Mini AI Thermopile People Counter

Featuring LoRaWAN®

VS351

Milesight

Battery Version

Type-C Version

VS351 is a compact AI thermopile people counter designed for indoor entrance and exit applications. It offers high accuracy in bi-directional people counting, enabling effective analysis of foot traffic and efficient space management. Combined with a radar sensor for presence detection, it intelligently schedules the activation time of the thermopile to optimize power consumption. As a Milesight D2D controller, the VS351 seamlessly communicates with other Milesight D2D devices, establishing more possible connections and paving the way for smoother operations.

With easy configuration and wireless detection, the VS351 facilitates simple deployment and connectivity. Compliant with the Milesight LoRaWAN® gateway and Milesight IoT Cloud solution, users can know the number of people in any indoor space and trigger other sensors or appliances easily via a webpage or mobile App remotely.

◆ Features

➢ Provide up to 95% detection accuracy (99% accuracy for single person passing) for bi-directional people counting with radar (battery version only) and the thermopile technology

➢ A Built-in temperature sensor that can not only support environmental temperature detection but also monitor whether the operating temperature of the device is within a reasonable range

➢ 100% anonymity and GDPR-compliant without image capturing, free from privacy concerns

➢ Type-C version (wired) and battery version (wireless) available for different installation environments

➢ Ultra-low power consumption with up to 1.6-year battery life, complies with ESG standard

➢ Wireless connectivity and convenient size improve the accessibility and simplicity of deployment

➢ Store locally 1,000 historical records and support retransmission to prevent data loss

➢ Support Milesight D2D protocol to enable ultra-low latency and direct control without gateways

➢ Equipped with NFC for one touch configuration

➢ Function well with standard LoRaWAN® gateways and network servers

➢ Compatible with Milesight IoT Cloud

◆ Specifications

Measurement

People Counting

Technology	Radar (Battery Version Only) & Thermopile
Installation Height	2.3 m ~ 3.0 m
Detection Range	5.55 m x 2.30 m @ 3 m Installation Height
Sensor Adjustable Angle	0°~90°
Detection Rate[1]	Up to 95% (Single Person[2]: Up to 99%)
Best Operating Temperature	15 °C ~ 30 °C
Advanced Features	U-Turn Filtering, Bi-directional People Counting, Side by Side Differentiation

Temperature

Range	-30°C ~ 70°C
Accuracy	± 2°C

Wireless Transmission

Protocol	LoRaWAN®, Milesight D2D
Frequency	CN470/IN865/RU864/EU868/US915/AU915/KR920/AS923-1&2&3&4
Tx Power	16 dBm (868 MHz) / 19 dBm (470 MHz) / 22 dBm (915 MHz)
Sensitivity	-137dBm
Mode	OTAA/ABP Class A

Others

Button	1 × Reset Button (Internal)
Configuration	NFC Configuration via Mobile App
Advanced Feature	Data Storage, Data Retransmission, Data Retrievability, Milesight D2D Controller

Physical Characteristics

Power Supply	1. 5V/1A by Type-C Port (Both Versions) 2. 4 x 9000 mAh ER26500 Li-SOCl$_2$ Replaceable Batteries (Battery Version Only)
Battery Life[3]	Around 1.6 Years (30-min Interval, 25°C, 1000 People per Day)
Operating Temperature	-20°C ~ 60°C
Relative Humidity	0% ~ 95% (Non-condensing)
Ingress Protection	IP30
Dimension	Type-C Version: 70 x 68 x 32 mm (2.76 x 2.68 x 1.26 in) Battery Version: 188 x 68 x 32 mm (7.40 x 2.68 x 1.26 in)
Material & Color	PC (Flame Retardant), White
Installation	Ceiling Mounting, Lintel Mounting

[1] Tested under installation height is 2.7m and temperature is 25°C.

[2] 30 ~ 40 cm should be kept between two people while passing the detection area.

[3] Tested under laboratory conditions and for guideline purposes only.

◆ Detection Area

Installation Height (m)	Detection Area(m)
2.3	3.80 × 1.35
2.5	4.35 × 1.85
2.7	4.55 × 2.10
3.0	5.55 × 2.30