

**QUANTA  
LABORATORIES**

3199 De La Cruz Boulevard • Santa Clara, CA 95054-2483  
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E-MAIL: [test@quantalabs.com](mailto:test@quantalabs.com)

## *Certificate of Conformance*

This is to certify that the results from the test(s) requested by  
Alpha Novatech, Inc. – a subsidiary of Alpha Company are on file under  
Quanta Laboratories Job No. QL-26-0205 and conform  
to the specification(s) stated in P.O. No. 20260122A00

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

Model No: Vapor Chamber Heat Sinks

S/N: N/A

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

*Joseph Cadigal*

Quanta Laboratories

Date

Rev#1 03/18/2026

# SINE VIBRATION TEST DATA



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 test@quantalabs.com www.quantalabs.com

<b>CLIENT:</b> Alpha Novatech, Inc. - a subsidiary of Alpha Company		<b>P.O. NO:</b> 20260122A00		
<b>SPECIMEN:</b> Vapor Chamber Heat Sinks		<b>JOB NO:</b> QL-26-0205		
<b>SPECIFICATION:</b> Customer Specification		<b>PAGE</b> 1 <b>OF</b> 2		
<b>EQUIPMENT:</b> White/ Purple		<b>TEMPERATURE:</b> 24°C	<b>HUMIDITY:</b> 37%	
DATE	S/N	AXIS	FREQUENCIES & LEVELS	REMARKS
03/12/2026	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		<b>DEFINITION OF AXES</b>  See Photos Page
		Z		
<b>TEST ENGINEER:</b> Alex Acevedo				<b>DATE:</b> 03/12/2026

# RANDOM VIBRATION TEST DATA

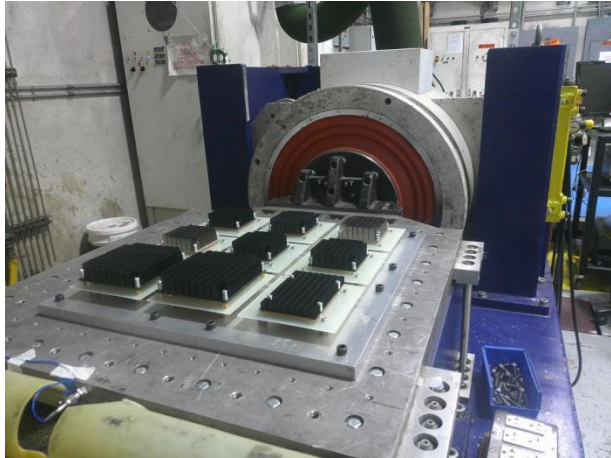


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<b>CLIENT:</b> Alpha Novatech, Inc. - a subsidiary of Alpha Company			<b>P.O. NO:</b> 20260122A00	
<b>SPECIMEN:</b> Vapor Chamber Heat Sinks			<b>JOB NO:</b> QL-26-0205	
<b>SPECIFICATION:</b> Customer's Specification			<b>PAGE</b> 2 <b>OF</b> 2	
<b>EQUIPMENT:</b> White/ Purple		<b>TEMPERATURE:</b> 24°C	<b>HUMIDITY:</b> 37%	
DATE	S/N	AXIS	FREQUENCIES & LEVELS	REMARKS
03/12/2026	N/A	X	<u>Random Vibration Test</u> 5 – 500 Hz  5 Hz @ 0.002 g2/Hz 10 – 100 Hz @ 0.0064 g2/Hz 500 Hz @ 0.0005 g2/Hz Overall: 1.12 Grms  Duration: 30 min/axis	Non Operational Test  Test completed to specification requirements.
		Y		DEFINITION OF AXES  See Photos Page
		Z		
<b>TEST ENGINEER:</b> Alex Acevedo				
			<b>DATE:</b> 03/12/2026	

# Alpha Novatech, Inc. -a subsidiary of Alpha Company

## Sine Sweep, Random Vibration Tests



**X-Axis**



**Y-Axis**



**Z-Axis**

# SHOCK TEST DATA



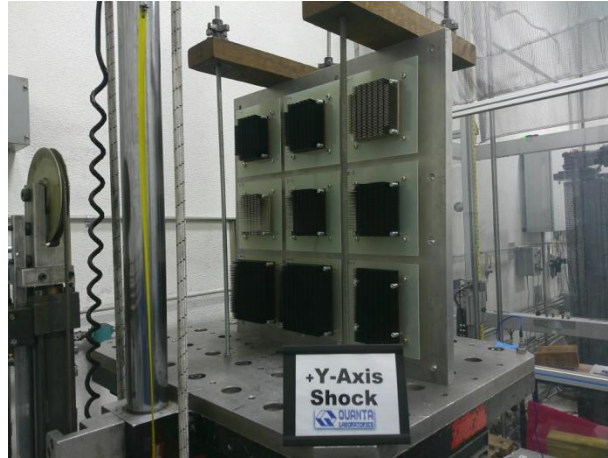
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<b>CLIENT:</b> Alpha Novatech, Inc. - a subsidiary of Alpha Company			<b>P.O. NO:</b> 20260122A00	
<b>SPECIMEN:</b> Vapor Chamber Heat Sinks			<b>JOB NO:</b> QL-26-0205	
<b>SPECIFICATIO N:</b> Customer Specification			<b>PAGE</b> 1 <b>OF</b> 1	
<b>EQUIPMENT:</b> Shock MTS		<b>TEMPERATURE:</b> 21°C		<b>HUMIDITY:</b> 44%
DATE	S/N	AXIS	SHOCK SPEC.	REMARKS
03/12/2026	N/A	+X	<u>Trapezoid Shock Test</u>  Level: 40 G Duration: 18 ms  3 shocks/direction 6 directions 18 shocks total	Non Operational Test  Test completed to specification requirements.
		-X		
		+Y		
		-Y		
		+Z		
		-Z		
				<b>DEFINITION OF AXES</b>  See Photos Page
<b>TEST ENGINEER:</b> Alex Acevedo				<b>DATE:</b> 03/12/2026

# Alpha Novatech, Inc. -a subsidiary of Alpha Company Shock Test



**+X-Axis**



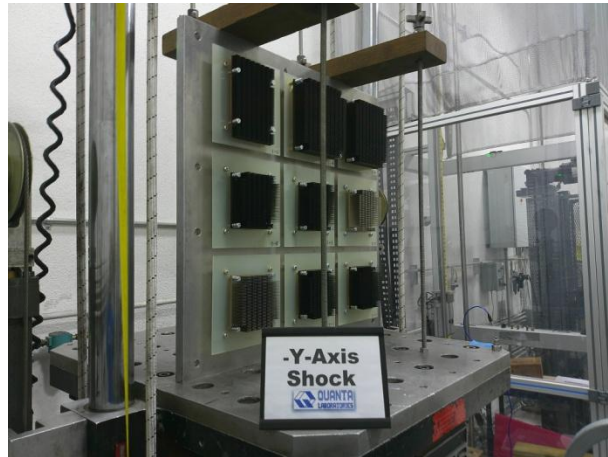
**+Y-Axis**



**+Z-Axis**



**-X-Axis**



**-Y-Axis**



**-Z-Axis**

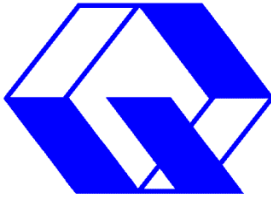
QL-TTS-152  
10/26/2018

# QUANTA LABORATORIES EQUIPMENT LIST



3199 De La Cruz Blvd, Santa Clara, CA 95054  
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<b>Client:</b>	Alpha Novatech, Inc. -a subsidiary of Alpha Company			<b>P.O. NO:</b>	20260122A00	
				<b>JOB NO.:</b>	QL-26-0205	
<b>DIGITAL SYSTEM LIST</b>						
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	04/03/2026
Shock Data Acquisition System	Shock Test Station 51	ECON ST-05H	0	QL-0332	128992257	06/19/2026
<b>MECHANICAL SYSTEM LIST</b>						
Device Type	Description	Make & Model	Range	Asset #	Serial #	Due Date
Shaker Amplifier	Purple/Blue 335	ETS MPA3324		QL-0920	1102043	Cal Not
Electrodynamic Shaker	Purple/Blue 335	Ling B-335	5Hz - 3 KHz	QL-0509	92	Cal Not
Electrodynamic Shaker	Purple/Blue 335	Ling B-335	5Hz - 3 KHz	QL-0918	122	Cal Not
Shaker Amplifier	White	ETS MPA409		QL-0925	1210366	Cal Not
Electrodynamic Shaker	White	ETS G7800 M	5Hz - 3 KHz, 4"	QL-0919	SH1210366	Cal Not
Shock Machine	MTS Shock Table	MTS 846.24	70" Drop	QL-0009	1077	Cal Not
<b>SENSOR LIST</b>						
Device Type	Description	Make & Model	Range	Asset #	Serial #	Due Date
Accelerometers	Single-Axial	DYTRAN 3200B5T	100~10000 Hz 5000 G	QL-0772	7012	04/10/2026
Accelerometers	Single-Axial	DYTRAN 3256A2	5~2000 Hz 50 G	QL-0878	10868	05/07/2026
Accelerometers	Single-Axial	DYTRAN 3056B3	5~3000 Hz 10 G	QL-0893	15588	03/17/2026
<b>Miscellaneous List</b>						
Device Type	Description	Make & Model	Range	Asset #	Serial #	Due Date
Temp Humidity Sensor	ambient room	Acurite	32°F to 122°F;	QL-1337	Q41	08/08/2026
Temp Humidity Sensor	Ambient Temp Humidity Monitor	Acurite Model: 00215	32°F to 122°F; 0°C to 50°C 16% – 98% RH (relative humidity)	QL-1280	37	03/19/2026
Temp Humidity Sensor	Ambient Temp Humidity Monitor	Acurite Model: 00215	32°F to 122°F; 0°C to 50°C 16% – 98% RH (relative humidity)	QL-1281	38	08/07/2026
<b>Customer-Supplied Equipment</b>						
Device Type	Description	Make & Model	Range	Asset #	Serial #	Due Date



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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
03/13/2026		Alex Acevedo	Initial Report
Revision Number	Revised Date	Revised by	Description of Revision
1		Alex Acevedo	Model number

Client Contact Information	
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**End of Report**  
**QL-26-0205**

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