For Approval

Page：1-9
Date：2007/03/20
Rev： V1.0

Product: POWER SUPPLY

Customer:

MODEL No : SYS1193-1005-W2 (RoHS)

PART No : SYS1193-1005

B.P/N :

Check By:

Customer SIGN/APPROVAL	Comments:
Date:	

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10 W POWER SUPPLY

Engineering specification

Model：SYS1193-1005-W2

Part No:

Item No. page

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General

The specification defines the performance characteristics of a 10 W, Single Output level switching power supply for _____ . The power supply has designed highly reliable and meet international safety and radiation requirements.

1.0 Input requirements

1.1 Input voltage range

Type	Low range	High range
Nominal	115Vac	230Vac
Minimum	90Vac	185Vac
Maximum	132Vac	264Vac
Frequency	47-63Hz sine wave 1ϕ	47-63 Hz sine wave 1ϕ

☐Auto range - switch at approximately 150Vac±5Vac

☒Universal range - 90～264Vac

☐Range - Selectable by jumper connector or wire.

☐Range - Selectable by switch.

1.2 Input Current

0.3A rms max	At AC low line input and DC output full load

1.3 Input protection

1A Fuse	The power supply shall be protected against power line surges and any abnormal condition.

1.4 Input surge current

40A max	At power supply cold start, ambient temperature 25℃@ 230Vac nominal AC input.

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1.5 Efficiency

69.7%	Minimum average efficiency in active mode

1.6 Hold up time

10ms min	At AC nominal input@ output full load (1 half cycle)

1.7 Power consumption

0.75W rms max	At AC nominal input@output min load

2.0 Output requirements

2.1 Turn on delay

5000 ms max	At AC low line input@output full load

＊Test on delay is measured from 0 voltage output to the main output regulation.

2.2 DC output regulation

Voltage	Loading(A)		Tolerance Range	Regulation	
	Min	Normal Max	Total Regulation	Line	Load
+5V	0	2.0A	±5%		

＊Total regulation involved line regulation load regulation cross regulation---etc

＊Line regulation is measured from 90Vac to 132Vac or 185vac to 264vac

＊Load regulation is measured all output from min load to max load at 115vac or 230vac nominal AC input voltage.

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2.3 Ripple/noise ＊

Voltage	Low frequency＊1	High frequency＊2	＊3	＊4
(DC)	Ripple mv(p-p)	Ripple mv(p-p)	Noise mv(p-p)	Ripple/Noise(p-p)
+5V	——	——	——	80mV

＊The ripple is measured from peak to peak with band width limit of 20MHZ

(By passed at the end of connector with 10uf electrolytic and 0.1uf ceramic disk capacitor under DC output full Load, AC nominal input 25℃ambient temperature).

＊1.2.3.4 Unless has special requirements otherwise ＊4 is the testing spec.

2.4 Output transient response (dv , tmax)

0.3 v dv max	At AC nominal input loading from 50% load to max load or peak load.
3.5ms t max	Dynamic rise time 10uS max , duty 40mS max , Dynamic load step is slew rate of 0.5A/uS

＊Test only for main output or designed by customer.

2.5 Power output limit：Peak 13W

2.6 Burn in test：Will be defined after meeting.

2.7 Led display : None

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3.0 Protection

3.1 Short protection / Over current protection

The power supply will self-protect any output to ground, And auto recovery when abnormal circuit faults remove.

An output short circuit is defined as any output impedance of less than 0.1 ohms.

Short current and over current can not exceed 8A max after 1 min. at nominal line input.

Voltage	OCP Current(A)	Power in(W)	OCP method		
			latch off	Current limit	Fold back
+5V	4.5 ±2		☐	☐	☒
			☐	☐	☐
			☐	☐	☐
			☐	☐	☐
			☐	☐	☐

3.2 Over voltage protection

Voltage	OVP range	OVP Method		
		Latch off	Auto recovery	Voltage limit
+5V	8±1V	☐	☐	☒
		☐	☐	☐
		☐	☐	☐
		☐	☐	☐
		☐	☐	☐

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3.3 No load protection

The power supply is provided with noload operation to prevent the power supply and system from damage.

3.4 Temperature coefficient: Less than ±0.5%/ ℃

4.0 PLD (power line disturbance)

4.1 LINE POWER SURGE

The power supply shall meet its specification with a rise in AC voltage to 120% of maximum rated line voltage (288 voltage for 100-240 Vac operation)for a maximum of 20 milliseconds at 50Hz and 16 millisecond at 60Hz.The surge is to be applied five times with an internal of one minute between surges.

4.2 LINE VOLTAGE SAG

The power supply shall continue to meet its specifications with a line voltage drop (and subsequent return to minimum rated voltage)to 68 Vac with a total power sag cycle time of 20 ms (rise and fall time shell equal 10 ms each).

5.0 COOLING

Cooling Method	
By___ mm fan force air cooling	☐
By nature air.	☒

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6.0 EMC

Meet EN55022 class B, Fcc part 15 Sub part B class B.

6.1 CE spec.

☒ EN55022 Limits and methods of measurement of radio disturbance characteristics of information technology equipment.

☒ EN61000-3-2 By household appliances and similar electrical equipment “Harmonics”.

☒ EN61000-3-3 By household appliances and similar electrical equipment “Voltage fluctuations”.

☒ EN55024(1998)+A1(2001) By EMS TEST:

☒ ESD Measurement(EN61000-4-2).

☒ RF Field strength Susceptibility Measurement(EN61000-4-3).

☒ Electrical Fast Transient/Burst Measurement(EN61000-4-4).

☒ Surge Immunity Test(EN61000-4-5).

☒ Conducted Disturbances Induced By Radio-Frequency Field Immunity Test (CS) (EN61000-4-6).

☒ Power Frequency Magnetic Field Immunity Tests (EN61000-4-8).

☒ Voltage Dips, Short interruptions and Voltage Variation immunity tests (EN61000-4-11).

7.0 Leakage current： 0.25 mA max.

8.0 Safety approval

A： CUL D： PSE G：

B： CB E： H：

C： BSMI F： I：

9.0 HI-POT

☐HI-POT---A IEC 320 3pin primary to secondary (FG) 1500Vac 10mA1min

☒HI-POT---B IEC 320 2pin primary to secondary 3000Vac 10mA 1min

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10. Environment

TEMPERATURE AND HUMIDITY

OPERATING TEMPERATURE _____ 0 DEGREES C TO 40 DEGREES C.

OPERATING HUMIDITY_____ 8％ TO 90％ RH.(RELATIVE HUMIDITY).

STORAGE TEMPERATURE_____ -20 DEGREES C TO 85 DEGREES C.

STORAGE HUMIDITY _____ 5％ TO 95％ RH.(RELATIVE HUMIDITY).

11. Vibration

SWEEP AND RESONANCE SEARCH			
FREQUENCY	DURATION	AXIS	AMPLITUDE
5-20-500	30 MINUTES	X,Y,Z	1G

12. M.T.B.F

Shall be 35000 power on hours on greater under 25 degrees C of ambient temperature MTBF under evaluated under.

＊M.T.B.F. 35000 hours will be affected if the product won’t be used for a long time.

13. Mechanical

13.1 Dimension unit：(mm)(max)

L×W×H＝ 55 × 28 × 42

13.2 Weight (g)：

13.3 Drawing：As Attachment( )

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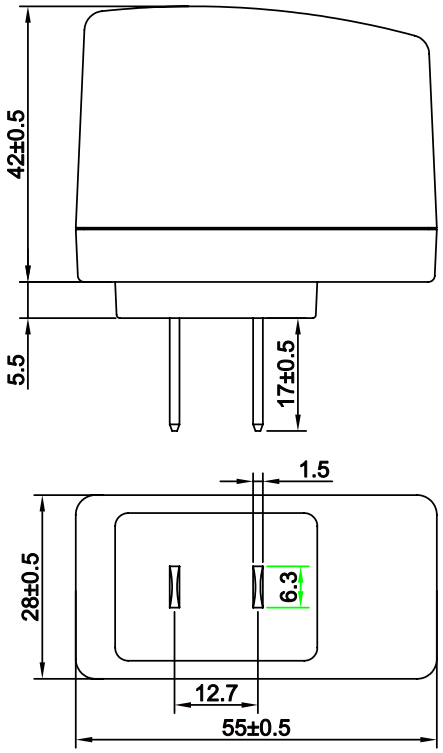
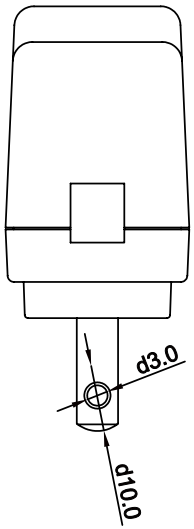
14. DC output connector type and pin assignment：As Attachment( )

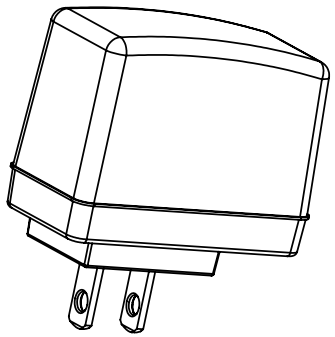
15. Label specification：As Attachment( )

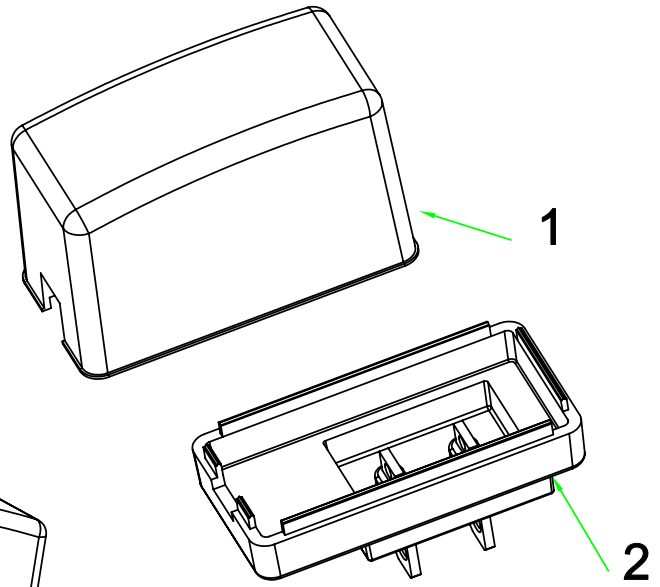
16. Package：As Attachment( )

REV.	DESCRIPTION	DATE
1		05/12/21









NO.	NAME	PART NO	COLOR	MATERIAL
2	BOTTOM			ABS
1	TOP			ABS

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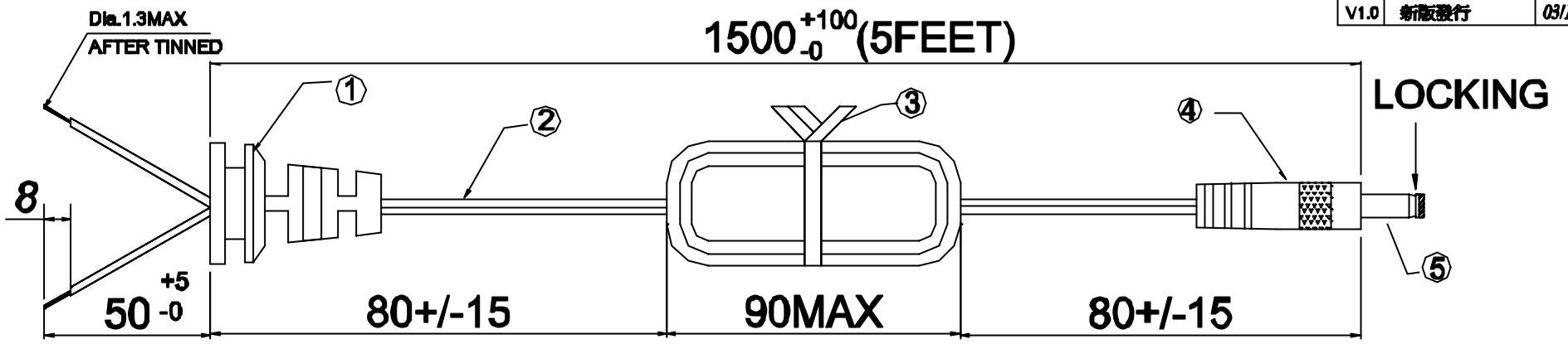
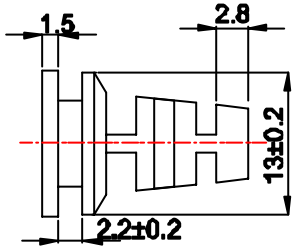
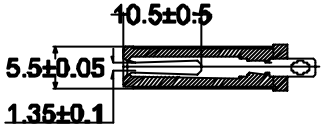
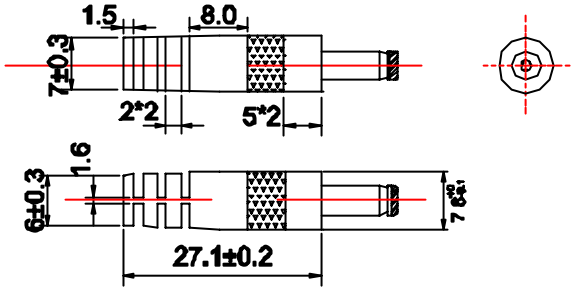
MODEL NAME	SYS1196/1193-W2		APPROVAL2		ISSUED STAMP
PART NO.		UNIT mm	APPROVAL1		
DRAWING NAME	APPEARANCE	TOLERANCES UNLESS OTHERWISE SPECIFIED	ENGINEER		
PART NAME		LINEAR 0.0±0.1 / 0.00±0.01 / 0.000±0.005	DRAWING BY	huang de sheng3/16	
DWG PATH:		ANGLE ±2°	DOC.NO.		SCALE 1:1 SHEET 1of1

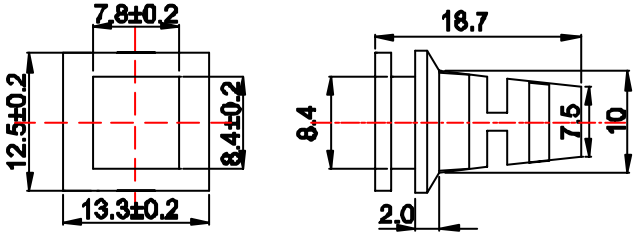
REV.	DESCRIPTION	DATE
V1.0	新版發行	03/18.07











印字(+V) ——◉—— 無印字(-V)

NO.	SPECIFICATION	Q'TY	REMARK
5	SPRING LOADED CENTER/LOCKING /FEMALE BARREL YELLOW	1 PC	2.1(+0.1/-0)*5.5(±0.05)*11(±0.3)
4	PLUG TYPE:P073(1075P073A0**)	1 PC	
3	MINI TIE=130mm BLACK	1 PC	
2	2468#20*2C PVC.BLACK 80°C.	1 PC	UL APPROVAL
1	SR TYPE:SR18(1075S018C0**)	1 PC	軟材質P60

Sunz
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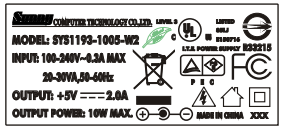
MODEL NAME		UNIT mm	APPROVAL 2		ISSUED STAMP
PART NO	G1074640031004040*	TOLERANCES UNLESS OTHERWISE SPECIFIED	APPROVAL 1		
DRAWING NAME	DC CABLE	LINEAR 0.0 +/-0.1 / 0.00+/-0.01 / 0.000+/-0.005	ENGINEER		
PART NAME	DC CABLE		ENGINEER	劉健平3/30	
DWG PATH:		ANGLE +/-2 degree	DOC.NO.		SCALE / SHEET 1 OF 1



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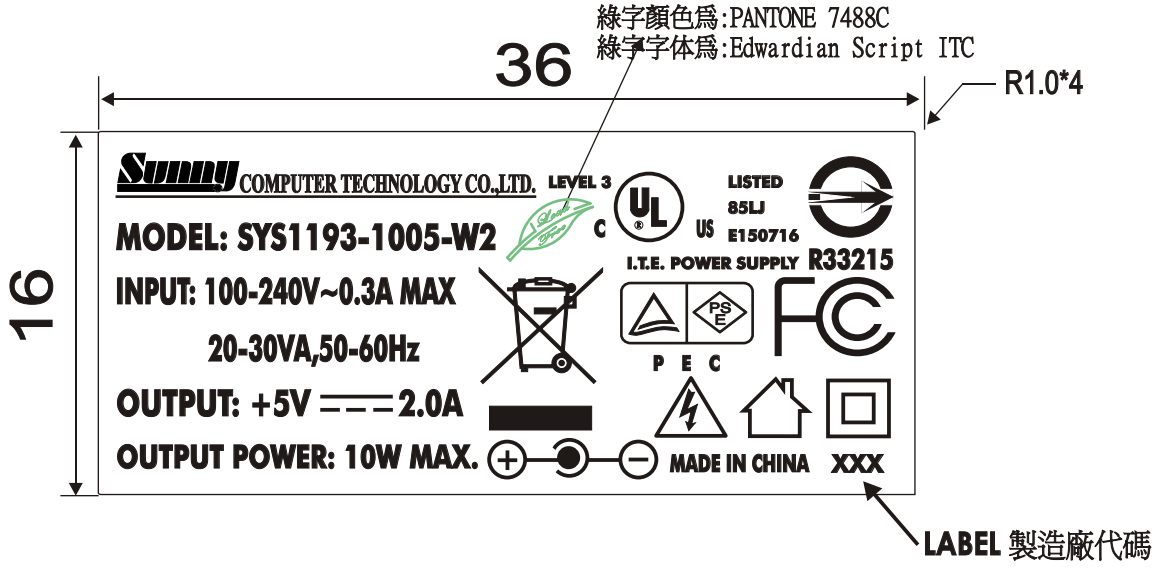

SCALE:3.0X

NOTE:
1>.黑底白字霧面
2>.Material: PVC
3>.Thickness : 180#
4>.Tolerance:+/-0.1mm

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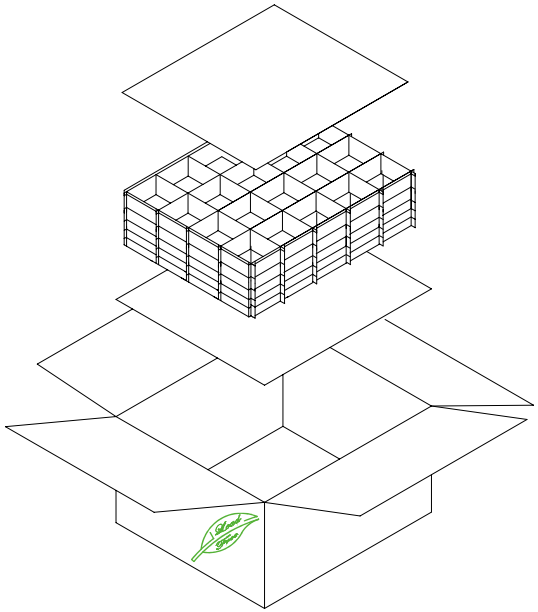
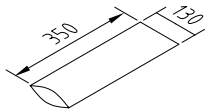
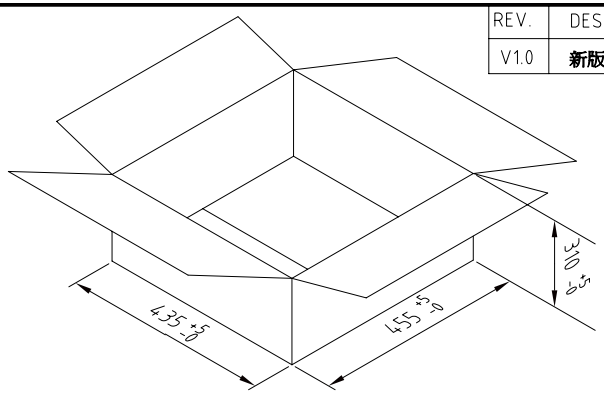
MODEL NAME	SYS1193-1005-W2		APPROVAL2		ISSUED STAMP
PART NUMBER	G1151050156A0	UNIT mm	APPROVAL1		
DRAWING NAME	LABEL	TOLERANCES UNLESS OTHERWISE SPECIFIED	ENGINEER		
PART NAME	SYS1193-1005	LINEAR 0.0 +/- 0.1 / 0.00+/- 0.01 / 0.000+/- 0.001	DRAWING BY	嚴俊梅7/19	
DWG PATH:D\COREL\LABEL		ANGEL ANGEL+/- 2degree	DOC.NO.		SCALE 1:1 SHEET 1 Of 1

REV.	DESCRIPTION	DATE
V1.0	新版發行	05/19, 06

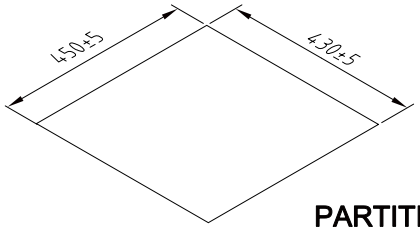




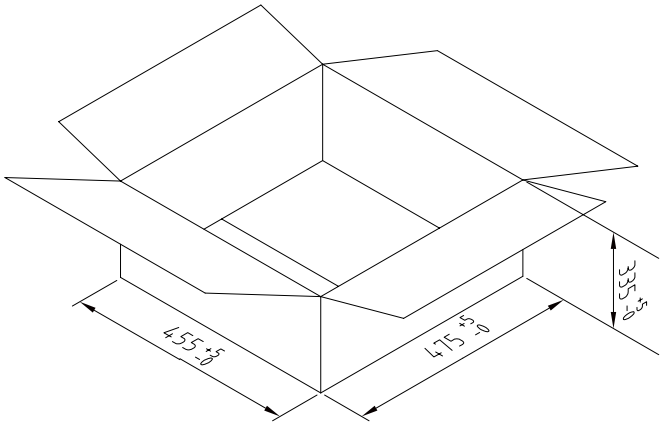
PE BAG



IN CARTON



PARTITION

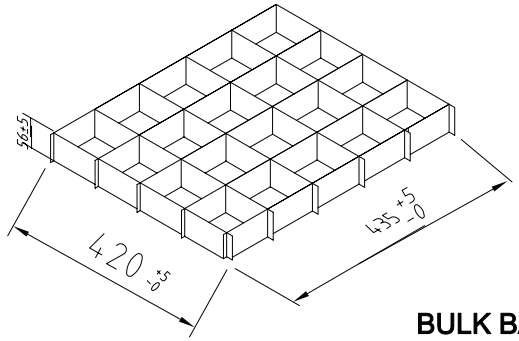


OUTER CARTON

外箱： 475(L)x455(W)x335(H)

內箱： 455(L)x435(W)x310(H)

Q'TY:5(L)x4(W)x5(H)=100PCS



BULK BACK

NO	SPECIFICATION	Q'TY	
5	G11720080A0**A=A	1PC	OUTER CARTON
4	G11720081A0**A=A	1PC	IN CARTON
3	G11740065A0**B3B	6PCS	PARTITION
2	G11730025A0**A=A	5PCS	BULK BACK
1	G1175010*****	100PCS	PE BAG

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MODEL NAME	SYS1193系列 RoHS	UNIT mm	APPROVAL 2		ISSUED STAMP
PART NO	PACKING	TOLERANCES UNLESS OTHERWISE SPECIFIED	APPROVAL 1		
DRAWING NAME			ENGINEER		
PART NAME		LINEAR 0.0 +/-0.1 / 0.00+/-0.01 / 0.000+/-0.005	DRAWING BY	GUOXIAOFEI9/21	
DWG PATH:		ANGLE +/-2 degree	DOC.NO.		SCALE / SHEET 1 OF 1