

APPENDIX B. DEFICIENCY REPORT



B.1 DEFICIENCY REPORT

Table B-1 describes the functional deficiency and resolution discovered during the EVS 5.2.2.0 test campaign.

Table B-1. Functional Deficiency Report

NTS NOD ID	EAC VRT ID ²	Test/Requirement	Deficiency Summary	Resolutions
NOD 1	NA VRT DOWN	Electromagnetic Emissions: (Conducted Emissions) Vol. I Sec. 4.1.2.9	The ExpressVote, exceeded the Conducted Emissions Test Limit between 100 kHz & 200 kHz.	*ES&S determined that the power supply was faulty and replaced it with a new power supply.
NOD 2	NA VRT DOWN	Electrical Fast Transient Vol. I Sec 4.1.2.6	The ExpressVote QR Scanner's operation was interrupted on Line 1 at 2,000 volts and did not recover.	*The EUT that passed Electromagnetic Emissions (Conducted Emissions) in NOD 1 failed EFT. ES&S determined that the QR Code Scanner was faulty and replaced it with a new QR Code Scanner.
NOD 3	NA VRT DOWN	Electrical Fast Transient Vol. I Sec. 4.1.2.6	The ExpressVote QR Scanner's operation was interrupted on Line 1 at 2,000 volts and did not recover.	*ES&S determined that this second EUT had a faulty power supply cord, so it replaced the power supply cord with the one from the EUT that passed EFT after NOD 2.
NOD 4	NA VRT DOWN	Electromagnetic Emissions: (Radiated Emissions) Vol. I Sec. 4.1.2.9	The DS450 exceeded the Radiated Emissions Test Limit.	*ES&S replaced the monitor, replaced the power supply, and added 2 ferrites: 1 ferrite was added to the fan cable and 1 ferrite was added to the lid switch cable.
NOD 5	NA VRT DOWN	Electrostatic Disruption Vol. I Sec. 4.1.2.8	The ExpressVote QR Scanner's operation was interrupted at -15kV, air and did not recover.	*The EUT from NOD 3 failed ESD. ES&S determined that the QR Code Scanner was faulty, so it was replaced with the QR Code Scanner from the EUT that passed after NOD 2. Also, ES&S added a ferrite to the power supply cord.
NOD 6	NA VRT DOWN	Electrical Fast Transient Vol. I Sec 4.1.2.6	The DS450 Log Printer operation was interrupted on Line 1 at 2,000 volts and did not recover.	*The EUT that was used to pass NOD 4, already equipped with 2 ferrites, failed EFT, so ES&S added a 3 rd ferrite to the EUT, on the Log Printer's USB Cable.
NOD 7	NA VRT DOWN	Functional Configuration Audit Vol. I Sec 9.7.2	The Electionware Help Icon does not display the icon function name as described in the TDP.	ES&S detailed this deviation in the TDP, Electionware Administrator Guide Ver. 1.4.

*Note: All replacement parts were of the same manufacturer and model number as the removed part.

² The EAC VRT ID numbers may not be sequential. The deficiency tracking system (VRT) that is utilized by the EAC creates unique ID numbers based on overall entries within the database and not within individual projects.

B.1 DEFICIENCY REPORT

The final ExpressVote configuration includes the addition of a ferrite on the scanner USB cable.

The final DS450 configuration includes the addition of three ferrites: one ferrite on the fan cable, one ferrite on the lid switch cable and one ferrite on the Log Printer's USB Cable.

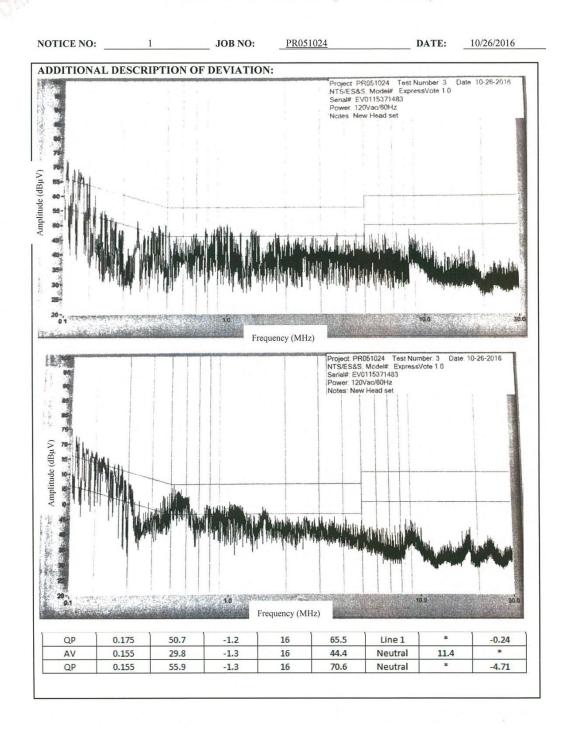




NOTICE OF DEVIATION	DATE:	1/10/2017			
NOTICE NO: 1 P.O. NUMBER: ES&S-MSA-TA072	CONTRACT	NO: CON044644			
CUSTOMER: ES&S	NTS JOB NO	PR051024			
NOTIFICATION MADE TO: Sue McKay	NOTIFICAT	ION DATE: 10/26/2016			
NOTIFICATION MADE BY: Lisa Johnson	VIA: Verb	pal/Email			
	November of the contract of				
CATEGORY:	NT DEVIA	OF TION: 10/26/2016			
PART NAME: ExpressVote 1.0 with stand/booth configuration	PART I	NO: EV0115371483			
TEST: Electromagnetic Emissions (Conducted Emissions)	TEST: Electromagnetic Emissions (Conducted Emissions) I.D. NO: HW 1.0				
SPECIFICATION: 2005 VVSG Vol. I (FCC Part 15, Class B)	PARA.	NO: § 4.1.2.9			
DECLIDEMENTS.					
REQUIREMENTS:					
4.1.2.9 Electromagnetic Emissions:					
Vote scanning and counting equipment for paper-based systems, and all DRE equipment, shall comply with the Rules and Regulations of the Federal Communications Commission, Part 15; Class B requirements for both radiated and conducted emissions.					
DESCRIPTION OF DEVIATION:					
The EUT exceeded the Conducted Emissions Test Limit between 10	0 kHz to 200	kHz by as much as 8 dBμV.			
DISPOSITION • COMMENTS • RECOMMENDATIONS:					
The customer was notified of the failure.					
SAFETY RELATED: ☐ YES NO POTENTIAL 10 CFR PART 21: ☐ YES ☐ NO N/A					
RESPONSIBILITY TO ANALYZE ANOMALIES AND COMPLY WITH 10 CFR PART 21: □ CUSTOMER □ NTS HUNTSVILLE					
CPAR REQUIRED: ☐ YES ☑ NO CPAR NUMBER:					
VERIFICATION:		~ 5111			
CLIENT TEST WITNESS: Sue McKay PROJ	ECT ENGINE	SEP. (1) O. Plan Yiofi			
(IF APPLICABLE)	ECT ENGINE	The thirty is			
GOV. QAR: N/A DEPT	. MANAGER:	Kun of (lf 01/10/2017			
NTS QUALITY REPRESENTATIVE: Stail Julian DATE	E: 01/10/2	017			
FOR NTS QA USE Tracking Code: 3					
1. Employee Error 2. Test Equipment Problem 3. Customer Item Problem 4. Wo	eather 5. Po	wer Failure 6. Equipment Limitations 7. Other			









WINTSVILLE OPERATIONS

NOTICE OF DEVIATION	DATE: 1/10/2017				
NOTICE NO: 2 P.O. NUMBER: ES&S-MSA-TA072	CONTRACT NO: CON044644				
CUSTOMER: ES&S	NTS JOB NO: PR051024				
NOTIFICATION MADE TO: Sue McKay	NOTIFICATION DATE: 10/31/2016				
NOTIFICATION MADE BY: Lisa Johnson	VIA: Verbal/Email				
CATEGORY:	NT DATE OF DEVIATION: 10/31/2016				
PART NAME: ExpressVote 1.0 with stand/booth configuration PART NO: EV0115371483					
TEST: _ Electrical Fast Transient (EFT)	I.D. NO: _H.W. 1.0				
SPECIFICATION: 2005 VVSG Vol. 1	PARA. NO: 4.1.2.6				
REQUIREMENTS: 4.1.2.6 Electrical Fast Transient: Vote scanning and counting equipment for paper-based systems, and all DRE equipment, shall be able to withstand, without disruption of normal operation or loss of data, electrical fast transients of: a. + 2 kV and - 2 kV on External Power lines (both AC and DC) b. + 1 kV and - 1 kV on Input/Output lines (signal, data, and control lines) longer than 3 meters c. Repetition Rate for all transient pulses will be 100 kHz					
DESCRIPTION OF DEVIATION: The QR Scanner's operation was interrupted on Line 1 at 2000 volts and did not recover.					
DISPOSITION • COMMENTS • RECOMMENDATIONS: The customer was notified of the failure.					
SAFETY RELATED: ☐ YES ☐ NO POTENTIAL 10 CFR PART 21: ☐ YES ☐ NO ☐ N/A					
RESPONSIBILITY TO ANALYZE ANOMALIES AND COMPLY WITH 10 CFR PART 21: CUSTOMER I NTS HUNTSVILLE					
CPAR REQUIRED: ☐ YES ☐ NO CPAR NUMBER:					
GOV. QAR: (IF APPLICABLE) DEPT	ECT ENGINEER: Church Mary 4104 MANAGER: Ly All 01/10/2017 E: 01/10/2017				
1. Employee Error 2. Test Equipment Problem 3. Customer Item Problem 4. Weath	er 5. Power Failure 6. Equipment Limitations 7. Other				





HUNTSVILLE OPERATIONS					
NOTICE OF DEVIATION	DATE: 1/10/2017				
NOTICE NO: 3 P.O. NUMBER: ES&S-MSA-TA072	CONTRACT NO: CON044644				
CUSTOMER: ES&S	NTS JOB NO: PR051024				
NOTIFICATION MADE TO: Sue McKay	NOTIFICATION DATE: 11/2/2016				
NOTIFICATION MADE BY: Lisa Johnson	VIA: Verbal/Email				
	DATE OF				
CATEGORY:	DEVIATION: 11/2/2016				
PART NAME: ExpressVote 1.0 Tabletop	PART NO: _EV0115371779				
TEST: Electrical Fast Transient (EFT)	I.D. NO: H.W. 1.0				
SPECIFICATION: 2005 VVSG Vol. 1	PARA. NO: 4.1.2.6				
REQUIREMENTS: 4.1.2.6 Electrical Fast Transient: Vote scanning and counting equipment for paper-based systems, and all DRE equipment, shall be able to withstand, without disruption of normal operation or loss of data, electrical fast transients of: a. + 2 kV and - 2 kV on External Power lines (both AC and DC) b. + 1 kV and - 1 kV on Input/Output lines (signal, data, and control lines) longer than 3 meters c. Repetition Rate for all transient pulses will be 100 kHz DESCRIPTION OF DEVIATION: The QR Scanner's operation was interrupted on Line 1 at 2000 volts and did not recover. DISPOSITION • COMMENTS • RECOMMENDATIONS: The customer was notified of the failure.					
SAFETY RELATED: POTENTIAL 10 CFR PART 2	21:				
ESPONSIBILITY TO ANALYZE ANOMALIES AND COMPLY WITH 10 CFR PART 21:					
CPAR REQUIRED: CPAR NUMBER:					
VERIFICATION:	00 0011				
CLIENT TEST WITNESS: Sue McKay PRO-	JECT ENGINEER: (halle K Martiney / 14/1)				
Septical Control of the Control of t	T. MANAGER: Ky JULY 01/10/2017				
NTS QUALITY REPRESENTATIVE: Sisi C. Johnson Date: 01/10/2017					
FOR NTS QA USE Tracking Code: 3					
1. Employee Error 2. Test Equipment Problem 3. Customer Item Problem 4. Weath	her 5. Power Failure 6. Equipment Limitations 7. Other				



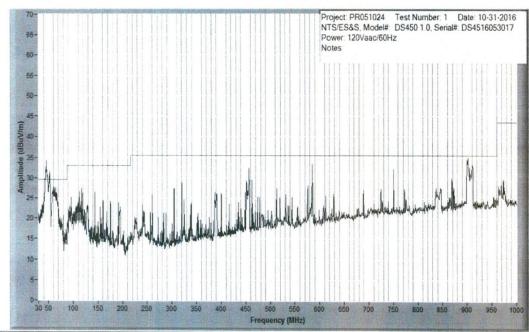
UNTSVILLE OPERATIONS NOTICE OF DEVIATION DATE: 1/10/2017 NOTICE NO: P.O. NUMBER: ES&S-MSA-TA072 CONTRACT NO: CON044644 CUSTOMER: ES&S NTS JOB NO: PR051024 NOTIFICATION MADE TO: NOTIFICATION DATE: 10/31/2016 Sue McKay NOTIFICATION MADE BY: Lisa Johnson VIA: Verbal/Email DATE OF CATEGORY: SPECIMEN | PROCEDURE | TEST EQUIPMENT **DEVIATION:** 10/31/2016 PART NAME: DS450 Central Count Scanner PART NO: DS4516053017 TEST: _ Electromagnetic Emissions (Radiated Emissions) I.D. NO: H.W. 1.0 SPECIFICATION: 2005 VVSG Vol. 1 PARA. NO: 4.1.2.9 **REQUIREMENTS:** 4.1.2.9 Electromagnetic Emissions: Vote scanning and counting equipment for paper-based systems, and all DRE equipment, shall comply with the Rules and Regulations of the Federal Communications Commission, Part 15; Class B requirements for both radiated and conducted emissions. **DESCRIPTION OF DEVIATION:** The EUT exceeded the Radiated Emissions test limit. **DISPOSITION • COMMENTS • RECOMMENDATIONS:** The customer was notified of the failure. SAFETY RELATED: ☐ YES ☑ NO POTENTIAL 10 CFR PART 21: T YES I NO ₩ N/A RESPONSIBILITY TO ANALYZE ANOMALIES AND COMPLY WITH 10 CFR PART 21: CUSTOMER NTS HUNTSVILLE CPAR REQUIRED: \(\Gamma \) YES NO NO CPAR NUMBER: **VERIFICATION:** CLIENT TEST WITNESS: Sue McKay PROJECT ENGINEER: (IF APPLICABLE) N/A DEPT. MANAGER: GOV. QAR: (IF APPLICABLE) FOR NTS QA USE Tracking Code:

1. Employee Error | 2. Test Equipment Problem | 3. Customer Item Problem | 4. Weather

5. Power Failure 6. Equipment Limitations 7. Other







Туре	Frequency (MHz)	Level (dBuV)	Transducer (dB/m)	Gain / Loss (dB)	Final (dBuV/m)	Azm(deg)/Pol/Hgt(m)		Margin: FCC Class B AV (dB)
QP	46.131	50.6	9.5	-29.9	30.2	340/V-Pole/1.00	-0.71	-
QP	52.708	50.9	7.3	-30.0	28.1	288/V-Pole/1.00	1.41	•



HUNTSVILLE OPERATIONS

NOTICE OF DEVIATION	DATE: 1/10/2017
NOTICE NO: 5 P.O. NUMBER: ES&S-MSA-TA072	CONTRACT NO: CON044644
CUSTOMER: ES&S	NTS JOB NO: PR051024
NOTIFICATION MADE TO: Sue McKay	NOTIFICATION DATE: 11/4/2016
NOTIFICATION MADE BY: Lisa Johnson	VIA: Verbal/Email
CATEGORY:	ENT DATE OF DEVIATION: 10/26/2016
PART NAME: ExpressVote 1.0 Tabletop	PART NO: EV0115371779
TEST: Electrostatic Disruption (ESD)	I.D. NO: HW 1.0
SPECIFICATION: 2005 VVSG Vol. I (FCC Part 15, Class B)	PARA. NO: § 4.1.2.9
REQUIREMENTS: 4.1.2.8 Electrostatic Disruption Vote scanning and counting equipment for paper-based systems, a ±15 kV air discharge and ±8 kV contact discharge without damage momentary interruption so long as normal operation is resumed w data means votes that have been completed and confirmed to the votes.	e or loss of data. The equipment may reset or have ithout human intervention or loss of data. Loss of
The QR Scanner's operation was interrupted at -15kV, air and did	not recover.
DISPOSITION • COMMENTS • RECOMMENDATIONS: The customer was notified of the failure. Run #1 failed 11/4/2016	and Run #2 11/7/2016.
SAFETY RELATED: ▼ YES NO POTENTIAL 10 CFR PART	21: ☐ YES ☐ NO ☑ N/A
RESPONSIBILITY TO ANALYZE ANOMALIES AND COMPLY WITH 10 CFR PA	ART 21: CUSTOMER NTS HUNTSVILLE
CPAR REQUIRED: ☐ YES 🔽 NO CPAR NUMBER	8:
GOV. QAR: (IF APPLICABLE) DEI	DJECT ENGINEER: Chale & Marting 410/17 PT. MANAGER: Ly & U/10/2017 TE: 01 10 2017
FOR NTS QA USE Tracking Code: 3	
1. Employee Error 2. Test Equipment Problem 3. Customer Item Problem 4.	Weather 5. Power Failure 6. Equipment Limitations 7. Other





NOTICE NO: 5 JOB NO: PR051024 DATE: 11/7/2016

ADDITIONAL DESCRIPTION OF DEVIATION:





NOTICE NO: 5 JOB NO: <u>PR051024</u> DATE: 11/7/201	16
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ADDITIONAL DESCRIPTION OF DEVIATION:



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HUNTSVILLE UPERATIONS	_				
NOTICE OF DEVIATION	DATE:	1/10/2017			
NOTICE NO: 6 P.O. NUMBER: ES&S-MSA-TA072	CONTRACT	NO: CON044644			
CUSTOMER: ES&S	NTS JOB NO:	PR051024			
NOTIFICATION MADE TO: Sue McKay	NOTIFICATI	ON DATE: 11/8/2016			
NOTIFICATION MADE BY: Lisa Johnson	VIA: Verb	al/Email			
CATEGORY:	T DATE O	OF ΓΙΟΝ: 11/8/2016			
PART NAME: DS450	PART N	NO: DS4516053017			
TEST: Electrical Fast Transient (EFT)	I.D. NO	: H.W. 1.0			
SPECIFICATION: 2005 VVSG Vol. 1	PARA.	NO: _4.1.2.6			
PROTUPENTING					
REQUIREMENTS: 4.1.2.6 Electrical Fast Transient:					
7.1.2.0 Dicettical I ast Hansiett.					
Vote scanning and counting equipment for paper-based systems, an					
without disruption of normal operation or loss of data, electrical fast to	transients of:				
a. + 2 kV and - 2 kV on External Power lines (both AC and DC) b. + 1 kV and - 1 kV on Input/Output lines (signal, data, and control l	lines) longer	than 3 meters			
c. Repetition Rate for all transient pulses will be 100 kHz	inico, ionger	man 5 meters			
DESCRIPTION OF DEVIATION:					
The Log Printer's operation was interrupted on Line 1 at 2000 volts a	and did not re	ecover.			
DISPOSITION • COMMENTS • RECOMMENDATIONS:					
The customer was notified of the failure.					
The customer was notified of the familie.					
	_				
SAFETY RELATED: ☐ YES ☑ NO POTENTIAL 10 CFR PART 21: ☐ YES ☐ NO ☑ N/A					
RESPONSIBILITY TO ANALYZE ANOMALIES AND COMPLY WITH 10 CFR PART 21: □ CUSTOMER □ NTS HUNTSVILLE					
CPAR REQUIRED: ☐ YES ☑ NO CPAR NUMBER:					
VERIFICATION:		00.0.11			
	DOT BEGINS	TO (1) (1) M.			
CLIENT TEST WITNESS: Sue McKay PROJ. (IF APPLICABLE)	ECT ENGINE	V 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1			
	. MANAGER:	Pag of 01/10/2017			
(IF APPLICAPAE)		//			
NTS QUALITY REPRESENTATIVE: Lim C. Johnson DATE: 01/10/2017					
FOR NTS QA USE Tracking Code: 3					
1. Employee Error 2. Test Equipment Problem 3. Customer Item Problem 4. We	eather 5. Pov	ver Failure 6. Equipment Limitations 7. Other			





NOTICE OF DEVIATION	DATE: 2/9/2017				
NOTICE NO: 7 P.O. NUMBER: ES&S-MSA-TA072	CONTRACT NO: CON044644				
CUSTOMER: ES&S	NTS JOB NO: PR051024				
NOTIFICATION MADE TO: Sue McKay	NOTIFICATION DATE: 1/9/2017				
NOTIFICATION MADE BY: Lisa Towers	VIA: Email				
	DATE OF				
CATEGORY: SPECIMEN SP					
PART NAME: Electionware PART NO: N/A					
TEST: FCA	I.D. NO: Version 4.7.1.1				
SPECIFICATION: 2005 VVSG Vol. II Sec 6.7 FCA	PARA. NO: 1-4				
REQUIREMENTS: 6.7 Functional Configuration Audit The Functional Configuration Audit encompasses an examination of vendor tests, and the conduct of additional tests, to verify that the system hardware and software perform all the functions described in the vendor's documentation submitted for the TDP. DESCRIPTION OF DEVIATION:					
When mousing over the Help icon in Paper Ballot in Electionware, the icon function name does not display as described in the TDP, Electionware Administrator Guide.					
DISPOSITION • COMMENTS • RECOMMENDATIONS: The customer was notified of the failure. Per the EAC in phone call on 1/10/17, ES&S addressed the issue by describing the deviation in a TDP update to the Electionware Administrator Guide Ver. 1.4, but did not include the updated TDP in a new trusted build. ES&S is to address the issue per the EAC in Electionware in a future project.					
SAFETY RELATED: ☐ YES ▼ NO POTENTIAL 10 CFR PART 21: ☐ YES ☐ NO ▼ N/A					
RESPONSIBILITY TO ANALYZE ANOMALIES AND COMPLY WITH 10 CFR PART 21: CUSTOMER NTS HUNTSVILLE					
CPAR REQUIRED: ☐ YES ☐ NO CPAR NUMBER:					
(IF APPLICABLE)	PROJECT ENGINEER: Line Tower 2/9/17 DEPT. MANAGER: Line 10 62/09/2017 DATE: 02/09/2017				
1. Employee Error 2. Test Equipment Problem 3. Customer Item Problem	4. Weather 5. Power Failure 6. Equipment Limitations 7. Other				