

Element Materials Technology Denver-Longmont A.K.A. NTS Labs, LLC Test Report for Environmental Testing of the ClearCount

Prepared For

Pro V&V, Inc | 6705 Odyssey Drive, Suite C | Huntsville, AL 35806

Prepared By

Element Materials Technology Denver-Longmont | 1601 Dry Creek Drive, Suite 2000 | Longmont, CO 80503 | 303-776-7249 | www.element.com

Lori Hartman Preparer Michael Bosica Program Manager

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Revision History

Rev.	Description	Issue Date
0	Initial Release	09/27/2024



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1.0 Introduction

This document presents the test procedures used and the results obtained during the performance of an Environmental test program at Element Materials Technology Denver-Longmont (hereafter referred to as "Element"). The test program was conducted to assess the ability of the specified Equipment Under Test (EUT) to successfully satisfy the requirements defined in the test specification.

2.0 References

The following references listed below form a part of this document to the extent specified herein.

- Test Specification: MIL-STD-810D, Method 502.2 and Method 501.2
- Pro V&V, Inc Purchase Order 2024-008 dated 07/19/2024.
- Element Quotation OP0660883 dated 07/03/2024.
- ISO/IEC 17025:2017(E) General Requirements for the Competence of Testing and Calibration Laboratories, dated 11/2017.

3.0 Product Selection and Description

Pro V&V, Inc selected and provided the following test sample(s) to be used as the Equipment Under Test.

Table 3.0-1: Product Identification – Equipment Under Test (EUT)

Item	Qty.	Name/Description	Part Number	Serial Number	
1	3	RICOH 8950 Scanner	None	CLAC000020, CLAC000021, CLAC000022	
2	5	Dell Latitude 5590	None	567ZHR2, BWV7XT2, DDGCTT2, 339CTT2, 3CT9MQ2	
3	1	Dell Latitude 5550	None	90RS8243	
4	3	RICOH 7600 Scanner	None	AUKDH00276, AUKDH00282, AUKDH00283	

3.1 Security Classification

Non-classified, ITAR

4.0 General Test Requirements

4.1 Test Equipment

The instrumentation used in the performance of these tests is periodically calibrated and standardized within manufacturer's rated accuracies and are traceable to the National Institute of Standards and Technology. The calibration procedures and practices are in accordance with ISO 17025:2017. Certification of calibration is on file subject to inspection by authorized personnel.



5.0 Test Description and Results

Table 5.0-1: Summary of Test Information & Results

Section	Test	Specification	Test Facility	Test Date	Part #	Serial #	Test Result
					None	CLAC000020, CLAC000021, CLAC000022	
5.1	Temperature/Humidity	MIL-STD-810D, Method 502.2 and Method 501.2	Longmont	09/23/2024 - 09/23/2024	None	567ZHR2, BWV7XT2, DDGCTT2, 339CTT2, 3CT9MQ2	Customer
					None	90RS8243	Determination
					None	AUKDH00276, AUKDH00282, AUKDH00283	



5.1 Temperature/Humidity

5.1.1 Test Procedure

MIL-STD-810D, Method 502.2 and Method 501.2

5.1.2 Test Result

The EUT's results will be determined by Pro V & V, Inc.

5.1.3 Test Datasheets

		Т	est Log					
MJO No: PR184737		Customer: Pro V&V	Customer: Pro V&V Test Specification: MIL-STD-810D, Method 502.2 and Method 501.2					
Date	Time		Log Entry	Tech				
0/00/0004	0100			101				
9/23/2024	2100	No visible evidence of damage be	efore testing.	KM				
9/23/24 9/23/24	2100 2115	Set VAC to 117vlts & ramp to +10c		KM KM				
(10.00)	0115	Start dwell at 117vlts & +10c for 4hr Lower VAC to 105vlts & dwell for 4h		KM				
9/24/24 9/24/24	0515			CS				
9/24/24	0915	Raise VAC to 129vlts & dwell for 4h Lower VAC to 117vlts & Raise temp	SECTION AND ADDRESS OF THE SECTION ADDRESS OF THE SECTION ADDRESS OF THE SECTION ADDRESS OF THE SECTION AND ADDRESS OF THE SECTION ADDRESS OF THE SECTION AND ADDRESS OF THE SECTION ADDRESS OF	MB				
9/24/24	1315	Lower VAC to 1177/its & haise temp		CS				
9/24/24	1715	Raise VAC to 103vits & dwell for 4h		KM				
9/24/24	2115	Lower VAC to 117vlts & Lower temp		KM				
9/25/24	0115	Lower VAC to 1177/its & Lower terms		KM				
9/25/24	0515	Raise VAC to 103vits & dwell for 4h		CS				
9/25/24	0915	Lower VAC to 117vlts & Raise temp		CS				
9/25/24	1315	Lower VAC to 105vits & dwell for 4h		CS				
9/25/24	1715	Raise VAC to 109vits & dwell for 4h		KM				
9/25/24	2115		alse VAC to 129vits & dwell for 4hrs ower VAC to 117vlts & ramp to +23c ambient					
9/25/24	2115	emperature and power variation portion of test has completed						
9/25/24	2115	est will continue to run at +23c ambient for another 16hrs						
9/26/24	1315	All Testing complete for a total of 64		KM CS				
		Note: All test pass or fail determinat						
			,					



5.1.4 Test Photographs



Pre-Exposure



Pre-Exposure





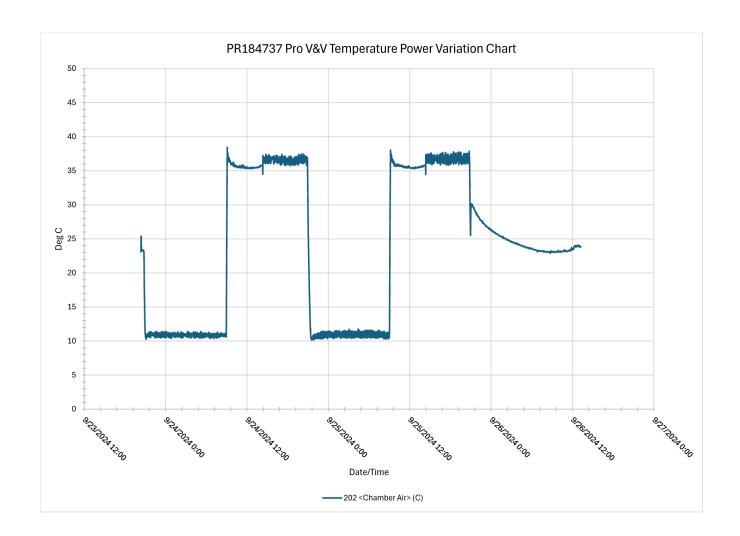
Post Exposure



Post Exposure



5.1.5 Test Data





5.1.6 Test Equipment List

Table 5.1-1: Temperature/Humidity Test Equipment List

Asset Number	Asset Type	Manufacturer	Model	Calibrated	Due
WC061559	Chamber (Temperature/Humidity)	StorageTek	Large Walk In	NCR	NCR
WC059725	Module (Magnetics)	Pacific Power Source	Mag Module 134350	NCR	NCR
WC059726	Power Supply (AC)	Pacific Power Source	3120AMXT-UPC32	NCR	NCR
WC059727	Module (Magnetics)	Pacific Power Source	Mag Module 134350	NCR	NCR
WC059728	Power Supply (AC)	Pacific Power Source	3120AMXT	NCR	NCR
WC070361	Data Acquisition (Board/Card)	Agilent Technologies	34901A	02/13/2024	02/13/2025
WC080891	Data Acquisition (Board/Card)	Agilent Technologies	34901A	02/13/2024	02/13/2025
WC084313	System (Data Acquisition)	Agilent Technologies	34970A	02/13/2024	02/13/2025

Calibration Abbreviations

CAL: Calibration

NCR: No Calibration Required



End of Test Report