

RF Exposure Evaluation Report

Report Reference No...... : **MTEB26050209-H**

FCC ID..... : **NRH-LR-R900P**

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Date of issue..... : **May 26, 2026**

Representative Laboratory Name.: **Shenzhen Most Technology Service Co., Ltd.**

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Applicant's name..... : **Netvox Technology Co., Ltd.**

Address..... : No 21, Sec 1 Chung Hua West Road, Tainan, Taiwan

Test specification/ Standard..... : **47 CFR Part 1.1307; 47 CFR Part 1.1310**
KDB447498D01 General RF Exposure Guidance v06

TRF Originator..... : Shenzhen Most Technology Service Co., Ltd.

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Test item description..... : Wireless multifunctional sensor

Trade Mark..... : netvox

Model/Type reference..... : R900PB02AO1(battery powered),
R900PD04DO1(adapter powered)

Listed Models : R900PxyyyyyzwHTL
(Please refer to the APPENDIX I for the specific model.)

Modulation Type..... : ASK

Operation Frequency..... : 13.56MHz

Hardware Version..... : V0.2

Software Version..... : V1.0

Rating..... : 3.6V battery or Adapter 12V
Battery: 50mA or Adapter: 1.5A

Result..... : PASS

TEST REPORT

Equipment under Test : Wireless multifunctional sensor

Model /Type : R900PB02AO1, R900PD04DO1

Listed Models R900PxyyyyyzwHTL
(Please refer to the APPENDIX I for the specific model.)

Remark Only the model R900PB02AO1, R900PD04DO1 was tested, Their electrical circuit design, layout, components used and internal wiring are identical, The specifications and quantities of external sensors vary

Applicant : **Netvox Technology Co., Ltd.**

Address : No 21, Sec 1 Chung Hua West Road, Tainan, Taiwan

Manufacturer : **Netvox Technology Co., Ltd. (Xiamen)**

Address : No.2, Xin Feng 2 Road, Xiamen Torch Hi-Tech Industrial Development Zone, Xiamen City, China

Test Result:	PASS
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The test report merely corresponds to the test sample.
It is not permitted to copy extracts of these test result without the written permission of the test laboratory.

1. Revision History

Revision	Issue Date	Revisions	Revised By
00	2026.05.26	Initial Issue	Alisa Luo

2. SAR Evaluation

2.1 RF Exposure Compliance Requirement

2.1.1 Standard Requirement

According to KDB447498D01 General RF Exposure Guidance v06

4.3.1. Standalone SAR test exclusion considerations

Unless specifically required by the published RF exposure KDB procedures, standalone 1-g head or body and 10-g extremity SAR evaluation for general population exposure conditions, by measurement or numerical simulation, is not required when the corresponding SAR Exclusion Threshold condition, listed below, is satisfied.

2.1.2 Limits

For frequencies below 100 MHz, the following may be considered for SAR test exclusion (also illustrated in Appendix C):³³

- 1) For test separation distances >50 mm and <200 mm, the power threshold at the corresponding test separation distance at 100 MHz in step b) is multiplied by $[1 + \log(100/f_{\text{(MHz)}})]$
- 2) For test separation distances ≤ 50 mm, the power threshold determined by the equation in c) 1) for 50 mm and 100 MHz is multiplied by $\frac{1}{2}$
- 3) SAR measurement procedures are not established below 100 MHz.

When SAR test exclusion cannot be applied, a KDB inquiry is required to determine SAR evaluation requirements for any SAR test results below 100 MHz to be acceptable.³⁴

Appendix C

SAR Test Exclusion Thresholds for < 100 MHz and < 200 mm

Approximate SAR test exclusion power thresholds at selected frequencies and test separation distances are illustrated in the following table. The equation and threshold in 4.3.1 must be applied to determine SAR test exclusion.

MHz	< 50	50	60	70	80	90	100	110	120	130	140	150	160	170	180	190	mm
100	237	474	481	487	494	501	507	514	521	527	534	541	547	554	561	567	mW
50	308	617	625	634	643	651	660	669	677	686	695	703	712	721	729	738	
10	474	948	961	975	988	1001	1015	1028	1041	1055	1068	1081	1095	1108	1121	1135	
1	711	1422	1442	1462	1482	1502	1522	1542	1562	1582	1602	1622	1642	1662	1682	1702	
0.1	948	1896	1923	1949	1976	2003	2029	2056	2083	2109	2136	2163	2189	2216	2243	2269	
0.05	1019	2039	2067	2096	2125	2153	2182	2211	2239	2268	2297	2325	2354	2383	2411	2440	
0.01	1185	2370	2403	2437	2470	2503	2537	2570	2603	2637	2670	2703	2737	2770	2803	2837	

2.1.3 EUT RF Exposure

For 13.56MHz wireless:

Field strength=79.7dBuV/m

EIRP =79.7dBuV/m-95.2+6= -9.5dBm

Channel	EIRP	Tune up tolerance (dBm)	Maximum tune-up Power (dBm)	Maximum tune-up Power (MW)	Limit (mW)	Result
13.56 MHz	-9.5dBm	± 1	-8.5	0.141	308	Pass

Note: 1) Refer to report MTEB26050209-R for EUT test Max Conducted average Output Power value.

Simultaneous TX(NFC+LORA):

Mode	Power Density((mW/cm ²))		Conclusion
	Result	Limit	
Simultaneous TX	0.1204	1.0	Pass

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

Results(NFC+LORA):0.141/308+0.36/3=0.1204

APPENDIX I

R900P Wireless Sensor Model Naming Description

Format: R900PxyyyzzwHTL

Description of differences among series products: Apart from the differences in power supply methods of batteries and adapters, as well as the main functions distinguished according to the list, all other models are variations of the full-function model with certain individual functions removed.

Meaning of each letter in the naming format:

Field position	Values
Premix	R900P
“x” (power supply method)	“D”, or “B”
“yyyyy” (Main Sensor Codes)	Refer to the attachment “R900P Main Sensor Codes”
“z” (output or input signal function)	“O”, “I” or blank
“w” (output or input signal count)	“1”, “2”, or blank
“HT” (Temperature and humidity function)	“HT”, or blank
“L” (Light sensing function)	“L”, or blank

R900P Main Sensor Codes (Product name: Wireless Sensor)

Main Sensor Code	Specifications
01A	Wireless 1-Gang Water pH, Turbidity, and Residual Chlorine Sensor
01B	Wireless 2-Gang Water pH, Turbidity, and Residual Chlorine Sensor
02A	Wireless 1-Gang Soil Moisture, Temperature, and Electrical Conductivity Sensor
02B	Wireless 2-Gang Soil Moisture, Temperature, and Electrical Conductivity Sensor
03A	Wireless Top-Mounted Ultrasonic Level Sensor
03B	Wireless Top-Mounted Ultrasonic Level Sensor
04A	Wireless 1-gang RS485 Adapter
04B	Wireless 2-gang RS485 Adapter
04C	Wireless 3-gang RS485 Adapter
04D	Wireless 4-gang RS485 Adapter
04P	Wireless 16-gang RS485 Adapter
05A	Wireless 1-Gang Water pH, ORP, and Temperature Sensor
05B	Wireless 2-Gang Water pH, ORP, and Temperature Sensor
06A	Wireless 1-Gang Ceiling Type Ultrasonic Material Level Detection Sensor
06B	Wireless 2-Gang Ceiling Type Ultrasonic Material Level Detection Sensor

07A	Wireless 1-Gang Lidar Material Level Detection Sensor
07B	Wireless 2-Gang Lidar Material Level Detection Sensor
08	Wireless NPK and Electrical Conductivity Sensor
09	Wireless Wind Direction, Temperature, and Humidity Sensor
10	Wireless Noise, Temperature, and Humidity Sensor
11	Wireless CO2, Temperature, Humidity, PM2.5 Sensor
12	Wireless CO2, Temperature, Humidity, PM2.5, and Noise Sensor
13A	Wireless Bottom-Mounted Ultrasonic Liquid Level Sensor
13B	Wireless Bottom-Mounted Ultrasonic Liquid Level Sensor
14A	Wireless 1-Gang Surface-mounted Capacitive Proximity Sensor
14B	Wireless 2-Gang Surface-mounted Capacitive Proximity Sensor
15A	Wireless 1-Gang Pipe-mounted Capacitive Proximity Sensor
15B	Wireless 2-Gang Pipe-mounted Capacitive Proximity Sensor
16	Wireless Wind Speed, Wind Direction, Air Pressure Sensor
17	Wireless Outdoor PM2.5, Noise, Temperature, Humidity Sensor
18	Wireless Outdoor Noise, Temperature, Humidity Sensor
19	Wireless Residual Chlorine Sensor
20	Wireless Temperature, Humidity, CO2 and TVOC (VOC) sensor
21	Wireless Wind Direction, Wind Speed, Temperature, and Humidity Sensor
22	Wireless Soil Moisture Sensor
23	Wireless NPK Sensor
24	Wireless CO Sensor
25	Wireless NO Sensor
26	Wireless O3 Sensor
27	Wireless H2S sensor
28	Wireless NO2 Sensor
29	Wireless SO2 Sensor
30	Wireless Noise Sensor
31	Wireless pH Sensor
32	Wireless ORP Sensor
33	Wireless Turbidity Sensor
34	Wireless Liquid Level Sensor
35	Wireless Seawater Sensor
36	Wireless CO2 Sensor
37	Wireless Wind Speed Sensor
38	Wireless Wind Direction Sensor
39	Wireless Atmospheric Pressure Sensor

40	Wireless PM2.5 Sensor
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Examples:

Model	Interpretation
R900PD01AO1L	Wireless 1-Gang Water pH, Turbidity, and Residual Chlorine Sensor, with 1 x Digital Output and Light Sensing (DC-powered)
R900PB02AO1	Wireless 1-Gang Soil Moisture, Temperature, and Electrical Conductivity Sensor, with 1 x Digital Output (Battery-powered)

.....**End of Report**.....