



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

Report No EQ3148-2

Client LumiraDx

John MacLean

Address 221 Crescent Street

Waltham, MA 02453

Phone (617) 621 - 9775

Items tested LumiraDx Wireless US BGM Adapter 710-00079-01

FCC ID 2AI9JBGM

IC ID N/A

FRN 0025763137

Equipment Type Digital Transmission System

Equipment Code DTS

FCC/IC Rule Parts 47 CFR 15.247, RSS-247 Issue 1

Test Dates September 28 and October 2, 2015

Prepared by

Tuven A Truong - Test Engineer

Authorized by

unus Faziloglu – Sr. EMC Engineer

Issue Date

2/1/2017

Conditions of Issue

This Test Report is issued subject to the conditions stated in the 'Conditions of Testing' section on page 24 of this report.





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Form Final Report REV 7-20-07 (DW)



Summary

This test report supports an application for certification of a transmitter operating pursuant to 47 CFR 15.247 and RSS-247. The product is the LumiraDx Wireless US BGM Adapter 710-00079-01. It is a digitally modulated transmitter that operates in the range 2402-2480MHz. Product was tested with a PCB trace antenna with a gain of -0.5dBi.

We found that the product met the above requirements without modification. The test sample was received in good condition.

Please note all testing were performed under Work Order P2245.

Per LumiraDx, the plastic enclosure has not changed since previous testing performed under work order P2245.

Issue No.

Reason for change Original Release Date Issued February 1, 2017





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### Test Methodology

All testing was performed according to the following rules/procedures/documents; CFR 47 Part 15.247, RSS-247 Issue 1, RSS-Gen Issue 4, FCC KDB 558074 D01 DTS Measurement Guidance v03r04 and ANSI C63.10-2013. Radiated emissions were maximized by rotating the device around its 3 orthogonal axes as well as varying the test antenna's height and polarity. The device antenna could not be maximized separately.

Conducted emissions testing at the antenna port was not performed as the EUT has a non-removable integral antenna. AC line conducted emissions testing was not applicable since the EUT is battery powered.

3 channels (low, middle and high) were tested as follows;

Low channel = 2402MHz

Middle channel = 2426MHz

High channel = 2480MHz

The following bandwidths were used during radiated spurious and line conducted emissions tests.

Frequency	RBW	VBW
0.15-30MHz	9kHz	30kHz
30-1000MHz	120kHz	1MHz
1-25GHz	1MHz	3MHz



pag.

# **Product Tested - Configuration Documentation**

					EUT Co	onfiguration						
Work (	Order:	Q3148										
Con	ipany:	LumiraD	λ									
Company Ad	ldress:	221 Cres	cent Street									
		Waltham	n, MA 0245	3								
Co	ontact:	John Mad	cLean									
				MN			PN				SN	
	EUT:			E METRIX								EMI testing)
				E METRIX						NHNH-00	256-0006 (	Immunity testing)
EUT Descri				itor with Lumira	aDx Wireless US	BGM Adapter	•					
EUT TX Frequ		2402-248										
EUT Max Frequ	uency:	16 MHz	(Associated	d Circuitry)								
Support Equipment				Mì	N					SN		
Laptop				XPS	11							
Bluetooth dongle												
Port Label	Port	Type	# ports	# populated	cable type	shielded	ferrite s	length (m)	max length (m)	in/out	under test	comment
none												
Software Operating					•					•	•	
EUT is consecutively	set to tra	nsmit on 2	402, 2426	and 2480 MHz v	vhen power applie	s.						





# Statement of Conformity

The LumiraDx Wireless US BGM Adapter 710-00079-01 has been found to conform to the following parts of 47 CFR and as detailed below:

RSS-GEN	RSP-100	RSS 247	Part 15	Comments
6.3			15.15(b)	There are no controls accessible to the user that
				varies the output power to operate in violation of the
				regulatory requirements.
	3.1		15.19	The label is shown in the label exhibit.
	4		15.21	Information to the user is shown in the instruction
				manual exhibit.
			15.27	No special accessories are required for compliance.
3, 6.1			15.31	The EUT was tested in accordance with the
				measurement standards in this section.
6.13			15.33	Frequency range was investigated according to this
				section, unless noted in specific rule section under
				which the equipment operates.
8.1			15.35	The EUT emissions were measured using the
				measurement detector and bandwidth specified in
				this section, unless noted in specific rule section
				under which the equipment operates.
8.3			15.203	EUT employs a PCB trace antenna with a gain of
				-0.5dBi.
8.10			15.205	The fundamental is not in a Restricted band and the
			15.209	spurious and harmonic emissions in the Restricted
				bands comply with the general emission limits of
				15.209 or RSS-Gen as applicable
8.8			15.207	Not applicable since EUT is battery powered.
			15.247	The EUT complies with the requirements of 15.247
		RSS 247		The EUT complies with the requirements of RSS-
				247
6.6				Occupied Bandwidth measurements were made.



## **Test Results**

## **Bandwidth**

#### **LIMIT**

The minimum 6 dB bandwidth shall be at least 500 kHz. [15.247(a) (2)]

#### **MEASUREMENTS / RESULTS**

Date: 02-Oct-15	Company: lumiraDx	Work Order: P2245						
Engineer: Tuyen Truong	EUT Desc: Blood Glucose Monitor with LumiraDx Wireless US BGM Adapter	Adapter EUT Operating Voltage/Frequency: 3Vdc						
Temp: 22°C	Humidity: 60% Pressure: 1007mBar	% Pressure: 1007mBar						
Frequen	y Range: 2402-2480 MHz	Measurement	Distance	3 m				
Notes: M/N: True Metri								
Antenna				6dB BW				
plarization Frequency	Reading		Limit	Margin	Result			
(H/V) (MHz)	(KHz)		(KHz)	(KHz)	(Pass/Fai			
v 2402	720.740		≥500	+220.740	Pass			
V 2702	750,000		≥500	+258.926	Pass			
v 2426	758.926							
	758.926 721.060		≥500	+221.060	Pass			
v 2426	721.060	le 2: Asset #2053		+221.060 Cable 3:				

Rev.9/29/2015								
Spectrum Analyzers / Receivers / Preselectors	Range	MN	Mfr	SN	Asset	Cat	Calibration Due	Calibrated on
SA EMI Chamber (1328)	9kHz-13.2 GHz	E4405B	Agilent	MY44210241	1328	I	8/19/2016	8/19/2015
Radiated Emissions Sites	FCC Code	IC Code	VCCI Code	Range		Cat	Calibration Due	Calibrated on
EMI Chamber 1	719150	2762A-6	A-0015	30-1800MHz		II	3/21/2017	3/21/2015
Preamps /Couplers Attenuators / Filters	Range	MN	Mfr	SN	Asset	Cat	Calibration Due	Calibrated on
1517 HF Preamp	1-20GHz	CS	CS	N/A	1517	II	8/6/2016	8/6/2015
Antennas	Range	MN	Mfr	SN	Asset	Cat	Calibration Due	Calibrated on
Blue Horn	1-18Ghz	3117	ETS	157647	1861	I	2/8/2017	2/8/2015
Cables	Range		Mfr			Cat	Calibration Due	Calibrated on
Asset #2051	9kHz - 18GHz		Florida RF			II	3/8/2016	3/8/2015
Asset #2053	9kHz - 18GHz		Florida RF			II	3/8/2016	3/8/2015
Meteorological Meters		MN	Mfr	SN	Asset	Cat	Calibration Due	Calibrated on
Weather Clock (Pressure Only)		BA928	Oregon Scientific	C3166-1	831	- 1	3/19/2016	3/19/2014
TH A#2080		HTC-1	HDE		2080	II	4/2/2016	4/2/2015

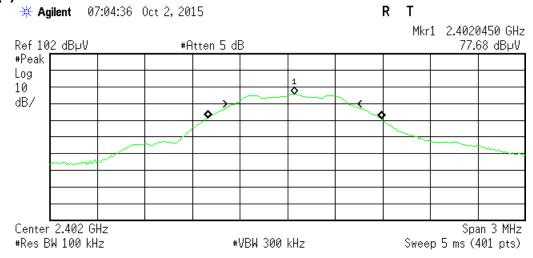
All equipment is calibrated using standards traceable to NIST or other nationally recognized calibration standard.



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#### PLOT(s)

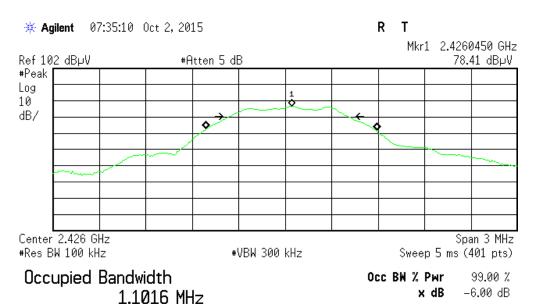


Occupied Bandwidth 1.0971 MHz Occ BW % Pwr 99.00 % x dB -6.00 dB

Transmit Freq Error 45.136 kHz x dB Bandwidth 720.740 kHz

No Peak Found

#### Low Channel - 6dB Bandwidth



Transmit Freq Error 41.041 kHz x dB Bandwidth 758.926 kHz

C:temp.gif file saved

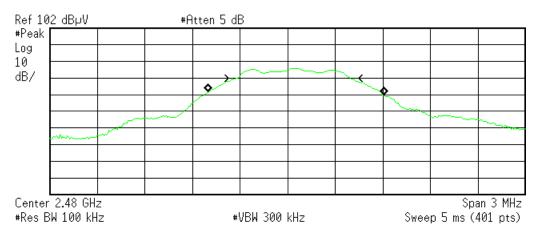
Mid Channel - 6dB Bandwidth



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Testing Carl No. 1627-01

★ Agilent 07:54:42 Oct 2, 2015

R T



Occupied Bandwidth 1.1050 MHz Occ BW % Pwr 99.00 % x dB -6.00 dB

Transmit Freq Error 51.577 kHz x dB Bandwidth 721.060 kHz

C:temp.gif file saved

High Channel - 6 dB Bandwidth



## Fundamental Emission Output Power

#### LIMIT

Conducted Output Power 1 Watt [15.247(b) (3)]

Per 558074 D01 DTS Measurement Guidance v03r04 Section 9.1.1 (Maximum Peak Conducted Output Power)

#### **MEASUREMENTS / RESULTS**

Date	: 02-Oct-15		Company:	IumiraDx					v	Vork Order:	P2245
Engineer	: Tuyen Truong		EUT Desc:	Blood Glud	ose Moni	tor with Lumira	Dx Wireless US BG	GM Adapter EUT Opera	ting Voltage/	Frequency:	3Vdc
Temp	: 22°C		Humidity:	60%		Pressure	: 1007mBar				
	Freque	ncy Range	: 2402-2480	MHz				Measureme	ent Distance:	3 m	
Notes	: M/N: True Met	rix									
Antenna			Preamp	Antenna	Cable	Adjusted	Adjusted	Adjusted		FCC 15.247	'
Polarization	Frequency	Reading	Factor	Factor	Factor	Reading	EIRP Reading	Conducted Reading	Limit	Margin	Resul
(H/V)	(MHz)	(dBµV)	(dB)	(dB/m)	(dB)	(dBµV/m)	(dBm)	(dBm)	(dBm)	(dB)	(Pass/Fa
v	2402.0	79.5	19.9	32.3	3.3	95.2	-0.03	0.47	30.0	-29.53	Pass
v	2426.0	79.4	20.0	32.3	3.3	95.0	-0.23	0.27	30.0	-29.73	Pass
V	2480.0	79.1	20.2	32.4	3.3	94.6	-0.63	-0.13	30.0	-30.13	Pass
Tab	le Result:	Pass	by	-29.53	dB			И	orst Freq:	2402.0	MHz
Test Site	: EMI Chamber	1	Cable 1:	Asset #20	51			Cable 2: Asset #205	3	Cable 3:	
Analyzer	: Asset #1328		Preamp:	Asset #15	17			Antenna: Blue Horn	P	reselector:	

# Adjusted Conducted Power = EIRP – Antenna Gain

#### Antenna Gain = -0.5dBi

Rev.9/29/2015 <b>Spectrum Analyzers / Receivers / Preselectors</b> SA EMI Chamber (1328)	<b>Range</b> 9kHz-13.2 GHz	<b>MN</b> E4405B	<b>M</b> fr Agilent	<b>SN</b> MY44210241	<b>Asset</b> 1328	Cat I	Calibration Due 8/19/2016	Calibrated on 8/19/2015
Radiated Emissions Sites EMI Chamber 1	FCC Code 719150	IC Code 2762A-6	VCCI Code A-0015	Range 30-1800MHz		Cat II	Calibration Due 3/21/2017	Calibrated on 3/21/2015
Preamps /Couplers Attenuators / Filters 1517 HF Preamp	Range 1-20GHz	MN CS	Mfr CS	SN N/A	<b>Asset</b> 1517	Cat II	Calibration Due 8/6/2016	Calibrated on 8/6/2015
<b>Antennas</b> Blue Hom	Range 1-18Ghz	<b>MN</b> 3117	Mfr ETS	<b>SN</b> 157647	<b>Asset</b> 1861	Cat 	Calibration Due 2/8/2017	Calibrated on 2/8/2015
<b>Cables</b> Asset #2051 Asset #2053	<b>Range</b> 9kHz - 18GHz 9kHz - 18GHz		<b>Mfr</b> Florida RF Florida RF			Cat II	<b>Calibration Due</b> 3/8/2016 3/8/2016	Calibrated on 3/8/2015 3/8/2015
Meteorological Meters Weather Clock (Pressure Only) TH A#2080		MN BA928 HTC-1	Mfr Oregon Scientific HDE	<b>SN</b> C3166-1	<b>Asset</b> 831 2080	Cat   	<b>Calibration Due</b> 3/19/2016 4/2/2016	Calibrated on 3/19/2014 4/2/2015

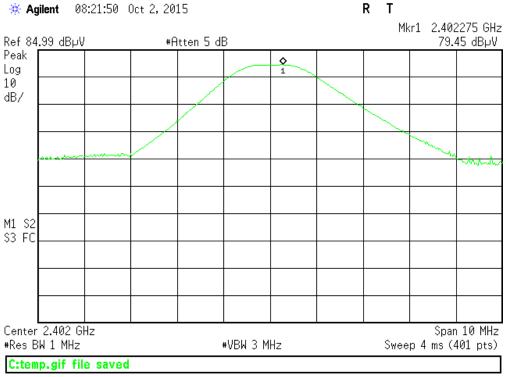
All equipment is calibrated using standards traceable to NIST or other nationally recognized calibration standard.



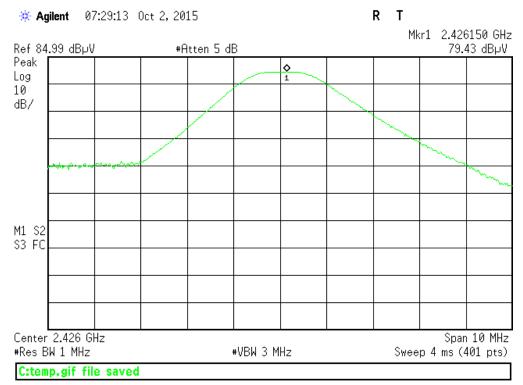
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#### **PLOTS**



Low Channel – Channel Power



Mid Channel – Channel Power



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\* Agilent 07:51:27 Oct 2, 2015 R T Mkr1 2.480325 GHz Ref 84.99 dBµV #Atten 5 dB 79.11 dB<sub>P</sub>V Peak <u>↓</u> Log 10 dB/ V1 S2 S3 FC Center 2.48 GHz Span 10 MHz #Res BW 1 MHz #VBW 3 MHz Sweep 4 ms (401 pts) C:temp.gif file saved

High Channel – Channel Power



# Radiated Spurious Emissions

#### **LIMITS**

Radiated emissions which fall in the restricted bands, as defined in Section 15.205(a), must also comply with the radiated emission limits specified in Section 15.209(a). [15.247(d)]

#### **MEASUREMENTS / RESULTS**

Date:	02-Oct-15			Company:	IumiraDx							V	Vork Order	: P2245
Engineer:	Tuyen Truong			EUT Desc:	Blood Glud	cose Mon	itor with LumiraD	r with LumiraDx Wireless US BGM Adapter EUT Operating Voltage/Frequency: 3Vo						
Temp:	22°C			Humidity:	60%			Pressure:	: 1007mBar					
		Freque	ncy Range:	Band Edge	es						Measureme	nt Distance:	3 m	
Notes:	M/N: True Me	trix									EU	T Max Freq:	2402-2480 [	ИHz
				1					FCC 15.209 Hi	gh Freque	ency - Peak	FCC 15.2	209 High Fr	equency -
Antenna		Peak	Average	Preamp	Antenna	Cable	Adjusted	Adjusted					Average	
Polarization (H/V)	Frequency (MHz)	Reading (dBµV)	Reading (dBµV)	Factor (dB)	Factor (dB/m)	Factor (dB)	Peak Reading (dBuV/m)	Avg Reading (dBuV/m)	Limit (dBµV/m)	Margin (dB)	Result (Pass/Fail)	Limit (dBµV/m)	Margin (dB)	Result (Pass/Fai
V	2390.0	40.48	25.1	19.9	32.3	3.3	56.2	40.8	74.0	-17.8	Pass	54.0	-13.2	Pass
v	2483.5	48.72	25.5	20.2	32.4	3.3	64.2	41.0	74.0	-9.8	Pass	54.0	-13.0	Pass
Table	e Result:		Pass	by	-9.8	dB					W	orst Freq:	2483.5	MHz
Test Site:	EMI Chamber	1		Cable 1:	Asset #20	51				Cable 2:	Asset #2053	3	Cable 3	
Analyzer:	Asset #1328			Preamp:	Asset #15	17				Antenna:	Blue Horn	F	reselector	
	d Emissions C		v 1.017.148										Copyright Curt	tis-Straus LLC
usted Read	ing = Reading	- Preamp Fa	actor + Anter	na Factor +	- Cable Fac	tor								
v.9/29/201	5													
Spectru	ım Analyzer	s / Receive	ers/Presel	ectors	Ran	ige	MN	Mfr	SN	Asset	Cat C	alibration E	ue Ca	librated o
	SA EMI	Chamber (	1328)		9kHz-13	.2 GHz	E4405B	Agilent	MY4421024	1 1328	1	8/19/2016	8	3/19/2015

Rev.9/29/2015								
Spectrum Analyzers / Receivers / Preselectors	Range	MN	Mfr	SN	Asset	Cat	Calibration Due	Calibrated on
SA EMI Chamber (1328)	9kHz-13.2 GHz	E4405B	Agilent	MY44210241	1328	1	8/19/2016	8/19/2015
Radiated Emissions Sites	FCC Code	IC Code	VCCI Code	Range		Cat	Calibration Due	Calibrated on
EMI Chamber 1	719150	2762A-6	A-0015	30-1800MHz		II	3/21/2017	3/21/2015
Preamps /Couplers Attenuators / Filters	Range	MN	Mfr	SN	Asset	Cat	Calibration Due	Calibrated on
1517 HF Preamp	1-20GHz	CS	CS	N/A	1517	II	8/6/2016	8/6/2015
Antennas	Range	MN	Mfr	SN	Asset	Cat	Calibration Due	Calibrated on
Blue Horn	1-18Ghz	3117	ETS	157647	1861	I	2/8/2017	2/8/2015
Cables	Range		Mfr			Cat	Calibration Due	Calibrated on
Asset #2051	9kHz - 18GHz		Florida RF			II	3/8/2016	3/8/2015
Asset #2053	9kHz - 18GHz		Florida RF			II	3/8/2016	3/8/2015
Meteorological Meters		MN	Mfr	SN	Asset	Cat	Calibration Due	Calibrated on
Weather Clock (Pressure Only)		BA928	Oregon Scientific	C3166-1	831	- 1	3/19/2016	3/19/2014
TH A#2080		HTC-1	HDE		2080	II	4/2/2016	4/2/2015

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



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Testing Carl No. 1827-01

**Radiated Emissions Table** Date: 28-Sep-15 Company: lumiraDx Work Order: P2245 Engineer: Ahmed Ahmed EUT Desc: Blood Glucose Monitor with LumiraDx Wireless US BGM Adapter EUT Operating Voltage/Frequency: 3Vdc Temp: 22°C Pressure: 1017 mBar Humidity: 46% Frequency Range: 30-1000MHz Measurement Distance: 3 m Notes: M/N: True Metrix EUT Max Freq: 2480MHz Peak nosie floor readings FCC 15.209 Adjusted Preamp Polarization Reading Factor Factor Factor Reading Limit Margin Result Limit Margin Result (H/V) (MHz) (dBµV) (dB) (dB/m) (dB) (dBµV/m (dBµV/m (Pass/Fail) (dBµV/m) (Pass/Fail) 42.15 30.0 25.5 12.3 0.4 17 2 40.0 -22 8 Pass 117.15 32.8 25.5 13.7 0.6 21.6 43.5 -21.9 Pass 143.4 25.7 34.6 12.9 0.6 22.4 ------43.5 -21.1 Pass ---151.55 34.9 25.6 12.5 0.7 22.5 43.5 -21.0 Pass 714.75 25.0 25.9 20.4 46.0 -24.6 Н 1.9 Pass 46.0

Table Result: 151.55 MHz Pass bv -21 0 dB Worst Freq:

Test Site: EMI Chamber 1 Analyzer: Rental SA#1 CSsoft Radiated Emissions Calculator

Cable 1: Asset #2051 Preamp: Green v 1.017.148

Adjusted Reading = Reading - Preamp Factor + Antenna Factor + Cable Factor

Cable 2: Asset #2054 Antenna: Red-Brown

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v. 9/26/2015								
Spectrum Analyzers / Receivers / Preselectors	Range	MN	Mfr	SN	Asset	Cat	Calibration Due	Calibrated on
Brown	9kHz-26.5GHz	E4407B	Agilent	SG44210511	1510	1	6/30/2016	6/30/2015
Radiated Emissions Sites	FCC Code	IC Code	VCCI Code	Range		Cat	Calibration Due	Calibrated on
EMI Chamber 1	719150	2762A-6	A-0015	30-1000MHz		II	3/21/2017	3/21/2015
Preamps /Couplers Attenuators / Filters	Range	MN	Mfr	SN	Asset	Cat	Calibration Due	Calibrated on
Green	0.009-2000MHz	ZFL-1000-LN	CS	N/A	802	II	9/17/2016	9/17/2015
Antennas	Range	MN	Mfr	SN	Asset	Cat	Calibration Due	Calibrated on
Red-Brown Bilog	30-2000MHz	JB1	Sunol	A0032406	1218	I	12/4/2016	12/4/2014
Meteorological Meters		MN	Mfr	SN	Asset	Cat	Calibration Due	Calibrated on
Weather Clock (Pressure Only)		BA928	Oregon Scientific	C3166-1	831	1	3/19/2016	3/19/2014
TH A#2078		HTC-1	HDE		2078	II	4/2/2016	4/2/2015
Cables	Range		Mfr			Cat	Calibration Due	Calibrated on
Asset #2051	9kHz - 18GHz		Florida RF			II	3/8/2016	3/8/2015
Asset #2054	9kHz - 18GHz		Florida RF			II	3/8/2016	3/8/2015

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

Date:	28-Sep-15			Company:	lumiraDx							,	Nork Order:	P2245	
	Ahmed Ahme	d				cose Mon	nitor with LumiraD	x Wireless US I	BGM Adapter		EUT Operat				
Temp:		-		Humidity:					1017 mBar						
		Freque	ncy Range	1-6GHz							Measureme	nt Distance:	3 m		
Notes:	M/N: True Me	trix									EUT	Γ Max Freq:	2480MHz		
		l	l	1	l	l			FCC 15.209	High Frequ	ency - Peak	FCC 15.	209 High Fre	equency -	
Antenna		Peak	Average	Preamp	Antenna	Cable	Adjusted	Adjusted	3 141 3				Average		
Polarization	Frequency	Reading	Reading	Factor	Factor	Factor	Peak Reading	Avg Reading	Limit	Margin	Result	Limit	Margin	Result	
(H/V)	(MHz)	(dBµV)	(dBµV)	(dB)	(dB/m)	(dB)	(dBµV/m)	(dBµV/m)	(dBµV/m)	(dB)	(Pass/Fail)	(dBµV/m)	(dB)	(Pass/Fail)	
V	1972.1	42.0	23.0	19.0	28.0	3.0	54.0	35.0	74.0	-20.0	Pass	54.0	-19.0	Pass	
V	2329.35	42.14	23.5	19.9	28.2	3.2	53.6	35.0	74.0	-20.4	Pass	54.0	-19.0	Pass	
V	2386.25	42.5	24.0	19.9	28.5	3.3	54.4	35.9	74.0	-19.6	Pass	54.0	-18.1	Pass	
V	2440.25	44.0	27.8	20.0	28.7	3.3	56.0	39.8	74.0	-18.0	Pass	54.0	-14.2	Pass	
V	2509.55	43.2	23.8	20.2	28.9	3.4	55.3	35.9	74.0	-18.7	Pass	54.0	-18.1	Pass	
Н	2580.0	45.9	23.2	20.2	29.2	3.4	58.3	35.6	74.0	-15.7	Pass	54.0	-18.4	Pass	
• • • • • • • • • • • • • • • • • • • •			22.6		32.9	4.6	54.6	42.2	74.0	-19.4	Pass	54.0			

Analyzer: Rental SA#1 Preamp: Asset #1517 Antenna: Black Horn

Ssoft Radiated Emissions Calculator v1.017.148
Adjusted Reading = Reading - Preamp Factor + Antenna Factor + Cable Factor

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**Radiated Emissions Table** Date: 28-Sep-15 Company: lumiraDx Work Order: P2245 Engineer: Ahmed Ahmed EUT Desc: Blood Glucose Monitor with LumiraDx Wireless US BGM Adapter EUT Operating Voltage/Frequency: 3Vdc Pressure: 1017 mBar Temp: 22°C Humidity: 46% Frequency Range: 6-18GHz Measurement Distance: 1 m Notes: M/N: True Metrix EUT Max Freq: 2480MHz FCC 15.209 High Frequency - Pea FCC 15.209 High Frequency -Average Adjusted Polarization Frequency Reading Reading Factor Factor Factor Peak Reading Avg Reading Limit Margin Result Limit Margin Result No emission found. Table Result: --- dB Worst Freq: --- MHz by Cable 2: Asset #2054 Analyzer: Rental SA#1
CSsoft Radiated Emissions Calculator v1.017.1
Adjusted Reading = Reading - Preamp Factor + An Preamp: Asset #1517 Antenna: Black Horn

Rev. 9/26/2015 Spectrum Analyzers / Receivers / Preselectors Range MN Mfr Cat Calibration Due Calibrated on Brown 9kHz-26.5GHz E4407B Agilent SG44210511 1510 6/30/2016 6/30/2015 Radiated Emissions Sites FCC Code VCCI Code Cat EMI Chamber 1 719150 2762A-6 A-0015 1-18GHz 5/23/2017 5/23/2015 Preamps/Couplers Attenuators / Filters Range MN Mfr Cat Calibration Due Calibrated on 1517 HF Preamp 1-20GHz CS N/A 1517 8/6/2015 CS П 8/6/2016 Antennas Range MN Mfr SN Asset Cat **Calibration Due** Calibrated on Black Horn 1-18GHz 3115 EMCO 9703-5148 56 8/21/2014 8/21/2016 Meteorological Meters Mfr Cat **Calibration Due** Calibrated on Asset Weather Clock (Pressure Only) TH A#2078 BA928 Oregon Scientific C3166-1 831 3/19/2016 3/19/2014 HTC-1 HDE 2078 П 4/2/2016 4/2/2015 Cat Calibration Due Cables Range Mfr Calibrated on Asset #2051 9kHz - 18GHz Florida RF 3/8/2016 3/8/2015 Asset #2054 9kHz - 18GHz Florida RF 3/8/2016 3/8/2015 REMI-High-06 TRU-21B0707-120 8/7/2016 8/7/2015 1 - 26.5GHz

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

Date:	28-Sep-15			Company:	lumiraDx							1	Nork Order:	P2245	
Engineer:	Ahmed Ahme	d		EUT Desc:	Blood Glud	cose Mon	itor with LumiraD	x Wireless US	BGM Adapter		<b>EUT Operati</b>	ing Voltage	Frequency:	3Vdc	
Temp:	22°C			Humidity:	46%			Pressure:	: 1017 mBar						
		Freque	ncy Range:	18-25GHz							Measuremen	nt Distance:	0.1 m		
Notes: M/N: True Metrix							EUT	Max Freq:	2480MHz						
Antenna Peak Average Polarization Frequency Reading Reading			Average	Preamp	Antenna	Cable	Adjusted	Adjusted	FCC 15.209	CC 15.209 High Frequency - Peak			FCC 15.209 High Frequency - Average		
			Reading	Factor	Factor	Factor	Peak Reading	Avg Reading	Lim it	Margin	Result	Limit	Margin	Result	
$(H/V)$ $(MHz)$ $(dB\mu V)$ $(dB\mu V)$			(dBµV)	(dB)	(dB/m)	(dB)	(dBµV/m)	(dBµV/m)	(dBµV/m)	(dB)	(Pass/Fail)	(dBµV/m)	(dB)	(Pass/Fa	
lo emission found					-	-				-					
Table	e Result:			by		dB					Wo	orst Freq:		MHz	
Test Site: EMI Chamber 1 Analyzer: Rental SA#1			Cable 1: EMIR-HIGH-06 Preamp: 18-26.5GHz												

Rev. 11/5/2015 Spectrum Analyzers / Receivers / Preselectors Brown	<b>Range</b> 9kHz-26.5GHz	<b>MN</b> E4407B	<b>Mfr</b> Agilent	<b>SN</b> SG44210511	<b>Asset</b> 1510	Cat	Calibration Due 6/30/2016	Calibrated on 6/30/2015
Radiated Emissions Sites EMI Chamber 1	FCC Code 719150	IC Code 2762A-6	VCCI Code A-0015	Range 1-18GHz		Cat 	Calibration Due 5/23/2017	Calibrated on 5/23/2015
Preamps /Couplers Attenuators / Filters HF (Yellow)	Range 18-26.5GHz	MN AFS4-18002650-60-8P-4	Mfr CS	<b>SN</b> 467559	Asset 1266	Cat II	Calibration Due 3/13/2016	Calibrated on 3/13/2015
Antennas	Range	MN	Mfr	SN	Asset	Cat	Calibration Due	Calibrated on
HF (White) Horn	18-26.5GHz	801-WLM	Waveline	758	758	III	Verify before Use	date of test
Meteorological Meters Weather Clock (Pressure Only) TH A#2080		<b>MN</b> BA928 HTC-1	Mfr Oregon Scientific HDE	<b>SN</b> C3166-1	<b>Asset</b> 831 2080	Cat   	Calibration Due 3/19/2016 4/2/2016	Calibrated on 3/19/2014 4/2/2015
<b>Cables</b> REMI-High-06	Range 1 - 26.5GHz	TRU-21B0707-120	Mfr TRU			Cat II	Calibration Due 8/7/2016	Calibrated on 8/7/2015

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



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# **Power Spectral Density**

#### LIMIT

...the power spectral density conducted from the intentional radiator to the antenna shall not be greater than 8dBm in any 3 kHz band during any time interval of continuous transmission. [15.247(e)]

Per 558074 D01 DTS Measurement Guidance v03r04 Section 10.2 Method Peak PSD

#### **MEASUREMENTS / RESULTS**

Date:	02-Oct-15		Company:	lumiraDx					V	ork Order:	P2245		
Engineer:	Tuyen Truong		EUT Desc:	Blood Glud	ose Moni	tor with Lumira[	x Wireless US BGM	Adapter EUT Operati	ng Voltage/I	requency:	3Vdc		
Temp:	22°C		Humidity:	60%		Pressure:	1007mBar						
	Freque	ncy Range	: 2402-2480	MHz				Measuremen	t Distance:	3 m			
Notes:	M/N: True Met	rix											
	1		ı		1			Î		FCC 15.247			
Antenna			Preamp	Antenna	Cable	Adjusted	Adjusted	Adjusted					
olarization	Frequency	Reading	Factor	Factor	Factor	Reading	EIRP Reading	Conducted Reading	Limit	Margin	Result		
(H/V)	(MHz)	(dBµV)	(dB)	(dB/m)	(dB)	(dBµV/m)	(dBm)	(dBm)	(dBm)	(dB)	(Pass/Fai		
	2402.0	66.10	19.9	32.3	3.3	81.80	-13.43	-12.93	8.0	-20.93	Pass		
٧		69.57	20.0	32.3	3.3	85.17	-10.06	-9.56	8.0	-17.56	Pass		
v v	2426.0	00.01				00.04	-13.02		0.0	-20.52	Pass		
•	2426.0 2480.0	66.71	20.2	32.4	3.3	82.21	-13.02	-12.52	8.0	-20.52	1 000		
V V			20.2 by	-17.56		82.21	-13.02		orst Freq:	2426.0			
Tabl	2480.0	66.71	by		dB	82.21	-13.02				MHz		

## Adjusted Conducted Power = EIRP - Antenna Gain

Antenna Gain = -0.5dBi

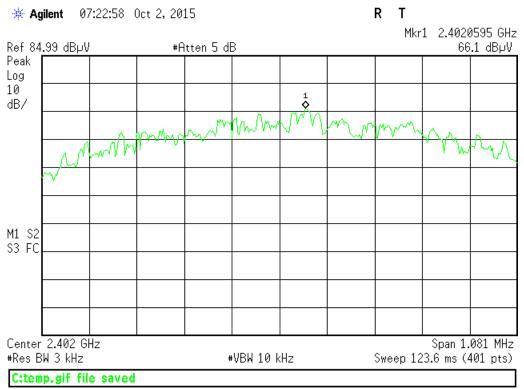
Rev.9/29/2015 <b>Spectrum Analyzers / Receivers / Preselectors</b> SA EMI Chamber (1328)	<b>Range</b> 9kHz-13.2 GHz	<b>MN</b> E4405B	<b>M</b> fr Agilent	<b>SN</b> MY44210241	Asset 1328	Cat I	Calibration Due 8/19/2016	Calibrated on 8/19/2015
Radiated Emissions Sites	FCC Code	IC Code	VCCI Code	Range		Cat	Calibration Due	Calibrated on
EMI Chamber 1	719150	2762A-6	A-0015	30-1800MHz		II	3/21/2017	3/21/2015
Preamps /Couplers Attenuators / Filters	Range	MN	Mfr	SN	Asset	Cat	Calibration Due	Calibrated on
1517 HF Preamp	1-20GHz	CS	CS	N/A	1517	II	8/6/2016	8/6/2015
Antennas	Range	MN	Mfr	SN	Asset	Cat	Calibration Due	Calibrated on
Blue Horn	1-18Ghz	3117	ETS	157647	1861	- 1	2/8/2017	2/8/2015
Cables	Range		Mfr			Cat	Calibration Due	Calibrated on
Asset #2051	9kHz - 18GHz		Florida RF			II	3/8/2016	3/8/2015
Asset #2053	9kHz - 18GHz		Florida RF			II	3/8/2016	3/8/2015
Meteorological Meters		MN	Mfr	SN	Asset	Cat	Calibration Due	Calibrated on
Weather Clock (Pressure Only)		BA928	Oregon Scientific	C3166-1	831	I	3/19/2016	3/19/2014
TH A#2080		HTC-1	HDE		2080	II	4/2/2016	4/2/2015

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

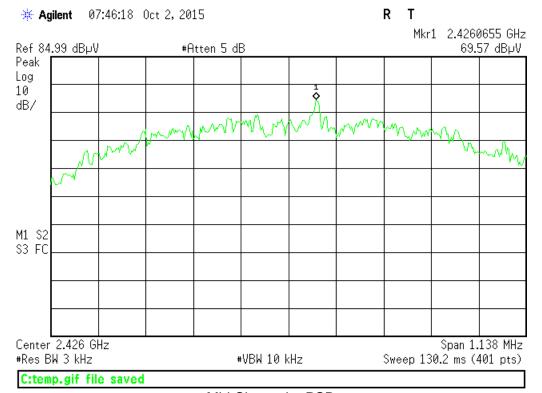




#### **PLOTS**



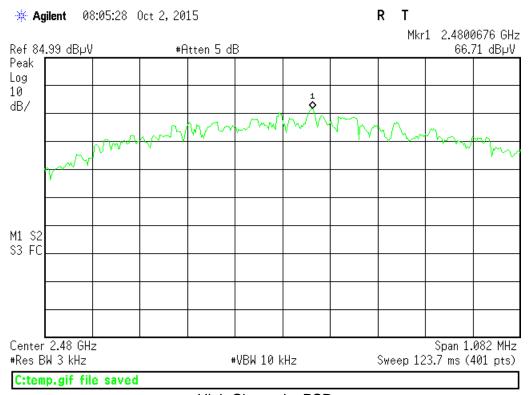
Low Channel - PSD



Mid Channel - PSD



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High Channel - PSD



# **AC Line Conducted Emissions 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				

<sup>\*</sup>Decreases with the logarithm of the frequency.

[47 CFR 15.207(a)]

#### **MEASUREMENTS / RESULTS**

N/A since the EUT is battery powered.





# **Occupied Bandwidth**

#### **REQUIREMENT**

When an occupied bandwidth is not specified in the applicable RSS, the transmitted signal bandwidth to be reported is to be its 99% emission bandwidth, as calculated or measured. [RSS-GEN 6.6]

#### **MEASUREMENTS / RESULTS**

Engineer: Tuyen Truong Temp: 22°C         EUT Desc: Blood Glucose Monitor with LumiraDx Wireless US BGM Adapter Humidity: 60%         Pressure: 1007mBar         EUT Operating Voltage/Frequency           Frequency Range: 2402-2480 MHz         Measurement Distance: 3 m           Notes: M/N: True Metrix           Antenna Polarization (H/V) (MHz)         Coccupied Bandwidth Reading (KHz)           V         2402         (KHz)           V         2426         1032.9           V         2480         1018.2           V         2480         1033.1           Test Site: EMI Chamber 1         Cable 1: Asset #2051         Cable 2: Asset #2053         Cable	ate: 02-Oct-15	Company: lumiraDx			Work Order: P2245
Frequency Range: 2402-2480 MHz   Measurement Distance: 3 m	er: Tuyen Truong	EUT Desc: Blood Glucose Mo	onitor with LumiraDx Wireless US BGM Adap	oter EUT Operating V	oltage/Frequency: 3Vdc
Notes: M/N: True Metrix	np: 22°C	Humidity: 60%	Pressure: 1007mBar		
Antenna Polarization (H/V) (MHz) Occupied Bandwidth Reading (KHz)  V 2402 (1032.9  V 2426 1018.2  V 2480 1033.1	Frequency Range:	2402-2480 MHz		Measurement Dis	tance: 3 m
Polarization (H/V)         Frequency (MHz)         Occupied Bandwidth Reading (KHz)           V         2402         1032.9           V         2426         1018.2           V         2480         1033.1	tes: M/N: True Metrix				
Polarization (H/V)         Frequency (MHz)         Occupied Bandwidth Reading (KHz)           V         2402         1032.9           V         2426         1018.2           V         2480         1033.1	<del></del>				
(H/V)         (MHz)         (KHz)           V         2402         1032.9           V         2426         1018.2           V         2480         1033.1					
V         2402         1032.9           V         2426         1018.2           V         2480         1033.1	on Frequency		Occupied Bandwidth Readin	g	
V 2426 1018.2 V 2480 1033.1	(MHz)		(KHz)		
V 2480 1033.1	2402		1032.9		
	2426		1018.2		
Test Site: EMI Chamber 1 Cable 1: Asset #2051 Cable 2: Asset #2053 Cable	2480		1033.1		
	ite: EMI Chamber 1	Cable 1: Asset #2051	C	able 2: Asset #2053	Cable 3:
Analyzer: Asset #1328 Preamp: Asset #1517 Antenna: Blue Horn Preselector	er: Asset #1328	Preamp: Asset #1517	Aı	ntenna: Blue Horn	Preselector:

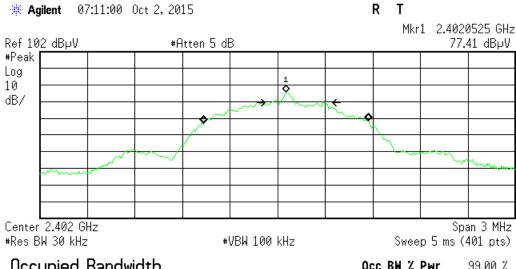
Rev.9/29/2015 <b>Spectrum Analyzers / Receivers /Preselectors</b> SA EMI Chamber (1328)	Range 9kHz-13.2 GHz	<b>MN</b> E4405B	<b>M</b> fr Agilent	<b>SN</b> MY44210241	Asset 1328	Cat 	Calibration Due 8/19/2016	Calibrated on 8/19/2015
Radiated Emissions Sites EMI Chamber 1	<b>FCC Code</b> 719150	IC Code 2762A-6	VCCI Code A-0015	Range 30-1800MHz		Cat II	Calibration Due 3/21/2017	Calibrated on 3/21/2015
Preamps/Couplers Attenuators / Filters 1517 HF Preamp	Range 1-20GHz	MN CS	Mfr CS	SN N/A	Asset 1517	Cat II	Calibration Due 8/6/2016	Calibrated on 8/6/2015
Antennas Blue Hom	Range 1-18Ghz	<b>MN</b> 3117	Mfr ETS	<b>SN</b> 157647	<b>Asset</b> 1861	Cat 	Calibration Due 2/8/2017	Calibrated on 2/8/2015
Cables Asset #2051 Asset #2053	<b>Range</b> 9kHz - 18GHz 9kHz - 18GHz		<b>M</b> fr Florida RF Florida RF			Cat II	<b>Calibration Due</b> 3/8/2016 3/8/2016	Calibrated on 3/8/2015 3/8/2015
Meteorological Meters Weather Clock (Pressure Only) TH A#2080		<b>MN</b> BA928 HTC-1	Mfr Oregon Scientific HDE	<b>SN</b> C3166-1	<b>Asset</b> 831 2080	Cat   	<b>Calibration Due</b> 3/19/2016 4/2/2016	Calibrated on 3/19/2014 4/2/2015

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



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#### Plot(s)

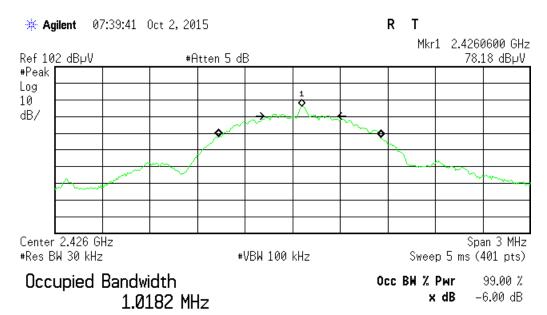


Occupied Bandwidth 1.0329 MHz Occ BW % Pwr 99.00 % x dB -6.00 dB

Transmit Freq Error 53.099 kHz x dB Bandwidth 326.109 kHz

C:temp.gif file saved

#### Low Channel - Occupied Bandwidth



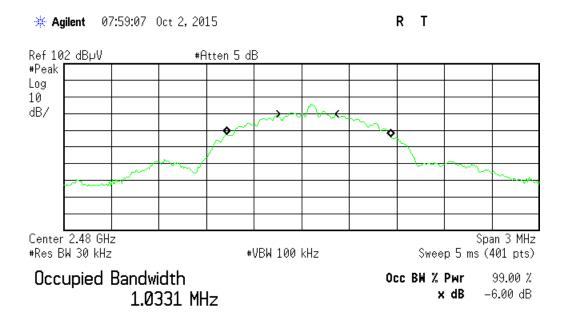
Transmit Freq Error 42.721 kHz x dB Bandwidth 360.309 kHz

C:temp.gif file saved

Mid Channel - Occupied Bandwidth



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Transmit Freq Error 47.785 kHz x dB Bandwidth 236.207 kHz

C:temp.gif file saved

High Channel - Occupied Bandwidth



# **Measurement Uncertainty**

The listed uncertainties are the worst case uncertainty for the entire range of measurement. Please note that the uncertainty values are provided for informational purposes only and are not used in determining the PASS/FAIL results.

Measurement	Expanded Uncertainty k=2	Maximum allowable uncertainty
Radiated Emissions (30-1000MHz)		
NIST CISPR	5.6dB 4.6dB	N/A 5.2dB (Ucispr)
Radiated Emissions (1-26.5GHz)	4.6dB	N/A
Radiated Emissions (above 26.5GHz)	4.9dB	N/A
Magnetic Radiated Emissions	5.6dB	N/A
Conducted Emissions	0.0.15	
NIST CISPR	3.9dB 3.6dB	N/A 3.6dB (Ucispr)
Telco Conducted Emissions (Current)	2.9dB	N/A
Telco Conducted Emissions (Voltage)	4.4dB	N/A
Electrostatic Discharge	11.5%	N/A
Radiated RF Immunity (Uniform Field)	1.6dB	N/A
Electrical Fast Transients	23.1%	N/A
Surge	23.1%	N/A
Conducted RF Immunity	3dB	N/A
Magnetic Immunity	12.8%	N/A
Dips and Interrupts	2.3V	N/A
Harmonics	3.5%	N/A
Flicker	3.5%	N/A
Radio frequency (@ 2.4GHz)	3.23 x 10 <sup>-8</sup>	1 x 10 <sup>-7</sup>
RF power, conducted	0.40dB	0.75dB
Maximum frequency deviation:  • Within 300Hz and 6kHz of audio frequency / Within 6kHz and 25kHz of audio frequency	3.4% 0.3dB	5% 3dB
Adjacent channel power	1.9dB	3dB
Conducted spurious emission of transmitter, valid up to 12.75GHz	2.39dB	3dB
Conducted emission of receivers	1.3dB	3dB
Radiated emission of transmitter, valid up to 26.5GHz	3.9dB	6dB
Radiated emission of transmitter, valid up to 80GHz	3.3dB	6dB
Radiated emission of receiver, valid up to 26.5GHz	3.9dB	6dB
Radiated emission of receiver, valid up to 80GHz	3.3dB	6dB
Humidity	2.37%	5%
Temperature	0.7°C	1.0°C
Time	4.1%	10%
RF Power Density, Conducted	0.4dB	3dB
DC and low frequency voltages	1.3%	3%
Voltage (AC, <10kHz)	1.3%	2%
Voltage (DC)	0.62%	1%
The above reflects a 95% confidence level		





#### **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

- 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.
- 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.
   These Conditions and the Test Report represent the entire understanding of the parties hereto with respect to the subject matter hereof
- 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 were 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. CLIÉNT 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.



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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 HERELINDER

(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.

The complete list of the Approved Subcontractors Curtis-Straus may use to delegate the performance of work can be provided upon request. Rev.160009121(2)\_#684340 v14CS



