

R024-PNN-13-100150-1/A

SINE VIBRATION TEST REPORT

According to the standard :
NF EN 60068-2-6 (09/1995)

Tested equipment:
A radostat

Company :
AYKOW

DISTRIBUTION: Mr JEAN

(Company: AYKOW)

Number of pages: 17
(Included 2 appendices)

Ed.	Date dd.mm.yy	Modified Pages	Written by		Technical Verification & Quality Approval	
			Name	Visa	Name	Visa
0	09.04.13	Creation	S.MORISSON		G.ROMEYER	

Duplication of this document is only permitted for an integral photographic facsimile. It includes the number of pages referenced here above. This document is the result of testing a specimen or a sample of the product submitted. It does not imply an assessment of the conformity of the whole production of the tested sample.



TESTED EQUIPMENT: a radostat

Serial number (S/N): R1318 (calibration 136D200)

Part number (P/N): without reference

MANUFACTURER: AYKOW

CUSTOMER'S NAME AND ADDRESS: AYKOW

Company: AYKOW

Address: 7, rue Alfred Kastler
14000 CAEN

Contact: Mr JEAN

TEST DATES: the 5th and 8th April 2013

TEST LOCATION: Laboratory of EMITECH at Ruelle sur Touvre (16)

TESTER: S.MORISSON

SUMMARY

CHAPITRE	TITRE	PAGE
1	INTRODUCTION	4
2	REFERENCE DOCUMENT	4
3	TESTED EQUIPMENT DESCRIPTION	4
4	TEST PROGRAM	4
5	SYNTHESIS OF RESULTS	5
6	SPATIAL REFERENCE DEFINITION AND FIXATION ON THE SHAKER	5
7	MECHANICAL TEST MATERIAL	6
8	FUNCTIONAL CONTROL MATERIAL	6
9	INSTRUMENTATION	6
10	TEST RESULTS	7
10.1	<i>Sinus vibrations</i>	7
11	CONCLUSION	9
	APPENDICES	
<i>Appendix 1</i>	<i>Photographs of tested equipments</i>	<i>11 and 12</i>
<i>Appendix 2</i>	<i>Curves of vibrations</i>	<i>13 to 17</i>

1. INTRODUCTION

The report provides the results of sine vibration test which have been done on a radostat presented by AYKOW Company.

2. REFERENCE DOCUMENT

NF EN 60068-2-6 (September1995)

3. TESTED EQUIPMENT DESCRIPTION *(See photographs in appendix 1)*

The tested equipment is:

- A radostat P/N: without reference
 S/N: R1318 (calibration 136D200)



4. TEST PROGRAM

The tests were under taken in the following manner:

- 2 sweeps of sine vibrations in operating condition
 - 40 sweeps of sine vibrations in operating condition
- Sequentially on OZ, OY and OX vibrations

5. SYNTHESIS OF RESULTS

5.1 Chronology

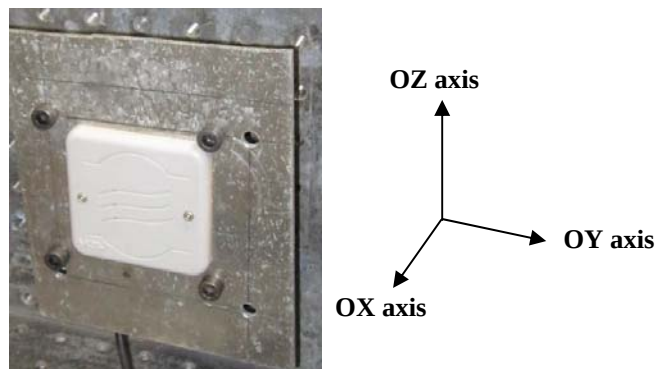
Date	Test designation	Comments	Curves in appendix 2
05/04/13	Vibrations tests on OZ axis	Functional controls is correct	Pages 12 and 13
	Vibrations tests on OY axis	Functional controls is correct	Pages 14 and 15
08/04/13	Vibrations tests on OX axis	Functional controls is correct	Pages 16 and 17

5.2 Functional control verification

Functional control is realized by the staff of EMITECH Company after each test (ignition of red LED during about 3 seconds). Photographs of silicon are taken by the staff of EMITECH Company after each axis.

6. SPATIAL REFERENCE DEFINITION AND FIXATION ON THE SHAKER (See photographs in appendix 1)

The equipment is rigidly fixed on a fixture provided by EMITECH Company.
This fixture is fixed on the test electrodynamic vibration generate means of EMITECH.



7. MECHANICAL TEST MATERIAL

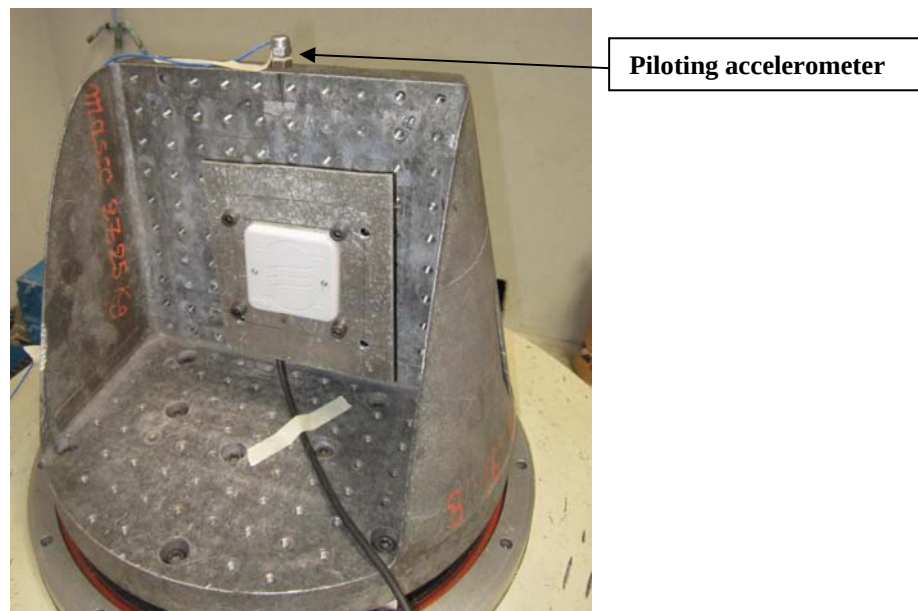
Meter Nr EMITECH	Category	Mark	Type	Last verification	Validity date
6221	Ensemble de vibrations	Ling	PA1	05/04/2012	05/06/2013
3935	Amplifier charge	Mecaptelec	MCE4163	22/06/2012	22/08/2014
3974	Vibration controller	National Instruments	WS340	20/06/2011	20/08/2013
3955	Accelerometer	Endevco	7254A-100-AF91	18/06/2012	18/08/2014

8. FUNCTIONAL CONTROL MATERIAL

Without object

9. INSTRUMENTATION

One pilot accelerometer is fixed near the fixation of equipment



10. TEST RESULTS

10.1 Sine vibrations

- Program

STANDARD	NF EN 60068-2-6
FREQUENCY SCALE (Hz)	10 to 150Hz
LEVELS / SUBLEVELS	<u>operating test</u> 0.5g <u>not operating test</u> 1g
SWEEPING	1 oct/min
AXES	OZ, OY and OX
NUMBER OF CYCLE OR DURATION	1 cycle 20 cycles
SEARCH FOR RESONANCE FREQUENCIES	no

- Remark

The equipment is operating during sweep at 0.5g and is not operating during sweep at 1g.

Hard copies of the main accelerometer are presented in appendix 2 as shown in the table below:

	Operating sine vibration	Not operating sine vibration
OZ axis	Page 12	Page 13
OY axis	Page 14	Page 15
OX axis	Page 16	Page 17

- Results

Functional control: correct

11. CONCLUSION

The radostat of AYKOW Company has successfully passed the test program presented in this document.

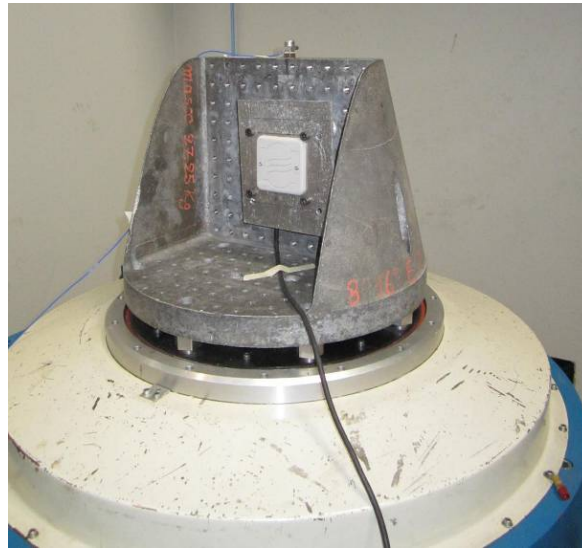
The tests were performed in accordance with reference documents (Cf. paragraph 2).

□□□ End of report, 2 appendices to follow □□□

APPENDICES

APPENDIX 1: Photographs of tested equipment

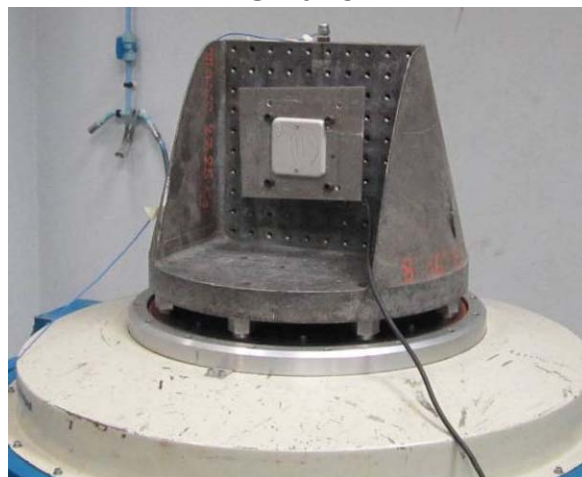
***Vibrations tests
OZ axis***



Photographs of silicon after OZ axis



OY axis



Photographs of silicon after OY axis



OX axis

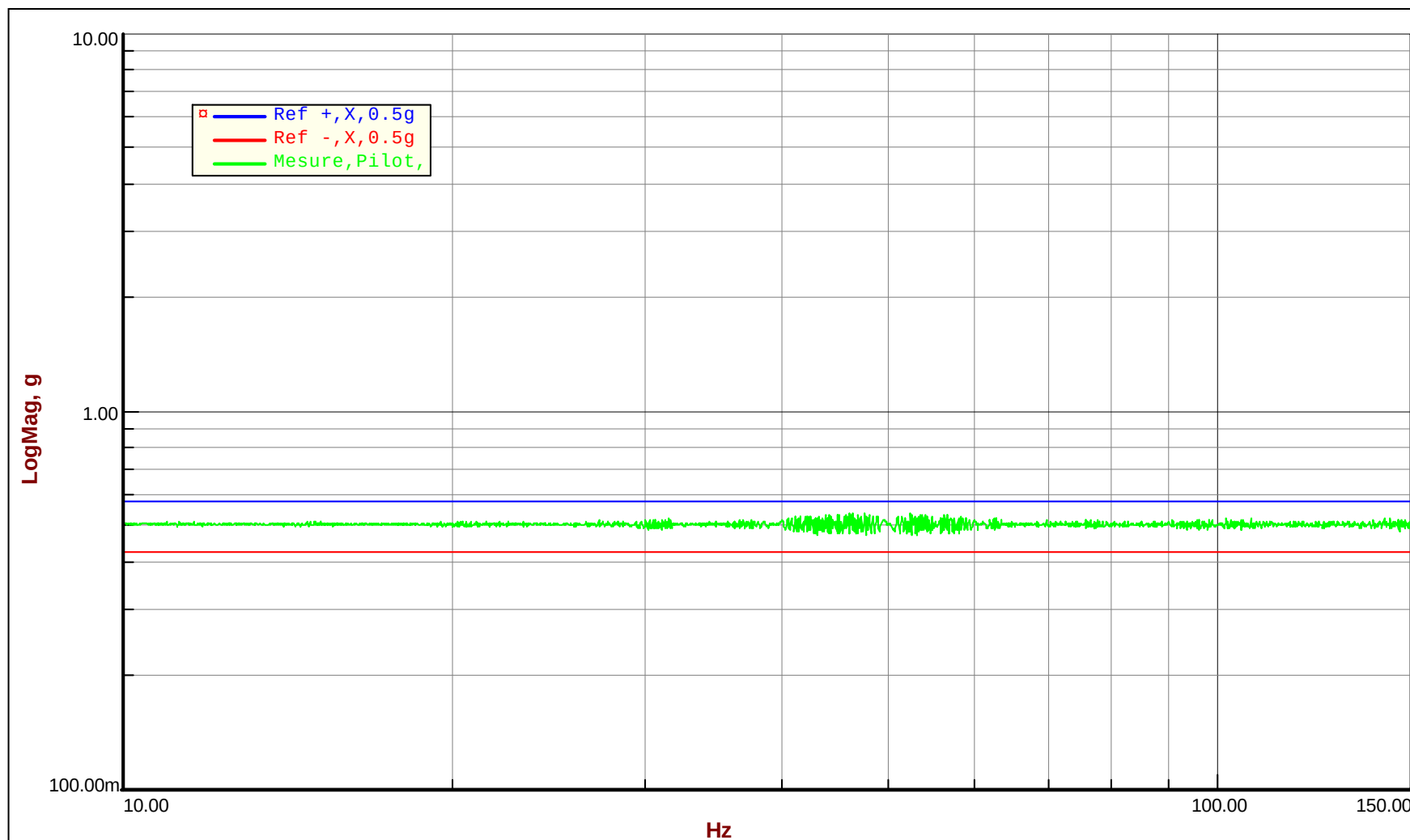


Photographs of silicon after OX axis

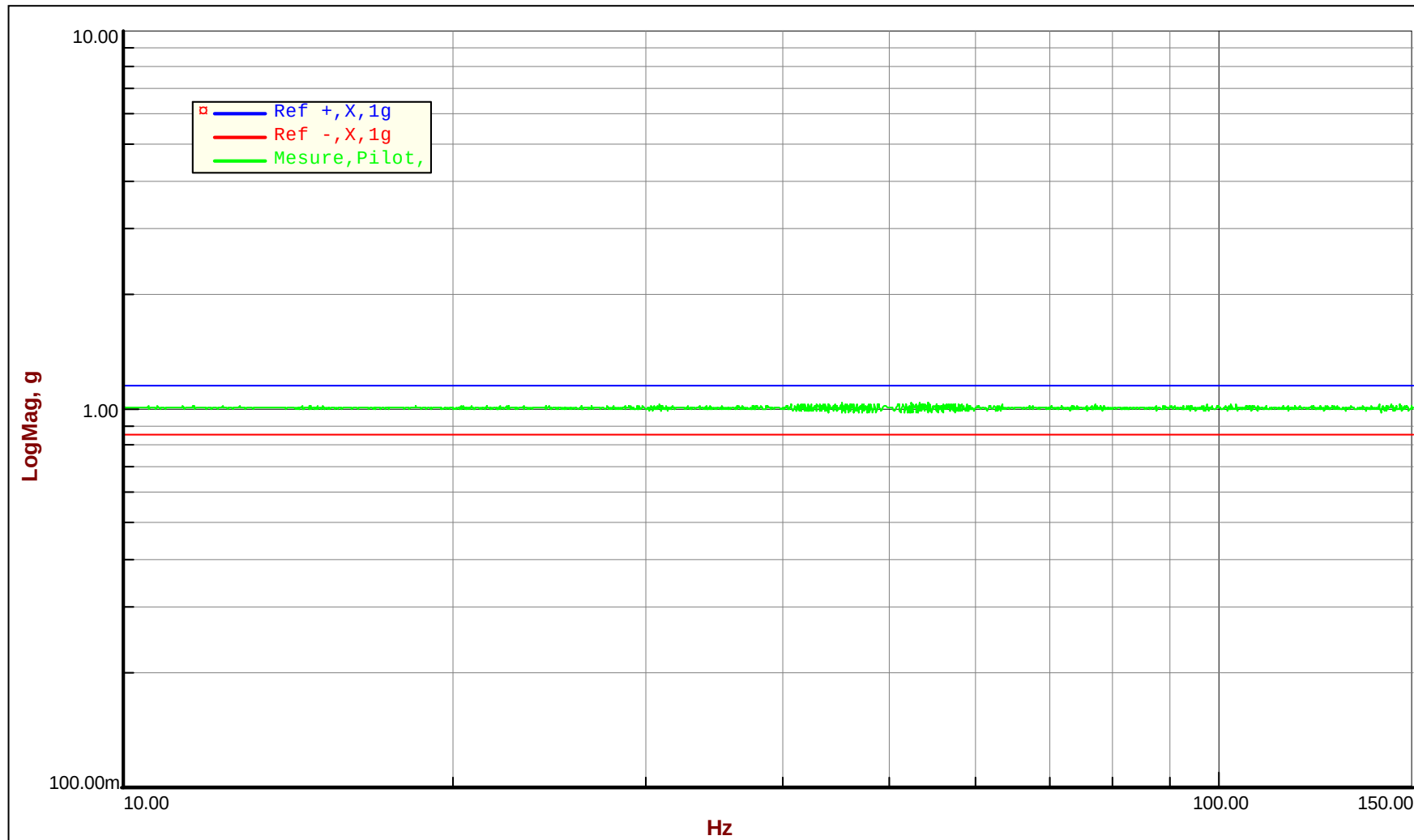


APPENDIX 2: Curves of vibrations

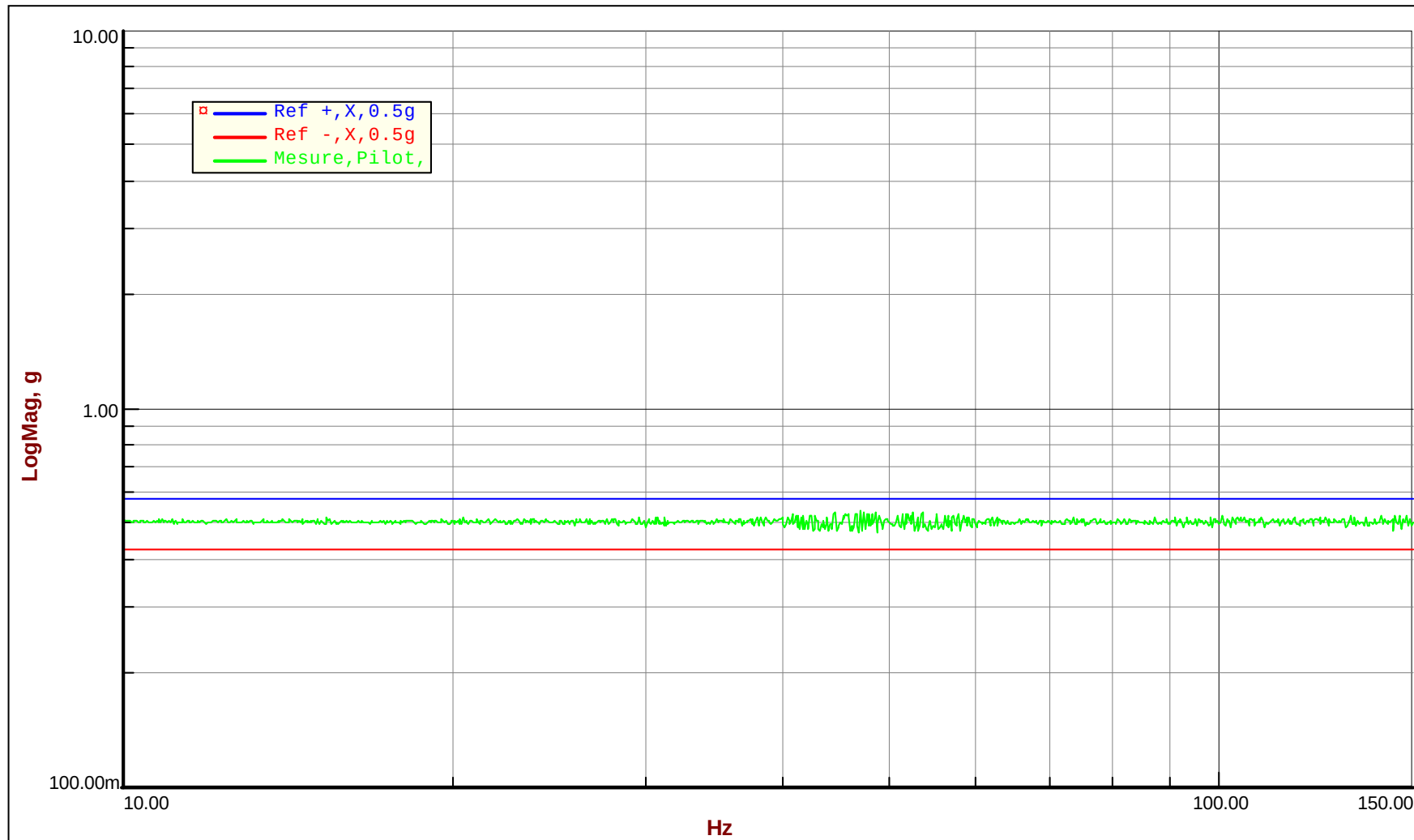
Equipment: A Radostat
Axis: OZ
Test: Operating sine vibrations



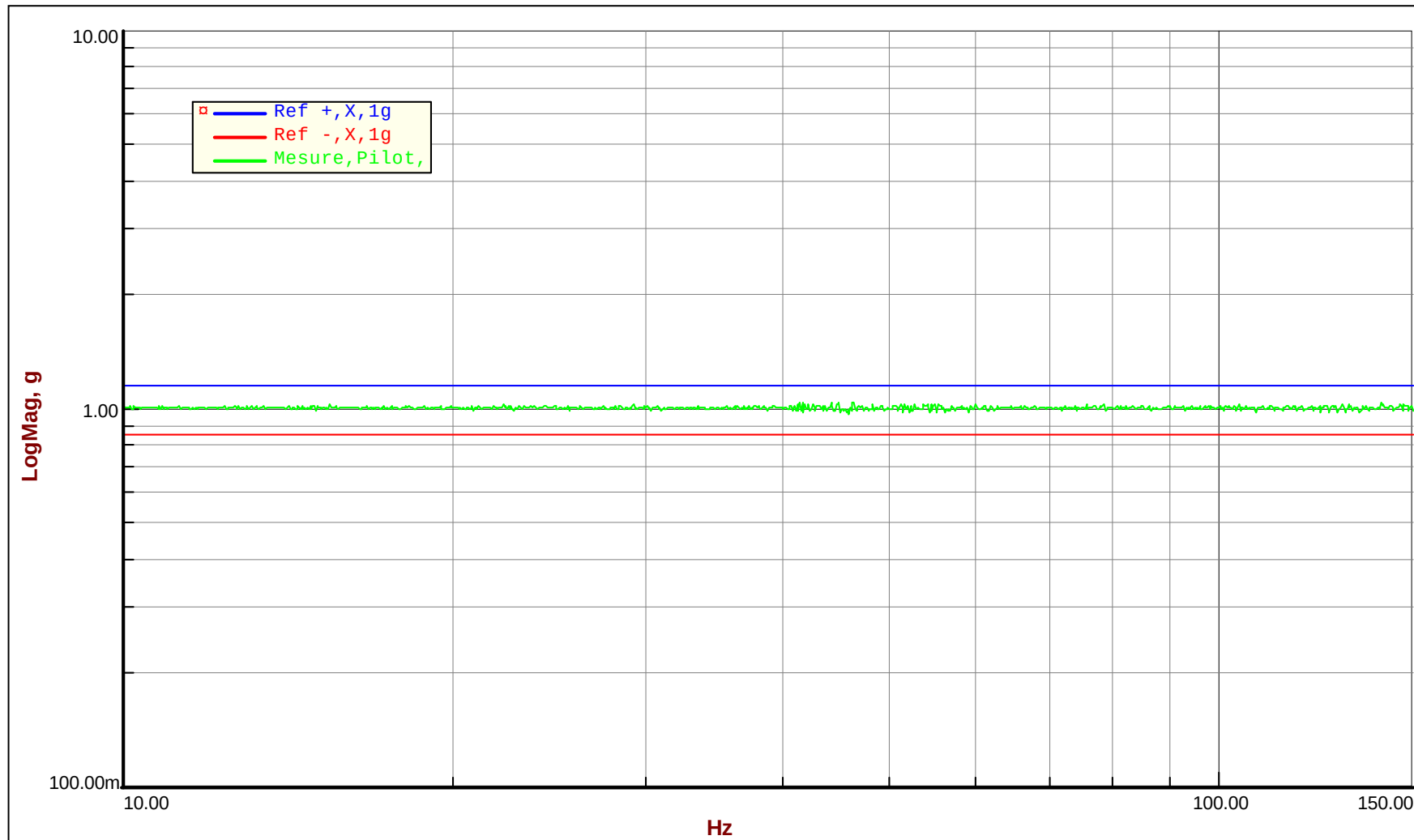
Equipment: A Radostat
Axis: OZ
Test: Not operating sine vibrations



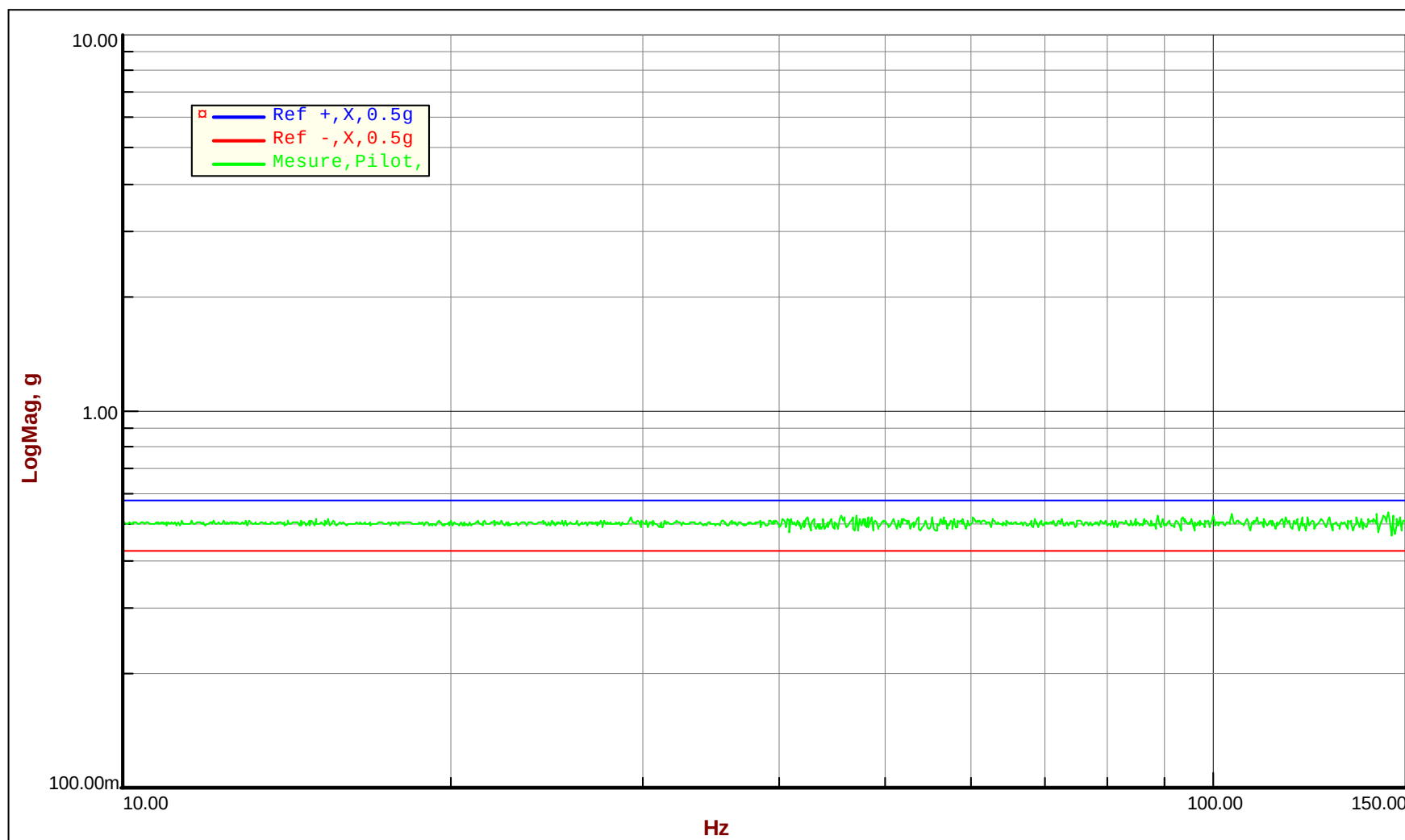
Equipment: A Radostat
Axis: OY
Test: Operating sine vibrations



Equipment: A Radostat
Axis: OY
Test: Not operating sine vibrations



Equipment: A Radostat
Axis: OX
Test: Operating sine vibrations



Equipment: A Radostat
Axis: OX
Test: Not operating sine vibrations

