
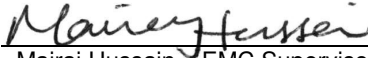




Test Report

Curtis-Straus LLC, a wholly owned subsidiary of BV CPS

Report No	EL1585-3
Client	LightLab Imaging Inc Jeffrey Roberts
Address	4 Robbins Road Westford, MA 01886
Phone	(978) 577-3472
Item tested	ILUMIEN OPTICS system (OCT imaging system) with RFID Controller
Standards	FCC Part 15 Section 15.225
FCC ID	SB6C408650
IC	10934A-I01
FRN	0022489843
Test Dates	December 15, 2011 through June 28, 2012
Results	As detailed within this report
Prepared by	 Tuyen Truong— Compliance Engineer
Authorized by	 Mairaj Hussain — EMC Supervisor
Issue Date	<u>3/14/2013</u>
Conditions of Issue	This Test Report is issued subject to the conditions stated in the 'Conditions of Testing' section on page 14 of this report.

Curtis-Straus LLC is accredited by the American Association for Laboratory Accreditation for the specific scope of accreditation under Certificate Number 1627-01. This report may contain data which is not covered by the A2LA accreditation.



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Contents

Summary	3
Test Methodology	4
Product Tested - Configuration Documentation	5
Statement of Conformity	6
Test Results	7
Fundamental Measurement.....	7
Radiated Spurious Emissions	9
AC Line Conducted Emission Measurements.....	12
Frequency Stability Measurements.....	13
Conditions Of Testing	14

Summary

On December 15, 2011 we tested the ILUMIEN OPTICS system (OCT imaging system) with RFID controller for compliance with the following requirements:

EMC Emissions:

- FCC 47 CFR Part 15 for following tests:
 - Section 15.225
 - Section 15.207 - AC Mains Conducted Emission
 - Section 15.209 – Spurious Radiated Emission

This test report supports an application for certification for the RFID portion of the system which operates on 13.56MHz.

Release Control Record

Issue No.	Reason for change	Date Issued
1	Original Release	March 14, 2013

Test Methodology

Radiated emission testing was performed according to the procedures specified in ANSI C63.4 (2003). Emissions were maximized by rotating the hand piece containing the radio board. Antenna of radio\ could not be maximized because it is hard wired to the board. RFID controller is part of ILUMIEN OPTICS system medical cart and connects to the cart using an umbilical cable. Device containing the RFID was analyzed for emissions in 3 orthogonal axis.

Frequency range investigated: 0.009MHz – 150MHz (for radio part) and up to 17GHz for unintentional digital circuitry.

Measurement distance:	0.15 - 30MHz	Conducted
	0.009 – 30MHz	3m (loop antenna)
	30MHz – 1000MHz	3m
	1GHz – 17GHz	3m and 1m

AC Line conducted emissions testing was performed with a 50Ω/50μH LISN.

All readings are peak unless otherwise specified on the respective table.

Darin Ursuliak from Lightlab Imaging was present during the testing. The test sample was received in good condition.

Release Control Record

Issue No.	Reason for change	Date Issued
1	Original Release	March 14, 2013

Product Tested - Configuration Documentation

EUT Configuration											
Work Order: L1585 Company: St. Jude Medical Company Address: 4 Robbins Road Westford, MA 01886 Contact: Darin Ursuliak Person Present: David Winston and Victor Grinberg											
MN			PN			SN					
EUT: C8/ILUMIEN OPTIS with RFID Controller			---			ILUM+ -1106-P1					
EUT Description: OCT Imaging System											
EUT TX Frequency: 13.56MHz											
EUT Max Frequency: 3.4GHz											
Support Equipment:			MN			SN					
PC			Dimension 4100			H3NY801					
EUT Ports:											
Port Label	Port Type	No. of ports	No. Populated	Cable Type	Shielded	Ferrites	Length	Max Length	In/Out NEBS Type	Unpopulated Reason	
AC Main	AC	1	All	3-wire AC	No	None	3m	3m	indoor	not supported	
Video	Video	1	All	DVI	Yes	2-molded	2m	2m	indoor		
PIU	--	1	All	Mini-DIN	Yes	None	2m	2m	indoor		
Trigger	--	1	0								
Network	Ethernet	1	All	Cat5	No	None	5m	10m	indoor		
USB	Serial	1	All	USB	Yes	None	2m	2m	indoor		
Software / Operating Mode Description:											
Cardiology UI Development software is running and displaying received FFR waveforms originating from supplied peripheral AO/PD/Wi-box FFR transmitters. The OCT probe is active and displaying an image. RFID is operated in a continuous-on mode. Support PC is pinging EUT.											
Performance Criteria:											
Image on screen shall not deteriorate and no errors shall occur. Also support PC shall continue to ping the EUT											

Statement of Conformity

The ILUMIEN OPTICS system with RFID controller has been found to conform to the following parts of 47 CFR as detailed below:

Part 2	Part 15	Comments
	15.15(b)	There are no controls accessible to the user that vary the output power.
2.925	15.19	The label is shown in the label exhibit.
	15.21	Information to the user is shown in the instruction manual exhibit.
	15.27	No special accessories are required for compliance.
	15.203	This product is professionally installed.
	15.205 15.209	The fundamental is not in a Restricted band and the spurious and harmonic emissions in the Restricted bands comply with the general emission limits of 15.209.
	15.207	The unit meets the AC conducted emissions requirements of 15.207.
	15.225(a-d)	The unit complies with these requirements as shown in this test report.
	15.225(e)	The module complies with the frequency stability requirements.

Test Results

Fundamental Measurement

LIMITS

Frequency Range (MHz)	Limit @ 30m (μ V/m)	Limit @ 30m (dB μ V/m)
13.553-13.567	15,848	83.9
13.410-13.553 13.567-13.710	334	50.4
13.110-13.410 13.710-14.010	106	40.5

[15.225(a-c)]

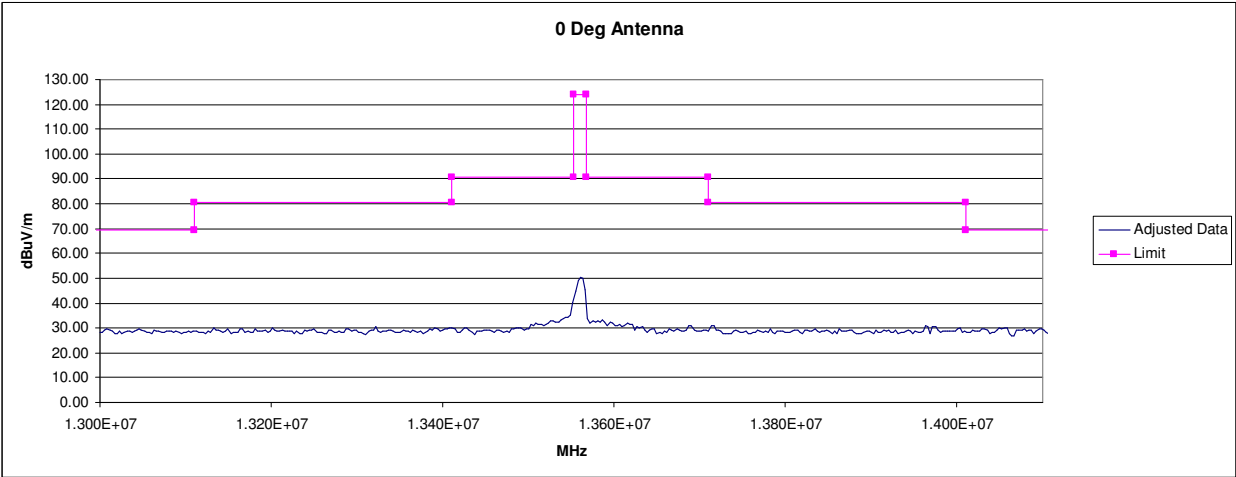
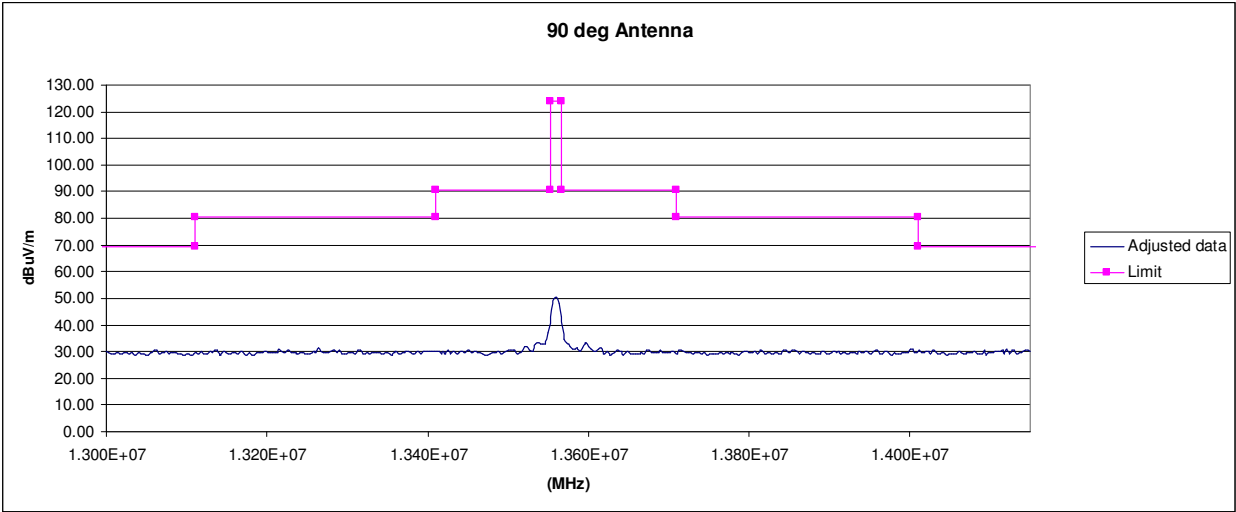
MEASUREMENTS

Fundamental / 1st Harmonic												
Date: 28-Jun-12			Company: LightLab Imaging						Work Order: L1585			
Engineer: John Cushing			EUT Desc: OCT Imaging System (MN: C8/ILUMIEN OPTIS)						EUT Operating Voltage/Frequency: 100V/60Hz			
Temp: 25.6°C			Humidity: 36%			Pressure: 1001mBar						
											Measurement Distance: 3 m	
Notes:												
Antenna Polarization (0° - 90°)	Frequency (MHz)	Reading (dBμV)	Preamp Factor (dB)	Antenna Factor (dB/m)	Cable Factor (dB)	Adjusted Reading (dBμV/m)	---			FCC 15.225		
							Limit (dBμA/m)	Margin (dB)	Result (Pass/Fail)	Limit (dBμV/m)	Margin (dB)	Result (Pass/Fail)
0	13.56	31.4	20.1	39.0	0.5	50.8	---	---	---	123.99	-73.2	Pass
90	13.56	29.4	20.1	39.0	0.5	48.8	---	---	---	123.99	-75.2	Pass
0	27.12	7.7	20.0	37.2	0.7	25.6	---	---	---	69.50	-43.9	Pass
90	27.12	11.0	20.0	37.2	0.7	28.9	---	---	---	69.50	-40.6	Pass
Table Result: Pass by -40.6 dB Worst Freq: 27.12 MHz												
Test Site: EMI Chamber 2			Cable 1: Asset #1506						Cable 2: EMIR-03			
Analyzer: Asset #1327			Preamp: Red						Antenna: Sm Loop (high)			

Spectrum Analyzers / Receivers /Preselectors	Range	MN	Mfr	SN	Asset	Cat	Calibration Due
SA EMI Chamber (1327)	9kHz-13.2 GHz	E4405B	Agilent	MY45103416	1327	I	5/30/2013
Radiated Emissions Sites	FCC Code	IC Code	VCCI Code			Cat	Calibration Due
EMI Chamber 2	719150	2762A-7	A-0015			II	2/15/2014
Preamps /Couplers Attenuators / Filters	Range	MN	Mfr	SN	Asset	Cat	Calibration Due
Red	0.009-2000MHz	ZFL-1000-LN	CS	N/A	798	II	4/13/2013
Antennas	Range	MN	Mfr	SN	Asset	Cat	Calibration Due
Small Loop	10kHz-30MHz	PLA-130/A	ARA	1024	755	I	4/27/2014
Cables	Range		Mfr			Cat	Calibration Due
Asset #1506	9kHz - 18GHz		Florida RF			II	2/2/2013
REMI-03	9kHz - 2GHz		C-S			II	4/10/2013
Meteorological Meters		MN	Mfr	SN	Asset	Cat	Calibration Due
Weather Clock (Pressure Only)		BA928	Oregon Scientific	C3166-1	831	I	3/28/2013
CHAMBER2 Thermohygrometer		35519-044	Control Company	72457639	1347	II	8/19/2013

All equipment is calibrated using standards traceable to NIST or other nationally recognized calibration standard.

ANALYZER PLOT



Radiated Spurious Emissions

LIMITS

"The field strength of any emissions appearing outside of the 13.110-14.010 MHz band shall not exceed the general radiated emission limits in § 15.209" [15.225(d)]

MEASUREMENTS

No emissions found in the frequency range of 9KHz – 30MHz other than fundamental and 2nd harmonics as shown on previous page 7.

Radiated Emissions Table												
Date: 28-Jun-12			Company: St. Jude Medical					Work Order: L1585				
Engineer: John Cushing			EUT Desc: OCT Imaging System (MN: C8/ILUMIEN OPTIS)					EUT Operating Voltage/Frequency: 100V/60Hz				
Temp: 25.6°C			Humidity: 36%			Pressure: 1001mBar						
Frequency Range: 30-1000MHz							Measurement Distance: 3 m					
Notes:			EUT Max Freq: 3.4GHz									
Antenna Polarization (H / V)	Frequency (MHz)	Reading (dBμV)	Preamp Factor (dB)	Antenna Factor (dB/m)	Cable Factor (dB)	Adjusted Reading (dBμV/m)	CISPR Class B			FCC Class B		
							Limit (dBμV/m)	Margin (dB)	Result (Pass/Fail)	Limit (dBμV/m)	Margin (dB)	Result (Pass/Fail)
V	45.0	41.9	20.0	10.3	0.9	33.1	40.5	-7.4	Pass	40.0	-6.9	Pass
V	72.37	43.6	20.0	8.1	1.0	32.7	40.5	-7.8	Pass	40.0	-7.3	Pass
V	315.8	39.7	19.7	13.8	2.1	35.9	47.5	-11.6	Pass	46.0	-10.1	Pass
H	398.5	40.9	19.8	15.5	2.4	39.0	47.5	-8.5	Pass	46.0	-7.0	Pass
H	540.0	36.0	19.5	18.1	2.9	37.5	47.5	-10.0	Pass	46.0	-8.5	Pass
H	564.0	37.0	19.1	18.6	2.9	39.4	47.5	-8.1	Pass	46.0	-6.6	Pass
H	660.0	30.6	19.4	20.1	3.2	34.5	47.5	-13.0	Pass	46.0	-11.5	Pass
H	672.0	35.0	19.3	20.2	3.1	39.0	47.5	-8.5	Pass	46.0	-7.0	Pass
Table Result: Pass by -6.6 dB							Worst Freq: 564.0 MHz					
Test Site: EMI Chamber 2			Cable 1: Asset #1506					Cable 2: EMIR-03				
Analyzer: Asset #1327			Preamp: Red					Antenna: Red-Brown				

Spectrum Analyzers / Receivers /Preselectors SA EMI Chamber (1327)	Range 9kHz-13.2 GHz	MN E4405B	Mfr Agilent	SN MY45103416	Asset 1327	Cat I	Calibration Due 5/30/2013
Radiated Emissions Sites EMI Chamber 2	FCC Code 719150	IC Code 2762A-7	VCCI Code A-0015			Cat II	Calibration Due 2/15/2014
Preamps /Couplers Attenuators / Filters Red	Range 0.009-2000MHz	MN ZFL-1000-LN	Mfr CS	SN N/A	Asset 798	Cat II	Calibration Due 4/13/2013
Antennas Red-Brown Bilog	Range 30-2000MHz	MN JB1	Mfr Sunol	SN A0032406	Asset 1218	Cat I	Calibration Due 8/25/2012
Cables Asset #1506 REMI-03	Range 9kHz - 18GHz 9kHz - 2GHz		Mfr Florida RF C-S			Cat II II	Calibration Due 2/2/2013 4/10/2013
Meteorological Meters Weather Clock (Pressure Only) CHAMBER2 Thermohygrometer		MN BA928 35519-044	Mfr Oregon Scientific Control Company	SN C3166-1 72457639	Asset 831 1347	Cat I II	Calibration Due 3/28/2013 8/19/2013

All equipment is calibrated using standards traceable to NIST or other nationally recognized calibration standard.

Radiated Emissions Table														
Date: 28-Jun-12					Company: St. Jude Medical					Work Order: L1585				
Engineer: John Cushing					EUT Desc: OCT Imaging System (MN: C8/ILUMIEN OPTIS)					EUT Operating Voltage/Frequency: 100V/60Hz				
Temp: 25.6°C					Humidity: 36%					Pressure: 1001mBar				
Frequency Range: 1-6GHz										Measurement Distance: 3 m				
Notes:										EUT Max Freq: 3.4GHz				
Antenna Polarization (H / V)	Frequency (MHz)	Peak Reading (dBμV)	Average Reading (dBμV)	Preamp Factor (dB)	Antenna Factor (dB/m)	Cable Factor (dB)	Adjusted Peak Reading (dBμV/m)	Adjusted Avg Reading (dBμV/m)	FCC Class B High Frequency - Peak			FCC Class B High Frequency - Average		
									Limit (dBμV/m)	Margin (dB)	Result (Pass/Fail)	Limit (dBμV/m)	Margin (dB)	Result (Pass/Fail)
V	1225.0	52.9	40.9	40.0	25.1	2.9	40.9	28.9	74.0	-33.1	Pass	54.0	-25.1	Pass
V	1500.0	63.9	43.0	40.3	25.4	3.3	52.3	31.4	74.0	-21.7	Pass	54.0	-22.6	Pass
V	1994.0	68.6	51.5	40.2	27.7	4.2	60.3	43.2	74.0	-13.7	Pass	54.0	-10.8	Pass
V	2344.0	63.7	38.7	39.6	28.0	4.1	56.2	31.2	74.0	-17.8	Pass	54.0	-22.8	Pass
V	3240.0	60.0	54.0	38.9	31.0	5.3	57.4	51.4	74.0	-16.6	Pass	54.0	-2.6	Pass
H	4320.0	54.6	47.4	38.4	32.2	6.3	54.7	47.5	74.0	-19.3	Pass	54.0	-6.5	Pass
H	5000.0	54.3	40.2	38.9	33.3	6.7	55.4	41.3	74.0	-18.6	Pass	54.0	-12.7	Pass
V	5989.0	65.4	45.0	39.4	34.6	7.1	67.7	47.3	74.0	-6.3	Pass	54.0	-6.7	Pass
Table Result: Pass by -2.6 dB Worst Freq: 3240.0 MHz														
Test Site: EMI Chamber 2					Cable 1: Asset #1506					Cable 2: EMIR-HIGH-21				
Analyzer: Rental #2					Preamp: Red-Blue					Antenna: Yellow Horn				

Note: All emissions above 1GHz are from digital circuitry.

Spectrum Analyzers / Receivers /Preselectors	Range	MN	Mfr	SN	Asset	Cat	Calibration Due
Rental SA #2	9kHz-26.5 GHz	E7405A	Agilent	MY45104194	rental	I	1/5/2013
Radiated Emissions Sites	FCC Code	IC Code	VCCI Code			Cat	Calibration Due
EMI Chamber 2	719150	2762A-7	A-0015			II	2/15/2014
Preamps /Couplers Attenuators / Filters	Range	MN	Mfr	SN	Asset	Cat	Calibration Due
Red-Blue	1-18GHz	PE2-38-218-4R5-17-15-SFF	CS	NA	1257	II	12/13/2012
Antennas	Range	MN	Mfr	SN	Asset	Cat	Calibration Due
Yellow Horn	1-18GHz	3115	EMCO	9608-4898	37	I	6/17/2013
Cables	Range		Mfr			Cat	Calibration Due
Asset #1506	9kHz - 18GHz		Florida RF			II	2/2/2013
REMI-High-21	9kHz - 26.5GHz		C-S			II	1/31/2013
Meteorological Meters		MN	Mfr	SN	Asset	Cat	Calibration Due
Weather Clock (Pressure Only)		BA928	Oregon Scientific	C3166-1	831	I	3/28/2013
CHAMBER2 Thermohygrometer		35519-044	Control Company	72457639	1347	II	8/19/2013

All equipment is calibrated using standards traceable to NIST or other nationally recognized calibration standard.

Radiated Emissions Table														
Date: 28-Jun-12					Company: St. Jude Medical					Work Order: L1585				
Engineer: John Cushing					EUT Desc: OCT Imaging System (MN: C8/ILUMIEN OPTIS)					EUT Operating Voltage/Frequency: 100V/60Hz				
Temp: 25.6°C					Humidity: 36%					Pressure: 1001mBar				
Frequency Range: 6-17GHz										Measurement Distance: 1 m				
Notes:										EUT Max Freq: 3.4GHz				
Antenna Polarization (H / V)	Frequency (MHz)	Peak Reading (dBμV)	Average Reading (dBμV)	Preamp Factor (dB)	Antenna Factor (dB/m)	Cable Factor (dB)	Adjusted Peak Reading (dBμV/m)	Adjusted Avg Reading (dBμV/m)	FCC Class B High Frequency - Peak			FCC Class B High Frequency - Average		
									Limit (dBμV/m)	Margin (dB)	Result (Pass/Fail)	Limit (dBμV/m)	Margin (dB)	Result (Pass/Fail)
V	10539.0	53.8	34.0	37.6	38.8	10.9	65.9	46.1	83.5	-17.6	Pass	63.5	-17.4	Pass
Table Result: Pass by -17.4 dB Worst Freq: 10539.0 MHz														
Test Site: EMI Chamber 2					Cable 1: Asset #1506					Cable 2: EMIR-HIGH-21				
Analyzer: Rental #2					Preamp: Red-Blue					Antenna: Yellow Horn				

Spectrum Analyzers / Receivers /Preselectors	Range	MN	Mfr	SN	Asset	Cat	Calibration Due
Rental SA #2	9kHz-26.5 GHz	E7405A	Agilent	MY45104194	rental	I	1/5/2013
Radiated Emissions Sites	FCC Code	IC Code	VCCI Code			Cat	Calibration Due
EMI Chamber 2	719150	2762A-7	A-0015			II	2/15/2014
Preamps /Couplers Attenuators / Filters	Range	MN	Mfr	SN	Asset	Cat	Calibration Due
Red-Blue	1-18GHz	PE2-38-218-4R5-17-15-SFF	CS	NA	1257	II	12/13/2012
Antennas	Range	MN	Mfr	SN	Asset	Cat	Calibration Due
Yellow Horn	1-18GHz	3115	EMCO	9608-4898	37	I	6/17/2013
Cables	Range		Mfr			Cat	Calibration Due
Asset #1506	9kHz - 18GHz		Florida RF			II	2/2/2013
REMI-High-21	9kHz - 26.5GHz		C-S			II	1/31/2013
Meteorological Meters		MN	Mfr	SN	Asset	Cat	Calibration Due
Weather Clock (Pressure Only)		BA928	Oregon Scientific	C3166-1	831	I	3/28/2013
CHAMBER2 Thermohygrometer		35519-044	Control Company	72457639	1347	II	8/19/2013

All equipment is calibrated using standards traceable to NIST or other nationally recognized calibration standard.

AC Line Conducted Emission Measurements LIMITS

Frequency of emission (MHz)	Quasi-peak limit (dBμV)	Average limit (dBμV)
0.15-0.5	66 to 56*	56 to 46*
0.5-5	56	46
5-30	60	50

*Decreases with the logarithm of the frequency.

[47 CFR 15.207(a)]

MEASUREMENTS

AC Mains Conducted Emissions										
Date: 02-Dec-11			Company: Lightlab Imaging					Work Order: L1585		
Engineer: Chris Bramley			EUT Desc: M4 with RFID controller					Test Site: CEMI1		
Temp: 21.1°C			Humidity: 22%					Pressure: 1019mBar		
Notes: M4 with RFID controller was installed in the C7+ CV OCT System										
Measurement Device: Asset #1494 LISN						EUT Operating Voltage/Frequency: 100V, 60Hz				
Range: 0.15-30MHz						Spectrum Analyzer: Red				
Frequency (MHz)	Q.P. Readings		Ave. Readings		Impedance Factor	FCC/CISPR B		FCC/CISPR B		Overall Result
	QP1 (dBµV)	QP2 (dBµV)	AV1 (dBµV)	AV2 (dBµV)		qp Limit (dBµV)	qp Margin dB	AVE Limit (dBµV)	AVE Margin dB	
						(dB)				
0.15	15.6	15.6	10.4	10.3	20.1	66.0	-30.3	56.0	-25.6	Pass
1.18	6.5	6.5	1.3	1.2	20.1	56.0	-29.4	46.0	-24.6	Pass
2.18	5.9	5.9	0.8	0.9	20.1	56.0	-30.0	46.0	-25.0	Pass
5.82	6.7	6.9	3.0	3.2	20.1	60.0	-33.0	50.0	-26.7	Pass
6.75	5.1	5.5	0.6	0.5	20.1	60.0	-34.4	50.0	-29.3	Pass
22.03	3.3	3.5	-1.4	-1.7	20.4	60.0	-36.1	50.0	-31.0	Pass
Table Result: Pass by -24.60 dB Worst Freq: 1.18 MHz										

Frequency Stability Measurements

LIMITS

"The frequency tolerance of the carrier signal shall be maintained within $\pm 0.01\%$ of the operating frequency over a temperature variation of -20°C to $+50^{\circ}\text{C}$ at normal supply voltage, and for a variation in the primary supply voltage from 85% to 115% of the rated supply voltage at a temperature of 20°C ." [15.225(e)]

MEASUREMENTS

Work Order:	L1585			Site:	Large Environmental Chamber
Company:	LightLab Imaging		Test Engineer:	Matthew Burman	
FCC 15.225 (c)					
Frequency Stability					
Temperature	Frequency	Amplitude	Frequency Delta	Result	
(deg C)	(MHz)	(dBuV)	(MHz)	Pass/Fail	
-20	13.560437	41.25	0.000212	Pass	
-10	13.560225	41.27	0.000000	Pass	
0	13.560037	41.64	-0.000188	Pass	
10	13.560187	41.36	-0.000038	Pass	
20	13.560225	41.31	Frequency Margin 0.01%		
			0.001356023		
30	13.560225	41.34	0.000000	Pass	
40	13.559900	43.1	-0.000325	Pass	
50	13.560037	43.13	-0.000188	Pass	
Amplitude Delta		1.82	dB		
Ambient Temperature (20 degC)					
Nominal Input Voltage - 120Vac					
102Vac	13.55995	41.31	-0.000275	Pass	
138Vac	13.560287	41.51	0.000062	Pass	

Conditions Of Testing

[Bureau Veritas Consumer Products Services, Inc., a Massachusetts corporation], and/or its affiliates (collectively, the "Company") will conduct, at the request of the Submitter ("Client"), the tests specified on the submitted Test Request Form or equivalent in accordance with, and subject to, the following terms and conditions (collectively, "Conditions"):

1. All orders for tests are subject to acceptance by the Company, and no order will constitute a binding commitment of the Company unless and until such order is accepted by it, as evidenced by the issuance of a written report ("Test Report") by the Company. The Test Report is issued solely by the Company, is intended for the exclusive use of Client and shall not be published, used for advertising purposes, copied or replicated for distribution to any other person or entity or otherwise publicly disclosed without the prior written consent of the Company. By submitting a request for services to the Company, Client consents to the disclosure to accreditation bodies of those records of Client relevant to the accreditation body's assessment of the Company's competence and compliance with relevant accreditation criteria. The Company shall not be liable for any loss or damage whatsoever resulting from the failure of the Company to provide its services within any time period for completion estimated by the Company. If Client anticipates using the Test Report in any legal proceeding, arbitration, dispute resolution forum or other proceeding, it shall so notify the Company prior to submitting the Test Report in such proceeding. The Company has no obligation to provide a fact or expert witness at such proceeding unless the Company agrees in advance to do so for a separate and additional fee.
2. The Test Report will set forth the findings of the Company solely with respect to the test samples identified therein. Unless specifically and expressly indicated in the Test Report, the results set forth in such Test Report are not intended to be indicative or representative of the quality or characteristics of the lot from which a test sample is taken, and Client shall not rely upon the Test Report as being so indicative or representative of the lot or of the tested product in general. The Test Report will reflect the findings of the Company at the time of testing only, and the Company shall have no obligation to update the Test Report after its issuance. The Test Report will set forth the results of the tests performed by the Company based upon the written information provided to the Company. The Test Report will be based solely on the samples and written information submitted to the Company by Client, and the Company shall not be obligated to conduct any independent investigation or inquiry with respect thereto.
3. The Company may, in its sole discretion, destroy samples which have been furnished to the Company for testing and which have not been destroyed in the course of testing. The Company may delegate the performance of all or a portion of the services contemplated hereunder to an affiliate, agent or subcontractor of the Company, and Client consents to such delegation.
4. These Conditions and the Test Report represent the entire understanding of the parties hereto with respect to the subject matter hereof and of the Test Report, and no modification, variance or extrapolation with respect thereto shall be permitted without the prior written consent of the Company.
5. The names, service marks, trademarks and copyrights of the Company and its affiliates, including the names "BUREAU VERITAS," "BUREAU VERITAS CONSUMER PRODUCTS SERVICES," "BVCPS," "MTL," "ACTS," "MTL-ACTS" and "CURTIS-STRAUS" (collectively, the "Marks") are and shall remain the sole property of the Company or its affiliates and shall not be used by Client except solely to the extent that Client obtains the prior written approval of the Company and then only in the manner prescribed by the Company. Client shall not contest the validity of the Marks or take any action that might impair the value or goodwill associated with the Marks or the image or reputation of the Company or its affiliates.
6. Payment in full shall be due 30 days after the date of invoice. Interest shall be due on overdue amounts from the due date until paid at an interest rate of 1.5% per month or, if less, the maximum rate permitted by law. The Company reserves the right, at any time and from time to time, to revoke any credit extended to Client. Client shall reimburse the Company for any costs it incurs in collecting past due amounts, including court costs and fees and expenses of attorneys and collection agencies. The Test Report may not be used or relied upon by Client if and for so long as Client fails to pay when due any invoice issued by the Company or any affiliate of it to Client or any affiliate or subsidiary of Client together with interest and penalties, if any, accrued thereon.
7. The Company disclaims any and all responsibility or liability arising out of or in connection with e-mail transmissions of such information.
8. Client understands and agrees that the Company is neither an insurer nor a guarantor, that the Company does not take the place of Client or any designer, manufacturer, agent, buyer, distributor or transportation or shipping company, and that the Company disclaims all liability in such capacities. Client further understands that if it seeks assurance against loss or damage, it should obtain appropriate insurance.
9. Client agrees that the Company, by providing the services, does not take the place of Client nor any third party, nor does the Company release them from any of their obligations, nor does the Company otherwise assume, abridge, abrogate or undertake to discharge any duty of any third party to Client or any duty of Client or any third party to any other third party, and Client will not release any third party from its obligations and duties with respect to the tested goods.
10. Client shall, on a timely basis, (a) provide adequate instructions to the Company in order to enable the Company to perform properly its services, (b) provide, or cause Client's suppliers and contractors to provide, the Company with all documents necessary to enable the Company to perform its services, (c) furnish the Company with all relevant information regarding Client's intended use and purposes of the tested goods, (d) advise the Company of essential dates and deadlines relevant to the tested goods and (e) fully exercise all rights and remedies available to Client against third parties in respect of the tested goods.
11. The Company shall undertake due care and ordinary skill in the performance of its services to Client, and the Company shall accept responsibility only where such skill has not been exercised and, even in such event, only to the extent of the limitation of liability set forth herein.
12. If Client desires to assert a claim arising from or relating to (i) the performance, purported performance or non-performance of any services by the Company or (ii) the sale, resale, manufacture, distribution or use of any tested goods, it must submit that claim to the Company in a writing that sets forth with particularity the basis for such claim within 60 days from discovery of the potential claim and not more than six months after the date of issuance of the Test Report to Client. Client waives any and all such claims including, without limitation, claims that the Test Report is inaccurate, incomplete or misleading or that additional or different testing is required, unless and then only to the extent that Client submits a written claim to the Company within both such time periods.

13. CLIENT SHALL, EXCEPT TO THE EXTENT OF COMPANY'S LIABILITY TO CLIENT HEREUNDER (WHICH IN NO EVENT SHALL EXCEED THE LIMITATION OF LIABILITY HEREIN), HOLD HARMLESS AND INDEMNIFY THE COMPANY, ITS AFFILIATES AND THEIR RESPECTIVE DIRECTORS, OFFICERS, EMPLOYEES, AGENTS AND SUBCONTRACTORS AGAINST ALL ACTUAL OR ALLEGED THIRD PARTY CLAIMS FOR LOSS, DAMAGE OR EXPENSE OF WHATSOEVER NATURE AND HOWSOEVER ARISING FROM OR RELATING TO (i) THE PERFORMANCE, PURPORTED PERFORMANCE OR NON-PERFORMANCE OF ANY SERVICES BY THE COMPANY OR (ii) THE SALE, RESALE, MANUFACTURE, DISTRIBUTION OR USE OF ANY TESTED GOODS.

14. EXCEPT AS MAY OTHERWISE BE EXPRESSLY AGREED TO IN WRITING BY THE COMPANY AND NOTWITHSTANDING ANY PROVISION TO THE CONTRARY CONTAINED HEREIN OR IN ANY TEST REPORT, NO WARRANTY OR GUARANTEE, EXPRESS OR IMPLIED, INCLUDING ANY WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE OR USE, IS MADE.

15. (A) IN NO EVENT WHATSOEVER SHALL THE COMPANY BE LIABLE FOR ANY CONSEQUENTIAL, SPECIAL, INCIDENTAL, EXEMPLARY OR PUNITIVE DAMAGES IN CONNECTION WITH, RELATING TO OR ARISING OUT OF THE TEST REPORT OR THE SERVICES PROVIDED BY THE COMPANY HEREUNDER, INCLUDING WITHOUT LIMITATION LOSS OF OR DAMAGE TO PROPERTY; LOSS OF INCOME, PROFIT OR USE; OR ANY CLAIMS OR DEMANDS MADE AGAINST CLIENT OR ANY OTHER PERSON BY ANY THIRD PARTY IN CONNECTION WITH, RELATING TO OR ARISING OUT OF THE SERVICES PROVIDED BY THE COMPANY HEREUNDER.

(B) NOTWITHSTANDING ANY PROVISION TO THE CONTRARY CONTAINED HEREIN, AND IN RECOGNITION OF THE RELATIVE RISKS AND BENEFITS TO CLIENT AND THE COMPANY ASSOCIATED WITH THE TESTING SERVICES CONTEMPLATED HEREBY, THE RISKS HAVE BEEN ALLOCATED SUCH THAT UNDER NO CIRCUMSTANCES WHATSOEVER SHALL THE LIABILITY OF THE COMPANY TO CLIENT OR ANY THIRD PARTY IN RESPECT OF ANY CLAIM FOR LOSS, DAMAGE OR EXPENSE, OF WHATSOEVER NATURE OR MAGNITUDE, AND HOWSOEVER ARISING, EXCEED AN AMOUNT EQUAL TO FIVE (5) TIMES THE AMOUNT OF THE FEES PAID TO THE COMPANY FOR THE SPECIFIC SERVICES WHICH GAVE RISE TO SUCH CLAIM OR U.S.\$10,000, WHICHEVER IS THE LESSER AMOUNT.

16. The Company shall not be liable for any loss or damage resulting from any delay or failure in performance of its obligations hereunder resulting directly or indirectly from any event of force majeure or any event outside the control of the Company. If any such event occurs, the Company may immediately cancel or suspend its performance hereunder without incurring any liability whatsoever to Client.

17. Company's services, including these Conditions, shall be governed by, and construed in accordance with, the local laws of the country where the Company performs the tests or, in the case of tests performed in the United States of America, the laws of Massachusetts without regard to conflicts of laws principles. If any aspect(s) of these Conditions is found to be illegal or unenforceable, the validity, legality and enforceability of all remaining aspects of these Conditions shall not in any way be affected or impaired thereby. Any proceeding related to the subject matter hereof shall be brought, if at all, in the courts of the country where the Company performs the tests or, in the case of tests performed in the United States of America, in the courts of Massachusetts. Client waives the right to interpose any counterclaim or setoffs of any nature in any litigation arising hereunder.

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