

MESSRS.**SPECIFICATION FOR APPROVAL****承 認 书**

Product	DYNAMIC SPEAKER
Part No.	HDK-3008BB-10C6 (RoHS)
Customer Approval	

Approved By	Checked By	Made By
王台平 2024.12.30	曹丽萍 2024.12.30	LILY 2024.12.30

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History change record

[illegible]

1. Specification

HDK-3008BB-10C6 (RoHS)

ITEM		SPECIFICATIONS	
01	Type	Dynamic speaker	
02	Dimension	External diameter 30 mm	
03	Rated Input Power	1.5W	
04	Max. Input Power	2W for 1 minute	
05	Impedance	8 ohm $\pm$ 15% at 2KHz.	
06	Resonance Frequency (Fo)	600Hz $\pm$ 20%	
07	Sensitivity (S.P.L.)	98dB(1W/0.1m) $\pm$ 3dB	at AVE 0.8, 1.0, 1.2, 1.5KHz
08	Frequency Range	Fo – 20KHz	
09	Dustproof and Waterproof	IP55	
10	Total Harmonics Distortion	Max 10 % at 1 KHz, 1.0W.	
12	Weight	7.4 $\pm$ 0.5g	
13	Appearance	Should not exist any obstacle to be harmful to normal operation; damages, cracks, rusts and distortions, etc.	
14	Operation Test	Must be normal at program source – 1.5W	
15	Buzz, Rattle, etc.	Should not be audible at 3.46V sine Wave between 300 to 5KHz	
16	Polarity	When positive voltage is applied to the terminal marked (+), diaphragm should move to the front.	
17	Terminal Strength	Capable of withstand 1kg load for 30 seconds without resulting in any damage or rejection.	
18	Temperature	Operating temperature: -30℃ to +60℃ Storage temperature: -40℃ to +70℃	

2-1. Test Condition

Standard

Temperature : 15 ~ 35℃

Relative humidity : 25% ~ 85%,

Atmospheric pressure : 860mbar to 1060mbar.

Basic

Temperature : 20±3℃

Relative humidity : 60% ~ 70%,

Atmospheric pressure : 860mbar to 1060mbar

2-2. Standard Test Fixture

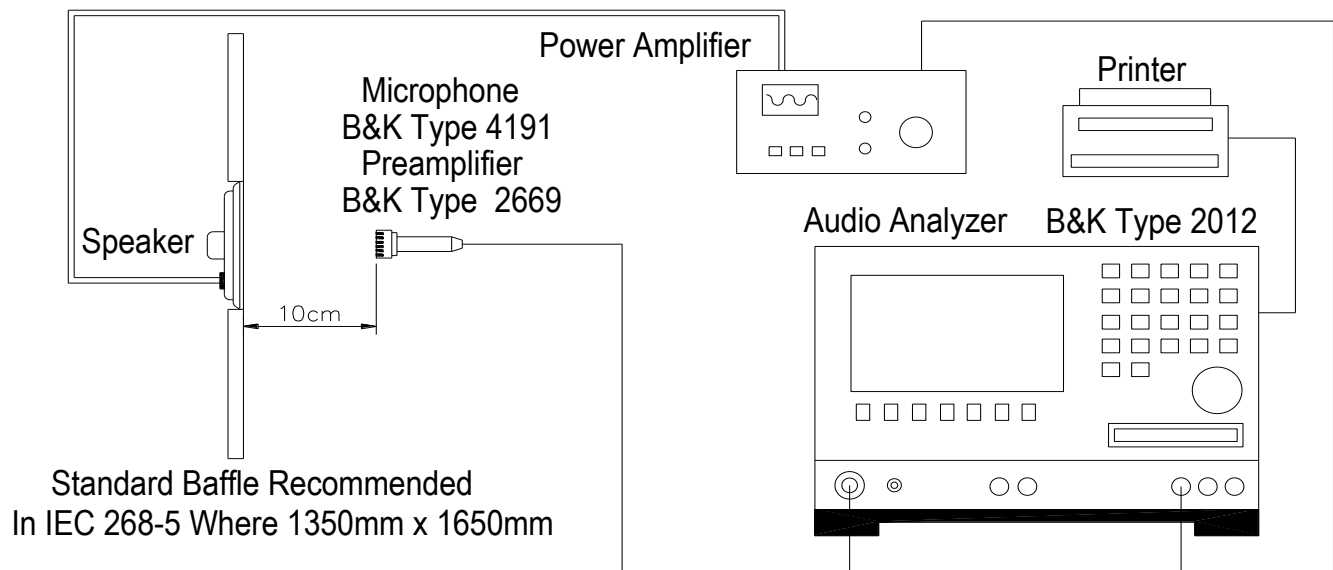
1.Input Power : 1.0W (2.83V)

2.Zero Level : -dB

3.Mode : SPEAKER

4.potentiometer Range : 50dB

5.Sweep Time : 0.5sec



2-3. FREQUENCY RESPONSE (SPL curve, THD curve)

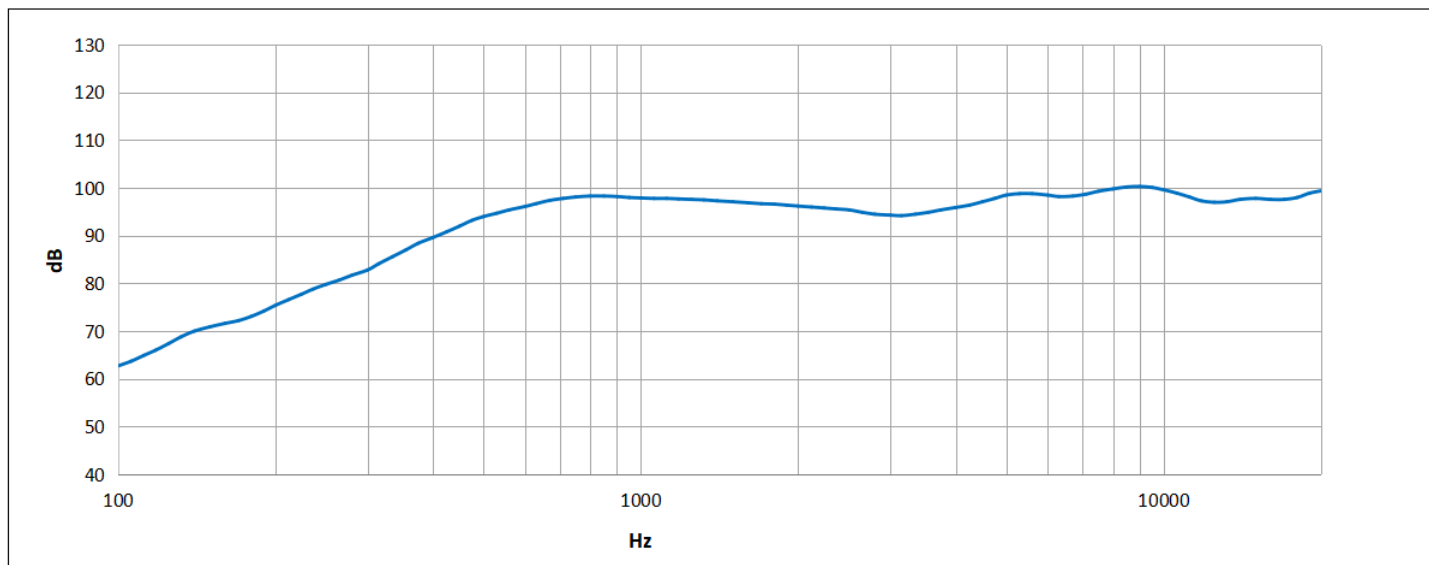


Fig.1 Frequency response

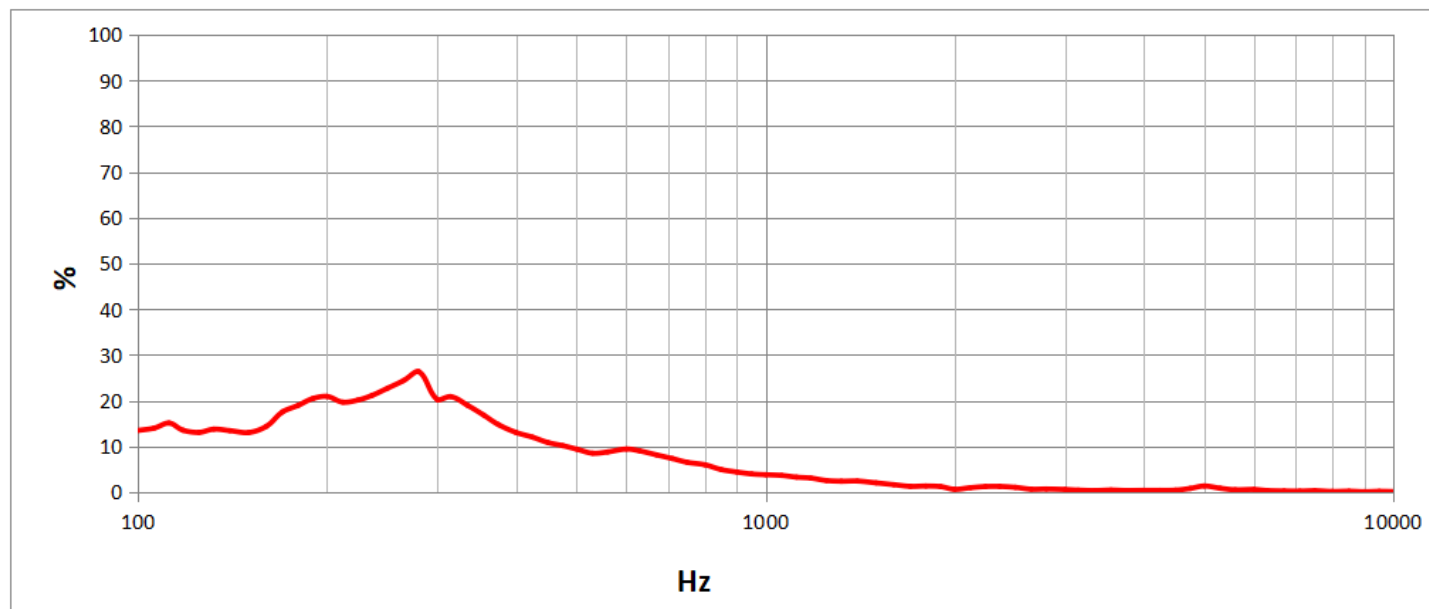
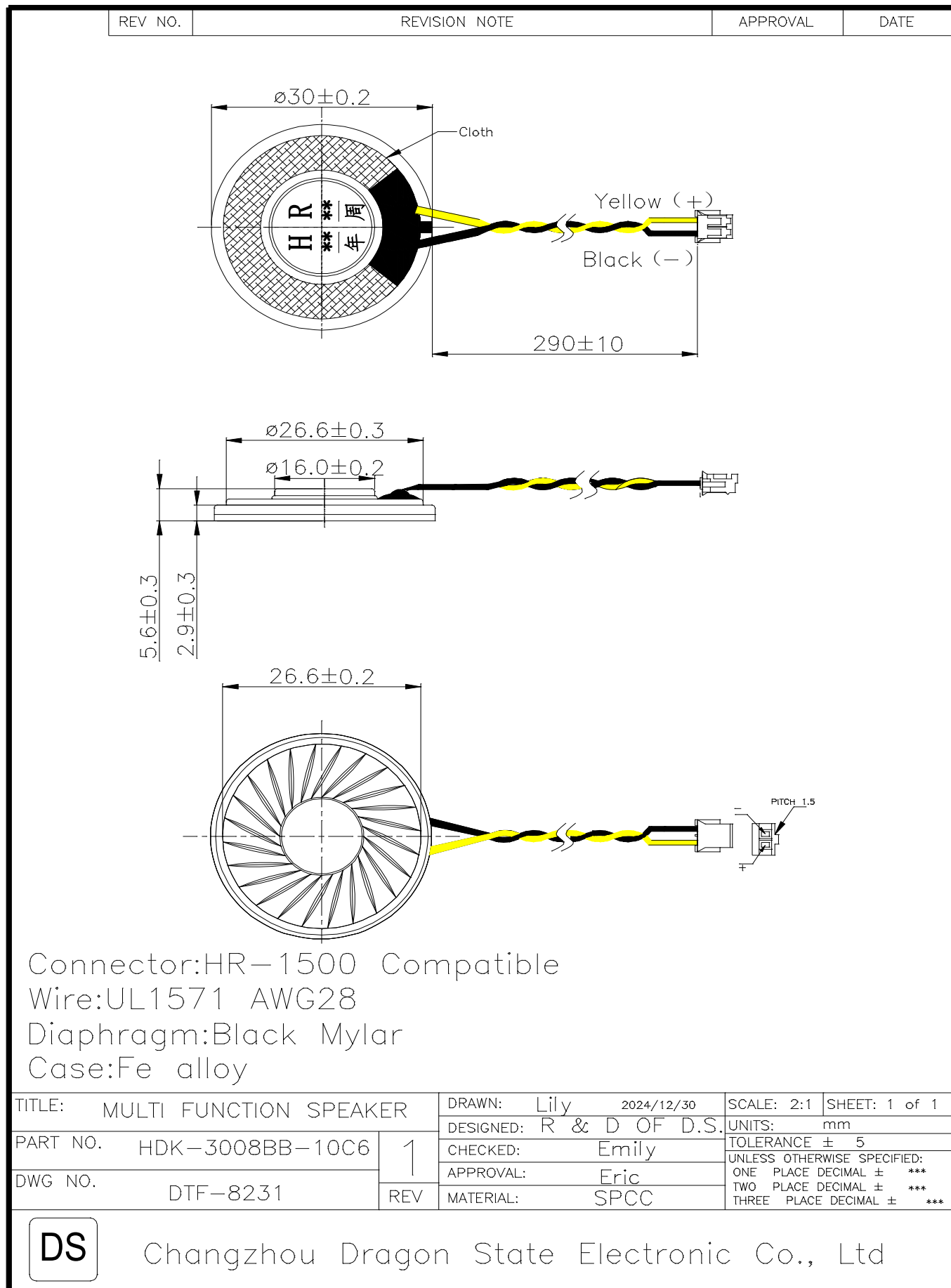
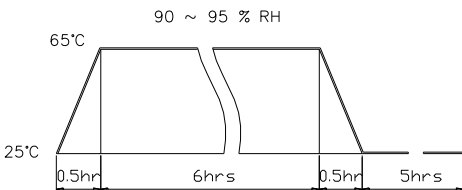


Fig.2 THD

3.Dimension



4. Reliability Test

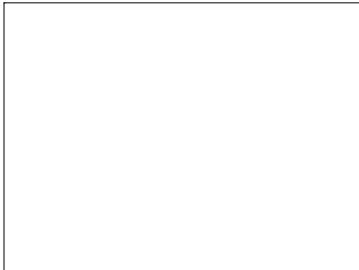
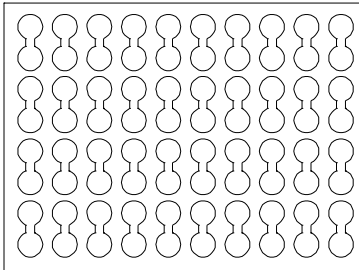
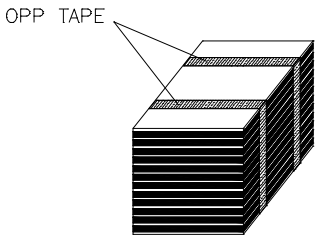
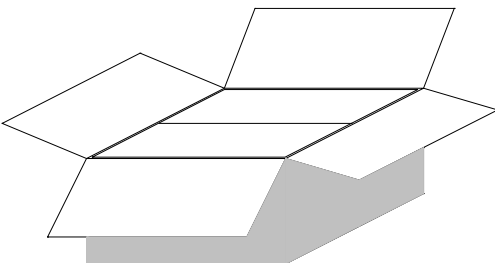
Items.		Specifications
01	High temp. Test	Keep 96 hours at $+70^{\circ}\text{C} \pm 3^{\circ}\text{C}$ and leave 3 hours in normal temperature and then check
02	Low temp. Test	Keep 96 hours at $-30^{\circ}\text{C} \pm 3^{\circ}\text{C}$ and leave 3 hours in normal temperature and then check
03	Humidity test	Keep 96 hours at $+40^{\circ}\text{C} \pm 3^{\circ}\text{C}$ relative humidity 95% and leave 3 hours in normal temperature and then checked.
04	Temp./Humidity cycle	The part shall be subjected 5 cycles. One cycle shall be 12 hours and consist of; 
05	Thermal cycle test.	Low temperature: $-30^{\circ}\text{C} \pm 3^{\circ}\text{C}$, temperature: $+70^{\circ}\text{C} \pm 3^{\circ}\text{C}$, cycle: 1 hour/cycle each, and then keep 5 cycles in a room.
06	Vibration	10~200~10Hz sin-wave sweep 15min. 5G(constant) X,Y, Z 3 direction. 2 hours each, total 6 hours.
07	Fix drop test	Fix on jig. Then drop from 152cm height to the concrete floor X, y, z 6 direction. 5 times each, total 30 times.
08	Free drop test	Free drop from 100cm height to the concrete floor X, y, z 6 direction. 1 times each, total 6 times.
09	Rated Power test	Rated Power Pink noise is applied for 96 hours
10	Max Power test	Max power 1 min on – 2 min off 10 cycles.
11	Terminal strength test	Capable of withstand 1kg load for 30 seconds without resulting in any damage or rejection.
Criterion: After these test , the change of S.P.L shall be within $\pm 3 \text{ dB}$.		

SOLDERING CONDITION

Recommend using constant branding iron in **15 ~ 30W**, and in temperature range **$350 \pm 10^{\circ}\text{C}$** .

Soldering time not over **3** seconds.

5. Packing

REV NO.	REVISION NOTE	APPROVAL	DATE
 ↓  ↓  ↓  Cover(345*285*5mm) Material:Eps Box(345*285*16mm) 80pcs Material:Eps Middle(345*285*130mm) 640pcs Material:Eps Outer Box(365*300*285mm) 1280pcs Material:Paper			
单位: mm			
TITLE: packing		DRAWN: Lily 2014/06/09	
PART NO.		DESIGNED: R&D OF D.S.	
DWG NO.		CHECKED: Emily	
1 REV		APPROVAL: Eric	
		MATERIAL: ***	
		SCALE: 2:1	SHEET: 1 of 1
		UNITS: mm	
		TOLERANCE	
		20~11	± 0.3
		10~5	± 0.2
		<4	± 0.1

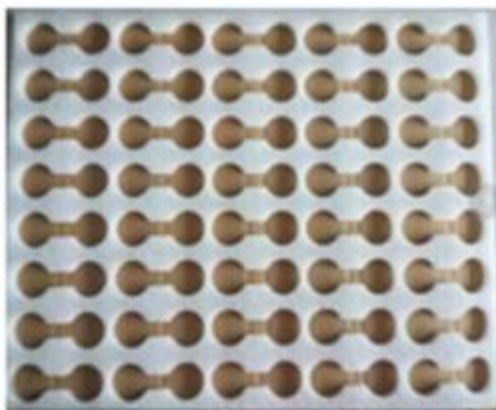
DS

Changzhou Dragon State Electronic Co., Ltd

内标签

PN:	
QUANTITY:	
MPN:	
	
规格型号:	
常州华龙电子有限公司	

内包装



外箱标签

Roborock PN:		RoHS 标签
供应商名称:	1. 1. 100	
制造商名称:	常州华龙电子有限公司	
MPN:		PASS 章
规格描述:		
批次号:		
生产日期:		二维码 (Roborock PN, 供应商代码, MPN, 生产日期, 批次号, 订单编号, 数量 QTY, 特殊用途)
出货日期:		
订单编号:		
数量 QTY:		
QR CODE 二维码包含信息规则 (最大 128 位):		
Roborock PN: 预留 10 位, 在 Roborock 系统中的料号 (包含料号中的间隔 “.” 点符号), 如 1.01.0001, 多余位留空;		
供应商代码: 在 Roborock 系统中的代码 (包含中间的间隔 “.” 点符号), 共 7 位;		
MPN: 预留 15 位, 多余位留空; 无此信息可以留空;		
生产日期: 预留 8 位, 日期格式 20180601; 周别格式 1803, 18 年第 3 周; 多余位留空;		
批次号: 预留 20 位, 多余位留空; 无此信息可以留空;		
订单编号: 预留 15 位; 多余位留空;		
数量 QTY: 预留 7 位; 如 1234567; 多余位留空;		
特殊用途: 预留 4 位; 如用于试产、验证、特采等; 无此信息留空;		
二维码内容格式: Roborock PN, 供应商代码, MPN, 生产日期, 批次号, 订单编号, 数量 QTY, 特殊用途 (共计 93 位, 中间务必用英文 “,” 隔开)		