

### ENGINEER CHANGE ORDER (ECO) ANALYSIS FORM

Manufacturer:	Election Systems & Software (ES&S)			
System:	EVS (DS850 Component)			
ECO Number:	1005			
ECO Description:	on: Replacing End-of-Life (EOL) component			

### Overview:

The Okidata B431D & B431DN laser printers have gone end of life. ES&S has added an alternate report printer (Okidata B432DN) to replace the end of life models. The replacement model is backward compatible with all listed end of life models.

### Systems Affected:

Federal: EVS 5000, EVS 5010, EVS 5200, EVS 5203, EVS 5204, EVS 5210, EVS 5211, EVS 5200, EVS 5210, EVS

5211, EVS 5220, EVS 5230, EVS 5240, EVS 6000, EVS 6020

State: FL EVS 4500 Ver. 4, FL EVS 4520, FL EVS 4530 Ver. 1, EVS 5002, EVS 5004, EVS 5100, EVS 5110, EVS

5201, EVS 5202, EVS 5300, EVS 5303, EVS 5310, EVS 5320, EVS 5321, EVS 5330, EVS 5340, EVS 6010

### **Supporting Documentation:**

ECO-1005.docx

ess181203b\_prnt Old UPS with 432 Printer passing.pdf ess181205Z\_prnt DS 850 OLD UPS 432 printer.pdf

### **Engineering Recommendation:**

Technical documentation review performed to approve change. Pro V&V determined that the replacement printer will not adversely affect any system functions. The replacement printer was tested by ES&S and found to be compatible. The replacement printer is similar/equivalent in technical characteristics and will not negatively impact the system. No additional testing required.

Engineering Analysis: De Minimis	
Reviewer:	Approver:
Wendy Owen 5 Printed Name	Michael L. Walker Printed Name
Wordy Overs Signature	Mahmel & Walkee Signature
12/12/18 Date	

## Engineering Change Order

ECO# 1005	1005		Requested by	Adam Krajicek	Date: 12/7/2018
Model	DS850		Product Line Engineer	Adam Krajicek	Rev. A
Description of Change: In layman's terms, itemize what the change is. For examp beneath the end of the USB mo	Description of Change: In layman's terms, itemize and describe what the change is. For example, "Add shim beneath the end of the USB mounting bracke	ibe him acket."	Add alternate report printer - OKIDATA B432DN	sr - OKIDATA B432DN.	
Reason For Change: In layman's terms, item requirement that is not being "Shim increases the engage USB stick."	Reason For Change: In layman's terms, itemize and describe the requirement that is not being met. For example, 'Shim increases the engagement of the back-up USB stick."	ibe the ample, ack-up	OKI B431D and OKI B431DN has gone end of life.  ECO Category: EOL Part Replacement	IDN has gone end of life. pplacement	
ECO Notes Related ECOs, ' Field Retrofft, etc.	O Notes Related ECOs, Temporary Deviations, I Retrofit, etc.	Ś	Related ECOs: ECO-1004     Temporary Deviations (in-process Production): N/A     Field Retrofit: OKI B432DN is backward compatible     Mod to the Mfg Prep Prcs or QC Checklist required?	Related ECOs: ECO-1004  Temporary Deviations (in-process Production): N/A Field Retrofit: OKI B432DN is backward compatible with OKI B431D and OKI B431DN Mod to the Mfg Prep Pres or QC Checklist required?  List:	31D and OKI B431DN F No List:
Certification Impact Impact on hardware or tests performed, recommen	Certification Impact Impact on hardware configuration, list of tests performed, recommended federal cert	it of		Hardware Configuration: 1.0 Internal Testing Performed: Printers have been tested by HW Engineering and confirmed to be compatible with current DS850 FW versions.	ree updated printers installed.
strategy, approach to	strategy, approach to state cert (N.E.VV.S).	<b>∴</b>	<ol> <li>Submit to VSTL:</li> <li>Affected Systems: Click here to enter text. Federal: EVS 5000, EVS 5010, EVS 5200.</li> </ol>	<u>omit to VSTL:</u> <u>ected Systems:</u> Click here to enter text. Federal: EVS 5000, EVS 5010, EVS 5200, EVS 5203, EVS 5204, EVS 5210, EVS 5211, EVS 5200,	204, EVS 5210, EVS 5211, EVS 5200,
			EVS 5210, EVS 5211, EVS 5220, EVS State: FL EVS 4500 V4, FL EVS 45010, EVS 5201, EVS 5202, EVS 5300, EVS 5340, EVS 6010, EVS 5202, EVS 5300, EVS 6010, EVS 6	EVS 5210, EVS 5211, EVS 5220, EVS 5230, EVS 5240, EVS 6000, EVS 6020  State: FL EVS 4500 V4, FL EVS 4520, FL EVS 4530 V1, EVS 5002, EVS 5004, EVS 5100, EVS 5110, EVS 5201, EVS 5202, EVS 5300, EVS 5303, EVS 5310, EVS 5320, EVS 5321, EVS 5330, EVS 5340, EVS 6010.  V 1.0 VVSG Standards	00, EVS 6020 5 5002, EVS 5004, EVS 5100, EVS VS 5320, EVS 5321, EVS 5330, EVS

MATERIALS MANAGMENT: -DATE: -

QUALITY ASSURANCE: -DATE

MANUFACTURING: -

DATE:

ECO-1005.docx



## Engineering Change Order

Part Specific Changes:

PLM Documentation & Pivot Production

ESES BIN NUMBER & OMANA INVENTORY	Include order qty and re-buy levels for new parts.	Notify order entry as applicable.
DI ESES BIL	Include ord	Ž

REVISED PARTS Include the part number, title, and brief description of the	Click here to enter text.	er text.		Order Entry Decipherer: Replace printer 6827 - DS850, PRINTER OKIDATA B431DN with 9200 - DS450/DS PRINTER,OKI B432DN.	er Entry Decipherer: Replace printer 6827 - DS850, PRINTER OKIDATA B431DN with 9200 - DS450/DS850 PRINTER, OKI B432DN.
change. In addition, provide direction on what should be done with existing material, what locations are affected by this change, and what is the new part revision			-	Demo Transfer Request Form: Replace <i>6827-10</i> DS850,PRTER OKI B431D DN Refrb with <i>Oki Report</i> <i>Printer 9200.</i>	Replace <i>6827-10</i> ) DN Refrb with <i>Oki Report</i>
OBSOLETE PARTS Include the part number, title, and disposition	Click here to enter text.	r text.		6827 - DS850, PRINTER OKIDATA B431DN, remains supported by ES&S, continue to use as available.	ATA B431DN, remains tue to use as available.
NEW PARTS Include the part number, title, who is procuring the part.	Click here to enter text.	r text.		9200 - DS450/DS850 PRINTER,OKI B432DN, ES&S to procure.	R,OKI B432DN, ES&S to
CORRECTIONS Drawing changes that are not related to any part changes listed above.	Click here to enter text.	r text.		Click here to enter text.	
QUALITY Bill Keeler  V Approve	<sup>*</sup> Ignore	FIELD SERVICES AI Moraczewski  Approve	Ignore	FULFILLMENT Lee McDermott  V Approve	Ignore
PRODUCT MANAGEMENT Mike Dvorak  ✓ Approve	T Ignore	CERTIFICATION Sue McKay ▼ Approve	Ignore	MATERIAL MANAGEMENT Stan Allen	EMENT  Ignore
SUSTAINING ENGINEERING Derek Caviness  Approve	nore	PRODUCT LINE ENGINEER Adam Krajicek  ▼ Approve	EER   Ignore	Dir. of Hardware Engineering Kevin Liesner  V Approve	gineering

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### Radiated Emissions

### MTO:

EUT:

Manufacturer:
ESS
Operating Condition: 120 VAC 60 Hz
Test Site:
NCEE, tp2, R&S ESI26, Biconlog 47 w PA LF

Operator: Test Specification:

class B

Comment:

12/3/2018 / 8:59:56AM Start of Test:

## SCAN TABLE: "EN 55011 Fd fin wPA"

EN 55011 Field Strength fin PA Short Description:

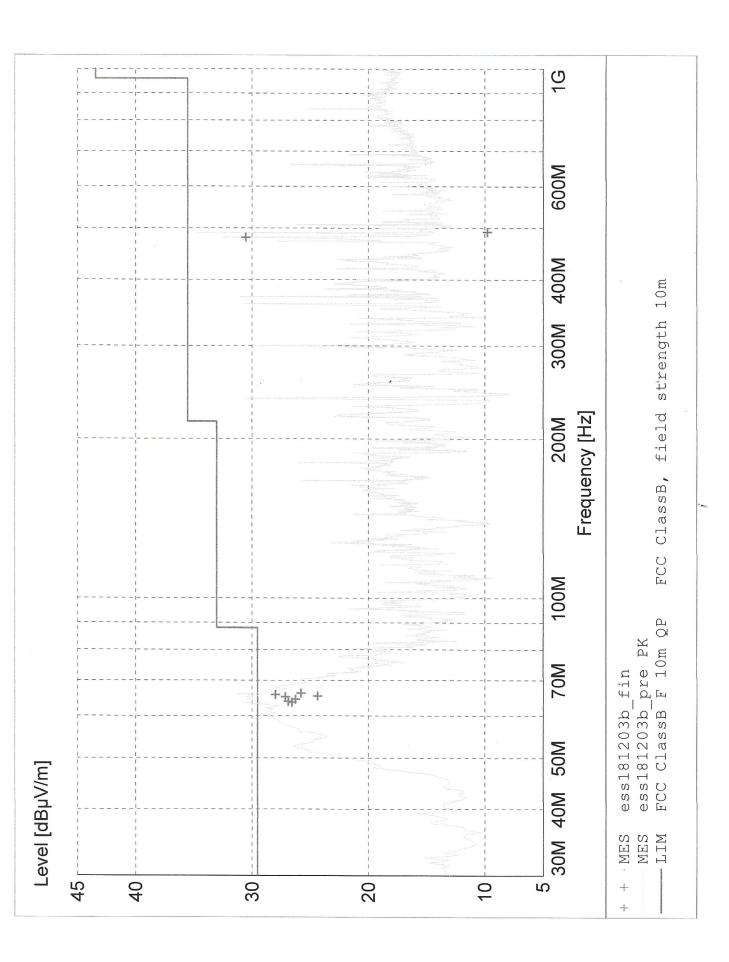
Detector: dBµV/m

Unit:

ClearWrite Mode:

QuasiPeak Average Curve 1: Curve 2:

ClearWrite



MEASUREMENT RESULT: "ess181203b\_fin"

	Pol.		VERT	HORI							
	Angle	deg	174	321	354	318	207	138	0	225	13
	Height	CIM	323.0	276.0	283.0	350.0	350.0	349.0	339.0	399.0	150.0
	Margin	dB	3.0	2.7	3.3	2.4	5.2	1.6	3.7	5.0	25.8
	Limit	dBµV/m	29.5	29.5	29.5	29.5	29.5	29.5	29.5	35.5	35.5
	Cables	dB	28.6	28.6	28.6	28.7	28.7	28.7	28.7	26.1	26.1
	Transd	qB	9.9	9.9	9.9	9.9	9.9	9.9	9.9	18.4	18.4
	Measured	dBµV	48.55	48.90	48.32	49.19	46.42	50.04	47.86	38.22	17.46
30	Level	dBµV/m	26.56	26.88	26.27	27.13	24.37	27.98	25.79	30.52	9.76
	Frequency	MHz	63.600000	63.840000	64.440000	65.160000	65.340000	65.760000	66.180000	480.040000	491.500000

### Conducted Emissions

MTO:

EUT:

Manufacturer:
ESS
Operating Condition: 120 VAC 60 Hz
Test Site:
Vertical Grnd

Operator:

class B Test Specification:

Comment: Start of Test:

12/5/2018 / 3:37:11PM

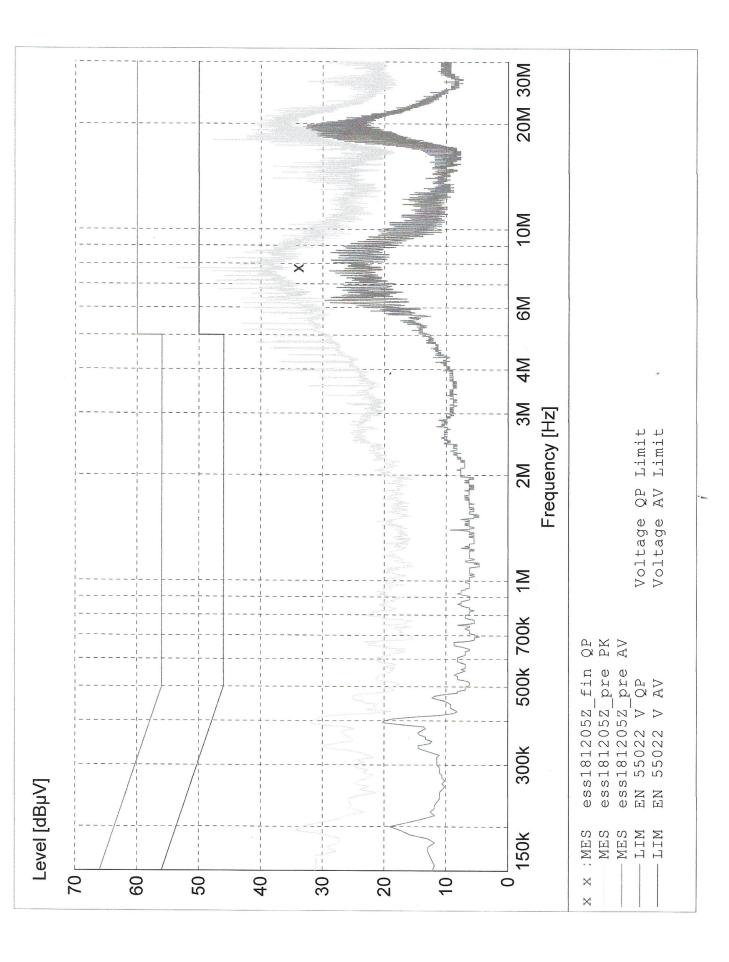
# SCAN TABLE: "EN 55011 Voltage Fin"

EN 55011 Voltage Short Description: it: dBpV Unit:

Detector:

ClearWrite Mode:

ClearWrite QuasiPeak Average Curve 1: Curve 2:



# MEASUREMENT RESULT: "ess181205Z\_fin QP"

	전	GND
	Line	Z
	Margin dB	25.9
	Limit dBµV	09
	Cables dB	10.4
	Transd	0.3
	Measured dBµV	23.47
	Level dBµV	34.10
MANG: 8 3:20 FM	Frequency MHz	7.755000