Test Report Serial Number:	45461458 R2.0
Test Report Date:	01 November 2018
Project Number:	1417

SAR Test Report - New Certification

Applicant:

Garmin International Inc.
1200 East 151 St.
Olathe, KS, 66062
USA

Maximum Reported 10g SAR			
FCC	Extremity LTE	1.00	W/kg
	Simultaneous	1.17	
General Pop. Limit:		4.00	

FCC ID: **IPH-A3405**

ISED Registration Number: **N/A**

Product Model Number / HVIN: **AA3405**

Product Name / PMN: **AA3405**

In Accordance With:

FCC 47 CFR §2.1093

Radiofrequency Radiation Exposure Evaluation: Portable Devices

Approved By:

Ben Hewson, President
Celltech Labs Inc.
21-364 Lougheed Rd.
Kelowna, BC, V1X 7R8
Canada

Test Lab Certificate: 2470.01

FCC Registration: CA3874

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1.0 DOCUMENT CONTROL

Samples Tested By:	**Trevor Whillock**
Report Prepared By:	**Art Voss**
Report Reviewed By:	**Ben Hewson**

Report Issue Number	Description	By	Report Issue Date
R0.0	Draft	Art Voss	28 September 2018
R1.0	Initial Release	Art Voss	02 October 2018
R2.0	Cover Page - Revised Max SAR to Include Simultaneous SAR	Trevor Whillock	01 November 2018
	Section 3.0 - Revised Scope to include Simultaneous Evaluation		
	Section 11.0 - Added Simultaneous SAR Summation in Scaling Table		
	Section 11.0 - Added kDB Formulas for SAR Test Exclusion and Estimation of SAR		
	Section 8.0- Added SAR Test Exclusion and Simultaneous Considerations as per KDB 447498.		
	Report- Revised Report Dates to Current		

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2.0 CLIENT AND DEVICE INFORMATION

Client Information	
Applicant Name	**Garmin International Inc.**
Applicant Address	1200 East 151 St.
	Olathe, KS,66062
	USA
DUT Information	
Device Identifier(s):	**FCC ID:** **IPH-A3405**
Type of Equipment:	PCS Licensed Transmitter Worn on Body(PCT)
Device Model(s) / HVIN:	AA3405
Device Marketing Name / PMN:	AA3405
Test Sample Serial No.:	T/A Sample - Identical Prototype
Transmit Frequency Range:	LTE (Band 4): 1710 - 1755 MHz
	LTE (Band 13): 775 - 788 MHz
	BT: 2402 - 2480 MHz
	NFC: 13.56 MHz
Number of Channels:	See Section 8.0
Manuf. Max. Rated Output Power:	LTE (Band 4): 23.60dBm Avg; LTE (Band 13): 22dBm Avg
	BT/BLE/ANT: 10.25dBm Avg.
Modulation:	LTE: QPSK
	BT/BLE/ANT: BT(BR-GFSK), BLE(GMSK), ANT GFSK, BT-2EDR(PI/4 DQPSK)
Duty Cycle:	100.0%
DUT Power Source:	4.35V USB, Internal Li-ion battery
Deviation(s) from standard/procedure:	None
Modification of DUT:	None

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3.0 SCOPE OF EVALUATION

The AA3504, FCC ID: IPH-A3504 is a wrist-worn transceiver with three transmitters, one that operates in LTE (Band 4 and Band 13), one for Bluetooth and one for NFC. The transceiver is capable of simultaneous transmission combinations between the LTE and Bluetooth or LTE and BLE/ANT transmitters.The device is intended for General Population Use. The product operates from an internal proprietary Li-ion rechargeable battery which can be connected to a compliant USB interface port, AC or DC adapter for charging. Test samples provided by the manufacturer were capable of transmitting at select frequencies and modulations preset by the manufacturer. An additional antenna modification was prepared for one sample allowing the ability to connect test equipment for antenna port conducted power analysis. The DUT was evaluated for SAR at the maximum conducted output power level, preset by the manufacturer and in accordance with the procedures described in FCC KDB 865646, 447498, 941225D05, and IEEE 1528.

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4.0 NORMATIVE REFERENCES

Normative References*	
ANSI / ISO 17025:2017	General Requirements for competence of testing and calibration laboratories
FCC CFR Title 47 Part 2	Code of Federal Regulations
Title 47:	Telecommunication
Part 2.1093:	Radiofrequency Radiation Exposure Evaluation: Portable Devices
Health Canada	
Safety Code 6 (2015)	Limits of Human Exposure to Radiofrequency Electromagnetic Energy in the Frequency Range from 3kHz to 300GHz
Industry Canada Spectrum Management & Telecommunications Policy	
RSS-102 Issue 5:	Radio Frequency Exposure Compliance of Radiocommunication Apparatus (All Frequency Bands)
IEEE International Committee on Electromagnetic Safety	
IEEE 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
IEC International Standard	
IEC 62209-2 2010	Human exposure to radio frequency fields from hand-held and body-mounted wireless communication devices - Part 2
FCC KDB	
KDB 865664 D01v01r04	SAR Measurement Requirements for 100MHz to 6GHz
FCC KDB	
KDB 447498 D01v06	Mobile and Portable Devices RF Exposure Procedures and Equipment Authorization Policies
FCC KDB	
KDB 941225Dv02r05	SAR Procedures for LTE Devices

* When the issue number or issue date is omitted, the latest version is assumed.

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5.0 STATEMENT OF COMPLIANCE

This measurement report demonstrates that samples of the product model(s) were evaluated for Specific Absorption Rate (SAR) on the date(s) shown, in accordance with the Measurement Procedures cited and were found to comply with the Standard(s) Applied based on the Exposure Limits of the Use Group indicated for which the product is intended to be used.

Applicant:	Model / HVIN:	
Garmin International Inc.	AA3405	
Standard(s) Applied:	**Measurement Procedure(s):**	
FCC 47 CFR §2.1093	FCC KDB 865664, FCC KDB 447498, FCC KDB 941225D05 IEEE Standard 1528-2013	
Reason For Issue:	**Use Group:**	**Limits Applied:**
[x] New Certification	[x] General Population / Uncontrolled	[ ] 1.6W/kg - 1g Volume
[ ] Class I Permissive Change		[ ] 8.0W/kg - 1g Volume
[ ] Class II Permissive Change	[ ] Occupational / Controlled	[x] 4.0W/kg - 10g Volume
Reason for Change:		**Date(s) Evaluated:**
Original Filing		September 12-14th & 17th 2018

The results of this investigation are based solely on the test sample(s) provided by the applicant which was not adjusted, modified or altered in any manner whatsoever except as required to carry out specific tests or measurements. A description of the device, operating configuration, detailed summary of the test results, methodologies and procedures used during this evaluation, the equipment used and the various provisions of the rules are included in this test report.

I attest that the data reported herein is true and accurate within the tolerance of the Measurement Instrument Uncertainty; that all tests and measurements were performed in accordance with accepted practices or procedures; and that all tests and measurements were performed by me or by trained personnel under my direct supervision. The results of this investigation are based solely on the test sample(s) provided by the client which were not adjusted, modified or altered in any manner whatsoever, except as required to carry out specific tests or measurements. This test report has been completed in accordance with ISO/IEC 17025.

Art Voss, P.Eng.
Technical Manager
Celltech Labs Inc.
01 November 2018
Date

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6.0 SAR MEASUREMENT SYSTEM

SAR Measurement System

Celltech Labs Inc. SAR measurement facility employs a Dosimetric Assessment System (DASY™) manufactured by Schmid & Partner Engineering AG (SPEAG™) of Zurich, Switzerland. The DASY6 measurement system is comprised of the measurement server, a robot controller, a computer, a near-field probe, a probe alignment sensor, an Elliptical Planar Phantom (ELI) phantom and a specific anthropomorphic mannequin (SAM) phantom for Head and/or Body SAR evaluations. The robot is a six-axis industrial robot performing precise movements to position the probe to the location (points) of maximum electromagnetic field (EMF). A cell controller system contains the power supply, robot controller and a teach pendant (Joystick) to control the robot's servo motors. The Staubli robot is connected to the cell controller to allow software manipulation of the robot. A data acquisition electronic (DAE) circuit performs the signal amplification, signal multiplexing, AD-conversion, offset measurements, mechanical surface detection, collision detection, etc. is connected to the Electro-optical coupler (EOC). The EOC performs the conversion from the optical form the DAE to digital electronic signal and transfers data to the DASY6 measurement server. The DAE4 utilizes a highly sensitive electrometer-grade preamplifier with auto-zeroing, a channel and gain-switching multiplexer, a fast 16-bit AD-converter, a command decoder and a control logic unit. Transmission to the DASY6 measurement server is accomplished through an optical downlink for data and status information and an optical uplink for commands and clock lines. The mechanical probe-mounting device includes two different sensor systems for frontal and sidewise probe contacts. The sensor systems are also used for mechanical surface detection and probe collision detection. The robot utilizes a controller with built in VME-bus computer.

DASY 6 SAR System with SAM Phantom

DASY 6 Measurement Controller

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7.0 RF CONDUCTED POWER MEASUREMENT

Table 7.0 Conducted Power Measurements LTE Band 4

Conducted Power Measurements									
Channel	Frequency (MHz)	Measured Power (dBm)	Rated Power (dBm)	Rated Power (W)	Delta (dBm)	SAR Test Channel (Y/N)	BW (MHz)	No. RB	RB Offset
LTE Band 4									
20050	1720.00	23.20	23.60	0.23	-0.40				L
20050	1720.00	23.40	23.60	0.23	-0.20				M
20050	1720.00	23.30	23.60	0.23	-0.30				H
20175	1732.50	23.60	23.60	0.23	0.00				L
20175	1732.50	23.60	23.60	0.23	0.00	Y		1	M
20175	1732.50	23.60	23.60	0.23	0.00				H
20300	1745.00	23.30	23.60	0.23	-0.30				L
20300	1745.00	23.20	23.60	0.23	-0.40				M
20300	1745.00	23.00	23.60	0.23	-0.60				H
20050	1720.00	21.95	23.60	0.23	-1.65			12	L
20050	1720.00	22.00	23.60	0.23	-1.60		20	12	H
20050	1720.00	22.00	23.60	0.23	-1.60			25	L
20050	1720.00	22.00	23.60	0.23	-1.60			25	H
20175	1732.50	22.00	23.60	0.23	-1.60	Y		12	L
20175	1732.50	21.90	23.60	0.23	-1.70			12	H
20175	1732.50	21.95	23.60	0.23	-1.65	Y		25	L
20175	1732.50	21.90	23.60	0.23	-1.70			25	H
20300	1745.00	21.80	23.60	0.23	-1.80			12	L
20300	1745.00	21.80	23.60	0.23	-1.80			12	H
20300	1745.00	21.90	23.60	0.23	-1.70			25	L
20300	1745.00	21.80	23.60	0.23	-1.80			25	H
20025	1717.50	23.10	23.60	0.23	-0.50				L
20025	1717.50	23.00	23.60	0.23	-0.60				M
20025	1717.50	23.00	23.60	0.23	-0.60				H
20175	1732.50	23.60	23.60	0.23	0.00				L
20175	1732.50	23.60	23.60	0.23	0.00		15	1	M
20175	1732.50	23.60	23.60	0.23	0.00				H
20325	1747.50	23.00	23.60	0.23	-0.60				L
20325	1747.50	22.80	23.60	0.23	-0.80				M
20325	1747.50	22.80	23.60	0.23	-0.80				H
20000	1715.00	23.10	23.60	0.23	-0.50				L
20000	1715.00	23.00	23.60	0.23	-0.60				M
20000	1715.00	23.30	23.60	0.23	-0.30				H
20175	1732.50	23.20	23.60	0.23	-0.40				L
20175	1732.50	23.00	23.60	0.23	-0.60		10	1	M
20175	1732.50	23.10	23.60	0.23	-0.50				H
20325	1747.50	23.10	23.60	0.23	-0.50				L
20325	1747.50	23.00	23.60	0.23	-0.60				M
20325	1747.50	23.10	23.60	0.23	-0.50				H
19975	1712.50	23.10	23.60	0.23	-0.50				L
19975	1712.50	23.20	23.60	0.23	-0.40				M
19975	1712.50	23.20	23.60	0.23	-0.40				H
20175	1732.50	23.10	23.60	0.23	-0.50				L
20175	1732.50	23.20	23.60	0.23	-0.40		5	1	M
20175	1732.50	23.20	23.60	0.23	-0.40				H
20375	1752.50	23.10	23.60	0.23	-0.50				L
20375	1752.50	23.10	23.60	0.23	-0.50				M
20375	1752.50	23.10	23.60	0.23	-0.50				H

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Table 7.1 Conducted Power Measurements LTE Band 13

Conducted Power Measurements									
Channel	Frequency (MHz)	Measured Power (dBm)	Rated Power (dBm)	Rated Power (W)	Delta (dBm)	SAR Test Channel (Y/N)	BW (MHz)	No. RB	RB Offset
LTE Band 13									
23230	782.00	21.70	22.00	0.16	-0.30		10	1	L
23230	782.00	22.00	22.00	0.16	0.00	Y			M
23230	782.00	20.22	22.00	0.16	-1.78				H
23230	782.00	20.10	22.00	0.16	-1.90	Y		25	L
23230	782.00	19.70	22.00	0.16	-2.30			25	H
23230	782.00	19.95	22.00	0.16	-2.05			50	L
23230	782.00	19.90	22.00	0.16	-2.10			50	H
23205	779.50	21.70	22.00	0.16	-0.30		5	1	L
23205	779.50	21.30	22.00	0.16	-0.70				M
23205	779.50	21.70	22.00	0.16	-0.30				H
23230	782.00	21.30	22.00	0.16	-0.70				L
23230	782.00	20.40	22.00	0.16	-1.60				M
23230	782.00	19.70	22.00	0.16	-2.30				H
23255	784.50	21.10	22.00	0.16	-0.90				L
23255	784.50	20.60	22.00	0.16	-1.40				M
23255	784.50	21.00	22.00	0.16	-1.00				H
23230	782.00	19.80	22.00	0.16	-2.20			12	L
23230	782.00	19.30	22.00	0.16	-2.70			12	H
23230	782.00	19.80	22.00	0.16	-2.20			25	L
23230	782.00	19.70	22.00	0.16	-2.30			25	H

Note: LTE Band 13 at 5 MHz bandwidth and LTE Band 4 at 20MHz bandwidth do not support three non-overlapping channels. Per KDB 941225 D05v02, when a device supports overlapping channel assignment in a channel bandwidth configuration, the middle channel of the group of overlapping channels should be selected for testing. A calibrated and properly configured base station was used for measuring conducted power.

Lower bandwidth 3MHz and 1.4MHz channels for LTE Band 4 are not supported by the network provider Verizon Wireless and therefore could not be evaluated for SAR. This device will only be capable of connecting to Verizon wireless.

Table 7.2 Conducted Power Measurements BlueTooth

Conducted Power Measurements								
Channel	Frequency (MHz)	Power (dBm)	Rated Power (dBm)	Rated Power (W)	Delta (dBm)	Channel (Y/N)	MODE	Modulation
2	2402	10.25	10.25	0.011	10.239	–	BT	BR-GFSK
		10.23	10.25	0.011	10.239	–		LE-BLE,GMSK
		5.45	5.45	0.004	5.446	–		BT-2EDR
		10.25	10.25	0.011	10.239	–		ANT-GFSK
41	2441	9.79	10.25	0.011	10.239	–		BR-GFSK
80	2480	9.34	10.25	0.011	10.239	–		BR-GFSK

The rated power and tolerance are stated for typical transmission modes and data rates. Some modes and data rates may produce lower than rated conducted power levels. Power measurements taken across the various channels, modes and data rates did not produce levels in excess of the Rated Average Power plus Tolerance. The *reported* SAR was not scaled down.

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8.0 NUMBER OF TEST CHANNELS (N_C) AND CONFIGURATIONS

As per FCC KDB 941225,

Required RB Allocation and RB Offsets for SAR Testing for QPSK

According to FCC KDB 941225 D05v02r05:
Per Section 5.2.1, SAR is required for QPSK 1 RB Allocation for the largest bandwidth

i. The required channel and offset combination with the highest maximum output power is required for SAR.

ii. When the reported SAR is ≤ 0.8 W/kg for FDD and ≤ 0.6 W/kg for TDD, testing of the remaining RB offset configurations and required test channels is not required. Otherwise, SAR is required for the remaining required test channels using the RB offset configuration with highest output power for that channel.

iii. When the reported SAR for a required test channel is > 1.45 W/kg, SAR is required for all RB offset configurations for that channel.

b. Per Section 5.2.2, SAR is required for 50% RB allocation using the largest bandwidth following the same procedures outlined in Section 5.2.1.

c. Per Section 5.2.3, QPSK SAR is not required for the 100% allocation when the highest maximum output power for the 100% allocation is less than the highest maximum output power of the 1 RB and 50% RB allocations and the reported SAR for the 1 RB and 50% RB allocations is < 0.8 W/kg.

d. Per Section 5.2.4 and 5.3, SAR tests for higher order modulations and lower bandwidths configurations are not required when the conducted power of the required test configurations determined by Sections 5.2.1 through 5.2.3 is less than or equal to ½ dB higher than the equivalent configuration using QPSK modulation and when the QPSK SAR for those configurations is <1.45 W/kg.

Note: The device was not capable of higher order modulations and limited to QPSK modulation only. LTE bandwidth for Band 4 and 13 did not support three non-overlapping channels. Per KDB 941225 D05v02, when a device supports overlapping channel assignment in a channel bandwidth configuration, the middle channel of the group of overlapping channels should be selected for testing.

Lower bandwidth 3MHz and 1.4MHz channels for LTE Band 4 are not supported by the network provider Verizon Wireless and therefore could not be evaluated for SAR. This device will only be capable of connecting to Verizon wireless.

As Per KDB 447498 4.3.1

General SAR test exclusion guidance

The Bluetooth transmitter meets standalone SAR test exclusion. See 11.0 for details.

As Per KDB 447498 4.3.2

Simultaneous transmission SAR test exclusion considerations

The NFC and the LTE transmitter are not capable of simultaneous transmission; however, the device is capable of simultaneous transmission combinations between the LTE and Bluetooth or LTE and BLE/ANT transmitters. See 11.0 for details.

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9.0 ACCESSORIES EVALUATED

Table 9.0 Accessories Evaluated

Manufacturer's Accessory List						
Test Report ID Number	**Manufacturer's Part Number**	**Description**	**UDC Group(1)**	**Type II Group(2)**	**SAR(3) Evaluated**	**SAR(4) Tested**
B1	011-04533-01	Black Silicone Wrist Band	**n/a**	**n/a**	**Y**	**Y**
P1	362-00087-00	AC Adapter, 5.0V, 1.0A, USB-A Recpt	**n/a**	**n/a**	**n/a**	**n/a**
P2	010-12491-01	CA Assy, Plug Charger	**n/a**	**n/a**	**n/a**	**n/a**

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10.0 SAR MEASUREMENT SUMMARY

Table 10.0: Measured Results

Measured SAR Results (10g) - EXTREMITY(FCC)														
Date	Plot ID #	DUT Model	Test Position	Test Freq.	Modulation	Accessories				DUT Spacing		Meas. Cond. Power	Measured SAR 10g	SAR Drift
						Antenna ID	Battery ID	Body ID	Audio ID	DUT	Antenna			
				(MHz)						(mm)	(mm)	(dBm)	(W/kg)	(dB)
EXTREMITY FCC-LET Band 13														
13 Sep 2018	B1 *	AA3405	Back Side	782	QPSK,1RB,RB Offset MID	n/a	n/a	B1	n/a	0	0	22.00	**0.425**	-0.470
13 Sep 2018	B2*	AA3405	Back Side	782	QPSK,25 RB,RB Offset LOW	n/a	n/a	B1	n/a	0	0	21.30	0.344	-0.350
EXTREMITY FCC-LET Band 4														
14 Sep 2018	B3**	AA3405	Back Side	1732.5	QPSK,1RB,RB Offset MID	n/a	n/a	B1	n/a	0	0	23.60	**0.996**	0.060
17 Sep 2018	B4***	AA3405	Back Side	1732.5	QPSK,12 RB,RB Offset LOW	n/a	n/a	B1	n/a	0	0	22.00	0.958	0.730
17 Sep 2018	B5****	AA3405	Back Side	1732.5	QPSK,25 RB,RB Offset LOW	n/a	n/a	B1	n/a	0	0	21.95	0.797	0.200
SAR Limit							**Spatial Peak**					**RF Exposure Category**		
FCC 47 CFR 2.1093							**Extremity**	**10g Average**		**4.0 W/kg**		**General Population**		

Reference Section 8.0 for details

Per KDB 941225
*If 10g SAR ≤ 0.8W/kg. No further testing of required test channels or Offsets.
**If 10g SAR > 0.8W/kg. No further testing of required test channels due to the band not supporting overlapping channels. SAR ≤ 1.45, No other RB offset testing required
***If 10g SAR > 0.8W/kg.Test MID channel at 100% RB allocation. No further testing of required test channels due to the band not supporting overlapping channels.
****10g SAR ≤ 1.45W/kg. No further testing of required test channels due to the band not supporting overlapping channels. No further testing of RB offset required.

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11.0 SCALING OF MAXIMUM MEASURE SAR

Table 11.0 SAR Scaling

Scaling of Maximum Measured SAR [1]								
		Freq	Measured Fluid Deviation		Measured Conducted Power	Measured Drift	Measured SAR (10g)
Plot ID	Configuration	(MHz)	Permittivity	Conductivity	(dBm)	(dB)	(W/kg)
B3	Extremity	1732.5	-1.20%	2.03%	23.6	0.060	0.996

Step 1					
Fluid Sensitivity Adjustment					
	Scale Factor		Measured SAR		Step 1 Adjusted SAR (10g)
Plot ID	(%)	x	(W/kg)	=	(W/kg)
B3	n/a	x	0.996	=	0.996

Step 2							
Manufacturer's Tune-Up Tolerance							
	Measured Conducted Power	Rated Power	Delta		Step 1 Adjusted SAR		Step 2 Adjusted SAR (10g)
Plot ID	(dBm)	(dBm)	(dB)	+	(W/kg)	=	(W/kg)
B3	23.6	23.6	0.0	+	0.996	=	0.996

Step 3 (ISED)					
Drift Adjustment					
	Measured Drift		Step 2 Adjusted SAR		Step 3 Adjusted SAR (10g)
Plot ID	(dB)	+	(W/kg)	=	(W/kg)
B3	0.060	+	0.996	=	0.996

Step 4 (FCC)								
Simultaneous Transmission - Bluetooth and/or WiFi								
	Rated Output Power (Pmax)	Freq	Separation Distance	Estimated SAR SAR		Step 2 Adjusted SAR		Step 4 Adjusted SAR (10g)
Plot ID	(mW)	(MHz)	(mm)	(W/kg)	+	(W/kg)	=	(W/kg)
B3*	10.59	2402	0	0.175	+	0.996	=	1.171

Step 5		
Reported SAR		
	FCC From Steps 1, 2 and 4	ISED From Steps 1 through 3
Plot ID	10g SAR (W/kg)	10g SAR (W/kg)
B3	0.996	n/a
Simultaneous	1.171	n/a

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The SAR test exclusion threshold for the Bluetooth transmitter as per FCC KDB 447498 4.3.1 is as follows:

[(*max. power of channel, including tune-up tolerance, mW*) / (*min. test separation distance, mm*)] X [√f(GHz)] ≤ 18.75 for 10-g SAR

[(10.59)/(5)] X [√2.402] = 3.28 ≤ 7.5

Where:
max.power of channel, including tune-up tolerance, mW = 10.26mW
min. test separation distance, mm = 5mm
f(GHz) = 2.402GHz

Therefore the Bluetooth transmitter meets SAR test exclusion.

* Note this transceiver is capable of simultaneous transmission combinations between the LTE and Bluetooth or LTE and BLE/ANT transmitters.

When an antenna qualifies for the standalone SAR test exclusion of 4.3.1 and also transmits simultaneously with other antennas, the standalone SAR value must be estimated according to the following to determine the simultaneous transmission SAR test exclusion

[(max. power of channel, including tune-up tolerance, mW) / (min. test separation distance, mm)]·[√f(GHz)/x] W/kg, for test separation distances ≤ 50 mm; where x = 7.5 for 1-g SAR and x = 18.75 for 10-g SAR.

Where:
max.power of channel, including tune-up tolerance, mW = 10.26mW
min. test separation distance, mm = 5mm
f(GHz) = 2.402GHz

[(10.59)/(5)] X [√2.402/18.75] = 0.175 W/kg

Therefore the estimated SAR value for the Bluetooth transmitter is 0.175W/kg

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NOTES to Table 11.0
(1) Scaling of the Maximum Measured SAR is based on the highest, 100% duty cycle, Face, Body and/or Head SAR measured of ALL test channels, configurations and accessories used during THIS evaluation. The Measured Fluid Deviation parameters apply only to deviation of the tissue equivalent fluids used at the frequencies which produced the highest measured SAR. The Measured Conducted Power applies to the Conducted Power measured at the frequencies producing the highest Face and Body SAR. The Measured Drift is the SAR drift associated with that specific SAR measurement. The Reported SAR is the accumulation of all SAR Adjustments from the applicable Steps 1 through 4. The Plot ID is for indentification of the SAR Measurement Plots in Annex A of this report. NOTE: Some of the scaling factors in Steps 1 through 4 may not apply and are identified by light gray text.
Step 1
Per IEC-62209-1 and FCC KDB 865664. Scaling required only when Measured Fluid Deviation is greater than 5%. If the Measured Fluid Deviation is greater than 5%, Table 9.1 will be shown and will indicate the SAR scaling factor in percent (%). SAR is MULTIPLIED by this scaling factor only when the scaling factor is positive (+).
Step 2
Per KDB 447498. Scaling required only when the difference (Delta) between the Measured Conducted Power and the Manufacturer's Rated Conducted Power is (-) Negative. The absolute value of Delta is ADDED to the SAR.
Step 3
Per IEC 62209-1. Scaling required only when Measured Drift is (-) Negative. The absolute value of Measured Drift is added to Reported or Simultaneous Reported SAR.
Step 4
Per KDB 447498 4.3.2. The SAR, either measured or calculated, of ANY and ALL simultaneous transmitters must be added together and includes all contributors.
Step 5
The Reported SAR is the Maximum Final Adjusted Cumulative SAR from the applicable Steps 1 through 4 and are reported on Page 1 of this report.

I attest that the data reported herein is true and accurate within the tolerance of the Measurement Instrument Uncertainty; that all tests and measurements were performed in accordance with accepted practices or procedures; and that all tests and measurements were performed by me or by trained personnel under my direct supervision. The results of this investigation are based solely on the test sample(s) provided by the client which were not adjusted, modified or altered in any manner whatsoever, except as required to carry out specific tests or measurements. This test report has been completed in accordance with ISO/IEC 17025.	 Trevor Whillock Test Lab Engineer Celltech Labs Inc. 01 November 2018 Date

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12.0 SAR EXPOSURE LIMITS

Table 12.0 Exposure Limits

SAR RF EXPOSURE LIMITS			
FCC 47 CFR§2.1093	Health Canada Safety Code 6	General Population / Uncontrolled Exposure(4)	Occupational / Controlled Exposure(5)
Spatial Average(1) (averaged over the whole body)		0.08 W/kg	0.4 W/kg
Spatial Peak(2) (Head and Trunk averaged over any 1 g of tissue)		1.6 W/kg	8.0 W/kg
Spatial Peak(3) (Hands/Wrists/Feet/Ankles averaged over 10 g)		**4.0 W/kg**	20.0 W/kg
(1) The Spatial Average value of the SAR averaged over the whole body.			
(2) The Spatial Peak value of the SAR averaged over any 1 gram of tissue, defined as a tissue volume in the shape of a cube and over the appropriate averaging time.			
(3) The Spatial Peak value of the SAR averaged over any 10 grams of tissue, defined as a tissue volume in the shape of a cube and over the appropriate averaging time.			
(4) Uncontrolled environments are defined as locations where there is potential exposure to individuals who have no knowledge or control of their potential exposure.			
(5) Controlled environments are defined as locations where there is potential exposure to individuals who have knowledge of their potential exposure and can exercise control over their exposure.			

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13.0 DETAILS OF SAR EVALUATION

13.0 Day Log

DAY LOG							
Date	Ambient Temp °C	Fluid Temp °C	Humidity	TSL	Fluid Dielectric	SPC	Test
Sep 12 2018	25	23.9	27%	835	X	X	
Sep 13 2018	23	23.4	26%	835			X
Sep 14 2018	25	23.3	25%	1800	X	X	X
Sep 17 2018	21	23.9	29%	1800			X

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13.1 DUT Setup and Configuration

DUT Setup and Configuration	
1	The DUT was evaluated for SAR in accordance with the procedures described in IEEE 1528, FCC KDB 865646,447498, and 941225D05. As per KDB 941225D05, a calibrated and properly configured basestation was utilized for Conducted Power measurments and SAR Test evaluation .The device was evaluated at a phantom separation distance of 0mm.
2	The device was not capable of tranmitting in higher order modulations and was limited to QPSK modulation only. LTE bandwidth for Band 4 and 13 did not support three non-overlapping channels.Per KDB 941225 D05v02, when a device supports overlapping channel assignment in a channel bandwidth configuration, the middle channel of the group of overlapping channels should be selected for testing. Lower bandwidth 3MHz and 1.4MHz channels for LTE Band 4 are not supported by the network provider Verizon Wireless and therefore could not be evaluated for SAR.This device will only be capable of connecting to Verizon Wireless.
3	The Bluetooth transmitter meets standalone SAR test exclusion. See 11.0 for details. The NFC and the LTE transmitter are not capable of simultaneous transmission; however, the device is capable of simultaneous transmission combinations between the LTE and Bluetooth or LTE and BLE/ANT transmitters. See 11.0 for details.This device is a wrist-worn device intended to be worn on the wrist with the back side of the device in contact with the human skin. The device was evaluated for extremity SAR at a separation
4	The DUT was evaluated for SAR at the maximum conducted output power level, preset by the manufacturer.Each SAR evaluation was performed with a fully charged battery.

13.2 DUT Positioning

DUT Positioning
Positioning
The DUT Positioner was securely fastened to the Phantom Platform. Registration marks were placed on the DUT and the Positioner to ensure consistent positioning of the DUT for each test evaluation.
FACE Configuration
This device is not intended to be held to the face and was not tested in the FACE configuration.
BODY Configuration
The DUT was securely clamped into the device holder with the surface of the DUT normally in contact with the body in direct contact with the bottom of the phantom, or 0mm separation from the DUT's accessory to the phantom surface.
HEAD Configuration
This device is not intended to be held to the ear and was not tested in the HEAD configuration.
Limb Worn Configuration
The DUT was positioned with the back side directly againts the phantom surface with the strap opened to allow direct contact or 0mm of the DUT and watch band to the phantom surface.

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13.3 General Procedures and Report

General Procedures and Reporting
General Procedures
The fluid dielectric parameters of the Active Tissue Simulating Liquid (TSL) were measured as described in this Section, recorded and entered into the DASY Measurement Server. Active meaning the TSL used during the SAR evaluation of the DUT. The temperature of the Active TSL was measured and recorded prior to performing a System Performance Check (SPC). An SPC was performed with the Active TSL prior to the start of the test series. The temperature of the Active TSL was measured throughout the day and the Active TSL temperature was maintained to ± 0.5°C. The Active TSL temperature was maintained to within ±1.0°C throughout the test series. TSL analysis and SPC were repeated when the Active TSL use exceeded 84 hours. An Area Scan exceeding the length and width of the DUT projection was performed and the locations of all maximas within 2dB of the Peak SAR recorded. A Zoom Scan centered over the Peak SAR location(s) was performed and the 1g and 10g SAR values recorded. The resolutions of the Area Scan and Zoom Scan are described in the Scan Resolution table(s) in this Section. A Power Reference Measurement was taken at the phantom reference point immediately prior to the Area Scan. A Power Drift measurement was taken at the phantom reference point immediately following the Zoom Scan to determine the power drift. A Z-Scan from the *Maximum Distance to Phantom Surface* to the fluid surface was performed following the power drift measurement.
Reporting
The 1g SAR, 10g SAR and power drift measurements are recorded in the SAR Measurement Summary tables in the SAR Measurement Summary Section of this report. The SAR values shown in the 100% DC (Duty Cycle) column are the SAR values reported by the SAR Measurement Server with the DUT operating at 100% transmit duty cycle. These tables also include other information such as transmit channel and frequency, modulation, accessories tested and DUT-phantom separation distance. In the Scaling of Maximum Measured SAR Section of this report, the highest measured SAR in the BODY configuration, within the entire scope of this assessment, are, when applicable, scaled for Fluid Sensitivity, Manufacturer's Tune-Up Tolerance, Simultaneous Transmission and Drift. With the exception of Duty Cycle correction/compensation, SAR values are ONLY scaled up, not down. The final results of this scaling is the *reported SAR* which appears on the Cover Page of this report.

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13.4 Fluid Dielectric and Systems Performance Check

Fluid Dielectric and Systems Performance Check
Fluid Dielectric Measurement Procedure
The fluid dielectric parameters of the Tissue Simulating Liquid (TSL) are measured using the Open-Ended Coax Method connected to an Agilent 8753ET Network Analyzer connected to a measurement server running Aprel Dielectric Property Measurement System. A frequency range of ± 100MHz for frequencies > 300MHz and ± 50MHz for frequencies ≤ 300MHz with frequency step size of 10MHz is used. The center frequency is centered around the SAR measurement probe's calibration point for that TSL frequency range. A calibration of the setup is performed using a short-open-deionized water (at 23°C in a 300ml beaker) method. A sample of the TSL is placed in a 300ml beaker and the open-ended coax is submerged approximately 8mm below the fluid surface in the approximate center of the beaker. A check of the setup is made to ensure no air is trapped under the open-ended coax. The sample of TSL is measured and compared to the FCC KDB 865664 targets for HEAD or BODY for the entire fluid measurement range. Fluid adjustment are made if the dielectric parameters are > 5% in range that the DUT is to be tested. If the adjustments fail to bring the parameters to ≤ 5% but are < 10%, the SAR Fluid Sensitivity as per IEC 62201-1 and FCC KDB 865664 are applied to the highest measured SAR. A TSL with dielectric parameters > 10% in the DUT test frequency range are not used.
Systems Performance Check
The fluid dielectric parameters of the Active TSL are entered into the DASY Measurement Server at each of the 10MHz step size intervals. Active meaning the TSL used during the SAR evaluation of the DUT. The DASY Measurement System will automatically interpolate the dielectric parameters for DUT test frequencies that fall between the 10MHz step intervals. A Systems Performance Check (SPC) is performed in accordance with IEEE 1528 "System Check" and FCC KDB 865664 "System Verification". A validation source, dipole or Confined Loop Antenna (CLA), is placed under the geometric center of the phantom and separated from the phantom in accordance to the validation source's Calibration Certificate data. A CW signal set to the frequency of the validate source's and SAR measurement probe's calibration frequency with a forward power set to the validation source's Calibration Certificate data power setting is applied to the validation source. An Area Scan is centered over the projection of the validation source's feed point and an Area Scan is taken. A Zoom Scan centered over the Peak SAR measurement of the Area Scan and the 1g and 10g SAR is measured. The measured 1g and 10g SAR is compared to the 1g and 10g SAR measurements from the validation source's Calibration Certificate. When required, the measured SAR is normalized to 1.0W and compared to the normalized SAR indicated on the validation source's Calibration Certificate. The SPC is considered valid when the measured and normalized SAR is ≤ 10% of the measured and normalize SAR of the validation source's Calibration Certificate. The fluid dielectric parameters of the Active TSL and SPC are repeated when the Active TSL has been in use for greater than 84 hours or if the Active TSL temperature has exceed ± 1°C of the initial fluid analysis.

13.5 Scan Resolution 100MHz to 2GHz

Scan Resolution 100MHz to 2GHz	
Maximum distance from the closest measurement point to phantom surface: (Geometric Center of Probe Center)	**4 ± 1 mm**
Maximum probe angle normal to phantom surface. (Flat Section ELI Phantom)	**5° ± 1°**
Area Scan Spatial Resolution ΔX, ΔY	**15 mm**
Zoom Scan Spatial Resolution ΔX, ΔY	**7.5 mm**
Zoom Scan Spatial Resolution ΔZ (Uniform Grid)	**5 mm**
Zoom Scan Volume X, Y, Z	**30 mm**
Phantom	**ELI**
Fluid Depth	**150 ± 5 mm**
An Area Scan with an area extending beyond the device was used to locate the candidate maximas within 2dB of the global maxima.	
A Zoom Scan centered over the peak SAR location(s) determined by the Area Scan was used to determine the 1-gram and 10-gram peak spatial-average SAR	

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13.6 Scan Resolution 2GHz to 3GHz

Scan Resolution 2GHz to 3GHz	
Maximum distance from the closest measurement point to phantom surface: (Geometric Center of Probe Center)	**4 ± 1 mm**
Maximum probe angle normal to phantom surface. (Flat Section ELI Phantom)	**5° ± 1°**
Area Scan Spatial Resolution ΔX, ΔY	**12 mm**
Zoom Scan Spatial Resolution ΔX, ΔY	**5 mm**
Zoom Scan Spatial Resolution ΔZ (Uniform Grid)	**5 mm**
Zoom Scan Volume X, Y, Z	**30 mm**
Phantom	**ELI**
Fluid Depth	**150 ± 5 mm**
An Area Scan with an area extending beyond the device was used to locate the candidate maximas within 2dB of the global maxima.	
A Zoom Scan centered over the peak SAR location(s) determined by the Area Scan was used to determine the 1-gram and 10-gram peak spatial-average SAR	

13.7 Scan Resolution 5GHz to 6GHz

Scan Resolution 5GHz to 6GHz	
Maximum distance from the closest measurement point to phantom surface: (Geometric Center of Probe Center)	**4 ± 1 mm**
Maximum probe angle normal to phantom surface. (Flat Section ELI Phantom)	**5° ± 1°**
Area Scan Spatial Resolution ΔX, ΔY	**10 mm**
Zoom Scan Spatial Resolution ΔX, ΔY	**4 mm**
Zoom Scan Spatial Resolution ΔZ (Uniform Grid)	**2 mm**
Zoom Scan Volume X, Y, Z	**22 mm**
Phantom	**ELI**
Fluid Depth	**100 ± 5 mm**
An Area Scan with an area extending beyond the device was used to locate the candidate maximas within 2dB of the global maxima.	
A Zoom Scan centered over the peak SAR location(s) determined by the Area Scan was used to determine the 1-gram and 10-gram peak spatial-average SAR	

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14.0 MEASUREMENT UNCERTAINTIES

Table 14.0 Measurement Uncertainty

UNCERTAINTY BUDGET FOR DEVICE EVALUATION (IEEE 1528-2013 Table 9)									
Uncertainty Component	**IEEE 1528 Section**	**Uncertainty Value ±%**	**Probability Distribution**	**Divisor**	**ci 1g**	**ci 10g**	**Uncertainty Value ±% (1g)**	**Uncertainty Value ±% (10g)**	**V_i or V_{eff}**
Measurement System									
Probe Calibration*	E.2.1	6.6	Normal	1	1	1	6.60	6.60	∞
Axial Isotropy*	E.2.2	4.7	Rectangular	1.732050808	0.7	0.7	1.9	1.9	∞
Hemispherical Isotropy*	E.2.2	9.6	Rectangular	1.732050808	0.7	0.7	3.9	3.9	∞
Boundary Effect*	E.2.3	8.3	Rectangular	1.732050808	1	1	4.8	4.8	∞
Linearity*	E.2.4	4.7	Rectangular	1.732050808	1	1	2.7	2.7	∞
System Detection Limits*	E.2.4	1.0	Rectangular	1.732050808	1	1	0.6	0.6	∞
Modulation Response	E.2.5	4.0	Rectangular	1.732050808	1	1	2.3	2.3	∞
Readout Electronics*	E.2.6	1.0	Normal	1	1	1	1.0	1.0	∞
Response Time*	E.2.7	0.8	Rectangular	1.732050808	1	1	0.5	0.5	∞
Integration Time*	E.2.8	1.4	Rectangular	1.732050808	1	1	0.8	0.8	∞
RF Ambient Conditions - Noise	E.6.1	0.0	Rectangular	1.732050808	1	1	0.0	0.0	∞
RF Ambient Conditions - Reflection	E.6.1	0.0	Rectangular	1.732050808	1	1	0.0	0.0	∞
Probe Positioner Mechanical Tolerance*	E.6.2	0.4	Rectangular	1.732050808	1	1	0.2	0.2	∞
Probe Positioning wrt Phantom Shell*	E.6.3	2.9	Rectangular	1.732050808	1	1	1.7	1.7	∞
Extrapolation, interpolation & integration algorithms for max. SAR evaluation*	E.5	3.9	Rectangular	1.732050808	1	1	2.3	2.3	∞
Test Sample Related									
Test Sample Positioning	E.4.2	0.3	Normal	1	1	1	0.3	0.3	5
Device Holder Uncertainty*	E.4.1	3.6	Normal	1	1	1	3.6	3.6	∞
SAR Drift Measurement**	E.2.9	0.0	Rectangular	1.732050808	1	1	0.0	0.0	∞
SAR Scaling***	E.6.5	2.0	Rectangular	1.732050808	1	1	1.2	1.2	∞
Phantom and Tissue Parameters									
Phantom Uncertainty*	E.3.1	4.0	Rectangular	1.732050808	1	1	2.3	2.3	∞
SAR Correction Uncertainty	E.3.2	1.2	Normal	1	1	0.84	1.2	1.0	∞
Liquid Conductivity (measurement)	E.3.3	6.8	Normal	1	0.78	0.71	5.3	4.8	10
Liquid Permittivity (measurement)	E.3.3	5.3	Normal	1	0.23	0.26	1.2	1.4	10
Liquid Conductivity (Temperature)	E.3.2	0.1	Rectangular	1.732050808	0.78	0.71	0.1	0.0	∞
Liquid Permittivity Temperature)	E.3.2	0.0	Rectangular	1.732050808	0.23	0.26	0.0	0.0	∞
Effective Degrees of Freedom(1)								**V_{eff} =**	**873.2**
Combined Standard Uncertainty			**RSS**				**12.59**	**12.40**	
Expanded Uncertainty (95% Confidence Interval)			**k=2**				**25.18**	**24.80**	
Measurement Uncertainty Table in accordance with IEEE Standard 1528-2003									

(1) The Effective Degrees of Freedom is > 30 therefore a coverage factor of k=2 represents an approximate confidence level of 95%.

* Provided by SPEAG

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Table 14.1 Calculation of Degrees of Freedom

Calculation of the Degrees and Effective Degrees of Freedom	
$v_i = n - 1$	$v_{eff} = \frac{u_c^4}{\sum_{i=1}^{m} \frac{c_i^4 u_i^4}{v_i}}$

15.0 FLUID DIELECTRIC PARAMETERS

Table 15.0 Fluid Dielectric Parameters 835MHz BODY TSL

****
Aprel Laboratory
Test Result for UIM Dielectric Parameter
Wed 12/Sep/2018 11:40:58
Freq Frequency(GHz)
FCC_eH FCC Bulletin 65 Supplement C (June 2001) Limits for Head Epsilon
FCC_sH FCC Bulletin 65 Supplement C (June 2001) Limits for Head Sigma
FCC_eB FCC Limits for Body Epsilon
FCC_sB FCC Limits for Body Sigma
Test_e Epsilon of UIM
Test_s Sigma of UIM
****

Freq	FCC_eB	FCC_sB	Test_e	Test_s
0.7350	55.59	0.96	53.68	0.89
0.7450	55.55	0.96	53.47	0.90
0.7550	55.51	0.96	53.52	0.92
0.7650	55.47	0.96	53.24	0.91
0.7750	55.43	0.97	53.28	0.93
0.7850	55.39	0.97	53.15	0.94
0.7950	55.36	0.97	53.28	0.93
0.8050	55.32	0.97	52.72	0.96
0.8150	55.28	0.97	53.17	0.96
0.8250	55.24	0.97	52.69	1.00
0.8350	55.20	0.97	52.68	0.99
0.8450	55.17	0.98	52.58	0.99
0.8550	55.14	0.99	52.42	1.01
0.8650	55.11	1.01	52.16	1.02
0.8750	55.08	1.02	52.38	1.02
0.8850	55.05	1.03	51.86	1.04
0.8950	55.02	1.04	52.21	1.06
0.9050	55.00	1.05	52.04	1.06
0.9150	55.00	1.06	51.84	1.07
0.9250	54.98	1.06	51.61	1.08
0.9350	54.96	1.07	51.38	1.10

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FLUID DIELECTRIC PARAMETERS

Date:	12 Sep 2018	Fluid Temp:	23.9	Frequency:	835MHz	Tissue:	Body

Freq (MHz)		Test_e	Test_s	Target_e	Target_s	Deviation Permittivity	Deviation Conductivity
735.0000		53.6800	0.8900	55.5900	0.96	-3.44%	-7.29%
745.0000		53.4700	0.9000	55.5500	0.96	-3.74%	-6.25%
755.0000		53.5200	0.9200	55.5100	0.96	-3.58%	-4.17%
765.0000		53.2400	0.9100	55.4700	0.96	-4.02%	-5.21%
775.0000		53.2800	0.9300	55.4300	0.97	-3.88%	-4.12%
782.0000	*	53.1890	0.9370	55.4020	0.97	-3.99%	-3.40%
785.0000		53.1500	0.9400	55.3900	0.97	-4.04%	-3.09%
795.0000		53.2800	0.9300	55.3600	0.97	-3.76%	-4.12%
805.0000		52.7200	0.9600	55.3200	0.97	-4.70%	-1.03%
815.0000		53.1700	0.9600	55.2800	0.97	-3.82%	-1.03%
825.0000		52.6900	1.0000	55.2400	0.97	-4.62%	3.09%
835.0000		52.6800	0.9900	55.2000	0.97	-4.57%	2.06%
845.0000		52.5800	0.9900	55.1700	0.98	-4.69%	1.02%
855.0000		52.4200	1.0100	55.1400	0.99	-4.93%	2.02%
865.0000		52.1600	1.0200	55.1100	1.01	-5.35%	0.99%
875.0000		52.3800	1.0200	55.0800	1.02	-4.90%	0.00%
885.0000		51.8600	1.0400	55.0500	1.03	-5.79%	0.97%
895.0000		52.2100	1.0600	55.0200	1.04	-5.11%	1.92%
905.0000		52.0400	1.0600	55.0000	1.05	-5.38%	0.95%
915.0000		51.8400	1.0700	55.0000	1.06	-5.75%	0.94%
925.0000		51.6100	1.0800	54.9800	1.06	-6.13%	1.89%
935.0000		51.3800	1.1000	54.9600	1.07	-6.51%	2.80%

*Channel Frequency Tested

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Table 15.1 Fluid Dielectric Parameters 1800MHz BODY TSL

****
Aprel Laboratory
Test Result for UIM Dielectric Parameter
Fri 14/Sep/2018 12:39:28
Freq Frequency(GHz)
FCC_eH FCC Bulletin 65 Supplement C (June 2001) Limits for Head Epsilon
FCC_sH FCC Bulletin 65 Supplement C (June 2001) Limits for Head Sigma
FCC_eB FCC Limits for Body Epsilon
FCC_sB FCC Limits for Body Sigma
Test_e Epsilon of UIM
Test_s Sigma of UIM
****

Freq	FCC_eB	FCC_sB	Test_e	Test_s
1.7000	53.56	1.46	53.06	1.42
1.7100	53.54	1.46	52.95	1.43
1.7200	53.51	1.47	52.69	1.44
1.7300	53.48	1.48	52.85	1.45
1.7400	53.46	1.48	52.79	1.45
1.7500	53.43	1.49	52.75	1.46
1.7600	53.41	1.49	52.75	1.48
1.7700	53.38	1.50	52.62	1.49
1.7800	53.35	1.51	52.52	1.50
1.7900	53.33	1.51	52.77	1.54
1.8000	53.30	1.52	52.54	1.52
1.8100	53.30	1.52	52.45	1.54
1.8200	53.30	1.52	52.41	1.54
1.8300	53.30	1.52	52.44	1.54
1.8400	53.30	1.52	52.61	1.55
1.8500	53.30	1.52	52.26	1.57
1.8600	53.30	1.52	52.23	1.56
1.8700	53.30	1.52	52.28	1.58
1.8800	53.30	1.52	52.20	1.61
1.8900	53.30	1.52	52.27	1.61
1.9000	53.30	1.52	52.31	1.63

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FLUID DIELECTRIC PARAMETERS

Date:	14 Sep 2018	Fluid Temp:	23.3	Frequency:	1800MHz	Tissue:	Body

Freq (MHz)		Test_e	Test_s	Target_e	Target_s	Deviation Permittivity	Deviation Conductivity
1700.0000		53.0600	1.4200	53.5600	1.46	-0.93%	-2.74%
1710.0000		52.9500	1.4300	53.5400	1.46	-1.10%	-2.05%
1720.0000		52.6900	1.4400	53.5100	1.47	-1.53%	-2.04%
1730.0000		52.8500	1.4500	53.4800	1.48	-1.18%	-2.03%
1732.5000	*	52.8350	1.4500	53.4750	1.48	-1.20%	-2.03%
1740.0000		52.7900	1.4500	53.4600	1.48	-1.25%	-2.03%
1750.0000		52.7500	1.4600	53.4300	1.49	-1.27%	-2.01%
1760.0000		52.7500	1.4800	53.4100	1.49	-1.24%	-0.67%
1770.0000		52.6200	1.4900	53.3800	1.50	-1.42%	-0.67%
1780.0000		52.5200	1.5000	53.3500	1.51	-1.56%	-0.66%
1790.0000		52.7700	1.5400	53.3300	1.51	-1.05%	1.99%
1800.0000		52.5400	1.5200	53.3000	1.52	-1.43%	0.00%
1810.0000		52.4500	1.5400	53.3000	1.52	-1.59%	1.32%
1820.0000		52.4100	1.5400	53.3000	1.52	-1.67%	1.32%
1830.0000		52.4400	1.5400	53.3000	1.52	-1.61%	1.32%
1840.0000		52.6100	1.5500	53.3000	1.52	-1.29%	1.97%
1850.0000		52.2600	1.5700	53.3000	1.52	-1.95%	3.29%
1860.0000		52.2300	1.5600	53.3000	1.52	-2.01%	2.63%
1870.0000		52.2800	1.5800	53.3000	1.52	-1.91%	3.95%
1880.0000		52.2000	1.6100	53.3000	1.52	-2.06%	5.92%
1890.0000		52.2700	1.6100	53.3000	1.52	-1.93%	5.92%
1900.0000		52.3100	1.6300	53.3000	1.52	-1.86%	7.24%

*Channel Frequency Tested

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16.0 SYSTEM VERIFICATION TEST RESULTS

Table 16.0 System Verification Results 835MHz BODY TSL

System Verification Test Results					
Date		Frequency (MHz)	Validation Source		
			P/N		S/N
Sep 12 2018		835	D835V2		4d075
Fluid Type	Fluid Temp °C	Ambient Temp °C	Ambient Humidity (%)	Forward Power (mW)	Source Spacing (mm)
Body	23.9	25	27%	250	15
Fluid Parameters					
Permittivity			Conductivity		
Measured	Target	Deviation	Measured	Target	Deviation
52.68	55.20	-4.57%	0.99	0.97	2.06%
Measured SAR					
1 gram			10 gram		
Measured	Target	Deviation	Measured	Target	Deviation
2.57	2.42	6.20%	1.69	1.59	6.29%
Measured SAR Normalized to 1.0W					
1 gram			10 gram		
Normalized	Target	Deviation	Normalized	Target	Deviation
10.28	9.40	9.36%	6.76	6.21	8.86%

Prior to the SAR evaluations, system checks were performed on the planar section of the phantom and a SPEAG validation dipole in accordance with the procedures described in IEEE 1528-2013, FCC KDB 846224 and IEC 62209-1.

The dielectric parameters of the simulated tissue mixture were measured prior to the system performance check using a Dielectric Probe Kit and a Network Analyzer.

The forward power was applied to the dipole and the system was verified to a tolerance of +10% from the system manufacturer's dipole calibration target SAR value.

The forward power applied was same forward power applied by the calibration lab during the calibration of this validation source.

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Table 16.1 System Verification Results 1800MHz BODY TSL

System Verification Test Results					
Date		Frequency (MHz)	Validation Source		
			P/N		S/N
Sep 14 2018		1800	D1800V2		247
Fluid Type	Fluid Temp °C	Ambient Temp °C	Ambient Humidity (%)	Forward Power (mW)	Source Spacing (mm)
Body	23.3	25	25%	250	10
Fluid Parameters					
Permittivity			Conductivity		
Measured	Target	Deviation	Measured	Target	Deviation
52.54	53.30	-1.43%	1.52	1.52	0.00%
Measured SAR					
1 gram			10 gram		
Measured	Target	Deviation	Measured	Target	Deviation
10.10	9.72	3.91%	5.29	5.18	2.12%
Measured SAR Normalized to 1.0W					
1 gram			10 gram		
Normalized	Target	Deviation	Normalized	Target	Deviation
40.40	37.80	6.88%	21.16	20.70	2.22%

Prior to the SAR evaluations, system checks were performed on the planar section of the phantom and a SPEAG validation dipole in accordance with the procedures described in IEEE 1528-2013, FCC KDB 846224 and IEC 62209-1.

The dielectric parameters of the simulated tissue mixture were measured prior to the system performance check using a Dielectric Probe Kit and a Network Analyzer.

The forward power was applied to the dipole and the system was verified to a tolerance of +10% from the system manufacturer's dipole calibration target SAR value.

The forward power applied was same forward power applied by the calibration lab during the calibration of this validation source.

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17.0 SYSTEM VALIDATION SUMMARY

Table 17.0 System Validation Summary

System Validation Summary											
Frequency (MHz)	Validation Date	Probe Model	Probe S/N	Validation Source	Source S/N	Tissue	Tissue Dielectrics		Validation Results		
							Permitivity	Conductivity	Sensitivity	Linearity	Isotropy
30		EX3DV4	3600	CLA-30	1005	Head					
150	03-May-17	EX3DV4	3600	CLA-150	4007	Body	66.48	0.79	Pass	Pass	Pass
150	04-May-17	EX3DV4	3600	CLA-150	4007	Head	51.51	0.81	Pass	Pass	Pass
450	08-May-17	EX3DV4	3600	D450V3	1068	Body	54.65	0.95	Pass	Pass	Pass
450	16-May-17	EX3DV4	3600	D450V3	1068	Head	43.70	0.83	Pass	Pass	Pass
835	03-May-18	EX3DV4	3600	D835V2	4d075	Body	53.31	1.00	Pass	Pass	Pass
835	19-May-17	EX3DV4	3600	D835V2	4d075	Head	42.01	0.89	Pass	Pass	Pass
900	08-May-18	EX3DV4	3600	D900V2	045	Body	54.46	1.10	Pass	Pass	Pass
900	02-Aug-17	EX3DV4	3600	D900V2	045	Head	39.10	0.93	Pass	Pass	Pass
1640	06-May-18	EX3DV4	3600	1620-S-2	207-00102	Body	39.87	1.27	Pass	Pass	Pass
1640	07-May-18	EX3DV4	3600	1620-S-2	207-00102	Head	39.87	1.27	Pass	Pass	Pass
1800	21-Jul-18	EX3DV4	3600	D1800V2	247	Body	54.77	1.53	Pass	Pass	Pass
1800	18-Jul-18	EX3DV4	3600	D1800V2	247	Head	40.70	1.33	Pass	Pass	Pass
2450	23-May-18	EX3DV4	3600	D2450V2	825	Body	49.51	1.92	Pass	Pass	Pass
2450	24-May-18	EX3DV4	3600	D2450V2	825	Head	37.95	1.87	Pass	Pass	Pass
5250	24-Jul-18	EX3DV4	3600	D5GHzV2	1031	Body	46.42	5.69	Pass	Pass	Pass
5250	24-Jul-18	EX3DV4	3600	D5GHzV2	1031	Head	35.96	4.99	Pass	Pass	Pass
5750	25-Jul-18	EX3DV4	3600	D5GHzV2	1031	Body	47.10	5.60	Pass	Pass	Pass

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18.0 MEASUREMENT SYSTEM SPECIFICATIONS

Table 18.0 Measurement System Specifications

Measurement System Specification	
Specifications	
Positioner	Stäubli Unimation Corp. Robot Model: TX90XL
Repeatability	+/- 0.035 mm
No. of axis	6.0
Data Acquisition Electronic (DAE) System	
Cell Controller	
Processor	Intel(R) Core(TM) i7-7700
Clock Speed	3.60 GHz
Operating System	Windows 10 Professional
Data Converter	
Features	Signal Amplifier, multiplexer, A/D converter, and control logic
Software	Measurement Software: DASY6, V 6.4.0.12171 / DASY52 V52.10.0.1446
	Postprocessing Software: SEMCAD X, V14.6.10(Deployment Build)
Connecting Lines	Optical downlink for data and status info., Optical uplink for commands and clock
DASY Measurement Server	
Function	Real-time data evaluation for field measurements and surface detection
Hardware	Intel ULV Celeron CPU 400 MHz; 128 MB chip disk; 128 MB RAM
Connections	COM1, COM2, DAE, Robot, Ethernet, Service Interface
E-Field Probe	
Model	EX3DV4
Serial No.	3600
Construction	Triangular core fiber optic detection system
Frequency	10 MHz to 6 GHz
Linearity	±0.2 dB (30 MHz to 3 GHz)
Phantom	
Type	ELI Elliptical Planar Phantom
Shell Material	Fiberglass
Thickness	2mm +/- .2mm
Volume	> 30 Liter

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Measurement System Specification

Probe Specification

Construction:	Symmetrical design with triangular core; Built-in shielding against static charges PEEK enclosure material (resistant to organic solvents, glycol)
Calibration:	In air from 10 MHz to 2.5 GHz In head simulating tissue at frequencies of 900 MHz and 1.8 GHz (accuracy ± 8%)
Frequency:	10 MHz to > 6 GHz; Linearity: ± 0.2 dB (30 MHz to 3 GHz)
Directivity:	± 0.2 dB in head tissue (rotation around probe axis) ± 0.4 dB in head tissue (rotation normal to probe axis)
Dynamic Range:	5 μW/g to > 100 mW/g; Linearity: ± 0.2 dB
Surface Detect:	± 0.2 mm repeatability in air and clear liquids over diffuse reflecting surfaces
Dimensions:	Overall length: 330 mm; Tip length: 16 mm; Body diameter: 12 mm; Tip diameter: 6.8 mm Distance from probe tip to dipole centers: 2.7 mm
Application:	General dosimetry up to 3 GHz; Compliance tests of mobile phone

EX3DV4 E-Field Probe

Phantom Specification

The SAM V5.0 phantom is an elliptical planar fiberglass shell phantom with a shell thickness of 2.0mm +/- .2mm at the planar area. This phantom conforms to OET Bulletin 65, Supplement C, IEEE 1528-2013, IEC 62209-1 and IEC 62209-2.

SAM Phantom

Device Positioner Specification

The DASY device positioner has two scales for device rotation (with respect to the body axis) and the device inclination (with respect to the line between the ear openings). The plane between the ear openings and the mouth tip has a rotation angle of 65^{O}. 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.

Device Positioner

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19.0 TEST EQUIPMENT LIST

Table 19.0 Equipment List and Calibration

Test Equipment List				
DESCRIPTION	**ASSET NO.**	**SERIAL NO.**	**DATE CALIBRATED**	**CALIBRATION DUE**
Schmid & Partner DASY 6 System	-	-	-	-
-DASY Measurement Server	00158	1078	CNR	CNR
-Robot	00046	599396-01	CNR	CNR
-DAE4	00019	353	20-Apr-18	20-Apr-19
-EX3DV4 E-Field Probe	00213	3600	25-Apr-18	25-Apr-19
-CLA 30 Validation Dipole	00300	1005	23-Nov-17	23-Nov-20
-CLA150 Validation Dipole	00251	4007	27-Apr-17	27-Apr-20
-D450V3 Validation Dipole	00221	1068	23-Apr-18	23-Apr-21
-D835V2 Validation Dipole	00217	4D075	20-Apr-18	20-Apr-21
-D900V2 Validation Dipole	00020	54	24-Apr-17	24-Apr-20
-D1640/1620-S-2 Validation Dipole	00299	207-00102	07-Nov-17	07-Nov-20
-D2450V2 Validation Dipole	00219	825	24-Apr-18	24-Apr-21
-D5GHzV2 Validation Dipole	00126	1031	26-Apr-18	26-Apr-21
ELI Phantom	00247	-	CNR	CNR
SAM Phantom	00154	-	CNR	CNR
HP 85070C Dielectric Probe Kit	00033	none	CNR	CNR
Gigatronics 8652A Power Meter	00110	1835801	29-Feb-16	29-Feb-19
Gigatronics 80701A Power Sensor	00248	1833687	29-Feb-16	29-Feb-19
HP 8753ET Network Analyzer	00134	US39170292	29-Dec-17	29-Dec-20
Rohde & Schwarz SMR20 Signal Generator	00006	100104	29-May-17	29-May-20
Amplifier Research 10W1000C Power Amplifier	00041	27887	CNR	CNR
Amplifier Research 5S1G4 Power Amplifier	00106	26235	CNR	CNR
Narda Directional Coupler 3020A	00064	-	CNR	CNR
Traceable VWR Thermometer	00291	-	19-Nov-16	19-Nov-19
Traceable VWR Jumbo Humidity/Thermometer	00295	170120555	17-Feb-17	17-Feb-20
DC-18G 10W 30db Attenuator	00102	-	COU	COU
R&S FSP40 Spectrum Analyzer	00241	100500	15-May-18	15-May-21
RF Cable-SMA	00311	-	CNR	CNR
HP Calibration Kit	00145	-	10-Feb-17	10-Feb-20
SPEAG ANT	00314	1123	CNR	CNR
*Rohde & Schwarz CMW500 Base Station	-	-	06-Apr-18	06-Apr-19

CNR = Calibration Not Required
COU = Calibrate on Use
* Rental Equipment .See Appendix H for Calibration Certificate

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20.0 FLUID COMPOSITION

Table 20.0 Fluid Composition 835MHz BODY TSL

Tissue Simulating Liquid (TSL) Composition				
Component by Percent Weight				
Water	Sugar	Salt(1)	HEC(2)	Bacteriacide(3)
53.79	45.13	0.98	0.0	0.1

(1) Non-Iodinized
(2) **H**ydroxy**E**thyl-**C**ellulose: Sigma-Aldrich P/N 54290-500g
(3) Dow Chemical Dowicil 75 Antimicrobial Perservative

Table 20.1 Fluid Composition 1800MHz BODY TSL

Tissue Simulating Liquid (TSL) Composition				
Component by Percent Weight				
Water	Glycol	Salt(1)	HEC(2)	Bacteriacide(3)
70.17	29.43	0.40	0.0	0.0

(1) Non-Iodinized
(2) **H**ydroxy**E**thyl-**C**ellulose: Sigma-Aldrich P/N 54290-500g
(3) Dow Chemical Dowicil 75 Antimicrobial Perservative

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APPENDIX A – SYSTEM VERIFICATION PLOTS

Date/Time: 9/12/2018 12:32:23 PM

Test Laboratory: Celltech Labs

SPC-835B Sep 12 2018

DUT: Dipole 835 MHz D835V2; Type: D835V2; Serial: D835V2 -

Communication System: UID 0, CW (0); Communication System Band: FullSpan (0.0 - 6000.0 MHz); Frequency: 835 MHz;Communication System PAR: 0 dB; PMF: 1

Medium: TSL_835B[12SE18]
Medium parameters used: f = 835 MHz; σ = 0.99 S/m; ε_r = 52.68; ρ = 1000 kg/m^3
Phantom section: Flat Section
Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2011)

DASY Configuration:

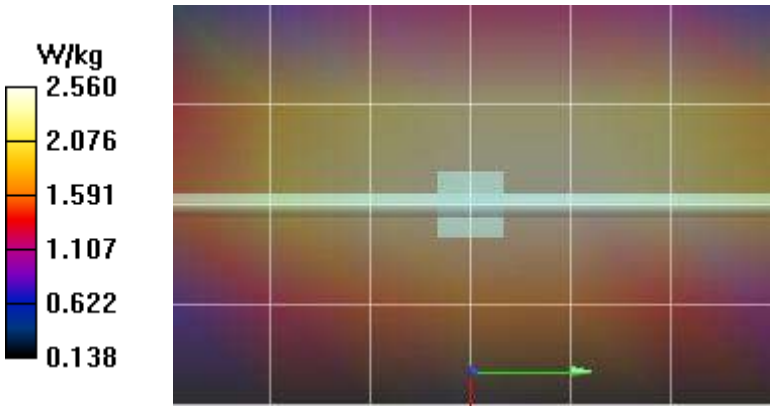
- Probe: EX3DV4 - SN3600; ConvF(8.05, 8.05, 8.05); Calibrated: 4/25/2018, ConvF(8.05, 8.05, 8.05); Calibrated: 4/25/2018;
  - Modulation Compensation:
- Sensor-Surface: 4mm (Mechanical Surface Detection), z = -1.5, 31.0
- Electronics: DAE4 Sn353; Calibrated: 4/20/2018
- Phantom: Twin-SAM V4.0 (30deg probe tilt); Type: QD 000 P40 CC;
- DASY52 52.10.1(1476);

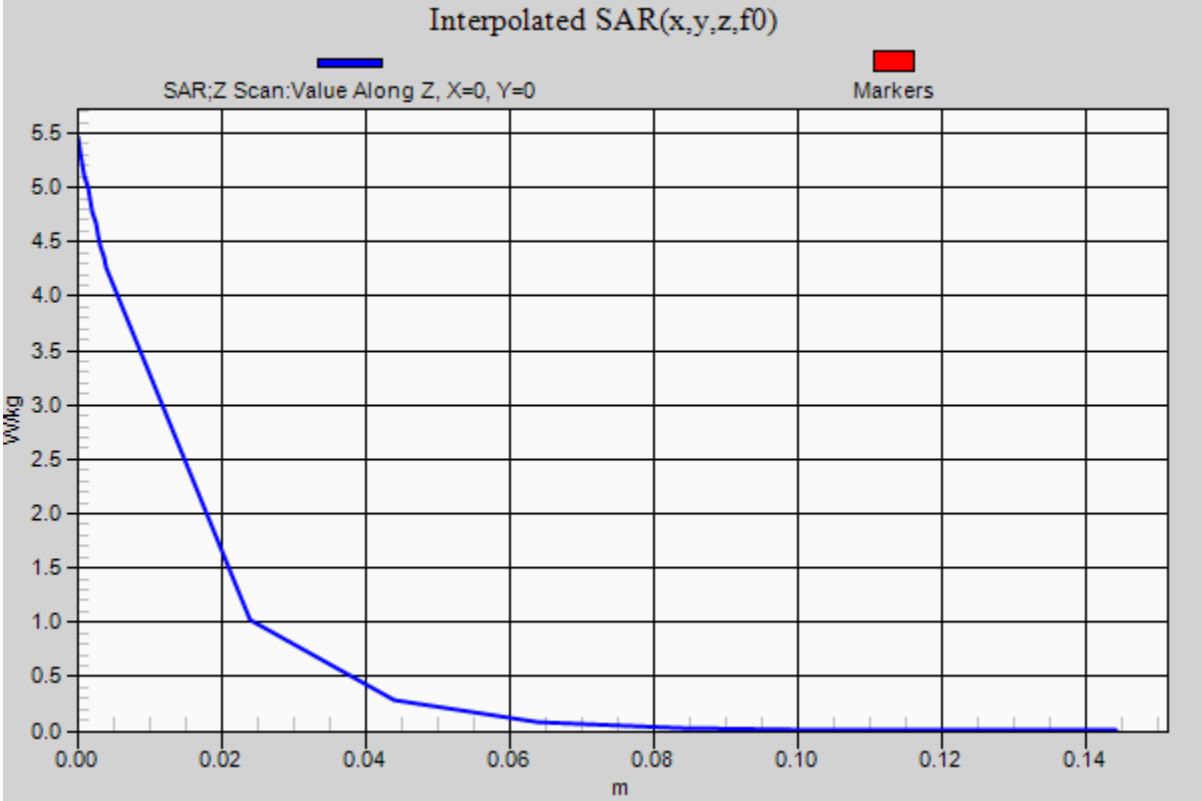
Frequency: 835 MHz

SPC/SPC 835B,Target=2.43W/kg,Input 250mW/Area Scan (5x7x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (measured) = 2.56 W/kg

SPC/SPC 835B,Target=2.43W/kg,Input 250mW/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm
Reference Value = 51.05 V/m; Power Drift = -0.00 dB
Peak SAR (extrapolated) = 3.81 W/kg
SAR(1 g) = 2.57 W/kg; SAR(10 g) = 1.69 W/kg
Maximum value of SAR (measured) = 2.78 W/kg

SPC/SPC 835B Input=250mW, Target=2.43W/kg/Z Scan (1x1x19): Measurement grid: dx=20mm, dy=20mm, dz=20mm
Penetration depth = n/a (n/a, 14.09) [mm]
Maximum value of SAR (interpolated) = 5.46 W/kg





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Date/Time: 9/14/2018 1:33:48 PM

Test Laboratory: Celltech Labs

SPC-1800B Sep 14 2018

DUT: Dipole 1800 MHz D1800V2; Type: D1800V2; Serial: D1800V2 - SN:247

Communication System: UID 0, CW (0); Communication System Band: FullSpan (0.0 - 6000.0 MHz); Frequency: 1800 MHz;Communication System PAR: 0 dB; PMF: 1

Medium: TSL_1800B[14SE18]
Medium parameters used: f = 1800 MHz; σ = 1.52 S/m; ε_r = 52.54; ρ = 1000 kg/m^3
Phantom section: Flat Section
Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2011)

DASY Configuration:

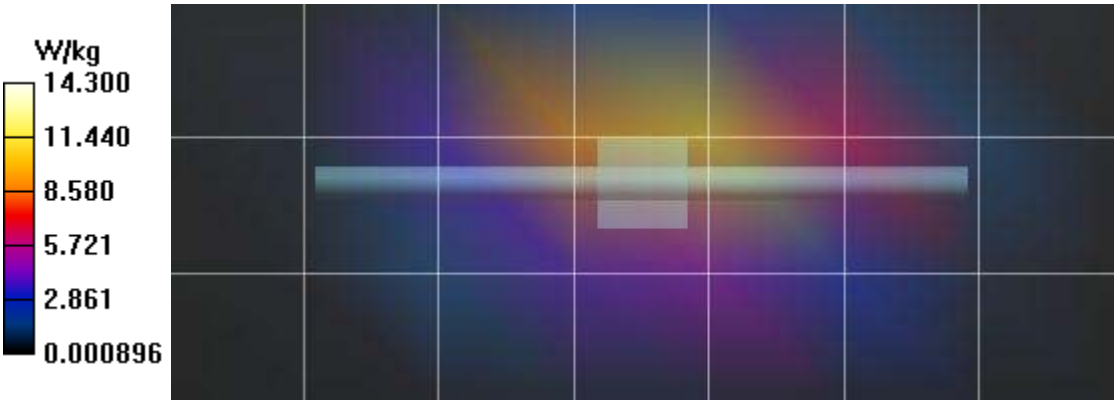
- Probe: EX3DV4 - SN3600; ConvF(7.15, 7.15, 7.15); Calibrated: 4/25/2018, ConvF(7.15, 7.15, 7.15); Calibrated: 4/25/2018, ConvF(7.15, 7.15, 7.15); Calibrated: 4/25/2018;
  - Modulation Compensation:
- Sensor-Surface: 4mm (Mechanical Surface Detection), z = 16.0, 31.0, 151.0
- Electronics: DAE4 Sn353; Calibrated: 4/20/2018
- Phantom: Twin-SAM V4.0 (30deg probe tilt); Type: QD 000 P40 CC;
- DASY52 52.10.1(1476);

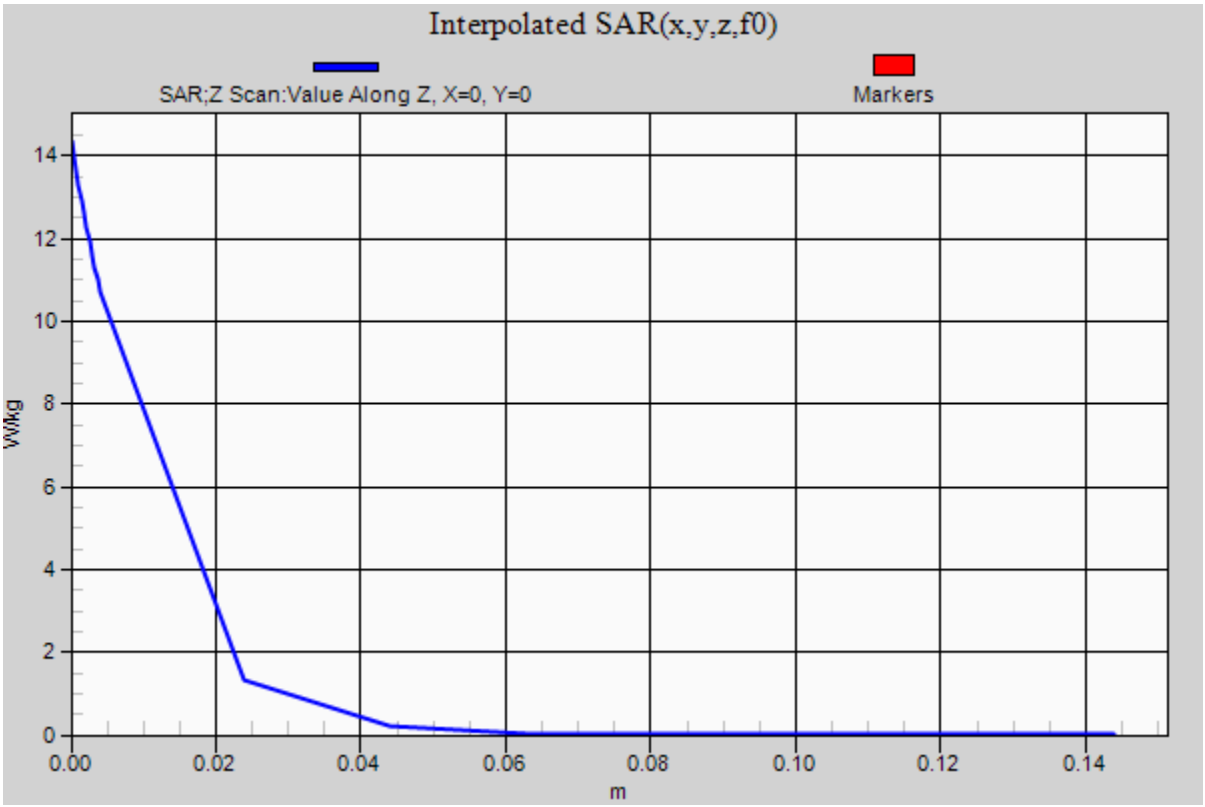
Frequency: 1800 MHz

SPC/SPC 1800B Input=250mW, Target=9.72W/kg/Area Scan (4x8x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (measured) = 10.6 W/kg

SPC/SPC 1800B Input=250mW, Target=9.72W/kg/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm
Reference Value = 83.94 V/m; Power Drift = 0.03 dB
Peak SAR (extrapolated) = 18.6 W/kg
SAR(1 g) = 10.1 W/kg; SAR(10 g) = 5.29 W/kg
Maximum value of SAR (measured) = 11.3 W/kg

SPC/SPC 1800B Input=250mW, Target=9.72W/kg/Z Scan (1x1x19): Measurement grid: dx=20mm, dy=20mm, dz=20mm
Penetration depth = n/a (n/a, 9.602) [mm]
Maximum value of SAR (interpolated) = 14.3 W/kg




Interpolated SAR(x,y,z,f0)
SAR;Z Scan:Value Along Z, X=0, Y=0
Markers
W/kg
14
12
10
8
6
4
2
0
0.00
0.02
0.04
0.06
0.08
0.10
0.12
0.14
m

APPENDIX B – MEASUREMENT PLOTS OF MAXIMUMUM MEASURED SAR

Plot B1

Date/Time: 9/13/2018 12:19:21 PM

Test Laboratory: Celltech Labs

Garmin-835B Sep 13 2018

DUT: AA3405; Type: Sports Watch;

Communication System: UID 10175 - CAE, LTE-FDD (SC-FDMA, 1 RB, 10 MHz, QPSK); Communication System Band: Band 13, E-UTRA/FDD (777.0 - 787.0 MHz); Frequency: 782 MHz;Communication System PAR: 5.72 dB; PMF: 1.13894

Medium: TSL_835B[12SE18]
Medium parameters used (interpolated): f = 782 MHz; σ = 0.937 S/m; ε_r = 53.189; ρ = 1000 kg/m^3
Phantom section: Flat Section
Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2011)

DASY Configuration:

- Probe: EX3DV4 - SN3600; ConvF(8.05, 8.05, 8.05); Calibrated: 4/25/2018, ConvF(8.05, 8.05, 8.05); Calibrated: 4/25/2018, ConvF(8.05, 8.05, 8.05); Calibrated: 4/25/2018;
  - Modulation Compensation: PMR for UID 10175 - CAE, Calibrated: 4/25/2018
- Sensor-Surface: 4mm (Mechanical Surface Detection (Locations From Previous Scan Used)), Sensor-Surface: 4mm (Mechanical Surface Detection), z = -1.5, 31.0, 151.0
- Electronics: DAE4 Sn353; Calibrated: 4/20/2018
- Phantom: Twin-SAM V4.0 (30deg probe tilt); Type: QD 000 P40 CC;
- DASY52 52.10.1(1476);

Frequency: 782 MHz

835B/B1- AA3405, Body-Back, Band 13 782MHz,RB Offset=MID/Area Scan (7x7x1): Measurement grid: dx=15mm, dy=15mm

Info: Interpolated medium parameters used for SAR evaluation.
Maximum value of SAR (measured) = 0.743 W/kg

835B/B1- AA3405, Body-Back, Band 13 782MHz,RB Offset=MID/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm
Reference Value = 19.91 V/m; Power Drift = -0.47 dB
Peak SAR (extrapolated) = 1.97 W/kg
SAR(1 g) = 0.887 W/kg; SAR(10 g) = 0.425 W/kg

Info: Interpolated medium parameters used for SAR evaluation.

Maximum value of SAR (measured) = 0.941 W/kg

835B/B1- AA3405, Body-Back, Band 13 782MHz,RB Offset=MID/Z Scan (1x1x19): Measurement grid: dx=20mm, dy=20mm, dz=20mm

Info: Interpolated medium parameters used for SAR evaluation.
Penetration depth = n/a (n/a, 8.469) [mm]
Maximum value of SAR (interpolated) = 1.29 W/kg

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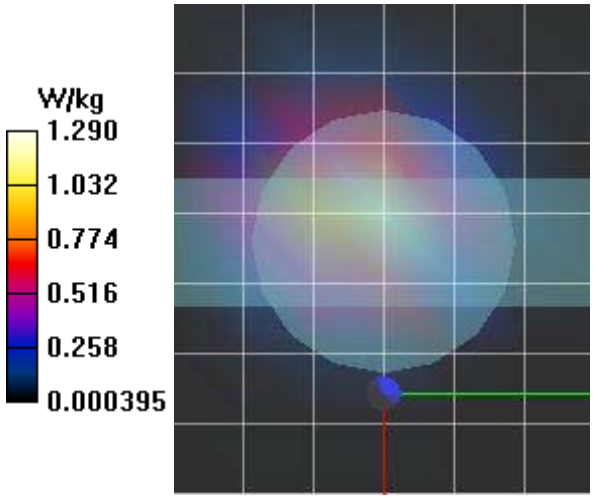

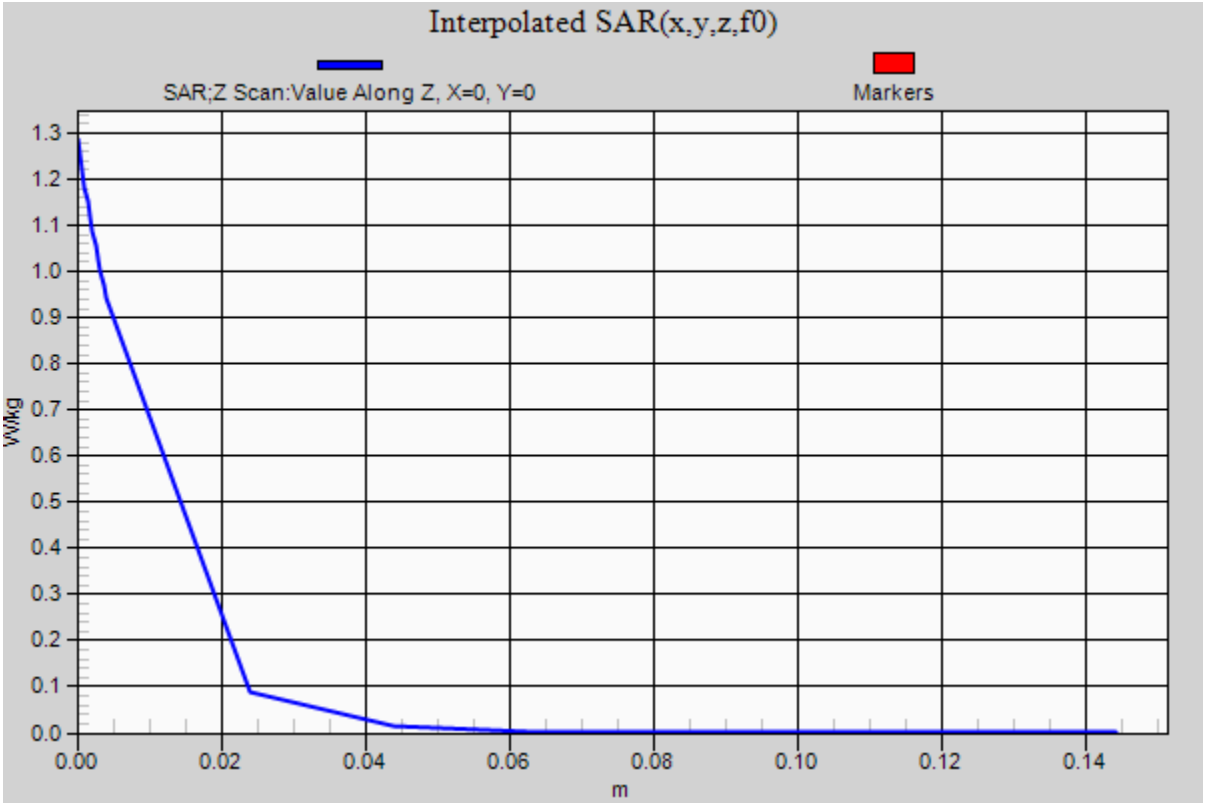

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Plot B3

Date/Time: 9/14/2018 3:10:58 PM

Test Laboratory: Celltech Labs

Garmin-1800B Sep 14 2018

DUT: AA3405; Type: Sports Watch;

Communication System: UID 10169 - CAD, LTE-FDD (SC-FDMA, 1 RB, 20 MHz, QPSK); Communication System Band: Band 4, E-UTRA/FDD (1710.0 - 1755.0 MHz); Frequency: 1732.5 MHz;Communication System PAR: 5.73 dB; PMF: 1.13894

Medium: TSL_1800B[14SE18]
Medium parameters used (interpolated): f = 1732.5 MHz; σ = 1.45 S/m; ε_r = 52.835; ρ = 1000 kg/m^3
Phantom section: Flat Section
Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2011)

DASY Configuration:

- Probe: EX3DV4 - SN3600; ConvF(7.15, 7.15, 7.15); Calibrated: 4/25/2018, ConvF(7.15, 7.15, 7.15); Calibrated: 4/25/2018, ConvF(7.15, 7.15, 7.15); Calibrated: 4/25/2018;
  - Modulation Compensation: PMR for UID 10169 - CAD, Calibrated: 4/25/2018
- Sensor-Surface: 4mm (Mechanical Surface Detection (Locations From Previous Scan Used)), Sensor-Surface: 4mm (Mechanical Surface Detection), z = -1.5, 31.0, 151.0
- Electronics: DAE4 Sn353; Calibrated: 4/20/2018
- Phantom: Twin-SAM V4.0 (30deg probe tilt); Type: QD 000 P40 CC;
- DASY52 52.10.1(1476);

Frequency: 1732.5 MHz

1800B/B3- AA3405, Body-Back, Band 4 1732.50MHz,RB Offset=MID/Area Scan (7x7x1): Measurement grid: dx=15mm, dy=15mm

Info: Interpolated medium parameters used for SAR evaluation.
Maximum value of SAR (measured) = 2.02 W/kg

1800B/B3- AA3405, Body-Back, Band 4 1732.50MHz,RB Offset=MID/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm
Reference Value = 12.48 V/m; Power Drift = 0.06 dB
Peak SAR (extrapolated) = 3.76 W/kg
SAR(1 g) = 1.91 W/kg; SAR(10 g) = 0.996 W/kg

Info: Interpolated medium parameters used for SAR evaluation.
Maximum value of SAR (measured) = 2.06 W/kg

1800B/B3- AA3405, Body-Back, Band 4 1732.50MHz,RB Offset=MID/Z Scan (1x1x19): Measurement grid: dx=20mm, dy=20mm, dz=20mm

Info: Interpolated medium parameters used for SAR evaluation.
Penetration depth = n/a (n/a, 8.627) [mm]
Maximum value of SAR (interpolated) = 2.79 W/kg

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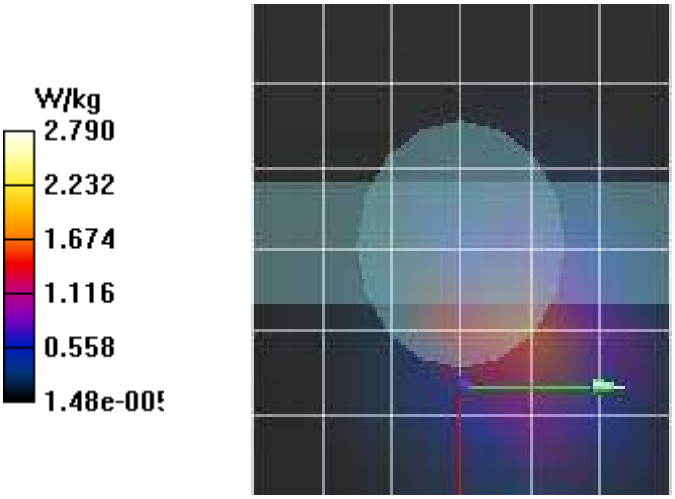

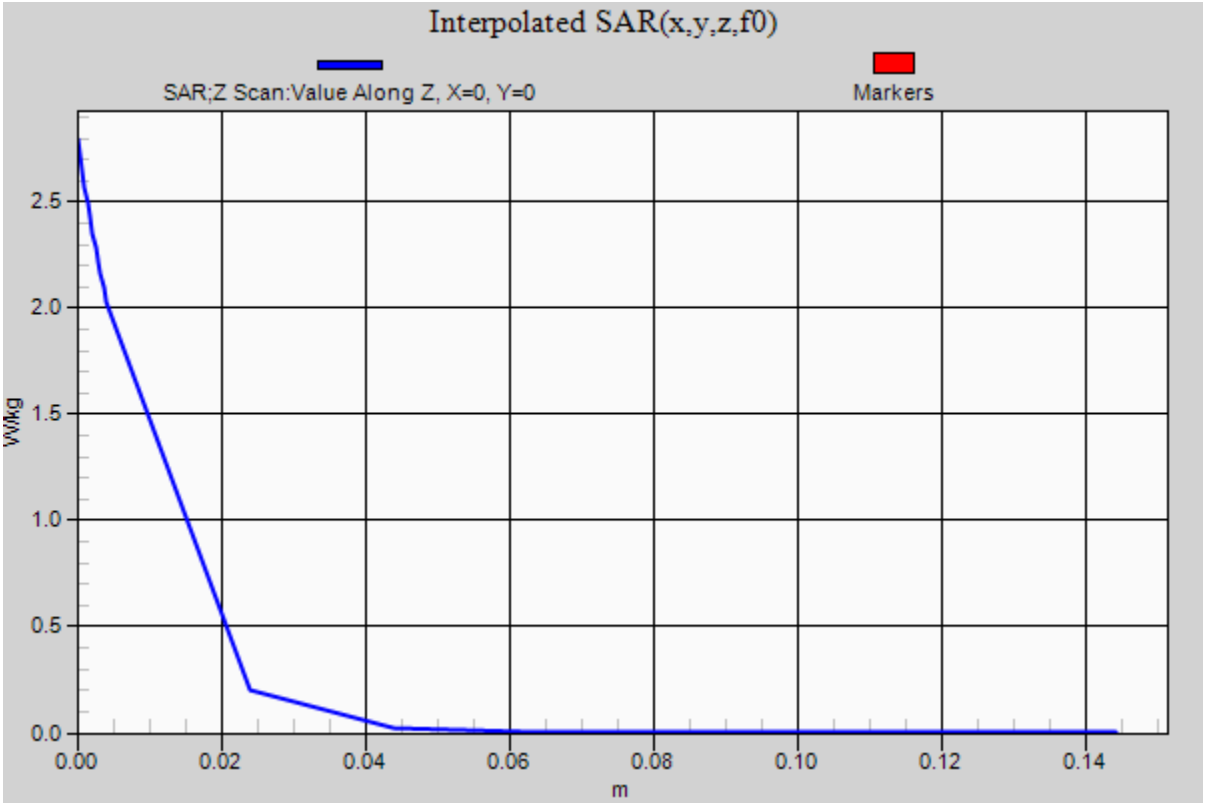

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