



**Neutron Engineering Inc.**

# **FCC RF EXPOSURE REPORT**

**FCC ID: ZVA03**

**Project No. : 1311C046**  
**Equipment : WIFI Module**  
**Model : WF78RL1500C**  
**Applicant : TCL TECHNOLY ELECTRONICS (HUIZHOU)  
CO., LTD**  
**Address : Section 37, Zhongkai High-tech Development  
Zone, Huizhou City, Guang Dong Province, China,  
516006.**

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



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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

| ANT | Brand name | Model Name | Antenna Type | Connector | Gain (dBi) |
|-----|------------|------------|--------------|-----------|------------|
| 1   | N/A        | N/A        | Printed      | N/A       | -1.65      |



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## TEST RESULTS

|               |                             |                     |              |
|---------------|-----------------------------|---------------------|--------------|
| EUT :         | WIFI Module                 | Model Name :        | WF78RL1500C  |
| Temperature : | 24 °C                       | Relative Humidity : | 60 °C        |
| Pressure :    | 1016 hPa                    | Test Voltage :      | AC 120V/60Hz |
| Test Mode :   | TX B MODE /CH01, CH06, CH11 |                     |              |

| 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 |
|--------------------|------------------------|-------------------------|------------------------|---|--|-------------|
| -1.65              | 0.6839                 | 21.05                   | 127.3503               | 0.01733606                              | 1  | Complies    |
| -1.65              | 0.6839                 | 20.90                   | 123.0269               | 0.01674751                              | 1  | Complies    |
| -1.65              | 0.6839                 | 20.70                   | 117.4898               | 0.01599375                              | 1  | Complies    |

|               |                             |                     |              |
|---------------|-----------------------------|---------------------|--------------|
| EUT :         | WIFI Module                 | Model Name :        | WF78RL1500C  |
| Temperature : | 24 °C                       | Relative Humidity : | 60 °C        |
| Pressure :    | 1016 hPa                    | Test Voltage :      | AC 120V/60Hz |
| Test Mode :   | TX G MODE /CH01, CH06, CH11 |                     |              |

| 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 |
|--------------------|------------------------|-------------------------|------------------------|---|--|-------------|
| -1.65              | 0.6839                 | 24.32                   | 270.3958               | 0.03680869                              | 1  | Complies    |
| -1.65              | 0.6839                 | 24.40                   | 275.4229               | 0.03749302                              | 1  | Complies    |
| -1.65              | 0.6839                 | 24.28                   | 267.9168               | 0.03647123                              | 1  | Complies    |

|               |                                 |                     |              |
|---------------|---------------------------------|---------------------|--------------|
| EUT :         | WIFI Module                     | Model Name :        | WF78RL1500C  |
| Temperature : | 24 °C                           | Relative Humidity : | 60 °C        |
| Pressure :    | 1016 hPa                        | Test Voltage :      | AC 120V/60Hz |
| Test Mode :   | TX N-20M MODE /CH01, CH06, CH11 |                     |              |

| 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 |
|--------------------|------------------------|-------------------------|------------------------|---|--|-------------|
| -1.65              | 0.6839                 | 23.49                   | 223.3572               | 0.03040538                              | 1  | Complies    |
| -1.65              | 0.6839                 | 23.41                   | 219.2805               | 0.02985041                              | 1  | Complies    |
| -1.65              | 0.6839                 | 23.32                   | 214.7830               | 0.02923818                              | 1  | Complies    |



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|               |                                 |                     |              |
|---------------|---------------------------------|---------------------|--------------|
| EUT :         | WIFI Module                     | Model Name :        | WF78RL1500C  |
| Temperature : | 24 °C                           | Relative Humidity : | 60 °C        |
| Pressure :    | 1016 hPa                        | Test Voltage :      | AC 120V/60Hz |
| Test Mode :   | TX N-40M MODE /CH03, CH06, CH09 |                     |              |

| 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 |
|--------------------|------------------------|-------------------------|------------------------|---|--|-------------|
| -1.65              | 0.6839                 | 23.46                   | 221.8196               | 0.03019607                              | 1  | Complies    |
| -1.65              | 0.6839                 | 23.38                   | 217.7710               | 0.02964493                              | 1  | Complies    |
| -1.65              | 0.6839                 | 23.30                   | 213.7962               | 0.02910385                              | 1  | Complies    |

Note: the calculation distance is 20cm.