Auvidea Launches JN30: A Low-Cost, Feature-Rich Carrier Board for NVIDIA Jetson Nano
Small AI Computer with High Performance for Embedded, Deep Learning and AI Applications

March 18, 2019: Auvidea today announced the new JN30 carrier board for the NVIDIA Jetson Nano module, a small, powerful AI computer.

This brings applications like deep learning, 3D computer vision with stereo cameras, HD H.264/H.265 video encoding/decoding, object and feature tracking and UAV flight control into a tiny factor, so it can be easily integrated in many applications.

“The Jetson Nano is the most compact and lowest cost compute module in the Jetson family, which allows us to develop a new low-cost line of carrier boards,” said Jurgen Stelbrink, CEO and founder of Auvidea. “The JN30 is our first product using Jetson Nano and targeted at embedded applications for integration into passively cooled enclosures. More compact carrier boards will follow.”

“Jetson Nano in combination with the Auvidea JN30 opens new possibilities for rebotnix in artificial intelligence,” said Gary Hilgemann, CEO of rebotnix technologies. “Optimised procedures for the visual recognition of objects can now be implemented in customer projects that were previously too costly. rebotnix will use Jetson Nano in combination with the JN30 in the fields of robotics for transportation, supermarkets, production halls for quality assurance, traffic management and smart home automation.”

The JN30 has all high-speed connectors on one side. This includes Gigabit Ethernet (1000BT), USB 3.0 type A for high-speed peripherals like stereo cameras, and two displays (HDMI and DisplayPort). For mass storage, the JN30 module contains 4 to 32 GB eMMC, an M.2 NVME slot for extremely high-performance SSDs with a read/write performance up to 2500 MB/s and an integrated 9-axis sensor (IMU). Up to four CSI-2 cameras may be connected. Specifically the IMX219 sensor (RPi camera 2.1) is supported for low-cost visual applications.

The JN30 supports a power input of 12V to 48V DC and can power PoE cameras with up to 13 watts. Flashing the Jetson Nano is made very easy by connecting the Jetson Nano system to a host system. It automatically enters the flashing mode - no cumbersome button presses are required. A supercap option supports graceful power downs in case of sudden power losses.
JN30 is a very modular design and can therefore easily be adopted to specific customer requirements. Interfaces may be omitted to save costs. In addition, Auvidea offers design services to customise its carrier boards at favourable prices with fast turnaround times.

The JN30 will start shipping in March/April 2019 and is priced starting at €79 net each.

Supporting Information

Auvidea GmbH is a worldwide operating supplier of standard products in the field of digital data processing and a developer of customised hardware solutions located in Bavaria/Germany (80 km from Munich).

The company designs, manufactures and markets products for embedded systems such as HD video capture and encoding, and CAN centric peripherals and sensors. Auvidea is a well-known manufacturer of video processors, digitisers, encoders / decoders, motherboards and their core business is carrier boards for the complete NVIDIA Jetson family.

Its customers are spread all over the world in different fields such as robotics, automotive, autonomous driving, communications, video processing, diagnostics, surveillance and quality control. Auvidea has a fully automated production line with 3D AOI in house and is therefore able to produce large quantities at high quality of standard and customised products.

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