Modified-COTS (MCOTS)
(Modified Commercial Off The Shelf)

ALPHA DATA

Summary

Alpha Data offers an extensive catalog of commercial-of-the-shelf products suitable for both prototyping and deployment. However, many customers require changes to the form or function in order to meet their specific requirements.

Modified-COTS (MCOTS) is a service provided by Alpha Data that reuses existing designs, enabling customers to receive a product that fully meets their needs with minimum NRE cost and risk. Furthermore, existing COTS products can be used to develop much of the final functionality while the MCOTS product is designed and manufactured.

The scope of work for MCOTS projects can vary greatly from simple component fit changes, to custom form-factors and extreme ruggedisation. Alpha Data has decades of experience with both post-assembly services such as turnkey chassis deliveries and custom IP development. No level of customization is too large or too small in order to ensure our customers success!

Contact Alpha Data sales at sales@alpha-data.com to discuss custom requirements and find your ideal MCOTS solution today.

Advantages

No matter the size and complexity of the MCOTS solution needs, Alpha Data delivers high reliability hardware and outstanding customer support. Work with us and see for yourself first hand.

Cost Reduction:

• Migrate across form factors with universal architecture support

• Leverage >90% existing designs for similar reduction in NRE

Risk Reduction:

• Leverage proven products and decades of Xilinx design experience

• Commercial high volume and military high reliability design expertise

• ITAR Compliant

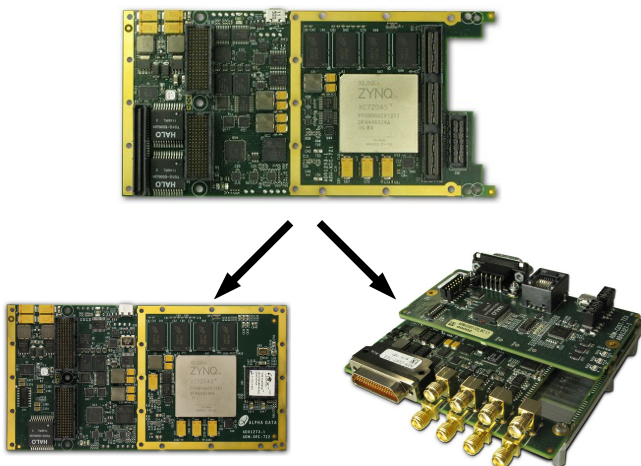• Detailed mechanical modeling and simulation

Time to Market:

• Available COTS hardware solutions for immediate prototyping

• Board support packages for quick start with software development

• Windows, Linux, and VxWorks driver support

• Custom IP support services

Aerospace and Defense (Embedded)

Alpha Data has decades of experience and a robust product catalog covering the most popular VITA form factors used in the aerospace and defense community today. With numerous products in **VME, VPX, XMC, FMC** and other form factors, most customer requirements can be met with our standard commercial catalog. However, when certain communication lane arrangements, protocol standards, environmental requirements, or test criteria go beyond the scope of our catalog, MCOTS can step in to meet even the most stringent requirements.

Common modifications include: DIP Switch hard wiring, conformal coating, BGA underfill, integrated front I/O connectors, PHY/IC placement, custom backplane connection orders, enhanced thermal solutions (heat sinks and fill material), thermal screening, and more.

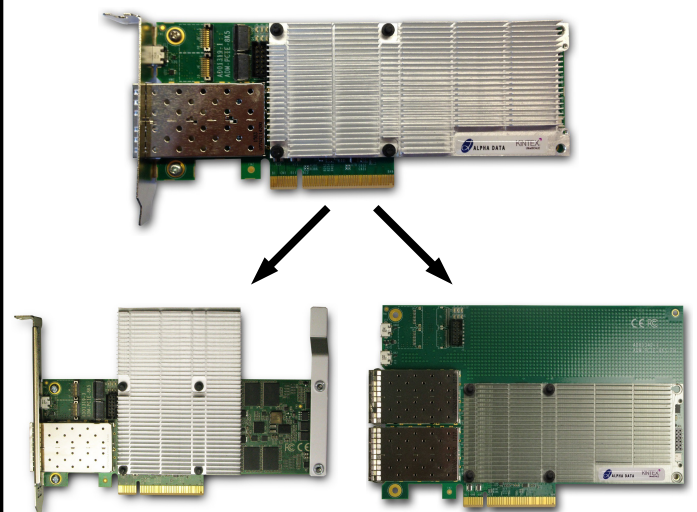Below is an example of an ADM-XRC-7Z1 with MCOTS results:

Data Center (PCIe plugin cards)

The popularity of FPGA based compute acceleration has exploded in the last 6 years. While the FPGA is an amazingly flexible and powerful computing device delivered in a compact and efficient package, there is no one-size-fits-all solution. Alpha Data's product line incorporates 4 generation of Xilinx technology providing a solid groundwork for most computational needs. Product modifications can be quickly and easily implemented and then scaled to data center deployments for unparalleled results.

Common modification include: form factor changes (PCIe width, card height), custom thermal solutions, pre-installed optics, device speed grade changes, front panel I/O additions, custom IC additions, and more.

Below is an example of an ADM-PCIE-8K5 with MCOTS results:

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