

RF EXPOSURE REPORT

for

Meiloon Industrial Co., Ltd.

Home theater with wireless subwoofer

Model Number: ES-SNDBR-2.1-BLK

FCC ID: R48ESSBR21BLK

IC ID: 7190A-ESSBR21BLK

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Date: Dec. 22, 2014

A circular blue ink stamp from Keyway Testing Technology Co., Ltd. The outer ring contains the company name. The inner circle features a stylized 'SK' logo above the word 'KEYWAY'. A signature, 'Jade Yang', is written across the center of the stamp. Below the signature, the word 'Certificated' is written in a curved path, flanked by two small stars.

1. RF EXPOSURE EVALUATION

1.1. Limits

The criteria listed in the following table shall be used to evaluate the environment impact of human exposure to radio frequency (RF) radiation as specified in 1.1307(b)

Limits for Maximum Permissible Exposure (MPE)

Frequency range (MHz)	Electric field strength (V/m)	Magnetic field strength (A/m)	Power density (mW/cm ²)	Averaging time (minutes)
(A) Limits for Occupational/Controlled Exposures				
0.3–3.0	614	1.63	*(100)	6
3.0–30	1842/f	4.89/f	*(900/f ²)	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				
0.3–1.34	614	1.63	*(100)	30
1.34–30	824/f	2.19/f	*(180/f ²)	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

Friis transmission formula: $P_d = (P_{out} * G) / (4 * \pi * r^2)$

Where

P_d = power density in mW/cm², **P_{out}** = output power to antenna in mW;

G = gain of antenna in linear scale, **π** = 3.1416;

R = distance between observation point and center of the radiator in cm

P_d is the limit of MPE, 1 mW/cm². If we know the maximum gain of the antenna and the total power input to the antenna, through the calculation, we will know the distance r where the MPE limit is reached.

1.2. Test Procedure

Software provided by client enabled the EUT to transmit and receive data at lowest, middle and highest channel individually.

Test Result of RF Exposure Evaluation

Target power W/ tolerance (dBm)	Max tune up power tolerance (dBm)	Maximum Output Power: mW	Power Density at R=20cm (mW/cm ²)	Limit (mW/cm ²)	Result
1 ±1.0	2	1.58	0.00045	1.0	Pass