



# TEST REPORT

REGULATION :

FCC Part 1.1310

(General Population/Uncontrolled Exposure)

Applicant	Testing Laboratory
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Equipment type	UHF DIGITAL TRANSCEIVER
Trademark	KENWOOD
FCC Model(s)	NX-3820HG-K
Serial No.	90-No.13
FCC ID	K44479300
Test Result	Complied
Report Number	17020202JKA-002
Report issue date	March 31, 2017

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Approved by

Hideaki Kosemura

[Technical Manager]

Tested by

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[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-K		
Serial No.	90-No.13		
Frequency range	FCC: 450 to 512 MHz		
FCC ID	K44479300		
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		
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
				FCC	
450.05	45	0.4	0.104	0.300	PASS
481.05	45	0.4	0.078	0.321	PASS
511.95	45	0.4	0.054	0.341	PASS

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

Limit : General Population/Uncontrolled Exposure

**Measurement data**

450.05 MHz

Probe Height (m)	Reading Power Density (mW/cm <sup>2</sup> )	Probe Factor	Power Density (mW/cm <sup>2</sup> )
0.1	0.017	1.21	0.021
0.2	0.016	1.21	0.020
0.3	0.019	1.21	0.023
0.4	0.025	1.21	0.030
0.5	0.032	1.21	0.039
0.6	0.047	1.21	0.057
0.7	0.066	1.21	0.080
0.8	0.123	1.21	0.149
0.9	0.152	1.21	0.184
1.0	0.143	1.21	0.173
1.1	0.149	1.21	0.180
1.2	0.135	1.21	0.163
1.3	0.131	1.21	0.159
1.4	0.154	1.21	0.186
1.5	0.157	1.21	0.190
1.6	0.127	1.21	0.154
1.7	0.092	1.21	0.112
1.8	0.065	1.21	0.078
1.9	0.044	1.21	0.054
2.0	0.032	1.21	0.039

Power Density = Reading Power Density x Probe Factor

481.05 MHz

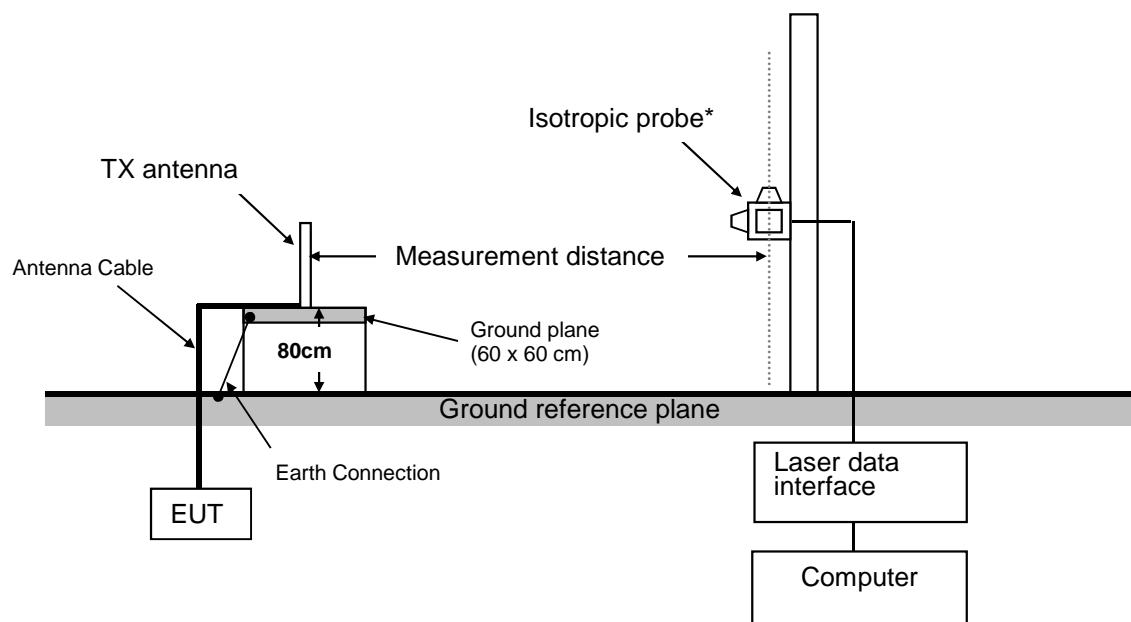
Probe Height (m)	Reading Power Density (mW/cm <sup>2</sup> )	Probe Factor	Power Density (mW/cm <sup>2</sup> )
0.1	0.012	1.20	0.014
0.2	0.008	1.20	0.010
0.3	0.006	1.20	0.007
0.4	0.013	1.20	0.016
0.5	0.023	1.20	0.027
0.6	0.030	1.20	0.036
0.7	0.047	1.20	0.056
0.8	0.100	1.20	0.121
0.9	0.118	1.20	0.143
1.0	0.107	1.20	0.129
1.1	0.109	1.20	0.131
1.2	0.103	1.20	0.123
1.3	0.113	1.20	0.136
1.4	0.140	1.20	0.168
1.5	0.130	1.20	0.156
1.6	0.093	1.20	0.112
1.7	0.060	1.20	0.073
1.8	0.038	1.20	0.046
1.9	0.026	1.20	0.031
2.0	0.017	1.20	0.021

Power Density = Reading Power Density x Probe Factor

511.95 MHz

Probe Height (m)	Reading Power Density (mW/cm <sup>2</sup> )	Probe Factor	Power Density (mW/cm <sup>2</sup> )
0.1	0.002	1.19	0.002
0.2	0.004	1.19	0.005
0.3	0.008	1.19	0.010
0.4	0.014	1.19	0.016
0.5	0.012	1.19	0.014
0.6	0.018	1.19	0.021
0.7	0.037	1.19	0.044
0.8	0.096	1.19	0.114
0.9	0.124	1.19	0.148
1.0	0.090	1.19	0.107
1.1	0.051	1.19	0.061
1.2	0.055	1.19	0.066
1.3	0.087	1.19	0.103
1.4	0.103	1.19	0.123
1.5	0.086	1.19	0.102
1.6	0.055	1.19	0.065
1.7	0.031	1.19	0.037
1.8	0.016	1.19	0.019
1.9	0.009	1.19	0.010
2.0	0.005	1.19	0.006

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