

# National Technical Systems Test Report for Environmental Testing of the Dominion Scanner

**Prepared For**

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### Revision History

Rev.	Description	Issue Date
0	TR-PR114050	03/20/2020

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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. The test program was conducted to assess the ability of the specified Equipment Under Test (EUT) to successfully satisfy the requirements listed in Section 2.0.

### 2.0 References

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

- Pro V&V, Inc. Purchase Order(s) 2020-002, dated 02/24/2020
- National Technical Systems (NTS) Quote(s) OP0544127, dated 02/21/2020
- NTS Corporate Quality Policy Manual, Revision 9, dated 9/20/2018
- ISO/IEC 17025:2017(E) *General Requirements for the Competence of Testing and Calibration Laboratories*, dated 11/1/2017
- Test Specification: MIL STD 810

### 3.0 Product Selection and Description

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

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

Item	Qty.	Name/Description	Part Number	Serial Number
1	1	Dominion Scanner	Dominion Scanner	See Table 3.0-2

**Table 3.0-2: Dominion Scanner Components**

Dominion Scanner			
Qty	Part Name	Part Number	Serial Number
1	Cannon ImageFORMULA	3149C002	JF302075
1	Cannon ImageFORMULA	3149C002	JF302076
1	Cannon ImageFORMULA	3149C002	JF302078
1	Dell Optiplex 3050	N/A	1F6CH02
1	Dell Optiplex 3050	N/A	1F8FHQ2

### 3.1 Security Classification

Non-classified

### 4.0 General Test Requirements

#### 4.1 Test Equipment

NTS-provided equipment is calibrated according to ISO/IEC 17025:2017(E) and calibration is traceable to the National Institute of Standards and Technology (NIST). Calibration records are maintained on file at NTS.

#### 4.2 Notice of Deviation

In accordance with NTS' quality procedures, when the EUT is observed to exceed or display susceptibility, a Notice of Deviation (NOD) document is generated by the technician performing the test. This NOD documents the requirement, how the EUT deviated from the requirement, and allows room for resolution of the deviation.

This document is reviewed and approved by the NTS Program Manager or Engineer and the NTS Quality Assurance Representative, and then forwarded to the customer contact. Once mitigated (or passed over), the steps taken to correct the deviation (or simply instruction from the customer to continue testing) are recorded in the NOD and a copy of the NOD is integrated into the body of the report, in the appropriate location.



## 5.0 Test Descriptions and Results

**Table 5.0-1: Summary of Test Information & Results**

Section	Test	Specification	Test Facility	Test Date	Part #	Serial #	Test Result*
5.1	Temperature/Power Variation	MIL STD 810	Longmont	03/09/2020 - 03/12/2020	Dominion Scanner	See Table 3.0-2	N/A

\*The decision rule used to state compliance is in accordance with the test specification used for testing.



**5.1 Temperature/Power Variation**

**5.1.1 Test Result**

N/A

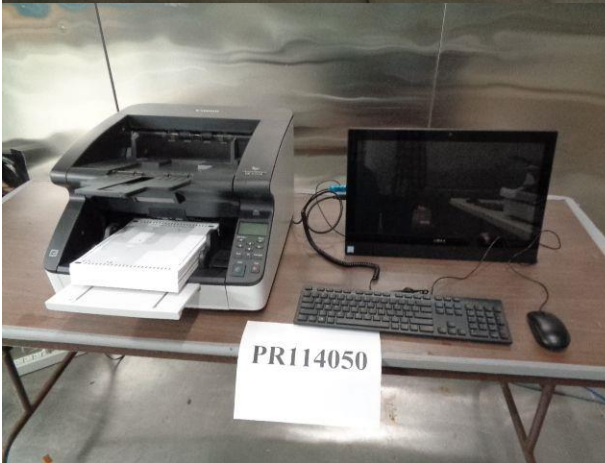
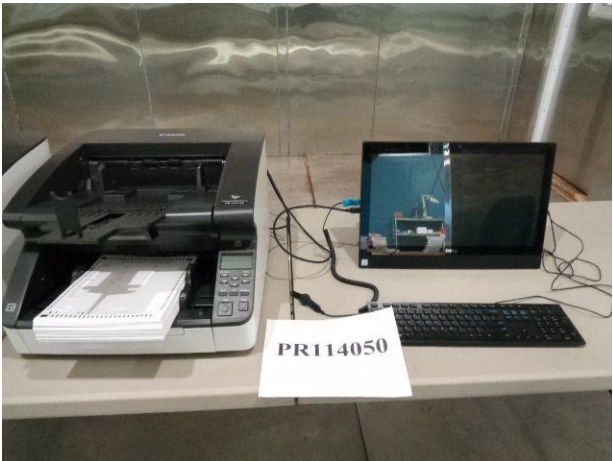
**5.1.2 Test Procedure**

See below.

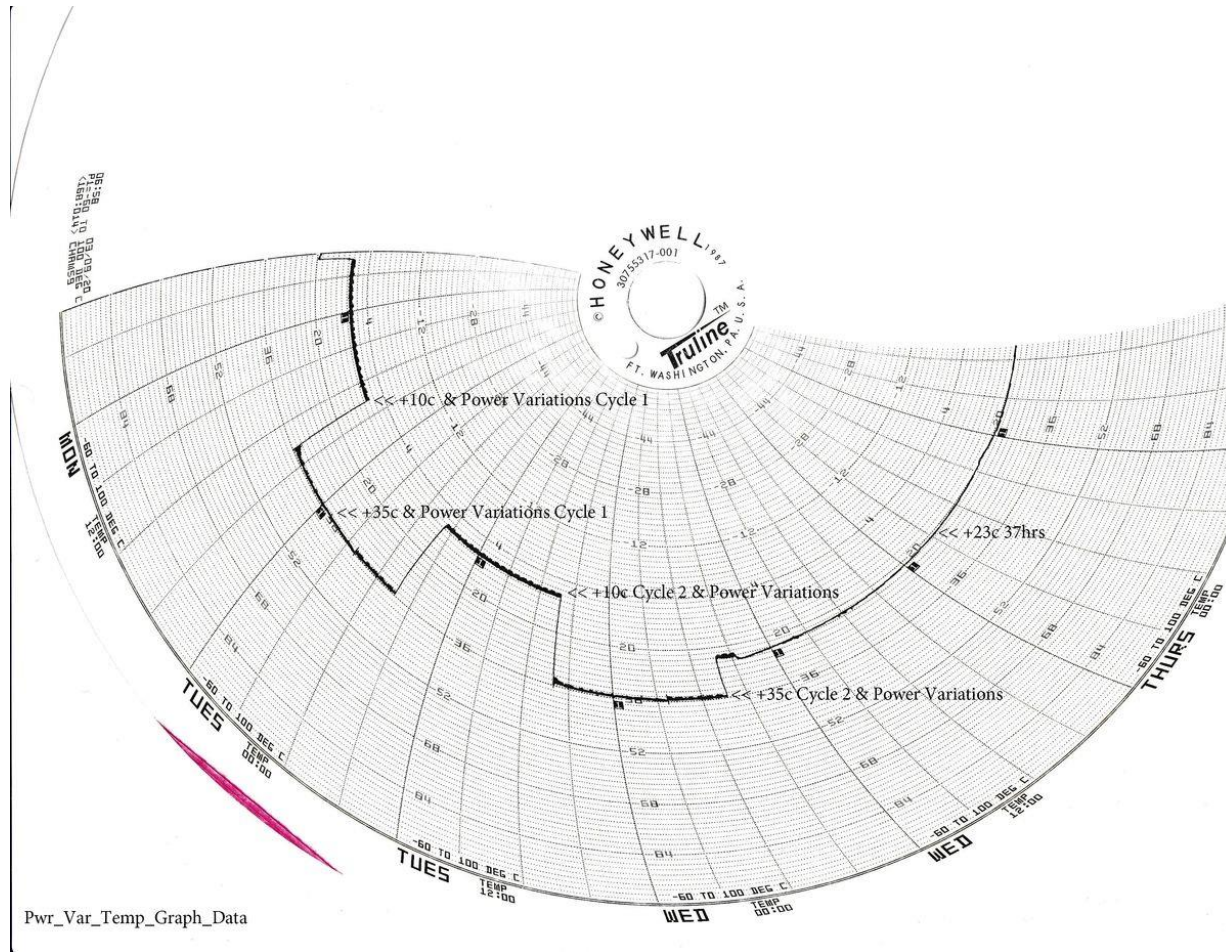
**5.1.3 Test Datasheets**

Start Date: 03/09/20		End Date: 03/12/20	<b>MJO No: PR114050</b>
Customer: Pro V&V (Dominion)		Test Performed: Temperature Power Variation Test	Test By: KM
Part Name: Scanner's Qty-3, PC's Qty-2		Serial No & Name: See UUT Details Sheet	Customer Witness: N/A
Page 1 of 1		Test Specification: MIL-STD_810D	Temp: +10c to +35c Voltage: 105vlts to 129vlts
Date	Time	Remarks	Initials
03/09/20	08:25	Set VAC to 117vlts & ramp to +10c	RSP
03/09/20	08:45	Start dwell at 117vlts & +10c for 4hrs	RSP
03/09/20	12:45	Lower VAC to 105vlts & dwell for 4hrs	CL
03/09/20	16:45	Raise VAC to 129vlts & dwell for 4hrs	KM
03/09/20	20:45	Lower VAC to 117vlts & Raise temperature to +35c & dwell for 4hrs	KM
03/10/20	00:45	Lower VAC to 105vlts & dwell for 4hrs	KM
03/10/20	04:45	Raise VAC to 129vlts & dwell for 4hrs	KM
03/10/20	08:45	Lower VAC to 117vlts & Lower temperature to +10c & dwell for 4hrs	CL
03/10/20	12:45	Lower VAC to 105vlts & dwell for 4hrs	CL
03/10/20	16:45	Raise VAC to 129vlts & dwell for 4hrs	KM
03/10/20	20:45	Lower VAC to 117vlts & Raise temperature to +35c & dwell for 4hrs	KM
03/11/20	00:45	Lower VAC to 105vlts & dwell for 4hrs	KM
03/11/20	04:45	Raise VAC to 129vlts & dwell for 4hrs	KM
03/11/20	08:45	Lower VAC to 117vlts & ramp to +23c ambient	CL
03/11/20	08:45	Temperature and power variation portion of test has completed	KM
03/11/20	08:45	Test will continue to run at +23c ambient for another 37hrs	KM
03/12/20	21:30	All Testing complete for a total of 85hrs	KM
Note: All test pass or fail determinations decided by Pro V&V Inc.			

### 5.1.4 Test Photographs



5.1.5 Test Data







### 5.1.6 Test Equipment List

**Table 5.1-1: Temperature/Power Variation Test Equipment List**

Asset Number	Manufacturer	Description	M/N	S/N	Range	Start Date	End Date	Last Calibration	Cal Interval (Months)	Cal Due	Notes
WC061559	StorageTek	Temp/Hum chamber, CH 59	N/A			03/09/2020	03/13/2020	09/19/2019	12	09/19/2020	
WC061560	Watlow	TEMPERATURE CONTROLLER	F4	6165	Multi / Mfg	03/09/2020	03/13/2020	09/19/2019	12	09/19/2020	
WC061561	Honeywell	CHART RECORDER	DR45A T	'0350Y3 613409 00004	Multi / Mfg	03/09/2020	03/13/2020	09/19/2019	12	09/19/2020	

**Calibration Abbreviations**

CAL: Calibration

NCR: No Calibration Required



**End of Report**