Milesight

Ultra ToF People Counter VS135-L08EU

User Guide



Safety Precautions

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Milesight will not shoulder responsibility for any loss or damage resulting from not following the instructions of this operating guide.

- Though the device is compliant with Class 1 (IEC/EN 60825-1:2014), please DO NOT look at the ToF sensor too close and directly.
- The device must not be disassembled or remodeled in any way.
- To avoid risk of fire and electric shock, do keep the product away from rain and moisture before installation.
- Do not place the device where the temperature is below/above the operating range.
- ***** Do not touch the device directly to avoid the scalds when the device is running.
- The device must never be subjected to shocks or impacts.
- Make sure the device is firmly fixed when installing.
- Do not expose the device to where laser beam equipment is used.
- Use a soft, dry cloth to clean the lens of the device.

Declaration of Conformity

VS135 is in conformity with the essential requirements and other relevant provisions of the CE,

FCC, and RoHS.



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Revision History

Date	Doc Version	Description
Feb. 23, 2024	V1.0	Initial version
		1. Compatible with Milesight Development
		Platform;
		2. Add SSH enable/disable option;
		3. Add shopping cart detection;
May 20, 2024	V1.1	4. Add ToF lighting mode and noise filtering;
		5. Add validation record task list;
		6. Add Enhanced Detection Mode;
		7. Support to configure WLAN IP address;
		8. Update installation distance.
		1. Add OpenVPN;
Jul 20 2024	V1.2	2. Add MQTT API command;
Jul. 30, 2024	VI.Z	3. Add detection line list;
		4. Add Multi-Device Stitching.

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1. Product Introduction

1.1 Overview

VS135 is a high-end people counting sensor that is based on deep learning AI and second-generation ToF technology. It is capable of adapting to various complex scenarios while ensuring excellent privacy protection. This sensor possesses an impressive accuracy of up to 99.8% in people counting, fully meeting your needs, and it delivers exceptional performance for both indoor and outdoor applications. With high ceiling mounting of up to 6.5m and an IP65 waterproof rating, it adapts seamlessly to any environment.

1.2 Key Features

- Up to 99.8% accuracy with the 2nd generation ToF technology and AI algorithm.
- Allow to collect more accurate people counting data by differentiating children / adults and detecting staffs via identification like staff lanyards for clearer people analysis.
- Smart U-turn detection to filter redundant counting of people wandering in the area.
- Support queuing management via dwell time detection and regional people counting.
- Support advanced Heat Map function which provides deeper insights by visually representing the distribution and intensity of foot traffic.
- With radar sensor based ESG friendly working mode, it allows to experience full-speed operation when occupied while switching to a power-saving sleep mode when unoccupied.
- By incorporating 3-axis sensors for automatic height calibration, it ensures enhanced precision and guarantees accurate data analysis.
- Working well even in low-light or completely dark environments with great lighting adaptability
- Free from privacy concerns without image capturing.
- Automatically detect the optimal installation height, facilitating fast deployment and intelligent detection.
- High compatibility of data transmission(HTTP/MQTT).
- Support local data storage and data retransmission to collect data securely.
- Quick and easy management with Milesight DeviceHub.

2. Hardware Introduction

2.1 Packing List







4 × Ceiling Mounting Kits



8 × Staff Tags







1 x Power Adapter



1 × Quick Guide

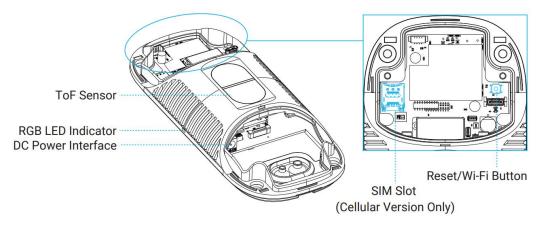
1 × VB01 Multifunctional Bracket Kit (Optional)



1 × Warranty Card

If any of the above items is missing or damaged, please contact your sales representative.

2.2 Hardware Overview



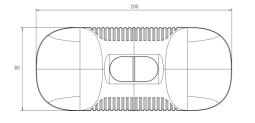
2.3 Button Descriptions

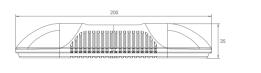
Function	Action	LED Indication
Turn On/Off	Press and hold the power	Turn On/Off: Blue light blinks for 3 seconds.
Wi-Fi	button for more than 3	Wi-Fi On: Blue light on.
VVI-F1	seconds.	Wi-Fi Off: Green light on.
Reset to	Press and hold the reset	Green light blinks until the reset process is

Factory Default	button for more than 10	completed.
	seconds.	

2.4 Dimensions (mm)

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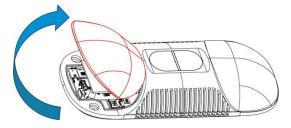






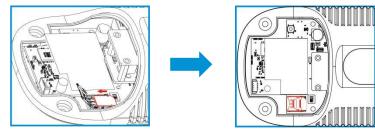
2.5 SIM Card Installation

Step 1: Take down the side covers.



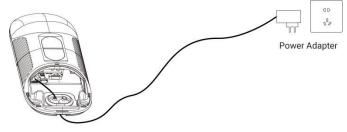
Step 2: Open the slot cover, insert SIM card (3FF).

Step 3: Restore slot cover back.



3. Power Supply

• Powered by DC Power Adapter (12V, 2A)



4. Access the Sensor

VS135 provides user-friendly web GUI for configuration access via Wi-Fi. Users need to customize the password when using the device for the first time. The default settings are as below:

Wi-Fi SSID: People Counter_xxxxx (can be found on the device label)

Wi-Fi IP: 192.168.1.1

Here are the wireless method way of accessing the web GUI:

Step 1: Enable the Wireless Network Connection on your computer, search

for corresponding Wi-Fi SSID to connect it, then type 192.168.1.1 to access the web GUI.

Step 2: Select the language.

Step 3: Users need to set the password and three security questions when using the sensor for the first time (three questions can be skipped by refreshing webpage). After configuration, log in with username (admin) and custom password.

Note:

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- 1) Password must be 8 to 16 characters long, which contains at least two kinds or more in combination with numbers, lowercase letters, uppercase letters and special characters.
- You can click the "forgot password" in login page to reset the password by answering three security questions when you forget the password if you set the security questions in advance.

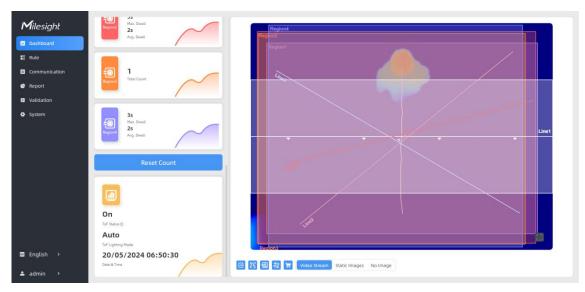
					English 🤉
-					
		I Activation Username Password Confirm At least: • 8 characters • 2 types of characters: Num	admin		
2 			Altan L		7

			🕿 English 🗦
Set Security Questions	5		
Security Question1 Answer1 Security Question2 Answer2	What is your lucky number? What is your favorite sport?		
Security Question3 Answer3	What is your favorite game?		

5. Operation Guide

5.1 Dashboard

After logging on to the device web GUI successfully, user is allowed to view live video as following.



Parameters	Description
	Hide Capacity: Hide the total count data capacity;
🚯 🔝 🖸	Staff Excluded: Exclude staff data from statistical data;
	Children Excluded: Exclude children data from statistical data.
Reset Count	Clear all accumulated entrance and exit people counting values.

	Click to show detection lines, U-turn areas, detection regions, tracking
	lines and shopping cart as needed.
2 10 10 10 10	Note: These functions will not be shown here when they are disabled in
	Counting Strategy configuration.
Scence Preview	Select video stream preview, static image preview or no image preview as
	needed.

5.2 Rule

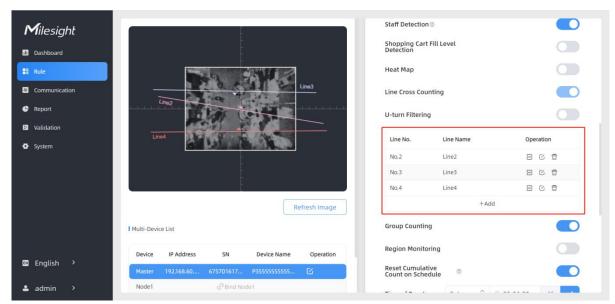
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Milesight Dashboard Rule Communication Report Validation System		Linet	I Deployment Parameters Installation Height mm(2009-3000) Max. Target Height mm(200-3000) Min. Target Height mm(200-3000) I Counting Strategy	3000 2000 1000	Detect
		A CONTRACTOR	Tracking Mode () Line Cross Counting No. No.	Heads 1 Line Name Line 1	Feet Tracking Feet Tracking Operation ©
	Draw Detection Lines	Refresh Image	U-turn Filtering Draw U-turn Areas (2) Children Distinction Staff Detection (2)		Draw
🖾 English 🔸			Group Counting		
🛎 admin 🔸			Region Monitoring		

Draw Detection Lines

Users can draw detection lines to record the people count values which indicate the number of people enter or exit.

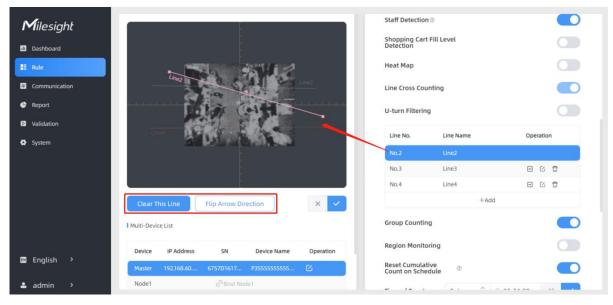
Step 1: Find the list of detection lines.Click **+Add** to draw a new detection line or click $\stackrel{\frown}{=}$ to edit the existed detection line on the live view.



Step 2: Left-click to start drawing and drag the mouse to draw a line, left-click again to continue drawing a different direction edge, and right-click the mouse to complete the drawing. The line can be dragged to adjust the location and length. One device supports at most 4 broken lines with maximum 4 segments each.

Step 3: If users want to redraw this line, click Clear This Line or drag the vertices of the broken line to adjust The arrow direction of the detection line depends on your drawing direction. If

users need to flip the line, click **Flip Arrow Direction**. Then click to finish drawing.



Note:

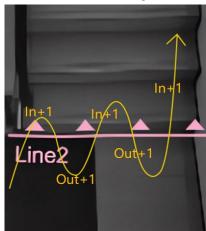
- Ensure that the detected target can pass through the detection line completely. It's recommended that the detection line is perpendicular to the In/Out direction and on the center of the detection area without other objects around.
- Redundant identification spaces are needed on both sides of the detection line for the target detection. It ensures the stable recognition and tracking of the target before passing the detection line, which will make the detection and count more accurate.

Draw U-turn Area

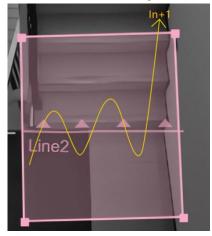
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VS135 supports the U-turn filtering function, filtering out the people who are actually not in / out of the entrance, to avoid repeated counting. Users can draw an area for every line and the device will count the In and Out values only when people pass this area.

Disable U-turn filtering:



Enable U-turn filtering:



Step 1: Enable U-turn Filtering. Users can click ^(P) to edit U-turn areas for existed detection line on the live view.

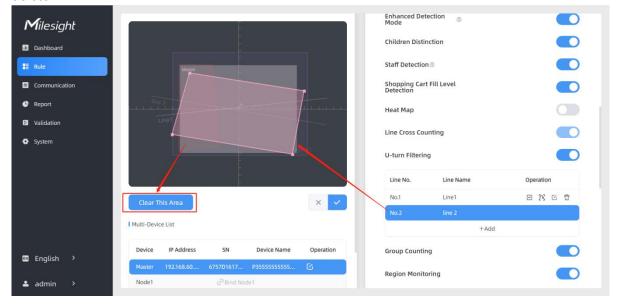
M ilesight		-		Enhanced Detection Mode	•
di Dashboard		-		Children Distinction	
E Rule		- -		Staff Detection ${\rm \textcircled{O}}$	
Communication				Shopping Cart Fill Level Detection	
🔮 Report	line 2			Heat Map	
Validation				Line Cross Counting	
System			gion 1	U-turn Filtering	
		-		Line No. Line	Name Operation
				No.1 Line1	Edit Uturn Area
	Multi-Device List			No.2 line 2	
	Device IP Addre	55 SN Device Nam	e Operation		+Add
— • • • •	Master 192.168.60) 6757D1617 P355555555	5 🗹	Group Counting	
🗈 English 🔸	Node1	∂ Bind Node1		Region Monitoring	
🛓 admin 🔹	Node2	C Bind Node2		Region Monitoring	

Step 2: Left-click to start drawing and drag the mouse to draw an edge. Then left-click again to continue drawing a different direction edge. Right-click the mouse to complete the drawing. The area can be dragged to adjust the location and length. One device supports up to 4 broken lines with maximum 10 segments each.

Step3: If users want to redraw the line, click Clear This Area or drag the vertices of the area to

adjust. Then click to finish drawing.

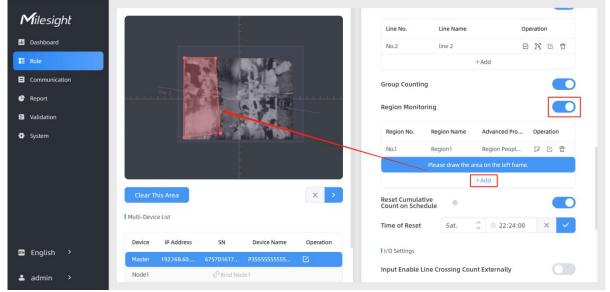
Step 4: If users need to delete a certain U-turn area, click , then click Clear This Area to delete.



Draw Monitoring Region

VS135 supports monitoring the number and the dwell time of people in the region, providing more valuable analysis data.

Step 1: Enable Region Monitoring. Click **+Add** to add the region monitoring on the live view. Up to 4 regions are supported with maximum 10 segments each.



Step 2: Customize the zone name and enable Region People Counting or Dwell Time Detection as needed.

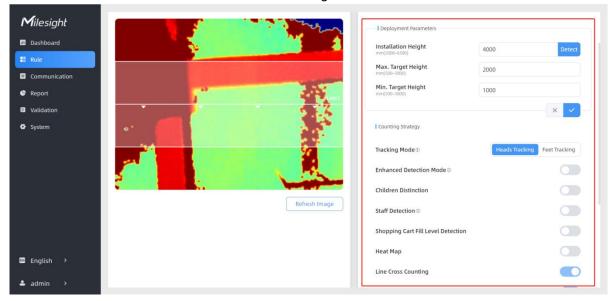
Advanced Propertie	25
Zone Name	Region1
Region People Counting	
Pass-by Filtering s(0~3600)	5
Dwell Time Detection	
Min. Dwell Time s(0~3600)	5
	× ✓

Step 3: The configuration is displayed in the list after the configuration is complete. You can redraw the areas by clicking the redraw button in the list. Click the edit button to modify the advanced settings of the areas or click delete button to delete the areas separately.

			a
No.	Region Name	Advanced Properties	Operation
No.1	Region1	Region People Counting(5s)	

Rule Configuration

Users can set the rules to ensure accurate counting.



Parameters	Description		
Installation Height	Set the device installation height. Click Detect to detect the current installation height automatically. Note:		

	 Ensure that there is no object directly below the device avoiding interfering the height detection. The automatic detection of the installation height is not supported with dark floor/carpet (black, grey, etc.) 			
Max. Target Height	Set the maximum target height, then the device will ignore the objects higher than this setting value.			
Min. Target Height	Set the minimum target height, then the device will ignore the object shorter than this setting value.			
Tracking Mode	Select the tracking mode of counting, including Heads Tracking and Feet Tracking. Note: It is recommended to use heads tracking mode when the installation height is low in standalone working mode.			
Enhanced Detection Mode	 Turn on when any one of the following situations occurs, it will ensure normal counting and detecting: The depth image is abnormal; There is obstacle in the live view; Installation conditions are not met. 			
Children Distinction	The device will detect the people shorter than child filter height as children.			
Staff Detection	The device will detect the people who wear reflective stripes as staff tags on the visible parts (neck, shoulders, etc.) as staffs. Reflective stripe requirements: width > 2cm, 500 cd/lux.m ²			
Shopping Cart Fill Level Detection	 The device will count the carts of different status according to the preset shopping cart heights. Note: Line cross counting and region people counting will include cart counting if this option is enabled. The shopping carts will not trigger the device to send trigger reports immediately, but the device will only send trigger reports when people pass through. 			

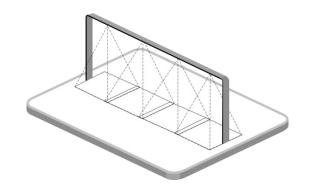
	megasi-aaa Pullyaa-laad Cant Height 750				
	Emply Carl Height 450				
	X V				
	Tracking Mode () Heads Tracking Feet Tracking				
	Line Cross Counting				
	No. Line Name Operation No.1 Line1 ©				
	U-turn Filtering				
	Draw U-turn Areas () Draw				
	Children Distinction				
	Staff Detection () () () () () () () () () () () () ()				
	Shopping Cart Fill Level Detection				
	Click to enable Heat Map function. Heat Map function can analyze				
	person movement to reveal insights for better business management				
	with the intuitive and accurate statistical analysis results in time or				
Heat Map	space pattern as needed.				
	Support Motion Heat Map and Dwell Heat Map. The motion heat map				
	shows where the most people flow. And the dwell heat map shows the				
	areas where people stay for the longest time.				
<u>U-turn Filtering</u>	Enable or disable U-turn Filtering.				
	Click to enable the group counting function that based on the distance,				
	moving direction and speed difference to gain deeper insights into				
Group Counting	customer' behaviors.				
	Note: This function is only applicable for line cross people counting.				
Region Monitoring	Enable or disable Region Monitoring.				
	Enable to periodically reset cumulative count on schedule.				
Reset Cumulative	Cumulative Count includes:				
Count on Schedule	Total In/Out counting of each detection line.				
	Max./Avg. Dwell Time of each detection region.				
Note:					

Note:

Due to the error in ToF distance measurement (0.035 m), the Max. Target Height should be set as maximum pedestrian height plus 0.035 m and the Min. Target Height as minimal pedestrian height minus 0.035 m in the actual applications. For example, if the pedestrian height is 1.6 m to 1.8 m, the Max. and Min. Target Height should be configured as 1.835 m and 1.565 m respectively.

5.2.1 Multi-Device Stitching

Multi-device stitching is mainly used to monitor a larger detection area than just the area covered by a single device. When using this feature, devices should be installed next to each other and ensure the **detection areas** are tangent or overlapping.



Before using this feature, set one device as Master Mode and other devices as Node Mode.

Milesight		-		Master Settings		
iii Dashboard	Master		1	Working Mode		
E Rule	- and -			Working Mode	Standalone	Master Node
🗢 Report	LLL STREET	Line1	1 1 1 1 1 1 1 1 1 1	Deployment Parameters		
Validation	1400			Installation Height mm(2000-6500)	6200	Detect
System			Line1	Max. Target Height mm(500-3000)	2000	
			0.00	Min. Target Height mm(500-3000)	1000	
			10	Child Filter Height mm(500-3000)	1300	
						× 🗸
				Counting Strategy		
	Draw Detection Lines		Refresh Image	Tracking Mode ①	Heads Trackir	ng Feet Tracking
	Multi-Device List			Line Cross Counting		
	Device IP Address	SN Dev	vice Name Operation	No.	Line Name	Operation
	Master 192.168.60.190	6767D161141400 Peop	ole Counter 🛛 🗹	No.1	abcd	ß
🖪 English 🔸	Node1	ල් ² Bind Node1				
🚢 admin 🔸	Node2	∂ Bind Node2		U-turn Filtering		

- **Master Mode**: Receive target tracks and view from the device, responsible for all counts, rule setting, data push and other functions. Report by wireless communication mode.
- Node Mode: Only extends the view of the master device.

Stitching **Master Device Node Devices** Stitching Number VS135-P VS135-P 8 VS135-P-High VS135-P-High VS135-P, VS135-HL, VS135-L08EU VS135-LoRa, VS135-L08EU Support VS135-P-High, 4 VS135-HL-High, VS135-L08EU-High VS135-LoRa-High, VS135-L08EU-High VS135-P, VS135-HL VS135-L08EU,

Here is the device multi-stitching compatible list of VS13x series:

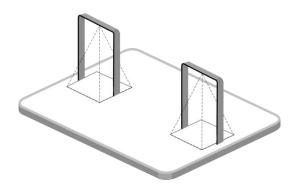
		VS135-LoRa,
		VS135-HL
		VS135-P-High,
		VS135-L08EU-High,
	VS135-HL-High	VS135-LoRa-High,
		VS135-HL-High
		VS135-P,
		VS135-L08EU,
	VS135-LoRa	VS135-HL,
		VS135-LoRa
		VS135-P-High,
	VS135-LoRa-High	VS135-L08EU-High,
		VS135-HL-High,
		VS135-LoRa-High
		VS135-LoRa,
	VS135-P	VS135-L08EU,
		VS135-HL
		VS135-LoRa-High,
	VS135-P-High	VS135-L08EU-High,
		VS135-HL-High
Do Not Support	VS135 standard	VS135 high ceiling mount
	versions	versions
	VS135 high ceiling	
	mount versions	VS135 standard versions
	VS133-P	VS135-P
	VS135-P	VS133-P
	1	1

Note:

1) Ensure the head of one person can be seen on both live views at the same time.



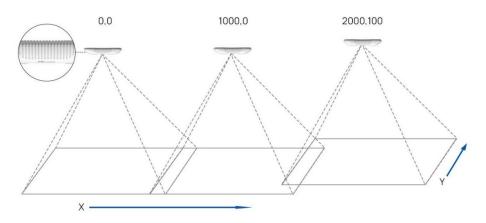
2) The devices can also be installed without overlapping as required.



Device Positioning

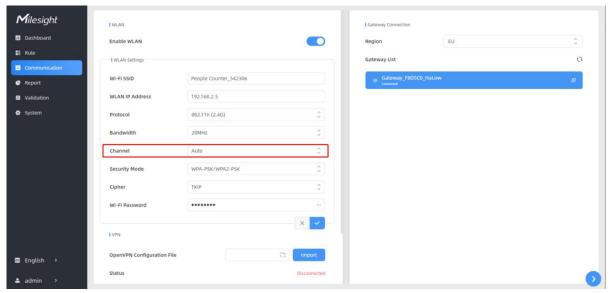
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Device positioning is done via X&Y coordinates. For example, the installation direction of the master device is shown as below, the logo needs to be facing the front. When the master device's coordinate is (0, 0), the coordinates of the node devices are all positive values.



Node Device Setting

Step 1: change the WLAN IP Address of node devices to different subnets from master device's WLAN IP address. If the master device is a PoE version device, skip this step.



Step 2: Select Node for the working mode and wait for the device to reboot.

M ilesight		Working Mode	
ⓓ Dashboard ■ Rule		Working Mode	Standalone Master Node
Communication		Deployment Parameters	
 Report Validation 	Linet	Installation Height mm(2000-6500)	4000 Detect
System		Max. Target Height mm(500-3000) Min. Target Height	2000
		I Counting Strategy	1000 × ×
	Refresh Image	Tracking Mode \oplus	Heads Tracking Feet Tracking
		Enhanced Detection Mode ①	
		Children Distinction	
🗈 English >		Staff Detection ①	
🚢 admin 🔸		Shopping Cart Fill Level Detection	

Step 3: Find the Wi-Fi access point of master device and connect.

M ilesight		
🔟 Dashboard	Working Mode	
🚦 Rule	Working Mode	Standalone Master Node
Communication	Bind Master Device	
System	Master Device List \odot	0
	Router_20215D_2.4G	ø
	People Counter_F9CADF	Ø
	People Counter_F9CBC1	Ø
	🛜 People Counter_FA6A9D	Ø
	🤝 Gateway_F3CF20	Ð
	Master Device Info.	
🗈 English 🔸	Connection Status	To be connected
🚢 admin 🔸	Master Device IP Address	
Parameter	·s	Description

Falameters	Description
Connection Status	Show the connection status between the node device and master device.
Master Device IP Address	Show master device's IP address. When this IP address is under the same network with node device, the node device can bind to the master device.
Master Device SN	Show the master device's serial number.
Master Device Name	Show master device name.
Unbind Master Device	Click Unbind to release the connection status, this device will be deleted from the list of the master device.

Master Device Setting

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Step 1: When work mode is on Standalone or Node mode, select the WLAN channel to an idle channel. Users can use test App (like Wi-Fi Analyzer) to check ideal WLAN channels to reduce interference.

M ilesight	I WLAN			Cellular		
Dashboard	Enable WLAN			Cellular Status	Disconnecte	d Detail
Rule	I WLAN Settings			Cellular Settings		_
Communication						
Report	Wi-Fi SSID	People Counter_55CA6B		Network Type	Auto	÷
/alidation	WLAN IP Address	192.168.1.1		APN		
System	Protocol	802.11n (2.4G)	0	Username		
	Bandwidth	20MHz	0	Password		
	Channel	Auto	0	PIN Code	•••••	
	Security Mode	No Encryption	0	Authentication Type	None	0
	L		× ×	Roaming		
	I VPN			Restart When Dial-up failed		
nglish >	OpenVPN Configuration File		Import	ICMP Server		
admin >				TUMP DEIVER		

Note: the scene preview and people counting results are dependent on the WLAN channel selection, also the distance between node devices and master device. Please adjust the distance to ensure accurate scene preview or counting results.

WLAN Channel	Video Stream	Static Image/No Image	Counting Inaccuracy
Occupied Channel	Not Support	≤ 6.5m	> 6.5m
Idle Channel	≤8m	≤10m	>10m

Step 2: Select Master as the working mode and wait for the device to reboot.

M ilesight		Master Settings		
Dashboard	Master	I Working Mode		
🖬 Rule		Working Mode Standalone Master Node		
Communication				
🕒 Report		I Deployment Parameters		
Validation	Line1	Installation Height 4000 Detect		
System		Max. Target Height 2000		
		Min. Target Height 1000		
		x 🗸		
		I Counting Strategy		
		Tracking Mode® Heads Tracking Feet Tracking		
	-	Enhanced Detection Mode (0)		
	Refresh Image	Children Distinction		
	Multi-Device List	Staff Detection ()		
	Device IP Address SN Device Name Operation	Shopping Cart Fill Level Detection		
	Master 192,168.1.1 6767528303640052 People Counter 🖸	Heat Map		
	Node1 Ø Nind Node1	Line Cross Counting	5	
📼 English 🔸	Node2 @'tiind Node2			
🚢 admin 🔸	Node3 Pillind Node3	U-turn Filtering)	

Step 3: Go to the master device web GUI, then click **Bind Node** in the Multi-Device List. The device will use multicast protocol to search for the unbound node devices under the same local network.

M ilesight	Master		Master	Settings	
🔟 Dashboard	10 10 10 10 10 10 10 10 10 10 10 10 10 1		I Working Mo	de	
## Rule					Standalone Master Node
Communication		Select a Node Device			Standatone Master Node
🖨 Report	N	lode Devices List	0	arameters	
Validation	ASPA A	IP Address SN	Device Name	ight	4000 Detect
System	A FRANK			eight	2000
	Part and the second second			light	
		No node device:	s in the LAN	agin	1000
	s	ielected Node Device			× -
	I Multi-Device List			gy	
	Device IP Address		× >	:0	Heads Tracking Feet Tracking
	Master 192.168.1.1			ection Mode ①	
	Node1		Children Di	stinction	
🗈 English 🔸	Node2 @Bind Nod Node3 @Bind Nod				
🚢 admin 🔸	Ry Bind Nod		Staff Detect	tion [©]	

Step 4: Select the node device and type the login password of the node device.Step 5: Fill in the installation height of a node device and relative position information if these parameters are already measured. If not, save default settings and skip to Step 6.

Confirm Authorization		Bind the Node Devi	ce
Selected Node Device	192.168.46.80	Selected Node Device	192.168.46.8
Node Device Username	admin	Installation Height mm(2000~3500)	3000 Detect
lode Device Password	••••••	Relative X Position mm(-12500~12500)	1495
		Relative Y Position mm(-9000~9000)	0
		Relative Angle °(-180~180)	0
	× < >		× < ✓

Step 6: Select the node device on the Multi-Device List, click Adjust Relative Position.

 Milesight Dashboard Rule communication Report system 	Master	Iselative Deployment Parameters Installation Height mm(2000-1300) 000 Relative X Position mm(-0000-1300) -236 Relative Y Position mm(-0000-9000) -5327 Relative Angle 0 0
■ English → ▲ admin →	Adjust Relative Position Refresh image I Multi-Device List Device IP Address SN Device Name Operation Master 192.168.46.79 6757032 People_Counter_OP C Node1 192.368.46.80 67570161 People Counter_Color C Node2 C Bind Node2 C C	

Drag the live view of node device to adjust the location and angle, and the relative position

parameters will change automatically as your operations. Besides, users can also adjust the size of this live view.

 Dashboard Dashboard Rule Communication Report System 	Noder Noder Set & Testing Track	aster		×	Node 1 Settings	85 2381 -2988 -1848 8	Detect
	Device IP Address	SN	Device Name	Operation			
	Master 192.168.46.79	6757D32675210018	People_Counter_oe m_test	C			
🛤 English 🔸	Node1 192.168.46.80	6757D16179950018	People Counter	68			
🚢 admin 🔸	Node2	C Bind Node2					

Tips: cut the staff tags or other reflective stripes into pieces and stick them to the ground of overlapping areas, then drag the live view of node devices to make highlight markers in the two live views overlap. This allows equipment splicing configuration **without measurement**.

Step 7: Click **Set & Testing Track**, then check if the tracking lines are connected and smooth when people pass on the live views of multiple devices. If not, click **Stop Testing** to adjust the node device's live view location slightly.

M ilesight		Node 3 Settings
al Dashboard		Relative Deployment Parameters
E Communication	Nonce Nativ	Installation Height 3000 Deflect
🖨 Report		Relative X Position 231 mm(-12500-12500)
System		Relative Y Position -2452
		Relative Angle 0
	Stop Testing I Multi-Device List	X
	Device IP Address SN Device Name Operation	
	Master 192.168.46.79 6757D326 People_Counter_oe m_test	
	Node1 192.168.46.80 6757D161 People Counter 🖸 🖉	
🖾 English 🔸	Node2 192.168.46.83 6757D16E People Counter 🖸 🔗	
🚢 admin >	Node3 192.168.46.90 6757016 People Counter 🗹 🔗	

Step 8: When all settings are completed, users can draw detection lines and even U-turn areas on the new stitching live view the same as standalone mode devices.Step 9: Click Unbind to disconnect the node device if necessary.

Milesight Dashboard Rule Communication Report System			Node 3 Settings Relative Deployment Para Installation Height mm, 2009-2000 Relative X position mm, 2009-2000 Relative X position mm, 2009-2000 Relative A position mm, 2009-2000 Relative Angle (1509-180)	Defect
	Stop Testing I Multi-Device List Device IP Address Master 192.168.46.79	5N Device Name 6757032 People_Counter_oe m_test	Operation	
◙ English → ≜ admin →	Node1 192.168.46.80 Node2 192.168.46.83 Node3 192.168.46.90	6757D1 People Counter 6757D1 People Counter 6757D1 People Counter	C Dubind C Unbind C Z	

5.3 Communication

5.3.1 Network Configuration

VS135-L08EU supports Wi-Fi for web access and cellular for data transmission.

M ilesight	WLAN		Cellular			
all Dashboard	Enable WLAN		Cellular Status	Disconnected Detail		
∎ Rule	WLAN Settings		Cellular Settings			
Communication	Wi-Fi SSID	People Counter_55CA6B	Network Type	Auto		
Validation	WLAN IP Address	192.168.1.1	APN			
System	Protocol	802.11n (2.4G)	Username			
	Bandwidth	20MHz	Password			
	Channel	Auto	PIN Code	•••••		
	Security Mode	No Encryption	Authentication Type	None		
			Roaming			
	I VPN		Restart When Dial-up failed			
🖾 English 🔸	OpenVPN Configure	ation File				
📥 admin 🔸			ICMP Server	· · · · · · · · · · · · · · · · · · ·		
WLAN						
Param	eters		Description			
		Enable or disable Wi-Fi fea	ture. If disabled, u	users can use button to		
Enable	WLAN	enable it.				
		enable It.				
Wi-Fi SSID		The unique name for this device Wi-Fi access point, defined as				
		People Counter_xxxxxx (can be found on the device label).				
		Configure WLAN IP address for web access, the default IP address				
WLAN IP /	Address	configure weathin address for web access, the default in address				
		is 192.168.1.1.				

Protocol	802.11g (2.4 GHz) and 802.11n (2.4 GHz) are optional.	
Bandwidth	20 MHz or 40 MHz are optional.	
Channel	Select the wireless channel. Auto, 1,11 are optional.	
Security Mode	No Encryption, WPA-PSK, WPA2-PSK and WPA-PSK/WPA2-PSK are optional.	
Cipher	AES, TKIP, AES/TKIP are optional.	
Wi-Fi Password	Customize the password when security mode is not No Encryption.	

VPN

Milesight

Parameters	Description
OpenVPN Configuration File	Import the conf or ovpn format profile generated by the
Openvent configuration file	openvpn server.
Status	Show the connection status of the device and the VPN server:
	Disconnected, Connecting or Connected.
Device Virtual IP	Show the virtual IP of device.
Sever Virtual IP	Show the virtual IP of VPN Server.
Duration	Show the connection duration.

Cellular

Par	ameters	Description
Cellular	Cellular Status	Display the connection status of the network, including "connect" and "disconnect".
		You can also click "Detail" button to view the cellular status.
		Select from "Auto", "4G Only", and "3G Only".
	Network Type	Auto: connect to the network with the strongest signal
	Network Type	automatically.
		4G Only/3G Only: connect to 4G/3G network only.
	APN	Enter the Access Point Name for cellular dial-up connection
	APN	provided by local ISP. The max length is 31 characters.
	Username	Enter the username for cellular dial-up connection provided
Cellular	Usemanie	by local ISP. The max length is 31 characters.
Settings	Password	Enter the password for cellular dial-up connection provided
Settings	r assworu	by local ISP. The max length is 31 characters.
	PIN Code	Enter a 4-8 characters PIN code to unlock the SIM.
	Authentication	Select the Authentication Type. None, PAP, CHAP, PAP and
	Туре	CHAP are optional.
	Roaming	Click to enable the Roaming.
	Restart When	Enable automatic device restart when multiple dial up failed
	Dial-up Failed	Enable automatic device restart when multiple dial-up failed.
	ICMP Server	Configure the IP address of the ICMP detection server.

ICMP Detection	Set the maximum number of retries when ICMP detection
Max Retries	failed.
ICMP Detection	Configure ICMD detection timeout
Timeout	Configure ICMP detection timeout.
ICMP Detection	Or firming IOND data stick interval
Interval	Configure ICMP detection interval.

Cellular Status

Milesight

Parameters		Description
	Refresh	Click this button to manually refresh the above status.
	Modem Status	 Show the corresponding detection status of the module and SIM card. No SIM Card SIM Card Error PN Error PIN Required PUK Required No Signal Ready Down SIM
	Model	Show the model name of the cellular module
	Version	Show the version of the cellular module.
	Signal Level	Show the current signal strength of the network.
	Register Status	Show the connection status of the network, including "connect" and "disconnect".
	IMEI	Show the IMEI of the module.
Cellular	IMSI	Show IMSI of the SIM card.
Status	ICCID	Show ICCID of the SIM card.
	ISP	Show the network provider which the SIM card registers on. Note: It will display "-" when the SIM card is not inserted or not recognized.
	Network Type	Show the connected network type, such as LTE and 3G. Note: It will display "-" when the device is not connected to network.
	PLMN ID	Show the current PLMNID, including MCC, MNC, LAC, and Cell ID.
		Show the location code of the SIM card.
	LAC	Note: It will display "-" when the SIM card is not inserted or not recognized.
	Cell ID	Show the Cell ID of the SIM card location. Note: It will display "-" when the SIM card is not inserted or not recognized.
	Network Status	
	IP Address	Show the Network Status, IP Address, Netmask, Gateway and
	Netmask	DNS Address of the current network. If the SIM card is not inserted or not recognized, it will display 0.0.0.0.
	Gateway	inserted of not recognized, it will display 0.0.0.0.

DNS	
Connection	Show the cellular dial-up connection duration.
Duration	

5.3.2 Data Push Settings

Data Push Settings

Milesight

VS135 supports to add data receivers (supports HTTP(s)/MQTT(s)). The device will proactively push data to the receivers according to the configured reporting scheme. Besides, users can get the people counting data or configure the device via CGI. For CGI document, please contact Milesight IoT support: iot.support@milesight.com.

Data Push Settings

Recipient Name	URL/Host	Protocol	Status	Operation
Recipient	1	MQTT	Disconnect	6
		+Add		

Parameters	Description
Recipient Name	Show the recipient name.
URL/Host	Show the URL/host of HTTP(s) server or MQTT broker.
Protocol	Show the report protocol.
Status	Show connection status from device to HTTP(s) server or MQTT broker.
Operation	Click to edit the information or delete the recipient.

Note:

- Up to 8 receivers can be added.
- When working mode is the Node mode, the device will not support Data Push Settings.

M ilesight		Push Settings	l Data Push Settings		
111 Dashboard	I Data	Push Settings	Recipient Name	Recipient	
E Communication	Recij	olent Name URL/Host	Report Protocol	MQTT	
C Report			Host		
Validation			Dent		
System			Port (1-65535)		device/downlink_config
			ClientID		
			Username		
			Password		
			Торіс		Qo50 0
			QoS	QoS 0 \$	
			TLS		
🖬 English 🔸				×	
🚢 admin 🔸					
M ilesight			Report Strategy		
Dashboard	l Data	Push Settings	. hepoir strategy		
≣≣ Rule	Recip	olent Name URL/Host	Periodic Report		
Communication			Periodic Report Scheme	On the Dot From Now On	
🔮 Report			Period	1h 🗘	
Validation			Data Retransmission		
System			Customize Report Content		device/downlink_config
			 Device Info Time Info 		
			 Network Line Trigger Data 		
			 Region Trigger Data Line Periodic Data 		
			 Line Total Data Region Periodic Data 		Qo5 0 0
			 Line/Region Name Line/Region UUID 		
■ English >					× ×
🚢 admin 🔸				× < ~	
Parameters	S			Description	
Recipient Na	me	Customize	the recipient n	iame.	
Report Proto	col	HTTP(s) o	r MQTT is optic	onal.	
HTTP(s)					
URL		The device	e will post the p	eople counting data	a in json format to this URL.
Connection T	est		· · ·	essage to URL to ch	-
Username			ame used for a	-	
Password			ord used for a		
MQTT					
Host		MQTT bro	ker address to	receive data.	
Port			ker port to rece		
			-	ntity of the client to	the server.
Client ID			-	-	cted to the same server, and it
chefter ib			-	ages at QoS 1 and 2	
lloornomo				-	
Username		The userna	anie useu ior C	onnecting to the MC	

Password	The password use	d for connec	ting to the MQTT	broker.
Topic	Topic name used for publishing.			
QoS	QoS0, QoS1, and Q	oS2 are opti	onal.	
TLS	Enable the TLS end	cryption in M	QTT communicat	ion.
	CA Signed Server of	or Self Signed	d is optional.	
	CA signed server o	ertificate: ve	erifying with the c	ertificate issued by
Certificate Type	Certificate Authorit	ty (CA) that is	s pre-loaded on th	ne device.
	Self signed certific	ates: upload	the custom CA c	certificates, client
	certificates and se	•		
Report Strategy		<u>,</u>		
	Report immediate	ly when ther	e is a change of	f the line crossing people
Trigger Report	counting number o	-	-	••••
Periodic Report	Select the periodic		· · · · ·	
Periodic Report	· ·	•		f each hour. For example,
Scheme				0:00, 1:00, 2:00 and so on;
			•	ort at 0:10, 0:20, 0:30, and
	so on.		· · ·	
Period		ain reporting	, from this mom	ent onwards and regularly
	report based on the			
	•			disconnected period when
Data				very recipient supports to
Retransmission	receive 50,000 piec			
	Customizable sele			h avoiding data
	redundancy.			,
	Customize Report Content			
	👻 🗹 Device Info			
	Device Name	 Device SN Custom Device ID 	Device MAC Custom Site ID	
	Device NameIP Address	Custom Device ID		
	 Device Name IP Address Running Time Time Info 	 Custom Device ID Firmware Version 	 Custom Site ID Hardware Version 	
Customize	 Device Name IP Address Running Time Time Info Trigger Time 	Custom Device ID	Custom Site ID	
Customize	 Device Name IP Address Running Time Time Info Trigger Time 	Custom Device ID Firmware Version Start Time	 Custom Site ID Hardware Version End Time 	
Customize Report Content	 Device Name IP Address Running Time Time Info Trigger Time Time Zone Network Network Status 	Custom Device ID Firmware Version Start Time DST Enable ICCID	 Custom Site ID Hardware Version End Time 	
	 Device Name IP Address Running Time Time Info Trigger Time Time Zone Network Network Status 	Custom Device ID Firmware Version Start Time DST Enable	 Custom Site ID Hardware Version End Time DST Status 	
	 Device Name IP Address Running Time Time Info Trigger Time Time Zone Network Network Status Cell ID 	Custom Device ID Firmware Version Start Time DST Enable ICCID	 Custom Site ID Hardware Version End Time DST Status 	
	 Device Name IP Address Running Time Time Info Trigger Time Time Zone Network Network Status Cell ID Line Trigger Data Region Trigger Data Region Count Data 	Custom Device ID Firmware Version Start Time DST Enable ICCID	 Custom Site ID Hardware Version End Time DST Status 	
	 Device Name IP Address Running Time Time Info Trigger Time Time Zone Network Network Status Cell ID Line Trigger Data Region Trigger Data 	 Custom Device ID Firmware Version Start Time DST Enable ICCID LAC 	 Custom Site ID Hardware Version End Time DST Status IMEI 	
	 Device Name IP Address Running Time Time Info Trigger Time Time Zone Z Network Network Status Cell ID Line Trigger Data Region Trigger Data Line Periodic Data Line Total Data Line Count Data Line Count Data 	 Custom Device ID Firmware Version Start Time DST Enable ICCID LAC 	 Custom Site ID Hardware Version End Time DST Status IMEI 	
	 Device Name IP Address Running Time Time Info Trigger Time Time Zone Network Network Status Cell ID Line Trigger Data Region Trigger Data Line Periodic Data Line Total Data Line Count Data Region Periodic Data 	 Custom Device ID Firmware Version Start Time DST Enable ICCID LAC Dwell Time Data 	 Custom Site ID Hardware Version End Time DST Status IMEI 	
	 Device Name IP Address Running Time Time Info Trigger Time Time Zone Z Network Network Status Cell ID Line Trigger Data Region Trigger Data Line Periodic Data Line Total Data Line Count Data Line Count Data Region Periodic Data Line/Region Name 	 Custom Device ID Firmware Version Start Time DST Enable ICCID LAC Dwell Time Data 	 Custom Site ID Hardware Version End Time DST Status IMEI 	
	 Device Name IP Address Running Time Time Info Trigger Time Time Zone Network Network Status Cell ID Line Trigger Data Region Trigger Data Line Periodic Data Line Total Data Line Count Data Region Periodic Data 	 Custom Device ID Firmware Version Start Time DST Enable ICCID LAC Dwell Time Data 	 Custom Site ID Hardware Version End Time DST Status IMEI 	

MQTT API

VS135 provides MQTT API to support to receive downlink commands from MQTT broker to achieve the configuration. About the commands please refer to <u>MQTT downlink command</u>.

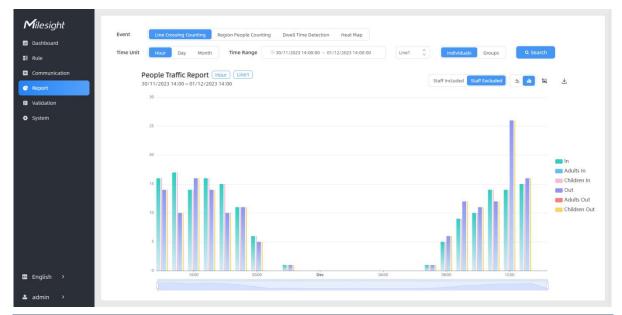
Status	Disconnecte
Host	112.48.19.183
Port (1~65535)	10566
Торіс	12345
Client ID	
Username	admin
Password	•••••
QoS	QoS 1 \$
TLS	

Parameters	Description
Status	Show connection status between device and MQTT broker.
Host	MQTT address to receive data.
Port	MQTT port to receive data.
Topic	Topic name used for publishing.
	Client ID is the unique identity of the client to the server.
Client ID	It must be unique when all clients are connected to the same server, and it
	is the key to handle messages at QoS 1 and 2.
Username	The username used for connecting to the MQTT.
Password	The password used for connecting to the MQTT.
QoS	QoS0, QoS1, QoS2 are optional.
TLS	Enable the TLS encryption in MQTT communication.
	CA Signed Server or Self Signed is optional.
	CA signed server certificate: verifying with the certificate issued by
Certificate Type	Certificate Authority (CA) that is pre-loaded on the device.
	Self signed certificates: upload the custom CA certificates, client certificates and secret key for verification.

5.4 Report

Milesight

VS135 supports visual line chart or bar chart generation to display people traffic and supports report exporting. Before using this feature, do ensure that the device time is correct on **System** page.



Parameters	Description
Event	Select the event which you want to query the report. Line crossing counting, region people counting, dwell time detection and heat map are optional.
Time Unit	Select the unit to generate the graph or export the data.
Time Range	Select the time range to generate the graph.
Line1	Select the line to display the graph.
Individuals Groups Shopping Cart	Select the individuals counting reports, groups counting reports or shopping cart reports. Note: Shopping Cart will display only when it is enabled.
Region1 🗘	Select the region to display the graph.
Report Type	For heat map report, Motion Heatmap and Dwell Heatmap are optional.
Q Search	Click to generate the graph according to the time range and line option.
Staff Included/Excluded	Select whether to contain staff counting values on the graph.
🗠 💷	Select the display type as line or bar.
	Click to download the chart screenshot.

本	Export the historical traffic data as CSV file according to the selected
2	time unit. The device can store up to one million data records to CSV file.

5.5 Validation

Video validation function can assist users in verifying the accuracy of people counting by setting up a video task of recording.

M ilesight	Recording Task					
di Dashboard	Task Name	Start Time	End Time	Duration	Task Status	Operation
E Rule	Task 1	2024-03-13 08:30:00.000	2024-03-13 09:00:00.000	30	Finished	•
Communication			+Add			
C Report						
Validation						
System						
■ English >						
🚢 admin 🔸						
Parameters			Descri	ption		
Task Name	Show the	task name.				
Start/End Time	Show the	start time and	end time of th	nis video.		
Duration	Show the	length of the v	/ideo.			
Task Status		video task sta				
		heck the video		ooording	or doloto the t	tack
Operation			· · · ·	-		Lask.
+Add	Click to a	dd a video tasl	k. One device c	can add u	p to 24 tasks.	

Set a Task of Recording

Task Name	Taskname
Recording Mode	Record Now Setting Time
Start Time	© 24/04/2024 22:09:36.000
Duration min(1~240)	60
Video Quality	Standard Low Quality

Parameters	Description
Task Name	Customize a name for this task.
Recording Mode	Record Now or Setting Time is optional.
Start Time	Set the start recording time.
Duration	Set the duration of the recording, the duration of all tasks should not be more than 240 minutes.
Video Quality	When video quality is low, the video size will be smaller and quicker to download.

× ✓

Note:

- Only one video task can be performed at a time, please delete the previous task before creating a new one.
- Detection rules and ToF frequency parameters cannot be modified during the recording process.
- If the validation videos need to be played locally, please contact Milesight IoT support for a specialized player.

 Milesight Dashboard Rule Communication Report Validation System 	 Tashame Image: Image: Ima	Image: Note of the second s	Taskname Finished 0 0 0			
📥 admin 🔸			_			
F	Parameters	Description				
	Detection Line Off	Enable/Disable detection lines in the recording footage.				
	U-turn Area Off	Enable/Disable u-turn area in the recording footage.				
	Detection Region Off	Enable/Disable detection region in the recording footag	ge.			
Playback Button	Tracking Line Off	Enable/Disable tracking line in the recording footage.				
	Shopping Cart Off	Enable/Disable detection icons of shopping cart.				
	4 0 ⊫ ⊠	Rewind/Pause/Play/Forward(supports switching betw 0.5x, 1x, 2x, and 4x playback speed).				
-	15:20:50.035 / 15:21:04.000	Start time and end time of the recording.				
	Ŧ	Download video stream footage.				

Note: The playback progress bar video stream footage highlights the video frame where the data changes.

5.6 System

5.6.1 Device Info

All information about the hardware and software can be checked on this page. Besides, users can modify the device name, customize device ID and site ID for large amounts of devices management.

Milesight	Device Info.		I Current System Time	
d) Dashboard	Device Name	People Counter		
∎≣ Rule	Product Model	V5135-L08EU	Date 23/02/2024	
Communication			Time 10:08:09	
C Report	SN	6767D45030410043	Set the System Time	
Validation	Hardware Version	V1.0	Time Zone UTC-0:00 Weste	ern European Time 💲
System	Software Version	V_135.1.0.5-r2-b	Daylight Saving Time	
	WLAN MAC Address	24:E1:24:F8:D3:2C		× ✓
	Customized Device ID		I Synchronize Time	
	Customized Site ID			
	Running Time	3 days 8 minutes 11 seconds	Synchronize Mode	
🗈 English >		× <	Server Address pool.ntp	.org × ✓
L admin →	Users		Time Interval 1440	× 🗸 🕥

5.6.2 User

M ilesight	Device Info.			Current Curtaen Time		
1) Dashboard	Device Name	People Counter		Current System Time Date 01/01/1970		
E Rule	Product Model	VS135-L08EU		Time 02:11:12		
🕒 Report	SN	6767D51726210043		Set the System Time		
Validation	Hardware Version	V1.4		Time Zone	UTC-0:00 Western European T	ime (WET), Greenwich Mean Ti 🗘
 System 	Software Version	V_135.1.0.5-r1-b		Daylight Saving Time		
	WLAN MAC Address	24:E1:24:36:37:3B				×
	Customized Device ID			Synchronize Time		
	Customized Site ID			Synchronize Mode	1	NTP Timing Manual Timing
	Running Time	2 hours 5 minutes 8 seconds		Server Address	pool.ntp.org	× 🗸
			×	Time Interval	1440	× 🗸
	Users					
	Username	User Level	Operation			
	admin	Administrator	5 0			
🖾 English 🔸		+ Add User				
≗ admin >						\mathbf{O}
Parameters	s		Des	cription		
G	You can c	hange the logi	n password o	of this device.		

0

Username	admin	
User Level	Administrator	\$
Administrator Password		
New Password		
Confirm		
At least: • 8 characters • 2 types of characters: No	umber, letter and symbol	

Click to set three security questions for your device. In case that you forget the password, you can click **Forget Password** button on login page to reset the password by answering three security questions correctly.

Password		
Security Question1	What is your lucky number?	~
Answer1		
Security Question2	What is your favorite sport?	1
Answer2		
Security Question3	What is your favorite game?	~
Answer3		

Click to add a viewer, who will only have access to the "Dashboard" and "Report" interfaces.

	Add User			
	Username	viewer		
⊢ Add User	User Level	Viewer	\$	
	Password			
	Confirm			
	At least: • 8 characters • 2 types of character	s: Number, letter and symb		
			× ✓	

5.6.3 Time Configuration

Milesight

hboard						
•	Device Name	People Counter		Date 01/01/1970		
munication	Product Model	VS135-L08EU		Time 02:11:52		
ort	SN	6767D51726210043		Set the System Time		
dation	Hardware Version	V1.4				
em	Software Version	V_135.1.0.5-r1-b		Time Zone	UTC-0:00 Western European	Time (WET), Greenwich Mean Ti 🗘
	WLAN MAC Address	24:E1:24:36:37:3B		Daylight Saving Time		× v
	Customized Device ID			Synchronize Time		
	Customized Site ID			Synchronize Mode		NTP Timing Manual Timing
	Running Time	2 hours 5 minutes 8 seconds		Server Address	pool.ntp.org	
			×		poor.ntp.org	× •
	Users			Time Interval min(1-10080)	1440	× ~
	Username	User Level	Operation			
	admin	Administrator	6 0			
lish >		+ Add User				
nin >						

Parameters	Description		
Time Zone	Choose the time zone for your location.		
	Enable or disable Daylight Saving Time (DST).		
Doulight Coving Time	Start Time: the start time of DST time range.		
Daylight Saving Time	End Time: the end time of DST time range.		
	DST Bias: the DST time will be faster according to this bias setting.		
Synchronize Mode	NTP Timing or Manual Timing is optional.		
Server Address	NTP server address to sync the time.		
Time Interval	Set the interval to sync time with NTP server.		
Setting Time	Set the device time manually.		
Synchronize with	Supervise the time with your computer		
computer time	Synchronize the time with your computer.		

5.6.4 Remote Management

Milesight provides remote management service for this device via Milesight DeviceHub platform or Milesight Development Platform. Before connecting, do ensure the device is connected to the network and Internet connection is stable.

 ▶ Cillesight Dashboard ≅ Rule Communication @ Report @ Validation ♥ System 	I Remote Mana Remote Man Platform Status I Platform Sett Remote Man Auto Provisi Data Transfe Periodic Rep Periodic Rep Periodic Rep Periodic Rep	IoT Development Platform IoT Development Platform Connected Frequency Adjustment() Modulation Mode A ToF Lighting Mode Auxoyx Ch Auxoyx Ch Auxoyx Ch Frequency Adjustment() Modulation Mode A ToF Lighting Mode Auxoyx Ch Auxoyx Ch Auxoyx Ch Frequency Adjustment() Modulation Mode A ToF Lighting Mode ToF Kolse Filtering Noise Filtering Tilt Correction I Recovery device basic configuration Basic Recovery Recovery device basic configuration Recovery d			
≗ admin >	Security Servi	ice I Upgrade			
Paramete	rs	Description			
Remote Mar	Remote Management				
Remot Managen		Enable or disable to manage the device through Milesight platforms.			
Platfor	m	DeviceHub or IoT Development Platform is optional.			
Status	3	Show the connection status between the device and the DeviceHub.			
DeviceHub					
Server Add	dress	IP address or domain of the DeviceHub management server.			
Activation M	lethod	Select activation method to connect the device to the DeviceHub server, options are Authentication Code and Account .			
IoT Develop	ment Pla	atform			
Remote Management Service		Enable to change the device settings via Milesight Development platform.			
Auto Provisioning		Enable to receive and deploy the configurations from Milesight Development Platform after the device is connected to Internet.			
Data Transfer Service		Report people counting data to Milesight Development platform.			
Security Ser	vice				
SSH		Enable or disable SSH access. The SSH port is fixed as 22.			

5.6.5 System Maintenance

Milesight	Success I Time of Flight Advanced Settings				
🛍 Dashboard	Remote Management Frequency Adjustment Modulation Mode A				
Rule Communication	Platform OT Development Platform				
Report	Status Connected ToF Noise Filtering				
S Validation	I Platform Settings Noise Filtering Level®				
System	Remote Management Service Tilt Correction				
	Auto Provisioning ©				
	Data Transfer Service				
	Recovery device basic configuration Basic Recovery				
	I security Service Recovery device to factory settings All Recovery				
	SSH I Reboot				
-	Reboot the Device Reboot				
🗈 English >					
📥 admin 🔸	1 Unovate				
Parameters	Description				
	Adjust the ToF frequency modulation mode to avoid the interference of				
	surrounding IR devices. When using Multi-Device Stitching, please avoid using				
Frequency	the same mode with other node devices.				
Adjustment					
	Note: If there is only one option, please contact Milesight IoT support: iot.support@milesight.com				
	Adjust the ToF light mode as Always On, Auto or Schedule. When using Auto				
	mode, the device will turn off the ToF light when radar detects no person for				
	some times to save the power.				
	Note:				
	1) ToF light off will not affect the periodic report.				
	2) During validation, the ToF lighting will be fixed as On irregardless of its				
	lighting mode configuration.				
	3) When using ToF Lighting Mode, the Dashboard will display relevant				
ToF	information.				
	Milesight				
Lighting	Countourd Figure				
Mode	Communication				
	Report Validation				
	• System 33 Na Swail 23				
	Ag bet				
	Reset Count				
	Ser Steam () Auto				
	English > 20/05/2024 06:50:30 Das & Time Das & Time Construction Das & Time Das & Time Time Das & Time Das & Time Das & T				
	▲ admin →				
ToF Noise					
Filtering	Filter the noisy point on the screen when working with dark floor or carpet.				

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Noise Filtering Level	Standard Version: When installing in a spacious environment with black carpet, it is recommended to set the strength to 2; when installing in a narrow environment with black carpet, it is recommended to set the strength to 10. High Ceiling Mount Version : When installing in a spacious environment with black carpet: it is recommended to set the strength to 18; when installing in a narrow environment with black carpet, it is recommended to set the strength to 9.
Tilt	Enable to automatic compensation of person height values when the device is
Correction	mounted at a tilt.
Reset	Recovery device basic configuration: keep the IP settings and user information when resetting.
Reset	Recovery device to factory settings: reset device to factory default, which needs to verify admin password.
Reboot	Restart the device immediately.
Upgrade	Click the folder icon and select the upgrading file, then click the Upgrade button to upgrade. The update will be done when the system reboots successfully. Note: The upgrade process takes about 1-10 minutes. Do not turn off the power and complete automatic restart after the upgrade.
Backup and	Export Config File: Export configuration file.
Restore	Import Config File: Click the file icon and select the configuration file, click Import button to import configuration file.

6. Installation Instruction

Parameter definition:

Parameters	Explanation	Value
		Standard Version: ≤3.5 m
Н	Installation height	High Ceiling Mount: ≤6.5 m
		Standard Version: 0.5 m
d	Minimum detection distance of VS135	High Ceiling Mount: 2 m
Δd	Distance measurement error of VS135	0.035 m
h _{max}	Maximum pedestrian height	Example 1.8 m
h _{min}	Minimum pedestrian height	Example 1.7 m
		Standard Version: 98°
α	ToF horizontal field of view angle	High Ceiling Mount: 60°
		Standard Version: 80°
β	ToF vertical field of view angle	High Ceiling Mount: 45°
x	Length of detection range	
у	Width of detection range	

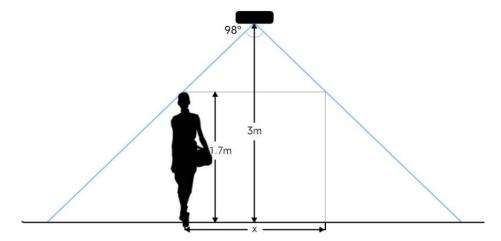
6.1 Installation Height

Milesight

- The maximum installation height is 3.5 m and the minimum installation height is $h_{max}+d+\Delta d$. For example, when the maximum pedestrian height is 1.8 m, then the minimum installation height is 1.8+0.5+0.035=2.335 m.
- The maximum installation height is 6.5 m and the minimum installation height is h_{max}+d+∆d.
 For example, when the maximum pedestrian height is 1.8 m, then the minimum installation height is 1.8+2+0.035=3.835 m.

6.2 Covered Detection Area

The detection area covered by the device is related to the field of view angle of the device, the installation height and the target height. The length of the detection area is approximately $x=1.155\times(H-h_{min})$ and the width of the detection area is approximately $y=0.828 \times (H-h_{min})$.



For example, if the Minimum height of pedestrians is 1.7 m, the detection area corresponding to each installation height is as follows:

Installation Height (m)	Monitored Area (m)	Detection Area(m)
2.5	5.75 × 4.20	1.84 × 1.34
2.6	5.98 × 4.36	2.07 × 1.51
2.7	6.21 × 4.53	2.30 × 1.68
2.8	6.44 × 4.70	2.53 × 1.85
2.9	6.67 × 4.87	2.76 × 2.01
3.0	6.90 × 5.03	2.99 × 2.18
3.1	7.13 × 5.20	3.22 × 2.35
3.2	7.36 × 5.37	3.45 × 2.52

Standard Version:

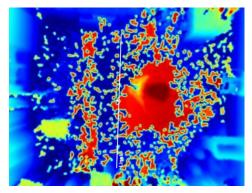
3.3	7.59 × 5.54	3.68 × 2.69	
3.4	7.82 × 5.71	3.91 × 2.85	
3.5	8.05 × 5.87	4.14 × 3.02	

High Ceiling Mount Version:

Installation Height (m)	Monitored Area (m)	Detection Area(m)
3.5	4.04 x 2.90	2.08 x 1.49
3.7	4.27 x 3.07	2.31 x 1.66
3.9	4.50 x 3.23	2.54 x 1.82
4.1	4.73 x 3.40	2.77 x 1.99
4.3	4.97 x 3.56	3.00 x 2.15
4.5	5.20 x 3.73	3.23 x 2.32
4.7	5.43 x 3.89	3.46 x 2.49
4.9	5.66 x 4.06	3.70x 2.65
5.1	5.89 x 4.22	3.93 x 2.82
5.3	6.12 x 4.39	4.16 x 2.98
5.5	6.35 x 4.56	4.39 x 3.15
5.7	6.35 x 4.72	4.62 x 3.31
5.9	6.81 x 4.89	4.85 x 3.48
6.1	7.04 x 5.05	5.08 x 3.65
6.3	7.27 x 5.22	5.31 x 3.81
6.5	7.51 x 5.38	5.54 x 3.98

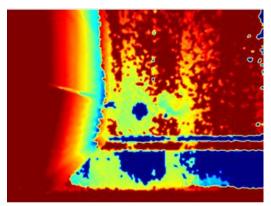
6.3 Environment Requirements

• Dark floor/carpet (black, grey, etc.) will affect the device to count staffs when Staff Detection is enabled.



• Avoid 940nm light which may result in incorrect counting.

- Outdoor sunlight shining on the over channel will not have any effect, but the mirrored reflections that allow sunlight to shine on the ToF Sensor should be avoided.
- Make sure there are no obstacles within the live view of device. Otherwise, the device imaging may appear abnormally red or it will affect people counting. When the carpet/floor is black, make sure to adjust Noise Filtering Level to max value.



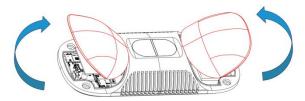
6.4 Installation

Ceiling Mount

Milesight

Installation condition: ceiling thickness > 30mm.

Step 1: Take down the side covers.



Step 2: Fix wall plugs into ceiling holes.

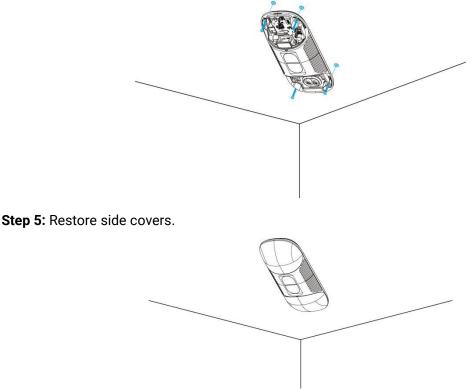
Step 3: Remove rubber plugs on the rubber sleeve, connect all required wires.



Note:

- Remove the rubber sleeve if waterproof is not required for easy installation.
- Use round wires.
- Ensure the rubber sleeve and the bottom cover are tightly connected without a gap if waterproof is required; if necessary, wrap the waterproof tapes around the wires to avoid any gap.
- Tighten the wires to avoid contact with internal modules.

Step 4: Fix the device to ceiling with mounting screws.



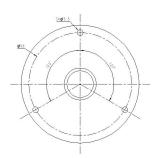
Ceiling/Lintel Mount (with Optional VB01 Multifunctional Bracket)

Step 1: Fix the pole to the device with the hole on the device.

Step 2: Adjust the length of the pole, then adjust the direction of 3-axis ball and tighten it with the handle.

Step 3: Determine the mounting location and drill 3 holes, fix the wall plugs into the mounting holes, then fix the bracket base to the wall plugs via mounting screws.

(Note: If the wire needs to be extended to the interior of the ceiling or wall, a wire hole with a suitable size is also required to be drilled.)

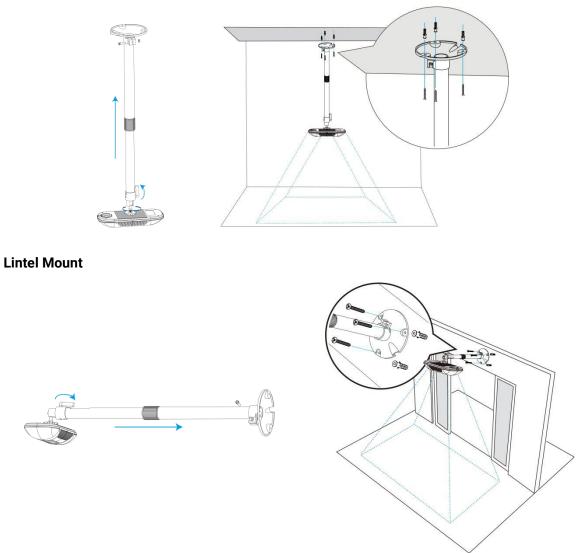


Step 4: Remove the cover on the device, and then connect all required wires and pass them through the inside of pole.

Step 5: Fix the pole to bracket base with screws and nuts.

Ceiling Mount

Milesight

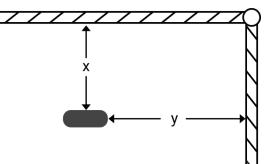


Installation Note:

• Ensure that the ToF sensor is facing down and the tilt angle from the ground is no greater than 15° for the standard version, and no greater than 10° for the high ceiling mount version.

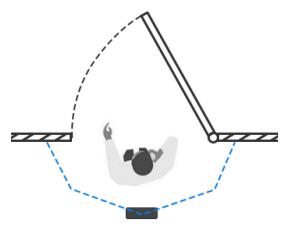
45

- Avoid direct Infrared LED light in the detection area.
- Not suggested to install the sensor close to glass or mirror.
- Ensure that there are no other objects blocking the ToF light within a 50cm radius of the device's field of view.
- Avoid installing the device against the wall and ensure the distance between the device and the wall as follows:



Condition	Standard Environment	The carpet/floor is Dark (need to set max noise filtering level)	
Normal imaging	x>50cm, y>60cm	x>50cm, y>75cm	
Normal counting	x>50cm, y>50cm	x>50cm, y>50cm	

 When you install devices on the top of swinging doors, it is suggested to keep the door normally open. If the door must be normally closed, please install the device on the other side of the door to keep away from the door's movement. And it is suggested to keep away from the door with a distance of at least 40cm.



6.5 Factors Affecting Accuracy

• Wearing a fisherman's hat or carrying a cardboard box on the shoulder: The target will not be recognized because it will become unlike a human in depth map.

{

• Handheld or cart-carrying a humanoid doll with sufficient height to pass by: The doll will be mistakenly detected as people because it is human-like in depth map.

7. Communication Protocol

VS135 will post the people counting data in json format to HTTP URL or MQTT broker.

7.1 Line Crossing People Counting-Periodic Report

```
"event":"People Counting",
"report_type": "period",
"device_info":
    {
         "device_name":"People Counter",
         "device_sn":"369362028335",
         "device_mac":"00:16:28:FA:8E:68",
         "ip_address":"192.168.0.99",
         "cus_device_id":"123468773",
         "cus_site_id":"asdfasf1231231",
         "running_time": 1564648484648,
         "firmware_version":"V_135.1.0.6-r1",
         "hardware_version":"V1.2"
    },
"time_info":
    {
         "time_zone":"UTC-11:00 Samoa Standard Time (SST)",
         "enable_dst":false,
         "dst_status":false,
         "start_time":"2022-12-20T18:15:00+03:00",
         "end_time":"2022-12-20T18:15:00+03:00"
    },
"period_data":
    ſ
         {
             "line":1,
             "line_name": "line name",
             "line_uuid": "c2cff803-8311-4a73-8ff3-9348cf4fa0d9",
             "in":10,
             "out":9,
```

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```
"staff_in":1,
"staff_out":1,
"children_in":0,
"children_out":0,
"group_in": 1,
"group_out": 0,
"empty_cart_in":1,
"no_full_cart_in":1,
"no_full_cart_out":1,
"full_cart_in": 1,
"full_cart_out": 1
```

}, {

```
"line":2,
              "line_name": "line2 name",
              "line_uuid": "c2cff789-8311-4a73-8ff3-9348cf4fa0d9",
              "in":0,
              "out":1,
              "staff_in":0,
              "staff_out":0,
              "children_in":0,
              "children_out":0,
              "group_in": 0,
              "group_out": 0,
              "empty_cart_in":1,
              "empty_cart_out":1,
              "no_full_cart_in":1,
              "no_full_cart_out":1,
              "full_cart_in": 1,
              "full_cart_out": 1
         }
    ],
"total_data":
    [
         {
              "line":1,
              "line_name": "line name",
```

MAKE SENSING MATTER

}, {

}

]

```
Milesight
```

```
"line_uuid": "c2cff803-8311-4a73-8ff3-9348cf4fa0d9",
"in_counted":10,
"out_counted":9,
"capacity_counted":1,
"staff_in_counted":1,
"staff_out_counted":1,
"children_in_counted":0,
"children_out_counted":0,
"group_in_counted": 1,
"group_out_counted": 0,
"empty_cart_in_counted":1,
"empty_cart_out_counted":1,
"no_full_cart_in_counted":1,
"no_full_cart_out_counted":1,
"full_cart_in_counted": 1,
"full_cart_out_counted": 1
"line":2,
"line_name": "line2 name",
"line_uuid": "c2cff789-8311-4a73-8ff3-9348cf4fa0d9",
"in_counted":10,
"out_counted":9,
"capacity_counted":1,
"staff_in_counted":1,
"staff_out_counted":1,
"children_in_counted":0,
"children_out_counted":0,
"group_in_counted": 1,
"group_out_counted": 0,
"empty_cart_in_counted":1,
"empty_cart_out_counted":1,
"no_full_cart_in_counted":1,
"no_full_cart_out_counted":1,
"full_cart_in_counted": 1,
"full_cart_out_counted": 1
```

}

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7.2 Line Crossing People Counting-Trigger Report

```
{
    "event":"People Counting",
    "report_type": "trigger",
    "device_info":
         {
             "device_name":"People Counter",
             "device_sn":"369362028335",
             "device_mac":"00:16:28:FA:8E:68",
             "ip_address":"192.168.0.99",
             "cus_device_id":"123468773",
             "cus_site_id":"asdfasf1231231",
             "running_time": 1564648484648,
             "firmware_version":"V_135.1.0.6-r1",
             "hardware_version":"V1.2"
        },
    "time_info":
         {
             "time_zone":"UTC-11:00 Samoa Standard Time (SST)",
             "enable_dst":false,
             "dst_status":false,
             "time":"2022-12-20T18:15:00+03:00"
        },
    "trigger_data":
         ſ
             {
                  "line":1,
                  "line_name": "line name",
                  "line_uuid": "c2cff803-8311-4a73-8ff3-9348cf4fa0d9",
                  "in":1,
                  "out":0,
                  "staff_in":1,
                  "staff_out":0,
                  "children_in":0,
                  "children_out":0,
                  "group_in": 1,
```

}

```
"empty_cart_in":1,
          "empty_cart_out":0,
          "no_full_cart_in":1,
          "no_full_cart_out":0,
          "full_cart_in": 1,
          "full_cart_out": 0
    },
     {
          "line":2,
          "line_name": "line2 name",
          "line_uuid": "c2cff789-8311-4a73-8ff3-9348cf4fa0d9",
          "in":0,
          "out":1,
          "staff_in":0,
          "staff_out":0,
          "children_in":0,
          "children_out":0,
          "group_in": 0,
          "group_out": 0
          "empty_cart_in":1,
          "empty_cart_out":0,
          "no_full_cart_in":1,
          "no_full_cart_out":0,
          "full_cart_in": 1,
          "full_cart_out": 0
    }
]
```

7.3 Region People Counting - Periodic Report

```
{
    "event":"Region People Counting",
    "report_type": "period",
    "device_info":
        {
            "device_name":"People Counter",
            "device_sn":"369362028335",
        }
    }
}
```

```
"device_mac":"00:16:28:FA:8E:68",
         "ip_address":"192.168.0.99",
         "cus_device_id":"123468773",
         "cus_site_id":"asdfasf1231231",
         "running_time": 1564648484648,
         "firmware_version":"V_135.1.0.6-r1",
         "hardware_version":"V1.2"
    },
"time_info":
    {
         "time_zone":"UTC-11:00 Samoa Standard Time (SST)",
         "enable_dst":false,
         "dst_status":false,
         "start_time":"2022-12-20T18:15:00+03:00",
         "end_time":"2022-12-20T18:15:00+03:00"
    },
"region_data":
    {
         "region_count_data":
             [
                  {
                       "region":1,
                       "region_name":"Region1",
                       "region_uuid": "c2cff789-8311-4a73-8ff3-9348cf4fa0d9",
                       "current_total":10,
                       "current_staff":1,
                       "current_children":1
                  },
                  {
                       "region":2,
                       "region_name":"Region2",
                       "region_uuid": "c2cff789-8311-4a73-8ff3-9348cf4faaca",
                       "current_total":10,
                       "current_staff":1,
                       "current_children":1
                  }
             ]
    }
```

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}

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7.4 Region People Counting - Trigger Report

```
{
    "event":"Region People Counting",
    "report_type": "trigger",
    "device_info":
         {
             "device_name":"People Counter",
             "device_sn":"369362028335",
             "device_mac":"00:16:28:FA:8E:68",
             "ip_address":"192.168.0.99",
             "cus_device_id":"123468773",
             "cus_site_id":"asdfasf1231231",
             "running_time": 1564648484648
             "firmware_version":"V_135.1.0.6-r1",
             "hardware_version":"V1.2"
        },
    "time_info":
         {
             "time_zone":"UTC-11:00 Samoa Standard Time (SST)",
             "enable_dst":false,
             "dst_status":false,
             "time":"2022-12-20T18:15:00+03:00"
        },
    "trigger_data":
         {
             "region_count_data":
                  ſ
                      {
                           "region":1,
                           "region_name":"Region1",
                           "region_uuid": "c2cff789-8311-4a73-8ff3-9348cf4fa0d9",
                           "current_total":10,
                           "current_staff":1,
                           "current_children":1
                      },
                      {
```

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```
"region":2,
    "region_name":"Region2",
    "region_uuid": "c2cff789-8311-4a73-8ff3-9348cf4faaca",
    "current_total":10,
    "current_staff":1,
    "current_children":1
}
```

7.5 Dwell Time Detection - Periodic Report

}

}

{

```
"event":"Dwell Time Detection",
"report_type": "period",
"device_info":
    {
         "device_name":"People Counter",
         "device_sn":"369362028335",
         "device_mac":"00:16:28:FA:8E:68",
         "ip_address":"192.168.0.99",
         "cus_device_id":"123468773",
         "cus_site_id":"asdfasf1231231",
         "running_time": 1564648484648,
         "firmware_version":"V_135.1.0.6-r1",
         "hardware_version":"V1.2"
    },
"time_info":
    {
         "time_zone":"UTC-11:00 Samoa Standard Time (SST)",
         "enable_dst":false,
         "dst_status":false,
         "start_time":"2022-12-20T18:15:00+03:00",
         "end_time":"2022-12-20T18:15:00+03:00"
    },
"period_data":
    [
         {
         "region":1,
```

```
"region_name":"Region1",
"region_uuid": "c2cff789-8231-4a73-8ff3-9348cf4faaca",
"max_dwell_time":156464,
"avg_dwell_time": 156464,
"staff_max_dwell_time":1522,"staff_avg_dwell_time":1522,
"children_max_dwell_time":1522, "children_avg_dwell_time":1522
},
{
"region":2,
"region_name":"Region2",
"region_uuid": "c2cff789-8311-4a73-8ff3-9348cf4faaca",
"max_dwell_time":156464,
"avg_dwell_time": 156464,
"staff_max_dwell_time":1522,"staff_avg_dwell_time":1522,
"children_max_dwell_time":1522, "children_avg_dwell_time":1522
}
```

7.6 Dwell Time Detection - Trigger Report

```
"event":"Dwell Time Detection",
"report_type": "trigger",
```

}

{

```
"device_info":
```

{

"device_name":"People Counter",

```
"device_sn":"369362028335",
```

"device_mac":"00:16:28:FA:8E:68",

"ip_address":"192.168.0.99",

"cus_device_id":"123468773",

```
"cus_site_id":"asdfasf1231231",
```

"running_time": 1564648484648,

"firmware_version":"V_135.1.0.6",

```
"hardware_version":"V1.2"
```

```
},
"time_info":
```

{

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```
"enable_dst":false,
             "dst_status":false,
             "time":"2022-12-20T18:15:00+03:00"
         },
    "trigger_data":
             ſ
                  {
                  "region":1,
                  "region_name":"Region1",
                  "region_uuid": "c2cff789-8311-4a73-8ff3-9348cf4fa0d9",
                  "people_id":1,
                  "dwell_start_time":"2022-12-20T18:15:52+03:00",
                  "dwell_end_time":"2022-12-20T19:15:52+03:00",
                  "duration":5646.
                  "staff":false,
                  "children":true
                  },
                  {
                  "region":2,
                  "region_name":"Region2",
                  "region_uuid": "c2cff789-8311-4a73-8ff3-9348cf4faaca",
                  "people_id":2,
                  "dwell_start_time":"2022-12-20T17:15:52+03:00",
                  "dwell_end_time":"2022-12-20T19:15:52+03:00",
                  "duration":5646.
                  "staff":false,
                  "children":true
                  }
             1
}
```

"time_zone":"UTC-11:00 Samoa Standard Time (SST)",

8. MQTT downlink command

VS135 supports to send two commands via MQTT API to enquire the data.

(1) Get Report Information

Request example:

{

```
"dst":"all",

"type":0,

"command": "/api/v1/counting/getRecordsResult",

"msgld":12345678,

"requestData":{

"uuid":"9cf5b39a-6f9b-47af-accb-e224c0b048d3",

"event":0

}
```

}

Request Parameters:

Parameter	Туре	Description	
dst	string	all: send to all recipients that subscribe the MQTT API topic SN: send to a certain recipient	
type	number	0: request, 1: response	
msgld	number	Identifier of this request	
requestData	object		
uuid	string	A random unique ID defined by user	
		0: Line crossing counting	
event	number	1: Region people counting	
event		2: Dwell time detection	
		3: Heat map	

Response example:

{ "msgld": 12345678 responseData":{ "command": 16, "data":{ "event": 0. "lineRecords":{ "accChildrenEnter":8, accchildrenLeave":8, accEmptyCartsIn":0, accEmptyCartsOut":0, "accEnter": 29, "accFullCartsIn":0, 'accFullCartsOut":0. accGroupEnter":0, accGroupLeave":0, "accLeave": 39, "accPartialLoadCartsIn":0, "accPartialLoadcartsOut":0,

```
accstaffEnter":0,
    accstaffLeave":0,
    "records":[
       {
       "childrenEnter":0,
       "childrenLeave": 0,
       "emptyCartsIn":0.
       "emptyCartsOut":0,
       "enter":7,
       "fullcartsIn":0,
       "fullcartsout":0,
       "groupEnter": 0,
       "groupLeave": 0.
       "leave":7,
       "partialLoadCartsIn":0.
       partialLoadCartsOut":0.
       "staffEnter":0,
       "staffLeave": 0,
       "time":"2024-07-22T21:26:00.000"
       }
       ]
    "searchstatus":3
    }
  "detail":
  "'ok"
  "status": 0,
  "transmit cast":1
  }
"src":"6767E03389470054"
type":1
```

Response Parameters:

}

Parameter	Туре	Description
command	number	Return Information
data	object []	Return data
		0: Line crossing counting
event	number	1: Region people counting
event		2: Dwell time detection
		3: Heat map
		0: uuid not found
a a a rah Ctatua		1: Waiting for searching
searchStatus	number	2: Updating
		3: Data updating completely

lineRecords	object	Report when event is 0 ,and the searchstatus is 3
accChildrenEnter	number	
accChildrenLeave	number	
accEnter	number	
accLeave	number	Total number of people leaving the zone during the specified period
accStaffEnter	number	
accStaffLeave	number	
accEmptyCartsIn	number	
accEmptyCartsOut	number	
accFullCartsIn	number	
accFullCartsOut	number	
accPartialLoadCartsIn	number	
accPartialLoadcartsO ut	number	
records	object[]	
regionRecords	object	Report when event is 1 ,and the searchstatus is 3
records	object[]	
total	number	
staff	number	
children	number	
emptyCarts	number	
partialLoadCarts	number	
fullCarts	number	
time	number	
totalCount	string	
dwellRecords	object	Report when event is 2 ,and the searchstatus is 3
records	object[]	
total	number	
staff	number	
children	number	
time	number	
totalCount	string	
heatmap	object	Report when event is 3 ,and the searchstatus is 3
records	object[]	
Х	number	
Y	number	
value	number	
width	number	Width of the heatmap data grid

height	number	Height of the heatmap data grid
max	number	The Maximum value of heat map
min	number	The minimum value of heat map
realMapWidth	number	Master mode: 1920
		Standalone mode: 320
realMapHeight	string	Master mode: 1440
		Standalone mode: 240
detail	string	Return Information
status	number	Status Value
		0: Success
transmit_cast	number	Processing time

(2) Search Log

Milesight

Request example:

```
{
    "dst":"all",
    "type":0,
    "command": "/api/v1/system/searchLog",
    "msgld":12345678,
    "requestData":{
            "startTime": "0",
            "endTime": "1800211081920",
            "logType": 0,
            "admin": true
     }
```

```
}
```

Request Parameters:

Parameter	Туре	Description
dst	string	all: send to all recipients that subscribe the MQTT API topic
	-	SN: send to a certain recipient
type	number	0: request, 1: response
msgld	number	Identifier of this request
requestData	object	
startTime	string	Start Timestamp, Unit: ms
endTime	string	End Timestamp, Unit: ms
logType	number	0: Starting up log
admin	boolean	true: display response parameter "rebootCode",
		false: hidden response parameter "rebootCode"

Response example:

{

```
"msgld": 12345678,
"responseData": {
```

```
"command": 40,
  "data": {
    "log": [
      {
         "PowerOnTime": "2024-04-10T08:38:49-00:00",
         "ShutdownTime": "2024-04-10T08:40:08-00:00",
         "detailld": 1,
         "rebootCode": 0
      },
      {
         "PowerOnTime": "1970-01-14T19:30:10-00:00",
         "ShutdownTime": "1970-01-21T16:28:21-00:00",
         "detailId": 2,
         "rebootCode": 1
      }
    ],
    "recordCount": 29
  },
  "detail": "ok",
  "status": 0,
  "transmit_cast": 7
},
"src": "6767E03389470054",
"type": 1
```

}

Response Parameters:

Parameter	Туре	Description
msgld	number	Identifier of this request
responseData	object	
command	number	
data	object	
log	object[]	Item type: object
PowerOnTime	string	Boot time
ShutdownTime	string	Power outage time
detailld	number	
	string	Display when request parameter "admin" is true.
rebootCode		0: unknown
		1: Normal
		2: system process fail
		3: tof process fail
		4: camera process fail
		5: update process fail
		6: lighttpd process fail

recordCount	number	Number of restarts, maximum display 1000
detail	string	
status	number	0: success
transmit_cast	number	Processing time
src	string	SN for response
type	number	0: request, 1: response

-END-