

## **Broadcom ToF Sensors: The Future of Distance Sensing**

## 1 November 2023



Here at AP Technologies we're excited about the new ToF distance sensors from Broadcom.

Time of Flight (ToF) sensing is a new technology offering a number of advantages over other distance sensing technologies such as ultrasonic or infrared sensing. Broadcom have brought to market ToF sensors that are more accurate, have a longer range, and are less susceptible to interference. Additionally, the ToF sensors can be used to create real-time 3D images of the objects they are sensing, making them ideal for a very wide variety of applications.

Broadcom ToF sensors are available in a variety of models with different beam patterns, fields of view, and ranges. This makes them suitable for a wide range of applications. They can be used in:

- Robotics: to help robots navigate and avoid obstacles.
- Gesture recognition: to recognize gestures and track movements.
- Security and surveillance: to detect intruders and track their movements.
- Autonomous vehicles: for collision avoidance and lane keeping assistance.
- Industrial automation: for product inspection and quality control.
- UAV: cliff avoidance and to maintain a constant height over uneven ground

Broadcom ToF sensors are also highly ruggedised and can operate in a wide range of temperatures. This makes them ideal for use in harsh environments, such as factories and construction sites and external locations.

Advantages of Broadcom ToF sensors over other such products include:

- Higher accuracy: the sensors have a resolution of as little as 1mm, making them ideal for applications where precision is critical.
- With their long sensing range, from 1.5cm to 100m, they're well suited to a wide range of applications.
- Eye-safe: With TÜV Class 1 eye-safe certification they are appropriate for use in human environments.
- Low SWaP: Easier system integration Broadcom ToF sensors are small and lightweight, with dimensions of just 12.4 mm  $\times$  7.6 mm  $\times$  7.9 mm and a weight of less than 1 gram.
- Ruggedized: With effective working temperature range of -20°C to +70°C, the ToF sensors making them compatible for use in harsh environments.

If you're curious and would like to find out more, APT are ready and waiting to discuss your application and offer a solution. Please visit the <u>product page</u> on the AP Technologies website or <u>contact the company</u>.