

**Test Specification for Vibration Test**  
**(including Elma TreNew VME64x Standard Backplane)**

1. Test Setup:

VME64x "backplane" which is part of an aluminium test chassis. The chassis is - by its baseplate - screwed to a metal cube to be able to change the Vibration axes.

Backplane used during test: **VME64x Monolithic Backplane 5 slot**  
**Type 32210-205-0060 Rev.0.0**

2. Test Specification:

2.1 Random Vibration:

Acceptance Level:

Frequency Range: 5...2000 Hz

Effective Accel: 7 gRMS (0.0245 g\*/Hz)

Duration: 15 minutes/Axis

Qualification Level:

Frequency Range 5..2000 Hz

Effective Accel: 14 gRMS (0.1 g\*/Hz)

Dotation.1 2x30 minutes/Axis

2.2 ShockTest:

Qualification Level: halfsine 40g, 11ms, +5 -5 Shocks /Axis

halfsine 100g, 6ms, +5 -5 Shocks/Axis

3. Test Procedure:

- a) Initial Functional Test
- b) Random Vibration Acceptance Level all 3 Axes
- c) Random Vibration Qualification Level Axis Z
- d) Shock Test Axis Z
- e) Repeat c/d for Axis Y
- f) Repeat c/d for Axis X

Summary:

The complete module was tested to verify robustness during random Vibration and shock stress. All tests were passed successfully.

Test Procedure:

Success Criteria: No errors shall be detected by the functional tests (specialized diagnostic test Software) performed during the Vibration test. No mechanical degradation shall be observed after the test.

The random Vibration and shock tests were performed as outlined in the „Test Specification for Vibration Test“. The entire vibration test was performed successfully.

**Test Result: All random Vibration and shock tests were passed successfully:**

- there was no mechanical failure detected, the test was passed without any degradation
- there were no electrical failures detected during operation/between tests