



## TEST REPORT

**REGULATION :**

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

| Applicant                                                                                                                                         | Testing Laboratory                                                                                                                                                                                                                                                                                                                             |
|---------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
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|                          |                                    |
|--------------------------|------------------------------------|
| <b>Equipment type</b>    | VHF DIGITAL TRANSCEIVER            |
| <b>Trademark</b>         | KENWOOD                            |
| <b>FCC Model(s)</b>      | TK-D740-M, TK-D740H-K, TK-D740HV-K |
| <b>IC Model(s)</b>       | TK-D740H-K                         |
| <b>Serial No.</b>        | ES2-2                              |
| <b>FCC ID</b>            | K44475600                          |
| <b>IC CN and UPN</b>     | 282F-475600                        |
| <b>Test Result</b>       | Complied                           |
| <b>Report Number</b>     | 15080010JKA-001                    |
| <b>Report issue date</b> | September 14, 2015                 |

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Approved by

Hideaki Kosemura

[Technical Manager]

Tested by

Koichi Wagatsuma

[Engineer]

**TABLE OF CONTENTS**

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|                                          | Page |
|------------------------------------------|------|
| SECTION 1. INFORMATION                   | 3    |
| SECTION 2. TEST DATA                     | 4    |
| SECTION 3. TEST CONFIGURATION            | 8    |
| SECTION 4. MEASUREMENT UNCERTAINTY       | 9    |
| SECTION 5. LIST OF MEASURING INSTRUMENTS | 9    |

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

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

**MANUFACTURER**

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

**EQUIPMENT UNDER TEST**

|                        |                                                              |                |  |
|------------------------|--------------------------------------------------------------|----------------|--|
| FCC Model(s)           | TK-D740-M, TK-D740H-K, TK-D740HV-K                           |                |  |
| IC Model(s)            | TK-D740H-K                                                   |                |  |
| Serial No.             | ES2-2                                                        |                |  |
| Frequency range        | FCC: 150 to 174 MHz<br>IC: 138 to 144 MHz and 148 to 174 MHz |                |  |
| FCC ID                 | K44475600                                                    |                |  |
| IC CN and UPN          | 282F-475600                                                  |                |  |
| Maximum Power Rating   | 50                                                           | 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        | August 25, 2015                                    |    |               |
| 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 0.6 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 50 W.

The 1/4 wave antenna (0 dBd gain) was utilized for testing.

(Model No : QWFT120 / Manufacturer : Laird Technologies)

### Measurement Result

| TX frequency<br>(MHz) | Output<br>Power<br>W | Measurement<br>distance<br>(m) | Power Density<br>(mW/cm <sup>2</sup> ) | Limit<br>(mW/cm <sup>2</sup> ) |       | Result |
|-----------------------|----------------------|--------------------------------|----------------------------------------|--------------------------------|-------|--------|
|                       |                      |                                |                                        | RSS                            | FCC   |        |
| 138.05                | 50                   | 0.6                            | 0.126                                  | 0.129                          | 0.200 | PASS   |
| 150.05                | 50                   | 0.6                            | 0.057                                  | 0.129                          | 0.200 | PASS   |
| 156.05                | 50                   | 0.6                            | 0.079                                  | 0.129                          | 0.200 | PASS   |
| 162.05                | 50                   | 0.6                            | 0.057                                  | 0.129                          | 0.200 | PASS   |
| 173.95                | 50                   | 0.6                            | 0.054                                  | 0.129                          | 0.200 | PASS   |

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

Limit : General Population/Uncontrolled Exposure

**Measurement data**

138.05 MHz

| Probe Height<br>(m) | Reading Power Density<br>(mW/cm <sup>2</sup> ) | Probe Factor | Power Density<br>(mW/cm <sup>2</sup> ) |
|---------------------|------------------------------------------------|--------------|----------------------------------------|
| 0.1                 | 0.019                                          | 1.28         | 0.012                                  |
| 0.2                 | 0.054                                          | 1.28         | 0.035                                  |
| 0.3                 | 0.095                                          | 1.28         | 0.060                                  |
| 0.4                 | 0.147                                          | 1.28         | 0.094                                  |
| 0.5                 | 0.198                                          | 1.28         | 0.127                                  |
| 0.6                 | 0.257                                          | 1.28         | 0.164                                  |
| 0.7                 | 0.296                                          | 1.28         | 0.189                                  |
| 0.8                 | 0.299                                          | 1.28         | 0.191                                  |
| 0.9                 | 0.256                                          | 1.28         | 0.164                                  |
| 1.0                 | 0.180                                          | 1.28         | 0.115                                  |
| 1.1                 | 0.174                                          | 1.28         | 0.112                                  |
| 1.2                 | 0.213                                          | 1.28         | 0.136                                  |
| 1.3                 | 0.260                                          | 1.28         | 0.167                                  |
| 1.4                 | 0.299                                          | 1.28         | 0.191                                  |
| 1.5                 | 0.277                                          | 1.28         | 0.177                                  |
| 1.6                 | 0.247                                          | 1.28         | 0.158                                  |
| 1.7                 | 0.229                                          | 1.28         | 0.146                                  |
| 1.8                 | 0.187                                          | 1.28         | 0.119                                  |
| 1.9                 | 0.147                                          | 1.28         | 0.094                                  |
| 2.0                 | 0.113                                          | 1.28         | 0.072                                  |

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

150.05 MHz

| Probe Height<br>(m) | Reading Power Density<br>(mW/cm <sup>2</sup> ) | Probe Factor | Power Density<br>(mW/cm <sup>2</sup> ) |
|---------------------|------------------------------------------------|--------------|----------------------------------------|
| 0.1                 | 0.009                                          | 1.30         | 0.006                                  |
| 0.2                 | 0.028                                          | 1.30         | 0.018                                  |
| 0.3                 | 0.049                                          | 1.30         | 0.032                                  |
| 0.4                 | 0.074                                          | 1.30         | 0.048                                  |
| 0.5                 | 0.096                                          | 1.30         | 0.062                                  |
| 0.6                 | 0.113                                          | 1.30         | 0.074                                  |
| 0.7                 | 0.125                                          | 1.30         | 0.081                                  |
| 0.8                 | 0.123                                          | 1.30         | 0.080                                  |
| 0.9                 | 0.110                                          | 1.30         | 0.071                                  |
| 1.0                 | 0.096                                          | 1.30         | 0.062                                  |
| 1.1                 | 0.095                                          | 1.30         | 0.061                                  |
| 1.2                 | 0.107                                          | 1.30         | 0.069                                  |
| 1.3                 | 0.119                                          | 1.30         | 0.077                                  |
| 1.4                 | 0.123                                          | 1.30         | 0.080                                  |
| 1.5                 | 0.117                                          | 1.30         | 0.076                                  |
| 1.6                 | 0.103                                          | 1.30         | 0.067                                  |
| 1.7                 | 0.088                                          | 1.30         | 0.057                                  |
| 1.8                 | 0.071                                          | 1.30         | 0.046                                  |
| 1.9                 | 0.059                                          | 1.30         | 0.038                                  |
| 2.0                 | 0.048                                          | 1.30         | 0.031                                  |

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

## 156.05 MHz

| Probe Height<br>(m) | Reading Power Density<br>(mW/cm <sup>2</sup> ) | Probe Factor | Power Density<br>(mW/cm <sup>2</sup> ) |
|---------------------|------------------------------------------------|--------------|----------------------------------------|
| 0.1                 | 0.012                                          | 1.31         | 0.008                                  |
| 0.2                 | 0.043                                          | 1.31         | 0.028                                  |
| 0.3                 | 0.074                                          | 1.31         | 0.048                                  |
| 0.4                 | 0.109                                          | 1.31         | 0.072                                  |
| 0.5                 | 0.137                                          | 1.31         | 0.090                                  |
| 0.6                 | 0.165                                          | 1.31         | 0.108                                  |
| 0.7                 | 0.175                                          | 1.31         | 0.115                                  |
| 0.8                 | 0.178                                          | 1.31         | 0.116                                  |
| 0.9                 | 0.169                                          | 1.31         | 0.110                                  |
| 1.0                 | 0.152                                          | 1.31         | 0.099                                  |
| 1.1                 | 0.147                                          | 1.31         | 0.096                                  |
| 1.2                 | 0.155                                          | 1.31         | 0.102                                  |
| 1.3                 | 0.161                                          | 1.31         | 0.106                                  |
| 1.4                 | 0.164                                          | 1.31         | 0.107                                  |
| 1.5                 | 0.152                                          | 1.31         | 0.099                                  |
| 1.6                 | 0.128                                          | 1.31         | 0.084                                  |
| 1.7                 | 0.104                                          | 1.31         | 0.068                                  |
| 1.8                 | 0.083                                          | 1.31         | 0.054                                  |
| 1.9                 | 0.066                                          | 1.31         | 0.043                                  |
| 2.0                 | 0.050                                          | 1.31         | 0.033                                  |

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

## 162.05 MHz

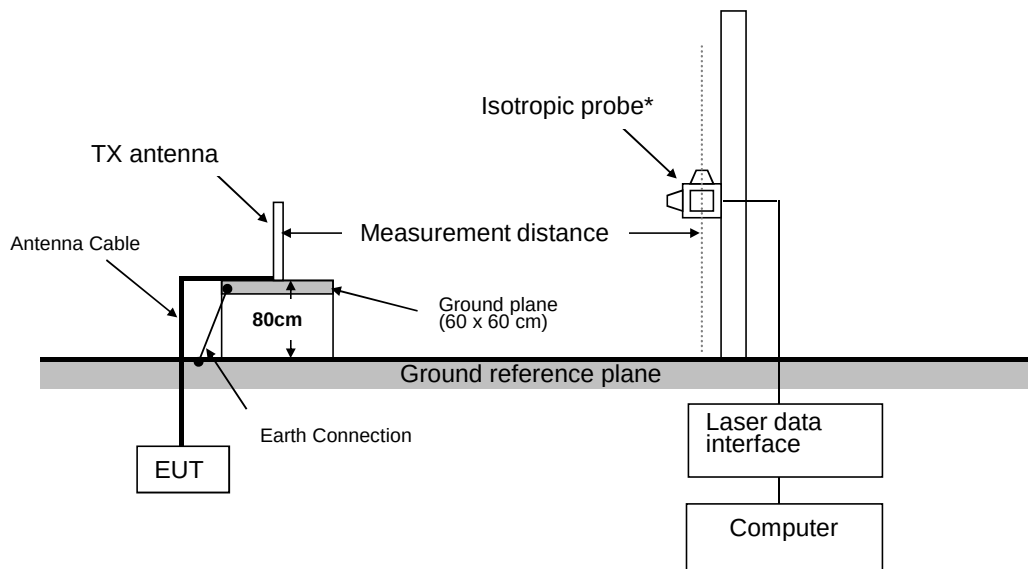
| Probe Height<br>(m) | Reading Power Density<br>(mW/cm <sup>2</sup> ) | Probe Factor | Power Density<br>(mW/cm <sup>2</sup> ) |
|---------------------|------------------------------------------------|--------------|----------------------------------------|
| 0.1                 | 0.010                                          | 1.32         | 0.007                                  |
| 0.2                 | 0.033                                          | 1.32         | 0.022                                  |
| 0.3                 | 0.054                                          | 1.32         | 0.036                                  |
| 0.4                 | 0.078                                          | 1.32         | 0.052                                  |
| 0.5                 | 0.098                                          | 1.32         | 0.064                                  |
| 0.6                 | 0.111                                          | 1.32         | 0.073                                  |
| 0.7                 | 0.120                                          | 1.32         | 0.079                                  |
| 0.8                 | 0.125                                          | 1.32         | 0.082                                  |
| 0.9                 | 0.124                                          | 1.32         | 0.082                                  |
| 1.0                 | 0.117                                          | 1.32         | 0.077                                  |
| 1.1                 | 0.113                                          | 1.32         | 0.074                                  |
| 1.2                 | 0.114                                          | 1.32         | 0.075                                  |
| 1.3                 | 0.117                                          | 1.32         | 0.077                                  |
| 1.4                 | 0.114                                          | 1.32         | 0.075                                  |
| 1.5                 | 0.103                                          | 1.32         | 0.068                                  |
| 1.6                 | 0.088                                          | 1.32         | 0.058                                  |
| 1.7                 | 0.076                                          | 1.32         | 0.050                                  |
| 1.8                 | 0.060                                          | 1.32         | 0.040                                  |
| 1.9                 | 0.048                                          | 1.32         | 0.031                                  |
| 2.0                 | 0.037                                          | 1.32         | 0.025                                  |

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

173.95 MHz

| Probe Height<br>(m) | Reading Power Density<br>(mW/cm <sup>2</sup> ) | Probe Factor | Power Density<br>(mW/cm <sup>2</sup> ) |
|---------------------|------------------------------------------------|--------------|----------------------------------------|
| 0.1                 | 0.014                                          | 1.34         | 0.010                                  |
| 0.2                 | 0.044                                          | 1.34         | 0.030                                  |
| 0.3                 | 0.071                                          | 1.34         | 0.048                                  |
| 0.4                 | 0.094                                          | 1.34         | 0.063                                  |
| 0.5                 | 0.104                                          | 1.34         | 0.070                                  |
| 0.6                 | 0.109                                          | 1.34         | 0.073                                  |
| 0.7                 | 0.110                                          | 1.34         | 0.074                                  |
| 0.8                 | 0.118                                          | 1.34         | 0.079                                  |
| 0.9                 | 0.120                                          | 1.34         | 0.080                                  |
| 1.0                 | 0.118                                          | 1.34         | 0.079                                  |
| 1.1                 | 0.114                                          | 1.34         | 0.076                                  |
| 1.2                 | 0.110                                          | 1.34         | 0.073                                  |
| 1.3                 | 0.107                                          | 1.34         | 0.071                                  |
| 1.4                 | 0.096                                          | 1.34         | 0.064                                  |
| 1.5                 | 0.081                                          | 1.34         | 0.054                                  |
| 1.6                 | 0.066                                          | 1.34         | 0.044                                  |
| 1.7                 | 0.053                                          | 1.34         | 0.035                                  |
| 1.8                 | 0.040                                          | 1.34         | 0.027                                  |
| 1.9                 | 0.031                                          | 1.34         | 0.020                                  |
| 2.0                 | 0.024                                          | 1.34         | 0.016                                  |

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) |
|-------------------|--------------|

**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™<br>Laser | Version 2.0.8 | ETS Lindgren | N/A       | N/A          |