



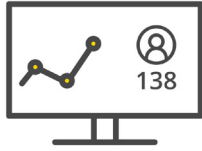
GDPR compliant people counting solution to extract greater value from your retail operations, smart building or office

Terabee People Counting L-XL is designed for people counting in large entrances and corridors, using the latest Time-of-Flight technology for greater reliability. It is GDPR compliant by design, providing accurate people counting data by monitoring the number of people who enter or exit doorways or corridors. The solution encompasses an IoT hardware device with embedded counting software to enable powerful analytics services. Two product variations allow transmission of the data via Power over Ethernet or LoRaWAN.

Key features

- GDPR compliant by design
- 3D depth people counting sensor
- Multi-device support for wide door counting
- Easy to install and configure via Web GUI
- Effective in low light conditions
- Two status LEDs for easy troubleshooting
- Remote or local firmware updates
- Remote configuration via Device management services (PoE model) or via LoRa downlink commands (LoRa model)
- Data transmission via Ethernet or LoRaWAN
- Powerful people counting algorithm with 98% accuracy

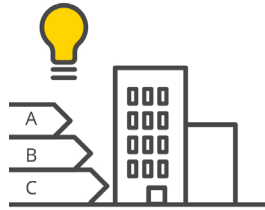
Applications



Occupancy monitoring

Smart offices

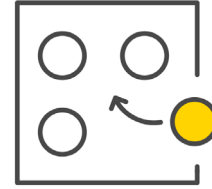
Space and facility optimization



HVAC systems integration

Energy savings

Facility management

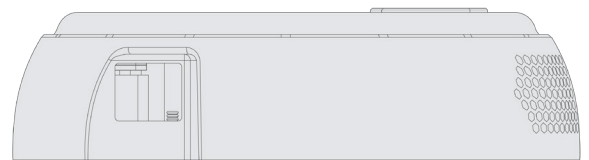
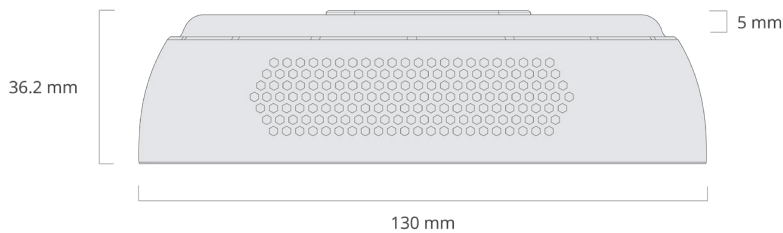
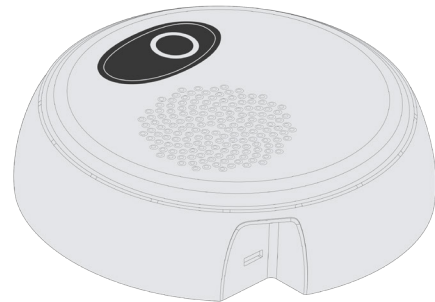
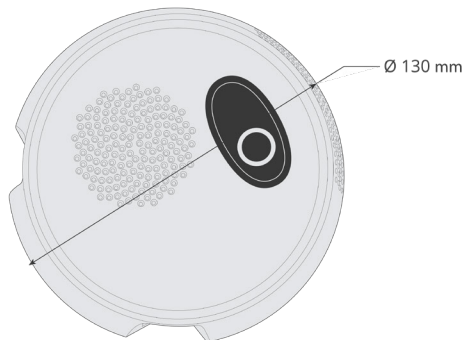


Staff presence optimization

People flow

Public spaces and retail

Dimensions



Technical specifications

| | | |
|--|---|--|
| Product code | TB-PCL-XL | |
| Performances | PoE model | LoRa model |
| Technology | Infrared Time-of-Flight depth sensor | |
| Field of View | 74° x 57° | |
| Coverage area dimensions | 1.50 x 1.10 m @ 2.40 m high with one device | |
| Multi-devices for wide passageways | Yes. Up to 5 devices | Yes. Up to 5 devices through Ethernet cables |
| Installation height range | From 2.4 m up to 4.0 m | |
| Use environment | Indoor | |
| Counting accuracy | 98% ⁽¹⁾ | |
| People counting data communication | Real-time or at predefined time intervals | Predefined time intervals (min. of 1 minute) |
| Electronics | PoE model | LoRa model |
| Power source | RJ45 (PoE IEEE 802.3af) | Micro-USB (minimum 5 V - 2.5 A) |
| Power consumption | 10 W average | 10 W average (min. recommended 12.5 W) |
| LED indicators | Two LEDs | |
| Initialization time | Approx. 1 min | |
| Mechanics | PoE model | LoRa model |
| Dimensions | Ø 130.0 mm x 36.2 mm | |
| Weight | 220 g | |
| Housing material | PU 8150 | ABS PA-557 |
| Color | White and Black (extra colors on demand) | |
| Operating temperature | 0° to 35°C | |
| Storage temperature | -20° to 60°C | |
| Installation | On-ceiling mounting with provided mounting plate Optional: Terabee Recess Mounting Kit | |
| Networking | PoE model | LoRa model |
| Communication interface | Gigabit Ethernet | Wi-Fi Access Point for configuration and local upgrade. LoRaWAN (1.0.3, Classe A) for data transmission. Gigabit Ethernet ⁽²⁾ |
| Set up | Web GUI embedded on the device | |
| Ethernet communication | PoE model | LoRa model |
| Recommended cabling | Cat 6 or later | |
| Addressing | DHCP, Static IP | |
| Device hostname | terabee-<serial_number> | |
| Data protocols | HTTP/HTTPS, MQTT/MQTTs | |
| Outbound traffic required on port | 53, 80/443, 1883/8883, 1194 | |
| Domain whitelisting | *.terabee.com | |
| LoRa communication | PoE model | LoRa model |
| Supported LoRaWan frequencies | N/A | EU 863-870 MHz, US 902-928 MHz |
| LoRaWAN activation methods | N/A | OTAA, ABP |
| Antenna specification | N/A | +0.8 dBi, VSWR ≤ 2 |
| Remote device configuration | N/A | LoRa downlink commands |
| Wi-Fi Access Point communication | PoE model | LoRa model |
| Device hostname | N/A | terabee-<serial_number> |
| Services | PoE model | LoRa model |
| Extended warranty | 1-Year and 2-Years | |
| Terabee IoT platform (for data visualization) | Yes, optional | Not available through LoRa, possible through Ethernet |
| Terabee Device management services | Yes, optional | Not available through LoRa, possible through Ethernet |
| Data hosting (when using Terabee IoT platform) | Cloud hosting (Datacenter in Amsterdam, Europe) Data storage for up to 2 years | |
| Conformity | PoE model | LoRa model |
| Reference standard | CE, FCC, RoHS | CE, FCC, RoHS, UKCA |

⁽¹⁾ Counting accuracy is assessed on the total number of entry and exit counts in representative conditions. In very diverse environments, this value may change.

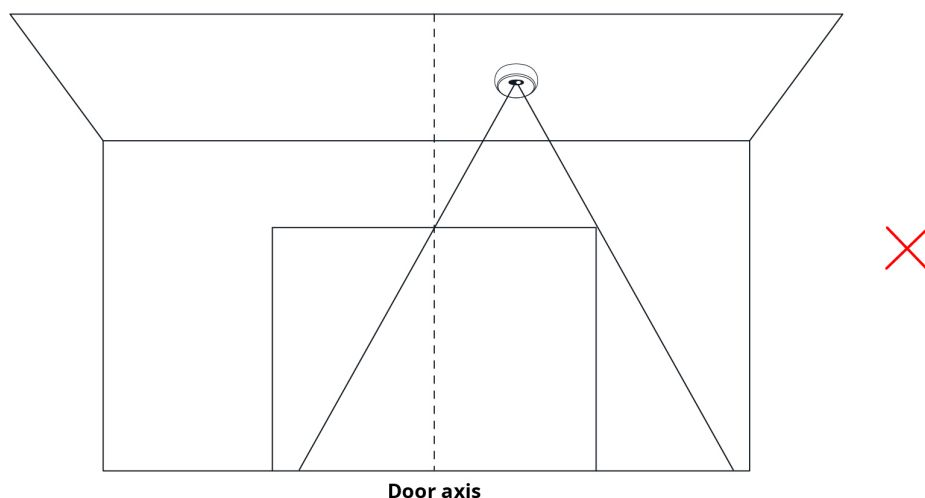
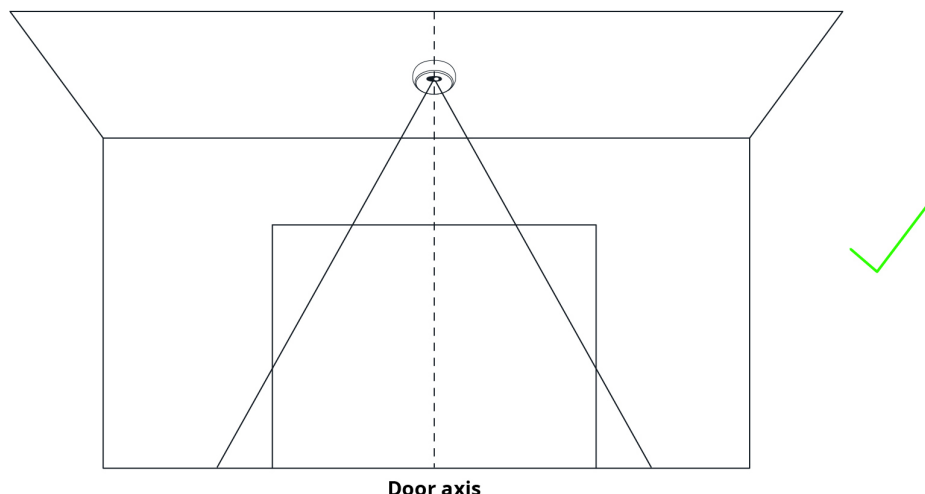
⁽²⁾ On-demand, multi-device configuration or connection to Terabee services.

Single-device installation

Terabee People Counting L-XL installs like a household smoke alarm. It needs to be placed centrally above doors and corridors and 30 cm minimum from the nearest vertical wall.

The monitored floor area depends on the installation height:

| Installation height (m) | Monitored area (m x m) |
|-------------------------|------------------------|
| 2.40 (min) | 1.50 x 1.10 |
| 3.20 (avg.) | 2.30 x 1.70 |
| 4.00 (max) | 3.40 x 2.55 |

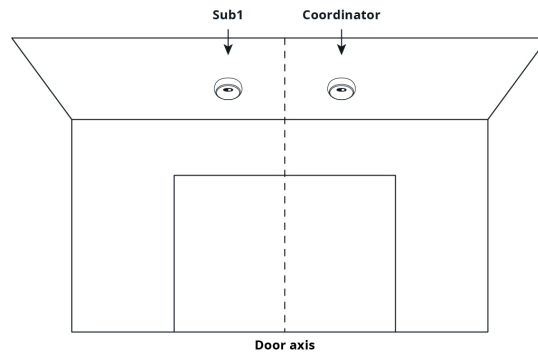


Multi-device installation

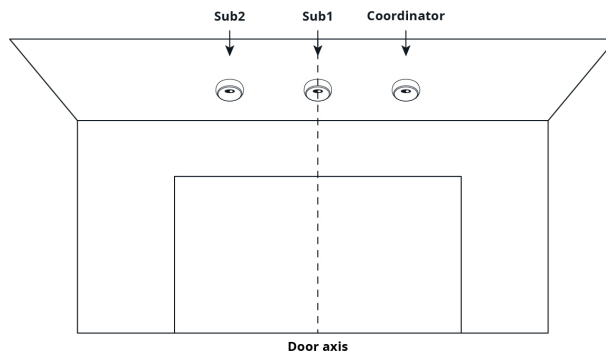
Up to five Terabee People Counting L-XL devices can be installed together to cover wider entrances and passageways (through Ethernet cables for LoRa model). One device acts as the coordinator and the others as subordinates.

| Installation height (m) | Max distance between devices (m) | Door coverage | | | | |
|-------------------------|----------------------------------|---------------|-----------|-----------|-----------|-----------|
| | | 1 device | 2 devices | 3 devices | 4 devices | 5 devices |
| 2.40 | 0.80 | 1.50 | 2.30 | 3.10 | 3.90 | 4.70 |
| 2.50 | 0.90 | 1.55 | 2.45 | 3.35 | 4.25 | 5.15 |
| 2.60 | 1.00 | 1.60 | 2.60 | 3.60 | 4.60 | 5.60 |
| 2.70 | 1.10 | 1.70 | 2.80 | 3.90 | 5.00 | 6.10 |
| 2.80 | 1.20 | 1.80 | 3.00 | 4.20 | 5.40 | 6.60 |
| 2.90 | 1.35 | 1.90 | 3.25 | 4.60 | 5.95 | 7.30 |
| 3.00 | 1.50 | 2.10 | 3.60 | 5.10 | 6.60 | 8.10 |
| 3.10 | 1.65 | 2.20 | 3.85 | 5.50 | 7.15 | 8.80 |
| 3.20 | 1.80 | 2.30 | 4.10 | 5.90 | 7.70 | 9.50 |
| 3.30 | 1.95 | 2.40 | 4.35 | 6.30 | 8.25 | 10.20 |
| 3.40 | 2.10 | 2.50 | 4.60 | 6.70 | 8.80 | 10.90 |
| 3.50 | 2.25 | 2.60 | 4.85 | 7.10 | 9.35 | 11.60 |
| 3.60 | 2.40 | 2.75 | 5.15 | 7.55 | 9.95 | 12.35 |
| 3.70 | 2.55 | 2.90 | 5.45 | 8.00 | 10.55 | 13.10 |
| 3.80 | 2.70 | 3.05 | 5.75 | 8.45 | 11.15 | 13.85 |
| 3.90 | 3.85 | 3.20 | 6.05 | 8.90 | 11.75 | 14.60 |
| 4.00 | 3.00 | 3.40 | 6.40 | 9.40 | 12.40 | 15.40 |

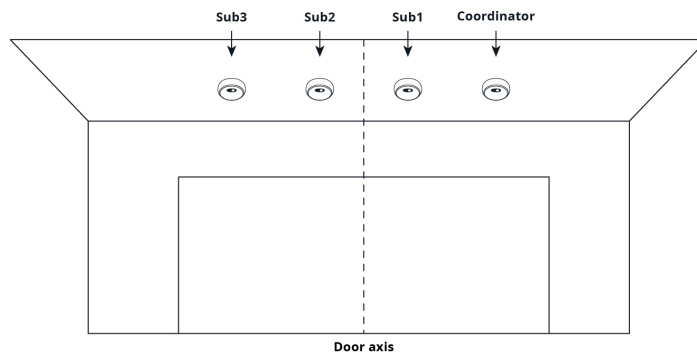
2 Devices



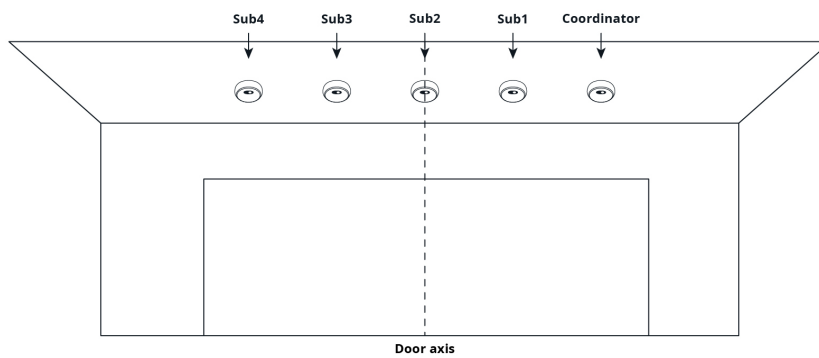
3 Devices



4 Devices



5 Devices




Time-of-Flight advantages

By using active Time-of-Flight technology to sense depth, the Terabee People Counting L-XL collects non-intrusive depth image data, meaning that personal identity can never be captured. And, since the device does not require ambient light for optimal performance, it is suitable for applications in low light without losing accuracy.



Any questions? Contact us today!

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