

# TEST REPORT

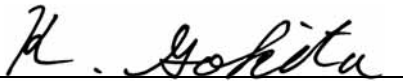
**STANDARD : FCC Part 15B Class B**

Applicant	Testing Laboratory
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<b>Equipment Type</b>	HF/50MHz Transceiver
<b>Category</b>	Peripherals
<b>Trademark</b>	YAESU
<b>Model(s)</b>	FT DX 5000
<b>Serial No.</b>	9L000001
<b>Equipment Authorization</b>	Certification (FCC ID : K6620361X60)
<b>Test Result</b>	Complied
<b>Report Number</b>	JT09110006
<b>Report Issue Date</b>	December 9, 2009

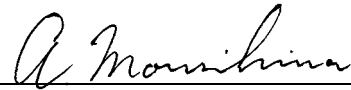
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Approved by



Kazuo Gokita  
 [Manager]

Tested by



Atsuyuki Morishima



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## SECTION 1. GENERAL INFORMATION

### TEST PERFORMED

<b>Location</b>	Tochigi No.2 Test Site
<b>EUT Received</b>	November 10, 2009
<b>Date of Test</b>	From November 10, 2009 to November 12, 2009
<b>Standard Applied</b>	FCC Part15B class B –Peripherals
<b>Measurement methods</b>	ANSI C63.4-2003
<b>Test Procedure</b>	Document number : RJP-EM001, RJP-EM003
<b>Deviation from Standard(s)</b>	None

### QUALIFICATIONS OF TESTING LABORATORY

ACCREDITATION	SCOPE	LAB. CODE	Remarks
VLAC	EMC Testing	VLAC-008-5	JAPAN
BSMI	EMC Testing	SL2-IN-E-6017, SL2-A-E-6017	TAIWAN
<b>FILING</b>			
VCCI	EMC Testing	R-257, C-260, C-284, T-374, T-375 R-258, C-261, C-285, T-376, T-377 R-259, C-262, T-378	JAPAN
FCC	EMC Testing	Designation Number : JP0011	USA
IC	EMC Testing	2042P-1, 2042P-2	CANADA
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		

## SECTION 2. SUMMARY OF TEST RESULTS

The minimum margins to the limits are as follows:

<b>Conducted disturbance at mains terminals</b>	Rx A:B:30.000MHz(ANT 1) mode 8.1 dB (1.5945 MHz) AV
<b>Radiated disturbance</b>	Rx A:B:0.030MHz(ANT 1) mode 4.4 dB (88.80 MHz)

Note : See Section 10 for details.

< Measurement data correction >

\* Conducted disturbance at mains terminals

Emission Level [dB $\mu$ V] = Meter Reading [dB $\mu$ V] + Factor [dB]

Margin [dB] = Limit [dB $\mu$ V] - Emission Level [dB $\mu$ V]

\* Factor = LISN Factor + Cable Loss + ATT

\* Radiated disturbance

Emission Level [dB $\mu$ V/m] = Meter Reading [dB $\mu$ V] + Factor [dB/m]

Margin [dB] = Limit [dB $\mu$ V/m] - Emission Level [dB $\mu$ V/m]

\* Factor = Antenna Factor + Cable Loss - Amplifier Gain + ATT

( – Distance Conversion Factor)

## 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	Notes	FCC ID
A1	HF/50MHz Transceiver	FT DX 5000	9L000001	Vertex Standard	EUT	K6620361X60
A2	Data Management Unit	DMU-2000	7D060071	Vertex Standard	Option	DoC
A3	Microphone	MH-31B8	None	Vertex Standard	Accessory	N/A
A4	Remote Control Keypad	FH-2	None	Vertex Standard	Option	N/A
A5	Headphone	YH-77STA	None	Vertex Standard	Option	N/A
A6	Speaker	SP-2000	70006	Vertex Standard	Option	N/A
A7	u-Tuning	MTU-160	6N004	Vertex Standard	Option	N/A
A8	u-Tuning	MTU-80/40	6N004	Vertex Standard	Option	N/A
A9	u-Tuning	MTU-30/20	6N004	Vertex Standard	Option	N/A
<b>Rated Power</b> : FT DX 5000 : AC90-264 V, 50/60 Hz, 80 VA (RX), 720 VA (TX) DMU-2000 : AC100-240 V, 50/60 Hz, 50 VA						
<b>Supplied Power</b> : FT DX 5000 : AC120 V, 60 Hz , DMU-2000 : AC120 V, 60 Hz						
<b>Condition of Equipment</b>		Prototype				
<b>Type</b>		Tabletop				
<b>Suppression Devices</b>		No Modifications by the laboratory were made to the device				

### 3.2 Overview of EUT

<b>Frequency Ranges</b>	0.030 – 60.000 MHz
<b>Receiver Type</b>	Triple Conversion Super-heterodyne
<b>Model of Operation</b>	A1A, A3E, F3E, J3E

### 3.3 Intermediate Frequencies

<b>1st</b>	Main : 9.000 MHz (Upper), Sub : 40.455 MHz (Upper)
<b>2nd</b>	Main : 30 kHz SSB/CW, 24 kHz FM/AM, Sub : 455 kHz (Lower)
<b>3rd</b>	Sub : 30 kHz SSB/CW, 24 kHz FM/AM

### 3.4 Oscillator(s) / Crystal(s)

Base Clock	Operating Frequency	Board Name	Remarks
11.1 MHz	11.1 MHz	CNTL Unit	
18.432 MHz	18.432 MHz	DSP Unit	X7001
18.432 MHz	18.432 MHz	DSP Unit	X7501
400.000 MHz	9.030-69.000 MHz	Local Unit	VFO (A)
400.000 MHz	40.485-100.455 MHz	Local Unit	VFO (B)
40.000 MHz	425 kHz	Local Unit	SSB/CW
40.000 MHz	400.000 MHz	Local Unit	
133 MHz	667 MHz	EBC365LP6	DMU-2000 (Highest Frequency)

### 3.5 Port(s)/Connector(s)

Port Name	Connector Type	Connector Pin	Remarks
Mic.	FM214-8SMPT-NI	8 pin	Front
Phone	6φ Stereo	1 pin	Front
KEY	6φ Stereo	1 pin	Front
Mic.	RCA	1 pin	
ANT1, 2, 3, 4, RX	MR-S	1 pin	
RX OUT	BNC	1 pin	
CAT	D-sub	9 pin	
ROTATOR	Mini-DIN	6 pin	
EXT.ALC	RCA	1 pin	
BAND DATA	DIN	8 pin	
TX GND	RCA	1 pin	
TRV	RCA	1 pin	
PACKET	DIN	5 pin	
RTTY	DIN	4 pin	
AF OUT	3.5φ Mono	1 pin	
EXT.SPKR	3.5φ Mono	1 pin	
V-AF	3.5φ Mono	1 pin	
PTT	RCA	1 pin	
+13.8V	RCA	1 pin	
REC	RCA	1 pin	
TX REC	RCA	1 pin	
IF OUT	RCA	1 pin	
REMOTE	3.5φ Mono	1 pin	
u-Tune (TO)	RCA	1 pin	
u-Tune (FROM)	RCA	1 pin	
u-Tune	Mini-DIN	10 pin	
DMU	Mini-DIN	8 pin	
KEY	6φ Stereo	1 pin	

### 3.6 Frequency Range of Measurements

	Required Measurement Frequency Range	Measured Frequency Range
Conducted disturbance at mains terminals	0.15 – 30 MHz	0.15 – 30 MHz
Radiated disturbance	30 – 5000 MHz	30 – 5000 MHz

**SECTION 4. SUPPORT EQUIPMENT**

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

Symbol	Item	Model No.	Serial No.	Manufacturer	Remarks	FCC ID
<b>B</b>	CF Card	FC-32MH	None	Canon		N/A
<b>C</b>	GPS Receiver	Etrex Venture	73800627	Germin International		DoC
<b>D</b>	Ext. Keyboard	RT7D00	TH-054EXM-371 71-19D-1655	DELL		AQ6-7D0080COB
<b>E</b>	Ext. Display	E172FPb	None	DELL		DoC
<b>F</b>	Computer	DMC	FXYKV1X	DELL		DoC
<b>G</b>	Display	E176FPb	None	DELL		DoC
<b>H</b>	Keyboard	SK-8115	None	DELL		DoC
<b>I</b>	Mouse	MO56UOA	E1900IT0	DELL		DoC
<b>J</b>	Printer	C8154AL	TH71Q5Z024	Hewlett Packard		Doc
<b>K</b>	AC Adapter	0957-2171	E151B100MU02L	Hewlett Packard		DoC
<b>Supplied Power:</b>						
<b>E, F, G, K</b>	AC120 V, 60 Hz					

## SECTION 5. USED CABLE(S)

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

No.	Name	Length (m)	Shield	Metal Connector	Ferrite Core
1	Microphone cable	0.50	Yes	Metal	
2	Keypad (FH-2) cable	1.00	Yes	Metal	
3	Headphone cable	1.80	Yes	Metal	
4	KEY cable	0.60	Yes	Metal	
5	u-Tune (TO) cable	1.20	Yes	Metal	
6	u-Tune (FROM) cable	1.20	Yes	Metal	
7	ROTATOR cable	1.50	Yes	Metal	
8	LINER (BAND DATA ) cable	2.00	Yes	Metal	
9	IF OUT cable	1.20	Yes	Metal	
10	RTTY cable	1.10	Yes	Metal	
11	PTT cable	1.50	Yes	Metal	
12	REC cable	2.00	Yes	Metal	
13	EXT. SPKR cable	1.00	Yes	Metal	
14	KEY cable	1.10	Yes	Metal	
15	u-Tune cable	1.10	Yes	Metal	
16	DMU cable	1.40	Yes	Metal	
17	CAT cable	1.80	Yes	Metal	
18	USB cable	1.00	Yes	Metal	
19	Ext. Keyboard cable	1.50	Yes	Metal	
20	Ext. Display cable	1.80	Yes	Metal	
21	COM (GPS) cable	2.00	Yes	Metal	
22	AUDIO IN cable	1.50	Yes	Metal	
23	AUDIO OUT cable	1.10	Yes	Metal	
24	Centronics cable	2.40	Yes	Metal	
25	Keyboard cable	2.00	Yes	Metal	
26	Mouse cable	1.80	Yes	Metal	
27	Display cable	1.80	Yes	Metal	Fixed x1
28	PKT cable	1.50	Yes	Metal	
29	u-Tune (CNTL) cable	1.10	Yes	Metal	
30	V-AF cable	1.00	Yes	Metal	
31	AF-OUT cable	1.50	Yes	Metal	
32	Mic. cable	1.20	Yes	Metal	

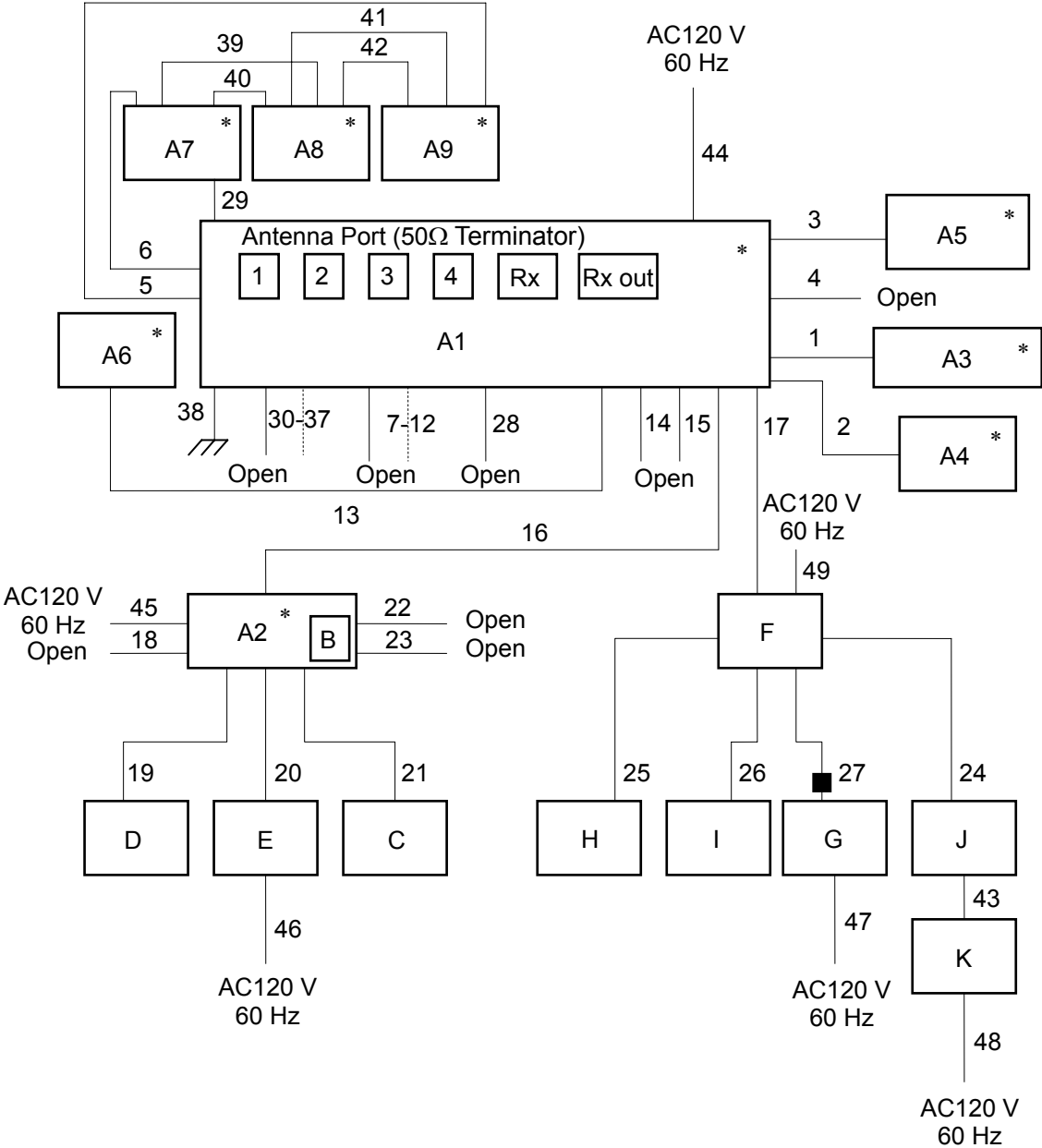


33	EXT ALC cable	1.00	No	Metal	
34	TRV cable	1.10	No	Metal	
35	TX REQ cable	1.00	No	Metal	
36	+13.8V cable	1.00	No	Metal	
37	TX GND cable	1.90	No	Metal	
38	GND cable	1.50	No	N/A	
39	u-Tune (CNTL) cable	1.10	Yes	Metal	
40	u-Tune (RF) cable	1.10	Yes	Metal	
41	u-Tune (CNTL) cable	1.10	Yes	Metal	
42	u-Tune (RF) cable	1.10	Yes	Metal	
43	Power cable for Printer (DC)	1.70	No	No	
44	Power cable for FT dx 5000 (AC)	2.20	No	No	
45	Power cable for DMU-2000 (AC)	1.40	No	No	
46	Power cable for Ext. Display (AC)	1.80	No	No	
47	Power cable for Display (AC)	1.80	No	No	
48	Power cable for Printer (AC)	2.00	No	No	
49	Power cable for Computer (AC)	1.90	No	No	

Note : No. 27 cable is supplied together with Display (G).

**SECTION 6. TEST CONFIGURATION**

\* : EUT  
 ■ : Ferrite core



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 EUT was operated under the following conditions during the test.

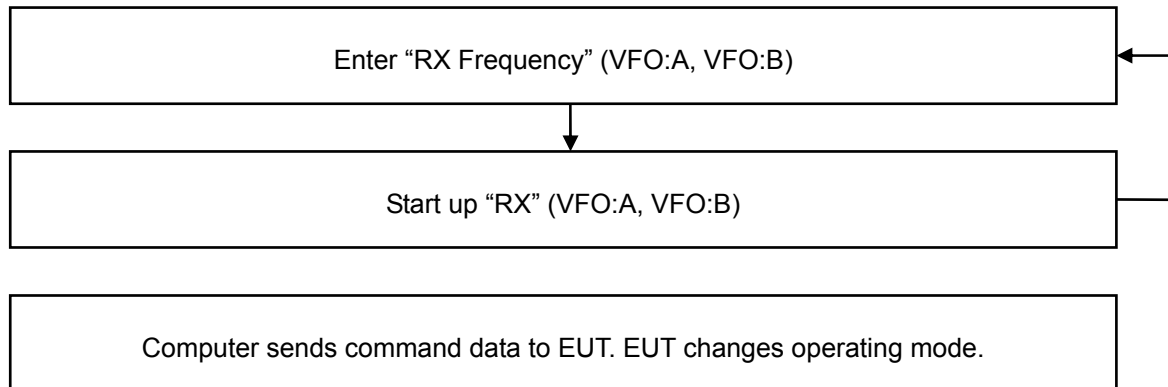
### 7.1 Operating Condition

The test was carried out under RX mode.

EUT was examined in the operating conditions that had maximum emissions.

### 7.2 Operating Flow [RX mode]

Following operations were performed continuously.

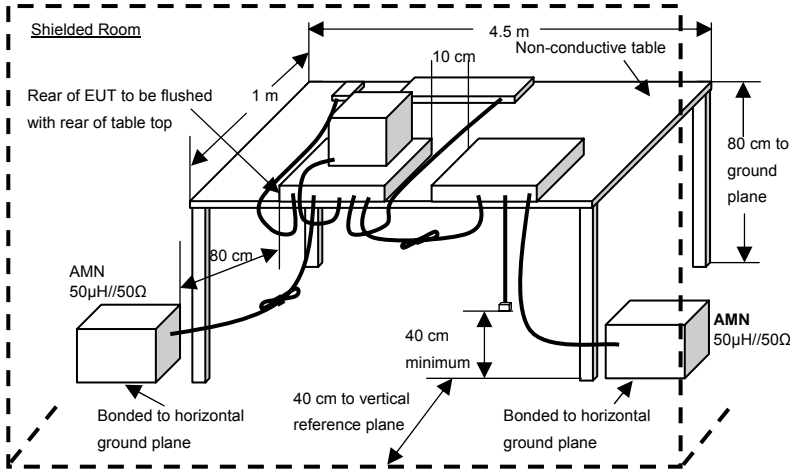


**SECTION 8. TEST PROCEDURE(S)**

Test was carried out under the following conditions.

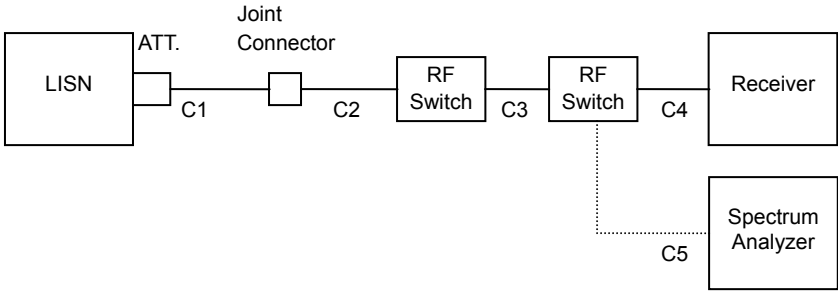
**Conducted disturbance at mains terminals**

Test setup as per standard



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

Diagram of the measuring instruments



Setting for the instruments

Frequency [MHz]	Instrument	Detector Function	Resolution Bandwidth	Video Bandwidth
0.15 – 30	Receiver	Quasi Peak	10 kHz	N/A
		Average	10 kHz	N/A

[ 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

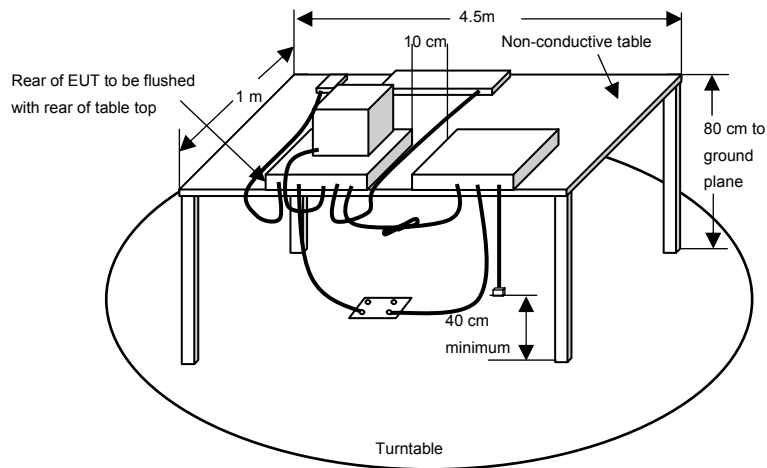
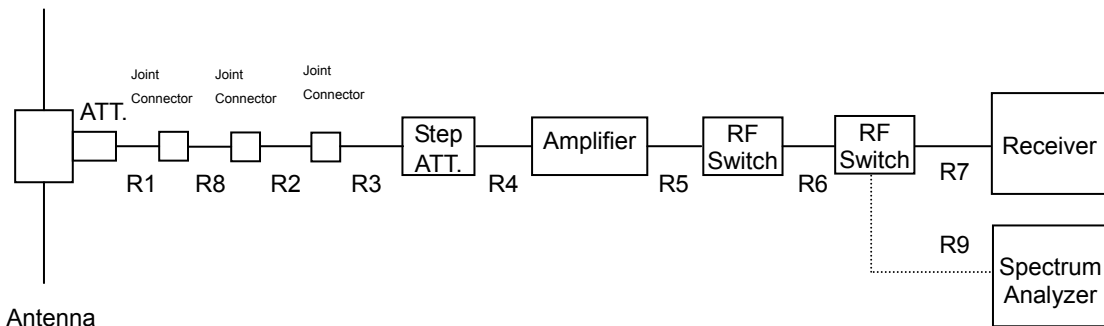
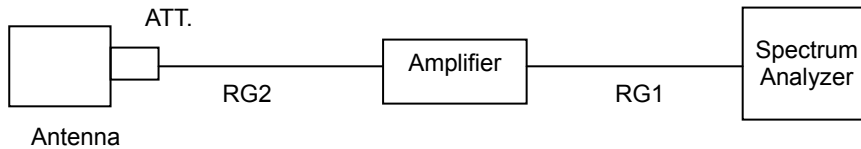


Diagram of the measuring instruments ( 30-1000MHz )



Above 1GHz



Setting for the instruments

Frequency [MHz]	Instrument	Detector Function	Resolution Bandwidth	Video Bandwidth
30 – 1000	Receiver	Quasi Peak	120 kHz	N/A
Above 1000	Spectrum Analyzer	Peak	1 MHz	1 MHz
		Average	1 MHz	10 Hz

[ 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. Then spectrum chart is plotted out to 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 (1 to 4 meters) 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 spectrum are measured by the test receiver (quasi-peak) and spectrum analyzer (peak and average). When the uncertain result was obtained, the measurement is retried by using the half wave dipole antenna instead of the broadband antenna.

## SECTION 9. MEASUREMENT UNCERTAINTY

<b>Radiated disturbance at 3m</b>	$U_{lab}$	$U_{cispr}$
30 MHz – 1000 MHz Above 1 GHz (ANSI)	+/- 3.6 dB +/- 4.2 dB	5.2 dB
<b>Radiated disturbance at 10m</b>		
30 MHz – 1000 MHz Above 1 GHz (ANSI)	+/- 3.7 dB +/- 4.2 dB	5.1 dB
<b>Radiated disturbance at 30m</b>		
	N/A	5.2 dB
<b>Conducted disturbance at mains terminals</b>		
9 kHz - 150 kHz 150 kHz - 30 MHz	+/- 2.7 dB	4.0 dB 3.6 dB
<b>Conducted disturbance at telecommunication ports (voltage)</b>		
9 kHz – 30 MHz	+/- 2.7 dB	Nil
<b>Conducted disturbance at telecommunication ports (current)</b>		
9 kHz – 30 MHz	+/- 2.8 dB	Nil
<b>Conducted disturbance at terminals</b>		
150 kHz – 30 MHz	+/- 2.7 dB	Nil
<b>Disturbance power</b>		
30 MHz – 300 MHz	+/- 2.9 dB	4.5 dB

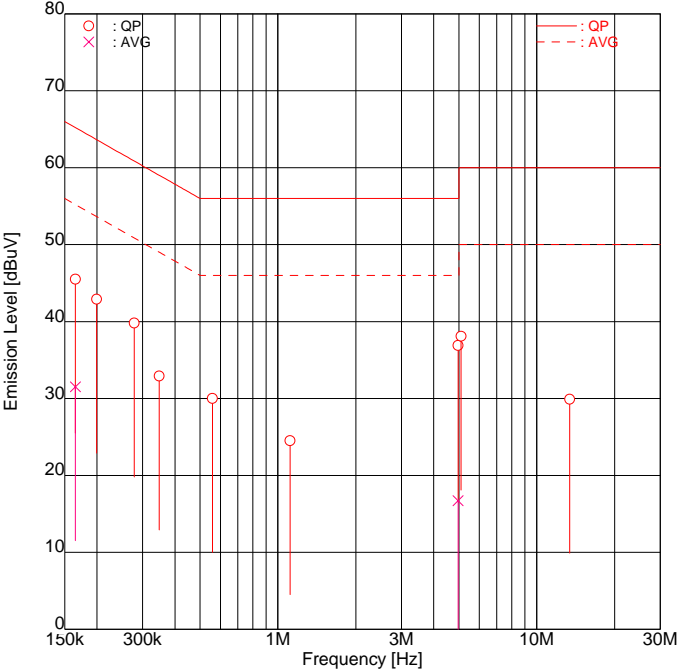
The above expanded instrumentation uncertainty,  $U_{lab}$ , is estimated in accordance with CISPR 16-4-2. Traceability to national standard in SI units is ensured with these values. Compliance with the limits in this standard are determined without in consideration of the measurement uncertainty of the measurement instrumentation.

**SECTION 10. EVALUATION OF TEST RESULTS**

**10.1 Conducted disturbance at mains terminals**  
 10.1.1 Rx A:B:0.030MHz (ANT 1) (Power Line for FT DX 5000)

**Intertek Japan K.K.**  
**Tochigi No.2 Test Site**  
 Conducted Voltages on Mains Port

APPLICANT : Vertex Standard Co., Ltd.  
 EUT NAME : HF Transceiver  
 MODEL NO. : FT DX 5000  
 SERIAL NO. : 9L000001  
 TEST MODE : Rx A:B:0.030MHz (ANT 1)  
 POWER SOURCE : AC120V, 60Hz  
 DATE TESTED : Nov 12 2009  
 FILE NO. : JT09110006  
 REGULATION : FCC Part15B Class B  
 TEST METHOD : ANSI C63.4-2003  
 TEMPERATURE : 26.0 [degC]  
 HUMIDITY : 45.0 [%]  
 NOTE : Power Line for FT DX 5000



ENGINEER : Atsuyuki Morishima

FREQUENCY [No]	MODE [MHz]	MODE	READING [dBuV]		FACTOR [dB]		EMISSION [dBuV]		LIMIT [dBuV]	MARGIN [dB]	
			Line1	Line2	Line1	Line2	Line1	Line2		Line1	Line2
1	0.1651	QP	35.0	<u>35.1</u>	10.4	10.4	45.4	<u>45.5</u>	65.2	19.8	<u>19.7</u>
2	0.1651	AVG	<u>21.1</u>	21.1	10.4	10.4	<u>31.5</u>	31.5	55.2	<u>23.7</u>	23.7
3	0.1993	QP	<u>32.5</u>	32.3	10.4	10.4	<u>42.9</u>	42.7	63.6	<u>20.7</u>	20.9
4	0.2784	QP	24.6	<u>29.4</u>	10.4	10.4	35.0	<u>39.8</u>	60.9	<u>25.9</u>	<u>21.1</u>
5	0.3479	QP	22.4	<u>22.5</u>	10.4	10.4	32.8	<u>32.9</u>	59.0	<u>26.2</u>	<u>26.1</u>
6	0.5587	QP	17.6	<u>19.6</u>	10.4	10.4	28.0	<u>30.0</u>	56.0	<u>28.0</u>	<u>26.0</u>
7	1.1142	QP	14.1	<u>12.4</u>	10.4	10.4	24.5	<u>22.8</u>	56.0	31.5	33.2
8	4.9690	QP	24.3	<u>26.2</u>	10.7	10.7	35.0	<u>36.9</u>	56.0	21.0	<u>19.1</u>
9	4.9690	AVG	5.6	<u>6.0</u>	10.7	10.7	16.3	<u>16.7</u>	46.0	29.7	<u>29.3</u>
10	5.1043	QP	25.7	<u>27.4</u>	10.7	10.7	36.4	<u>38.1</u>	60.0	23.6	<u>21.9</u>
11	13.4155	QP	18.9	<u>16.7</u>	11.0	11.1	29.9	<u>27.8</u>	60.0	30.1	<u>32.2</u>

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

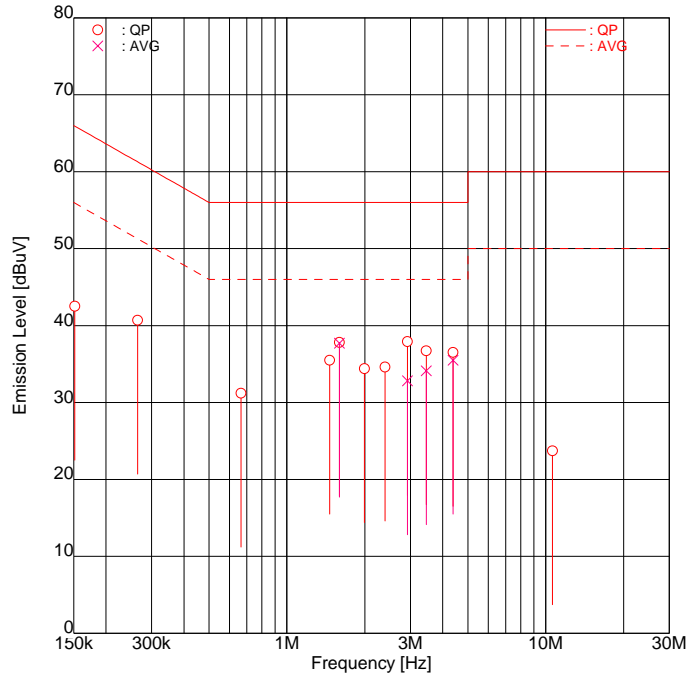
10.1.2 Rx A:B:0.030MHz (ANT 1) (Power Line for DMU-2000)

# Intertek Japan K.K.

## Tochigi No.2 Test Site

### Conducted Voltages on Mains Port

APPLICANT : Vertex Standard Co., Ltd.  
 EUT NAME : HF Transceiver  
 MODEL NO. : FT DX 5000  
 SERIAL NO. : 9L000001  
 TEST MODE : Rx A:B:0.030MHz (ANT 1)  
 POWER SOURCE : AC120V, 60Hz  
 DATE TESTED : Nov 12 2009  
 FILE NO. : JT09110006  
 REGULATION : FCC Part15B Class B  
 TEST METHOD : ANSI C63.4-2003  
 TEMPERATURE : 26.0 [degC]  
 HUMIDITY : 45.0 [%]  
 NOTE : Power Line for DMU-2000



ENGINEER : Atsuyuki Morishima

[No]	FREQUENCY [MHz]	MODE	READING [dBuV]		FACTOR [dB]		EMISSION [dBuV]		LIMIT [dBuV]	MARGIN [dB]	
			Line1	Line2	Line1	Line2	Line1	Line2		Line1	Line2
1	0.1514	QP	32.1	32.0	10.4	10.4	42.5	42.4	65.9	23.4	23.5
2	0.2648	QP	28.4	30.3	10.4	10.4	38.8	40.7	61.3	22.5	20.6
3	0.6645	QP	20.8	16.0	10.4	10.4	31.2	26.4	56.0	24.8	29.6
4	1.4621	QP	25.1	21.1	10.4	10.4	35.5	31.5	56.0	20.5	24.5
5	1.5949	QP	<u>27.4</u>	20.4	10.4	10.4	<u>37.8</u>	30.8	56.0	<u>18.2</u>	25.2
6	1.5949	AVG	<u>27.3</u>	19.6	10.4	10.4	<u>37.7</u>	30.0	46.0	<u>8.3</u>	16.0
7	1.9930	QP	24.0	8.7	10.4	10.4	34.4	19.1	56.0	21.6	36.9
8	2.3927	QP	24.1	19.4	10.5	10.5	34.6	29.9	56.0	21.4	26.1
9	2.9235	QP	24.4	<u>27.4</u>	10.5	10.5	34.9	<u>37.9</u>	56.0	21.1	<u>18.1</u>
10	2.9235	AVG	<u>22.3</u>	17.2	10.5	10.5	<u>32.8</u>	27.7	46.0	<u>13.2</u>	18.3
11	3.4557	QP	26.0	20.7	10.7	10.7	36.7	31.4	56.0	19.3	24.6
12	3.4557	AVG	<u>23.4</u>	16.4	10.7	10.7	<u>34.1</u>	27.1	46.0	<u>11.9</u>	18.9
13	4.3860	QP	25.3	25.8	10.7	10.7	36.0	36.5	56.0	20.0	19.5
14	4.3860	AVG	23.4	<u>24.8</u>	10.7	10.7	34.1	<u>35.5</u>	46.0	11.9	<u>10.5</u>
15	10.6232	QP	10.6	12.7	11.0	11.0	21.6	23.7	60.0	38.4	36.3

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



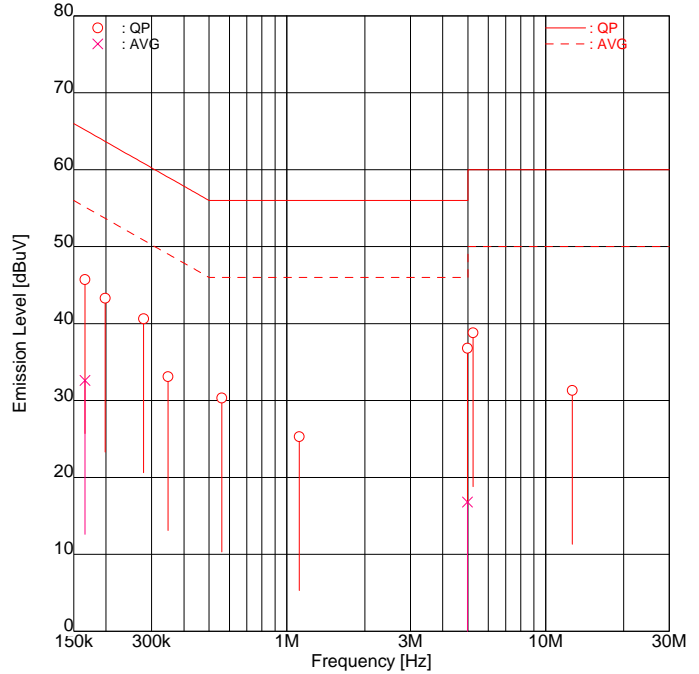
10.1.3 Rx A:B:30.000MHz (ANT 1) (Power Line for FT DX 5000)

# Intertek Japan K.K.

## Tochigi No.2 Test Site

### Conducted Voltages on Mains Port

APPLICANT : Vertex Standard Co., Ltd.  
 EUT NAME : HF Transceiver  
 MODEL NO. : FT DX 5000  
 SERIAL NO. : 9L000001  
 TEST MODE : Rx A:B:30.000MHz (ANT 1)  
 POWER SOURCE : AC120V, 60Hz  
 DATE TESTED : Nov 12 2009  
 FILE NO. : JT09110006  
 REGULATION : FCC Part15B Class B  
 TEST METHOD : ANSI C63.4-2003  
 TEMPERATURE : 26.0 [degC]  
 HUMIDITY : 45.0 [%]  
 NOTE : Power Line for FT DX5000



ENGINEER : Atsuyuki Morishima

[No]	FREQUENCY [MHz]	MODE	READING [dBuV]		FACTOR [dB]		EMISSION [dBuV]		LIMIT [dBuV]	MARGIN [dB]	
			Line1	Line2	Line1	Line2	Line1	Line2		Line1	Line2
1	0.1659	QP	<u>35.3</u>	35.3	10.4	10.4	<u>45.7</u>	45.7	65.2	<u>19.5</u>	19.5
2	0.1659	AVG	<u>22.2</u>	22.1	10.4	10.4	<u>32.6</u>	32.5	55.2	<u>22.6</u>	22.7
3	0.1985	QP	32.7	<u>32.9</u>	10.4	10.4	43.1	<u>43.3</u>	63.7	20.6	<u>20.4</u>
4	0.2795	QP	25.3	<u>30.2</u>	10.4	10.4	35.7	<u>40.6</u>	60.8	25.1	<u>20.2</u>
5	0.3473	QP	22.7	22.7	10.4	10.4	33.1	33.1	59.0	25.9	25.9
6	0.5599	QP	17.8	19.9	10.4	10.4	28.2	30.3	56.0	27.8	25.7
7	1.1150	QP	14.9	12.9	10.4	10.4	25.3	23.3	56.0	30.7	32.7
8	4.9815	QP	25.0	<u>26.1</u>	10.7	10.7	35.7	<u>36.8</u>	56.0	20.3	<u>19.2</u>
9	4.9815	AVG	5.6	6.1	10.7	10.7	16.3	16.8	46.0	29.7	29.2
10	5.2392	QP	26.4	<u>28.1</u>	10.7	10.7	37.1	<u>38.8</u>	60.0	22.9	<u>21.2</u>
11	12.6600	QP	20.3	<u>19.3</u>	11.0	11.1	31.3	30.4	60.0	28.7	<u>29.6</u>

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

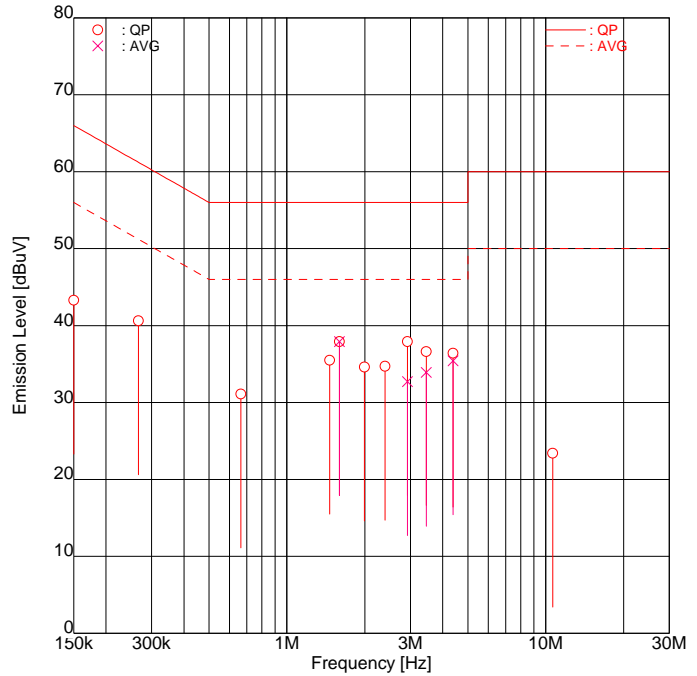
10.1.4 Rx A:B:30.000MHz (ANT 1) (Power Line for DMU-2000)

# Intertek Japan K.K.

## Tochigi No.2 Test Site

### Conducted Voltages on Mains Port

APPLICANT : Vertex Standard Co., Ltd.  
 EUT NAME : HF Transceiver  
 MODEL NO. : FT DX 5000  
 SERIAL NO. : 9L000001  
 TEST MODE : Rx A:B:30.000MHz (ANT 1)  
 POWER SOURCE : AC120V, 60Hz  
 DATE TESTED : Nov 12 2009  
 FILE NO. : JT09110006  
 REGULATION : FCC Part15B Class B  
 TEST METHOD : ANSI C63.4-2003  
 TEMPERATURE : 26.0 [degC]  
 HUMIDITY : 45.0 [%]  
 NOTE : Power Line for DMU-2000



ENGINEER : Atsuyuki Morishima

[No]	FREQUENCY [MHz]	MODE	READING [dBuV]		FACTOR [dB]		EMISSION [dBuV]		LIMIT [dBuV]	MARGIN [dB]	
			Line1	Line2	Line1	Line2	Line1	Line2		Line1	Line2
1	0.1500	QP	32.9	32.2	10.4	10.4	43.3	42.6	66.0	22.7	23.4
2	0.2667	QP	28.4	30.2	10.4	10.4	38.8	40.6	61.2	22.4	20.6
3	0.6640	QP	20.7	15.4	10.4	10.4	31.1	25.8	56.0	24.9	30.2
4	1.4612	QP	25.1	21.1	10.4	10.4	35.5	31.5	56.0	20.5	24.5
5	1.5945	QP	<u>27.5</u>	20.3	10.4	10.4	<u>37.9</u>	30.7	56.0	<u>18.1</u>	25.3
6	1.5945	AVG	<u>27.5</u>	19.7	10.4	10.4	<u>37.9</u>	30.1	46.0	<u>8.1</u>	15.9
7	1.9940	QP	24.2	8.6	10.4	10.4	34.6	19.0	56.0	21.4	37.0
8	2.3928	QP	24.2	19.3	10.5	10.5	34.7	29.8	56.0	21.3	26.2
9	2.9232	QP	24.4	<u>27.4</u>	10.5	10.5	34.9	<u>37.9</u>	56.0	21.1	<u>18.1</u>
10	2.9232	AVG	<u>22.2</u>	<u>17.2</u>	10.5	10.5	<u>32.7</u>	<u>27.7</u>	46.0	<u>13.3</u>	<u>18.3</u>
11	3.4551	QP	<u>25.9</u>	20.7	10.7	10.7	<u>36.6</u>	31.4	56.0	<u>19.4</u>	24.6
12	3.4551	AVG	<u>23.2</u>	16.3	10.7	10.7	<u>33.9</u>	27.0	46.0	<u>12.1</u>	19.0
13	4.3857	QP	25.2	25.7	10.7	10.7	35.9	36.4	56.0	20.1	19.6
14	4.3857	AVG	23.4	<u>24.7</u>	10.7	10.7	34.1	<u>35.4</u>	46.0	11.9	<u>10.6</u>
15	10.6303	QP	10.2	12.4	11.0	11.0	21.2	23.4	60.0	38.8	36.6

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

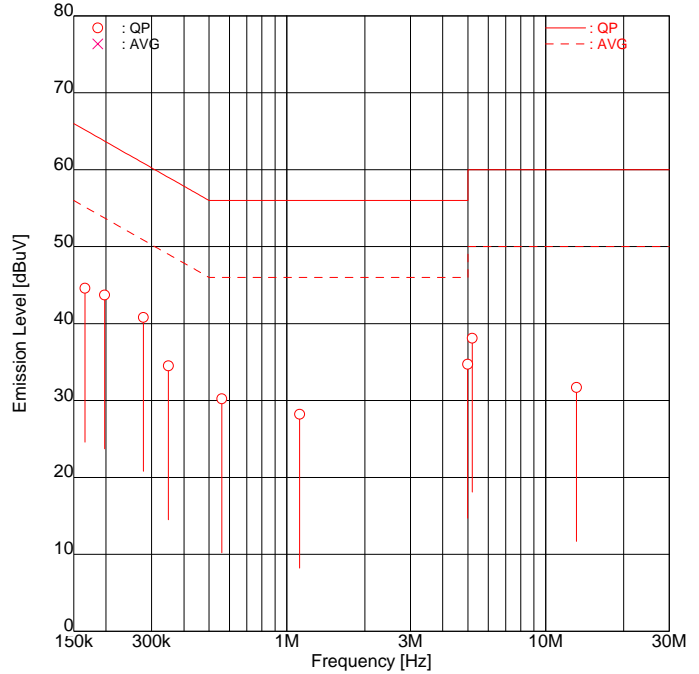
10.1.5 Rx A:B:60.000MHz (ANT 1) (Power Line for FT DX 5000)

# Intertek Japan K.K.

## Tochigi No.2 Test Site

### Conducted Voltages on Mains Port

APPLICANT : Vertex Standard Co., Ltd.  
 EUT NAME : HF Transceiver  
 MODEL NO. : FT DX 5000  
 SERIAL NO. : 9L000001  
 TEST MODE : Rx A:B:60.000MHz (ANT 1)  
 POWER SOURCE : AC120V, 60Hz  
 DATE TESTED : Nov 12 2009  
 FILE NO. : JT09110006  
 REGULATION : FCC Part15B Class B  
 TEST METHOD : ANSI C63.4-2003  
 TEMPERATURE : 26.0 [degC]  
 HUMIDITY : 45.0 [%]  
 NOTE : Power Line for FT DX5000



ENGINEER : Atsuyuki Morishima

FREQUENCY [No]	MODE [MHz]	MODE	READING [dBuV]		FACTOR [dB]		EMISSION [dBuV]		LIMIT [dBuV]	MARGIN [dB]	
			Line1	Line2	Line1	Line2	Line1	Line2		Line1	Line2
1	0.1659	QP	<u>34.2</u>	34.2	10.4	10.4	<u>44.6</u>	44.6	65.2	<u>20.6</u>	20.6
2	0.1973	QP	33.1	<u>33.3</u>	10.4	10.4	43.5	<u>43.7</u>	63.7	20.2	<u>20.0</u>
3	0.2788	QP	25.7	<u>30.4</u>	10.4	10.4	36.1	<u>40.8</u>	60.9	24.8	<u>20.1</u>
4	0.3485	QP	23.2	<u>24.1</u>	10.4	10.4	33.6	<u>34.5</u>	59.0	25.4	<u>24.5</u>
5	0.5602	QP	18.1	19.8	10.4	10.4	28.5	30.2	56.0	27.5	25.8
6	1.1199	QP	17.8	15.8	10.4	10.4	28.2	26.2	56.0	27.8	29.8
7	5.1989	QP	25.8	<u>27.4</u>	10.7	10.7	36.5	<u>38.1</u>	60.0	23.5	<u>21.9</u>
8	4.9960	QP	22.5	<u>24.0</u>	10.7	10.7	33.2	<u>34.7</u>	56.0	22.8	<u>21.3</u>
9	13.1525	QP	20.7	19.3	11.0	11.1	31.7	30.4	60.0	28.3	29.6

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

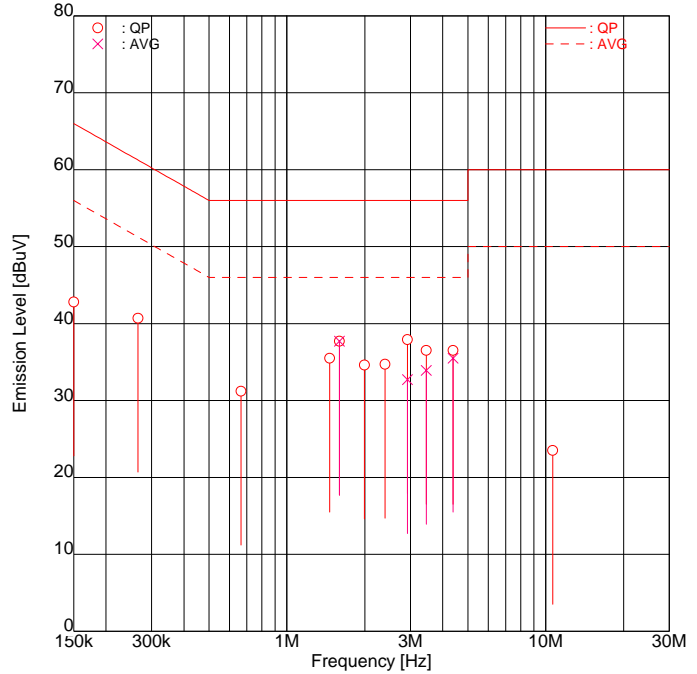
10.1.6 Rx A:B:60.000MHz (ANT 1) (Power Line for DMU-2000)

# Intertek Japan K.K.

## Tochigi No.2 Test Site

### Conducted Voltages on Mains Port

APPLICANT : Vertex Standard Co., Ltd.  
 EUT NAME : HF Transceiver  
 MODEL NO. : FT DX 5000  
 SERIAL NO. : 9L000001  
 TEST MODE : Rx A:B:60.000MHz (ANT 1)  
 POWER SOURCE : AC120V, 60Hz  
 DATE TESTED : Nov 12 2009  
 FILE NO. : JT09110006  
 REGULATION : FCC Part15B Class B  
 TEST METHOD : ANSI C63.4-2003  
 TEMPERATURE : 26.0 [degC]  
 HUMIDITY : 45.0 [%]  
 NOTE : Power Line for DMU-2000



ENGINEER : Atsuyuki Morishima

[No]	FREQUENCY [MHz]	MODE	READING [dBuV]		FACTOR [dB]		EMISSION [dBuV]		LIMIT [dBuV]	MARGIN [dB]	
			Line1	Line2	Line1	Line2	Line1	Line2		Line1	Line2
1	0.1500	QP	32.4	32.3	10.4	10.4	42.8	42.7	66.0	23.2	23.3
2	0.2658	QP	28.5	30.3	10.4	10.4	38.9	40.7	61.2	22.3	20.5
3	0.6652	QP	20.8	15.6	10.4	10.4	31.2	26.0	56.0	24.8	30.0
4	1.4621	QP	25.1	21.1	10.4	10.4	35.5	31.5	56.0	20.5	24.5
5	1.5946	QP	<u>27.3</u>	20.3	10.4	10.4	<u>37.7</u>	30.7	56.0	<u>18.3</u>	25.3
6	1.5946	AVG	<u>27.3</u>	19.6	10.4	10.4	<u>37.7</u>	30.0	46.0	<b>8.3</b>	16.0
7	1.9932	QP	24.2	8.6	10.4	10.4	34.6	19.0	56.0	21.4	37.0
8	2.3928	QP	24.2	19.4	10.5	10.5	34.7	29.9	56.0	21.3	26.1
9	2.9237	QP	24.5	<u>27.4</u>	10.5	10.5	35.0	<u>37.9</u>	56.0	21.0	<u>18.1</u>
10	2.9237	AVG	<u>22.2</u>	17.2	10.5	10.5	<u>32.7</u>	27.7	46.0	<u>13.3</u>	18.3
11	3.4554	QP	<u>25.8</u>	20.7	10.7	10.7	<u>36.5</u>	31.4	56.0	<u>19.5</u>	24.6
12	3.4554	AVG	<u>23.2</u>	16.3	10.7	10.7	<u>33.9</u>	27.0	46.0	<u>12.1</u>	19.0
13	4.3861	QP	25.3	25.8	10.7	10.7	36.0	36.5	56.0	20.0	19.5
14	4.3861	AVG	23.5	<u>24.8</u>	10.7	10.7	34.2	<u>35.5</u>	46.0	11.8	<u>10.5</u>
15	10.6310	QP	10.2	12.5	11.0	11.0	21.2	23.5	60.0	38.8	36.5

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

10.2 Radiated disturbance

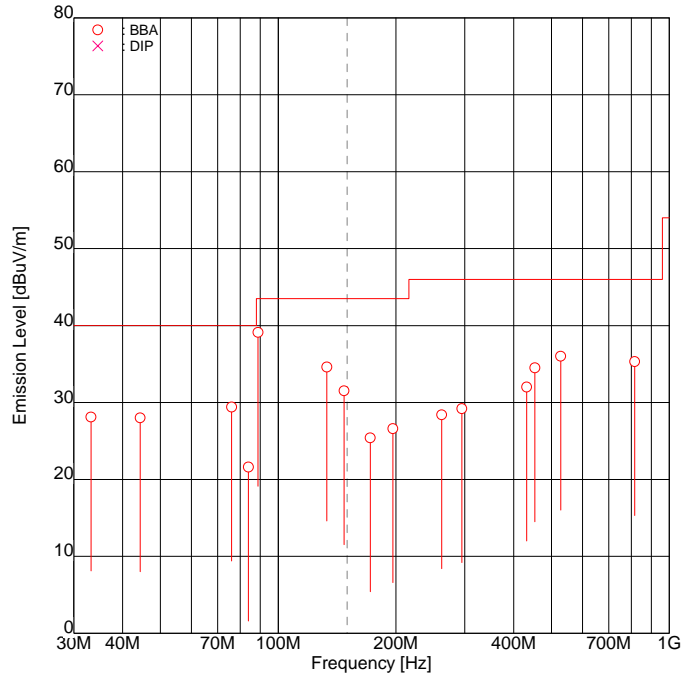
10.2.1 Rx A:B:0.030MHz (ANT 1) [30 – 1000MHz]

Intertek Japan K.K.

Tochigi No.2 Test Site

Radiated Electric Field

APPLICANT : Vertex Standard Co., Ltd.  
 EUT NAME : HF Transceiver  
 MODEL NO. : FT DX 5000  
 SERIAL NO. : 9L000001  
 TEST MODE : Rx A:B:0.030MHz (ANT 1)  
 POWER SOURCE : AC120V, 60Hz  
 DATE TESTED : Nov 10 2009  
 FILE NO. : JT09110006  
 REGULATION : FCC Part15B Class B  
 TEST METHOD : ANSI C63.4-2003  
 DISTANCE : 3.00 [m]  
 TEMPERATURE : 21.0 [degC]  
 HUMIDITY : 64.0 [%]  
 NOTE :



ENGINEER : Atsuyuki Morishima

FREQUENCY [No]	FREQUENCY [MHz]	ANT.	READING [dBuV]		FACTOR [dB/m]		EMISSION [dBuV/m]		LIMIT [dBuV/m]	MARGIN [dB]	
			Hori	Vert	Hori	Vert	Hori	Vert		Hori	Vert
1	33.21	BBA	-	34.8	-6.7	-6.7	-	28.1	40.0	-	11.9
2	44.39	BBA	-	32.8	-4.8	-4.8	-	28.0	40.0	-	12.0
3	76.01	BBA	<u>36.8</u>	35.0	-7.4	-7.4	<u>29.4</u>	27.6	40.0	<u>10.6</u>	12.4
4	83.93	BBA	30.6	-	-9.0	-9.0	21.6	-	40.0	18.4	-
5	88.80	BBA	<u>48.8</u>	46.5	-9.7	-9.7	<u>39.1</u>	36.8	43.5	<b>4.4</b>	6.7
6	133.20	BBA	33.0	<u>39.3</u>	-4.7	-4.7	28.3	<u>34.6</u>	43.5	15.2	<u>8.9</u>
7	147.46	BBA	31.3	35.2	-3.7	-3.7	27.6	31.5	43.5	15.9	12.0
8	172.04	BBA	-	29.2	-3.8	-3.8	-	25.4	43.5	-	18.1
9	196.42	BBA	32.3	-	-5.7	-5.7	26.6	-	43.5	16.9	-
10	261.89	BBA	31.1	30.1	-2.7	-2.7	28.4	27.4	46.0	17.6	18.6
11	294.92	BBA	-	30.4	-1.2	-1.2	-	29.2	46.0	-	16.8
12	432.06	BBA	29.6	-	2.4	2.4	32.0	-	46.0	14.0	-
13	453.54	BBA	-	<u>31.5</u>	3.0	3.0	-	<u>34.5</u>	46.0	-	<u>11.5</u>
14	528.06	BBA	<u>31.0</u>	-	5.0	5.0	<u>36.0</u>	-	46.0	<u>10.0</u>	-
15	816.11	BBA	-	<u>24.8</u>	10.5	10.5	-	<u>35.3</u>	46.0	-	<u>10.7</u>

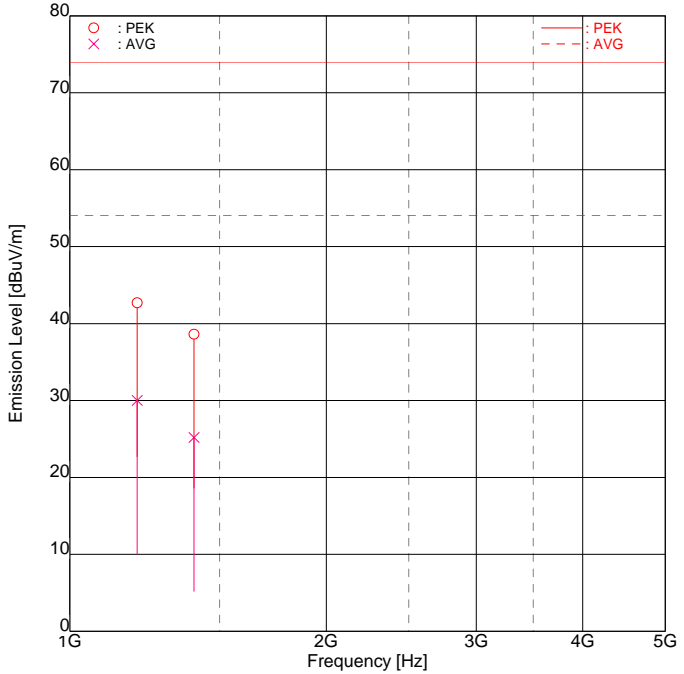
Higher six points are underlined.  
 Other frequencies : Below the FCC Part15B Class B limit  
 Emission Level = Read + Factor(Antenna, Antenna Pad, Cable, Preamp)  
 ANT. : Used antenna(BBA = Broadband antenna, DIP = Dipole antenna)

10.2.2 Rx A:B:0.030MHz (ANT 1) [1000 – 5000MHz]

**Intertek Japan K.K.**  
**Tochigi No.2 Test Site**  
 Radiated Electric Field

APPLICANT : Vertex Standard Co., Ltd.  
 EUT NAME : HF Transceiver  
 MODEL NO. : FT DX 5000  
 SERIAL NO. : 9L000001  
 TEST MODE : Rx A:B:0.030MHz (ANT 1)  
 POWER SOURCE : AC120V, 60Hz  
 DATE TESTED : Nov 11 2009  
 FILE NO. : JT09110006  
 REGULATION : FCC Part15B Class B  
 TEST METHOD : ANSI C63.4-2003  
 DISTANCE : 3.00 [m]  
 TEMPERATURE : 22.0 [degC]  
 HUMIDITY : 64.0 [%]  
 NOTE :

ENGINEER : Atsuyuki Morishima



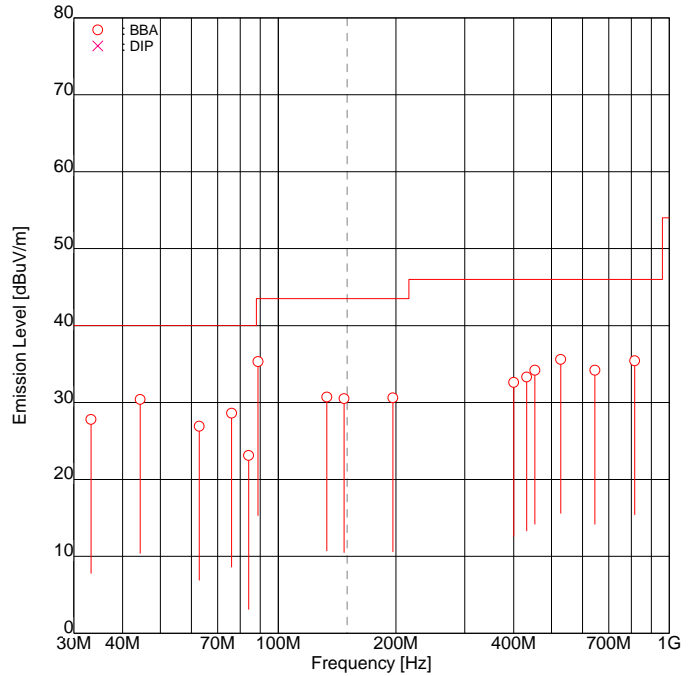
[No]	FREQUENCY [MHz]	MODE	READING [dBuV]		FACTOR [dB]		EMISSION [dBuV/m]		LIMIT [dBuV/m]	MARGIN [dB]	
			Hori	Vert	Hori	Vert	Hori	Vert		Hori	Vert
1	1199.87	PEK	<u>45.5</u>	40.9	-2.8	-2.8	<u>42.7</u>	38.1	74.0	<u>31.3</u>	35.9
2	1199.87	AVG	<u>32.8</u>	30.1	-2.8	-2.8	<u>30.0</u>	27.3	54.0	<u>24.0</u>	26.7
3	1399.67	PEK	39.4	<u>40.4</u>	-1.8	-1.8	37.6	<u>38.6</u>	74.0	36.4	<u>35.4</u>
4	1399.67	AVG	26.9	<u>27.0</u>	-1.8	-1.8	25.1	<u>25.2</u>	54.0	28.9	<u>28.8</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)

10.2.3 Rx A:B:30.000MHz (ANT 1) [30 – 1000MHz]

**Intertek Japan K.K.**  
**Tochigi No.2 Test Site**  
 Radiated Electric Field

APPLICANT : Vertex Standard Co., Ltd.  
 EUT NAME : HF Transceiver  
 MODEL NO. : FT DX 5000  
 SERIAL NO. : 9L000001  
 TEST MODE : Rx A:B:30.000MHz (ANT 1)  
 POWER SOURCE : AC120V, 60Hz  
 DATE TESTED : Nov 10 2009  
 FILE NO. : JT09110006  
 REGULATION : FCC Part15B Class B  
 TEST METHOD : ANSI C63.4-2003  
 DISTANCE : 3.00 [m]  
 TEMPERATURE : 22.0 [degC]  
 HUMIDITY : 60.0 [%]  
 NOTE :



ENGINEER : Atsuyuki Morishima

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	33.21	BBA	-	34.5	-6.7	-6.7	-	27.8	40.0	-	12.2
2	44.40	BBA	-	<u>35.2</u>	-4.8	-4.8	-	<u>30.4</u>	40.0	-	<u>9.6</u>
3	62.84	BBA	-	31.9	-5.0	-5.0	-	26.9	40.0	-	13.1
4	76.01	BBA	<u>36.0</u>	29.6	-7.4	-7.4	<u>28.6</u>	22.2	40.0	<u>11.4</u>	17.8
5	84.02	BBA	32.1	-	-9.0	-9.0	23.1	-	40.0	16.9	-
6	88.80	BBA	<u>45.0</u>	42.6	-9.7	-9.7	<u>35.3</u>	32.9	43.5	<u>8.2</u>	10.6
7	133.20	BBA	-	35.4	-4.7	-4.7	-	30.7	43.5	-	12.8
8	147.46	BBA	31.5	34.2	-3.7	-3.7	27.8	30.5	43.5	15.7	13.0
9	196.42	BBA	36.3	-	-5.7	-5.7	30.6	-	43.5	12.9	-
10	400.00	BBA	31.0	28.5	1.6	1.6	32.6	30.1	46.0	13.4	15.9
11	432.06	BBA	30.9	-	2.4	2.4	33.3	-	46.0	12.7	-
12	453.54	BBA	-	<u>31.2</u>	3.0	3.0	-	<u>34.2</u>	46.0	-	<u>11.8</u>
13	528.06	BBA	<u>30.6</u>	-	5.0	5.0	<u>35.6</u>	-	46.0	<u>10.4</u>	-
14	645.26	BBA	<u>27.1</u>	-	7.1	7.1	<u>34.2</u>	-	46.0	<u>11.8</u>	-
15	816.11	BBA	-	<u>24.9</u>	10.5	10.5	-	<u>35.4</u>	46.0	-	<u>10.6</u>

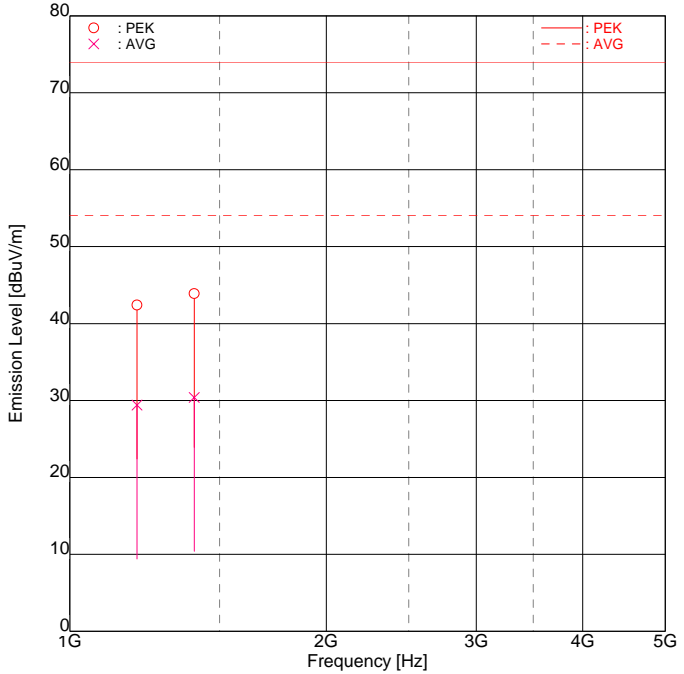
Higher six points are underlined.  
 Other frequencies : Below the FCC Part15B Class B limit  
 Emission Level = Read + Factor(Antenna, Antenna Pad, Cable, Preamp)  
 ANT. : Used antenna(BBA = Broadband antenna, DIP = Dipole antenna)

10.2.4 Rx A:B:30.000MHz (ANT 1) [1000 – 5000MHz]

**Intertek Japan K.K.**  
**Tochigi No.2 Test Site**  
 Radiated Electric Field

APPLICANT : Vertex Standard Co., Ltd.  
 EUT NAME : HF Transceiver  
 MODEL NO. : FT DX 5000  
 SERIAL NO. : 9L000001  
 TEST MODE : Rx A:B:30.000MHz (ANT 1)  
 POWER SOURCE : AC120V, 60Hz  
 DATE TESTED : Nov 11 2009  
 FILE NO. : JT09110006  
 REGULATION : FCC Part15B Class B  
 TEST METHOD : ANSI C63.4-2003  
 DISTANCE : 3.00 [m]  
 TEMPERATURE : 22.2 [degC]  
 HUMIDITY : 65.0 [%]  
 NOTE :

ENGINEER : Atsuyuki Morishima



[No]	FREQUENCY [MHz]	MODE	READING [dBuV]		FACTOR [dB]		EMISSION [dBuV/m]		LIMIT [dBuV/m]	MARGIN [dB]	
			Hori	Vert	Hori	Vert	Hori	Vert		Hori	Vert
1	1199.80	PEK	<u>45.2</u>	45.0	-2.8	-2.8	<u>42.4</u>	42.2	74.0	<u>31.6</u>	31.8
2	1199.80	AVG	31.7	<u>32.2</u>	-2.8	-2.8	28.9	<u>29.4</u>	54.0	25.1	<u>24.6</u>
3	1399.78	PEK	<u>45.7</u>	45.5	-1.8	-1.8	<u>43.9</u>	43.7	74.0	<u>30.1</u>	30.3
4	1399.78	AVG	31.7	<u>32.2</u>	-1.8	-1.8	29.9	<u>30.4</u>	54.0	24.1	<u>23.6</u>

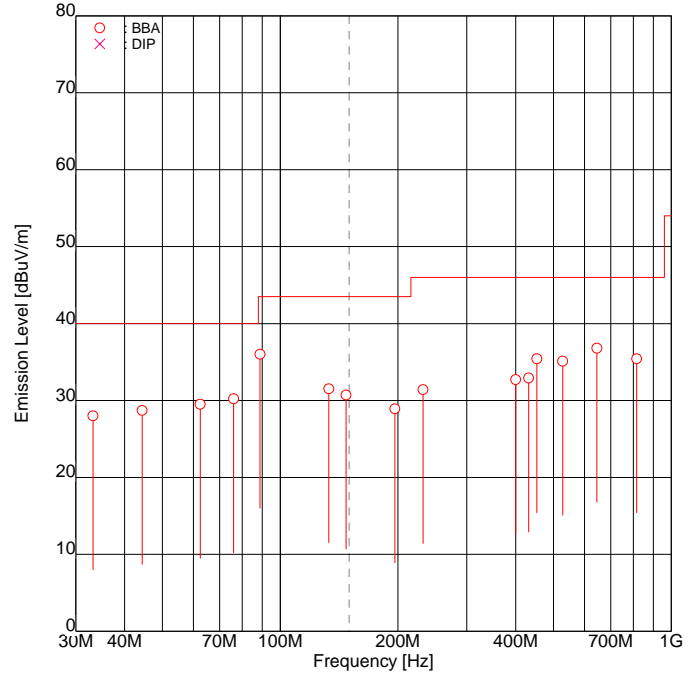
Higher six points are underlined.  
 Other frequencies : Below the FCC Part15B Class B limit  
 Emission Level = Read + Factor(Antenna, Antenna Pad, Cable, Preamp)  
 ANT. : Used antenna(BBA = Broadband antenna, DIP = Dipole antenna)



10.2.5 Rx A:B:60.000MHz (ANT 1) [30 – 1000MHz]

**Intertek Japan K.K.**  
**Tochigi No.2 Test Site**  
 Radiated Electric Field

APPLICANT : Vertex Standard Co., Ltd.  
 EUT NAME : HF Transceiver  
 MODEL NO. : FT DX 5000  
 SERIAL NO. : 9L000001  
 TEST MODE : Rx A:B:60.000MHz (ANT 1)  
 POWER SOURCE : AC120V, 60Hz  
 DATE TESTED : Nov 10 2009  
 FILE NO. : JT09110006  
 REGULATION : FCC Part15B Class B  
 TEST METHOD : ANSI C63.4-2003  
 DISTANCE : 3.00 [m]  
 TEMPERATURE : 22.0 [degC]  
 HUMIDITY : 60.0 [%]  
 NOTE :



ENGINEER : Atsuyuki Morishima

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	33.22	BBA	-	34.7	-6.7	-6.7	-	28.0	40.0	-	12.0
2	44.40	BBA	-	33.5	-4.8	-4.8	-	28.7	40.0	-	11.3
3	62.44	BBA	-	<u>34.5</u>	-5.0	-5.0	-	<u>29.5</u>	40.0	-	<u>10.5</u>
4	76.06	BBA	34.8	<u>37.6</u>	-7.4	-7.4	27.4	<u>30.2</u>	40.0	12.6	<u>9.8</u>
5	88.80	BBA	<u>45.7</u>	42.1	-9.7	-9.7	<u>36.0</u>	32.4	43.5	<u>7.5</u>	11.1
6	133.20	BBA	-	36.2	-4.7	-4.7	-	31.5	43.5	-	12.0
7	147.46	BBA	32.7	34.4	-3.7	-3.7	29.0	30.7	43.5	14.5	12.8
8	196.42	BBA	34.6	31.7	-5.7	-5.7	28.9	26.0	43.5	14.6	17.5
9	231.99	BBA	-	35.6	-4.2	-4.2	-	31.4	46.0	-	14.6
10	400.00	BBA	31.1	29.2	1.6	1.6	32.7	30.8	46.0	13.3	15.2
11	432.06	BBA	30.5	26.5	2.4	2.4	32.9	28.9	46.0	13.1	17.1
12	453.54	BBA	-	<u>32.4</u>	3.0	3.0	-	<u>35.4</u>	46.0	-	<u>10.6</u>
13	528.06	BBA	30.1	-	5.0	5.0	35.1	-	46.0	10.9	-
14	645.26	BBA	<u>29.7</u>	-	7.1	7.1	<u>36.8</u>	-	46.0	<u>9.2</u>	-
15	816.11	BBA	-	<u>24.9</u>	10.5	10.5	-	<u>35.4</u>	46.0	-	<u>10.6</u>

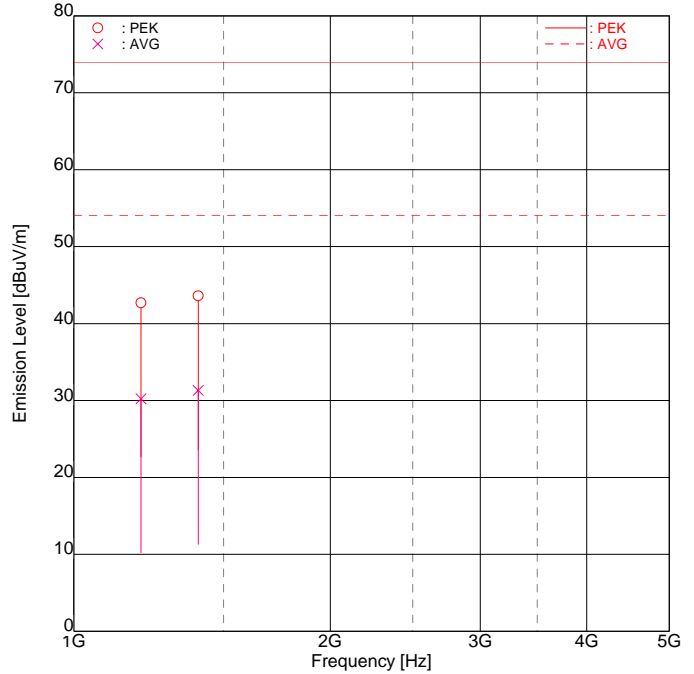
Higher six points are underlined.  
 Other frequencies : Below the FCC Part15B Class B limit  
 Emission Level = Read + Factor(Antenna,Antenna Pad,Cable,Preamp)  
 ANT. : Used antenna(BBA = Broadband antenna, DIP = Dipole antenna)

10.2.6 Rx A:B:60.000MHz (ANT 1) [1000 – 5000MHz]

**Intertek Japan K.K.**  
**Tochigi No.2 Test Site**  
 Radiated Electric Field

APPLICANT : Vertex Standard Co., Ltd.  
 EUT NAME : HF Transceiver  
 MODEL NO. : FT DX 5000  
 SERIAL NO. : 9L000001  
 TEST MODE : Rx A:B:60.000MHz (ANT 1)  
 POWER SOURCE : AC120V, 60Hz  
 DATE TESTED : Nov 11 2009  
 FILE NO. : JT091110006  
 REGULATION : FCC Part15B Class B  
 TEST METHOD : ANSI C63.4-2003  
 DISTANCE : 3.00 [m]  
 TEMPERATURE : 22.2 [degC]  
 HUMIDITY : 65.0 [%]  
 NOTE :

ENGINEER : Atsuyuki Morishima



[No]	FREQUENCY [MHz]	MODE	READING [dBuV]		FACTOR [dB]		EMISSION [dBuV/m]		LIMIT [dBuV/m]	MARGIN [dB]	
			Hori	Vert	Hori	Vert	Hori	Vert		Hori	Vert
1	1199.80	PEK	<u>45.5</u>	45.2	-2.8	-2.8	<u>42.7</u>	42.4	74.0	<u>31.3</u>	31.6
2	1199.80	AVG	32.1	<u>33.0</u>	-2.8	-2.8	29.3	<u>30.2</u>	54.0	24.7	<u>23.8</u>
3	1399.80	PEK	<u>45.4</u>	45.3	-1.8	-1.8	<u>43.6</u>	43.5	74.0	<u>30.4</u>	30.5
4	1399.80	AVG	<u>33.1</u>	32.9	-1.8	-1.8	<u>31.3</u>	31.1	54.0	<u>22.7</u>	22.9

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)

**SECTION 12. LIST OF MEASURING INSTRUMENTS**

Instrument	Model No.	Serial No.	Manufacturer	Cal. date	Due date
<b>Conducted disturbance at mains terminals</b>					
LISN (EUT)	ESH2-Z5	892377/021	ROHDE & SCHWARZ	Jul. 06, 09	Jul. 31, 10
10dB Attenuator	CFA-01(BPJ-10)	None	TAMAGAWA	May 20, 09	May 31, 10
LISN (Peripheral)	KNW-242	8-851-27	KYORITSU	Jul. 14, 09	Jul. 31, 10
50Ω Termination	CT-01	None	TAMAGAWA	Jul. 14, 09	Jul. 31, 10
Coaxial cable(C1)	5D-2W(6.0 m)	2CL01a	INTERTEK	May 20, 09	May 31, 10
Coaxial cable(C2)	RG-5A/U(7.0 m)	2CL02	INTERTEK	May 20, 09	May 31, 10
Coaxial cable(C3)	5D-2W(0.2 m)	2CL03	INTERTEK	May 20, 09	May 31, 10
Coaxial cable(C4)	5D-2W(1.7 m)	2CL04	INTERTEK	May 20, 09	May 31, 10
<b>Radiated disturbance</b>					
Broad Band antenna	VULB9168	218	Schwarzbeck	Mar. 05, 09	Mar. 31, 10
Double ridged antenna	3115	9903-5699	EMCO	Apr. 28, 09	Apr. 30, 10
6dB Attenuator	CFA-01(NPJ-6)	None	TAMAGAWA	May 20, 09	May 31, 10
6dB Attenuator	8493C	18493	HEWLETT PACKARD	Apr. 22, 09	Apr. 30, 10
ANT Termination	R40424000	None	Radall	N/A	N/A
ANT Termination	090-0510	None	Yuetsu	N/A	N/A
Amplifier	8449B	3008A01182	HEWLETT PACKARD	Apr. 22, 09	Apr. 30, 10
Step Attenuator	8494B	2805A14563	HEWLETT PACKARD	May 20, 09	May 31, 10
Amplifier	8447D	2727A05324	HEWLETT PACKARD	May 20, 09	May 31, 10
Spectrum analyzer	8563E (Firmware Revision 971024)	3821A09565	HEWLETT PACKARD	Dec. 18, 08	Dec. 31, 09
Coaxial cable(R1)	5D-2W(10.0 m)	2R1001a	INTERTEK	May 20, 09	May 31, 10
Coaxial cable(R2)	RG-177/U(20.0 m)	2R1002	INTERTEK	May 20, 09	May 31, 10
Coaxial cable(R3)	RG-5A/U(1.3 m)	2R1003	INTERTEK	May 20, 09	May 31, 10
Coaxial cable(R4)	RG-5A/U(0.2 m)	2R1004	INTERTEK	May 20, 09	May 31, 10
Coaxial cable(R5)	5D-2W(0.7 m)	2R1005	INTERTEK	May 20, 09	May 31, 10
Coaxial cable(R6)	5D-2W(0.2 m)	2R1006	INTERTEK	May 20, 09	May 31, 10
Coaxial cable(R7)	5D-2W(1.7 m)	2R1007	INTERTEK	May 20, 09	May 31, 10
Coaxial cable(R8)	5D-2W(6.0 m)	2R1008a	INTERTEK	May 20, 09	May 31, 10
Coaxial cable(RG1)	SUCOFLEX(1.5 m)	290799/4	SUHNER	Apr. 22, 09	Apr. 30, 10
Coaxial cable(RG2)	SUCOFLEX(6.0 m)	290800/4	SUHNER	Apr. 22, 09	Apr. 30, 10
Site Attenuation				Aug. 18, 09	Aug. 31, 10
<b>Common</b>					
Test receiver	ESS (Firmware Version 1.07)	842886/013	ROHDE & SCHWARZ	Jan. 07, 09	Jan. 31, 10
RF Switch	ACX-150	None	INTERTEK	May 20, 09	May 31, 10
Testing Software	emiT (Version 3,0,0,0)				

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