

DATE: 2013-8-20 (YY/MM/DD)

Customer :

# APPROVAL SHEET

PRODUCT: AC ADAPTOR(RoHS COMPLIANT)

MODEL: APE312-0913

PART NO. ST-0105

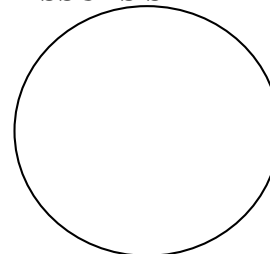
V : A1

Receiver's stamp or signature

PLEASE APPROVE & RETURN BEFORE 2013-9-3  
OR WE WOULD REGARD IT BEEN CONFIRMED.

RESPONSIBLE	APPROVED	ISSUED
		<i>nishuang</i>

ISSUES STAMP



### Revised History

NO.	Revised Date	Description	Approved	Issued



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<b>Anthin</b>	<b>DESCRIPTION</b>	<b>SWITCHING POWER AC ADAPTER</b>	<b>SHEET NO.</b>	<b>1 OF 4</b>
			<b>VER:</b>	<b>A1</b>
	<b>MODEL NO.</b>	<b>APE312-0913</b>	<b>PART NO.</b>	<b>ST-0105</b>

- 1.INPUT REQUIREMENT
- 2.OUTPUT SPECIFICATION
- 3.MECHANICAL
- 4.RELIABILITY
- 5.ENVIRONMENT
- 6.OUTLOOKING
- 7.SAFETY
- 8.QC CHECK
- 9.DIMENSION
- 10.LABEL
- 11.PACKING

<b>Anthin</b>	<b>DESCRIPTION</b>	<b>SWITCHING POWER AC ADAPTER</b>	<b>SHEET NO.</b>	<b>2 OF 4</b>
	<b>MODEL NO.</b>	<b>APE312-0913</b>	<b>VER:</b>	<b>A1</b>
			<b>PART NO.</b>	<b>ST-0105</b>

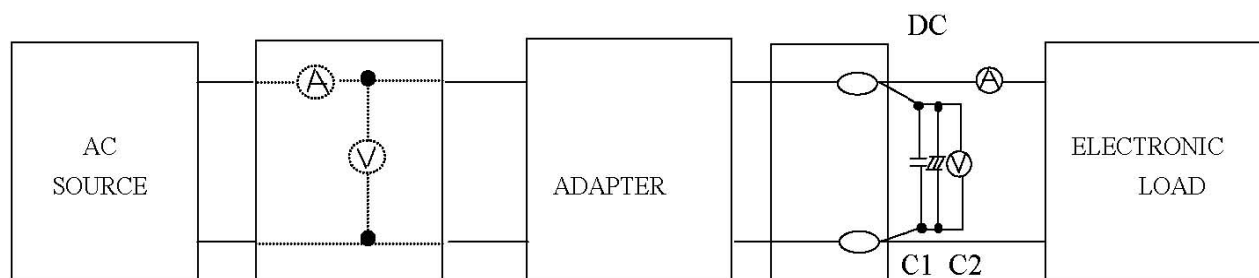
### 1.INPUT REQUIREMENT

ITEM	SPECIFICATION	MIN	TYP.	MAX
NORMAL AC INPUT VOLTAGE	SINGLE PHASE	100Vac	110Vac/220Vac	240Vac
AC INPUT VOLTAGE RANGE	SINGLE PHASE	90Vac	110Vac/220Vac	264Vac
AC INPUT FREQUENCY	SINGLE PHASE	47Hz	50/60Hz	63Hz
AC INPUT CURRENT	TYPICAL INPUT VOLTAGE& OUTPUT AT FULL LOAD.			300mA
AC INRUSH CURRENT	TYPICAL INPUT VOLTAGE& OUTPUT AT FULL LOAD , 25°C.			30A
EFFICIENCY	TYPICAL INPUT VOLTAGE& OUTPUT AT FULL LOAD	65%		

### 2.OUTPUT SPECIFICATION

ITEM	SPECIFICATION	MIN	TYP.	MAX
NORMAL DC OUTPUT VOLTAGE			9Vdc	
DC OUTPUT VOLTAGE RANGE	TYPICAL OUTPUT VOLTAGE $\pm 5\%$	8.55V		9.45V
LOAD CURRENT RANGE		0A		1.3A
PEAK LOAD CURRENT	TIME<60S			1.6A
RIPPLE	TYPICAL INPUT VOLTAGE , TYPICAL LOAD CURRENT , 25°C			100mV
HOLD-UP TIME	AT TYPICAL INPUT VOLTAGE AND FULL LOAD	10mS		
TURN-ON DELAY	TYPICAL INPUT VOLTAGE AND TYPICAL LOAD CURRENT			1S
OVER CURRENT PROTECTION	AUTO RECOVERY			
SHORT CIRCUIT PROTECTION	THE ADAPTER SHALL NOT DAMAGE BY SHORT THE DC OUTPUT TO GROUND			
OVER VOLTAGE PROTECTION			10.4V	13.5V

### \*TEST MEASURES



C1: 0.1uF CERAMICS CAPACITOR  
C2: 10uF 50V ALUMINUM CAPACITOR

<b>Anthin</b>	<b>DESCRIPTION</b>	<b>SWITCHING POWER AC ADAPTER</b>	<b>SHEET NO.</b>	<b>3 OF 4</b>
			<b>VER:</b>	<b>A1</b>
	<b>MODEL NO.</b>	<b>APE312-0913</b>	<b>PART NO.</b>	<b>ST-0105</b>

### 3.MECHANICAL

ITEM	SPECIFICATION OR TEST CONDITION	ACCEPTANCE CRITERIA
BENDING TEST	NORMAL TEMPERATURE THE CORD SHALL WITHSTAND WEIGHT OF 200g, SWINGING FROM LEFT TO RIGHT AT AN ANGLE OF 60 DEG. 1000CYCLE TIMES MIN. S/R SHALL WITHSTAND WEIGHT OF 1N. SWINGING FROM LEFT TO RIGHT AT AN ANGLE OF 60DEG. 1000CYCLE TIMES MIN. BENDING SPEED 40CYCLE/MINUTE	NO SHORT CIRCUIT NO BREAKAGE OF THE CORD
VIBRATION	FREQUENCY RANGE:10~55Hz AMPLITUDE:1.5mm ACCELERATION: 1G SWEEP 1 MINUTE FOR X,Y,Z,AXIS EACH	THERE SHALL BENO ABNORMALITY ON THE APPEARANCE STRUCTURE AND OPERATING

### 4.RELIABILITY

ITEM	TEST CONDITION	ACCEPTANCE CRITERIA
TEMPERATURE UP WITH TYPICAL LOAD	TEST THE SURFACE OF THE CASE WITH TYPICAL LOAD OUTPUT AND TYPICAL AC INPUT 50/60Hz	TEMPERATURE UP UNDER 35 DEGREES
HI-POT TEST	INPUT TO OUTPUT GRADUALLY RAISED FROM 0 TO THE 3000Vac AND HELD AT THAT VALUE FOR 3S,5mA	NO DAMAGE
INSULATION RESISTANCE	INPUT TO OUTPUT,DC 500V	>100MΩ
MTBF	TYPICAL INPUT&FULL LOAD , 25℃	50000 HOURS
LIFE	TYPICAL INPUT&FULL LOAD, 40℃ TYPICAL INPUT&FULL LOAD, 25℃	1YEARS ABOVE 2YEARS ABOVE
BURN-IN	AT 30℃(±10℃),NORMAL INPUT VOLTAGE	2~4 HOURS

### 5.ENVIRONMENT

ITEM	SPECIFICATION OR TEST CONDITION	min.	typ.	max.
OPERATING TEMPERATURE		0℃		40℃
STORAGE TEMPERATURE		-20℃		85℃
OPERATING HUMILITY	NON-CONDENSING	5%RH		90%RH
STORAGE HUMILITY	NON-CONDENSING	5%RH		90%RH

<b>Anthin</b>	<b>DESCRIPTION</b>	<b>SWITCHING POWER AC ADAPTER</b>	<b>SHEET NO.</b>	<b>4 OF 4</b>
			<b>VER:</b>	<b>A1</b>
	<b>MODEL NO.</b>	<b>APE312-0913</b>	<b>PART NO.</b>	<b>ST-0105</b>

6.OUTLOOKING

DIMENSION :46(L)X34(W)X24.5(H)mm  
 WEIGHT :ABOUT 70g  
 AC INPUT TYPE :WALL MOUNT  
 DC OUTPUT TYPE : 5.5×2.1×9.5MM S TYPE

DC OUTPUT CABLE :USE UL 2468 20AWG WIRE RoHS COMPLIANT  
 INDICATION :LABEL RoHS COMPLIANT  
 CASE MATERIAL :94V-0 ABS+PC BLACK RoHS COMPLIANT  
 PCB MATERIAL :94V-0 RoHS COMPLIANT

7.SAFETY

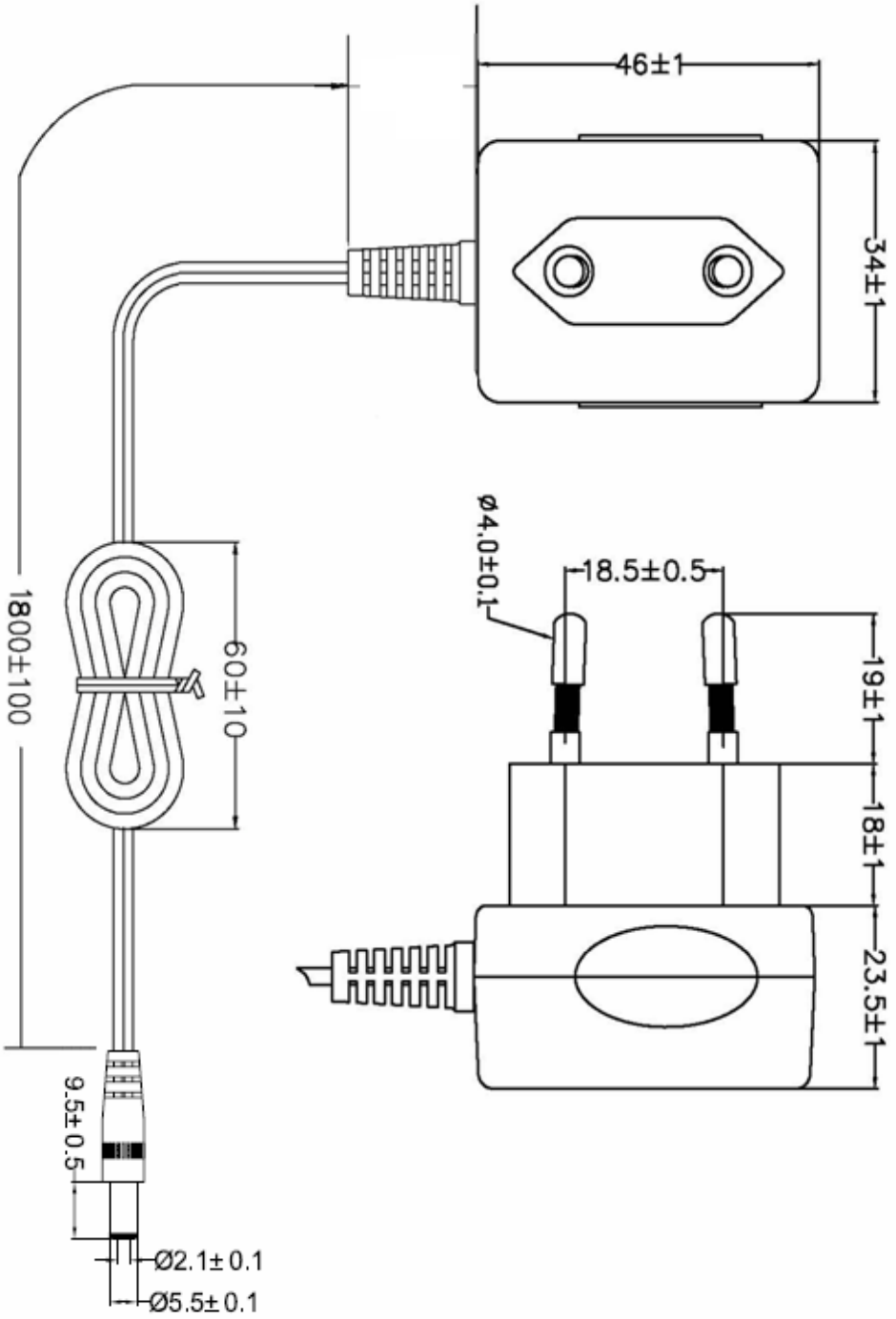
COMPLY SAFETY STANDARDS	STANDARD	FILE NO.

EMI
CE

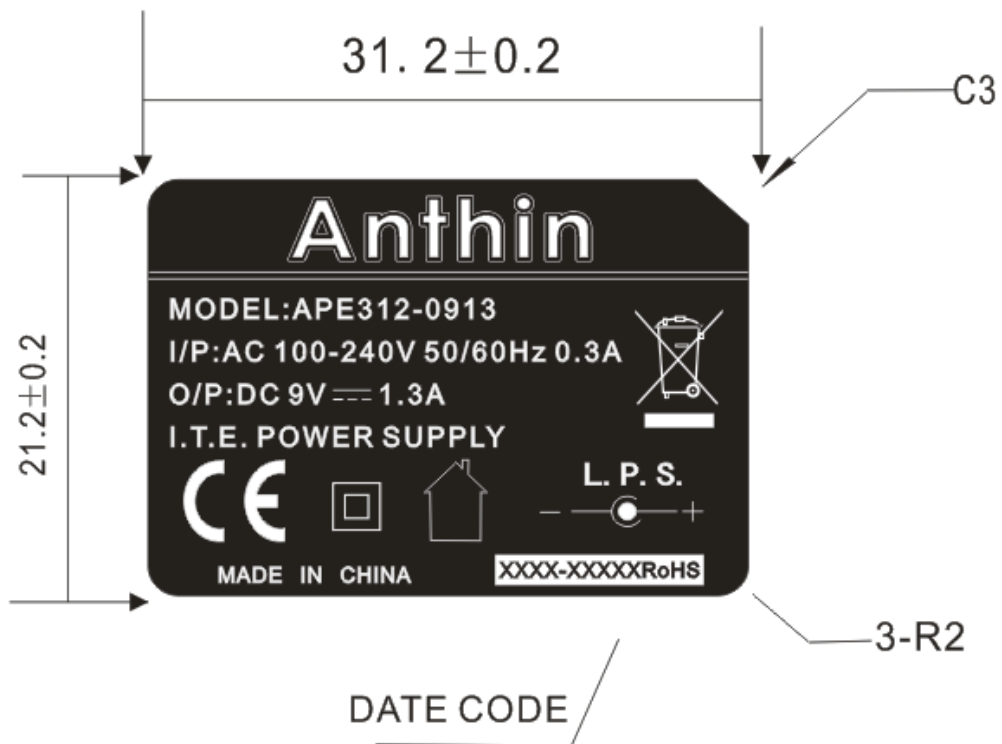
8.QC CHECK

ALL OF THE QUANTITY SHALL BE CHECKED BEFORE SHIPMENT,CHECK ITEM AS BELOW:

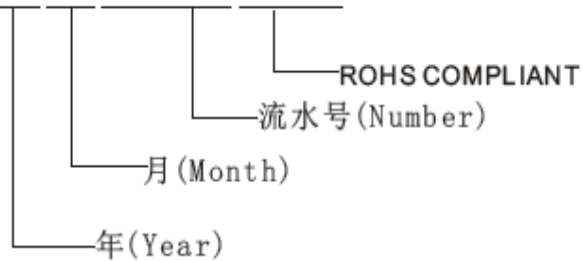
- (1)DC PLUG POLE CHECK
- (2)OCP FUNCTION CHECK
- (3)DC OUTPUT VOLTAGE CHECK
- (4)HIPOT&INSULATION CHECK
- (5)OUTLOOKING CHECK



TOLERANCE		FINISH		XXX		REV. A1		NAME	
1.6±	±0.05	±0.05	±0.1	±0.2	±0.3	±0.4	±0.5	±0.6	±0.7
1.6±	±0.05	±0.1	±0.1	±0.2	±0.3	±0.4	±0.5	±0.6	±0.7
2.0±	±0.1	±0.1	±0.15	±0.2	±0.25	±0.3	±0.4	±0.5	±0.6
2.5±	±0.15	±0.15	±0.2	±0.25	±0.3	±0.4	±0.5	±0.6	±0.7
3.0±	±0.2	±0.2	±0.3	±0.4	±0.5	±0.6	±0.7	±0.8	±0.9
4.0±	±0.3	±0.3	±0.4	±0.5	±0.6	±0.7	±0.8	±0.9	±1.0
5.0±	±0.4	±0.4	±0.5	±0.6	±0.7	±0.8	±0.9	±1.0	±1.1
6.0±	±0.5	±0.5	±0.6	±0.7	±0.8	±0.9	±1.0	±1.1	±1.2
8.0±	±0.7	±0.7	±0.8	±0.9	±1.0	±1.1	±1.2	±1.3	±1.4
10±	±1.0	±1.0	±1.1	±1.2	±1.3	±1.4	±1.5	±1.6	±1.7
15±	±1.5	±1.5	±1.6	±1.7	±1.8	±1.9	±2.0	±2.1	±2.2
20±	±2.0	±2.0	±2.1	±2.2	±2.3	±2.4	±2.5	±2.6	±2.7
30±	±3.0	±3.0	±3.1	±3.2	±3.3	±3.4	±3.5	±3.6	±3.7
40±	±4.0	±4.0	±4.1	±4.2	±4.3	±4.4	±4.5	±4.6	±4.7
50±	±5.0	±5.0	±5.1	±5.2	±5.3	±5.4	±5.5	±5.6	±5.7
60±	±6.0	±6.0	±6.1	±6.2	±6.3	±6.4	±6.5	±6.6	±6.7
80±	±8.0	±8.0	±8.1	±8.2	±8.3	±8.4	±8.5	±8.6	±8.7
100±	±10.0	±10.0	±10.1	±10.2	±10.3	±10.4	±10.5	±10.6	±10.7
150±	±15.0	±15.0	±15.1	±15.2	±15.3	±15.4	±15.5	±15.6	±15.7
200±	±20.0	±20.0	±20.1	±20.2	±20.3	±20.4	±20.5	±20.6	±20.7
300±	±30.0	±30.0	±30.1	±30.2	±30.3	±30.4	±30.5	±30.6	±30.7
400±	±40.0	±40.0	±40.1	±40.2	±40.3	±40.4	±40.5	±40.6	±40.7
500±	±50.0	±50.0	±50.1	±50.2	±50.3	±50.4	±50.5	±50.6	±50.7
600±	±60.0	±60.0	±60.1	±60.2	±60.3	±60.4	±60.5	±60.6	±60.7
800±	±80.0	±80.0	±80.1	±80.2	±80.3	±80.4	±80.5	±80.6	±80.7
1000±	±100.0	±100.0	±100.1	±100.2	±100.3	±100.4	±100.5	±100.6	±100.7
1500±	±150.0	±150.0	±150.1	±150.2	±150.3	±150.4	±150.5	±150.6	±150.7
2000±	±200.0	±200.0	±200.1	±200.2	±200.3	±200.4	±200.5	±200.6	±200.7
3000±	±300.0	±300.0	±300.1	±300.2	±300.3	±300.4	±300.5	±300.6	±300.7
4000±	±400.0	±400.0	±400.1	±400.2	±400.3	±400.4	±400.5	±400.6	±400.7
5000±	±500.0	±500.0	±500.1	±500.2	±500.3	±500.4	±500.5	±500.6	±500.7
6000±	±600.0	±600.0	±600.1	±600.2	±600.3	±600.4	±600.5	±600.6	±600.7
8000±	±800.0	±800.0	±800.1	±800.2	±800.3	±800.4	±800.5	±800.6	±800.7
10000±	±1000.0	±1000.0	±1000.1	±1000.2	±1000.3	±1000.4	±1000.5	±1000.6	±1000.7
15000±	±1500.0	±1500.0	±1500.1	±1500.2	±1500.3	±1500.4	±1500.5	±1500.6	±1500.7
20000±	±2000.0	±2000.0	±2000.1	±2000.2	±2000.3	±2000.4	±2000.5	±2000.6	±2000.7
30000±	±3000.0	±3000.0	±3000.1	±3000.2	±3000.3	±3000.4	±3000.5	±3000.6	±3000.7
40000±	±4000.0	±4000.0	±4000.1	±4000.2	±4000.3	±4000.4	±4000.5	±4000.6	±4000.7
50000±	±5000.0	±5000.0	±5000.1	±5000.2	±5000.3	±5000.4	±5000.5	±5000.6	±5000.7
60000±	±6000.0	±6000.0	±6000.1	±6000.2	±6000.3	±6000.4	±6000.5	±6000.6	±6000.7
80000±	±8000.0	±8000.0	±8000.1	±8000.2	±8000.3	±8000.4	±8000.5	±8000.6	±8000.7
100000±	±10000.0	±10000.0	±10000.1	±10000.2	±10000.3	±10000.4	±10000.5	±10000.6	±10000.7
150000±	±15000.0	±15000.0	±15000.1	±15000.2	±15000.3	±15000.4	±15000.5	±15000.6	±15000.7
200000±	±20000.0	±20000.0	±20000.1	±20000.2	±20000.3	±20000.4	±20000.5	±20000.6	±20000.7
300000±	±30000.0	±30000.0	±30000.1	±30000.2	±30000.3	±30000.4	±30000.5	±30000.6	±30000.7
400000±	±40000.0	±40000.0	±40000.1	±40000.2	±40000.3	±40000.4	±40000.5	±40000.6	±40000.7
500000±	±50000.0	±50000.0	±50000.1	±50000.2	±50000.3	±50000.4	±50000.5	±50000.6	±50000.7
600000±	±60000.0	±60000.0	±60000.1	±60000.2	±60000.3	±60000.4	±60000.5	±60000.6	±60000.7
800000±	±80000.0	±80000.0	±80000.1	±80000.2	±80000.3	±80000.4	±80000.5	±80000.6	±80000.7
1000000±	±100000.0	±100000.0	±100000.1	±100000.2	±100000.3	±100000.4	±100000.5	±100000.6	±100000.7
1500000±	±150000.0	±150000.0	±150000.1	±150000.2	±150000.3	±150000.4	±150000.5	±150000.6	±150000.7
2000000±	±200000.0	±200000.0	±200000.1	±200000.2	±200000.3	±200000.4	±200000.5	±200000.6	±200000.7
3000000±	±300000.0	±300000.0	±300000.1	±300000.2	±300000.3	±300000.4	±300000.5	±300000.6	±300000.7
4000000±	±400000.0	±400000.0	±400000.1	±400000.2	±400000.3	±400000.4	±400000.5	±400000.6	±400000.7
5000000±	±500000.0	±500000.0	±500000.1	±500000.2	±500000.3	±500000.4	±500000.5	±500000.6	±500000.7
6000000±	±600000.0	±600000.0	±600000.1	±600000.2	±600000.3	±600000.4	±600000.5	±600000.6	±600000.7
8000000±	±800000.0	±800000.0	±800000.1	±800000.2	±800000.3	±800000.4	±800000.5	±800000.6	±800000.7
10000000±	±1000000.0	±1000000.0	±1000000.1	±1000000.2	±1000000.3	±1000000.4	±1000000.5	±1000000.6	±1000000.7
15000000±	±1500000.0	±1500000.0	±1500000.1	±1500000.2	±1500000.3	±1500000.4	±1500000.5	±1500000.6	±1500000.7
20000000±	±2000000.0	±2000000.0	±2000000.1	±2000000.2	±2000000.3	±2000000.4	±2000000.5	±2000000.6	±2000000.7
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50000000±	±5000000.0	±5000000.0	±5000000.1	±5000000.2	±5000000.3	±5000000.4	±5000000.5	±5000000.6	±5000000.7
60000000±	±6000000.0	±6000000.0	±6000000.1	±6000000.2	±6000000.3	±6000000.4	±6000000.5	±6000000.6	±6000000.7
80000000±	±8000000.0	±8000000.0	±8000000.1	±8000000.2	±8000000.3	±8000000.4	±8000000.5	±8000000.6	±8000000.7
100000000±	±10000000.0	±10000000.0	±10000000.1	±10000000.2	±10000000.3	±10000000.4	±10000000.5	±10000000.6	±10000000.7
150000000±	±15000000.0	±15000000.0	±15000000.1	±15000000.2	±15000000.3	±15000000.4	±15000000.5	±15000000.6	±15000000.7
200000000±	±20000000.0	±20000000.0	±20000000.1	±20000000.2	±20000000.3	±20000000.4	±20000000.5	±20000000.6	±20000000.7
300000000±	±30000000.0	±30000000.0	±30000000.1	±30000000.2	±30000000.3	±30000000.4	±30000000.5	±30000000.6	±30000000.7
400000000±	±40000000.0	±40000000.0	±40000000.1	±40000000.2	±40000000.3	±40000000.4	±40000000.5	±40000000.6	±40000000.7
500000000±	±50000000.0	±50000000.0	±50000000.1	±50000000.2	±50000000.3	±50000000.4	±50000000.5	±50000000.6	±50000000.7
600000000±	±60000000.0	±60000000.0	±60000000.1	±60000000.2	±60000000.3	±60000000.4	±60000000.5	±60000000.6	±60000000.7
800000000±	±80000000.0	±80000000.0	±80000000.1	±80000000.2	±80000000.3	±80000000.4	±80000000.5	±80000000.6	±80000000.7
1000000000±	±100000000.0	±100000000.0	±100000000.1	±100000000.2	±100000000.3	±100000000.4	±100000000.5	±100000000.6	±100000000.7
1500000000±	±150000000.0	±150000000.0	±150000000.1	±150000000.2	±150000000.3	±150000000.4	±150000000.5	±150000000.6	±150000000.7
2000000000±	±200000000.0	±200000000.0	±200000000.1	±200000000.2	±200000000.3	±200000000.4	±200000000.5	±200000000.6	±200000000.7
3000000000±	±300000000.0	±300000000.0	±300000000.1	±300000000.2	±300000000.3	±300000000.4	±300000000.5	±300000000.6	±300000000.7
4000000000±	±400000000.0	±400000000.0	±400000000.1	±400000000.2	±400000000.3	±400000000.4	±400000000.5	±400000000.6	±400000000.7
5000000000±	±500000000.0	±500000000.0	±500000000.1	±500000000.2	±500000000.3	±500000000.4	±500000000.5	±500000000.6	±500000000.7
6000000000±	±600000000.0	±600000000.0	±600000000.1	±600000000.2	±600000000.3	±600000000.4	±600000000.5	±600000000.6	±600000000.7
8000000000±	±800000000.0	±800000000.0	±800000000.1	±800000000.2	±800000000.3	±800000000.4	±800000000.5	±800000000.6	±800000000.7
10000000000±	±1000000000.0	±1000000000.0	±1000000000.1	±1000000000.2	±1000000000.3	±1000000000.4	±1000000000.5	±1000000000.6	±1000000000.7
15000000000±	±1500000000.0	±1500000000.0	±1500000000.1	±1500000000.2	±1500000000.3	±1500000000.4			



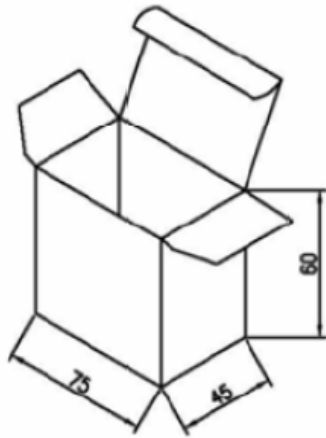
XXXX-XXXXXRoHS



**NOTE:**

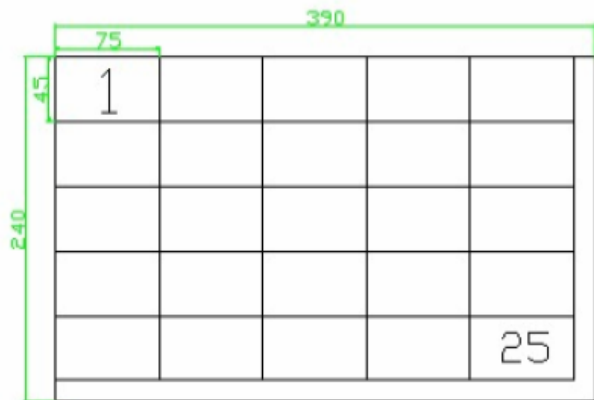
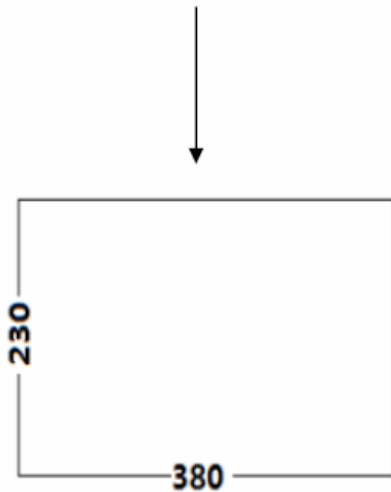
- 1.SILVER WORD(银字) ON BLACK BASE(黑底).
- 2.MATERIAL:PVC + MYLAR FILM
- 3.ROHS COMPLIANT.

TOLERANCE					FINISH	NAME: LABEL		
L ≤ 4	0.05	0.08	0.1	0.2		MATERIAL	QTY	REV.
4 < L ≤ 20	0.08	0.1	0.2	0.3	A1			
20 < L ≤ 50	0.1	0.15	0.3	0.4	UNIT mm	PART NO.	ST-0105	
50 < L ≤ 200	0.15	0.25	0.4	0.6				SCALE
200 < L	0.2	0.4	0.5	0.8				REF.
DEG.	CHKD.	APPD.	UNIT		REF.	REV.		
Anni			mm		REM.			

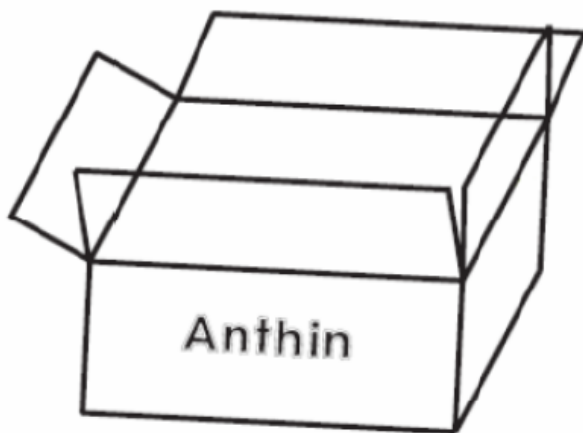


成品1PCS装入小白盒  
 小白盒材质 (450G)  
 外径尺寸 : 长\*宽\*高  
 L\*W\*H ( 75\*45\*60mm )  
 TOLERANCE : ±1

WHITE INNER BOX+OUT CARTON  
 WHITE INNER BOX OUT SIDE DIMENSION :  
 L\*W\*H ( 75\*45\*60mm )  
 TOLERANCE : ±1



每层装25个小白盒，共可装4层。



成品100PCS装入外箱  
 外箱3段 : K=A  
 外径尺寸 : 长\*宽\*高  
 L390\*W240\*H282mm  
 平卡尺寸 : 长\*宽  
 L380\*W230mm

TOLERANCE					FINISH	REV.	A1	NAME	PACKING
L < 4	4 < L < 20	20 < L < 50	50 < L < 200	200 < L					
±0.05	±0.08	±0.1	±0.2	±0.3	MATERIAL				
±0.08	±0.1	±0.2	±0.3	±0.4					
±0.1	±0.15	±0.3	±0.4	±0.6	UNIT	mm			
±0.15	±0.25	±0.4	±0.6	±0.8					
±0.2	±0.4	±0.5	±0.8	±1.0	SCALE	REF.	PART NO.	ST-0105	
DEG.	CHKD.	APPD.	UNIT	mm					
Anni			DWG NO.						