



TEST REPORT

Eurofins KCTL Co.,Ltd. 65, Sinwon-ro, Yeongtong-gu, Suwon-si, Gyeonggi-do, 16677, Korea TEL: 070-4904-0113 FAX: 82-505-299-8311 www.kctl.co.kr		Report No.: KR25-SRF0137 Page(1) of (8)	KCTL
1. Client ◦ Name : JVCKENWOOD Corporation ◦ Address : 3-12, Moriyacho, Kanagawa-ku, Yokohama-shi, Kanagawa, 221-0022, Japan ◦ Date of Receipt : 2025-05-23			
2. Use of Report : Class II Permissive Change			
3. Name of Product / Model : 800MHz Digital Transceiver / NX-3920G-K			
4. Manufacturer / Country of Origin : JVCKENWOOD Corporation / Japan			
5. FCC ID : K44502600			
6. IC Certification No.: 282F-502600			
7. Date of Test : 2025-07-02 to 2025-07-15			
8. Location of Test : ☒ Permanent Testing Lab ☐ On Site Testing (Address: 65, Sinwon-ro, Yeongtong-gu, Suwon-si, Gyeonggi-do, 16677, Korea)			
9. Test method used : FCC Part 1.1310 RSS-102 Issue 6			
10. Test Result : Refer to the test result in the test report			
Affirmation	Tested by Name: Jungwon Seo (Signature)		Technical Manager Name: Kwonse Kim (Signature)
			2025-07-31
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REPORT REVISION HISTORY

Date	Revision	Page No
2025-07-31	Originally issued	-

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General remarks for test reports

Statement concerning the uncertainty of the measurement systems used for the tests

(may be required by the product standard or client)

☐ Internal procedure used for type testing through which traceability of the measuring uncertainty has been established:

Procedure number, issue date and title:

Calculations leading to the reported values are on file with the testing laboratory that conducted the testing.

☒ Statement not required by the standard or client used for type testing

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2.1. Frequency/channel operations

This device contains the following capabilities:

Analogue, NXDN (Next Generation Digital Narrowband), DMR (Digital Mobile Radio), CWID (Continuous Wave Identification)

Band 1	Band 2
Frequency (MHz)	Frequency (MHz)
806.05	851.05
:	:
815.05	860.05
:	:
823.95	868.95

3. RF Exposure

FCC

Regulation

This document is prepared to show compliance with the RF Exposure requirements as required in §1.1310 of the FCC rules and Regulations.

The limit for Maximum Permissible Exposure (MPE), specified in FCC §1.1310, is listed in Table 1-1. According to FCC §1.1310: the criteria listed in the following table shall be used to evaluate the environmental impact of human exposure to radio-frequency (RF) radiation as specified in §1.1307(b).

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 [minute]
(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 ~ 15 000	/	/	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
<u>300 ~ 1 500</u>	<u>/</u>	<u>/</u>	<u>f/1 500</u>	<u>30</u>
1 500 ~ 15 000	/	/	1.0	30

f=frequency in MHz, *= plane-wave equivalent power density

IC

RF Field strength and power density limits for devices used by the general public (uncontrolled environment)

Frequency Range (MHz)	Electric Field (V _{RMS} /m rms)	Magnetic Field (A _{RMS} /m)	Power Density (W/m ²)	Reference Period (minutes)
10-20	27.46	0.072 8	2	6
20-48	58.07 / $f^{0.25}$	0.154 0 / $f^{0.25}$	8.944 / $f^{0.5}$	6
48-300	22.06	0.058 52	1.291	6
300-6 000	3.142 $f^{0.341\ 7}$	0.008 335 $f^{0.341\ 7}$	0.026 19 $f^{0.683\ 4}$	6
6 000-15 000	61.4	0.163	10	6
15 000-150 000	61.4	0.163	10	616 000/ $f^{1.2}$
150 000-300 000	0.158 $f^{0.5}$	$4.21 \times 10^{-4} f^{0.5}$	$6.67 \times 10^{-5} f$	616 000/ $f^{1.2}$

Note: f is frequency in MHz.

RF field strength and power density limits for controlled-use devices (controlled environment)

Frequency Range (MHz)	Electric Field (V _{RMS} /m rms)	Magnetic Field (A _{RMS} /m)	Power Density (W/m ²)	Reference Period (minutes)
10-20	61.4	0.163	10	6
20-48	129.8 / $f^{0.25}$	0.344 4 / $f^{0.25}$	44.72 / $f^{0.5}$	6
48-100	49.33	0.130 9	6.455	6
100-6 000	15.60 $f^{0.25}$	0.041 38 $f^{0.25}$	0.645 5 $f^{0.5}$	6
6 000-15 000	137	0.364	50	6
15 000-150 000	137	0.364	50	616 000/ $f^{1.2}$
150 000-300 000	0.354 $f^{0.5}$	$9.40 \times 10^{-4} f^{0.5}$	$3.33 \times 10^{-4} f$	616 000/ $f^{1.2}$

Note: f is frequency in MHz.

For both table 7 and table 8, refer to Health Canada's Safety Code 6 for relevant notes and additional information.

3.1. Test results

MPE (Maximum Permissible Exposure) Prediction

Predication of MPE limit at a given distance: Equation from page 18 of OET Bulletin 65, Edition 97-01

$$S = PG/4\pi R^2 \quad (\Rightarrow R = \sqrt{PG/4\pi S})$$

S = power density

P = Power input to antenna

G = Power gain of the antenna in the direction of interest relative to an isotropic radiator

R = distance to the center of radiation of the antenna

Calculation Result of RF exposure (FCC)

Mode	Frequency [MHz]	Output Power [dBm]	Ant Gain [dBi]	Power density [mW/cm ²]	Limit [mW/cm ²]
800 MHz Digital Transceiver	860.05	38.90	2.15	0.538 28	0.57

Note.

1. Maximum peak output power: 15.5 W (41.90 dBm)
2. Output power: maximum peak output power x duty cycle 50%
3. The power density "Pd" at a distance of 43.39 cm calculated from the friis transmission Formula is far below the limit of 0.57 mW/cm².

Calculation Results of RF exposure (IC)

Mode	Frequency [MHz]	Output Power [dBm]	Ant Gain [dBi]	Power density [W/m ²]	Limit [W/m ²]
800 MHz Digital Transceiver	860.05	38.90	2.15	2.541 23	2.65

Note.

1. Maximum peak output power: 15.5 W (41.90 dBm)
2. Output power: maximum peak output power x duty cycle 50%
3. The power density "Pd" at a distance of 63.15 cm calculated from the friis transmission Formula is far below the limit of 2.65 W/m².

End of test report