SXK-820

Smart Ticket Dispenser / Ticket Validator

RFID/Barcode-Ticket Entrance and Exit

Parking Management System



Figure 1 — SXK-820 ticket dispenser (with ticket outlet) and ticket validator

Executive Summary

< 1 s	< 1 s	2000–2500	-35 to +75 °C
Ticket dispensing time	Card reading & verifying	Tickets per roll	Operating temperature

The SXK-820 is an unattended smart ticket dispenser and ticket validator for parking entrance and exit management. It issues barcode parking tickets as the proof of vehicle entry, exit and payment, and supports VIP, monthly-payment and prepaid vehicles through an integrated IC/ID RFID reader. The terminal dispenses a ticket in **< 1 s** and verifies a registered card in **< 1 s**, then controls the barrier gate automatically through relay output, while the parking management software retains every entry, exit and payment record.

Designed for continuous 24/7 operation in civil and commercial parking lots, the terminal combines a **10.1-inch LCD**, a 2000–2500-ticket paper roll, multi-language and multi-country POS support, and a TCP/IP network interface for centralised management. This datasheet provides the full specification, architecture, installation, commissioning, troubleshooting and ordering data required for evaluation and deployment. All values trace to the manufacturer's specification document; items not published by the manufacturer are marked “To be confirmed — contact the manufacturer.”

1. Product Overview

The SXK-820/P is a self-service ticket dispenser and validator that operates at the entrance and exit lanes of a parking facility. It uses parking tickets as the proof of vehicle entry, exit and payment: a visitor presses one button to receive a barcode ticket, and the parking time calculation starts immediately; a VIP, monthly or prepaid user taps a registered card and is verified in under one second. The system controls the barrier gate automatically and retains vehicle entry, exit and credential records in the management software.

The terminal is built for outdoor, unattended duty. The housing is fabricated from cold-rolled steel plate with a tempered-glass front panel, rated IP54 for weather protection and qualified for operation from **-35 °C to +75 °C**. Communication is TCP/IP over a 10/100M adaptive Ethernet port, which connects the entrance machine, exit machine, automatic payment kiosk and management software into one managed parking system.

> **Positioning —** An unattended barcode-ticket entrance/exit terminal that delivers sub-second ticket issuance and card verification, multi-credential access for VIP, monthly and prepaid users, and TCP/IP integration with barrier gates, payment kiosks and management software — ready for 24/7 operation in civil and commercial parking lots.

1.1 Intended Audience

This datasheet is written for specifiers and procurement decision-makers at:

- Parking operators and municipal parking authorities
- Property management companies and campus operators
- Parking system integrators and access-control engineering firms
- Distributors and resellers serving civil and commercial parking facilities

2. Key Features

Each feature below pairs the technical characteristic with the engineering or operational value it delivers, so that specifiers can justify each line item against an alternative solution.

Table 1 — Key Features

#	Feature	Technical Basis	Engineering / Operational Value
1	10.1-inch LCD display	10.1” display with multi-language user interface	Clear driver guidance at the lane reduces help calls and queue friction
2	One-button ticket issuance	Single button operation; ticket dispensing time < 1 s	Fast visitor entry and high lane throughput without attendant support
3	Multi-credential access	Integrated IC/ID RFID reader; barcode ticket support	One terminal serves VIP, monthly, prepaid and visitor traffic
4	High-capacity ticket roll	58 mm / 80 mm ticket rolls; 2000–2500 tickets per roll	Lower consumable cost and fewer roll-replacement stops
5	Maintenance-free ticket cutter	High-strength cutter; no routine maintenance	Reduced downtime and lower service cost over the product life
6	Outdoor-rated housing	Cold-rolled steel plate and tempered glass; IP54	Weather and impact resistance for kerbside and lane installation
7	Wide operating temperature	-35 °C to +75 °C operating range	Dependable operation in cold and hot climates worldwide
8	Flexible intelligent control	1 × Ethernet, 2 × Wiegand, 3 × relay, 4 × input, 2 × RS485, 2 × RS232	Direct integration with barrier gates, ground loops, buttons, display screens, voice boards, printers and scanners
9	TCP/IP networking	TCP/IP communication interface; 10/100M adaptive Ethernet port	Centralised management, real-time records and remote monitoring
10	Multi-language user interface	31 interface languages including English, Traditional Chinese, Thai, Japanese, Russian and Arabic	Rapid localisation for international deployments
11	Global POS readiness	POS integration supported across 27+ countries/regions	Payment-station and tax-system integration for overseas projects
12	Optional video visual intercom	Video visual intercom module available as an option	Remote guard service for emergencies without a lane attendant
13	Emergency help button	Dedicated call button for guard service	Driver assistance and safety in unattended operation
14	Remote upgrade and web configuration	1-key parameter reset to factory defaults; default IP 192.168.1.200; online network upgrade; web page parameter configuration; control-board interfaces labelled in English	Devices deployed overseas can be upgraded and re-configured remotely, reducing site visits and commissioning effort



Figure 2 — Multi-mode access control illustration: IC/ID, Bluetooth and paper-ticket credentials with video visual intercom

3. Technical Specifications

3.1 Mechanical Specifications

Table 2 — Mechanical Specifications

Item	Specification	Remark
Model	SXK-820	—
Overall dimensions	399 × 320 × 1500 mm	W × D × H
Packing dimensions	455 × 435 × 1600 mm	—
Housing material	Cold-rolled steel plate, tempered glass	—
Ticket type	58 mm 100 mg / 80 mm 158 mg with barcode	Soft and rigid ticket paper
Ticket capacity	2000–2500pcs/ roll	—
Ticket cutter	High strength, free maintenance	—

3.2 Electrical and Interface Specifications

Table 3 — Electrical and Interface Specifications

Item	Specification	Remark
Display size	10.1 inch	—
Communication interface	TCP/IP	—
Ethernet	1 × 10/100M adaptive Ethernet port	—
Wiegand reader interfaces	2 × Wiegand interfaces, supporting short-range and long-range readers	—
Relay outputs	3 × relay outputs, can control barrier gates	—
Input interfaces	4 × input interfaces, can connect to ground loops and buttons	—
RS485 interfaces	2 × RS485 interfaces, can connect to display screens and voice control boards	—
RS232 interfaces	2 × RS232 interfaces, can connect to paper ticket printers and barcode scanners	—
Parameter reset	1-key parameter reset, restores factory defaults	Default IP: 192.168.1.200
Remote upgrade	Online network upgrade supported	Devices overseas can be upgraded remotely
Web configuration	Web page parameter configuration supported	—
Control-board labelling	All interfaces and symbols on the control board in English	—
RFID / reader	IC, ID and Bluetooth readers	—
Intercom	Optional — video visual intercom	—
Ticket dispensing time	< 1s	—
Card reading and verifying time	< 1s	—



Figure 3 — Front panel detail: 10.1-inch HD LCD display, card sensing area and help button

3.3 Environmental Specifications

Table 4 — Environmental Specifications

Item	Specification	Unit	Remark
Operating temperature	-35 to +75	°C	—
Ingress protection	IP54	—	—

3.4 Compatibility Specifications

The terminal supports the point-of-sale (POS) integrations and user-interface languages listed below, as published by the manufacturer.

Table 5 — POS-Supported Countries

Item	Supported Regions / Details
POS-supported countries	Malaysia, Philippines, Thailand, Russia, Singapore, South Africa, Mexico, Canada, Spain, Portugal, UK, USA, Australia, New Zealand, Japan, Brazil, Kazakhstan, France, Germany, Indonesia, Netherlands, UAE, Poland, Italy, Hungary, Norway, Denmark, etc.

Table 6 — User Interface Languages

Item	Supported Languages
User interface languages	English, Traditional Chinese, Thai, Japanese, Russian, Portuguese, Arabic, French, Vietnamese, Mongolian, Korean, German, Indonesian, Spanish, Dutch, Italian, Hindi, Persian, Greek, Turkish, Romanian, Danish, Polish, Norwegian, Lao, Khmer, Bengali, Finnish, Swedish, Uzbek

4. Product Architecture

The SXK-820 comprises six functional groups that can be serviced independently. The terminal operates as the entrance/exit node of a managed parking system, connected to barrier gates, payment kiosks, network equipment and the parking management software.



4.1 Component Breakdown

1. Enclosure — cold-rolled steel plate housing with a tempered-glass front panel; IP54-rated for outdoor lane installation.
2. Display and user interface — 10.1-inch LCD with multi-language UI; emergency help/call button for guard service.
3. Credential interfaces — integrated IC, ID and Bluetooth readers for registered cards; ticket slot and issuance button for visitors.
4. Ticket module — high-capacity ticket roll (58 mm / 80 mm, 2000–2500 tickets per roll) and high-strength, maintenance-free cutter; dispensing time < 1 s; supports soft and rigid ticket paper.
5. Control board — 1 × 10/100M Ethernet port, 2 × Wiegand reader interfaces, 3 × relay outputs, 4 × input interfaces, 2 × RS485 and 2 × RS232 interfaces for gates, ground loops, buttons, display screens, voice boards, printers and scanners; 1-key parameter reset to factory defaults; default IP 192.168.1.200; online network upgrade and web page parameter configuration.
6. Optional intercom — video/voice intercom module for remote guard service.

4.2 Operational Principle

Table 7 — Operational Principle

Condition	Unit Behaviour
Visitor presses the ticket button	Ticket or temporary card is dispensed in < 1 s; parking time calculation starts
VIP, monthly or prepaid user taps a registered card	Card is read and verified in < 1 s; access granted and the barrier gate opens via relay output
Prepaid user exits	Fee is deducted from the balance amount; exit is granted
Visitor exits	Payment is made at the exit verifying terminal or automatic payment station by cash, bankcard or online app; the driver scans the QR code of the payment receipt and the exit is granted
Emergency help button is pressed	Guard service is requested through the call/intercom function

The terminal supports two ticket-machine modes: monthly-vehicle card swipe and temporary-vehicle ticket pickup.

4.3 System Configuration

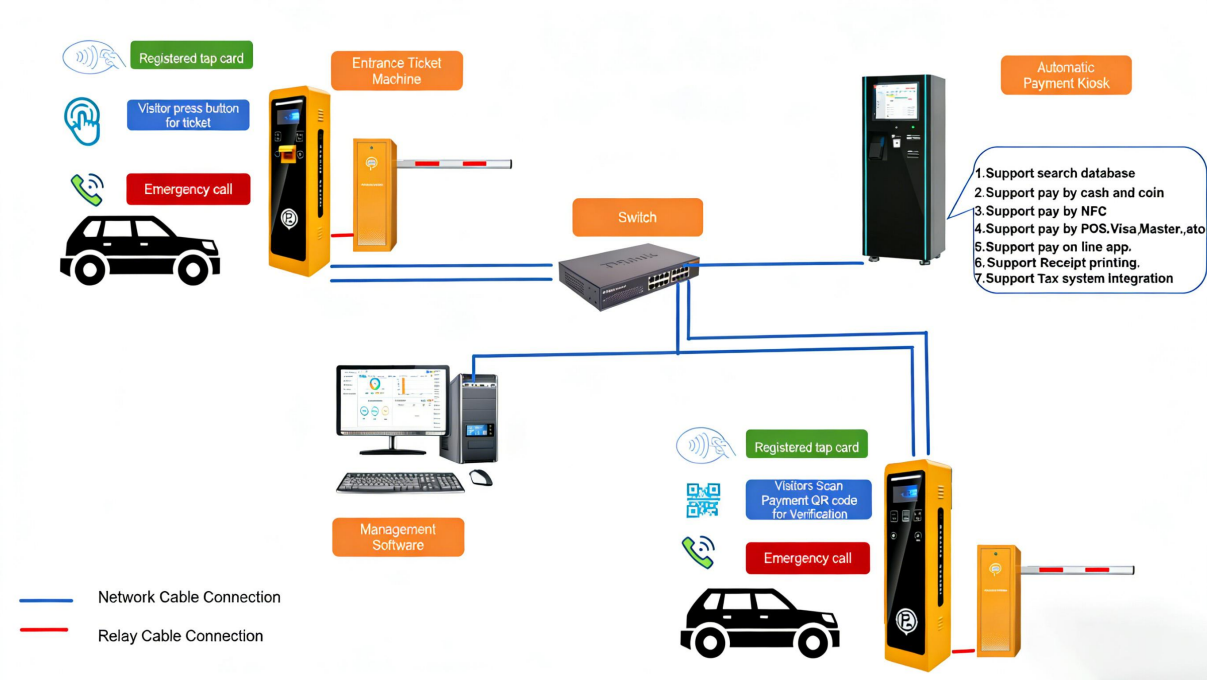


Figure 5 — Parking system architecture: entrance/exit ticket machines, automatic payment kiosk, switch and management software (network and relay cable connections)



Figure 6 — Parking management software modules: user and station management, fee rules, car and parking type management, reports, billing, discounts and payment

5. Applications

The SXK-820 is suited to any civil or commercial parking facility that requires unattended, ticket-based access control with 24/7 operation, multi-credential support and centralised management.

5.1 Office Building Underground Garages

Typical deployment for office towers and business parks. The terminal manages visitor ticketing, monthly tenants and prepaid accounts at the entrance and exit lanes, with the barrier gate controlled automatically and records retained for billing and audit. Figure 7 shows a lane installation in an office underground garage.

5.2 Government Office Premises

Controlled access for government and institutional compounds, where entry must be recorded by credential and visitor tickets issued and validated without attendant intervention. TCP/IP networking allows the facility team to review entry and exit records centrally.

5.3 Private Villas and Residential Communities

Residential estates that need to distinguish residents, visitors and service vehicles. Registered-card holders pass through after sub-second verification; visitors receive a ticket or temporary card at the entrance and are validated at the exit.

5.4 Hotel Parking

Hotel and hospitality facilities where guests expect fast, cash-free check-out. The ticket validates entry time and the payment receipt QR code clears the exit; prepaid and monthly arrangements are supported for staff and long-stay guests.

5.5 Shopping Centres

Retail and mixed-use centres with high traffic peaks. One-button issuance and sub-second card verification keep lanes moving during peak hours, while the payment kiosk accepts cash, card, NFC and online-app payment with receipt printing and tax-system integration.

5.6 Roadside and Surveillance-Controlled Parking

Street-level and monitored parking areas where enforcement is performed at a controlled entry/exit point. The IP54-rated housing and wide operating temperature range support continuous outdoor duty in varied climates.

5.7 Field Installation Reference

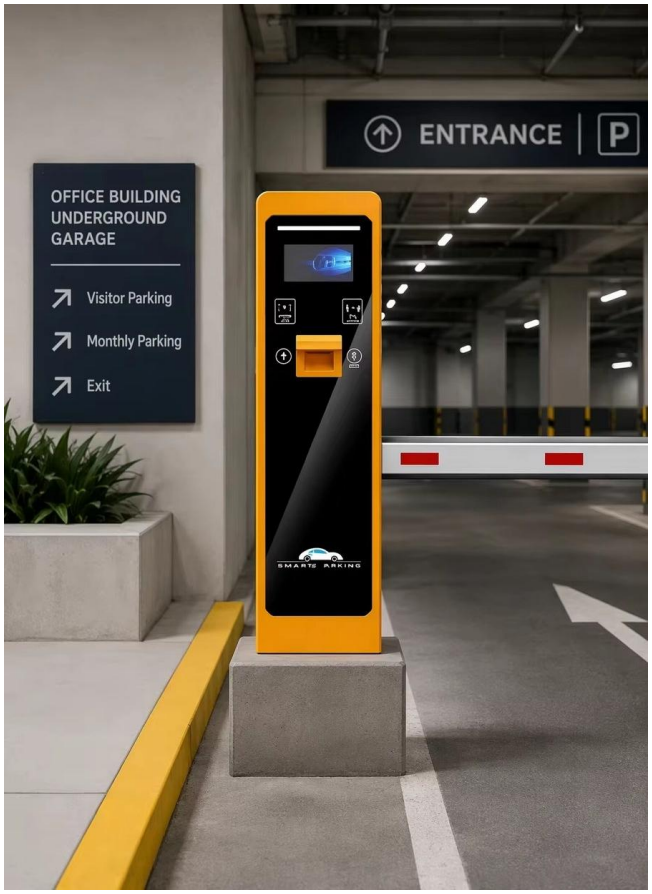


Figure 7 — SXK-820/P deployed at an office building underground garage entrance

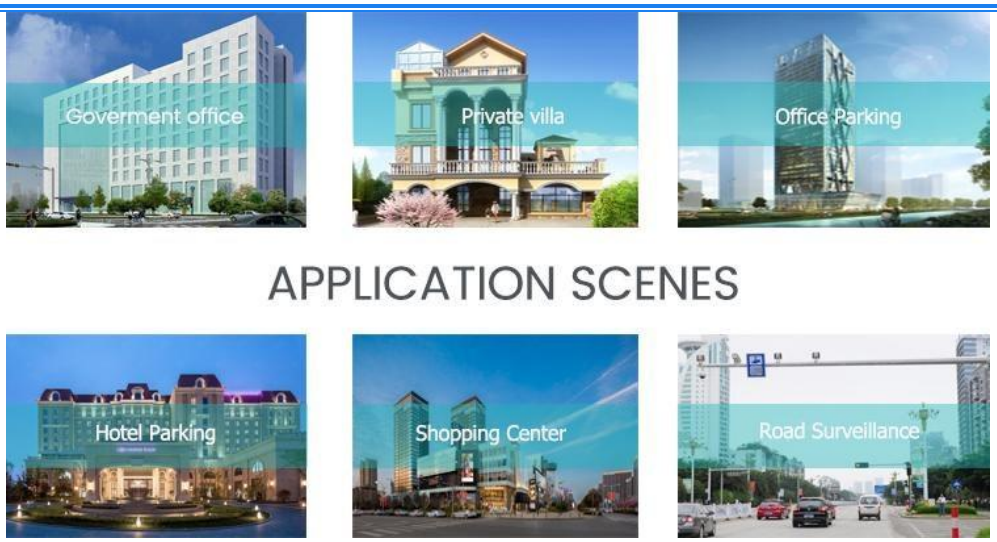


Figure 8 — Application scenes: government office, private villa, office parking, hotel parking, shopping centre and road surveillance

6. Installation Requirements

Installation is a site-wiring task performed at the entrance or exit lane. The terminal must be positioned so that the front panel faces approaching traffic, the ticket slot and card area are accessible, and the network and relay cables can be routed to the switch and the barrier gate controller.

6.1 Site Selection

Table 8 — Site Selection

Requirement	Recommendation	Remark
Position	At the entrance/exit lane, adjacent to the barrier gate and within driver reach from the vehicle	Keep clear of the gate travel path
Orientation	Front panel faces approaching traffic; ticket slot and card sensing area unobstructed	Help button reachable from the vehicle window
Mounting surface	Level, load-bearing ground; concrete or paved base recommended	Mounting tolerances: To be confirmed — contact the manufacturer
Power and network	TCP/IP network access to the LAN switch; relay and input cabling to the barrier gate and ground loops	Follow the network (Ethernet) and relay (barrier control) topology in Figure 5
Weather exposure	Outdoor installation supported (IP54); keep ventilation and ticket outlet clear	Avoid direct, prolonged water spray at the ticket outlet

6.2 Critical Installation Notes

Warning — Complete the relay-output, Wiegand and input wiring before power-on and verify the cable terminations against the site wiring diagram. Use shielded cabling for the relay and Wiegand runs and ground the enclosure in accordance with local electrical practice. Incorrect relay wiring can open or close the barrier gate unintentionally during commissioning.

6.3 Installation Sequence

1. Prepare the mounting position and route the network and relay cables from the switch and barrier-gate controller to the terminal location.
2. Secure the terminal on the level mounting base/foundation in the planned orientation.
3. Connect the Ethernet port to the LAN switch; connect the 3 relay outputs to the barrier-gate controller; connect the 4 input interfaces to ground loops and buttons as configured.
4. Connect the 2 Wiegand reader interfaces to the short-range and long-range readers as configured.
5. Connect the optional intercom and the RS485/RS232 peripherals (display screens, voice control board, paper ticket printer, barcode scanner) as configured.
6. Power on and verify that the display shows the configured language; register the terminal in the parking management software.
7. Load the ticket roll and verify ticket dispensing within < 1 s.

7. Commissioning and Operation

Commissioning verifies that the terminal is registered, networked, and that issuance, verification and gate control operate within the published performance values.

7.1 Commissioning Checklist

Table 10 — Commissioning Checklist

#	Step	Acceptance Criterion
1	Power on the terminal	Display shows the user interface in the configured language
2	Tap a registered IC/ID card	Card is read and verified in < 1 s; the barrier-gate relay activates
3	Press the ticket button	A ticket is dispensed; parking time calculation starts
4	Register the terminal in the management software	Terminal appears online; entry, exit and credential records are retained
5	Configure payment integration (POS / online app)	Payment at the exit terminal or kiosk and QR-code verification pass
6	Press the help button	Guard service / intercom call is established
7	Open the web configuration page (default IP 192.168.1.200)	Terminal parameters can be read and set; factory defaults can be restored with the 1-key parameter reset

7.2 Operating Workflows

Entrance workflow:

1. VIP user taps a registered card to enter the parking lot.
2. Monthly user taps a registered card to enter the parking lot during validation.
3. Prepaid-charge user taps a registered card to enter the parking lot, and the parking time calculation starts.
4. Visitors press the button to get a parking ticket or a parking temporary card, and the parking time calculation starts.
5. Emergency: press the call button for service.+

Exit workflow:

1. VIP user taps a registered card to leave the parking lot.
2. Monthly user taps a registered card to leave the parking lot during validation.
3. Prepaid-charge user taps a registered card to leave the parking lot, and the fee is deducted from the balance amount.
4. Visitors pay at the exit verifying terminal or automatic payment station by cash, bankcard or online app, then scan the QR code of the payment receipt to leave the parking lot.
5. Emergency: press the call button for service.

8. Ordering Information

Confirm the model designation and configuration below at the time of order.

8.1 Standard Configuration

Table 12 — Standard Configuration

Item	Description	Qty
SXK-820 ticket dispenser / validator	Model SXK-820, including 10.1-inch display, IC/ID/Bluetooth(option) reader, ticket module with cutter, and intelligent control board	1
Optional intercom module	Video/voice intercom for guard service	1 (optional)
Ticket rolls	58 mm / 80 mm thermal ticket paper with barcode	Per site
Exit verifying terminal / automatic payment kiosk	Separate models for exit payment and QR verification	Per site (contact the manufacturer)

9. Declaration

Photographs, charts and illustrations in this datasheet are provided for explanation and reference only and may differ from the specific product supplied. Where marketing renders carry dimension callouts that differ from the specification table, the technical specification in Section 3 prevails. The product is supplied subject to the final technical specification confirmed at the time of order. The manufacturer reserves the right to change the information contained in this document without notice.

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