

# **Technical Manual of BA-08 Banknote Acceptance Module**

## 1. General Description

BA-08 is a core banknote processing module with an integration of banknote validation and single banknote deposit. This module features high reliability, accessibility and maintainability.

## 2. Model and Terms

Model: BA-08 (1000 notes cassette, front access)

Terms: BA——Banknote Acceptor

Terms:

BA ——Bill Acceptor

## 3. Overview and Construction

### 3.1 Module Outlook



Figure 1 BA-08 Outlook

### 3.2 Module Structure

BA-08 consists of three major parts, including upper part, cassette and frame. The module structure is shown in the following figure:

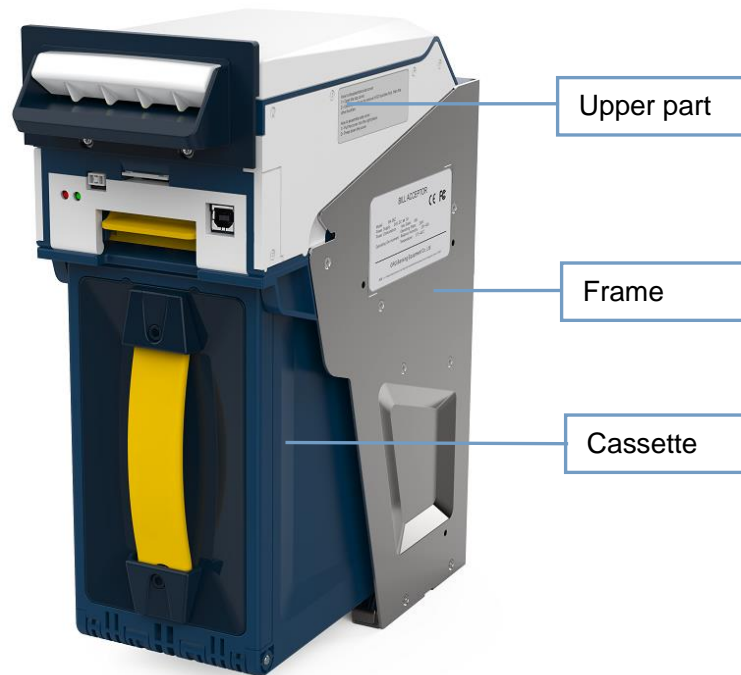


Figure 2 BA-08 Structure

### 3.3 Dimension

(Unit: mm)

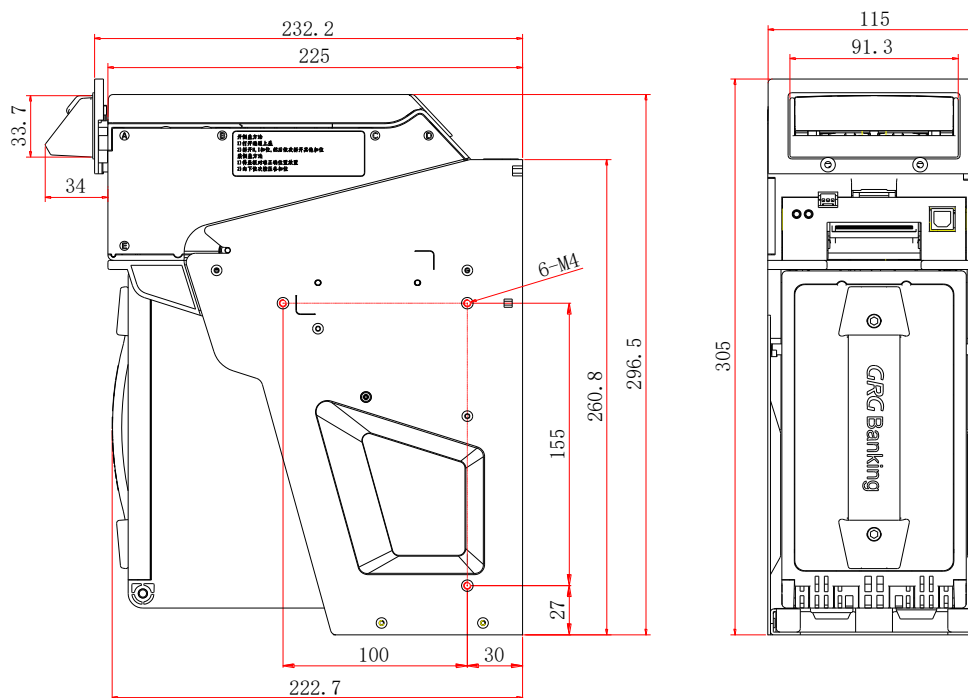


Figure 3 BA-08 dimension

## 4. Features

### 4.1 Upper Part

- Its entrance indicator facilitate patrons to use.
- Fast banknotes accepting, two banknotes accepting interval is about 2.5 seconds.
- The banknotes accepting automatic correction device ensures banknotes insertion at any angles.
- Mechanical anti-phishing design prevents manual fraud with threaded banknotes, ensuring cash security
- The path adopts 2 pairs of even leather belts clipping the notes all through for smooth transportation.
- Transport unit is well sealed to prevent dust, thus to be dust-proof and reduce maintenance.
- Highly compact structure takes up less space.
- Maintenance friendly design allows bill jams to be settled with no tools at site.
- Modular and replaceable design.
- Industrial electric parts and component accommodating extreme environmental conditions.
- Support online software upgrading.

### 4.2 Anti-counterfeit Design

- Top level anti-counterfeit technology, with validation scan points up to 40,000; Full image multi-spectrum scan(CIS), multi-channel Visible light ,UV sensor and the full image magnetic signal detection.
- Design focus on the banknotes circulation environment and features (quickly updating imitation technology , poorly used notes)

### 4.3 Cassette

- Hard and durable cassette with double safe locks(optional).
- Independent replaceable cassette with no electronic appliances connection features high reliability.
- The transparent observation window allows operation staff to observe the denomination and status of the latest inserted banknotes from outside with the cassette closed.
- With modular design, the cassette can be easily replaced.

## 5. Technical Specifications

### 5.1 Performance parameters

Item		Specifications
Notes feeding	Feeding direction	Lengthwise
	Face direction	4 directions
Validation	Currency	Support 100 kinds of different denominations notes (one country or multinational) in the meantime, see Annex
	Material	Paper, plastics base (polymer)
	Genuine note accepting rate	≥97% (notes are new of 70% or more without damage, defilement and fold)

	Notes size	Length: 80~168 mm; Width: 60~85 mm
<b>Detection</b>	Optics	Full image CIS (scan points up to 40,000) Multi-channel Visible light UV sensor
	Magnetics	Multi-channel magnetic signal detection
<b>Speed</b>	Pass transport speed	0.5m/s
	Accepting speed	About 2.5s/note
<b>Capacity</b>	Escrow	1 note
	Deposit cassette	1000 notes (L220×H185×W100)
<b>Optional configuration</b>	banknote serial number recognition	
	barcode recognition	
<b>Environment</b>	Operation temperature	0°C~45°C
	Storage temperature	-20°C~60°C
	Humidity	20% RH~90% RH (non-condensing)
<b>Upgrade</b>	Upgrading means	Online software upgrading
<b>Weight</b>	Whole set	4.3kg
	Deposit cassette (empty)	1.2kg
<b>Electromagnetic compatibility</b>		Compliant to International related standards GB/T 17626

## 5.2 Electrical parameters

Item	Specifications
<b>Power interface</b>	+12V±10% +3A
<b>USB interface</b>	USB2.0 Device A type plug( backup)
<b>UART serial port</b>	<ul style="list-style-type: none"> <li>● RS232: RXD, TXD, GND</li> <li>● Baud rate:19200 bps</li> <li>● Verification method: No verify</li> <li>● Communication data bit: data bit:8 bits, starting bit:1 bit, ending bit:1 bit</li> </ul>
<b>Power input</b>	Vacancy
<b>Power output</b>	Vacancy