Test Report



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

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Report No	EQ1352-2
Client	BlackBox Biometrics Inc.
Address	125 Tech Park Drive Rochester, NY 14623
Phone	(585)-329-3399
Items tested FCC ID IC	Blast Gauge (Models: Gen 7 0 and Gen 7 1) 2AHN8BG710 21433-BG710
Equipment Type Equipment Code Emission Designator	Digital Transmission System DTS 1M05F1D
FCC/IC Rule Parts	47 CFR 15.247, RSS-247 Issue 1
Test Dates	June 2, June 7, July 6 and July 11, 2016
Results	As detailed within this report
Prepared by	Yuntes Fazilogiu – Sr. EMC Engineer
Authorized by	Christopher Reynolds - EMC Supervisor
Issue Date	8/31/2016
Conditions of Issue	This Test Report is issued subject to the conditions stated in the ' <i>Conditions of Testing</i> ' section on page 31 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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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 "Blast Gauge" (Models: Gen 7 0 and Gen 7 1). It is a digitally modulated transmitter that operates in the 2402 to 2480 MHz frequency range. It has an internal patch antenna with 2.5dBi peak gain.

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

The EUT has two models as detailed below:

Gen 7 X, where X will be a numeric value indicating battery size: 0 for 1/6 D-Cell and 1 for 2450cell

Antenna port conducted measurements were performed on Model Gen 7 0.

Radiated spurious emissions tests were performed on Model Gen 7 1.

Since the only difference between the models is the size of the battery, test results presented in this report represent both models.

Release Control Record Issue No. Reason for change Original Release 1

Date Issued August 31, 2016

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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 v03r05 and ANSI C63.10-2013.

Radiated emissions were maximized by rotating the device around 3 orthogonal planes (X, Y and Z) as well as varying the test antenna's height and polarity. Only worst case results are listed in this report. EUT has an internal antenna that cannot be maximized separately.

RF measurements, as required by the rule section, were performed at the antenna port. 3 channels were tested as follows:

- 2402 MHz: Low Channel (#0)
- 2442 MHz: Mid Channel (#20)
- 2480 MHz: High Channel (#39)

EUT operating voltage is 3.6VDC (battery), therefore AC line conducted emissions testing was not required.

The following bandwidths were	used during radiated spundus en	lissions lesling.
Frequency	RBW	VBW
30-1000MHz	120kHz	1MHz
1-25GHz	1MHz	3MHz

The following bandwidths were used during radiated spurious emissions testing.





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Product Tested - Configuration Documentation

					E	UT Config	guration					
Work O	rder:	Q1352										
Com	pany:	BlackB	ox Biometri	cs Inc.								
Company Add	iress:	125 Te	ch Park Driv	e								
		Roches	ter, NY 1462	23								
Col	ntact:	Mike P	remo									
				MN				PN			SN	
	EUT:		Blast Gauge	e System, Gen 7	1					0000N	A (Radiated	d EMI testing)
			Blast Gauge	e System, Gen 7	0					Sample 1 (C	onducted A	Antenna Port testing)
EUT Descrij	ption:	Blast G	auge									
EUT Max Frequ	ency:	48 MH	z (associated	l circuitry)								
EUT Min Frequ	ency:	0.0327	58 MHz (ass	ociated circuitry)							
EUT TX Frequ	ency:	2402 to	2480 MHz									
Support Equipment				MI	N					SN		
Dell Laptop				Latit	ude					7F5L20	Q1	
Port Label	Port	t Type	# ports	# populated	cable ty	vpe s	shielded	ferrites	length (m)	in/out	under test	comment
USB Power	USB		1	1	USB	Y	es	No	0.15	in	yes	USB 3M Ext. used for radiated setup only
Software Operating N	1ode D	escriptio	n:									
EUT is set to transmit a	at Low	(2402MF	lz), Middle (2442MHz) and I	High (2480)	MHz) char	nnels.					





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Statement of Conformity

EUT has shown compliance to the following:

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 has a patch antenna internal to the device (Peak gain: 2.5dBi). The antenna is connected to the PCB via IPEX MHF1 connector, which is considered unique.
8.10			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 or RSS-Gen as applicable
8.8			15.207	Not applicable since EUT is battery powered.
			15.247	The unit complies with the requirements of 15.247
		RSS 247		The unit complies with the requirements of RSS-247
6.6				Occupied Bandwidth measurements were made.





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Test Results

DTS Bandwidth

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

MEASUREMENTS / RESULTS

	6c	IB Ba	ndwidth					
Date: Jun-2-2016	Company: Blad	ckBox Bi	ometrics, Inc.				Work Order:	Q1352
Engineer: Yunus Faziloglu	EUT Desc: Blas	stGauge		EUT Oper	ating \	/oltag	ge/Frequency:	3.6VDC
Temp: 22°C	Humidity: 46%	, o	Pressure	e: 1007 mB	ar			
Frequency Range:	2402-2480 MH	Z		Measu	remen	t Typ	e: Conducted	
Notes: Powered from support lapto	p USB port							
							6dB BW	
Frequency		Reading			L	.im it	Margin	Result
(MHz)		(kHz)			(kHz)	(kHz)	(Pass/Fail)
2402		675.2			≥	500	175.2	Pass
2442		680.9			≥	500	180.9	Pass
2480		683.9			≥	500	183.9	Pass
Test Site: Wireless Test Room	Cable 1: SM	A adapte	r assembly	Cable 2:	Asset a	#1784		
Analyzer: MXE 1168255							Copyright Curti	s-Straus LLC 2000
Bev. 5/18/2016								
Spectrum Analyzers / Receivers / Preselectors	Range	MN	Mfr	SN	Asset	Cat	Calibration Due	Calibrated on
MXE EMI Receiver	20Hz-8.4GHz	N9038A	Agilent	MY53290009	1168255	Ι	6/16/2016	6/16/2015
Meteorological Meters		MN	Mfr	SN	Asset	Cat	Calibration Due	Calibrated on
TH A#2080 Barometric A#2160		HTC-1	HDE Aonarch Instruments	4000060	2080 2160		4/5/2017 3/7/2017	4/5/2016 3/7/2016
Barometric A#2160		0390-0321	nonarch instrument	4000060	2100	I	3/7/2017	3/7/2010
Cables	Range		Mfr Florida DF			Cat	Calibration Due	Calibrated on
Asset #1784	9kHz - 18GHz		Florida RF			Ш	3/7/2017	3/7/2016

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

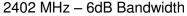




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PLOT(s)

	pectrum Analyzer - Occupied	BW					
(X/ RL Cente	RF 50 Ω AC r Freq 2.40200000	0 GHz		ALIGN OFF 402000000 GHz		03:25:46 PM Jun I Radio Std: None	02,2016
		#IFGain:Low	→→ Trig: Free Run #Atten: 10 dB	Avg Hol	d: 100/100	Radio Device: BTS	
10 dB/c	liv Ref 10.00 dB	m					
-10.0			- manual ma	mont			
-20.0 —				- m			
-30.0 —	a sharman				- Marken	man many many	
-40.0 MA	1 Approxim				, `	\sim	$\gamma\gamma\gamma$
-50.0	<u>Ми.</u>					I	
-60.0							-
-70.0 —							_
-80.0							
	r 2.402 GHz 3W 100 kHz		#\/B\A(300 kHz		Span 3 Sweep 1.00	
		*h	Total Powe		dBm		00 1113
	cupied Bandwid 1	.0666 MHz		4.05	abiii		
Tra	nsmit Freq Error	3.859 kHz	OBW Pow	er 99.	.00 %		
x di	3 Bandwidth	675.2 kHz	x dB	-6.0	00 dB		
MSG							



	um Analyzer - Occupied BW	/			
LXI RL	RF 50 Ω AC		SENSE:INT Center Freg: 2.442000	ALIGN OFF	03:08:38 PM Jun 02, 2016 Radio Std: None
Center Fi	req 2.442000000	GHZ	∴ Trig: Free Run	Avg Hold: 100/100	Radio Sta: None
		#IFGain:Low	#Atten: 10 dB		Radio Device: BTS
10 dB/div Log 0.00 -10.0 -20.0 -30.0 -40.0	Ref 10.00 dBm	N Warden and a start and a start and a start a		nd and a start of the start of	when a way
-50.0 \\ h\r\ -60.0	- " ¥ ".				- ŲŲ *i
-70.0					
-70.0					
Center 2. #Res BW			#VBW 300 k	(Hz	Span 3 MHz Sweep 1.066 ms
Occup	bied Bandwidth		Total Power	2.91 dBm	
	1.0	0788 MHz			
Transn	nit Freq Error	1.349 kHz	OBW Power	99.00 %	
x dB B	andwidth	680.9 kHz	x dB	-6.00 dB	
MSG				I STATUS	

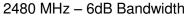
2442 MHz - 6dB Bandwidth





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Agilent Spectru	um Analyzer - Occupied BV	V			
LXIRL	RF 50 Ω AC			ALIGN OFF	03:09:54 PM Jun 02, 2016
Center Fr	eq 2.48000000	GHz	Center Freq: 2.480000 Trig: Free Run	000 GHz Avg Hold: 100/100	Radio Std: None
		#IFGain:Low	#Atten: 10 dB	Arginola, loorioo	Radio Device: BTS
10 dB/div	Ref 10.00 dBm				
Log	Rei 10.00 ubii	· · · · · · · · · · · · · · · · · · ·			
0.00			-		
-10.0			wwwwwwww	Mr II	
-20.0		and the second second		- man man	
-30.0		and the second s			
-40.0	and a more	- Aran		Vm Vm	whom with the proposed
	MMM AND				- հերև տուսնե
-50.0					1 N
-60.0					
-70.0					
-80.0					
Center 2.4 #Res BW			#VBW 300 k	Hz	Span 3 MHz Sweep 1.066 ms
Occup	oied Bandwidtl	า	Total Power	2.58 dBm	
	1.0	0904 MHz			
Transm	nit Freq Error	-19 Hz	OBW Power	99.00 %	
x dB Ba	andwidth	683.9 kHz	x dB	-6.00 dB	
				1	
MSG					







Output Power

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

Per 558074 D01 DTS Measurement Guidance v03r05 Section 9.1.2 (Peak Power Meter Method)

MEASUREMENTS / RESULTS

					Peak C	Dutput	Power						
Date:	Jun-7-2016	6	Company:	BlackBox	Biometrics,	Inc.					W	ork Order:	Q1352
Engineer:	Yunus Faz	iloglu	EUT Desc:	BlastGau	ge				EUT	Operating	Voltage/F	requency:	3.6VDC
Temp:	23.5°C		Humidity:	47%			Pressure:	991mBar					
Notes:	Conducted	measurement at	the antenna por	t						EUT	Max Freq:	2480MHz	
	Packet Ty	pe: Pseudorandor	n bit sequence 1	5									
	Payload le	ngth: 37 bytes											
	Different pa	acket types and p	ayload lengths o	lid not hav	e any impac	t on readin	gs						
Frequ	uency	Peak Reading	Insertio	n Loss	Peak Outp	ut Power	Lir	nit	Mar	gin		Result	
(M	Hz)	(dBm)	(d	B)	(dE	Bm)	(dE	3m)	(dE	im)		(Pass/Fail)	
24	02	1.37	0.	50	1.4	37	30	.00	-28	.13		Pass	
24	42	1.34	0.	50	1.3	34	30	.00	-28	.16		Pass	
24	80	1.34	0.	50	1.	34	30	.00	-28	.16		Pass	
est Site:	Wireless T	est Room	Cable	SMA adap	oter assemb	ly			Pow	er Sensor	Boonton A	#2108	
OP(dBm))= Peak Re	ading (dBm) + Ins	sertion Loss (dB)										

VBW set to ≥ DTS

	Rev. 5/18/2	2016							
Meteo	rological N	Meters	MN	Mfr	SN	Asset	Cat	libration D	alibrated on
	TH A#2084		HTC-1	HDE		2084	II	4/5/2017	4/5/2016
Barc	ometric A#2	2160	5396-0321	arch Instrun	4000060	2160	I	3/7/2017	3/7/2016
Powe	er/Noise M	atore	MN	Mfr	SN	Asset	Cat	libration F	alibrated on
	B Power sei		55006	Boonton	9529	2108			12/8/2015
2100		1301	55000	Doonton	3323	2100	1	12/0/2010	12/0/2013
MS Voltm	neters/Curr	ent Clamp	MN	Mnfr	SN	Asset	Cat	libration D	alibrated on
	DMM		114	Fluke	25660084	1866	I	2/2/2017	2/2/2016





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)]

Radiated emissions were maximized by rotating the device around 3 orthogonal planes (X, Y and Z) and worst case emissions observed in Z orientation. All the results below are for the worst case orientation only.

MEASUREMENTS / RESULTS

Date:	11-Jul-16		Company:	Blackbox B	iometrics, Inc					Work Order	: Q1352
Engineer:	Tuyen Truong			BlastGauge			E	UT Opera			: USB (3.6Vdc
Temp:	, 0		Humidity:	Ũ	-,	Pressure: 1001 mBar			5		(
		ncy Range:	,				м	easurem	ent Distance	3m	
Notes	all 3 channels	, ,			ecorded				UT Max Freg		
			jatoa, only	noior cabo i				_	••••••		
										FCC 15.2	09
Antenna	_		Preamp	Antenna		djusted					
Polarization	Frequency	Reading	Factor	Factor		eading Limit	Margin	Result	Limit	Margin	Result
(H / V)	(MHz)	(dBµV)	(dB)	(dB/m)		IBμV/m) (dBμV/m)	(dB)	(Pass/Fail)	(dBµV/m)	(dB)	(Pass/Fail)
v	71.92	42.5	25.3	8.9	0.6	26.7			40.0	-13.3	Pass
v	47.0	37.5	25.2	9.6	0.4	22.3			40.0	-17.7	Pass
v	84.07	43.7	25.3	7.7	0.6	26.7			40.0	-13.3	Pass
v	151.3	38.3	25.2	12.5	1.0	26.6			43.5	-16.9	Pass
v	163.0	35.3	25.0	12.2	0.9	23.4			43.5	-20.1	Pass
v	228.25	37.3	25.3	11.2	1.0	24.2			46.0	-21.8	Pass
v	325.0	36.9	25.0	14.0	1.2	27.1			46.0	-18.9	Pass
h	466.5	38.0	25.5	17.3	1.7	31.5			46.0	-14.5	Pass
Tahl											
Tabl	e Result:	Pass	by	-13.3	dB			V	Vorst Freq:	71.92	MHz
	e Result: EMI Chamber		,	-13.3 Asset #205			Cable 2: A			71.92 Cable 3	
	EMI Chamber		Cable 1:				Cable 2: A Antenna: F	sset #150			:
Test Site: Analyzer: Ssoft Radiate	EMI Chamber Gold ed Emissions C	2 alculator	Cable 1: Preamp: v 1.017.165	Asset #205 Blue-Blk	2			sset #150		Cable 3 Preselector	:
Test Site: Analyzer: Ssoft Radiate	EMI Chamber Gold	2 alculator	Cable 1: Preamp: v 1.017.165	Asset #205 Blue-Blk	2			sset #150		Cable 3 Preselector	:
Test Site: Analyzer: Ssoft Radiate djusted Read ev. 7/4/2016	EMI Chamber Gold d Emissions C ing = Reading -	2 alculator · Preamp Fac	Cable 1: Preamp: v 1.017.165 ctor + Anter	Asset #205 Blue-Blk	2 Cable Factor		Antenna: F	sset #150	7	Cable 3 Preselector Copyright	:
Test Site: Analyzer: Ssoft Radiate djusted Read	EMI Chamber Gold d Emissions C ing = Reading - nalyzers / Rece	2 alculator · Preamp Fac	Cable 1: Preamp: v 1.017.165 ctor + Anter lectors	Asset #205 Blue-Blk nna Factor + Range	2 Cable Factor MN	Mfr	Antenna: F SN	sset #150 led-Black Asset	, D7 Cat Calib	Cable 3 Preselector Copyright ration Due	: : Curtis-Straus LLC Calibrated
Test Site: Analyzer: Ssoft Radiate djusted Read	EMI Chamber Gold d Emissions C ing = Reading -	2 alculator · Preamp Fac	Cable 1: Preamp: v 1.017.165 ctor + Anter lectors	Asset #205 Blue-Blk 5 nna Factor +	2 Cable Factor MN	Mfr Agilent	Antenna: F	sset #150 led-Black Asset	, D7 Cat Calib	Cable 3 Preselector Copyright	:
Test Site: Analyzer: Ssoft Radiate djusted Read ev. 7/4/2016 Spectrum A	EMI Chamber Gold ed Emissions C ing = Reading - nalyzers / Rece Gold	2 alculator • Preamp Fac • ivers /Prese	Cable 1: Preamp: v 1.017.165 ctor + Anter lectors	Range	2 Cable Factor MN Hz E4407B	Agilent	Antenna: F SN MY45113816	sset #150 led-Black Asset	Cat Calib I 1/	Cable 3 Preselector Copyright (ration Due 13/2017	: Curtis-Straus LLC Calibrated 1/13/2016
Test Site: Analyzer: Ssoft Radiate djusted Read ev. 7/4/2016 Spectrum A	EMI Chamber Gold d Emissions C ing = Reading - nalyzers / Rece	2 alculator • Preamp Fac • vivers /Prese ons Sites	Cable 1: Preamp: v 1.017.165 ctor + Anter lectors	Asset #205 Blue-Blk nna Factor + Range	2 Cable Factor MN	Agilent VCCI Code	Antenna: F SN	sset #150 led-Black Asset	Cat Calib I 1/ Cat Calib	Cable 3 Preselector Copyright ration Due	Curtis-Straus LLC Calibrated 1/13/2016
Test Site: Analyzer: Ssoft Radiate djusted Read ev. 7/4/2016 Spectrum A	EMI Chamber Gold de Emissions C ing = Reading - nalyzers / Rece Gold adiated Emission EMI Chamber	2 alculator • Preamp Fac eivers /Prese ons Sites er 2	Cable 1: Preamp: v 1.017.165 ctor + Anter lectors	Asset #205 Blue-Blk nna Factor + Range 100Hz-26.5 G FCC Code 719150	2 Cable Factor Hz E4407B IC Code 2762A-7	Agilent VCCI Code A-0015	Antenna: F SN MY45113816 Range 30-1000MHz	Asset #150 Red-Black Asset 1284	Cat Calib I 1/ Cat Calib II 3/	Cable 3 Preselector Copyright (ration Due 13/2017 ration Due 22/2017	Curtis-Straus LLC Calibrated 1/13/2016 Calibrated 3/22/2015
Test Site: Analyzer: Ssoft Radiate djusted Read ev. 7/4/2016 Spectrum A	EMI Chamber Gold de Emissions C ing = Reading - nalyzers / Rece Gold adiated Emissic EMI Chamber s /Couplers Atte	2 Alculator Preamp Fac Divers /Prese Dons Sites er 2 Anuators / Fil	Cable 1: Preamp: v 1.017.165 ctor + Anter lectors	Range FILOR Code 719150 Range Range Range Range Range	2 Cable Factor MN Hz E4407B IC Code 2762A-7 MN	Agilent VCCI Code A-0015 Mfr	Antenna: F SN MY45113816 Range 30-1000MHz SN	Asset #150 Asset 1284 Asset	Cat Calib I 1/ Cat Calib II 3/ Cat Calib	Cable 3 Preselector Copyright (13/2017 ration Due 22/2017 ration Due	Curtis-Straus LLC Calibrated 1/13/2016 Calibrated 3/22/2015 Calibrated
Test Site: Analyzer: Ssoft Radiate djusted Read ev. 7/4/2016 Spectrum A	EMI Chamber Gold de Emissions C ing = Reading - nalyzers / Rece Gold adiated Emission EMI Chamber	2 Alculator Preamp Fac Divers /Prese Dons Sites er 2 Anuators / Fil	Cable 1: Preamp: v 1.017.165 ctor + Anter lectors	Range FILOR Code 719150 Range Range Range Range Range	2 Cable Factor Hz E4407B IC Code 2762A-7	Agilent VCCI Code A-0015 Mfr	Antenna: F SN MY45113816 Range 30-1000MHz	Asset #150 Red-Black Asset 1284	Cat Calib I 1/ Cat Calib II 3/ Cat Calib	Cable 3 Preselector Copyright (ration Due 13/2017 ration Due 22/2017	Curtis-Straus LLC Calibrated 1/13/2016 Calibrated 3/22/2015
Test Site: Analyzer: Ssoft Radiate djusted Read ev. 7/4/2016 Spectrum A	EMI Chamber Gold d Emissions C ing = Reading - nalyzers / Rece Gold adiated Emissio EMI Chambo s /Couplers Atte Blue-Blac Antenna	2 alculator Preamp Fac eivers /Prese ons Sites er 2 nuators / Fil k s	Cable 1: Preamp: v 1.017.165 ctor + Anter lectors	Range 719150	2 Cable Factor Hz E4407B IC Code 2762A-7 MN Hz ZFL-1000- MN	Agilent VCCI Code A-0015 Mfr CS Mfr	Antenna: F SN MY45113816 Range 30-1000MHz SN N/A SN	Asset #150 Asset 1284 Asset 800 Asset	Cat Calib I 1/ Cat Calib II 3/ Cat Calib II 12 Cat Calib	Cable 3 Preselector Copyright 13/2017 ration Due 22/2017 ration Due /27/2016 ration Due	Calibrated 1/13/2016 Calibrated 3/22/2015 Calibrated 12/27/201 Calibrated
Test Site: Analyzer: Ssoft Radiate djusted Read ev. 7/4/2016 Spectrum A	EMI Chamber Gold def Emissions C ing = Reading - Gold adiated Emissio EMI Chamber s/Couplers Atte Blue-Blac	2 alculator Preamp Fac eivers /Prese ons Sites er 2 nuators / Fil k s	Cable 1: Preamp: v 1.017.165 ctor + Anter lectors	Range 100Hz-26.5 G FCC Code 719150 Range	2 Cable Factor Hz E4407B IC Code 2762A-7 MN Hz ZFL-1000- MN	Agilent VCCI Code A-0015 Mfr N CS	Antenna: F SN MY45113816 Range 30-1000MHz SN N/A	Asset #150 Asset 1284 Asset 800	Cat Calib I 1/ Cat Calib II 3/ Cat Calib II 12 Cat Calib	Cable 3 Preselector Copyright 13/2017 ration Due 22/2017 ration Due (27/2016	Calibrated 1/13/2016 Calibrated 3/22/2018 Calibrated 12/27/201 Calibrated
Test Site : Analyzer: Ssoft Radiate djusted Read ev. 7/4/2016 Spectrum A R: Preamps	EMI Chamber Gold d Emissions C ing = Reading - nalyzers / Rece Gold adiated Emissio EMI Chambo s /Couplers Atte Blue-Blac Antenna	2 alculator Preamp Fac ivers /Prese ons Sites er 2 nuators / Fil k s Sillog	Cable 1: Preamp: v 1.017.165 ctor + Anter lectors	Range 719150	2 Cable Factor Hz E4407B IC Code 2762A-7 MN Hz ZFL-1000- MN	Agilent VCCI Code A-0015 Mfr CS Mfr	Antenna: F SN MY45113816 Range 30-1000MHz SN N/A SN	Asset #150 Asset 1284 Asset 800 Asset	Cat Calib I 1/ Cat Calib II 3/ Cat Calib II 12 Cat Calib I 2	Cable 3 Preselector Copyright 13/2017 ration Due 22/2017 ration Due /27/2016 ration Due	Calibrated 1/13/2016 Calibrated 3/22/2019 Calibrated 12/27/201 Calibrated 2/9/2015
Test Site: Analyzer: Ssoft Radiate djusted Read av. 7/4/2016 Spectrum A R: Preamps	EMI Chamber Gold ed Emissions C ing = Reading - Gold adiated Emissic EMI Chamber s /Couplers Atte Blue-Blac Antenna Red-Black B	2 alculator Preamp Fac eivers /Prese ons Sites er 2 nuators / Fil: k s s Billog Meters	Cable 1: Preamp: v 1.017.165 ctor + Anter lectors	Range 719150	2 Cable Factor Hz E4407B IC Code 2762A-7 Hz ZFL-1000-1 MN z JB1	Agilent VCCI Code A-0015 .N CS Mfr Sunol	Antenna: F SN MY45113816 Range 30-1000MHz SN N/A SN A091604-2	Asset #150 led-Black	Cat Calib I 1/ Cat Calib II 3/ Cat Calib II 12 Cat Calib I 12 Cat Calib I 2 Cat Calib	Cable 3 Preselector Copyright ration Due 13/2017 ration Due 22/2017 ration Due (27/2016 ration Due (9/2017	Calibrated 1/13/2016 Calibrated 3/22/2019 Calibrated 12/27/201 Calibrated 2/9/2015 Calibrated
Test Site : Analyzer: Ssoft Radiate djusted Read ev. 7/4/2016 Spectrum A R: Preamps	EMI Chamber Gold def Emissions C ing = Reading - Gold adiated Emissio EMI Chamber s /Couplers Atte Blue-Blac Antenna Red-Black B Meteorological	2 alculator Preamp Face eivers /Prese ons Sites er 2 nuators / Fil: k s Silog Meters 1	Cable 1: Preamp: v 1.017.165 ctor + Anter lectors	Range 719150	2 Cable Factor Hz E4407B IC Code 2762A-7 MN Hz ZFL-1000-1 JB1 MN	Agilent VCCI Code A-0015 N CS Mfr Sunol Mfr HDE	Antenna: F SN MY45113816 Range 30-1000MHz SN N/A SN A091604-2	Asset #150 ed-Black	Cat Calib I 1/ Cat Calib II 3/ Cat Calib II 12 Cat Calib I 2 Cat Calib I 4	Cable 3 Preselector Copyright 13/2017 ration Due 22/2017 ration Due /27/2016 ration Due /9/2017 ration Due	Calibrated 1/13/2016 Calibrated 3/22/2015 Calibrated 12/27/201 Calibrated 2/9/2015 Calibrated 4/5/2016
Test Site : Analyzer: Ssoft Radiate djusted Read ev. 7/4/2016 Spectrum A R: Preamps	EMI Chamber Gold ed Emissions C ing = Reading - nalyzers / Rece Gold adiated Emissio EMI Chamber s /Couplers Atte Blue-Blac Antenna Red-Black E Meteorological TH A#208	2 alculator Preamp Fac ivers /Prese ons Sites er 2 nuators / Fil k s Sillog Meters 1 #2160	Cable 1: Preamp: v 1.017.165 ctor + Anter lectors	Asset #205 Blue-Blk Blue-Blk Bange 100Hz-26.5 G FCC Code 719150 Range 0.009-2000MH 30-2000MH	2 Cable Factor Hz E4407B IC Code 2762A-7 Hz ZFL-1000-1 z JB1 MN HTC-1	Agilent VCCI Code A-0015 N CS Mfr Sunol Mfr HDE	Antenna: F SN MY45113816 Range 30-1000MHz SN N/A SN A091604-2 SN	Asset #150 Asset 1284 Asset 800 Asset 1106 Asset 2081	Cat Calib I 1/ Cat Calib II 3/ Cat Calib II 12 Cat Calib I 2 Cat Calib II 4, I 3,	Cable 3 Preselector Copyright 13/2017 ration Due 22/2017 ration Due /27/2016 ration Due /9/2017 ration Due /9/2017	Calibrated 1/13/2016 Calibrated 3/22/2019 Calibrated 12/27/201 Calibrated 2/9/2015 Calibrated 4/5/2016 3/7/2016
Test Site: Analyzer: Ssoft Radiate djusted Read ev. 7/4/2016 Spectrum A R: Preamps	EMI Chamber Gold ed Emissions C ing = Reading - Gold adiated Emissic EMI Chamber s /Couplers Atte Blue-Blac Antenna Red-Black E Meteorological TH A#208 Barometric A#	2 alculator Preamp Face eivers /Prese ons Sites er 2 nuators / Fil k s Silog Meters H 2160	Cable 1: Preamp: v 1.017.165 ctor + Anter lectors	Range 719150	2 Cable Factor Hz E4407B IC Code 2762A-7 MN Hz ZFL-1000-1 MN JB1 MN HTC-1 5396-032	Agilent VCCI Code A-0015 Mfr CS Mfr Sunol Mfr HDE HOE Monarch Instruments	Antenna: F SN MY45113816 Range 30-1000MHz SN N/A SN A091604-2 SN	Asset #150 Asset 1284 Asset 800 Asset 1106 Asset 2081	Cat Calib I 1/ Cat Calib II 3/ Cat Calib II 12 Cat Calib I 12 Cat Calib I 2 Cat Calib I 4 I 3 Cat Calib Cat Calib	Cable 3 Preselector Copyright ration Due 13/2017 ration Due 22/2017 ration Due (27/2016 ration Due (9/2017 ration Due (5/2017 7/2017	Calibrated 1/13/2016 Calibrated 3/22/2015 Calibrated 12/27/201





Date:	11-Jul-16			Company:	Blackbox	Biometrics	, Inc					v	Nork Orde	r: Q1352
Engineer:	Tuyen Truong			EUT Desc:	BlastGaug	e System				E	UT Operat	ting Voltage/	Frequenc	y: USB (3.6Vd
Temp:	20°C			Humidity:	53%			Pressure: 1	1001 mBar					
		Freque	ency Range:	1 to 6 GHz						M	easureme	nt Distance:	3m	
Notes:	tx on low, mid Duty Cycle <1		nannels								E	UT Tx Freq:	2402-2480	MHz
Antenna		Peak	Average	Preamp	Antenna	Cable	Adjusted	Adjusted	FCC 15.209 Hig	h Frequer	ncy - Peak	FCC 15	.209 High Averag	Frequency -
Polarization	Frequency	Reading	Reading	Factor	Factor	Factor	Peak Reading		Limit N	Aargin	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)
h	4804.0	39.1	19.1	17.9	32.8	5.4	59.4	39.4		-14.6	Pass	54.0	-14.6	Pass
v	4804.0	37.4	17.4	17.9	32.8	5.4	57.7	37.7		-16.3	Pass	54.0	-16.3	Pass
n - noise floor	2390.0	47.5	24.9	19.9	28.0	3.5	59.1	36.5		-14.9	Pass	54.0	-17.5	Pass
- noise floor	2390.0	48.2	25.1	19.9	28.0	3.5	59.8	36.7	74.0	-14.2	Pass	54.0	-17.3	Pass
h	4884.0	40.7	20.7	17.9	32.8	5.2	60.8	40.8	74.0	-13.2	Pass	54.0	-13.2	Pass
v	4884.0	38.1	18.1	17.9	32.8	5.2	58.2	38.2		-15.8	Pass	54.0	-15.8	Pass
			-						-					
h	4960.0	39.4	19.4	17.9	32.9	5.2	59.6	39.6		-14.4	Pass	54.0	-14.4	Pass
v	4960.0	37.9	17.9	17.9	32.9	5.2	58.1	38.1		-15.9	Pass	54.0	-15.9	Pass
n - noise floor	2483.5	48.7	25.2	20.2	28.4	3.6	60.5	37.0		-13.5	Pass	54.0	-17.0	Pass
- noise floor	2483.5	48.4	25.0	20.2	28.4	3.6	60.2	36.8	74.0	-13.8	Pass	54.0	-17.2	Pass
Tabl	e Result:		Pass	by	-13.2	dB					W	orst Freq:	4884.	0 MHz
Test Site:	EMI Chamber	2		Cable 1:	Asset #20	52				Cable 2: A	sset #1507	7	Cable	3:
Analyzer:	Gold			Preamp:	Asset #15	17			А	ntenna: (Drange Horr	1 F	Preselecto	r:
ev. 7/4/2016 Spectru	um Analyzer	s/Receive Gold	ers/Presele	ectors		nge 26.5 GHz	MN E4407B	Mfr Agilent	SN MY45113816	Asset 5 1284	Cat	Calibration 1/13/201		Calibrated of 1/13/2016
		Emission				Code	IC Code	VCCI Code	Range			Calibration		Calibrated o
	EMI	Chamber 2	2		71	9150	2762A-7	A-0015	1-18GHz		I	4/29/201	/	4/29/2015
Prea	amps /Coupl 1517	e rs Attenu HF Pream		ers		nge DGHz	MN CS	Mfr CS	SN N/A	Asset 1517	Cat II	Calibration 8/6/2016		Calibrated o 8/6/2015
		ntennas ange Horn				nge BGHz	MN 3115	Mfr EMCO	SN 0004-6123	Asset 390	Cat I	Calibration 10/13/20		Calibrated of 10/13/2014
		logical M					MN	Mfr	SN	Asset	Cat	Calibration	Due	Calibrated of
	Weather Clo Tł	ick (Pressu H A#2081	ure Only)				BA928 HTC-1	Oregon Scientific HDE	C3166-1	831 2081	 	4/28/201 4/5/2017		4/28/2016 4/5/2016
		Cables				nge		Mfr				Calibration		Calibrated o
		set #1507				- 18GHz		Florida RF			11	2/14/201		2/14/2016
	As	set #2052			9kHz ·	- 18GHz		Florida RF			Ш	3/2/2017	/	3/2/2016
					-									
equipment	is calibrated	using stan	dards tracea	able to NIS	T or other	nationally	recognized o	calibration standar	d.					
adiated	Emissio	-	e			-	-	calibration standar	d.					
adiated		-	e Co	able to NIS ompany: BI JT Desc: BI	ackBox Bio	metrics, Inc	-	calibration standar	d.			Work O	rder: Q135	

Date:	06-Jul-16			Company:	BlackBox	Biometric	s, Inc.					١	Nork Order:	Q1352
Engineer:	Tuyen Truong			EUT Desc:	BlastGaug	e System	ı				EUT Operati	ing Voltage/	Frequency:	3.6Vdc (USB power)
Temp:	23°C			Humidity:	47%			Pressure:	1001mBar					
		Freque	ency Range:	6-18GHz							Measuremen	nt Distance:	1m	
Notes:	tx on low, mid Duty Cycle <1		nannels								E	UT Tx Freq:	2402-2480 M	Hz
Antenna		Peak	Average	Preamp	Antenna	Cable	Adjusted	Adjusted	FCC 15.209	High Frequ	ency - Peak	FCC 15.	209 High Fre	quency - Average
Polarization (H / V)	Frequency (MHz)	Reading (dBµV)	Reading (dBµV)	Factor (dB)	Factor (dB/m)	Factor (dB)	Peak Reading (dBµV/m)	Avg Reading (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Result (Pass/Fail)	Limit (dBµV/m)	Margin (dB)	Result (Pass/Fail)
h	7206.0	43.1	23.1	16.6	37.1	6.6	70.2	50.2	83.5	-13.3	Pass	63.5	-13.3	Pass
v	7206.0	45.37	25.4	16.6	37.1	6.6	72.5	52.5	83.5	-11.0	Pass	63.5	-11.0	Pass
h	7326.0	44.3	24.3	17.0	37.6	6.7	71.6	51.6	83.5	-11.9	Pass	63.5	-11.9	Pass
v	7326.0	45.9	25.9	17.0	37.6	6.7	73.2	53.2	83.5	-10.3	Pass	63.5	-10.3	Pass
h	7440.0	43.9	23.9	17.2	37.5	6.7	70.9	50.9	83.5	-12.6	Pass	63.5	-12.6	Pass
v	7440.0	45.66	25.7	17.2	37.5	6.7	72.7	52.7	83.5	-10.8	Pass	63.5	-10.8	Pass
Table	e Result:		Pass	by	-10.3	dB					Wa	orst Freq:	7326.0	MHz
Test Site: Analyzer:	EMI Chamber Gold	2			Asset #20 Asset #15						Asset #1507 Orange Horn		Cable 3:	
CSsoft Radiate Adjusted Read			v 1.017.165 actor + Anten		Cable Fac	tor							Ci	opyright Curtis-Straus LLC 20





Rev. 7/4/2016 Spectrun													
	n Analyzers / R Go		eselectors	Rar 100Hz-2	1ge 6.5 GHz	MN E4407B	Mfr Agilent	SN MY45113816	Asset 1284	Cat I		bration Due /13/2017	Calibrated on 1/13/2016
	Radiated Emi EMI Cha			FCC 719		IC Code 2762A-7	VCCI Code A-0015	Range 1-18GHz		Cat		bration Due /29/2017	Calibrated on 4/29/2015
Pream	n ps /Couplers / 1517 HF		Filters	Ra 1-20		MN CS	Mfr CS	SN N/A	Asset 1517	Cat ∥		bration Due 3/6/2016	Calibrated on 8/6/2015
	Anter Orange			Ra r 1-18	•	MN 3115	Mfr EMCO	SN 0004-6123	Asset 390	Cat		Dration Due D/13/2016	Calibrated on 10/13/2014
N	Meteorologi Weather Clock (TH A#	Pressure Only	/)			MN BA928 (HTC-1	Mfr Dregon Scientific HDE	SN C3166-1	Asset 831 2081	Cat I	4	728/2018 /28/2017	Calibrated on 4/28/2016 4/5/2016
	Cab Asset # Asset #	#1507		Rar 9kHz - 9kHz -	18GHz		Mfr Florida RF Florida RF			Cat II II	2	74100 Due 1/14/2017 3/2/2017	Calibrated on 2/14/2016 3/2/2016
All equipment is	calibrated using	g standards tr	aceable to I	NIST or other r	ationally	recognized ca	libration standard						
	Emissic		-										
	11-Jul-16			Blackbox Bi		, Inc		_				Work Order:	
Engineer: Temp:	Tuyen Truong		EUT Desc: Humidity:	BlastGauge	System	Proceur	e: 1001 mBar	E	JT Oper	ating	Voltag	e/Frequency:	USB (3.6Vdc)
Temp.		ncy Range:				Tressure	. 1001 mbai	M	easuren	ont D	istance	• 10cm	
Notes:	tx on low, mid			112				INIC				: 2402-2480 N	ИНz
	, .												
Antenna			Preamp	Antenna	Cable	Adjusted			F	CC 15.	209		
Polarization	Frequency												
(H / V)		(dBuV)	Factor (dB)		Factor	Reading	Limi (dBuV	-		Result ass/Fail			Result ass/Fail)
(H / V)	(MHz)	(dBµV)	(dB)	(dB/m)	(dB)	(dBµV/m)	Limi (dBµV/	-		Result ass/Fail)			Result lass/Fail)
	(MHz)	(dBµV)	_(dB) No Emissio	(dB/m) ns Found in T	(dB) This Rang	(dBµV/m)		-	(P	ass/Fail)		(P	ass/Fail)
Tabl	(MHz) e Result:	(dBµV)	(dB) No Emissio by	(dB/m) ns Found in T d	(dB) This Rang B	(dBµV/m)		/m)	(P	ass/Fail)	t Freq	(Pi	MHz
Table Test Site:	(MHz) e <i>Result:</i> EMI Chamber	(dBµV)	(dB) No Emissio by Cable 1:	(dB/m) ns Found in T d EMIR-HIGH-	(dB) This Rang B	(dBµV/m)		(m) Cable 2:	(P	ass/Fail) Nors	t Freq	(P : Cable 3:	ass/Fail) MHz
Tabl. Test Site: Analyzer: CSsoft Radiate Adjusted Read	(MHz) e Result: EMI Chamber Gold ed Emissions C	(dBµV) 2 Calculator	(dB) No Emissio by Cable 1: Preamp: v 1.017.165	(dB/m) ns Found in T d EMIR-HIGH- 18 to 26.5 G	(dB) This Rang B 06 Hz	(dBµV/m) ge		/m)	(P	ass/Fail) Nors	t Freq	(Provide the second sec	ass/Fail) MHz
Tabl Test Site: Analyzer: CSsoft Radiate Adjusted Read Rev. 7/24/2016	(MHz) e Result: EMI Chamber Gold ed Emissions C	(dBµV) 2 calculator - Preamp Fac	(dB) No Emissio by Cable 1: Preamp: v 1.017.165 ctor + Anter ctors	(dB/m) ns Found in T d EMIR-HIGH- 18 to 26.5 G	(dB) his Rang B 06 Hz Cable Fa	(dBµV/m) ge		(m) Cable 2:	(P 	ass/Fail) Wors Iz Horr	t Freq	(Provide the second sec	MHz
Table Test Site: Analyzer: CSsoft Radiate Adjusted Read Rev. 7/24/2016 Spectrum	(MHz) e Result: EMI Chamber Gold d Emissions C ing = Reading Analyzers / Rece	(dBµV) 2 Calculator - Preamp Factor sivers /Presele ons Sites	(dB) No Emissio by Cable 1: Preamp: v 1.017.165 ctor + Anter ctors	(dB/m) ns Found in T d EMIR-HIGH- 18 to 26.5 G nna Factor + 1 Range	(dB) This Rang B 06 Hz Cable Fa	(dBµV/m) je Glor MN	(dBµV,	(m) Cable 2: Antenna: 16 SN MY4511	(P A 3816 1 1 392	SSET 284	t Freq	(P Cable 3: Preselector: Copyright C	Ass/Fail) MHz Curtis-Straus LLC 2000 Calibrated on
Table Test Site: Analyzer: CSsoft Radiate Adjusted Read Rev. 7/24/2016 Spectrum	(MHz) e Result: EMI Chamber Gold d Emissions C ing = Reading Analyzers / Rece Gold Radiated Emission	(dBµV) (dBµV) 2 calculator - Preamp Factor sivers /Presele ons Sites er 2 nuators / Filte	(dB) ko Emissio by Cable 1: Preamp: v1.017.165 stor + Anter ctors	(dB/m) ns Found in T d EMIR-HIGH- 18 to 26.5 G nna Factor + 1 Range 00Hz-26.5 GHz FCC Code	(dB) his Ranç B 06 Hz Cable Fa	(dBµV/m) ge ctor MN E4407B IC Code	(dBµV) Mfr Agilent VCCI Cod A-0015 Mfr	(m) Cable 2: Antenna: 18 MY4511 e Ran	(P 	Worsi Iz Horr sset 284	t Freq Cat C I Cat C	(P Cable 3: Preselector: Copyright C Copyright C Calibration Due 1/13/2017	MHz Curtis-Straus LLC 2000 Calibrated on 1/13/2016 Calibrated on
Table Test Site: Analyzer: CSsoft Radiate Adjusted Read Rev. 7/24/2016 Spectrum	(MHz) e Result: EMI Chamber Gold d Emissions C ing = Reading Gold Radiated Emissio EMI Chambo so /Couplers Atte	(dBµV) (dBµV) 2 calculator - Preamp Fac sivers /Presele ons Sites er 2 nuators / Filte v) s	(dB) ko Emissio by Cable 1: Preamp: v1.017.165 stor + Anter ctors	(dB/m) ns Found in T d EMIR-HIGH- 18 to 26.5 G nna Factor + 1 Range 00Hz-26.5 GHz FCC Code 719150 Range	(dB) his Ranç B 06 Hz Cable Fa	(dBµV/m) ge ctor MN E4407B IC Code 2762A-7 MN	(dBµV) Mfr Agilent VCCI Cod A-0015 Mfr	(m) Cable 2: Antenna: 18 MY4511 e Ran 1-18C SN 4675 SN	(P -26.5GH -26.5GH 	Norsi Tz Hom sset 284 sset 266	t Freq Cat C I Cat C I Cat C I Cat C	(P Cable 3: Preselector: Copyright 0 Copyright 0 Copyr	MHz Curtis-Straus LLC 2000 Calibrated on 1/13/2016 Calibrated on 4/29/2015 Calibrated on
Table Test Site: Analyzer: CSsoft Radiate Adjusted Read Rev. 7/24/2016 Spectrum	(MHz) e Result: EMI Chamber Gold d Emissions C ing = Reading Analyzers / Rece Gold Radiated Emissio EMI Chamber So /Couplers Atte HF (Yellov Antenna:	(dBµV) (dBµV) 2 calculator - Preamp Factor - Preamp Factor - Presele ons Sites er 2 nuators / Filte w) s -torn Meters 11	(dB) ko Emissio by Cable 1: Preamp: v1.017.165 stor + Anter ctors	(dB/m) ns Found in T d EMIR-HIGH- 18 to 26.5 G nna Factor + (Range 00Hz-26.5 GHz FCC Code 719150 Range 18-26.5GHz Range	(dB) This Rang B 06 Hz Cable Fa	(dBµV/m) ge ctor MN E4407B IC Code 2762A-7 MN 8002650-60-8P- MN	(dBµV) Mfr Agilent VCCI Cod A-0015 4 CS Mfr	(m) Cable 2: Antenna: 18 SN MY4511 e Ran 1-18C SN 4675 SN 755	(P -26.5GH 3816 1 3816 1 3816 1 3816 1 3816 1 38 1 4 1 2 2	Wors: Iz Hom sset 284 sset 266 sset 758	t Freq Cat C Cat C Cat C I Cat C III V	(P Cable 3: Preselector: Copyright C Copyright C C Copyright C C Copyright C C Copyright C C C Copyright C C C C C C C C C C C C C C C C C C C	MHz Calibrated on 1/13/2016 Calibrated on 4/29/2015 Calibrated on 3/8/2016 Calibrated on





Conducted Spurious Emissions LIMITS

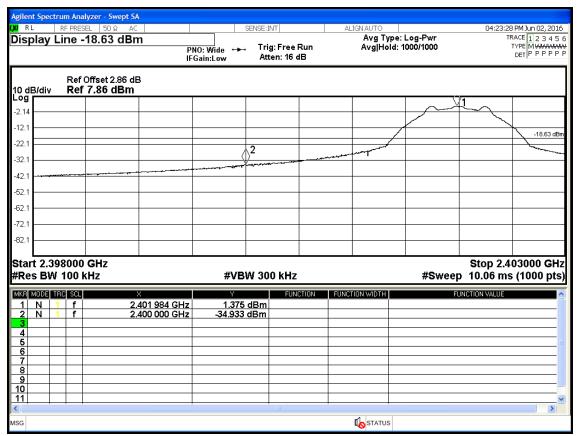
In any 100 kHz bandwidth outside the frequency band in which the spread spectrum or digitally modulated intentional radiator is operating, the radio frequency power that is produced by the

intentional radiator shall be at least **20dB** below that in the 100kHz bandwidth that contains the highest level of desired power based on either an RF conducted or a radiated measurement, provided the transmitter demonstrates compliance with the peak conducted power limits. If the transmitter complies with the conducted power limits based on the use of RMS averaging over a time interval, as permitted under paragraph (b)(3) of this section, the attenuation required under this paragraph shall be 30 dB instead of 20 dB ...

[15.247(d)]

MEASUREMENTS / RESULTS

Conducted Band Edge Plots



Lowest Channel - Band Edge





page 14 of 32

Agilen	it Spe	ctrur	n Ana	lyzer - Swept S/	A									
LXI RI			PRES				SENSE:I	NT		ALI	GN AUTO		04:30:0	6 PM Jun 02, 2016
Disp	olay	Lir	ne -	20.76 dBr	Р	NO: Wide ↔ Gain:Low	🛏 Tri	g:Free ten:16 d			Avg Tyj Avg Hol	be: Log-Pwr d: 1000/1000	Т	RACE 1 2 3 4 5 6 TYPE MWWWWW DET P P P P P P
10 di Log	B/div			Offset 2.86 dl 7.86 dBm	В									
-2.14 -12.1														
-12.1		_	/											-20.76 dBm
-32.1		تمهيهمه			<u> </u>							^2		
-42.1													·····	
-52.1														
-62.1														
-72.1 -82.1														
Star #Re:				GHz kHz		#V	BW 30	0 kHz				#Swe	Stop 2.4 ep 10.06 ms	85000 GHz s (1000 pts)
MKR		TRC			×	Y		FUN	CTION	FUNCT	ION WIDTH		FUNCTION VALUE	^
1 2	N N	1	f f		.479 985 GHz .483 500 GHz		6 dBm 9 dBm							
3 4														
5 6														
7														
9 10														
11														×
MSG	€) Fil	e <tr< td=""><td>mpin</td><td>nage.png> sa</td><td>ved</td><td></td><td></td><td></td><td></td><td></td><td>🕼 status</td><td></td><td></td><td></td></tr<>	mpin	nage.png> sa	ved						🕼 status			

Highest Channel - Band Edge





Conducted Spurious Emission

Note: 9 kHz - 25 GHz frequency range was investigated for all 3 channels (low, middle and high) at the EUT antenna port. Worst case insertion losses were entered as reference level offset to the spectrum analyzer. All emissions and instrument noise floor were more than 20dB below the fundamental.

MEASUREMENTS / RESULTS

Conducted Spurious Emissions Plots

Agilent Spe	ectrum Anal	lyzer - Swept SA	l.							
LXI RL	RF PRES	EL 50 Ω <u>Å</u> DC			SENSE:INT	AL	IGNAUTO			AM Jun 03, 2016
Marker	1 11.3	99399 kHz	Р	NO: Wide 🖵 Gain:Low	Trig: Free #Atten: 20		Avg Type: Avg Hold:>1			ACE 1 2 3 4 5 6 TYPE MWWWWW DET P N N N N N
10 dB/div Log		Offset 1.03 dE 10.00 dB m								1.40 kH: 179 dBm
-										
0.00										
-10.0										
-20.0										
-30.0										
-40.0	1 ——									
-50.0										
/ ·	V M	MAA	ΛΛΛ							
-60.0		- YA 7		MM	MMM	MMM	$\mathcal{M}_{\mathcal{M}}$	Λ Λ	~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~	~~~~~
-70.0				v	▶ V W	$\sim \gamma \gamma$	ע זען א	<u></u>		₩.₩.\^
-80.0										
Start 9. #Res B	.00 kHz W 1.0 kl	Hz		#VB	W 3.0 kHz			Sweep	Stop ' 134.8 ms	150.00 kHz (1000 pts
MSG								DC Coupled		
							-v			

2402MHz





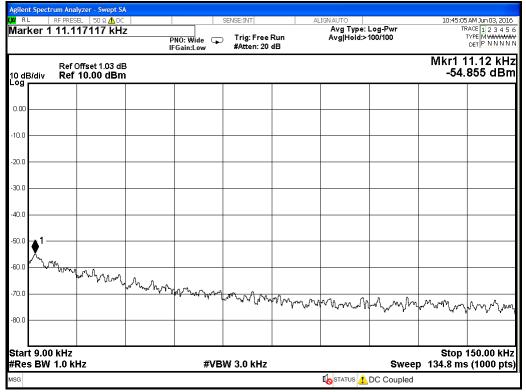
Agilont-Sports	um Analuzor Succes	54							
	um Analyzer - Swept S RF PRESEL 50 Ω 🚹 D			SENSE:INT	AL	.IGN AUTO		10:36:39	9 AM Jun 03, 2016
	150.000000 k	Hz		Tuin: Ena a		Avg Type:	Log-Pwr	TF	RACE 1 2 3 4 5 TYPE MWWWWW
			PNO: Fast 🖵 Gain:Low	Trig: Free #Atten: 20		Avg Hold:>	100/100		DET P N N N N
								Mkr1	l 150 kHz
10 dB/div	Ref Offset 1.16 d Ref 10.00 dBi							-50.	154 dBm
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l h									
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1.1	The mole.	within without	สมสมเห็นได้เป็นการการการสม	งแระมีหารให้สินให้สินให้สินให้ส	ที่ในเทศสมส์ปองความ			1	
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	- n -								
-80.0									
Start 150	kHz	•						Stop	30.00 MHz
#Res BW	10 kHz		#VB	W 30 kHz			Swee	p 285.3 ms	s (1000 pts)
MSG						🕼 STATUS 🧘	DC Coupled		
Agilant Spectr									
		SA							
	um Analyzer - Swept S RF PRESEL 50 Ω A			SENSE:INT	A	LIGN AUTO			7 AM Jun 03, 2016
XI RL		000 GHz				Avg Type:	Log-Pwr	TI	RACE 1 2 3 4 5
XI RL	RF PRESEL 50 Ω A	000 GHz	PNO: Fast	SENSE:INT Trig: Free #Atten: 20	Run		Log-Pwr 100/100	TI	
XI RL	RF PRESEL 50 Ω # 7.206000000	000 GHz	PNO: Fast 🔸	. Trig: Free	Run	Avg Type:	Log-Pwr 100/100	TI	RACE 1 2 3 4 5 TYPE MWWWW DET P N N N N
Marker 3	RF PRESEL 50 Ω A 7.2060000000 Ref Offset 5.3 dl	000 GHz	PNO: Fast 🔸	. Trig: Free	Run	Avg Type:	Log-Pwr 100/100	™ Mkr3 7.	RACE 1 2 3 4 5 TYPE MWWWW
Marker 3	RF PRESEL 50 Ω # 7.206000000	000 GHz	PNO: Fast 🔸	. Trig: Free	Run	Avg Type:	Log-Pwr 100/100	™ Mkr3 7.	RACE 12345 TYPE MWWWW DET P NNNN
Marker 3	RF PRESEL 50 Ω A 7.2060000000 Ref Offset 5.3 dl	000 GHz	PNO: Fast ↔	. Trig: Free	Run	Avg Type:	Log-Pwr 100/100	™ Mkr3 7.	RACE 12345 TYPE MWWWW DET P NNNN
Marker 3	RF PRESEL 50 Ω A 7.2060000000 Ref Offset 5.3 dl	000 GHz	PNO: Fast ↔	. Trig: Free	Run	Avg Type: Avg Hold: ^	Log-Pwr 100/100	™ Mkr3 7.	RACE 12345 TYPE MWWWW DET P NNNN
Marker 3 10 dB/div Log	RF PRESEL 50 Ω A 7.2060000000 Ref Offset 5.3 dl	000 GHz	PNO: Fast ↔	. Trig: Free	Run	Avg Type:	Log-Pwr 100/100	™ Mkr3 7.	RACE 12345 TYPE MWWWW DET P NNNN
X0 RL Marker 3 10 dB/div Log 0.00 -10.0	RF PRESEL 50 Ω A 7.2060000000 Ref Offset 5.3 dl	000 GHz	PNO: Fast ↔	. Trig: Free	Run	Avg Type: Avg Hold: ^	Log-Pwr 100/100	™ Mkr3 7.	RACE 12345 TYPE MWWWW DET P NNNN
Marker 3 10 dB/div Log 0.00 -10.0 -20.0	RF PRESEL 50 Ω A 7.2060000000 Ref Offset 5.3 dl	000 GHz	PNO: Fast ↔	. Trig: Free	Run	Avg Type: Avg Hold: ^	Log-Pwr 100/100	™ Mkr3 7.	RACE 1 2 3 4 5 TYPE MUMUMU DET P NNN 206 GHz 683 dBm
Marker 3 10 dB/div 20 0 -10.0 -20.0 -30.0	RF PRESEL 50 Ω A 7.2060000000 Ref Offset 5.3 dl	000 GHz	PNO: Fast ↔	. Trig: Free	Run	Avg Type: Avg Hold: ^	Log-Pwr 100/100	™ Mkr3 7.	RACE 1 2 3 4 5 TYPE MUMUMU DET P NNN 206 GHz 683 dBm
Marker 3 10 dB/div 0.00 -10.0 -20.0 -30.0 -40.0 -50.0	RF PRESEL 50 Ω A 7.2060000000 Ref 0ffset 5.3 dl Ref 10.00 dB	ac	PNO: Fast ↔	. Trig: Free	Run	Avg Type: Avg Hold: ^	Log-Pwr 100/100	™ Mkr3 7.	RACE 1 2 3 4 5 TYPE MUMUMU DET P NNN 206 GHz 683 dBm
Darker 3 Marker 3 10 dB/div 0.00 -10.0 -20.0 -30.0 -40.0 -50.0 -60.0	RF PRESEL 50 Ω A 7.2060000000 Ref 0ffset 5.3 dl Ref 10.00 dB	000 GHz	PNO: Fast ↔	. Trig: Free	Run	Avg Type: Avg Hold: ^	Log-Pwr 100/100	™ Mkr3 7.	RACE 1 2 3 4 5 TYPE MUMUMU DET P NNN 206 GHz 683 dBm
Darker 3 Marker 3 10 dB/div 0.00 -10.0 -20.0 -30.0 -40.0 -50.0 -60.0 -70.0	RF PRESEL 50 Ω A 7.2060000000 Ref 0ffset 5.3 dl Ref 10.00 dB	ac	PNO: Fast ↔	. Trig: Free	Run	Avg Type: Avg Hold: ^	Log-Pwr 100/100	™ Mkr3 7.	RACE 1 2 3 4 5 TYPE MUMUMU DET P NNN 206 GHz 683 dBm
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All RL Marker 3 10 dB/div 0.00 -10.0 -20.0 -30.0 -40.0 -50.0 -60.0 -70.0 -80.0	Ref Offset 5.3 dl Ref 0ffset 5.3 dl Ref 10.00 dB	ac	PNO: Fast Gain:Low	. Trig: Free	Run dB	Avg Type: Avg Hold: ^		Mkr3 7. -40.	RACE [1 2 3 4 5] UPE [M WWWW DET P NNNN 206 GHz 683 dBm 3 3 8.000 GHz
Marker 3 10 dB/div 0.00 -10.0 -20.0 -30.0 -40.0 -50.0 -60.0 -80.0 Start 30 M	Ref Offset 5.3 dl Ref Offset 5.3 dl Language Image: State of the sta	ac	PNO: Fast Gain:Low	Trig: Free #Atten: 20	Run dB	Avg Type: Avg Hold: ^	100/100	Mkr3 7. -40.	RACE [1 2 3 4 5] UPE [M WWWW DET P NNNN 206 GHz 683 dBm 3 3 8.000 GHz
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XI RL Marker 3 Marker 3 0.00 -10.0 -20.0 -30.0 -40.0 -60.0 -70.0 -80.0 Start 30 N 1 N 2 N 1 N 2 N 3 N 4 - 6 - 7 8 9 -	RF PRESEL 50 Ω A 7.2060000000 Ref Offset 5.3 dl Ref 10.00 dB 	د 000 GHz B m 	PNO: Fast Gain:Low /1 //////////////////////////////////	W 300 kHz	Run dB	Avg Type: Avg Hold: /	100/100	Mkr3 7 -40.	RACE [1 2 3 4 5] UPE [M WWWW DET P NNNN 206 GHz 683 dBm 3 3 8.000 GHz
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XI RL Marker 3 Marker 3 0.00 -10.0 -20.0 -30.0 -40.0 -60.0 -70.0 -80.0 Start 30 N 1 N 2 N 1 N 2 N 3 N 4 - 6 - 7 8 9 -	RF PRESEL 50 Ω A 7.2060000000 Ref Offset 5.3 dl Ref 10.00 dB 	د 000 GHz B m 	PNO: Fast Gain:Low /1 //////////////////////////////////	W 300 kHz	Run dB	Avg Type: Avg Hold: /	100/100	Mkr3 7 -40.	RACE [1 2 3 4 5] UPE [M WWWW DET P NNNN 206 GHz 683 dBm 3 3 8.000 GHz
XI RL Marker 3 Marker 3 Marker 3 O O -10.0	RF PRESEL 50 Ω A 7.2060000000 Ref Offset 5.3 dl Ref 10.00 dB 	د 000 GHz B m 	PNO: Fast Gain:Low /1 //////////////////////////////////	W 300 kHz	Run dB		100/100	Mkr3 7 -40.	RACE [1 2 3 4 5 TYPE [MWWWW DET P NNNN DET P NNNN 206 GHz 683 dBm 3 3 3 4 8.000 GHz 5 (1000 pts)

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	nt Spectrum Analyzer - S									
<mark>ıxı</mark> ⊪ Maı	L RF PRESEL 50	7387387 0		SEN Trig: Free			LIGNAUTO	TRAC	1 Jun 04, 2016 E 1 2 3 4 5 6 E MWWWWW	Peak Search
10 d Log	Ref Offset 7 B/div Ref 10.00	IF® .5 dB	NO: Fast 😱 Gain:Low	#Atten: 20		Avginoia.		™ kr1 24.3	87 GHz 67 dBm	Next Peak
0.00										Next Pk Right
-10.0 -20.0										Next Pk Lef
-30.0										Marker Delta
-50.0	dyna, upting proving a line	- L	huite	W. or and first of start	Neter Later And Processing Processing	where a strate	warner	Warah	1 Warner	Mkr→C
-60.0 -70.0		La Hull and a second	hours and the second							Mkr→RefLv
-80.0	rt 8.000 GHz							Oton 25		More 1 of 2
	s BW 100 kHz		#VBW	300 kHz			Sweep		.000 GHz 1000 pts)	
MSG							STATUS			

2442MHz







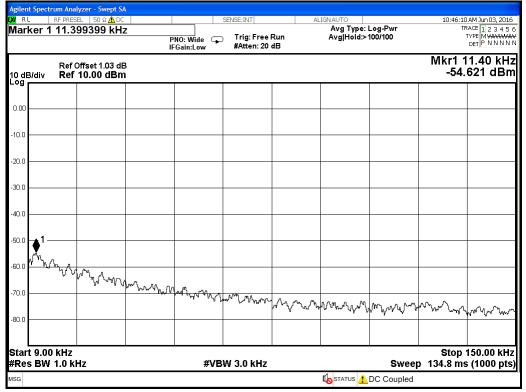
1.11											
Agiten LXI R			i <mark>lyzer - Swept S</mark> / BEL 50 Ω 🧥 DC			SENSE:INT	6	LIGNAUTO		10:38:22	2 AM Jun 03, 2016
			94144144					Avg Type:	Log-Pwr	TI	RACE 1 2 3 4 5 6
				F	NO: Fast 🖵	Trig: Free #Atten: 20		Avg Hold:>	100/100		DET P N N N N N
-				IF	Gain:Low	#Atten: 20	40				004 1411
			Offset 1.16 dl								.994 MHz 781 dBm
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			IN								
-80.0											
Star	t 150	kHz				1		1		Stop	30.00 MHz
#Re	s BW	10 kł	Ηz		#VE	SW 30 kHz			Swee		s (1000 pts)
MSG								STATUS 🚺	DC Coupled		
								-			
Agiler			i <mark>lyzer - Swept S</mark> EL 50Ω AC			SENSE:INT	AI	LIGNAUTO		10/15/25	5 AM Jun 03, 2016
			60000000	i				Avg Type:	Log-Pwr	TI	RACE 1 2 3 4 5 6
				F	NO: Fast 🔸	. Trig: Free #Atten: 20		Avg Hold: '	100/100		DET P N N N N N
_				IF	Gain:Low	HALLEH. 20	40			ML-2 7	200 011-
			Offset 5.3 dB								.326 GHz 403 dBm
10 d Log	B/div	Ref	10.00 dBn		∩ 4	1		1	1	-41.	403 UBIII
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-80.0	<u> </u>										
	rt <u>30 I</u>								_		8.000 GHz
#Re	s BW	100	KHZ		#VE	SW 300 kHz			Swee	p 761.7 ms	s (1000 pts)
		RC SCL		X	Y		CTION FUNC	TION WIDTH	1	UNCTION VALUE	<u> </u>
1	N N	1 f 1 f		2.442 GHz 4.884 GHz		2 dBm dBm					
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	ectrum Anal		pt SA								
<mark>(X)</mark> RL Marker	RF PRESE		AC 82083	GH7	SE	NSE:INT		ALIGNAUTO : Log-Pwr		4 Jun 04, 2016)≊ 1 2 3 4 5 6	Peak Search
10 dB/di	Ref C)ffset 7.5 10.00 d	dB	PNO: Fast IFGain:Low	J Trig: Fre #Atten: 2		Avg Hold:		₀ kr1 24.9	er PNNNNN 183 GHz 54 dBm	Next Peak
0.00											Next Pk Right
-10.0											Next Pk Left
-30.0											Marker Delta
-50.0			ى رەر اە	Mager Mary Mary	Admaphase	Wyling Legelywy Ann	and the second second		and yran	1. Hereitersterstersterstersterstersterstersters	Mkr→CF
-60.0	and the second second	194den971.797444	and the second								Mkr→RefLvl
	000 GHz W 100 k			#VBM	/ 300 kHz			Sweep		.000 GHz 1000 pts)	More 1 of 2
MSG		-						STATUS			

2480MHz







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Agiler LXI R			i <mark>lyzer - Swept S</mark> / EL 50 Ω <u>A</u> DC			SENSE:INT	6	IGNAUTO		10:30:50	AM Jun 03, 2016
			94144144				AL	Avg Type:	Log-Pwr	TF	ACE 1 2 3 4 5 6
				P	NO: Fast 🖵	Trig: Free #Atten: 20		Avg Hold:>	100/100		TYPE MWWWWW DET PINNNNN
				IF	Gain:Low	#Atten. 20	dD				
			Offset 1.16 dE								994 MHz
10 di Log	B/div	Ref	10.00 dBm	1						-53.	306 dBm
3											
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-80.0			11.								
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	t 150										30.00 MHz
#Re	s BW	10 kł	lz		#VB	W 30 kHz			Swee	p 285.3 ms	; (1000 pts)
MSG									DC Counled		
								- · · ·	DO OCUPICO		
Agilor	at Spect	rum Ana	lyzer - Swept S	٨					De ocupied		
Agiler IXI R			i <mark>lyzer - Swept S</mark> GEL 50 Ω AC			SENSE:INT	AL	IGNAUTO	De coupieu	10:19:20	IAM Jun 03, 2016
l,XI R	L	RF PRES		00 GHz				IGNAUTO Avg Type:	Log-Pwr	TF	ACE 1 2 3 4 5 6
l,XI R	L	RF PRES	GEL 50Ω AC	00 GHz	PNO: Fast ↔	SENSE:INT Trig: Free #Atten: 20	Run	IGNAUTO	Log-Pwr	TF	IAM Jun 03, 2016 ACE 1 2 3 4 5 6 TYPE MWWWWW DET P N N N N N
l,XI R	L	RF PRES 7.44	GEL 50 Ω AC	000 GHz F		. Trig: Free	Run	IGNAUTO Avg Type:	Log-Pwr	TF	ACE 123456 TYPE MWWWWW DET PNNNNN
<mark>w</mark> R Mar	⊾ ker 3	RF PRES 7.44 Ref	0000000000000000000000000000000000000	00 GHz F	PNO: Fast ↔	. Trig: Free	Run	IGNAUTO Avg Type:	Log-Pwr	Mkr3 7.	440 GHz
<mark>w</mark> R Mar	L	RF PRES 7.44 Ref	GEL 50 Ω AC	00 GHz F	PNO: Fast ↔→ Gain:Low	. Trig: Free	Run	IGNAUTO Avg Type:	Log-Pwr	Mkr3 7.	ACE 123456 TYPE MWWWWW DET PNNNNN
10 d	⊾ ker 3	RF PRES 7.44 Ref	0000000000000000000000000000000000000	00 GHz F	PNO: Fast +++	. Trig: Free	Run	IGNAUTO Avg Type:	Log-Pwr	Mkr3 7.	440 GHz
Mar 10 d Log	L Ker 3	RF PRES 7.44 Ref	0000000000000000000000000000000000000	00 GHz F	PNO: Fast ↔→ Gain:Low	. Trig: Free	Run	IGNAUTO Avg Type:	Log-Pwr	Mkr3 7.	440 GHz
10 d 0.00	ker 3	RF PRES 7.44 Ref	0000000000000000000000000000000000000	00 GHz F	PNO: Fast ↔→ Gain:Low	. Trig: Free	Run	IGNAUTO Avg Type:	Log-Pwr	Mkr3 7.	440 GHz
10 d Log 0.00 -10.0	B/div	RF PRES 7.44 Ref	0000000000000000000000000000000000000	00 GHz F	PNO: Fast ↔→ Gain:Low	. Trig: Free	Run	IGNAUTO Avg Type:	Log-Pwr	Mkr3 7.	440 GHz
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Mar 10 d Log -10.0 -20.0 -30.0 -40.0	B/div	RF PRES 7.44 Ref	0000000000000000000000000000000000000	00 GHz F	PNO: Fast ↔→ Gain:Low	. Trig: Free	Run	IGNAUTO Avg Type:	Log-Pwr	Mkr3 7.	ACE 123456 TYPE M WWWWW DET P NNNN 440 GHz 785 dBm
Mar 10 d 0.00 -10.0 -20.0 -30.0 -40.0 -50.0	B/div	RF PRES 7.44 Ref	0000000000000000000000000000000000000	00 GHz F	PNO: Fast ↔→ Gain:Low	. Trig: Free	Run	IGNAUTO Avg Type:	Log-Pwr	Mkr3 7.	ACE 123456 TYPE M WWWWW DET P NNNN 440 GHz 785 dBm
10 d Log 0.00 -10.0 -20.0 -30.0 -40.0 -50.0 -60.0	B/div	RF PRES 7.44 Ref	0000000000000000000000000000000000000	00 GHz F	PNO: Fast ↔→ Gain:Low	. Trig: Free	Run	IGNAUTO Avg Type:	Log-Pwr	Mkr3 7.	ACE 123456 TYPE M WWWWW DET P NNNN 440 GHz 785 dBm
Mar 10 d 0.00 -10.0 -20.0 -30.0 -40.0 -50.0	B/div	RF PRES 7.44 Ref	0000000000000000000000000000000000000	00 GHz F	PNO: Fast ↔→ Gain:Low	. Trig: Free	Run	IGNAUTO Avg Type: Avg Hold: 1	Log-Pwr	Mkr3 7.	ACE 123456 TYPE M WWWWW DET P NNNN 440 GHz 785 dBm
10 d Log 0.00 -10.0 -20.0 -30.0 -40.0 -50.0 -60.0	B/div	RF PRES 7.44 Ref	0000000000000000000000000000000000000	00 GHz F	PNO: Fast ↔→ Gain:Low	. Trig: Free	Run	IGNAUTO Avg Type: Avg Hold: 1	Log-Pwr	Mkr3 7.	ACE 123456 TYPE M WWWWW DET P NNNN 440 GHz 785 dBm
10 d Mar 0.00 -10.0 -20.0 -30.0 -40.0 -60.0 -60.0 -70.0 -80.0	B/div	Ref Ref Ref	0000000000000000000000000000000000000	00 GHz F	PNO: Fast ↔→ Gain:Low	. Trig: Free	Run	IGNAUTO Avg Type: Avg Hold: 1	Log-Pwr	TF Mkr3 7. -43.	440 GHz Der P NNNN 440 GHz 785 dBm
10 d Mar 0.00 -10.0 -20.0 -30.0 -40.0 -60.0 -60.0 -80.0 Stai	B/div	RF PRES 5 7.44 Ref Ref	EL 50 Ω AC 000000000 0	00 GHz F	VO: Fast	Trig: Free #Atten: 20	Run dB	IGNAUTO Avg Type: Avg Hold: 1	Log-Pwr 100/100	The second secon	440 GHz 785 dBm
10 d Mar 0.00 -10.0 -20.0 -30.0 -30.0 -30.0 -50.0 -50.0 -70.0 -80.0 Stat #Re	B/div B/div	<u>RF PRES</u> 7.44 Ref <u>Ref</u> بالماريني 100 MHz	SEL 50 Ω AC 000000000 0 0 Offset 5.3 dB 10.00 dBn - - - - - <	00 GHz P IF	#VB	W 300 kHz	Run dB	IGNAUTO Avg Type: Avg Hold: 1	Leg-Pwr 00/100	™ Mkr3 7. -43. -43. 	440 GHz 785 dBm
10 d 10 d 20.0 -10.0 -20.0 -30.0 -40.0 -50.0 -70.0 -70.0 -80.0 Stat #Ree 1	B/div B/div Art 30 I s BW	<u>RF PRES</u> 7.44 Ref <u>Ref</u> <u>الالال</u> 100 I	SEL 50 Ω AC 000000000 0 0 Offset 5.3 dB 10.00 dBn - - - - - <	×	#VB	W 300 kHz	Run dB	IGNAUTO Avg Type: Avg Hold: 1	Leg-Pwr 00/100	The second secon	440 GHz 785 dBm
10 d 10 d 20.0 -10.0 -20.0 -30.0 -40.0 -50.0 -70.0 -70.0 -80.0 Stat #Ree 1	B/div B/div brt 30 F	RF PRES 7.44 Ref Ref Image: second	SEL 50 Ω AC 000000000 0 0 Offset 5.3 dB 10.00 dBn - - - - - <	8 2.480 GHz 9 17 17 17 2.480 GHz 4.960 GHz	*VO: Fast Gain:Low */1 **********************************	W 300 kHz	Run dB	IGNAUTO Avg Type: Avg Hold: 1	Leg-Pwr 00/100	™ Mkr3 7. -43. -43. 	440 GHz 785 dBm
Image Region 10 d d Log 0.00 -10.0 -20.0 -20.0 -30.0 -40.0 -30.0 -50.0 -50.0 -60.0 -70.0 -80.0 Stall #Ree 1 2 3 4 4	B/div B/div Male SBW	RF PRES → 7.44 Ref Ref WIHz 100 I RC SQL f f	SEL 50 Ω AC 000000000 0 0 Offset 5.3 dB 10.00 dBn - - - - - <	2.480 GHz	*VO: Fast Gain:Low */1 **********************************	W 300 kHz	Run dB	IGNAUTO Avg Type: Avg Hold: 1	Leg-Pwr 00/100	™ Mkr3 7. -43. -43. 	440 GHz 785 dBm
Image Image 10 d G 0.00 - -20.0 - -30.0 - -30.0 - -40.0 - -80.0 - Stall #Re 12 3 4 5	B/div B/div brt 30 F	RF PRES 7.44 Ref Ref Image: second	SEL 50 Ω AC 000000000 0 0 Offset 5.3 dB 10.00 dBn - - - - - <	8 2.480 GHz 9 17 17 17 2.480 GHz 4.960 GHz	*VO: Fast Gain:Low */1 **********************************	W 300 kHz	Run dB	IGNAUTO Avg Type: Avg Hold: 1	Leg-Pwr 00/100	™ Mkr3 7. -43. -43. 	440 GHz 785 dBm
Mar 10 d 10.0 0.00 -10.0 -20.0 -30.0 -30.0 -30.0 -30.0 -30.0 -30.0 -30.0 -30.0 -30.0 -30.0 -30.0 -30.0 -30.0 -50.0 -60.0 -70.0 Stat 1 2 3 4 5 6 7	B/div B/div brt 30 F	RF PRES 7.44 Ref Ref Image: second	SEL 50 Ω AC 000000000 0 0 Offset 5.3 dB 10.00 dBn - - - - - <	8 2.480 GHz 9 17 17 17 2.480 GHz 4.960 GHz	*VO: Fast Gain:Low */1 **********************************	W 300 kHz	Run dB	IGNAUTO Avg Type: Avg Hold: 1	Leg-Pwr 00/100	™ Mkr3 7. -43. -43. 	440 GHz 785 dBm
Image Image 10 dg 0.00 0.10.0 - -20.0 - -30.0 - -40.0 - -50.0 - -80.0 - Stat 1 2 3 4 5 6 7 7 8	B/div B/div brt 30 F	RF PRES 7.44 Ref Ref Image: second	SEL 50 Ω AC 000000000 0 0 Offset 5.3 dB 10.00 dBn - - - - - <	8 2.480 GHz 9 17 17 17 2.480 GHz 4.960 GHz	*VO: Fast Gain:Low */1 **********************************	W 300 kHz	Run dB	IGNAUTO Avg Type: Avg Hold: 1	Leg-Pwr 00/100	™ Mkr3 7. -43. -43. 	440 GHz 785 dBm
Mar 10 d 10.0 0.00 -10.0 -20.0 -30.0 -30.0 -30.0 -30.0 -30.0 -30.0 -30.0 -30.0 -30.0 -30.0 -30.0 -30.0 -80.0	B/div B/div brt 30 F	RF PRES 7.44 Ref Ref Image: second	SEL 50 Ω AC 000000000 0 0 Offset 5.3 dB 10.00 dBn - - - - - <	8 2.480 GHz 9 17 17 17 2.480 GHz 4.960 GHz	*VO: Fast Gain:Low */1 **********************************	W 300 kHz	Run dB	IGNAUTO Avg Type: Avg Hold: 1	Leg-Pwr 00/100	™ Mkr3 7. -43. -43. 	440 GHz 785 dBm
Image: 200 Image:	B/div B/div brt 30 F	RF PRES 7.44 Ref Ref Image: second	SEL 50 Ω AC 000000000 0 0 Offset 5.3 dB 10.00 dBn - - - - - <	8 2.480 GHz 9 17 17 17 2.480 GHz 4.960 GHz	*VO: Fast Gain:Low */1 **********************************	W 300 kHz	Run dB	IGNAUTO Avg Type: Avg Hold: 1	Leg-Pwr 00/100	™ Mkr3 7. -43. -43. 	440 GHz 785 dBm
Mar 10 d 10.0 0.00 -10.0 -20.0 -30.0 -30.0 -30.0 -30.0 -30.0 -30.0 -30.0 -30.0 -30.0 -30.0 -30.0 -30.0 -80.0	B/div B/div brt 30 F	RF PRES 7.44 Ref Ref Image: second	SEL 50 Ω AC 000000000 0 0 Offset 5.3 dB 10.00 dBn - - - - - <	8 2.480 GHz 9 17 17 17 17 17 17 17 17 17 17 17 17 17	*VO: Fast Gain:Low */1 **********************************	W 300 kHz	Run dB		Log-Pwr 100/100	™ Mkr3 7. -43. -43. 	ACCE 11 23 4 5 6 6 TYPE MWWWWWW MWWWWWWW 440 GHz 785 dBm 3 3 4 3 4 400 GHz 8.000 GHz 6 (1000 pts)

ACCREDITED



RL RF PRESEL 50 Ω top Freq 25.00000		SENSE:INT	ALIGNAUTO Avg Type: Log-Pwr Avg Hold:>100/100	03:28:06 AM Jun 04, 2016 TRACE 1 2 3 4 5 6 TYPE MWWWWW	Frequency
Ref Offset 7.0 0 dB/div Ref 10.00 (IFGain:Low 5	#Atten: 20 dB		bet P NNNNN kr1 24.983 GHz -48.279 dBm	Auto Tun
0.00					Center Fre 16.500000000 G⊢
0.0					Start Fre 8.000000000 G⊦
0.0					Stop Fre 25.00000000 GF
	- tobal manufathan - Ard	and the state of t	N. Makelly . Albert Makeleran	hard you want to share the state of the stat	CF Ste 1.700000000 G⊦ <u>Auto</u> Ma
0.0 .0 0.0					Freq Offs 0 H
80.0					
tart 8.000 GHz Res BW 100 kHz	#VBW	300 kHz	Sweep	Stop 25.000 GHz 1.625 s (1000 pts)	





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Power Spectral Density

Limit: 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 v03r05 Section 10.2 (Peak PSD)

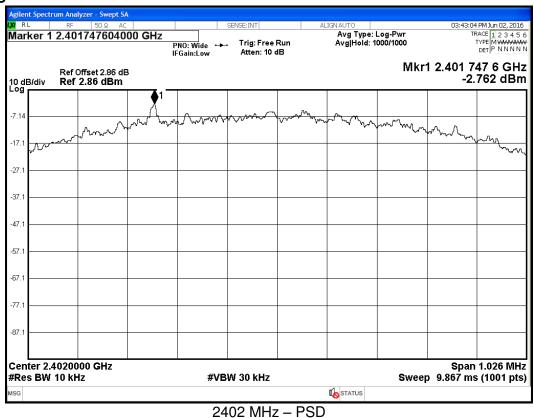
MEASUREMENTS / RESULTS

Date: Jun-2-2016	tral Dei	Company: Bla	ckBox B	iometrics Inc				V	Vork Orde	r. 01352
				-		oorotin	a Vali	-		
Engineer: Yunus Faziloglu Temp: 22°C		EUT Desc: Bla Humidity: 46%	-	Pressure: 10	•	Jeraun	g von	age	Frequenc	y: 3.6VDC
				Flessure: 10					a	
-		2402-2480 MH	Z		Mea	asurem	ent T	/pe:	Conducted	
Notes: Powered from s Total cable inse corrected readir	rtion loss fa		ference le	evel offset to the	e spectrum	n analyz	zer. Co	rresp	onding plo	ts show
Frequency		PSD				Limit				
(MHz)		(dBm)				(dBm)			Margin	Resu
2402.00		-2.762				8.00			-10.76	Pass
2442.00		-4.952				8.00			-12.95	Pass
2480.00		-5.522				8.00			-13.52	Pass
Table Result:	Pass	by -	10.76 d	IB		Wor	st Fr	eq:	2402.	0 MHz
Test Site: Wireless Test F	loom	Cable 1: SM	A adapte	er assembly		Cable	2: As	set #	1784	
Analyzer: MXE 1168255								C	opyright Curtis-	Straus LLC
. 5/18/2016	Preselectors	Range 20Hz-8.4GHz	MN N9038A	Mfr Agilent	SN MY53290009	Asset 1168255	Cat		ration Due 16/2016	Calibrated 6/16/2015
Spectrum Analyzers / Receivers /I MXE EMI Receiver				Mfr	SN	Asset	Cat	Calib	ration Due	Calibrated
Spectrum Analyzers / Receivers /	5		MN HTC-1 5396-0321	HDE Ionarch Instruments	•	2080 2160	 	4/	5/2017 7/2017	4/5/2016 3/7/2016











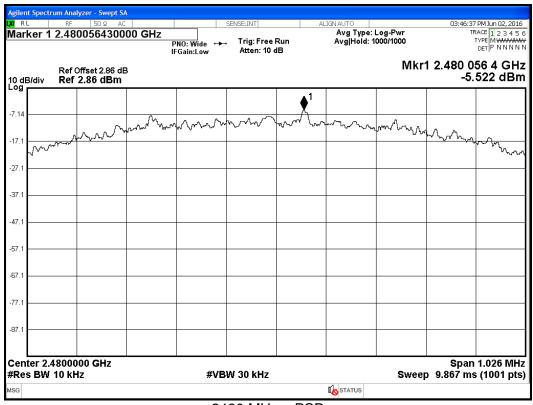
2442 MHz – PSD



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2480 MHz – 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

*Decreases with the logarithm of the frequency. [47 CFR 15.207(a)]

MEASUREMENTS / RESULTS

Not applicable 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

		99% C	Occupie	d Bandwid	lth				
Date: Jun-2-2016		Company: BlackBox Biometrics, Inc. Work Order: Q135					der: Q1352		
Engineer: Yunus Faziloglu		EUT Desc:	BlastGau	lastGauge EUT Operating Voltage/Frequency: 3.6V				ncy: 3.6VDC	
Temp: 22°C		Humidity: 4	46%	Pressure: 1007 mBar					
Frequenc	ncy Range: 2402-2480 MHz Measurement Type: Conducted					onducted			
Notes: Powered from su	pport lapto	op USB port							
Frequency				99%	6 OBW				
(MHz)	(kHz)								
2402	1.0384								
2442	1.0166								
2480	1.0458								
Test Site: Wireless Test Ro	Room Cable 1: SMA adapter assembly Cable 2: Asset #1784								
Analyzer: MXE 1168255								Copyright Curtis	-Straus LLC 200
Rev. 5/18/2016									
Spectrum Analyzers / Receivers / Pre MXE EMI Receiver	selectors	Range 20Hz-8.4GHz	MN N9038A	Mfr Agilent	SN MY53290009	Asset 1168255	Cat I	Calibration Due 6/16/2016	Calibrated on 6/16/2015
Meteorological Meters TH A#2080 Barometric A#2160			MN HTC-1 5396-0321	Mfr HDE fonarch Instrument:	SN 4000060	Asset 2080 2160	Cat II I	Calibration Due 4/5/2017 3/7/2017	Calibrated on 4/5/2016 3/7/2016
Cables Asset #1784		Range 9kHz - 18GHz		Mfr Florida RF			Cat II	Calibration Due 3/7/2017	Calibrated on 3/7/2016

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



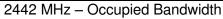


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Plot(s)

	um Analyzer - Occupied B	W			
(XIRL)	RF 50Ω AC		SENSE:INT Center Freg: 2.402000	ALIGN OFF	03:14:44 PM Jun 02, 2016 Radio Std: None
Center Freq 2.402000000 GHz ↔		 Trig: Free Run #Atten: 10 dB 	🗅 Trig: Free Run 🛛 🛛 Avg Hold: 100/100		
		#IFGain:Low	#Atten: 10 dB		Radio Device: BTS
10 dB/div Log	Ref 10.00 dBr				
0.00					
-10.0		~~~~	www. www	m	
-20.0				- · · · · · · · · · · · · · · · · · · ·	
-30.0				- M	000
-40.0	1 mg wwwwwwwww			- Vinne	when pour and there we are
-50.0					14 2 10 10
-60.0					
-70.0					
-80.0					
Center 2.	402 GHz				Span 3 MHz
#Res BW	30 kHz		#VBW 100 k	Hz	Sweep 3.198 ms
Occur	oied Bandwidt	'n	Total Power	6.06 dBm	
	1.	0384 MHz			
Transn	nit Freq Error	-5.529 kHz	OBW Power	99.00 %	
x dB B	andwidth	575.3 kHz	x dB	-6.00 dB	
MSG					
				-	

	ım Analyzer - Occupied BV	N			
Center Fr	RF 50 Ω AC eq 2.442000000	GHz	SENSE:INT Center Freq: 2.442000	ALIGN OFF	03:13:53 PM Jun 02, 2016 Radio Std: None
]	#IFGain:Low		Avg Hold: 100/100	Radio Device: BTS
10 dB/div	Ref 10.00 dBm	1			
Log					
-10.0			h non man	m	
-20.0		m		Jure and	
-30.0		mar and		·	
-40.0	mm			V.,	
	mymm	~~~~ V		v.p	" " " "
-60.0	V				
-70.0					
-80.0					
Center 2.4 #Res BW			#VBW 100 k	Hz	Span 3 MHz Sweep 3.198 ms
Occup	ied Bandwidtl	h	Total Power	4.72 dBm	
	1.0	0166 MHz			
Transm	nit Freq Error	1.170 kHz	OBW Power	99.00 %	
x dB Ba	andwidth	546.2 kHz	x dB	-6.00 dB	
MSG				K STATUS	







gilent Spectrum Analyzer - Occupied BV RL RF 50 Ω AC		SENSE:INT	ALIGN OFF	03:12:44 PM Jun 02, 201
enter Freq 2.480000000	GHz	Center Freq: 2.480000	000 GHz	Radio Std: None
	#IFGain:Low	 Trig: Free Run #Atten: 10 dB 	Avg Hold: 100/100	Radio Device: BTS
OdB/div Ref 10.00 dBm 99			human	
0.0 have have a contraction of the contraction of t	W			a a free and a second and the second
).0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0				
0.0				
0.0				
enter 2.48 GHz				Span 3 MH
Res BW 30 kHz		#VBW 100 k	Hz	Sweep 3.198 m
Occupied Bandwidth	1	Total Power	3.92 dBm	
1.0)458 MHz			
Transmit Freq Error	-5.297 kHz	OBW Power	99.00 %	
x dB Bandwidth	554.7 kHz	x dB	-6.00 dB	
3			STATUS	

2480 MHz - 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	5.6dB	N/A
CISPR	4.6dB 4.6dB	5.2dB (Ucispr) N/A
Radiated Emissions (1-26.5GHz) Radiated Emissions (above 26.5GHz)		
, , , , , , , , , , , , , , , , ,	4.9dB	N/A
Magnetic Radiated Emissions Conducted Emissions	5.6dB	N/A
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 ⁻⁸	1 x 10 ⁻⁷
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		



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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.

The Company disclaims any and all responsibility or liability arising out of or in connection with e-mail transmissions of such information.
 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.
 Client agrees that the Company, by providing the services, does not take the place of Client nor any third party, nor does the Company otherwise assume, abridge, abrogate or undertake to discharge any duty of any third party to 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. 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.





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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 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 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





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