



Neutron Engineering Inc.

FCC RF EXPOSURE REPORT

FCC ID: Q78-ZXW3512C

Project No. : 1308C020
Equipment : GPON ONT
Model : ZXHN F668
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

Neutron Engineering Inc.

No.3, Jinshagang 1st Road, ShiXia, Dalang Town, Dong Guan, China.

TEL : (0769) 8318-3000 FAX : (0769) 8319-6000



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

Table for Filed Antenna

Ant.	Brand	Model Name	Antenna Type	Connector	Gain (dBi)	Note
1	Airgain	N2430GNS	Internal Antenna	N/A	2	TX/RX
2	N/A	N/A	Printed Antenna	N/A	2	TX/RX

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)



TEST RESULTS

EUT:	GPON ONT	Model Name :	ZXHN F668
Temperature:	24 °C	Relative Humidity:	58 %
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 ²)	Limit of Power Density (S) (mW/cm ²)	Test Result
2	1.5849	14.92	31.0456	0.00979378	1	Complies
2	1.5849	14.62	28.9734	0.00914009	1	Complies
2	1.5849	14.88	30.7610	0.00970399	1	Complies

EUT:	GPON ONT	Model Name :	ZXHN F668
Temperature:	24 °C	Relative Humidity:	60 %
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 ²)	Limit of Power Density (S) (mW/cm ²)	Test Result
2	1.5849	20.22	105.1962	0.03318565	1	Complies
2	1.5849	20.14	103.2761	0.03257995	1	Complies
2	1.5849	20.06	101.3911	0.03198530	1	Complies



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EUT:	GPON ONT	Model Name :	ZXHN F668
Temperature:	24 °C	Relative Humidity:	60 %
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 ²)	Limit of Power Density (S) (mW/cm ²)	Test Result
2	1.5849	20.56	113.7627	0.03588809	1	Complies
2	1.5849	20.44	110.6624	0.03491004	1	Complies
2	1.5849	20.65	116.1449	0.03663957	1	Complies

EUT:	GPON ONT	Model Name :	ZXHN F668
Temperature:	24 °C	Relative Humidity:	60 %
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 ²)	Limit of Power Density (S) (mW/cm ²)	Test Result
2	1.5849	21.27	133.9677	0.04226203	1	Complies
2	1.5849	21.39	137.7209	0.04344606	1	Complies
2	1.5849	21.53	142.2329	0.04486941	1	Complies

Note: the calculation distance is 20cm.