

FCC RF EXPOSURE REPORT

FCC ID: QISLS1015

Project No. : 1601C130
Equipment : Smart Home Gateway
Model : EchoLife LS1015
Applicant : Huawei Technologies Co.,Ltd.
Address : Administration Building, Headquarters of Huawei Technologies Co., Ltd., Bantian, Longgang District, Shenzhen

According: : FCC Guidelines for Human Exposure IEEE C95.1

B T L I N C .

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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

Table for Filed Antenna

For 2.4G WIFI:

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

For Z-wave:

Ant.	Brand	Model Name	Antenna Type	Connector	Gain (dBi)
1	amphenol / Nippon	HW7574-12-000-R / C15N15Z100EH	Internal	N/A	2

TEST RESULTS

For 2.4G WIFI

EUT :	Smart Home Gateway	Model Name :	EchoLife LS1015
Temperature :	25 °C	Relative Humidity:	55 %
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	19.43	87.7001	0.02766625	1	Complies
2	1.5849	18.87	77.0903	0.02431926	1	Complies
2	1.5849	19.38	86.6962	0.02734956	1	Complies

EUT :	Smart Home Gateway	Model Name :	EchoLife LS1015
Temperature :	25 °C	Relative Humidity:	55 %
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	27.14	517.6068	0.16328653	1	Complies
2	1.5849	27.01	502.3426	0.15847121	1	Complies
2	1.5849	25.69	370.6807	0.11693657	1	Complies

EUT :	Smart Home Gateway	Model Name :	EchoLife LS1015
Temperature:	25 °C	Relative Humidity:	55 %
Test Voltage :	AC 120V/60Hz		
Test Mode :	TX N-20M MODE_ Total /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	28.21	662.2165	0.20890574	1	Complies
2	1.5849	28.16	654.6362	0.20651441	1	Complies
2	1.5849	26.87	486.4072	0.15344416	1	Complies

EUT :	Smart Home Gateway	Model Name :	EchoLife LS1015
Temperature:	25 °C	Relative Humidity:	55 %
Test Voltage :	AC 120V/60Hz		
Test Mode :	TX N-40M MODE_Total /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	26.40	436.5158	0.13770521	1	Complies
2	1.5849	27.40	549.5409	0.17336059	1	Complies
2	1.5849	24.94	311.8890	0.09838987	1	Complies

For Z-wave

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	6.76	4.7424	0.00149606	1	Complies

So for simultaneous transmission:

$$0.2089/1+0.0015/1=0.2104<1$$

Note: the calculated distance is 20 cm.