



**QUANTA
LABORATORIES**

3199 De La Cruz Boulevard • Santa Clara, CA 95054-2483
TEL: (408) 988-0770 FAX: (408) 988-0762
E-MAIL: test@quantalabs.com

Certificate of Conformance

This is to certify that the results from the test(s) requested by

Alpha Nova Tech are on file under
Quanta Laboratories Job No. QL-23-0254 and conform
to the specification(s) stated in P.O. No. 20230115A01

These results apply to the following equipment and are
available for review upon request.

Model No: CQZ Clip & QSZ Clip

S/N: N/A

*** Sine Sweep, Random Vibration, and Shock Tests ***



Joseph Cadigal
Quanta Laboratories

04/03/2023

Quanta Laboratories

Date

MULTI VIBRATION & SHOCK TEST DATA



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CLIENT: Alpha Nova Tech			P.O. NO: 20230115A01	
SPECIMEN: CQZ Clip & QSZ Clip			JOB NO: QL-23-0254	
SPECIFICATION Customer Specification			PAGE 1 OF 1	
EQUIPMENT: Purple / White / MTS Shock		TEMPERATURE: 21-25°C	HUMIDITY: 30-35%	
DATE	S/N	AXIS	VIBRATION AND SHOCK SEQUENCE	REMARKS
03/30/2023	N/A	X	<u>Sine Sweep Vibration Test</u> 5 – 500 Hz 5 Hz @ 0.5 G 10 – 500 Hz @ 2 G 1 Oct/min Duration: 1 cycle/axis (13 min 17 sec)	Non Operational Test Test completed to specification requirements.
		Y	<u>Random Vibration Test</u> 5 – 500 Hz 5 Hz @ 0.002 g ² /Hz 10 – 100 Hz @ 0.0064 g ² /Hz 500 Hz @ 0.0005 g ² /Hz Overall: 1.12 Grms Duration: 30 min/axis	
		Z	<u>Trapezoid Shock Test</u> Level: 40 G Duration: 18 ms 3 shocks/direction 6 directions 18 shocks total	DEFINITION OF AXES See Photos Page.
TEST ENGINEER: Alex Huang			<i>Ha</i>	DATE: 03/30/2023

QUANTA LABORATORIES EQUIPMENT LIST

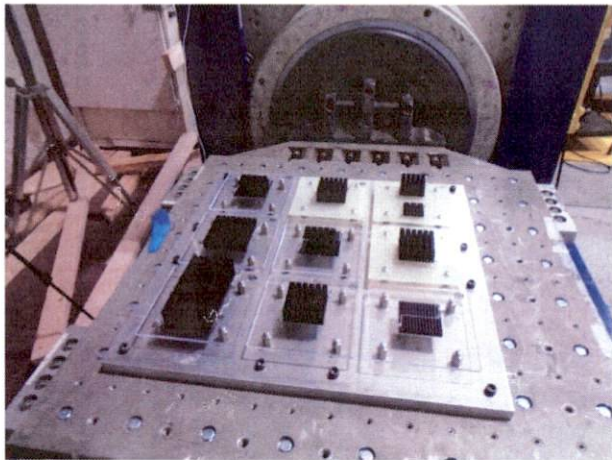


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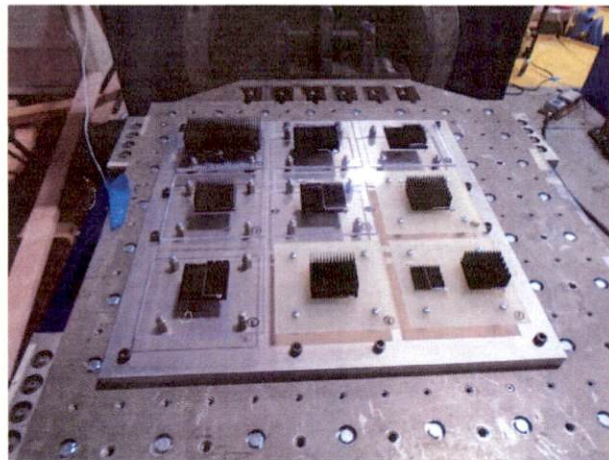
Client:	Alpha Nova Tech			P.O. NO:	20230115A01	
				JOB NO.:	QL-23-0254	
DIGITAL SYSTEM LIST						
Device Type	Location	Make & Model	Range	Asset #	Serial #	Due Date
Shaker Control System	Test Station 22 Control Room 4	ECON UCON VT-9008 8 inputs	0.1Hz - 3 KHz RES. 0.1dB	QL-0913	227578166	03/07/2024
Shock Data Acquisition System	Shock Test Station 51	ECON ST-05H	0	QL-0332	128992257	06/21/2023
MECHANICAL SYSTEM LIST						
Device Type	Description	Make & Model	Range	Asset #	Serial #	Due Date
Shaker Amplifier	Purple/Blue 335	ETS MPA3324		QL-0920	1102043	Cal Not Required
Electrodynamic Shaker	Purple/Blue 335	Ling B-335 (Blue)	5Hz - 3 KHz	QL-0509	92	Cal Not Required
Electrodynamic Shaker	Purple/Blue 335	Ling B-335 (Purple)	5Hz - 3 KHz	QL-0918	122	Cal Not Required
Shaker Amplifier	White	ETS MPA409		QL-0925	1210366	Cal Not Required
Electrodynamic Shaker	White	ETS G7800 M	5Hz - 3 KHz, 4"	QL-0919	SH1210366	Cal Not Required
Shock Machine	MTS Shock Table	MTS 846.24	70" Drop	QL-0009	1077	Cal Not Required
SENSOR LIST						
Device Type	Description	Make & Model	Range	Asset #	Serial #	Due Date
Accelerometers	Single-Axial	DYTRAN 3256A2	5~3000 Hz 50 G	QL-0879	10888	11/22/2023
Accelerometers	Single-Axial	DYTRAN 3030B4	5~2000 Hz 500 G	QL-0769	16633	04/14/2023
Miscellaneous List						
Device Type	Description	Make & Model	Range	Asset #	Serial #	Due Date
Temp Humidity Sensor	ambient room monitor#2 (Control rm 4)	Acurite 06038MA1	32°F to 122°F; 0°C to 50°C 16% - 98% RH	QL-1337	Q41	07/08/2023
Customer-Supplied Equipment						
Device Type	Description	Make & Model	Range	Asset #	Serial #	Due Date

Alpha Nova Tech

Sine Sweep, Random Vibration Tests



X-Axis



Y-Axis

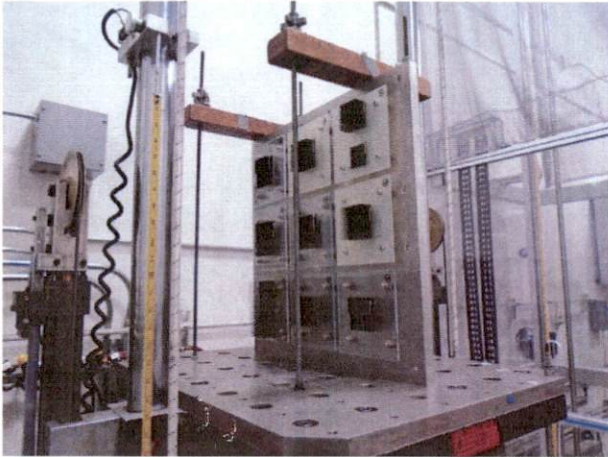


Z-Axis

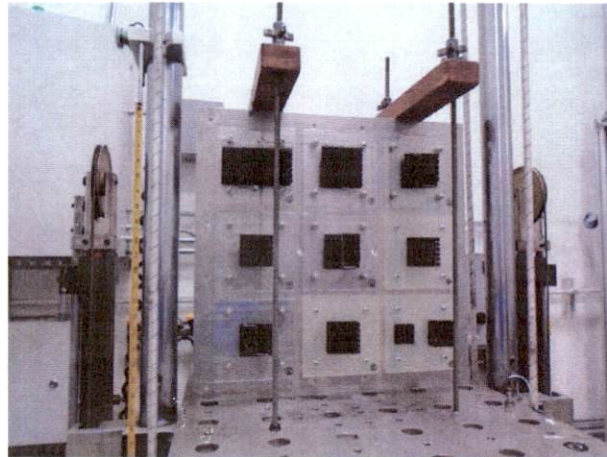
QL-TTS-152

10/26/2018

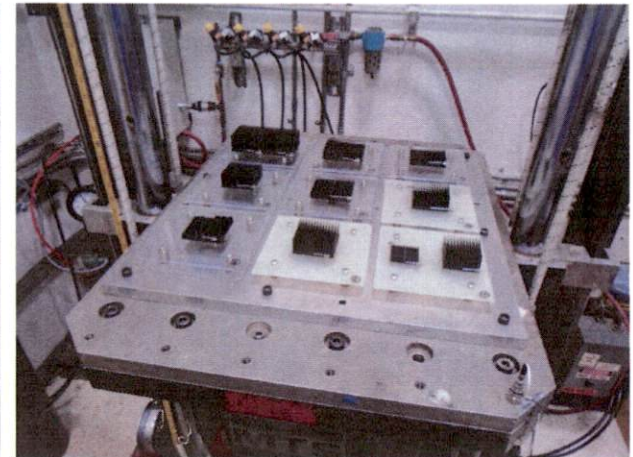
Alpha Nova Tech Shock Test



+X-Axis



+Y-Axis



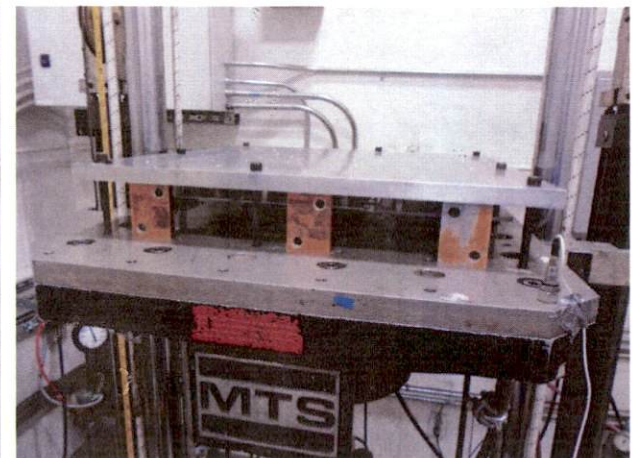
+Z-Axis



-X-Axis



-Y-Axis



-Z-Axis

QL-TTS-152
10/26/2018

Notes

- 1.This report may not be reproduced, except in full, without written approval by Quanta Laboratories.
- 2.The information in this report applies only the items tested or calibrated.
- 3.Measurements in this report are traceable to SI units via national standards maintained by NIST or derived from acceptable values of natural physical constants that comply with ISO 17025:2017 and A2LA requirements.
- 4.In Tolerance conditions are based on test results falling within specified limits with no reduction by the uncertainty of the measurement.
- 5.The estimated measurement uncertainty (EMU), if reported on this certificate, is being reported at a confidence level of 95% or K=2 unless otherwise noted in the comments section.



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Quanta Laboratories Test Report

Quanta Laboratories submits this report with our Certificate of Conformance to the requirements of the applicable specifications and with appropriate supporting data, but with no other expressed or implied warranty. Customer assumes full responsibility when using or interpreting the data herein for evaluation and/or reporting purposes. The contents of this report apply only to the sample(s) as received and were provided to Quanta Laboratories by the Customer. Sampling methods are unknown unless data is provided by the Customer.

Quanta Laboratories is only responsible for the processes and data resulting from testing at Quanta Laboratories. Quanta Laboratories is not responsible for verifying data supplied by the Customer. Customer supplied data, equipment, items, and personnel are identified in the report by the symbol "*" and accompanying footnote.

Issue Date		Author(s)	Description
04/03/2023		Alex Huang	Initial Report
Revision Number	Revised Date	Revised by	Description of Revision

Client Contact Information	
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End of Report
QL-23-0254
