



Reliability Laboratory

TEST REPORT

Report No.: HC60208B/2016

Page: 1 of 9

Date: January 18, 2017

ALLTEK MARINE ELECTRONICS CORP.
14F-2, NO.237, SEC. 1, DATONG RD., XIZHI DISTRICT,
NEW TAIPEI CITY, TAIWAN

The following merchandise was submitted and identified by the vendor as:

Product Description: AIS Class B Transponder

Style/ Item No.: WideLink B600W/ No.1

Manufacturer/ Vendor: Alltek Marine Electronics Corp.

Country of Origin: Taiwan

Quantity: Total 1 piece

Testing Period: Jun. 27, 2016 to Jul. 27, 2016

Note: (Client's declaration) The setup of equipment under test with
WideLink B600W are shown in appendix I

We have tested the submitted sample(s) as requested and the following results were obtained:

Test Required: (According to client's test specification, please see following sheets in detail.)

1. Salt Mist Test

Test Results : -PLEASE SEE ATTACHED SHEETS-

*HC60208A/2016, dated on January 17, 2017, is hereby canceled and replaced by HC60208B/2016.

Signed for and on behalf of
SGS TAIWAN Ltd.

Winson Tseng
Asst. Manager

Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 90 days only. This test report cannot be reproduced, except in full, without prior written permission of the Company. 除非另有說明，此報告結果僅對測試之樣品負責，同時此樣品僅保留 90 天。本報告未經本公司書面許可，不可部份複製。
This document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at www.sgs.com/terms_and_conditions.htm and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at www.sgs.com/terms_e-document.htm. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law.

TEST REPORT

Report No.: HC60208B/2016

Page: 2 of 9

1. Salt Mist Test:

Test Equipment:

Name	Brand	Model	Serial No.
Salt Spray Test Chamber	YI-SANG	ST-BS-S	EC10092914
Programmable Temperature & Humidity Chamber	KSON	THS-D6TS-150+LN2	A0495

Lab Environmental Conditions:Ambient temperature: $(25 \pm 3) ^\circ\text{C}$ Ambient humidity: $(55 \pm 20) \% \text{RH}$ Test Method/ Specification:

Test method: IEC60945 Edition 4.0: 2008, 8.12

Sample Condition: Non-OperatingTest procedure: The Salt Mist test includes two test items. The test sequence is shown as below.

Salt Mist Test	
Test Sequence	Test Action/ Item
1	Salt mist Test, exposing for 2 hours.
2	Temperature & Humidity Storage Test, exposing for 168 hours.
Above test sequences shall be performed for 4 cycles.	

(1) Salt Spray test:Salt solution: 5 wt.% NaCl solutionpH of solution: 6.5-7.2Temperature: $(25 \pm 2) ^\circ\text{C}$ Quantity of Mist : 1.0 ~2.0 ml/ 80 cm²/ hourExposing duration: 2 hours/ cycle

- Remove the specimen(s) from Salt Spray Test Chamber to Temperature & Humidity Storage Test immediately.

Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 90 days only. This test report cannot be reproduced, except in full, without prior written permission of the Company. 除非另有說明，此報告結果僅對測試之樣品負責，同時此樣品僅保留 90 天。本報告未經本公司書面許可，不可部份複製。

This document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at www.sgs.com/terms_and_conditions.htm and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at www.sgs.com/terms_e-document.htm. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law.

TEST REPORT

Report No.: HC60208B/2016

Page: 3 of 9

Test Method/ Specification--Continued:**(2)Temperature & Humidity Storage Test:**

Temperature: 40 °C
Humidity: 95 %RH
Exposing duration: 168 hours/ cycle

- Examine the appearance of specimen(s) by visual check and perform functional check after salt mist test.
- Functional check: Turn on the power of specimen then examine whether the GPS 3D fixed and AIS transmitting/receiving functions of specimen(s) could work normally or not.

Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 90 days only. This test report cannot be reproduced, except in full, without prior written permission of the Company. 除非另有說明，此報告結果僅對測試之樣品負責，同時此樣品僅保留 90 天。本報告未經本公司書面許可，不可部份複製。

This document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at www.sgs.com/terms_and_conditions.htm and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at www.sgs.com/terms_e-document.htm. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law.

TEST REPORT

Report No.: HC60208B/2016

Page: 4 of 9

Specimen:Style/ Item No.: WideLink B600W/ No.1Quantity: Total 1 pieceTest Result:

Check Item Style/ Item No.	Appearance Check (visual check)	Functional Check
	WideLink B600W/ No.1 No visible damage	Normal

Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 90 days only. This test report cannot be reproduced, except in full, without prior written permission of the Company. 除非另有說明，此報告結果僅對測試之樣品負責，同時此樣品僅保留 90 天。本報告未經本公司書面許可，不可部份複製。

This document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at www.sgs.com/terms_and_conditions.htm and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at www.sgs.com/terms_e-document.htm. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law.

TEST REPORT

Report No.: HC60208B/2016

Page: 5 of 9

Appendix I:

Setup Of Equipment Under Test (By client)

No.	Equipment	Model No.	Brand	Cable
1	GPS Antenna	ANT-21 (AGGRESSOR-21) (AGGRESSOR-111-C) (AMEC P/N:M-ANT-C1283-570001-A)	AMEC	Shielded, 10m
2	VHF Antenna	ANT-11(TENTA-11) (AMEC P/N:AMEC-ANT-MFB-1200V)	AMEC	Shielded, 10m
3	Power Supply	62012P-80-60	Chroma	Unshielded, 1.8m
4	NMEA 0183 Cable	N/A	AMEC	Unshielded, 0.9m
5	NMEA 2000 Cable	N/A	AMEC	Unshielded, 0.9m
6	Mini USB to USB Cable	N/A	AMEC	Shielded, 1.8m
7	Laptop	SL410	Lenovo	N/A
8	Mini USB to USB Cable	N/A	AMEC	Shielded, 1.8m
9	AIS Transponder	CAMINO-108	AMEC	Shielded, 1.4m
10	GPS Antenna	ANT-21 (AGGRESSOR-21) (AGGRESSOR-111-C) (AMEC P/N:M-ANT-C1283-570001-A)	AMEC	Shielded, 10m
11	VHF Antenna	N/A	N/A	Shielded, 0.6m

Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 90 days only. This test report cannot be reproduced, except in full, without prior written permission of the Company. 除非另有說明，此報告結果僅對測試之樣品負責，同時此樣品僅保留 90 天。本報告未經本公司書面許可，不可部份複製。

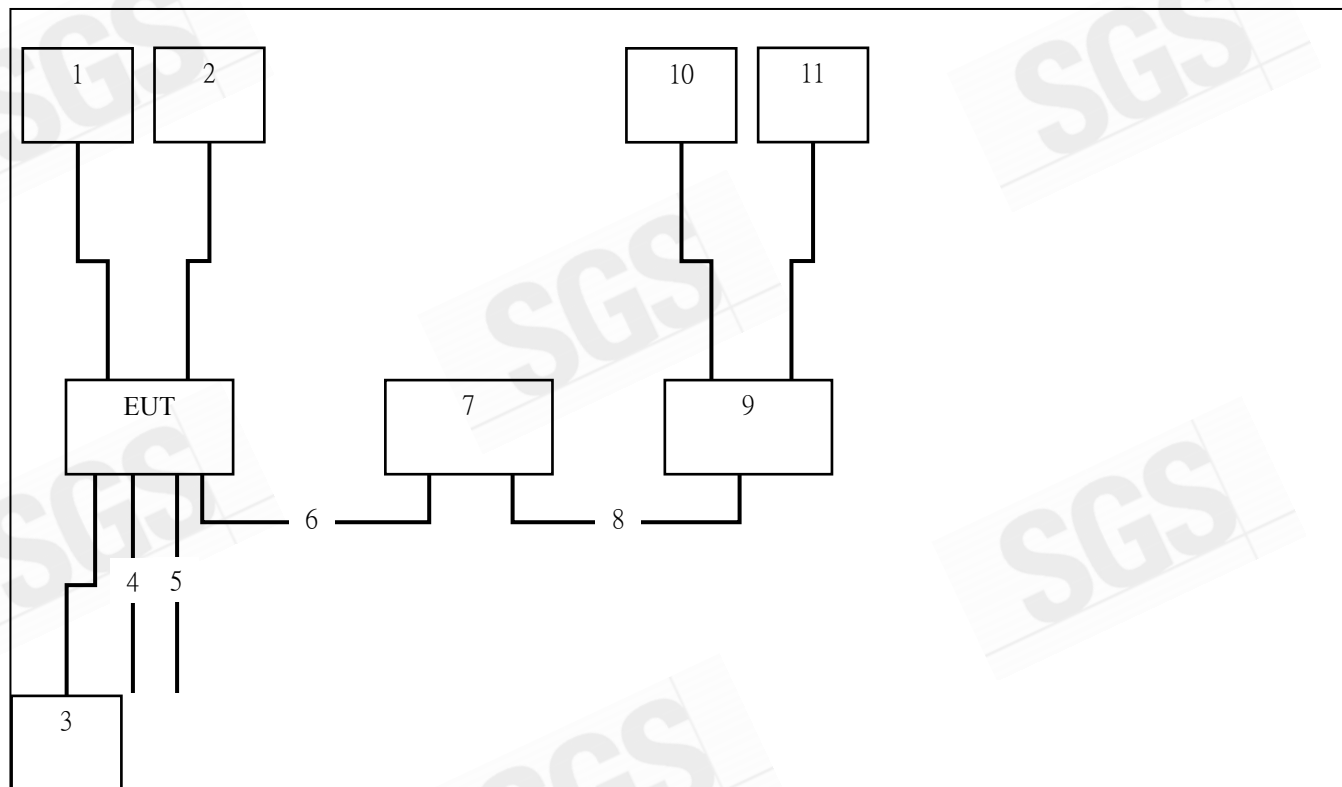
This document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at www.sgs.com/terms_and_conditions.htm and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at www.sgs.com/terms_e-document.htm. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law.

TEST REPORT

Report No.: HC60208B/2016

Page: 6 of 9

Appendix I --Continued:



Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 90 days only. This test report cannot be reproduced, except in full, without prior written permission of the Company. 除非另有說明，此報告結果僅對測試之樣品負責，同時此樣品僅保留 90 天。本報告未經本公司書面許可，不可部份複製。
This document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at www.sgs.com/terms_and_conditions.htm and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at www.sgs.com/terms_e-document.htm. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law.

TEST REPORT

Report No.: HC60208B/2016

Page: 7 of 9

Test Photos:



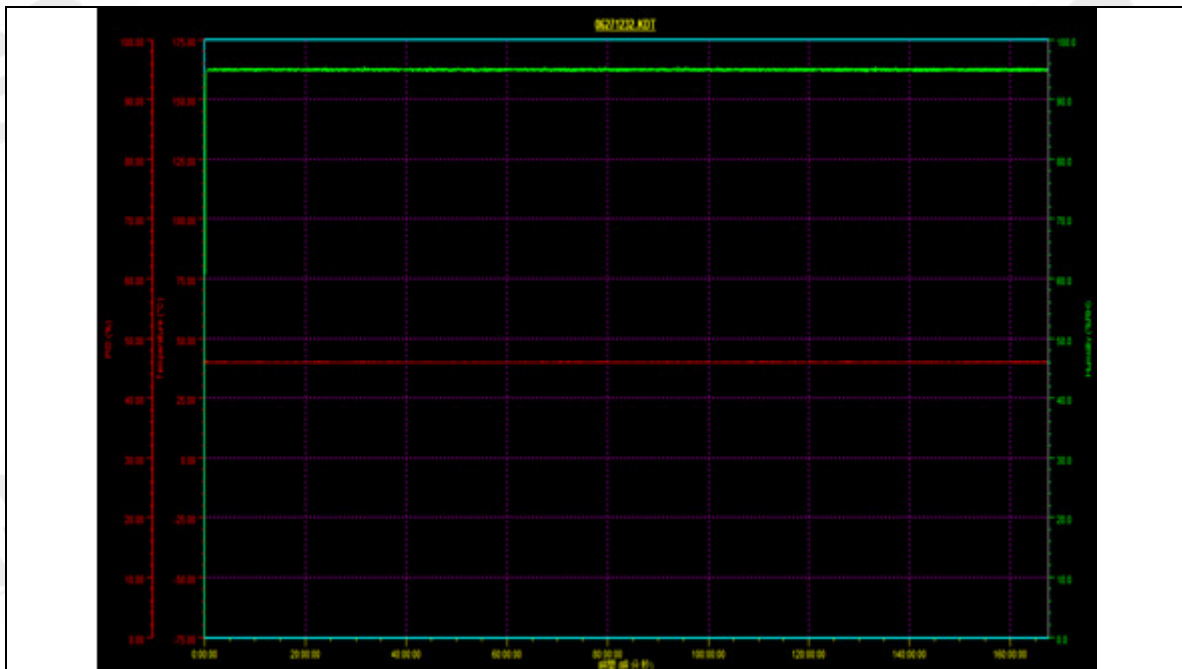
Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 90 days only. This test report cannot be reproduced, except in full, without prior written permission of the Company. 除非另有說明，此報告結果僅對測試之樣品負責，同時此樣品僅保留 90 天。本報告未經本公司書面許可，不可部份複製。
This document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at www.sgs.com/terms_and_conditions.htm and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at www.sgs.com/terms_e-document.htm. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law.

TEST REPORT

Report No.: HC60208B/2016

Page: 8 of 9

Test Photos--Continued:



1. Temperature & Humidity Storage Test Profile --1ST cycle



2. Temperature & Humidity Storage Test Profile --2ND cycle

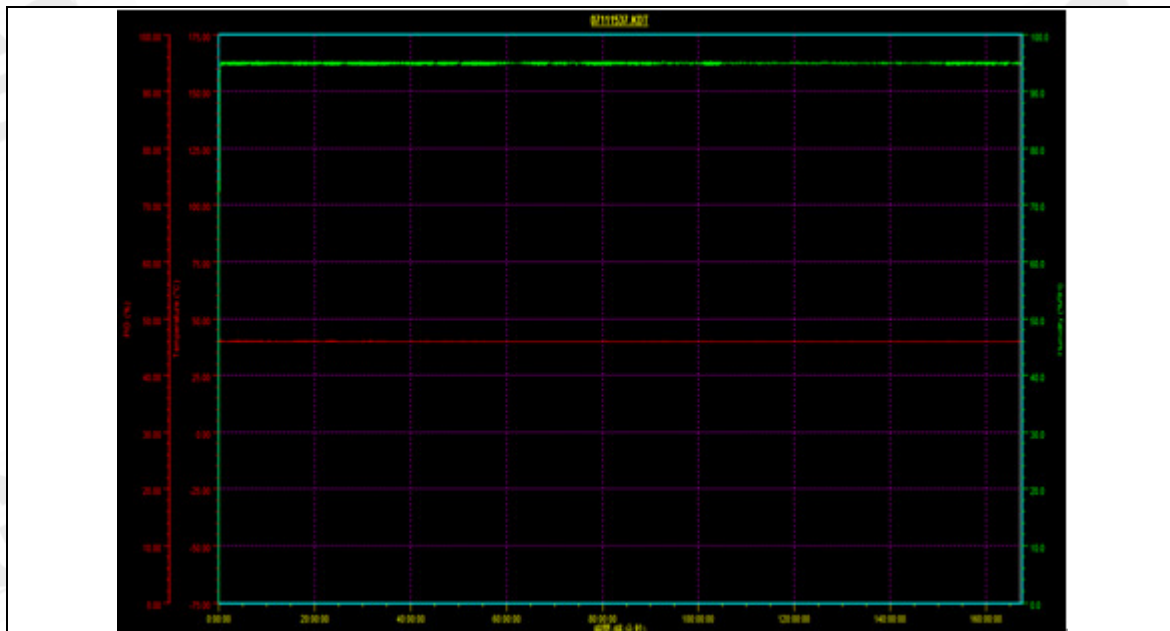
Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 90 days only. This test report cannot be reproduced, except in full, without prior written permission of the Company. 除非另有說明，此報告結果僅對測試之樣品負責，同時此樣品僅保留 90 天。本報告未經本公司書面許可，不可部份複製。
This document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at www.sgs.com/terms_and_conditions.htm and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at www.sgs.com/terms_e-document.htm. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law.

TEST REPORT

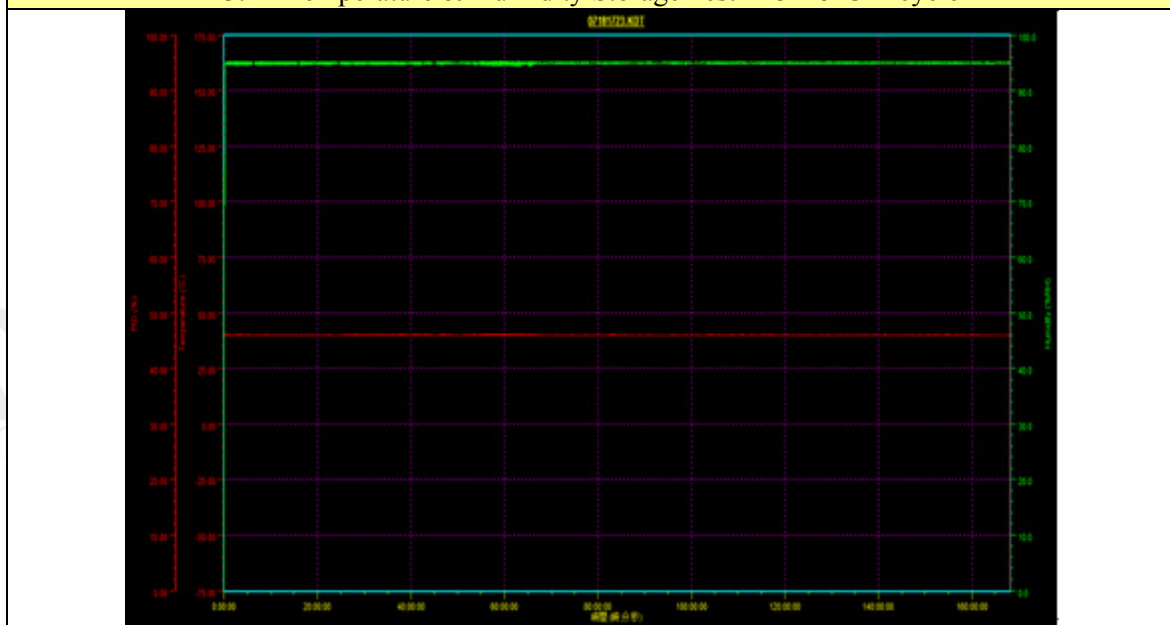
Report No.: HC60208B/2016

Page: 9 of 9

Test Photos--Continued:



3. Temperature & Humidity Storage Test Profile--3RD cycle



4. Temperature & Humidity Storage Test Profile--4TH cycle

— — — The End of Test Report — — —

Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 90 days only. This test report cannot be reproduced, except in full, without prior written permission of the Company. 除非另有說明，此報告結果僅對測試之樣品負責，同時此樣品僅保留 90 天。本報告未經本公司書面許可，不可部份複製。
This document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at www.sgs.com/terms_and_conditions.htm and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at www.sgs.com/terms_e-document.htm. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law.