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 BACL are on file under Quanta Laboratories Job No. QL-19-1066 and conform to the specification(s) stated in P.O. No. AE19092367

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

Model No: M20 Bioamplifier System

S/N: N/A

*** Random Vibration and Shock Test ***

Joseph Cadigal
Quanta Laboratories
09/26/2019

Quanta Laboratories Date

SHOCK TEST DATA

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CLIENT:	BACL	**P.O. NO:**	AE19092367
SPECIMEN:	M20 Bioamplifier System	**JOB NO:**	QL-19-1066
SPECIFICATION:	Client Specification	**PAGE**	1 OF 1

DATE	S/N	AXIS	SHOCK SPEC.	REMARKS
09/24/2019	N/A	+X	Half-Sine Shock 150 m/s^2, 11 ms 3 shocks/direction 18 shocks total	Non-Operational Test Test completed to specification requirements. Functional test was performed after each direction.
		-X		
		+Y		
		-Y		
		+Z		DEFINITION OF AXES See photo page
		-Z		

TEST ENGINEER:	Anthony Yun P.C.	**DATE:**	09/26/2019

RANDOM VIBRATION TEST DATA

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CLIENT:	BACL	**P.O. NO:**	AE19092367
SPECIMEN:	M20 Bioamplifier System	**JOB NO:**	QL-19-1066
SPECIFICATION:	Client Specification	**PAGE**	1 **OF** 1

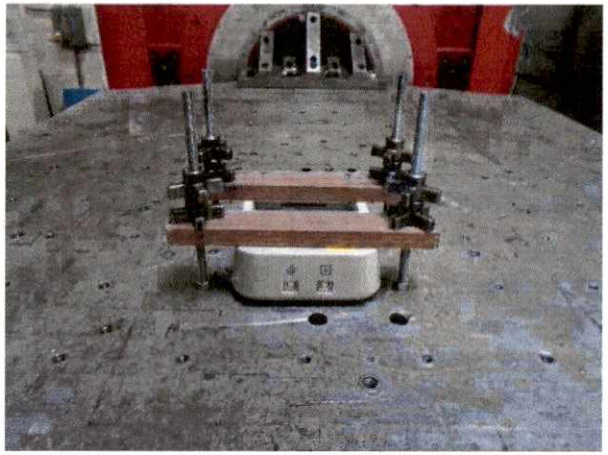
DATE	S/N	AXIS	FREQUENCIES & LEVELS	REMARKS
09/24/2019	N/A	X	Random Vibration Test 10-2000 Hz 10 Hz – 100 Hz @ 1.0 $(m/s^2)^2/Hz$ 100 Hz – 200 Hz @ -3 dB/octave 200 Hz – 2000 Hz @ 0.5 $(m/s^2)^2/Hz$ Overall: 32.6 m/s^2_{rms} At full level: 30 minutes	Non-Operational Test Test completed to specification requirements. Functional test was performed after each axis.
		Y		
		Z		**DEFINITION OF AXES** See photo page

TEST ENGINEER:	Anthony Yun RC	**DATE:**	09/26/2019

QUANTA LABORATORIES
SANTA CLARA, CALIFORNIA

BACL

Random Vibration and Shock Test



X-Axis

Y-Axis

Z-Axis

QL-TTS-152

10/26/2018

JOB NO. : QL-19-1066

09/24/2019

QUANTA LABORATORIES EQUIPMENT LIST

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Client:	BACL	P.O. NO:	AE19092367
		JOB NO.:	QL-19-1066

DIGITAL SYSTEM LIST

Device Type	Description	Make & Model	Range	Asset #	Serial #	Due Date
Shaker Control System	VC-07	JAC VICO-8 8 inputs	0.1Hz - 3 KHz RES. 0.1dB	QL-0786	177247011	06/26/2020
Current Source	VC-07	Dytran 4123 8 Inputs		QL-0218	119	04/24/2020

MECHANICAL SYSTEM LIST

Device Type	Description	Make & Model	Range	Asset #	Serial #	Due Date
Shaker Amplifier	Red/Green	Ling DMA-48		QL-0504	46	Calibration Not Required
Electrodynamic Shaker	Red/Green	Ling B-335 (Red)	5Hz - 3 KHz	QL-0256	3	Calibration Not Required
Electrodynamic Shaker	Red/Green	Ling B-335 (Green)	5Hz - 3 KHz	QL-0253	91	Calibration Not Required

SENSOR LIST

Device Type	Description	Make & Model	Range	Asset #	Serial #	Due Date
Accelerometers	Single-Axial	DYTRAN 3256A2	5~2000 Hz 50 G	QL-0878	10868	01/09/2020

Miscellaneous List

Device Type	Description	Make & Model	Range	Asset #	Serial #	Due Date

Customer-Supplied Equipment

Device Type	Description	Make & Model	Range	Asset #	Serial #	Due Date

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.

End of Report
QL-19-1066