3D ToF People Counting Sensor

Featuring LoRaWAN

KKVS132

KVS132 is a LoRaWAN® 3D ToF people counting sensor designed to count the number of people entering and exiting. Applied the most advanced Time-of-Flight technology, KVS132 only obtains depth maps instead of images to protect privacy and provide a high level of accuracy up to 99.5%. Cooperating with Kled LoRaWAN® gateway & the Kled IoT Cloud solution, it allows users to monitor the flow of people and trigger linkage to control other devices via browser or mobile App remotely.

With easy installation, KVS132 has great use in entrances or corridors of retail stores, malls, offices, subways, etc.

◆ Features

- Up to 99.5% accuracy basing on advanced 3D Time-of-Flight technology
- Obtain depth map without images capturing, free from privacy concerns
- Effective in low-light or complete darkness environments
- Bi-directional Counting
- Smart U-turn counting to filter redundant counting of people wandering the area
- Store a million data records locally
- DC or PoE power supply optional
- Exquisite design for multiple installation scenarios
- Equipped with Wi-Fi and Ethernet port for web GUI configuration

- Acquire people counting data either from LoRaWAN® or Ethernet port (HTTP Post, CGI)
- Function well with standard LoRaWAN® gateways and network servers
- Quick & easy management with Kled IoT Cloud and Kled measurement Device Hub

◆ Applications

- Offices and meeting rooms occupancy monitoring
- Customer flow analysis on stores and shopping malls
- Passenger flow analysis on buses or subways

◆ Specifications

Wireless Transmission	
Protocol	LoRaWAN®
Frequency	CN470/IN865/RU864/EU868/US915/AU915/KR920/AS923-1&2&3&4
Max Tx Power	16 dBm (868 MHz)/22 dBm (915 MHz)/19 dBm (470 MHz)
Sensitivity	-137 dBm @300bps
Mode	OTAA/ABP Class C
People Counting	
ToF FoV	92.5 ° Horizontal, 67 ° Vertical
Detection Range	0.5 to 3m
Installation Height	≤ 3m
Accuracy	Up to 99.5%
Local Storage	1, 000, 000 data records
Advanced Setting	Entrance and exit area customization
Interface	
Wi-Fi	IEEE 802.11 b/g/n, 2.4GHz, only support configuration
Ethernet Port	1 × RJ45 10/100 Mbps Ethernet Port (PoE PD), provides CGI for integration
Power Input	2-pin 5.08 mm Terminal Block
Physical Characteristics	
Power Supply	1. 12 VDC, 2A by Terminal Block 2. 1 × 802.3 at PoE input
Power Consumption	Typical 7.5 W, max 28 W
Operating Temperature	-10°C ~ +60°C

Storage Temperature	-20°C ~ +60°C
Relative Humidity	0 ~ 95% (Non-condensing)
Color & Material	Black, Aluminum Alloy
Weight	296 g
Dimension	140 × 50 × 50 mm (5.51 × 1.97 × 1.97 in)
Installation	Ceiling Mounting, Wall Mounting, Embedded Mounting

◆ Monitored Area

KVS132 is engineered for bi-direction entrances or corridors. Since the detection range is 0.5m to 3m, the maximum installation height should be 3m and the minimal installation height should always be at least 0.5m higher than maximum pedestrian height.

Installation Height (m)	Monitored Area (m)
2.4	5.01 × 3.18
2.5	5.22 × 3.31
2.6	5.43 × 3.44
2.7	5.64 × 3.57
2.8	5.85 × 3.71
2.9	6.06 × 3.84
3.0	6.27 × 3.97