



# TEST REPORT

**REGULATION :**

**FCC Part 1.1310 , RSS-102 Issue5 2015  
(General Population/Uncontrolled Exposure)**

Applicant	Testing Laboratory
JVC KENWOOD Corporation 1-16-2, Hakusan, Midori-ku, Yokohama-shi Kanagawa, 226-8525 Japan Tel.: +81 45 939 6254 Fax.: +81 45 939 6261	Intertek Japan K.K. Kashima Laboratory (No.12 Test site) 298-6 Sada, Kashima, Ibaraki 314-0027 Japan Tel. +81 299 82 8464 (Kashima Immunity Test Room) 3-2 Sunayama, Kamisu, Ibaraki 314-0255 Japan Tel. +81 479 40 1097 URL: <a href="http://www.japan.intertek-etlsemko.com">http://www.japan.intertek-etlsemko.com</a>

<b>Equipment type</b>	UHF DIGITAL TRANSCEIVER
<b>Trademark</b>	KENWOOD
<b>FCC Model(s)</b>	NX-3820HG-K2
<b>IC Model(s)</b>	NX-3820HG-K2
<b>Serial No.</b>	90-No.13
<b>FCC ID</b>	K44479301
<b>IC CN and UPN</b>	282F-479301
<b>Test Result</b>	Complied
<b>Report Number</b>	17020200JKA-002
<b>Report issue date</b>	March 31, 2017

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Approved by

Hideaki Kosemura

[Technical Manager]

Tested by

Koichi Wagatsuma

[Engineer]

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**SECTION 1. INFORMATION****APPLICANT**

Company	JVC KENWOOD Corporation
Address	1-16-2, Hakusan, Midori-ku, Yokohama-shi Kanagawa, 226-8525 Japan
Contact Person	Tamaki Shimamura

**MANUFACTURER**

Company	JVC KENWOOD Corporation
Address	1-16-2, Hakusan, Midori-ku, Yokohama-shi Kanagawa, 226-8525 Japan

**EQUIPMENT UNDER TEST**

FCC Model(s)	NX-3820HG-K2
IC Model(s)	NX-3820HG-K2
Serial No.	90-No.13
Frequency range	FCC: 406.1 to 470 MHz IC: 406.1 to 430 MHz and 450 to 470 MHz
FCC ID	K44479301
IC CN and UPN	282F-479301
Maximum Power Rating	45 W
Duty cycle	50 %
Collector Current, A	13.0 amps (Maximum)
Collector Voltage, Vdc	13.6 Vdc
Supply Voltage, Vdc	13.6 Vdc

**TEST DATE OF ISSUE AND TEST ENGINEER**

Date of Issue	February 28, 2017
temperature	22 to 24 [degree C]
Humidity Variation	45 to 55 [%]
Atmospheric Pressure	101 to 101 [kPa]
Test Engineer	Koichi Wagatsuma
Test Location	Kashima Immunity Test Room
Regulations	FCC Part 1.1310 , RSS-102 Issue5 2015
Test method/Guide	KDB 447498 D01 General RF Exposure Guidance v05r02
Test Procedure	RJP-TE103

**Revision Summary**

Revised Date	Section	Description of Changes

## SECTION 2. TEST DATA

The TX antenna place was inside a semi anechoic chamber at height of 0.8 m from the Ground reference plane to simulate being mounted on a vehicle.

The isotropic probe position was a distance of 0.4 m from the TX antenna and the power density was measured from 0.1 m to 2.0 m (at 0.1 m increments) with the peak value.

The EUT is a PTT radio for mobile application with a peak power of 45 W. By allowing for an operational 50 % factor the power was reduced to 22.5 W for testing purposes yet transmitted continuously during the test.

The 1/4 wave antenna (0 dBd gain) was utilized for testing.  
(Model No : QWFT120 / Manufacturer : Laird Technologies)

### Measurement Result

TX frequency (MHz)	Output Power W	Measurement distance (m)	Power Density (mW/cm <sup>2</sup> )	Limit (mW/cm <sup>2</sup> )		Result
				RSS	FCC	
406.15	45	0.4	0.117	0.159	0.271	PASS
469.95	45	0.4	0.091	0.175	0.313	PASS
429.95	45	0.4	0.110	0.165	0.287	PASS

Power Density = 20 measurements data (0.1m - 2.0m) has been averaged.

Limit : General Population/Uncontrolled Exposure

**Measurement data**

406.15 MHz

Probe Height (m)	Reading Power Density (mW/cm <sup>2</sup> )	Probe Factor	Power Density (mW/cm <sup>2</sup> )
0.1	0.020	1.22	0.024
0.2	0.009	1.22	0.011
0.3	0.015	1.22	0.018
0.4	0.034	1.22	0.041
0.5	0.047	1.22	0.058
0.6	0.051	1.22	0.063
0.7	0.064	1.22	0.078
0.8	0.128	1.22	0.157
0.9	0.167	1.22	0.204
1.0	0.208	1.22	0.254
1.1	0.233	1.22	0.285
1.2	0.175	1.22	0.214
1.3	0.141	1.22	0.172
1.4	0.159	1.22	0.194
1.5	0.141	1.22	0.173
1.6	0.123	1.22	0.150
1.7	0.088	1.22	0.107
1.8	0.057	1.22	0.070
1.9	0.036	1.22	0.044
2.0	0.024	1.22	0.030

Power Density = Reading Power Density x Probe Factor

469.95 MHz

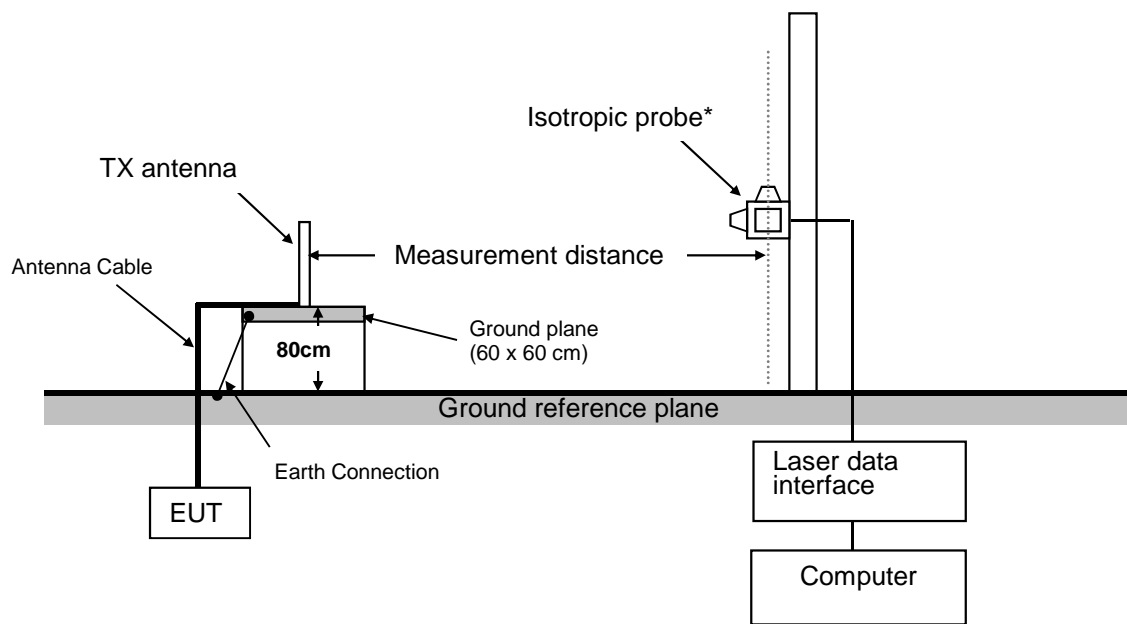
Probe Height (m)	Reading Power Density (mW/cm <sup>2</sup> )	Probe Factor	Power Density (mW/cm <sup>2</sup> )
0.1	0.013	1.21	0.015
0.2	0.009	1.21	0.010
0.3	0.007	1.21	0.009
0.4	0.015	1.21	0.018
0.5	0.026	1.21	0.031
0.6	0.037	1.21	0.045
0.7	0.056	1.21	0.067
0.8	0.116	1.21	0.139
0.9	0.134	1.21	0.162
1.0	0.119	1.21	0.144
1.1	0.126	1.21	0.152
1.2	0.114	1.21	0.138
1.3	0.123	1.21	0.148
1.4	0.152	1.21	0.184
1.5	0.148	1.21	0.179
1.6	0.113	1.21	0.136
1.7	0.080	1.21	0.097
1.8	0.054	1.21	0.065
1.9	0.038	1.21	0.046
2.0	0.027	1.21	0.032

Power Density = Reading Power Density x Probe Factor

429.95 MHz

Probe Height (m)	Reading Power Density (mW/cm <sup>2</sup> )	Probe Factor	Power Density (mW/cm <sup>2</sup> )
0.1	0.020	1.22	0.024
0.2	0.005	1.22	0.007
0.3	0.012	1.22	0.014
0.4	0.027	1.22	0.033
0.5	0.031	1.22	0.037
0.6	0.034	1.22	0.041
0.7	0.059	1.22	0.072
0.8	0.125	1.22	0.152
0.9	0.156	1.22	0.190
1.0	0.165	1.22	0.201
1.1	0.179	1.22	0.218
1.2	0.151	1.22	0.184
1.3	0.135	1.22	0.164
1.4	0.160	1.22	0.195
1.5	0.162	1.22	0.197
1.6	0.133	1.22	0.162
1.7	0.100	1.22	0.122
1.8	0.071	1.22	0.087
1.9	0.048	1.22	0.058
2.0	0.028	1.22	0.034

Power Density = Reading Power Density x Probe Factor

**SECTION 3. TEST CONFIGURATION**

\* : The Isotropic probe position was Vertical orientation from the Ground reference plane from 0.1m to 2m (10cm increments) .

**Setup Photos**

**SECTION 4. MEASUREMENT UNCERTAINTY**

30 MHz – 1000 MHz	17.7 % (k=2)
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**SECTION 5. LIST OF MEASURING INSTRUMENTS**

Instrument	Model No.	Serial No.	Manufacturer	Cal Date	Cal Due Date
Isotropic probe	HI-6105	00130667	ETS Lindgren	2017/2/22	2018/2/28
Laser data interface	HI 6113	00130903	ETS Lindgren	N/A	N/A
Testing software	ProbeView™ Laser	Version 2.0.8	ETS Lindgren	N/A	N/A