寶 號 CUSTOMER		MARITE	X
HF ROHS Compliant	承 SPECI	記 FICATION FOR APPRO	書 VAL
品名 PRODUCT N	AME K5B FS	S 10x3.2x8-1.0	
客戶料號 CUSTOMER 日期 DATE.	PART NO	批 SA	號 MPLE NO
FULLY A	Approved S PPROVED 承認)	Status 客戶承認範圍 PARTILLY APPROVED (部份承認)	REVISE APPROVED (修訂承認)
Drav	vn by	Checked by	Approved by

NO 269, Nanfong Rd., Pingjhen City, Taoyuan County Taiw Tel: 886-3-4698855 Fax: 886-3-4691395 Web site: http:// www.kingcore.com.tw E-mail: kc@mail.kingcore.com.tw

承認書內容 CONTENTS

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製作 DRAWN BY: 陳愛 咏	確認 CHECKED BY: 美明汉	承認 APPRO	VED BY: 美炳動

鈞寶電子工業股份有限公司 KING CORE ELECTRONICS INC

日期	版次	修	汀目的	修訂內容	概述	備註
DATE	VERSION	PU	RPOSE	REVISION DES	SCRIPTION	REMARK
2016/10/27	А	首次送	承認書			
		INITIAL I	RELEASE			
			1			
製作DRAWN]			確認 CHECK		承認 APPROVED B	Y:
诗	要胶			吴明珠	美力	雨動

修訂履歷 REVISION RESUME

SPECIFICATION FOR APPROVAL

CUSTOMER:	MARITEX		CUST.P/N:
ORDERING CODE:	K5B FS 10x3.2x8-	1.0	K.C.P/N: PL1001IA
(1) SHAPE :			A 10.0±0.3 mm
			B 3.2±0.2 mm
			C 8.0±0.4 mm
			D 8.0±0.3 mm
			E 1.0±0.2 mm
1 -	<u>→</u> → →	C _	
	REQUIREMENTS:		(3) TEST CONDITIONS:
_		5 MHz	1 IMPEDANCE ANALYZER: Agilent E4991A
Z ₂ = 51 mi	n OHM AT 100) MHz	TEST FIXTURE: HP16092A
			2.WIRE: Φ0.65 2UEWx100mm x 1/2Ts 3.DRAWING:
(4)PACKING			(5) APPEARANCE
X IN E	BULK VACUUM	INSERTION	(1)AREA OF BREAK : $<1 \text{ mm}^2$
1000 PCS/BAG* 3	BAGS/INNER BOX 4	BOXES/CARTON = 12000 PCS	(2)SUM OF BREAKING AREA $:<2 \text{ mm}^2$
PCS/PLATE*	PLATES/CARTON=	PCS	(3)DEPTH OF BREAK :< 0.8 mm
PCS/TRAY*	TRAYS/CARTON=	PCS	It is considered as a normal condition that the surface of core covers with ferrite powder.
(6)REMARK:			Approved by 美炳整
			Checked by 美哨球
			Drawn by
			DWG.NO. 20156001A

KING CORE ELECTRONICS INC.

TEST DATA FOR PREPRODUCTION SAMPLES

CUSTOMER		MARITEX		CUST. P/N			
ORDERING CODE	K5B	FS 10x3.2x	8-1.0	K.C. P/N	PL1001IA		
TEMP.	24 °C	RH	69 %	DWG.NO.	20156001A		
WIRE	0.65x100mm	WINDING	<i>1/2</i> Ts	Q'TY	5PCS		
Test Instruments							
Meas. Item.	Z (OHM)	Z (OHM)	A mm	B mm	C mm	D mm	
Specification	20min	51min	10.0±0.3	3.2±0.2	8.0±0.4	8.0±0.3	
Test Freq.	25 MHz	100 MHz					
sample#1	27	67	10.12	3.30	8.05	8.22	
sample#2	26	66	10.13	3.26	8.06	8.12	
sample#3	27	66	10.05	3.22	7.92	8.15	
sample#4	27	66	10.12	3.30	8.05	8.11	
sample#5	26	65	10.12	3.28	8.07	8.16	
sample#6							
sample#7							
sample#8							
sample#9							
sample#10							
X	26.6	66.0	10.108	3.272	8.030	8.152	
R	1	2	0.08	0.08	0.15	0.11	
REMARK:					Approved by:	灵炳敷	
					Checked by:	吴明珠	
					Drawn by:	源要玩	

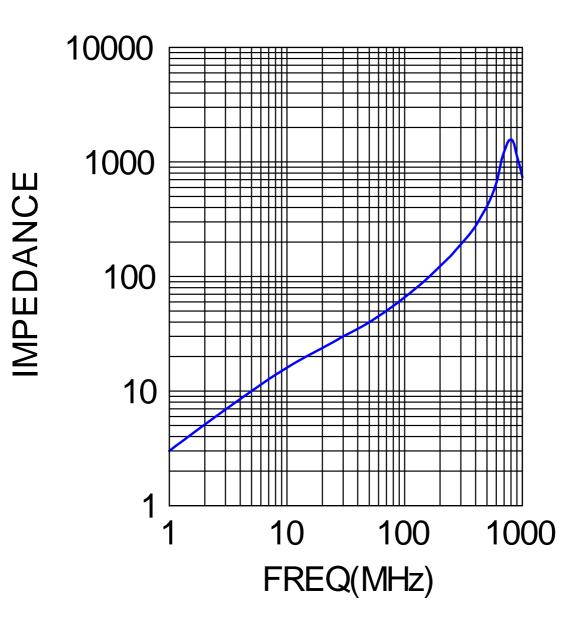
KING CORE ELECTRONICS INC.

TEST DATA FOR PREPRODUCTION SAMPLES

CUSTOMER	MARITEX			CUST. P/N			
ORDERING CODE	K5B FS 10x3.2x8-1.0			K.C. P/N	PL1001IA		
TEMP.	24 °C	RH	69	%	DWG.NO.	201560014	1
WIRE	0.65x100mm		1/2	Ts	Q'TY	5PCS	
Test Instruments							
Meas. Item.	E mm						
Specification	1.0±0.2						
Test Freq.							
sample#1	1.08						
sample#2	1.11						
sample#3	1.12						
sample#4	1.11						
sample#5	1.08						
sample#6							
sample#7							
sample#8							
sample#9							
sample#10							
X	1.100						
R	0.04						
REMARK:						Approved by:	美炳 <u></u>
						Checked by:	买明球
						Drawn by:	陳要脫

KING CORE ELECTRONICS INC.

K5B FS 10x3.2x8-1.0





測試報告 ^{號碼(No.)}: CE/2016/37739

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鈞寶電子工業股份有限公司 KING CORE ELECTRONICS INC. 桃園市平鎮區南豐路269號(平鎮工業區) NO. 269, NANFONG RD., PINGZHEN DIST., TAOYUAN CITY 324-59, TAIWAN

以下測試樣品係由申請廠商所提供及確認 (The following sample(s) was/were submitted and identified by/on behalf of the applicant as):

送樣廠商(Sample Submitted By)	:	鈞寶電子工業股份有限公司(KING CORE ELECTRONICS INC.)
樣品名稱(Sample Description)	:	FERRITE CORE
樣品型號(Style/Item No.)	:	K5B
收件日期(Sample Receiving Date)	:	2016/03/28
測試期間(Testing Period)	:	2016/03/28 TO 2016/03/31

測試需求(Test Requested):

Troy Chang Manager Signed for and on Dehalt SGS TAIWAN LTD.

Chemical Laboratory - Taipei

(1) 依據客戶指定,參考RoHS2011/65/EU Annex II及其修訂指令(EU) 2015/863測試鎘、鉛、汞、六價絡、多溴聯苯、多溴聯苯

醚, DBP, BBP, DEHP, DIBP. (As specified by client, with reference to RoHS 2011/65/EU Annex II and amending Directive (EU) 2015/863 to determine Cadmium, Lead, Mercury, Cr(VI), PBBs, PBDEs, DBP, BBP, DEHP, DIBP contents in the submitted sample.)

(2) 其他測試項目請見下一頁 . (Please refer to next pages for the other item(s).)

测試結果(Test Results) : 請見下一頁 (Please refer to next pages).

結論(Conclusion): (1) 根據客戶所提供的樣品,其鎘、鉛、汞、六價鉻、多溴聯苯、多溴聯苯醚, DBP, BBP, DEHP, DIBP 的測試結果符合RoHS指令暨(EU) 2015/863之限值要求. (Based on the performed tests on submitted samples, the test results of Cadmium, Lead, Mercury, Cr(VI), PBBs, PBDEs, DBP, BBP, DEHP, DIBP comply with the limits as set by RoHS and amending Directive (EU) 2015/863.)



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鈞寶電子工業股份有限公司 KING CORE ELECTRONICS INC. 桃園市平鎮區南豐路269號(平鎮工業區) NO. 269, NANFONG RD., PINGZHEN DIST., TAOYUAN CITY 324-59, TAIWAN

<u>測試結果(Test Results)</u>

測試部位(PART NAME)No.1 : FERRITE CORE

測試項目 (Test Items)	單位 (Unit)	測試方法 (Method)	方法偵測 極限值 (MDL)	結果 (Result) No.1	限值 (Limit)
鏋 / Cadmium (Cd)	mg/kg	參考IEC 62321-5 (2013),以感應耦合 電漿原子發射光譜儀檢測. / With	2	n. d.	100
鉛 / Lead (Pb)	mg/kg	reference to IEC 62321-5 (2013) and performed by ICP-AES.	2	n. d.	1000
汞 / Mercury (Hg)	mg/kg	參考IEC 62321-4 (2013),以感應耦合 電漿原子發射光譜儀檢測. / With reference to IEC 62321-4 (2013) and performed by ICP-AES.	2	n. d.	1000
六價鉻 / Hexavalent Chromium Cr(VI)	mg/kg	參考IEC 62321 (2008),以UV-VIS檢 測. / With reference to IEC 62321 (2008) and performed by UV-VIS.	2	n. d.	1000
多溴聯苯總和 / Sum of PBBs	mg/kg		-	n. d.	1000
一溴聯苯 / Monobromobiphenyl	mg/kg		5	n. d.	-
二溴聯苯 / Dibromobiphenyl	mg/kg		5	n. d.	-
三溴聯苯 / Tribromobiphenyl	mg/kg		5	n. d.	-
四溴聯苯 / Tetrabromobiphenyl	mg/kg	參考IEC 62321-6 (2015),以氣相層析	5	n. d.	-
五溴聯苯 / Pentabromobiphenyl	mg/kg	/質譜儀檢測. / With reference to IEC 62321-6 (2015) and performed	5	n. d.	-
六溴聯苯 / Hexabromobiphenyl	mg/kg	by GC/MS.	5	n. d.	_
七溴聯苯 / Heptabromobiphenyl	mg/kg		5	n. d.	_
八溴聯苯 / Octabromobiphenyl	mg/kg		5	n. d.	_
九溴聯苯 / Nonabromobiphenyl	mg/kg		5	n. d.	-
十溴聯苯 / Decabromobiphenyl	mg/kg		5	n. d.	-



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測試項目 (Test Items)	單位 (Unit)	測試方法 (Method)	方法偵測 極限值 (MDL)	結果 (Result) No.1	限值 (Limit)
多溴聯苯醚總和 / Sum of PBDEs	mg/kg		_	n. d.	1000
一溴聯苯醚 / Monobromodiphenyl ether	mg/kg		5	n. d.	-
二溴聯苯醚 / Dibromodiphenyl ether	mg/kg		5	n. d.	_
三溴聯苯醚 / Tribromodiphenyl ether	mg/kg		5	n. d.	_
四溴聯苯醚 / Tetrabromodiphenyl ether	mg/kg	參考IEC 62321-6 (2015),以氣相層析	5	n. d.	_
五溴聯苯醚 / Pentabromodiphenyl ether	mg/kg	/質譜儀檢測. / With reference to	5	n. d.	_
六溴聯苯醚 / Hexabromodiphenyl ether	mg/kg	IEC 62321-6 (2015) and performed by GC/MS.	5	n. d.	_
七溴聯苯醚 / Heptabromodiphenyl ether	mg/kg		5	n. d.	_
八溴聯苯醚 / Octabromodiphenyl ether	mg/kg		5	n. d.	_
九溴聯苯醚 / Nonabromodiphenyl ether	mg/kg		5	n. d.	_
十溴聯苯醚 / Decabromodiphenyl ether	mg/kg		5	n. d.	_
鄰苯二甲酸丁苯甲酯 / BBP (Butyl Benzyl phthalate) (CAS No.: 85-68-7)	mg/kg		50	n. d.	1000
鄰苯二甲酸二丁酯 / DBP(Dibutyl phthalate)(CAS No.: 84-74-2)	mg/kg	參考IEC 62321-8/CD (2013),以氣相 層析儀/質譜儀檢測. / With	50	n. d.	1000
鄰苯二甲酸二異丁酯 / DIBP (Di-isobutyl phthalate) (CAS No.: 84-69-5)	mg/kg	reference to IEC 62321-8/CD (2013). Analysis was performed by	50	n. d.	1000
鄰苯二甲酸二 (2-乙基己基)酯 / DEHP (Di- (2-ethylhexyl) phthalate) (CAS No.: 117-81-7)	mg/kg	GC/MS.	50	n. d.	1000
六溴環十二烷及所有主要被辨別出的異構 物 / Hexabromocyclododecane (HBCDD) and all major diastereoisomers identified (α - HBCDD, β - HBCDD, γ - HBCDD) (CAS No.: 25637-99-4 and 3194-55-6 (134237-51-7, 134237-50-6, 134237-52-8))	mg/kg	參考IEC 62321 (2008),以氣相層析/ 質譜儀檢測. / With reference to IEC 62321 (2008). Analysis was performed by GC/MS.	5	n. d.	_



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Test Report 鈞寶電子工業股份有限公司

KING CORE ELECTRONICS INC. 桃園市平鎮區南豐路269號(平鎮工業區) NO. 269, NANFONG RD., PINGZHEN DIST., TAOYUAN CITY 324-59, TAIWAN

測試項目 (Test Items)	單位 (Unit)	測試方法 (Method)	方法偵測 極限值 (MDL)	結果 (Result) No.1	限值 (Limit)
鹵素 / Halogen					
鹵素(氟)/ Halogen-Fluorine (F) (CAS No.: 14762-94-8)	mg/kg		50	n. d.	_
鹵素(氯)/ Halogen-Chlorine(C1) (CAS No.: 22537-15-1)	mg/kg	參考BS EN 14582(2007),以離子層析 儀分析. / With reference to BS EN 14582(2007). Analysis was performed by IC.	50	n. d.	-
鹵素(溴)/ Halogen-Bromine(Br) (CAS No.: 10097-32-2)	mg/kg		50	n. d.	-
鹵素 (碘) / Halogen-Iodine (I) (CAS No.: 14362-44-8)	mg/kg		50	n. d.	_
全氟辛烷磺酸 / Perfluorooctane sulfonates (PFOS-Acid, Metal Salt, Amide)	mg/kg	参考US EPA 3550C (2007),以液相層 析/質譜儀檢測. / With reference to US EPA 3550C (2007). Analysis was	10	n. d.	_
全氟辛酸 / PFOA (CAS No.: 335-67-1)	mg/kg	performed by LC/MS.	10	n. d.	—
砷 / Arsenic (As)	mg/kg	参考US EPA 3052 (1996),以感應耦合 電漿原子發射光譜儀檢測. / With reference to US EPA 3052 (1996). Analysis was performed by ICP-AES.	2	n. d.	_

備註(Note):

- 1. mg/kg = ppm ; 0. 1wt% = 1000ppm
- 2. n.d. = Not Detected (未檢出)
- 3. MDL = Method Detection Limit (方法偵測極限值)
- 4. "-" = Not Regulated (無規格值)

PFOS参考資訊(Reference Information): 持久性有機污染物 POPs - (EU) 757/2010

PFOS濃度在物質或製備中不得超過0.001%(10ppm),在半成品、成品或零部件中不得超過0.1%(1000ppm),在紡織品或塗 層材料中不得超過lug/m²。

(Outlawing PFOS as substances or preparations in concentrations above 0.001% (10ppm), in semi-finished products or articles or parts at a level above 0.1%(1000ppm), in textiles or other coated materials above $1\mu g/m^{2}$.)



測試報告 號碼(No.): CE/2016/37739 日期(Date): 2016/03/31 **Test Report**

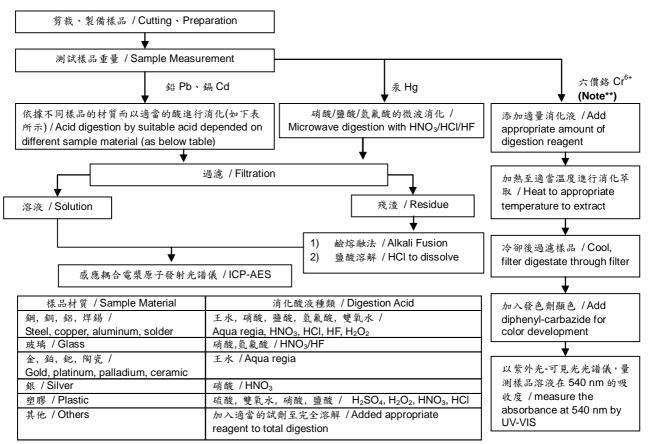
頁數(Page): 5 of 12

鈞寶電子工業股份有限公司 KING CORE ELECTRONICS INC. 桃園市平鎮區南豐路269號(平鎮工業區) NO. 269, NANFONG RD., PINGZHEN DIST., TAOYUAN CITY 324-59, TAIWAN

根據以下的流程圖之條件,樣品已完全溶解。(六價鉻測試方法除外)

These samples were dissolved totally by pre-conditioning method according to below flow chart. (Cr⁶⁺ test method excluded)

- 測試人員:楊登偉 / Technician: Climbgreat Yang
- 測試負責人:張啟興 / Supervisor: Troy Chang



Note** (For IEC 62321)

(1) 針對非金屬材料加入鹼性消化液,加熱至 90~95℃萃取. / For non-metallic material, add alkaline digestion reagent and heat to 90~95°C

(2) 針對金屬材料加入純水,加熱至沸腾萃取. / For metallic material, add pure water and heat to boiling.



日期(Date): 2016/03/31

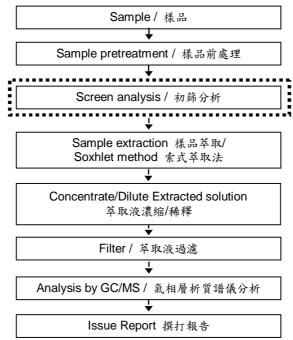
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多溴聯苯/多溴聯苯醚分析流程圖 / Analytical flow chart - PBB/PBDE

- 測試人員: 翁賜彬 / Technician: Roman Wong
- 測試負責人:張啟興 / Supervisor: Troy Chang

初次測試程序 / First testing process _____, 選擇性篩檢程序 / Optional screen process ____, 確認程序 / Confirmation process _ . _ . ▶





測試報告 號碼(No.): CE/2016/37739 **Test Report**

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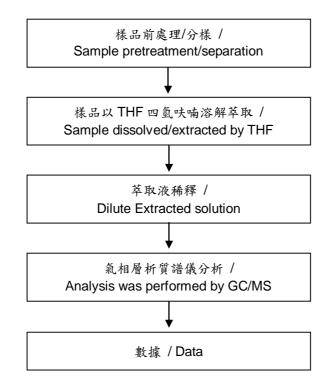
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<u>可塑劑分析流程圖 / Analytical flow chart - Phthalate</u>

- 測試人員:徐毓明 / Technician: Andy Shu
- 測試負責人:張啟興 / Supervisor nt: Troy Chang

【测試方法/Test method: IEC 62321-8】





測試報告 **Test Report**

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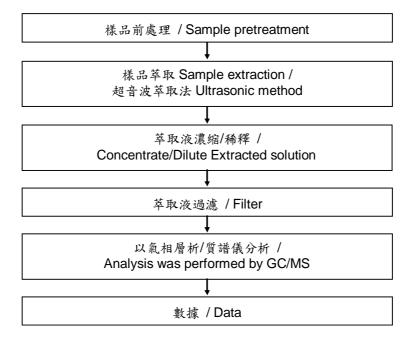
日期(Date): 2016/03/31

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六溴環十二烷分析流程圖 / Analytical flow chart - HBCDD

- 測試人員: 翁賜彬 / Technician: Roman Wong
- 測試負責人:張啟興 / Supervisor: Troy Chang





測試報告 Test Report ^{號碼(No.}

號碼(No.): CE/2016/37739

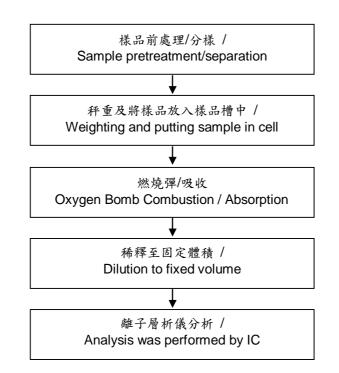
日期(Date): 2016/03/31

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<u> 鹵素分析流程圖 / Analytical flow chart - Halogen</u>

- 測試人員:陳恩臻 / Technician: Rita Chen
- 測試負責人:張啟興 / Supervisor: Troy Chang





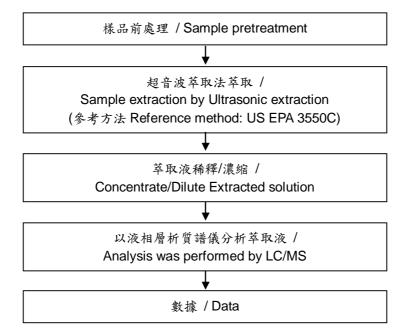
日期(Date): 2016/03/31

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全氯辛酸/全氯辛烷磺酸分析流程圖 / Analytical flow chart - PFOA/PFOS

- 測試人員:翁賜彬 / Technician: Roman Wong
- 測試負責人:張啟興 / Supervisor: Troy Chang



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日期(Date): 2016/03/31

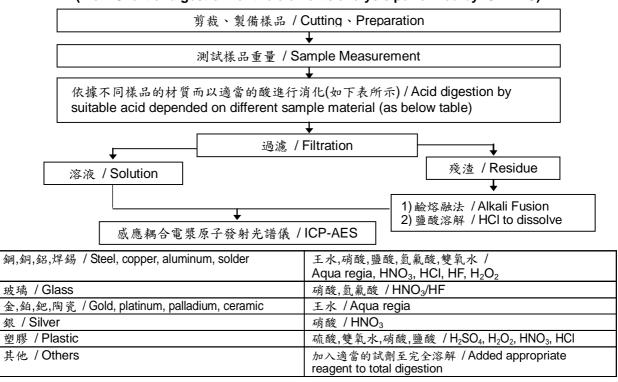
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鈞寶電子工業股份有限公司 KING CORE ELECTRONICS INC. 桃園市平鎮區南豐路269號(平鎮工業區) NO. 269, NANFONG RD., PINGZHEN DIST., TAOYUAN CITY 324-59, TAIWAN

根據以下的流程圖之條件,樣品已完全溶解。 / These samples were dissolved totally by pre-conditioning method according to below flow chart.

- 測試人員:楊登偉 / Technician: Climbgreat Yang
- 測試負責人:張啟興 / Supervisor: Troy Chang

元素以 ICP-AES 分析的消化流程圖 (Flow Chart of digestion for the elements analysis performed by ICP-AES)





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> * 照片中如有箭頭標示,則表示為實際檢測之樣品/部位. * (The tested sample / part is marked by an arrow if it's shown on the photo.)



** 報告結尾 (End of Report) **

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