

## FCC RF Exposure

EUT Description: Cosori VeSync Aeroblaze™ Indoor Grill

Model No.: CAG-A601S-KUS, CAG-A601S-KUSR

FCC ID: 2ARBY-A601S

### 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<br>(MHz)                                | Electric field<br>strength<br>(V/m) | Magnetic field strength<br>(A/m) | Power density<br>(mW/cm <sup>2</sup> ) | Averaging time<br>(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 <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 |                                     |                                  |                                        |                             |
| 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

Formula:  $Pd = (P_{out} * G) / (4 * \pi * r^2)$

Where :

Pd = power density in mW/cm<sup>2</sup>,

Pout = output power to antenna in mW;

G = gain of antenna in linear scale,

$\pi = 3.14$ ;

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

Pd is the limit of MPE, 1 mW/cm<sup>2</sup>. 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.

## 2. Test Procedure

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

## 3. Test Result of RF Exposure Evaluation

### 2.4G WIFI

|                | Output power<br>(dBm/ mW) | Antenna<br>Gain(dBi)  | Power Density<br>at R=20cm<br>(mW/cm <sup>2</sup> ) | Limit<br>(mW/cm <sup>2</sup> ) | Result |
|----------------|---------------------------|-----------------------|-----------------------------------------------------|--------------------------------|--------|
| 802.11b        | 16.18/41.495              | 1.0                   | 0.01039                                             | 1.0                            | Pass   |
| 802.11g        | 14.57/28.642              | 1.0                   | 0.00717                                             | 1.0                            | Pass   |
| 802.11n(20MHz) | 14.39/27.479              | 1.0                   | 0.00688                                             | 1.0                            | Pass   |
| 802.11n(40MHz) | 13.23/21.038              | 1.0                   | 0.00527                                             | 1.0                            | Pass   |
| Turn-up power  |                           |                       |                                                     |                                |        |
| Mode           |                           | Peak power range(dBm) |                                                     |                                |        |
| 2.4G WIFI      |                           | 13.00-17.00           |                                                     |                                |        |

| WIFI      | Output power<br>(dBm/ mW) | Antenna<br>Gain(dBi) | Power Density<br>at R=20cm<br>(mW/cm <sup>2</sup> ) | Limit<br>(mW/cm <sup>2</sup> ) | Result |
|-----------|---------------------------|----------------------|-----------------------------------------------------|--------------------------------|--------|
| 2.4G WIFI | 17.00/50.12               | 1.0                  | 0.01255                                             | 1.0                            | Pass   |

Conclusion: No SAR is required