Appendix I. SPLSR criteria

SAR to Peak Location Separation Ratio (SPLSR)

KDB 447498 D01 General RF Exposure Guidance explains how to calculate the SAR to Peak Location Ratio (SPLSR) between pairs of simultaneously transmitting antennas:

$$SPLSR = (SAR_1 + SAR_2)^{1.5} / Ri$$

Where:

SAR_1 is the highest reported or estimated SAR for the first of a pair of simultaneous transmitting antennas, in a specific test operating mode and exposure condition

SAR_2 is the highest reported or estimated SAR for the second of a pair of simultaneous transmitting antennas, in the same test operating mode and exposure condition as the first

Ri is the separation distance between the pair of simultaneous transmitting antennas. When the SAR is measured, for both antennas in the pair, it is determined by the actual x, y and z coordinates in the 1-g SAR for each SAR peak location, based on the extrapolated and interpolated result in the zoom scan measurement, using the formula of

square root of $[(x_1-x_2)^2 + (y_1-y_2)^2 + (z_1-z_2)^2]$

In order for a pair of simultaneous transmitting antennas with the sum of 1-g SAR > 1.6 W/kg to qualify for exemption from Simultaneous Transmission SAR measurements, it has to satisfy the condition of:

$$(SAR_1 + SAR_2)^{1.5} / Ri \leq 0.04$$

When an individual antenna transmits at on two bands simultaneously, the sum of the highest *reported* SAR for the frequency bands should be used to determine SAR_1.or SAR_2. When SPLSR is necessary, the smallest distance between the peak SAR locations for the antenna pair with respect to the peaks from each antenna should be used.

The antennas in all antenna pairs that do not qualify for simultaneous transmission SAR test exclusion must be tested for SAR compliance, according to the enlarged zoom scan and volume scan post-processing procedures in KDB Publication 865664 D01

The antennas for the unlicensed transmitters are closely situated. As a result, the associated SAR hotspots are also closely situated. Some of the sum of SAR calculations yielded results over 1.6 W/kg. The SPSLR calculations for these situations were performed by treating the unlicensed SAR values as a single transmitter. The most conservative distance between all the unlicensed hotspots to the licensed hotspot was used for the value of *d* in the SPSLR calculation.

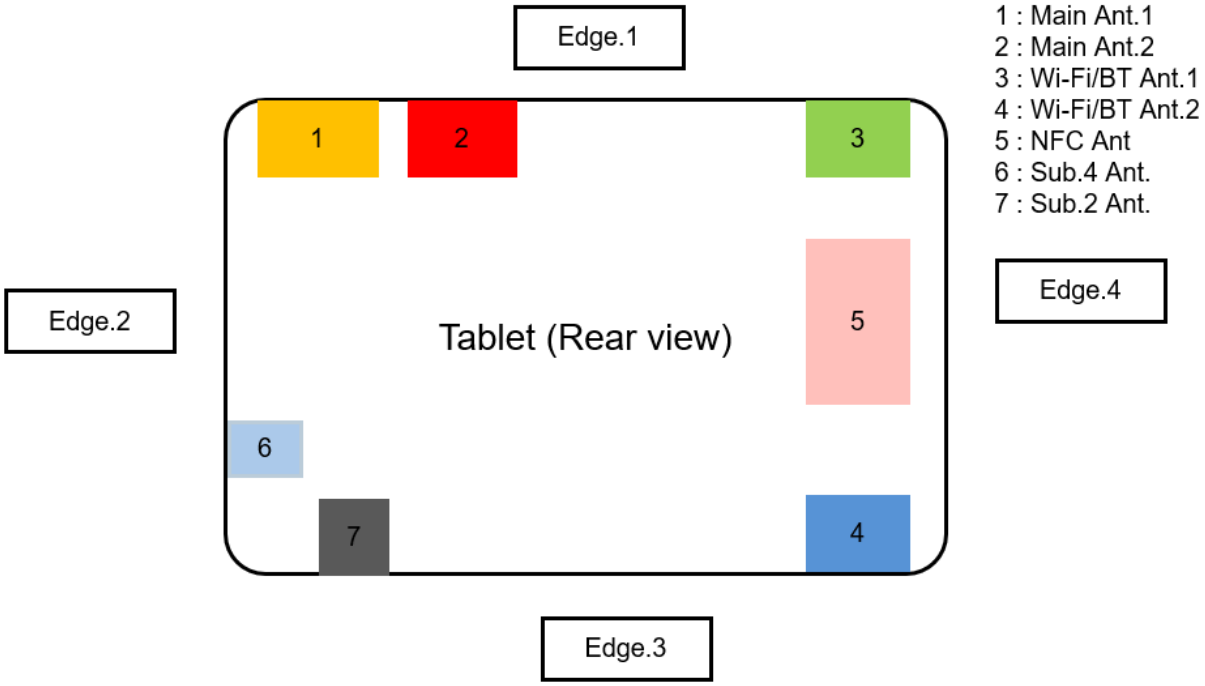
Sum to Peak Location Separation Ratio

According to TCB workshop note, Instead of doing a small volume scan over a co-located antenna pair (Hybrid SPLSR guide), Simultaneous transmission SAR test exclusion may algebraically sum the SAR values of the co-located pair and use that value in SPLSR calculation;

-In the calculation Separation distance must use the minimum distance between the spatially separated antenna and the closest antenna of the co-located antenna pair to be conservative.

1. Peak SAR location in each WWAN & WLAN & BT & NFC in Rear position

According to Antenna location of Rear side, WWAN(Main Ant.1 & Main Ant.2 & Sub.4 Ant. & Sub.2 Ant.) and "WLAN & BT & NFC" are far enough apart. So First SPLSR criteria performed for each pair combination of "WLAN & BT & NFC" according to simultaneous transmission scenarios, and then SPLSR criteria performed at the closet distance between WWAN and one of "WWAN & WLAN & BT & NFC. If each pair has meet SPLSR criteria, Volume scan test is not required.



Note(s):

Each Ant & Bands' SAR distribution & Peak location are refer to Figures.

1.1 SPLSR criteria of WLAN & BT& NFC according to Simultaneous transmission scenarios

WLAN & BT & NFC Reported SAR & Peak SAR location

1	DTS Ant.2		Figure	2	DTS MIMO		Figure	3	UNII Ant.2		Figure	4	UNII MIMO		Figure	5	BT Ant.1		Figure	6	BT Ant.2		Figure	7	NFC		Figure
Reported SAR (W/kg)	SAR location (mm)			Reported SAR (W/kg)	SAR location (mm)			Reported SAR (W/kg)	SAR location (mm)			Reported SAR (W/kg)	SAR location (mm)			Reported SAR (W/kg)	SAR location (mm)			Reported SAR (W/kg)	SAR location (mm)			Reported SAR (W/kg)	SAR location (mm)		
	X-axis	Y-axis			X-axis	Y-axis			X-axis	Y-axis			X-axis	Y-axis			X-axis	Y-axis			X-axis	Y-axis			X-axis	Y-axis	
0.541	82.0	95.2	1	0.760	77.2	96.4	2	0.937	75.0	101.0	3	1.119	-75.0	95.0	4	0.440	-75.0	90.2	5	0.773	84.4	93.2	6	0.075	-25.5	106.7	7

4 + 5	UNII MIMO + BT Ant.1		Figure
Sum SAR (W/kg)	SAR location (mm)		
	X-axis	Y-axis	
1.559	-75.0	95.0	8

SPLSR criteria of Simultaneous transmission scenarios

Simultaneous transmission scenarios		Sum of SAR (W/kg)	Calculated Distance (mm)	1-g SPLSR (=<0.04) or 10-g SPSLR (=<0.10)	Volume Scan (Yes/No)	Note.	Figure
Case.1	(1+4+5+7) (4+5+7)	2.175				1	9
	1+(4+5)	2.100	157.0	0.02	No		
	1+7	0.616	108.1	0.00	No		
	(4+5)+7	1.634	50.9	0.04	No		
Case.2	(1+5+7) (5+7)	1.056					10
	1+5	0.981	157.1	0.01	No		
	1+7	0.616	108.1	0.00	No		
	5+7	0.515	52.2	0.01	No		
Case.3	4+6+7 (4+7) (6+7)	1.967					11
	4+6	1.892	159.4	0.02	No		
	4+7	1.194	50.9	0.03	No		
	6+7	0.848	110.7	0.01	No		
Case.4	2+4+7 (2+7)	1.954					12
	2+4	1.879	152.2	0.02	No		
	2+7	0.835	103.2	0.01	No		
	4+7	1.194	50.9	0.03	No		
Case.5	3+7	1.012	100.7	0.01	No		13

Note(s):

1. For UNII MIMO + BT Ant.1, Both Peak SAR are located close to each other. So SUM-SPLSR procedure apply to this scenario.
2. Some Simultaneous transmission scenarios are subset of other Simultaneous transmission scenarios.
3. According to SPLSR results of each pair, WWAN & BT & NFC combination are meet SPLSR criteria.

1.2 SPLSR criteria of WWAN and one of "WLAN & BT& NFC" according to Simultaneous transmission scenarios

According to Peak SAR location results, BT Ant.1 is closet distance with WWAN Antennas in Main 1 Ant. & Main 2 Ant. So The location was used for SPLSR criteria of Main bands. And For conservative SPLSR criteria, the highest Reported SAR value among "WLAN & BT & NFC" were used.

Main Ant.1 & Main Ant.2

WWAN Bands	Antenna	Reported SAR (W/kg)	SAR location (mm)		Figure	WLAN/BT/NFC Combinations	Closet Antenna	Reported SAR (W/kg)	SAR location (mm)		SUM of SAR (W/kg)	Calculated Distance (mm)	1-g SPLSR (=<0.04) or 10-g SPSLR (=<0.10)	Volume Scan (Yes/No)
			X-axis	Y-axis					X-axis	Y-axis				
WCDMA Band II	Main 1 Ant.	0.788	-80.5	-88.5	14	UNII MIMO + BT Ant.1	BT Ant.1	1.559	-75.0	90.2	2.347	178.8	0.02	No
WCDMA Band IV	Main 1 Ant.	0.948	-78.4	-87.7	15	UNII MIMO + BT Ant.1	BT Ant.1	1.559	-75.0	90.2	2.507	177.9	0.02	No
WCDMA Band V	Main 1 Ant.	0.389	-65.5	-90.0	16	UNII MIMO + BT Ant.1	BT Ant.1	1.559	-75.0	90.2	1.948	180.5	0.02	No
LTE Band 5	Main 1 Ant.	0.531	-67.0	-88.5	17	UNII MIMO + BT Ant.1	BT Ant.1	1.559	-75.0	90.2	2.090	178.9	0.02	No
LTE Band 7	Main 2 Ant.	1.087	-78.0	-52.8	18	UNII MIMO + BT Ant.1	BT Ant.1	1.559	-75.0	90.2	2.646	143.0	0.03	No
LTE Band 12	Main 1 Ant.	0.232	-82.0	-75.7	19	UNII MIMO + BT Ant.1	BT Ant.1	1.559	-75.0	90.2	1.791	166.0	0.01	No
LTE Band 13	Main 1 Ant.	0.347	-64.0	-91.5	20	UNII MIMO + BT Ant.1	BT Ant.1	1.559	-75.0	90.2	1.906	182.0	0.01	No
LTE Band 14	Main 1 Ant.	0.459	-67.0	-90.0	21	UNII MIMO + BT Ant.1	BT Ant.1	1.559	-75.0	90.2	2.018	180.4	0.02	No
LTE Band 25	Main 1 Ant.	1.103	-78.0	-88.5	22	UNII MIMO + BT Ant.1	BT Ant.1	1.559	-75.0	90.2	2.662	178.7	0.02	No
LTE Band 26	Main 1 Ant.	0.364	-65.5	-93.0	23	UNII MIMO + BT Ant.1	BT Ant.1	1.559	-75.0	90.2	1.923	183.4	0.01	No
LTE Band 41	Main 2 Ant.	1.041	-79.0	-55.8	24	UNII MIMO + BT Ant.1	BT Ant.1	1.559	-75.0	90.2	2.600	146.1	0.03	No
LTE Band 48	Main 2 Ant.	0.438	-68.8	-56.2	25	UNII MIMO + BT Ant.1	BT Ant.1	1.559	-75.0	90.2	1.997	146.5	0.02	No
LTE Band 66	Main 1 Ant.	1.116	-73.7	-84.8	26	UNII MIMO + BT Ant.1	BT Ant.1	1.559	-75.0	90.2	2.675	175.0	0.02	No
LTE Band 71	Main 1 Ant.	0.277	-66.1	-84.8	27	UNII MIMO + BT Ant.1	BT Ant.1	1.559	-75.0	90.2	1.836	175.2	0.01	No
NR Band n5	Main 1 Ant.	0.575	-73.0	-96.5	28	UNII MIMO + BT Ant.1	BT Ant.1	1.559	-75.0	90.2	2.134	186.7	0.02	No
NR Band n25	Main 1 Ant.	1.039	-78.4	-87.7	29	UNII MIMO + BT Ant.1	BT Ant.1	1.559	-75.0	90.2	2.598	177.9	0.02	No
NR Band n41	Main 2 Ant.	0.879	-69.6	-51.0	30	UNII MIMO + BT Ant.1	BT Ant.1	1.559	-75.0	90.2	2.438	141.3	0.03	No
NR Band n66	Main 1 Ant.	1.015	-85.0	-87.0	31	UNII MIMO + BT Ant.1	BT Ant.1	1.559	-75.0	90.2	2.574	177.5	0.02	No
NR Band n71	Main 1 Ant.	0.284	-71.4	-73.8	32	UNII MIMO + BT Ant.1	BT Ant.1	1.559	-75.0	90.2	1.843	164.0	0.02	No
NR Band n77-SRS0	Main 2 Ant.	0.874	-71.8	-54.6	33	UNII MIMO + BT Ant.1	BT Ant.1	1.559	-75.0	90.2	2.433	144.8	0.03	No

According to Peak SAR location results, BT Ant.2 is closet distance with WWAN Antennas in SRS.4 Ant & SRS.2 Ant. So The location was used for SPLSR criteria of Main bands. And For conservative SPLSR criteria, the highest Reported SAR value among "WLAN & BT & NFC" were used.

Sub.4 Ant & Sub.2 Ant

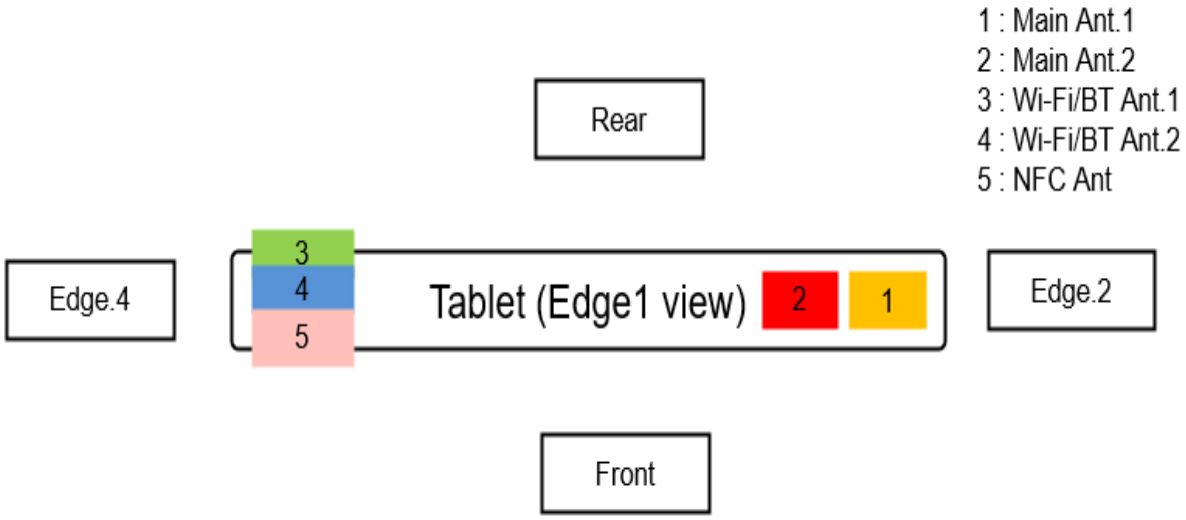
WWAN Bands	Antenna	Reported SAR (W/kg)	SAR location (mm)		Figure	WLAN/BT/NFC Combinations	Closet Antenna	Reported SAR (W/kg)	SAR location (mm)		SUM of SAR (W/kg)	Calculated Distance (mm)	1-g SPLSR (=<0.04) or 10-g SPSLR (=<0.10)	Volume Scan (Yes/No)
			X-axis	Y-axis					X-axis	Y-axis				
NR Band n77-SRS1	Sub 4 Ant.	1.092	58.2	-112.0	34	UNII MIMO + BT Ant.1	BT Ant.2	1.559	84.4	93.2	2.651	206.9	0.02	No
NR Band n77-SRS3	Sub.2 Ant.	1.015	66.6	-91.8	35	UNII MIMO + BT Ant.1	BT Ant.2	1.559	84.4	93.2	2.574	185.9	0.02	No

Note(s):

1. According to SPLSR results of each pair, WWAN and "WLAN & BT & NFC" combination are meet SPLSR criteria.

2. Peak SAR location in each WWAN & WLAN & BT & NFC in Edge 1 position

According to Antenna location of Edge 1 side, WWAN and “WLAN & BT & NFC” are far enough apart. So Firstly SPLSR criteria perform for each pair combination of “WLAN & BT & NFC” according to simultaneous transmission scenarios, But Wi-Fi/BT Ant.1 & WiFi/BT Ant.2 & NFC are located close to each other in Edge.1 side. Therefore, Sum to Peak Location Separation Ratio procedure is apply to “WLAN & BT & NFC” according to simultaneous transmission scenarios. and then SPLSR criteria performed at the closet distance between WWAN and one of “WWAN & WLAN & BT & NFC. If each pair has meet SPLSR criteria, Volume scan test is not required.



Note(s):

Each Ant & Bands’ SAR distribution & Peak location are refer to Figures.

2.1 WWAN band's peak SAR locations & WLAN & BT & NFC's peak SAR locations

WWAN bands

Antenna	WWAN Bands	Reported SAR (W/kg)	SAR location (mm)		Figure	Highest Reported SAR (W/kg)	mimimum SAR location (mm)	
			X-axis	Y-axis			X-axis	Y-axis
Main Ant.1	WCDMA Band II	0.792	-4.5	82.5	36	1.132	-5.5	79.5
	WCDMA Band IV	0.885	-4.5	82.5	37			
	LTE Band 25	1.132	-5.5	79.5	38			
	LTE Band 66	1.099	0.0	85.5	39			
	NR Band n25	0.889	-4.5	80.5	40			
	NR Band n66	0.992	-4.5	84.5	41			
Main Ant.2	LTE Band 7	0.621	-7.2	96.6	42	0.621	-2.4	13.8
	LTE Band 41	0.344	-2.4	30.0	43			
	LTE Band 48	0.241	0.0	38.2	44			
	NR Band n41	0.418	-2.4	13.8	45			
	NR Band n77-SRS0	0.563	2.4	71.6	46			

WLAN & BT & NFC

WLAN/BT/NFC Standalone	Reported SAR (W/kg)	SAR location (mm)		Figure
		X-axis	Y-axis	
DTS Ant.2	0.001	5.0	-95.8	47
DTS MIMO	0.202	1.2	-94.8	48
UNII MIMO	1.170	3.0	-85.0	49
BT Ant.1	0.162	-1.2	-61.2	50
BT Ant.2	0.001	6.0	-96.0	51
NFC	0.000	N/A	N/A	

WLAN/BT/NFC combinations	SUM SAR (W/kg)	Mimimum SAR location (mm)		Figure
		X-axis	Y-axis	
DTS MIMO + NFC	0.202	1.2	-94.8	48
UNII MIMO + NFC	1.170	3.0	-85.0	49
BT Ant.1 + NFC	0.162	-1.2	-61.2	50
BT Ant.2 + NFC	0.001	6.0	-96.0	54
DTS Ant.2 + BT Ant.1 + NFC	0.163	-1.2	-61.2	52
UNII MIMO + BT Ant.1 + NFC	1.332	-1.2	-61.2	53
UNII MIMO + BT Ant.2 + NFC	1.171	3.0	-85.0	54
DTS MIMO + UNII MIMO + NFC	1.372	3.0	-85.0	55
DTS Ant.2 + UNII MIMO + BT Ant.1 + NFC	1.333	3.0	-85.0	56

Note(s):

For Minimum SAR location, The smallest distance between "WWAN" and "WLAN&BT&NFC" was applied, respectively.

2.2 SPLSR criteria of WWAN and one of "WLAN & BT& NFC" according to Simultaneous transmission scenarios

For SPLSR criteria of both WWAN and "WLAN & BT & NFC" according to simultaneous transmission scenarios, The highest Reported SAR value and the minimum distance were determined from the reported SAR values and locations of the supported bands of each Main 1 Ant and Main 2 Ant respectively, and then SPLSR criteria performed.

Antenna	Highest Reported SAR (W/kg)	Minimum SAR location (mm)		WLAN/BT/NFC combinations	SUM SAR (W/kg)	Minimum SAR location (mm)		SUM of SAR (W/kg)	Calculated Distance (mm)	1-g SPLSR (=<0.04) or 10-g SPSLR (=<0.10)	Volume Scan (Yes/No)
		X-axis	Y-axis			X-axis	Y-axis				
Main Ant.1	1.132	-5.5	79.5	UNII MIMO + NFC	1.170	3.0	-85.0	2.302	164.7	0.02	No
Main Ant.1	1.132	-5.5	79.5	UNII MIMO + BT Ant.1 + NFC	1.332	-1.2	-61.2	2.464	140.8	0.03	No
Main Ant.1	1.132	-5.5	79.5	UNII MIMO + BT Ant.2 + NFC	1.171	3.0	-85.0	2.303	164.7	0.02	No
Main Ant.1	1.132	-5.5	79.5	DTS MIMO + UNII MIMO + NFC	1.372	3.0	-85.0	2.504	164.7	0.02	No
Main Ant.1	1.132	-5.5	79.5	DTS Ant.2 + UNII MIMO + BT Ant.1 + NFC	1.333	3.0	-85.0	2.465	164.7	0.02	No
Main Ant.2	0.621	-2.4	13.8	UNII MIMO + NFC	1.170	3.0	-85.0	1.791	98.9	0.02	No
Main Ant.2	0.621	-2.4	13.8	UNII MIMO + BT Ant.1 + NFC	1.332	-1.2	-61.2	1.953	75.0	0.04	No
Main Ant.2	0.621	-2.4	13.8	UNII MIMO + BT Ant.2 + NFC	1.171	3.0	-85.0	1.792	98.9	0.02	No
Main Ant.2	0.621	-2.4	13.8	DTS MIMO + UNII MIMO + NFC	1.372	3.0	-85.0	1.993	98.9	0.03	No
Main Ant.2	0.621	-2.4	13.8	DTS Ant.2 + UNII MIMO + BT Ant.1 + NFC	1.333	3.0	-85.0	1.954	98.9	0.03	No

Note(s):

According to SPLSR results of each pair, WWAN and "WLAN & BT & NFC" combination are meet SPLSR criteria.

Conclusion:

Simultaneous Transmission SAR analysis results is satisfied the FCC Limit requirement according to follow procedures with "SPLSR or "Sum-Peak Location Separation Ratio"

Figure (1)

Reported SAR (W/kg)	0.541	Peak SAR location (mm)	
		X-axis	Y-axis
		82.0	95.2

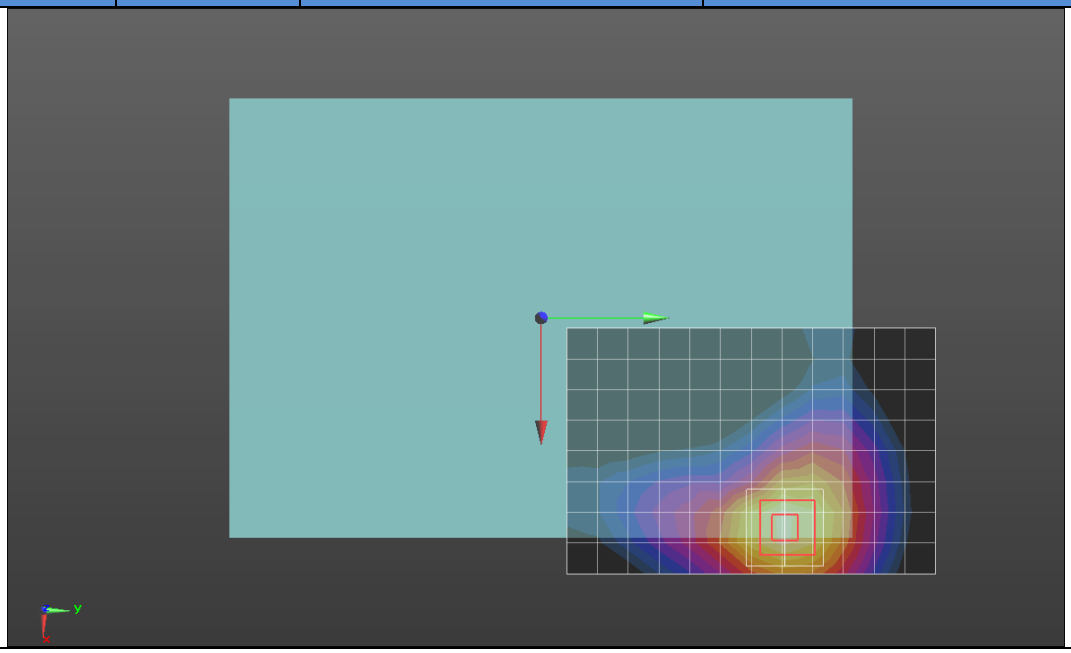


Figure (2)

Reported SAR (W/kg)	0.760	Peak SAR location (mm)	
		X-axis	Y-axis
		77.2	96.4

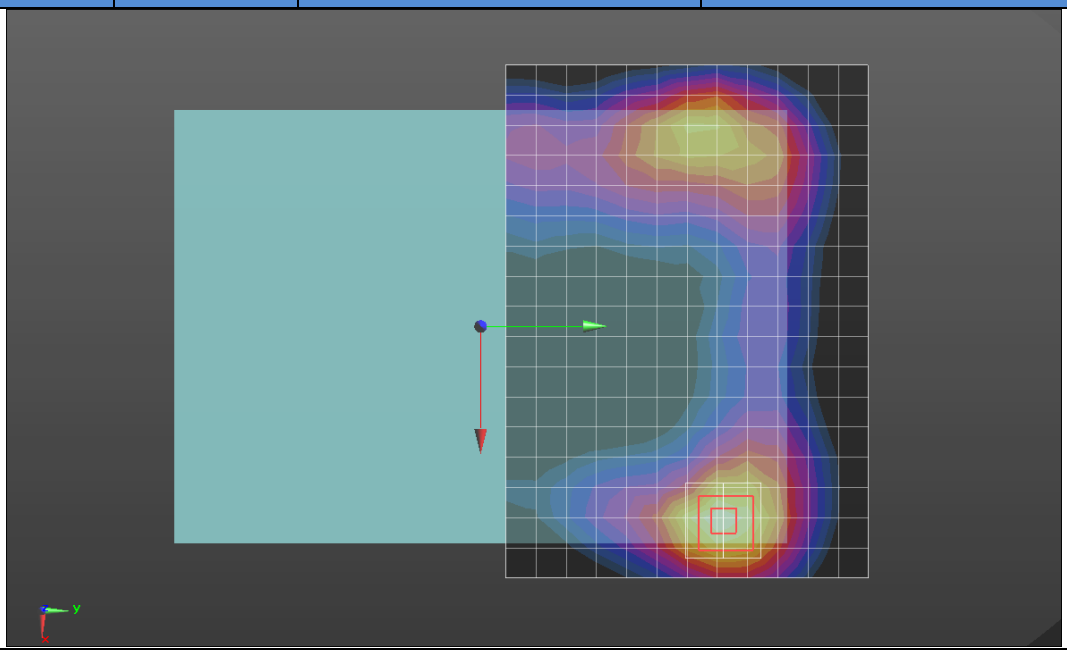


Figure (3)

Reported SAR (W/kg)	0.937	Peak SAR location (mm)	
		X-axis	Y-axis
		75.0	101.0

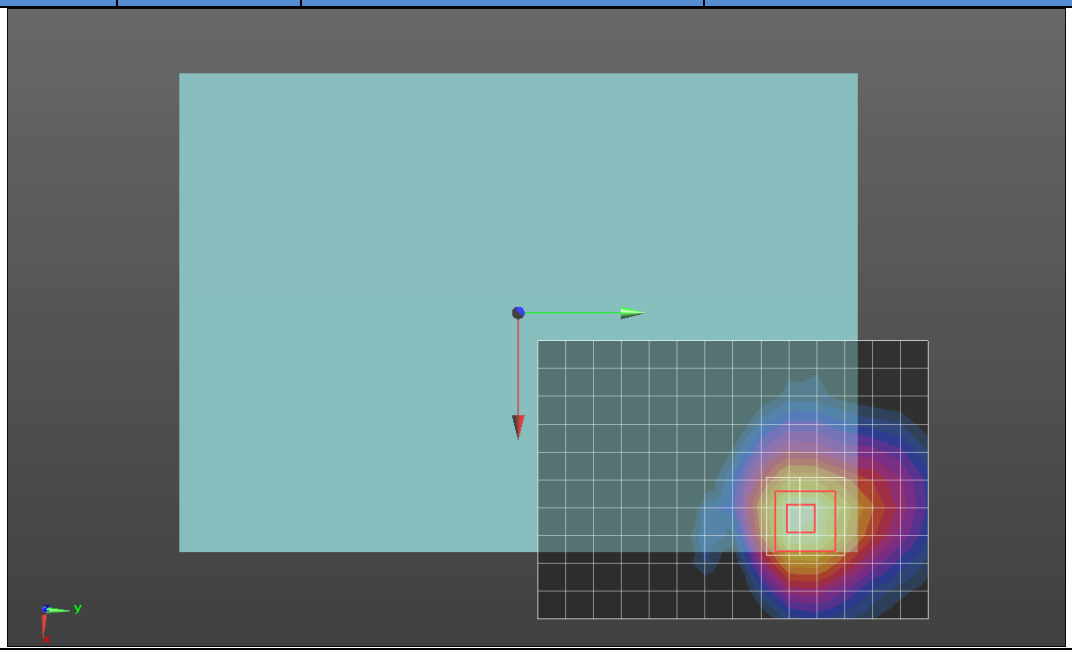


Figure (4)

Reported SAR (W/kg)	1.119	Peak SAR location (mm)	
		X-axis	Y-axis
		-75.0	95.0

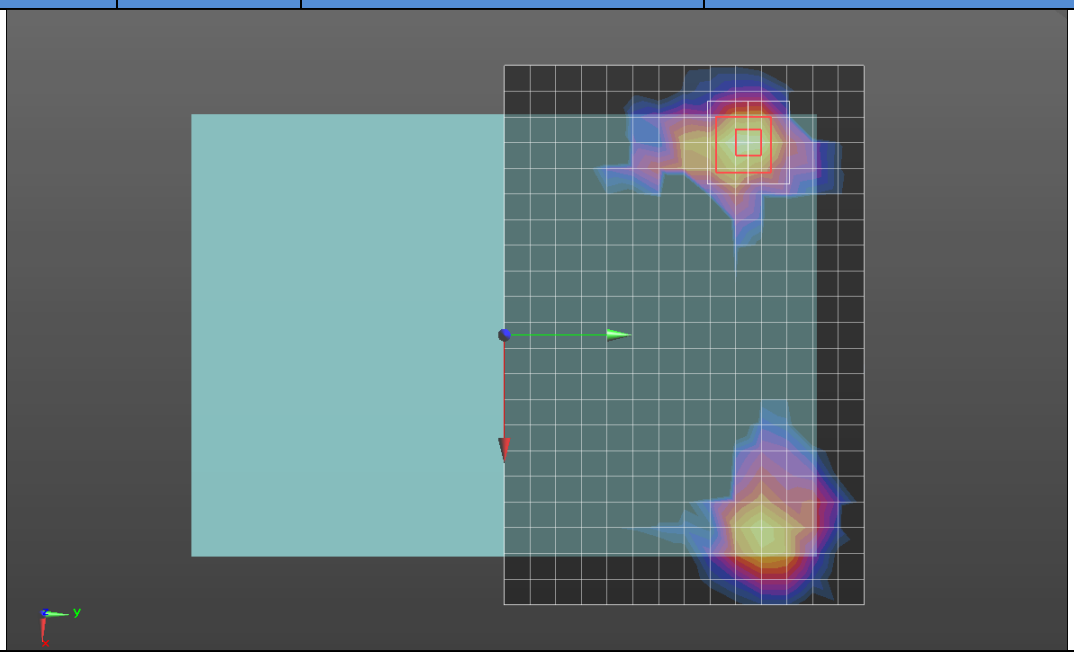


Figure (5)

Reported SAR (W/kg)	0.440	Peak SAR location (mm)	
		X-axis	Y-axis
		-75.0	90.2

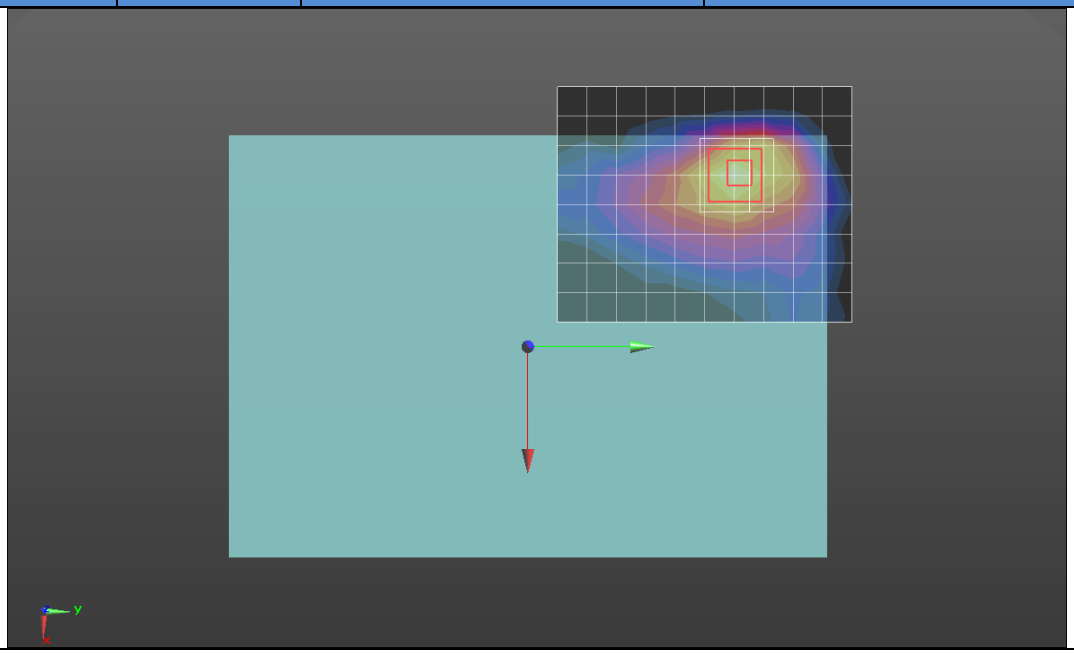


Figure (6)

Reported SAR (W/kg)	0.773	Peak SAR location (mm)	
		X-axis	Y-axis
		84.4	93.2

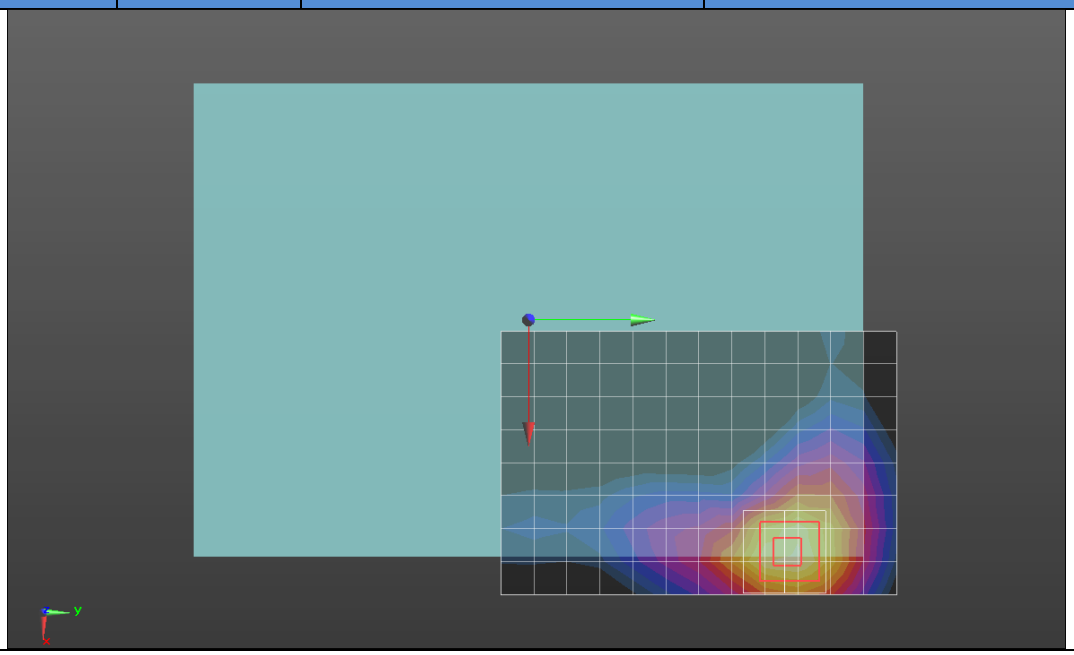


Figure (7)

Reported SAR (W/kg)	0.075	Peak SAR location (mm)	
		X-axis	Y-axis
		-25.5	106.7

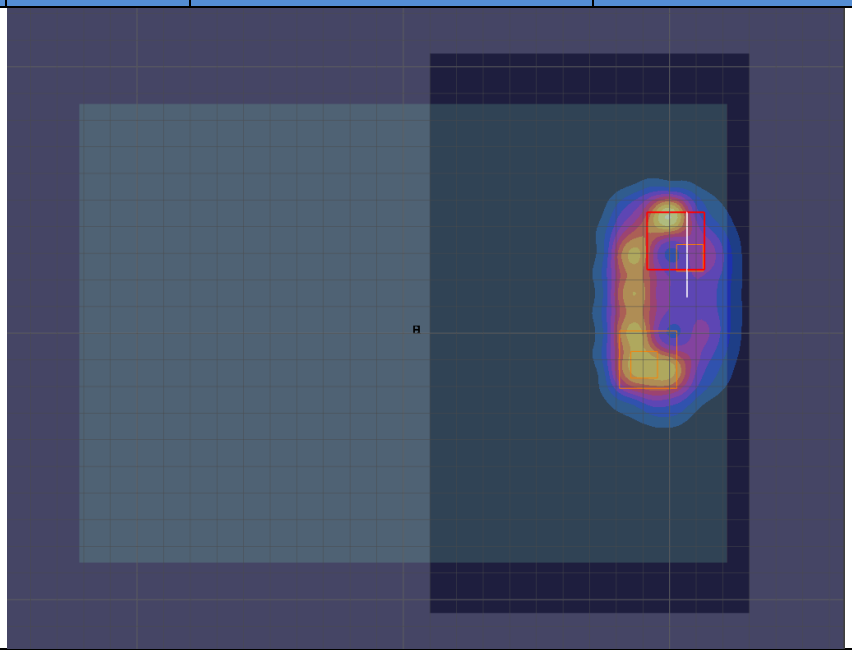


Figure (8)

SUM SAR (W/kg)	1.559	UNII MIMO		BT Ant.1	
		1.119		0.440	
		Peak SAR location (mm)			
		X-axis	Y-axis	X-axis	Y-axis
		-75.0	95.0	-75.0	90.2

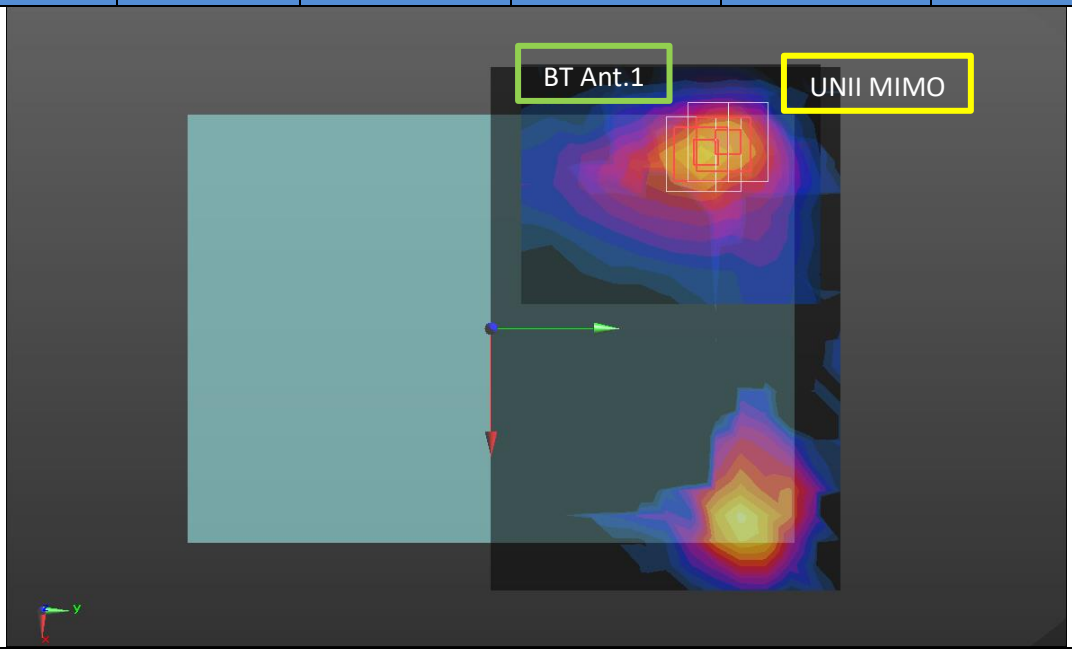


Figure (9)

SUM SAR (W/kg)	2.175	DTS Ant.2		UNII MIMO + BT Ant.1		NFC	
		0.541		1.559		0.075	
		Peak SAR location (mm)					
		X-axis	Y-axis	X-axis	Y-axis	X-axis	Y-axis
		82.0	95.2	-75.0	90.2	-25.5	106.7

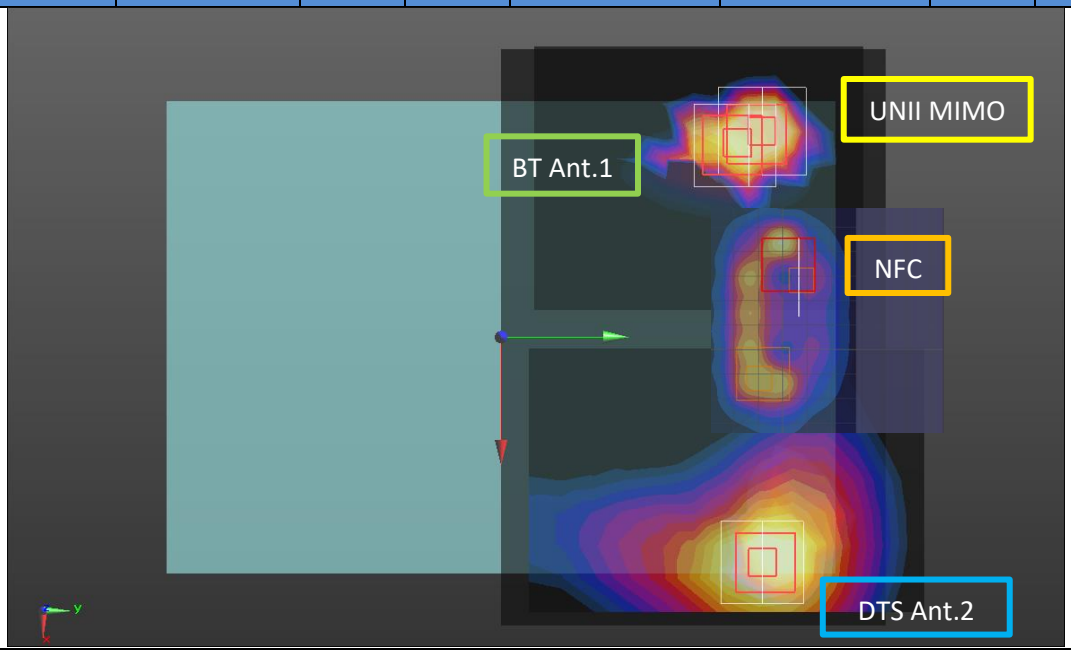


Figure (10)

SUM SAR (W/kg)	1.056	DTS Ant.2		BT Ant.1		NFC	
		0.541		0.440		0.075	
		Peak SAR location (mm)					
		X-axis	Y-axis	X-axis	Y-axis	X-axis	Y-axis
		82.0	95.2	-75.0	90.2	-25.5	106.7

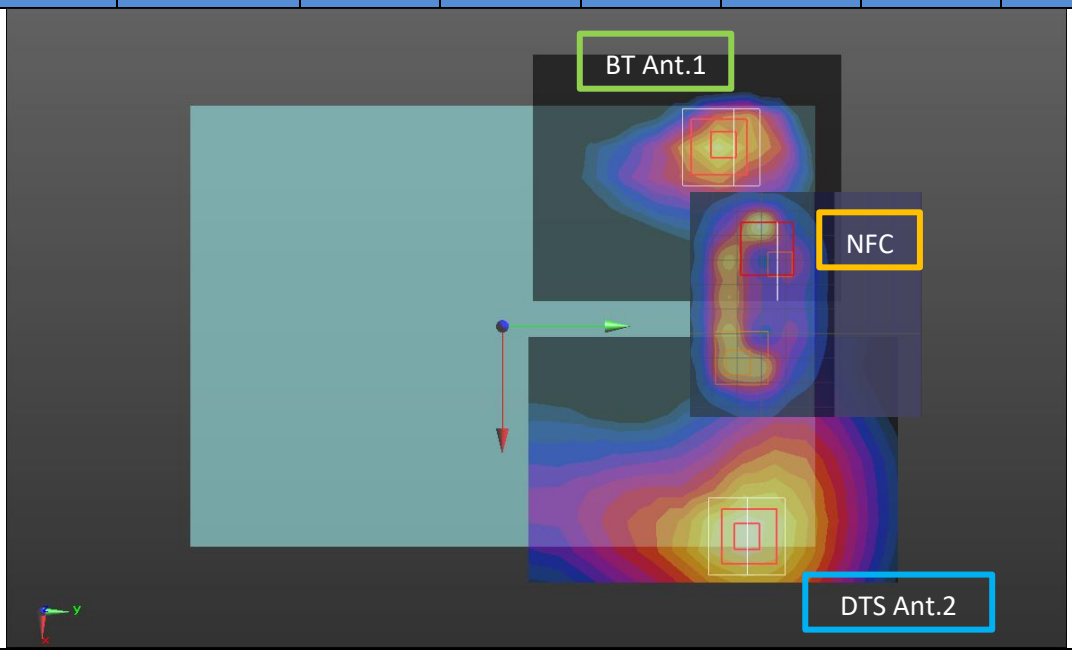


Figure (11)

SUM SAR (W/kg)	1.967	BT Ant.2		UNII MIMO		NFC	
		0.773		1.119		0.075	
		Peak SAR location (mm)					
		X-axis	Y-axis	X-axis	Y-axis	X-axis	Y-axis
		84.4	93.2	-75.0	95.0	-25.5	106.7

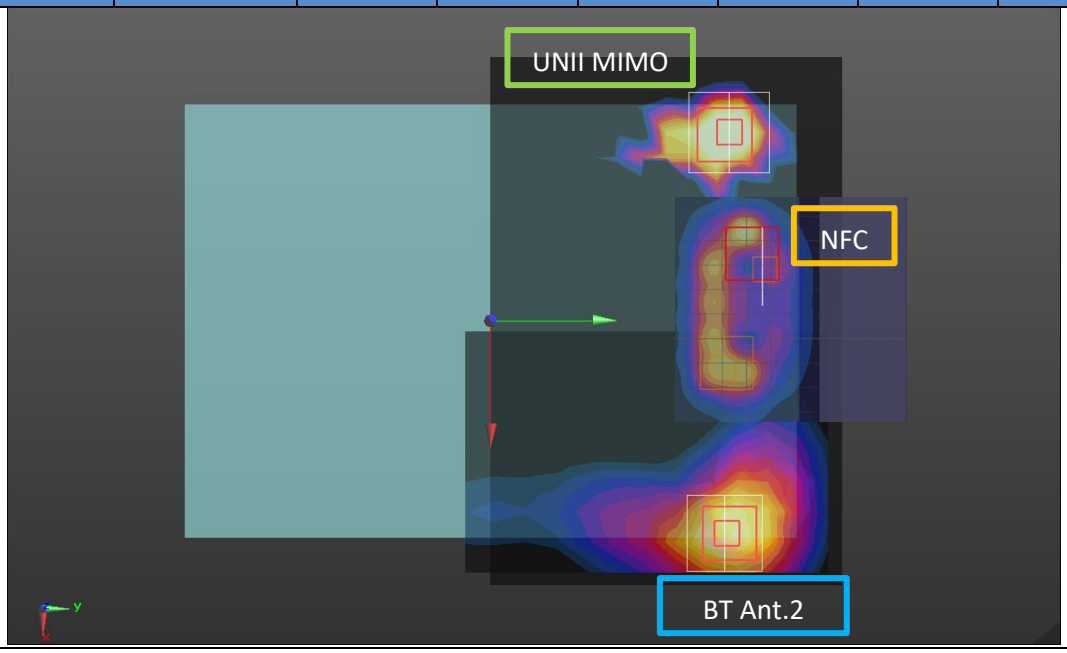


Figure (12)

SUM SAR (W/kg)	1.954	DTS MIMO		UNII MIMO		NFC	
		0.760		1.119		0.075	
		Peak SAR location (mm)					
		X-axis	Y-axis	X-axis	Y-axis	X-axis	Y-axis
		77.2	96.4	-75.0	95.0	-25.5	106.7

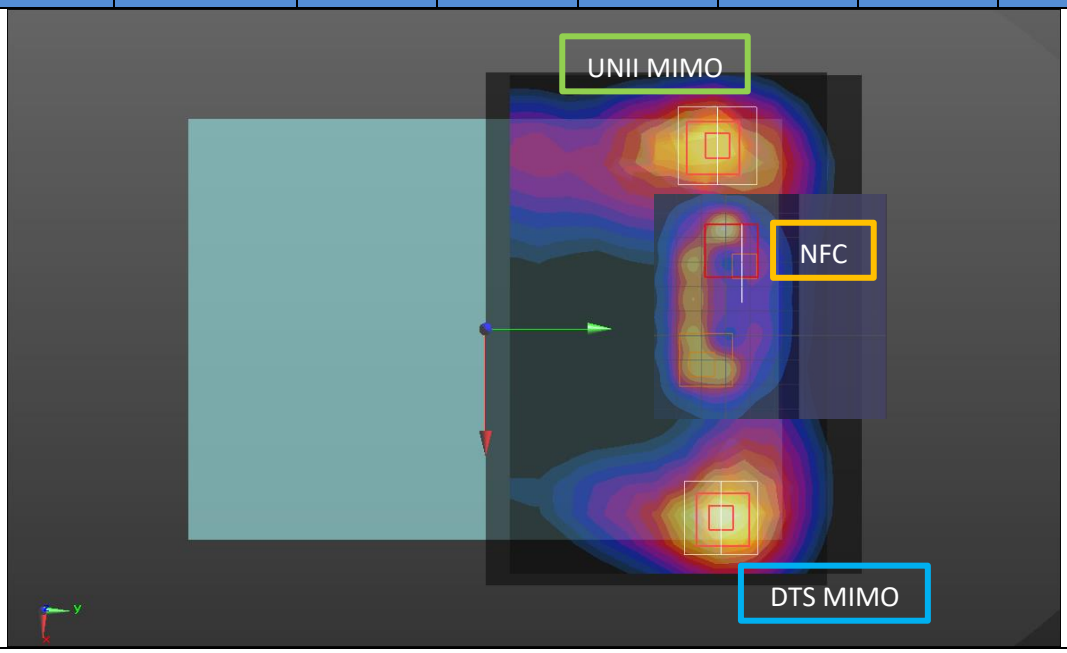


Figure (13)

SUM SAR (W/kg)	1.012	UNII Ant.2		NFC	
		0.937		0.075	
		Peak SAR location (mm)			
		X-axis	Y-axis	X-axis	Y-axis
		75.0	101.0	-25.5	106.7

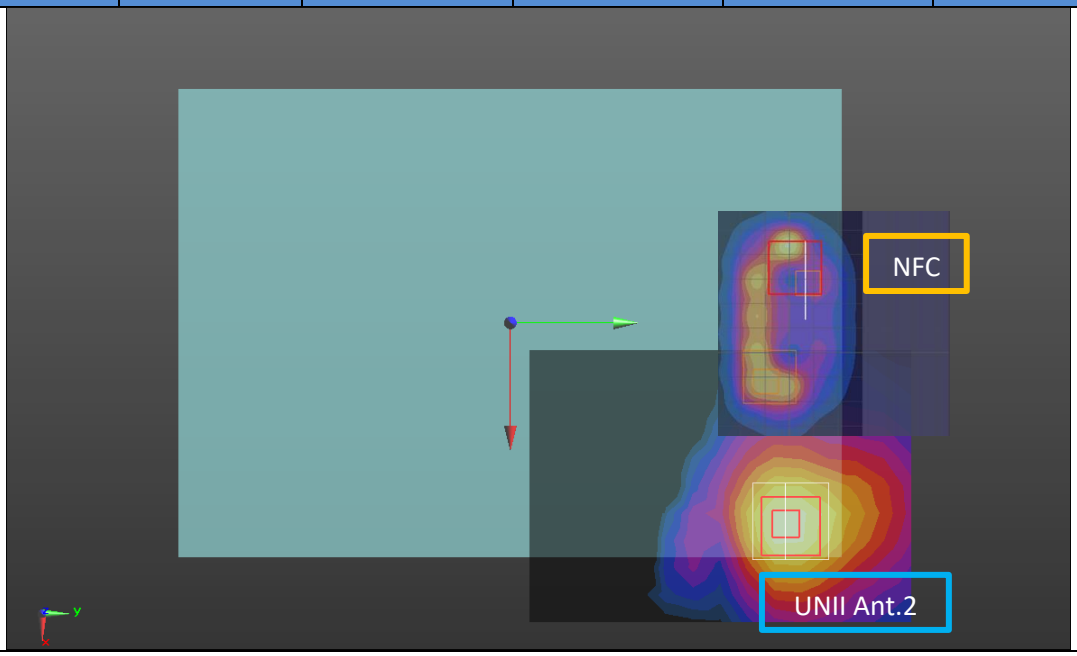


Figure (14)

Reported SAR (W/kg)	0.788	Peak SAR location (mm)	
		X-axis	Y-axis
		-80.5	-88.5

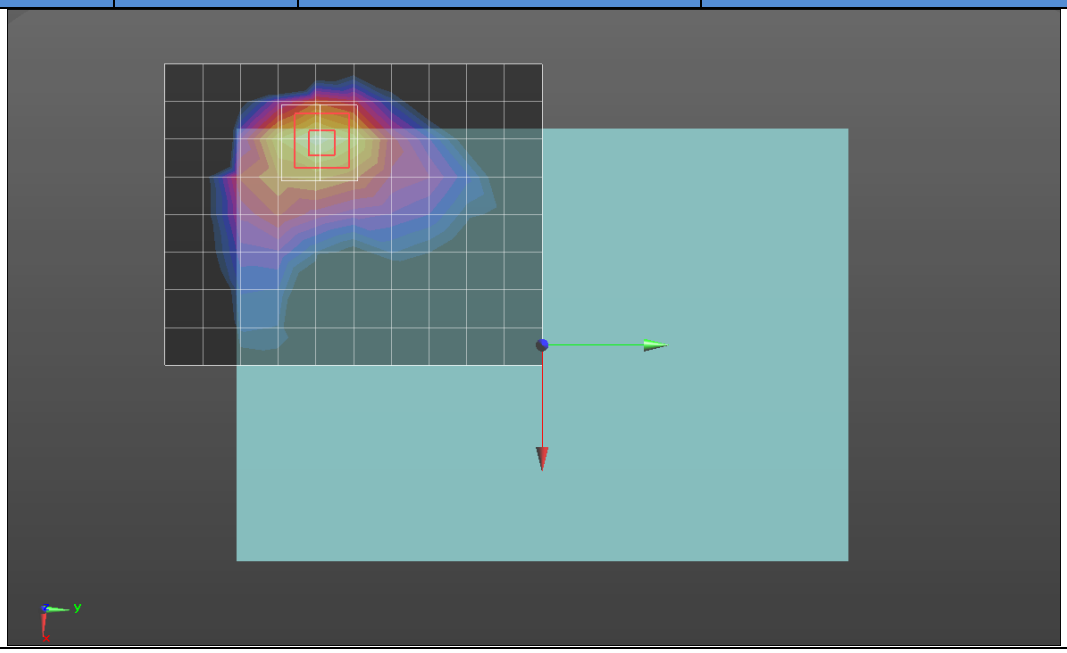


Figure (15)

Reported SAR (W/kg)	0.948	Peak SAR location (mm)	
		X-axis	Y-axis
		-78.4	-87.7

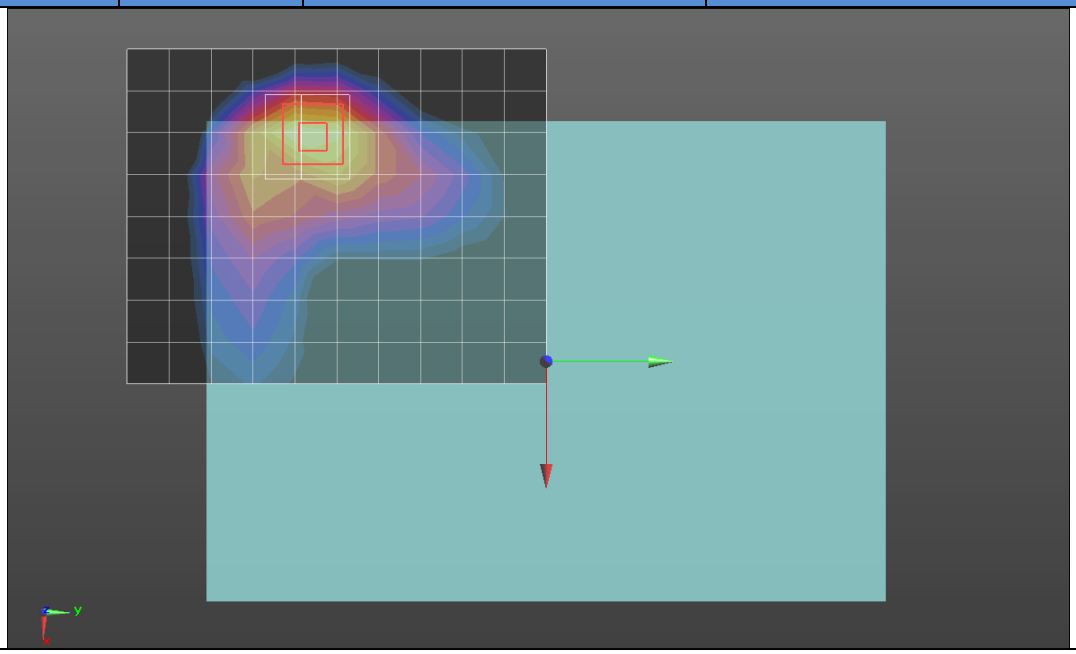


Figure (16)

Reported SAR (W/kg)	0.389	Peak SAR location (mm)	
		X-axis	Y-axis
		-65.5	-90.0

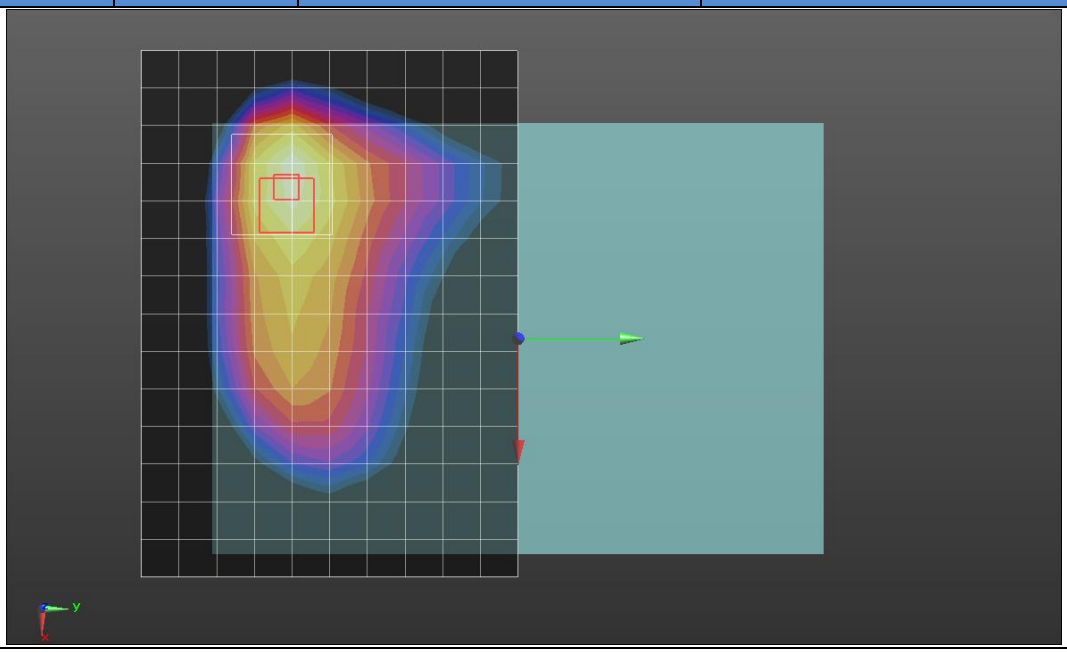


Figure (17)

Reported SAR (W/kg)	0.531	Peak SAR location (mm)	
		X-axis	Y-axis
		-67.0	-88.5

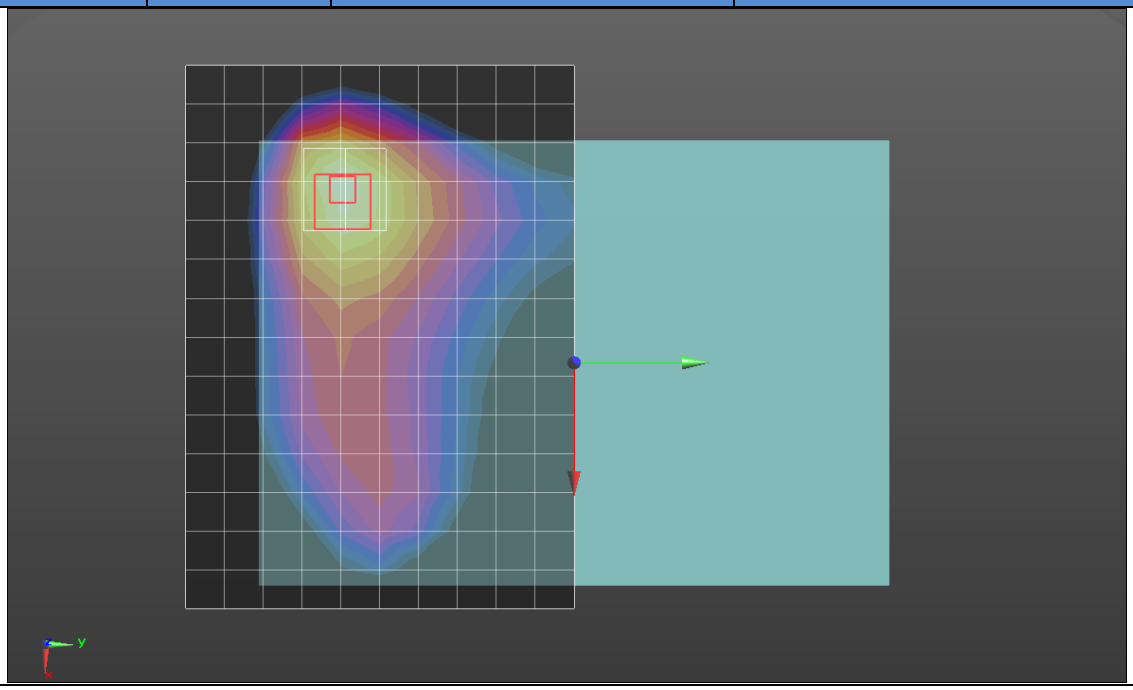


Figure (18)

Reported SAR (W/kg)	1.087	Peak SAR location (mm)	
		X-axis	Y-axis
		-78.0	-52.8

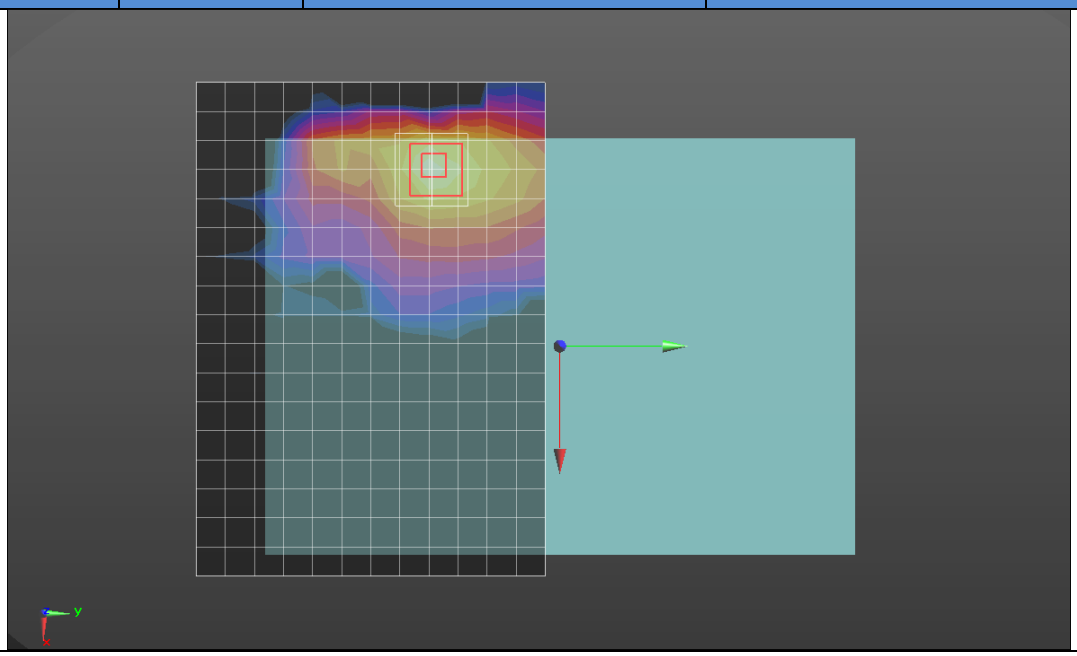


Figure (19)

Reported SAR (W/kg)	0.232	Peak SAR location (mm)	
		X-axis	Y-axis
		-82.0	-75.7

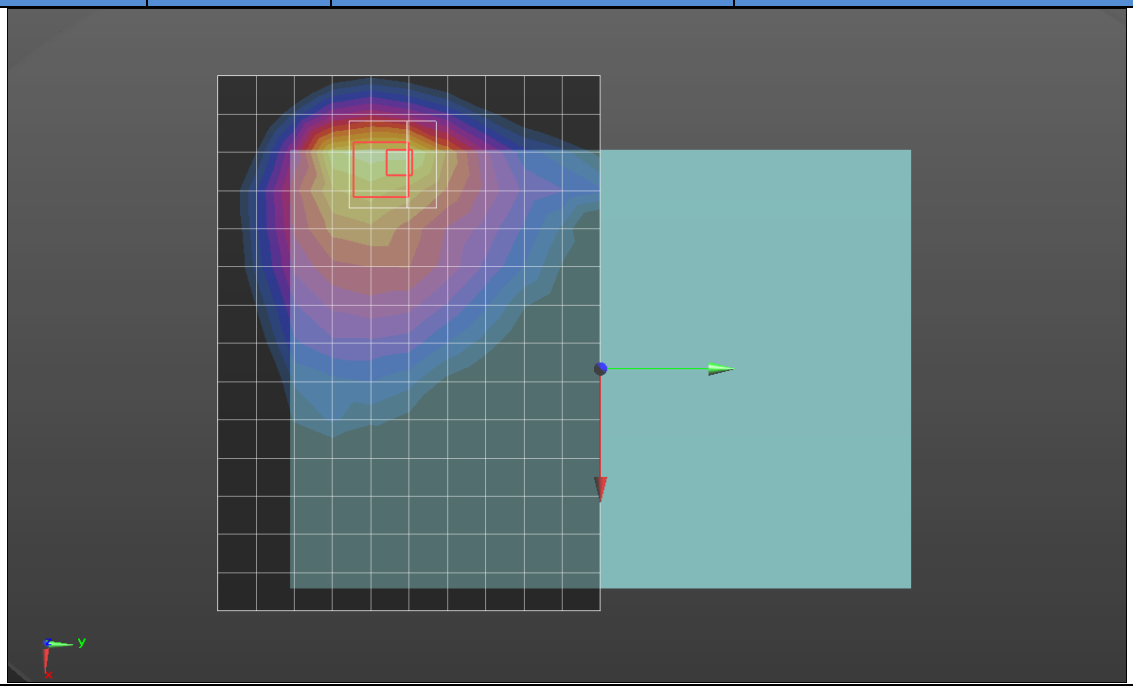


Figure (20)

Reported SAR (W/kg)	0.347	Peak SAR location (mm)	
		X-axis	Y-axis
		-64.0	-91.5

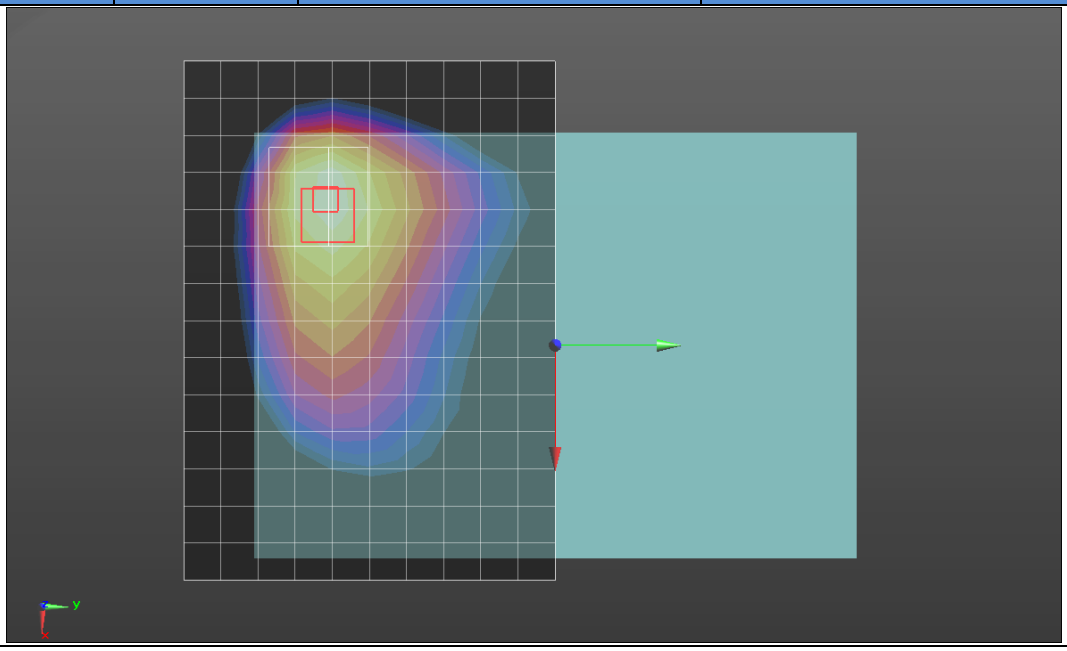


Figure (21)

Reported SAR (W/kg)	0.459	Peak SAR location (mm)	
		X-axis	Y-axis
		-67.0	-90.0

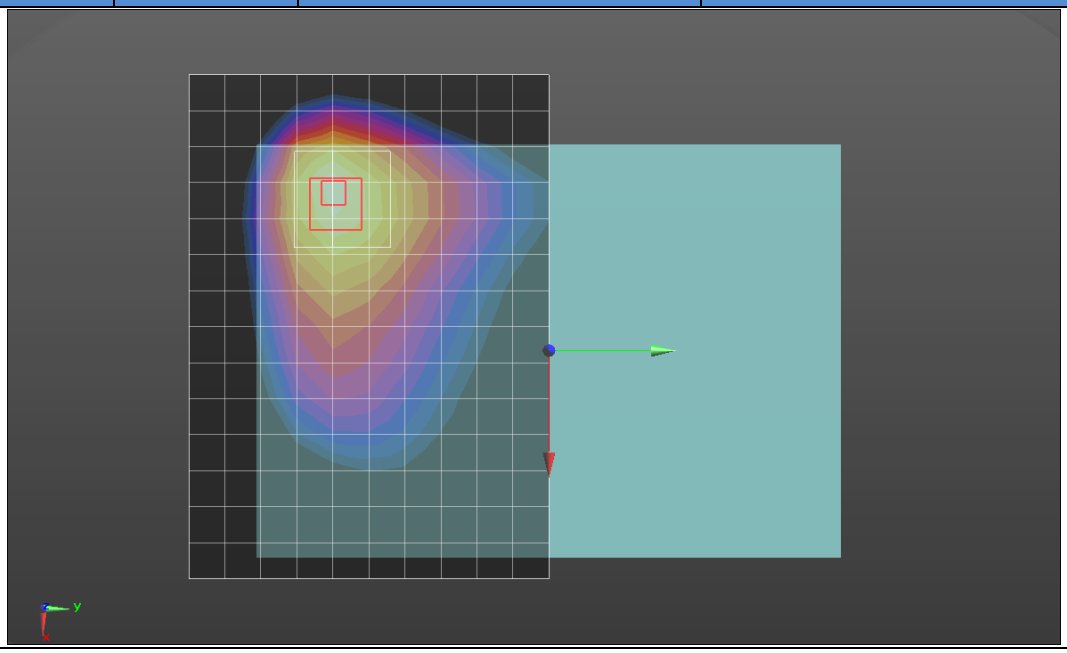


Figure (22)

Reported SAR (W/kg)	1.103	Peak SAR location (mm)	
		X-axis	Y-axis
		-78.0	-88.5

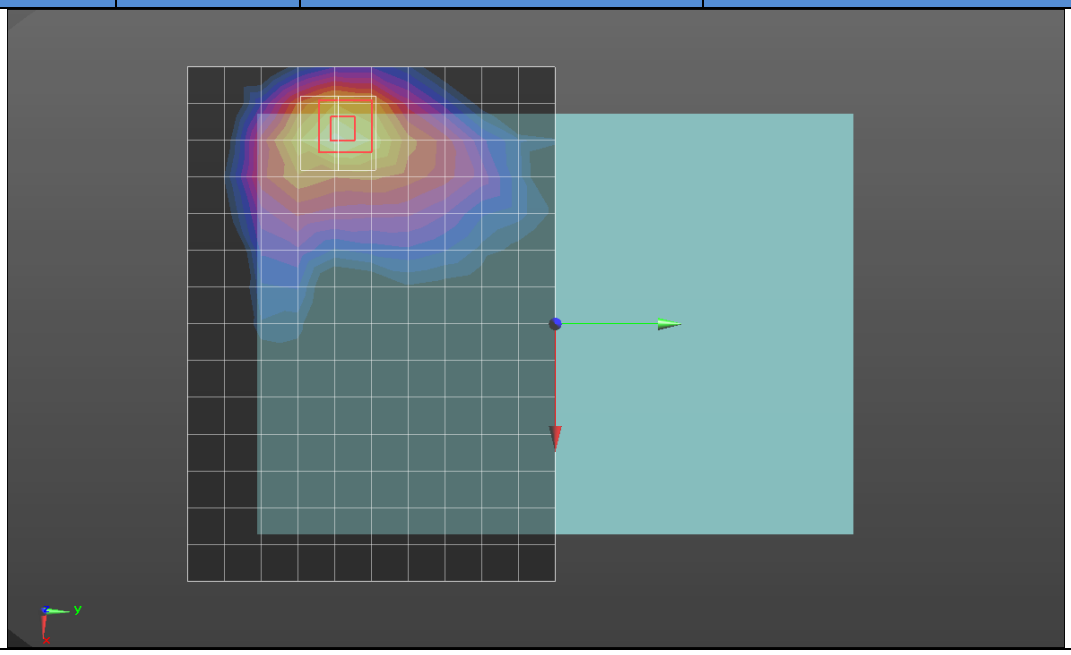


Figure (23)

Reported SAR (W/kg)	0.364	Peak SAR location (mm)	
		X-axis	Y-axis
		-65.5	-93.0

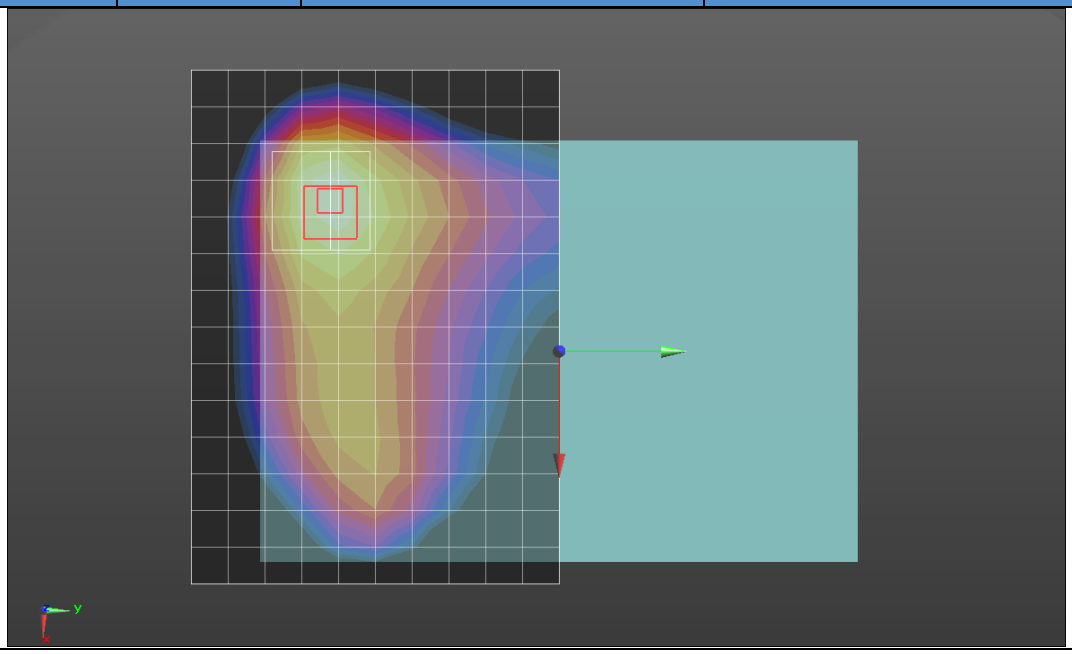


Figure (24)

Reported SAR (W/kg)	1.041	Peak SAR location (mm)	
		X-axis	Y-axis
		-79.0	-55.8

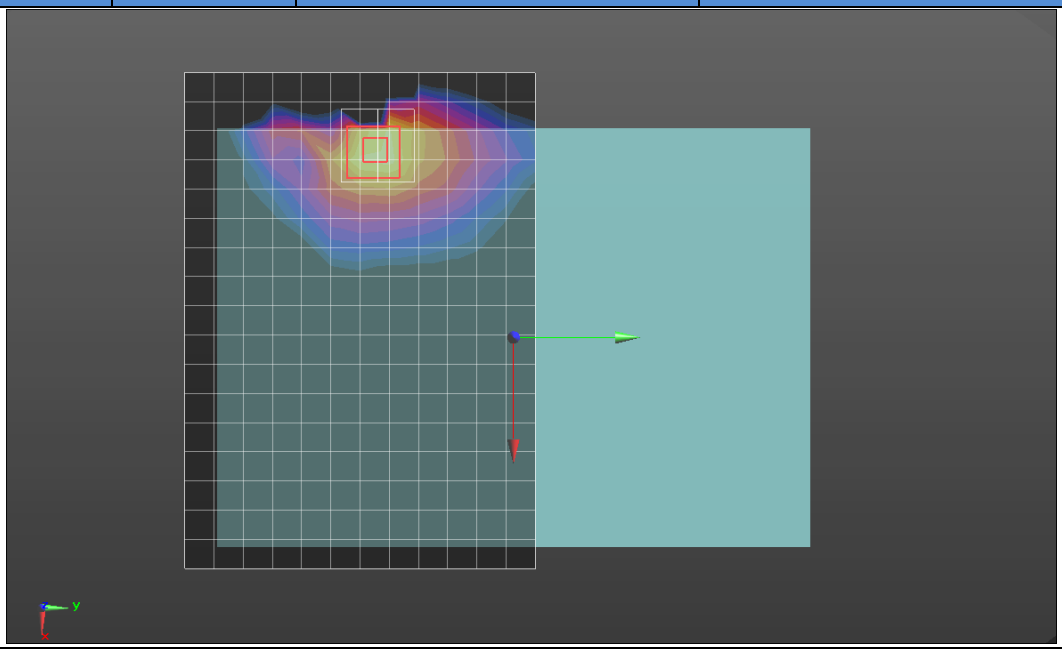


Figure (25)

Reported SAR (W/kg)	0.438	Peak SAR location (mm)	
		X-axis	Y-axis
		-68.8	-56.2

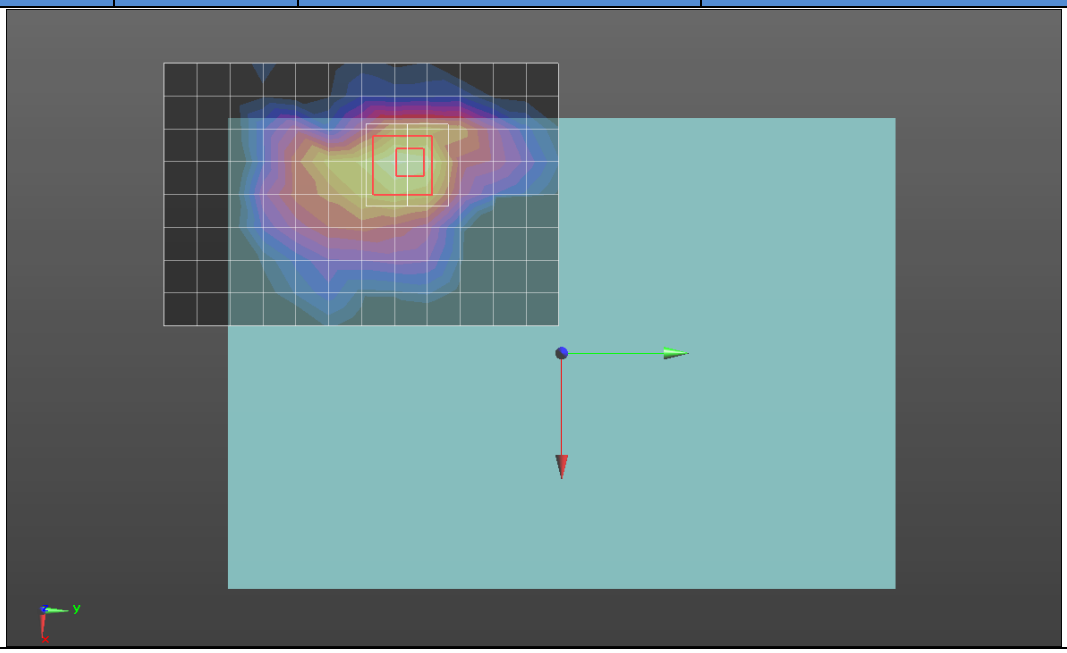


Figure (26)

Reported SAR (W/kg)	1.116	Peak SAR location (mm)	
		X-axis	Y-axis
		-73.7	-84.8

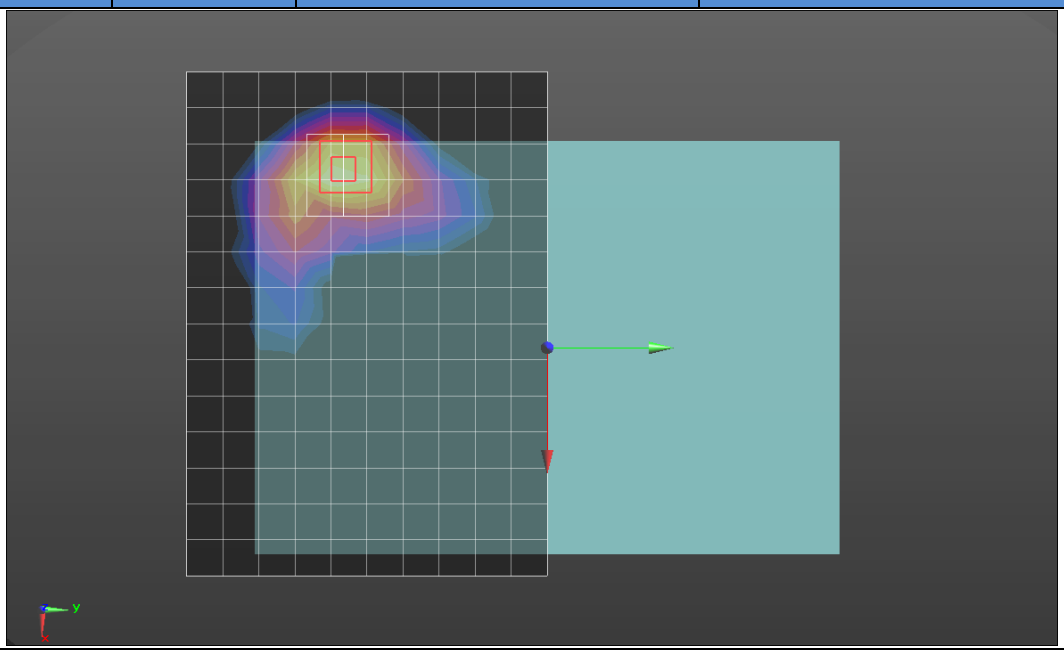


Figure (27)

Reported SAR (W/kg)	0.277	Peak SAR location (mm)	
		X-axis	Y-axis
		-66.1	-84.8

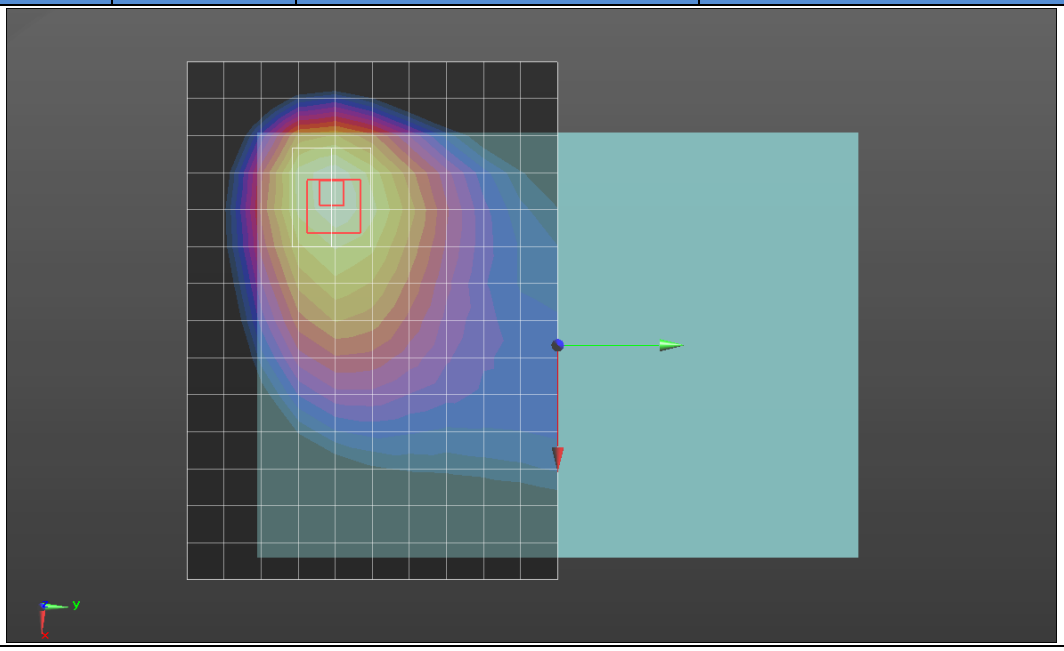


Figure (28)

Reported SAR (W/kg)	0.575	Peak SAR location (mm)	
		X-axis	Y-axis
		-73.0	-96.5

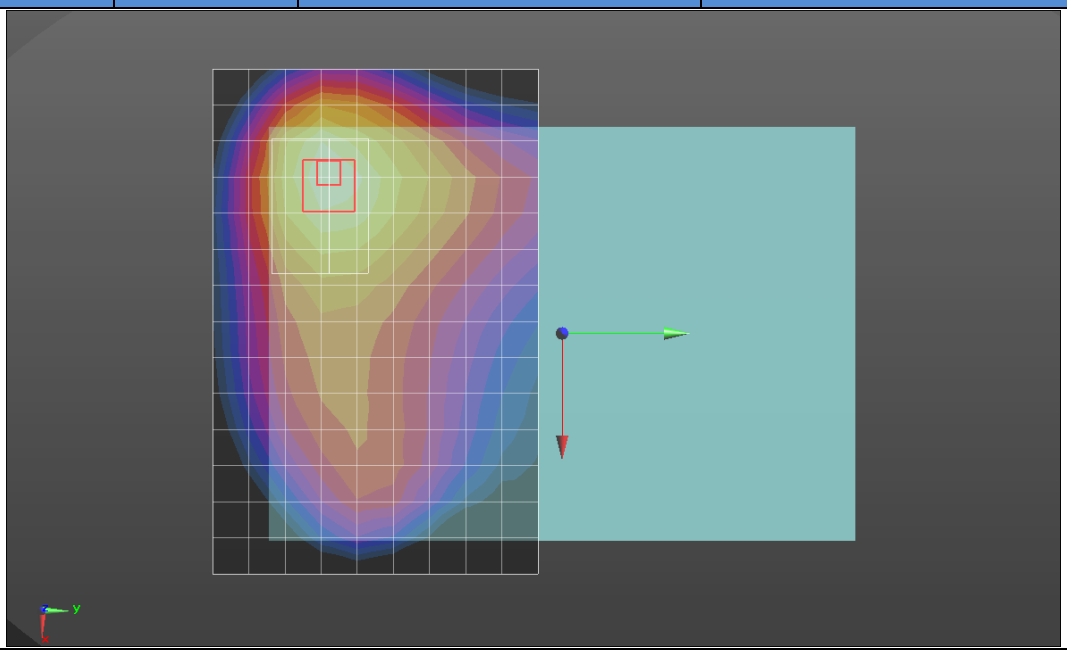


Figure (29)

Reported SAR (W/kg)	1.039	Peak SAR location (mm)	
		X-axis	Y-axis
		-78.4	-87.7

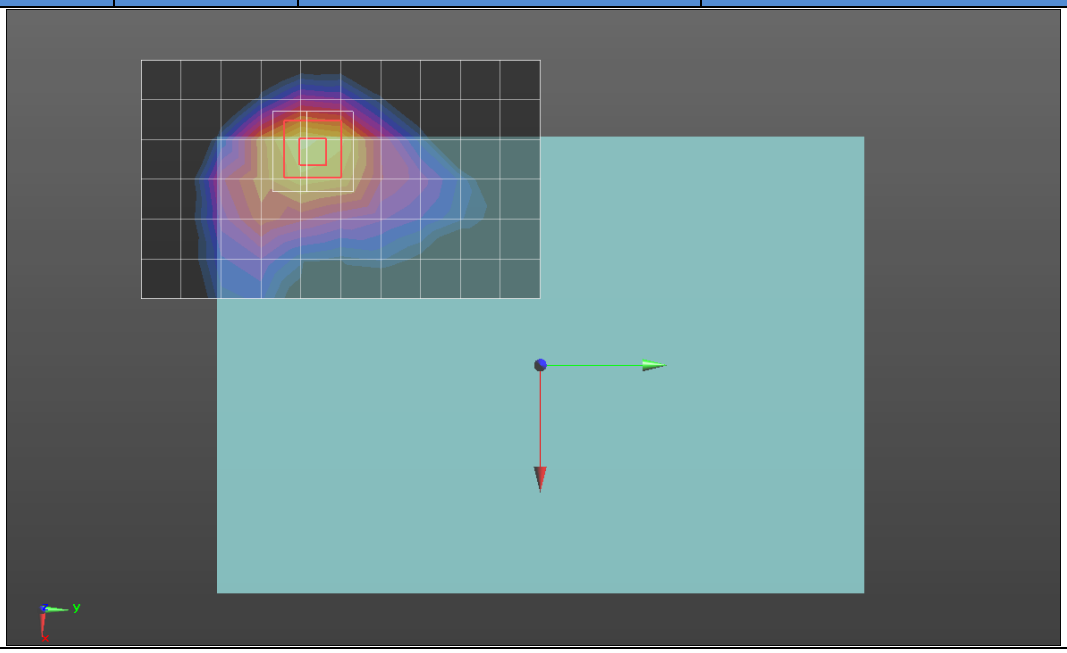


Figure (30)

Reported SAR (W/kg)	0.879	Peak SAR location (mm)	
		X-axis	Y-axis
		-69.6	-51.0

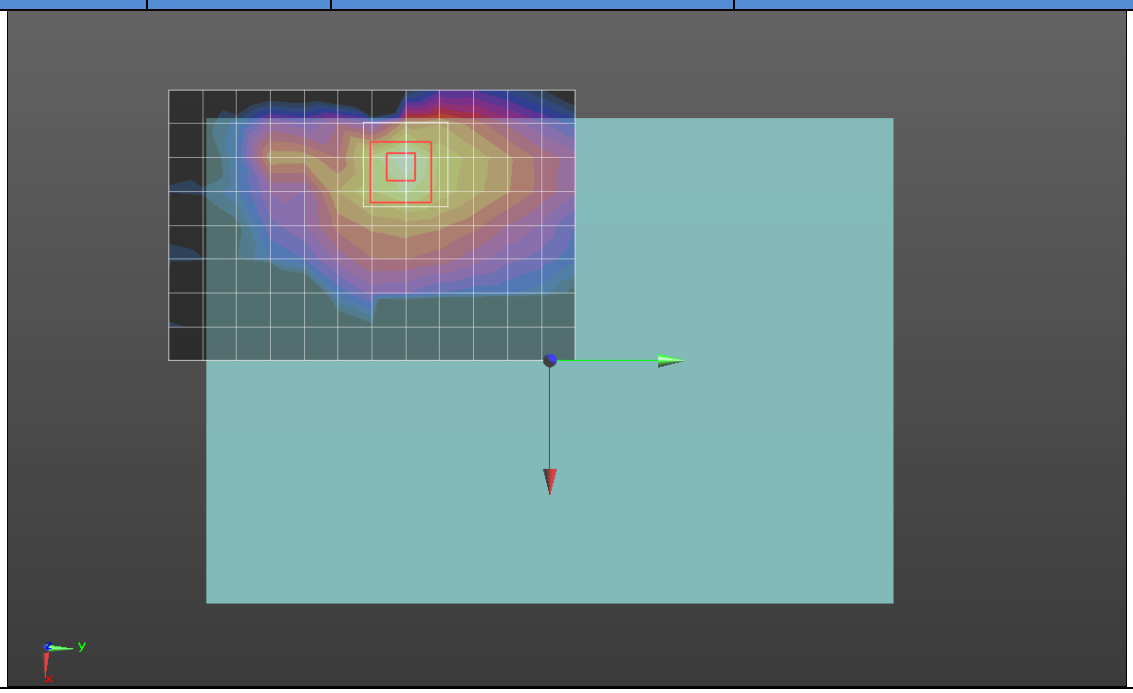


Figure (31)

Reported SAR (W/kg)	1.015	Peak SAR location (mm)	
		X-axis	Y-axis
		-85.0	-87.0

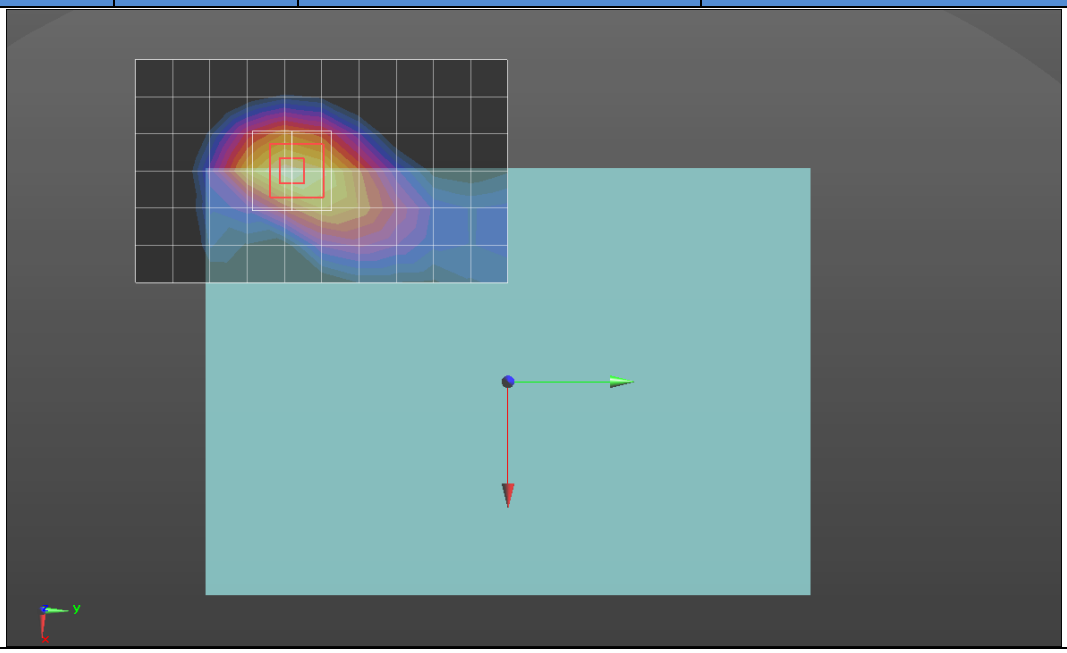


Figure (32)

Reported SAR (W/kg)	0.284	Peak SAR location (mm)	
		X-axis	Y-axis
		-71.4	-73.8

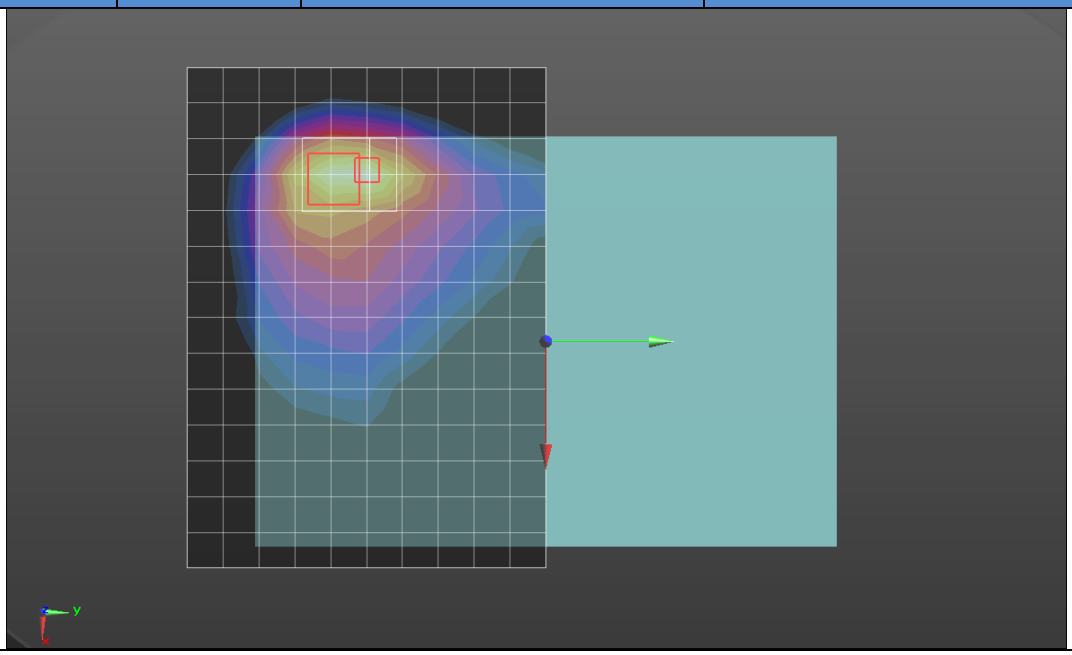


Figure (33)

Reported SAR (W/kg)	0.874	Peak SAR location (mm)	
		X-axis	Y-axis
		-71.8	-54.6

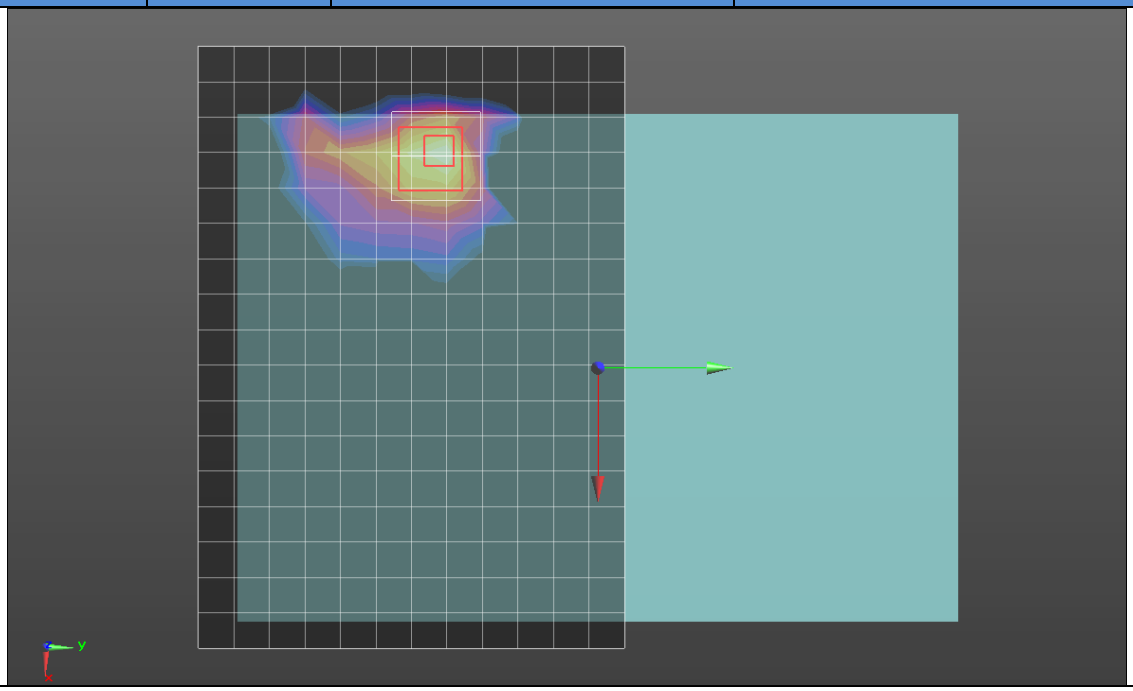


Figure (34)

Reported SAR (W/kg)	1.092	Peak SAR location (mm)	
		X-axis	Y-axis
		58.2	-112.0

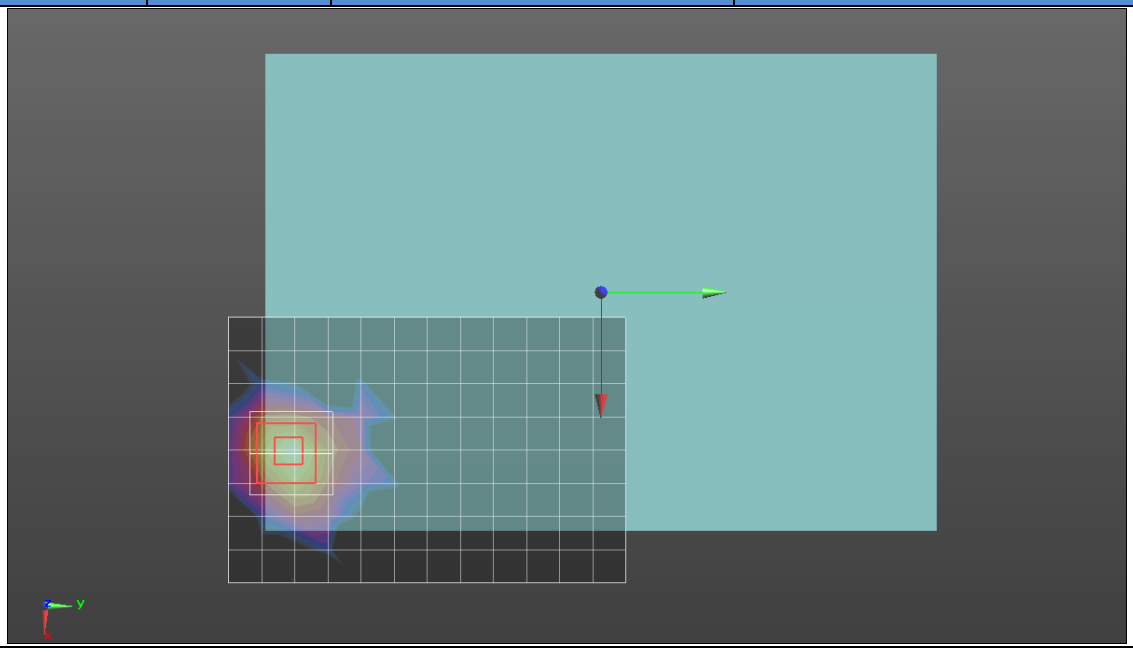


Figure (35)

Reported SAR (W/kg)	1.015	Peak SAR location (mm)	
		X-axis	Y-axis
		66.6	-91.8

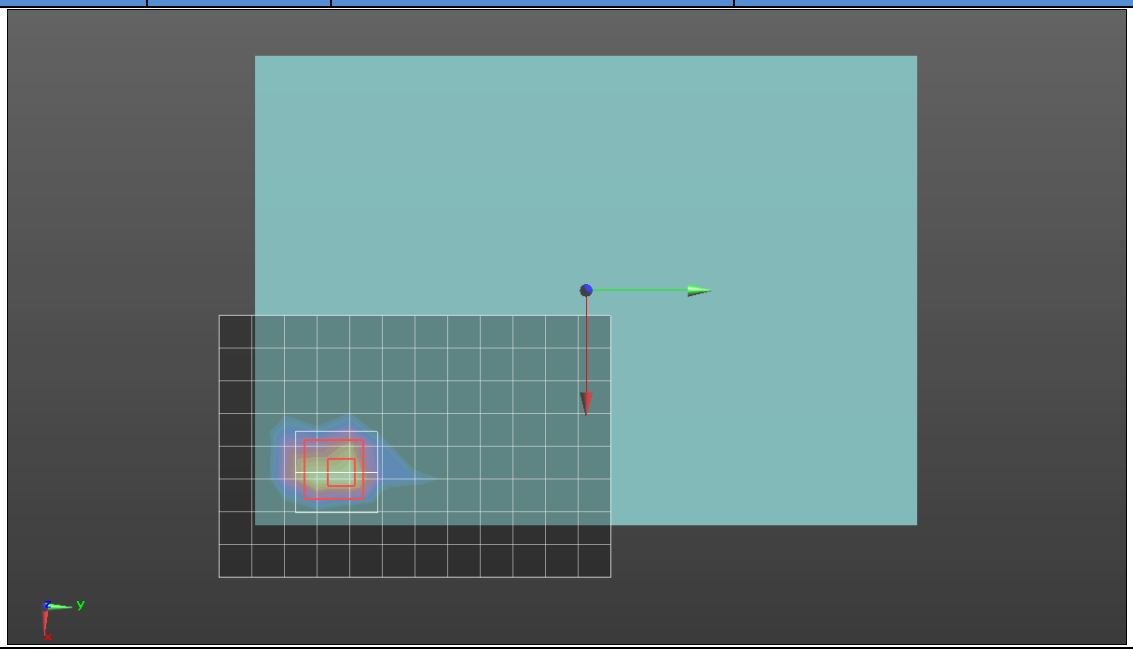


Figure (36)

Reported SAR (W/kg)	0.792	Peak SAR location (mm)	
		X-axis	Y-axis
		-4.5	82.5

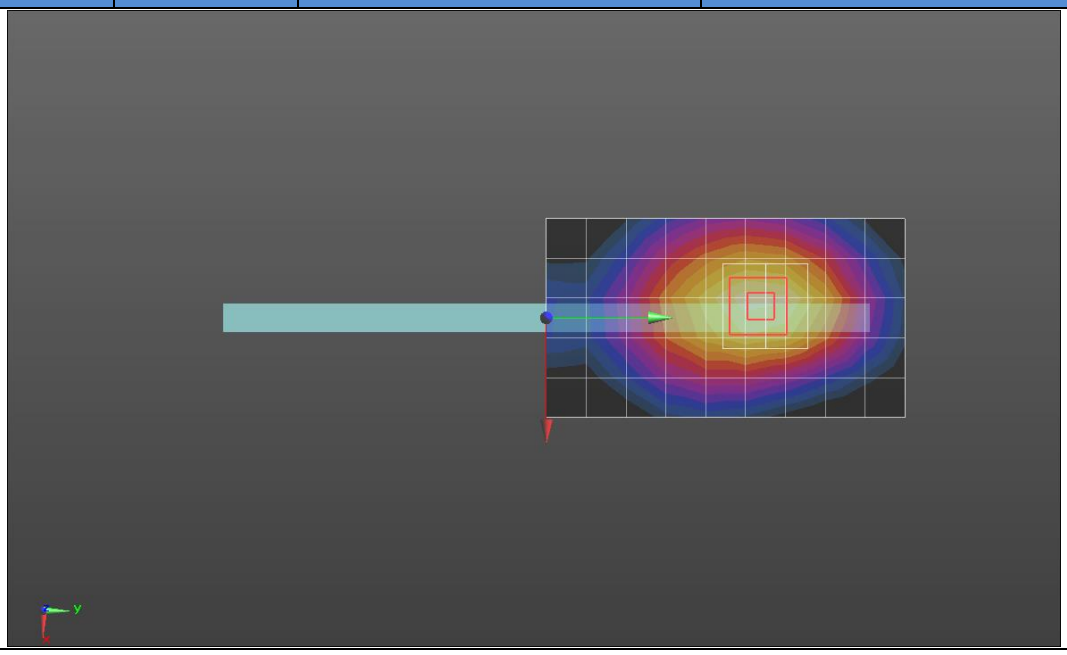


Figure (37)

Reported SAR (W/kg)	0.885	Peak SAR location (mm)	
		X-axis	Y-axis
		-4.5	82.5

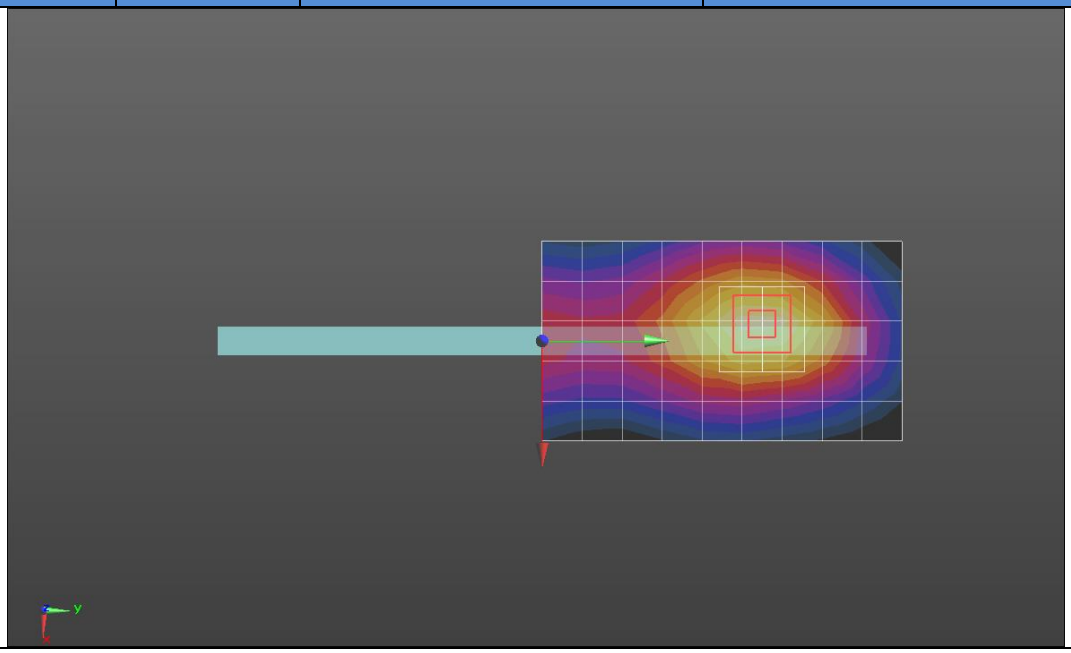


Figure (38)

Reported SAR (W/kg)	1.132	Peak SAR location (mm)	
		X-axis	Y-axis
		-5.5	79.5

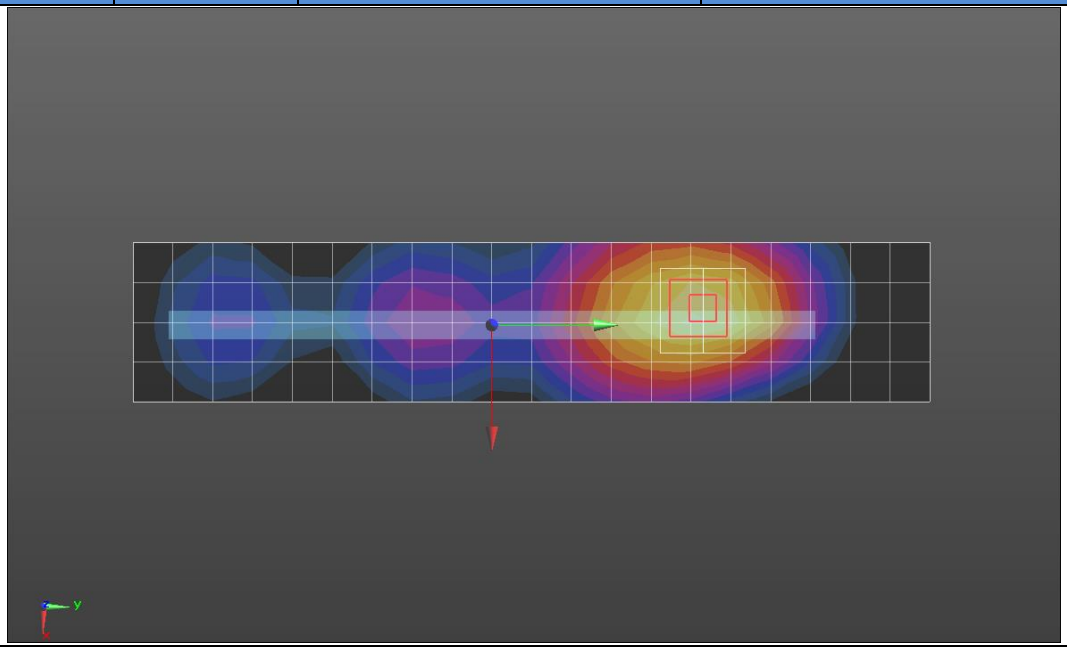


Figure (39)

Reported SAR (W/kg)	1.099	Peak SAR location (mm)	
		X-axis	Y-axis
		0.0	85.5

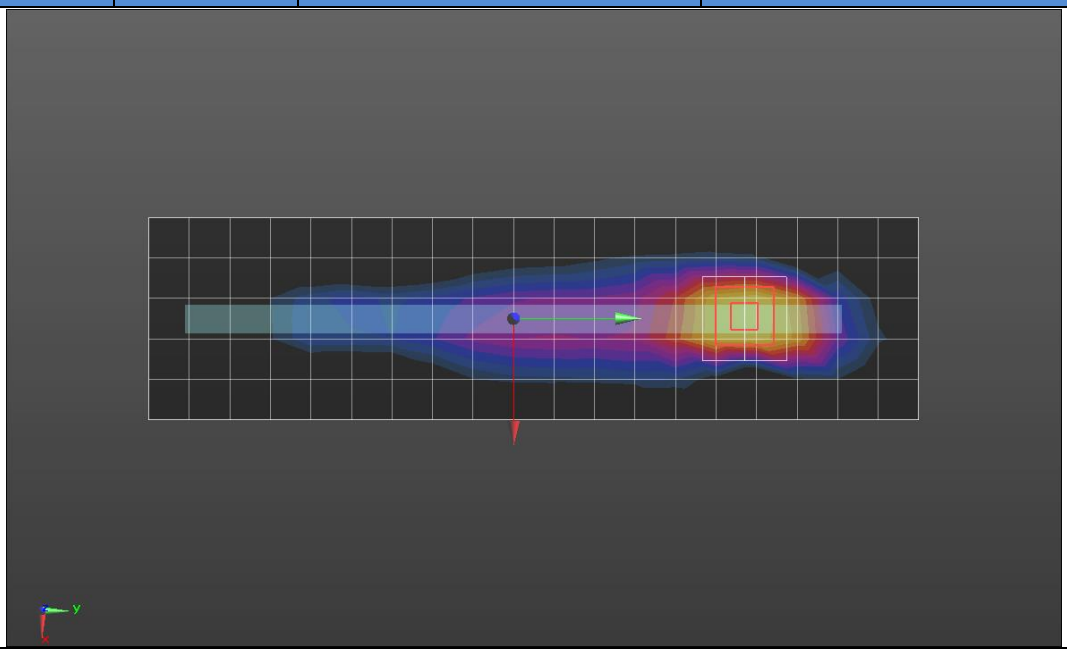


Figure (40)

Reported SAR (W/kg)	0.889	Peak SAR location (mm)	
		X-axis	Y-axis
		-4.5	80.5

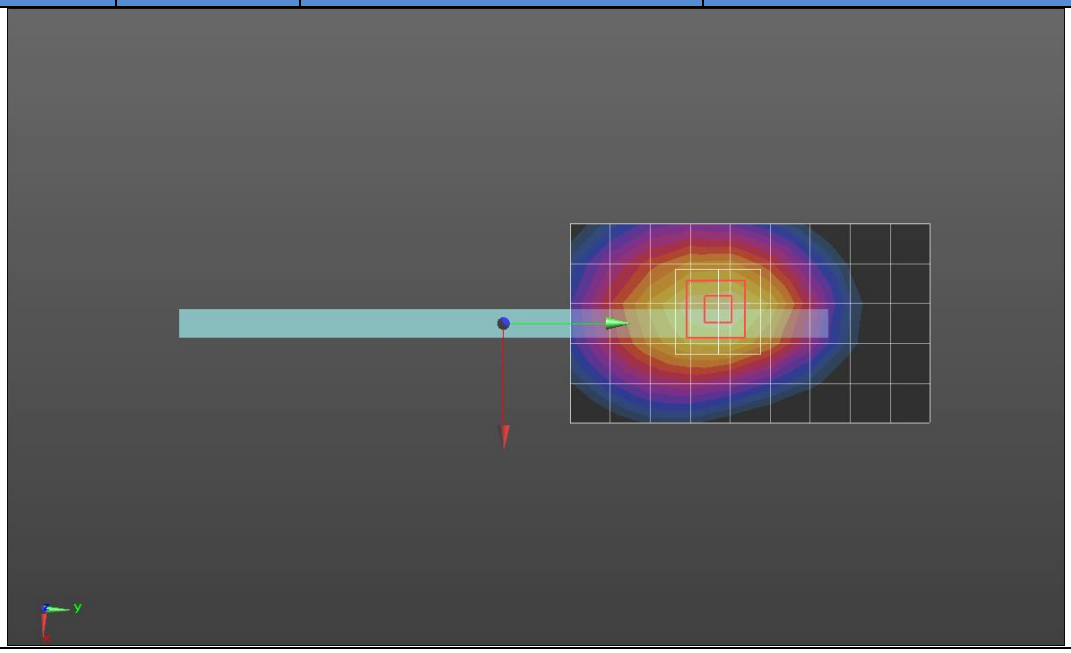


Figure (41)

Reported SAR (W/kg)	0.992	Peak SAR location (mm)	
		X-axis	Y-axis
		-4.5	84.5

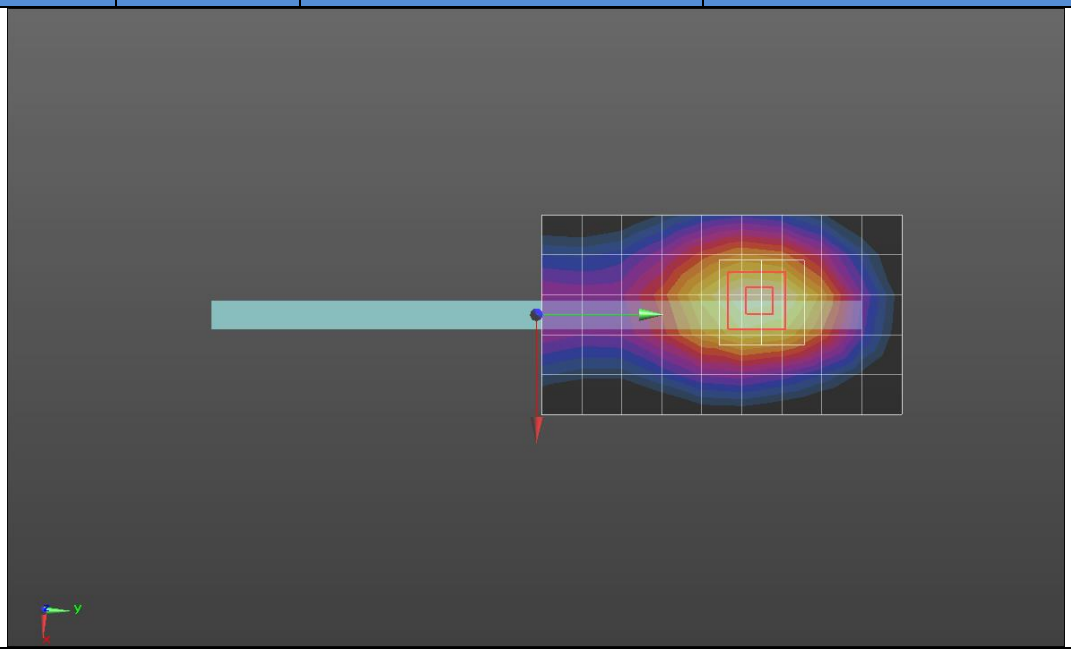


Figure (42)

Reported SAR (W/kg)	0.621	Peak SAR location (mm)	
		X-axis	Y-axis
		-7.2	96.6

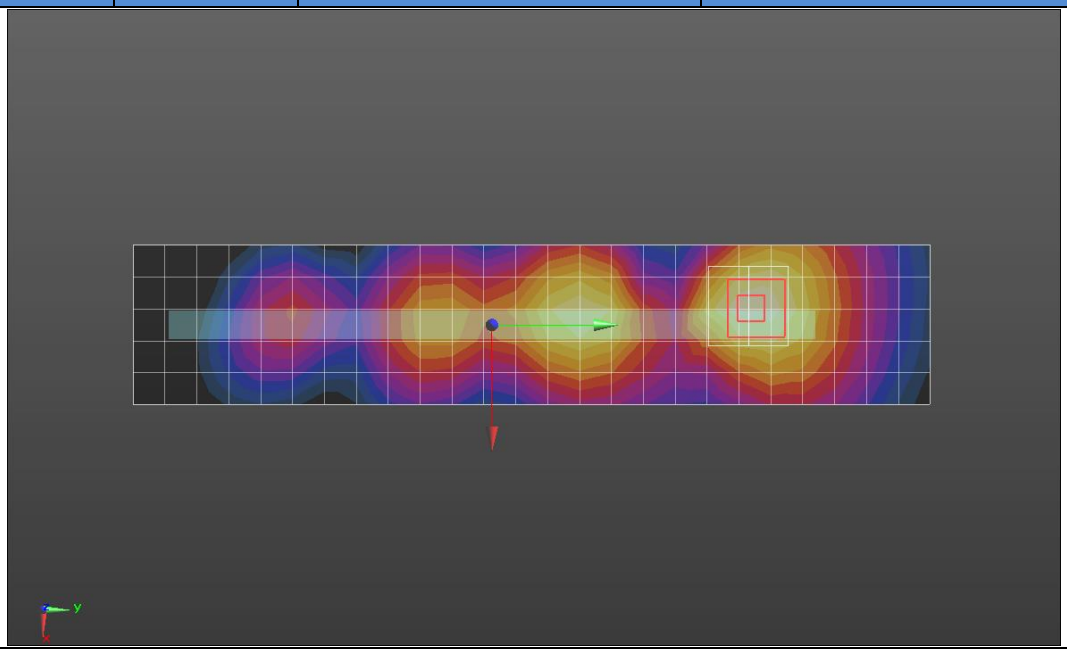


Figure (43)

Reported SAR (W/kg)	0.344	Peak SAR location (mm)	
		X-axis	Y-axis
		-2.4	30.0

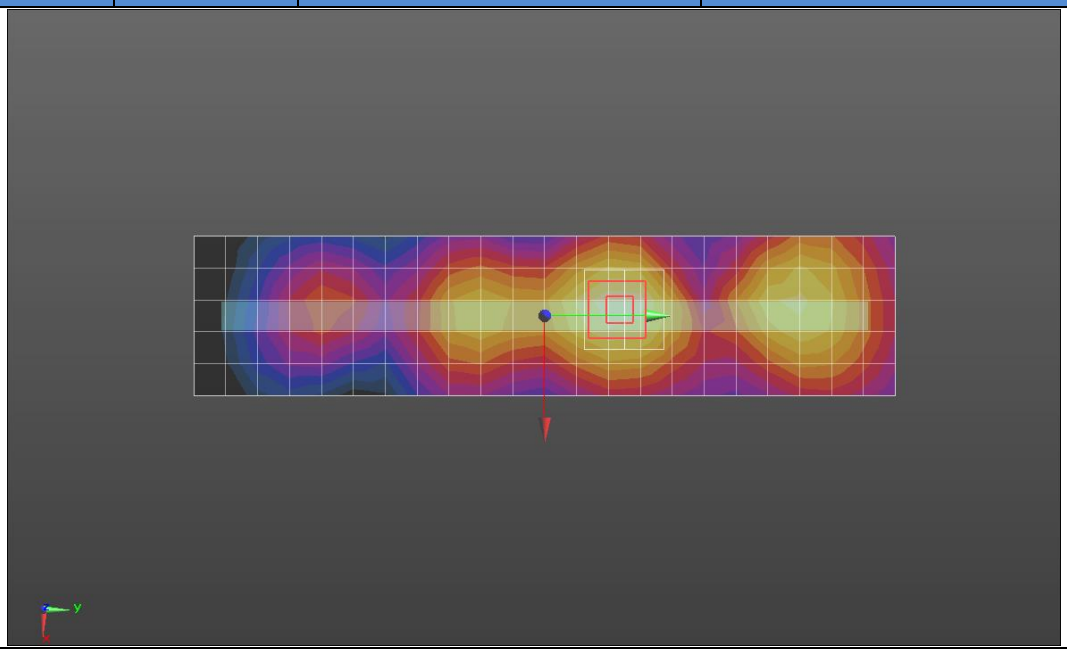


Figure (44)

Reported SAR (W/kg)	0.241	Peak SAR location (mm)	
		X-axis	Y-axis
		0.0	38.2

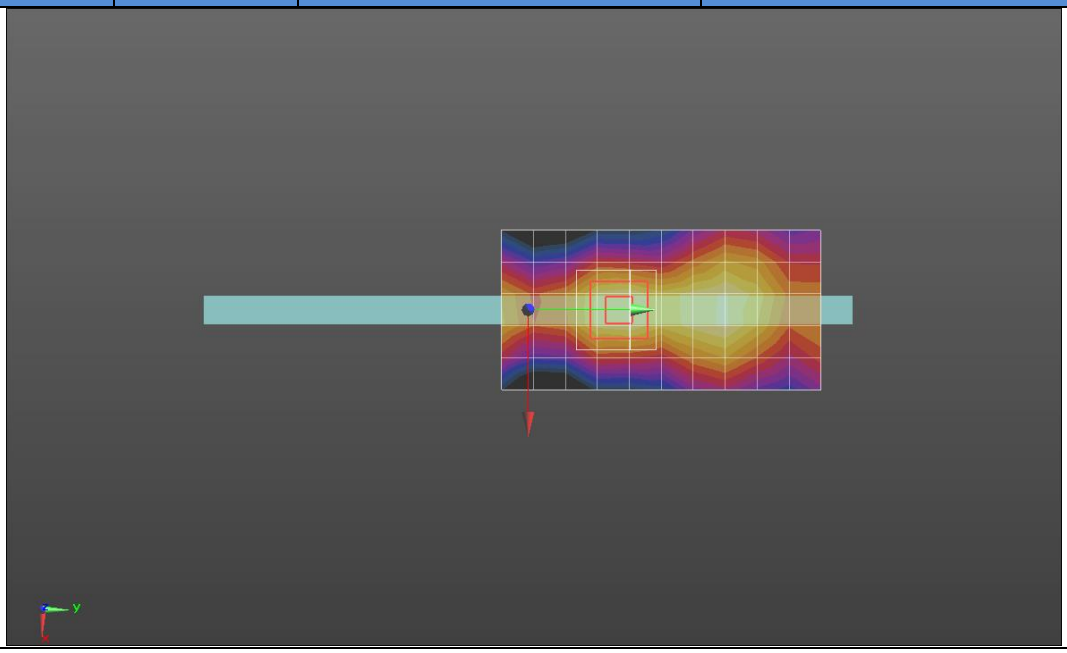


Figure (45)

Reported SAR (W/kg)	0.418	Peak SAR location (mm)	
		X-axis	Y-axis
		-2.4	13.8

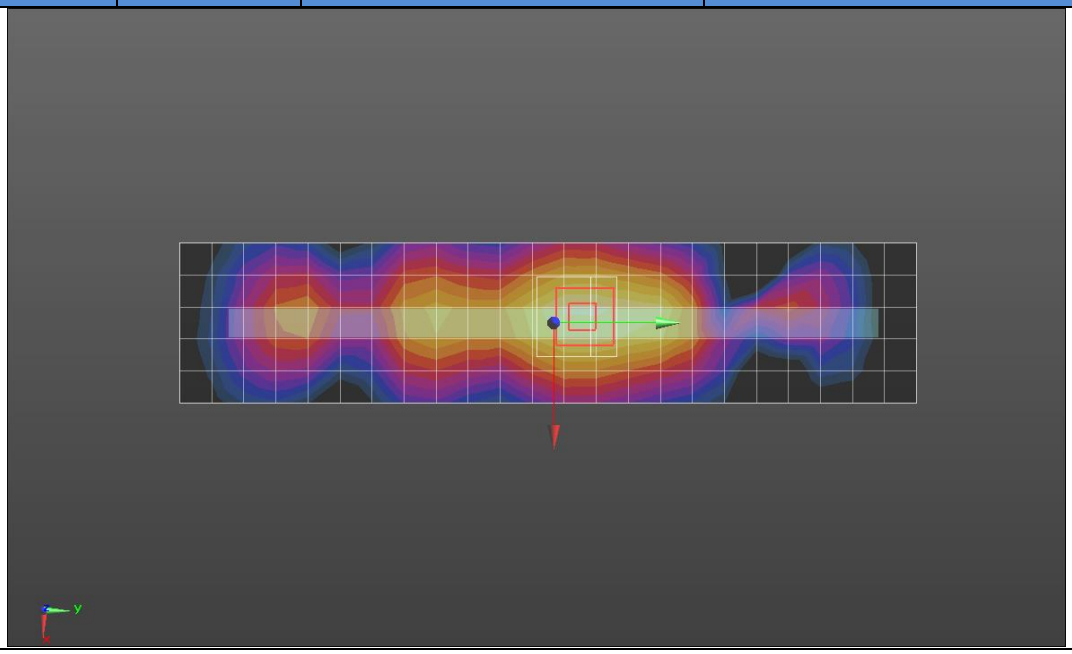


Figure (46)

Reported SAR (W/kg)	0.563	Peak SAR location (mm)	
		X-axis	Y-axis
		2.4	71.6

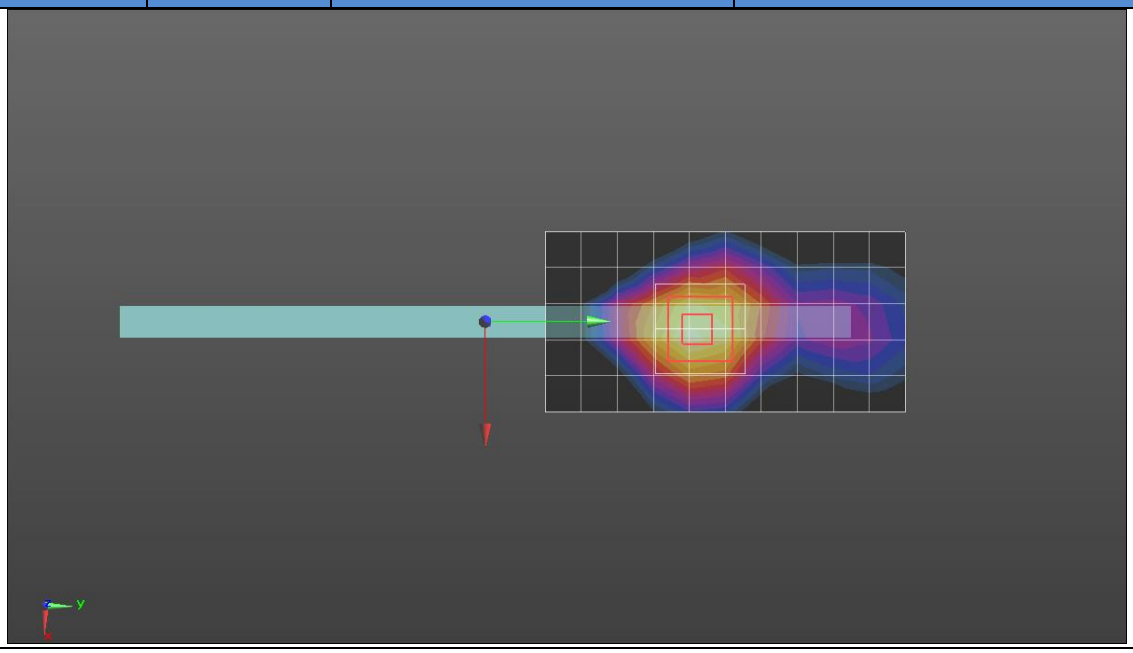


Figure (47)

Reported SAR (W/kg)	0.001	Peak SAR location (mm)	
		X-axis	Y-axis
		5.0	-95.8

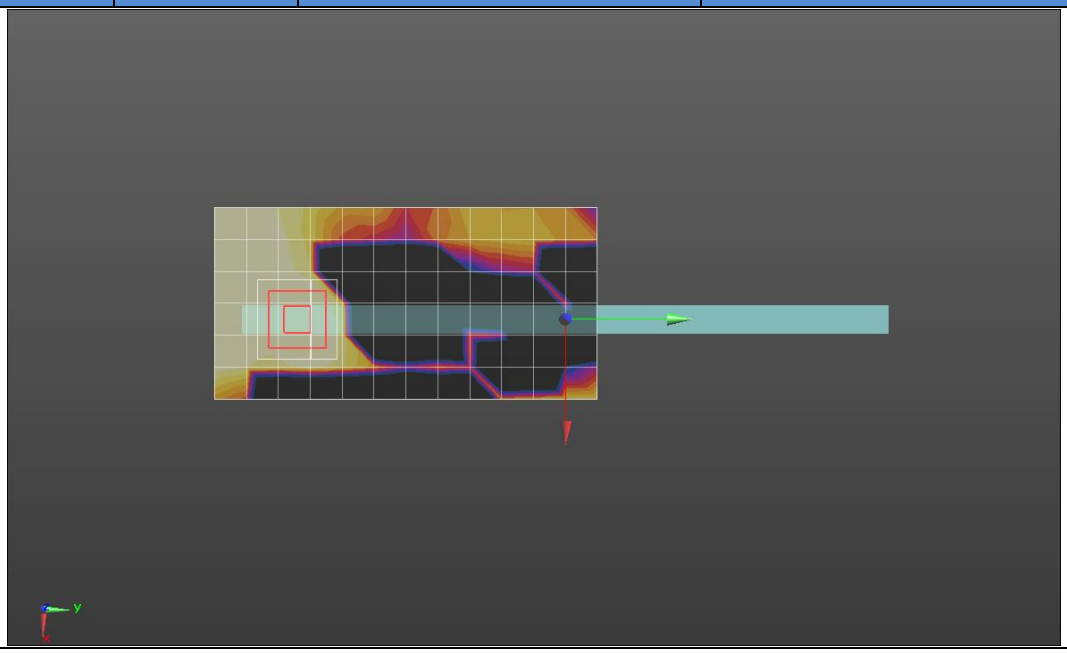


Figure (48)

Reported SAR (W/kg)	0.202	Peak SAR location (mm)	
		X-axis	Y-axis
		1.2	-94.8

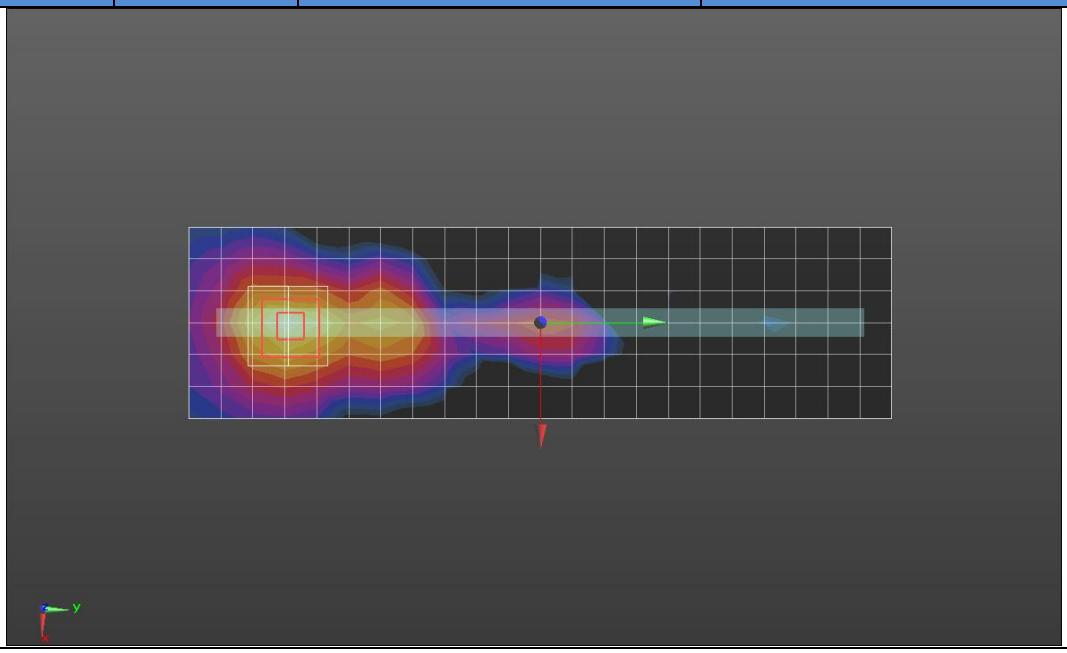


Figure (49)

Reported SAR (W/kg)	1.170	Peak SAR location (mm)	
		X-axis	Y-axis
		3.0	-85.0

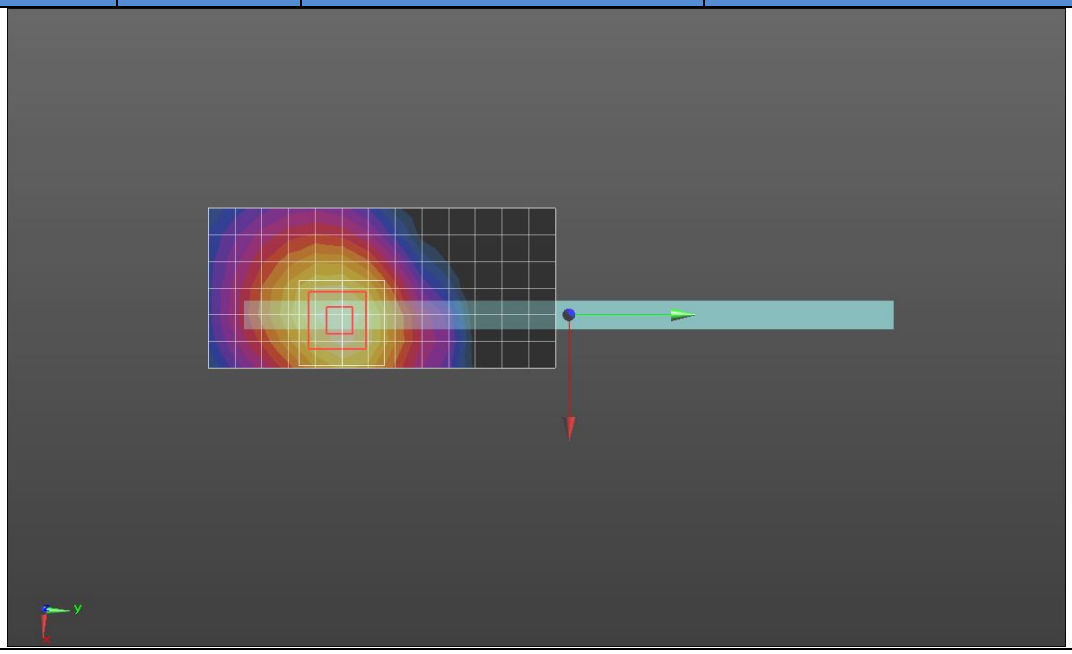


Figure (50)

Reported SAR (W/kg)	0.162	Peak SAR location (mm)	
		X-axis	Y-axis
		-1.2	-61.2

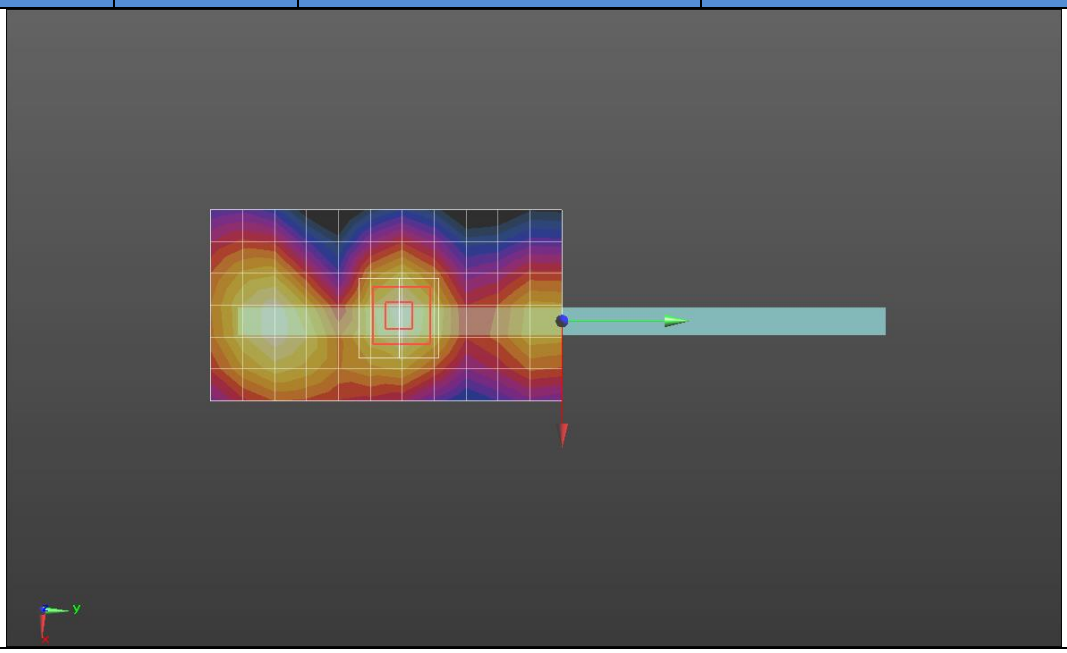


Figure (51)

Reported SAR (W/kg)	0.001	Peak SAR location (mm)	
		X-axis	Y-axis
		6.0	-96.0

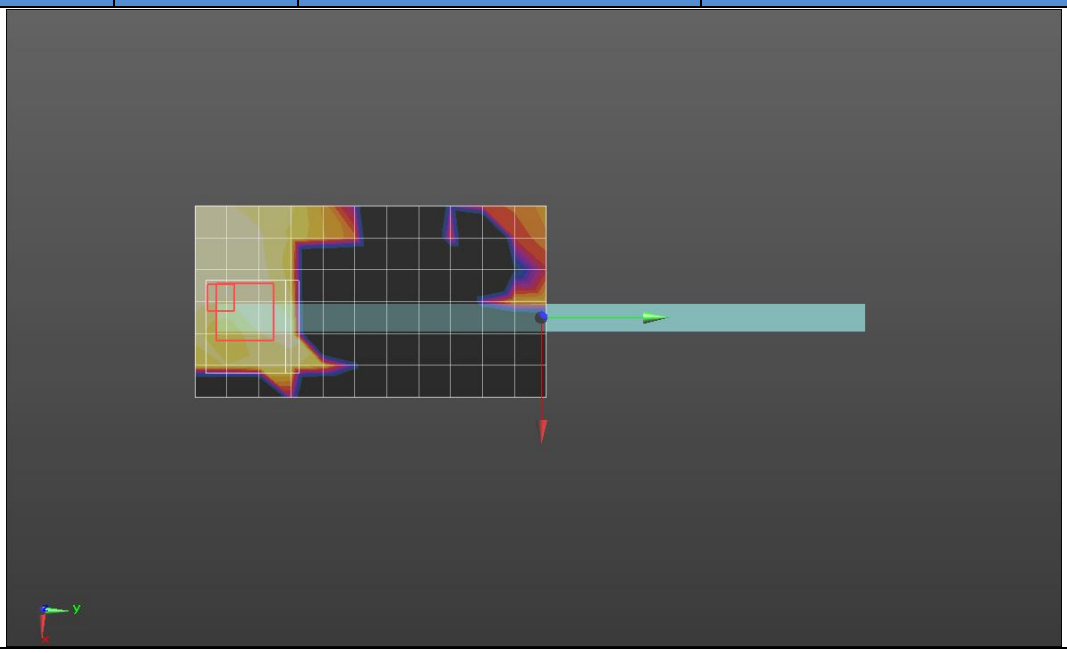


Figure (52)

SUM SAR (W/kg)	0.163	DTS Ant.2		BT Ant.1	
		0.001		0.162	
		Peak SAR location (mm)			
		X-axis	Y-axis	X-axis	Y-axis
		5.0	-95.8	-1.2	-61.2

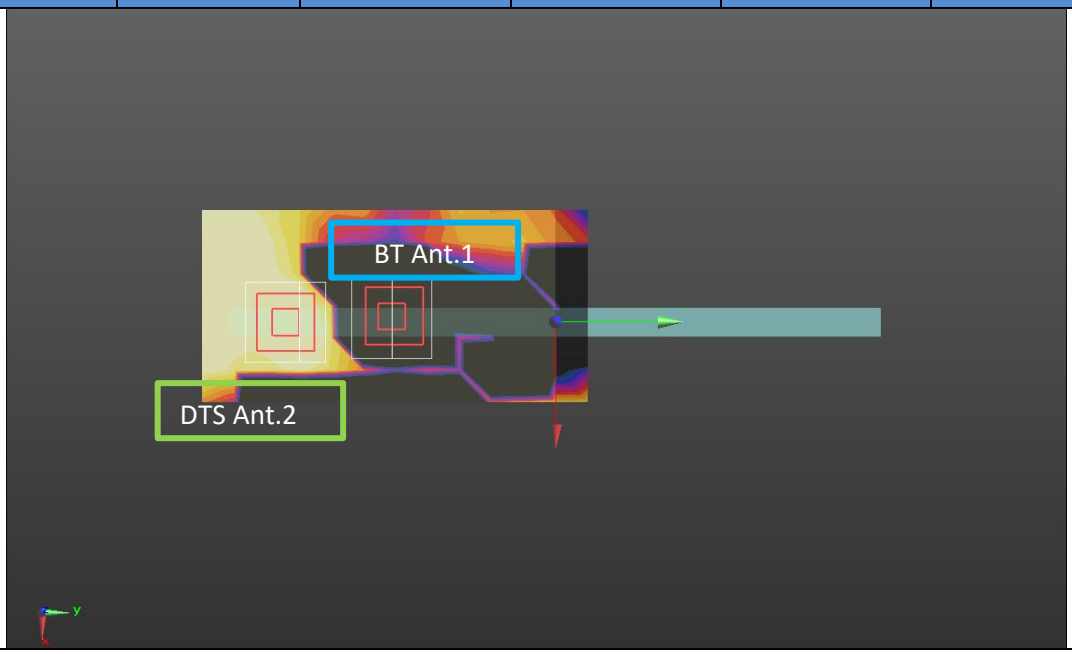


Figure (53)

SUM SAR (W/kg)	1.332	UNII MIMO		BT Ant.1	
		1.170		0.162	
		Peak SAR location (mm)			
		X-axis	Y-axis	X-axis	Y-axis
		3.0	-85.0	-1.2	-61.2

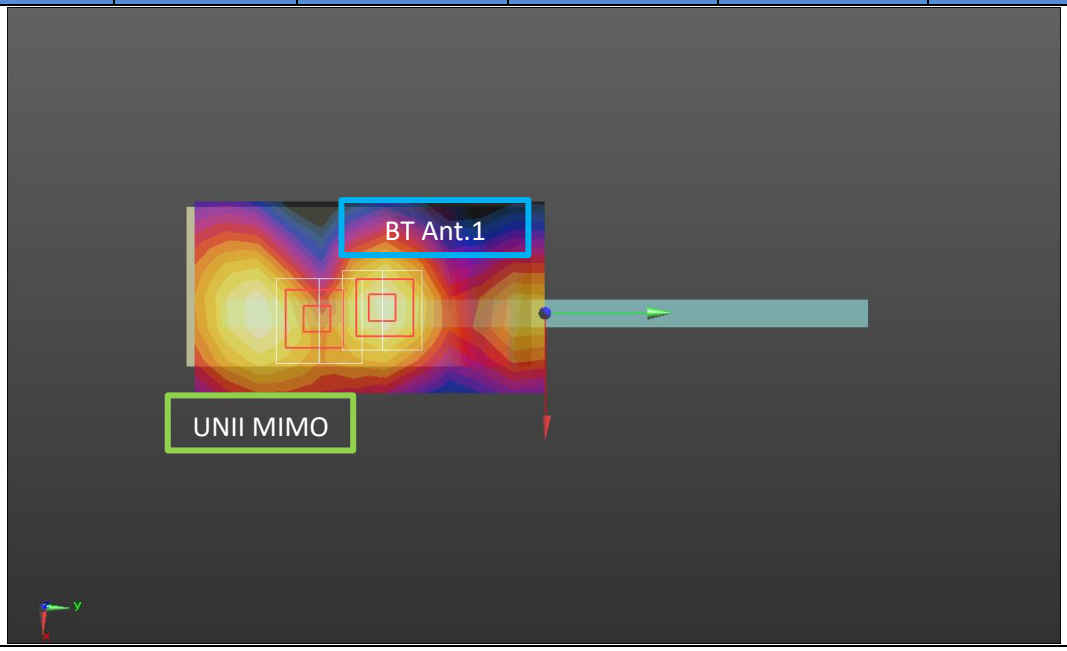


Figure (54)

SUM SAR (W/kg)	1.171	UNII MIMO		BT Ant.2	
		1.170		0.001	
		Peak SAR location (mm)			
		X-axis	Y-axis	X-axis	Y-axis
		3.0	-85.0	6.0	-96.0

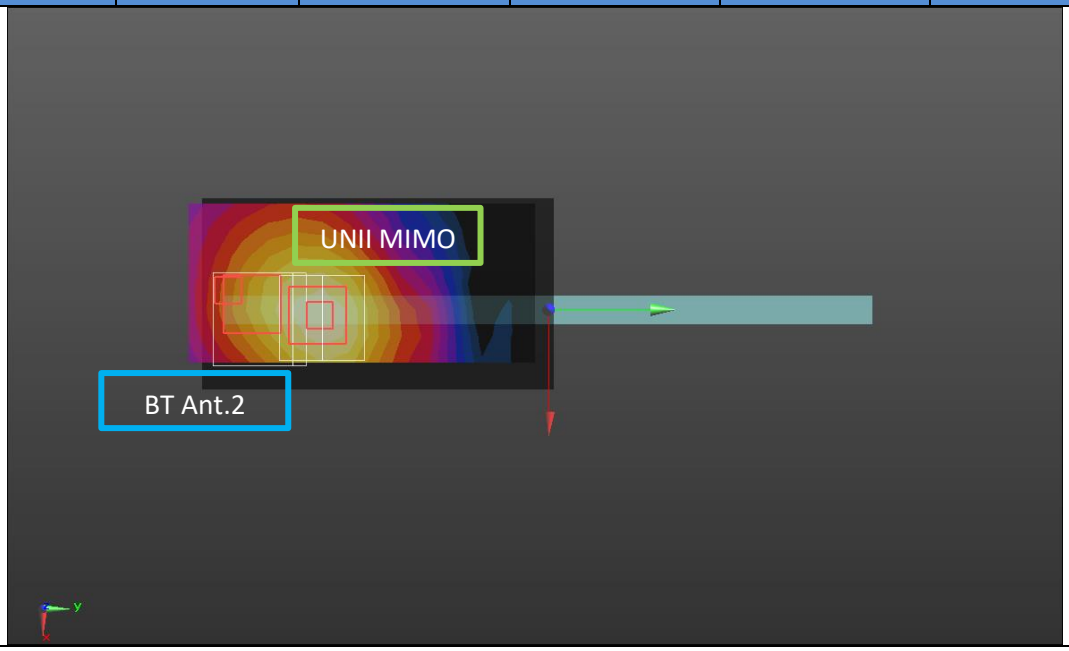


Figure (55)

SUM SAR (W/kg)	1.372	DTS MIMO		UNII MIMO	
		0.202		1.170	
		Peak SAR location (mm)			
		X-axis	Y-axis	X-axis	Y-axis
		1.2	-94.8	3.0	-85.0

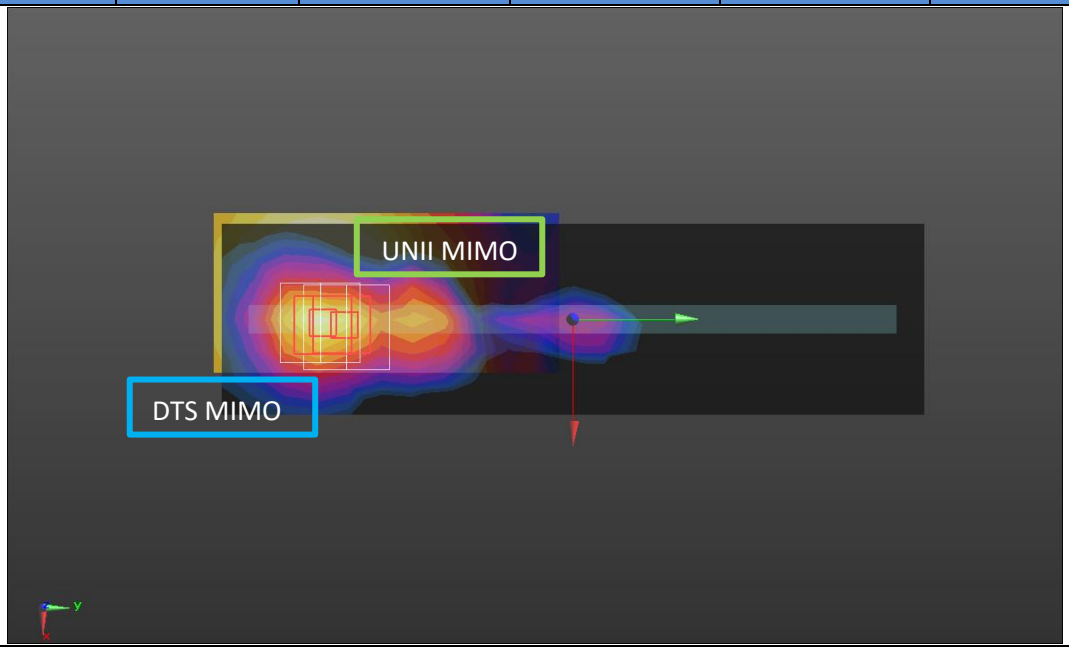


Figure (56)

SUM SAR (W/kg)	1.333	DTS Ant.2		UNII MIMO		BT Ant.1	
		0.001		1.170		0.162	
		Peak SAR location (mm)					
		X-axis	Y-axis	X-axis	Y-axis	X-axis	Y-axis
		5.0	-95.8	3.0	-85.0	-1.2	-61.2

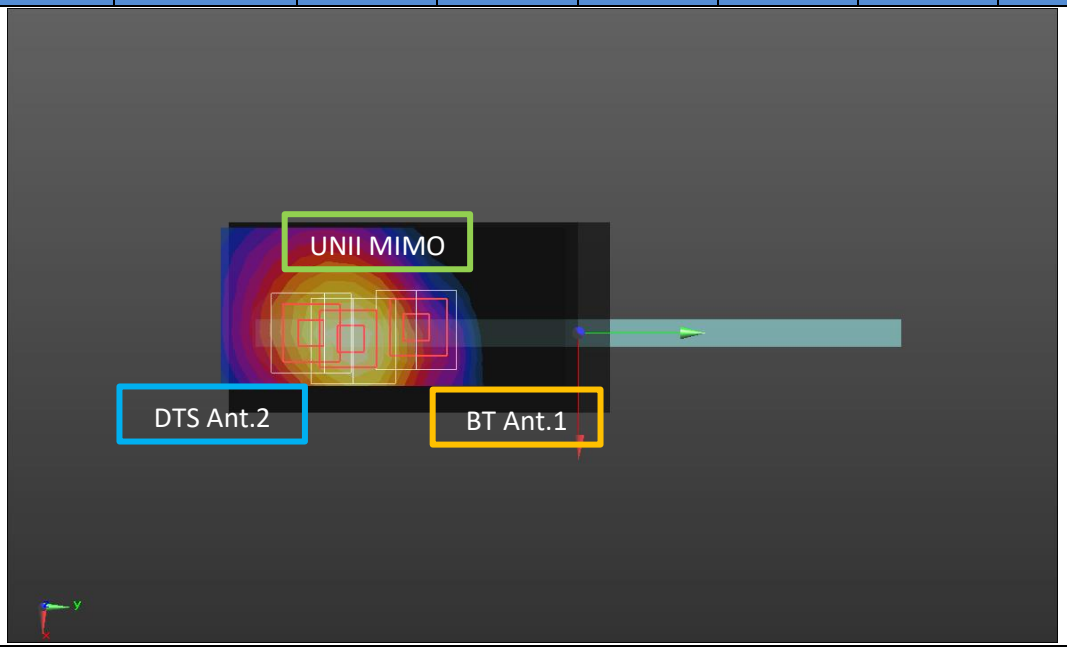
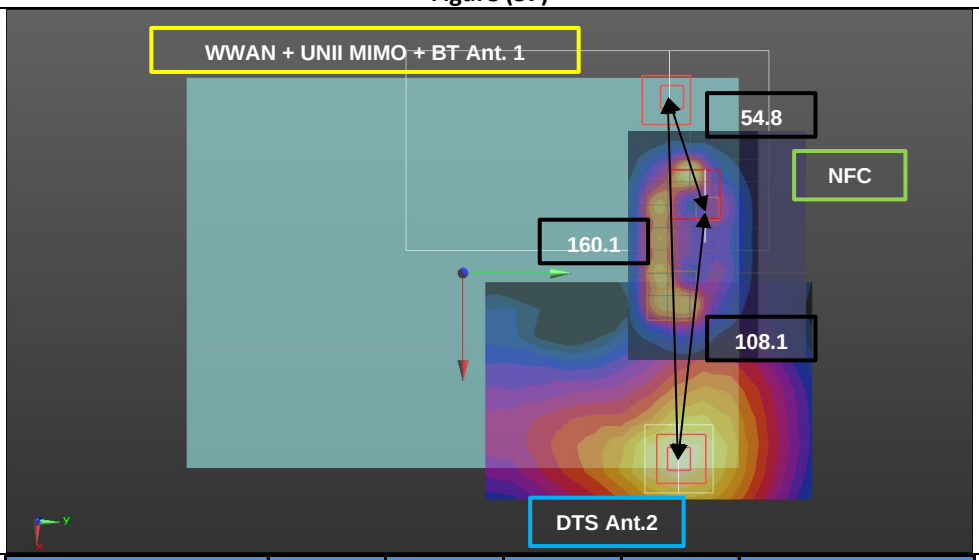


Figure (57)

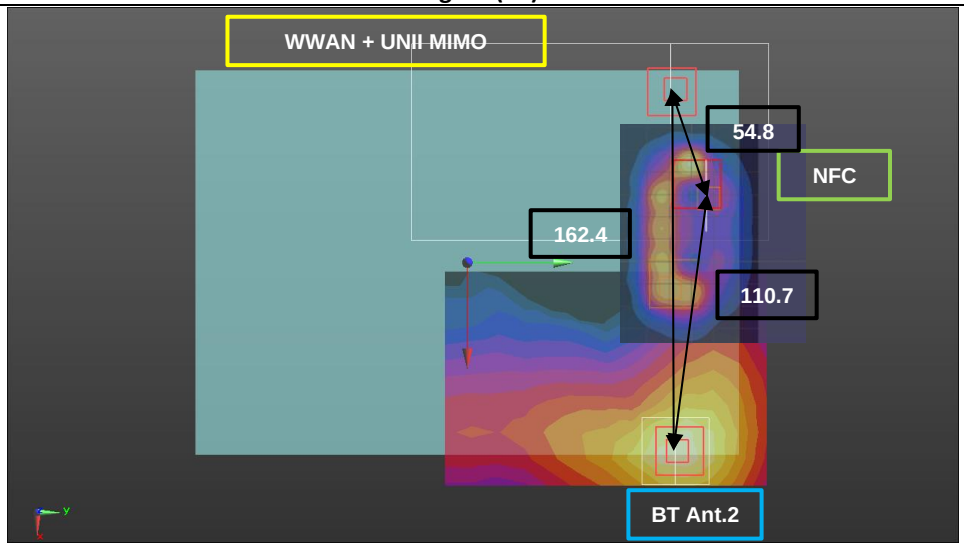


Mode		SAR	X	Y	Z	d: Calculated distance (mm)	
		W/kg	mm	mm	mm		
WWAN+UNII MIMO+BT Ant.1	1	1.570	-78.0	91.0	0.0000	1 + 2	160.1
DTS Ant.2	2	0.541	82.0	95.2	0.0000	1 + 3	54.8
NFC	3	0.075	-25.5	106.7	0.0000	2 + 3	108.1

The Peak Location Separation Distance is computed by using the formula below:

SQRT((X1-X2)^2+(Y1-Y2)^2+(Z1-Z2)^2)

Figure (58)

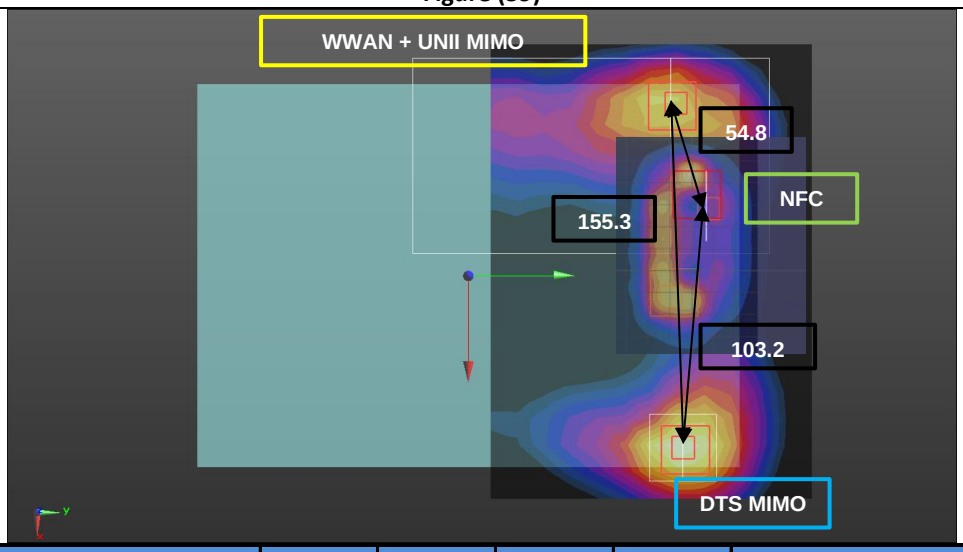


Mode		SAR	X	Y	Z	d: Calculated distance (mm)	
		W/kg	mm	mm	mm		
WWAN+UNII MIMO	1	1.200	-78.0	91.0	0.0000	1 + 2	162.4
BT Ant.2	2	0.773	84.4	93.2	0.0000	1 + 3	54.8
NFC	3	0.075	-25.5	106.7	0.0000	2 + 3	110.7

The Peak Location Separation Distance is computed by using the formula below:

SQRT((X1-X2)^2+(Y1-Y2)^2+(Z1-Z2)^2)

Figure (59)



Mode		SAR	X	Y	Z	d: Calculated distance (mm)	
		W/kg	mm	mm	mm		
WWAN+UNII MIMO	1	1.200	-78.0	91.0	0.0000	1 + 2	155.3
DTS MIMO	2	0.760	77.2	96.4	0.0000	1 + 3	54.8
NFC	3	0.075	-25.5	106.7	0.0000	2 + 3	103.2

The Peak Location Separation Distance is computed by using the formula below:

SQRT((X1-X2)^2+(Y1-Y2)^2+(Z1-Z2)^2)

-End-