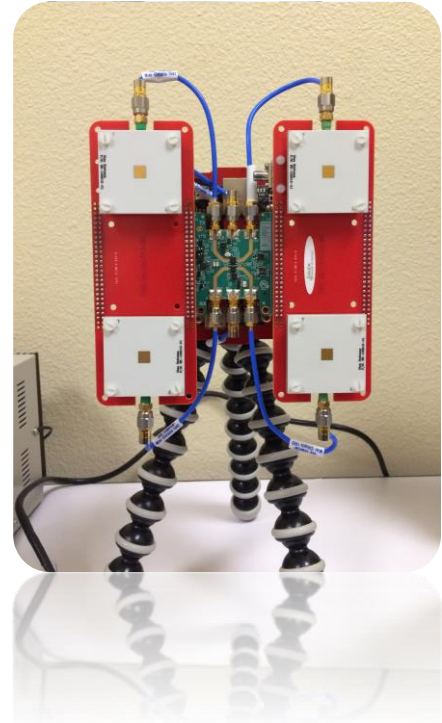


## OS-8005 - UWB SENSOR DATA SHEET

Olea Sensor Networks (incorporated as Olea Systems, Incorporated) develops intelligent sensors and analytic software that promise to revolutionize mobile and cloud-based service solutions for a wide variety of applications, including connected car, connected care and security, identity access management, surveillance, using the “Internet of Things” (IoT) machine-to-machine (M2M) communications infrastructure.



### OleaVision™ Human Presence Detector



Advances in world population, automation and mobility have created the need for a greater amount of information about how and when people move through their environment. Technology has also increased our expectation of what information should be immediately available to us in order to manage our lives on a daily basis. There is a call for advanced and responsible safety mechanisms to protect people from the dangers of such things as vehicle collisions, home invasion and excessive waste of energy resources.

Olea Sensor Networks answers that call with OleaVision™ technology, which has the unique ability to differentiate between live animate beings and inanimate objects up to a 5-meter distance for both moving and stationary applications regardless of whether the monitored subject is moving or motionless, and to distinguish between human and animal presence. OleaVision™ makes it possible to improve upon existing technologies for collision avoidance, intrusion detection, fire safety, search and rescue, surveillance, customer analytics (people counting) and energy management. These applications stretch across multiple industries including consumer automotive, transportation, industrial equipment, smart home, retail marketing and security

## OLEAVISION OS-8005 UWB SENSOR

### Intelligent sensor data acquisition platform

Now available for purchase for non-clinical R&D use

#### On-Board Intelligent Sensors

- **OleaVision™— 7.25-8.5 GHz World-Wide UWB Doppler Radar Sensor**
- **-41dBm output power**
- **On Board Beagle Bone Processor Board**
- **Olea UWB Omni-Directional Antennas**
- **Dynamic Real-Time Switching System**
- **180 degree Field of View**

#### Connectivity

- **Wired (micro USB 3.0)**
- **Low-energy Bluetooth 4.0 (planned optional add-on)**
- **IEEE 802.11b/g WiFi (planned optional add-on)**
- **GSM/GPRS on-board cellular module (planned optional add-on)**

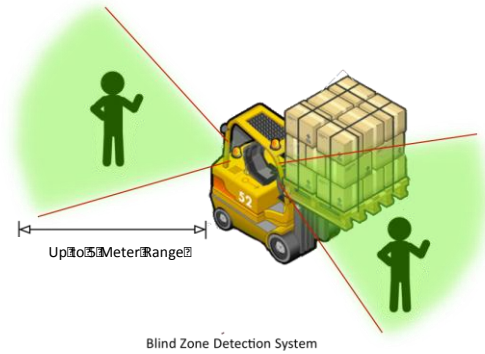
#### Key Features

- 5 Meter Detection Zone in Total Darkness
- Discriminate Between Inanimate Objects & Human Presence
- Detecting Stationary & Moving Pedestrians
- Ability to Detect Occupancy In Vehicle (Child Left Behind)
- Contactless
- Transparent
- Ubiquitous



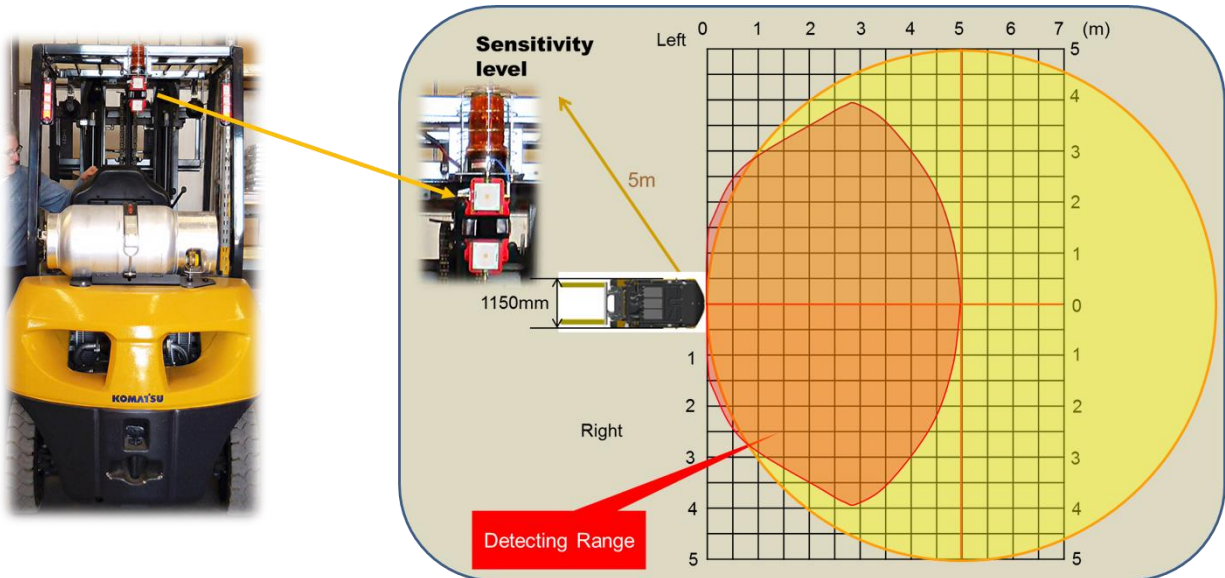
### OleaVision™ Collision Avoidance for Industrial Trucks

According to OSHA, forklift accidents alone are the cause of nearly 35,000 serious injuries a year, 85 of which are fatal. OleaVision™ continuously scans the area, including blind spots, differentiates between animate and inanimate objects, and alerts the operator of life forms that may be in imminent danger, giving the operator time to react.



### STATIONARY & MOVING PEDESTRIAN DETECTOR

OleaVision™ continuously scans the area, including blind spots, for moving and stationary animate objects and is equally effective in limited visibility due to darkness or inclement weather.



**FORKLIFT & PEDESTRIAN MOVING TOWARDS EACH OTHER**

	Starting Distance	Vehicle	Target		Detection Distance
1	6m	1-2 km/hr	Person	Stationary	4.6m
2	6m	3 km/hr	Person	Stationary	4.5m
3	6m	5 km/hr	Person	Stationary	4.4m
4	6m	Stationary	Person	Approach @ 2km/hr	4.6m
5	0.5m	Going away @ 2km/hr	Person	Going Away @ 2km/hr	5m
6	6m	Towards @ 2km/hr	Person	Towards	4.4m
7	6m	Towards @ 2km/hr	Cart	Stationary	4.5

The OleaVision™ development platform enables manufacturers to provide a collision avoidance system for its powered industrial trucks. Manufacturers can integrate Olea’s cost-effective human presence detection technology into a their forklift in order to warn operators when people are in their blind spot. Olea’s system has the capability to predict a collision based on the trajectories of the forklift and obstacle, so that the operator will be warned only when there is an actual risk of collision. This collision avoidance system is able to alert the forklift operator to maintain a safe distance from workers on foot and other pedestrians/bystanders. The OleaVision™ sensor will be able to operate at all hours of the day and night, in any weather condition, including rain, fog, and snow, and be able to withstand the harsh conditions found at construction and mining sites.