

GPGPU AMC Processor Module, up to Four Processors



APPLICATIONS

AG A1x/m1d is a Full-size or Mid-size AdvancedMC™ processor module supporting up to four NVIDIA® Tegra® K1 processors. Each Tegra K1 processor consists of quad-core ARM® Cortex®-A15 CPUs and 192 NVIDIA Kepler™ CUDA® GPU cores which are linked together in the board to create a highly power efficient computing module that easily scales with Concurrent Technologies Fabric Interconnect Networking Software known as FIN-S. AG A1x/m1d is

primarily designed for use in AdvancedTCA® or MicroTCA™ open standards based systems and hence benefits from a wide eco-system of complementary products like the Concurrent Technologies AM C1x/msd 4th generation Intel™ Core® based processor module. Typical applications for this type of embedded supercomputer include wireless test equipment, radar, image processing, decryption and other security related tasks

HIGHLIGHTS

- Single Module, Full-size or Mid-size, AdvancedMC™ (AMC) GPGPU multiple processor module:
 - compliant to AMC.0
 - 2 x processors on Mid-size module
 - up to 4 x processors on Full-size module
- Each processor is an NVIDIA® Tegra® K1 System-on-Chip:
 - 4 x ARM® Cortex®-A15 cores, 2.2 GHz
 - 192 x Kepler™ CUDA® GPU cores, 933 MHz
- Up to 4 Gbytes of DDR3L-1600 DRAM per processor
- Up to 64 Gbytes of eMMC Flash per processor
- Dual x4 Serial RapidIO® fabric ports (Gen 2):
 - AMC.4 Type 5 and Type 10
- 3 x Ethernet interfaces:
 - AMC.2 Type E2 (2 x Gigabit interfaces, SerDes type)
 - 1 x Gigabit interface via front panel
- 2 x Serial ATA interfaces (AMC.3 Type S2)
- 1 x DisplayPort graphics and 1 x USB via front panel
- Console interface (1 x USB) via front panel to all processors
- Hot swap compliant:
 - compliant to AMC.0
- IPMI (Intelligent Platform Management Interface):
 - IPMI Version 1.5 according to AMC.0
- Support for Linux® Operating System:
 - boots from eMMC Flash or via Ethernet
- Support for NVIDIA CUDA 6 and OpenCV4
- Open MPI Ready, Open DDS Ready
- Support for Fabric Interconnect Networking Software (FIN-S)

