ENVIRONMENTAL & MECHANICAL

LABORATORY

TEST REPORT

CelloTrack

For

POINTER

20/06/2013

Report No: 20130612-1031

Report Edition: 01

Report Status: Released

ENVIRONMENTAL & MECHANICAL LABORATORY DETAILS

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CUSTOMER DETAILS

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DOCUMENT CONTROL

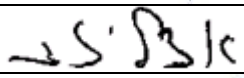
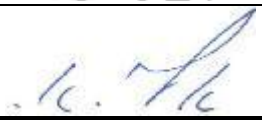
DOCUMENT HISTORY

The following table records information regarding released editions of this document and briefly describes their file location, purpose, and changes made to them.

Edition ID	Release Date	Responsible Author	File Reference, Purpose and Description of Changes
01	20/06/2013	Dina Klebansky	**File Reference:** W:\Reports\TR\Proj2013\Pointer CelloTrack 2013-05-13.doc **Purpose:** **Changes:**

DOCUMENT APPROVALS

This edition has been approved by:

	Name	Title	Signature	Date
Compiled	Dina Klebansky	Technical Writer		20/06/2013
Tested	Zion Asslizada	Test Engineer		20/06/2013
Approved	Eli Avital	Environmental, HALT and HASS Labs Manager		20/06/2013

OPEN ISSUES

This part of the document control section is used to record and track open issues and/or unresolved questions. As the development of this document proceeds, these issues and questions should be resolved and then removed from the list.

No.	Subject/Section	Description
1.		
2.		

EXECUTIVE SUMMARY

The following table summarizes the tests that have been performed in QualiTech - Environmental & Mechanical Laboratory.
POINTER had performed the functional tests and the tests results are his sole responsibility.
The stated results apply only to the specific UUT that were currently tested.

No.	Test Name	Pass/Fail	Job Number	Notes
1.	Immersion Water Test	Pass	13/0292	
2.	Dust (With Vacuum) Test	Pass	13/0190	
3.	Dust (With Vacuum) Test	Pass	13/0194	
4.	Temperature Vibration (Operation) Test	Pass	13/0232	
5.	Temperature and Humidity (Damp Heat-Operation) Test	Pass	13/0230	
6.	Thermal Shock Cycling Test	Pass	13/0262	
7.	Mechanical Shock Test	Pass	13/0270	

Statement of Compliance with test requirements:
QualiTech - Environmental & Mechanical Lab. declare that the UUT CelloTrack was tested to comply with the requirements of the applicable environmental test specification.
A2LA symbol in the front page is applicable only to the tests under the scope of QualiTech accreditations.
QualiTech has A2LA accreditation to ISO/IEC 17025:2005 for test types as listed in the following link:
http://www.a2la.org/scopepdf/1881-01.pdf

TABLE OF CONTENTS

1. INTRODUCTION

1.1. PURPOSE

The purpose of this report is to outline the test results of the CelloTrack , which was tested according to the applicable documents (see section 1.3), at ECI Telecom Environmetal & Mechanical Lab.

1.2. GLOSSARY

1.	ETR	Environmental Test Report
2.	ETS	European Telecommunication Standard
3.	IEC	International Electronic Community
4.	N/A	Not Applicable
5.	NCR	No Calibration Required
6.	RH	Relative Humidity
7.	TBD	To Be Defined
8.	UUT	Unit Under Test

1.3. APPLICABLE DOCUMENTS

This section contains a list of resources referenced by or related to this document.

- IEC 60529.
- IEC 68-2.
- ISO 16750-3.
- ISO 16750-4.

2. IMMERSION (Sealing) WATER TEST - 13/0189

2.1. UNIT UNDER TEST OVERVIEW

Test Date	13/05/2013
Customer Representative	Ariel Aharonovitz
Customer	POINTER

Unit Name	Item Manufacturer	Catalog Number	Serial Number	Item Quantity
CelloTrack 3G Power	POINTER	GT9740001-000	223347	1
CelloTrack 3Y (3G)	POINTER	GT9740012-000	223345	1

2.2. TECHNICAL SOURCE

- IEC 60529 IPx7, Paragraph 14.2.7

2.3. LAB'S ENVIRONMENTAL CONDITIONS

Parameter Name	Parameter Value	Tolerance Value	Measure Unit
Temperature	25	± 10	Degree Celsius (°C).
Humidity	55	± 27	% R.H.
Mains Voltage	230	± 23	Volts
Mains Frequency	50	± 2	Hertz
Site Air Pressure	760	± 5	mmHg
	1012	± 5	millibar

2.4. TEST PROCEDURE

2.4.1. EXCLUSIONS FROM THE TEST METHOD

None.

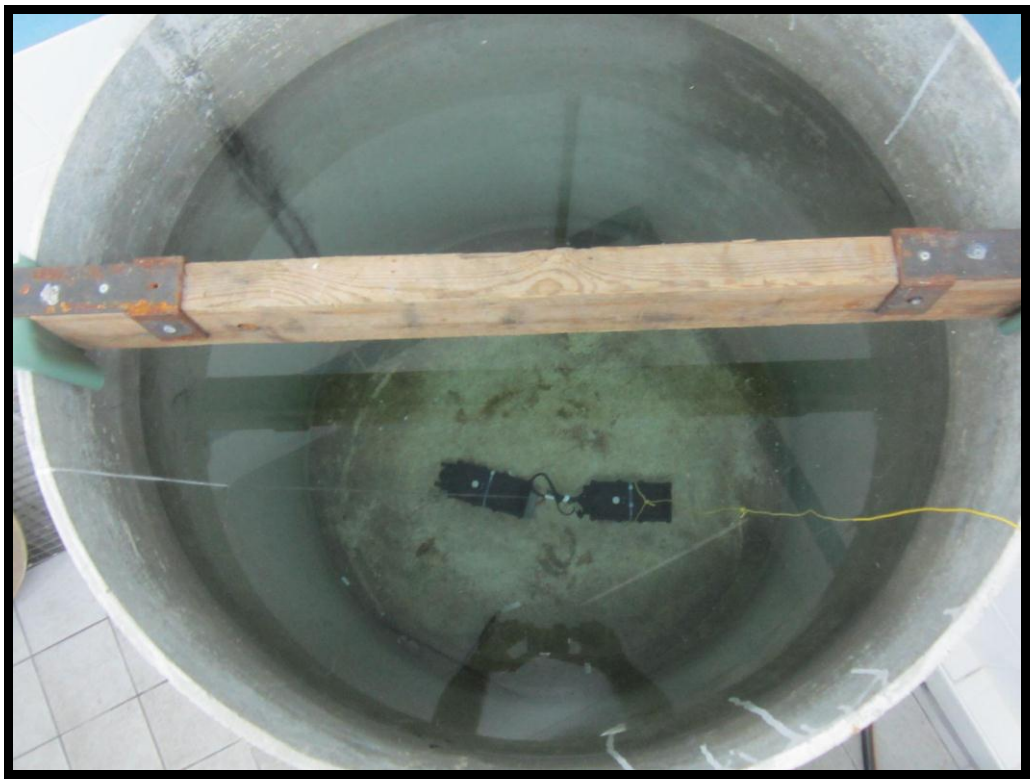
2.4.2. WATER TEST PROCEDURE DESCRIPTION

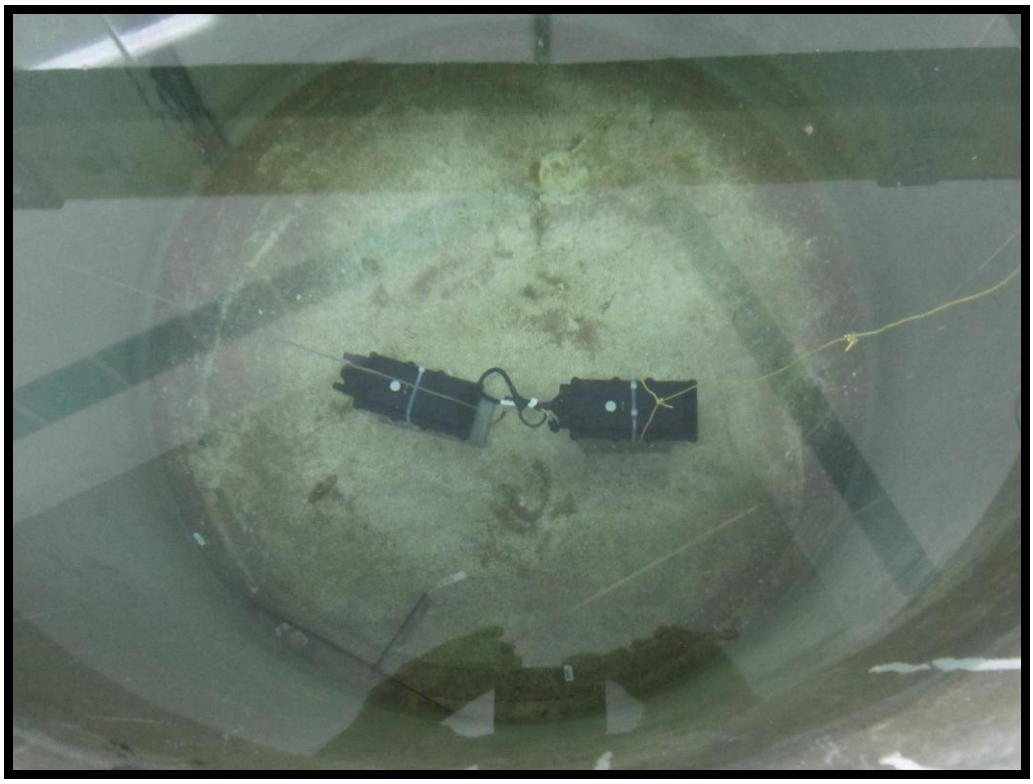
Water Depth:	1 Meter.
Water Temperature	21°C.
Test Duration	30 Minutes.

2.4.3. TEST PERFORMANCE

Functional Test	• At the end of test. • Performed by customer representative.
Visual Test	• At the end of test. • Performed by customer representative.

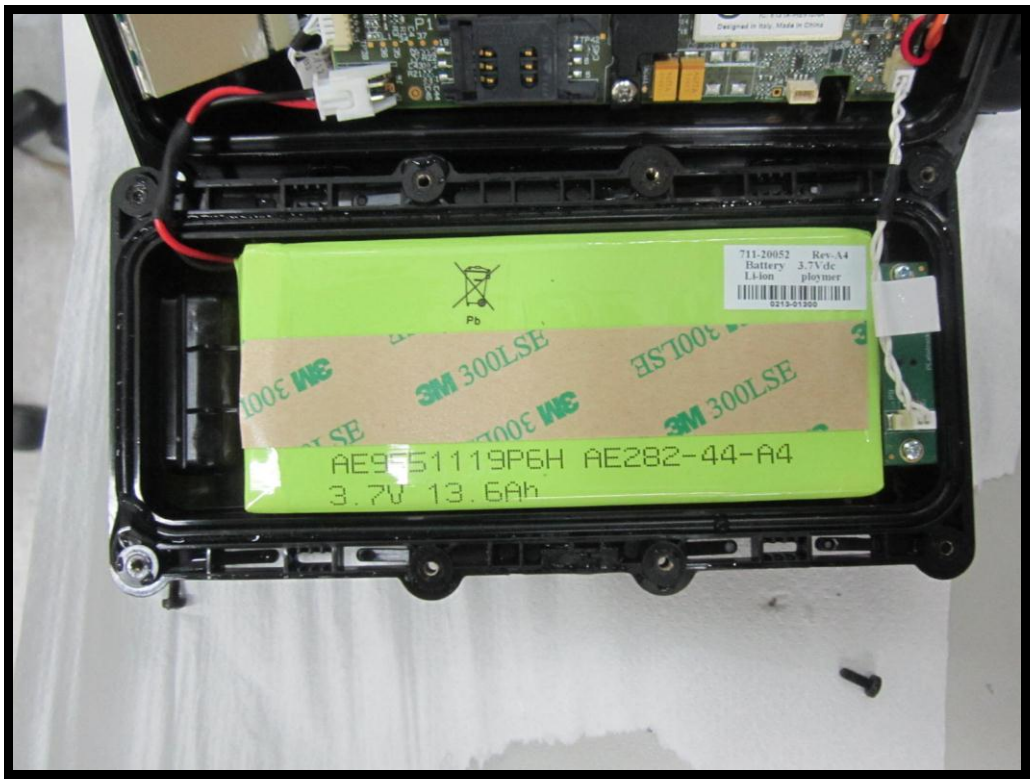
2.4.4. TEST PICTURES

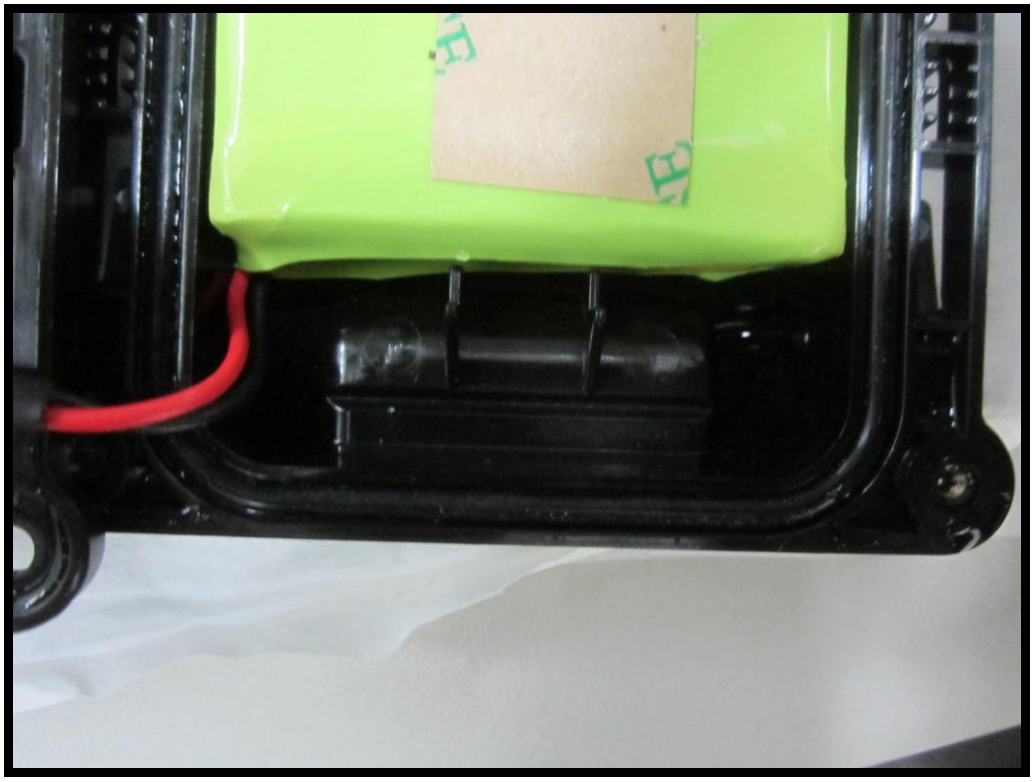




2.5. TEST RESULTS

No water penetration was observed on the inner parts of the units after opening.
Based on the customer's declaration - The unit under test has PASSED the test. See pictures below:






Telit
HE910-NAD
CE 1909
711-20052 Rev-A4
Battery 3.7Vdc
LI-ion ploymer
Pb


Telit
AE9551119P6H AE282-44-A4
3.7V 13.6Ah


AE9551119P6H AE282-44-A4
3.7V 13.6Ah

3. DUST (With Vacuum) TEST - 13/0190

3.1. UNIT UNDER TEST OVERVIEW

Test Date	13/05/2013
Customer Representative	Ariel Aharonovitz
Customer	POINTER

Unit Name	Item Manufacturer	Catalog Number	Serial Number	Item Quantity
CelloTrack 3G Power	POINTER	GT9740001-000	223347	1

3.2. TECHNICAL SOURCE

- IEC 60529 IP6x,Category 2, Paragraphs 13.4

3.3. TEST INSTRUMENTATION

No.	Instrumentation Name	Due Cal.
1.	Dust Chamber: PLT-P 14.43	30/12/2013

3.4. LAB'S ENVIRONMENTAL CONDITIONS

Parameter Name	Parameter Value	Tolerance Value	Measure Unit
Temperature	25	± 10	Degree Celsius (°C).
Humidity	55	± 27	% R.H.
Mains Voltage	230	± 23	Volts
Mains Frequency	50	± 2	Hertz
Site Air Pressure	760	± 5	mmHg
	1012	± 5	millibar

3.5. TEST PROCEDURE

3.5.1. EXCLUSIONS FROM THE TEST METHOD

None.

3.5.2. DUST TEST PROCEDURE DESCRIPTION

Dust (Talcum Powder):	<75µm
Chamber Temperature	25°C - 35°C.
Depression	-20 mbar
Test Duration:	8 Hours.

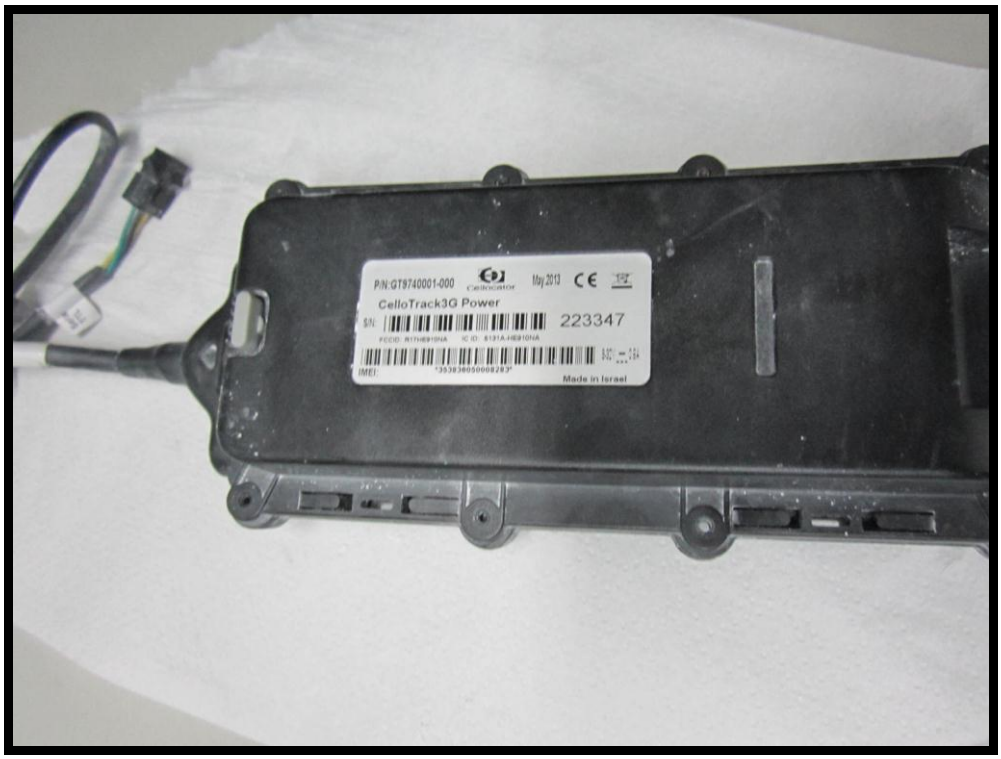
3.5.3. TEST PERFORMANCE

Functional Test	• At the end of test. • Performed by customer representative.
Visual Test	• At the end of test. • Performed by customer representative.

3.5.4. TEST PICTURES

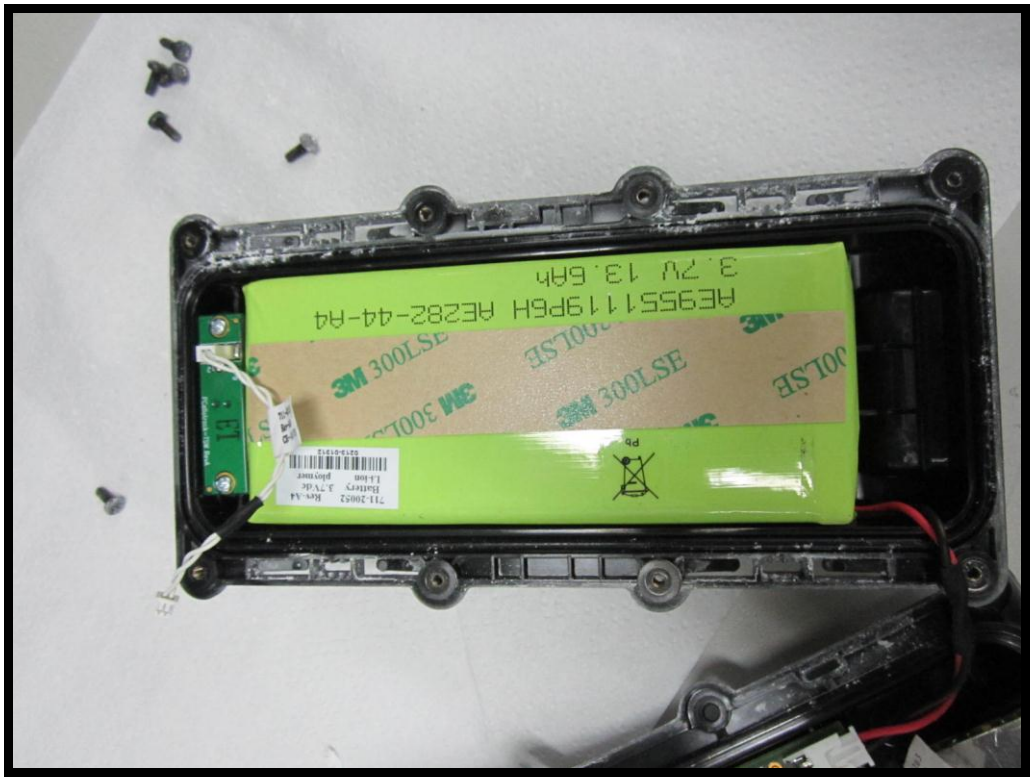
3.6. TEST RESULTS

Based on the customer's declaration - The unit under test has PASSED the test. See pictures below:




3M 300LSE
CE1909
Telit


CE1909
Telit
CEL-3535LPX SB
TTL SAW


3.7V 13.6Ah
3M 300LSE

4. DUST (With Vacuum) TEST - 13/0190

4.1. UNIT UNDER TEST OVERVIEW

Test Date	16/05/2013
Customer Representative	Ariel Aharonovitz
Customer	POINTER

Unit Name	Item Manufacturer	Catalog Number	Serial Number	Item Quantity
CelloTrack 3Y (3G)	POINTER	GT9740012-000	223345	1

4.2. TECHNICAL SOURCE

- IEC 60529 IP6x,Category 2, Paragraphs 13.4

4.3. TEST INSTRUMENTATION

No.	Instrumentation Name	Due Cal.
1.	Dust Chamber: PLT-P 14.43	30/12/2013

4.4. LAB'S ENVIRONMENTAL CONDITIONS

Parameter Name	Parameter Value	Tolerance Value	Measure Unit
Temperature	25	± 10	Degree Celsius (°C).
Humidity	55	± 27	% R.H.
Mains Voltage	230	± 23	Volts
Mains Frequency	50	± 2	Hertz
Site Air Pressure	760	± 5	mmHg
	1012	± 5	millibar

4.5. TEST PROCEDURE

4.5.1. EXCLUSIONS FROM THE TEST METHOD

None.

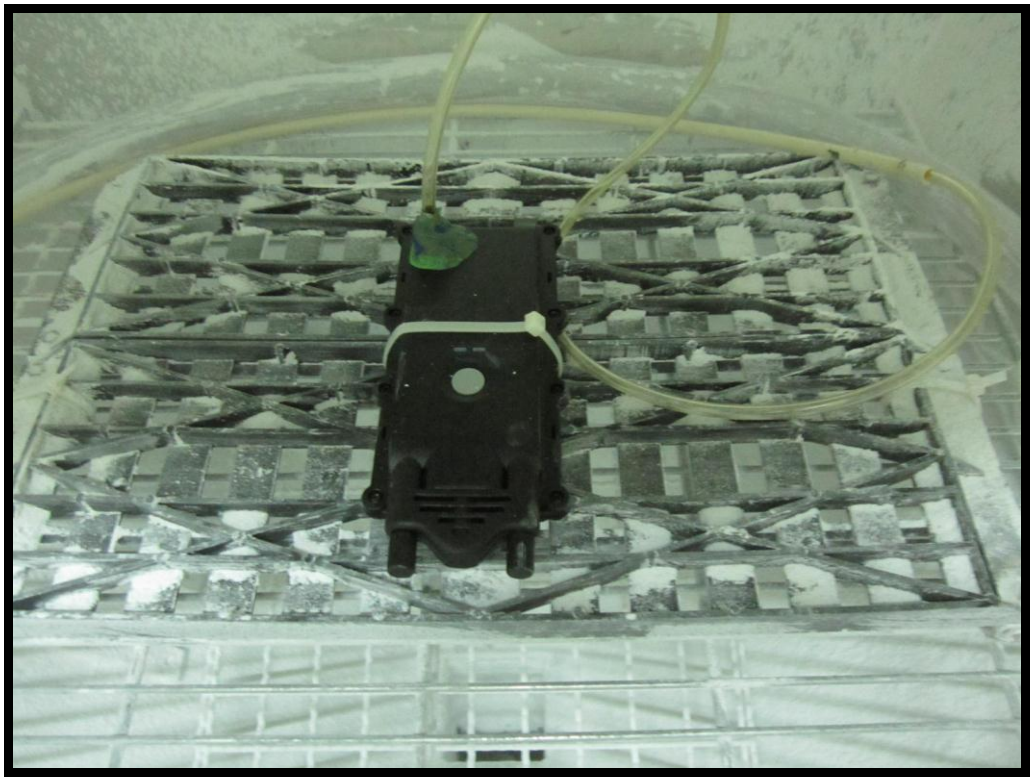
4.5.2. DUST TEST PROCEDURE DESCRIPTION

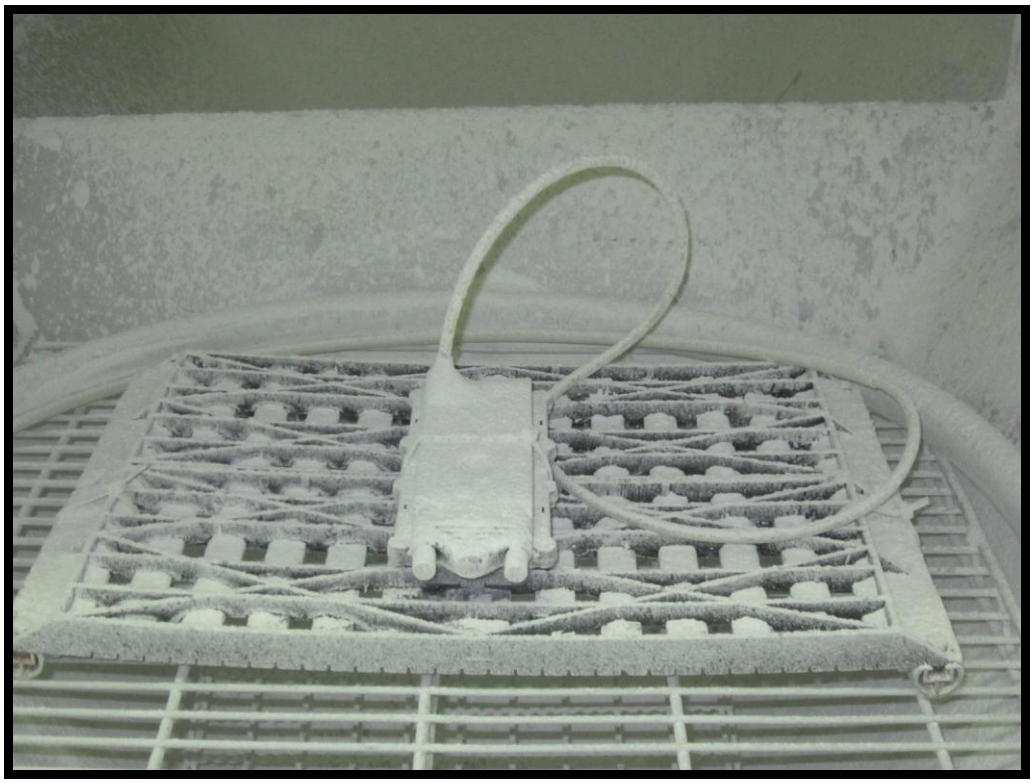
Dust (Talcum Powder):	<75μm
Chamber Temperature	25°C - 35°C.
Depression	-20 mbar
Test Duration:	8 Hours.

4.5.3. TEST PERFORMANCE

Functional Test	• At the end of test. • Performed by customer representative.
Visual Test	• At the end of test. • Performed by customer representative.

4.5.4. TEST PICTURES





4.6. TEST RESULTS

Based on the customer's declaration - The unit under test has PASSED the test. See pictures below:


Telit
HE910-NAD
AE9551119P6H AE282-44-A4
3.7V 13.6AH


Telit
HE910-NAD


711-20052 Rev-A4
Battery 3.7Vdc
Li-ion ploymer
0213-01317
Pb
3M 300LSE
AE955111 9P6H AE282-44-A4
3.7V 13.6Ah

5. TEMPERATURE VIBRATION (Operation) TEST - 13/0232

5.1. UNIT UNDER TEST OVERVIEW

Test Date	22/05/2013
Customer Representative	Ariel Aharonovitz
Customer	POINTER

Unit Name	Item Manufacturer	Catalog Number	Serial Number	Item Quantity
CelloTrack 3G Power	POINTER	GT9740001-000	223354	1
CelloTrack 3Y (3G)	POINTER	GT9750012-000	223352	1
			233351	1
CelloTrack Power	POINTER	GT9760001-000	223358	1
CelloTrack Power 8M	POINTER	GT9760021-000	223356	1
CelloTrack XT	POINTER	GT9760025-000	223360	1

5.2. TECHNICAL SOURCE

- ISO 16750-3 4.1.3.1.5.2, Test VII.
- IEC 60068-2-64.

5.3. TEST INSTRUMENTATION

No.	Instrument Type	Instrument Model	Due Cal.
1.	Electrodynamic Vibration System	ETS MPA712/M748A	10/12/2013
2.	Vibration Control System	M+P International. Vibration control & analysis system. Rev. 2.9.	10/12/2013
3.	Charge Amplifier	ENDEVCO ISOTRON P.S. Model 2793	10/12/2013
4.	Control Accelerometer Model	ENDEVCO 2224C	See Due Cal. at Accelerometers List Paragraph.
5.	Temperature Chamber	THERMOTRON F-64-CHAMV-10-10	02/12/2013

5.4. LAB'S ENVIRONMENTAL CONDITIONS

Parameter Name	Parameter Value	Tolerance Value	Measure Unit
Temperature	25	± 10	Degree Celsius (°C).
Humidity	55	± 27	% R.H.
Mains Voltage	230	± 23	Volts
Mains Frequency	50	± 2	Hertz
Site Air Pressure	760	± 5	mmHg
	1012	± 5	millibar

5.5. TEST PROCEDURE

5.5.1. EXCLUSIONS FROM THE TEST METHOD

None.

5.5.2. TEST PROCEDURE DESCRIPTION

- Performed combined temperature test with vibration.

Number of Cycles	3 temperature cycles were conducted.-each cycle per 1 vibration direction
Cycle Time	8 hours

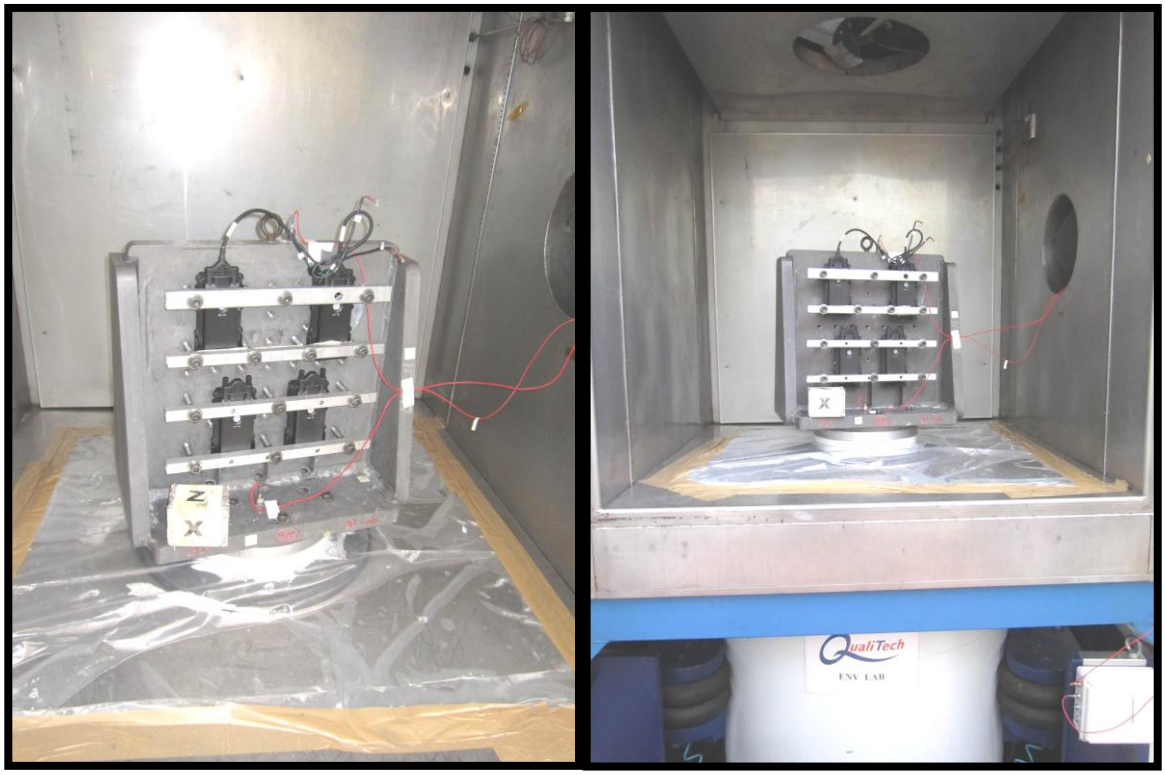
Temperature Change		**Period**	**Remarks**
From	**To**		
25°C	-40°C	1 hour	
-40°C	-40°C	1:30 hours	
-40°C	70°C	2:30 hours	
70°C	70°C	2 hours	
70°C	25°C	1 hour	

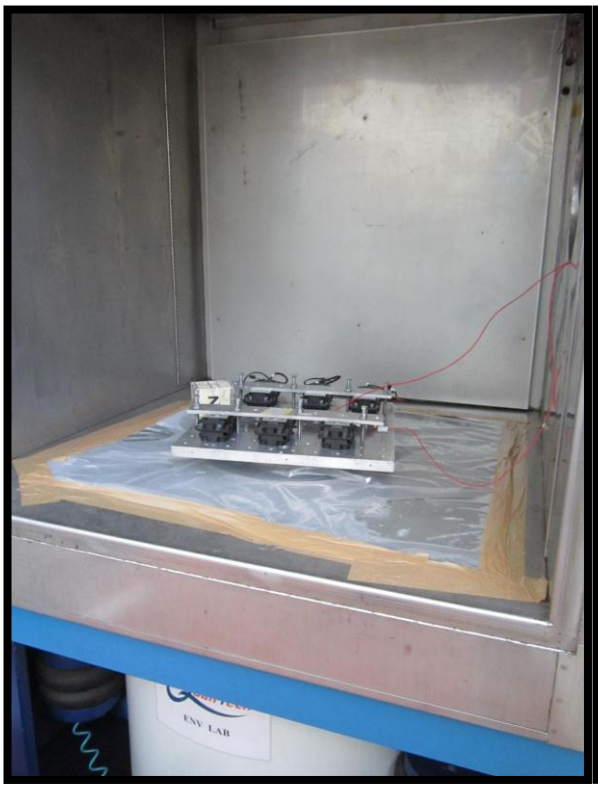
Item Position	The test item was strictly attached to vibration exciter.
Vibration Axes	3 (X, Y, Z).
Frequency Range	20-2000 Hz.
Vibration Time in Each Axis	8 hours
Vibration Level	2.494 g rms

5.5.3. TEST PERFORMANCE

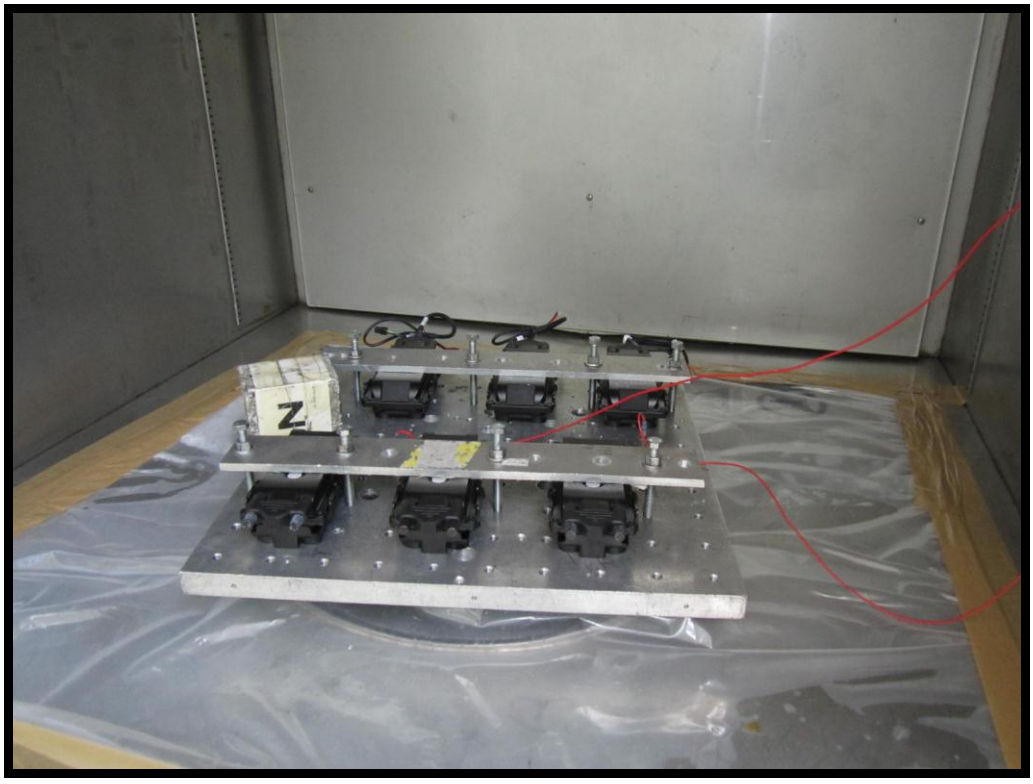
Functional Test	• During test. • At the end of test. • Performed by customer representative.
Visual Test	• At the end of test. • Performed by customer representative.

5.5.4. TEST PICTURES






W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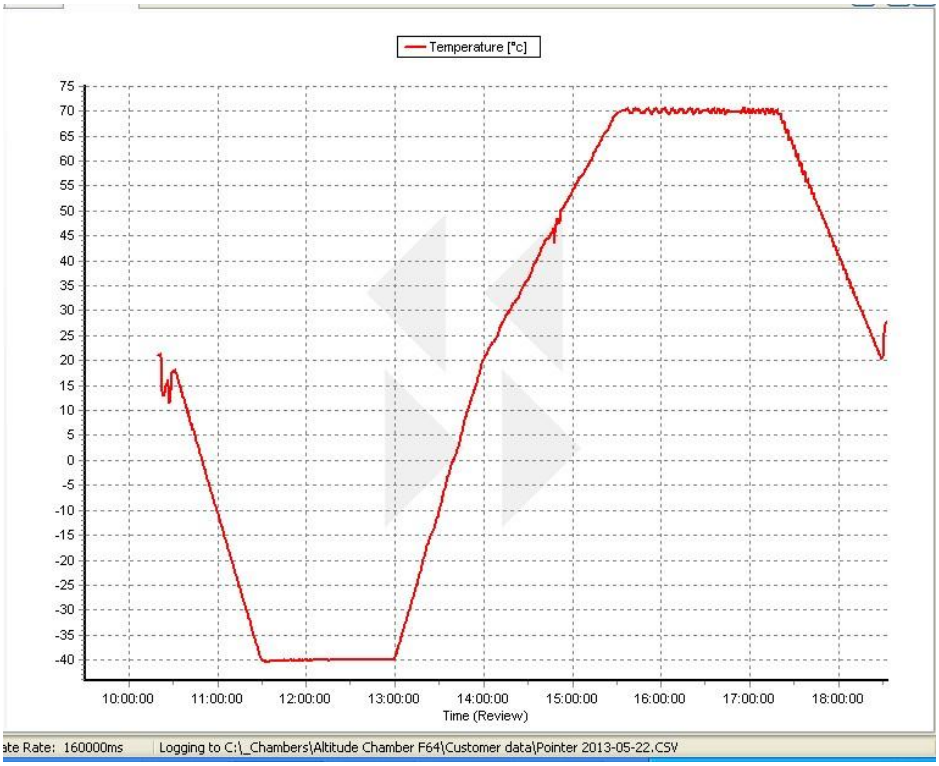
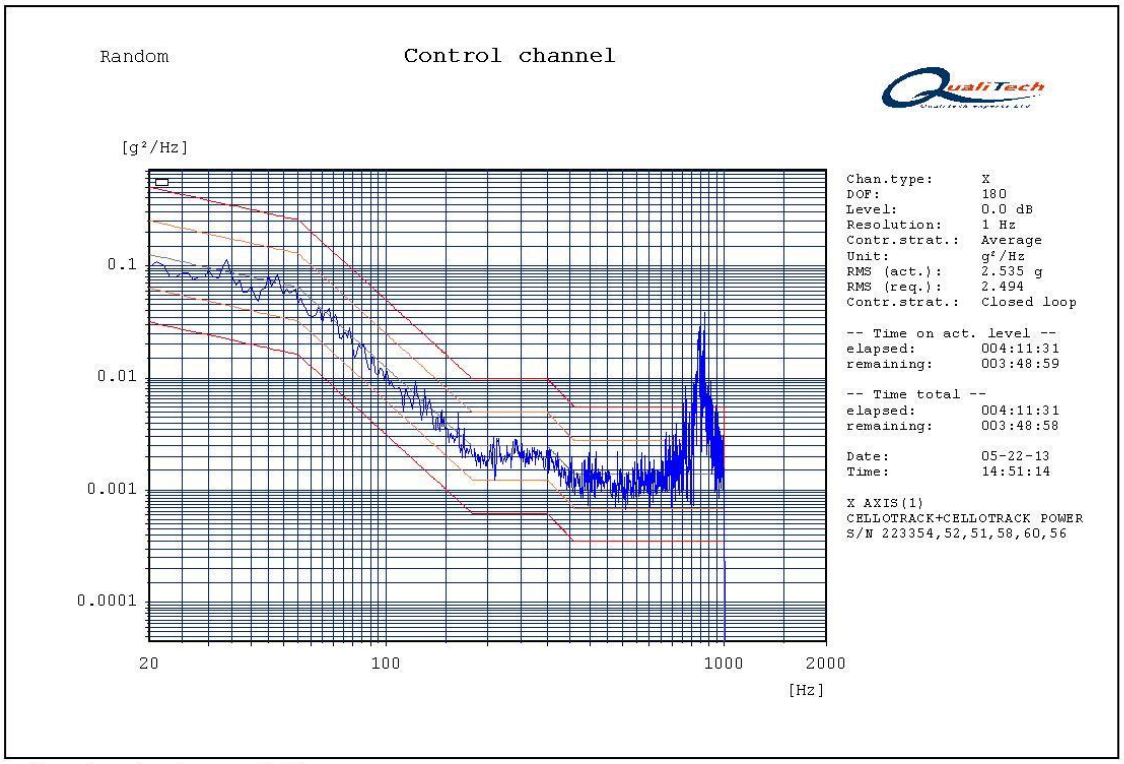
5.5.5. TEST GRAPHS



Temperature cycling test (1 cycle for example)

Temperature cycling test (3 cycles)



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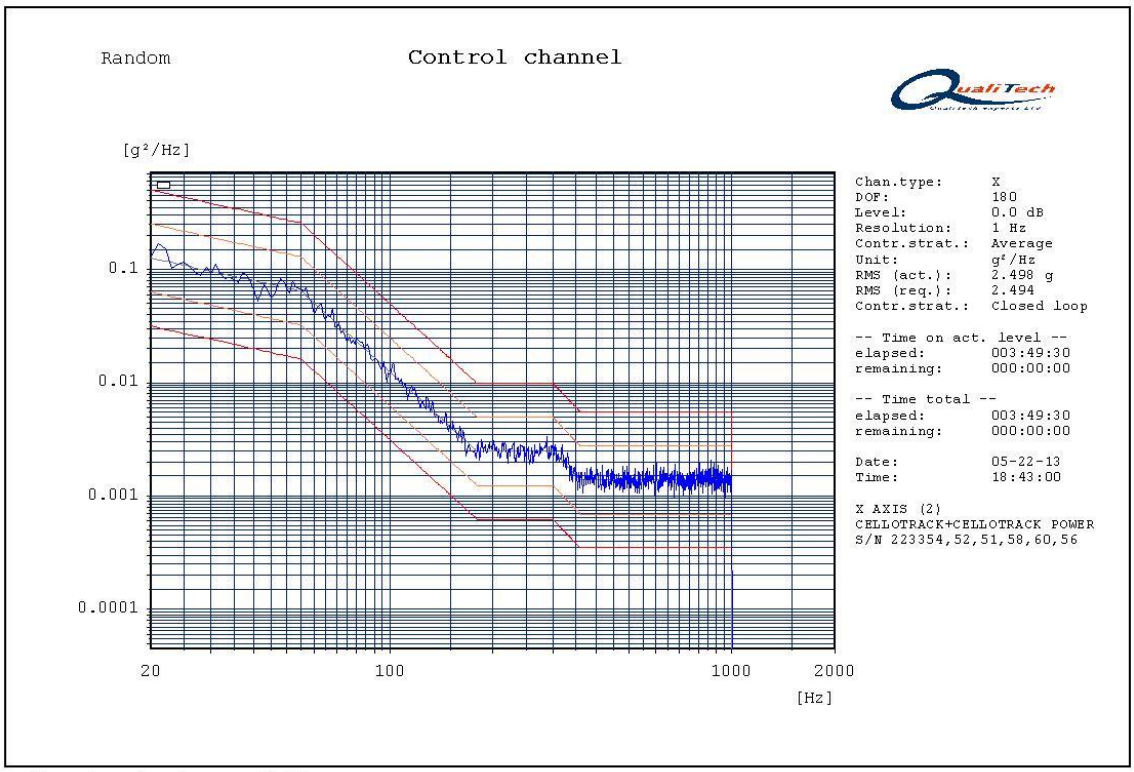

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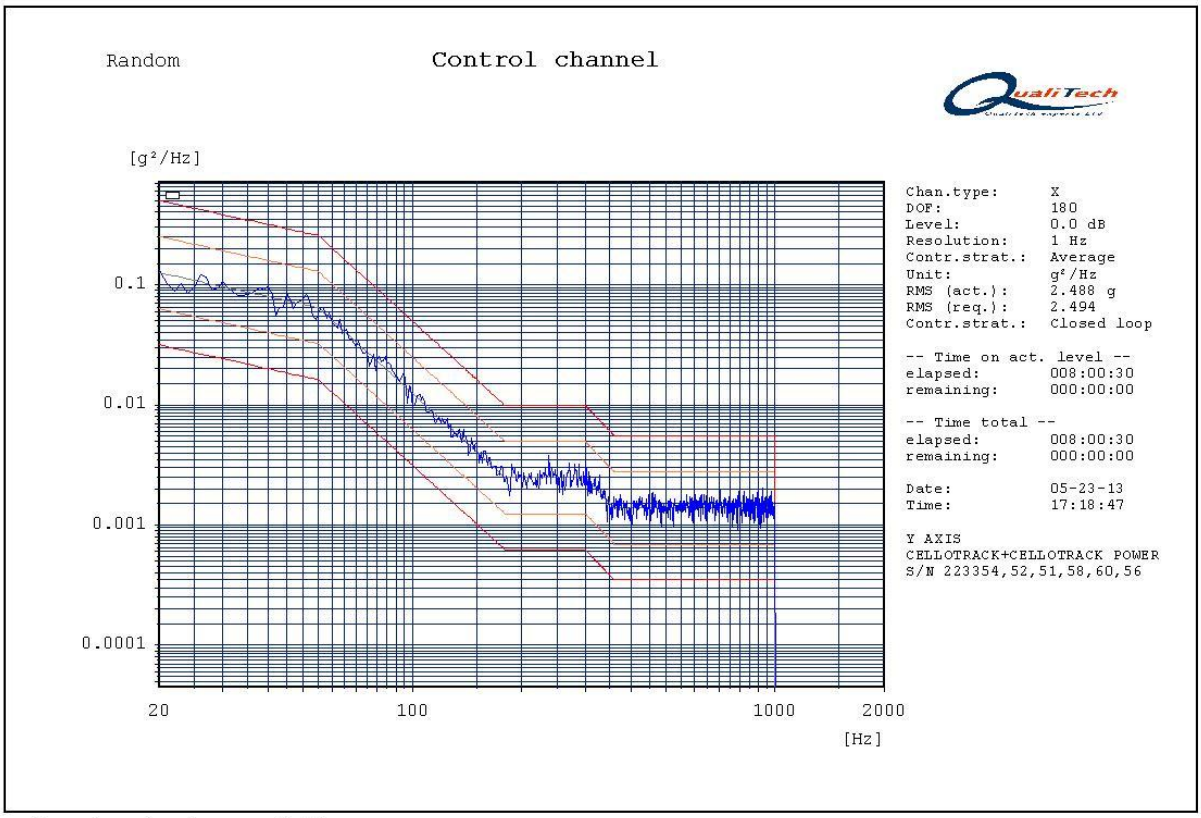
Vibration test graphs



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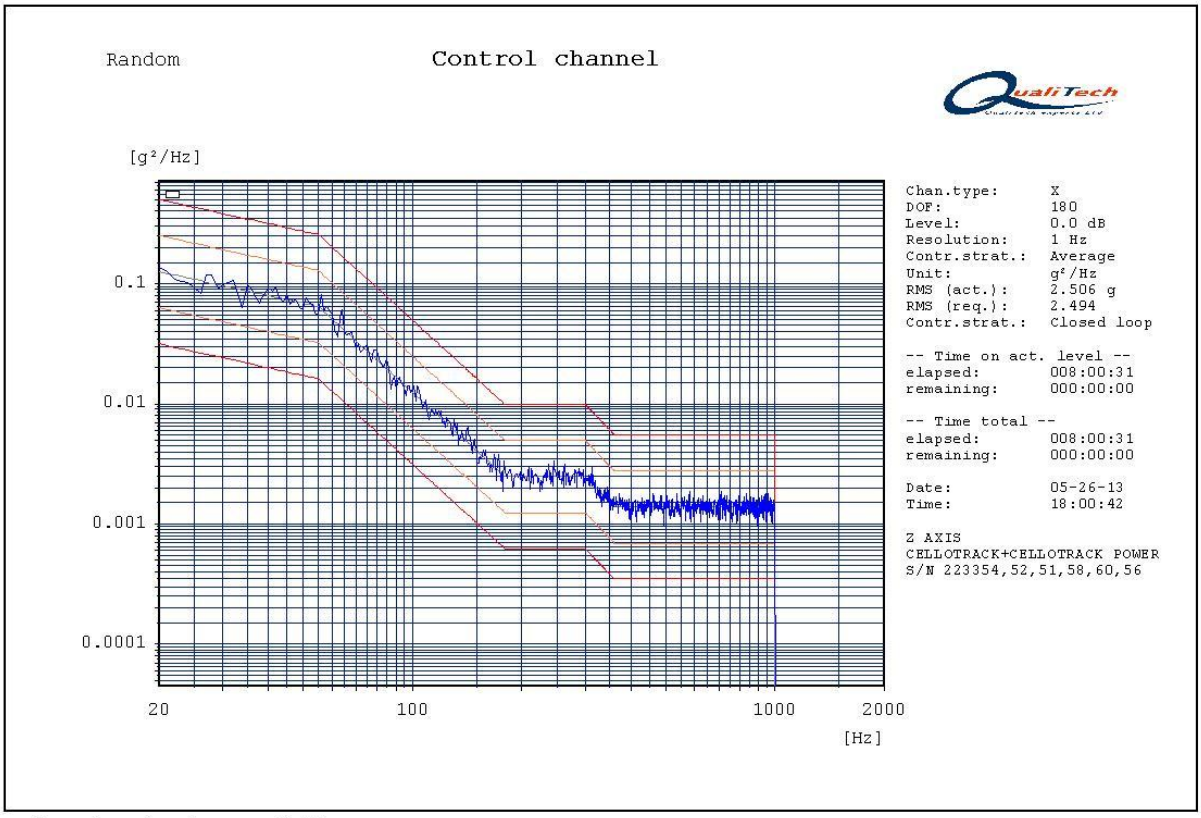

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Vibration test graphs

5.5.6. ACCELEROMETERS LIST

Channel (U&D)	Servo Output (mV/g)	Accelerometer Type		Due Cal.
		Model	Serial Number	
1	122.1	**ENDEVCO 2224C**	**19604**	10/12/2013
2	121.6	**ENDEVCO 2224C**	**19605**	10/12/2013

5.5.7. MEASUREMENT POINTS DESCRIPTION

No.	Setup	Run No.	Channel Meas. U&D	Control Axis	Meas. Axis	Definition of measurement points
1.	Pointer-01	001	1	X	N/A	Control on vibration fixture.
2.	Pointer-01	002	1	X	N/A	Control on vibration fixture.
3.	Pointer-01	004	1	Y	N/A	Control on vibration fixture.
4.	Pointer-01	005	1	Z	N/A	Control on vibration fixture.

5.6. TEST RESULTS

Based on the customer's declaration - The unit under test has PASSED the test.

6. TEMPERATURE AND HUMIDITY (Dump Heat-Operation) TEST - 13/0230

6.1. UNIT UNDER TEST OVERVIEW

Test Date	27/05/2013-17/06/2013
Customer Representative	Ariel Aharonovitz
Customer	POINTER

Unit Name	Item Manufacturer	Catalog Number	Serial Number	Item Quantity
CelloTrack Power (3G)	POINTER	GT9750001-000	223348	1
CelloTrack Power 8M (3G)	POINTER	GT9750022-000	223353	1
CelloTrack 8M	POINTER	GT9760022-000	223359	1
CelloTrack Power XT	POINTER	GT9760026-000	223357	1

6.2. TECHNICAL SOURCE

- ISO 16750-4, 5.7
- IEC 60068-2-78.

6.3. TEST INSTRUMENTATION - TEMPERATURE & HUMIDITY CHAMBER

No.	Instrumentation Name	Due Cal.
1.	THERMOTRON SM-8C	14/12/2013

6.4. LAB'S ENVIRONMENTAL CONDITIONS

Parameter Name	Parameter Value	Tolerance Value	Measure Unit
Temperature	25	± 10	Degree Celsius (°C).
Humidity	55	± 27	% R.H.
Mains Voltage	230	± 23	Volts
Mains Frequency	50	± 2	Hertz
Site Air Pressure	760	± 5	mmHg
	1012	± 5	millibar

6.5. TEST PROCEDURE

6.5.1. EXCLUSIONS FROM THE TEST METHOD

None.

6.5.2. TEMPERATURE & HUMIDITY TEST PROCEDURE DESCRIPTION

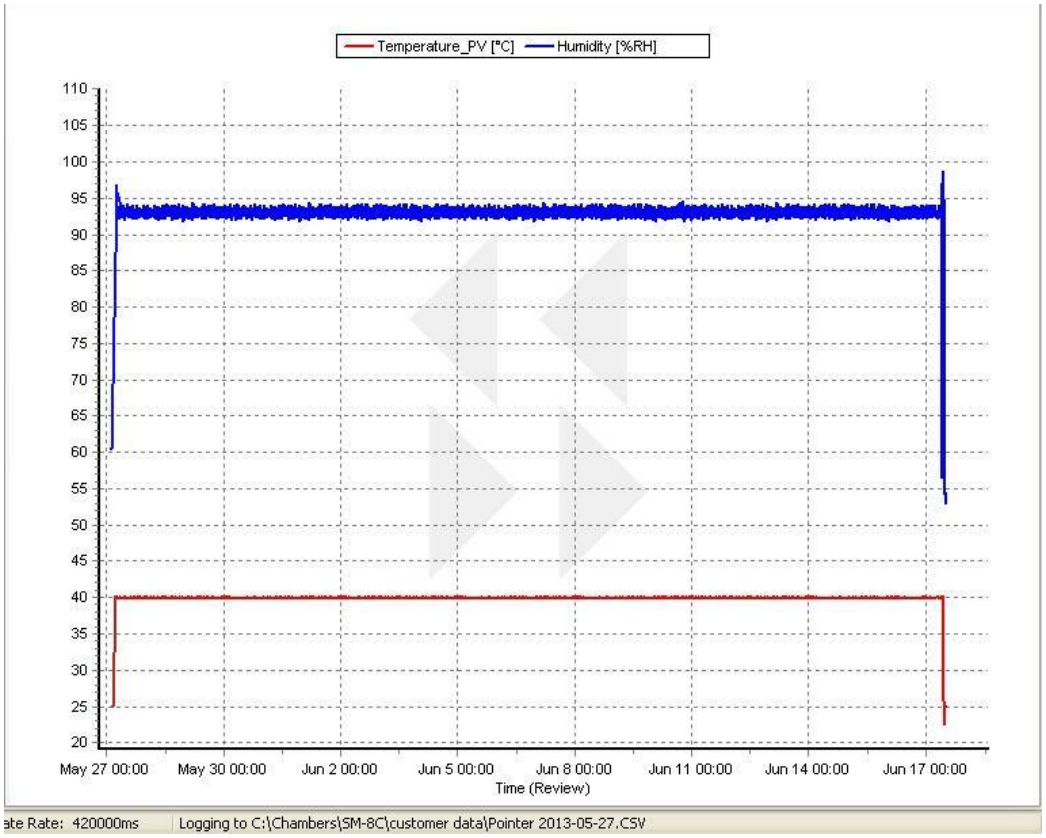
No.	Temperature Change		Humidity		Period	Remarks
	From	To	From	To		
1.	40°C	40°C	93%	93%	21 days	

6.5.3. TEST PERFORMANCE

Functional Test	• During test. • At the end of test. • Performed by customer representative.
Visual Test	• At the end of test. • Performed by customer representative.

6.5.4. TEST PICTURES

6.5.5. TEST GRAPHS



6.6. TEST RESULTS

Based on the customer's declaration - The unit under test has PASSED the test.

7. THERMAL SHOCK CYCLING TEST - 13/0262

7.1. UNIT UNDER TEST OVERVIEW

Test Date	27/05/2013
Customer Representative	Ariel Aharonovitz
Customer	POINTER

Unit Name	Item Manufacturer	Catalog Number	Serial Number	Item Quantity
CelloTrack XT (3G)	POINTER	GT9740025-000	223350	1
CelloTrack Power XT (3G)	POINTER	GT9740026-000	223355	1
CelloTrack Power 8M (3G)	POINTER	GT9750021-000	223349	1
CelloTrack 3Y	POINTER	GT9760012-000	223361	1

7.2. TECHNICAL SOURCE

- ISO 16750-4 5.3.2.

7.3. TEST INSTRUMENTATION - TEMPERATURE CHAMBER

No.	Instrumentation Name	Due Cal.
1.	THERMOTRON TS-8-3Z-5-5	02/12/2013

7.4. LAB'S ENVIRONMENTAL CONDITIONS

Parameter Name	Parameter Value	Tolerance Value	Measure Unit
Temperature	25	± 10	Degree Celsius (°C).
Humidity	55	± 27	% R.H.
Mains Voltage	230	± 23	Volts
Mains Frequency	50	± 2	Hertz
Site Air Pressure	760	± 5	mmHg
	1012	± 5	millibar

7.5. TEST PROCEDURE

7.5.1. EXCLUSIONS FROM THE TEST METHOD

None.

7.5.2. THERMAL SHOCK CYCLING TEST PROCEDURE DESCRIPTION

Number of Cycles	100 temperature cycles were conducted.
Cycle Time	40:01 minutes

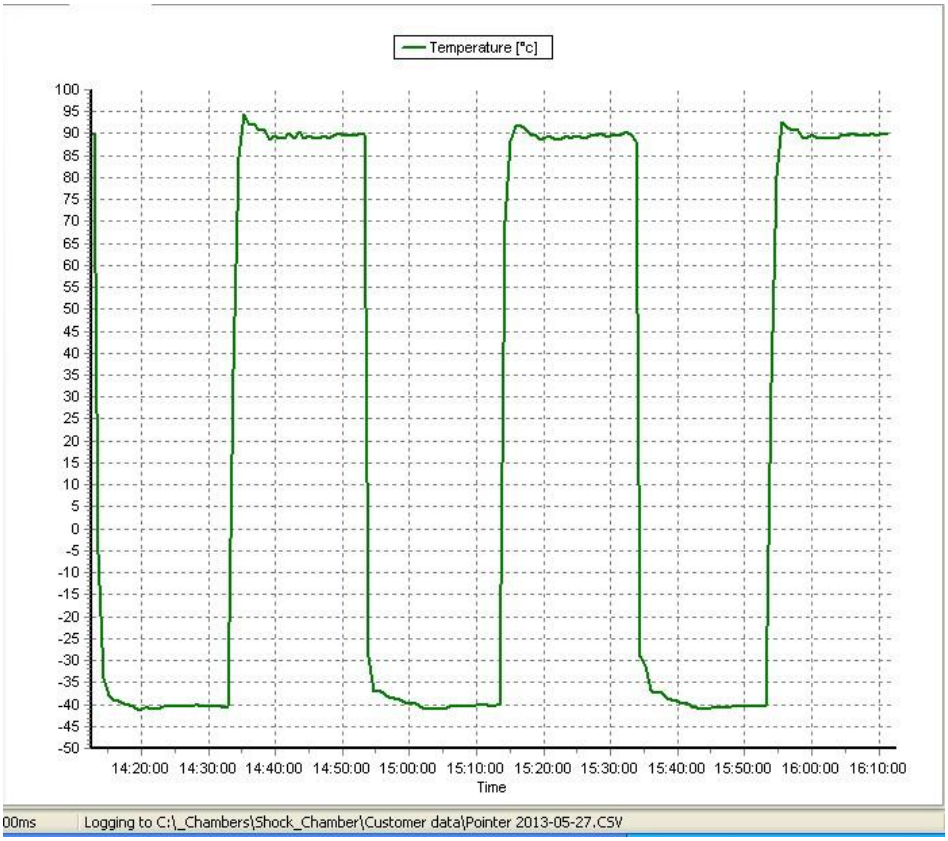
Temperature Change		**Period**	**Remarks**
From	**To**		
90°C	-40°C	30 seconds	
-40°C	-40°C	20 minutes	
-40°C	90°C	30 seconds	
90°C	90°C	20 minutes	

7.5.3. TEST PERFORMANCE

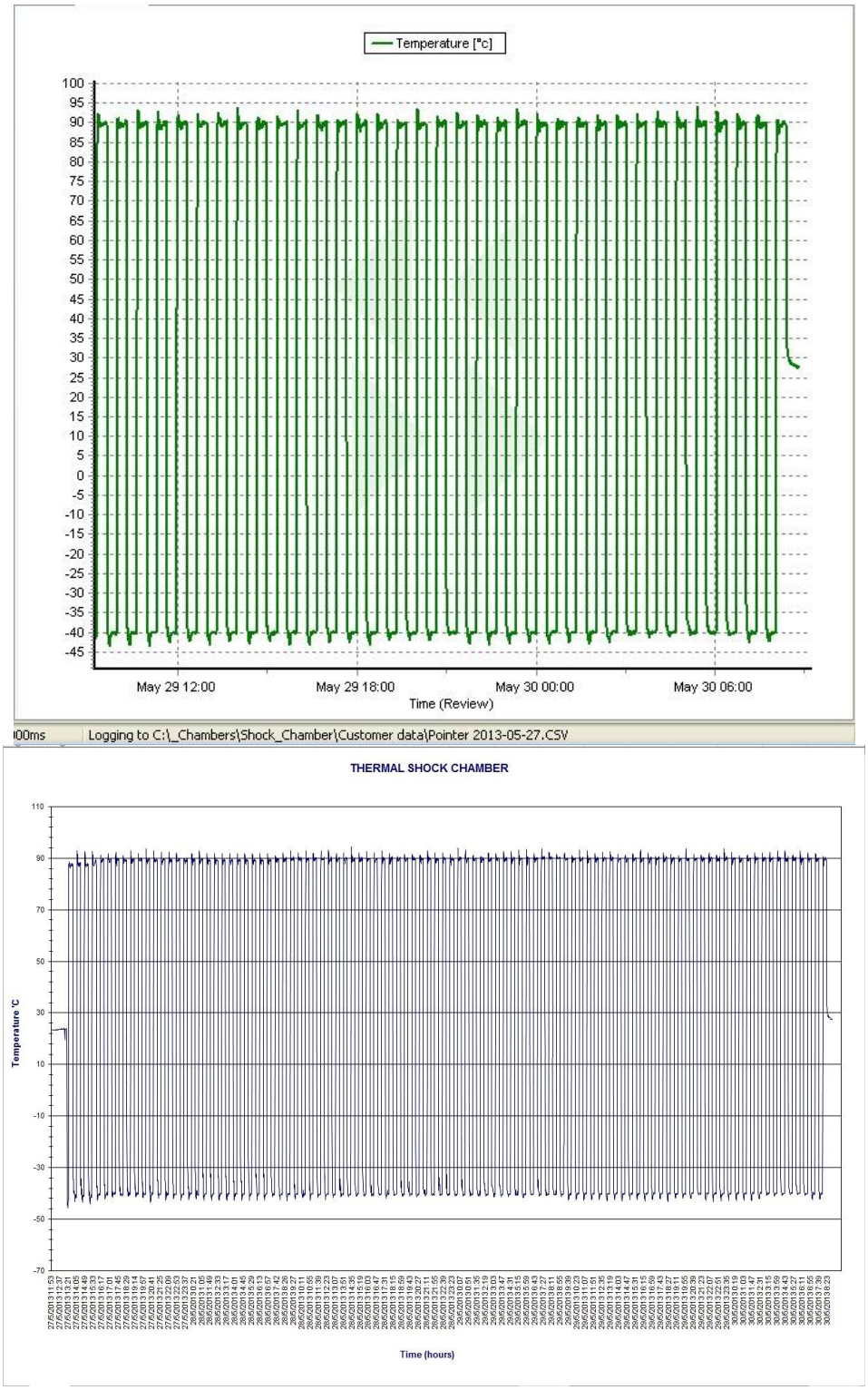
Functional Test	• At the end of test. • Performed by customer representative.
Visual Test	• At the end of test. • Performed by customer representative.

7.5.4. TEST PICTURES

7.5.5. TEST GRAPHS



Thermal Shock Test graph 3 cycles (for example)



Thermal Shock Test graph 100 cycles

7.6. TEST RESULTS

Based on the customer's declaration - The unit under test has PASSED the test.

8. MECHANICAL SHOCK TEST - 13/0270

8.1. UNIT UNDER TEST OVERVIEW

Test Date	28/05/2013
Customer Representative	Ariel Aharonovitz
Customer	POINTER

Unit Name	Item Manufacturer	Catalog Number	Serial Number	Item Quantity
CelloTrack 3G Power	POINTER	GT9740001-000	223354	1
CelloTrack 3Y (3G)	POINTER	GT9750012-000	223351	1
CelloTrack Power 8M	POINTER	GT9760021-000	223356	1
CelloTrack XT	POINTER	GT9760025-000	223360	1

8.2. TECHNICAL SOURCE

- ISO 16750-3 4.2.2.2.

8.3. TEST INSTRUMENTATION

No.	Instrument Type	Instrument Model	Due Cal.
1.	Mechanical Shock Machine	Electrodynamic vibration system: U&D TA117-60/CSTA	09/12/2013
2.	Shock Control System	U&D VWIN Model 2000	10/12/2013
3.	Charge Amplifier	ENDEVCO ISOTRON P.S. Model 2793	09/12/2013
4.	Control Accelerometer Model	B&K 4384	See Due Cal. at Accelerometers List Paragraph.

8.4. LAB'S ENVIRONMENTAL CONDITIONS

Parameter Name	Parameter Value	Tolerance Value	Measure Unit
Temperature	25	± 10	Degree Celsius (°C).
Humidity	55	± 27	% R.H.
Mains Voltage	230	± 23	Volts
Mains Frequency	50	± 2	Hertz
Site Air Pressure	760	± 5	mmHg
	1012	± 5	millibar

8.5. TEST PROCEDURE

8.5.1. EXCLUSIONS FROM THE TEST METHOD

None.

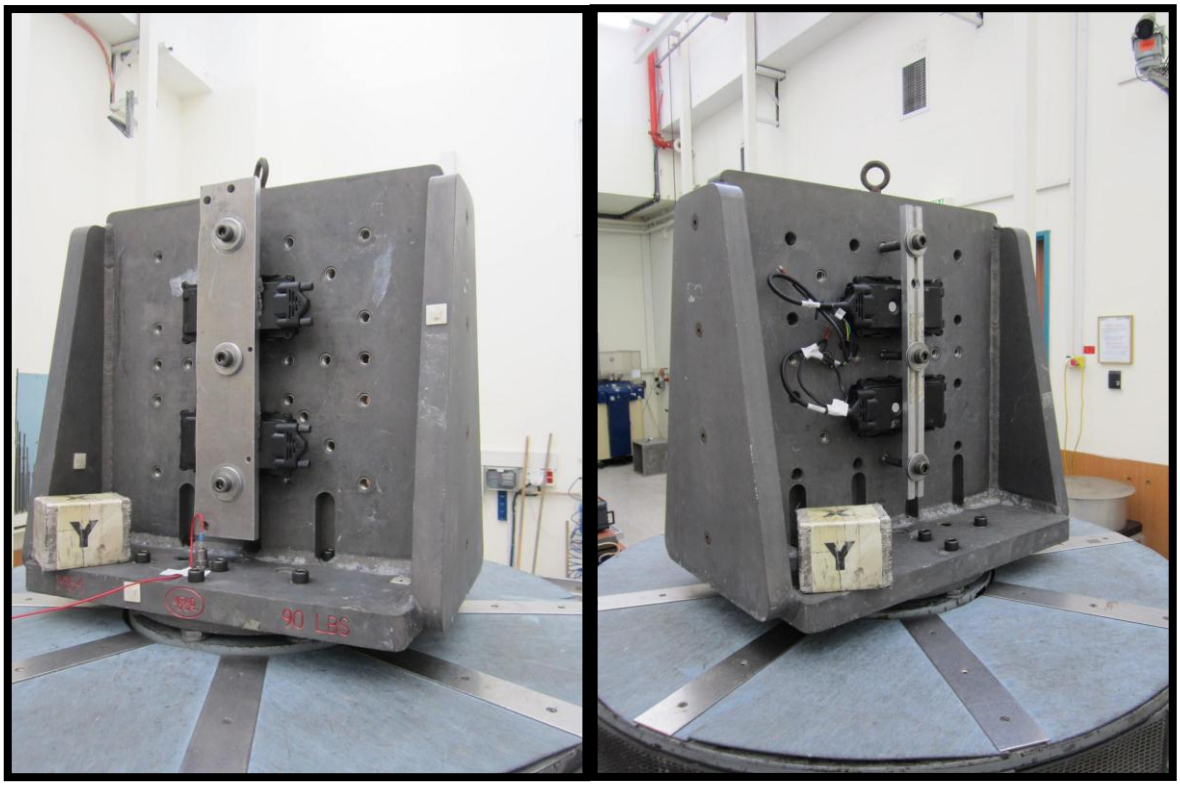
8.5.2. MECHANICAL SHOCK TEST PROCEDURE DESCRIPTION

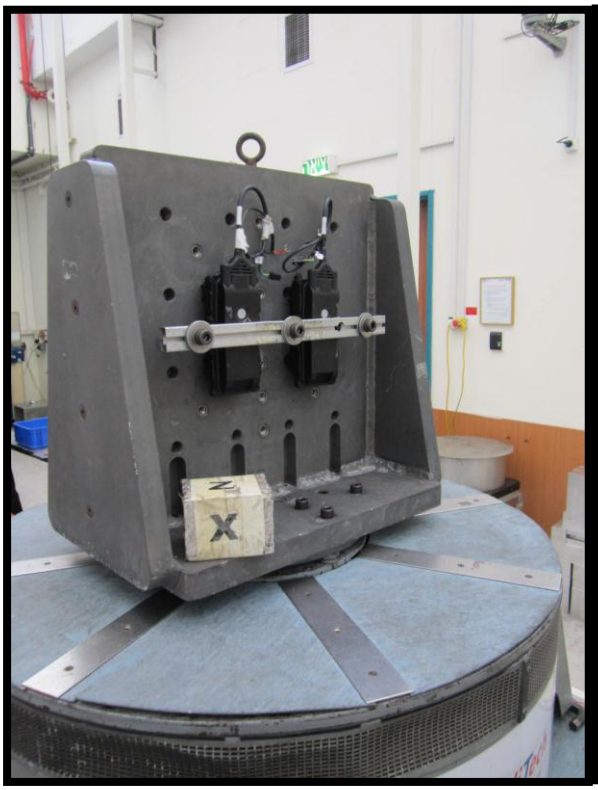
Item Position	The test item was rigidly attached to the shock machine.
Number of Shocks	10 shocks were conducted in each of the 6 directions of the test item.
Shock Level	50 g.
Time Duration	6 msec.
Shape	Half sine.
Total Number of Shocks	60 shocks.

8.5.3. TEST PERFORMANCE

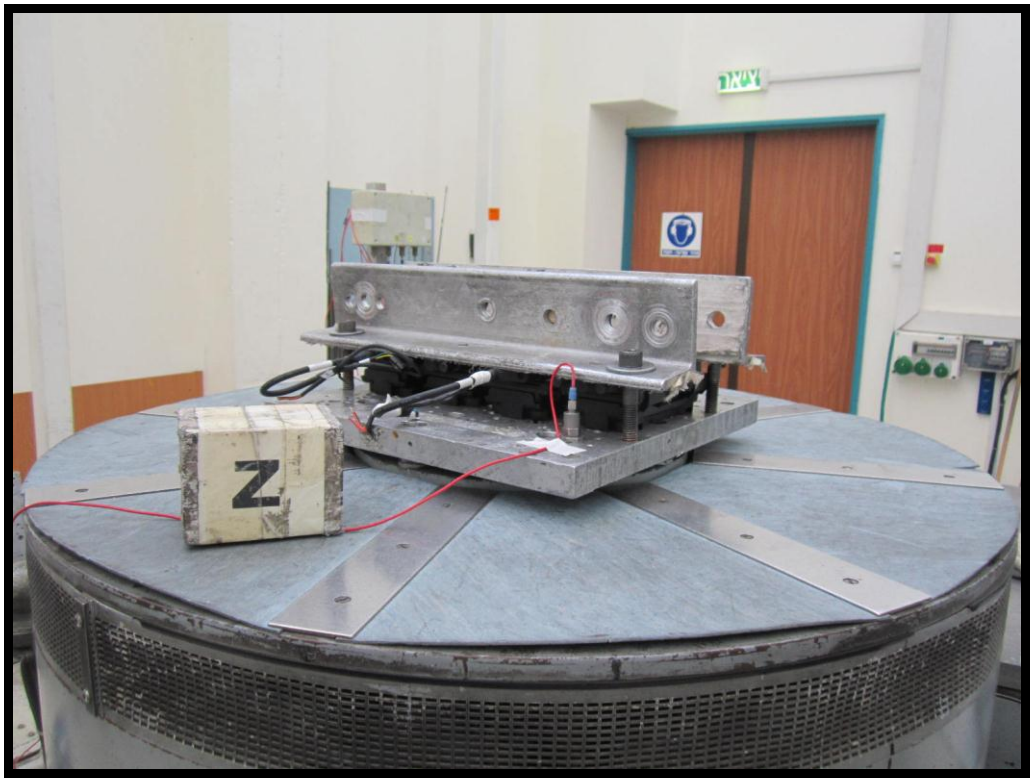
Functional Test	• At the end of test. • Performed by customer representative.
Visual Test	• At the end of test. • Performed by customer representative.

8.5.4. TEST PICTURES

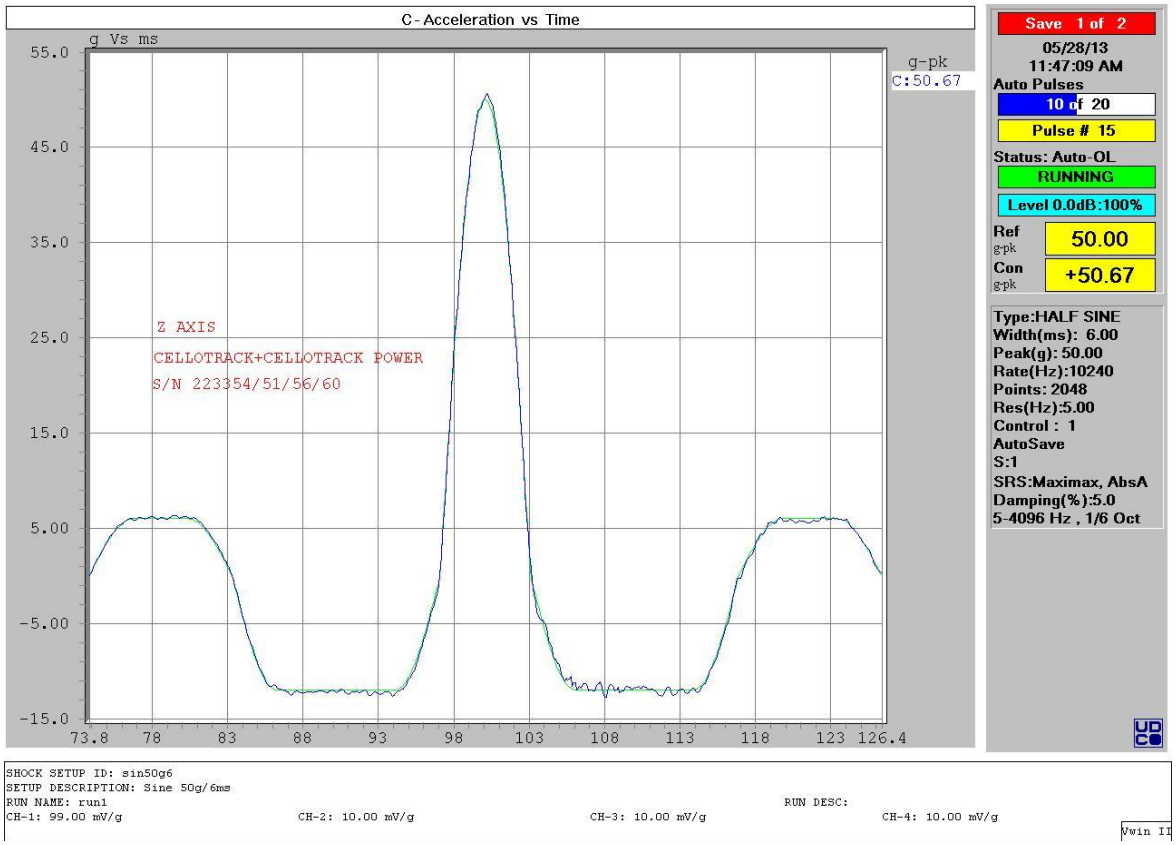


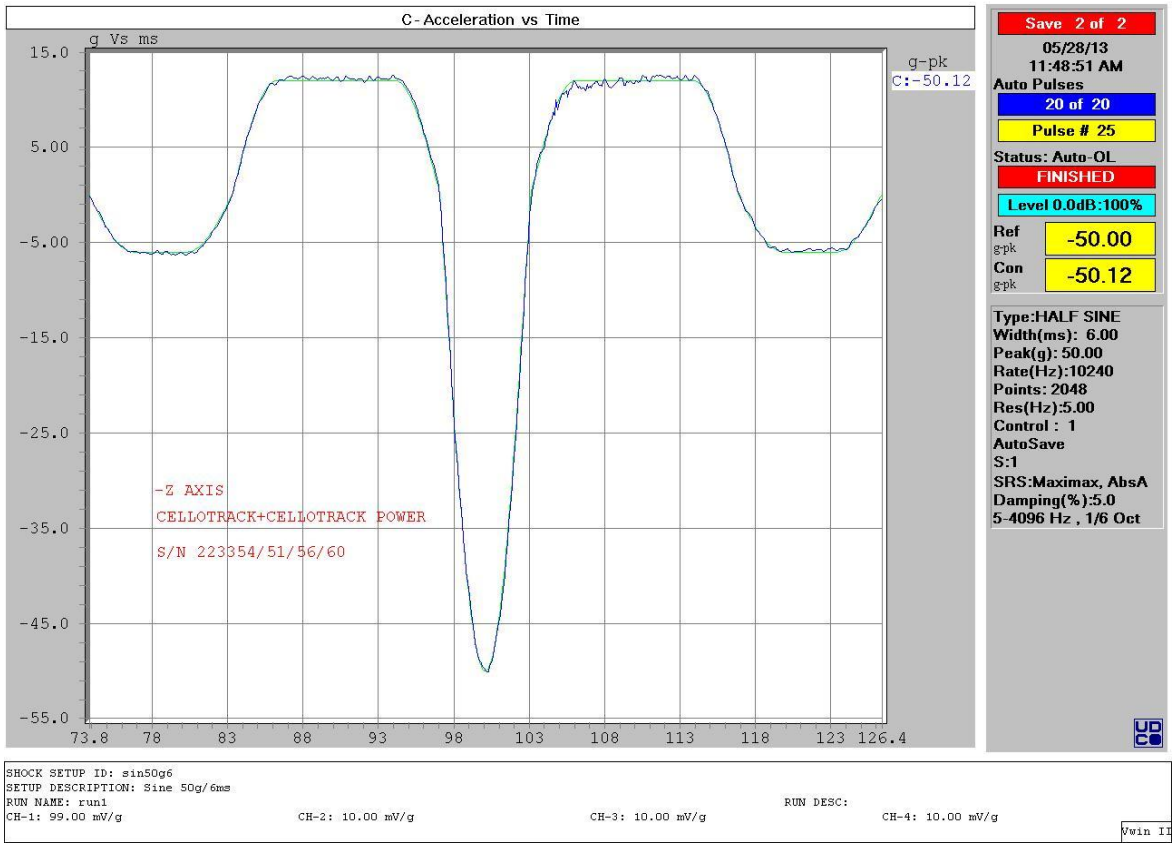

X

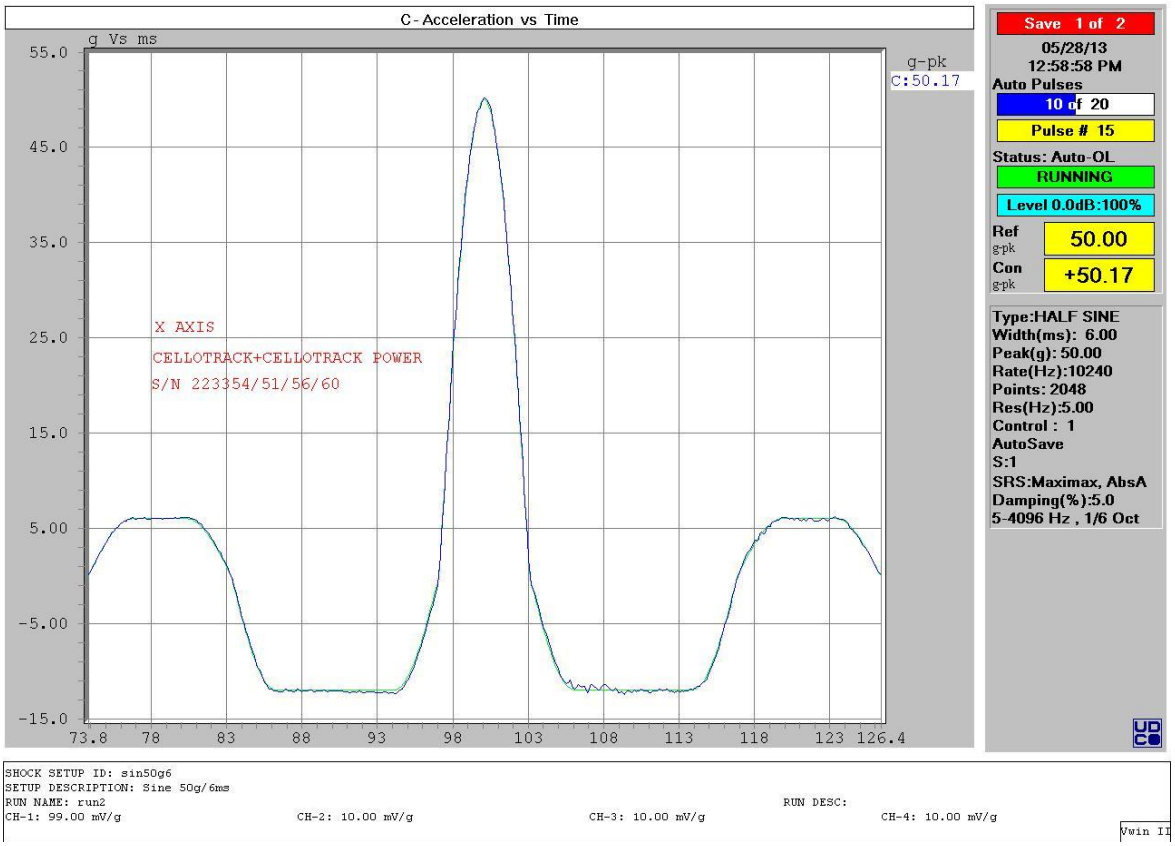

X

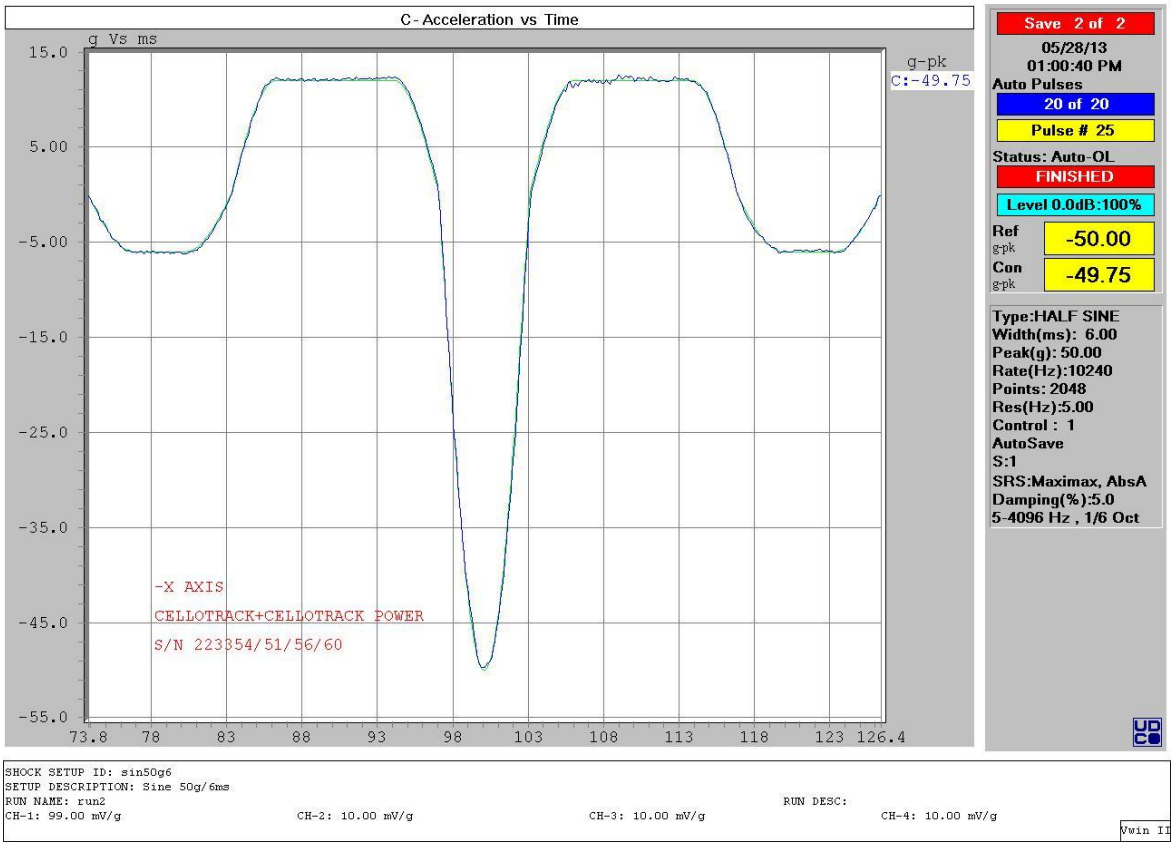

Z

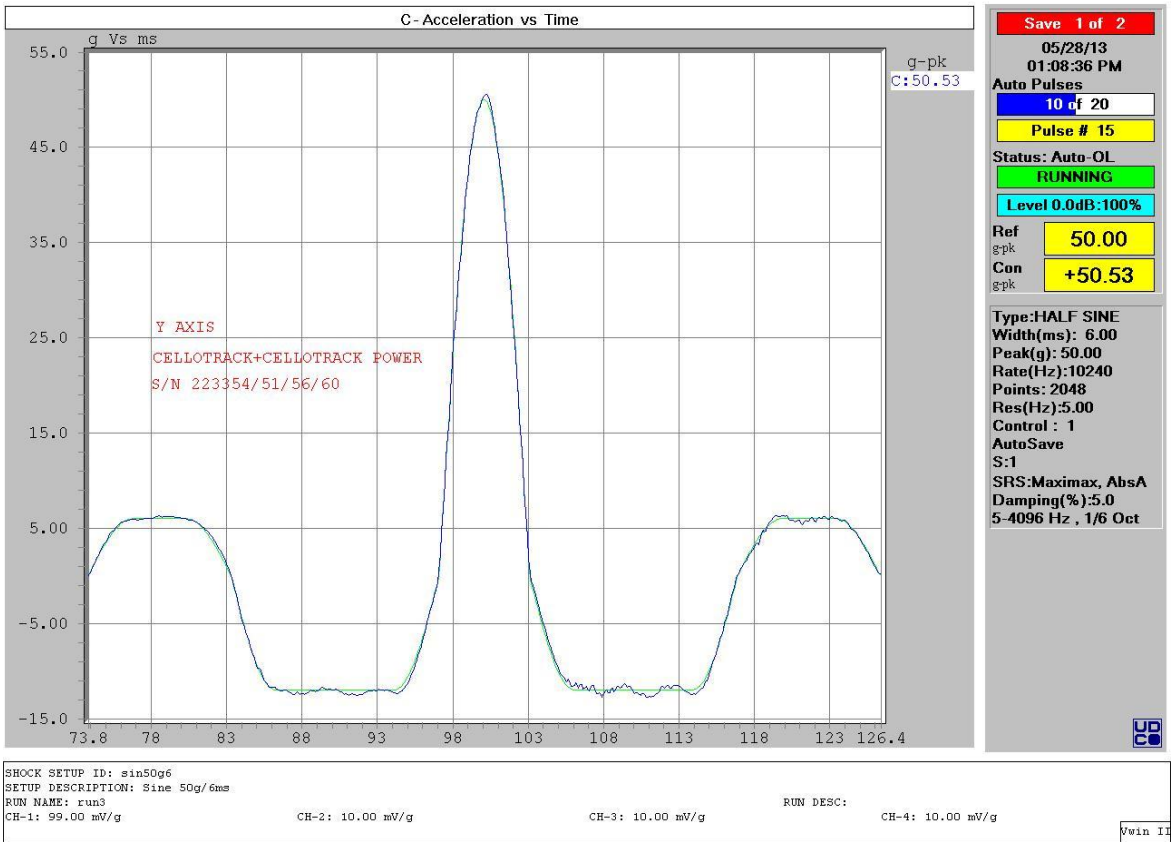
8.5.5. TEST GRAPHS

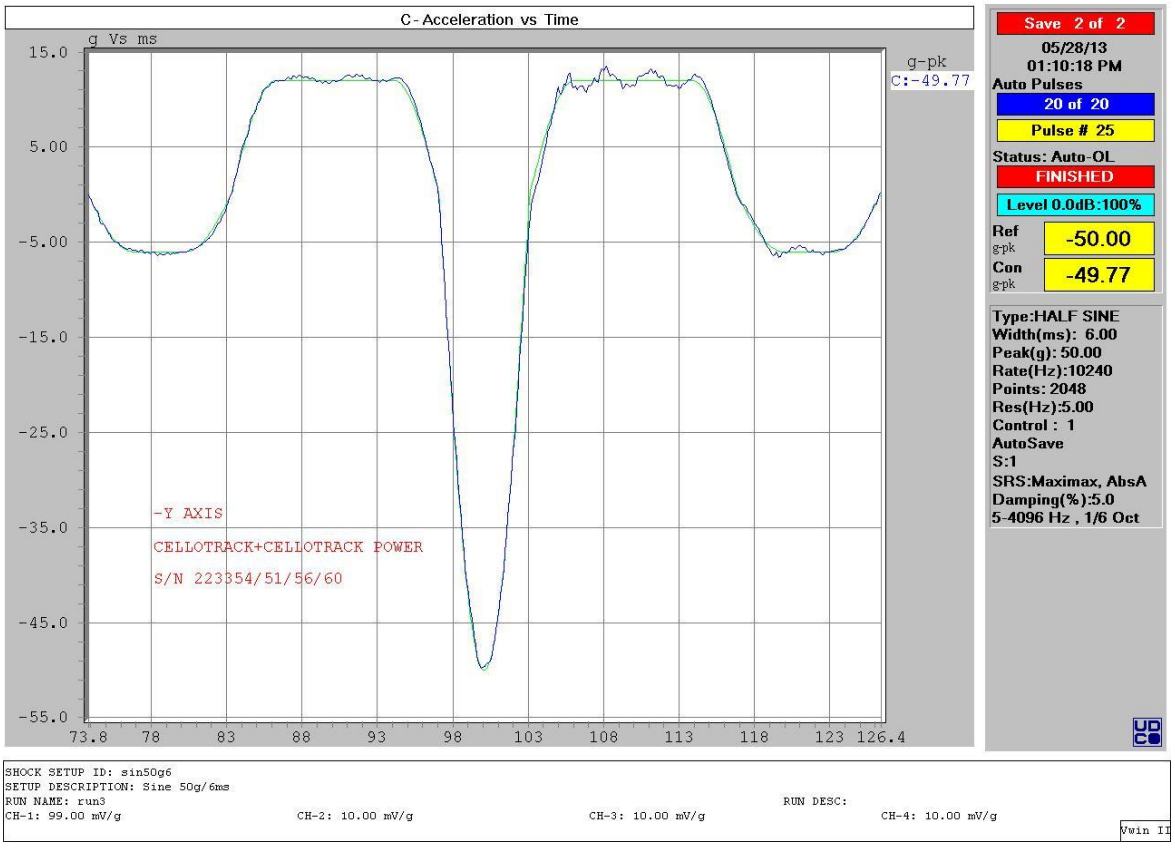





C - Acceleration vs Time
g Vs ms
55.0
45.0
35.0
25.0
15.0
5.00
-5.00
-15.0
73.8 78 83 88 93 98 103 108 113 118 123 126.4
g-pk
C:50.17
X AXIS
CELLOTRACK+CELLOTRACK POWER
S/N 223354/51/56/60
Save 1 of 2
05/28/13
12:58:58 PM
Auto Pulses
10 of 20
Pulse # 15
Status: Auto-OL
RUNNING
Level 0.0dB:100%
Ref g-pk 50.00
Con g-pk +50.17
Type:HALF SINE
Width(ms): 6.00
Peak(g): 50.00
Rate(Hz):10240
Points: 2048
Res(Hz):5.00
Control : 1
AutoSave
S:1
SRS:Maximax, AbsA
Damping(%):5.0
5-4096 Hz , 1/6 Oct
SHOCK SETUP ID: sin50g6
SETUP DESCRIPTION: Sine 50g/6ms
RUN NAME: run2
RUN DESC:
CH-1: 99.00 mV/g
CH-2: 10.00 mV/g
CH-3: 10.00 mV/g
CH-4: 10.00 mV/g
Vwin II


C - Acceleration vs Time
g Vs ms
15.0
5.00
-5.00
-15.0
-25.0
-35.0
-45.0
-55.0
73.8 78 83 88 93 98 103 108 113 118 123 126.4
g-pk
C:-49.75
-X AXIS
CELLOTRACK+CELLOTRACK POWER
S/N 223354/51/56/60
Save 2 of 2
05/28/13
01:00:40 PM
Auto Pulses
20 of 20
Pulse # 25
Status: Auto-OL
FINISHED
Level 0.0dB:100%
Ref g-pk -50.00
Con g-pk -49.75
Type:HALF SINE
Width(ms): 6.00
Peak(g): 50.00
Rate(Hz):10240
Points: 2048
Res(Hz):5.00
Control : 1
AutoSave
S:1
SRS:Maximax, AbsA
Damping(%):5.0
5-4096 Hz , 1/6 Oct
SHOCK SETUP ID: sin50g6
SETUP DESCRIPTION: Sine 50g/6ms
RUN NAME: run2
RUN DESC:
CH-1: 99.00 mV/g
CH-2: 10.00 mV/g
CH-3: 10.00 mV/g
CH-4: 10.00 mV/g
Vwin II


C - Acceleration vs Time
g Vs ms
55.0
45.0
35.0
25.0
15.0
5.00
-5.00
-15.0
73.8 78 83 88 93 98 103 108 113 118 123 126.4
g-pk
C:50.53
Y AXIS
CELLOTRACK+CELLOTRACK POWER
S/N 223354/51/56/60
Save 1 of 2
05/28/13
01:08:36 PM
Auto Pulses
10 of 20
Pulse # 15
Status: Auto-OL
RUNNING
Level 0.0dB:100%
Ref g-pk 50.00
Con g-pk +50.53
Type:HALF SINE
Width(ms): 6.00
Peak(g): 50.00
Rate(Hz):10240
Points: 2048
Res(Hz):5.00
Control : 1
AutoSave
S:1
SRS:Maximax, AbsA
Damping(%):5.0
5-4096 Hz , 1/6 Oct
SHOCK SETUP ID: sin50g6
SETUP DESCRIPTION: Sine 50g/6ms
RUN NAME: run3
RUN DESC:
CH-1: 99.00 mV/g
CH-2: 10.00 mV/g
CH-3: 10.00 mV/g
CH-4: 10.00 mV/g
Vwin II


C - Acceleration vs Time
g Vs ms
15.0
5.00
-5.00
-15.0
-25.0
-35.0
-45.0
-55.0
73.8 78 83 88 93 98 103 108 113 118 123 126.4
g-pk
C:-49.77
-Y AXIS
CELLOTRACK+CELLOTRACK POWER
S/N 223354/51/56/60
Save 2 of 2
05/28/13
01:10:18 PM
Auto Pulses
20 of 20
Pulse # 25
Status: Auto-OL
FINISHED
Level 0.0dB:100%
Ref g-pk -50.00
Con g-pk -49.77
Type:HALF SINE
Width(ms): 6.00
Peak(g): 50.00
Rate(Hz):10240
Points: 2048
Res(Hz):5.00
Control : 1
AutoSave
S:1
SRS:Maximax, AbsA
Damping(%):5.0
5-4096 Hz , 1/6 Oct
SHOCK SETUP ID: sin50g6
SETUP DESCRIPTION: Sine 50g/6ms
RUN NAME: run3
RUN DESC:
CH-1: 99.00 mV/g
CH-2: 10.00 mV/g
CH-3: 10.00 mV/g
CH-4: 10.00 mV/g
Vwin II

8.5.6. ACCELEROMETERS LIST

Channel (U&D)	Servo Output (mV/g)	Accelerometer Type		Due Cal.
		Model	Serial Number	
1	99	**B&K 4384**	**1909635**	10/12/2013

8.5.7. MEASUREMENT POINTS DESCRIPTION

No.	Setup	Run No.	Channel Meas. U&D	Control Axis	Meas. Axis	Definition of measurement points
1.	sin50g6	1	1	Z	N/A	Control on shock fixture.
2.	sin50g6	1	1	-Z	N/A	Control on shock fixture.
3.	sin50g6	2	1	Y	N/A	Control on shock fixture.
4.	sin50g6	2	1	-Y	N/A	Control on shock fixture.
5.	sin50g6	3	1	X	N/A	Control on shock fixture.
6.	sin50g6	3	1	-X	N/A	Control on shock fixture.

8.6. TEST RESULTS

Based on the customer's declaration - The unit under test has PASSED the test.

9. PARAMETERS ACCURACY & UNCERTAINTY BALANCE

ENVIRONMENTAL & MECHANICAL LABORATORIES
PARAMETERS ACCURACY & UNCERTAINTY **

Manufacturer	Model	Description	Parameter	Accuracy *	Uncertainty
AALBORG	DFC36	Gas Flow Controller	LPM	0.5	0.3
ASSOCIATED	SK-3102	Temperature Chamber	Deg C	1.5	1.5
ASSOCIATED	ZHH-2108	Temperature Chamber	Deg C	2.7	1.4
ASSOCIATED	ZHH-2127	Temp/Humidity Chamber	Deg C	1.5	1.37
			RH%	6.1	3.31
BRABENDER	KKW10.000/60	Temperature & Humidity Chamber	Deg C	1	1.45
			RH%	4.6	3.6
LANSMONT	PDT-56ED	Drop Tester	cm	0.1	0.1
MONARCH	PLT200	RPM Meter	rpm	2	0.5
TENNEY	36S	Altitude/Heat Chamber	Deg C	0.5	0.8
			Feet	100	100
TENNEY	JUNIOR	Temperature Chamber	Deg C	0.7	1.5
TENNEY	T30 RC	Temp/Humidity Chamber	Deg C	1.5	1.51
			RH%	5	3.6
TENNEY	T40 RC	Temp/Humidity Chamber	Deg C	2.1	1.6
			RH%	2.8	3.6
TENNEY	T-5S	Temperature Chamber	Deg C	2.1	1.28
THERMOTRON	F-40-CHMV-25-25 -2	Temperature & Humidity Agree Chamber	Deg C	0.5	2
			RH%	3.4	2.94
THERMOTRON	F-64-CHAMV-10-10 S	Temp. & Humidity & Altitude Chamber	Deg C	3.5	1.6
			RH%	2.5	3.6
THERMOTRON	TS-8-3Z-5-5-Ln2	Thermal Shock Chamber	Deg C	0.9	1.6
U&D	VWIN 2000	Controlled Vibration Machine	g (%)	3	3
WEISS	SNT-400	Salt Fog Chamber	Salt (%)	3	3
			Deg C	0.5	0.3
			pH	0.01	0.01
LAB	SC-1000	Bounce Machine	RPM	1	0.5

*** Accuracy in (%) only where parameter is defined in (%)**
**** Unless otherwise specified in the report these are the parameters values.**

END OF REPORT