

**TOSB BİAS OTOMOTİV TEST MERKEZİ**

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**TEST REPORT**



Test  
TS EN ISO/IEC 17025  
AB-1478-T

AB-1478-T

AR23-0085-1

05-23

**Customer Name/ Address** : Datakom Elektronik Mühendislik San. Ve Tic. A.Ş.  
Şerifali Mahallesi, Bayraktar Bulvarı, Kutup Sokak No:26, 34775  
Ümraniye/İSTANBUL

**Order No** : TEST221118ESİ01

**Name and Identity of Test Item** : Voltage Indicator

**The Date of Receipt of Test item** : 10.02.2023

**Date of Test** : 13.02.2023

**Number of Pages of The Report** : 9

BİAS Mühendislik Ltd. Şti. Gebze Branch Office accredited by TÜRKAK under registration number AB-1478-T for TS EN ISO/IEC 17025:2017 as test laboratory” TS EN ISO/IEC 17025:2017.

Turkish Accreditation Agency (TURKAK) is a signatory to the European co-operation for Accreditation (EA) Multilateral Agreement (MLA) and to the International Laboratory Accreditation Cooperation (ILAC) Mutual Recognition Arrangement (MRA) for the recognition of test reports.

The test and/or measurement results, the uncertainties (if applicable) with confidence probability and test methods are given on the following pages which are part of this report.



**Date**  
30.05.2023

**Person in charge of test**  
Batuhan AĞA

**Approval / Date**  
Şükrü ÖZEN

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**1. SAMPLE FEATURES**

**1.1.1. Model / Type** : DKM-185 LRM with Relay, DKM-185 LRM without Relay

**1.1.2. Trade Name** : Datakom

**1.1.3. Class** : -

**1.1.4. Categories** : -

**1.1.5. Sample Dimensions** : 100.2x53.2x37.1mm

**1.1.6. Serial Number** : -

Test results only belong to the sample that specified in that sheet.

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**2. TEST SPECIFICATIONS**

- 2.1. **Test Name** : Vibration test
- 2.2. **Test Time** : Each axis 3.5 hr / Total 10.5 hr
- 2.3. **Testing Standard** : \*TS EN 60068-2-6
- 2.4. **Test Performed** : Vibration test
- 2.5. **Information** : Report AR23-0085-0 is invalid. Report AR23-0085-1 is a revised version of report AR23-0085-0.
- 2.6. **Ambient Conditions** : 17±5°C and 35±6 %rh
- 2.7. **Measurement Uncertainty** : -
- 2.8. **Decision Rule** : Decision rule not applied.
- 2.9. **Disclaimer** : BIAS is not responsible for the accuracy of the information provided by the customer in this report and their impact on the validity of the results. The sample is provided by the customer and the results apply to the case when the sample is collected.
- 2.10. **Attendees** : -

**3. TEST INSTRUMENTATION**

Equipment Name	Brand/Model	Type/Serial Number	Calibration Validity Date
ELECTRODYNAMIC SHAKER	DONGLING / GT 600 / ES-10-240	D2107303	N/A
CONTROLLER	VR - VIBRATION RESEARCH / VR9500	951C4286	19.01.2024
ACCELEROMETER	DYTRAN / 3055D7	31381	23.08.2023
TEMPERATURE AND HUMIDITY DATALOGGER	TFA / LOG210	21022050111	28.11.2023

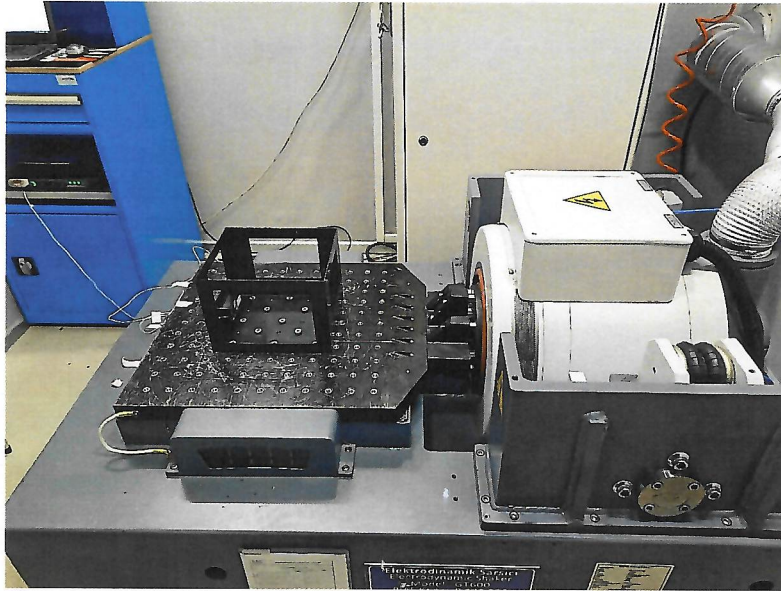
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**4. TESTS****4.1. VIBRATION TEST****4.1.1. TEST PROCEDURE**

The test performed according to TS EN 60068-2-6 standard.

- The sample is connected to the electrodynamic shaker together with the fixture.
- The test is applied at frequencies between 10 Hz and 150 Hz.
- A constant amplitude of  $\pm 0.15$  mm is applied in the range of 10 Hz to 58 Hz.
- 2g constant acceleration is applied in the range of 58 Hz to 150 Hz.
- The sample is vibrated for 3.5 hours per axis.
- The test is applied in all 3 axes.
- After the test, the samples are checked by the company.

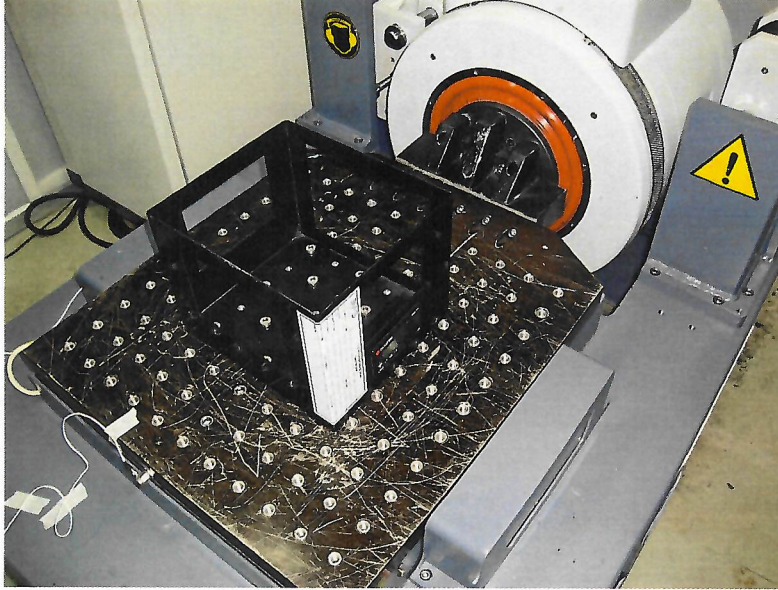
**4.1.2. TEST SETUP**

**FIGURE 4.1.2.1 : X Axis Test Setup**

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**FIGURE 4.1.2.2 : Y Axis Test Setup**

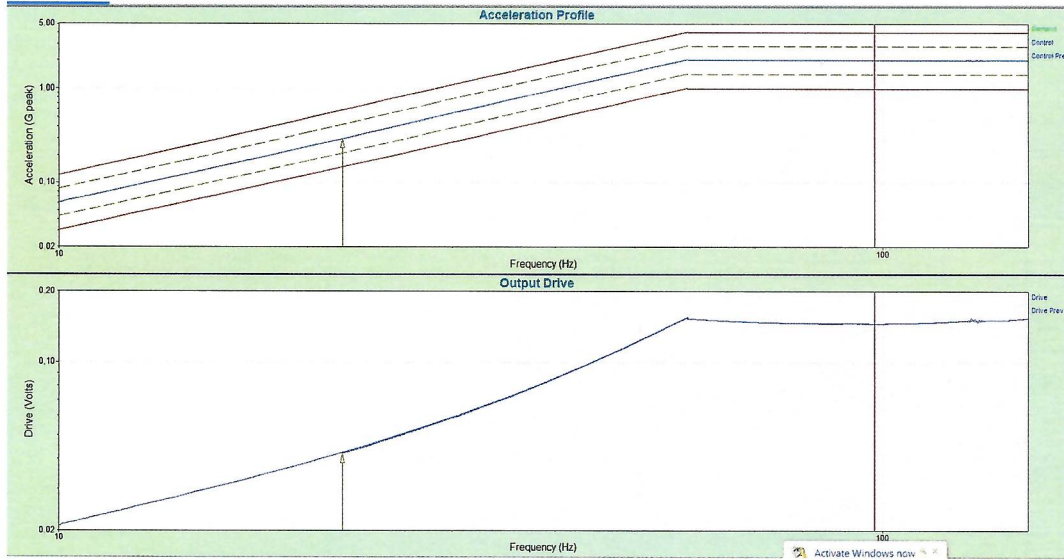


**FIGURE 4.1.2.3 : Z Axis Test Setup**

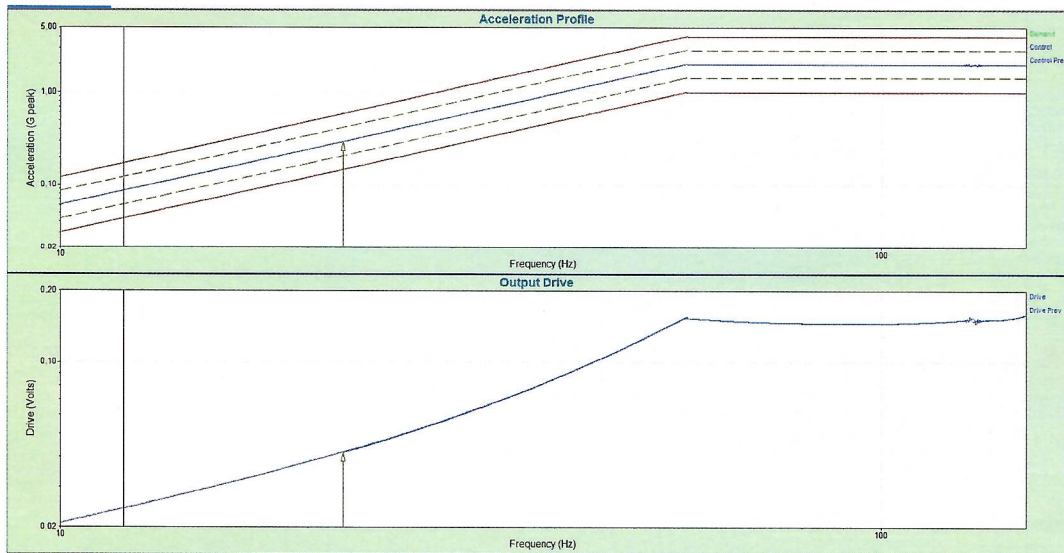
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#### 4.1.3. TEST DATA



**FIGURE 4.1.3.1 : X Axis Vibration Test Profile**

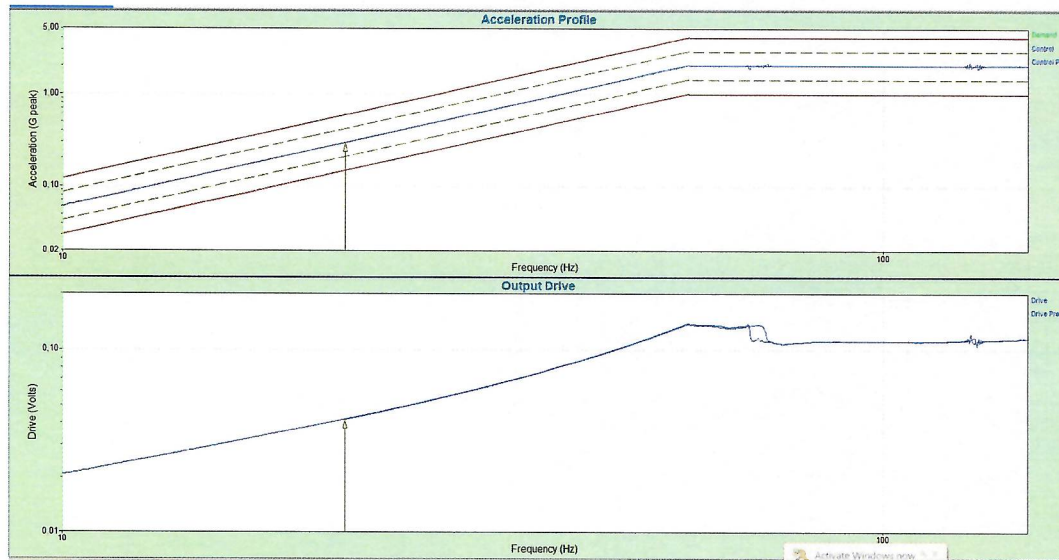


**FIGURE 4.1.3.2 : Y Axis Vibration Test Profile**

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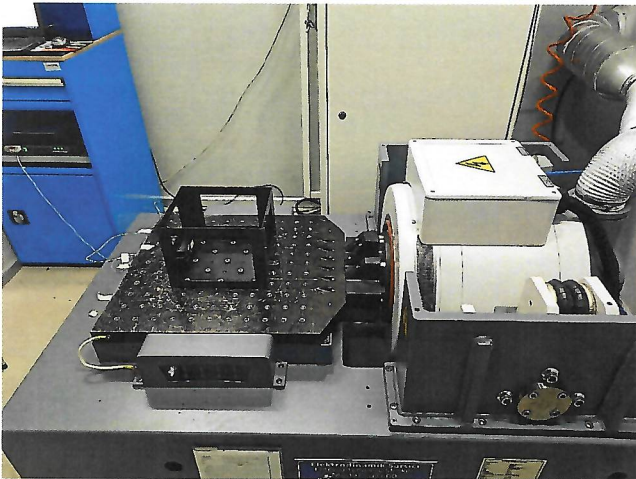
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**FIGURE 4.1.3.3 : Z Axis Vibration Test Profile**

## 5. PHOTOS



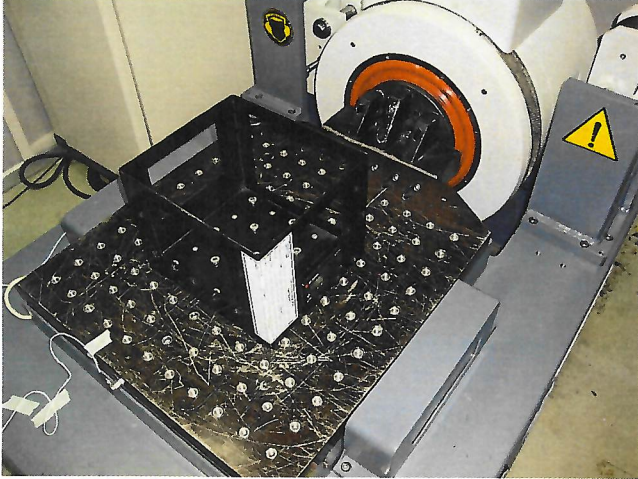
**PICTURE 5.1 : Before X Axis Vibration Test**



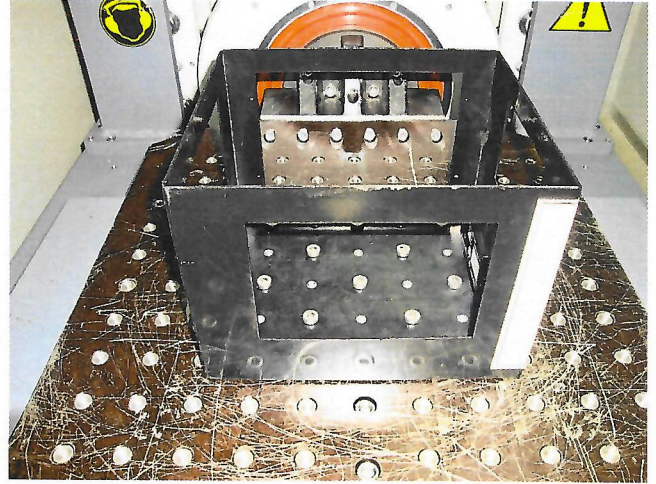
**PICTURE 5.2 : After X Axis Vibration Test**

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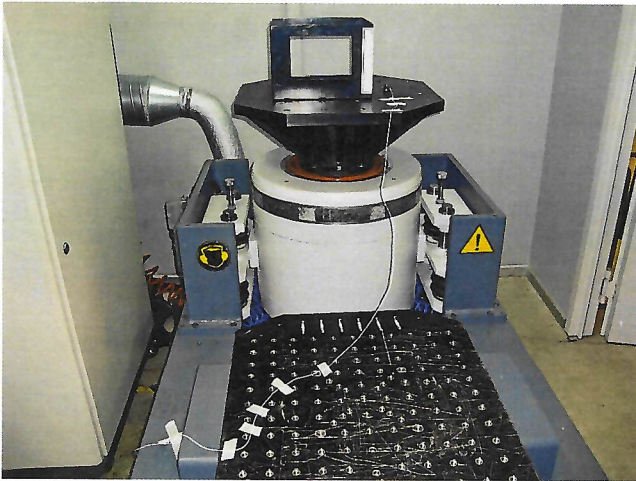
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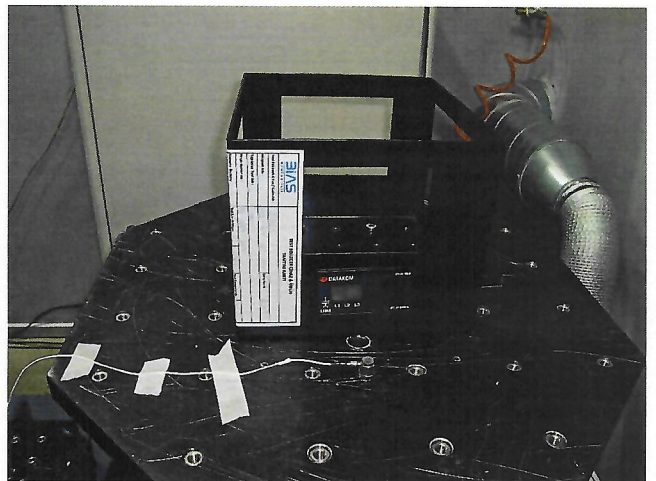
PICTURE 5.3 : Before Y Axis Vibration Test



PICTURE 5.4 : After Y Axis Vibration Test



PICTURE 5.5 : Before Z Axis Vibration Test



PICTURE 5.6 : After Z Axis Vibration Test

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**6. RESULT**

The vibration test was performed according to TS EN 60068-2-6 standard. Visually checks were performed after each axis. At the end of the test, no fracture, crack or deformation in the sample was seen.

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