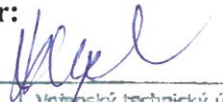


Vojenský technický ústav, s.p. With the certified quality system according to ČSN EN ISO 9001 Equipment Testing Centre EMC Testing Laboratory		Task/Order No.: 25-19-5-93-3074/Z04 Test Report No: 194300-058/2025 Copy No.: 1 Pages: 5 Annexes: -
TEST REPORT ENVIRONMENTAL TESTING		
Name and Address of Applicant: (Customer)		SEC Technologies, s.r.o. 1. Mája 4269/031, 031 01 Liptovský Mikuláš, Slovenská republika
Identification of Equipment under test:		MTU-1A2 Pan Tilt Positioner
Type:		MTU-1A2
Serial Number:		MU0109
Manufacturer:		EVPÚ Defence a.s. Jaktáře 1781, 686 01 Uherské Hradiště, Česká republika
Technical documentation:		-
Test method: ¹⁾		MIL STD 810G method 521.4
Date of acceptance for testing: 18. 12. 2024	Tests leader: Ing. Petr Čamra test engineer 	
Date of test, place of test: 13. 02. to 15. 02. 2025 EMC testing laboratory, Vyškov	Test carried out by: Ing. Petr Čamra test engineer 	
Issue date: 25. 02. 2025	Authorized by technical manager: Ing. Petr Kupka technical manager 	
Test Results: Test results are on next pages of the test report. <i>Present extended measuring uncertainty is product of standard measuring uncertainty and extension factor of k = 2, what is 95 % probability of covering for normal distribution.</i>		
Address: Vojenský technický ústav, s.p. Odštěpný závod VTÚPV, Equipment Testing Centre Víta Nejedlého 691 682 01 Vyškov Czech Republic		Notes: This test report is a translation of the test report No.194300-058/2025. In case of differences, the Czech version applies. ¹⁾ Method used according to: MIL STD 810G Change 1:2014.
Telephone: +420 910 105 641 Email: petr.camra@vtusp.cz		

The test results contained in this report relate to the tested item as received. This report shall not be reproduced other than in its entirety and only with written approval of the Testing Laboratory. The Testing Laboratory is not responsible for the data and information provided by the customer, which may affect the validity of the results.

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1 LIST OF TEST INSTRUMENTS

Table 1 List of test instruments

Metrological/Inventory No.:	Instrument Name:	Calibration to:
19140010	Climatic chamber Heraeus Vötsch VSKZ 07/110	-
44b-61874	Datalogger AHLBORN ALMEMO 710	06/2025
32b-61624	Temperature sensor ALMEMO FHAD36RAIC102	06/2025
11i-60259	DIGIMATIC digital caliper	06/2026

2 TESTED EQUIPMENT

2.1 Name and type

Name: MTU-1A2 Pan Tilt Positioner
 Type: MTU-1A2
 Serial No.: MU0109
 Dimensions (L x W x H): 558 x 280 x 472 mm
 Weight: 28 kg

2.2 Configuration

MTU-1A2 Pan Tilt Positioner
 Laptop lenovo ThinkPad T14 Gen 4, S/N: PF-4P3TM3
 - With program Falcon4GVT64, version: 05.07
 USB desktop joystick APEM 100350
 FIU MOXA Converter, S/N: 0208-BD_001
 PeakTech 6226 Power Supply, S/N: 591936

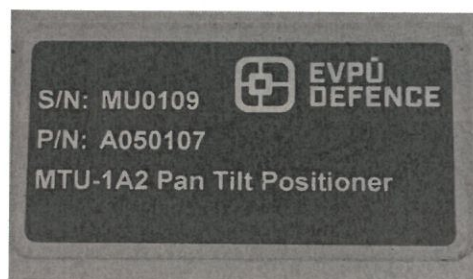
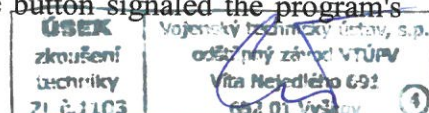


Figure 1 Production label of the tested equipment

2.3 Function verification method

The function of the tested device was always checked before and after the test (after acclimatization of the EUT to laboratory temperature). The test equipment performed several rotations about its axis in both directions and several tilts of the platform to the end positions during one inspection. Smoothness of turning and tilting was monitored. In the Falcon4GVT64 program, the status and color backlighting of the button labeled PLT was monitored. The button signaled the program's communication with the MTU-1A2 platform.



3 TEST RESULTS

3.1 Icing/freezing rain

The equipment under test (EUT) was placed in a climatic chamber and then the temperature was set according to the corresponding degree of severity.

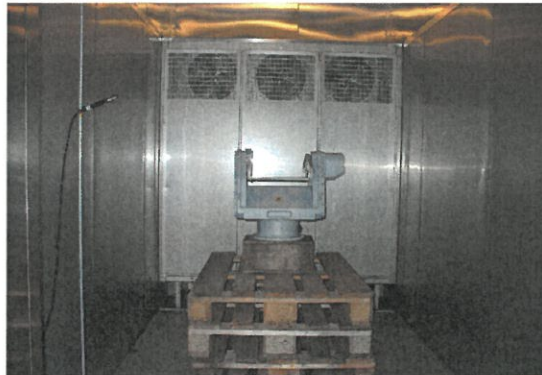


Figure 2 Tested equipment in the climate chamber Heraeus Vötsch VSKZ 07/110

3.1.1 Test condition set by the applicant

- Test was carried out according to MIL STD 810G Change 1:2014, method 521.4,
- Test temperature in climatic chamber: -10 ± 2 °C,
- The exposure time after icing on the device was 5 hours,
- The thickness of the ice on the EUT was 6 mm,
- Tests carried out in a climatic chamber with forced air at $1 \text{ m/s} \pm 0.3 \text{ m/s}$,
- Equipment was without power voltage during test.

3.1.2 Course of the tests and response of EUT

Step 1

The temperature in the climate chamber was set to 0°C. After reaching temperature equilibrium, the tested device was rinsed with distilled water for 1 hour.

Step 2

The temperature in the climate chamber was reduced to -10 °C. Spraying with distilled water was carried out at intervals of 20 minutes from each side of the EUT until the desired ice layer was formed. Ice build-up occurred from drizzle falling on the EUT, whose temperature was below freezing.

Step 3

After reaching the desired amount of icing, the spraying was stopped. The temperature in the climate chamber was maintained at -10 °C for at least 5 hours.

Step 4

The temperature in the climatic chamber was gradually increased to +17 °C. These conditions were maintained in the chamber until the ice was spontaneously removed from the tested device.

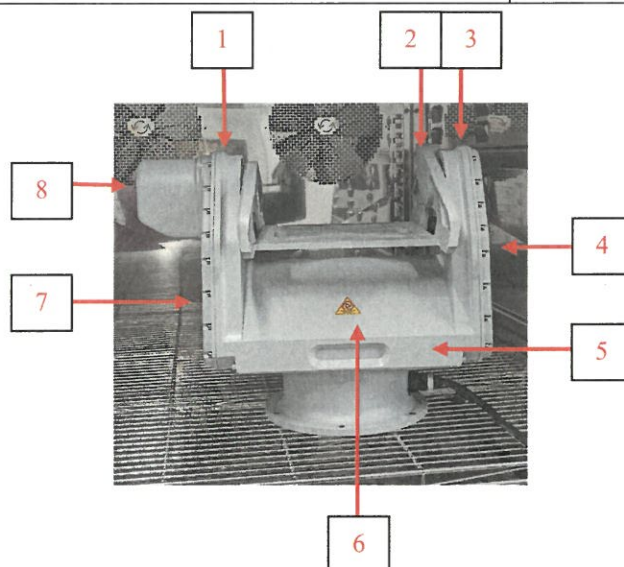


Figure 3 Measuring points on the device under test

Table 2 Ice thickness at measuring points

Measuring point	1	2	3	4	5	6	7	8	Top connector	Bottom connector
Ice thickness [mm]	6,24	6,81	6,14	6,27	7,11	7,91	6,39	6,07	6,82	6,13



Figure 4 Tested device after the required ice layer is formed



Figure 5 Detail of the EUT with a layer of ice

MTU-1A2 Pan Tilt Positioner (production number: MU0109) was tested by icing/freezing rain without visual damage and the tested function (paragraph 2.3) was functional.

THE END OF THE TEST REPORT