



Neutron Engineering Inc.

FCC RF EXPOSURE REPORT

FCC ID: QISHG552E

Project No. : 1305C069A
Equipment : Home Gateway
Model Name : HG552e; HG552f;HG552f-11
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:

$$S = \frac{PG}{4\pi r^2} = \frac{EIRP}{4\pi r^2}$$

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

Ant.	Manufacturer	Model Name	Antenna Type	Connector	Gain (dBi)	Note
0	Huawei Technologies Co.,Ltd	N/A	PCB onboard	N/A	2	TX/RX
1	Huawei Technologies Co.,Ltd	N/A	PCB onboard	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 (ANT0 or ANT1)
802.11g	V (ANT0 or ANT1)	-
802.11n(20MHz)	-	V (ANT0 & ANT1)
802.11n(40MHz)	-	V (ANT0 & ANT1)



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TEST RESULTS

EUT:	Home Gateway	Model Name :	HG552e
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
17.62	57.8096	0.01823687	1	Complies
17.54	56.7545	0.01790401	1	Complies
17.76	59.7035	0.01883434	1	Complies

EUT:	Home Gateway	Model Name :	HG552e
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
17.63	57.9429	0.01827891	1	Complies
17.56	57.0164	0.01798665	1	Complies
17.85	60.9537	0.01922872	1	Complies

EUT:	Home Gateway	Model Name :	HG552e
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+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
17.80	60.2560	0.01900861	1	Complies
17.82	60.5341	0.01909635	1	Complies
17.81	60.3949	0.01905243	1	Complies



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EUT:	Home Gateway	Model Name :	HG552e
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+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
17.77	59.8412	0.01887776	1	Complies
17.72	59.1562	0.01866166	1	Complies
17.83	60.6736	0.01914037	1	Complies