

35, Wu Chyuan Road,
Wuku Industrial Zone,
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TEL: (886-2)22983355
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TEST REPORT

Report No. : HCDDT002/2002
Page : 1 of 20
Date : January 8, 2003

CHAUN-CHOUNG TECHNOLOGY CORP.
12F, NO. 123-1, HSING-DE RD.,
SANCHUNG, TAIPEI,
TAIWAN, R.O.C.

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

Product Description: Active Heatsink for Northwood FMB2
Thermal Solution Model #: DTHT-478

Component	Part #	Type
Heatsink	DTHT-478	Stacked Fin with Heat Pipe
Fan	BS701512HH-03	3 wires
Thermal Interface Material	7762	Thermal Grease
Retention Mechanism Assembly	-	Clip, use a pedestal as reinforcement

Manufacturer: CCI
Country of Origin: Taiwan

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

Test Required : Thermal Test for Active Heatsinks
 Mechanical Test for Active Heatsinks

Test Procedures	
Title	Rev
Intel Third Party Test House Thermal Mechanical Test Procedure	1.5

Test Results :

Conclusion
Submitted Thermal Solution, model DTHT-478, meets Thermal Performance Criteria with an adjusted 0.31 Psi-ca Deg C/W and passes Mechanical Test Criteria.

- * This test document cannot be reproduced in any way, except in full context, without the prior approval in writing of the laboratory. SGS will not approve any e-form report without SGS's digital signature.
- * The results shown in this test report refer only to the sample(s) tested unless otherwise stated.
- * SGS will retain one sample from the articles to be tested for a period of six months.

Signed for and on behalf of
SGS TAIWAN Ltd.

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Revision Table

Rev	Date	Comment
1.0	November 24, 2002	Initial Release
1.1	January 8, 2003	The size of heatsink was modified for thermal test. Add a pedestal under the RM to solve problems in previous mechanical test.

Date of tests

Test Started	Test Completed
December 23, 2002	December 31, 2002

Test Sequence

Thermal Test

Test Action/ Item	Test Sequence
Visual Inspection	1
Fan Burn In	2
Precondition TIM (if necessary)	3
Thermal Test	4
Data Analysis	5

Mechanical Test

Test Action/ Item	Test Sequence
Visual Inspection	1 4 6
Shock Test	3
Vibration Test	5
Power-on Test	2 7

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Hardware Under Test

Materials Under Test (MUT)

Component	Information	Comments
Heatsink		
Manufacturer	Chau-Choung Technology Corp.(CCI)	
Mass	370g	340 g (Real, average)
Technology	Stacked Fin with Heat Pipe	
Part Number	DTHT-478	
Date Code	B	
Fan		
Manufacturer	Bi-Sonic	
Size	20mm×70mm×15mm	
Number of Wires	3 wires	
Pin Out or Color Code	Red:"+"; Black:"-"; Yellow:"none"	
Voltage	12VDC	
Current	0.4A	
Constant Speed Fans		
Nominal RPM	4500 RPM	
Noise at Nominal RPM	39.4 dB	
Variable Speed Fans		
High Set Point	-	
Temperature	-	
Noise	-	
Low Set Point	-	
Temperature	-	
Noise	-	
Part Number	BS701512HH-03	
Date Code	A	
Datasheet Received	-	
Thermal Interface Material		
Part Number	7762	
Manufacturer	ShinEtsu	
Type	Thermal Grease	
Size of Pad / Location	35mm×35mm	
Datasheet / Preconditioning Information	-	
Retention Mechanism Assembly		
Manufacturer	-	RM is provided by Intel
Technology	Clip, use a pedestal as reinforcement	Pedestal is provided by CCI
Part Number	-	
Date Code	-	

MUT information is offered by CCI.

Supporting Test Equipment (STE)

Component	Part #	Type	Qty	Comments
TTV				
Thermocouple	5TC-TT-K-36-36	K type	6	Omega
Test Board	E210882	D845HV Intel Desktop Board	6	Intel
TTV	RK861NAVA	QELO D217A214	2	Intel
RM	A65064-001		12	Foxconn
Test Chassis	N/A	Test Bed Setup for Board Power-on	2	
Motherboard	AA A668838-4		6	
CPU	SL5VH COSTA RICA	Intel Pentium® 4 Processor- 1.6GHz (Willamette 478 pin)	6	
Graphics Card	109-63100-10	ATI Rage 128 Pro Graphic Card	2	
Memory	MT4LSDT864AG-133B1	64 Meg SDRAM Memory	12	

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Test Equipment:

Test Equipment for Thermal Test:

Equipment Description	Brand	Model	Serial No.	Calibration Date
Power Supply -FAN	GW	PSP-2010	B202038	2002/7/23
Power Supply -TTV	Agilent	6655A	MY40000196	2002/8/21
Strobe Light	Shimpo	DT- 315N	D26A003	2002/7/19
Data Acquisition	Agilent	34970A	MY41010138	2002/9/16

Test Equipment for Vibration Test:

Equipment Description	Brand	Model	Serial No.	Calibration Date
Vibration Tester	King Design	9363EM-600F2K-50N120	RU104080389	2002/4/16
Accelerometer	Kistler	8704B100	C131766	2002/5/27

Test Equipment for Shock Test:

Equipment Description	Brand	Model	Serial No.	Calibration Date
Shock Test System	Lansmont	65-81 TTSII	M-13418	2002/3/27
Accelerometer	PCB	353B14	79712	2002/1/30

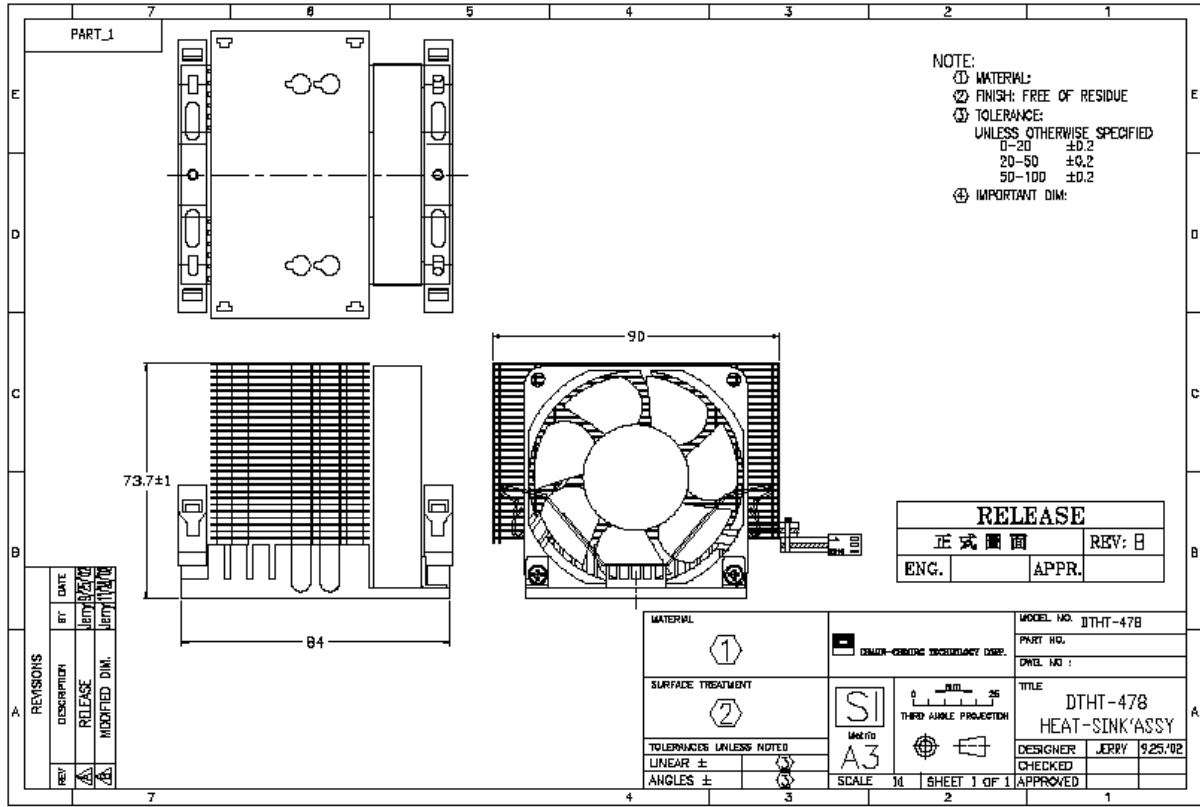
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Drawings



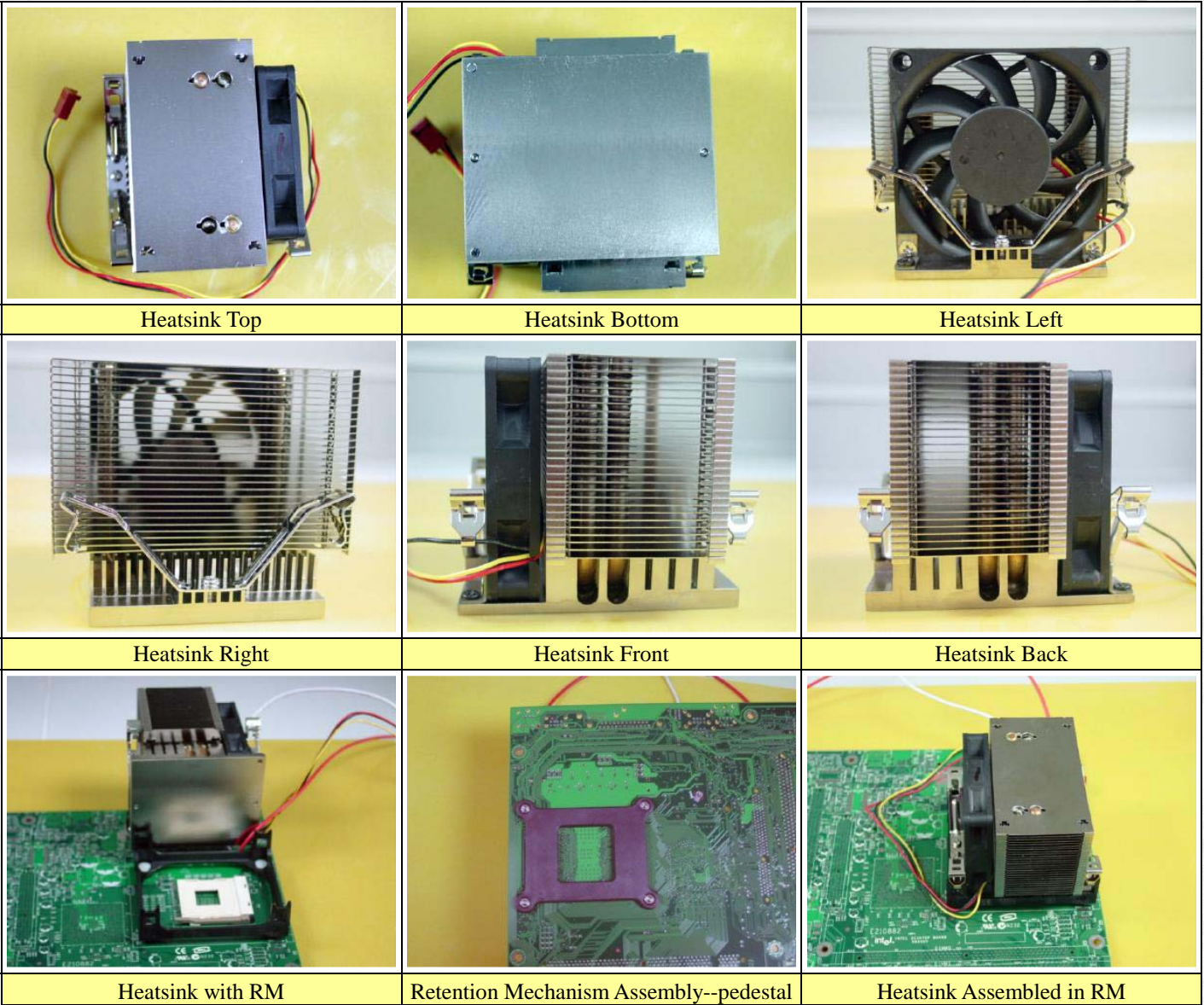
Above drawing is offered by CCI.

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Images



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Test Specifications and Results:

1. Thermal test for Active Heatsinks:

1-1 Thermal Test

1-1-1 Thermal Test Method/ Specifications

- Fan shall burn-in under nominal voltage for 12 hours.
- T_C (Case Temperature) measured at the geometric center of the TTV IHS.
- T_A (Ambient Temperature) measured with 4 thermocouples equally spaced 0.100" above the fan hub.
- **For Constant Speed Fan**
Fan run at 90% nominal RPM.
- Power to TTV measured locally with shunt resistor,
- $\Psi_{i_{ca_adj}}$ calculated using the TTV correction factor and compared to thermal performance criteria.
- Sample quantity: 6

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Test Specifications and Results:

1-2 Thermal Test Result

DATE STARTED	CUSTOMER	TECHNICIAN
12/23/02	Chaun-Choung Technology Corp.	Sophia Fu
DATE COMPLETED	SPECIMEN DESCRIPTION	
12/27/02	Active Heatsink for Northwood FMB2	
TEMPERATURE	TYPE OF TEST	
20±3 (°C)	THERMAL TEST	
HUMIDITY	MANUFACTURER	
55±20 (% RH)	Chaun-Choung Technology Corp.	
SPECIMEN NUMBER	TEST SPECIFICATION	
T1~T6	Third Party Test House Thermal Mechanical Test Procedure	

Criteria

Thermal Performance Criteria	
Psi-ca (°C/W) =	0.33

Fan Data (For Variable Speed Fans)

Set Point	RPM	Ta (°C)
Low	-	-
High	-	-

Specification Data (For Variable Speed Fans)

Test RPM	Rated RPM	Spec at Rated RPM	
		Ta (°C)	Psi-ca (°C/W)
-	-	-	0.33
-	-	-	0.33
-	-	-	0.33
-	-	-	0.33
-	-	-	0.33
-	-	-	0.33
-	-	-	0.33
-	-	-	0.33
-	-	-	0.33
-	-	-	0.33
-	-	-	0.33
-	-	-	0.33
-	-	-	0.33
-	-	-	0.33

Results

Thermal Performance		
Measured		Adjusted
RPM	Psi-ca (°C/W)	Psi-ca (°C/W)
4050	0.31	0.32
4017	0.29	0.30
4096	0.32	0.33
4048	0.29	0.30
4103	0.32	0.33
3976	0.29	0.30

Pass / Fail

Adjusted	Target	Meets Thermal Performance Criteria?
Psi-ca (°C/W)	Psi-ca (°C/W)	
0.31	0.33	Meets Thermal Performance Criteria

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Test Specifications and Results:

2. Mechanical test for Active Heatsinks:

2-1 Shock Test

2-1-1 Shock Test Method/ Specifications

Wave form:	<u>Trapezoidal</u>
Acceleration:	<u>50 G \pm10%</u>
Velocity change:	<u>170 inches/ second \pm10%</u>
Shock direction:	<u>\pmX, \pmY, \pmZ axes</u>
No. of shock:	<u>3 shocks/ direction (total 18 shocks/ sample)</u>
Sample quantity:	<u>6</u>

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Test Specifications and Results:

2-1-2 Shock Test Data

DATE STARTED		CUSTOMER						TECHNICIAN	
12/30/02		Chaun-Choung Technology Corp.						Sophia Fu	
DATE COMPLETED		SPECIMEN DESCRIPTION							
12/31/02		Active Heatsink for Northwood FMB2							
TEMPERATURE		TYPE OF TEST							
25±3 (°C)		SHOCK - TRAPEZOID (NON-OPERATIONAL)							
HUMIDITY		MANUFACTURER						FILTER FREQUENCY	
55±20 (% RH)		Chaun-Choung Technology Corp.						Auto Filter	
SPECIMEN NUMBER		TEST SPECIFICATION							
M1~M6		Third Party Test House Thermal Mechanical Test Procedure							
SPECIMEN NUMBER	DATE	AXIS	LEVEL (G)	DURATION (mS)	NO. OF SHOCKS	Δ VELOCITY (IN/S)	FAIRED (G)	REMARKS	
M1, M2	12/30/02	-Z	57.59	9.50	1st	166.79	50.10		
M1, M2	12/30/02	-Z	57.21	9.50	2nd	165.47	49.81		
M1, M2	12/30/02	-Z	57.13	9.50	3rd	165.97	49.89		
M3, M4	12/30/02	-Z	56.45	9.55	1st	166.38	49.63		
M3, M4	12/30/02	-Z	56.16	9.55	2nd	166.16	49.67		
M3, M4	12/30/02	-Z	56.12	9.60	3rd	166.74	49.64		
M5, M6	12/30/02	-Z	57.34	9.55	1st	165.77	49.76		
M5, M6	12/30/02	-Z	57.42	9.55	2nd	166.46	49.75		
M5, M6	12/30/02	-Z	57.10	9.60	3rd	166.70	49.72		
M1, M2	12/30/02	+X	57.02	9.60	1st	166.34	49.17		
M1, M2	12/30/02	+X	56.62	9.65	2nd	166.34	49.11		
M1, M2	12/30/02	+X	56.76	9.65	3rd	166.72	49.17		
M1, M2	12/30/02	-X	57.14	9.60	1st	166.36	49.41		
M1, M2	12/30/02	-X	56.99	9.65	2nd	166.53	49.41		
M1, M2	12/30/02	-X	56.73	9.60	3rd	165.81	49.27		
M1, M2	12/30/02	+Y	57.15	9.60	1st	166.61	49.36		
M1, M2	12/30/02	+Y	56.96	9.65	2nd	166.78	49.37		
M1, M2	12/30/02	+Y	56.50	9.65	3rd	165.99	49.13		

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Test Specifications and Results:

2-1-2 Shock Test Data--Continued

DATE STARTED		CUSTOMER						TECHNICIAN	
12/30/02		Chau-Choung Technology Corp.						Sophia Fu	
DATE COMPLETED		SPECIMEN DESCRIPTION							
12/31/02		Active Heatsink for Northwood FMB2							
TEMPERATURE		TYPE OF TEST							
25±3 (°C)		SHOCK - TRAPEZOID (NON-OPERATIONAL)							
HUMIDITY		MANUFACTURER						FILTER FREQUENCY	
55±20 (% RH)		Chau-Choung Technology Corp.						Auto Filter	
SPECIMEN NUMBER		TEST SPECIFICATION							
M1~M6		Third Party Test House Thermal Mechanical Test Procedure							
SPECIMEN NUMBER	DATE	AXIS	LEVEL (G)	DURATION (mS)	NO. OF SHOCKS	Δ VELOCITY (IN/S)	FAIRED (G)	REMARKS	
M1, M2	12/30/02	-Y	56.96	9.65	1st	166.59	49.11		
M1, M2	12/30/02	-Y	56.66	9.70	2nd	166.70	49.08		
M1, M2	12/30/02	-Y	56.71	9.65	3rd	166.82	49.10		
M3, M4	12/30/02	+X	56.96	9.60	1st	166.41	49.12		
M3, M4	12/30/02	+X	57.03	9.65	2nd	167.36	49.45		
M3, M4	12/30/02	+X	56.97	9.65	3rd	166.91	49.41		
M3, M4	12/30/02	-X	56.80	9.65	1st	166.64	49.26		
M3, M4	12/30/02	-X	56.92	9.65	2nd	166.77	49.35		
M3, M4	12/30/02	-X	56.91	9.65	3rd	166.59	49.28		
M3, M4	12/30/02	+Y	57.02	9.60	1st	166.47	49.37		
M3, M4	12/30/02	+Y	56.72	9.70	2nd	166.81	49.06		
M3, M4	12/30/02	+Y	56.59	9.70	3rd	166.71	49.03		
M3, M4	12/30/02	-Y	56.68	9.65	1st	166.36	49.17		
M3, M4	12/30/02	-Y	56.60	9.65	2nd	166.08	49.13		
M3, M4	12/30/02	-Y	56.71	9.70	3rd	166.42	49.10		
M5, M6	12/31/02	+X	57.73	9.60	1st	166.64	49.23		
M5, M6	12/31/02	+X	56.65	9.70	2nd	166.70	49.08		
M5, M6	12/31/02	+X	56.58	9.65	3rd	165.96	48.82		

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Test Specifications and Results:

2-1-2 Shock Test Data--Continued

DATE STARTED		CUSTOMER						TECHNICIAN	
12/30/02		Chau-Choung Technology Corp.						Sophia Fu	
DATE COMPLETED		SPECIMEN DESCRIPTION							
12/31/02		Active Heatsink for Northwood FMB2							
TEMPERATURE		TYPE OF TEST							
25±3 (°C)		SHOCK - TRAPEZOID (NON-OPERATIONAL)							
HUMIDITY		MANUFACTURER						FILTER FREQUENCY	
55±20 (% RH)		Chau-Choung Technology Corp.						Auto Filter	
SPECIMEN NUMBER		TEST SPECIFICATION							
M1~M6		Third Party Test House Thermal Mechanical Test Procedure							
SPECIMEN NUMBER	DATE	AXIS	LEVEL (G)	DURATION (mS)	NO. OF SHOCKS	Δ VELOCITY (IN/S)	FAIRED (G)	REMARKS	
M5, M6	12/31/02	-X	56.93	9.65	1st	167.25	49.33		
M5, M6	12/31/02	-X	56.71	9.65	2nd	167.47	49.36		
M5, M6	12/31/02	-X	56.66	9.65	3rd	167.50	49.35		
M5, M6	12/31/02	+Y	56.73	9.60	1st	166.17	49.21		
M5, M6	12/31/02	+Y	56.56	9.75	2nd	167.74	49.22		
M5, M6	12/31/02	+Y	56.61	9.65	3rd	166.82	49.20		
M5, M6	12/31/02	-Y	56.73	9.60	1st	166.81	49.23		
M5, M6	12/31/02	-Y	56.53	9.70	2nd	168.00	49.35		
M5, M6	12/31/02	-Y	56.50	9.70	3rd	167.69	49.31		
M1, M2	12/31/02	+Z	54.68	9.85	1st	166.67	48.06		
M1, M2	12/31/02	+Z	55.07	9.85	2nd	167.08	48.36		
M1, M2	12/31/02	+Z	54.66	9.95	3rd	167.90	48.11		
M3, M4	12/31/02	+Z	55.11	9.85	1st	166.93	48.35		
M3, M4	12/31/02	+Z	55.32	9.75	2nd	166.73	48.60		
M3, M4	12/31/02	+Z	55.32	9.80	3rd	166.86	48.51		
M5, M6	12/31/02	+Z	55.97	9.65	1st	166.05	49.02		
M5, M6	12/31/02	+Z	55.80	9.70	2nd	167.00	49.13		
M5, M6	12/31/02	+Z	55.78	9.70	3rd	166.60	49.13		

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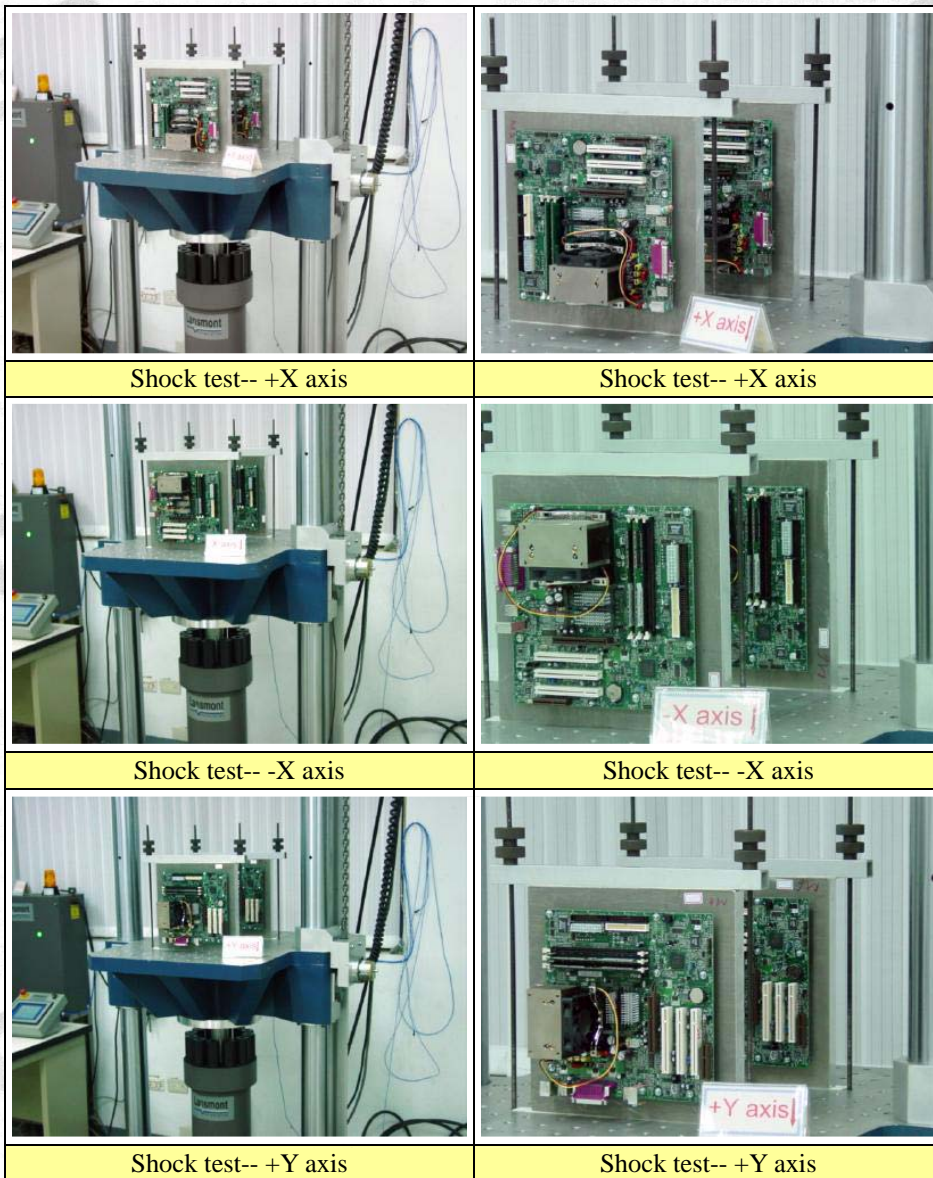
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Test Specifications and Results:

2-1-3 Shock Test Picture



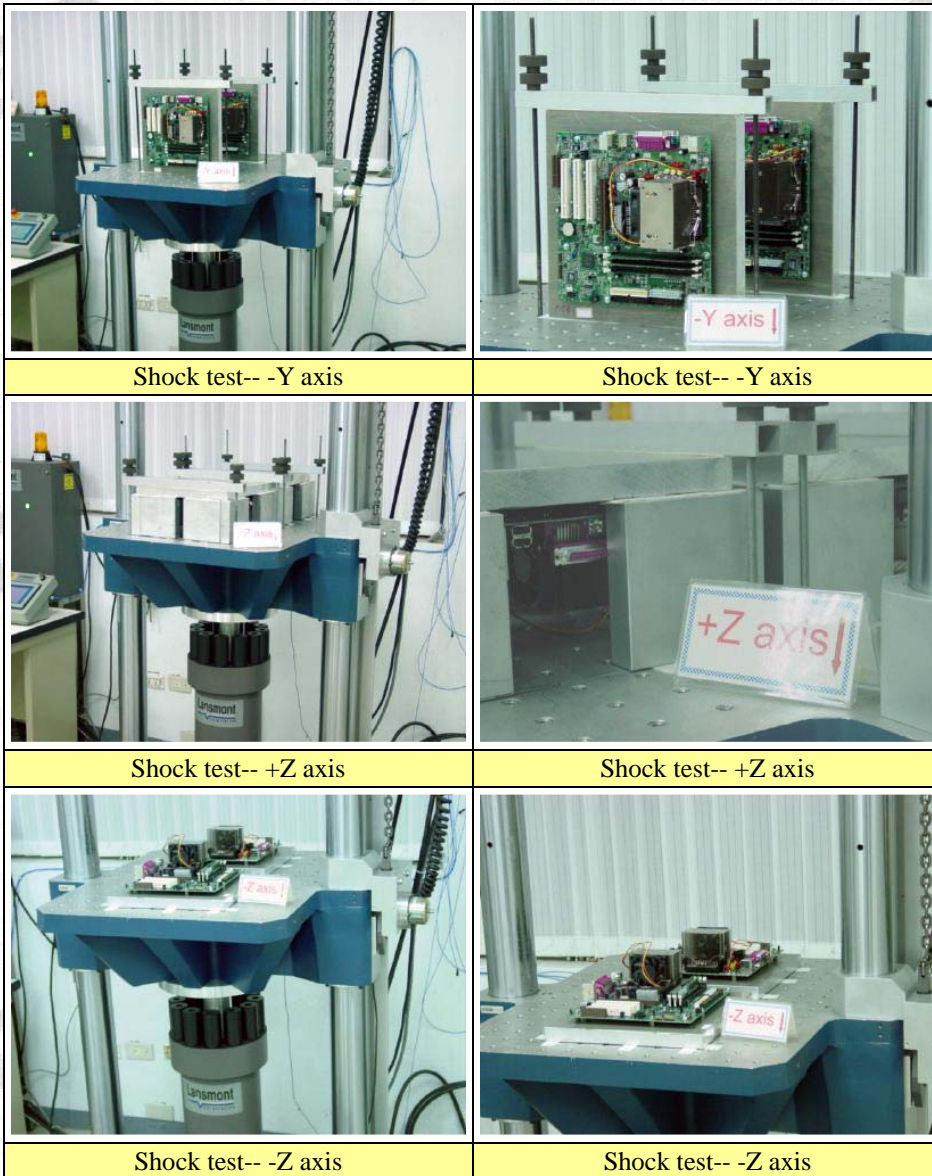
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Test Specifications and Results:

2-1-3 Shock Test Picture-- Continued



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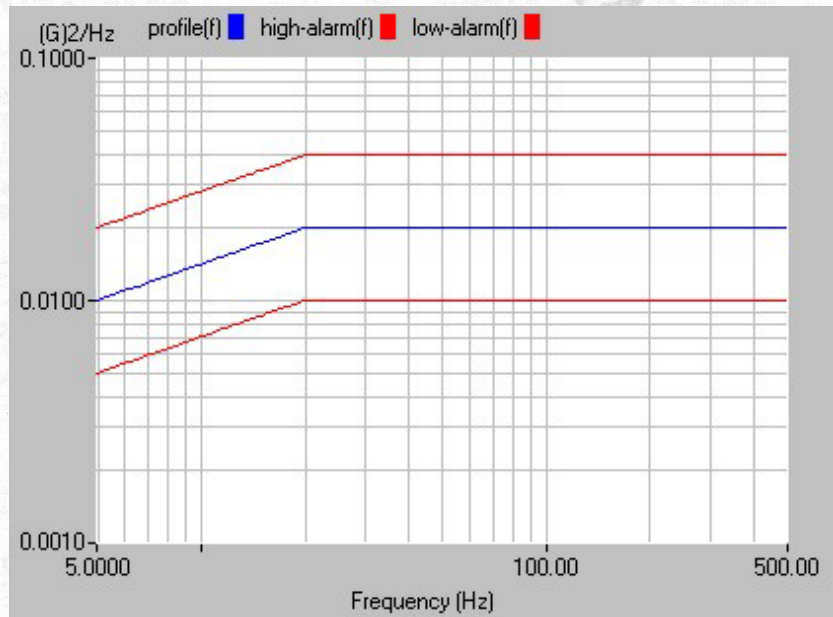
Test Specifications and Results:

2-2 Vibration Test

2-2-1 Vibration Test Method/ Specifications

Wave form: Random

Frequency: 5 500 Hz



Frequency (Hz)	Left Slope (dB/Oct.)	PSD (g^2/Hz)	Right Slope (dB/Oct.)
5	-	0.01	1.5
20	1.5	0.02	0.0
500	0.0	0.02	-

= > equivalent to 3.13 G_{rms}

Random control limit tolerance is ± 3 dB.

Direction: X, Y, Z axes

Duration: 10 minutes/axis

Sample quantity: 6

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Test Specifications and Results:

2-2-2 Vibration Test Data

DATE STARTED		CUSTOMER				TECHNICIAN	
12/31/02		Chaun-Choung Technology Corp.				Sophia Fu	
DATE COMPLETED		SPECIMEN DESCRIPTION					
12/31/02		Active Heatsink for Northwood FMB2					
TEMPERATURE		TYPE OF TEST					
25±3 (°C)		VIBRATION - Random					
HUMIDITY		MANUFACTURER					
55±20 (% RH)		Chaun-Choung Technology Corp.					
SPECIMEN NUMBER		TEST SPECIFICATION					
M1-M6		Third Party Test House Thermal Mechanical Test Procedure					
SPECIMEN NUMBER	DATE	AXIS	TIME START	TIME STOP	VIBRATION FREQUENCIES AND LEVELS	REMARKS	
M1, M2	12/31/02	X	11:56	12:06	Random- Non-Op		
M3, M4	12/31/02	X	13:32	13:42	5Hz@ 0.01g ² /Hz to 20Hz@ 0.01g ² /Hz(slope up)		
M5, M6	12/31/02	X	14:06	14:16	20 to 500Hz @ 0.02g ² /Hz(flat)		
M5, M6	12/31/02	Y	14:25	14:35	3.13 gRMS overall		
M3, M4	12/31/02	Y	14:59	15:09	10minutes/axis for all 3 axes		
M1, M2	12/31/02	Y	15:29	15:39	Random control limit tolerance is ±3 dB		
M1, M2	12/31/02	Z	16:07	16:17			
M3, M4	12/31/02	Z	16:32	16:42			
M5, M6	12/31/02	Z	16:56	17:06			

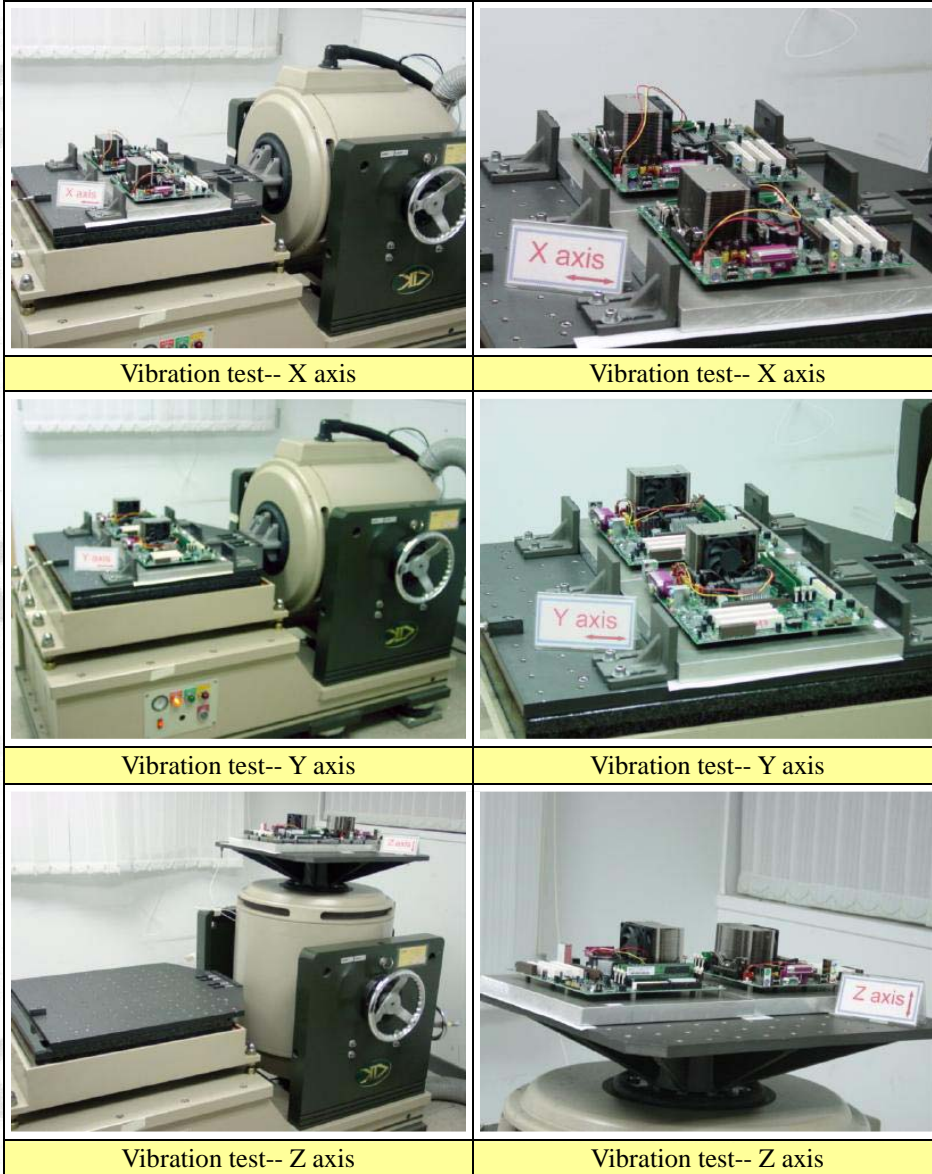
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Test Specifications and Results:

2-1-3 Vibration Test Pictures



35, Wu Chyuan Road,
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Taipei County, Taiwan.
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FAX: (886-2)22997857

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Test Specifications and Results:

2-3 Mechanical Test Result

Test Results				
Test #	Pre Power On	Visual Inspection	Post Power On	Comments
M1	Yes	Yes	Yes	
M2	Yes	Yes	Yes	
M3	Yes	Yes	Yes	
M4	Yes	Yes	Yes	
M5	Yes	Yes	Yes	
M6	Yes	Yes	Yes	



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Test Specifications and Results:

2-4 Inspection Failure Pictures

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Blank	Blank

This report is issued by the Company under its General Conditions for Inspection and Testing Services, printed in Appendix. The issuance of this Report does not exonerate buyers or sellers from exercising all their rights and discharging all their liabilities under the Contract of Sale. Stipulations to the contrary are not binding on the Company. The Company's responsibility under this report is limited to proven negligence and will in no case be more than ten times the amount of the fees or commission. Except by special arrangement, samples, if drawn, will not be retained by the Company for more than three months.

本證明書為本公司依據附錄之檢驗及測試服務條款所製發。本證明書之製發，並不免除買賣雙方依買賣契約所得行使之權利及所應履行之義務。違反本證明書之約定並不拘束本公司。本公司製發本證明書之責任僅限於經證明之疏失，且責任範圍僅限於收取費用或報酬金額之十倍。除有特別約定外，本公司對檢驗之樣品之保管，不超過三個月。

for Inspection and Testing Services

1. The company undertakes to provide services in accordance with these general conditions (hereinafter called "General Conditions") and accordingly all offers or tenders of service and all resulting contracts, agreements or other arrangements will in all respects be governed by these General Conditions, unless otherwise specifically agreed in writing except only to the extent that the law of the place where such arrangements or contracts are made or carried out shall preclude any of the General Conditions and in such case the said local law shall prevail wherever, but only to the extent that, it is at variance with these General Conditions.
2. The Company acts for the person or body from whom the instructions to act have originated (hereinafter called "the Client"). No other party is entitled to give instructions. Particularly on the scope of inspection or delivery of report or certificate, unless so authorized by the Client.
The company is irrevocably authorized by the Client to deliver at its discretion the report or the certificate to a third part where so instructed by the Client or where it implicitly follows from circumstances, trade custom, usage or practice.
3. The Company will provide services in accordance with:
 - (a) the Client's specific instructions as confirmed by the Company;
 - (b) the terms of any standard order form and/or standard specification sheet of the Company, if applicable;
 - (c) any relevant trade custom, usage or practice and
 - (d) such methods as the Company shall consider appropriate on technical, operational and/or financial grounds.
4. Documents reflecting engagements contracted between the Client and third parties, or third parties' documents, such as copies of contracts of sale, letters of credit, bills of lading, etc., are (if received by the Company) considered to be for information only, and do not extend or restrict the scope of the services or the obligations accepted by the Company.
5. Subject to the Client's instructions as accepted by the Company, the Company will issue reports and certificates of inspection which reflect statements of opinion made with due care within the limitation of instructions received, but the Company is under no obligation to refer to or report upon any facts or circumstances which are outside the specific instructions received.
6. The Client will:
 - (a) ensure that instructions to the Company and sufficient information are given in due time to enable the required services to be performed effectively;
 - (b) procure all necessary access for the Company's representatives to enable the required services to be performed effectively;
 - (c) supply, if required, any special equipment and personnel necessary for the performance of the services;
 - (d) ensure that all necessary measures are taken for safety and security of working conditions, sites and installations during the performance of services and will not rely, in this respect, on the Company's advice whether required or not;
 - (e) take all necessary steps to eliminate or remedy and obstruction to, or interruptions in, the performance of services;
 - (f) inform the Company in advance of and known hazards or dangers, actual or potential, associated with and order or samples or testing including, for example, presence or risk of radiation, toxic or noxious or explosive elements or materials, environmental pollution poisons;
 - (g) fully exercise all its rights and discharge all its liabilities under any relevant sales or other contract with a third party, whether or not a report or certificate has been issued by the Company, failing which the Company shall be under no obligation to the Client.
7. The Company may delegate the performance of the whole or any part of the services contracted for with the client to any agent or subcontractor.
8. If the requirements of the Client necessitate the analysis of samples by the Client's or by any third party's laboratory, the Company will pass on the result of the analysis but without responsibility for its accuracy. Likewise where the Company is only able to witness an analysis by the Client's or by any third party's laboratory, the Company will provide confirmation that the correct sample has been analysed but will not otherwise be responsible for the accuracy of any analysis or results.
9. The Company undertakes to exercise due care and skill in the performance of the services and accepts responsibility only in cases of proven negligence.
The liability of the Company in respect of any claim for loss, damage or expense of whatsoever nature and howsoever arising shall in no circumstances exceed a total aggregate sum equal to 10 times the amount of the fee payable in respect of the specific service required which gives rise to such claim, provided, however, that the Company shall have no liability for any indirect, special or consequential loss (including loss of profits).
10. The Company shall be discharged from all liability for claims for loss, damage or expense unless suit is brought within one year after the date of the performance by the Company of the specific service which gives rise to the claim or in the event of any alleged non-performance within one year of the date when such service should have been completed.
11. The Client acknowledges that the Company does not, either by entering into a contract or by performing services, assume, abridge, abrogate or undertake to discharge any duty of the Client to any other person.
12. The Company is neither an insurer nor a guarantor and disclaims all liability in such capacity. Clients seeking a guarantee against loss or damage should obtain appropriate insurance.
13. The Client shall guarantee, hold harmless and indemnify the Company and its officers, employees, agents or subcontractors against all claims made by any third party for loss, damage or expense of whatsoever nature including reasonable legal expenses and howsoever arising relating to the performance, purported performance or non-performance, of any services to the extent that the aggregate of any such claims relating to any one service exceed the limit mentioned in condition 9.
14. In the event that any unforeseen problem or expenditure arises in the course of carrying out any of the services, the Company shall be entitled to an additional charge to cover additional time and cost necessarily incurred to complete the services.
15. If the Company is unable to perform all or part of the services because of lack of access or availability of goods or undue postponement or delay, the Company shall be entitled to a delay charge and to reimbursement of any non refundable expense incurred by the Company.
16. The Client shall punctually pay not later than 30 days after the relevant invoice date or within such other period as may have been agreed in writing by the Company, all charges rendered by the Company failing which interest will become due at the rate of 3 month LIBOR + 2% per cent per annum from the date of invoice until payment.
The Client shall not be entitled to retain or defer payment of any sums due to the Company on account of any dispute, cross claim or set off which it may allege against the Company.
The client shall also pay all of the Company's costs of collecting any amounts owed to the Company, including attorney's fees and court costs.
17. In the event of any suspension of payment, arrangement with creditors, bankruptcy, insolvency, receivership or cessation of business by the Client, the Company shall be entitled to suspend or, at its option, terminate all further services forthwith and without liability.
18. If the Company is prevented by reason of any cause whatsoever outside the Company's control from performing or completing any services for which an order has been given or an agreement made, the Client shall pay to the company
 - (a) the amount of all abortive expenditure actually made or incurred;
 - (b) a proportion of the agreed fee equal to the proportion (if any) of the services actually carried out; and the Company shall be relieved of all responsibility whatsoever for the partial or total non-performance of the required services.
19. These general conditions shall be governed and construed in accordance with the substantive laws of England exclusive of any rules with respect to conflicts of laws.
All disputes arising in connection with these general conditions shall be finally settled under the rules of conciliation and arbitration of the international chamber of commerce by one or more arbitrators appointed in accordance with the said rules.
Unless otherwise agreed, the arbitration shall take place in Paris, France, in the English language.

檢驗及測試服務共同條款

1. 本公司承諾將依照本檢驗及測試服務共同條款 (以下稱共同條款) 提供服務, 前所有之要約或投標以及因而成立的契約、協議或其他約定, 皆完全受本共同條款之約束。但另有特別之書面約定時, 依其約定。如約定地、契約成立地或履行地之法律排除本共同條款任何約定之適用, 並強制適用該地法律時, 應適用該強制之法律; 惟僅限於該當地法律與本共同條款之規定不一致的部份, 為其適用範圍。
2. 本公司依據本約最初源起之指示者(以下稱委任人)之指示, 為其個人或其機構作業。非經委任人之授權, 他人無權給予指示, 尤其對於檢驗範圍之指定或報告或證明書交付之指示。如委任人指示本公司將報告或證明書交與第三人時, 本公司即按照委任人不可撤銷的授權, 依當時現況或交易上的習慣、用法及實務作法自行判斷執行之。
3. 本公司提供之服務乃依照:
 - (a) 經本公司確認之委任人的特定指示;
 - (b) 可適用之本公司標準訂貨單及 / 或標準規格表上的條件;
 - (c) 任何相關的交易慣例, 交易習慣或實務作法以及
 - (d) 本公司在技術、作業及 / 或財務方面考量, 認為合適的方法。
4. 本公司若收到任何顯示委任人與第三者間簽訂承諾義務的文件, 或第三者的文件, 如買賣契約、信用狀、提單等, 應僅視為參考文件, 並不擴張或限制本公司同意的服務範圍或義務。
5. 依委任人的指示經本公司同意後, 本公司將製發檢驗報告及檢驗證明書, 並載述在接獲的指示範圍內, 本公司善盡職責所作成的意見之陳述。對指示以外的任何事實或狀況, 本公司並無義務加以引用或報告。
6. 委任人應:
 - (a) 確保在相當時間前給予指示及充分的資料, 俾使所需的服務能有效執行;
 - (b) 讓本公司代表取得必要的資訊, 俾使所需的服務能有效的執行;
 - (c) 若有需要時, 供給作業執行所需之任何必要的特別設備及人力;
 - (d) 採取一切必要措施, 確保服務執行期間的工作條件、工作場所和設備安全與保護無虞, 關於此點, 委任人毋待本公司之告知;
 - (e) 採取所有必要措施消除或補救服務執行中的任何阻礙或中斷;
 - (f) 事先告知本公司關於任何包括訂貨單、樣品或測試之任何已知、或潛在的危害或危險, 例如曝露或可能導致放射性、毒性或爆裂物質、環境污染或毒藥等危險;
 - (g) 充分行使其與第三者關於買賣或其他契約中的所有權利, 不論本公司是否已製發報告或證明書, 均應全力免除本公司對第三人之所有責任, 否則本公司將不對委任人負任何責任。
7. 本公司得將服務契約之全部或部份工作委由代理人或次承包商執行。
8. 應委任人之要求, 樣品必須由委任人或任何第三者之實驗室化驗時, 本公司同意傳遞該化驗結果, 但對其正確性不負任何責任, 同時本公司僅能證明委任人或第三者之實驗室確實進行此一化驗, 本公司將對此樣品予以確認, 但不對該分析或結果之正確性負任何責任。
9. 本公司承諾以適當的注意義務和技術來提供服務, 本公司之責任僅限於經證明之疏忽。
關於任何情況所生之損失、損壞或費用方面的求償, 本公司對委任人賠償責任的全部累計總額, 以不超過造成索賠所提供之特定服務費用的十倍。本公司對任何間接、特別或衍生的損失(包括獲利損失)不負任何責任。
10. 對於所有損失、損壞或費用之求償, 該項求償訴訟應於引發爭議之特定服務完成後一年內提出, 或如有任何主張本公司未依約履行時, 則未在服務應完成日起一年內起訴請求, 本公司將不負任何責任
11. 委任人應了解本公司, 不論在訂立本契約時或執行服務時, 絕不代表本公司承擔、剝奪、廢除或承諾免除委任人對其他第三者之任何責任。
12. 本公司非為一保險人或保證人, 並拒絕承認此種地位之所有責任。委任人應適當的保險尋求免於損失或損害的保證。
13. 倘因本公司任何服務的執行、執行的意旨或不執行, 遭受第三者任何性質的索賠, 請求本公司支付任何因之而生的損失、損害或費用, 包括合理的法律費用時, 委任人應擔保、保持本公司不受損害並補償公司及其幹部、員工、代理人或承包商因超過第九款所定之賠償限額。
14. 若在執行服務的過程中, 有任何未能在預見範圍內的問題或費用發生時, 對完成服務所需額外的時間及成本, 本公司有權要求加收額外費用。
15. 倘因欠缺資訊, 或貨物條件不合, 或呈現不當延遲, 致使本公司未能執行全部或部份服務, 本公司有權要求延遲所生之費用及任何已支付而無法退還費用之補償。
16. 委任人應於本公司開立相關之發票日起卅天內或其他以書面方式約定之期限內, 按時支付本公司提出之所有費用。逾期未付則自到期日按倫敦同業拆款三個月定期利息加百分之二年息計至付款為止。委任人無權因主張與本公司有爭議、反求償或抵銷而保留或延遲任何金額之付款。委任人亦應支付本公司因催收任何應付帳款之所有成本, 包括律師費及裁判費。
17. 如果委任人有任何暫停付款、債權人協調、破產、無力償債、資產被接管或業務停止時, 本公司有權選擇暫停或終止後續服務; 且無須負任何責任。
18. 若有本公司所無法控制的任何原因, 致使本公司無法執行或完成經指示或約定任何服務時, 委任人支付本公司;
 - (a) 就尚未完成之服務所發生或因之而生的費用;
 - (b) 依約定的費用按已執行服務的比列所計算的金額;
 對此種僅履行部份或全部未履行應提供服務之情事, 本公司亦免除完成之責任及任何因之而生之責任。
19. 此共同條款應依英國實體法加以適用及解釋, 但英國衝突法則, 不在適用之列, 凡共款所生的爭議, 應依國際商會所訂之調解及仲裁規則, 由一位或數位仲裁人仲裁之。除另行約定外, 仲裁應以英文在法國巴黎為之。
(若有任何解釋上之誤差, 以英文為準)