



ELITE

## Electronic Key Management System (120 / 132 Slots)

### About iKLAS

iKLAS (Intelligent Key Lock Application System) is an embedded web-based key management system that controls and tracks the movement of keys in buildings and facilities to ensure that security will not be compromised.

Without requiring continual manual monitoring, iKLAS is easy to maintain and built with quality materials to withstand damage due to regular use or tampering. Our Key Management System (KMS) provides highly secured monitoring and control of information over the Wide Area Network (WAN). iKLAS is user-friendly and suitable for use in a wide field of sectors, including banking, education, entertainment, government, healthcare and retail industry etc.



### Key Benefits

- Enhance accountability & security
- Eliminate manual recording/tracking
- Increased productivity
- Centralized auditing and monitoring
- Efficient tracking of keys

### Key Features

- Built-in 7" Industrial Grade Color Touchscreen
- Built-in color camera for security and verification upon access
- Built-in SMS / Email alarm triggers and warnings (optional)
- Built-in Auto Tag return Function
- Reader to support different access modes, including cards (Mifare, HID, Desfire EV1 & Desfire EV2), user ID + PIN, or by fingerprint and other bio authentication.
- Up to 10 different RFID key tag (encrypted) colors for easy differentiation
- Embedded Key Management Software
- Live key status update
- Manual bypass in case of system breakdown
- Tamper proof key rings / seals with unique serial number
- Up to 5,000 users, 320 key groups, 64 time schedules, 20,000 transactions & 100,000 user photo images

# iKLAS Technical Specifications (Hardware)

## Controller

CPU	<ul style="list-style-type: none"> <li>• NXP IMX6 Dual Lite1.0GHz               <ul style="list-style-type: none"> <li>› CPU Cooler (Type) By mechanical design</li> <li>› Memory 512MB DDR3L</li> <li>› Storage 4G eMMC</li> </ul> </li> <li>• Encryption Standard : AES256</li> <li>• External Devices Interface : RS485 / RS232 / Wiegand</li> <li>• USB 2.0 Full Speed (12 Mbps per second) Device Port</li> <li>• Ethernet MAC 10/100 Base-T</li> <li>• Operating System : Linux</li> </ul>
Memory	<ul style="list-style-type: none"> <li>• On Board               <ul style="list-style-type: none"> <li>› NOR FLASH: 2MB</li> <li>› NAND FLASH: 32MB</li> </ul> </li> <li>• SD Card: 8G portable card socket</li> </ul>
Time Clock	<ul style="list-style-type: none"> <li>• Battery Back-up Real Time Clock</li> <li>• Permanent Calendar (Second, Hour, Day, Month, Year)</li> </ul>

## Operation Panel

TFT 7" Industrial Grade Touchscreen	<ul style="list-style-type: none"> <li>• Size : 7 inch</li> <li>• Resolution : 1280(RGB) x 800</li> <li>• Interface LVDS</li> <li>• Pixel Pitch : 0.117(H) x 0.117 (V) mm</li> <li>• Pixel Configuration : R.G.B. Vertical Stripe</li> <li>• Surface Treatment(Up Polarizer) : HC</li> <li>• LCM (W x H x D) : 161.0×107.0×3.35 mm</li> <li>• LED Numbers : 21 LEDs</li> </ul>
Authentication Devices	<ul style="list-style-type: none"> <li>• Standard : Mifare</li> <li>International : Mifare Classic, HID Proximity, HID iCLASS, DESFire EV1, DESFire EV2</li> <li>Singapore : SSID &amp; CEPAS</li> <li>• Biometric : Fingerprint device, Touchless bio device, Face Recognition device, Auto Iris Recognition device</li> <li>• 3<sup>rd</sup> parties' devices : Support 32-bit devices with Wiegand port</li> </ul>
Integrated Camera	<ul style="list-style-type: none"> <li>• Capture user photo image</li> <li>• Wide-angle lens</li> </ul>
GSM Modem (optional)	<ul style="list-style-type: none"> <li>• Dual band - GSM900/1800</li> <li>• SMS notification to up to 5 mobile numbers when alarm or system failure occurs</li> <li>• SMS reminder to user when withdrawn key time expires (up to 3 times per key expiry)</li> </ul>

## Cabinet Key Positions

Cabinet	<ul style="list-style-type: none"> <li>• Key-slots capacities               <ul style="list-style-type: none"> <li>› 120 keys; 132 keys</li> </ul> </li> <li>• Security Guarantee               <ul style="list-style-type: none"> <li>› Body: 1.5 mm steel plate</li> <li>› Fail-secure: In the event of power down, keys will be locked in position to prevent unauthorised withdrawal.</li> <li>› Key-cabinet door: tamper-proof window; electric solenoid (power off to lock); door sensor</li> <li>› Master key for emergency release of all keys</li> </ul> </li> <li>• 3-colour LEDs indicate the key-position status</li> <li>• Epoxy Powder Coating</li> </ul>
System Capacities	<ul style="list-style-type: none"> <li>• 5,000 users &amp; manage up to 5,280 keys</li> <li>• 320 general key groups and 64 multi-user access groups</li> <li>• 64 time schedules; 20,000 transactions &amp; 100,000 user photo images</li> </ul>
Power Supply	<ul style="list-style-type: none"> <li>• Power supply unit: 12Vdc + 15%; Battery: 12V Lead Acid Battery</li> <li>• Power-down detector &amp; battery auto cut-in</li> <li>• System battery backup: standby mode ≤ 8hrs; operating mode ≤ 120 transactions</li> </ul>

# iKLAS Technical Specifications (Software)

- Embedded Linux OS, application software and database
- Web-based platform for system configuration, monitoring & management
- Centralised Management System (optional)
- Highly secured multiple user logins
- Real time key status update
- Remote configuration and monitoring of the system
- Fraud management with audit trail
- Report-generator for specific reports
- Automatic or predefined upload and download of information through network

Note: SDK/TCP/IP interface are available for integration

## Keypad Access Rights

Admin	<ul style="list-style-type: none"> <li>• User Management (add/edit/delete)</li> <li>• TCP/IP address Management</li> <li>• Withdraw &amp; return any key</li> <li>• Track withdrawn key details via               <ul style="list-style-type: none"> <li>› User name or ID</li> </ul> </li> <li>• View &amp; Export Key Movement Report via USB</li> </ul>
User	<ul style="list-style-type: none"> <li>• Change personal pin</li> <li>• Withdraw &amp; return the assigned key(s)</li> <li>• Track authorised withdrawn key that is not available               <ul style="list-style-type: none"> <li>› User name or ID</li> <li>› User contact number</li> </ul> </li> </ul>

## Web Access Rights

Super Admin	<ul style="list-style-type: none"> <li>• User &amp; Key Management (add/edit/delete)</li> <li>• Configure/edit system &amp; box information</li> <li>• Change super admin login password</li> <li>• Configure system time, date, IP address, key withdraw/return mode etc</li> </ul>
Admin	<ul style="list-style-type: none"> <li>• Check key status; check/print records</li> <li>• Add/edit/remove users; edit key information</li> <li>• Add/edit/remove general key groups and multi-user access groups</li> <li>• Add/edit/remove general schedules</li> <li>• Edit system               <ul style="list-style-type: none"> <li>› Upload &amp; download database &amp; record</li> </ul> </li> </ul>
User	<p>User</p> <ul style="list-style-type: none"> <li>• Check/print personal information</li> <li>• Change personal password</li> <li>• Check grouping &amp; scheduling settings</li> </ul>

## Certificate

CE Compliance	Reference File No - ACI-2012377
Standards Compliance	EN 55022:2006+A1:2007 (CISPR 22:2005+A1:2006), EN 61000-3-2:2005+A1:2008 (IEC 61000-3-3:2008) EN 55024:1998 + A1:2001+A2:2003 (CISPR24:1997+A1:2001+A2:2002) IEC 61000-4-2:2008, IEC 61000-4-3:2010, IEC 61000-4-4:2004+A1:2010, IEC 61000-4-5:2005, IEC 61000-4-6:2008, IEC 61000-4-8:2009, IEC 61000-4-11:2004

# iKLAS Technical Specifications



MODEL	ELITE iKLAS-R120/132
Input Voltage	110/240VAC
Maximum Input Current	5A/115Vac, 4A/230Vac
Frequency	50/60Hz
Back-Up Battery	12V/7Ah
Standby in battery mode	≤ 8Hrs
Operating in battery mode	≤120 Transactions
Operating Temperature	10°C to 40°C
Humidity	<95%
Size	(W) 680mm (H) 850mm (D) 220mm
Weight	50KG
Max. Number of Key Slots	132 key slots per cabinet (11 rows of 12)
Operating Systems	Linux
Interface	TCP/IP

## BrightNet

SYSTEM

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