

Integrated Service Technology Inc. Reliability Engineering Division 1F, No.22, Pu-ding Rd., Hsin - chu City, Taiwan, R.O.C. Tel: 886-3-578-2266, Fax: 886-3-610-0399 http://www.isti.com.tw Report No. : RA-S9504-0992 Page : <u>1</u> of <u>5</u>

DUST TEST REPORT

Company : <u>Gold Apollo Co., Ltd</u>

Model Name : <u>A27</u>

Date of Received : <u>APR. 19, 2006</u>

Date of Tested : <u>APR. 19, 2006</u>

TESTING LABORATORY IS ACCREDITED BY:

ISO/IEC/IECQ 17025 Certificate of Independent Test Laboratory Approval Certificate No. : T1091 ISO/IEC 17025 accredited in respect of laboratory is approved by TAF Certificate No. : L0835-060321

WE HEREBY CERTIFY THAT:

The test shown in the attachment was made in accordance with the procedures indicated. We assume full responsibility for the accuracy and completeness of these tests and vouch for the qualifications of all persons taking them.

	Name	Signature	Date
Testing Engineer	Lex Tseng		
Approving Manager	General Lee		

Notes :

- 1. This report will be invalid if duplicated or photocopied in part.
- 2. This report refers only to the specimen(s) submitted to test, and is invalid as separately used.
- 3. This report is invalid without examination stamp and signature of this institute.
- 4. The tested specimen(s) will be preserved for thirty days from the date issued, if not taken back by the applicant



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1. GENERAL INFORMATION

1.1 DESCRIPTION OF UNIT

MANUFACTURER : Gold Apollo Co., Ltd

MODEL NAME : A27

SAMPLE QUANTITY : 1 unit

1.2 UNIT TESTING SETUP: See attachment

1.3 UNIT OPERATING CONDITION: None

Before, during and after operating test, the unit keeps power on and functional.



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2. DUST TEST

2.1 DESCRIPTION OF TEST EQUIPMENT

Test Equipment	Serial Number	Calibration Date
Vötsch- VDT 1000A	59566059640010	OCT. 08, 2005

2.2 LABORATORY AMBIENCE CONDITION

Temperature : 25±2°C

Relative humidity : 55%± 2%(RH)

2.3 REFERENCE DOCUMNET

This test is based on IEC60529 IP5X Dust Test Protected

2.4 TEST CONDITION

Unit is functional.

Dust material : Talcum powder (100% dry fine)

Particle size : 7.2 ~ 9.2 μm (Diameter)

Dust density : 2.7 ~ 2.9 g/cm3

Amount of talcum power : 2 kg/m3 (chamber volume)

Air direction : Vertically to achieve slowest possible downward settlement

Duration of exposure : 2 hours

2.5 SUMMARY OF TEST

After test, no dust permeated into the unit by visual inspection and no functional degradation was noticed.



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Attachment 1 : Photo for dust test setup



Attachment 2 : Photo for after dust test



Attachment 3 : Photo for unit after dust test





RAIN TEST REPORT

Company :	Gold Apollo Co., Ltd

Model Name : <u>A27</u>

Date Received : SEP 20, 2007

Date Tested : <u>SEP 20, 2007</u>

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. : L0835-060321

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	Lex Tseng	Car Trong	Sep 21, 2007
Section Manager	Longson Lin	Longson Lin	Sep 21, 2007

Note :

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1. GENERAL INFORMATION

1.1 DESCRIPTION OF UNIT

MANUFACTURER : Gold Apollo Co., Ltd MODEL NAME : A27 SAMPLE QUANTITY : 1 unit

1.2 UNIT TESTING SETUP: see attachment

1.3 UNIT OPERATING CONDITION: none



Reliability Engineering Division

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2. RAIN TEST

2.1 DESCRIPTION OF TEST EQUIPMENT

Test Equipment	Serial Number	Calibration Date
Vötsch-Spray and Splash Water VSPT 400	59566059660010	NOV 09, 2006

2.2 LABORATORY AMBIENCE CONDITION

Temperature : 23±3℃

Relative humidity : 55%± 3% (RH)

2.3 REFERENCE DOCUMENT

This test method refers to IEC/EN 60529 IPX4. Unit setup follows client's demand.

2.4 TEST CONDITION

Unit power was kept off during test.

Radius of oscillating tube : 400 mm

Spray angle : \pm 180°C from vertical

Diameter of nozzle : 0.4 mm

Number of open holes : 25

Water flow rate : 0.07 I/minute per hole (Total : 1.8 I/minute)

Test duration : 10 minutes.

2.5 SUMMARY OF TEST

After testing, the unit inner was dry (no water permeate). No functions check requested from client



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Attachment 1 : Photo of rain test setup





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Attachment 2 : Photo of unit after rain test









