

FCC RF EXPOSURE REPORT

FCC ID: ZQ6-AP6684S

Project No. : 2606C057
Equipment : WiFi/BT module
Brand Name : AMPAK
Test Model : AP6684S
Model Name : AP6684S, Stream1977
Hardware Version : V00
Software Version_ :
For WIFI : Version 27.20.80
Software Version_ :
For BT&LE : 1017.1005
Applicant : AMPAK Technology Inc.
Address : 6F-2, No.23, Huanke 1st Rd., Zhubei City, Taiwan
Manufacturer : AMPAK Technology Inc.
Address : 6F-2, No.23, Huanke 1st Rd., Zhubei City, Taiwan
Factory : Gemtek Technology Co., Ltd.
Address : No.15-1, Zhonghua Rd., Hsinchu Industrial Park, Hukou, Hsinchu
 303035, Taiwan, R.O.C.
Date of Receipt : Jun. 05, 2026
Date of Test : Jun. 05, 2026 ~ Sep. 08, 2026
Issued Date : Sep. 29, 2026
Test Sample : Engineering Sample No.: DG920260604286
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. (Dongguan)

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Declaration

BTL represents to the client that testing is done in accordance with standard procedures as applicable and that test instruments used has been calibrated with standards traceable to international standard(s) and/or national standard(s).

BTL's reports apply only to the specific samples tested under conditions. It is manufacturer's responsibility to ensure that additional production units of this model are manufactured with the identical electrical and mechanical components. BTL assumes no responsibility for the data provided by the customer, any statements, inferences or generalizations drawn by the customer or others from the reports issued by BTL.

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The information, data and test plan are provided by manufacturer which may affect the validity of results, so it is manufacturer's responsibility to ensure that the apparatus meets the essential requirements of applied standards and in all the possible configurations as representative of its intended use.

Limitation

For the use of the authority's logo is limited unless the Test Standard(s)/Scope(s)/Item(s) mentioned in this test report is (are) included in the conformity assessment authorities acceptance respective.

Please note that the measurement uncertainty is provided for informational purpose only and are not use in determining the Pass/Fail results.

REVISION HISTORY

Report No.	Version	Description	Issued Date	Note
BTL-FCCP-7-2606C057	R00	Original Report.	Sep. 29, 2026	Valid

1. MPE CALCULATION METHOD

Calculation Method of RF Safety Distance:

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

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

For BT & LE

Ant.	Brand	Model Name	Antenna Type	Connector	Gain (dBi)
1	 StreamUnlimited Connectivity for Things	N/A	Dipole/Monopole	MHF4	3

Note: The antenna gain is provided by the manufacturer.

For WLAN 2.4GHz:

Ant.	Brand	Model Name	Antenna Type	Connector	Gain (dBi)
1	 StreamUnlimited Connectivity for Things	N/A	Dipole/Monopole	MHF4	3
2	 StreamUnlimited Connectivity for Things	N/A	Dipole/Monopole	MHF4	3

Note:

- 1) This EUT supports CDD, and all antennas have the same gain, Directional gain = $G_{ANT} + \text{Array Gain}$. For power measurements, Array Gain=0dB ($N_{ANT} \leq 4$), so the Directional gain=3.
- 2) The antenna gain is provided by the manufacturer.

For RLAN 5GHz:

Ant.	Brand	Model Name	Antenna Type	Connector	Gain (dBi)
1	 StreamUnlimited Connectivity for Things	N/A	Dipole/Monopole	MHF4	4
2	 StreamUnlimited Connectivity for Things	N/A	Dipole/Monopole	MHF4	4

Note:

- 1) This EUT supports CDD, and all antennas have the same gain, Directional gain = $G_{ANT} + \text{Array Gain}$. For power measurements, Array Gain=0dB ($N_{ANT} \leq 4$), so the Directional gain=4.
- 2) The antenna gain is provided by the manufacturer.

For WLAN 6GHz:

Ant.	Brand	Model Name	Antenna Type	Connector	Gain (dBi)
1		N/A	Dipole/Monopole	MHF4	5.5
2		N/A	Dipole/Monopole	MHF4	5.5

Note:

- 1) This EUT supports CDD, and all antennas have the same gain, Directional gain = $G_{ANT} + \text{Array Gain}$.
For power measurements, Array Gain=0dB ($N_{ANT} \leq 4$), so the Directional gain=5.5.
- 2) The antenna gain is provided by the manufacturer.

3. CALCULATED RESULT

For BT:

Directional 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
3.00	1.9953	8.87	7.7090	0.0031	1	Complies

For LE:

Directional 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
3.00	1.9953	6.43	4.3954	0.0017	1	Complies

For 2.4GHz:

Directional 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
3.00	1.9953	21.49	140.9289	0.0559	1	Complies

For 5GHz:

Directional 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
4.00	2.5119	22.64	183.6538	0.0918	1	Complies

For 6GHz:

Max. e.i.r.p. (dBm)	Max. e.i.r.p. (mW)	Power Density (S) (mW/cm ²)	Limit of Power Density (S) (mW/cm ²)	Test Result
14.23	26.4850	0.0053	1	Complies

For the max simultaneous transmission MPE:

Ratio		Total	Limit of Ratio	Test Result
BT	5GHz			
0.0031	0.0918	0.0949	1	Complies

Note:

- (1) The calculated distance is 20 cm.
- (2) $\text{Ratio} = \text{Power Density (S)} (\text{mW}/\text{cm}^2) / \text{Limit of Power Density (S)} (\text{mW}/\text{cm}^2)$
- (3) Output power including tune up tolerance.

End of Test Report