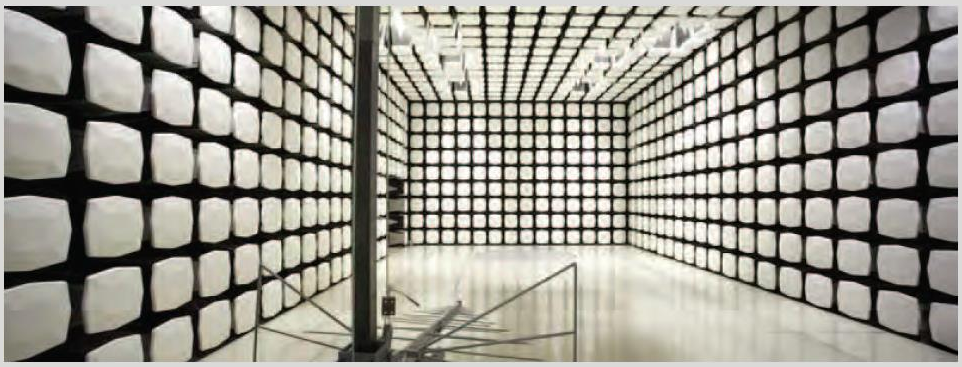
Timecode Systems Limited

AirGlu

FCC 15.247:2019

Bluetooth Low Energy (DTS) Radio

Report # TMEC0007.5



NVLAP LAB CODE: 200630-0

CERTIFICATE OF TEST

Last Date of Test: May 15, 2019
Timecode Systems Limited
Model: AirGlu

Radio Equipment Testing

Standards

Specification	Method
FCC 15.247:2019	ANSI C63.10:2013, KDB 558074

Results

Method Clause	Test Description	Applied	Results	Comments
6.2	Powerline Conducted Emissions	No	N/A	Not required for a battery powered EUT.
11.12.1, 11.13.2, 6.5, 6.6	Spurious Radiated Emissions	Yes	Pass	
11.6	Duty Cycle	No	N/A	Not required. Testing completed under Element report TMEC0002.1 for FCC ID: AYV-USYNBL
11.8.2	Occupied Bandwidth	No	N/A	Not required. Testing completed under Element report TMEC0002.1 for FCC ID: AYV-USYNBL
11.9.1.1	Output Power	No	N/A	Not required. Testing completed under Element report TMEC0002.1 for FCC ID: AYV-USYNBL
11.9.1.1	Equivalent Isotropic Radiated Power	No	N/A	Not required. Testing completed under Element report TMEC0002.1 for FCC ID: AYV-USYNBL
11.10.2	Power Spectral Density	No	N/A	Not required. Testing completed under Element report TMEC0002.1 for FCC ID: AYV-USYNBL
11.11	Band Edge Compliance	No	N/A	Not required. Testing completed under Element report TMEC0002.1 for FCC ID: AYV-USYNBL
11.11	Spurious Conducted Emissions	No	N/A	Not required. Testing completed under Element report TMEC0002.1 for FCC ID: AYV-USYNBL

Deviations From Test Standards

None

Approved By:

Kyle Holgate, Operations Manager

Product compliance is the responsibility of the client; therefore, the tests and equipment modes of operation represented in this report were agreed upon by the client, prior to testing. The results of this test pertain only to the sample(s) tested. The specific description is noted in each of the individual sections of the test report supporting this certificate of test. This report reflects only those tests from the referenced standards shown in the certificate of test. It does not include inspection or verification of labels, identification, marking or user information. As indicated in the Statement of Work sent with the quotation, Element's standard process is to always use the latest published version of the test methods even when earlier versions are cited in the test specification. Issuance of a purchase order was de facto acceptance of this approach. Otherwise, the client would have advised Element in writing of the specific version of the test methods they wanted applied to the subject testing.

REVISION HISTORY

Revision Number	Description	Date (yyyy-mm-dd)	Page Number
00	None		

ACCREDITATIONS AND AUTHORIZATIONS

United States

FCC - Designated by the FCC as a Telecommunications Certification Body (TCB). Certification chambers, Open Area Test Sites, and conducted measurement facilities are listed with the FCC.

A2LA - Accredited by A2LA to ISO / IEC 17065 as a product certifier. This allows Element to certify transmitters to FCC and IC specifications.

NVLAP - Each laboratory is accredited by NVLAP to ISO 17025

Canada

ISED - Recognized by Innovation, Science and Economic Development Canada as a Certification Body (CB) and as a CAB for the acceptance of test data.

European Union

European Commission – Within Element, we have a EU Notified Body validated for the EMCD and RED Directives.

Australia/New Zealand

ACMA - Recognized by ACMA as a CAB for the acceptance of test data.

Korea

MSIT / RRA - Recognized by KCC's RRA as a CAB for the acceptance of test data.

Japan

VCCI - Associate Member of the VCCI. Conducted and radiated measurement facilities are registered.

Taiwan

BSMI – Recognized by BSMI as a CAB for the acceptance of test data.

NCC - Recognized by NCC as a CAB for the acceptance of test data.

Singapore

IDA – Recognized by IDA as a CAB for the acceptance of test data.

Israel

MOC – Recognized by MOC as a CAB for the acceptance of test data.

Hong Kong

OFCA – Recognized by OFCA as a CAB for the acceptance of test data.

Vietnam

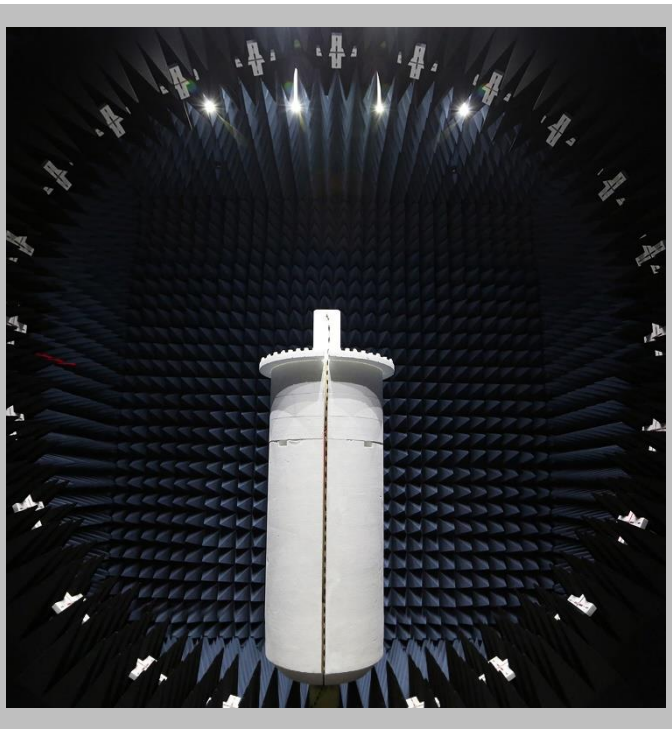
MIC – Recognized by MIC as a CAB for the acceptance of test data.

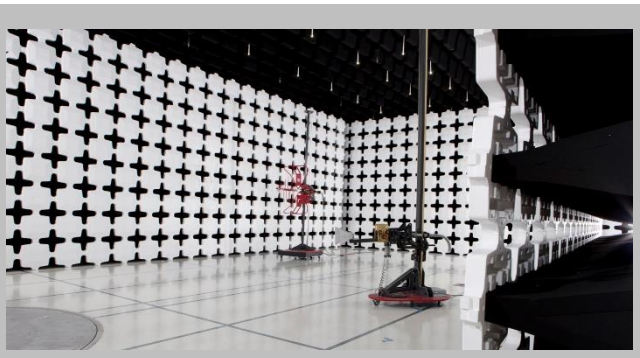
SCOPE

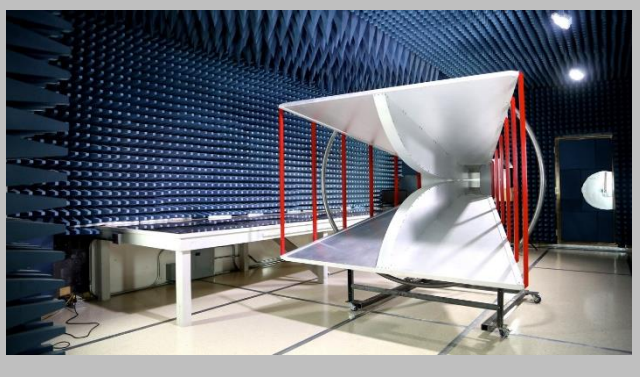
For details on the Scopes of our Accreditations, please visit:
https://www.nwemc.com/emc-testing-accreditations

FACILITIES

California	Minnesota	Oregon	Texas	Washington
Labs OC01-17 41 Tesla Irvine, CA 92618 (949) 861-8918	Labs MN01-10 9349 W Broadway Ave. Brooklyn Park, MN 55445 (612)-638-5136	Labs EV01-12 6775 NE Evergreen Pkwy #400 Hillsboro, OR 97124 (503) 844-4066	Labs TX01-09 3801 E Plano Pkwy Plano, TX 75074 (469) 304-5255	Labs NC01-05 19201 120th Ave NE Bothell, WA 98011 (425)984-6600
NVLAP				
NVLAP Lab Code: 200676-0	NVLAP Lab Code: 200881-0	NVLAP Lab Code: 200630-0	NVLAP Lab Code:201049-0	NVLAP Lab Code: 200629-0
Innovation, Science and Economic Development Canada				
2834B-1, 2834B-3	2834E-1, 2834E-3	2834D-1	2834G-1	2834F-1
BSMI				
SL2-IN-E-1154R	SL2-IN-E-1152R	SL2-IN-E-1017	SL2-IN-E-1158R	SL2-IN-E-1153R
VCCI				
A-0029	A-0109	A-0108	A-0201	A-0110
Recognized Phase I CAB for ISED, ACMA, BSMI, IDA, KCC/RRA, MIC, MOC, NCC, OFCA				
US0158	US0175	US0017	US0191	US0157







MEASUREMENT UNCERTAINTY

element
TMU.2015.07.10

Measurement Uncertainty

When a measurement is made, the result will be different from the true or theoretically correct value. The difference is the result of tolerances in the measurement system that cannot be completely eliminated. To the extent that technology allows us, it has been our aim to minimize this error. Measurement uncertainty is a statistical expression of measurement error qualified by a probability distribution.

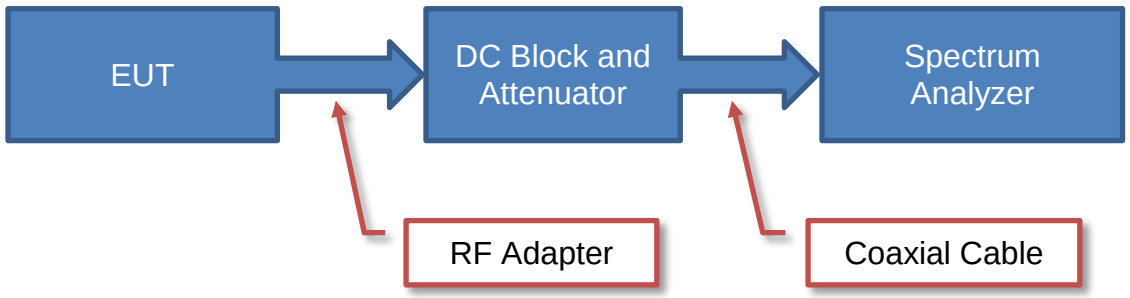
A measurement uncertainty estimation has been performed for each test per our internal quality document QM205.4.6. The estimation is used to compare the measured result with its "true" or theoretically correct value. The expanded measurement uncertainty (K=2) can be found included as part of the applicable test description page. Our measurement data meets or exceeds the measurement uncertainty requirements of the applicable specification; therefore, the test data can be compared directly to the specification limit to determine compliance. The calculations for estimating measurement uncertainty are based upon ETSI TR 100 028 (or CISPR 16-4-2 as applicable), and are available upon request.

The following table represents the Measurement Uncertainty (MU) budgets for each of the tests that may be contained in this report.

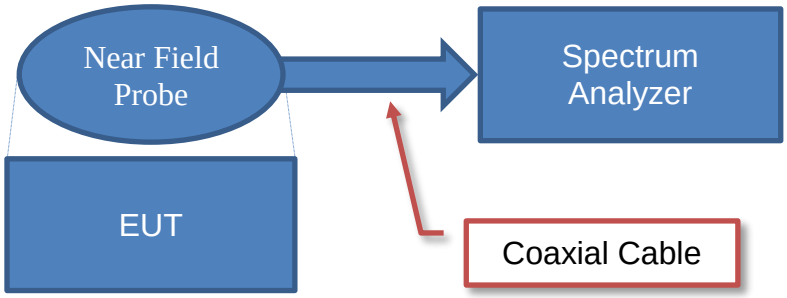
Test	+ MU	- MU
Frequency Accuracy (Hz)	0.0007%	-0.0007%
Amplitude Accuracy (dB)	1.2 dB	-1.2 dB
Conducted Power (dB)	1.2 dB	-1.2 dB
Radiated Power via Substitution (dB)	0.7 dB	-0.7 dB
Temperature (degrees C)	0.7°C	-0.7°C
Humidity (% RH)	2.5% RH	-2.5% RH
Voltage (AC)	1.0%	-1.0%
Voltage (DC)	0.7%	-0.7%
Field Strength (dB)	5.2 dB	-5.2 dB
AC Powerline Conducted Emissions (dB)	2.4 dB	-2.4 dB

Test Setup Block Diagrams

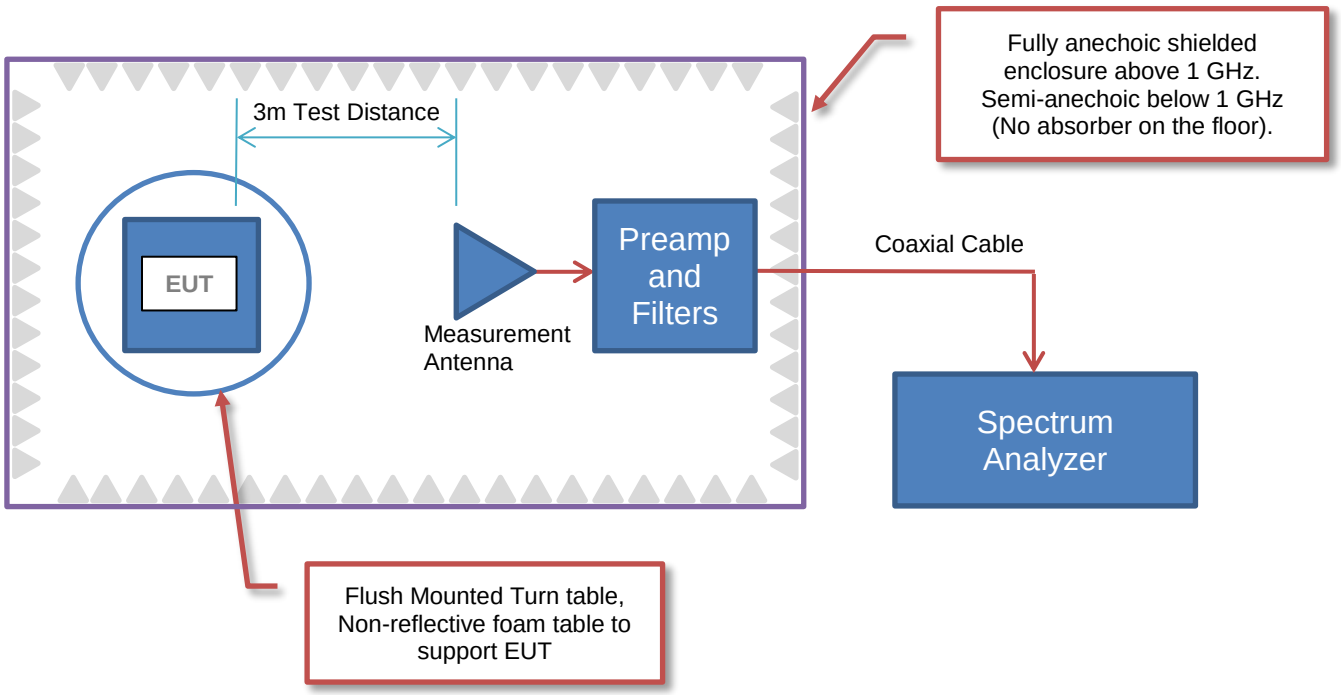
Antenna Port Conducted Measurements



Near Field Test Fixture Measurements



Spurious Radiated Emissions



PRODUCT DESCRIPTION

Client and Equipment Under Test (EUT) Information

Company Name:	Timecode Systems Limited
Address:	9 Mill House Elgar Business Centre
City, State, Zip:	Hallow, WR2 6NJ
Test Requested By:	Paul Scurrell
Model:	AirGlu
First Date of Test:	May 15, 2019
Last Date of Test:	May 15, 2019
Receipt Date of Samples:	April 5, 2019
Equipment Design Stage:	Production
Equipment Condition:	No Damage
Purchase Authorization:	Verified

Information Provided by the Party Requesting the Test

Functional Description of the EUT:
Time synchronization system utilizing a BLE radio and SRD radio.

Testing Objective:
To demonstrate compliance of the Bluetooth low energy (DTS) radio to FCC 15.247 requirements.

CONFIGURATIONS

Configuration TMEC0007- 4

Software/Firmware Running during test	
Description	**Version**
TCS RfUtils	v3.93

EUT			
Description	**Manufacturer**	**Model/Part Number**	**Serial Number**
Time code synchronization system	Timecode Systems Limited	AirGlu	Unknown
Host enclosure (Expansion module)	Atmos	AtmosX Sync	N/A

Peripherals in test setup boundary			
Description	**Manufacturer**	**Model/Part Number**	**Serial Number**
Battery	Power Extra	NP-F750/F770	N/A

Remote Equipment Outside of Test Setup Boundary			
Description	**Manufacturer**	**Model/Part Number**	**Serial Number**
Laptop	HP	Pavilion g6	Unknown

Cables					
Cable Type	**Shield**	**Length (m)**	**Ferrite**	**Connection 1**	**Connection 2**
Serial Cable	No	0.1 m	Yes	Time code synchronization system	Unterminated

MODIFICATIONS

Equipment Modifications

Item	Date	Test	Modification	Note	Disposition of EUT
1	2019-05-15	Spurious Radiated Emissions	Tested as delivered to Test Station.	No EMI suppression devices were added or modified during this test.	Scheduled testing was completed.

SPURIOUS RADIATED EMISSIONS

PSA-ESCI 2019.02.26

Testing was performed using the mode(s) of operation and configuration(s) noted within the report. The individuals and/or the organization requesting the test provided the modes, configurations and settings used to complete the evaluation. The actual test parameters are specified in the test data, this includes items such as investigated frequency range (scanned) and test levels. The testing methods and performance specifications, as well as the test site used for the evaluation are indicated in the test data. The test data represents the configuration / operating mode/ model that produced the highest emission levels as compared to the specification limit.

MODES OF OPERATION

BTLE Continuous Tx, PA Level = 50, Low Ch. 2402 MHz, Mid Ch. = 2442 MHz, High Ch. = 2480 MHz.

POWER SETTINGS INVESTIGATED

Battery

CONFIGURATIONS INVESTIGATED

TMEC0007 - 4

FREQUENCY RANGE INVESTIGATED

Start Frequency	30 MHz	Stop Frequency	26500 MHz

SAMPLE CALCULATIONS

Radiated Emissions: Field Strength = Measured Level + Antenna Factor + Cable Factor - Amplifier Gain + Distance Adjustment Factor + External Attenuation

TEST EQUIPMENT

Description	Manufacturer	Model	ID	Last Cal.	Interval
Filter - High Pass	Micro-Tronics	HPM50111	HFO	11-Dec-2018	12 mo
Filter - Low Pass	Micro-Tronics	LPM50004	LFD	15-Feb-2019	12 mo
Attenuator	Coaxicom	3910-20	AXZ	15-Feb-2019	12 mo
Cable	ESM Cable Corp.	KMKM-72	EVY	24-Aug-2018	12 mo
Cable	None	Standard Gain Horns Cable	EVF	24-Nov-2018	12 mo
Cable	N/A	Double Ridge Horn Cables	EVB	24-Nov-2018	12 mo
Cable	N/A	Bilog Cables	EVA	24-Nov-2018	12 mo
Amplifier - Pre-Amplifier	Miteq	AMF-6F-18002650-25-10P	AVU	24-Aug-2018	12 mo
Amplifier - Pre-Amplifier	Miteq	AMF-6F-12001800-30-10P	AVD	24-Nov-2018	12 mo
Amplifier - Pre-Amplifier	L-3 Narda-MITEQ	AMF-6F-08001200-30-10P	PAO	24-Nov-2018	12 mo
Amplifier - Pre-Amplifier	Miteq	AMF-3D-00100800-32-13P	PAG	24-Nov-2018	12 mo
Amplifier - Pre-Amplifier	Miteq	AM-1616-1000	AOL	24-Nov-2018	12 mo
Antenna - Standard Gain	ETS Lindgren	3160-09	AIV	NCR	0 mo
Antenna - Standard Gain	ETS Lindgren	3160-08	AHV	NCR	0 mo
Antenna - Standard Gain	ETS Lindgren	3160-07	AHU	NCR	0 mo
Antenna - Double Ridge	ETS Lindgren	3115	AIZ	7-Feb-2018	24 mo
Antenna - Biconilog	Teseq	CBL 6141B	AXR	2-Oct-2018	24 mo
Analyzer - Spectrum Analyzer	Agilent	E4446A	AAQ	24-Mar-2019	12 mo

TEST DESCRIPTION

The highest gain antenna of each type to be used with the EUT was tested. The EUT was configured for the required transmit frequencies and the modes as showed in the data sheets.

For each configuration, the spectrum was scanned throughout the specified range as part of the exploratory investigation of the emissions. These “pre-scans” are not included in the report. Final measurements on individual emissions were then made and included in this test report.

The individual emissions from the EUT were maximized by rotating the EUT on a turntable, adjusting the position of the EUT and EUT antenna in three orthogonal axis if required, and adjusting the measurement antenna height and polarization (per ANSI C63.10). A preamp and high pass filter (and notch filter) were used for this test in order to provide sufficient measurement sensitivity.

Measurements were made with the required detectors and annotated on the data for each individual point using the following annotation:

QP = Quasi-Peak Detector
PK = Peak Detector
AV = RMS Detector

Measurements were made to satisfy the specific requirements of the test specification for out of band emissions as well as the restricted band requirements.

If there are no detectable emissions above the noise floor, the data included may show noise floor measurements for reference only.

Measurements at the edges of the allowable band may be presented in an alternative method as provided for in the ANSI C63.10 Marker-Delta method. This method involves performing an in-band fundamental measurement followed by a screen capture of the fundamental and out-of-band emission using reduced measurement instrumentation bandwidths. The amplitude delta measured on this screen capture is applied to the fundamental emission value to show the out-of-band emission level as applied to the limit.

Where the radio test software does not provide for a duty cycle at continuous transmit conditions (> 98%) and the RMS (power average) measurements were made across the on and off times of the EUT transmissions, a duty cycle correction is added to the measurements using the formula of 10*LOG(dc).

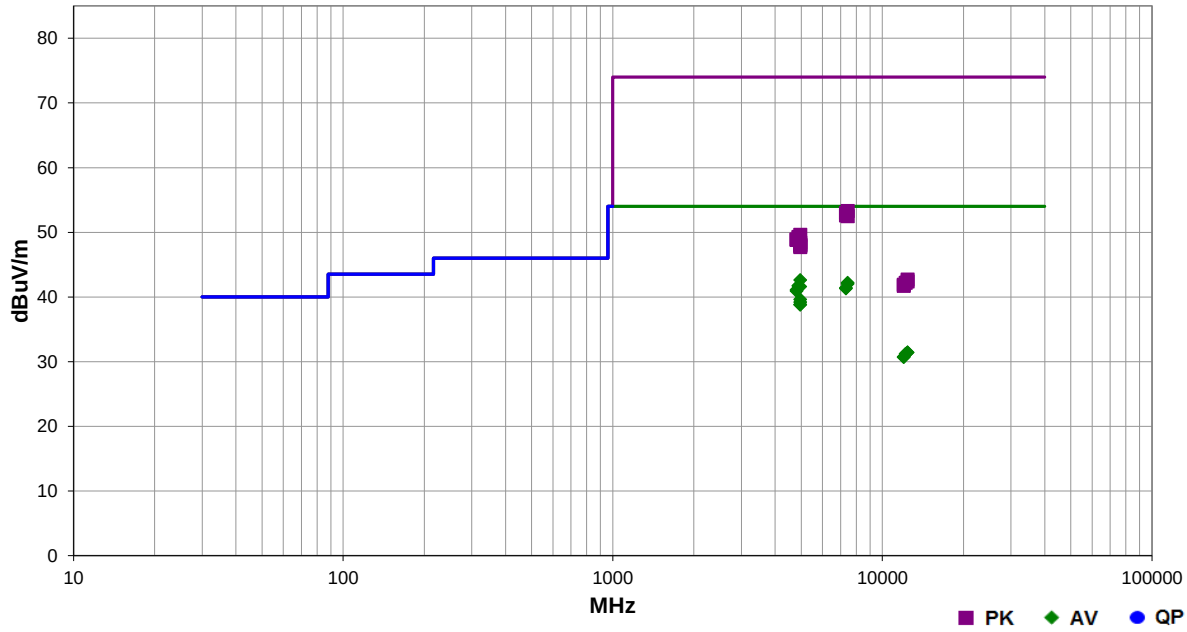
SPURIOUS RADIATED EMISSIONS

EmiR5 2018.09.26 PSA-ESCI 2019.02.26

Work Order:	TMEC0007	**Date:**	15-May-2019		
Project:	None	**Temperature:**	20.6 °C		
Job Site:	EV01	**Humidity:**	45.3% RH		
Serial Number:	None	**Barometric Pres.:**	1010 mbar	**Tested by:**	Jeff Alcoke
EUT:	AirGlu				
Configuration:	4				
Customer:	Timecode Systems Limited				
Attendees:	None				
EUT Power:	Battery				
Operating Mode:	BTLE Continuous Tx, PA Level = 50, Low Ch. 2402 MHz, Mid Ch. = 2442 MHz, High Ch. = 2480 MHz.				
Deviations:	None				
Comments:	See comments below for Channel, and EUT orientation.				

Test Specifications	**Test Method**
FCC 15.247:2019	ANSI C63.10:2013

Run #	14	**Test Distance (m)**	3	**Antenna Height(s)**	1 to 4(m)	**Results**	Pass



Freq (MHz)	Amplitude (dBuV)	Factor (dB)	Antenna Height (meters)	Azimuth (degrees)	Test Distance (meters)	External Attenuation (dB)	Polarity/ Transducer Type	Detector	Distance Adjustment (dB)	Adjusted (dBuV/m)	Spec. Limit (dBuV/m)	Compared to Spec. (dB)	Comments
4959.850	37.0	5.6	1.0	143.0	3.0	0.0	Vert	AV	0.0	42.6	54.0	-11.4	High Ch, EUT Horz
7439.570	28.0	14.2	1.0	9.0	3.0	0.0	Vert	AV	0.0	42.2	54.0	-11.8	High Ch, EUT Horz
7438.875	27.8	14.2	1.0	21.0	3.0	0.0	Horz	AV	0.0	42.0	54.0	-12.0	High Ch, EUT Horz
4884.065	36.3	5.4	3.1	211.0	3.0	0.0	Horz	AV	0.0	41.7	54.0	-12.3	Mid Ch, EUT on Side
4883.945	36.3	5.4	1.0	148.0	3.0	0.0	Vert	AV	0.0	41.7	54.0	-12.3	Mid Ch, EUT Horz
4960.175	36.0	5.6	2.5	325.0	3.0	0.0	Vert	AV	0.0	41.6	54.0	-12.4	High Ch, EUT Vert
7325.215	28.2	13.2	1.1	174.0	3.0	0.0	Horz	AV	0.0	41.4	54.0	-12.6	Mid Ch, EUT on Side
7325.010	28.1	13.2	1.0	53.0	3.0	0.0	Vert	AV	0.0	41.3	54.0	-12.7	Mid Ch, EUT Horz
4803.880	36.6	4.5	2.5	203.0	3.0	0.0	Horz	AV	0.0	41.1	54.0	-12.9	Low Ch, EUT on Side
4804.235	36.3	4.6	1.0	147.0	3.0	0.0	Vert	AV	0.0	40.9	54.0	-13.1	Low Ch, EUT Horz
4960.010	34.0	5.6	1.0	123.0	3.0	0.0	Vert	AV	0.0	39.6	54.0	-14.4	High Ch, EUT on Side
4960.015	33.6	5.6	1.0	137.0	3.0	0.0	Horz	AV	0.0	39.2	54.0	-14.8	High Ch, EUT on Side
4960.020	33.2	5.6	3.4	184.0	3.0	0.0	Horz	AV	0.0	38.8	54.0	-15.2	High Ch, EUT Vert
4959.885	33.2	5.6	1.0	140.0	3.0	0.0	Horz	AV	0.0	38.8	54.0	-15.2	High Ch, EUT Horz
12399.210	29.4	2.0	1.0	355.0	3.0	0.0	Vert	AV	0.0	31.4	54.0	-22.6	High Ch, EUT Horz
12399.030	29.4	2.0	1.0	124.0	3.0	0.0	Horz	AV	0.0	31.4	54.0	-22.6	High Ch, EUT on Side
12208.620	29.5	1.7	1.0	171.0	3.0	0.0	Horz	AV	0.0	31.2	54.0	-22.8	Mid Ch, EUT on Side
12008.780	29.9	0.8	1.0	322.0	3.0	0.0	Vert	AV	0.0	30.7	54.0	-23.3	Low Ch, EUT Horz

Freq (MHz)	Amplitude (dBuV)	Factor (dB)	Antenna Height (meters)	Azimuth (degrees)	Test Distance (meters)	External Attenuation (dB)	Polarity/ Transducer Type	Detector	Distance Adjustment (dB)	Adjusted (dBuV/m)	Spec. Limit (dBuV/m)	Compared to Spec. (dB)	Comments
12009.360	29.9	0.8	1.0	153.0	3.0	0.0	Horz	AV	0.0	30.7	54.0	-23.3	Low Ch, EUT on Side
7440.610	39.1	14.2	1.0	9.0	3.0	0.0	Vert	PK	0.0	53.3	74.0	-20.7	High Ch, EUT Horz
7326.535	39.8	13.2	1.1	174.0	3.0	0.0	Horz	PK	0.0	53.0	74.0	-21.0	Mid Ch, EUT on Side
7325.080	39.4	13.2	1.0	53.0	3.0	0.0	Vert	PK	0.0	52.6	74.0	-21.4	Mid Ch, EUT Horz
7439.780	38.3	14.2	1.0	21.0	3.0	0.0	Horz	PK	0.0	52.5	74.0	-21.5	High Ch, EUT Horz
4960.375	44.0	5.6	1.0	143.0	3.0	0.0	Vert	PK	0.0	49.6	74.0	-24.4	High Ch, EUT Horz
4884.535	43.9	5.4	3.1	211.0	3.0	0.0	Horz	PK	0.0	49.3	74.0	-24.7	Mid Ch, EUT on Side
4884.620	43.8	5.4	1.0	148.0	3.0	0.0	Vert	PK	0.0	49.2	74.0	-24.8	Mid Ch, EUT Horz
4803.410	44.4	4.5	2.5	203.0	3.0	0.0	Horz	PK	0.0	48.9	74.0	-25.1	Low Ch, EUT on Side
4804.780	44.2	4.6	1.0	147.0	3.0	0.0	Vert	PK	0.0	48.8	74.0	-25.2	Low Ch, EUT Horz
4960.310	42.8	5.6	1.0	123.0	3.0	0.0	Vert	PK	0.0	48.4	74.0	-25.6	High Ch, EUT on Side
4959.745	42.5	5.6	3.4	184.0	3.0	0.0	Horz	PK	0.0	48.1	74.0	-25.9	High Ch, EUT Vert
4959.380	42.4	5.6	2.5	325.0	3.0	0.0	Vert	PK	0.0	48.0	74.0	-26.0	High Ch, EUT Vert
4960.170	42.3	5.6	1.0	137.0	3.0	0.0	Horz	PK	0.0	47.9	74.0	-26.1	High Ch, EUT on Side
4960.800	42.1	5.6	1.0	140.0	3.0	0.0	Horz	PK	0.0	47.7	74.0	-26.3	High Ch, EUT Horz
12399.430	40.7	2.0	2.0	293.0	3.0	0.0	Horz	PK	0.0	42.7	74.0	-31.3	High Ch, EUT Horz
12399.900	40.4	2.0	1.0	124.0	3.0	0.0	Horz	PK	0.0	42.4	74.0	-31.6	High Ch, EUT on Side
12210.660	40.5	1.7	1.0	171.0	3.0	0.0	Horz	PK	0.0	42.2	74.0	-31.8	Mid Ch, EUT on Side
12011.370	41.1	0.8	1.0	322.0	3.0	0.0	Vert	PK	0.0	41.9	74.0	-32.1	Low Ch, EUT Horz
12010.160	40.9	0.8	1.0	153.0	3.0	0.0	Horz	PK	0.0	41.7	74.0	-32.3	Low Ch, EUT on Side

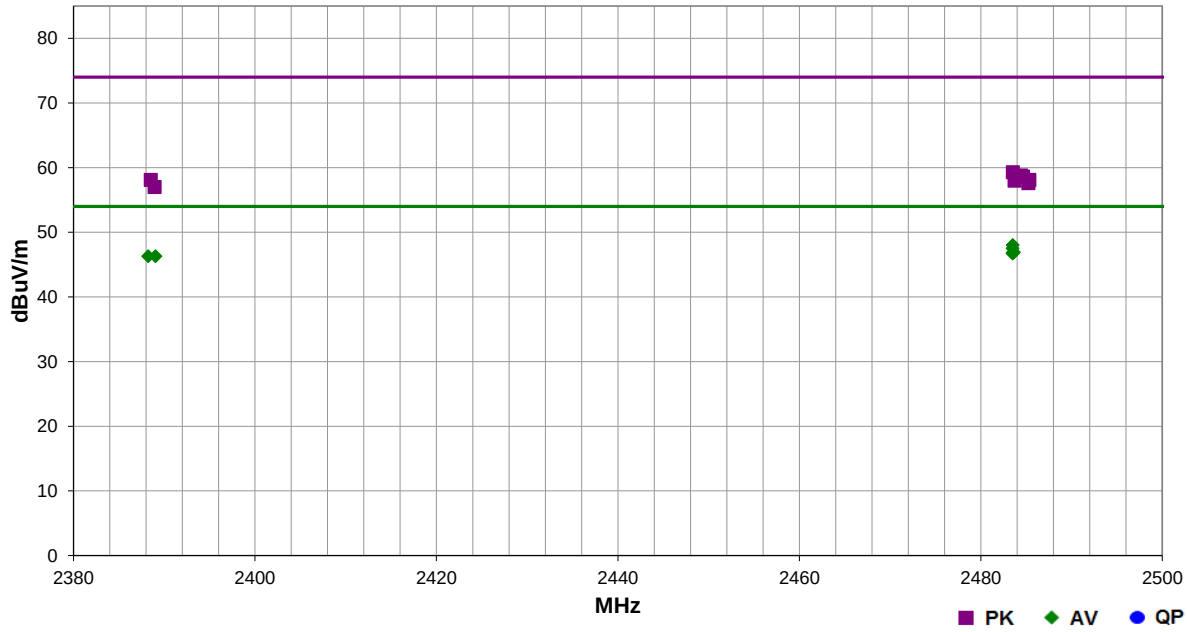
SPURIOUS RADIATED EMISSIONS

EmiR5 2018.09.26 PSA-ESCI 2019.02.26

Work Order:	TMEC0007	**Date:**	15-May-2019		
Project:	None	**Temperature:**	20.6 °C		
Job Site:	EV01	**Humidity:**	45.3% RH		
Serial Number:	None	**Barometric Pres.:**	1010 mbar	**Tested by:**	Jeff Alcoke
EUT:	AirGlu				
Configuration:	4				
Customer:	Timecode Systems Limited				
Attendees:	None				
EUT Power:	Battery				
Operating Mode:	BTLE Continuous Tx, PA Level = 50, Low Ch. 2402 MHz, Mid Ch. = 2442 MHz, High Ch. = 2480 MHz.				
Deviations:	None				
Comments:	See comments below for Channel, and EUT orientation.				

Test Specifications	**Test Method**
FCC 15.247:2019	ANSI C63.10:2013

Run #	15	**Test Distance (m)**	3	**Antenna Height(s)**	1 to 4(m)	**Results**	Pass



Freq (MHz)	Amplitude (dBuV)	Factor (dB)	Antenna Height (meters)	Azimuth (degrees)	Test Distance (meters)	External Attenuation (dB)	Polarity/ Transducer Type	Detector	Distance Adjustment (dB)	Adjusted (dBuV/m)	Spec. Limit (dBuV/m)	Compared to Spec. (dB)	Comments
2483.523	32.9	-4.9	1.0	239.0	3.0	20.0	Vert	AV	0.0	48.0	54.0	-6.0	High Ch, EUT on Side
2483.500	32.4	-4.9	3.8	164.0	3.0	20.0	Horz	AV	0.0	47.5	54.0	-6.5	High Ch, EUT Horz
2483.660	31.8	-4.9	1.0	158.0	3.0	20.0	Horz	AV	0.0	46.9	54.0	-7.1	High Ch, EUT on Side
2483.540	31.7	-4.9	2.2	152.0	3.0	20.0	Horz	AV	0.0	46.8	54.0	-7.2	High Ch, EUT Vert
2483.500	31.7	-4.9	4.0	110.0	3.0	20.0	Vert	AV	0.0	46.8	54.0	-7.2	High Ch, EUT Vert
2483.537	31.6	-4.9	1.0	90.0	3.0	20.0	Vert	AV	0.0	46.7	54.0	-7.3	High Ch, EUT Horz
2389.033	31.4	-5.1	1.0	327.0	3.0	20.0	Vert	AV	0.0	46.3	54.0	-7.7	Low Ch, EUT on Side
2388.237	31.4	-5.1	1.0	295.0	3.0	20.0	Horz	AV	0.0	46.3	54.0	-7.7	Low Ch, EUT Horz
2483.537	44.2	-4.9	1.0	239.0	3.0	20.0	Vert	PK	0.0	59.3	74.0	-14.7	High Ch, EUT on Side
2484.420	43.6	-4.8	3.8	164.0	3.0	20.0	Horz	PK	0.0	58.8	74.0	-15.2	High Ch, EUT Horz
2484.650	43.4	-4.8	4.0	110.0	3.0	20.0	Vert	PK	0.0	58.6	74.0	-15.4	High Ch, EUT Vert
2485.350	42.9	-4.8	1.0	158.0	3.0	20.0	Horz	PK	0.0	58.1	74.0	-15.9	High Ch, EUT on Side
2388.500	43.2	-5.1	1.0	327.0	3.0	20.0	Vert	PK	0.0	58.1	74.0	-15.9	Low Ch, EUT on Side
2483.717	42.9	-4.9	1.0	90.0	3.0	20.0	Vert	PK	0.0	58.0	74.0	-16.0	High Ch, EUT Horz
2485.247	42.4	-4.8	2.2	152.0	3.0	20.0	Horz	PK	0.0	57.6	74.0	-16.4	High Ch, EUT Vert
2388.933	42.1	-5.1	1.0	295.0	3.0	20.0	Horz	PK	0.0	57.0	74.0	-17.0	Low Ch, EUT Horz