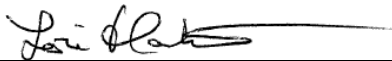


Element Materials Technology Denver-Longmont A.K.A. NTS Labs, LLC Test Report for Electromagnetic Interference (EMI) Testing of the Vx Mark

Prepared For

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Revision History

Rev.	Description	Issue Date
0	Initial Release	10/31/2025
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1.0 Introduction

This document presents the test procedures used and the results obtained during the performance of an Electromagnetic Interference (EMI) 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: See Table 5.0-1
- SLI Compliance Purchase Order 20250917-02 dated 09/17/2025
- Element Quotation OP0679042 dated 09/11/2025
- ISO/IEC 17025:2017(E) *General Requirements for the Competence of Testing and Calibration Laboratories*, dated 11/2017

3.0 Product Selection and Description

SLI Compliance 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	2	Vx Mark	V4.0.0	MK-11-004, MK-11-007
2	3	APC Battery Backup	BE850G2	0B2408L49020, 0B2502L48055, 0B2408L35863
3	1	Sip and Puff	AC-0300-AV1V2	7855
5	2	ATI Pad	ATI	CNGKPDAA01020654, CNGKPDAA1011539
8	1	Lorelei Headphones	Lorelei	N/A

3.1 Security Classification

Non-classified

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.

4.2 Measurement Uncertainties

ISO/IEC 17025 requires that an estimate of the measurement uncertainties associated with the emissions test results be included in the report. The measurement uncertainties given below were calculated using the approach described in CISPR 16-4-2:2003 using a coverage factor of $k=2$, which gives a level of confidence of approximately 95%. The levels were found to be below levels of CISPR and therefore no adjustment of the data for measurement uncertainty is required.

Table 4.2-1: Measurement Uncertainties (Immunity)

Measurement Type	Measurement Unit	Frequency Range	Expanded Uncertainty
Radiated Immunity	V/m	80MHz - 10GHz	.-26.3% to 29.97%
ESD	KV	NA	./+/- 8.6%
Fast Transients	Voltage	NA	./+/- 5.98%
	Time	NA	./+/- 8.6%
Surge	Voltage	NA	./+/- 4.9%
Conducted Immunity (CDN)	Voltage	NA	.-12.6% to 13.3%
Conducted Immunity (BCI)	Voltage	NA	.-13.5% to 15.3%
Voltage Dips / Interrupts	Voltage	NA	./+/- 2.3%
	Time	NA	./+/- 0.08 ms
Magnetic Immunity	Amps	NA	./+/- 0.8%
Pulsed Magnetic Immunity	Amps	NA	./+/- 9.9%

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
5.1	Electrostatic Discharge	VVSG	Longmont	10/24/2025	V4.0.0	MK-11-004	Failed
					AC-0300-AV1V2	7855	Passed
					BE850G2	0B2408L35863	Passed
					ATI	CNGKPDAA1011539	Passed
					Lorelei	N/A	Passed
5.2	Radiated RF Immunity	VVSG	Longmont	10/21/2025 - 10/22/2025	V4.0.0	MK-11-004	Passed
					BE850G2	0B2408L49020	
					AC-0300-AV1V2	7855	
					ATI	CNGKPDAA1011539	
					Lorelei	N/A	
5.3	Electrical Fast Transient / Burst	VVSG	Longmont	10/22/2025	V4.0.0	MK-11-007	Passed
					AC-0300-AV1V2	7855	
					BE850G2	0B2408L49020	
					ATI	CNGKPDAA01020654	
					Lorelei	N/A	
5.4	Surge Immunity	VVSG	Longmont	10/22/2025 - 10/23/2025	V4.0.0	MK-11-007	Passed
					AC-0300-AV1V2	7855	
					BE850G2	0B2502L48055	
					ATI	CNGKPDAA1011539	
					Lorelei	N/A	
5.5	Conducted RF Immunity	VVSG	Longmont	10/23/2025	V4.0.0	MK-11-004	Passed
					AC-0300-AV1V2	7855	
					BE850G2	0B2408L35863	
					ATI	CNGKPDAA1011539	
					Lorelei	N/A	
5.6	Voltage Dips and Interruptions	VVSG	Longmont	10/22/2025 - 10/23/2025	V4.0.0	MK-11-007	Passed
					AC-0300-AV1V2	7855	
					BE850G2	0B2408L49020	
					ATI	CNGKPDAA01020654	
					Lorelei	N/A	

The decision rule for Test Results was based on the Test Specification used for testing.

5.1 Electrostatic Discharge

5.1.1 Test Procedure

The EUT was tested in accordance with VVSG.

5.1.2 Test Result

Part number V4.0.0 serial number MK-11-004 failed the defined requirements but all other parts tested in this section passed.

5.1.3 Test Datasheets

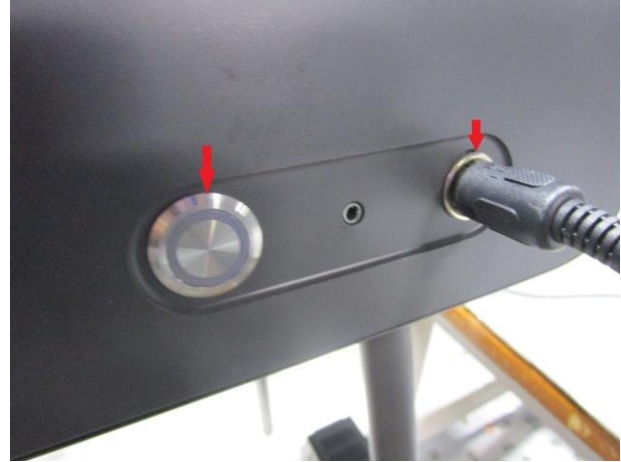
Element Materials Technology				
Electrostatic Discharge per IEC / EN 61000-4-2				
Standard Referenced: EN 61000-4-2		Date: 10/24/2025		
Temperature: 20°C		Humidity: 34%		Pressure: 827 mb
Input Voltage: 120Vac/60Hz				
Configuration of Unit: Normal Operations				
Test Engineer: T. Wittig				
Date	Time	Log Entries	Initials	Result
10/24/2025	0715	Setup for ESD testing	TW	Complete
	0814	Performed ESD testing, at -8kV, cntact discharge caused the unit to stop operating, testing halted at that tim	TW	---
	1137	Halted ESD testing -see ESD failing test points	TW	Complete
			TW	Fail

Element Materials Technology								
Electrostatic Discharge per IEC / EN 61000-4-2								
Standard Referenced: EN 61000-4-2				Date: 10/24/2025				
Temperature: 20°C		Humidity: 34%		Pressure: 827 mb				
Input Voltage: 120Vac/60Hz								
Configuration of Unit: Normal Operations								
Test Engineer: T. Wittig								
Test Location	Voltage Level	Polarity		Number of Pulses	Pulses Per Second	Comments	Criteria Met	Pass/Fail
	(kV)	+	-					
Indirect Discharge Points								
VCP	8	X	X	10	1	Front Side	A	Pass
VCP	8	X	X	10	1	Left Side	A	Pass
VCP	8	X	X	10	1	Right Side	A	Pass
VCP	8	X	X	10	1	Back Side	A	Pass
HCP	8	X	X	10	1	Edge of HCP at Front of UUT	A	Pass
Contact Discharge Points - RED Arrows.								
Photo 1.	8	X	X	10	1	Failed at power input connector	C	Fail

5.1.4 Test Photographs



4-e Test Setup



4-2 Test Setup Photo 1

5.1.5 Test Equipment List

Table 5.1-1: Electrostatic Discharge Test Equipment List

Asset Number	Asset Type	Manufacturer	Model	Calibrated	Due
US58-A059688	Ballistic Equipment	EMC-Partner	ESD3000DN1	09/02/2025	09/30/2026
US58-A078487	Electric Meter/Datalogger	Extech Instruments	42270	09/15/2025	09/30/2026
US58-A059621	Electric Meter/Datalogger	Fluke	87 V	06/11/2025	06/11/2026

Calibration Abbreviations

CAL: Calibration

NCR: No Calibration Required

5.2 Radiated RF Immunity

5.2.1 Test Procedure

The EUT was tested in accordance with VVSG.

5.2.2 Test Result

The EUT passed the defined requirements.

5.2.3 Test Datasheets

Element Materials Technology				
Radiated RF Immunity per IEC 61000-4-3				
Standard Referenced: VVSG		Date: 10/21/2025		
Temperature: 26°C	Humidity: 15%	Pressure: mb		
Input Voltage: 120Vac/60Hz				
Configuration of Unit: Normal Operations				
Test Engineer: T. Wittig				
Date	Time	Log Entries	Initials	Result
10/21/2025	1310	Performed 4-3 pre-test verify	TW	Complete
	1234	Begin Radiated RF Immunity - IEC 61000-4-3, Per Latest Version and test protocol. 10V/m, 80 - 1000 MHz, 1% Step, 80% AM, 1kHz sine, 3s dwell	TW	---
		Completed Front, left and V-Pole of the back side	TW	---
		Done for the day	TW	---
10/22/2025	0654	Warmed up test equipment	TW	---
	0804	Client arrived and started the EUT	TW	---
	0809	Resume 4-3 testing	TW	---
	0952	Completed four sides, V-H poles	TW	Pass

Element Materials Technology											
Radiated RF Immunity per IEC 61000-4-3											
Standard Referenced: VVSG				Date: 10/21/2025							
Temperature: 26°C		Humidity: 15%		Pressure: mb							
Input Voltage: 120Vac/60Hz											
Configuration of Unit: Normal Operations											
Test Engineer: T. Wittig											
Frequency	Modulation				Step Size	Field	Polarity	Dwell	Comments	Criteria Met	Pass / Fail
(MHz)	Type	%	Freq	Form	(%)	(V/m)	(V or H)	(sec)			
80 - 1000	AM	80	1kHz	Sine	1	10	V	3	Front	A	Pass
80 - 1000	AM	80	1kHz	Sine	1	10	H	3		A	Pass
80 - 1000	AM	80	1kHz	Sine	1	10	V	3	Right	A	Pass
80 - 1000	AM	80	1kHz	Sine	1	10	H	3		A	Pass
80 - 1000	AM	80	1kHz	Sine	1	10	V	3	Back	A	Pass
80 - 1000	AM	80	1kHz	Sine	1	10	H	3		A	Pass
80 - 1000	AM	80	1kHz	Sine	1	10	V	3	Left	A	Pass
80 - 1000	AM	80	1kHz	Sine	1	10	H	3		A	Pass

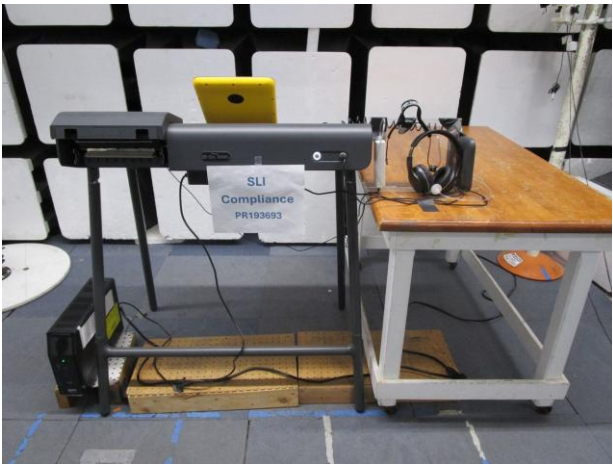
5.2.4 Test Photographs



4-3 Test Setup Photo - Front



4-3 Test Setup Photo - Right



4-3 Test Setup Photo - Back



4-3 Test Setup Photo - Left

5.2.5 Test Equipment List

Table 5.2-1: Radiated RF Immunity Test Equipment List

Asset Number	Asset Type	Manufacturer	Model	Calibrated	Due
US58-A070557	Atmospheric Chamber - Specialty	BSS	GP 0 (RFS Chamber)	10/14/2022	10/14/2023
US58-A070467	Electric Meter/Datalogger	Agilent Technologies	E4418B	07/28/2025	07/28/2026
US58-A059710	Electrical Equipment or Standards	Ophir RF	5127F	NCR	NCR
US58-A059712	Electrical Equipment or Standards	Werlatone	C3908-10	NCR	NCR
US58-A059852	Electrical Signal Generator	Anritsu WILTRON	69367B	03/05/2025	03/21/2026
US58-A078487	Electric Meter/Datalogger	Extech Instruments	42270	09/15/2025	09/30/2026
US58-A059621	Electric Meter/Datalogger	Fluke	87 V	06/11/2025	06/11/2026
US58-A059554	Sampling/Testing Probe	ETS-Lindgren	HI-6053	05/21/2024	01/01/2026
US58-A078488	Electric Meter/Datalogger	Extech Instruments	42270	03/17/2025	03/31/2026
US58-A070506	Electrical Equipment or Standards	Hewlett Packard	E4421A	08/19/2025	08/19/2026
US58-A059457	Electrical Equipment or Standards	Werlatone	C3908-10	NCR	NCR
US58-A059805	Electrical Equipment or Standards	ETS-Lindgren	3142B	NCR	NCR

Calibration Abbreviations

CAL: Calibration

NCR: No Calibration Required

5.3 Electrical Fast Transient / Burst

5.3.1 Test Procedure

The EUT was tested in accordance with VVSG.

5.3.2 Test Result

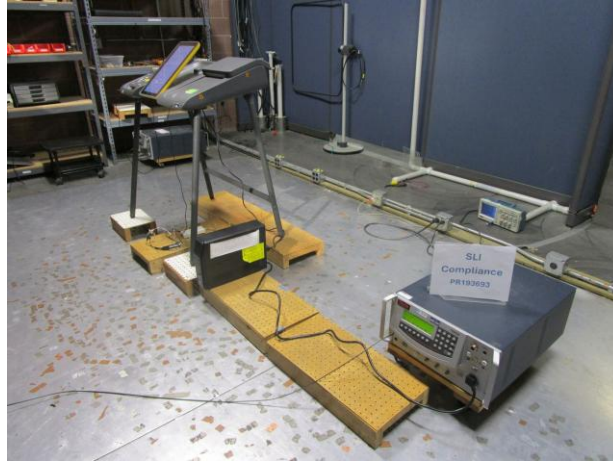
The EUT passed the defined requirements.

5.3.3 Test Datasheets

Element Materials Technology				
Electrical Fast Transient/Burst per IEC / EN 61000-4-4				
Standard Referenced: EN 61000-4-4		Date: _____		
Temperature: 21°C	Humidity: 17%	Pressure: 841 mb		
Input Voltage: 120Vac/60Hz				
Configuration of Unit: Normal Operations				
Test Engineer: T. Wittig				
Date	Time	Log Entries	Initials	Result
10/22/25	0721	Performed 4-4 pre-test verification	TW	Complete
	1121	Begin Electrical Fast Transient Burst IEC 6100044, Per Latest Version and test protocol.Mains: /2kV, I/O: +/-1kV. APC SN: 0B2502L48055	TW	---
		At -2000V, PE, EUT shut down, retarting unit required	TW	---
		Repeated testing, at -2000V, L1, L2 and PE, unit failed Error: "Something went wrong"	TW	---
		Replaced APC to SN: 0B2408L49020□	TW	---
		Re-started 4-4 testing with replacement APC UPS battery back-up	TW	---
	1238	Completed testing	TW	Pass

Element Materials Technology												
Electrical Fast Transient/Burst per IEC / EN 61000-4-4												
Standard Referenced: EN 61000-4-4		Date: 1/0/1900										
Temperature: 21°C	Humidity: 17%	Pressure: 841 mb										
Input Voltage: 120Vac/60Hz		Capacitive Coupling Clamp Verification N/A										
Configuration of Unit: Normal Operations												
Test Engineer: T. Wittig												
Voltage (kV)	Polarity +/-	Time (sec)	Injection Type	L1	L2	L3	N	PE	Rep Freq.	Comments	Criteria Met	Pass/Fail
1.0	±	60	CDN	X					100kHz	AC Mains	A	Pass
1.0	±	60	CDN				X		100kHz		A	Pass
1.0	±	60	CDN					X	100kHz		A	Pass
1.0	±	60	CDN	X			X	X	100kHz		A	Pass

5.3.4 Test Photographs



4-4 Test Setup Photo

5.3.5 Test Equipment List

Table 5.3-1: Electrical Fast Transient / Burst Test Equipment List

Asset Number	Asset Type	Manufacturer	Model	Calibrated	Due
US58-A059668	Electrical Equipment or Standards	Tektronix	TDS2002B	07/31/2025	07/31/2026
US58-A078487	Electric Meter/Datalogger	Extech Instruments	42270	09/15/2025	09/30/2026
US58-A059621	Electric Meter/Datalogger	Fluke	87 V	06/11/2025	06/11/2026
US58-A059768	Electrical Signal Generator	Thermo Fisher	EMC Pro Plus	12/03/2024	12/04/2025

Calibration Abbreviations

CAL: Calibration

NCR: No Calibration Required

5.4 Surge Immunity

5.4.1 Test Procedure

The EUT was tested in accordance with VVSG.

5.4.2 Test Result

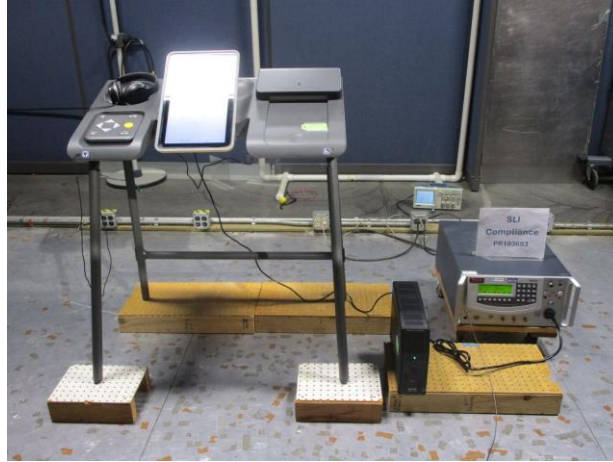
The EUT passed the defined requirements.

5.4.3 Test Datasheets

Element Materials Technology				
Surge Immunity per IEC / EN 61000-4-5				
Standard Referenced: VVSG		Date: 10/22/2025		
Temperature: 21°C	Humidity: 18%	Pressure: 841 mb		
Input Voltage: 120Vac/60Hz				
Configuration of Unit: Normal Operations				
Test Engineer: T. Wittig				
Date	Time	Log Entries	Initials	Result
10/22/2025	0713	Performed 4-5 pre-test verification	TW	Complete
	0946	Setup EUT on GP #2 for immunity testing	TW	Complete
	1003	Begin Surge Immunity IEC 6100045, Per Latest Version and test protocol. Mains: +/-2kV CM, +/-2kV DM, (0, 90, 180, 270)	TW	---
		Paper stopped moving - halted surge Unknown issue	TW	---
10/23/2025	0721	Begin Surge Immunity IEC 6100045, Per Latest Version and test protocol. Mains: +/-2kV CM, +/-2kV DM, (0, 90, 180, 270)□	TW	---
	1432	Completed surge testing	TW	Pass

Element Materials Technology												
Surge Immunity per IEC / EN 61000-4-5												
Standard Referenced:		VWSG		Date: 10/22/2025								
Temperature:		21°C		Humidity:		18%		Pressure:		841 mb		
Input Voltage:		120Vac/60Hz										
Configuration of Unit:		Normal Operations										
Test Engineer:		T. Wittig										
Voltage (kV)	Polarity +/-	L1	L2	L3	N	PE	Phase (deg)	Number of Pulses	Delay (sec)	Comments	Criteria Met	Pass/Fail
0.5	±	X			X		0	5	45	Differential Mode	A	Pass
0.5	±	X			X		90	5	45		A	Pass
0.5	±	X			X		180	5	45		A	Pass
0.5	±	X			X		270	5	45		A	Pass
0.5	±	X				X	0	5	45	Common Mode Line	A	Pass
0.5	±	X				X	90	5	45		A	Pass
0.5	±	X				X	180	5	45		A	Pass
0.5	±	X				X	270	5	45		A	Pass
0.5	±				X	X	0	5	45	Common Mode Neutral	A	Pass
0.5	±				X	X	90	5	45		A	Pass
0.5	±				X	X	180	5	45		A	Pass
0.5	±				X	X	270	5	45		A	Pass
1.0	±	X			X		0	5	60	Differential Mode	A	Pass
1.0	±	X			X		90	5	60		A	Pass
1.0	±	X			X		180	5	60		A	Pass
1.0	±	X			X		270	5	60		A	Pass
1.0	±	X				X	0	5	60	Common Mode Line	A	Pass
1.0	±	X				X	90	5	60		A	Pass
1.0	±	X				X	180	5	60		A	Pass
1.0	±	X				X	270	5	60		A	Pass
1.0	±				X	X	0	5	60	Common Mode Neutral	A	Pass
1.0	±				X	X	90	5	60		A	Pass
1.0	±				X	X	180	5	60		A	Pass
1.0	±				X	X	270	5	60		A	Pass
2.0	±	X			X		0	5	60	Differential Mode	A	Pass
2.0	±	X			X		90	5	60		A	Pass
2.0	±	X			X		180	5	60		A	Pass
2.0	±	X			X		270	5	60		A	Pass
2.0	±	X				X	0	5	60	Common Mode Line	A	Pass
2.0	±	X				X	90	5	60		A	Pass
2.0	±	X				X	180	5	60		A	Pass
2.0	±	X				X	270	5	60		A	Pass
2.0	±				X	X	0	5	60	Common Mode Neutral	A	Pass
2.0	±				X	X	90	5	60		A	Pass
2.0	±				X	X	180	5	60		A	Pass
2.0	±				X	X	270	5	60			A

5.4.4 Test Photographs



4-5 Test Setup Photo

5.4.5 Test Equipment List

Table 5.4-1: Surge Immunity Test Equipment List

Asset Number	Asset Type	Manufacturer	Model	Calibrated	Due
US58-A059621	Electric Meter/Datalogger	Fluke	87 V	06/11/2025	06/11/2026
US58-A078487	Electric Meter/Datalogger	Extech Instruments	42270	09/15/2025	09/30/2026
US58-A059668	Electrical Equipment or Standards	Tektronix	TDS2002B	07/31/2025	07/31/2026
US58-A059768	Electrical Signal Generator	Thermo Fisher	EMC Pro Plus	12/03/2024	12/04/2025

Calibration Abbreviations

CAL: Calibration

NCR: No Calibration Required

5.5 Conducted RF Immunity

5.5.1 Test Procedure

The EUT was tested in accordance with VVSG

5.5.2 Test Result

The EUT passed the defined requirements.

5.5.3 Test Datasheets

Element Materials Technology				
Conducted RF Immunity per IEC / EN 61000-4-6				
Standard Referenced: VVSG		Date: 10/23/2025		
Temperature: 22°C	Humidity: 17%	Pressure: 837 mb		
Input Voltage: 120Vac/60Hz				
Configuration of Unit: Normal Operations				
Test Engineer: T. Wittig				
Date	Time	Log Entries	Initials	Result
10/23/2025	1159	Setup for 4-6 testing on GP #2	TW	Complete
	1323	Begin Conducted RF Immunity IEC 6100046, Per Latest Version and test protocol. 10Vrms, 0.15 80 MHz, 1% Step, 80% AM, 1kHz sine, 3s dwell	TW	---
	1411	Completed 4-6 testing on AC mains	TW	Pass

Element Materials Technology								
Conducted RF Immunity per IEC / EN 61000-4-6								
Standard Referenced: VVSG				Date: 10/23/2025				
Temperature: 22°C		Humidity: 17%		Pressure: 837 mb				
Input Voltage: 120Vac/60Hz								
Configuration of Unit: Normal Operations								
Test Engineer: T. Wittig								
Frequency (MHz)	Modulation			Level	Dwell	Comments	Criteria Met	Pass/Fail
	Type	%	Freq	(V/m)	(sec)			
0.150 - 80.0	AM	80	1kHz	10	3	AC Mains	A	Pass

5.5.4 Test Photographs



4-6 Test Setup Photo

5.5.5 Test Equipment List

Table 5.5-1: Conducted RF Immunity Test Equipment List

Asset Number	Asset Type	Manufacturer	Model	Calibrated	Due
US58-A059780	Electrical Equipment or Standards	EMC Integrity	EMCI-CDN-M3-16	12/09/2024	01/30/2026
US58-A059693	Electrical Equipment or Standards	Rigol Technologies	DSA815	04/23/2025	04/30/2026
US58-A059657	Electrical Equipment or Standards	IFI	M100	NCR	NCR
US58-A059700	Electrical Equipment or Standards	Werlatone	C9475-13	01/09/2025	01/30/2026
US58-A059694	Electrical Signal Generator	Hewlett Packard	8648C	08/14/2025	08/14/2026
US58-A059695	Acoustic Equipment	Aeroflex/Weinschel	40-6-34	01/09/2025	01/30/2026
US58-A059621	Electric Meter/Datalogger	Fluke	87 V	06/11/2025	06/11/2026
US58-A078487	Electric Meter/Datalogger	Extech Instruments	42270	09/15/2025	09/30/2026

Calibration Abbreviations

CAL: Calibration

NCR: No Calibration Required

5.6 Voltage Dips and Interruptions

5.6.1 Test Procedure

The EUT was tested in accordance with VVSG.

5.6.2 Test Result

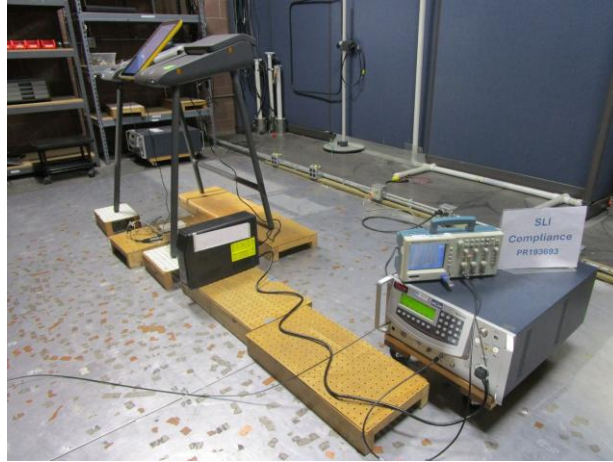
The EUT passed the defined requirements.

5.6.3 Test Datasheets

Element Materials Technology				
Voltage Dips and Interrupts per IEC / EN 61000-4-11				
Standard Referenced: VVSG		Date: 10/22/2025		
Temperature: 20°C		Humidity: 17%	Pressure: 841 mb	
Input Voltage: 120Vac/60Hz				
Configuration of Unit: Normal Operations				
Test Engineer: T. Wittig				
Date	Time	Log Entries	Initials	Result
10/22/2025	0723	Performed PQF pre-test verification	TW	Complete
		Setup for 4-11 testing	TW	Complete
	1301	Begin Voltage Dips and nterruptions IEC 61000411, Per Latest Version and test protocol. 30% nom @10ms 60% nom @100ms & 1 sec. / >95% interrupt @5 sec.	TW	---
	1317	Completed testing	TW	Pass
	1320	129Vac Line Voltage Variations (+7.5% of nominal 120V) 1hr.	TW	Pass
	1421	Surges of + 15% of line variations of nominal (138Vac) 30 min.□	TW	Pass
		Done for the day	TW	---
10/23/2025	0714	Resumed PQF testing	TW	---
	0913	Completed 4-11 testing	TW	Pass

Element Materials Technology										
Voltage Dips and Interrupts per IEC / EN 61000-4-11										
Standard Referenced:		VVSG		Date: 10/22/2025						
Temperature:		20°C		Humidity:		17%		Pressure: 841 mb		
Input Voltage:		120Vac/60Hz								
Configuration of Unit:		Normal Operations								
Test Engineer:		T. Wittig								
% Nominal	No. of Cycles	Phase Angle (deg)				Time between dropouts (sec)	Number of tests	Comments	Criteria Met	Pass/Fail
		0	90	180	270					
70%	0.6	x				10	3		A	Pass
70%	0.6		x			10	3		A	Pass
70%	0.6			x		10	3		A	Pass
70%	0.6				x	10	3		A	Pass
40%	6	x				10	3		A	Pass
40%	6		x			10	3		A	Pass
40%	6			x		10	3		A	Pass
40%	6				x	10	3		A	Pass
40%	60	x				10	3		A	Pass
40%	60		x			10	3		A	Pass
40%	60			x		10	3		A	Pass
40%	60				x	10	3		A	Pass
0%	300	x				10	3		A	Pass
0%	300			x		10	3		A	Pass
Line Voltage Variation Tests										
129Vac Line Voltage Variations (+7.5% of nominal 120V) 1hr.									A	Pass
105Vac Line Voltage Variations (-12.5% of nominal 120V) 1hr.									A	Pass
Surges of + 15% of line variations of nominal (138Vac) 30 min.									A	Pass
Surges of -15% of line variations of nominal voltage (102Vac) 30 min.									A	Pass

5.6.4 Test Photographs



4-11 Test Setup Photo

5.6.5 Test Equipment List**Table 5.6-1: Voltage Dips and Interruptions Test Equipment List**

Asset Number	Asset Type	Manufacturer	Model	Calibrated	Due
US58-A059621	Electric Meter/Datalogger	Fluke	87 V	06/11/2025	06/11/2026
US58-A078487	Electric Meter/Datalogger	Extech Instruments	42270	09/15/2025	09/30/2026
US58-A059768	Electrical Signal Generator	Thermo Fisher	EMC Pro Plus	12/03/2024	12/04/2025
US58-A059668	Electrical Equipment or Standards	Tektronix	TDS2002B	07/31/2025	07/31/2026

Calibration Abbreviations

CAL: Calibration

NCR: No Calibration Required

End of Test Report