Genius 7 Bill Acceptor

CW User's Manual

Brilliant Technology Co.

11240 Robin Park Ave., Las Vegas, NV 89138, USA
深圳市福田区红荔西路 7002-2 第一世界广场 A 座 10 楼 B1

@2023/01

A、Features：

1、Four ways Acceptance
2、Accept multiple Bill width
3、High speed, High resolution import Sensors
4、Light weight and Quite system Design
5、High speed Bill transportation system
6、Dimensions：131.9mm(H) X 95.5mm(W) X 79.4mm(D)
7、Power Supply：DC 12V, 24V (10V-30V Wide Operation Range)
8、Low Power Consumption, Low Standby current
9、Firmware and Data Upload Box or On Line Upload
10、Patent Optical Recognition, Multiple Wave length, Anti-Fishing, Jam less
11、Real time Bill detector in all modes
12、Support Up and Downward installation

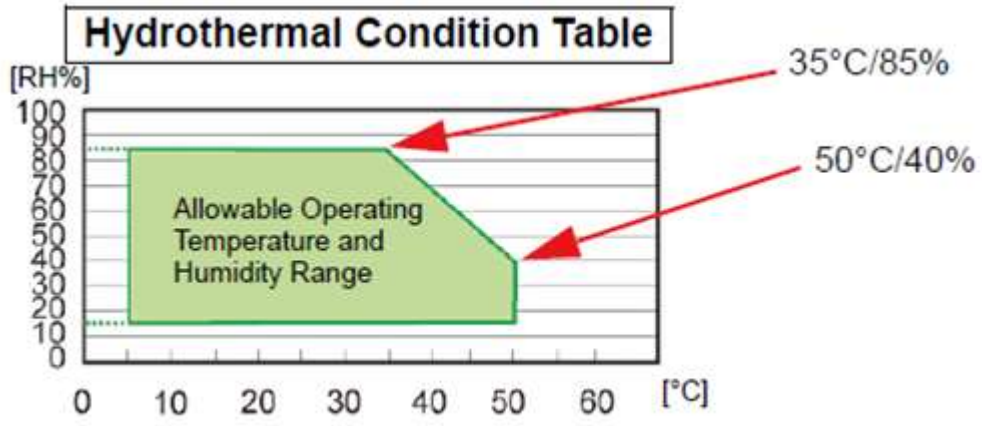
B、 Specifications：

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	131.9mm (H) X 95.5mm (W) X 79.4mm (D)
Weight	285g

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

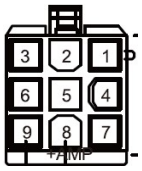
C、Electrical：

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)



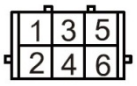
D、Wire Hardness

1. Pulse ： 12VDC Power+ Data wire



AMP 172340-1
Back View

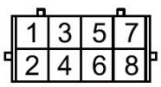
PIN 1	Yellow ..... Inhibit+
PIN 2	Green ..... Inhibit-
PIN 5	Red ..... +12VDC
PIN 7	Blue .....Credit Relay (NO)
PIN 8	Purple .....Credit Relay (COM)
PIN 9	Orange ..... GND



JST PHD 2.0 mm
2 x 3 Back View

PIN 1	Orange ..... GND
PIN 2	Red ..... +12VDC
PIN 3	Green ..... Inhibit-
PIN 4	Yellow ..... Inhibit+
PIN 5	Purple .....Credit Relay (COM)
PIN 6	Blue .....Credit Relay (NO)

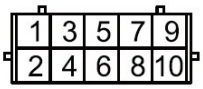
2. COMMUNICATION RS-232 TTL： Serial Bus



JST PHD 2.0 mm
2 x 4 Back View

PIN 1	..... ESERVED
PIN 2	..... GND
PIN 3	..... ccTalk
PIN 4	..... ESERVED
PIN 5	..... VDD +3.3V
PIN 6	..... RESET
PIN 7	..... TXD
PIN 8	..... RXD

JTAG and Upload



JST PHD 2.0 mm
2 x 5 Back View

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

3. 6 PIN Power Connection and 8 PIN Data Connection。

POWER	**Pin No.**		
CREDIT RELAY(COMMON)	1		
CREDIT RELAY(N.O)	2		
INHIBIT-	3		
INHIBIT+	4		
GROUND	5		
POWER (+12V ~ +24V)	6		
COMMUNICATION	**Pin No.**		
RS-232 TXD TTL	1		
RS-232 RXD TTL	2		
VDD +3.3V	3		
RESET	4		
ccTalk	5		
RESERVED	6		
RESERVED	7		
GROUND	8		

E、Installation

In/Out circuit

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

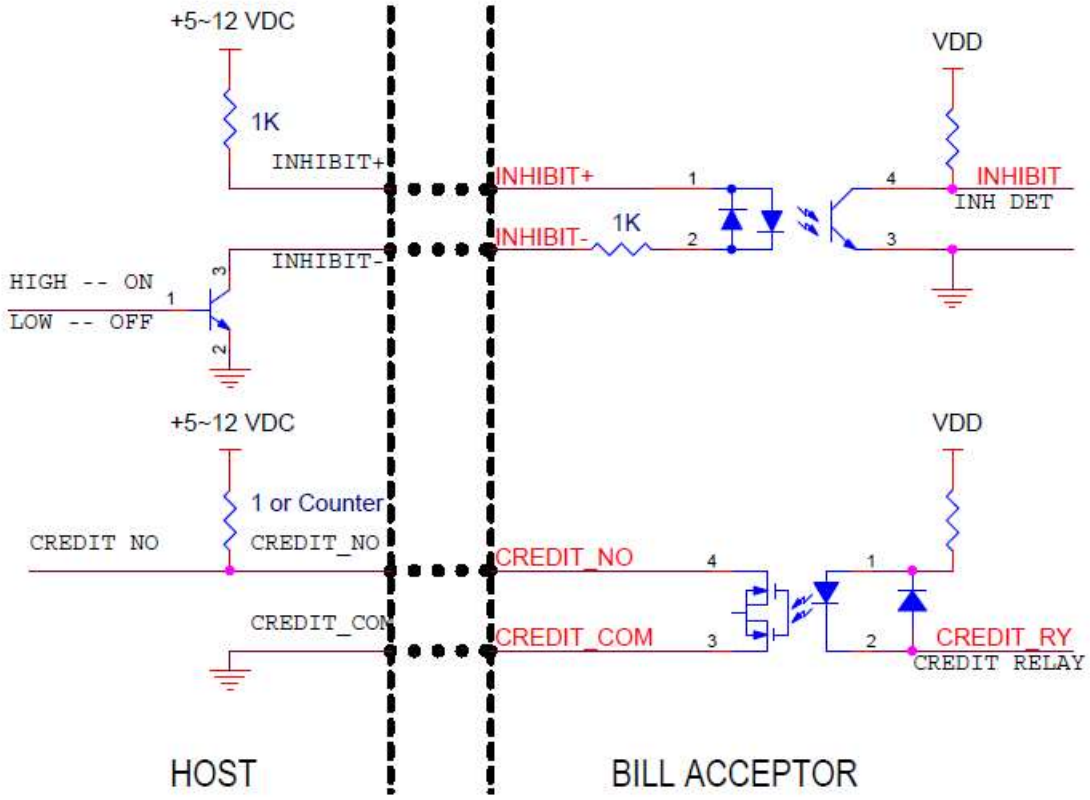


Figure 1.

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

Figure 2.

（2）TTL Interface，See figure 3、4.

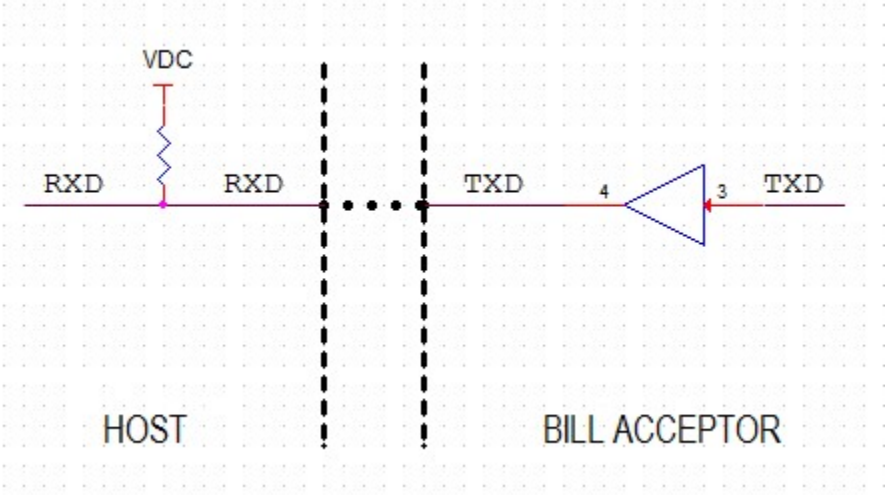


Figure 3.

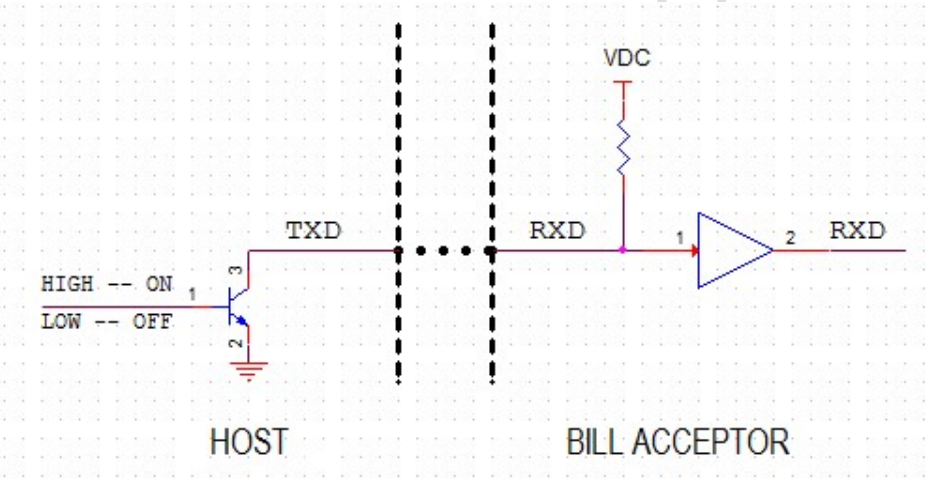


Figure 4.

（3）ccTalk Interface，See figure 5

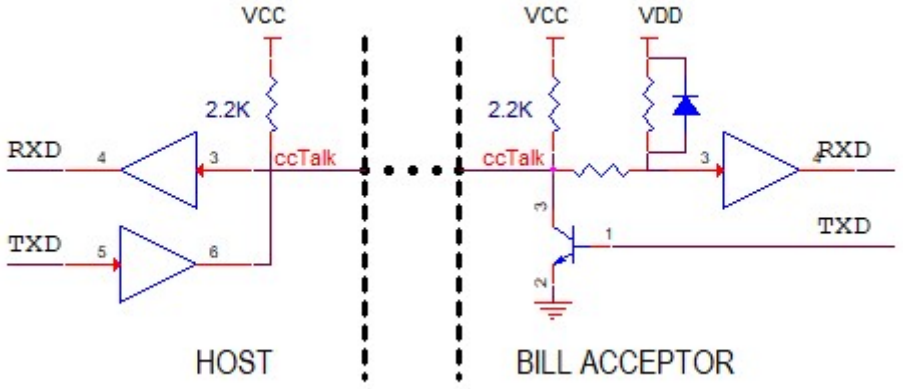


Figure 5

Genius7 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
J 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：

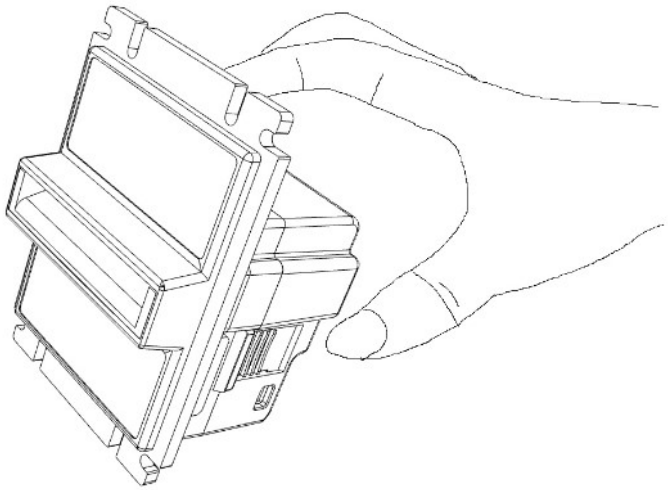
Please restart unit after setting.

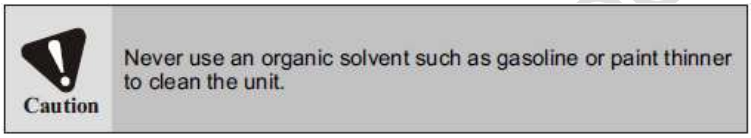
Set all 4 position SW1~ SW4switchs to On，10 position SW5~ SW10all in Off，then restart unit to get in to the calibration mode。

- 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. Disassembly





2. **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）Open the back cover by press the both sides lock and pull out。

（3）Use a soft brush to clean the back cover and use clean paper to clean the bill path.

H、Troubleshooting

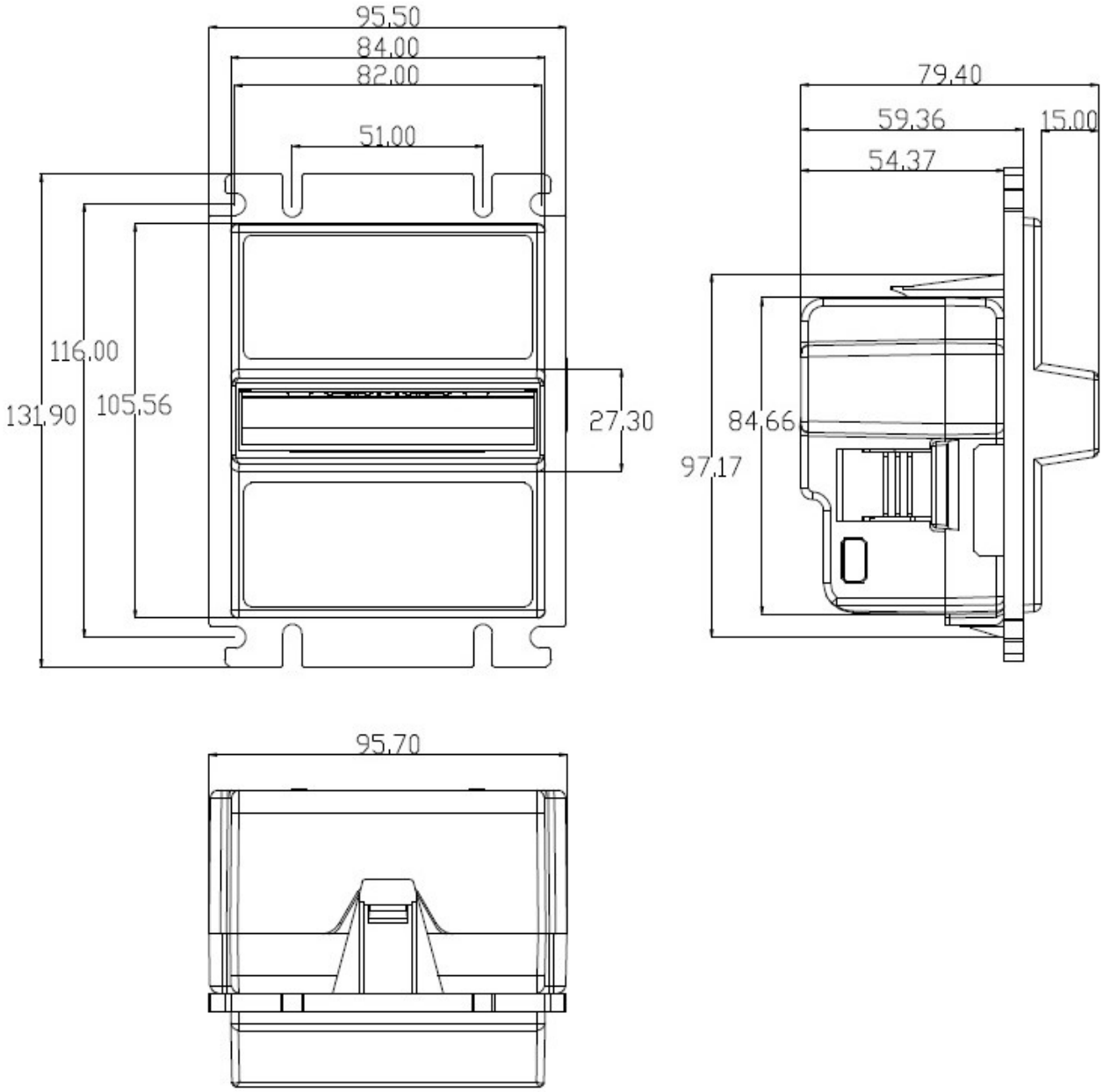
Entrance light is breathing Red/Green/Blue colors in normal operation. This light also indicated the errors by flashing color alternatively. The unit need to clean or re-calibration if only two colors remains.

BEZEL LED error messages

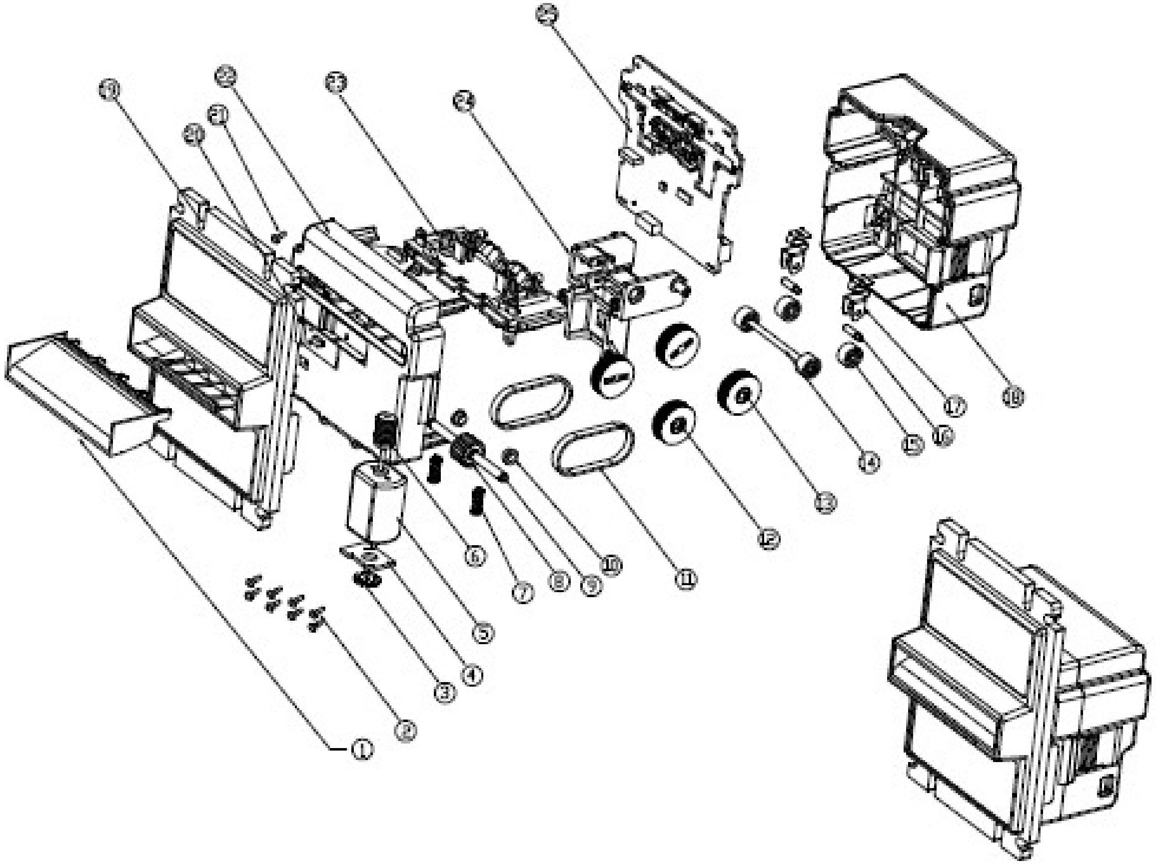
Number of flashing color LED：

Red	Green	Blue	Error message	Remarks	Record
0	0	1	Unit inhibit by switch setting or inhibit command from host		Yes
1	1	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 back	Auto recovery	Yes
3	0	1	Input or output sensor errors	Sensor damaged	Yes
3	0	2	Validation Sensors error。	Sensor damaged	Yes
3	0	3	Anti-Fishing error	Remain operation	Yes
4	0	1	Motor time out	Auto recovery in each 10Sec	Yes
5	0	1	No Valid Bill data, needs to update	Factory / Setting	Yes

G、Drawing Dimensions



项次	版本	修改内容	修改者	日期
Ⓛ		首版发行		



序号	品名	零件名称	数量	备注
25	电路板	PCBA	1	
24	马达上盖	CENTER_MOTOR_BRACKET_UP	1	
23	光带件	LG_N	1	LG_N_A… LG_N_B…
22	马达下盖	CENTER_MOTOR_BRACKET_DOWN	1	
21	PB2.0*5	PB2.0*5	1	
20	指示灯板	LED_PCB	1	
19	前壳	center_position_front	1	
18	后壳	center_position_bot	1	
17	后压轮支架	ROLLER_CARRIER_2	2	
16	后压轮轴	Shaft_4	2	
15	压轮	WHEEL_PRESURE	4	
14	压轮轴	SHAFT_3	1	
13	[illegible]	PULLEY_30	2	
12	[illegible]	PULLEY_30_1	2	
11	皮带[illegible]	BS2-MXL-4.0	2	
10	含油轴承	SLEEVE_1	2	
9	D型轴	SHAFT_2	1	
8	斜齿轮	HELICALGEAR_1	1	
7	弹簧	SPRING_TH	2	
6	蜗杆	WORMGEAR-PUSH	1	
5	马达	马达	1	
4	马达小板	ENCODER_PCB	1	
3	叶轮9叶	ENCODER_9	1	
2	PB2.0*8	PB2.0*8	8	
1	指示灯盖板YB	LED_COVER	1	PC[illegible]

制图日期	未注公差按±0.5	0-6	±0.05	表面处理	
		6-30	±0.08	产品名称	G7_CP
绘图		30-60	±0.1		
		60-200以上	±0.15		
	设计			版本	共1页
		审核	批准	单位	比例
				mm	