



TEST REPORT

REGULATION : **FCC Part 1.1310**
(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 (Anechoic chamber) 298-6 Sada, Kashima, Ibaraki 314-0027 Japan Tel. +81 299 82 8464 (Open area test site) 3-2 Sunayama, Kamisu, Ibaraki 314-0255 Japan Tel. +81 479 40 1097 URL: http://www.japan.intertek-etlsemko.com

Equipment type	UHF DIGITAL TRANSCEIVER
Trademark	KENWOOD
FCC Model(s)	TK-D840H-K, TK-D840HU-K, TK-D840-M
Serial No.	17
FCC ID	K44475701
Test Result	Complied
Report Number	15110011JKA-001
Report issue date	November 27, 2015

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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 Manager, Communications Systems Business Unit

MANUFACTURER

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

EQUIPMENT UNDER TEST

FCC Model(s)	TK-D840H-K, TK-D840HU-K, TK-D840-M	
Serial No.	17	
Frequency range	FCC: 450 to 512 MHz	
FCC ID	K44475701	
Maximum Power Rating	45	W
Duty cycle	50	%
Collector Current, A	15.0	amps (Maximum)
Collector Voltage, Vdc	13.6	Vdc
Supply Voltage, Vdc	13.6	Vdc

TEST DATE OF ISSUE AND TEST ENGINEER

Date of Issue	November 12, 2015		
temperature	18.8	to	19.4 [degree C]
Humidity Variation	45	to	50 [%]
Atmospheric Pressure	102.8	to	102.8 [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 v06		
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 output power of 45 W.

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
				FCC	
450.05	45	0.4	0.055	0.300	PASS
481.05	45	0.4	0.060	0.321	PASS
511.95	45	0.4	0.077	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 ²)	Probe Factor	Power Density (mW/cm ²)
0.1	0.012	1.25	0.007
0.2	0.015	1.25	0.010
0.3	0.023	1.25	0.014
0.4	0.025	1.25	0.016
0.5	0.025	1.25	0.016
0.6	0.041	1.25	0.026
0.7	0.075	1.25	0.047
0.8	0.153	1.25	0.096
0.9	0.170	1.25	0.106
1.0	0.158	1.25	0.099
1.1	0.149	1.25	0.094
1.2	0.127	1.25	0.080
1.3	0.122	1.25	0.077
1.4	0.143	1.25	0.090
1.5	0.149	1.25	0.094
1.6	0.123	1.25	0.077
1.7	0.090	1.25	0.056
1.8	0.062	1.25	0.039
1.9	0.045	1.25	0.028
2.0	0.033	1.25	0.021

Power Density = Reading Power Density x Probe Factor x Duty cycle (50%)

481.05 MHz

Probe Height (m)	Reading Power Density (mW/cm ²)	Probe Factor	Power Density (mW/cm ²)
0.1	0.011	1.31	0.007
0.2	0.013	1.31	0.009
0.3	0.011	1.31	0.007
0.4	0.013	1.31	0.009
0.5	0.019	1.31	0.013
0.6	0.037	1.31	0.024
0.7	0.071	1.31	0.046
0.8	0.148	1.31	0.097
0.9	0.186	1.31	0.122
1.0	0.174	1.31	0.114
1.1	0.161	1.31	0.105
1.2	0.141	1.31	0.092
1.3	0.153	1.31	0.100
1.4	0.183	1.31	0.120
1.5	0.175	1.31	0.114
1.6	0.131	1.31	0.085
1.7	0.091	1.31	0.060
1.8	0.060	1.31	0.039
1.9	0.039	1.31	0.026
2.0	0.026	1.31	0.017

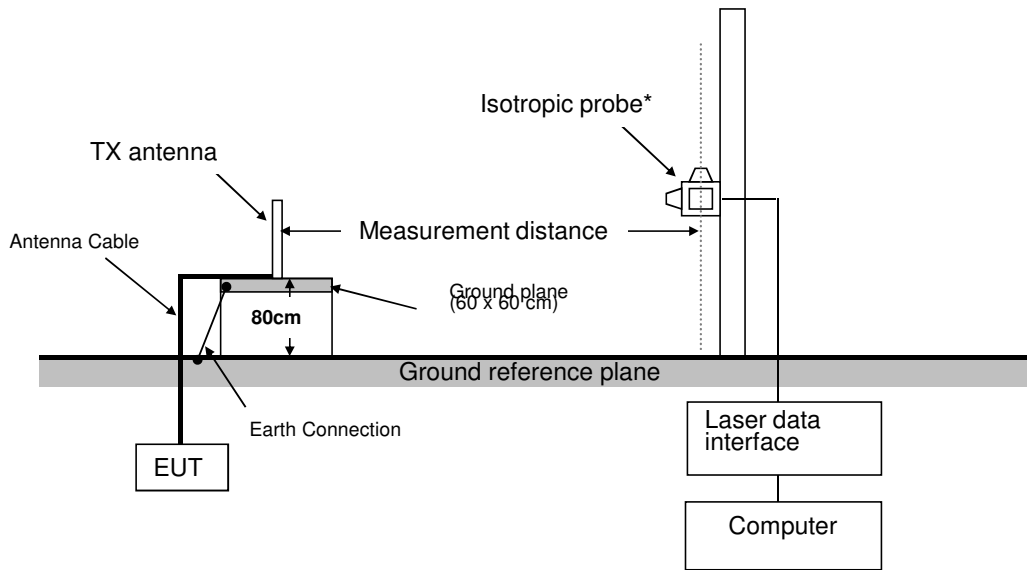
Power Density = Reading Power Density x Probe Factor x Duty cycle (50%)

511.95 MHz

Probe Height (m)	Reading Power Density (mW/cm ²)	Probe Factor	Power Density (mW/cm ²)
0.1	0.004	1.34	0.003
0.2	0.013	1.34	0.008
0.3	0.022	1.34	0.015
0.4	0.029	1.34	0.019
0.5	0.033	1.34	0.022
0.6	0.058	1.34	0.039
0.7	0.094	1.34	0.063
0.8	0.223	1.34	0.149
0.9	0.311	1.34	0.208
1.0	0.226	1.34	0.151
1.1	0.116	1.34	0.078
1.2	0.099	1.34	0.066
1.3	0.179	1.34	0.119
1.4	0.242	1.34	0.161
1.5	0.232	1.34	0.155
1.6	0.168	1.34	0.112
1.7	0.106	1.34	0.071
1.8	0.066	1.34	0.044
1.9	0.043	1.34	0.028
2.0	0.030	1.34	0.020

Power Density = Reading Power Density x Probe Factor x Duty cycle (50%)

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	00130665	ETS Lindgren	2015/2/16	2016/2/29
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