
	SPECIFICATION Card Reader	Model No.	CRT-288-D001
		Date	2014/05/20
		Ver.	1.0
		Page	1/8

CRT-288-D001-GEAN PRODUCT MANUAL




SHEN ZHEN CREATOR (TECH) CO.,LTD
 ADDRESS: 2/F, M-10 Building, Center Area, High-tech industrial Park Shen Zhen,
 Guangdong, China
 Tel: +86-755-26710345
 Fax: +86-755-26710105
 EMAIL: sales@china-creator.com
 Http://www.china-creator.com

	SPECIFICATION	Model No.	CRT-288-D001
		Date	2014/05/20
	Card Reader	Ver.	1.0
		Page	2/8

Revision Historical Record

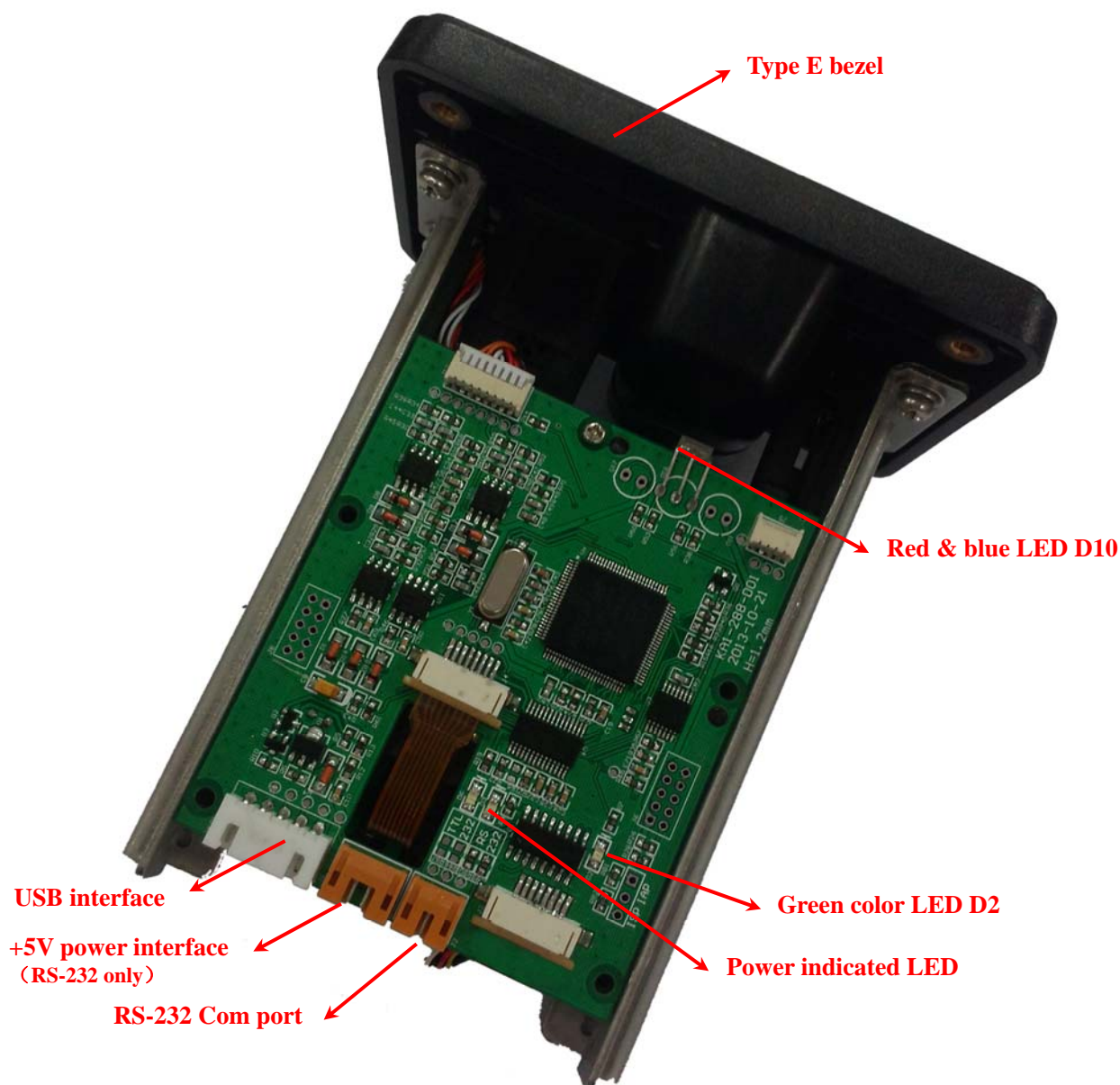
Vision	Date	Content
1.0	2014.5.15	First time release

CREATOR

	SPECIFICATION	Model No.	CRT-288-D001
		Date	2014/05/20
Card Reader		Ver.	1.0
		Page	3/8


Welcome to choose Creator' s products

Please carefully read this manual before you use!



Warning: 1. Any DC power over 7V is prohibition, it may cause ICRW damaged! ! !

2. USB mode and RS-232 mode can not be used simultaneously, you can only choose one of them.

	SPECIFICATION	Model No.	CRT-288-D001
		Date	2014/05/20
	Card Reader	Ver.	1.0
		Page	4/8

1. General View

CRT-288-D001 is a manual insertion/withdraw card reader, performs the following features:

- 1) Read ISO standard magnetic stripe cards and IC card, please refer to specification.
- 2) RS232/USB interface (automatically detect interface)
 - ①. CRT-288-D001 automatically detect interface, when USB is used for power on, ICRW will automatically access USB mode. When ICRW connects to PC with USB, if D2 flashes several seconds then extinguishes, it means the connection by USB is successful,
 - ②. When CRT-288-D001 powered by RS232, ICRW will choose RS232 automatically.
 - ③. Choice of communication interface is decided by the type of power on, it is valid only aims to instant of power on.
- 3) Flexible reading type for magnetic stripe card: Read with insert/withdraw and uploaded passively /actively
- 4) Long Life time (500,000 times):


2. Model Number Specification and Accessories

CRT-288- D 001 - G E A N

2.1 Bezel:



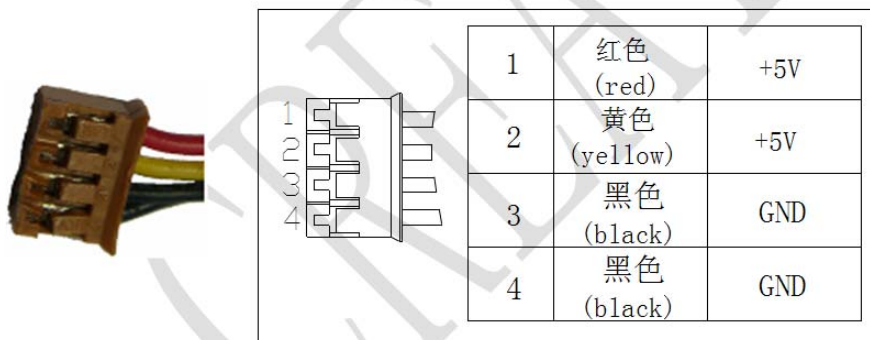
Outline of E Bezel

	SPECIFICATION	Model No.	CRT-288-D001
		Date	2014/05/20
	Card Reader	Ver.	1.0
		Page	5/8

2.2 Standard accessory for RS232 interface:

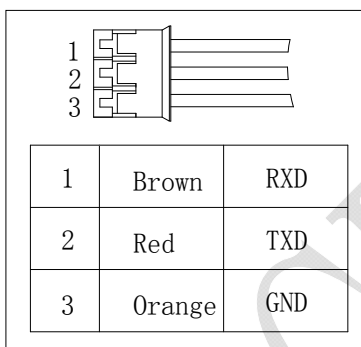
item	S/N	Qty	Remark
4PIN Power Cable	L14-333-153	1	4PIN terminal, length 1.5m
232 serial cable	L10-006-163	1	3PIN terminal, length 1.6m

2.2.1 4PIN power cable, shown as below

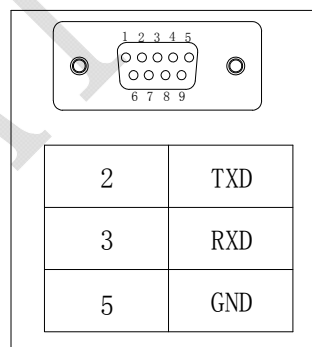


2.2.2 RS232 serial cable

RS232 CABLE

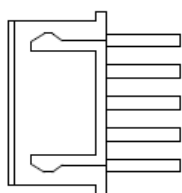
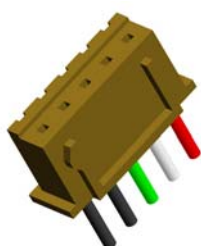


PC DP9PIN Socket




2.3、USB cable

Name	S/N	Qty	Remark
USB cable	L10-008-153	1	5PIN terminal, length 1.5m



1	red	USB_VCC
2	white	USB_DM
3	green	USB_DP
4	black	USB_GND
5	black	USB_GND

	SPECIFICATION	Model No.	CRT-288-D001
		Date	2014/05/20
	Card Reader	Ver.	1.0
		Page	6/8

3. Technical Specification

- 1) Power DC 5V±5% or USB
- 2) Work current < 250mA
- 3) Interface RS232 or USB interface (automatically detect)
- 4) Card specification Width:53.92~54.18 mm, Len: 85.47~85.90 mm Thick:0.76mm ± 0.08 mm
- 5) Net Weight around 180g (without Bezel, accessories and package)
- 6) Dimensions refer to dimension drawing
- 7) Reliability
 - A. Vibration: No negative effort on all functions under normal condition after exposed 15min. each on X, Y and Z directions of 2mm amplitude, from 5 to 50Hz/min vibrate and acceleration is 2m/S²(0.2G).
 - B. Shock: No negative effort on all functions under normal condition after shock one time on X, Y and Z of 294M/S², 11ms peak acceleration shock.
- 8) Life time

Magnetic Head: 1,000,000 pass Min Latch: 500,000 times Min

IC contact and contact carrier: 300,000 times Min
- 9) Error rate

Magnetic card: <1/1,000 (15~25°C, 35~60%RH, perfect and standard card)

IC card: <1/1,000, (15~25°C, 35~60%RH, perfect and standard card)

RFID card: <1/10,000, (15~25°C, 35~60%RH, perfect and standard card)
- 10) Warp card The average height of abnormal card < 2mm
- 11) MTBF >1 X10⁵ hrs (Electronic components only)

Note: 250 times/day, 25 days/month, 300 hrs/month
- 12) Environment

Operation: 0°C-50°C, 0~90% RH (non-condensing)

Storage: -25°C~80°C, 0~95% RH (non-condensing ,dried before usage)

Normal environment: 15~25°C, 35~60%RH
- 13) IC card standard EMV2000 Level 1, PBOC3.0 ISO7816 (with EMV certificate)


e.g. (AT24C01、24C02、.....、24C256; SLE4442、SLE4428; CPU T=0/T=1)
- 14) Magnetic card standard

Physical characteristics: ISO7810 and 7811 standard compliant

Card dimensions: ISO7810ID-1- type magnetic stripe card compliant

Embossing: ISO7811-1, ISO7811-3 compliant

Recording format: ISO7811-2, ISO7811-4, ISO7811-5, ISO7811-6 complaints

	SPECIFICATION	Model No.	CRT-288-D001
		Date	2014/05/20
	Card Reader	Ver.	1.0
		Page	7/8

4. Maintenance

After long time usage, transportation mechanism would wear and tear, dust on sensor, magnetic head, IC card contact will influence the performance of module, so it should be maintained on a constant basis.

Detail instruction is as following:

- Use a cleaning card with alcohol to clean magnetic head by pulling and inserting in card reader for several times.
- Insert a cleaning card with alcohol and execute auto test IC card several times to clean IC card contact.
- Periodic maintenance: Maintaining the module (Magnetic head, IC contact, Mechanism) every 20,000 cycle is recommended.
(One cycle: card in and card out)

Different components' maintenance is as following:


- 1) IC card contact maintenance: Insert an IC card with alcohol; execute auto test IC card
- 2) Magnetic head maintenance: Insert/pulling a cleaning card with repetition.

5. Cautions

- (1) Make sure power is disconnected before maintenance to prevent the device from damage.
- (2) Oil will dramatically influence card reader's performance, please keep the device from oil absorbent adhesive.
- (3) Active/passive data upload method for magnetic stripe card reading has been designed
- (4) Setting magnetic stripe card reading method: Read when insertion or pulling, set reading mode in DEMO.
- (5) Keep anything away from magnetic head and its cable.
- (6) IC card insertions direction: when cards is inserted from the front, IC chip faces up, the end with IC chip
- (7) Magnetic card insertion direction: Magnetic stripe face down and keep it to the right

6. Reference Documents

- 1) DLL: CRT_288_D001.DLL
- 2) DLL specification
- 3) Protocol: CRT_288_D001_Communication Protocol. PDF

	SPECIFICATION Card Reader	Model No.	CRT-288-D001
		Date	2014/05/20
	Ver.	1.0	
	Page	8/8	

7. Dimensions Drawing

