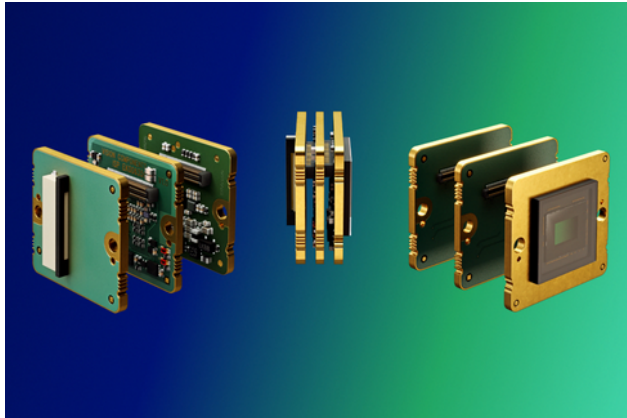


Vision Components at embedded world:

VC MIPI Camera Modules with integrated image pre-processing

Ettlingen, February 6, 2025. **Vision Components introduces VC MIPI Cameras with onboard image pre-processing at embedded world (March 11-13, 2025,**



Nuremberg). The tiny camera modules can detect and extract barcodes, objects, edges and laser lines as well as perform blob analyses and color conversions. VC will also show a new version of the FPGA accelerator VC Power SoM, a micro-coax cable option for the VC MIPI Cameras and a demo of the plug-and-play integration of its MIPI modules with the new Raspberry Pi 5 including Hailo TPU HAT.

Vision Components at embedded world: Hall 2, booth 2-551

For further information, visit: www.mipi-modules.com

VC Power SoC complements FPGA accelerators

All VC MIPI Cameras are now available with a VC Power SoC integrated into the design of the tiny modules, which enables image pre-processing directly on the MIPI module. VC is thus continuing its successful series of VC Power SoM FPGA accelerators: until now, the VC Power SoM could be integrated directly in the MIPI data stream as a component in the design of a base board or on an adapter board. With the VC Power SoC, this functionality is now a direct component of the camera module. The tiny form factor of the cameras remains unchanged: the FPGA accelerator is simply attached to the back of the camera module. Compared to the original VC Power SoM, the SoC version has fewer logic cells, but offers sufficient performance for many applications with the smallest possible space and cost consumption. VC is also expanding its range of FPGA accelerators with the even more cost-effective VC Power SoM light.

Micro-Coax for cable lengths of up to 75 cm

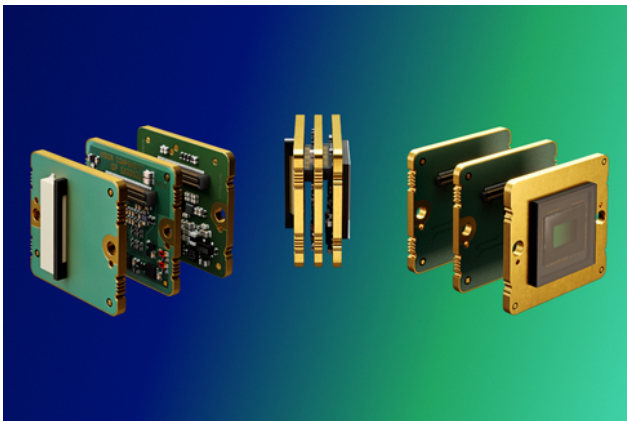
Another new feature is a micro-coax option as an alternative to the VC MIPI FPC Cables, which allows the VC MIPI Cameras to be integrated flexibly and with a cable length of up to 75 cm. For technical reasons, FPC cables are limited to a length of around 20 cm. The specially shielded VC Coax Cable uses an I-PEX connector. For the processor side, VC has developed an ultra-compact adapter, with which the cable can be connected via the MIPI CSI-2 interface of common processor boards. For even longer cable connections of up to 10 meters, the VC MIPI Cameras are also available with a GMSL2 option.

Full support for RPi 5 with Hailo TPU Hat

In an AI demo, Vision Components shows the full support of all its VC MIPI Camera Modules with the new Raspberry Pi 5 including Hailo TPU Hat at the booth. A YOLOV7 model is used, which can recognize and distinguish over 100 object classes out-of-the-box. This enables production-ready, AI-based object recognition with highly optimized computing power and at the lowest entry-level price.

Images:

VC-MIPI-Power-SoC_01.png



The new VC Power SoC is an FPGA accelerator for onboard image pre-processing, that is firmly integrated into the design of the VC MIPI Camera Modules. It is available as an option for all VC MIPI Cameras.

About Vision Components

Vision Components is a leading manufacturer of embedded vision systems with over 25 years of experience. The product range extends from versatile MIPI camera modules to freely programmable cameras with ARM/Linux and OEM systems for 2D and 3D image processing. The company was founded in 1996 by Michael Engel, inventor of the first industrial-grade intelligent camera. VC operates worldwide, with sales offices in the USA, Japan, and UAE as well as local partners in over 25 countries.

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