



<b>Prüfbericht - Nr.: 16049507 001</b>		Seite 1 von 4	
Test Report No.:		Page 1 of 4	
<b>Auftraggeber:</b> Client:	Seikaku Technical Group Limited Offshore Chambers, P.O. Box 217 Apia, Samoa		
<b>Gegenstand der Prüfung:</b> Test item:	1) Horn Speaker, 2) Driver		
<b>Bezeichnung:</b> Identification:	1) TH-4A4, TH-12, TH-14, TH-15, TH-16, TH-20 2) TU-35ML, TU-60ML, TU-80ML	<b>Serien-Nr.:</b> Serial No.:	Engineering samples without serial numbers
<b>Wareneingangs-Nr.:</b> Receipt No.:	174007050	<b>Eingangsdatum:</b> Date of receipt:	2012-12-13
<b>Zustand des Prüfgegenstandes bei Anlieferung:</b> Condition of test item at delivery:	Samples are OK and not damaged		
<b>Prüfört:</b> Testing location:	TÜV Rheinland (Guangdong) Ltd. No.199 Kezhu Road, Guangzhou Science City 510663 Guangzhou, CHINA		
<b>Prüfgrundlage:</b> Test specification:	EN 60529:1991+A1:2000 IEC 60529:1989+A1:1999		
<b>Prüfergebnis:</b> Test Result:	Der Prüfgegenstand entspricht oben genannter Prüfgrundlage(n). The test item passed the test specification(s).		
<b>Prüflaboratorium:</b> Testing Laboratory:	TÜV Rheinland (Guangdong) Ltd. No.199 Kezhu Road, Guangzhou Science City 510663 Guangzhou, CHINA		
<b>geprüft/ tested by:</b>		<b>kontrolliert/ reviewed by:</b>	
2012-12-20	Kevin He	2012-12-20	Ramble Xie
Datum	Name/Stellung	Datum	Name/Stellung
Date	Name/Position	Date	Name/Position
	Unterschrift		Unterschrift
	Signature		Signature
<b>Sonstiges/ Other Aspects:</b>			
1. IP66 test report.			
<b>Abkürzungen:</b>	P(ass) = entspricht Prüfgrundlage F(ail) = entspricht nicht Prüfgrundlage N/A = nicht anwendbar N/T = nicht getestet	<b>Abbreviations:</b>	P(ass) = passed F(ail) = failed N/A = not applicable N/T = not tested
Dieser Prüfbericht bezieht sich nur auf das o.g. Prüfmuster und darf ohne Genehmigung der Prüfstelle nicht auszugsweise vervielfältigt werden. Dieser Bericht berechtigt nicht zur Verwendung eines Prüfzeichens. This test report relates to the a. m. test item. Without permission of the test center this test report is not permitted to be duplicated in extracts. This test report does not entitle to carry any safety mark on this or similar products.			

List of Attachments (including a total number of pages in each attachment):

The complete report consists of 4 pages.  
Photo documentation of 7 pages.

Summary of testing:

Tests performed (name of test and test clause):

- 6 Degrees of protection against access to hazardous parts and against solid foreign objects indicated by the first characteristic numeral

- 6 Degrees of protection against ingress of water indicated by the second characteristic numeral

Testing location:

TÜV Rheinland (Guangdong) Ltd.  
No.199 Kezhu Road, Guangzhou Science City  
510663 Guangzhou, CHINA

## Possible test case verdicts:

- test case does not apply to the test object..... : N/A (Not Applicable)
- test object does meet the requirement ..... : P (Pass)
- test object does not meet the requirement ..... : F (Fail)

## Testing:

Date of receipt of test item..... : 2012-12-13

Date (s) of performance of tests..... : 2012-12-19

Name and address of factory (ies)..... : **Dongguan Jingheng Electron Co., Ltd.**  
Shenshan Industrial City, Hengli Town, Dongguan,  
Guangdong 523465, P.R. China

## General product information:

1. TU-35ML, TU-60ML, TU-80ML are driver, those models are identical to each other except for power;
2. TH-4A4, TH-12, TH-14, TH-15, TH-16, TH-20 are Horn Speaker, employ with driver TU-35ML or TU-60ML or TU-80ML, TH-4A4 employ with 4 drivers, TH-12, TH-14, TH-15, TH-16, TH-20 employ with one driver;
3. All test conducted at driver TU-35ML.

Clause	Test condition	Result
<input checked="" type="checkbox"/> 6	<b>IP test</b>	Pass
	<ul style="list-style-type: none"> <li>➤ <b>IP6X</b></li> <li>➤ The enclosure under test is supported in its normal operating position inside the test chamber, but is connected to a vacuum pump. Any drain-hole normally open shall be left open for the duration of the test. The test shall be continued for a period of 8h.</li> <li>➤ Refer to the related clause of EN 60529</li> <li>➤ After the test, the appliance is subjected to clause 16</li> </ul> <p><b>*Please take some photos after finish the test.</b></p>	<input type="checkbox"/> There is <input type="checkbox"/> deposit / <input checked="" type="checkbox"/> no deposit of dust on insulation which could result in a reduction of creepage distance and clearances below the values specified in 2.10

Clause	Test condition	Result
<input checked="" type="checkbox"/> 6	<b>IP test</b>	Pass
	<p><b>_ IPX6</b></p> <p>_ Test according to the clause 14.2.6 of EN 60529</p> <p>_ internal diameter of the nozzle: 12.5mm</p> <p>_ delivery rate: 100L/min ±5%</p> <p>_ water pressure: to be adjusted to achieve the specified delivery rate</p> <p>_ core of the substantial stream: circle of approximately 120 mm diameter at 2.5 m distance from nozzle</p> <p>_ test duration per square meter of enclosure surface area likely to be sprayed: 1 min</p> <p>_ minimum test duration : 3 min</p> <p>_ distance from nozzle to enclosure surface: between 2.5 and 3 m</p> <p>- After the test, the appliance is subjected to clause 14.3</p> <p><b>*Please take some photos after finish the test.</b></p>	<input type="checkbox"/> There is <input type="checkbox"/> trace / <input checked="" type="checkbox"/> no trace of water on insulation which could result in a reduction of creepage distance and clearances

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**Model:** TH-4A4, TH-12, TH-14, TH-15, TH-16, TH-20, TU-35ML,  
TU-60ML, TU-80ML



Picture 1. Model TH-4A4



Picture 2.

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TU-60ML, TU-80ML



Picture 3.



Picture 4.

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TU-60ML, TU-80ML



Picture 5.



Picture 6. Model TH-12

**Model:** TH-4A4, TH-12, TH-14, TH-15, TH-16, TH-20, TU-35ML,  
TU-60ML, TU-80ML



Picture 7.



Picture 8.



**Model:** TH-4A4, TH-12, TH-14, TH-15, TH-16, TH-20, TU-35ML,  
TU-60ML, TU-80ML



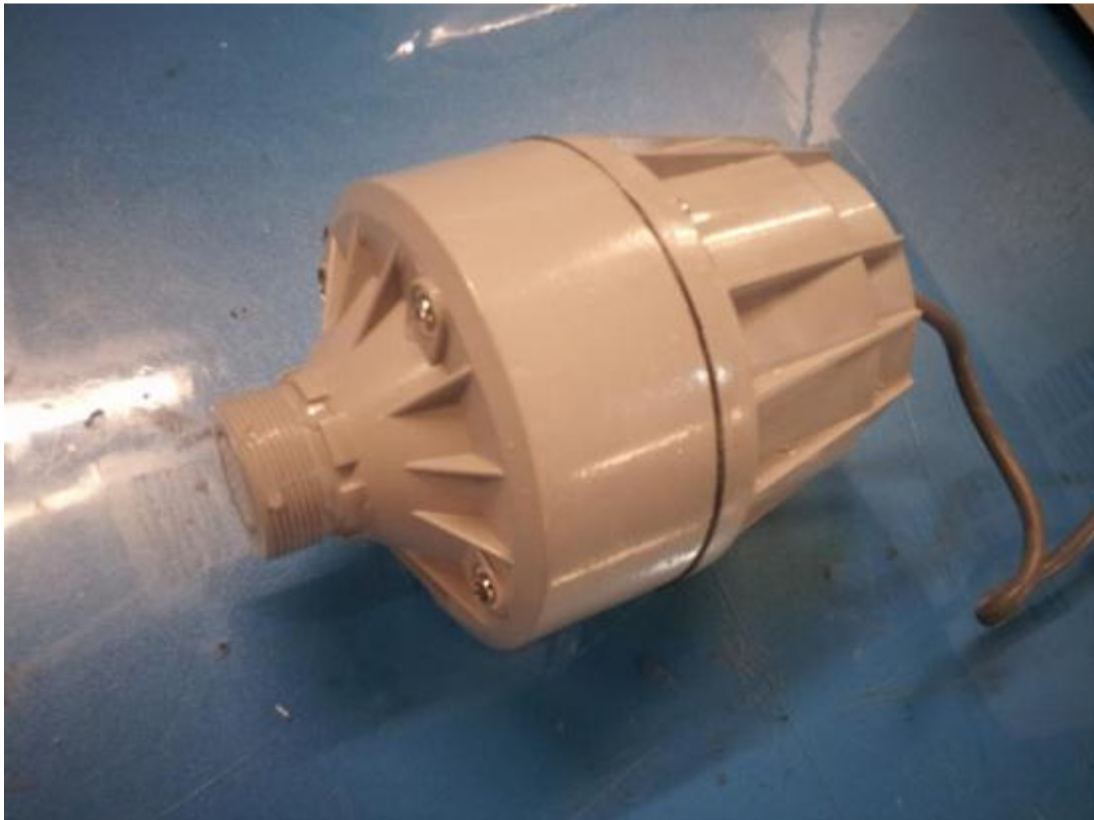
Picture 9.



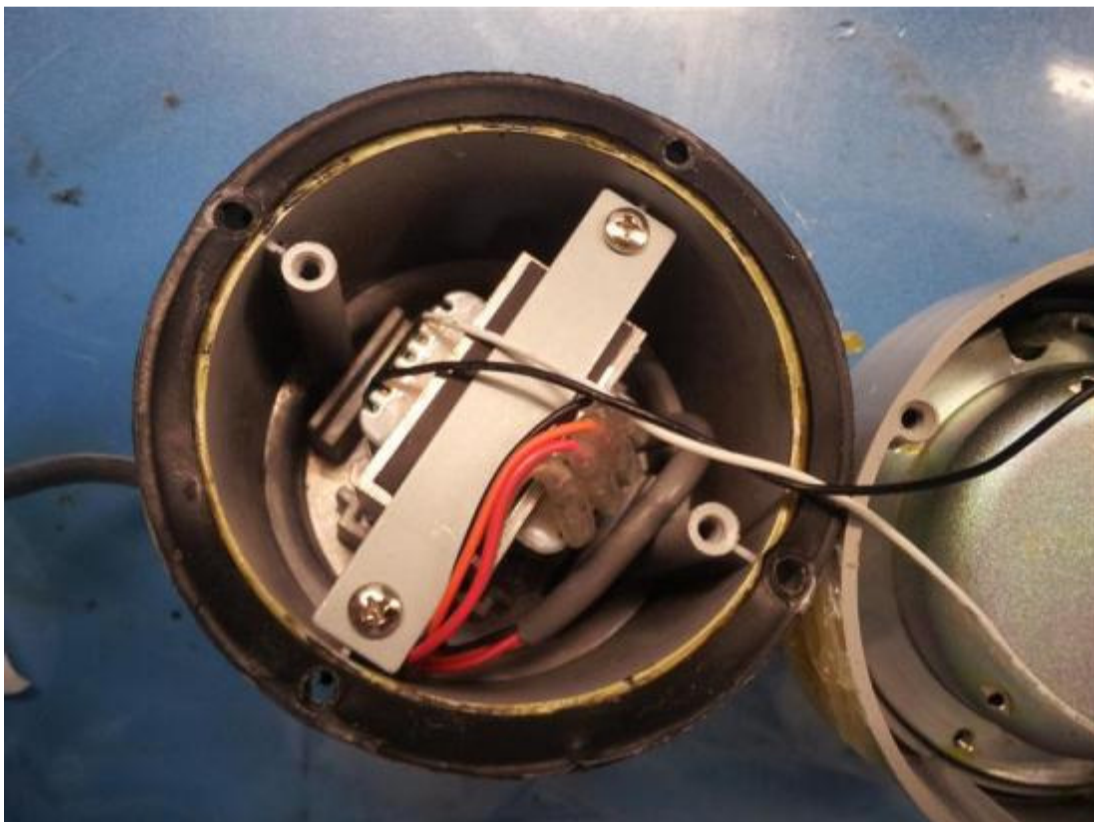
Picture 10.

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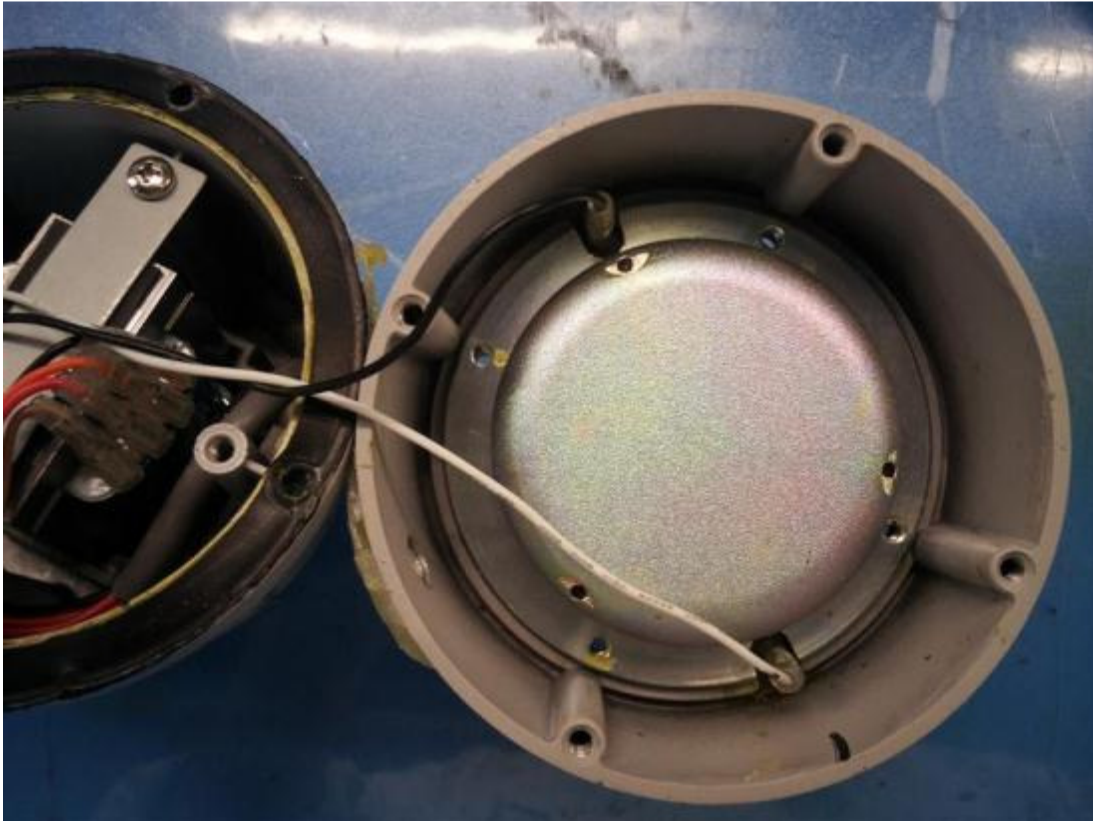
Picture 11.



Picture 12.

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Picture 13.