

# Test report

|                              |  |                      |                   |
|------------------------------|--|----------------------|-------------------|
| <b>Number:</b>               | <b>T251-0522/22</b>  | <b>Project file:</b> | <b>C20220683</b>  |
|                              |  | <b>Date:</b>         | <b>2022-10-11</b> |
|                              |  | <b>Pages:</b>        | <b>5</b>          |
| <b>Product:</b>              | <b>Wine climate cabinet</b>  |                      |                   |
| <b>Type reference:</b>       | <b>VCS5297TPG</b>  |                      |                   |
| <b>Ratings:</b>              | Uin: 120V; 60 Hz<br>Protection class: I  |                      |                   |
| <b>Trademark:</b>            | <b>GORENJE, ASKO, ATAG, HISENSE</b>  |                      |                   |
| <b>Applicant:</b>            | <b>Gorenje gospodinjski aparati d.o.o.<br/>Partizanska cesta 12, SI-3320 Velenje, Slovenia</b> |                      |                   |
| <b>Manufacturer:</b>         | Gorenje gospodinjski aparati d.o.o.<br>Partizanska cesta 12, SI-3320 Velenje, Slovenia         |                      |                   |
| <b>Place of manufacture:</b> | Gorenje gospodinjski aparati d.o.o.<br>Partizanska cesta 12, SI-3320 Velenje, Slovenia         |                      |                   |

## Summary of testing

|                          |  |
|--------------------------|--|
| <b>Testing method:</b>   | 47 CFR FCC Part 1.1307(clause (b)(1)(i)(B) and (b)(3)(ii)(B)),<br>KDB 447498 D01 General RF Exposure Guidance v06  |
| <b>Testing location:</b> | SIQ Ljubljana, Mašera-Spasičeva ulica 10, SI-1000 Ljubljana, Slovenia  |
| <b>Remarks:</b>          | Date of receipt of test items: 2022-03-25<br>Number of items tested: 1<br>Date of performance of tests: 2022-10-11<br>The test results presented in this report relate only to the items tested.<br>The product complies with the requirements of the testing methods. |

**Tested by:** Luka Tosetto

**Approved by:** Marjan Mak

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## 1 GENERAL

| History sheet |              |                             |          |
|---------------|--------------|-----------------------------|----------|
| Date          | Report No.   | Change                      | Revision |
| 2022-07-06    | T251-0522/22 | Initial Test Report issued. | --       |

### 1.1 Equipment under test

#### Wine climate cabinet

Type: **VCS5297TPG**

Environment: Uncontrolled / General Public

Assessment distance:  $\geq 20$  cm

FCC ID: **2A4DNVCS5297TPG**

Contains FCC ID: **SARHISENSEMW13**

Reviewed test report for evaluation: **T251-0784/22**

Additional data has been taken from test report **SRTC2020-9004(F)-20011701**.

## 2 ASSESSMENT PROCEDURE

### MPE EVALUATION OF FIXED DEVICES

#### According to 47 CFR 1.1307 clause (b)(1)(i)(B):

With respect to the limits on human exposure to RF provided in § 1.1310 of this chapter, applicants to the Commission for the grant or modification of construction permits, licenses or renewals thereof, temporary authorities, equipment authorizations, or any other authorizations for radiofrequency sources must prepare an evaluation of the human exposure to RF radiation pursuant to § 1.1310 and include in the application a statement confirming compliance with the limits in § 1.1310.

#### Limits:

**TABLE 1 - LIMITS FOR MAXIMUM PERMISSIBLE EXPOSURE (MPE)**

| Frequency range (MHz)                                   | Electric field strength (V/m) | Magnetic field strength (A/m) | Power density (mW/cm <sup>2</sup> ) | Averaging time (minutes) |
|---|-------------------------------|-------------------------------|-------------------------------------|--------------------------|
| (A) Limits for Occupational/Controlled Exposure         |                               |                               |                                     |                          |
| 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                        |
| 300-1,500   |                               |                               | f/300                               | 6                        |
| 1,500-100,000   |                               |                               | 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                       |
| 300-1,500   |                               |                               | f/1500                              | 30                       |
| 1,500-100,000   |                               |                               | 1.0                                 | 30                       |

#### Calculation:

$$P_d = \frac{P_t}{4 * \pi * R^2}$$

#### Where:

P<sub>d</sub>= Power density in mW/cm<sup>2</sup>

P<sub>t</sub> = EIRP in mW

π = 3.14

R = Evaluation distance

#### According to 47 CFR 1.1307 clause (b)(3)(ii)(B):

(ii) For multiple RF sources: Multiple RF sources are exempt if:

(B) in the case of fixed RF sources operating in the same time-averaging period, or of multiple mobile or portable RF sources within a device operating in the same time averaging period, if the sum of the fractional contributions to the applicable thresholds is less than or equal to 1 as indicated in the following equation.

### 3 MEASUREMENTS / CALCULATIONS

Values for each configuration are listed in the following table:

#### 5786-5814 MHz band:

| Frequency (MHz) | Maximum* Power with antenna gain and tune-up (dBm) | Maximum* Power with antenna gain and tune-up (mW) | Power Density (mW/cm <sup>2</sup> ) | Limit (mW/cm <sup>2</sup> ) |
|-----------------|--|---|-------------------------------------|-----------------------------|
| 5786            | -0.41  | 0.9   | 0.00018                             | 1                           |
| 5800            | -0.01  | 1   | 0.00020                             | 1                           |
| 5814            | 0.51   | 1.1   | 0.00022                             | 1                           |

\* Gated power with Duty Cycle calculated in

\*\* maximum tolerance is  $\pm 2$ dB.

\*\*\* power is calculated from E-field

#### Additional data from test report SRTC2020-9004(F)-20011701 of FCC ID SARHISENSEMW13:

Product name: **Wi-Fi Module**

Product model: **Hisense MW13**

#### Maximum values:

| Frequency (MHz) | Maximum* Power with antenna gain and tune-up (dBm) | Maximum* Power with antenna gain and tune-up (mW) | Power Density (mW/cm <sup>2</sup> ) | Limit (mW/cm <sup>2</sup> ) |
|-----------------|--|---|-------------------------------------|-----------------------------|
| 2437            | 19.93  | 98.40   | 0.01959                             | 1                           |

#### Maximum simultaneous transmission of both modules:

| Mode         | Wi-Fi @ 2437 MHz | Proximity sensor @ 5814 MHz | Total   | Limit |
|--------------|------------------|-----------------------------|---------|-------|
| Contribution | 0.01959          | 0.00022                     | 0.01981 | 1     |

Conclusion: **PASS**