Milesight

Milesight AI Box

Equipped with numerous algorithms for deep learning and analysis, the AI Box is a cost-effective AI computing product, which is able to recognize detected objects precisely and immediately. Therefore, the AI Box is a solution platform for the creation of deep learning capable of realizing AI applications, such as Face Recognition, Human-Vehicle Control and Perimeter Alert, etc.

DATASHEET

KEY FEATURES

Scalability of Connectivity

- Fully integrate with Milesight network cameras and 3rd party network cameras.
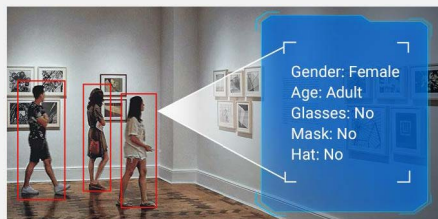- Support H.265/H.264, offering better compression and substantially improving video quality.

Ease of Use

- Compatible with existing Milesight VMS system, meets the need for optimally and purposefully expanded and upgraded.
- Centralized management of diverse attributes at Milesight VMS Enterprise.
- HTML5 Web-based configuration.
- Easy configuration and quick system start-up.

Intelligent Applications

Clientele Classification & Identity Management

Face-human & Recognition, Structure Analysis, such as Face, Body and Vehicle, etc.

Gender: Female
Age: Adult
Glasses: No
Mask: No
Hat: No

Perimeter Alert Management

Tripwire, Intrusion, Park, Exit, Wander and Over Wall Detection.

Behavioral Alert Management

Fall, Smoke, Call, Watch Phone, Run, Sleep Detection, etc.

Over-crowd Management

Regional People Counting, Entrance & Exit People Counting.

Objects Management

Sundry Detect, Goods Forget, Goods Guard.

Model	BX108-A
System Parameters	
Main Processor	High-performance embedded microprocessors
Operating System	Embedded Linux
Device Access	
Video Stream Input	Video Resolution: 1920 x 1080 (1080P), 2560 x 1440 (4MP), 3840 x 2160 (8MP)
Video Decoding Type	H.264/H.265
Smart Functions	
Working mode: multi-algorithm parallel, configurable by channel	● Face-Human & Recognition: (full load maximum 8 channels): face capture, face recognition, face attributes, human body capture, human attributes, face-human binding. ● Structure Analysis: (full load max 8 channels): **Image capture**: face, human body, motor vehicle, non-motor vehicle **Attribute output**: face, human body, motor vehicle, non-motor vehicle **Association relationship**: face-person binding, person-non-motor vehicle binding ● Diagnosis_Alarm: (full load maximum 8 channels): Image_Cover_Alert ● Perimeter_Alarm (fully loaded 8 channels, 4 sub-rules per channel): Park, Exit, Wander, Over_Wall, Intrusion, Tripwire, Climb ● Behavioral_Alarm (fully loaded 8 channels, 4 sub-rules per channel): Fall, Smoke, Call, Watch Phone, Run, Sleep, On/Off Duty, Gather, Fight, Person_Over, Person_Less, Hold_Weapon ● Goods_Alarm (fully loaded 8 channels, 2 sub-rules per channel): Sundry_Stack, Goods_Guard, Goods_Forget ● Headcount_Alarm (fully loaded 8 channels, 2 sub-rules per channel): Head_Count, Cross_Line **Note:** Functional compatibility of AI Box with Milesight VMS Enterprise depends on the specific version implementation.
Report	Support face capture, face recognition, face attributes, human body, motor vehicle, non-motor vehicle attributes, and alert alarm analysis results reporting.
Accuracy	Face: face capture rate ≥ 99%, false capture rate < 1%, recognition pass rate: >99.5%, recognition false rate: < 0.5%. Human body: human body capture rate ≥ 95%, false catch rate < 1%. Motor vehicle: motor vehicle capture rate ≥ 90%, false catch rate < 1%. Non-motor vehicle: non-motor vehicle capture rate ≥ 95%, false catch rate < 1%.
Interface Parameters	
Network Interface	2, 100M/1000M adaptive Ethernet, RJ45 interface
Alarm Input Interface	4-way switch
Alarm Output Interface	4-way switch
Audio Output	1-way
Audio Input	1-way
Front USB Interface	1 x USB 2.0 and 1 x USB 3.0
Rear USB Interface	2 x USB 2.0

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RS485	2-way
Reset Button	1
Power Indicator (PWR).	1
Run Indicator (RUN).	1
System capabilities	
Face Recognition	Employee passage at the entrance; List control and identification of key personnel, alarm, stranger identification, etc.
	Face library capacity: 64 face libraries, total 300,000 face pictures.
Video Structured	Capture of face, human body, motor vehicle and non-motor vehicle, etc., attribute analysis.
Network Protocols	TCP/UDP/HTTP/MULTICAST/DHCP/FTP/NTP/HTTPS/RTSP, etc.
Dual Network Ports	Supports three modes: multiple access setting, load balancing, and primary/standby mode.
Log Queries	It can query, search and display the capture information of face, human body, motor vehicle and non-motor vehicle.
Environmental requirements	
Operating Temperature	-30℃ ～ +70℃
Storage Temperature	-30℃ ～ +70℃
Relative Humidity	10% ～ 90%RH, non-condensing
Other	
Power Supply	DC12V±10%, 3.33A
Structure	Metal chassis
Dimensions (L/D)	229×193×49 (mm)
Weight	1.96Kg
Warranty	1-year NBD (Next Business Day) with onsite parts delivery service.

Rule Setting

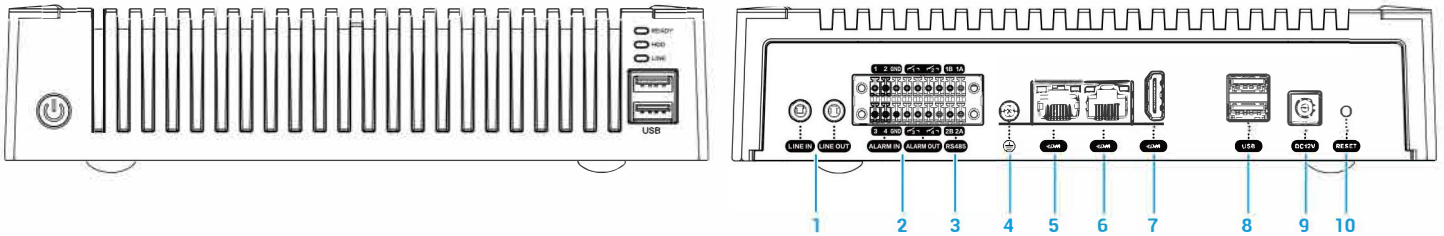| Algorithm Pocket	Algorithm Pockets Management						
	Face-Human	Diagnosis	Structure	Perimeter	Behavior	Goods	Headcount
BX108-A	8*1	8*1	8*1	8*4 sub-rules	8*4 sub-rules	8*2 sub-rules	8*2 sub-rules
Sub-rules	-	-	-	Park, Exit, Wander, Over_Wall, Intrusion, Tripwire, Climb	Fall, Smoke, Call, Watch Phone, Run, Sleep, On/Off Duty, Gather, Fight, Person_Over, Person_Less, Hold_Weapon	Sundry_Stack, Goods_Guard, Goods_Forget	Head_Count, Cross_Line

Note:

① One AI Box supports up to 8 algorithm pockets for stacked use at the same time.

② Each channel supports overlaying 4 different algorithm pockets, but does not support simultaneous deployment of "Face-Human & Recognition" and "Structure_Analysis" algorithms.

For example, if users choose channel 1 to open four algorithm pockets at the same time, Structure_Analysis, Perimeter_Alarm(with 4 sub-rules), Behavioral_Alarm(with 4 sub-rules), and

Headcount_Alarm(with 2 sub-rules), and channel 2 to open the above four algorithm pockets at the same time, at which time the AI Box's computing power is full.

Milesight AI Box

Interfaces

BX108-A

1. Audio input and output
2. Alarm input and output
3. RS485
4. Grounding connection cable
5. LAN
6. WAN
7. HDMI
8. USB
9. Power
10. Reset

Device Connection Topology

AI

AI Box

IPCs

Switch

Video Surveillance Appliance

Switch

VMS Client

M-VMS Mobile

VMS Video Wall

BX108-A AI Analytics BOX 8CH HS 84713010