

# **FCC RF EXPOSURE REPORT**

**FCC ID: Q78-HNH108NV25**

**Project No. : 1509C132**  
**Equipment : Home Gateway**  
**Model : ZXHN H108N**  
**Applicant : ZTE Corporation**  
**Address : ZTE Plaza, Hi-Teck Park, Nanshan District,  
Shenzhen, Guangdong, P.R.China**

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

**B T L I N C .**

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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 Filed Antenna

| Ant. | Brand | Model Name | Antenna Type | Connector | Gain(dBi) |
|------|-------|------------|--------------|-----------|-----------|
| 1    | N/A   | N/A        | Internal     | N/A       | 2         |
| 2    | N/A   | N/A        | PIFA         | N/A       | 2         |

## TEST RESULTS

|                |                             |                    |            |
|----------------|-----------------------------|--------------------|------------|
| EUT :          | Home Gateway                | Model Name :       | ZXHN H108N |
| Temperature :  | 25 °C                       | Relative Humidity: | 55 %       |
| 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 |
|--------------------|------------------------|-------------------------|------------------------|-----------------------------------------|--------------------------------------------------|-------------|
| 2                  | 1.5849                 | 18.22                   | 66.3743                | 0.02093873                              | 1                                                | Complies    |
| 2                  | 1.5849                 | 17.21                   | 52.6017                | 0.01659397                              | 1                                                | Complies    |
| 2                  | 1.5849                 | 16.75                   | 47.3151                | 0.01492624                              | 1                                                | Complies    |

|                |                             |                    |            |
|----------------|-----------------------------|--------------------|------------|
| EUT :          | Home Gateway                | Model Name :       | ZXHN H108N |
| Temperature :  | 25 °C                       | Relative Humidity: | 55 %       |
| 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 |
|--------------------|------------------------|-------------------------|------------------------|-----------------------------------------|--------------------------------------------------|-------------|
| 2                  | 1.5849                 | 24.27                   | 267.3006               | 0.08432384                              | 1                                                | Complies    |
| 2                  | 1.5849                 | 21.58                   | 143.8799               | 0.04538897                              | 1                                                | Complies    |
| 2                  | 1.5849                 | 18.76                   | 75.1623                | 0.02371103                              | 1                                                | Complies    |

|                |                                        |                    |            |
|----------------|----------------------------------------|--------------------|------------|
| EUT :          | Home Gateway                           | Model Name :       | ZXHN H108N |
| Temperature:   | 25 °C                                  | Relative Humidity: | 55 %       |
| Test Voltage : | AC 120V/60Hz                           |                    |            |
| Test Mode :    | TX N-20M MODE_ Total /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 |
|--------------------|------------------------|-------------------------|------------------------|-----------------------------------------|--------------------------------------------------|-------------|
| 2                  | 1.5849                 | 25.4                    | 346.7369               | 0.10938314                              | 1                                                | Complies    |
| 2                  | 1.5849                 | 25.34                   | 341.9794               | 0.10788234                              | 1                                                | Complies    |
| 2                  | 1.5849                 | 24.86                   | 306.1963               | 0.09659405                              | 1                                                | Complies    |

|                |                                        |                    |            |
|----------------|----------------------------------------|--------------------|------------|
| EUT :          | Home Gateway                           | Model Name :       | ZXHN H108N |
| Temperature:   | 25 °C                                  | Relative Humidity: | 55 %       |
| Test Voltage : | AC 120V/60Hz                           |                    |            |
| Test Mode :    | TX N-40M MODE_ Total /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 |
|--------------------|------------------------|-------------------------|------------------------|-----------------------------------------|--------------------------------------------------|-------------|
| 2                  | 1.5849                 | 25.48                   | 353.1832               | 0.11141672                              | 1                                                | Complies    |
| 2                  | 1.5849                 | 25.83                   | 382.8247               | 0.12076758                              | 1                                                | Complies    |
| 2                  | 1.5849                 | 24.92                   | 310.4560               | 0.09793781                              | 1                                                | Complies    |

Note: the calculated distance is 20 cm.