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DTC1000_DTC4000 User Guide

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Section 1: Specifications

The purpose of this section is to provide you with specific information on the Regulatory Compliances, Agency Listings, Technical Specifications and Functional Specifications for the DTC1000_DTC4000 Card Printer User Guide.

Regulatory Compliances

Term	Description
CSA (cUL)	The Printer manufacturer has been authorized by UL to represent the Card Printer as CSA Certified under CSA Standard C22.2 No. 60950-1-03. **File Number:** E145118
FCC	The Card Printer complies with the requirements in Part 15 of the FCC rules for a Class A digital device.
EMC	The Card Printer has been tested and complies with EN55022 / CISPR 22 Class A: and EN55024 standards. (**Note:** Based on the above testing, the Printer manufacturer certifies that the Card Printer complies with current EMC directive 2004/108/EC of the European Community and has placed the CE mark on the Card Printer.) License Number: J99032510
UL	The Card Printer is listed under UL IEC 60950-1 (2001) INFORMATION TECHNOLOGY EQUIPMENT **Note:** This product is intended to be supplied by a Listed Power Unit marked Class 2 and rated for 24 V dc, 3.7 to 5A **File Number:** E145118
Environmental	Power supply Efficiency level IV, RoHS, China RoHS

Agency Listings

Term	Description
Emissions	CE, FCCPart 15 Class A, CRC c1374, CISPR22 Class A,

Standards	EN55022, EN55024, EN61000-3-2, EN61000-3-3,
Safety Standards	UL IEC 60950-1 (2001), CSA C22.2 No. 60950-1-03.

United States

This device complies with Part 15 of the FCC rules. Operation is subject to the following two conditions:

(1) This device may not cause harmful interference.

(2) This device must accept any interference received, including interference that may cause undesired operation.

Note: This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference; in which case, you will be required to correct the interference at his own expense.

Canada

This Class A digital apparatus complies with Canadian ICES-003.

C’et appareil numerique de la classe A est comforme a la norme NMB-003 du Canada.

Caution: Changes or modifications not expressly approved by the party responsible for compliance could void the user’s authority to operate the equipmen

Safety Messages (review carefully)

Symbol	Critical Instructions for Safety purposes
Danger:	**Failure to follow these installation guidelines can result in death or serious injury.** Information that raises potential safety issues is indicated by a warning symbol (as shown to the left). • **To prevent personal injury**, refer to the following safety messages before performing an operation preceded by this symbol. • **To prevent personal injury**, always remove the power cord prior to performing repair procedures, unless otherwise specified. • **To prevent personal injury**, make sure only qualified personnel perform these procedures.
Caution:	**This device is electrostatically sensitive. It may be damaged if exposed to static electricity discharges.** Information that raises potential electrostatic safety issues is indicated by a warning symbol (as shown to the left). • **To prevent equipment or media damage**, refer to the following safety messages before performing an operation preceded by this symbol. • **To prevent equipment or media damage**, observe all established Electrostatic Discharge (ESD) procedures while handling cables in or near the Circuit Board and Printhead Assemblies. • **To prevent equipment or media damage**, always wear an appropriate personal grounding device (e.g., a high quality wrist strap grounded to avoid potential damage). • **To prevent equipment or media damage**, always remove the Ribbon and Cards from the Printer before making any repairs, unless otherwise specified. • **To prevent equipment or media damage**, take jewelry off of fingers and hands, as well as thoroughly clean hands to remove oil and debris before working on the Printer.

Environmental Protection (China-RoHS)

Environmental Protection Use Period is based on the product being used in an office environment.

Traditional Chinese RF Emissions and Safety Statements

传统中文 射频放射及安全指令

安全信息 (小心检查)

标记	重要的安全事项说明安全
危险: 	**未按照说明安装可能造成人员伤亡。** 在可能产生潜在安全问题的地方有警示标记。(如左图所示)。 **为了防范人员伤害**，做带此警示标记的操作前，参考安全信息提示。. **为了防范人员伤害**,在没有特别说明的情况下，修理前关掉电源开关。
小心: 	**此设备对静电很敏感。如果受到静电放电，设备会被损害。** 在可能产生潜在静电安全问题的地方有警示标记。(如左图所示)。 **为了防范损害设备**，做带此警示标记的操作前，参考安全信息提示。 **为了防范损害设备**,在排放电路板和打印头联合装置里面或附近的电线时，请注意观察所有的静电放电设备。 **为了防范损害设备**,贴身佩戴合适的接地装置 (比如：手腕上带一个高质量的接地皮带以免受到可能的伤害)。 **为了防范损害设备，**如果没有特殊说明，在做任何修理前，请取下打印机上的色带和卡。 **为了防范损害设备**,在使用打印机之前，请摘下戒指和手上饰品，仔细清洗手上的油脂。

Technical Specifications

Term	***Function***
Print resolution	• *300 x 300 dpi(11.8 dots/mm)* • *Up to 16.7 million colors, Monochrome*
Printer Memory	*16MB RAM*

Print Area	*CR-80 (3.375"L x 2.125"W / 85.6mmL x 54mmW)*
Print Method	*Dye Sublimation/Resin Thermal Transfer*
Printer Driver & System Requirements	• *Windows XP, Server 2003 and 2008, Vista 32-bit and 64-bit compliance, Linux distributions-Red Hat, open* • *SUSE, SUSE Enterprise, Ubuntu, Fedora Core* • *Mac OS X version 10.0 to 10.5* • *x86 based PC or compatible, Windows 2000, Windows XP, Windows 2003, 500MHz computer with 256MB of RAM or higher, 500MB free hard disk space or higher*
Fargo E-card Software Development Kit	*Support with developed Fargo E-card Software Development Kit (SDK).*
Connectivity	• *Standard USB 2.0 (USB Standard with this option), including single USB cable support for Omnikey 5121 and 5125 encoders* • *Ethernet 10/100 option, including single Ethernet cable support for Omnikey 5121 encoder (separate USB cable required for encoding with the Omnikey 5125 encoder)* • *Full bi-directional status messaging to the PC during the encoding process*
Print Speed	*Indicates the Ribbon type and the number of Ribbon panels printed where Y=Yellow, M=Magenta, C=Cyan, K=Resin Black, O=Overlay, F=Fluorescing Resin* • *YMCKO= 24 seconds per card* • *YMCKOK= 30 seconds per card* • *Resin= 6 seconds per card* • *Print speed indicates an approximate batch print speed and is measured from the time a card feeds into the Printer to the time it ejects from the Printer.* • *Print speeds do not include encoding time or the time needed for the PC to process the image.* • *Process time is dependent on the size of the file, the CPU, amount of RAM and the amount of available*

resources at the time of the print.

Card Size and Types Supported	• *CR-80 (3.362"L x 2.114"W / 85.4mmL x 53.7mmW)* • *CR-79 (3.303”L x 2.051”W / 83.7mmL x 51.9mmW* • *10 mil to 40 mil card thickness* • *Re-writable card technologies (requires special rewritable cards)* • *PVC, Polyester cards with a polished PVC finish*
Printer Dimensions	***DTC1000:*** • *8.83"H x 11.85"W x 8.65"D (weight): 7lbs* ***DTC4000 with Flipper (includes input Hopper):*** • *9.71"H x 18.52"W x 9.92"D (weight): 10 lbs* ***DTC4000 without Flipper (includes input and output Hoppers):*** • *9.71"H x 17.86"W x 9.92"D (weight): 7 lbs*
Environmental Operation	• *20-80% Humidity* • *65° to 80° F / 18° to 27° C Temperature*
Electrical	• *External power adapter: 100-240 VAC, 1.5 A max, output 24Vdc 3.75A* • *50 Hz/60 Hz Supply Frequency* • *Efficiency level IV*
Encoding Options Supported	• *Omnikey 5121 (iClass, Mifare, Desfire)* • *Omnikey 5125 (HID Prox,Indala)* • *Contact Smart Card (requires Omnikey 5121 or 5125)* • *ISO Mag Encoding standard 7811, Parts 1-7. High or Low Coercivity. (Raw Magnetic Encoding option)* • *JIS II Mag Encoding*

Functional Specifications

This Card Printer utilizes two different, yet closely related printing technologies to achieve its remarkable direct-to-card print quality for dye-sublimation and resin thermal transfer.

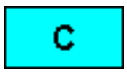
Printer Components: Print Ribbons

The Card Printer utilizes both dye-sublimation and/or resin thermal transfer methods to print images directly onto blank cards. Since the dye-sublimation and the resin thermal transfer print methods each provide their own unique benefits, Print Ribbons are available in resin-only, dye-sublimation-only and combination dye-sublimation/resin versions.

To make it easier to remember which Print Ribbons are which, a letter code has been developed to indicate the type of Ribbon panels found on each Ribbon. This letter code is as follows:

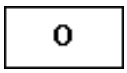
= Dye-Sublimation Yellow Panel

= Dye-Sublimation Magenta Panel



= Dye-Sublimation Cyan Panel

= Resin Black Panel (Premium unless otherwise stated)



= Clear Protective Overlay Panel

= Ultra Violet Fluorescing Panel

Ribbon Types/Count Table

Ribbon type and count used in each Printer.

Ribbon	DTC1000	DTC4000
YMCKO – Full Color/Resin Black/Overlay	250	250
YMCKO Half Panel – Full Color (1/2)/Resin Black/Overlay	350	350
YMCFKO - Full Color/UV Fluorescing/Resin Black/Overlay		200
YMCKK - Full Color/2 Resin Black		
YMCKOK - Full Color/2 Resin Black/Overlay	200	200
YMCFKOK - Full Color/UV Fluorescing/2 Resin		175

Black/Overlay		
K – Standard Resin	1000	1000
K – Premium Resin	1000	1000
Colored Resin	1000	1000
Metallic Resin	1000	1000
KO - Premium Black Resin/Overlay	500	500
BO - Dye-Sub Black/Overlay	500	500
None – Rewritable	Supported	Supported

Printer Components: Blank Cards

Type	**Description**
Card Size	The Card Printer accepts standard CR-80 and CR-79 sized cards.
Card Surface	Suitable cards must have a polished PVC surface free of fingerprints, dust or any other types of embedded contaminants. In addition, cards must have a completely smooth, level surface in order for the Printer to achieve consistent color coverage. • Certain types of Proximity cards have an uneven surface that will inhibit consistent color transfer. • Certain types of smart card chips are raised slightly above the cards surface which also results in poor color transfer.
UltraCard™ Brand Cards	The UltraCard product line, available exclusively as part of HID's Global's Fargo brand secure card issuance solutions, has a long standing reputation among dealers and end-Users for consistent quality in construction. • In addition to blank stock, the UltraCard line is available in a variety of configurations for magnetic stripe, custom holograms and other additional anti-counterfeiting feature • UltraCard™ Premium is the preferred card for Direct-to-Card (DTC®) applications that require a higher quality card. The UltraCard Premium's composite material construction provides for maximum durability, flexibility and card life, with optimal resolution print quality for lamination and fluorescent panel Ribbon printing applications. • UltraCard™ PVC cards are medium-durability cards for a glossy,

	photo quality finish. These cards are manufactured to ensure clean, scratch-free cards for high-quality prints and extended Printhead life.