

**CLIMAX TECHNOLOGY CO., LTD.**  
**No. 258, Sinhu 2nd Rd., Neihu District, Taipei City 114,**  
**Taiwan (R.O.C.)**

Federal Communications Commission  
Authorization and Evaluation Division  
Equipment Authorization Branch  
7435 Oakland Mills Road  
Columbia, MD 21046

**Applicant's declaration concerning RF Radiation Exposure**

We hereby indicate that the product  
Product description: Smart Home Alarm System  
Model No: HSGW-G8

The equipment complies with FCC RF radiation exposure limits set forth for an uncontrolled environment. The integral antennas used for this transmitter must not be co-located or operating in conjunction with any other antenna or transmitter within the host device.

A safety statement concerning minimum separation distances from enclosure of the  
Product: Smart Home Alarm System  
will be integrated in the user's manual to provide end-users with transmitter operating  
conditions for satisfying RF exposure compliance.

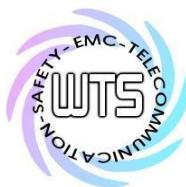
The appropriate information can be drawn from the test report no: W6M22007-20039-C-1, W6M22007-20039-P-247 and the accompanying calculations.

Company: CLIMAX TECHNOLOGY CO., LTD.  
Address: No. 258, Sinhu 2nd Rd., Neihu District, Taipei City 114, Taiwan (R.O.C.)

Date: 2020/8/4

Signature

George Lin



# Worldwide Testing Services(Taiwan) Co., Ltd.

Registration number: W6M22007-20039-C-1

FCC ID: GX9HSGWF1919

## **3.2 Equivalent Isotropic Radiated Power (EIRP)**

FCC Rule: 15.247(b)(3)

EIRP = max. conducted output power + antenna gain

EIRP = 11.26 dBm + 1.19 dBi [antenna gain claimed by manufacturer] = 12.45 dBm = 17.5792 mW

## **3.3 Exemption Limits for Routine Evaluation according to 47 CFR FCC Part 2 Subpart J, section 2.1091**

FCC OET Bulletin 65 Edition 97.01 determines the equations for predicting RF fields and applicable limits.

The prediction for power density in the far-field but will over-predict power density in the near field, where it could be used for walking a “worst case” or conservative prediction.

Systems operating under the provisions of this section shall be operated in a manner that ensures that the public is not exposed to radio frequency energy levels in excess limit for maximum permissible exposure. In accordance with 47 CFR FCC Part 2 Subpart J, section 2.1091 this device has been defined as a mobile device whereby a distance of 20 cm normally can be maintained between the user and the device.

### **MPE Calculation Method**

#### **(A) Limits for Occupational/Controlled Exposure**

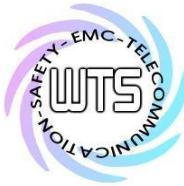
Frequency Range (MHz)	Electric Field Strength (E) (V/m)	Magnetic Field Strength (H) (A/m)	Power Density (S) (mW/cm <sup>2</sup> )	Averaging Time  E <sup>2</sup> ,  H <sup>2</sup> or S (minutes)
0.3-3.0	614	1.63	(100)*	6
3.0-30	1842/f	4.89/f	(900/f <sup>2</sup> )*	6
30-300	61.4	0.163	1.0	6
300-1500	--	--	f/300	6
1500-100,000	--	--	5	6

#### **(B) Limits for General Population/Uncontrolled Exposure**

Frequency Range (MHz)	Electric Field Strength (E) (V/m)	Magnetic Field Strength (H) (A/m)	Power Density (S) (mW/cm <sup>2</sup> )	Averaging Time  E <sup>2</sup> ,  H <sup>2</sup> or S (minutes)
0.3-1.34	614	1.63	(100)*	30
1.34-30	824/f	2.19/f	(180/f <sup>2</sup> )*	30
30-300	27.5	0.073	0.2	30
300-1500	--	--	f/1500	30
1500-100,000	--	--	1.0	30

f = frequency in MHz

\*Plane-wave equivalent power density



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E = Electric field (V/m) P = output power (W) G = EUT Antenna numeric gain (numeric)

d = Separation distance between radiator and human body (m)

$$Pd \cdot \frac{30 \times P \times G}{377 \times d^2} \text{ mW/cm}^2$$

The formula can be changed to

Established separation distance is 20 cm.

Operating frequency band: 918.0375~924.48 MHz

The product meets RF exposure requirement.

Because the power density of 0.0035 mW/cm<sup>2</sup> at 918.0375 MHz is below the power density limit of 0.6120 mW/cm<sup>2</sup>.



# Worldwide Testing Services(Taiwan) Co., Ltd.

Report Number: W6M22007-20039-P-247

FCC ID: GX9HSGWF1919

## **10 Maximum Permissible Exposure**

### **10.1 Exemption Limits for Routine Evaluation according to 47 CFR FCC Part 2 Subpart J, section 2.1091**

FCC OET Bulletin 65 Edition 97.01 determines the equations for predicting RF fields and applicable limits.

The prediction for power density in the far-field but will over-predict power density in the near field, where it could be used for walking a “worst case” or conservative prediction.

Systems operating under the provisions of this section shall be operated in a manner that ensures that the public is not exposed to radio frequency energy levels in excess limit for maximum permissible exposure. In accordance with 47 CFR FCC Part 2 Subpart J, section 2.1091 this device has been defined as a mobile device whereby a distance of 20 cm normally can be maintained between the user and the device.

### **MPE Calculation Method**

#### **(A) Limits for Occupational/Controlled Exposure**

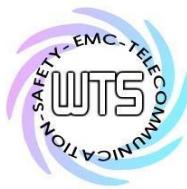
Frequency Range (MHz)	Electric Field Strength (E) (V/m)	Magnetic Field Strength (H) (A/m)	Power Density (S) (mW/cm <sup>2</sup> )	Averaging Time  E <sup>2</sup> ,  H <sup>2</sup> or S (minutes)
0.3-3.0	614	1.63	(100)*	6
3.0-30	1842/f	4.89/f	(900/f <sup>2</sup> )*	6
30-300	61.4	0.163	1.0	6
300-1500	--	--	f/300	6
1500-100,000	--	--	5	6

#### **(B) Limits for General Population/Uncontrolled Exposure**

Frequency Range (MHz)	Electric Field Strength (E) (V/m)	Magnetic Field Strength (H) (A/m)	Power Density (S) (mW/cm <sup>2</sup> )	Averaging Time  E <sup>2</sup> ,  H <sup>2</sup> or S (minutes)
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1.34-30	824/f	2.19/f	(180/f <sup>2</sup> )*	30
30-300	27.5	0.073	0.2	30
300-1500	--	--	f/1500	30
1500-100,000	--	--	1.0	30

f = frequency in MHz

\*Plane-wave equivalent power density



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Report Number: W6M22007-20039-P-247

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E = Electric field (V/m) P = output power (W) G = EUT Antenna numeric gain (numeric)

d = Separation distance between radiator and human body (m)

$$Pd = \frac{30 \times P \times G}{377 \times d^2} \quad \text{mW/cm}^2.$$

The formula can be changed to

Frequency	Max output power		Antenna Gain	Power Density(S) (mW/cm <sup>2</sup> )	Limit of Power Density (S) (mW/cm <sup>2</sup> )	Test Result
	(dBm)	(W)				
GSM 850	31.65	1.46	1.45	0.4062	0.5495	Complies
PCS 1900	27.80	0.60	-0.27	0.1127	1	Complies
WCDMA Band 2	23.15	0.20	-0.27	0.0386	1	Complies
WCDMA Band 5	23.08	0.20	1.45	0.0564	0.5644	Complies
LTE Band 2	23.06	0.20	-0.27	0.0378	1	Complies
LTE Band 4	22.98	0.20	-0.01	0.0394	1	Complies
LTE Band 7	21.99	0.16	-0.56	0.0276	1	Complies
LTE Band 28	23.68	0.23	0.65	0.0539	0.4937	Complies

From the peak EUT RF output power, the minimum mobile separation distance, d=0.2 m, as well as the gain of the used antenna, the RF power density can be obtained.