Specification of Electret Condenser Microphone

(RoHS Compliance)

Customer name: 德 信
Item name : TF801
IEA Model : B4015AS483-25

I E A		CUSTOMER APPROVAL
DESIGN	Angela Nov 16 2006	
CHKD	Bob Nov 16 2006	
STANDARD	Merry Nov 16 2006	
APVD	Herbert Nov 16 2006	

Tel: (86)0536-5097777
(86)0536-5097777-8001
Fax: (86)0536-8883251(2104397)
Website: Http://www.iea.cn
E-mail: iea@iea.cn
Address: Ronghua North Road, High&New Technology Industry Development District,Weifang,Shandong,China
Weifang IEA Electro-Acoustic Co.,Ltd

Restricted

1 Security warning

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2 Publication history

Version	Description	Date	Author	Approved
1.0	New Design	2006.03.23	Bob	Herbert

3 Modification Mark column

Modified Mark	Modified QTY	Modified p/o No.	Modified position	Modifier/Date

Contents

PRODUCT SPECIFICATIONS

Type: Electret Condenser Microphone
Number: B4015AS483-25

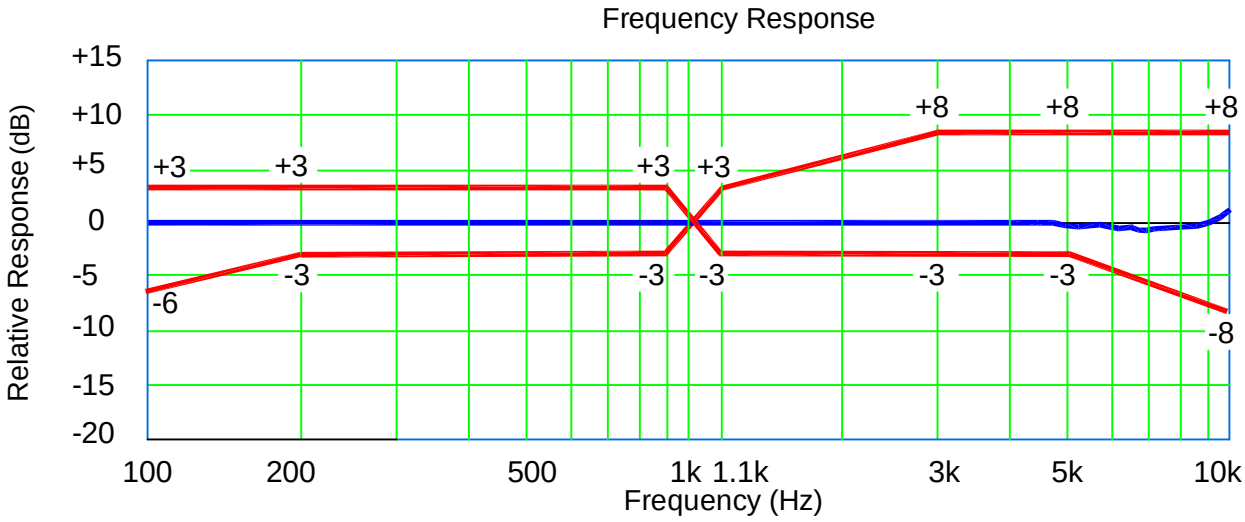
1 Test Condition (Vs=2.0V , RL=2.2kΩ, B&K 50 cm)

StandardConditions (As IEC 60268-4)	Temperature	Humidity	Air pressure
Environment Conditions	+15℃～+35℃	45％RH～75%RH	86kPa～106kPa
Basic Test Conditions	+20±2℃	60％RH～70%RH	86kPa～106kPa

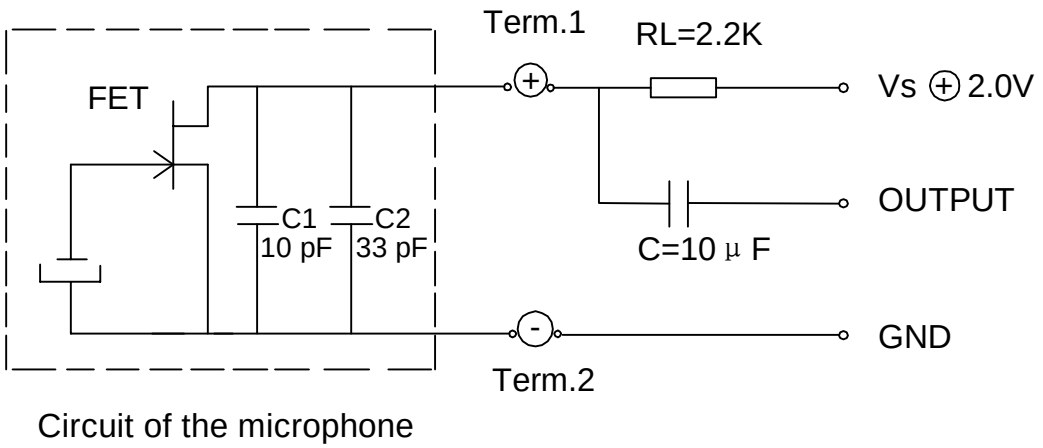
2 Electrical Characteristics

Item	Symbol	Test Conditions	Min	Standard	Max	Unit
Sensitivity	S	f=1kHz, Pin=1Pa	-51	-48	-45	dB 0dB=1V/Pa
Output Impedance	Zout	f=1kHz, Pin=1Pa			2.2k	Ω
Directivity	D(θ)	Omnidirectional				dB
Current Consumption	I				500	μA
S/N Ratio	S/N(A)	f=1kHz, Pin=1Pa A-Weighted Curve	52			dB
Decreasing Voltage Characteristic	ΔS	f=1kHz, Pin=1Pa Vs=2.0-- 1.5V			-3	dB
Operating Voltage Range	Vs		1.1		10	V
Distortion	THD	f=1kHz, Pin=110dB			3	%

3 Frequency in Cycles Per Second &Microphone Response Tolerance Window

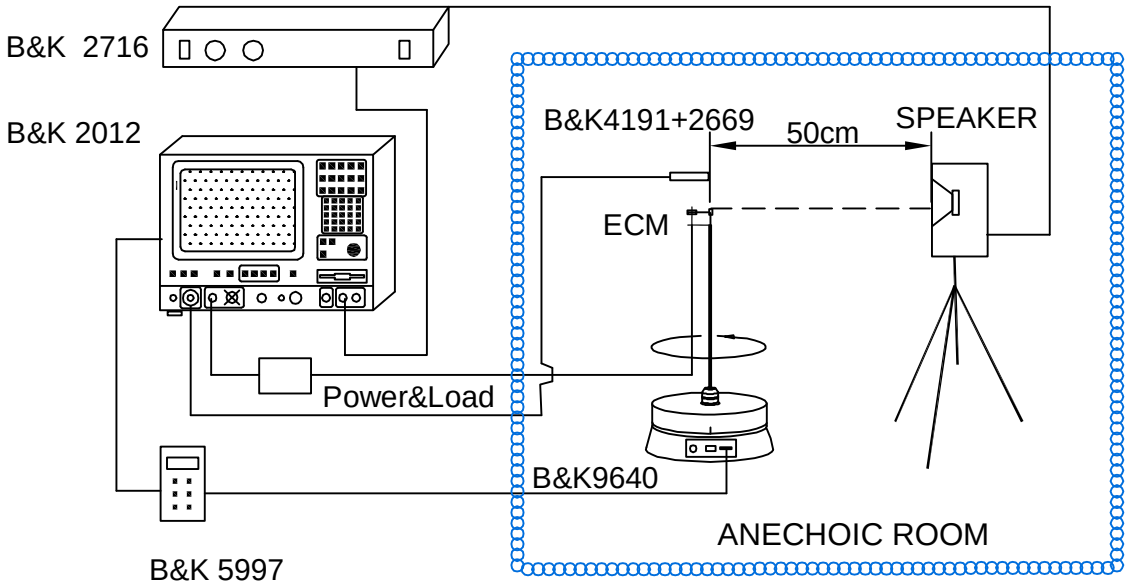


4 Measurement Circuit



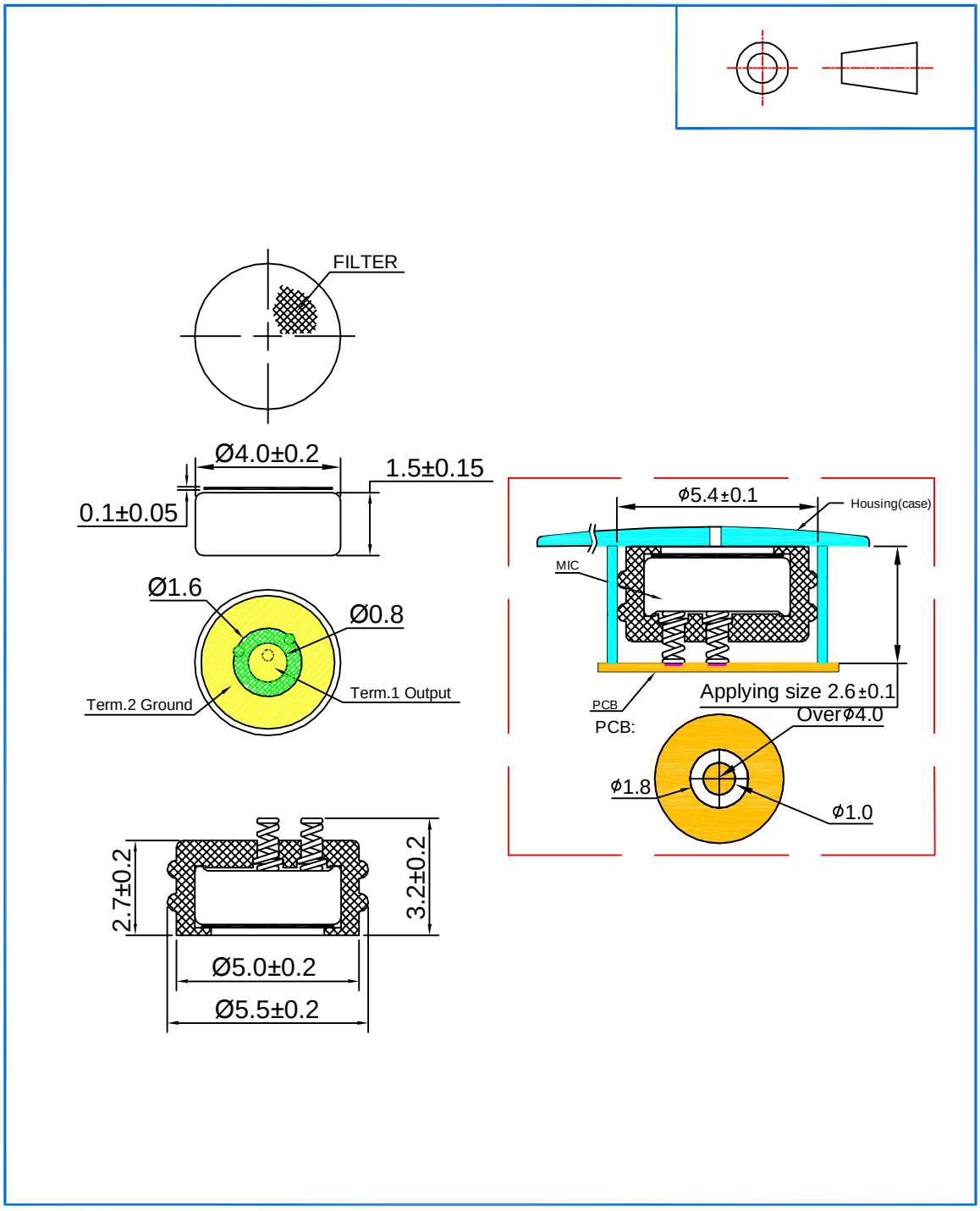
Circuit of the microphone

5 Test setup Drawing



6 Mechanical Characteristics

6.1 Appearance Drawing (Unit: mm)

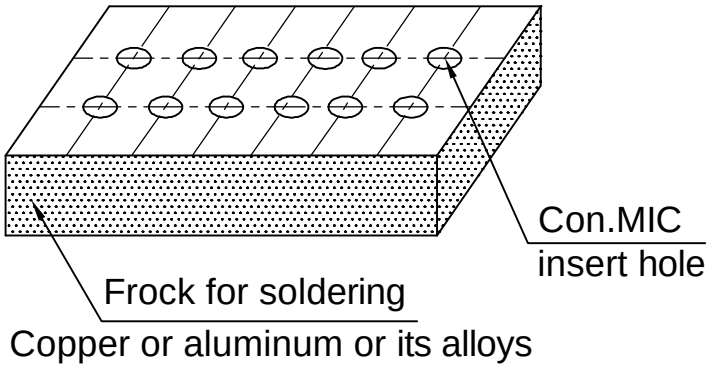


6.2 Weight

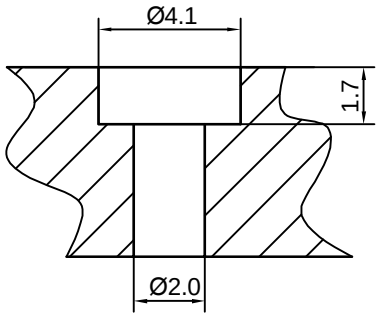
Less than 0.2g

7 Soldering

7.1 Frock for soldering (Unit: mm)



Shape of the individual hole



7.2 Cautions

7.2.1. When soldering, we use antistatic welding machine which can control soldering temperature automatically.

7.2.2. The temperature of the working surface of the the soldering copper shall be below 270 ℃. If customer confirm to use lead-free soldering,the soldering temperature is 280± 10℃ for less than 2 seconds.

7.2.3. ECM shall be soldered fixed on the metal block (heat sink)which has the higher radiation effects Said heat sink shall contact with each of ECM.

7.2.4. Soldering flux cover holes on PCB .

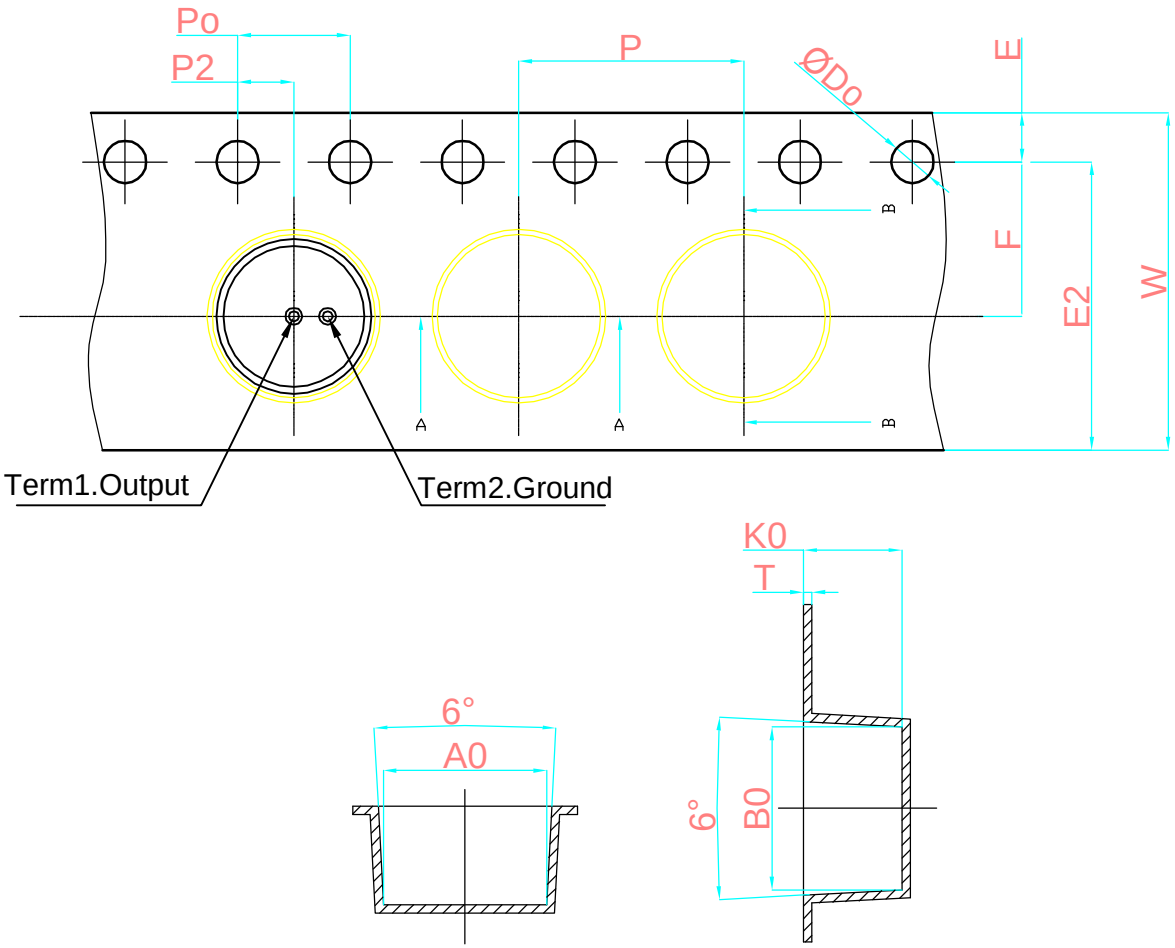
7.2.5. ECM may easily destroyed by the static electricity, and the countermeasure for elimination the static electricity (the ground or soldering copper,for human body)shall be executed.

8 Reliability Test

8.1 Vibration Test	To be no interference in operation after vibrations,10Hz to 55 Hz for 1 minute full amplitude 1.52 mm,for 2 hours at three axises in state of standard packing,sensitivity to be within ± 3dB from initial sensitivity. (The measurement to be done after 2 hours of conditioning at +15℃～+35℃, R.H 45%～75%)
8.2 Drop Test	To be no interference in operation after dropped to concrete floor each one time from 1.5 meter height at three directions in state of Outer packing,sensitivity to be within ± 3dB from initial sensitivity. (The measurement to be done after 2 hours of conditioning at +15 ℃～+35℃, R.H 45%～75%)
8.3 Temperature Test	a) After exposure at +85° C for 200 hours,sensitivity to be within ±3dB from initial sensitivity. (The measurement to be done after 2 hours of conditioning at +15 ℃～+35℃, R.H 45%～75%) b) After exposure at -40° C for 200 hours,sensitivity to be within ±3dB from initial sensitivity. (The measurement to be done after 2 hours of conditioning at +15 ℃～+35℃, R.H 45%～75%)
8.4 Humidity Test	After exposure at +40℃ and 90%~95% relative humidity for 200 hours,sensitivity to be within ± 3dB from initial sensitivity. (The measurement to be done after 2 hours of conditioning at +15 ℃～+35℃, R.H 45%～75%)
8.5 Temperature Cycle Test	After exposure at -40℃ for 30 minutes, at 20℃ for 10 minutes, at+85℃ for 30 minutes,at 20℃ for 10 minutes,5 cycles,sensitivity to be within ± 3dB from initial sensitivity. (The measurement to be done after 2 hours of conditioning at +15 ℃～+35℃, R.H 45%～75%)
8.6 Temperature Shock Test	After exposure at -40℃ for 30 minutes, at+85℃ for 30 minutes(change time 20 seconds), 32 cycles,sensitivity to be within ± 3dB from initial sensitivity. (The measurement to be done after 2 hours of conditioning at +15 ℃～+35℃, R.H 45%～75%)

9 Packing

9.1 Taping Specification

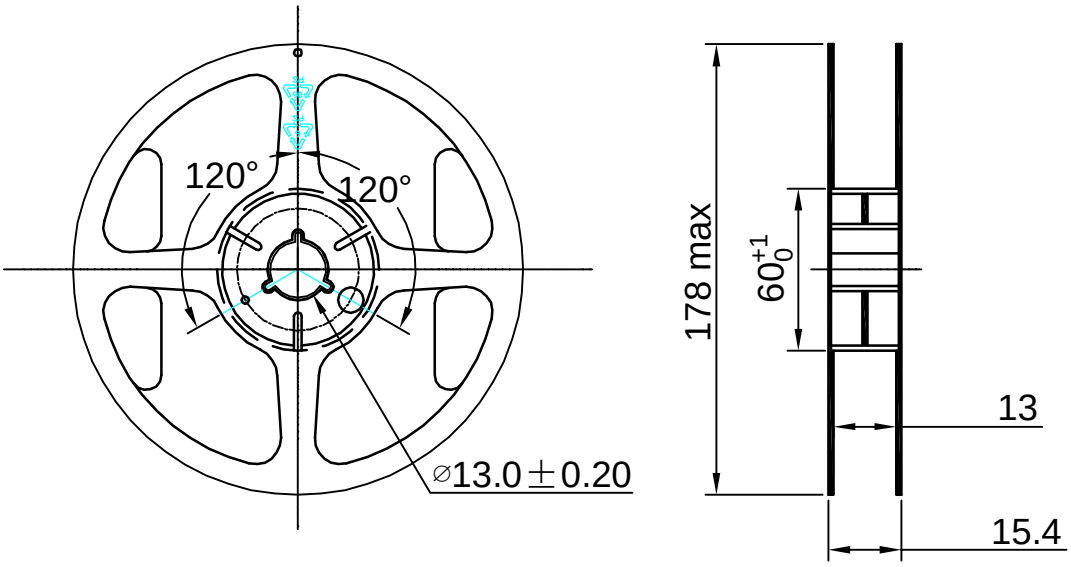


the dimensions as follows:

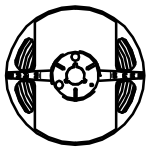
ITEM	W	E	F	ØD0	P0
DIM(mm)	12.0± 0.30	1.75± 0.10	5.50± 0.05	1.50± 0.10	4.00± 0.10
ITEM	10P0	P	A0	B0	K0
DIM(mm)	40.00± 0.20	8.00± 0.10	5.80± 0.10	5.80± 0.10	3.50± 0.10
ITEM	P2	T			
DIM(mm)	2.00± 0.05	0.30± 0.05			

9.2 Reel Dimension

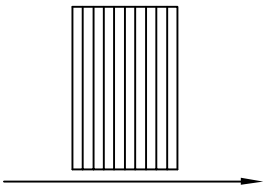
7〃 reel for sample stage

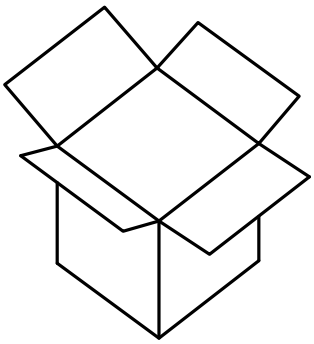


9.3 The content of box

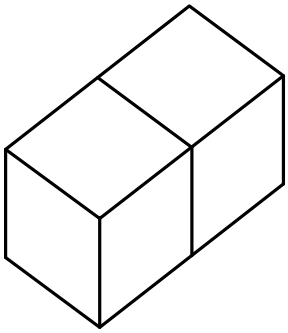


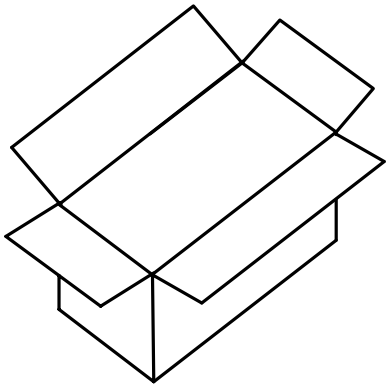
Packing (600PCS)





Inner Box(6000PCS)
(200mm*200mm*200㎜)

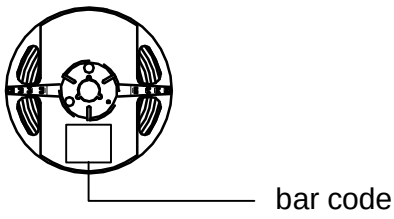




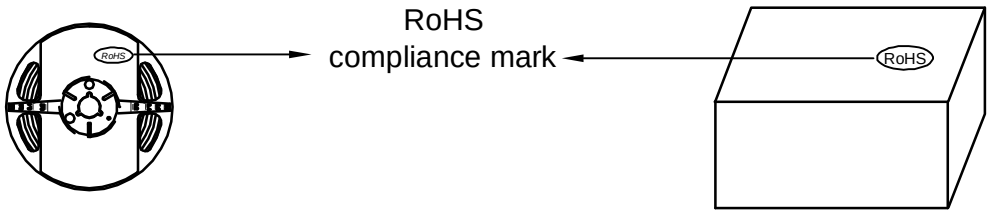
Outer Box(12000PCS)
(460mm*240mm*240㎜)

9.4 Packing Explain

9.4.1 The facing of a quilt labeling



9.4.2 The obverse labeling



10 Stock and Transportation

10.1 Keep ECM in warehouse with less than 75 % humidity and without sudden temperature change, acid air, any other harmful air or strong magnetic field.

10.2 The ECM with normal pack can be transported by ordinary conveyances.Please protect products against moist, shock, sunburn and pressure during transportation.

10.3 Storage Temperature Range： -40℃～+85℃

10.4 Operating Temperature Range： -30℃～+70℃

11 Output Inspection standard

Output inspection standard is excuted according to 《ISO2859-1:1999》.