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SIST EN ISO/IEC 17025
LP-009

Test report

Number	**T251-0262/25**	Project file:	C20231529
		Date:	2025-07-16
		Pages:	5

Product: **Vacuum cleaner**

Type reference: **CT MIDI I (US), CT MIDI I AC (US)**

Ratings: 120 V a.c.; 60 Hz; 1200 W
Class I

Trademark: FESTOOL

Applicant: **Festool GmbH**
Wertstrasse 20, 73240 Wendlingen, Germany

Manufacturer: Festool GmbH
Wertstrasse 20, 73240 Wendlingen, Germany

Place of manufacture: TTS Cleantec GmbH
Pionierstr. 1, 89257 Illertissen, Germany

Summary of testing

Testing method: 47 CFR FCC Part 1.1307(clause (b)(1)(i)(B) and (b)(3)(ii)(B))

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

Remarks: Date of receipt of test items: 2024-06-09
Number of items tested: 1
Date of performance of tests: 2025-03-27
The test results presented in this report relate only to the items tested.
The test items were tested in the condition as received.
The product complies with the requirements of the testing methods.

Tested by: Nik Vončina

Approved by: Marjan Mak

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CONTENTS page

1 GENERAL

History sheet			
Date	Report No.	Change	Revision
2025-07-16	T251-0262/25	Initial Test Report issued.	--

1.1 Equipment under test

Vacuum cleaner
Type: **CT MIDI I (US), CT MIDI I AC (US)**

Environment: Uncontrolled / General Public
Assessment distance: 20 cm

FCC ID: **2AL2E-CTCOM2**

Reviewed test report T251-0076/25 from SIQ Ljubljana.

2 ASSESSMENT PROCEDURE

MPE EVALUATION OF MOBILE 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.

Maximum contribution of each technology is calculated with calculated power density compared to the limit.
Maximum contribution = Power density / Power density Limit

3 MEASUREMENTS / CALCULATIONS

Antenna type and gain: Integral antenna, 1.68 dBi

47 CFR FCC Part 1.1307(Clause (b)(3)(ii)(B)):

Frequency (MHz)	Maximum* power with tune-up (dBm)	Maximum* power density with tune-up (mW/cm^2)	Limit (mW/cm^2)
2402-2480	6.48	0.000885	1

* Gated power with Duty Cycle calculated in
** maximum tolerance provided from manufacturer is ±2dB.

Conclusion: PASS

There is no simultaneous transmission between any other transmitter.