JQA File No. : KL80080187
Issue Date : July 30, 2008

TEST REPORT

APPLICANT	:	Panasonic Communications Co., Ltd.
ADDRESS	:	1-62, 4-chome, Minoshima, Hakata-ku, Fukuoka, 812-8531, Japan
PRODUCTS	:	5.8GHz Frequency Hopping Spectrum Cordless Telephone(Base)
MODEL NO.	:	KX-TG6700B
SERIAL NO.	:	6DCXA001176
FCC ID	:	ACJ96NKX-TG5771
TEST STANDARD	:	CFR 47 FCC Rules and Regulations Part 15
TESTING LOCATION	:	Japan Quality Assurance Organization KITA-KANSAI Testing Center 1-7-7, Ishimaru, Minoh-shi, Osaka 562-0027, Japan
TEST RESULTS	:	**Passed**
DATE OF TEST	:	July 27, 2008 - July 28, 2008

This report must not used by the client to claim product endorsement by NVLAP or NIST or any agency of the U.S. Government.

NVLAP LAB CODE 200191-0

Yuichi Fukumoto
Manager
Japan Quality Assurance Organization
KITA-KANSAI Testing Center
Testing Dept. EMC Division
1-7-7, Ishimaru, Minoh-shi, Osaka 562-0027, Japan

- The measurement values stated in Test Report was made with traceable to National Institute of Advanced Industrial Science and Technology (AIST) of Japan and National Institute of Information and Communications Technology (NICT) of Japan.
- The applicable standard, testing condition and testing method which were used for the tests are based on the request of the applicant.
- The test results presented in this report relate only to the offered test sample.
- The contents of this test report cannot be used for the purposes, such as advertisement for consumers.
- This test report shall not be reproduced except in full without the written approval of JQA.

TABLE OF CONTENTS

DEFINITIONS FOR ABBREVIATION AND SYMBOLS USED IN THIS TEST REPORT

EUT : Equipment Under Test
AE : Associated Equipment
N/A : Not Applicable
N/T : Not Tested
EMC : Electromagnetic Compatibility
EMI : Electromagnetic Interference
EMS : Electromagnetic Susceptibility

☒ - indicates that the listed condition, standard or equipment is applicable for this report.
☐ - indicates that the listed condition, standard or equipment is not applicable for this report.

Documentation

1 Test Regulation

Applied Standard : CFR 47 FCC Rules and Regulations Part 15
Subpart C – Intentional Radiators

Test Requirements : §15.205, §15.207, §15.209 and §15.247

Test Procedure : ANSI C63.4–2003

Note) The test items requested by applicant are shown as follows:
1) AC Powerline Conducted Emission(§ 15.207)
2) Radiated Emission(§ 15.209)(30 – 1000MHz)

2 Test Location

KITA-KANSAI Testing Center
1-7-7, Ishimaru, Minoh-shi, Osaka 562-0027, Japan
KAMEOKA EMC Branch
9-1, Ozaki, Inukanno, Nishibetsuin-cho, Kameoka-shi, Kyoto 621-0126, Japan

3 Recognition of Test Laboratory

JQA KITA-KANSAI Testing Center Testing Department EMC Division is accredited under ISO/IEC 17025 by following accreditation bodies and the test facility of Testing Division is registered by the following bodies.

VLAC Code : VLAC-001-2 (Effective through : April 3, 2010)
NVLAP Lab Code : 200191-0 (Effective through : June 30, 2009)
BSMI Recognition No. : SL2-IS-E-6006, SL2-IN-E-6006, SL2-AI-E-6006
(Effective through : September 14, 2010)

VCCI Registration No. : R-008, R-1117, C-006, C-007, C-1674, C-2143, T-1418, T-1419
(Effective through : April 3, 2010)
IC Registration No. : IC 4125-1, IC 6217-1, IC 6217-2 (Effective through : November 16, 2008)

Accredited as conformity assessment body for Japan electrical appliances and material law by METI.
(Effective through : February 22, 2010)

4 Description of the Equipment Under Test

1.	Manufacturer	:	Panasonic Communications Co., Ltd. 1-62, 4-chome, Minoshima, Hakata-ku, Fukuoka, 812-8531, Japan
2.	Products	:	5.8GHz Frequency Hopping Spectrum Cordless Telephone(Base)
3.	Model No.	:	KX-TG6700B
4.	Serial No.	:	6DCXA001176
5.	Product Type	:	Mass Production
6.	Date of Manufacture	:	April, 2006
7.	Transmitting Frequency	:	5759.702 MHz (01ch) – 5838.187 MHz (89ch)
8.	Receiving Frequency	:	5759.702 MHz (01ch) – 5838.187 MHz (89ch)
9.	Method/System	:	Frequency Hopping Spread Spectrum(FHSS)
10.	Type of Antenna	:	Colliner- Antenna
11.	Antenna Gain	:	3Bi(Rated)
12.	Power Rating	:	100-120VAC60Hz100mA(AC Adaptor : PQLV219) (Rated, Output DC6.5V500mA)
13.	EUT Grounding	:	None
14.	Category	:	Intentional Radiator
15.	EUT Authorization	:	Certification
16.	Received Date of EUT	:	July 1, 2008

5 Test Condition

5.1 AC Powerline Conducted Emission(§ 15.207)

The requirements are ☒ - Applicable [☒ - Tested. ☐ - Not tested by applicant request.]
☐ - Not Applicable

Test site : KITA-KANSAI ☒ - Shielded room ☐ - Anechoic chamber
KAMEOKA ☐ - Shielded room ☐ - Conducted emission facility
☐ - 1st open site

Test instruments : Refer to Appendix C.

5.2 Radiated Emission(§ 15.209)

5.2.1 Radiated Emission 30 MHz – 1000 MHz

The requirements are ☒ - Applicable [☒ - Tested. ☐ - Not tested by applicant request.]
☐ - Not Applicable

Test site : ☒ - KAMEOKA 1st open site ☒ - 3 m ☐ - 10 m
☐ - KAMEOKA 2nd open site ☐ - 3 m ☐ - 10 m

Test instruments : Refer to Appendix C.

5.2.2 Radiated Emission above 1 GHz

The requirements are ☒ - Applicable [☐ - Tested. ☒ - Not tested by applicant request.]
☐ - Not Applicable

Test site : ☐ - KAMEOKA 1st open site ☐ - 3 m ☐ - 10 m
☐ - KAMEOKA 2nd open site ☐ - 3 m ☐ - 10 m

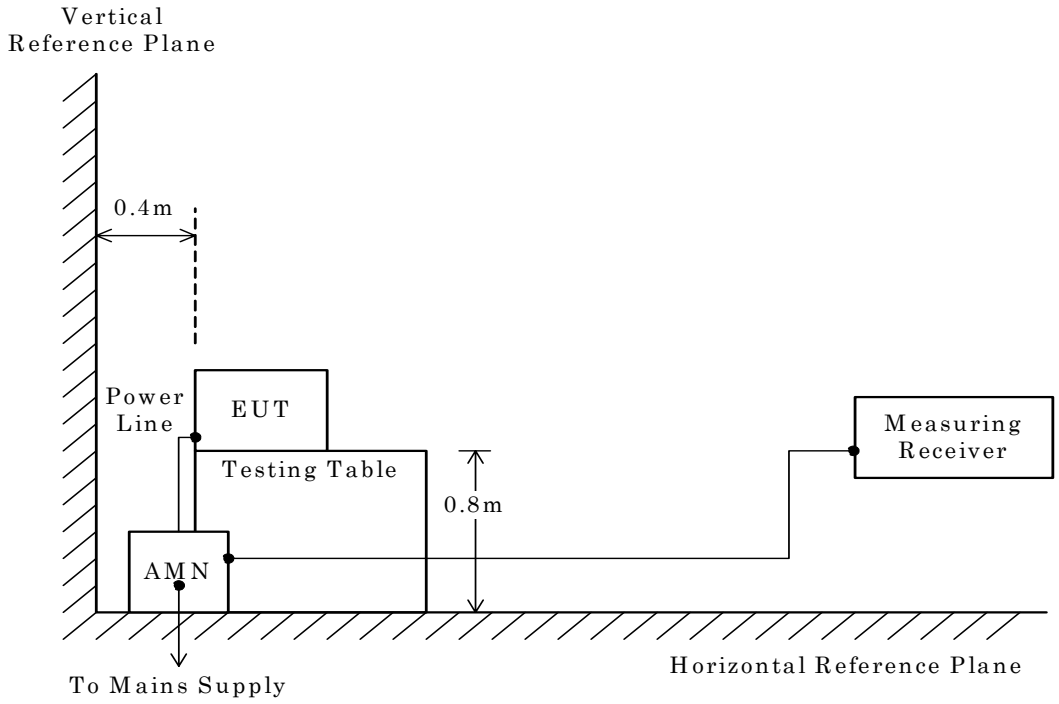
Test instruments : Refer to Appendix C.

6 Preliminary Test and Test Setup

6.1 AC Powerline Conducted Emission(§15.207)

The preliminary tests were performed using the scan mode of test receiver or spectrum analyzer to observe the emissions characteristics of the EUT.
The EUT configuration, cable configuration and mode of operation were determined for producing the maximum level of emissions.
This configurations was used for final tests.

– Side View –



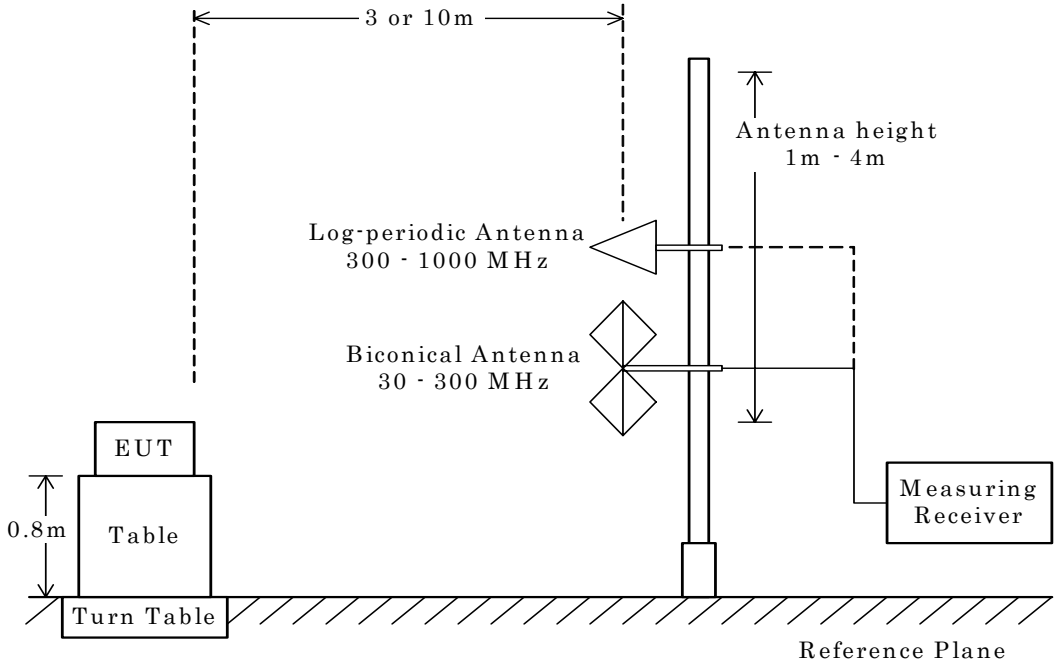
NOTE
AMN : Artificial Mains Network

6.2 Radiated Emission(§ 15.209)

6.2.1 Radiated Emission 30 MHz – 1000 MHz

The preliminary tests were performed at the measurement distance that specified for compliance to determine the emission characteristics of the EUT.
The EUT configuration, cable configuration and mode of operation were determined for producing the maximum level of emissions.
This configurations was used for the final tests.

– Side View –



6.2.2 Radiated Emission above 1 GHz

Not tested by applicant request

7 Equipment Under Test Modification

☒ - No modifications were conducted by JQA to achieve compliance to the limitations.
☐ - To achieve compliance to the limitations, the following changes were made by JQA during the compliance test.

The modifications will be implemented in all production models of this equipment.

Applicant : Not Applicable
Date : Not Applicable
Typed Name : Not Applicable
Position : Not Applicable Signatory : Not Applicable

8 Responsible Party

Responsible Party of Test Item (Product)

Responsible Party :

Contact Person :

Signatory

9 Deviation from Standard

☒ - No deviations from the standard described in clause 1.
☐ - The following deviations were employed from the standard described in clause 1.

10 Test Results

10.1 AC Powerline Conducted Emission

The requirements are ☒ - Applicable [☒ - Tested. ☐ - Not tested by applicant request.]
☐ - Not Applicable

☒ - **Passed** ☐ - **Failed** ☐ - **Not judged**

Min. Limit Margin (Quasi-Peak)	18.7	dB	at 2.00	MHz
Max. Limit Exceeding (Quasi-Peak)		dB	at	MHz
Uncertainty of Measurement Results			+/-2.9	dB(2σ)

Remarks :

10.2 Radiated Emission

The requirements are ☒ - Applicable [☒ - Tested. ☐ - Not tested by applicant request.]
☐ - Not Applicable

☒ - **Passed** ☐ - **Failed** ☐ - **Not judged**

Min. Limit Margin (Quasi-Peak)	8.4	dB	at 66.0	MHz
Max. Limit Exceeding (Quasi-Peak)		dB	at	MHz
Uncertainty of Measurement Results	30 MHz – 300 MHz		+/-4.3	dB(2σ)
	300 MHz – 1000 MHz		+/-4.2	dB(2σ)
	above 1 GHz			dB(2σ)

Remarks : The measured frequency range is 30 - 1000MHz.

11 Summary

General Remarks :

The EUT was tested according to the requirements of the following standard.
CFR 47 FCC Rules and Regulations Part 15
The test configuration is shown in clause 12 to 14.
The conclusion for the test items of which are required by the applied regulation is indicated under the test results.
Determining compliance with the limits in this report was based on the results of the compliance measurement, not taking into account measurement instrumentation uncertainty.

Test Results :

The "as received" sample;

☒ - fulfill the test requirements of the regulation mentioned on clause 1.
☐ - doesn't fulfill the test requirements of the regulation mentioned on clause 1.

Reviewed by:

S. Kino

Shigeru Kinoshita
Deputy Manager
Testing Dept. EMC Div.
JQA KITA-KANSAI Testing Center

Tested by:

A. Hosoda

Akio Hosoda
Manager
Testing Dept. EMC Div.
JQA KITA-KANSAI Testing Center

12 Operating Condition

Power Supply Voltage : 120VAC, 60Hz

Operation Mode
1. Hopping (Transmitting/Receiving)
2. Charging

The worst case was reported as the final test data.

13 Test Configuration

The equipment under test (EUT) consists of :

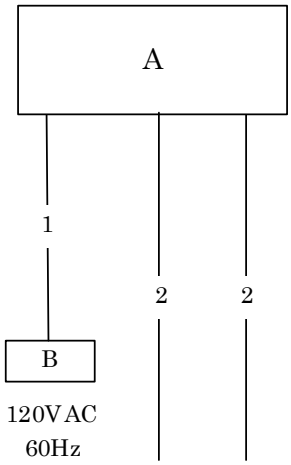
	Item	Manufacturer	Model No.	Serial No.	FCC ID
A	5.8GHz FHSS Cordless Telephone (Base)	Panasonic Communications Co., Ltd.	KX-TG6700B	6DCXA00 1176	ACJ96NKX-TG5771
B	AC Adaptor	Panasonic Communications Co., Ltd.	PQLV219	--	N/A

The auxiliary equipment used for testing :
None

Type of Cable:

No.	Description	Identification (Manu. etc.)	Connector Shielded	Cable Shielded	Ferrite Core	Length (m)
1	DC Cable	--	--	NO	NO	1.8
2	Telephone Line	--	--	NO	NO	1.8

14 Equipment Under Test Arrangement (Drawings)



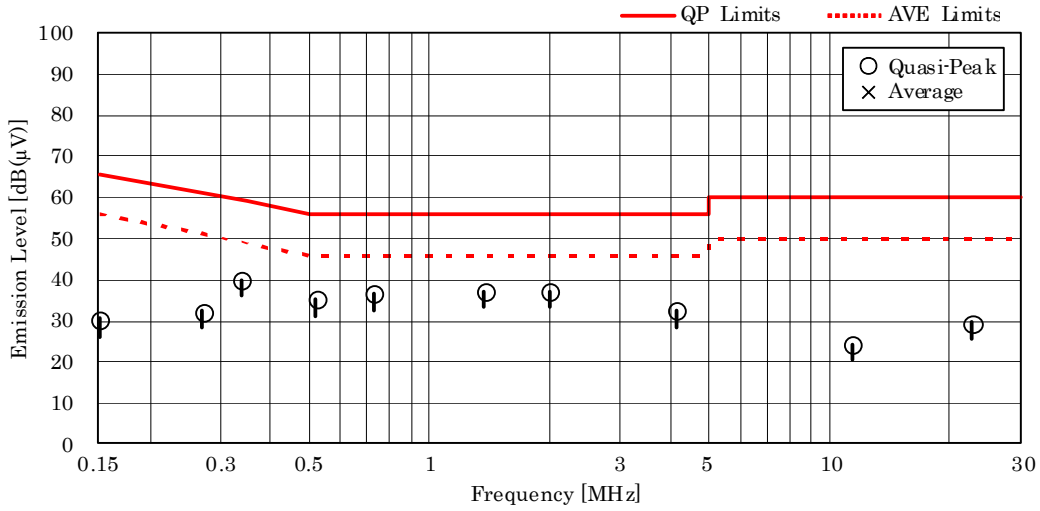
Appendix A: Test Data

A.1 AC Powerline Conducted Emission

Test Date: July 27, 2008
Temp.: 25 °C, Humi: 54 %

Test condition : Charging

Frequency [MHz]	Corr. Factor [dB]	Meter Readings [dB(µV)] VA QP	VA AVE	VB QP	VB AVE	Limits [dB(µV)] QP	Limits [dB(µV)] AVE	Results [dB(µV)] QP	Results [dB(µV)] AVE	Margin [dB]	Remarks
0.15	0.4	30.0	--	30.0	--	66.0	56.0	30.4	--	+35.6	-
0.27	0.3	30.0	--	32.0	--	61.1	51.1	32.3	--	+28.8	-
0.34	0.2	40.0	--	40.0	--	59.2	49.2	40.2	--	+19.0	-
0.52	0.2	34.0	--	35.0	--	56.0	46.0	35.2	--	+20.8	-
0.73	0.2	35.5	--	36.5	--	56.0	46.0	36.7	--	+19.3	-
1.37	0.3	37.0	--	37.0	--	56.0	46.0	37.3	--	+18.7	-
2.00	0.3	35.0	--	37.0	--	56.0	46.0	37.3	--	+18.7	-
4.16	0.4	29.0	--	32.0	--	56.0	46.0	32.4	--	+23.6	-
11.40	0.4	22.0	--	24.0	--	60.0	50.0	24.4	--	+35.6	-
22.77	1.0	28.5	--	28.5	--	60.0	50.0	29.5	--	+30.5	-



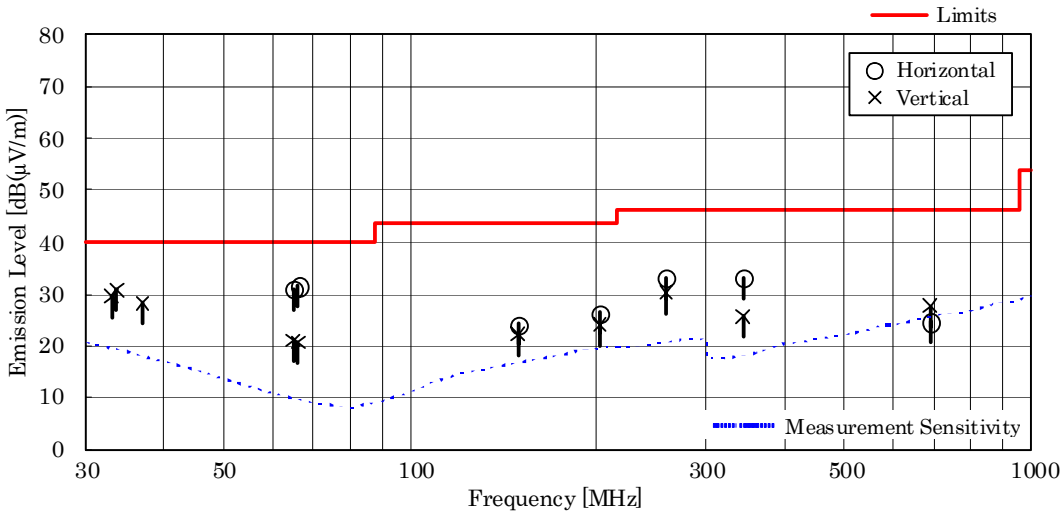
NOTES
1. The spectrum was checked from 0.15 MHz to 30 MHz.
2. The correction factor includes the AMN insertion loss and the cable loss.
3. The symbol of "<" means "or less".
4. The symbol of ">" means "more than".
5. The symbol of "--" means "not applicable".
6. Calculated result at 1.37 MHz, as the worst point shown on underline:
   Correction Factor + Meter Reading = 0.3 + 37.0 = 37.3 dB(µV)
7. QP : Quasi-Peak Detector / AVE : Average Detector
8. Test receiver setting(s) : CISPR QP 9 kHz / Average 9 kHz

A.2 Radiated Emission

A.2.1 Radiated Emission 30 MHz – 1000 MHz

Test Date: July 28, 2008
Test condition : Charging Temp.: 25 °C, Humi: 75 %

Frequency [MHz]	Antenna Factor [dB(1/m)]	Cable Loss [dB]	Meter Readings [dB(μV)] Hori.	Meter Readings [dB(μV)] Vert.	Limits [dB(μV/m)]	Results [dB(μV/m)] Hori.	Results [dB(μV/m)] Vert.	Margin [dB]	Remarks
33.0	18.5	1.0	< 0.0	10.0	40.0	<19.5	29.5	+10.5	-
33.6	18.2	1.0	< 0.0	11.5	40.0	<19.2	30.7	+ 9.3	-
37.0	17.0	1.1	< 0.0	10.0	40.0	<18.1	28.1	+11.9	-
64.8	8.5	1.4	21.0	11.0	40.0	30.9	20.9	+ 9.1	-
66.0	8.2	1.4	22.0	11.0	40.0	31.6	20.6	+ 8.4	-
149.0	14.4	2.3	7.5	5.5	43.5	24.2	22.2	+19.3	-
202.0	16.7	2.7	7.0	4.5	43.5	26.4	23.9	+17.1	-
258.1	17.5	3.1	12.5	9.5	46.0	33.1	30.1	+12.9	-
344.1	14.5	3.6	15.0	7.5	46.0	33.1	25.6	+12.9	-
688.1	20.2	5.4	-1.0	2.0	46.0	24.6	27.6	+18.4	-



NOTES
1. Test Distance : 3 m
2. The spectrum was checked from 30 MHz to 1000 MHz.
3. The symbol of "<" means "or less".
4. The symbol of ">" means "more than".
5. Calculated result at 66.0 MHz, as the worst point shown on underline:
   Antenna Factor + Cable Loss + Meter Reading = 8.2 + 1.4 + 22.0 = 31.6 dB(μV/m)
6. Test receiver setting(s) : CISPR QP 120 kHz (QP : Quasi-Peak)

A.2.2 Radiated Emission above 1 GHz

Not tested by applicant request.

Appendix B: Test Arrangement (Photographs)

B.1 AC Powerline Conducted Emission

– Front View –

– Side View –

Photograph present configuration with maximum emission

B.2 Radiated Emission

– Front View –

– Rear View –

Photograph present configuration with maximum emission

Appendix C: Test Instruments

C.1 AC Powerline Conducted Emission

Type	Model	Manufacturer	ID No.	Last Cal.	Interval
Test Receiver	ESCI	Rohde & Schwarz	A-42	2007/11	1 Year
AMN (main)	KNW-407	Kyoritsu	D-6	2007/10	1 Year
RF Cable	--	----	H-8	2007/9	1 Year

C.2 Radiated Emission

C.2.1 Radiated Emission 30 MHz – 1000 MHz

Type	Model	Manufacturer	ID No.	Last Cal.	Interval
Test Receiver	ESVS 10	Rohde & Schwarz	A-5	2007/8	1 Year
Biconical Antenna	VHA9103/FBAB9177	Schwarzbeck	C-25	2008/5	1 Year
Log-periodic Antenna	UHALP 9108-A1	Schwarzbeck	C-28	2008/5	1 Year
RF Cable	--	----	H-1	2008/5	1 Year
Site Attenuation	--	----	H-11	2007/11	1 Year

C.2.2 Radiated Emission above 1 GHz

Not tested by applicant request.