SAR TEST REPORT

Test Report No.: 31GE0240-SH-04-A

Applicant : **CANON INC.**

Type of Equipment : **Wireless Module**

Model No. : **WM217**

FCC ID : **AZD217**

Test Standard : **FCC 47CFR §2.1093, Supplement C (Edition 01-01) to OET Bulletin 65**

Test Result : **Complied**

Maximum SAR(1g) Value	Platform #	Platform type	Platform model	Remarks
0.21 W/kg	Platform (1)	Video camera (1)	ID0002	(DTS) 2462MHz, IEEE 802.11b, (1Mbps, DBPSK/DSSS))
0.13 W/kg	Platform (2)	Video camera (2)	ID0008	(DTS) 2462MHz, IEEE 802.11b, (1Mbps, DBPSK/DSSS))
0.37 W/kg	Platform (3)	Digital camera (1)	PC1739	(DTS) 2412MHz, IEEE 802.11b, (1Mbps, DBPSK/DSSS))
0.14 W/kg	Platform (4)	Digital camera (2)	PC1735	(DTS) 2412MHz, IEEE 802.11b, (1Mbps, DBPSK/DSSS))

*. **The SAR(1g) was <0.8W/kg for all configuration and all platforms tested. Therefore according to the KDB447498 D01, this EUT was approved for used in multi-platform..**

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Date of test: September 15, 16, 21, 28 and 29, 2011

Test engineer:
Hiroshi Naka
Engineer of WiSE Japan, UL Verification Service

Approved by:
Toyokazu Imamura
Leader of WiSE Japan, UL Verification Service

JAB Testing RTL02610

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REVISION HISTORY

Revision	Test report No.	Date	Page revised	Contents
Original	31GE0240-SH-04-A	October 19, 2011	-	-
1	31GE0240-SH-04-A	January 5, 2012	P1,2,10,11, 19,35	(p1,2)Add revised information. (p10,11,35) Correction of the written mistake in a power drift value. (p19) Correction of the written mistake in a model number, and change of a manufacturer name.

***. By issue of new revision report, the report of an old revision becomes invalid.**

SECTION 1: Customer information

Company Name	CANON INC.
Brand Name	Canon
Address	30-2, Shimomaruko 3-chome, Ohta-ku, Tokyo 146-8501 Japan
Telephone Number	+81-3-3757-6218
Facsimile Number	+81-3-3757-8431
Contact Person	Ryoji Kon

SECTION 2: Equipment under test (EUT)

2.1 Identification of EUT

Type of Equipment	Wireless Module
Model Number	WM217
Serial Number	8C1
Condition of EUT	Production prototype (*. Not for sale: This sample is equivalent to mass-produced items.)
Receipt Date of Sample	September 14, 2011 / *. No modification by the Lab.
Country of Mass-	Japan
Category Identified	Portable device (*.This EUT may contact a human body.)
Rating	DC3.3V *. The EUT is installed into the specified the platform that was operated by the re-chargeable Li-ion battery. Therefore, each SAR test, the platform which had built-in EUT was operated with full-charged battery. (*1)
Feature of EUT	This EUT is a Wireless Module which installs into the multi-platform. (*1)
Accessory of EUT	(*1)

***1. Platform type and SAR accessory;**

Platform No.	Platform type	Model	SAR accessory	Battery option
Platform(1)	**Video camera(1)**	ID0002	Hand Strap	BP-727(Large size), BP-718(Medium size), BP-709(Small size)
Platform(2)	**Video camera(2)**	ID0008	Hand Strap	
Platform(3)	**Digital camera(1)**	PC1739	none	Single (NB-11L)
Platform(4)	**Digital camera(2)**	PC1735	none	Single (NB-9L)

2.2 Product Description (Wireless module: WM217)

Equipment type	Transceiver
Frequency of operation	2412-2462MHz (11b,11g,,11n(20HT)), 2422-2452MHz (11n(40HT)
Channel spacing	5MHz
Bandwidth	20MHz(11b,11g,,11n(20HT)), 40MHz(11n(40HT))
ITU code	G1D(11b), D1D(11g,11n(20HT),11n(40HT))
Type of modulation	DSSS(11b), OFDM(11g,11n(20HT),11n(40HT))
Q'ty of Antenna	1 pc.
Antenna type	Monopole type chip antenna
Antenna gain (peak)	+0.9dBi
Transmit power	*. Refers to section 6 in this report.
Power supply	DC 3.3V
Operation temperature range	-20 to +55 deg.C

*. The EUT do not use the special transmitting technique such as "beam-forming" and "time-space code diversity."

SECTION 3: Test specification, procedures and results

3.1 Requirements for compliance testing defined by the FCC / Test specification

The US Federal Communications Commission has released the report and order "Guidelines for Evaluating the Environmental Effects of RF Radiation", ET Docket No. 93-62 in August 1996. The order requires routine SAR evaluation prior to equipment authorization of portable transmitter devices, including portable telephones. For consumer products, the applicable limit is 1.6 mW/g for an uncontrolled environment and 8.0 mW/g for an occupational/controlled environment as recommended by the ANSI/IEEE standard C95.1-1992. According to the Supplement C of OET Bulletin 65 "Evaluating Compliance with FCC Guide-lines for Human Exposure to Radio frequency Electromagnetic Fields", released on Jun 29, 2001 by the FCC, the device should be evaluated at maximum output power (radiated from the antenna) under "worst-case" conditions for normal or intended use, incorporating normal antenna operating positions, device peak performance frequencies and positions for maximum RF energy coupling.

1. Specific Absorption Rate (SAR) is a measure of the rate of energy absorption due to exposure to an RF transmitting source (wireless portable device).
2. IEEE/ANSI Std. C95.1-1992 limits are used to determine compliance with FCC ET Docket 93-62.

Supplement C (Edition 01-01) to OET Bulletin 65 (Edition 97-01):

Supplement C (Edition 01-01) - Additional Information for Evaluating Compliance of Mobile and Portable Devices with FCC Limits for Human Exposure to Radiofrequency Emissions
OET Bulletin 65 (Edition 97-01) - Evaluating Compliance with FCC Guidelines for Human Exposure to Radiofrequency Electromagnetic Fields

IEEE Std. 1528-2003:

IEEE Recommended Practice for Determining the Peak Spatial-Average Specific Absorption Rate (SAR) in the Human Head from Wireless Communications Devices: Measurement Techniques Supplement C

In additions;
KDB 447498 D01(v04)(Nov.13, 2009): Mobile and Portable Device RF Exposure Procedures and Equipment Authorization Policies
KDB 248227 (rev.1.2)(May 29, 2007): SAR Measurement Procedures for 802.11a/b/g Transmitters

3.2 Exposure limit

(A) Limits for Occupational/Controlled Exposure (W/kg)

Whole-Body (averaged over the entire body)	Partial-Body (averaged over any 1g of tissue)	Hands, Wrists, Feet and Ankles (averaged over any 10g of tissue)
0.4	8.0	20.0

(B) Limits for General population/Uncontrolled Exposure (W/kg)

Whole-Body (averaged over the entire body)	Partial-Body (averaged over any 1g of tissue)	Hands, Wrists, Feet and Ankles (averaged over any 10g of tissue)
0.08	**1.6**	4.0

Occupational/Controlled Environments: are defined as locations where there is exposure that may be incurred by people who are aware of the potential for exposure, (i.e. as a result of employment or occupation).
General Population/Uncontrolled Environments: are defined as locations where there is the exposure of individuals who have no knowledge or control of their exposure.

The limit applied in this test report is;

General population / Uncontrolled exposure, Partial-Body (averaged over any 1g of tissue) limit: 1.6 W/kg

3.3 Procedures and Results

Item	Test Procedure	Limit	Exclusion	Remarks	Result
Human exposure	FCC OET Bulletin 65, Supplement C	SAR(1g): 1.6 W/kg (FCC 47CFR §2.1093)	none	SAR measurement	**Complied** (*1)

Note: UL Japan's SAR Work Procedures No.13-EM-W0429 and 13-EM-W0430. Other than above, no addition, deviation nor exclusion has been made from standards
*1. The worst SAR(1g) in all the platform was as follows;
0.37 W/kg (Platform(3): Digital camera (1), 2412MHz, IEEE 802.11b, (1Mbps, DBPSK/DSSS)) (DTS)
The SAR(1g) was <0.8W/kg for all configuration and all the platform tested. Therefore according to the KDB447498 D01, this EUT was approved for used in multi-platform.

3.4 Test Location

No.7 shielded room (2.76(Width) × 3.76m(Depth) × 2.4m(Height)) for SAR testing.

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Telephone number: +81 463 50 6400 / Facsimile number: +81 463 50 6401

3.5 Confirmation before SAR testing

3.5.1 Correlation of Output Power between EMC and SAR tests

It was checked that the antenna port power was correlated within 0~+5% (FCC requirements).
The result is shown in Section 6.

*. **Output power at SAR test:** SAR power was measured before SAR testing (serial number: (8C1).
The antenna terminal conducted output power was measured by the calibrated power sensor and power meter (65MHz measurement bandwidth).
The average and the peak power of 11b, 11g, 11n(20HT) and 11n(40HT) mode were measured at default channel.

*. **Output power at EMC radio test:** EMC power was measured during EMC testing. (serial number: 8C1).
For the EMC test, the antenna terminal conducted peak output power was measured at 11b, 11g, 11n(20HT) and 11n(20HT) mode.
In addition, for the SAR test reference, the average power of 11b, 11g, 11n(20HT) and 11n(20HT) modes were measured.

3.5.2 Average power for SAR tests

Step.1 Data rate check

The average and peak power related with the data rate was measured on one of the channel for 802.11b, 11g, 11n(20HT) and 11n(40HT) modes.

11b		11g		11n(20HT)			11n(40HT)		
Modulation	Data rate [Mbps]	Modulation	Data rate [Mbps]	MCS Index	Spatial Stream	Modulation	MCS Index	Spatial Stream	Modulation
DBPSK/DSSS	1	BPSK/OFDM	6	MCS0	1	BPSK/OFDM	MCS0	1	BPSK/OFDM
DQPSK/DSSS	2	BPSK/OFDM	9	MCS1	1	QPSK/OFDM	MCS1	1	QPSK/OFDM
CCK/DSSS	5.5	QPSK/OFDM	12	MCS2	1	QPSK/OFDM	MCS2	1	QPSK/OFDM
CCK/DSSS	11	QPSK/OFDM	18	MCS3	1	16QAM/OFDM	MCS3	1	16QAM/OFDM
		16QAM/OFDM	24	MCS4	1	16QAM/OFDM	MCS4	1	16QAM/OFDM
		16QAM/OFDM	36	MCS5	1	64QAM/OFDM	MCS5	1	64QAM/OFDM
		64QAM/OFDM	48	MCS6	1	64QAM/OFDM	MCS6	1	64QAM/OFDM
		64QAM/OFDM	54	MCS7	1	64QAM/OFDM	MCS7	1	64QAM/OFDM

Step.2 Decision of SAR test channel

For the SAR test reference, the average power was measured on default channels of 802.11b, 11g and 11n(20HT).

Mode	GHz	Channel	"Default Test Channel"	
			FCC 15.247	
			802.11b	802.11g
802.11 b/g	2.412	1#	√	Δ
	2.437	6	√	Δ
	2.462	11#	√	Δ

√ = "default test channels" in KDB248227.
Δ = Possible 802.11g channels with maximum average output ¼ dB ≥ the "default test channels"
#. Any output power was reduced for channel 1 and 11 to meet restricted band requirements. Therefore channel 1 and 11 was selected for the default channels and SAR test was applied.

3.6 Confirmation after SAR testing

It was checked that the power drift [W] is within ±5% in the evaluation procedure of SAR testing. The verification of power drift during the SAR test is that DASY4 system calculates the power drift by measuring the e-filed at the same location at beginning and the end of the scan measurement for each test position.
The result is shown in APPENDIX 2.

*. DASY4 system calculation Power drift value[dB] =20log(Ea)/(Eb) (where, Before SAR testing: Eb[V/m] / After SAR testing: Ea[V/m])

Limit of power drift[W] = ±5%
Power drift limit (X) [dB] = 10log(P_drift)=10log(1.05/1)=10log(1.05)-10log(1)=0.21dB
from E-filed relations with power.
S=E×H=E^2/η=P/(4×π×r^2) (η: Space impedance) → P=(E^2×4×π×r^2)/η
Therefore, The correlation of power and the E-filed
Power drift limit (X) dB=10log(P_drift)=10log(E_drift)^2=20log(E_drift)
From the above mentioned, the calculated power drift of DASY4 system must be the less than ±0.21dB.

3.7 Measurement procedure

Step 1	Worst position search.
Step 2	Change the channels.
Step 3	Change the operation modes.
Step 4	Change the battery size, if the battery option is available.
Step 5	Repeat Step 1~Step 4 on the different platform.

*. During SAR test, the radiated power is always monitored by Spectrum Analyzer.

3.8 Test setup of EUT

[Platform (1),(2) / Video camera]

Setup	Explanation	SAR test
Left	Pos.1) The left surface of EUT was touched to the Flat phantom via the hand strap (with the thickness of 10mm.). Pos.2) The distance between the left surface of EUT and the Flat phantom was 10mm. This gap was the thickness of hand strap.	applied
Left-top	The left-top section of EUT was touched to the Flat phantom.	applied
Right(LCD)	The right surface of EUT was touched to the Flat phantom. The LCD was closed with normal direction.	applied
Top	The top surface of EUT was touched to the Flat phantom.	applied
Bottom	The bottom surface (near the antenna section) of EUT was touched to the Flat phantom.	applied
Front	The front surface of EUT was touched to the Flat phantom.	applied
Rear	The rear section of EUT was more than 90mm far from the antenna.	not applied

[Platform (3),(4) / Digital camera]

Setup	Explanation	SAR test
Top	Pos.1) The top surface of EUT was touched to the Flat phantom.. Pos.2) The distance between the top surface of EUT and the Flat phantom was increased to 5mm, in order to make sure that no enhanced energy coupling at increased separation distance at the worst SAR value condition.	applied
Top-rear	(Platform(3) alone) The top-rear section of EUT was touched to the Flat phantom.	applied
Front(Lens)	The front surface of EUT was touched to the Flat phantom.	applied
Rear(LCD)	The rear surface of EUT was touched to the Flat phantom.	applied
Bottom	The bottom surface of EUT was touched to the Flat phantom.	applied
Left	The left surface of EUT was touched to the Flat phantom.	applied
Right	The right surface of EUT was touched to the Flat phantom.	applied

SECTION 4: Operation of EUT during testing

4.1 Operating modes for SAR testing

This EUT has IEEE.802.11b, 11g, 11n(20HT) and 11n(40HT) continuous transmitting modes.
The frequency and the modulation used in the SAR testing are shown as a following.

Operation mode	11b	11n(40HT)
Tx frequency band	2412-2462MHz	2422-2452MHz
Tested frequency	2412, 2437, 2462MHz (*2)	2422MHz (*2)
Modulation	DBPSK/DSSS	BPSK/OFDM
Data rate	1Mbps (*1)	MCS0 (*1)
Crest factor	1.0 (100% duty cycle)	
Controlled software	Tera Term-rftest mode; During SAR test, the EUT was connected with the host note PC via ribbon flat cable. The software installed in PC made the transmitting condition.	

*1. It was lowest data rate. According to KDB248227; SAR is not required for higher data rate when the maximum average output power is less than 1/4 dB higher than the lowest data rate. (for the antenna terminal conducted power, refer to section 6 in this report)
*2. Decision of SAR tested channels are described in the below the "SAR test applied channel list.".

[SAR test applied channels list]

Mode	MHz	Channel	default		SAR tested channel				Remarks
			11bg 11n(20HT)	11n (40HT)	11b	11g	11n (20HT)	11n (40HT)	
802.11 b/g/n	2412	1	√	-	#	n/a (*3)	n/a (*3)	-	default channel of 11b.
	2422	3	-	√	-	-	-	#	worst average power of 11n (40HT).
	2437	6	√	√	#	n/a (*3)	n/a (*3)	n/a (*4)	default channel of 11b.
	2452	9	-	√	-	-	-	n/a (*4)	-
	2462	11	√	-	#	n/a (*3)	n/a (*3)	-	default channel of 11b.

√ = "default test channels of requested by KDB248227", n/a: SAR test was not applied., # = SAR test was applied.

*3. For 11g and 11n(20HT), the average antenna terminal conducted power were more than 0.25dB lower than 11b mode, therefore the SAR test of 11g and 11n(20HT) were omitted. (KDB248227) (for the antenna terminal conducted power, refer to section 6 in this report)
*4. The measured SAR(1g) was less than 0.8W/kg (1/2 of the SAR(1g) limit) in the default channel that had worst average antenna terminal conducted power. Therefore, the SAR tests for other default channels were omitted. (KDB648474)

SECTION 5: Uncertainty Assessment (SAR measurement)

Uncertainty of SAR measurement system	Under 3GHz	
	1g SAR	10g SAR
combined measurement uncertainty of the measurement system (k=1)	± 11.7%	± 11.4%
expanded uncertainty (k=2)	± 23.3%	± 22.8%

	Error Description	Uncertainty Value	Probability distribution	Divisor	ci (1g)	ci (10g)	ui (1g)	ui (10g)	Vi, veff
A	**Measurement System**						(std.uncertainty)	(std.uncertainty)	
1	Probe calibration	±5.9 %	Normal	1	1	1	±5.9 %	±5.9 %	∞
2	Axial isotropy	±4.7 %	Rectangular	√3	0.7	0.7	±1.9 %	±1.9 %	∞
3	Hemispherical isotropy (*flat phantom, <5°)	±2.6 %	Rectangular	√3	0.7	0.7	±1.1 %	±1.1 %	∞
4	Boundary effects	±1.0 %	Rectangular	√3	1	1	±0.6 %	±0.6 %	∞
5	Probe linearity	±4.7 %	Rectangular	√3	1	1	±2.7 %	±2.7 %	∞
6	System detection limit	±1.0 %	Rectangular	√3	1	1	±0.6 %	±0.6 %	∞
7	System readout electronics	±0.3 %	Normal	1	1	1	±0.3 %	±0.3 %	∞
8	Response time	±0.8 %	Rectangular	√3	1	1	±0.5 %	±0.5 %	∞
9	Integration time	±2.6 %	Rectangular	√3	1	1	±1.5 %	±1.5 %	∞
10	RF ambient – noise	±3.0 %	Rectangular	√3	1	1	±1.7 %	±1.7 %	∞
11	RF ambient – reflections	±3.0 %	Rectangular	√3	1	1	±1.7 %	±1.7 %	∞
12	Probe positioner mechanical tolerance	±0.4 %	Rectangular	√3	1	1	±0.2 %	±0.2 %	∞
13	Probe positioning with respect to phantom shell	±2.9 %	Rectangular	√3	1	1	±1.7 %	±1.7 %	∞
14	Max.SAR evaluation	±1.0 %	Rectangular	√3	1	1	±0.6 %	±0.6 %	∞
B	**Test Sample Related**								
15	Device positioning	±5.0 %	Normal	1	1	1	±5.0 %	±5.0 %	5
16	Device holder uncertainty	±5.0 %	Normal	1	1	1	±5.0 %	±5.0 %	5
17	Power drift	±5.0 %	Rectangular	√3	1	1	±2.9 %	±2.9 %	∞
C	**Phantom and Setup**								
18	Phantom uncertainty	±4.0 %	Rectangular	√3	1	1	±2.3 %	±2.3 %	∞
19	Liquid conductivity (target)	±5.0 %	Rectangular	√3	0.64	0.43	±1.8 %	±1.2 %	∞
20	Liquid conductivity (meas.)	±2.9 %	Normal	1	0.64	0.43	±1.9 %	±1.2 %	3
21	Liquid permittivity (target)	±5.0 %	Rectangular	√3	0.6	0.49	±1.7 %	±1.4 %	∞
22	Liquid permittivity (meas.)	±2.9 %	Normal	1	0.6	0.49	±1.7 %	±1.4 %	3
	Combined Standard Uncertainty						**±11.7** %	**±11.4** %	59
	Expanded Uncertainty (k=2)						**±23.3** %	**±22.8** %	

*. This measurement uncertainty budget is suggested by IEEE 1528 and determined by Schmid & Partner Engineering AG (DASY4 Uncertainty Budget). [6]

SECTION 6: Confirmation before testing

6.1 Assessment for the conducted power of EUT

6.1.1 Worst data rate & worst channel determination of SAR (EUT serial number: C81, installed into the Platform (1)-Video camera (1)), Correction of the power at SAR test and EMC test (EUT serial number: C81)

【Output power】 Tx mode: 11b

*.PAR=Peak(dB)-Ave(dB)[dB]

Ch.	Freq. [MHz]	D/R [Mbps]	Ant. No.	Max.Ave. pwr.:o	Modulation		P/M Reading Ave.[dBm]	P/M Reading Pk[dB]	Cable Loss [dB]	Attenuator [dB]	Power Reading Results Ave[dBm]	Power Reading Results Pk[dBm]	Ave[mW]	Pk[mW]	⊿worst ave.[dB]	PAR [dB]	Power at EMC test (⊿(sar-radio): 0< x <0.21dB) Ave. [dB]	⊿(sar-emc)	Pk [dB]	⊿(sar-emc)
1	2412	1	single		DBPSK	DSSS	3.51	6.13	0.50	10.02	14.03	16.65	25.29	46.24	−0.45	2.62				
6	2437	1	single		DBPSK	DSSS	3.82	6.56	0.50	10.02	14.34	17.08	27.16	51.05	−0.14	2.74				
11	2462	1	single	o	CCK/PBCC	DSSS	3.96	6.65	0.50	10.02	14.48	17.17	28.05	52.12	−	2.69				
1	2412	11	single		CCK/PBCC	DSSS	3.59	6.14	0.50	10.02	14.11	16.66	25.76	46.34	−0.42	2.55	14.05	0.06	16.64	0.02
6	2437	11	single		CCK/PBCC	DSSS	3.79	6.55	0.50	10.02	14.31	17.07	26.98	50.93	−0.22	2.76	14.29	0.02	16.88	0.19
11	2462	11	single		CCK/PBCC	DSSS	4.01	6.71	0.50	10.02	14.53	17.23	28.38	52.84	−	2.70	14.41	0.12	17.05	0.18
															⊿low rate			⊿ave		⊿pk
1	2412	1	single		DBPSK	DSSS	3.51	6.13	0.50	10.02	14.03	16.65	25.29	46.24	−	2.62	14.02	0.01	16.56	0.09
1	2412	2	single		DQPSK	DSSS	3.51	6.10	0.50	10.02	14.03	16.62	25.29	45.92	0.00	2.59	14.03	0.00	16.62	0.00
1	2412	5.5	single		CCK/PBCC	DSSS	3.53	5.56	0.50	10.02	14.05	16.08	25.41	40.55	0.02	2.03	13.98	0.07	16.05	0.03
1	2412	11	single	o	CCK/PBCC	DSSS	3.59	6.14	0.50	10.02	14.11	16.66	25.76	46.34	0.08	2.55	14.05	0.06	16.64	0.02

*. The average power of higher data rate was less than 0.25dB higher than the lowest data rate. Therefore, SAR test was only applied to the lowest data rate.

【Output power】 Tx mode: 11g

*.PAR=Peak(dB)-Ave(dB)[dB]

Ch.	Freq. [MHz]	D/R [Mbps]	Ant. No.	Max.Ave. pwr.:o	Modulation		P/M Reading Ave.[dBm]	P/M Reading Pk[dB]	Cable Loss [dB]	Attenuator [dB]	Power Reading Results Ave[dBm]	Power Reading Results Pk[dBm]	Ave[mW]	Pk[mW]	⊿worst ave.[dB]	PAR [dB]	Power at EMC test (⊿(sar-radio): 0< x <0.21dB) Ave. [dB]	⊿(sar-emc)	Pk [dB]	⊿(sar-emc)
1	2412	6	single	o	BPSK	OFDM	2.06	11.09	0.50	10.02	12.58	21.61	18.11	144.88	−	9.03				
6	2437	6	single		BPSK	OFDM	1.84	10.94	0.50	10.02	12.36	21.46	17.22	139.96	−0.22	9.10				
11	2462	6	single		BPSK	OFDM	2.02	11.03	0.50	10.02	12.54	21.55	17.95	142.89	−0.04	9.01				
1	2412	24	single	o	16QAM	OFDM	2.13	11.12	0.50	10.02	12.65	21.64	18.41	145.88	−	8.99	12.65	0.00	21.61	0.03
6	2437	24	single		16QAM	OFDM	1.73	10.96	0.50	10.02	12.25	21.48	16.79	140.60	−0.40	9.23	12.06	0.19	21.44	0.04
11	2462	24	single		16QAM	OFDM	2.08	11.07	0.50	10.02	12.60	21.59	18.20	144.21	−0.05	8.99	12.59	0.01	21.57	0.02
															⊿low rate			⊿ave		⊿pk
1	2412	6	single		BPSK	OFDM	2.11	11.09	0.50	10.02	12.63	21.61	18.32	144.88	−	8.98	12.63	0.00	21.55	0.06
1	2412	9	single		BPSK	OFDM	2.05	10.52	0.50	10.02	12.57	21.04	18.07	127.06	−0.06	8.47	12.56	0.01	21.03	0.01
1	2412	12	single		QPSK	OFDM	2.12	10.94	0.50	10.02	12.64	21.46	18.37	139.96	0.01	8.82	12.45	0.19	21.36	0.10
1	2412	18	single		QPSK	OFDM	2.12	10.48	0.50	10.02	12.64	21.00	18.37	125.89	0.01	8.36	12.55	0.09	20.91	0.09
1	2412	24	single	o	16QAM	OFDM	2.13	11.12	0.50	10.02	12.65	21.64	18.41	145.88	0.02	8.99	12.65	0.00	21.61	0.03
1	2412	36	single		16QAM	OFDM	2.09	11.06	0.50	10.02	12.61	21.58	18.24	143.88	−0.02	8.97	12.48	0.13	21.56	0.02
1	2412	48	single		64QAM	OFDM	2.03	10.91	0.50	10.02	12.55	21.43	17.99	139.00	−0.08	8.88	12.55	0.00	21.25	0.18
1	2412	54	single		64QAM	OFDM	2.03	10.95	0.50	10.02	12.55	21.47	17.99	140.28	−0.08	8.92	12.36	0.19	21.44	0.03

*. The average power of 11g was more than 0.25dB lower than the 11b. Therefore, SAR test was not applied to the 11g mode.

【Output power】 Tx mode: 11n(20HT)

*.PAR=Peak(dB)-Ave(dB)[dB]

Ch.	Freq. [MHz]	D/R [Mbps]	Ant. No.	Max.Ave. pwr.:o	Modulation		P/M Reading Ave.[dBm]	P/M Reading Pk[dB]	Cable Loss [dB]	Attenuator [dB]	Power Reading Results Ave[dBm]	Power Reading Results Pk[dBm]	Ave[mW]	Pk[mW]	⊿worst ave.[dB]	PAR [dB]	Power at EMC test (⊿(sar-radio): 0< x <0.21dB) Ave. [dB]	⊿(sar-emc)	Pk [dB]	⊿(sar-emc)
1	2412	MCS0	single	o	BPSK	OFDM	2.02	10.42	0.50	10.02	12.54	20.94	17.95	124.17	−	8.40				
6	2437	MCS0	single		BPSK	OFDM	1.77	10.28	0.50	10.02	12.29	20.80	16.94	120.23	−0.25	8.51				
11	2462	MCS0	single		BPSK	OFDM	1.87	10.32	0.50	10.02	12.39	20.84	17.34	121.34	−0.15	8.45				
1	2412	MCS4	single	o	16QAM	OFDM	2.05	10.46	0.50	10.02	12.57	20.98	18.07	125.31	−	8.41	12.55	0.02	20.96	0.02
6	2437	MCS4	single		16QAM	OFDM	1.82	10.37	0.50	10.02	12.34	20.89	17.14	122.74	−0.23	8.55	12.18	0.16	20.73	0.16
11	2462	MCS4	single		16QAM	OFDM	1.94	10.26	0.50	10.02	12.46	20.78	17.62	119.67	−0.11	8.32	12.46	0.00	20.62	0.16
															⊿low rate			⊿ave		⊿pk
1	2412	MCS0	single		BPSK	OFDM	2.02	10.42	0.50	10.02	12.54	20.94	17.95	124.17	−	8.40	12.38	0.16	20.78	0.16
1	2412	MCS1	single		QPSK	OFDM	2.01	10.43	0.50	10.02	12.53	20.95	17.91	124.45	−0.01	8.42	12.53	0.00	20.94	0.01
1	2412	MCS2	single		QPSK	OFDM	2.03	10.41	0.50	10.02	12.55	20.93	17.99	123.88	0.01	8.38	12.40	0.15	20.81	0.12
1	2412	MCS3	single		16QAM	OFDM	1.99	10.43	0.50	10.02	12.51	20.95	17.82	124.45	−0.03	8.44	12.51	0.00	20.94	0.01
1	2412	MCS4	single	o	16QAM	OFDM	2.05	10.46	0.50	10.02	12.57	20.98	18.07	125.31	0.03	8.41	12.55	0.02	20.96	0.02
1	2412	MCS5	single		64QAM	OFDM	2.00	10.43	0.50	10.02	12.52	20.95	17.86	124.45	−0.02	8.43	12.48	0.04	20.85	0.10
1	2412	MCS6	single		64QAM	OFDM	2.00	10.41	0.50	10.02	12.52	20.93	17.86	123.88	−0.02	8.41	12.52	0.00	20.92	0.01
1	2412	MCS7	single		64QAM	OFDM	1.99	10.38	0.50	10.02	12.51	20.90	17.82	123.03	−0.03	8.39	12.43	0.08	20.89	0.01

*. The average power of 11n(20HT) was more than 0.25dB lower than the 11b. Therefore, SAR test was not applied to the 11n(20HT) mode.

【Output power】 Tx mode: 11n(40HT)

*.PAR=Peak(dB)-Ave(dB)[dB]

Ch.	Freq. [MHz]	D/R [Mbps]	Ant. No.	Max.Ave. pwr.:o	Modulation		P/M Reading Ave.[dBm]	P/M Reading Pk[dB]	Cable Loss [dB]	Attenuator [dB]	Power Reading Results Ave[dBm]	Power Reading Results Pk[dBm]	Ave[mW]	Pk[mW]	⊿worst ave.[dB]	PAR [dB]	Power at EMC test (⊿(sar-radio): 0< x <0.21dB) Ave. [dB]	⊿(sar-emc)	Pk [dB]	⊿(sar-emc)
3	2422	MCS0	single	o	BPSK	OFDM	1.89	10.44	0.50	10.02	12.41	20.96	17.42	124.74	−	8.55				
6	2437	MCS0	single		BPSK	OFDM	1.68	10.32	0.50	10.02	12.20	20.84	16.60	121.34	−0.21	8.64				
9	2452	MCS0	single		BPSK	OFDM	1.46	10.22	0.50	10.02	11.98	20.74	15.78	118.58	−0.43	8.76				
3	2422	MCS3	single	o	16QAM	OFDM	1.93	10.99	0.50	10.02	12.45	21.51	17.58	141.58	−	9.06	12.36	0.09	21.36	0.15
6	2437	MCS3	single		16QAM	OFDM	1.62	10.80	0.50	10.02	12.14	21.32	16.37	135.52	−0.31	9.18	11.99	0.15	21.24	0.08
9	2452	MCS3	single		16QAM	OFDM	1.55	10.68	0.50	10.02	12.07	21.20	16.11	131.83	−0.38	9.13	12.04	0.03	21.19	0.01
															⊿low rate			⊿ave		⊿pk
3	2422	MCS0	single		BPSK	OFDM	1.89	10.44	0.50	10.02	12.41	20.96	17.42	124.74	−	8.55	12.23	0.18	20.84	0.12
3	2422	MCS1	single		QPSK	OFDM	1.88	10.31	0.50	10.02	12.40	20.83	17.38	121.06	−0.01	8.43	12.25	0.15	20.79	0.04
3	2422	MCS2	single		QPSK	OFDM	1.80	10.46	0.50	10.02	12.32	20.98	17.06	125.31	−0.09	8.66	12.30	0.02	20.94	0.04
3	2422	MCS3	single	o	16QAM	OFDM	1.93	10.99	0.50	10.02	12.45	21.51	17.58	141.58	0.04	9.06	12.36	0.09	21.36	0.15
1	2422	MCS4	single		16QAM	OFDM	1.92	10.81	0.50	10.02	12.44	21.33	17.54	135.83	0.03	8.89	12.24	0.20	21.14	0.19
3	2422	MCS5	single		64QAM	OFDM	1.87	10.96	0.50	10.02	12.39	21.48	17.34	140.60	−0.02	9.09	12.34	0.05	21.32	0.16
3	2422	MCS6	single		64QAM	OFDM	1.92	10.65	0.50	10.02	12.44	21.17	17.54	130.92	0.03	8.73	12.26	0.18	21.04	0.13
3	2422	MCS7	single		64QAM	OFDM	1.91	10.47	0.50	10.02	12.43	20.99	17.50	125.60	0.02	8.56	12.28	0.15	20.89	0.10

*. The average power of higher data rate was less than 0.25dB higher than the lowest data rate. Therefore, SAR test was only applied to the lowest data rate.

*. Calculating formula: Results = ["P/M Reading"] + ["Cbl.loss"(Cable loss)] + ["Att.loss"(Attenuator)] / A red figure indicates it is the maximum value in the condition.
*. The difference between the SAR reference power and the power of EMC test was not less than 0dB and not higher than 0.21dB.
SAR reference; Date tested: September 15, 2011 / Measured by: Hiroshi Naka / Place: preparation room of No. 7 shielded room. (24 deg.C / 51 %RH)
"Power of EMC test"; this reference is described in the test report of 31GE0240-SH-01-A.

6.1.2 Power reference (antenna terminal conducted average power) of each platform condition (SAR test)

		Platform #:	**Platform(1)**	**Platform(2)**	**Platform(3)**	**Platform(4)**
		Platform type:	Video camera (1)	Video camera (2)	Digital camera (1)	Digital camera (2)
		Platform model:	ID0002	ID0008	PC1739	PC1735
Frequency	Mode	Data Rate	Average power	Average power	Average power	Average power
[MHz]	[-]	[Mbps]	[dBm]	[dBm]	[dBm]	[dBm]
2412	11b	1	**14.03**	**14.04**	**14.07**	**14.07**
2437		1	**14.34**	**14.39**	**14.31**	**14.28**
2462		1	**14.48**	**14.43**	**14.37**	**14..39**

*. For all platforms, the serial number of WM217 was C81

SECTION 7: Measurement results

7.1 SAR (Body) for the platform(1): Video camera(1)(model: ID0002)

Measurement date: September 15 and 16, 2011 Measurement by: Hiroshi Naka

[Liquid measurement (Body)]

Used Target Frequency [MHz]	Target Body Tissue		Measured Body Tissue				Environment		Measured Date
	Permittivity [-]	Conductivity [S/m]	Permittivity (εr) [-]	Conductivity (σ) [S/m]	Temp. [deg.C.]	Depth [mm]	Temp. [deg.C.]	Humidity [%RH]	
2450	**52.7**	**1.95**	50.18 (-4.8%)	1.985 (+1.8%)	24.9	158	25	57	Sept. 15, 2011, before SAR test.
2450	**52.7**	**1.95**	50.25 (-4.6%)	1.942 (-0.4%)	24.5	158	25	62	Sept. 16, 2011, before SAR test.

*. The target value is a parameter defined in OET65 Supplement C.

[SAR measurement results (Body)]

SAR measurement results											
Frequency			Modulation / Data rate [Mbps] / crest factor	EUT setup conditions			Liquid temp. [deg.C]		Power drift [dB]	SAR(1g) [W/kg]	Remarks
Mode	Ch.	[MHz]		Position	Distance [mm]	Bty.	Before	After			
11b	**Step 1: Worst position search**										
	11	2462	DBPSK&DSSS / 1Mbps / 1.0	Left	10 (w/ hand strap)	L1	24.8	24.6	0.174	< 0.10	-
	11	2462	DBPSK&DSSS / 1Mbps / 1.0	Left	10 (w/o hand strap)	L1	24.4	24.4	-0.069	< 0.10	-
	11	2462	DBPSK&DSSS / 1Mbps / 1.0	Front	0	L2	24.3	24.2	0.20	< 0.10	-
	11	2462	DBPSK&DSSS / 1Mbps / 1.0	Right(LCD)	0	L1	24.2	24.1	0.0541	< 0.10	-
	11	2462	DBPSK&DSSS / 1Mbps / 1.0	Bottom	0	L1	24.4	24.3	-0.176	< 0.10	-
	11	2462	DBPSK&DSSS / 1Mbps / 1.0	Top	0	L2	24.2	24.2	-0.060	< 0.10	-
	11	2462	DBPSK&DSSS / 1Mbps / 1.0	**Left-top**	0	L2	24.0	24.0	-0.20	**0.214**	**→Worst SAR of Platform (1).**
	Step 2: Change the channels										
	6	2437	DBPSK&DSSS / 1Mbps / 1.0	**Left-top**	0	L1	24.1	24.0	-0.13	0.18	-
	1	2412	DBPSK&DSSS / 1Mbps / 1.0	**Left-top**	0	L1	24.0	23.9	0.188	0.17	-
	Step 3: Change the battery size										
	11	2462	DBPSK&DSSS / 1Mbps / 1.0	**Left-top**	0	M	23.8	23.7	-0.20	0.211	-
	11	2462	DBPSK&DSSS / 1Mbps / 1.0	**Left-top**	0	S	23.8	23.7	0.073	0.206	-
Step 4: Change the operation mode											
11n (40HT)	3	2422	BPSK&OFDM / MCS0 / 1.0	**Left-top**	0	L1	23.9	23.8	-0.178	0.11	-

*. Bty.: Battery, L1(Large type(1)), L2(Large type(2)), M(Medium type). S(Small type); Refer to Appendix 1.
*. The SAR test was not applied to 11g and 11n(20HT) mode. According to KDB248227; SAR is not required for 11g and 11n(HT20) channels when the maximum average output power is less than 1/4 dB higher than that measured on the corresponding 802.11b channels.

Notes:

*. During test, the EUT was operated with full-charged battery and without all signal interface cables.
*. Calibration frequency of the SAR measurement probe (and used conversion factors)

SAR test frequency[MHz]	Probe calibration frequency [MHz]	Validity [MHz]	Used conversion factor	Uncertainty
2412	2450	-38MHz, within ±50 of cal.frequency	7.34	±12.0%
2422	2450	-28MHz, within ±50 of cal.frequency	7.34	±12.0%
2437	2450	-13MHz, within ±50 of cal.frequency	7.34	±12.0%
2462	2450	+12MHz, within ±50 of cal.frequency	7.34	±12.0%

*. The uncertainty is the RSS of the ConvF uncertainty at calibration frequency and the uncertainty for the indicated frequency band.

7.2 SAR (Body) for the platform(2): Video camera(2) (model: ID0008)

Measurement date: September 21, 2011 Measurement by: Hiroshi Naka

[Liquid measurement (Body)]

Used Target Frequency [MHz]	Target Body Tissue		Measured Body Tissue				Environment		Measured Date
	Permittivity [-]	Conductivity [S/m]	Permittivity (εr) [-]	Conductivity (σ) [S/m]	Temp. [deg.C.]	Depth [mm]	Temp. [deg.C.]	Humidity [%RH]	
2450	**52.7**	**1.95**	50.40 (-4.4%)	1.932 (-0.9%)	24.1	154	24	62	Sept. 21, 2011, before SAR test.

*. The target value is a parameter defined in OET65 Supplement C.

[SAR measurement results (Body)]

SAR measurement results											
Frequency			Modulation / Data rate [Mbps] / crest factor	EUT setup conditions			Liquid temp. [deg.C]		Power drift [dB]	SAR(1g) [W/kg]	Remarks
Mode	Ch.	[MHz]		Position	Distance [mm]	Bty.	Before	After			
11b	**Step 1: Worst position search**										
	11	2462	DBPSK&DSSS / 1Mbps / 1.0	Left	10 (w/ hand strap)	L2	23.9	23.9	0.20	< 0.10	-
	11	2462	DBPSK&DSSS / 1Mbps / 1.0	Left	10 (w/o hand strap)	L1	23.9	23.9	-0.179	< 0.10	-
	11	2462	DBPSK&DSSS / 1Mbps / 1.0	Right(LCD)	0	L1	23.9	23.9	0.168	< 0.10	-
	11	2462	DBPSK&DSSS / 1Mbps / 1.0	Front	0	L2	23.9	23.9	0.20	< 0.10	-
	11	2462	DBPSK&DSSS / 1Mbps / 1.0	Top	0	L1	23.9	23.9	0.146	< 0.10	-
	11	2462	DBPSK&DSSS / 1Mbps / 1.0	Bottom	0	L1	23.9	23.9	0.20	< 0.10	-
	11	2462	DBPSK&DSSS / 1Mbps / 1.0	**Left-top**	0	L2	23.8	23.8	0.112	0.11	-
	Step 2: Change the channels										
	6	2437	DBPSK&DSSS / 1Mbps / 1.0	**Left-top**	0	L2	23.8	23.8	0.20	< 0.10	-
	1	2412	DBPSK&DSSS / 1Mbps / 1.0	**Left-top**	0	L1	23.9	23.9	0.20	< 0.10	-
	Step 3: Change the battery size										
	11	2462	DBPSK&DSSS / 1Mbps / 1.0	**Left-top**	0	M	23.9	23.9	0.0987	0.12	-
	11	2462	DBPSK&DSSS / 1Mbps / 1.0	**Left-top**	0	S	23.9	23.9	-0.167	**0.13**	→Worst SAR of Platform (2).
Step 4: Change the operation mode											
11n (40HT)	3	2422	BPSK&OFDM / MCS0 / 1.0	**Left-top**	0	L2	23.9	23.9	0.20	< 0.10	-

*. Bty.: Battery, L1(Large type(1)), L2(Large type(2)), M(Medium type). S(Small type); Refer to Appendix 1.
*. The SAR test was not applied to 11g and 11n(20HT) mode. According to KDB248227; SAR is not required for 11g and 11n(HT20) channels when the maximum average output power is less than 1/4 dB higher than that measured on the corresponding 802.11b channels.

Notes:

*. During test, the EUT was operated with full-charged battery and without all signal interface cables.
*. Calibration frequency of the SAR measurement probe (and used conversion factors)

SAR test frequency[MHz]	Probe calibration frequency [MHz]	Validity [MHz]	Used conversion factor	Uncertainty
2412	2450	-38MHz, within ±50 of cal.frequency	7.34	±12.0%
2422	2450	-28MHz, within ±50 of cal.frequency	7.34	±12.0%
2437	2450	-13MHz, within ±50 of cal.frequency	7.34	±12.0%
2462	2450	+12MHz, within ±50 of cal.frequency	7.34	±12.0%

*. The uncertainty is the RSS of the ConvF uncertainty at calibration frequency and the uncertainty for the indicated frequency band.

7.3 SAR (Body) for the platform(3): Digital camera(1) (model: PC1739)

Measurement date: September 28, 2011 Measurement by: Hiroshi Naka

[Liquid measurement (Body)]

Used Target Frequency [MHz]	Target Body Tissue		Measured Body Tissue				Environment		Measured Date
	Permittivity [-]	Conductivity [S/m]	Permittivity (εr) [-]	Conductivity (σ) [S/m]	Temp. [deg.C.]	Depth [mm]	Temp. [deg.C.]	Humidity [%RH]	
2450	**52.7**	**1.95**	50.16 (-4.8%)	1.947 (-0.1%)	23.8	151	24	50	Sept. 28, 2011, before SAR test.

*. The target value is a parameter defined in OET65 Supplement C.

[SAR measurement results (Body)]

SAR measurement results												
Frequency			Modulation / Data rate [Mbps] / crest factor	EUT setup conditions			Liquid temp. [deg.C]		Power drift [dB]	SAR(1g) [W/kg]	Remarks
Mode	Ch.	[MHz]		Position	Distance [mm]	Bty.	Before	After			
11b	**Step 1: Worst position search**										
	1	2412	DBPSK&DSSS / 1Mbps / 1.0	Top-rear	0	#2	23.5	23.4	-0.20	0.27	-
	1	2412	DBPSK&DSSS / 1Mbps / 1.0	**Top**	0	#2	23.3	23.3	-0.100	**0.37**	→Worst SAR of Platform (3).
	1	2412	DBPSK&DSSS / 1Mbps / 1.0	Top	5	#2	23.3	23.3	0.20	< 0.10	-
	1	2412	DBPSK&DSSS / 1Mbps / 1.0	Front(Lens)	0	#1	23.3	23.3	-0.20	< 0.10	-
	1	2412	DBPSK&DSSS / 1Mbps / 1.0	Rear(LCD)	0	#2	23.3	23.3	-0.154	< 0.10	-
	1	2412	DBPSK&DSSS / 1Mbps / 1.0	Bottom	0	#3	23.3	23.3	0.20	< 0.10	-
	1	2412	DBPSK&DSSS / 1Mbps / 1.0	Left	0	#1	23.3	23.3	-0.158	< 0.10	-
	1	2412	DBPSK&DSSS / 1Mbps / 1.0	Right	0	#2	23.3	23.3	-0.016	< 0.10	-
	Step 2: Change the channels										
	6	2437	DBPSK&DSSS / 1Mbps / 1.0	**Top**	0	#3	23.3	23.3	-0.20	0.29	-
	11	2462	DBPSK&DSSS / 1Mbps / 1.0	**Top**	0	#1	23.3	23.3	-0.066	0.23	-
Step 3: Change the operation mode											
11n (40HT)	3	2422	BPSK&OFDM / MCS0 / 1.0	**Top**	0	#3	23.3	23.3	0.20	0.24	-

*. Bty.: Battery, Battery No.#1, #2 and #3 were same model.; Refer to Appendix 1.
*. The SAR test was not applied to 11g and 11n(20HT) mode. According to KDB248227; SAR is not required for 11g and 11n(HT20) channels when the maximum average output power is less than 1/4 dB higher than that measured on the corresponding 802.11b channels.

Notes:

*. During test, the EUT was operated with full-charged battery and without all signal interface cables.
*. Calibration frequency of the SAR measurement probe (and used conversion factors)

SAR test frequency[MHz]	Probe calibration frequency [MHz]	Validity [MHz]	Used conversion factor	Uncertainty
2412	2450	-38MHz, within ±50 of cal.frequency	7.34	±12.0%
2422	2450	-28MHz, within ±50 of cal.frequency	7.34	±12.0%
2437	2450	-13MHz, within ±50 of cal.frequency	7.34	±12.0%
2462	2450	+12MHz, within ±50 of cal.frequency	7.34	±12.0%

*. The uncertainty is the RSS of the ConvF uncertainty at calibration frequency and the uncertainty for the indicated frequency band.

7.4 SAR (Body) for the platform(4): Digital camera(2) (model: PC1735)

Measurement date: September 29, 2011 Measurement by: Hiroshi Naka

[Liquid measurement (Body)]

Used Target Frequency [MHz]	Target Body Tissue		Measured Body Tissue				Environment		Measured Date
	Permittivity [-]	Conductivity [S/m]	Permittivity (εr) [-]	Conductivity (σ) [S/m]	Temp. [deg.C.]	Depth [mm]	Temp. [deg.C.]	Humidity [%RH]	
2450	**52.7**	**1.95**	50.38 (-4.4%)	1.944 (-0.3%)	23.8	153	24	47	Sept. 29, 2011, before SAR test.

*. The target value is a parameter defined in OET65 Supplement C.

[SAR measurement results (Body)]

SAR measurement results											
Frequency			Modulation / Data rate [Mbps] / crest factor	EUT setup conditions			Liquid temp. [deg.C]		Power drift [dB]	SAR(1g) [W/kg]	Remarks
Mode	Ch.	[MHz]		Position	Distance [mm]	Bty.	Before	After			
11b	**Step 1: Worst position search**										
	11	2462	DBPSK&DSSS / 1Mbps / 1.0	**Top**	0	#1	23.7	23.6	-0.174	0.13	-
	11	2462	DBPSK&DSSS / 1Mbps / 1.0	Bottom	0	#3	23.5	23.4	-0.163	< 0.10	-
	11	2462	DBPSK&DSSS / 1Mbps / 1.0	Left	0	#1	23.4	23.4	-0.20	< 0.10	-
	11	2462	DBPSK&DSSS / 1Mbps / 1.0	Right	0	#2	23.4	23.4	0.20	< 0.10	-
	11	2462	DBPSK&DSSS / 1Mbps / 1.0	Rear(LCD)	0	#3	23.4	23.4	0.121	< 0.10	-
	11	2462	DBPSK&DSSS / 1Mbps / 1.0	Front(Lens)	0	#1	23.4	23.4	-0.20	< 0.10	-
	Step 2: Change the channels										
	1	2412	DBPSK&DSSS / 1Mbps / 1.0	**Top**	0	#2	23.6	23.6	-0.166	**0.14**	→Worst SAR of Platform (4).
	1	2412	DBPSK&DSSS / 1Mbps / 1.0	Top	5	#1	23.5	23.5	0.055	< 0.10	-
	6	2437	DBPSK&DSSS / 1Mbps / 1.0	**Top**	0	#3	23.6	23.5	-0.128	0.12	-
Step 3: Change the operation mode											
11n (40HT)	3	2422	BPSK&OFDM / MCS0 / 1.0	**Top**	0	#2	23.5	23.5	0.16	< 0.10	-

*. Bty.: Battery, Battery No.#1, #2 and #3 were same model.; Refer to Appendix 1.
*. The SAR test was not applied to 11g and 11n(20HT) mode. According to KDB248227; SAR is not required for 11g and 11n(HT20) channels when the maximum average output power is less than 1/4 dB higher than that measured on the corresponding 802.11b channels.

Notes:

*. During test, the EUT was operated with full-charged battery and without all signal interface cables.
*. Calibration frequency of the SAR measurement probe (and used conversion factors)

SAR test frequency[MHz]	Probe calibration frequency [MHz]	Validity [MHz]	Used conversion factor	Uncertainty
2412	2450	-38MHz, within ±50 of cal.frequency	7.34	±12.0%
2422	2450	-28MHz, within ±50 of cal.frequency	7.34	±12.0%
2437	2450	-13MHz, within ±50 of cal.frequency	7.34	±12.0%
2462	2450	+12MHz, within ±50 of cal.frequency	7.34	±12.0%

*. The uncertainty is the RSS of the ConvF uncertainty at calibration frequency and the uncertainty for the indicated frequency band.