



# Emberion mentioned in news press for machine vision

ROADMAP 2021/22

## Best of a bright future

Embedded vision and 3D imaging are top of the agenda on a lot of companies' plans for the coming year

Over the next 12 months **Gpilot** is ramping up several image sensors currently in the sampling stage. **Gpilot1521**, providing 21 megapixels at 1,000fps, is the fastest image commercially available and ideally suited for sports broadcasting and other high-speed video applications. **Gmact3152** is the world's highest resolution global shutter sensor, and its 152 megapixels will be put to work in flat panel inspection and aerial imaging.

**GTO19503** provides improved precision over previous generations of time-of-flight sensors and specifically targets robotics and inspection. Also, **Gpilot** will be launching a new product family for the professional imaging segment that will be especially exciting for drones and cinematography. The company will continue to focus on the needs of the specialty imaging market while expanding its portfolio to serve more applications.

[www.gpilot.com](http://www.gpilot.com)

**Emberion's** focus on industrial machine vision will continue over the coming year; its evaluation kit camera is currently available. **Emberion** produces high performance visible to shortwave infrared cameras, from 400 to 2,000nm, based on its nanometer-thin sensor and custom CMOS readout integrated circuit. The company's camera and sensor roadmap includes a spectral range of up to 2,500nm, megapixel densities and frame rates up to 400fps, all of which will be released over the next year.



to offer 400fps cameras for optical sorting and other markets. The performance of the sensor will allow it to detect objects in dark conditions with competitive signal-to-noise ratio, while taking advantage of its high dynamic range.

Additionally, the firm is developing an ultra-broadband solution that will cover a wavelength range from the visible into the midwave infrared for simultaneous imaging in areas such as broadband surveillance and hyperspectral imaging.

[www.emberion.com](http://www.emberion.com)

**Vision Components** will present an FPGA-based hardware accelerator designed for image processing and analysis tasks. Offering two Miopi-CSI-2 interfaces for input and output, and a powerful FPGA, the new board can be integrated directly into Miopi data streams. It can process and merge data from several cameras - i.e. for stereo vision applications - or be used as an AI accelerator platform.



Depending on customer requirements and know-how, the **FPGA** with its 120,000 **LUFs** is fully accessible. In addition, **Vision Components** offers customer-specific **FPGA** implementation for quick and easy integration with OEM applications. The board will be available towards the end of 2021.

[www.vision-components.com](http://www.vision-components.com)

New from **Hema Electronic** is a mainboard carrying the **Xilinx Fx10k** system-on-

module to demonstrate the firm's fast and modular embedded vision design service for industrial development. The main focus towards the end of the year will be to integrate **Xilinx** modules with edge-AI capabilities into **Hema's** embedded vision platform. This platform allows customers to assemble interfaces and functionalities from a modular system and also add their own circuits. As a result, users receive customised, close-to-production electronics in just six weeks from the time of order. This is ideal to bridge the gap between evaluation and series production.

The rapid development of individual prototypes is also enabled by the company's fast turn board service, which will also be enhanced. In addition, **Hema** plans to integrate new system-on-modules from its partners **Xilinx** and **Eurostra**, and to expand its modular platform with new functions and interfaces for industrial vision applications.

[www.hemad.com](http://www.hemad.com)

Following **Active Silicon's** acquisition by **Solid State** in March 2021, the firm is widening its skills base into broader embedded computing and technology for bank environments.

This year will see the company launch technology designed for IoT applications but suitable for any more. Its **Harrier IP** camera interface board provides **IP** (Ethernet) output for compact autofocus-zoom cameras. It is based on a powerful system-on-chip processor that



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**Picera's** inspection system automates manual tasks by identifying and visually highlighting differences and deviations through the manufacturing process. Automating inspection or adding decision-support for humans speeds inspection rates, improves end-to-end product quality, and ensures manufacturing processes are repeatable and traceable.



EMBERION VIS-SWIR CAMERA AVAILABLE NOW

EMBERION

**Emberion** has released its wide spectral range Visible to Short wavelength (400-2000nm) infrared camera **EMBERION VS20** with its unique nanometer based sensor offering high dynamic range. Our evaluation cameras are now available for order. Contact **Emberion** to hear more about this camera targeting industrial machine vision applications.



Matrox Iris GTX edge to T devices

Matrox Imaging

The next evolution in smart cameras is **Matrox Iris GTX** series. An Intel® embedded processor enhances performance, and paired with **Matrox Design Assistant X** flowchart-based software, these edge IoT devices comfortably handle machine vision workloads and deep learning inference demands.

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## Product Line, IMVE

The screenshot shows the Vision Systems Design website. The top navigation bar includes: HOME, ABOUT US, CONTACT, PRODUCTS, SERVICES, SOLUTIONS, PARTNERS, PRESS, CAREERS, and LOGIN. The main content area features a 'PRODUCT LINE' section with a grid of products: 'Active Silicon', 'Harrier IP', 'Matrox Iris GTX', and 'Emberion VS20'. Below this is a 'NEWS' section with several articles, including 'New from Hema Electronic' and 'Active Silicon's acquisition by Solid State'. The bottom of the page has a footer with '© 2021 Vision Systems Design' and 'All rights reserved'.