

Loud-Hailer, Inc.
700 Enterprise Drive Kingston New York United States 12401

Federal Communications Commission
Authorization and Evaluation Division
Equipment Authorization Branch
7435 Oakland Mills Road
Columbia, MD 21046

Date: 2018-12-22

Applicant's declaration concerning RF Radiation Exposure

We hereby indicate that the product
Product description: BUKI-BOX
Model No: LHBB1

The equipment complies with FCC RF radiation exposure limits set forth for an uncontrolled environment. The integral antennas used for this transmitter must not be co-located or operating in conjunction with any other antenna or transmitter within the host device.

A safety statement concerning minimum separation distances from enclosure of the Product: BUKI-BOX will be integrated in the user's manual to provide end-users with transmitter operating conditions for satisfying RF exposure compliance.

The appropriate information can be drawn from the test report no: W6M21812-18667-C-1, W6M21812-18667-C-7 and the accompanying calculations.

Company: Loud-Hailer, Inc.

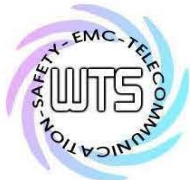
Address: 700 Enterprise Drive Kingston New York United States 12401

Date: 2018-12-22

Sincerely,



Name: Jack Chen
Title: CEO



Registration number: W6M21812-18667-C-1

FCC ID: 2AR2H-LHBB1

3.2 Equivalent isotropic radiated power

FCC Rule: 15.247(b)(3)

Test exclusion = max. conducted output power

Test exclusion = 15.83 dBm

3.3 RF Exposure Compliance Requirements

FCC OET Bulletin 65 Edition 97.01 determines the equations for predicting RF fields and applicable limits.

The prediction for power density in the far-field but will over-predict power density in the near field, where it could be used for walking a “worst case” or conservative prediction.

$$S = \frac{PG}{4\pi R^2}$$

S – Power Density

P – Output power ERP

R – Distance

D – Cable Loss

AG – Antenna Gain

Item	Unit	Value	Remarks
P	mW	38.2825	Peak value
D	dB		
AG	dBi	3.60	
G		2.2909	Calculated Value
R	cm	20	Assumed value
S	mW/cm ²	0.0174	Calculated value

Limits:

Limit for General Population / Uncontrolled Exposure	
Frequency (MHz)	Power Density (mW/cm ²)
1500 – 100.000	1.0



Worldwide Testing Services(Taiwan) Co., Ltd.

Registration number: W6M21812-18667-C-7
FCC ID:2AR2H-LHBB1

3.9 Equivalent isotropic radiated power, FCC 15.407 (f)

FCC Rule: 15.407(b)(3)

For systems using digital modulation in the 5.150 GHz-5.250 GHz and 5.725 GHz-5.850GHz bands: 1 Watt.

The conducted output power limit specified in paragraph (b) of this section is based on the use of antennas with directional gains that do not exceed 6dBi. Except as shown in paragraph (c) of this section, if transmitting antennas of directional gain greater than 6 dBi are used, the conducted output power from the intentional radiator shall be reduced below the stated values in paragraphs (b)(1), (b)(2), and (b)(3) of this section, as appropriate, by the amount in dB that the directional gain of the antenna exceeds 6 dBi.

Test equipment used: ETSTW-RE 055

3.10 RF Exposure Compliance Requirements

Systems operating under the provisions of this section shall be operated in a manner that ensures that the public is not exposed to radio frequency energy levels in excess limit for maximum permissible exposure. In accordance with 47 CFR FCC Part 2 Subpart J, section 2.1091 this device has been defined as a mobile device whereby a distance of 0.25 m normally can be maintained between the user and the device.

FCC OET Bulletin 65 Edition 97.01 determines the equations for predicting RF fields and applicable limits.

The prediction for power density in the far-field but will over-predict power density in the near field, where it could be used for walking a “worst case” or conservative prediction.

$$S = \frac{PG}{4\pi R^2}$$

S – Power Density
P – Output power ERP
R – Distance
D – Cable Loss
AG – Antenna Gain

Band 1

Item	Unit	Value	Remarks
P	mW	63.24	Peak value
D	dB		
AG	dBi	4.9	
G		3.09	Calculated Value
R	cm	20	Assumed value
S	mW/cm2	0.0389	Calculated value

Band 4

Item	Unit	Value	Remarks
P	mW	41.50	Peak value
D	dB		
AG	dBi	4.9	
G		3.09	Calculated Value
R	cm	20	Assumed value
S	mW/cm2	0.0255	Calculated value