

TEST RESULT SUMMARY

FCC Part 15 Subpart C Section 15.207 FCC Part 15 Subpart C Section 15.209 IC RSS-210 Issue 7 IC RSS-Gen Issue 2

MANUFACTURER'S NAME

Carestream Health Incorporated

NAME OF EQUIPMENT DryView Laser Imager

MODEL NUMBER(S) TESTED DV5800

MANUFACTURER'S ADDRESS 150 Verona Street

Rochester NY 14608

TEST REPORT NUMBER WC700660.1 Rev B

TEST DATE(S) 06 - 08 February & 16 March 2007

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 7 and RSS-Gen Issue 2.

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 7 "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: 25 February 2008

Location: Taylors Falls MN

USA

Greg Jakubowski Senior EMC Technician

& Japubourpi

Not Transferable

Joel T. Sohneisen

Joel Schneider Senior EMC Engineer



EMC TEST REPORT

Test Report File No.	:	WC700660.1 Rev B	Date of issue:	25 February 2008
Model / Serial No(s) Tested	:	DV5800 /		
Product Type	:	DryView Laser Image	r	
Applicant	<u>:</u>	Carestream Health Inc	corporated	
Manufacturer	<u>:</u>	Carestream Health Inc	corporated	
License holder	:	Carestream Health Inc	corporated	
Address	:	150 Verona Street Rochester NY 14608		
Test Result	:	■ Positive	□ Negative	
Test Project Number References	:	WC700660.1 Rev B		
Total pages including Appendices	:	58		

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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Sign Explanations: ☐ - not applicable ■ - applicable

REVISION RECORD

REVISION	TOTAL NUMBER OF PAGES	DATE	DESCRIPTION
	47	19 July 2008	Initial Release
A	58	20 February 2008	Revisions include: Pages 6-19: Added Run 4 to Radiated Emissions Data.
В	58	25 February 2008	 Added note to summary on page 4 Added a reference to the test procedure used for each test Added a note to the bottom of page 5. Clarifies the mode of operation for runs 3 & 4 Corrected typo in directory and page 20. Now RSS-Gen section 4.6.1 instead of 4.4.1



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 7
- - IC RSS-Gen Issue 2

ENVIRONMENTAL CONDITIONS IN THE LAB

Temperature: : 23 °C
Atmospheric pressure : 99 kPa
Relative Humidity : 33 %

POWER SUPPLY UTILIZED

Power supply system : 100 VAC, 60 Hz & 230 VAC, 50 Hz - 16



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

Testing was performed in accordance with the test procedure of ANSI C63.4 2003, clause 8.3

Minimum margin of compliance of the fundamental is 36.1 dB at 13.56 MHz

No unwanted emissions exceed the level of the fundamental

No significant spurious emissions detected from 13.56 MHz to 30 MHz

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 Numbe	r Cal Due
3800	ESCS 30	Rohde & Schwarz	EMI Receiver	100312	07-Jul 07
2517	HFH2-Z2	Polorad	Loop Antenna	879285/036	08-Jun-08

Test limit

Frequency	Field strength	Measurement
(MHz)	μV/m	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 μ V/m at 30 meters

Test data

Quasi peak (dBuV/m)

	~_ p , ,				
(MHz)	0.3 m	1.0 m	3.0 m	10.0m	30 m
13.56	77	53.9	33.4	nf	-6.6*

^{* =} Extrapolated value using 40 dB per decade roll off nf = Noise floor



Radiated Emissions 30 - 5000 MHz FCC 15.209(c), FCC 15.209(f), IC RSS-210 2.6

Test summary

The requirements are: ■ - MET □ - NOT MET

Testing was performed in accordance with the test procedure of ANSI C63.4 2003, clause 8.3 Transmitter, run 3, no emissions over the class B limit up to the tenth harmonic (135.6 MHz) Incorporated digital device, run 4, minimum margin of compliance = 2 dB at 176 MHz

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	
3203	EM-6917B	Electro-Metrics	Biconicalog Periodic	106	23-May-08	
3995	EM-6917B	Electro-Metrics	Biconicalog Periodic	151	19-Apr-08	
3847	ZHL-1042J	Mini-Circuits	Preamplifier 10 - 3000 MHz	0607	Code B 08 May 08	
2665	ZHL-1042J	Mini-Circuits	Preamplifier 30 - 5000 MHz	32296	Code B 12-Feb-08	
3294	8566B	Hewlett-Packard	Spectrum Analyzer	2349A03098	16-May-08	
3295	85662A	Hewlett-Packard	Analyzer Display	2349A06144	16-May-08	
2681	85650A	Hewlett-Packard	Quasi-Peak Adapter	2430A00562	23 March 08	
2075	3115	EMCO	Ridge Guide Ant. 1-18 GHz	9001-3275	12-Jan-08	
3958	SL18B4020	Phase One Microwave	Preamplifier 1 – 18 GHz	0002	Code B 29-May-08	

Test limits

Transmitter

Frequncy	Field strength	Field strength	Measurement
(MHz)	(μV/m)	(dBμV/m)	distance (m)
30 - 88	100	40	3
88 - 135.6	150	43.5	3

Cal Code B = Calibration verification performed internally.

Incorporated digital device

Frequncy (MHz)			Measurement distance (m)	
30 - 88	90	39	10	
88 - 216	150	43.5	10	
216 - 960	210	46.4	10	
Above 960	300	49.5	10	

Test data

Pages 6 - 19. Run 3 = transmit mode, run 4 = receive mode



Test Report #:	WC700660 Run 3	Test Area:	LTS		,	AIIICIICA	
EUT Model #:	DV 5800	Date:	2/8/2007				
EUT Serial #:		EUT Power:	60 Hz 115 VAC	Temperat	ure:	22.0	°C
Test Method:	FCC B			Air Press	ure: <u>1</u>	00.0	kPa
Customer:	Eastman Kodak			Rel. Humi	dity:	18.0	%
EUT Description:	Dry View Laser Imager						
Notes:				Ţ		ı	
Data File Name:	0660.dat				Page:	1 of	3

List of measurements for run #: 3						
FREQ	LEVEL	CABLE / ANT / PREAMP /	FINAL	POL / HGT / AZ	DELTA1	DELTA2
	(dBuV)	ATTEN	(dBuV / m)	(m)(DEG)	FCC-B <1GHz	
		(dB)			3m	
50.0 MHz	41.7 Qp	0.56 / 14.17 / 29.85 / 0.0	26.58	V / 1.00 / 0	-13.42	n/a
75.0 MHz	52.4 Qp	0.83 / 9.04 / 29.5 / 0.0	32.77	V / 1.00 / 0	-7.23	n/a
125.0 MHz	46.45 Qp	1.01 / 8.63 / 29.58 / 0.0	26.51	V / 1.00 / 0	-16.99	n/a
135.6 MHz	30.55 Qp	1.05 / 8.9 / 29.59 / 0.0	10.9	V / 1.00 / 0	-32.6	n/a
108.48 MHz	34.8 Qp	0.96 / 9.47 / 29.55 / 0.0	15.68	V / 1.00 / 0	-27.82	n/a
75.0 MHz	53.75 Qp	0.83 / 9.04 / 29.5 / 0.0	34.12	V / 1.00 / 90	-5.88	n/a
135.6 MHz	37.2 Qp	1.05 / 8.9 / 29.59 / 0.0	17.55	V / 1.00 / 180	-25.95	n/a
50.0 MHz	45.6 Qp	0.56 / 14.17 / 29.85 / 0.0	30.48	V / 1.00 / 90	-9.52	n/a
	•					
75 MHz maxed						
75.0 MHz	54.85 Qp	0.83 / 9.04 / 29.5 / 0.0	35.22	V / 1.00 / 90	-4.78	n/a
End of scan 30 to	135.6 MHz					

Tested by:	T. K. Swanson	Thomas K. Swanen
	Printed	Signature
Reviewed by:	J. T. Schneider	Joel T. Sohneisen
	Printed	Signature



Test Report #:	WC700660 Run 3	Test Area:	LTS				
EUT Model #:	DV 5800	Date:	2/8/2007				
EUT Serial #:		EUT Power:	60 Hz 115 VAC	Temperatu	ure:	22.0	°C
Test Method:	FCC B			Air Pressu	ure:1	00.0	kPa
Customer:	Eastman Kodak			Rel. Humic	dity:	18.0	%
EUT Description:	Dry View Laser Imager						
Notes:							
Data File Name:	0660.dat				Page:	2 of	3

Measurement summary for limit1: FCC-B <1GHz 3m (Qp)								
FREQ	LEVEL	CABLE / ANT / PREAMP /	FINAL	POL / HGT / AZ	DELTA1			
	(dBuV)	ATTEN	(dBuV / m)	(m)(DEG)	FCC-B <1GHz			
		(dB)			3m			
75.0 MHz	54.85 Qp	0.83 / 9.04 / 29.5 / 0.0	35.22	V / 1.00 / 90	-4.78			
50.0 MHz	45.6 Qp	0.56 / 14.17 / 29.85 / 0.0	30.48	V / 1.00 / 90	-9.52			
125.0 MHz	46.45 Qp	1.01 / 8.63 / 29.58 / 0.0	26.51	V / 1.00 / 0	-16.99			
135.6 MHz	37.2 Qp	1.05 / 8.9 / 29.59 / 0.0	17.55	V / 1.00 / 180	-25.95			
108.48 MHz	34.8 Qp	0.96 / 9.47 / 29.55 / 0.0	15.68	V / 1.00 / 0	-27.82			

Tested by:

T. K. Swanson

Printed

Signature

Reviewed by:

Printed

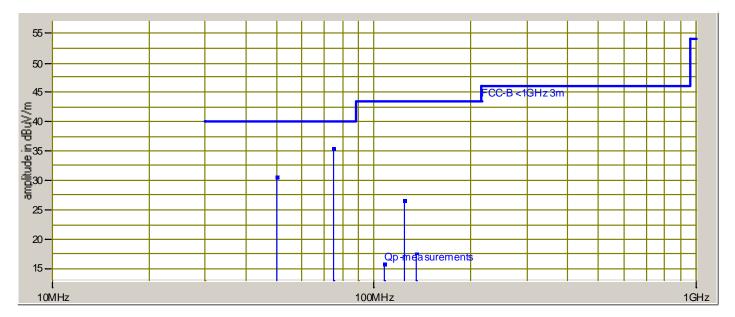
Signature

Signature



Test Report #:	WC700660 Run 3	Test Area:	LTS				
EUT Model #:	DV 5800	Date:	2/8/2007				
EUT Serial #:		EUT Power:	60 Hz 115 VAC	Temperatu	re:	22.0	°C
Test Method:	FCC B			Air Pressu	re:1	0.00	kPa
Customer:	Eastman Kodak			Rel. Humidi	ty:	18.0	%
EUT Description:	Dry View Laser Imager						
Notes:							
Data File Name:	0660.dat				Page:	3 of	3

Graph:



Tested by:	T. K. Swanson	Thomas K. Swanen
	Printed	Signature
Reviewed by:	J. T. Schneider	Joel T. Sohneise
	Printed	Signature



Test Report #:	WC700660 Run 4	Test Area:	LTS		America	1
EUT Model #:	DV 5800	Date:	3/16/2007			
EUT Serial #:		EUT Power:	60 Hz 110 VAC	Temperature: _	23.0	°C
Test Method:	EN55011 A Grp 1			Air Pressure:	100.0	__ kPa
Customer:	Eastman Kodak			Rel. Humidity:	31.0	%
EUT Description:	Dry View Laser Imager					
Notes:	0 degrees = front					
Data File Name:	0660.dat			Page	: 1 of	f 11

List of me	asureme	nts for run #: 4				
FREQ	LEVEL	CABLE / ANT / PREAMP /	FINAL	POL / HGT / AZ	DELTA1	DELTA2
	(dBuV)	ATTEN	(dBuV / m)	(m)(DEG)	EN55022- A	FCC-A >1GHz
		(dB)			<1GHz 10m	3m
					(2006)	
51.164 MHz	20.05.On	1.05 / 12.90 / 20.92 / 0.0	23.96	V / 1.00 / 0	-16.04	n/a
63.698 MHz	39.85 Qp	1.05 / 12.89 / 29.83 / 0.0 1.15 / 9.71 / 29.66 / 0.0	27.71	V / 1.00 / 0	-10.04	n/a
	46.5 Qp					
110.156 MHz	41.5 Qp	1.49 / 8.57 / 29.56 / 0.0	22.0	V / 1.00 / 0	-18.0	n/a
98.66 MHz	42.0 Qp	1.43 / 8.37 / 29.54 / 0.0	22.26	V / 1.00 / 0	-17.74	n/a
144.0 MHz	39.7 Qp	1.75 / 8.82 / 29.58 / 0.0	20.69	V / 1.00 / 0	-19.31	n/a
165.2 MHz	39.6 Qp	1.87 / 8.51 / 29.51 / 0.0	20.48	V / 1.00 / 0	-19.52	n/a
176.0 MHz	50.6 Qp	1.94 / 9.16 / 29.53 / 0.0	32.17	V / 1.00 / 0	-7.83	n/a
156.024 MHz	38.3 Qp	1.83 / 8.39 / 29.52 / 0.0	19.0	V / 1.00 / 0	-21.0	n/a
66.816 MHz	44.3 Qp	1.18 / 9.21 / 29.61 / 0.0	25.08	V / 1.00 / 0	-14.92	n/a
162.426 MHz	50.6 Qp	1.86 / 8.35 / 29.5 / 0.0	31.3	V / 1.00 / 0	-8.7	n/a
166.644 MHz	42.9 Qp	1.88 / 8.6 / 29.51 / 0.0	23.87	V / 1.00 / 0	-16.13	n/a
186.221 MHz	41.1 Qp	2.02 / 9.77 / 29.54 / 0.0	23.35	V / 1.00 / 0	-16.65	n/a
192.005 MHz	45.25 Qp	2.06 / 10.12 / 29.55 / 0.0	27.88	V / 1.00 / 0	-12.12	n/a
208.0 MHz	50.1 Qp	2.18 / 10.49 / 29.58 / 0.0	33.19	V / 1.00 / 0	-6.81	n/a
224.0 MHz	41.15 Qp	2.26 / 11.06 / 29.6 / 0.0	24.86	V / 1.00 / 0	-15.14	n/a
233.3 MHz	39.25 Qp	2.3 / 11.39 / 29.62 / 0.0	23.32	V / 1.00 / 0	-23.68	n/a
240.0 MHz	41.7 Qp	2.33 / 11.63 / 29.63 / 0.0	26.03	V / 1.00 / 0	-20.97	n/a
250.062 MHz	40.95 Qp	2.37 / 11.99 / 29.64 / 0.0	25.67	V / 1.00 / 0	-21.33	n/a
291.9 MHz	40.4 Qp	2.56 / 12.17 / 29.71 / 0.0	25.43	V / 1.00 / 0	-21.57	n/a
296.94 MHz	36.45 Qp	2.59 / 12.37 / 29.72 / 0.0	21.69	V / 1.00 / 0	-25.31	n/a
300.048 MHz	40.85 Qp	2.6 / 12.49 / 29.72 / 0.0	26.22	V / 1.00 / 0	-20.78	n/a
304.0 MHz	38.9 Qp	2.62 / 12.65 / 29.73 / 0.0	24.44	V / 1.00 / 0	-22.56	n/a
382.498 MHz	37.5 Qp	2.95 / 15.72 / 29.86 / 0.0	26.32	V / 1.00 / 0	-20.68	n/a
399.958 MHz	42.65 Qp	3.02 / 16.41 / 29.88 / 0.0	32.19	V / 1.00 / 0	-14.81	n/a
425.608 MHz	39.45 Qp	3.11 / 16.62 / 29.93 / 0.0	29.26	V / 1.00 / 0	-17.74	n/a

Tested by:	Greg Jakubowski	Il Jakubawrki
	Printed	Signature
Reviewed by:	J. T. Schneider	Joel T. Sohnées
	Printed	Signature



Test Report #:	WC700660 Run 4	Test Area:	LTS		,	incrica	
EUT Model #:	DV 5800	Date:	3/16/2007				
EUT Serial #:		EUT Power:	60 Hz 110 VAC	Temperatu	re:	23.0	°C
Test Method:	EN55011 A Grp 1			Air Pressu	re:1	00.0	kPa
Customer:	Eastman Kodak			Rel. Humidi	ty:	31.0	%
EUT Description:	Dry View Laser Imager						
Notes:	0 degrees = front						
Data File Name:	0660.dat				Page:	2 of	11

		nts for run #: 4				
FREQ	LEVEL	CABLE / ANT / PREAMP /	FINAL	POL / HGT / AZ	DELTA1	DELTA2
	(dBuV)	ATTEN	(dBuV / m)	(m)(DEG)	EN55022- A	FCC-A >1GHz
		(dB)			<1GHz 10m	3m
					(2006)	
480.0 MHz	33.8 Qp	3.34 / 17.45 / 30.01 / 0.0	24.57	V / 1.00 / 0	-22.43	n/a
528.512 MHz	34.65 Qp	3.53 / 18.66 / 30.09 / 0.0	26.75	V / 1.00 / 0	-20.25	n/a
			T		T	
50.126 MHz	37.9 Qp	1.04 / 13.2 / 29.85 / 0.0	22.29	V / 1.00 / 90	-17.71	n/a
54.27 MHz	37.75 Qp	1.08 / 11.98 / 29.79 / 0.0	21.02	V / 1.00 / 90	-18.98	n/a
108.548 MHz	35.35 Qp	1.48 / 8.64 / 29.55 / 0.0	15.92	V / 1.00 / 90	-24.08	n/a
50.078 MHz	38.0 Qp	1.04 / 13.21 / 29.85 / 0.0	22.4	V / 1.00 / 90	-17.6	n/a
51.134 MHz	40.1 Qp	1.05 / 12.9 / 29.84 / 0.0	24.21	V / 1.00 / 90	-15.79	n/a
54.234 MHz	37.8 Qp	1.08 / 11.99 / 29.79 / 0.0	21.08	V / 1.00 / 90	-18.92	n/a
57.372 MHz	32.45 Qp	1.11 / 11.07 / 29.75 / 0.0	14.88	V / 1.00 / 90	-25.12	n/a
59.743 MHz	44.7 Qp	1.12 / 10.38 / 29.71 / 0.0	26.49	V / 1.00 / 90	-13.51	n/a
59.46 MHz	37.1 Qp	1.12 / 10.46 / 29.72 / 0.0	18.96	V / 1.00 / 90	-21.04	n/a
60.505 MHz	36.5 Qp	1.13 / 10.22 / 29.7 / 0.0	18.15	V / 1.00 / 90	-21.85	n/a
63.644 MHz	44.4 Qp	1.15 / 9.72 / 29.66 / 0.0	25.61	V / 1.00 / 90	-14.39	n/a
63.632 MHz	44.45 Qp	1.15 / 9.72 / 29.66 / 0.0	25.67	V / 1.00 / 90	-14.33	n/a
108.488 MHz	35.8 Qp	1.48 / 8.65 / 29.55 / 0.0	16.37	V / 1.00 / 90	-23.63	n/a
110.061 MHz	37.35 Qp	1.49 / 8.58 / 29.55 / 0.0	17.86	V / 1.00 / 90	-22.14	n/a
110.055 MHz	37.6 Qp	1.49 / 8.58 / 29.55 / 0.0	18.11	V / 1.00 / 90	-21.89	n/a
110.055 MHz	37.6 Qp	1.49 / 8.58 / 29.55 / 0.0	18.11	V / 1.00 / 90	-21.89	n/a
125.0 MHz	31.6 Qp	1.62 / 7.92 / 29.58 / 0.0	11.56	V / 1.00 / 90	-28.44	n/a
166.644 MHz	50.5 Qp	1.88 / 8.6 / 29.51 / 0.0	31.47	V / 1.00 / 90	-8.53	n/a
176.0 MHz	51.45 Qp	1.94 / 9.16 / 29.53 / 0.0	33.02	V / 1.00 / 90	-6.98	n/a
192.005 MHz	45.35 Qp	2.06 / 10.12 / 29.55 / 0.0	27.98	V / 1.00 / 90	-12.02	n/a
200.0 MHz	35.25 Qp	2.12 / 10.2 / 29.56 / 0.0	18.0	V / 1.00 / 90	-22.0	n/a
224.0 MHz	42.9 Qp	2.26 / 11.06 / 29.6 / 0.0	26.61	V / 1.00 / 90	-13.39	n/a
233.3 MHz	45.25 Qp	2.3 / 11.39 / 29.62 / 0.0	29.32	V / 1.00 / 90	-17.68	n/a

Tested by:	Greg Jakubowski	Il Japubawrki
	Printed	Signature
Reviewed by:	J. T. Schneider	Joel T. Sohnéise
	Printed	Signature



Test Report #:	WC700660 Run 4	Test Area:	LTS		^	шенса	
EUT Model #:	DV 5800	Date:	3/16/2007				
EUT Serial #:		EUT Power:	60 Hz 110 VAC	Temperature	:	23.0	°C
Test Method:	EN55011 A Grp 1			Air Pressure	:10	0.00	kPa
Customer:	Eastman Kodak			Rel. Humidity	: :	31.0	%
EUT Description:	Dry View Laser Imager						
Notes:	0 degrees = front						
Data File Name:	0660.dat			Pa	age:	3 of	11

		nts for run #: 4				
FREQ	LEVEL	CABLE / ANT / PREAMP /	FINAL	POL / HGT / AZ	DELTA1	DELTA2
	(dBuV)	ATTEN	(dBuV / m)	(m)(DEG)	EN55022- A	FCC-A >1GHz
		(dB)			<1GHz 10m	3m
					(2006)	,
240.024 MHz	45.85 Qp	2.33 / 11.63 / 29.63 / 0.0	30.18	V / 1.00 / 90	-16.82	n/a
250.062 MHz	42.0 Qp	2.37 / 11.99 / 29.64 / 0.0	26.72	V / 1.00 / 90	-20.28	n/a
288.036 MHz	39.55 Qp	2.54 / 12.16 / 29.71 / 0.0	24.55	V / 1.00 / 90	-22.45	n/a
296.94 MHz	40.2 Qp	2.59 / 12.37 / 29.72 / 0.0	25.44	V / 1.00 / 90	-21.56	n/a
299.988 MHz	45.15 Qp	2.6 / 12.49 / 29.72 / 0.0	30.52	V / 1.00 / 90	-16.48	n/a
312.036 MHz	40.0 Qp	2.66 / 12.96 / 29.74 / 0.0	25.88	V / 1.00 / 90	-21.12	n/a
336.036 MHz	39.7 Qp	2.77 / 13.9 / 29.78 / 0.0	26.59	V / 1.00 / 90	-20.41	n/a
382.498 MHz	40.1 Qp	2.95 / 15.72 / 29.86 / 0.0	28.92	V / 1.00 / 90	-18.08	n/a
425.842 MHz	35.9 Qp	3.11 / 16.63 / 29.93 / 0.0	25.72	V / 1.00 / 90	-21.28	n/a
800.004 MHz	33.05 Qp	4.43 / 21.83 / 29.92 / 0.0	29.4	V / 1.00 / 90	-17.6	n/a
933.197 MHz	36.05 Qp	4.8 / 22.66 / 29.74 / 0.0	33.77	V / 1.00 / 90	-13.23	n/a
960.005 MHz	31.15 Qp	4.87 / 23.1 / 29.7 / 0.0	29.42	V / 1.00 / 90	-17.58	n/a
					1	
125.0 MHz	33.6 Qp	1.62 / 7.92 / 29.58 / 0.0	13.56	V / 1.00 / 180	-26.44	n/a
144.0 MHz	40.95 Qp	1.75 / 8.82 / 29.58 / 0.0	21.94	V / 1.00 / 180	-18.06	n/a
176.0 MHz	56.0 Qp	1.94 / 9.16 / 29.53 / 0.0	37.57	V / 1.00 / 180	-2.43	n/a
192.005 MHz	51.89 Qp	2.06 / 10.12 / 29.55 / 0.0	34.52	V / 1.00 / 180	-5.48	n/a
240.012 MHz	47.93 Qp	2.33 / 11.63 / 29.63 / 0.0	32.26	V / 1.00 / 180	-14.74	n/a
296.94 MHz	41.55 Qp	2.59 / 12.37 / 29.72 / 0.0	26.79	V / 1.00 / 180	-20.21	n/a
425.8 MHz	41.55 Qp	3.11 / 16.63 / 29.93 / 0.0	31.37	V / 1.00 / 180	-15.63	n/a
480.0 MHz	36.05 Qp	3.34 / 17.45 / 30.01 / 0.0	26.82	V / 1.00 / 180	-20.18	n/a
720.698 MHz	36.35 Qp	4.17 / 20.62 / 30.03 / 0.0	31.12	V / 1.00 / 180	-15.88	n/a
800.004 MHz	36.05 Qp	4.43 / 21.83 / 29.92 / 0.0	32.4	V / 1.00 / 180	-14.6	n/a
54.234 MHz	38.05 Qp	1.08 / 11.99 / 29.79 / 0.0	21.33	V / 1.00 / 270	-18.67	n/a
57.372 MHz	33.2 Qp	1.11 / 11.07 / 29.75 / 0.0	15.63	V / 1.00 / 270	-24.37	n/a

Tested by:	Greg Jakubowski	Il Jakubawrki
	Printed	Signature
Reviewed by:	J. T. Schneider	Joel T. Sohnées
	Printed	Signature



Test Report #:	WC700660 Run 4	Test Area:	LTS		Amen	iou
EUT Model #:	DV 5800	Date:	3/16/2007			
EUT Serial #:		EUT Power:	60 Hz 110 VAC	Temperature:	23.0	<u>)</u> ∘C
Test Method:	EN55011 A Grp 1			Air Pressure:	100.0	kPa
Customer:	Eastman Kodak			Rel. Humidity:	31.0) %
EUT Description:	Dry View Laser Imager					
Notes:	0 degrees = front					
Data File Name:	0660.dat			Pag	je: 4	of 11

FREQ	LEVEL	CABLE / ANT / PREAMP /	FINAL	POL / HGT / AZ	DELTA1	DELTA2
	(dBuV)	ATTEN	(dBuV / m)	(m)(DEG)	EN55022- A	FCC-A >1GHz
		(dB)			<1GHz 10m	3m
					(2006)	
59.46 MHz	38.65 Qp	1.12 / 10.46 / 29.72 / 0.0	20.51	V / 1.00 / 270	-19.49	n/a
59.743 MHz	45.2 Qp	1.12 / 10.38 / 29.71 / 0.0	26.99	V / 1.00 / 270	-13.01	n/a
60.505 MHz	38.65 Qp	1.13 / 10.22 / 29.7 / 0.0	20.3	V / 1.00 / 270	-19.7	n/a
63.626 MHz	48.05 Qp	1.15 / 9.72 / 29.66 / 0.0	29.27	V / 1.00 / 270	-10.73	n/a
66.762 MHz	46.4 Qp	1.18 / 9.22 / 29.61 / 0.0	27.18	V / 1.00 / 270	-12.82	n/a
108.488 MHz	38.55 Qp	1.48 / 8.65 / 29.55 / 0.0	19.12	V / 1.00 / 270	-20.88	n/a
110.055 MHz	41.7 Qp	1.49 / 8.58 / 29.55 / 0.0	22.21	V / 1.00 / 270	-17.79	n/a
200.0 MHz	39.0 Qp	2.12 / 10.2 / 29.56 / 0.0	21.75	V / 1.00 / 270	-18.25	n/a
54.234 MHz	41.3 Qp	1.08 / 11.99 / 29.79 / 0.0	24.58	V / 3.00 / 270	-15.42	n/a
57.372 MHz	34.35 Qp	1.11 / 11.07 / 29.75 / 0.0	16.78	V / 3.00 / 270	-23.22	n/a
59.46 MHz	39.6 Qp	1.12 / 10.46 / 29.72 / 0.0	21.46	V / 3.00 / 270	-18.54	n/a
60.505 MHz	39.9 Qp	1.13 / 10.22 / 29.7 / 0.0	21.55	V / 3.00 / 270	-18.45	n/a
63.626 MHz	49.55 Qp	1.15 / 9.72 / 29.66 / 0.0	30.77	V / 3.00 / 270	-9.23	n/a
528.512 MHz	38.15 Qp	3.53 / 18.66 / 30.09 / 0.0	30.25	V / 3.00 / 270	-16.75	n/a
425.89 MHz	42.65 Qp	3.11 / 16.64 / 29.93 / 0.0	32.47	V / 3.00 / 180	-14.53	n/a
720.698 MHz	41.35 Qp	4.17 / 20.62 / 30.03 / 0.0	36.12	V / 3.00 / 180	-10.88	n/a
800.004 MHz	38.55 Qp	4.43 / 21.83 / 29.92 / 0.0	34.9	V / 3.00 / 180	-12.1	n/a
960.005 MHz	31.85 Qp	4.87 / 23.1 / 29.7 / 0.0	30.12	V / 3.00 / 180	-16.88	n/a
382.498 MHz	42.25 Qp	2.95 / 15.72 / 29.86 / 0.0	31.07	V / 3.00 / 90	-15.93	n/a
960.005 MHz	31.6 Qp	4.87 / 23.1 / 29.7 / 0.0	29.87	V / 3.00 / 90	-17.13	n/a
	•					
425.978 MHz	46.8 Qp	3.12 / 16.64 / 29.93 / 0.0	36.63	V / 3.00 / 0	-10.37	n/a
528.512 MHz	38.15 Qp	3.53 / 18.66 / 30.09 / 0.0	30.25	V / 3.00 / 0	-16.75	n/a

Tested by:	Greg Jakubowski	I Jakubowski
	Printed	Signature
Reviewed by:	J. T. Schneider	Joel T. Sohnées
	Printed	Signature



Test Report #:	WC700660 Run 4	Test Area:	LTS		America	•
EUT Model #:	DV 5800	Date:	3/16/2007			
EUT Serial #:		EUT Power:	60 Hz 110 VAC	Temperature:	23.0	_ °C
Test Method:	EN55011 A Grp 1			Air Pressure:	100.0	kPa
Customer:	Eastman Kodak			Rel. Humidity:	31.0	%
EUT Description:	Dry View Laser Imager					
Notes:	0 degrees = front					
Data File Name:	0660 dat			Pag	e. 5 o	f 11

FREQ	LEVEL	nts for run #: 4	FINAL	POL / HGT / AZ	DELTA1	DELTA2
FREQ		ATTEN	(dBuV / m)	(m)(DEG)	EN55022- A	FCC-A >1GHz
	(dBuV)	(dB)	(ubuv / III)	(III)(DEG)	<1GHz 10m	3m
		(ub)			(2006)	Jili
624.6 MHz	35.55 Qp	3.85 / 20.43 / 30.16 / 0.0	29.67	V / 3.00 / 0	-17.33	n/a
	_		, ,		•	
960.005 MHz	32.5 Qp	4.87 / 23.1 / 29.7 / 0.0	30.77	H / 3.00 / 0	-16.23	n/a
160.32 MHz	35.8 Qp	1.85 / 8.22 / 29.5 / 0.0	16.37	H / 3.00 / 0	-23.63	n/a
280.002 MHz	40.6 Qp	2.51 / 12.4 / 29.69 / 0.0	25.81	H / 3.00 / 0	-21.19	n/a
280.002 MHz	41.85 Qp	2.51 / 12.4 / 29.69 / 0.0	27.06	H / 3.00 / 90	-19.94	n/a
528.512 MHz	40.7 Qp	3.53 / 18.66 / 30.09 / 0.0	32.8	H / 3.00 / 90	-14.2	n/a
624.6 MHz	35.5 Qp	3.85 / 20.43 / 30.16 / 0.0	29.62	H / 3.00 / 90	-17.38	n/a
960.005 MHz	36.2 Qp	4.87 / 23.1 / 29.7 / 0.0	34.47	H / 3.00 / 90	-12.53	n/a
800.004 MHz	38.55 Qp	4.43 / 21.83 / 29.92 / 0.0	34.9	H / 3.00 / 180	-12.1	n/a
624.6 MHz	39.3 Qp	3.85 / 20.43 / 30.16 / 0.0	33.42	H / 1.00 / 270	-13.58	n/a
480.0 MHz	36.1 Qp	3.34 / 17.45 / 30.01 / 0.0	26.87	H / 1.00 / 180	-20.13	n/a
528.512 MHz	45.75 Qp	3.53 / 18.66 / 30.09 / 0.0	37.85	H / 1.00 / 90	-9.15	n/a
624.6 MHz	39.6 Qp	3.85 / 20.43 / 30.16 / 0.0	33.72	H / 1.00 / 90	-13.28	n/a
960.005 MHz	36.3 Qp	4.87 / 23.1 / 29.7 / 0.0	34.57	H / 1.00 / 90	-12.43	n/a
800.004 MHz	39.3 Qp	4.43 / 21.83 / 29.92 / 0.0	35.65	H / 1.00 / 0	-11.35	n/a
960.005 MHz	39.2 Qp	4.87 / 23.1 / 29.7 / 0.0	37.47	H / 1.00 / 0	-9.53	n/a
Maximized						
176.0 MHz	56.04 Qp	1.94 / 9.16 / 29.53 / 0.0	37.61	V / 1.00 / 188	-2.39	n/a

Tested by:	Greg Jakubowski	Il Japubawrki
	Printed	Signature
Reviewed by:	J. T. Schneider	Joel T. Sohnéwa
	Printed	Signature



Test Report	#: WC70066	60 Run 4	Test Area:	LTS			America	ı
EUT Model	#: DV 5800		Date:	3/16/2007				
EUT Serial	#:		EUT Power:	60 Hz 110 VAC	Temperat	ure: _	23.0	°C
Test Metho	od: EN55011	A Grp 1			Air Press	ure: _	100.0	kPa
Custome	er: Eastman	Kodak			Rel. Humi	dity:	31.0	%
EUT Description	n: Dry View	Laser Imager						
Note	es: 0 degrees	s = front						
Data File Nam	e: 0660.dat					Page	e: 6 of	11
ist of me	asureme	nts for run #: 4						
FREQ	LEVEL (dBuV)	CABLE / ANT / PREAMP / ATTEN (dB)	/ FINAL (dBuV / r		DELTA1 EN55022- A <1GHz 10m (2006)		DELT CC-A >	1GHz
192.005 MHz	52.2 Qp	2.06 / 10.12 / 29.55 / 0.0	34.83	V / 1.00 / 210	-5.17		n/a	
208.0 MHz	51.69 Qp	2.18 / 10.49 / 29.58 / 0.0	34.78	V / 1.00 / 21	-5.22		n/a	
ind scan 30 - 10 Segin scan 1 - 5		distance						
1.009 GHz	57.98 Av	3.08 / 25.2 / 49.94 / 0.0	36.31	V / 1.00 / 21	n/a		-23.6	35
1.067 GHz	62.04 Av	3.17 / 25.17 / 50.19 / 0.0	40.2	V / 1.00 / 21	n/a		-19.7	' 6
1.12 GHz	61.93 Av	3.32 / 25.15 / 50.42 / 0.0	39.98	V / 1.00 / 21	n/a		-19.9	98
1.201 GHz	63.4 Av	3.51 / 25.12 / 50.77 / 0.0	41.26	V / 1.00 / 21	n/a		-18.	
1.249 GHz	66.23 Av	3.59 / 25.1 / 50.84 / 0.0	44.09	V / 1.00 / 21	n/a		-15.8	
1.28 GHz	57.59 Av	3.65 / 25.09 / 50.73 / 0.0	35.59	V / 1.00 / 21	n/a		-24.3	
1.441 GHz	62.54 Av	3.87 / 25.02 / 50.66 / 0.0	40.77	V / 1.00 / 21	n/a		-19.1	
1.5 GHz	68.52 Av	3.93 / 25.0 / 50.69 / 0.0	46.76	V / 1.00 / 21	n/a		-13.:	
1.703 GHz	65.17 Av	4.16 / 26.26 / 50.45 / 0.0	45.14	V / 1.00 / 21	n/a		-14.8	
1 73 CH2	50 83 Av	12/26/2/50/2/00	40.04	\/ / 1 00 / 21	n/a		_10 C	22

38.63

39.57

44.02

42.86

40.29

50.92

V / 1.00 / 21

Tested by: Greg Jakubowski

Printed Signature

Reviewed by: T. Schneider

4.34 / 27.27 / 50.6 / 0.0

4.42 / 27.81 / 50.51 / 0.0

4.67 / 28.37 / 50.32 / 0.0

4.78 / 28.54 / 50.23 / 0.0

5.66 / 30.2 / 49.38 / 0.0

3.64 / 25.09 / 50.74 / 0.0

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1.866 GHz

1.954 GHz

2.13 GHz

2.21 GHz

3.0 GHz

Maximized highest 1.278 GHz

57.61 Av

57.84 Av

61.3 Av

59.77 Av

53.82 Av

72.93 Av

Max hold, 1 - 5 GHz, rotated 0 - 360 degrees, horizontal & vertical

-21.33

-20.39

-15.94

-17.1

-19.67

-9.04

n/a

n/a

n/a

n/a

n/a

n/a



Test Report #:	WC700660 Run 4	Test Area:	LTS		America
EUT Model #:	DV 5800	Date:	3/16/2007		
EUT Serial #:		EUT Power:	60 Hz 110 VAC	Temperature:	23.0_ °C
Test Method:	EN55011 A Grp 1			Air Pressure:	100.0 kPa
Customer:	Eastman Kodak			Rel. Humidity:	31.0 %
EUT Description:	Dry View Laser Imager				
Notes:	0 degrees = front			,	
Data File Name:	0660.dat			Pa	ge: 7 of 11
List of meas	surements for run #: 4				
	LEVEL CABLE / ANT / PREAMP (dBuV) ATTEN (dB)	P / FINAL (dBuV / r		DELTA1 EN55022- A <1GHz 10m (2006)	DELTA2 FCC-A >1GHz 3m
63.626 MHz is not re	elated to the transmitter				
End scan 1 - 5 GHz					
Tested by:	Greg Jakubowski Printed		Jakubawahi Signature		

Signature

Test Report WC700660.1 Rev B

by:

J. T. Schneider

Printed

Reviewed

15 of 58



Test Report #:	WC700660 Run 4	Test Area:	LTS		,	inicrica	
EUT Model #:	DV 5800	Date:	3/16/2007				
EUT Serial #:		EUT Power:	60 Hz 110 VAC	Temperatur	e:	23.0	°C
Test Method:	EN55011 A Grp 1			Air Pressur	e: <u>1</u>	00.0	kPa
Customer:	Eastman Kodak			Rel. Humidit	y:	31.0	%
EUT Description:	Dry View Laser Imager						
Notes:	0 degrees = front						
Data File Name:	0660.dat			F	⊃age:	8 of	11

Measurement summary for limit1: EN55022- A <1GHz 10m (2006) (Qp)						
FREQ	LEVEL	CABLE / ANT / PREAMP /	FINAL	POL / HGT / AZ	DELTA1	
	(dBuV)	ATTEN	(dBuV / m)	(m)(DEG)	EN55022- A	
		(dB)			<1GHz 10m	
					(2006)	
176.0 MHz	56.04 Qp	1.94 / 9.16 / 29.53 / 0.0	37.61	V / 1.00 / 188	-2.39	
192.005 MHz	52.2 Qp	2.06 / 10.12 / 29.55 / 0.0	34.83	V / 1.00 / 210	-5.17	
208.0 MHz	51.69 Qp	2.18 / 10.49 / 29.58 / 0.0	34.78	V / 1.00 / 21	-5.22	
166.644 MHz	50.5 Qp	1.88 / 8.6 / 29.51 / 0.0	31.47	V / 1.00 / 90	-8.53	
162.426 MHz	50.6 Qp	1.86 / 8.35 / 29.5 / 0.0	31.3	V / 1.00 / 0	-8.7	
528.512 MHz	45.75 Qp	3.53 / 18.66 / 30.09 / 0.0	37.85	H / 1.00 / 90	-9.15	
63.626 MHz	49.55 Qp	1.15 / 9.72 / 29.66 / 0.0	30.77	V / 3.00 / 270	-9.23	
960.005 MHz	39.2 Qp	4.87 / 23.1 / 29.7 / 0.0	37.47	H / 1.00 / 0	-9.53	
425.978 MHz	46.8 Qp	3.12 / 16.64 / 29.93 / 0.0	36.63	V / 3.00 / 0	-10.37	
720.698 MHz	41.35 Qp	4.17 / 20.62 / 30.03 / 0.0	36.12	V / 3.00 / 180	-10.88	
800.004 MHz	39.3 Qp	4.43 / 21.83 / 29.92 / 0.0	35.65	H / 1.00 / 0	-11.35	
66.762 MHz	46.4 Qp	1.18 / 9.22 / 29.61 / 0.0	27.18	V / 1.00 / 270	-12.82	
59.743 MHz	45.2 Qp	1.12 / 10.38 / 29.71 / 0.0	26.99	V / 1.00 / 270	-13.01	
933.197 MHz	36.05 Qp	4.8 / 22.66 / 29.74 / 0.0	33.77	V / 1.00 / 90	-13.23	
624.6 MHz	39.6 Qp	3.85 / 20.43 / 30.16 / 0.0	33.72	H / 1.00 / 90	-13.28	
224.0 MHz	42.9 Qp	2.26 / 11.06 / 29.6 / 0.0	26.61	V / 1.00 / 90	-13.39	
240.012 MHz	47.93 Qp	2.33 / 11.63 / 29.63 / 0.0	32.26	V / 1.00 / 180	-14.74	
399.958 MHz	42.65 Qp	3.02 / 16.41 / 29.88 / 0.0	32.19	V / 1.00 / 0	-14.81	
54.234 MHz	41.3 Qp	1.08 / 11.99 / 29.79 / 0.0	24.58	V / 3.00 / 270	-15.42	
51.134 MHz	40.1 Qp	1.05 / 12.9 / 29.84 / 0.0	24.21	V / 1.00 / 90	-15.79	
382.498 MHz	42.25 Qp	2.95 / 15.72 / 29.86 / 0.0	31.07	V / 3.00 / 90	-15.93	
299.988 MHz	45.15 Qp	2.6 / 12.49 / 29.72 / 0.0	30.52	V / 1.00 / 90	-16.48	
186.221 MHz	41.1 Qp	2.02 / 9.77 / 29.54 / 0.0	23.35	V / 1.00 / 0	-16.65	
50.078 MHz	38.0 Qp	1.04 / 13.21 / 29.85 / 0.0	22.4	V / 1.00 / 90	-17.6	
233.3 MHz	45.25 Qp	2.3 / 11.39 / 29.62 / 0.0	29.32	V / 1.00 / 90	-17.68	

Tested by:	Greg Jakubowski	I Jakubawshi
	Printed	Signature
Reviewed by:	J. T. Schneider	Joel T. Sohnéisen
	Printed	Signature



Test Report #:	WC700660 Run 4	Test Area:	LTS		America	
EUT Model #:	DV 5800	Date:	3/16/2007			
EUT Serial #:		EUT Power:	60 Hz 110 VAC	Temperature: _	23.0	°C
Test Method:	EN55011 A Grp 1			Air Pressure:	100.0	kPa
Customer:	Eastman Kodak			Rel. Humidity:	31.0	%
EUT Description:	Dry View Laser Imager					
Notes:	0 degrees = front					
Data File Name:	0660.dat			Page	e: 9 of	11

Measurem	Measurement summary for limit1: EN55022- A <1GHz 10m (2006) (Qp)							
FREQ	LEVEL	CABLE / ANT / PREAMP /	FINAL	POL / HGT / AZ	DELTA1			
	(dBuV)	ATTEN	(dBuV / m)	(m)(DEG)	EN55022- A			
		(dB)			<1GHz 10m			
					(2006)			
98.66 MHz	42.0 Qp	1.43 / 8.37 / 29.54 / 0.0	22.26	V / 1.00 / 0	-17.74			
425.608 MHz	39.45 Qp	3.11 / 16.62 / 29.93 / 0.0	29.26	V / 1.00 / 0	-17.74			
110.055 MHz	41.7 Qp	1.49 / 8.58 / 29.55 / 0.0	22.21	V / 1.00 / 270	-17.79			
144.0 MHz	40.95 Qp	1.75 / 8.82 / 29.58 / 0.0	21.94	V / 1.00 / 180	-18.06			
200.0 MHz	39.0 Qp	2.12 / 10.2 / 29.56 / 0.0	21.75	V / 1.00 / 270	-18.25			
60.505 MHz	39.9 Qp	1.13 / 10.22 / 29.7 / 0.0	21.55	V / 3.00 / 270	-18.45			
59.46 MHz	39.6 Qp	1.12 / 10.46 / 29.72 / 0.0	21.46	V / 3.00 / 270	-18.54			
165.2 MHz	39.6 Qp	1.87 / 8.51 / 29.51 / 0.0	20.48	V / 1.00 / 0	-19.52			
280.002 MHz	41.85 Qp	2.51 / 12.4 / 29.69 / 0.0	27.06	H / 3.00 / 90	-19.94			
480.0 MHz	36.1 Qp	3.34 / 17.45 / 30.01 / 0.0	26.87	H / 1.00 / 180	-20.13			
296.94 MHz	41.55 Qp	2.59 / 12.37 / 29.72 / 0.0	26.79	V / 1.00 / 180	-20.21			
250.062 MHz	42.0 Qp	2.37 / 11.99 / 29.64 / 0.0	26.72	V / 1.00 / 90	-20.28			
336.036 MHz	39.7 Qp	2.77 / 13.9 / 29.78 / 0.0	26.59	V / 1.00 / 90	-20.41			
108.488 MHz	38.55 Qp	1.48 / 8.65 / 29.55 / 0.0	19.12	V / 1.00 / 270	-20.88			
156.024 MHz	38.3 Qp	1.83 / 8.39 / 29.52 / 0.0	19.0	V / 1.00 / 0	-21.0			
312.036 MHz	40.0 Qp	2.66 / 12.96 / 29.74 / 0.0	25.88	V / 1.00 / 90	-21.12			
291.9 MHz	40.4 Qp	2.56 / 12.17 / 29.71 / 0.0	25.43	V / 1.00 / 0	-21.57			
288.036 MHz	39.55 Qp	2.54 / 12.16 / 29.71 / 0.0	24.55	V / 1.00 / 90	-22.45			
304.0 MHz	38.9 Qp	2.62 / 12.65 / 29.73 / 0.0	24.44	V / 1.00 / 0	-22.56			
57.372 MHz	34.35 Qp	1.11 / 11.07 / 29.75 / 0.0	16.78	V / 3.00 / 270	-23.22			
160.32 MHz	35.8 Qp	1.85 / 8.22 / 29.5 / 0.0	16.37	H / 3.00 / 0	-23.63			
125.0 MHz	33.6 Qp	1.62 / 7.92 / 29.58 / 0.0	13.56	V / 1.00 / 180	-26.44			

Tested by:	Greg Jakubowski	I Japubowski
	Printed	Signature
Reviewed by:	J. T. Schneider	Joel T. Sohnéise
	Printed	Signature



Test Report #:	WC700660 Run 4	Test Area:	LTS				
EUT Model #:	DV 5800	Date:	3/16/2007	<u> </u>			
EUT Serial #:		EUT Power:	60 Hz 110 VAC	Temperat	ture:	23.0	°C
Test Method:	EN55011 A Grp 1			Air Press	sure:1	00.0	kPa
Customer:	Eastman Kodak			Rel. Humi	dity:	31.0	%
EUT Description:	Dry View Laser Imager						
Notes:	0 degrees = front					1	
Data File Name:	0660.dat				Page:	10 c	of 11

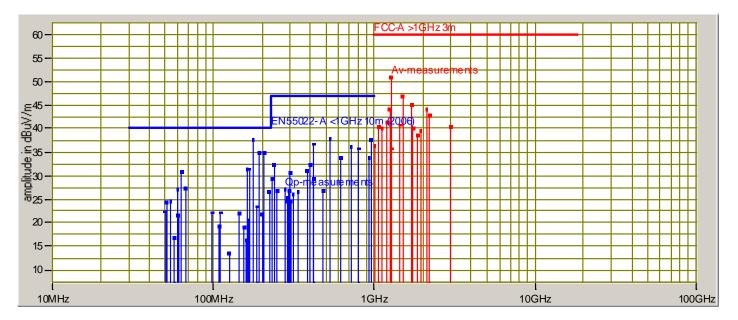
Measurem	Measurement summary for limit2: FCC-A >1GHz 3m (Av)							
FREQ	LEVEL	CABLE / ANT / PREAMP /	FINAL	POL / HGT / AZ	DELTA2			
	(dBuV)	ATTEN	(dBuV / m)	(m)(DEG)	FCC-A >1GHz			
		(dB)			3m			
1.278 GHz	72.93 Av	3.64 / 25.09 / 50.74 / 0.0	50.92	V / 1.00 / 21	-9.04			
1.5 GHz	68.52 Av	3.93 / 25.0 / 50.69 / 0.0	46.76	V / 1.00 / 21	-13.2			
1.703 GHz	65.17 Av	4.16 / 26.26 / 50.45 / 0.0	45.14	V / 1.00 / 21	-14.82			
1.249 GHz	66.23 Av	3.59 / 25.1 / 50.84 / 0.0	44.09	V / 1.00 / 21	-15.87			
2.13 GHz	61.3 Av	4.67 / 28.37 / 50.32 / 0.0	44.02	V / 1.00 / 21	-15.94			
2.21 GHz	59.77 Av	4.78 / 28.54 / 50.23 / 0.0	42.86	V / 1.00 / 21	-17.1			
1.201 GHz	63.4 Av	3.51 / 25.12 / 50.77 / 0.0	41.26	V / 1.00 / 21	-18.7			
1.441 GHz	62.54 Av	3.87 / 25.02 / 50.66 / 0.0	40.77	V / 1.00 / 21	-19.19			
3.0 GHz	53.82 Av	5.66 / 30.2 / 49.38 / 0.0	40.29	V / 1.00 / 21	-19.67			
1.067 GHz	62.04 Av	3.17 / 25.17 / 50.19 / 0.0	40.2	V / 1.00 / 21	-19.76			
1.73 GHz	59.83 Av	4.2 / 26.42 / 50.42 / 0.0	40.04	V / 1.00 / 21	-19.92			
1.12 GHz	61.93 Av	3.32 / 25.15 / 50.42 / 0.0	39.98	V / 1.00 / 21	-19.98			
1.954 GHz	57.84 Av	4.42 / 27.81 / 50.51 / 0.0	39.57	V / 1.00 / 21	-20.39			
1.866 GHz	57.61 Av	4.34 / 27.27 / 50.6 / 0.0	38.63	V / 1.00 / 21	-21.33			
1.009 GHz	57.98 Av	3.08 / 25.2 / 49.94 / 0.0	36.31	V / 1.00 / 21	-23.65			
1.28 GHz	57.59 Av	3.65 / 25.09 / 50.73 / 0.0	35.59	V / 1.00 / 21	-24.37			

Tested by:	Greg Jakubowski	Il Japubawshi
	Printed	Signature
Reviewed by:	J. T. Schneider	Joel T. Sohneise
	Printed	Signature



Test Report #:	WC700660 Run 4	Test Area:	LTS				
EUT Model #:	DV 5800	Date:	3/16/2007				
EUT Serial #:		EUT Power:	60 Hz 110 VAC	Temperature:	2	23.0	°C
Test Method:	EN55011 A Grp 1			Air Pressure:	10	0.00	kPa
Customer:	Eastman Kodak			Rel. Humidity:	3	31.0	%
EUT Description:	Dry View Laser Imager						
Notes:	0 degrees = front						
Data File Name:	0660.dat			Pa	ige:	11 o	of 11

Graph:



Tested by: Greg Jakubowski

Printed Signature

Reviewed by: Printed Signature

Signature



Occupied bandwidth RSS-Gen 4.6.1

Test summary

The requirements are: ■ - MET □ - NOT MET

Testing was performed in accordance with the test procedure of IC RSS-Gen Section 4.6.1

Occupied bandwidth - 127 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

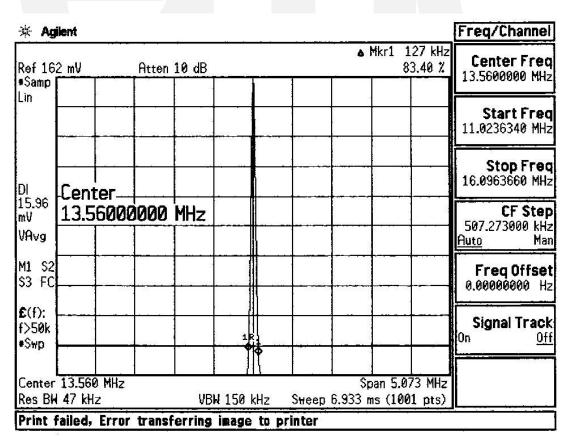
TUV ID	Model Number	Manufacturer	Description	Serial Number	Cal Due
3367	E4440A	Agilent	Spectrum Analyzer	MY42510439	14 Sep 07
	7405-901	EMCO	Near field probe	na	Code Y
0 10 1	D 0 10 11 10		1 1/ 0 11 1	1 20 0 19	

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

Testing was performed in accordance with the test procedure of ANSI C63.4 2003, clause 7.2 Minimum margin of compliance is 9 dB at 1.81 MHz

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
2079	3825/2	Electro-Mechanics (EMCO)	50 Ω LISN	1329	Code B 09-Apr-08
2534	ESHS-20	Rhode & Schwarz	EMI Receiver	837055/003	22-Mar-08
Cal Code	B = Calibration verific	cation performed internally.			

Test limits, dB_µV

Frequncy		
(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 22 - 29



Test Report #:	WC700660 Run 2	Test Area:	LTS			
EUT Model #:	DV 5800	Date:	2/6/2007			
EUT Serial #:		EUT Power:		Temperature: _	22.0	°C
Test Method:	EN55011 A Grp 1			Air Pressure:	100.0	kPa
Customer:	Eastman Kodak			Rel. Humidity:	18.0	%
EUT Description:	Dry View Laser Imager					
Notes:						
Data File Name:	0660.dat			Page	e: 1 of	8

	LEVEL	nts for run #: 2	FINAL	FUT Look	DELTAI	DELTA2
FREQ	(dBuV)	CABLE / ANT / PREAMP / ATTEN	(dBuV / m)	EUT Lead	DELTA1 EN55011 A	EN55011 A
	(ubuv)	(dB)	(ubuv / III)			Grp1 Avg
		(ив)			Grp1 Qp	Gipi Avg
60 Hz 120 VAC						
155.65 kHz	51.27 Qp	0.12 / 2.79 / 0.0 / 0.0	54.17	L1	-24.83	n/a
155.65 kHz	42.7 Av	0.12 / 2.79 / 0.0 / 0.0	45.6	L1	n/a	-20.4
280.0 kHz	36.36 Qp	0.14 / 1.66 / 0.0 / 0.0	38.16	L1	-40.84	n/a
280.0 kHz	10.43 Av	0.14 / 1.66 / 0.0 / 0.0	12.23	L1	n/a	-53.77
931.29 kHz	33.06 Qp	0.23 / 0.01 / 0.0 / 0.0	33.3	L1	-39.7	n/a
931.29 kHz	28.83 Av	0.23 / 0.01 / 0.0 / 0.0	29.07	L1	n/a	-30.93
1.713 MHz	54.95 Qp	0.31 / 0.01 / 0.0 / 0.0	55.27	L1	-17.73	n/a
1.713 MHz	45.32 Av	0.31 / 0.01 / 0.0 / 0.0	45.64	L1	n/a	-14.36
1.812 MHz	52.18 Qp	0.32 / 0.01 / 0.0 / 0.0	52.51	L1	-20.49	n/a
1.812 MHz	43.36 Av	0.32 / 0.01 / 0.0 / 0.0	43.69	L1	n/a	-16.31
4.35 MHz	43.55 Qp	0.51 / 0.03 / 0.0 / 0.0	44.09	L1	-28.91	n/a
4.35 MHz	30.26 Av	0.51 / 0.03 / 0.0 / 0.0	30.8	L1	n/a	-29.2
15.62 MHz	39.32 Qp	0.95 / 0.08 / 0.0 / 0.0	40.36	L1	-32.64	n/a
15.62 MHz	35.03 Av	0.95 / 0.08 / 0.0 / 0.0	36.07	L1	n/a	-23.93
155.65 kHz	57.04 Qp	0.12 / 2.79 / 0.0 / 0.0	59.94	N	-19.06	n/a
155.65 kHz	43.22 Av	0.12 / 2.79 / 0.0 / 0.0	46.12	N N	n/a	-19.88
280.0 kHz	39.82 Qp	0.14 / 1.66 / 0.0 / 0.0	41.62	N	-37.38	n/a
280.0 kHz	13.9 Av	0.14 / 1.66 / 0.0 / 0.0	15.7	N	n/a	-50.3
931.29 kHz	32.54 Qp	0.23 / 0.01 / 0.0 / 0.0	32.78	N	-40.22	n/a
931.29 kHz	28.99 Av	0.23 / 0.01 / 0.0 / 0.0	29.23	N	n/a	-30.77
1.713 MHz	55.23 Qp	0.31 / 0.01 / 0.0 / 0.0	55.55	N	-17.45	n/a
1.713 MHz	46.13 Av	0.31 / 0.01 / 0.0 / 0.0	46.45	N	n/a	-13.55
1.812 MHz	52.56 Qp	0.32 / 0.01 / 0.0 / 0.0	52.89	N	-20.11	n/a

Tested by:	T. K. Swanson	Thomas K. Swanon
	Printed	Signature
Reviewed by:	J. T. Schneider	Joel T. Sohneisen
	Printed	Signature



Test Report #:	WC700660 Run 2	Test Area:	LTS	_			
EUT Model #:	DV 5800	Date:	2/6/2007	_			
EUT Serial #:		EUT Power:		_ Tempera	ture:	22.0	°C
Test Method:	EN55011 A Grp 1			_ Air Press	sure:1	00.0	kPa
Customer:	Eastman Kodak			Rel. Humi	idity:	18.0	%
EUT Description:	Dry View Laser Imager						
Notes:						T	
Data File Name:	0660.dat				Page:	2 of	8

List of me	asureme	nts for run #: 2				
FREQ	LEVEL	CABLE / ANT / PREAMP /	FINAL	EUT Lead	DELTA1	DELTA2
	(dBuV)	ATTEN	(dBuV / m)		EN55011 A	EN55011 A
	, ,	(dB)	,		Grp1 Qp	Grp1 Avg
1.812 MHz	43.49 Av	0.32 / 0.01 / 0.0 / 0.0	43.82	N	n/a	-16.18
4.35 MHz	44.68 Qp	0.51 / 0.03 / 0.0 / 0.0	45.22	N	-27.78	n/a
4.35 MHz	27.47 Av	0.51 / 0.03 / 0.0 / 0.0	28.01	N	n/a	-31.99
15.62 MHz	38.36 Qp	0.95 / 0.08 / 0.0 / 0.0	39.4	N	-33.6	n/a
15.62 MHz	33.03 Av	0.95 / 0.08 / 0.0 / 0.0	34.07	N	n/a	-25.93
50 Hz 230 VAC						
150.0 kHz	47.56 Qp	0.12 / 2.9 / 0.0 / 0.0	50.58	N	-28.42	n/a
150.0 kHz	35.56 Av	0.12 / 2.9 / 0.0 / 0.0	38.58	N N	n/a	-27.42
160.0 kHz	49.19 Qp	0.12 / 2.7 / 0.0 / 0.0	52.01	N N	-26.99	n/a
160.0 kHz	34.1 Av	0.12 / 2.7 / 0.0 / 0.0	36.92	N	n/a	-29.08
525.0 kHz	37.49 Qp	0.19 / 0.08 / 0.0 / 0.0	37.76	N	-35.24	n/a
525.0 kHz	32.06 Av	0.19 / 0.08 / 0.0 / 0.0	32.33	N	n/a	-27.67
1.726 MHz	51.73 Qp	0.32 / 0.01 / 0.0 / 0.0	52.06	N	-20.94	n/a
1.726 MHz	37.9 Av	0.32 / 0.01 / 0.0 / 0.0	38.23	N	n/a	-21.77
1.81 MHz	53.52 Qp	0.32 / 0.01 / 0.0 / 0.0	53.85	N	-19.15	n/a
1.81 MHz	50.13 Av	0.32 / 0.01 / 0.0 / 0.0	50.46	N	n/a	-9.54
1.925 MHz	50.95 Qp	0.34 / 0.01 / 0.0 / 0.0	51.3	N	-21.7	n/a
1.925 MHz	41.47 Av	0.34 / 0.01 / 0.0 / 0.0	41.82	N	n/a	-18.18
3.17 MHz	47.82 Qp	0.44 / 0.02 / 0.0 / 0.0	48.28	N	-24.72	n/a
3.17 MHz	30.33 Av	0.44 / 0.02 / 0.0 / 0.0	30.79	N	n/a	-29.21
16.655 MHz	39.56 Qp	1.0 / 0.09 / 0.0 / 0.0	40.65	N	-32.35	n/a
16.655 MHz	33.67 Av	1.0 / 0.09 / 0.0 / 0.0	34.76	N	n/a	-25.24
	•		•		•	•
150.0 kHz	45.69 Qp	0.12 / 2.9 / 0.0 / 0.0	48.71	L1	-30.29	n/a
150.0 kHz	35.65 Av	0.12 / 2.9 / 0.0 / 0.0	38.67	L1	n/a	-27.33

Tested by:	T. K. Swanson	Thomas K. Swanon
	Printed	Signature
Reviewed by:	J. T. Schneider	Joel T. Sohnéwer
	Printed	Signature



Test Report #:	WC700660 Run 2	Test Area:	LTS			
EUT Model #:	DV 5800	Date:	2/6/2007			
EUT Serial #:		EUT Power:		Temperature:	22.0	°C
Test Method:	EN55011 A Grp 1			Air Pressure:	100.0	kPa
Customer:	Eastman Kodak			Rel. Humidity:	18.0	%
EUT Description:	Dry View Laser Imager					
Notes:						
Data File Name:	0660.dat			Page	e: 3 of	8

FREQ	LEVEL	CABLE / ANT / PREAMP /	FINAL	EUT Lead	DELTA1	DELTA2
	(dBuV)	ATTEN	(dBuV / m)		EN55011 A	EN55011 A
		(dB)			Grp1 Qp	Grp1 Avg
160.0 kHz	43.5 Qp	0.12 / 2.7 / 0.0 / 0.0	46.32	L1	-32.68	n/a
160.0 kHz	34.05 Av	0.12 / 2.7 / 0.0 / 0.0	36.87	L1	n/a	-29.13
525.0 kHz	34.59 Qp	0.19 / 0.08 / 0.0 / 0.0	34.86	L1	-38.14	n/a
525.0 kHz	30.89 Av	0.19 / 0.08 / 0.0 / 0.0	31.16	L1	n/a	-28.84
1.726 MHz	35.59 Qp	0.32 / 0.01 / 0.0 / 0.0	35.92	L1	-37.08	n/a
1.726 MHz	21.82 Av	0.32 / 0.01 / 0.0 / 0.0	22.15	L1	n/a	-37.85
1.81 MHz	50.65 Qp	0.32 / 0.01 / 0.0 / 0.0	50.98	L1	-22.02	n/a
1.81 MHz	41.06 Av	0.32 / 0.01 / 0.0 / 0.0	41.39	L1	n/a	-18.61
1.925 MHz	50.83 Qp	0.34 / 0.01 / 0.0 / 0.0	51.18	L1	-21.82	n/a
1.925 MHz	41.62 Av	0.34 / 0.01 / 0.0 / 0.0	41.97	L1	n/a	-18.03
3.17 MHz	44.04 Qp	0.44 / 0.02 / 0.0 / 0.0	44.5	L1	-28.5	n/a
3.17 MHz	25.71 Av	0.44 / 0.02 / 0.0 / 0.0	26.17	L1	n/a	-33.83
16.655 MHz	40.06 Qp	1.0 / 0.09 / 0.0 / 0.0	41.15	L1	-31.85	n/a
16.655 MHz	35.01 Av	1.0 / 0.09 / 0.0 / 0.0	36.1	L1	n/a	-23.9
50 Hz 100 VAC						
155.0 kHz	51.79 Qp	0.12 / 2.8 / 0.0 / 0.0	54.71	N	-24.29	n/a
300.0 kHz	0.0 Qp	0.14 / 1.6 / 0.0 / 0.0	1.74	N	-77.26	n/a
655.0 kHz	41.12 Qp	0.21 / 0.02 / 0.0 / 0.0	41.35	N	-31.65	n/a
1.055 MHz	46.16 Qp	0.25 / 0.01 / 0.0 / 0.0	46.42	N	-26.58	n/a
1.795 MHz	55.54 Qp	0.32 / 0.01 / 0.0 / 0.0	55.87	N	-17.13	n/a
2.21 MHz	50.12 Qp	0.36 / 0.01 / 0.0 / 0.0	50.5	N	-22.5	n/a
3.16 MHz	48.03 Qp	0.44 / 0.02 / 0.0 / 0.0	48.49	N	-24.51	n/a
6.365 MHz	42.79 Qp	0.62 / 0.03 / 0.0 / 0.0	43.44	N	-29.56	n/a
16.68 MHz	44.81 Qp	1.0 / 0.09 / 0.0 / 0.0	45.9	N	-27.1	n/a

Tested by:	T. K. Swanson	Thomas K. Swanon
	Printed	Signature
Reviewed by:	J. T. Schneider	Spel T. Sohneise
	Printed	Signature



Test Report #:	WC700660 Run 2	Test Area:	LTS			
EUT Model #:	DV 5800	Date:	2/6/2007			
EUT Serial #:		EUT Power:		Temperature:	22.0	°C
Test Method:	EN55011 A Grp 1			Air Pressure:	100.0	kPa
Customer:	Eastman Kodak			Rel. Humidity:	18.0	%
EUT Description:	Dry View Laser Imager					
Notes:						
Data File Name:	0660.dat			Pag	e: 4 of	8

FREQ	LEVEL	CABLE / ANT / PREAMP /	FINAL	EUT Lead	DELTA1	DELTA2
	(dBuV)	ATTEN	(dBuV / m)		EN55011 A	EN55011 A
		(dB)			Grp1 Qp	Grp1 Avg
155.0 kHz	43.32 Av	0.12 / 2.8 / 0.0 / 0.0	46.24	N	n/a	-19.76
300.0 kHz	6.92 Av	0.14 / 1.6 / 0.0 / 0.0	8.66	N	n/a	-57.34
655.0 kHz	41.53 Av	0.21 / 0.02 / 0.0 / 0.0	41.76	N	n/a	-18.24
1.055 MHz	36.37 Av	0.25 / 0.01 / 0.0 / 0.0	36.63	N	n/a	-23.37
1.795 MHz	43.45 Av	0.32 / 0.01 / 0.0 / 0.0	43.78	N	n/a	-16.22
2.21 MHz	33.93 Av	0.36 / 0.01 / 0.0 / 0.0	34.31	N	n/a	-25.69
3.16 MHz	32.58 Av	0.44 / 0.02 / 0.0 / 0.0	33.04	N	n/a	-26.96
6.365 MHz	40.25 Av	0.62 / 0.03 / 0.0 / 0.0	40.9	N	n/a	-19.1
16.68 MHz	44.55 Av	1.0 / 0.09 / 0.0 / 0.0	45.64	N	n/a	-14.36
					•	
155.0 kHz	49.46 Qp	0.12 / 2.8 / 0.0 / 0.0	52.38	L1	-26.62	n/a
300.0 kHz	0.0 Qp	0.14 / 1.6 / 0.0 / 0.0	1.74	L1	-77.26	n/a
655.0 kHz	40.09 Qp	0.21 / 0.02 / 0.0 / 0.0	40.32	L1	-32.68	n/a
1.055 MHz	45.31 Qp	0.25 / 0.01 / 0.0 / 0.0	45.57	L1	-27.43	n/a
1.795 MHz	54.48 Qp	0.32 / 0.01 / 0.0 / 0.0	54.81	L1	-18.19	n/a
2.21 MHz	48.99 Qp	0.36 / 0.01 / 0.0 / 0.0	49.37	L1	-23.63	n/a
3.16 MHz	45.93 Qp	0.44 / 0.02 / 0.0 / 0.0	46.39	L1	-26.61	n/a
6.365 MHz	40.11 Qp	0.62 / 0.03 / 0.0 / 0.0	40.76	L1	-32.24	n/a
16.68 MHz	42.19 Qp	1.0 / 0.09 / 0.0 / 0.0	43.28	L1	-29.72	n/a
					•	
155.0 kHz	43.1 Av	0.12 / 2.8 / 0.0 / 0.0	46.02	L1	n/a	-19.98
300.0 kHz	0.0 Av	0.14 / 1.6 / 0.0 / 0.0	1.74	L1	n/a	-64.26
655.0 kHz	40.49 Av	0.21 / 0.02 / 0.0 / 0.0	40.72	L1	n/a	-19.28
1.055 MHz	36.78 Av	0.25 / 0.01 / 0.0 / 0.0	37.04	L1	n/a	-22.96
1.795 MHz	42.71 Av	0.32 / 0.01 / 0.0 / 0.0	43.04	L1	n/a	-16.96
2.21 MHz	33.88 Av	0.36 / 0.01 / 0.0 / 0.0	34.26	L1	n/a	-25.74
3.16 MHz	31.87 Av	0.44 / 0.02 / 0.0 / 0.0	32.33	L1	n/a	-27.67

Tested by:	T. K. Swanson	Thomas K. Swanen
	Printed	Signature
Reviewed by:	J. T. Schneider	Spel T. Sohneisen
	Printed	Signature



Test Report #	#: WC70066	30 Run 2	Test Area:	LTS			An	nerica	
EUT Model #	#: <u>DV 5800</u>		Date:	2/6/2007					
EUT Serial #	# :		EUT Power:			Temperatu	ıre: 2	2.0	°C
Test Method	d: <u>EN55011</u>	A Grp 1				Air Pressu	ıre: 10	0.0	kPa
Custome	r: Eastman	Kodak				Rel. Humid	ity: 1	8.0	%
EUT Description	n: Dry View	Laser Imager							
Notes	s:								
Data File Name	e: 0660.dat						Page:	5 of 8	8
ist of mea	asureme	nts for run #: 2							
FREQ	LEVEL (dBuV)	CABLE / ANT / PREAMP / ATTEN (dB)	/ FINAL (dBuV / r	n) EUT Le	E	DELTA1 N55011 A Grp1 Qp	EN	ELTA 5501 rp1 A	1 A
6.365 MHz	31.86 Av	0.62 / 0.03 / 0.0 / 0.0	32.51	L1		n/a		27.49	
16.68 MHz	34.76 Av	1.0 / 0.09 / 0.0 / 0.0	35.85	L1		n/a	-	-24.15	;
ad of Coop									

Tested by:

T. K. Swanson

Printed

Signature

Reviewed by:

Printed

Signature

Signature



Test Report #:	WC700660 Run 2	Test Area:	LTS				
EUT Model #:	DV 5800	Date:	2/6/2007				
EUT Serial #:		EUT Power:		Temperature	e: <u>2</u>	22.0	°C
Test Method:	EN55011 A Grp 1			Air Pressure	e: <u>10</u>	0.00	kPa
Customer:	Eastman Kodak			Rel. Humidity	/: 1	18.0	%
EUT Description:	Dry View Laser Imager						
Notes:							
Data File Name:	0660.dat			P	age:	6 of	8

Measurement summary for limit1: EN55011 A Grp1 Qp (Qp)					
FREQ	LEVEL	CABLE / ANT / PREAMP /	FINAL	EUT Lead	DELTA1
	(dBuV)	ATTEN	(dBuV / m)		EN55011 A
		(dB)			Grp1 Qp
1.795 MHz	55.54 Qp	0.32 / 0.01 / 0.0 / 0.0	55.87	N	-17.13
1.713 MHz	55.23 Qp	0.31 / 0.01 / 0.0 / 0.0	55.55	N	-17.45
155.65 kHz	57.04 Qp	0.12 / 2.79 / 0.0 / 0.0	59.94	N	-19.06
1.81 MHz	53.52 Qp	0.32 / 0.01 / 0.0 / 0.0	53.85	N	-19.15
1.726 MHz	51.73 Qp	0.32 / 0.01 / 0.0 / 0.0	52.06	N	-20.94
1.925 MHz	50.95 Qp	0.34 / 0.01 / 0.0 / 0.0	51.3	N	-21.7
2.21 MHz	50.12 Qp	0.36 / 0.01 / 0.0 / 0.0	50.5	N	-22.5
3.16 MHz	48.03 Qp	0.44 / 0.02 / 0.0 / 0.0	48.49	N	-24.51
3.17 MHz	47.82 Qp	0.44 / 0.02 / 0.0 / 0.0	48.28	N	-24.72
1.055 MHz	46.16 Qp	0.25 / 0.01 / 0.0 / 0.0	46.42	N	-26.58
16.68 MHz	44.81 Qp	1.0 / 0.09 / 0.0 / 0.0	45.9	N	-27.1
4.35 MHz	44.68 Qp	0.51 / 0.03 / 0.0 / 0.0	45.22	N	-27.78
6.365 MHz	42.79 Qp	0.62 / 0.03 / 0.0 / 0.0	43.44	N	-29.56
655.0 kHz	41.12 Qp	0.21 / 0.02 / 0.0 / 0.0	41.35	N	-31.65
16.655 MHz	40.06 Qp	1.0 / 0.09 / 0.0 / 0.0	41.15	L1	-31.85
15.62 MHz	39.32 Qp	0.95 / 0.08 / 0.0 / 0.0	40.36	L1	-32.64
525.0 kHz	37.49 Qp	0.19 / 0.08 / 0.0 / 0.0	37.76	N	-35.24
280.0 kHz	39.82 Qp	0.14 / 1.66 / 0.0 / 0.0	41.62	N	-37.38
931.29 kHz	33.06 Qp	0.23 / 0.01 / 0.0 / 0.0	33.3	L1	-39.7
300.0 kHz	0.0 Qp	0.14 / 1.6 / 0.0 / 0.0	1.74	N	-77.26

Tested by:	T. K. Swanson	Thomas K. Swanon
	Printed	Signature
Reviewed by:	J. T. Schneider	Joel T. Sohneise
	Printed	Signature



Test Report #:	WC700660 Run 2	Test Area:	LTS				
EUT Model #:	DV 5800	Date:	2/6/2007				
EUT Serial #:		EUT Power:		Temperature	:2	2.0	°C
Test Method:	EN55011 A Grp 1			Air Pressure: 100		0.0	kPa
Customer:	Eastman Kodak			Rel. Humidity	: 1	8.0	%
EUT Description:	Dry View Laser Imager						
Notes:							
Data File Name:	0660.dat			Pa	age:	7 of	8

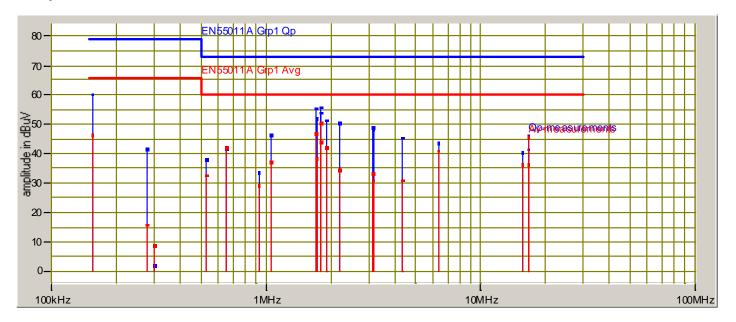
Measurement summary for limit2: EN55011 A Grp1 Avg (Av)					
FREQ	LEVEL	CABLE / ANT / PREAMP /	FINAL	EUT Lead	DELTA2
	(dBuV)	ATTEN	(dBuV / m)		EN55011 A
		(dB)			Grp1 Avg
1.81 MHz	50.13 Av	0.32 / 0.01 / 0.0 / 0.0	50.46	N	-9.54
1.713 MHz	46.13 Av	0.31 / 0.01 / 0.0 / 0.0	46.45	N	-13.55
16.68 MHz	44.55 Av	1.0 / 0.09 / 0.0 / 0.0	45.64	N	-14.36
1.795 MHz	43.45 Av	0.32 / 0.01 / 0.0 / 0.0	43.78	N	-16.22
1.925 MHz	41.62 Av	0.34 / 0.01 / 0.0 / 0.0	41.97	L1	-18.03
655.0 kHz	41.53 Av	0.21 / 0.02 / 0.0 / 0.0	41.76	N	-18.24
6.365 MHz	40.25 Av	0.62 / 0.03 / 0.0 / 0.0	40.9	N	-19.1
155.0 kHz	43.32 Av	0.12 / 2.8 / 0.0 / 0.0	46.24	N	-19.76
1.726 MHz	37.9 Av	0.32 / 0.01 / 0.0 / 0.0	38.23	N	-21.77
1.055 MHz	36.78 Av	0.25 / 0.01 / 0.0 / 0.0	37.04	L1	-22.96
16.655 MHz	35.01 Av	1.0 / 0.09 / 0.0 / 0.0	36.1	L1	-23.9
15.62 MHz	35.03 Av	0.95 / 0.08 / 0.0 / 0.0	36.07	L1	-23.93
2.21 MHz	33.93 Av	0.36 / 0.01 / 0.0 / 0.0	34.31	N	-25.69
3.16 MHz	32.58 Av	0.44 / 0.02 / 0.0 / 0.0	33.04	N	-26.96
525.0 kHz	32.06 Av	0.19 / 0.08 / 0.0 / 0.0	32.33	N	-27.67
4.35 MHz	30.26 Av	0.51 / 0.03 / 0.0 / 0.0	30.8	L1	-29.2
3.17 MHz	30.33 Av	0.44 / 0.02 / 0.0 / 0.0	30.79	N	-29.21
931.29 kHz	28.99 Av	0.23 / 0.01 / 0.0 / 0.0	29.23	N	-30.77
280.0 kHz	13.9 Av	0.14 / 1.66 / 0.0 / 0.0	15.7	N	-50.3
300.0 kHz	6.92 Av	0.14 / 1.6 / 0.0 / 0.0	8.66	N	-57.34

Tested by:	T. K. Swanson	Thomas K. Swanon
	Printed	Signature
Reviewed by:	J. T. Schneider	Joel T. Sohnéwer
	Printed	Signature



Test Report #:	WC700660 Run 2	Test Area:	LTS				
EUT Model #:	DV 5800	Date:	2/6/2007				
EUT Serial #:		EUT Power:		Temperature	e:	22.0	°C
Test Method:	EN55011 A Grp 1			Air Pressure	e: <u>1</u> (0.00	kPa
Customer:	Eastman Kodak			Rel. Humidity	y:	18.0	%
EUT Description:	Dry View Laser Imager						
Notes:							
Data File Name:	0660.dat			Р	Page:	8 of	8

Graph:



Tested by:

T. K. Swanson

Printed

Signature

Reviewed by:

Printed

Signature

Signature

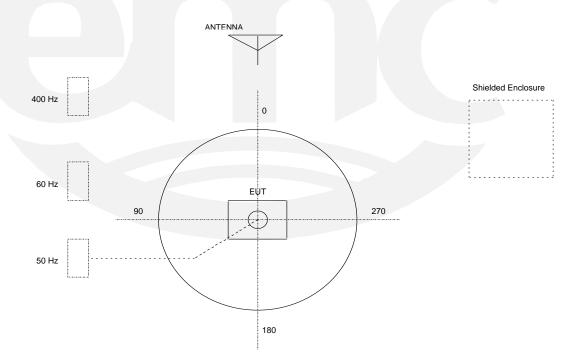


TEST SETUP FOR EMISSIONS TESTING

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.
- 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





Test-setup photo(s): Conducted Emissions, AC lines, 150 kHz - 30 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 STANDARI	M STANDAF	₹D:
---------------------------------	-----------	-----

None.

GENERAL REMARKS:

Eastman Kodak was acquired by Carestream Health, Inc. as of May 1, 2007. Therefore, original test data displays Eastman Kodak as manufacturer.

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: 06 February 2007

Condition of EUT: Normal

Testing Start Date:

06 February 2007

Testing End Date:

16 March 2007

TÜV SÜD AMERICA INC

Jakebourhi.

Greg Jakubowski

Senior EMC Technician

pel T. Sohnéise

Joel Schneider Sr. EMC Engineer

Test Report WC700660.1 Rev B 36 of 58



Appendix A

EMC Test Plan





Eastman Kodak Company

Health Group

DOCUMENT CONTROL PAGE

Document	Part Number: 7F5423	Relates to Quality Manual Element: Document Level:	
Document	Title: EMC Test Plan for DryView L	aser Imager Model DV5800	
Revision	Description	n of Change	Revision Date
Rev. 1	Initial release for review		Febuary 2, 2007

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KODAK Health Group

Eastman Kodak Company Health Group Dry View Laser Imager Model DV 5800 EMC TEST PLAN

5F5423

Author: Robert Pettitt

Affected Departments: Design, Agency, Quality Assurance

Revision: A

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1 Purpose

This document will detail the EMC Test requirements for the Dry View Laser Imager Model DV5800. 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.
 Show configurations of the Dry View Laser Imager Model DV5800, which are required to be tested for worldwide EMC compliance.
- Describe 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

7F5259 Dry View Laser Imager Model DV5800, Rev. 1.0 Product Requirements Specification.

4 EMC Requirements Table

The table below gives the applicable EMC requirements.

					=
Electromagne	tic Compatibili	ty			
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
Eurpoean Telecomm- unications Standard		EN 300 330 9kHz to 25 GHz 9kHz to 30 GHz Inductive Loop			
Eurpoean Telecomm- unications 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 DV5800 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

This EMC testing on Dry View Laser Imager Model 5800 is designed to qualify the product for World Wide EMC acceptance.

Connection to the Dry View Laser Imager Model 5800 from a modality is via Ethernet.

Theory of Operation DryView™ Laser Imager 5800 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 a variety of transponders that operate in the 13.56 MHz ISM band. A transmit encoder converts the transmitted data stream into the selected protocol.

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	5F9186		
Optrex Model F-5182GNFQJ-LB-ABN	01 0 100		
Assembly Bracket Electronics - Containing:	8F4354		
Power Supply - Lamda Model HWS100-24/ME			
Hard Disk Drive - Seagate Model ST380211AS	5F9427		
Motherboard - BCM Model EBC5852-CB	5F8416		
	8F4279		
Motor – Drive, Traction			
Nidac Shimpo Model VGMR-64-86-D-L02-1	7F6877		
Motor – Polygon, 34 MM, Scanner			
Nidec Copal Model EX-1304-1	8F2481		
Motor – Stepper, DC Moons Model 17HD2010-02N	8F3170		
Motor – Stepper, Pinion Shaft Moons Model 17HD2010-03N	054400		
	8F4136		
Vacuum Pump - Gast Model 8R1110-201-1048	7E7736		
Laser Diode JDS Uniphase JDSU – 54-00166	74-0401-7415-8		

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 #	
IBM Computer	300PL	IS6565KDU23ZVZZ0		
Princeton Monitor	EO 710	KANY0300658	EVOEO710	
Dell Quiet Key Keyboard	SK-8000	3882A277		
Dell Mouse	Logitech	LNA10614036	DZL211029	

System Components

Tested EUT component(s)	Model No. or Part No.	Serial No.	Notes
Dry View Laser Imager	DV5800	580000002	

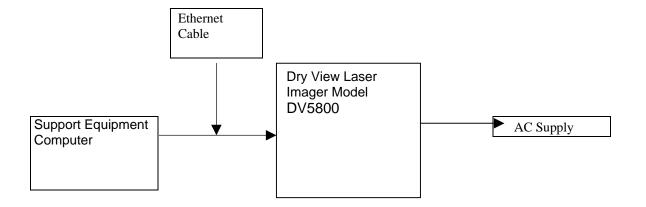
Cables

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

Clock, Oscillator and Data Rate frequencies

Description	Assembly	Part Number	Crystal or Oscillator	Frequency
Data Path Board	8F3353	Below		
	5F4825	Ecera FX2400026	Crystal	24 MHz
	5F7691	NPX Semiconductor P89LPC935FA-S	Micro P	18 MHz
	5F4409	Cypress Semiconductor CY7C68013A-100AXC	Micro P	480 Mhz
RF Antenna Board	8F4239	None		
Local Panel Board	8F3073	None		
	5F9186	Optrex Flat Panel Display F-5182GNFQJ-LB-ABN	Oscillator	22 KHz
	5F7958	NPX Semiconductor PL89LPC936FA	Micro P	18 MHz
Processor Control Board	8F3386	Below		
	5F7958	NPX Semiconductor PL89LPC936FA	Micro P	18 MHz
Densitometer Control Board	8F3285	Below		
	5F2928	Silicon Laboratories C8051F006GQ	Micro P	25 MHz
	5F7011	Epson America SG-636PCE 16.0000MCO:ROHS	Oscillator	16 MHz
Densitometer Light Source Bd.	8F3282	None		
End of Scan Detector Board	8F2589	None		
Film Path Micro- controller Board	8F2972	Below		
	5F4473	Citizen Crystal CS10-13.56MABJ-UT	Crystal	13.56 MHz
	5F7691	NXP Semiconductor P89LPC935FA-S	Micro P	18.0 MHz
	1F8343	NXP Semiconductor P89V664HBA	Micro P	33 MHz
	5F2742	Fox F3345-16.0MHZ or Valpey-Fischer VF5-16.0MHZ	Oscillator	16 MHz
BMC Motherboard Purchased as EBC5852-CB single board computer	8F4279	Below		
		Intel Celeron mFC-BGA 479 ULV	Micro P	800 MHz 400 MHz Bus
		Intel 82562ET	Communication	100 MHz
		Intelo Graphic Accelerator	Graphics	133 MHz 200 MHz

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 DV5800 hardware requires 6 square feet of area on a table (2 feet X 3 feet).

The unit under test requires power sources as shown in Table 11

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 30 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.

To initiate the Imager requires direct connection between the Imager and a monitor, keyboard and mouse. They are removed from the test area prior to the start of testing. They can then be used as part of the test equipment, to send images to the Imager, or other equipment can be used for that purpose.

Interconnecting the cables between the support equipment and the EUT is not included in the ½ hour estimate. Connection time will be dependent on the test chamber configuration, and the wiring channel accessibility.

Another 25 minutes should be allowed for verifying the system is operating properly before any testing commences.

10.2 Configuration Change Time

The amount of time for changing the configurations of the EUT 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 – Wild River Lab
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 – Wild River Lab
Harmonic Current	EN 61000-3-2	230 V, 50 Hz	TUV – Wild River Lab
Voltage Flicker	EN 61000-3-3	230 V, 50 Hz	TUV – Wild River Lab
Immunity	EN 60601-1-2	(Covers all tests except for RF tag).	TUV – Wild River Lab
Electro Static Discharge	EN 61000-4-2	230 V, 50 Hz	TUV – Wild River Lab
Radiated RF Immunity	EN 61000-4-3	230 V, 50 Hz	TUV – Wild River Lab
Electrical Fast Transients	EN 61000-4-4	100 V, 60 Hz and 240 V, 50Hz	TUV – Wild River Lab
Surge	EN 61000-4-5	100 V, 60 Hz and 240 V, 50Hz	TUV – Wild River Lab
Conducted Immunity Tests	EN 61000-4-6	230 V, 50 Hz	TUV – Wild River Lab
Power Frequency Magnetic Tests	EN 61000-4-8	230 V at BOTH 50H& 60 Hz	TUV – Wild River Lab
Voltage Dip Tests	EN 61000-4-11	100 V, 60 Hz and 240 V, 50Hz	TUV – Wild River Lab
European Telecommunications Standard	EN 300 330 9kHz to 25 GHz 9kHz to 30 GHz Inductive Loop	230 V (RF tag) RTTE Directive	TUV – Wild River Lab
European Telecomm- unications Standard	EN 300-489-3 9kHz and 25 GHz	230V (RF tag) RTTE Directive	TUV – Wild River Lab

12 Testing Agenda

The Dry View Laser Imager Model 5800 will be tested

For Model DV 5800 (EM 02) 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:

FCC Testing
 Japanese (VCCI) Testing
 European Testing
 2000 (2000 Hz.)
 21000 (2000 Hz.)
 21000 (2000 Hz.)
 2300 (2000 Hz.)
 2300 (2000 Hz.)

12.2 Radiated EmissionsTesting

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.

12.3 Immunity Testing

Immunity Testing is required in the European Community only.

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 guard band.
- The DV 5800 imager shall pass the ESD immunity test:
- If the DV 5800 imager reprints, without artifact, an image which when originally printed, contained an artifact potentially due to a parity error or pixel transfer count error, induced by the ESD discharge.

- 2.) If the DV 5800 imager returns 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 necessary equipment for the test: Image Film.

Carestream Health

DOCUMENT CONTROL PAGE

Document	Part Number: 8F5521	Relates to Quality Manual Element: Document Level:				
Document	Document Title: Addendum for DryView Laser Imager Model DV5800 EMC Test Plan 7F5423					
Revision	Description	of Change	Revision Date			
Rev. 1	Initial release		July 2007			

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Carestream Health

Carestream Health
Dry View Laser Imager Model 5800
EMC TEST PLAN ADDENDUM

8F5521

	thor: ected Departments:	Robert Pettitt Design, Agency, Quality Assurance	
Re	vision: A		
1	ADDENDUM SUMM	ARY	,
•		TS TABLE	
8		ION SHOWING SYSTEM INTERCONNECTIONS	
11		T TABLE	

1 Addendum Summary

This addendum is a list of differences from Test Plan 7F5423 to be used during retesting of the DV 5800 for Radiated Emissions on June 8th at TUV Oakwood Lab.

The very original EMC testing was conducted in February 2007. The Immunity Report, which was issued at that time, contains Test Plan 7F5423. The encounter was listed as WC700660, by TUV.

The June 8th test will be listed as encounter OC704293, by TUV.

Since the original testing was conducted in February and March 2007, there has been a company change for the DryView Product lines. Kodak Inc. sold Kodak Health Imaging Division to a Canadian company, Onyx Corporation. Onyx created an entirely new company, Carestream Health, from the worldwide holdings of Kodak HI, of which the DryView product line is a portion.

Also, during that time, several changes were made in the DV 5800 design, mainly concerning light tightness of the Imager. To assure continued compliance with Radiated Emission Standards, which were previously passed successfully, this test is to be conducted.

A test report for US, Canada, EU, Japan, Australia will be needed.

4 EMC Requirements Table

Only the following test will be conducted.

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	CISPR 11:97 + A2:2002 CISPR 22: 97 +A1 2000 +A2 2002 (Per RTTE Directive for Unintentional Radiator)
				Directive for Unintentional Radiator)	

8 Test Configuration Showing System Interconnections

The Serial number for this test is EM 08

System Components

Tested EUT component(s)	Model No. or Part No.	Serial No.	Notes
Dry View Laser Imager	DV5800	EM08	580000002 was used for February and March tests.

11 Summary Test Table

The tests will be conducted at the single Mains Voltage. The TUV Oakwood Lab will conduct the tests.

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 – Oakwood Lab



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 dBμV, equals the EMI receiver level plus the cable loss and LISN factor.

Radiated Emissions

The final level, in $dB\mu V/m$, equals the reading from the spectrum analyzer (Level $dB\mu V$), 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.

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FREQ (MHz)	LEVEL (dBuV)	CABLE/ANT/PREAMP (dB) (dB/m) (dB)	FINAL (dBuV/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.

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DETAILS OF TEST PROCEDURES

Conducted Emissions

Conducted emissions on the 50 Hz and/or 60 Hz power interface of the EUT are measured in the frequency range of 150 kHz to 30 MHz. The measurements are performed using a receiver, which has CISPR characteristic bandwidth and quasi-peak detection, and a Line Impedance Stabilization Network (LISN), with 50 Ω /50 μ H (CISPR 16) characteristics. Table top equipment is placed on a non-conducting table 80 centimeters above the floor and is positioned 40 centimeters from the vertical ground plane (wall) of the screen room. In some cases, a pre-scan using a spectrum analyzer is initially performed on the units comprising the system under test to locate the highest emissions. If the minimum passing margin appears to be less than 20 dB with a peak mode measurement, the emissions are re-measured using a tuned receiver or spectrum analyzer with quasi-peak and average detection and recorded on the data sheets.

Radiated Emissions

Radiated emissions in the frequency range of 10kHz to 30 MHz, including the fundamental transmit signal, are measured using a receiver capable of guasi-peak and average measurements and a magnetic loop antenna. The transmitter is rotated through 3 orthogonal axes in order to determine the maximum emission levels. If the signal cannot be measured at the specified limit distance, measurements are recorded at multiple distances nearer to the device and the final level mathematically extrapolated. Radiated emissions from the EUT are measured in the frequency range of 30 to 1000 MHz using a spectrum analyzer and appropriate broadband linearly polarized antennas. Measurements between 30 MHz and 1000 MHz are made with 120 kHz/6 dB bandwidth and quasi-peak detection and measurements above 1000 MHz are made with a 1 MHz/6 dB bandwidth and peak detection. Table top equipment is placed on a 1.0 X 1.5 meter non-conducting table 80 centimeters above the ground plane. Floor standing equipment is placed directly on the turntable/ground plane. Interface cables that are closer than 40 centimeters to the ground plane are bundled in the center in a serpentine fashion so they are at least 40 centimeters from the ground plane. Cables to simulators/testers (if used in this test) are routed through the center of the table and to a screen room located outside the test area. The antenna is positioned 3, 10 or 30 meters horizontally from the EUT. To locate maximum emissions from the test sample the antenna is varied in height from 1 to 4 meters, measurement scans are made with both horizontal and vertical antenna polarizations and the EUT are rotated 360 degrees.