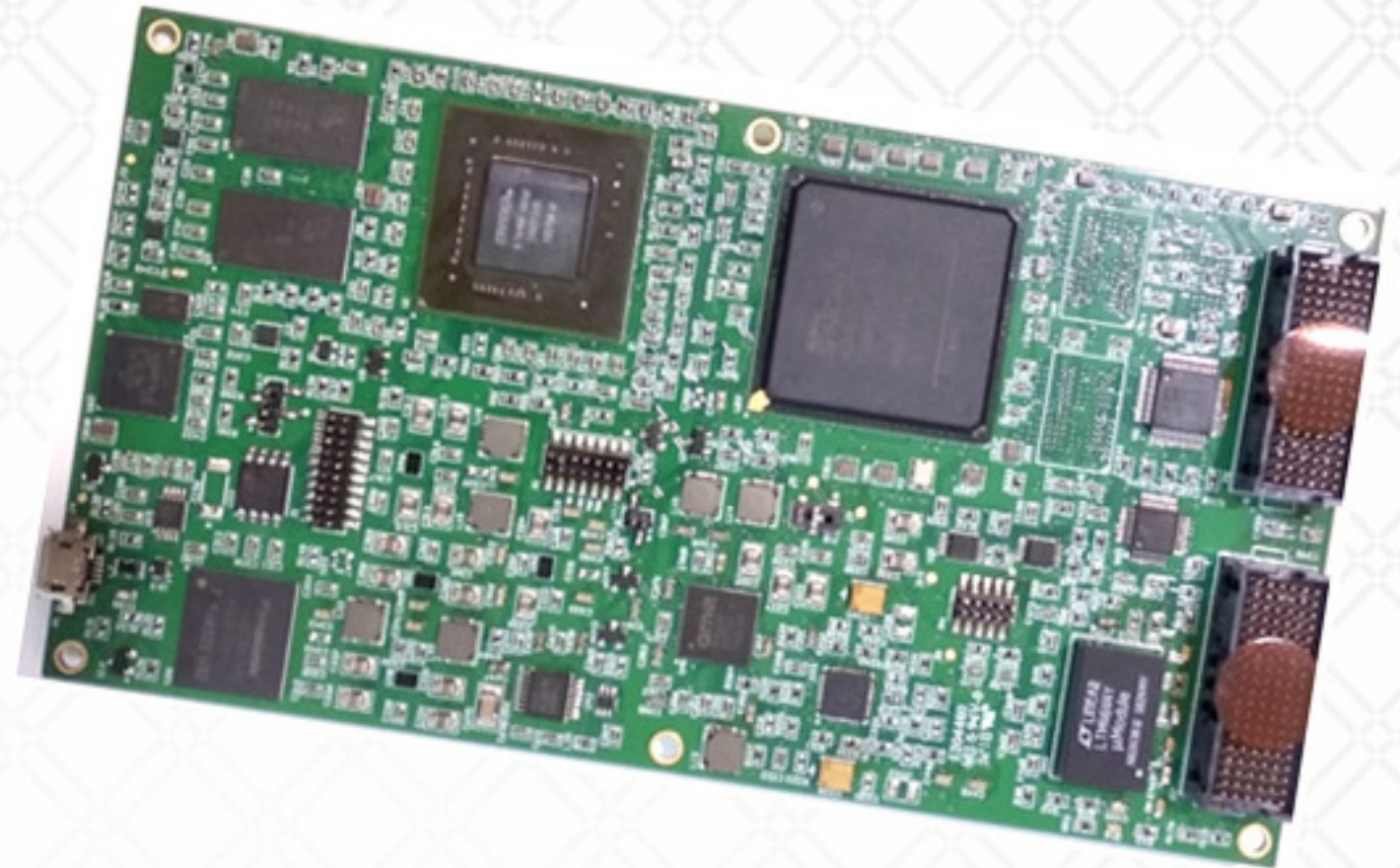
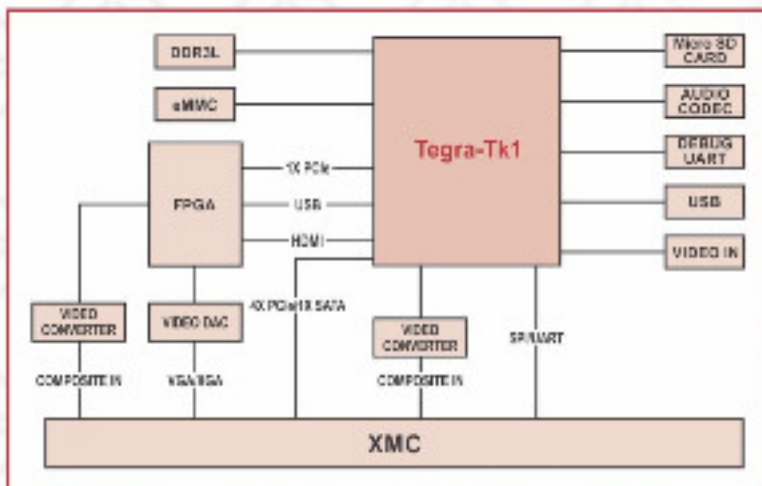


TEGRA BASED GRAPHICS PROCESSING MODULE



BLOCK DIAGRAM



Tegra K1 - Based Graphics Processing Module

Specifications

Integrated Host Processor

- Tegra K1 processor, CD575M
- ARM Cortex® -A15 MPCore (Quad-Core) Processor with NEON Technology
- 2MB of L2 cache (16-way) with 4-way address banking
- 32Kbyte I-cache and 32Kbyte D-cache for each core

Integrated GPU

- Kepler Mobile GPU
- OpenGL 4.4, OpenGL ES 3.1 compliant
- DirectX 12 compliant
- CUDA support
- Power Saving

DDR3SDRAM

- DDR3L -1866, 2GB
- 4 x 4Gb x16 memory (64 bit width)

Flash Memory (Boot/Storage)

- SPI Flash: 32Mbit
- eMMC: 32GB
- micro SD Card
- SATA

Mezzanine Slots

- VITA 42.3

Rear I/O

- 2x UART
- 1x Serial ATA (3Gb/s)
- 1x Four lane PCI-e (Gen2.0)
- 1x VGA/XGA RGB Video Output
- 1x Composite Video In
- 2x SPI
- 1x I2C

Watchdog /EEPROM

- 2 Kb Serial EEPROM

Temperature Sensor

- On-board ambient temperature sensor

Power Requirements

- Operates from +5V and +12V supply

Features

- XMC based Graphics Module
- ARM Architecture™
- Tegra K1 processor, CD575M
- Onboard Xilinx 6 Series high-end FPGA for ASICs design
- Onboard DDR3L
- Serial EEPROM
- 1x PCIe
- 2x USB
- 1x Composite Video Input
- 1x VGA
- 1x Audio Codec
- 1x Serial ATA
- 2x UART
- 2x SPI
- x I2C

Standards

- MIL-STD-454G
- MIL-STD-810B
- MIL-STD-461D

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