



The basis of every state is the education of its youth.

Diogenes, 400 BC

CEO's Note

Dear Reader,

Photonics is a technology which is quite important. Most of our readers are specialists in one of the fields of photonics like electronics, physics, optics, information science or the like. And such people typically are a bit quiet, doing their job but not talking much about it. Unlike typical politicians which do not miss any opportunity to talk into a microphone or tv camera saying something unimportant, useless, stupid or even untrue. "One should not underestimate the stupidity of governments" A very telling quote by former German Chancellor, Helmut Schmidt. An example for a lie needed? Here it is: The Swiss government released an official statement at the beginning of the Corona pandemic that face masks do not have any positive effect against the virus infection. Strange, isn't it? Why do we wear face masks in our cleanrooms? Why does the surgeon and his assistants wear a face mask during an operation?

Anyhow, we know why and we are careful listeners. Back to our photonics community and its engineers. They don't talk usually about the importance of the

technology they are dealing with. The result? The majority of society has no clue how important photonics is. We know that there would be no mobile phone, no tablet, no computer, no internet, no fuel efficient car, no electric car, no manufacturing machine, no camera, no Olympic Games in Tokyo, no COVID vaccine, no x-ray examination of a broken leg or a tooth, no medical device (even sophisticated scalpels use a laser for cutting) no coffee maker, simply no nothing. Just name it and upon closer inspection, you will realize that photonics is involved. What about clean energy? No solar panel, no windmill power plant, no hydro power plant, no LED lighting. Again, simply no nothing.

Photonics is such an important technology that it deserves much greater recognition than it has. If you ask your friends or family members, most likely they don't know, what photonics is. That's bitter!

So, please help to spread the word. Tell everybody you know that is the use of light for doing almost everything.

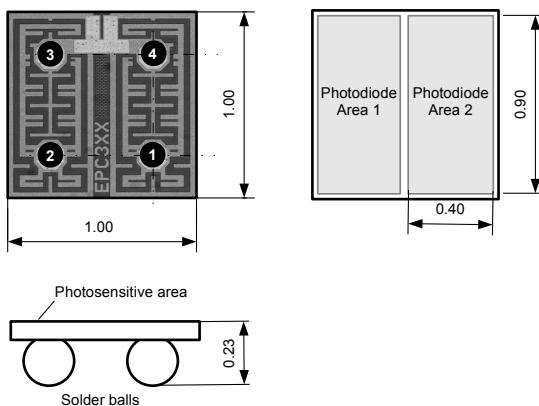
Beat De Coi

epc3xx – Ultra Small Photodiode Arrays

The epc3xx range of photodiode arrays are designed for applications such as:

- photo switches
- level detection
- blood oxygen measurement
- triangulation
- spectrometry
- angle measurement
- RGB sensor
- etc.

The first image shows a variant of two photo diodes on one substrate. Various other configurations are



epc300 dual photo diode



Customer specific color meter photo diode 3x5mm

available as a standard products. And, customized versions are available as well as shown in the second image.

All products feature

- low dark current
- high quantum efficiency (400 .. 1100 nm)
- high dynamic range
- excellent channel separation (low crosstalk)
- ultra small chip scale package
- very low cost

Find the datasheet of these versatile photo diode arrays [here](#).

What are your responsibilities at ESPROS?

I'm responsible for all packaging related production processes. This starts with the solder ball attachment to our TOF sensor wafers and ends with the assembly of our thinned chips including soldering, under-filling and optional mounting of optical elements, such as lenses or filters. Furthermore, I am in-charge of continuously improving the packaging processes and developing them for our new products.

How long have you been working with ESPROS?

I started last September.

What do you most enjoy about working with ESPROS?

I like the diverse and multidisciplinary nature of my job and also the close interaction with chip design, product engineering, customers and suppliers. In addition, the multicultural environment suits me and I find it exciting to work on cutting-edge technologies.

Where in Switzerland do you live?

I grew up in the countryside around Zürich, but I have since moved to Sargans.



What do you like doing in your spare time?

I enjoy the outdoors especially the mountains and forests. In winter I can often be found with skis on my feet skiing downhill, ski-touring or cross country skiing. Once the snow melts, I like to go orienteering (running with a map and a compass in the forest) or mountaineering/hiking in the Alps.

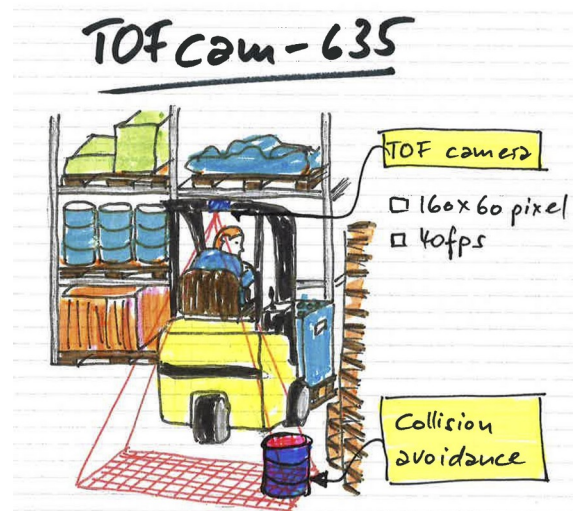
Collision avoidance with TOFcam-635

Forklifts are very useful in moving goods within a warehouse, cargo port and similar facilities. However, there is always the risk that they might accidentally crash into goods, humans and shelves. Simply because the driver's visibility is limited. A sensor which has the ability to reliably detect an object in the path of the vehicle can help avoid such accidents.

TOF cameras provide a 3D image of the scenery. Thus, objects can be detected, identified and classified. Typical applications are near field LiDAR systems for automatic guided vehicles (AGV). The job of the TOF camera is to help avoid collisions.

The same sensors can be used to make forklift safer. The TOFcam-635 is a simple and easy to use camera which provides a 3D point cloud. It is thus very flexible and the data interpretation can easily be integrated into the drive control. E.g. an ROS driver for Linux is available which simplifies the integration.

The TOFcam635 is a high volume product, thus its cost is very low. Due to its exceptional economical scale, it has found many applications from door automation over AGVs up to silo monitoring.



TOF camera to avoid collisions when driving backwards

Interested? Click [here](#) to download the datasheet or talk to your sales representative.

You want to purchase our products? Check out on [Digi-Key](#) or get in touch with our [sales team](#).



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