

TEMPORARY IMMERSION AND DUST TEST REPORT

Company : Gold Apollo Co., Ltd
Address : 3F.-1, No.77, Sec. 1, Xintai 5th Rd., Xizhi City, Taipei County 221,
Taiwan (R.O.C.)
Sample Name : AL-A29
Date Received : JUL 15, 2010
Date Tested : JUL 15, 2010 ~ JUL 21, 2010

TESTING LABORATORY IS ACCREDITED BY:

IEC/IECQ 17025 certificate of independent test laboratory approval

Certificate No. : T1091

ISO 17025 accredited in respect of laboratory is approved by TAF

Certificate No. : L0835-090819

ISO 9001 certificate is approved by TUV CERT certification body of TUV NORD Cert GmbH

WE HEREBY CERTIFY THAT:

The test(s) shown in the attachment were conducted according to the indicating procedures. We assume full responsibility for the accuracy and completeness of these tests and vouch for the qualifications of all personnel performing them.

	Name	Signature	Date
Test Engineer	Ethan Chen	<i>Ethan Chen</i>	Jul 21, 2010
Manager	General Lee	<i>General</i>	Jul 21, 2010

NOTE :

1. This report will be invalid if reproduced in part or altered in any way.
2. This report refers only to the specimen(s) submitted to test, and is invalid if used otherwise.
3. This report is ONLY valid with the examination seal and signature of this institute.
4. The tested specimen(s) will only be preserved for thirty days from the date tested, if not collected by the applicant.



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1. GENERAL INFORMATION

1.1 DESCRIPTION OF UNIT

MANUFACTURER : Gold Apollo Co., Ltd

TEST ITEM , SAMPLE NAME AND SAMPLE QUANTITY : (Total of 2 units)

TEST ITEM	SAMPLE NAME	SAMPLE QUANTITY
TEMPORARY IMMERSION TEST	AL-A29	1 unit
DUST TEST		1 unit

1.2 UNIT TESTING SETUP:

See attachment on page 5

1.3 UNIT OPERATING CONDITION:

None

2. TEMPORARY IMMERSION TEST

2.1 TEST EQUIPMENT

Model	Calibration Date
ETL-L180 Water Leakage Test Chamber	NCR

2.2 LABORATORY AMBIENCE CONDITION

Temperature : $23\pm 3^{\circ}\text{C}$

Relative humidity : $55\%\pm 3\%$ (RH)

2.3 REFERENCE DOCUMENT

This test is based on IEC 60529 IPX7.

2.4 TEST CONDITION

Unit is non-operating.

The water temperature is $+25^{\circ}\text{C}$

The lowest point of unit is locating 1000mm below surface of the water.

The duration of test is 30 minutes

2.5 SUMMARY OF TEST

After testing, visual inspection showed no water permeated into unit (the inner unit was dry) and no functions check requested from customer. (Please see Attachment 3 on page 7)

3. DUST TEST

3.1 TEST EQUIPMENT

Model	Serial Number	Calibration Date
Vötsch- VDT 1000A	59566059640010	NOV 27, 2009

3.2 LABORATORY AMBIENCE CONDITION

Temperature : $23\pm 3^{\circ}\text{C}$

Relative humidity : $55\%\pm 3\%$ (RH)

3.3 REFERENCE DOCUMENT

The test is based on IEC/EN 60529 IP6X Dust Test Protected.

3.4 TEST CONDITION

Unit is non-operating.

Dust material : Talcum powder (100% dry fine)

Particle size	Amount (%)
< 5 μm (Diameter)	$42.31\%\pm 5$
5~10 μm (Diameter)	$35.85\%\pm 5$
10~20 μm (Diameter)	$21.15\%\pm 5$
20~40 μm (Diameter)	$0.69\%\pm 5$
> 40 μm (Diameter)	0%

Amount of talcum powder : 2 kg/m^3 (chamber volume)

Dust density : 2.03 g/cm^3

Depression level : 10 mbar

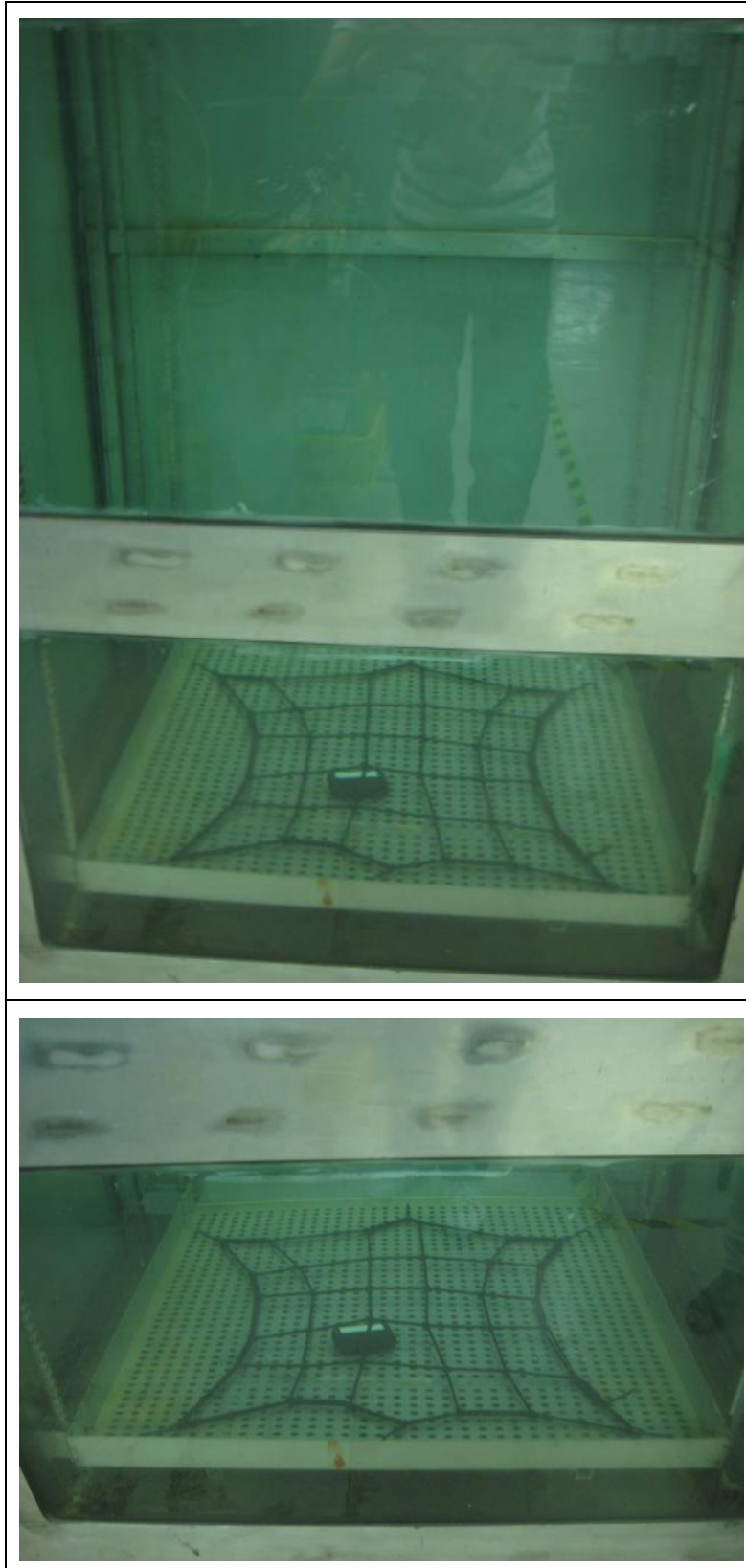
Air direction : Vertically to achieve slowest possible downward settlement

Duration of exposure : 8 hours

3.5 SUMMARY OF TEST

After testing, visual inspection showed no dust particle permeated into unit and no functions check requested from customer. (Please see Attachment 4 on page 8)

Attachment 1 : Photo of temporary immersion test setup

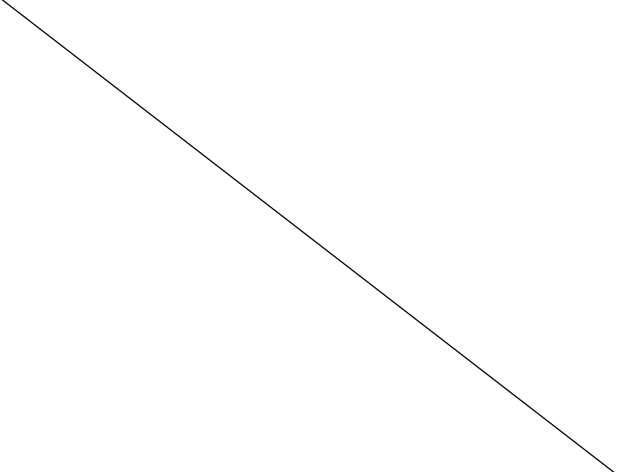
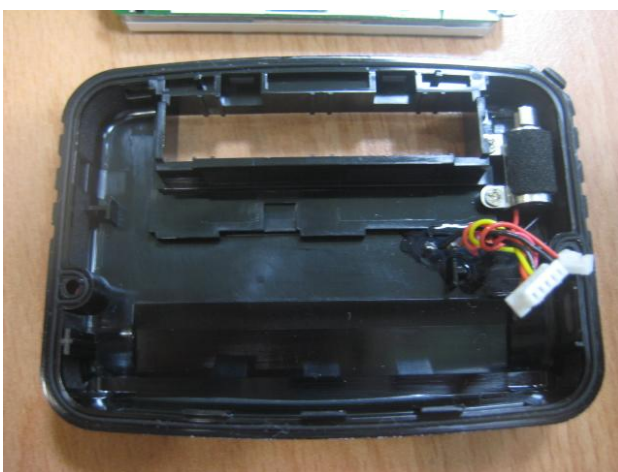
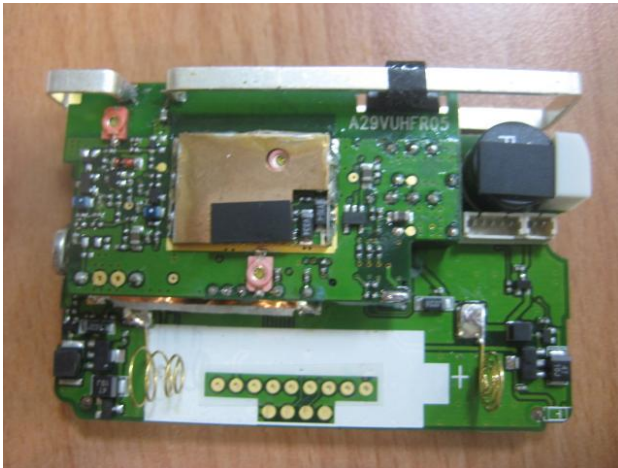


Attachment 2 : Photo of dust test setup

Photo of unit	
	
Before test	After test
	
Depression level	
	

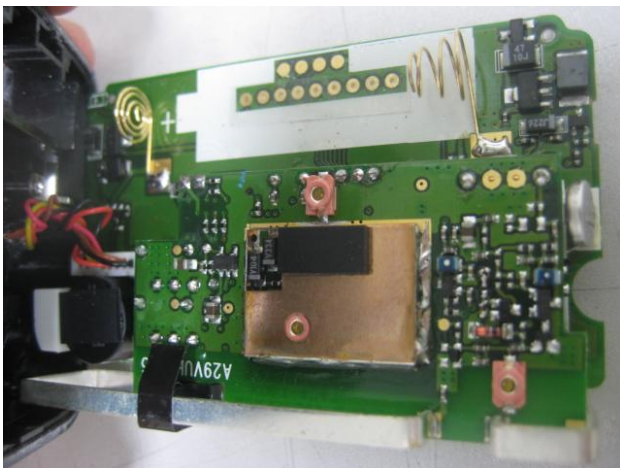
Attachment 3 : Photo of unit after temporary immersion test

No water permeated into unit



Attachment 4 : Photo of unit after dust test

No dust particle permeated into unit



No dust particle permeated into unit

