SAR TEST REPORT

Test Report No.: 13994987S-A-R1

Applicant : **KONICA MINOLTA, INC.**

Type of EUT : **SKR 3000**

Model Number of EUT : **P-82**

FCC ID : **YR7SKR3000P8**

Test Standard : **FCC 47CFR §2.1093**

Test Result : **Complied** (Refer to Section 3)

Highest Reported SAR [W/kg]					Remarks (DTS band)				Remarks (UNII band)			
DTS band	U-NII band	SAR type		Limit	Frequency [MHz]	Mode	Output power (average) [dBm]		Frequency [MHz]	Mode	Output power (average) [dBm]	
							Measured	Max.			Measured	Max
0.71 (Antenna 1)	**1.16** (Antenna 1)	**Body-touch**	**1g**	**1.6**	2412	IEEE 802.11b	13.60	15	5670	IEEE 802.11n(40HT)	8.97	10

*. **Highest reported SAR(1g) value for partial body-touch RF exposure conditions is 0.71 W/kg in DTS band and 1.16 W/kg in U-NII band.**
*. **The SAR value of simultaneous transmission is ≤ 0.04 of SPLSR** (Refer to Section 6) (*. distance between antennas: approx.. 500 mm (design base))

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8. The opinions and the interpretations to the result of the description in this report are outside scopes where UL Japan has been accredited.
9. The information provided from the customer for this report is identified in SECTION 1.
10. This report (-R1) is a revised version of 13994987S-A. 13994987S-A report is replaced with this report.

Date of test: October 19~27, 2021

Test engineer: H. Naka
Hiroshi Naka (Engineer)

Approved by: T. Imamura
Toyokazu Imamura (Leader)

☐ The testing in which "Non-accreditation" is displayed is outside the accreditation scopes in UL Japan.
☒ There is no testing item of "Non-accreditation".

CERTIFICATE 1266.03

REVISION HISTORY

Revision	Test report No.	Date	Page revised	Contents
Original	13994987S-A	December 1, 2021	-	-
-R1	13994987S-A-R1	February 15, 2022	p4, 5, 7, 9, 12, 15, 16	(p4, 5, 7, 9) Corrected operating frequency of U-NII-2C (no exception). (5500~5700) MHz (new) (p5) Corrected ch.11 frequency to 2462 MHz for 11g, 11n20. (p7)(3.5, table) Corrected frequency range of WLAN (DTS) to (2412~2462) MHz (p9)(4.1, table) Corrected frequency range of DTS to (2412~2462) MHz (p9)(4.1, table) Added lower power comment to 5190 MHz (11n40). (p12) Deleted the CommNet of "*. xx.xx yellow highlight is shown the maximum measured output power in each mode." (p15, 16) Corrected data rate of 11a mode. "a (1Mbps)" (was) -> "a (6Mbps)" (new)

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

Reference : Abbreviations (Including words undescribed in this report) (radio_r0v03_200214)

A2LA	The American Association for Laboratory Accreditation
AC	Alternating Current
AFH	Adaptive Frequency Hopping
AM	Amplitude Modulation
Amp, AMP	Amplifier
ANSI	American National Standards Institute
Ant, ANT	Antenna
AP	Access Point
ASK	Amplitude Shift Keying
Atten., ATT	Attenuator
AV	Average
BPSK	Binary Phase-Shift Keying
BR	Bluetooth Basic Rate
BT	Bluetooth
BT LE	Bluetooth Low Energy
BW	BandWidth
Cal Int	Calibration Interval
CCK	Complementary Code Keying
Ch., CH	Channel
CISPR	Comite International Special des Perturbations Radioelectriques
CW	Continuous Wave
DBPSK	Differential BPSK
DC	Direct Current
D-factor	Distance factor
DFS	Dynamic Frequency Selection
DQPSK	Differential QPSK
DSSS	Direct Sequence Spread Spectrum
DUT	Device Under Test
EDR	Enhanced Data Rate
EIRP, e.i.r.p.	Equivalent Isotropically Radiated Power
EMC	ElectroMagnetic Compatibility
EMI	ElectroMagnetic Interference
EN	European Norm
ERP, e.r.p.	Effective Radiated Power
EU	European Union
EUT	Equipment Under Test
Fac.	Factor
FCC	Federal Communications Commission
FHSS	Frequency Hopping Spread Spectrum
FM	Frequency Modulation
Freq.	Frequency
FSK	Frequency Shift Keying
GFSK	Gaussian Frequency-Shift Keying
GNSS	Global Navigation Satellite System
GPS	Global Positioning System
Hori.	Horizontal
ICES	Interference-Causing Equipment Standard
IEC	International Electrotechnical Commission
IEEE	Institute of Electrical and Electronics Engineers
IF	Intermediate Frequency
ILAC	International Laboratory Accreditation Conference
ISED	Innovation, Science and Economic Development Canada
ISO	International Organization for Standardization
JAB	Japan Accreditation Board
LAN	Local Area Network
LIMS	Laboratory Information Management System
MCS	Modulation and Coding Scheme
MRA	Mutual Recognition Arrangement
N/A	Not Applicable
NIST	National Institute of Standards and Technology
NS	No signal detect.
NSA	Normalized Site Attenuation
NVLAP	National Voluntary Laboratory Accreditation Program
OBW	Occupied Band Width
OFDM	Orthogonal Frequency Division Multiplexing
P/M	Power meter
PCB	Printed Circuit Board
PER	Packet Error Rate
PHY	Physical Layer
PK	Peak
PN	Pseudo random Noise
PRBS	Pseudo-Random Bit Sequence
PSD	Power Spectral Density
QAM	Quadrature Amplitude Modulation
QP	Quasi-Peak
QPSK	Quadrature Phase Shift Keying
RBW	Resolution Band Width
RDS	Radio Data System
RE	Radio Equipment
RF	Radio Frequency
RMS	Root Mean Square
RSS	Radio Standards Specifications
Rx	Receiving
SA, S/A	Spectrum Analyzer
SAR	Specific Absorption Rate
SG	Signal Generator
SVSWR	Site-Voltage Standing Wave Ratio
TR	Test Receiver
Tx	Transmitting
VBW	Video BandWidth
Vert.	Vertical
WLAN	Wireless LAN

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SECTION 1: Customer information

Company Name	KONICA MINOLTA, Inc.
Address	1, Sakura-machi, Hino-shi, Tokyo, Japan 191-8511
Telephone Number	+81-42-589-8429
Contact Person	Yukihiro Niekawa

The information provided from the customer is as follows;
- Applicant, Type of EUT, Model Number of EUT, FCC IDon the cover and other relevant pages
- Operating/Test Mode(s) (Mode(s)) on all the relevant pages
- SECTION 1: Customer information
- SECTION 2: Equipment under test (EUT)
- SECTION 4: Operation of EUT during testing
- Appendix 1: The part of Antenna location information, Description of EUT and Support Equipment

*. The laboratory is exempted from liability of any test results affected from the above information in SECTION 2, SECTION 4 and Appendix 1.

SECTION 2: Equipment under test (EUT)

2.1 Identification of EUT

Type of Equipment	SKR 3000
Model Number	P-82
Serial Number	ADU4-S0002
Condition of EUT	Production prototype (*. Not for sale: These samples are equivalent to mass-produced items.)
Receipt Date of Sample (*. Information from test lab.)	September 22, 2021 (*.EUT for power measurement. No modification by the Lab.) October 6, 2021 (*. EUT for SAR test. No modification by the Lab.) (*. After power measurement, the EUT was returned to a customer.)
Country of Mass-production	Japan
Category Identified	Portable device *. Since EUT may touch the human body during WLAN operation, the partial-body SAR (1g) shall be measured.
Rating	DC 15 V (Re-chargeable battery, The battery is had built-in in the EUT, and the user can not remove the battery.)
Feature of EUT	Model number: P-82 (referred to as the EUT in this report) is a flat panel type detector "SKR 3000" which has WLAN function.
SAR Accessory	none

2.2 Product Description (WLAN module, antenna)

Equipment type	Transceiver
Frequency of operation	2.4GHz band: (2412~2462) MHz (b, g, n20); U-NII-1: (5180~5240) MHz (a, n20) / (5190, 5230) MHz (n40); U-NII-2A: (5260~5320) MHz (a, n20) / (5270, 5310) MHz (n40); U-NII-2C: (5500~5700) MHz (a, n20) / (5510~5670) MHz (n40); U-NII-3: (5745~5825) MHz (a, n20) / (5755, 5795) MHz (n40)
Channel spacing	5 MHz (2.4GHz band), 20 MHz (5GHz band: U-NII-1, U-NII- 2A, U-NII-2C, U-NII-3)
Bandwidth	20 MHz (b, g, a, n20), 40 MHz (n40)
Type of modulation	DSSS: DBPSK, DQPSK, CCK (b), OFDM: BPSK, QPSK, 16QAM, 64QAM (g, a, n20, n40)
Typical and maximum transmit power	*. The specification of typical and maximum transmit power (which may occur) refer to remarks in below "Table of "Typical and Maximum tune-up tolerance limit". The measured output power (conducted) as SAR reference power refers to section 5 in this report.

Antenna	**Main antenna (antenna #1)** (*software ID: chain 0)	**Sub antenna (antenna #2)** (*software ID: chain 1)
Antenna model	AEP8P-100000 (cable length: 174.0 mm ± 5.0 mm, O.D.1.37 mm)	AEP8P-100001 (cable length: 428.0 mm ± 5.0 mm, O.D.1.37 mm)
Antenna quantity	2 pcs. (*. Separation distance between Main antenna (chain 0) and Sub antenna (chain 1): approx. 500 mm) *. Mode of b,g,a: One selected Tx antenna operation. *. Mode of n20,n40: One selected Tx antenna operation (MCS0~7) / Two Tx antenna operation (MCS8~13)	
Antenna type / connector type	PIFA (Planar Inverted F Antenna) / Connector; PCB side: U.FL, Antenna side: soldered	
Antenna gain (max. gain) (*.including cable loss)	-1.95 dBi (2.4GHz band), -0.98 dBi (5GHz band)	-2.21 dBi (2.4GHz band), -1.54 dBi (5GHz band)

*. (mode) b: IEEE 802.11b, g: IEEE 802.11g, a: IEEE 802.11a, n20: IEEE 802.11n(20HT), n40: IEEE 802.11n(40HT).
*. The EUT do not use the special transmitting technique such as "beam-forming" and "time-space code diversity."

***. Table of "Typical and Maximum tune-up tolerance limit"**

Maximum tune-up tolerance limit is conducted burst average power and is defined by a customer as Duty cycle 100% (continuous transmitting).
The SAR test reference power measurement and the SAR test were applied to the lowest data rate (as higher time-based average power) on each operation mode.

			SISO power (Conducted, Duty cycle 100%)						**MIMO** (Conducted, Duty cycle 100%)					
Band	Ch.	Frequency [MHz]	Mode	D/R or MCS#.	Typical [dBm]		Max.[dBm]		Mode	D/R or MCS#.	Typical [dBm]			Max. [dBm]
					Ant.#1	Ant.#2	Ant.#1	Ant.#2			Ant.#1	Ant.#2	Ant.#1+#2	Ant.#1+#2
2.4GHz Wi-Fi (DTS)	1~11	2412~2462	b	1~11 Mbps	12.5	12.5	**15.0**	**15.0**	-	-	-	-	-	-
	1~3	2412~2422	g	6~54 Mbps	7.5	7.5	**10.0**	**10.0**	-	-	-	-	-	-
	4~8	2427~2447		6~36 Mbps	12.5	12.5	**15.0**	**15.0**						
				48~54 Mbps	11.0	11.0	**13.5**	**13.5**						
	9~11	2452~2462		6~54 Mbps	9.0	9.0	**11.5**	**11.5**	-	-	-	-	-	-
	1~3	2412~2422	n20	MCS0~7	5.5	5.5	**8.0**	**8.0**	n20	MCS8~15	5.5	5.5	8.5	**11.0**
	4~8	2427~2447		MCS0~4	12.5	12.5	**15.0**	**15.0**		MCS8~12	12.5	12.5	15.5	**18.0**
				MCS5~6	11.0	11.0	**13.5**	**13.5**		MCS13~14	11.0	11.0	14.0	**16.5**
				MCS7	7.0	7.0	**9.5**	**9.5**		MCS15	7.0	7.0	10.0	**12.5**
	9~11	2452~2462		MCS0~7	6.0	6.0	**8.5**	**8.5**		MCS8~15	6.0	6.0	9.0	**11.5**
U-NII-1 (5.2GHz)	36~48	5180~5240	a	6~54 Mbps	7.5	7.5	**10.0**	**10.0**	-	-	-	-	-	-
	36~48	5180~5240	n20	MCS0~5	7.5	7.5	**10.0**	**10.0**	n20	MCS8~13	7.5	7.5	10.5	**13.0**
				MCS6	7.0	7.0	**9.5**	**9.5**		MCS14	7.0	7.0	10.0	**12.5**
				MCS7	6.0	6.0	**8.5**	**8.5**		MCS15	6.0	6.0	9.0	**11.5**
	38	5190	n40	MCS0~6	7.0	7.0	**9.5**	**9.5**	n40	MCS8~14	7.0	7.0	10.0	**12.5**
				MCS7	6.0	6.0	**8.5**	**8.5**		MCS15	6.0	6.0	9.0	**11.5**
	46	5230		MCS0~5	7.5	7.5	**10.0**	**10.0**		MCS8~13	7.5	7.5	10.5	**13.0**
				MCS6	7.0	7.0	**9.5**	**9.5**		MCS14	7.0	7.0	10.0	**12.5**
				MCS7	6.0	6.0	**8.5**	**8.5**		MCS15	6.0	6.0	9.0	**11.5**
U-NII-2A (5.3GHz)	52~64	5260~5320	a	6~54 Mbps	7.5	7.5	**10.0**	**10.0**	-	-	-	-	-	-
	52~64	5260~5320	n20	MCS0~5	7.5	7.5	**10.0**	**10.0**	n20	MCS8~13	7.5	7.5	10.5	**13.0**
				MCS6	7.0	7.0	**9.5**	**9.5**		MCS14	7.0	7.0	10.0	**12.5**
				MCS7	6.0	6.0	**8.5**	**8.5**		MCS15	6.0	6.0	9.0	**11.5**
	54, 62	5270. 5310	n40	MCS0~5	7.5	7.5	**10.0**	**10.0**	n40	MCS8~13	7.5	7.5	10.5	**13.0**
				MCS6	7.0	7.0	**9.5**	**9.5**		MCS14	7.0	7.0	10.0	**12.5**
				MCS7	6.0	6.0	**8.5**	**8.5**		MCS15	6.0	6.0	9.0	**11.5**
U-NII-2C (5.6GHz)	100~140	5500~5700	a	6~54 Mbps	7.5	7.5	**10.0**	**10.0**	-	-	-	-	-	-
	100~140	5500~5700	n20	MCS0~5	7.5	7.5	**10.0**	**10.0**	n20	MCS8~13	7.5	7.5	10.5	**13.0**
				MCS6	7.0	7.0	**9.5**	**9.5**		MCS14	7.0	7.0	10.0	**12.5**
				MCS7	6.0	6.0	**8.5**	**8.5**		MCS15	6.0	6.0	9.0	**11.5**
	102~134	5510~5670	n40	MCS0~5	7.5	7.5	**10.0**	**10.0**	n40	MCS8~13	7.5	7.5	10.5	**13.0**
				MCS6	7.0	7.0	**9.5**	**9.5**		MCS14	7.0	7.0	10.0	**12.5**
				MCS7	6.0	6.0	**8.5**	**8.5**		MCS15	6.0	6.0	9.0	**11.5**
U-NII-3 (5.8GHz)	149~165	5754~5825	a	6~48 Mbps	7.5	7.5	**10.0**	**10.0**	-	-	-	-	-	-
				54 Mbps	6.0	6.0	**8.5**	**8.5**						
	100~116, 132~140	5260~5320	n20	MCS0~5	7.5	7.5	**10.0**	**10.0**	n20	MCS8~13	7.5	7.5	10.5	**13.0**
				MCS6	6.0	6.0	**8.5**	**8.5**		MCS14	6.0	6.0	9.0	**11.5**
				MCS7	4.5	4.5	**7.0**	**7.0**		MCS15	4.5	4.5	7.5	**10.0**
	151, 159	5755, 5795	n40	MCS0~5	7.5	7.5	**10.0**	**10.0**	n40	MCS8~13	7.5	7.5	10.5	**13.0**
				MCS6	6.0	6.0	**8.5**	**8.5**		MCS14	6.0	6.0	9.0	**11.5**
				MCS7	4.5	4.5	**7.0**	**7.0**		MCS15	4.5	4.5	7.5	**10.0**

*. Ch.: channel, D/R: data rate, Ant.: antenna (Ant.#1: Main antenna / Ant.#2: Sub antenna), Max. Maximum tune-up limit power, N/A: Not applicable.
*. (mode) b: IEEE 802.11b, g: IEEE 802.11g, a: IEEE 802.11a, n20: IEEE 802.11n(20HT), n40: IEEE 802.11n(40HT).

SECTION 3: Test specification, procedures and results

3.1 Test specification

FCC47CFR §2.1093: Radiofrequency radiation exposure evaluation: portable devices.

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. 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 in accordance with the following measurement procedures.

The tests documented in this report were performed in accordance with FCC 47 CFR Parts 2, IEEE Std.1528-2013 (latest), the following FCC Published RF exposure KDB procedures, and TCB workshop updates.

KDB 447498 D01 (v06):	General RF exposure guidance
KDB 248227 D01 (v02r02):	SAR Guidance for IEEE 802.11 (Wi-Fi) transmitters
KDB 865664 D01 (v01r04):	SAR measurement 100MHz to 6GHz
IEEE Std. 1528-2013:	IEEE Recommended Practice for Determining the Peak Spatial-Average Specific Absorption Rate (SAR) in the Human Head from Wireless Communications Devices: Measurement Techniques.

3.2 Exposure limit

Environments of exposure limit	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)
(A) Limits for Occupational /Controlled Exposure (W/kg)	0.4	8.0	20.0
(B) Limits for General population /Uncontrolled Exposure (W/kg)	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 (Partial body touch)

3.3 Addition, deviation and exclusion to the test procedure

No addition, exclusion nor deviation has been made from the test procedure.

3.4 Test Location

UL Japan, Inc., Shonan EMC Lab.
1-22-3 Megumigaoka, Hiratsuka-shi, Kanagawa-ken 259-1220 JAPAN
Telephone number: +81 463 50 6400 / Facsimile number: +81 463 50 6401

*. A2LA Certificate Number: 1266.03 (FCC Test Firm Registration Number: 626366, ISED Lab Company Number: 2973D / CAB identifier: JP0001)

Used?	Place	Width × Depth × Height (m)	Size of reference ground plane (m) / horizontal conducting plane	Maximum measurement distance	Used?	Place	Width × Depth × Height (m)	Size of reference ground plane (m) / horizontal conducting plane
☐	No.1 Semi-anechoic chamber	20.6 × 11.3 × 7.65	20.6 × 11.3	10 m	☐	No.4 Shielded room	4.4 × 4.7 × 2.7	4.4 × 4.7
☐	No.2 Semi-anechoic chamber	20.6 × 11.3 × 7.65	20.6 × 11.3	10 m	☐	No.5 Shielded room	7.8 × 6.4 × 2.7	7.8 × 6.4
☐	No.3 Semi-anechoic chamber	12.7 × 7.7 × 5.35	12.7 × 7.7	5 m	☐	No.6 Shielded room	7.8 × 6.4 × 2.7	7.8 × 6.4
☐	No.4 Semi-anechoic chamber	8.1 × 5.1 × 3.55	8.1 × 5.1	-	☒	**No.7 Shielded room**	2.76 × 3.76 × 2.4	2.76 × 3.76
☐	No.1 Shielded room	6.8 × 4.1 × 2.7	6.8 × 4.1	-	☐	No.8 Shielded room	3.45 × 5.5 × 2.4	3.45 × 5.5
☐	No.2 Shielded room	6.8 × 4.1 × 2.7	6.8 × 4.1	-	☐	No.1 Measurement room	2.55 × 4.1 × 2.5	2.55 × 4.1
☐	No.3 Shielded room	6.3 × 4.7 × 2.7	6.3 × 4.7	-				

3.5 Procedures and Results

Test Procedure	SAR measurement: KDB 447498 D01, KDB 248227 D01, KDB 865664 D01, IEC Std. 1528			
Category	FCC 47CFR §2.1093 (Portable device)		SAR type	Partial-body (touch)

			WLAN (DTS)		WLAN (U-NII-1)		WLAN (U-NII-2A)		WLAN (U-NII-2C)		WLAN (U-NII-3)		Simultaneous (Co-location) transmission
Frequency [MHz]			2412~2462		5180~5240		5260~5320		5500~5700		5745~5825		
Results (SAR(1g))			Complied (Refer to Section 6)		Complied (*1) (Refer to Section 6)		Complied (Refer to Section 6)		Complied (Refer to Section 6)		Complied (Refer to Section 6)		Complied (Refer to Section 6)
Antenna#			1 (Main)	2 (Sub)	1 (Main)	2 (Sub)	1 (Main)	2 (Sub)	1 (Main)	2 (Sub)	1 (Main)	2 (Sub)	Main+Sub
SAR [W/kg]	Type		1g	1g	1g	1g	1g	1g	1g	1g	1g	1g	1g
	Limit		1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6
	Reported		**0.71**	**0.59**	**0.92**	**0.51**	**0.79**	**0.49**	**1.16**	**0.79**	**1.01**	**0.68**	The operation of Co-location (MIMO) was smaller than ≤ 0.04 of SPLSR, because of separation distance between Main antenna and Sub antenna is approx. 500 mm.
	Measured		0.513	0.483	0.483	0.483	0.627	0.483	0.890	0.618	0.802	0.474	
	Liquid type		Head	Head	Head	Head	Head	Head	Head	Head	Head	Head	
Operation mode			b	b	a	a	a	a	n40	a	a	a	
Frequency[MHz]			2412	2412	5180	5180	5320	5260	5670	5700	5745	5745	
Output power	Burst Ave. [dBm]		13.60	14.09	9.06	9.30	9.06	8.09	8.97	9.00	9.11	8.50	
	Tune-up limit	[dBm]	15	15	10	10	10	10	10	10	10	10	
		[mW]	32	32	10	10	10	10	10	10	10	10	
	Tune-up factor		1.33	1.23	1.24	1.17	1.24	1.55	1.27	1.26	1.23	1.41	
Duty cycle [%]			99.7	99.7	98.4	98.4	98.4	98.4	96.7	98.4	98.4	98.4	
Duty scaled factor			1.00	1.00	1.02	1.02	1.02	1.02	1.03	1.02	1.02	1.02	

Note: UL Japan's SAR Work Procedures No.13-EM-W0429 and 13-EM-W0430. No addition, deviation nor exclusion has been made from standards
*. (mode) b: IEEE 802.11b, g: IEEE 802.11g, a: IEEE 802.11a, n20: IEEE 802.11n(20HT), n40: IEEE 802.11n(40HT).
*. (Calculating formula) Corrected SAR to max.power (W/kg) = (Measured SAR (W/kg)) × (Duty scaled) × (Tune-up factor)
where; Tune-up factor [-] = 1 / (10 ^ ("Δmax (tune-up limit power - burst average power), dB" / 10)), Duty scaled factor [-] = 100(%) / (duty cycle, %)
*. Ave.: Average; n/a: Not applicable; (mode) b: IEEE 802.11b, ac20: IEEE 802.11ac(20VHT),
*. "yellow marker" in the table; The highest reported SAR(1g) of each band (DTS, U-NII) is shaded with yellow marker.
*1. SAR test of U-NII-1 band was also applied, even though the reported SAR(1g) of U-NII-2A band was lower than 1.2 W/kg.

This device is in compliance with Specific Absorption Rate (SAR) for general population/uncontrolled exposure limits (1.6 W/kg for partial body) specified in FCC 47 CFR part 2 (2.1093) and had been tested in accordance with the measurement methods and procedures specified in IEEE 1528-2013 and FCC KDB publications.

3.6 SAR measurement procedure

3.6.1 Normal SAR measurement procedure

Step 1: Confirmation before SAR testing

Before SAR test, the RF wiring for the sample had been switched to the antenna conducted power measurement line from the antenna line and the average power was measured. The SAR test reference power measurement and the SAR test were proceeded with the lowest data rate (which has the higher time-based average power typically) on each operation mode. Therefore, the average output power was measured on the lower, middle (or near middle), upper and specified channels with the lowest data rate of each operation mode. The power of other data rate was also measured to confirm the time-base average power and when if it's required. The power measurement result is shown in Section 5.

*. The EUT transmission power was verified that it was within 2dB lower than the maximum tune-up tolerance limit when it was set the rated power. (Clause 4.1, KDB447498 D01 (v06))

Step 2: Power reference measurement

Measurement of the E-field at a fixed location above the central position of flat phantom (or/and furthermore an interpolated peak SAR location of area scan in step 2) was used as a reference value for assessing the power drop.

Step 3: Area Scan (Area scan parameters: KDB 865664 D01 (v01r04).)

The SAR distribution at the exposed side of head or body position was measured at a distance of each device from the inner surface of the shell. The area covered the entire dimension of the antenna of EUT and suitable horizontal grid spacing of EUT. Based on these data, the area of the maximum absorption was determined by splines interpolation.

	≤ 3 GHz	> 3 GHz
Maximum distance from closest measurement point (geometric center of probe sensors) to phantom surface	5 ± 1 mm	½·δ·ln(2) ± 0.5 mm
Maximum probe angle from probe axis to phantom surface normal at the measurement location	30° ± 1°	20° ± 1°
Maximum area scan spatial resolution: Δx_{Area}, Δy_{Area}	≤ 2 GHz: ≤ 15 mm 2 – 3 GHz: ≤ 12 mm	3 – 4 GHz: ≤ 12 mm 4 – 6 GHz: ≤ 10 mm
	When the x or y dimension of the test device, in the measurement plane orientation, is smaller than the above, the measurement resolution must be ≤ the corresponding x or y dimension of the test device with at least one measurement point on the test device.	

Step 4: Zoom Scan and post-processing (Zoom scan parameters: KDB 865664 D01 (v01r04).)

Zoom Scans are used to assess the peak spatial SAR values within a cubic averaging volume containing 1 g and 10 g of simulated tissue. The Zoom Scan measures points (refer to table below) within a cube whose base faces are centered on the maxima found in a preceding area scan job within the same procedure.

A volume of 30 mm (X) × 30 mm (Y) × 30 mm (Z) (or more) was assessed by measuring 7×7×7 points (or more), ≤ 3GHz.

A volume of 28 mm (X) × 28 mm (Y) × 24mm (Z) (or more) was assessed by measuring 8×8×7 points (or more) (by "Ratio step" method (*1)), > 3 GHz.

When the SAR of the highest peak is within 2 dB of the SAR limit, additional zoom scans are proceeded for other peaks within 2 dB of the highest peak that have not been included in any zoom scan to ensure there is no increase in SAR. If the zoom scan measured as defined above complies with both of the following criteria. or if the peak spatial-average SAR is below 0.1 W/kg, no additional measurements are needed.

*. The smallest horizontal distance from the local SAR peaks to all points 3 dB below the SAR peak shall be larger than the horizontal grid steps in both x and y directions and recorded.

*. The ratio of the SAR at the second measured point to the SAR at the closest measured point at the x-y location of the measured maximum SAR value shall be at least 30 % and recorded.

				f ≤ 3 GHz	3 GHz < f ≤ 6 GHz
1	Maximum zoom scan spatial resolution: Δx_{Zoom}, Δy_{Zoom}			≤ 2 GHz: ≤ 8 mm 2 – 3 GHz: ≤ 5 mm*	3 – 4 GHz: ≤ 5 mm* 4 – 6 GHz: ≤ 4 mm*
2	Maximum zoom scan spatial resolution, normal to phantom surface	uniform grid: $\Delta z_{Zoom}(n)$		≤ 5 mm	3 – 4 GHz: ≤ 4 mm 4 – 5 GHz: ≤ 3 mm 5 – 6 GHz: ≤ 2 mm
3		graded grid	$\Delta z_{Zoom}(1)$: between 1st two points closest to phantom surface	≤ 4 mm	3 – 4 GHz: ≤ 3 mm 4 – 5 GHz: ≤ 2.5 mm 5 – 6 GHz: ≤ 2 mm
4			$\Delta z_{Zoom}(n>1)$: between subsequent points	≤ 1.5 ·$\Delta z_{Zoom}(n-1)$ mm	
5	Minimum zoom scan volume	x, y, z		≥ 30 mm	3 – 4 GHz: ≥ 28 mm 4 – 5 GHz: ≥ 25 mm 5 – 6 GHz: ≥ 22 mm
	* The asterisk table-footnote is per KDB Pub. 865664 D01 v01r04. NOTE For uniformity purposes the integer frequency increments of rows 1 to 3 and 5 apply, rather than the corresponding variable and fixed parameters given in IEC 62209-1:2016 and IEC 62209-2:2010/AMD1:2019.				

Step 5: Power drift measurement

The Power Drift Measurement measures the field at the same location as the most recent power reference measurement within the same procedure, and with the same settings. The Power Drift Measurement gives the field difference in dB from the reading conducted within the last Power Reference Measurement. This allows a user to monitor the power drift of the device under test within a batch process. The measurement procedure is the same as Step 2. It was checked that the power drift is within ±5% in the evaluation procedure of SAR testing. The verification of power drift during the SAR test is that DASY 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 SAR plot data of APPENDIX 2.

*. DASY 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) = <u>0.21dB</u>
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, **<u>the calculated power drift of DASY system must be the less than (±) 0.21dB.</u>**

Step 6: Z-Scan

The Z Scan measures points along a vertical straight line. The line runs along the Z-axis of a one-dimensional grid. In order to get a reasonable extrapolation the extrapolated distance should not be larger than the step size in Z-direction.

*. The all SAR tests were conservatively performed with test separation distance 0 mm. The phantom bottom thickness is approx. 2mm. Typical distance from probe tip to dipole centers is 1mm. The distance between the SAR probe tip to the surface of test device which is touched the bottom surface of the phantom is approx. 3 mm for 2.4GHz band and 2.4 mm for 5GHz band.

*1. "Ratio step" method parameters used; the first measurement point: "1.4mm" from the phantom surface, the initial z grid separation: "1.4mm", subsequent graded grid ratio: "1.4". These parameters comply with the requirement of KDB 865664 D01and recommended by Schmid & Partner Engineering AG (DASY5 manual).

SECTION 4: Operation of EUT during testing

4.1 Operating modes for SAR testing

This EUT has IEEE 802.11b, IEEE 802.11g, IEEE 802.11a, IEEE 802.11n(HT20) and IEEE 802.11n(HT40) continuous transmitting modes. The frequency and the modulation used in the SAR testing are shown as a following.

Operation mode		802.11b		802.11g		802.11n(20HT)			802.11a		802.11n(20HT)			802.11n(40HT)			802.11a		802.11n(20HT)			802.11n(40HT)		
band		DTS (2.4GHz band)							U-NII-1 (*3)								U-NII-2							
Tx band [MHz]		2402~2462							5180~5240					5190(*lower power), 5230			5260~5320					5270,5310		
Antenna#		1	2	1	2	1	2	1+2	1	2	1	2	1+2	1	2	1+2	1	2	1	2	1+2	1	2	1+2
Tune-up limit [dBm]		**15**	**15**	**15**	**15**	**15**	**15**	15+15	**10**	**10**	**10**	**10**	10+10	9.5* **10**	9.5* **10**	9.5+9.5* 10+10	**10**	**10**	**10**	**10**	10+10	**10**	**10**	10+10
SAR test considered. ("*" initial test setup and mode) (*1)	Back	○	○	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	○	○	×
	Front	○	○	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	○	○	×
	Left (ant#1)	○*	×	○	×	×	×	×	○*	×	×	×	×	×	×	×	○	×	×	×	×	○*	×	×
	Bottom (ant#2)	×	○*	×	○	×	×	×	×	○*	×	×	×	×	×	×	×	○	×	×	×	×	○*	×
	Right	×	○	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	○	×
	Top	○	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	○	×	×
Frequency tested		(*2)	(*2)	(*2)	(*2)	n/a	n/a	n/a	(*2)	(*2)	n/a	n/a	n/a	n/a	n/a	n/a	(*2,3)	(*2,3)	n/a	n/a	n/a	(*2)	(*2)	n/a
Data rate [Mbps]		1	1	6	6	MCS0	MCS0	MCS0	6	6	MCS0	MCS0	MCS8	MCS0	MCS0	MCS8	6	6	MCS0	MCS0	MCS8	MCS0	MCS0	MCS8

Operation mode		802.11a		802.11n(20HT)			802.11n(40HT)			802.11a		802.11n(20HT)			802.11n(40HT)		
band		U-NII-2C								U-NII-3							
Tx band [MHz]		5500~5700					5510~5670			5745~5825					5755, 5795		
Antenna#		1	2	1	2	1+2	1	2	1+2	1	2	1	2	1+2	1	2	1+2
Tune-up limit [dBm]		**10**	**10**	**10**	**10**	10+10	**10**	**10**	10+10	**10**	**10**	**10**	**10**	10+10	**10**	**10**	10+10
SAR test considered. ("*" initial test setup and mode) (*1)	Back	×	×	×	×	×	○	○	×	×	×	×	×	×	○	○	×
	Front	×	×	×	×	×	○	○	×	×	×	×	×	×	○	○	×
	Left (ant#1)	○	×	×	×	×	○*	×	×	○	×	×	×	×	○*	×	×
	Bottom (ant#2)	×	○	×	×	×	×	○*	×	×	○	×	×	×	×	○*	×
	Right	×	×	×	×	×	×	○	×	×	×	×	×	×	×	○	×
	Top	×	×	×	×	×	○	×	×	×	×	×	×	×	○	×	×
Frequency tested		(*2,3)	(*2,3)	n/a	n/a	n/a	(*2)	(*2)	n/a	(*2,3)	(*2,3)	n/a	n/a	n/a	(*2)	(*2)	n/a
Data rate [Mbps]		6	6	MCS0	MCS0	MCS8	MCS0	MCS0	MCS8	6	6	MCS0	MCS0	MCS8	MCS0	MCS0	MCS8

Controlled software	Test name	Software name	Version	Released Date	Storage location
	Power measurement, SAR	Panel Firmware	V4.10R00.001	2021/6/8	EUT memory (*. operated by connected host PC)
		Wlan Auth Tool (*4)	1.3.0.2	2016/5/2	Connected host PC

*. Antenna#: 1: Main / 2: Sub / 1+2: MIMO ; n/a: not applied.
*. (KDB 248227 D01) Initial SAR test was applied to the operation mode which has higher bandwidth with the highest tune-up power and lowest data rate (lowest modulation).
*1. Marks on "SAR test considered" are "○": SAR test was applied. "×": SAR test can be reduced (refer to clause 4.3).
*2. The tested frequencies refer to SAR test results in Section 6.
*3. SAR test was also applied to lower and higher channel of each operation frequency band by 20 MHz channel bandwidth mode.
*4. Setting parameters: the value of "Power" cell of software was adjusted so that measurement power might be satisfied within 2dB of the maximum power. (This power setting value might be different from product specification value. Any conditions under the normal use do not exceed the condition of setting. End user cannot change the power setting of product.)

***. OFDM Transmission Mode SAR Test Configuration and Channel Selection Requirements**

(KDB 248227 D01, , SAR Guidance for Wi-Fi Transmitters) The initial test configuration for 2.4 GHz and 5 GHz OFDM transmission modes is determined by the 802.11 configuration with the highest maximum output power specified for production units, including tune-up tolerance, in each standalone and aggregated frequency band. SAR for the initial test configuration is measured using the highest maximum output power channel determined by the default power measurement procedures.
When multiple channel bandwidth configurations in a frequency band have the same specified maximum output power, largest channel bandwidth, lowest order modulation and lowest data rate, the lowest order 802.11 mode is selected.

***. SAR test reduction considerations**

(KDB 447498 D01, General RF Exposure Guidance) Testing of other required channels within the operating mode of a frequency band is not required when the reported 1g or 10g SAR for the mid-band or highest output power channel is:
(1) ≤ 0.8 W/kg or 2.0 W/kg, for 1g or 10g respectively, when the transmission band is ≤ 100 MHz
(2) ≤ 0.6 W/kg or 1.5 W/kg, for 1g or 10g respectively, when the transmission band is between 100 MHz and 200 MHz
(3) ≤ 0.4 W/kg or 1.0 W/kg, for 1g or 10g respectively, when the transmission band is ≥ 200 MHz
The SAR has been measured with highest transmission duty factor supported by the test mode tool for WLAN and/or Bluetooth. When the transmission duty factor could not be 100%, the reported SAR will be scaled to 100% transmission duty factor to determine compliance. When SAR is not measured at the maximum power level allowed for production unit, the measured SAR will be scaled to the maximum tune-up tolerance limit to determine compliance.

(KDB 248227 D01, SAR Guidance for Wi-Fi Transmitters) When the reported SAR of the initial test configuration is > 0.8 W/kg, SAR measurement is required for subsequent next highest measured output power channel(s) in the initial test configuration until reported SAR is ≤ 1.2 W/kg or all required channels are tested.

For 2.4GHz band, the highest measured maximum output power channel of DSSS was selected for SAR measurement, When the reported SAR is ≤ 0.8 W/kg, no further SAR test is required in this exposure configuration. Otherwise, SAR is required for that exposure configuration using the next highest measured output power channel. When any reported SAR is > 1.2 W/kg, SAR is required for the third channel. For OFDM modes (802.11g/n), SAR is not required when the highest reported SAR for DSSS is adjusted by the ratio of OFDM to DSSS specified maximum output power and the adjusted SAR is ≤ 1.2 W/kg.

For 5GHz band, the initial test configuration was selected accordance to the transmission mode with the highest maximum output power. When the reported SAR is > 0.8 W/kg, SAR is required for the subsequent highest measured output power channel until the reported SRA result is ≤ 1.2 W/kg or all required channels are measured. For other transmission modes, SAR is not required when the highest reported SAR for initial test configuration is adjusted by the ratio of subsequent test configuration to initial test configuration specified maximum output power and the adjusted SAR is ≤ 1.2 W/kg.

For WLAN MIMO mode, the power-based standalone SAR test exclusion or the sum of SAR provision (and SPLSR calculation method) in KDB 447498 to determine simultaneous transmission SAR test exclusion should be applied. Otherwise, SAR for MIMO mode will be measured with all applicable antennas transmitting simultaneously at the specified maximum output power of MIMO operation.

4.2 RF exposure conditions

Antenna separation distances in each test setup plan are shown as follows.

	Antenna	Main (#1)	Sub (#2)
Setup	**Explanation of EUT setup** (*. Refer to Appendix 1 for test setup photographs.)	**D [mm]**	**D [mm]**
Left (Ant#1)	The left side surface (antenna #1 (Main) existed) of EUT was touched to the Flat phantom.	**1.8**	**310**
Bottom (Ant#2)	The bottom side surface (antenna #2 (Sub) existed) of EUT was touched to the Flat phantom.	**390.5**	**1.8**
Rear	The rear (back) surface of EUT was touched to the Flat phantom.	**2.4**	**2.4**
Front	The front surface of EUT was touched to the Flat phantom.	**3.7**	**3.7**
Top (no antenna)	The top side surface (no antenna) of EUT was touched to the Flat phantom.	**27.5**	**≈458**
Right (no antenna)	The right side surface (no antenna) of EUT was touched to the Flat phantom.	**≈382**	**32**

*. D: Antenna separation distance. It is the distance from an antenna to the outer surface of the EUT which human may touch.; Ant: Antenna.
*. Details of "antenna separation distance" and "Size of EUT" are shown in Appendix 1-1.

4.3 SAR test exclusion considerations accordance to KDB 447498 D01

The following is based on KDB447498D01.

Step 1) The 1-g and 10-g SAR test exclusion thresholds for 100 MHz to 6 GHz at test separation distances ≤ 50 mm are determined by:

[(max.power of channel, including tune-up tolerance, mW) / (min.test separation distance, mm)] × [√f (GHz)] ≤ 3.0 (for SAR(1g)), 7.5(for SAR(10g)) ···· formula (1)

If power is calculated from the upper formula (1);

[SAR(1g) test exclusion thresholds, mW] = 3 × [test separation distance, mm] / [√f (GHz)] ····· formula (2)

1. The upper frequency of the frequency band was used in order to calculate standalone SAR test exclusion considerations.
2. Power and distance are rounded to the nearest mW and mm before calculation
3. The result is rounded to one decimal place for comparison
4. The test exclusions are applicable only when the minimum test separation distance is ≤ 50 mm and for transmission frequencies between 100 MHz and 6 GHz. When the minimum test separation distance is < 5 mm, a distance of 5 mm is applied to determine SAR test exclusion.

When the calculated threshold value by a numerical formula above-mentioned in the following table is 3.0 or less (SAR(1g)), SAR test can be excluded.

Step 2) At 1500 MHz to 6 GHz and for test separation distances > 50 mm, the SAR test exclusion threshold is determined according to the following,

[test exclusion thresholds, mW] = [(Power allowed at numeric threshold for 50mm in formula (1))] + [(test separation distance, mm) - (50mm)] × 10 ·· formula (3)

1. The upper frequency of the frequency band was used in order to calculate standalone SAR test exclusion considerations.
2. Power and distance are rounded to the nearest mW and mm before calculation

When output power is less than the calculated threshold value by a numerical formula above-mentioned in the following table, SAR test is excluded.

[SAR exclusion calculations for step 1) antenna ≤50mm from the user, and for step 2) antenna > 50mm from the user.]

				Calculated threshold value											
Antenna #:				Antenna #1 (Main)				Antenna #2 (Sub)				Antenna #1 (Main)		Antenna #2 (Sub)	
Setup:				**Left**	**Rear**	**Front**	**Top**	**Bottom**	**Rear**	**Front**	**Right**	Right	Bottom	Left	Top
Antenna separation distance:				≤5	≤5	≤5	28	≤5	≤5	≤5	32	382	391	310	458
Mode (SISO)	Upper Freq. [MHz]	Tune-up limit (conducted) [dBm]	Tune-up limit (conducted) [mW]	Step 1) SAR exclusion calculations for antenna ≤50mm from the user. Judge: Marked with "Exempt" is SAR test is reduced, when value is ≤ 3.0 (SAR (1g)), **Mark with "Test" is SAR test is required, when value is >3.0 (SAR(1g))**								Step 2) > 50mm from the user Judge: "Exempt" when Tue-up limit power.is less than calculated threshold power value.			
b,g,n20	2462	15	**32**	**10.0, Test**	**10.0, Test**	**10.0, Test**	1.8, Exempt	**10.0, Test**	**10.0, Test**	**10.0, Test**	1.6, Exempt	Exempt, 2.6 W (@300mm)			
a,n20	5240	10	**10**	**4.6, Test**	**4.6, Test**	**4.6, Test**	0.8, Exempt	**4.6, Test**	**4.6, Test**	**4.6, Test**	0.7, Exempt	Exempt, 2.6 W (@300mm)			
n40	5230	10	**10**	**4.6, Test**	**4.6, Test**	**4.6, Test**	0.8, Exempt	**4.6, Test**	**4.6, Test**	**4.6, Test**	0.7, Exempt	Exempt, 2.6 W (@300mm)			
a,n20	5320	10	**10**	**4.6, Test**	**4.6, Test**	**4.6, Test**	0.8, Exempt	**4.6, Test**	**4.6, Test**	**4.6, Test**	0.7, Exempt	Exempt, 2.6 W (@300mm)			
n40	5270	10	**10**	**4.6, Test**	**4.6, Test**	**4.6, Test**	0.8, Exempt	**4.6, Test**	**4.6, Test**	**4.6, Test**	0.7, Exempt	Exempt, 2.6 W (@300mm)			
a,n20	5700	10	**10**	**4.8, Test**	**4.8, Test**	**4.8, Test**	0.9, Exempt	**4.8, Test**	**4.8, Test**	**4.8, Test**	0.7, Exempt	Exempt, 2.6 W (@300mm)			
n40	5670	10	**10**	**4.8, Test**	**4.8, Test**	**4.8, Test**	0.9, Exempt	**4.8, Test**	**4.8, Test**	**4.8, Test**	0.7, Exempt	Exempt, 2.6 W (@300mm)			
a,n20	5825	10	**10**	**4.8, Test**	**4.8, Test**	**4.8, Test**	0.9, Exempt	**4.8, Test**	**4.8, Test**	**4.8, Test**	0.8, Exempt	Exempt, 2.6 W (@300mm)			
n40	5795	10	**10**	**4.8, Test**	**4.8, Test**	**4.8, Test**	0.9, Exempt	**4.8, Test**	**4.8, Test**	**4.8, Test**	0.8, Exempt	Exempt, 2.6 W (@300mm)			

*. Freq.: Frequency, (mode); b: IEEE 802.11b, g: IEEE 802.11g, a: IEEE 802.11a, n20: IEEE 802.11n(20HT), n40: IEEE 802.11n(40HT).
Notes: 1. Power and distance are rounded to the nearest mW and mm before calculation.

By the determined test setup shown above, the SAR test was applied in the following procedures.

-	*. The all SAR tests were conservatively performed with test separation distance 0mm.
Step 1	On 2.4GHz band, worst SAR search by DSSS mode with a maximum measured output power channel. Add SAR test for another channel (including lower, middle, upper), if it is required. Add SAR test for OFDM mode, if it is required.
Step 2 ~ Step 4	On U-NII-2A band (and U-NII-1 band, if it is required) band, worst SAR search by largest channel bandwidth mode with a maximum measured output power channel. Add SAR test for another channel (including lower, middle, upper), if it is required. Add test for another bandwidth mode, if it is required. Repeat same test procedure in above for U-NII-2C band (step 3) and U-NII-3 band (step 4).

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

SECTION 5: Confirmation before testing

5.1 SAR reference power measurement (antenna terminal conducted average power of EUT)

Mode	Frequency		Data rate	Power spec. on each antenna		Duty cycle		Antenna power: Main (#1) (Chain 0)					Antenna power: Sub (#2) (Chain 1)					MIMO power (Ant.#1+Ant#2)					Adjusted power setting? (*1)	
				Typical	Max.	duty cycle	scaled factor	Set pwr.	Burst Ave.	Δ Max.	Tune-up factor	Time Ave.	Set pwr.	Burst Ave.	Δ Max.	Tune-up factor	Time Ave.	MIMO target	MIMO max.	SUM Burst Ave.	Δ Max.	SUM Time Ave.		
	[MHz]	CH	[Mbps]	[dBm]	[dBm]	[%]	[-]	[-]	[dBm]	[dB]	[-]	[dBm]	[-]	[dBm]	[dB]	[-]	[dBm]	[dBm]	[dBm]	[dBm]	[dB]	[dBm]	Ant#1	Ant#2
b	2412	1	1	12.5	**15.0**	99.7	1.00	13	**13.60**	-1.40	1.38	13.59	13	**14.09**	-0.91	1.23	14.08						No	No
	2437	6	1	12.5	**15.0**	99.7	1.00	13	**13.41**	-1.59	1.44	13.40	13	**13.01**	-1.99	1.58	13.00						No	No
	2462	11	1	12.5	**15.0**	99.7	1.00	13	**13.75**	-1.25	1.33	13.74	13	**13.02**	-1.98	1.58	13.01						No	No
g	2412	1	6	7.5	**10.0**	97.4	1.03	8	**8.90**	-1.10	1.29	8.79	8	**8.96**	-1.04	1.27	8.85						No	No
	2427	4	6	12.5	**15.0**	97.4	1.03	14	**14.19**	-0.81	1.21	14.08	14	**13.96**	-1.04	1.27	13.85						Yes	Yes
	2437	6	6	12.5	**15.0**	97.4	1.03	14	**13.89**	-1.11	1.29	13.78	14	**13.61**	-1.39	1.38	13.50						Yes	Yes
	2447	8	6	12.5	**15.0**	97.4	1.03	14	**14.11**	-0.89	1.23	14.00	14	**13.27**	-1.73	1.49	13.16						Yes	Yes
	2462	11	6	9.0	**11.5**	97.4	1.03	10	**10.47**	-1.03	1.27	10.36	10	**9.86**	-1.64	1.46	9.75						Yes	Yes
n20 SISO	2412	1	MCS0	5.5	**8.0**	97.1	1.03	6	**6.17**	-1.83	1.52	6.04	6	**7.19**	-0.81	1.21	7.06						No	No
	2427	4	MCS0	12.5	**15.0**	97.1	1.03	14	**14.13**	-0.87	1.22	14.00	14	**13.83**	-1.17	1.31	13.70						Yes	Yes
	2437	6	MCS0	12.5	**15.0**	97.1	1.03	14	**13.81**	-1.19	1.32	13.68	14	**13.48**	-1.52	1.42	13.35						Yes	Yes
	2447	8	MCS0	12.5	**15.0**	97.1	1.03	14	**14.02**	-0.98	1.25	13.89	14	**13.18**	-1.82	1.52	13.05						Yes	Yes
	2462	11	MCS0	6.0	**8.5**	97.1	1.03	7	**6.94**	-1.56	1.43	6.81	7	**6.62**	-1.88	1.54	6.49						Yes	Yes
n20 MIMO	2412	1	MCS8	5.5	**8.0**	94.7	1.06	6	**7.05**	-0.95	1.24	6.81		**7.21**	-0.79	1.20	6.97	8.5	**11.0**	**10.14**	-0.86	9.90	No	-
	2427	4	MCS8	12.5	**15.0**	94.7	1.06	14	**14.13**	-0.87	1.22	13.89		**13.99**	-1.01	1.26	13.75	15.5	**18.0**	**17.07**	-0.93	16.83	Yes	-
	2437	6	MCS8	12.5	**15.0**	94.7	1.06	14	**14.00**	-1.00	1.26	13.76		**13.58**	-1.42	1.39	13.34	15.5	**18.0**	**16.81**	-1.19	16.57	Yes	-
	2447	8	MCS8	12.5	**15.0**	94.7	1.06	14	**14.03**	-0.97	1.25	13.79		**13.41**	-1.59	1.44	13.17	15.5	**18.0**	**16.74**	-1.26	16.50	Yes	-
	2462	11	MCS8	6.0	**8.5**	94.7	1.06	7	**7.66**	-0.84	1.21	7.42		**6.83**	-1.67	1.47	6.59	9.0	**11.5**	**10.27**	-1.23	10.03	Yes	-
a	5180	36	6	7.5	**10.0**	98.4	1.02	8	**9.06**	-0.94	1.24	8.99	9	**9.30**	-0.70	1.17	9.23						No	Yes
	5200	40	6	7.5	**10.0**	98.4	1.02	8	**8.55**	-1.45	1.40	8.48	9	**8.49**	-1.51	1.42	8.42						No	Yes
	5220	44	6	7.5	**10.0**	98.4	1.02	8	**8.60**	-1.40	1.38	8.53	9	**8.41**	-1.59	1.44	8.34						No	Yes
	5240	48	6	7.5	**10.0**	98.4	1.02	8	**8.22**	-1.78	1.51	8.15	9	**8.10**	-1.90	1.55	8.03						No	Yes
	5260	52	6	7.5	**10.0**	98.4	1.02	9	**9.32**	-0.68	1.17	9.25	9	**8.09**	-1.91	1.55	8.02						Yes	Yes
	5280	56	6	7.5	**10.0**	98.4	1.02	9	**8.86**	-1.14	1.30	8.79	9	**8.04**	-1.96	1.57	7.97						Yes	Yes
	5300	60	6	7.5	**10.0**	98.4	1.02	9	**8.82**	-1.18	1.31	8.75	9	**8.03**	-1.97	1.57	7.96						Yes	Yes
	5320	64	6	7.5	**10.0**	98.4	1.02	9	**9.06**	-0.94	1.24	8.99	9	**8.06**	-1.94	1.56	7.99						Yes	Yes
	5500	100	6	7.5	**10.0**	98.4	1.02	8	**8.97**	-1.03	1.27	8.90	9	**9.27**	-0.73	1.18	9.20						No	Yes
	5580	116	6	7.5	**10.0**	98.4	1.02	8	**9.34**	-0.66	1.16	9.27	9	**8.87**	-1.13	1.30	8.80						No	Yes
	5700	140	6	7.5	**10.0**	98.4	1.02	8	**8.98**	-1.02	1.26	8.91	9	**9.00**	-1.00	1.26	8.93						No	Yes
	5745	149	6	7.5	**10.0**	98.4	1.02	8	**9.11**	-0.89	1.23	9.04	9	**8.50**	-1.50	1.41	8.43						No	Yes
	5785	157	6	7.5	**10.0**	98.4	1.02	8	**8.81**	-1.19	1.32	8.74	9	**8.35**	-1.65	1.46	8.28						No	Yes
	5825	165	6	7.5	**10.0**	98.4	1.02	8	**8.34**	-1.66	1.47	8.27	9	**9.12**	-0.88	1.22	9.05						No	Yes
n20 SISO	5180	36	MCS0	7.5	**10.0**	98.3	1.02	8	**9.58**	-0.42	1.10	9.51	9	**9.39**	-0.61	1.15	9.32						No	Yes
	5200	40	MCS0	7.5	**10.0**	98.3	1.02	8	**9.20**	-0.80	1.20	9.13	9	**8.23**	-1.77	1.50	8.16						No	Yes
	5220	44	MCS0	7.5	**10.0**	98.3	1.02	8	**9.11**	-0.89	1.23	9.04	10	**9.27**	-0.73	1.18	9.20						No	Yes
	5240	48	MCS0	7.5	**10.0**	98.3	1.02	8	**9.04**	-0.96	1.25	8.97	10	**9.48**	-0.52	1.13	9.41						No	Yes
	5260	52	MCS0	7.5	**10.0**	98.3	1.02	9	**9.48**	-0.52	1.13	9.41	10	**8.49**	-1.51	1.42	8.42						Yes	Yes
	5280	56	MCS0	7.5	**10.0**	98.3	1.02	9	**8.83**	-1.17	1.31	8.76	10	**8.51**	-1.49	1.41	8.44						Yes	Yes
	5300	60	MCS0	7.5	**10.0**	98.3	1.02	9	**8.48**	-1.52	1.42	8.41	10	**8.24**	-1.76	1.50	8.17						Yes	Yes
	5320	64	MCS0	7.5	**10.0**	98.3	1.02	9	**8.96**	-1.04	1.27	8.89	10	**8.57**	-1.43	1.39	8.50						Yes	Yes
	5500	100	MCS0	7.5	**10.0**	98.3	1.02	8	**8.84**	-1.16	1.31	8.77	9	**8.88**	-1.12	1.29	8.81						No	Yes
	5580	116	MCS0	7.5	**10.0**	98.3	1.02	8	**8.72**	-1.28	1.34	8.65	9	**8.70**	-1.30	1.35	8.63						No	Yes
	5700	140	MCS0	7.5	**10.0**	98.3	1.02	8	**8.59**	-1.41	1.38	8.52	9	**8.78**	-1.22	1.32	8.71						No	Yes
	5745	149	MCS0	7.5	**10.0**	98.3	1.02	8	**9.09**	-0.91	1.23	9.02	9	**8.43**	-1.57	1.44	8.36						No	Yes
	5785	157	MCS0	7.5	**10.0**	98.3	1.02	8	**8.47**	-1.53	1.42	8.40	9	**8.58**	-1.42	1.39	8.51						No	Yes
	5825	165	MCS0	7.5	**10.0**	98.3	1.02	8	**8.58**	-1.42	1.39	8.51	9	**8.49**	-1.51	1.42	8.42						No	Yes
n40 SISO	5190	38	MCS0	7.0	**9.5**	96.7	1.03	8	**9.44**	-0.06	1.01	9.29	9	**8.27**	-1.23	1.33	8.12						Yes	Yes
	5230	46	MCS0	7.5	**10.0**	96.7	1.03	8	**8.92**	-1.08	1.28	8.77	10	**8.86**	-1.14	1.30	8.71						No	Yes
	5270	54	MCS0	7.5	**10.0**	96.7	1.03	9	**9.57**	-0.43	1.10	9.42	10	**8.92**	-1.08	1.28	8.77						Yes	Yes
	5310	62	MCS0	7.5	**10.0**	96.7	1.03	9	**8.00**	-2.00	1.58	7.85	10	**8.34**	-1.66	1.47	8.19						Yes	Yes
	5510	102	MCS0	7.5	**10.0**	96.7	1.03	8	**8.62**	-1.38	1.37	8.47	9	**8.75**	-1.25	1.33	8.60						No	Yes
	5550	110	MCS0	7.5	**10.0**	96.7	1.03	8	**8.84**	-1.16	1.31	8.69	9	**9.16**	-0.84	1.21	9.01						No	Yes
	5670	134	MCS0	7.5	**10.0**	96.7	1.03	8	**8.97**	-1.03	1.27	8.82	9	**9.23**	-0.77	1.19	9.08						No	Yes
	5755	151	MCS0	7.5	**10.0**	96.7	1.03	8	**9.23**	-0.77	1.19	9.08	9	**8.72**	-1.28	1.34	8.57						No	Yes
	5795	159	MCS0	7.5	**10.0**	96.7	1.03	8	**8.89**	-1.11	1.29	8.74	9	**8.90**	-1.10	1.29	8.75						No	Yes

*. ☐: SAR test was applied.

*. CH: Channel; Power spec.: Power specification; Max.: Maximum; Set pwr.: Setting power by tested software; Burst Ave.: Measured burst average power; Time Ave.: Measured time-based average power; SUM Ave.: Sum of antenna 1 power and antenna 2 power; n/a: Not applied,/Not applicable; (mode) b: IEEE 802.11b, g: IEEE 802.11g, n20: IEEE 802.11n(20HT), n40: IEEE 802.11n(40HT).

*1. "Yes": The power setting was adjusted so that measured average power was not more than 2 dB lower than the maximum tune-up tolerance limit.

(cont'd)

Mode	Frequency		Data rate	Power spec. on each antenna		Duty cycle		Antenna power: Main (#1) (Chain 0)					Antenna power: Sub (#2) (Chain 1)					MIMO power (Ant.#1+Ant#2)					Adjusted power setting? (*1)	
				Typical	Max.	duty cycle	scaled factor	Set pwr.	Burst Ave.	Δ Max.	Tune-up factor	Time Ave.	Set pwr.	Burst Ave.	Δ Max.	Tune-up factor	Time Ave.	MIMO target	MIMO max.	SUM Burst Ave.	Δ Max.	SUM Time Ave.		
	[MHz]	CH	[Mbps]	[dBm]	[dBm]	[%]	[-]	[-]	[dBm]	[dB]	[-]	[dBm]	[-]	[dBm]	[dB]	[-]	[dBm]	[dBm]	[dBm]	[dBm]	[dB]	[dBm]	Ant#1	Ant#2
n20 MIMO	5180	36	MCS8	7.5	**10.0**	96.8	1.03	8	**9.51**	-0.49	1.12	9.37		**8.32**	-1.68	1.47	8.18	10.5	**13.0**	**11.96**	-1.04	11.82	No	-
	5200	40	MCS8	7.5	**10.0**	96.8	1.03	9	**9.92**	-0.08	1.02	9.78		**8.18**	-1.82	1.52	8.04	10.5	**13.0**	**12.15**	-0.85	12.01	Yes	-
	5220	44	MCS8	7.5	**10.0**	96.8	1.03	9	**9.67**	-0.33	1.08	9.53		**8.37**	-1.63	1.46	8.23	10.5	**13.0**	**12.08**	-0.92	11.94	Yes	-
	5240	48	MCS8	7.5	**10.0**	96.8	1.03	9	**9.61**	-0.39	1.09	9.47		**8.22**	-1.78	1.51	8.08	10.5	**13.0**	**11.98**	-1.02	11.84	Yes	-
	5260	52	MCS8	7.5	**10.0**	96.8	1.03	9	**9.33**	-0.67	1.17	9.19		**8.16**	-1.84	1.53	8.02	10.5	**13.0**	**11.80**	-1.20	11.66	Yes	-
	5280	56	MCS8	7.5	**10.0**	96.8	1.03	9	**8.49**	-1.51	1.42	8.35		**8.16**	-1.84	1.53	8.02	10.5	**13.0**	**11.34**	-1.66	11.20	Yes	-
	5300	60	MCS8	7.5	**10.0**	96.8	1.03	9	**8.40**	-1.60	1.45	8.26		**8.07**	-1.93	1.56	7.93	10.5	**13.0**	**11.25**	-1.75	11.11	Yes	-
	5320	64	MCS8	7.5	**10.0**	96.8	1.03	9	**8.42**	-1.58	1.44	8.28		**8.95**	-1.05	1.27	8.81	10.5	**13.0**	**11.70**	-1.30	11.56	Yes	-
	5500	100	MCS8	7.5	**10.0**	96.8	1.03	9	**9.51**	-0.49	1.12	9.37		**9.21**	-0.79	1.20	9.07	10.5	**13.0**	**12.37**	-0.63	12.23	Yes	-
	5580	116	MCS8	7.5	**10.0**	96.8	1.03	9	**9.43**	-0.57	1.14	9.29		**8.80**	-1.20	1.32	8.66	10.5	**13.0**	**12.14**	-0.86	12.00	Yes	-
	5700	140	MCS8	7.5	**10.0**	96.8	1.03	9	**9.25**	-0.75	1.19	9.11		**9.17**	-0.83	1.21	9.03	10.5	**13.0**	**12.22**	-0.78	12.08	Yes	-
	5745	149	MCS8	7.5	**10.0**	96.8	1.03	9	**9.33**	-0.67	1.17	9.19		**9.08**	-0.92	1.24	8.94	10.5	**13.0**	**12.22**	-0.78	12.08	Yes	-
	5785	157	MCS8	7.5	**10.0**	96.8	1.03	9	**9.08**	-0.92	1.24	8.94		**8.94**	-1.06	1.28	8.80	10.5	**13.0**	**12.02**	-0.98	11.88	Yes	-
	5825	165	MCS8	7.5	**10.0**	96.8	1.03	9	**9.26**	-0.74	1.19	9.12		**9.43**	-0.57	1.14	9.29	10.5	**13.0**	**12.36**	-0.64	12.22	Yes	-
n40 MIMO	5190	38	MCS8	7.0	**9.5**	94.1	1.06	8	**9.36**	-0.14	1.03	9.10		**8.33**	-1.17	1.31	8.07	10.0	**12.5**	**11.89**	-0.61	11.63	Yes	-
	5230	46	MCS8	7.5	**10.0**	94.1	1.06	8	**9.05**	-0.95	1.24	8.79		**7.18**	-2.82	1.91	6.92	10.5	**13.0**	**11.23**	-1.77	10.97	No	-
	5270	54	MCS8	7.5	**10.0**	94.1	1.06	9	**9.57**	-0.43	1.10	9.31		**7.89**	-2.11	1.63	7.63	10.5	**13.0**	**11.82**	-1.18	11.56	Yes	-
	5310	62	MCS8	7.5	**10.0**	94.1	1.06	9	**8.39**	-1.61	1.45	8.13		**8.77**	-1.23	1.33	8.51	10.5	**13.0**	**11.59**	-1.41	11.33	Yes	-
	5510	102	MCS8	7.5	**10.0**	94.1	1.06	8	**8.84**	-1.16	1.31	8.58		**8.85**	-1.15	1.30	8.59	10.5	**13.0**	**11.86**	-1.14	11.60	No	-
	5550	110	MCS8	7.5	**10.0**	94.1	1.06	8	**8.88**	-1.12	1.29	8.62		**8.65**	-1.35	1.36	8.39	10.5	**13.0**	**11.78**	-1.22	11.52	No	-
	5670	134	MCS8	7.5	**10.0**	94.1	1.06	8	**8.62**	-1.38	1.37	8.36		**8.51**	-1.49	1.41	8.25	10.5	**13.0**	**11.58**	-1.42	11.32	No	-
	5755	151	MCS8	7.5	**10.0**	94.1	1.06	8	**8.72**	-1.28	1.34	8.46		**8.21**	-1.79	1.51	7.95	10.5	**13.0**	**11.48**	-1.52	11.22	No	-
	5795	159	MCS8	7.5	**10.0**	94.1	1.06	8	**8.55**	-1.45	1.40	8.29		**8.38**	-1.62	1.45	8.12	10.5	**13.0**	**11.48**	-1.52	11.22	No	-

*. ☐: SAR test was applied.

*. CH: Channel; Power spec.: Power specification; Max.: Maximum; Set pwr.: Setting power by tested software; Burst Ave.: Measured burst average power; Time Ave.: Measured time-based average power; SUM Ave.: Sum of antenna 1 power and antenna 2 power; n/a: Not applied,/Not applicable; (mode) b: IEEE 802.11b, g: IEEE 802.11g, n20: IEEE 802.11n(20HT), n40: IEEE 802.11n(40HT).

*1. "Yes": The power setting was adjusted so that measured average power was not more than 2 dB lower than the maximum tune-up tolerance limit.

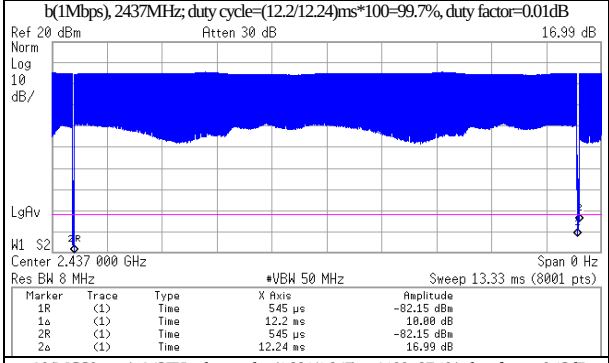
*. Calculating formula:
Burst power (dBm) = (P/M Reading, dBm)+(Cable loss, dB)+(Attenuator, dB)+(duty factor, dB), where Duty factor (dBm) = 10 × log (100/(duty cycle, %))
Time-average power (dBm) = (P/M Reading, dBm)+(Cable loss, dB)+(Attenuator, dB)
Duty cycle: (duty cycle, %) = (Tx on time, ms) / (1 cycle time, ms) × 100,
Duty cycle scaled factor: Duty cycle correction factor for obtained final reported SAR value, Duty scaled factor [-] = 100(%) / (duty cycle, %)
ΔMax. (Deviation form maximum power, dB) = (Burst power measured (average, dBm)) - (Max.tune-up limit power (average, dBm))
Tune-up factor: Power tune-up factor for obtained final reported SAR value, Tune-up factor [-] = 1 / (10 ^ ("Deviation from max., dB" / 10))

*. Date measured: September 27, 2020 / Measured by: H. Naka / Place: preparation room of No. 7 shielded room. (25 deg.C. / 50 ±10 %RH)

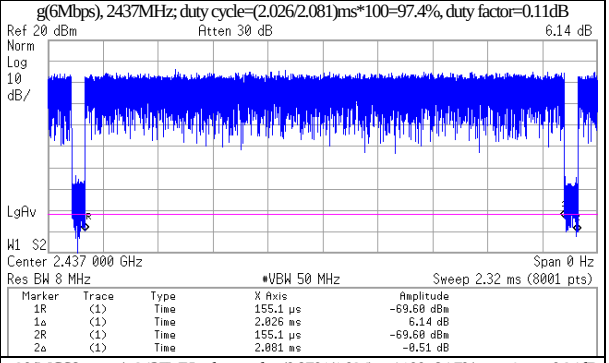
*. Uncertainty of antenna port conducted test; (±) 1.3 dB (Average power), (±) 0.27 % (duty cycle).

*. Duty cycle conformation.

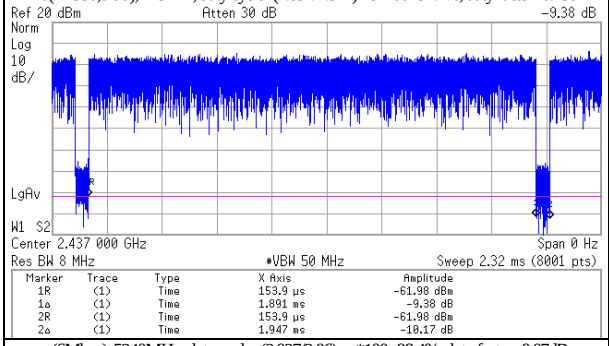
b(1Mbps), 2437MHz; duty cycle=(12.2/12.24)ms*100=99.7%, duty factor=0.01dB



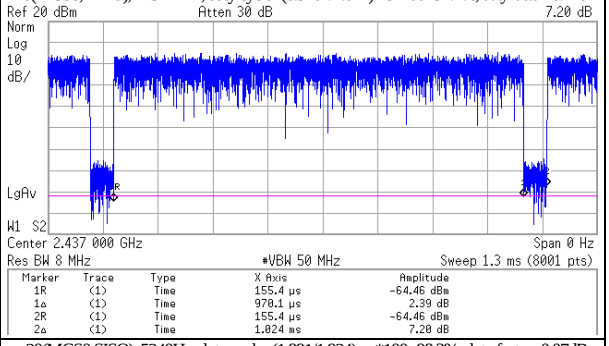
g(6Mbps), 2437MHz; duty cycle=(2.026/2.081)ms*100=97.4%, duty factor=0.11dB



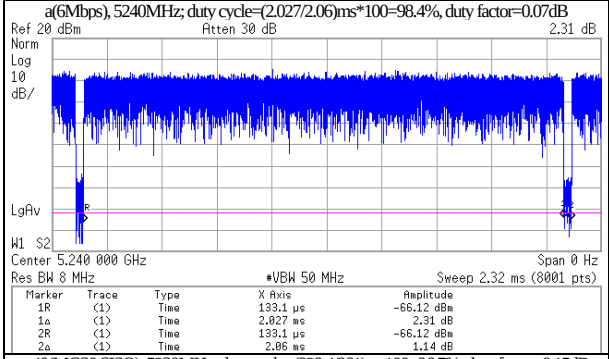
n20(MCS0,SISO), 2437Hz; duty cycle=(1.891/1.947)ms*100=97.1%, duty factor=0.13dB



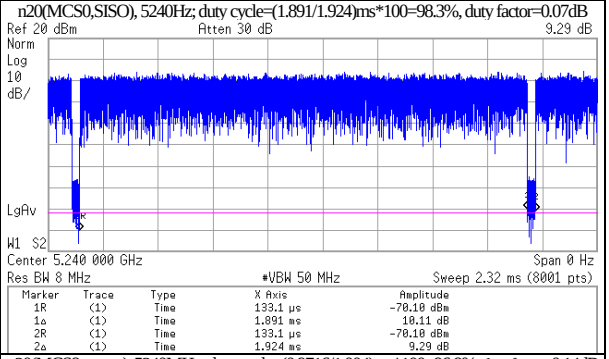
n20(MCS8,MIMO), 2437MHz; duty cycle=(0.9701/1.024)ms*100=94.7%, duty factor=0.24dB



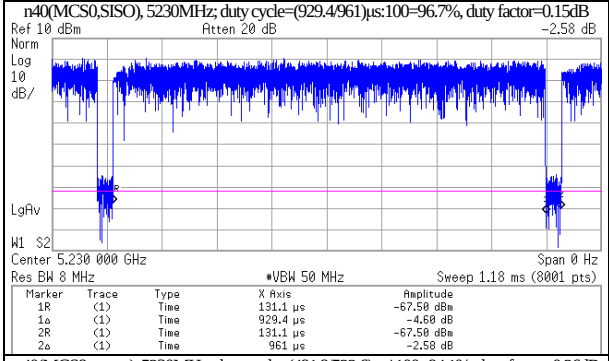
a(6Mbps), 5240MHz; duty cycle=(2.027/2.06)ms*100=98.4%, duty factor=0.07dB



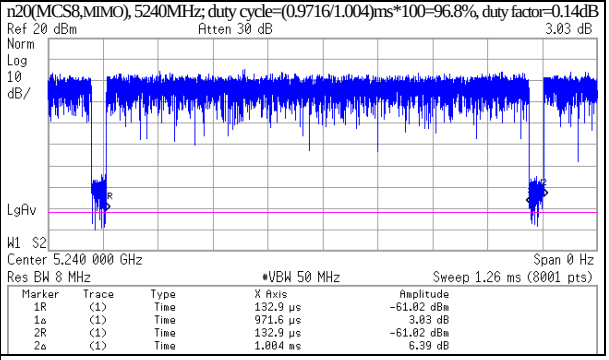
n20(MCS0,SISO), 5240Hz; duty cycle=(1.891/1.924)ms*100=98.3%, duty factor=0.07dB



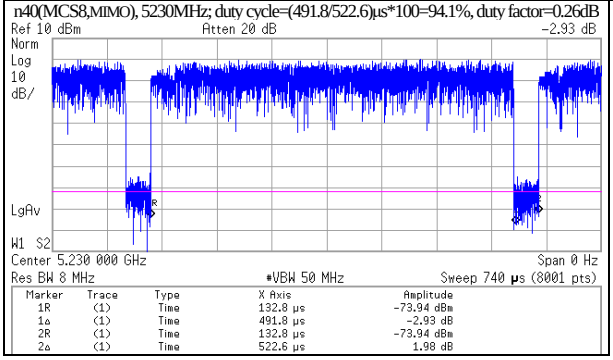
n40(MCS0,SISO), 5230MHz; duty cycle=(929.4/961)µs:100=96.7%, duty factor=0.15dB



n20(MCS8,MIMO), 5240MHz; duty cycle=(0.9716/1.004)ms*100=96.8%, duty factor=0.14dB



n40(MCS8,MIMO), 5230MHz; duty cycle=(491.8/522.6)µs*100=94.1%, duty factor=0.26dB



SECTION 6: SAR Measurement results

6.1 Tissue simulating liquid measurement

6.1.1 Target of tissue simulating liquid

Nominal dielectric values of the tissue simulating liquids in the phantom are listed in the following table. (Appendix A, KDB 865664 v01r04)

Target Frequency	Head		Body	
(MHz)	ε_r	σ(S/m)	ε_r	σ(S/m)
1800~2000	40.0	1.40	53.3	1.52
2450	39.2	1.80	52.7	1.95

Target Frequency	Head		Body	
(MHz)	ε_r	σ(S/m)	ε_r	σ(S/m)
3000	38.5	2.40	52.0	2.73
5800	35.3	5.27	48.2	6.00

NOTE The italicized values were linearly interpolated between the non-italicized values that are immediately above and below these values, except the values at 6000 MHz which were linearly extrapolated from the values at 3000 MHz and 5800 MHz Above 5800MHz were obtained using linear extrapolation.

6.1.2 Liquid measurement (Liquid verification)

Frequency [MHz]	Liquid type	Liquid parameters (*a)														ΔSAR Coefficients(*b)			Date measured
		Liquid Temp. [deg.C.]	Liquid depth of phantom [mm]	Permittivity (εr) [-]						Conductivity [S/m]						ΔSAR		Correction required?	
				Target value	Measured Value	Measured Δεr [%]	Measured Interpolated	Measured Limit [%]	Δend, >48hrs [%] (*1)	Target value	Measured Value	Measured Δσ [%]	Measured Interpolated	Measured Limit [%]	Δend, >48hrs [%] (*1)	(1g) [%]	(10g) [%]		
5500	Head	22.5	150	***35.64***	34.91	-2.1	☐	10	begin	***4.963***	4.781	-3.7	☐	10	begin	0.6	0.7	not required.	October 19, 2021
5510				***35.63***	34.88	-2.1	☐	10	begin	***4.973***	4.792	-3.6	☐	10	begin	0.6	0.7	not required.	
5550				***35.59***	34.79	-2.2	☐	10	begin	***5.014***	4.843	-3.4	☐	10	begin	0.6	0.7	not required.	
5580				***35.55***	34.79	-2.1	☐	10	begin	***5.045***	4.883	-3.2	☐	10	begin	0.6	0.7	not required.	
5670				***35.45***	34.62	-2.3	☐	10	begin	***5.137***	4.988	-2.9	☐	10	begin	0.6	0.7	not required.	
5700				***35.41***	34.58	-2.4	☐	10	begin	***5.168***	5.014	-3.0	☐	10	begin	0.6	0.7	not required.	
5745				***35.36***	34.51	-2.4	☑	10	begin	***5.214***	5.059	-3.0	☑	10	begin	0.6	0.7	not required.	
5755				***35.35***	34.49	-2.4	☑	10	begin	***5.224***	5.074	-2.9	☑	10	begin	0.6	0.7	not required.	
5785				***35.32***	34.42	-2.6	☑	10	begin	***5.255***	5.113	-2.7	☑	10	begin	0.6	0.7	not required.	
5795				***35.31***	34.43	-2.5	☑	10	begin	***5.265***	5.125	-2.7	☑	10	begin	0.6	0.7	not required.	
5825				***35.27***	34.40	-2.5	☑	10	begin	***5.296***	5.160	-2.6	☑	10	begin	0.6	0.7	not required.	
2412	Head	22.5	150	***39.27***	39.91	1.6	☑	10	begin	***1.766***	1.821	3.1	☑	10	begin	1.2	0.6	not required.	October 22, 2021
2437				***39.22***	39.85	1.6	☑	10	begin	***1.788***	1.840	2.5	☑	10	begin	0.9	0.4	not required.	
2462				***39.18***	39.81	1.6	☑	10	begin	***1.813***	1.858	2.5	☑	10	begin	0.8	0.4	not required.	
5180				***36.01***	35.42	-1.7	☐	10	begin	***4.635***	4.440	-4.2	☐	10	begin	0.4	0.6	not required.	
5220				***35.96***	35.39	-1.6	☐	10	begin	***4.676***	4.484	-4.1	☐	10	begin	0.4	0.6	not required.	
5240				***35.94***	35.34	-1.7	☐	10	begin	***4.696***	4.507	-4.0	☐	10	begin	0.4	0.6	not required.	
5260				***35.92***	35.32	-1.7	☐	10	begin	***4.717***	4.527	-4.0	☐	10	begin	0.5	0.6	not required.	
5270				***35.91***	35.29	-1.7	☐	10	begin	***4.727***	4.540	-4.0	☐	10	begin	0.5	0.6	not required.	
5300				***35.87***	35.23	-1.8	☐	10	begin	***4.758***	4.575	-3.8	☐	10	begin	0.5	0.7	not required.	
5310				***35.86***	35.22	-1.8	☐	10	begin	***4.768***	4.583	-3.9	☐	10	begin	0.5	0.7	not required.	
5320				***35.85***	35.20	-1.8	☐	10	begin	***4.778***	4.588	-4.0	☐	10	begin	0.5	0.7	not required.	
2412	Head	22.5	150	***39.27***	40.17	2.3	☑	10	begin	***1.766***	1.828	3.5	☑	10	begin	1.2	0.6	not required.	October 26, 2021
2462				***39.18***	40.07	2.3	☑	10	begin	***1.813***	1.866	2.9	☑	10	begin	0.9	0.4	not required.	
5270				***35.91***	35.50	-1.1	☐	10	begin	***4.727***	4.573	-3.3	☐	10	begin	0.3	0.5	not required.	
5670	Head	22.5	150	***35.45***	34.84	-1.7	☐	10	begin	***5.137***	5.023	-2.2	☐	10	begin	0.4	0.5	not required.	October 27, 2021
5755				***35.35***	34.70	-1.8	☑	10	begin	***5.224***	5.111	-2.2	☑	10	begin	0.5	0.5	not required.	
5795				***35.31***	34.63	-1.9	☑	10	begin	***5.265***	5.165	-1.9	☑	10	begin	0.5	0.6	not required.	

*1. "begin": SAR test has ended within 24 hours from the liquid parameter measurement, "< 48 hrs.": Since SAR test has ended within 48 hours (2 days) from the liquid parameter measurement and a change in the liquid temperature was within 1 degree, liquid parameters measured on first day were used on next day continuously, "value (%)": Since the SAR test series took longer than 48 hours, the liquid parameters were measured on every 48 hours period and on the date which was end of test series. Since the difference of liquid parameters between the beginning and next measurement was smaller than 5%, the liquid parameters measured in beginning were used until end of each test series.
Calculating formula: "Δend(>48 hrs.) (%)"" = {(dielectric properties, end of test series) / (dielectric properties, beginning of test series) -1} × 100

*a. The target values of (2000, 2450, 3000, 5800) MHz are parameters defined in Appendix A of KDB 865664 D01. For other frequencies, the target nominal dielectric values shall be obtained by linear interpolation between the higher and lower tabulated figures. Above 5800MHz were obtained using linear extrapolation.

*b. The coefficients in below are parameters defined in IEEE Std.1528-2013.

Calculating formula: $\Delta SAR(1g) = C\varepsilon r \times \Delta\varepsilon r + C\sigma \times \Delta\sigma$, $C\varepsilon r = -7.854E\text{-}4 \times f^3 + 9.402E\text{-}3 \times f^2 - 2.742E\text{-}2 \times f - 0.2026$ / $C\sigma = 9.804E\text{-}3 \times f^3 - 8.661E\text{-}2 \times f^2 + 2.981E\text{-}2 \times f + 0.7829$

Calculating formula: $\Delta SAR(10g) = C\varepsilon r \times \Delta\varepsilon r + C\sigma \times \Delta\sigma$, $C\varepsilon r = 3.456 \times 10^{-3} \times f^3 - 3.531 \times 10^{-2} \times f^2 + 7.675 \times 10^{-2} \times f - 0.1860$ / $C\sigma = 4.479 \times 10^{-3} \times f^3 - 1.586 \times 10^{-2} \times f^2 - 0.1972 \times f + 0.7717$

Since the calculated ΔSAR values of the tested liquid had shown positive correction, the measured SAR was not converted by ΔSAR correction.

Calculating formula: ΔSAR corrected SAR (W/kg) = (Measured SAR (W/kg)) × (100 - (ΔSAR(%)) / 100

*. Calibration frequency of the SAR measurement probe (and used conversion factors for each frequency.)
The uncertainty is the RSS of the ConvF uncertainty at calibration frequency and the uncertainty for the indicated frequency band.

Liquid	SAR test frequency	Probe calibration frequency	Validity	Conversion factor	Uncertainty
Head	(2412, 2437, 2462) MHz	2450 MHz	within ± 50MHz of calibration frequency	7.35	± 12.0 %
Head	(5180, 5220, 5240, 5260, 5270, 5300, 5310, 5320) MHz	5250 MHz	within ± 110 MHz of calibration frequency	5.14	± 13.1 %
Head	(5500, 5510, 5550, 5580, 5670, 5700) MHz	5600 MHz	within ± 110 MHz of calibration frequency	4.56	± 13.1 %
Head	(5745, 5755, 5785, 5795, 5825) MHz	5800 MHz	within ± 110 MHz of calibration frequency	4.60	± 13.1 %

6.2 SAR results

Test setup					Mode and Frequency (*2)			Duty cycle		Power correction			SAR results [W/kg] (Max.value of multi-peak)				SAR type	SAR Limit [W/kg]	SAR plot # in Appx. 2-2	Setup photo # in Appx. 1-3	Remarks
ANT #	Test position		Gap [mm]	Source power	Mode (D/R)	[MHz]	CH	Duty [%]	Duty scaled factor	Max. tune-up limit [dBm]	Measured conducted [dBm]	Power scaled factor	Measured	ΔSAR [%]	ΔSAR corrected	Scaled (*b)					
	Setup	Antenna distance [mm			Mark with "*" is the initial mode & frequency.																
1) 2.4GHz Band (*1)																					
1	Left	1..8	0	DC supply	b (1Mbps)*	2462*	11	99.7	1.00	15	13.75	1.33	0.320	Positive	n/a (*a)	**0.426**	1g	1.6	1a-2	P1	-
1	Left	1..8	0	DC supply	b (1Mbps)*	2412	1	99.7	1.00	15	13.60	1.38	0.513	Positive	n/a (*a)	**0.708**	1g	1.6	1a-1	P1	-
1	Left	1..8	0	DC supply	b (1Mbps)*	2437	6	99.7	1.00	15	13.41	1.44	0.383	Positive	n/a (*a)	**0.552**	1g	1.6	1a-3	P1	-
1	Left	1..8	0	DC supply	g (6Mbps)	2437	6	97.4	1.03	15	13.89	1.29	0.443	Positive	n/a (*a)	**0.589**	1g	1.6	1a-4	P1	-
1	Rear	2.4	0	DC supply	b (1Mbps)*	2462*	11	99.7	1.00	15	13.75	1.33	0.050	Positive	n/a (*a)	**0.067**	1g	1.6	1a-5	P2	-
1	Front	3.7	0	DC supply	b (1Mbps)*	2462*	11	99.7	1.00	15	13.75	1.33	0.068	Positive	n/a (*a)	**0.090**	1g	1.6	1a-6	P3	-
1	Top	27.5	0	DC supply	b (1Mbps)*	2462*	11	99.7	1.00	15	13.75	1.33	0.0048	Positive	n/a (*a)	**0.006**	1g	1.6	1a-7	P4	-
1	Right	382	0	DC supply	b (1Mbps)*	2462*	11	99.7	1.00	15	13.75	1.33	n/a	Positive	n/a (*a)	**n/a**	1g	1.6	-	-	SAR test: Exempt
1	Bottom	390.5	0	DC supply	b (1Mbps)*	2462*	11	99.7	1.00	15	13.75	1.33	n/a	Positive	n/a (*a)	**n/a**	1g	1.6	-	-	SAR test: Exempt
2	Bottom	1.8	0	DC supply	b (1Mbps)*	2412*	1	99.7	1.00	15	14.09	1.23	0.483	Positive	n/a (*a)	**0.594**	1g	1.6	1b-1	P5	-
2	Bottom	1.8	0	DC supply	b (1Mbps)*	2462	11	99.7	1.00	15	13.02	1.58	0.254	Positive	n/a (*a)	**0.401**	1g	1.6	1b-2	P5	-
2	Bottom	1.8	0	DC supply	b (1Mbps)*	2437	6	99.7	1.00	15	13.01	1.58	0.322	Positive	n/a (*a)	**0.509**	1g	1.6	1b-3	P5	-
2	Bottom	1.8	0	DC supply	g (6Mbps)	2437	6	97.4	1.03	15	13.61	1.38	0.367	Positive	n/a (*a)	**0.522**	1g	1.6	1b-4	P5	-
2	Rear	2.4	0	DC supply	b (1Mbps)*	2412*	1	99.7	1.00	15	14.09	1.23	0.060	Positive	n/a (*a)	**0.074**	1g	1.6	1b-5	P6	-
2	Front	3.7	0	DC supply	b (1Mbps)*	2412*	1	99.7	1.00	15	14.09	1.23	0.127	Positive	n/a (*a)	**0.156**	1g	1.6	1b-6	P7	-
2	Right	32	0	DC supply	b (1Mbps)*	2412*	1	99.7	1.00	15	14.09	1.23	0.013	Positive	n/a (*a)	**0.016**	1g	1.6	1b-7	P8	-
2	Left	310	0	DC supply	b (1Mbps)*	2412*	1	99.7	1.00	15	14.09	1.23	n/a	Positive	n/a (*a)	**n/a**	1g	1.6	-	-	SAR test: Exempt
2	Top	458	0	DC supply	b (1Mbps)*	2412*	1	99.7	1.00	15	14.09	1.23	n/a	Positive	n/a (*a)	**n/a**	1g	1.6	-	-	SAR test: Exempt
2) U-NII-2A (5.3GHz) (and U-NII-1 (5.2GHz)) Band																					
1	Left	1..8	0	DC supply	n40(MCS0)*	5270*	54	96.7	1.03	10	9.57	1.10	0.648	Positive	n/a (*a)	**0.734**	1g	1.6	2a-2	P1	-
1	Left	1..8	0	DC supply	n40(MCS0)*	5310	62	96.7	1.03	10	8.00	1.58	0.482	Positive	n/a (*a)	**0.784**	1g	1.6	2a-3	P1	-
1	Left	1..8	0	DC supply	a (6Mbps)	5260	52	98.4	1.02	10	9.32	1.17	0.649	Positive	n/a (*a)	**0.775**	1g	1.6	2a-4	P1	-
1	Left	1..8	0	DC supply	a (6Mbps)	5320	64	98.4	1.02	10	9.06	1.24	0.627	Positive	n/a (*a)	**0.793**	1g	1.6	2a-1	P1	-
1	Left	1..8	0	DC supply	a (6Mbps)	5300	60	98.4	1.02	10	8.82	1.31	0.542	Positive	n/a (*a)	**0.724**	1g	1.6	2a-5	P1	
1	Rear	2.4	0	DC supply	n40(MCS0)*	5270*	54	96.7	1.03	10	9.57	1.10	0.115	Positive	n/a (*a)	**0.130**	1g	1.6	2a-6	P2	-
1	Front	3.7	0	DC supply	n40(MCS0)*	5270*	54	96.7	1.03	10	9.57	1.10	0.106	Positive	n/a (*a)	**0.120**	1g	1.6	2a-7	P3	-
1	Top	27.5	0	DC supply	n40(MCS0)*	5270*	54	96.7	1.03	10	9.57	1.10	0.019	Positive	n/a (*a)	**0.022**	1g	1.6	2a-8	P4	-
1	Right	382	0	DC supply	n40(MCS0)*	5270*	54	96.7	1.03	10	9.57	1.10	n/a	Positive	n/a (*a)	**n/a**	1g	1.6	-	-	SAR test: Exempt
1	Bottom	390.5	0	DC supply	n40(MCS0)*	5270*	54	96.7	1.03	10	9.57	1.10	n/a	Positive	n/a (*a)	**n/a**	1g	1.6	-	-	SAR test: Exempt
2	Bottom	1.8	0	DC supply	n40(MCS0)*	5270*	54	96.7	1.03	10	8.92	1.28	0.331	Positive	n/a (*a)	**0.436**	1g	1.6	2b-2	P5	-
2	Bottom	1.8	0	DC supply	n40(MCS0)*	5310	62	96.7	1.03	10	8.34	1.47	0.308	Positive	n/a (*a)	**0.466**	1g	1.6	2b-3	P5	-
2	Bottom	1.8	0	DC supply	a (6Mbps)	5260	52	98.4	1.02	10	8.09	1.55	0.308	Positive	n/a (*a)	**0.487**	1g	1.6	2b-1	P5	-
2	Bottom	1.8	0	DC supply	a (6Mbps)	5320	64	98.4	1.02	10	8.06	1.56	0.258	Positive	n/a (*a)	**0.411**	1g	1.6	2b-4	P5	-
2	Bottom	1.8	0	DC supply	a (6Mbps)	5300	60	98.4	1.02	10	8.03	1.57	0.240	Positive	n/a (*a)	**0.384**	1g	1.6	2b-5	P5	
2	Rear	2.4	0	DC supply	n40(MCS0)*	5270*	54	96.7	1.03	10	8.92	1.28	0.085	Positive	n/a (*a)	**0.112**	1g	1.6	2b-6	P6	-
2	Front	3.7	0	DC supply	n40(MCS0)*	5270*	54	96.7	1.03	10	8.92	1.28	0.057	Positive	n/a (*a)	**0.075**	1g	1.6	2b-7	P7	-
2	Right	32	0	DC supply	n40(MCS0)*	5270*	54	96.7	1.03	10	8.92	1.28	0.00962	Positive	n/a (*a)	**0.013**	1g	1.6	2b-8	P8	-
2	Left	310	0	DC supply	n40(MCS0)*	5270*	54	96.7	1.03	10	8.92	1.28	n/a	Positive	n/a (*a)	**n/a**	1g	1.6	-	-	SAR test: Exempt
2	Top	458	0	DC supply	n40(MCS0)*	5270*	54	96.7	1.03	10	8.92	1.28	n/a	Positive	n/a (*a)	**n/a**	1g	1.6	-	-	SAR test: Exempt
1	Left	1..8	0	DC supply	a (6Mbps)*	5180*	36	98.4	1.02	10	9.06	1.24	0.726	Positive	n/a (*a)	**0.918**	1g	1.6	2c-1	P1	-
1	Left	1..8	0	DC supply	a (6Mbps)*	5220	44	98.4	1.02	10	8.60	1.38	0.637	Positive	n/a (*a)	**0.897**	1g	1.6	2c-2	P1	-
1	Left	1..8	0	DC supply	a (6Mbps)*	5240	48	98.4	1.02	10	8.22	1.51	0.511	Positive	n/a (*a)	**0.787**	1g	1.6	2c-3	P1	-
2	Bottom	1.8	0	DC supply	a (6Mbps)*	5180*	36	98.4	1.02	10	9.30	1.17	0.423	Positive	n/a (*a)	**0.505**	1g	1.6	2d-1	P5	-
2	Bottom	1.8	0	DC supply	a (6Mbps)*	5220	44	98.4	1.02	10	8.49	1.42	0.343	Positive	n/a (*a)	**0.497**	1g	1.6	2d-2	P5	-
2	Bottom	1.8	0	DC supply	a (6Mbps)*	5240	48	98.4	1.02	10	8.41	1.44	0.336	Positive	n/a (*a)	**0.494**	1g	1.6	2d-3	P5	-
3) U-NII-2C (5.6GHz) Band																					
1	Left	1..8	0	DC supply	n40(MCS0)*	5670*	134	96.7	1.03	10	8.97	1.27	0.890	Positive	n/a (*a)	**1.164**	1g	1.6	3a-1	P1	-
1	Left	1..8	0	DC supply	n40(MCS0)*	5550	110	96.7	1.03	10	8.84	1.31	0.609	Positive	n/a (*a)	**0.822**	1g	1.6	3a-2	P1	-
1	Left	1..8	0	DC supply	n40(MCS0)*	5510	102	96.7	1.03	10	8.62	1.37	0.483	Positive	n/a (*a)	**0.682**	1g	1.6	3a-3	P1	-
1	Left	1..8	0	DC supply	a (6Mbps)	5700	140	98.4	1.02	10	8.98	1.26	0.878	Positive	n/a (*a)	**1.128**	1g	1.6	3a-4	P1	-
1	Left	1..8	0	DC supply	a (6Mbps)	5580	116	98.4	1.02	10	9.34	1.16	0.668	Positive	n/a (*a)	**0.790**	1g	1.6	3a-5	P1	-
1	Left	1..8	0	DC supply	a (6Mbps)	5500	100	98.4	1.02	10	8.97	1.27	0.542	Positive	n/a (*a)	**0.702**	1g	1.6	3a-6	P1	
1	Rear	2.4	0	DC supply	n40(MCS0)*	5670*	134	96.7	1.03	10	8.97	1.27	0.167	Positive	n/a (*a)	**0.218**	1g	1.6	3a-7	P2	-
1	Front	3.7	0	DC supply	n40(MCS0)*	5670*	134	96.7	1.03	10	8.97	1.27	0.156	Positive	n/a (*a)	**0.204**	1g	1.6	3a-8	P3	-
1	Top	27.5	0	DC supply	n40(MCS0)*	5670*	134	96.7	1.03	10	8.97	1.27	0.037	Positive	n/a (*a)	**0.048**	1g	1.6	3a-9	P4	-
1	Right	382	0	DC supply	n40(MCS0)*	5670*	134	96.7	1.03	10	8.97	1.27	n/a	Positive	n/a (*a)	**n/a**	1g	1.6	-	-	SAR test: Exempt
1	Bottom	390.5	0	DC supply	n40(MCS0)*	5670*	134	96.7	1.03	10	8.97	1.27	n/a	Positive	n/a (*a)	**n/a**	1g	1.6	-	-	SAR test: Exempt
2	Bottom	1.8	0	DC supply	n40(MCS0)*	5670*	134	96.7	1.03	10	9.23	1.19	0.555	Positive	n/a (*a)	**0.680**	1g	1.6	3b-2	P5	-
2	Bottom	1.8	0	DC supply	n40(MCS0)*	5550	110	96.7	1.03	10	9.16	1.21	0.507	Positive	n/a (*a)	**0.632**	1g	1.6	3b-3	P5	-
2	Bottom	1.8	0	DC supply	n40(MCS0)*	5510	102	96.7	1.03	10	8.75	1.33	0.445	Positive	n/a (*a)	**0.610**	1g	1.6	3b-4	P5	-
2	Bottom	1.8	0	DC supply	a (6Mbps)	5700	140	98.4	1.02	10	9.00	1.26	0.618	Positive	n/a (*a)	**0.794**	1g	1.6	3b-1	P5	-
2	Bottom	1.8	0	DC supply	a (6Mbps)	5580	116	98.4	1.02	10	8.87	1.30	0.419	Positive	n/a (*a)	**0.556**	1g	1.6	3b-5	P5	-
2	Bottom	1.8	0	DC supply	a (6Mbps)	5500	100	98.4	1.02	10	9.27	1.18	0.513	Positive	n/a (*a)	**0.617**	1g	1.6	3b-6	P5	
2	Rear	2.4	0	DC supply	n40(MCS0)*	5670*	134	96.7	1.03	10	9.23	1.19	0.114	Positive	n/a (*a)	**0.140**	1g	1.6	3b-7	P6	-
2	Front	3.7	0	DC supply	n40(MCS0)*	5670*	134	96.7	1.03	10	9.23	1.19	0.084	Positive	n/a (*a)	**0.103**	1g	1.6	3b-8	P7	-
2	Right	32	0	DC supply	n40(MCS0)*	5670*	134	96.7	1.03	10	9.23	1.19	0.014	Positive	n/a (*a)	**0.017**	1g	1.6	3b-9	P8	-
2	Left	310	0	DC supply	n40(MCS0)*	5670*	134	96.7	1.03	10	9.23	1.19	n/a	Positive	n/a (*a)	**n/a**	1g	1.6	-	-	SAR test: Exempt
2	Top	458	0	DC supply	n40(MCS0)*	5670*	134	96.7	1.03	10	9.23	1.19	n/a	Positive	n/a (*a)	**n/a**	1g	1.6	-	-	SAR test: Exempt

6.2 SAR results (cont'd)

Test setup					Mode and Frequency (*2)			Duty cycle		Power correction			SAR results [W/kg] (Max.value of multi-peak)				SAR type	SAR Limit [W/kg]	SAR plot # in Appx. 2-2	Setup photo # in Appx. 1-3	Remarks
ANT #	Test position		Gap [mm]	Source power	Mode (D/R)	[MHz]	CH	Duty [%]	Duty scaled factor	Max. tune-up limit [dBm]	Measured conducted [dBm]	Power scaled factor	Measured	ΔSAR [%]	ΔSAR corrected	Scaled (*b)					
	Setup	Antenna distance [mm			Mark with "*" is the initial mode & frequency.																
4) U-NII-3 (5.8GHz) Band																					
1	Left	1..8	0	DC supply	n40(MCS0)*	5755*	151	96.7	1.03	10	9.23	1.19	0.793	Positive	n/a (*a)	**0.972**	1g	1.6	4a-2	P1	-
1	Left	1..8	0	DC supply	n40(MCS0)*	5795	159	96.7	1.03	10	8.89	1.29	0.655	Positive	n/a (*a)	**0.870**	1g	1.6	4a-3	P1	-
1	Left	1..8	0	DC supply	a (6Mbps)	5745	149	98.4	1.02	10	9.11	1.23	0.802	Positive	n/a (*a)	**1.006**	1g	1.6	4a-1	P1	-
1	Left	1..8	0	DC supply	a (6Mbps)	5785	157	98.4	1.02	10	8.81	1.32	0.701	Positive	n/a (*a)	**0.944**	1g	1.6	4a-4	P1	-
1	Left	1..8	0	DC supply	a (6Mbps)	5825	165	98.4	1.02	10	8.34	1.47	0.580	Positive	n/a (*a)	**0.870**	1g	1.6	4a-5	P1	
1	Rear	2.4	0	DC supply	n40(MCS0)*	5755*	151	96.7	1.03	10	9.23	1.19	0.153	Positive	n/a (*a)	**0.188**	1g	1.6	4a-6	P2	-
1	Front	3.7	0	DC supply	n40(MCS0)*	5755*	151	96.7	1.03	10	9.23	1.19	0.139	Positive	n/a (*a)	**0.170**	1g	1.6	4a-7	P3	-
1	Top	27.5	0	DC supply	n40(MCS0)*	5755*	151	96.7	1.03	10	9.23	1.19	0.016	Positive	n/a (*a)	**0.020**	1g	1.6	4a-8	P4	-
1	Right	382	0	DC supply	n40(MCS0)*	5755*	151	96.7	1.03	10	9.23	1.19	n/a	Positive	n/a (*a)	**n/a**	1g	1.6	-	-	SAR test: Exempt
1	Bottom	390.5	0	DC supply	n40(MCS0)*	5755*	151	96.7	1.03	10	9.23	1.19	n/a	Positive	n/a (*a)	**n/a**	1g	1.6	-	-	SAR test: Exempt
2	Bottom	1.8	0	DC supply	n40(MCS0)*	5795*	159	96.7	1.03	10	8.90	1.29	0.358	Positive	n/a (*a)	**0.476**	1g	1.6	4b-2	P5	-
2	Bottom	1.8	0	DC supply	n40(MCS0)*	5755	151	96.7	1.03	10	8.72	1.34	0.430	Positive	n/a (*a)	**0.593**	1g	1.6	4b-3	P5	-
2	Bottom	1.8	0	DC supply	a (6Mbps)	5825	165	98.4	1.02	10	9.12	1.22	0.393	Positive	n/a (*a)	**0.489**	1g	1.6	4b-4	P5	-
2	Bottom	1.8	0	DC supply	a (6Mbps)	5745	159	98.4	1.02	10	8.50	1.41	0.474	Positive	n/a (*a)	**0.682**	1g	1.6	4b-1	P5	-
2	Bottom	1.8	0	DC supply	a (6Mbps)	5785	149	98.4	1.02	10	8.35	1.46	0.353	Positive	n/a (*a)	**0.526**	1g	1.6	4b-5	P5	
2	Rear	2.4	0	DC supply	n40(MCS0)*	5795*	159	96.7	1.03	10	8.90	1.29	0.083	Positive	n/a (*a)	**0.110**	1g	1.6	4b-6	P6	-
2	Front	3.7	0	DC supply	n40(MCS0)*	5795*	159	96.7	1.03	10	8.90	1.29	0.072	Positive	n/a (*a)	**0.096**	1g	1.6	4b-7	P7	-
2	Right	32	0	DC supply	n40(MCS0)*	5795*	159	96.7	1.03	10	8.90	1.29	0.013	Positive	n/a (*a)	**0.017**	1g	1.6	4b-8	P8	-
2	Left	310	0	DC supply	n40(MCS0)*	5795*	159	96.7	1.03	10	8.90	1.29	n/a	Positive	n/a (*a)	**n/a**	1g	1.6	-	-	SAR test: Exempt
2	Top	458	0	DC supply	n40(MCS0)*	5795*	159	96.7	1.03	10	8.90	1.29	n/a	Positive	n/a (*a)	**n/a**	1g	1.6	-	-	SAR test: Exempt

Notes: *. The higher scaled (reported) SAR in each operation band is marked (shaded yellow marker).
*. Appx. Appendix, ant: antenna, (mode) b: IEEE 802.11b, g: IEEE 802.11g, a: IEEE 802.11a, n40: IEEE 802.11n(40HT); Max.: maximum.; n/a: not applied. Gap: It is the separation distance between EUT surface and the bottom outer surface of phantom.
*. During test, the EUT was operated with full charged battery and connected an IF cable

*a. Since the calculated ΔSAR values of the tested liquid had shown positive correction, the measured SAR was not converted by ΔSAR correction.
Calculating formula: ΔSAR corrected SAR (W/kg) = (Measured SAR (W/kg)) × (100 - (ΔSAR(%)) / 100
*b. Calculating formula: Scaled SAR (Reported SAR) (W/kg) = (Measured SAR (W/kg)) × (Duty scaled factor) × (Power scaled factor)
where, Duty scaled factor [-] = 100(%) / (duty cycle, %), Power scaled factor [-] = 10 ^ (((Max.tune-up limit, dBm) - (Measured conducted, dBm)) / 10)

*1. (KDB 248227 D01) For 2.4GHz band, When the highest reported SAR for DSSS is adjusted by the ratio of OFDM to DSSS specified maximum output power and the adjusted SAR is ≤ 1.2 W/kg, SAR test of OFDM mode was reduced.

OFDM mode	Maximum tune-up tolerance limit				OFDM scaled factor [-]	DSSS worst reported SAR value				**Estimated SAR value: OFDM [W/kg]**	Exclusion limit [W/kg]	Standalone SAR test of OFDM mode require?
	DSSS		OFDM									
	[dBm]	[mW] (a)	[dBm]	[mW] (b)	(b)/(a)×100	SAR type	Setup	Antenna	[W/kg]			
g	15.0	32	15.0	32	1.00	1g	Left	Antenna 1	0.708	**0.71**	**≤ 1.2**	**No**
n20	15.0	32	15.0	32	1.00	1g	Left	Antenna 1	0.708	**0.71**	**≤ 1.2**	**No**
g	15.0	32	15.0	32	1.00	1g	Bottom	Antenna 2	0.594	**0.59**	**≤ 1.2**	**No**
n20	15.0	32	15.0	32	1.00	1g	Bottom	Antenna 2	0.594	**0.59**	**≤ 1.2**	**No**

*. (mode) b: IEEE 802.11b, g: IEEE 802.11g, n20: IEEE 802.11n(20HT).

6.3 Simultaneous transmission evaluation

Result: Co-location SAR test (volume scan post-processing) was not required because of the SPLSR is smaller than 0.04, even if the SAR(1g) values of each antenna 1 and 2 is shown to equal to the SAR (1g) limit = 1.6 W/kg.

According to KDB447498 D01; Volume scan SAR test exclusion was applied to antenna pair that transmits simultaneously by using SPLAR (SAR Peak Location Separation Ratio) method.

*. **On the EUT, since the antenna separation distance is big enough (>300 mm) on each setup direction, SPLSR is smaller than 0.04 even if the standalone SAR(1g) of antenna 1 and antenna 2 is equal to the SAR(1g) limit (≤1.6 W/kg). Therefore SAR test for co-location cannot be required.**

Setup	Antenna separation distance (design based)	Max. Standalone SAR(1g) [W/kg]		Σ1g SAR [W/kg]	SPLSR? (Yes/No)	SPLSR (≤ 0.04)	Volume scan Required (Yes/No)	Remarks
		antenna 1	antenna 2					
Front (Patient side) and Rear	≈ 500 mm	1.6 (*.limit)	1.6 (*.limit)	3.2	Yes	**0.01**	No	-
Left (antenna 1 side)	≈ 390 mm	1.6 (*.limit)	1.6 (*.limit)	3.2	Yes	**0.02**	No	-
Bottom (antenna 2 side)	≈ 310 mm	1.6 (*.limit)	1.6 (*.limit)	3.2	Yes	**0.02**	No	-

*. (Calculating formula, KDB447498 D01) SPLSR = (SAR1 + SAR2)^1.5 / R(distance between pair of antennas, mm)
where SAR1 and SAR2 are the highest reported SAR values for the two sources in the pair.

6.4 SAR Measurement Variability (Repeated measurement requirement)

Result: Pass ("Largest to Smallest SAR Ratio" is smaller than KDB 865664 D01 requirement.)

*. In accordance with published RF Exposure KDB procedure 865664 D01 (v01r04) SAR measurement 100 MHz to 6 GHz. These additional measurements are repeated after the completion of all measurements requiring the same head or body tissue-equivalent medium in a frequency band. The test device should be returned to ambient conditions (normal room temperature) with the battery fully charged before it is re-mounted on the device holder for the repeated measurement(s) to minimize any unexpected variations in the repeated results.

1) Repeated measurement is not required when the original highest measured SAR(1g) is < 0.80 W/kg; steps 2) through 4) do not apply.
2) When the original highest measured SAR is ≥ 0.80 W/kg, repeat that measurement once.
3) Perform a second repeated measurement only if the ratio of largest to smallest SAR for the original and first repeated measurements is > 1.20 or when the original or repeated measurement is ≥ 1.45 W/kg (~ 10% from the 1-g SAR limit).
4) Perform a third repeated measurement only if the original, first or second repeated measurement is ≥1.5 W/kg and the ratio of largest to smallest SAR for the original, first and second repeated measurements is > 1.20.

EUT setup		Band [GHz]	Mode	Frequency [MHz]	Measured SAR(1g) [W/kg]										SAR plot # in Appendix 2-2 / Setup photo# in Appendix 1-3		
Antenna	Position				Original		1st Repeated				2nd Repeated				Original	1st Repeated	2nd Repeated
					Highest	Judge	Measured	Judge	Ratio	Judge	Measured	Judge	Ratio	Judge			
Antenna 1	**Left**	2.4	b (1Mbps)	2412	**0.513**	< 0.8	**n/a**	-	-	-	-	-	-	-	-	-	-
Antenna 1	**Left**	5.2&5.3	a (6Mbps)	5180	**0.726**	< 0.8	**n/a**	-	-	-	-	-	-	-	-	-	-
Antenna 1	**Left**	5.6	n40 (MCS0)	5670	**0.890**	≥ 0.8	**0.858**	< 1.45	**1.04**	< 1.20	**n/a**	-	-	-	Plot 3a-1 Photo. P1	Plot 5a-1 Photo. P9	-
Antenna 1	**Left**	5.8	a (6Mbps)	5745	**0.802**	≥ 0.8	**n/a** (*1)	-	-	-	-	-	-	-	-	-	-
Antenna 2	**Bottom**	2.4	b (1Mbps)	2412	**0.483**	< 0.8	**n/a**	-	-	-	-	-	-	-	-	-	-
Antenna 2	**Bottom**	5.2&5.3	a (6Mbps)	5180	**0.423**	< 0.8	**n/a**	-	-	-	-	-	-	-	-	-	-
Antenna 2	**Bottom**	5.6	a (6Mbps)	5700	**0.618**	< 0.8	**n/a**	-	-	-	-	-	-	-	-	-	-
Antenna 2	**Bottom**	5.8	a (6Mbps)	5745	**0.474**	< 0.8	**n/a**	-	-	-	-	-	-	-	-	-	-

*. Calculating formula: "Ratio": Largest to Smallest SAR Ratio (%) = (Largest SAR (W/kg)) / Smallest SAR (W/kg)
*. Mode; b: IEEE 802.11b, a: IEEE 802.11a, n40 IEEE 802.11n(40HT).
*1. Repeated test was only applied to the highest measured SAR (1g) condition representatively.

6.5 Device holder perturbation verification

Result: Since all the reported (scaled) SAR are less than 1.2 W/kg (SAR(1g)), the additional "device holder perturbation verification" measurement is not considered.

*. When the highest reported SAR of an antenna is > 1.2 W/kg, holder perturbation verification (by Urethane form alone) is required by using the highest SAR configuration among all applicable frequency bands.

APPENDIX 2: SAR Measurement data

Appendix 2-1: Worst Scaled (Reported) SAR Plot on each antenna

Plot 1a-1: DTS (2.4GHz) band, Antenna 1; Left & touch / 11b (1Mbps) / 2412 MHz

EUT: SKR 3000; Type: P-82; Serial: ADU4-S0002

Mode: 11b(1Mbps, DSSS) (UID: 0, Wi-fi_2.4GHz (0), Frame Length in ms: 0; PAR: 0; PMF: 1); **Frequency: 2412 MHz; Crest Factor: 1.0**

Medium: HSL5GHz(v6.2110); Medium parameters used (interpolated): f = 2412 MHz; σ = 1.821 S/m; ε_r = 39.91; ρ = 1000 kg/m^3

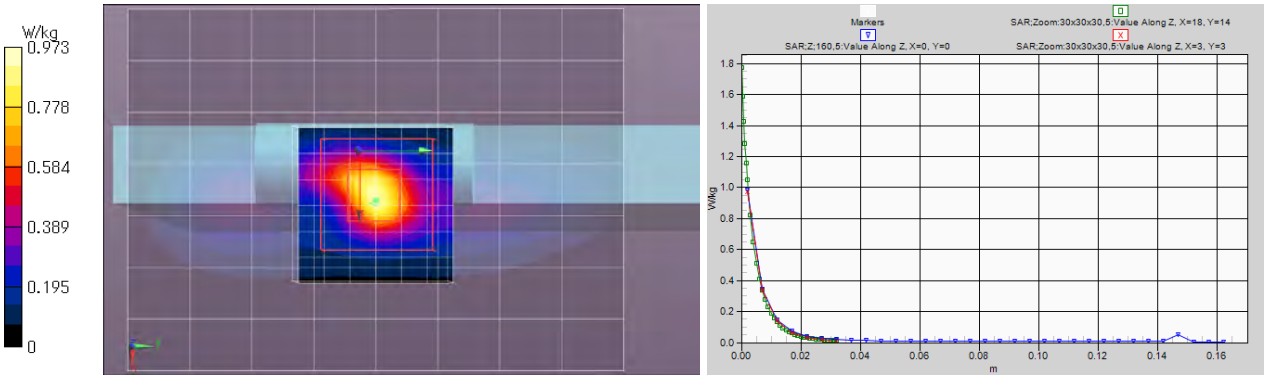
Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)

DASY Configuration: -Electronics: DAE4 Sn626; Calibrated: 2020/11/17 / -Phantom: ELI v4.0; Type: QDOVA001BA; Serial: 1059; Phantom section: Flat Section -DASY52 52.10.3(1513); SEMCAD X 14.6.13(7474) / -Probe: EX3DV4 - SN3907; ConvF(7.35, 7.35, 7.35) @ 2412 MHz; Calibrated: 2021/04/21 -Sensor-Surface: 2mm (Mechanical Surface Detection), z = 1.0, 31.0, 161.0

touch,h24a,right,at1b(chain0)/o24h2,2412,at1,right&d0,b(1m)/
Area:70x96,10,12 (8x9x1): Measurement grid: dx=10mm, dy=12mm; Maximum value of SAR (measured) = 0.785 W/kg
Area:70x96,10,12 (71x81x1): Interpolated grid: dx=1.000 mm, dy=1.200 mm; Maximum value of SAR (interpolated) = 0.894 W/kg
Z;160,5 (1x1x33): Measurement grid: dx=20mm, dy=20mm, dz=5mm; Maximum value of SAR (measured) = 0.985 W/kg

Zoom:30x30x30,5 (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm;
Reference Value = 24.53 V/m; Power Drift = -0.01 dB; Maximum value of SAR (measured) = 0.973 W/kg; Peak SAR (extrapolated) = 1.77 W/kg

SAR(1 g) = 0.513 W/kg; SAR(10 g) = 0.175 W/kg (*.Smallest distance from peaks to all points 3 dB below = 5.4 mm; Ratio of SAR at M2 to SAR at M1 = 34.8%)



Remarks: *. Date tested: 2021/10/22; Tested by: Hiroshi Naka; Tested place:No.7 shielded room,
*. Liquid depth: 150 mm; Position: distance of EUT to phantom: 0 mm (2 mm to liquid); ambient: (23~24) deg.C. / (50~60) %RH,
*. Liquid temperature: 22.2(start)/22.2(end)/22.5(in check) deg.C.; *.White cubic: zoom scan area, Red cubic: big=SAR(10g)/small=SAR(1g)

Plot 1b-1: DTS (2.4GHz) band, Antenna 2; Bottom & touch / 11b (1Mbps) / 2412 MHz

EUT: SKR 3000; Type: P-82; Serial: ADU4-S0002

Mode: 11b(1Mbps, DSSS) (UID: 0, Wi-fi_2.4GHz (0), Frame Length in ms: 0; PAR: 0; PMF: 1); **Frequency: 2412 MHz; Crest Factor: 1.0**

Medium: HSL5GHz(v6.2110); Medium parameters used (interpolated): f = 2412 MHz; σ = 1.821 S/m; ε_r = 39.91; ρ = 1000 kg/m^3

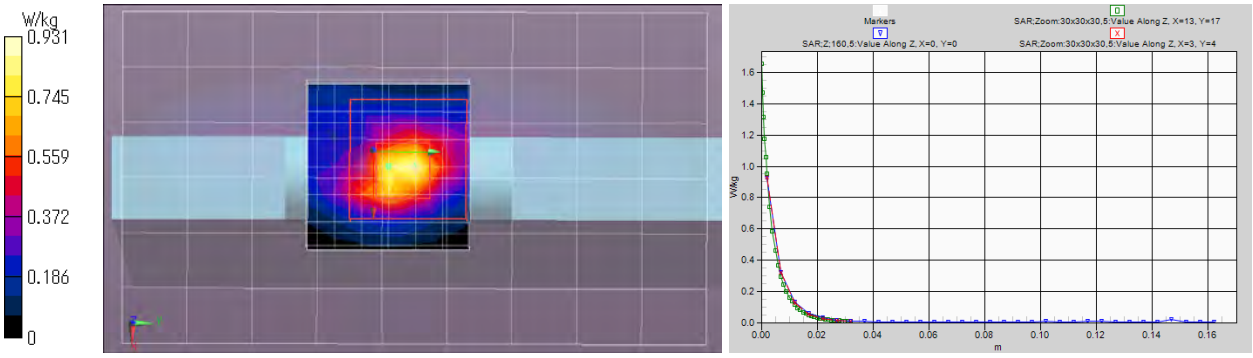
Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)

DASY Configuration: -Electronics: DAE4 Sn626; Calibrated: 2020/11/17 / -Phantom: ELI v4.0; Type: QDOVA001BA; Serial: 1059; Phantom section: Flat Section -DASY52 52.10.3(1513); SEMCAD X 14.6.13(7474) / -Probe: EX3DV4 - SN3907; ConvF(7.35, 7.35, 7.35) @ 2412 MHz; Calibrated: 2021/04/21 -Sensor-Surface: 2mm (Mechanical Surface Detection), z = 1.0, 31.0, 161.0

touch,h24b,btm,sub(chain1)/o24h6,2412,at2,btm&d0,b(1m)/
Area:60x108,10,12 (7x10x1): Measurement grid: dx=10mm, dy=12mm; Maximum value of SAR (measured) = 0.789 W/kg
Area:60x108,10,12 (61x91x1): Interpolated grid: dx=1.000 mm, dy=1.200 mm; Maximum value of SAR (interpolated) = 0.851 W/kg
Z;160,5 (1x1x33): Measurement grid: dx=20mm, dy=20mm, dz=5mm; Maximum value of SAR (measured) = 0.924 W/kg

Zoom:30x30x30,5 (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm;
Reference Value = 21.67 V/m; Power Drift = -0.14 dB; Maximum value of SAR (measured) = 0.931 W/kg; Peak SAR (extrapolated) = 1.66 W/kg

SAR(1 g) = 0.483 W/kg; SAR(10 g) = 0.166 W/kg (*.Smallest distance from peaks to all points 3 dB below = 5.4 mm; Ratio of SAR at M2 to SAR at M1 = 34.5%)



Remarks: *. Date tested: 2021/10/22; Tested by: Hiroshi Naka; Tested place:No.7 shielded room,
*. Liquid depth: 150 mm; Position: distance of EUT to phantom: 0 mm (2 mm to liquid); ambient: (23~24) deg.C. / (50~60) %RH,
*. Liquid temperature: 22.3(start)/22.4(end)/22.5(in check) deg.C.; *.White cubic: zoom scan area, Red cubic: big=SAR(10g)/small=SAR(1g)

APPENDIX 2: SAR Measurement data / Appendix 2-1: Worst Scaled (Reported) SAR Plot (cont'd)

Plot 2a-1: U-NII-2A (5.3GHz) band, Antenna 1; Left & touch / 11a (6Mbps) / 5320 MHz

EUT: SKR 3000; Type: P-82; Serial: ADU4-S0002

Mode: 11a(6Mbps, OFDM) (UID: 0, Wi-fi_5GHz (0), Frame Length in ms: 0; PAR: 0; PMF: 1); **Frequency: 5320 MHz; Crest Factor: 1.0**

Medium: HSL5GHz(v6.2110); Medium parameters used: f = 5320 MHz; σ = 4.588 S/m; ε_r = 35.20; ρ = 1000 kg/m^3

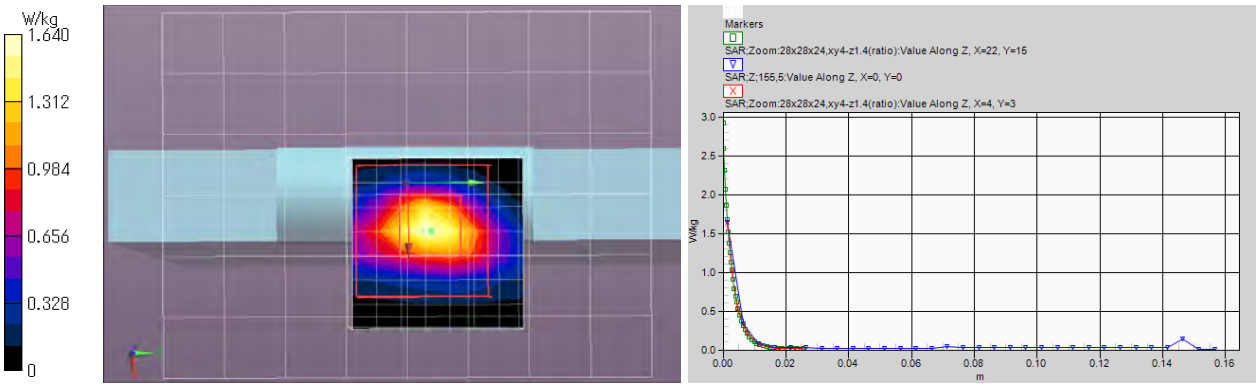
Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)

DASY Configuration: -Electronics: DAE4 Sn626; Calibrated: 2020/11/17 / -Phantom: ELI v4.0; Type: QDOVA001BA; Serial: 1059; Phantom section: Flat Section -DASY52 52.10.3(1513); SEMCAD X 14.6.13(7474) / -Probe: EX3DV4 - SN3907; ConvF(5.14, 5.14, 5.14) @ 5320 MHz; Calibrated: 2021/04/21 -Sensor-Surface: 1.4mm (Mechanical Surface Detection), z = 1.0, 25.0, 156.0

touch,h5b,right,at1(chain0)/o5h19,53.3,5320,at1,right&d0,a(6m)/
Area:60x80,10 (7x9x1): Measurement grid: dx=10mm, dy=10mm; Maximum value of SAR (measured) = 0.695 W/kg
Area:60x80,10 (61x81x1): Interpolated grid: dx=1.000 mm, dy=1.000 mm; Maximum value of SAR (interpolated) = 1.20 W/kg
Z;155,5 (1x1x32): Measurement grid: dx=20mm, dy=20mm, dz=5mm; Maximum value of SAR (measured) = 1.65 W/kg

Zoom:28x28x24,xy4-z1.4(ratio) (8x8x7)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=1.4mm;
Reference Value = 20.02 V/m; Power Drift = 0.20 dB; Maximum value of SAR (measured) = 1.64 W/kg; Peak SAR (extrapolated) = 2.92 W/kg

SAR(1 g) = 0.627 W/kg; SAR(10 g) = 0.170 W/kg (*.Smallest distance from peaks to all points 3 dB below = 4.3 mm; Ratio of SAR at M2 to SAR at M1 = 61.9%)



Remarks: *. Date tested: 2021/10/22; Tested by: Hiroshi Naka; Tested place:No.7 shielded room,
*. Liquid depth: 150 mm; Position: distance of EUT to phantom: 0 mm (2 mm to liquid); ambient: (23~24) deg.C. / (50~60) %RH,
*. Liquid temperature: 22.2(start)/22.2(end)/22.5(in check) deg.C.; *.White cubic: zoom scan area, Red cubic: big=SAR(10g)/small=SAR(1g)

Plot 2b-1: U-NII-2A (5.3GHz) band, Antenna 2; Bottom & touch / 11a (6Mbps) / 5260 MHz

EUT: SKR 3000; Type: P-82; Serial: ADU4-S0002

Mode: 11a(6Mbps, OFDM) (UID: 0, Wi-fi_5GHz (0), Frame Length in ms: 0; PAR: 0; PMF: 1); **Frequency: 5260 MHz; Crest Factor: 1.0**

Medium: HSL5GHz(v6.2110); Medium parameters used: f = 5260 MHz; σ = 4.527 S/m; ε_r = 35.32; ρ = 1000 kg/m^3

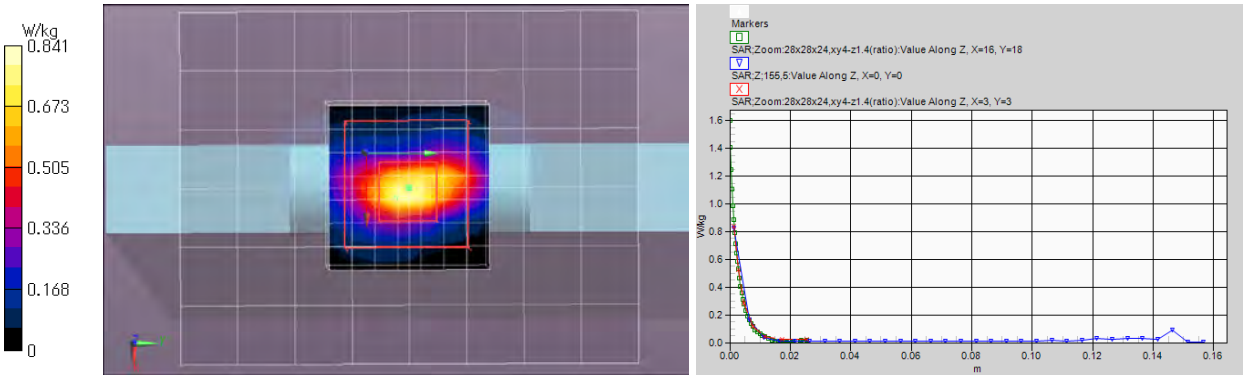
Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)

DASY Configuration: -Electronics: DAE4 Sn626; Calibrated: 2020/11/17 / -Phantom: ELI v4.0; Type: QDOVA001BA; Serial: 1059; Phantom section: Flat Section -DASY52 52.10.3(1513); SEMCAD X 14.6.13(7474) / -Probe: EX3DV4 - SN3907; ConvF(5.14, 5.14, 5.14) @ 5260 MHz; Calibrated: 2021/04/21 -Sensor-Surface: 1.4mm (Mechanical Surface Detection), z = 1.0, 25.0, 156.0

touch,h5e,btm,sub(chain1)/5h58.53.14,ant2,5260,btm&d0,a(6m)/
Area:60x80,10 (7x9x1): Measurement grid: dx=10mm, dy=10mm; Maximum value of SAR (measured) = 0.826 W/kg
Area:60x80,10 (61x81x1): Interpolated grid: dx=1.000 mm, dy=1.000 mm; Maximum value of SAR (interpolated) = 0.826 W/kg
Z;155,5 (1x1x32): Measurement grid: dx=20mm, dy=20mm, dz=5mm; Maximum value of SAR (measured) = 0.826 W/kg

Zoom:28x28x24,xy4-z1.4(ratio) (8x8x7)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=1.4mm;
Reference Value = 14.76 V/m; Power Drift = -0.18 dB; Maximum value of SAR (measured) = 0.841 W/kg; Peak SAR (extrapolated) = 1.60 W/kg

SAR(1 g) = 0.308 W/kg; SAR(10 g) = 0.089 W/kg (*.Smallest distance from peaks to all points 3 dB below = 4.7 mm; Ratio of SAR at M2 to SAR at M1 = 62.6%)



Remarks: *. Date tested: 2021/10/22; Tested by: Hiroshi Naka; Tested place:No.7 shielded room,
*. Liquid depth: 150 mm; Position: distance of EUT to phantom: 0 mm (2 mm to liquid); ambient: (23~24) deg.C. / (50~60) %RH,
*. Liquid temperature: 22.4(start)/22.4(end)/22.5(in check) deg.C.; *.White cubic: zoom scan area, Red cubic: big=SAR(10g)/small=SAR(1g)

APPENDIX 2: SAR Measurement data / Appendix 2-1: Worst Scaled (Reported) SAR Plot (cont'd)

Plot 2c-1: U-NII-1 (5.2GHz) band, Antenna 1; Left & touch / 11a (6Mbps) / 5180 MHz

EUT: SKR 3000; Type: P-82; Serial: ADU4-S0002

Mode: 11a(6Mbps, OFDM) (UID: 0, Wi-fi_5GHz (0), Frame Length in ms: 0; PAR: 0; PMF: 1); **Frequency: 5180 MHz; Crest Factor: 1.0**

Medium: HSL5GHz(v6.2110); Medium parameters used: f = 5180 MHz; σ = 4.44 S/m; ε_r = 35.42; ρ = 1000 kg/m^3

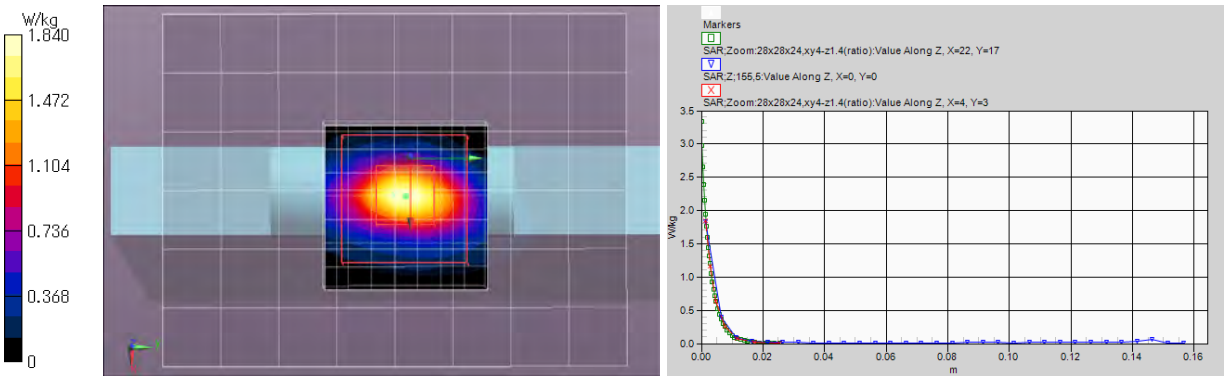
Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)

DASY Configuration: -Electronics: DAE4 Sn626; Calibrated: 2020/11/17 / -Phantom: ELI v4.0; Type: QDOVA001BA; Serial: 1059; Phantom section: Flat Section -DASY52 52.10.3(1513); SEMCAD X 14.6.13(7474) / -Probe: EX3DV4 - SN3907; ConvF(5.14, 5.14, 5.14) @ 5180 MHz; Calibrated: 2021/04/21 -Sensor-Surface: 1.4mm (Mechanical Surface Detection), z = 1.0, 25.0, 156.0

touch,h5a,right,at1(chain0)/o5h9,52.1,5180,at1,right&d0,a(6m)/
Area:60x80,10 (7x9x1): Measurement grid: dx=10mm, dy=10mm; Maximum value of SAR (measured) = 1.71 W/kg
Area:60x80,10 (61x81x1): Interpolated grid: dx=1.000 mm, dy=1.000 mm; Maximum value of SAR (interpolated) = 1.84 W/kg
Z;155,5 (1x1x32): Measurement grid: dx=20mm, dy=20mm, dz=5mm; Maximum value of SAR (measured) = 1.83 W/kg

Zoom:28x28x24,xy4-z1.4(ratio) (8x8x7)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=1.4mm;
Reference Value = 22.85 V/m; Power Drift = -0.06 dB; Maximum value of SAR (measured) = 1.84 W/kg; Peak SAR (extrapolated) = 3.33 W/kg

SAR(1 g) = 0.726 W/kg; SAR(10 g) = 0.198 W/kg (*.Smallest distance from peaks to all points 3 dB below = 4.8 mm; Ratio of SAR at M2 to SAR at M1 = 63.2%)



Remarks: *. Date tested: 2021/10/22; Tested by: Hiroshi Naka; Tested place:No.7 shielded room,
*. Liquid depth: 150 mm; Position: distance of EUT to phantom: 0 mm (2 mm to liquid); ambient: (23~24) deg.C. / (50~60) %RH,
*. Liquid temperature: 22.2(start)/22.2(end)/22.5(in check) deg.C.; *.White cubic: zoom scan area, Red cubic: big=SAR(10g)/small=SAR(1g)

Plot 2d-1: U-NII-1 (5.2GHz) band, Antenna 2; Bottom & touch / 11a (6Mbps) / 5180 MHz

EUT: SKR 3000; Type: P-82; Serial: ADU4-S0002

Mode: 11a(6Mbps, OFDM) (UID: 0, Wi-fi_5GHz (0), Frame Length in ms: 0; PAR: 0; PMF: 1); **Frequency: 5180 MHz; Crest Factor: 1.0**

Medium: HSL5GHz(v6.2110); Medium parameters used: f = 5180 MHz; σ = 4.44 S/m; ε_r = 35.42; ρ = 1000 kg/m^3

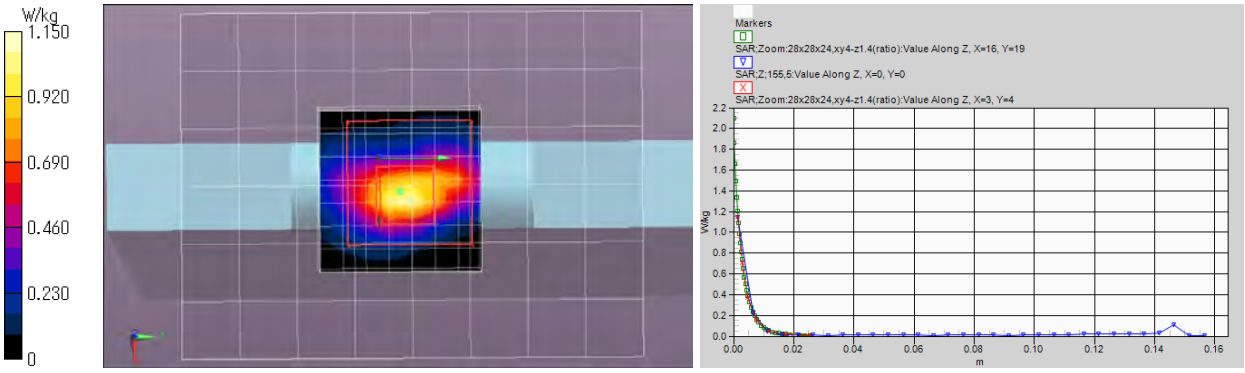
Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)

DASY Configuration: -Electronics: DAE4 Sn626; Calibrated: 2020/11/17 / -Phantom: ELI v4.0; Type: QDOVA001BA; Serial: 1059; Phantom section: Flat Section -DASY52 52.10.3(1513); SEMCAD X 14.6.13(7474) / -Probe: EX3DV4 - SN3907; ConvF(5.14, 5.14, 5.14) @ 5180 MHz; Calibrated: 2021/04/21 -Sensor-Surface: 1.4mm (Mechanical Surface Detection), z = 1.0, 25.0, 156.0

touch,h5c,btm,sub(chain1)/o5h30.52.4,ant2,5180,btm&d0,a(6m)/
Area:60x80,10 (7x9x1): Measurement grid: dx=10mm, dy=10mm; Maximum value of SAR (measured) = 0.955 W/kg
Area:60x80,10 (61x81x1): Interpolated grid: dx=1.000 mm, dy=1.000 mm; Maximum value of SAR (interpolated) = 0.974 W/kg
Z;155,5 (1x1x32): Measurement grid: dx=20mm, dy=20mm, dz=5mm; Maximum value of SAR (measured) = 1.14 W/kg

Zoom:28x28x24,xy4-z1.4(ratio) (8x8x7)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=1.4mm;
Reference Value = 17.57 V/m; Power Drift = -0.17 dB; Maximum value of SAR (measured) = 1.15 W/kg; Peak SAR (extrapolated) = 2.10 W/kg

SAR(1 g) = 0.423 W/kg; SAR(10 g) = 0.119 W/kg (*.Smallest distance from peaks to all points 3 dB below = 4.7 mm; Ratio of SAR at M2 to SAR at M1 = 61.7%)



Remarks: *. Date tested: 2021/10/22; Tested by: Hiroshi Naka; Tested place:No.7 shielded room,
*. Liquid depth: 150 mm; Position: distance of EUT to phantom: 0 mm (2 mm to liquid); ambient: (23~24) deg.C. / (50~60) %RH,
*. Liquid temperature: 22.4(start)/22.4(end)/22.5(in check) deg.C.; *.White cubic: zoom scan area, Red cubic: big=SAR(10g)/small=SAR(1g)

APPENDIX 2: SAR Measurement data / Appendix 2-1: Worst Scaled (Reported) SAR Plot (cont'd)

Plot 3a-1: U-NII-2C (5.6GHz) band, Antenna 1; Left & touch / 11n(40HT) (MCS0) / 5670 MHz

EUT: SKR 3000; Type: P-82; Serial: ADU4-S0002

Mode: n40(MCS0, OFDM) (UID: 0, Wi-fi_5GHz (0), Frame Length in ms: 0; PAR: 0; PMF: 1); **Frequency: 5670 MHz; Crest Factor: 1.0**

Medium: HSL5GHz(v6.2110); Medium parameters used: f = 5670 MHz; σ = 4.988 S/m; ε_r = 34.62; ρ = 1000 kg/m^3

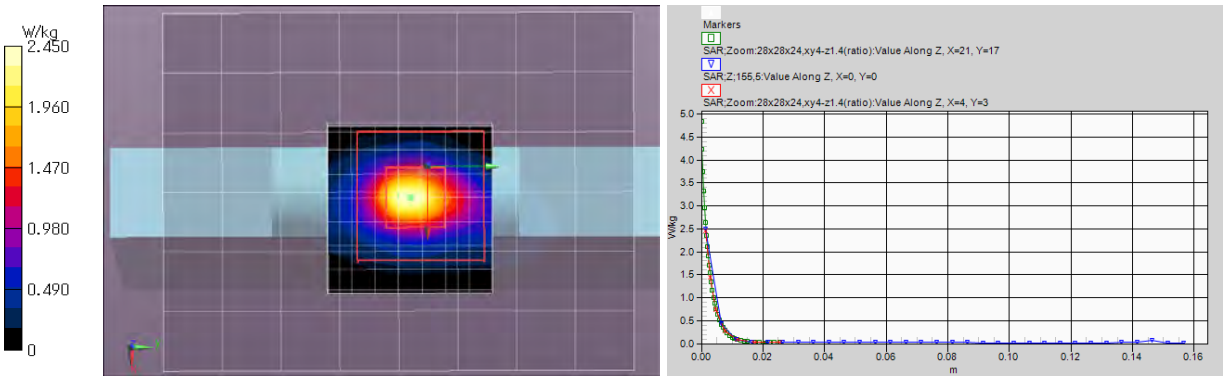
Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)

DASY Configuration: -Electronics: DAE4 Sn626; Calibrated: 2020/11/17 / -Phantom: ELI v4.0; Type: QDOVA001BA; Serial: 1059; Phantom section: Flat Section -DASY52 52.10.3(1513); SEMCAD X 14.6.13(7474) / -Probe: EX3DV4 - SN3907; ConvF(4.56, 4.56, 4.56) @ 5670 MHz; Calibrated: 2021/04/21 -Sensor-Surface: 1.4mm (Mechanical Surface Detection), z = 1.0, 25.0, 156.0

touch,h5a,right,at1(chain0)/o5h3,56.1,5670,at1,right&d0,n40(m0)/
Area:60x80,10 (7x9x1): Measurement grid: dx=10mm, dy=10mm; Maximum value of SAR (measured) = 2.24 W/kg
Area:60x80,10 (61x81x1): Interpolated grid: dx=1.000 mm, dy=1.000 mm; Maximum value of SAR (interpolated) = 2.48 W/kg
Z;155,5 (1x1x32): Measurement grid: dx=20mm, dy=20mm, dz=5mm; Maximum value of SAR (measured) = 2.50 W/kg

Zoom:28x28x24,xy4-z1.4(ratio) (8x8x7)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=1.4mm;
Reference Value = 25.55 V/m; Power Drift = -0.06 dB; Maximum value of SAR (measured) = 2.45 W/kg; Peak SAR (extrapolated) = 4.83 W/kg

SAR(1 g) = 0.890 W/kg; SAR(10 g) = 0.219 W/kg (*.Smallest distance from peaks to all points 3 dB below = 5.1 mm; Ratio of SAR at M2 to SAR at M1 = 59.5%)



Remarks: *. Date tested: 2021/10/19; Tested by: Hiroshi Naka; Tested place:No.7 shielded room,
*. Liquid depth: 150 mm; Position: distance of EUT to phantom: 0 mm (2 mm to liquid); ambient: 23 deg.C. / (60~70) %RH,
*. Liquid temperature: 22.2(start)/22.2(end)/22.5(in check) deg.C.; *.White cubic: zoom scan area, Red cubic: big=SAR(10g)/small=SAR(1g)

Plot 3b-1: U-NII-2C (5.6GHz) band, Antenna 2; Bottom & touch / 11a (6Mbps) / 5700 MHz

EUT: SKR 3000; Type: P-82; Serial: ADU4-S0002

Mode: 11a(6Mbps, OFDM) (UID: 0, Wi-fi_5GHz (0), Frame Length in ms: 0; PAR: 0; PMF: 1); **Frequency: 5700 MHz; Crest Factor: 1.0**

Medium: HSL5GHz(v6.2110); Medium parameters used: f = 5700 MHz; σ = 5.014 S/m; ε_r = 34.58; ρ = 1000 kg/m^3

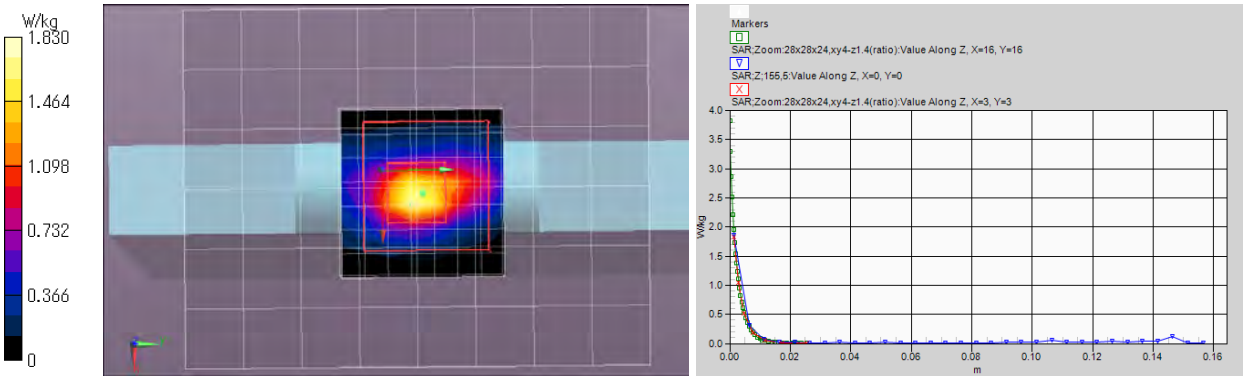
Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)

DASY Configuration: -Electronics: DAE4 Sn626; Calibrated: 2020/11/17 / -Phantom: ELI v4.0; Type: QDOVA001BA; Serial: 1059; Phantom section: Flat Section -DASY52 52.10.3(1513); SEMCAD X 14.6.13(7474) / -Probe: EX3DV4 - SN3907; ConvF(4.56, 4.56, 4.56) @ 5700 MHz; Calibrated: 2021/04/21 -Sensor-Surface: 1.4mm (Mechanical Surface Detection), z = 1.0, 25.0, 156.0

touch,h5c,btm,sub(chain1)/o5h33.56.13,ant2,5700,btm&d0,a(6m)/
Area:60x80,10 (7x9x1): Measurement grid: dx=10mm, dy=10mm; Maximum value of SAR (measured) = 1.61 W/kg
Area:60x80,10 (61x81x1): Interpolated grid: dx=1.000 mm, dy=1.000 mm; Maximum value of SAR (interpolated) = 1.62 W/kg
Z;155,5 (1x1x32): Measurement grid: dx=20mm, dy=20mm, dz=5mm; Maximum value of SAR (measured) = 1.86 W/kg

Zoom:28x28x24,xy4-z1.4(ratio) (8x8x7)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=1.4mm;
Reference Value = 20.94 V/m; Power Drift = -0.11 dB; Maximum value of SAR (measured) = 1.83 W/kg; Peak SAR (extrapolated) = 3.82 W/kg

SAR(1 g) = 0.618 W/kg; SAR(10 g) = 0.160 W/kg (*.Smallest distance from peaks to all points 3 dB below = 4 mm; Ratio of SAR at M2 to SAR at M1 = 57.4%)



Remarks: *. Date tested: 2021/10/19; Tested by: Hiroshi Naka; Tested place:No.7 shielded room,
*. Liquid depth: 150 mm; Position: distance of EUT to phantom: 0 mm (2 mm to liquid); ambient: 23 deg.C. / (60~70) %RH,
*. Liquid temperature: 22.3(start)/22.4(end)/22.5(in check) deg.C.; *.White cubic: zoom scan area, Red cubic: big=SAR(10g)/small=SAR(1g)

APPENDIX 2: SAR Measurement data / Appendix 2-1: Worst Scaled (Reported) SAR Plot (cont'd)

Plot 4a-1: U-NII-3 (5.8GHz) band, Antenna 1; Left & touch / 11a (6Mbps) / 5745 MHz

EUT: SKR 3000; Type: P-82; Serial: ADU4-S0002

Mode: 11a(6Mbps, OFDM) (UID: 0, Wi-fi_5GHz (0), Frame Length in ms: 0; PAR: 0; PMF: 1); **Frequency: 5745 MHz; Crest Factor: 1.0**

Medium: HSL5GHz(v6.2110); Medium parameters used (interpolated): f = 5745 MHz; σ = 5.059 S/m; ε_r = 34.51; ρ = 1000 kg/m^3

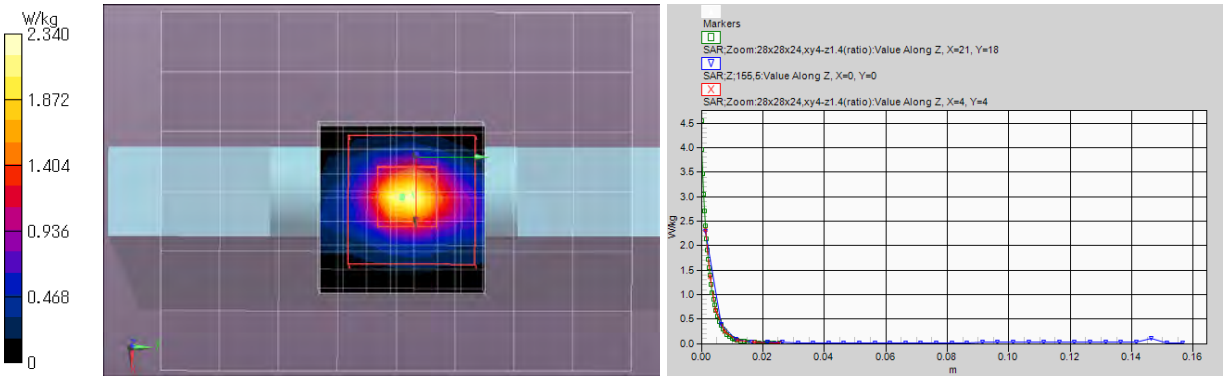
Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)

DASY Configuration: -Electronics: DAE4 Sn626; Calibrated: 2020/11/17 / -Phantom: ELI v4.0; Type: QDOVA001BA; Serial: 1059; Phantom section: Flat Section -DASY52 52.10.3(1513); SEMCAD X 14.6.13(7474) / -Probe: EX3DV4 - SN3907; ConvF(4.6, 4.6, 4.6) @ 5745 MHz; Calibrated: 2021/04/21
-Sensor-Surface: 1.4mm (Mechanical Surface Detection), z = 1.0, 25.0, 156.0

touch,h5a,right,at1(chain0)/o5h16,58.3,5745,at1,right&d0,a(6m)/
Area:60x80,10 (7x9x1): Measurement grid: dx=10mm, dy=10mm; Maximum value of SAR (measured) = 1.94 W/kg
Area:60x80,10 (61x81x1): Interpolated grid: dx=1.000 mm, dy=1.000 mm; Maximum value of SAR (interpolated) = 2.13 W/kg
Z;155,5 (1x1x32): Measurement grid: dx=20mm, dy=20mm, dz=5mm; Maximum value of SAR (measured) = 2.29 W/kg

Zoom:28x28x24,xy4-z1.4(ratio) (8x8x7)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=1.4mm;
Reference Value = 24.12 V/m; Power Drift = -0.11 dB; Maximum value of SAR (measured) = 2.34 W/kg; Peak SAR (extrapolated) = 4.54 W/kg

SAR(1 g) = 0.802 W/kg; SAR(10 g) = 0.194 W/kg (*.Smallest distance from peaks to all points 3 dB below = 5.1 mm; Ratio of SAR at M2 to SAR at M1 = 58.3%)



Remarks: *. Date tested: 2021/10/19; Tested by: Hiroshi Naka; Tested place:No.7 shielded room,
*. Liquid depth: 150 mm; Position: distance of EUT to phantom: 0 mm (2 mm to liquid); ambient: 23 deg.C. / (60~70) %RH,
*. Liquid temperature: 22.2(start)/22.2(end)/22.5(in check) deg.C.; *.White cubic: zoom scan area, Red cubic: big=SAR(10g)/small=SAR(1g)

Plot 4b-1: U-NII-3 (5.8GHz) band, Antenna 2; Bottom & touch / 11a (6Mbps) / 5745 MHz

EUT: SKR 3000; Type: P-82; Serial: ADU4-S0002

Mode: 11a(6Mbps, OFDM) (UID: 0, Wi-fi_5GHz (0), Frame Length in ms: 0; PAR: 0; PMF: 1); **Frequency: 5745 MHz; Crest Factor: 1.0**

Medium: HSL5GHz(v6.2110); Medium parameters used (interpolated): f = 5745 MHz; σ = 5.059 S/m; ε_r = 34.51; ρ = 1000 kg/m^3

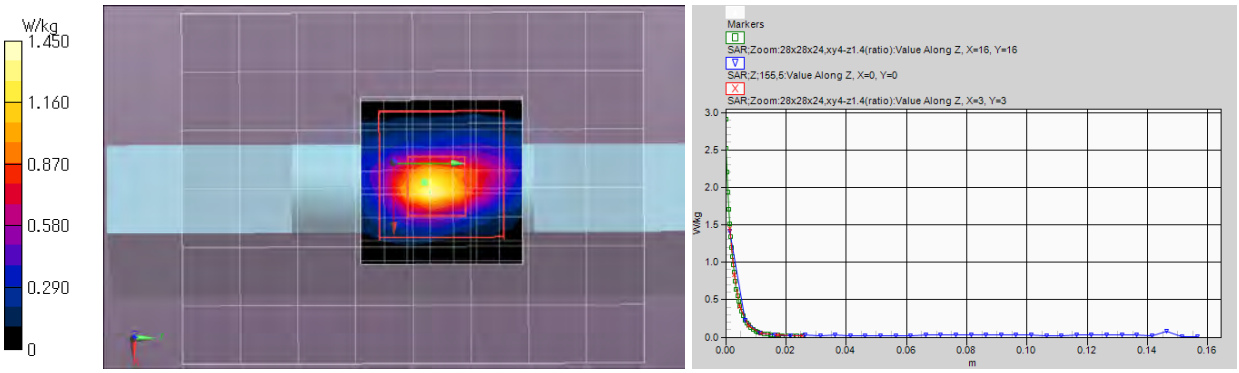
Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)

DASY Configuration: -Electronics: DAE4 Sn626; Calibrated: 2020/11/17 / -Phantom: ELI v4.0; Type: QDOVA001BA; Serial: 1059; Phantom section: Flat Section -DASY52 52.10.3(1513); SEMCAD X 14.6.13(7474) / -Probe: EX3DV4 - SN3907; ConvF(4.6, 4.6, 4.6) @ 5745 MHz; Calibrated: 2021/04/21
-Sensor-Surface: 1.4mm (Mechanical Surface Detection), z = 1.0, 25.0, 156.0

touch,h5d,btm,sub(chain1)/o5h39.58.10,ant2,5745,btm&d0,a(6m)/
Area:60x80,10 (7x9x1): Measurement grid: dx=10mm, dy=10mm; Maximum value of SAR (measured) = 1.18 W/kg
Area:60x80,10 (61x81x1): Interpolated grid: dx=1.000 mm, dy=1.000 mm; Maximum value of SAR (interpolated) = 1.27 W/kg
Z;155,5 (1x1x32): Measurement grid: dx=20mm, dy=20mm, dz=5mm; Maximum value of SAR (measured) = 1.41 W/kg

Zoom:28x28x24,xy4-z1.4(ratio) (8x8x7)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=1.4mm;
Reference Value = 18.06 V/m; Power Drift = -0.16 dB; Maximum value of SAR (measured) = 1.45 W/kg; Peak SAR (extrapolated) = 2.90 W/kg

SAR(1 g) = 0.474 W/kg; SAR(10 g) = 0.122 W/kg (*.Smallest distance from peaks to all points 3 dB below = 4.3 mm; Ratio of SAR at M2 to SAR at M1 = 57.8%)



Remarks: *. Date tested: 2021/10/19; Tested by: Hiroshi Naka; Tested place:No.7 shielded room,
*. Liquid depth: 150 mm; Position: distance of EUT to phantom: 0 mm (2 mm to liquid); ambient: 23 deg.C. / (60~70) %RH,
*. Liquid temperature: 22.2(start)/22.2(end)/22.5(in check) deg.C.; *.White cubic: zoom scan area, Red cubic: big=SAR(10g)/small=SAR(1g)

Appendix 2: SAR measurement data (cont'd)

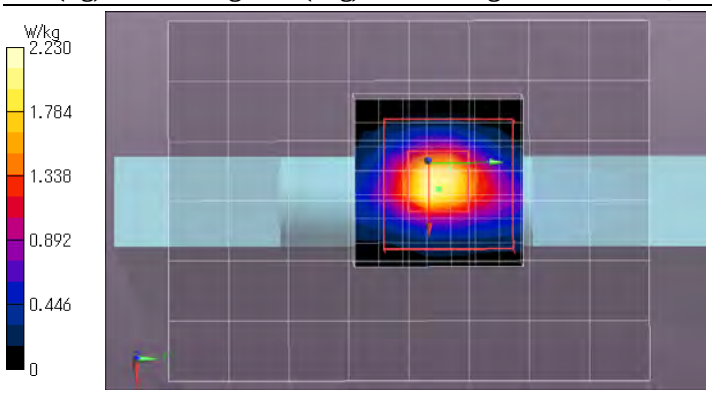
Appendix 2-2: Repeat test plot (SAR measurement variability)

Plot 5a-1: U-NII-2C (5.6GHz) band, Antenna 1; Left & touch / 11n(40HT) (MCS0) / 5670 MHz
EUT: SKR 3000; Type: P-82; Serial: ADU4-S0002
Mode: n40(MCS0, OFDM) (UID: 0, Wi-fi_5GHz (0), Frame Length in ms: 0; PAR: 0; PMF: 1); **Frequency: 5670 MHz; Crest Factor: 1.0**
Medium: HSL5GHz(v6.2110); Medium parameters used: f = 5670 MHz; σ = 5.023 S/m; ε_r = 34.84; ρ = 1000 kg/m^3
Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)

DASY Configuration: -Electronics: DAE4 Sn626; Calibrated: 2020/11/17 / -Phantom: ELI v4.0; Type: QDOVA001BA; Serial: 1059; Phantom section: Flat Section
-DASY52 52.10.3(1513); SEMCAD X 14.6.13(7474) / -Probe: EX3DV4 - SN3907; ConvF(4.56, 4.56, 4.56) @ 5670 MHz; Calibrated: 2021/04/21
-Sensor-Surface: 1.4mm (Mechanical Surface Detection), z = 1.0, 25.0

repeat/o5h58-5h3re,56.1re,5670,at1,right&d0,n40(m0)/
Area:60x80,10 (7x9x1): Measurement grid: dx=10mm, dy=10mm; Maximum value of SAR (measured) = 1.36 W/kg
Area:60x80,10 (61x81x1): Interpolated grid: dx=1.000 mm, dy=1.000 mm; Maximum value of SAR (interpolated) = 1.87 W/kg

Zoom:28x28x24,xy4-z1.4(ratio) (8x8x7)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=1.4mm;
Reference Value = 24.31 V/m; Power Drift = 0.02 dB; Maximum value of SAR (measured) = 2.23 W/kg; Peak SAR (extrapolated) = 4.84 W/kg
SAR(1 g) = 0.858 W/kg; SAR(10 g) = 0.209 W/kg (*.Smallest distance from peaks to all points 3 dB below = 4.9 mm; Ratio of SAR at M2 to SAR at M1 = 60.8%)



Remarks: *. Date tested: 2021/10/27; Tested by: Hiroshi Naka; Tested place:No.7 shielded room,
*. Liquid depth: 150 mm; Position: distance of EUT to phantom: 0 mm (2 mm to liquid); ambient: (22~24) deg.C. / (55~70) %RH,
*. Liquid temperature: 22.5(start)/22.5(end)/22.5(in check) deg.C.; *.White cubic: zoom scan area, Red cubic: big=SAR(10g)/small=SAR(1g)

Appendix 2: SAR measurement data (cont'd)

Appendix 2-3: Other SAR Plots

Plot 1a-2: DTS (2.4GHz) band, Antenna 1; Left & touch / 11b (1Mbps) / 2462 MHz

EUT: SKR 3000; Type: P-82; Serial: ADU4-S0002

Mode: 11b(1Mbps, DSSS) (UID: 0, Wi-fi_2.4GHz (0), Frame Length in ms: 0; PAR: 0; PMF: 1); **Frequency: 2462 MHz; Crest Factor: 1.0**

Medium: HSL5GHz(v6.2110); Medium parameters used (interpolated): f = 2462 MHz; σ = 1.858 S/m; ε_r = 39.81; ρ = 1000 kg/m^3

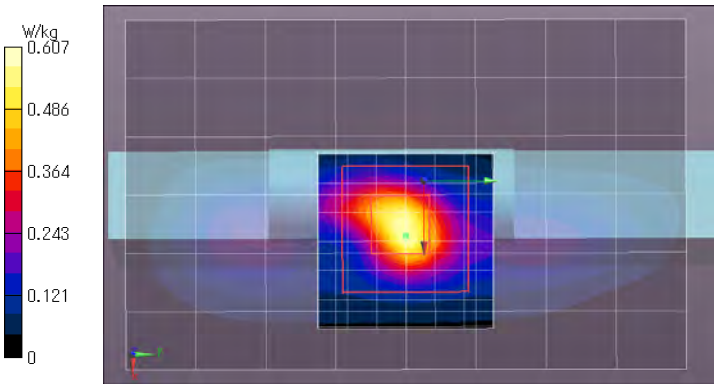
Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)

DASY Configuration: -Electronics: DAE4 Sn626; Calibrated: 2020/11/17 / -Phantom: ELI v4.0; Type: QDOVA001BA; Serial: 1059; Phantom section: Flat Section -DASY52 52.10.3(1513); SEMCAD X 14.6.13(7474) / -Probe: EX3DV4 - SN3907; ConvF(7.35, 7.35, 7.35) @ 2462 MHz; Calibrated: 2021/04/21 -Sensor-Surface: 2mm (Mechanical Surface Detection), z = 1.0, 31.0

touch,h24a,right,at1b(chain0)/24h1,2462,at1,right&d0,b(1m)/
Area:60x96,10,12 (7x9x1): Measurement grid: dx=10mm, dy=12mm; Maximum value of SAR (measured) = 0.495 W/kg
Area:60x96,10,12 (61x81x1): Interpolated grid: dx=1.000 mm, dy=1.200 mm; Maximum value of SAR (interpolated) = 0.558 W/kg

Zoom:30x30x30,5 (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm;
Reference Value = 19.18 V/m; Power Drift = -0.00 dB; Maximum value of SAR (measured) = 0.607 W/kg; Peak SAR (extrapolated) = 1.13 W/kg

SAR(1 g) = 0.320 W/kg; SAR(10 g) = 0.108 W/kg (*.Smallest distance from peaks to all points 3 dB below = 5 mm; Ratio of SAR at M2 to SAR at M1 = 33.7%)



Remarks: *. Date tested: 2021/10/22; Tested by: Hiroshi Naka; Tested place:No.7 shielded room,
*. Liquid depth: 150 mm; Position: distance of EUT to phantom: 0 mm (2 mm to liquid); ambient: (23~24) deg.C. / (50~60) %RH,
*. Liquid temperature: 22.2(start)/22.2(end)/22.5(in check) deg.C.; *.White cubic: zoom scan area, Red cubic: big=SAR(10g)/small=SAR(1g)

Plot 1a-3: DTS (2.4GHz) band, Antenna 1; Left & touch / 11b (1Mbps) / 2437 MHz

EUT: SKR 3000; Type: P-82; Serial: ADU4-S0002

Mode: 11b(1Mbps, DSSS) (UID: 0, Wi-fi_2.4GHz (0), Frame Length in ms: 0; PAR: 0; PMF: 1); **Frequency: 2437 MHz; Crest Factor: 1.0**

Medium: HSL5GHz(v6.2110); Medium parameters used (interpolated): f = 2437 MHz; σ = 1.84 S/m; ε_r = 39.85; ρ = 1000 kg/m^3

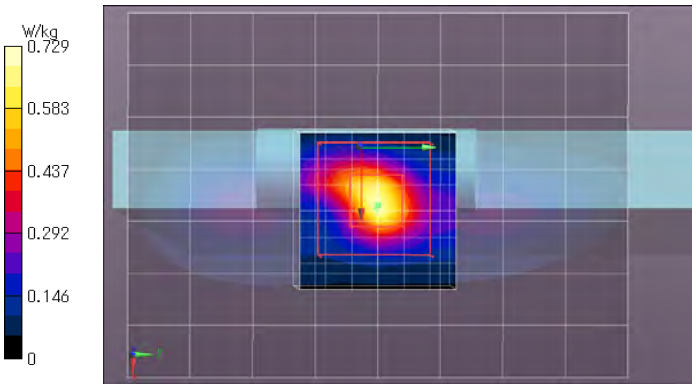
Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)

DASY Configuration: -Electronics: DAE4 Sn626; Calibrated: 2020/11/17 / -Phantom: ELI v4.0; Type: QDOVA001BA; Serial: 1059; Phantom section: Flat Section -DASY52 52.10.3(1513); SEMCAD X 14.6.13(7474) / -Probe: EX3DV4 - SN3907; ConvF(7.35, 7.35, 7.35) @ 2437 MHz; Calibrated: 2021/04/21 -Sensor-Surface: 2mm (Mechanical Surface Detection), z = 1.0, 31.0

touch,h24a,right,at1b(chain0)/24h3,2437,at1,right&d0,b(1m)/
Area:70x96,10,12 (8x9x1): Measurement grid: dx=10mm, dy=12mm; Maximum value of SAR (measured) = 0.599 W/kg
Area:70x96,10,12 (71x81x1): Interpolated grid: dx=1.000 mm, dy=1.200 mm; Maximum value of SAR (interpolated) = 0.667 W/kg

Zoom:30x30x30,5 (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm;
Reference Value = 20.95 V/m; Power Drift = 0.01 dB; Maximum value of SAR (measured) = 0.729 W/kg; Peak SAR (extrapolated) = 1.34 W/kg

SAR(1 g) = 0.383 W/kg; SAR(10 g) = 0.130 W/kg (*.Smallest distance from peaks to all points 3 dB below = 5.4 mm; Ratio of SAR at M2 to SAR at M1 = 34.6%)



Remarks: *. Date tested: 2021/10/22; Tested by: Hiroshi Naka; Tested place:No.7 shielded room,
*. Liquid depth: 150 mm; Position: distance of EUT to phantom: 0 mm (2 mm to liquid); ambient: (23~24) deg.C. / (50~60) %RH,
*. Liquid temperature: 22.2(start)/22.2(end)/22.5(in check) deg.C.; *.White cubic: zoom scan area, Red cubic: big=SAR(10g)/small=SAR(1g)

Appendix 2: SAR measurement data / Appendix 2-3: Other SAR Plots (cont'd)

Plot 1a-4: DTS (2.4GHz) band, Antenna 1; Left & touch / 11g (6Mbps) / 2437 MHz

EUT: SKR 3000; Type: P-82; Serial: ADU4-S0002

Mode: 11g(6Mbps, OFDM) (UID: 0, Wi-fi_2.4GHz (0), Frame Length in ms: 0; PAR: 0; PMF: 1); **Frequency: 2437 MHz; Crest Factor: 1.0**

Medium: HSL5GHz(v6.2110); Medium parameters used (interpolated): f = 2437 MHz; σ = 1.84 S/m; ε_r = 39.85; ρ = 1000 kg/m^3

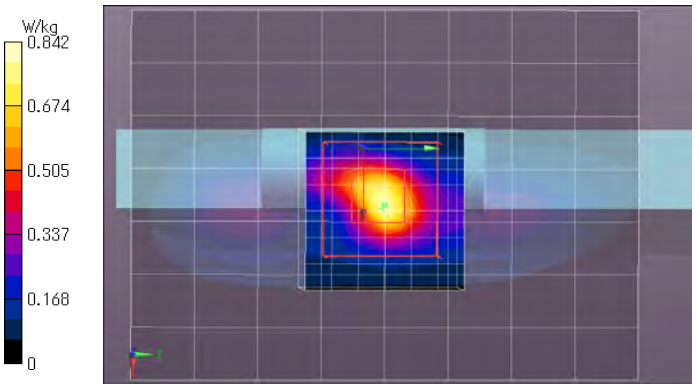
Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)

DASY Configuration: -Electronics: DAE4 Sn626; Calibrated: 2020/11/17 / -Phantom: ELI v4.0; Type: QDOVA001BA; Serial: 1059; Phantom section: Flat Section -DASY52 52.10.3(1513); SEMCAD X 14.6.13(7474) / -Probe: EX3DV4 - SN3907; ConvF(7.35, 7.35, 7.35) @ 2437 MHz; Calibrated: 2021/04/21 -Sensor-Surface: 2mm (Mechanical Surface Detection), z = 1.0, 31.0

touch,h24a,right,at1b(chain0)/24h4,2437,at1,right&d0,g(6m)/
Area:70x96,10,12 (8x9x1): Measurement grid: dx=10mm, dy=12mm; Maximum value of SAR (measured) = 0.688 W/kg
Area:70x96,10,12 (71x81x1): Interpolated grid: dx=1.000 mm, dy=1.200 mm; Maximum value of SAR (interpolated) = 0.765 W/kg

Zoom:30x30x30,5 (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm;
Reference Value = 22.57 V/m; Power Drift = 0.01 dB; Maximum value of SAR (measured) = 0.842 W/kg; Peak SAR (extrapolated) = 1.54 W/kg

SAR(1 g) = 0.443 W/kg; SAR(10 g) = 0.151 W/kg (*.Smallest distance from peaks to all points 3 dB below = 5 mm; Ratio of SAR at M2 to SAR at M1 = 34.7%)



Remarks: *. Date tested: 2021/10/22; Tested by: Hiroshi Naka; Tested place:No.7 shielded room,
*. Liquid depth: 150 mm; Position: distance of EUT to phantom: 0 mm (2 mm to liquid); ambient: (23~24) deg.C. / (50~60) %RH,
*. Liquid temperature: 22.2(start)/22.3(end)/22.5(in check) deg.C.; *.White cubic: zoom scan area, Red cubic: big=SAR(10g)/small=SAR(1g)

Plot 1a-5: DTS (2.4GHz) band, Antenna 1; Rear & touch / 11b (1Mbps) / 2462 MHz

EUT: SKR 3000; Type: P-82; Serial: ADU4-S0002

Mode: 11b(1Mbps, DSSS) (UID: 0, Wi-fi_2.4GHz (0), Frame Length in ms: 0; PAR: 0; PMF: 1); **Frequency: 2462 MHz; Crest Factor: 1.0**

Medium: HSL5GHz(v6.2110); Medium parameters used (interpolated): f = 2462 MHz; σ = 1.866 S/m; ε_r = 40.07; ρ = 1000 kg/m^3

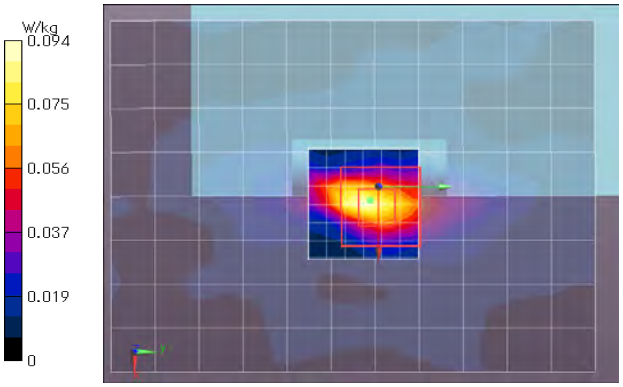
Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)

DASY Configuration: -Electronics: DAE4 Sn626; Calibrated: 2020/11/17 / -Phantom: ELI v4.0; Type: QDOVA001BA; Serial: 1059; Phantom section: Flat Section -DASY52 52.10.3(1513); SEMCAD X 14.6.13(7474) / -Probe: EX3DV4 - SN3907; ConvF(7.35, 7.35, 7.35) @ 2462 MHz; Calibrated: 2021/04/21 -Sensor-Surface: 2mm (Mechanical Surface Detection), z = 1.0, 31.0

touch,other2/24h12,2462,at1,rear&d0,b(1m)/
Area:96x132,12 (9x12x1): Measurement grid: dx=12mm, dy=12mm; Maximum value of SAR (measured) = 0.0883 W/kg
Area:96x132,12 (81x111x1): Interpolated grid: dx=1.200 mm, dy=1.200 mm; Maximum value of SAR (interpolated) = 0.0913 W/kg

Zoom:30x30x30,5 (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm;
Reference Value = 7.105 V/m; Power Drift = 0.16 dB; Maximum value of SAR (measured) = 0.0935 W/kg; Peak SAR (extrapolated) = 0.125 W/kg

SAR(1 g) = 0.050 W/kg; SAR(10 g) = 0.018 W/kg (*.Ratio of SAR at M2 to SAR at M1 = 41.6%)



Remarks: *. Date tested: 2021/10/26; Tested by: Hiroshi Naka; Tested place:No.7 shielded room,
*. Liquid depth: 150 mm; Position: distance of EUT to phantom: 0 mm (2 mm to liquid); ambient: 24 deg.C. / (55~70) %RH,
*. Liquid temperature: 22.4(start)/22.3(end)/22.5(in check) deg.C.; *.White cubic: zoom scan area, Red cubic: big=SAR(10g)/small=SAR(1g)

Appendix 2: SAR measurement data / Appendix 2-3: Other SAR Plots (cont'd)

Plot 1a-6: DTS (2.4GHz) band, Antenna 1; Front & touch / 11b (1Mbps) / 2462 MHz

EUT: SKR 3000; Type: P-82; Serial: ADU4-S0002

Mode: n40(MCS0, OFDM) (UID: 0, Wi-fi_2.4GHz (0), Frame Length in ms: 0; PAR: 0; PMF: 1); **Frequency: 2462 MHz; Crest Factor: 1.0**

Medium: HSL5GHz(v6.2110); Medium parameters used (interpolated): f = 2462 MHz; σ = 1.866 S/m; ε_r = 40.07; ρ = 1000 kg/m^3

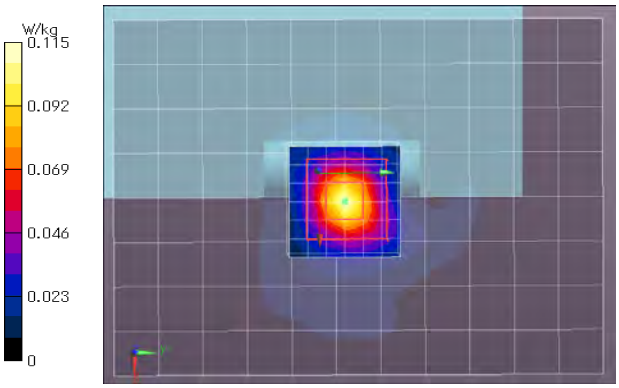
Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)

DASY Configuration: -Electronics: DAE4 Sn626; Calibrated: 2020/11/17 / -Phantom: ELI v4.0; Type: QDOVA001BA; Serial: 1059; Phantom section: Flat Section -DASY52 52.10.3(1513); SEMCAD X 14.6.13(7474) / -Probe: EX3DV4 - SN3907; ConvF(7.35, 7.35, 7.35) @ 2462 MHz; Calibrated: 2021/04/21 -Sensor-Surface: 2mm (Mechanical Surface Detection), z = 1.0, 31.0

touch,other2/24h14,2462,at1,frt&d0,b(1m)/
Area:96x132,12 (9x12x1): Measurement grid: dx=12mm, dy=12mm; Maximum value of SAR (measured) = 0.105 W/kg
Area:96x132,12 (81x111x1): Interpolated grid: dx=1.200 mm, dy=1.200 mm; Maximum value of SAR (interpolated) = 0.112 W/kg

Zoom:30x30x30,5 (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm;
Reference Value = 7.932 V/m; Power Drift = 0.11 dB; Maximum value of SAR (measured) = 0.115 W/kg; Peak SAR (extrapolated) = 0.165 W/kg

SAR(1 g) = 0.068 W/kg; SAR(10 g) = 0.028 W/kg (*.Smallest distance from peaks to all points 3 dB below = 8 mm; Ratio of SAR at M2 to SAR at M1 = 44.8%)



Remarks: *. Date tested: 2021/10/26; Tested by: Hiroshi Naka; Tested place:No.7 shielded room,
*. Liquid depth: 150 mm; Position: distance of EUT to phantom: 0 mm (2 mm to liquid); ambient: 24 deg.C. / (55~70) %RH,
*. Liquid temperature: 22.4(start)/22.4(end)/22.5(in check) deg.C.; *.White cubic: zoom scan area, Red cubic: big=SAR(10g)/small=SAR(1g)

Plot 1a-7: DTS (2.4GHz) band, Antenna 1; Front & touch / 11b (1Mbps) / 2462 MHz

EUT: SKR 3000; Type: P-82; Serial: ADU4-S0002

Mode: 11b(1Mbps, DSSS) (UID: 0, Wi-fi_2.4GHz (0), Frame Length in ms: 0; PAR: 0; PMF: 1); **Frequency: 2462 MHz; Crest Factor: 1.0**

Medium: HSL5GHz(v6.2110); Medium parameters used (interpolated): f = 2462 MHz; σ = 1.866 S/m; ε_r = 40.07; ρ = 1000 kg/m^3

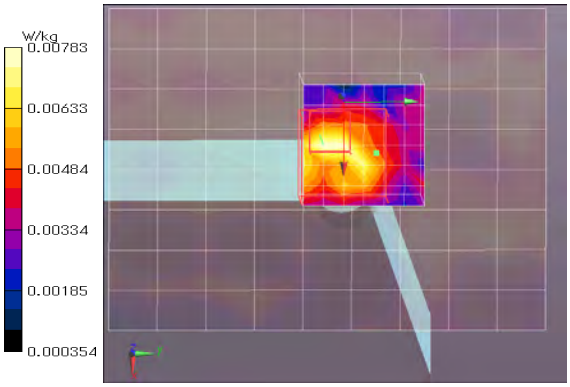
Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)

DASY Configuration: -Electronics: DAE4 Sn626; Calibrated: 2020/11/17 / -Phantom: ELI v4.0; Type: QDOVA001BA; Serial: 1059; Phantom section: Flat Section -DASY52 52.10.3(1513); SEMCAD X 14.6.13(7474) / -Probe: EX3DV4 - SN3907; ConvF(7.35, 7.35, 7.35) @ 2462 MHz; Calibrated: 2021/04/21 -Sensor-Surface: 2mm (Mechanical Surface Detection), z = 1.0, 31.0

touch,other/24h10,2462,at1,top&d0,b(1m)/
Area:80x108,10,12 (9x10x1): Measurement grid: dx=10mm, dy=12mm; Maximum value of SAR (measured) = 0.00800 W/kg
Area:80x108,10,12 (81x91x1): Interpolated grid: dx=1.000 mm, dy=1.200 mm; Maximum value of SAR (interpolated) = 0.00939 W/kg

Zoom:30x30x30,5 (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm;
Reference Value = 1.666 V/m; Power Drift = -0.20 dB; Maximum value of SAR (measured) = 0.00783 W/kg; Peak SAR (extrapolated) = 0.0110 W/kg

SAR(1 g) = 0.0048 W/kg; SAR(10 g) = 0.00279 W/kg (*.Ratio of SAR at M2 to SAR at M1 = 49.9%)



Remarks: *. Date tested: 2021/10/26; Tested by: Hiroshi Naka; Tested place:No.7 shielded room,
*. Liquid depth: 150 mm; Position: distance of EUT to phantom: 0 mm (2 mm to liquid); ambient: 24 deg.C. / (55~70) %RH,
*. Liquid temperature: 22.4(start)/22.4(end)/22.5(in check) deg.C.; *.White cubic: zoom scan area, Red cubic: big=SAR(10g)/small=SAR(1g)

Appendix 2: SAR measurement data / Appendix 2-3: Other SAR Plots (cont'd)

Plot 1b-2:DTS (2.4GHz) band, Antenna 2; Bottom & touch / 11b (1Mbps) / 2462 MHz

EUT: SKR 3000; Type: P-82; Serial: ADU4-S0002

Mode: 11b(1Mbps, DSSS) (UID: 0, Wi-fi_2.4GHz (0), Frame Length in ms: 0; PAR: 0; PMF: 1); **Frequency: 2462 MHz; Crest Factor: 1.0**

Medium: HSL5GHz(v6.2110); Medium parameters used (interpolated): f = 2462 MHz; σ = 1.858 S/m; ε_r = 39.81; ρ = 1000 kg/m^3

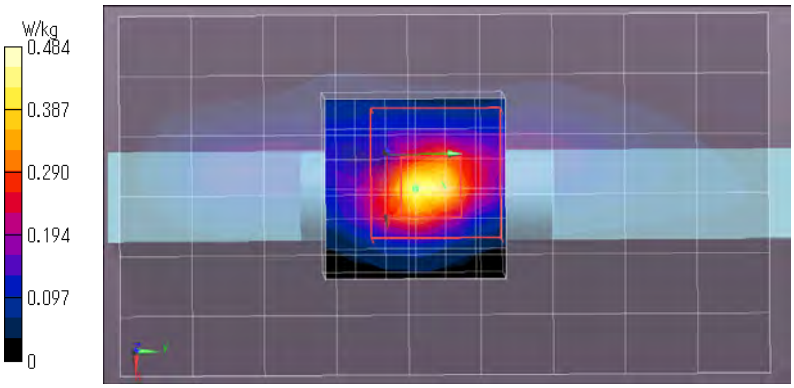
Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)

DASY Configuration: -Electronics: DAE4 Sn626; Calibrated: 2020/11/17 / -Phantom: ELI v4.0; Type: QDOVA001BA; Serial: 1059; Phantom section: Flat Section -DASY52 52.10.3(1513); SEMCAD X 14.6.13(7474) / -Probe: EX3DV4 - SN3907; ConvF(7.35, 7.35, 7.35) @ 2462 MHz; Calibrated: 2021/04/21 -Sensor-Surface: 2mm (Mechanical Surface Detection), z = 1.0, 31.0

touch,h24b,btm,sub(chain1)/24h7,2462,at2,btm&d0,b(1m)/
Area:60x108,10,12 (7x10x1): Measurement grid: dx=10mm, dy=12mm; Maximum value of SAR (measured) = 0.410 W/kg
Area:60x108,10,12 (61x91x1): Interpolated grid: dx=1.000 mm, dy=1.200 mm; Maximum value of SAR (interpolated) = 0.433 W/kg

Zoom:30x30x30,5 (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm;
Reference Value = 16.12 V/m; Power Drift = -0.07 dB; Maximum value of SAR (measured) = 0.484 W/kg; Peak SAR (extrapolated) = 0.882 W/kg

SAR(1 g) = 0.254 W/kg; SAR(10 g) = 0.086 W/kg (*.Smallest distance from peaks to all points 3 dB below = 5.4 mm; Ratio of SAR at M2 to SAR at M1 = 34.1%)



Remarks: *. Date tested: 2021/10/22; Tested by: Hiroshi Naka; Tested place:No.7 shielded room,
*. Liquid depth: 150 mm; Position: distance of EUT to phantom: 0 mm (2 mm to liquid); ambient: (23~24) deg.C. / (50~60) %RH,
*. Liquid temperature: 22.4(start)/22.3(end)/22.5(in check) deg.C.; *.White cubic: zoom scan area, Red cubic: big=SAR(10g)/small=SAR(1g)

Plot 1b-3: DTS (2.4GHz) band, Antenna 2; Bottom & touch / 11b (1Mbps) / 2437 MHz

EUT: SKR 3000; Type: P-82; Serial: ADU4-S0002

Mode: 11b(1Mbps, DSSS) (UID: 0, Wi-fi_2.4GHz (0), Frame Length in ms: 0; PAR: 0; PMF: 1); **Frequency: 2437 MHz; Crest Factor: 1.0**

Medium: HSL5GHz(v6.2110); Medium parameters used (interpolated): f = 2437 MHz; σ = 1.84 S/m; ε_r = 39.85; ρ = 1000 kg/m^3

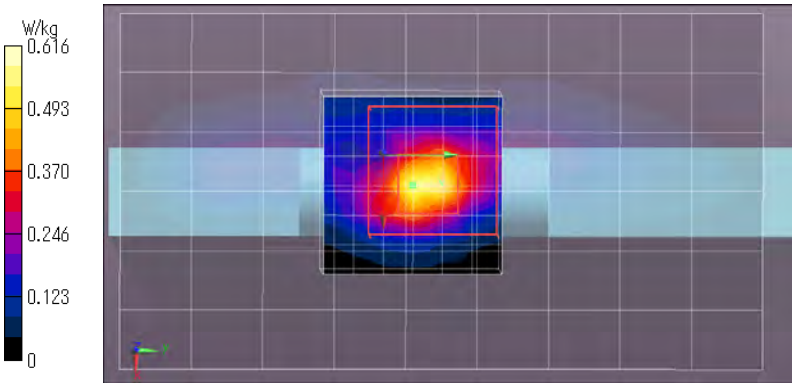
Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)

DASY Configuration: -Electronics: DAE4 Sn626; Calibrated: 2020/11/17 / -Phantom: ELI v4.0; Type: QDOVA001BA; Serial: 1059; Phantom section: Flat Section -DASY52 52.10.3(1513); SEMCAD X 14.6.13(7474) / -Probe: EX3DV4 - SN3907; ConvF(7.35, 7.35, 7.35) @ 2437 MHz; Calibrated: 2021/04/21 -Sensor-Surface: 2mm (Mechanical Surface Detection), z = 1.0, 31.0

touch,h24b,btm,sub(chain1)/24h8,2437,at2,btm&d0,b(1m)/
Area:60x108,10,12 (7x10x1): Measurement grid: dx=10mm, dy=12mm; Maximum value of SAR (measured) = 0.516 W/kg
Area:60x108,10,12 (61x91x1): Interpolated grid: dx=1.000 mm, dy=1.200 mm; Maximum value of SAR (interpolated) = 0.545 W/kg

Zoom:30x30x30,5 (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm;
Reference Value = 18.28 V/m; Power Drift = -0.10 dB; Maximum value of SAR (measured) = 0.616 W/kg; Peak SAR (extrapolated) = 1.11 W/kg

SAR(1 g) = 0.322 W/kg; SAR(10 g) = 0.110 W/kg (*.Smallest distance from peaks to all points 3 dB below = 5.4 mm; Ratio of SAR at M2 to SAR at M1 = 34.2%)



Remarks: *. Date tested: 2021/10/22; Tested by: Hiroshi Naka; Tested place:No.7 shielded room,
*. Liquid depth: 150 mm; Position: distance of EUT to phantom: 0 mm (2 mm to liquid); ambient: (23~24) deg.C. / (50~60) %RH,
*. Liquid temperature: 22.3(start)/22.3(end)/22.5(in check) deg.C.; *.White cubic: zoom scan area, Red cubic: big=SAR(10g)/small=SAR(1g)

Appendix 2: SAR measurement data / Appendix 2-3: Other SAR Plots (cont'd)

Plot 1b-4:DTS (2.4GHz) band, Antenna 2; Bottom & touch / 11g (6Mbps) / 2437 MHz

EUT: SKR 3000; Type: P-82; Serial: ADU4-S0002

Mode: 11g(6Mbps, OFDM) (UID: 0, Wi-fi_2.4GHz (0), Frame Length in ms: 0; PAR: 0; PMF: 1); **Frequency: 2437 MHz; Crest Factor: 1.0**

Medium: HSL5GHz(v6.2110); Medium parameters used (interpolated): f = 2437 MHz; σ = 1.84 S/m; ε_r = 39.85; ρ = 1000 kg/m^3

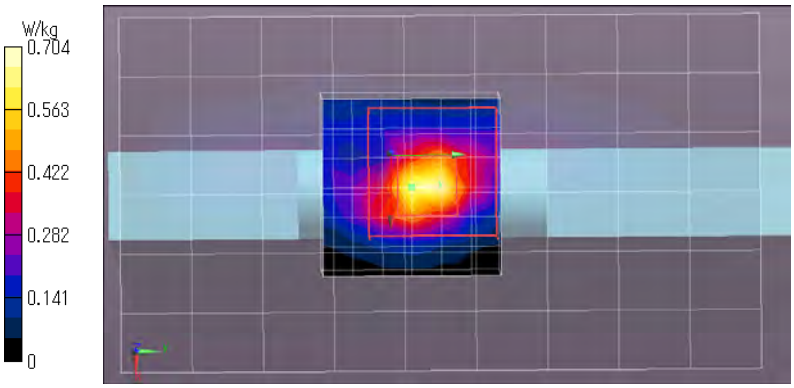
Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)

DASY Configuration: -Electronics: DAE4 Sn626; Calibrated: 2020/11/17 / -Phantom: ELI v4.0; Type: QDOVA001BA; Serial: 1059; Phantom section: Flat Section -DASY52 52.10.3(1513); SEMCAD X 14.6.13(7474) / -Probe: EX3DV4 - SN3907; ConvF(7.35, 7.35, 7.35) @ 2437 MHz; Calibrated: 2021/04/21 -Sensor-Surface: 2mm (Mechanical Surface Detection), z = 1.0, 31.0

touch,h24b,btm,sub(chain1)/24h8,2437,at2,btm&d0,g(6m)/
Area:60x108,10,12 (7x10x1): Measurement grid: dx=10mm, dy=12mm; Maximum value of SAR (measured) = 0.582 W/kg
Area:60x108,10,12 (61x91x1): Interpolated grid: dx=1.000 mm, dy=1.200 mm; Maximum value of SAR (interpolated) = 0.617 W/kg

Zoom:30x30x30,5 (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm;
Reference Value = 19.43 V/m; Power Drift = -0.09 dB; Maximum value of SAR (measured) = 0.704 W/kg; Peak SAR (extrapolated) = 1.27 W/kg

SAR(1 g) = 0.367 W/kg; SAR(10 g) = 0.125 W/kg (*.Smallest distance from peaks to all points 3 dB below = 5.4 mm; Ratio of SAR at M2 to SAR at M1 = 34.4%)



Remarks: *. Date tested: 2021/10/22; Tested by: Hiroshi Naka; Tested place:No.7 shielded room,
*. Liquid depth: 150 mm; Position: distance of EUT to phantom: 0 mm (2 mm to liquid); ambient: (23~24) deg.C. / (50~60) %RH,
*. Liquid temperature: 22.3(start)/22.3(end)/22.5(in check) deg.C.; *.White cubic: zoom scan area, Red cubic: big=SAR(10g)/small=SAR(1g)

Plot 1b-5: DTS (2.4GHz) band, Antenna 2; Rear & touch / 11b (1Mbps) / 2412 MHz

EUT: SKR 3000; Type: P-82; Serial: ADU4-S0002

Mode: 11b(1Mbps, DSSS) (UID: 0, Wi-fi_2.4GHz (0), Frame Length in ms: 0; PAR: 0; PMF: 1); **Frequency: 2412 MHz; Crest Factor: 1.0**

Medium: HSL5GHz(v6.2110); Medium parameters used (interpolated): f = 2412 MHz; σ = 1.828 S/m; ε_r = 40.17; ρ = 1000 kg/m^3

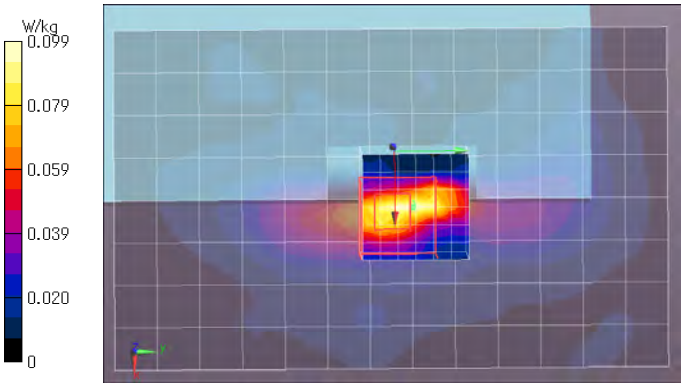
Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)

DASY Configuration: -Electronics: DAE4 Sn626; Calibrated: 2020/11/17 / -Phantom: ELI v4.0; Type: QDOVA001BA; Serial: 1059; Phantom section: Flat Section -DASY52 52.10.3(1513); SEMCAD X 14.6.13(7474) / -Probe: EX3DV4 - SN3907; ConvF(7.35, 7.35, 7.35) @ 2412 MHz; Calibrated: 2021/04/21 -Sensor-Surface: 2mm (Mechanical Surface Detection), z = 1.0, 31.0

touch,other2/24h13,2412,at2,rear&d0,b(1m)/
Area:96x156,12 (9x14x1): Measurement grid: dx=12mm, dy=12mm; Maximum value of SAR (measured) = 0.101 W/kg
Area:96x156,12 (81x131x1): Interpolated grid: dx=1.200 mm, dy=1.200 mm; Maximum value of SAR (interpolated) = 0.110 W/kg

Zoom:30x30x30,5 (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm;
Reference Value = 7.525 V/m; Power Drift = 0.08 dB; Maximum value of SAR (measured) = 0.0987 W/kg; Peak SAR (extrapolated) = 0.155 W/kg

SAR(1 g) = 0.060 W/kg; SAR(10 g) = 0.027 W/kg (*.Ratio of SAR at M2 to SAR at M1 = 42%)



Remarks: *. Date tested: 2021/10/26; Tested by: Hiroshi Naka; Tested place:No.7 shielded room,
*. Liquid depth: 150 mm; Position: distance of EUT to phantom: 0 mm (2 mm to liquid); ambient: 24 deg.C. / (55~70) %RH,
*. Liquid temperature: 22.3(start)/22.3(end)/22.5(in check) deg.C.; *.White cubic: zoom scan area, Red cubic: big=SAR(10g)/small=SAR(1g)

Appendix 2: SAR measurement data / Appendix 2-3: Other SAR Plots (cont'd)

Plot 1b-6: DTS (2.4GHz) band, Antenna 2; Front & touch / 11b (1Mbps) / 2412 MHz

EUT: SKR 3000; Type: P-82; Serial: ADU4-S0002

Mode: n40(MCS0, OFDM) (UID: 0, Wi-fi_2.4GHz (0), Frame Length in ms: 0; PAR: 0; PMF: 1); **Frequency: 2412 MHz; Crest Factor: 1.0**

Medium: HSL5GHz(v6.2110); Medium parameters used (interpolated): f = 2412 MHz; σ = 1.828 S/m; ε_r = 40.17; ρ = 1000 kg/m^3

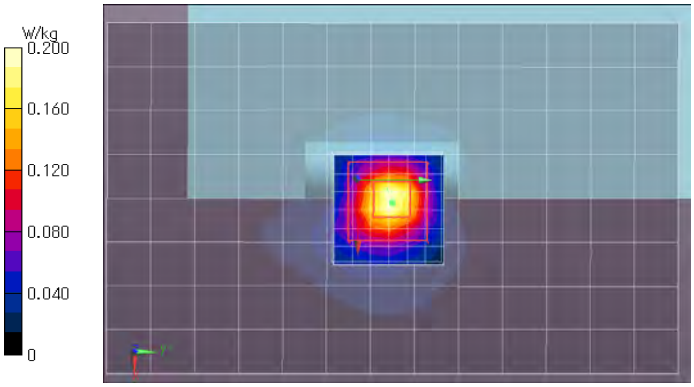
Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)

DASY Configuration: -Electronics: DAE4 Sn626; Calibrated: 2020/11/17 / -Phantom: ELI v4.0; Type: QDOVA001BA; Serial: 1059; Phantom section: Flat Section -DASY52 52.10.3(1513); SEMCAD X 14.6.13(7474) / -Probe: EX3DV4 - SN3907; ConvF(7.35, 7.35, 7.35) @ 2412 MHz; Calibrated: 2021/04/21 -Sensor-Surface: 2mm (Mechanical Surface Detection), z = 1.0, 31.0

touch,other2/24h13,2412,at2,frt&d0,b(1m)/
Area:96x156,12 (9x14x1): Measurement grid: dx=12mm, dy=12mm; Maximum value of SAR (measured) = 0.161 W/kg
Area:96x156,12 (81x131x1): Interpolated grid: dx=1.200 mm, dy=1.200 mm; Maximum value of SAR (interpolated) = 0.206 W/kg

Zoom:30x30x30,5 (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm;
Reference Value = 9.573 V/m; Power Drift = -0.05 dB; Maximum value of SAR (measured) = 0.200 W/kg; Peak SAR (extrapolated) = 0.303 W/kg

SAR(1 g) = 0.127 W/kg; SAR(10 g) = 0.053 W/kg (*.Smallest distance from peaks to all points 3 dB below = 8.1 mm; Ratio of SAR at M2 to SAR at M1 = 45.2%)



Remarks: *. Date tested: 2021/10/26; Tested by: Hiroshi Naka; Tested place:No.7 shielded room,
*. Liquid depth: 150 mm; Position: distance of EUT to phantom: 0 mm (2 mm to liquid); ambient: 24 deg.C. / (55~70) %RH,
*. Liquid temperature: 22.4(start)/22.4(end)/22.5(in check) deg.C.; *.White cubic: zoom scan area, Red cubic: big=SAR(10g)/small=SAR(1g)

Plot 1b-7: DTS (2.4GHz) band, Antenna 2; Right & touch / 11b (1Mbps) / 2412 MHz

EUT: SKR 3000; Type: P-82; Serial: ADU4-S0002

Mode: 11b(1Mbps, DSSS) (UID: 0, Wi-fi_2.4GHz (0), Frame Length in ms: 0; PAR: 0; PMF: 1); **Frequency: 2412 MHz; Crest Factor: 1.0**

Medium: HSL5GHz(v6.2110); Medium parameters used (interpolated): f = 2412 MHz; σ = 1.828 S/m; ε_r = 40.17; ρ = 1000 kg/m^3

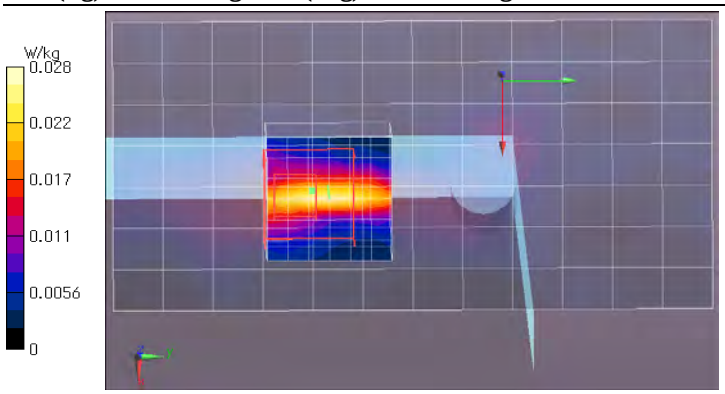
Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)

DASY Configuration: -Electronics: DAE4 Sn626; Calibrated: 2020/11/17 / -Phantom: ELI v4.0; Type: QDOVA001BA; Serial: 1059; Phantom section: Flat Section -DASY52 52.10.3(1513); SEMCAD X 14.6.13(7474) / -Probe: EX3DV4 - SN3907; ConvF(7.35, 7.35, 7.35) @ 2412 MHz; Calibrated: 2021/04/21 -Sensor-Surface: 2mm (Mechanical Surface Detection), z = 1.0, 31.0

touch,other/24h11,2412,at2,left&d0,b(1m)/
Area:70x144,10,12 (8x13x1): Measurement grid: dx=10mm, dy=12mm; Maximum value of SAR (measured) = 0.0215 W/kg
Area:70x144,10,12 (71x121x1): Interpolated grid: dx=1.000 mm, dy=1.200 mm; Maximum value of SAR (interpolated) = 0.0218 W/kg

Zoom:30x30x30,5 (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm;
Reference Value = 3.709 V/m; Power Drift = -0.14 dB; Maximum value of SAR (measured) = 0.0280 W/kg; Peak SAR (extrapolated) = 0.0480 W/kg

SAR(1 g) = 0.013 W/kg; SAR(10 g) = 0.0063 W/kg (*.Ratio of SAR at M2 to SAR at M1 = 33.5%)



Remarks: *. Date tested: 2021/10/26; Tested by: Hiroshi Naka; Tested place:No.7 shielded room,
*. Liquid depth: 150 mm; Position: distance of EUT to phantom: 0 mm (2 mm to liquid); ambient: 24 deg.C. / (55~70) %RH,
*. Liquid temperature: 22.4(start)/22.5(end)/22.5(in check) deg.C.; *.White cubic: zoom scan area, Red cubic: big=SAR(10g)/small=SAR(1g)

Appendix 2: SAR measurement data / Appendix 2-3: Other SAR Plots (cont'd)

Plot 2a-2: U-NII-2A (5.3GHz) band, Antenna 1; Left & touch / 11n(40HT) (MCS0) / 5270 MHz

EUT: SKR 3000; Type: P-82; Serial: ADU4-S0002

Mode: n40(MCS0, OFDM) (UID: 0, Wi-fi_5GHz (0), Frame Length in ms: 0; PAR: 0; PMF: 1); **Frequency: 5270 MHz; Crest Factor: 1.0**

Medium: HSL5GHz(v6.2110); Medium parameters used: f = 5270 MHz; σ = 4.54 S/m; ε_r = 35.29; ρ = 1000 kg/m^3

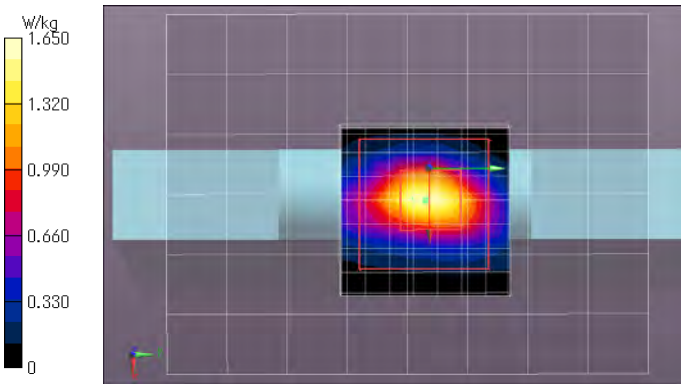
Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)

DASY Configuration: -Electronics: DAE4 Sn626; Calibrated: 2020/11/17 / -Phantom: ELI v4.0; Type: QDOVA001BA; Serial: 1059; Phantom section: Flat Section -DASY52 52.10.3(1513); SEMCAD X 14.6.13(7474) / -Probe: EX3DV4 - SN3907; ConvF(5.14, 5.14, 5.14) @ 5270 MHz; Calibrated: 2021/04/21
-Sensor-Surface: 1.4mm (Mechanical Surface Detection), z = 1.0, 25.0

touch,h5a,right,at1(chain0)/5h7,53.1,5270,at1,right&d0,n40(m0)/
Area:60x80,10 (7x9x1): Measurement grid: dx=10mm, dy=10mm; Maximum value of SAR (measured) = 1.31 W/kg
Area:60x80,10 (61x81x1): Interpolated grid: dx=1.000 mm, dy=1.000 mm; Maximum value of SAR (interpolated) = 1.45 W/kg

Zoom:28x28x24,xy4-z1.4(ratio) (8x8x7)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=1.4mm;
Reference Value = 21.07 V/m; Power Drift = 0.11 dB; Maximum value of SAR (measured) = 1.65 W/kg; Peak SAR (extrapolated) = 2.98 W/kg

SAR(1 g) = 0.648 W/kg; SAR(10 g) = 0.176 W/kg (*.Smallest distance from peaks to all points 3 dB below = 4.8 mm; Ratio of SAR at M2 to SAR at M1 = 62.1%)



Remarks: *. Date tested: 2021/10/22; Tested by: Hiroshi Naka; Tested place:No.7 shielded room,
*. Liquid depth: 150 mm; Position: distance of EUT to phantom: 0 mm (2 mm to liquid); ambient: (23~24) deg.C. / (50~60) %RH,
*. Liquid temperature: 22.2(start)/22.2(end)/22.5(in check) deg.C.; *.White cubic: zoom scan area, Red cubic: big=SAR(10g)/small=SAR(1g)

Plot 2a-3: U-NII-2A (5.3GHz) band, Antenna 1; Left & touch / 11n(40HT) (MCS0) / 5310 MHz

EUT: SKR 3000; Type: P-82; Serial: ADU4-S0002

Mode: n40(MCS0, OFDM) (UID: 0, Wi-fi_5GHz (0), Frame Length in ms: 0; PAR: 0; PMF: 1); **Frequency: 5310 MHz; Crest Factor: 1.0**

Medium: HSL5GHz(v6.2110); Medium parameters used: f = 5310 MHz; σ = 4.583 S/m; ε_r = 35.22; ρ = 1000 kg/m^3

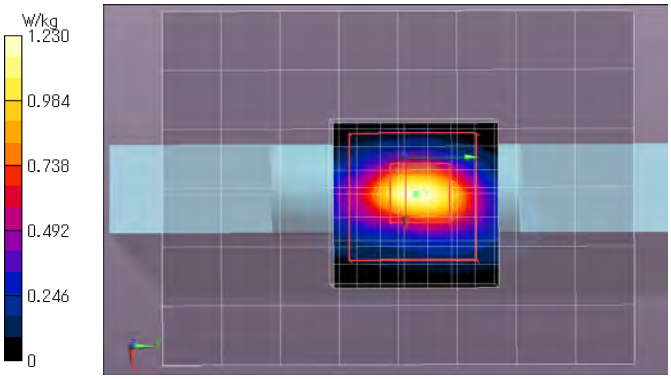
Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)

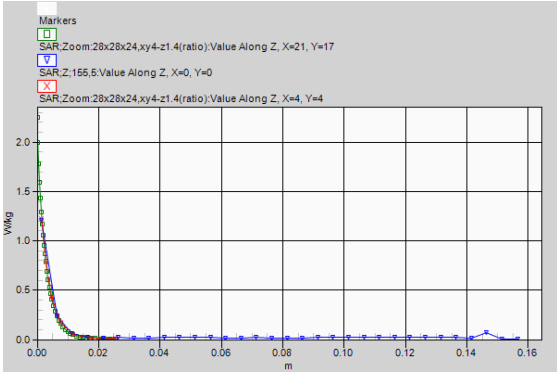
DASY Configuration: -Electronics: DAE4 Sn626; Calibrated: 2020/11/17 / -Phantom: ELI v4.0; Type: QDOVA001BA; Serial: 1059; Phantom section: Flat Section -DASY52 52.10.3(1513); SEMCAD X 14.6.13(7474) / -Probe: EX3DV4 - SN3907; ConvF(5.14, 5.14, 5.14) @ 5310 MHz; Calibrated: 2021/04/21
-Sensor-Surface: 1.4mm (Mechanical Surface Detection), z = 1.0, 25.0, 156.0

touch,h5a,right,at1(chain0)/o5h8,53.2,5310,at1,right&d0,n40(m0)/
Area:60x80,10 (7x9x1): Measurement grid: dx=10mm, dy=10mm; Maximum value of SAR (measured) = 1.08 W/kg
Area:60x80,10 (61x81x1): Interpolated grid: dx=1.000 mm, dy=1.000 mm; Maximum value of SAR (interpolated) = 1.20 W/kg
Z;155,5 (1x1x32): Measurement grid: dx=20mm, dy=20mm, dz=5mm; Maximum value of SAR (measured) = 1.21 W/kg

Zoom:28x28x24,xy4-z1.4(ratio) (8x8x7)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=1.4mm;
Reference Value = 18.52 V/m; Power Drift = -0.04 dB; Maximum value of SAR (measured) = 1.23 W/kg; Peak SAR (extrapolated) = 2.25 W/kg

SAR(1 g) = 0.482 W/kg; SAR(10 g) = 0.130 W/kg (*.Smallest distance from peaks to all points 3 dB below = 4.8 mm; Ratio of SAR at M2 to SAR at M1 = 64.1%)





Remarks: *. Date tested: 2021/10/22; Tested by: Hiroshi Naka; Tested place:No.7 shielded room,
*. Liquid depth: 150 mm; Position: distance of EUT to phantom: 0 mm (2 mm to liquid); ambient: (23~24) deg.C. / (50~60) %RH,
*. Liquid temperature: 22.2(start)/22.2(end)/22.5(in check) deg.C.; *.White cubic: zoom scan area, Red cubic: big=SAR(10g)/small=SAR(1g)

Appendix 2: SAR measurement data / Appendix 2-3: Other SAR Plots (cont'd)

Plot 2a-4: U-NII-2A (5.3GHz) band, Antenna 1; Left & touch / 11a (6Mbps) / 5260 MHz

EUT: SKR 3000; Type: P-82; Serial: ADU4-S0002

Mode: 11a(6Mbps, OFDM) (UID: 0, Wi-fi_5GHz (0), Frame Length in ms: 0; PAR: 0; PMF: 1); **Frequency: 5260 MHz; Crest Factor: 1.0**

Medium: HSL5GHz(v6.2110); Medium parameters used: f = 5260 MHz; σ = 4.527 S/m; ε_r = 35.32; ρ = 1000 kg/m^3

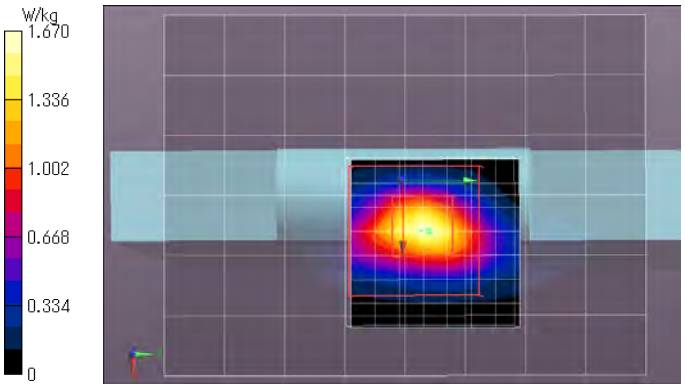
Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)

DASY Configuration: -Electronics: DAE4 Sn626; Calibrated: 2020/11/17 / -Phantom: ELI v4.0; Type: QDOVA001BA; Serial: 1059; Phantom section: Flat Section -DASY52 52.10.3(1513); SEMCAD X 14.6.13(7474) / -Probe: EX3DV4 - SN3907; ConvF(5.14, 5.14, 5.14) @ 5260 MHz; Calibrated: 2021/04/21 -Sensor-Surface: 1.4mm (Mechanical Surface Detection), z = 1.0, 25.0

touch,h5b,right,at1(chain0)/5h21,53.5,5260,at1,right&d0,a(6m)/
Area:60x80,10 (7x9x1): Measurement grid: dx=10mm, dy=10mm; Maximum value of SAR (measured) = 0.885 W/kg
Area:60x80,10 (61x81x1): Interpolated grid: dx=1.000 mm, dy=1.000 mm; Maximum value of SAR (interpolated) = 1.63 W/kg

Zoom:28x28x24,xy4-z1.4(ratio) (8x8x7)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=1.4mm;
Reference Value = 20.82 V/m; Power Drift = 0.08 dB; Maximum value of SAR (measured) = 1.67 W/kg; Peak SAR (extrapolated) = 2.94 W/kg

SAR(1 g) = 0.649 W/kg; SAR(10 g) = 0.176 W/kg (*.Smallest distance from peaks to all points 3 dB below = 4.7 mm; Ratio of SAR at M2 to SAR at M1 = 64%)



Remarks: *. Date tested: 2021/10/22; Tested by: Hiroshi Naka; Tested place:No.7 shielded room,
*. Liquid depth: 150 mm; Position: distance of EUT to phantom: 0 mm (2 mm to liquid); ambient: (23~24) deg.C. / (50~60) %RH,
*. Liquid temperature: 22.2(start)/22.2(end)/22.5(in check) deg.C.; *.White cubic: zoom scan area, Red cubic: big=SAR(10g)/small=SAR(1g)

Plot 2a-5: U-NII-2A (5.3GHz) band, Antenna 1; Left & touch / 11a (6Mbps) / 5300 MHz

EUT: SKR 3000; Type: P-82; Serial: ADU4-S0002

Mode: 11a(6Mbps, OFDM) (UID: 0, Wi-fi_5GHz (0), Frame Length in ms: 0; PAR: 0; PMF: 1); **Frequency: 5300 MHz; Crest Factor: 1.0**

Medium: HSL5GHz(v6.2110); Medium parameters used: f = 5300 MHz; σ = 4.575 S/m; ε_r = 35.23; ρ = 1000 kg/m^3

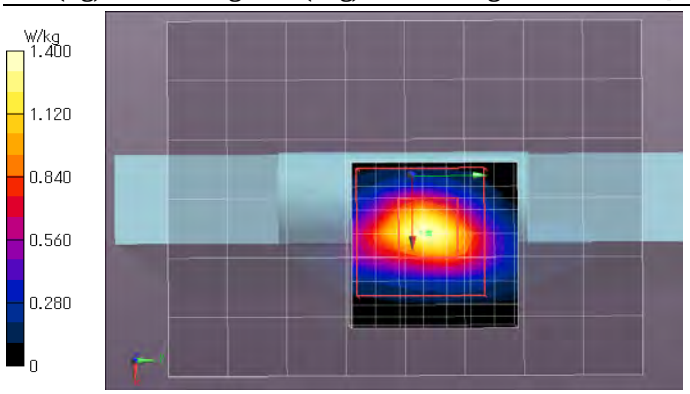
Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)

DASY Configuration: -Electronics: DAE4 Sn626; Calibrated: 2020/11/17 / -Phantom: ELI v4.0; Type: QDOVA001BA; Serial: 1059; Phantom section: Flat Section -DASY52 52.10.3(1513); SEMCAD X 14.6.13(7474) / -Probe: EX3DV4 - SN3907; ConvF(5.14, 5.14, 5.14) @ 5300 MHz; Calibrated: 2021/04/21 -Sensor-Surface: 1.4mm (Mechanical Surface Detection), z = 1.0, 25.0

touch,h5b,right,at1(chain0)/5h20,53.4,5300,at1,right&d0,a(6m)/
Area:60x80,10 (7x9x1): Measurement grid: dx=10mm, dy=10mm; Maximum value of SAR (measured) = 0.790 W/kg
Area:60x80,10 (61x81x1): Interpolated grid: dx=1.000 mm, dy=1.000 mm; Maximum value of SAR (interpolated) = 1.45 W/kg

Zoom:28x28x24,xy4-z1.4(ratio) (8x8x7)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=1.4mm;
Reference Value = 19.44 V/m; Power Drift = -0.14 dB; Maximum value of SAR (measured) = 1.40 W/kg; Peak SAR (extrapolated) = 2.51 W/kg

SAR(1 g) = 0.542 W/kg; SAR(10 g) = 0.149 W/kg (*.Smallest distance from peaks to all points 3 dB below = 4.7 mm; Ratio of SAR at M2 to SAR at M1 = 62.5%)



Remarks: *. Date tested: 2021/10/22; Tested by: Hiroshi Naka; Tested place:No.7 shielded room,
*. Liquid depth: 150 mm; Position: distance of EUT to phantom: 0 mm (2 mm to liquid); ambient: (23~24) deg.C. / (50~60) %RH,
*. Liquid temperature: 22.2(start)/22.2(end)/22.5(in check) deg.C.; *.White cubic: zoom scan area, Red cubic: big=SAR(10g)/small=SAR(1g)

Appendix 2: SAR measurement data / Appendix 2-3: Other SAR Plots (cont'd)

Plot 2a-6: U-NII-2A (5.3GHz) band, Antenna 1; Rear & touch / 11n(40HT) (MCS0) / 5270 MHz

EUT: SKR 3000; Type: P-82; Serial: ADU4-S0002

Mode: n40(MCS0, OFDM) (UID: 0, Wi-fi_5GHz (0), Frame Length in ms: 0; PAR: 0; PMF: 1); **Frequency: 5270 MHz; Crest Factor: 1.0**

Medium: HSL5GHz(v6.2110); Medium parameters used: f = 5270 MHz; σ = 4.573 S/m; ε_r = 35.50; ρ = 1000 kg/m^3

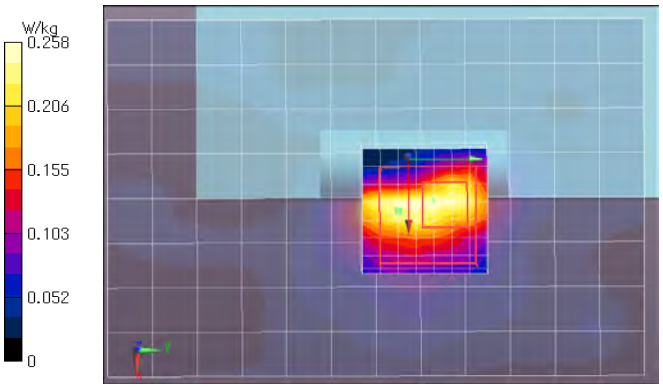
Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)

DASY Configuration: -Electronics: DAE4 Sn626; Calibrated: 2020/11/17 / -Phantom: ELI v4.0; Type: QDOVA001BA; Serial: 1059; Phantom section: Flat Section -DASY52 52.10.3(1513); SEMCAD X 14.6.13(7474) / -Probe: EX3DV4 - SN3907; ConvF(5.14, 5.14, 5.14) @ 5270 MHz; Calibrated: 2021/04/21 -Sensor-Surface: 1.4mm (Mechanical Surface Detection), z = 1.0, 25.0

touch,other2/5h48,53.10,5270,at1,rear&d0,n40(m0)/
Area:80x120,10 (9x13x1): Measurement grid: dx=10mm, dy=10mm; Maximum value of SAR (measured) = 0.238 W/kg
Area:80x120,10 (81x121x1): Interpolated grid: dx=1.000 mm, dy=1.000 mm; Maximum value of SAR (interpolated) = 0.286 W/kg

Zoom:28x28x24,xy4-z1.4(ratio) (8x8x7)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=1.4mm;
Reference Value = 8.086 V/m; Power Drift = 0.03 dB; Maximum value of SAR (measured) = 0.258 W/kg; Peak SAR (extrapolated) = 0.457 W/kg

SAR(1 g) = 0.115 W/kg; SAR(10 g) = 0.052 W/kg (*.Smallest distance from peaks to all points 3 dB below = 5.1 mm; Ratio of SAR at M2 to SAR at M1 = 66.4%)



Remarks: *. Date tested: 2021/10/26; Tested by: Hiroshi Naka; Tested place:No.7 shielded room,
*. Liquid depth: 150 mm; Position: distance of EUT to phantom: 0 mm (2 mm to liquid); ambient: 24 deg.C. / (55~70) %RH,
*. Liquid temperature: 22.4(start)/22.4(end)/22.5(in check) deg.C.; *.White cubic: zoom scan area, Red cubic: big=SAR(10g)/small=SAR(1g)

Plot 2a-7: U-NII-2A (5.3GHz) band, Antenna 1; Front & touch / 11n(40HT) (MCS0) / 5270 MHz

EUT: SKR 3000; Type: P-82; Serial: ADU4-S0002

Mode: n40(MCS0, OFDM) (UID: 0, Wi-fi_5GHz (0), Frame Length in ms: 0; PAR: 0; PMF: 1); **Frequency: 5270 MHz; Crest Factor: 1.0**

Medium: HSL5GHz(v6.2110); Medium parameters used: f = 5270 MHz; σ = 4.573 S/m; ε_r = 35.50; ρ = 1000 kg/m^3

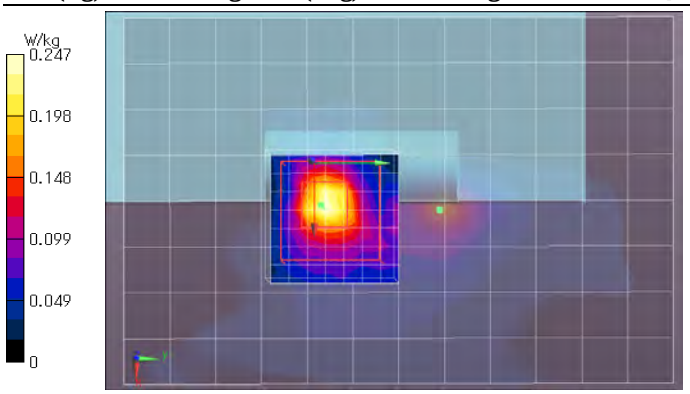
Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)

DASY Configuration: -Electronics: DAE4 Sn626; Calibrated: 2020/11/17 / -Phantom: ELI v4.0; Type: QDOVA001BA; Serial: 1059; Phantom section: Flat Section -DASY52 52.10.3(1513); SEMCAD X 14.6.13(7474) / -Probe: EX3DV4 - SN3907; ConvF(5.14, 5.14, 5.14) @ 5270 MHz; Calibrated: 2021/04/21 -Sensor-Surface: 1.4mm (Mechanical Surface Detection), z = 1.0, 25.0

touch,other2/5h54,53.12,5270,at1,frt&d0,n40(m0)/
Area:80x120,10 (9x13x1): Measurement grid: dx=10mm, dy=10mm; Maximum value of SAR (measured) = 0.180 W/kg
Area:80x120,10 (81x121x1): Interpolated grid: dx=1.000 mm, dy=1.000 mm; Maximum value of SAR (interpolated) = 0.254 W/kg

Zoom:28x28x24,xy4-z1.4(ratio) (8x8x7)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=1.4mm;
Reference Value = 8.245 V/m; Power Drift = -0.18 dB; Maximum value of SAR (measured) = 0.247 W/kg; Peak SAR (extrapolated) = 0.438 W/kg

SAR(1 g) = 0.106 W/kg; SAR(10 g) = 0.040 W/kg (*.Smallest distance from peaks to all points 3 dB below = 6.1 mm; Ratio of SAR at M2 to SAR at M1 = 66%)



Remarks: *. Date tested: 2021/10/26; Tested by: Hiroshi Naka; Tested place:No.7 shielded room,
*. Liquid depth: 150 mm; Position: distance of EUT to phantom: 0 mm (2 mm to liquid); ambient: 24 deg.C. / (55~70) %RH,
*. Liquid temperature: 22.3(start)/22.4(end)/22.5(in check) deg.C.; *.White cubic: zoom scan area, Red cubic: big=SAR(10g)/small=SAR(1g)

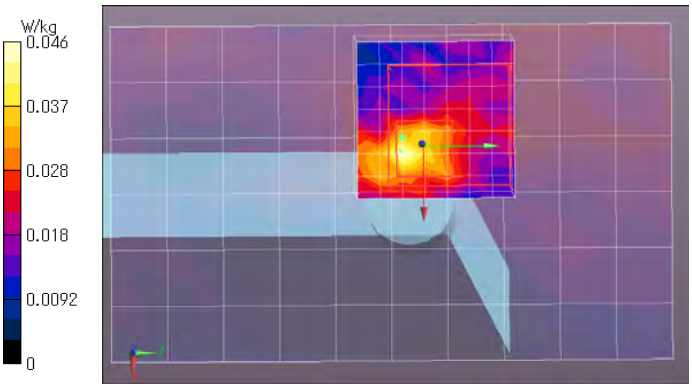
Appendix 2: SAR measurement data / Appendix 2-3: Other SAR Plots (cont'd)

Plot 2a-8: U-NII-2A (5.3GHz) band, Antenna 1; Top & touch / 11n(40HT) (MCS0) / 5270 MHz
EUT: SKR 3000; Type: P-82; Serial: ADU4-S0002
Mode: n40(MCS0, OFDM) (UID: 0, Wi-fi_5GHz (0), Frame Length in ms: 0; PAR: 0; PMF: 1); **Frequency: 5270 MHz; Crest Factor: 1.0**
Medium: HSL5GHz(v6.2110); Medium parameters used: f = 5270 MHz; σ = 4.573 S/m; ε_r = 35.50; ρ = 1000 kg/m^3
Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)

DASY Configuration: -Electronics: DAE4 Sn626; Calibrated: 2020/11/17 / -Phantom: ELI v4.0; Type: QDOVA001BA; Serial: 1059; Phantom section: Flat Section -DASY52 52.10.3(1513); SEMCAD X 14.6.13(7474) / -Probe: EX3DV4 - SN3907; ConvF(5.14, 5.14, 5.14) @ 5270 MHz; Calibrated: 2021/04/21 -Sensor-Surface: 1.4mm (Mechanical Surface Detection), z = 1.0, 25.0

touch,other/5h40,53.8,5270,at1,top&d0,n40(m0)/
Area:60x100,10 (7x11x1): Measurement grid: dx=10mm, dy=10mm; Maximum value of SAR (measured) = 0.0343 W/kg
Area:60x100,10 (61x101x1): Interpolated grid: dx=1.000 mm, dy=1.000 mm; Maximum value of SAR (interpolated) = 0.0351 W/kg

Zoom:28x28x24,xy4-z1.4(ratio) (8x8x7)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=1.4mm;
Reference Value = 3.050 V/m; Power Drift = -0.15 dB; Maximum value of SAR (measured) = 0.0460 W/kg; Peak SAR (extrapolated) = 0.0690 W/kg
SAR(1 g) = 0.019 W/kg; SAR(10 g) = 0.00813 W/kg (*.Ratio of SAR at M2 to SAR at M1 = 62.5%)



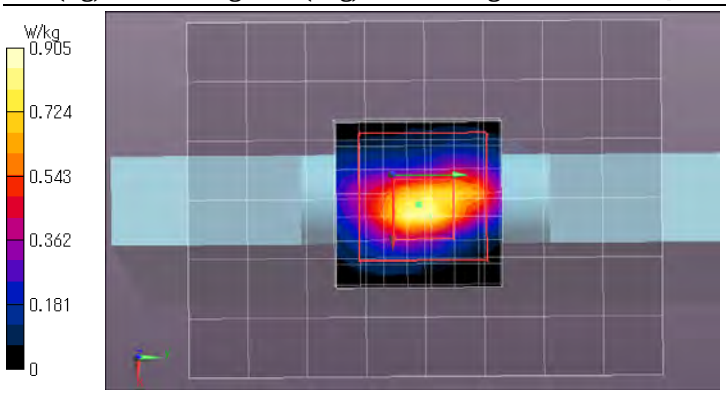
Remarks: *. Date tested: 2021/10/26; Tested by: Hiroshi Naka; Tested place:No.7 shielded room,
*. Liquid depth: 150 mm; Position: distance of EUT to phantom: 0 mm (2 mm to liquid); ambient: 24 deg.C. / (55~70) %RH,
*. Liquid temperature: 22.3(start)/22.3(end)/22.5(in check) deg.C.; *.White cubic: zoom scan area, Red cubic: big=SAR(10g)/small=SAR(1g)

Plot 2b-2: U-NII-2A (5.3GHz) band, Antenna 2; Bottom & touch / 11n(40HT) (MCS0) / 5270 MHz
EUT: SKR 3000; Type: P-82; Serial: ADU4-S0002
Mode: n40(MCS0s, OFDM) (UID: 0, Wi-fi_5GHz (0), Frame Length in ms: 0; PAR: 0; PMF: 1); **Frequency: 5270 MHz; Crest Factor: 1.0**
Medium: HSL5GHz(v6.2110); Medium parameters used: f = 5270 MHz; σ = 4.54 S/m; ε_r = 35.29; ρ = 1000 kg/m^3
Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)

DASY Configuration: -Electronics: DAE4 Sn626; Calibrated: 2020/11/17 / -Phantom: ELI v4.0; Type: QDOVA001BA; Serial: 1059; Phantom section: Flat Section -DASY52 52.10.3(1513); SEMCAD X 14.6.13(7474) / -Probe: EX3DV4 - SN3907; ConvF(5.14, 5.14, 5.14) @ 5270 MHz; Calibrated: 2021/04/21 -Sensor-Surface: 1.4mm (Mechanical Surface Detection), z = 1.0, 25.0

touch,h5c,btm,sub(chain1)/5h28.53.6,ant2,5270,btm&d0,n40(m0)/
Area:60x80,10 (7x9x1): Measurement grid: dx=10mm, dy=10mm; Maximum value of SAR (measured) = 0.817 W/kg
Area:60x80,10 (61x81x1): Interpolated grid: dx=1.000 mm, dy=1.000 mm; Maximum value of SAR (interpolated) = 0.826 W/kg

Zoom:28x28x24,xy4-z1.4(ratio) (8x8x7)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=1.4mm;
Reference Value = 15.53 V/m; Power Drift = -0.18 dB; Maximum value of SAR (measured) = 0.905 W/kg; Peak SAR (extrapolated) = 1.75 W/kg
SAR(1 g) = 0.331 W/kg; SAR(10 g) = 0.096 W/kg (*.Smallest distance from peaks to all points 3 dB below = 4.3 mm; Ratio of SAR at M2 to SAR at M1 = 60.3%)



Remarks: *. Date tested: 2021/10/22; Tested by: Hiroshi Naka; Tested place:No.7 shielded room,
*. Liquid depth: 150 mm; Position: distance of EUT to phantom: 0 mm (2 mm to liquid); ambient: (23~24) deg.C. / (50~60) %RH,
*. Liquid temperature: 22.3(start)/22.3(end)/22.5(in check) deg.C.; *.White cubic: zoom scan area, Red cubic: big=SAR(10g)/small=SAR(1g)

Appendix 2: SAR measurement data / Appendix 2-3: Other SAR Plots (cont'd)

Plot 2b-3: U-NII-2A (5.3GHz) band, Antenna 2; Bottom & touch / 11n(40HT) (MCS0) / 5310 MHz

EUT: SKR 3000; Type: P-82; Serial: ADU4-S0002

Mode: n40(MCS0, OFDM) (UID: 0, Wi-fi_5GHz (0), Frame Length in ms: 0; PAR: 0; PMF: 1); **Frequency: 5310 MHz; Crest Factor: 1.0**

Medium: HSL5GHz(v6.2110); Medium parameters used: f = 5310 MHz; σ = 4.583 S/m; ε_r = 35.22; ρ = 1000 kg/m^3

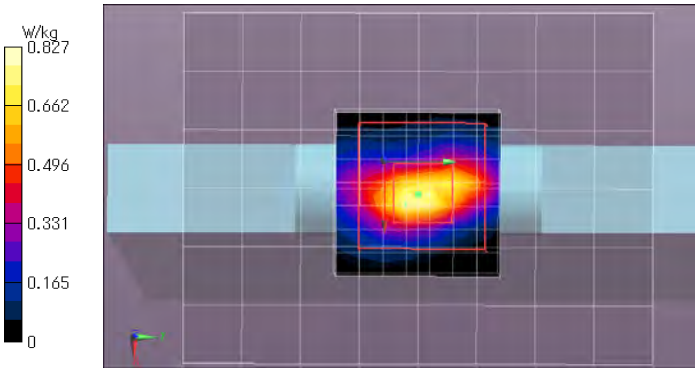
Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)

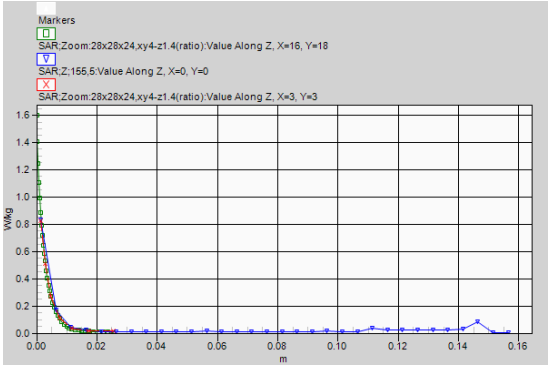
DASY Configuration: -Electronics: DAE4 Sn626; Calibrated: 2020/11/17 / -Phantom: ELI v4.0; Type: QDOVA001BA; Serial: 1059; Phantom section: Flat Section -DASY52 52.10.3(1513); SEMCAD X 14.6.13(7474) / -Probe: EX3DV4 - SN3907; ConvF(5.14, 5.14, 5.14) @ 5310 MHz; Calibrated: 2021/04/21 -Sensor-Surface: 1.4mm (Mechanical Surface Detection), z = 1.0, 25.0, 156.0

touch,h5c,btm,sub(chain1)/o5h29.53.7,ant2,5310,btm&d0,n40(m0)/
Area:60x80,10 (7x9x1): Measurement grid: dx=10mm, dy=10mm; Maximum value of SAR (measured) = 0.747 W/kg
Area:60x80,10 (61x81x1): Interpolated grid: dx=1.000 mm, dy=1.000 mm; Maximum value of SAR (interpolated) = 0.750 W/kg
Z;155,5 (1x1x32): Measurement grid: dx=20mm, dy=20mm, dz=5mm; Maximum value of SAR (measured) = 0.830 W/kg

Zoom:28x28x24,xy4-z1.4(ratio) (8x8x7)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=1.4mm;
Reference Value = 15.01 V/m; Power Drift = -0.20 dB; Maximum value of SAR (measured) = 0.827 W/kg; Peak SAR (extrapolated) = 1.60 W/kg

SAR(1 g) = 0.308 W/kg; SAR(10 g) = 0.089 W/kg (*.Smallest distance from peaks to all points 3 dB below = 4.3 mm; Ratio of SAR at M2 to SAR at M1 = 61.9%)





Remarks: *. Date tested: 2021/10/22; Tested by: Hiroshi Naka; Tested place:No.7 shielded room,
*. Liquid depth: 150 mm; Position: distance of EUT to phantom: 0 mm (2 mm to liquid); ambient: (23~24) deg.C. / (50~60) %RH,
*. Liquid temperature: 22.3(start)/22.4(end)/22.5(in check) deg.C.; *.White cubic: zoom scan area, Red cubic: big=SAR(10g)/small=SAR(1g)

Plot 2b-4: U-NII-2A (5.3GHz) band, Antenna 2; Bottom & touch / 11a (6Mbps) / 5320 MHz

EUT: SKR 3000; Type: P-82; Serial: ADU4-S0002

Mode: 11a(6Mbps, OFDM) (UID: 0, Wi-fi_5GHz (0), Frame Length in ms: 0; PAR: 0; PMF: 1); **Frequency: 5320 MHz; Crest Factor: 1.0**

Medium: HSL5GHz(v6.2110); Medium parameters used: f = 5320 MHz; σ = 4.588 S/m; ε_r = 35.20; ρ = 1000 kg/m^3

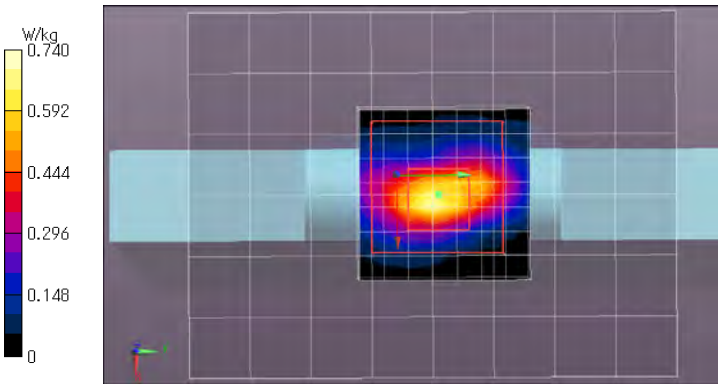
Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)

DASY Configuration: -Electronics: DAE4 Sn626; Calibrated: 2020/11/17 / -Phantom: ELI v4.0; Type: QDOVA001BA; Serial: 1059; Phantom section: Flat Section -DASY52 52.10.3(1513); SEMCAD X 14.6.13(7474) / -Probe: EX3DV4 - SN3907; ConvF(5.14, 5.14, 5.14) @ 5320 MHz; Calibrated: 2021/04/21 -Sensor-Surface: 1.4mm (Mechanical Surface Detection), z = 1.0, 25.0

touch,h5e,btm,sub(chain1)/5h59.53.15,ant2,5320,btm&d0,a(6m)/
Area:60x80,10 (7x9x1): Measurement grid: dx=10mm, dy=10mm; Maximum value of SAR (measured) = 0.671 W/kg
Area:60x80,10 (61x81x1): Interpolated grid: dx=1.000 mm, dy=1.000 mm; Maximum value of SAR (interpolated) = 0.672 W/kg

Zoom:28x28x24,xy4-z1.4(ratio) (8x8x7)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=1.4mm;
Reference Value = 13.64 V/m; Power Drift = -0.08 dB; Maximum value of SAR (measured) = 0.740 W/kg; Peak SAR (extrapolated) = 1.40 W/kg

SAR(1 g) = 0.258 W/kg; SAR(10 g) = 0.075 W/kg (*.Smallest distance from peaks to all points 3 dB below = 4.7 mm; Ratio of SAR at M2 to SAR at M1 = 58.9%)



Remarks: *. Date tested: 2021/10/22; Tested by: Hiroshi Naka; Tested place:No.7 shielded room,
*. Liquid depth: 150 mm; Position: distance of EUT to phantom: 0 mm (2 mm to liquid); ambient: (23~24) deg.C. / (50~60) %RH,
*. Liquid temperature: 22.4(start)/22.4(end)/22.5(in check) deg.C.; *.White cubic: zoom scan area, Red cubic: big=SAR(10g)/small=SAR(1g)

Appendix 2: SAR measurement data / Appendix 2-3: Other SAR Plots (cont'd)

Plot 2b-5: U-NII-2A (5.3GHz) band, Antenna 2; Bottom & touch / 11a (6Mbps) / 5300 MHz

EUT: SKR 3000; Type: P-82; Serial: ADU4-S0002

Mode: 11a(6Mbps, OFDM) (UID: 0, Wi-fi_5GHz (0), Frame Length in ms: 0; PAR: 0; PMF: 1); **Frequency: 5300 MHz; Crest Factor: 1.0**

Medium: HSL5GHz(v6.2110); Medium parameters used: f = 5300 MHz; σ = 4.575 S/m; ε_r = 35.23; ρ = 1000 kg/m^3

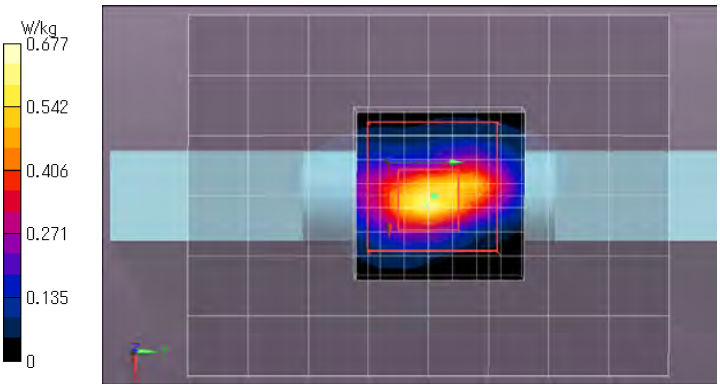
Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)

DASY Configuration: -Electronics: DAE4 Sn626; Calibrated: 2020/11/17 / -Phantom: ELI v4.0; Type: QDOVA001BA; Serial: 1059; Phantom section: Flat Section -DASY52 52.10.3(1513); SEMCAD X 14.6.13(7474) / -Probe: EX3DV4 - SN3907; ConvF(5.14, 5.14, 5.14) @ 5300 MHz; Calibrated: 2021/04/21 -Sensor-Surface: 1.4mm (Mechanical Surface Detection), z = 1.0, 25.0

touch,h5e,btm,sub(chain1)/5h60.53.16,ant2,5300,btm&d0,a(6m)/
Area:60x80,10 (7x9x1): Measurement grid: dx=10mm, dy=10mm; Maximum value of SAR (measured) = 0.606 W/kg
Area:60x80,10 (61x81x1): Interpolated grid: dx=1.000 mm, dy=1.000 mm; Maximum value of SAR (interpolated) = 0.606 W/kg

Zoom:28x28x24,xy4-z1.4(ratio) (8x8x7)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=1.4mm;
Reference Value = 13.07 V/m; Power Drift = -0.20 dB; Maximum value of SAR (measured) = 0.677 W/kg; Peak SAR (extrapolated) = 1.25 W/kg

SAR(1 g) = 0.240 W/kg; SAR(10 g) = 0.070 W/kg (*.Smallest distance from peaks to all points 3 dB below = 4.7 mm; Ratio of SAR at M2 to SAR at M1 = 60.3%)



Remarks: *. Date tested: 2021/10/22; Tested by: Hiroshi Naka; Tested place:No.7 shielded room,
*. Liquid depth: 150 mm; Position: distance of EUT to phantom: 0 mm (2 mm to liquid); ambient: (23~24) deg.C. / (50~60) %RH,
*. Liquid temperature: 22.4(start)/22.4(end)/22.5(in check) deg.C.; *.White cubic: zoom scan area, Red cubic: big=SAR(10g)/small=SAR(1g)

Plot 2b-6: U-NII-2A (5.3GHz) band, Antenna 2; Rear & touch / 11n(40HT) (MCS0) / 5270 MHz

EUT: SKR 3000; Type: P-82; Serial: ADU4-S0002

Mode: n40(MCS0, OFDM) (UID: 0, Wi-fi_5GHz (0), Frame Length in ms: 0; PAR: 0; PMF: 1); **Frequency: 5270 MHz; Crest Factor: 1.0**

Medium: HSL5GHz(v6.2110); Medium parameters used: f = 5270 MHz; σ = 4.573 S/m; ε_r = 35.50; ρ = 1000 kg/m^3

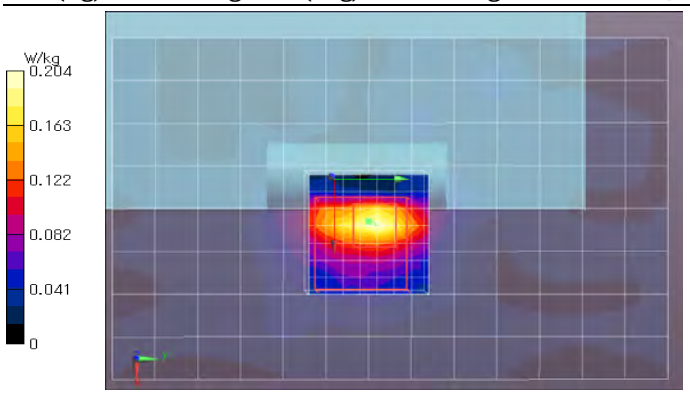
Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)

DASY Configuration: -Electronics: DAE4 Sn626; Calibrated: 2020/11/17 / -Phantom: ELI v4.0; Type: QDOVA001BA; Serial: 1059; Phantom section: Flat Section -DASY52 52.10.3(1513); SEMCAD X 14.6.13(7474) / -Probe: EX3DV4 - SN3907; ConvF(5.14, 5.14, 5.14) @ 5270 MHz; Calibrated: 2021/04/21 -Sensor-Surface: 1.4mm (Mechanical Surface Detection), z = 1.0, 25.0

touch,other2/5h49.53.11,ant2,5270,rear&d0,n40(m0)/
Area:80x130,10 (9x14x1): Measurement grid: dx=10mm, dy=10mm; Maximum value of SAR (measured) = 0.173 W/kg
Area:80x130,10 (81x131x1): Interpolated grid: dx=1.000 mm, dy=1.000 mm; Maximum value of SAR (interpolated) = 0.202 W/kg

Zoom:28x28x24,xy4-z1.4(ratio) (8x8x7)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=1.4mm;
Reference Value = 7.483 V/m; Power Drift = 0.13 dB; Maximum value of SAR (measured) = 0.204 W/kg; Peak SAR (extrapolated) = 0.411 W/kg

SAR(1 g) = 0.085 W/kg; SAR(10 g) = 0.035 W/kg (*.Smallest distance from peaks to all points 3 dB below = 3.2 mm; Ratio of SAR at M2 to SAR at M1 = 66.7%)



Remarks: *. Date tested: 2021/10/26; Tested by: Hiroshi Naka; Tested place:No.7 shielded room,
*. Liquid depth: 150 mm; Position: distance of EUT to phantom: 0 mm (2 mm to liquid); ambient: 24 deg.C. / (55~70) %RH,
*. Liquid temperature: 22.3(start)/22.3(end)/22.5(in check) deg.C.; *.White cubic: zoom scan area, Red cubic: big=SAR(10g)/small=SAR(1g)

Appendix 2: SAR measurement data / Appendix 2-3: Other SAR Plots (cont'd)

Plot 2b-7: U-NII-2A (5.3GHz) band, Antenna 2; Front & touch / 11n(40HT) (MCS0) / 5270 MHz

EUT: SKR 3000; Type: P-82; Serial: ADU4-S0002

Mode: n40(MCS0, OFDM) (UID: 0, Wi-fi_5GHz (0), Frame Length in ms: 0; PAR: 0; PMF: 1); **Frequency: 5270 MHz; Crest Factor: 1.0**

Medium: HSL5GHz(v6.2110); Medium parameters used: f = 5270 MHz; σ = 4.573 S/m; ε_r = 35.50; ρ = 1000 kg/m^3

Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)

DASY Configuration: -Electronics: DAE4 Sn626; Calibrated: 2020/11/17 / -Phantom: ELI v4.0; Type: QDOVA001BA; Serial: 1059; Phantom section: Flat Section -DASY52 52.10.3(1513); SEMCAD X 14.6.13(7474) / -Probe: EX3DV4 - SN3907; ConvF(5.14, 5.14, 5.14) @ 5270 MHz; Calibrated: 2021/04/21 -Sensor-Surface: 1.4mm (Mechanical Surface Detection), z = 1.0, 25.0

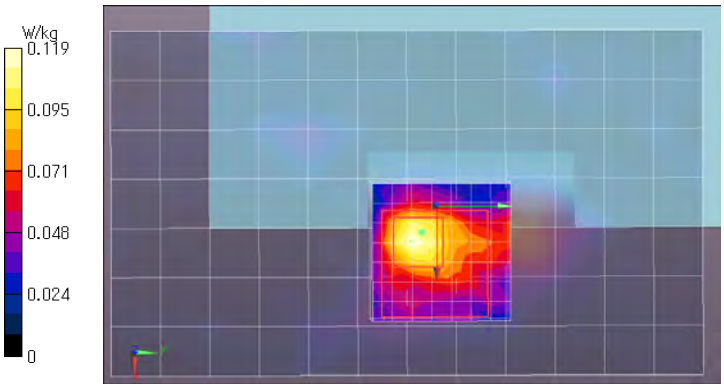
touch,other2/5h55.53.13,ant2,5270,frt&d0,n40(m0)/

Area:70x120,10 (8x13x1): Measurement grid: dx=10mm, dy=10mm; Maximum value of SAR (measured) = 0.120 W/kg

Area:70x120,10 (71x121x1): Interpolated grid: dx=1.000 mm, dy=1.000 mm; Maximum value of SAR (interpolated) = 0.195 W/kg

Zoom:28x28x24,xy4-z1.4(ratio) (8x8x7)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=1.4mm;
Reference Value = 5.879 V/m; Power Drift = -0.14 dB; Maximum value of SAR (measured) = 0.119 W/kg; Peak SAR (extrapolated) = 0.187 W/kg

SAR(1 g) = 0.057 W/kg; SAR(10 g) = 0.028 W/kg (*.Smallest distance from peaks to all points 3 dB below = 6.1 mm; Ratio of SAR at M2 to SAR at M1 = 74.8%)



Remarks: *. Date tested: 2021/10/26; Tested by: Hiroshi Naka; Tested place:No.7 shielded room,
*. Liquid depth: 150 mm; Position: distance of EUT to phantom: 0 mm (2 mm to liquid); ambient: 24 deg.C. / (55~70) %RH,
*. Liquid temperature: 22.4(start)/22.5(end)/22.5(in check) deg.C.; *.White cubic: zoom scan area, Red cubic: big=SAR(10g)/small=SAR(1g)

Plot 2b-8: U-NII-2A (5.3GHz) band, Antenna 2; Right & touch / 11n(40HT) (MCS0) / 5270 MHz

EUT: SKR 3000; Type: P-82; Serial: ADU4-S0002

Mode: n40(MCS0, OFDM) (UID: 0, Wi-fi_5GHz (0), Frame Length in ms: 0; PAR: 0; PMF: 1); **Frequency: 5270 MHz; Crest Factor: 1.0**

Medium: HSL5GHz(v6.2110); Medium parameters used: f = 5270 MHz; σ = 4.573 S/m; ε_r = 35.50; ρ = 1000 kg/m^3

Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)

DASY Configuration: -Electronics: DAE4 Sn626; Calibrated: 2020/11/17 / -Phantom: ELI v4.0; Type: QDOVA001BA; Serial: 1059; Phantom section: Flat Section -DASY52 52.10.3(1513); SEMCAD X 14.6.13(7474) / -Probe: EX3DV4 - SN3907; ConvF(5.14, 5.14, 5.14) @ 5270 MHz; Calibrated: 2021/04/21 -Sensor-Surface: 1.4mm (Mechanical Surface Detection), z = 1.0, 25.0

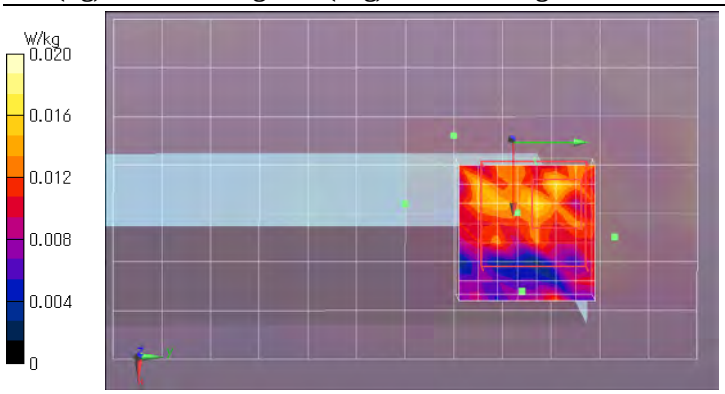
touch,other/5h43.53.9,ant2,5270,left&d0,n40(m0)/

Area:70x120,10 (8x13x1): Measurement grid: dx=10mm, dy=10mm; Maximum value of SAR (measured) = 0.0148 W/kg

Area:70x120,10 (71x121x1): Interpolated grid: dx=1.000 mm, dy=1.000 mm; Maximum value of Total (interpolated) = 0.0204 W/kg

Zoom:28x28x24,xy4-z1.4(ratio) (8x8x7)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=1.4mm;
Reference Value = 1.505 V/m; Power Drift = 0.20 dB; Maximum value of SAR (measured) = 0.0260 W/kg; Peak SAR (extrapolated) = 0.0470 W/kg

SAR(1 g) = 0.00962 W/kg; SAR(10 g) = 0.00599 W/kg (*.Ratio of SAR at M2 to SAR at M1 = 58.9%)



Remarks: *. Date tested: 2021/10/26; Tested by: Hiroshi Naka; Tested place:No.7 shielded room,
*. Liquid depth: 150 mm; Position: distance of EUT to phantom: 0 mm (2 mm to liquid); ambient: 24 deg.C. / (55~70) %RH,
*. Liquid temperature: 22.5(start)/22.5(end)/22.5(in check) deg.C.; *.White cubic: zoom scan area, Red cubic: big=SAR(10g)/small=SAR(1g)

Appendix 2: SAR measurement data / Appendix 2-3: Other SAR Plots (cont'd)

Plot 2c-2: U-NII-1 (5.2GHz) band, Antenna 1; Left & touch / 11a (6Mbps) / 5220 MHz

EUT: SKR 3000; Type: P-82; Serial: ADU4-S0002

Mode: 11a(6Mbps, OFDM) (UID: 0, Wi-fi_5GHz (0), Frame Length in ms: 0; PAR: 0; PMF: 1); **Frequency: 5220 MHz; Crest Factor: 1.0**

Medium: HSL5GHz(v6.2110); Medium parameters used: f = 5220 MHz; σ = 4.484 S/m; ε_r = 35.39; ρ = 1000 kg/m^3

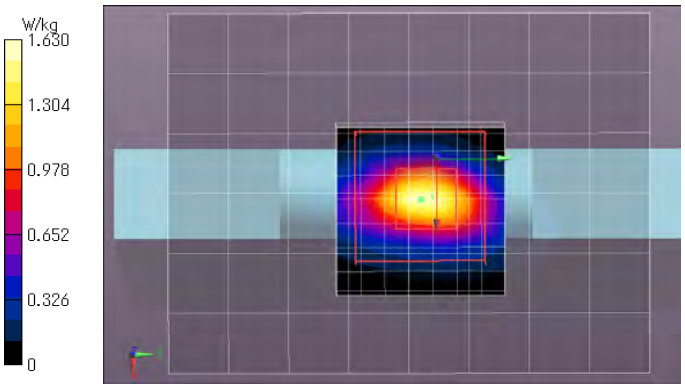
Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)

DASY Configuration: -Electronics: DAE4 Sn626; Calibrated: 2020/11/17 / -Phantom: ELI v4.0; Type: QDOVA001BA; Serial: 1059; Phantom section: Flat Section -DASY52 52.10.3(1513); SEMCAD X 14.6.13(7474) / -Probe: EX3DV4 - SN3907; ConvF(5.14, 5.14, 5.14) @ 5220 MHz; Calibrated: 2021/04/21
-Sensor-Surface: 1.4mm (Mechanical Surface Detection), z = 1.0, 25.0

touch,h5a,right,at1(chain0)/5h10,52.2,5220,at1,right&d0,a(6m)/
Area:60x80,10 (7x9x1): Measurement grid: dx=10mm, dy=10mm; Maximum value of SAR (measured) = 1.42 W/kg
Area:60x80,10 (61x81x1): Interpolated grid: dx=1.000 mm, dy=1.000 mm; Maximum value of SAR (interpolated) = 1.56 W/kg

Zoom:28x28x24,xy4-z1.4(ratio) (8x8x7)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=1.4mm;
Reference Value = 21.29 V/m; Power Drift = -0.00 dB; Maximum value of SAR (measured) = 1.63 W/kg; Peak SAR (extrapolated) = 2.96 W/kg

SAR(1 g) = 0.637 W/kg; SAR(10 g) = 0.173 W/kg (*.Smallest distance from peaks to all points 3 dB below = 4 mm; Ratio of SAR at M2 to SAR at M1 = 63.4%)



Remarks: *. Date tested: 2021/10/22; Tested by: Hiroshi Naka; Tested place:No.7 shielded room,
*. Liquid depth: 150 mm; Position: distance of EUT to phantom: 0 mm (2 mm to liquid); ambient: (23~24) deg.C. / (50~60) %RH,
*. Liquid temperature: 22.2(start)/22.2(end)/22.5(in check) deg.C.; *.White cubic: zoom scan area, Red cubic: big=SAR(10g)/small=SAR(1g)

Plot 2c-3: U-NII-1 (5.2GHz) band, Antenna 1; Left & touch / 11a (6Mbps) / 5240 MHz

EUT: SKR 3000; Type: P-82; Serial: ADU4-S0002

Mode: 11a(6Mbps, OFDM) (UID: 0, Wi-fi_5GHz (0), Frame Length in ms: 0; PAR: 0; PMF: 1); **Frequency: 5240 MHz; Crest Factor: 1.0**

Medium: HSL5GHz(v6.2110); Medium parameters used: f = 5240 MHz; σ = 4.507 S/m; ε_r = 35.34; ρ = 1000 kg/m^3

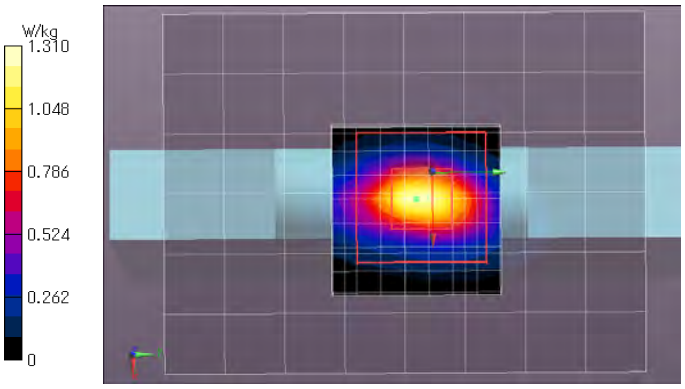
Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)

DASY Configuration: -Electronics: DAE4 Sn626; Calibrated: 2020/11/17 / -Phantom: ELI v4.0; Type: QDOVA001BA; Serial: 1059; Phantom section: Flat Section -DASY52 52.10.3(1513); SEMCAD X 14.6.13(7474) / -Probe: EX3DV4 - SN3907; ConvF(5.14, 5.14, 5.14) @ 5240 MHz; Calibrated: 2021/04/21
-Sensor-Surface: 1.4mm (Mechanical Surface Detection), z = 1.0, 25.0

touch,h5a,right,at1(chain0)/5h11,52.3,5240,at1,right&d0,a(6m)/
Area:60x80,10 (7x9x1): Measurement grid: dx=10mm, dy=10mm; Maximum value of SAR (measured) = 1.12 W/kg
Area:60x80,10 (61x81x1): Interpolated grid: dx=1.000 mm, dy=1.000 mm; Maximum value of SAR (interpolated) = 1.22 W/kg

Zoom:28x28x24,xy4-z1.4(ratio) (8x8x7)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=1.4mm;
Reference Value = 19.16 V/m; Power Drift = -0.02 dB; Maximum value of SAR (measured) = 1.31 W/kg; Peak SAR (extrapolated) = 2.35 W/kg

SAR(1 g) = 0.511 W/kg; SAR(10 g) = 0.139 W/kg (*.Smallest distance from peaks to all points 3 dB below = 4.8 mm; Ratio of SAR at M2 to SAR at M1 = 63.5%)



Remarks: *. Date tested: 2021/10/22; Tested by: Hiroshi Naka; Tested place:No.7 shielded room,
*. Liquid depth: 150 mm; Position: distance of EUT to phantom: 0 mm (2 mm to liquid); ambient: (23~24) deg.C. / (50~60) %RH,
*. Liquid temperature: 22.2(start)/22.2(end)/22.5(in check) deg.C.; *.White cubic: zoom scan area, Red cubic: big=SAR(10g)/small=SAR(1g)

Appendix 2: SAR measurement data / Appendix 2-3: Other SAR Plots (cont'd)

Plot 2d-2: U-NII-1 (5.2GHz) band, Antenna 2; Bottom & touch / 11a (6Mbps) / 5220 MHz

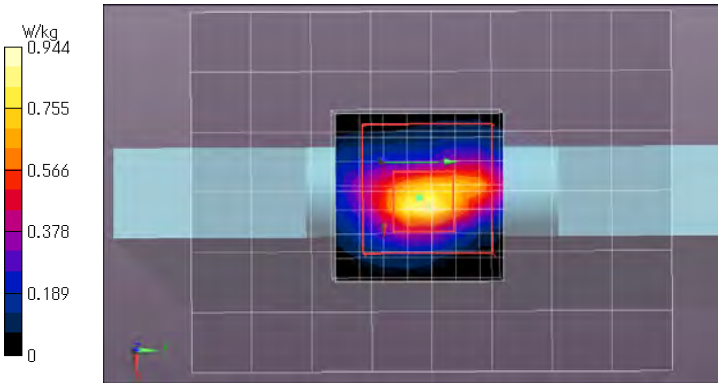
EUT: SKR 3000; Type: P-82; Serial: ADU4-S0002

Mode: 11a(6Mbps, OFDM) (UID: 0, Wi-fi_5GHz (0), Frame Length in ms: 0; PAR: 0; PMF: 1); **Frequency: 5220 MHz; Crest Factor: 1.0**
Medium: HSL5GHz(v6.2110); Medium parameters used: f = 5220 MHz; σ = 4.484 S/m; ε_r = 35.39; ρ = 1000 kg/m^3
Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)

DASY Configuration: -Electronics: DAE4 Sn626; Calibrated: 2020/11/17 / -Phantom: ELI v4.0; Type: QDOVA001BA; Serial: 1059; Phantom section: Flat Section -DASY52 52.10.3(1513); SEMCAD X 14.6.13(7474) / -Probe: EX3DV4 - SN3907; ConvF(5.14, 5.14, 5.14) @ 5220 MHz; Calibrated: 2021/04/21 -Sensor-Surface: 1.4mm (Mechanical Surface Detection), z = 1.0, 25.0, 156.0

touch,h5c,btm,sub(chain1)/5h31.52.5,ant2,5220,btm&d0,a(6m)/
Area:60x80,10 (7x9x1): Measurement grid: dx=10mm, dy=10mm; Maximum value of SAR (measured) = 0.784 W/kg
Area:60x80,10 (61x81x1): Interpolated grid: dx=1.000 mm, dy=1.000 mm; Maximum value of SAR (interpolated) = 0.800 W/kg

Zoom:28x28x24,xy4-z1.4(ratio) (8x8x7)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=1.4mm;
Reference Value = 15.74 V/m; Power Drift = -0.13 dB; Maximum value of SAR (measured) = 0.944 W/kg; Peak SAR (extrapolated) = 1.76 W/kg
SAR(1 g) = 0.343 W/kg; SAR(10 g) = 0.097 W/kg (*.Smallest distance from peaks to all points 3 dB below = 4.7 mm; Ratio of SAR at M2 to SAR at M1 = 60.3%)



Remarks: *. Date tested: 2021/10/22; Tested by: Hiroshi Naka; Tested place:No.7 shielded room,
*. Liquid depth: 150 mm; Position: distance of EUT to phantom: 0 mm (2 mm to liquid); ambient: (23~24) deg.C. / (50~60) %RH,
*. Liquid temperature: 22.4(start)/22.4(end)/22.5(in check) deg.C.; *.White cubic: zoom scan area, Red cubic: big=SAR(10g)/small=SAR(1g)

Plot 2d-3: U-NII-1 (5.2GHz) band, Antenna 2; Bottom & touch / 11a (6Mbps) / 5240 MHz

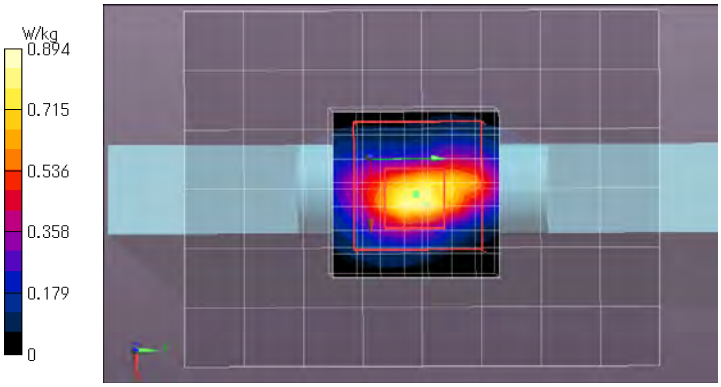
EUT: SKR 3000; Type: P-82; Serial: ADU4-S0002

Mode: 11a(6Mbps, OFDM) (UID: 0, Wi-fi_5GHz (0), Frame Length in ms: 0; PAR: 0; PMF: 1); **Frequency: 5240 MHz; Crest Factor: 1.0**
Medium: HSL5GHz(v6.2110); Medium parameters used: f = 5240 MHz; σ = 4.507 S/m; ε_r = 35.34; ρ = 1000 kg/m^3
Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)

DASY Configuration: -Electronics: DAE4 Sn626; Calibrated: 2020/11/17 / -Phantom: ELI v4.0; Type: QDOVA001BA; Serial: 1059; Phantom section: Flat Section -DASY52 52.10.3(1513); SEMCAD X 14.6.13(7474) / -Probe: EX3DV4 - SN3907; ConvF(5.14, 5.14, 5.14) @ 5240 MHz; Calibrated: 2021/04/21 -Sensor-Surface: 1.4mm (Mechanical Surface Detection), z = 1.0, 25.0, 156.0

touch,h5c,btm,sub(chain1)/5h32.52.6,ant2,5240,btm&d0,a(6m)/
Area:60x80,10 (7x9x1): Measurement grid: dx=10mm, dy=10mm; Maximum value of SAR (measured) = 0.788 W/kg
Area:60x80,10 (61x81x1): Interpolated grid: dx=1.000 mm, dy=1.000 mm; Maximum value of SAR (interpolated) = 0.799 W/kg

Zoom:28x28x24,xy4-z1.4(ratio) (8x8x7)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=1.4mm;
Reference Value = 15.85 V/m; Power Drift = -0.20 dB; Maximum value of SAR (measured) = 0.894 W/kg; Peak SAR (extrapolated) = 1.70 W/kg
SAR(1 g) = 0.336 W/kg; SAR(10 g) = 0.097 W/kg (*.Smallest distance from peaks to all points 3 dB below = 4.3 mm; Ratio of SAR at M2 to SAR at M1 = 60.6%)



Remarks: *. Date tested: 2021/10/22; Tested by: Hiroshi Naka; Tested place:No.7 shielded room,
*. Liquid depth: 150 mm; Position: distance of EUT to phantom: 0 mm (2 mm to liquid); ambient: (23~24) deg.C. / (50~60) %RH,
*. Liquid temperature: 22.4(start)/22.4(end)/22.5(in check) deg.C.; *.White cubic: zoom scan area, Red cubic: big=SAR(10g)/small=SAR(1g)

Appendix 2: SAR measurement data / Appendix 2-3: Other SAR Plots (cont'd)

Plot 3a-2: U-NII-2C (5.6GHz) band, Antenna 1; Left & touch / 11n(40HT) (MCS0) / 5550 MHz

EUT: SKR 3000; Type: P-82; Serial: ADU4-S0002

Mode: n40(MCS0, OFDM) (UID: 0, Wi-fi_5GHz (0), Frame Length in ms: 0; PAR: 0; PMF: 1); **Frequency: 5550 MHz; Crest Factor: 1.0**

Medium: HSL5GHz(v6.2110); Medium parameters used: f = 5550 MHz; σ = 4.843 S/m; ε_r = 34.79; ρ = 1000 kg/m^3

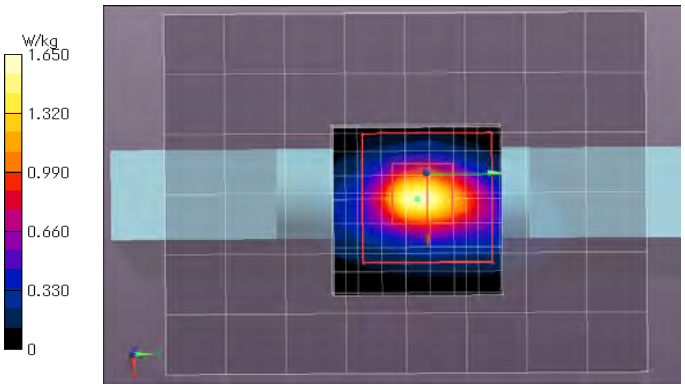
Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)

DASY Configuration: -Electronics: DAE4 Sn626; Calibrated: 2020/11/17 / -Phantom: ELI v4.0; Type: QDOVA001BA; Serial: 1059; Phantom section: Flat Section -DASY52 52.10.3(1513); SEMCAD X 14.6.13(7474) / -Probe: EX3DV4 - SN3907; ConvF(4.56, 4.56, 4.56) @ 5550 MHz; Calibrated: 2021/04/21
-Sensor-Surface: 1.4mm (Mechanical Surface Detection), z = 1.0, 25.0

touch,h5a,right,at1(chain0)/5h4,56.2,5550,at1,right&d0,n40(m0)/
Area:60x80,10 (7x9x1): Measurement grid: dx=10mm, dy=10mm; Maximum value of SAR (measured) = 1.46 W/kg
Area:60x80,10 (61x81x1): Interpolated grid: dx=1.000 mm, dy=1.000 mm; Maximum value of SAR (interpolated) = 1.61 W/kg

Zoom:28x28x24,xy4-z1.4(ratio) (8x8x7)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=1.4mm;
Reference Value = 20.86 V/m; Power Drift = -0.04 dB; Maximum value of SAR (measured) = 1.65 W/kg; Peak SAR (extrapolated) = 3.08 W/kg

SAR(1 g) = 0.609 W/kg; SAR(10 g) = 0.156 W/kg (*.Smallest distance from peaks to all points 3 dB below = 4.8 mm; Ratio of SAR at M2 to SAR at M1 = 62.6%)



Remarks: *. Date tested: 2021/10/19; Tested by: Hiroshi Naka; Tested place:No.7 shielded room,
*. Liquid depth: 150 mm; Position: distance of EUT to phantom: 0 mm (2 mm to liquid); ambient: 23 deg.C. / (60~70) %RH,
*. Liquid temperature: 22.2(start)/22.2(end)/22.5(in check) deg.C.; *.White cubic: zoom scan area, Red cubic: big=SAR(10g)/small=SAR(1g)

Plot 3a-3: U-NII-2C (5.6GHz) band, Antenna 1; Left & touch / 11n(40HT) (MCS0) / 5510 MHz

EUT: SKR 3000; Type: P-82; Serial: ADU4-S0002

Mode: n40(MCS0, OFDM) (UID: 0, Wi-fi_5GHz (0), Frame Length in ms: 0; PAR: 0; PMF: 1); **Frequency: 5510 MHz; Crest Factor: 1.0**

Medium: HSL5GHz(v6.2110); Medium parameters used: f = 5510 MHz; σ = 4.792 S/m; ε_r = 34.88; ρ = 1000 kg/m^3

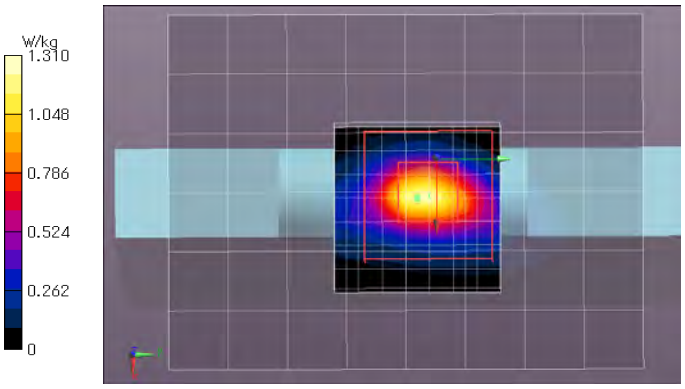
Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)

DASY Configuration: -Electronics: DAE4 Sn626; Calibrated: 2020/11/17 / -Phantom: ELI v4.0; Type: QDOVA001BA; Serial: 1059; Phantom section: Flat Section -DASY52 52.10.3(1513); SEMCAD X 14.6.13(7474) / -Probe: EX3DV4 - SN3907; ConvF(4.56, 4.56, 4.56) @ 5510 MHz; Calibrated: 2021/04/21
-Sensor-Surface: 1.4mm (Mechanical Surface Detection), z = 1.0, 25.0

touch,h5a,right,at1(chain0)/5h5,56.3,5510,at1,right&d0,n40(m0)/
Area:60x80,10 (7x9x1): Measurement grid: dx=10mm, dy=10mm; Maximum value of SAR (measured) = 1.11 W/kg
Area:60x80,10 (61x81x1): Interpolated grid: dx=1.000 mm, dy=1.000 mm; Maximum value of SAR (interpolated) = 1.22 W/kg

Zoom:28x28x24,xy4-z1.4(ratio) (8x8x7)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=1.4mm;
Reference Value = 18.58 V/m; Power Drift = -0.02 dB; Maximum value of SAR (measured) = 1.31 W/kg; Peak SAR (extrapolated) = 2.42 W/kg

SAR(1 g) = 0.483 W/kg; SAR(10 g) = 0.126 W/kg (*.Smallest distance from peaks to all points 3 dB below = 4.8 mm; Ratio of SAR at M2 to SAR at M1 = 62.2%)



Remarks: *. Date tested: 2021/10/19; Tested by: Hiroshi Naka; Tested place:No.7 shielded room,
*. Liquid depth: 150 mm; Position: distance of EUT to phantom: 0 mm (2 mm to liquid); ambient: 23 deg.C. / (60~70) %RH,
*. Liquid temperature: 22.2(start)/22.2(end)/22.5(in check) deg.C.; *.White cubic: zoom scan area, Red cubic: big=SAR(10g)/small=SAR(1g)

Appendix 2: SAR measurement data / Appendix 2-3: Other SAR Plots (cont'd)

Plot 3a-4: U-NII-2C (5.6GHz) band, Antenna 1; Left & touch / 11a (6Mbps) / 5700 MHz

EUT: SKR 3000; Type: P-82; Serial: ADU4-S0002

Mode: 11a(6Mbps, OFDM) (UID: 0, Wi-fi_5GHz (0), Frame Length in ms: 0; PAR: 0; PMF: 1); **Frequency: 5700 MHz; Crest Factor: 1.0**

Medium: HSL5GHz(v6.2110); Medium parameters used: f = 5700 MHz; σ = 5.014 S/m; ε_r = 34.58; ρ = 1000 kg/m^3

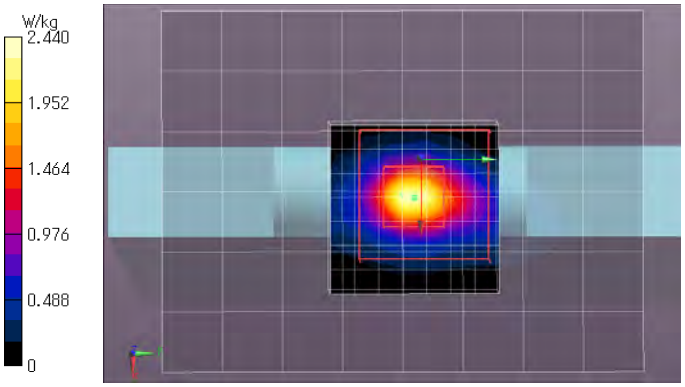
Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)

DASY Configuration: -Electronics: DAE4 Sn626; Calibrated: 2020/11/17 / -Phantom: ELI v4.0; Type: QDOVA001BA; Serial: 1059; Phantom section: Flat Section -DASY52 52.10.3(1513); SEMCAD X 14.6.13(7474) / -Probe: EX3DV4 - SN3907; ConvF(4.56, 4.56, 4.56) @ 5700 MHz; Calibrated: 2021/04/21 -Sensor-Surface: 1.4mm (Mechanical Surface Detection), z = 1.0, 25.0

touch,h5a,right,at1(chain0)/5h12,56.5,5700,at1,right&d0,a(6m)/
Area:60x80,10 (7x9x1): Measurement grid: dx=10mm, dy=10mm; Maximum value of SAR (measured) = 2.12 W/kg
Area:60x80,10 (61x81x1): Interpolated grid: dx=1.000 mm, dy=1.000 mm; Maximum value of SAR (interpolated) = 2.33 W/kg

Zoom:28x28x24,xy4-z1.4(ratio) (8x8x7)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=1.4mm;
Reference Value = 25.32 V/m; Power Drift = -0.08 dB; Maximum value of SAR (measured) = 2.44 W/kg; Peak SAR (extrapolated) = 4.87 W/kg

SAR(1 g) = 0.878 W/kg; SAR(10 g) = 0.214 W/kg (*.Smallest distance from peaks to all points 3 dB below = 5.4 mm; Ratio of SAR at M2 to SAR at M1 = 59.2%)



Remarks: *. Date tested: 2021/10/19; Tested by: Hiroshi Naka; Tested place:No.7 shielded room,
*. Liquid depth: 150 mm; Position: distance of EUT to phantom: 0 mm (2 mm to liquid); ambient: 23 deg.C. / (60~70) %RH,
*. Liquid temperature: 22.2(start)/22.2(end)/22.5(in check) deg.C.; *.White cubic: zoom scan area, Red cubic: big=SAR(10g)/small=SAR(1g)

Plot 3a-5: U-NII-2C (5.6GHz) band, Antenna 1; Left & touch / 11a (6Mbps) / 5580 MHz

EUT: SKR 3000; Type: P-82; Serial: ADU4-S0002

Mode: 11a(6Mbps, OFDM) (UID: 0, Wi-fi_5GHz (0), Frame Length in ms: 0; PAR: 0; PMF: 1); **Frequency: 5580 MHz; Crest Factor: 1.0**

Medium: HSL5GHz(v6.2110); Medium parameters used: f = 5580 MHz; σ = 4.883 S/m; ε_r = 34.79; ρ = 1000 kg/m^3

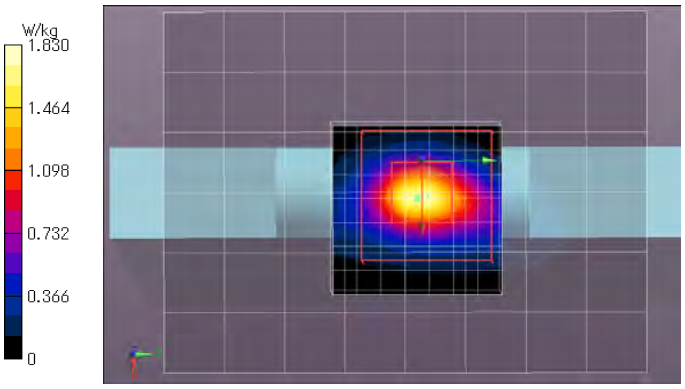
Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)

DASY Configuration: -Electronics: DAE4 Sn626; Calibrated: 2020/11/17 / -Phantom: ELI v4.0; Type: QDOVA001BA; Serial: 1059; Phantom section: Flat Section -DASY52 52.10.3(1513); SEMCAD X 14.6.13(7474) / -Probe: EX3DV4 - SN3907; ConvF(4.56, 4.56, 4.56) @ 5580 MHz; Calibrated: 2021/04/21 -Sensor-Surface: 1.4mm (Mechanical Surface Detection), z = 1.0, 25.0

touch,h5a,right,at1(chain0)/5h13,56.6,5580,at1,right&d0,a(6m)/
Area:60x80,10 (7x9x1): Measurement grid: dx=10mm, dy=10mm; Maximum value of SAR (measured) = 1.57 W/kg
Area:60x80,10 (61x81x1): Interpolated grid: dx=1.000 mm, dy=1.000 mm; Maximum value of SAR (interpolated) = 1.74 W/kg

Zoom:28x28x24,xy4-z1.4(ratio) (8x8x7)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=1.4mm;
Reference Value = 22.02 V/m; Power Drift = -0.06 dB; Maximum value of SAR (measured) = 1.83 W/kg; Peak SAR (extrapolated) = 3.44 W/kg

SAR(1 g) = 0.668 W/kg; SAR(10 g) = 0.171 W/kg (*.Smallest distance from peaks to all points 3 dB below = 4.8 mm; Ratio of SAR at M2 to SAR at M1 = 61.2%)



Remarks: *. Date tested: 2021/10/19; Tested by: Hiroshi Naka; Tested place:No.7 shielded room,
*. Liquid depth: 150 mm; Position: distance of EUT to phantom: 0 mm (2 mm to liquid); ambient: 23 deg.C. / (60~70) %RH,
*. Liquid temperature: 22.2(start)/22.2(end)/22.5(in check) deg.C.; *.White cubic: zoom scan area, Red cubic: big=SAR(10g)/small=SAR(1g)

Appendix 2: SAR measurement data / Appendix 2-3: Other SAR Plots (cont'd)

Plot 3a-6: U-NII-2C (5.6GHz) band, Antenna 1; Left & touch / 11a (6Mbps) / 5500 MHz

EUT: SKR 3000; Type: P-82; Serial: ADU4-S0002

Mode: 11a(6Mbps, OFDM) (UID: 0, Wi-fi_5GHz (0), Frame Length in ms: 0; PAR: 0; PMF: 1); **Frequency: 5500 MHz; Crest Factor: 1.0**

Medium: HSL5GHz(v6.2110); Medium parameters used: f = 5500 MHz; σ = 4.781 S/m; ε_r = 34.91; ρ = 1000 kg/m^3

Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)

DASY Configuration: -Electronics: DAE4 Sn626; Calibrated: 2020/11/17 / -Phantom: ELI v4.0; Type: QDOVA001BA; Serial: 1059; Phantom section: Flat Section -DASY52 52.10.3(1513); SEMCAD X 14.6.13(7474) / -Probe: EX3DV4 - SN3907; ConvF(4.56, 4.56, 4.56) @ 5500 MHz; Calibrated: 2021/04/21 -Sensor-Surface: 1.4mm (Mechanical Surface Detection), z = 1.0, 25.0

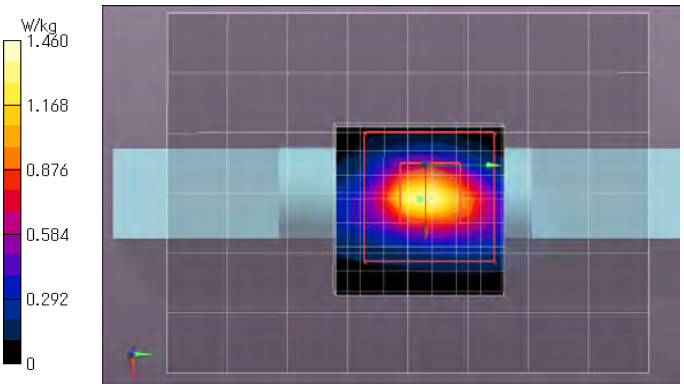
touch,h5a,right,at1(chain0)/5h14,56.7,5500,at1,right&d0,a(6m)/

Area:60x80,10 (7x9x1): Measurement grid: dx=10mm, dy=10mm; Maximum value of SAR (measured) = 1.15 W/kg

Area:60x80,10 (61x81x1): Interpolated grid: dx=1.000 mm, dy=1.000 mm; Maximum value of SAR (interpolated) = 1.26 W/kg

Zoom:28x28x24,xy4-z1.4(ratio) (8x8x7)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=1.4mm;
Reference Value = 19.57 V/m; Power Drift = 0.02 dB; Maximum value of SAR (measured) = 1.46 W/kg; Peak SAR (extrapolated) = 2.71 W/kg

SAR(1 g) = 0.542 W/kg; SAR(10 g) = 0.142 W/kg (*.Smallest distance from peaks to all points 3 dB below = 4.8 mm; Ratio of SAR at M2 to SAR at M1 = 62.7%)



Remarks: *. Date tested: 2021/10/19; Tested by: Hiroshi Naka; Tested place:No.7 shielded room,
*. Liquid depth: 150 mm; Position: distance of EUT to phantom: 0 mm (2 mm to liquid); ambient: 23 deg.C. / (60~70) %RH,
*. Liquid temperature: 22.2(start)/22.2(end)/22.5(in check) deg.C.; *.White cubic: zoom scan area, Red cubic: big=SAR(10g)/small=SAR(1g)

Plot 3a-7: U-NII-2C (5.6GHz) band, Antenna 1; Rear & touch / 11n(40HT) (MCS0) / 5670 MHz

EUT: SKR 3000; Type: P-82; Serial: ADU4-S0002

Mode: n40(MCS0, OFDM) (UID: 0, Wi-fi_5GHz (0), Frame Length in ms: 0; PAR: 0; PMF: 1); **Frequency: 5670 MHz; Crest Factor: 1.0**

Medium: HSL5GHz(v6.2110); Medium parameters used: f = 5670 MHz; σ = 5.023 S/m; ε_r = 34.84; ρ = 1000 kg/m^3

Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)

DASY Configuration: -Electronics: DAE4 Sn626; Calibrated: 2020/11/17 / -Phantom: ELI v4.0; Type: QDOVA001BA; Serial: 1059; Phantom section: Flat Section -DASY52 52.10.3(1513); SEMCAD X 14.6.13(7474) / -Probe: EX3DV4 - SN3907; ConvF(4.56, 4.56, 4.56) @ 5670 MHz; Calibrated: 2021/04/21 -Sensor-Surface: 1.4mm (Mechanical Surface Detection), z = 1.0, 25.0

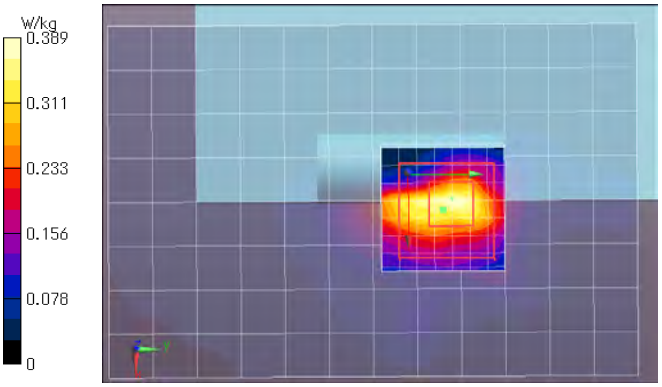
touch,other2/5h47,56.19,5670,at1,rear&d0,n40(m0)/

Area:80x120,10 (9x13x1): Measurement grid: dx=10mm, dy=10mm; Maximum value of SAR (measured) = 0.370 W/kg

Area:80x120,10 (81x121x1): Interpolated grid: dx=1.000 mm, dy=1.000 mm; Maximum value of SAR (interpolated) = 0.404 W/kg

Zoom:28x28x24,xy4-z1.4(ratio) (8x8x7)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=1.4mm;
Reference Value = 9.344 V/m; Power Drift = -0.03 dB; Maximum value of SAR (measured) = 0.389 W/kg; Peak SAR (extrapolated) = 0.698 W/kg

SAR(1 g) = 0.167 W/kg; SAR(10 g) = 0.070 W/kg (*.Smallest distance from peaks to all points 3 dB below = 6.4 mm; Ratio of SAR at M2 to SAR at M1 = 64.2%)



Remarks: *. Date tested: 2021/10/27; Tested by: Hiroshi Naka; Tested place:No.7 shielded room,
*. Liquid depth: 150 mm; Position: distance of EUT to phantom: 0 mm (2 mm to liquid); ambient: (22~24) deg.C. / (55~70) %RH,
*. Liquid temperature: 22.6(start)/22.5(end)/22.5(in check) deg.C.; *.White cubic: zoom scan area, Red cubic: big=SAR(10g)/small=SAR(1g)

Appendix 2: SAR measurement data / Appendix 2-3: Other SAR Plots (cont'd)

Plot 3a-8: U-NII-2C (5.6GHz) band, Antenna 1; Front & touch / 11n(40HT) (MCS0) / 5670 MHz

EUT: SKR 3000; Type: P-82; Serial: ADU4-S0002

Mode: n40(MCS0, OFDM) (UID: 0, Wi-fi_5GHz (0), Frame Length in ms: 0; PAR: 0; PMF: 1); **Frequency: 5670 MHz; Crest Factor: 1.0**

Medium: HSL5GHz(v6.2110); Medium parameters used: f = 5670 MHz; σ = 5.023 S/m; ε_r = 34.84; ρ = 1000 kg/m^3

Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)

DASY Configuration: -Electronics: DAE4 Sn626; Calibrated: 2020/11/17 / -Phantom: ELI v4.0; Type: QDOVA001BA; Serial: 1059; Phantom section: Flat Section -DASY52 52.10.3(1513); SEMCAD X 14.6.13(7474) / -Probe: EX3DV4 - SN3907; ConvF(4.56, 4.56, 4.56) @ 5670 MHz; Calibrated: 2021/04/21 -Sensor-Surface: 1.4mm (Mechanical Surface Detection), z = 1.0, 25.0

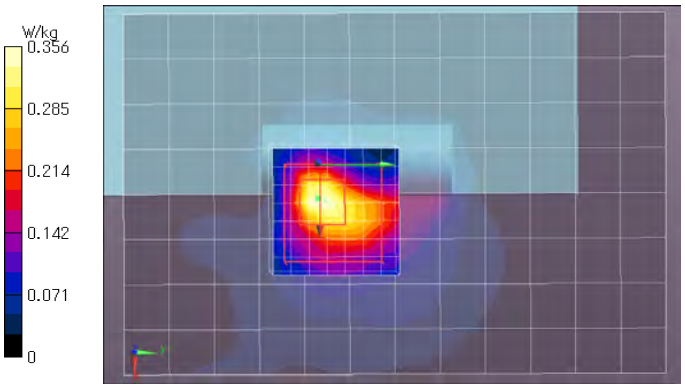
touch,other2/5h53,56.21,5670,at1,frt&d0,n40(m0)/

Area:80x120,10 (9x13x1): Measurement grid: dx=10mm, dy=10mm; Maximum value of SAR (measured) = 0.308 W/kg

Area:80x120,10 (81x121x1): Interpolated grid: dx=1.000 mm, dy=1.000 mm; Maximum value of SAR (interpolated) = 0.372 W/kg

Zoom:28x28x24,xy4-z1.4(ratio) (8x8x7)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=1.4mm;
Reference Value = 9.590 V/m; Power Drift = -0.03 dB; Maximum value of SAR (measured) = 0.356 W/kg; Peak SAR (extrapolated) = 0.657 W/kg

SAR(1 g) = 0.156 W/kg; SAR(10 g) = 0.063 W/kg (*.Smallest distance from peaks to all points 3 dB below = 5.1 mm; Ratio of SAR at M2 to SAR at M1 = 64.1%)



Remarks: *. Date tested: 2021/10/27; Tested by: Hiroshi Naka; Tested place:No.7 shielded room,
*. Liquid depth: 150 mm; Position: distance of EUT to phantom: 0 mm (2 mm to liquid); ambient: (22~24) deg.C. / (55~70) %RH,
*. Liquid temperature: 22.3(start)/22.3(end)/22.5(in check) deg.C.; *.White cubic: zoom scan area, Red cubic: big=SAR(10g)/small=SAR(1g)

Plot 3a-9: U-NII-2C (5.6GHz) band, Antenna 1; Top & touch / 11n(40HT) (MCS0) / 5670 MHz

EUT: SKR 3000; Type: P-82; Serial: ADU4-S0002

Mode: n40(MCS0, OFDM) (UID: 0, Wi-fi_5GHz (0), Frame Length in ms: 0; PAR: 0; PMF: 1); **Frequency: 5670 MHz; Crest Factor: 1.0**

Medium: HSL5GHz(v6.2110); Medium parameters used: f = 5670 MHz; σ = 5.023 S/m; ε_r = 34.84; ρ = 1000 kg/m^3

Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)

DASY Configuration: -Electronics: DAE4 Sn626; Calibrated: 2020/11/17 / -Phantom: ELI v4.0; Type: QDOVA001BA; Serial: 1059; Phantom section: Flat Section -DASY52 52.10.3(1513); SEMCAD X 14.6.13(7474) / -Probe: EX3DV4 - SN3907; ConvF(4.56, 4.56, 4.56) @ 5670 MHz; Calibrated: 2021/04/21 -Sensor-Surface: 1.4mm (Mechanical Surface Detection), z = 1.0, 25.0

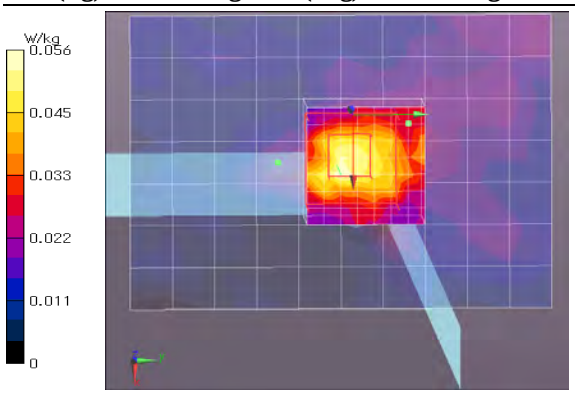
touch,other/5h41,56.17,5670,at1,top&d0,n40(m0)/

Area:70x100,10 (8x11x1): Measurement grid: dx=10mm, dy=10mm; Maximum value of SAR (measured) = 0.0371 W/kg

Area:70x100,10 (71x101x1): Interpolated grid: dx=1.000 mm, dy=1.000 mm; Maximum value of SAR (interpolated) = 0.0625 W/kg

Zoom:28x28x24,xy4-z1.4(ratio) (8x8x7)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=1.4mm;
Reference Value = 2.575 V/m; Power Drift = -0.20 dB; Maximum value of SAR (measured) = 0.0558 W/kg; Peak SAR (extrapolated) = 0.0890 W/kg

SAR(1 g) = 0.037 W/kg; SAR(10 g) = 0.030 W/kg (*.Ratio of SAR at M2 to SAR at M1 = 75.6%)



Remarks: *. Date tested: 2021/10/27; Tested by: Hiroshi Naka; Tested place:No.7 shielded room,
*. Liquid depth: 150 mm; Position: distance of EUT to phantom: 0 mm (2 mm to liquid); ambient: (22~24) deg.C. / (55~70) %RH,
*. Liquid temperature: 22.3(start)/22.3(end)/22.5(in check) deg.C.; *.White cubic: zoom scan area, Red cubic: big=SAR(10g)/small=SAR(1g)

Appendix 2: SAR measurement data / Appendix 2-3: Other SAR Plots (cont'd)

Plot 3b-2: U-NII-2C (5.6GHz) band, Antenna 2; Bottom & touch / 11n(40HT) (MCS0) / 5670 MHz

EUT: SKR 3000; Type: P-82; Serial: ADU4-S0002

Mode: n40(MCS0, OFDM) (UID: 0, Wi-fi_5GHz (0), Frame Length in ms: 0; PAR: 0; PMF: 1); **Frequency: 5670 MHz; Crest Factor: 1.0**

Medium: HSL5GHz(v6.2110); Medium parameters used: f = 5670 MHz; σ = 4.988 S/m; ε_r = 34.62; ρ = 1000 kg/m^3

Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)

DASY Configuration: -Electronics: DAE4 Sn626; Calibrated: 2020/11/17 / -Phantom: ELI v4.0; Type: QDOVA001BA; Serial: 1059; Phantom section: Flat Section -DASY52 52.10.3(1513); SEMCAD X 14.6.13(7474) / -Probe: EX3DV4 - SN3907; ConvF(4.56, 4.56, 4.56) @ 5670 MHz; Calibrated: 2021/04/21 -Sensor-Surface: 1.4mm (Mechanical Surface Detection), z = 1.0, 25.0, 156.0

touch,h5c,btm,sub(chain1)/o5h24.56.9,ant2,5670,btm&d0,n40(m0)/

Area:60x80,10 (7x9x1): Measurement grid: dx=10mm, dy=10mm; Maximum value of SAR (measured) = 1.44 W/kg

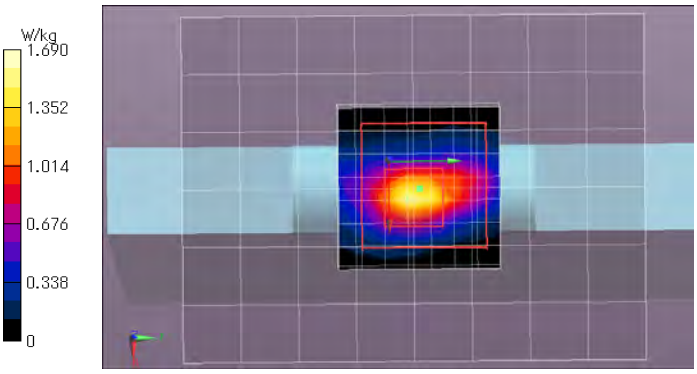
Area:60x80,10 (61x81x1): Interpolated grid: dx=1.000 mm, dy=1.000 mm; Maximum value of SAR (interpolated) = 1.45 W/kg

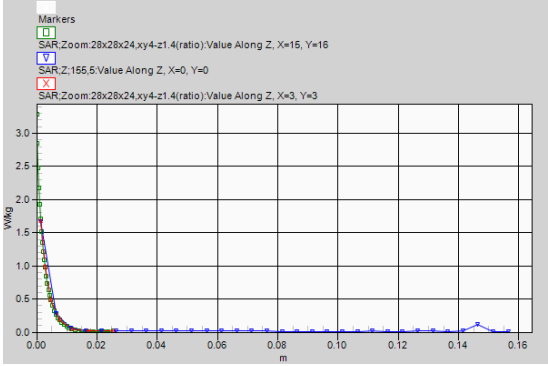
Z;155,5 (1x1x32): Measurement grid: dx=20mm, dy=20mm, dz=5mm; Maximum value of SAR (measured) = 1.67 W/kg

Zoom:28x28x24,xy4-z1.4(ratio) (8x8x7)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=1.4mm;

Reference Value = 18.92 V/m; Power Drift = -0.19 dB; Maximum value of SAR (measured) = 1.69 W/kg; Peak SAR (extrapolated) = 3.28 W/kg

SAR(1 g) = 0.555 W/kg; SAR(10 g) = 0.144 W/kg (*.Smallest distance from peaks to all points 3 dB below = 4.3 mm; Ratio of SAR at M2 to SAR at M1 = 57.9%)





Remarks: *. Date tested: 2021/10/19; Tested by: Hiroshi Naka; Tested place:No.7 shielded room,
*. Liquid depth: 150 mm; Position: distance of EUT to phantom: 0 mm (2 mm to liquid); ambient: 23 deg.C. / (60~70) %RH,
*. Liquid temperature: 22.3(start)/22.3(end)/22.5(in check) deg.C.; *.White cubic: zoom scan area, Red cubic: big=SAR(10g)/small=SAR(1g)

Plot 3b-3: U-NII-2C (5.6GHz) band, Antenna 2; Bottom & touch / 11n(40HT) (MCS0) / 5550 MHz

EUT: SKR 3000; Type: P-82; Serial: ADU4-S0002

Mode: n40(MCS0, OFDM) (UID: 0, Wi-fi_5GHz (0), Frame Length in ms: 0; PAR: 0; PMF: 1); **Frequency: 5550 MHz; Crest Factor: 1.0**

Medium: HSL5GHz(v6.2110); Medium parameters used: f = 5550 MHz; σ = 4.843 S/m; ε_r = 34.794; ρ = 1000 kg/m^3

Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)

DASY Configuration: -Electronics: DAE4 Sn626; Calibrated: 2020/11/17 / -Phantom: ELI v4.0; Type: QDOVA001BA; Serial: 1059; Phantom section: Flat Section -DASY52 52.10.3(1513); SEMCAD X 14.6.13(7474) / -Probe: EX3DV4 - SN3907; ConvF(4.56, 4.56, 4.56) @ 5550 MHz; Calibrated: 2021/04/21 -Sensor-Surface: 1.4mm (Mechanical Surface Detection), z = 1.0, 25.0

touch,h5c,btm,sub(chain1)/5h25.56.10,ant2,5550,btm&d0,n40(m0)/

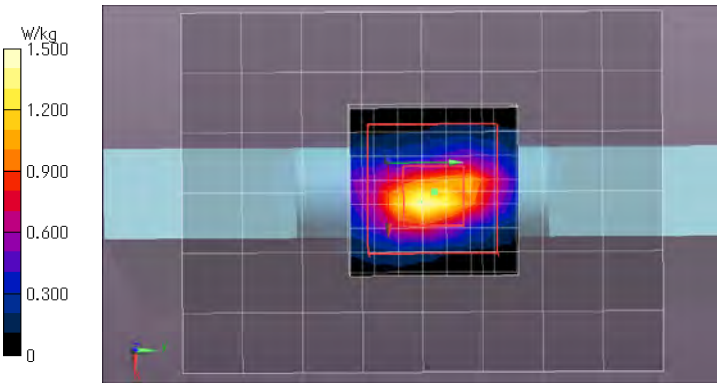
Area:60x80,10 (7x9x1): Measurement grid: dx=10mm, dy=10mm; Maximum value of SAR (measured) = 1.24 W/kg

Area:60x80,10 (61x81x1): Interpolated grid: dx=1.000 mm, dy=1.000 mm; Maximum value of SAR (interpolated) = 1.26 W/kg

Zoom:28x28x24,xy4-z1.4(ratio) (8x8x7)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=1.4mm;

Reference Value = 18.05 V/m; Power Drift = -0.14 dB; Maximum value of SAR (measured) = 1.50 W/kg; Peak SAR (extrapolated) = 2.74 W/kg

SAR(1 g) = 0.507 W/kg; SAR(10 g) = 0.136 W/kg (*.Smallest distance from peaks to all points 3 dB below = 4.8 mm; Ratio of SAR at M2 to SAR at M1 = 58.5%)



Remarks: *. Date tested: 2021/10/19; Tested by: Hiroshi Naka; Tested place:No.7 shielded room,
*. Liquid depth: 150 mm; Position: distance of EUT to phantom: 0 mm (2 mm to liquid); ambient: 23 deg.C. / (60~70) %RH,
*. Liquid temperature: 22.3(start)/22.2(end)/22.5(in check) deg.C.; *.White cubic: zoom scan area, Red cubic: big=SAR(10g)/small=SAR(1g)

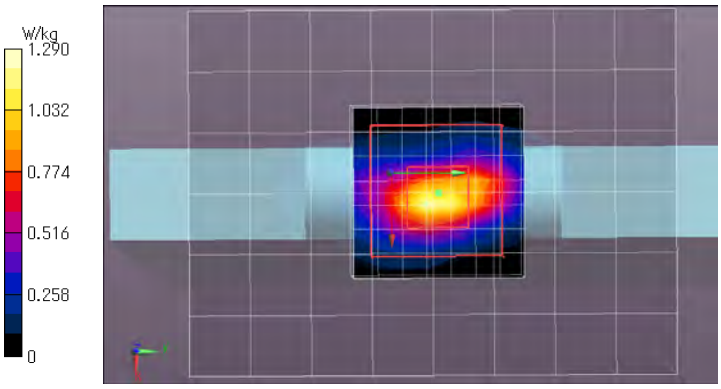
Appendix 2: SAR measurement data / Appendix 2-3: Other SAR Plots (cont'd)

Plot 3b-4: U-NII-2C (5.6GHz) band, Antenna 2; Bottom & touch / 11n(40HT) (MCS0) / 5510 MHz
EUT: SKR 3000; Type: P-82; Serial: ADU4-S0002
Mode: n40(MCS0, OFDM) (UID: 0, Wi-fi_5GHz (0), Frame Length in ms: 0; PAR: 0; PMF: 1); **Frequency: 5510 MHz; Crest Factor: 1.0**
Medium: HSL5GHz(v6.2110); Medium parameters used: f = 5510 MHz; σ = 4.792 S/m; ε_r = 34.88; ρ = 1000 kg/m^3
Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)

DASY Configuration: -Electronics: DAE4 Sn626; Calibrated: 2020/11/17 / -Phantom: ELI v4.0; Type: QDOVA001BA; Serial: 1059; Phantom section: Flat Section -DASY52 52.10.3(1513); SEMCAD X 14.6.13(7474) / -Probe: EX3DV4 - SN3907; ConvF(4.56, 4.56, 4.56) @ 5510 MHz; Calibrated: 2021/04/21 -Sensor-Surface: 1.4mm (Mechanical Surface Detection), z = 1.0, 25.0

touch,h5c,btm,sub(chain1)/5h26.56.11,ant2,5510,btm&d0,n40(m0)/
Area:60x80,10 (7x9x1): Measurement grid: dx=10mm, dy=10mm; Maximum value of SAR (measured) = 1.10 W/kg
Area:60x80,10 (61x81x1): Interpolated grid: dx=1.000 mm, dy=1.000 mm; Maximum value of SAR (interpolated) = 1.11 W/kg

Zoom:28x28x24,xy4-z1.4(ratio) (8x8x7)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=1.4mm;
Reference Value = 16.94 V/m; Power Drift = -0.20 dB; Maximum value of SAR (measured) = 1.29 W/kg; Peak SAR (extrapolated) = 2.47 W/kg
SAR(1 g) = 0.445 W/kg; SAR(10 g) = 0.122 W/kg (*.Smallest distance from peaks to all points 3 dB below = 4.3 mm; Ratio of SAR at M2 to SAR at M1 = 58.9%)



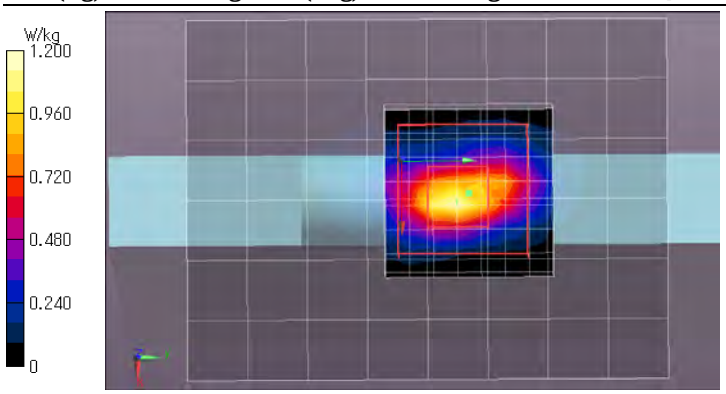
Remarks: *. Date tested: 2021/10/19; Tested by: Hiroshi Naka; Tested place:No.7 shielded room,
*. Liquid depth: 150 mm; Position: distance of EUT to phantom: 0 mm (2 mm to liquid); ambient: 23 deg.C. / (60~70) %RH,
*. Liquid temperature: 22.2(start)/22.3(end)/22.5(in check) deg.C.; *.White cubic: zoom scan area, Red cubic: big=SAR(10g)/small=SAR(1g)

Plot 3b-5: U-NII-2C (5.6GHz) band, Antenna 2; Bottom & touch / 11a (6Mbps) / 5580 MHz
EUT: SKR 3000; Type: P-82; Serial: ADU4-S0002
Mode: 11a(6Mbps, OFDM) (UID: 0, Wi-fi_5GHz (0), Frame Length in ms: 0; PAR: 0; PMF: 1); **Frequency: 5580 MHz; Crest Factor: 1.0**
Medium: HSL5GHz(v6.2110); Medium parameters used: f = 5580 MHz; σ = 4.883 S/m; ε_r = 34.79; ρ = 1000 kg/m^3
Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)

DASY Configuration: -Electronics: DAE4 Sn626; Calibrated: 2020/11/17 / -Phantom: ELI v4.0; Type: QDOVA001BA; Serial: 1059; Phantom section: Flat Section -DASY52 52.10.3(1513); SEMCAD X 14.6.13(7474) / -Probe: EX3DV4 - SN3907; ConvF(4.56, 4.56, 4.56) @ 5580 MHz; Calibrated: 2021/04/21 -Sensor-Surface: 1.4mm (Mechanical Surface Detection), z = 1.0, 25.0

touch,h5d,btm,sub(chain1)/5h34.56.14,ant2,5580,btm&d0,a(6m)/
Area:60x80,10 (7x9x1): Measurement grid: dx=10mm, dy=10mm; Maximum value of SAR (measured) = 0.895 W/kg
Area:60x80,10 (61x81x1): Interpolated grid: dx=1.000 mm, dy=1.000 mm; Maximum value of SAR (interpolated) = 1.02 W/kg

Zoom:28x28x24,xy4-z1.4(ratio) (8x8x7)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=1.4mm;
Reference Value = 15.64 V/m; Power Drift = 0.20 dB; Maximum value of SAR (measured) = 1.20 W/kg; Peak SAR (extrapolated) = 2.29 W/kg
SAR(1 g) = 0.419 W/kg; SAR(10 g) = 0.118 W/kg (*.Smallest distance from peaks to all points 3 dB below = 4.8 mm; Ratio of SAR at M2 to SAR at M1 = 59.3%)



Remarks: *. Date tested: 2021/10/19; Tested by: Hiroshi Naka; Tested place:No.7 shielded room,
*. Liquid depth: 150 mm; Position: distance of EUT to phantom: 0 mm (2 mm to liquid); ambient: 23 deg.C. / (60~70) %RH,
*. Liquid temperature: 22.4(start)/22.4(end)/22.5(in check) deg.C.; *.White cubic: zoom scan area, Red cubic: big=SAR(10g)/small=SAR(1g)

Appendix 2: SAR measurement data / Appendix 2-3: Other SAR Plots (cont'd)

Plot 3b-6: U-NII-2C (5.6GHz) band, Antenna 2; Bottom & touch / 11a (6Mbps) / 5500 MHz

EUT: SKR 3000; Type: P-82; Serial: ADU4-S0002

Mode: 11a(6Mbps, OFDM) (UID: 0, Wi-fi_5GHz (0), Frame Length in ms: 0; PAR: 0; PMF: 1); **Frequency: 5500 MHz; Crest Factor: 1.0**

Medium: HSL5GHz(v6.2110); Medium parameters used: f = 5500 MHz; σ = 4.781 S/m; ε_r = 34.91; ρ = 1000 kg/m^3

Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)

DASY Configuration: -Electronics: DAE4 Sn626; Calibrated: 2020/11/17 / -Phantom: ELI v4.0; Type: QDOVA001BA; Serial: 1059; Phantom section: Flat Section -DASY52 52.10.3(1513); SEMCAD X 14.6.13(7474) / -Probe: EX3DV4 - SN3907; ConvF(4.56, 4.56, 4.56) @ 5500 MHz; Calibrated: 2021/04/21 -Sensor-Surface: 1.4mm (Mechanical Surface Detection), z = 1.0, 25.0

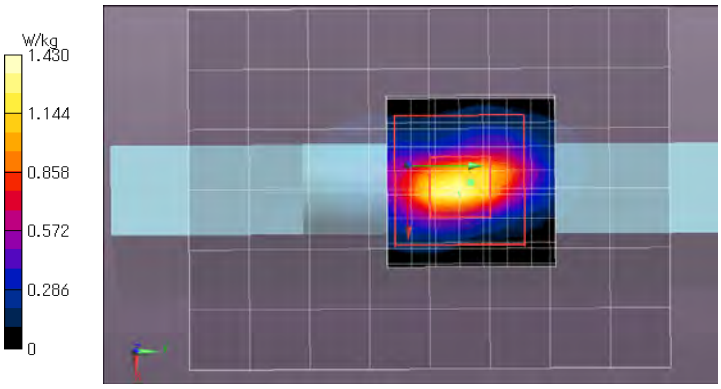
touch,h5d,btm,sub(chain1)/5h35.56.15,ant2,5500,btm&d0,a(6m)/

Area:60x80,10 (7x9x1): Measurement grid: dx=10mm, dy=10mm; Maximum value of SAR (measured) = 1.17 W/kg

Area:60x80,10 (61x81x1): Interpolated grid: dx=1.000 mm, dy=1.000 mm; Maximum value of SAR (interpolated) = 1.33 W/kg

Zoom:28x28x24,xy4-z1.4(ratio) (8x8x7)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=1.4mm;
Reference Value = 18.20 V/m; Power Drift = 0.01 dB; Maximum value of SAR (measured) = 1.43 W/kg; Peak SAR (extrapolated) = 2.74 W/kg

SAR(1 g) = 0.513 W/kg; SAR(10 g) = 0.143 W/kg (*.Smallest distance from peaks to all points 3 dB below = 4.7 mm; Ratio of SAR at M2 to SAR at M1 = 59.8%)



Remarks: *. Date tested: 2021/10/19; Tested by: Hiroshi Naka; Tested place:No.7 shielded room,
*. Liquid depth: 150 mm; Position: distance of EUT to phantom: 0 mm (2 mm to liquid); ambient: 23 deg.C. / (60~70) %RH,
*. Liquid temperature: 22.4(start)/22.3(end)/22.5(in check) deg.C.; *.White cubic: zoom scan area, Red cubic: big=SAR(10g)/small=SAR(1g)

Plot 3b-7: U-NII-2C (5.6GHz) band, Antenna 2; Rear & touch / 11n(40HT) (MCS0) / 5670 MHz

EUT: SKR 3000; Type: P-82; Serial: ADU4-S0002

Mode: n40(MCS0, OFDM) (UID: 0, Wi-fi_5GHz (0), Frame Length in ms: 0; PAR: 0; PMF: 1); **Frequency: 5670 MHz; Crest Factor: 1.0**

Medium: HSL5GHz(v6.2110); Medium parameters used: f = 5670 MHz; σ = 5.023 S/m; ε_r = 34.84; ρ = 1000 kg/m^3

Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)

DASY Configuration: -Electronics: DAE4 Sn626; Calibrated: 2020/11/17 / -Phantom: ELI v4.0; Type: QDOVA001BA; Serial: 1059; Phantom section: Flat Section -DASY52 52.10.3(1513); SEMCAD X 14.6.13(7474) / -Probe: EX3DV4 - SN3907; ConvF(4.56, 4.56, 4.56) @ 5670 MHz; Calibrated: 2021/04/21 -Sensor-Surface: 1.4mm (Mechanical Surface Detection), z = 1.0, 25.0

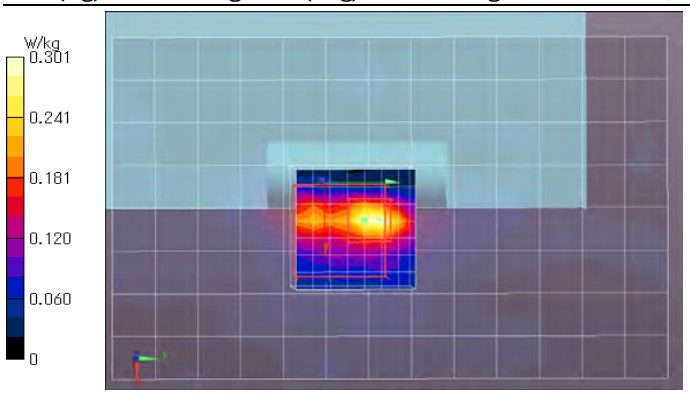
touch,other2/5h50.56.20,ant2,5670,rear&d0,n40(m0)/

Area:80x130,10 (9x14x1): Measurement grid: dx=10mm, dy=10mm; Maximum value of SAR (measured) = 0.237 W/kg

Area:80x130,10 (81x131x1): Interpolated grid: dx=1.000 mm, dy=1.000 mm; Maximum value of SAR (interpolated) = 0.361 W/kg

Zoom:28x28x24,xy4-z1.4(ratio) (8x8x7)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=1.4mm;
Reference Value = 8.210 V/m; Power Drift = 0.20 dB; Maximum value of SAR (measured) = 0.301 W/kg; Peak SAR (extrapolated) = 0.583 W/kg

SAR(1 g) = 0.114 W/kg; SAR(10 g) = 0.045 W/kg (*.Smallest distance from peaks to all points 3 dB below = 4.8 mm; Ratio of SAR at M2 to SAR at M1 = 63%)



Remarks: *. Date tested: 2021/10/27; Tested by: Hiroshi Naka; Tested place:No.7 shielded room,
*. Liquid depth: 150 mm; Position: distance of EUT to phantom: 0 mm (2 mm to liquid); ambient: (22~24) deg.C. / (55~70) %RH,
*. Liquid temperature: 22.5(start)/22.4(end)/22.5(in check) deg.C.; *.White cubic: zoom scan area, Red cubic: big=SAR(10g)/small=SAR(1g)

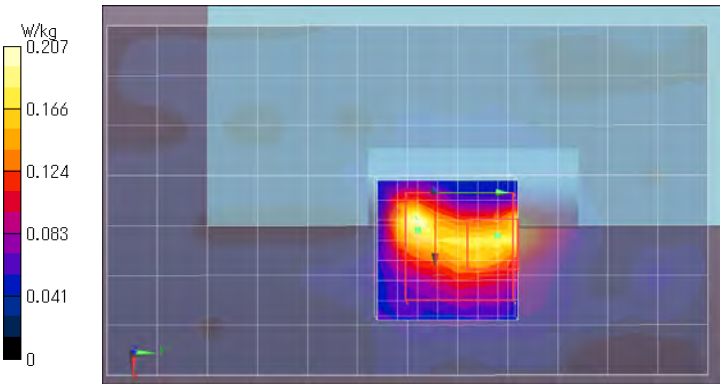
Appendix 2: SAR measurement data / Appendix 2-3: Other SAR Plots (cont'd)

Plot 3b-8: U-NII-2C (5.6GHz) band, Antenna 2; Front & touch / 11n(40HT) (MCS0) / 5670 MHz
EUT: SKR 3000; Type: P-82; Serial: ADU4-S0002
Mode: n40(MCS0, OFDM) (UID: 0, Wi-fi_5GHz (0), Frame Length in ms: 0; PAR: 0; PMF: 1); **Frequency: 5670 MHz; Crest Factor: 1.0**
Medium: HSL5GHz(v6.2110); Medium parameters used: f = 5670 MHz; σ = 5.023 S/m; ε_r = 34.84; ρ = 1000 kg/m^3
Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)

DASY Configuration: -Electronics: DAE4 Sn626; Calibrated: 2020/11/17 / -Phantom: ELI v4.0; Type: QDOVA001BA; Serial: 1059; Phantom section: Flat Section -DASY52 52.10.3(1513); SEMCAD X 14.6.13(7474) / -Probe: EX3DV4 - SN3907; ConvF(4.56, 4.56, 4.56) @ 5670 MHz; Calibrated: 2021/04/21 -Sensor-Surface: 1.4mm (Mechanical Surface Detection), z = 1.0, 25.0

touch,other2/5h56.56.22,ant2,5670,frt&d0,n40(m0)/
Area:70x120,10 (8x13x1): Measurement grid: dx=10mm, dy=10mm; Maximum value of SAR (measured) = 0.189 W/kg
Area:70x120,10 (71x121x1): Interpolated grid: dx=1.000 mm, dy=1.000 mm; Maximum value of SAR (interpolated) = 0.215 W/kg

Zoom:28x28x24,xy4-z1.4(ratio) (8x8x7)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=1.4mm;
Reference Value = 6.710 V/m; Power Drift = -0.09 dB; Maximum value of SAR (measured) = 0.207 W/kg; Peak SAR (extrapolated) = 0.364 W/kg
SAR(1 g) = 0.084 W/kg; SAR(10 g) = 0.042 W/kg (*.Smallest distance from peaks to all points 3 dB below = 5.4 mm; Ratio of SAR at M2 to SAR at M1 = 63.7%)



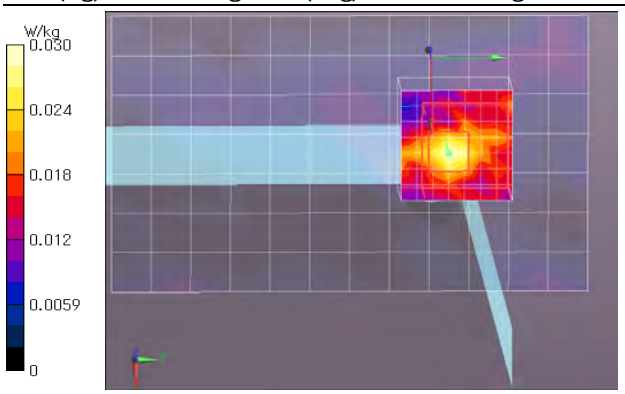
Remarks: *. Date tested: 2021/10/27; Tested by: Hiroshi Naka; Tested place:No.7 shielded room,
*. Liquid depth: 150 mm; Position: distance of EUT to phantom: 0 mm (2 mm to liquid); ambient: (22~24) deg.C. / (55~70) %RH,
*. Liquid temperature: 22.4(start)/22.5(end)/22.5(in check) deg.C.; *.White cubic: zoom scan area, Red cubic: big=SAR(10g)/small=SAR(1g)

Plot 3b-9: U-NII-2C (5.6GHz) band, Antenna 2; Right & touch / 11n(40HT) (MCS0) / 5670 MHz
EUT: SKR 3000; Type: P-82; Serial: ADU4-S0002
Mode: n40(MCS0, OFDM) (UID: 0, Wi-fi_5GHz (0), Frame Length in ms: 0; PAR: 0; PMF: 1); **Frequency: 5670 MHz; Crest Factor: 1.0**
Medium: HSL5GHz(v6.2110); Medium parameters used: f = 5670 MHz; σ = 5.023 S/m; ε_r = 34.84; ρ = 1000 kg/m^3
Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)

DASY Configuration: -Electronics: DAE4 Sn626; Calibrated: 2020/11/17 / -Phantom: ELI v4.0; Type: QDOVA001BA; Serial: 1059; Phantom section: Flat Section -DASY52 52.10.3(1513); SEMCAD X 14.6.13(7474) / -Probe: EX3DV4 - SN3907; ConvF(4.56, 4.56, 4.56) @ 5670 MHz; Calibrated: 2021/04/21 -Sensor-Surface: 1.4mm (Mechanical Surface Detection), z = 1.0, 25.0

touch,other/5h44.56.18,ant2,5670,left&d0,n40(m0)/
Area:70x120,10 (8x13x1): Measurement grid: dx=10mm, dy=10mm; Maximum value of SAR (measured) = 0.0172 W/kg
Area:70x120,10 (71x121x1): Interpolated grid: dx=1.000 mm, dy=1.000 mm; Maximum value of SAR (interpolated) = 0.0287 W/kg

Zoom:28x28x24,xy4-z1.4(ratio) (8x8x7)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=1.4mm;
Reference Value = 2.486 V/m; Power Drift = -0.20 dB; Maximum value of SAR (measured) = 0.0295 W/kg; Peak SAR (extrapolated) = 0.0940 W/kg
SAR(1 g) = 0.014 W/kg; SAR(10 g) = 0.00842 W/kg (*.Ratio of SAR at M2 to SAR at M1 = 48.7%)



Remarks: *. Date tested: 2021/10/27; Tested by: Hiroshi Naka; Tested place:No.7 shielded room,
*. Liquid depth: 150 mm; Position: distance of EUT to phantom: 0 mm (2 mm to liquid); ambient: (22~24) deg.C. / (55~70) %RH,
*. Liquid temperature: 22.4(start)/22.5(end)/22.5(in check) deg.C.; *.White cubic: zoom scan area, Red cubic: big=SAR(10g)/small=SAR(1g)

Appendix 2: SAR measurement data / Appendix 2-3: Other SAR Plots (cont'd)

Plot 4a-2: U-NII-3 (5.8GHz) band, Antenna 1; Left & touch / 11n(40HT) (MCS0) / 5755 MHz

EUT: SKR 3000; Type: P-82; Serial: ADU4-S0002

Mode: n40(MCS0, OFDM) (UID: 0, Wi-fi_5GHz (0), Frame Length in ms: 0; PAR: 0; PMF: 1); **Frequency: 5755 MHz; Crest Factor: 1.0**

Medium: HSL5GHz(v6.2110); Medium parameters used (interpolated): f = 5755 MHz; σ = 5.074 S/m; ε_r = 34.49; ρ = 1000 kg/m^3

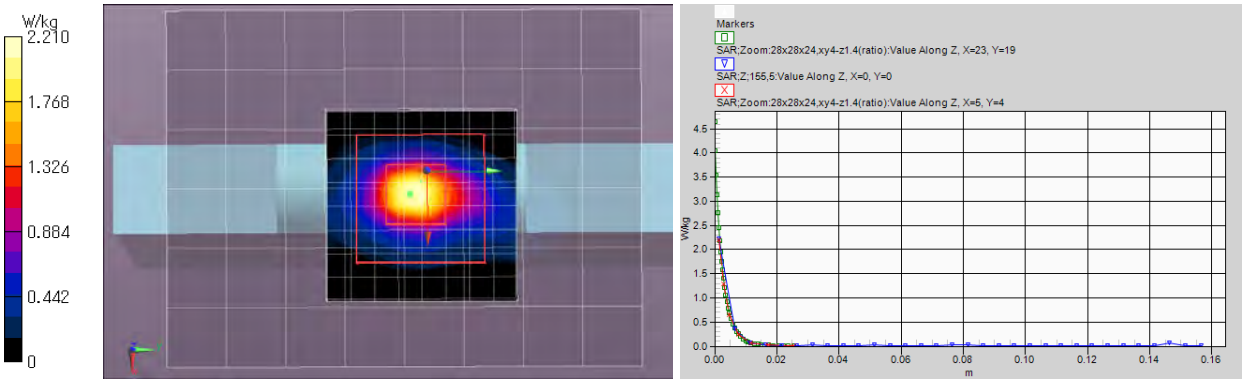
Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)

DASY Configuration: -Electronics: DAE4 Sn626; Calibrated: 2020/11/17 / -Phantom: ELI v4.0; Type: QDOVA001BA; Serial: 1059; Phantom section: Flat Section -DASY52 52.10.3(1513); SEMCAD X 14.6.13(7474) / -Probe: EX3DV4 - SN3907; ConvF(4.6, 4.6, 4.6) @ 5755 MHz; Calibrated: 2021/04/21 -Sensor-Surface: 1.4mm (Mechanical Surface Detection), z = 1.0, 25.0, 156.0

touch,h5a,right,at1(chain0)/o5h1,58.1,5755,at1,right&d0,n40(m0)/
Area:60x80,10 (7x9x1): Measurement grid: dx=10mm, dy=10mm; Maximum value of SAR (measured) = 2.14 W/kg
Area:60x80,10 (61x81x1): Interpolated grid: dx=1.000 mm, dy=1.000 mm; Maximum value of SAR (interpolated) = 2.31 W/kg
Z;155,5 (1x1x32): Measurement grid: dx=20mm, dy=20mm, dz=5mm; Maximum value of SAR (measured) = 2.22 W/kg

Zoom:28x28x24,xy4-z1.4(ratio) (9x9x7)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=1.4mm;
Reference Value = 23.97 V/m; Power Drift = -0.09 dB; Maximum value of SAR (measured) = 2.21 W/kg; Peak SAR (extrapolated) = 4.64 W/kg

SAR(1 g) = 0.793 W/kg; SAR(10 g) = 0.190 W/kg (*.Smallest distance from peaks to all points 3 dB below = 4.9 mm; Ratio of SAR at M2 to SAR at M1 = 58.7%)



Remarks: *. Date tested: 2021/10/19; Tested by: Hiroshi Naka; Tested place:No.7 shielded room,
*. Liquid depth: 150 mm; Position: distance of EUT to phantom: 0 mm (2 mm to liquid); ambient: 23 deg.C. / (60~70) %RH,
*. Liquid temperature: 22.2(start)/22.2(end)/22.5(in check) deg.C.; *.White cubic: zoom scan area, Red cubic: big=SAR(10g)/small=SAR(1g)

Plot 4a-3: U-NII-3 (5.8GHz) band, Antenna 1; Left & touch / 11n(40HT) (MCS0) / 5795 MHz

EUT: SKR 3000; Type: P-82; Serial: ADU4-S0002

Mode: n40(MCS0, OFDM) (UID: 0, Wi-fi_5GHz (0), Frame Length in ms: 0; PAR: 0; PMF: 1); **Frequency: 5795 MHz; Crest Factor: 1.0**

Medium: HSL5GHz(v6.2110); Medium parameters used (interpolated): f = 5795 MHz; σ = 5.125 S/m; ε_r = 34.43; ρ = 1000 kg/m^3

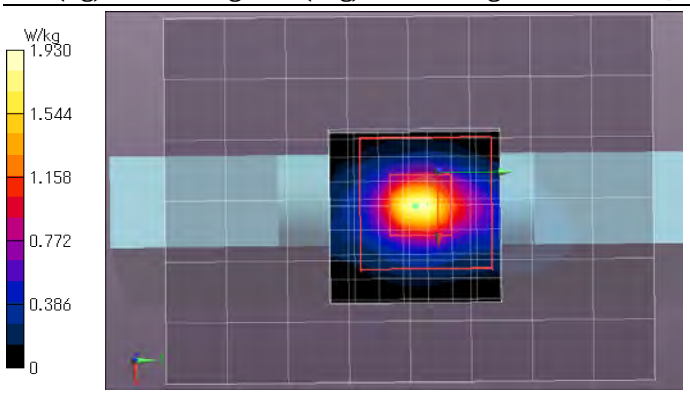
Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)

DASY Configuration: -Electronics: DAE4 Sn626; Calibrated: 2020/11/17 / -Phantom: ELI v4.0; Type: QDOVA001BA; Serial: 1059; Phantom section: Flat Section -DASY52 52.10.3(1513); SEMCAD X 14.6.13(7474) / -Probe: EX3DV4 - SN3907; ConvF(4.6, 4.6, 4.6) @ 5795 MHz; Calibrated: 2021/04/21 -Sensor-Surface: 1.4mm (Mechanical Surface Detection), z = 1.0, 25.0

touch,h5a,right,at1(chain0)/5h2,58.2,5795,at1,right&d0,n40(m0)/
Area:60x80,10 (7x9x1): Measurement grid: dx=10mm, dy=10mm; Maximum value of SAR (measured) = 1.70 W/kg
Area:60x80,10 (61x81x1): Interpolated grid: dx=1.000 mm, dy=1.000 mm; Maximum value of SAR (interpolated) = 1.86 W/kg

Zoom:28x28x24,xy4-z1.4(ratio) (8x8x7)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=1.4mm;
Reference Value = 21.55 V/m; Power Drift = -0.04 dB; Maximum value of SAR (measured) = 1.93 W/kg; Peak SAR (extrapolated) = 3.73 W/kg

SAR(1 g) = 0.655 W/kg; SAR(10 g) = 0.157 W/kg (*.Smallest distance from peaks to all points 3 dB below = 5.1 mm; Ratio of SAR at M2 to SAR at M1 = 58.8%)



Remarks: *. Date tested: 2021/10/19; Tested by: Hiroshi Naka; Tested place:No.7 shielded room,
*. Liquid depth: 150 mm; Position: distance of EUT to phantom: 0 mm (2 mm to liquid); ambient: 23 deg.C. / (60~70) %RH,
*. Liquid temperature: 22.2(start)/22.2(end)/22.5(in check) deg.C.; *.White cubic: zoom scan area, Red cubic: big=SAR(10g)/small=SAR(1g)

Appendix 2: SAR measurement data / Appendix 2-3: Other SAR Plots (cont'd)

Plot 4a-4: U-NII-3 (5.8GHz) band, Antenna 1; Left & touch / 11a (6Mbps) / 5785 MHz

EUT: SKR 3000; Type: P-82; Serial: ADU4-S0002

Mode: 11a(6Mbps, OFDM) (UID: 0, Wi-fi_5GHz (0), Frame Length in ms: 0; PAR: 0; PMF: 1); **Frequency: 5785 MHz; Crest Factor: 1.0**

Medium: HSL5GHz(v6.2110); Medium parameters used (interpolated): f = 5785 MHz; σ = 5.113 S/m; ε_r = 34.42; ρ = 1000 kg/m^3

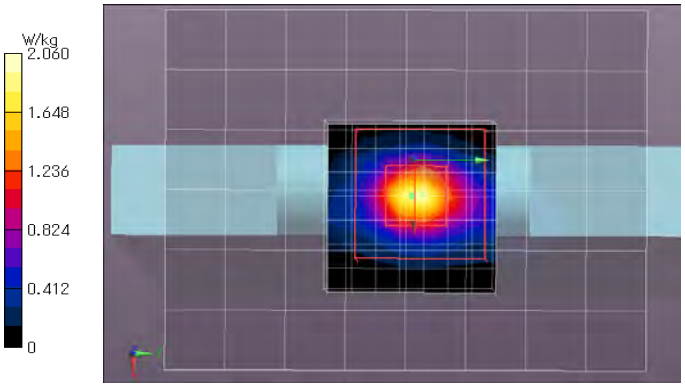
Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)

DASY Configuration: -Electronics: DAE4 Sn626; Calibrated: 2020/11/17 / -Phantom: ELI v4.0; Type: QDOVA001BA; Serial: 1059; Phantom section: Flat Section -DASY52 52.10.3(1513); SEMCAD X 14.6.13(7474) / -Probe: EX3DV4 - SN3907; ConvF(4.6, 4.6, 4.6) @ 5785 MHz; Calibrated: 2021/04/21
-Sensor-Surface: 1.4mm (Mechanical Surface Detection), z = 1.0, 25.0

touch,h5a,right,at1(chain0)/5h17,58.4,5785,at1,right&d0,a(6m)/
Area:60x80,10 (7x9x1): Measurement grid: dx=10mm, dy=10mm; Maximum value of SAR (measured) = 1.66 W/kg
Area:60x80,10 (61x81x1): Interpolated grid: dx=1.000 mm, dy=1.000 mm; Maximum value of SAR (interpolated) = 1.82 W/kg

Zoom:28x28x24,xy4-z1.4(ratio) (8x8x7)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=1.4mm;
Reference Value = 22.33 V/m; Power Drift = -0.05 dB; Maximum value of SAR (measured) = 2.06 W/kg; Peak SAR (extrapolated) = 3.98 W/kg

SAR(1 g) = 0.701 W/kg; SAR(10 g) = 0.168 W/kg (*.Smallest distance from peaks to all points 3 dB below = 5.1 mm; Ratio of SAR at M2 to SAR at M1 = 59%)



Remarks: *. Date tested: 2021/10/19; Tested by: Hiroshi Naka; Tested place:No.7 shielded room,
*. Liquid depth: 150 mm; Position: distance of EUT to phantom: 0 mm (2 mm to liquid); ambient: 23 deg.C. / (60~70) %RH,
*. Liquid temperature: 22.2(start)/22.2(end)/22.5(in check) deg.C.; *.White cubic: zoom scan area, Red cubic: big=SAR(10g)/small=SAR(1g)

Plot 4a-5: U-NII-3 (5.8GHz) band, Antenna 1; Left & touch / 11a (6Mbps) / 5825 MHz

EUT: SKR 3000; Type: P-82; Serial: ADU4-S0002

Mode: 11a(6Mbps, OFDM) (UID: 0, Wi-fi_5GHz (0), Frame Length in ms: 0; PAR: 0; PMF: 1); **Frequency: 5825 MHz; Crest Factor: 1.0**

Medium: HSL5GHz(v6.2110); Medium parameters used (interpolated): f = 5825 MHz; σ = 5.16 S/m; ε_r = 34.40; ρ = 1000 kg/m^3

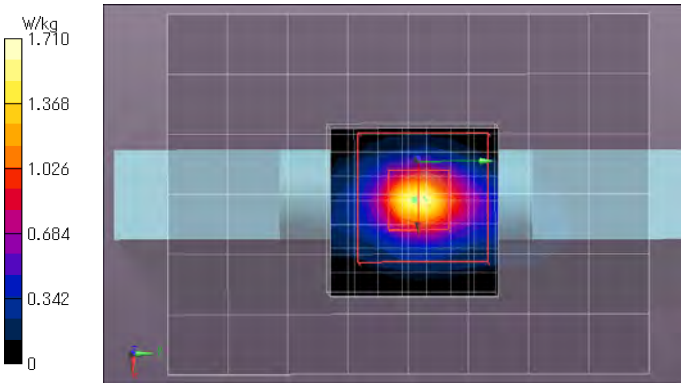
Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)

DASY Configuration: -Electronics: DAE4 Sn626; Calibrated: 2020/11/17 / -Phantom: ELI v4.0; Type: QDOVA001BA; Serial: 1059; Phantom section: Flat Section -DASY52 52.10.3(1513); SEMCAD X 14.6.13(7474) / -Probe: EX3DV4 - SN3907; ConvF(4.6, 4.6, 4.6) @ 5825 MHz; Calibrated: 2021/04/21
-Sensor-Surface: 1.4mm (Mechanical Surface Detection), z = 1.0, 25.0

touch,h5a,right,at1(chain0)/5h18,58.5,5825,at1,right&d0,a(6m)/
Area:60x80,10 (7x9x1): Measurement grid: dx=10mm, dy=10mm; Maximum value of SAR (measured) = 1.41 W/kg
Area:60x80,10 (61x81x1): Interpolated grid: dx=1.000 mm, dy=1.000 mm; Maximum value of SAR (interpolated) = 1.55 W/kg

Zoom:28x28x24,xy4-z1.4(ratio) (8x8x7)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=1.4mm;
Reference Value = 20.14 V/m; Power Drift = -0.04 dB; Maximum value of SAR (measured) = 1.71 W/kg; Peak SAR (extrapolated) = 3.29 W/kg

SAR(1 g) = 0.580 W/kg; SAR(10 g) = 0.134 W/kg (*.Smallest distance from peaks to all points 3 dB below = 5.1 mm; Ratio of SAR at M2 to SAR at M1 = 58.8%)



Remarks: *. Date tested: 2021/10/19; Tested by: Hiroshi Naka; Tested place:No.7 shielded room,
*. Liquid depth: 150 mm; Position: distance of EUT to phantom: 0 mm (2 mm to liquid); ambient: 23 deg.C. / (60~70) %RH,
*. Liquid temperature: 22.2(start)/22.2(end)/22.5(in check) deg.C.; *.White cubic: zoom scan area, Red cubic: big=SAR(10g)/small=SAR(1g)

Appendix 2: SAR measurement data / Appendix 2-3: Other SAR Plots (cont'd)

Plot 4a-6: U-NII-3 (5.8GHz) band, Antenna 1; Rear & touch / 11n(40HT) (MCS0) / 5755 MHz

EUT: SKR 3000; Type: P-82; Serial: ADU4-S0002

Mode: n40(MCS0, OFDM) (UID: 0, Wi-fi_5GHz (0), Frame Length in ms: 0; PAR: 0; PMF: 1); **Frequency: 5755 MHz; Crest Factor: 1.0**

Medium: HSL5GHz(v6.2110); Medium parameters used (interpolated): f = 5755 MHz; σ = 5.111 S/m; ε_r = 34.70; ρ = 1000 kg/m^3

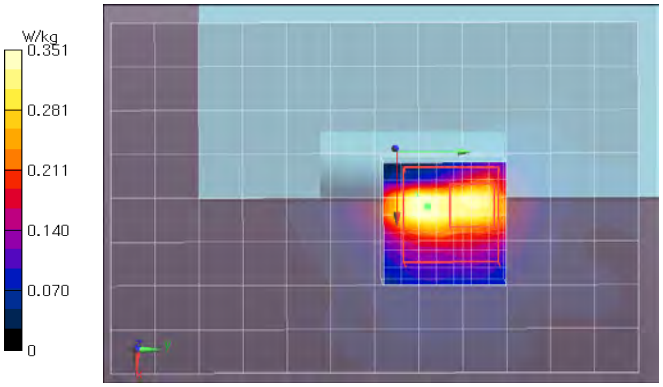
Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)

DASY Configuration: -Electronics: DAE4 Sn626; Calibrated: 2020/11/17 / -Phantom: ELI v4.0; Type: QDOVA001BA; Serial: 1059; Phantom section: Flat Section -DASY52 52.10.3(1513); SEMCAD X 14.6.13(7474) / -Probe: EX3DV4 - SN3907; ConvF(4.6, 4.6, 4.6) @ 5755 MHz; Calibrated: 2021/04/21
-Sensor-Surface: 1.4mm (Mechanical Surface Detection), z = 1.0, 25.0

touch,other/5h46,58.13,5755,at1,rear&d0,n40(m0)/
Area:80x120,10 (9x13x1): Measurement grid: dx=10mm, dy=10mm; Maximum value of SAR (measured) = 0.337 W/kg
Area:80x120,10 (81x121x1): Interpolated grid: dx=1.000 mm, dy=1.000 mm; Maximum value of SAR (interpolated) = 0.404 W/kg

Zoom:28x28x24,xy4-z1.4(ratio) (8x8x7)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=1.4mm;
Reference Value = 9.583 V/m; Power Drift = -0.09 dB; Maximum value of SAR (measured) = 0.351 W/kg; Peak SAR (extrapolated) = 0.806 W/kg

SAR(1 g) = 0.153 W/kg; SAR(10 g) = 0.061 W/kg (*.Smallest distance from peaks to all points 3 dB below = 4 mm; Ratio of SAR at M2 to SAR at M1 = 57.9%)



Remarks: *. Date tested: 2021/10/27; Tested by: Hiroshi Naka; Tested place:No.7 shielded room,
*. Liquid depth: 150 mm; Position: distance of EUT to phantom: 0 mm (2 mm to liquid); ambient: (22~24) deg.C. / (55~70) %RH,
*. Liquid temperature: 22.5(start)/22.6(end)/22.5(in check) deg.C.; *.White cubic: zoom scan area, Red cubic: big=SAR(10g)/small=SAR(1g)

Plot 4a-7: U-NII-3 (5.8GHz) band, Antenna 1; Front & touch / 11n(40HT) (MCS0) / 5755 MHz

EUT: SKR 3000; Type: P-82; Serial: ADU4-S0002

Mode: n40(MCS0, OFDM) (UID: 0, Wi-fi_5GHz (0), Frame Length in ms: 0; PAR: 0; PMF: 1); **Frequency: 5755 MHz; Crest Factor: 1.0**

Medium: HSL5GHz(v6.2110); Medium parameters used (interpolated): f = 5755 MHz; σ = 5.111 S/m; ε_r = 34.70; ρ = 1000 kg/m^3

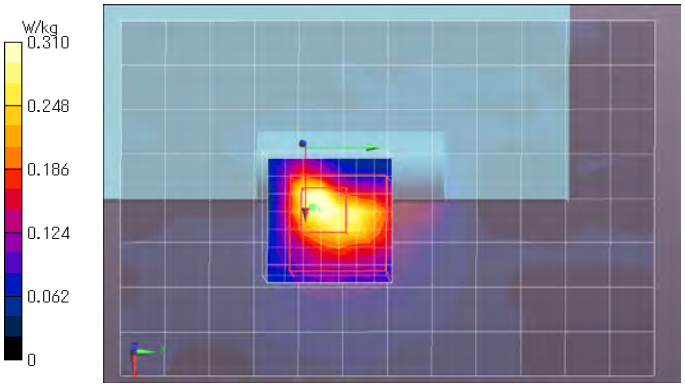
Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)

DASY Configuration: -Electronics: DAE4 Sn626; Calibrated: 2020/11/17 / -Phantom: ELI v4.0; Type: QDOVA001BA; Serial: 1059; Phantom section: Flat Section -DASY52 52.10.3(1513); SEMCAD X 14.6.13(7474) / -Probe: EX3DV4 - SN3907; ConvF(4.6, 4.6, 4.6) @ 5755 MHz; Calibrated: 2021/04/21
-Sensor-Surface: 1.4mm (Mechanical Surface Detection), z = 1.0, 25.0

touch,other2/5h52,58.15,5755,at1,frt&d0,n40(m0)/
Area:80x120,10 (9x13x1): Measurement grid: dx=10mm, dy=10mm; Maximum value of SAR (measured) = 0.285 W/kg
Area:80x120,10 (81x121x1): Interpolated grid: dx=1.000 mm, dy=1.000 mm; Maximum value of SAR (interpolated) = 0.356 W/kg

Zoom:28x28x24,xy4-z1.4(ratio) (8x8x7)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=1.4mm;
Reference Value = 8.591 V/m; Power Drift = -0.01 dB; Maximum value of SAR (measured) = 0.310 W/kg; Peak SAR (extrapolated) = 0.613 W/kg

SAR(1 g) = 0.139 W/kg; SAR(10 g) = 0.059 W/kg (*.Smallest distance from peaks to all points 3 dB below = 5.7 mm; Ratio of SAR at M2 to SAR at M1 = 65.1%)



Remarks: *. Date tested: 2021/10/27; Tested by: Hiroshi Naka; Tested place:No.7 shielded room,
*. Liquid depth: 150 mm; Position: distance of EUT to phantom: 0 mm (2 mm to liquid); ambient: (22~24) deg.C. / (55~70) %RH,
*. Liquid temperature: 22.4(start)/22.3(end)/22.5(in check) deg.C.; *.White cubic: zoom scan area, Red cubic: big=SAR(10g)/small=SAR(1g)

Appendix 2: SAR measurement data / Appendix 2-3: Other SAR Plots (cont'd)

Plot 4a-8: U-NII-3 (5.8GHz) band, Antenna 1; Top & touch / 11n(40HT) (MCS0) / 5755 MHz

EUT: SKR 3000; Type: P-82; Serial: ADU4-S0002

Mode: n40(MCS0, OFDM) (UID: 0, Wi-fi_5GHz (0), Frame Length in ms: 0; PAR: 0; PMF: 1); **Frequency: 5755 MHz; Crest Factor: 1.0**

Medium: HSL5GHz(v6.2110); Medium parameters used (interpolated): f = 5755 MHz; σ = 5.111 S/m; ε_r = 34.70; ρ = 1000 kg/m^3

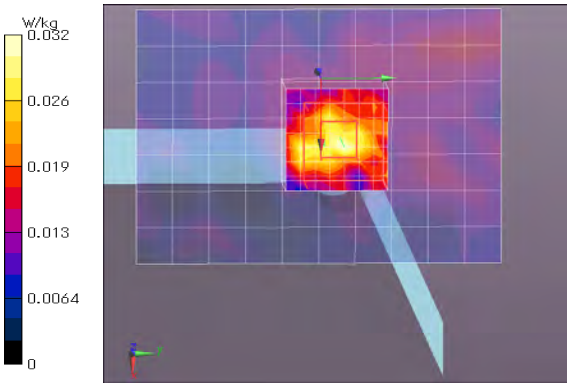
Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)

DASY Configuration: -Electronics: DAE4 Sn626; Calibrated: 2020/11/17 / -Phantom: ELI v4.0; Type: QDOVA001BA; Serial: 1059; Phantom section: Flat Section -DASY52 52.10.3(1513); SEMCAD X 14.6.13(7474) / -Probe: EX3DV4 - SN3907; ConvF(4.6, 4.6, 4.6) @ 5755 MHz; Calibrated: 2021/04/21
-Sensor-Surface: 1.4mm (Mechanical Surface Detection), z = 1.0, 25.0

touch,other/5h42,58.11,5755,at1,top&d0,n40(m0)/
Area:70x100,10 (8x11x1): Measurement grid: dx=10mm, dy=10mm; Maximum value of SAR (measured) = 0.0273 W/kg
Area:70x100,10 (71x101x1): Interpolated grid: dx=1.000 mm, dy=1.000 mm; Maximum value of SAR (interpolated) = 0.0297 W/kg

Zoom:28x28x24,xy4-z1.4(ratio) (8x8x7)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=1.4mm;
Reference Value = 2.577 V/m; Power Drift = -0.20 dB; Maximum value of SAR (measured) = 0.0320 W/kg; Peak SAR (extrapolated) = 0.0790 W/kg

SAR(1 g) = 0.016 W/kg; SAR(10 g) = 0.00918 W/kg (*.Ratio of SAR at M2 to SAR at M1 = 59.6%)



Remarks: *. Date tested: 2021/10/27; Tested by: Hiroshi Naka; Tested place:No.7 shielded room,
*. Liquid depth: 150 mm; Position: distance of EUT to phantom: 0 mm (2 mm to liquid); ambient: (22~24) deg.C. / (55~70) %RH,
*. Liquid temperature: 22.3(start)/22.4(end)/22.5(in check) deg.C.; *.White cubic: zoom scan area, Red cubic: big=SAR(10g)/small=SAR(1g)

Plot 4b-2: U-NII-3 (5.8GHz) band, Antenna 2; Bottom & touch / 11n(40HT) (MCS0) / 5795 MHz

EUT: SKR 3000; Type: P-82; Serial: ADU4-S0002

Mode: n40(MCS0, OFDM) (UID: 0, Wi-fi_5GHz (0), Frame Length in ms: 0; PAR: 0; PMF: 1); **Frequency: 5795 MHz; Crest Factor: 1.0**

Medium: HSL5GHz(v6.2110); Medium parameters used (interpolated): f = 5795 MHz; σ = 5.125 S/m; ε_r = 34.43; ρ = 1000 kg/m^3

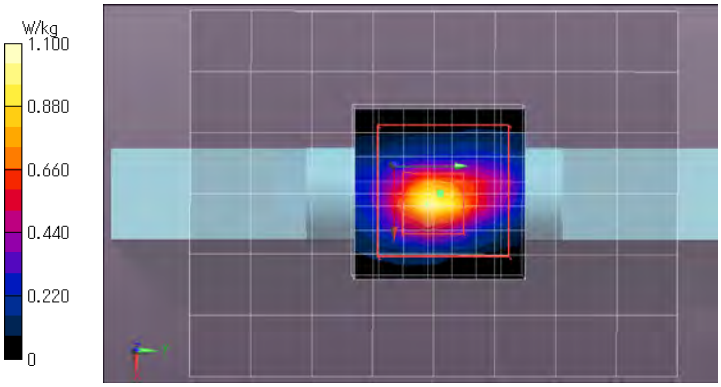
Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)

DASY Configuration: -Electronics: DAE4 Sn626; Calibrated: 2020/11/17 / -Phantom: ELI v4.0; Type: QDOVA001BA; Serial: 1059; Phantom section: Flat Section -DASY52 52.10.3(1513); SEMCAD X 14.6.13(7474) / -Probe: EX3DV4 - SN3907; ConvF(4.6, 4.6, 4.6) @ 5795 MHz; Calibrated: 2021/04/21
-Sensor-Surface: 1.4mm (Mechanical Surface Detection), z = 1.0, 25.0

touch,h5c,btm,sub(chain1)/5h22.58.6,ant2,5795,btm&d0,n40(m0)/
Area:60x80,10 (7x9x1): Measurement grid: dx=10mm, dy=10mm; Maximum value of SAR (measured) = 0.963 W/kg
Area:60x80,10 (61x81x1): Interpolated grid: dx=1.000 mm, dy=1.000 mm; Maximum value of SAR (interpolated) = 0.969 W/kg

Zoom:28x28x24,xy4-z1.4(ratio) (8x8x7)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=1.4mm;
Reference Value = 15.15 V/m; Power Drift = -0.20 dB; Maximum value of SAR (measured) = 1.10 W/kg; Peak SAR (extrapolated) = 2.20 W/kg

SAR(1 g) = 0.358 W/kg; SAR(10 g) = 0.093 W/kg (*.Smallest distance from peaks to all points 3 dB below = 4.3 mm; Ratio of SAR at M2 to SAR at M1 = 56.7%)



Remarks: *. Date tested: 2021/10/19; Tested by: Hiroshi Naka; Tested place:No.7 shielded room,
*. Liquid depth: 150 mm; Position: distance of EUT to phantom: 0 mm (2 mm to liquid); ambient: 23 deg.C. / (60~70) %RH,
*. Liquid temperature: 22.3(start)/22.3(end)/22.5(in check) deg.C.; *.White cubic: zoom scan area, Red cubic: big=SAR(10g)/small=SAR(1g)

Appendix 2: SAR measurement data / Appendix 2-3: Other SAR Plots (cont'd)

Plot 4b-3: U-NII-3 (5.8GHz) band, Antenna 2; Bottom & touch / 11n(40HT) (MCS0) / 5755 MHz

EUT: SKR 3000; Type: P-82; Serial: ADU4-S0002

Mode: n40(MCS0, OFDM) (UID: 0, Wi-fi_5GHz (0), Frame Length in ms: 0; PAR: 0; PMF: 1); **Frequency: 5755 MHz; Crest Factor: 1.0**

Medium: HSL5GHz(v6.2110); Medium parameters used (interpolated): f = 5755 MHz; σ = 5.074 S/m; ε_r = 34.49; ρ = 1000 kg/m^3

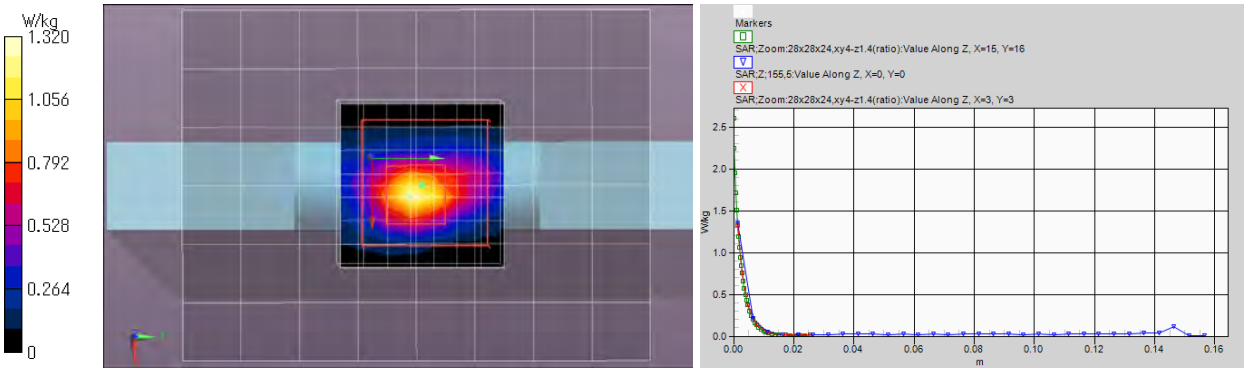
Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)

DASY Configuration: -Electronics: DAE4 Sn626; Calibrated: 2020/11/17 / -Phantom: ELI v4.0; Type: QDOVA001BA; Serial: 1059; Phantom section: Flat Section -DASY52 52.10.3(1513); SEMCAD X 14.6.13(7474) / -Probe: EX3DV4 - SN3907; ConvF(4.6, 4.6, 4.6) @ 5755 MHz; Calibrated: 2021/04/21 -Sensor-Surface: 1.4mm (Mechanical Surface Detection), z = 1.0, 25.0, 156.0

touch,h5c,btm,sub(chain1)/o5h23.58.7,ant2,5755,btm&d0,n40(m0)/
Area:60x80,10 (7x9x1): Measurement grid: dx=10mm, dy=10mm; Maximum value of SAR (measured) = 1.14 W/kg
Area:60x80,10 (61x81x1): Interpolated grid: dx=1.000 mm, dy=1.000 mm; Maximum value of SAR (interpolated) = 1.15 W/kg
Z;155,5 (1x1x32): Measurement grid: dx=20mm, dy=20mm, dz=5mm; Maximum value of SAR (measured) = 1.35 W/kg

Zoom:28x28x24,xy4-z1.4(ratio) (8x8x7)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=1.4mm;
Reference Value = 16.70 V/m; Power Drift = -0.20 dB; Maximum value of SAR (measured) = 1.32 W/kg; Peak SAR (extrapolated) = 2.60 W/kg

SAR(1 g) = 0.430 W/kg; SAR(10 g) = 0.112 W/kg (*.Smallest distance from peaks to all points 3 dB below = 4.3 mm; Ratio of SAR at M2 to SAR at M1 = 57.3%)



Remarks: *. Date tested: 2021/10/19; Tested by: Hiroshi Naka; Tested place:No.7 shielded room,
*. Liquid depth: 150 mm; Position: distance of EUT to phantom: 0 mm (2 mm to liquid); ambient: 23 deg.C. / (60~70) %RH,
*. Liquid temperature: 22.3(start)/22.3(end)/22.5(in check) deg.C.; *.White cubic: zoom scan area, Red cubic: big=SAR(10g)/small=SAR(1g)

Plot 4b-4: U-NII-3 (5.8GHz) band, Antenna 2; Bottom & touch / 11a (6Mbps) / 5825 MHz

EUT: SKR 3000; Type: P-82; Serial: ADU4-S0002

Mode: 11a(6Mbps, OFDM) (UID: 0, Wi-fi_5GHz (0), Frame Length in ms: 0; PAR: 0; PMF: 1); **Frequency: 5825 MHz; Crest Factor: 1.0**

Medium: HSL5GHz(v6.2110); Medium parameters used (interpolated): f = 5825 MHz; σ = 5.16 S/m; ε_r = 34.40; ρ = 1000 kg/m^3

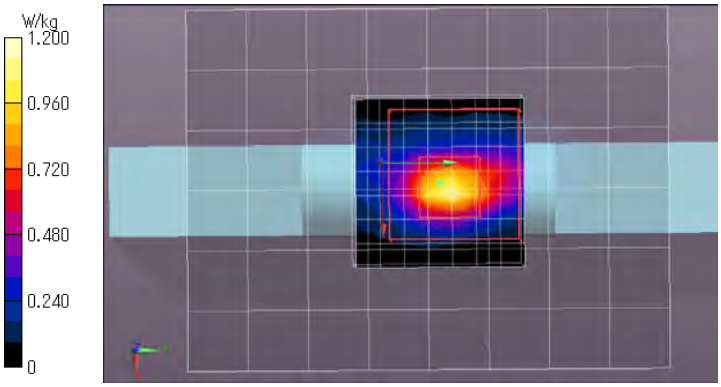
Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)

DASY Configuration: -Electronics: DAE4 Sn626; Calibrated: 2020/11/17 / -Phantom: ELI v4.0; Type: QDOVA001BA; Serial: 1059; Phantom section: Flat Section -DASY52 52.10.3(1513); SEMCAD X 14.6.13(7474) / -Probe: EX3DV4 - SN3907; ConvF(4.6, 4.6, 4.6) @ 5825 MHz; Calibrated: 2021/04/21 -Sensor-Surface: 1.4mm (Mechanical Surface Detection), z = 1.0, 25.0

touch,h5d,btm,sub(chain1)/5h37.58.8,ant2,5825,btm&d0,a(6m)/
Area:60x80,10 (7x9x1): Measurement grid: dx=10mm, dy=10mm; Maximum value of SAR (measured) = 0.908 W/kg
Area:60x80,10 (61x81x1): Interpolated grid: dx=1.000 mm, dy=1.000 mm; Maximum value of SAR (interpolated) = 0.959 W/kg

Zoom:28x28x24,xy4-z1.4(ratio) (8x8x7)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=1.4mm;
Reference Value = 16.17 V/m; Power Drift = -0.11 dB; Maximum value of SAR (measured) = 1.20 W/kg; Peak SAR (extrapolated) = 2.48 W/kg;

SAR(1 g) = 0.393 W/kg; SAR(10 g) = 0.102 W/kg (*.Smallest distance from peaks to all points 3 dB below = 4.7 mm; Ratio of SAR at M2 to SAR at M1 = 56.3%)



Remarks: *. Date tested: 2021/10/19; Tested by: Hiroshi Naka; Tested place:No.7 shielded room,
*. Liquid depth: 150 mm; Position: distance of EUT to phantom: 0 mm (2 mm to liquid); ambient: 23 deg.C. / (60~70) %RH,
*. Liquid temperature: 22.2(start)/22.2(end)/22.5(in check) deg.C.; *.White cubic: zoom scan area, Red cubic: big=SAR(10g)/small=SAR(1g)

Appendix 2: SAR measurement data / Appendix 2-3: Other SAR Plots (cont'd)

Plot 4b-5: U-NII-3 (5.8GHz) band, Antenna 2; Bottom & touch / 11a (6Mbps) / 5785 MHz

EUT: SKR 3000; Type: P-82; Serial: ADU4-S0002

Mode: 11a(6Mbps, OFDM) (UID: 0, Wi-fi_5GHz (0), Frame Length in ms: 0; PAR: 0; PMF: 1); **Frequency: 5785 MHz; Crest Factor: 1.0**

Medium: HSL5GHz(v6.2110); Medium parameters used (interpolated): f = 5785 MHz; σ = 5.113 S/m; ε_r = 34.424; ρ = 1000 kg/m^3

Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)

DASY Configuration: -Electronics: DAE4 Sn626; Calibrated: 2020/11/17 / -Phantom: ELI v4.0; Type: QDOVA001BA; Serial: 1059; Phantom section: Flat Section -DASY52 52.10.3(1513); SEMCAD X 14.6.13(7474) / -Probe: EX3DV4 - SN3907; ConvF(4.6, 4.6, 4.6) @ 5785 MHz; Calibrated: 2021/04/21 -Sensor-Surface: 1.4mm (Mechanical Surface Detection), z = 1.0, 25.0

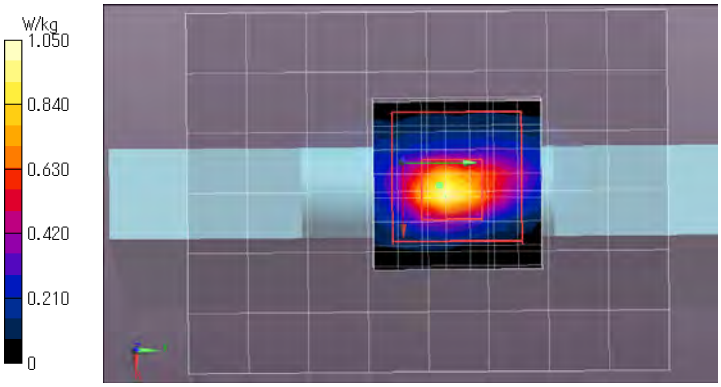
touch,h5d,btm,sub(chain1)/5h38.58.9,ant2,5785,btm&d0,a(6m)/

Area:60x80,10 (7x9x1): Measurement grid: dx=10mm, dy=10mm; Maximum value of SAR (measured) = 0.824 W/kg

Area:60x80,10 (61x81x1): Interpolated grid: dx=1.000 mm, dy=1.000 mm; Maximum value of SAR (interpolated) = 0.876 W/kg

Zoom:28x28x24,xy4-z1.4(ratio) (8x8x7)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=1.4mm;
Reference Value = 15.17 V/m; Power Drift = 0.03 dB; Maximum value of SAR (measured) = 1.05 W/kg; Peak SAR (extrapolated) = 2.19 W/kg

SAR(1 g) = 0.353 W/kg; SAR(10 g) = 0.094 W/kg (*.Smallest distance from peaks to all points 3 dB below = 4.3 mm; Ratio of SAR at M2 to SAR at M1 = 56.8%)



Remarks: *. Date tested: 2021/10/19; Tested by: Hiroshi Naka; Tested place:No.7 shielded room,
*. Liquid depth: 150 mm; Position: distance of EUT to phantom: 0 mm (2 mm to liquid); ambient: 23 deg.C. / (60~70) %RH,
*. Liquid temperature: 22.2(start)/22.2(end)/22.5(in check) deg.C.; *.White cubic: zoom scan area, Red cubic: big=SAR(10g)/small=SAR(1g)

Plot 4b-6: U-NII-3 (5.8GHz) band, Antenna 2; Rear & touch / 11n(40HT) (MCS0) / 5795 MHz

EUT: SKR 3000; Type: P-82; Serial: ADU4-S0002

Mode: n40(MCS0, OFDM) (UID: 0, Wi-fi_5GHz (0), Frame Length in ms: 0; PAR: 0; PMF: 1); **Frequency: 5795 MHz; Crest Factor: 1.0**

Medium: HSL5GHz(v6.2110); Medium parameters used (interpolated): f = 5795 MHz; σ = 5.165 S/m; ε_r = 34.63; ρ = 1000 kg/m^3

Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)

DASY Configuration: -Electronics: DAE4 Sn626; Calibrated: 2020/11/17 / -Phantom: ELI v4.0; Type: QDOVA001BA; Serial: 1059; Phantom section: Flat Section -DASY52 52.10.3(1513); SEMCAD X 14.6.13(7474) / -Probe: EX3DV4 - SN3907; ConvF(4.6, 4.6, 4.6) @ 5795 MHz; Calibrated: 2021/04/21 -Sensor-Surface: 1.4mm (Mechanical Surface Detection), z = 1.0, 25.0

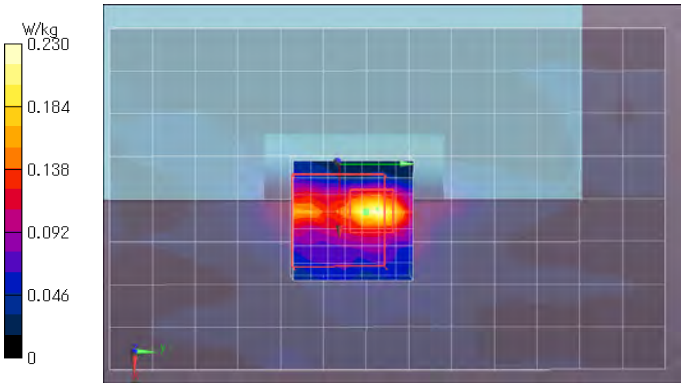
touch,other2/5h51.58.14,ant2,5795,rear&d0,n40(m0)/

Area:80x130,10 (9x14x1): Measurement grid: dx=10mm, dy=10mm; Maximum value of SAR (measured) = 0.163 W/kg

Area:80x130,10 (81x131x1): Interpolated grid: dx=1.000 mm, dy=1.000 mm; Maximum value of SAR (interpolated) = 0.195 W/kg

Zoom:28x28x24,xy4-z1.4(ratio) (8x8x7)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=1.4mm;
Reference Value = 7.269 V/m; Power Drift = -0.14 dB; Maximum value of SAR (measured) = 0.230 W/kg; Peak SAR (extrapolated) = 0.350 W/kg

SAR(1 g) = 0.083 W/kg; SAR(10 g) = 0.034 W/kg (*.Smallest distance from peaks to all points 3 dB below = 4.9 mm; Ratio of SAR at M2 to SAR at M1 = 63.8%)



Remarks: *. Date tested: 2021/10/27; Tested by: Hiroshi Naka; Tested place:No.7 shielded room,
*. Liquid depth: 150 mm; Position: distance of EUT to phantom: 0 mm (2 mm to liquid); ambient: (22~24) deg.C. / (55~70) %RH,
*. Liquid temperature: 22.4(start)/22.4(end)/22.5(in check) deg.C.; *.White cubic: zoom scan area, Red cubic: big=SAR(10g)/small=SAR(1g)

Appendix 2: SAR measurement data / Appendix 2-3: Other SAR Plots (cont'd)

Plot 4b-7: U-NII-3 (5.8GHz) band, Antenna 2; Front & touch / 11n(40HT) (MCS0) / 5795 MHz

EUT: SKR 3000; Type: P-82; Serial: ADU4-S0002

Mode: n40(MCS0, OFDM) (UID: 0, Wi-fi_5GHz (0), Frame Length in ms: 0; PAR: 0; PMF: 1); **Frequency: 5795 MHz; Crest Factor: 1.0**

Medium: HSL5GHz(v6.2110); Medium parameters used (interpolated): f = 5795 MHz; σ = 5.165 S/m; ε_r = 34.63; ρ = 1000 kg/m^3

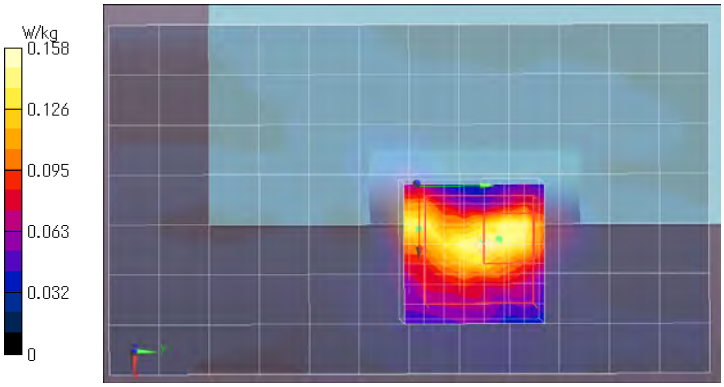
Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)

DASY Configuration: -Electronics: DAE4 Sn626; Calibrated: 2020/11/17 / -Phantom: ELI v4.0; Type: QDOVA001BA; Serial: 1059; Phantom section: Flat Section -DASY52 52.10.3(1513); SEMCAD X 14.6.13(7474) / -Probe: EX3DV4 - SN3907; ConvF(4.6, 4.6, 4.6) @ 5795 MHz; Calibrated: 2021/04/21 -Sensor-Surface: 1.4mm (Mechanical Surface Detection), z = 1.0, 25.0

touch,other2/5h57.58.16,ant2,5795,frt&d0,n40(m0)/
Area:70x120,10 (8x13x1): Measurement grid: dx=10mm, dy=10mm; Maximum value of SAR (measured) = 0.144 W/kg
Area:70x120,10 (71x121x1): Interpolated grid: dx=1.000 mm, dy=1.000 mm; Maximum value of SAR (interpolated) = 0.166 W/kg

Zoom2:28x28x24,xy4-z1.4(ratio) (8x8x7)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=1.4mm;
Reference Value = 5.447 V/m; Power Drift = 0.08 dB; Maximum value of SAR (measured) = 0.158 W/kg; Peak SAR (extrapolated) = 0.290 W/kg

SAR(1 g) = 0.072 W/kg; SAR(10 g) = 0.035 W/kg (*.Smallest distance from peaks to all points 3 dB below = 6.4 mm; Ratio of SAR at M2 to SAR at M1 = 63.3%)



Remarks: *. Date tested: 2021/10/27; Tested by: Hiroshi Naka; Tested place:No.7 shielded room,
*. Liquid depth: 150 mm; Position: distance of EUT to phantom: 0 mm (2 mm to liquid); ambient: (22~24) deg.C. / (55~70) %RH,
*. Liquid temperature: 22.4(start)/22.5(end)/22.5(in check) deg.C.; *.White cubic: zoom scan area, Red cubic: big=SAR(10g)/small=SAR(1g)

Plot 4b-8: U-NII-3 (5.8GHz) band, Antenna 2; Right & touch / 11n(40HT) (MCS0) / 5795 MHz

EUT: SKR 3000; Type: P-82; Serial: ADU4-S0002

Mode: n40(MCS0, OFDM) (UID: 0, Wi-fi_5GHz (0), Frame Length in ms: 0; PAR: 0; PMF: 1); **Frequency: 5795 MHz; Crest Factor: 1.0**

Medium: HSL5GHz(v6.2110); Medium parameters used (interpolated): f = 5795 MHz; σ = 5.165 S/m; ε_r = 34.63; ρ = 1000 kg/m^3

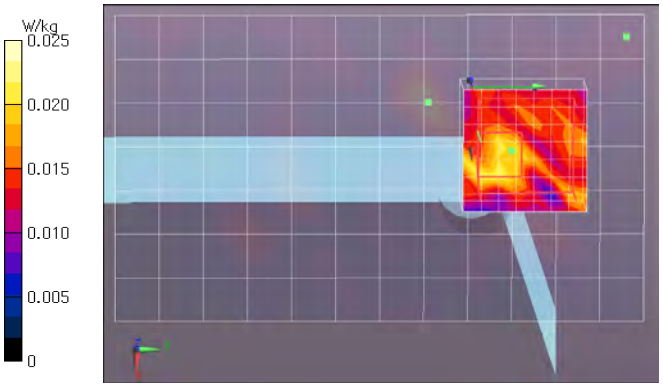
Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)

DASY Configuration: -Electronics: DAE4 Sn626; Calibrated: 2020/11/17 / -Phantom: ELI v4.0; Type: QDOVA001BA; Serial: 1059; Phantom section: Flat Section -DASY52 52.10.3(1513); SEMCAD X 14.6.13(7474) / -Probe: EX3DV4 - SN3907; ConvF(4.6, 4.6, 4.6) @ 5795 MHz; Calibrated: 2021/04/21 -Sensor-Surface: 1.4mm (Mechanical Surface Detection), z = 1.0, 25.0

touch,other/5h45.58.12,ant2,5795,left&d0,n40(m0)/
Area:70x120,10 (8x13x1): Measurement grid: dx=10mm, dy=10mm; Maximum value of SAR (measured) = 0.0226 W/kg
Area:70x120,10 (71x121x1): Interpolated grid: dx=1.000 mm, dy=1.000 mm; Maximum value of SAR (interpolated) = 0.0227 W/kg

Zoom:28x28x24,xy4-z1.4(ratio) (8x8x7)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=1.4mm;
Reference Value = 1.873 V/m; Power Drift = -0.20 dB; Maximum value of SAR (measured) = 0.0321 W/kg; Peak SAR (extrapolated) = 0.0610 W/kg

SAR(1 g) = 0.013 W/kg; SAR(10 g) = 0.00917 W/kg (*.Ratio of SAR at M2 to SAR at M1 = 49.3%)



Remarks: *. Date tested: 2021/10/27; Tested by: Hiroshi Naka; Tested place:No.7 shielded room,
*. Liquid depth: 150 mm; Position: distance of EUT to phantom: 0 mm (2 mm to liquid); ambient: (22~24) deg.C. / (55~70) %RH,
*. Liquid temperature: 22.5(start)/22.5(end)/22.5(in check) deg.C.; *.White cubic: zoom scan area, Red cubic: big=SAR(10g)/small=SAR(1g)

APPENDIX 3: Test instruments

Appendix 3-1: Equipment used

Test Name	Local ID	LIMS ID	Description	Manufacturer	Model	Serial	Calibration	
							Last Date	Interval (Month)
AT	KAT10-S3	144893	Attenuator	Keysight Technologies Inc	8490D 010	50924	2020/12/11	12
AT	SAT10-SARP1	160520	Attenuator	Weinschel - API Technologies Corp	4M-10	-	2020/12/11	12
AT	SOS-26	191844	Humidity Indicator	CUSTOM. Inc	CTH-201	-	2021/08/02	12
AT	SPM-13	169910	Power Meter	Keysight Technologies Inc	8990B	MY51000448	2021/01/25	12
AT	SPSS-06	169911	Power sensor	Keysight Technologies Inc	N1923A	MY57270004	2021/01/25	12
AT	SPSS-07	169912	Power sensor	Keysight Technologies Inc	N1923A	MY57290005	2021/01/25	12
AT	SRENT-15	160899	Spectrum Analyzer	Keysight Technologies Inc	E4440A	MY46185516	2021/01/26	12

*. AT (antenna terminal conducted power measurement) was measured September 27. (Refer to Section 5 in this report.)

Test Name	Local ID	LIMS ID	Description	Manufacturer	Model	Serial	Calibration	
							Last Date	Interval (Month)
SAR	COTS-SSAR-02	144885	DASY52 software	Schmid&Partner Engineering AG	DASY5 PRO	Ver.52.10.3.1513	-	-
SAR	COTS-SSEP-02	144886	Dielectric assessment software	Schmid&Partner Engineering AG	DAK	Ver.DAK1.10.317.11	-	-
SAR	KAT10-P1	144882	Attenuator	Weinschel - API Technologies Corp	24-10-34	BY5927	2020/12/11	12
SAR	KCPL-07	146100	Directional Coupler	Pulsar Microwave Corp.	CCS30-B26	621	-	-
SAR	KDAE-01	144944	Data Acquisition Electronics	Schmid&Partner Engineering AG	DAE4	626	2020/11/17	12
SAR	KIU-08	145059	Power sensor	Rohde & Schwarz	NRV-Z4	100372	2021/09/18	12
SAR	KIU-09	145099	Power sensor	Rohde & Schwarz	NRV-Z4	100371	2021/09/18	12
SAR	KOS-14	144986	Thermo-Hygrometer data logger	SATO KEIRYOKI	SK-L200THIIα/SK-LTHIIα-2	015246/08169	2021/10/13	12
SAR	KPA-12	145359	RF Power Amplifier	Milmega	AS2560-50	1018582	-	-
SAR	KPFL-01	145560	Flat Phantom	Schmid&Partner Engineering AG	Oval flat phantom ELI 4.0	1059	2021/08/18	12
SAR	KPM-05	144988	Power meter	Keysight Technologies Inc	E4417A	GB41290718	2021/04/09	12
SAR	KPM-06	144989	Power Meter	Rohde & Schwarz	NRVD	101599	2021/09/18	12
SAR	KPSS-01	144990	Power sensor	Keysight Technologies Inc	E9327A	US40440544	2021/04/09	12
SAR	KRU-03	145107	Ruler(150mm,caliper)	Niigata Seiki	SK-M150	806164	2021/03/31	12
SAR	KRU-04	145086	Ruler(300mm)	SHINWA	13134	-	2021/02/10	12
SAR	KSDA-01	145090	Dipole Antenna	Schmid&Partner Engineering AG	D2450V2	822	2020/11/10	12
SAR	KSDA-02	145091	Dipole Antenna	Schmid&Partner Engineering AG	D5GHzV2	1070	2021/04/20	12
SAR	KSDH-01	145596	Device holder	Schmid&Partner Engineering AG	Mounting device for transmitter	-	2021/09/14	12
SAR	KSG-08	145109	Signal Generator	Rohde & Schwarz	SMT06	100763	2021/09/19	12
SAR	SALC-01	146112	Primepure Ethanol	Kanto Chemical Co., Inc.	14032-79	-	-	-
SAR	SAT20-SARP1	160521	Attenuator	Weinschel - API Technologies Corp	4M-20	-	2020/12/11	12
SAR	SAT6-SAR1	145160	Attenuator	Huber+Suhner	6806.17.A	766429-1	2020/12/11	12
SAR	SCC-SAR2	145405	Coaxial Cable	Huber+Suhner	SF104A/11PC3542/11N451/4M	MY699/4A	2020/12/11	12
SAR	SEPP-02	145500	Dielectric probe	Schmid&Partner Engineering AG	DAK3.5	1129	2021/04/14	12
SAR	SOS-26	191844	Humidity Indicator	CUSTOM. Inc	CTH-201	-	2021/08/02	12
SAR	SOS-SAR2	201967	Digital thermomoter	HANNA	Checktemp-4	A01440226111	2021/10/13	12
SAR	SOS-SAR3	201968	Digital thermomoter	HANNA	Checktemp-4	A01310946111	2021/10/13	12
SAR	SPB-02	146235	Dosimetric E-Field Probe	Schmid&Partner Engineering AG	EX3DV4	3907	2021/04/21	12
SAR	SRU-06	150560	Measuring Tool, Ruler	SHINWA	14001	--	2021/02/10	12
SAR	SSA-04	146176	Spectrum Analyzer	ADVANTEST	R3272	101100994	-	-
SAR	SSAR-02	146177	SAR measurement system	Schmid&Partner Engineering AG	DASY5	1324	-	-
SAR	SSDH-02	145723	Laptop holder	Schmid&Partner Engineering AG	SM LH1 001 C	-	-	-
SAR	SSLHV6-01	207714	Head Tissue Simulating Liquid	Schmid&Partner Engineering AG	HBBL600-10000V6	SL AAH U16 BC	-	-
SAR	SSNA-01	146258	Network Analyzer	Keysight Technologies Inc	8753ES	US39171777	2020/11/09	12
SAR	SSRBT-02	145621	SAR robot	Schmid&Partner Engineering AG	TX60 Lspeag	F12/5L2QA1/A/01	2021/09/14	12
SAR	SWTR-03	146185	DI water	MonotaRo	34557433	-	-	-

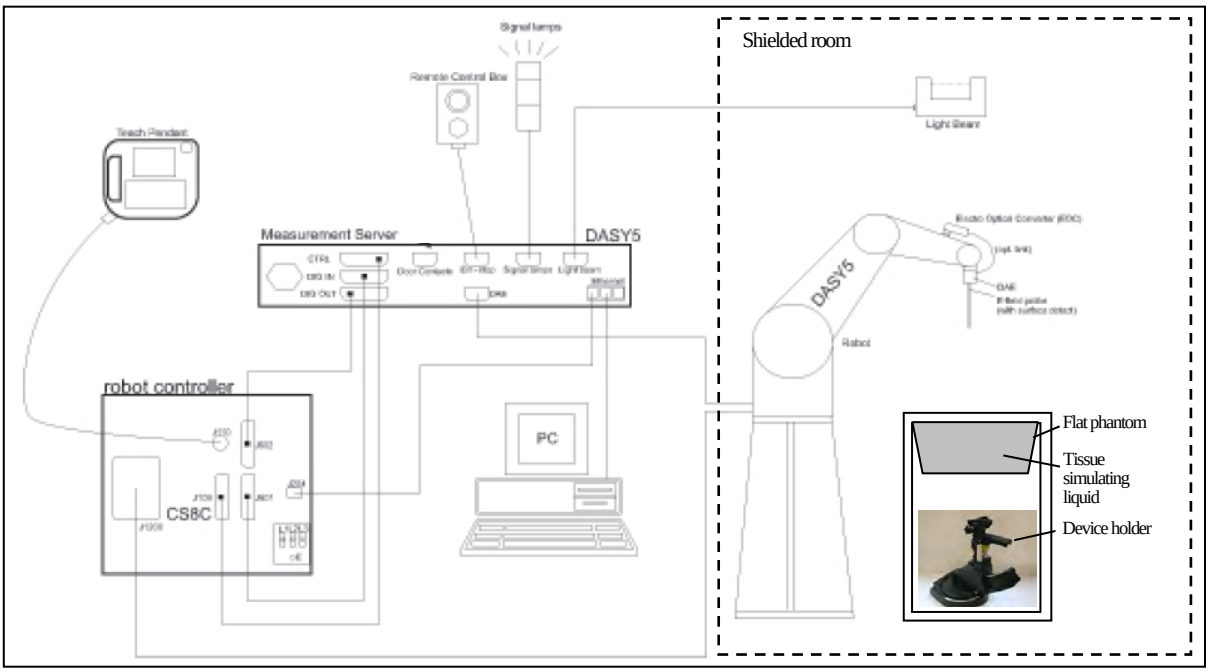
*. Local ID: SALC-01, the parameters of primepure Ethanol (as reference liquid) used for the simulated tissue parameter confirmation was defined the NPL Report MAT23 (http://www.npl.co.uk/content/conpublication/4295)

The expiration date of calibration is the end of the expired month.
As for some calibrations performed after the tested dates, those test equipment have been controlled by means of an unbroken chain of calibrations.
All equipment is calibrated with valid calibrations. Each measurement data is traceable to the national or international standards.
*. Hyphens for Last Calibration Date and Cal Int (month) are instruments that Calibration is not required (e.g. software), or instruments checked in advance before use.

[Test Item] SAR: Specific Absorption Rate, AT: Antenna terminal conducted power

Appendix 3-2: Configuration and peripherals

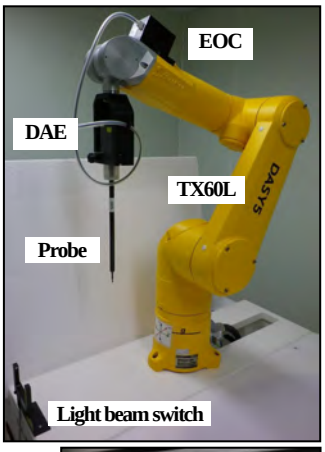
These measurements were performed with the automated near-field scanning system DASY5 from Schmid & Partner Engineering AG (SPEAG). The system is based on a high precision robot), which positions the probes with a positional repeatability of better than ± 0.02 mm. Special E- and H-field probes have been developed for measurements close to material discontinuity, the sensors of which are directly loaded with a Schottky diode and connected via highly resistive lines to the data acquisition unit. The SAR measurements were conducted with the dosimetry probes EX3DV4 (manufactured by SPEAG), designed in the classical triangular configuration and optimized for dosimetric evaluation.



The DASY5 system for performing compliance tests consist of the following items:

1	A standard high precision 6-axis robot (Stäubli TX/RX family) with controller, teach pendant and software. An arm extension for accommodating the data acquisition electronics (DAE).
2	An isotropic field probe optimized and calibrated for the targeted measurement.
3	A data acquisition electronics (DAE) which performs the signal amplification, signal multiplexing, AD-conversion, offset measurements, mechanical surface detection, collision detection, etc. The unit is battery powered with standard or rechargeable batteries. The signal is optically transmitted to the EOC.
4	The Electro-optical converter (EOC) performs the conversion from optical to electrical signals for the digital communication to the DAE. To use optical surface detection, a special version of the EOC is required. The EOC signal is transmitted to the measurement server.
5	The function of the measurement server is to perform the time critical tasks such as signal filtering, control of the robot operation and fast movement interrupts.
6	The Light Beam used is for probe alignment. This improves the (absolute) accuracy of the probe positioning.
7	A computer running Win7 professional operating system and the DASY5 software.
8	R Remote control and teach pendant as well as additional circuitry for robot safety such as warning lamps, etc.
9	The phantom.
10	The device holder for EUT. (low-loss dielectric palette) (*. when it was used.)
11	Tissue simulating liquid mixed according to the given recipes.
12	Validation dipole kits allowing to validate the proper functioning of the system.

Appendix 3-3: Test system specification

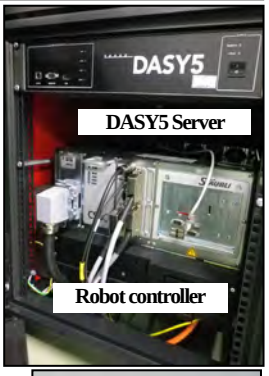


TX60 Lsepag robot/CS8Csepag-TX60 robot controller

•Number of Axes : 6 •Repeatability : ±0.02 mm
•Manufacture : Stäubli Unimation Corp.

DASY5 Measurement server

•Features : The DASY5 measurement server is based on a PC/104 CPU board with a 400MHz intel ULV Celeron, 128MB chip-disk and 128MB RAM. The necessary circuits for communication with the DAE4 electronics box, as well as the 16 bit AD converter system for optical detection and digital I/O interface are contained on the DASY5 I/O board, which is directly connected to the PC/104 bus of the CPU board.
•Calibration : No calibration required.
•Manufacture : Schmid & Partner Engineering AG



Data Acquisition Electronic (DAE)

•Features : Signal amplifier, multiplexer, A/D converter and control logic.
Serial optical link for communication with DASY5 embedded system (fully remote controlled). 2 step probe touch detector for mechanical surface detection and emergency robot stop (not in -R version)
•Measurement Range : 1 µV to > 200 mV (16bit resolution and 2 range settings: 4 mV, 400 mV)
•Input Offset voltage : < 1 µV (with auto zero)
•Input Resistance : 200 MΩ
•Battery Power : > 10 hrs. of operation (with two 9 V battery)
•Manufacture : Schmid & Partner Engineering AG

Electro-Optical Converter (EOC61)

•Manufacture : Schmid & Partner Engineering AG

Light Beam Switch (LB5/80)

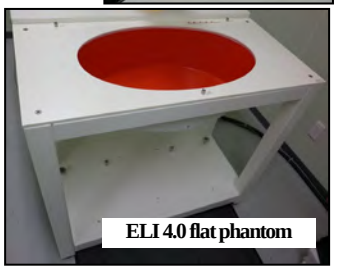
•Manufacture : Schmid & Partner Engineering AG

SAR measurement software

•Item : Dosimetric Assessment System DASY5
•Software version : Refer to Appendix 3-1 (Equipment used)
•Manufacture : Schmid & Partner Engineering AG

E-Field Probe

•Model : EX3DV4 (serial number: 3907)
•Construction : Symmetrical design with triangular core.
Built-in shielding against static charges.
PEEK enclosure material (resistant to organic solvents, e.g., DGBE).
•Frequency : 10MHz to 6GHz, Linearity: ±0.2 dB (30MHz to 6GHz)
•Conversion Factors (CF) : Head: (2.45, 5.25, 5.6, 5.8) GHz
: Body: (2.45, 5.25, 5.6, 5.75) GHz
•Directivity : ±0.3 dB in HSL (rotation around probe axis)
±0.5 dB in tissue material (rotation normal to probe axis)
•Dynamic Range : 10µW/g to > 100 mW/g; Linearity: ±0.2 dB (noise: typically < 1 µW/g)
•Dimension : Overall length: 330 mm (Tip: 20 mm)
Tip diameter: 2.5 mm (Body: 12 mm)
Typical distance from probe tip to dipole centers: 1mm
•Application : High precision dosimetric measurement in any exposure scenario (e.g., very strong gradient fields). Only probe which enables compliance testing for frequencies up to 6GHz with precision of better 30%.
•Manufacture : Schmid & Partner Engineering AG

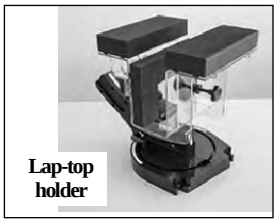


Phantom

•Model Number : **ELI 4.0 oval flat phantom**
•Shell Material : Fiberglass •Shell Thickness : Bottom plate: 2 ±0.2 mm
•Dimensions : Bottom elliptical: 600×400 mm, Depth: 190 mm (Volume: Approx. 30 liters)
•Manufacture : Schmid & Partner Engineering AG

Device Holder

☒ Urethane foam
☒ KSDH-01: In combination with the ELI4, the Mounting Device enables the rotation of the mounted transmitter device in spherical coordinates. Transmitter devices can be easily and accurately positioned. The low-loss dielectric urethane foam was used for the mounting section of device holder.
•Material : Polyoxymethylene (POM) •Manufacture : Schmid & Partner Engineering AG
☒ SSDH-02: A simple but effective and easy-to-use extension for the Mounting Device; facilitates testing of larger devices (e.g., laptops, cameras, etc.) according to IEC 62209-2.
•Material : Polyoxymethylene (POM), PET-G, Foam
•Manufacture : Schmid & Partner Engineering AG



Data storage and evaluation (postprocessing)

The DASY5 software stores the measured voltage acquired by the Data Acquisition Electronics (DAE) as raw data together with all the necessary software parameters for the data evaluation (probe calibration data, liquid parameters and communication system parameters) in measurement files with the extension ".da5x". The postprocessing software evaluates the data every time the data is visualized or exported.
The fields and SAR are calculated from the measured voltage (probe voltage acquired by the DAE) and the following parameters:

Probe parameters:	- Sensitivity	*normi, ai0, ai1, ai2*
	- Conversion Factor	*convFi*
	- Diode Compression Point	*dcpi*
	- Probe Modulation Response Factors	*ai, bi, ci, d*
Device parameters:	- Frequency	*f*
	- Crest factor	*cf*
Media parameters:	- Conductivity	σ
	- Relative Permittivity	ρ

This parameters are stored in the DASY5 V52 measurement file.
These parameters must be correctly set in the DASY5 V52 software setup. They are available as configuration file and can be imported into the measurement file. The values displayed in the multimeter window are assessed using the parameters of the actual system setup. In the scan visualization and export modes, the parameters stored in the measurement file are used.
The measured voltage is not proportional to the exciting. It must be first linearized.

Approximated Probe Response Linearization using Crest Factor;
This linearization method is enabled when a custom defined communication system is measured. The compensation applied is a function of the measured voltage, the detector diode compression point and the crest factor of the measured signal.

$$V_i = U_i + U_i^2 \cdot \frac{cf}{dcp_i}$$

with	V_i	= linearized voltage of channel i in µV	(i = x,y,z)
	U_i	= measured voltage of channel i in µV	(i = x,y,z)
	cf	= crest factor of exciting field	(DASY parameter)
	dcp_i	= diode compression point of channel i in µV	(Probe parameter, i = x,y,z)

The resulting linearized voltage is only approximated because the probe is not calibrated to this specific signal.

Field and SAR Calculation
The primary field data for each channel are calculated using the linearized voltage:

$$\text{E} - \text{fieldprobes}: \qquad E_i = \sqrt{\frac{V_i}{Norm_i \cdot ConvF}}$$

with	V_i	= linearized voltage of channel i in µV	(i = x,y,z)
	$Norm_i$	= sensor sensitivity of channel i in µV/(V/m)^2 for E-field Probes	(i = x,y,z)
	$ConvF$	= sensitivity enhancement in solution	
	E_i	= electric field strength of channel i in V/m	(i = x,y,z)

The RMS value of the field components gives the total field strength (Hermitian magnitude):

$$E_{tot} = \sqrt{E_x^2 + E_y^2 + E_z^2}$$

The primary field data are used to calculate the derived field units.

$$SAR = E_{tot}^2 \cdot \frac{\sigma}{\rho \cdot 1'000}$$

with	SAR	= local specific absorption rate in mW/g
	Etot	= total field strength in V/m
	σ	= conductivity in [mho/m] or [Siemens/m]
	ρ	= equivalent tissue density in g/cm^3

Appendix 3-4: Simulated tissue composition and parameter confirmation

Liquid type	Head	Control No.	SSLHV6-01	Model No. / Product No.	HBBL600-10000V6 / SL AAH U16 BC
Ingredient: Mixture [%]	Water: >77, Ethanediol: <5.2, Sodium petroleum sulfonate:<2.9, Hexylene Glycol: <2.9, alkoxylated alcohol (>C_{16}):<2.0				
Tolerance specification	±10%				
Temperature gradients [% / deg.C]	permittivity: -0.19 / conductivity: -0.57 (at 2.6 GHz), permittivity: +0.31 / conductivity: -1.43 (at 5.5 GHz) (*1)				
Manufacture	Schmid & Partner Engineering AG	Note: *1. speag_920-SLAAxyy-E_1.12.15CL (Maintenance of tissue simulating liquid)			

*. The dielectric parameters were checked prior to assessment using the DAK3.5 dielectric probe kit.

Date measured	Frequency [MHz]	Liquid type	Ambient/ [deg.C.]	Ambient/ [%RH]	Liquid temp. [deg.C.]	Liquid depth of phantom [mm]	Liquid parameters (*a) Permittivity (εr) [-] Target	Measured Meas.	Measured Δεr[%]	Measured Limit	Δend, >48hrs	Conductivity [S/m] Target	Measured Meas.	Measured Δσ[%]	Measured Limit	Δend, >48hrs	ΔSAR (*b) 1g [%]	ΔSAR (*b) 10g [%]
October 19, 2021	5600	Head	23	50~60	22.5	150	***35.53***	34.74	-2.2	10%	-	***5.065***	4.897	-3.3	10%	-	0.6	0.7
October 19, 2021	5800	Head	23	50~60	22.5	150	***35.30***	34.43	-2.5	10%	-	***5.270***	5.132	-2.6	10%	-	0.6	0.7
October 22, 2021	5250	Head	23	50~60	22.5	150	***35.93***	35.32	-1.7	10%	-	***4.706***	4.515	-4.1	10%	-	0.5	0.6
October 22 2021	2450	Head	23	50~60	22.5	150	***39.2***	39.83	1.6	10%	-	***1.8***	1.848	2.7	10%	-	0.9	0.4
October 26, 2021	2450	Head	23	50~60	22.5	150	***39.2***	40.09	2.3	10%	-	***1.8***	1.858	3.2	10%	-	1.0	0.5
October 26, 2021	5250	Head	23	50~60	22.5	150	***35.93***	35.57	-1.0	10%	-	***4.706***	4.538	-3.6	10%	-	0.3	0.4
October 27, 2021	5600	Head	23	50~60	22.5	150	***35.53***	34.96	-1.6	10%	-	***5.065***	4.940	-2.5	10%	-	0.4	0.5
October 27, 2021	5800	Head	23	50~60	22.5	150	***35.30***	34.61	-2.0	10%	-	***5.270***	5.174	-1.8	10%	-	0.5	0.6

*. Calculating formula: Δend(>48 hrs.) (%) = {(dielectric properties, end of test series) / (dielectric properties, beginning of test series) -1} × 100

*a. The target values of (2000, 2450, 3000 and 5800) MHz are parameters defined in Appendix A of KDB 865664 D01. For other frequencies, the target nominal dielectric values shall be obtained by linear interpolation between the higher and lower tabulated figures.

Standard f (MHz)	Head Tissue εr	Head Tissue σ [S/m]	Body Tissue εr	Body Tissue σ [S/m]	f (MHz)	Head Tissue εr	Head Tissue σ [S/m]	Body Tissue εr	Body Tissue σ [S/m]	*Interpolated & Extrapolated* f (MHz)	Head Tissue εr	Head Tissue σ [S/m]	Body Tissue εr	Body Tissue σ [S/m]	f (MHz)	Head Tissue εr	Head Tissue σ [S/m]	Body Tissue εr	Body Tissue σ [S/m]
(1800-)2000	**40.0**	**1.40**	**53.3**	**1.52**	3000	**38.5**	**2.40**	**52.0**	**2.73**	*5250*	*35.93*	*4.706*	*48.95*	*5.358*	*5750*	*35.36*	*5.219*	*48.27*	*5.942*
2450	**39.2**	**1.80**	**52.7**	**1.95**	5800	**35.3**	**5.27**	**48.2**	**6.00**	*5600*	*35.53*	*5.065*	*48.47*	*5.766*					

*b. The coefficients are parameters defined in IEEE Std. 1528-2013.

$\Delta SAR(1g) = C\varepsilon r \times \Delta\varepsilon r + C\sigma \times \Delta\sigma$, $C\varepsilon r = -7.854E\text{-}4 \times f^3 + 9.402E\text{-}3 \times f^2 - 2.742E\text{-}2 \times f - 0.2026$ / $C\sigma = 9.804E\text{-}3 \times f^3 - 8.661E\text{-}2 \times f^2 + 2.981E\text{-}2 \times f + 0.7829$

$\Delta SAR(10g) = C\varepsilon r \times \Delta\varepsilon r + C\sigma \times \Delta\sigma$, $C\varepsilon r = 3.456\times10^{-3} \times f^3 - 3.531\times10^{-2} \times f^2 + 7.675\times10^{-2} \times f - 0.1860$ / $C\sigma = 4.479\times10^{-3} \times f^3 - 1.586\times10^{-2} \times f^2 - 0.1972 \times f + 0.7717$

Appendix 3-5: Daily check results

*. Prior to the SAR assessment of EUT, the Daily check was performed to test whether the SAR system was operating within its target of ±10%. The Daily check results are in the table below.

Date	Frequency [MHz]	ΔSAR Liquid Type	ΔSAR 1g [%]	ΔSAR 10g [%]	Daily check results (*. Meas.: Measured, Cal.: Calibration value, STD: Standard value) SAR (1g) [W/kg] (*d) Meas. (*c)	ΔSAR-correct	1W scaled	Target Cal. (*e)	Target STD (*f)	Deviation Cal. [%]	Deviation STD [%]	Limit [%]	Pass ?	SAR (10g) [W/kg] (*d) Meas. (*c)	ΔSAR-correct	1W scaled	Target Cal. (*e)	Target STD (*f)	Deviation Cal. [%]	Deviation STD [%]	Limit [%]	Pass ?
October 19, 2021	5600	Head	0.6	0.7	8.18	8.13	81.3	82.4	n/a	-1.3	-	10	Pass	2.36	2.34	23.4	23.4	n/a	0.0	-	10	Pass
October 19, 2021	5800	Head	0.6	0.7	8.12	8.07	80.7	80.1	78	0.7	3.5	10	Pass	2.33	2.31	23.1	22.5	21.9	2.7	5.5	10	Pass
October 22, 2021	5250	Head	0.5	0.6	7.79	7.75	77.5	78.8	n/a	-1.6	-	10	Pass	2.26	2.25	22.5	22.6	n/a	-0.4	-	10	Pass
October 22, 2021	2450	Head	0.9	0.4	13.3	13.18	52.72	53.6	52.4	-1.6	0.6	10	Pass	6.21	6.19	24.76	24.9	24	-0.6	3.2	10	Pass
October 26, 2021	2450	Head	1.0	0.5	13.4	13.27	53.08	53.6	52.4	-1.0	1.3	10	Pass	6.24	6.21	24.84	24.9	24	-0.2	3.5	10	Pass
October 26, 2021	5250	Head	0.3	0.4	7.83	7.81	78.1	78.8	n/a	-0.9	-	10	Pass	2.28	2.27	22.7	22.6	n/a	0.4	-	10	Pass
October 27, 2021	5600	Head	0.4	0.5	8.5	8.47	84.7	82.4	n/a	2.8	-	10	Pass	2.45	2.44	24.4	23.4	n/a	4.3	-	10	Pass
October 27, 2021	5800	Head	0.5	0.6	8.16	8.12	81.2	80.1	78	1.4	4.1	10	Pass	2.33	2.32	23.2	22.5	21.9	3.1	5.9	10	Pass

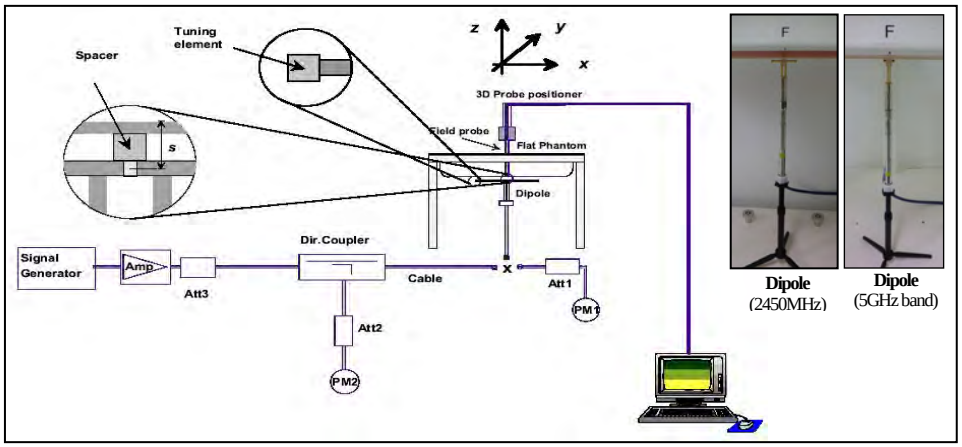
*. Calculating formula: ΔSAR corrected SAR (1g,10g) (W/kg) = (Measured SAR(1g,10g) (W/kg)) × (100 - (ΔSAR(%)) / 100

*c. The "Meas. (Measured)" SAR value is obtained at 250 mW for 2450MHz, 100 mW for (5250, 5600, 5800) MHz

*d. The measured SAR value of Daily check was compensated for tissue dielectric deviations (ΔSAR) and scaled to 1W of output power in order to compare with the manufacture's calibration target value which was normalized.

*e. The target value is a parameter defined in the calibration data sheet of D2450V2 (sn:822) and D5GHZV2 (sn:1070) dipole calibrated by Schmid & Partner Engineering AG (Certification No. D2450V2-822_Nov20 and D5GHzV2-1070_Apr21, the data sheet was filed in this report).

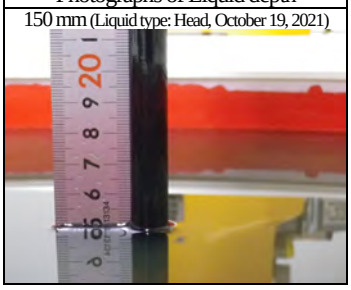
*f. The target value (normalized to 1W) is defined in IEEE Std.1528.



Test setup for the system performance check

Appendix 3-6: Daily check measurement data

Photographs of Liquid depth
150 mm (Liquid type: Head, October 19, 2021)

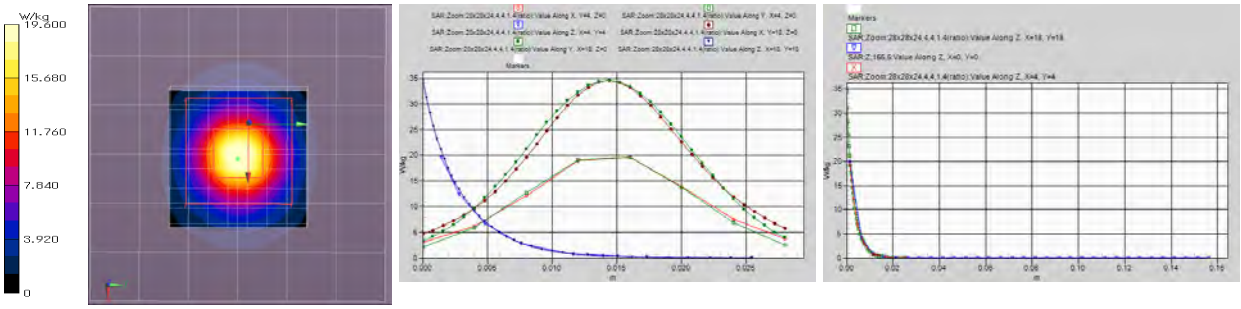


EUT: Dipole(5GHz); Type: D5GHzV2; Serial: 1070; Forward conducted power: 100 mW
Communication System: CW (0) (*.UID: 0, Frame Length in ms: 0; Communication System PAR: 0; PMF: 1) **; Frequency: 5600 MHz; Crest Factor: 1.0**
Medium: HSL5GHz(v6.2110); Medium parameters used: f = 5600 MHz; σ = 4.897 S/m; ε_r = 34.74; ρ = 1000 kg/m^3
Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)

DASY Configuration: -Electronics: DAE4 Sn626; Calibrated: 2020/11/17 / -Phantom: ELI v4.0; Type: QDOVA001BA; Serial: 1059; Phantom section: Flat Section -DASY52 52.10.3(1513); SEMCAD X 14.6.13(7474) / -Probe: EX3DV4 - SN3907; ConvF(4.56, 4.56, 4.56) @ 5600 MHz; Calibrated: 2021/04/21 -Sensor-Surface: 1.4mm (Mechanical Surface Detection), z = 1.0, 25.0, 156.0

Area:60x60,10 (7x7x1): Measurement grid: dx=10mm, dy=10mm; Maximum value of SAR (measured) = 20.6 W/kg
Area:60x60,10 (61x61x1): Interpolated grid: dx=1.000 mm, dy=1.000 mm; Maximum value of SAR (interpolated) = 20.6 W/kg
Z;155,5 (1x1x32): Measurement grid: dx=20mm, dy=20mm, dz=5mm; Maximum value of SAR (measured) = 19.9 W/kg

Zoom:28x28x24,4,4,1.4(ratio) (8x8x7)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=1.4mm;
Reference Value = 71.69 V/m; Power Drift = 0.06 dB; Maximum value of SAR (measured) = 19.6 W/kg; Peak SAR (extrapolated) = 34.6 W/kg
SAR(1 g) = 8.18 W/kg; SAR(10 g) = 2.36 W/kg (*.Smallest distance from peaks to all points 3 dB below = 7.5 mm; Ratio of SAR at M2 to SAR at M1 = 63.6%)



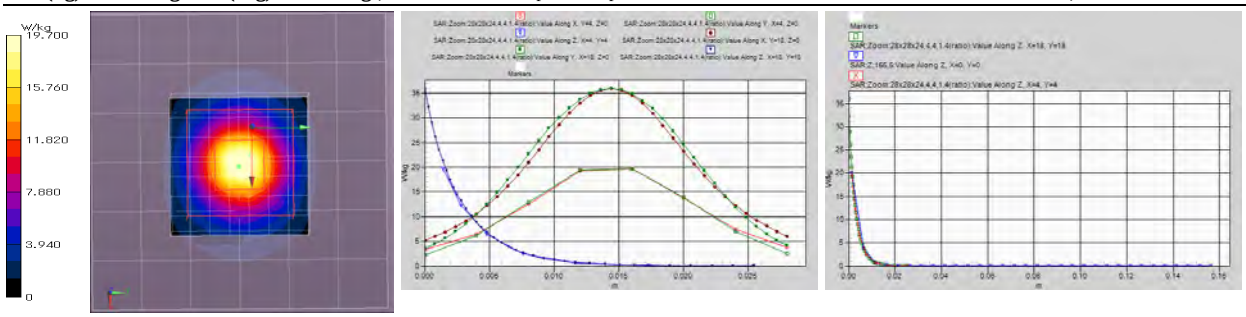
Remarks: *. Date tested: 2021/10/19; Tested by: Hiroshi Naka; Tested place:No.7 shielded room,
*. liquid depth: 150 mm; Position: distance of dipole to phantom: 8mm (10mm to liquid); ambient: (22~23) deg.C. / (60~65) %RH,
*. liquid temperature: 22.5(start)/22.5(end)/22.5(in check) deg.C.; *.White cubic: zoom scan area, Red cubic: big=SAR(10g)/small=SAR(1g)

EUT: Dipole(5GHz); Type: D5GHzV2; Serial: 1070; Forward conducted power: 100 mW
Communication System: CW (0) (*.UID: 0, Frame Length in ms: 0; Communication System PAR: 0; PMF: 1) **; Frequency: 5800 MHz; Crest Factor: 1.0**
Medium: HSL5GHz(v6.2110); Medium parameters used: f = 5800 MHz; σ = 5.132 S/m; ε_r = 34.43; ρ = 1000 kg/m^3
Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)

DASY Configuration: -Electronics: DAE4 Sn626; Calibrated: 2020/11/17 / -Phantom: ELI v4.0; Type: QDOVA001BA; Serial: 1059; Phantom section: Flat Section -DASY52 52.10.3(1513); SEMCAD X 14.6.13(7474) / -Probe: EX3DV4 - SN3907; ConvF(4.6, 4.6, 4.6) @ 5800 MHz; Calibrated: 2021/04/21 -Sensor-Surface: 1.4mm (Mechanical Surface Detection), z = 1.0, 25.0, 156.0

Area:60x60,10 (7x7x1): Measurement grid: dx=10mm, dy=10mm; Maximum value of SAR (measured) = 20.9 W/kg
Area:60x60,10 (61x61x1): Interpolated grid: dx=1.000 mm, dy=1.000 mm; Maximum value of SAR (interpolated) = 20.9 W/kg
Z;155,5 (1x1x32): Measurement grid: dx=20mm, dy=20mm, dz=5mm; Maximum value of SAR (measured) = 20.1 W/kg

Zoom:28x28x24,4,4,1.4(ratio) (8x8x7)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=1.4mm;
Reference Value = 70.43 V/m; Power Drift = 0.04 dB; Maximum value of SAR (measured) = 19.7 W/kg; Peak SAR (extrapolated) = 35.9 W/kg
SAR(1 g) = 8.12 W/kg; SAR(10 g) = 2.33 W/kg (*.Smallest distance from peaks to all points 3 dB below = 7.5 mm; Ratio of SAR at M2 to SAR at M1 = 62.1%)



Remarks: *. Date tested: 2021/10/19; Tested by: Hiroshi Naka; Tested place:No.7 shielded room,
*. liquid depth: 150 mm; Position: distance of dipole to phantom: 8mm (10mm to liquid); ambient: (22~23) deg.C. / (60~65) %RH,
*. liquid temperature: 22.2(start)/22.1(end)/22.5(in check) deg.C.; *.White cubic: zoom scan area, Red cubic: big=SAR(10g)/small=SAR(1g)

Appendix 3-6: Daily check measurement data (cont'd)

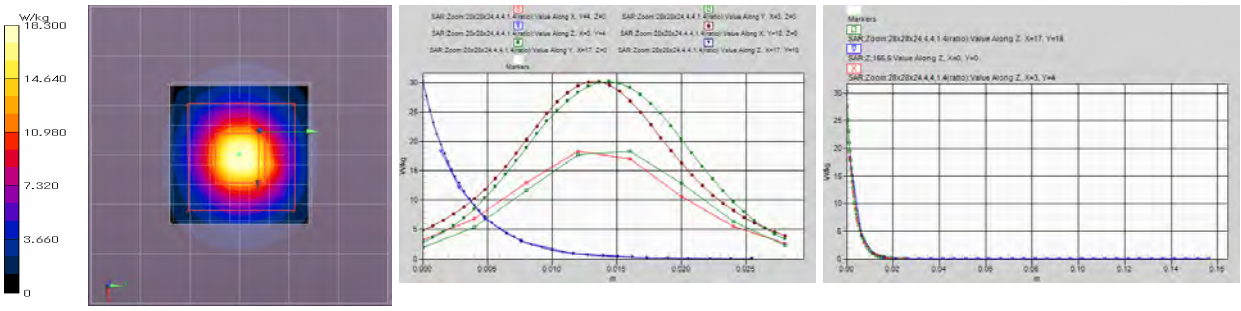
Photographs of Liquid depth
150 mm (Liquid type: Head, October 22, 2021)

EUT: Dipole(5GHz); Type: D5GHzV2; Serial: 1070; Forward conducted power: 100 mW
Communication System: CW (0) (*.UID: 0, Frame Length in ms: 0; Communication System PAR: 0; PMF: 1) **; Frequency: 5250 MHz; Crest Factor: 1.0**
Medium: HSL5GHz(v6.2110); Medium parameters used: f = 5250 MHz; σ = 4.515 S/m; ε_r = 35.32; ρ = 1000 kg/m^3
Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)

DASY Configuration: -Electronics: DAE4 Sn626; Calibrated: 2020/11/17 / -Phantom: ELI v4.0; Type: QDOVA001BA; Serial: 1059; Phantom section: Flat Section -DASY52 52.10.3(1513); SEMCAD X 14.6.13(7474) / -Probe: EX3DV4 - SN3907; ConvF(5.14, 5.14, 5.14) @ 5250 MHz; Calibrated: 2021/04/21 -Sensor-Surface: 1.4mm (Mechanical Surface Detection), z = 1.0, 25.0, 156.0

Area:60x60,10 (7x7x1): Measurement grid: dx=10mm, dy=10mm; Maximum value of SAR (measured) = 19.1 W/kg
Area:60x60,10 (61x61x1): Interpolated grid: dx=1.000 mm, dy=1.000 mm; Maximum value of SAR (interpolated) = 19.1 W/kg
Z;155,5 (1x1x32): Measurement grid: dx=20mm, dy=20mm, dz=5mm; Maximum value of SAR (measured) = 18.3 W/kg

Zoom:28x28x24,4,4,1.4(ratio) (8x8x7)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=1.4mm;
Reference Value = 71.73 V/m; Power Drift = 0.03 dB; Maximum value of SAR (measured) = 18.3 W/kg; Peak SAR (extrapolated) = 30.2 W/kg
SAR(1 g) = 7.79 W/kg; SAR(10 g) = 2.26 W/kg (*.Smallest distance from peaks to all points 3 dB below = 7.2 mm; Ratio of SAR at M2 to SAR at M1 = 66.2%)



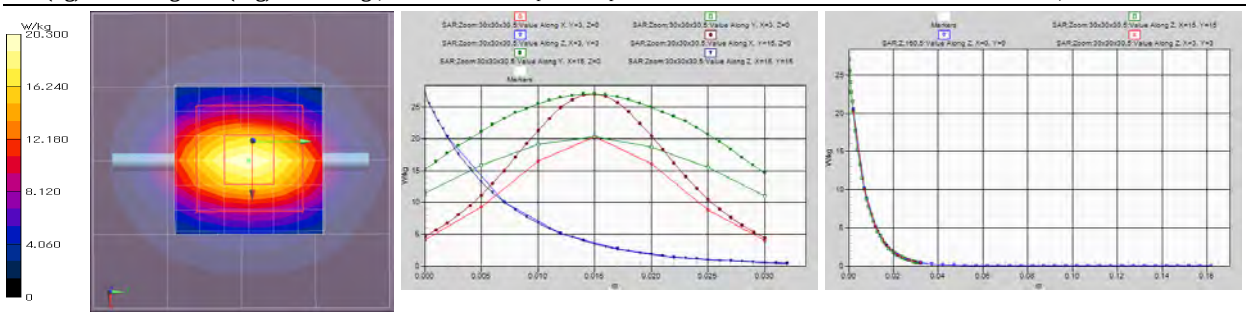
Remarks: *. Date tested: 2021/10/22; Tested by: Hiroshi Naka; Tested place:No.7 shielded room,
*. liquid depth: 150 mm; Position: distance of dipole to phantom: 8mm (10mm to liquid); ambient: (23~24) deg.C. / (50~60) %RH,
*. liquid temperature: 22.4(start)/22.2(end)/22.5(in check) deg.C.; *.White cubic: zoom scan area, Red cubic: big=SAR(10g)/small=SAR(1g)

EUT: Dipole(5GHz); Type: D5GHzV2; Serial: 1070; Forward conducted power: 100 mW
Communication System: CW (0) (*.UID: 0, Frame Length in ms: 0; Communication System PAR: 0; PMF: 1) **; Frequency: 2450 MHz; Crest Factor: 1.0**
Medium: HSL5GHz(v6.2110); Medium parameters used: f = 2450 MHz; σ = 1.848 S/m; ε_r = 39.83; ρ = 1000 kg/m^3
Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)

DASY Configuration: -Electronics: DAE4 Sn626; Calibrated: 2020/11/17 / -Phantom: ELI v4.0; Type: QDOVA001BA; Serial: 1059; Phantom section: Flat Section -DASY52 52.10.3(1513); SEMCAD X 14.6.13(7474) / -Probe: EX3DV4 - SN3907; ConvF(7.35, 7.35, 7.35) @ 2450 MHz; Calibrated: 2021/04/21 -Sensor-Surface: 2mm (Mechanical Surface Detection), z = 1.0, 31.0, 161.0

Area:60x60,15 (5x5x1): Measurement grid: dx=15mm, dy=15mm; Maximum value of SAR (measured) = 19.8 W/kg
Area:60x60,15 (41x41x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm; Maximum value of SAR (interpolated) = 19.9 W/kg
Z;160,5 (1x1x33): Measurement grid: dx=20mm, dy=20mm, dz=5mm; Maximum value of SAR (measured) = 20.6 W/kg

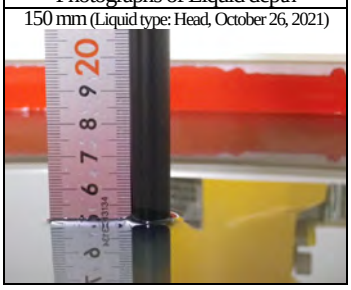
Zoom:30x30x30,5 (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm;
Reference Value = 105.7 V/m; Power Drift = 0.04 dB; Maximum value of SAR (measured) = 20.3 W/kg; Peak SAR (extrapolated) = 27.1 W/kg
SAR(1 g) = 13.3 W/kg; SAR(10 g) = 6.21 W/kg (*.Smallest distance from peaks to all points 3 dB below = 9 mm; Ratio of SAR at M2 to SAR at M1 = 49.5%)



Remarks: *. Date tested: 2021/10/22; Tested by: Hiroshi Naka; Tested place:No.7 shielded room,
*. liquid depth: 150 mm; Position: distance of dipole to phantom: 8mm (10mm to liquid); ambient: (23~24) deg.C. / (50~60) %RH,
*. liquid temperature: 22.1(start)/22.1(end)/22.5(in check) deg.C.; *.White cubic: zoom scan area, Red cubic: big=SAR(10g)/small=SAR(1g)

Appendix 3-6: Daily check measurement data (cont'd)

Photographs of Liquid depth
150 mm (Liquid type: Head, October 26, 2021)

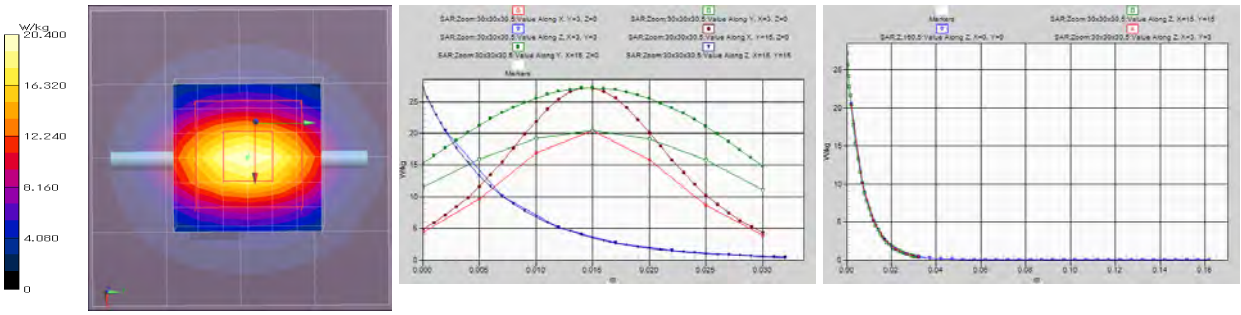


EUT: Dipole(2.45GHz); Type: D2450V2; Serial: SN822; Forward conducted power: 250 mW
Communication System: CW (UID 0, Frame Length in ms: 0; Communication System PAR: 0; PMF: 1); **Frequency: 2450 MHz; Crest Factor: 1.0**
Medium: HSL5GHz(v6.2110); Medium parameters used: f = 2450 MHz; σ = 1.858 S/m; ε_r = 40.09; ρ = 1000 kg/m^3
Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)

DASY Configuration: -Electronics: DAE4 Sn626; Calibrated: 2020/11/17 / -Phantom: ELI v4.0; Type: QDOVA001BA; Serial: 1059; Phantom section: Flat Section -DASY52 52.10.3(1513); SEMCAD X 14.6.13(7474) / -Probe: EX3DV4 - SN3907; ConvF(7.35, 7.35, 7.35) @ 2450 MHz; Calibrated: 2021/04/21 -Sensor-Surface: 2mm (Mechanical Surface Detection), z = 1.0, 31.0, 161.0

Area:60x60,15 (5x5x1): Measurement grid: dx=15mm, dy=15mm; Maximum value of SAR (measured) = 20.2 W/kg
Area:60x60,15 (41x41x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm; Maximum value of SAR (interpolated) = 20.2 W/kg
Z;160,5 (1x1x33): Measurement grid: dx=20mm, dy=20mm, dz=5mm; Maximum value of SAR (measured) = 20.5 W/kg

Zoom:30x30x30,5 (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm;
Reference Value = 106.1 V/m; Power Drift = 0.05 dB; Maximum value of SAR (measured) = 20.4 W/kg; Peak SAR (extrapolated) = 27.2 W/kg
SAR(1 g) = 13.4 W/kg; SAR(10 g) = 6.24 W/kg (*.Smallest distance from peaks to all points 3 dB below = 9 mm; Ratio of SAR at M2 to SAR at M1 = 49.6%)



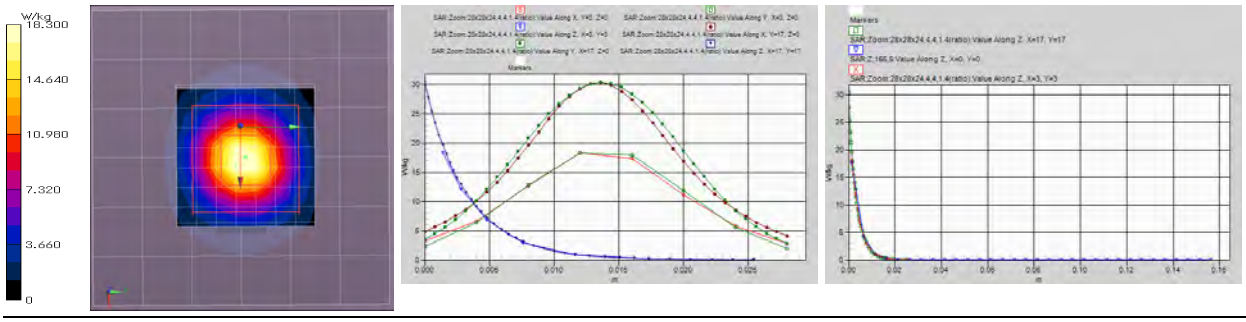
Remarks: *. Date tested: 2021/10/26; Tested by: Hiroshi Naka; Tested place:No.7 shielded room,
*. liquid depth: 150 mm; Position: distance of dipole to phantom: 8mm (10mm to liquid); ambient: 24 deg.C. / (50~60) %RH,
*. liquid temperature: 22.4(start)/22.4(end)/22.5(in check) deg.C.; *.White cubic: zoom scan area, Red cubic: big=SAR(10g)/small=SAR(1g)

EUT: Dipole(5GHz); Type: D5GHzV2; Serial: 1070; Forward conducted power: 100 mW
Communication System: CW (UID 0, Frame Length in ms: 0; Communication System PAR: 0; PMF: 1); **Frequency: 5250 MHz; Crest Factor: 1.0**
Medium: HSL5GHz(v6.2110); Medium parameters used: f = 5250 MHz; σ = 4.538 S/m; ε_r = 35.57; ρ = 1000 kg/m^3
Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)

DASY Configuration: -Electronics: DAE4 Sn626; Calibrated: 2020/11/17 / -Phantom: ELI v4.0; Type: QDOVA001BA; Serial: 1059; Phantom section: Flat Section -DASY52 52.10.3(1513); SEMCAD X 14.6.13(7474) / -Probe: EX3DV4 - SN3907; ConvF(5.14, 5.14, 5.14) @ 5250 MHz; Calibrated: 2021/04/21 -Sensor-Surface: 1.4mm (Mechanical Surface Detection), z = 1.0, 25.0, 156.0

Area:60x60,10 (7x7x1): Measurement grid: dx=10mm, dy=10mm; Maximum value of SAR (measured) = 19.3 W/kg
Area:60x60,10 (61x61x1): Interpolated grid: dx=1.000 mm, dy=1.000 mm; Maximum value of SAR (interpolated) = 19.4 W/kg
Z;155,5 (1x1x32): Measurement grid: dx=20mm, dy=20mm, dz=5mm; Maximum value of SAR (measured) = 17.5 W/kg

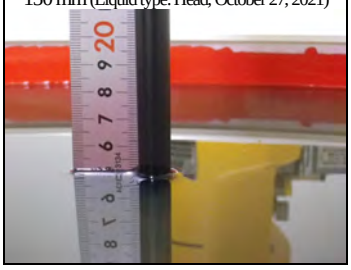
Zoom:28x28x24,4,4,1.4(ratio) (8x8x7)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=1.4mm;
Reference Value = 71.73 V/m; Power Drift = 0.01 dB; Maximum value of SAR (measured) = 18.3 W/kg; Peak SAR (extrapolated) = 30.3 W/kg
SAR(1 g) = 7.83 W/kg; SAR(10 g) = 2.28 W/kg (*.Smallest distance from peaks to all points 3 dB below = 7.5 mm; Ratio of SAR at M2 to SAR at M1 = 66.2%)



Remarks: *. Date tested: 2021/10/26; Tested by: Hiroshi Naka; Tested place:No.7 shielded room,
*. liquid depth: 150 mm; Position: distance of dipole to phantom: 8mm (10mm to liquid); ambient: 24 deg.C. / (50~60) %RH,
*. liquid temperature: 22.4(start)/22.4(end)/22.5(in check) deg.C.; *.White cubic: zoom scan area, Red cubic: big=SAR(10g)/small=SAR(1g)

Appendix 3-6: Daily check measurement data (cont'd)

Photographs of Liquid depth
150 mm (Liquid type: Head, October 27, 2021)

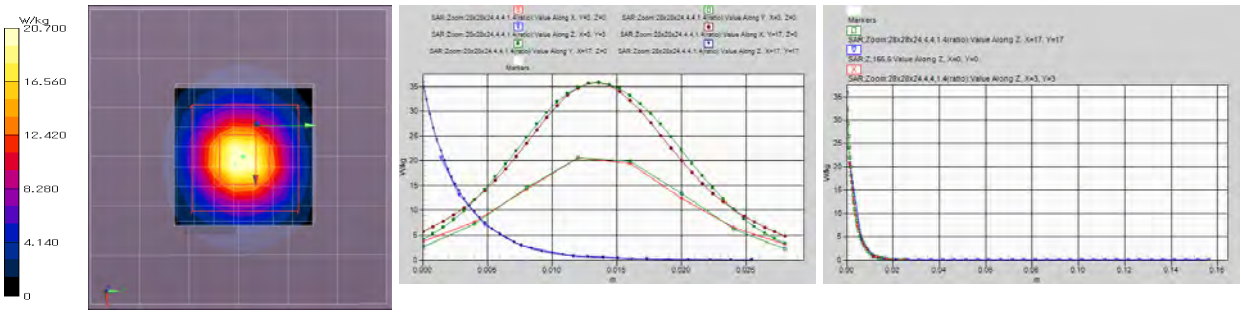


EUT: Dipole(5GHz); Type: D5GHzV2; Serial: 1070; Forward conducted power: 100 mW
Communication System: CW (UID 0, Frame Length in ms: 0; Communication System PAR: 0; PMF: 1); **Frequency: 5600 MHz; Crest Factor: 1.0**
Medium: HSL5GHz(v6.2110); Medium parameters used: f = 5600 MHz; σ = 4.94 S/m; ε_r = 34.96; ρ = 1000 kg/m^3
Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)

DASY Configuration: -Electronics: DAE4 Sn626; Calibrated: 2020/11/17 / -Phantom: ELI v4.0; Type: QDOVA001BA; Serial: 1059; Phantom section: Flat Section -DASY52 52.10.3(1513); SEMCAD X 14.6.13(7474) / -Probe: EX3DV4 - SN3907; ConvF(4.56, 4.56, 4.56) @ 5600 MHz; Calibrated: 2021/04/21 -Sensor-Surface: 1.4mm (Mechanical Surface Detection), z = 1.0, 25.0, 156.0

Area:60x60,10 (7x7x1): Measurement grid: dx=10mm, dy=10mm; Maximum value of SAR (measured) = 22.1 W/kg
Area:60x60,10 (61x61x1): Interpolated grid: dx=1.000 mm, dy=1.000 mm; Maximum value of SAR (interpolated) = 22.1 W/kg
Z;155,5 (1x1x32): Measurement grid: dx=20mm, dy=20mm, dz=5mm; Maximum value of SAR (measured) = 20.6 W/kg

Zoom:28x28x24,4,4,1.4(ratio) (8x8x7)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=1.4mm;
Reference Value = 72.96 V/m; Power Drift = -0.01 dB; Maximum value of SAR (measured) = 20.7 W/kg; Peak SAR (extrapolated) = 35.8 W/kg
SAR(1 g) = 8.5 W/kg; SAR(10 g) = 2.45 W/kg (*.Smallest distance from peaks to all points 3 dB below = 7.5 mm; Ratio of SAR at M2 to SAR at M1 = 63.4%)



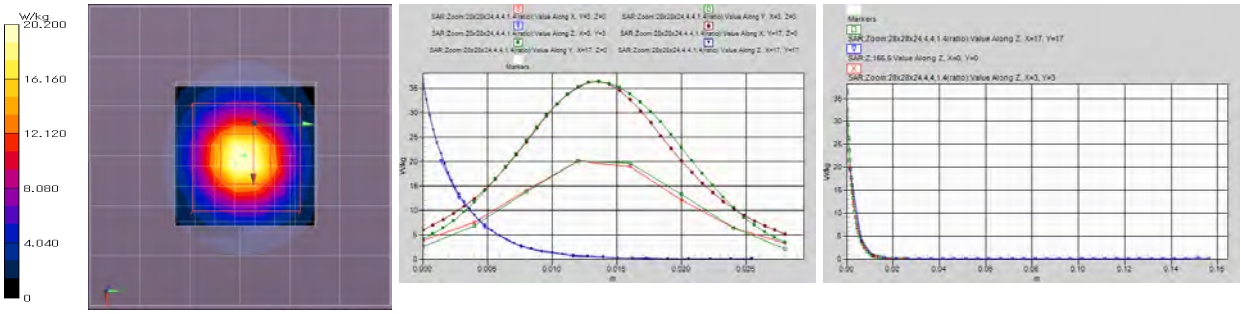
Remarks: *. Date tested: 2021/10/27; Tested by: Hiroshi Naka; Tested place:No.7 shielded room,
*. liquid depth: 150 mm; Position: distance of dipole to phantom: 8mm (10mm to liquid); ambient: 24 deg.C. / (50~60) %RH,
*. liquid temperature: 22.3(start)/22.4(end)/22.5(in check) deg.C.; *.White cubic: zoom scan area, Red cubic: big=SAR(10g)/small=SAR(1g)

EUT: Dipole(5GHz); Type: D5GHzV2; Serial: 1070; Forward conducted power: 100 mW
Communication System: CW (UID 0, Frame Length in ms: 0; Communication System PAR: 0; PMF: 1); **Frequency: 5800 MHz; Crest Factor: 1.0**
Medium: HSL5GHz(v6.2110); Medium parameters used: f = 5800 MHz; σ = 5.174 S/m; ε_r = 34.61; ρ = 1000 kg/m^3
Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)

DASY Configuration: -Electronics: DAE4 Sn626; Calibrated: 2020/11/17 / -Phantom: ELI v4.0; Type: QDOVA001BA; Serial: 1059; Phantom section: Flat Section -DASY52 52.10.3(1513); SEMCAD X 14.6.13(7474) / -Probe: EX3DV4 - SN3907; ConvF(4.6, 4.6, 4.6) @ 5800 MHz; Calibrated: 2021/04/21 -Sensor-Surface: 1.4mm (Mechanical Surface Detection), z = 1.0, 25.0, 156.0

Area:60x60,10 (7x7x1): Measurement grid: dx=10mm, dy=10mm; Maximum value of SAR (measured) = 21.0 W/kg
Area:60x60,10 (61x61x1): Interpolated grid: dx=1.000 mm, dy=1.000 mm; Maximum value of SAR (interpolated) = 21.1 W/kg
Z;155,5 (1x1x32): Measurement grid: dx=20mm, dy=20mm, dz=5mm; Maximum value of SAR (measured) = 19.8 W/kg

Zoom:28x28x24,4,4,1.4(ratio) (8x8x7)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=1.4mm;
Reference Value = 71.01 V/m; Power Drift = -0.01 dB; Maximum value of SAR (measured) = 20.2 W/kg; Peak SAR (extrapolated) = 36.4 W/kg
SAR(1 g) = 8.16 W/kg; SAR(10 g) = 2.33 W/kg (*.Smallest distance from peaks to all points 3 dB below = 7.5 mm; Ratio of SAR at M2 to SAR at M1 = 61.8%)



Remarks: *. Date tested: 2021/10/27; Tested by: Hiroshi Naka; Tested place:No.7 shielded room,
*. liquid depth: 150 mm; Position: distance of dipole to phantom: 8mm (10mm to liquid); ambient: 24 deg.C. / (50~60) %RH,
*. Liquid temperature: 22.4(start)/22.4(end)/22.5(in check) deg.C.; *.White cubic: zoom scan area, Red cubic: big=SAR(10g)/small=SAR(1g)

Appendix 3-7: Uncertainty Assessment (SAR measurement/Daily check)

*. Although this standard determines only the limit value of uncertainty, there is no applicable rule of uncertainty in this. Therefore, the following results are derived depending on whether or not laboratory uncertainty is applied.

Uncertainty of SAR measurement (2.4GHz~6GHz) (*.v6h,ε&σ: 10%, DAK3.5, Tx: ≈100% duty cycle) (v09r02)	1g SAR	10g SAR
Combined measurement uncertainty of the measurement system (k=1)	± 13.2 %	± 13.1 %
Expanded uncertainty (k=2)	± 26.4 %	± 26.2 %

	Error Description (2.4-6GHz)	Uncertainty Value	Probability distribution	Divisor	ci (1g)	ci (10g)	ui (1g)	ui (10g)	Vi, veff
A	**Measurement System** (DASY5)						(std. uncertainty)	(std. uncertainty)	
1	Probe Calibration Error	±7.0 %	Normal	1	1	1	±7.0 %	±7.0 %	∞
2	Axial isotropy Error	±4.7 %	Rectangular	√3	0.71	0.71	±1.9 %	±1.9 %	∞
3	Hemispherical isotropy Error	±9.6 %	Rectangular	√3	0.71	0.71	±3.9 %	±3.9 %	∞
4	Linearity Error	±4.7 %	Rectangular	√3	1	1	±2.7 %	±2.7 %	∞
5	Probe modulation response (v09)	±5.5 %	Rectangular	√3	1	1	±3.2 %	±3.2 %	∞
6	Sensitivity Error (detection limit)	±1.0 %	Rectangular	√3	1	1	±0.6 %	±0.6 %	∞
7	Boundary effects Error	±4.3%	Rectangular	√3	1	1	±2.5 %	±2.5 %	∞
8	Readout Electronics Error(DAE)	±0.3 %	Rectangular	√3	1	1	±0.3 %	±0.3 %	∞
9	Response Time Error	±0.8 %	Normal	1	1	1	±0.5 %	±0.5 %	∞
10	Integration Time Error (≈100% duty cycle)	±0 %	Rectangular	√3	1	1	0 %	0 %	∞
11	RF ambient conditions-noise (v09)	±1.0 %	Rectangular	√3	1	1	±0.6 %	±0.6 %	∞
12	RF ambient conditions-reflections	±3.0 %	Rectangular	√3	1	1	±1.7 %	±1.7 %	∞
13	Probe positioner mechanical tolerance	±3.3 %	Rectangular	√3	1	1	±1.9 %	±1.9 %	∞
14	Probe Positioning with respect to phantom shell	±6.7 %	Rectangular	√3	1	1	±3.9 %	±3.9 %	∞
15	Max. SAR evaluation (Post-processing)	±4.0 %	Rectangular	√3	1	1	±2.3 %	±2.3 %	∞
B	**Test Sample Related**								
16	Device Holder or Positioner Tolerance (v09)	±3.2 %	Normal	1	1	1	±3.2 %	±3.2 %	5
17	Test Sample Positioning Error (v09)	±2.1 %	Normal	1	1	1	±2.1 %	±2.1 %	10
18	Power scaling	±0 %	Rectangular	√3	1	1	±0 %	±0 %	∞
19	Drift of output power (measured, <0.2dB)	±5.0 %	Rectangular	√3	1	1	±2.9 %	±2.9 %	∞
C	**Phantom and Setup**								
20	Phantom uncertainty (shape, thickness tolerances)	±7.5 %	Rectangular	√3	1	1	±4.3 %	±4.3 %	∞
21	Algorithm for correcting SAR (e',σ: 10%)	±1.9 %	Normal	1	1	0.84	±1.9 %	±1.6 %	∞
22	Measurement Liquid Conductivity Error (DAK3.5)	±3.0 %	Normal	1	0.78	0.71	±2.3 %	±2.1 %	7
23	Measurement Liquid Permittivity Error (DAK3.5)	±3.1 %	Normal	1	0.23	0.26	±0.7 %	±0.8 %	7
24	Liquid Conductivity-temp.uncertainty (≤2deg.C.v6h)	±3.0 %	Rectangular	√3	0.78	0.71	±1.4 %	±1.2 %	∞
25	Liquid Permittivity-temp.uncertainty (≤2deg.C.v6h)	±1.0 %	Rectangular	√3	0.23	0.26	±0.1 %	±0.2 %	∞
	Combined Standard Uncertainty (v09r02)						**± 13.2** %	**± 13.1** %	945
	Expanded Uncertainty (k=2) (v09r02)						**± 26.4 %**	**± 26.2 %**	

*. This measurement uncertainty budget is suggested by IEEE Std.1528(2013) and determined by Schmid & Partner Engineering AG (DASY5 Uncertainty Budget). Per KDB 865664 D01 (v01r04) SAR Measurement 100 MHz to 6 GHz, Section 2.8.1., when the highest measured SAR(1g) within a frequency band is < 1.5W/kg, the extensive SAR measurement uncertainty analysis described in IEEE Std.1528 (2013) is not required in SAR reports submitted for equipment approval.

Uncertainty of daily check (2.4~6GHz) (*.v6h,ε&σ tolerance: 10%, DAK3.5, CW) (v09r02)	1g SAR	10g SAR
Combined measurement uncertainty of the measurement system (k=1)	± 10.8 %	± 10.7 %
Expanded uncertainty (k=2)	± 21.6 %	± 21.4 %

	Error Description (2.4-6GHz)	Uncertainty Value	Probability distribution	Divisor	ci (1g)	ci (10g)	ui (1g)	ui (10g)	Vi, veff
A	**Measurement System** (DASY5)						(std. uncertainty)	(std. uncertainty)	
1	Probe Calibration Error	±7.0 %	Normal	1	1	1	±7.0 %	±7.0 %	∞
2	Axial isotropy error	±4.7 %	Rectangular	√3	0.71	0.71	±1.9 %	±1.9 %	∞
3	Hemispherical isotropy error	±9.6 %	Rectangular	√3	0	0	0 %	0 %	∞
4	Probe linearity	±4.7 %	Rectangular	√3	1	1	±2.7 %	±2.7 %	∞
5	Probe modulation response (CW)	±0.0 %	Rectangular	√3	1	1	0 %	0 %	∞
6	System detection limit	±1.0 %	Rectangular	√3	1	1	±0.6 %	±0.6 %	∞
7	Boundary effects	±4.3 %	Rectangular	√3	1	1	±2.5 %	±2.5 %	∞
8	System readout electronics (DAE)	±0.3 %	Normal	1	1	1	±0.3 %	±0.3 %	∞
9	Response Time Error (<5ms/100ms wait)	±0.0 %	Rectangular	√3	1	1	0 %	0 %	∞
10	Integration Time Error (CW)	±0.0 %	Rectangular	√3	1	1	0 %	0 %	∞
11	RF ambient conditions-noise	±3.0 %	Rectangular	√3	1	1	±1.7 %	±1.7 %	∞
12	RF ambient conditions-reflections	±3.0 %	Rectangular	√3	1	1	±1.7 %	±1.7 %	∞
13	Probe positioner mechanical tolerance	±3.3 %	Rectangular	√3	1	1	±1.9 %	±1.9 %	∞
14	Probe positioning with respect to phantom shell	±6.7 %	Rectangular	√3	1	1	±3.9 %	±3.9 %	∞
15	Max. SAR evaluation (Post-processing)	±4.0 %	Rectangular	√3	1	1	±2.3 %	±2.3 %	∞
B	**Test Sample Related**								
16	Deviation of the experimental source	±1.9 %	Normal	1	1	1	±1.9 %	±1.9 %	∞
17	Dipole to liquid distance (10mm±0.2mm,<2deg.)	±2.0 %	Rectangular	√3	1	1	±1.2 %	±1.2 %	∞
18	Drift of output power (measured, <0.1dB)	±2.3 %	Rectangular	√3	1	1	±1.3 %	±1.3 %	∞
C	**Phantom and Setup**								
19	Phantom uncertainty	±2.0 %	Rectangular	√3	1	1	±1.2 %	±1.2%	∞
20	Algorithm for correcting SAR (e',σ: 10%)	±1.9 %	Normal	1	1	0.84	±1.9 %	±1.6 %	∞
21	Liquid conductivity (meas.) (DAK3.5)	±3.0 %	Normal	1	0.78	0.71	±2.3 %	±2.1 %	∞
22	Liquid permittivity (meas.) (DAK3.5)	±3.1 %	Normal	1	0.23	0.26	±0.7 %	±0.8 %	∞
23	Liquid Conductivity-temp.uncertainty (≤2deg.C.v6h)	±3.0 %	Rectangular	√3	0.78	0.71	±1.4 %	±1.2 %	∞
24	Liquid Permittivity-temp.uncertainty (≤2deg.C.v6h)	±1.0 %	Rectangular	√3	0.23	0.26	±0.1 %	±0.2 %	∞
	Combined Standard Uncertainty (v09r02)						**±10.8** %	**±10.7** %	
	Expanded Uncertainty (k=2) (v09r02)						**±21.6** %	**±21.4** %	

*. This measurement uncertainty budget is suggested by IEEE Std. 1528(2013) and determined by Schmid & Partner Engineering AG (DASY5 Uncertainty Budget).

*. Table of uncertainties are listed for ISO/IEC 17025.