

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 replaced 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.	*ES&S replaced the QR 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 replaced the power cord for the power supply and replaced the QR Scanner from the EUT from 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.
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.	*ES&S replaced QR scanner and added a ferrite to the scanner USB cable.
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.	ES&S added a ferrite to 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.

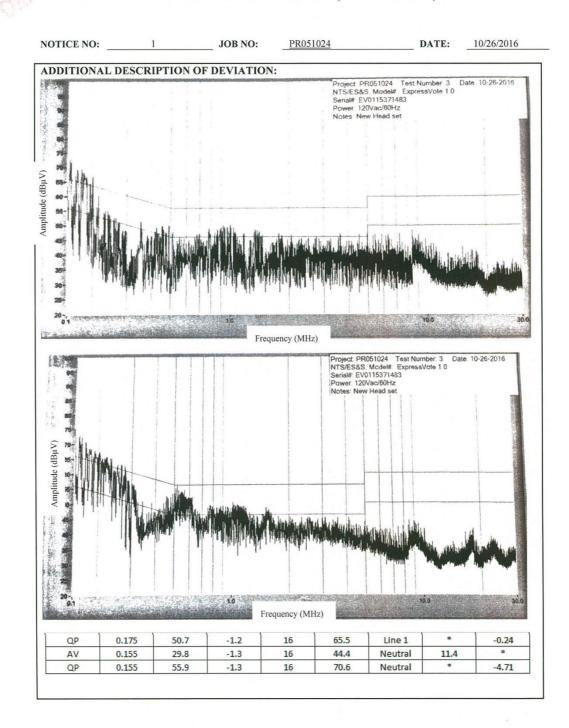




NOTICE OF DEVIATION	DATE:	1/10/2017			
NOTICE NO: 1 P.O. NUMBER: ES&S-MSA-TA072	CONTRACT	NO: CON044644			
CUSTOMER: ES&S	NTS JOB NO:	PR051024			
NOTIFICATION MADE TO: Sue McKay	NOTIFICATI	ON DATE: 10/26/2016			
NOTIFICATION MADE BY: Lisa Johnson	VIA: Verb	al/Email			
	D. TTT C	N7.			
CATEGORY:	NT DEVIAT	FION: 10/26/2016			
PART NAME: ExpressVote 1.0 with stand/booth configuration	PART N	O: EV0115371483			
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			
REQUIREMENTS:					
REQUIREMENTS.					
4.1.2.9 Electromagnetic Emissions:					
Vote scanning and counting equipment for paper-based systems, a	and all DRF	equipment shall comply with the			
Rules and Regulations of the Federal Communications Commiss					
radiated and conducted emissions.	,	1			
DESCRIPTION OF DEVIATION:					
	2111 . 200	1 0 15 17			
The EUT exceeded the Conducted Emissions Test Limit between 100) KHz to 200	kHz by as much as 8 dBµV.			
DISPOSITION • COMMENTS • RECOMMENDATIONS:					
DISTOSTION - COMMENTO 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 PAR	T 21: 🔽 CUS	TOMER NTS HUNTSVILLE			
CPAR REQUIRED: ☐ YES ☑ NO CPAR NUMBER:					
VERIFICATION:		1117.00			
CLIENT TEST WITNESS: Sue McKay PROJ	ECT ENGINE	ER: (Vanlet Marken 110/17			
(IF APPLICABLE)		2 21/			
GOV. QAR: N/A DEPT.	. MANAGER:	Kyr of (1) 01/10/2017			
(IF APPLICABLE)	ماسداده				
NTS QUALITY REPRESENTATIVE: Siza C. Johnson DATE	: 01/10/20	717			
FOR NTS QA USE Tracking Code: 3					
1. Employee Error 2. Test Equipment Problem 3. Customer Item Problem 4. We	ather 5. Pow	er Failure 6. Equipment Limitations 7. Other			







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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:	PMENT 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	RT 21: □ YES □ NO ▼ N/A					
RESPONSIBILITY TO ANALYZE ANOMALIES AND COMPLY WITH 10 CFR	PART 21:					
CPAR REQUIRED: ☐ YES ☐ NO CPAR NUMBE	ER:					
GOV. QAR: (IF APPLICABLE) [IF APPLICABLE] [IF APPLICABLE]	PROJECT ENGINEER: PROJECT ENGINEER: PARTILLE OF 10 2017 PARTE: 01 10 2017					
1. Employee Error 2. Test Equipment Problem 3. Customer Item Problem 4. W	/eather 5. Power Failure 6. Equipment Limitations 7. Other					



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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				
	T imp on				
CATEGORY:	DATE OF 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	1:				
ESPONSIBILITY TO ANALYZE ANOMALIES AND COMPLY WITH 10 CFR PART	7 21:				
CPAR REQUIRED: CPAR NUMBER:					
(IF APPLICABLE) GOV. QAR: N/A DEPT	JECT ENGINEER: Pale Movemen flot. T. MANAGER: Ry JULY 01/10/2017 E: 01/10/2017				
1. Employee Error 2. Test Equipment Problem 3. Customer Item Problem 4. Weath	ner 5. Power Failure 6. Equipment Limitations 7. Other				



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: VIA: Verbal/Email Lisa Johnson 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 **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: I NO N/A RESPONSIBILITY TO ANALYZE ANOMALIES AND COMPLY WITH 10 CFR PART 21: NTS HUNTSVILLE CPAR REQUIRED: TYES NO NO CPAR NUMBER: VERIFICATION: CLIENT TEST WITNESS: Sue McKay PROJECT ENGINEER: (IF APPLICABLE) GOV. QAR: DEPT. MANAGER: N/A (IF APPLICABLE)

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1. Employee Error | 2. Test Equipment Problem | 3. Customer Item Problem | 4. Weather | 5. Power Failure | 6. Equipment Limitations | 7. Other

NTS QUALITY REPRESENTATIVE:

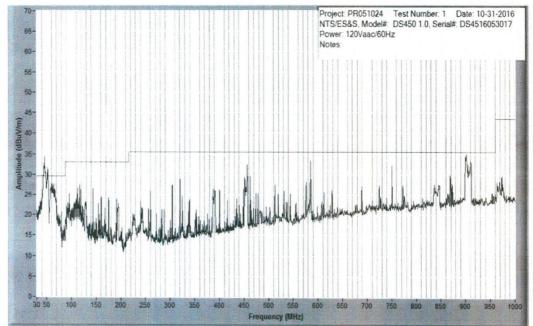
FOR NTS QA USE | Tracking Code:

DATE: 01/10 2017









	BuV) (d	lB/m)	Loss (dB)	(dBuV/m)		Margin: FCC Class B QP (dB)	Margin: FCC Class B AV (dB)
131 50.6	6 9.	5	-29.9	30.2	340/V-Pole/1.00	-0.71	
708 50.9	9 7.	.3	-30.0	28.1	288/V-Pole/1.00	1.41	
_	200					277 272 2707 1 000 1100	310 710 1100 100 0.71



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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:	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, and all DRE equipment, shall be able to withstand ±15 kV air discharge and ±8 kV contact discharge without damage or loss of data. The equipment may reset or have momentary interruption so long as normal operation is resumed without human intervention or loss of data. Loss of data means votes that have been completed and confirmed to the voter.						
DESCRIPTION OF DEVIATION:						
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: F CUSTOMER NTS HUNTSVILLE					
CPAR REQUIRED: ☐ YES ☐ NO CPAR NUMBER	₹:					
GOV. QAR: (IF APPLICABLE) N/A (IF APPLICABLE) DE	OJECT ENGINEER: Chelis R. Marie 1/10/17 PT. MANAGER: hy of Chy 01/10/2017 TE: 01 10 2017					
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: **DATE:** 11/7/2016 PR051024 ADDITIONAL DESCRIPTION OF DEVIATION:





NOTICE NO:	5	JOB NO:	PR051024	DATE:	11/7/2016	
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ADDITIONAL DESCRIPTION OF DEVIATION:



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NOTICE OF DEVIATION	DATE: 1/10/2017				
NOTICE NO: 6 P.O. NUMBER: ES&S-MSA-TA072	CONTRACT NO: CON044644				
	NTS JOB NO: PR051024				
	NOTIFICATION DATE: 11/8/2016				
	VIA: Verbal/Email				
CATEGORY:	NT DATE OF DEVIATION: 11/8/2016				
PART NAME: DS450	PART 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				
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 Log Printer'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	1: ☐ YES ☐ NO ☑ N/A				
RESPONSIBILITY TO ANALYZE ANOMALIES AND COMPLY WITH 10 CFR PAR	T 21: CUSTOMER NTS HUNTSVILLE				
CPAR REQUIRED: ☐ YES ☐ NO CPAR NUMBER:					
(IF APPLICABLE) GOV. QAR: N/A (IF APPLICABLE) DEPT	JECT ENGINEER: huled Mortemy 1/10/17 T. MANAGER: My J J 01/10/2017 E: 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. Power 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	NOTIFICATI	ON DATE: 1/9/2017				
NOTIFICATION MADE BY: Lisa Towers	VIA: Ema	il				
		_				
CATEGORY:	NT DATE O	OF TION:1/9/2017				
PART NAME: Electionware	PART I	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				
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 deviaton 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 p SAFETY RELATED: ☐ YES NO POTENTIAL 10 CFR PART 2		□ NO N/A				
RESPONSIBILITY TO ANALYZE ANOMALIES AND COMPLY WITH 10 CFR PAI	RT 21: 🔽 CU	STOMER NTS HUNTSVILLE				
CPAR REQUIRED: ☐ YES ☐ NO CPAR NUMBER:						
GOV. QAR: N/A OEP NTS QUALITY REPRESENTATIVE: Story (IF APPLICABLE) Life APPLICABLE) DAT FOR NTS QA USE Tracking Code: 3		2017 62/09/2017				
1. Employee Error 2. Test Equipment Problem 3. Customer Item Problem 4. W	Veather 5. Po	wer Failure 6. Equipment Limitations 7. Other				