Celltech
Testing and Engineering Services Lab

Test Report Serial Number:	45461398 R1.1
Test Report Date:	25 September 2017
Project Number:	1371

SAR Test Report - Class II Permissive Change

Applicant:

HARRIS

Harris Corporation
221 Jefferson Ridge Parkway
Lynchburg, VA, 24501
USA

FCC ID:

BV8BBPBM214

Product Model Number / HVIN

PBM-214

Maximum Reported 1g SAR			
FCC	HEAD:	0.36	W/kg
	BODY:	0.70	
General Population		1.60	
Simultaneous:		5.93	
Occupational		8.00	

Add the Following Hosts:

OWDTR-0147-E
OWDTR-0148-E
OWDTR-0149-E
OWDTR-0150-E

In Accordance With:

FCC 47 CFR §2.1093

Radiofrequency Radiation Exposure Evaluation: Portable Devices

Approved By:

Ben Hewson, President
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ilac-MRA ACCREDITED

Test Lab Certificate: 2470.01

Industry Canada

IC Registration 3874A-1

FCC

FCC Registration: 714830

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1.0 DOCUMENT CONTROL

Revision History					
Samples Tested By:	Trevor Whillock		**Date(s) of Evaluation:**		5 July - 14 July, 2017
Report Prepared By:	Art Voss, P.Eng.		**Report Reviewed By:**		Ben Hewson
Report Revision	**Description of Revision**		**Revised Section**	**Revised By**	**Revision Date**
1.0	Initial Release		-	-	19 July 2017
1.1	Revised Cover to Indicate Both Exposure Limits		-	-	25 September 2017

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2.0 CLIENT AND DEVICE INFORMATION

Client Information		
Applicant Name	**Harris Corporation**	
Applicant Address	221 Jefferson Ridge Parkway	
	Lynchburg, VA, 24501	
	USA	
DUT Information		
Device Identifier(s):	**FCC ID:**	**BV8BBPBM214**
	IC:	
Type of Equipment:	Licensed Non-Broadcast Transmitter (TNB) FCC Part 90	
Device Model(s) / HVIN:	PBM-214	
Device Marketing Name / PMN:	PBM-214	
Test Sample Serial No.:	T/A Sample - Identical Prototype	
LTE Transmit Frequency Range:	LTE Band 14: 790.5 - 795.5 MHz	
	LTE Band 13: 779.5 - 784.5 MHz	
	LTE Band 4: 1712.5 - 1752.5 MHz	
Number of Channels:	Programmable	
Manuf. Max. Rated Output Power:	LTE Band 13: 24.5dBm LTE Band 14: 24.5 dBm LTE Band 4 (AWS): 25.5dBm	
Modulation:	QPSK, 16QAM	
Duty Cycle:	100%	
DUT Power Source:	n/a	
Deviation(s) from standard/procedure:	None	
Modification of DUT:	None	

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3.0 SCOPE OF EVALUATION

This is a Class II Permissive Change to FCC ID: **BV8BBPBM214**, Model PBM-214, to add four additional hosts.

The PBM-214 is a wireless LTE transmitter module transmitting on LTE Bands 13, 14 and 4 and is being incorporated into four (4) new host variants of the Harris Corporation XL-185P transceivers.

The XL-185P are Licensed Mobile Radio (LMR) single band transceivers with WiFi and BlueTooth capabilities. The FCC IDs of the four host variants of the XL-185P are:

OWDTR-0147-E, 7/800 MHz Band (Rebanded)
OWDTR-0148-E, 7/800 MHz Band (Non-Rebanded)
OWDTR-0149-E, UHF Band
OWDTR-0150-E, VHF Band

The four variants of the XL-185P are identical in RF circuitry, componentry and form factor to the currently listed XL-200P FCC ID OWDTR-0133-E Multiband, XL-185P FCC ID: OWDTR-0143-E 7/8/900 MHz Band and XL-185P FCC ID: OWDTR-0145-E 7/800 MHz Band transceivers with the exception that certain components have been depopulated to create single band transceivers.

The XL-200P, XL-185P 7/8/900 and XL-185P 7/800 are listed hosts of the PBM-214 LTE module.
The Test Plan developed for this evaluation leverages SAR test data from previous evaluations of the PBM-214 while hosted in the XL-200P, XL-185P 7/8/900 and XL-185P 7/800 transceivers. The Test Plan is based on test channels, configurations and accessories which produced the highest (worst case) SAR during those evaluations reported in the following report S/N.

0Y1603030467-R1.BV8, Tables 10-1 through 10-27
1M1702010047-01-R1.BV8 Tables 10-1 through 10-6
1M1705010158-01-R1.BV8 Tables 10-1 through 10-12
The table below lists the worst case test channels, configurations, accessories and SAR results from those previous host evaluations.

During this evaluation, the host devices were tested using a Rhode and Schwarz CMW-500 Wideband Radio Communication Tester (Base Station) to test the device in the various LTE transmission modes. The PBM-214 is also capable of being programmed to transmit CW tones or an FDMA signals on the low, mid and high channels on LTE Bands 4, 13 and 14 with FDMA bandwidths from 1.4MHz to 20MHz. During the course of this evaluation these programming features were tested and in cases where these signals produce higher SAR than the equivalent LTE mode, the higher SAR was reported.

The following applies to ***this*** SAR evaluation report:

XL-185P, FCC ID: OWDTR-0147-E, is referenced in this report as XL-185P (RB)
XL-185P, FCC ID: OWDTR-0148-E, is referenced in this report as XL-185P (NRB)
XL-185P, FCC ID: OWDTR-0149-E, is referenced in this report as XL-185P (U)
XL-185P, FCC ID: OWDTR-0150-E, is referenced in this report as XL-185P (V)
XL-200P, FCC ID: OWDTR-0133-E, is referenced in this report as XL-200P
XL-185P, FCC ID: OWDTR-0143-E, is referenced in this report as XL-185P (7/8/9)
XL-185P, FCC ID: OWDTR-0145-E, is referenced in this report as XL-185P (7/8)

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3.1 Previous Test Data

Worst Case Test Data FACE Configuration												
Freq (MHz)	Channel		Mode	Acc(1)	Conducted Power (dBm)	BW (MHz)	MPR (dB)	Modulation	RB Size	RB Offset	Duty Cycle (%)	Reported SAR (1g) (W/kg)
782.0	23230	Mid	LTE Band 13	1	23.11	10	0	QPSK	1	25	100	0.359
793.0	23330	Mid	LTE Band 14	2	24.30	10	0	QPSK	1	25	100	0.290
1732.5	20175	Mid	LTE Band 4(AWS)	3	24.31	20	0	QPSK	1	0	100	0.080

Worst Case Test Data BODY Configuration												
Freq (MHz)	Channel		Mode	Acc(1)	Conducted Power (dBm)	BW (MHz)	MPR (dB)	Modulation	RB Size	RB Offset	Duty Cycle (%)	Reported SAR (1g) (W/kg)
782.0	23230	Mid	LTE Band 13	4	23.11	10	0	QPSK	1	25	100	0.251
793.0	23330	Mid	LTE Band 14	5	24.30	10	0	QPSK	1	25	100	0.147
1732.5	20175	Mid	LTE Band 4(AWS)	6	24.31	20	0	QPSK	1	0	100	0.700

(1) Acc = Accessory Group
1 = 14035-4420-01 Antenna, no Body-Worn or Audio Accessories
2 = 14035-4440-01 Antenna, no Body-Worn or Audio Accessories
3 = KRE 1011506/2 Antenna(2), no Body-Worn or Audio Accessories
4 = 14035-4440-01, 12082-0650-10 Headset, 12082-1290-01 Belt Clip
5 = KRE 1011506/1 Antenna(2), 12082-0650-17 Skull Mic, 12082-1290-01 Belt Clip
6 = 14035-4000-01 Antenna, 12082-0650-13 Headset, 12082-1290-01 Belt Clip
(2) These antennas are not commercially available for use on the XL-185P (V), XL-185P (U), XL-185P (RB) or XL-185P (NRB) hosts

Note: The highest BlueTooth and WiFi SAR, when previously measured on the BlueTooth and WiFi channels of XL-200P, XL-185 (7/8) and XL-185P (7/8/9), were produced in the BODY configuration.

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4.0 NORMATIVE REFERENCES

Normative References*	
ANSI / ISO 17025:2005	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
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 643646 D01v01r03	SAR Test Reduction Considerations for Occupational PTT Radios
* 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 for which the product is intended to be used.

Applicant: Harris Corporation	**Date(s) Evaluated:** 5 July - 14 July 2017
Product Name / PMN: PBM-214	**Product Model Number / HVIN:** PBM-214
FCC ID: BV8BBPBM214	**ISEDC ID:** -
Standard(s) Applied: FCC 47 CFR §2.1093 Health Canada's Safety Code 6	
Measurement Procedures: FCC KDB 865664, FCC KDB 447498, FCC KDB 643646 Industry Canada RSS-102 Issue 5 IEEE Standard 1528-2013, IEC 62209-2	
Use Group:	**Limits Applied:**
[X] General Population / User Unaware	[X] 1.6W/kg - 1g Volume
[ ] Occupational / User Aware	[ ] 8.0W/kg - 1g Volume
Reason for Issue:	
[ ] New Certification	[X] Class II Permissive Change
Reason for Change: Addition of four (4) new host variants.	

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 equired 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. 19 July 2017 Date PROFESSIONAL ENGINEER PROVINCE OF BRITISH COLUMBIA A. F. VOSS # 31327

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6.0 RF CONDUCTED POWER MEASUREMENT

Table 6.0 Conducted Power Measurements

Measured Conducted Power								
LTE Band:	13	Bandwidth (MHz):		10	Channel:	23230	Freq (MHz):	782.0
Modulation	RB Size	RB Offset	MPR Allowed (dB)	MPR (dB)	Measured Power (dBm)	Max Rated Power (dBm)	Delta (dBm)	SAR Test Channel (Y/N)
QPSK	1	25	0	0	23.11	24.50	-1.39	Y

Measured Conducted Power								
LTE Band:	14	Bandwidth (MHz):		10	Channel:	23330	Freq (MHz):	793.0
Modulation	RB Size	RB Offset	MPR Allowed (dB)	MPR (dB)	Measured Power (dBm)	Max Rated Power (dBm)	Delta (dBm)	SAR Test Channel (Y/N)
QPSK	1	25	0	0	24.30	24.50	-0.20	Y

Measured Conducted Power								
LTE Band:	4	Bandwidth (MHz):		20	Channel:	20175	Freq (MHz):	1732.5
Modulation	RB Size	RB Offset	MPR Allowed (dB)	MPR (dB)	Measured Power (dBm)	Max Rated Power (dBm)	Delta (dBm)	SAR Test Channel (Y/N)
QPSK	1	0	0	0	24.31	25.50	-1.19	Y

Note: Conducted power measurements shown are of the worst case channels tested.

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7.0 NUMBER OF TEST CHANNELS (N_C)

Reference **Section 3.0 Scope of Evaluation.**

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8.0 ACCESSORIES EVALUATED

Table 8.0 Manufacturer's Accessory List

Change History			
Change ID	**Date**	**Change Type**	**Description of Change**
1	30 Mar 2012	Initial	Initial Filing
2	13 Feb 2013	C2PC	Added BlueTooth and WiFi Features
3	29 Jun 2015	C2PC	Added 14035-4440-01 Antenna and Other Accessories
4	09 Oct 2015	C1PC	Added 14035-4440-02 Antenna (Identical to KRE1011506/2 Antenna)
			Added Modified 14035-4440-01 Antenna (Identical to KRE1011506/1 Antenna)
5	31-Dec-15	C1PC	Added 14035-4420-01 Antenna
6	4-Jun-16	C1PC	Added 12082-0600-03 Antenna/Spr/MIC
7	19-Aug-16	C1PC	Added 14035-4010-04 Li-Ion Battery

Manufacturer's Accessory List							
Test Report ID Number	**Manufacturer's Part Number**	**Description**	**Change ID(1)**	**UDC Group(2)**	**Type II Group(3)**	**SAR(4) Evaluated**	**SAR(5) Tested**
		Antenna					
T4	14035-4000-01	Full Spectrum Whip Antenna	1			Y	Y
T5	14035-4420-01	Wideband Whip, UHF, 7/800 MHz	5			Y	Y
T6	14035-4440-01	1/2 Wave Whip Antenna, 7/800 MHz	4			Y	Y
T7	14035-4440-02	1/4 Wave Stub Antenna, 7/800 MHz	4			Y	Y
T8	14035-4450-01	1/4 Wave Stub Antenna, 7/800 MHz	4			Y	Y
T9	14035-4450-02	1/4 Wave Stub Antenna, 7/800 MHz	4			Y	Y
		Battery					
P1	14034-4010-01	Li-Ion Battery 7.2VDC, 3300mAh	1			Y	Y
P2	14034-4010-04	Li-Ion Battery 7.2VDC, 3100mAh, 22Wh	7			Y	N
P5	14034-4010-05	Li-Ion Battery 7.2VDC, 3100mAh, 22Wh, UL	7			Y	N

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Manufacturer's Accessory List							
Test Report ID Number	Manufacturer's Part Number	Description	Change ID(1)	UDC Group(2)	Type II Group(3)	SAR(4) Evaluated	SAR(5) Tested
		Audio Accessory					
A1	12082-0600-01	Standard Speaker Microphone	1	7A	PB	Y	Y
A2	12082-0600-02	Storm Speaker Microphone	1	7A	PB	Y	Y
A28	12082-0600-03	Storm Speaker Microphone	6	7A	PB	Y	Y
A3	12150-1000-01	Premium Speaker MIC, Fire, NC	1	9	PB	Y	Y
A29	12150-1000-05	Premium Speaker MIC, Fire, NC, Hi-Vis Yellow	1	9	PB	Y	Y
A4	12082-0650-01	Microphone, Palm, 2-Wire Black	1	7A	IL	Y	Y
A5	12082-0650-02	Microphone, Palm, 2-Wire Beige	3	7A	IL	Y	-
A6	12082-0650-03	Microphone, Mini Lapel, 3-Wire Black	1	7A	IL	Y	Y
A7	12082-0650-04	Microphone, Mini Lapel, 3-Wire Beige	3	7A	IL	Y	-
A8	12082-0650-05	Earphone Kit, Black, XG-100P	**			Y	-
A9	12082-0650-06	Earphone Kit, Beige, XG-100P	**			Y	-
A10	12082-0650-07	Headset, In-Ear, Boom MIC, In-Line PTT	3	7A	IL	Y	-
A11	12082-0650-08	Headset, LTWT, OTH, Single Ear, IN-Line PTT	3	7A	IL	Y	-
A12	12082-0650-09	Headset, LTWT, BTH, Dual Ear, In_Line PTT	3	7A	IL	Y	-
A13	12082-0650-10	Headset, LTWT, BTH, Dual Ear, Pig Tail PTT	3	7A	PT	Y	Y
A14	12082-0650-11	Headset, LTWT, BTH, Dual In-Ear, In_Line PTT	3	7A	IL	Y	-
A15	12082-0650-12	Headset, LTWT, BTH, Dual In-Ear, Pig Tail PTT	3	7A	PT	Y	Y
A16	12082-0650-13	Headset, Heavy Duty, BTH, w/PTT, XG-100P	3	7A	IL	Y	Y
A17	12082-0650-14	Headset, Heavy Duty, OTH, w/PTT, XG-100P	3	7A	IL	Y	-
A18	12082-0650-15	Headset, BTH, Boom MIC, Earpiece, w/PTT	**			Y	-
A19	12082-0650-16	Headset, Tactical, Boom MIC, Earpiece, w/PTT	3	7A	PT	Y	-
A20	12082-0650-17	Skull MIC, w/Body PTT, Earcup, XG-100P	3	9	BB	Y	Y
A21	12082-0650-18	Throat MIC, w/Acoustic Tube, Body PTT	3	9	BB	Y	-
A22	12082-0650-19	Throat MIC, w/Acoustic Tube, Body & Ring PTT	3	9	RB	Y	-
A23	12082-0681-01	Speaker MIC, Wireless Bluetooth	3	BT	PB	Y	-
A24	12082-0684-01	BlueTooth, Covert, Earpiece, MIC, PTT	3	BT	n/a	Y	-
A25	14002-0197-01	Hirose to Unity Adapter	1	7B	n/a	Y	Y
A26	LS103239V1	Earphone, Lapel MIC, 2.5mm	3	n/a	n/a	Y	Y
A27	LS103239V2	Earphone, Lapel MIC, 2.5mm, Right Angle	4	n/a	n/a	Y	-

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Manufacturer's Accessory List							
Test Report ID Number	Manufacturer's Part Number	Description	Change ID(1)	UDC Group(2)	Type II Group(3)	SAR(4) Evaluated	SAR(5) Tested
		Body-Worn Accessory					
B1	12082-1290-01	Metal Belt Clip	1			Y	Y
B17	12082-1398-01	Side Connector Cover	1			Y	Y
B2	12082-3230-01	D-Swivel (Used w/ 14002-0218-01 and KRY 1011609/1)	1			Y	Y
B3	14002-0218-01	Premium Belt Loop	1			Y	Y
B4	14035-4200-01	Holster, Leather, Radio, Premium	3			Y	Y
B5	14035-4200-02	Holster, Leather w/Rings for Shoulder Strap, Radio, Premium	3			Y	Y
B6	14035-4200-03	Holster, Nylon, Black, Radio, Premium	**			Y	-
B7	14035-4200-04	Holster, Ring, Leather, Radio, Premium	**			Y	-
B8	14035-4201-01	Kit, 14035-4200-01 Holster Assy w/ 14002-0218-01 Belt Loop	**			Y	-
B16	14035-4201-02	Case, Leather, Premium, Shoulder Strap	**			Y	-
B9	14035-4202-02	Kit, 14035-4200-02 Holster Assy w/ 14002-0218-01 Belt Loop	**			Y	-
B10	14035-4202-01	Holster, Leather, Radio, Standard	**			Y	-
B11	14035-4202-02	Holster, Leather w/Rings for Shoulder Strap, Radio, Standard	**			Y	-
B12	14035-4202-03	Holster, Nylon, Black, Radio, Standard	**			Y	-
B13	14035-4202-04	Holster, Ring, Leather, Radio, Standard	**			Y	-
B18	14036-4000-01	Holster, Leather, Premium	**			Y	-
B19	14036-4000-02	Holster, Leather, Rings, Premium	**			Y	-
B14	CC103333V1	Shoulder Strap	1			Y	Y
B15	KRY 1011609/1	Leather Belt Loop	1			Y	Y

(1) From Table 6.0 - Indicates which change the item was introduced or tested. A "**" in this column indicates these accessories were evaluated on similar product and are deemed compliant.

(2) UDC Group: 9 = 9 Pin, 7A = 7 Pin, 7B = 7 Pin Modified

(3) Type II Group: PB = Palm Button, IL = In-Line Pushbutton, PT = Pigtail Pushbutton, RB = Ring Pushbutton, BB = Body Button, BT = BlueTooth

(4) Accessories are categorized into groups of similar design and construction. Samples of individual groups are SAR Tested and the SAR results apply to ALL members of the Accessory Group. A "Y" in this column indicates the accessory is deemed acceptable.

(5) Accessories and/or Accessory Group members SAR Tested.

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9.0 SAR MEASUREMENT SUMMARY

Table 9.0: Measured Results XL-185P (RB), Band 14, BODY

Measured SAR Results (1g) - BODY Configuration XL-185P (RB), FCC ID: OWDTR-0147-E															
LTE Band:	14	Mid Channel:	23330	Freq (MHz):	793MHz	BW (MHz):	10	RB Size:	1	RB Offset:	25	MPR (dB):	0		
Date	Test ID	DUT		Modulation	Accessories				DUT Spacing		Conducted Power		SAR		SAR Drift (dB)
		M/N	Type		Antenna ID	Battery ID	Body ID	Audio ID	DUT (mm)	Antenna (mm)	Meas (dBm)	Rated (dBm)	Meas (W/kg)	Adj* (W/kg)	
10 July 2017	B8-2	XL-185P (RB)	Sys	QPSK	T7	P1	B1	A1	0	30	24.3	24.5	0.344	0.361	-0.038
10 July 2017	B10-2	XL-185P (RB)	SCAN	QPSK	T7	P1	B1	A1	0	30	24.3	24.5	0.299	0.314	-0.188
SAR Limit							Spatial Peak		Head/Body		RF Exposure Category				
FCC 47 CFR 2.1093				Health Canada Safety Code 6			1 Gram Average		1.6 W/kg		General Population				

* Scaled to Tune-Up Tolerance

Table 9.1: Measured Results XL-185P (RB), Band 14, FACE

Measured SAR Results (1g) - FACE Configuration XL-185P (RB), FCC ID: OWDTR-0147-E															
LTE Band:	14	Mid Channel:	23330	Freq (MHz):	793MHz	BW (MHz):	10	RB Size:	1	RB Offset:	25	MPR (dB):	0		
Date	Test ID	DUT		Modulation	Accessories				DUT Spacing		Conducted Power		SAR		SAR Drift (dB)
		M/N	Type		Antenna ID	Battery ID	Body ID	Audio ID	DUT (mm)	Antenna (mm)	Meas (dBm)	Rated (dBm)	Meas (W/kg)	Adj* (W/kg)	
11 July 2017	F1	XL-185P (RB)	Sys	QPSK	T7	P1	n/a	n/a	25	55	24.3	24.5	0.172	0.181	0.103
11 July 2017	F2	XL-185P (RB)	SCAN	QPSK	T7	P1	n/a	n/a	25	55	24.3	24.5	0.149	0.156	0.105
SAR Limit							Spatial Peak		Head/Body		RF Exposure Category				
FCC 47 CFR 2.1093				Health Canada Safety Code 6			1 Gram Average		1.6 W/kg		General Population				

* Scaled to Tune-Up Tolerance

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Table 9.2: Measured Results XL-185P (RB), Band 13, BODY

Measured SAR Results (1g) - BODY Configuration XL-185P (RB), FCC ID: OWDTR-0147-E															
LTE Band:	13	Mid Channel:	23230	Freq (MHz):	782MHz	BW (MHz):	10	RB Size:	1	RB Offset:		25	MPR (dB):	0	
Date	Test ID	DUT M/N	DUT Type	Modulation	Accessories Antenna ID	Accessories Battery ID	Accessories Body ID	Accessories Audio ID	DUT Spacing DUT (mm)	DUT Spacing Antenna (mm)	Conducted Power Meas (dBm)	Conducted Power Rated (dBm)	SAR Meas (W/kg)	SAR Adj* (W/kg)	SAR Drift (dB)
07 July 2017	B3-2	XL-185P (RB)	Sys	QPSK	T7	P1	B1	A1	0	30	23.11	24.5	0.182	0.251	0.118
07 July 2017	B6-2	XL-185P (RB)	SCAN	QPSK	T7	P1	B1	A1	0	30	23.11	24.5	0.160	0.221	0.146
SAR Limit							Spatial Peak			Head/Body		RF Exposure Category			
FCC 47 CFR 2.1093				Health Canada Safety Code 6			1 Gram Average			1.6 W/kg		General Population			

* Scaled to Tune-Up Tolerance

Table 9.3: Measured Results XL-185P (RB), Band 13, FACE

Measured SAR Results (1g) - FACE Configuration XL-185P (RB), FCC ID: OWDTR-0147-E															
LTE Band:	13	Mid Channel:	23230	Freq (MHz):	782MHz	BW (MHz):	10	RB Size:	1	RB Offset:		25	MPR (dB):	0	
Date	Test ID	DUT M/N	DUT Type	Modulation	Accessories Antenna ID	Accessories Battery ID	Accessories Body ID	Accessories Audio ID	DUT Spacing DUT (mm)	DUT Spacing Antenna (mm)	Conducted Power Meas (dBm)	Conducted Power Rated (dBm)	SAR Meas (W/kg)	SAR Adj* (W/kg)	SAR Drift (dB)
11 July 2017	F3	XL-185P (RB)	Sys	QPSK	T7	P1	n/a	n/a	25	55	23.11	24.5	0.164	0.226	-0.037
11 July 2017	F4	XL-185P (RB)	SCAN	QPSK	T7	P1	n/a	n/a	25	55	23.11	24.5	0.174	0.240	0.189
SAR Limit							Spatial Peak			Head/Body		RF Exposure Category			
FCC 47 CFR 2.1093				Health Canada Safety Code 6			1 Gram Average			1.6 W/kg		General Population			

* Scaled to Tune-Up Tolerance

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Table 9.4: Measured Results XL-185P (RB), Band 4(AWS), BODY

Measured SAR Results (1g) - BODY Configuration XL-185P (RB), FCC ID: OWDTR-0147-E															
LTE Band:	4	Mid Channel:	20175	Freq (MHz):	1732.5MHz	BW (MHz):	20	RB Size:	1	RB Offset:		0	MPR (dB):	0	
Date	Test	DUT		Modulation	Accessories				DUT Spacing		Conducted Power		SAR		SAR
					Antenna	Battery	Body	Audio	DUT	Antenna	Meas	Rated	Meas	Adj*	Drift
	ID	M/N	Type		ID	ID	ID	ID	(mm)	(mm)	(dBm)	(dBm)	(W/kg)	(W/kg)	(dB)
12 July 2017	B11	XL-185P (RB)	Sys	QPSK	T7	P1	B1	A1	0	30	24.31	25.5	0.116	0.153	0.134
12 July 2017	B12	XL-185P (RB)	Sys	QPSK	T7	P1	B1	A1	0	30	24.31	25.5	0.077	0.101	0.183
SAR Limit							Spatial Peak		Head/Body		RF Exposure Category				
FCC 47 CFR 2.1093				Health Canada Safety Code 6			1 Gram Average		1.6 W/kg		General Population				

* Scaled to Tune-Up Tolerance

Table 9.5: Measured Results XL-185P (RB), Band 4(AWS), FACE

Measured SAR Results (1g) - FACE Configuration XL-185P (RB), FCC ID: OWDTR-0147-E															
LTE Band:	4	Mid Channel:	20175	Freq (MHz):	1732.5MHz	BW (MHz):	20	RB Size:	1	RB Offset:		0	MPR (dB):	0	
Date	Test	DUT		Modulation	Accessories				DUT Spacing		Conducted Power		SAR		SAR
					Antenna	Battery	Body	Audio	DUT	Antenna	Meas	Rated	Meas	Adj*	Drift
	ID	M/N	Type		ID	ID	ID	ID	(mm)	(mm)	(dBm)	(dBm)	(W/kg)	(W/kg)	(dB)
14 July 2017	F5	XL-185P (RB)	Sys	QPSK	T7	P1	n/a	n/a	25	55	24.31	25.5	0.056	0.074	0.181
14 July 2017	F6	XL-185P (RB)	SCAN	QPSK	T7	P1	n/a	n/a	25	55	24.31	25.5	0.045	0.059	0.013
SAR Limit							Spatial Peak		Head/Body		RF Exposure Category				
FCC 47 CFR 2.1093				Health Canada Safety Code 6			1 Gram Average		1.6 W/kg		General Population				

* Scaled to Tune-Up Tolerance

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Table 9.6: Measured Results XL-185P (NRB), Band 14, BODY

Measured SAR Results (1g) - BODY Configuration XL-185P (NRB), FCC ID: OWDTR-0148-E															
LTE Band:	14	Mid Channel:	23330	Freq (MHz):	793MHz	BW (MHz):	10	RB Size:	1	RB Offset:		25	MPR (dB):	0	
Date	Test ID	DUT M/N	DUT Type	Modulation	Accessories Antenna ID	Accessories Battery ID	Accessories Body ID	Accessories Audio ID	DUT Spacing DUT (mm)	DUT Spacing Antenna (mm)	Conducted Power Meas (dBm)	Conducted Power Rated (dBm)	SAR Meas (W/kg)	SAR Adj* (W/kg)	SAR Drift (dB)
10 July 2017	B2-2	XL-185P (NRB)	Sys	QPSK	T7	P1	B1	A1	0	30	24.3	24.5	0.148	0.155	0.143
10 July 2017	B4-3	XL-185P (NRB)	SCAN	QPSK	T7	P1	B1	A1	0	30	24.3	24.5	0.355	0.373	0.029
SAR Limit							Spatial Peak		Head/Body		RF Exposure Category				
FCC 47 CFR 2.1093				Health Canada Safety Code 6			1 Gram Average		1.6 W/kg		General Population				

* Scaled to Tune-Up Tolerance

Table 9.7: Measured Results XL-185P (NRB), Band 14, FACE

Measured SAR Results (1g) - FACE Configuration XL-185P (NRB), FCC ID: OWDTR-0148-E															
LTE Band:	14	Mid Channel:	23330	Freq (MHz):	793MHz	BW (MHz):	10	RB Size:	1	RB Offset:		25	MPR (dB):	0	
Date	Test ID	DUT M/N	DUT Type	Modulation	Accessories Antenna ID	Accessories Battery ID	Accessories Body ID	Accessories Audio ID	DUT Spacing DUT (mm)	DUT Spacing Antenna (mm)	Conducted Power Meas (dBm)	Conducted Power Rated (dBm)	SAR Meas (W/kg)	SAR Adj* (W/kg)	SAR Drift (dB)
11 July 2017	F1	XL-185P (NRB)	Sys	QPSK	T7	P1	n/a	n/a	25	55	24.3	24.5	0.080	0.084	0.108
11 July 2017	F2	XL-185P (NRB)	SCAN	QPSK	T7	P1	n/a	n/a	25	55	24.3	24.5	0.175	0.184	0.105
SAR Limit							Spatial Peak		Head/Body		RF Exposure Category				
FCC 47 CFR 2.1093				Health Canada Safety Code 6			1 Gram Average		1.6 W/kg		General Population				

* Scaled to Tune-Up Tolerance

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Table 9.8: Measured Results XL-185P (NRB), Band 13, BODY

Measured SAR Results (1g) - BODY Configuration XL-185P (NRB), FCC ID: OWDTR-0148-E															
LTE Band:	13	Mid Channel:	23230	Freq (MHz):	782MHz	BW (MHz):	-	RB Size:	-	RB Offset:		-	MPR (dB):	-	
Date	Test ID	DUT M/N	DUT Type	Modulation	Accessories Antenna ID	Accessories Battery ID	Accessories Body ID	Accessories Audio ID	DUT Spacing DUT (mm)	DUT Spacing Antenna (mm)	Conducted Power Meas (dBm)	Conducted Power Rated (dBm)	SAR Meas (W/kg)	SAR Adj* (W/kg)	SAR Drift (dB)
10 July 2017	B5	XL-185P (NRB)	Sys	CW	T7	P1	B1	A1	0	30	23.11	24.5	0.071	0.098	-0.121
10 July 2017	B6	XL-185P (NRB)	Sys	CW	T7	P1	B1	A1	0	30	23.11	24.5	0.214	0.295	-0.124
SAR Limit							Spatial Peak		Head/Body		RF Exposure Category				
FCC 47 CFR 2.1093				Health Canada Safety Code 6			1 Gram Average		1.6 W/kg		General Population				

* Scaled to Tune-Up Tolerance

Table 9.9: Measured Results XL-185P (NRB), Band 13, FACE

Measured SAR Results (1g) - FACE Configuration XL-185P (NRB), FCC ID: OWDTR-0148-E															
LTE Band:	13	Mid Channel:	23230	Freq (MHz):	782MHz	BW (MHz):	-	RB Size:	-	RB Offset:		-	MPR (dB):	-	
Date	Test ID	DUT M/N	DUT Type	Modulation	Accessories Antenna ID	Accessories Battery ID	Accessories Body ID	Accessories Audio ID	DUT Spacing DUT (mm)	DUT Spacing Antenna (mm)	Conducted Power Meas (dBm)	Conducted Power Rated (dBm)	SAR Meas (W/kg)	SAR Adj* (W/kg)	SAR Drift (dB)
11 July 2017	F3	XL-185P (NRB)	Sys	CW	T7	P1	n/a	n/a	25	55	23.11	24.5	0.075	0.104	0.144
11 July 2017	F4	XL-185P (NRB)	SCAN	CW	T7	P1	n/a	n/a	25	55	23.11	24.5	0.179	0.247	0.189
SAR Limit							Spatial Peak		Head/Body		RF Exposure Category				
FCC 47 CFR 2.1093				Health Canada Safety Code 6			1 Gram Average		1.6 W/kg		General Population				

* Scaled to Tune-Up Tolerance

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Table 9.10: Measured Results XL-185P (NRB), Band 4(AWS), BODY

Measured SAR Results (1g) - BODY Configuration XL-185P (NRB), FCC ID: OWDTR-0148-E															
LTE Band:	4	Mid Channel:	20175	Freq (MHz):	1732.5MHz	BW (MHz):	-	RB Size:	-	RB Offset:		-	MPR (dB):	-	
Date	Test ID	DUT M/N	DUT Type	Modulation	Accessories Antenna ID	Accessories Battery ID	Accessories Body ID	Accessories Audio ID	DUT Spacing DUT (mm)	DUT Spacing Antenna (mm)	Conducted Power Meas (dBm)	Conducted Power Rated (dBm)	SAR Meas (W/kg)	SAR Adj* (W/kg)	SAR Drift (dB)
13 July 2017	B7	XL-185P (NRB)	Sys	CW	T7	P1	B1	A1	0	30	24.31	25.5	0.059	0.078	-0.103
13 July 2017	B8	XL-185P (NRB)	Sys	CW	T7	P1	B1	A1	0	30	24.31	25.5	0.096	0.126	-0.167
SAR Limit							Spatial Peak		Head/Body		RF Exposure Category				
FCC 47 CFR 2.1093				Health Canada Safety Code 6			1 Gram Average		1.6 W/kg		General Population				

* Scaled to Tune-Up Tolerance

Table 9.11: Measured Results XL-185P (NRB), Band 4(AWS), FACE

Measured SAR Results (1g) - FACE Configuration XL-185P (NRB), FCC ID: OWDTR-0148-E															
LTE Band:	4	Mid Channel:	20175	Freq (MHz):	1732.5MHz	BW (MHz):	-	RB Size:	-	RB Offset:		-	MPR (dB):	-	
Date	Test ID	DUT M/N	DUT Type	Modulation	Accessories Antenna ID	Accessories Battery ID	Accessories Body ID	Accessories Audio ID	DUT Spacing DUT (mm)	DUT Spacing Antenna (mm)	Conducted Power Meas (dBm)	Conducted Power Rated (dBm)	SAR Meas (W/kg)	SAR Adj* (W/kg)	SAR Drift (dB)
14 July 2017	F5	XL-185P (NRB)	Sys	CW	T7	P1	n/a	n/a	25	55	24.31	25.5	0.033	0.043	-0.175
14 July 2017	F6	XL-185P (NRB)	SCAN	CW	T7	P1	n/a	n/a	25	55	24.31	25.5	0.037	0.048	0.103
SAR Limit							Spatial Peak		Head/Body		RF Exposure Category				
FCC 47 CFR 2.1093				Health Canada Safety Code 6			1 Gram Average		1.6 W/kg		General Population				

* Scaled to Tune-Up Tolerance

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Table 9.12: Measured Results XL-185P (U), Band 14, BODY

Measured SAR Results (1g) - BODY Configuration XL-185P (U), FCC ID: OWDTR-0149-E															
LTE Band:	14	Mid Channel:	23330	Freq (MHz):	793MHz	BW (MHz):	10	RB Size:	1	RB Offset:		25	MPR (dB):	0	
Date	Test ID	DUT		Modulation	Accessories				DUT Spacing		Conducted Power		SAR		SAR Drift (dB)
		M/N	Type		Antenna ID	Battery ID	Body ID	Audio ID	DUT (mm)	Antenna (mm)	Meas (dBm)	Rated (dBm)	Meas (W/kg)	Adj* (W/kg)	
10 July 2017	B3-2	XL-185P (U)	Sys	QPSK	T5	P1	B1	A1	0	30	24.3	24.5	0.312	0.328	-0.051
10 July 2017	B6-3	XL-185P (U)	SCAN	QPSK	T5	P1	B1	A1	0	30	24.3	24.5	0.178	0.187	-0.071
SAR Limit							Spatial Peak		Head/Body		RF Exposure Category				
FCC 47 CFR 2.1093				Health Canada Safety Code 6			1 Gram Average		1.6 W/kg		General Population				

* Scaled to Tune-Up Tolerance

Table 9.13: Measured Results XL-185P (U), Band 14, FACE

Measured SAR Results (1g) - FACE Configuration XL-185P (U), FCC ID: OWDTR-0149-E															
LTE Band:	14	Mid Channel:	23330	Freq (MHz):	793MHz	BW (MHz):	10	RB Size:	1	RB Offset:		25	MPR (dB):	0	
Date	Test ID	DUT		Modulation	Accessories				DUT Spacing		Conducted Power		SAR		SAR Drift (dB)
		M/N	Type		Antenna ID	Battery ID	Body ID	Audio ID	DUT (mm)	Antenna (mm)	Meas (dBm)	Rated (dBm)	Meas (W/kg)	Adj* (W/kg)	
11 July 2017	F1	XL-185P (U)	Sys	QPSK	T5	P1	n/a	n/a	25	55	24.3	24.5	0.138	0.145	0.137
11 July 2017	F2	XL-185P (U)	SCAN	QPSK	T5	P1	n/a	n/a	25	55	24.3	24.5	0.095	0.100	0.169
SAR Limit							Spatial Peak		Head/Body		RF Exposure Category				
FCC 47 CFR 2.1093				Health Canada Safety Code 6			1 Gram Average		1.6 W/kg		General Population				

* Scaled to Tune-Up Tolerance

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Table 9.14: Measured Results XL-185P (U), Band 13, BODY

Measured SAR Results (1g) - BODY Configuration XL-185P (U), FCC ID: OWDTR-0149-E															
LTE Band:	13	Mid Channel:	23230	Freq (MHz):	782MHz	BW (MHz):	-	RB Size:	-	RB Offset:		-	MPR (dB):	-	
Date	Test ID	DUT M/N	DUT Type	Modulation	Accessories Antenna ID	Accessories Battery ID	Accessories Body ID	Accessories Audio ID	DUT Spacing DUT (mm)	DUT Spacing Antenna (mm)	Conducted Power Meas (dBm)	Conducted Power Rated (dBm)	SAR Meas (W/kg)	SAR Adj* (W/kg)	SAR Drift (dB)
10 July 2017	B7	XL-185P (U)	Sys	CW	T5	P1	B1	A1	0	30	23.11	24.5	0.215	0.297	-0.050
10 July 2017	B8	XL-185P (U)	Sys	CW	T5	P1	B1	A1	0	30	23.11	24.5	0.195	0.269	-0.209
SAR Limit							Spatial Peak		Head/Body		RF Exposure Category				
FCC 47 CFR 2.1093				Health Canada Safety Code 6			1 Gram Average		1.6 W/kg		General Population				

* Scaled to Tune-Up Tolerance

Table 9.15: Measured Results XL-185P (U), Band 13, FACE

Measured SAR Results (1g) - FACE Configuration XL-185P (U), FCC ID: OWDTR-0149-E															
LTE Band:	13	Mid Channel:	23230	Freq (MHz):	782MHz	BW (MHz):	-	RB Size:	-	RB Offset:		-	MPR (dB):	-	
Date	Test ID	DUT M/N	DUT Type	Modulation	Accessories Antenna ID	Accessories Battery ID	Accessories Body ID	Accessories Audio ID	DUT Spacing DUT (mm)	DUT Spacing Antenna (mm)	Conducted Power Meas (dBm)	Conducted Power Rated (dBm)	SAR Meas (W/kg)	SAR Adj* (W/kg)	SAR Drift (dB)
11 July 2017	F3	XL-185P (U)	Sys	CW	T5	P1	n/a	n/a	25	55	23.11	24.5	0.139	0.192	0.160
11 July 2017	F4	XL-185P (U)	SCAN	CW	T5	P1	n/a	n/a	25	55	23.11	24.5	0.103	0.142	0.151
SAR Limit							Spatial Peak		Head/Body		RF Exposure Category				
FCC 47 CFR 2.1093				Health Canada Safety Code 6			1 Gram Average		1.6 W/kg		General Population				

* Scaled to Tune-Up Tolerance

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Table 9.16: Measured Results XL-185P (U), Band 4(AWS), BODY

Measured SAR Results (1g) - BODY Configuration XL-185P (U), FCC ID: OWDTR-0149-E															
LTE Band:	4	Mid Channel:	20175	Freq (MHz):	1732.5MHz	BW (MHz):	-	RB Size:	-	RB Offset:		-	MPR (dB):	-	
Date	Test ID	DUT M/N	DUT Type	Modulation	Accessories Antenna ID	Accessories Battery ID	Accessories Body ID	Accessories Audio ID	DUT Spacing DUT (mm)	DUT Spacing Antenna (mm)	Conducted Power Meas (dBm)	Conducted Power Rated (dBm)	SAR Meas (W/kg)	SAR Adj* (W/kg)	SAR Drift (dB)
13 July 2017	B9	XL-185P (U)	Sys	CW	T5	P1	B1	A1	0	30	24.31	25.5	0.060	0.080	-0.185
13 July 2017	B10	XL-185P (U)	Sys	CW	T5	P1	B1	A1	0	30	24.31	25.5	0.085	0.112	-0.130
SAR Limit							Spatial Peak		Head/Body		RF Exposure Category				
FCC 47 CFR 2.1093				Health Canada Safety Code 6			1 Gram Average		1.6 W/kg		General Population				

* Scaled to Tune-Up Tolerance

Table 9.17: Measured Results XL-185P (U), Band 4(AWS), FACE

Measured SAR Results (1g) - FACE Configuration XL-185P (U), FCC ID: OWDTR-0149-E															
LTE Band:	4	Mid Channel:	20175	Freq (MHz):	1732.5MHz	BW (MHz):	-	RB Size:	-	RB Offset:		-	MPR (dB):	-	
Date	Test ID	DUT M/N	DUT Type	Modulation	Accessories Antenna ID	Accessories Battery ID	Accessories Body ID	Accessories Audio ID	DUT Spacing DUT (mm)	DUT Spacing Antenna (mm)	Conducted Power Meas (dBm)	Conducted Power Rated (dBm)	SAR Meas (W/kg)	SAR Adj* (W/kg)	SAR Drift (dB)
14 July 2017	F5	XL-185P (U)	Sys	CW	T5	P1	n/a	n/a	25	55	24.31	25.5	0.031	0.041	0.112
14 July 2017	F6	XL-185P (U)	SCAN	CW	T5	P1	n/a	n/a	25	55	24.31	25.5	0.032	0.042	0.163
SAR Limit							Spatial Peak		Head/Body		RF Exposure Category				
FCC 47 CFR 2.1093				Health Canada Safety Code 6			1 Gram Average		1.6 W/kg		General Population				

* Scaled to Tune-Up Tolerance

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Table 9.18: Measured Results XL-185P (V), Band 14, BODY

Measured SAR Results (1g) - BODY Configuration XL-185P (V), FCC ID: OWDTR-0150-E															
LTE Band:	14	Mid Channel:	23330	Freq (MHz):	793MHz	BW (MHz):	10	RB Size:	1	RB Offset:		25	MPR (dB):	0	
Date	Test ID	DUT		Modulation	Accessories				DUT Spacing		Conducted Power		SAR		SAR Drift (dB)
		M/N	Type		Antenna ID	Battery ID	Body ID	Audio ID	DUT (mm)	Antenna (mm)	Meas (dBm)	Rated (dBm)	Meas (W/kg)	Adj* (W/kg)	
10 July 2017	B2-2	XL-185P (V)	Sys	QPSK	T4	P1	B1	A1	0	30	24.3	24.5	0.114	0.120	0.125
10 July 2017	B4-2	XL-185P (V)	SCAN	QPSK	T4	P1	B1	A1	0	30	24.3	24.5	0.297	0.312	-0.121
SAR Limit							Spatial Peak		Head/Body		RF Exposure Category				
FCC 47 CFR 2.1093				Health Canada Safety Code 6			1 Gram Average		1.6 W/kg		General Population				

* Scaled to Tune-Up Tolerance

Table 9.19: Measured Results XL-185P (V), Band 14, FACE

Measured SAR Results (1g) - FACE Configuration XL-185P (V), FCC ID: OWDTR-0150-E															
LTE Band:	14	Mid Channel:	23330	Freq (MHz):	793MHz	BW (MHz):	10	RB Size:	1	RB Offset:		25	MPR (dB):	0	
Date	Test ID	DUT		Modulation	Accessories				DUT Spacing		Conducted Power		SAR		SAR Drift (dB)
		M/N	Type		Antenna ID	Battery ID	Body ID	Audio ID	DUT (mm)	Antenna (mm)	Meas (dBm)	Rated (dBm)	Meas (W/kg)	Adj* (W/kg)	
11 July 2017	F1	XL-185P (V)	Sys	QPSK	T4	P1	n/a	n/a	25	55	24.3	24.5	0.119	0.125	0.190
11 July 2017	F2	XL-185P (V)	SCAN	QPSK	T4	P1	n/a	n/a	25	55	24.3	24.5	0.120	0.126	0.158
SAR Limit							Spatial Peak		Head/Body		RF Exposure Category				
FCC 47 CFR 2.1093				Health Canada Safety Code 6			1 Gram Average		1.6 W/kg		General Population				

* Scaled to Tune-Up Tolerance

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Table 9.20: Measured Results XL-185P (V), Band 13, BODY

Measured SAR Results (1g) - BODY Configuration XL-185P (V), FCC ID: OWDTR-0150-E															
LTE Band:	13	Mid Channel:	23230	Freq (MHz):	782MHz	BW (MHz):	-	RB Size:	-	RB Offset:		-	MPR (dB):	-	
Date	Test ID	DUT M/N	DUT Type	Modulation	Accessories Antenna ID	Accessories Battery ID	Accessories Body ID	Accessories Audio ID	DUT Spacing DUT (mm)	DUT Spacing Antenna (mm)	Conducted Power Meas (dBm)	Conducted Power Rated (dBm)	SAR Meas (W/kg)	SAR Adj* (W/kg)	SAR Drift (dB)
10 July 2017	B5	XL-185P (V)	Sys	CW	T4	P1	B1	A1	0	30	23.11	24.5	0.141	0.195	-0.129
10 July 2017	B6	XL-185P (V)	Sys	CW	T4	P1	B1	A1	0	30	23.11	24.5	0.228	0.315	-0.107
SAR Limit							Spatial Peak		Head/Body		RF Exposure Category				
FCC 47 CFR 2.1093				Health Canada Safety Code 6			1 Gram Average		1.6 W/kg		General Population				

* Scaled to Tune-Up Tolerance

Table 9.21: Measured Results XL-185P (V), Band 13, FACE

Measured SAR Results (1g) - FACE Configuration XL-185P (V), FCC ID: OWDTR-0150-E															
LTE Band:	13	Mid Channel:	23230	Freq (MHz):	782MHz	BW (MHz):	-	RB Size:	-	RB Offset:		-	MPR (dB):	-	
Date	Test ID	DUT M/N	DUT Type	Modulation	Accessories Antenna ID	Accessories Battery ID	Accessories Body ID	Accessories Audio ID	DUT Spacing DUT (mm)	DUT Spacing Antenna (mm)	Conducted Power Meas (dBm)	Conducted Power Rated (dBm)	SAR Meas (W/kg)	SAR Adj* (W/kg)	SAR Drift (dB)
11 July 2017	F3	XL-185P (V)	Sys	CW	T4	P1	n/a	n/a	25	55	23.11	24.5	0.148	0.204	0.090
11 July 2017	F4	XL-185P (V)	SCAN	CW	T4	P1	n/a	n/a	25	55	23.11	24.5	0.137	0.189	0.128
SAR Limit							Spatial Peak		Head/Body		RF Exposure Category				
FCC 47 CFR 2.1093				Health Canada Safety Code 6			1 Gram Average		1.6 W/kg		General Population				

* Scaled to Tune-Up Tolerance

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Table 9.22: Measured Results XL-185P (V), Band 4(AWS), BODY

Measured SAR Results (1g) - BODY Configuration XL-185P (V), FCC ID: OWDTR-0150-E															
LTE Band:	4	Mid Channel:	20175	Freq (MHz):	1732.5MHz	BW (MHz):	-	RB Size:	-	RB Offset:		-	MPR (dB):	-	
Date	Test ID	DUT M/N	DUT Type	Modulation	Accessories: Antenna ID	Accessories: Battery ID	Accessories: Body ID	Accessories: Audio ID	DUT Spacing: DUT (mm)	DUT Spacing: Antenna (mm)	Conducted Power: Meas (dBm)	Conducted Power: Rated (dBm)	SAR: Meas (W/kg)	SAR: Adj* (W/kg)	SAR Drift (dB)
13 July 2017	B7	XL-185P (V)	Sys	CW	T4	P1	B1	A1	0	30	24.31	25.5	0.073	0.096	-0.124
13 July 2017	B8	XL-185P (V)	Sys	CW	T4	P1	B1	A1	0	30	24.31	25.5	0.061	0.081	-0.057
SAR Limit							Spatial Peak		Head/Body		RF Exposure Category				
FCC 47 CFR 2.1093				Health Canada Safety Code 6			1 Gram Average		1.6 W/kg		General Population				

* Scaled to Tune-Up Tolerance

Table 9.23: Measured Results XL-185P (V), Band 4(AWS), FACE

Measured SAR Results (1g) - FACE Configuration XL-185P (V), FCC ID: OWDTR-0150-E															
LTE Band:	4	Mid Channel:	20175	Freq (MHz):	1732.5MHz	BW (MHz):	-	RB Size:	-	RB Offset:		-	MPR (dB):	-	
Date	Test ID	DUT M/N	DUT Type	Modulation	Accessories: Antenna ID	Accessories: Battery ID	Accessories: Body ID	Accessories: Audio ID	DUT Spacing: DUT (mm)	DUT Spacing: Antenna (mm)	Conducted Power: Meas (dBm)	Conducted Power: Rated (dBm)	SAR: Meas (W/kg)	SAR: Adj* (W/kg)	SAR Drift (dB)
14 July 2017	F5	XL-185P (V)	Sys	CW	T4	P1	n/a	n/a	25	55	24.31	25.5	0.038	0.050	0.132
14 July 2017	F6	XL-185P (V)	SCAN	CW	T4	P1	n/a	n/a	25	55	24.31	25.5	0.031	0.041	0.169
SAR Limit							Spatial Peak		Head/Body		RF Exposure Category				
FCC 47 CFR 2.1093				Health Canada Safety Code 6			1 Gram Average		1.6 W/kg		General Population				

* Scaled to Tune-Up Tolerance

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10.0 ANALYSIS OF SIMULTANEOUS TRANSMISSION

The four variants of the XL-185P incorporate integrated Wi-Fi and BlueTooth transmitters capable of simultaneously transmitting with the LMR and LTE transmitters. The Wi-Fi and BlueTooth transmitters share the same antenna and the transmissions are interleaved such that only one transmitter is transmitting at a time. As per FCC KDB 447498, simultaneous transmission analysis is required for devices capable of simultaneous transmission. The Wi-Fi, BT and LTE SAR are subject to General Population limits of 1.6W/kg. The LMR SAR is subject to Occupational limits of 8.0W/kg. To determine compliance when different SAR limits are applied to the different transmit modes, the Sum-of-the-Ratios of the SAR to the respective SAR limit is applied. When the Sum-of-the-Ratios is ≤ 1.0, simultaneous SAR test exclusion may be applied.

SAR for each transmission band, transmission mode and/or equipment class was evaluated with Body-Worn and Audio Accessories in the BODY configuration and without Body-Worn or Audio Accessories in the HEAD configurations. Only the Maximum *reported* SAR for each is used in the Sum-of-the-Ratios calculation and the worst case of all possible combinations is considered.

Table 10.0 List of Possible Transmitters Combinations (All Variants)

Simultaneous Transmitter Combinations						
Configuration Number	Transmitter					
	LMR	BlueTooth	BLE	WiFi 2.4	WiFi 5	LTE
1	X	X				X
2	X		X			X
3	X			X		X
4	X				X	X

Indicates transmitter configuration not supported

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Table 10.1 List of Possible Transmitters XL185P (RB)

List of Possible Transmitters				
Type	Class	Frequency Range		Rated Output Power (dBm)
		Lower (MHz)	Upper (MHz)	
LMR 7/800	TNF	768.0	861.0	34.8
BlueTooth	DSS	2402.0	2480.0	12.7
BLE	DTS	2402.0	2480.0	8.4
WiFi 2.4	DTS	2412.0	2462.0	23.7
WiFi 5	NII	5150.0	5850.0	11.8
LTE	TNB	779.5	784.5	24.5
		790.5	795.5	24.5
		1712.5	1752.5	25.5

Table 10.2 Analysis of Sum-of-the-Ratios XL-185P (RB)

Analysis of Sum-of-the-Ratios For All Transmitters and Configurations XL-185P (RB) FCC ID: OWDTR-0147-E															
Configuration Number	Configuration	Transmitter Type												Sum of Ratios	Sum of SARs
		LMR Band		BlueTooth		BLE		WiFi 2.4		WiFi 5		LTE			
		stand-alone SAR (W/kg)	Ratio to Limit	stand-alone SAR (W/kg)	Ratio to Limit	stand-alone SAR (W/kg)	Ratio to Limit	stand-alone SAR (W/kg)	Ratio to Limit	stand-alone SAR (W/kg)	Ratio to Limit	stand-alone SAR (W/kg)	Ratio to Limit		
		SAR Limit = 8.0W/kg (Occupational)		SAR Limit = 1.6W/kg (General Population)											(W/kg)
1	HEAD	1.431	0.179	0.006	0.004							0.251	0.157	0.340	1.688
2	HEAD	1.431	0.179			0.048	0.030					0.251	0.157	0.366	1.730
3	HEAD	1.431	0.179					0.040	0.025			0.251	0.157	0.361	1.722
4	HEAD	1.431	0.179							0.031	0.019	0.251	0.157	0.355	1.713
1	BODY	4.282	0.535	0.006	0.004							0.361	0.226	0.765	4.649
2	BODY	4.282	0.535			0.048	0.030					0.361	0.226	0.791	4.691
3	BODY	4.282	0.535					0.040	0.025			0.361	0.226	0.786	4.683
4	BODY	4.282	0.535							0.031	0.019	0.361	0.226	0.780	4.674

Indicates this combination is not supported

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Table 10.3 List of Possible Transmitters XL185P (NRB)

List of Possible Transmitters				
Type	Class	Frequency Range		Rated Output Power (dBm)
		Lower (MHz)	Upper (MHz)	
LMR 7/800	TNF	768.0	869.0	34.8
BlueTooth	DSS	2402.0	2480.0	12.7
BLE	DTS	2402.0	2480.0	8.4
WiFi 2.4	DTS	2412.0	2462.0	23.7
WiFi 5	NII	5150.0	5850.0	11.8
LTE	TNB	779.5	784.5	24.5
		790.5	795.5	24.5
		1712.5	1752.5	25.5

Table 10.4 Analysis of Sum-of-the-Ratios XL-185P (NRB)

Analysis of Sum-of-the-Ratios For All Transmitters and Configurations XL-185P (NRB) FCC ID: OWDTR-0148-E															
Configuration Number	Configuration	Transmitter Type												Sum of Ratios	Sum of SARs
		LMR Band		BlueTooth		BLE		WiFi 2.4		WiFi 5		LTE			
		stand-alone SAR (W/kg)	Ratio to Limit	*stand-alone* SAR (W/kg)	Ratio to Limit	*stand-alone* SAR (W/kg)	Ratio to Limit	*stand-alone* SAR (W/kg)	Ratio to Limit	*stand-alone* SAR (W/kg)	Ratio to Limit	*stand-alone* SAR (W/kg)	Ratio to Limit		
		SAR Limit = 8.0W/kg (Occupational)		*SAR Limit = 1.6W/kg (General Population)*											(W/kg)
1	HEAD	1.243	0.155	0.006	0.004							0.258	0.161	0.320	1.507
2	HEAD	1.243	0.155			0.048	0.030					0.258	0.161	0.347	1.549
3	HEAD	1.243	0.155					0.040	0.025			0.258	0.161	0.342	1.541
4	HEAD	1.243	0.155							0.031	0.019	0.258	0.161	0.336	1.532
1	BODY	4.715	0.589	0.006	0.004							0.372	0.233	0.826	5.093
2	BODY	4.715	0.589			0.048	0.030					0.372	0.233	0.852	5.135
3	BODY	4.715	0.589					0.040	0.025			0.372	0.233	0.847	5.127
4	BODY	4.715	0.589							0.031	0.019	0.372	0.233	0.841	5.118

Indicates this combination is not supported

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Table 10.5 List of Possible Transmitters XL185P (U)

List of Possible Transmitters				
Type	Class	Frequency Range Lower (MHz)	Frequency Range Upper (MHz)	Rated Output Power (dBm)
LMR UHF	TNF	378.0	522.0	37.0
BlueTooth	DSS	2402.0	2480.0	12.7
BLE	DTS	2402.0	2480.0	8.4
WiFi 2.4	DTS	2412.0	2462.0	23.7
WiFi 5	NII	5150.0	5850.0	11.8
LTE	TNB	779.5	784.5	24.5
		790.5	795.5	24.5
		1712.5	1752.5	25.5

Table 10.6 Analysis of Sum-of-the-Ratios XL-185P (U)

Analysis of Sum-of-the-Ratios For All Transmitters and Configurations XL-185P (U) FCC ID: OWDTR-0149-E															
Configuration Number	Configuration	Transmitter Type												Sum of Ratios	Sum of SARs
		LMR Band		BlueTooth		BLE		WiFi 2.4		WiFi 5		LTE			
		stand-alone SAR (W/kg)	Ratio to Limit	stand-alone SAR (W/kg)	Ratio to Limit	stand-alone SAR (W/kg)	Ratio to Limit	stand-alone SAR (W/kg)	Ratio to Limit	stand-alone SAR (W/kg)	Ratio to Limit	stand-alone SAR (W/kg)	Ratio to Limit		
		SAR Limit = 8.0W/kg (Occupational)		SAR Limit = 1.6W/kg (General Population)											(W/kg)
1	HEAD	2.285	0.286	0.006	0.004							0.200	0.125	0.414	2.491
2	HEAD	2.285	0.286			0.048	0.030					0.200	0.125	0.441	2.533
3	HEAD	2.285	0.286					0.040	0.025			0.200	0.125	0.436	2.525
4	HEAD	2.285	0.286							0.031	0.019	0.200	0.125	0.430	2.516
1	BODY	4.778	0.597	0.006	0.004							0.328	0.205	0.806	5.112
2	BODY	4.778	0.597			0.048	0.030					0.328	0.205	0.832	5.154
3	BODY	4.778	0.597					0.040	0.025			0.328	0.205	0.827	5.146
4	BODY	4.778	0.597							0.031	0.019	0.328	0.205	0.822	5.137

Indicates this combination is not supported

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Table 10.7 List of Possible Transmitters XL185P (V)

List of Possible Transmitters				
Type	Class	Frequency Range		Rated Output Power (dBm)
		Lower (MHz)	Upper (MHz)	
LMR VHF	TNF	136.0	174.0	37.8
BlueTooth	DSS	2402.0	2480.0	12.7
BLE	DTS	2402.0	2480.0	8.4
WiFi 2.4	DTS	2412.0	2462.0	23.7
WiFi 5	NII	5150.0	5850.0	11.8
LTE	TNB	779.5	784.5	24.5
		790.5	795.5	24.5
		1712.5	1752.5	25.5

Table 10.8 Analysis of Sum-of-the-Ratios XL-185P (V)

Analysis of Sum-of-the-Ratios For All Transmitters and Configurations XL-185P (V) FCC ID: OWDTR-0150-E															
Configuration Number	Configuration	Transmitter Type												Sum of Ratios	Sum of SARs
		LMR Band		BlueTooth		BLE		WiFi 2.4		WiFi 5		LTE			
		stand-alone SAR (W/kg)	Ratio to Limit	*stand-alone* SAR (W/kg)	Ratio to Limit	*stand-alone* SAR (W/kg)	Ratio to Limit	*stand-alone* SAR (W/kg)	Ratio to Limit	*stand-alone* SAR (W/kg)	Ratio to Limit	*stand-alone* SAR (W/kg)	Ratio to Limit		
		SAR Limit = 8.0W/kg (Occupational)		*SAR Limit = 1.6W/kg (General Population)*											(W/kg)
1	HEAD	0.755	0.094	0.006	0.004							0.214	0.134	0.232	0.975
2	HEAD	0.755	0.094			0.048	0.030					0.214	0.134	0.258	1.017
3	HEAD	0.755	0.094					0.040	0.025			0.214	0.134	0.253	1.009
4	HEAD	0.755	0.094							0.031	0.019	0.214	0.134	0.248	1.000
1	BODY	3.325	0.416	0.006	0.004							0.431	0.269	0.689	3.762
2	BODY	3.325	0.416			0.048	0.030					0.431	0.269	0.715	3.804
3	BODY	3.325	0.416					0.040	0.025			0.431	0.269	0.710	3.796
4	BODY	3.325	0.416							0.031	0.019	0.431	0.269	0.704	3.787

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The *stand-alone* SAR indicated in these tables have been adjusted or Tune-Up Tolerance and Fluid Sensitivity.

Test Exclusion of the BlueTooth Low Energy (BLE) transmitter is evaluated using Max Power = 8.4dBm (7mW), Separation Distance = 30mm*, Transmit Frequency = 2.480GHz.

Per KDB 447498 D01v06 [4.3.1(a)], SAR Test Exclusion is given by:

[(Max Power, mW) / (Separation Distance, mm)] * [≐ f, GHz] ≤ 3.0 for 1g SAR
[(7)/(30)] * [(≐ 2.480)] = 0.362 ≤ 3.0

Therefore the BlueTooth transmitter meets the SAR Test Exclusion criteria.

For reference only, per KDB 447498 D01v06 [4.3.2(b)], the estimated BlueTooth SAR is given by:

[(Max Power, mW) / (Separation Distance, mm)] * [(≐ f, GHz) / (x)], where x = 7.5 for 1g SAR
[(7)/(30)] * [(≐ 2.480) / (7.5)] = 0.048W/kg

From Tables 10.2, 10.4, 10.6 and 10.8, the Sum-of-the-Ratios for any given simultaneous transmission combination, when applied to their respective SAR limit, does not exceed 1.0. No further analysis is required.

Note: The WiFi and BlueTooth SAR values shown in this table are the highest *worst case* SAR values from all configurations and transmission modes from all variants of the XL-185P series of radios. They are applied in this table to illustrate the most conservative ratio.

* Due to the location of the BlueTooth and WiFi antenna, the minimum phantom separation distance in the BODY or FACE configurations that could be achieved is greater than 30mm.

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11.0 SCALING OF MAXIMUM MEASURE SAR

Table 11.0 SAR Scaling XL-185P (RB)

Scaling of Maximum Measured SAR [1] XL-185P (RB)

Plot ID	Configuration	Freq (MHz)	Measured Fluid Deviation Permittivity	Measured Fluid Deviation Conductivity	Measured Conducted Power (dBm)	Measured Drift (dB)	Measured SAR (1g) (W/kg)
F4	Face	782	1.64%	-5.56%	23.1	0.189	0.174
B8-2	Body	793	-2.11%	-4.12%	24.3	-0.039	0.344

Step 1

Fluid Sensitivity Adjustment

Plot ID	Scale Factor (%)		Measured SAR (W/kg)		Step 1 Adjusted SAR (1g) (W/kg)
F4	1.046	x	**0.174**	=	**0.182**
B8-2	1.000	x	**0.344**	=	**0.344**

Step 2

Manufacturer's Tune-Up Tolerance

Plot ID	Measured Conducted Power (dBm)	Rated Power (dBm)	Delta (dB)	+	Step 1 Adjusted SAR (W/kg)	=	Step 2 Adjusted SAR (1g) (W/kg)
F4	23.1	24.5	-1.39	+	**0.182**	=	**0.251**
B8-2	24.3	24.5	-0.2	+	**0.344**	=	**0.361**

Step 3

Simultaneous Transmission - Bluetooth and/or WiFi + LMR

Plot ID	Rated Output Power (Pmax) (mW)	Freq (MHz)	Separation Distance (mm)	Additional SAR (W/kg)	+	Step 2 Adjusted SAR (W/kg)	=	Step 3 Adjusted SAR (1g) (W/kg)
F4	n/a	n/a	n/a	1.48	+	**0.251**	=	**1.730**
B8-2	n/a	n/a	n/a	4.33	+	**0.361**	=	**4.691**

Step 4

Reported SAR

HEAD:	**0.25**	**W/kg**
BODY:	**0.36**	
Maximum Simultaneous:	**4.69**	

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Table 11.1 SAR Scaling XL-185P (NRB)

Scaling of Maximum Measured SAR (1) XL-185P (NRB)							
Plot ID	Configuration	Freq (MHz)	Measured Fluid Deviation Permittivity	Measured Fluid Deviation Conductivity	Measured Conducted Power (dBm)	Measured Drift (dB)	Measured SAR (1g) (W/kg)
F4	Face	782	1.64%	-5.56%	23.1	0.189	0.179
B4-3	Body	793	-2.11%	-4.12%	24.3	0.029	0.355

Step 1

Fluid Sensitivity Adjustment

Plot ID	Scale Factor (%)	x	Measured SAR (W/kg)	=	Step 1 Adjusted SAR (1g) (W/kg)
F4	1.046	x	**0.174**	=	**0.187**
B4-3	1.000	x	**0.355**	=	**0.355**

Step 2

Manufacturer's Tune-Up Tolerance

Plot ID	Measured Conducted Power (dBm)	Rated Power (dBm)	Delta (dB)	+	Step 1 Adjusted SAR (W/kg)	=	Step 2 Adjusted SAR (1g) (W/kg)
F4	23.1	24.5	-1.39	+	**0.187**	=	**0.258**
B4-3	24.3	24.5	-0.2	+	**0.355**	=	**0.372**

Step 3

Simultaneous Transmission - Bluetooth and/or WiFi + LMR

Plot ID	Rated Output Power (Pmax) (mW)	Freq (MHz)	Separation Distance (mm)	Additional SAR (W/kg)	+	Step 2 Adjusted SAR (W/kg)	=	Step 3 Adjusted SAR (1g) (W/kg)
F4	n/a	n/a	n/a	1.29	+	**0.258**	=	**1.549**
B4-3	n/a	n/a	n/a	4.76	+	**0.372**	=	**5.135**

Step 4

Reported SAR

HEAD:	**0.26**	**W/kg**
BODY:	**0.37**	
Maximum Simultaneous:	**5.14**	

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Table 11.2 SAR Scaling XL-185P (U)

Scaling of Maximum Measured SAR [1] XL-185P (U), FCC ID: OWDTR-0149-E

Plot ID	Configuration	Freq (MHz)	Measured Fluid Deviation Permittivity	Measured Fluid Deviation Conductivity	Measured Conducted Power (dBm)	Measured Drift (dB)	Measured SAR (1g) (W/kg)
F3	Face	782	1.64%	-5.56%	23.1	0.160	0.139
B3-2	Body	793	-2.11%	-4.12%	24.3	-0.051	0.312

Step 1

Fluid Sensitivity Adjustment

Plot ID	Scale Factor (%)	x	Measured SAR (W/kg)	=	Step 1 Adjusted SAR (1g) (W/kg)
F3	1.046	x	**0.139**	=	**0.145**
B3-2	1.000	x	**0.312**	=	**0.312**

Step 2

Manufacturer's Tune-Up Tolerance

Plot ID	Measured Conducted Power (dBm)	Rated Power (dBm)	Delta (dB)	+	Step 1 Adjusted SAR (W/kg)	=	Step 2 Adjusted SAR (1g) (W/kg)
F3	23.1	24.5	-1.39	+	**0.145**	=	**0.200**
B3-2	24.3	24.5	-0.2	+	**0.312**	=	**0.328**

Step 3

Simultaneous Transmission - Bluetooth and/or WiFi + LMR

Plot ID	Rated Output Power (Pmax) (mW)	Freq (MHz)	Separation Distance (mm)	Additional SAR (W/kg)	+	Step 2 Adjusted SAR (W/kg)	=	Step 3 Adjusted SAR (1g) (W/kg)
F3	n/a	n/a	n/a	2.33	+	**0.200**	=	**2.533**
B3-2	n/a	n/a	n/a	4.83	+	**0.328**	=	**5.154**

Step 4

Reported SAR

HEAD:	**0.20**	**W/kg**
BODY:	**0.33**	
Maximum Simultaneous:	**5.15**	

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Table 11.3 SAR Scaling XL-185P (V)

Scaling of Maximum Measured SAR [1] XL-185P (V), FCC ID: OWDTR-0150-E							
Plot ID	Configuration	Freq (MHz)	Measured Fluid Deviation Permittivity	Measured Fluid Deviation Conductivity	Measured Conducted Power (dBm)	Measured Drift (dB)	Measured SAR (1g) (W/kg)
F3	Face	782	1.64%	-5.56%	23.1	0.090	0.148
B6	Body	793	-1.92%	-4.43%	23.1	-0.107	0.228

Step 1

Fluid Sensitivity Adjustment

Plot ID	Scale Factor (%)	x	Measured SAR (W/kg)	=	Step 1 Adjusted SAR (1g) (W/kg)
F3	1.046	x	**0.148**	=	**0.155**
B6	1.000	x	**0.228**	=	**0.312**

Step 2

Manufacturer's Tune-Up Tolerance

Plot ID	Measured Conducted Power (dBm)	Rated Power (dBm)	Delta (dB)	+	Step 1 Adjusted SAR (W/kg)	=	Step 2 Adjusted SAR (1g) (W/kg)
F3	23.1	24.5	-1.39	+	**0.155**	=	**0.214**
B6	23.1	24.5	-1.39	+	**0.312**	=	**0.431**

Step 3

Simultaneous Transmission - Bluetooth and/or WiFi + LMR

Plot ID	Rated Output Power (Pmax) (mW)	Freq (MHz)	Separation Distance (mm)	Additional SAR (W/kg)	+	Step 2 Adjusted SAR (W/kg)	=	Step 3 Adjusted SAR (1g) (W/kg)
F3	n/a	n/a	n/a	0.80	+	**0.214**	=	**1.017**
B6	n/a	n/a	n/a	3.37	+	**0.431**	=	**3.804**

Step 4

Reported SAR

HEAD:	**0.21**	**W/kg**
BODY:	**0.43**	
Maximum Simultaneous:	**3.8**	

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NOTES to Table
(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 10.1 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 negative(-).
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 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 4
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.

Table 11.4: Fluid Sensitivity Calculation XL-185P (RB), (NRB), (U)

Fluid Sensitivity Calculation (1g)

Delta SAR = Ce * Δe + Cσ*Δσ

$$Ce = (-0.0007854*F^3) + (0.009402*F^2) - (0.02742*F) - 0.2026$$

$$C\sigma = (0.009804*F^3) - (0.08661*F^2) + (0.02981*F) + 0.7829$$

Attribute	Plot ID	Freq. [F] (*GHz*)	Plot ID	Freq. [F] (*GHz*)
	F4	0.782	B8-2	0.793
Ce	-0.2187		-0.2188	
Cσ	0.7579		0.7570	
Δe	1.64%		-2.11%	
Δσ	-5.56%		-4.12%	
ΔSAR	-4.57%		-2.66%	
Scaling of SAR only required for Negative ΔSAR				

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Table 11.5: Fluid Sensitivity Calculation XL-185P (V)

Fluid Sensitivity Calculation (1g)				
Delta SAR = Ce * Δe + Cσ*Δσ Ce = (-0.0007854*F^3) + (0.009402*F^2) - (0.02742*F) - 0.2026 Cσ = (0.009804*F^3) - (0.08661*F^2) + (0.02981*F) + 0.7829				
Attribute	Plot ID	Freq. [F] (*GHz*)	Plot ID	Freq. [F] (*GHz*)
	Face	0.782	Body	0.782
Ce	-0.2187		-0.2187	
Cσ	0.7579		0.7579	
Δe	1.64%		-1.92%	
Δσ	-5.56%		-4.43%	
ΔSAR	-4.57%		-2.94%	
Scaling of SAR only required for Negative ΔSAR				

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. 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. 19 July 2017 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

13.1 Day Log

DAY LOG							
Date	Ambient Temp °C	Fluid Temp °C	Humidity	TSL	Fluid Dielectric	SPC	Test
04 July 2017	26	22.8	12%	835B	X	X	
05 July 2017	26	22.4	12%	835B			X
06 July 2017	25	23.1	14%	835B			X
06 July 2017	26	24.1	13%	835B			X
07 July 2017	27	23.1	16%	835B			X
07 July 2017	27	24.1	13%	835B			X
10 July 2017	26	23.8	15%	835B			X
10 July 2017	28	24.1	13%	835H	X	X	
11 July 2017	27	23.3	12%	835H			X
12 July 2017	28	22.4	14%	1800B	X	X	X
13 July 2017	28	23.4	13%	1800B			X
14 July 2017	28	22.4	11%	1800H	X	X	
14 July 2017	26	22.9	12%	1800H			X

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13.2 DUT Setup and Configuration

DUT Setup and Configuration
Overview
The 4 variants of the XL-185P are single-band, Push-To-Talk (PTT) Licensed Mobile Radio (LMR) transceivers intended for Occupational Use. It incorporates WiFi and BlueTooth transmitters. The XL-185P is identical in RF circuitry to the XL-185P 7/8/900 Band, FCC ID: OWDTR-0143-E, ISEDC ID:3636B-0143 and XL-200P Rebanded, FCC ID OWDTR-0133-E, ISEDC ID: 3636B-0133 multi-band radios with the exception that it has been modified by removing components to make it a single band radio. The number of test channels and test configurations performed on this device were based on the antenna and accessory combinations which produced the highest, or worst case, SAR from previous SAR evaluations of the BV8BBPBM214. Section 3.0 identifies those test channels and each channel was tested in the BODY and FACE configuration. Simultaneous transmission analysis was performed on the measured LTE results of this evaluation and on measured LMR, BlueTooth and WiFi results from the original filings of the XL-185P single band variants. Since the *reported SAR* from the results of this evaluation are less than those from previous evaluations of the PBM-214 LTE Module, and since this is a Class II Permissive Change to FCC ID: BV8BBPBM214, the *reported SAR* remains unchanged.

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13.3 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
The DUT was securely clamped into the device holder with the surface of the DUT normally held to the user's face facing the phantom. The device holder was adjusted to ensure that the horizontal axis of the DUT was parallel to the bottom of the phantom. A 25mm spacer block was used to set the separation distance between the DUT and the phantom to 25mm. When applicable and unless by design, the antenna of the DUT was prevented from sagging away from the phantom. The spacer block was removed before testing.
BODY Configuration
Body-Worn and Audio Accessories were affixed to the DUT in the manner in which they are intended to be used. The DUT, with its accessories, were 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. Body-Worn Accessory straps, linkages, etc. were positioned in a fashion resembling that for which they were intended to be used. Audio Accessory cables, etc., were positioned in a fashion resembling that for which they were intended to be used.
HEAD Configuration
This device is not intended to be held to the ear and was not tested in the HEAD configuration.

13.4 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 $\pm$ 0.5^{o}C. The Active TSL temperature was maintained to within ±1.0^{o}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. The SAR values in the 50% DC column have been scaled by 50% for 50% Push-To-Talk duty cycle compensation. 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 and FACE configurations, within the entire scope of this assessment, are, when applicable, scaled for Fluid Sensitivity, Manufacturer's Tune-Up Tolerance and Simultaneous Transmission. 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.* However, since the SAR values obtained from this evaluation are less than those of prevous filings, the highest SAR values from the previous evaluations are reported.

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13.5 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 OET Bulletin 65 Supplement C 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.

13.6 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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13.7 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	

13.8 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

Table 13.1	
Calculation of the Degrees and Effective Degrees of Freedom	
$v_i = n - 1$	$v_{eff} = \dfrac{u_c^4}{\sum_{i=1}^{m} \dfrac{c_i^4 u_i^4}{v_i}}$

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15.0 FLUID DIELECTRIC PARAMETERS

Table 15.0 Fluid Dielectric Parameters 835MHz BODY TSL

****
Aprel Laboratory
Test Result for UIM Dielectric Parameter
Tue 04/Jul/2017 09:23:57
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	54.67	0.89
0.7450	55.55	0.96	54.51	0.89
0.7550	55.51	0.96	54.61	0.89
0.7650	55.47	0.96	54.31	0.91
0.7750	55.43	0.97	54.20	0.92
0.7850	55.39	0.97	54.40	0.93
0.7950	55.36	0.97	54.15	0.93
0.8050	55.32	0.97	54.12	0.96
0.8150	55.28	0.97	53.93	0.97
0.8250	55.24	0.97	53.71	0.97
0.8350	55.20	0.97	53.87	0.97
0.8450	55.17	0.98	53.63	0.97
0.8550	55.14	0.99	53.42	0.99
0.8650	55.11	1.01	53.26	1.02
0.8750	55.08	1.02	53.41	1.01
0.8850	55.05	1.03	53.02	1.03
0.8950	55.02	1.04	53.28	1.05
0.9050	55.00	1.05	53.18	1.05
0.9150	55.00	1.06	53.03	1.05
0.9250	54.98	1.06	52.93	1.07
0.9350	54.96	1.07	52.99	1.09

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FLUID DIELECTRIC PARAMETERS

Date:	4 Jul 2017	Fluid Temp:	22.8	Frequency:	835MHz	Tissue:	Body
Freq (MHz)		Test_e	Test_s	Target_e	Target_s	Deviation Permittivity	Deviation Conductivity
735.0000		54.6700	0.8900	55.5900	0.96	-1.65%	-7.29%
745.0000		54.5100	0.8900	55.5500	0.96	-1.87%	-7.29%
755.0000		54.6100	0.8900	55.5100	0.96	-1.62%	-7.29%
765.0000		54.3100	0.9100	55.4700	0.96	-2.09%	-5.21%
775.0000		54.2000	0.9200	55.4300	0.97	-2.22%	-5.15%
782.0000	*	54.3400	0.9270	55.4020	0.97	-1.92%	-4.43%
785.0000		54.4000	0.9300	55.3900	0.97	-1.79%	-4.12%
793.0000	*	54.2000	0.9300	55.3700	0.97	-2.11%	-4.12%
795.0000		54.1500	0.9300	55.3600	0.97	-2.19%	-4.12%
805.0000		54.1200	0.9600	55.3200	0.97	-2.17%	-1.03%
815.0000		53.9300	0.9700	55.2800	0.97	-2.44%	0.00%
825.0000		53.7100	0.9700	55.2400	0.97	-2.77%	0.00%
835.0000		53.8700	0.9700	55.2000	0.97	-2.41%	0.00%
845.0000		53.6300	0.9700	55.1700	0.98	-2.79%	-1.02%
855.0000		53.4200	0.9900	55.1400	0.99	-3.12%	0.00%
865.0000		53.2600	1.0200	55.1100	1.01	-3.36%	0.99%
875.0000		53.4100	1.0100	55.0800	1.02	-3.03%	-0.98%
885.0000		53.0200	1.0300	55.0500	1.03	-3.69%	0.00%
895.0000		53.2800	1.0500	55.0200	1.04	-3.16%	0.96%
905.0000		53.1800	1.0500	55.0000	1.05	-3.31%	0.00%
915.0000		53.0300	1.0500	55.0000	1.06	-3.58%	-0.94%
925.0000		52.9300	1.0700	54.9800	1.06	-3.73%	0.94%
935.0000		52.9900	1.0900	54.9600	1.07	-3.58%	1.87%

*Channel Frequency Tested

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Table 15.1 Fluid Dielectric Parameters 835MHz HEAD TSL

****
Aprel Laboratory
Test Result for UIM Dielectric Parameter
Mon 10/Jul/2017 18:19:57
Freq Frequency(GHz)
FCC_eH FCC OET 65 Supplement C (June 2001) Limits for Head Epsilon
FCC_sH FCC OET 65 Supplement C (June 2001) Limits for Head Sigma
Test_e Epsilon of UIM
Test_s Sigma of UIM
****

Freq	FCC_eH	FCC_sH	Test_e	Test_s
0.7350	42.02	0.89	42.73	0.81
0.7450	41.97	0.89	42.77	0.81
0.7550	41.92	0.89	42.79	0.83
0.7650	41.86	0.89	42.71	0.84
0.7750	41.81	0.90	42.54	0.85
0.7850	41.76	0.90	42.43	0.85
0.7950	41.71	0.90	42.13	0.87
0.8050	41.66	0.90	42.10	0.87
0.8150	41.60	0.90	41.57	0.88
0.8250	41.55	0.90	42.15	0.89
0.8350	41.50	0.90	41.75	0.91
0.8450	41.50	0.91	41.41	0.92
0.8550	41.50	0.92	41.38	0.94
0.8650	41.50	0.93	41.17	0.94
0.8750	41.50	0.94	41.28	0.94
0.8850	41.50	0.95	40.75	0.95
0.8950	41.50	0.96	40.84	0.97
0.9050	41.50	0.97	40.91	0.98
0.9150	41.50	0.98	40.82	0.98
0.9250	41.48	0.98	40.72	0.98
0.9350	41.46	0.99	40.51	0.99

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FLUID DIELECTRIC PARAMETERS

Date:	10 Jul 2017	Fluid Temp:	24.1	Frequency:	835MHz	Tissue:	Head
Freq (MHz)		Test_e	Test_s	Target_e	Target_s	Deviation Permittivity	Deviation Conductivity
735.0000		42.7300	0.8100	42.0200	0.89	1.69%	-8.99%
745.0000		42.7700	0.8100	41.9700	0.89	1.91%	-8.99%
755.0000		42.7900	0.8300	41.9200	0.89	2.08%	-6.74%
765.0000		42.7100	0.8400	41.8600	0.89	2.03%	-5.62%
775.0000		42.5400	0.8500	41.8100	0.90	1.75%	-5.56%
782.0000	*	42.4600	0.8500	41.7750	0.90	1.64%	-5.56%
785.0000		42.4300	0.8500	41.7600	0.90	1.60%	-5.56%
793.0000	*	42.1900	0.8660	41.7120	0.90	1.15%	-5.56%
795.0000		42.1300	0.8700	41.7100	0.90	1.01%	-3.33%
805.0000		42.1000	0.8700	41.6600	0.90	1.06%	-3.33%
815.0000		41.5700	0.8800	41.6000	0.90	-0.07%	-2.22%
825.0000		42.1500	0.8900	41.5500	0.90	1.44%	-1.11%
835.0000		41.7500	0.9100	41.5000	0.90	0.60%	1.11%
845.0000		41.4100	0.9200	41.5000	0.91	-0.22%	1.10%
855.0000		41.3800	0.9400	41.5000	0.92	-0.29%	2.17%
865.0000		41.1700	0.9400	41.5000	0.93	-0.80%	1.08%
875.0000		41.2800	0.9400	41.5000	0.94	-0.53%	0.00%
885.0000		40.7500	0.9500	41.5000	0.95	-1.81%	0.00%
895.0000		40.8400	0.9700	41.5000	0.96	-1.59%	1.04%
905.0000		40.9100	0.9800	41.5000	0.97	-1.42%	1.03%
915.0000		40.8200	0.9800	41.5000	0.98	-1.64%	0.00%
925.0000		40.7200	0.9800	41.4800	0.98	-1.83%	0.00%
935.0000		40.5100	0.9900	41.4600	0.99	-2.29%	0.00%

*Channel Frequency Tested

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Table 15.2 Fluid Dielectric Parameters 1800MHz BODY TSL

****
Aprel Laboratory
Test Result for UIM Dielectric Parameter
Wed 12/Jul/2017 13:53:43
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	57.00	1.48
1.7100	53.54	1.46	56.67	1.50
1.7200	53.51	1.47	56.74	1.50
1.7300	53.48	1.48	56.79	1.49
1.7400	53.46	1.48	56.70	1.48
1.7500	53.43	1.49	56.74	1.49
1.7600	53.41	1.49	56.51	1.50
1.7700	53.38	1.50	56.60	1.53
1.7800	53.35	1.51	56.65	1.54
1.7900	53.33	1.51	56.31	1.55
1.8000	53.30	1.52	56.35	1.58
1.8100	53.30	1.52	56.36	1.59
1.8200	53.30	1.52	56.27	1.60
1.8300	53.30	1.52	56.31	1.62
1.8400	53.30	1.52	56.14	1.62
1.8500	53.30	1.52	56.74	1.61
1.8600	53.30	1.52	56.05	1.62
1.8700	53.30	1.52	56.29	1.63
1.8800	53.30	1.52	56.09	1.64
1.8900	53.30	1.52	55.92	1.67
1.9000	53.30	1.52	55.98	1.67

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FLUID DIELECTRIC PARAMETERS

Date:	12 Jul 2017	Fluid Temp:	22.4	Frequency:	1800MHz	Tissue:	Body
Freq (MHz)		Test_e	Test_s	Target_e	Target_s	Deviation Permittivity	Deviation Conductivity
1700.0000		57.0000	1.4800	53.5600	1.46	6.42%	1.37%
1710.0000		56.6700	1.5000	53.5400	1.46	5.85%	2.74%
1720.0000		56.7400	1.5000	53.5100	1.47	6.04%	2.04%
1730.0000		56.7900	1.4900	53.4800	1.48	6.19%	0.68%
1732.5000	*	56.7600	1.4870	53.4740	1.48	6.15%	0.00%
1740.0000		56.7000	1.4800	53.4600	1.48	6.06%	0.00%
1750.0000		56.7400	1.4900	53.4300	1.49	6.20%	0.00%
1760.0000		56.5100	1.5000	53.4100	1.49	5.80%	0.67%
1770.0000		56.6000	1.5300	53.3800	1.50	6.03%	2.00%
1780.0000		56.6500	1.5400	53.3500	1.51	6.19%	1.99%
1790.0000		56.3100	1.5500	53.3300	1.51	5.59%	2.65%
1800.0000		56.3500	1.5800	53.3000	1.52	5.72%	3.95%
1810.0000		56.3600	1.5900	53.3000	1.52	5.74%	4.61%
1820.0000		56.2700	1.6000	53.3000	1.52	5.57%	5.26%
1830.0000		56.3100	1.6200	53.3000	1.52	5.65%	6.58%
1840.0000		56.1400	1.6200	53.3000	1.52	5.33%	6.58%
1850.0000		56.7400	1.6100	53.3000	1.52	6.45%	5.92%
1860.0000		56.0500	1.6200	53.3000	1.52	5.16%	6.58%
1870.0000		56.2900	1.6300	53.3000	1.52	5.61%	7.24%
1880.0000		56.0900	1.6400	53.3000	1.52	5.23%	7.89%
1890.0000		55.9200	1.6700	53.3000	1.52	4.92%	9.87%
1900.0000		55.9800	1.6700	53.3000	1.52	5.03%	9.87%

*Channel Frequency Tested

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Table 15.3 Fluid Dielectric Parameters 1800MHz HEAD TSL

****
Aprel Laboratory
Test Result for UIM Dielectric Parameter
Fri 14/Jul/2017 08:22:55
Freq Frequency(GHz)
FCC_eH FCC OET 65 Supplement C (June 2001) Limits for Head Epsilon
FCC_sH FCC OET 65 Supplement C (June 2001) Limits for Head Sigma
Test_e Epsilon of UIM
Test_s Sigma of UIM
****

Freq	FCC_eH	FCC_sH	Test_e	Test_s
1.7000	40.16	1.34	41.07	1.24
1.7100	40.14	1.35	41.04	1.25
1.7200	40.13	1.35	40.98	1.28
1.7300	40.11	1.36	41.11	1.27
1.7400	40.09	1.37	40.89	1.26
1.7500	40.08	1.37	40.99	1.27
1.7600	40.06	1.38	40.72	1.30
1.7700	40.05	1.38	40.82	1.29
1.7800	40.03	1.39	40.79	1.31
1.7900	40.02	1.39	40.68	1.32
1.8000	40.00	1.40	40.70	1.33
1.8100	40.00	1.40	40.67	1.36
1.8200	40.00	1.40	40.43	1.35
1.8300	40.00	1.40	40.51	1.35
1.8400	40.00	1.40	40.46	1.37
1.8500	40.00	1.40	40.69	1.39
1.8600	40.00	1.40	40.60	1.39
1.8700	40.00	1.40	40.50	1.40
1.8800	40.00	1.40	40.24	1.40
1.8900	40.00	1.40	40.29	1.42
1.9000	40.00	1.40	40.43	1.45

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FLUID DIELECTRIC PARAMETERS

Date:	14 Jul 2017	Fluid Temp:	22.2	Frequency:	1800MHz	Tissue:	Head
Freq (MHz)		Test_e	Test_s	Target_e	Target_s	Deviation Permittivity	Deviation Conductivity
1700.0000		41.0700	1.2400	40.1600	1.34	2.27%	-7.46%
1710.0000		41.0400	1.2500	40.1400	1.35	2.24%	-7.41%
1720.0000		40.9800	1.2800	40.1300	1.35	2.12%	-5.19%
1730.0000		41.1100	1.2700	40.1100	1.36	2.49%	-6.62%
1732.5000	*	41.0400	1.2670	40.1000	1.36	2.34%	-6.84%
1740.0000		40.8900	1.2600	40.0900	1.37	2.00%	-8.03%
1750.0000		40.9900	1.2700	40.0800	1.37	2.27%	-7.30%
1760.0000		40.7200	1.3000	40.0600	1.38	1.65%	-5.80%
1770.0000		40.8200	1.2900	40.0500	1.38	1.92%	-6.52%
1780.0000		40.7900	1.3100	40.0300	1.39	1.90%	-5.76%
1790.0000		40.6800	1.3200	40.0200	1.39	1.65%	-5.04%
1800.0000		40.7000	1.3300	40.0000	1.40	1.75%	-5.00%
1810.0000		40.6700	1.3600	40.0000	1.40	1.68%	-2.86%
1820.0000		40.4300	1.3500	40.0000	1.40	1.08%	-3.57%
1830.0000		40.5100	1.3500	40.0000	1.40	1.28%	-3.57%
1840.0000		40.4600	1.3700	40.0000	1.40	1.15%	-2.14%
1850.0000		40.6900	1.3900	40.0000	1.40	1.72%	-0.71%
1860.0000		40.6000	1.3900	40.0000	1.40	1.50%	-0.71%
1870.0000		40.5000	1.4000	40.0000	1.40	1.25%	0.00%
1880.0000		40.2400	1.4000	40.0000	1.40	0.60%	0.00%
1890.0000		40.2900	1.4200	40.0000	1.40	0.72%	1.43%
1900.0000		40.4300	1.4500	40.0000	1.40	1.08%	3.57%

*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
4 July 2017		835	D835V2		4d075
Fluid Type	Fluid Temp °C	Ambient Temp °C	Ambient Humidity (%)	Forward Power (mW)	Source Spacing (mm)
Body	22.8	26	12%	250	15
Fluid Parameters					
Permittivity			Conductivity		
Measured	Target	Deviation	Measured	Target	Deviation
53.87	55.20	-2.40%	0.97	0.97	0.00%
Measured SAR					
1 gram			10 gram		
Measured	Target	Deviation	Measured	Target	Deviation
2.58	2.42	6.61%	1.68	1.59	5.66%
Measured SAR Normalized to 1.0W					
1 gram			10 gram		
Normalized	Target	Deviation	Normalized	Target	Deviation
10.32	9.40	9.79%	6.72	6.21	8.21%

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 835MHz HEAD TSL

System Verification Test Results					
Date		Frequency (MHz)	Validation Source		
			P/N		S/N
10 Jul 2017		835	D835V2		4d075
Fluid Type	Fluid Temp °C	Ambient Temp °C	Ambient Humidity (%)	Forward Power (mW)	Source Spacing (mm)
Head	24.1	28	13%	250	15
Fluid Parameters					
Permittivity			Conductivity		
Measured	Target	Deviation	Measured	Target	Deviation
41.75	41.50	0.60%	0.91	0.90	1.11%
Measured SAR					
1 gram			10 gram		
Measured	Target	Deviation	Measured	Target	Deviation
2.39	2.41	-0.83%	1.53	1.56	-1.96%
Measured SAR Normalized to 1.0W					
1 gram			10 gram		
Normalized	Target	Deviation	Normalized	Target	Deviation
9.56	9.30	2.80%	6.12	6.07	0.82%

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 16.2 System Verification Results 1800MHz BODY TSL

System Verification Test Results					
Date		Frequency (MHz)	Validation Source		
			P/N		S/N
12 July 2017		1800	D1800V2		247
Fluid Type	Fluid Temp °C	Ambient Temp °C	Ambient Humidity (%)	Forward Power (mW)	Source Spacing (mm)
Body	22.4	28	14%	250	15
Fluid Parameters					
Permittivity			Conductivity		
Measured	Target	Deviation	Measured	Target	Deviation
56.35	53.30	5.72%	1.58	1.52	3.95%
Measured SAR					
1 gram			10 gram		
Measured	Target	Deviation	Measured	Target	Deviation
9.32	9.72	-4.12%	5.02	5.18	-3.19%
Measured SAR Normalized to 1.0W					
1 gram			10 gram		
Normalized	Target	Deviation	Normalized	Target	Deviation
37.28			20.08		

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 16.3 System Verification Results 1800MHz HEAD TSL

System Verification Test Results					
Date		Frequency (MHz)	Validation Source		
			P/N		S/N
14 July 2017		1800	D1800V2		247
Fluid Type	Fluid Temp °C	Ambient Temp °C	Ambient Humidity (%)	Forward Power (mW)	Source Spacing (mm)
Head	22.4	28	11%	250	15
Fluid Parameters					
Permittivity			Conductivity		
Measured	Target	Deviation	Measured	Target	Deviation
40.70	40.00	1.75%	1.33	1.40	-5.00%
Measured SAR					
1 gram			10 gram		
Measured	Target	Deviation	Measured	Target	Deviation
9.03	9.63	-6.23%	4.73	5.03	-5.96%
Measured SAR Normalized to 1.0W					
1 gram			10 gram		
Normalized	Target	Deviation	Normalized	Target	Deviation
36.12			18.92		

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 MEASUREMENT SYSTEM SPECIFICATIONS

Table 17.0 Measurement System Specifications

Measurement System Specification	
Specifications	
Positioner	Stäubli Unimation Corp. Robot Model: RX60L
Repeatability	0.02 mm
No. of axis	6
Data Acquisition Electronic (DAE) System	
Cell Controller	
Processor	AMD Athlon XP 2400+
Clock Speed	2.0 GHz
Operating System	Windows XP Professional
Data Converter	
Features	Signal Amplifier, multiplexer, A/D converter, and control logic
Software	Measurement Software: DASY
	Postprocessing Software: SEMCAD, V1.8 Build 186
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	PC/104 166MHz Pentium CPU; 32 MB chipdisk; 64 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

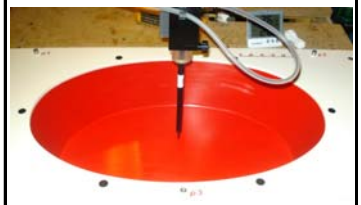
Probe Specification

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.



ELI 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°. 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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18.0 TEST EQUIPMENT LIST

Table 18.0 Equipment List and Calibration

Test Equipment List				
DESCRIPTION	ASSET NO.	SERIAL NO.	DATE CALIBRATED	CALIBRATION INTERVAL
Schmid & Partner DASY System	-	-	-	-
-DASY Measurement Server	158	1078	CNR	CNR
-Robot	46	599396-01	CNR	CNR
-DAE4	19	353	24-Apr-17	Annual
-EX3DV4 E-Field Probe	213	3600	27-Apr-17	Annual
-D835V2 Validation Dipole	217	4D075	23-Apr-15	Triennial
-D1800V2 Validation Dipole		247	20-Apr-17	Triennial
ELI Phantom	247	-	CNR	CNR
HP 85070C Dielectric Probe Kit	33	none	CNR	CNR
Gigatronics 8652A Power Meter	110	1835801	29-Feb-16	Triennial
Gigatronics 80701A Power Sensor	248	1833687	29-Feb-16	Triennial
HP 8753ET Network Analyzer	134	US39170292	22-Oct-14	Triennial
Rohde & Schwarz SMR20 Signal Generator	6	100104	29-May-17	Triennial
Amplifier Research 5S1G4 Power Amplifier	106	26235	CNR	CNR

CNR = Calibration Not Required

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19.0 FLUID COMPOSITION

Table 19.1 Fluid Composition 835MHz HEAD TSL

835			835MHz Head	
Tissue Simulating Liquid (TSL) Composition				
Component by Percent Weight				
Water	Sugar	Salt(1)	HEC(2)	Bacteriacide(3)
40.71	56.63	1.48	0.99	0.19

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

Table 19.2 Fluid Composition 835MHz BODY TSL

835			835MHz Body	
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 19.3 Fluid Composition 1800MHz HEAD TSL

1800			1800MHz Head	
Tissue Simulating Liquid (TSL) Composition				
Component by Percent Weight				
Water	Glycol	Salt(1)	HEC(2)	Bacteriacide(3)
54.825	44.8651	0.310	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

Table 19.4 Fluid Composition 1800MHz BODY TSL

1800			1800MHz Body	
Tissue Simulating Liquid (TSL) Composition				
Component by Percent Weight				
Water	Glycol	Salt(1)	HEC(2)	Bacteriacide(3)
70.17	29.43	0.26	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: 04/07/2017 9:51:57 AM

Test Laboratory: Celltech Labs

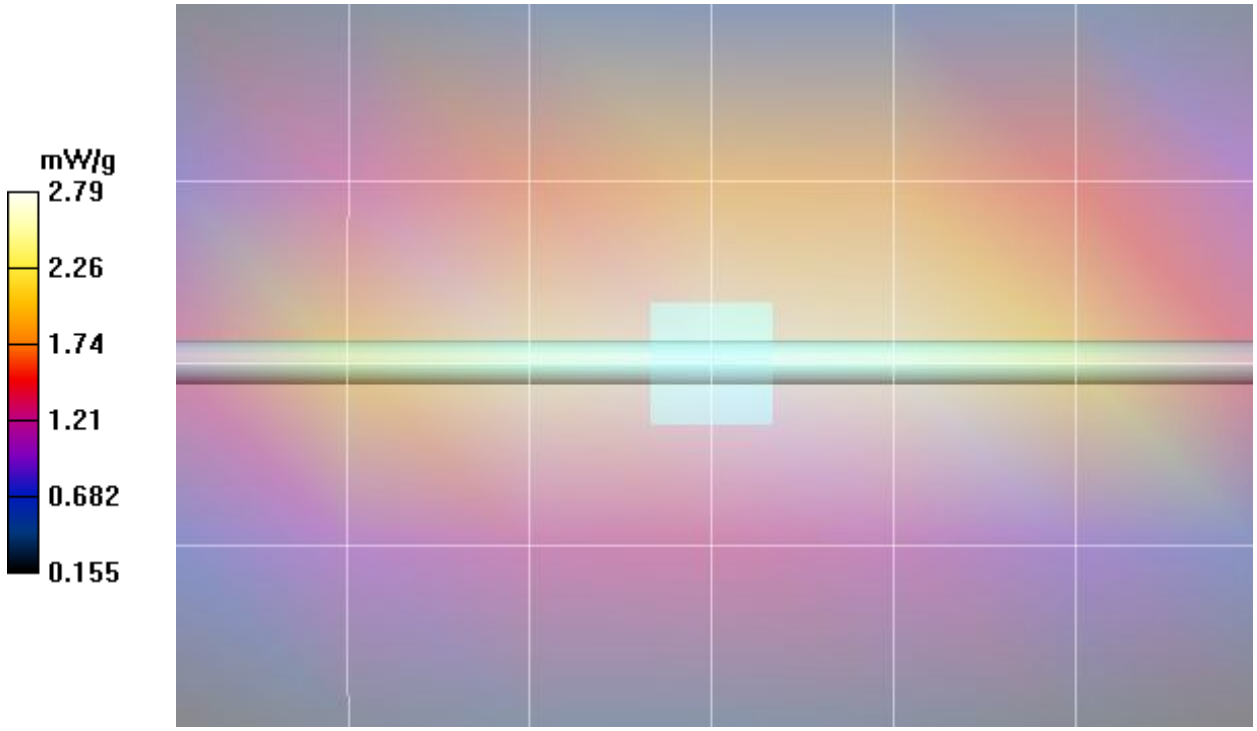
DUT: Dipole 835 MHz; Type: D835V2; Serial: 4d075; Calibrated: 04/23/2015
Program Name: SPC 835B

Communication System: CW; Frequency: 835 MHz;Duty Cycle: 1:1
Medium parameters used: f = 835 MHz; σ = 0.97 mho/m; ε_r = 53.9; ρ = 1000 kg/m^3
Phantom section: Flat Section

DASY4 Configuration:
- Probe: EX3DV4 - SN3600; ConvF(8.22, 8.22, 8.22); Calibrated: 27/04/2017
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn353; Calibrated: 24/04/2017
- Phantom: ELI v5.0; Type: QDOVA002AA; Serial: TP:xxxx
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 145

Body d=15mm Pin=250mW. TS=[2.178][2.42][2.662]W/kg/Area Scan (5x7x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (measured) = 2.79 mW/g

Body d=15mm Pin=250mW. TS=[2.178][2.42][2.662]W/kg/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm
Reference Value = 53.3 V/m; Power Drift = -0.01 dB
Peak SAR (extrapolated) = 3.89 W/kg
SAR(1 g) = 2.58 mW/g; SAR(10 g) = 1.68 mW/g



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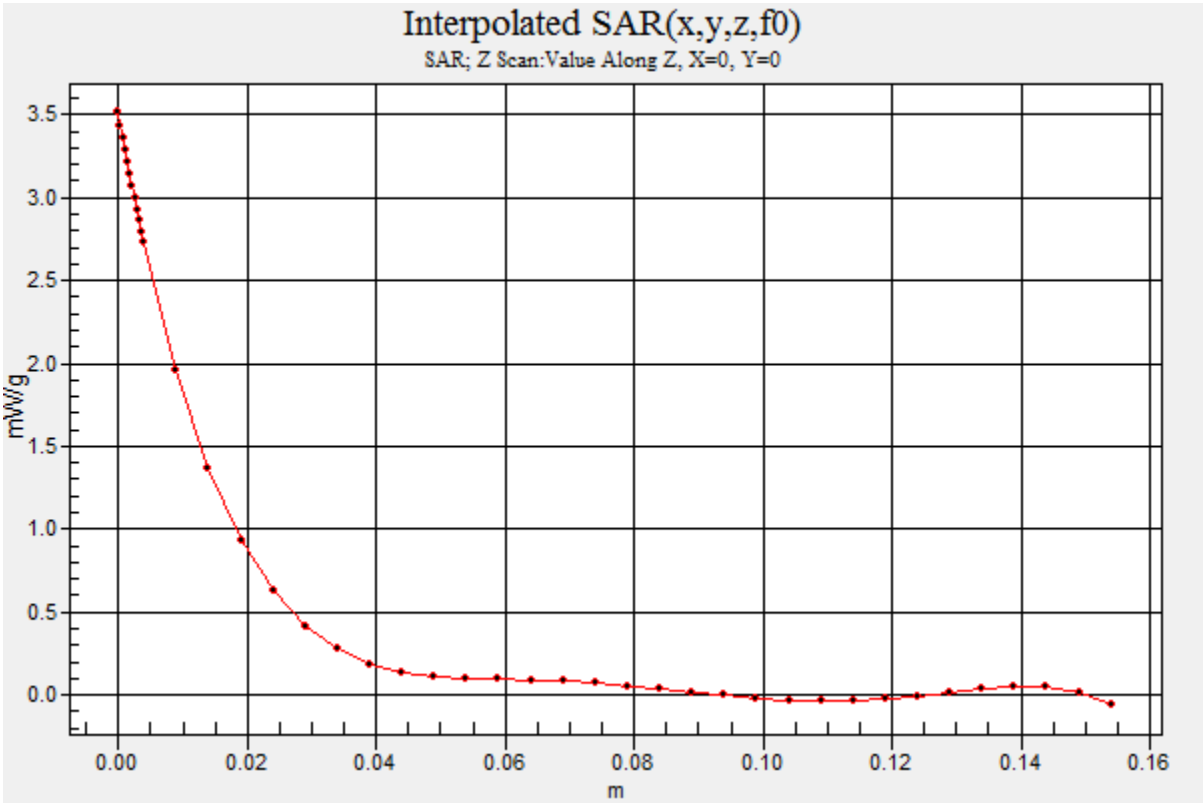

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Date/Time: 10/07/2017 6:44:14 PM

Test Laboratory: Celltech Labs

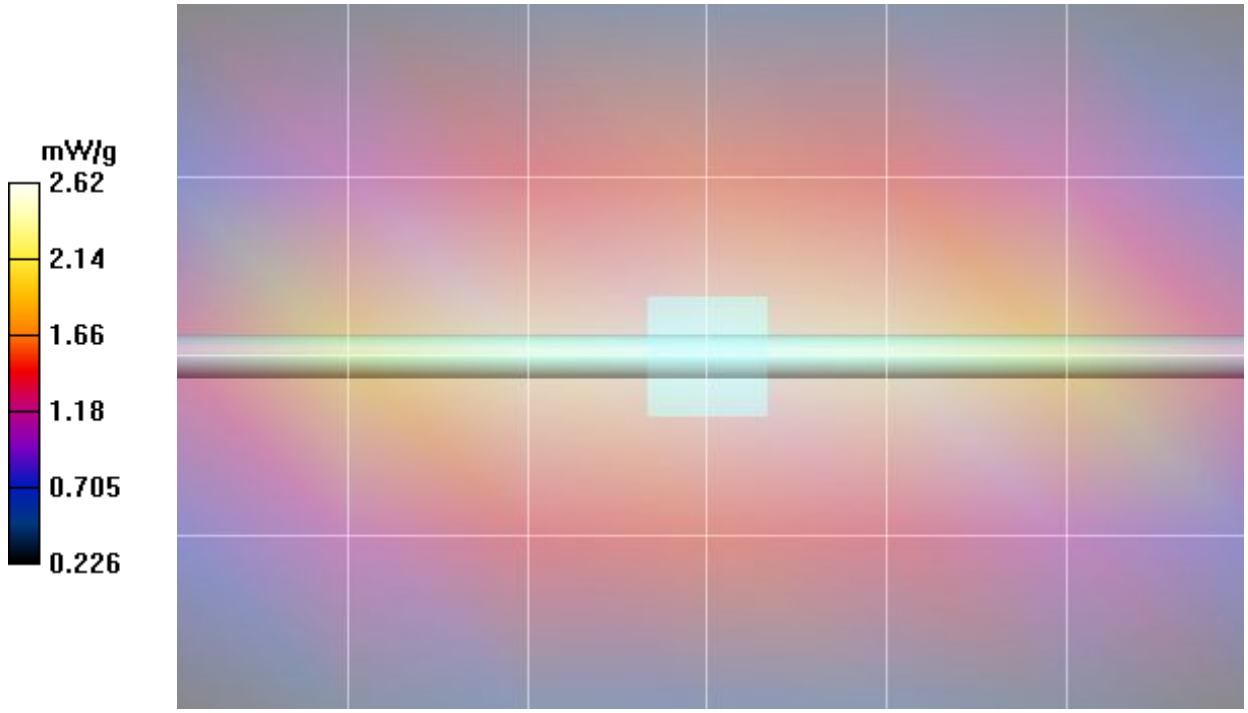
DUT: Dipole 835 MHz; Type: D835V2; Serial: 4d075; Calibrated: 04/23/2015
Program Name: SPC 835H

Communication System: CW; Frequency: 835 MHz;Duty Cycle: 1:1
Medium parameters used: f = 835 MHz; σ = 0.91 mho/m; ε_r = 41.8; ρ = 1000 kg/m^3
Phantom section: Flat Section

DASY4 Configuration:
- Probe: EX3DV4 - SN3600; ConvF(8.39, 8.39, 8.39); Calibrated: 27/04/2017
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn353; Calibrated: 24/04/2017
- Phantom: ELI v5.0; Type: QDOVA002AA; Serial: TP:xxxx
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 145

Head d=15mm Pin=250mW. TS=[2.169][2.41][2.651]W/kg/Area Scan (5x7x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (measured) = 2.62 mW/g

Head d=15mm Pin=250mW. TS=[2.169][2.41][2.651]W/kg/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm
Reference Value = 54.4 V/m; Power Drift = -0.205 dB
Peak SAR (extrapolated) = 3.66 W/kg
SAR(1 g) = 2.39 mW/g; SAR(10 g) = 1.53 mW/g
Maximum value of SAR (measured) = 2.57 mW/g



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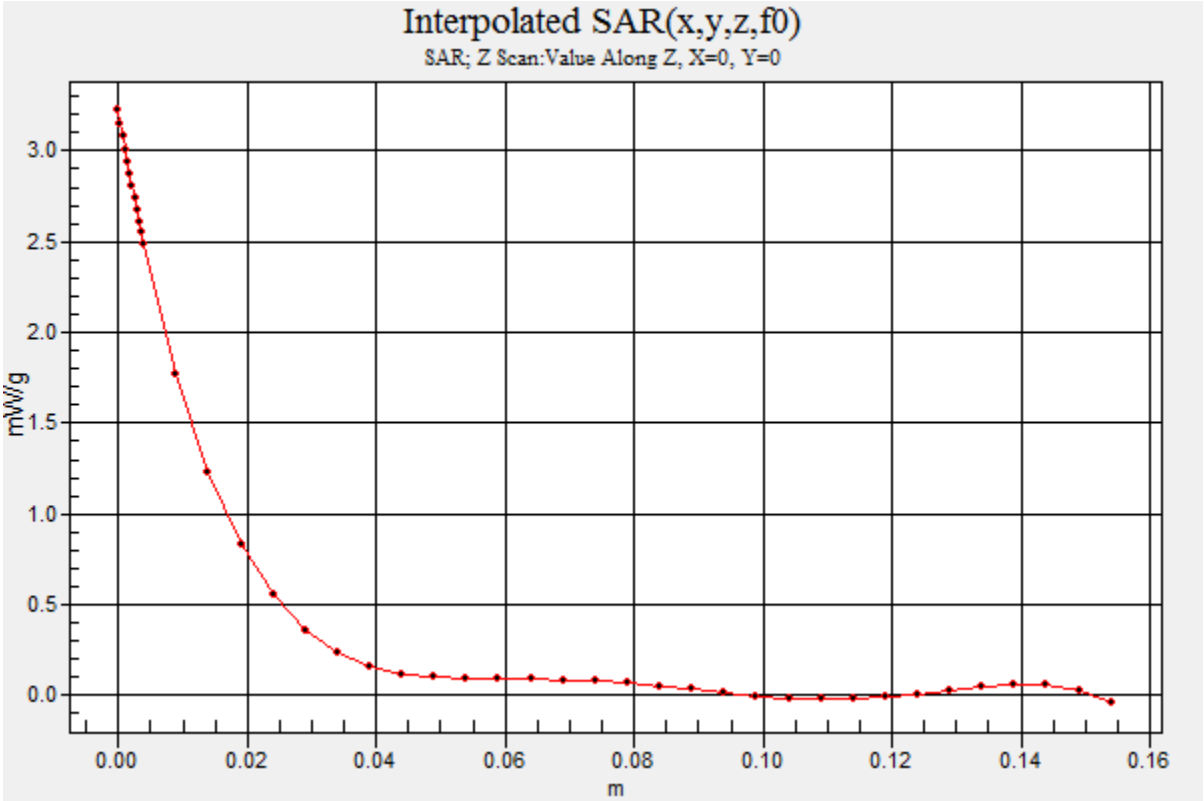

Interpolated SAR(x,y,z,f0)
SAR; Z Scan:Value Along Z, X=0, Y=0
mW/g
3.0
2.5
2.0
1.5
1.0
0.5
0.0
0.00
0.02
0.04
0.06
0.08
0.10
0.12
0.14
0.16
m

Date/Time: 12/07/2017 2:56:06 PM

Test Laboratory: Celltech Labs

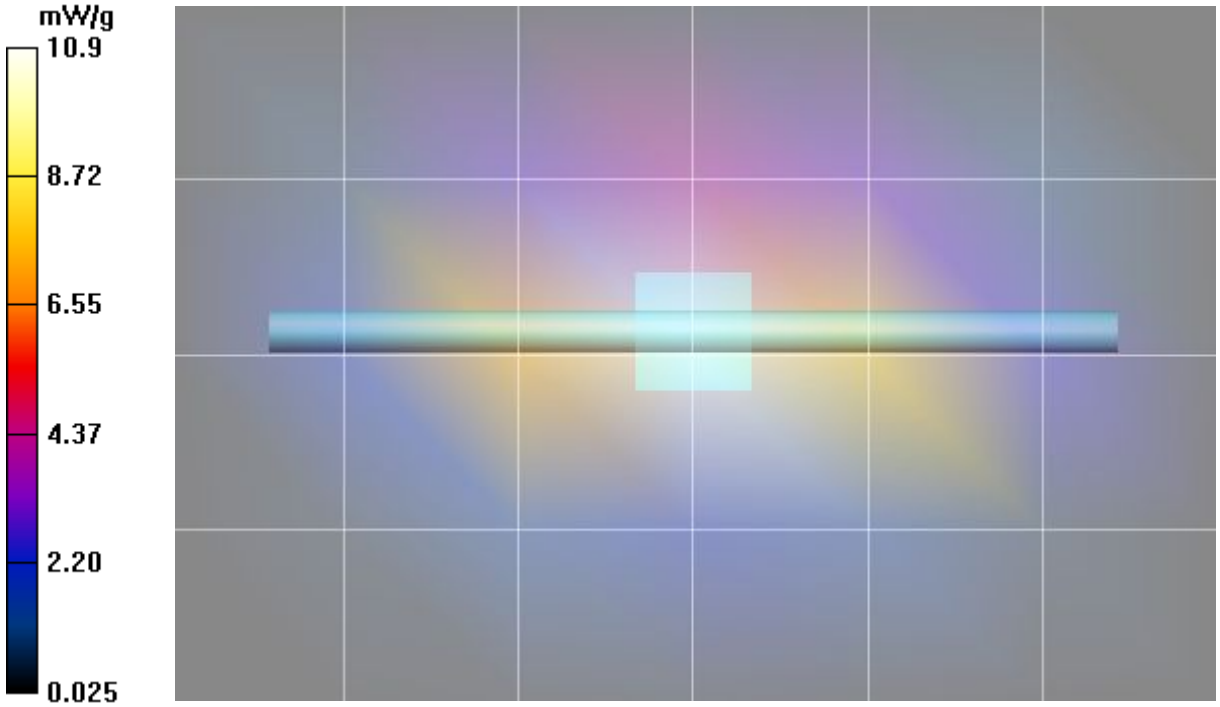
DUT: Dipole 1800 MHz; Type: D1800V2; Serial: D1800V2 - SN:247; Calibrated: 20/04/2017
Program Name: SPC 1800B

Communication System: CW; Frequency: 1800 MHz;Duty Cycle: 1:1
Medium parameters used: f = 1800 MHz; σ = 1.58 mho/m; ε_r = 56.4; ρ = 1000 kg/m^3
Phantom section: Flat Section

DASY4 Configuration:
- Probe: EX3DV4 - SN3600; ConvF(6.83, 6.83, 6.83); Calibrated: 27/04/2017
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn353; Calibrated: 24/04/2017
- Phantom: ELI v5.0; Type: QDOVA002AA; Serial: TP:xxxx
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 145

Body d=10mm Pin=250mW. TS=[8.75][9.72][10.69]W/kg 2/Area Scan (5x7x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (measured) = 10.9 mW/g

Body d=10mm Pin=250mW. TS=[8.75][9.72][10.69]W/kg 2/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm
Reference Value = 90.7 V/m; Power Drift = 0.01 dB
Peak SAR (extrapolated) = 16.6 W/kg
SAR(1 g) = 9.32 mW/g; SAR(10 g) = 5.02 mW/g
Maximum value of SAR (measured) = 10.1 mW/g



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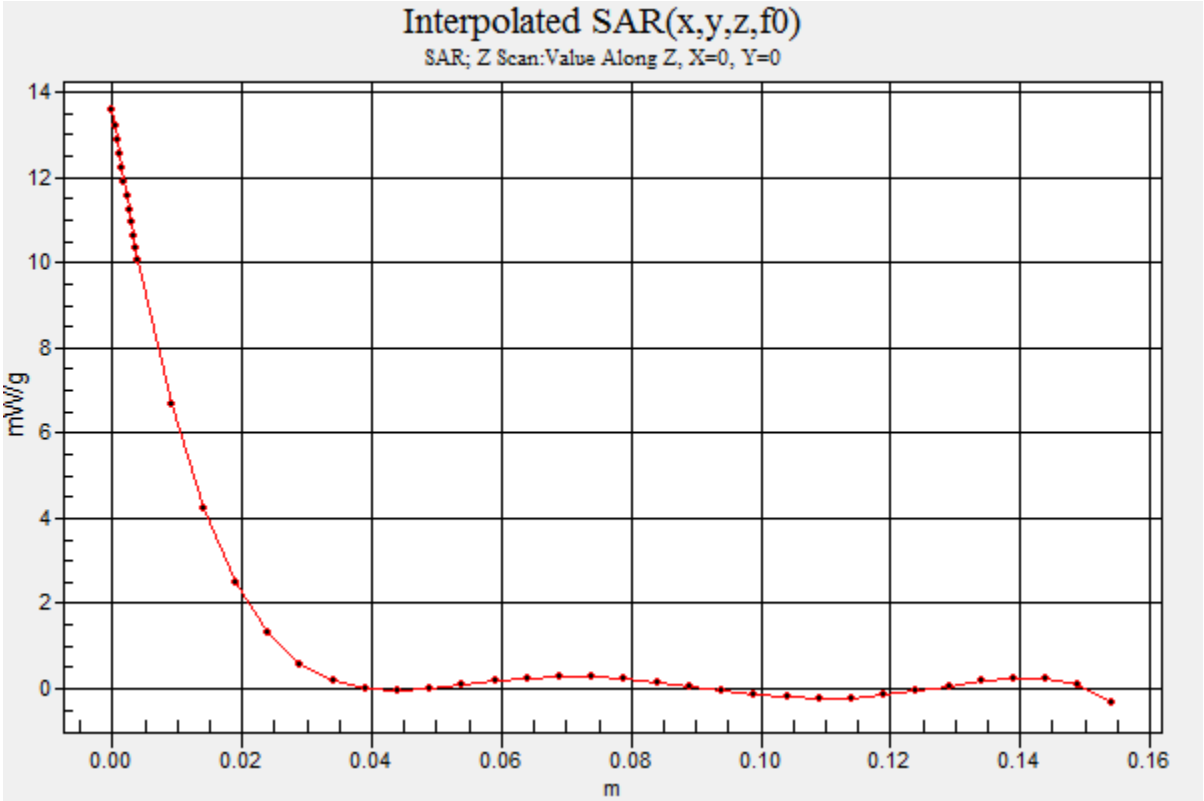

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Date/Time: 14/07/2017 8:43:02 AM

Test Laboratory: Celltech Labs

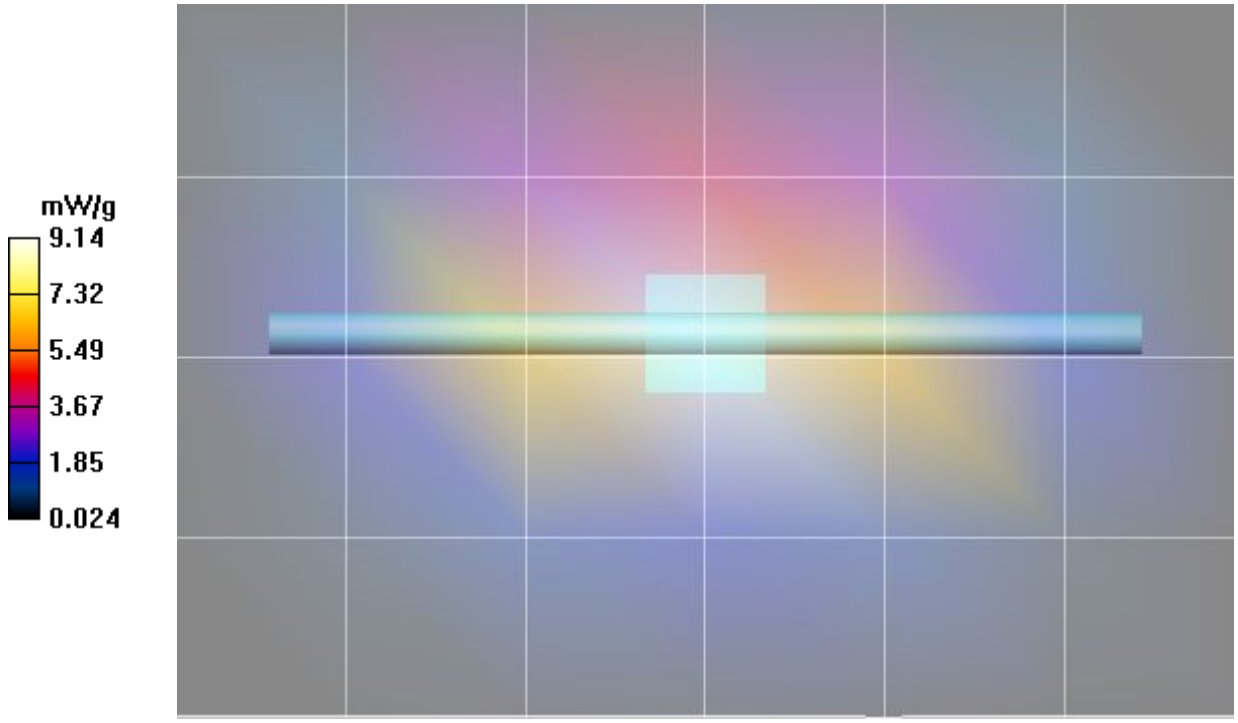
DUT: Dipole 1800 MHz; Type: D1800V2; Serial: D1800V2 - SN:247; Calibrated: 20/04/2017
Program Name: SPC 1800H

Communication System: CW; Frequency: 1800 MHz;Duty Cycle: 1:1
Medium parameters used: f = 1800 MHz; σ = 1.33 mho/m; ε_r = 40.7; ρ = 1000 kg/m^3
Phantom section: Flat Section

DASY4 Configuration:
- Probe: EX3DV4 - SN3600; ConvF(7.08, 7.08, 7.08); Calibrated: 27/04/2017
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn353; Calibrated: 24/04/2017
- Phantom: ELI v5.0; Type: QDOVA002AA; Serial: TP:xxxx
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 145

Head d=10mm Pin=250mW. TS=[8.67][9.63][10.59]W/kg/Area Scan (5x7x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (measured) = 9.14 mW/g

Head d=10mm Pin=250mW. TS=[8.67][9.63][10.59]W/kg/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm
Reference Value = 82.9 V/m; Power Drift = 0.361 dB
Peak SAR (extrapolated) = 16.6 W/kg
SAR(1 g) = 9.03 mW/g; SAR(10 g) = 4.73 mW/g
Maximum value of SAR (measured) = 9.88 mW/g



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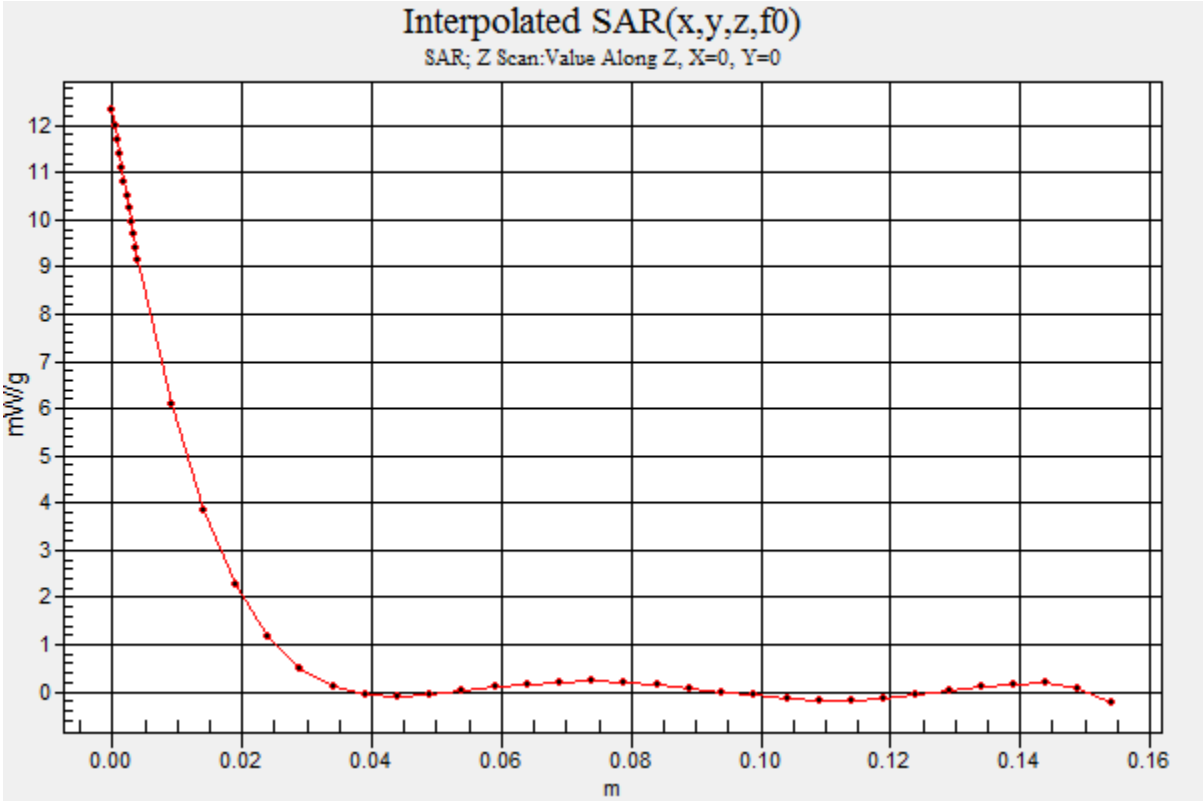

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APPENDIX B – MEASUREMENT PLOTS OF MAXIMUM MEASURED SAR

7/800 RB - LTE Band 13

Plot B1

Date/Time: 05/07/2017 1:05:40 PM

Test Laboratory: Celltech Labs

DUT: Harris; Type: PTT Radio Transceiver;
Program Name: 835B

Communication System: Harris-LTE; Frequency: 782 MHz;Duty Cycle: 1:1
Medium parameters used (interpolated): f = 782 MHz; σ = 0.927 mho/m; ε_r = 54.3; ρ = 1000 kg/m^3
Phantom section: Flat Section

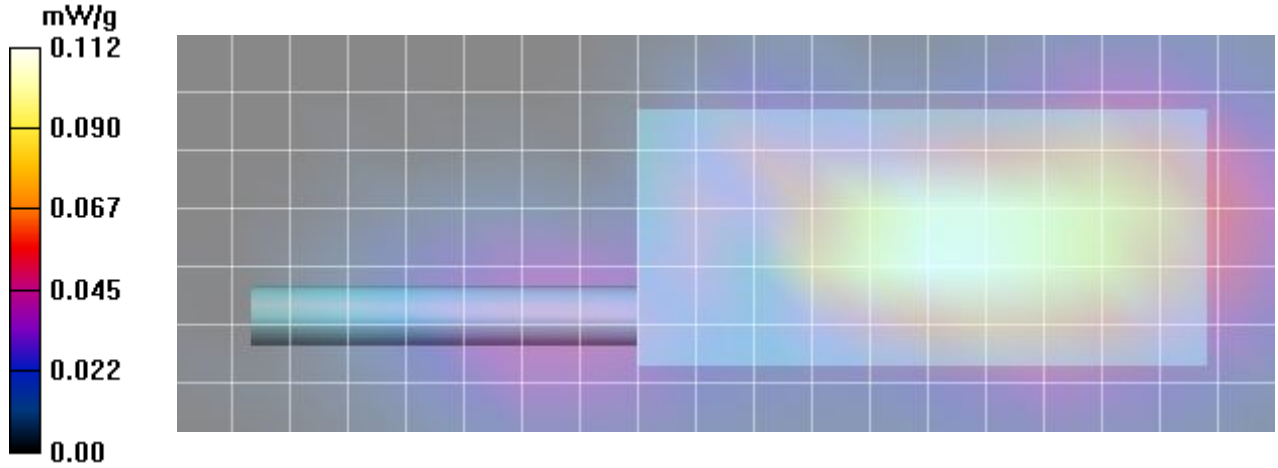
DASY4 Configuration:
- Probe: EX3DV4 - SN3600; ConvF(8.22, 8.22, 8.22); Calibrated: 27/04/2017
- Sensor-Surface: 4mm (Mechanical Surface Detection (Locations From Previous Scan Used))Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn353; Calibrated: 24/04/2017
- Phantom: ELI v5.0; Type: QDOVA002AA; Serial: TP:xxxx
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 145

B1 Body, SYS, Eclipse XL-185P 7/800 w/ LTE,Back Side,bc,spk-mic,ant 4440-02, bat 4010-01, 782 MHz, CW/Area Scan (8x20x1): Measurement grid: dx=15mm, dy=15mm

Info: Interpolated medium parameters used for SAR evaluation!
Maximum value of SAR (measured) = 0.112 mW/g

B1 Body, SYS, Eclipse XL-185P 7/800 w/ LTE,Back Side, bc, spk-mic,ant 4440-02, bat 4010-01, 782 MHz, CW/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm
Reference Value = 4.81 V/m; Power Drift = -0.123 dB
Peak SAR (extrapolated) = 0.151 W/kg
SAR(1 g) = 0.110 mW/g; SAR(10 g) = 0.078 mW/g

Info: Interpolated medium parameters used for SAR evaluation!
Maximum value of SAR (measured) = 0.116 mW/g



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Plot B3-2

Date/Time: 07/07/2017 3:09:33 PM

Test Laboratory: Celltech Labs

DUT: Harris; Type: PTT Radio Transceiver; Serial:
Program Name: 835B

Communication System: Harris-LTE; Frequency: 782 MHz;Duty Cycle: 1:1
Medium parameters used (interpolated): f = 782 MHz; σ = 0.927 mho/m; ε_r = 54.3; ρ = 1000 kg/m^3
Phantom section: Flat Section

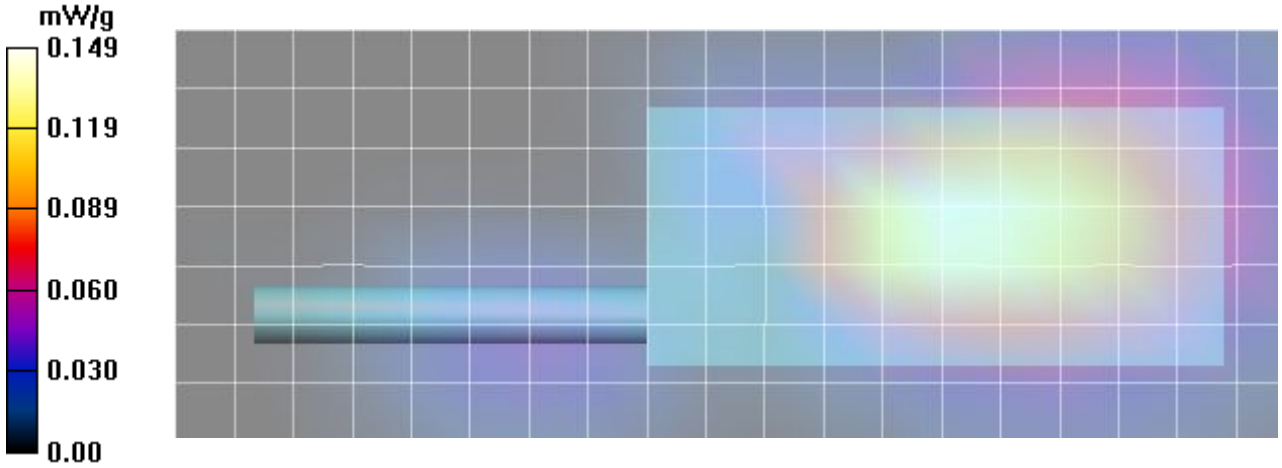
DASY4 Configuration:
- Probe: EX3DV4 - SN3600; ConvF(8.22, 8.22, 8.22); Calibrated: 27/04/2017
- Sensor-Surface: 4mm (Mechanical Surface Detection (Locations From Previous Scan Used))Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn353; Calibrated: 24/04/2017
- Phantom: ELI v5.0; Type: QDOVA002AA; Serial: TP:xxxx
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 145

B3-2 Body, SYS, Eclipse XL-185P 7/800 w/ LTE, Back Side, bc , spk-mic, ant 4440-02, bat 4010-01, 782MHz, MID CH, 10 MHz BW, QPSK, 1 RB, 25 RB Offset/Area Scan (8x20x1): Measurement grid: dx=15mm, dy=15mm

Info: Interpolated medium parameters used for SAR evaluation!
Maximum value of SAR (measured) = 0.149 mW/g

B3-2 Body, SYS, Eclipse XL-185P 7/800 w/ LTE, Back Side, bc , spk-mic, ant 4440-02, bat 4010-01, 782MHz, MID CH, 10 MHz BW, QPSK, 1 RB, 25 RB Offset/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm
Reference Value = 3.10 V/m; Power Drift = 1.18 dB
Peak SAR (extrapolated) = 0.247 W/kg
SAR(1 g) = 0.181 mW/g; SAR(10 g) = 0.128 mW/g

Info: Interpolated medium parameters used for SAR evaluation!
Maximum value of SAR (measured) = 0.192 mW/g



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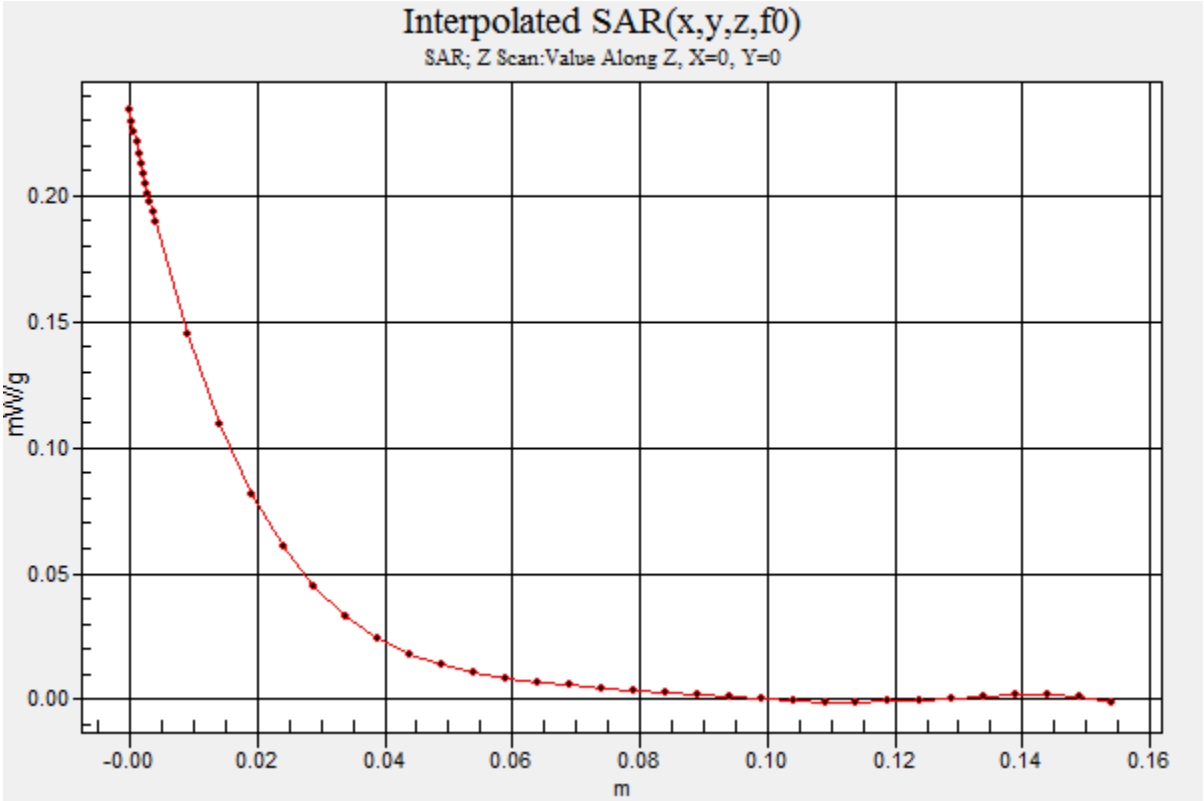

Interpolated SAR(x,y,z,f0)
SAR; Z Scan:Value Along Z, X=0, Y=0
mW/g
0.20
0.15
0.10
0.05
0.00
-0.00
0.02
0.04
0.06
0.08
0.10
0.12
0.14
0.16
m

Plot B4

Date/Time: 05/07/2017 3:32:15 PM

Test Laboratory: Celltech Labs

DUT: Harris; Type: PTT Radio Transceiver;
Program Name: 835B

Communication System: Harris-LTE; Frequency: 782 MHz;Duty Cycle: 1:1
Medium parameters used (interpolated): f = 782 MHz; σ = 0.927 mho/m; ε_r = 54.3; ρ = 1000 kg/m^3
Phantom section: Flat Section

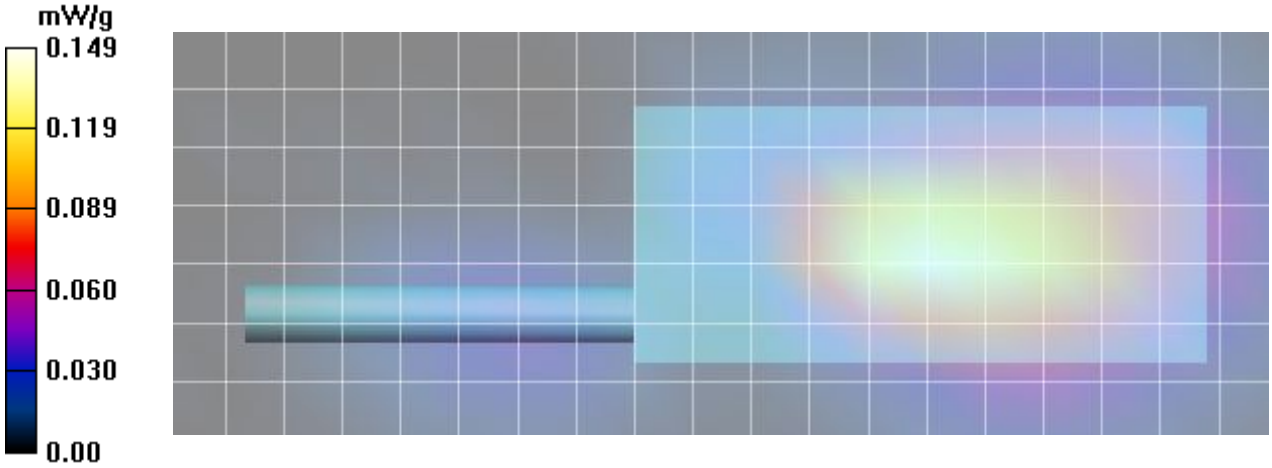
DASY4 Configuration:
- Probe: EX3DV4 - SN3600; ConvF(8.22, 8.22, 8.22); Calibrated: 27/04/2017
- Sensor-Surface: 4mm (Mechanical Surface Detection (Locations From Previous Scan Used))Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn353; Calibrated: 24/04/2017
- Phantom: ELI v5.0; Type: QDOVA002AA; Serial: TP:xxxx
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 145

B4 Body, SCAN, Eclipse XL-185P 7/800 w/ LTE, Back Side,bc,spk-mic, ant 4440-02, bat 4010-01, 782, CW/Area Scan (8x20x1): Measurement grid: dx=15mm, dy=15mm

Info: Interpolated medium parameters used for SAR evaluation!
Maximum value of SAR (measured) = 0.149 mW/g

B4 Body, SCAN, Eclipse XL-185P 7/800 w/ LTE, Back Side,bc,spk-mic, ant 4440-02, bat 4010-01, 782, CW/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm
Reference Value = 3.37 V/m; Power Drift = -0.151 dB
Peak SAR (extrapolated) = 0.184 W/kg
SAR(1 g) = 0.136 mW/g; SAR(10 g) = 0.095 mW/g

Info: Interpolated medium parameters used for SAR evaluation!
Maximum value of SAR (measured) = 0.142 mW/g



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Plot B6-2

Date/Time: 07/07/2017 3:33:40 PM

Test Laboratory: Celltech Labs

DUT: Harris; Type: PTT Radio Transceiver;
Program Name: 835B

Communication System: Harris-LTE; Frequency: 782 MHz;Duty Cycle: 1:1
Medium parameters used (interpolated): f = 782 MHz; σ = 0.927 mho/m; ε_r = 54.3; ρ = 1000 kg/m^3
Phantom section: Flat Section

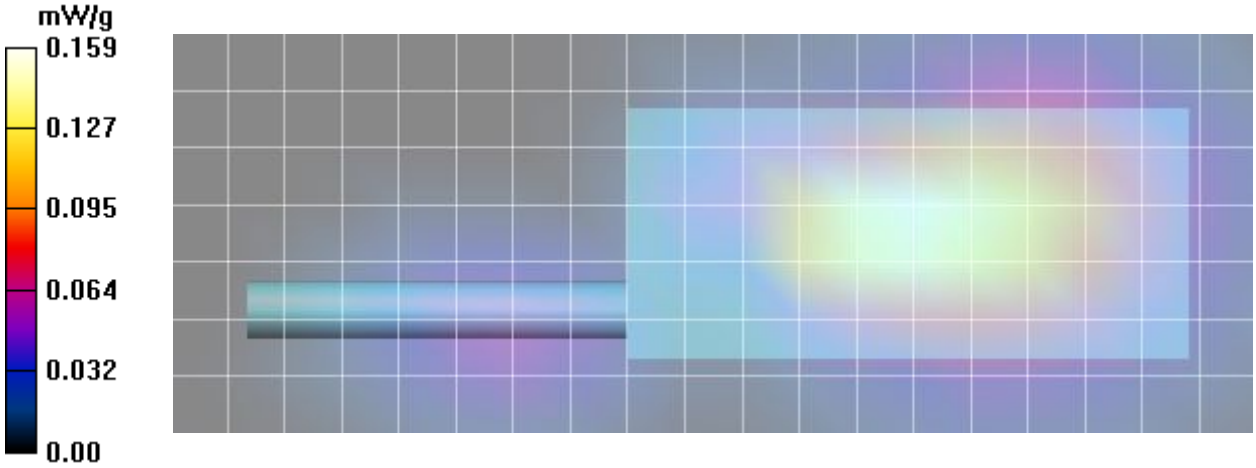
DASY4 Configuration:
- Probe: EX3DV4 - SN3600; ConvF(8.22, 8.22, 8.22); Calibrated: 27/04/2017
- Sensor-Surface: 4mm (Mechanical Surface Detection (Locations From Previous Scan Used))Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn353; Calibrated: 24/04/2017
- Phantom: ELI v5.0; Type: QDOVA002AA; Serial: TP:xxxx
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 145

B6-2 Body, SCAN, Eclipse XL-185P 7/800 w/ LTE, Back Side, bc, spk- mic, ant 4440-02, bat 4010-01, 782MHz, MID CH, 10 MHZ, QPSK, 1 RB, 25 RB Offset/Area Scan (8x20x1): Measurement grid: dx=15mm, dy=15mm

Info: Interpolated medium parameters used for SAR evaluation!
Maximum value of SAR (measured) = 0.159 mW/g

B6-2 Body, SCAN, Eclipse XL-185P 7/800 w/ LTE, Back Side, bc, spk- mic, ant 4440-02, bat 4010-01, 782MHz, MID CH, 10 MHZ, QPSK, 1 RB, 25 RB Offset/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm
Reference Value = 4.31 V/m; Power Drift = 0.246 dB
Peak SAR (extrapolated) = 0.217 W/kg
SAR(1 g) = 0.160 mW/g; SAR(10 g) = 0.114 mW/g

Info: Interpolated medium parameters used for SAR evaluation!
Maximum value of SAR (measured) = 0.170 mW/g



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7/800 RB - LTE Band 14

Plot B7

Date/Time: 06/07/2017 10:55:37 AM

Test Laboratory: Celltech Labs

DUT: Harris; Type: PTT Radio Transceiver; Serial:
Program Name: 835B

Communication System: Harris-LTE; Frequency: 793 MHz;Duty Cycle: 1:1
Medium parameters used (interpolated): f = 793 MHz; σ = 0.93 mho/m; ε_r = 54.2; ρ = 1000 kg/m^3
Phantom section: Flat Section

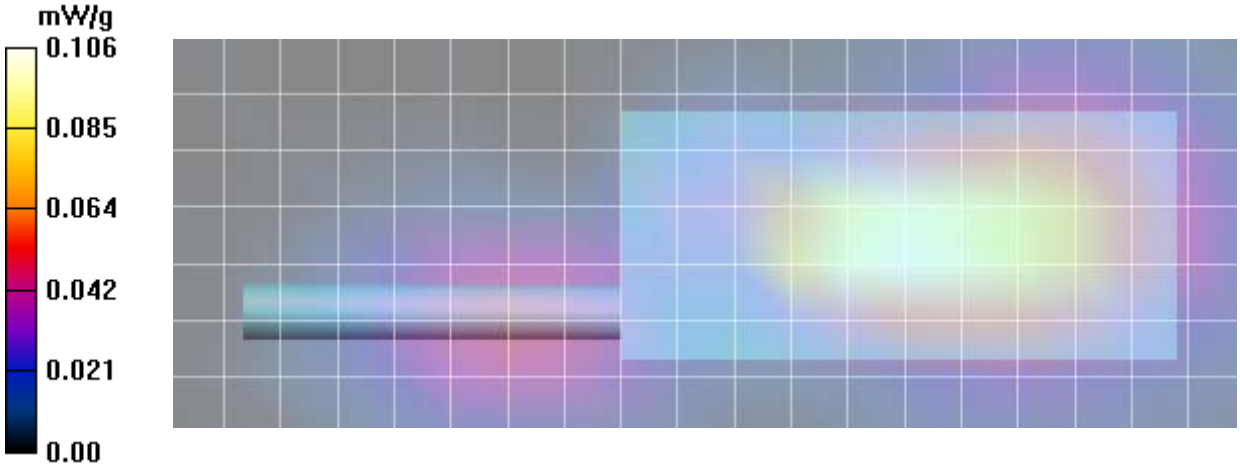
DASY4 Configuration:
- Probe: EX3DV4 - SN3600; ConvF(8.22, 8.22, 8.22); Calibrated: 27/04/2017
- Sensor-Surface: 4mm (Mechanical Surface Detection (Locations From Previous Scan Used))Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn353; Calibrated: 24/04/2017
- Phantom: ELI v5.0; Type: QDOVA002AA; Serial: TP:xxxx
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 145

B7 Body, SYS, Eclipse XL-185P 7/800 w/ LTE, Back Side, bc, spk-mic, ant 4440-02, bat 4010-01, 793 MHz, CW/Area Scan (8x20x1): Measurement grid: dx=15mm, dy=15mm

Info: Interpolated medium parameters used for SAR evaluation!
Maximum value of SAR (measured) = 0.106 mW/g

B7 Body, SYS, Eclipse XL-185P 7/800 w/ LTE, Back Side, bc, spk-mic, ant 4440-02, bat 4010-01, 793 MHz, CW/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm
Reference Value = 4.97 V/m; Power Drift = -0.465 dB
Peak SAR (extrapolated) = 0.139 W/kg
SAR(1 g) = 0.103 mW/g; SAR(10 g) = 0.073 mW/g

Info: Interpolated medium parameters used for SAR evaluation!
Maximum value of SAR (measured) = 0.110 mW/g



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Plot B8-2

Date/Time: 10/07/2017 1:53:49 PM

Test Laboratory: Celltech Labs

DUT: Harris; Type: PTT Radio Transceiver;
Program Name: 835B

Communication System: Harris-LTE; Frequency: 793 MHz;Duty Cycle: 1:1
Medium parameters used (interpolated): f = 793 MHz; σ = 0.93 mho/m; ε_r = 54.2; ρ = 1000 kg/m^3
Phantom section: Flat Section

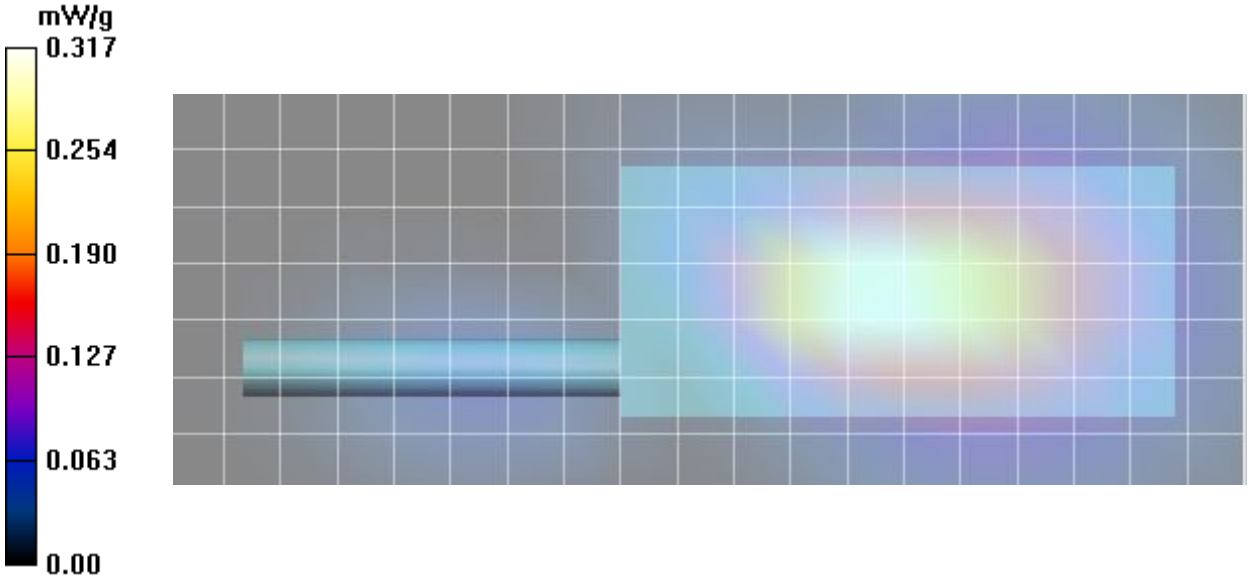
DASY4 Configuration:
- Probe: EX3DV4 - SN3600; ConvF(8.22, 8.22, 8.22); Calibrated: 27/04/2017
- Sensor-Surface: 4mm (Mechanical Surface Detection (Locations From Previous Scan Used))Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn353; Calibrated: 24/04/2017
- Phantom: ELI v5.0; Type: QDOVA002AA; Serial: TP:xxxx
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 145

B8-2 Body, SYS, Eclipse XL-185P 7/800 w/ LTE, Back Side, bc, spk-mic, ant 4440-02, bat 4010-01, 793 MHz, MID CH, 10 MHz BW,QPSK, 1 RB, 25 RB Offset/Area Scan (8x20x1): Measurement grid: dx=15mm, dy=15mm

Info: Interpolated medium parameters used for SAR evaluation!
Maximum value of SAR (measured) = 0.317 mW/g

B8-2 Body, SYS, Eclipse XL-185P 7/800 w/ LTE, Back Side, bc, spk-mic, ant 4440-02, bat 4010-01, 793 MHz, MID CH, 10 MHz BW,QPSK, 1 RB, 25 RB Offset/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm
Reference Value = 4.74 V/m; Power Drift = -0.038 dB
Peak SAR (extrapolated) = 0.471 W/kg
SAR(1 g) = 0.344 mW/g; SAR(10 g) = 0.241 mW/g

Info: Interpolated medium parameters used for SAR evaluation!
Maximum value of SAR (measured) = 0.366 mW/g



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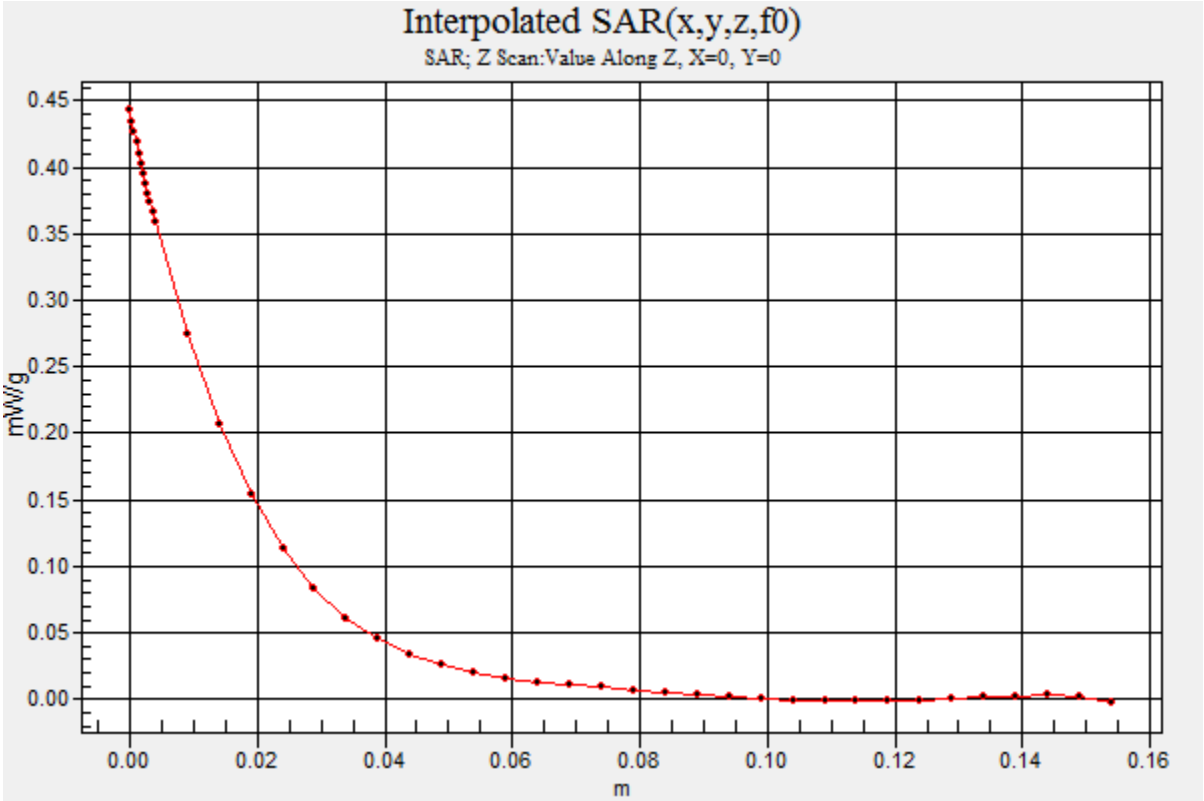

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Plot B9

Date/Time: 06/07/2017 12:36:51 PM

Test Laboratory: Celltech Labs

DUT: Harris; Type: PTT Radio Transceiver;
Program Name: 835B

Communication System: Harris-LTE; Frequency: 793 MHz;Duty Cycle: 1:1
Medium parameters used (interpolated): f = 793 MHz; σ = 0.93 mho/m; ε_r = 54.2; ρ = 1000 kg/m^3
Phantom section: Flat Section

DASY4 Configuration:
- Probe: EX3DV4 - SN3600; ConvF(8.22, 8.22, 8.22); Calibrated: 27/04/2017
- Sensor-Surface: 4mm (Mechanical Surface Detection (Locations From Previous Scan Used))Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn353; Calibrated: 24/04/2017
- Phantom: ELI v5.0; Type: QDOVA002AA; Serial: TP:xxxx
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 145

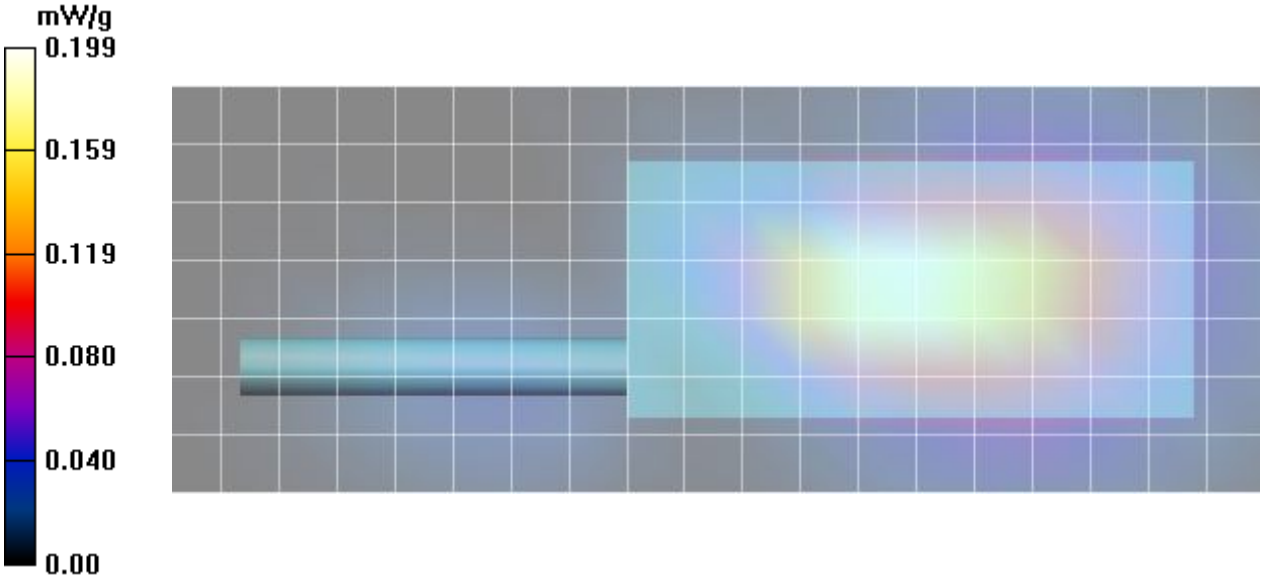
B9 Body, SCAN, Eclipse XL-185P 7/800 w/ LTE, Back Side, bc, spk-mic, ant 4440-02, bat 4010-01, 793 MHz, CW/Area Scan (8x20x1): Measurement grid: dx=15mm, dy=15mm

Info: Interpolated medium parameters used for SAR evaluation!
Maximum value of SAR (measured) = 0.199 mW/g

B9 Body, SCAN, Eclipse XL-185P 7/800 w/ LTE, Back Side, bc, spk-mic, ant 4440-02, bat 4010-01, 793 MHz, CW/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm
Reference Value = 3.93 V/m; Power Drift = -0.420 dB
Peak SAR (extrapolated) = 0.241 W/kg
SAR(1 g) = 0.176 mW/g; SAR(10 g) = 0.125 mW/g

Info: Interpolated medium parameters used for SAR evaluation!

Maximum value of SAR (measured) = 0.186 mW/g



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Plot B10-2

Date/Time: 10/07/2017 2:15:56 PM

Test Laboratory: Celltech Labs

DUT: Harris; Type: PTT Radio Transceiver;
Program Name: 835B

Communication System: Harris-LTE; Frequency: 793 MHz;Duty Cycle: 1:1
Medium parameters used (interpolated): f = 793 MHz; σ = 0.93 mho/m; ε_r = 54.2; ρ = 1000 kg/m^3
Phantom section: Flat Section

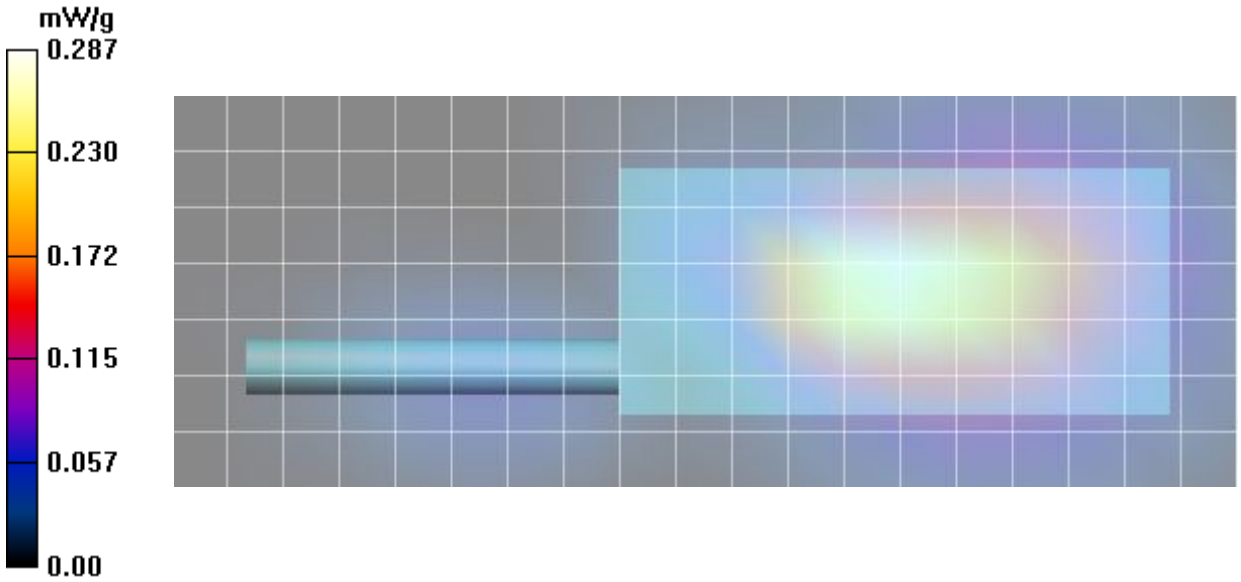
DASY4 Configuration:
- Probe: EX3DV4 - SN3600; ConvF(8.22, 8.22, 8.22); Calibrated: 27/04/2017
- Sensor-Surface: 4mm (Mechanical Surface Detection (Locations From Previous Scan Used))Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn353; Calibrated: 24/04/2017
- Phantom: ELI v5.0; Type: QDOVA002AA; Serial: TP:xxxx
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 145

B10-2 Body, SCAN, Eclipse XL-185P 7/800 w/ LTE, Back Side, bc, spk-mic, ant 4440-02, bat 4010-01,793 MHz, MID CH, 10 MHZ BW, QPSK, 1 RB, 25 RB Offset/Area Scan (8x20x1): Measurement grid: dx=15mm, dy=15mm

Info: Interpolated medium parameters used for SAR evaluation!
Maximum value of SAR (measured) = 0.287 mW/g

B10-2 Body, SCAN, Eclipse XL-185P 7/800 w/ LTE, Back Side, bc, spk-mic, ant 4440-02, bat 4010-01,793 MHz, MID CH, 10 MHZ BW, QPSK, 1 RB, 25 RB Offset/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm
Reference Value = 4.63 V/m; Power Drift = -0.188 dB
Peak SAR (extrapolated) = 0.409 W/kg
SAR(1 g) = 0.299 mW/g; SAR(10 g) = 0.210 mW/g

Info: Interpolated medium parameters used for SAR evaluation!
Maximum value of SAR (measured) = 0.317 mW/g



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7/800 RB - LTE Band 4

Plot B11

Date/Time: 12/07/2017 4:48:47 PM

Test Laboratory: Celltech Labs

DUT: Harris; Type: PTT Radio Transceiver;
Program Name: 1800B

Communication System: Harris-LTE; Frequency: 1732.5 MHz;Duty Cycle: 1:1
Medium parameters used (interpolated): f = 1732.5 MHz; σ = 1.48 mho/m; ε_r = 56.7; ρ = 1000 kg/m^3
Phantom section: Flat Section

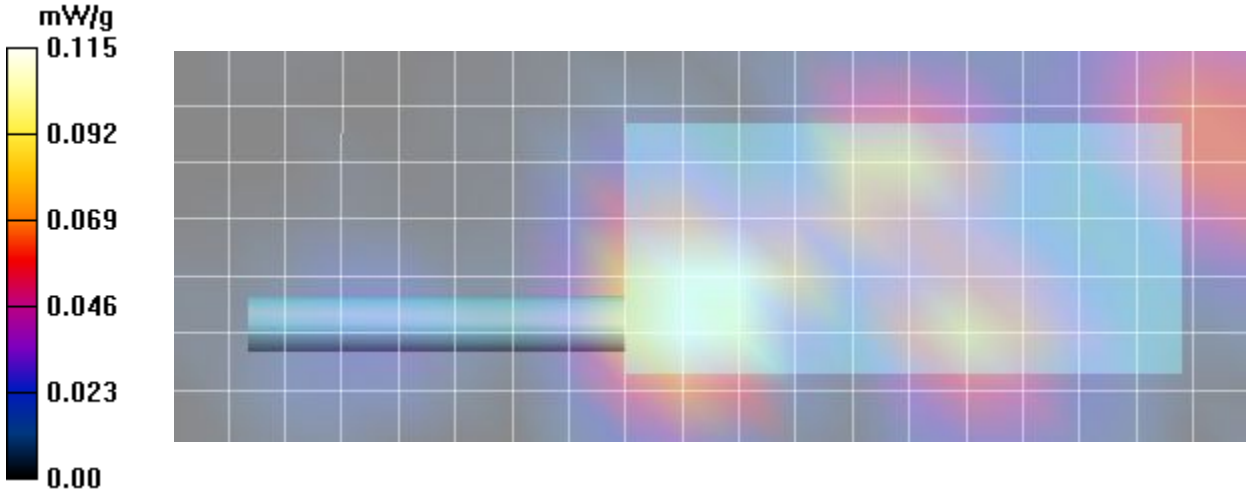
DASY4 Configuration:
- Probe: EX3DV4 - SN3600; ConvF(6.83, 6.83, 6.83); Calibrated: 27/04/2017
- Sensor-Surface: 4mm (Mechanical Surface Detection (Locations From Previous Scan Used))Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn353; Calibrated: 24/04/2017
- Phantom: ELI v5.0; Type: QDOVA002AA; Serial: TP:xxxx
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 145

B11 Body, SYS, Eclipse XL-185P 7/800 w/ LTE, Back Side, bc, spk-mic, ant 4440-02, bat 4010-01, 1732.5 MHz, MID CH, 20 MHz BW, QPSK, 1 RB, 50 RB Offset/Area Scan (8x20x1): Measurement grid: dx=15mm, dy=15mm

Info: Interpolated medium parameters used for SAR evaluation!
Maximum value of SAR (measured) = 0.115 mW/g

B11 Body, SYS, Eclipse XL-185P 7/800 w/ LTE, Back Side, bc, spk-mic, ant 4440-02, bat 4010-01, 1732.5 MHz, MID CH, 20 MHz BW, QPSK, 1 RB, 50 RB Offset/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm
Reference Value = 6.72 V/m; Power Drift = 0.134 dB
Peak SAR (extrapolated) = 0.178 W/kg
SAR(1 g) = 0.116 mW/g; SAR(10 g) = 0.075 mW/g

Info: Interpolated medium parameters used for SAR evaluation!
Maximum value of SAR (measured) = 0.126 mW/g



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Plot B12

Date/Time: 12/07/2017 5:09:18 PM

Test Laboratory: Celltech Labs

DUT: Harris; Type: PTT Radio Transceiver;
Program Name: 1800B

Communication System: Harris-LTE; Frequency: 1732.5 MHz;Duty Cycle: 1:1
Medium parameters used (interpolated): f = 1732.5 MHz; σ = 1.48 mho/m; ε_r = 56.7; ρ = 1000 kg/m^3
Phantom section: Flat Section

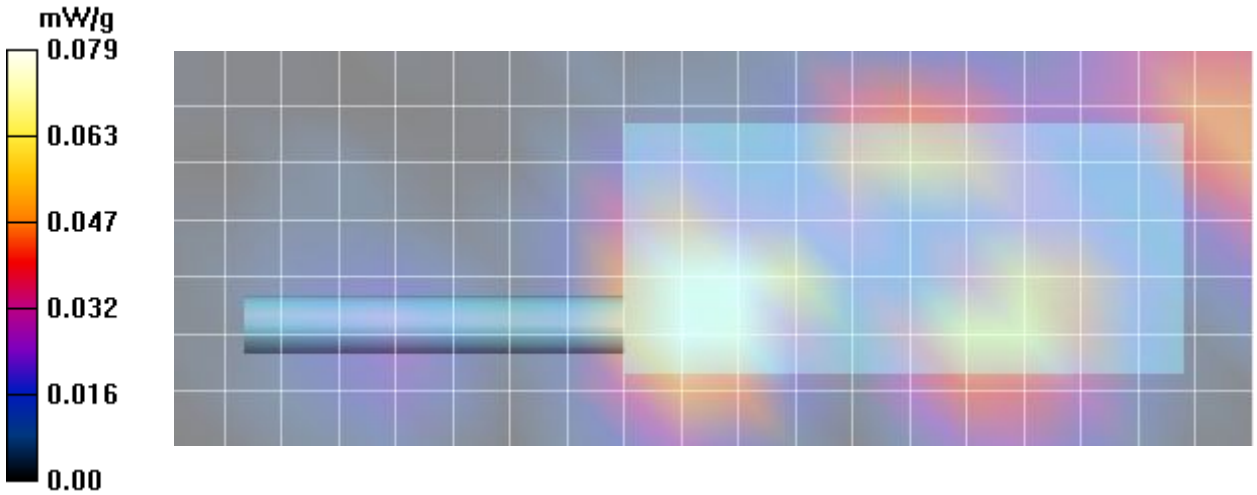
DASY4 Configuration:
- Probe: EX3DV4 - SN3600; ConvF(6.83, 6.83, 6.83); Calibrated: 27/04/2017
- Sensor-Surface: 4mm (Mechanical Surface Detection (Locations From Previous Scan Used))Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn353; Calibrated: 24/04/2017
- Phantom: ELI v5.0; Type: QDOVA002AA; Serial: TP:xxxx
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 145

B12 Body, SCAN, Eclipse XL-185P 7/800 w/ LTE, Back Side, bc, spk-mic, ant 4440-02, bat 4010-01,1732.5 MHz, MID CH, 20 MHz BW, QPSK, 1 RB, 50 RB Offset/Area Scan (8x20x1): Measurement grid: dx=15mm, dy=15mm

Info: Interpolated medium parameters used for SAR evaluation!
Maximum value of SAR (measured) = 0.079 mW/g

B12 Body, SCAN, Eclipse XL-185P 7/800 w/ LTE, Back Side, bc, spk-mic, ant 4440-02, bat 4010-01,1732.5 MHz, MID CH, 20 MHz BW, QPSK, 1 RB, 50 RB Offset/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm
Reference Value = 5.00 V/m; Power Drift = 0.283 dB
Peak SAR (extrapolated) = 0.117 W/kg
SAR(1 g) = 0.077 mW/g; SAR(10 g) = 0.050 mW/g

Info: Interpolated medium parameters used for SAR evaluation!
Maximum value of SAR (measured) = 0.081 mW/g



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Plot B13

Date/Time: 12/07/2017 5:28:35 PM

Test Laboratory: Celltech Labs

DUT: Harris; Type: PTT Radio Transceiver;
Program Name: 1800B

Communication System: Harris-LTE; Frequency: 1732.5 MHz;Duty Cycle: 1:1
Medium parameters used (interpolated): f = 1732.5 MHz; σ = 1.48 mho/m; ε_r = 56.7; ρ = 1000 kg/m^3
Phantom section: Flat Section

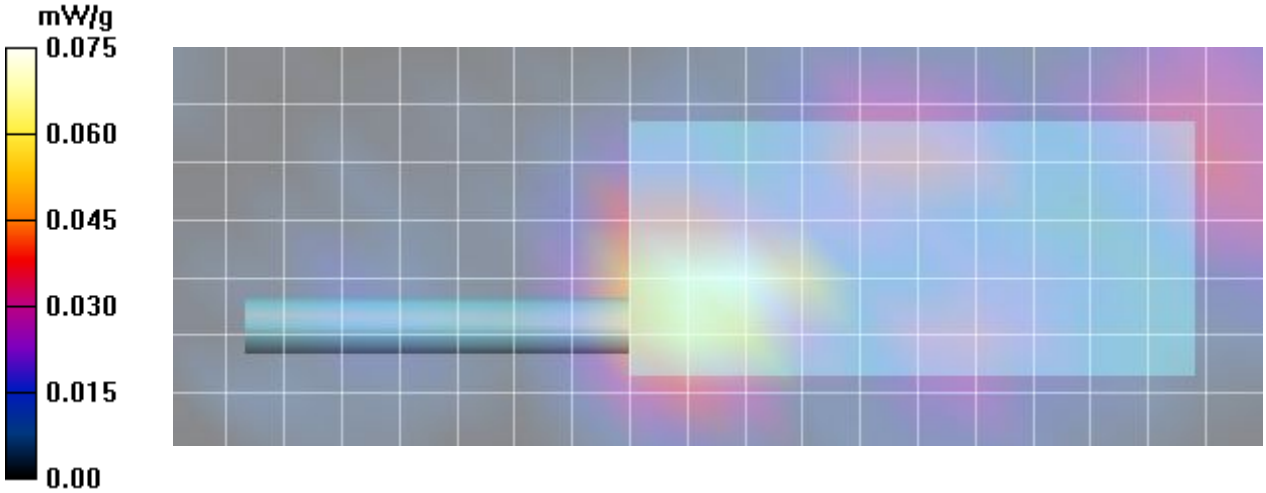
DASY4 Configuration:
- Probe: EX3DV4 - SN3600; ConvF(6.83, 6.83, 6.83); Calibrated: 27/04/2017
- Sensor-Surface: 4mm (Mechanical Surface Detection (Locations From Previous Scan Used))Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn353; Calibrated: 24/04/2017
- Phantom: ELI v5.0; Type: QDOVA002AA; Serial: TP:xxxx
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 145

B13 Body, SYS, Eclipse XL-185P 7/800 w/ LTE, Back Side, bc, spk-mic, ant 4440-02, bat 4010-01, 1732.5 MHz,CW/Area Scan (8x20x1): Measurement grid: dx=15mm, dy=15mm

Info: Interpolated medium parameters used for SAR evaluation!
Maximum value of SAR (measured) = 0.075 mW/g

B13 Body, SYS, Eclipse XL-185P 7/800 w/ LTE, Back Side, bc, spk-mic, ant 4440-02, bat 4010-01, 1732.5 MHz,CW/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm
Reference Value = 5.34 V/m; Power Drift = -0.120 dB
Peak SAR (extrapolated) = 0.116 W/kg
SAR(1 g) = 0.067 mW/g; SAR(10 g) = 0.043 mW/g

Info: Interpolated medium parameters used for SAR evaluation!
Maximum value of SAR (measured) = 0.071 mW/g



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Plot B14

Date/Time: 12/07/2017 5:45:16 PM

Test Laboratory: Celltech Labs

DUT: Harris; Type: PTT Radio Transceiver;
Program Name: 1800B

Communication System: Harris-LTE; Frequency: 1732.5 MHz;Duty Cycle: 1:1
Medium parameters used (interpolated): f = 1732.5 MHz; σ = 1.48 mho/m; ε_r = 56.7; ρ = 1000 kg/m^3
Phantom section: Flat Section

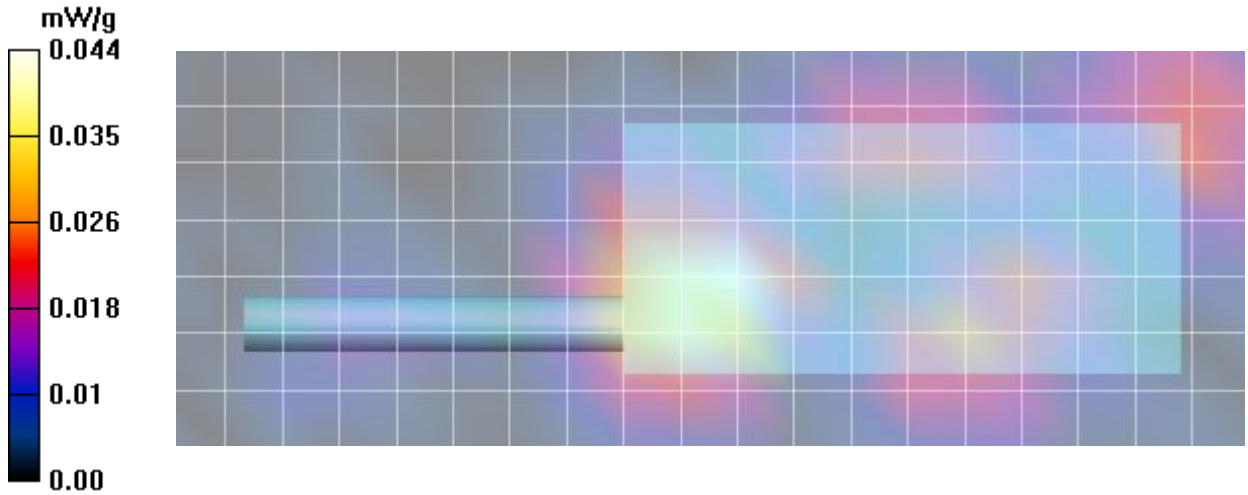
DASY4 Configuration:
- Probe: EX3DV4 - SN3600; ConvF(6.83, 6.83, 6.83); Calibrated: 27/04/2017
- Sensor-Surface: 4mm (Mechanical Surface Detection (Locations From Previous Scan Used))Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn353; Calibrated: 24/04/2017
- Phantom: ELI v5.0; Type: QDOVA002AA; Serial: TP:xxxx
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 145

B14 Body, SCAN, Eclipse XL-185P 7/800 w/ LTE, Back Side, bc, spk-mic, ant 4440-02, bat 4010-01, 1732.5 MHz, CW/Area Scan (8x20x1): Measurement grid: dx=15mm, dy=15mm

Info: Interpolated medium parameters used for SAR evaluation!
Maximum value of SAR (measured) = 0.044 mW/g

B14 Body, SCAN, Eclipse XL-185P 7/800 w/ LTE, Back Side, bc, spk-mic, ant 4440-02, bat 4010-01, 1732.5 MHz, CW/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm
Reference Value = 4.07 V/m; Power Drift = 0.313 dB
Peak SAR (extrapolated) = 0.061 W/kg
SAR(1 g) = 0.039 mW/g; SAR(10 g) = 0.025 mW/g

Info: Interpolated medium parameters used for SAR evaluation!
Maximum value of SAR (measured) = 0.042 mW/g



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7/800 Extended - LTE Band 14

Plot B1

Date/Time: 07/07/2017 8:38:19 AM

Test Laboratory: Celltech Labs

DUT: Harris; Type: PTT Radio Transceiver;
Program Name: 835B

Communication System: Harris-LTE; Frequency: 793 MHz;Duty Cycle: 1:1
Medium parameters used (interpolated): f = 793 MHz; σ = 0.93 mho/m; ε_r = 54.2; ρ = 1000 kg/m^3
Phantom section: Flat Section

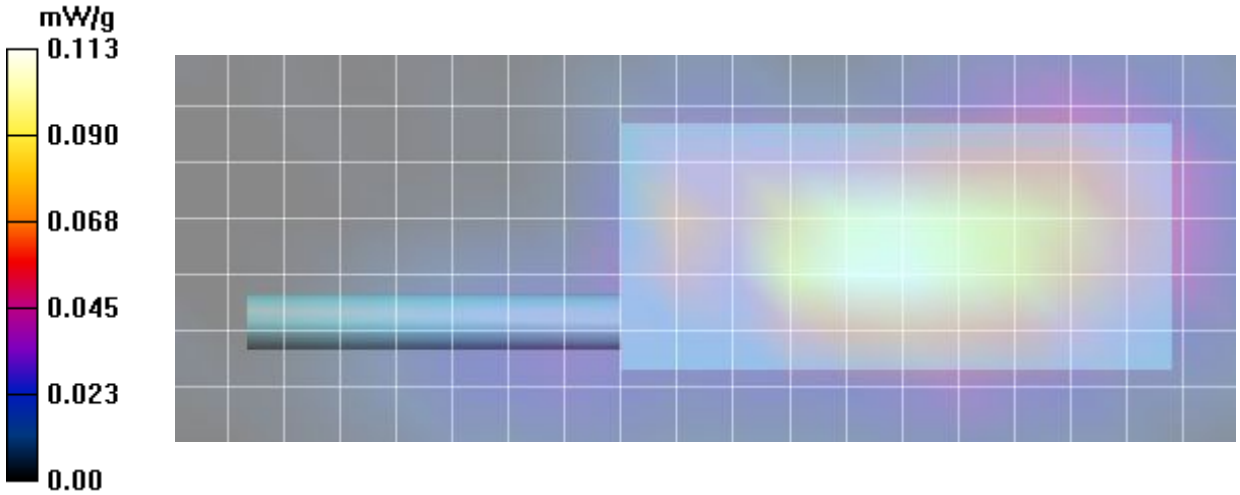
DASY4 Configuration:
- Probe: EX3DV4 - SN3600; ConvF(8.22, 8.22, 8.22); Calibrated: 27/04/2017
- Sensor-Surface: 4mm (Mechanical Surface Detection (Locations From Previous Scan Used))Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn353; Calibrated: 24/04/2017
- Phantom: ELI v5.0; Type: QDOVA002AA; Serial: TP:xxxx
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 145

B1 Body, SYS, Eclipse XL-185P 7/800 Extended w/ LTE, Back Side, bc, spk-mic, ant 4440-02, bat 4010-01, 793 MHz, CW/Area Scan (8x20x1): Measurement grid: dx=15mm, dy=15mm

Info: Interpolated medium parameters used for SAR evaluation!
Maximum value of SAR (measured) = 0.113 mW/g

B1 Body, SYS, Eclipse XL-185P 7/800 Extended w/ LTE, Back Side, bc, spk-mic, ant 4440-02, bat 4010-01, 793 MHz, CW/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm
Reference Value = 5.66 V/m; Power Drift = -0.649 dB
Peak SAR (extrapolated) = 0.157 W/kg
SAR(1 g) = 0.113 mW/g; SAR(10 g) = 0.079 mW/g

Info: Interpolated medium parameters used for SAR evaluation!
Maximum value of SAR (measured) = 0.120 mW/g



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Plot B2-2

Date/Time: 10/07/2017 1:12:01 PM

Test Laboratory: Celltech Labs

DUT: Harris; Type: PTT Radio Transceiver;
Program Name: 835B

Communication System: Harris-LTE; Frequency: 793 MHz;Duty Cycle: 1:1
Medium parameters used (interpolated): f = 793 MHz; σ = 0.93 mho/m; ε_r = 54.2; ρ = 1000 kg/m^3
Phantom section: Flat Section

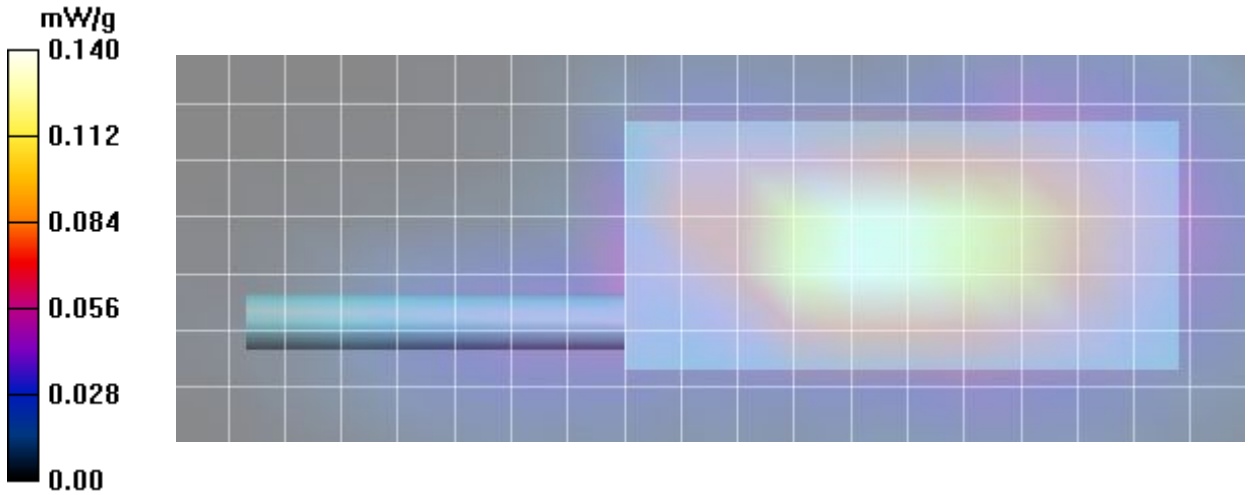
DASY4 Configuration:
- Probe: EX3DV4 - SN3600; ConvF(8.22, 8.22, 8.22); Calibrated: 27/04/2017
- Sensor-Surface: 4mm (Mechanical Surface Detection (Locations From Previous Scan Used))Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn353; Calibrated: 24/04/2017
- Phantom: ELI v5.0; Type: QDOVA002AA; Serial: TP:xxxx
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 145

B2-2 Body, SYS, Eclipse XL-185P 7/800 Extended w/ LTE, Back Side, bc, spk-mic, ant 4440-02, bat 4010-01, 793 MHz, MID CH, 10 MHz BW, QPSK, 1 RB, 25 RB Offset/Area Scan (8x20x1): Measurement grid: dx=15mm, dy=15mm

Info: Interpolated medium parameters used for SAR evaluation!
Maximum value of SAR (measured) = 0.140 mW/g

B2-2 Body, SYS, Eclipse XL-185P 7/800 Extended w/ LTE, Back Side, bc, spk-mic, ant 4440-02, bat 4010-01, 793 MHz, MID CH, 10 MHz BW, QPSK, 1 RB, 25 RB Offset/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm
Reference Value = 6.54 V/m; Power Drift = 0.243 dB
Peak SAR (extrapolated) = 0.207 W/kg
SAR(1 g) = 0.148 mW/g; SAR(10 g) = 0.103 mW/g

Info: Interpolated medium parameters used for SAR evaluation!
Maximum value of SAR (measured) = 0.158 mW/g



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Plot B3-2

Date/Time: 07/07/2017 2:12:15 PM

Test Laboratory: Celltech Labs

DUT: Harris; Type: PTT Radio Transceiver;
Program Name: 835B

Communication System: Harris-LTE; Frequency: 793 MHz;Duty Cycle: 1:1
Medium parameters used (interpolated): f = 793 MHz; σ = 0.93 mho/m; ε_r = 54.2; ρ = 1000 kg/m^3
Phantom section: Flat Section

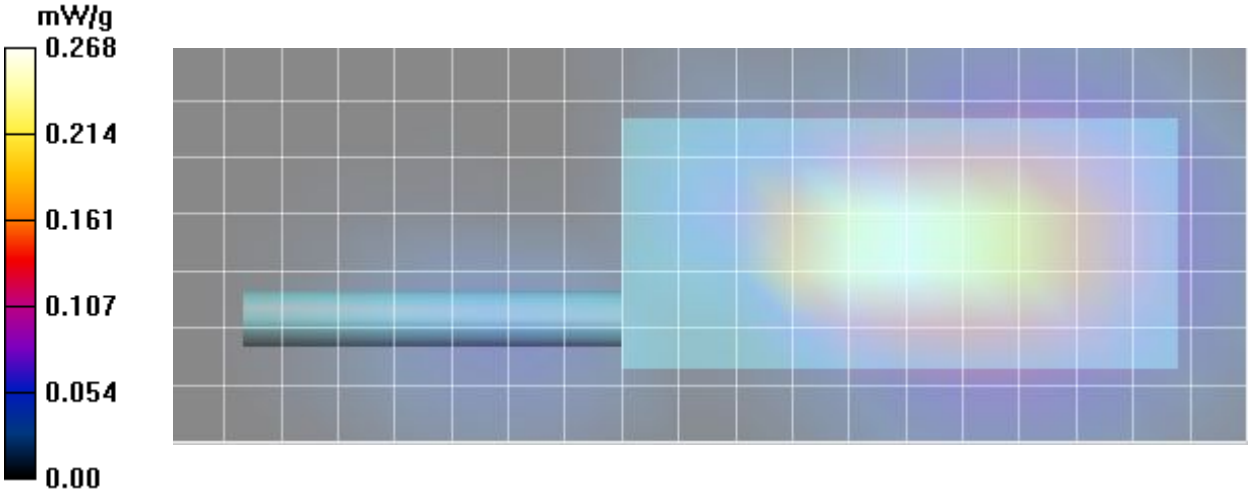
DASY4 Configuration:
- Probe: EX3DV4 - SN3600; ConvF(8.22, 8.22, 8.22); Calibrated: 27/04/2017
- Sensor-Surface: 4mm (Mechanical Surface Detection (Locations From Previous Scan Used))Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn353; Calibrated: 24/04/2017
- Phantom: ELI v5.0; Type: QDOVA002AA; Serial: TP:xxxx
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 145

B3-2 Body, SCAN, Eclipse XL-185P 7/800 Extended w/ LTE, Back Side, bc, spk-mic, ant 4440-02, bat 4010-01, 793 MHz, CW/Area Scan (8x20x1): Measurement grid: dx=15mm, dy=15mm

Info: Interpolated medium parameters used for SAR evaluation!
Maximum value of SAR (measured) = 0.268 mW/g

B3-2 Body, SCAN, Eclipse XL-185P 7/800 Extended w/ LTE, Back Side, bc, spk-mic, ant 4440-02, bat 4010-01, 793 MHz, CW/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm
Reference Value = 4.21 V/m; Power Drift = -0.162 dB
Peak SAR (extrapolated) = 0.379 W/kg
SAR(1 g) = 0.275 mW/g; SAR(10 g) = 0.192 mW/g

Info: Interpolated medium parameters used for SAR evaluation!
Maximum value of SAR (measured) = 0.292 mW/g



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Plot B4-3

Date/Time: 10/07/2017 1:27:25 PM

Test Laboratory: Celltech Labs

DUT: Harris; Type: PTT Radio Transceiver;
Program Name: 835B

Communication System: Harris-LTE; Frequency: 793 MHz;Duty Cycle: 1:1
Medium parameters used (interpolated): f = 793 MHz; σ = 0.93 mho/m; ε_r = 54.2; ρ = 1000 kg/m^3
Phantom section: Flat Section

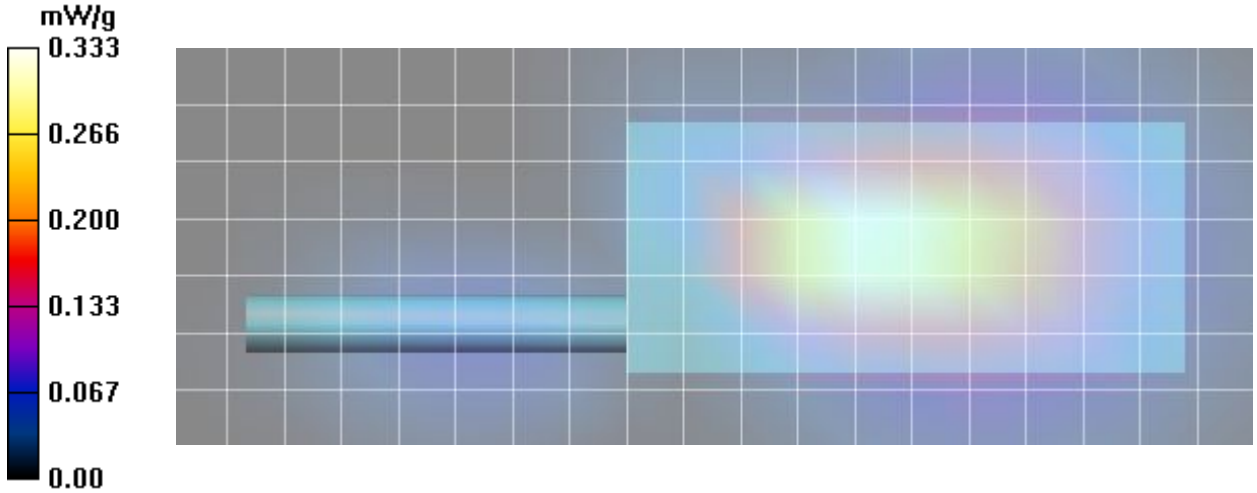
DASY4 Configuration:
- Probe: EX3DV4 - SN3600; ConvF(8.22, 8.22, 8.22); Calibrated: 27/04/2017
- Sensor-Surface: 4mm (Mechanical Surface Detection (Locations From Previous Scan Used))Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn353; Calibrated: 24/04/2017
- Phantom: ELI v5.0; Type: QDOVA002AA; Serial: TP:xxxx
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 145

B4-3 Body, SCAN, Eclipse XL-185P 7/800 Extended w/ LTE, Back Side, bc, spk-mic, ant 4440-02, bat 4010-01, 793 MHz, MID CH, 10 MHz BW, QPSK, 1 RB, 25 RB Offset/Area Scan (8x20x1): Measurement grid: dx=15mm, dy=15mm

Info: Interpolated medium parameters used for SAR evaluation!
Maximum value of SAR (measured) = 0.333 mW/g

B4-3 Body, SCAN, Eclipse XL-185P 7/800 Extended w/ LTE, Back Side, bc, spk-mic, ant 4440-02, bat 4010-01, 793 MHz, MID CH, 10 MHz BW, QPSK, 1 RB, 25 RB Offset/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm
Reference Value = 5.49 V/m; Power Drift = 0.029 dB
Peak SAR (extrapolated) = 0.486 W/kg
SAR(1 g) = 0.355 mW/g; SAR(10 g) = 0.248 mW/g

Info: Interpolated medium parameters used for SAR evaluation!
Maximum value of SAR (measured) = 0.378 mW/g



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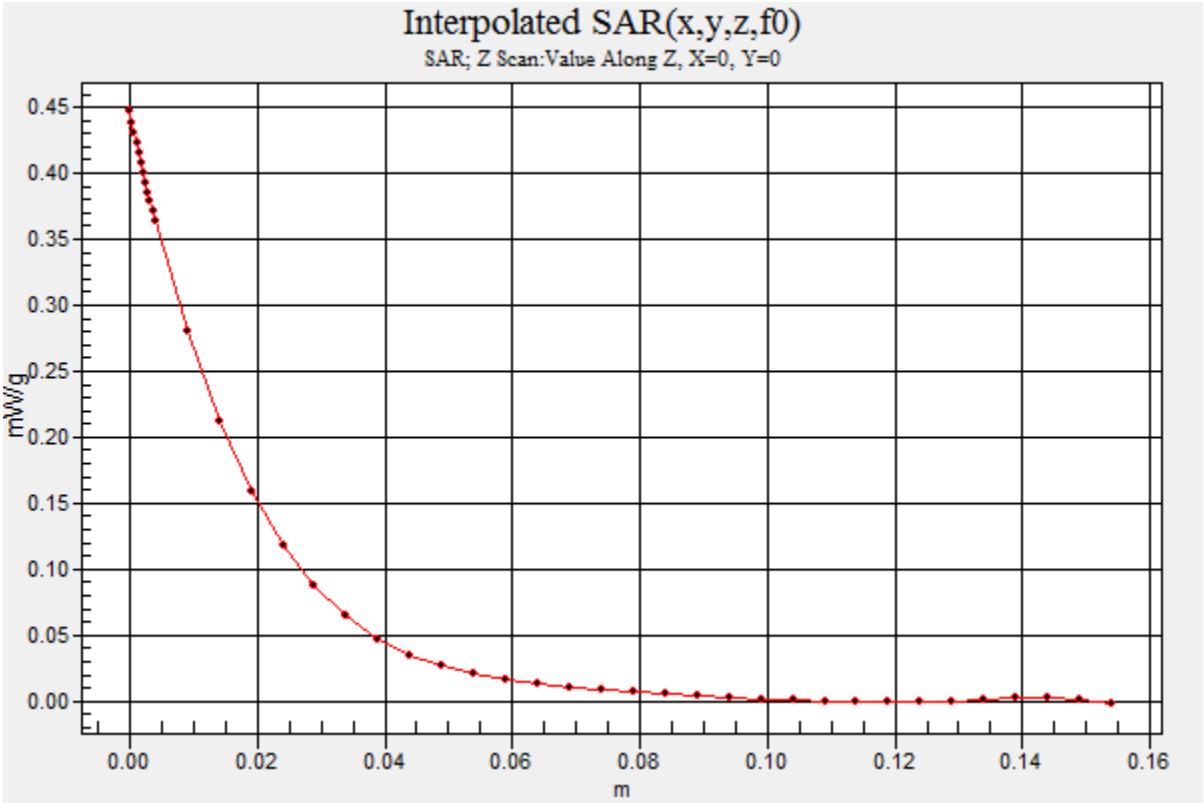

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7/800 Extended - LTE Band 13

Plot B5

Date/Time: 10/07/2017 4:07:37 PM

Test Laboratory: Celltech Labs

DUT: Harris; Type: PTT Radio Transceiver;
Program Name: 835B

Communication System: Harris-LTE; Frequency: 782 MHz;Duty Cycle: 1:1
Medium parameters used (interpolated): f = 782 MHz; σ = 0.927 mho/m; ε_r = 54.3; ρ = 1000 kg/m^3
Phantom section: Flat Section

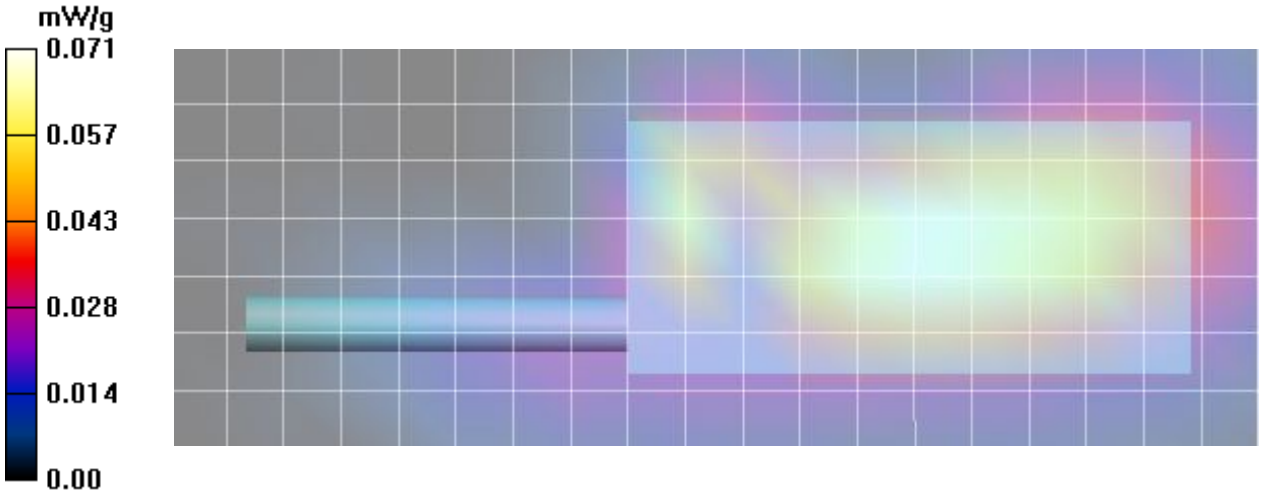
DASY4 Configuration:
- Probe: EX3DV4 - SN3600; ConvF(8.22, 8.22, 8.22); Calibrated: 27/04/2017
- Sensor-Surface: 4mm (Mechanical Surface Detection (Locations From Previous Scan Used))Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn353; Calibrated: 24/04/2017
- Phantom: ELI v5.0; Type: QDOVA002AA; Serial: TP:xxxx
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 145

B5 Body, SYS, Eclipse XL-185P 7/800 Extended w/ LTE, Back Side, bc, spk-mic, ant 4440-02, bat 4010-01, 782 MHz, CW/Area Scan (8x20x1): Measurement grid: dx=15mm, dy=15mm

Info: Interpolated medium parameters used for SAR evaluation!
Maximum value of SAR (measured) = 0.071 mW/g

B5 Body, SYS, Eclipse XL-185P 7/800 Extended w/ LTE, Back Side, bc, spk-mic, ant 4440-02, bat 4010-01, 782 MHz, CW/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm
Reference Value = 4.83 V/m; Power Drift = -0.421 dB
Peak SAR (extrapolated) = 0.099 W/kg
SAR(1 g) = 0.071 mW/g; SAR(10 g) = 0.050 mW/g

Info: Interpolated medium parameters used for SAR evaluation!
Maximum value of SAR (measured) = 0.075 mW/g



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Plot B6

Date/Time: 10/07/2017 4:24:31 PM

Test Laboratory: Celltech Labs

DUT: Harris; Type: PTT Radio Transceiver;
Program Name: 835B

Communication System: Harris-LTE; Frequency: 782 MHz;Duty Cycle: 1:1
Medium parameters used (interpolated): f = 782 MHz; σ = 0.927 mho/m; ε_r = 54.3; ρ = 1000 kg/m^3
Phantom section: Flat Section

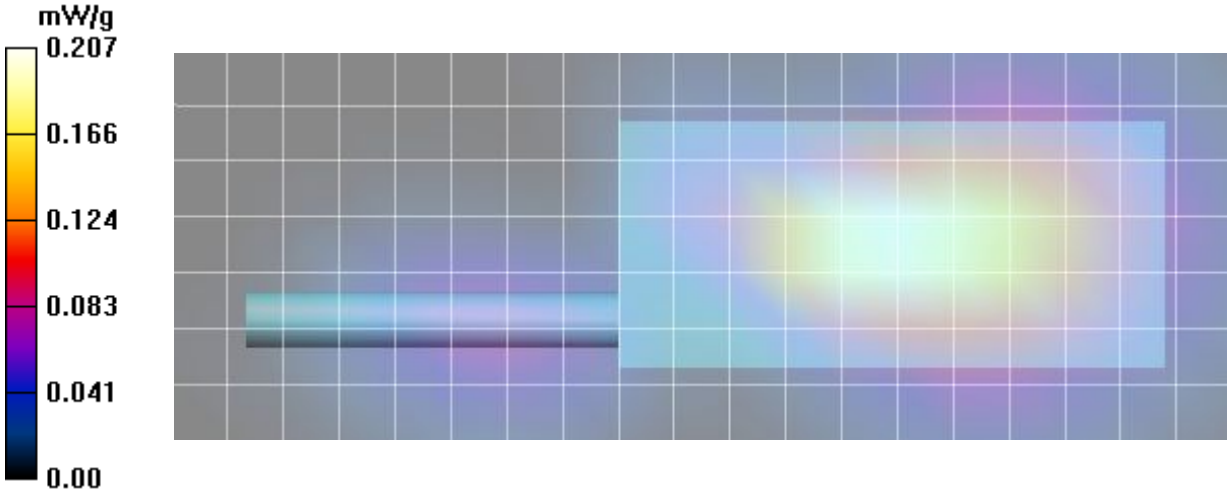
DASY4 Configuration:
- Probe: EX3DV4 - SN3600; ConvF(8.22, 8.22, 8.22); Calibrated: 27/04/2017
- Sensor-Surface: 4mm (Mechanical Surface Detection (Locations From Previous Scan Used))Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn353; Calibrated: 24/04/2017
- Phantom: ELI v5.0; Type: QDOVA002AA; Serial: TP:xxxx
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 145

B6 Body, SCAN, Eclipse XL-185P 7/800 Extended w/ LTE, Back Side, bc, spk-mic, ant 4440-02, bat 4010-01, 782 MHz, CW/Area Scan (8x20x1): Measurement grid: dx=15mm, dy=15mm

Info: Interpolated medium parameters used for SAR evaluation!
Maximum value of SAR (measured) = 0.207 mW/g

B6 Body, SCAN, Eclipse XL-185P 7/800 Extended w/ LTE, Back Side, bc, spk-mic, ant 4440-02, bat 4010-01, 782 MHz, CW/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm
Reference Value = 5.47 V/m; Power Drift = -0.124 dB
Peak SAR (extrapolated) = 0.292 W/kg
SAR(1 g) = 0.214 mW/g; SAR(10 g) = 0.151 mW/g

Info: Interpolated medium parameters used for SAR evaluation!
Maximum value of SAR (measured) = 0.228 mW/g



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7/800 Extended - LTE Band 4

Plot B7

Date/Time: 13/07/2017 8:43:46 AM

Test Laboratory: Celltech Labs

DUT: Harris; Type: PTT Radio Transceiver;
Program Name: 1800B

Communication System: Harris-LTE; Frequency: 1732.5 MHz;Duty Cycle: 1:1
Medium parameters used (interpolated): f = 1732.5 MHz; σ = 1.48 mho/m; ε_r = 56.7; ρ = 1000 kg/m^3
Phantom section: Flat Section

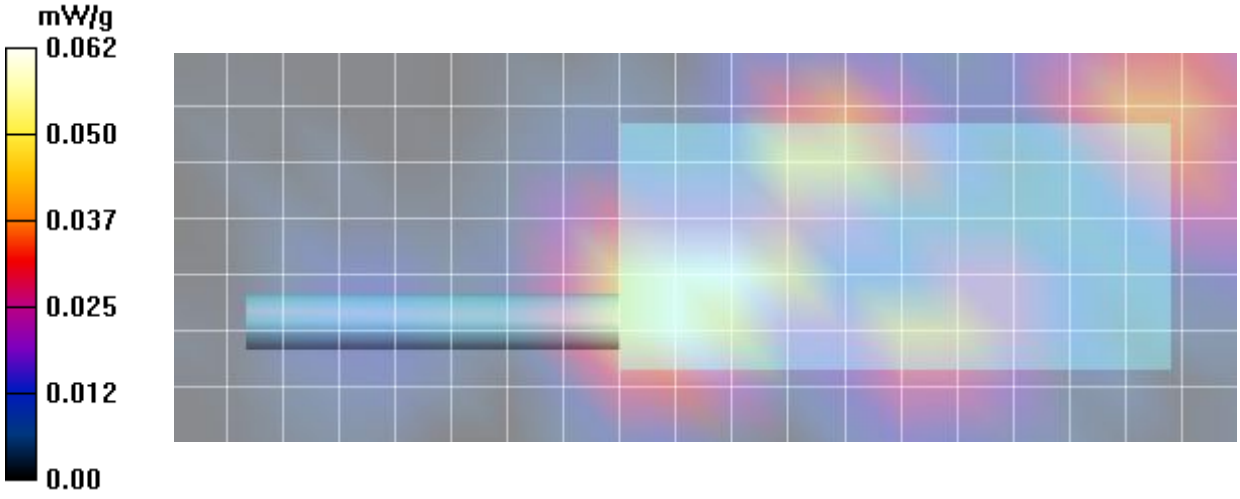
DASY4 Configuration:
- Probe: EX3DV4 - SN3600; ConvF(6.83, 6.83, 6.83); Calibrated: 27/04/2017
- Sensor-Surface: 4mm (Mechanical Surface Detection (Locations From Previous Scan Used))Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn353; Calibrated: 24/04/2017
- Phantom: ELI v5.0; Type: QDOVA002AA; Serial: TP:xxxx
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 145

B7 Body, SYS, Eclipse XL-185P 7/800 Extended w/ LTE, Back Side, bc, spk-mic, ant 4440-02, bat 4010-01, 1732.5 MHz,CW/Area Scan (8x20x1): Measurement grid: dx=15mm, dy=15mm

Info: Interpolated medium parameters used for SAR evaluation!
Maximum value of SAR (measured) = 0.062 mW/g

B7 Body, SYS, Eclipse XL-185P 7/800 Extended w/ LTE, Back Side, bc, spk-mic, ant 4440-02, bat 4010-01, 1732.5 MHz,CW/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm
Reference Value = 5.49 V/m; Power Drift = -0.303 dB
Peak SAR (extrapolated) = 0.101 W/kg
SAR(1 g) = 0.059 mW/g; SAR(10 g) = 0.037 mW/g

Info: Interpolated medium parameters used for SAR evaluation!
Maximum value of SAR (measured) = 0.067 mW/g



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Plot B8

Date/Time: 13/07/2017 9:00:22 AM

Test Laboratory: Celltech Labs

DUT: Harris; Type: PTT Radio Transceiver;
Program Name: 1800B

Communication System: Harris-LTE; Frequency: 1732.5 MHz;Duty Cycle: 1:1
Medium parameters used (interpolated): f = 1732.5 MHz; σ = 1.48 mho/m; ε_r = 56.7; ρ = 1000 kg/m^3
Phantom section: Flat Section

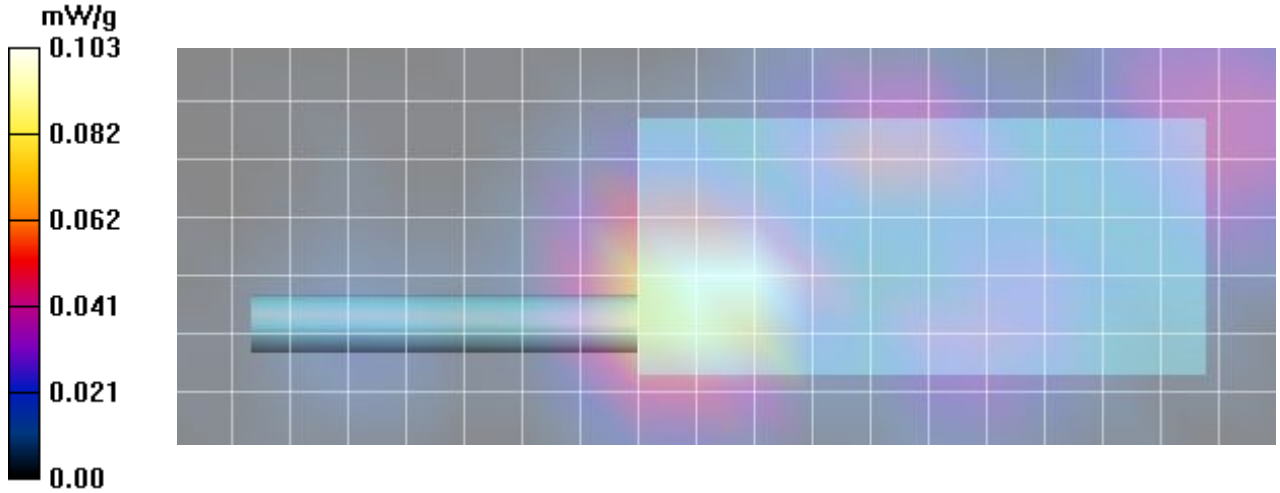
DASY4 Configuration:
- Probe: EX3DV4 - SN3600; ConvF(6.83, 6.83, 6.83); Calibrated: 27/04/2017
- Sensor-Surface: 4mm (Mechanical Surface Detection (Locations From Previous Scan Used))Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn353; Calibrated: 24/04/2017
- Phantom: ELI v5.0; Type: QDOVA002AA; Serial: TP:xxxx
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 145

B8 Body, SCAN, Eclipse XL-185P 7/800 Extended w/ LTE, Back Side, bc, spk-mic, ant 4440-02, bat 4010-01, 1732.5 MHz, CW/Area Scan (8x20x1): Measurement grid: dx=15mm, dy=15mm

Info: Interpolated medium parameters used for SAR evaluation!
Maximum value of SAR (measured) = 0.103 mW/g

B8 Body, SCAN, Eclipse XL-185P 7/800 Extended w/ LTE, Back Side, bc, spk-mic, ant 4440-02, bat 4010-01, 1732.5 MHz, CW/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm
Reference Value = 6.79 V/m; Power Drift = -0.267 dB
Peak SAR (extrapolated) = 0.159 W/kg
SAR(1 g) = 0.096 mW/g; SAR(10 g) = 0.060 mW/g

Info: Interpolated medium parameters used for SAR evaluation!
Maximum value of SAR (measured) = 0.106 mW/g



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UHF - LTE Band 14

Plot B1

Date/Time: 05/07/2017 10:03:35 AM

Test Laboratory: Celltech Labs

DUT: Harris; Type: PTT Radio Transceiver;
Program Name: 835B

Communication System: Harris-LTE; Frequency: 793 MHz;Duty Cycle: 1:1
Medium parameters used (interpolated): f = 793 MHz; σ = 0.93 mho/m; ε_r = 54.2; ρ = 1000 kg/m^3
Phantom section: Flat Section

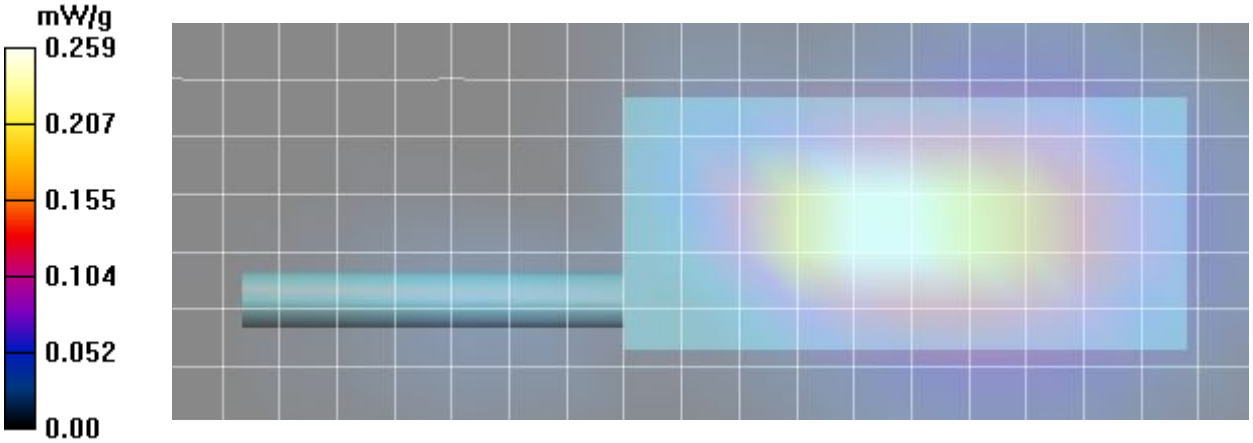
DASY4 Configuration:
- Probe: EX3DV4 - SN3600; ConvF(8.22, 8.22, 8.22); Calibrated: 27/04/2017
- Sensor-Surface: 4mm (Mechanical Surface Detection (Locations From Previous Scan Used))Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn353; Calibrated: 24/04/2017
- Phantom: ELI v5.0; Type: QDOVA002AA; Serial: TP:xxxx
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 145

B1 Body, SYS, Eclipse XL-185P UHF w/ LTE, Back Side, bc, spk-mic, ant 4440-02, bat 4010-01, 793 MHZ, CW/Area Scan (8x20x1): Measurement grid: dx=15mm, dy=15mm

Info: Interpolated medium parameters used for SAR evaluation!
Maximum value of SAR (measured) = 0.259 mW/g

B1 Body, SYS, Eclipse XL-185P UHF w/ LTE, Back Side, bc, spk-mic, ant 4440-02, bat 4010-01, 793 MHZ, CW/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm
Reference Value = 4.15 V/m; Power Drift = 0.546 dB
Peak SAR (extrapolated) = 0.378 W/kg
SAR(1 g) = 0.275 mW/g; SAR(10 g) = 0.191 mW/g

Info: Interpolated medium parameters used for SAR evaluation!
Maximum value of SAR (measured) = 0.291 mW/g



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Plot B3-2

Date/Time: 10/07/2017 11:45:40 AM

Test Laboratory: Celltech Labs

DUT: Harris; Type: PTT Radio Transceiver;
Program Name: 835B

Communication System: Harris-LTE; Frequency: 793 MHz;Duty Cycle: 1:1
Medium parameters used (interpolated): f = 793 MHz; σ = 0.93 mho/m; ε_r = 54.2; ρ = 1000 kg/m^3
Phantom section: Flat Section

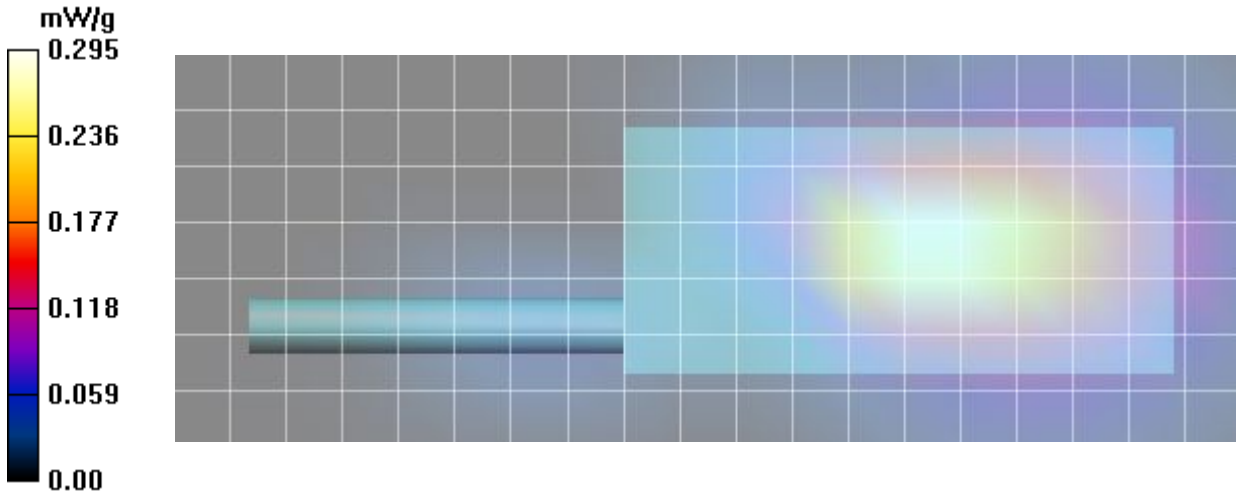
DASY4 Configuration:
- Probe: EX3DV4 - SN3600; ConvF(8.22, 8.22, 8.22); Calibrated: 27/04/2017
- Sensor-Surface: 4mm (Mechanical Surface Detection (Locations From Previous Scan Used))Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn353; Calibrated: 24/04/2017
- Phantom: ELI v5.0; Type: QDOVA002AA; Serial: TP:xxxx
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 145

B3-2 Body, SYS, Eclipse XL-185P UHF w/ LTE, Back Side, bc, spk-mic, ant 4440-02, bat 4010-01,793 MHz, MID CH, 10 MHz BW, QPSK, 1 RB, 25 RB Offset/Area Scan (8x20x1): Measurement grid: dx=15mm, dy=15mm

Info: Interpolated medium parameters used for SAR evaluation!
Maximum value of SAR (measured) = 0.295 mW/g

B3-2 Body, SYS, Eclipse XL-185P UHF w/ LTE, Back Side, bc, spk-mic, ant 4440-02, bat 4010-01,793 MHz, MID CH, 10 MHz BW, QPSK, 1 RB, 25 RB Offset/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm
Reference Value = 4.00 V/m; Power Drift = -0.051 dB
Peak SAR (extrapolated) = 0.426 W/kg
SAR(1 g) = 0.312 mW/g; SAR(10 g) = 0.217 mW/g

Info: Interpolated medium parameters used for SAR evaluation!
Maximum value of SAR (measured) = 0.332 mW/g



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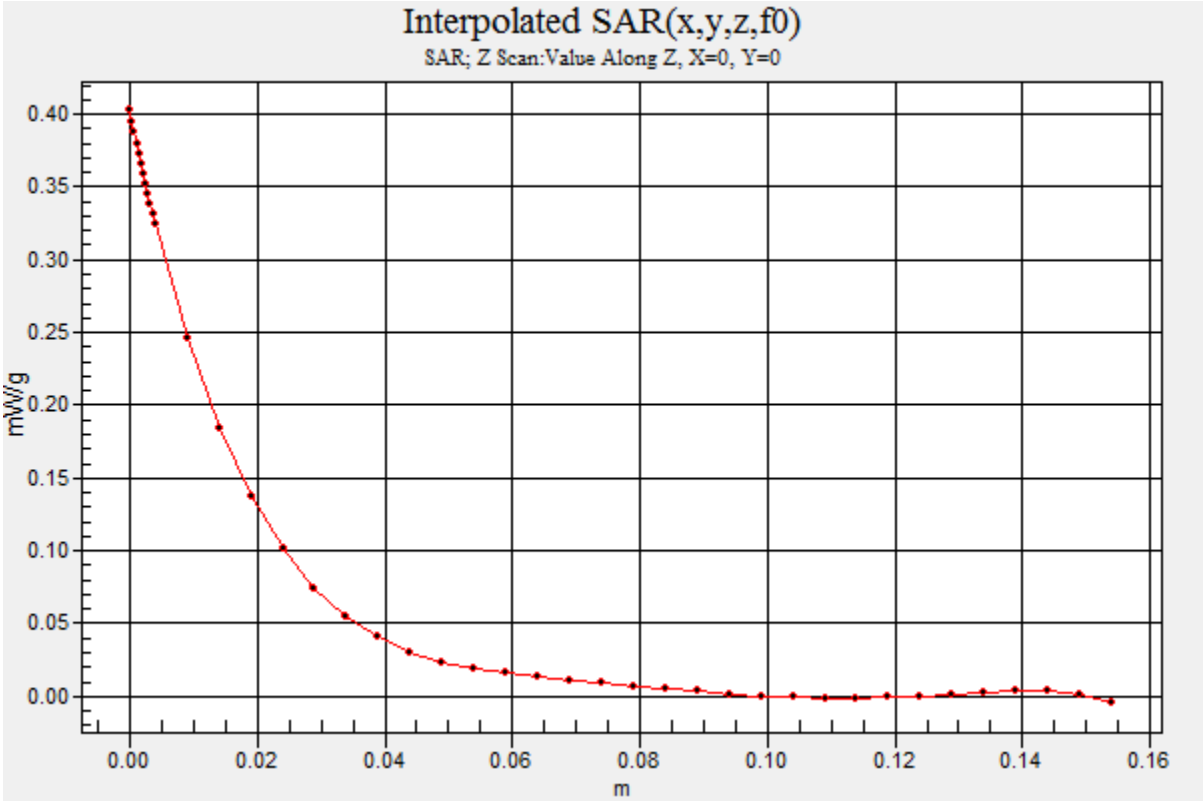

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Plot B4

Date/Time: 06/07/2017 9:20:24 AM

Test Laboratory: Celltech Labs

DUT: Harris; Type: PTT Radio Transceiver;
Program Name: 835B

Communication System: Harris-LTE; Frequency: 793 MHz;Duty Cycle: 1:1
Medium parameters used (interpolated): f = 793 MHz; σ = 0.93 mho/m; ε_r = 54.2; ρ = 1000 kg/m^3
Phantom section: Flat Section

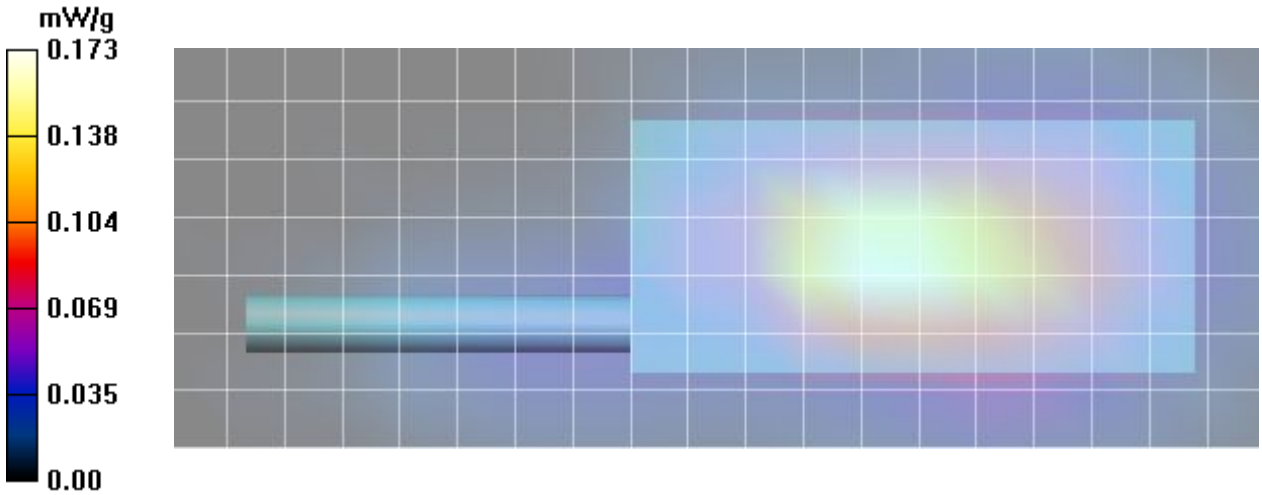
DASY4 Configuration:
- Probe: EX3DV4 - SN3600; ConvF(8.22, 8.22, 8.22); Calibrated: 27/04/2017
- Sensor-Surface: 4mm (Mechanical Surface Detection (Locations From Previous Scan Used))Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn353; Calibrated: 24/04/2017
- Phantom: ELI v5.0; Type: QDOVA002AA; Serial: TP:xxxx
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 145

B4Body, SCAN, Eclipse XL-185P UHF w/ LTE, Back Side, bc, spk-mic, ant 4440-02, bat 4010-01, 793 MHZ, CW/Area Scan (8x20x1): Measurement grid: dx=15mm, dy=15mm

Info: Interpolated medium parameters used for SAR evaluation!
Maximum value of SAR (measured) = 0.173 mW/g

B4Body, SCAN, Eclipse XL-185P UHF w/ LTE, Back Side, bc, spk-mic, ant 4440-02, bat 4010-01, 793 MHZ, CW/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm
Reference Value = 5.50 V/m; Power Drift = -0.082 dB
Peak SAR (extrapolated) = 0.236 W/kg
SAR(1 g) = 0.173 mW/g; SAR(10 g) = 0.121 mW/g

Info: Interpolated medium parameters used for SAR evaluation!
Maximum value of SAR (measured) = 0.184 mW/g



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Plot B6-3

Date/Time: 10/07/2017 11:21:17 AM

Test Laboratory: Celltech Labs

DUT: Harris; Type: PTT Radio Transceiver;
Program Name: 835B

Communication System: Harris-LTE; Frequency: 793 MHz;Duty Cycle: 1:1
Medium parameters used (interpolated): f = 793 MHz; σ = 0.93 mho/m; ε_r = 54.2; ρ = 1000 kg/m^3
Phantom section: Flat Section

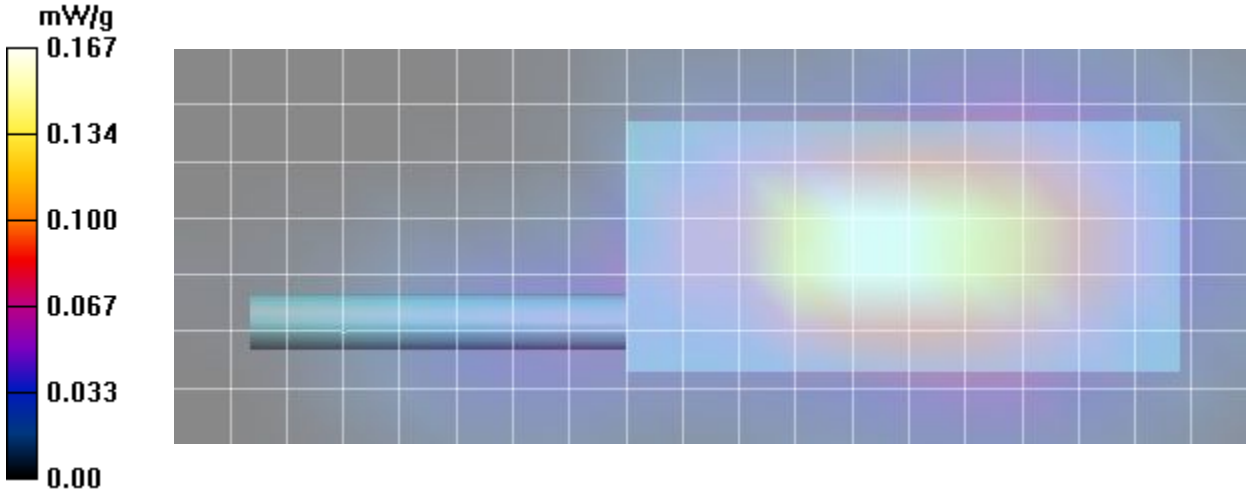
DASY4 Configuration:
- Probe: EX3DV4 - SN3600; ConvF(8.22, 8.22, 8.22); Calibrated: 27/04/2017
- Sensor-Surface: 4mm (Mechanical Surface Detection (Locations From Previous Scan Used))Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn353; Calibrated: 24/04/2017
- Phantom: ELI v5.0; Type: QDOVA002AA; Serial: TP:xxxx
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 145

B6-3 Body, SCAN, Eclipse XL-185P UHF w/ LTE, Back Side, bc, spk-mic, ant 4440-02, bat 4010-01, 793 MHz, MID CH, 10 MHZ BW, QPSK, 1 RB, 25 RB Offset/Area Scan (8x20x1): Measurement grid: dx=15mm, dy=15mm

Info: Interpolated medium parameters used for SAR evaluation!
Maximum value of SAR (measured) = 0.167 mW/g

B6-3 Body, SCAN, Eclipse XL-185P UHF w/ LTE, Back Side, bc, spk-mic, ant 4440-02, bat 4010-01, 793 MHz, MID CH, 10 MHZ BW, QPSK, 1 RB, 25 RB Offset/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm
Reference Value = 6.32 V/m; Power Drift = -0.071 dB
Peak SAR (extrapolated) = 0.241 W/kg
SAR(1 g) = 0.178 mW/g; SAR(10 g) = 0.125 mW/g

Info: Interpolated medium parameters used for SAR evaluation!
Maximum value of SAR (measured) = 0.186 mW/g



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UHF - LTE Band 13

Plot B7

Date/Time: 10/07/2017 2:43:42 PM

Test Laboratory: Celltech Labs

DUT: Harris; Type: PTT Radio Transceiver;
Program Name: 835B

Communication System: Harris-LTE; Frequency: 782 MHz;Duty Cycle: 1:1
Medium parameters used (interpolated): f = 782 MHz; σ = 0.927 mho/m; ε_r = 54.3; ρ = 1000 kg/m^3
Phantom section: Flat Section

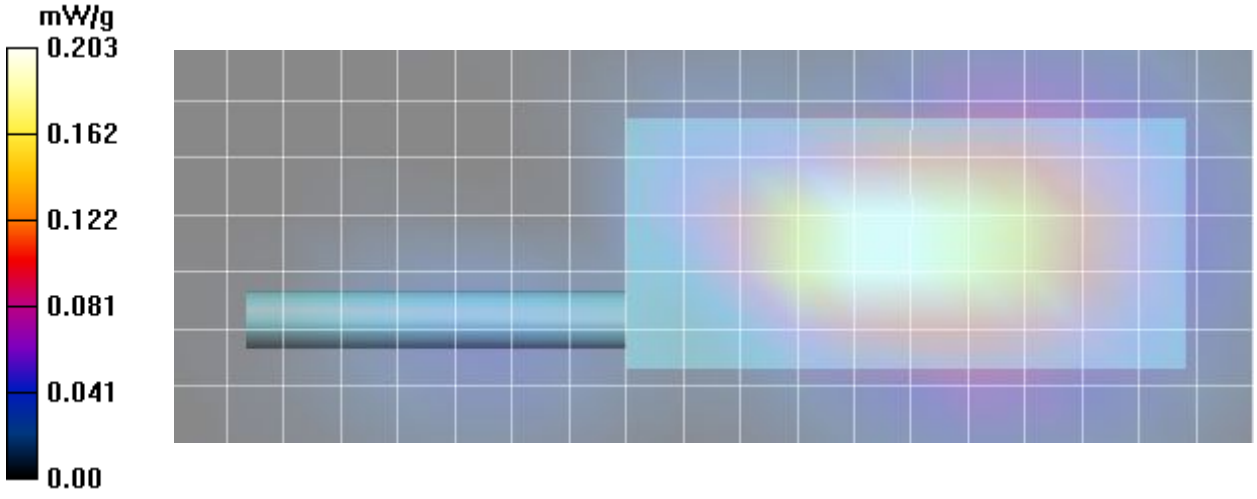
DASY4 Configuration:
- Probe: EX3DV4 - SN3600; ConvF(8.22, 8.22, 8.22); Calibrated: 27/04/2017
- Sensor-Surface: 4mm (Mechanical Surface Detection (Locations From Previous Scan Used))Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn353; Calibrated: 24/04/2017
- Phantom: ELI v5.0; Type: QDOVA002AA; Serial: TP:xxxx
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 145

B7 Body, SYS, Eclipse XL-185P UHF w/ LTE, Back Side, bc, spk-mic, ant 4440-02, bat 4010-01, 782 MHz, CW/Area Scan (8x20x1): Measurement grid: dx=15mm, dy=15mm

Info: Interpolated medium parameters used for SAR evaluation!
Maximum value of SAR (measured) = 0.203 mW/g

B7 Body, SYS, Eclipse XL-185P UHF w/ LTE, Back Side, bc, spk-mic, ant 4440-02, bat 4010-01, 782 MHz, CW/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm
Reference Value = 4.85 V/m; Power Drift = -0.050 dB
Peak SAR (extrapolated) = 0.292 W/kg
SAR(1 g) = 0.215 mW/g; SAR(10 g) = 0.151 mW/g

Info: Interpolated medium parameters used for SAR evaluation!
Maximum value of SAR (measured) = 0.228 mW/g



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Plot B8

Date/Time: 10/07/2017 3:02:58 PM

Test Laboratory: Celltech Labs

DUT: Harris; Type: PTT Radio Transceiver;
Program Name: 835B

Communication System: Harris-LTE; Frequency: 782 MHz;Duty Cycle: 1:1
Medium parameters used (interpolated): f = 782 MHz; σ = 0.927 mho/m; ε_r = 54.3; ρ = 1000 kg/m^3
Phantom section: Flat Section

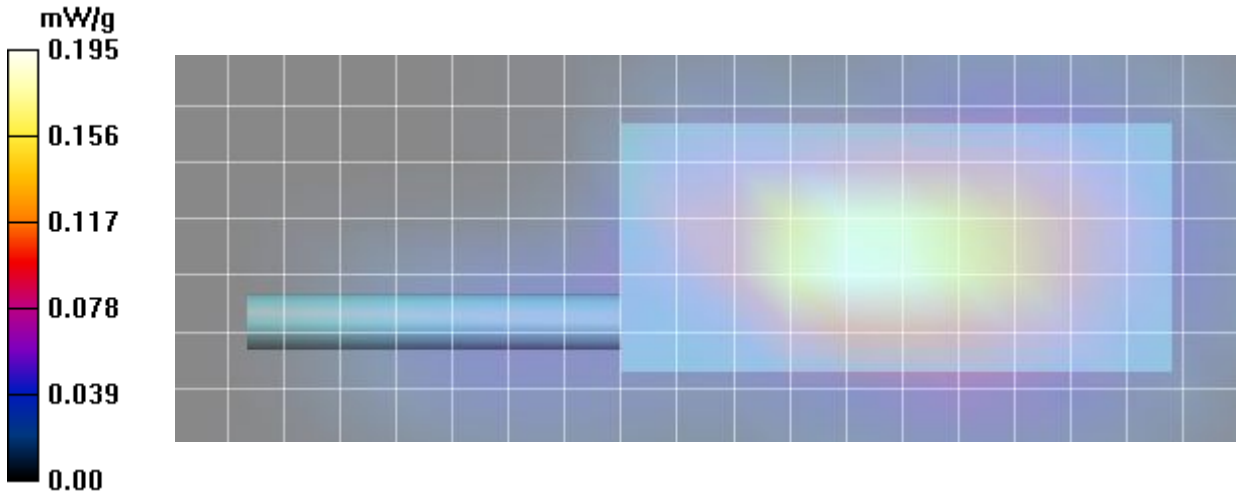
DASY4 Configuration:
- Probe: EX3DV4 - SN3600; ConvF(8.22, 8.22, 8.22); Calibrated: 27/04/2017
- Sensor-Surface: 4mm (Mechanical Surface Detection (Locations From Previous Scan Used))Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn353; Calibrated: 24/04/2017
- Phantom: ELI v5.0; Type: QDOVA002AA; Serial: TP:xxxx
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 145

B8 Body, SCAN, Eclipse XL-185P UHF w/ LTE, Back Side, bc, spk-mic, ant 4440-02, bat 4010-01, 782 MHz, CW/Area Scan (8x20x1): Measurement grid: dx=15mm, dy=15mm

Info: Interpolated medium parameters used for SAR evaluation!
Maximum value of SAR (measured) = 0.195 mW/g

B8 Body, SCAN, Eclipse XL-185P UHF w/ LTE, Back Side, bc, spk-mic, ant 4440-02, bat 4010-01, 782 MHz, CW/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm
Reference Value = 6.75 V/m; Power Drift = -0.209 dB
Peak SAR (extrapolated) = 0.271 W/kg
SAR(1 g) = 0.195 mW/g; SAR(10 g) = 0.136 mW/g

Info: Interpolated medium parameters used for SAR evaluation!
Maximum value of SAR (measured) = 0.208 mW/g



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UHF - LTE Band 4

Plot B9

Date/Time: 13/07/2017 9:20:18 AM

Test Laboratory: Celltech Labs

DUT: Harris; Type: PTT Radio Transceiver;
Program Name: 1800B

Communication System: Harris-LTE; Frequency: 1732.5 MHz;Duty Cycle: 1:1
Medium parameters used (interpolated): f = 1732.5 MHz; σ = 1.48 mho/m; ε_r = 56.7; ρ = 1000 kg/m^3
Phantom section: Flat Section

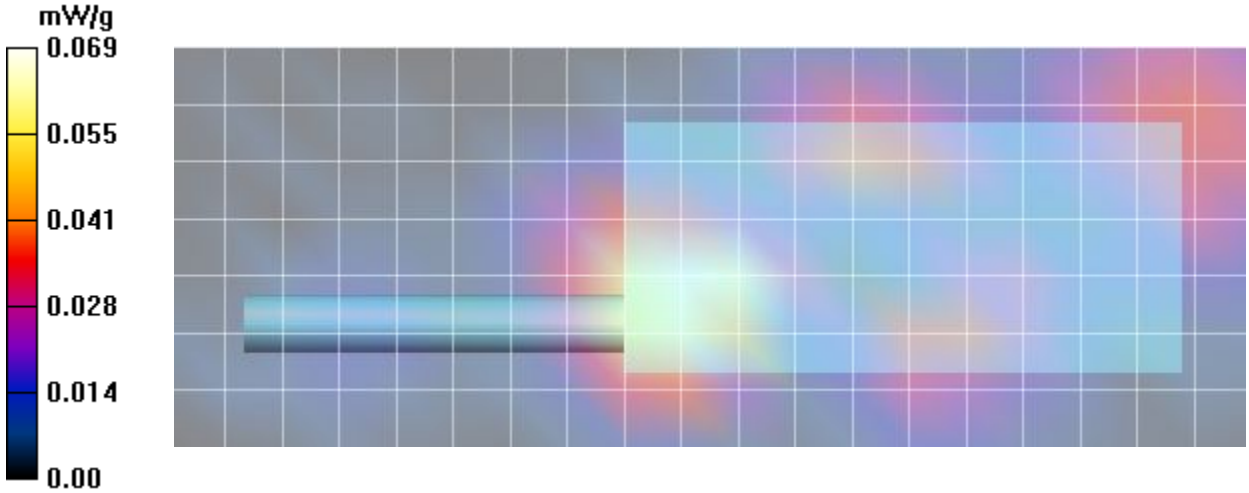
DASY4 Configuration:
- Probe: EX3DV4 - SN3600; ConvF(6.83, 6.83, 6.83); Calibrated: 27/04/2017
- Sensor-Surface: 4mm (Mechanical Surface Detection (Locations From Previous Scan Used))Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn353; Calibrated: 24/04/2017
- Phantom: ELI v5.0; Type: QDOVA002AA; Serial: TP:xxxx
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 145

B9 Body, SYS, Eclipse XL-185P UHF w/ LTE, Back Side, bc, spk-mic, ant 4440-02, bat 4010-01, 1732.5 MHz, CW/Area Scan (8x20x1): Measurement grid: dx=15mm, dy=15mm

Info: Interpolated medium parameters used for SAR evaluation!
Maximum value of SAR (measured) = 0.069 mW/g

B9 Body, SYS, Eclipse XL-185P UHF w/ LTE, Back Side, bc, spk-mic, ant 4440-02, bat 4010-01, 1732.5 MHz, CW/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm
Reference Value = 5.79 V/m; Power Drift = -0.385 dB
Peak SAR (extrapolated) = 0.102 W/kg
SAR(1 g) = 0.060 mW/g; SAR(10 g) = 0.039 mW/g

Info: Interpolated medium parameters used for SAR evaluation!
Maximum value of SAR (measured) = 0.064 mW/g



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Plot B10

Date/Time: 13/07/2017 9:40:56 AM

Test Laboratory: Celltech Labs

DUT: Harris; Type: PTT Radio Transceiver;
Program Name: 1800B

Communication System: Harris-LTE; Frequency: 1732.5 MHz;Duty Cycle: 1:1
Medium parameters used (interpolated): f = 1732.5 MHz; σ = 1.48 mho/m; ε_r = 56.7; ρ = 1000 kg/m^3
Phantom section: Flat Section

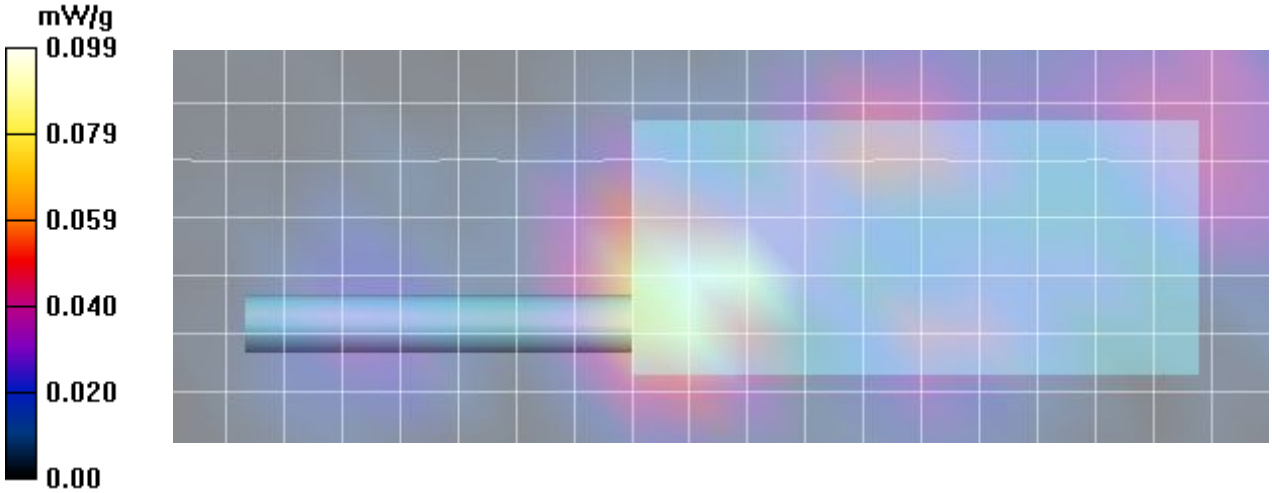
DASY4 Configuration:
- Probe: EX3DV4 - SN3600; ConvF(6.83, 6.83, 6.83); Calibrated: 27/04/2017
- Sensor-Surface: 4mm (Mechanical Surface Detection (Locations From Previous Scan Used))Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn353; Calibrated: 24/04/2017
- Phantom: ELI v5.0; Type: QDOVA002AA; Serial: TP:xxxx
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 145

B10 Body, SCAN, Eclipse XL-185P UHF w/ LTE, Back Side, bc, spk-mic, ant 4440-02, bat 4010-01, 1732.5 MHz, CW/Area Scan (8x20x1): Measurement grid: dx=15mm, dy=15mm

Info: Interpolated medium parameters used for SAR evaluation!
Maximum value of SAR (measured) = 0.099 mW/g

B10 Body, SCAN, Eclipse XL-185P UHF w/ LTE, Back Side, bc, spk-mic, ant 4440-02, bat 4010-01, 1732.5 MHz, CW/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm
Reference Value = 6.69 V/m; Power Drift = -0.230 dB
Peak SAR (extrapolated) = 0.136 W/kg
SAR(1 g) = 0.085 mW/g; SAR(10 g) = 0.054 mW/g

Info: Interpolated medium parameters used for SAR evaluation!
Maximum value of SAR (measured) = 0.092 mW/g



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VHF - LTE Band 14

B1

Date/Time: 06/07/2017 2:28:15 PM

Test Laboratory: Celltech Labs

DUT: Harris; Type: PTT Radio Transceiver;
Program Name: 835B

Communication System: Harris-LTE; Frequency: 793 MHz;Duty Cycle: 1:1
Medium parameters used (interpolated): f = 793 MHz; σ = 0.93 mho/m; ε_r = 54.2; ρ = 1000 kg/m^3
Phantom section: Flat Section

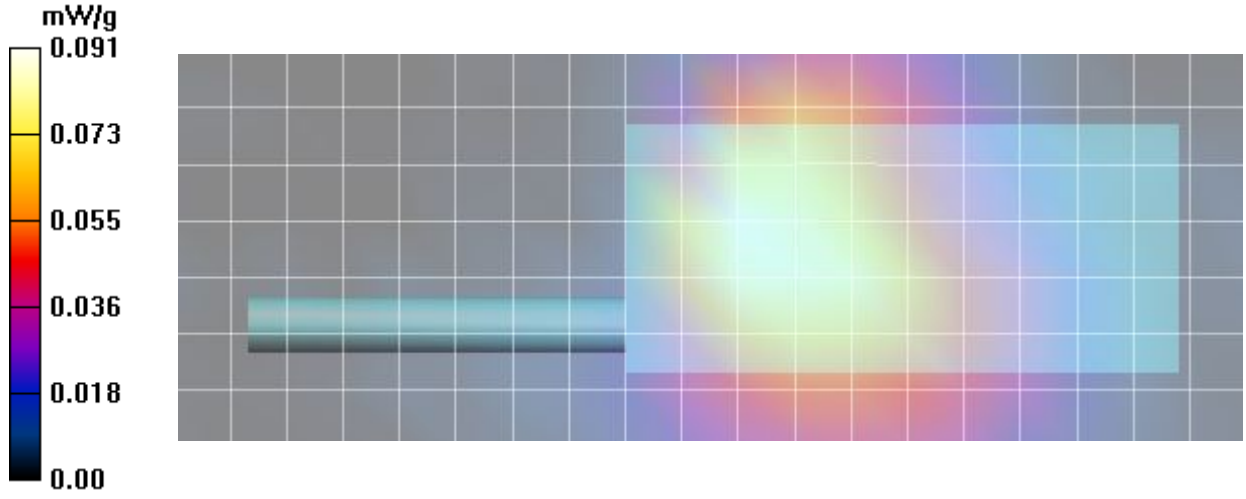
DASY4 Configuration:
- Probe: EX3DV4 - SN3600; ConvF(8.22, 8.22, 8.22); Calibrated: 27/04/2017
- Sensor-Surface: 4mm (Mechanical Surface Detection (Locations From Previous Scan Used))Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn353; Calibrated: 24/04/2017
- Phantom: ELI v5.0; Type: QDOVA002AA; Serial: TP:xxxx
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 145

B1 Body, SYS, Eclipse XL-185P VHF w/ LTE, Bak Side, bc, spk-mic, ant 4440-02, bat 4010-01, 793 MHz. CW/Area Scan (8x20x1): Measurement grid: dx=15mm, dy=15mm

Info: Interpolated medium parameters used for SAR evaluation!
Maximum value of SAR (measured) = 0.091 mW/g

B1 Body, SYS, Eclipse XL-185P VHF w/ LTE, Bak Side, bc, spk-mic, ant 4440-02, bat 4010-01, 793 MHz. CW/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm
Reference Value = 2.93 V/m; Power Drift = 0.297 dB
Peak SAR (extrapolated) = 0.117 W/kg
SAR(1 g) = 0.085 mW/g; SAR(10 g) = 0.065 mW/g

Info: Interpolated medium parameters used for SAR evaluation! .
Maximum value of SAR (measured) = 0.090 mW/g



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Plot B2-2

Date/Time: 10/07/2017 12:07:28 PM

Test Laboratory: Celltech Labs

DUT: Harris; Type: PTT Radio Transceiver;
Program Name: 835B

Communication System: Harris-LTE; Frequency: 793 MHz;Duty Cycle: 1:1
Medium parameters used (interpolated): f = 793 MHz; σ = 0.93 mho/m; ε_r = 54.2; ρ = 1000 kg/m^3
Phantom section: Flat Section

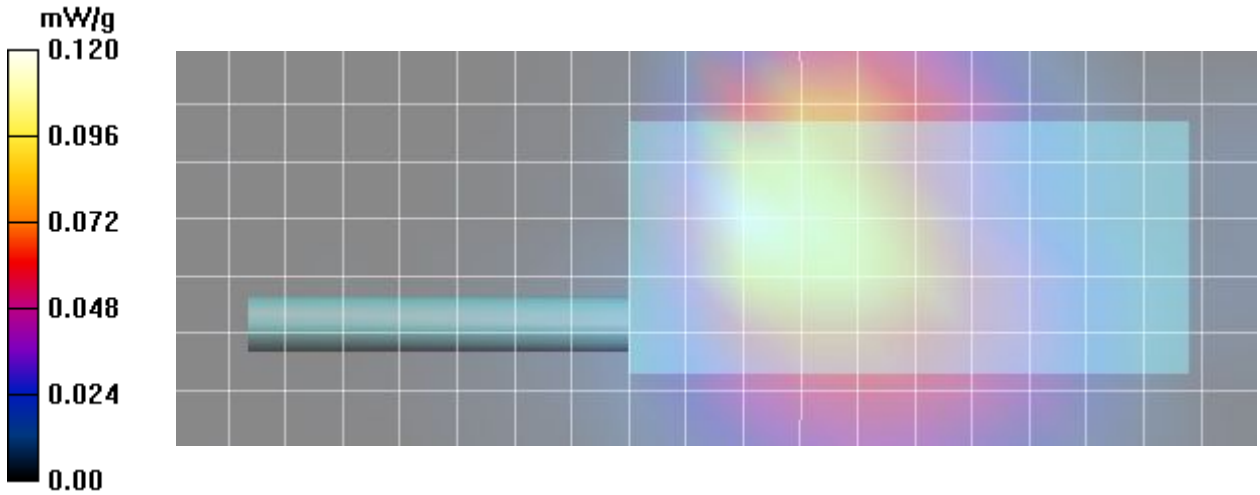
DASY4 Configuration:
- Probe: EX3DV4 - SN3600; ConvF(8.22, 8.22, 8.22); Calibrated: 27/04/2017
- Sensor-Surface: 4mm (Mechanical Surface Detection (Locations From Previous Scan Used))Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn353; Calibrated: 24/04/2017
- Phantom: ELI v5.0; Type: QDOVA002AA; Serial: TP:xxxx
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 145

B2-2 Body, SYS, Eclipse XL-185P VHF w/ LTE, Back Side, bc, spk-mic, ant 4440-02, bat 4010-01, 793 MHz, MID CH, 10 MHz BW, QPSK, 1 RB, 25 RB Offset/Area Scan (8x20x1): Measurement grid: dx=15mm, dy=15mm

Info: Interpolated medium parameters used for SAR evaluation!
Maximum value of SAR (measured) = 0.120 mW/g

B2-2 Body, SYS, Eclipse XL-185P VHF w/ LTE, Back Side, bc, spk-mic, ant 4440-02, bat 4010-01, 793 MHz, MID CH, 10 MHz BW, QPSK, 1 RB, 25 RB Offset/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm
Reference Value = 2.59 V/m; Power Drift = 0.925 dB
Peak SAR (extrapolated) = 0.170 W/kg
SAR(1 g) = 0.114 mW/g; SAR(10 g) = 0.081 mW/g

Info: Interpolated medium parameters used for SAR evaluation!
Maximum value of SAR (measured) = 0.125 mW/g



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Plot B3

Date/Time: 06/07/2017 3:10:45 PM

Test Laboratory: Celltech Labs

DUT: Harris; Type: PTT Radio Transceiver;
Program Name: 835B

Communication System: Harris-LTE; Frequency: 793 MHz;Duty Cycle: 1:1
Medium parameters used (interpolated): f = 793 MHz; σ = 0.93 mho/m; ε_r = 54.2; ρ = 1000 kg/m^3
Phantom section: Flat Section

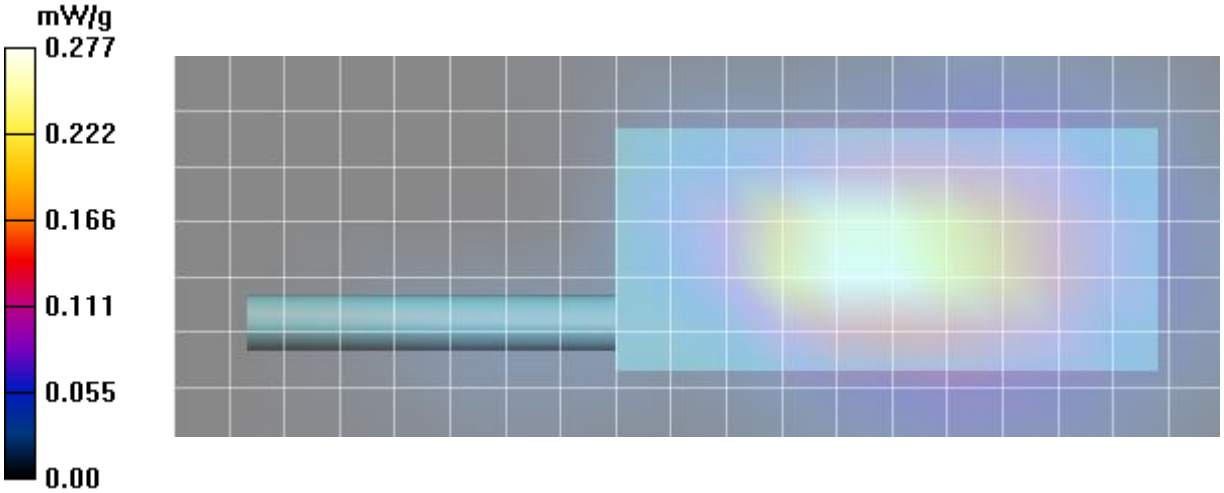
DASY4 Configuration:
- Probe: EX3DV4 - SN3600; ConvF(8.22, 8.22, 8.22); Calibrated: 27/04/2017
- Sensor-Surface: 4mm (Mechanical Surface Detection (Locations From Previous Scan Used))Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn353; Calibrated: 24/04/2017
- Phantom: ELI v5.0; Type: QDOVA002AA; Serial: TP:xxxx
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 145

B3 Body, SCAN, Eclipse XL-185P VHF w/ LTE, Back Side, bc, spk-mic, ant 4440-02, bat 4010-01, 793 MHz, CW/Area Scan (8x20x1): Measurement grid: dx=15mm, dy=15mm

Info: Interpolated medium parameters used for SAR evaluation!
Maximum value of SAR (measured) = 0.277 mW/g

B3 Body, SCAN, Eclipse XL-185P VHF w/ LTE, Back Side, bc, spk-mic, ant 4440-02, bat 4010-01, 793 MHz, CW/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm
Reference Value = 5.16 V/m; Power Drift = -0.216 dB
Peak SAR (extrapolated) = 0.393 W/kg
SAR(1 g) = 0.285 mW/g; SAR(10 g) = 0.197 mW/g

Info: Interpolated medium parameters used for SAR evaluation!
Maximum value of SAR (measured) = 0.303 mW/g



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Plot B4-2

Date/Time: 10/07/2017 12:22:17 PM

Test Laboratory: Celltech Labs

DUT: Harris; Type: PTT Radio Transceiver;
Program Name: 835B

Communication System: Harris-LTE; Frequency: 793 MHz;Duty Cycle: 1:1
Medium parameters used (interpolated): f = 793 MHz; σ = 0.93 mho/m; ε_r = 54.2; ρ = 1000 kg/m^3
Phantom section: Flat Section

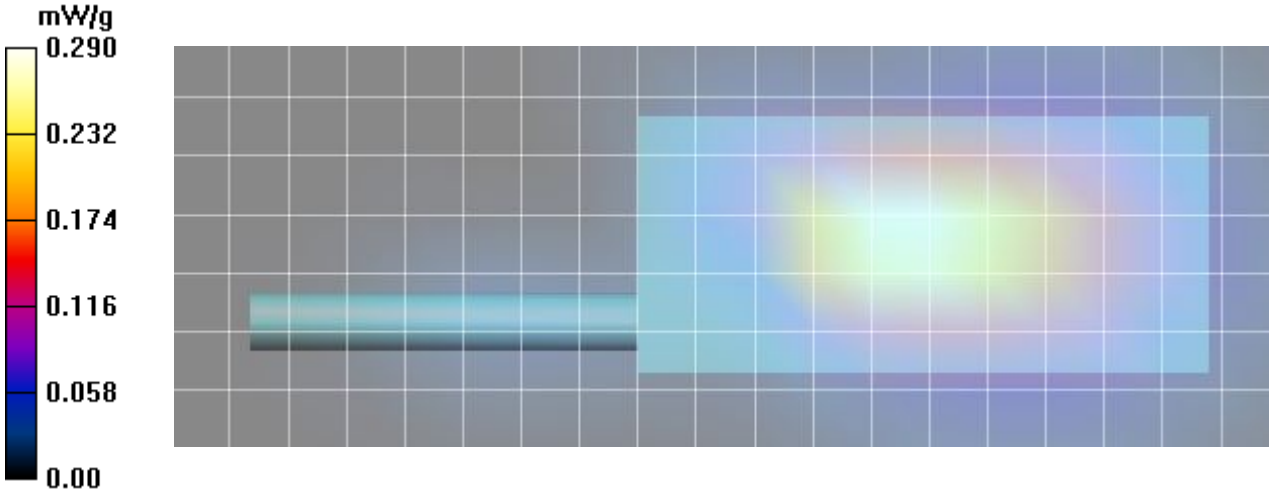
DASY4 Configuration:
- Probe: EX3DV4 - SN3600; ConvF(8.22, 8.22, 8.22); Calibrated: 27/04/2017
- Sensor-Surface: 4mm (Mechanical Surface Detection (Locations From Previous Scan Used))Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn353; Calibrated: 24/04/2017
- Phantom: ELI v5.0; Type: QDOVA002AA; Serial: TP:xxxx
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 145

B4-2 Body, SCAN, Eclipse XL-185P VHF w/ LTE, Back Side, bc, spk-mic, ant 4440-02, bat 4010-01, 793 MHz, MID CH, 10 MHz BW, QPSK, 1 RB, 25 RB Offset/Area Scan (8x20x1): Measurement grid: dx=15mm, dy=15mm

Info: Interpolated medium parameters used for SAR evaluation!
Maximum value of SAR (measured) = 0.290 mW/g

B4-2 Body, SCAN, Eclipse XL-185P VHF w/ LTE, Back Side, bc, spk-mic, ant 4440-02, bat 4010-01, 793 MHz, MID CH, 10 MHz BW, QPSK, 1 RB, 25 RB Offset/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm
Reference Value = 4.91 V/m; Power Drift = -0.121 dB
Peak SAR (extrapolated) = 0.408 W/kg
SAR(1 g) = 0.297 mW/g; SAR(10 g) = 0.206 mW/g

Info: Interpolated medium parameters used for SAR evaluation!
Maximum value of SAR (measured) = 0.316 mW/g



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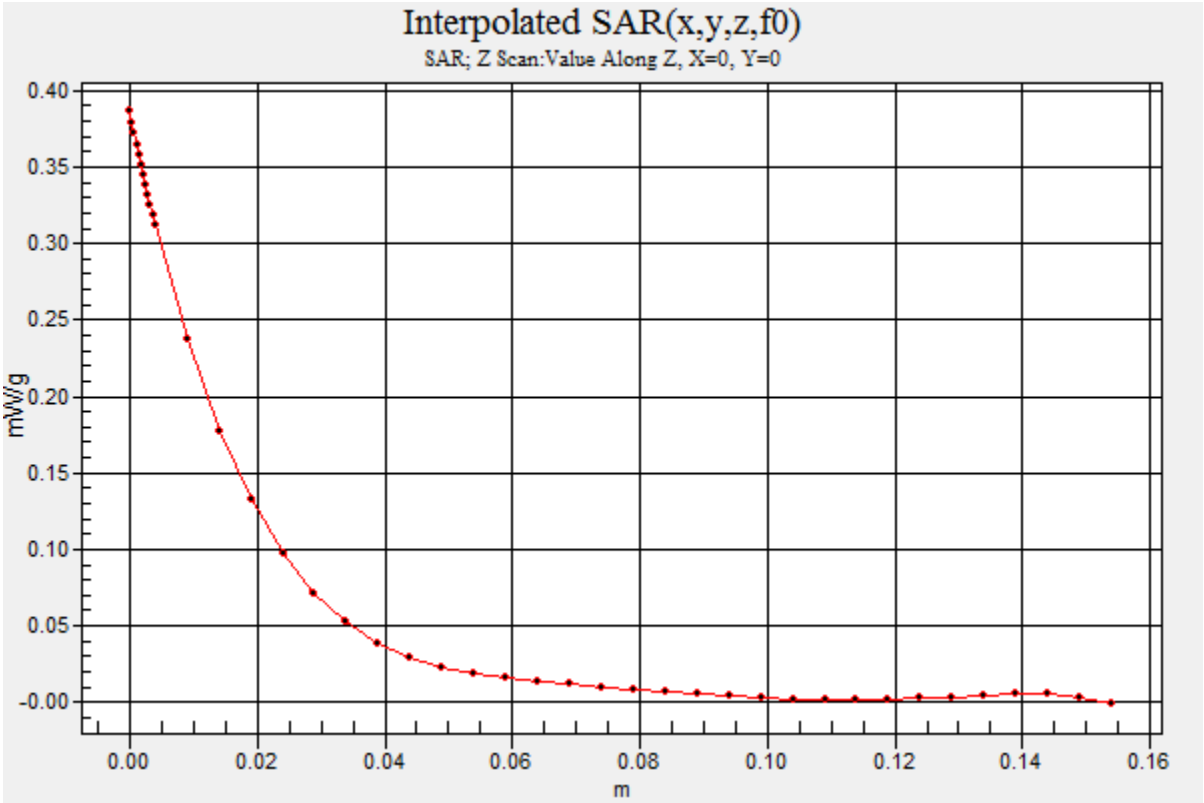

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VHF - LTE Band 13

Plot B5

Date/Time: 10/07/2017 3:22:36 PM

Test Laboratory: Celltech Labs

DUT: Harris; Type: PTT Radio Transceiver;
Program Name: 835B

Communication System: Harris-LTE; Frequency: 782 MHz;Duty Cycle: 1:1
Medium parameters used (interpolated): f = 782 MHz; σ = 0.927 mho/m; ε_r = 54.3; ρ = 1000 kg/m^3
Phantom section: Flat Section

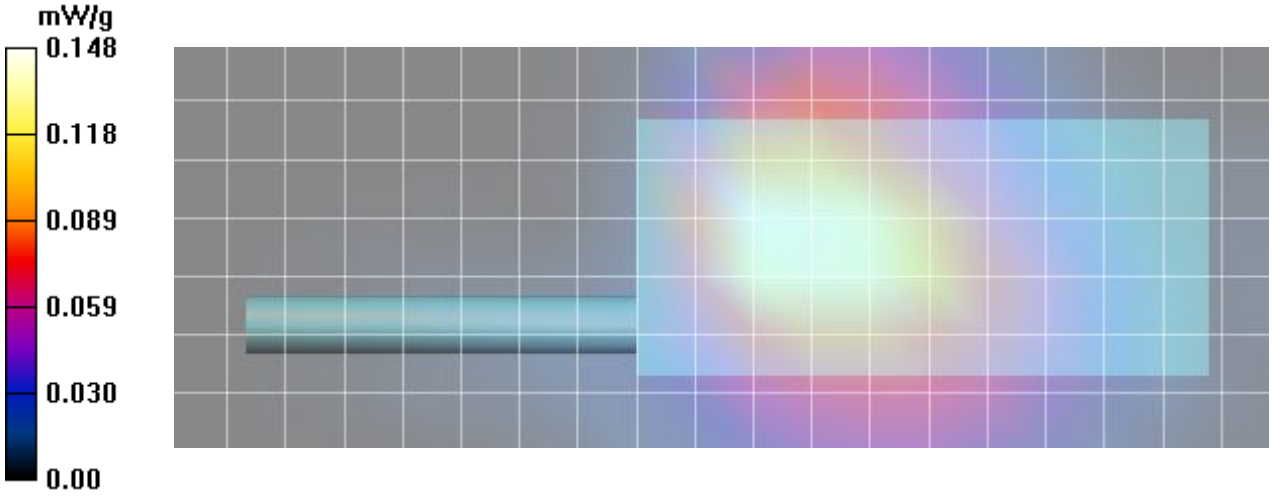
DASY4 Configuration:
- Probe: EX3DV4 - SN3600; ConvF(8.22, 8.22, 8.22); Calibrated: 27/04/2017
- Sensor-Surface: 4mm (Mechanical Surface Detection (Locations From Previous Scan Used))Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn353; Calibrated: 24/04/2017
- Phantom: ELI v5.0; Type: QDOVA002AA; Serial: TP:xxxx
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 145

B5 Body, SYS, Eclipse XL-185P VHF w/ LTE, Back Side, bc, spk-mic, ant 4440-02, bat 4010-01, 782 MHz, CW/Area Scan (8x20x1): Measurement grid: dx=15mm, dy=15mm

Info: Interpolated medium parameters used for SAR evaluation!
Maximum value of SAR (measured) = 0.148 mW/g

B5 Body, SYS, Eclipse XL-185P VHF w/ LTE, Back Side, bc, spk-mic, ant 4440-02, bat 4010-01, 782 MHz, CW/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm
Reference Value = 5.12 V/m; Power Drift = -2.94 dB
Peak SAR (extrapolated) = 0.192 W/kg
SAR(1 g) = 0.141 mW/g; SAR(10 g) = 0.107 mW/g

Info: Interpolated medium parameters used for SAR evaluation!
Maximum value of SAR (measured) = 0.150 mW/g



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Plot B6

Date/Time: 10/07/2017 3:40:17 PM

Test Laboratory: Celltech Labs

DUT: Harris; Type: PTT Radio Transceiver;
Program Name: 835B

Communication System: Harris-LTE; Frequency: 782 MHz;Duty Cycle: 1:1
Medium parameters used (interpolated): f = 782 MHz; σ = 0.927 mho/m; ε_r = 54.3; ρ = 1000 kg/m^3
Phantom section: Flat Section

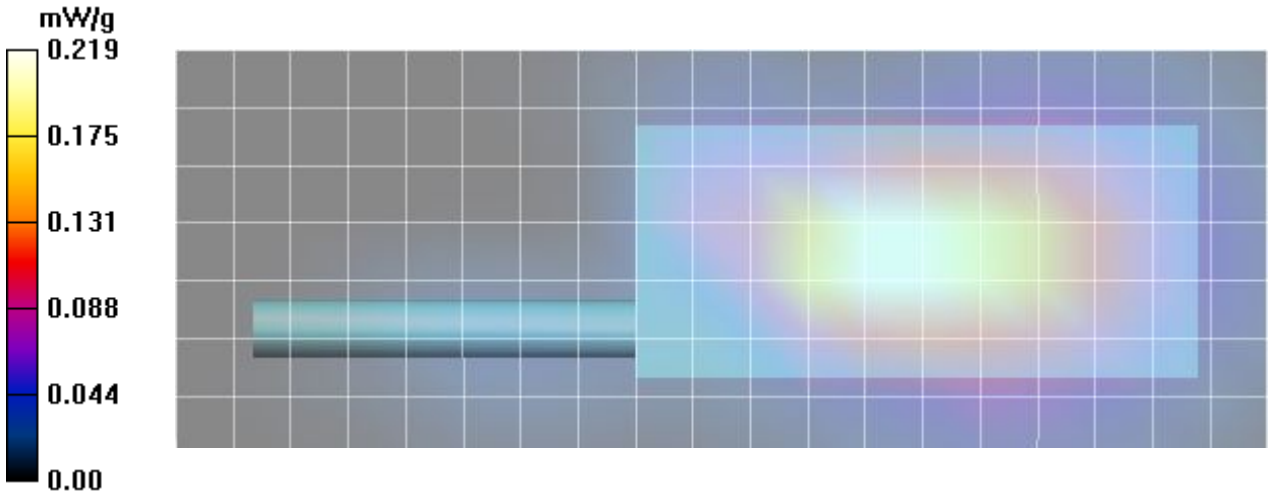
DASY4 Configuration:
- Probe: EX3DV4 - SN3600; ConvF(8.22, 8.22, 8.22); Calibrated: 27/04/2017
- Sensor-Surface: 4mm (Mechanical Surface Detection (Locations From Previous Scan Used))Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn353; Calibrated: 24/04/2017
- Phantom: ELI v5.0; Type: QDOVA002AA; Serial: TP:xxxx
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 145

B6 Body, SCAN, Eclipse XL-185P VHF w/ LTE, Back Side, bc, spk-mic, ant 4440-02, bat 4010-01, 782 MHz, CW/Area Scan (8x20x1): Measurement grid: dx=15mm, dy=15mm

Info: Interpolated medium parameters used for SAR evaluation!
Maximum value of SAR (measured) = 0.219 mW/g

B6 Body, SCAN, Eclipse XL-185P VHF w/ LTE, Back Side, bc, spk-mic, ant 4440-02, bat 4010-01, 782 MHz, CW/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm
Reference Value = 5.37 V/m; Power Drift = -0.407 dB
Peak SAR (extrapolated) = 0.313 W/kg
SAR(1 g) = 0.228 mW/g; SAR(10 g) = 0.160 mW/g

Info: Interpolated medium parameters used for SAR evaluation!
Maximum value of SAR (measured) = 0.242 mW/g



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VHF - LTE Band 4

Plot B7

Date/Time: 13/07/2017 10:04:12 AM

Test Laboratory: Celltech Labs

DUT: Harris; Type: PTT Radio Transceiver;
Program Name: 1800B

Communication System: Harris-LTE; Frequency: 1732.5 MHz;Duty Cycle: 1:1
Medium parameters used (interpolated): f = 1732.5 MHz; σ = 1.48 mho/m; ε_r = 56.7; ρ = 1000 kg/m^3
Phantom section: Flat Section

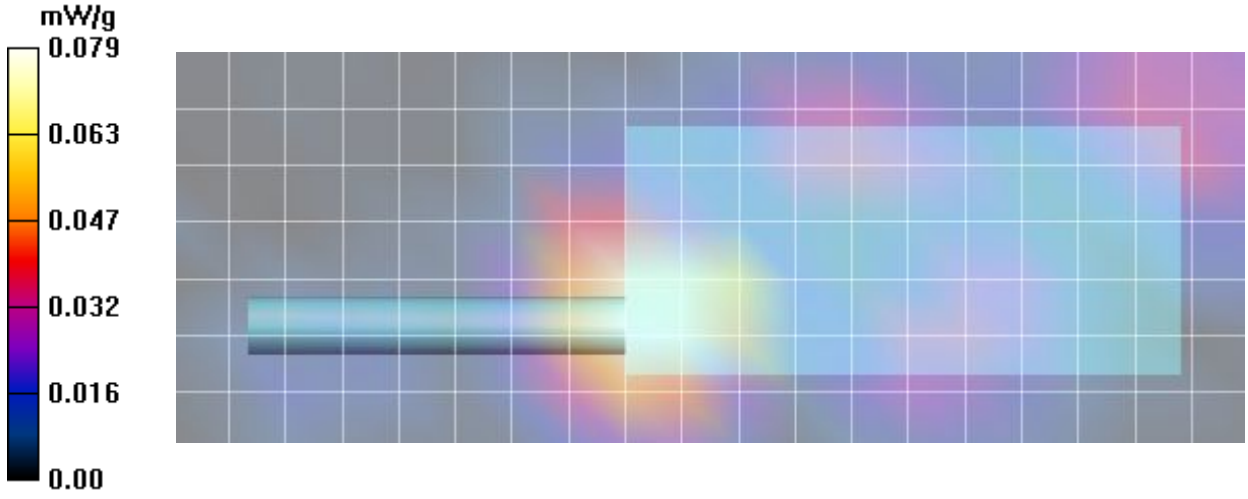
DASY4 Configuration:
- Probe: EX3DV4 - SN3600; ConvF(6.83, 6.83, 6.83); Calibrated: 27/04/2017
- Sensor-Surface: 4mm (Mechanical Surface Detection (Locations From Previous Scan Used))Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn353; Calibrated: 24/04/2017
- Phantom: ELI v5.0; Type: QDOVA002AA; Serial: TP:xxxx
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 145

B7 Body, SYS, Eclipse XL-185P VHF w/ LTE, Back Side, bc, spk-mic, ant 4440-02, bat 4010-01, 1732.5 MHz, CW/Area Scan (8x20x1): Measurement grid: dx=15mm, dy=15mm

Info: Interpolated medium parameters used for SAR evaluation!
Maximum value of SAR (measured) = 0.079 mW/g

B7 Body, SYS, Eclipse XL-185P VHF w/ LTE, Back Side, bc, spk-mic, ant 4440-02, bat 4010-01, 1732.5 MHz, CW/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm
Reference Value = 6.26 V/m; Power Drift = -0.324 dB
Peak SAR (extrapolated) = 0.119 W/kg
SAR(1 g) = 0.073 mW/g; SAR(10 g) = 0.048 mW/g

Info: Interpolated medium parameters used for SAR evaluation!
Maximum value of SAR (measured) = 0.078 mW/g



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Plot B8

Date/Time: 13/07/2017 10:19:07 AM

Test Laboratory: Celltech Labs

DUT: Harris; Type: PTT Radio Transceiver;
Program Name: 1800B

Communication System: Harris-LTE; Frequency: 1732.5 MHz;Duty Cycle: 1:1
Medium parameters used (interpolated): f = 1732.5 MHz; σ = 1.48 mho/m; ε_r = 56.7; ρ = 1000 kg/m^3
Phantom section: Flat Section

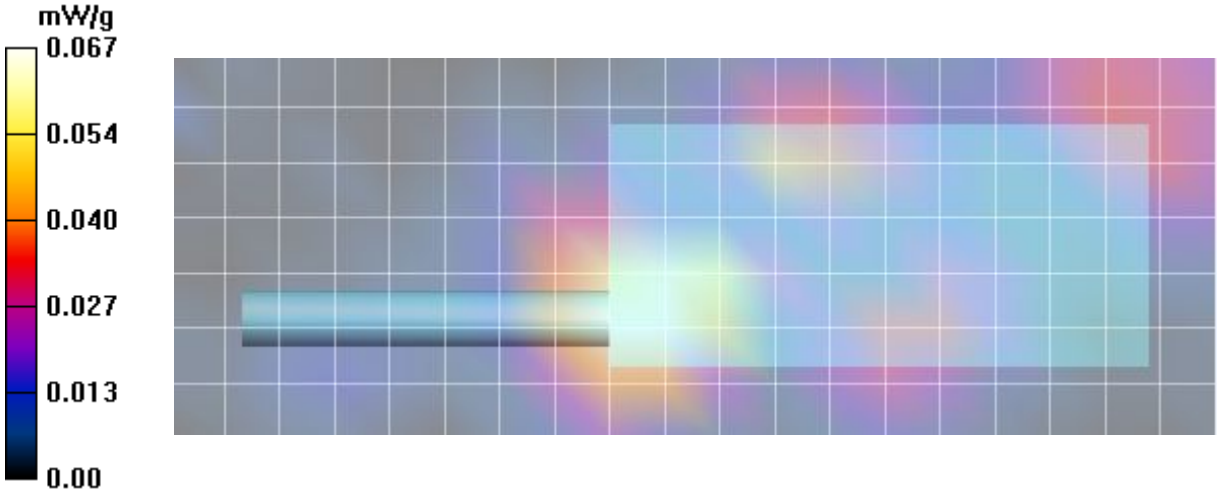
DASY4 Configuration:
- Probe: EX3DV4 - SN3600; ConvF(6.83, 6.83, 6.83); Calibrated: 27/04/2017
- Sensor-Surface: 4mm (Mechanical Surface Detection (Locations From Previous Scan Used))Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn353; Calibrated: 24/04/2017
- Phantom: ELI v5.0; Type: QDOVA002AA; Serial: TP:xxxx
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 145

B8 Body, SCAN, Eclipse XL-185P VHF w/ LTE, Back Side, bc, spk-mic, ant 4440-02, bat 4010-01, 1732.5 MHz, CW/Area Scan (8x20x1): Measurement grid: dx=15mm, dy=15mm

Info: Interpolated medium parameters used for SAR evaluation!
Maximum value of SAR (measured) = 0.067 mW/g

B8 Body, SCAN, Eclipse XL-185P VHF w/ LTE, Back Side, bc, spk-mic, ant 4440-02, bat 4010-01, 1732.5 MHz, CW/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm
Reference Value = 5.75 V/m; Power Drift = -0.572 dB
Peak SAR (extrapolated) = 0.112 W/kg
SAR(1 g) = 0.061 mW/g; SAR(10 g) = 0.037 mW/g

Info: Interpolated medium parameters used for SAR evaluation!
Maximum value of SAR (measured) = 0.068 mW/g



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7/800 RB - LTE Band 14

Plot F1

Date/Time: 11/07/2017 12:38:15 PM

Test Laboratory: Celltech Labs

DUT: Harris; Type: PTT Radio Transceiver;
Program Name: 835B

Communication System: Harris-LTE; Frequency: 793 MHz;Duty Cycle: 1:1
Medium parameters used (interpolated): f = 793 MHz; σ = 0.866 mho/m; ε_r = 42.2; ρ = 1000 kg/m^3
Phantom section: Flat Section

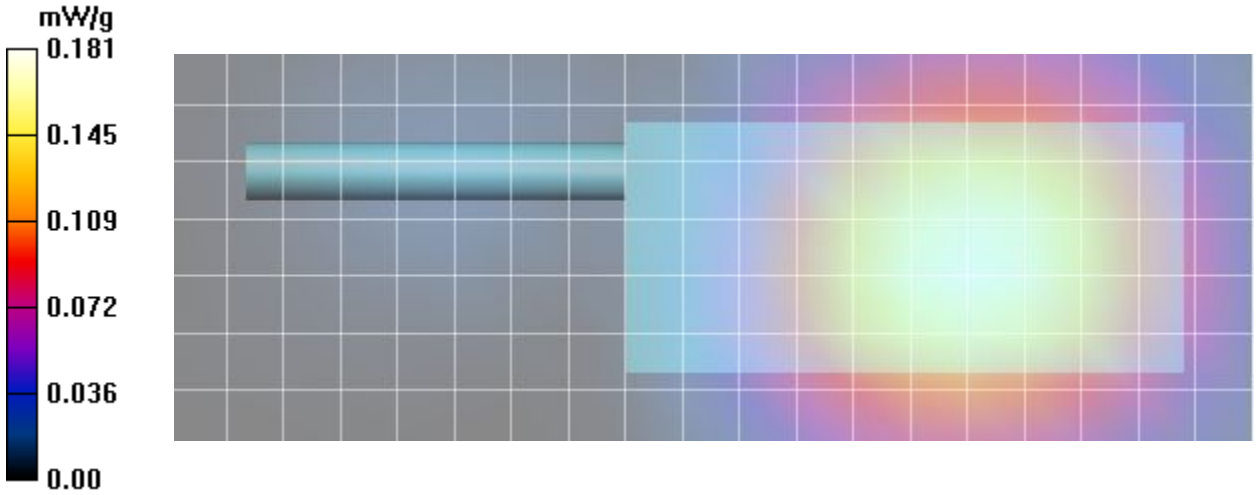
DASY4 Configuration:
- Probe: EX3DV4 - SN3600; ConvF(8.39, 8.39, 8.39); Calibrated: 27/04/2017
- Sensor-Surface: 4mm (Mechanical Surface Detection (Locations From Previous Scan Used))Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn353; Calibrated: 24/04/2017
- Phantom: ELI v5.0; Type: QDOVA002AA; Serial: TP:xxxx
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 145

F1 Face, SYS, Eclipse XL-185P 7/800 w/ LTE, Front Side, ant 4440-02, bat 4010-01, 793 MHz, MID CH, 10 MHZ BW, QPSK, 1 RB, 25 RB Offset/Area Scan (8x20x1): Measurement grid: dx=15mm, dy=15mm

Info: Interpolated medium parameters used for SAR evaluation!
Maximum value of SAR (measured) = 0.181 mW/g

F1 Face, SYS, Eclipse XL-185P 7/800 w/ LTE, Front Side, ant 4440-02, bat 4010-01, 793 MHz, MID CH, 10 MHZ BW, QPSK, 1 RB, 25 RB Offset/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm
Reference Value = 3.25 V/m; Power Drift = 0.903 dB
Peak SAR (extrapolated) = 0.223 W/kg
SAR(1 g) = 0.172 mW/g; SAR(10 g) = 0.128 mW/g

Info: Interpolated medium parameters used for SAR evaluation!
Maximum value of SAR (measured) = 0.179 mW/g



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Plot F2

Date/Time: 11/07/2017 12:55:31 PM

Test Laboratory: Celltech Labs

DUT: Harris; Type: PTT Radio Transceiver;
Program Name: 835B

Communication System: Harris-LTE; Frequency: 793 MHz;Duty Cycle: 1:1
Medium parameters used (interpolated): f = 793 MHz; σ = 0.866 mho/m; ε_r = 42.2; ρ = 1000 kg/m^3
Phantom section: Flat Section

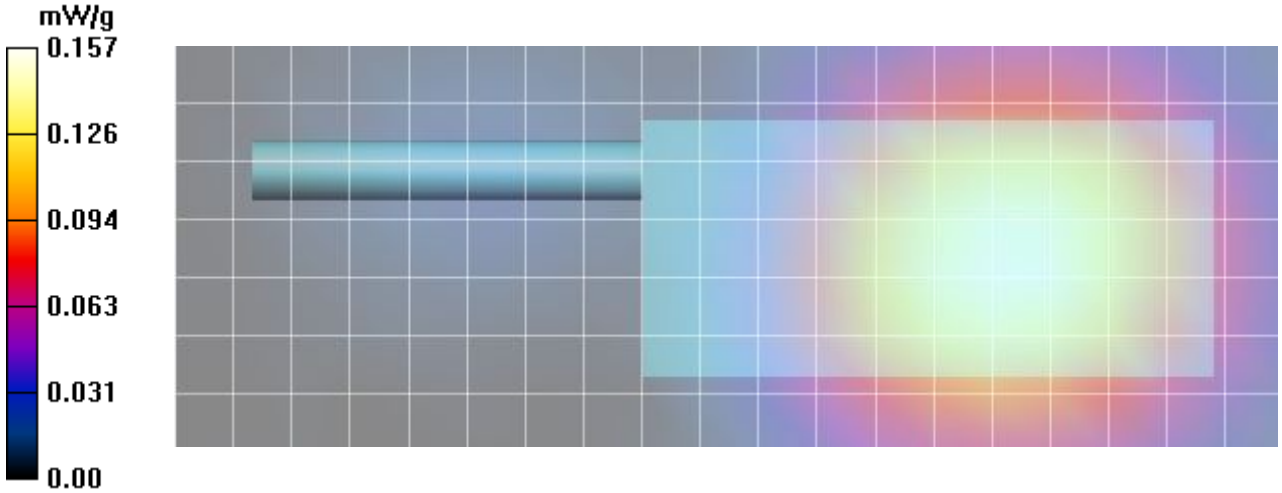
DASY4 Configuration:
- Probe: EX3DV4 - SN3600; ConvF(8.39, 8.39, 8.39); Calibrated: 27/04/2017
- Sensor-Surface: 4mm (Mechanical Surface Detection (Locations From Previous Scan Used))Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn353; Calibrated: 24/04/2017
- Phantom: ELI v5.0; Type: QDOVA002AA; Serial: TP:xxxx
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 145

F2 Face, SCAN, Eclipse XL-185P 7/800 w/ LTE, Front Side, ant 4440-02, bat 4010-01, 793 MHz, MID CH, 10 MHz BW, QPSK, 1 RB, 25 RB Offset/Area Scan (8x20x1): Measurement grid: dx=15mm, dy=15mm

Info: Interpolated medium parameters used for SAR evaluation!
Maximum value of SAR (measured) = 0.157 mW/g

F2 Face, SCAN, Eclipse XL-185P 7/800 w/ LTE, Front Side, ant 4440-02, bat 4010-01, 793 MHz, MID CH, 10 MHz BW, QPSK, 1 RB, 25 RB Offset/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm
Reference Value = 3.25 V/m; Power Drift = 0.605 dB
Peak SAR (extrapolated) = 0.193 W/kg
SAR(1 g) = 0.149 mW/g; SAR(10 g) = 0.110 mW/g

Info: Interpolated medium parameters used for SAR evaluation!
Maximum value of SAR (measured) = 0.156 mW/g



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7/800 RB - LTE Band 13

Plot F3

Date/Time: 11/07/2017 1:15:17 PM

Test Laboratory: Celltech Labs

DUT: Harris; Type: PTT Radio Transceiver;
Program Name: 835B

Communication System: Harris-LTE; Frequency: 782 MHz;Duty Cycle: 1:1
Medium parameters used (interpolated): f = 782 MHz; σ = 0.85 mho/m; ε_r = 42.5; ρ = 1000 kg/m^3
Phantom section: Flat Section

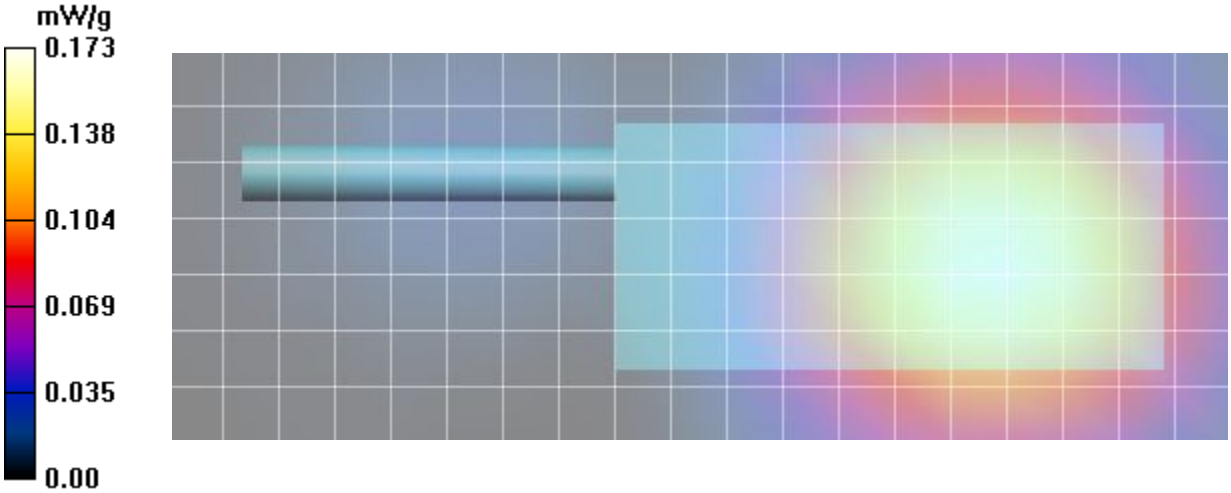
DASY4 Configuration:
- Probe: EX3DV4 - SN3600; ConvF(8.39, 8.39, 8.39); Calibrated: 27/04/2017
- Sensor-Surface: 4mm (Mechanical Surface Detection (Locations From Previous Scan Used))Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn353; Calibrated: 24/04/2017
- Phantom: ELI v5.0; Type: QDOVA002AA; Serial: TP:xxxx
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 145

F3 Face, SYS, Eclipse XL-185P 7/800 w/ LTE, Front Side, ant 4440-02, bat 4010-01, 782 MHz, MID CH, 10 MHz BW, QPSK, 1 RB, 25 RB Offset/Area Scan (8x20x1): Measurement grid: dx=15mm, dy=15mm

Info: Interpolated medium parameters used for SAR evaluation!
Maximum value of SAR (measured) = 0.173 mW/g

F3 Face, SYS, Eclipse XL-185P 7/800 w/ LTE, Front Side, ant 4440-02, bat 4010-01, 782 MHz, MID CH, 10 MHz BW, QPSK, 1 RB, 25 RB Offset/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm
Reference Value = 3.43 V/m; Power Drift = -0.037 dB
Peak SAR (extrapolated) = 0.211 W/kg
SAR(1 g) = 0.164 mW/g; SAR(10 g) = 0.123 mW/g

Info: Interpolated medium parameters used for SAR evaluation!
Maximum value of SAR (measured) = 0.172 mW/g



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Plot F4

Date/Time: 11/07/2017 1:32:20 PM

Test Laboratory: Celltech Labs

DUT: Harris; Type: PTT Radio Transceiver;
Program Name: 835B

Communication System: Harris-LTE; Frequency: 782 MHz;Duty Cycle: 1:1
Medium parameters used (interpolated): f = 782 MHz; σ = 0.85 mho/m; ε_r = 42.5; ρ = 1000 kg/m^3
Phantom section: Flat Section

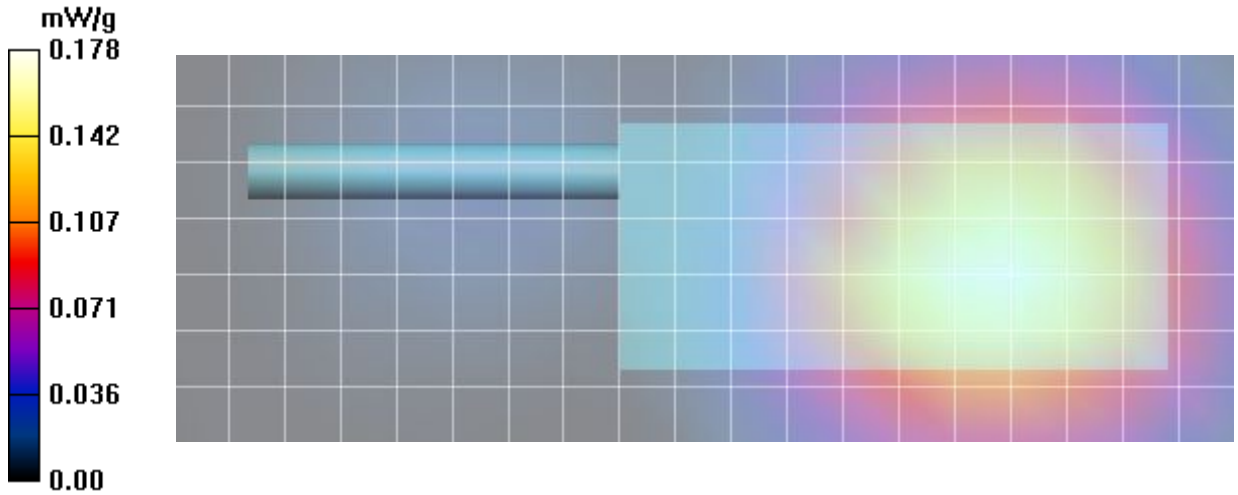
DASY4 Configuration:
- Probe: EX3DV4 - SN3600; ConvF(8.39, 8.39, 8.39); Calibrated: 27/04/2017
- Sensor-Surface: 4mm (Mechanical Surface Detection (Locations From Previous Scan Used))Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn353; Calibrated: 24/04/2017
- Phantom: ELI v5.0; Type: QDOVA002AA; Serial: TP:xxxx
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 145

F4 Face, Scan, Eclipse XL-185P 7/800 w/ LTE, Front Side, ant 4440-02, bat 4010-01, 782 MHz, MID CH, 10 MHz BW, QPSK, 1 RB, 25 RB Offset/Area Scan (8x20x1): Measurement grid: dx=15mm, dy=15mm

Info: Interpolated medium parameters used for SAR evaluation!
Maximum value of SAR (measured) = 0.178 mW/g

F4 Face, Scan, Eclipse XL-185P 7/800 w/ LTE, Front Side, ant 4440-02, bat 4010-01, 782 MHz, MID CH, 10 MHz BW, QPSK, 1 RB, 25 RB Offset/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm
Reference Value = 3.74 V/m; Power Drift = 0.189 dB
Peak SAR (extrapolated) = 0.227 W/kg
SAR(1 g) = 0.174 mW/g; SAR(10 g) = 0.126 mW/g

Info: Interpolated medium parameters used for SAR evaluation!
Maximum value of SAR (measured) = 0.180 mW/g



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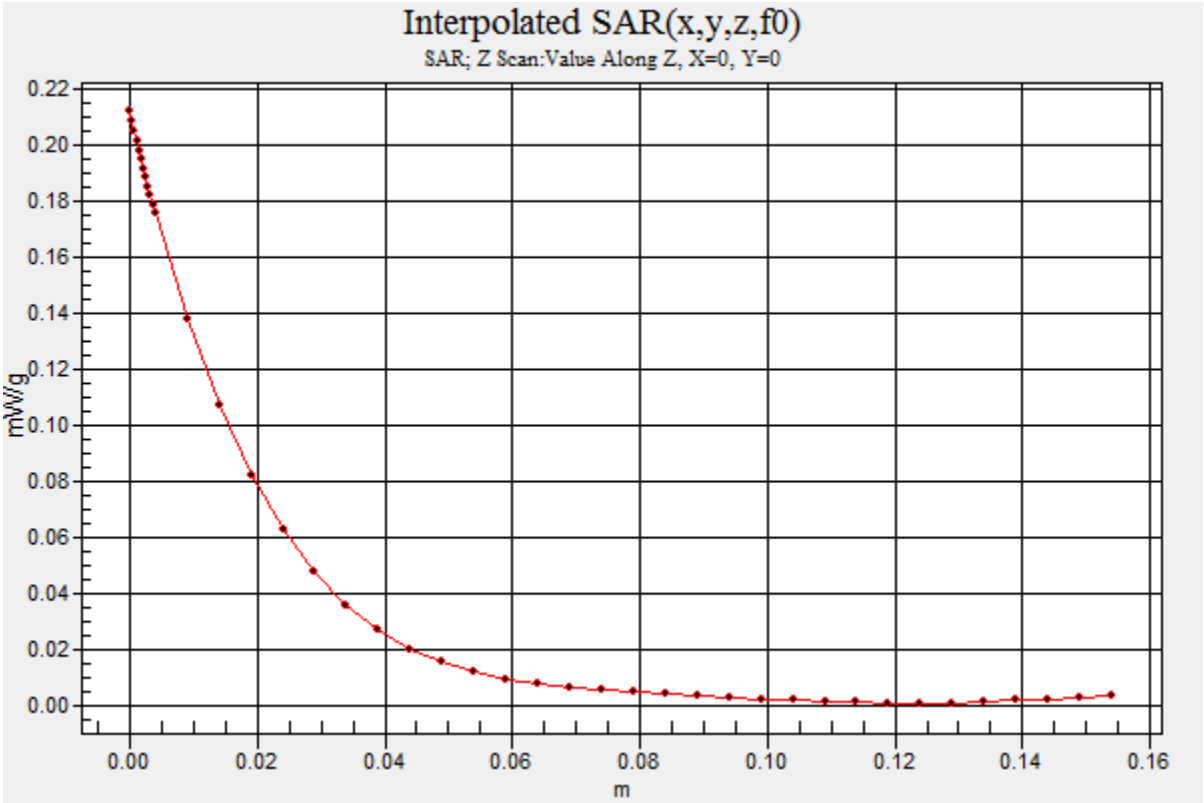

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7/800 RB - LTE Band 4

Plot F5

Date/Time: 14/07/2017 12:02:29 PM

Test Laboratory: Celltech Labs

DUT: Harris; Type: PTT Radio Transceiver;
Program Name: 1800H

Communication System: Harris-LTE; Frequency: 1732.5 MHz;Duty Cycle: 1:1
Medium parameters used (interpolated): f = 1732.5 MHz; σ = 1.26 mho/m; ε_r = 41; ρ = 1000 kg/m^3
Phantom section: Flat Section

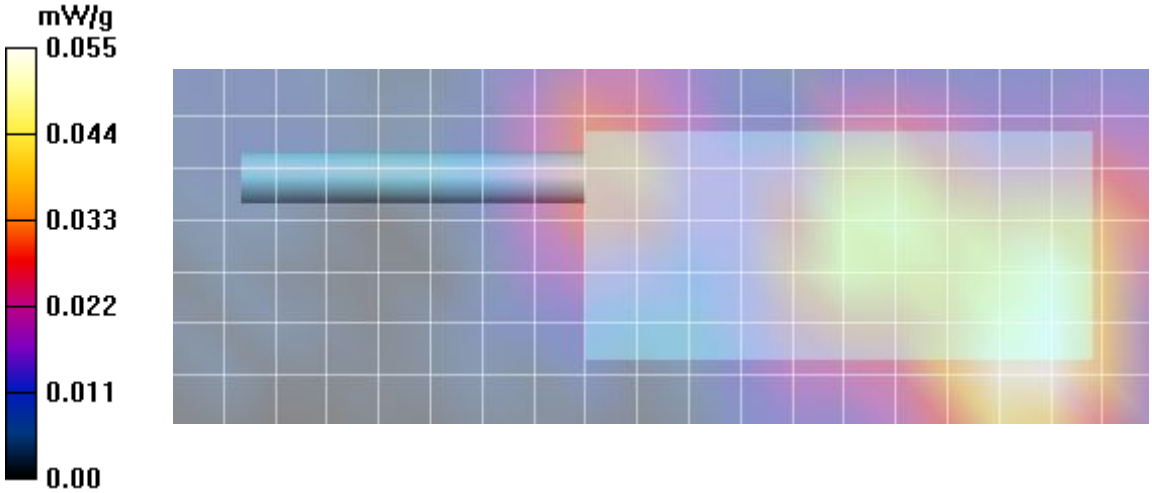
DASY4 Configuration:
- Probe: EX3DV4 - SN3600; ConvF(7.08, 7.08, 7.08); Calibrated: 27/04/2017
- Sensor-Surface: 4mm (Mechanical Surface Detection (Locations From Previous Scan Used))Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn353; Calibrated: 24/04/2017
- Phantom: ELI v5.0; Type: QDOVA002AA; Serial: TP:xxxx
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 145

F5 Face, SYS, Eclipse XL-185P 7/800 w/ LTE, Front Side, ant 4440-02, bat 4010-01, 1732.5 MHz, MID CH, 20 MHz BW,QPSK, 1 RB, 50 RB Offset/Area Scan (8x20x1): Measurement grid: dx=15mm, dy=15mm

Info: Interpolated medium parameters used for SAR evaluation!
Maximum value of SAR (measured) = 0.055 mW/g

F5 Face, SYS, Eclipse XL-185P 7/800 w/ LTE, Front Side, ant 4440-02, bat 4010-01, 1732.5 MHz, MID CH, 20 MHz BW,QPSK, 1 RB, 50 RB Offset/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm
Reference Value = 4.29 V/m; Power Drift = 0.981 dB
Peak SAR (extrapolated) = 0.086 W/kg
SAR(1 g) = 0.056 mW/g; SAR(10 g) = 0.035 mW/g

Info: Interpolated medium parameters used for SAR evaluation!
Maximum value of SAR (measured) = 0.059 mW/g



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Plot F6

Date/Time: 14/07/2017 12:19:28 PM

Test Laboratory: Celltech Labs

DUT: Harris; Type: PTT Radio Transceiver;
Program Name: 1800H

Communication System: Harris-LTE; Frequency: 1732.5 MHz;Duty Cycle: 1:1
Medium parameters used (interpolated): f = 1732.5 MHz; σ = 1.26 mho/m; ε_r = 41; ρ = 1000 kg/m^3
Phantom section: Flat Section

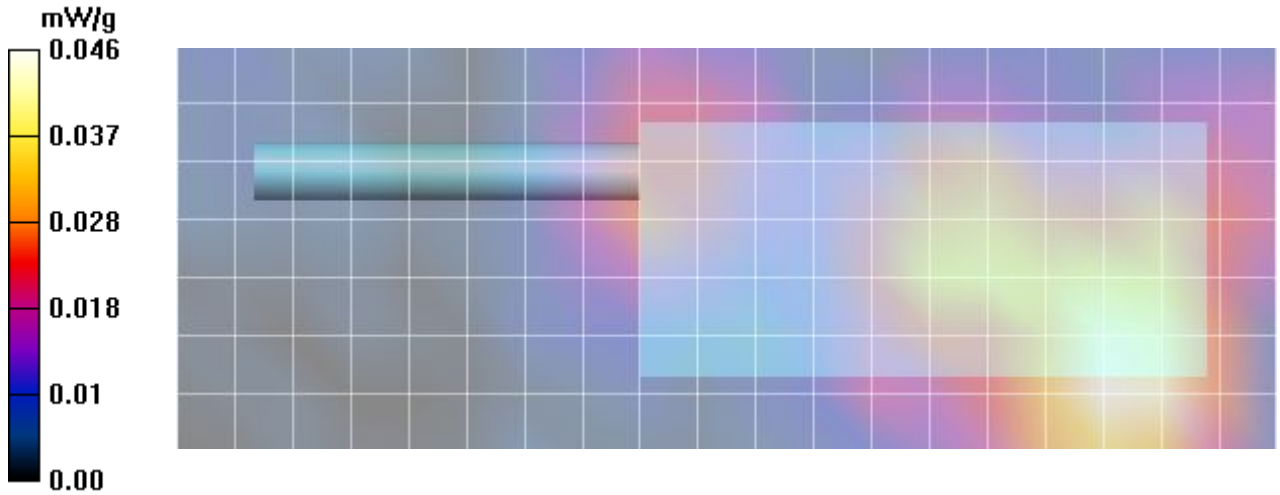
DASY4 Configuration:
- Probe: EX3DV4 - SN3600; ConvF(7.08, 7.08, 7.08); Calibrated: 27/04/2017
- Sensor-Surface: 4mm (Mechanical Surface Detection (Locations From Previous Scan Used))Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn353; Calibrated: 24/04/2017
- Phantom: ELI v5.0; Type: QDOVA002AA; Serial: TP:xxxx
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 145

F6 Face, SCAN, Eclipse XL-185P 7/800 w/ LTE, Front Side ant 4440-02, bat 4010-01,1732.5 MHz, MID CH, 20 MHz BW, QPSK, 1 RB, 50 RB Offset/Area Scan (8x20x1): Measurement grid: dx=15mm, dy=15mm

Info: Interpolated medium parameters used for SAR evaluation!
Maximum value of SAR (measured) = 0.046 mW/g

F6 Face, SCAN, Eclipse XL-185P 7/800 w/ LTE, Front Side ant 4440-02, bat 4010-01,1732.5 MHz, MID CH, 20 MHz BW, QPSK, 1 RB, 50 RB Offset/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm
Reference Value = 3.81 V/m; Power Drift = 0.013 dB
Peak SAR (extrapolated) = 0.075 W/kg
SAR(1 g) = 0.045 mW/g; SAR(10 g) = 0.029 mW/g

Info: Interpolated medium parameters used for SAR evaluation!
Maximum value of SAR (measured) = 0.048 mW/g



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Plot F7

Date/Time: 14/07/2017 12:59:04 PM

Test Laboratory: Celltech Labs

DUT: Harris; Type: PTT Radio Transceiver;
Program Name: 1800H

Communication System: Harris-LTE; Frequency: 1732.5 MHz;Duty Cycle: 1:1
Medium parameters used (interpolated): f = 1732.5 MHz; σ = 1.26 mho/m; ε_r = 41; ρ = 1000 kg/m^3
Phantom section: Flat Section

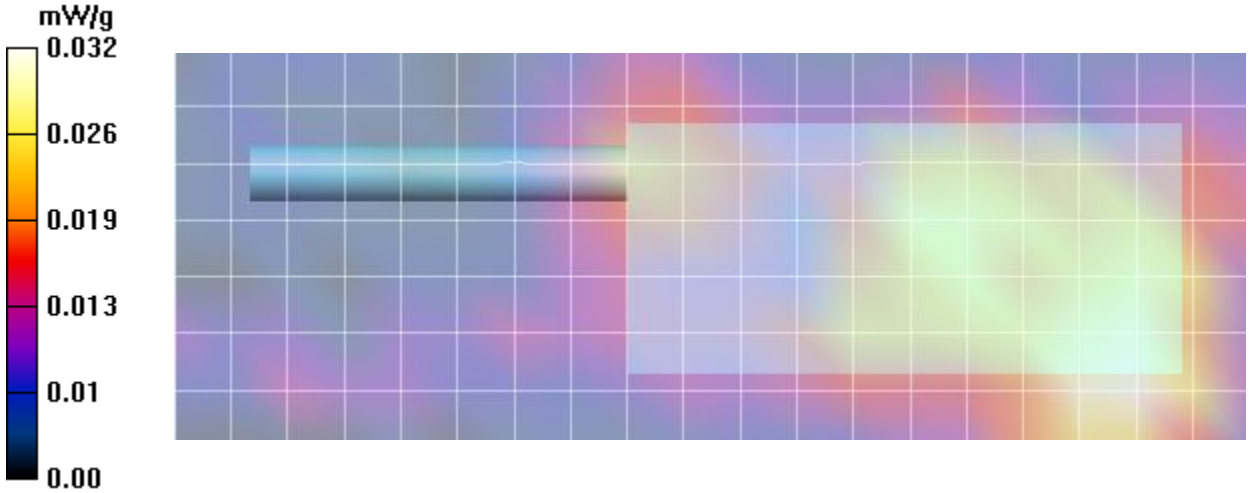
DASY4 Configuration:
- Probe: EX3DV4 - SN3600; ConvF(7.08, 7.08, 7.08); Calibrated: 27/04/2017
- Sensor-Surface: 4mm (Mechanical Surface Detection (Locations From Previous Scan Used))Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn353; Calibrated: 24/04/2017
- Phantom: ELI v5.0; Type: QDOVA002AA; Serial: TP:xxxx
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 145

F7 Face, SYS, Eclipse XL-185P 7/800 w/ LTE, Front Side, ant 4440-02, bat 4010-01, 1732.5 MHz, CW/Area Scan (8x20x1):
Measurement grid: dx=15mm, dy=15mm

Info: Interpolated medium parameters used for SAR evaluation!
Maximum value of SAR (measured) = 0.032 mW/g

F7 Face, SYS, Eclipse XL-185P 7/800 w/ LTE, Front Side, ant 4440-02, bat 4010-01, 1732.5 MHz, CW/Zoom Scan (5x5x7)/Cube 0:
Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm
Reference Value = 3.46 V/m; Power Drift = 0.120 dB
Peak SAR (extrapolated) = 0.045 W/kg
SAR(1 g) = 0.027 mW/g; SAR(10 g) = 0.018 mW/g

Info: Interpolated medium parameters used for SAR evaluation!
Maximum value of SAR (measured) = 0.030 mW/g



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Plot F8

Date/Time: 14/07/2017 1:18:07 PM

Test Laboratory: Celltech Labs

DUT: Harris; Type: PTT Radio Transceiver;
Program Name: 1800H

Communication System: Harris-LTE; Frequency: 1732.5 MHz;Duty Cycle: 1:1
Medium parameters used (interpolated): f = 1732.5 MHz; σ = 1.26 mho/m; ε_r = 41; ρ = 1000 kg/m^3
Phantom section: Flat Section

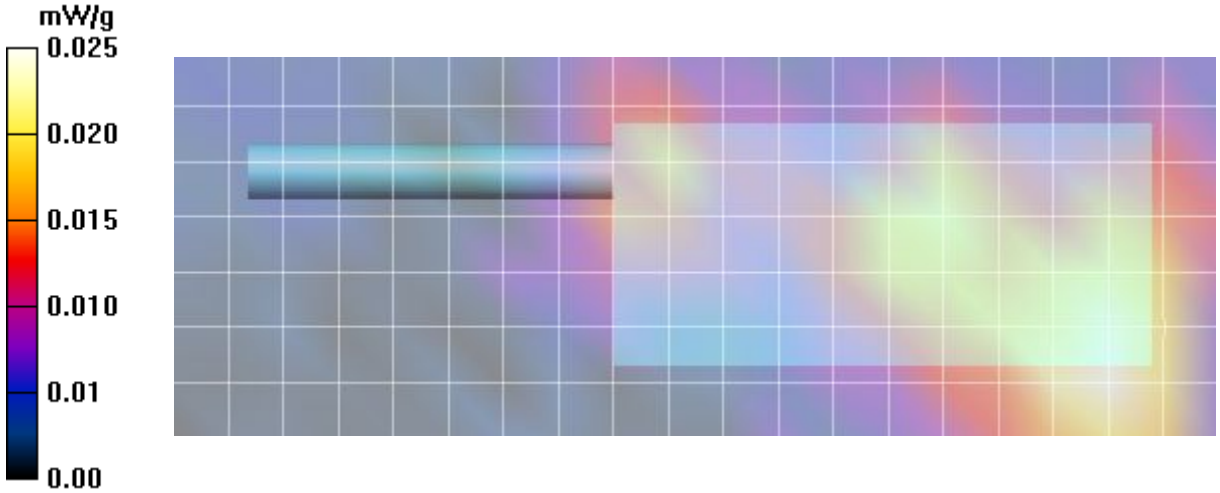
DASY4 Configuration:
- Probe: EX3DV4 - SN3600; ConvF(7.08, 7.08, 7.08); Calibrated: 27/04/2017
- Sensor-Surface: 4mm (Mechanical Surface Detection (Locations From Previous Scan Used))Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn353; Calibrated: 24/04/2017
- Phantom: ELI v5.0; Type: QDOVA002AA; Serial: TP:xxxx
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 145

F8 Face, SCAN, Eclipse XL-185P 7/800 w/ LTE, Front Side, ant 4440-02, bat 4010-01, 1732.5 MHz, CW/Area Scan (8x20x1): Measurement grid: dx=15mm, dy=15mm

Info: Interpolated medium parameters used for SAR evaluation!
Maximum value of SAR (measured) = 0.025 mW/g

F8 Face, SCAN, Eclipse XL-185P 7/800 w/ LTE, Front Side, ant 4440-02, bat 4010-01, 1732.5 MHz, CW/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm
Reference Value = 2.75 V/m; Power Drift = 0.912 dB
Peak SAR (extrapolated) = 0.038 W/kg
SAR(1 g) = 0.023 mW/g; SAR(10 g) = 0.015 mW/g

Info: Interpolated medium parameters used for SAR evaluation!
Maximum value of SAR (measured) = 0.026 mW/g



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7/800 Extended - LTE Band 14

Plot F1

Date/Time: 11/07/2017 2:00:23 PM

Test Laboratory: Celltech Labs

DUT: Harris; Type: PTT Radio Transceiver;
Program Name: 835B

Communication System: Harris-LTE; Frequency: 793 MHz;Duty Cycle: 1:1
Medium parameters used (interpolated): f = 793 MHz; σ = 0.866 mho/m; ε_r = 42.2; ρ = 1000 kg/m^3
Phantom section: Flat Section

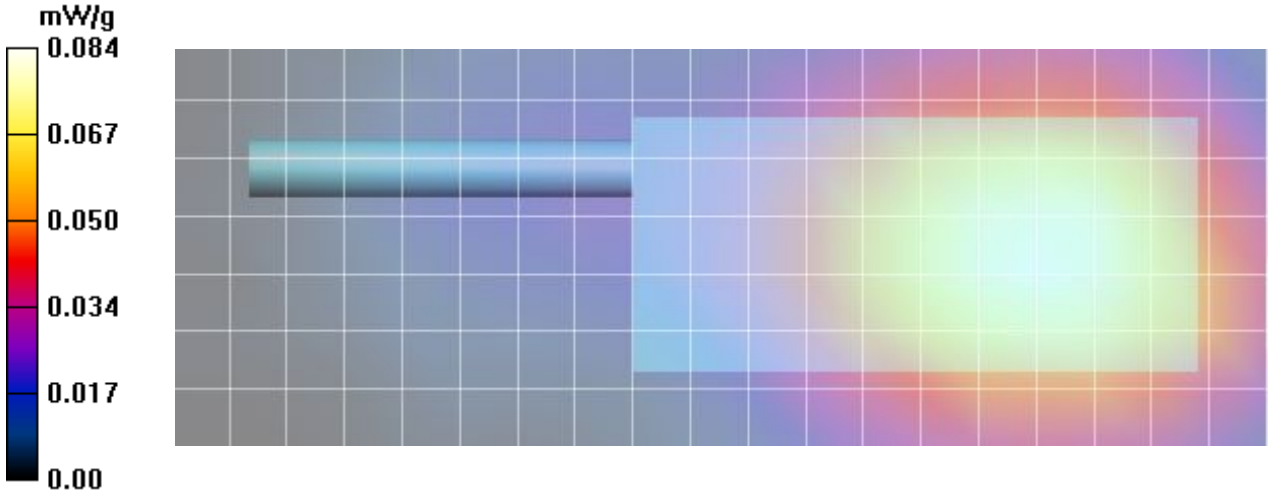
DASY4 Configuration:
- Probe: EX3DV4 - SN3600; ConvF(8.39, 8.39, 8.39); Calibrated: 27/04/2017
- Sensor-Surface: 4mm (Mechanical Surface Detection (Locations From Previous Scan Used))Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn353; Calibrated: 24/04/2017
- Phantom: ELI v5.0; Type: QDOVA002AA; Serial: TP:xxxx
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 145

F1 Face, SYS, Eclipse XL-185P 7/800 Extended w/ LTE, Front Side, ant 4440-02, bat 4010-01, 793 MHz, MID CH, 10 MHz BW, QPSK, 1 RB, 25 RB Offset/Area Scan (8x20x1): Measurement grid: dx=15mm, dy=15mm

Info: Interpolated medium parameters used for SAR evaluation!
Maximum value of SAR (measured) = 0.084 mW/g

F1 Face, SYS, Eclipse XL-185P 7/800 Extended w/ LTE, Front Side, ant 4440-02, bat 4010-01, 793 MHz, MID CH, 10 MHz BW, QPSK, 1 RB, 25 RB Offset/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm
Reference Value = 4.55 V/m; Power Drift = 0.108 dB
Peak SAR (extrapolated) = 0.102 W/kg
SAR(1 g) = 0.080 mW/g; SAR(10 g) = 0.060 mW/g

Info: Interpolated medium parameters used for SAR evaluation!
Maximum value of SAR (measured) = 0.083 mW/g



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Plot F2

Date/Time: 11/07/2017 2:14:53 PM

Test Laboratory: Celltech Labs

DUT: Harris; Type: PTT Radio Transceiver;
Program Name: 835B

Communication System: Harris-LTE; Frequency: 793 MHz;Duty Cycle: 1:1
Medium parameters used (interpolated): f = 793 MHz; σ = 0.866 mho/m; ε_r = 42.2; ρ = 1000 kg/m^3
Phantom section: Flat Section

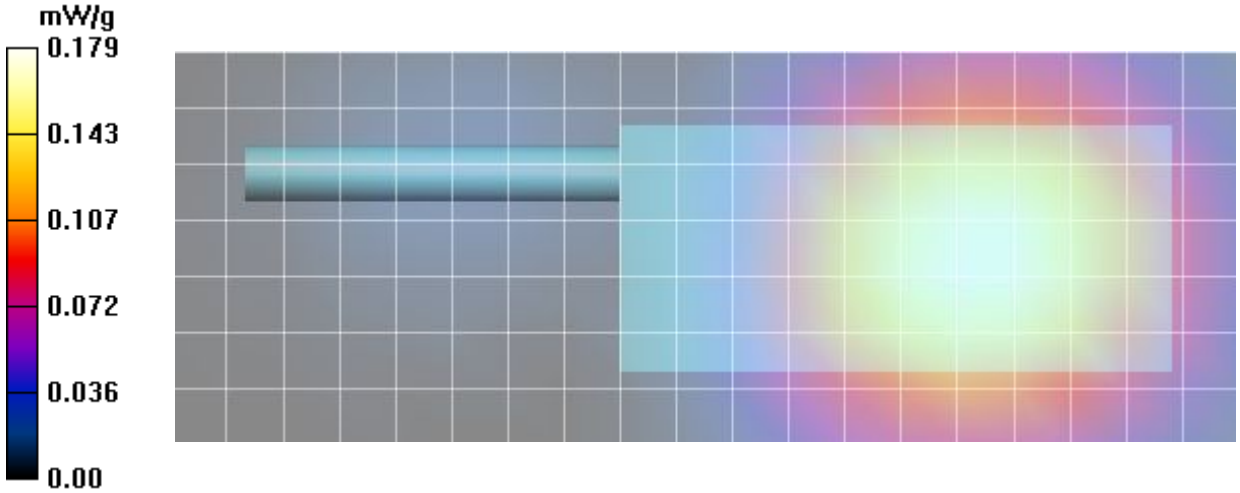
DASY4 Configuration:
- Probe: EX3DV4 - SN3600; ConvF(8.39, 8.39, 8.39); Calibrated: 27/04/2017
- Sensor-Surface: 4mm (Mechanical Surface Detection (Locations From Previous Scan Used))Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn353; Calibrated: 24/04/2017
- Phantom: ELI v5.0; Type: QDOVA002AA; Serial: TP:xxxx
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 145

F2 Face, SCAN, Eclipse XL-185P 7/800 Extended w/ LTE, Front Side, ant 4440-02, bat 4010-01, 793 MHz, MID CH, 10 Mhz BW, QPSK, 1 RB, 25 RB Offset/Area Scan (8x20x1): Measurement grid: dx=15mm, dy=15mm

Info: Interpolated medium parameters used for SAR evaluation!
Maximum value of SAR (measured) = 0.179 mW/g

F2 Face, SCAN, Eclipse XL-185P 7/800 Extended w/ LTE, Front Side, ant 4440-02, bat 4010-01, 793 MHz, MID CH, 10 Mhz BW, QPSK, 1 RB, 25 RB Offset/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm
Reference Value = 3.11 V/m; Power Drift = 1.05 dB
Peak SAR (extrapolated) = 0.226 W/kg
SAR(1 g) = 0.175 mW/g; SAR(10 g) = 0.131 mW/g

Info: Interpolated medium parameters used for SAR evaluation!
Maximum value of SAR (measured) = 0.183 mW/g



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7/800 Extended - LTE Band 13

Plot F3

Date/Time: 11/07/2017 2:35:29 PM

Test Laboratory: Celltech Labs

DUT: Harris; Type: PTT Radio Transceiver;
Program Name: 835B

Communication System: Harris-LTE; Frequency: 782 MHz;Duty Cycle: 1:1
Medium parameters used (interpolated): f = 782 MHz; σ = 0.85 mho/m; ε_r = 42.5; ρ = 1000 kg/m^3
Phantom section: Flat Section

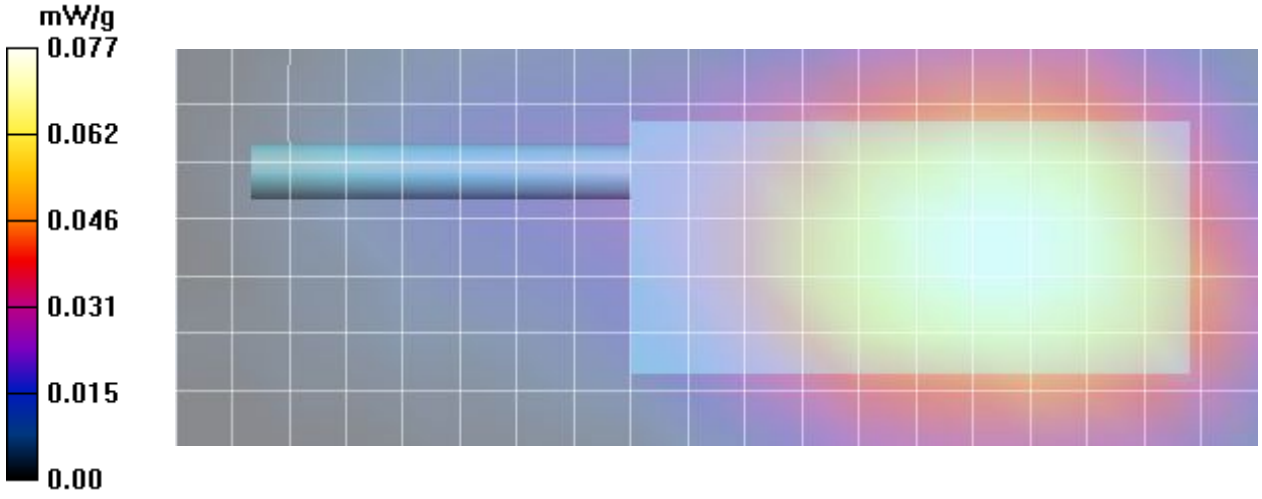
DASY4 Configuration:
- Probe: EX3DV4 - SN3600; ConvF(8.39, 8.39, 8.39); Calibrated: 27/04/2017
- Sensor-Surface: 4mm (Mechanical Surface Detection (Locations From Previous Scan Used))Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn353; Calibrated: 24/04/2017
- Phantom: ELI v5.0; Type: QDOVA002AA; Serial: TP:xxxx
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 145

F3 Face, SYS, Eclipse XL-185P 7/800 Extended w/ LTE, Front Side, ant 4440-02, bat 4010-01, 782 MHz, CW/Area Scan (8x20x1): Measurement grid: dx=15mm, dy=15mm

Info: Interpolated medium parameters used for SAR evaluation!
Maximum value of SAR (measured) = 0.077 mW/g

F3 Face, SYS, Eclipse XL-185P 7/800 Extended w/ LTE, Front Side, ant 4440-02, bat 4010-01, 782 MHz, CW/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm
Reference Value = 4.70 V/m; Power Drift = 0.344 dB
Peak SAR (extrapolated) = 0.099 W/kg
SAR(1 g) = 0.075 mW/g; SAR(10 g) = 0.057 mW/g

Info: Interpolated medium parameters used for SAR evaluation!
Maximum value of SAR (measured) = 0.080 mW/g



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Plot F4

Date/Time: 11/07/2017 2:51:46 PM

Test Laboratory: Celltech Labs

DUT: Harris; Type: PTT Radio Transceiver;
Program Name: 835B

Communication System: Harris-LTE; Frequency: 782 MHz;Duty Cycle: 1:1
Medium parameters used (interpolated): f = 782 MHz; σ = 0.85 mho/m; ε_r = 42.5; ρ = 1000 kg/m^3
Phantom section: Flat Section

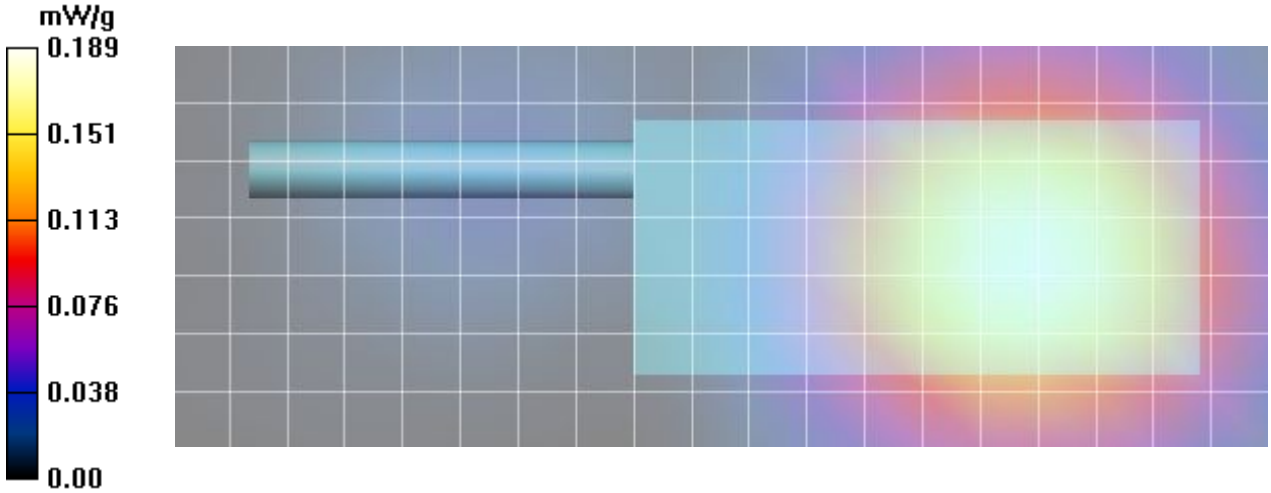
DASY4 Configuration:
- Probe: EX3DV4 - SN3600; ConvF(8.39, 8.39, 8.39); Calibrated: 27/04/2017
- Sensor-Surface: 4mm (Mechanical Surface Detection (Locations From Previous Scan Used))Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn353; Calibrated: 24/04/2017
- Phantom: ELI v5.0; Type: QDOVA002AA; Serial: TP:xxxx
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 145

F4 Face, Scan, Eclipse XL-185P 7/800 Extended w/ LTE, Front Side, ant 4440-02, bat 4010-01, 782 MHz, CW/Area Scan (8x20x1): Measurement grid: dx=15mm, dy=15mm

Info: Interpolated medium parameters used for SAR evaluation!
Maximum value of SAR (measured) = 0.189 mW/g

F4 Face, Scan, Eclipse XL-185P 7/800 Extended w/ LTE, Front Side, ant 4440-02, bat 4010-01, 782 MHz, CW/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm
Reference Value = 3.77 V/m; Power Drift = 0.189 dB
Peak SAR (extrapolated) = 0.231 W/kg
SAR(1 g) = 0.179 mW/g; SAR(10 g) = 0.134 mW/g

Info: Interpolated medium parameters used for SAR evaluation!
Maximum value of SAR (measured) = 0.188 mW/g



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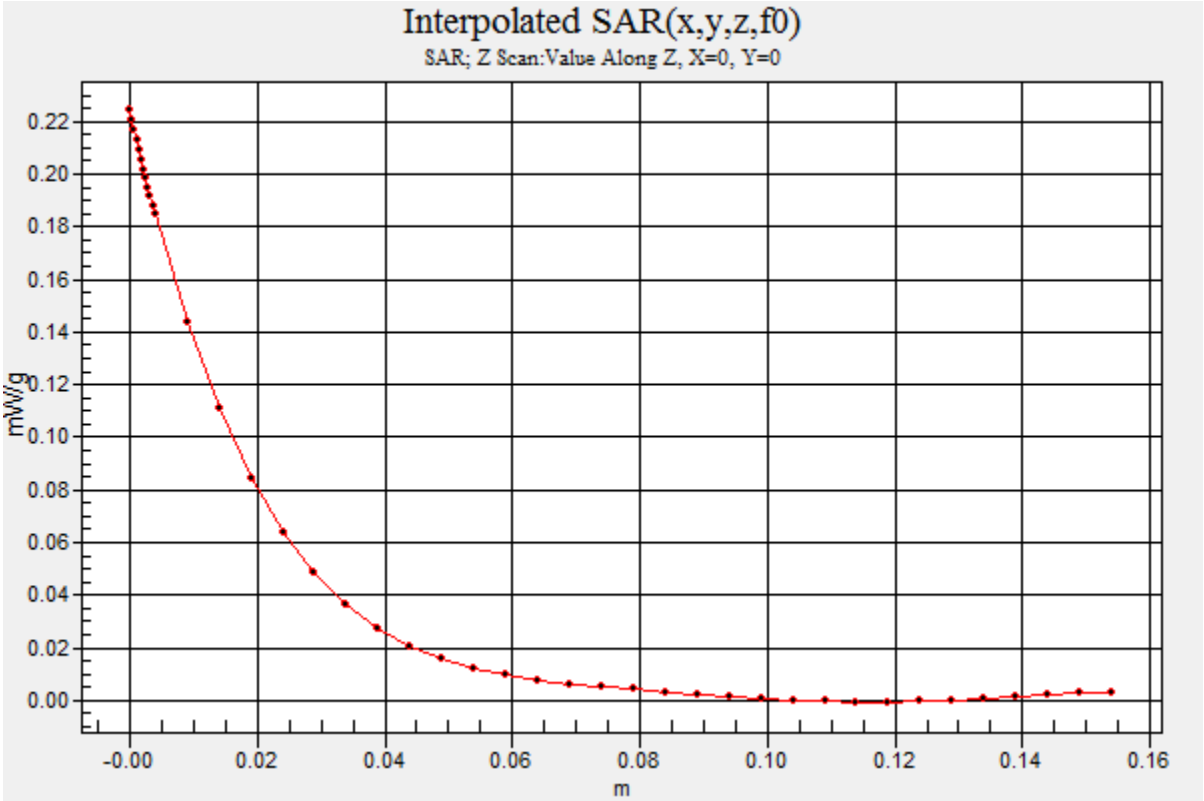

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7/800 Extended - LTE Band 4

Plot F5

Date/Time: 14/07/2017 1:42:11 PM

Test Laboratory: Celltech Labs

DUT: Harris; Type: PTT Radio Transceiver;
Program Name: 1800H

Communication System: Harris-LTE; Frequency: 1732.5 MHz;Duty Cycle: 1:1
Medium parameters used (interpolated): f = 1732.5 MHz; σ = 1.26 mho/m; ε_r = 41; ρ = 1000 kg/m^3
Phantom section: Flat Section

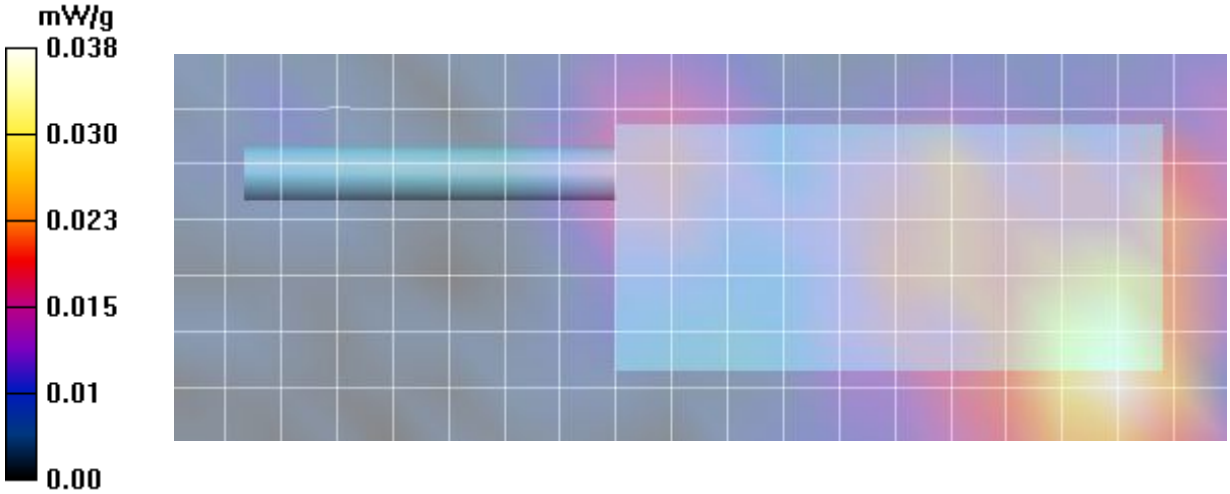
DASY4 Configuration:
- Probe: EX3DV4 - SN3600; ConvF(7.08, 7.08, 7.08); Calibrated: 27/04/2017
- Sensor-Surface: 4mm (Mechanical Surface Detection (Locations From Previous Scan Used))Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn353; Calibrated: 24/04/2017
- Phantom: ELI v5.0; Type: QDOVA002AA; Serial: TP:xxxx
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 145

F5 Face, SYS, Eclipse XL-185P 7/800 Extended w/ LTE,Front Side, ant 4440-02, bat 4010-01, 1732.5 MHz,CW/Area Scan (8x20x1): Measurement grid: dx=15mm, dy=15mm

Info: Interpolated medium parameters used for SAR evaluation!
Maximum value of SAR (measured) = 0.038 mW/g

F5 Face, SYS, Eclipse XL-185P 7/800 Extended w/ LTE,Front Side, ant 4440-02, bat 4010-01, 1732.5 MHz,CW/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm
Reference Value = 3.24 V/m; Power Drift = -0.575 dB
Peak SAR (extrapolated) = 0.056 W/kg
SAR(1 g) = 0.033 mW/g; SAR(10 g) = 0.021 mW/g

Info: Interpolated medium parameters used for SAR evaluation!
Maximum value of SAR (measured) = 0.036 mW/g



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Plot F6

Date/Time: 14/07/2017 1:58:12 PM

Test Laboratory: Celltech Labs

DUT: Harris; Type: PTT Radio Transceiver;
Program Name: 1800H

Communication System: Harris-LTE; Frequency: 1732.5 MHz;Duty Cycle: 1:1
Medium parameters used (interpolated): f = 1732.5 MHz; σ = 1.26 mho/m; ε_r = 41; ρ = 1000 kg/m^3
Phantom section: Flat Section

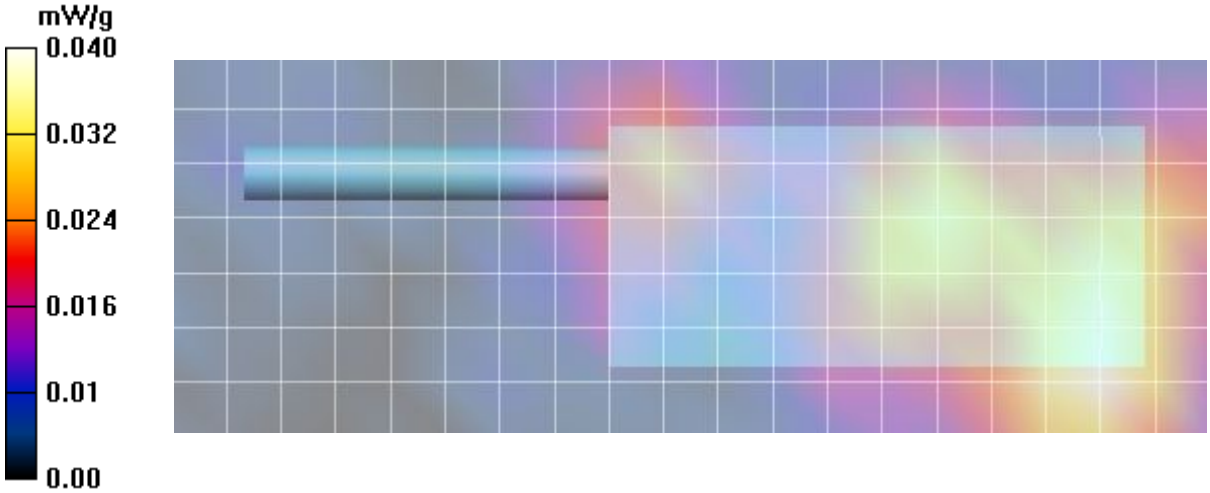
DASY4 Configuration:
- Probe: EX3DV4 - SN3600; ConvF(7.08, 7.08, 7.08); Calibrated: 27/04/2017
- Sensor-Surface: 4mm (Mechanical Surface Detection (Locations From Previous Scan Used))Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn353; Calibrated: 24/04/2017
- Phantom: ELI v5.0; Type: QDOVA002AA; Serial: TP:xxxx
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 145

F6 Face, SCAN, Eclipse XL-185P 7/800 Extended w/ LTE,Front Side, ant 4440-02, bat 4010-01, 1732.5 MHz,CW/Area Scan (8x20x1): Measurement grid: dx=15mm, dy=15mm

Info: Interpolated medium parameters used for SAR evaluation!
Maximum value of SAR (measured) = 0.040 mW/g

F6 Face, SCAN, Eclipse XL-185P 7/800 Extended w/ LTE,Front Side, ant 4440-02, bat 4010-01, 1732.5 MHz,CW/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm
Reference Value = 3.59 V/m; Power Drift = 1.03 dB
Peak SAR (extrapolated) = 0.060 W/kg
SAR(1 g) = 0.037 mW/g; SAR(10 g) = 0.023 mW/g

Info: Interpolated medium parameters used for SAR evaluation!
Maximum value of SAR (measured) = 0.039 mW/g



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UHF - LTE Band 14

Plot F1

Date/Time: 11/07/2017 3:15:31 PM

Test Laboratory: Celltech Labs

DUT: Harris; Type: PTT Radio Transceiver;
Program Name: 835B

Communication System: Harris-LTE; Frequency: 793 MHz;Duty Cycle: 1:1
Medium parameters used (interpolated): f = 793 MHz; σ = 0.866 mho/m; ε_r = 42.2; ρ = 1000 kg/m^3
Phantom section: Flat Section

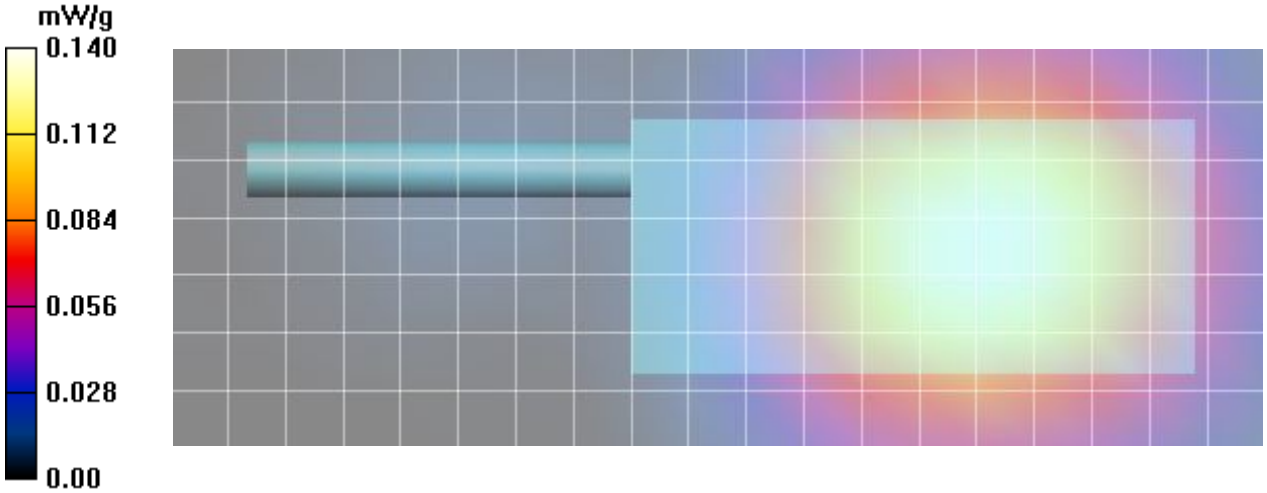
DASY4 Configuration:
- Probe: EX3DV4 - SN3600; ConvF(8.39, 8.39, 8.39); Calibrated: 27/04/2017
- Sensor-Surface: 4mm (Mechanical Surface Detection (Locations From Previous Scan Used))Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn353; Calibrated: 24/04/2017
- Phantom: ELI v5.0; Type: QDOVA002AA; Serial: TP:xxxx
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 145

F1 Face, SYS, Eclipse XL-185P UHF w/ LTE, 793 MHz,w/ base station,ant 4440-02, bat 4010-01/Area Scan (8x20x1):
Measurement grid: dx=15mm, dy=15mm

Info: Interpolated medium parameters used for SAR evaluation!
Maximum value of SAR (measured) = 0.140 mW/g

F1 Face, SYS, Eclipse XL-185P UHF w/ LTE, 793 MHz,w/ base station,ant 4440-02, bat 4010-01/Zoom Scan (5x5x7)/Cube 0:
Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm
Reference Value = 3.27 V/m; Power Drift = 0.937 dB
Peak SAR (extrapolated) = 0.178 W/kg
SAR(1 g) = 0.138 mW/g; SAR(10 g) = 0.103 mW/g

Info: Interpolated medium parameters used for SAR evaluation!
Maximum value of SAR (measured) = 0.144 mW/g



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Plot F2

Date/Time: 11/07/2017 3:30:51 PM

Test Laboratory: Celltech Labs

DUT: Harris; Type: PTT Radio Transceiver;
Program Name: 835B

Communication System: Harris-LTE; Frequency: 793 MHz;Duty Cycle: 1:1
Medium parameters used (interpolated): f = 793 MHz; σ = 0.866 mho/m; ε_r = 42.2; ρ = 1000 kg/m^3
Phantom section: Flat Section

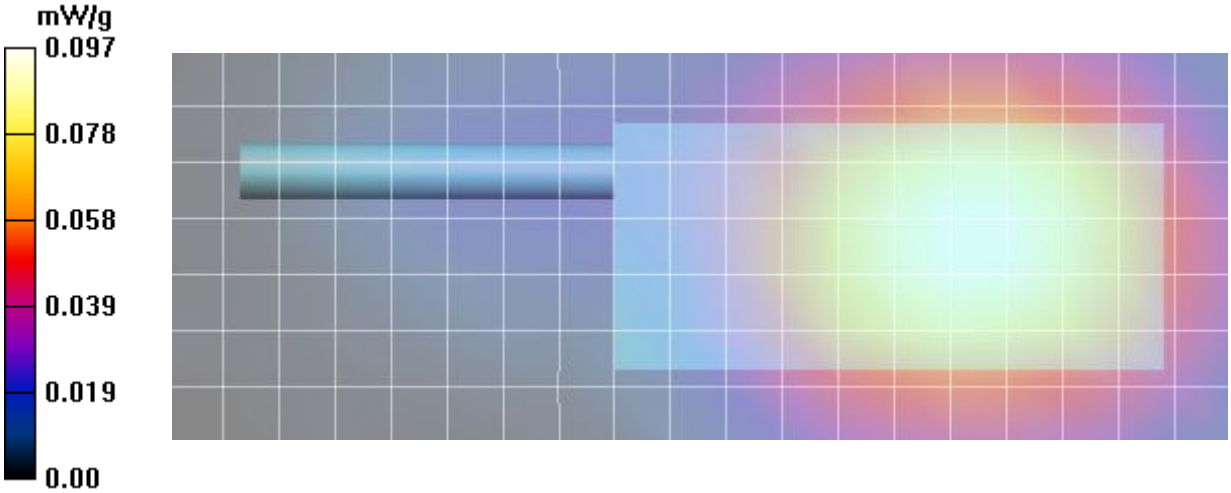
DASY4 Configuration:
- Probe: EX3DV4 - SN3600; ConvF(8.39, 8.39, 8.39); Calibrated: 27/04/2017
- Sensor-Surface: 4mm (Mechanical Surface Detection (Locations From Previous Scan Used))Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn353; Calibrated: 24/04/2017
- Phantom: ELI v5.0; Type: QDOVA002AA; Serial: TP:xxxx
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 145

F2 Face, SCAN, Eclipse XL-185P UHF w/ LTE, 793 MHz,w/ base station ,ant 4440-02, bat 4010-01/Area Scan (8x20x1):
Measurement grid: dx=15mm, dy=15mm

Info: Interpolated medium parameters used for SAR evaluation!
Maximum value of SAR (measured) = 0.097 mW/g

F2 Face, SCAN, Eclipse XL-185P UHF w/ LTE, 793 MHz,w/ base station ,ant 4440-02, bat 4010-01/Zoom Scan (5x5x7)/Cube 0:
Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm
Reference Value = 4.46 V/m; Power Drift = 0.269 dB
Peak SAR (extrapolated) = 0.126 W/kg
SAR(1 g) = 0.095 mW/g; SAR(10 g) = 0.071 mW/g

Info: Interpolated medium parameters used for SAR evaluation!
Maximum value of SAR (measured) = 0.100 mW/g



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UHF - LTE Band 13

Plot F3

Date/Time: 11/07/2017 3:47:48 PM

Test Laboratory: Celltech Labs

DUT: Harris; Type: PTT Radio Transceiver;
Program Name: 835B

Communication System: Harris-LTE; Frequency: 782 MHz;Duty Cycle: 1:1
Medium parameters used (interpolated): f = 782 MHz; σ = 0.85 mho/m; ε_r = 42.5; ρ = 1000 kg/m^3
Phantom section: Flat Section

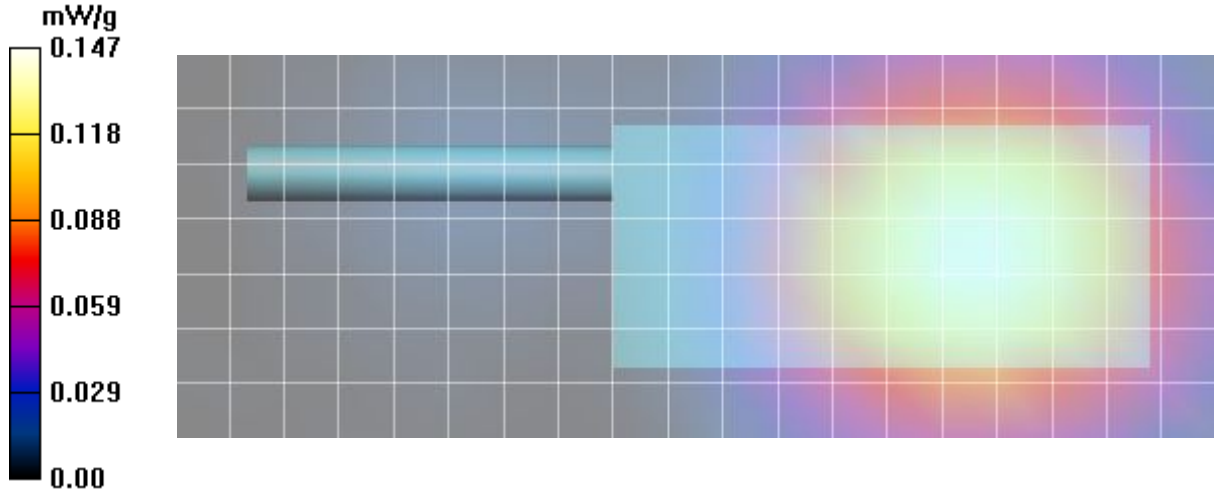
DASY4 Configuration:
- Probe: EX3DV4 - SN3600; ConvF(8.39, 8.39, 8.39); Calibrated: 27/04/2017
- Sensor-Surface: 4mm (Mechanical Surface Detection (Locations From Previous Scan Used))Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn353; Calibrated: 24/04/2017
- Phantom: ELI v5.0; Type: QDOVA002AA; Serial: TP:xxxx
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 145

F3 Face, SYS, Eclipse XL-185P UHF w/ LTE, 782 MHz,ant 4440-02, bat 4010-01/Area Scan (8x20x1): Measurement grid: dx=15mm, dy=15mm

Info: Interpolated medium parameters used for SAR evaluation!
Maximum value of SAR (measured) = 0.147 mW/g

F3 Face, SYS, Eclipse XL-185P UHF w/ LTE, 782 MHz,ant 4440-02, bat 4010-01/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm
Reference Value = 3.18 V/m; Power Drift = 0.760 dB
Peak SAR (extrapolated) = 0.179 W/kg
SAR(1 g) = 0.139 mW/g; SAR(10 g) = 0.104 mW/g

Info: Interpolated medium parameters used for SAR evaluation!
Maximum value of SAR (measured) = 0.146 mW/g



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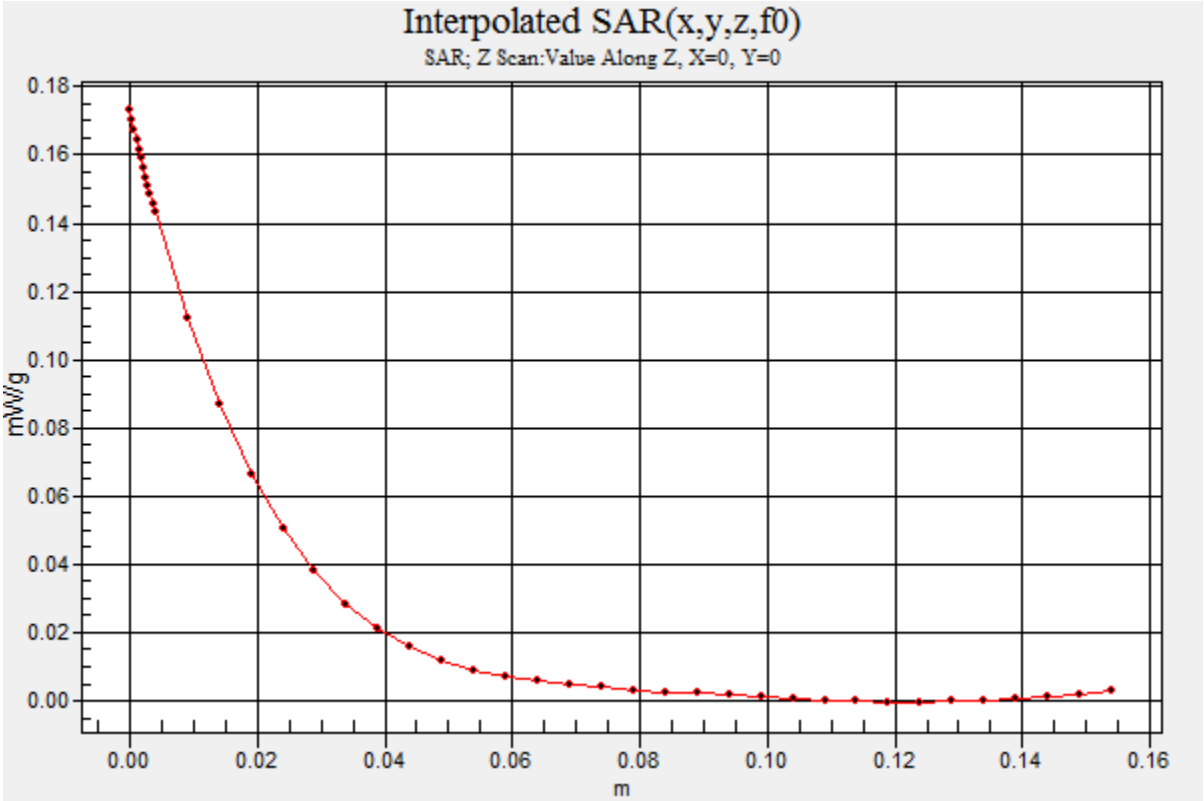

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Plot F4

Date/Time: 11/07/2017 4:05:26 PM

Test Laboratory: Celltech Labs

DUT: Harris; Type: PTT Radio Transceiver;
Program Name: 835B

Communication System: Harris-LTE; Frequency: 782 MHz;Duty Cycle: 1:1
Medium parameters used (interpolated): f = 782 MHz; σ = 0.85 mho/m; ε_r = 42.5; ρ = 1000 kg/m^3
Phantom section: Flat Section

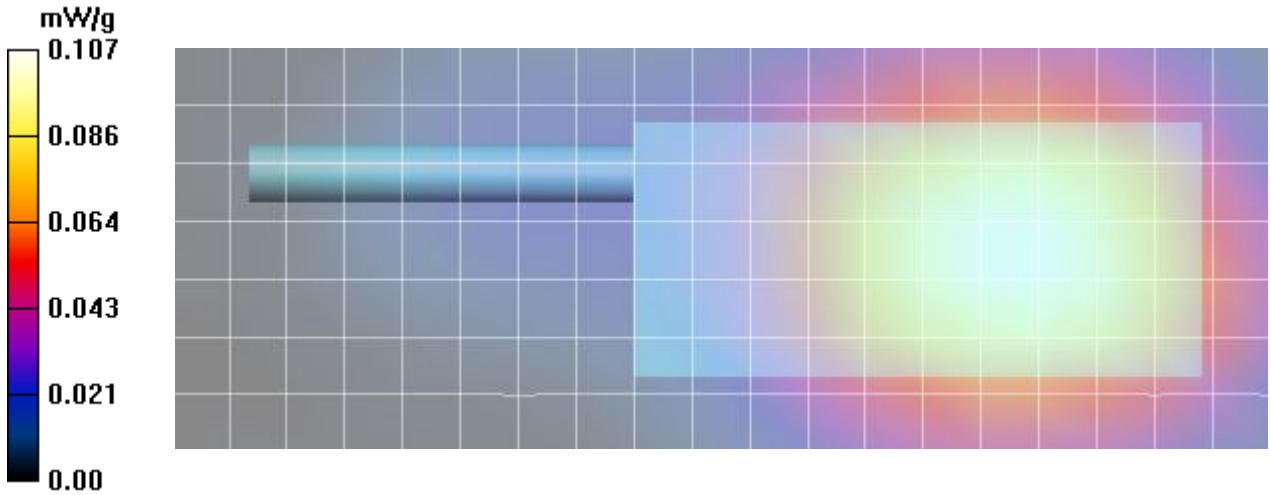
DASY4 Configuration:
- Probe: EX3DV4 - SN3600; ConvF(8.39, 8.39, 8.39); Calibrated: 27/04/2017
- Sensor-Surface: 4mm (Mechanical Surface Detection (Locations From Previous Scan Used))Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn353; Calibrated: 24/04/2017
- Phantom: ELI v5.0; Type: QDOVA002AA; Serial: TP:xxxx
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 145

F4 Face, Scan, Eclipse XL-185P UHF w/ LTE, 782 MHz,ant 4440-02, bat 4010-01/Area Scan (8x20x1): Measurement grid: dx=15mm, dy=15mm

Info: Interpolated medium parameters used for SAR evaluation!
Maximum value of SAR (measured) = 0.107 mW/g

F4 Face, Scan, Eclipse XL-185P UHF w/ LTE, 782 MHz,ant 4440-02, bat 4010-01/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm
Reference Value = 4.81 V/m; Power Drift = 0.151 dB
Peak SAR (extrapolated) = 0.135 W/kg
SAR(1 g) = 0.103 mW/g; SAR(10 g) = 0.077 mW/g

Info: Interpolated medium parameters used for SAR evaluation!
Maximum value of SAR (measured) = 0.110 mW/g



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UHF - LTE Band 4

Plot F5

Date/Time: 14/07/2017 2:22:41 PM

Test Laboratory: Celltech Labs

DUT: Harris; Type: PTT Radio Transceiver;
Program Name: 1800H

Communication System: Harris-LTE; Frequency: 1732.5 MHz;Duty Cycle: 1:1
Medium parameters used (interpolated): f = 1732.5 MHz; σ = 1.26 mho/m; ε_r = 41; ρ = 1000 kg/m^3
Phantom section: Flat Section

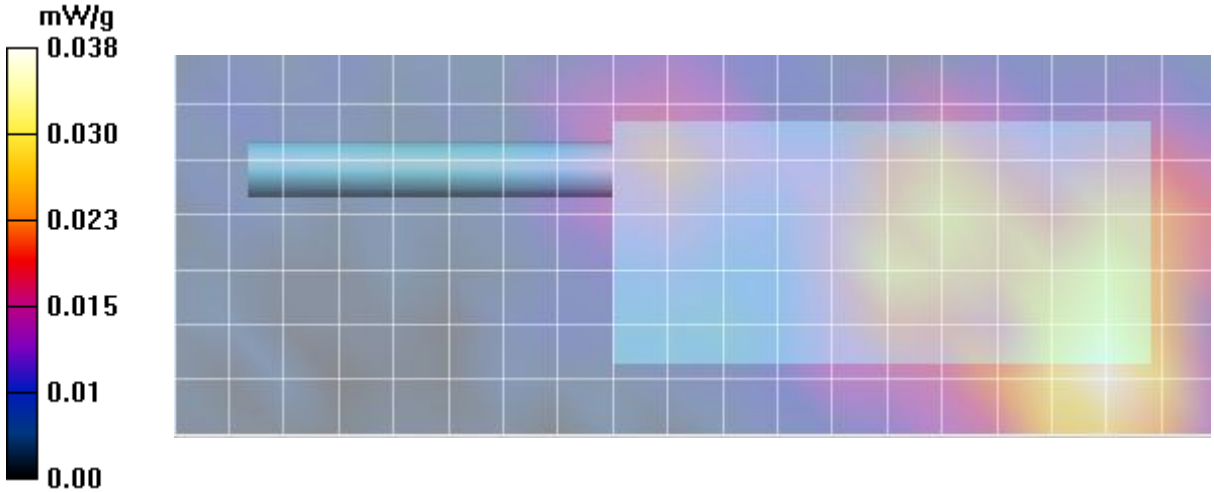
DASY4 Configuration:
- Probe: EX3DV4 - SN3600; ConvF(7.08, 7.08, 7.08); Calibrated: 27/04/2017
- Sensor-Surface: 4mm (Mechanical Surface Detection (Locations From Previous Scan Used))Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn353; Calibrated: 24/04/2017
- Phantom: ELI v5.0; Type: QDOVA002AA; Serial: TP:xxxx
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 145

F5 Face, SYS, Eclipse XL-185P UHF w/ LTE,Front Side, ant 4440-02, bat 4010-01, 1732.5 MHz,CW/Area Scan (8x20x1):
Measurement grid: dx=15mm, dy=15mm

Info: Interpolated medium parameters used for SAR evaluation!
Maximum value of SAR (measured) = 0.038 mW/g

F5 Face, SYS, Eclipse XL-185P UHF w/ LTE,Front Side, ant 4440-02, bat 4010-01, 1732.5 MHz,CW/Zoom Scan (5x5x7)/Cube 0:
Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm
Reference Value = 3.49 V/m; Power Drift = 0.112 dB
Peak SAR (extrapolated) = 0.048 W/kg
SAR(1 g) = 0.031 mW/g; SAR(10 g) = 0.020 mW/g

Info: Interpolated medium parameters used for SAR evaluation!
Maximum value of SAR (measured) = 0.033 mW/g



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Plot F6

Date/Time: 14/07/2017 2:39:57 PM

Test Laboratory: Celltech Labs

DUT: Harris; Type: PTT Radio Transceiver;
Program Name: 1800H

Communication System: Harris-LTE; Frequency: 1732.5 MHz;Duty Cycle: 1:1
Medium parameters used (interpolated): f = 1732.5 MHz; σ = 1.26 mho/m; ε_r = 41; ρ = 1000 kg/m^3
Phantom section: Flat Section

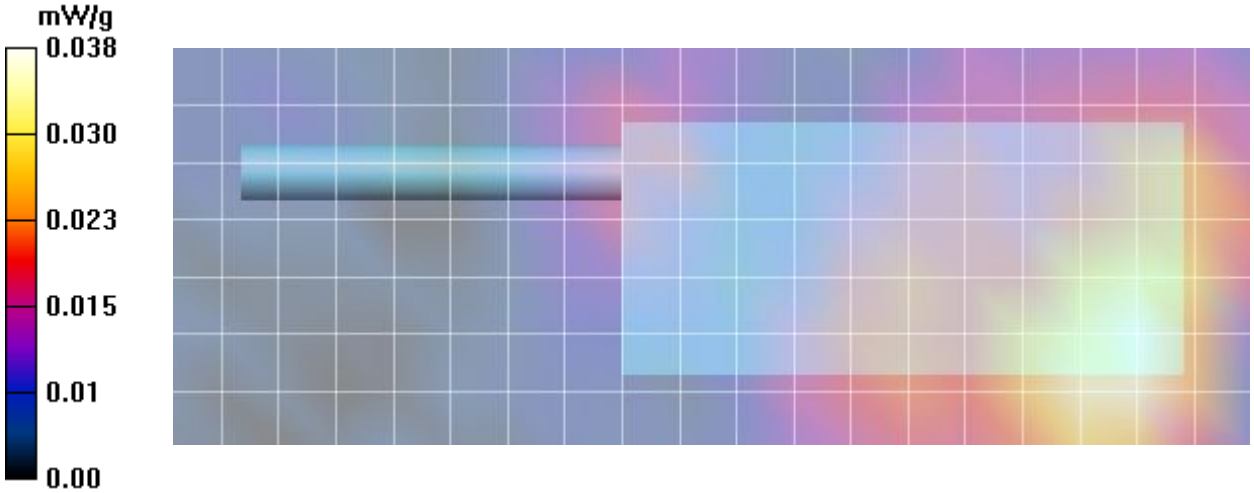
DASY4 Configuration:
- Probe: EX3DV4 - SN3600; ConvF(7.08, 7.08, 7.08); Calibrated: 27/04/2017
- Sensor-Surface: 4mm (Mechanical Surface Detection (Locations From Previous Scan Used))Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn353; Calibrated: 24/04/2017
- Phantom: ELI v5.0; Type: QDOVA002AA; Serial: TP:xxxx
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 145

F6 Face, SCAN, Eclipse XL-185P UHF w/ LTE,Front Side, ant 4440-02, bat 4010-01, 1732.5 MHz,CW/Area Scan (8x20x1):
Measurement grid: dx=15mm, dy=15mm

Info: Interpolated medium parameters used for SAR evaluation!
Maximum value of SAR (measured) = 0.038 mW/g

F6 Face, SCAN, Eclipse XL-185P UHF w/ LTE,Front Side, ant 4440-02, bat 4010-01, 1732.5 MHz,CW/Zoom Scan (5x5x7)/Cube 0:
Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm
Reference Value = 3.21 V/m; Power Drift = 0.763 dB
Peak SAR (extrapolated) = 0.051 W/kg
SAR(1 g) = 0.032 mW/g; SAR(10 g) = 0.020 mW/g

Info: Interpolated medium parameters used for SAR evaluation!
Maximum value of SAR (measured) = 0.035 mW/g



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VHF - LTE Band 14

Plot F1

Date/Time: 11/07/2017 4:27:16 PM

Test Laboratory: Celltech Labs

DUT: Harris; Type: PTT Radio Transceiver;
Program Name: 835B

Communication System: Harris-LTE; Frequency: 793 MHz;Duty Cycle: 1:1
Medium parameters used (interpolated): f = 793 MHz; σ = 0.866 mho/m; ε_r = 42.2; ρ = 1000 kg/m^3
Phantom section: Flat Section

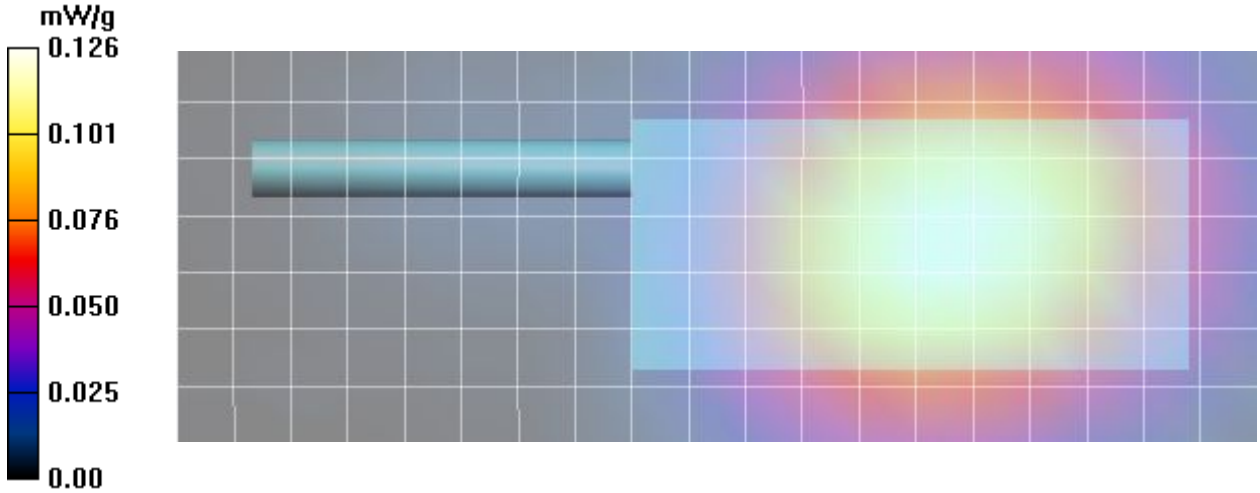
DASY4 Configuration:
- Probe: EX3DV4 - SN3600; ConvF(8.39, 8.39, 8.39); Calibrated: 27/04/2017
- Sensor-Surface: 4mm (Mechanical Surface Detection (Locations From Previous Scan Used))Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn353; Calibrated: 24/04/2017
- Phantom: ELI v5.0; Type: QDOVA002AA; Serial: TP:xxxx
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 145

F1 Face, SYS, Eclipse XL-185P VHF w/ LTE, 793 MHz,w/ base station,ant 4440-02, bat 4010-01/Area Scan (8x20x1):
Measurement grid: dx=15mm, dy=15mm

Info: Interpolated medium parameters used for SAR evaluation!
Maximum value of SAR (measured) = 0.126 mW/g

F1 Face, SYS, Eclipse XL-185P VHF w/ LTE, 793 MHz,w/ base station,ant 4440-02, bat 4010-01/Zoom Scan (5x5x7)/Cube 0:
Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm
Reference Value = 4.34 V/m; Power Drift = 0.190 dB
Peak SAR (extrapolated) = 0.153 W/kg
SAR(1 g) = 0.119 mW/g; SAR(10 g) = 0.090 mW/g

Info: Interpolated medium parameters used for SAR evaluation!
Maximum value of SAR (measured) = 0.125 mW/g



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Plot F2

Date/Time: 11/07/2017 4:42:55 PM

Test Laboratory: Celltech Labs

DUT: Harris; Type: PTT Radio Transceiver;
Program Name: 835B

Communication System: Harris-LTE; Frequency: 793 MHz;Duty Cycle: 1:1
Medium parameters used (interpolated): f = 793 MHz; σ = 0.866 mho/m; ε_r = 42.2; ρ = 1000 kg/m^3
Phantom section: Flat Section

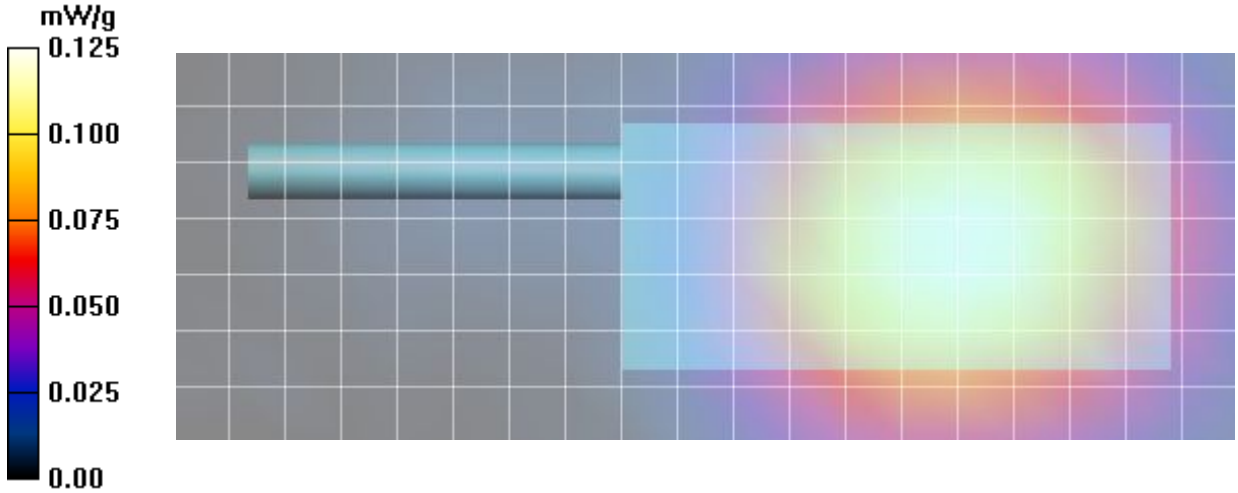
DASY4 Configuration:
- Probe: EX3DV4 - SN3600; ConvF(8.39, 8.39, 8.39); Calibrated: 27/04/2017
- Sensor-Surface: 4mm (Mechanical Surface Detection (Locations From Previous Scan Used))Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn353; Calibrated: 24/04/2017
- Phantom: ELI v5.0; Type: QDOVA002AA; Serial: TP:xxxx
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 145

F2 Face, SCAN, Eclipse XL-185P VHF w/ LTE, 793 MHz,w/ base station ,ant 4440-02, bat 4010-01/Area Scan (8x20x1):
Measurement grid: dx=15mm, dy=15mm

Info: Interpolated medium parameters used for SAR evaluation!
Maximum value of SAR (measured) = 0.125 mW/g

F2 Face, SCAN, Eclipse XL-185P VHF w/ LTE, 793 MHz,w/ base station ,ant 4440-02, bat 4010-01/Zoom Scan (5x5x7)/Cube 0:
Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm
Reference Value = 3.69 V/m; Power Drift = 0.758 dB
Peak SAR (extrapolated) = 0.153 W/kg
SAR(1 g) = 0.120 mW/g; SAR(10 g) = 0.090 mW/g

Info: Interpolated medium parameters used for SAR evaluation!
Maximum value of SAR (measured) = 0.126 mW/g



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VHF - LTE Band 13

Plot F3

Date/Time: 11/07/2017 5:05:14 PM

Test Laboratory: Celltech Labs

DUT: Harris; Type: PTT Radio Transceiver;
Program Name: 835B

Communication System: Harris-LTE; Frequency: 782 MHz;Duty Cycle: 1:1
Medium parameters used (interpolated): f = 782 MHz; σ = 0.85 mho/m; ε_r = 42.5; ρ = 1000 kg/m^3
Phantom section: Flat Section

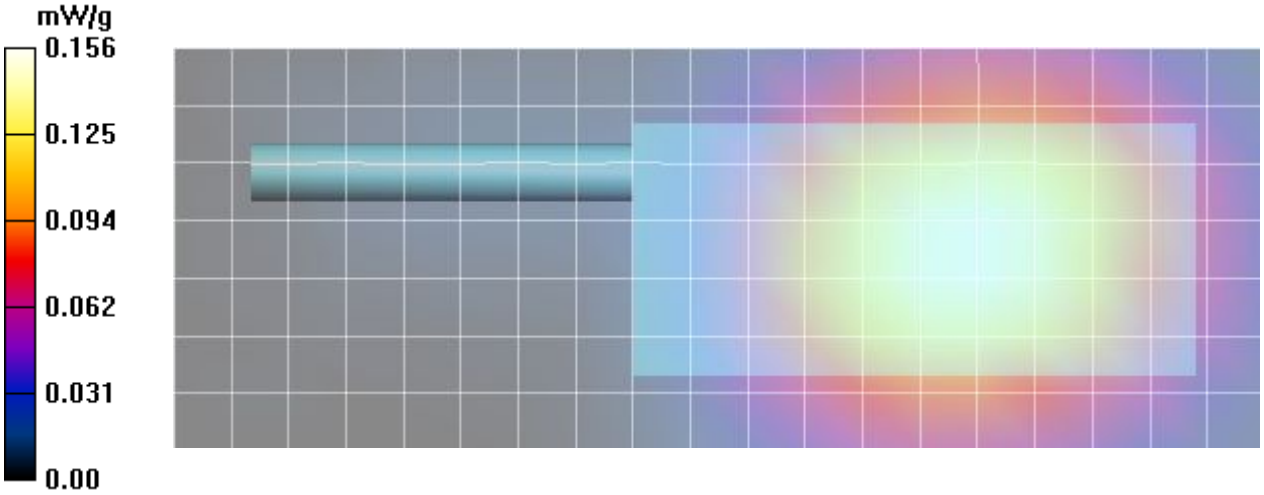
DASY4 Configuration:
- Probe: EX3DV4 - SN3600; ConvF(8.39, 8.39, 8.39); Calibrated: 27/04/2017
- Sensor-Surface: 4mm (Mechanical Surface Detection (Locations From Previous Scan Used))Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn353; Calibrated: 24/04/2017
- Phantom: ELI v5.0; Type: QDOVA002AA; Serial: TP:xxxx
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 145

F3 Face, SYS, Eclipse XL-185P VHF w/ LTE, 782 MHz,ant 4440-02, bat 4010-01/Area Scan (8x20x1): Measurement grid: dx=15mm, dy=15mm

Info: Interpolated medium parameters used for SAR evaluation!
Maximum value of SAR (measured) = 0.156 mW/g

F3 Face, SYS, Eclipse XL-185P VHF w/ LTE, 782 MHz,ant 4440-02, bat 4010-01/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm
Reference Value = 4.47 V/m; Power Drift = 0.090 dB
Peak SAR (extrapolated) = 0.189 W/kg
SAR(1 g) = 0.148 mW/g; SAR(10 g) = 0.112 mW/g

Info: Interpolated medium parameters used for SAR evaluation!
Maximum value of SAR (measured) = 0.157 mW/g



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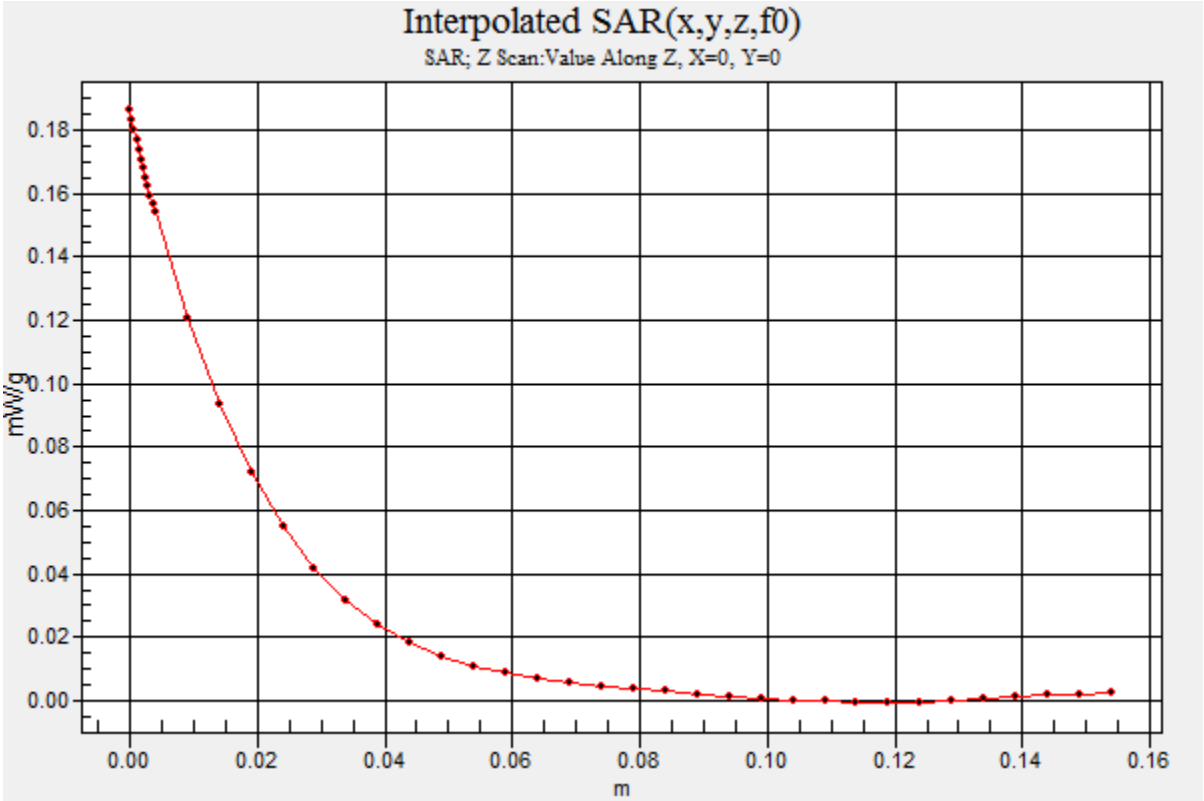

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Plot F4

Date/Time: 11/07/2017 5:31:35 PM

Test Laboratory: Celltech Labs

DUT: Harris; Type: PTT Radio Transceiver;
Program Name: 835B

Communication System: Harris-LTE; Frequency: 782 MHz;Duty Cycle: 1:1
Medium parameters used (interpolated): f = 782 MHz; σ = 0.85 mho/m; ε_r = 42.5; ρ = 1000 kg/m^3
Phantom section: Flat Section

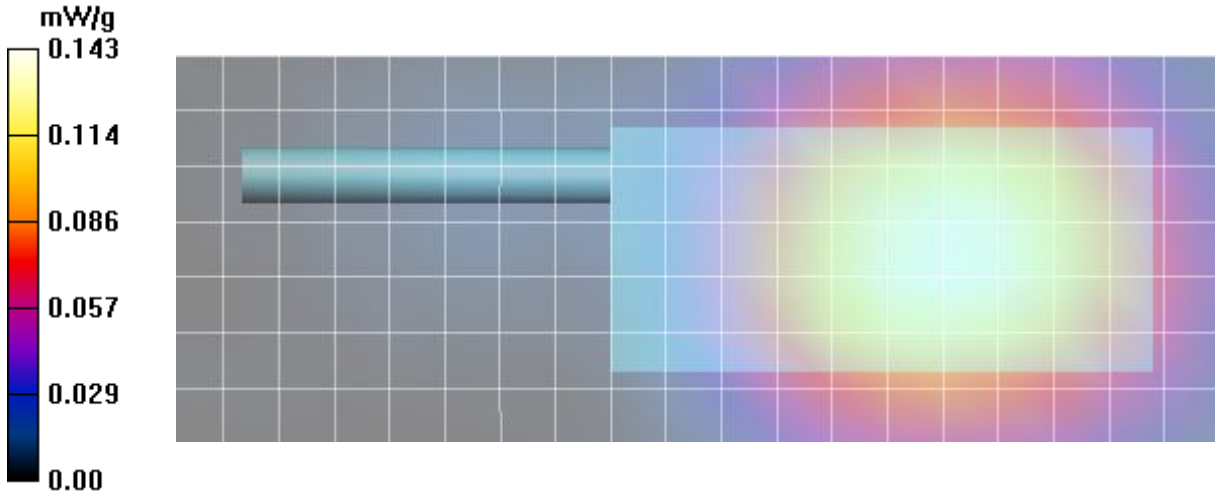
DASY4 Configuration:
- Probe: EX3DV4 - SN3600; ConvF(8.39, 8.39, 8.39); Calibrated: 27/04/2017
- Sensor-Surface: 4mm (Mechanical Surface Detection (Locations From Previous Scan Used))Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn353; Calibrated: 24/04/2017
- Phantom: ELI v5.0; Type: QDOVA002AA; Serial: TP:xxxx
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 145

F4 Face, Scan, Eclipse XL-185P VHF w/ LTE, 782 MHz,ant 4440-02, bat 4010-01/Area Scan (8x20x1): Measurement grid: dx=15mm, dy=15mm

Info: Interpolated medium parameters used for SAR evaluation!
Maximum value of SAR (measured) = 0.143 mW/g

F4 Face, Scan, Eclipse XL-185P VHF w/ LTE, 782 MHz,ant 4440-02, bat 4010-01/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm
Reference Value = 3.95 V/m; Power Drift = 0.128 dB
Peak SAR (extrapolated) = 0.178 W/kg
SAR(1 g) = 0.137 mW/g; SAR(10 g) = 0.103 mW/g

Info: Interpolated medium parameters used for SAR evaluation!



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VHF - LTE Band 4

Plot F5

Date/Time: 14/07/2017 2:57:11 PM

Test Laboratory: Celltech Labs

DUT: Harris; Type: PTT Radio Transceiver;
Program Name: 1800H

Communication System: Harris-LTE; Frequency: 1732.5 MHz;Duty Cycle: 1:1
Medium parameters used (interpolated): f = 1732.5 MHz; σ = 1.26 mho/m; ε_r = 41; ρ = 1000 kg/m^3
Phantom section: Flat Section

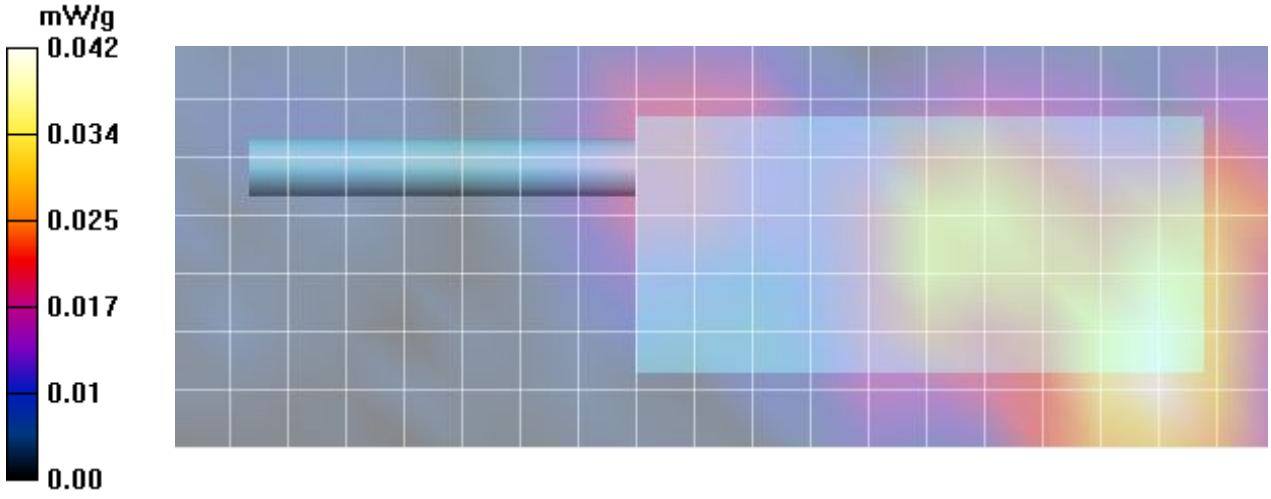
DASY4 Configuration:
- Probe: EX3DV4 - SN3600; ConvF(7.08, 7.08, 7.08); Calibrated: 27/04/2017
- Sensor-Surface: 4mm (Mechanical Surface Detection (Locations From Previous Scan Used))Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn353; Calibrated: 24/04/2017
- Phantom: ELI v5.0; Type: QDOVA002AA; Serial: TP:xxxx
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 145

F5 Face, SYS, Eclipse XL-185P VHF w/ LTE,Front Side, ant 4440-02, bat 4010-01, 1732.5 MHz,CW/Area Scan (8x20x1):
Measurement grid: dx=15mm, dy=15mm

Info: Interpolated medium parameters used for SAR evaluation!
Maximum value of SAR (measured) = 0.042 mW/g

F5 Face, SYS, Eclipse XL-185P VHF w/ LTE,Front Side, ant 4440-02, bat 4010-01, 1732.5 MHz,CW/Zoom Scan (5x5x7)/Cube 0:
Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm
Reference Value = 3.20 V/m; Power Drift = 0.832 dB
Peak SAR (extrapolated) = 0.057 W/kg
SAR(1 g) = 0.038 mW/g; SAR(10 g) = 0.024 mW/g

Info: Interpolated medium parameters used for SAR evaluation!
Maximum value of SAR (measured) = 0.041 mW/g



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Plot F6

Date/Time: 14/07/2017 3:11:56 PM

Test Laboratory: Celltech Labs

DUT: Harris; Type: PTT Radio Transceiver;

Program Name: 1800H

Communication System: Harris-LTE; Frequency: 1732.5 MHz;Duty Cycle: 1:1
Medium parameters used (interpolated): f = 1732.5 MHz; σ = 1.26 mho/m; ε_r = 41; ρ = 1000 kg/m^3
Phantom section: Flat Section

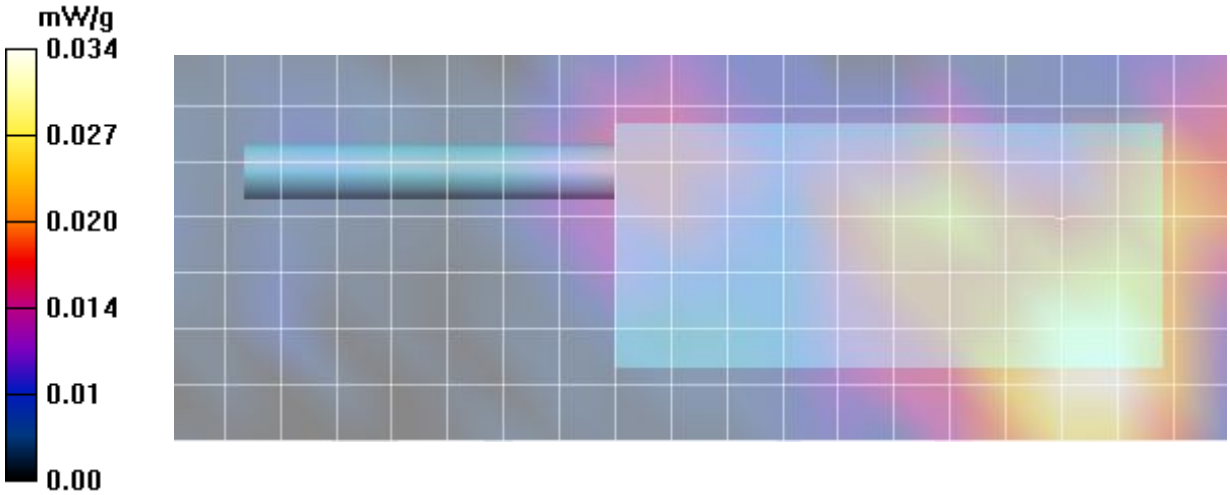
DASY4 Configuration:
- Probe: EX3DV4 - SN3600; ConvF(7.08, 7.08, 7.08); Calibrated: 27/04/2017
- Sensor-Surface: 4mm (Mechanical Surface Detection (Locations From Previous Scan Used))Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn353; Calibrated: 24/04/2017
- Phantom: ELI v5.0; Type: QDOVA002AA; Serial: TP:xxxx
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 145

F6 Face, SCAN, Eclipse XL-185P VHF w/ LTE,Front Side, ant 4440-02, bat 4010-01, 1732.5 MHz,CW/Area Scan (8x20x1):
Measurement grid: dx=15mm, dy=15mm

Info: Interpolated medium parameters used for SAR evaluation!
Maximum value of SAR (measured) = 0.034 mW/g

F6 Face, SCAN, Eclipse XL-185P VHF w/ LTE,Front Side, ant 4440-02, bat 4010-01, 1732.5 MHz,CW/Zoom Scan (5x5x7)/Cube 0:
Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm
Reference Value = 2.89 V/m; Power Drift = 0.669 dB
Peak SAR (extrapolated) = 0.054 W/kg
SAR(1 g) = 0.031 mW/g; SAR(10 g) = 0.019 mW/g

Info: Interpolated medium parameters used for SAR evaluation!
Maximum value of SAR (measured) = 0.033 mW/g



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