

Edge-side recognition algorithm,
accurate and fast settlement

AI Smart Vending Machine kit

- Edge side recognition
- More stable and faster



The AI vending machine kit is a highly compatible, flexible, accurate, and reliable retrofit solution designed for the intelligent upgrade of traditional vending machines. The kit includes the industrial control device AE510, which boasts 14 TOPS AI computing power and a maximum main frequency of 2.7 GHz, providing strong computing capabilities and a stable operating environment.

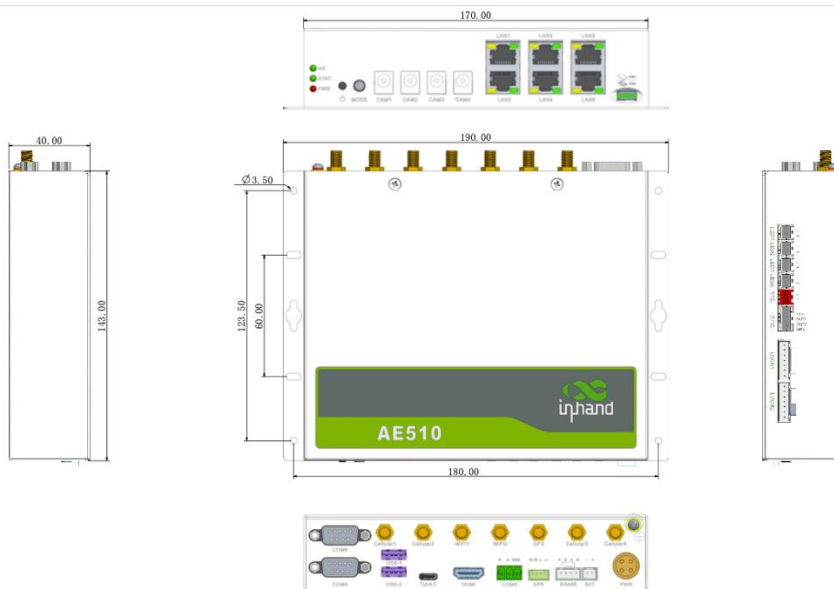
Equipped with four cameras utilizing advanced image recognition technology, the kit can accurately capture and identify items taken by customers, significantly enhancing the convenience of shopping. Additionally, an intelligent door lock ensures the security of the vending cabinet, and the kit comes with a backup battery and a voice speaker

Solution



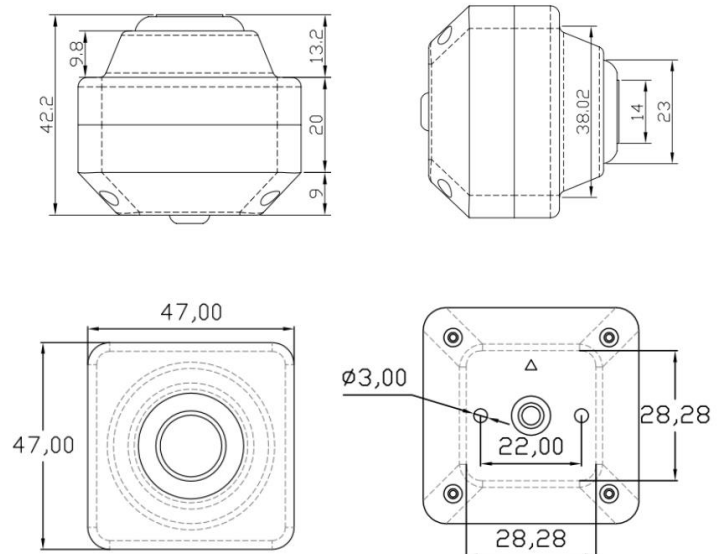
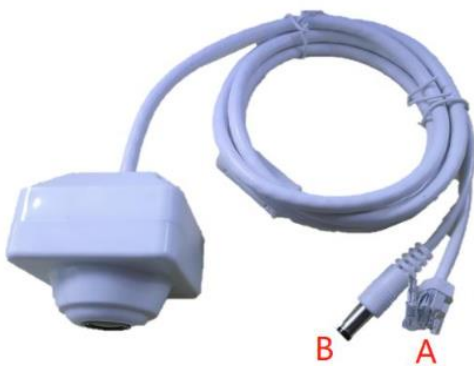
AE510

AE510 Specification			
Hardware platform	CPU	Octa-core processor, maximum frequency 2.7GHz	
	Comprehensive computing power		14TOPS
	RAM	8GB	FLASH 128GB
Interface	SIM	2x Nano SIM Slot	
	Power	12V DC-input *1	
	Antenna	4G: SMA x 2、 WiFi: RP-SMA x 2	
	Serial Port	2x RS-232, , DB9 2x RS-485, One is for 4-pin with power supply, and the other is for 3-pin industrial terminal;	
	Ethernet Port	6x 10/100Mbps , LAN/WAN	
	Indicator	1x power indicator, 1x status indicator, 1x 3G/4G indicator	
	HDMI	1x HDMI;	
	Camera power supply	4x white round interface, 5521, 5W	
	LED	4x LED	
	BAT	1x Backup battery interface	
	LOCK	2 x HX25035-7Y	
	SPK	1x SPK , Support 5W speakers	
	Button	1x Power Button ; 1x Mode Button	
Mechanical Feature	Protection Rating	IP40	Cooling Fanless
	Housing	Metal	Dimensions 190x 143x 40mm (Including installation parts)
Environment	Working Temperature	-10~ 60°C	Ambient Humidity 5 ~ 95% (non-condensing)
	Storage Temperature	-40~ 85°C	
Other	level	ESD、 EFT、 Surge: level2	OS Android12



AI Camera

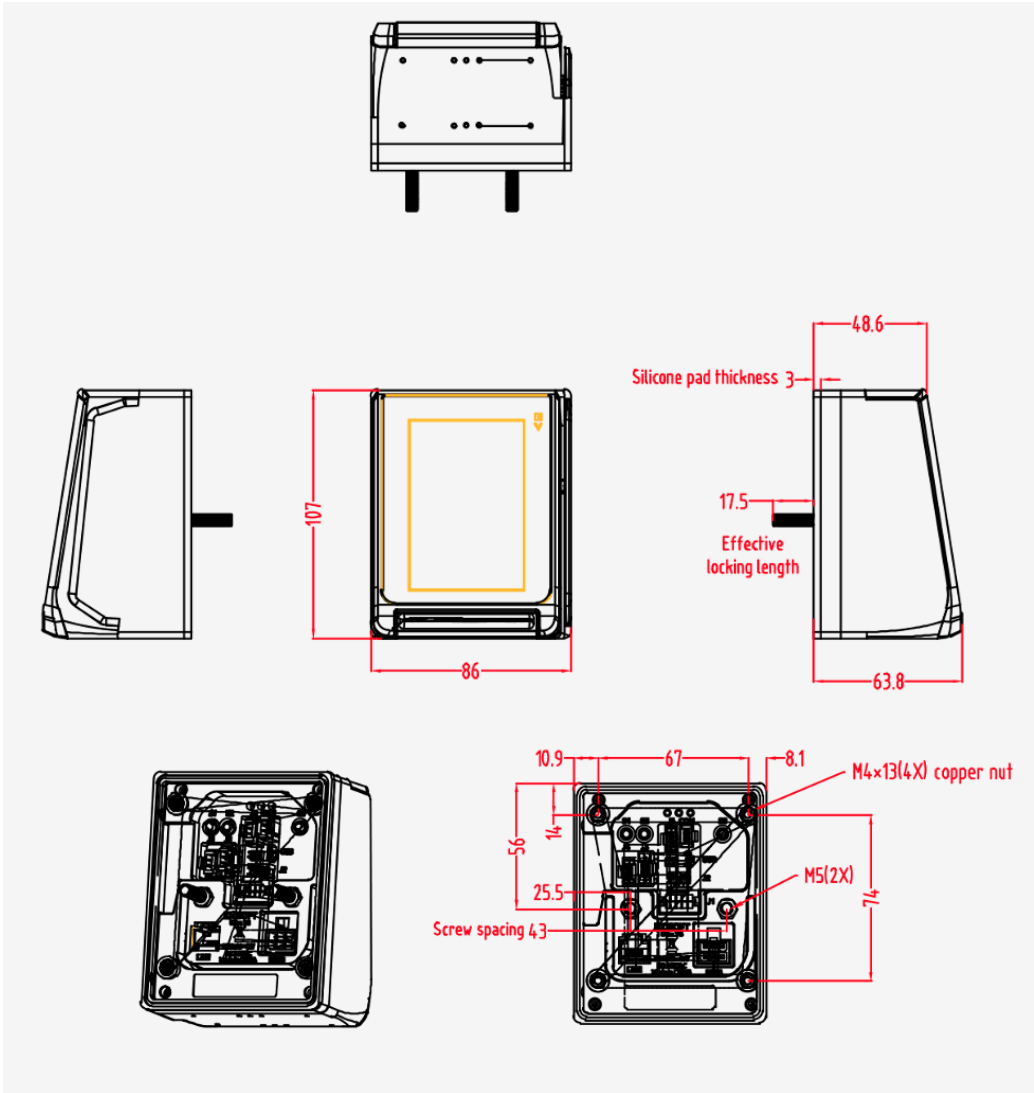
AI Camera Specifications				
Lens	Structure	4G+1 RF		
	Relative aperture	F:2.0		
	FOV	D:139°, H:115°, V:78° ±5%		
	Focal length	2.8mm		
	Back focal length	5mm		
Image	Sensor	1/2.8" CMOS		
	Maximum output resolution	1920(H) * 1080(V)	Maximum frame rate	25fps
	Low illumination	support	Wide dynamic range	support
	White balance	auto	3D noise reduction	support
Video	Image optimization	ISP processing technology: Optical adaptive technology to reduce ghosting of moving objects		
	Encoding format	H.264		
	Image resolution	1080P/720P/360P/D1@25fps		
Protocol	Transmission protocol	HTTP/RTSP/DHCP/NTP		
General	Power input	DC 12v; 2.1/5.5mm interface		
	Power	Max ≤ 1.8W		
	Operating temperature	-15°C to +50°C		



POS (optional)

POS Specification

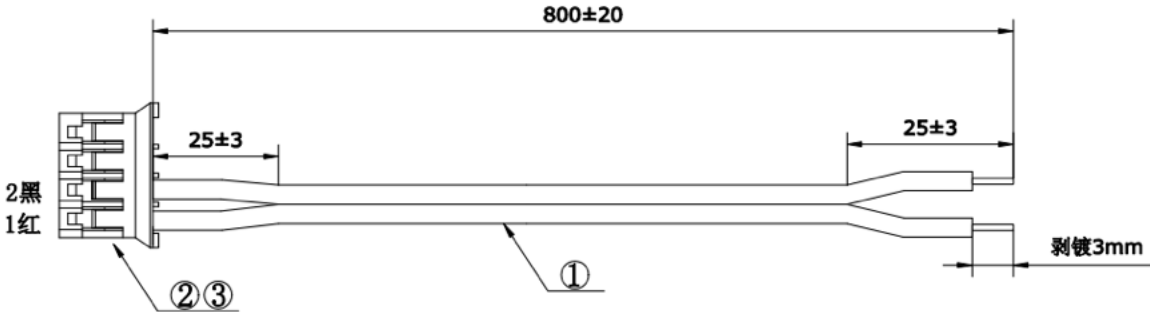
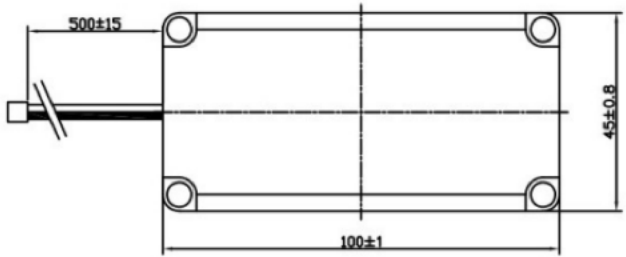
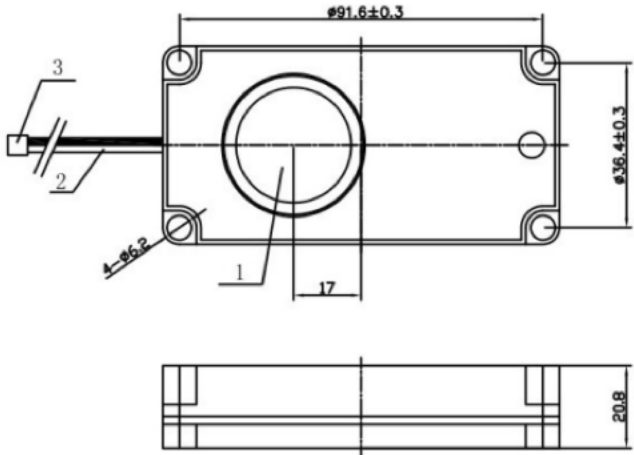
Specifications	Display	3.5inch full color screen 320*480 IPS, touch
	Dimensions	107mm(L) x 86mm(W) x 64mm (H)
	Power Supply	24V
	Wireless Communication	WIFI (802.11 b/g/n); Bluetooth 2.1&4.2
	Wired Communication	ETH
	Certificate	PCI 6.X, EMVL1, EMV CL1, EMV L2 QuickPass, PayWave, Expresspay, D-PAS, JCB, PayPass, Interac



Speaker

Speaker Specifications

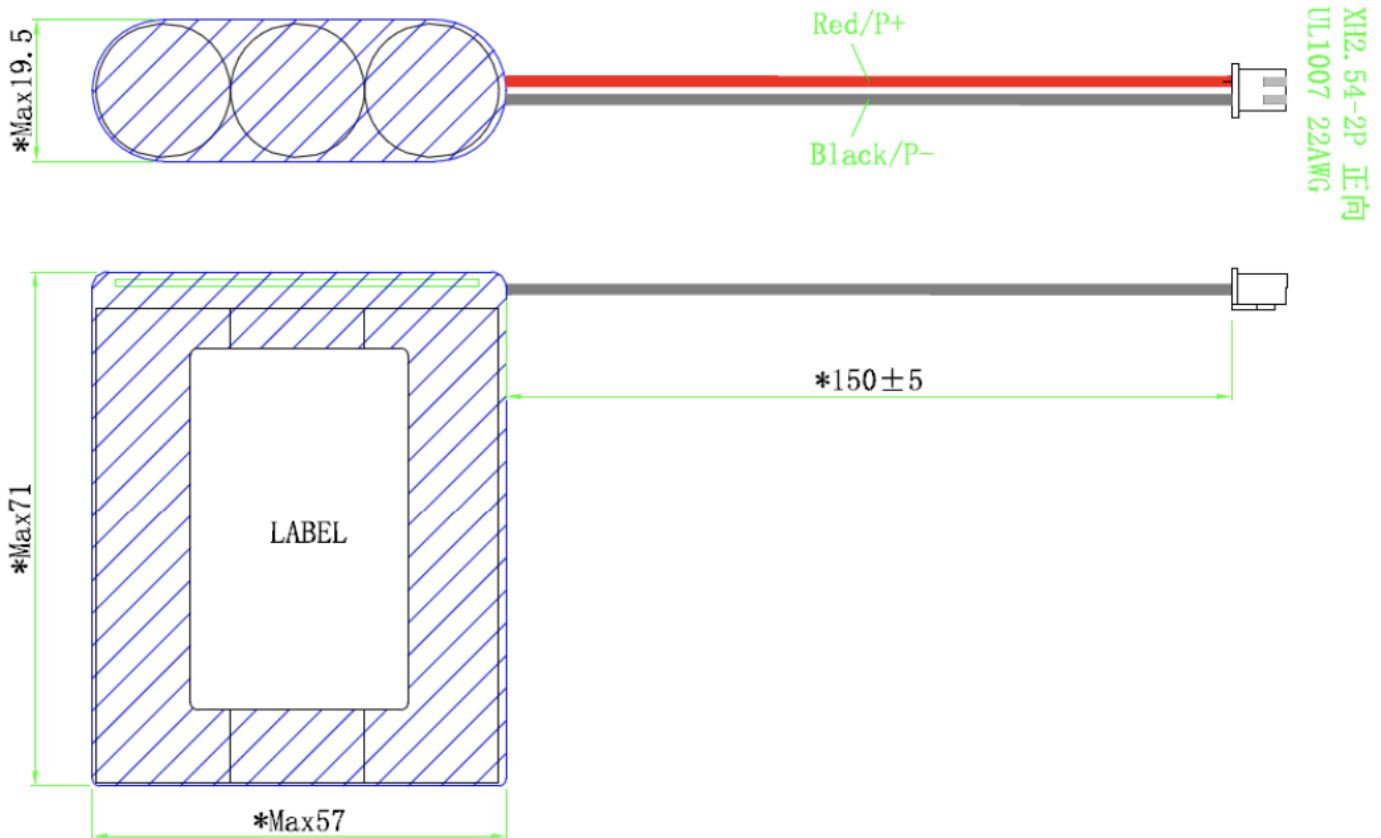
Specifications	Dimensions	100 * 45 mm
	Magnet	Φ 12.5 ×4.0 mm Nd-Fe-B
	Power	NOM POWER : 3.0 W MAX POWER : 5.0 W



Backup Battery

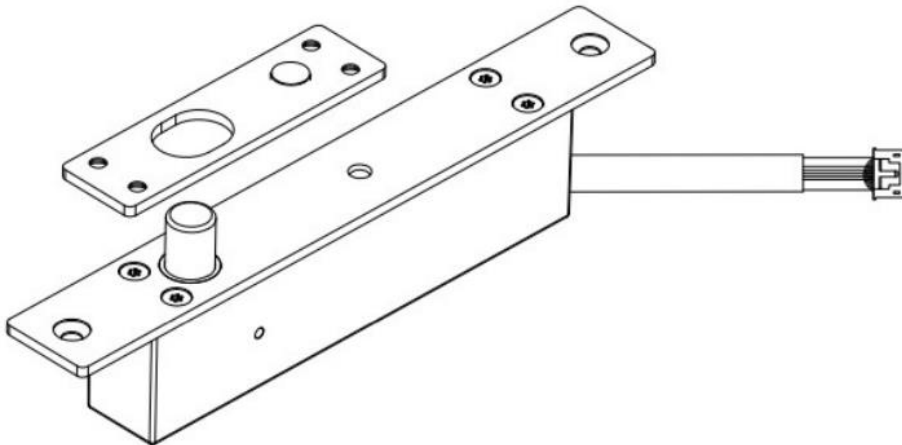
Backup Battery Specifications

Parameters and specifications	Dimensions	100 * 45 mm
	Typical capacity	2550mAh
	Operating voltage range	10.8V ~ 8.1V
	Maximum discharge current	2A
	Cycle life	≥500 Cycles 80%
Environment	Operating temperature	Charging: 0°C ~ 45°C; Discharging: -20°C ~ 60°C
Protection function	Overcharge, overdischarge, overcurrent, short circuit protection and other functions	



Lock

Lock Specifications		
Parameters	Working voltage	DC12V±10%
	Working current	Start 1.2A; Steady 0.14A
	Panel size	L200 * W28 * H3 (mm)
	Panel mounting hole distance	180mm
	Magnetic panel size	L90 * W24 * H30 (mm)
	Lock dimensions	L200 * W28 * H38 (mm)
	LED light display	Green light unlocks, red light locks
	Mechanical life requirements	At least 300,000 times, failure rate <3%



Ordering Guide

Code	Model	Description	Other
GPRO310071	AE510 version dynamic vision kit	AI Vending Machine single door cabinet, AE510 version dynamic vision kit, local recognition solution,	Includes AE510, AI camera*4, smart lock, speaker, spare battery, etc.
SLCD000007	InTouch-ZXD08	8-inch widescreen display,	-
SMDM120001	InPOS-KS01	POS Payment module	Order network cables according to installation length

About Us

InHand Networks is a leading IoT solutions provider founded in 2001, dedicated to driving digital transformation across industries and empowering customers to unlock their full potential and achieve accelerated growth.

We specialize in delivering industrial-grade connectivity solutions for diverse sectors, such as enterprise networks, industrial and building IoT, digital energy, smart commerce, and mobility. Our comprehensive product portfolio and services cater to various applications worldwide, including smart manufacturing, smart grid, intelligent transportation, smart retail, etc. With a global footprint spanning over 60 countries, we serve customers in China, the United States, France, Germany, the United Kingdom, Italy, and beyond.



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