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## Maximum Permissive Exposure

FCC ID: AK8SAG700

System Name: Sound Bar[Active Speaker System: SA-G700; Active Subwoofer: SA-WG700]

M/N: HT-G700

EUT Name: Active Speaker System

EUT Model No.: SA-G700

1. According to FCC CFR 47 §1.1310, the criteria listed in the following table shall be used to evaluate the environmental impact of human exposure to radio frequency (RF) radiation as specified in 1.1307(b).

Table 1 Limits for Maximum Permissible Exposure

Frequency Range (MHz)	Electric Field Strength (V/m)	Magnetic Field Strength (A/m)	Power Density (mW/cm <sup>2</sup> )	Average Time (Minutes)
(A) Limits for Occupational / Control Exposures (f = frequency)				
30-300	61.4	0.163	1.0	6
300-1500	---	---	f/300	6
1500-100,000	---	---	5.0	6
(B) Limits for General Population / Uncontrolled Exposures (f = frequency)				
30-300	27.5	0.073	0.2	30
300-1500	---	---	f/1500	30
1500-100,000	---	---	1.0	30

## 2. MPE Calculation

**Sony Corporation** declares that the product described above has been evaluated and found to comply with the RF exposure limits for humans, as specified based on ANSI/FCC recommendation.

RF Exposure Calculations:  $S = (P * G) / (4 * \pi * r^2)$  or  $r = \sqrt{(P * G) / (4 * \pi * S)}$

### 2.1. Estimation Result

#### Bluetooth MPE:

Distance (cm)	Test Freq. (MHz)	Antenna Gain (dBi)	Antenna Gain (numeric)	Average Output Power		Power Density (S) (mW/cm <sup>2</sup> )	Limit of Power Density (S) (mW/cm <sup>2</sup> )	Test Result
				(dBm)	(mW)			
20	2441	0.24	1.0568	5.5000	3.5481	0.000746	1	Complies

#### General 2.4GHz wireless MPE:

Mode	Frequency (MHz)	Output power (dBm)	Output power (mW)	antenna Gain (dBi)	antenna Gain (linear)	MPE (mW/cm <sup>2</sup> )
GFSK (DTS)	2404	5.370	3.443	4.0	2.51	<b>0.001722</b>
	2440	4.691	2.945	4.0	2.51	0.001472
	2476	4.177	2.616	4.0	2.51	0.001308

Based on **safety distance (r) 20cm**, the antenna gain (G) is **2.51 Numerical**, and the highest power output (P) is **3.443mW**, the power density (S) is **0.001722mW/cm<sup>2</sup>**.

#### Bluetooth + General 2.4GHz wireless:

Bluetooth MPE (mW/cm <sup>2</sup> )	General 2.4GHz wireless MPE (mW/cm <sup>2</sup> )	Max MPE (mW/cm <sup>2</sup> )	Limit (mW/cm <sup>2</sup> )	Compliance or not
<b>0.000746</b>	<b>0.001722</b>	<b>0.002468</b>	<b>1</b>	<b>YES</b>