



Lensless Smart Sensor (LSS) for Room Occupancy

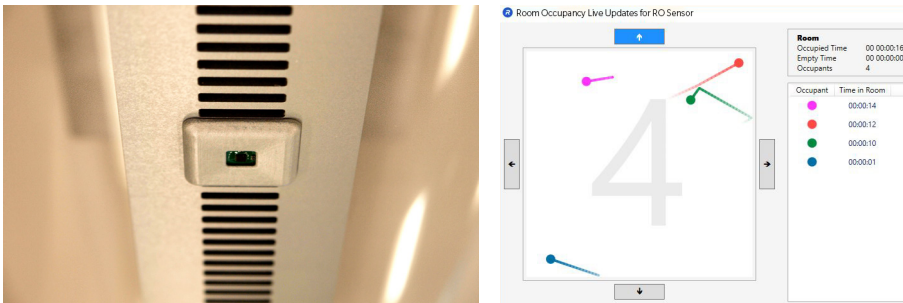
Privacy-preserving solution for room occupancy sensing and usage metrics

Detailed room occupancy data gathering

The LSS for Room Occupancy solution from Rambus is a hardware and software-based product, allowing building owners and managers to fully understand the utilization of their spaces.

Capable of detecting, counting and following occupant movements, LSS for Room Occupancy allows the capture of optical information without risking occupant privacy. Focused images are never captured or created, and occupant identification can never be performed, allowing the deployment of LSS into public and private areas of buildings.

LSS for Room Occupancy can be deployed in smart lighting fixtures or ceilings. Data from the sensors can be used for mission-critical tasks such as occupancy-based lighting activation, or for more advanced functions like proactive HVAC operation based on occupant load. Also included in the LSS for Room Occupancy solution is occupant location data, allowing movement pattern analysis for activation of smart features such as projectors, video screens, and targeted lighting.



The Rambus LSS for Room Occupancy system can be customized to OEM preferences, including sensor resolution, algorithm characteristics, and sensor pack industrial design.

Highlights

Hardware

- Small size enables design-friendly installation into ceilings or smart lighting fixtures
- Multi-aperture optical sensing allows sensing from heights as high as 3.5 meters without sacrificing performance
- 140° sensor field of view enables coverage of large rooms
- 700 x 700 on-device resolution enables multiple occupants to be detected, counted, and followed
- Communications-protocol agnostic; modular design can be adapted for all popular communications platforms
- Privacy preserving; focused images are never captured or created

Software Algorithms

- Designed to detect, count, and follow occupants based on unique LSS sensor output
- Low overhead algorithms designed for sensor endpoint processing; only decision data is passed to host system
- Sample application provided

rambus.com/lss

