No.:
FCCSZ2025-0009-H

TEST REPORT

FCC ID	:	**2AD6G-RI460**
NAME OF SAMPLE	:	**INDUSTRIAL PRINTER**
APPLICANT	:	**Rongta Technology (Xiamen) Group Co., Ltd.**
CLASSIFICATION OF TEST	:	**N/A**

CVC Testing Technology (Shenzhen) Co., Ltd.

Applicant	**Name: Rongta Technology (Xiamen) Group Co., Ltd.** **Address: No.88, Tonghui South Road, Tongan, Xiamen,China.**
Manufacturer	**Name: Rongta Technology (Xiamen) Group Co., Ltd.** **Address: No.88, Tonghui South Road, Tongan, Xiamen,China.**
Equipment Under Test	**Product Name: INDUSTRIAL PRINTER** **Model/Type: RI460** **Additional Model/Type: See Chapter 2.1** **Brand Name: N/A** **Serial NO.: N/A** **Sample NO.:2-1**

Date of Receipt.	**Jan.4, 2025**	Date of Testing	**Jan.4, 2025～Apr.11, 2025**

Test Specification	**Test Result**
FCC Part 2 (Section 2.1091) **KDB 447498 D04V01** **IEEE C95.1**	PASS

Evaluation of Test Result	The equipment under test was found to comply with the requirements of the standards applied. Seal of CVC **Issue Date:Apr.11, 2025**

Compiled by:	Reviewed by:	Approved by:
Liang Jiatong	Mo Xianbiao	Dong Sanbi
Name Signature	Name Signature	Name Signature

Other Aspects: NONE.

Abbreviations:OK, Pass= passed Fail = failed N/A= not applicable EUT= equipment, sample(s) under tested

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RELEASE CONTROL RECORD

ISSUE NO.	REASON FOR CHANGE	DATE ISSUED
FCCSZ2025-0009-H	Original release	Apr.11, 2025

1. GENERAL PRODUCT INFORMATION

PRODUCT	INDUSTRIAL PRINTER
BRAND	N/A
TEST MODEL	RI460
POWER SUPPLY	AC 110V
ADDITIONAL MODEL	RI460A、RI460B、RI460C、RI460D、RI460E 、RI460F、RI460G、RI460H、RI460I、RI460J、RI460K、RI460L、RI460M、RI460N、RI460O、RI460P、RI460Q、RI460R、RI460S、RI460T、RI460U、RI460V、RI460W、RI460X、RI460Y、RI460Z、RI460HD、RI460h、RI460r、RI460u、MP460,MP460r，TP460，RI463、RI463A、RI463B、RI463C~Z、RI463h、RI463r、RI463u，RI466、RI466A、RI466B、RI466C、RI466C~Z、RI466h、RI466r、RI466u、MP463，MP463r,MP466，MP466r、RIxxxy(xxx=0-999、y=A-Z、a-z、HD or blank)、MPxxxy(xxx=0-999、y=A-Z 、a-z 、HD or blank)
OPERATING FREQUENCY	902.75MHz ~ 927.25MHz for RFID 2402MHz ~ 2480MHz for BT_EDR 2402MHz ~ 2480MHz for BT_LE 2412MHz ~ 2462MHz for 2.4G WiFi 5180 ~ 5240MHz for 5G WiFi 5745 ~ 5825MHz for 5.8G WiFi
PEAK OUTPUT POWER	14.45 dBm for RFID 7.35 dBm for BT-EDR 7.58dBm for BT-LE 20.92 dBm for 2.4GWIFI 15.19 dBm for 5G WIFI 12.02 dBm for 5.8G WIFI
ANTENNA TYPE AND GAIN (Remark 4/5)	RFID Antenna(Main): FPC Antenna with 0.16dBi gain BT Antenna(Main): FPC Antenna with 1.95dBi gain for BT WiFi Antenna(Aux)FPC Antenna with 1.95dBi gain for 2.4G WiFi WiFi Antenna(Aux):FPC Antenna with 4.11dBi gain for 5G WiFi WiFi Antenna(Aux):FPC Antenna with 5.46dBi gain for 5.8G WiFi
I/O PORTS	Refer to user's manual

Remark:

1. For more detailed features description, please refer to the manufacturer's specifications or the User's Manual.
2. For the test results, the EUT had been tested with all conditions. But only the worst case was shown in test report.
3. EUT photo refer to the report (Report NO.: FCCSZ2025-0009-EUT).
4. Please refer to the antenna report.
5. Since the above data and/or information is provided by the client relevant results or conclusions of this report are only made for these data and/or information, CVC is not responsible for the authenticity, integrity and results of the data and information and/or the validity of the conclusion.
6. Test Model(RI460) and other model the only difference is the model name

2. RF EXPOSURE LIMIT

(Option B) According to FCC Part2.1091 and FCC Part1.1307b, the available maximum time-averaged power or effective radiated power (ERP), whichever is greater, is less than or equal to the threshold Pth (mW) described in the following formula. This method shall only be used at separation distances (cm) from 0.5 centimeters to 40 centimeters and at frequencies from 0.3 GHz to 6 GHz (inclusive). P is given by:

$$P_{\text{th}}\,(\text{mW}) = \begin{cases} ERP_{20\text{ cm}}(d/20\text{ cm})^{x} & d \le 20\text{ cm} \\ ERP_{20\text{ cm}} & 20\text{ cm} < d \le 40\text{ cm} \end{cases}$$

Where：

$$x = -\log_{10}\left(\frac{60}{ERP_{20\text{ cm}}\sqrt{f}}\right)$$

and f is in GHz;

and

$$P_{\text{th}}\,(\text{mW}) = ERP_{20\text{ cm}}\,(\text{mW}) = \begin{cases} 2040f & 0.3\text{ GHz} \le f < 1.5\text{ GHz} \\ 3060 & 1.5\text{ GHz} \le f \le 6\text{ GHz} \end{cases}$$

(Option C) Or using Table 1 and the minimum separation distance (R in meters) from the body of a nearby person for the frequency (f in MHz) at which the source operates, the ERP (watts) is no more than the calculated value prescribed for that frequency. For the exemption in Table 1 to apply, R must be at least λ/2π, where λ is the free-space operating wavelength in meters. If the ERP of a single RF source is not easily obtained, then the available maximum time-averaged power may be used in lieu of ERP if the physical dimensions of the radiating structure(s) do not exceed the electrical length of λ/4 or if the antenna gain is less than that of a half-wave dipole (1.64 linear value).

Table 1 to §1.1307(b)(3)(i)(C) - Single RF Sources Subject to Routine Environmental Evaluation

RF Source Frequency (MHz)	Threshold ERP (W)
0.3 - 1.34	$1920R^2$
1.34 - 30	$3450R^2/f^2$
30 - 300	$3.38R^2$
300 - 1500	$0.0128R^2/f^2$
1500 - 100000	$19.2R^2$

For multiple RF sources: Multiple RF sources are exempt if:

a) The available maximum time-averaged power of each source is no more than 1 mW and there is a separation distance of two centimeters between any portion of a radiating structure operating and the nearest portion of any other radiating structure in the same device, except if the sum of multiple sources is less than 1 mW during the time-averaging period, in which case they may be treated as a single source (separation is not required). This exemption may not be used in conjunction with other exemption criteria other than those is paragraph (b)(3)(i)(A) of this section. Medical implant devices may only use this exemption and that in paragraph (b)(3)(i)(A).

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.

$$\sum_{i=1}^{a} \frac{P_i}{P_{th,i}} + \sum_{j=1}^{b} \frac{ERP_j}{ERP_{th,j}} + \sum_{k=1}^{c} \frac{Evaluated_k}{Exposure\ Limit_k} \leq 1$$

Where:

a = number of fixed, mobile, or portable RF sources claiming exemption using paragraph (b)(3)(i)(B) of this section for Pth, including existing exempt transmitters and those being added.

b = number of fixed, mobile, or portable RF sources claiming exemption using paragraph (b)(3)(i)(C) of this section for Threshold ERP, including existing exempt transmitters and those being added.

c = number of existing fixed, mobile, or portable RF sources with known evaluation for the specified minimum distance including existing evaluated transmitters.

Pi = the available maximum time-averaged power or the ERP, whichever is greater, for fixed, mobile, or portable RF source i at a distance between 0.5 cm and 40 cm (inclusive).

Pth,i = the exemption threshold power (Pth) according to paragraph (b)(3)(i)(B) of this section for fixed, mobile, or portable RF source i.

ERPj = the ERP of fixed, mobile, or portable RF source j.

ERPth,j = exemption threshold ERP for fixed, mobile, or portable RF source j, at a distance of at least λ/2π according to the applicable formula of paragraph (b)(3)(i)(C) of this section.

Evaluatedk = the maximum reported SAR or MPE of fixed, mobile, or portable RF source *k* either in the device or at the transmitter site from an existing evaluation at the location of exposure.

Exposure Limitk = either the general population/uncontrolled maximum permissible exposure (MPE) or specific absorption rate (SAR) limit for each fixed, mobile, or portable RF source *k,* as applicable from § 1.1310 of this chapter.

3. CLASSIFICATION

The antenna of this product, under normal use condition, is at least 20cm away from the body of the user. So, this device is classified as **Mobile Device**.

4. ANTENNA GAIN

The antennas provided to the EUT, please refer to the following table:

Transmitter Circuit	Peak Gain (dBi)	Antenna Type
RFID	0.16	FPC Antenna
2.4G WiFi or BT	1.95	FPC Antenna
5G WiFi	5.46	FPC Antenna

This is provided by the manufacturer. The laboratory is not responsible for technical data provided by the customer.

5. CALCULATION RESULT OF MAXIMUM CONDUCTED POWER

The measured Conducted Power

Option	Mode	Frequency (MHz)	Target Power (dBm)	Tolerance (dBm)	Lower Tolerance (dBm)	Upper Tolerance (dBm)
B	RF ID	902.75 ~ 927.25	14	+-1	13	15
	BT_EDR	2402~2480	7	+-1	6	8
	BT_LE	2402~2480	7	+-1	6	8
	2.4G WiFi	2412 ~ 2462	20	+-1	19	21
	5G WiFi	5180 ~ 5240	15	+-1	14	16
	5.8G WiFi	5745 ~ 5825	12	+-1	11	13

The tuned Conducted Power (declared by client)

Option	Technology	Maximum tune up power (dBm)	Maximum Antenna Gain (dBi)	EIRP (dBm)	ERP (dBm)	ERP (mW)	Part1.1307b Threshold (mW)	Ratio	Verify
B	RFID	15	0.16	15.16	13.01	20	1841.61	**0.011**	PASS
	BT_EDR	8	1.95	9.95	7.8	6.03	3060	**0.002**	PASS
	BT_LE	8	1.95	9.95	7.8	6.03	3060	0.002	PASS
	2.4G WiFi	21	1.95	22.95	20.8	120.23	3060	**0.039**	PASS
	5G WiFi	16	4.11	20.11	17.96	62.52	3060	0.02	PASS
	5G WiFi	13	5.46	18.46	16.31	42.76	3060	0.014	PASS

Note：R=20cm

CONCLUSION:

BT+WIFI+RFID can be transmitted simultaneously

Max：RFID+ BT +2.4GWIFI:0.011 + 0.002+0.039 = 0.052< 1, which is less than the “1” limit. So is compliant with the RF exposure requirements.

Important

(1) The test report is invalid without the official stamp of CVC;

(2) Any part photocopies of the test report are forbidden without the written permission from CVC;

(3) The test report is invalid without the signatures of Approval and Reviewer;

(4) The test report is invalid if altered;

(5) Objections to the test report must be submitted to CVC within 15 days.

(6) Generally, commission test is responsible for the tested samples only.

(7) As for the test result “-” or “N” means “not applicable”, “/” means “not test”, “P” means “pass” and “F” means “fail”

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