

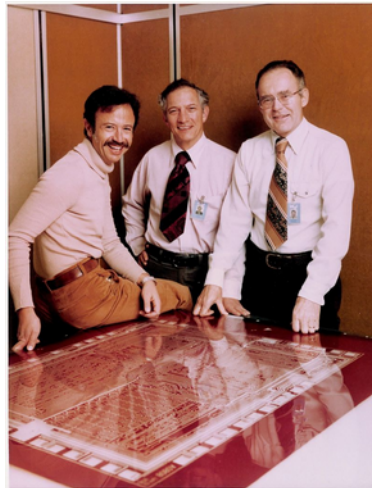
**A dreamer is someone who finds its way in the moonlight and sees tomorrow before the rest of the world.**

*Oscar Wilde*

## CEO's Note

Dear Reader,

Fairchild Semiconductor, basically the first integrated circuit company, was founded on October 1st, 1957 by eight men. Also present were Gordon Moore and Robert Noyce (refer to the picture on the right). Just one year after the company was founded, Robert Noyce was able to produce the first monolithic integrated circuit (IC). Although this was the actual birth of the IC and Robert Noyce, along with Jack Kilby (Texas Instruments), another name stuck in our minds: Gordon Moore. In 1965 he postulated that the number of switching elements on a semiconductor chip would double within twelve months (corrected to two years in 1975). Gordon Moore's law has survived to this day and has gone down in history as "Moor's Law". Be that as it may, the world would be different without the invention of the IC and ongoing miniaturization.



*Andy Grove, Robert Noyce and Gordon Moore (left to right, credit Intel)*

I can still remember well when a discussion broke out in the early 1980s as to whether it would be possible to achieve structure widths of less than 450 nanometers (blue light). Simply because one could not imagine that the structures produced by photolithography could be smaller than the wavelengths of light used for photolithography. Well, we know how the story went on. Structures with a width of 3 nanometers are already in series production and 2 nanometers are just around the corner. Unbelievable! The technology of light and matter has always fascinated me incredibly. And also how Gordon Moore foresaw the further development over decades.

The visionary passed away last week at the age of 94. My greatest admiration, rest in peace.

Beat De Coi

## ESPROS' Business Unit Modules is growing rapidly

As it has been steadily expanding over recent years, 2023 marks the next significant phase of the ESPROS Modules Business Unit.

Until recently the ESPROS name had been most closely associated with TOF chips, the company has since invested large resources into the development and marketing of its TOF camera modules, based on the own TOF chips. "Following the very positive feedback of our module products, in particular the TOFcam-635 and the TOFcam-660, we are working very closely with a number of leading companies on confidential customer specific projects", said Udo Graf, Product Manager Business Unit Modules. "We have increased our planned attendance at trade fairs in the near future to increase market awareness of the immense application possibilities of our modules," he further added.

The Business Unit Semiconductors has made great strides over the past decade establishing ESPROS as a major player in TOF applications. The TOF module team plans the very same. "In short, that's a win-win situation as our modules all use ESPROS chips, so the expertise generated here is passed onto our modules. This enables us to offer excellent customer specific solutions.

Major application markets are activity monitoring, container monitoring, infrastructure sensing, agriculture automation, mobile robotics, autonomous driving, industrial automation, among others.



*TOFcam-660 in production. Application for the customer: Fall detection*

The markets are fast growing and ESPROS TOF chips and modules play an important part herein.

### What is your job at ESPROS?

I'm a Product Manager, taking care among our chip products and applications.

### How long have you been working at ESPROS?

I started working with ESPROS in 2021, after I achieved my bachelor in Photonics from the University of Applied Sciences in Chur.

### What do you most enjoy about your job?

The varied work, the technical challenge, high-tech products, exciting markets, great people in the team and in the company itself.

### Where are you from originally and where do you now live?

I was born in Osaka, Japan. My parents were there on business for two years. But I have lived in Wesen on the beautiful lake Walensee since I was one year old.



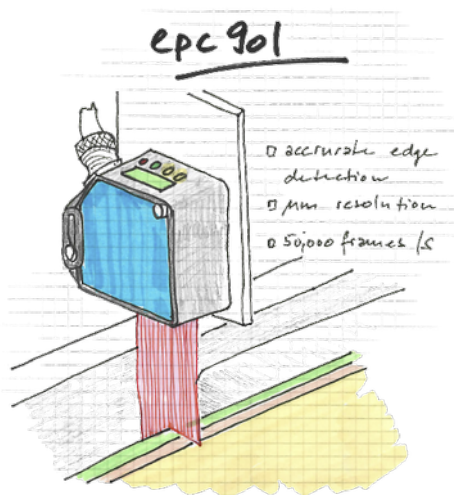
### What do you like to do in your spare time?

In my spare time, I love to ride mountain bike. It's a hobby that I started when I was 15 years old.

Last year, I decided to try something different and started cycling on the road. I never thought road cycling was something I would enjoy. However, I soon realized that it was a whole different experience and a great way to explore new places. One of the most memorable bike tours I did last year was with two friends. We cycled from Weesen to Lake Como via Passo Spluga, and it was simply amazing. The scenery was breathtaking. We started at 4am and arrived 4pm with a 1h break. The photo you see was taken at Längeneggpass in Glarus, Switzerland, during my last mountain bike tour on November 13th, 2022. It was a challenging and exhilarating ride, and it reminded me of why I love cycling so much.

## ESPROS exhibits at AUTOMATICA in Munich

Echoing our CEO's words on the vital importance of AI. Both Digitalization and AI are the focus of [Automatica 2023](#), 'The Leading Exhibition for Smart Automation and Robotics'. Taking place at the end of June in Munich. Here ESPROS will exhibit its comprehensive range of time-of-flight sensors, line imagers and photo diodes for industrial applications such as, level monitoring, access control, logistic robots, security systems etc.



epc901 for µm-accurate edge detection

Automatica 2023 reflects how recent events have clearly shown that vulnerable logistics structures can bring industrial production to a standstill. The current supply problems are generally noticeable – and in the energy sector or medical field, they are anything but a luxury problem. But what makes supply chains less vulnerable? How do intelligent automation and digital networking contribute to more economical, independent and sustainable production in Europe as well?

Problem solvers can be smart and AI-based production lines – as well as robots, cobots, mobile robot systems and AGVs. These issues will be addressed at Automatica 2023.

While ESPROS is globally renowned for its time-of-flight chips and modules we also have a proven package of photo diodes, photo diode arrays, and line imager. This centers on the epc901 line-imager with its 1024x1 pixel, is ideal for triangulation, surface scan and encoding. This is possible due to its backside illuminated imaging technology (BSI).

Make sure to call into our booth, B5.108 at Automatica. For more information, click [here](#).



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