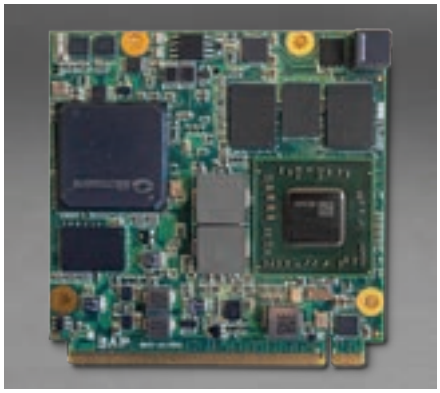
e2000/e2100 Qseven® GPU COMPUTE PRODUCTS – THE HETEROGENEOUS COMPUTING PLATFORM WITH SPACEFLIGHT HERITAGE



The e2000/e2100 heterogeneous computing product families are radiation tolerant high-performance compute modules for onboard data processing. The products have spaceflight heritage and uses low power embedded x86 compatible AMD® G-series SOC products from the 1st, 2nd, and LX families. The SOC is paired with a powerful Microsemi® SmartFusion2™ FPGA which provides IO expansion and board supervisory management through IP core state-machines or embedded ARM® Cortex™ M3 micro-controller.

The e20xx/e21xx products provides common interfaces for command and data handling, robots, intelligent automation, and autonomous systems, including: Gigabit Ethernet, USB v2.0/v3.0, PCIexpress®, SerDes, LVDS, SATA v3.0, Serial ports, GPIO, CAN 2.0b, I2C, and SPI. The GPIO capabilities of the FPGA can be used for optional interfaces using different (not included) IP cores.

UNIBAP® e20xx/e21xx families of products are the perfect choice for autonomous systems with high demands for data fusion and sensor interfaces using optimized heterogeneous parallel algorithms and extensive IO.

Reference: Bruhn, F.; Brunberg, K.; Hines, J.; Asplund, L.; Norgren, M., "Introducing radiation tolerant heterogeneous computers for small satellites," in Aerospace Conference, 2015 IEEE, vol., no., pp.1-10, 7-14

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