



Neutron Engineering Inc.

FCC RF EXPOSURE REPORT

FCC ID: Q78-ZXHNH368CV1

Project No. : 1205C276
Equipment : VDSL CPE
Model : ZXHN H368C
Applicant : ZTE Corporation
Address : ZTE Plaza, Hi-tech Park, Nanshan District,
Shenzhen, Guangdong, China

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:

$$S = \frac{PG}{4\pi^2} = \frac{EIRP}{4\pi^2}$$

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)
0	ARISTOTLE	L14 DIPOLE	Dipole	N/A	2.2
1	ARISTOTLE	PCB038	PCB	N/A	5.1

Note:

The antenna of EUT could be rotated, but the Antenna Polarity vertical is max.

The EUT incorporates a MIMO function. Physically, the EUT provides two completed transmitters and two receivers (2T2R). all transmit signals are completely uncorrelated, then,

Directional gain = $10 \log[(10^{G1/10} + 10^{G2/10} + \dots + 10^{GN/10})/N]$ dBi , that is

Directional gain=6.9; So,the out power limit is 30-6.9+6=29.1; and power density limit is 8-6.9+6=7.1

Operating Mode TX Mode	1TX	2TX
	802.11b	V (ANT1)
802.11g	V (ANT1)	-
802.11n(20MHz)	-	V (ANT0 & ANT1)
802.11n(40MHz)	-	V (ANT0 & ANT1)



TEST RESULTS

EUT:	VDSL CPE	Model Name :	ZXHN H368C
Temperature:	25 °C	Relative Humidity:	60 %
Pressure:	1012 hPa	Test Voltage :	AC 120V/60Hz
Test Mode :	TX B MODE /CH01, CH06, CH11-ANT 1		

Antenna Gain (dBi)	Antenna Gain (numeric)	Peak Output Power (dBm)	Peak Output Power (mW)	Power Density (S) (mW/cm ²)	Limit of Power Density (S) (mW/cm ²)	Test Result
5.1	3.2359	25.64	366.4376	0.23602085	1	Complies
5.1	3.2359	25.68	369.8282	0.23820472	1	Complies
5.1	3.2359	25.67	368.9776	0.23765687	1	Complies

EUT:	VDSL CPE	Model Name :	ZXHN H368C
Temperature:	25 °C	Relative Humidity:	60 %
Pressure:	1012 hPa	Test Voltage :	AC 120V/60Hz
Test Mode :	TX G MODE /CH01, CH06, CH11-ANT 1		

Antenna Gain (dBi)	Antenna Gain (numeric)	Peak Output Power (dBm)	Peak Output Power (mW)	Power Density (S) (mW/cm ²)	Limit of Power Density (S) (mW/cm ²)	Test Result
5.1	3.2359	24.83	304.0885	0.19586208	1	Complies
5.1	3.2359	24.87	306.9022	0.19767437	1	Complies
5.1	3.2359	24.92	310.4560	0.19996333	1	Complies

EUT:	VDSL CPE	Model Name :	ZXHN H368C
Temperature:	25 °C	Relative Humidity:	60 %
Pressure:	1012 hPa	Test Voltage :	AC 120V/60Hz
Test Mode :	TX N-20M MODE /CH01, CH06, CH11 - ANT 0		

Antenna Gain (dBi)	Antenna Gain (numeric)	Peak Output Power (dBm)	Peak Output Power (mW)	Power Density (S) (mW/cm ²)	Limit of Power Density (S) (mW/cm ²)	Test Result
2.2	1.6596	23.45	221.3095	0.07310555	1	Complies
2.2	1.6596	23.12	205.1162	0.06775641	1	Complies
2.2	1.6596	23.08	203.2357	0.06713521	1	Complies



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Test Mode :	TX N-20M MODE /CH01, CH06, CH11 - ANT 1		

Antenna Gain (dBi)	Antenna Gain (numeric)	Peak Output Power (dBm)	Peak Output Power (mW)	Power Density (S) (mW/cm ²)	Limit of Power Density (S) (mW/cm ²)	Test Result
5.1	3.2359	23.02	200.4472	0.12910717	1	Complies
5.1	3.2359	23.01	199.9862	0.12881023	1	Complies
5.1	3.2359	22.98	198.6095	0.12792351	1	Complies

EUT:	VDSL CPE	Model Name :	ZXHN H368C
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		

Antenna Gain (dBi)	Antenna Gain (numeric)	Peak Output Power (dBm)	Peak Output Power (mW)	Power Density (S) (mW/cm ²)	Limit of Power Density (S) (mW/cm ²)	Test Result
6.9	4.8978	26.25	421.6965	0.41110274	1	Complies
6.9	4.8978	26.08	405.5085	0.39532144	1	Complies
6.9	4.8978	26.04	401.7908	0.39169711	1	Complies

EUT:	VDSL CPE	Model Name :	ZXHN H368C
Temperature:	25 °C	Relative Humidity:	60 %
Pressure:	1012 hPa	Test Voltage :	AC 120V/60Hz
Test Mode :	TX N-40M MODE /CH03, CH06, CH09 - ANT 0		

Antenna Gain (dBi)	Antenna Gain (numeric)	Peak Output Power (dBm)	Peak Output Power (mW)	Power Density (S) (mW/cm ²)	Limit of Power Density (S) (mW/cm ²)	Test Result
2.2	1.6596	23.04	201.3724	0.06651971	1	Complies
2.2	1.6596	22.89	194.5360	0.06426143	1	Complies
2.2	1.6596	22.85	192.7525	0.06367228	1	Complies



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EUT:	VDSL CPE	Model Name :	ZXHN H368C
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		

Antenna Gain (dBi)	Antenna Gain (numeric)	Peak Output Power (dBm)	Peak Output Power (mW)	Power Density (S) (mW/cm ²)	Limit of Power Density (S) (mW/cm ²)	Test Result
5.1	3.2359	22.32	170.6082	0.10988803	1	Complies
5.1	3.2359	22.23	167.1091	0.10763422	1	Complies
5.1	3.2359	22.16	164.4372	0.10591327	1	Complies

EUT:	VDSL CPE	Model Name :	ZXHN H368C
Temperature:	25 °C	Relative Humidity:	60 %
Pressure:	1012 hPa	Test Voltage :	AC 120V/60Hz
Test Mode :	TX N-40M MODE /CH03, CH06, CH09 - ANT 0+ANT 1		

Antenna Gain (dBi)	Antenna Gain (numeric)	Peak Output Power (dBm)	Peak Output Power (mW)	Power Density (S) (mW/cm ²)	Limit of Power Density (S) (mW/cm ²)	Test Result
6.9	4.8978	25.71	372.3917	0.36303656	1	Complies
6.9	4.8978	25.58	361.4099	0.35233060	1	Complies
6.9	4.8978	25.53	357.2728	0.34829751	1	Complies