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Report No.: 1605RSU02202
Report Version: V01
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RF Exposure Evaluation Declaration

FCC ID: QISHG8247HB
APPLICANT: Huawei Technologies Co., Ltd.
Application Type: Certification
Product: GPON Terminal
Model No.: EchoLife HG8247H
Brand Name: HUAWEI
FCC Classification: Digital Transmission System (DTS)

Reviewed By
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The test results relate only to the samples tested.

The test results shown in the test report are traceable to the national/international standards through the calibration of the equipment and evaluated measurement uncertainty herein.

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Revision History

Report No.	Version	Description	Issue Date	Note
1605RSU02202	Rev. 01	Initial report	07-25-2016	Valid

1. PRODUCT INFORMATION

1.1. Equipment Description

Product Name	GPON Terminal
Model No.	EchoLife HG8247H
Brand Name	HUAWEI
WLAN Specification	
Frequency Range	802.11b/g/n-HT20: 2412 ~ 2462 MHz 802.11n-HT40: 2422 ~ 2452 MHz
Maximum Peak Output Power	802.11b: 18.16dBm 802.11g: 25.31dBm 802.11n-HT20: 25.69dBm 802.11n-HT40: 26.13dBm
Type of Modulation	802.11b: DSSS 802.11g/n: OFDM

1.2. Antenna Description

Antenna Type	Frequency Band (GHz)	TX Path	Max Peak Gain (dBi)
Dipole Antenna	2.4	2	2.0

2. RF Exposure Evaluation

2.1. Limits

According to FCC 1.1310: The criteria listed in the following table shall be used to evaluate the environment impact of human exposure to radio frequency (RF) radiation as specified in 1.1307(b)

LIMITS FOR MAXIMUM PERMISSIBLE EXPOSURE (MPE)

Frequency Range (MHz)	Electric Field Strength (V/m)	Magnetic Field Strength (A/m)	Power Density (mW/cm ²)	Average Time (Minutes)
(A) Limits for Occupational/ Control Exposures				
300-1500	--	--	f/300	6
1500-100,000	--	--	5	6
(B) Limits for General Population/ Uncontrolled Exposures				
300-1500	--	--	f/1500	6
1500-100,000	--	--	1	30

f= Frequency in MHz

Calculation Formula: $Pd = (Pout \cdot G) / (4 \cdot \pi \cdot r^2)$

Where

Pd = power density in mW/cm²

Pout = output power to antenna in mW

G = gain of antenna in linear scale

Pi = 3.1416

r = distance between observation point and center of the radiator in cm

Pd is the limit of MPE, 1mW/cm². If we know the maximum gain of the antenna and the total power input to the antenna, through the calculation, we will know the distance r where the MPE limit is reached.

2.2. Test Result of RF Exposure Evaluation

Product	GPON Terminal
Test Item	RF Exposure Evaluation

Antenna Gain: Refer to Clause 1.2 of antenna description.

Test Mode	Frequency Band (MHz)	Maximum Average Output Power (dBm)	Power Density at R = 20 cm (mW/cm ²)	Limit (mW/cm ²)
802.11b/g/n	2412 ~ 2462	17.06	0.0160	1

CONCULISON:

The Max Power Density at R (20 cm) = 0.0160mW/cm² < 1mW/cm².

So the EUT complies with the requirement.

_____ The End _____