



Test report no. : 137945-6

Item tested : KX-TGA402

Type of equipment : UPCS Handset

FCC ID : ACJ96NKX-TGA106

Client : Panasonic Communications Co., Ltd.

Parts of FCC Part 15, subpart D

Isochronous UPCS Device
1920 - 1930 MHz

Parts of Industry Canada RSS-213, Issue 2

2 GHz Licence-exempt Personal
Communications Service Devices
(LE-PCS)

20 November 2009

Authorized by : 

Egil Hauger
Technical Verificator



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1 GENERAL INFORMATION

1.1 Testhouse Info

Name : Nemko AS
Address : Nemko Kjeller
 Instituttveien 6
 N-2007 Kjeller, NORWAY
Telephone : +47 64 84 57 00
Fax : +47 64 84 57 05
E-mail: comlab@nemko.com
FCC test firm
registration # : 994405
IC OATS
registration # : 2040D-1
Total Number
of Pages: 11

1.2 Client Information

Name : Panasonic Communications Co. Ltd.
Address : 1-62, 4-chome, Minoshima, Hakata-ku, Fukuoka 812-8531, Japan
Telephone : +81 92 477 1405

Contact:

Name : Mr. Junji Sumi
Telephone : +81 92 477 1405
E-mail : sumi.junji@jp.panasonic.com

1.3 Responsible Manufacturer (if other than client)

Name : /
Address : /
Telephone : /
E-mail : /

2 Test Information

2.1 Tested Item

Name :	Panasonic
FCC ID :	ACJ96NKX-TGA106
Model/version :	KX-TGA402
Serial number :	/
Hardware identity and/or version:	/
Software identity and/or version :	/
Frequency Range :	1921.536 – 1928.448 MHz
Number of Channels :	5 RF Channels, 5x12 = 60 TDMA Duplex Channels
Type of Modulation :	GFSK
User Frequency Adjustment :	None
Rated Output Power :	56 mW Peak Power, 2.5 mW Time Averaged Power
Type of Power Supply :	Secondary Batteries (2xAAA NiMH)
Antenna Connector :	None
Number of Antennas :	1
Antenna Diversity Supported :	No
Handset Charger :	PNLC1010 with AC Adaptors Model PQLV219(UC) or Model PQLV219(FW)

Description of Tested Device(s)

The tested equipment is a DECT handset which complies with ETSI EN 300 175. The frequencies have been reprogrammed, the output power reduced and the software updated to comply with the FCC requirements to an Isochronous UPCS device after FCC Part 15D.

The EUT is an initiating device as described in ANSI C63.17 and is designed to operate together with a DECT fixed part (i.e. a base station), which is then the responding device.

2.2 Test Environment

Temperature:	21 – 23 °C
Relative humidity:	30 – 40 %
Normal test voltage:	2.5 V DC (nominal battery voltage)

The test was performed with the supplied batteries (2xAAA NiMH cells).

The values are the limit registered during the test period.

2.3 Test Period

Item received date:	2009-10-30
Test period :	from 2009-11-04 to 2009-11-04

2.4 Test Engineer(s)

Frode Sveinsen / Jan G. Eriksen

2.5 Test Equipment

See list of test equipment in clause 6.

2.6 Other Comments

The tested handset is electrically identical to the previously certified handset KX-TGA106 (FCC ID: ACJ96NKX-TGA106), therefore only Power-line Conducted Emissions have been tested.

This test report covers only retest for use with the new AC adaptors PQLV219(UC) and PQLV219(FW).

3 TEST REPORT SUMMARY

3.1 General

Manufacturer: Panasonic
Model No.: KX-TGA402
Serial No.: /

All measurements are traceable to national standards.

The tests were conducted on a sample of the equipment for the purpose of demonstrating compliance with FCC CFR47 Part 15D for Isochronous UPCS Devices and Industry Canada RSS-213 Issue 2.

The conducted test methods have been in accordance with ANSI C63.17-2006 where applicable.

Radiated tests were conducted in accordance with ANSI C63.4-2003. Radiated emissions are made in a 10m semi-anechoic chamber. A description of the test facility is on file with the FCC and Industry Canada.

- | | |
|---|---|
| <input checked="" type="checkbox"/> New Submission | <input checked="" type="checkbox"/> Production Unit |
| <input type="checkbox"/> Class II Permissive Change | <input type="checkbox"/> Pre-production Unit |
| PUE Equipment Code | <input type="checkbox"/> Family Listing |

THIS TEST REPORT APPLIES ONLY TO THE ITEM(S) AND CONFIGURATIONS TESTED.

Deviations from, additions to, or exclusions from the test specifications are described in "Summary of Test Data".



TEST REPORT NO: 137945-6

TESTED BY : Frode Sveinsen
Frode Sveinsen, Chief Engineer

DATE: 20 November 2009

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3.2 Test Summary

Name of test	FCC CFR 47 Paragraph #	IC RSS-213 Paragraph #	Verdict
Power Line Conducted Emission	15.107(a) 15.207(a)	6.3 RSS-GEN 7.2.2	Complies

4 TEST RESULTS

4.1 Power Line Conducted Emissions

Para. No.: 15.207 (a)

Test Performed By: Jan G. Eriksen	Date of Test: 4-Nov-2009
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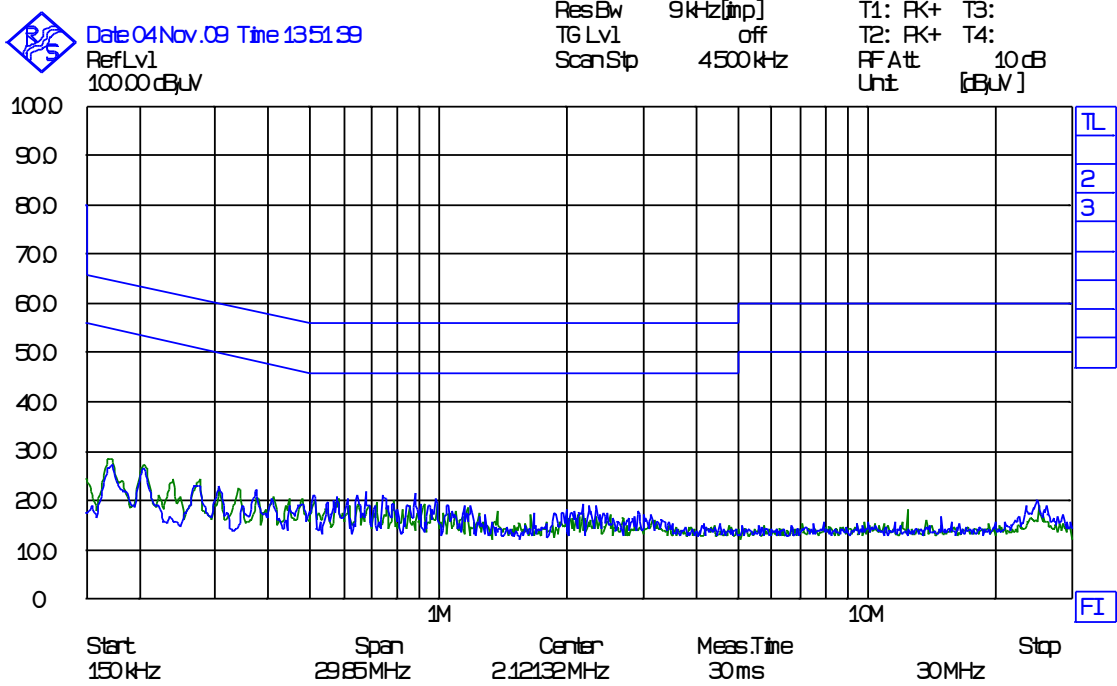
Measurement procedure: ANSI C63.4-2003 using 50 μ H/50 ohms LISN.

Test Results: Complies

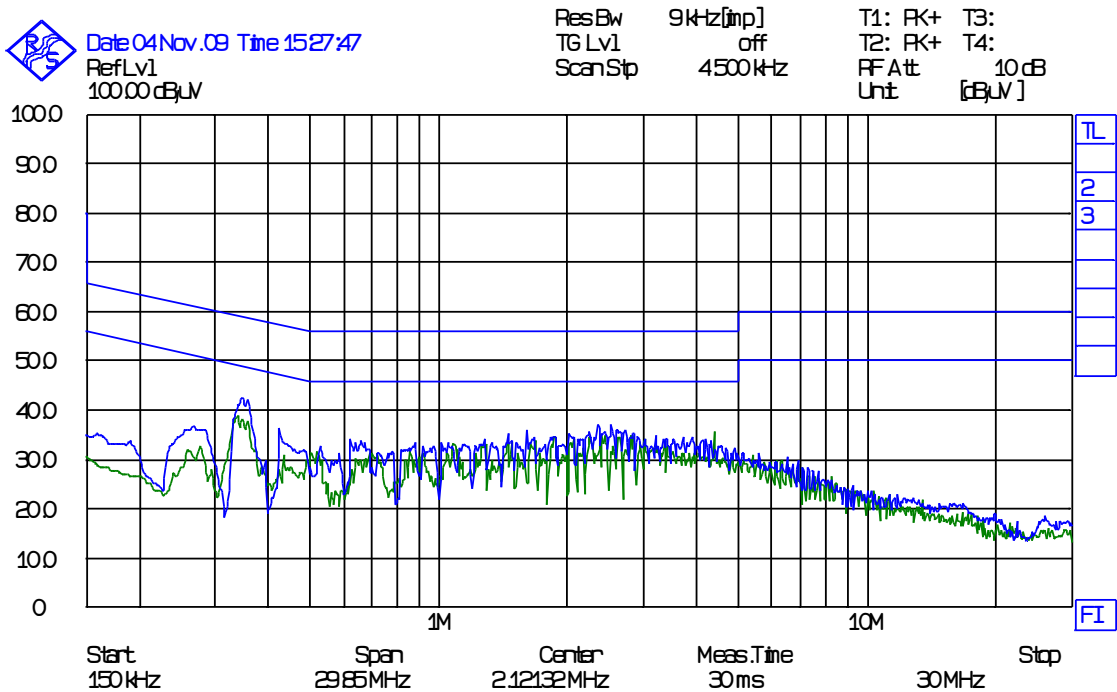
Measurement Data: See attached graph, (Peak detector).

Highest measured value (L1 and N): All emissions were below the Average limit even when measured with Peak detector.

Frequency	Detector	Measured value	Limit	Margin
KHz	Peak/QP/AV	dB μ V	dB μ V	dB
/	QP	/	/	/
/	AV	/	/	/
/	QP	/	/	/
/	AV	/	/	/



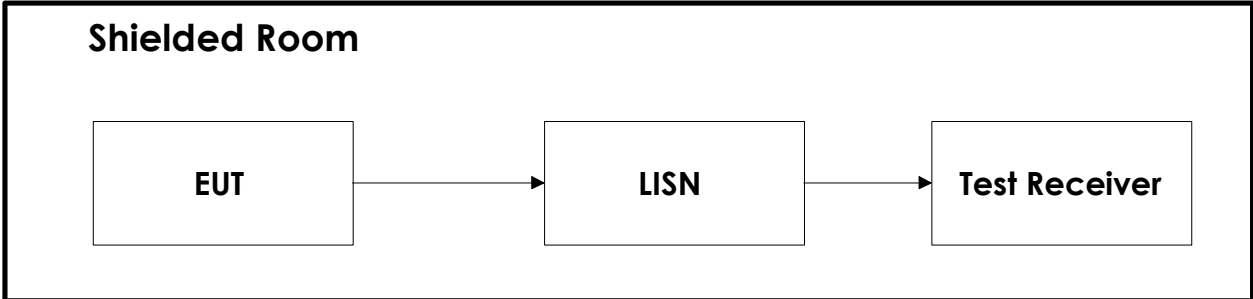
In charger, charging, charger #4, Phase N and L1



In charger, charging, charger #6, Phase N and L1

4.2 Test Setups

4.3 Power Line Conducted Emissions Test



Test equipment: 12, 28, 29

Test Set-Up 5

5 Test Equipment Used

To facilitate inclusion on each page of the test equipment used for related tests, each item of test equipment and ancillaries are identified (numbered) by the Testhouse.

No.	Instrument/ancillary	Type of instrument/ancillary	Manufacturer	Ref. no.
1	FSP30	Spectrum Analyzer	Rohde & Schwarz	LR 1551
2	Model 7200	Signal generator	Gigatronics	LR 1188
3	SMIQ03B	Signal generator	Rohde & Schwarz	LR 1516
4	SME03	Signal generator	Rohde & Schwarz	LR 1238
5	53310A	Modulation Domain Analyzer	Hewlett Packard	LR 1483
6	81104A	Pulse-/ Pattern Generator	Agilent	LR 1502
7	8470B	Crystal Detector	Hewlett Packard	LR 1207
8	FSU26	Spectrum Analyzer	Rohde & Schwarz	LR 1504
9	6812B	AC Power Source	Agilent	LR 1515
10	ESVS30	Measuring Receiver	Rohde & Schwarz	LR 1101
11	ESN	Measuring Receiver	Rohde & Schwarz	LR 1237
12	ESAI	Measuring Receiver	Rohde & Schwarz	LR 1090
13	6810.17B	Attenuator	Suhner	LR 1212
14	745-69	Step Attenuator	Narda	LR 1442
15	WE 1506A	Power Splitter	Weinchel	LR 244
16	WE 1506A	Power Splitter	Weinchel	LR 245
17	H-9	Hybrid	Anzac	LR 86
18	H-9	Hybrid	Anzac	LR 257
19	S212DS	RF Switch	Narda	LR 1244
20	3115	Horn Antenna	EMCO	LR 1226
21	PM7320-X	Horn Antenna	Sivers Lab	LR 102
22	DBF-520-20	Horn Antenna	Systron Donner	LR 100
23	638	Horn Antenna	Narda	LR 1480
24	JS3	Pre-Amplifier	Miteq	LR 1552
25	HL 562 Ultralog	Measuring Antenna	Rohde & Schwarz	LR 1499
26	SMPD	Signal Generator	Rohde & Schwarz	LR 002
27	CMD60	DECT Tester	Rohde & Schwarz	LR 1335
28	ESH3-Z5	Two Line V-Network	Rohde & Schwarz	LR 1076
29	80S	Signal Generator	Powertron	LT 502
30	VMT 08/64	Climatic Chamber	Heraeus Vötsch	LR 323