Wisenet Access Management Software
Standard / Professional / Enterprise

Suitable for various projects
Wisenet Access is provided in Standard, Professional and Enterprise according to the number of doors.

Wisenet Access Standard : Up to 32 doors
Wisenet Access Professional : Up to 256 doors
Wisenet Access Enterprise : Unlimited doors

Seamless integration with video surveillance system
Wisenet Access fully integrates seamlessly with Hanwha Techwin’s VMS, SSM Enterprise, allowing real-time monitoring of entry control and alarm events. Independent systems previously monitored individually are now monitored by a single VMS allowing convenient system operation.

Key features
- Video Integration with Hanwha Techwin VMS (SSM) TS (Transaction Sever)
- Unlimited Access Groups, Time Schedules
- Real time access events & alarm monitoring
- Graphic Maps
- Remote Door Management (Open/Close)
- Mustering Report
- Event Filter in Monitoring
- Card Design and Printing
- Advanced Reporting
- Manual & Scheduled database backup
- Auditing & User Activity Logs
- Highly scalable and robust software architecture

SSM Enterprise
Wisenet Access Management Software

Graphic Map Monitoring
Door and lock icons positioned on drawings and birds-eye-view of buildings and locations allow real-time monitoring and door/lock control.

Card Badge and printing
Employee entry cards can be designed and manufactured using Wisenet Access Management Software allowing administrator convenience as well as reducing maintenance costs.

Mustering report
In case of emergencies, such as fire in the building, Wisenet Access provides real-time report of the number of employees and guests in the building contributing in safe evacuation activities.

Wisenet Access Controllers

Wisenet Access Controllers are available in centralized and distributed types. Depending on the system scale and installation condition, the two controller types can be employed individually or simultaneously.

Centralized Controller V1000, V100
- Up to 32 doors (64 readers = 32 x V100 reader module) system
- Up to 250,000 card holders/ 99,999 event buffers
- Fully functional off-line operation during N/W communication is lost
- RS-485 communication with expansion board
- Up to 32 x expansion board (V100/V200/V300)
- 13.56MHz frequency
- Elevator control
- Linux 2.6
- Up to 128bit Wiegand compatible

Distributed Controller V2000, EH400-K
- Up to 2 readers (V2000), 1 reader (EH400-K) interface
- Up to 250,000 users (V2000), 125,000 users (EH400-K)/ 99,999 event buffers
- 4ea input/output port
- Fully functional off-line operation during N/W communication is loss
- Wiegand communication with readers
- 13.56MHz frequency
- Linux 2.6
- Up to 128bit Wiegand compatible
- PoE power (IEEE 802.3af) *EH-400K only
Wisenet Access Readers

Card/Key pad readers R10, R40, RK40
- 13.56MHz Frequency
- Wiegand, Clock & Data
- Various cards Compatibility - HID iCLASS SE/Elite (HTW format) / DESFire EV I CSN MIFARE (Classic) CSN / Felica CSN
- NFC/ Bluetooth Smart feature (Mob Access)
- IP55
- Lifetime warranty

Fingerprint reader BioEntry W2
- New advanced LFD (Live Finger Detection) technology
- Max template 1,000,000(1:1), 200,000(1:N)
- Max user 500,000(1:1), 100,000(1:N)
- HID reader module embedded (one card solution available) - iCLASS SE Card / MIFARE (CLASSIC) CSN / DESFire EVI CSN/Felica CSN
- IP67
- IK08
- PoE (IEEE 802.3af)
- TCP/IP, RS-485, Wiegand

Wisenet Access Readers

Mobile Access (Tap or Twist and Go)
Wisenet mobile access can open doors in a whole new way. It merges security with the convenience of mobile phones for opening doors. This function enables Android or iOS phones to communicate with readers using a close-range “Tap” mode, or from a distance “Twist and Go” mode.

Tap (close range)
- Tap-in
- Meeting zones
- Garages
- Entry gates

Twist & Go (longer range)
- Turn Style Door
- Speed Gates
- Warehouses
- Loading bays
Wisenet Access Management Software Standard/Professional/Enterprise

**ACCESS CONTROL**
- Device Auto Discovery
- Cardholder Management
- Batch Uploads
- Card(s) pre-registration
- Device Maintenance
- Unlimited Access Groups, Time Schedules
- Area/Zone Management
- Biometric Readers (FP)

**MONITORING**
- Real-time access events & alarm monitoring
- Graphic Maps
- Remote Door Management (Close/Open)
- Alert Monitoring
- Event filtering for Monitoring
- Correct Door Monitoring/Management permissions per User Group

**CARD DESIGN AND PRINTING**
- Create multiple design templates
- Auto-fill cardholder data from system database
- Print Cards

**FIRE GROUPS**
- Create firegroups for each fire sensor input

**ADVANCED REPORTING**
- Full integration with Wisenet’s VMS, SSM
- Review video of the access events & alarms
- Real-time event & alarm notification to SSM

**VIDEO INTEGRATION WITH SSM**
- User Group & User Privileges
- Manual & Scheduled database backup
- Database Restore
- Data Export & Import
- Custom Fields
- Auditing & User Activity Logs

**SYSTEM**
- Up to 32 doors (Standard), 256 doors (Professional), unlimited doors (Enterprise)
- Very simple and intuitive user interface
- Highly Scalable

---

**V1000 Centralized Controller**

**Key Features**
- Up to 32 reader interfaces (up to 64 doors) and 250,000 cardholders
- TCP/IP to connect to the host
- Reports all activity to the host
- Reports supervised inputs/alarms with 255 priorities
- Fully functional offline operation when not actively communicating with the host: access decision, event logging
- Max. 32 expansion modules
- All connections and indicators are fully identified by silk-screened nomenclature on the cover

**Supported Hardware**
- V1000
- V100
- V200
- V2000
- V300
- EH400-K
- R10/R40/RK40
- V100
- Bio Entry W2

**Expansion Module**
- V100 Reader Module
- V100 Input Module
- V100 Output Module

---

**Wisenet Access Standard/Professional/Enterprise (SSA-M3000/M4000/M5000)**

**Key Features**
- Three types of licenses based on door count:
  - Standard (up to 32 doors), Professional (up to 256 doors), Enterprise (unlimited doors)
- Unlimited Access Group and Time Schedule
- Real-time access events & alarm monitoring
- Graphic Maps
- Remote Door Management (Close/Open)
- Mustering Report
- Event Filtering for Monitoring
- Card Design and Printing
- Advanced Reporting
- Video Integration with SSM Enterprise
- Manual & Scheduled database backup
- Auditing & User Activity Logs
- Highly scalable and robust software architecture

**Supported Hardware**
- V1000
- V100
- V200
- V2000
- V300
- EH400-K
- R10/R40/RK40
- V100
- Bio Entry W2

---

**V1000 Mounting**
- Mount to any wall surface using four screws.
- For UL compliance, one or more gateways can be mounted inside a locking customer supplied NEMA-4 rated enclosure

**Dimensions (WxHxD)**
- 5.9” x 4.0” x 1.27” (147.32mm x 107mm x 32.38mm)

**Weight**
- 12.4 oz (.35Kg)

**Housing Material**
- UL94 polycarbonate

**Audio / Visual Indicators**
- Power LED and RS-485 communications LED

**Operating Temperature**
- 32°F to 122°F (0°C to 50°C)

**Operating Humidity**
- 5% to 95% relative, non-condensing

**Communication Ports**
- Ethernet (10/100), RS485 (Full Duplex)

**Certifications**
- UL294 (US) listed component
- CSA 205 (Canada)
- FCC Class A (US)
- ICES-003 class A (Canada)
- CE mark EN 301 489-3 EN 55022 EN 50130-4 (EU)
- C-Tick AS/NZS CISPR 22 (Australia, New Zealand)
- & Korea (KCC)

**INPUT POWER**
- Operating Current (MAX) @ 12-24V DC
  - 1000mA

**Supervised Inputs Power (MAX)**
- 0.025W (5mA sink, 5V nominal) 0 to +5VCD Ref

**RELAY RATING**
- Relay Contact Rating
  - Dry/Wet (12 VDC/24VDC)
- 2A at 30V DC

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*The latest product information/specifications can be found at hanwha-security.com
*Design and specifications are subject to change without notice.
V100 Expansion Reader Module

**Dimensions (WxHxD)**
5.8” x 4.825” x 1.275” (147.32mm x 122.55mm x 32.38mm)

**Weight**
12.4 oz (.35Kg)

**Enclosure Material**
UL94 polycarbonate

**Power Supply Requirements**
60mA@9 - 18 V DC (with no readers connected). Recommended: Supervised linear power supply with battery backup, input surge protection, and AC fail and battery low contact outputs. When V100™ is supplying power to readers, the requirements are 60mA@9 - 18 V DC. The V100 can supply 500mA to two readers. Separate supervised DC supplies with battery backup recommended for door locking or relay-activated devices.

**Operating Environment**
Indoors, or customer-supplied NEMA-4 rated enclosure

**Operating Temperature**
32°F to 122°F (0°C to 50°C)

**Operating Humidity**
5% to 95% relative, non-condensing

**Communication Ports**
RS-485 - two wire. Two SIA standard wiegand/clock-and-data ports

**Certifications**
UL® 294 and UL® 1076 recognized component for the US, CSA 205 for Canada, FCC class A verification, EMC for Canada, EU (CE mark), Australia (C-Tick mark), New Zealand, Japan, EN 50130-4 access control systems Immunity for the EU (CE mark)

**Cable Distance**
RS-485 - 4000feet (1220m) to host using Belden 3105A, 22 AWG twisted pair Shielded 100Ω cable. Input circuits - 500feet (150m), Two-conductor, Shielded (using Alpha 1292C (22 AWG) or Alpha 2421C (18 AWG))

Key Features
- Reports supervised inputs
- Connects to the V1000 via RS-485
- Receives and processes real-time commands from the V1000
- Reports all activity to the V1000
- Attractive polycarbonate enclosure protects components from damage
- All connections and indicators are fully identified by silk-screened nomenclature on the cover
- Processes off-line access control decisions based on facility code

* The latest product information / specification can be found at hanwha-security.com
* Design and specifications are subject to change without notice.

V200 Expansion Input Module

**Dimensions (WxHxD)**
5.8” x 4.825” x 1.275” (147.32mm x 122.55mm x 32.38mm)

**Weight**
12.4 oz (.35Kg)

**Enclosure Material**
UL94 polycarbonate

**Power Supply Requirements**
50mA@9 - 18 V DC
Recommended: Supervised linear power supply with battery backup, input surge protection, and AC fail and battery low contact outputs. Separate supervised DC supply with battery backup recommended for relay-activated devices.

**Operating Environment**
Indoors, or customer-supplied NEMA-4 rated enclosure

**Operating Temperature**
32°F to 122°F (0°C to 50°C)

**Operating Humidity**
5% to 95% relative, non-condensing

**Communication Ports**
RS-485 - two wire

**Certifications**
UL® 294 and UL® 1076 recognized component for the US, CSA 205 for Canada, FCC class A verification, EMC for Canada, EU (CE mark), Australia (C-Tick mark), New Zealand, Japan, EN 50130-4 access control systems Immunity for the EU (CE mark)

**Cable Distance**
RS-485 - 4000feet (1220m) to host, using Belden 3105A, 22 AWG twisted pair, shielded 100Ω cable. Input circuits - 500feet (150m), Two-conductor, Shielded (using Alpha 1292C (22 AWG) or Alpha 2421C (18 AWG))

Output circuits - 500feet (150m), 2-conductor using Alpha 172C (22 AWG) or Alpha 1881C (18 AWG)

Minimum wire gauge depends on cable length and current requirements.

Key Features
- Reports supervised or unsupervised alarm circuits
- Off-normal condition programmable for each input point (NO or NC alarm devices may be used)
- Connects to the V1000 via RS-485
- Receives and processes real-time commands from the V1000
- Reports all activity to the V1000
- Enables complex input/output linking when used with the V1000 and V1000 output control interface
- Attractive polycarbonate enclosure protects components from damage
- All connections and indicators are fully identified by silk-screened nomenclature on the cover

* The latest product information / specification can be found at hanwha-security.com
* Design and specifications are subject to change without notice.
**V300**

**Expansion Output Module**

**Key Features**
- Off-normal status programmable for each input point (NO or NC alarm devices may be used)
- 12 latching form-C relays, contacts rated at 2A@30VDC
- Connects to the V1000 via RS-485
- Receives and processes real-time commands from the V1000
- Reports all activity to the V1000
- Enables complex input/output linking when used with the V1000 and V200
- Attractive polycarbonate enclosure protects components from damage
- All connections and indicators are fully identified by silk-screened nomenclature on the cover

**Specifications**
- **Dimensions (WxHxD):** 5.8" x 4.825" x 1.275" (147.32mm x 122.55mm x 32.38mm)
- **Weight:** 12.4 oz (.35Kg)
- **Enclosure Material:** UL94 polycarbonate
- **Power Supply Requirements:**
  - **Recommended:** Supervised linear power supply with battery backup, input surge protection, and AC fail and battery low contact output. Separate supervised DC supply with battery backup recommended for relay activated devices.
- **Relay Rating:** 2A@30VDC maximum load
- **Operating Environment:** Indoors, or customer-supplied NEMA-4 rated enclosure
- **Operating Temperature:** 32°F to 122°F (0°C to 50°C)
- **Operating Humidity:** 5% to 95% relative, non-condensing
- **Communication Ports:** RS-485 - two wire

**Certifications**
- UL® 294 and UL® 1076 recognized component for the US, CSA 205 for Canada, FCC class A verification, EMC for Canada, EU (CE mark), Australia (C-Tick mark), New Zealand, Japan, EN 50130-4 access control systems Immunity for the EU (CE mark)

**Cable Distance**
- RS-485 - 4000 feet (1220m) to host, using Belden 3105A, 22 AWG twisted pair, shielded 100Ω cable. Input circuits - Output circuits - 500 feet (150m)
- 2-conductor, using Alpha 1172C (22 AWG) or Alpha 1897C (18 AWG).

* The latest product information/specifications can be found at hanwha-security.com
* Design and specifications are subject to change without notice.

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**V2000**

**Distributed Controller**

**Key Features**
- Up to 2 reader Interfaces (up to 2 doors) and 250,000 cardholders
- TCP/IP to connect to the host
- Reports all activity to the host
- Reports supervised inputs/alarms with 255 priorities
- Fully functional offline operation when not actively communicating with the host: access decision, event logging
- Inputs for 2 door monitoring
- All connections and indicators are fully identified by silk-screened nomenclature on the cover

**Specifications**
- **Dimensions (WxHxD):** 5.8" x 4.825" x 1.275" (147.32mm x 122.55mm x 32.38mm)
- **Weight:** 12.4 oz (.35Kg)
- **Housing Material:** UL94 polycarbonate
- **Audio / Visual Indicators:** Power LED and RS-485 communications LED
- **Operating Temperature:** 32°F to 122°F (0°C to 50°C)
- **Operating Humidity:** 5% to 85% relative, non-condensing
- **Communication Ports:** Ethernet (10/100)

**Certifications**
- UL294 (US) listed component, CSA 205 (Canada), FCC Class A (US), ICES-003 class A (Canada), CE mark EN 301 489-3 EN 55022 EN 55024 EN 50130-4 (EU), C-Tick AS/NZS CISPR 22 (Australia, New Zealand) 
  & Korea (KC)

**INPUT POWER**
- **Operating Current (MAX):** 12-24V DC
  - (MAX)@12-24V DC 1000mA
  - (AVG)@12V DC 625mA (with 2 iCLASS readers)
- **Supervised Inputs Power (MAX):**
  - @5VDC (sink 5mA nominal) 0 to +5VDC Ref

**OUTPUT POWER (MAX) FOR INDIVIDUAL FIELD DEVICES**
- **Wiegand / C&D Reader**
  - (MAX)@12V DC 250mA each
- **Relay Outputs**
  - @30VDC, 2Amp, resistive

* The latest product information/specifications can be found at hanwha-security.com
* Design and specifications are subject to change without notice.

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**Expansion Output Module**

<table>
<thead>
<tr>
<th>V300</th>
<th>V2000</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Dimensions (WxHxD):</strong> 5.8&quot; x 4.825&quot; x 1.275&quot; (147.32mm x 122.55mm x 32.38mm)</td>
<td><strong>Dimensions (WxHxD):</strong> 5.8&quot; x 4.825&quot; x 1.275&quot; (147.32mm x 122.55mm x 32.38mm)</td>
</tr>
<tr>
<td><strong>Weight:</strong> 12.4 oz (.35Kg)</td>
<td><strong>Weight:</strong> 12.4 oz (.35Kg)</td>
</tr>
<tr>
<td><strong>Enclosure Material:</strong> UL94 polycarbonate</td>
<td><strong>Housing Material:</strong> UL94 polycarbonate</td>
</tr>
<tr>
<td><strong>Power Supply Requirements:</strong></td>
<td><strong>Audio / Visual Indicators:</strong> Power LED and RS-485 communications LED</td>
</tr>
<tr>
<td><strong>Recommended:</strong> Supervised linear power supply with battery backup, input surge protection, and AC fail and battery low contact output. Separate supervised DC supply with battery backup recommended for relay activated devices.</td>
<td><strong>Operating Temperature:</strong> 32°F to 122°F (0°C to 50°C)</td>
</tr>
<tr>
<td><strong>Relay Rating:</strong> 2A@30VDC maximum load</td>
<td><strong>Operating Humidity:</strong> 5% to 85% relative, non-condensing</td>
</tr>
<tr>
<td><strong>Operating Environment:</strong> Indoors, or customer-supplied NEMA-4 rated enclosure</td>
<td><strong>Communication Ports:</strong> Ethernet (10/100)</td>
</tr>
<tr>
<td><strong>Operating Temperature:</strong> 32°F to 122°F (0°C to 50°C)</td>
<td><strong>Certifications:</strong> UL294 (US) listed component, CSA 205 (Canada), FCC Class A (US), ICES-003 class A (Canada), CE mark EN 301 489-3 EN 55022 EN 55024 EN 50130-4 (EU), C-Tick AS/NZS CISPR 22 (Australia, New Zealand) &amp; Korea (KC)</td>
</tr>
<tr>
<td><strong>Operating Humidity:</strong> 5% to 95% relative, non-condensing</td>
<td><strong>INPUT POWER</strong></td>
</tr>
<tr>
<td><strong>Communication Ports:</strong> RS-485 - two wire</td>
<td><strong>Operating Current (MAX):</strong> 12-24V DC</td>
</tr>
<tr>
<td><strong>Certifications:</strong> UL® 294 and UL® 1076 recognized component for the US, CSA 205 for Canada, FCC class A verification, EMC for Canada, EU (CE mark), Australia (C-Tick mark), New Zealand, Japan, EN 50130-4 access control systems Immunity for the EU (CE mark)</td>
<td></td>
</tr>
<tr>
<td><strong>Cable Distance:</strong> RS-485 - 4000 feet (1220m) to host, using Belden 3105A, 22 AWG twisted pair, shielded 100Ω cable. Input circuits - Output circuits - 500 feet (150m), 2-conductor, using Alpha 1172C (22 AWG) or Alpha 1897C (18 AWG). Minimum wire gauge depends on cable length and current requirements.</td>
<td><strong>Operating Current (MAX):</strong> 12-24V DC</td>
</tr>
</tbody>
</table>

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* Design and specifications are subject to change without notice.
**Key Features**

- For one door with one reader and 125,000 cardholders
- TCP/IP to connect to the host
- PoE (802.af) support
- Reports all activity to the host
- Fully-functional offline operation when not actively communicating with the host: Access decision, event logging
- Interface with one wiegand or clock-and-data reader

**INPUT POWER**

<table>
<thead>
<tr>
<th>DC Input (Max)@PoE</th>
<th>14.4W (300mA@48V DC)</th>
</tr>
</thead>
<tbody>
<tr>
<td>DC Input (Max)@AUX+12V DC</td>
<td>18W (1500mA@12V DC)</td>
</tr>
<tr>
<td>DC Input (Max)@AUX+24V DC</td>
<td>36W (1500mA@24V DC)</td>
</tr>
</tbody>
</table>

**OUTPUT POWER (Max) FOR TOTAL SYSTEM (All Field Devices)**

| DC Input@PoE | 9.6W |
| DC Input@AUX+12V DC | 14.4W |
| DC Input@AUX+24V DC | 28.8W |

**OUTPUT POWER (Max) FOR INDIVIDUAL FIELD DEVICES, DC INPUT = POE**

| Hi-O Device on CANbus | 4.8W (100mA@24V DC) |
| Wiegand / C&D Reader | 2.7W (300mA@12.5V DC) |
| Wet Output (6-12V DC) | 6.9W (300mA@12V DC) |
| Wet Output (6-24V DC) | 8.6W (300mA@24V DC) |

**OUTPUT POWER (Max) FOR INDIVIDUAL FIELD DEVICES, DC INPUT = AUX+12V DC**

| Hi-O Device on CANbus | 14.4W (300mA@24V DC) |
| Wiegand / C&D Reader | 2.9W (450mA@12V DC) |
| Wet Output (6-12V DC) | 8.4W (700mA@12V DC) |
| Wet Output (6-24V DC) | 16.8W (700mA@24V DC) |

**RELAY RATING**

| Relay Contact Rating (Dry Output) | 2A @ 30V DC |

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**Key Features**

- Consistent user experience across different devices and operating systems including iOS and Android
- Phone and reader interaction is intuitive, easy to use and enables new ways to open doors
- Offers a comprehensive, best-in-class management portal to issue and revoke Mobile IDs

**Mobile Access Support**

- Android 4.3+ using Bluetooth® smart
- Android 4.4+, iOS 7.0+ using Bluetooth smart

**Mobile Access**

- Multiple mobile IDs managed in one application
- Extended battery life compared to use of battery lock screen
- Supports over-the-air communication with session based keys secured by AES 256 / SHA-256
- Mobile IDs are signed and encrypted using CMAC (IEC 40, AES-256)
- Mobile IDs are stored in mobile device operating system or in secure element, where available

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* The latest product information / specification can be found at hanwha-security.com
* Design and specifications are subject to change without notice.
R10/R40/RK40
Card / Keypad Reader

Key Features:
- 13.56MHz card compatibility
- Wiegand, Clock and data
- Multi-format is available
- Hanwha Techwin format
- iCLASS SE
- DESFire EVCSN
- MIFARE CSN
- Felica CSN
- NFC: Bluetooth smart feature
- UL294 / FCC / IC / CE / RCM / SRRC / KCC
- NCC / IIAU / RH5 / FIPS201/MIC
- Life-time warranty

Typical Road Range* (Inches)

<table>
<thead>
<tr>
<th>R10</th>
<th>R40</th>
<th>RK40</th>
</tr>
</thead>
<tbody>
<tr>
<td>13MM (single technology)</td>
<td>13MM (single technology)</td>
<td>13MM (single technology)</td>
</tr>
</tbody>
</table>

Mounting

<table>
<thead>
<tr>
<th>R10</th>
<th>R40</th>
<th>RK40</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.9&quot; x 4.1&quot; x 0.9&quot; (4.8cm x 10.3cm x 2.3cm)</td>
<td>3.3&quot; x 4.8&quot; x 1.0&quot; (8.4cm x 12.2cm x 2.4cm)</td>
<td>3.3&quot; x 4.8&quot; x 1.1&quot; (8.5cm x 12.2cm x 2.8cm)</td>
</tr>
</tbody>
</table>

Color

<table>
<thead>
<tr>
<th>R10</th>
<th>R40</th>
<th>RK40</th>
</tr>
</thead>
<tbody>
<tr>
<td>Black</td>
<td></td>
<td></td>
</tr>
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</table>

Keypad

<table>
<thead>
<tr>
<th>R10</th>
<th>R40</th>
<th>RK40</th>
</tr>
</thead>
<tbody>
<tr>
<td>No</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Dimensions

<table>
<thead>
<tr>
<th>R10</th>
<th>R40</th>
<th>RK40</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.9&quot; x 4.1&quot; x 0.9&quot; (4.8cm x 10.3cm x 2.3cm)</td>
<td>3.3&quot; x 4.8&quot; x 1.0&quot; (8.4cm x 12.2cm x 2.4cm)</td>
<td>3.3&quot; x 4.8&quot; x 1.1&quot; (8.5cm x 12.2cm x 2.8cm)</td>
</tr>
</tbody>
</table>

Product Weight (Pigtail)

<table>
<thead>
<tr>
<th>R10</th>
<th>R40</th>
<th>RK40</th>
</tr>
</thead>
<tbody>
<tr>
<td>3.9 oz (113g)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Product Weight (Terminal Strip)

<table>
<thead>
<tr>
<th>R10</th>
<th>R40</th>
<th>RK40</th>
</tr>
</thead>
<tbody>
<tr>
<td>4 oz (113g)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Current Draw - 5-16V DC, Linear supply recommended

Operating Voltage Range

<table>
<thead>
<tr>
<th>R10</th>
<th>R40</th>
<th>RK40</th>
</tr>
</thead>
<tbody>
<tr>
<td>12V DC</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Current Draw - Intelligent Power Management (IPM) Mode

<table>
<thead>
<tr>
<th>R10</th>
<th>R40</th>
<th>RK40</th>
</tr>
</thead>
<tbody>
<tr>
<td>25</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

NCS** Power Consumption - w/ IPM

<table>
<thead>
<tr>
<th>R10</th>
<th>R40</th>
<th>RK40</th>
</tr>
</thead>
<tbody>
<tr>
<td>0.7</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

IPM5+

<table>
<thead>
<tr>
<th>R10</th>
<th>R40</th>
<th>RK40</th>
</tr>
</thead>
</table>
| 13.56MHz card compatibility

Support

<table>
<thead>
<tr>
<th>R10</th>
<th>R40</th>
<th>RK40</th>
</tr>
</thead>
<tbody>
<tr>
<td>MIFARE/ DESFire CSN</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Certifications

<table>
<thead>
<tr>
<th>R10</th>
<th>R40</th>
<th>RK40</th>
</tr>
</thead>
<tbody>
<tr>
<td>EU 2012/95/EU, US Adj.46, US Adj.46, CE</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Warranty

<table>
<thead>
<tr>
<th>R10</th>
<th>R40</th>
<th>RK40</th>
</tr>
</thead>
</table>
| Limited Lifetime

BioEntry W2
In/Outdoor Fingerprint / Card Reader

Key Features:
- 1.2GHz quad-core CPU
- New advanced Live Finger Detection (LFD) technique
- Improved OP5 optical sensor and algorithm
- Max. 500k users / 1 million text logs
- 2GB Flash + 256MB RAM
- PoE (803.3af) support
- IP67 / IP68 support
- Wiegand, RS485, TTL, I/O, relay
- 13.56MHz card compatibility

BioEntry W2

<table>
<thead>
<tr>
<th>BioEntry W2</th>
</tr>
</thead>
<tbody>
<tr>
<td>Biometric</td>
</tr>
<tr>
<td>Fingerprint</td>
</tr>
<tr>
<td>Template</td>
</tr>
<tr>
<td>SUPREMA / ISO 19794-2 / 4003 E78</td>
</tr>
<tr>
<td>Extractor / Matcher</td>
</tr>
<tr>
<td>MIFEX certified and compliant</td>
</tr>
<tr>
<td>LFD</td>
</tr>
<tr>
<td>Supported</td>
</tr>
<tr>
<td>13.56MHz Card Compatibility</td>
</tr>
<tr>
<td>CLASSE IC</td>
</tr>
<tr>
<td>CPU</td>
</tr>
<tr>
<td>1.2GHz Quad-Core</td>
</tr>
<tr>
<td>Memory</td>
</tr>
<tr>
<td>256Mb RAM + 256Mb RAM</td>
</tr>
<tr>
<td>Max. User</td>
</tr>
<tr>
<td>1500(001-15), 1500(101-15)</td>
</tr>
<tr>
<td>Max. Template</td>
</tr>
<tr>
<td>1000(001-50), 1000(51-100)</td>
</tr>
<tr>
<td>Max. Logs</td>
</tr>
<tr>
<td>1,000,000(500)</td>
</tr>
<tr>
<td>LED</td>
</tr>
<tr>
<td>Multi-color</td>
</tr>
<tr>
<td>Sound</td>
</tr>
<tr>
<td>Multi-tone buzzer</td>
</tr>
<tr>
<td>Ethernet</td>
</tr>
<tr>
<td>10/100Mbps, Auto MDI/MDI-X</td>
</tr>
<tr>
<td>RS-485</td>
</tr>
<tr>
<td>2CH (one or two selectable)</td>
</tr>
<tr>
<td>Wiegand</td>
</tr>
<tr>
<td>4CH input or output (selectable)</td>
</tr>
<tr>
<td>TTL</td>
</tr>
<tr>
<td>2CH input</td>
</tr>
<tr>
<td>Relay</td>
</tr>
<tr>
<td>1</td>
</tr>
<tr>
<td>PoE</td>
</tr>
<tr>
<td>Supported (IEEE 802.3af compliant)</td>
</tr>
<tr>
<td>Ingress Protection</td>
</tr>
<tr>
<td>IP67</td>
</tr>
<tr>
<td>Impact Protection</td>
</tr>
<tr>
<td>IP68</td>
</tr>
<tr>
<td>Temper</td>
</tr>
<tr>
<td>Supported</td>
</tr>
<tr>
<td>Power</td>
</tr>
<tr>
<td>12VDC</td>
</tr>
<tr>
<td>Operating Temperature</td>
</tr>
<tr>
<td>-20°C ~ 50°C</td>
</tr>
<tr>
<td>Operating Humidity</td>
</tr>
<tr>
<td>0% ~ 90%, Non-condensing</td>
</tr>
<tr>
<td>Dimensions (WxHxD)</td>
</tr>
<tr>
<td>150mm x 150mm x 43mm</td>
</tr>
<tr>
<td>Weight</td>
</tr>
<tr>
<td>2.5kg (5.5lbs) incl. bracket, washers, bolts</td>
</tr>
<tr>
<td>Certificates</td>
</tr>
<tr>
<td>CE, FCC, IC, RCM, BIS, RLIST, EU, RoHS</td>
</tr>
</tbody>
</table>

• **NCS = Normal Standby Current
• *** Measured in accordance with UL294 standards
• **** UL294 functionally certified for Wiegand output only
• The lastest product information / specification can be found at hanwha-security.com
• Designs and specifications are subject to change without notice.
5427CK
Card Scanner

Key Features

• CCID support
  Native CCID implementation supporting WINDOWS®, LINUX®
  and MAC® operating systems
• Keyboard wedge
  Fully configurable and programmable keyboard wedge
  functionality featuring an integrated management console.
  Flexible configuration of data structures and output modes.
• Enhanced lifecycle management
  Easy firmware updates and configuration setting utilizing a
  Web interface, SNMP messages and configuration cards.

5427CK

Dimensions (WxHxD)
2.79” x 3.66” x 0.63” (71mm x 93mm x 16mm)

Weight
Approx. 3.53 oz (100g)

Power Supply
Bus powered

Operating Environment
Indoors, or customer-supplied NEMA-4 rated enclosure

Operating Temperature
32°F to 158°F (0°C to 70°C)

Storage Temperature
-4°F to 176°F (-20°C to 80°C)

International Protection Rating
IP54 (Dust / Splashing water) (in preparation)

HOST INTERFACE

Host Interface
USB 2.0 (Also compliant with USB 1.1)

Transmission Speed
12Mbps (USB 2.0 full speed)

CONTACTLESS SMART CARD INTERFACE
KEYBOARD WEDGE

Cards / Protocols
MIFARE™ classic 1K/4K, Ultra light, Ultra light C, Plus
(Security Lvl 1),
MIFARE™, DESFIRE™ 0.6, MIFARE™, DESFire™ EV1
(MAC/DES/3DES/3K3DES/AES), iCLASS®, iCLASS® SE/SR,
MIFARE SE, DESFire EV1 SE

Supported APIs
Human interface device

PC / SC Driver Support
Compliant with native human interface drivers
Drivers available for Windows® XP / Vista / 7
(32 bit / 64 bit), 2003 Server, 2008 R2 Server

Status Indicator
Dual color LED (White = ready, Blue = busy)

Buzzer (Programmable)

Color
Cover : Black / Body : Light grey

Accessories (Included)
Removable card holder for card-present operation

Optional Accessories
(To be announced at launch)

Connector Cable / Length
USB type A connector / 78.7” (200cm)

Customization Options
Customer-specific logo / housing color

Composition
PC

Meantime Between Failure (MTBF)
500,000 hours

Compliance / Certification
Microsoft® WHQL

Supported Platforms
Windows 7 / Vista / XP / 2000 / ME / 98, Linux

Warranty
Two-year manufacturer's warranty
(For drivers, see complete lifetime support policy)

The lastest product information / specification can be found at hanwha-security.com

* Design and specifications are subject to change without notice.

BioMini
Fingerprint Scanner

BioMini
Fingerprint Scanner

Key Features

• World’s best performing fingerprint algorithm :
  Top results in NIST MINEX tests and FVC
• RPS 301 certified template extractor and matcher
• NIST certified interoperable template format standards
  (ANSI-378/ISO19794-2)
• Image compression standard (WSQ)
• Fast matching speed : 100,000 match within a second*
  Multi-threaded code design fully utilizing multi-core CPU power
• Plug and play USB 2.0 high speed interface
• Supports multiple device handling
• 500 dpi optical fingerprint sensor
• Scratch free sensor surface
• Supports MS Windows and Linux

BioMini
Fingerprint Sensor

Resolution
500 DPI / 256 gray

Sensing Area
16.0 x 18.0mm

Image Size
208 x 339pels

Interface
USB 2.0 high speed / Full speed, Plug & play

O/S
Microsoft Windows, Linux

Operating Temperature
-10°C ~ 50°C

Certification
CE, FCC, KCC, WHQL

Dimensions (WxHxD)
66.0mm x 90.0mm x 58.0mm

Template Size
384 Bytes (Configurable)

Enrollment Time*
< 0.1 second

Verification Time*
< 0.1 second

Identification Time*
100,000 matches per second

Database
Microsoft Access

Encryption
AES 256

Supported Platforms
Windows 7 / Vista / XP / 2000 / ME / 98, Linux

* The lastest product information / specification can be found at hanwha-security.com
* Design and specifications are subject to change without notice.

The lastest product information / specification can be found at hanwha-security.com
* Design and specifications are subject to change without notice.
## SSA-X300
### POWER PACKAGE FOR CONTROL PANEL

**Key Features**
- Power package for control panel
- Low battery check
- AC power failure check
- Battery recharge circuit
- Tamper alarm for opening door

### SSA-X300

<table>
<thead>
<tr>
<th>Feature</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>SMPS</strong></td>
<td></td>
</tr>
<tr>
<td>Input Power</td>
<td>100<del>240VAC/50</del>60Hz/2.0A</td>
</tr>
<tr>
<td>Power Consumption</td>
<td>13.5V±5%, 4.7A (Strobe, Horn DC 12.5V±5%)</td>
</tr>
<tr>
<td>Charging Current</td>
<td>900mA</td>
</tr>
<tr>
<td>Dimension (mm)</td>
<td>120 x 350 x 49</td>
</tr>
<tr>
<td>Battery</td>
<td>12V, 16Ah, rechargeable</td>
</tr>
<tr>
<td>SMPS Status Transmissions</td>
<td>AC Loss, Battery Fail [non-battery]</td>
</tr>
<tr>
<td>Terminal/Interface</td>
<td>AC FAIL (+,-) 1Port, NON_BATT (+,-) 1Port, CONTROLLER INTERFACE (+,-) 2Port, LOCK (+,-) 2Port, STROBE/HORN (+,-) 2Port, CHARGE (+,-) 1Port</td>
</tr>
<tr>
<td>Power On/Off</td>
<td>By Switch</td>
</tr>
<tr>
<td>AC Input Protection</td>
<td>Yes, by Fuse in input port</td>
</tr>
<tr>
<td>Battery Backup</td>
<td>Yes</td>
</tr>
<tr>
<td>Battery/Recharge Protection</td>
<td>Yes, protect battery to supply less than 10.8V</td>
</tr>
<tr>
<td>Power Restart/Battery</td>
<td>Yes</td>
</tr>
<tr>
<td>Protection from Battery</td>
<td>Yes, CHARGE(+,-) Battery(+,-) connection should be correct</td>
</tr>
<tr>
<td>Overcurrent protection</td>
<td>Yes, Controller / Expansion board (1.2A), Strobe / Horn (0.8A), Charge (0.7A)</td>
</tr>
<tr>
<td>Power Down Protection</td>
<td>Yes, Protected from Strobe / Horn Short</td>
</tr>
<tr>
<td>Operation Temperature</td>
<td>0°C ~ 45°C</td>
</tr>
<tr>
<td>Certificate</td>
<td>CE, KC</td>
</tr>
</tbody>
</table>

### ENCLOSURE

<table>
<thead>
<tr>
<th>Feature</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dimension (mm)</td>
<td>410 x 410 x 30</td>
</tr>
<tr>
<td>Battery Fixture</td>
<td>Black tiebelt to fix battery inside enclosure</td>
</tr>
<tr>
<td>Case Lock</td>
<td>Lock on front door with keys</td>
</tr>
<tr>
<td>Case Open Status Transmisison</td>
<td>Alarm occurs when tamper switch of enclosure door is activated</td>
</tr>
<tr>
<td>Controller/Interface On board</td>
<td>Max. 2 EA Boards in enclosure</td>
</tr>
</tbody>
</table>

* The latest product information / specification can be found at hanwha-security.com
* Design and specifications are subject to change without notice.