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: http://www.japan.intertek-etlsemko.com

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

Approved by

H. Kosemura

Hideaki Kosemura

[Technical Manager]

Tested by

K. Wagatsuma

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^2)	Limit (mW/cm^2)		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^2)	Probe Foctor	Power Density (mW/cm^2)
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 Foctor

469.95 MHz

Probe Height (m)	Reading Power Density (mW/cm^2)	Probe Foctor	Power Density (mW/cm^2)
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

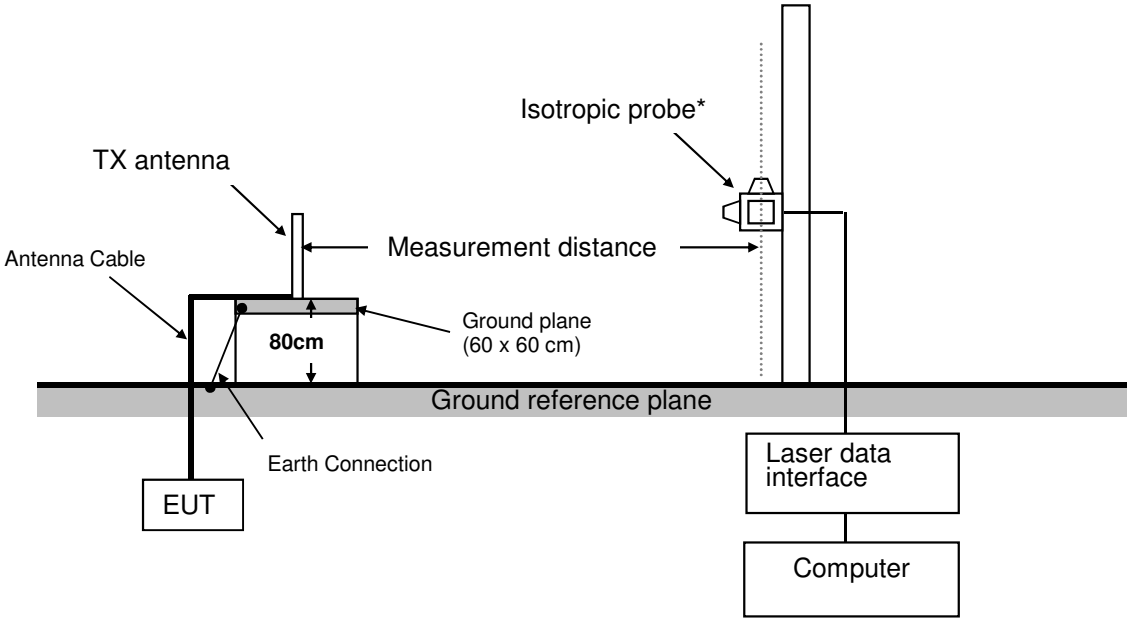
Power Density = Reading Power Density x Probe Foctor

429.95 MHz

Probe Height (m)	Reading Power Density (mW/cm^2)	Probe Foctor	Power Density (mW/cm^2)
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 Foctor

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)

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