FCC RF EXPOSURE REPORT

FCC ID: ZZ2-AMC503

Report No.	:	BTL-FCCP-4-2412C115
Equipment	:	Dual-Lens 4K (8MP) Outdoor Security WiFi Camera
Model Name	:	IP8M-DLB2998W-AI, IP8M-DLB2998W, AMC503
Brand Name	:	N/A
Applicant	:	Amcrest Technologies LLC
Address	:	16727 Park Row Dr, Houston, Texas 77084, United States of America
Manufacturer	:	Amcrest Industries LLC.
Address	:	16727 Park Row Dr, Houston, Texas 77084, United States of America
Radio Function	:	WLAN 2.4GHz, WLAN 5GHz (UNII-1, UNII-2A, UNII-2C, UNII-3)
FCC Rule Part(s)	:	FCC Guidelines for Human Exposure IEEE C95.1 & FCC Part 2.1091 FCC Title 47 Part 2.1091 & KDB 447498 D01 v06
Date of Receipt	:	2025/3/19
Date of Test	:	2025/4/18 ~ 2025/5/12
Issued Date	:	2025/7/16

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

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BTL Inc.

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REPORT ISSUED HISTORY

Report No.	Version	Description	Issued Date	Note
BTL-FCCP-4-2412C115	R00	Original Report.	2025/7/16	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

For 2.4GHz:

Ant.	Brand	Model Name	Antenna Type	Connector	Gain (dBi)
1	INNOWAVE	F066A3913980004	PCB	N/A	-2.44
2	INNOWAVE	F066A3913980005	PCB	N/A	-1.0

Note:
This EUT supports CDD, and all antenna gains are not equal, Directional gain = G_{ANT}+Array Gain.
For power measurements, Array Gain=0dB (N_{ANT}≤4), so the Directional gain=-1.0.
For power spectral density measurements, N_{ANT}=2, N_{SS} = 1.
So the Directional gain=G_{ANT}+Array Gain=G_{ANT}+10log(N_{ANT}/ N_{SS})dBi=-1.0+10log(2/1)dBi=2.01.

For 5GHz:

Ant.	Brand	Model Name	Antenna Type	Connector	Gain (dBi)
1	INNOWAVE	F066A3913980004	PCB	N/A	1.70
2	INNOWAVE	F066A3913980005	PCB	N/A	2.31

Note:
This EUT supports CDD, and all antenna gains are not equal, Directional gain = G_{ANT}+Array Gain.
For power measurements, Array Gain=0dB (N_{ANT}≤4), so the Directional gain=2.31.
For power spectral density measurements, N_{ANT}=2, N_{SS} = 1.
So the Directional gain=G_{ANT}+Array Gain=G_{ANT}+10log(N_{ANT}/ N_{SS})dBi=2.31+10log(2/1)dBi=5.32.

The above Antenna information are derived from the antenna data sheet provided by manufacturer and for more detailed features description, please refer to the manufacturer's specifications, the laboratory shall not be held responsible.

3. CALCULATED RESULT

For 2.4GHz:

Directional Gain (dBi)	Directional 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
-1.0	0.7943	18.92	77.9830	0.0123	1	Complies

For 5GHz:

Directional Gain (dBi)	Directional 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
2.31	1.7022	16.91	49.0908	0.0166	1	Complies

or the max simultaneous transmission MPE:

Ratio		Total	Limit of Ratio	Test Result
2.4GHz	5GHz			
0.0123	0.0166	0.0289	1	Complies

Note:
(1) The calculated distance is 20 cm.
(2) Ratio=Power Density (S) (mW/cm^2)/Limit of Power Density (S) (mW/cm^2)

End of Test Report