



***Neutron Engineering Inc.***

# **FCC RF EXPOSURE REPORT**

**FCC ID: Q78-ZXHNH108NV21**

**Project No.** : 1207C096  
**Equipment** : Home Gateway  
**Model** : ZXHN H108N  
**Trade Name** : ZTE; ZTE Corporation  
**Applicant** : ZTE Corporation  
**Address** : ZTE Plaza, Hi-tech Park, Nanshan District,  
Shenzhen, Guangdong, China

**According:** : **FCC Guidelines for Human Exposure IEEE C92.76**

***Neutron Engineering Inc.***

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**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

Ant.	Brand name	Model Name	Antenna Type	Connector	Gain (dBi)	Gain (numeric)
1	Hong Lin	G026-310069-A	Dipole	N/A	2.76	1.888
2	Hong Lin	G026-310069-A	Dipole	N/A	2.76	1.888

Note:

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

Operating Mode / TX Mode	1TX	2TX
802.11b	V (ANT1 or ANT2)	-
802.11g	V (ANT1 or ANT2)	-
802.11n(20MHz)	-	V (ANT1 & ANT2)
802.11n(40MHz)	-	V (ANT1 & ANT2)



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## TEST RESULTS

EUT:	Home Gateway	Model Name :	ZXHN H108N
Temperature:	25 °C	Relative Humidity:	60 %
Pressure:	1012 hPa	Test Voltage :	AC 120V/60Hz
Test Mode :	TX B MODE /CH01, CH06, CH11-ANT 1		

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
17.68	58.6138	0.02202675	1	Complies
17.66	58.3445	0.02192554	1	Complies
<b>17.53</b>	<b>56.6239</b>	<b>0.02127896</b>	<b>1</b>	<b>Complies</b>

EUT:	Home Gateway	Model Name :	ZXHN H108N
Temperature:	25 °C	Relative Humidity:	60 %
Pressure:	1012 hPa	Test Voltage :	AC 120V/60Hz
Test Mode :	TX G MODE /CH01, CH06, CH11-ANT 1		

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
<b>21.14</b>	<b>130.0170</b>	<b>0.04885965</b>	<b>1</b>	<b>Complies</b>
21.08	128.2331	0.04818927	1	Complies
20.93	123.8797	0.04655329	1	Complies

EUT:	Home Gateway	Model Name :	ZXHN H108N
Temperature:	25 °C	Relative Humidity:	60 %
Pressure:	1012 hPa	Test Voltage :	AC 120V/60Hz
Test Mode :	TX N-20M MODE /CH01, CH06, CH11 - ANT 1		

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
16.04	40.1791	0.01509908	1	Complies
<b>16.54</b>	<b>45.0817</b>	<b>0.01694144</b>	<b>1</b>	<b>Complies</b>
16.45	44.1570	0.01659397	1	Complies



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Temperature:	25 °C	Relative Humidity:	60 %
Pressure:	1012 hPa	Test Voltage :	AC 120V/60Hz
Test Mode :	TX N-20M MODE /CH01, CH06, CH11 - ANT 2		

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
16.15	41.2098	0.01548640	1	Complies
16.28	42.4620	0.01595697	1	Complies
<b>16.39</b>	<b>43.5512</b>	<b>0.01636629</b>	<b>1</b>	<b>Complies</b>

EUT:	Home Gateway	Model Name :	ZXHN H108N
Temperature:	25 °C	Relative Humidity:	60 %
Pressure:	1012 hPa	Test Voltage :	AC 120V/60Hz
Test Mode :	TX N-20M MODE /CH01, CH06, CH11 – ANT0+ ANT 1		

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
19.11	81.4704	0.03061614	1	Complies
19.42	87.4984	0.03288141	1	Complies
<b>19.43</b>	<b>87.7001</b>	<b>0.03295720</b>	<b>1</b>	<b>Complies</b>

EUT:	Home Gateway	Model Name :	ZXHN H108N
Temperature:	25 °C	Relative Humidity:	60 %
Pressure:	1012 hPa	Test Voltage :	AC 120V/60Hz
Test Mode :	TX N-40M MODE /CH03, CH06, CH09 - ANT 1		

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
16.96	49.6592	0.01866166	1	Complies
16.93	49.3174	0.01853320	1	Complies
<b>17.53</b>	<b>56.6239</b>	<b>0.02127896</b>	<b>1</b>	<b>Complies</b>



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EUT:	Home Gateway	Model Name :	ZXHN H108N
Temperature:	25 °C	Relative Humidity:	60 %
Pressure:	1012 hPa	Test Voltage :	AC 120V/60Hz
Test Mode :	TX N-40M MODE /CH03, CH06, CH09 - ANT 2		

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
<b>16.73</b>	<b>47.0977</b>	<b>0.01769907</b>	<b>1</b>	<b>Complies</b>
16.42	43.8531	0.01647974	1	Complies
16.55	45.1856	0.01698050	1	Complies

EUT:	Home Gateway	Model Name :	ZXHN H108N
Temperature:	25 °C	Relative Humidity:	60 %
Pressure:	1012 hPa	Test Voltage :	AC 120V/60Hz
Test Mode :	TX N-40M MODE /CH03, CH06, CH09 - ANT 1+ANT 2		

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
19.86	96.8278	0.03638735	1	Complies
19.69	93.1108	0.03499052	1	Complies
<b>20.08</b>	<b>101.8591</b>	<b>0.03827810</b>	<b>1</b>	<b>Complies</b>