



**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 Novatech are on file under

Quanta Laboratories Job No. QL-17-0294 and conform

to the specification(s) stated in P.O. No. 20170321A02

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

Model No: EZ Clips (7 pcs)

S/N: N/A

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

*** Alpha Novatech's specification ***

Quanta Laboratories

Date

SINE SWEEP VIBRATION TEST DATA



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CLIENT:	ALPHA NOVATECH	P.O. NO:	20170321A02
MODEL NO.	EZ CLIPS (7 PCS)	JOB NO:	QL-17-0294
SPECIFICATION:	Alpha Novatech's Specification	PAGE	1 OF 3

DATE	S/N	AXIS	FREQUENCIES & LEVELS	REMARKS
03-17-2017	N/A	X	SINE SWEEP VIBRATION TEST (5-500-5Hz) 5Hz @0.5G 10—500Hz @2G Sweep Rate: 1 Octave/minute Duration 13 min 17 sec/Axis One Sweep Up & Down	Non-Operational Test The test completed to the specification requirement
		Y		
		Z		

DEFINITION OF AXES 	TEST CONDUCTOR:	<i>[Signature]</i> Allen	DATE:	03-17-2017
	TEST ENGINEER:	<i>[Signature]</i>	DATE:	03-17-2017
	WITNESS:		DATE:	
	Q. A. ENGINEER:	Robin Gardiner Quanta Laboratories	DATE:	03-17-2017

RANDOM VIBRATION TEST DATA



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CLIENT:	ALPHA NOVATECH	P.O. NO:	20170321A02
MODEL NO.	EZ CLIPS (7 PCS)	JOB NO:	QL-17-0294
SPECIFICATION:	Alpha Novatech's Specification	PAGE	2 OF 3

DATE	S/N	AXIS	FREQUENCIES & LEVELS	REMARKS
03-17-2017	NA	X	RANDOM VIBRATION TEST (5—500Hz) 5Hz @0.002 G ² /Hz 10-100Hz @0.0064G ² /Hz 500Hz @0.0005 G ² /Hz Overall 1.12Grms At full level: 30 minutes/Axis	Non-Operational Test The test completed to the specification requirement
		Y		
		Z		

 DEFINITION OF AXES	TEST CONDUCTOR:	 Allen	DATE:	03-17-2017
	TEST ENGINEER:		DATE:	03-17-2017
	WITNESS:		DATE:	
	Q. A. ENGINEER:	 Robin Gardiner Quanta Laboratories	DATE:	03-17-2017

SHOCK TEST DATA



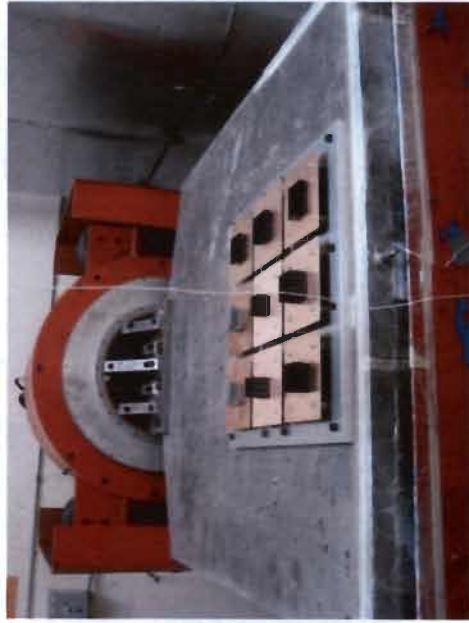
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CLIENT:	ALPHA NOVATECH	P.O. NO:	20170321A02
MODEL NO.	EZ CLIPS (7 PCS)	JOB NO:	QL-17-0294
SPECIFICATION:	Alpha Novatech's Specification	PAGE	3 OF 3

DATE	S/N	AXIS	WAVEFORM & LEVELS	REMARKS
03-20-2017	N/A	+X	Trapezoid shock test 40 G, 18mS At Full Level: 3 Shocks per direction In Total: 18 Shocks	Non-Operational Test The test completed to the specification requirement.
		-X		
		+Y		
		-Y		
		+Z		
		-Z		

 DEFINITION OF AXES	TEST CONDUCTOR:	 Allen	DATE:	03-20-2017
	TEST ENGINEER:		DATE:	03-20-2017
	WITNESS:		DATE:	
	Q. A. ENGINEER:	 Robin Gardiner Quanta Laboratories	DATE:	03-20-2017

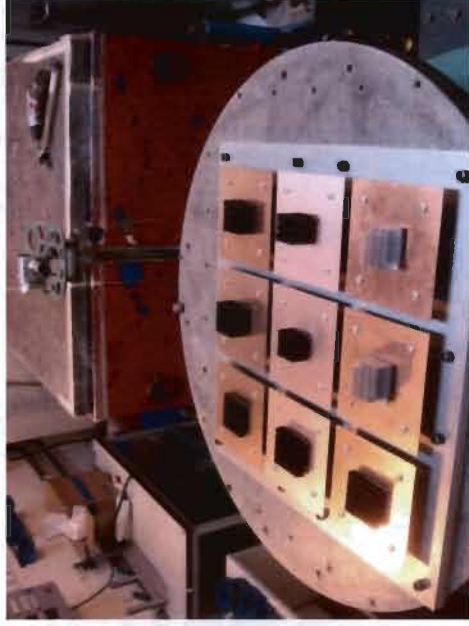
Alpha Novatech
Vibration Tests



X-axis

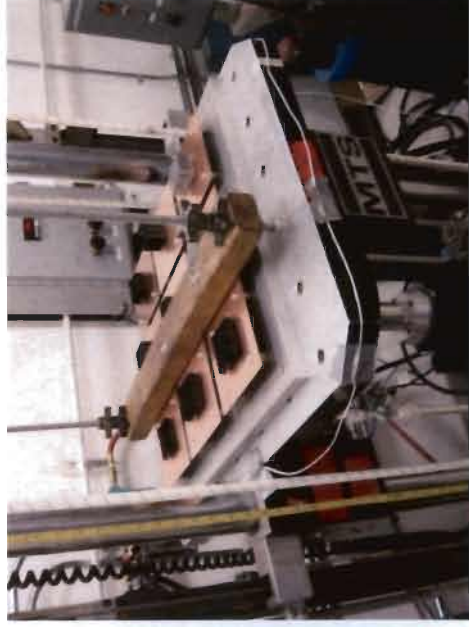
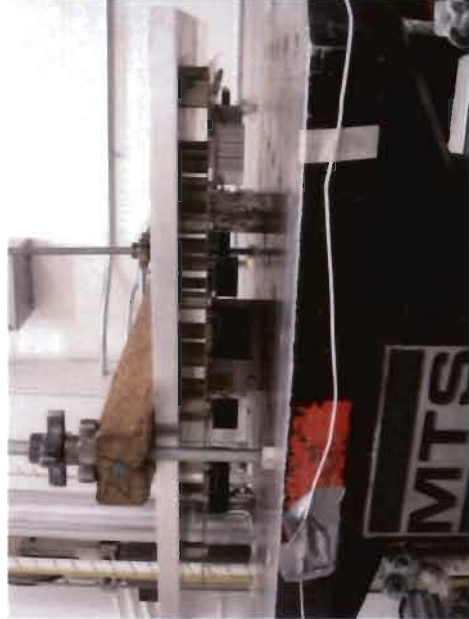


Y-axis



Z-axis

Alpha Novatech
Shock Tests



Shock Setup

JOB NO. : QL-17-0294

03-20-2017

Alpha Novatech
Shock Tests



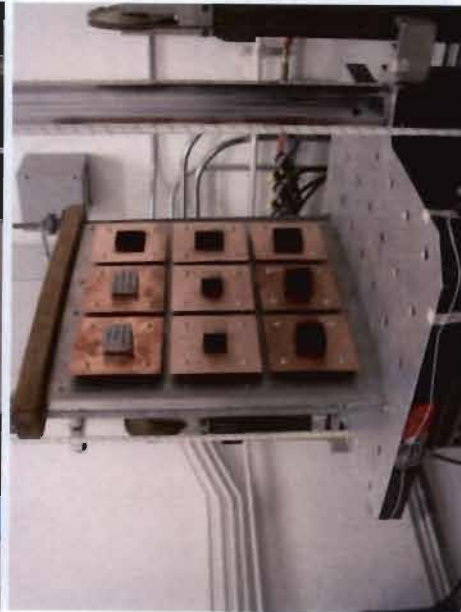
± X-axis



± Y-axis



± Z-axis



JOB NO. : QL-17-0294



03-20-2017



QUANTA LABORATORIES EQUIPMENT LIST



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Client:	Alpha Novstech			P.O. NO:	21070321A02	
				JOB NO.:	QL-17-0294	
DIGITAL SYSTEM LIST						
Device Type	Description	Make & Model	Range	Asset #	Series #	Due Date
Shaker Control System	VC-05	Dactron LDS Laser USB	0.1Hz - 3 KHz RES. 0.1dB	QL-0465	11618909	05/23/2017
Current Source	VC-05	Dytran 4123 8 Inputs		QL-0217	118	04/10/2017
Data Acquisition System	DAS-4	ECON		QL-0332	HW128992257	08/02/2017
MECHANICAL SYSTEM LIST						
Device Type	Description	Make & Model	Range	Asset #	Series #	Due Date
Shaker Amplifier	Red/Green	Ling DMA-48		QL-0504	46	Time of Test
Electrodynamic Shaker	Red/Green	Ling B-335 (Red)	5Hz - 3 KHz	QL-0256	3	Time of Test
Electrodynamic Shaker	Red/Green	Ling B-335 (Green)	5Hz - 3 KHz	QL-0253	91	Time of Test
Shock Machine	MTS Shock Table	MTS 846.24	70" Drop	QL-0009	1077	Time of Test
SENSOR LIST						
Device Type	Description	Make & Model	Range	ASSET #	SERIAL #	DUE DATE
Accelerometers	Single-Axial	DYTRAN 3200B5T	20-2000 Hz 5000 G	QL-0676	6086	05/18/2017
Accelerometers	Single-Axial	DYTRAN 3256A2	5~2000 Hz 50 G	QL-0645	10359	02/04/2018



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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.

End of Report
QL-17-0294
