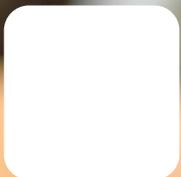


DNP

CARD PRINTERS

protect & ensure your identification



DNP CX-D SERIES

- **CX-D90HS** (600 dpi, double sided printer)
- **CX-D80DS** (300 dpi, double sided printer)
- **CX-D80SRS** (300 dpi, single sided printer)

As the latest in the CX-D Series, the printer delivers the maximum impact and ease-of-use with glossy photo, real edge-to-edge printing, remains free of printhead damage and offers real versatility all with an extreme smaller body design. DNP CX-D90HS/CX-D80DS/ CX-D80SRS have a thermal retransfer printing engine of which quality and reliability are acclaimed by users worldwide.

Usage

DNP CX-D series have been supplied for:

- National ID cards
- Driving licenses
- Ministry officer ID cards

CX-D90HS

600 dpi high resolution

300 DPI

600 DPI

Colors, logos and fine characters, which are difficult to print by conventional card printers, can be printed clearly

Micro text capacity



The high resolution of 600 dpi allows printing crisp, tiny characters.

Fast Printing Mode

25 seconds / 1 card



CX-D90HS

Specifications

	CX-D90HS(NEW!)	CX-D80DS	CX-D80SRS
Dimension(W*D*H)	346*326*360mm	343*322*335mm	
Weight	15.8kg with all optional units installed	15.5kg with all optional units installed	13.0kg without optional unit
Resolution	600dpi Double sided printing	300dpi Double sided printing	300dpi Single sided printing
Print speed	Normal mode	About 30 sec	
	Fast mode	About 25 sec	-
Input & output capacity (t=0.76mm)	120 cards *250 cards with option parts	100 cards	
Useful feature	Mini PC storage space 220*208*44 mm (W*D*H)	-	
Power supply	Maximum 3.5A (100 to 120V), Maximum 1.6A (220 to 240V)		
Operational conditions	Temperature 15°C to 30°C , Humidity 35% to 70% non condensing		
Printing method	Dye sublimation / resin thermal retransfer		
Printable area	Full bleed (Real edge-to-edge)		
Interface	USB(Ver2.0) Full-Speed(12Mbps) / Hi-Speed(480Mbps) 10BASE-T/100BASE-TX ethernet		
Card	Size;CR-80 ISO7810 (54.0mm*85.6mm*0.76mm) Type; PVC, Composite PVC, PET-G, Polycarbonate(Note: firmware installation is required)		
Supported platform	Windows10 32bit/64bit, Windows11, Windows Sever 2016/2019/2022		
Ink ribbon	YMCK (1.000 images), YMCKK (750 images), YMCKUV (750 images), YMCKPO (750 images)		
Traceable functions	In the new models of printers and ribbons traceable function are added to improve maintenance quality. Following these changes, it may not work properly if the distribution route of the printers and ribbons are different.		
Options	<ul style="list-style-type: none"> - Magnetic stripe encoding (HiCo/LoCo) - Contact chip encoding (case & reader/writer) - Contactless chip encoding - Bend remedy unit - Lamination unit (CL-600S/D) 		
Safety regulations	FCC, CE, UL, VCCI-B, FCC Class B, EN Class B, RoHS, CCC		

Security Features

IP Sec

IP Sec prevents stealing information of printed data via network connection.

Security Erase



It makes personal information difficult to read and makes it easy to dispose of used ribbon. Besides YMCK, Security Erase is now available at YMCKK and YMCKUV ink ribbon.

Dye-Sub UV ink



UV ink makes printing completely invisible by flat printing ink compared to resin UV. It increases protection against counterfeit cards.

Security Lock



Self-type lock for card hopper and front door set via Status Monitor is equipped. And what's more, Kensington lock is equipped to guard your printer.

DNP CL-600 LAMINATOR

- **CL-600D** (Double sided laminator)
- **CL-600S** (Single sided laminator)

The CL-600 Laminator provides you definite durability and security on a card printed by a DNP CX-D series. This is essential for any ID card everywhere, such as governmental applications, corporate & student IDs and even for various membership cards.

Easy to connect



Adopting infrared communication with the CX-D, no cable is needed. Through the CX-D Status Monitor, all the settings are consolidated.

Picture: the CL-600 Laminator on the left, combined with the CX-D80 card printer on the right.



CX-D80DS/SRS

Specifications

	CL-600D Double sided	CL-600S Single sided
Dimension(W*D*H)	210*333*360mm	
Weight	Less than 8.0kg	Less than 6.5kg
Laminating side	Double sided	Single sided
Laminating speed	16 – 36 sec per card	
Connection	Infrared communication with CX-D series (90DS/80DS/80SRS)	
Power supply	Maximum 3A (100 to 120V), Maximum 1.5A (220 to 240V)	
Operational conditions	Temperature 15°C to 30°C, Humidity 35% to 70% non condensing	
Lamination method	Thermal roller transfer	
Heat roller temperature	90°C to 180°C (adjustable on 5°C basis)	
Speed configuration	3mm/sec – 12mm/sec (adjustable on 0.5mm/sec basis)	
Lamination Media	<ul style="list-style-type: none"> - DNP Generic Hologram Overlay 1.000 images/roll - Clear 1.0 or 0.6 mil patch 600 images/roll - Clear 1.0 or 0.6 mil patch with IC chip cut 600 images/roll - Customized hologram patch/overlay - LED hologram patch - Lippmann hologram patch 	
Other features	<ul style="list-style-type: none"> - To guard your laminator and media, security lock (front door) and slot (back side) are equipped - Patch-positioning adjustment is available 	
Safety regulations	FCC, CE, UL, VCCI-B, FCC Class B, EN Class B, RoHS, CCC	

DNP Lamination Media Line up

DNP's unique holographic products:

LED Hologram Patch



Covert image appears by exposing to LED point light. Easy authentication by LED on mobile phones.

Lippmann Hologram Patch



A very clear 3D effect can be observed when it is tilted vertically and horizontally.

Clear Patch film and Generic holographic Overlay



The clear patch film and overlay film are available for this model. We can also provide your own custom hologram Patch and Overlay film which gives your card extra security.

PRODUCTS FOR HIGHER SECURITY

DNP is supplying products that enhance your cards' security level to meet increasing demands for high-security ID Card issuance.

1. COUNTER FALSIFICATION BY CUSTOM HOLOGRAM

DNP's Advantages as a Hologram Manufacturer

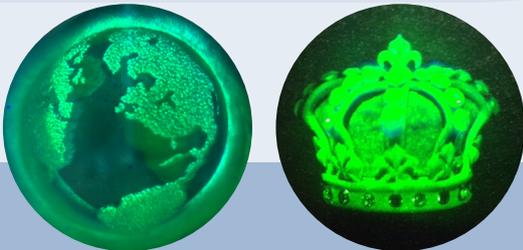
Advantage 1: DNP's achievement

DNP is a pioneer that has developed holograms for more than 40 years.

- DNP's hologram is widely adopted in wide range of anticounterfeiting efforts for ID cards, credit cards, certificates, security packages, etc.
- DNP provides two types of hologram as below.

Lippmann Hologram (Volume Hologram)

- Green color
- Vertical & horizontal 3D effect
- Very limited suppliers in the world
- In-house materials & equipment
- World's first transferable Lippmann hologram
- Level 1 through Level 4 security features can be included



Embossed Hologram

- Rainbow color
- Representing 3D shape by using 3D image
- Computer graphics and E-beam lithography
- In-house materials & equipment
- Large production at low cost
- Level 1 through Level 4 security features can be included



Advantage 2: Wide range of security features

Available security features

Level 1

- Guilloche(Fine line pattern)
- Morphing pattern
- Micro-text

Level 2

- Flipping images
- Nano-text
- Contrast reversal by rotating (90°)

Level 3

- Laser reconstruction (1 image)
- Hidden LED Pattern
- Laser reconstruction (2 images)
- Contrast reversal by rotating (180°)

Level 4

- Full color 3D-CG object
- 3D-CG object
- 3D-Micro-text (CG)
- Hidden Micro-text (CG)



Advantage 3: Highly secured control and all process within DNP Group
 DNP can complete all required processes for manufacturing hologram.

Design & Data creation

Origination: Master plate making

Special Material production

Mass production: Hologram Duplication and Post-process (Adhesive coating, Slitting, Metallizing, Roll winding, inspection etc.)

Security Holograms

Hologram with special security features can work as effective remedy for counterfeiting. As hologram manufacturer, DNP can supply custom hologram film products with your original design. Your original hologram can be a powerful defence against card counterfeiting.

Case 1: Custom emboss hologram lamination

3D image with security features can make it difficult to copy. DNP can apply advanced features e.g. LED readable text, nano text and others to hologram.



Case 2: Lippmann hologram lamination film is only available at DNP

Outstanding 3D image of Lippmann hologram can give anti-counterfeiting method function to the cards in addition to higher creativity.



Case 3: (Under development) Holographic Retransfer INTM

It is an INTM with holographic image. If it is used, holographic image is transferred to cards during printing process. You can have hologram lamination without Laminator.



2. PRINTING ABILITY ON POLYCARBONATE CARDS



Difficulty to print on polycarbonate

Polycarbonate has nature of low ink adhesion. Most of the card printers on the market requires special ink-ribbon to print on the Polycarbonate cards. It makes printing cost higher and makes efficiency lower.

CX-D printers solved the problem to print on polycarbonate

DNP developed new firmware to print Polycarbonate to meet growing demands for Polycarbonate ID cards. It enables our printer to print on Polycarbonate with existing ink-ribbon, which is cost-effective.

Print durability was verified

Tested and passed with criteria of ISO/IEC 7810, ISO/IEC 10373-1 that government project may require.

MEDIA

Ink ribbon & retransfer film for CX-D Series

DNP, known as the world famous dye sublimation ink ribbon manufacturer, has developed the ink ribbon for the DNP CX-D Series card printer. An unique and lateral card-conveyor system makes the ink ribbon's capacity largest in its class. In addition, RFID tag installed in the ribbon enables you to check the status such as ribbon type and remaining amount on Status Monitor at sight.

YMCK (1,000 images/set)

Regular-type ink ribbon. To be supplied with retransfer film anytime as a set.

YMCKK (750 images/roll)

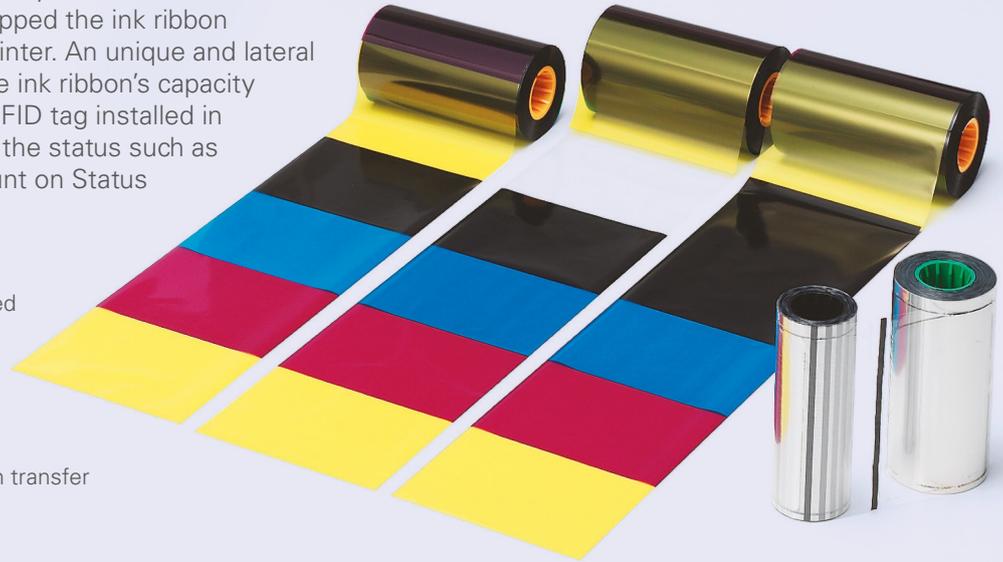
Front: YMCK + Back: K.

YMCKPo (750 images/roll)

Peel off panel to be used to avoid film transfer on and around magnetic stripe area.

YMCKUv (750 images/roll)

Dye diffusion invisible UV printing for security purpose. MAC address is printed.



Retransfer film (1.000 images/roll)

Pet film to be used with any ink ribbon.

Patch & overlay for the CL-600D/S

1.0/0.6 mil Clear Patch (600 images/roll)

To protect image from abrasion, UV, etc.

1.0/0.6 mil Smart card Clear Patch (600 images/roll)

To protect image (for IC chip card).

DNP Generic Hologram Overlay (1.000 images/roll)

Heat transfer to decorate with the hologram.

Customized hologram Patch/Overlay

Custom fabricated film for higher security laminate.

Creating Future Standards



Visit our website for more information:

https://www.global.dnp/biz/solution/products/detail/1193109_4130.html

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