



Neutron Engineering Inc.

FCC RF EXPOSURE REPORT

FCC ID: QISHG630-52

Project No. : 1305C036
Equipment : Home Gateway
Model Name : HG630; HG630-52
Applicant : Huawei Technologies Co., Ltd.
Address : Bantian, Longgang District, Shenzhen China
Manufacturer : Huawei Technologies Co., Ltd.
**Address : Administration Building, Huawei Base, Bantian,
Longgang District ,Shenzhen 518129, P.R.China**

According: : FCC Guidelines for Human Exposure IEEE C92.76

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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.	Manufacturer	Model Name	Antenna Type	Connector	Gain (dBi)	Note
0	Huawei Technologies Co.,Ltd	N/A	PCB onboard	N/A	1	
1	Huawei Technologies Co.,Ltd	N/A	PCB onboard	N/A	1	

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 (ANT0 or ANT1)	-
802.11g	V (ANT0 or ANT1)	-
802.11n(20MHz)	-	V (ANT0 & ANT1)
802.11n(40MHz)	-	V (ANT0 & ANT1)



TEST RESULTS

EUT:	Home Gateway	Model Name :	HG630
Temperature:	25 °C	Relative Humidity:	60 %
Pressure:	1012 hPa	Test Voltage :	AC 120V/60Hz
Test Mode :	TX B MODE /CH01, CH06, CH11		

Peak Output Power (dBm)	Peak Output Power (mW)	Power Density (S) (mW/cm ²)	Limit of Power Density (S) (mW/cm ²)	Test Result
15.97	39.5367	0.00990719	1	Complies
15.92	39.0841	0.00979378	1	Complies
15.98	39.6278	0.00993003	1	Complies

EUT:	Home Gateway	Model Name :	HG630
Temperature:	25 °C	Relative Humidity:	60 %
Pressure:	1012 hPa	Test Voltage :	AC 120V/60Hz
Test Mode :	TX G MODE /CH01, CH06, CH11		

Peak Output Power (dBm)	Peak Output Power (mW)	Power Density (S) (mW/cm ²)	Limit of Power Density (S) (mW/cm ²)	Test Result
15.79	37.9315	0.00950496	1	Complies
15.86	38.5478	0.00965940	1	Complies
15.91	38.9942	0.00977126	1	Complies

EUT:	Home Gateway	Model Name :	HG630
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		

Peak Output Power (dBm)	Peak Output Power (mW)	Power Density (S) (mW/cm ²)	Limit of Power Density (S) (mW/cm ²)	Test Result
12.85	19.2752	0.00483004	1	Complies
12.93	19.6336	0.00491983	1	Complies
12.95	19.7242	0.00494254	1	Complies



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EUT:	Home Gateway	Model Name :	HG630
Temperature:	25 °C	Relative Humidity:	60 %
Pressure:	1012 hPa	Test Voltage :	AC 120V/60Hz
Test Mode :	TX N-20M MODE /CH01, CH06, CH11 - ANT 1		

Peak Output Power (dBm)	Peak Output Power (mW)	Power Density (S) (mW/cm ²)	Limit of Power Density (S) (mW/cm ²)	Test Result
12.78	18.9671	0.00475281	1	Complies
12.89	19.4536	0.00487473	1	Complies
12.96	19.7697	0.00495394	1	Complies

EUT:	Home Gateway	Model Name :	HG630
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		

Peak Output Power (dBm)	Peak Output Power (mW)	Power Density (S) (mW/cm ²)	Limit of Power Density (S) (mW/cm ²)	Test Result
15.83	38.2825	0.00959291	1	Complies
15.92	39.0841	0.00979378	1	Complies
15.97	39.5367	0.00990719	1	Complies

EUT:	Home Gateway	Model Name :	HG630
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		

Peak Output Power (dBm)	Peak Output Power (mW)	Power Density (S) (mW/cm ²)	Limit of Power Density (S) (mW/cm ²)	Test Result
12.87	19.3642	0.00485233	1	Complies
12.91	19.5434	0.00489723	1	Complies
12.94	19.6789	0.00493117	1	Complies



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EUT:	Home Gateway	Model Name :	HG630
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		

Peak Output Power (dBm)	Peak Output Power (mW)	Power Density (S) (mW/cm ²)	Limit of Power Density (S) (mW/cm ²)	Test Result
12.82	19.1426	0.00479679	1	Complies
12.89	19.4536	0.00487473	1	Complies
12.96	19.7697	0.00495394	1	Complies

EUT:	Home Gateway	Model Name :	HG630
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+ANT 2		

Peak Output Power (dBm)	Peak Output Power (mW)	Power Density (S) (mW/cm ²)	Limit of Power Density (S) (mW/cm ²)	Test Result
15.86	38.5478	0.00965940	1	Complies
15.91	38.9942	0.00977126	1	Complies
15.96	39.4457	0.00988440	1	Complies