ARM Cortex-A9 Quad-Core processor board excels with its high media performance and low energy consumption

Kontron KTT30/mITX

As part of Kontron's strategic entry into ARM processor technology, Kontron has today unveiled its first embedded ARM based motherboard in the Mini-ITX form factor (170mm x 170 mm). The Kontron KTT30/mITX is equipped with NVIDIA's Tegra 3 super processor and combines outstanding media performance with particularly low power consumption. With its integrated, ultra low-power GeForce GPU, the ARM Cortex-A9 900MHz Quad-Core processor board offers impressive 3D graphic performance and delivers a total energy consumption of just under 7 watts. These performance features make the board ideal for a wide spectrum of graphics- and video-oriented embedded applications like thin clients, Panel PCs and Mini-Box PCs, which are to be found in nearly all embedded computing vertical markets. The board which has a long-term availability of at least seven years is also predestined for markets such as medical, rail traffic and public safety.

Thanks to its standardized Mini-ITX form factor, the Kontron KTT30/mITX paves an efficient path for OEMs to integrate innovative ARM technology straight off-the-shelf and into their embedded applications. Not only are a wide range of Mini-ITX peripherals already available, but OEMs also benefit from Kontron's comprehensive customization services and extensive software support for Android and Linux which serve to minimize development time and costs. Besides the numerous USB and RS232 interfaces, several audio and video interfaces as well as miniPCIe extension slots, the Kontron KTT30/mITX offers a selection of interfaces to suit nearly every possible application. The extremely low-power consumption facilitates small passive cooling solutions which additionally reduce the bill of materials and development effort while simplifying implementation. Due to the board's low height of just 15.2 millimeters, extremely flat systems can be built and mounted directly onto the back of monitor and video panels, i.e. for HMIs or cost-efficient digital signage players. In addition, the board supports Full-HD (1080 p) video for both playback and recording

purposes - making it an ideal platform for video conferencing systems or security applications. As with all Kontron embedded motherboards, the new Kontron KTT30/mITX comes with a long-term availability of at least seven years as well as its outstanding and durable stability and reliability due to its high-quality board layout and selected top-grade components.

The feature set in detail:
The Kontron KTT30/mITX is based on the NVIDIA® Tegra 3 processor with four ARM Cortex-A9 CPU cores each with up to 900 MHz. An additional core with up to 500 MHz clock speed reduces power consumption to less than 1 watt in phases, when just media playback or background services are running. With its integrated 12-core NVIDIA® GeForce® GPU for low-power applications, life-like 3D graphics with dynamic lighting are possible at screen resolutions of up to 2048 x 1536 pixels. It also offers HDMI 1.4a and 24 bit LVDS video interfaces. Thanks to the integrated video encoder and decoder, as well as high resolution video playback it offers real time video compression, which can, for example, be supplied via the CSI/DSI camera port. Peripheral devices can be connected via three USB 2.0 ports and two RS232 ports. Operating system and application data can be hosted on the bootable eMMC. Two PCIe slots, one of which can also be used as an mSATA port, are available for application-specific extensions. An RJ45 Gigabit Ethernet port and analog audio-I/Os add the final touches to the feature set.

The Kontron embedded motherboard KTT30/mITX supports Android and Linux and is available now.

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http://www.kontron.com/arm/ [1]

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[1] http://www.kontron.com/arm/