

SAR Test Report

Report No.: AGC08217191102FH01

FCC ID	: 2AJG4-FHV1	
APPLICATION PURPOSE	: Original Equipment	
PRODUCT DESIGNATION	: FH Emergency Medical Dev	vice - V1
BRAND NAME	: FastHelp	
MODEL NAME	: FH-V1	
APPLICANT	: Universal Physicians, LLC	
DATE OF ISSUE	: Dec. 18,2019	
STANDARD(S)	IEEE Std. 1528:2013 : FCC 47 CFR Part 2§2.1093: IEEE C95.1TM:2005	2013
REPORT VERSION	: V1.0	

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Report Revise Record

Report Version	Revise Time	Issued Date	Valid Version	Notes
V1.0		Dec. 18,2019	Valid	Initial Release





Test Report				
Applicant Name	Universal Physicians, LLC			
Applicant Address	7747 Supreme Ave NW, N. Canton, Ohio United States 44720			
Manufacturer Name	Vaost Limited			
Manufacturer Address	1103/A, Dong Fang Xin Di Building, Nanshan District, Shenzhen, China			
Factory Name	Shenzhen Smarti Technology Limited			
Factory Address	1103/A, Dong Fang Xin Di Building, Nanshan District, Shenzhen, China			
Product Designation	FH Emergency Medical Device - V1			
Brand Name	FastHelp			
Model Name	FH-V1			
Different Description	N/A			
EUT Voltage	DC3.7V by battery			
Applicable Standard	IEEE Std. 1528:2013 FCC 47 CFR Part 2§2.1093:2013 IEEE C95.1TM:2005			
Test Date	Dec. 17,2019			
Report Template	AGCRT-US-3G3/SAR (2018-01-01)			

Note: The results of testing in this report apply to the product/system which was tested only.

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1. SUMMARY OF MAXIMUM SAR VALUE

The maximum result	s of Specific Absorption Rate (S	AR) found during testing for EUT a	re as follows:
Frequency Band	Highest Report	SAR Test Limit	
	Face up(with 10mm separation)	Body-worn(with 0mm separation)	(W/Kg)
GSM 850	0.508	1.433	
PCS 1900	0.352	1.424	16
UMTS Band II	0.339	1.292	1.0
UMTS Band V	0.810	1.541	.00
SAR Test Result		PASS	

This device is compliance with Specific Absorption Rate (SAR) for general population/uncontrolled exposure limits (1.6W/Kg) specified in IEEE Std. 1528:2013; FCC 47 CFR Part 2§2.1093:2013; IEEE/ANSI C95.1:2005 and the following specific FCC Test Procedures:

- KDB 447498 D01 General RF Exposure Guidance v06
- KDB 648474 D04 Handset SAR v01r03
- KDB 865664 D01 SAR Measurement 100MHz to 6GHz v01r04
- KDB 941225 D01 3G SAR Procedures v03r01





2. GENERAL INFORMATION

2.1. EUT Description

General Information					
Product Designation	FH Emergency Medical Device - V1				
Test Model	FH-V1				
Hardware Version	M4_MB_V1.0				
Software Version	M4_PCB01_hspa_MT6276_S01.M4_B2B5_V04				
Device Category	Portable				
RF Exposure Environment	Uncontrolled				
Antenna Type	Internal				
GSM					
Support Band	☐GSM 850 ☐PCS 1900 ☐GSM 900 ☐DCS 1800				
TX Frequency Range	GSM 850 : 820-850MHz;; PCS 1900: 1850-1910MHz;				
RX Frequency Range	GSM 850 : 869~894MHz; PCS 1900: 1930~1990MHz				
Release Version	R99				
Type of modulation	GMSK for GSM				
Antenna Gain	GSM850: -0.5dBi ;PCS1900: 1.2dBi				
Max. Average Power	GSM850: 32.93dBm ;PCS1900: 29.59dBm				
WCDMA					
Support Band	UMTS FDD Band II UMTS FDD Band V UMTS FDD Band I UMTS FDD Band VIII				
HS Type	HSPA				
TX Frequency Range	WCDMA FDD Band II: 1850-1910MHz; WCDMA FDD Band V: 820-850MHz				
RX Frequency Range	WCDMA FDD Band II: 1930-1990MHz; WCDMA FDD Band V: 869-894MHz				
Release Version	Rel-6				
Type of modulation	WCDMA:QPSK				
Antenna Gain	Band II: 1.2dBi; Band V: -0.5dBi				
Max. Average Power	Band II: 22.53dBm; Band V: 22.37dBm				
Accessories					
Battery	Brand name: FastHelp Model No. : FH-V1 Voltage and Capacitance: 3.7 V & 600mAh				
Note: 1. CMU200can measure to 2. The sample used for te 3. The test sample has no	the average power and Peak power at the same time. sting is end product. any deviation to the test method of standard mentioned in page 1				
Product	Type Image: Second state of the second st				



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3. SAR MEASUREMENT SYSTEM

3.1. The DASY5 system used for performing compliance tests consists of following items



- A standard high precision 6-axis robot with controller, teach pendant and software.
- Data acquisition electronics (DAE) which attached to the robot arm extension. The DAE consist of a highly
 sensitive electrometer-grade preamplifier with auto-zeroing, a channel and gain-switching multiplexer, a fast
 16 bit AD-converter and a command decoder with a control logic unit. Transmission to the measurement
 server is accomplished through an optical downlink for data and status information, as well as an optical
 uplink for commands and the clock
- A dosimetric probe equipped with an optical surface detector system.
- 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.
- A Light Beam used is for probe alignment. This improves the (absolute) accuracy of the probe positioning.
- A computer running WinXP and the DASY5 software.
- Remote control and teach pendant as well as additional circuitry for robot safety such as warning lamps, etc.
- Phantoms, device holders and other accessories according to the targeted measurement.





3.2. DASY5 E-Field Probe

The SAR measurement is conducted with the dosimetric probe manufactured by SPEAG. The probe is specially designed and calibrated for use in liquid with high permittivity. The dosimetric probe has special calibration in liquid at different frequency. SPEAG conducts the probe calibration in compliance with international and national standards (e.g. IEEE-1528 etc.)Under ISO17025.The calibration data are in Appendix D.

Isotropic E-Field Probe Specification

Model	EX3DV4-SN:3953	
Manufacture	SPEAG	
frequency	0.7GHz-6GHz Linearity:±0.9%(k=2)	
Dynamic Range	0.01W/Kg-100W/Kg Linearity: ±0.9%(k=2)	
Dimensions	Overall length:337mm Tip diameter:2.5mm Typical distance from probe tip to dipole centers:1mm	2792 2000
Application	High precision dosimetric measurements in a (e.g., very strong gradient fields). Only probe compliance testing for frequencies up to 6 G 30%.	any exposure scenario which enables Hz with precision of better

3.3. Data Acquisition Electronics description

The data acquisition electronics (DAE) consist if a highly sensitive electrometer-grade preamplifier with auto-zeroing, a channel and gain-switching multiplexer, a fast 16 bit AD-converte and a command decoder with a control logic unit. Transmission to the measurement sever is accomplished through an optical downlink fir data and status information, as well as an optical uplink for commands and the clock.

The mechanical probe mounting device includes two different sensor systems for frontal and sideways probe contacts. They are used for mechanical surface detection and probe collision detection.

DAE4			
Input Impedance	200MOhm	HELEN	00000
The Inputs	Symmetrical and floating		er of the second s
Common mode rejection	above 80 dB		DAKEA PARTA Part of the second
NO- 60			



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3.4. Robot

The DASY system uses the high precision robots (DASY5:TX60) type from Stäubli SA (France). For the 6-axis controller system, the robot controller version from is used.

The XL robot series have many features that are important for our application:

- □ High precision (repeatability 0.02 mm)
- □ High reliability (industrial design)
- □ Jerk-free straight movements
- Low ELF interference (the closed metallic construction shields against motor control fields)
- □ 6-axis controller



3.5. Light Beam Unit

The light beam switch allows automatic "tooling" of the probe. During the process, the actual position of the probe tip with respect to the robot arm is measured, as well as the probe length and the horizontal probe offset. The software then corrects all movements, such that the robot coordinates are valid for the probe tip.

The repeatability of this process is better than 0.1 mm. If a position has been taught with an aligned prob.1 mm, even if the other probe has different dimensions. During probe rotations, the probe tip will keep its actual position. e, the same position will be reached with another aligned probe within 0







3.6. Device Holder

The DASY device holder is designed to cope with different positions given in the standard. It has two scales for the device rotation (with respect to the body axis) and the device inclination (with respect to the line between the ear reference points). The rotation center for both scales is the ear reference point (EPR).

Thus the device needs no repositioning when changing the angles. The DASY device holder has been made out of low-loss POM material having the following dielectric parameters: relative permittivity ε =3 and loss tangent δ = 0.02. The amount of dielectric material has been reduced in the closest vicinity of the device, since measurements have suggested that the influence of the clamp on the test results could thus be lowered.



3.7. Measurement Server

The measurement server is based on a PC/104 CPU board with CPU (DASY5: 400 MHz, Intel Celeron), chip-disk (DASY5: 128MB), RAM (DASY5: 128MB). The necessary circuits for communication with the DAE electronic box, as well as the 16 bit AD converter system for optical detection and digital I/O interface are contained on the DAYS I/O board, which is directly connected to the PC/104 bus of the CPU board.

The measurement server performs all the real-time data evaluation for field measurements and surface detection, controls robot movements and handles safety operations.







3.8. PHANTOM SAM Twin Phantom

The SAM twin phantom is a fiberglass shell phantom with 2mm shell thickness (except the ear region where shell thickness increases to 6mm). It has three measurement areas:

- Left head
- Right head
- □ Flat phantom



The bottom plate contains three pair of bolts for locking the device holder. The device holder positions are adjusted to the standard measurement positions in the three sections. A white cover is provided to tap the phantom during off-periods to prevent water evaporation and changes in the liquid parameters. On the phantom top, three reference markers are provided to identify the phantom position with respect to the robot.

ELI4 Phantom

□ Flat phantom a fiberglass shell flat phantom with 2mm+/- 0.2 mm shell thickness. It has only one measurement area for Flat phantom







4. SAR MEASUREMENT PROCEDURE

4.1. Specific Absorption Rate (SAR)

SAR is related to the rate at which energy is absorbed per unit mass in object exposed to a radio field. The SAR distribution in a biological body is complicated and is usually carried out by experimental techniques or numerical modeling. The standard recommends limits for two tiers of groups, occDPA

tional/controlled and occupational/uncontrolled, based on a person's awareness and ability to exercise control over his or her exposure. In general, occupational/controlled exposure limits are higher than the limits for general population/uncontrolled.

The SAR definition is the time derivative (rate) of the incremental energy (dW) absorbed by (dissipated in) an incremental mass (dm) contained in a volume element(dv) of given mass density (ρ). The equation description is as below:

$$SAR = \frac{d}{dt} \left(\frac{dW}{dm} \right) = \frac{d}{dt} \left(\frac{dW}{\rho dV} \right)$$

SAR is expressed in units of Watts per kilogram (W/Kg) SAR can be obtained using either of the following equations:

S

$$SAR = \frac{\sigma E^2}{\rho}$$

$$SAR = c_h \frac{dT}{dt}_{t=0}$$

Where

AR	is the specific absorption rate in watts per kilogram;
Е	is the r.m.s. value of the electric field strength in the tissue in volts per meter;
σ	is the conductivity of the tissue in siemens per metre;
ρ	is the density of the tissue in kilograms per cubic metre;
Ch	is the heat capacity of the tissue in joules per kilogram and Kelvin;

 $\frac{dT}{dt}$ | t = 0 is the initial time derivative of temperature in the tissue in kelvins per second





4.2. SAR Measurement Procedure

Step 1: Power Reference Measurement

The Power Reference Measurement and Power Drift Measurement are for monitoring the power drift of the device under test in the batch process. The minimum distance of probe sensors to surface is 2.7mm This distance cannot be smaller than the distance os sensor calibration points to probe tip as `defined in the probe properties,

Step 2: Area Scan

The Area Scan is used as a fast scan in two dimensions to find the area of high field values, before doing a fine measurement around the hot spot. The sophisticated interpolation routines implemented in DASY software can find the maximum locations even in relatively coarse grids. When an Area Scan has measured all reachable points, it computes the field maximal found in the scanned area, within a range of the global maximum. The range (in db) is specified in the standards for compliance testing. For example, a 2db range is required in IEEE Standard 1528, whereby 3db is a requirement when compliance is assessed in accordance with the ARIB standard (Japan) If one Zoom Scan follows the Area Scan, then only the absolute maximum will be taken as reference. For cases where multiple maximum are detected, the number of Zoom Scan has to be increased accordingly.

Area Scan Parameters extracted from KDB 865664 D01 SAR Measurement 100MHz to 6GHz

	\leq 3 GHz	> 3 GHz
Maximum distance from closest measurement point (geometric center of probe sensors) to phantom surface	$5 \pm 1 \text{ mm}$	$\frac{1}{2} \cdot \delta \cdot \ln(2) \pm 0.5 \text{ mm}$
Maximum probe angle from probe axis to phantom surface normal at the measurement location	30°±1°	20° ± 1°
	≤ 2 GHz: ≤ 15 mm 2 – 3 GHz: ≤ 12 mm	3 – 4 GHz: ≤ 12 mm 4 – 6 GHz: ≤ 10 mm
Maximum area scan spatial resolution: Δx _{Area} , Δy _{Area}	When the x or y dimension o measurement plane orientation the measurement resolution r x or y dimension of the test of measurement point on the test	f the test device, in the on, is smaller than the above, must be \leq the corresponding levice with at least one at device.

Step 3: Zoom Scan

Zoom Scan are used to assess the peak spatial SAR value within a cubic average volume containing 1g abd 10g 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. When the measurement is done, the Zoom Scan evaluates the averaged SAR for 1g and 10g and displays these values next to the job's label.



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Maximum zoom scan spatial resolution: Δx_{Zoom} , Δy_{Zoom}		$\leq 2 \text{ GHz}$: $\leq 8 \text{ mm}$ 2 - 3 GHz: $\leq 5 \text{ mm}^*$	$3 - 4 \text{ GHz} \le 5 \text{ mm}^*$ $4 - 6 \text{ GHz} \le 4 \text{ mm}^*$	
Maximum zoom scan spatial resolution, normal to phantom surface	uniform grid: $\Delta z_{Zoom}(n)$		\leq 5 mm	3 – 4 GHz: ≤ 4 mm 4 – 5 GHz: ≤ 3 mm 5 – 6 GHz: ≤ 2 mm
	$\begin{array}{c} \Delta z_{Zoom}(1) \text{: between} \\ 1^{\text{st}} \text{ two points closest} \\ \text{to phantom surface} \\ \\ grid \\ \hline \Delta z_{Zoom}(n \ge 1) \text{:} \\ \text{between subsequent} \\ \text{points} \end{array}$	$\Delta z_{Zoom}(1)$: between 1 st two points closest to phantom surface	\leq 4 mm	3 – 4 GHz: ≤ 3 mm 4 – 5 GHz: ≤ 2.5 mm 5 – 6 GHz: ≤ 2 mm
		$\leq 1.5 \cdot \Delta z_{Zoom}(n-1)$		
Minimum zoom scan volume	x, y, z		\geq 30 mm	3 – 4 GHz: ≥ 28 mm 4 – 5 GHz: ≥ 25 mm 5 – 6 GHz: ≥ 22 mm
Note: δ is the penetrati	on depth o	f a plane-wave at norma	l incidence to the tissue mediu	m; see draft standard IEEE

Zoom Scan Parameters extracted from KDB865664 d01 SAR Measurement 100MHz to 6GHz

P1528-2011 for details.

When zoom scan is required and the <u>reported</u> SAR from the area scan based 1-g SAR estimation procedures of KDB 447498 is ≤ 1.4 W/kg, ≤ 8 mm, ≤ 7 mm and ≤ 5 mm zoom scan resolution may be applied, respectively, for 2 GHz to 3 GHz, 3 GHz to 4 GHz and 4 GHz to 6 GHz.

Step 4: 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 same settings. 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 1.





4.3. RF Exposure Conditions

Test Configuration and setting:

The EUT is a model of GSM/WCDMA Portable Mobile Station (MS). It supports GSM and WCDMA.

For WWAN SAR testing, the device was controlled by using a base station emulator. Communication between the device and the emulator were established by air link. The distance between the EUT and the antenna is larger than 50cm, and the output power radiated from the emulator antenna is at least 30db smaller than the output power of EUT.

Antenna Location: (the back view)





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5. TISSUE SIMULATING LIQUID

For SAR measurement of the field distribution inside the phantom, the phantom must be filled with homogeneous tissue simulating liquid to a depth of at least 15cm. For head SAR testing the liquid height from the ear reference point (ERP) of the phantom to the liquid top surface is larger than 15cm For body SAR testing, the liquid height from the center of the flat phantom to the liquid top surface is larger than 15cm. The nominal dielectric values of the tissue simulating liquids in the phantom and the tolerance of 5% are listed in 5.2

5.1. The composition of the tissue simulating liquid

Ingredient (% Weight) Frequency (MHz)	Water	Nacl	Polysorbate 20	DGBE	1,2 Propanediol	Triton X-100
835 Head	50.36	1.25	48.39	0.0	0.0	0.0
835 Body	54.00	1	0.0	15	0.0	30
1900 Head	54.9	0.18	0.0	44.92	0.0	0.0
1900 Body	70	1	0.0	9	0.0	20

5.2. Tissue Dielectric Parameters for Head and Body Phantoms

The head tissue dielectric parameters recommended by the IEEE 1528 have been incorporated in the following table. These head parameters are derived from planar layer models simulating the highest expected SAR for the dielectric properties and tissue thickness variations in a human head. Other head and body tissue parameters that have not been specified in IEEE 1528 are derived from the tissue dielectric parameters computed from the 4-Cole-Cole equations described in Reference [12] and extrapolated according to the head parameters specified in IEEE 1528.

Target Frequency	h	ead	ł	body
(MHz)	٤r	σ (S/m)	٤r	σ (S/m)
300	45.3	0.87	58.2	0.92
450	43.5	0.87	56.7	0.94
835	41.5	0.90	55.2	0.97
900	41.5	0.97	55.0	1.05
915	41.5	1.01	55.0	1.06
1450	40.5	1.20	54.0	1.30
1610	40.3	1.29	53.8	1.40
1800 – 2000	40.0	1.40	53.3	1.52
2450	39.2	1.80	52.7	1.95
3000	38.5	2.40	52.0	2.73

(ϵr = relative permittivity, σ = conductivity and ρ = 1000 kg/m3)



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5.3. Tissue Calibration Result

The dielectric parameters of the liquids were verified prior to the SAR evaluation using DASY 5 Dielectric Probe Kit and R&S Network Analyzer ZVL6.

		Tissue Stimulant M	easurement for 835MHz					
S	Fr.	Dielectric Par	Dielectric Parameters (±5%)					
	(MHz)	ɛr 41.5 (39.425-43.575)	δ[s/m] 0.90(0.855-0.945)	[°C]	lest time			
	824.2	42.79	0.86		N			
Head	826.4	42.37	0.87	0				
	835	42.05	0.88	22.2	Dec. 17,2019			
0	836.6	41.93	0.89	22.3				
G I	846.6	41.60	0.90					
	848.8	41.38	0.91		0			
	Fr	Dielectric Par	ameters (±5%)	Tissue	- G			
C	(MHz)	ɛr 55.20(52.44-57-96)	δ[s/m]0.97(0.9215-1.0185)	Temp [oC]	Test time			
0.5	824.2	55.26	0.94					
Body	826.4	54.90	0.95		•			
	835	54.84	0.96	22.4	Dec 17 2010			
e e	836.6 54.68		0.97	22.4	Dec. 17,2019			
60	846.6	54.32	0.98	0				
	848.8	54.17	0.99	- C	©			

		Tissue Stimulant Me	asurement for 1900MHz					
NO NO	Fr.	Dielectric Par	Dielectric Parameters (±5%)					
	(MHz)	εr40.00(38.00-42.00)	δ[s/m]1.40(1.33-1.47)	Temp [⁰C]	Test time			
	1850.2	40.32	1.38					
Head 18	1852.4	40.15	1.39		Dec. 17,2019			
	1880	39.78	1.40	22.4				
	1900	39.54	1.41	22.4				
	1907.6	39.32	1.42					
	1909.8	39.16	1.43	0				
	Fr	Dielectric Par	ameters (±5%)	Tissue	C			
	(MHz)	ɛr53.30(50.635-55.965)	δ[s/m]1.52(1.444-1.596)	Temp [oC]	Test time			
	1850.2	53.65	1.48	©				
Body	1852.4	53.36	1.49	LC -	0			
200.)	1880	53.07	1.50	22.5	Dec. 17 2010			
	1900 52.89		1.51	22.5	Dec. 17,2019			
	1907.6	52.64	1.52		0			
	1909.8	52.42	1.53		0			





6. SAR SYSTEM CHECK PROCEDURE

6.1. SAR System Check Procedures

SAR system check is required to confirm measurement accuracy, according to the tissue dielectric media, probe calibration points and other system operating parameters required for measuring the SAR of a test device. The system verification must be performed for each frequency band and within the valid range of each probe calibration point required for testing the device. The same SAR probe(s) and tissue-equivalent media combinations used with each specific SAR system for system verification must be used for device testing. When multiple probe calibration points are required to cover substantially large transmission bands, independent system verifications are required for each probe calibration point. A system verification must be performed before each series of SAR measurements using the same probe calibration point and tissue-equivalent medium. Additional system verification should be considered according to the conditions of the tissue-equivalent medium and measured tissue dielectric parameters, typically every three to four days when the liquid parameters are remeasured or sooner when marginal liquid parameters are used at the beginning of a series of measurements.

Each DASY system is equipped with one or more system check kits. These units, together with the predefined measurement procedures within the DASY software, enable the user to conduct the system check and system validation. System kit includes a dipole, and dipole device holder.

The system check verifies that the system operates within its specifications. It's performed daily or before every SAR measurement. The system check uses normal SAR measurement in the flat section of the phantom with a matched dipole at a specified distance. The system check setup is shown as below.







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6.2. SAR System Check 6.2.1. Dipoles





The dipoles used are based on the IEEE-1528 standard, the table below provides details for the mechanical and electrical specifications for the dipoles.

Frequency	L (mm)	h (mm)	d (mm)
835MHz	161.0	89.8	3.6
1900MHz	68	39.5	3.6



6.2.2. System Check Result

System Per	System Performance Check at 835MHz&1900MHz for Head													
Validation Kit: SN29/15 DIP 0G835-383& SN 46/11 DIP 1G900-187& D2450V2-SN:968														
	requency Target Reference Result Value(W/Kg) (± 10%)		ce Result 0%)	Tested Value(W/Kg)		Tissue Temp.	Test time							
	1g 💿	10g	1g	10g	1g	10g	[°C]							
835	9.85	6.27	8.865-10.835	5.643-6.897	10.16	6.47	22.3	Dec. 17,2019						
1900	40.25	20.50	36.225-44.275	18.45-22.55	40.10	20.60	22.4	Dec. 17,2019						
System Per	formance	Check at	835 MHz &1900	MHz for Body										
Frequency	Tar Value(get W/Kg)	Reference Result (+ 10%)		Te: Value	sted (W/Kg)	Tissue Temp.	Test time						
[MHz]	1g	10g	1g	10g	1g	10g	[°C]							
835	9.95	6.50	8.955-10.945	5.85-7.15	9.89	6.36	22.4	Dec. 17,2019						
1900	40.82	20.99	36.738-44.902	18.891-23.089	38.04	19.65	22.5	Dec. 17,2019						

Note:

(1) We use a CW signal of 18dBm for system check, and then all SAR values are normalized to 1W forward power. The result must be within $\pm 10\%$ of target value.





7. EUT TEST POSITION

This EUT was tested in Body back and Face Up

7.1. Body Worn Position

WHAT TELS

- (1) To position the EUT parallel to the phantom surface.
- (2) To adjust the EUT parallel to the flat phantom.
- (3) To adjust the distance between the EUT surface and the flat phantom to **10mm** while used in front of face, and body back touch with belt clip to **0mm**.





8. SAR EXPOSURE LIMITS

Limits for General Population/Uncontrolled Exposure (W/kg)

Type Exposure	Uncontrolled Environment Limit (W/kg)
Spatial Peak SAR (1g cube tissue for brain or body)	1.60
Spatial Average SAR (Whole body)	0.08
Spatial Peak SAR (Limbs)	4.0





9. TEST FACILITY

Test Site	Attestation of Global Compliance (Shenzhen) Co., Ltd
Location	1-2/F, Building 19, Junfeng Industrial Park, Chongqing Road, Heping Community, Fuhai Street, Bao'an District, Shenzhen, Guangdong, China
Designation Number	CN1259
FCC Test Firm Registration Number	975832
A2LA Cert. No.	5054.02
Description	Attestation of Global Compliance(Shenzhen) Co., Ltd is accredited by A2LA



10. TEST EQUIPMENT LIST

EquipmentManufacturer/descriptionModel		Current calibration date	Next calibration date	
Stäubli Robot	Stäubli-TX60	F13/5Q2UD1/A/01	N/A	N/A
Robot Controller	Stäubli-CS8	139522	N/A	N/A
E-Field Probe	Speag- EX3DV4	SN:3953	Sep. 27,2019	Sep. 26,2020
SAM Twin Phantom	Speag-SAM	1790	N/A	N/A
Device Holder	Speag-SD 000 H01 KA	SD 000 H01 KA	N/A	N/A
DAE4	Speag-SD 000 D04 BM	1398	Feb. 16,2019	Feb. 15,2020
SAR Software	Speag-DASY5	DASY52.8	N/A	N/A
Liquid	SATIMO	- 0	N/A	N/A
Radio Communication Tester	R&S-CMU200	069Y7-158-13-712	Mar. 14,2019	Mar. 13,2020
Dipole	SATIMO SID835	SN29/15 DIP 0G835-383	Apr. 26,2019	Apr. 25,2022
Dipole	SATIMO SID1900	SN 46/11 DIP 1G900-187	SN 46/11 DIP 1G900-187 Apr. 26,2019	
Signal Generator	Agilent-E4438C	US41461365	Feb. 27,2019	Feb. 26,2020
Vector Analyzer	Agilent / E4440A	US41421290	Feb. 27,2019	Feb. 26,2020
Network Analyzer	Rhode & Schwarz ZVL6	SN100132	Feb. 27,2019	Feb. 26,2020
Attenuator	Warison /WATT-6SR1211	S/N:WRJ34AYM2F1	June 11,2019	June 10, 2020
Attenuator	Mini-circuits / VAT-10+	31405	June 11,2019	June 10, 2020
Amplifier	EM30180	SN060552	Feb. 27,2019	Feb. 26,2020
Directional Couple	Werlatone/ C5571-10	SN99463 June 12,201		June 11,2020
Directional Couple	Werlatone/ C6026-10	SN99482 June 12,2019		June 11,2020
Power Sensor	NRP-Z21	1137.6000.02	Sep. 09,2019	Sep. 08,2020
Power Sensor	NRP-Z23	US38261498	Feb. 27,2019	Feb. 26,2020
Power Viewer	R&S	V2.3.1.0	N/A	N/A

Note: Per KDB 865664 Dipole SAR Validation, AGC Lab has adopted 3 years calibration intervals. On annual basis, every measurement dipole has been evaluated and is in compliance with the following criteria:

1. There is no physical damage on the dipole;

- 2. System validation with specific dipole is within 10% of calibrated value;
- 3. Return-loss is within 20% of calibrated measurement;
- 4. Impedance is within 5Ω of calibrated measurement.



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11. MEASUREMENT UNCERTAINTY

Measu	urement ur	DASY ncertainty fo	Uncertain or Dipole a	ty- EX3DV averaged o	4 ver 1 gram	/ 10 gram.			
a	b	С	d	e f(d,k)	f	g	h cxf/e	i c×g/e	k
Uncertainty Component	Sec.	Tol (± %)	Prob. Dist.	Div.	Ci (1g)	Ci (10g)	1g Ui (±%)	10g Ui (±%)	vi
Measurement System	8				60	0			
Probe calibration	E.2.1	6.65	Ν	1	1	1	6.65	6.65	∞
Axial Isotropy	E.2.2	0.6	R	√3	_ √0.5	√0.5	0.24	0.24	∞
Hemispherical Isotropy	E.2.2	1.6	R	$\sqrt{3}$	√0.5	√0.5	0.65	0.65	∞
Boundary effect	E.2.3	1.0	R	$\sqrt{3}$	1	1	0.58	0.58	∞
Linearity	E.2.4	0.45	R	$\sqrt{3}$	1	1	0.26	0.26	∞
System detection limits	E.2.4	1.0	R	√3	1	1	0.58	0.58	∞
Modulation response 调制响应	E2.5	3.3	R	√3	1	1	1.91	1.91	8
Readout Electronics	E.2.6	0.15	N	1	1	1	0.15	0.15	8
Response Time	E.2.7	0	R	√3	1	1	0	0	8
Integration Time	E.2.8	1.7	R	$\sqrt{3}$	1	1	0.98	0.98	8
RF ambient conditions-Noise	E.6.1	3.0	R	√3	1	1	1.73	1.73	8
RF ambient conditions-reflections	E.6.1	3.0	R	√3	1		1.73	1.73	8
Probe positioner mechanical tolerance	E.6.2	0.4	R	√3	。 1	1	0.37	0.37	8
Probe positioning with respect to phantom shell	E.6.3	6.7	R	√3	1	1	3.87	3.87	8
Extrapolation, interpolation, and integrations algorithms for max. SAR evaluation	E.5	4	R	√3	1	1	2.31	2.31	×
Test sample Related				2G		©		N.	
Test sample positioning	E.4.2	2.9	N	1	1	1	2.90	2.90	80
Device holder uncertainty	E.4.1	3.6	N	1	1	1	3.60	3.60	∞
Output power variation—SAR drift measurement	E.2.9	5	R	√3	1	1	2.89	2.89	8
SAR scaling	E.6.5	5	R	$\sqrt{3}$	1	1 ©	2.89	2.89	∞
Phantom and tissue parameters	C.	3			0	- 60		0	
Phantom shell uncertainty—shape, thickness, and permittivity	E.3.1	6.6	R	√3	1	1	3.81	3.81	8
Uncertainty in SAR correction for deviations in permittivity and conductivity	E.3.2	1.9	N		O 1	0.84	1.90	1.60	∞
Liquid conductivity measurement	E.3.3	4	Ν	1	0.78	0.71	3.12	2.84	М
Liquid permittivity measurement	E.3.3	5	Ν	1 💿	0.23	0.26	1.15	1.30	М
Liquid conductivity—temperature uncertainty	E.3.4	2.5	R	√3	0.78	0.71	1.13	1.02	∞
Liquid permittivity—temperature uncertainty	E.3.4	2.5	R	$\sqrt{3}$	0.23	0.26	0.33	0.38	∞
Combined Standard Uncertainty	6		RSS	8			11.80	11.635	
Expanded Uncertainty (95% Confidence interval)			K=2		-0	C	23.60	23.27	



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	<u> </u>	DASY	Jncertain	ty- EX3DV	4				
System	n Check ur	ncertainty fo	or Dipole a	averaged o	over 1 gram	/ 10 gram.	h	Г ¥	
a	b	с	d	f(d,k)	f	g	c×f/e	c×g/e	k
Uncertainty Component	Sec.	Tol (± %)	Prob. Dist.	Div.	Ci (1g)	Ci (10g)	1g Ui (±%)	10g Ui (±%)	vi
Measurement System	(0)		No.		20			0	
Probe calibration drift	E.2.1	0.5	Ν	1	1	1	0.5	0.5	8
Axial Isotropy	E.2.2	0.6	R	$\sqrt{3}$	0	0	0.00	0.00	8
Hemispherical Isotropy	E.2.2	1.6	R	$\sqrt{3}$	0	0	0.00	0.00	∞
Boundary effect	E.2.3	1.0	R	$\sqrt{3}$	0	0	0.00	0.00	∞
Linearity	E.2.4	0.45	R	$\sqrt{3}$	0	0	0.00	0.00	∞
System detection limits	E.2.4	1.0	R	√3 ⊚	0	0	0.00	0.00	∞
Modulation response	E2.5	3.3	R	$\sqrt{3}$	0	0	0.00	0.00	∞
Readout Electronics	E.2.6	0.15	N	1	0	0	0.00	0.00	8
Response Time	E.2.7	0 @	R	$\sqrt{3}$	0	0	0.00	0.00	8
Integration Time	E.2.8	1.7	R	$\sqrt{3}$	0	0	0.00	0.00	∞
RF ambient conditions-Noise	E.6.1	3.0	R	$\sqrt{3}$	0	0	0.00	0.00	8
RF ambient conditions-reflections	ିE.6.1	3.0	R	$\sqrt{3}$	0	0	0.00	◎ 0.00	8
Probe positioner mechanical tolerance	E.6.2	0.4	R	√3	1	1	0.37	0.37	8
Probe positioning with respect to phantom shell	E.6.3	6.7	R	√3	1	1	3.87	3.87	∞
Extrapolation, interpolation, and integrations algorithms for max. SAR evaluation	E.5	4	R	√3	0	0	0.00	0.00	∞
System check source (dipole)									
Deviation of experimental dipoles	E.6.4	2.0	Ν	1	1	1	2.00	2.00	8
Input power and SAR drift measurement	8,6.6.4	5.0	R	√3	1	1	2.89	2.89	8
Dipole axis to liquid distance	8,E.6.6	2.0	R	$\sqrt{3}$	1	1	1.15	1.15	8
Phantom and tissue parameters		20-		G	®				. 61
Phantom shell uncertainty—shape, thickness, and permittivity	E.3.1	6.6	R	√3	1	1	3.81	3.81	8
Uncertainty in SAR correction for deviations in permittivity and conductivity	E.3.2	1.9	Ν	1	1	0.84	1.90	1.60	8
Liquid conductivity measurement	E.3.3	4	N	1	0.78	0.71	3.12	2.84	М
Liquid permittivity measurement	E.3.3	5	N	1	0.23	0.26	1.15	1.30	М
Liquid conductivity—temperature uncertainty	E.3.4	2.5	R	√3	0.78	0.71	1.13	1.02	8
Liquid permittivity—temperature uncertainty	E.3.4	2.5	R	√3	0.23	0.26	0.33	0.38	8
Combined Standard Uncertainty	0		RSS				7.344	7.076	
Expanded Uncertainty (95% Confidence interval)	0		K=2	0			14.689	14.153	



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System	Validation	DASY L	Incertain for Dipole	ty- EX3DV e averaged	4 I over 1 gra	m / 10 gram	I.		
а	b	C ©	d	e f(d,k)	f	g	h c×f/e	i c×g/e	k
Uncertainty Component	Sec.	Tol (±%)	Prob. Dist.	Div.	Ci (1g)	Ci (10g)	1g Ui (±%)	10g Ui (±%)	vi
Measurement System	(2)		No.		20				
Probe calibration	E.2.1	6.65	Ν	1	1		6.65	6.65	8
Axial Isotropy	E.2.2	0.6	R	√3	1	1	0.35	0.35	8
Hemispherical Isotropy	E.2.2	1.6	R	√3	0	0	0.00	0.00	8
Boundary effect	E.2.3	1.0	R	$\sqrt{3}$	1	1	0.58	0.58	∞
Linearity	E.2.4	0.45	R	$\sqrt{3}$	1	1	0.26	0.26	8
System detection limits	E.2.4	1.0	R	√3 ⊚	1	1	0.58	0.58	8
Modulation response	E2.5	3.3	R	$\sqrt{3}$	0	0	0.00	0.00	8
Readout Electronics	E.2.6	0.15	N	1	1	1	0.15	0.15	8
Response Time	E.2.7	0 💿	R	$\sqrt{3}$	0	0	0.00	0.00	8
Integration Time	E.2.8	1.7	R	$\sqrt{3}$	0	0	0.00	0.00	8
RF ambient conditions-Noise	E.6.1	3.0	R	$\sqrt{3}$	1	1	1.73	1.73	8
RF ambient conditions-reflections	E.6.1	3.0	R	$\sqrt{3}$	1	1	1.73	1.73	8
Probe positioner mechanical tolerance	E.6.2	0.4	R	$\sqrt{3}$	1	1	0.37	0.37	8
Probe positioning with respect to phantom shell	E.6.3	6.7	R	√3	1	1	3.87	3.87	8
Extrapolation, interpolation, and integrations algorithms for max. SAR evaluation	E.5	4	R	√3	1	1	2.31	2.31	8
System check source (dipole)	NO.		G					. 6	
Deviation of experimental dipole from numerical dipole	E.6.4	5.0	N	C1	1	1	5.00	5.00	8
Input power and SAR drift measurement	8,6.6.4	5.0	R	√3	1	1	2.89	2.89	8
Dipole axis to liquid distance	8,E.6.6	2.0	R	$\sqrt{3}$	1	1	1.15	1.15	8
Phantom and tissue parameters	-		~ C						
Phantom shell uncertainty—shape, thickness, and permittivity	E.3.1	6.6	R	√3	61	1	3.81	3.81	8
Uncertainty in SAR correction for deviations in permittivity and conductivity	E.3.2	1.9	Ν	1	1	0.84	1.90	1.60	8
Liquid conductivity measurement	E.3.3	4	N	1	0.78	0.71	3.12	2.84	М
Liquid permittivity measurement	E.3.3	5	Ν	1	0.23	0.26	1.15	1.30	М
Liquid conductivity—temperature uncertainty	E.3.4	2.5	R	√3	0.78	0.71	1.13	1.02	8
Liquid permittivity—temperature uncertainty	E.3.4	2.5	R	√3	0.23	0.26	0.33	0.38	8
Combined Standard Uncertainty			RSS			C.	11.451	11.281	
Expanded Uncertainty (95% Confidence interval)	GO	~0	K=2	©			22.901	22.561	~



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12. CONDUCTED POWER MEASUREMENT

GOW DAND	8		0	
Mode	Frequency(MHz)	Avg. Burst Power(dBm)	Duty cycle Factor(dBm)	Frame Power(dBm)
Maximum Power <1	>	al a	0	
- 6	824.2	32.92	-9	23.92
GSM 850	836.6	32.93	-9	23.93
	848.8	32.84	-9	23.84

GSM BAND CONTINUE

Mode	Frequency(MHz)	Avg. Burst Power(dBm)	Duty cycle Factor(dBm)	Frame Power(dBm)
Maximum Power <1:	>			
PCS1900	1850.2	29.34	-9	20.34
	1880	29.00	-9	20.00
	1909.8	29.59	-9	20.59

Note 1:

The Frame Power (Source-based time-averaged Power) is scaled the maximum burst average power based on time slots.





UMTS BAND II

Mode	Frequency (MHz)	Avg. Burst Power (dBm)		
	1852.4	22.53		
WCDMA 1900 RMC	1880	21.82		
	1907.6	22.07		
LINETO DANID V				

UMTS BAND V

Mode	Frequency (MHz)	Avg. Burst Power (dBm)
WCDMA 850	826.4	22.37
	836.6	21.97
RIMC	846.6	22.35





13. TEST RESULTS

13.1. SAR Test Results Summary 13.1.1. Test position and configuration

Face Up SAR was performed with the device configured in the positions according to IEEE 1528-2013, Body-worn SAR was performed with the device 0mm from the phantom.

13.1.2. Operation Mode

- 1. Per KDB 447498 D01 v06 ,for each exposure position, if the highest 1-g SAR is \leq 0.8 W/kg, testing for low and high channel is optional.
- 2. Per KDB 865664 D01 v01r04,for each frequency band, if the measured SAR is ≥0.8W/Kg, testing for repeated SAR measurement is required , that the highest measured SAR is only to be tested. When the SAR results are near the limit, the following procedures are required for each device to verify these types of SAR measurement related variation concerns by repeating the highest measured SAR configuration in each frequency band.
 - (1) When the original highest measured SAR is $\geq 0.8W/Kg$, repeat that measurement once.
 - (2) 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 \ge 1.45 W/Kg.
 - (3) Perform a third repeated measurement only if the original, first and second repeated measurement is ≥ 1.5 W/Kg and ratio of largest to smallest SAR for the original, first and second measurement is ≥ 1.20.
- 3. Body-worn exposure conditions are intended to voice call operations, therefore GSM voice call mode is selected to be test.
- 4. Maximum Scaling SAR in order to calculate the Maximum SAR values to test under the standard Peak Power, Calculation method is as follows:

Maximum Scaling SAR =tested SAR (Max.) \times [maximum turn-up power (mw)/ maximum measurement output power(mw)]

5. Proximity sensor, just for avoiding the wrong operation in the phone screen when call, and has no influence on output power or SAR result





13.1.3. Test Result

SAR MEASU	REMENT	•										
Depth of Liqui	id (cm):>1	15		Relative	Relative Humidity (%): 48.0							
Product: FH E	Emergenc	y Medic	al Device	e - V1								
Test Mode: GSM850 with GMSK modulation												
Position	Mode	Ch.	Fr. (MHz)	Power Drift (<±0.2 dB)	SAR (1g) (W/kg)	Max. Tune-up Power (dBm)	Meas. output Power (dBm)	Scaled SAR (W/Kg)	Limit (W/kg)			
SIM 1 Card				3	-0	8			C C			
Body back	voice	128	824.2	0.06	1.190	33.00	32.92	1.212	1.6			
Body back	voice	190	836.6	0.06	1.410	33.00	32.93	1.433	ା.6			
Body back	voice	251	848.8	0.08	1.300	33.00	32.84	1.349	1.6			
Face Up	voice	190	836.6	-0.39	0.500	33.00	32.93	0.508	1.6			
Matai												

Note:

When the 1-g Reported SAR is ≤ 0.8 W/kg, testing for low and high channel is optional. Refer to KDB 447498.
The test separation for body back is 0mm and face up is 10mm of all above table.





SAR MEASUREMENT												
Depth of Liqui	id (cm):>′	15		Relative	Relative Humidity (%): 48.0							
Product: FH Emergency Medical Device - V1												
Test Mode: PCS1900 with GMSK modulation												
Position	Mode	Ch.	Fr. (MHz)	Power Drift (<±0.2 dB)	SAR (1g) (W/kg)	Max. Tune-up Power (dBm)	Meas. output Power (dBm)	Scaled SAR (W/Kg)	Limit (W/kg)			
SIM 1 Card		- 6		C	8			6	- C.			
Body back	voice	512	1850.2	-0.04	1.220	29.60	29.34	1.295	1.6			
Body back	voice	661	1880.0	0.06	1.240	29.60	29.00	1.424	1.6			
Body back	voice	810	1909.8	0.07	1.190	29.60	29.59	1.193	©1.6			
Face Up	voice	661	1880.0	-0.17	0.307	29.60	29.00	0.352	1.6			

Note:

• When the 1-g Reported SAR is ≤ 0.8 W/kg, testing for low and high channel is optional. Refer to KDB 447498.

• The test separation for body back is 0mm and face up is 10mm of all above table.





Depth of Liquid (cm):>15 Relative Humidity (%): 48.0 Product: FH Emergency Medical Device - V1	SAR MEASUREMENT											
Product: FH Emergency Medical Device - V1 Test Mode: WCDMA Band II with QPSK modulation Power SAR Max. Turso up Meas. output Scaled Limit	Depth of Liq	uid (cm):>15			Relative	Relative Humidity (%): 48.0						
Test Mode: WCDMA Band II with QPSK modulation Power SAR Max. Meas. output Scaled Limit	Product: FH Emergency Medical Device - V1											
Power SAR Max. Meas. output Scaled Limit	Test Mode: WCDMA Band II with QPSK modulation											
PositionModeCh.Fr.Diffit(1g)Future-upPowerSAR (dBm)Liffit (W/kg)Position(MHz)(<±0.2 (BB)(W/kg)Power (dBm)(dBm)SAR (W/Kg)(W/kg)	Position	Mode	Ch.	Fr. (MHz)	Power Drift (<±0.2 dB)	SAR (1g) (W/kg)	Max. Tune-up Power (dBm)	Meas. output Power (dBm)	Scaled SAR (W/Kg)	Limit (W/kg)		
Body back RMC 12.2kbps 9262 1852.4 0.09 1.060 22.60 22.53 1.077 1.6	Body back	RMC 12.2kbps	9262	1852.4	0.09 💿	1.060	22.60	22.53	1.077	1.6		
Body back RMC 12.2kbps 9400 1880 0.05 1.080 22.60 21.82 1.292 1.6	Body back	RMC 12.2kbps	9400	1880	0.05	1.080	22.60	21.82	1.292	1.6		
Body back RMC 12.2kbps 9538 1907.6 0.05 1.100 22.60 22.07 1.243 1.6	Body back	RMC 12.2kbps	9538	1907.6	0.05	1.100	22.60	22.07	1.243	1.6		
Face Up RMC 12.2kbps 9400 1880 -0.06 0.283 22.60 21.82 0.339 1.6	Face Up	RMC 12.2kbps	9400	1880	-0.06	0.283	22.60	21.82	0.339	1.6		

Note:

When the 1-g Reported SAR is ≤ 0.8 W/kg, testing for low and high channel is optional. Refer to KDB 447498.
The test separation for body back is 0mm and face up is 10mm of all above table.





Depth of Liquid (cm):>15 Relative Humidity (%): 48.0	SAR MEASUREMENT											
Braduat EH Emarganov Madical Davias 1/1	Depth of Liq	uid (cm):>15			Relative	Relative Humidity (%): 48.0						
Floduci. Fin Emergency Medical Device - Vi												
Test Mode: WCDMA Band V with QPSK modulation												
PositionModeCh.Fr. (MHz)Power Drift (<±0.2 dB)SAR (1g) (W/kg)Max. Tune-up Power (dBm)Meas. output SAR (Meas. output Power (dBm)Scaled SAR (W/Kg)	Position	Mode	Ch.	Fr. (MHz)	Power Drift (<±0.2 dB)	SAR (1g) (W/kg)	Max. Tune-up Power (dBm)	Meas. output Power (dBm)	Scaled SAR (W/Kg)	Limit (W/kg)		
Body back RMC 12.2kbps 4132 826.4 0.46 1.530 22.40 22.37 1.541 1.6	Body back	RMC 12.2kbps	4132	826.4	0.46 💿	1.530	22.40	22.37	1.541	1.6		
Body back RMC 12.2kbps 4183 836.6 0.37 1.360 22.40 21.97 1.502 1.6	Body back	RMC 12.2kbps	4183	836.6	0.37	1.360	22.40	21.97	1.502	1.6		
Body back RMC 12.2kbps 4233 846.6 -0.35 1.330 22.40 22.35 1.345 1.6	Body back	RMC 12.2kbps	4233	846.6	-0.35	1.330	22.40	22.35	1.345	1.6		
Face Up RMC 12.2kbps 4183 836.6 0.35 0.734 22.40 21.97 0.810 1.6	Face Up	RMC 12.2kbps	4183	836.6	0.35	0.734	22.40	21.97	0.810	[©] 1.6		

Note:

When the 1-g Reported SAR is ≤ 0.8 W/kg, testing for low and high channel is optional. Refer to KDB 447498.
The test separation for body back is 0mm and face up is 10mm of all above table.





Repeated SAR										
Product: FH Emergency Medical Device - V1										
Test Mode: GSM850& PCS1900& WCDMA Band II& WCDMA Band V										
Position	Mode	Ch.	Fr. (MHz)	Power Drift (<±0.2 dB)	Once SAR (1g) (W/kg)	Power Drift (<±5%)	Twice SAR (1g) (W/kg)	Power Drift (<±0.2 dB)	Third SAR (1g) (W/kg)	Limit (W/kg)
Body back	voice	190	836.6	0.12	1.270	-			- 0-	1.6
Body back	voice	661	1880.0	0.10	1.250	- ®	<u>_</u>			1.6
Body back	RMC 12.2kbps	9538	1907.6	0.01	1.080	60	Ē		-	1.6
Body back	RMC 12.2kbps	4132	826.4	-0.57	1.500	-		S		1.6





APPENDIX A. SAR SYSTEM CHECK DATA

Test Laboratory: AGC Lab System Check Head 835 MHz

DUT: Dipole 835 MHz Type: SID 835

Date: Dec. 17,2019

Communication System CW; Communication System Band: D835 (835.0 MHz); Duty Cycle: 1:1; Frequency: 835 MHz; Medium parameters used: f = 835 MHz; σ =0.88 mho/m; ϵ r =42.05; ρ = 1000 kg/m³; Phantom section: Flat Section; Input Power=18dBm Ambient temperature (°C):22.7, Liquid temperature (°C): 22.3

DASY Configuration:

- Probe: EX3DV4 SN:3953; ConvF(10.09, 10.09, 10.09); Calibrated: Sep. 27,2019;
- Sensor-Surface: 1.4mm (Mechanical Surface Detection), z = 1.0, 31.0
- Electronics: DAE4 SN1398; Calibrated: Feb. 16,2019
- Phantom: SAM (20deg probe tilt) with CRP v5.0; Type: QD000P40CD;
- DASY52 52.8.7(1137); SEMCAD X 14.6.10(7164)

Configuration/System Check 835MHz Head/Area Scan: Measurement grid: dx=8mm, dy=8mm Configuration/System Check 835MHz Head/Zoom Scan: Measurement grid: dx=8mm,dy=8mm, dz=5mm

Configuration/System Check Head 835MHz/Area Scan (9x14x1): Measurement grid: dx=15mm, dy=15mm Maximum value of SAR (measured) = 0.745 W/kg

Configuration/System Check Head 835MHz/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 23.171 V/m; Power Drift = 0.04 dB Peak SAR (extrapolated) = 0.998 W/kg SAR(1 g) = 0.641 W/kg; SAR(10 g) = 0.408 W/kg Maximum value of SAR (measured) = 0.757 W/kg







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Date: Dec. 17,2019

Test Laboratory: AGC Lab System Check Body 835 MHz DUT: Dipole 835 MHz Type: SID 835

Communication System CW; Communication System Band: D835 (835.0 MHz); Duty Cycle: 1:1; Frequency: 835 MHz; Medium parameters used: f = 835 MHz; σ =0.96mho/m; ϵ r =54.84; ρ = 1000 kg/m³; Phantom section: Flat Section; Input Power=18dBm Ambient temperature (°C):22.7, Liquid temperature (°C): 22.4

DASY Configuration:

Probe: EX3DV4 - SN:3953; ConvF(10.14, 10.14, 10.14); Calibrated: Sep. 27,2019;

- Sensor-Surface: 1.4mm (Mechanical Surface Detection), z = 1.0, 31.0
- Electronics: DAE4 SN1398; Calibrated: Feb. 16,2019
- Phantom: SAM (20deg probe tilt) with CRP v5.0; Type: QD000P40CD;
- DASY52 52.8.7(1137); SEMCAD X 14.6.10(7164)

Configuration/System Check Body 835MHz/Area Scan (9x14x1): Measurement grid: dx=15mm, dy=15mm Maximum value of SAR (measured) = 0.738 W/kg

Configuration/System Check Body 835MHz/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 29.041 V/m; Power Drift = -0.04 dB Peak SAR (extrapolated) = 0.958 W/kg SAR(1 g) = 0.624 W/kg; SAR(10 g) = 0.401 W/kg

Maximum value of SAR (measured) = 0.734 W/kg







Test Laboratory: AGC Lab

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Date: Dec. 17,2019

System Check Head 1900MHz DUT: Dipole 1900 MHz; Type: SID 1900 Communication System: CW; Communication System Band: D1900 (1900.0 MHz); Duty Cycle:1:1; Frequency: 1900 MHz; Medium parameters used: f = 1900 MHz; σ=1.41mho/m; εr =39.54; ρ= 1000 kg/m³;

Phantom section: Flat Section; Input Power=18dBm

Ambient temperature (°C):22.7, Liquid temperature (°C): 22.4

DASY Configuration:

- Probe: EX3DV4 SN:3953; ConvF(8.36, 8.36, 8.36); Calibrated: Sep. 27,2019;
- Sensor-Surface: 1.4mm (Mechanical Surface Detection), z = 1.0, 31.0
- Electronics: DAE4 SN1398; Calibrated: Feb. 16,2019
- Phantom: SAM (20deg probe tilt) with CRP v5.0; Type: QD000P40CD;
- DASY52 52.8.7(1137); SEMCAD X 14.6.10(7164)

Configuration/System Check 1900MHz Head/Area Scan: Measurement grid: dx=8mm, dy=8mm **Configuration/System Check 1900MHz Head/Zoom Scan:** Measurement grid: dx=8mm,dy=8mm, dz=5mm

System Check Head 1900 MHz

Configuration/System Check Head 1900MHz/Area Scan (7x10x1): Measurement grid: dx=15mm, dy=15mm Maximum value of SAR (measured) = 3.14 W/kg

Configuration/System Check Head 1900MHz/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm,

dy=8mm, dz=5mm Reference Value = 49.501 V/m; Power Drift = -0.10 dB Peak SAR (extrapolated) = 4.71 W/kg

SAR(1 g) = 2.53 W/kg; SAR(10 g) = 1.3 W/kg

Maximum value of SAR (measured) = 3.22 W/kg







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Date: Dec. 17,2019

Test Laboratory: AGC Lab System Check Body 1900MHz DUT: Dipole 1900 MHz; Type: SID 1900

Communication System: CW; Communication System Band: D1900 (1900.0 MHz); Duty Cycle:1:1; Frequency: 1900 MHz; Medium parameters used: f = 1900 MHz; σ =1.51 mho/m; ϵ r =52.89; ρ = 1000 kg/m³; Phantom section: Flat Section; Input Power=18dBm Ambient temperature (°C):22.7, Liquid temperature (°C): 22.5

DASY Configuration:

• Probe: EX3DV4 - SN:3953; ConvF(8.00, 8.00, 8.00); Calibrated: Sep. 27,2019;

- Sensor-Surface: 1.4mm (Mechanical Surface Detection), z = 1.0, 31.0
- Electronics: DAE4 SN1398; Calibrated: Feb. 16,2019
- Phantom: SAM (20deg probe tilt) with CRP v5.0; Type: QD000P40CD;
- DASY52 52.8.7(1137); SEMCAD X 14.6.10(7164)

Configuration/System Check Body 1900MHz/Area Scan (7x10x1): Measurement grid: dx=15mm, dy=15mm Maximum value of SAR (measured) = 2.74 W/kg

Configuration/System Check Body 1900MHz/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 48.236 V/m; Power Drift = -0.08 dB Peak SAR (extrapolated) = 4.47 W/kg

SAR(1 g) = 2.4 W/kg; SAR(10 g) = 1.24 W/kg

Maximum value of SAR (measured) = 3.05 W/kg







APPENDIX B. SAR MEASUREMENT DATA

Date: Dec. 17,2019

Test Laboratory: AGC Lab GSM 850 Mid- Face Up DUT: FH Emergency Medical Device - V1; Type: FH-V1

Communication System: Generic GSM; Communication System Band: GSM 850; Duty Cycle: 1:8.3; Frequency: 836.6 MHz; Medium parameters used: f = 835 MHz; σ =0.89 mho/m; ϵ r =41.93; ρ = 1000 kg/m³; Phantom section: Flat Section Ambient temperature (°C):22.7, Liquid temperature (°C): 22.3

DASY Configuration:

• Probe: EX3DV4 - SN:3953; ConvF(10.09, 10.09, 10.09); Calibrated: Sep. 27,2019;

- Sensor-Surface: 3mm (Mechanical Surface Detection), z = 1.0, 31.0
- Electronics: DAE4 SN1398; Calibrated: Feb. 16,2019
- Phantom: SAM (20deg probe tilt) with CRP v5.0; Type: QDOVA002AA;
- DASY52 52.8.7(1137); SEMCAD X 14.6.10(7164)

FACE UP/Area Scan (5x7x1): Measurement grid: dx=15mm, dy=15mm Maximum value of SAR (measured) = 0.601 W/kg

FACE UP/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm Reference Value = 20.799 V/m; Power Drift = -0.39 dB Peak SAR (extrapolated) = 0.847 W/kg SAR(1 g) = 0.500 W/kg; SAR(10 g) = 0.297 W/kg Maximum value of SAR (measured) = 0.606 W/kg







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Date: Dec. 17,2019

Test Laboratory: AGC Lab GSM 850 Mid- Body- Back(MS)<SIM 1> DUT: FH Emergency Medical Device - V1; Type: FH-V1

Communication System: Generic GSM; Communication System Band: GSM 850; Duty Cycle: 1:8.3; Frequency: 836.6 MHz; Medium parameters used: f = 835 MHz; $\sigma=0.97$ mho/m; $\epsilon r = 54.68$; $\rho = 1000$ kg/m³; Phantom section: Flat Section

Ambient temperature (°C):22.7, Liquid temperature (°C): 22.4

DASY Configuration:

Probe: EX3DV4 - SN:3953; ConvF(10.14, 10.14, 10.14); Calibrated: Sep. 27,2019;

- Sensor-Surface: 3mm (Mechanical Surface Detection), z = 1.0, 31.0
- Electronics: DAE4 SN1398; Calibrated: Feb. 16,2019

• Phantom: SAM (20deg probe tilt) with CRP v5.0; Type: QDOVA002AA;

• DASY52 52.8.7(1137); SEMCAD X 14.6.10(7164)

BODY/BACK/Area Scan (5x7x1): Measurement grid: dx=15mm, dy=15mm Maximum value of SAR (measured) = 1.58 W/kg

BODY/BACK/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm Reference Value = 27.652 V/m; Power Drift = 0.06 dB Peak SAR (extrapolated) = 2.33 W/kg

SAR(1 g) = 1.41 W/kg; SAR(10 g) = 0.799 W/kg

Maximum value of SAR (measured) = 1.71 W/kg







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Interpolated Max SAR Z Line(z)





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Date: Dec. 17,2019

Test Laboratory: AGC Lab PCS 1900 Mid- Face Up DUT: FH Emergency Medical Device - V1; Type: FH-V1

Communication System: Generic GSM; Communication System Band: PCS 1900; Duty Cycle: 1:8.3; Frequency: 1880 MHz; Medium parameters used: f = 1900 MHz; σ = 1.40 mho/m; ϵ r =39.78; ρ = 1000 kg/m³; Phantom section: Flat Section

Ambient temperature (°C):22.7, Liquid temperature (°C): 22.4

DASY Configuration:

• Probe: EX3DV4 - SN:3953; ConvF(10.09, 10.09, 10.09); Calibrated: Sep. 27,2019;

- Sensor-Surface: 3mm (Mechanical Surface Detection), z = 1.0, 31.0
- Electronics: DAE4 SN1398; Calibrated: Feb. 16,2019
- Phantom: SAM (20deg probe tilt) with CRP v5.0; Type: QD000P40CD;
- DASY52 52.8.7(1137); SEMCAD X 14.6.10(7164)

FACE UP/Area Scan (5x7x1): Measurement grid: dx=15mm, dy=15mm Maximum value of SAR (measured) = 0.359 W/kg

FACE UP/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm Reference Value = 14.562 V/m; Power Drift = -0.17 dB Peak SAR (extrapolated) = 0.478 W/kg SAR(1 g) = 0.307 W/kg; SAR(10 g) = 0.192 W/kg Maximum value of SAR (measured) = 0.360 W/kg







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Date: Dec. 17,2019

Test Laboratory: AGC Lab PCS 1900 Mid-Body- Back(MS)<SIM 1> DUT: FH Emergency Medical Device - V1; Type: FH-V1

Communication System: Generic GSM; Communication System Band: PCS 1900; Duty Cycle: 1:8.3; Frequency: 1880 MHz; Medium parameters used: f = 1900 MHz; σ = 1.50 mho/m; ϵ r =53.07; ρ = 1000 kg/m³; Phantom section: Flat Section

Ambient temperature (°C):22.7, Liquid temperature (°C): 22.5

DASY Configuration:

• Probe: EX3DV4 - SN:3953; ConvF(8.00, 8.00, 8.00); Calibrated: Sep. 27,2019;

- Sensor-Surface: 3mm (Mechanical Surface Detection), z = 1.0, 31.0
- Electronics: DAE4 SN1398; Calibrated: Feb. 16,2019
- Phantom: SAM (20deg probe tilt) with CRP v5.0; Type: QD000P40CD;
- DASY52 52.8.7(1137); SEMCAD X 14.6.10(7164)

BODY/BACK/Area Scan (5x7x1): Measurement grid: dx=15mm, dy=15mm Maximum value of SAR (measured) = 1.42 W/kg

BODY/BACK/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm Reference Value = 14.562 V/m; Power Drift = 0.06 dB

Peak SAR (extrapolated) = 1.90 W/kg SAR(1 g) = 1.24 W/kg; SAR(10 g) = 0.731 W/kg

Maximum value of SAR (measured) = 1.45 W/kg







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Interpolated Max SAR Z Line(z)





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Date: Dec. 17,2019

Test Laboratory: AGC Lab WCDMA Band II Mid - Face Up DUT: FH Emergency Medical Device - V1; Type: FH-V1

Communication System: UMTS; Communication System Band: Band II UTRA/FDD ;Duty Cycle:1:1; Frequency: 1880 MHz; Medium parameters used: f = 1900 MHz; σ =1.40 mho/m; ϵ r =39.78; ρ = 1000 kg/m³; Phantom section: Flat Section

Ambient temperature (℃):22.7, Liquid temperature (℃): 22.4

DASY Configuration:

- Probe: EX3DV4 SN:3953; ConvF(10.09, 10.09, 10.09); Calibrated: Sep. 27,2019;
- Sensor-Surface: 3mm (Mechanical Surface Detection), z = 1.0, 31.0
- Electronics: DAE4 SN1398; Calibrated: Feb. 16,2019
- Phantom: SAM (20deg probe tilt) with CRP v5.0; Type: QD000P40CD;
- DASY52 52.8.7(1137); SEMCAD X 14.6.10(7164)

FACE UP /Area Scan (5x7x1): Measurement grid: dx=15mm, dy=15mm Maximum value of SAR (measured) = 0.325 W/kg

FACE UP /Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm Reference Value = 13.124 V/m; Power Drift = -0.06 dB Peak SAR (extrapolated) = 0.434 W/kg SAR(1 g) = 0.283 W/kg; SAR(10 g) = 0.178 W/kg Maximum value of SAR (measured) = 0.333 W/kg







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Date: Dec. 17,2019

Test Laboratory: AGC Lab WCDMA Band II Mid -Body-Towards Grounds DUT: FH Emergency Medical Device - V1; Type: FH-V1

Communication System: UMTS; Communication System Band: Band II UTRA/FDD ;Duty Cycle:1:1; Frequency: 1880 MHz; Medium parameters used: f = 1900 MHz; σ =1.50 mho/m; ϵ r =53.07; ρ = 1000 kg/m³ ; Phantom section: Flat Section

Ambient temperature (℃):22.7, Liquid temperature (℃): 22.5

DASY Configuration:

- Probe: EX3DV4 SN:3953; ConvF(8.00, 8.00, 8.00); Calibrated: Sep. 27,2019;
- Sensor-Surface: 3mm (Mechanical Surface Detection), z = 1.0, 31.0
- Electronics: DAE4 SN1398; Calibrated: Feb. 16,2019
- Phantom: SAM (20deg probe tilt) with CRP v5.0; Type: QD000P40CD;
- DASY52 52.8.7(1137); SEMCAD X 14.6.10(7164)

BACK/BACK/Area Scan (5x7x1): Measurement grid: dx=15mm, dy=15mm Maximum value of SAR (measured) = 1.27 W/kg

BACK/BACK/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm Reference Value = 24.771 V/m; Power Drift = 0.05 dB

Peak SAR (extrapolated) = 1.58 W/kg SAR(1 g) = 1.08 W/kg; SAR(10 g) = 0.667 W/kg Maximum value of SAR (measured) = 1.25 W/kg







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Date: Dec. 17,2019

Test Laboratory: AGC Lab WCDMA Band II High -Body-Towards Grounds DUT: FH Emergency Medical Device - V1; Type: FH-V1

Communication System: UMTS; Communication System Band: Band II UTRA/FDD ;Duty Cycle:1:1; Frequency: 1907.6 MHz; Medium parameters used: f = 1900 MHz; σ =1.52 mho/m; ϵ r =52.64; ρ = 1000 kg/m³; Phantom section: Flat Section

Ambient temperature (°C):22.7, Liquid temperature (°C): 22.5

DASY Configuration:

• Probe: EX3DV4 - SN:3953; ConvF(8.00, 8.00, 8.00); Calibrated: Sep. 27,2019;

- Sensor-Surface: 3mm (Mechanical Surface Detection), z = 1.0, 31.0
- Electronics: DAE4 SN1398; Calibrated: Feb. 16,2019
- Phantom: SAM (20deg probe tilt) with CRP v5.0; Type: QD000P40CD;
- DASY52 52.8.7(1137); SEMCAD X 14.6.10(7164)

BACK/BACK HIGH/Area Scan (5x7x1): Measurement grid: dx=15mm, dy=15mm Maximum value of SAR (measured) = 1.27 W/kg

BACK/BACK HIGH/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm Reference Value = 24.848 V/m; Power Drift = 0.05 dB Peak SAR (extrapolated) = 1.60 W/kg SAR(1 g) = 1.1 W/kg; SAR(10 g) = 0.675 W/kg

Maximum value of SAR (measured) = 1.26 W/kg







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Interpolated Max SAR Z Line(z)





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Date: Dec. 17,2019

Test Laboratory: AGC Lab WCDMA Band V Mid- Face Up DUT: FH Emergency Medical Device - V1; Type: FH-V1

Communication System: UMTS; Communication System Band: BAND V UTRA/FDD;Duty Cycle:1:1; Frequency: 836.6 MHz; Medium parameters used: f = 835 MHz; $\sigma=0.89 \text{ mho/m}$; $\epsilon r = 41.93$; $\rho = 1000 \text{ kg/m}^3$; Phantom section: Flat Section

Ambient temperature (°C):22.7, Liquid temperature (°C): 22.3

DASY Configuration:

• Probe: EX3DV4 - SN:3953; ConvF(10.09, 10.09, 10.09); Calibrated: Sep. 27,2019;

- Sensor-Surface: 3mm (Mechanical Surface Detection), z = 1.0, 31.0
- Electronics: DAE4 SN1398; Calibrated: Feb. 16,2019
- Phantom: SAM (20deg probe tilt) with CRP v5.0; Type: QD000P40CD;
- DASY52 52.8.7(1137); SEMCAD X 14.6.10(7164)

FACE UP/Area Scan (5x7x1): Measurement grid: dx=15mm, dy=15mm Maximum value of SAR (measured) = 0.931 W/kg

FACE UP/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm Reference Value = 18.086 V/m; Power Drift = 0.35 dB Peak SAR (extrapolated) = 1.57 W/kg SAR(1 g) = 0.734 W/kg; SAR(10 g) = 0.357 W/kg Maximum value of SAR (measured) = 0.973 W/kg







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Date: Dec. 17,2019

Test Laboratory: AGC Lab WCDMA Band V Low-Body-Towards Grounds DUT: FH Emergency Medical Device - V1; Type: FH-V1

Communication System: UMTS; Communication System Band: BAND V UTRA/FDD;Duty Cycle:1:1; Frequency: 826.4 MHz; Medium parameters used: f = 835 MHz; $\sigma=0.95 \text{ mho/m}$; $\epsilon r = 54.90$; $\rho = 1000 \text{ kg/m}^3$; Phantom section: Flat Section

Ambient temperature (°C):22.7, Liquid temperature (°C): 22.4

DASY Configuration:

Probe: EX3DV4 - SN:3953; ConvF(10.14, 10.14, 10.14); Calibrated: Sep. 27,2019;

- Sensor-Surface: 3mm (Mechanical Surface Detection), z = 1.0, 31.0
- Electronics: DAE4 SN1398; Calibrated: Feb. 16,2019
- Phantom: SAM (20deg probe tilt) with CRP v5.0; Type: QD000P40CD;
- DASY52 52.8.7(1137); SEMCAD X 14.6.10(7164)

BODY/BACK LOW/Area Scan (5x7x1): Measurement grid: dx=15mm, dy=15mm Maximum value of SAR (measured) = 1.65 W/kg

BODY/BACK LOW/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm Reference Value = 24.210 V/m; Power Drift = 0.46 dB Peak SAR (extrapolated) = 2.60 W/kg SAR(1 g) = 1.53 W/kg; SAR(10 g) = 0.879 W/kg Maximum value of SAR (measured) = 1.82 W/kg







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Interpolated Max SAR Z Line(z)





Repeated SAR Test Laboratory: AGC Lab GSM 850 Mid- Body- Back(MS)<SIM 1> DUT: FH Emergency Medical Device - V1; Type: FH-V1

Date: Dec. 17,2019

Communication System: Generic GSM; Communication System Band: GSM 850; Duty Cycle: 1:8.3; Frequency: 836.6 MHz; Medium parameters used: f = 835 MHz; $\sigma=0.97$ mho/m; $\epsilon r = 54.68$; $\rho = 1000$ kg/m³; Phantom section: Flat Section

Ambient temperature (°C):22.7, Liquid temperature (°C): 22.4

DASY Configuration:

Probe: EX3DV4 - SN:3953; ConvF(10.14, 10.14, 10.14); Calibrated: Sep. 27,2019;

- Sensor-Surface: 3mm (Mechanical Surface Detection), z = 1.0, 31.0
- Electronics: DAE4 SN1398; Calibrated: Feb. 16,2019
- Phantom: SAM (20deg probe tilt) with CRP v5.0; Type: QDOVA002AA;
- DASY52 52.8.7(1137); SEMCAD X 14.6.10(7164)

BODY/BACK Repert /Area Scan (5x7x1): Measurement grid: dx=15mm, dy=15mm Maximum value of SAR (measured) = 1.43 W/kg

BODY/BACK Repert /Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm Reference Value = 26.054 V/m; Power Drift = 0.12 dB Peak SAR (extrapolated) = 2.12 W/kg SAR(1 g) = 1.27 W/kg; SAR(10 g) = 0.728 W/kg

Maximum value of SAR (measured) = 1.54 W/kg







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Date: Dec. 17,2019

Test Laboratory: AGC Lab PCS 1900 Mid-Body- Back(MS)<SIM 1> DUT: FH Emergency Medical Device - V1; Type: FH-V1

Communication System: Generic GSM; Communication System Band: PCS 1900; Duty Cycle: 1:8.3; Frequency: 1880 MHz; Medium parameters used: f = 1900 MHz; σ = 1.50 mho/m; ϵ r =53.07; ρ = 1000 kg/m³; Phantom section: Flat Section

Ambient temperature (°C):22.7, Liquid temperature (°C): 22.5

DASY Configuration:

• Probe: EX3DV4 - SN:3953; ConvF(8.00, 8.00, 8.00); Calibrated: Sep. 27,2019;

- Sensor-Surface: 3mm (Mechanical Surface Detection), z = 1.0, 31.0
- Electronics: DAE4 SN1398; Calibrated: Feb. 16,2019

• Phantom: SAM (20deg probe tilt) with CRP v5.0; Type: QD000P40CD;

• DASY52 52.8.7(1137); SEMCAD X 14.6.10(7164)

BODY/BACK Repert /Area Scan (5x7x1): Measurement grid: dx=15mm, dy=15mm Maximum value of SAR (measured) = 1.46 W/kg

BODY/BACK Repert /Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm Reference Value = 24.342 V/m; Power Drift = 0.10 dB Peak SAR (extrapolated) = 1.94 W/kg SAR(1 g) = 1.25 W/kg; SAR(10 g) = 0.738 W/kg Maximum value of SAR (measured) = 1.47 W/kg







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Date: Dec. 17,2019

Test Laboratory: AGC Lab WCDMA Band II High -Body-Towards Grounds DUT: FH Emergency Medical Device - V1; Type: FH-V1

Communication System: UMTS; Communication System Band: Band II UTRA/FDD ;Duty Cycle:1:1; Frequency: 1907.6 MHz; Medium parameters used: f = 1900 MHz; σ =1.52 mho/m; ϵ r =52.64; ρ = 1000 kg/m³; Phantom section: Flat Section

Ambient temperature (°C):22.7, Liquid temperature (°C): 22.5

DASY Configuration:

• Probe: EX3DV4 - SN:3953; ConvF(8.00, 8.00, 8.00); Calibrated: Sep. 27,2019;

- Sensor-Surface: 3mm (Mechanical Surface Detection), z = 1.0, 31.0
- Electronics: DAE4 SN1398; Calibrated: Feb. 16,2019

• Phantom: SAM (20deg probe tilt) with CRP v5.0; Type: QD000P40CD;

• DASY52 52.8.7(1137); SEMCAD X 14.6.10(7164)

BACK/BACK HIGH Repert /Area Scan (5x7x1): Measurement grid: dx=15mm, dy=15mm Maximum value of SAR (measured) = 1.26 W/kg

BACK/BACK HIGH Repert /Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm Reference Value = 24.639 V/m; Power Drift = 0.01 dB

Peak SAR (extrapolated) = 1.58 W/kg SAR(1 g) = 1.08 W/kg; SAR(10 g) = 0.666 W/kg

Maximum value of SAR (measured) = 1.24 W/kg







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Date: Dec. 17,2019

Test Laboratory: AGC Lab WCDMA Band V Low-Body-Towards Grounds DUT: FH Emergency Medical Device - V1; Type: FH-V1

Communication System: UMTS; Communication System Band: BAND V UTRA/FDD;Duty Cycle:1:1; Frequency: 826.4 MHz; Medium parameters used: f = 835 MHz; σ =0.95 mho/m; ϵ r =54.90; ρ = 1000 kg/m³; Phantom section: Flat Section

Ambient temperature (°C):22.7, Liquid temperature (°C): 22.4

DASY Configuration:

Probe: EX3DV4 - SN:3953; ConvF(10.14, 10.14, 10.14); Calibrated: Sep. 27,2019;

- Sensor-Surface: 3mm (Mechanical Surface Detection), z = 1.0, 31.0
- Electronics: DAE4 SN1398; Calibrated: Feb. 16,2019

• Phantom: SAM (20deg probe tilt) with CRP v5.0; Type: QD000P40CD;

• DASY52 52.8.7(1137); SEMCAD X 14.6.10(7164)

BODY/BACK LOW Repert/Area Scan (5x7x1): Measurement grid: dx=15mm, dy=15mm Maximum value of SAR (measured) = 1.63 W/kg

BODY/BACK LOW Repert/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm Reference Value = 26.946 V/m; Power Drift = -0.57 dB Peak SAR (extrapolated) = 2.56 W/kg

Peak SAR (exitapolated) = 2.50 W/kg

SAR(1 g) = 1.5 W/kg; SAR(10 g) = 0.861 W/kg Maximum value of SAR (measured) = 1.80 W/kg







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APPENDIX C. TEST SETUP PHOTOGRAPHS

Body Back 0mm









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DEPTH OF THE LIQUID IN THE PHANTOM-ZOOM IN

Note : The position used in the measurement were according to IEEE 1528-2013





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APPENDIX D. CALIBRATION DATA

Refer to Attached files.

