irisys TrueOccupancy

Desk Sensing

Wireless, privacy protecting, desk level occupancy sensing

- Measure individual workstation usage and get highly granular, objective data for strategic decision making
- Power desk booking and hotelling systems with live utilization data and enable employees to be happier and more productive
- Simple to deploy, the Desk Sensor is optimized for long battery life and long range wireless performance

MEASURE the utilization of every desk
MANAGE live workstation availability
OPTIMIZE resource usage and demand

Our desk sensing solution uses a wireless PIR desk sensor to detect the presence (or absence) of a person sitting/standing at a desk. Mounted underneath the desk, the Desk Sensor protects privacy as it does not collect any personal data and only reports a binary occupied or unoccupied status.

The Desk Sensor works in conjunction with a wide-area Gateway that collects data from multiple Desk Sensors and provides connectivity to the True Data platform.

- **Privacy protecting:** Uses Passive Infrared (PIR) to anonymously detect the presence of a person.
- **Long range wireless communications:** Desk Sensor communicates to Gateway via LoRaWAN. A single Gateway can cover between 250-500 Desk Sensors within 300m (~900ft) range*
- **Long battery life (3+ years):** Desk Sensor is designed for optimal battery life.
- **Small, unobtrusive design:** Discreet sensor with extremely small footprint – 42mm (1½inch) square.
- **Simple, fast deployment:** Stick and go. No wires or cabling required.

*(*range can be impacted by building construction)*

SKUs

IRTDK2300-AU **IRTDK2300-EU** **IRTDK2300-US**	Desk Sensor *(EU variant includes UK)*
IRTDK2320-US	LoRaWAN Gateway
IRTDK2321-EU **IRTDK2321-US**	LoRaWAN Gateway *(EU variant includes UK)* *(US variant for AU only)*

Sensing you can rely on
Data you can believe in
A partner you can trust

irisys™
A Fluke Brand

Desk Sensor

irisys TrueOccupancy

Part Number: IRTDK2300-AU, IRTDK2300-EU, IRTDK2300-US
(EU variant includes UK)

The Desk Sensor is an extremely small, under-desk sensor that packs a lot of performance into a very small form factor that is sleek and unobtrusive. Utilizing a PIR for motion detection, the Desk Sensor is able to accurately and anonymously detect when a desk is occupied or not. Optimized for long battery life, the Desk Sensor uses LoRaWAN for excellent, long distance, wireless connectivity. A mounting bracket is included for fast and simple deployment.

Details

Mounting	Bracket included. Mount bracket using screws (not included) or double-sided tape (included).

LoRa Radio Parameters

RF Power	15 dBm
RF Sensitivity	Up to -137 dBm
LoRa Radio	SX1261
Supported ISM Bands	**IRTDK2300-AU** • AU915 **IRTDK2300-EU** • EU868 **IRTDK2300-US** • US915
Antenna	Internal
LoRa Device Class	A

Technical Specifications

Sensing Technology	Passive infrared
Dimensions	**Sensor:** 42mm x 42mm x 17mm **Including mounting bracket:** 42mm x 42mm x 20mm
Weight	25g (including battery)
Usage	Indoor use only
Operating Temp. Range	0°C to 60°C (10°C to 40°C optimal)
Battery	CR2477
Battery Life	3 years
Certifications	CE, FCC, IC

LoRaWAN Gateway (ethernet + WiFi)

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Part Number: IRTDK2320-US

Enterprise LoRaWAN gateway designed for industrial applications that require "Always On" connectivity. This gateway is the ultimate secure, scalable and robust LoRaWAN solution for end-to-end control of your private LoRaWAN network. Leveraging reliable and trusted components, it offers enterprise dual-band Wi-Fi and wired Ethernet for complete design freedom.

- Advanced deployment tools with an intuitive web-based configuration
- Comprehensive security and reliability – robust multi-layer security to safeguard your network
- Broad certification and approvals – ready for deployment in multiple regulatory domains

LoRa Radio Parameters

IRTDK2320-US

ISM Bands	US915
Tx Power	28dBm (max)
Rx Sensitivity	-127dBm (SF7)

Technical Specifications

Dimensions	133mm x 275mm x 30mm
Usage	Indoor use only
Operating Temp. Range	-30°C to 70°C
Battery Backup	n/a
Certifications	**IRTDK2320-EU, IRTDK2320-UK** • CE **IRTDK2320-US, IRTDK2320-AU** • FCC, IC, AS/NZS 4268:2017

Interfaces

Ethernet Backhaul	RJ-45
WiFi	Dual-band – 2.4GHz and 5GHz
LoRa Antenna	Laird 001-0028 (863-870 MHz) Laird 001-0002 (902-928 MHz)
Power	12V / 1A Adapter

LoRaWAN Gateway

irisys TrueOccupancy

Part Number: IRTDK2321-EU, IRTDK2321-US
(EU variant includes UK) (US variant for AU only)

Enterprise LoRaWAN gateway designed for industrial applications that require "Always On" connectivity. This gateway is the ultimate secure, scalable and robust LoRaWAN solution for end-to-end control of your private LoRaWAN network. Leveraging reliable and trusted components, it offers enterprise dual wired Ethernet connections for advanced deployment and setup.

- Advanced deployment tools with an intuitive web-based configuration
- Comprehensive security and reliability – robust multi-layer security to safeguard your network
- Broad certification and approvals – ready for deployment in multiple regulatory domains

LoRa Radio Parameters

ISM Bands	**IRTDK2321-EU** • EU868 **IRTDK2321-US** • US915
Max Power Transmitted	+24.5 dBm
Max Sensitivity	-142 dBm
Reception Capacity	Supports 8 channels, each can receive data simultaneously

Interfaces

Ethernet	2 x 10/100 Mbps (2 x LAN or 1 x LAN + 1 x WAN)
Power	12V / 1.5A Adapter

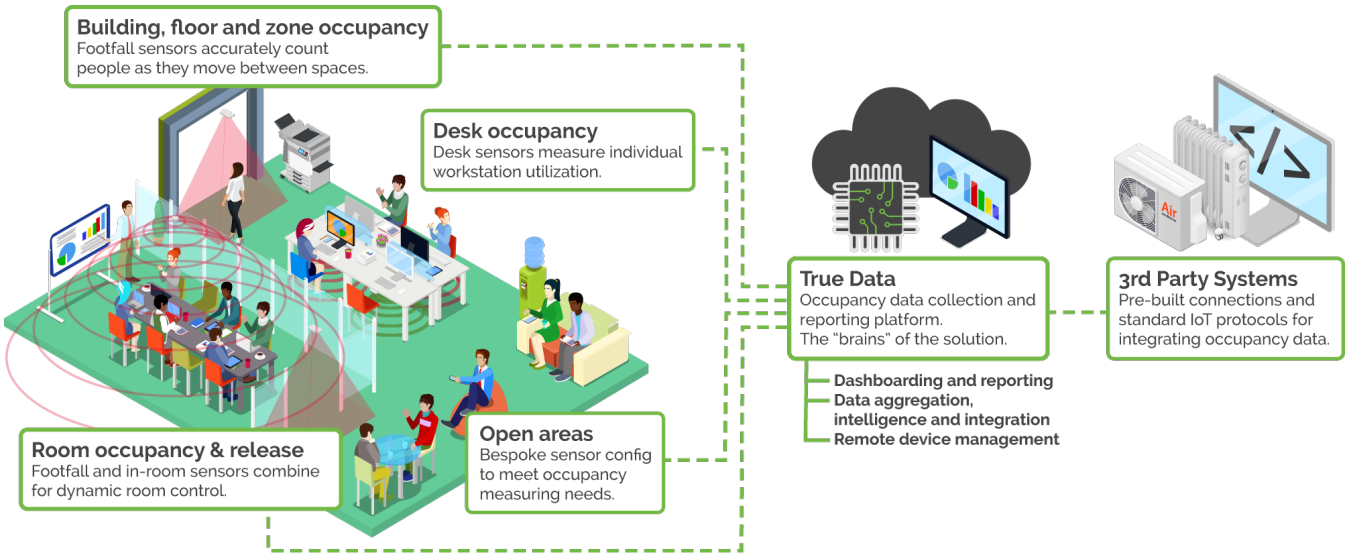
Technical Specifications

Dimensions	125mm x 104mm x 43.5mm
Housing and Weight	Metal, 570g
Mounting Options	Desktop, wall mounting and 35mm DIN rail
Usage	Indoor use only
Operating Temp. Range	-40°C to 75°C
Certifications	**Regulatory:** CE, RCM, FCC, ICASA **Environmental:** RoHS3.0, WEEE **EMI:** EN 55032: 2012/AC: 2013 (CE&RE) Class B **EMS:** IEC 61000-4-2 (ESD) Contact Level 2; Air Level 3 IEC 61000-4-3 (RS) Level 2 IEC 61000-4-4 (EFT) Level 2 IEC 61000-4-5 (Surge) Level 3 IEC 61000-4-6 (CS) Level 2
Software Features	Advanced. Includes: • Wide selection of LoRaWAN and Network protocols • VPN Tunnel • Firewall (with DMZ, anti-DOS, Filtering, Port Mapping) • Management tools

About True Occupancy

True Occupancy is an occupancy ecosystem that provides essential occupancy data for everywhere that matters to you. Drive strategic decisions and optimize your real estate.

- **Application specific sensing solutions** – Designed for maximum performance and accuracy
- **Intelligent data platform** – Aggregates sensor data and validates with patented heuristics
- **Open integration** – With leading BMS and workplace systems, via industry standard best practices
- **Remote device management** – Trusted by large global corporations
- **Simple, intuitive dashboards** - Straightforward occupancy visualisations and reporting tools
- **Scalable and flexible** – Choose as much or as little of the solution as you need



Ready to get started?

Talk to one of our occupancy experts today

trueoccupancy.com/demo

True Occupancy is a building occupancy solution by Irisys.

Irisys have provided the essential technology for understanding people movement in buildings for 25 years.

Fluke is a global leader in test and measurement instruments.

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