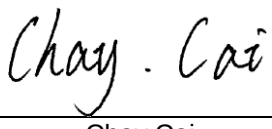
FCC RF EXPOSURE REPORT

FCC ID: 2AJYB-S1832AE

Project No.	:	2404C068
Equipment	:	Network Audio Streaming Module
Brand Name	:	StreamUnlimited
Test Model	:	Stream1832AE
Series Model	:	N/A
Applicant	:	StreamUnlimited Engineering GmbH
Address	:	StreamUnlimited Engineering GmbH, Gutheil Schoder Gasse 10, Vienna 1100, Austria
Manufacturer	:	StreamUnlimited Engineering GmbH
Address	:	StreamUnlimited Engineering GmbH, Gutheil Schoder Gasse 10, Vienna 1100, Austria
Factory	:	StreamUnlimited Engineering GmbH
Address	:	StreamUnlimited Engineering GmbH, Gutheil Schoder Gasse 10, Vienna 1100, Austria
Date of Receipt	:	Apr. 09, 2024
Date of Test	:	Apr. 10, 2024 ~ May 30, 2024
Issued Date	:	Jun. 25, 2024
Report Version	:	R01
Test Sample	:	Engineering Sample No.: DG20240409194
Standard(s)	:	FCC Guidelines for Human Exposure IEEE C95.1 & FCC Part 2.1091 FCC Title 47 Part 2.1091 & KDB 447498 D01 v06

The above equipment has been tested and found compliance with the requirement of the relative standards by BTL Inc.

Prepared by : 
Antony Liang

Approved by : 
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REPORT ISSUED HISTORY

Report No.	Version	Description	Issued Date	Note
BTL-FCCP-6-2404C068	R00	Original Report.	Jun. 17, 2024	Invalid
BTL-FCCP-6-2404C068	R01	Updated the antenna information.	Jun. 25, 2024	Valid

1. MPE CALCULATION METHOD

Calculation Method of RF Safety Distance:

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

where:
S = power density
P = power input to the antenna
G = power gain of the antenna in the direction of interest relative to an isotropic radiator
R = distance to the center of radiation of the antenna

2. ANTENNA SPECIFICATION

Group 1:

For BT/LE:

Ant.	Brand	Model Name	Antenna Type	Connector	Gain (dBi)
1		N/A	FPC	MHF4	3

Note: The antenna gain is provided by the manufacturer.

For 2.4G:

Ant.	Brand	Model Name	Antenna Type	Connector	Gain (dBi)
1		N/A	FPC	MHF4	3
2		N/A	FPC	MHF4	3

Note:
(1) There are two antennas but only one antenna works at a time.
(2) The antenna gain is provided by the manufacturer.

For 5G:

Ant.	Brand	Model Name	Antenna Type	Connector	Gain (dBi)
1		N/A	FPC	MHF4	4
2		N/A	FPC	MHF4	4

Note:
(1) There are two antennas but only one antenna works at a time.
(2) The antenna gain is provided by the manufacturer.

Group 2:

For BT/LE:

Ant.	Brand	Model Name	Antenna Type	Connector	Gain (dBi)
1	2J antenna conceptor	2JF0102	FPC	Most RF Connectors	2.2

Note: The antenna gain is provided by the manufacturer.

For 2.4GHz:

Ant.	Brand	Model Name	Antenna Type	Connector	Gain (dBi)
1	2J antenna conceptor	2JF0102	FPC	Most RF Connectors	2.2
2	2J antenna conceptor	2JF0102	FPC	Most RF Connectors	2.2

Note:
(1) There are two antennas but only one antenna works at a time.
(2) The antenna gain is provided by the manufacturer.

For 5GHz:

Ant.	Brand	Model Name	Antenna Type	Connector	Gain (dBi)
1	2J antenna conceptor	2JF0102	FPC	Most RF Connectors	3.8
2	2J antenna conceptor	2JF0102	FPC	Most RF Connectors	3.8

Note:
(1) There are two antennas but only one antenna works at a time.
(2) The antenna gain is provided by the manufacturer.

3. CALCULATED RESULT

For BT:

Antenna Gain (dBi)	Antenna Gain (numeric)	Max. Peak Output Power (dBm)	Max. Peak Output Power (mW)	Power Density (S) (mW/cm^2)	Limit of Power Density (S) (mW/cm^2)	Test Result
3	1.9953	6.26	4.2267	0.00168	1	Complies

For LE:

Antenna Gain (dBi)	Antenna Gain (numeric)	Max. Peak Output Power (dBm)	Max. Peak Output Power (mW)	Power Density (S) (mW/cm^2)	Limit of Power Density (S) (mW/cm^2)	Test Result
3	1.9953	6.11	4.0832	0.00162	1	Complies

For 2.4GHz:

Antenna Gain (dBi)	Antenna Gain (numeric)	Max. Output Power (dBm)	Max. Output Power (mW)	Power Density (S) (mW/cm^2)	Limit of Power Density (S) (mW/cm^2)	Test Result
3	1.9953	15.44	34.9945	0.01390	1	Complies

For 5GHz:

Antenna Gain (dBi)	Antenna Gain (numeric)	Max. Output Power (dBm)	Max. Output Power (mW)	Power Density (S) (mW/cm^2)	Limit of Power Density (S) (mW/cm^2)	Test Result
4	2.5119	15.93	39.1742	0.01959	1	Complies

For the max simultaneous transmission MPE:

Ratio		Total	Limit of Ratio	Test Result
BT	5GHz			
0.00168	0.01959	0.02127	1	Complies

Note: The calculated distance is 20 cm.

End of Test Report