



# TEST REPORT

**STANDARD : FCC Part15B Class B**

Applicant	Testing Laboratory
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<b>Equipment Type</b>	NETWORK BOX
<b>Trademark</b>	KENWOOD
<b>Model(s)</b>	KTI-5-M
<b>Serial No.</b>	A-2
<b>FCC ID</b>	K44475900
<b>Equipment Authorization</b>	Certification
<b>Test Result</b>	Complied
<b>Report Number</b>	15010386JKA-001
<b>Original Issue Date</b>	February 25, 2015

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Approved by

Takashi Yamanaka  
[ Manager ]

Tested by

Koichi Wagatsuma  
[ Engineer ]



VLAC-008-1

Responsible Party of Test Item (Product)

Responsible Party	:
Add.	:
Tel.	:
Fax.	:
Contact Person	:

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## SECTION 1. GENERAL INFORMATION

### Test Performed

<b>EUT Received</b>	February 5, 2015
<b>Date of Test</b>	From February 9, 2015 to February 11, 2015
<b>Standard Applied</b>	FCC Part15B Class B
<b>Test methods</b>	ANSI C63.4-2003
<b>Deviation from Standard(s)</b>	None

### Qualifications of Testing Laboratory

Accreditation	Scope	Lab. Code	Remarks
VLAC	EMC Testing	VLAC-008-1	JAPAN
BSMI	EMC Testing	SL2-IN-E-6008	TAIWAN
<b>Filing</b>			
VCCI	EMC Testing	A-0126	JAPAN
FCC	EMC Testing	JP0008	USA
IC	EMC Testing	2042K-3, 2042Q-12	CANADA
CB-Scheme	EMC Testing	TL222	IECEE
SAUDI ARABIA	EMC Testing	N/A	

### Abbreviations

EUT	Equipment Under Test	DoC	Declaration of Conformity
AMN	Artificial Mains Network	ISN	Impedance Stabilization Network
LISN	Line Impedance Stabilization Network	Q-P	Quasi-peak
AMP	Amplifier	AVG	Average
ATT	Attenuator	PK	Peak
ANT	Antenna	Cal	Calibration
BBA	Broadband Antenna	N/A	Not applicable or Not available
DIP	Dipole Antenna	LCD	Liquid-Crystal Display
AE	Associated Equipment	HDMI	High-Definition Multimedia Interface

## SECTION 2. SUMMARY OF TEST RESULTS

See Section9 for the detailed result.

### Emission Tests

Standard Applied	FCC Part15B Class B	
Test Item	Minimum margin	Remarks
Conducted disturbance at mains terminals	12.5 dB (14.2746 MHz) [AVG] PC Communication mode	

Standard Applied	FCC Part15B Class B	
Test Item	Minimum margin	Remarks
Radiated disturbance	2.4 dB (98.47 MHz) USB Host mode	

### SECTION 3. EQUIPMENT UNDER TEST

The equipment under test (EUT) consisted of the following apparatus.

#### 3.1 System Configuration

Symbol	Item	Model No.	Serial No.	Manufacturer
A	NETWORK BOX	KTI-5-M	A-2	JVC KENWOOD Corporation
<b>Rated Power</b> : : DC 13.6V (10.8-15.6V)				
<b>Supplied Power</b> : : DC13.6 V				
<b>Condition of Equipment</b>		Prototype		
<b>Type</b>		Tabletop		
<b>Dimensions (W x H x D)</b>		105 x 32 x 139 mm		
<b>Suppression Devices</b>		No Modifications by the laboratory were made to the device		

#### 3.3 Highest Frequency Generated / Used

Operating Frequency	Operating mode	Remarks
1000 MHz	PC Communication mode USB Host mode	

#### 3.4 Port(s)/Connector(s)

Port Name	Connector Type	Connector Pin	Remarks
USB	Micro-Type AB	4 pin	
N.SYNC	RJ-11	4 pin	
LAN	RJ-45	8 pin	
Control I/O	D-SUB	25 pin	

## SECTION 4. SUPPORT EQUIPMENT

The EUT was supported by the following equipment during the test.

Symbol	Item	Model No.	Serial No.	Manufacturer	FCC ID
<b>B</b>	Micro SD card	MB-MP32DA/JP	None	SAMSUNG	DoC
<b>C</b>	HUB	SF100D-05	PSJ1414039D	Cisco	DoC
<b>D</b>	Controller	None	None	JVC KENWOOD Corporation	N/A
<b>E</b>	BASE REPEATER	NXR-710-K	20S00045	JVC KENWOOD Corporation	K44423300
<b>F</b>	DC Power supply	PS-60	00142	JVC KENWOOD Corporation	N/A
<b>G</b>	AC Adapter	MU06-6120050-A1	None	LEADER ELECTRONICS INC	DoC
<b>H</b>	USB memory	DTDUO/16GBFR	04795-302A01LF	Kingston	DoC
<b>I</b>	Personal Computer	HSTNC-002P-SF	JPA54508RP	HP	DoC
<b>J</b>	USB adapter	EPL-AU10WEGXAR	None	SAMSUNG	N/A
<b>K</b>	Mouse	M-S69	LZA3206601	DELL	DoC
<b>L</b>	Keyboard	SK-8110	CN-0C6227-71616-46O-05B7	DELL	DoC
<b>M</b>	Monitor	E152FPc	CN-04W569-46633-363-1DLT	DELL	DoC
<b>N</b>	Printer	C8154A	TH571320G6	Hewlet Packard	DoC
<b>O</b>	AC Adapter	0957-2142	E10588013501L	Hewlet Packard	N/A
<b>Supplied Power:</b>					
<b>F, G, I, M, O</b>	AC 120V 60Hz				
<b>E</b>	DC 13.6V				

## SECTION 5. USED CABLE(S)

The following cable(s) was used for the test.

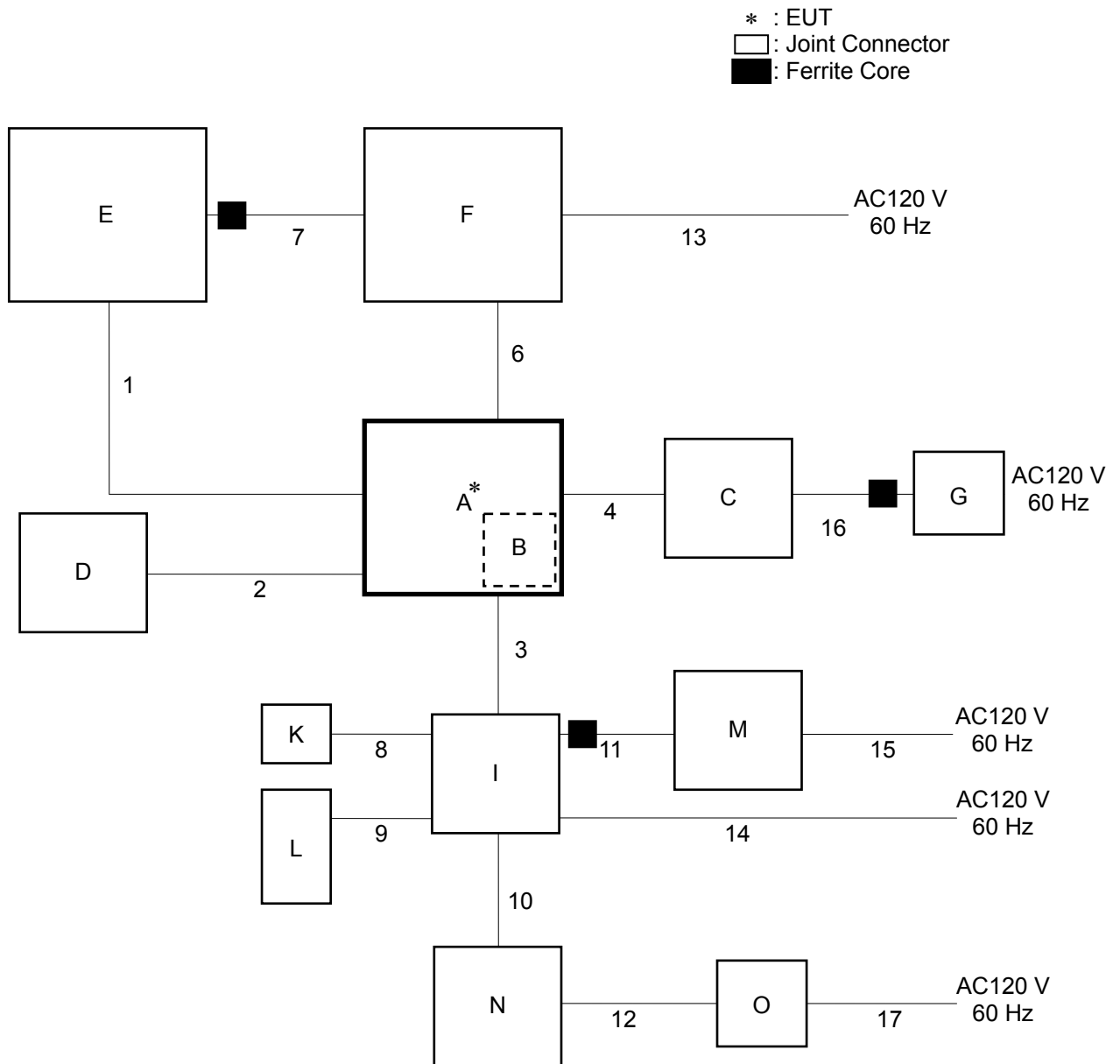
No.	Name	Length (m)	Shield	Metal Connector	Ferrite Core
1	Modular cable	1.00	No	No	
2	D-sub cable	1.50	Yes	Yes	
3	USB cable	1.00	Yes	Yes	
4	LAN cable	1.00	No	No	
5	USB adapter cable	0.15	No	No	
6	DC cable for EUT	1.00	No	No	
7	DC cable for BASE REPEATER	3.00	No	No	Removable x 1
8	Mouse	2.00	Yes	Yes	
9	Keyboard cable	2.00	Yes	Yes	
10	Printer Cable	1.60	Yes	Yes	
11	Monitor	1.60	Yes	Yes	Fixed x 1
12	DC cable fo Printer	2.00	No	No	
13	AC Power cable for DC Power Supply	2.00	No	No	
14	AC cable for PC	2.00	No	No	
15	AC cable for Monitor	2.00	No	No	
16	DC cable for HUB	1.40	No	No	Removable x 1
17	AC cable for Printer	2.00	No	No	

Note :

1. No.7 cable is supplied together with the BASE REPEATER.
2. No.11 cable is supplied together with the Monitor.
3. No.16 cable is supplied together with the HUB.

## SECTION 6. TEST CONFIGURATION

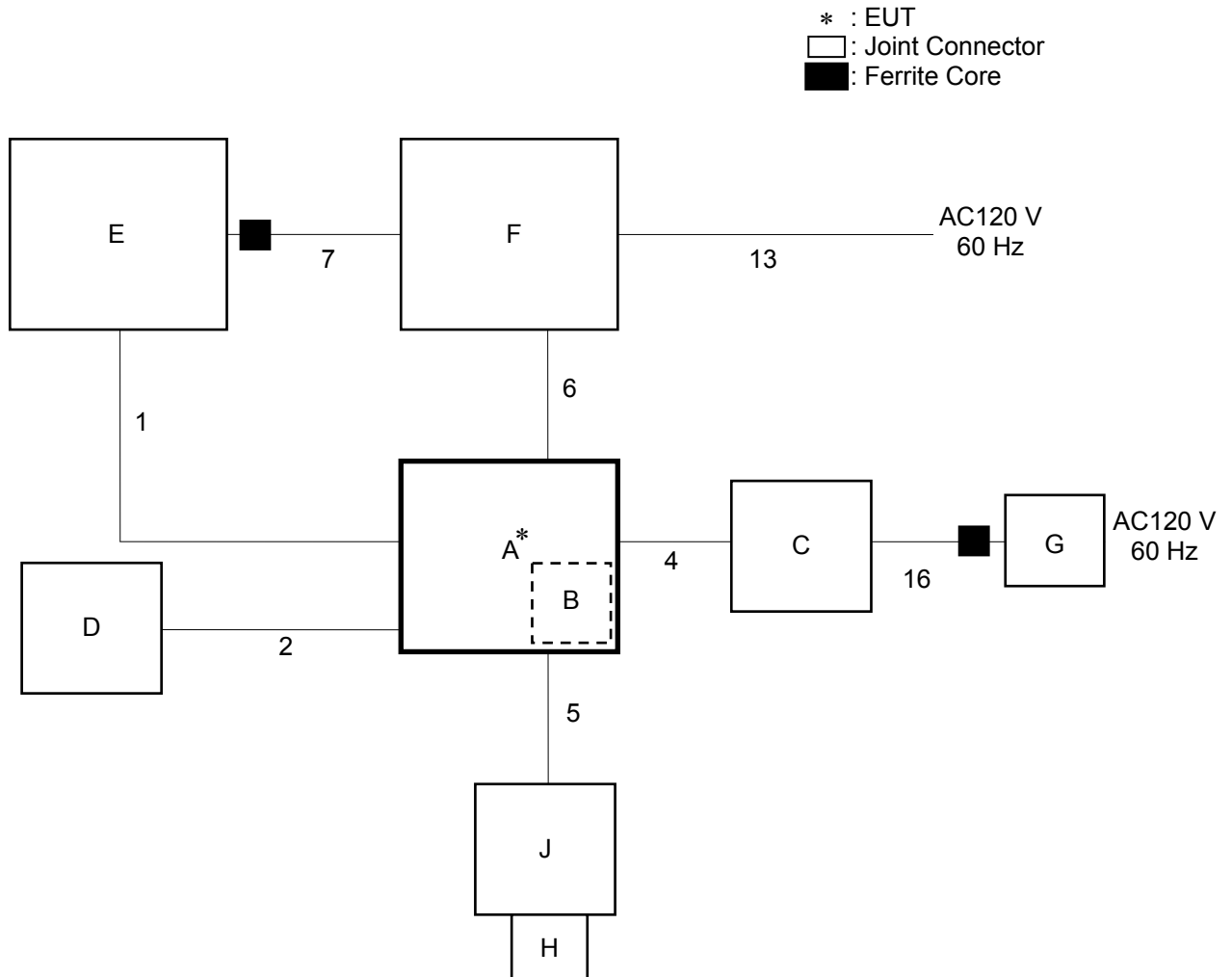
### 6.1 PC Communication mode



The symbols and numbers assigned to the equipments and cables on this diagram correspond to the ones in Sections 3 to 5.



## 6.2 USB Host mode



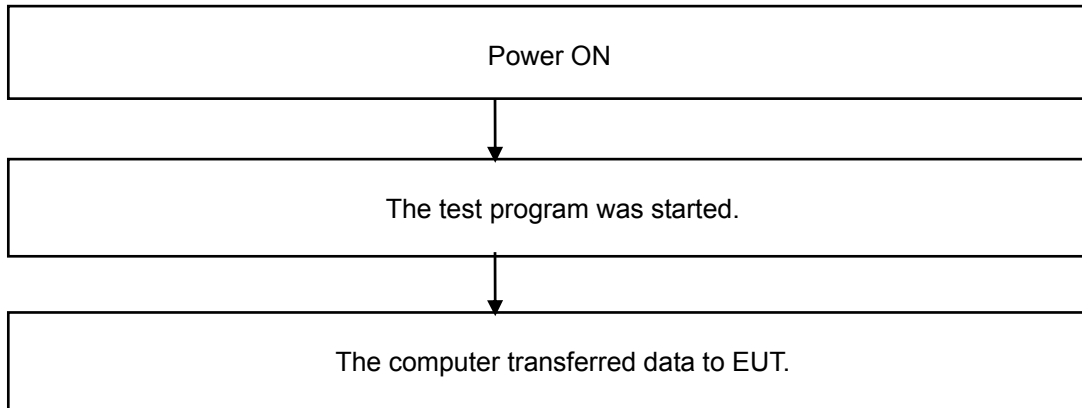
The symbols and numbers assigned to the equipments and cables on this diagram correspond to the ones in Sections 3 to 5.

## SECTION 7. OPERATING CONDITION

The test was carried out under the following mode.

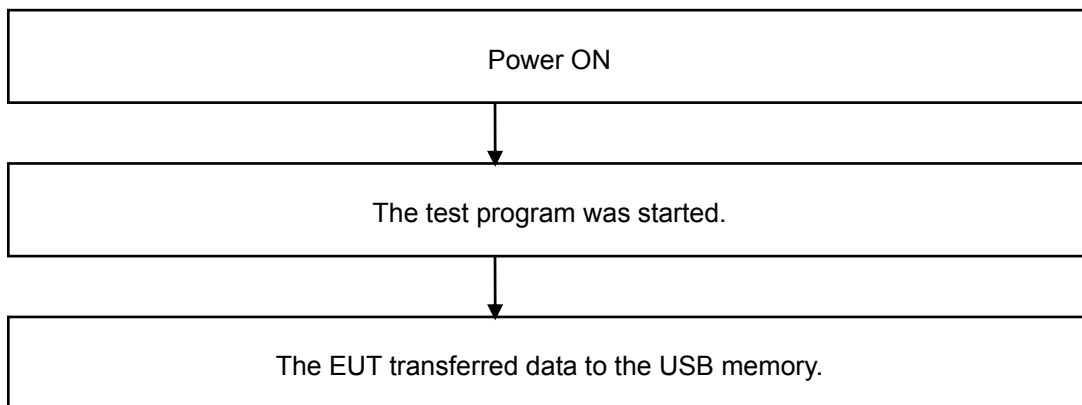
### 7.1 PC Communication mode

Cycle time for operation: Continuity



### 7.2 USB Host mode

Cycle time for operation: Continuity



## SECTION 8. UNCERTAINTY

Traceability to national standard in SI units is ensured with these values.  
 Compliance with the limits in this standard are determined without in consideration of the measurement uncertainty of the measurement instrumentation.

### Emission tests

<b>Radiated disturbance at 3m</b>	<b>U<sub>lab</sub> [k = 2]</b>	<b>U<sub>cispr</sub></b>
30 MHz – 1000 MHz	+/- 4.83 dB	6.3 dB
Above 1 GHz	+/- 4.33 dB	5.2 dB
CISPR22	+/- 4.90 dB	Null
ANSI C63.4		
<b>Radiated disturbance at 10m</b>		
30 MHz – 1000 MHz	+/- 5.00 dB	6.3 dB
Above 1 GHz	+/- 4.95 dB	Null
<b>Conducted disturbance at mains terminals</b>		
9 kHz – 150 kHz	+/- 2.82 dB	3.8 dB
150 kHz – 30 MHz	+/- 2.80 dB	3.4 dB
<b>Conducted disturbance at terminals(High Voltage Probe)</b>		
150 kHz – 30 MHz	+/- 2.80 dB	2.9 dB
<b>Conducted disturbance at telecommunication ports (ISN)</b>		
150 kHz – 30 MHz	+/- 3.85 dB	5.0 dB
<b>Conducted disturbance at telecommunication ports (Capacitive Voltage Probe)</b>		
150 kHz – 30 MHz	+/- 3.77 dB	3.9 dB
<b>Conducted disturbance at telecommunication ports (Current Probe)</b>		
150 kHz – 30 MHz	+/- 2.37 dB	2.9 dB
<b>Disturbance power</b>		
30 MHz – 300 MHz	+/- 3.34 dB	4.5 dB

The above expanded instrumentation uncertainty, U<sub>lab</sub>, is estimated in accordance with CISPR 16-4-2:2011.

## SECTION 9. EVALUATION OF TEST RESULTS

### 9.1 Conducted disturbance at mains terminals

<b>Location</b>	Kashima No.12 Test Site
<b>Test Engineer</b>	Koichi Wagatsuma

#### Frequency Range of Measurements

Required Measurement Frequency Range	Measured Frequency Range
0.15 – 30 MHz	0.15 – 30 MHz

#### Test Procedure

Item	Document number
Conducted disturbance at mains terminals	RJP-EM001

#### Setting for the Measuring instruments

Instrument	Detector	Resolution Bandwidth	Video Bandwidth
Receiver	Quasi Peak	10 kHz	N/A
	Average	10 kHz	N/A

< Measurement data correction >

Emission Level = Meter Reading + Factor

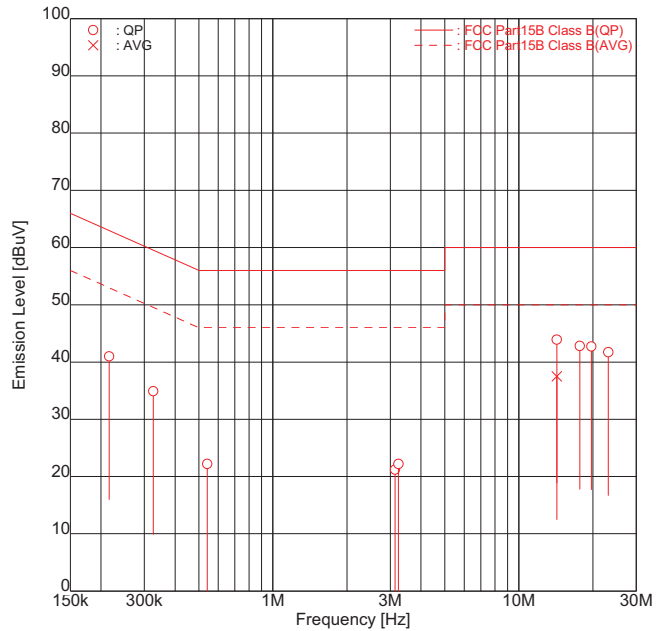
Margin = Limit- Emission Level

Factor = LISN Factor + Cable Loss + Attenuator

**Result of Conducted disturbance at mains terminals**  
**9.1.1 PC Communication mode**

**Intertek Japan K.K.**  
**Kashima No.12 Test Site**  
 Conducted Voltages on Mains Port

APPLICANT : JVC KENWOOD Corporation  
 EUT NAME : NETWORK BOX  
 MODEL NO. : KTI-5-M  
 SERIAL NO. : A-2  
 TEST MODE : PC Communication mode  
 POWER SOURCE : DC13.6V(AC120 V, 60 Hz)  
 DATE TESTED : Feb 11 2015  
 FILE NO. : -  
 REGULATION : FCC Part15B Class B  
 TEST METHOD : ANSI C63.4-2003  
 TEMPERATURE : 18.5 [degC]  
 HUMIDITY : 33.0 [%]  
 NOTE :



ENGINEER : Koichi Wagatsuma

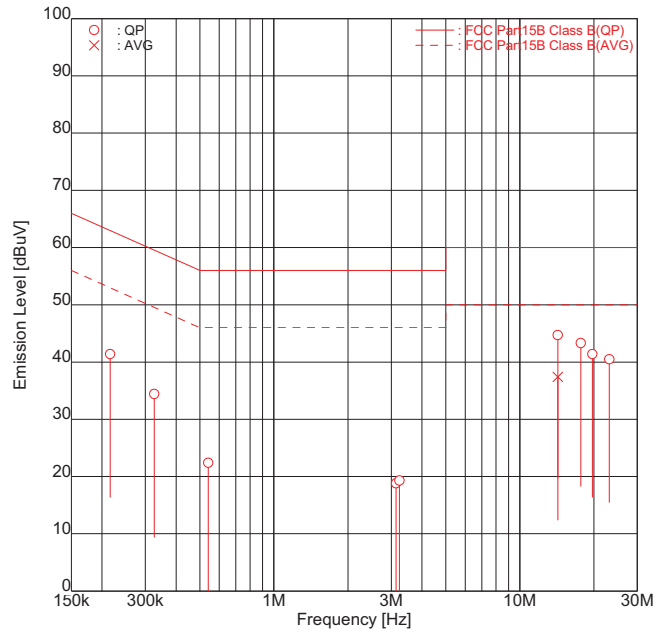
FREQUENCY [No]	MODE [MHz]		READING [dBuV]		FACTOR [dB]		EMISSION [dBuV]		LIMIT [dBuV]	MARGIN [dB]	
			Line1	Line2	Line1	Line2	Line1	Line2		Line1	Line2
1	0.2160	QP	29.5	<u>30.6</u>	10.4	10.4	39.9	<u>41.0</u>	63.0	23.1	<u>22.0</u>
2	0.3260	QP	15.6	24.5	10.4	10.4	26.0	34.9	59.6	33.6	24.7
3	0.5412	QP	7.9	11.8	10.4	10.4	18.3	22.2	56.0	37.7	33.8
4	3.1359	QP	10.5	8.9	10.7	10.7	21.2	19.6	56.0	34.8	36.4
5	3.2410	QP	11.5	5.6	10.7	10.7	22.2	16.3	56.0	33.8	39.7
6	14.2746	QP	32.5	<u>32.9</u>	11.1	11.0	43.6	<u>43.9</u>	60.0	16.4	<u>16.1</u>
7	14.2746	AVG	25.6	<u>26.5</u>	11.1	11.0	36.7	<u>37.5</u>	50.0	13.3	<u>12.5</u>
8	17.6946	QP	31.5	<u>31.7</u>	11.1	11.1	42.6	<u>42.8</u>	60.0	17.4	<u>17.2</u>
9	19.7126	QP	<u>31.5</u>	31.5	11.2	11.2	<u>42.7</u>	42.7	60.0	<u>17.3</u>	17.3
10	23.1328	QP	<u>30.5</u>	30.5	11.2	11.2	<u>41.7</u>	41.7	60.0	<u>18.3</u>	18.3

Higher six points are underlined.  
 Other frequencies : Below the FCC Part15B Class B limit  
 Emission Level = Read + Factor(LISN,Pad,Cable)

9.1.2 USB Host mode

**Intertek Japan K.K.**  
**Kashima No.12 Test Site**  
 Conducted Voltages on Mains Port

APPLICANT : JVC KENWOOD Corporation  
 EUT NAME : NETWORK BOX  
 MODEL NO. : KT1-5-M  
 SERIAL NO. : A-2  
 TEST MODE : USB Host mode  
 POWER SOURCE : DC13.6V(AC120 V, 60 Hz)  
 DATE TESTED : Feb 11 2015  
 FILE NO. : -  
 REGULATION : FCC Part15B Class B  
 TEST METHOD : ANSI C63.4-2003  
 TEMPERATURE : 18.5 [degC]  
 HUMIDITY : 33.0 [%]  
 NOTE :



ENGINEER : Koichi Wagatsuma

FREQUENCY [No]	MODE [MHz]		READING [dBuV]		FACTOR [dB]		EMISSION [dBuV]		LIMIT [dBuV]	MARGIN [dB]	
			Line1	Line2	Line1	Line2	Line1	Line2		Line1	Line2
1	0.2160	QP	30.2	<u>31.0</u>	10.4	10.4	40.6	<u>41.4</u>	63.0	22.4	<u>21.6</u>
2	0.3260	QP	15.3	24.0	10.4	10.4	25.7	34.4	59.6	33.9	25.2
3	0.5412	QP	8.6	12.0	10.4	10.4	19.0	22.4	56.0	37.0	33.6
4	3.1359	QP	8.1	7.1	10.7	10.7	18.8	17.8	56.0	37.2	38.2
5	3.2410	QP	8.6	3.5	10.7	10.7	19.3	14.2	56.0	36.7	41.8
6	14.2746	QP	<u>33.6</u>	33.7	11.1	11.0	<u>44.7</u>	44.7	60.0	<u>15.3</u>	15.3
7	14.2746	AVG	26.2	<u>26.4</u>	11.1	11.0	37.3	<u>37.4</u>	50.0	12.7	<u>12.6</u>
8	17.6946	QP	<u>32.2</u>	32.0	11.1	11.1	<u>43.3</u>	43.1	60.0	<u>16.7</u>	16.9
9	19.7126	QP	<u>30.2</u>	30.1	11.2	11.2	<u>41.4</u>	41.3	60.0	<u>18.6</u>	18.7
10	23.1328	QP	<u>29.2</u>	<u>29.3</u>	11.2	11.2	<u>40.4</u>	<u>40.5</u>	60.0	19.6	<u>19.5</u>

Higher six points are underlined.  
 Other frequencies : Below the FCC Part15B Class B limit  
 Emission Level = Read + Factor(LISN,Pad,Cable)

## 9.2 Radiated disturbance

<b>Location</b>	Kashima No.12 Test Site
<b>Test Engineer</b>	Koichi Wagatsuma

### Frequency Range of Measurements

Operating mode	Required Frequency Range	Measured Range	Frequency
<b>PC Communication mode</b> <b>USB Host mode</b>	30 – 5000 MHz	30 – 5000 MHz	

### Test Procedure

Item	Document number
Radiated disturbance	RJP-EM003

### Setting for the Measuring instruments

Frequency [MHz]	Instrument	Detector	Resolution Bandwidth	Video Bandwidth
30 – 1000	Receiver	Quasi Peak	120 kHz	N/A
Above 1000	Receiver	Peak	1 MHz	N/A
		Average	1 MHz	N/A

< Measurement data correction >

Emission Level = Meter Reading + Factor

Margin = Limit - Emission Level

Factor = Antenna Factor + Cable Loss - Amplifier Gain + Attenuator (+ Distance Conversion Factor)\*

\* For other than Standard distance:

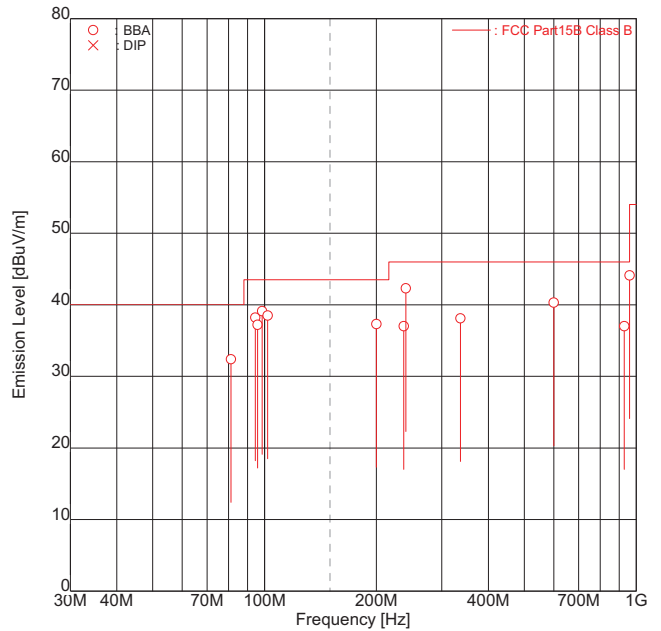
Distance Conversion Factor =  $20 \log (\text{Measurement distance} / \text{Standard distance})$

**Result of Radiated disturbances**

**9.2.1 PC Communication mode (30 – 1000 MHz)**

**Intertek Japan K.K.**  
**Kashima No.12 Test Site**  
 Radiated Electric Field

APPLICANT : JVC KENWOOD Corporation  
 EUT NAME : NETWORK BOX  
 MODEL NO. : KTI-5-M  
 SERIAL NO. : A-2  
 TEST MODE : PC Communication mode  
 POWER SOURCE : DC13.6V(AC120 V, 60 Hz)  
 DATE TESTED : Feb 10 2015  
 FILE NO. : -  
 REGULATION : FCC Part15B Class B  
 TEST METHOD : ANSI C63.4-2003  
 DISTANCE : 3.00 [m]  
 TEMPERATURE : 18.0 [degC]  
 HUMIDITY : 30.0 [%]  
 NOTE :



ENGINEER : Koichi Wagatsuma

FREQUENCY [No]	ANT. [MHz]	ANT.	READING [dBuV]		FACTOR [dB/m]		EMISSION [dBuV/m]		LIMIT [dBuV/m]	MARGIN [dB]	
			Hori	Vert	Hori	Vert	Hori	Vert		Hori	Vert
1	81.23	BBA	-	37.7	-5.3	-5.3	-	32.4	40.0	-	7.6
2	94.39	BBA	-	<u>44.2</u>	-6.0	-6.0	-	<u>38.2</u>	43.5	-	<u>5.3</u>
3	95.78	BBA	-	43.0	-5.8	-5.8	-	37.2	43.5	-	6.3
4	98.47	BBA	-	<u>44.7</u>	-5.6	-5.6	-	<u>39.1</u>	43.5	-	<u>4.4</u>
5	101.90	BBA	-	<u>43.6</u>	-5.1	-5.1	-	<u>38.5</u>	43.5	-	<u>5.0</u>
6	200.03	BBA	-	<u>40.6</u>	-3.3	-3.3	-	<u>37.3</u>	43.5	-	<u>6.2</u>
7	236.87	BBA	-	38.7	-1.7	-1.7	-	37.0	46.0	-	9.0
8	240.02	BBA	-	<u>43.8</u>	-1.5	-1.5	-	<u>42.3</u>	46.0	-	<u>3.7</u>
9	336.47	BBA	35.8	-	2.3	2.3	38.1	-	46.0	7.9	-
10	600.08	BBA	<u>30.6</u>	-	9.7	9.7	<u>40.3</u>	-	46.0	<u>5.7</u>	-
11	929.18	BBA	-	21.4	15.6	15.6	-	37.0	46.0	-	9.0
12	960.02	BBA	28.0	26.9	16.1	16.1	44.1	43.0	54.0	9.9	11.0

Higher six points are underlined.  
 Other frequencies : Below the FCC Part15B Class B limit  
 Emission Level = Read + Factor(Antenna,Antenna Pad,Cable,Preamp)  
 ANT. : Used antenna(BBA = Broadband antenna, DIP = Dipole antenna)

emiT 3, 0, 0, 0

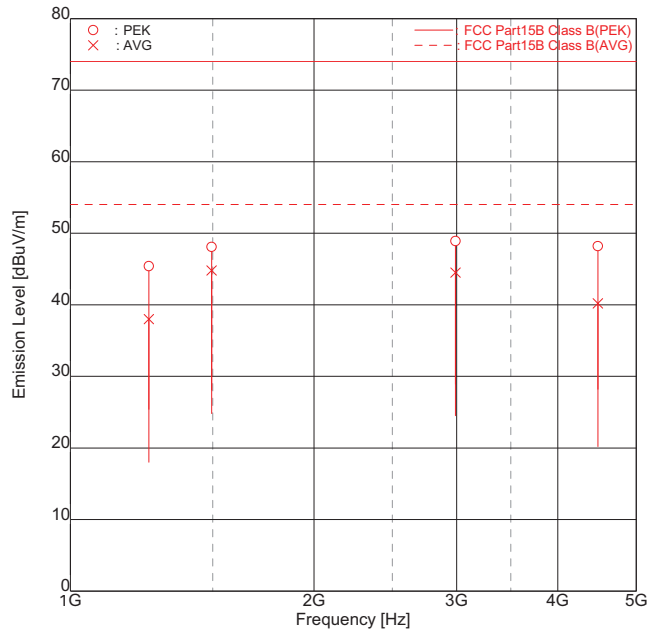
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9.2.2 PC Communication mode (1 – 5 GHz)

**Intertek Japan K.K.**  
**Kashima No.12 Test Site**  
 Radiated Electric Field

APPLICANT : JVC KENWOOD Corporation  
 EUT NAME : NETWORK BOX  
 MODEL NO. : KTI-5-M  
 SERIAL NO. : A-2  
 TEST MODE : PC Communication mode  
 POWER SOURCE : DC13.6V(AC120 V, 60 Hz)  
 DATE TESTED : Feb 10 2015  
 FILE NO. : -  
 REGULATION : FCC Part15B Class B  
 TEST METHOD : ANSI C63.4-2003  
 DISTANCE : 3.00 [m]  
 TEMPERATURE : 18.5 [degC]  
 HUMIDITY : 33.0 [%]  
 NOTE :



ENGINEER : Koichi Wagatsuma

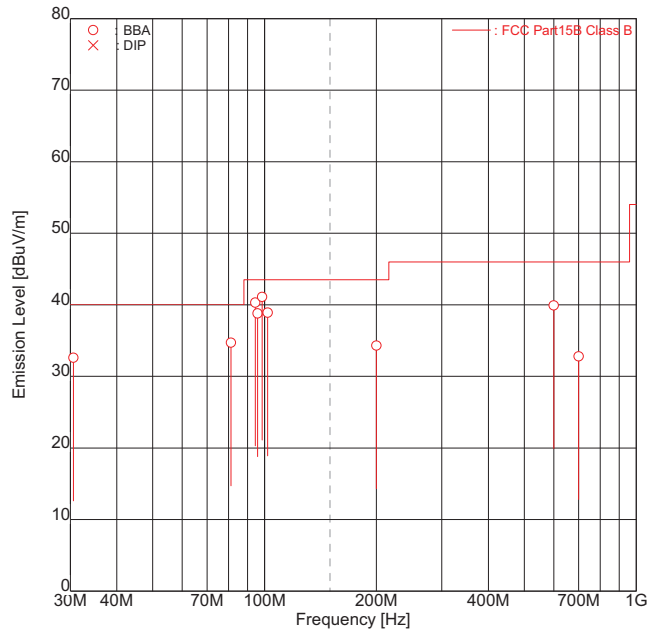
FREQUENCY [No]	MODE [MHz]		READING [dBuV]		FACTOR [dB/m]		EMISSION [dBuV/m]		LIMIT [dBuV/m]	MARGIN [dB]	
			Hori	Vert	Hori	Vert	Hori	Vert		Hori	Vert
1	1250.19	PEK	47.8	49.0	-3.6	-3.6	44.2	45.4	74.0	29.8	28.6
2	1250.19	AVG	40.2	<u>41.6</u>	-3.6	-3.6	36.6	<u>38.0</u>	54.0	17.4	<u>16.0</u>
3	1494.93	PEK	49.5	50.7	-2.6	-2.6	46.9	48.1	74.0	27.1	25.9
4	1494.93	AVG	45.3	<u>47.4</u>	-2.6	-2.6	42.7	<u>44.8</u>	54.0	11.3	<u>9.2</u>
5	2990.13	PEK	<u>46.7</u>	44.3	2.2	2.2	<u>48.9</u>	46.5	74.0	<u>25.1</u>	27.5
6	2990.13	AVG	<u>42.3</u>	37.6	2.2	2.2	<u>44.5</u>	39.8	54.0	<u>9.5</u>	14.2
7	4484.99	PEK	42.0	<u>43.4</u>	4.8	4.8	46.8	<u>48.2</u>	74.0	27.2	25.8
8	4484.99	AVG	33.1	<u>35.4</u>	4.8	4.8	37.9	<u>40.2</u>	54.0	16.1	<u>13.8</u>

Higher six points are underlined.  
 Other frequencies : Below the FCC Part15B Class B limit  
 Emission Level = Read + Factor(Antenna, Antenna Pad, Cable, Preamp)  
 ANT. : Used antenna(BBA = Broadband antenna, DIP = Dipole antenna)

9.2.3 USB Host mode (30 – 1000 MHz)

Intertek Japan K.K.  
 Kashima No.12 Test Site  
 Radiated Electric Field

APPLICANT : JVC KENWOOD Corporation  
 EUT NAME : NETWORK BOX  
 MODEL NO. : KT1-5-M  
 SERIAL NO. : A-2  
 TEST MODE : USB Host mode  
 POWER SOURCE : DC13.6V(AC120 V, 60 Hz)  
 DATE TESTED : Feb 10 2015  
 FILE NO. : -  
 REGULATION : FCC Part15B Class B  
 TEST METHOD : ANSI C63.4-2003  
 DISTANCE : 3.00 [m]  
 TEMPERATURE : 18.0 [degC]  
 HUMIDITY : 30.0 [%]  
 NOTE :



ENGINEER : Koichi Wagatsuma

FREQUENCY [No]	FREQ [MHz]	ANT.	READING [dBuV]		FACTOR [dB/m]		EMISSION [dBuV/m]		LIMIT [dBuV/m]	MARGIN [dB]	
			Hori	Vert	Hori	Vert	Hori	Vert		Hori	Vert
1	30.59	BBA	-	35.9	-3.3	-3.3	-	32.6	40.0	-	7.4
2	81.23	BBA	-	<u>40.0</u>	-5.3	-5.3	-	<u>34.7</u>	40.0	-	<u>5.3</u>
3	94.39	BBA	-	<u>46.3</u>	-6.0	-6.0	-	<u>40.3</u>	43.5	-	<u>3.2</u>
4	95.78	BBA	-	<u>44.6</u>	-5.8	-5.8	-	<u>38.8</u>	43.5	-	<u>4.7</u>
5	98.47	BBA	-	<u>46.7</u>	-5.6	-5.6	-	<u>41.1</u>	43.5	-	<u>2.4</u>
6	101.90	BBA	-	<u>44.0</u>	-5.1	-5.1	-	<u>38.9</u>	43.5	-	<u>4.6</u>
7	200.03	BBA	-	37.6	-3.3	-3.3	-	34.3	43.5	-	9.2
8	600.08	BBA	<u>30.2</u>	27.5	9.7	9.7	<u>39.9</u>	37.2	46.0	<u>6.1</u>	8.8
9	700.09	BBA	21.5	-	11.3	11.3	32.8	-	46.0	13.2	-

Higher six points are underlined.  
 Other frequencies : Below the FCC Part15B Class B limit  
 Emission Level = Read + Factor(Antenna, Antenna Pad, Cable, Preamp)  
 ANT. : Used antenna (BBA = Broadband antenna, DIP = Dipole antenna)

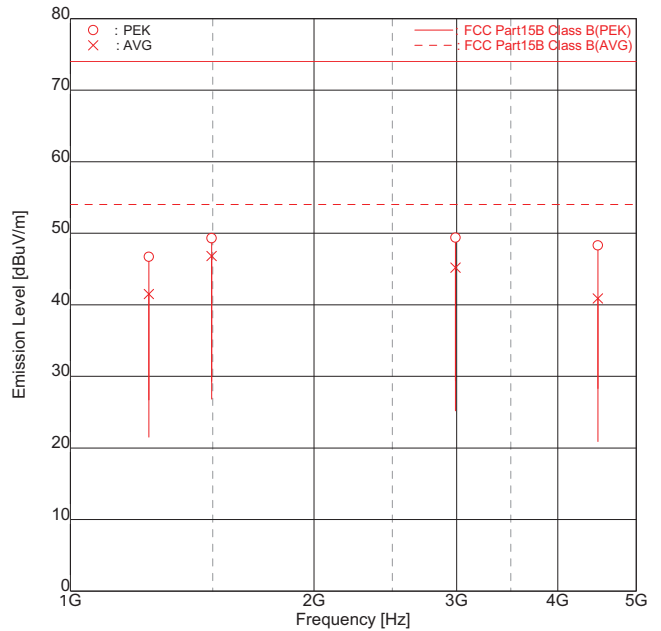
emiT 3, 0, 0, 0

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9.2.4 USB Host mode (1 – 5 GHz)

Intertek Japan K.K.  
 Kashima No.12 Test Site  
 Radiated Electric Field

APPLICANT : JVC KENWOOD Corporation  
 EUT NAME : NETWORK BOX  
 MODEL NO. : KTI-5-M  
 SERIAL NO. : A-2  
 TEST MODE : USB Host mode  
 POWER SOURCE : DC13.6V(AC120 V, 60 Hz)  
 DATE TESTED : Feb 10 2015  
 FILE NO. : -  
 REGULATION : FCC Part15B Class B  
 TEST METHOD : ANSI C63.4-2003  
 DISTANCE : 3.00 [m]  
 TEMPERATURE : 18.5 [degC]  
 HUMIDITY : 33.0 [%]  
 NOTE :



ENGINEER : Koichi Wagatsuma

FREQUENCY [No]	MODE [MHz]		READING [dBuV]		FACTOR [dB/m]		EMISSION [dBuV/m]		LIMIT [dBuV/m]	MARGIN [dB]	
			Hori	Vert	Hori	Vert	Hori	Vert		Hori	Vert
1	1250.19	PEK	48.5	50.3	-3.6	-3.6	44.9	46.7	74.0	29.1	27.3
2	1250.19	AVG	41.7	<u>45.1</u>	-3.6	-3.6	38.1	<u>41.5</u>	54.0	15.9	<u>12.5</u>
3	1494.93	PEK	51.3	<u>51.9</u>	-2.6	-2.6	48.7	<u>49.3</u>	74.0	25.3	<u>24.7</u>
4	1494.93	AVG	48.7	<u>49.4</u>	-2.6	-2.6	46.1	<u>46.8</u>	54.0	7.9	<u>7.2</u>
5	2990.13	PEK	<u>47.2</u>	46.4	2.2	2.2	<u>49.4</u>	48.6	74.0	<u>24.6</u>	25.4
6	2990.13	AVG	<u>43.0</u>	41.5	2.2	2.2	<u>45.2</u>	43.7	54.0	<u>8.8</u>	10.3
7	4484.99	PEK	41.6	43.5	4.8	4.8	46.4	48.3	74.0	27.6	25.7
8	4484.99	AVG	33.6	<u>36.1</u>	4.8	4.8	38.4	<u>40.9</u>	54.0	15.6	<u>13.1</u>

Higher six points are underlined.  
 Other frequencies : Below the FCC Part15B Class B limit  
 Emission Level = Read + Factor(Antenna,Antenna Pad,Cable,Preamplifier)  
 ANT. : Used antenna(BBA = Broadband antenna, DIP = Dipole antenna)

## SECTION 10. LIST OF MEASURING INSTRUMENTS

Test instruments are calibrated according to Quality Manual and Calibration Rules of Intertek Japan K.K.

Instrument	Model No.	Serial No.	Manufacturer	Cal. Interval	Effective period
<b>Conducted disturbance at mains terminals</b>					
LISN (EUT)	ESH2-Z5	879675/014	Rohde & Schwarz	1 Y	Nov.30, 2015
10dB Attenuator	CFA-01	KSR00251	TAMAGAWA	1 Y	Nov.30, 2015
LISN (Peripheral)	KNW-242	8-851-21	Kyoritsu	1 Y	May.31, 2015
10dB Attenuator	CFA-01	KSR00255	TAMAGAWA	1 Y	May.31, 2015
50 $\Omega$ Termination	CT-01	KSR00138	TAMAGAWA	1 Y	May.31, 2015
Coaxial cable	RG-5A/U (14.0 m)	R2	FUJIKURA	1 Y	Jan.31, 2016
Coaxial cable	10D-2W (7.0m)	R4	FUJIKURA	1 Y	Jan.31, 2016
Coaxial cable	RG-5A/U (4.0 m)	R6	FUJIKURA	1 Y	Jan.31, 2016
Coaxial cable	5D-2W (1.5 m)	R9	FUJIKURA	1 Y	Jan.31, 2016
Coaxial cable	5D-2W (1.2 m)	R10	FUJIKURA	1 Y	Jan.31, 2016
<b>Radiated disturbance</b>					
Antenna	Tri-Log VULB9168	288	Schwarzbeck	1 Y	Jul.31, 2015
Amplifier	ZX60-3018G	005	Intertek Japan	1 Y	Jan.31, 2016
6dB Attenuator	CFA-01	A00040805	TAMAGAWA	1 Y	Jan.31, 2016
Coaxial Cable	5D-2W(14.0m)	R11	FUJIKURA	1 Y	Jan.31, 2016
Coaxial Cable	10D-2W(7.0m)	R3	FUJIKURA	1 Y	Jan.31, 2016
Coaxial Cable	RG-5A/U(4.0m)	R5	FUJIKURA	1 Y	Jan.31, 2016
Coaxial Cable	5D-2W(0.6m)	R7	MIYAZAKI	1 Y	Jan.31, 2016
Coaxial Cable	5D-2W(1.2m)	R10	FUJIKURA	1 Y	Jan.31, 2016
Spectrum Analyzer	N9030A	US51350170	Agilent	1 Y	Feb.28, 2015
Double Ridged Antenna	3115	5044	EMCO	1 Y	Jul.31, 2015
3dB Attenuator	6803.17.B	5111	HUBER + SUHNER	1 Y	Feb.28, 2015
Amplifier	TPA0118-30	0402	TOYO	1 Y	Feb.28, 2015
Coaxial Cable (R11)	SUCOFLEX 104	229603	SUHNER	1 Y	Feb.28, 2015
Coaxial Cable (R12)	5B-048-98-98-5000	111130	Candox	1 Y	Feb.28, 2015
Site Attenuation				1 Y	Feb.28, 2015
<b>Common</b>					
Test receiver	N9038A	MY51210201	Rohde & Schwarz	1 Y	Aug.31, 2015
RF Switch	ACX-150-1	A12301501	Intertek Japan	1 Y	Jan.31 2016
Testing Software	emiT (Version 3,0,0,0)				

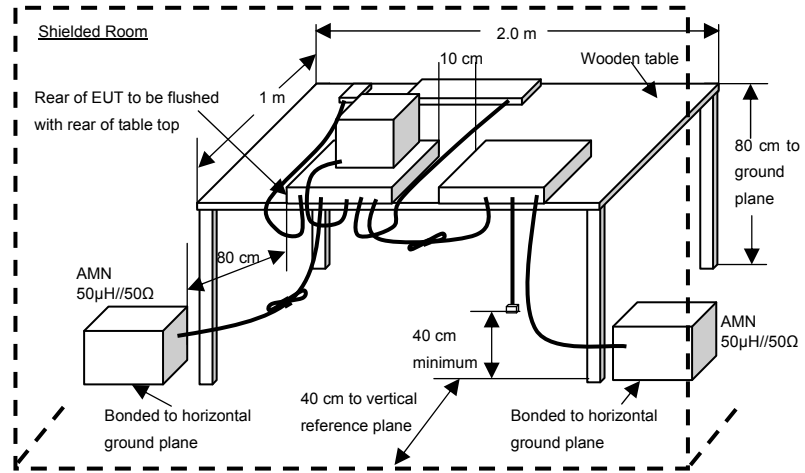
# **ANNEX**

## A. TEST PROCEDURE(S)

Test was carried out under the following conditions.

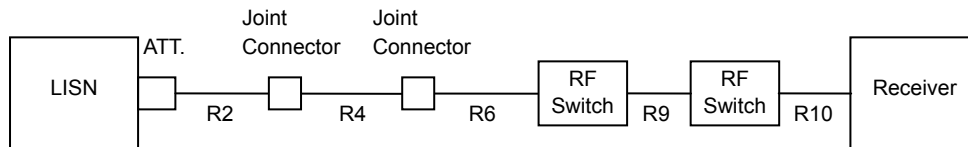
### Conducted disturbance at mains terminals

Test setup as per standard



\* Reference Ground plane : greater than 2 x 2m

Diagram of the measuring instruments



#### [ Preliminary Measurement ]

EUT is tested on all operating conditions.

The spectrum analyzer is controlled by the computer program to sweep the frequency range to be measured, then spectrum chart is plotted out to find the worst emission conditions in operating mode and/or configuration decision for the final test.

All leads other than safety ground are tested.

#### [ Final Measurement ]

The EUT is operated in the worst emission condition found by the preliminary test.

The equipment and cables are arranged or manipulated within the range of the test standard in the above condition.

At least six highest spectrum are measured in quasi-peak and average (if necessary) using the test receiver.

**Radiated disturbance**  
Test setup as per standard

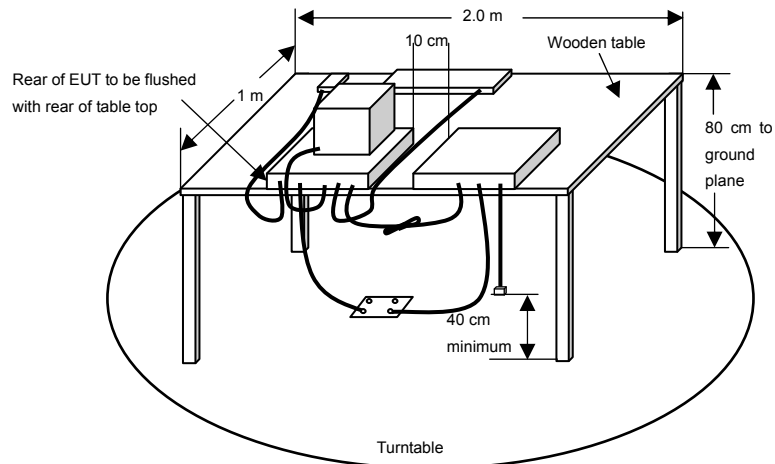
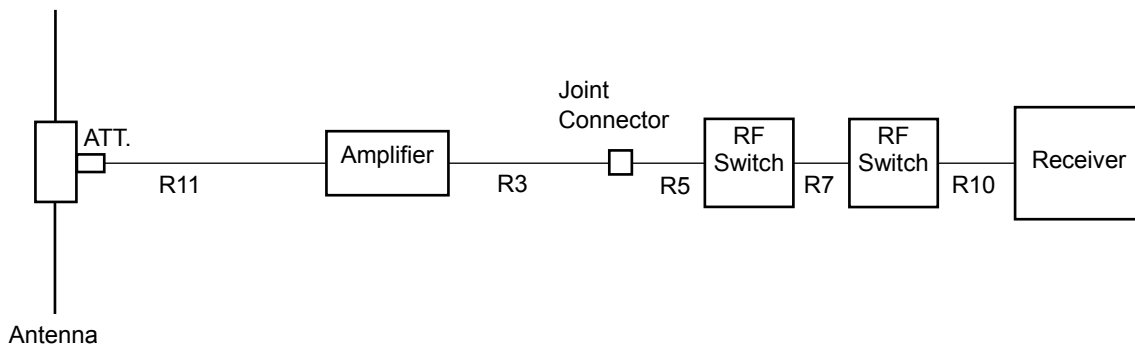
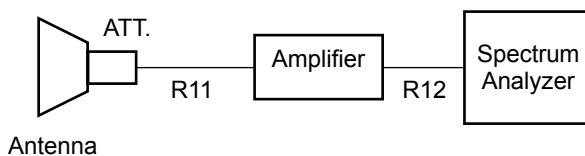


Diagram of the measuring instruments ( 30-1000MHz )



Above 1GHz

1-5GHz



[ Preliminary Measurement ]

EUT is tested on all operating conditions.  
 The spectrum analyzer is set max-hold mode and swept during turntable was rotated 0 to 360 degree,  
 And find the worst emission conditions in configuration, operating mode, or ambient noise notation.

[ Final Measurement ]

The EUT operated in the worst emission condition found by the preliminary test.  
 The turntable azimuth (EUT direction) and antenna height are adjusted the position so that maximum field strength is obtained for each frequency spectrum to be measured.  
 The equipment and cables are arranged or manipulated within the range of the test standard in the above condition. At least six highest spectrums are measured by the test receiver (quasi-peak) and spectrum analyzer (peak and average). When the uncertain result was obtained (30 – 1000 MHz), the measurement is retried by using the half wave dipole antenna instead of the broadband antenna.