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.
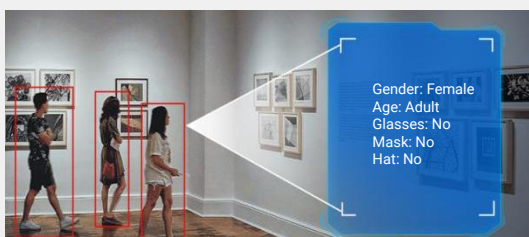• Support H.265/H.264, offering better compression and substantially improving video quality.

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.
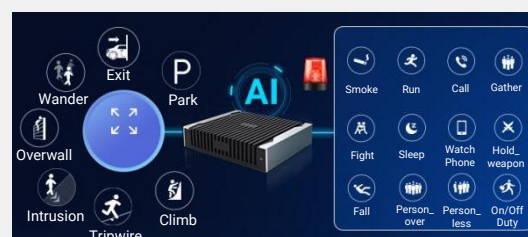
Intelligent Applications

Clientele Classification & Identity Management

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

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

Alert_Alarm Management

Smoke, Call, Run, Sleep, Gather, Fight, Person_Over, Hold_Weapon, Park, Wander, Over_Wall, Intrusion, etc.
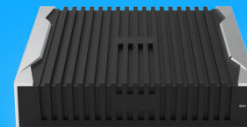

Over-crowd Management

Regional People Counting, Entrance & Exit People Counting.

Objects Management

Sundry Detect, Goods Forget, Goods Guard.

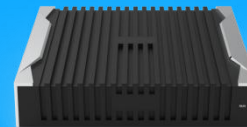| Model	BX208-A
System Parameters	
Main Processor	High-performance embedded microprocessors
Operating System	Embedded Linux, 8GB of RAM and 32GB of storage
Device Access	
Video Stream Input	Video Resolution: 1920 x 1080 (1080P), 2560 x 1440 (4MP), 3840 x 2160 (8MP), Maximum video access capacity: 4*8MP; 8*4MP; 8*1080P. Decoding limit: 8*1080P
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 ● Alert_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, Park, Exit, Wander, Over_Wall, Intrusion, Tripwire, Climb ● 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	2-way switch
Alarm Output Interface	2-way switch
Audio Output	1-way
Audio Input	1-way

Rear USB Interface	1 x USB 2.0 and 1 x USB 3.0
RS485	2-way
RS232	1
Reset Button	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	-20℃ ～ +60℃
Storage Temperature	-20℃ ～ +60℃
Relative Humidity	10% ～ 90%RH, non-condensing
Other	
Power Supply	DC12V±10%, 3.33A
Dimensions (L/D)	179×150×42 (mm)
Weight	1Kg
Warranty	2 Years

Rule Setting

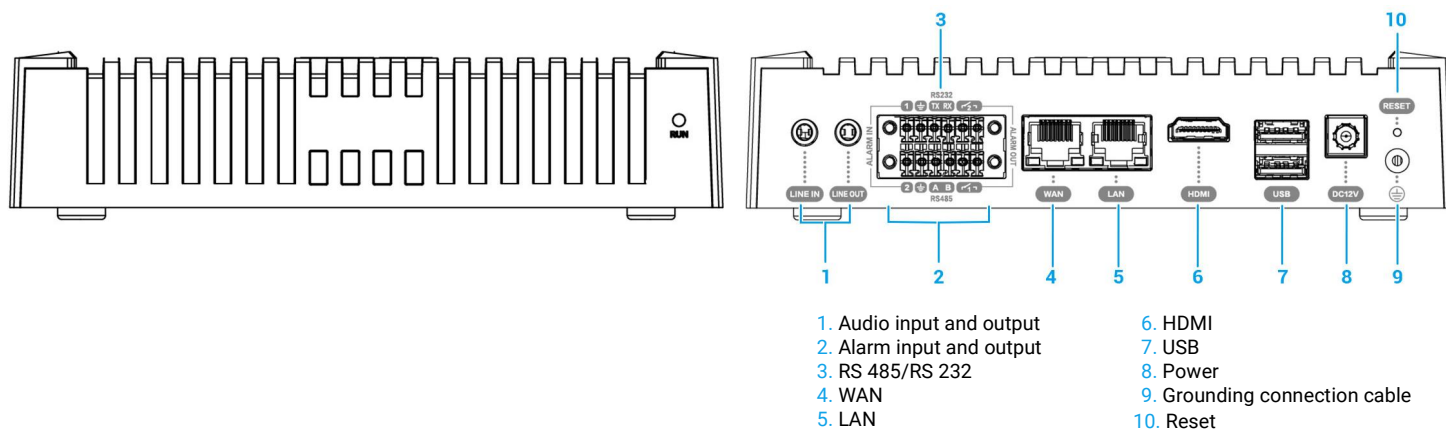| Algorithm Pocket	Algorithm Pockets Management					
	Face-Human	Diagnosis	Structure	Alert	Goods	Headcount
BX108-A	8*1	8*1	8*1	8*4 sub-rules	8*2 sub-rules	8*2 sub-rules
Sub-rules	-	-	-	Fall, Smoke, Call, Watch Phone, Run, Sleep, On/Off Duty, Gather, Fight, Person_Over, Person_Less, Hold_Weapon Park, Exit, Wander, Over_Wall, Intrusion, Tripwire, Climb	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, Alert_Alarm(with 4 sub-rules), Goods_Alarm(with 2 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.

V1.2

Milesight AI Box

Interfaces

BX208-A

1. Audio input and output
2. Alarm input and output
3. RS 485/RS 232
4. WAN
5. LAN
6. HDMI
7. USB
8. Power
9. Grounding connection cable
10. Reset

Device Connection Topology

AI Box

Network Cameras

Milesight VMS Server / Video Surveillance Appliance

VMS Client

M-VMS Mobile

VMS Video Wall