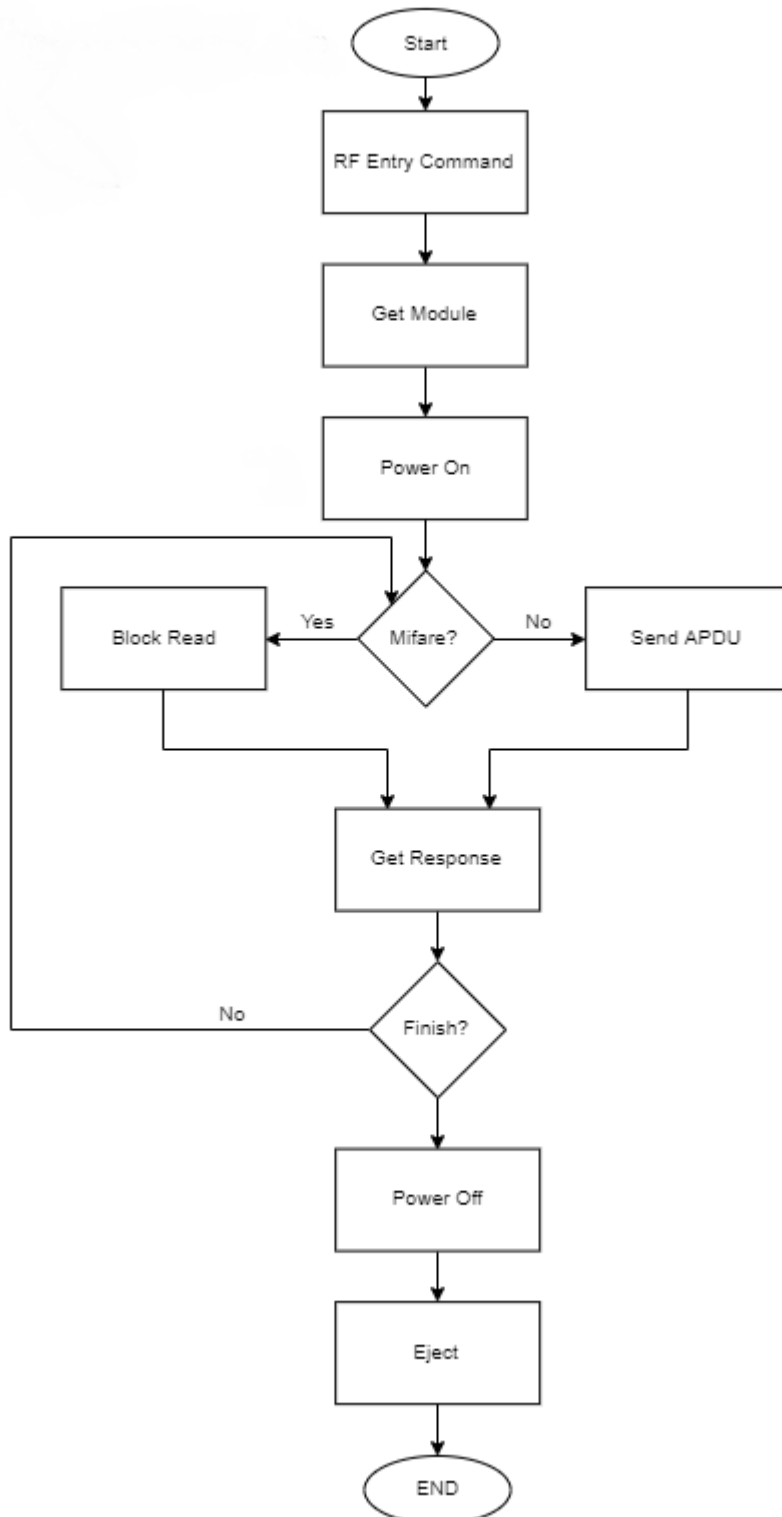


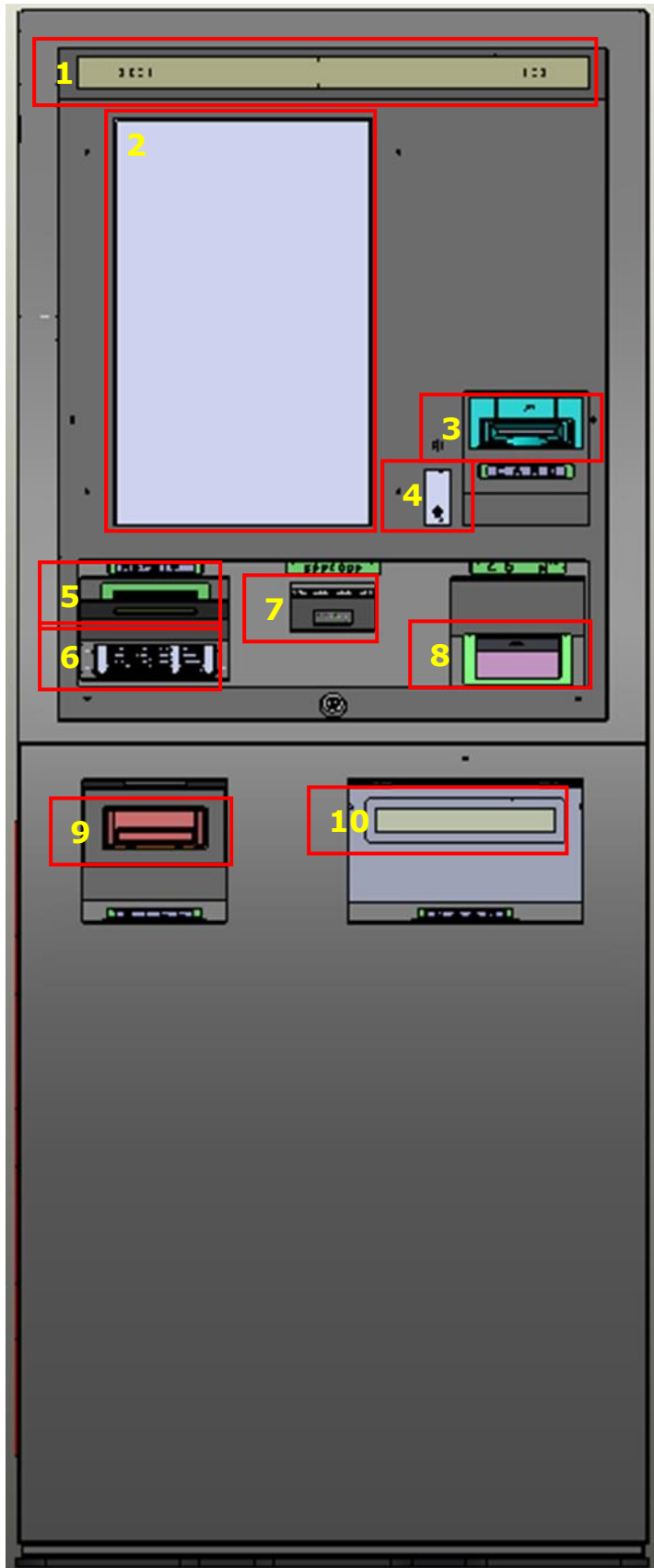
## 1. Product summary

Universal kiosk EX can use the RF card to check the availability of the RF ID reader and then deposit and withdraw money at the user's discretion and request a transaction detail sheet for the transaction.

### \*RF Reader



GK1500EX User Manual



1. Speaker
    - : Notify by alarm or voice depending on transaction.
  2. Display and Touch screen
    - : Touch the screen to make the desired transaction.
  3. Card slot
    - : Users can use magnetic, ID and RFID.
  4. Earphone
    - : Connect earphone with alarm or voice support.
  5. Transaction Receipt Chart exit
    - : It can be received by user selection.
  6. Encryption Pin Pad
    - : Used to enter user card password.
  7. Barcode
    - : 1D and 2D barcodes are available.
  8. Coin dispenser
    - : Coin withdrawal by transaction.
  9. Bill acceptor
    - : Deposit banknotes as a transaction request
  10. Bill dispenser
    - : Banknote withdrawal by transaction
- This product can be developed by software vendors (os for Linux or Windows)

## FCC Information

This device complies with part 15 of the FCC Results. Operation is subject to the following two conditions :

- (1) This Device may not cause harmful interface, and
- (2) This device must accept any interference received, including interference that may cause undesired operation.

Note: This equipment has been tested and found to comply with the limits for CLASS B digital device, pursuant to Part 15 of FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment 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 correct the interference by one or more of the following measures:

- 1.1. Reorient or relocate the receiving antenna.
- 1.2. Increase the separation between the equipment and receiver.
- 1.3. Connect the equipment into an outlet on a circuit different from that to which receiver is connected.
- 1.4. Consult the dealer or experienced radio/TV technician for help.

## WARNING

Changes or modifications not expressly approved by the manufacturer could void the user's authority to operate the equipment.

\*CAUTION : Exposure to Radio Frequency Radiation.

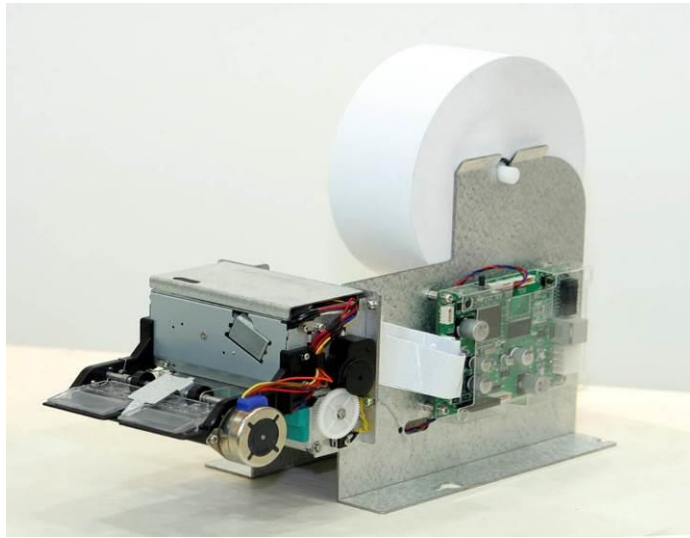
Antenna shall be mounted in such a manner to minimize the potential for human contact during normal operation. The antenna should not be contacted during operation to avoid the possibility of exceeding the FCC radio frequency exposure limit.

2. RC Unit (CU )



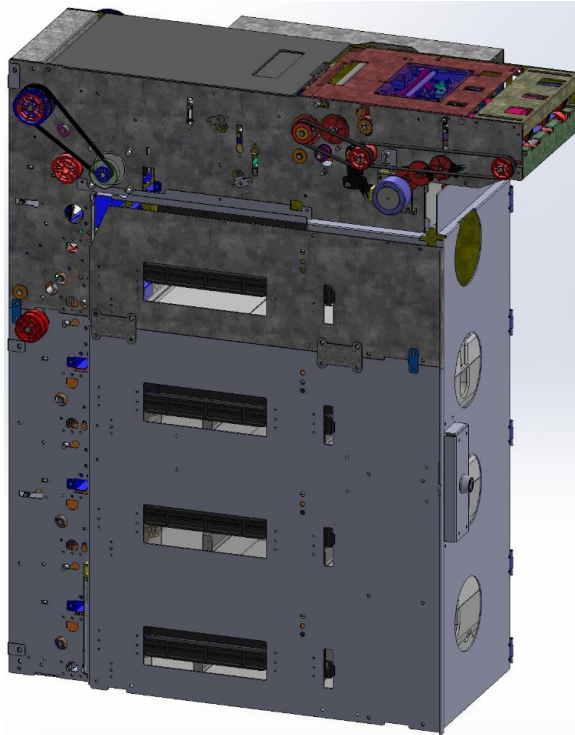
| Item               | Spec.   | Remarks           |
|--------------------|---|-------------------|
| Processors         | Intel® i5 – 3570 3.4GHz   |                   |
| Chipset            | H61   |                   |
| Memory             | DDR3-800/1066 SO-DIMM slot up to 16GB                               | Default : 4Gbytes |
| Hard Drive Drives  | SSD 250GB   |                   |
| Optical Disk Drive | None  |                   |
| Graphics           | Intel HD Graphics 2500 series                                       |                   |
| Audio Codec        | Realtek ALC662 5.1 Channel Audio                                    |                   |
| Communication      | 2*Realtek RTL8111EVL PCI-E Gigabit Ethernet                         |                   |
| Power unit         | SH-270(270W) (110/ 220 select support)                              |                   |
| I/O Ports          | Serial * 10, Lan *2, USB2.0 *8, HDMI *1, VGA *1<br>PS2 * 1 Audio *2 |                   |
| Operating System   | Microsoft Windows Professional 7                                    |                   |

## 3. Receipt Printer ( RPU )



| Item               | Spec.   | Remarks      |
|--------------------|---|--------------|
| Print type         | Thermal Line Printer  |              |
| Main CPU           | 32 bit Cortex-M3  |              |
| Memory             | 64 X 16 bit SRAM  |              |
| Input Voltage      | -5V (1A) for logic circuitry<br>-24V (2A) for driving motor and thermal head  |              |
| Communication      | RS232(RJ-45)  | Option : USB |
| Graphic            | 200 DPI Monographic printing  |              |
| Dimension          | 360(W) X 200(H) X 138(T) mm   |              |
| Weight             | 2.75kg  |              |
| Feeding            | -Feeding Method: friction<br>-Feeding Speed: Max 150mm/s<br>(Normal 100mm/s, Low 50mm/s)<br>-Feeding Pitch: 0.125mm   |              |
| Loading            | Semi-automatic paper loading and cutting  |              |
| Receipt Paper Roll | -Roll Type: OSC recommended (outside coated)<br>-Roll Diameter: Max 216mm<br>-Width: 76mm<br>-Thickness: 0.110mm or larger recommended<br>(min 0.065mm, max 0.13mm) |              |
| Sensor             | Paper out status sensor<br>Black-Mark sensor  |              |

## 4. Cash Dispenser ( CDU )



| Item                    | Spec.                              | Remarks        |
|-------------------------|------------------------------------|----------------|
| Type                    | Presenter Type                     |                |
| Maintenance             | Front Service Type                 |                |
| Cassette Capacity       | Max. 2,000 notes (New Notes)       | 0.1mm/new note |
| Number of Cassette      | 2 Cassettes                        |                |
| Reject Capacity         | Reject Bin: Max. 200 notes         |                |
| Dispensing Speed        | 4 Bills/sec                        |                |
| Bills / Transaction     | Up to 50 Bills / transaction       |                |
| Available Note Size     | Max 166mm *79mm / Min 120mm * 60mm |                |
| Near-End Detection      | Supported (70 ~ 120 notes)         |                |
| Forgotten Retraction    | Supported                          |                |
| External Shutter        | Step-motor method                  |                |
| Double detection        | Ultrasonic Sensor                  |                |
| Controller CPU          | ARM-7                              |                |
| Communication Interface | RS-232C Async                      |                |
| Power Supply            | DC5V, 24V                          |                |
| Dimension               | 278 (W) x319 (H) x532 (D)mm        | 1Cassette      |
| Weight                  | About 16Kg                         |                |

## 5. Encryption Pin Pad ( EPP )



| Item              | Spec.  | Remarks                      |
|-------------------|--|------------------------------|
| Overall Dimension | 7.20(W) X 3.62(D) X 1.22 (H) inch                                    | 183 (W) X 92 (D) X 31 (H) mm |
| Weight            | 1.10lbs  | 500g (Typ.)                  |
| Input Voltage     | +5V DC $\pm$ 5%  |                              |
| Current           | 80mA   |                              |
| Communication     | RS-232 (38400bps, 8Bit, Nonparty, BCC check)                         |                              |
| CPU               | MAXQ1103 secure CPU  |                              |
|                   | Access 256kbytes of nonvolatile SRAM for program and/or data storage |                              |
|                   | Encryption using on chip 64/128/196bits key                          |                              |
|                   | Self Destruct Input (SDI)  |                              |
| Certification     | PCI3.0 certified.  |                              |
| Algorithm         | DES / TDES   |                              |
| Battery           | 3.6V / 1200mA for memory data retention power                        |                              |
|                   | Data backup  |                              |



## 6. MS &amp; IC CARD READER ( MCR+RF )



| Item                | Spec.   | Remarks |
|---------------------|---|---------|
| Card Format         | ISO 7810  |         |
| MS Standard         | ISO 7811(TRACK1,TRACK2,TRACK3)<br>Read Capable<br>Hico/Loco CapableF2F Reading Method<br>4,000,000 Pass Capable |         |
| CIS                 | Canon MA06Z-X06   |         |
| NFC                 | Mifare® & ISO-14443A&B,FeliCa,ISO 18092<br>13.56MHz   |         |
| IC                  | ISO/IEC 7816<br>EMV2000 ver.4.0<br>Contact Landing Type   |         |
| FEED SPEED          | 450mm/sec ± 10%   |         |
| Interface Type      | RS232C Interface  |         |
| MS HEAD TRACK WIDTH | Read Track Width : 1.0 mm<br>Write Track Width : 3.0 mm   |         |
| SHUTTER             | Option : Sensor Only(Not Used)  |         |
| INTERFACE           | Main Board : RS-232, CIS Board : USB 2.0(High Speed)  |         |
| Input voltage       | +24Vdc +-10%, 2A<br>Ripple :<br>Less than 200m Vp-p ( 24V DC)   |         |
| Weight              | 1.66kg  |         |
| Dimension           | W : 118 x H : 74.5 x L : 271.2  |         |

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**7. Bill Acceptor**

| Item              | Spec.   | Remarks |
|-------------------|---|---------|
| Acceptance rate   | 98% or greater  |         |
| Note Insertion    | Notes – up to 48notes, four ways, face up and down<br>Note dimensions – 62~83mm width<br>120 ~ 166mm length |         |
| Transaction speed | Approximately three seconds to stack  |         |
| Escrow            | One note  |         |
| Interfaces method | RS232C  |         |
| Cashbox capacity  | 500/900/1200/2200   |         |
| Weight            | Approximate 4Kg.  |         |

## 8. LCD



| Item           | Spec.  | Remarks                 |
|----------------|--|-------------------------|
| LCD            | Screen Size  | 21.5 Wide TFT LCD       |
|                | Resolution   | 1920 * 1080             |
|                | Active area  | 296.46(W) x 527.04(H)mm |
|                | Input Key  | Capacitive multi touch  |
| Voice Guidance | Voice assisted operation available through the headphone jack on the front bezel |                         |

9. Power supply ( PSU : PSU-2100 )



| Item              |                             | Spec.   |           |           | Remarks            |
|-------------------|-----------------------------|---|-----------|-----------|--------------------|
| Input             | Input Voltage               | 90~264VAC (Free voltage)                        |           |           |                    |
|                   | Frequency                   | 50/60Hz (47Hz ~ 63Hz)                           |           |           |                    |
|                   | Current                     | 2.8A Max.(100VAC) or 1.3A max. (240VAC)         |           |           | (Output max. load) |
|                   | Efficiency                  | 85% Over (Input: 110/220VAC, Output: Full load) |           |           |                    |
|                   | Inrush current              | 40A max. (At cold start & 110VAC 60Hz)          |           |           |                    |
| Output            | Total Watt                  | 155.5W (Max)                                    |           |           |                    |
|                   | Voltage                     | 5V  | 12V       | 24V       |                    |
|                   | Current                     | Min: 0.5A                                       | Min: 0.0A | Min: 0.0A |                    |
|                   |                             | Max: 3.5A                                       | Max: 1.5A | Max: 5A   |                    |
|                   |                             | Peak: 4.0A                                      | Peak:2.5A | Peak: 10A |                    |
|                   | Ripple                      | 50  | 120       | 240       |                    |
|                   | Noise                       | 100   | 240       | 480       |                    |
| Overall Dimension | 161.6(W)X133.7(H)X 41(D) mm |   |           |           |                    |

10. Barcode



| Parameter                              | Spec.   | Remarks |
|--|---|---------|
| Dimensions                             | 26mm(H) * 73mm(L) * 51mm(W) Weight: 77g                             |         |
| Wavelength                             | lumination LED: 633nm   |         |
|  | Aimer LED: 528nm  |         |
| Image Size                             | 844 * 640 pixels  |         |
| Skew Angle                             | ±65°  |         |
| Pitch Angle                            | ±45°  |         |
| Motion Tolerance                       | Up to 240 inches per second for 13mil UPC                           |         |
| Enhanced Steaming Presentation Trigger |   |         |
| Symbol Contrast                        | Grade 1.0(20% or greater)   |         |
| Voltage Requirements                   | 4 ~ 5.5 VDC at input connector                                      |         |
| Current Draw @5VDC                     | Scanning: 450mA, 2.3W Standby: 90Ma, 0.45W                          |         |
| Power supply Noise Rejection           | Maxium 100Mv peak to peak, 10 to 100kHz                             |         |
| Temperature Ranges:                    |   |         |
| Operating                              | +32°F to +104°F(0°C to 40°C)  |         |
| Storage                                | -4°F to +158°F(-20°C to 70°C)                                       |         |
| Humidity                               | 5 to 95% non-condensing   |         |
| Mechanical Drop                        | Operational after 30 drops from 4.9 feet (1.5m) to concrete at 23°C |         |
| ESD Tolerance                          | Up to 15kV direct air   |         |
|  | Up to 8kV indirect coupling plance                                  |         |
| Solids and Water Protection            | IP53  |         |

## 11. Barcode



| Item                    | Spec.  | Remarks |
|-------------------------|--|---------|
| Dimensions              | 150mm(H) * 85mm(W) * 145mm(D)                        |         |
| Coin Payout             | Up to 8coins per second.                             |         |
| Coin Dimension Range mm | Diameter : 15 to 29.5mm<br>Thickness : 1.25 to 3.2mm |         |
| Operating environment   | 0°C ~ 60°C, inside host machine                      |         |
| Power Supply Voltage    | 12 – 24VDC +/-10%                                    |         |
| Interface               | Parallel or Serial(ccTalk)                           |         |

**12. US local contact information**

a. Main Tel.: (510) 344-6333

b. Tech. Support Tel: (510) 344-6344

c. Address: Genmega, Inc. 30587 Huntwood Ave Hayward, CA 94544