



Brilliant Technology Co.

Genius 7Q Bill Acceptor User's Manual



BRILLIANT TECHNOLOGY CO.

Brilliant Technology Co.



A、Features :

- 1、 Four ways Acceptance
- 2、 Accept multiple Bill width, 78mm Max.
- 3、 Unfit banknotes detection, Edge tear-off, corner missing.
- 4、 Single hand easy cash box exchange. 500 compact cash box.
- 5、 Attractive Bill entry lighting.
- 6、 Multiple standard Interface
- 7、 Removable Reader unit, easy for clean.
- 8、 High speed Bill transportation system
- 9、 Dimensions : 235mm(H) X 95mm(W) X 172mm(D) with 500 banknotes box
- 10、 Optional Power Supply: DC 12V, 24V (10V-30V Wide Operation Range)
- 11、 Low Power Consumption, Low Standby current
- 12、 Firmware and Data Upload device or On Line Upload
- 13、 Multiple Recognition system design, Anti-Fishing
- 14、 Real time Bill detector in all modes
- 15、 Support Upward and Downward installation

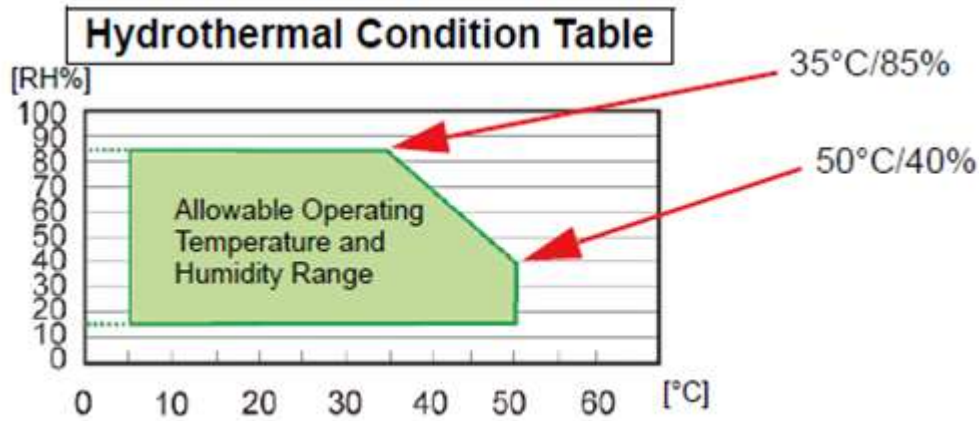
B、 Specifications :

Bill Validation	Worldwide major bank notes
Validation time	< 1 Sec.
Insertion direction	4 directions
Maximum Width	78 mm
Validation Rate	>98%
Acceptance Rate	>98%
Firmware upgrade	Upload Online
Dimension	235mm (H) X 95mm (W) X 172mm (D)
Weight	880g

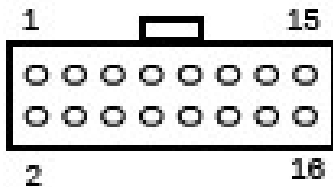
Note: Except dirty, wet, broken or wrinkled notes. (Used in market)

C、 Electrical :

Operation voltage	DC 12V, DC24 (10VDC-30VDC Wide Range)
Operation current	< 1A max.
Standby current	< 10mA
Operation temperature	0°C to +60°C (41°F to 140°F)
Storage temperature	-20°C to +70°C (-4°F to 158°F)
Operation humidity	15% to 85% RH (non-condensed)
Storage humidity	15% to 85% RH (non-condensed)

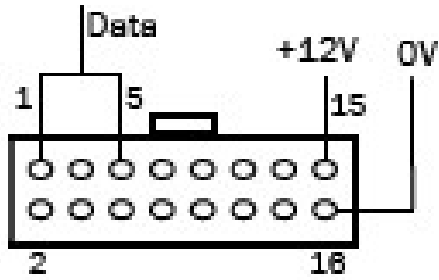


D、Wire Hardness



1. 16 PIN Power and Parallel Data Connection。

Pin No.	INTERFACE	Type
1	Vend 1, Open Collector	Output
2	Vend 2, Open Collector	Output
3	Vend 3, Open Collector	Output
4	Vend 4, Open Collector	Output
5	Inhibit 1, High Inhibit	Input
6	Inhibit 2, High Inhibit	Input
7	Inhibit 3, High Inhibit	Input
8	Inhibit 4, High Inhibit	Input
9	Busy, Active low during operation	Output
10	Escrow, Low active	Input
11		
12		
13		
14		
15	+12VDC	Power
16	GND	Power

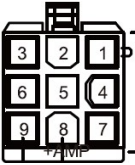


2. 16 PIN Power and SSP Data Connection.

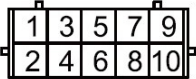
Pin No.	INTERFACE	Type
1	TTL TxD (Tie pin #1 & #5 together for ccTalk)	Output
2	Opto TxD-Em	Output
3	Opto RxD+	Input
4	Opto RxD-	Input
5	TTL RxD (Tie pin #1 & #5 together for ccTalk)	Input
6		
7		
8	Inhibit +	Input
9	Opto TxD-Cl	Output
10	Inhibit -	Input
11	Credit COM	Output
12	Credit NO	Output
13	+5V	Power
14		
15	+12VDC	Power
16	GND	Power



3. Pulse : 12VDC Power+ Data wire

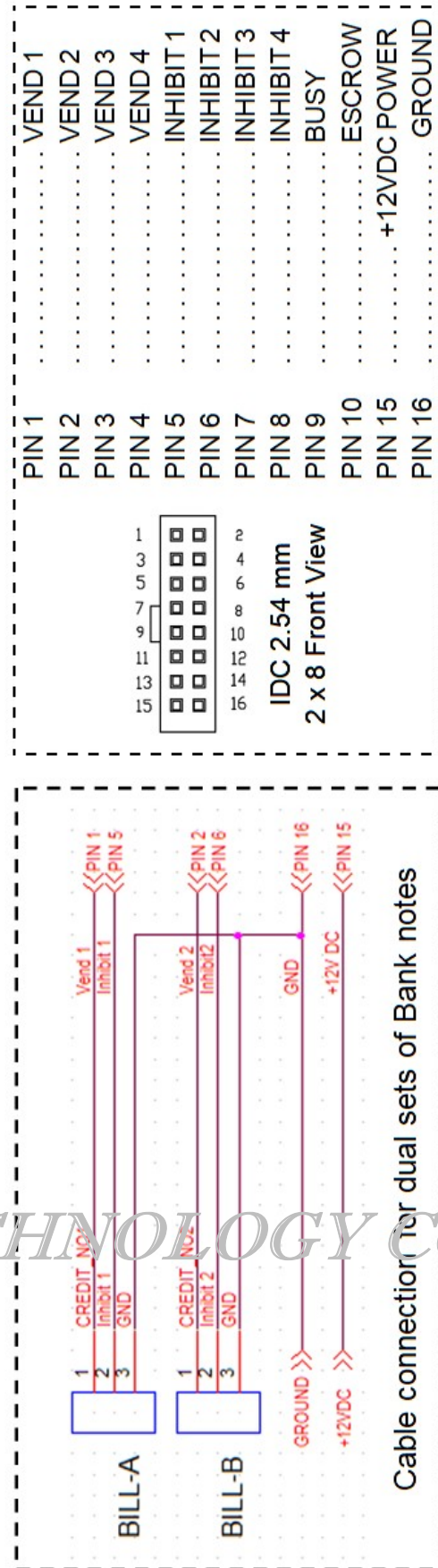
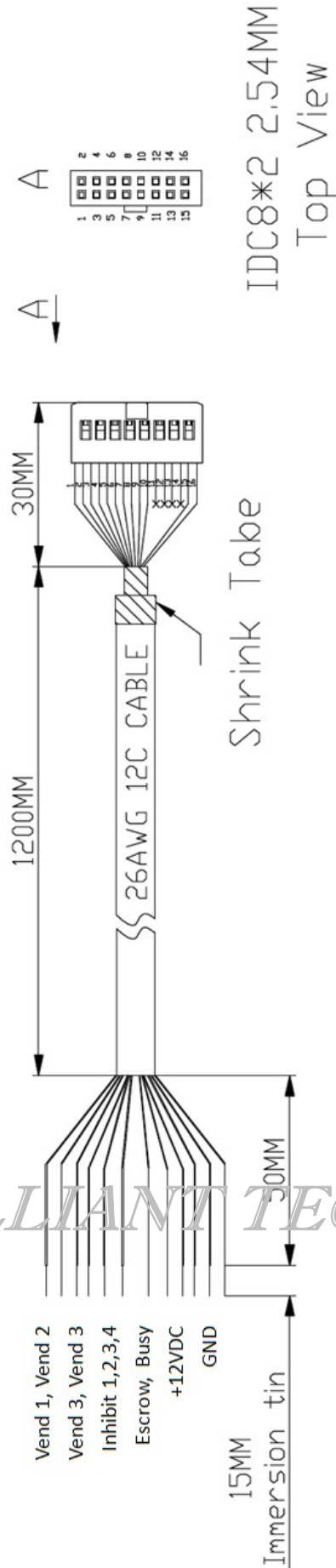
	PIN 1	Yellow Inhibit+
	PIN 2	Green Inhibit-
	PIN 5	Red +12VDC
	PIN 7	BlueCredit Relay (NO)
	PIN 8	PurpleCredit Relay (COM)
	PIN 9	Orange GND
AMP 172340-1 Back View		

4. JTAG and Upload

	PIN 1	 JTCK
	PIN 2	 JTMS
	PIN 3	 JTDO
	PIN 4	 GND
	PIN 5	 NC
	PIN 6	 JTDI
	PIN 7	 VDD +3.3V
	PIN 8	 NJTRST
	PIN 9	 TXD2
	PIN1 0	 RXD2
JST PHD 2.0 mm 2 x 5 Back View		

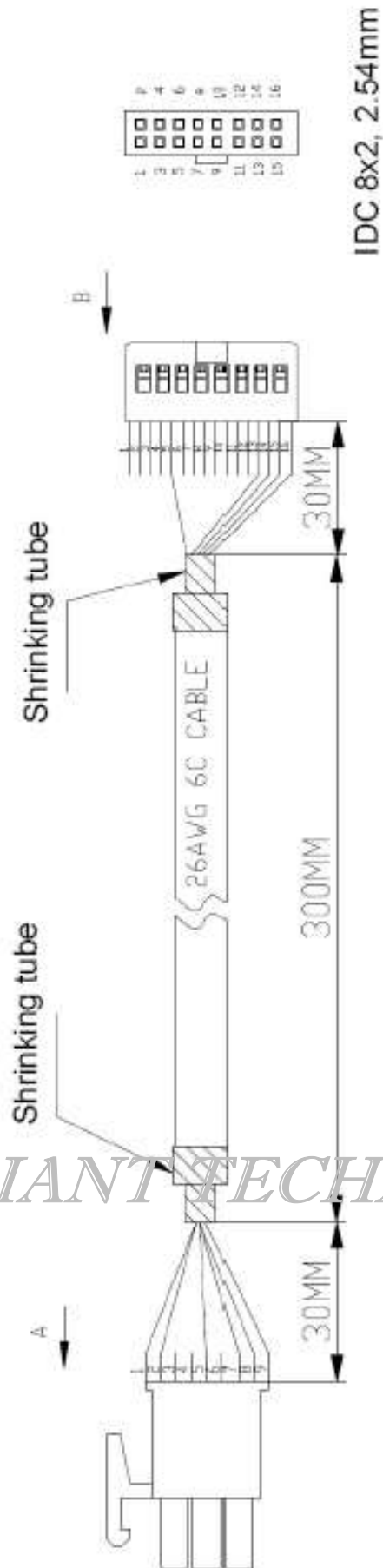


G7Q Power and Parallel Data Cable

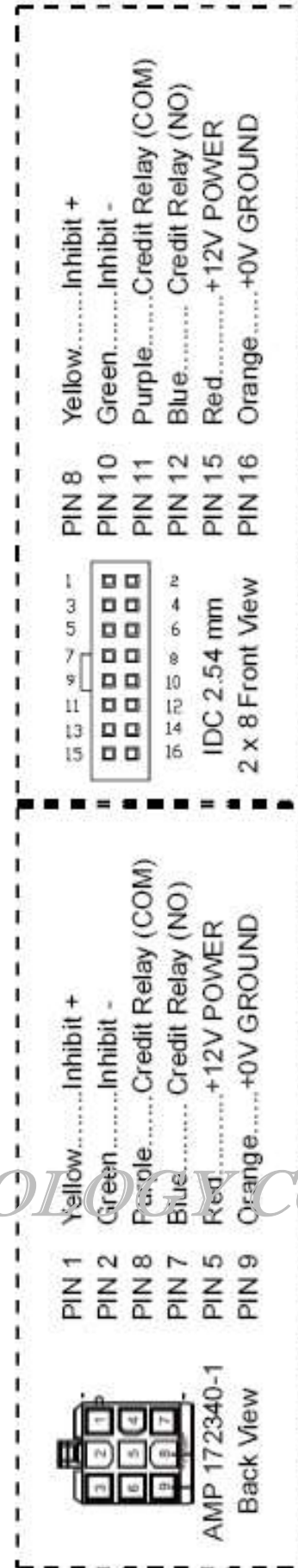


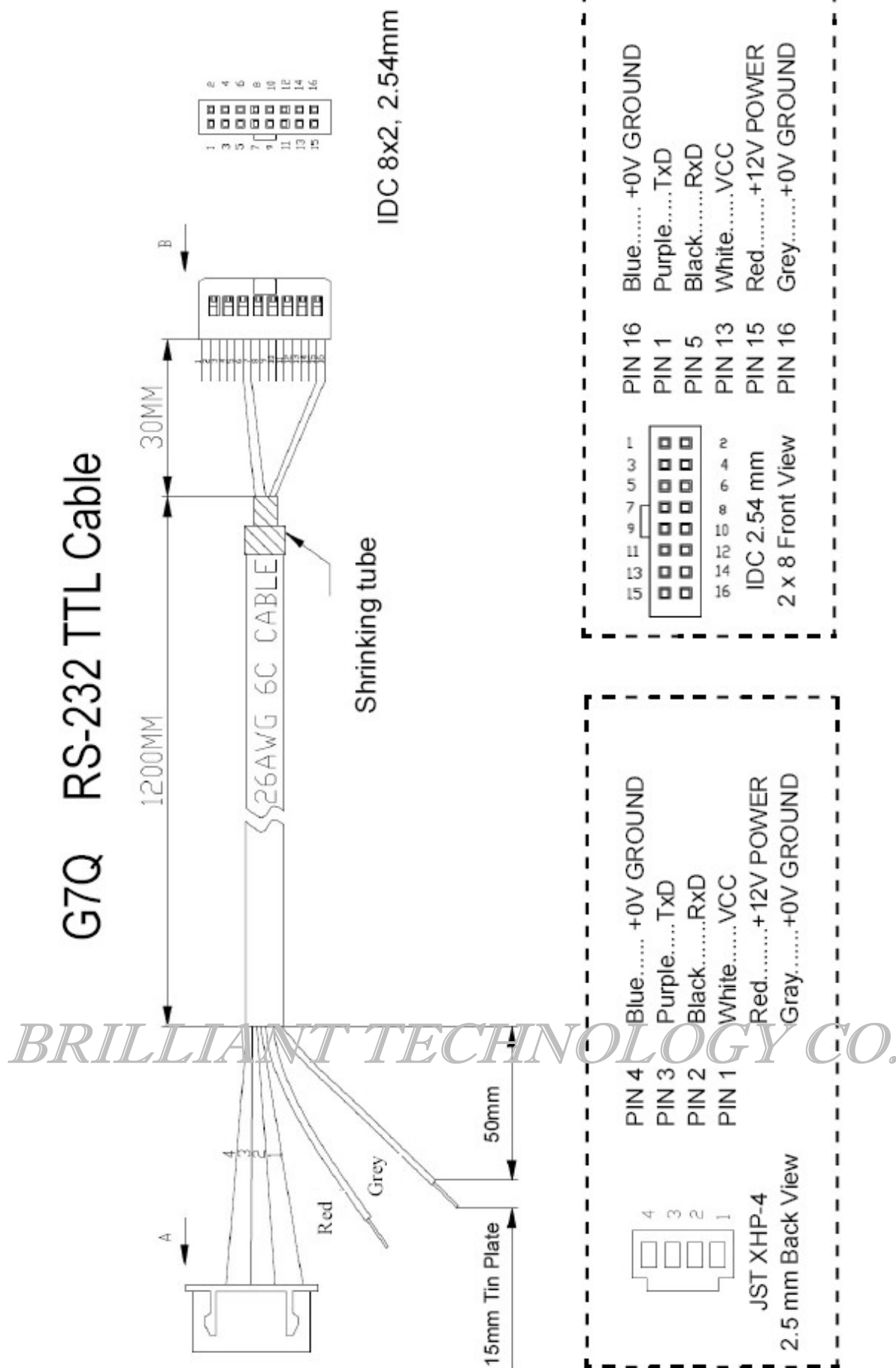


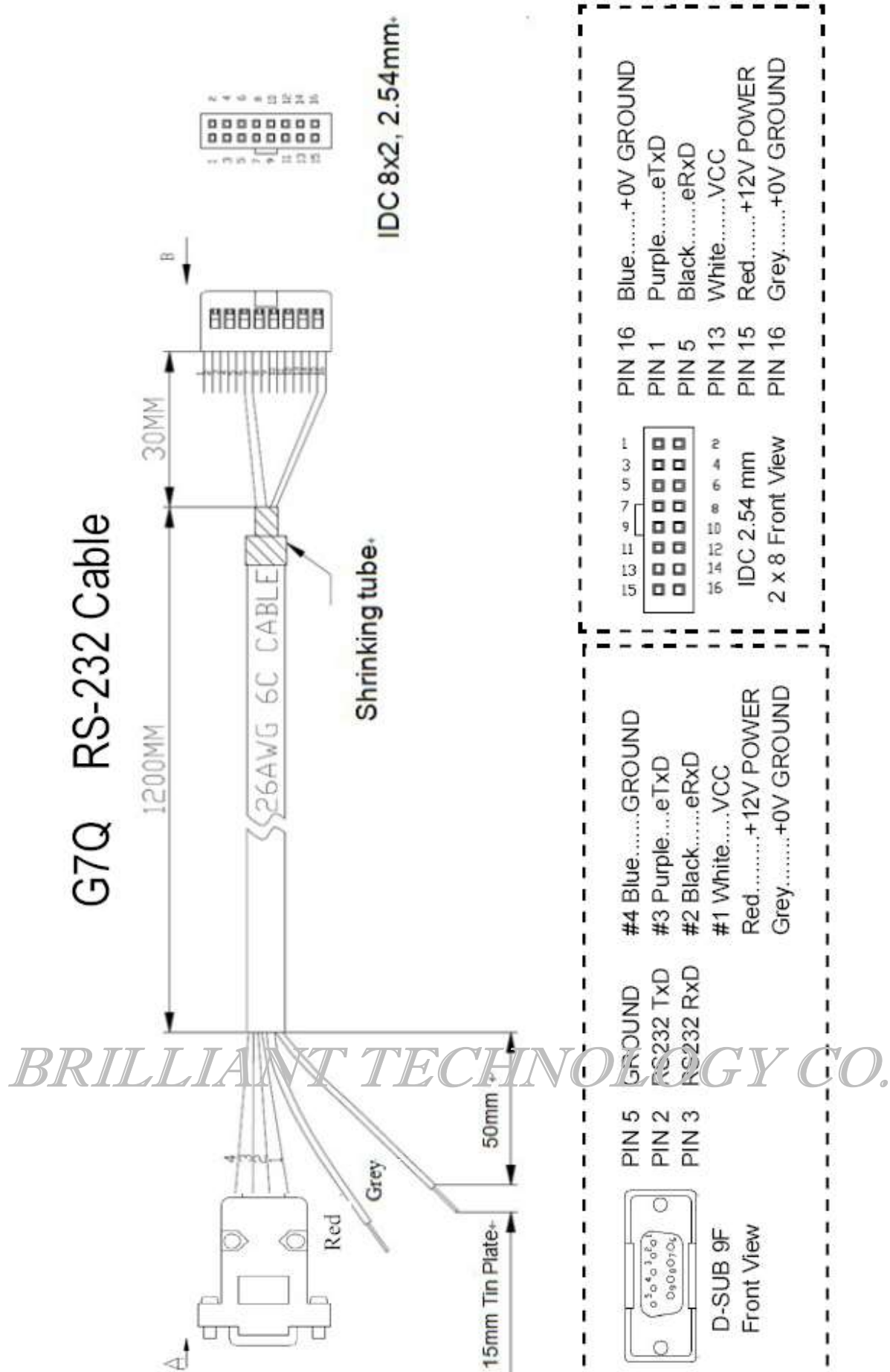
G7Q Pulse and Power Cable



IDC 8x2, 2.54mm

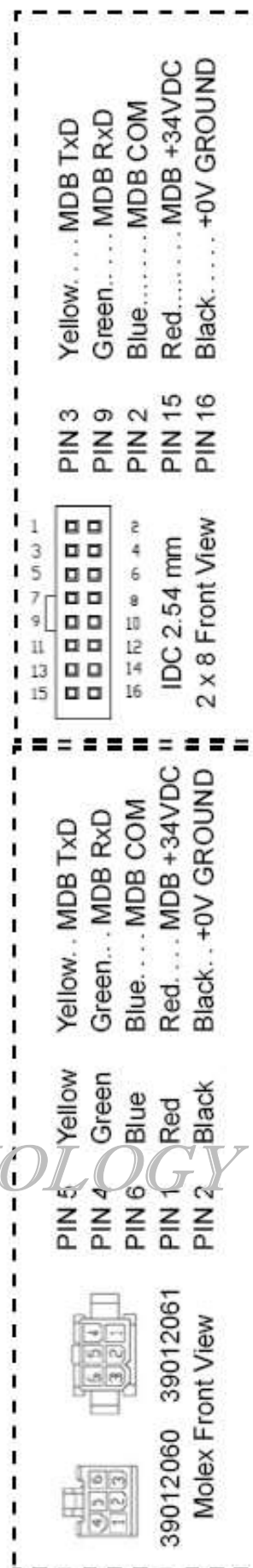








BRILLIANT TECHNOLOGY CO.



✧ Please note MDB cable must be used with G7Q_MDB Bill Acceptor.



E、Installation

In/Out circuit

(1) Parallel Data Connection

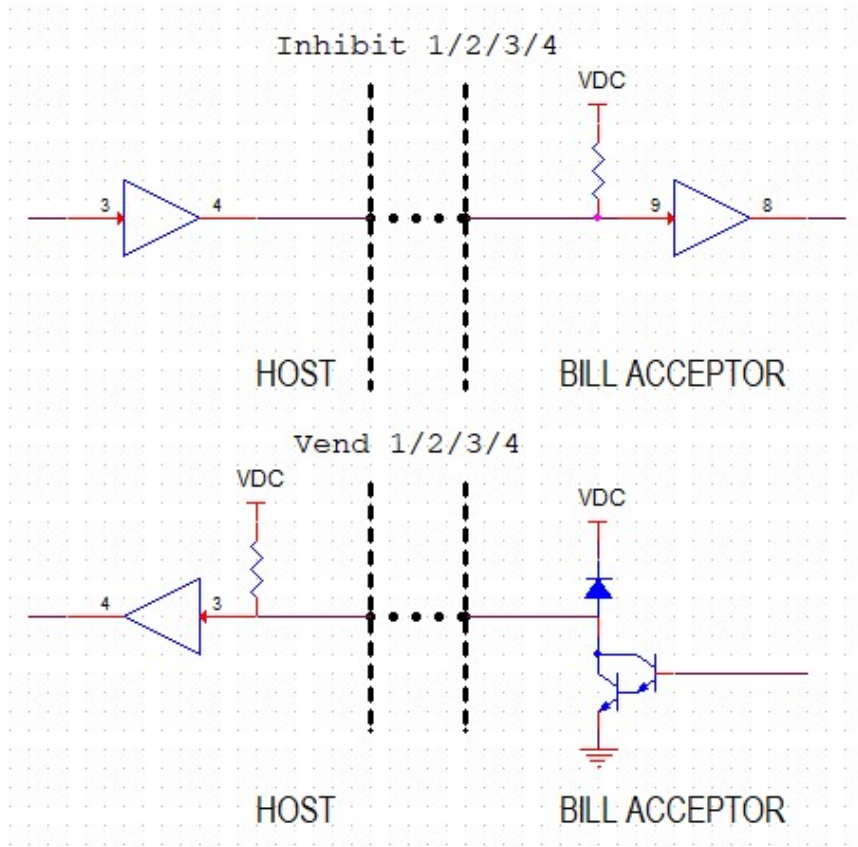


Figure 1.

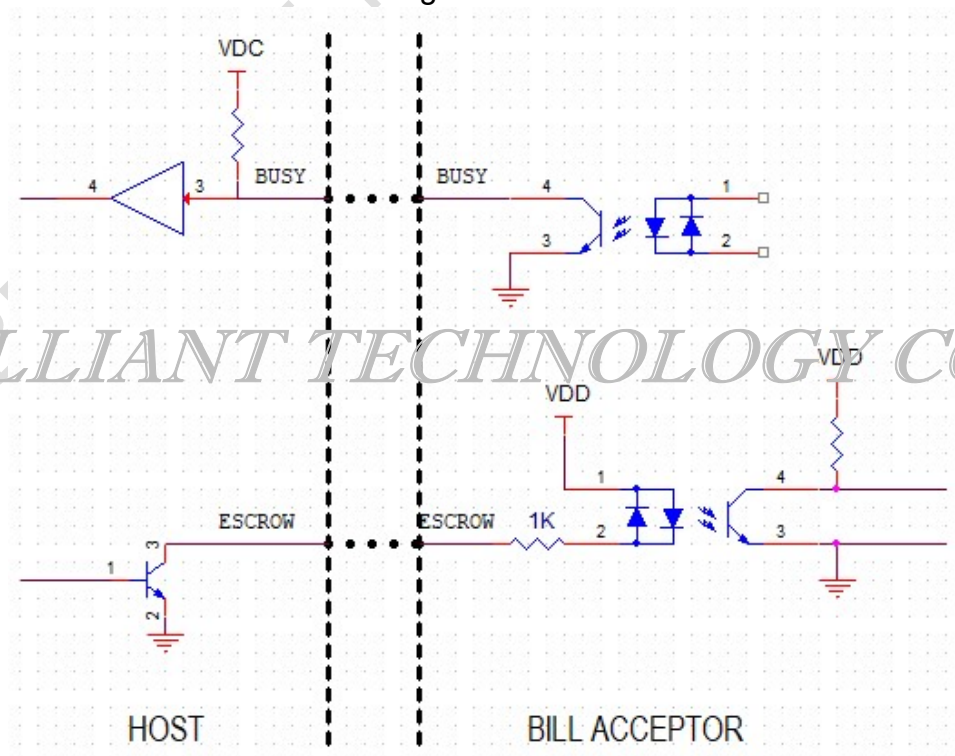


Figure 2.



(2) TTL Interface, See figure 3、4.

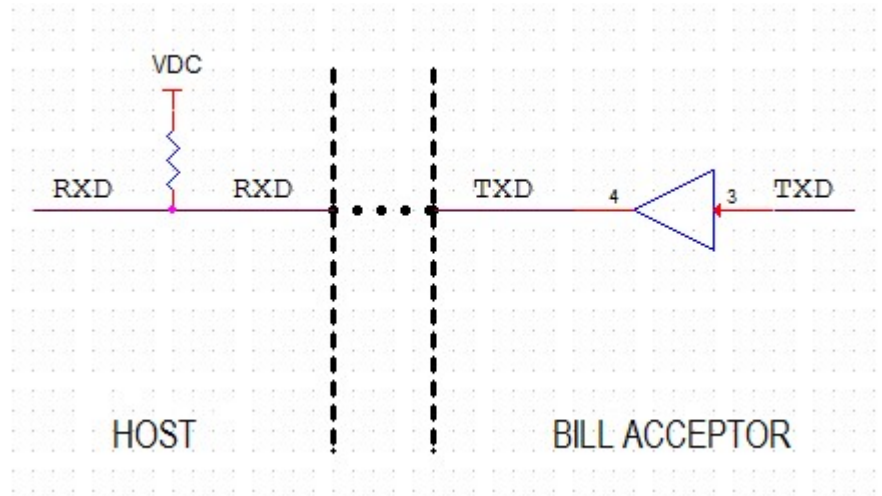


Figure 3.

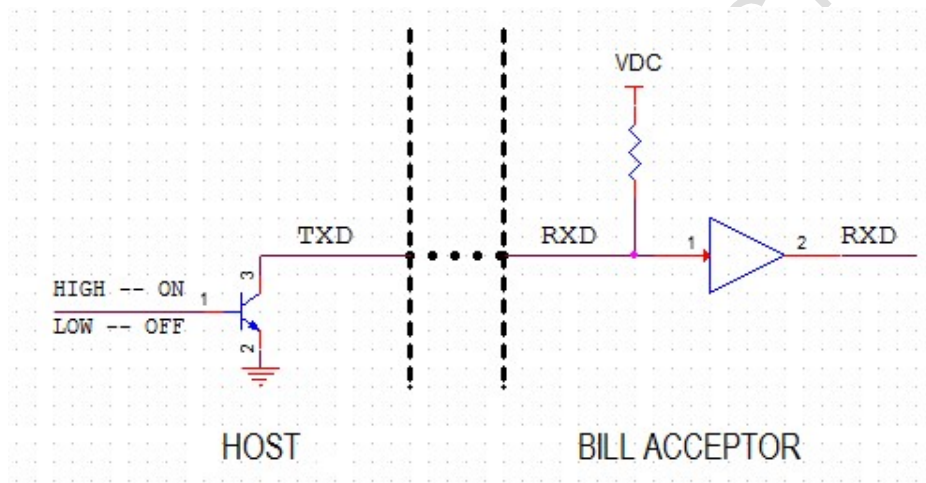


Figure 4.

(3) ccTalk Interface, See figure 5

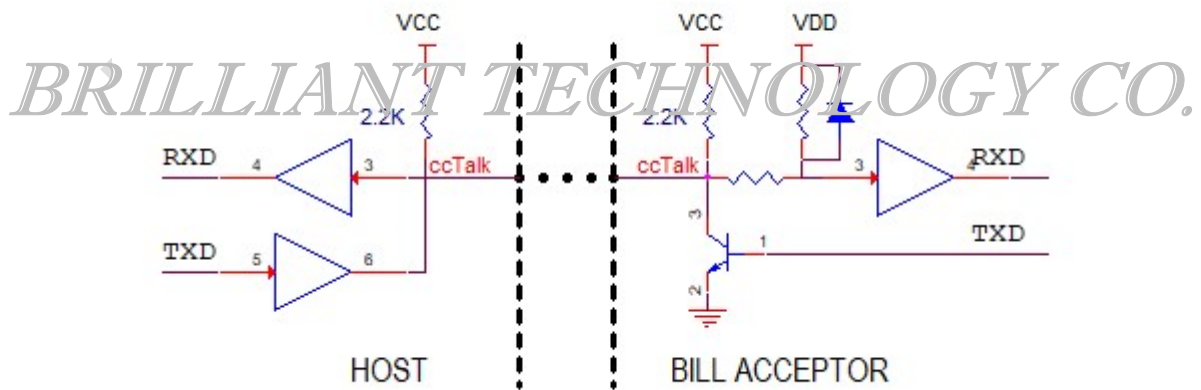


Figure 5



(4) Pulse Interface connection, See figure 1、2.

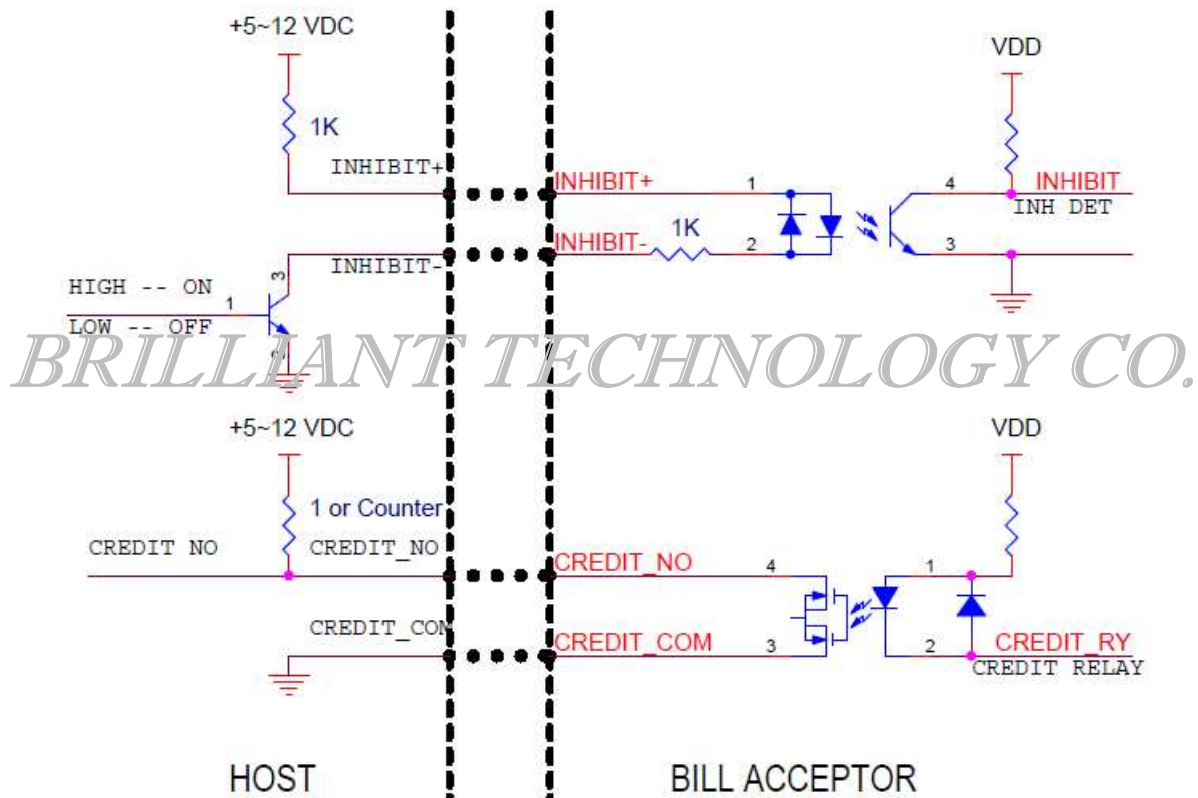


Figure 6.

FUNCTION	DIP SW SETTING		CONTROL
INHIBIT	IINHIBIT ACTIVE	LOW	LOW
		HIGH	HIGH
ENABLE	INHIBIT ACTIVE	LOW	HIGH
		HIGH	LOW

Figure 2.



Genius 7Q DIP SWITCH SETTING

10 POSITION SWITCH(10p) SETTING REFER TO APPENDANT

DIP SWITCH(4p) 4 POSITION MODE SETTING

FUNCTION	SW1	SW2	SW3	SW4
I-PROTOCOL (Ver 1.04)	Off	Off	Off	Off
I-PROTOCOL (Ver 1.06)	On			
PULSE OUTPUT HIGH ACTIVE	Off	On	Off	Off
PULSE OUTPUT LOW ACTIVE	On			
MDB	Off	Off	On	Off
JM Protocol	On	Off	On	Off
ccTalk (Normal check)	Off	Off	Off	On
ccTalk (CRC check)	On			
Inhibited Cash in during pulsed out (opt)	Off	On	Off	On
TL Protocol	Off	Off	On	On
Setup	Off	On	On	On
Calibration	On	On	On	On

NOTE:

Please restart unit after setting.

Set all 4 position SW1~ SW4switchs to On, 10 position SW5~ SW10all in Off, then restart unit to get in to the calibration mode。

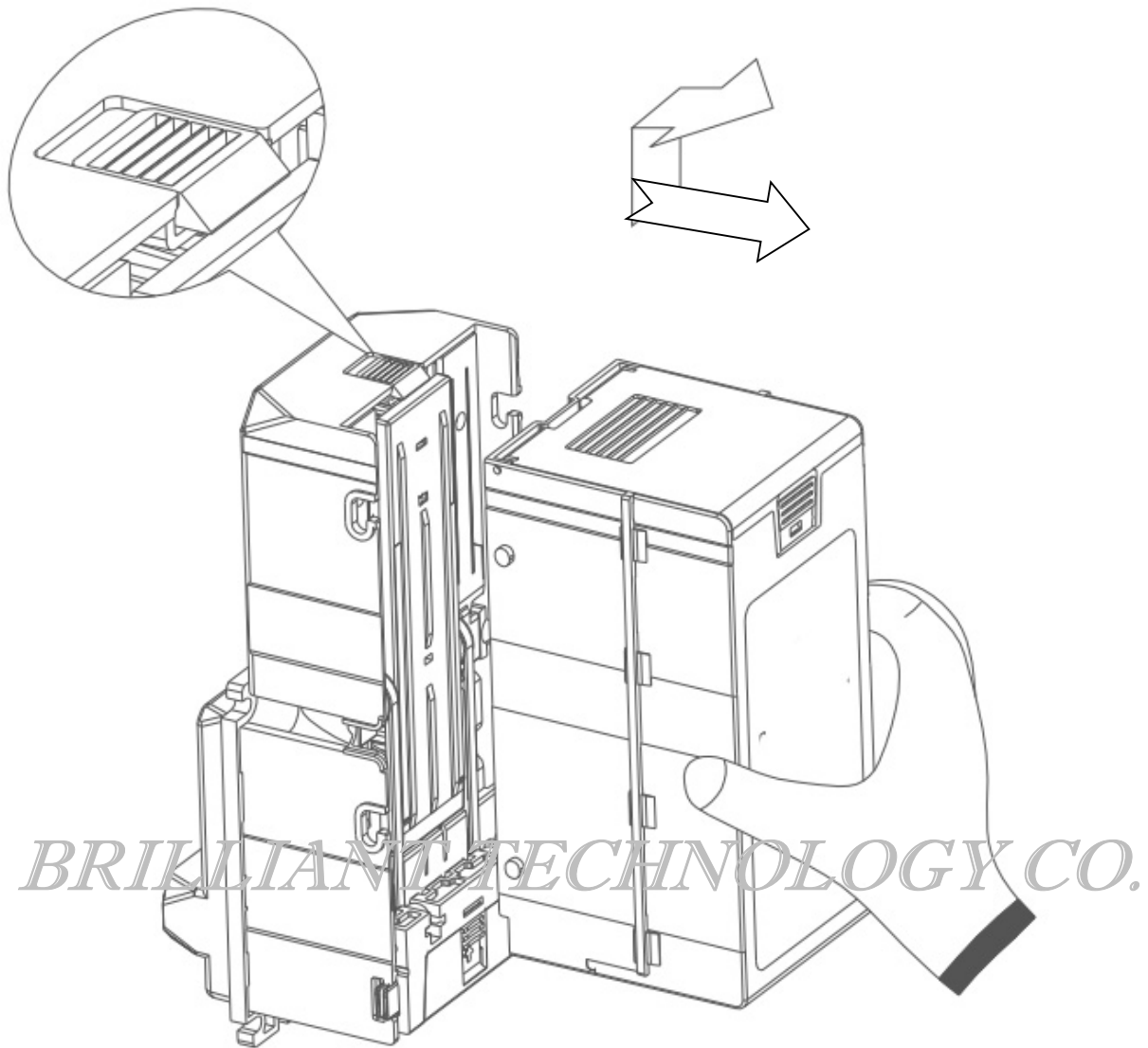
- Test mode: Switch (10p) all in ON, Switch (4p) all in Off.. Burn-in: Set all switch in ON。



F、Product disassembly and maintenance

1. Remove and install the Cash Box

Cash box is easy to remove and install by single handed. Hold the cash box and use finger tip to pull the top locker, and push down the cash box to remove it. To reinstall the cash box is hold the box and push in to the main unit guide then pull up to lock the cash box automatically.





2. Remove the Reader unit to clean bill channel

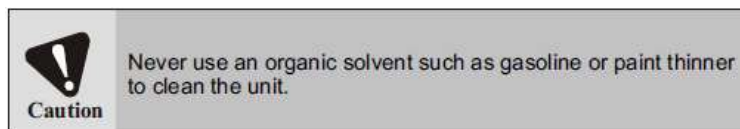
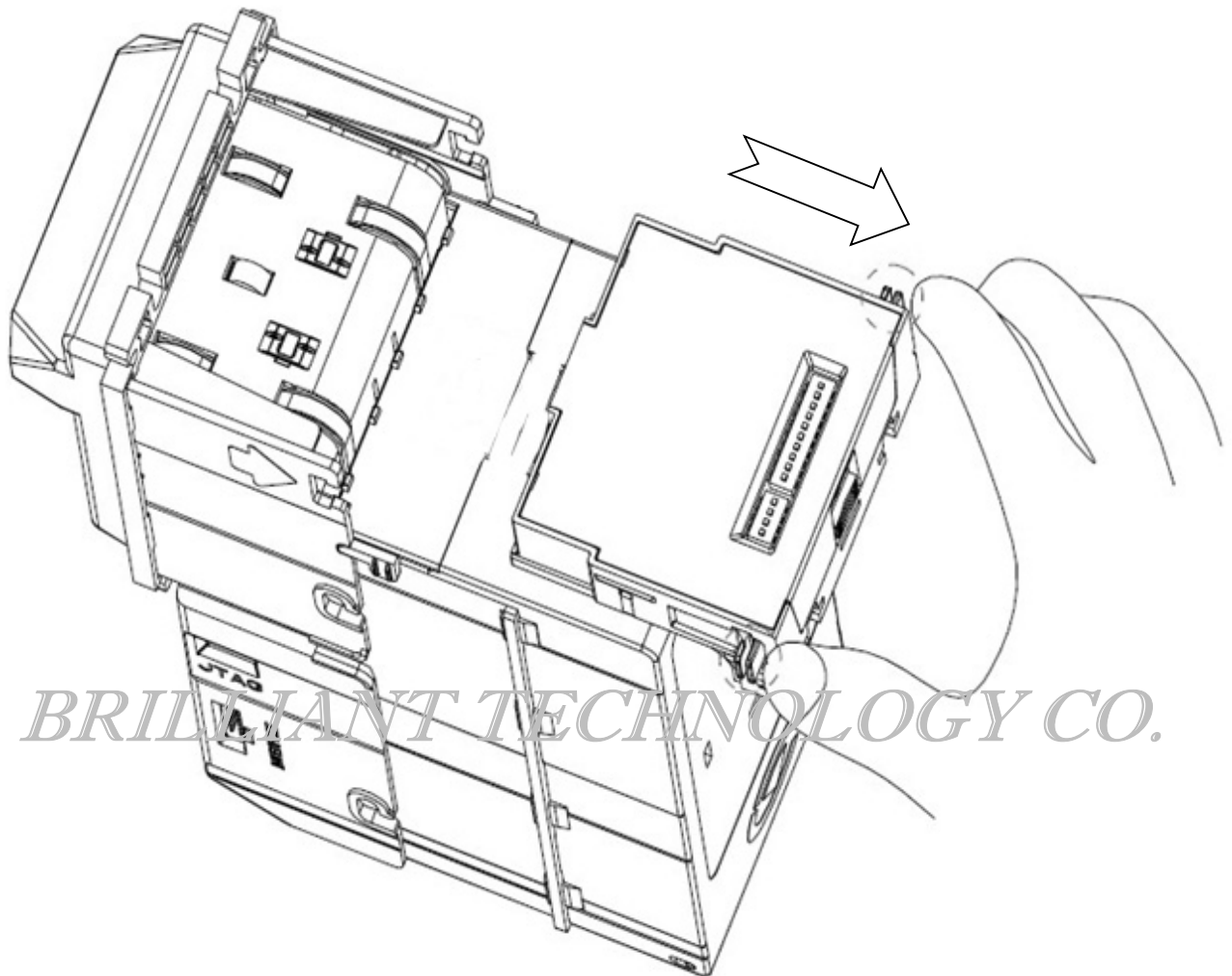
Cleaning Any residuals in the channel of the sensors or LED will causing bill jam or decrease acceptance rate.

For the best performance, please cleanup internal channel regularly

Please refer to the following steps to cleanup internal channel :

- (1) Turn off the power and remove power cable.
- (2) Pull out the reader unit by hold and pressed two side of locker fins of the reader unit and pull out the unit!
- (3) Use a soft brush or soft fiber tissue to clean the both side of channel surface and the bill path.

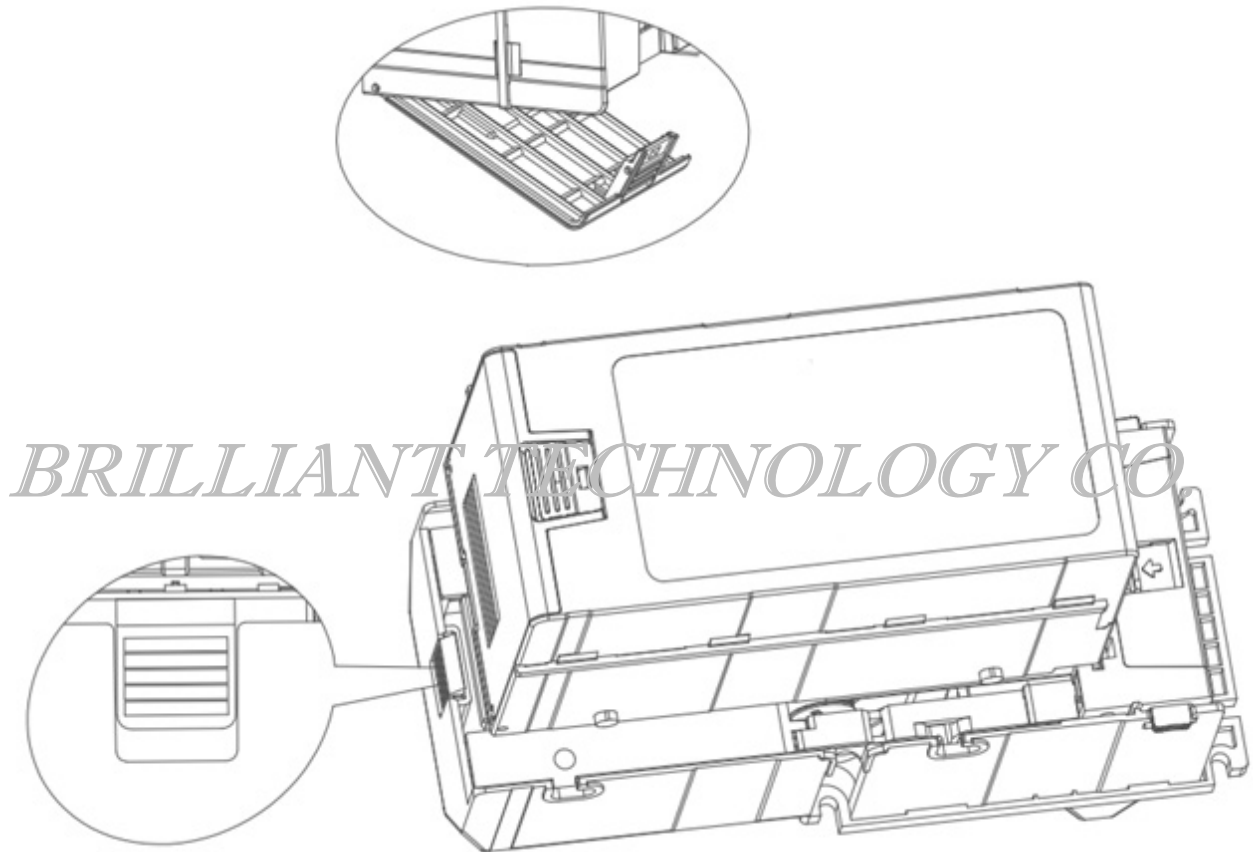
After clean the surface, push the unit back to the guide rail until the two side fins click in to the lock holes.





Remove the bank notes from the cash box

Remove the cash box and flip it to see the bottom cover lid, pull up the lid in the same direction of the arrow shows, the lid will be opened and exposes all bank notes for easy to take out.



H、Troubleshooting

Entrance lights are running Left-Right simultaneously in normal operation. These lights also indicated the errors by flashing Left-Right alternatively.

BEZEL LED error messages

Number of flashing with Right & Left LEDs :

Right	Both	Left	Error message	Remarks	Record
0	0	1	Unit inhibit by switch setting or inhibit command from host		Yes
1	0	1	Power initialization, not connected with host		Yes
2	0	1	Bill jam in entry position	Auto recovery	Yes
2	0	2	Bill jam in the cash box tunnel or no cash box	Auto recovery	Yes
3	0	1	Input or output sensor errors	Sensor damaged	Yes
3	0	2	Validation Sensors error.	Sensor damaged	Yes
4	0	1	Motor time out	10S, Auto recovery	Yes
4	0	4	Cash Box full	Auto recovery	Yes



G、Drawing Dimensions

