

TEST RESULT SUMMARY

FCC Part 15 Subpart C Section 15.207

FCC Part 15 Subpart C Section 15.209

IC RSS-210 Issue 6

IC RSS-Gen Issue 1

MANUFACTURER'S NAME	Eastman Kodak Company
NAME OF EQUIPMENT	DryView Laser Imager
MODEL NUMBER(S) TESTED	DV6800
MANUFACTURER'S ADDRESS	1 Imation Way - Discover Bldg 3B-61 Oakdale MN 55128-3414
TEST REPORT NUMBER	WC605657.2 Rev A
TEST DATE(S)	09 – 10 October 2006

According to testing performed at TÜV SÜD America Inc, the above mentioned unit is in compliance with the applicable electromagnetic compatibility (EMC) portions of the requirements defined in FCC Part 15 Subpart C Sections 15.207 and 15.209 and Industry Canada RSS-210 Issue 6 and RSS-Gen Issue 1.

It is the manufacturer's responsibility to assure that additional production units of this model are manufactured with identical electrical and mechanical characteristics. Any modifications necessary for compliance made during testing on the above mentioned date(s) must be implemented in all production units for compliance to be maintained.

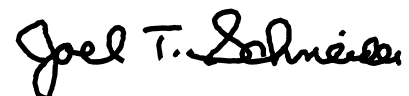
TÜV SÜD America Inc, as an independent testing laboratory, declares that the equipment tested as specified above conforms to the applicable EMC requirements of FCC Part 15 Subpart C Sections 15.207 "*Conducted Limits*" and 15.209 "*Radiated emission limits; general requirements*" and IC RSS-210 Issue 6 "*Low-power Licence-exempt Radiocommunication Devices (All Frequency Bands): Category I Equipment*" and IC RSS-Gen "*General Requirements and Information for the Certification of Radiocommunication Equipment*".

Date: 30 November 2006

Location: Taylors Falls MN
USA



Michael Schultz
EMC Technician



Joel Schneider
Sr. EMC Engineer

Not Transferable

EMC TEST REPORT

Test Report File No. : **WC605657.2 Rev A** Date of issue: 30 November 2006

Model / Serial No(s) Tested : DV6800 / ---

Product Type : DryView Laser Imager

Applicant : Eastman Kodak Company

Manufacturer : Eastman Kodak Company

License holder : Eastman Kodak Company

Address : 1 Imation Way - Discover Bldg 3B-61
Oakdale MN 55128-3414

Test Result : **Positive** **Negative**

Test Project Number
References : WC605657.2 Rev A

Total pages including
Appendices : 50

TÜV SÜD AMERICA Inc reports apply only to the specific samples tested under stated test conditions. It is the manufacturer's responsibility to assure that additional production units of this model are manufactured with identical electrical and mechanical components. TÜV SÜD America Inc shall have no liability for any deductions, inferences or generalizations drawn by the client or others from TÜV SÜD America Inc issued reports.

This report is the confidential property of the client. As a mutual protection to our clients, the public and ourselves, extracts from the test report shall not be reproduced except in full without our written approval. This report shall not be used by the client to claim product endorsement by NVLAP, NIST, or any agency of the US government.

TÜV SÜD AMERICA Inc and its professional staff hold government and professional organization certifications and are members of AAMI, ACIL, AEA, ANSI, IEEE, NARTE, and VCCI.

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<input checked="" type="checkbox"/> - applicable	

R E V I S I O N R E C O R D

REVISION	TOTAL NUMBER OF PAGES	DATE	DESCRIPTION
	42	08 Nov 2006	Initial Release
A	50	28 Nov 2006	Revisions include: <ul style="list-style-type: none"> ▪ Added conducted emissions data, pages 18 - 25 ▪ Revised Test Summary of Occupied Bandwidth, page 17 ▪ Changed company name throughout report from TÜV America to TÜV SÜD America

EMC TEST REGULATIONS:

The tests were performed according to the following regulations :

- EN 50081-1 / 1991
- EN 55014-2: 1997 + Amendment A1: 2001 - Category ___
- EN 55024: 1998 + Amendments A1: 2001 + A2: 2003
- EN 60601-1-2: 2001
- EN 61000-6-1: 2001
- EN 61000-6-2: 2001
- EN 61326: 1997 + Amendments A1: 1998 + A2: 2001 + A3: 2003
- EN 61800-3: 1996 + Amendment A11: 2000
- ETS 300 683: 1997
- ETS 300 683: 1997
- ETSI EN 301 489-3 V1.4.1: 2002
- EN 300 220-3 V1.1.1
- EN 300 330-2 V1.1.1
- FCC Part 15 Subpart C Section 15.249
- FCC Part 15 Subpart C Section 15.207
- FCC Part 15 Subpart C Section 15.209
- IC RSS-210 Issue 6
- IC RSS-Gen Issue 1
- IC RSS-Gen Issue 1

ENVIRONMENTAL CONDITIONS IN THE LAB

	<u>Actual</u>
Temperature:	: 23 °C
Atmospheric pressure	: 99 kPa
Relative Humidity	: 33 %

POWER SUPPLY UTILIZED

Power supply system : 100 VAC, 60 Hz & 230 VAC, 50 Hz - 1 ϕ



America

General field strength limits 0.009 – 30 MHz

FCC 15.209(a), FCC 15.209(c), IC RSS-210 2.6

Test summary

The requirements are: - MET - NOT MET

Minimum margin of compliance of the fundamental is 25.5 dB at 13.56 MHz

No unwanted emissions exceed the level of the fundamental

Test location

- Wild River Lab Large Test Site (Open Area Test Site)

- Wild River Lab Small Test Site (Open Area Test Site)

Test distance

- 0.3 meters

- 1.0 meters

- 3 meters

Test equipment

TUV ID	Model Number	Manufacturer	Description	Serial Number	Cal Due
3800	ESCS 30	Rohde & Schwarz	EMI Receiver	100312	07-Jul 07
2418	6502	Electro-Mechanics (EMCO)	Loop Antenna	2215	27 Apr 07

Test limit

Frequency (MHz)	Field strength $\mu\text{V/m}$	Measurement distance (m)
0.009-0.490	2400/F(kHz)	300
0.490 - 1.705	24000/F(kHz)	30
1.705 - 30	30	30

At the 13.56 MHz fundamental, the limit is 29.5 dB $\mu\text{V/m}$ at 30 meters

Test data

Quasi peak (dB $\mu\text{V/m}$)

(MHz)	0.3 m	1.0 m	3.0 m	10.0m	30 m*
13.56	68	52	nf	-	4*

* = Extrapolated value using 32 dB per decade roll off

nf = Noise floor

Radiated Emissions 30 - 1000 MHz
FCC 15.209(c), FCC 15.209(f), IC RSS-210 2.6

Test summary

The requirements are: - MET - NOT MET
 Run 1 data shows no 13.56 MHz harmonics up to 135.6 MHz
 Run 3 data shows no spurious emissions from transmitter

Test location

- Wild River Lab Large Test Site (Open Area Test Site)
 - Wild River Lab Small Test Site (Open Area Test Site)

Test distance

- 3 meters
 - 10 meters

Test Equipment

TUV ID	Model Number	Manufacturer	Description	Serial Number	Cal Due
3204	EM-6917B	Electro-Metrics	Biconicalog Periodic	102	19-Oct-06
2690	8566B	Hewlett-Packard	Spectrum Analyzer	2430A00930	12 May 07
2673	85662A	Hewlett-Packard	Analyzer Display	2152A03687	12 May 07
2684	85650A	Hewlett-Packard	Quasi-Peak Adapter	2521A01006	15 Mar 07
3847	ZHL-1042J	Mini-Circuits	Preamplifier 10 - 3000 MHz	0607	Code B

Cal Code B = Calibration verification performed internally.

Test limits

Frequency (MHz)	Field strength ($\mu\text{V/m}$)	Field strength ($\text{dB}\mu\text{V/m}$)	Measurement distance (m)
30-88	100	40	3
88-135.6	150	43.5	3
135.6 - 216	150	43.5	10
216 - 960	210	46.4	10
Above 960	300	49.5	10

Test data

Pages 6 - 16

RADIATED EMISSIONS



America

Test Report #: WC605657 Run 1 Test Area: LTS

EUT Model #: DV6800 Date: 10/9/2006

EUT Serial #: N/A EUT Power: 100 VAC / 60 Hz Temperature: 23.0 °C

Test Method: EN55011 A Grp 1 / N55022-A Air Pressure: 99.0 kPa

Customer: Eastman Kodak Rel. Humidity: 33.0 %

EUT Description: Dry View Laser Imager

Notes: _____

Data File Name: 5657.dat

Page: 2 of 9

List of measurements for run #: 1

FREQ	LEVEL (dBuV)	CABLE / ANT / PREAMP / ATTEN (dB)	FINAL (dBuV / m)	POL / HGT / AZ (m)(DEG)	DELTA1 EN 55011 A Grp 1 10M	DELTA2 FCC-A >1GHz 3m
200.029 MHz	41.0 Qp	2.12 / 9.7 / 29.56 / 0.0	23.26	V / 1.00 / 0	-16.74	n/a
203.341 MHz	47.45 Qp	2.14 / 9.81 / 29.57 / 0.0	29.83	V / 1.00 / 0	-10.17	n/a
207.94 MHz	43.15 Qp	2.18 / 9.96 / 29.58 / 0.0	25.71	V / 1.00 / 0	-14.29	n/a
216.91 MHz	46.8 Qp	2.23 / 10.26 / 29.59 / 0.0	29.7	V / 1.00 / 0	-10.3	n/a
303.943 MHz	39.25 Qp	2.62 / 12.63 / 29.73 / 0.0	24.76	V / 1.00 / 0	-22.24	n/a
319.795 MHz	46.75 Qp	2.69 / 13.15 / 29.76 / 0.0	32.84	V / 1.00 / 0	-14.16	n/a
320.112 MHz	46.0 Qp	2.69 / 13.15 / 29.76 / 0.0	32.09	V / 1.00 / 0	-14.91	n/a
351.963 MHz	36.9 Qp	2.83 / 14.27 / 29.81 / 0.0	24.2	V / 1.00 / 0	-22.8	n/a
359.793 MHz	46.55 Qp	2.86 / 14.61 / 29.82 / 0.0	34.21	V / 1.00 / 0	-12.79	n/a
360.123 MHz	47.05 Qp	2.86 / 14.63 / 29.82 / 0.0	34.72	V / 1.00 / 0	-12.28	n/a
399.765 MHz	42.7 Qp	3.01 / 16.35 / 29.88 / 0.0	32.19	V / 1.00 / 0	-14.81	n/a
400.155 MHz	42.7 Qp	3.02 / 16.37 / 29.88 / 0.0	32.2	V / 1.00 / 0	-14.8	n/a
447.439 MHz	38.95 Qp	3.2 / 16.23 / 29.96 / 0.0	28.43	V / 1.00 / 0	-18.57	n/a
461.004 MHz	32.5 Qp	3.26 / 16.85 / 29.98 / 0.0	22.62	V / 1.00 / 0	-24.38	n/a
496.777 MHz	38.3 Qp	3.41 / 17.07 / 30.04 / 0.0	28.74	V / 1.00 / 0	-18.26	n/a
122.826 MHz	53.4 Qp	1.61 / 7.94 / 29.57 / 0.0	33.37	V / 1.00 / 45	-6.63	n/a
149.109 MHz	40.55 Qp	1.8 / 8.8 / 29.55 / 0.0	21.59	V / 1.00 / 45	-18.41	n/a
159.944 MHz	42.1 Qp	1.85 / 8.0 / 29.5 / 0.0	22.45	V / 1.00 / 45	-17.55	n/a
279.837 MHz	47.75 Qp	2.51 / 12.1 / 29.69 / 0.0	32.67	V / 1.00 / 45	-14.33	n/a
280.083 MHz	45.9 Qp	2.51 / 12.1 / 29.69 / 0.0	30.81	V / 1.00 / 45	-16.19	n/a
303.943 MHz	42.75 Qp	2.62 / 12.63 / 29.73 / 0.0	28.26	V / 1.00 / 45	-18.74	n/a
461.004 MHz	35.0 Qp	3.26 / 16.85 / 29.98 / 0.0	25.12	V / 1.00 / 45	-21.88	n/a
496.777 MHz	50.05 Qp	3.41 / 17.07 / 30.04 / 0.0	40.49	V / 1.00 / 45	-6.51	n/a
149.109 MHz	40.8 Qp	1.8 / 8.8 / 29.55 / 0.0	21.84	V / 1.00 / 90	-18.16	n/a

Added a G-MAG ferrite (F5-NF-70W-66) on the

Tested by: Michael Schultz/RMJ

Printed

Signature

Reviewed by: J. T. Schneider

Printed

Signature

RADIATED EMISSIONS



America

Test Report #: WC605657 Run 1 Test Area: LTS

EUT Model #: DV6800 Date: 10/9/2006

EUT Serial #: N/A EUT Power: 100 VAC / 60 Hz Temperature: 23.0 °C

Test Method: EN55011 A Grp 1 / N55022-A Air Pressure: 99.0 kPa

Customer: Eastman Kodak Rel. Humidity: 33.0 %

EUT Description: Dry View Laser Imager

Notes: _____

Data File Name: 5657.dat

Page: 4 of 9

List of measurements for run #: 1

FREQ	LEVEL (dBuV)	CABLE / ANT / PREAMP / ATTEN (dB)	FINAL (dBuV / m)	POL / HGT / AZ (m)(DEG)	DELTA1 EN 55011 A Grp 1 10M	DELTA2 FCC-A >1GHz 3m
754.351 MHz	35.4 Qp	4.29 / 20.96 / 29.98 / 0.0	30.66	H / 3.00 / 0	-16.34	n/a
729.197 MHz	36.5 Qp	4.2 / 20.49 / 30.02 / 0.0	31.17	H / 3.00 / 0	-15.83	n/a
704.045 MHz	34.95 Qp	4.12 / 19.29 / 30.05 / 0.0	28.31	H / 3.00 / 0	-18.69	n/a
678.898 MHz	34.4 Qp	4.03 / 19.57 / 30.09 / 0.0	27.92	H / 3.00 / 0	-19.08	n/a
637.672 MHz	33.7 Qp	3.89 / 19.37 / 30.14 / 0.0	26.82	H / 3.00 / 0	-20.18	n/a
496.06 MHz	39.2 Qp	3.4 / 17.04 / 30.04 / 0.0	29.61	H / 3.00 / 0	-17.39	n/a
399.929 MHz	35.25 Qp	3.02 / 16.36 / 29.88 / 0.0	24.74	H / 3.00 / 0	-22.26	n/a
168.881 MHz	46.65 Qp	1.89 / 8.62 / 29.51 / 0.0	27.65	H / 3.00 / 0	-12.35	n/a
779.491 MHz	40.3 Qp	4.37 / 20.72 / 29.95 / 0.0	35.44	H / 3.00 / 270	-11.56	n/a
496.06 MHz	40.6 Qp	3.4 / 17.04 / 30.04 / 0.0	31.01	H / 3.00 / 90	-15.99	n/a
623.989 MHz	38.85 Qp	3.85 / 19.78 / 30.16 / 0.0	32.31	H / 3.00 / 90	-14.69	n/a
TAPED THE DATAPATH CABLE DOWN TO THE OPTICS DECK. MAXIMIZED.						
912.014 MHz	40.9 Qp	4.74 / 21.58 / 29.77 / 0.0	37.45	H / 1.16 / 0	-9.55	n/a
779.491 MHz	47.83 Qp	4.37 / 20.72 / 29.95 / 0.0	42.97	H / 1.16 / 0	-4.03	n/a
754.351 MHz	38.9 Qp	4.29 / 20.96 / 29.98 / 0.0	34.16	H / 1.16 / 0	-12.84	n/a
ADDED A FAIR-RITE FERRITE (F5-NFR161308W-66) TO LVDS CABLE AT PANEL END.						
779.491 MHz	43.74 Qp	4.37 / 20.72 / 29.95 / 0.0	38.88	H / 1.00 / 0	-8.12	n/a
226.242 MHz	45.2 Qp	2.27 / 10.57 / 29.61 / 0.0	28.44	H / 1.00 / 0	-11.56	n/a
END OF SCAN < 1GHz.						

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Michael Schultz
Signature

Reviewed by: J. T. Schneider
Printed

Joel T. Schneider
Signature

RADIATED EMISSIONS



America

Test Report #: WC605657 Run 1 Test Area: LTS

EUT Model #: DV6800 Date: 10/9/2006

EUT Serial #: N/A EUT Power: 100 VAC / 60 Hz Temperature: 23.0 °C

Test Method: EN55011 A Grp 1 / N55022-A Air Pressure: 99.0 kPa

Customer: Eastman Kodak Rel. Humidity: 33.0 %

EUT Description: Dry View Laser Imager

Notes: _____

Data File Name: 5657.dat Page: 5 of 9

List of measurements for run #: 1

FREQ	LEVEL (dBuV)	CABLE / ANT / PREAMP / ATTEN (dB)	FINAL (dBuV / m)	POL / HGT / AZ (m)(DEG)	DELTA1 EN 55011 A Grp 1 10M	DELTA2 FCC-A >1GHz 3m
1.008 GHz	70.88 Av	2.65 / 25.2 / 49.93 / 0.0	48.8	V / 1.00 / 0	n/a	-11.16
1.008 GHz	71.75 Pk	2.65 / 25.2 / 49.93 / 0.0	49.67	V / 1.00 / 0	n/a	-10.29*
1.296 GHz	60.11 Av	3.17 / 25.08 / 50.68 / 0.0	37.68	V / 1.00 / 0	n/a	-22.28
1.296 GHz	62.7 Pk	3.17 / 25.08 / 50.68 / 0.0	40.27	V / 1.00 / 0	n/a	-19.69*
1.392 GHz	60.31 Av	3.37 / 25.04 / 50.64 / 0.0	38.09	V / 1.00 / 0	n/a	-21.87
1.392 GHz	63.3 Pk	3.37 / 25.04 / 50.64 / 0.0	41.08	V / 1.00 / 0	n/a	-18.88*
1.591 GHz	60.91 Av	4.0 / 25.55 / 50.6 / 0.0	39.86	V / 1.00 / 0	n/a	-20.1
1.591 GHz	62.9 Pk	4.0 / 25.55 / 50.6 / 0.0	41.85	V / 1.00 / 0	n/a	-18.11*
1.68 GHz	59.15 Av	4.02 / 26.08 / 50.48 / 0.0	38.76	V / 1.00 / 0	n/a	-21.2
1.68 GHz	63.3 Pk	4.02 / 26.08 / 50.48 / 0.0	42.91	V / 1.00 / 0	n/a	-17.05*
2.064 GHz	56.48 Av	4.07 / 28.12 / 50.39 / 0.0	38.29	V / 1.00 / 0	n/a	-21.67
2.064 GHz	61.1 Pk	4.07 / 28.12 / 50.39 / 0.0	42.91	V / 1.00 / 0	n/a	-17.05*
2.736 GHz	53.83 Av	4.58 / 29.4 / 49.67 / 0.0	38.15	V / 1.00 / 0	n/a	-21.81
1.659 GHz	54.73 Av	4.01 / 25.96 / 50.51 / 0.0	34.19	V / 1.00 / 180	n/a	-25.77
MAXIMIZED.						
1.008 GHz	71.78 Av	2.65 / 25.2 / 49.94 / 0.0	49.7	V / 1.00 / 5	n/a	-10.26
END OF VERTICAL SCAN > 1GHz.						
NO NEW OR HIGHER EMISSIONS FOUND WITH HORIZONTAL POLARIZATION AT ALL AZIMUTHS 1 - 4 METERS.						
END OF SCAN 30 - 7000MHz.						

Tested by: Michael Schultz/RMJ

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Michael Schultz

 Signature

Reviewed by: J. T. Schneider

 Printed

Joel T. Schneider

 Signature

RADIATED EMISSIONS



America

Test Report #: WC605657 Run 1 Test Area: LTS

EUT Model #: DV6800 Date: 10/9/2006

EUT Serial #: N/A EUT Power: 100 VAC / 60 Hz Temperature: 23.0 °C

Test Method: EN55011 A Grp 1 / N55022-A Air Pressure: 99.0 kPa

Customer: Eastman Kodak Rel. Humidity: 33.0 %

EUT Description: Dry View Laser Imager

Notes: _____

Data File Name: 5657.dat

Page: 6 of 9

Measurement summary for limit1: EN 55011 A Grp 1 10M (Qp)

FREQ	LEVEL (dBuV)	CABLE / ANT / PREAMP / ATTEN (dB)	FINAL (dBuV / m)	POL / HGT / AZ (m)(DEG)	DELTA1 EN 55011 A Grp 1 10M
122.802 MHz	56.53 Qp	1.61 / 7.94 / 29.57 / 0.0	36.5	V / 1.00 / 90	-3.5
779.491 MHz	47.83 Qp	4.37 / 20.72 / 29.95 / 0.0	42.97	H / 1.16 / 0	-4.03
496.777 MHz	50.05 Qp	3.41 / 17.07 / 30.04 / 0.0	40.49	V / 1.00 / 45	-6.51
79.945 MHz	53.32 Qp	1.3 / 7.39 / 29.51 / 0.0	32.5	V / 1.50 / 300	-7.5
912.014 MHz	40.9 Qp	4.74 / 21.58 / 29.77 / 0.0	37.45	H / 1.16 / 0	-9.55
203.341 MHz	47.45 Qp	2.14 / 9.81 / 29.57 / 0.0	29.83	V / 1.00 / 0	-10.17
216.91 MHz	46.8 Qp	2.23 / 10.26 / 29.59 / 0.0	29.7	V / 1.00 / 0	-10.3
61.386 MHz	47.89 Qp	1.14 / 10.28 / 29.69 / 0.0	29.62	V / 1.50 / 0	-10.38
175.952 MHz	47.5 Qp	1.94 / 9.12 / 29.53 / 0.0	29.03	V / 1.00 / 270	-10.97
147.674 MHz	47.4 Qp	1.78 / 8.9 / 29.56 / 0.0	28.53	V / 1.00 / 0	-11.47
226.242 MHz	45.2 Qp	2.27 / 10.57 / 29.61 / 0.0	28.44	H / 1.00 / 0	-11.56
138.258 MHz	48.25 Qp	1.69 / 8.02 / 29.6 / 0.0	28.37	V / 1.00 / 0	-11.63
360.123 MHz	47.05 Qp	2.86 / 14.63 / 29.82 / 0.0	34.72	V / 1.00 / 0	-12.28
168.881 MHz	46.65 Qp	1.89 / 8.62 / 29.51 / 0.0	27.65	H / 3.00 / 0	-12.35
359.793 MHz	46.55 Qp	2.86 / 14.61 / 29.82 / 0.0	34.21	V / 1.00 / 0	-12.79
754.351 MHz	38.9 Qp	4.29 / 20.96 / 29.98 / 0.0	34.16	H / 1.16 / 0	-12.84
153.978 MHz	46.35 Qp	1.82 / 8.44 / 29.53 / 0.0	27.08	V / 1.00 / 0	-12.92
169.68 MHz	45.6 Qp	1.89 / 8.68 / 29.52 / 0.0	26.65	V / 1.00 / 0	-13.35
199.867 MHz	43.85 Qp	2.12 / 9.71 / 29.56 / 0.0	26.11	V / 1.00 / 0	-13.89
319.795 MHz	46.75 Qp	2.69 / 13.15 / 29.76 / 0.0	32.84	V / 1.00 / 0	-14.16
207.94 MHz	43.15 Qp	2.18 / 9.96 / 29.58 / 0.0	25.71	V / 1.00 / 0	-14.29
279.837 MHz	47.75 Qp	2.51 / 12.1 / 29.69 / 0.0	32.67	V / 1.00 / 45	-14.33
399.78 MHz	43.15 Qp	3.01 / 16.36 / 29.88 / 0.0	32.64	V / 1.00 / 0	-14.36
623.989 MHz	38.85 Qp	3.85 / 19.78 / 30.16 / 0.0	32.31	H / 3.00 / 90	-14.69
400.155 MHz	42.7 Qp	3.02 / 16.37 / 29.88 / 0.0	32.2	V / 1.00 / 0	-14.8
320.112 MHz	46.0 Qp	2.69 / 13.15 / 29.76 / 0.0	32.09	V / 1.00 / 0	-14.91

Tested by: Michael Schultz/RMJ

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Michael Schultz

 Signature

Reviewed by: J. T. Schneider

 Printed

Joel T. Schneider

 Signature

RADIATED EMISSIONS



America

Test Report #: WC605657 Run 1 Test Area: LTS

EUT Model #: DV6800 Date: 10/9/2006

EUT Serial #: N/A EUT Power: 100 VAC / 60 Hz Temperature: 23.0 °C

Test Method: EN55011 A Grp 1 / N55022-A Air Pressure: 99.0 kPa

Customer: Eastman Kodak Rel. Humidity: 33.0 %

EUT Description: Dry View Laser Imager

Notes: _____

Data File Name: 5657.dat

Page: 7 of 9

Measurement summary for limit1: EN 55011 A Grp 1 10M (Qp)

FREQ	LEVEL (dBuV)	CABLE / ANT / PREAMP / ATTEN (dB)	FINAL (dBuV / m)	POL / HGT / AZ (m)(DEG)	DELTA1 EN 55011 A Grp 1 10M
729.197 MHz	36.5 Qp	4.2 / 20.49 / 30.02 / 0.0	31.17	H / 3.00 / 0	-15.83
200.052 MHz	41.8 Qp	2.12 / 9.7 / 29.56 / 0.0	24.06	V / 1.00 / 0	-15.94
496.06 MHz	40.6 Qp	3.4 / 17.04 / 30.04 / 0.0	31.01	H / 3.00 / 90	-15.99
280.083 MHz	45.9 Qp	2.51 / 12.1 / 29.69 / 0.0	30.81	V / 1.00 / 45	-16.19
176.222 MHz	41.55 Qp	1.94 / 9.14 / 29.53 / 0.0	23.1	V / 1.00 / 0	-16.9
149.109 MHz	42.0 Qp	1.8 / 8.8 / 29.55 / 0.0	23.04	V / 1.00 / 270	-16.96
276.564 MHz	44.75 Qp	2.49 / 12.17 / 29.69 / 0.0	29.72	V / 1.00 / 0	-17.28
159.944 MHz	42.2 Qp	1.85 / 8.0 / 29.5 / 0.0	22.55	V / 1.00 / 270	-17.45
333.06 MHz	43.0 Qp	2.75 / 13.45 / 29.78 / 0.0	29.43	V / 1.00 / 225	-17.57
331.812 MHz	43.05 Qp	2.75 / 13.4 / 29.78 / 0.0	29.42	V / 1.00 / 225	-17.58
447.439 MHz	38.95 Qp	3.2 / 16.23 / 29.96 / 0.0	28.43	V / 1.00 / 0	-18.57
704.045 MHz	34.95 Qp	4.12 / 19.29 / 30.05 / 0.0	28.31	H / 3.00 / 0	-18.69
239.963 MHz	44.55 Qp	2.33 / 11.03 / 29.63 / 0.0	28.28	V / 1.00 / 0	-18.72
303.943 MHz	42.75 Qp	2.62 / 12.63 / 29.73 / 0.0	28.26	V / 1.00 / 45	-18.74
678.898 MHz	34.4 Qp	4.03 / 19.57 / 30.09 / 0.0	27.92	H / 3.00 / 0	-19.08
637.672 MHz	33.7 Qp	3.89 / 19.37 / 30.14 / 0.0	26.82	H / 3.00 / 0	-20.18
230.484 MHz	42.45 Qp	2.29 / 10.72 / 29.61 / 0.0	25.84	V / 1.00 / 0	-21.16
461.004 MHz	35.0 Qp	3.26 / 16.85 / 29.98 / 0.0	25.12	V / 1.00 / 45	-21.88
399.929 MHz	35.25 Qp	3.02 / 16.36 / 29.88 / 0.0	24.74	H / 3.00 / 0	-22.26
351.963 MHz	37.1 Qp	2.83 / 14.27 / 29.81 / 0.0	24.4	V / 3.00 / 0	-22.6

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Joel T. Schneider
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RADIATED EMISSIONS



America

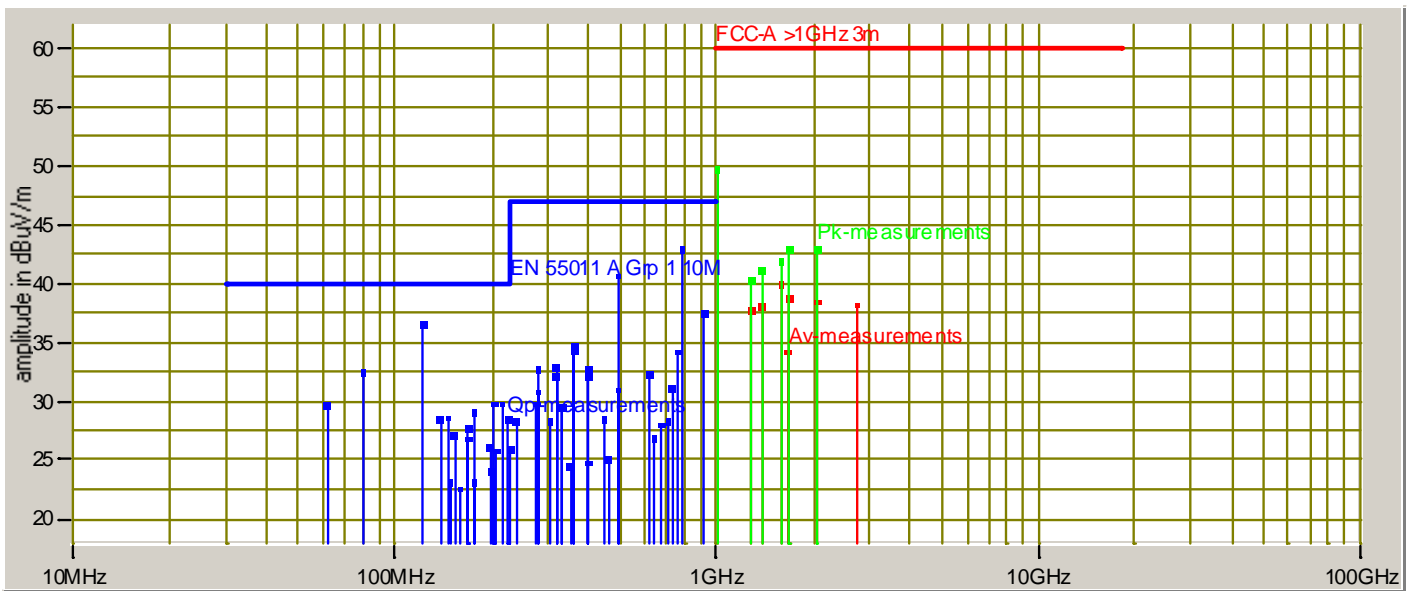
Test Report #: <u>WC605657 Run 1</u>	Test Area: <u>LTS</u>
EUT Model #: <u>DV6800</u>	Date: <u>10/9/2006</u>
EUT Serial #: <u>N/A</u>	EUT Power: <u>100 VAC / 60 Hz</u>
Temperature: <u>23.0</u> °C	Air Pressure: <u>99.0</u> kPa
Test Method: <u>EN55011 A Grp 1 / N55022-A</u>	Rel. Humidity: <u>33.0</u> %
Customer: <u>Eastman Kodak</u>	
EUT Description: <u>Dry View Laser Imager</u>	

Notes: _____

Data File Name: 5657.dat

Page: 9 of 9

Graph:



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RADIATED EMISSIONS



America

Test Report #: WC605657 Run 3 Test Area: LTS
 EUT Model #: DV6800 Date: 10/10/2006
 EUT Serial #: N/A EUT Power: 50Hz/230VAC Temperature: 23.0 °C
 Test Method: EN300-330 Air Pressure: 99.0 kPa
 Customer: Eastman Kodak Rel. Humidity: 33.0 %

EUT Description: Dry View Laser Imager
TRANSMITTER SPURIOUS SCAN.

Notes: _____

Data File Name: 5657.dat Page: 1 of 2

List of measurements for run #: 3

FREQ	LEVEL (dBuV)	CABLE / ANT / PREAMP / ATTEN (dB)	FINAL (dBuV / m)	POL / HGT / AZ (m)(DEG)	DELTA1 EN 55011 A Grp 1 10M	DELTA2
NO EMISSIONS DETECTED ABOVE 30MHZ V OR H POLARIZATIONS AT ALL AZIUMUTHS.						
END OF TRANSMITTER SPURIOUS SCAN.						

Tested by: R. M. Johnson

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R. M. Johnson

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Reviewed by: J. T. Schneider

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Joel T. Schneider

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RADIATED EMISSIONS



America

Test Report #: WC605657 Run 3 Test Area: LTS

EUT Model #: DV6800 Date: 10/10/2006

EUT Serial #: N/A EUT Power: 50Hz/230VAC Temperature: 23.0 °C

Test Method: EN300-330 Air Pressure: 99.0 kPa

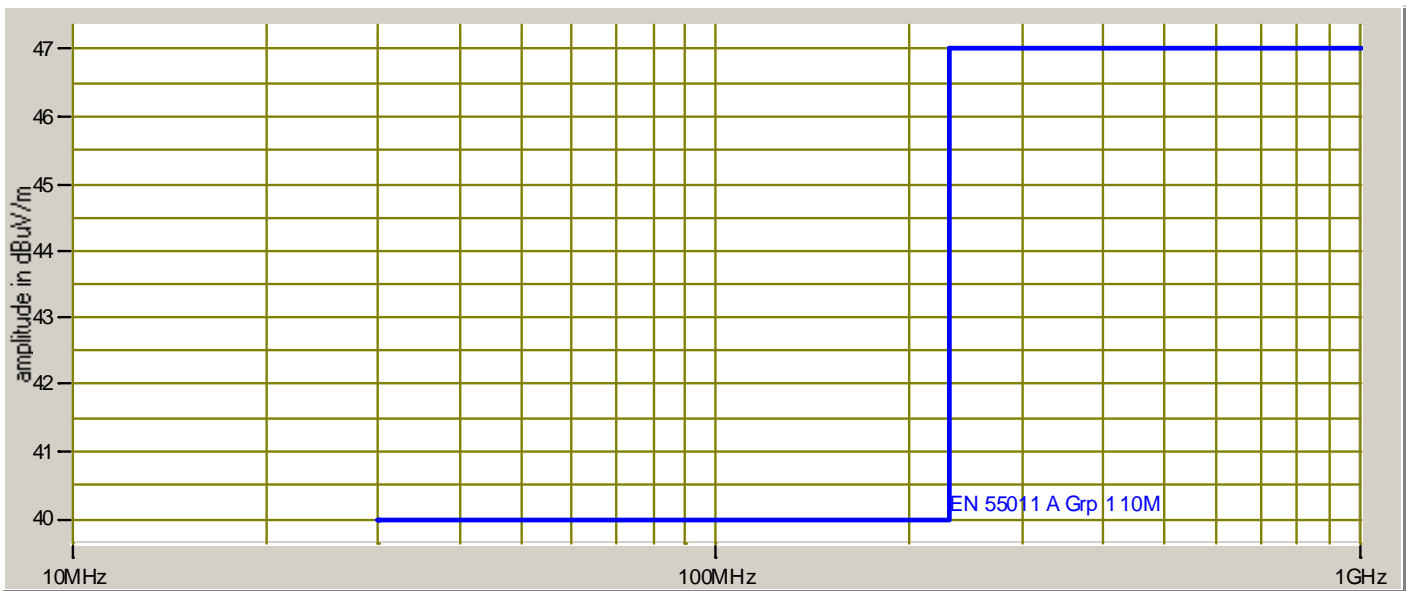
Customer: Eastman Kodak Rel. Humidity: 33.0 %

EUT Description: Dry View Laser Imager
TRANSMITTER SPURIOUS SCAN.

Notes: _____

Data File Name: <u>5657.dat</u>	Page:	2 of 2
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Graph:



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Occupied bandwidth

RSS-Gen 4.4.1

Test summary

The requirements are: - MET - NOT MET
 100 kHz < Occupied bandwidth < 200 kHz

Test location

- Wild River Lab Large Test Site (Open Area Test Site)
- Wild River Lab Small Test Site (Open Area Test Site)

Test equipment

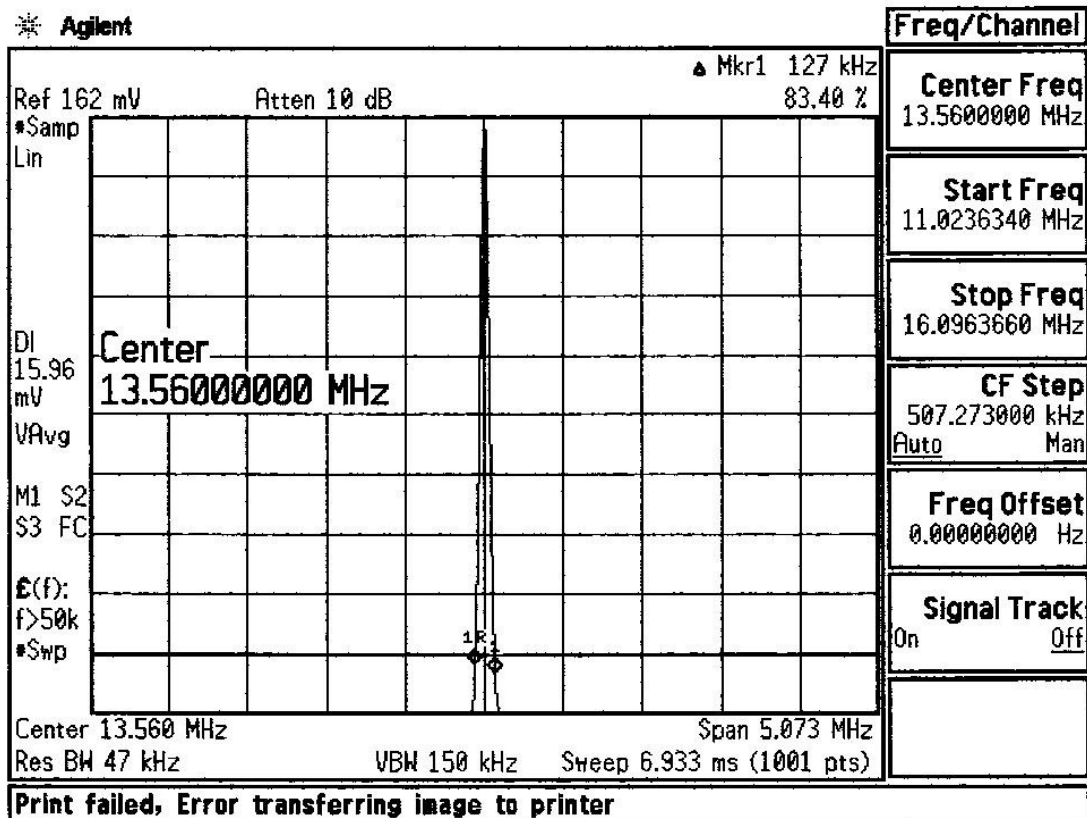
TUV ID	Model Number	Manufacturer	Description	Serial Number	Cal Due
3367	E4440A	Agilent	Spectrum Analyzer	MY42510439	14 Sep 07
	7405-901	EMCO	Near field probe	na	Code Y

Cal Code B = Calibration verification performed internally. Cal Code Y = Calibration not required when used with other calibrated equipment.

Test limit

No limit specified

Test data



Conducted Emissions - AC Power Lines

FCC 15.207(a), IC RSS-Gen 7.2.2

Test summary

The requirements are: - MET - NOT MET
 Minimum margin of compliance is 7.7 dB at 3.865 MHz
 17.767 MHz emission is not related to the transmitter

Test location

- Wild River Lab Large Test Site (Open Area Test Site)
- Wild River Lab Small Test Site (Open Area Test Site)

Test Equipment

TUV ID	Model Number	Manufacturer	Description	Serial Number	Cal Due
2417	3825/2	Electro-Mechanics (EMCO)	50 Ω LISN (yellow tape*)	8812-1439	Code B
3800	ESCS 30	Rohde & Schwarz	EMI Receiver	100312	07-Jul 07

Cal Code B = Calibration verification performed internally.

Test limits, dB μ V

Frequency (MHz)	Quasi Peak	Average
0.15 - 0.5	66 - 56*	56 - 64*
0.5 - 5	56	46
5 - 30	60	50

*Decreases with the logarithm of the frequency

Test data

Pages 19 - 25

CONDUCTED EMISSIONS



America

Test Report #: WC605657 Run 2 Test Area: LTS
 EUT Model #: DV6800 Date: 10/10/2006
 EUT Serial #: _____ EUT Power: 120/100/230 VAC / 60/50 Temperature: 23.0 °C
 Test Method: EN55011 A Grp 1 / EN55022 A Air Pressure: 99.0 kPa
 Customer: Eastman Kodak Rel. Humidity: 33.0 %
 EUT Description: Dry View Laser Imager

Notes: 17.767 MHz emission is not related to the transmitter

Data File Name: 5657 r2 CE with class B limit.dat

Page: 1 of 7

List of measurements for run #: 2

FREQ	LEVEL (dBuV)	CABLE / ANT / PREAMP / ATTEN (dB)	FINAL (dBuV / m)	EUT Lead	DELTA1 EN55022 B Qp	DELTA2 EN55022 B Avg
60Hz/120VAC						
3.091 MHz	32.02 Qp	0.86 / 0.06 / 0.0 / 0.0	32.94	L1	-23.06	n/a
3.865 MHz	39.58 Qp	0.96 / 0.1 / 0.0 / 0.0	40.64	L1	-15.36	n/a
5.216 MHz	38.95 Qp	1.16 / 0.11 / 0.0 / 0.0	40.22	L1	-19.78	n/a
13.314 MHz	36.52 Qp	1.89 / 0.03 / 0.0 / 0.0	38.44	L1	-21.56	n/a
17.767 MHz	43.2 Qp	2.19 / 0.06 / 0.0 / 0.0	45.45	L1	-14.55	n/a
28.201 MHz	27.61 Qp	2.76 / 0.35 / 0.0 / 0.0	30.72	L1	-29.28	n/a
3.091 MHz	25.34 Av	0.86 / 0.06 / 0.0 / 0.0	26.26	L1	n/a	-19.74
3.865 MHz	37.15 Av	0.96 / 0.1 / 0.0 / 0.0	38.21	L1	n/a	-7.79
5.216 MHz	37.46 Av	1.16 / 0.11 / 0.0 / 0.0	38.73	L1	n/a	-11.27
13.314 MHz	36.87 Av	1.89 / 0.03 / 0.0 / 0.0	38.79	L1	n/a	-11.21
17.767 MHz	41.86 Av	2.19 / 0.06 / 0.0 / 0.0	44.11	L1	n/a	-5.89
28.201 MHz	24.56 Av	2.76 / 0.35 / 0.0 / 0.0	27.67	L1	n/a	-22.33
3.091 MHz	31.41 Qp	0.86 / 0.06 / 0.0 / 0.0	32.33	N	-23.67	n/a
3.865 MHz	35.77 Qp	0.96 / 0.1 / 0.0 / 0.0	36.83	N	-19.17	n/a
5.216 MHz	33.75 Qp	1.16 / 0.11 / 0.0 / 0.0	35.02	N	-24.98	n/a
13.314 MHz	35.94 Qp	1.89 / 0.03 / 0.0 / 0.0	37.86	N	-22.14	n/a
17.767 MHz	46.71 Qp	2.19 / 0.06 / 0.0 / 0.0	48.96	N	-11.04	n/a
28.201 MHz	29.13 Qp	2.76 / 0.35 / 0.0 / 0.0	32.24	N	-27.76	n/a
3.091 MHz	28.29 Av	0.86 / 0.06 / 0.0 / 0.0	29.21	N	n/a	-16.79
3.865 MHz	36.64 Av	0.96 / 0.1 / 0.0 / 0.0	37.7	N	n/a	-8.3
5.216 MHz	34.76 Av	1.16 / 0.11 / 0.0 / 0.0	36.03	N	n/a	-13.97
13.314 MHz	36.28 Av	1.89 / 0.03 / 0.0 / 0.0	38.2	N	n/a	-11.8
17.767 MHz	46.29 Av	2.19 / 0.06 / 0.0 / 0.0	48.54	N	n/a	-1.46

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CONDUCTED EMISSIONS



America

Test Report #: WC605657 Run 2 Test Area: LTS
 EUT Model #: DV6800 Date: 10/10/2006
 EUT Serial #: _____ EUT Power: 120/100/230 VAC / 60/50 Temperature: 23.0 °C
 Test Method: EN55011 A Grp 1 / EN55022 A Air Pressure: 99.0 kPa
 Customer: Eastman Kodak Rel. Humidity: 33.0 %

EUT Description: Dry View Laser Imager

Notes: 17.767 MHz emission is not related to the transmitter

Data File Name: 5657 r2 CE with class B limit.dat Page: 2 of 7

List of measurements for run #: 2

FREQ	LEVEL (dBuV)	CABLE / ANT / PREAMP / ATTEN (dB)	FINAL (dBuV / m)	EUT Lead	DELTA1 EN55022 B Qp	DELTA2 EN55022 B Avg
28.201 MHz	24.06 Av	2.76 / 0.35 / 0.0 / 0.0	27.17	N	n/a	-22.83
60Hz/100VAC						
3.869 MHz	38.41 Qp	0.96 / 0.1 / 0.0 / 0.0	39.47	N	-16.53	n/a
5.525 MHz	28.1 Qp	1.2 / 0.12 / 0.0 / 0.0	29.42	N	-30.58	n/a
7.572 MHz	31.69 Qp	1.38 / 0.2 / 0.0 / 0.0	33.27	N	-26.73	n/a
10.216 MHz	28.81 Qp	1.7 / 0.1 / 0.0 / 0.0	30.6	N	-29.4	n/a
14.209 MHz	22.18 Qp	1.97 / 0.02 / 0.0 / 0.0	24.17	N	-35.83	n/a
29.623 MHz	26.58 Qp	2.83 / 0.39 / 0.0 / 0.0	29.8	N	-30.2	n/a
3.869 MHz	30.23 Av	0.96 / 0.1 / 0.0 / 0.0	31.29	N	n/a	-14.71
5.525 MHz	20.18 Av	1.2 / 0.12 / 0.0 / 0.0	21.5	N	n/a	-28.5
7.572 MHz	26.05 Av	1.38 / 0.2 / 0.0 / 0.0	27.63	N	n/a	-22.37
10.216 MHz	21.36 Av	1.7 / 0.1 / 0.0 / 0.0	23.15	N	n/a	-26.85
14.209 MHz	16.54 Av	1.97 / 0.02 / 0.0 / 0.0	18.53	N	n/a	-31.47
29.623 MHz	21.09 Av	2.83 / 0.39 / 0.0 / 0.0	24.31	N	n/a	-25.69
3.869 MHz	37.12 Qp	0.96 / 0.1 / 0.0 / 0.0	38.18	L1	-17.82	n/a
5.525 MHz	28.53 Qp	1.2 / 0.12 / 0.0 / 0.0	29.85	L1	-30.15	n/a
7.572 MHz	31.77 Qp	1.38 / 0.2 / 0.0 / 0.0	33.35	L1	-26.65	n/a
10.216 MHz	29.22 Qp	1.7 / 0.1 / 0.0 / 0.0	31.01	L1	-28.99	n/a
14.209 MHz	20.34 Qp	1.97 / 0.02 / 0.0 / 0.0	22.33	L1	-37.67	n/a
29.623 MHz	26.76 Qp	2.83 / 0.39 / 0.0 / 0.0	29.98	L1	-30.02	n/a
3.869 MHz	34.34 Av	0.96 / 0.1 / 0.0 / 0.0	35.4	L1	n/a	-10.6
5.525 MHz	20.34 Av	1.2 / 0.12 / 0.0 / 0.0	21.66	L1	n/a	-28.34
7.572 MHz	25.17 Av	1.38 / 0.2 / 0.0 / 0.0	26.75	L1	n/a	-23.25

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CONDUCTED EMISSIONS



America

Test Report #: WC605657 Run 2 Test Area: LTS

EUT Model #: DV6800 Date: 10/10/2006

EUT Serial #: _____ EUT Power: 120/100/230 VAC / 60/50 Temperature: 23.0 °C

Test Method: EN55011 A Grp 1 / EN55022 A Air Pressure: 99.0 kPa

Customer: Eastman Kodak Rel. Humidity: 33.0 %

EUT Description: Dry View Laser Imager

Notes: 17.767 MHz emission is not related to the transmitter

Data File Name: 5657 r2 CE with class B limit.dat

Page: 3 of 7

List of measurements for run #: 2

FREQ	LEVEL (dBuV)	CABLE / ANT / PREAMP / ATTEN (dB)	FINAL (dBuV / m)	EUT Lead	DELTA1 EN55022 B Qp	DELTA2 EN55022 B Avg
10.216 MHz	21.67 Av	1.7 / 0.1 / 0.0 / 0.0	23.46	L1	n/a	-26.54
14.209 MHz	14.41 Av	1.97 / 0.02 / 0.0 / 0.0	16.4	L1	n/a	-33.6
29.623 MHz	20.82 Av	2.83 / 0.39 / 0.0 / 0.0	24.04	L1	n/a	-25.96
50Hz/230VAC						
3.865 MHz	33.97 Qp	0.96 / 0.1 / 0.0 / 0.0	35.03	L1	-20.97	n/a
4.154 MHz	33.73 Qp	1.0 / 0.1 / 0.0 / 0.0	34.83	L1	-21.17	n/a
4.537 MHz	31.7 Qp	1.06 / 0.1 / 0.0 / 0.0	32.86	L1	-23.14	n/a
10.795 MHz	31.63 Qp	1.74 / 0.08 / 0.0 / 0.0	33.45	L1	-26.55	n/a
17.767 MHz	30.94 Qp	2.19 / 0.06 / 0.0 / 0.0	33.19	L1	-26.81	n/a
28.213 MHz	24.32 Qp	2.76 / 0.35 / 0.0 / 0.0	27.43	L1	-32.57	n/a
3.865 MHz	29.4 Av	0.96 / 0.1 / 0.0 / 0.0	30.46	L1	n/a	-15.54
4.154 MHz	28.19 Av	1.0 / 0.1 / 0.0 / 0.0	29.29	L1	n/a	-16.71
4.537 MHz	30.16 Av	1.06 / 0.1 / 0.0 / 0.0	31.32	L1	n/a	-14.68
10.795 MHz	26.79 Av	1.74 / 0.08 / 0.0 / 0.0	28.61	L1	n/a	-21.39
17.767 MHz	30.57 Av	2.19 / 0.06 / 0.0 / 0.0	32.82	L1	n/a	-17.18
28.213 MHz	18.22 Av	2.76 / 0.35 / 0.0 / 0.0	21.33	L1	n/a	-28.67
3.865 MHz	33.55 Qp	0.96 / 0.1 / 0.0 / 0.0	34.61	N	-21.39	n/a
4.154 MHz	32.81 Qp	1.0 / 0.1 / 0.0 / 0.0	33.91	N	-22.09	n/a
4.537 MHz	31.11 Qp	1.06 / 0.1 / 0.0 / 0.0	32.27	N	-23.73	n/a
10.795 MHz	31.18 Qp	1.74 / 0.08 / 0.0 / 0.0	33.0	N	-27.0	n/a
17.767 MHz	52.87 Qp	2.19 / 0.06 / 0.0 / 0.0	55.12	N	-4.88	n/a
28.213 MHz	23.99 Qp	2.76 / 0.35 / 0.0 / 0.0	27.1	N	-32.9	n/a
3.865 MHz	29.33 Av	0.96 / 0.1 / 0.0 / 0.0	30.39	N	n/a	-15.61

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by:

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CONDUCTED EMISSIONS



America

Test Report #: WC605657 Run 2 Test Area: LTS
 EUT Model #: DV6800 Date: 10/10/2006
 EUT Serial #: _____ EUT Power: 120/100/230 VAC / 60/50 Temperature: 23.0 °C
 Test Method: EN55011 A Grp 1 / EN55022 A Air Pressure: 99.0 kPa
 Customer: Eastman Kodak Rel. Humidity: 33.0 %

EUT Description: Dry View Laser Imager

Notes: 17.767 MHz emission is not related to the transmitter

Data File Name: 5657 r2 CE with class B limit.dat Page: 4 of 7

List of measurements for run #: 2

FREQ	LEVEL (dBuV)	CABLE / ANT / PREAMP / ATTEN (dB)	FINAL (dBuV / m)	EUT Lead	DELTA1 EN55022 B Qp	DELTA2 EN55022 B Avg
4.154 MHz	29.84 Av	1.0 / 0.1 / 0.0 / 0.0	30.94	N	n/a	-15.06
4.537 MHz	31.42 Av	1.06 / 0.1 / 0.0 / 0.0	32.58	N	n/a	-13.42
10.795 MHz	27.36 Av	1.74 / 0.08 / 0.0 / 0.0	29.18	N	n/a	-20.82
17.767 MHz	50.66 Av	2.19 / 0.06 / 0.0 / 0.0	52.91	N	n/a	2.91
28.213 MHz	17.35 Av	2.76 / 0.35 / 0.0 / 0.0	20.46	N	n/a	-29.54

END OF SCAN.

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CONDUCTED EMISSIONS



America

Test Report #: WC605657 Run 2 Test Area: LTS
 EUT Model #: DV6800 Date: 10/10/2006
 EUT Serial #: _____ EUT Power: 120/100/230 VAC / 60/50 Temperature: 23.0 °C
 Test Method: EN55011 A Grp 1 / EN55022 A Air Pressure: 99.0 kPa
 Customer: Eastman Kodak Rel. Humidity: 33.0 %
 EUT Description: Dry View Laser Imager

Notes: 17.767 MHz emission is not related to the transmitter

Data File Name: 5657 r2 CE with class B limit.dat

Page: 5 of 7

Measurement summary for limit1: EN55022 B Qp (Qp)

FREQ	LEVEL (dBuV)	CABLE / ANT / PREAMP / ATTEN (dB)	FINAL (dBuV / m)	EUT Lead	DELTA1 EN55022 B Qp
17.767 MHz	52.87 Qp	2.19 / 0.06 / 0.0 / 0.0	55.12	N	-4.88
3.865 MHz	39.58 Qp	0.96 / 0.1 / 0.0 / 0.0	40.64	L1	-15.36
5.216 MHz	38.95 Qp	1.16 / 0.11 / 0.0 / 0.0	40.22	L1	-19.78
4.154 MHz	33.73 Qp	1.0 / 0.1 / 0.0 / 0.0	34.83	L1	-21.17
13.314 MHz	36.52 Qp	1.89 / 0.03 / 0.0 / 0.0	38.44	L1	-21.56
3.091 MHz	32.02 Qp	0.86 / 0.06 / 0.0 / 0.0	32.94	L1	-23.06
4.537 MHz	31.7 Qp	1.06 / 0.1 / 0.0 / 0.0	32.86	L1	-23.14
10.795 MHz	31.63 Qp	1.74 / 0.08 / 0.0 / 0.0	33.45	L1	-26.55
7.572 MHz	31.77 Qp	1.38 / 0.2 / 0.0 / 0.0	33.35	L1	-26.65
28.201 MHz	29.13 Qp	2.76 / 0.35 / 0.0 / 0.0	32.24	N	-27.76
10.216 MHz	29.22 Qp	1.7 / 0.1 / 0.0 / 0.0	31.01	L1	-28.99
29.623 MHz	26.76 Qp	2.83 / 0.39 / 0.0 / 0.0	29.98	L1	-30.02
5.525 MHz	28.53 Qp	1.2 / 0.12 / 0.0 / 0.0	29.85	L1	-30.15
28.213 MHz	24.32 Qp	2.76 / 0.35 / 0.0 / 0.0	27.43	L1	-32.57
14.209 MHz	22.18 Qp	1.97 / 0.02 / 0.0 / 0.0	24.17	N	-35.83

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CONDUCTED EMISSIONS



America

Test Report #: WC605657 Run 2 Test Area: LTS
 EUT Model #: DV6800 Date: 10/10/2006
 EUT Serial #: _____ EUT Power: 120/100/230 VAC / 60/50 Temperature: 23.0 °C
 Test Method: EN55011 A Grp 1 / EN55022 A Air Pressure: 99.0 kPa
 Customer: Eastman Kodak Rel. Humidity: 33.0 %

EUT Description: Dry View Laser Imager

Notes: 17.767 MHz emission is not related to the transmitter

Data File Name: 5657 r2 CE with class B limit.dat Page: 6 of 7

17.767 MHz emission is not related to the transmitter

Measurement summary for limit2: EN55022 B Avg (Av)					
FREQ	LEVEL (dBuV)	CABLE / ANT / PREAMP / ATTEN (dB)	FINAL (dBuV / m)	EUT Lead	DELTA2 EN55022 B Avg
17.767 MHz	50.66 Av	2.19 / 0.06 / 0.0 / 0.0	52.91	N	2.91
3.865 MHz	37.15 Av	0.96 / 0.1 / 0.0 / 0.0	38.21	L1	-7.79
13.314 MHz	36.87 Av	1.89 / 0.03 / 0.0 / 0.0	38.79	L1	-11.21
5.216 MHz	37.46 Av	1.16 / 0.11 / 0.0 / 0.0	38.73	L1	-11.27
4.537 MHz	31.42 Av	1.06 / 0.1 / 0.0 / 0.0	32.58	N	-13.42
4.154 MHz	29.84 Av	1.0 / 0.1 / 0.0 / 0.0	30.94	N	-15.06
3.091 MHz	28.29 Av	0.86 / 0.06 / 0.0 / 0.0	29.21	N	-16.79
10.795 MHz	27.36 Av	1.74 / 0.08 / 0.0 / 0.0	29.18	N	-20.82
28.201 MHz	24.56 Av	2.76 / 0.35 / 0.0 / 0.0	27.67	L1	-22.33
7.572 MHz	26.05 Av	1.38 / 0.2 / 0.0 / 0.0	27.63	N	-22.37
29.623 MHz	21.09 Av	2.83 / 0.39 / 0.0 / 0.0	24.31	N	-25.69
10.216 MHz	21.67 Av	1.7 / 0.1 / 0.0 / 0.0	23.46	L1	-26.54
5.525 MHz	20.34 Av	1.2 / 0.12 / 0.0 / 0.0	21.66	L1	-28.34
28.213 MHz	18.22 Av	2.76 / 0.35 / 0.0 / 0.0	21.33	L1	-28.67
14.209 MHz	16.54 Av	1.97 / 0.02 / 0.0 / 0.0	18.53	N	-31.47

Tested by: Ross Johnson

 Printed



 Signature

Reviewed by: Greg Jakubowski

 Printed



 Signature

CONDUCTED EMISSIONS



America

Test Report #: WC605657 Run 2 Test Area: LTS
EUT Model #: DV6800 Date: 10/10/2006
EUT Serial #: _____ EUT Power: 120/100/230 VAC / 60/50 Temperature: 23.0 °C
Test Method: EN55011 A Grp 1 / EN55022 A Air Pressure: 99.0 kPa
Customer: Eastman Kodak Rel. Humidity: 33.0 %

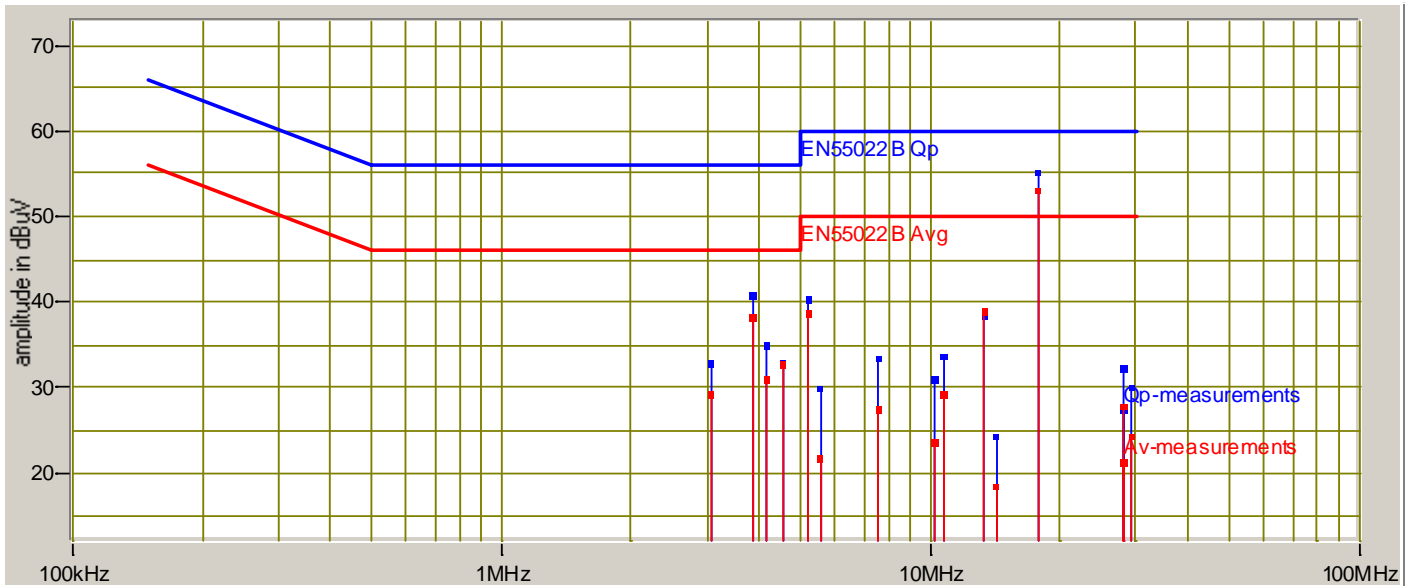
EUT Description: Dry View Laser Imager

Notes: 17.767 MHz emission is not related to the transmitter

Data File Name: 5657 r2 CE with class B limit.dat Page: 7 of 7

17.767 MHz emission is not related to the transmitter

Graph:



Tested by: Ross Johnson
Printed

Ross M. Johnson
Signature

Reviewed by: Greg Jakubowski
Printed

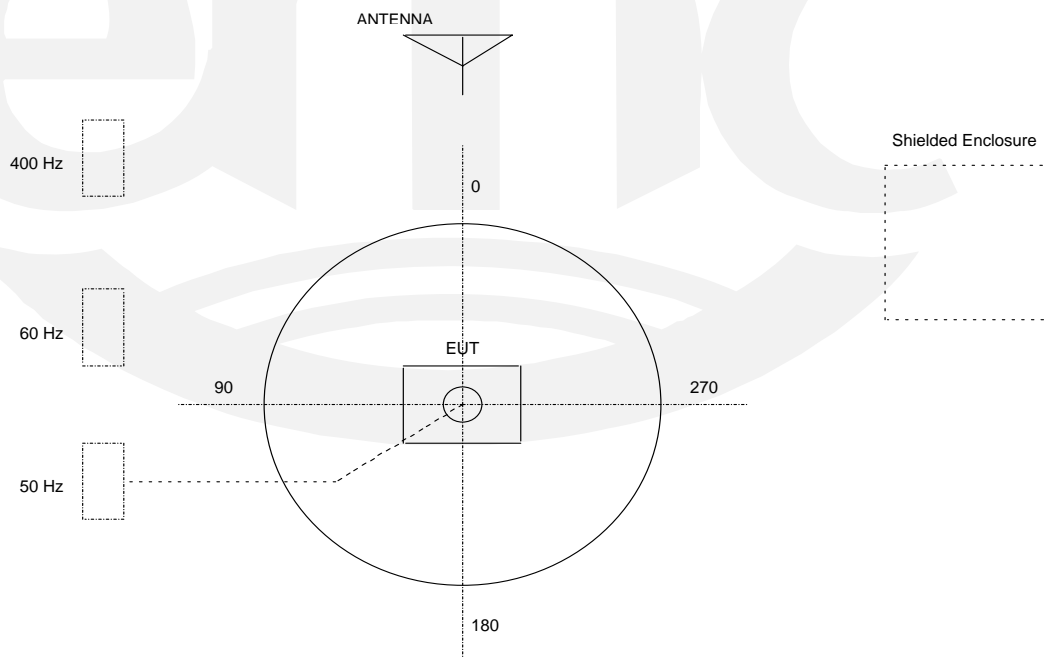
Greg Jakubowski
Signature

TEST SETUP FOR EMISSIONS TESTING

WILD RIVER LAB Large Test Site

Notes:

1. Items shown in dotted lines are located on the floor below the test area. It is 5 meters vertically from the ground floor to the test area.
2. 50 Hz, 60 Hz, and 400 Hz are power panels for alternating current.
3. The antenna may be positioned horizontally 3, 10 or 30 meters from the center of the turntable.
4. The circle is a 6.7 meter diameter turntable.
5. A ground plane is in the plane of this sheet.
6. The test sample is shown in the azimuthal position representing zero degrees.



Test-setup photo(s):
General Field Strength Limits 0.009 – 30 MHz



Test-setup photo(s):
Radiated Emissions 30 - 1000 MHz



Test-setup photo(s):
Radiated Emissions 30 - 1000 MHz



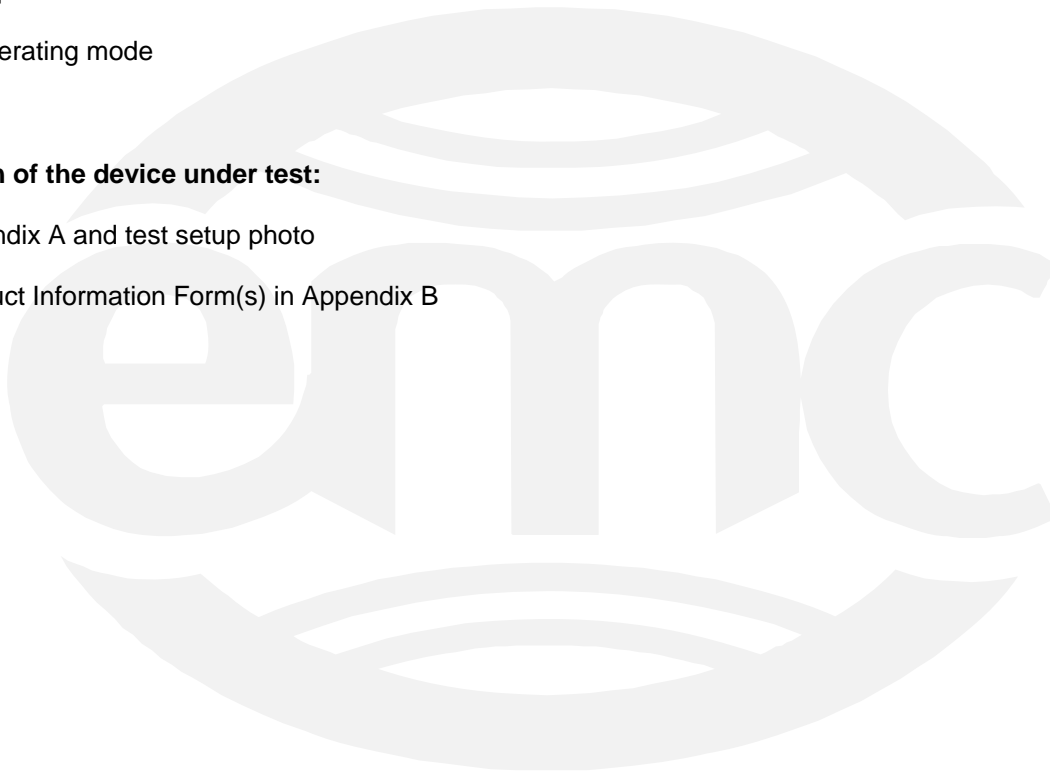
Equipment Under Test (EUT) Test Operation Mode:

The device under test was operated under the following conditions during immunity testing :

- Standby
- Test program (H - Pattern)
- Test program (color bar)
- Test program (customer specific)
- Practice operation
- Normal operating mode

Configuration of the device under test:

- See Appendix A and test setup photo
- See Product Information Form(s) in Appendix B



DEVIATIONS FROM STANDARD:

None.

GENERAL REMARKS:

Modifications required to pass:

- None
- As indicated on the data sheet(s)

Test Specification Deviations: Additions to or Exclusions from:

- None
- As indicated in the Test Plan

SUMMARY:

The requirements according to the technical regulations are

- met and the device under test does fulfill the general approval requirements.
- **not** met and the device under test does **not** fulfill the general approval requirements..

EUT Received Date: 09 October 2006

Condition of EUT: Normal

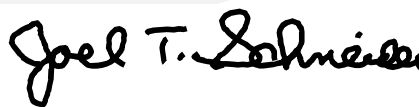
Testing Start Date: 09 October 2006

Testing End Date: 10 October 2006

TÜV SÜD AMERICA INC



Michael Schultz
EMC Technician



Joel Schneider
Sr. EMC Engineer

Appendix A

EMC Test Plan





Eastman Kodak Company

Health Group

DOCUMENT CONTROL PAGE

Document Part Number: 8F5082		Relates to Quality Manual Element: Document Level:
Document Title: EMC Test Plan for DryView Laser Imager Model DV6800		
Revision	Description of Change	Revision Date
Rev. A	Initial release for review	June 14, 2005
Rev. B	Added system component information along with base line EMC test plan DV6800 (FM204).	November 4, 2005
Rev. C	Updated component information for EMC qualification tests plan for DV6800 (EM109). Changed QA engineer from Sunjay Gupta to Ron Peterson.	September 7, 2006
Rev. D	Updated document information for changes described below (EM109) <ul style="list-style-type: none"> • Updated changes to paragraph 12.2 for only one radiated emission configuration tested Japan vs FCC and European not required based on engineering rational with TUV and Kodak EMC Engineer. • Updated Summary Test Table Section 11 changes made to voltage levels for conducted emissions 100V, 50 Hz, 120 V, 60 Hz and 230 V, 50 Hz. • Updated EMC Test Requirement Table Section 4 and Summary Test Table Section 11 to include Harmonized Standard EN55022 and CISPR22 per RTTE Directive for Unintentional Radiator • Updated Summary Test Table Section 11 to add 60 Hz frequency at 100 V for EFT EN 61000-4-4, Surge EN61000-4-5 and Voltage Dips EN61000-4-11. 	October 18, 2006

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KODAK Health Group

**Eastman Kodak Company
Health Group
Dry View Laser Imager Model DV 6800
SAFETY AND EMC CONFIGURATION TEST PLAN**

8F5082

Author: Bimal Patel
Affected Departments: Design, Agency, Quality Assurance

Revision: D

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1 Purpose

This document will detail the EMC Test requirements for the Dry View Laser Imager Model DV6800. The product will be tested for Worldwide EMC compliance as needed to cover the single configuration.

The purpose of this document is to define the following:

- Summarize the tests that will be executed in order to reach compliance. Configurations of the Dry View Laser Imager Model DV6800, which are required to be tested for worldwide EMC compliance.
- Support equipment that will be required to execute the testing.
- Test programs and software needed to execute the tests.

2 Scope

This document is limited to testing for EMC compliance of the system. This document does not stipulate the test procedure.

3 References

7F7079 Dry View Laser Imager Model DV6800, Rev. 1.0 Product Requirements Specification.

4 EMC Requirements Table

The table below gives the applicable EMC requirements.

Electromagnetic Compatibility					
Radiated Electric Field Emissions	47 CFR part 15 subpart B	EN 55011:1998 +A2:2002 EN 55022: 1998 +A1 2000 +A2 2003 (Per RTTE Directive for Unintentional Radiator)	ICES-003 Issue 4	AS/NZS 2064.1 (CISPR 11:97 +A2:2002, EN 55011:98 +A2:2002 EN 55022: 1998 +A1 2000 +A2 2003 (Per RTTE Directive for Unintentional Radiator)	CISPR 11:97 + A2:2002 CISPR 22: 97 +A1 2000 +A2 2002 (Per RTTE Directive for Unintentional Radiator)
Harmonic Current	*	EN 61000-3-2:2000			IEC 61000-3-2
Voltage Flicker	*	EN 61000-3-3 :95+A1:2001			IEC 61000-3-3
Immunity		EN 60601-1-2: 2001			IEC 60601-1-2: 2001
Electro-Static Discharge	#	EN 61000-4-2		#	IEC 61000-4-2
Radiated RF Immunity	#	EN 61000-4-3		#	IEC 61000-4-3
Electrical Fast Transients	#	EN 61000-4-4		#	IEC 61000-4-4
Surge	#	EN 61000-4-5		#	IEC 61000-4-5
Conducted RF Immunity	#	EN 61000-4-6		#	IEC 61000-4-6
Power Frequency Magnetic Field	#	EN 61000-4-8		#	IEC 61000-4-8
Voltage Dips and Interrupts	#	EN 61000-4-11		#	IEC 61000-4-11
European Telecommunications Standard		EN 300 330 9kHz to 25 GHz 9kHz to 30 GHz Inductive Loop			
European Telecommunications Standard		EN 301-489-3 9kHz and 25 GHz			

* The United States currently does not have any Immunity requirements; there are discussions relating to Harmonization underway and acceptance of (i.e. they may be required to use) IEC 50081-1, IEC 50082-1 and the Basic EMC Standards that support them.

Immunity testing is not required but may be needed to support a product's Risk Analysis.

5 Responsibilities

The Dry View Laser Imager Model DV6800 Hardware design team will be responsible for the support of the EMC compliance testing. This will be done under the direction of the HSE department. The test will be executed by an independent outside testing agency, which is qualified to certify the equipment as compliant.

6 Definitions

6.1 Acronyms

EMC - Electro Magnetic Compatibility
Ethernet - A standard communications link defined in IEE 802

7 General Description

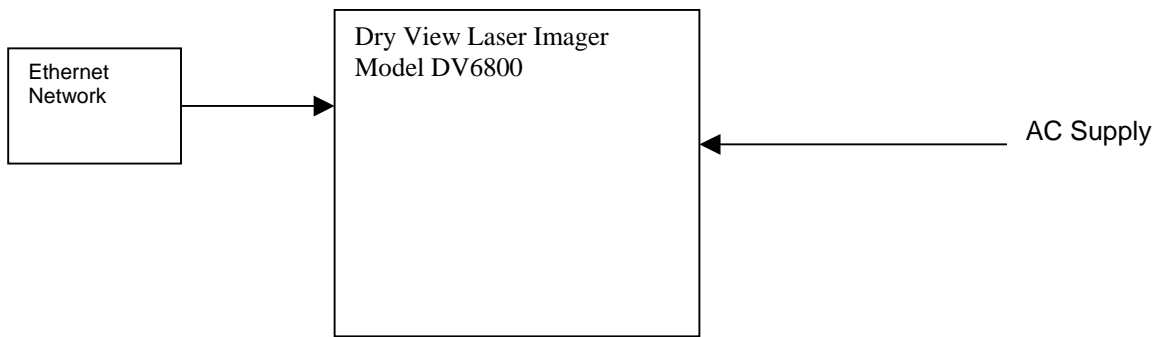
The world wide EMC and Safety testing on Dry View Laser Imager Model DV6800 is designed to qualify the end use application. The connection to the Dry View Laser Imager Model DV6800 is made by ethernet network and provided with an option of USB port for External printer.

Theory of Operation DryView™ Laser Imager 6800 RF Tag Subsystem

The RF Tag works at a frequency of 13.56 MHz. It comprises a reader, antenna and transponder (for example: smart label) and is used for wireless identification.

The system works according the “reader talks first” principle, which means that the transponder keeps quiet until reader sends a request to it. The reader can rapidly and simultaneously identify numerous transponders in the antenna’s field. It can write data to and read from the transponders: either in addressed mode by using the factory programmed read only number, or in general mode to all transponders in its field. The read/write capability of the transponder allows users to update the data stored in the transponders memory anywhere along its movement.

The RF Tag provides the receive/transmit functions required to communicate with variety of transponders that operate in the 13.56 MHz ISM band. A transmit encoder converts the transmitted data stream into the selected protocol; Protocol section is done in the header of the transmitted data string.



Dry View Laser Imager Model Phoenix

The Dry View Laser Imager Model DV6800 system can be configured with the following accessory. The accessory the will be used is a portable laptop.

Cables:

Catalog Number	Description	Usage
N/A	Ethernet Cable	Communication with the laptop

8. Test Configuration Showing System Interconnections

EUT System Components -- List and describe all components which are part of the EUT. For FCC testing a minimum configuration is required. (ie. Mouse, Printer, Monitor, External Disk Drive, Motherboard, etc.)

Description	Model #	Serial #	FCC ID #
Local Panel	7F2150		
Power Supply Module Tectrol TC93M-145B 100-240 VAC, 50/60Hz, 15 A max. Top side of Power Supply Module chassis provided with 20 Slotted openings 70 mm by 5 mm.	8F0636		
Back Panel Electronics with EMI Gasket Laird Technologies 4788AB51K	8F2314		
Air Intake, Main Panel Front side Gasket Laird Technologies 4788AB51K	8F2426		
Dicom Raster Engine	8F1497		
SPG RS44BXL-D-A11, DC Motor 24VDC (Rollers Pickup)	7F2186		
SPG DGO-5424-EKA, DC Motor 24VDC (Drive Pickup Motor)	7F6951		
Gast 8R1110-201-1048, DC Pump 24VDC (Vacuum Pickup Pump)	7E7736		
Dynamco D1X545, DC Motor 24VDC (Pickup Relief Valve)	7E7731		
SPG RS44BXL-E-A09, DC Motor 24VDC (Rollback)	8F1975		
SPG RS44BXL-E-A10, DC Motor 24VDC (Separation, Rollers, Film Registration)	7F2214		
Japan Servo FY8S615-302, DC Motor Servo 24VDC (Exposure Transport)	7F6566		

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EMC Test Plan for Dry View Laser Imager Model Phoenix
Testing will be conducted at the following test house TUV.

EUT System Components -- List and describe all components which are part of the EUT. For FCC testing a minimum configuration is required. (ie. Mouse, Printer, Monitor, External Disk Drive, Motherboard, etc.)

Description	Model #	Serial #	FCC ID #
NMB 23KM-K040-08V Stepper Motor 24VDC (Transport-Film Feed, (2)Roller Drive, Temp Cooling Drive, Drum Drive)	7F2462		
Moons 17HD4014-01N rev B Stepper Motor 24VDC (Film Centering)	7F2203		
Hayden 26841-05-046 Stepper Motor 5VDC (Linear Optics)	8F1515		
Hayden 20541-05-049 Linear Stepper 5VDC (2) (Exposure Transport Upper/Lower)	8F3848		
Moons 17HD4014-02N rev D Stepper Motor 24VDC (4) (Sorter)	7F2403		
Moons 17HD4001-03N rev A Stepper Motor 24 VDC (Latch)	7F2440		

Support Equipment -- List and describe all support equipment which is not part of the EUT. (i.e. peripherals, simulators, etc)

Description	Model #	Serial #	FCC ID #
Keyboard			
Mouse			

System Components

Tested EUT component(s)	Model No. or Part No.	Serial No.	Notes
Dry View Laser Imager	DV6800	EM109	

Cables

Cable see Fig. 1	Length (cm)	Shielded Yes/No	Description
A	2 Meters	N	Ethernet, 10/100 BaseT data transfer to Printer from the PC

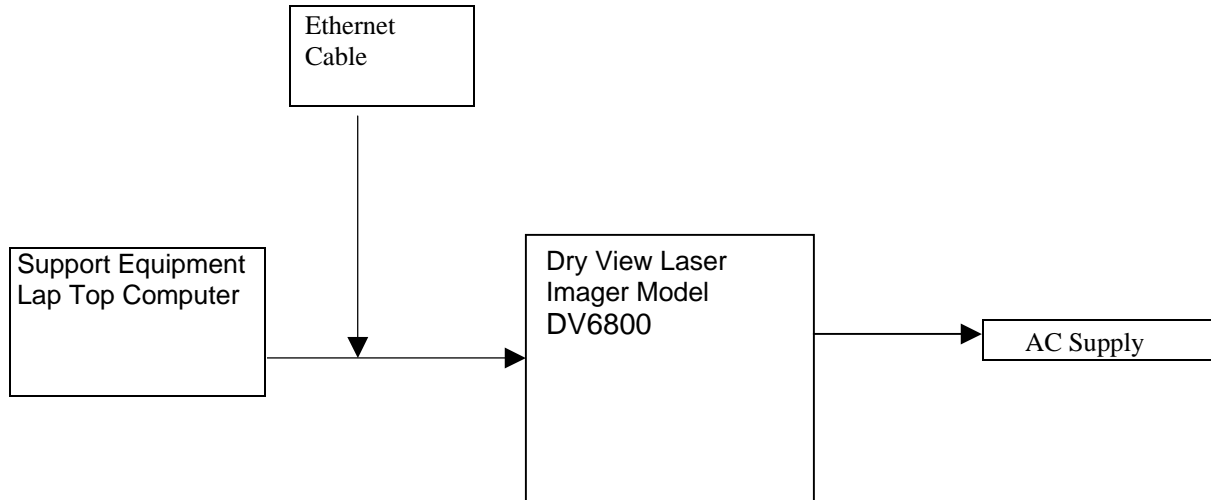
Support Equipment

Support Component	Model No.	Serial No.	Notes
Lap Top Computer			To load images

Clock, Oscillator and Data Rate frequencies

Description	Assembly	Part Number	Crystal or Oscillator	Frequency
Datapath Board	8F0610	SG-636PCE 25.0000MC0	Oscillator	25.000 MHz
		SG-636PCE 24.4070MC0	Oscillator	24.407 MHz
RF Antenna Board	8F0618	None		
Local Panel Board	8F0916	ECS-SR1-6.00-B-TR	Crystal	6.00 MHz
Film Supply Board	8F0992	CS10-13.560MABJ-UT	Crystal	13.56 MHz
		CS10-16.000MABJ-UT	Crystal	16.00 MHz
Start of Page Board	8F1098	None		
Beam Power Monitor Board	8F1101	CS10-20.000MABJ-UT	Crystal	20.00 MHz
Exposure Transport Board	8F1336	Internal Oscillator 7.3728 MHz	RC	7.3728 MHz
		MA-506 10.0000M-C0:ROHS	Crystal	10.000 MHz
Densitometer Control Board	8F1420	SG-636PCE 16.0000MC0:ROHS	Oscillator	16.00 MHz
Densitometer Light Source Board	8F1594	None		
Power Distribution Board	8F1608	CS10-15.360MABJ-UT	Crystal	15.36 MHz
Film Registration Board	8F1611	CS10-13.560MABJ-UT	Crystal	13.56 MHz
Processor Control Board	8F1785	CS10-15.360MABJ-UT (2 Used)	Crystal	15.36 MHz
Sorter Control Board	8F2133	CS10-15.360MABJ-UT	Crystal	15.36 MHz
Laser Driver Board	8F4002	EL6203	Oscillator	200-600 MHz adjustable
Dicom Raster Engine	8F1497	The highest frequency referenced for FCC testing is 1.6GHz .	Oscillator Oscillator Oscillator Oscillator Oscillator Oscillator Oscillator Oscillator Oscillator Oscillator Oscillator	14.31818MHz - System clock and source for PLL 32.768Hz - RTC 25MHz - Lan(100Base-TX) 24.576MHz - Audio Codec 66.6MHz - Chipset/PCIX 100MHz - CPU I/F 48MHz - USB I/F 33.3MHz - PCI I/F 1.6GHz - CPU core 266.6MHz - Memory I/F 25MHz – Video (VGA) 175MHz - LVDS

Cable Interconnections as tested, showing EUT and support equipment



9 Space and Power Requirements

9.1 Equipment under Test

The Dry View Laser Imager Model DV6800 hardware requires 9 square feet of area. (3 feet X 3 feet).

The unit under test requires one of two power sources. (one or the other) The U.S. and Canadian voltage is 120 Volts nominal at 47 to 63 Hertz. A standard 20 Amp circuit is sufficient for the system requirement of 12 Amps Maximum @15 minutes and 8 Amp Continuous. The other power is 240 Volts at 47 to 63 Hertz. The equipment is rated at 8 Amps maximum at this voltage.

9.2 Kodak Test Equipment Space and Power Requirements

The test equipment used for operating the unit under test requires space and power dedicated outside the test chamber.

The test equipment requires a minimum of 9 square feet of area. (3 feet X 3 feet).

The test equipment requires at least one standard 120 Volt 15 Amp outlet. This must be within 6 feet of the test equipment.

10 Test Set Up and Change-Over Times

10.1 Initial Equipment Set Up Time

The equipment can be set up for testing in approximately 1/2 hours. This time includes unpacking the equipment, setting up the unit under test, and setting up the test equipment. Interconnecting the cables between the test equipment and the unit under test is not included in this estimate. This time will be dependent on the configuration of the unit under test, the test chamber, and the wiring channel accessibility.

Another 25 minutes should be allowed for testing the system for proper operation before any test commences.

10.2 Configuration Change Time

The amount of time for changing the configurations of the unit under test and the test equipment should be less than 30 minutes.

11 Summary Test Table

Test Type	Requirement	Mains Voltage	Test Labs Used
Radiated Emissions	47 CFR part 15 subpart B ICES-0003 Issue 3 EN 55011:98 Class A VCCI (Japan) EN 55022: 1998 +A1 2000 +A2 2003 (Per RTTE Directive for Unintentional Radiator)	100V ,60 Hz	TUV
Conducted Emissions	VCCI (Japan) 47 CFR part 15 subpart B EN 55011:98 Class A	100 V, 50 Hz 120 V, 60 Hz 230 V, 50 Hz	TUV
Harmonic Current	EN 61000-3-2	230 V, 50 Hz	TUV
Voltage Flicker	EN 61000-3-3	230 V, 50 Hz	TUV
Immunity	EN 60601-1-2	(Covers all tests except for RF tag).	TUV
Electro Static Discharge	EN 61000-4-2	230 V, 50 Hz	TUV
Radiated RF Immunity	EN 61000-4-3	230 V, 50 Hz	TUV
Electrical Fast Transients	EN 61000-4-4	100 V, 60 Hz and 240 V, 50Hz	TUV
Surge	EN 61000-4-5	100 V, 60 Hz and 240 V, 50Hz	TUV
Conducted Immunity Tests	EN 61000-4-6	230 V, 50 Hz	TUV
Power Frequency Magnetic Tests	EN 61000-4-8	230 V at BOTH 50H& 60 Hz	TUV
Voltage Dip Tests	EN 61000-4-11	100 V, 60 Hz and 240 V, 50Hz	TUV
European Telecomm-unications Standard	EN 300 330 9kHz to 25 GHz 9kHz to 30 GHz Inductive Loop	230 V (RF tag) RTTE Directive	TUV
European Telecomm-unications Standard	EN 300-489-3 9kHz and 25 GHz	230V (RF tag) RTTE Directive	TUV

12 Testing Agenda

The Dry View Laser Imager Model DV 6800 will be tested previously to the Kodak system configuration testing. Below is an example of what could be performed.

For Model DV6800 (EM105) the following tests will be considered as EMC Base line testing for Engineering Model.

- RF ID Board Base Line testing
 - Base Line Radiated Emissions (-4dB Guardband) 230 VAC, 50/60 Hz
 - Base Line Conducted Emissions 230 VAC, 50 Hz.
-

Note: The Engineering Models will be subjected to sections 11,12.1 to 12.4.

12.1 Power Line Conducted Testing

There will be **three configurations** tested:

1. **FCC Testing** – Model DV6800 @ 120VAC, 60 Hz. (Tested at TUV)
2. **Japanese (VCCI) Testing** – Model DV6800 @ 100VAC, 50 Hz. (Tested at TUV)
3. **European Testing** – Model DV6800 @ 230VAC, 230VAC 50 Hz. (Tested at TUV)

12.2 Radiated Emissions Testing

See configuration diagram in this document to understand test configuration and support equipment required for the test.

There will be **one configuration** tested:

1. **Japanese (VCCI) Testing/ FCC/European Testing** – Test at 100VAC, 60Hz. (Tested at TUV)

12.3 Immunity Testing

Immunity Testing is required in the European Community only. (Tested at TUV)

There will be **one configuration** tested:

The test configuration will be using summary test table 11 as test set-up for the unit.

This testing has been performed for the ethernet output configuration.

12.4 Pass/Fail Criteria

- **The Phoenix imager shall pass the Radiated Emissions test by -4dB EMC guardband.:**
- **The Phoenix imager shall pass the ESD immunity test:**

- 1.) If the Phoenix imager reprints (without artifact) an image deliberately artifact due to a parity error or pixel transfer count error, which may have been induced by the ESD discharge.
- 2.) If the Phoenix imager to normal operation within 3 minutes from any other temporary condition caused by the ESD discharge."

- **The Phoenix imager shall pass the radiated and conducted immunity tests provided the images produced during these tests are diagnostically acceptable.** This judgement will be made by Kodak employees who are familiar with potential imaging artifacts caused by a variety of other sources, not only those potentially induced by the impinging radiated field.
- During radiated and conducted immunity tests if the system becomes inoperable, that will be considered a failure.

12.5 Other parts and spare parts will be needed is Image Film.

Appendix B

Measurement Protocol



MEASUREMENT PROTOCOL

GENERAL INFORMATION

Test Methodology

Emissions testing is performed according to the procedures in ANSI C63.4-2003.

Measurement Uncertainty

The test system for conducted emissions is defined as the LISN, tuned receiver or spectrum analyzer, and coaxial cable. The test system has a measurement uncertainty of ± 1.8 dB. The test system for radiated emissions is defined as the antenna, the pre-amplifier, the spectrum analyzer and the coaxial cable. The test system has a measurement uncertainty of ± 4.8 dB. The equipment comprising the test systems is calibrated on an annual basis.

Justification

The Equipment Under Test (EUT) is configured in a typical user arrangement in accordance with the manufacturer's instructions. A cable is connected to each available port and either terminated with a peripheral into its characteristic impedance or left unterminated. When appropriate, the cables are manually manipulated with respect to each other to obtain maximum emissions from the unit.

Conducted Emissions

The final level, in $\text{dB}\mu\text{V}$, equals the EMI receiver level plus the cable loss and LISN factor.

Radiated Emissions

The final level, in $\text{dB}\mu\text{V}/\text{m}$, equals the reading from the spectrum analyzer (Level $\text{dB}\mu\text{V}$), adding the antenna correction factor and cable loss factor (Factor dB) to it, and subtracting the preamp gain (and duty cycle correction factor, if applicable). This result then has the limit subtracted from it to provide the Delta, which gives the tabular data as shown in the data sheets in Attachment A.

Example:

FREQ (MHz)	LEVEL ($\text{dB}\mu\text{V}$)	CABLE/ANT/PREAMP (dB) (dB/m) (dB)	FINAL ($\text{dB}\mu\text{V}/\text{m}$)	POL/HGT/AZ (m) (deg)	DELTA1
60.80	42.5Qp +	1.2 + 10.9 - 25.5 =	29.1	V 1.0 0.0	-10.9

Test Equipment

All measurement instrumentation is traceable to the National Institute of Standards and Technology and is calibrated according to internal procedure.