Atomrock Edge Computing Device

AEC100 Series

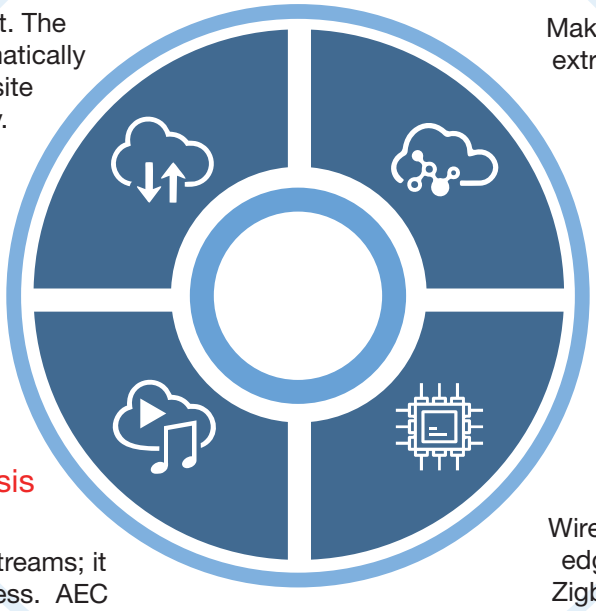
Atomrock Edge Computer (AEC) 100 series reside at the network edge that enables AI and IOT devices. It provides connectivity, analytics, management and software-defined AI for video and data analysis. Enterprise user can quickly adopt AtomCloud and enjoy the benefit of AIOT, edge computing and cloud.

Cloud auto provisioning

No hassle large-scale deployment. The device obtains configuration automatically from the cloud – makes multi-site development quick and easy.

Multi-layer visual AI algorithm

Make your content more discoverable - extract visual metadata from the video with software-defined AI.



Video and audio analysis Cloud recording

AEC manages video and audio streams; it provides the first layer of AI process. AEC uses TCP/IP and Onvif standard to obtain video and audio sources. Quickly enables AI at the edge of existing infrastructure.

Extend to the IOT edge

Wire or wireless IOT connectivity at the edge via TCP/IP, RS232/485, Zwave, Zigbee or other USB-enabled method. AEC collects and manages IOT data, analyze and react with software-defined AI in the cloud, and other devices on the enterprise network.

AEC100 Edge AI Features

Motion AI

Dynamic motion detection

The useful tool to spot object changes in seconds

Audio AI

Sound activated recording

Activate event recording based on sound detected.

Software-defined AI sound matching

The edge device can be activated by specific sound waves, trigger audio / video recording or IOT reaction.

Facial AI

Face detection

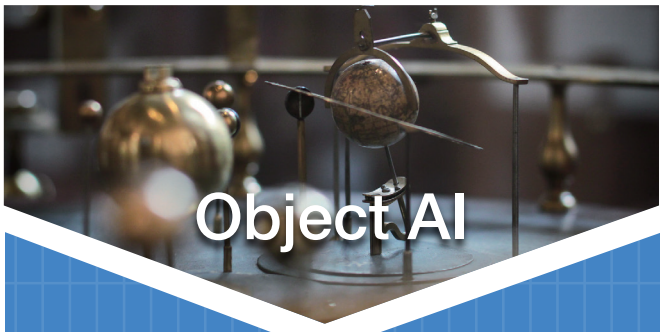
Detect, track and archive faces captured.

Face categorization and search

Facial characteristic and feature extraction into layered database for fast search.

Face match

Real-time comparison of captured face with cloud facial database. Provide confidence level and last seem history list.



Object AI

Smart parking

Classify cars, motorcycles and bikes in a marked area; and provide real-time status.

Occupancy AI

Classify people in marked areas, provide real-time status for cloud AI integration.

Object detection and classification

Detect and classify objects with up to 100 pre-trained AI models.

Atomrock RockCare Support

Atomrock works with local distributors and resellers to provide fast response and in-person local support. Our dedicated professional service team can also provide direct technical support for the entire Atomrock product line. Together with our certified Atomrock Enabler partners to deliver the enterprise-grade service our customer requires.

RockCare Support Services are essential for the operational phase to maintain your Atomrock infrastructure and assure optimal and efficient operation, while also providing access to technical support experts, firmware upgrades, and flexible hardware replacement services.

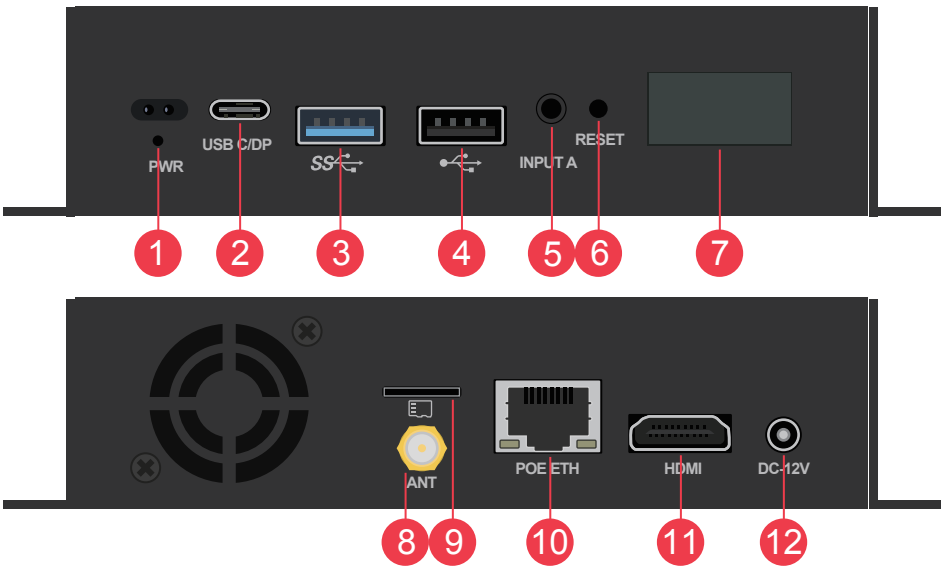
- RockCare Enhanced Support-provides full technical support during local normal business hours.
- RockCare 24x7 Support - provides 24 hours emergency respond on technical support, including hardware replacement service.
- RockCare Advance Service - Including extended software support like 3rd party integration, advance software upgrade, local in-person support.
- RockCare Technical Consulting Service - Including complex AIOT edge computing and cloud design support, implementation, report customization and other advance consulting service.

Atomrock Enterprise Professional Service

Atomrock Enterprise Professional Service can assist different of can assist different AIOT edge computing requirement. This integration service works with other Atomrock eco-system partners and solution integrators. We aim to deliver more flexible and tailored result for our customers.

Device Interfaces

AEC100 Series



1. Status LED
2. USB C/DP
3. USB 3.0
4. USB 2.0
5. Audio Input
6. Reset
7. OLED Display
8. SMA Connector
9. MicroSD (TF)
10. Ethernet POE+
11. HDMI 2.0
12. Power Input

Atomrock AEC100 Series

SPECIFICATIONS		
SYSTEM		
System	Operating system	AtomOS
Storage	Internal flash	32G
	Memory	4G
	CPU	Six-core 64-bit processor
	GPU	Hardware decoding GPU
Network	Ethernet port	100/1000Base-T
	Power over Ethernet	802.3at (POE+) up to 30W
Wireless	WiFi	WiFi 2.4G IEEE802.11b/g/n
Vision AI	Dynamic motion	Supported
Audio AI	Sound analysis	Supported
Facial AI	Facial detection	Supported
	Facial matching	Supported
	Photo search	Supported
Object AI	Object classification	Supported
VIDEO		
Processing	Cloud disconnect buffer	1GB AI analysis data
Recording	Cloud recording	7 or 31 days cloud data retaintion
	Cloud recording archive	1 to 15 years cloud data retaintion
Events	Data and snapshots	1 year cloud data retaintion
OPERATION		
Connections	USB Type-C	1x USB - C
	USB Type-B	1x USB 2.0, 1x USB 3.0
	SD	MicroSD (TF)
	HDMI	Console output
Operation	Indicator	LED - Power and Status
		OLED - System Information
	Reset	Factory reset (hold 10 sec)
OTHER		
Electrical	Power supply	DC12V/3A or 802.3at (POE+) up to 30W
	Temperature (operation)	0℃ ~ 50℃ (32℉ ~ 122℉)
	Humidity (operation)	10% ~ 90% (non-condensing)
	Temperature (storage)	-10℃ ~ 60℃ (14℉ ~ 140℉)
	Humidity (storage)	10% ~ 95% (non condensing)
Mechanical	Color / Material	Black / Metal
	Size	125 x 124 x 37mm (4.92" x 4.88" x 1.45")
	Weight	750g net weight
CERTIFICATION		
	Hardware	CE / FCC / RoHS
	Manufacturing	ISO 9001

FCC Statement

This device complies with part 15 of the FCC rules. Operation is subject to the following two conditions: (1) this device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

Changes or modifications not expressly approved by the party responsible for compliance could
void the user's authority to operate the equipment.

NOTE: This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:
• Reorient or relocate the receiving antenna
• Increase the separation between the equipment and receiver
• Connect the equipment into an outlet on a circuit different from that to whic the receiver is connected.
• Consult the dealer or an experienced radio/TV technician for help

Radiation Exposure Statement
This equipment complies with FCC radiation exposure limits set forth for an uncontrolled environment. This equipment should be installed and operated with minimum distance 20cm between the radiator and your body.
This transmitter must not be co-located or operating in conjunction with any other antenna or transmitter.