

VALUE FOR THE FUTURE



TEAM **nISCA**

WORLD CLASS ID CARD PRINTERS

Creation of Value for the Future

NiSCA's Continuing Challenge

Giving our customers what they want – in R&D – in quality assurance.

NiSCA constantly strives to transform market demands into new technologies. No matter how satisfying a project may be to our engineers, it is the market that ultimately passes judgment on its value. It is precisely for this reason that we are ready to boldly challenge the perceived limits of current engineering when it may yield what our customers need. This stance of ours will not change. NiSCA is also working to further raise the level of professionalism of each of its engineers, with the goal of "one achievement per person."

NiSCA Corporation was established in 1960 and today has over 830 employees in four locations. Our motto of "Creation of Value for the Future" is evident in its investments for future success:

A reinforced quality assurance program through ISO 9001 certification. In January 1995, NiSCA received ISO 9001 certification, an international standard for quality assurance. Our QA program has received recognition on an international level. We strive to offer products which will satisfy all our customers using reliable quality from the initial design through after-sale service.

An environmentally conscience view through ISO 14001 certification. This irreplaceable world in which we live is now undergoing environmental turmoil, even as science and technology continue to surge forward. As a corporation contributing to society with the motto of "creation of value for the future," NiSCA received, in September 1999, international ISO 14001 certification for our environmental management system. Specifically, we have begun making efforts to use power and water more efficiently, appropriately reducing such waste as building materials and scrap paper, and other similar activities. All of us at NiSCA are commit-



ted to working together in the same spirit of accepting challenges that has served us well in R & D, to grapple with this problem.

NiSCA Corporation offers a broad product line ranging from ID card printers to paper handing systems for the photocopier industry. The company's ability to manufacture many of its required components is critical to our success in controlling quality and reliability in our product offering.

Since the NiSCA ID Card printer's introduction into the marketplace in 1994, NiSCA printers have been producing high quality full color ID cards for corporations, education, and government organiza-

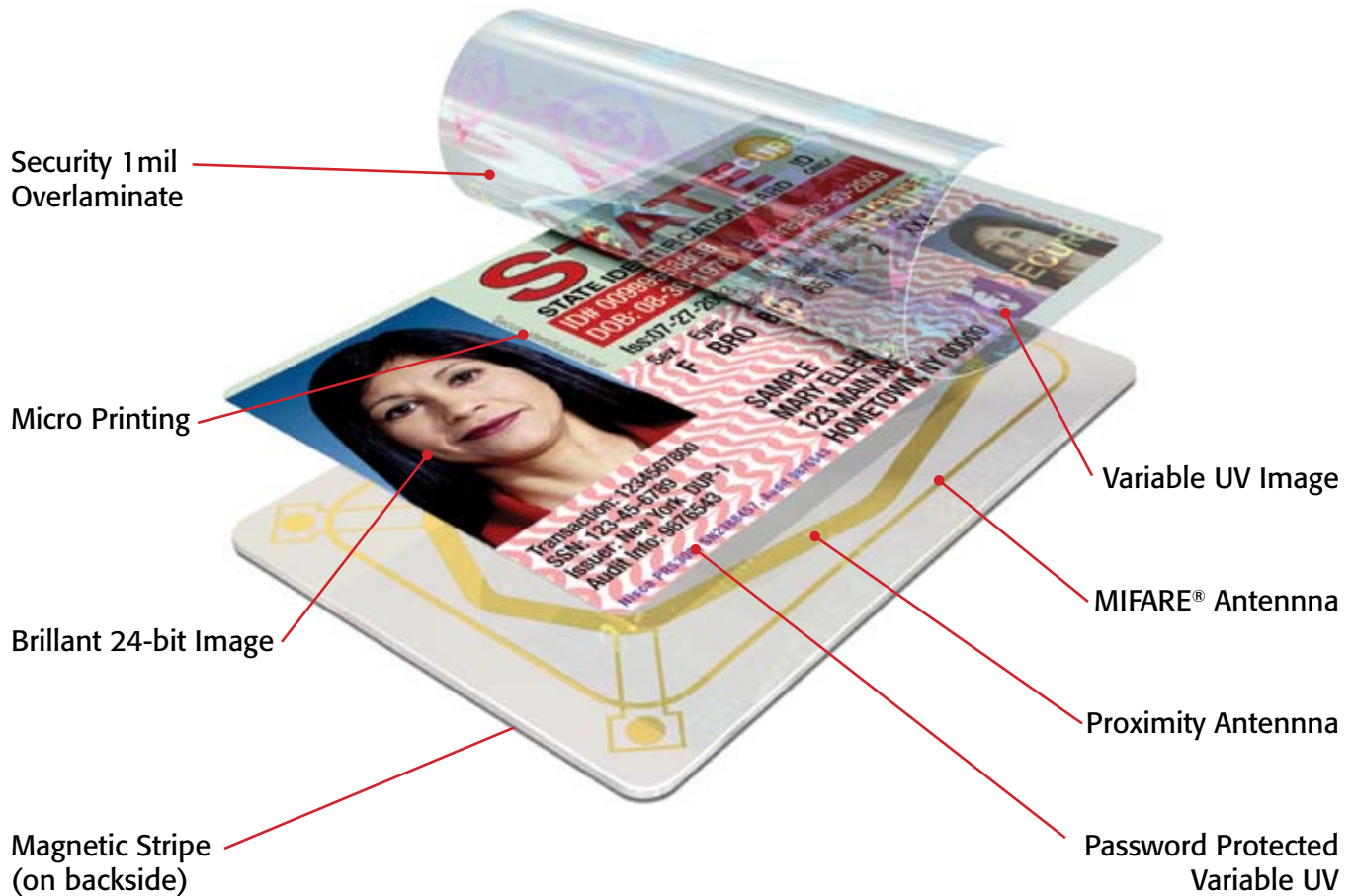
tions. With thousands of hard-working printers and hundreds of loyal Dealers, VAR's, and System Integrators around the world, NiSCA continues to be the leader in the Identification Card Printing market place.

NiSCA technological leadership is obvious market wide:

1. Delivered the first dual sided printer, 1994
2. Delivered the first easily changeable ribbon cassette, 1994
3. Delivered the first self-aligning print head, 1996
4. Delivered the first modular lamination unit, 1996
5. Delivered the smallest dual printing and laminating system, 2000
6. Delivered the fastest dual sided printer, 2004

NiSCA ID card printers are sold through the Team NiSCA sales organization, located in Somerset, NJ, USA. The facility in Somerset provides sales, stocking, and warranty services for NiSCA products sold globally.





The most common security features on today's ID Cards are: custom and generic holographic over-laminates, pre-printed micro- or nano-text on cards, and embedded holographic images on the card surfaces. Experts in security printing all agree that the more security features that are in a document, the less likely that document will be counterfeited. In an ideal situation, every ID Card printed would have at least three security features.

The NiSCA ID Card Printers are one of the most versatile printing foundations on the market. With the newest security features added, the vast combinations are endless.

With the easy installation of a NiSCA laminator to an existing printer installation, you can upgrade your system to increase security in a matter of minutes.

The PR53XX Series provides support for a multitude of security features which include:

- UV printing of static or variable images
- Micro text printing
- Full 1 mil security overlaminates with various holographic and ink options
- MagStripe encoding on track 1,2, and 3 in high- or low-coercivity

- Password protected variable resin or UV printing - allowing the automated printing of the printer's serial number, printer's model number, date of printing, and variable demographic data.
- Smart Card features include Contact IC Chip and RFID from HID, MIFARE, and Legic technologies.

NiSCA was the first company, in 1998, to offer the modular laminating unit attached to the printer. Today, that same design has proven its effectiveness by laminating many millions of cards at thousands of locations.

The secret to the design is inside the orange roller – a halogen heat lamp. This specially designed "heat roller" offers extremely quick heat up and cool down times - you can begin to print and laminate in less than 2 minutes. The heat roller also offers an extremely long life, and is more energy efficient than the common heating element used in other systems.

The modular design is optimal for field upgrades, as no tools are required to add a laminator to an existing NiSCA printer installation. When the laminator is attached to the printer, the printer automatically configures the laminator. This is ideal for serviceability and ease of integration.

NiSCA PR53XX

The PR53XX Printer third generation series offers brilliant images printed on CR80 and CR79 PVC cards with thicknesses ranging from 20 to 50 mils. The PR53XX series provides a well priced full-featured printer, offering the following industry leading specification highlights:

Print Quality:

- Full color edge to edge printing
- 300dpi dye-sublimation printing technology
- 24-bit Color – continuous tone printing
- 256 Grayscale bitmap in all color mode



PR5300

Originally introduced in 2000, the PR5300 has proven its performance and reliability over the years in applications such as driving licenses, printing bureaus, access control badges, and standard corporate identification cards.

- Variable UV printing
- 103 cards per hour printing speed
- Dual sided printing
- Dual sided lamination with alternating patch options
- USB 2.0, Micro SCSI II, or Parallel

Optional Accessories:

Security Overlamination w/ PR5302

- 1mil patch
- Thinfilm/foil

Encoding

- MagStripe

Cleaning Kits:

- Fully accessorized 10,000 print kits

Reliability:

- MTBF (Mean Time Between Failure) 100,000 cards*
- Standard 2-year warranty
- ISO 9001 Certification

Printer /PC Communication:

- NiSCA print driver continuously maintains 2-way communication between the software application and the printer at all time
- Printer status information available in the NiSCA Print Spooler Window
- Remote status & diagnostics of printer is available via Badging Applications



PR5310 SMART CARD

Provides support for:

- HID Corporation's Prox and *iCLASS™* smart card technology
- Philips Corporation's MIFARE® smart card technology

All modules are integrated into the printer for seamless printing/reading/encoding functions.

A software development kit is available from Team NiSCA at no-charge to allow for easy integration of the necessary commands.

- Variable UV printing
- 110 cards per hour printing speed*
- Dual sided printing
- Dual sided lamination with alternating patch options
- USB 2.0, Micro SCSI II

Optional Accessories:

Security Overlamination w/ PR5302

- 1mil patch
- Thinfilm/foil

Encoding

- MagStripe
- RFID

Cleaning Kits:

- Fully accessorized 10,000 print kits

Printer Series

Modular Systems:

- Modular inline encoding capability – field installable and interchangeable magstripe and smart card encoding modules: Contact Chip, HID, *iClass™*, MIFARE®, (PR5310 & PR5350)
- Option single or dual lamination systems depending on site requirements

Environmental Friendly

NiSCA is committed to the protection of human health and prevention of pollution by taking into consideration the complex and interconnected relationship of our ecosystem. It maintains management systems designed to ensure compli-

ance and support integration of environmental, health, and safety (EHS) considerations into its business process. NiSCA's dedication to and leadership in meeting the EHS government requirements are evident in the recent renewal of its ISO 14001 Environmental Management System (EMS) Standard certification.

Today the printers sell on their strong reliability, excellent price point, and brilliant image reproduction. Now they feature a two-year warranty, so it's a safe investment for your identification card printing needs.



PR5350 HIGH SPEED

High-speed printing:

- 155 cards per hour printing speed*
- Dual sided printing
- Dual sided lamination with alternating patch options
- USB 2.0

Provides support for:

- HID Corporation's Prox and *iCLASS™* smart card technology
- Philips Corporation's MIFARE® smart card technology

All modules are integrated into the printer for seamless printing/reading/encoding functions.

A software development kit is available from Team NiSCA at no-charge to allow for easy integration of the necessary commands.

Optional Accessories:

Security Overlamination w/ PR5302

- 1mil Patch style
- Thinfilm / foil

Encoding

- MagStripe
- IC Contact
- RFID

Cleaning Kits:

- Fully accessorized 10,000 print kits



PR53LE SINGLE SIDED

Easy to install USB drivers that are compatible with the latest Windows operating system. Ideally suited to education, corporate, transportation, and emergency services, the PR53LE provides the best combination of reliability, print quality, and warranty coverage in the market today.

- Micro text printing
- Single sided printing
- USB 2.0

Optional Accessories:

*Security Overlamination
not available

Encoding

- RFID

Cleaning Kits:

- Fully accessorized 10,000 print kits

NiSCA

Smart Card Printer

A Smart Card ID is a plastic card with a built-in microprocessor and/or memory chip carrying personal identification data. When inserted into a reader, it transfers data to and from a central computer.

There are two categories of Smart Cards. The first is a Contactless Smart Card. It has no visible module and communicates by means of a radio frequency signal. Physical contact between the card and a reader is not needed. This type of technology is also known as RFID (radio frequency identification). The second category is known as a Contact Smart Card. It operates by physical contact between the reader and the smart card's contacts.

There are advantages and disadvantages in both categories and the choice between which technology to invest in will greatly depend on your particular application, card usage, reader, and networking technology available.

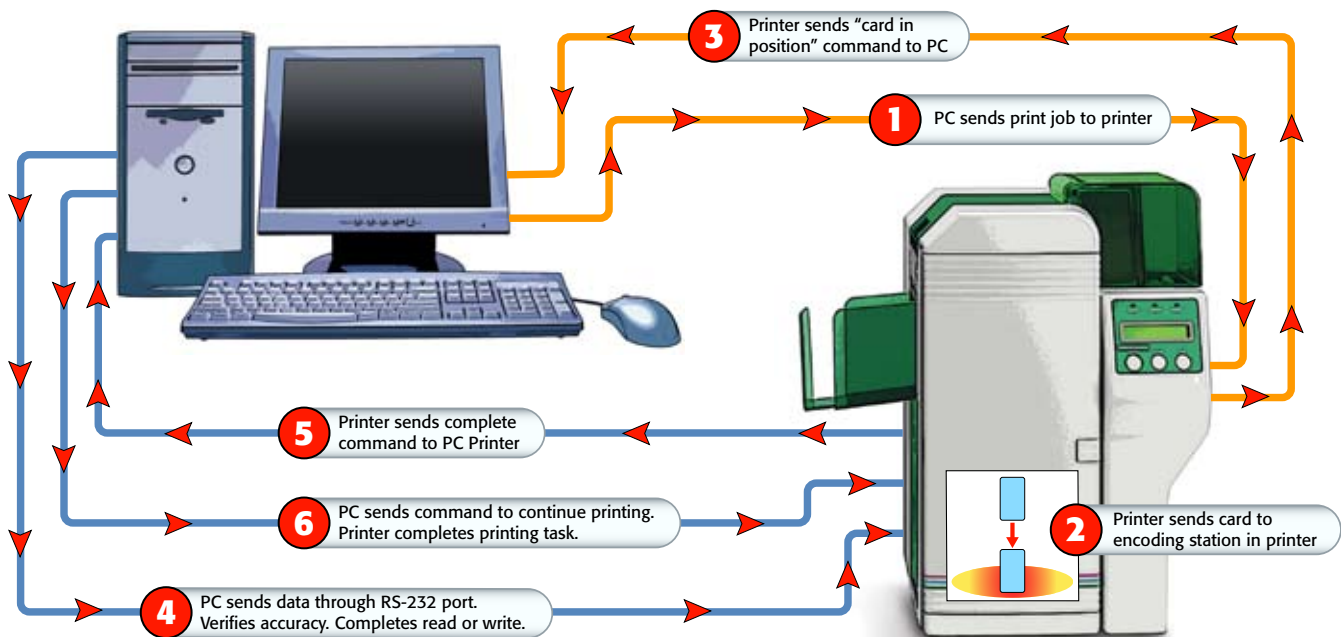
Currently, the majority of smart cards are either programmed (written) or read manually after the printing process has oc-

curred. This process is time consuming – as a person has to manually insert a card into another device, identify each card in the system, and write to or read from it. There are also occurrences of bad chips, meaning that the chip being written to or read from is faulty. In this case, you have printed on a card that is not usable and have wasted the ink ribbon.

NiSCA has developed a process for integrating smart card technology into the ID card printing process. We have invented an in-line process that saves time and money by programming / reading the card in the printer before the printing starts.

What makes the NiSCA process extremely unique is that the printer always knows the position of the card during the process. This is critical when programming or reading smart cards to ensure correct programming or reading is occurring to the correct card.

ENCODING STEPS

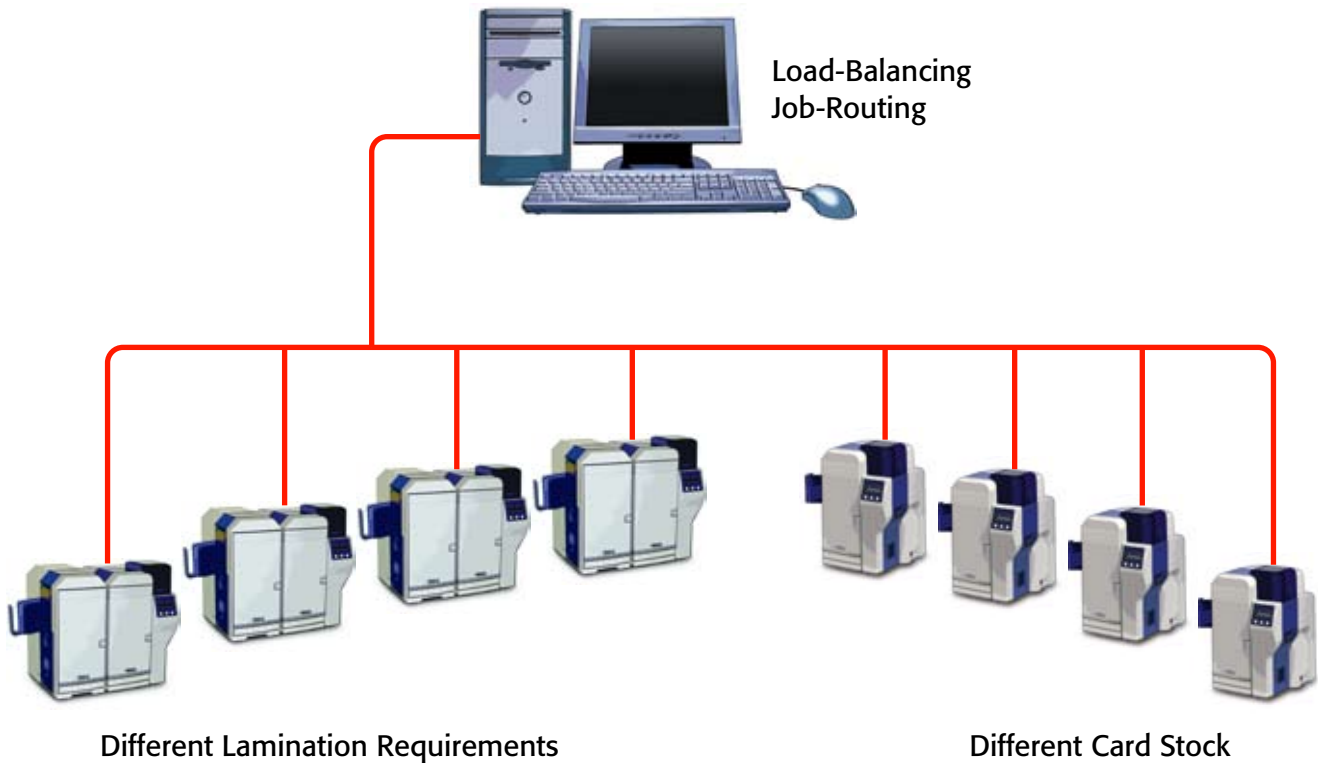


NiSCA CPS

Central Production Solutions

SERVICE BUREAU APPLICATION

8 USB Printers on 1 PC



Module solutions have always been a staple for the NiSCA line of desktop card printers. Since our inception in 1994 the PR5002 printer offered modular flip-turn stations, encode stations, and lamination stations. Today, our product line has evolved but not varied from this fundamental concept.

The NiSCA module concept is a perfect fit for large-scale production or central issuance of secure credentials. If one printer or laminator goes down, the remaining units continue to function while a replacement module is easily set in its place - production never stops. Numerous US Government Agencies, seven US States drivers' license programs, four countries, and thousands of companies have adopted the NiSCA modular solution.

Our latest advancement in the modular concept comes with the introduction of the PR5300 and PR5350 printers with USB 2.0 bus protocol. NiSCA's USB printer firmware and drivers act in the same manner as SCSI device in which each printer is individually addressable, controlled, and monitored. NiSCA's

firmware and driver can independently communicate with and manage up to 8 NiSCA printers on a single computer.

Eight printers on a single computer provide extremely high throughput for card printing. Add-on the lamination module to provide for layered security; and the in-line smart card encoding (available in the PR5350) and you have a highly precise and intelligent production solution for high value cards and massive projects.

Summary of NiSCA CPS:

High-speed printing (based on 8 PR5350 printers)*:

- 1200 cards per hour - YMCKO
- 1040 cards per hour - YMCKO
- 840 cards per hour - YMCKO / K (dual sided print)
- 760 cards per hour - YMCKK / K / Laminate (dual sided print / single side lamination)

User Friendly

Features:

- Automatic cleaning, the industry's first ribbon cassette, quick-change print head, and - as always - NiSCA's simple to read and use 2-line LCD display.
- RoHS (Restrictions of the use of certain Hazardous Substances) Compliance. The RoHS directive requires producers of electronic equipment to reduce the concentration of hazardous materials to acceptable levels by July, 2006. NiSCA achieved RoHS compliance for all featured models.



Specifications

	PR5300	PR5310	PR5350	PR53LE
300dpi, 24-bit continuous tone printing	Yes	Yes	Yes	Yes
Dye-sublimation printing	Yes	Yes	Yes	Yes
Dual sided printing	Yes	Yes	Yes	No
Edge-to-edge printing	Yes	Yes	Yes	Yes
Inline encoding options	Mag/IC/RFID	Mag/IC/RFID	Mag/IC/RFID	RFID
Separate image and function memory	Yes	Yes	Yes	Yes
Extended image memory, MB	Yes, 8	Yes, 8	Yes, 16	Yes, 8
Separate memory modes	Yes, 5	Yes, 5	Yes, 5	Yes, 4
Parallel processing	Yes	Yes	Yes	Yes
Printing speed YMCKO*, cards / hour	110	110	155	134
Ultraviolet and micro printing capability	Yes	Yes	Yes	Yes
Interface	SCSI, Parallel, & USB	SCSI, Parallel, & USB	USB	USB
Card Size	CR79 & CR80	CR79 & CR80	CR79 & CR80	CR79 & CR80
Card Thickness, mil	20 to 50	20 to 50	20 to 50	20 to 50
Card input/output hopper	100/100	100/100	100/100	100/100
Windows® 95/98/ME/NT/2000/XP	Yes	Yes	Yes	Yes
Security overlamine add-on module	Yes	Yes	Yes	No
Warranty	2 Years	2 Years	2 Years	2 Years
Years of service	Since 2000	Since 2004	Since 2004	Since 2005

* Please contact Team NiSCA for more information.

ISO 9001, ISO 14001 certified

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