

### **People Occupancy Counting**

SPECIFICATION SHEET



# Get accurate multi-zone occupancy insights to maximize the management of meeting rooms through to large spaces

The Terabee People Occupancy Counting device provides **valuable**, **accurate occupancy insights** to enable improvements in energy management, space utilization and trigger greater operations and services efficiency. With the **widest area coverage in its class** and the **latest thermal technology**, the **GDPR-compliant-by-design** device is the ideal solution to monitor small spaces such as meeting rooms through to large spaces such as public buildings, open plan offices and coworking areas. People Occupancy Counting embeds an **auto-calibration algorithm** for quick, flexible deployment, to **enable immediate space performance improvements and related savings**.

### Key product features

- Large floor coverage (i.e. 64 m<sup>2</sup> coverage from 2.40 m installation height)
- Multiple regions of interest (up to 8) to monitor/exclude specific areas
- GDPR compliance by design, unlike RGB cameras
- High human recognition rate via thermal signatures, reaching 98%+ accuracy
- Platform agnostic, send data to any third-party server. No recurring fee
- Direct analog output signal (0-10 V) proportional to room occupancy
- No battery ensures less maintenance, improved reliability and more uptime
- Low-light and full darkness operation
- Passive sensing = low power consumption, less interference



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### Applications



Space management

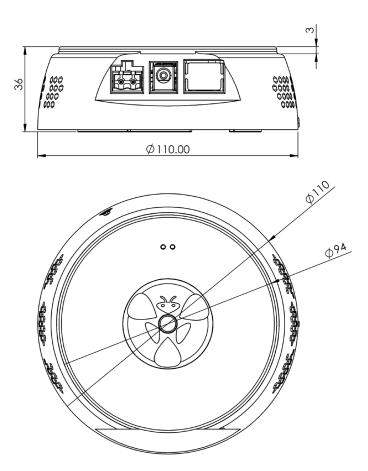


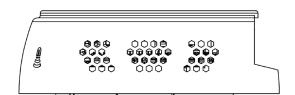
Space optimization

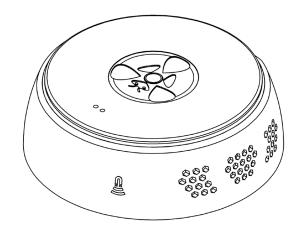


Energy management

# Dimensions







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## **Technical specifications**

Product code	TB-I	РОС
Performances	PoE model	LoRa model
Technology	Th	nermal sensing
Field of View	160°	
Coverage area dimensions	64 m <sup>2</sup> (8 m × 8 m square)	
Installation height range	From 2.4 m up to 4.0 m	
Multi-devices capability for large zone	Yes	
Use environment	Indoor	
Human recognition rate	98% accuracy <sup>(1)</sup>	
Frequency of data communication	Real-time or at predefined time interv on-event	als, At predefined time intervals (minimum of 2 minutes)
Electronics	PoE model	LoRa model
Power source	RJ45 (PoE IEEE 802.3af) 5.5 × 2.1 mm jack (10-30 V DC ± 5% - 1	5.5 × 2.1 mm jack I A) (10-30 V DC ± 5% - 1 A)
Power consumption	2 W average	
Analog output	0-10 V proportional to room occupancy	
LED indicators	Two LEDs (power and status)	
Initialization time	Approx. 3 min	
Mechanics	PoE model	LoRa model
Dimensions	Ø 1	10 mm × 36 mm
Weight	140 g	128 g
Housing material		ABS PU 8158
Color	White and black (additional colors on demand)	
Operating temperature	0° to 35°C	
Storage temperature	-20° to 60°C	
Installation	On-ceiling mounting with mounting plate, supplied. Optional: Terabee Recess Mounting Kit M	
Networking	PoE model	LoRa model
Communication interface	Gigabit Ethernet Wi-Fi 2.4 GHz	Wi-Fi Access Point for configuration and local Wi-Fi Access Point for configuration, Wi-Fi 2.4 GHz LoRaWAN (1.0.3, Classe A) fo data transmission
Set up	Web GUI e	mbedded on the device
Ethernet/Wi-Fi communication	PoE model	LoRa model
Recommended cabling	Cat 6 or later (Ethernet only)	
Addressing	DHCP, Static IP	
Device hostname	terabee- <serial_number></serial_number>	
Data protocols	HTTP/HTTPS, MQTT/MQTTS	
Outbound traffic required on port		
Domain whitelisting	53, 123, 80/443, 1883/8883 *.terabee.com	
LoRa communication	PoE model	LoRa model
Supported LoRaWan frequencies	N/A	EU 863-870 MHz, US 902-928 MHz (coming soon)
LoRaWAN activation methods		
	N/A	OTAA, ABP
	N/A N/A	OTAA, ABP
Antenna specification		
Antenna specification Remote device configuration	N/A	OTAA, ABP '+0.8 dBi, VSWR ≤ 2
Antenna specification Remote device configuration Wi-Fi Access Point communication	N/A N/A PoE model	OTAA, ABP '+0.8 dBi, VSWR ≤ 2 LoRa downlink commands
Antenna specification Remote device configuration <b>Wi-Fi Access Point communication</b> Wi-Fi SSID	N/A N/A PoE model POC_	OTAA, ABP '+0.8 dBi, VSWR ≤ 2 LoRa downlink commands LoRa model _ <serial_number></serial_number>
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Antenna specification Remote device configuration <b>Wi-Fi Access Point communication</b> Wi-Fi SSID Device hostname Services Extended warranty	N/A N/A PoE model POC poc PoE model	OTAA, ABP '+0.8 dBi, VSWR ≤ 2 LoRa downlink commands LoRa model _ <serial_number> <serial_number> KoRa model Year and 2-Year</serial_number></serial_number>
Antenna specification Remote device configuration <b>Wi-Fi Access Point communication</b> Wi-Fi SSID Device hostname Services Extended warranty IoT platform for data visualization	N/A N/A PoE model POC_ poc <sup>.</sup> PoE model	OTAA, ABP OTAA, ABP '+0.8 dBi, VSWR ≤ 2 LoRa downlink commands LoRa model <serial_number> <serial_number> LoRa model</serial_number></serial_number>
Antenna specification Remote device configuration Wi-Fi Access Point communication Wi-Fi SSID Device hostname Services Extended warranty IoT platform for data visualization Device management services	N/A N/A PoE model POC_ poc <sup>.</sup> PoE model 1-1	OTAA, ABP '+0.8 dBi, VSWR < 2 LoRa downlink commands LoRa model _ <serial_number> <serial_number> LoRa model Year and 2-Year Upon request</serial_number></serial_number>
Antenna specification Remote device configuration Wi-Fi Access Point communication Wi-Fi SSID Device hostname Services Extended warranty IoT platform for data visualization Device management services Data hosting (when using IoT platform) Conformity	N/A N/A PoE model POC_ poc <sup>.</sup> PoE model 1-1	OTAA, ABP '+0.8 dBi, VSWR < 2 LoRa downlink commands LoRa model <serial_number> <serial_number> Vear and 2-Year Upon request Upon request</serial_number></serial_number>

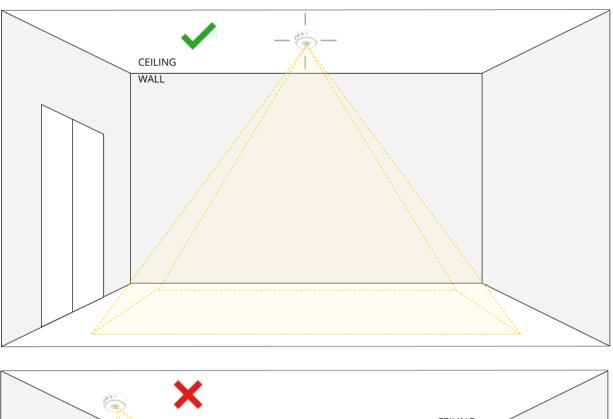
ery obstructions, fog or smoke, very high humidity, interference created by another IR sensor or with a metal surface, this value may change.

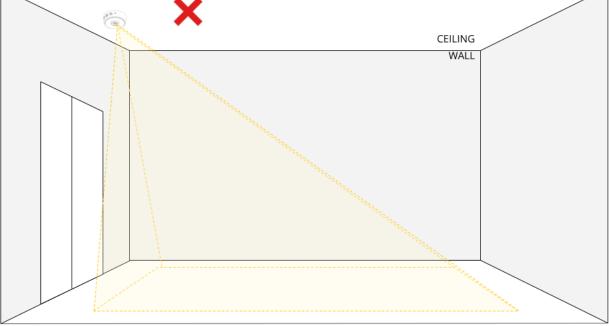


### **Device installation**

Terabee People Occupancy Counting is installed as simple as a household smoke alarm. For best performance, it should be placed centrally in the monitored room/area, better if not exposed directly to Infrared-reflective surfaces, such as large metal walls, which can act as mirrors.

Installation height (m)	Monitored area (m × m)
2.40 (min) - 4.00 (max)	8.0 × 8.0





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### Thermal sensing advantages

By sensing hot points with very low resolution images, Terabee People Occupancy Counting uses non-intrusive, anonymous thermal image data, so that personal identity can never be captured. And since the device does not need ambient light for optimal performance, it's suitable for applications with lowlight and no light, without losing accuracy.



### Any questions? Contact us today!

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