

Notified Body No. 0370

ORGANISMO NOTIFICADO Nº

CERTIFICADO DE EXAMEN UE DE TIPO EU-TYPE EXAMINATION CERTIFICATE



No.

0370 - LGAI TECHNOLOGICAL CENTER (APPLUS)

EN 149:2001 + A1:2009 Respiratory protective devices. Filtering half

masks to protect against particles. Requirements, testing, marking

0370-4369-PPE/B

NOTIFIED BODY NUMBER	0370 - EGAT TECHNOLOGICAL CENTER (AFTEOS)
SOLICITANTE APPLICANT	Shenzhen HJR Electronics Technology Co.,LTD. 5 / F Building A3 Xinjianxing Science and Technology Industrial Park, No. 3333, Guangqiao Avenue, Gongming Street, Guangming New District, Shenzhen City, Guangdong Province, China
FABRICANTE MANUFACTURER	Shenzhen HJR Electronics Technology Co.,LTD. 5 / F Building A3 Xinjianxing Science and Technology Industrial Park, No. 3333, Guangqiao Avenue, Gongming Street, Guangming New District, Shenzhen City, Guangdong Province, China
REGLAMENTO DE APLICACIÓN PARA DAR LA CON	FORMIDAD / APPLICABLE REGULATION TO GIVE CONFORMITY:
	E LOS EQUIPOS DE PROTECCIÓN INDIVIDUAL 5 PERSONAL PROTECTIVE EQUIPMENT
PROCEDIMIENTO DE EVALUACIÓN DE LA CONFORMIDAD CONFORMITY ASSESSMENT PROCEDURE	Módulo // Module: B EXAMEN UE DE TIPO / EU TYPE EXAMINATION
IDENTIFICACIÓN DEL EPI (NÚMERO DE TIPO) IDENTIFICATION OF THE PPE (TYPE NUMBER)	Ref.: HJR-CN99-02 particle filtering half mask
NIVEL O NIVELES DE RENDIMIENTO O LA CLASE DE PROTECCIÓN DEL EPI / PERFORMANCE LEVEL OR PROTECTION CLASS OF THE PPE	FFP2 NR
	EN 149:2001 + A1:2009 Dispositivos de protección respiratoria. Medias máscaras filtrantes de protección contra partículas. Requisitos, ensayos,

El presente certificado se mantendrá vigente durante 5 años siempre que el producto descrito no sea modificado y cumpla los requisitos esenciales de salud y seguridad establecidos en el Reglamento (UE) 2016/425. Para asegurar dicho cumplimiento, este certificado deberá ir acompañado de la documentación correspondiente a la Evaluación de Conformidad con el tipo según módulo C2, D (realizada por un Organismo Notificado, según frecuencia establecida).

marcado.

09/09/2020

09/09/2025

This certificate will remain valid for 5 years as long as the indicated product is not modified and fulfills the essential requirements of health and safety established in (EU) Regulation 2016/425. To ensure such compliance, this certificate must be accompanied by the documentation corresponding to the Conformity Assessment to type according to C2, D(carried out by a Notified Body according, to the established frequency).



Este documento carece de validez sin su anexo técnico, cuyo número coincide con el del certificado.

This document is not valid without its technical annex, whose number coincides with the number of certificate.

NORMAS ARMONIZADAS / HARMONISED STANDARDS

FECHA DE EMISIÓN / ISSUE DATE

VALIDEZ HASTA / VALIDITY UNTIL

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Technical Annex Ed. 1 09/09/2020

ANEXO TÉCNICO TECHNICAL ANNEX

0370-4369-PPE/B

I. MODELOS INCLUIDOS EN EL CERTIFICADO

REFERENCES INCLUDED IN THIS CERTIFICATE

MARCA BRAND	HJR
IDENTIFICACIÓN DEL EPI (NÚMERO DE TIPO) IDENTIFICATION OF THE PPE (TYPE NUMBER)	Ref.: HJR-CN99-02 particle filtering half mask
NIVEL O NIVELES DE RENDIMIENTO O LA CLASE DE PROTECCIÓN DEL EPI PERFORMANCE LEVEL OR PROTECTION CLASS OF THE PPE	FFP2 NR
INFORME DE ENSAYO TEST REPORT	PTC20080602102C-EN01 issued by Precise Testing & Certification (Guangdong) Co.,Ltd.(PTC)







中国认可 国际互认 检测 **TESTING CNAS L5772**

Test Report

EN 149:2001+A1:2009 protective devices. Filtering half masks to protect against particles. Requirements, testing, marking

Product: particle Filtering half mask

Report No.: PTC20080602102C-EN01

Client: Shenzhen HJR Electronics Technology Co.,LTD.

5 / F Building A3 Xinjianxing Science and Technology Industrial Park, No.

Client Address: 3333, Guangqiao Avenue, Gongming Street, Guangming New District,

Shenzhen City, Guangdong Province, China

Manufacturer: Shenzhen HJR Electronics Technology Co.,LTD.

5 / F Building A3 Xinjianxing Science and Technology Industrial Park, No.

3333, Guangqiao Avenue, Gongming Street, Guangming New District, Manufacturer Address:

Shenzhen City, Guangdong Province, China

Contact: Hu Liang

Model(s): HJR-CN99-02

Classification: FFP2 NR

Date of Tests: 2020.08.18~2020.08.25

Signed for and on Behalf of PTC

Home

Checked by: Prepare by:

App oved by:



Summary of assessment

Clause	Assessment
7.3 Visual inspection	NOT TESTED
7.4 Packaging	PASS
7.5 Material	PASS
7.6 Cleaning and disinfecting	N/A
7.7 Practical performance	PASS
7.8 Finish of parts	PASS
7.9.1 Total inward leakage	PASS
7.9.2 Penetration of filter material	PASS
7.10 Compatibility with skin	PASS
7.11 Flammability	PASS
7.12 Carbon dioxide content of the inhalation air	PASS
7.13 Head harness	PASS
7.14 Field of vision	PASS
7.15 Exhalation valve	PASS
7.16 Breathing resistance	PASS
7.17 Clogging	N/A
7.18 Demountable parts	PASS
9 Marking	NOT TESTED

Remark:

PASS: comply with requirement of standard FAIL: Do not comply with requirement of standard



N/A: not application

NOT TESTED: the clause were not required

Test Result:

lest Result:		
Requirement	Test Result	Conclusion
7.3 Visual inspection The visual inspection shall also include the marking and the information supplied by the manufacturer.	Not tested	Not tested
7.4 Packaging Particle filtering half masks shall be offered for sale packaged in such a way that they are protected against mechanical damage and contamination before use.	In accordance with the requirement.	Pass
7.5 Material Materials used shall be suitable to withstand handling and wear over the period for which the particle filtering half mask is designed to be used. Any material from the filter media released by the air flow through the filter shall not constitute a hazard or nuisance for the wearer. After undergoing the conditioning described in 8.3.1 none of the particle filtering half masks shall have suffered mechanical failure of the facepiece or straps. When conditioned in accordance with 8.3.1 and 8.3.2 the particle filtering half mask shall not collapse.	No mechanical failure after undergoing the conditioning described in 8.3.1, No collapse when conditioned in accordance with 8.3.1 and 8.3.2.	Pass
7.6 Cleaning and disinfecting If the particle filtering half mask is designed to be re-usable, the materials used shall withstand the cleaning and disinfecting agents and procedures to be specified by the manufacturer.	Single shift use only	N/A

7.7 Practical performance

The particle filtering half mask shall undergo practical performance tests
No imperfections
Pass
under realistic conditions



7.8 Finish	of	parts
------------	----	-------

Parts of the device likely to come into contact with the wearer shall have no sharp edges or burrs.

No sharp edges or burrs.

Pass

7.9.1 Total inward leakage

For particle filtering half masks fitted in accordance with the manufacturer's information, at least 46 out of the 50 individual exercise results (i.e. 10 subjects x 5 exercises) for total inward leakage shall be not greater than 25 % for FFP1, 11 % for FFP2, 5 % for FFP3

FFP2, Test results are shown in Annex A Table 7.9.1-A&B

Pass

and, in addition, at least 8 out of the 10 individual wearer arithmetic means for the total inward leakage shall be not greater than 22 % for FFP1, 8 % for FFP2, 2 % for FFP3.

7.9.2 Penetration of filter material

The penetration of the filter of the particle filtering half mask shall meet the requirements of Table 1.

	Sodium chloride test	Paraffin oil test 95
100	95 l/min	l/min
FFP1	≤ 20%	≤ 20%
FFP2	≤ 6%	≤ 6%
FFP3	≤ 1%	≤ 1%

results are shown in Annex A Table 7.9.2.

Pass

7.10 Compatibility with skin

Materials that may come into contact with the wearer's skin shall not be known to be likely to cause irritation or any other adverse effect to health. No irritation or any other adverse effect to health.

Pass

7.11 Flammability

When tested, the particle filtering half mask shall not burn or not to continue to burn for more than 5 s after removal from the flame.

Test results are shown in Annex A Table 7.11.

Pass

7.12 Carbon dioxide content of the inhalation air

The carbon dioxide content of the inhalation air (dead space) shall not exceed an average of 1,0 % (by volume)

Test results are shown in Annex A Table 7.12.

Pass

7.13 Head harness

The head harness shall be designed so that the particle filtering half mask

Head harness can

be donned and

Pass

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can be donned and removed easily.

The head harness shall be adjustable or self-adjusting and shall be sufficiently robust to hold the particle filtering half mask firmly in position and be capable of maintaining total inward leakage requirements for the device. removed easily,
adjustable or
self-adjusting and
have sufficiently
robust to hold the
particle filtering half
mask firmly.

7.14 Field of vision

The field of vision is acceptable if determined so in practical performance tests.

Pass the practical performance tests.

Pass

7.15 Exhalation valve

A particle filtering half mask may have one or more exhalation valve(s), which shall function correctly in all orientations.

If an exhalation valve is provided it shall be protected against or be resistant to dirt and mechanical damage and may be shrouded or may include any other device that may be necessary for the particle filtering half mask to comply with 7.9.

Comply Pass

Exhalation valve(s), if fitted, shall continue to operate correctly after a continuous exhalation flow of 300 l/min over a period of 30 s.

When the exhalation valve housing is attached to the faceblank, it shall withstand axially a tensile force of 10 N applied for 10 s.

7.16 Breathing resistance

	Maximum permitted resistance (mbar)				
Classification	Inhal	Exhalation			
	30 l/min	95 l/min	160 l/min		
FFP1	0.6	2.1	3.0		
FFP2	0.7	2.4	3.0		
FFP3	1.0	3.0	3.0		

FFP2. Test results are shown in Annex A Table 7.16.

Pass

N/A

7.17 Clogging

7.17.2 Breathing resistance

Valved particle filtering half masks:

Single shift use only.



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After clogging the inhalation resistances shall not exceed:

FFP1: 4 mbar, FFP2: 5 mbar, FFP3: 7 mbar at 95L/min continuous flow The exhalation resistance shall not exceed 3 mbar at 160 L/min continuous flow

Valveless particle filtering half masks

After clogging the inhalation and exhalation resistances shall not exceed: FFP1: 3 mbar, FFP2: 4 mbar, FFP3: 5 mbar at 95L/min continuous flow

7.17.3 Penetration of filter material

	Sodium chloride test	Paraffin oil test 95
4, 4	95 l/min	l/min
FFP1	≤ 20%	≤ 20%
FFP2	≤ 6%	≤ 6%
FFP3	≤ 1%	≤ 1%

7.18 Demountable parts

All demountable parts (if fitted) shall be readily connected and secured, where possible by hand

Not tested

9 Marking

9.1 Packaging

The following information shall be clearly and durably marked on the smallest commercially available packaging or legible through it if the packaging is transparent.

- 9.1.1 The name, trademark or other means of identification of the manufacturer or supplier.
- 9.1.2 Type-identifying marking.

Not tested

9.1.3 Classification

The appropriate class (FFP1, FFP2 or FFP3) followed by a single space and then: "NR" if the particle filtering half mask is limited to single shift use only. Example: FFP3 NR, or "R" if the particle filtering half mask is re-usable.

Example: FFP2 R D.

9.1.4 The number and year of publication of this European Standard. 9.1.5 At least the year of end of shelf life. The end of shelf life may be informed by a pictogram as shown in Figure 12a, where yyyy/mm

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indicates the year and month.

- 9.1.6 The sentence 'see information supplied by the manufacturer', at least in the official language(s) of the country of destination, or by using the pictogram as shown in Figure 12b.
- 9.1.7 The manufacturer's recommended conditions of storage (at least the temperature and humidity) or equivalent pictogram, as shown in Figures 12c and 12d.
- 9.1.8 The packaging of those particle filtering half masks passing the dolomite clogging test shall be additionally marked with the letter "D". This letter shall follow the classification marking preceded by a single space.

9.2 Particle filtering half mask

Particle filtering half masks complying with this European Standard shall be clearly and durably marked with the following:

- 9.2.1 The name, trademark or other means of identification of the manufacturer or supplier.
- 9.2.2 Type-identifying marking.
- 9.2.3 The number and year of publication of this European Standard.
- 9.2.4 Classification

The appropriate class (FFP1, FFP2 or FFP3) followed by a single space and then: "NR" if the particle filtering half mask is limited to single shift use only. Example: FFP3 NR, or "R" if the particle filtering half mask is re-usable. Example: FFP2 R D.

- 9.2.5 If appropriate the letter D (dolomite) in accordance with clogging performance. This letter shall follow the classification marking preceded by a single space.
- 9.2.6 Sub-assemblies and components with considerable bearing on safety shall be marked so that they can be identified.



Annex A: Summarization of Test Data

Table 7.9.1-A: Inward Leakage Test Data

Test specification: EN 149:2001+A1:2009 Clause 8.5

Subject	Sample No.	Condition	Walk (%)	Head Side/side (%)	Head up/down (%)	Talk (%)	Walk (%)	Mean (%)
Lv	1	A.R	6.5	6.8	8.2	5.0	4.2	6.1
(Li	2	A.R	5.6	6.5	4.6	6.9	6.0	5.9
Zhong	3	A.R	4.5	3.8	3.8	4.0	2.9	3.8
Xu	4	A.R	8.4	8.5	7.2	8.2	8.4	8.1
Ма	5	A.R	3.9	4.4	5.6	5.5	4.5	4.8
Chen	6	T.C	9.1	7.9	6.4	5.7	6.3	7.1
Chen	7	T.C	6.2	6.4	6.9	6.2	8.1	6.8
Zhuo	8	T.C	4.8	5.4	5.1	4.4	4.7	4.9
Chen	9	T.C	6.1	7.6	7.7	8.7	7.9	7.6
Zhang	10	T.C	3.2	5.1	5.5	5.3	5.8	5.0

Table 7.9.1-B: Facial dimension

Subject	Face Length	Face Width	Face Depth	Mouth Width
Lv	113	139	104	53
o di o	120	135	112	55
Zhong	108	135	106	56
Xu	120	150	120	70
Ma	130	170	130	80
Chen	110	160	90	40
Chen	115	145	110	50
Zhuo	103	146	100	50
Chen	110	145	95	40
Zhang	144	141	101	54



Table 7.9.2: Penetration of filter material

Test specification: EN 149:2001+A1:2009 Clause 8.11

Aerosol	Condition	Sample No.	Penetration (%)	Assessment
No No No		11	0.09	30 30 3
6 6 6	As received	12	0.29	. C C.
Section of the second		13	0.62	6 6 6
40 KG KG	0, 0, 0, 0, 0,	14	0.06	XG XG X
Sodium chloride test	Simulated wearing treatment	15	0.09	8, 8, 8
40 40 40 F		16	0.08	20 210 3
		17	0.11	
40 40 40 1	Mechanical strength + Temperature conditioned	18	0.09	E. E. E.
		19	0.16	Door
6. 6. 6. 1	6. 6. 6. 6.	20	0.32	Pass
NO NO NO	As received	21	0.35	50 50 g
		22	0.33	
and the stand	and the standard	23	0.68	Section Section Section
Paraffin oil test	Simulated wearing treatment	24	1.68	25 25
6, 6, 6, 1	6, 6, 6, 6,	25	1.21	8. 5. 5
40 No No	40 X0 X0 X0 X0	26	0.56	of of o
	Mechanical strength + Temperature conditioned	27	0.15	
all the the	Tomporatare containeried	28	0.97	The all of



Table 7.11: Flammability

Test specification: EN 149:2001+A1:2009 Clause 8.6

Condition	Sample No.	Result	Assessment
As reseived	29	No burn	to the the
As received	30	No burn	92. 92. 92. 9
Tana anatona anaditi anad	31	No burn	Pass
Temperature conditioned	32	No burn	6 6 6

Table 7.12: Carbon dioxide content of the inhalation air

Test specification: EN 149:2001+A1:2009 Clause 8.7

Condition	Sample No.	Re	Assessment		
0, 0, 0,	33	0.0185	20 20 20 X	5 <u>2</u> 5 26 2	
As received	34	0.0163	Mean value:	Pass	
	35	0.0171	0.017	and the stands	



Table 7.16: Breathing resistance (mbar)

Test specification: EN 149:2001+A1:2009 Clause 8.9

As received	Flow Rate		36			37					38						
	Inhalation	30 I/min	0.59 1.77			0.58 1.80				0.59 1.81							
		95 I/min															
	Exhalation	160 I/min	Α	В	С	D	E	Α	В	С	D	E	Α	В	С	D	Е
			2.0	2.0	2.0	2.0	2.0	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1
	Flow Ra	ate		ri '	39			0.00		40			Or a		41		e e
wearing	Inhalation 30	9	Y .	0.60	4	6	8	8	0.60		3	0	6	0.63	9		
	imaaton	95 I/min		1.81			1.89				1.83						
Exhalation	Evhalation	160 I/min	Α	В	С	D	Е	Α	В	С	D	Ε	Α	В	С	D	Е
	Extraration		2.1	2.0	2.0	2.0	2.0	1.9	2.1	2.0	2.0	2.0	2.1	2.1	2.1	2.1	2.1
	Flow Ra	ate	a d		42			0		43			9		44		
Temperature In	Inhalation	Inhalation I/min	0.68			0.58				0.60							
conditioned		95 I/min	1.80			1.85				1.86							
Exhal	Exhalation	xhalation 160 l/min	Α	В	С	D	E	Α	В	С	D	E	Α	В	С	D	Е
	Extraration		2.1	2.1	2.0	2.0	2.1	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Flow conditioned	Flow Ra	ate	. 1		45			М,		46			N _P		47		
	Inhalation	30 I/min	0.64 2.05			0.61				0.61							
		95 I/min				2.09				2.02							
	Exhalation	160 I/min	Α	В	С	D	Е	Α	В	С	D	Е	Α	В	С	D	Е
6, 6,	Exhalation		2.0	1.9	1.9	1.9	1.9	2.0	2.0	2.0	1.9	1.9	2.0	2.0	2.0	2.0	2.0
Assessment	Me W	0 1/4	1	Ç.,	10	180	350	Pas	ss	G	φ.	30	200	1	1	2 4	Q.

A: Facing directly ahead B: Facing vertically upwards C: facing vertically downwards



Test	Uncertainty				
Total inward leakage	3.8%				
Penetration of filter material(NaCl)	3.5%				
Penetration of filter material(Paraffin oil)	4.2%				
Carbon dioxide content of the inhalation air	4.5%				
Breathing resistance(30L/min)	5.2%				
Breathing resistance(95L/min)	5.4%				
Breathing resistance(160)L/min)	6.0%				

Photo(s) of Sample:



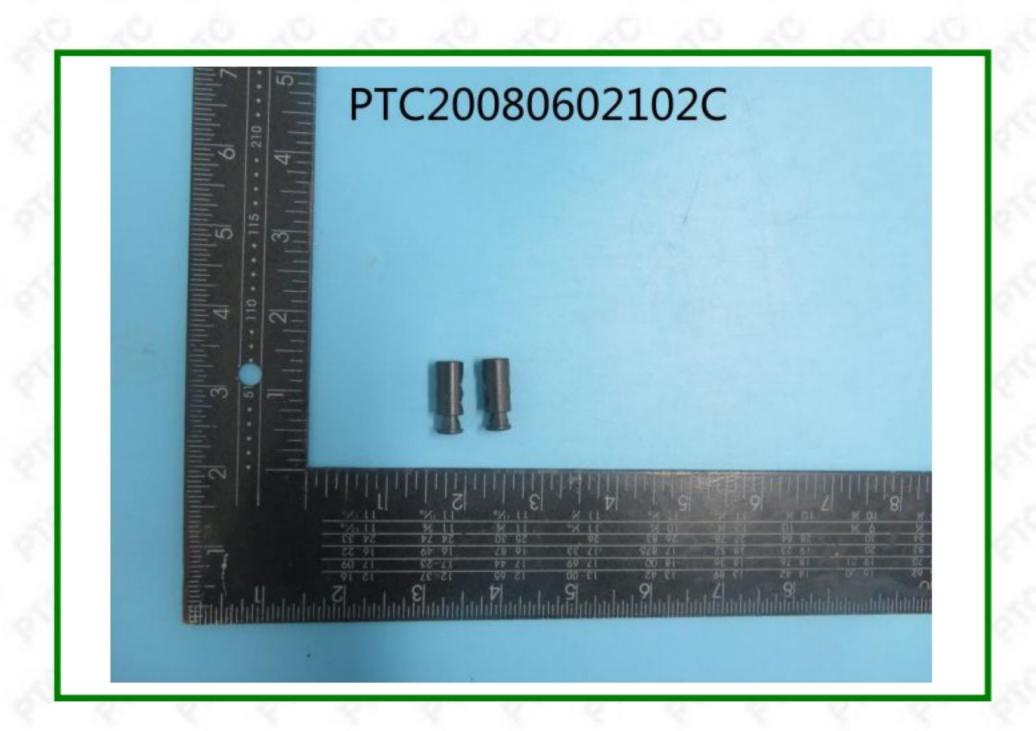




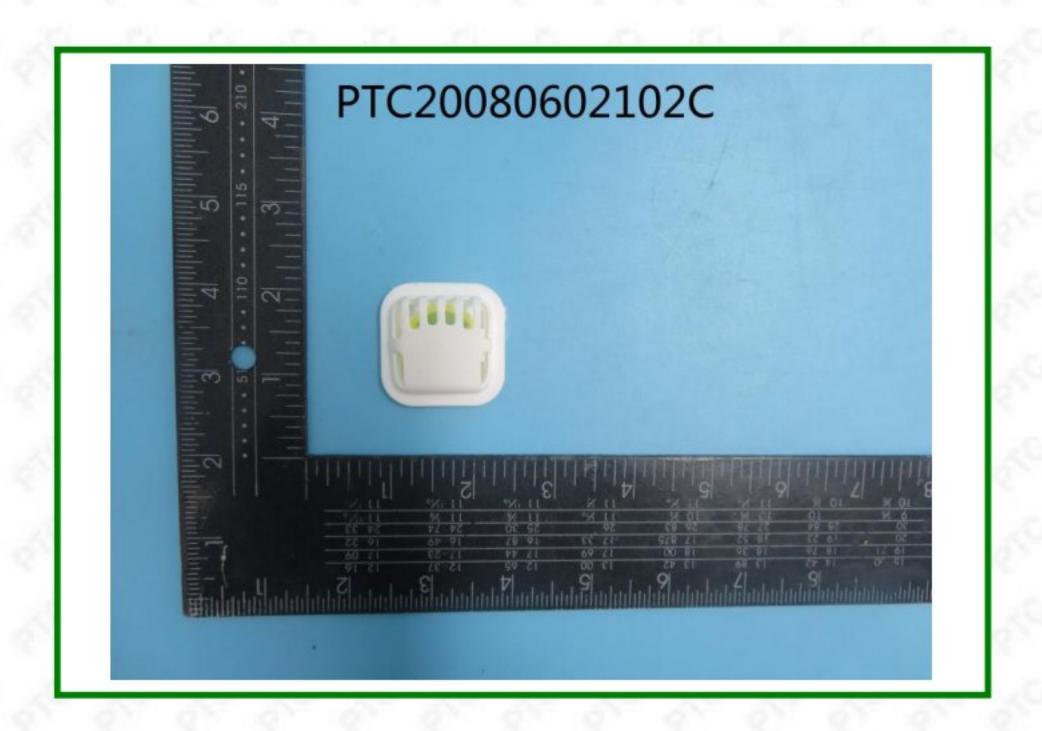


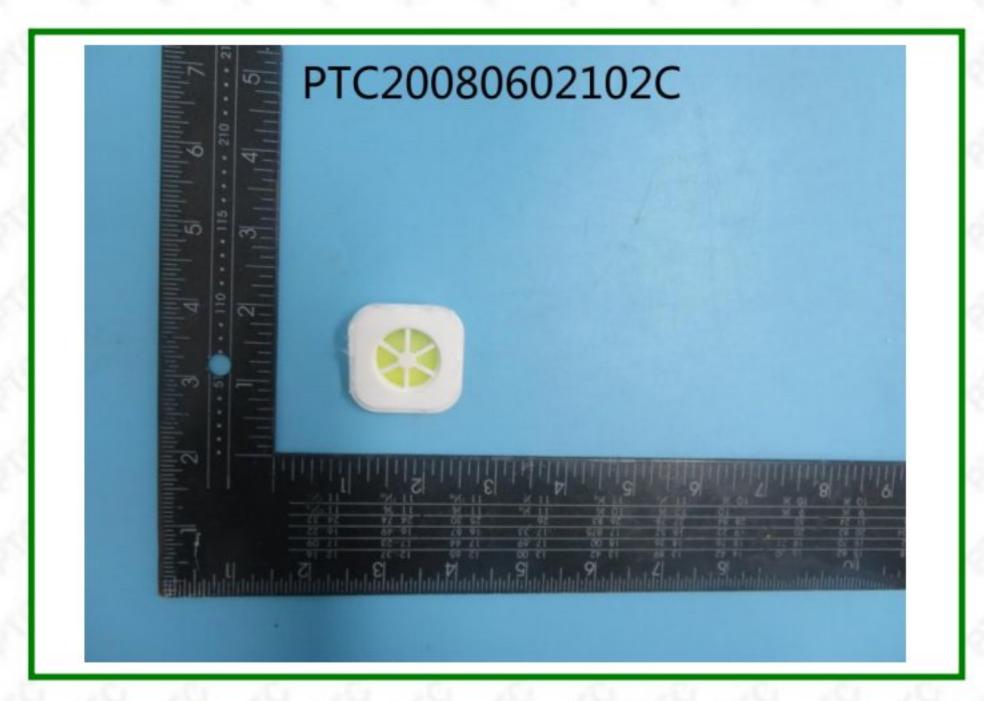












End of Report