



## ENGINEER CHANGE ORDER (ECO) ANALYSIS FORM

<b>Manufacturer:</b>	Election Systems & Software (ES&S)
<b>System:</b>	EVS (DS850 Component)
<b>ECO Number:</b>	1005
<b>ECO Description:</b>	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:**

Wendy Owens  
Printed Name

Wendy Owens  
Signature

12/12/18  
Date

**Approver:**

Michael L. Walker  
Printed Name

Michael L. Walker  
Signature

12/12/18  
Date



## Engineering Change Order

### Part Specific Changes:

#### PLM Documentation & Pivot Production

#### ES&S Bin Number & Omaha Inventory

Include order qty and re-buy levels for new parts.  
**Notify order entry as applicable.**

#### REVISED PARTS

Include the part number, title, and brief description of the 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**

Click here to enter text.

Order Entry Decipherer: Replace printer 6827 - DS850, PRINTER OKIDATA B431DN with 9200 - DS450/DS850 PRINTER, OKI B432DN.

Demo Transfer Request Form: Replace 6827-10 DS850, PRTER OKI B431D DN Refrb with *OkI Report Printer 9200.*

#### OBSOLETE PARTS

Include the part number, title, and disposition

Click here to enter text.

6827 - DS850, PRINTER OKIDATA B431DN, remains supported by ES&S, continue to use as available.

#### NEW PARTS

Include the part number, title, who is procuring the part.

Click here to enter text.

9200 - DS450/DS850 PRINTER, OKI B432DN, ES&S to procure.

#### DRAWING CORRECTIONS

Drawing changes that are not related to any part changes listed above.

Click here to enter text.

Click here to enter text.

<b>QUALITY</b> <i>Bill Keeler</i> <input checked="" type="checkbox"/> Approve <input type="checkbox"/> Ignore	<b>FIELD SERVICES</b> <i>Al Moraczewski</i> <input checked="" type="checkbox"/> Approve <input type="checkbox"/> Ignore	<b>FULFILLMENT</b> <i>Lee McDermott</i> <input checked="" type="checkbox"/> Approve <input type="checkbox"/> Ignore
<b>PRODUCT MANAGEMENT</b> <i>Mike Dvorak</i> <input checked="" type="checkbox"/> Approve <input type="checkbox"/> Ignore	<b>CERTIFICATION</b> <i>Sue McKay</i> <input checked="" type="checkbox"/> Approve <input type="checkbox"/> Ignore	<b>MATERIAL MANAGEMENT</b> <i>Stan Allen</i> <input checked="" type="checkbox"/> Approve <input type="checkbox"/> Ignore
<b>SUSTAINING ENGINEERING</b> <i>Derek Caviness</i> <input checked="" type="checkbox"/> Approve <input type="checkbox"/> Ignore	<b>PRODUCT LINE ENGINEER</b> <i>Adam Krajicek</i> <input checked="" type="checkbox"/> Approve <input type="checkbox"/> Ignore	<b>Dir. of Hardware Engineering</b> <i>Kevin Liesner</i> <input checked="" type="checkbox"/> Approve <input type="checkbox"/> Ignore

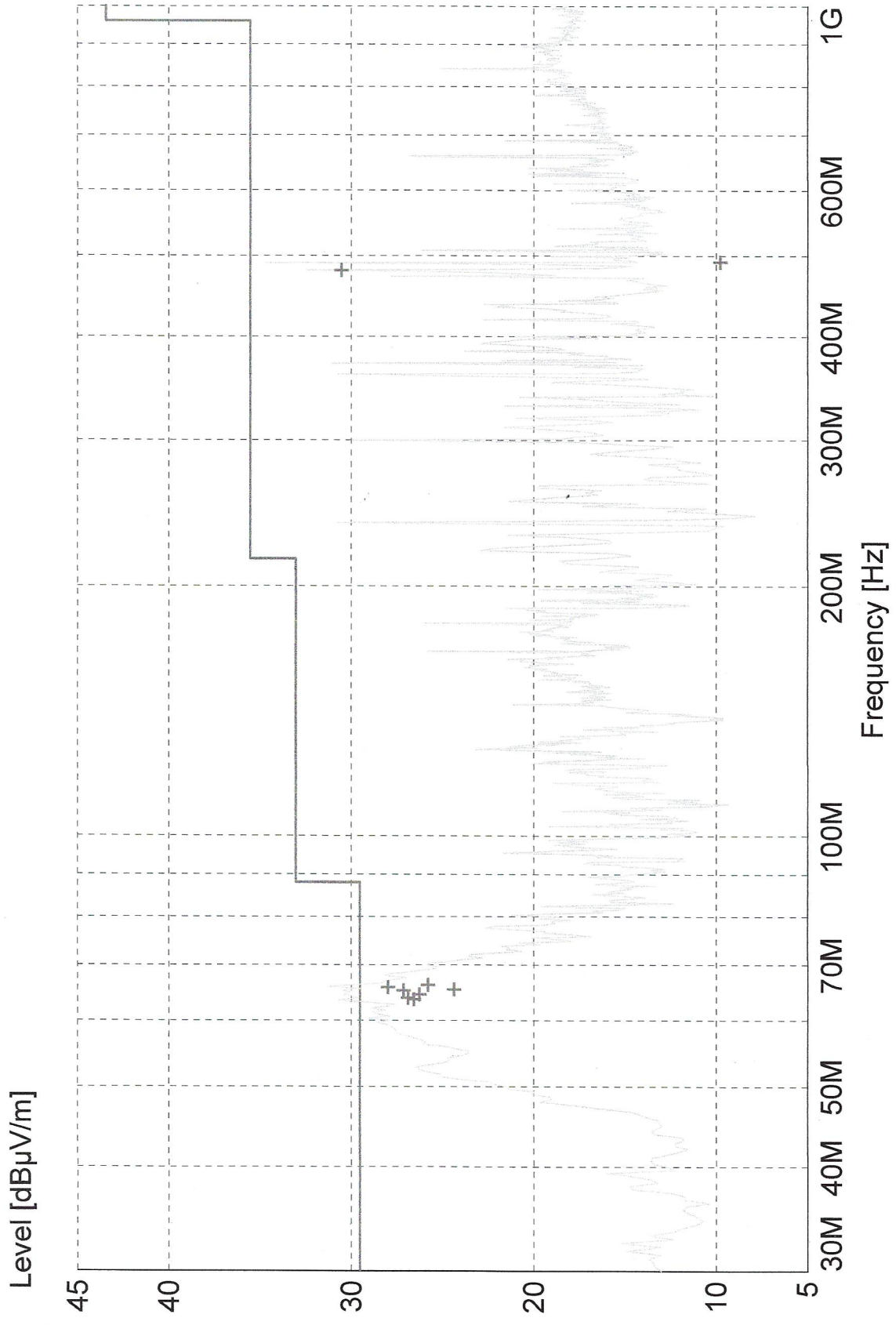
**Radiated Emissions**

**MTO:**

EUT: DS 850  
Manufacturer: ESS  
Operating Condition: 120 VAC 60 Hz  
Test Site: NCEE, tp2, R&S ESI26, Biconlog 47 w PA LF  
Operator: KV  
Test Specification: class B  
Comment:  
Start of Test: 12/3/2018 / 8:59:56AM

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

Short Description:	EN 55011 Field Strength fin PA
Unit:	dBuV/m
Detector:	Mode:
Curve 1:	QuasiPeak ClearWrite
Curve 2:	Average ClearWrite



+ + . MES ess181203b\_fin  
 — MES ess181203b\_pre PK  
 — LIM FCC ClassB F 10m QP

**MEASUREMENT RESULT: "ess181203b\_fin"**

12/3/2018 9:30AM

Frequency MHz	Level dBuV/m	Measured dBuV	Transd dB	Cables dB	Limit dBuV/m	Margin dB	Height cm	Angle deg	Pol.
63.600000	26.56	48.55	6.6	28.6	29.5	3.0	323.0	174	VERT
63.840000	26.88	48.90	6.6	28.6	29.5	2.7	276.0	321	VERT
64.440000	26.27	48.32	6.6	28.6	29.5	3.3	283.0	354	VERT
65.160000	27.13	49.19	6.6	28.7	29.5	2.4	350.0	318	VERT
65.340000	24.37	46.42	6.6	28.7	29.5	5.2	350.0	207	VERT
65.760000	27.98	50.04	6.6	28.7	29.5	1.6	349.0	138	VERT
66.180000	25.79	47.86	6.6	28.7	29.5	3.7	339.0	0	VERT
480.040000	30.52	38.22	18.4	26.1	35.5	5.0	399.0	225	VERT
491.500000	9.76	17.46	18.4	26.1	35.5	25.8	150.0	13	HORI



**Conducted Emissions**

**MTO:**

EUT: DS 850  
Manufacturer: ESS  
Operating Condition: 120 VAC 60 Hz  
Test Site: Vertical Grnd  
Operator: KV  
Test Specification: class B  
Comment:  
Start of Test: 12/5/2018 / 3:37:11PM

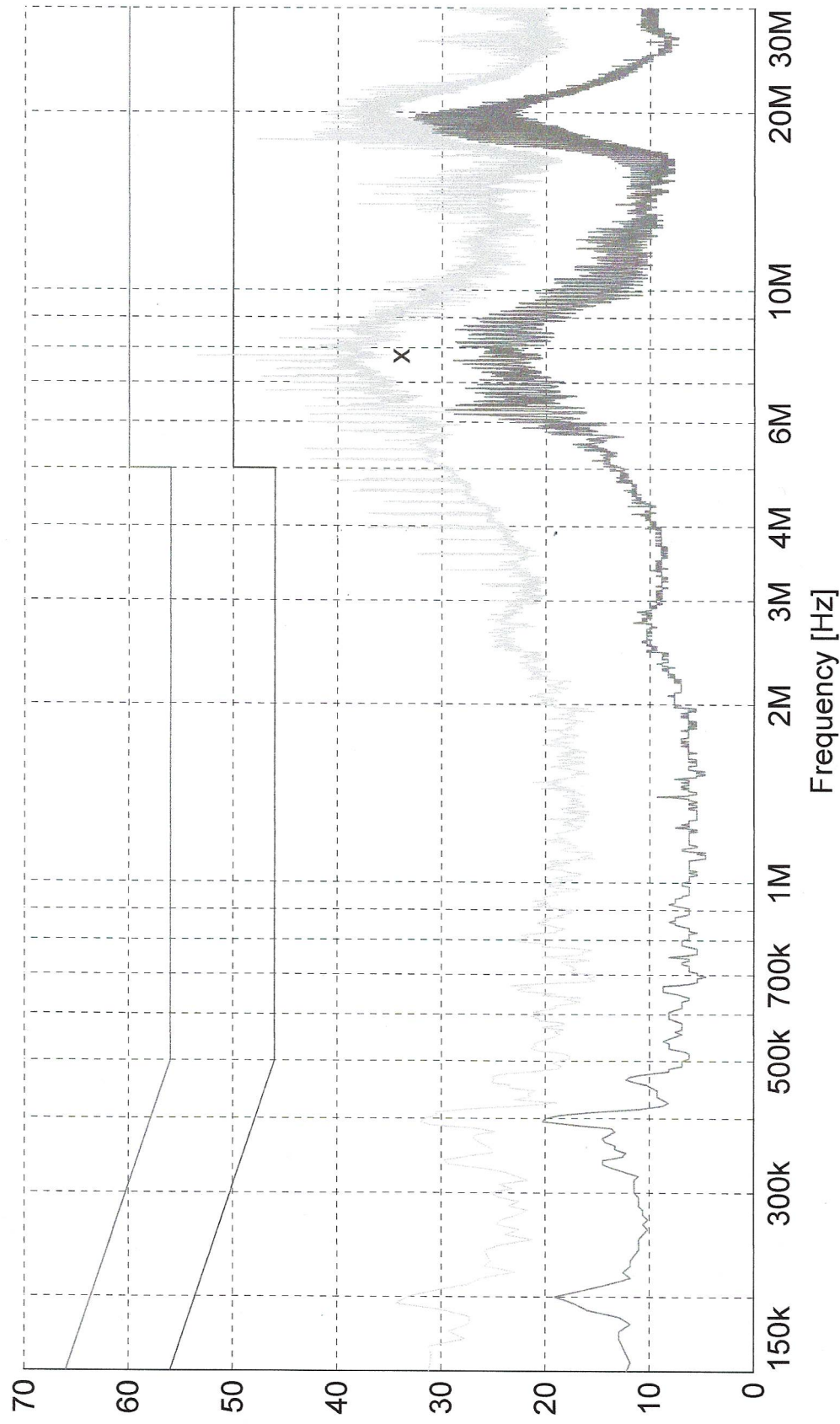
**SCAN TABLE: "EN 55011 Voltage Fin"**

Short Description: EN 55011 Voltage  
Unit: dBµV

Detector: Mode:  
Curve 1: QuasiPeak ClearWrite  
Curve 2: Average ClearWrite



Level [dBμV]



x x :MES ess181205Z\_fin QP  
MES ess181205Z\_pre PK  
MES ess181205Z\_pre AV  
LIM EN 55022 V QP  
LIM EN 55022 V AV

Voltage QP Limit  
Voltage AV Limit

**MEASUREMENT RESULT: "ess181205Z\_fin QP"**

12/5/2018 3:50PM

Frequency MHz	Level dBµV	Measured dBµV	Transd dB	Cables dB	Limit dBµV	Margin dB	Line	PE
7.755000	34.10	23.47	0.3	10.4	60	25.9	N	GND

