with other evidence supporting the system certification. The evidence is generated as an inherent part of the development processes used by CoreAVI and is not reverse engineered after the design is complete.

By combining all these elements—the GPUs, hardware design IP, complete set of software components and all required data to support certification to the highest DAL levels—CoreAVI provides customers with a single source for a complete, fully integrated safety certifiable platform solution.

HOW COTS-D BENEFITS YOUR PROGRAM

COTS-D not only reduces your risk and time to market, but also reduces your overall costs. With COTS-D you can:

- Build DO-254 certifiable hardware in your home country or location that offers lowest costs
- Tailor your modules to the specific form factors and connectors required by your program
- Lower the complexity of designs to minimize certification effort and recurring cost
- Use fully qualified hardware designs in accordance with applicable DO-160 procedures
- Increase competitiveness vs. integrators that buy assemblies in
- Build in country, control your secure and trusted supply, and maintain in-country staffing
- Repair in country, maintain secure hardware configurations and eliminate shipping costs and delays
- Increase your control of the supply chain
- Use existing lifecycle services, manufacturing, test, component, repair and other specialists to maximize your existing investments and further reduce costs
- Reduce your risk by sourcing all hardware and software components from a single vendor with certification experience

Contact CoreAVI for more information: sales@coreavi.com