



Test report

Number: T251-0254/22

Project file: C20212375

Date: 2022-07-06

Pages: 5

Product: Wine climate cabinet

Type reference: VCS5197TPG

Ratings: Uin: 120 V; 60 Hz
Protection class: I

Trademark: GORENJE, ASKO, ATAG, HISENSE

Applicant: Gorenje gospodinjski aparati d.o.o.
Partizanska cesta 12, SI-3320 Velenje, Slovenia

Manufacturer: Gorenje gospodinjski aparati d.o.o.
Partizanska cesta 12, SI-3320 Velenje, Slovenia

Place of manufacture: Gorenje gospodinjski aparati d.o.o.
Partizanska cesta 12, SI-3320 Velenje, Slovenia

Summary of testing

Testing method: 47 CFR FCC Part 1.1307(clause (b)(1)(i)(B) and (b)(3)(ii)(B)),
KDB 447498 D01 General RF Exposure Guidance v06

Testing location: SIQ Ljubljana, Mašera-Spasičeva ulica 10, SI-1000 Ljubljana, Slovenia

Remarks: Date of receipt of test items: 2021-11-16
Number of items tested: 1
Date of performance of tests: 2022-04-06
The test results presented in this report relate only to the items tested.
The product complies with the requirements of the testing methods.

Tested by: Luka Tosekto

Approved by: Marjan Mak

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1 GENERAL

History sheet			
Date	Report No.	Change	Revision
2022-07-06	T251-0254/22	Initial Test Report issued.	--

1.1 Equipment under test

Wine climate cabinetType: **VCS5197TPG**

Environment: Uncontrolled / General Public

Assessment distance: ≥ 20 cmFCC ID: **2A4DNVCS5197TPG**

Reviewed test reports T251-0064/22 and T251-0113/22 from SIQ Ljubljana.

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 ²)	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 ²	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 ²	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_d= Power density in mW/cm²

P_t = 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:

802.11b:

Frequency (MHz)	Maximum* Power with antenna gain and tune-up (dBm)	Maximum* Power with antenna gain and tune-up (mW)	Power Density (mW/cm ²)	Limit (mW/cm ²)
2412	19.09	81.10	0.016	1
2437	19.49	88.92	0.018	1
2462	19.09	81.10	0.016	1

802.11g:

Frequency (MHz)	Maximum* Power with antenna gain and tune-up (dBm)	Maximum* Power with antenna gain and tune-up (mW)	Power Density (mW/cm ²)	Limit (mW/cm ²)
2412	16.59	45.60	0.009	1
2437	16.79	47.75	0.010	1
2462	16.59	45.60	0.009	1

802.11n (20 MHz):

Frequency (MHz)	Maximum* Power with antenna gain and tune-up (dBm)	Maximum* Power with antenna gain and tune-up (mW)	Power Density (mW/cm ²)	Limit (mW/cm ²)
2412	15.89	38.82	0.008	1
2437	16.19	41.59	0.008	1
2462	15.99	39.72	0.008	1

802.11n (40 MHz):

Frequency (MHz)	Maximum* Power with antenna gain and tune-up (dBm)	Maximum* Power with antenna gain and tune-up (mW)	Power Density (mW/cm ²)	Limit (mW/cm ²)
2412	15.59	36.22	0.007	1
2437	15.59	36.22	0.007	1
2462	15.59	36.22	0.007	1

5725-5875 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 ²)	Limit (mW/cm ²)
5785	-1.09	0.78	0.000155	1
5800	-1.70	0.68	0.000135	1
5815	-2.14	0.61	0.000121	1

* Gated power with Duty Cycle calculated in

** maximum tolerance provided from manufacturer is ± 2 dB.

Maximum simultaneous transmission of both modules:

Mode	WiFi (802.11b) @ 2437 MHz	Proximity sensor @ 5785 MHz	Total	Limit
Contribution	0.01800	0.000155	0.018155	1

Conclusion: **PASS**