

The only real mistake is the one from which we learn nothing.
Henry Ford

CEO's Note

Dear Reader,

I don't know if it is appropriate to say that the stranglehold of the pandemic is slowly weakening and life is slowly returning to normal. At least in Switzerland this is the case. I am not saying that our government and our bureaucrats have managed this crisis well. On the contrary: absurd regulations and restrictions, lying politicians ("masks are useless!", "Overloading the health system and intensive care beds"), an expensive useless Swiss-own development of the COVID tracking app, the list could be extended at will. Crisis management at its best, formulated cynically. I fear that not much has been learned and that we will have to live with the same weaknesses again in the next crisis.

But what I find extremely positive: Video conferencing has secured a permanent place in business life. It has greatly reduced (business) travel and will continue to do so in the future. The video conferencing tools have improved enormously in quality as a result of the pandemic. They are now stable

around the world. Without the pandemic, this process, which I believe to be very positive, would not have achieved this level for many years.



Source: <https://www.techworm.net/wp-content/uploads/2020/04/Microsoft-Teams.jpg>

As the saying goes: "Suffering creates innovation".

Beat De Coi

Module mass production has begun

This year saw Arben Ibrahimli assume the role of ESPROS Head of Supply chain for module production. This position was created to cope with the greatly increased demand for camera modules. Arben brings more than 20 years experience in setting up and managing sensor production lines.

Work has been ongoing since January 2021 on setting up the production lines for camera modules in Sargans. Two big orders for the TOFcam-660 and thousands of other TOF cameras have already been produced and delivered. The staff of the module production will grow heavily in the upcoming months.



A major advantage of the criteria of the 'One-Piece-Flow' concept lies in the reduction in the number of semi-completed products.



Throughput and manufacturing times are significantly reduced.

A further positive aspect of the principle is that employees learn to master all steps at the individual working station. In this way the tasks for the employees become more varied. Good for their health, physically and mentally.

Efficiency is paramount

"The major challenge will be training the employees, then advanced training and efficient procurement of material. The circuit boards are assembled by external EMSs. Within the next few weeks the so-called 'One-Piece-Flow'-mounting will be up and running", explains Ibrahimli.

Tens of thousands of cameras planned for 2022

As the semi-finished products such as circuit boards come off SMD machines, the cameras will be manufactured in seven steps at the Sargans facility. Following this they undergo an endurance test called Burn-In. The cameras are in ovens at high temperature for days to detect early failures and to improve the yield.

People Counter with epc660 enters mass production

Yet another important milestone for ESPROS and its partner the **Shanghai Data Miracle Intelligent Technology Co., Ltd**, whose SmartToF® People counting product for public transportation using the epc660 has been upgraded to V3.0 and is moving to mass production.

Jie Chao Xiao, Product Manager with Data Miracle, says the move is «a major milestone for the two companies. The SmartToF® People Counter is a DMIT independently developed product based on 3D TOF technology. It provides fast and accurate counting by utilizing the depth information provided by the epc660.»

The epc660 is a fully integrated 3D-TOF imager with a resolution of 320 x 240 pixels (QVGA). It is a highly integrated system-on-chip camera system. Apart from the actual CCD pixel-field, it includes the complete control logic to operate the device. Data communication is done through a high-speed digital 12-bit parallel video interface. Even for mobile devices, only a few additional components are needed to integrate 3D camera capability. Depending on the system design, a resolution in the millimeter range for measurements up to 100 meters is feasible. 55 full frame TOF images are delivered in optimal configuration. The advanced operation modes can boost to more than 1000 TOF images per second!

The high degree of integration lays the basis for a straight-forward camera system design with minimal part count. The extremely high optical sensitivity allows a reduced illumination subsystem. It reduces the power consumption and cost significantly. An evaluation kit with hard- and software examples together with comprehensive manuals help the system designer to speed up system integration.



More information [here](#).

Overview of the Shanghai Data Miracle Intelligent Technology Co., Ltd.

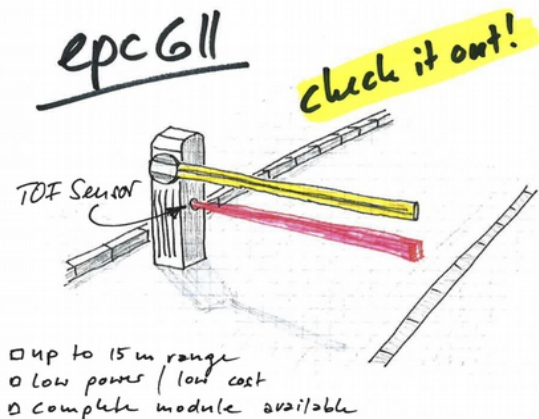
The Shanghai Data Miracle Intelligent Technology Co., Ltd. specializes in the development and sales of 3D TOF systems, products including SmartToF® 3D cameras, SmartToF® software development kits, SmartToF® 3D ISP and industrial 3D vision applications. The management and R&D teams come from world-class companies, such as Fujitsu, Lenovo and IBM, as well as top universities in China to ensure strong capability in innovation and development. Data Miracle has established close cooperation with the world's leading 3D sensor manufacturers.

www.smarttof.com

epc611 for gate automation and protection

Reliable sensing technologies are the key to optimizing safety and performance for doors and gates. Time-of-Flight (TOF) sensors enable the merging of various conventional features such as inductive loop control, moving direction detection and object classification in one single sensor. This results in extremely economic and smart designs for gate control and protection. The ESPROS epc6xx TOF imager range covers all these requirements.

For example, the epc611 TOF imager chip with its 8x8 pixels offers a low cost approach, suitable for long range detection without requiring a reflector and under full sunlight conditions. It's an ideal choice for presence sensing, collision avoidance, direction of movement detection and object counting in door and gate applications!



Find more information [here](#).

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