



**Neutron Engineering Inc.**

# **FCC RF EXPOSURE REPORT**

## **FCC ID: N89-WU322HS**

**Project No. : 1310C077**  
**Equipment : WLAN Module**  
**Model : T77H479.00**  
**Applicant : CyberTAN Technology Inc.**  
**Address : No. 99, Park Avenue III, Science-based  
Industrial Park, Hsinchu, Taiwan**

**According: : FCC Guidelines for Human Exposure IEEE C95.1**

***Neutron Engineering Inc.***

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## 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

Table for Field Antenna:

Ant.	Brand	Model Name	Antenna Type	Connector	Gain (dBi)	Note
0	Foxconn	425.00179.015	Integral	N/A	1.7	TX/RX
1	Foxconn	425.00178.015	Integral	N/A	1.7	TX/RX

Note:

(1) The EUT incorporates a MIMO function. Physically, the EUT provides two completed transmitters and two receivers (2T2R).



**TEST RESULTS**

EUT:	WLAN Module	Model Name	T77H479.00
Temperature:	25 °C	Relative Humidity:	58 %
Pressure:	1016 hPa	Test Voltage :	AC 120V/60Hz
Test Mode :	Band 1/TX A Mode/CH36, CH40, CH48		

Antenna Gain (dBi)	Antenna Gain (numeric)	Peak Output Power (dBm)	Peak Output Power (mW)	Power Density (S) (mW/cm <sup>2</sup> )	Limit of Power Density (S) (mW/cm <sup>2</sup> )	Test Result
1.7	1.4791	15.14	32.6588	0.00961502	1	Complies
1.7	1.4791	15.18	32.9610	0.00970399	1	Complies
1.7	1.4791	15.17	32.8852	0.00968167	1	Complies

EUT:	WLAN Module	Model Name	T77H479.00
Temperature:	25 °C	Relative Humidity:	58 %
Pressure:	1016 hPa	Test Voltage :	AC 120V/60Hz
Test Mode :	Band 1/TX N20 Mode/CH36, CH40, CH48		

Antenna Gain (dBi)	Antenna Gain (numeric)	Peak Output Power (dBm)	Peak Output Power (mW)	Power Density (S) (mW/cm <sup>2</sup> )	Limit of Power Density (S) (mW/cm <sup>2</sup> )	Test Result
1.7	1.4791	15.77	37.7572	0.01111605	1	Complies
1.7	1.4791	15.92	39.0841	0.01150669	1	Complies
1.7	1.4791	15.84	38.3707	0.01129667	1	Complies

EUT:	WLAN Module	Model Name	T77H479.00
Temperature:	25 °C	Relative Humidity:	58 %
Pressure:	1016 hPa	Test Voltage :	AC 120V/60Hz
Test Mode :	Band 1/TX N40 Mode/CH38, CH46		

Antenna Gain (dBi)	Antenna Gain (numeric)	Peak Output Power (dBm)	Peak Output Power (mW)	Power Density (S) (mW/cm <sup>2</sup> )	Limit of Power Density (S) (mW/cm <sup>2</sup> )	Test Result
1.7	1.4791	15.42	34.8337	0.01025535	1	Complies
1.7	1.4791	15.65	36.7282	0.01081310	1	Complies



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EUT:	WLAN Module	Model Name	T77H479.00
Temperature:	25 °C	Relative Humidity:	58 %
Pressure:	1016 hPa	Test Voltage :	AC 120V/60Hz
Test Mode :	Band 2/TX A Mode/CH52, CH56, CH64		

Antenna Gain (dBi)	Antenna Gain (numeric)	Peak Output Power (dBm)	Peak Output Power (mW)	Power Density (S) (mW/cm <sup>2</sup> )	Limit of Power Density (S) (mW/cm <sup>2</sup> )	Test Result
1.7	1.4791	15.27	33.6512	0.00990719	1	Complies
1.7	1.4791	15.28	33.7287	0.00993003	1	Complies
1.7	1.4791	15.27	33.6512	0.00990719	1	Complies

EUT:	WLAN Module	Model Name	T77H479.00
Temperature:	25 °C	Relative Humidity:	58 %
Pressure:	1016 hPa	Test Voltage :	AC 120V/60Hz
Test Mode :	Band 2/TX N20 Mode/CH52, CH56, CH64		

Antenna Gain (dBi)	Antenna Gain (numeric)	Peak Output Power (dBm)	Peak Output Power (mW)	Power Density (S) (mW/cm <sup>2</sup> )	Limit of Power Density (S) (mW/cm <sup>2</sup> )	Test Result
1.7	1.4791	15.69	37.0681	0.01091316	1	Complies
1.7	1.4791	15.74	37.4973	0.01103952	1	Complies
1.7	1.4791	15.77	37.7572	0.01111605	1	Complies

EUT:	WLAN Module	Model Name	T77H479.00
Temperature:	25 °C	Relative Humidity:	58 %
Pressure:	1016 hPa	Test Voltage :	AC 120V/60Hz
Test Mode :	Band 2/TX N40 Mode/CH54, CH62		

Antenna Gain (dBi)	Antenna Gain (numeric)	Peak Output Power (dBm)	Peak Output Power (mW)	Power Density (S) (mW/cm <sup>2</sup> )	Limit of Power Density (S) (mW/cm <sup>2</sup> )	Test Result
1.7	1.4791	15.57	36.0579	0.01061574	1	Complies
1.7	1.4791	15.45	35.0752	0.01032643	1	Complies



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EUT:	WLAN Module	Model Name	T77H479.00
Temperature:	25 °C	Relative Humidity:	58 %
Pressure:	1016 hPa	Test Voltage :	AC 120V/60Hz
Test Mode :	Band 3/TX A Mode/CH100, CH116, CH140		

Antenna Gain (dBi)	Antenna Gain (numeric)	Peak Output Power (dBm)	Peak Output Power (mW)	Power Density (S) (mW/cm <sup>2</sup> )	Limit of Power Density (S) (mW/cm <sup>2</sup> )	Test Result
1.7	1.4791	15.29	33.8065	0.00995292	1	Complies
1.7	1.4791	15.26	33.5738	0.00988440	1	Complies
1.7	1.4791	15.24	33.4195	0.00983899	1	Complies

EUT:	WLAN Module	Model Name	T77H479.00
Temperature:	25 °C	Relative Humidity:	58 %
Pressure:	1016 hPa	Test Voltage :	AC 120V/60Hz
Test Mode :	Band 3/TX N20 Mode/CH100, CH116, CH140		

Antenna Gain (dBi)	Antenna Gain (numeric)	Peak Output Power (dBm)	Peak Output Power (mW)	Power Density (S) (mW/cm <sup>2</sup> )	Limit of Power Density (S) (mW/cm <sup>2</sup> )	Test Result
1.7	1.4791	15.79	37.9315	0.01116736	1	Complies
1.7	1.4791	15.77	37.7572	0.01111605	1	Complies
1.7	1.4791	15.81	38.1066	0.01121890	1	Complies

EUT:	WLAN Module	Model Name	T77H479.00
Temperature:	25 °C	Relative Humidity:	58 %
Pressure:	1016 hPa	Test Voltage :	AC 120V/60Hz
Test Mode :	Band 3/TX N40 Mode/CH102, CH110, CH134		

Antenna Gain (dBi)	Antenna Gain (numeric)	Peak Output Power (dBm)	Peak Output Power (mW)	Power Density (S) (mW/cm <sup>2</sup> )	Limit of Power Density (S) (mW/cm <sup>2</sup> )	Test Result
1.7	1.4791	15.69	37.0681	0.01091316	1	Complies
1.7	1.4791	15.71	37.2392	0.01096353	1	Complies
1.7	1.4791	15.64	36.6438	0.01078823	1	Complies



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EUT:	WLAN Module	Model Name	T77H479.00
Temperature:	25 °C	Relative Humidity:	58 %
Pressure:	1016 hPa	Test Voltage :	AC 120V/60Hz
Test Mode :	Band 4/TX A Mode /CH149, CH157, CH165		

Antenna Gain (dBi)	Antenna Gain (numeric)	Peak Output Power (dBm)	Peak Output Power (mW)	Power Density (S) (mW/cm <sup>2</sup> )	Limit of Power Density (S) (mW/cm <sup>2</sup> )	Test Result
1.7	1.4791	23.25	211.3489	0.06222292	1	Complies
1.7	1.4791	23.60	229.0868	0.06744509	1	Complies
1.7	1.4791	23.54	225.9436	0.06651971	1	Complies

EUT:	WLAN Module	Model Name	T77H479.00
Temperature:	25 °C	Relative Humidity:	58 %
Pressure:	1016 hPa	Test Voltage :	AC 120V/60Hz
Test Mode :	Band 4/TX N20 Mode /CH149, CH157, CH165		

Antenna Gain (dBi)	Antenna Gain (numeric)	Peak Output Power (dBm)	Peak Output Power (mW)	Power Density (S) (mW/cm <sup>2</sup> )	Limit of Power Density (S) (mW/cm <sup>2</sup> )	Test Result
1.7	1.4791	25.43	349.1403	0.10278988	1	Complies
1.7	1.4791	25.00	316.2278	0.09310015	1	Complies
1.7	1.4791	24.88	307.6097	0.09056291	1	Complies

EUT:	WLAN Module	Model Name	T77H479.00
Temperature:	25 °C	Relative Humidity:	58 %
Pressure:	1016 hPa	Test Voltage :	AC 120V/60Hz
Test Mode :	Band 4/ TX N40 Mode /CH151, CH159		

Antenna Gain (dBi)	Antenna Gain (numeric)	Peak Output Power (dBm)	Peak Output Power (mW)	Power Density (S) (mW/cm <sup>2</sup> )	Limit of Power Density (S) (mW/cm <sup>2</sup> )	Test Result
1.7	1.4791	24.57	286.4178	0.08432384	1	Complies
1.7	1.4791	24.69	294.4422	0.08668628	1	Complies

Note: the calculation distance is 20 cm.