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epc660 powers the iris IRMA 6 R2 people-counter

How do you make a very successful product even more successful? Improve it with a TOF chip from ESPROS Photonics AG. That's what leading German sensor solutions provider, iris-GmbH, decided to do with its recently launched IRMA 6 R2. Its latest generation of people-counting sensor designed for public transportation systems. The product is based on the ESPROS 3D TOF imager epc660. iris' leading sensors use advanced 3D technology to ensure accurate automatic passenger counting on buses, trams subways and trains. Seven days a week. Around the clock. And around the globe.

The epc660 enables the accurate and reliable counting of all passengers getting on and off. In addition the person or object can also be classified (child, adult, stroller, bicycle, etc.)
The epc660 enables the IRMA 6 R2 to set a new standard for future-proof automatic passenger-counting and object-recognition. The product was officially presented to the market at the UITP Global Public Transport Summit in Barcelona last June.

Mounted above the train or bus door, the IRMA 6 R2 utilizes the exceptional performance of the epc660 to offer the following applications: Occupancy rate detection in real time, effective passenger guidance, needs-based control of fleet deployment, vehicle design according to passenger requirements, cost reduction by optimizing routes, precise revenue allocation based on the transportation service provided, matching ridership to ticket sales, transmission of the occupancy rate to traffic control systems or rescue services for emergency purposes.

The epc660 is a fully integrated 3D-TOF imager with a resolution of 320×240 pixels (QVGA). It is a highly integrated system-on-chip camera system, it offers unbeatable, detection reliability in the brightest daylight as well as in complete darkness.
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. 65 full frame TOF images are delivered in maximal configuration.
The high degree of integration lays the basis for a straight-forward camera system design with minimal part count. The extremely high sensitivity of the optical front end allows for a reduced illumination subsystem and reduces the power consumption of the overall system significantly.

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About iris-GmbH

For 30 years, iris-GmbH has been the worldwide leader of Automated Passenger Counting sensors. The company entered the market in the early 1990s with an infrared overhead APC sensor. The company solely focuses on the development, design and manufacturing of APC sensors for transit agencies.

iris-GmbH's objective is to provide the most accurate APC sensor for the industry. In addition, the company has highly skilled project managers who are assisting agencies and their ITS providers on various projects. IRMA sensors, the company's product line of APC sensors, count passengers at more than 400 transit agencies around the world. The sensors have been connected to over 100 different ITS providers' on-board units.

In 2014, iris-GmbH opened a subsidiary in Atlanta/Georgia, the iris Inc. North America. The company's objective is to provide local technical and commercial support for its APC users. Other additional sales offices exist in France, Poland and Australia.

www.iris-sensing.com

About ESPROS Photonics AG

ESPROS Photonics is a semiconductor company based in Switzerland with a subsidiary in the USA. The company has developed and patented a unique CMOS/CCD process. Based on this technology, ESPROS develops and manufactures 3D TOF and LiDAR imagers, line imagers and photodiodes. Furthermore, the company develops customer specific ASICs. In addition, ESPROS also develops and produces 3D sensor camera modules, all based on its own 3D imagers. The products can be found in various application areas, such as industrial sensors, sensors for public infrastructure or in the field of autonomous robots and vehicles.

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IRMA 6 R2

epc660 chip on carrier

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