

LIDAR

MEMS-based 3D-sensor

Innoviz Technologies has launched the Innovizpro lidar sensor. It provides a CAN interface for control purposes.

At CES 2018, Innoviz's 3D-lidar was the winner of the Innovation Awards in the Vehicle Intelligence and Self-Driving Technology category. The product is sampled beginning of 2018. It provides a 1-Gbit/s Ethernet interface for the sensor data and a CAN port for controlling the lidar. The CAN interface is accessible by means of 9-pin Dsub connector.

Innovizpro is a development platform comprising a IP67-rated lidar sensor with a 73° by 20° field of view. The range accuracy is 3 cm. The laser beam is eye-safe and has a wavelength of 905 nm. It returns about two million points per second. The time-stamp resolution is 1 μs. The sensor creates a dense 3D-point cloud. The detection range is up to 150 m. This allows the lidar to detect objects even in the dark of night, cases of bright sunlight or quickly changing weather, and when the vehicle is traveling at highway speeds. Its design also allows configuration of regions of interest and ensures reliability and resilience to sunlight.



The solid-state lidar features a detection range of up to 150 m (Photo: Innoviz)

"Innovizpro provides immediate accessibility to our advanced lidar technology and marks a giant leap forward for the entire autonomous vehicle market," said Omer Keilaf, CEO & Co-Founder of Innoviz. "We are addressing a major need for high-resolution scanning technology at lower cost, with no minimum order required. While we continue to work towards automotive-grade lidar with Innovizone, our partners can order Innovizpro now in order to gain access to the most advanced lidar currently available."

Founded in early 2016 and backed by US-\$ 82 million in funding, Innoviz is one of the first lidar providers to deliver a complete product to market. With more than 110 employees worldwide, the company has signed strategic partnerships to manufacture as well as integrate its lidar sensors into the autonomous driving systems of market leaders and Tier-1 suppliers including Aptiv (Delphi Automotive) and Magna International. The products are intended for autonomous driving – SAE level 3 to level 5. But they also address other markets including service robots, automated-guided vehicles, etc.

At CES 2018, the lidar products by Innoviz was also shown on the booths of Osram, Samsung, and Valens.

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