FCC RF EXPOSURE REPORT

FCC ID: Q78-ZXHNF670E

Project No.	**: 1708C103**
Equipment	**: GPON ONT**
Model	**: ZXHN F670E**
Applicant	**: ZTE Corporation**
Address	**: ZTE Plaza, Hi-Tech Park, Nanshan District, Shenzhen, Guangdong, P.R.China**
According:	**: FCC Guidelines for Human Exposure IEEE C95.1 & FCC Part 2.1091**

BTL 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 Filed Antenna

2.4G WiFi

External Antenna

Ant.	Brand	Model Name	Antenna Type	Connector	Gain (dBi)
1	N/A	N/A	Dipole	N/A	5
2	N/A	N/A	Dipole	N/A	5

Note:
The EUT incorporates a MIMO function. Physically, the EUT providestwo completedtransmitters and receivers (2T2R), all transmit signals are completely uncorrelated, then,**Direction gain = GANT**,that is Directional gain=5.

Internal Antenna

Ant.	Brand	Model Name	Antenna Type	Connector	Gain (dBi)
1	N/A	N/A	PCB	N/A	3
2	N/A	N/A	PCB	N/A	3

Note:
The EUT incorporates a MIMO function. Physically, the EUT providestwo completedtransmitters and receivers (2T2R), all transmit signals are completely uncorrelated, then,**Direction gain = GANT**,that is Directional gain=3.

5G WiFi

External Antenna

Ant.	Manufacturer	Model Name	Antenna Type	Connector	Gain (dBi)
1	N/A	N/A	Dipole	N/A	5
2	N/A	N/A	Dipole	N/A	5
3	N/A	N/A	Dipole	N/A	5

Note:
The EUT incorporates a MIMO function. Physically, the EUT provides three completed transmitters and receivers (3T3R), all transmit signals are completely uncorrelated, then,**Direction gain = GANT**, that is Directional gain=5.

Internal Antenna

Ant.	Manufacturer	Model Name	Antenna Type	Connector	Gain (dBi)
1	N/A	N/A	PCB	N/A	3
2	N/A	N/A	PCB	N/A	3
3	N/A	N/A	PCB	N/A	3

Note:

The EUT incorporates a MIMO function. Physically, the EUT provides three completed transmitters and receivers (3T3R), all transmit signals are completely uncorrelated, then,**Direction gain = G_{ANT}**, that is Directional gain=3.

TEST RESULTS

EUT :	GPON ONT	Model Name :	ZXHN F670E
Temperature :	25 ℃	Relative Humidity:	55 %
Test Voltage :	AC 120V/60Hz		

2.4G WIFI

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	3.1623	18.8	75.8578	0.04775	1	Complies

5G UNII-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	1.9953	26.04	401.7908	0.25290	1	Complies

UNII-2A

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	3.1623	22.89	194.5360	0.12245	1	Complies

UNII-2C

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	3.1623	22.45	175.7924	0.11065	1	Complies

UNII-3

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	1.9953	29.01	796.1594	0.50113	1	Complies

For 2.4G+5G simultaneous transmission MPE:

0.04775/1+0.50113/1=0.54888 < 1

Note: the calculated distance is 20 cm.