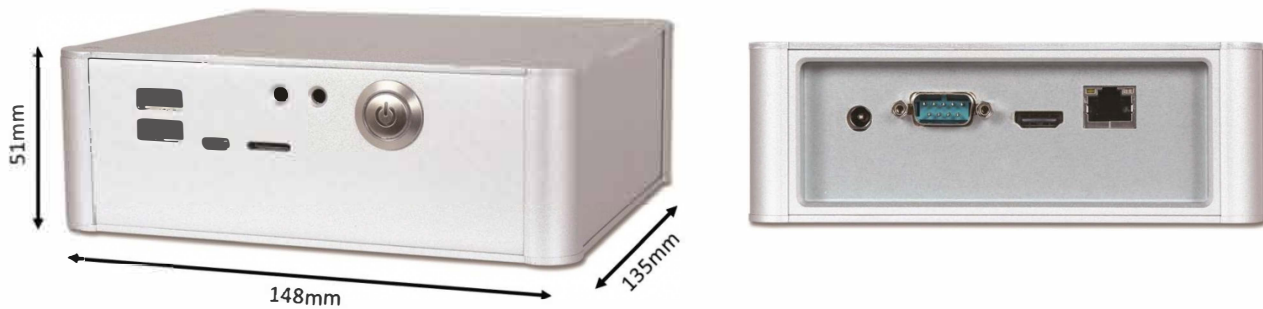




MEDS-BP100

Embedded fan-less system with powerful parallel computing for visual and computational solutions on medical application



The MEDS-BP100 with NVIDIA® Tegra® K1 application processor is a revolutionary step in the world of mobile and embedded computing. MEDS-BP100 with Tegra K1 processors integrate a power optimized version of the same Kepler GPU architecture that powers the highest performing graphics cards and systems in the world. As a result, MEDS-BP100 with Tegra K1 processors is the first to open up features like OpenGL®4.4, OpenGL ES 3.1 and CUDA®/GPGPU on mobile and embedded devices. A high performance image processing pipeline coupled to power optimized Kepler GPU and unique Tegra4-PLUS-1 CPU complex provides the foundation that enables visual computing and computational solutions on mobile medical imaging.

FEATURES

- NVIDIA® Embedded Tegra® K1 Processor
- 4K image resolution (3840x2160) and Dual Display outputs
- ARM® Cortex® A15 MPCore (Quad-Core) Processor with NEON Technology
- Cluster server system and flexible expansion (up to 8 TK1 units or customized requirement)
- Support OpenGL®4.4, OpenGL ES 3.1 and CUDA®/GPGPU on Mobile and Embedded Devices
- Support DirectX 11.2 Technologies
- Support Linux Ubuntu 14.04
- Support HDMI, RS-232, USB3.0, micro USB2.0, Gigabit Ethernet port, Micro SD/MMC
- Wide Operating Temperature -20 ~ +80°C Support

System

CPU	NVIDIA Embedded Tegra K1 CD575M 4-Plus-1 quad-core ARM Cortex A15 CPU
GPU	Kepler Mobile GPU with 192 CUDA cores (GK20A) OpenGL®4.4, Open GL ES 3.1, CUDA®, GPGPU GPU Shader / Compute Performance GFLOPS : 325
BIOS	SPI 4MByte Boot Flash device
OS	Linux Ubuntu 14.04
System Memory	2GB LPDDR3 1866MHz
Storage	16G eMMC
Expansion Header	GPIO & JTAG 2mm pitch expansion header

External I/O

Serial Port	1x COM Port (RS-232)
Display	1x HDMI
USB	2x USB 3.0 1x micro USB2.0 with OTG (Type A & B)
Audio	HD Audio support Sample rate conversion and digital mixer Audio Format HW support (decode): AAC-LC, ACC, AAC+, eAAC +, MP3, WAVE, AMR-NB, AMR-WB, OGG Vorbis, WMA10, WMA Lossless, WMA Pro LBR, MPEG-2, AC3 Audio Format HW support (encode): AAC-LC, AMR-WB, AMR-NB
Ethernet	1x Gigabit Ethernet (RJ 45)
Other	1x EXT Power Switch 1x Recovery Button 1x Reset Button 1x Micro SD/MMC connector

Power Supply Unit

Power Input	Power Input Voltage 12 VDC, ± 10% Power Adaptor AC to DC, DC12V
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Environmental

Operation Temperature	0°C ~ 65°C (32°F ~ 149°F)
Storage Temperature	-40°C ~ 80°C (-40°F ~ 176°F)
Relative Humidity	5% ~ 90%RH, (non-condensing)

Mechanical

Dimension	148x135x51 mm; 5.9" x 4.8" x 1.8" (WxHxD)
Mounting	Multi-function mounting (desk, wall/panel)