

Fully-featured, Rugged and Secure Mobile Solutions

Mobile

Range

Ingenico 8550

Improve Productivity, Reduce Costs

The rugged i8550 Series will drastically reduce your TCO as it will eliminate the need for a dual solution, i.e. a payment terminal and a PDA-type typical industrial grade mobile computing solution, as it integrates everything you need into a single superior mobility architecture. It offers tangible ROI and unparalleled value.

Security from a global leader in secure transactions

The i8550 Series is designed for all types of EMV-standard payments and for emerging secure transactions such as mobile on-line lottery and law enforcement applications. Thanks to the 32-bit High Secure Core (HSC) with cryptographic engine (RSA, DES, tripleDES), its secure UNICAPT 32 software and its overall tamper-proof and secure design meeting PCI PED and ZKA requirements, all transactions can be processed securely in real time, thus increasing revenues, security and productivity, while at the same time reducing costs.

Ergonomically designed from the ground up for ease of use and truly mobile usage in tough environments

- The i8550 Series user interface includes a 240 x 240 pixel color display, a touch screen with stylus, a quick, optional backlit mobile phone-style keyboard with 5-way navigation key and clear tactile feedback. Included is a speech interface module using the built-in loudspeaker or headset. The superior user interface allows for maximum productivity, flexibility and convenience and is adapted to the visually impaired.
- To truly enable mobile data capture, data security, data management and data transmission the i8550 Series includes a wide choice of data capture options: bar code reader (1D and 2D symbologies), OMR (Optical Mark Reading – e.g. for lottery bet slips), OCR (Optical Character Recognition – e.g. for bills), images, signatures and a choice of real-time wireless data communications options: quadriband GSM/GPRS. It has an optional user-accessible MMC/SD card slot which allows for mass storage of critical data.
- The rugged i8550 Series withstands multiple 1.2 meter (4 ft.) drops onto concrete, thus ensuring the longevity of the terminal while minimizing downtime. The internal antenna eliminates a common point of failure.
- The i8550 Series can automatically sense not only when the paper runs out, but even when the paper is low; this prevents receipts from being partially printed, which is especially crucial for instance in lottery applications. The fact that the printer is built-in further eliminates the need for a cumbersome external printer.
- The high capacity Lithium-Ion battery (1700 mAh), enables full shift life for maximum user productivity, and it is easily removable, allowing quick replacement in the field.
- A hand strap adds handling security, and four shoulder strap attachments offer total freedom of carrying orientation, further enhancing user productivity and comfort.

Even with all these features, yet the durable i8550 Series weighs less than 725 gm (25 oz.) and is highly compact: it is only 21 cm (8.3 in.) long and the thickness at grip is only 38 mm (1.5 in.); making this the lightest high-productivity robust and secure mobile solution.



Future-proof your investment with a total solution

With the i8550 Series there are several ways to future proof your investment. Ingenico's UNICAPT 32 is the world's leading platform for approved 32-bit EMV payment applications, saving time and money when you roll out in additional countries. The i8550 Series' highly scalable and flexible architecture allows you to choose the data capture options for your estate of terminals – from 1D to choice of data transmission – from wired to wireless. You can choose applications residing locally that are developed with Ingedev and remotely managed and downloaded using IngEstate. Alternatively, you can choose or upgrade to OpenEstate distributed open standards technology framework, allowing the i8550 Series into virtually any proprietary, business or Internet network with a fairly small amount of integration. With OpenEstate, the business logic component runs at the remote application server, processing terminal requests and communicating with the service provider's infrastructure. Applications on the host site are updated in moments and updates are distributed over the estate as soon as they are requested. This eliminates updates on a periodic basis every few weeks or when manual intervention is instigated. The i8550 Series offers a large accessory portfolio including a rugged vehicle cradle. The feature-rich i8550 Series delivers the highest level of flexibility and investment protection.

To learn more about our markets, applications, solutions, specification highlights, and where we are located, refer to the following pages or visit us on the web at www.ingenico.com.

18550 Series Industries and Applications

Travel and Transportation Industry

Trucking, Airline, Ocean, Rail

Applications

Postal services, courier services, pick-up and delivery, fleet management, vehicle tracking and maintenance, mobile rental car check-in, airline passenger check-in and ticket sales, baggage and cargo tracking, on-board food service and duty-free sales, payment and secure transactions.

Users

Mail carriers, route drivers, rental car agents, shipping and receiving personnel, baggage and cargo personnel, flight and train attendants.

Retail Industry

Open air, Kiosks, Stores, Restaurants, Hotels, Sports

Applications

Lottery sales, point of sale, customer self-service, line-busting and inventory management, mobile store manager, hospitality applications: restaurants, hotels, sports venues, payment and secure transactions.

Users

Lottery agents, supermarket personnel, convenience store personnel, farmers' markets and outdoor market personnel, waiters, hotel staff, stadium staff.

Wholesale Distribution Industry

Warehouse, Route Accounting, Technical Service

Applications

Automatic ordering, inventory reconciliation, delivery tracking, full service vending, competitive surveys, shelf space analysis, route optimization, field automation, inventory management, logistics optimization, automated meter reading, payment and secure transactions.

Users

Pre-sales, delivery, vending, merchandise, conventional route sales, field service technicians, utility personnel.

Government Industry

Defense, Customs and Immigration, Public Safety

Applications

Inventory management, asset tracking and management, customs and immigration services, citations and parking tickets, real-time visibility to centralized databases, payment and secure transactions.

Users

Military, customs and immigration officers, police officers, parking attendants, supervisors.

Healthcare Industry

Hospitals, Medical Offices, Nursing Homes

Applications

Patient check-in/check-out, staff authentication, medication administration, specimen collection, remote patient monitoring, mobile physician/rounds, asset management, blood transfusion verification, payment and secure transactions.

Users

Nurses, doctors, patients, support staff.



Postal Services

Proof of delivery, payment, OCR bill reading



Courier Services

Payment, signature capture



Mobile Rental Car Check-in

Check-in, check-out, payment at customer location



On-board Sales

Airline-industry certified



Lottery Sales

Optical mark reading, speech



Line Busting/Check-out and Inventory Management

One device for both applications



Delivery Tracking

GPS support for route optimization



Customs and Immigration Services

Integrated fingerprint sensor



Police Citations Issuance

Automatic license plate reading and real-time payment



Parking Attendants

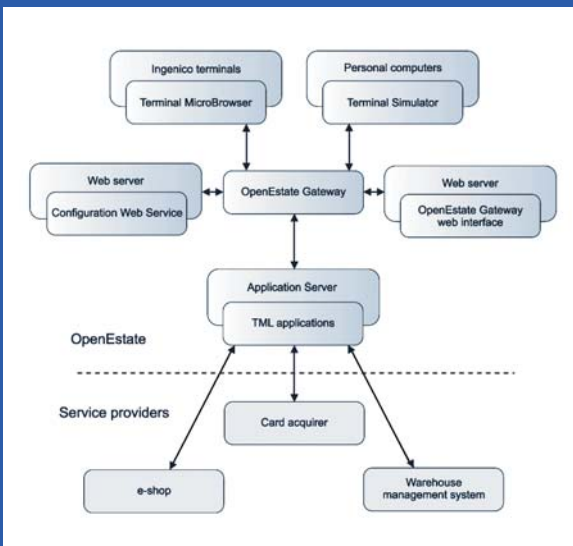
Automatic license plate reading



Bar code scanning/Imaging Module
1D, 2D, OMR and OCR



Vehicle Cradle with Optional Third Party GPS
Receiver



OpenEstate

i8550 Series Total Solution Elements

Configure the perfect solution for your application

The i8550 Series is a total system solution with a highly modular architecture that exactly matches your application.

Choose your data capture

The terminals have a modular front-end design that allows for a range of data capture options. Choose the automatic data capture option that's perfect for your application:

- **Option 1:** Smart and magnetic card only – This is for applications where payment is required in tough environments.
- **Option 2:** Bar code scanning/imaging module plus smart and magnetic card reading – Choose from three levels of scanning/imaging to exactly match your application and price requirements.

Choose your user interface

Each application environment is different. That's why we offer one of the best and most flexible user interfaces around. The i8550 Series boasts a 240 x 240 pixel color screen and additionally:

- Choose our touch screen/stylus user interface or choose a tougher and more traditional hard plastic display lens protecting the display, and no touch screen.
- Choose for a silent user-interface or choose a loudspeaker and text-to-speech (TTS) option with user-selectable English, Spanish, French or German.

Choose your wireless and cradle

Select almost any type of wireless and the right kind of charger or cradle:

- Choose "Batch" (no wireless), GSM/GPRS.
- Choose a desktop cradle, vehicle cradle or charger/communications cable. The vehicle cradle charges the terminal, locks it securely in place, and stabilizes it to withstand shock and vibration-filled environments (designed to meet SAE J1455 standard), with full access to keyboard. It enables easy insertion and removal with a large release lever and allows for data transfer from a peripheral such as a GPS receiver – which allows you to integrate GPS functionality into your application – or other peripherals.

Choose your application delivery and management architecture

Complete your total solution with an advanced, secure and flexible application delivery architecture. Choose from the two options that Ingenico offers:

- **Option 1:** IngEstate – For advanced periodic remote download and management of locally residing UNICAPT 32 applications.
- **Option 2:** OpenEstate – A new architecture from Ingenico for the deployment of secure electronic transactions. Using an XML-compliant markup language (Terminal Markup Language – TML) designed specifically for payment terminals, OpenEstate uses standard web-based technology throughout. This provides several significant benefits over existing embedded technologies :

- 1) **Rapid Application Development Environment** – As the application's presentation layer can be rapidly marked up using TML, application development time is reduced significantly and it becomes economic to build prototypes for field trials. This is particularly important with media-rich interfaces such as those possible on the i8550 Series.
- 2) **Tight Integration with Back-Office Systems** – As OpenEstate can be fully integrated with existing systems using application server technology it is now possible to implement a wide variety of business applications directly on the payment terminal – allowing it to become a truly multi-function device capable of, for example, gathering inventory information or querying corporate databases. The terminal can now become a window on your existing data.
- 3) **Use Existing Resources and Expertise** – Instead of requiring a specialized skill set to develop terminal applications, using OpenEstate allows any web developer to write terminal applications in a matter of days. This allows organizations to resource projects rapidly, often with the involvement of in-house expertise.

i8550 Series Specification Highlights

Physical Characteristics	
Dimensions Overall	21 cm L x 10 cm W x 5.8 cm H / 8.3 in. L x 3.9 in. W x 2.3 in. H (configuration-dependent)
Dimensions at Grip Area	7.5 cm W x 3.8 cm H / 3 in. W x 1.5 in. H
Weight	725 g / 25 oz. (configuration-dependent)
System Architecture and Security Characteristics	
CPU	Integrated 32-bit High Security Core (HSC). EMV Level 1 approved. PCI PED (PIN Entry Device), ZKA compliant, PCI PED (July 2006).
Operating System	UNICAPT 32. Embedded EMV Level 2 kernel, XHTML browser and TCP/IP stack. Windows-like widget graphical user interface library.
Application Development	Use IngeDev SDK to create applications that run on the i8550 and on all other Ingenico i-Series terminals. Several applications can run independently on the same device. Portability of previously written applications for Ingenico terminals.
Application Delivery and Management Options	IngEstate for advanced periodic remote download and management of locally residing applications. OpenEstate distributed open standards technology framework allowing the i8550 Series into virtually any proprietary, business or Internet network with a fairly small amount of integration effort. With OpenEstate the business logic component runs at the remote application server processing terminal requests and communicating with the service provider's infrastructure. Applications on the host site are updated momentarily and updates are distributed over the estate as soon as they are requested.
Memory (RAM/FLASH)	2/8 MB or 8/8 MB
User-accessible	2 SAM (Type ID000, ISO 7816 1/2/3, T=1, T=0) + 1 GSM SIM slots
Slot Options	1 SAM + 1 GSM SIM + 1 MMC/SD slots 2 SAM + 1 GSM SIM + 1 Full-size Merchant / Sesame Vitale Card (ISO 7816-1-2-3) slots 3 SAM + 1 Full-size Merchant / Sesam Vitale Card slots
Power	Removable, rechargeable 7.2 Volt Lithium-Ion battery 1700 mAh
Data Input Characteristics	
Keyboard	17 secure and backlit keys suitable for PIN entry including two function keys and one 4-direction navigation key with central push for enter.
Touch Screen Options	No touch screen. Instead a hard, protective display lens and no stylus holder and stylus. Resistive touch screen with signature capture; includes Stylus, with eyelet for tether (tether not supplied).
Smart Card Reader	EMV 4.0 Level 1 Compliant. ISO 7816 1-2-3. Async/Sync. T=0 & T=1.
Magnetic Card Reader	ISO 1/2/3. Bi-directional and long card swipe ensuring efficient magnetic card reading.
Data Capture Module Options	None Hand Held Products IT4080/5080 CMOS Image Engine Module: Omnidirectional 1D + PDF417 + 2D bar code scanner/imager; Picture taking capability; OMR (Optical Mark Reading) capable with 3 rd party software (for reading lottery bet slips) ; also reads OCR codes and Postal codes.
1D Symbologies Read	Code 39, Code 128, Codabar, UPC, EAN, Interleaved 2 of 5, Reduced Space Symbology, Code 93, Codablock F, BC412* (*Available to licensed users).
2D Symbologies Read	PDF417, MicroPDF417, MaxiCode, Data Matrix, QR Code, Aztec, Aztec Mesas, Code 49, EAN-UCC Composite, Snowflake*, Dataglyphs* (*Available to licensed users).
OCR Codes Read	OCR-A, OCR-B, U.S. Currency Serial Number (Money), MICR E-13B and SEMI Font. Additionally supports license plate reading through 3 rd party software.
Postal Codes Read	Postnet, Planet Code, British Post, Canadian Post, Japanese Post, KIX (Netherlands) Post.
Data Output Characteristics	
Display	77 mm / 3 in. diagonal; 240 x 240 pixel color CSTN display.
Audio Options	Buzzer + Headset Jack (supporting one or two earpiece headsets with integrated switch and volume control functionality). Buzzer + Headset Jack + Built-in Loudspeaker (only available in combination with the TTS option).
Text-to-Speech (TTS) Module Options	None Functions with built-in loudspeaker and through headset.
Wireless Data Module Options	None GSM/GPRS Class 10; 900-1800 MHz in Europe, Asia and Australia; 850/1900 MHz in US, Latin America, and Canada.
Antenna	Internal (comes with the wireless options).
Printer	Easy loading, quiet printer with graphics capability, paper low and paper out detection (special paper markings on paper required for paper low detection). Fast 12 lines/s print speed (200 dpi/8 dpmm). Paper width 58 mm, roll diameter 30 mm, allows for up to 122 tickets of 8 cm length.
User Environment Characteristics	
Operating Temperature	-10° C to 50° C / 14° F to 122° F; can operate down to -20° C / -4° F with potential degradation in performance depending on the application.
Storage Temperature	-20° C to 70° C / -4° F to 158° F
Humidity	5% to 95% non condensing
Drop Spec	Withstands multiple drops to concrete: 1.2 m / 4 ft
Environmental sealing	IP32, due to the openings for the smart card reader slot and printer paper exit. However, certain areas such as the keyboard, touch screen and scan window have gaskets to protect against accidental spillage and other ingress of objects and moisture.
ESD	+/- 15kV air discharge +/- 8kV direct discharge
Peripherals and Accessories	
Desktop Cradle	Single-slot charging/communications cradle with auxiliary battery well. Data transfer via 2 x RS-232, 1 x USB, and V34 PSTN modem (phone).
Vehicle Cradle	Mobile charging/communications cradle. Charges terminal, locks it securely in place, and stabilizes it to withstand shock-filled environments with (designed to meet SAE J1455 standards sections 4.9 & 4.10), full access to keyboard. Enabling easy insertion and removal with a large release lever. Data transfer via RS-232 from for example peripheral GPS receiver, or other peripherals. Powered by 12-24 DC Volts direct connection cable and supports 12-24 DC Volts out to peripheral devices (for use with optional converter). Rugged design protects the terminal from high-vibration environments. Compatible with PIN shroud and shoulder strap.
Charger and Communications Cable	Cable that plugs into the terminal that charges and communicates with the terminal directly, without a cradle. Data transfer via 1 x RS-232, 1 x USB.
Charger Cable	Cable that plugs into the terminal that charges the terminal directly, without a cradle.
Cigarette Lighter Adapter	Plugs into a vehicle cigarette lighter/power port and is used together with a charger cable or charger and communications cable.
Other Options	Additional Li-Ion Battery Pack; Add-on PIN Shroud (ZKA, Interpay, BSK compliant), Printer Lens (customizable with logo), Shoulder Strap (customizable with logo), Holster, Protective Enclosure.
Regulatory	
Electrical Safety, CE	EN60950-1:2001 (Int.), IEC 950, EN301489-7 (EU), UL1950, CSA
EMI/RFI	FCC Part 15, Class C, ICES-003, Class B; EN55022, Class B, EN55024, Class B
Radio, CE, FCC	R&TTE/EN301419-1, US/Canada
Security	EMV 4.0 Level 1, PCI PED, PCI PED (July 2006), ZKA (July 2006), Interpay, BSK
Aircraft Usage	EUROCAE ED14E (EU), RTCA / DO-160D (US)

