

# KCTL Inc.

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KR20-SPF0026-B  
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# KCTL

## GSM850 Volume Scan – Top Position

Scenario No.10

Licensed Band + WLAN 2.4 GHz MIMO + WLAN 5 GHz MIMO  
= 0.918 W/kg

### Multi-Band Average SAR

#### Multi-Band Configurations:

DASY Configuration for Configuration 3/GSM850\_GPRS 2Tx\_CH190\_Top\_0 mm  
Grip Sensor On\_VS/Volume Scan:

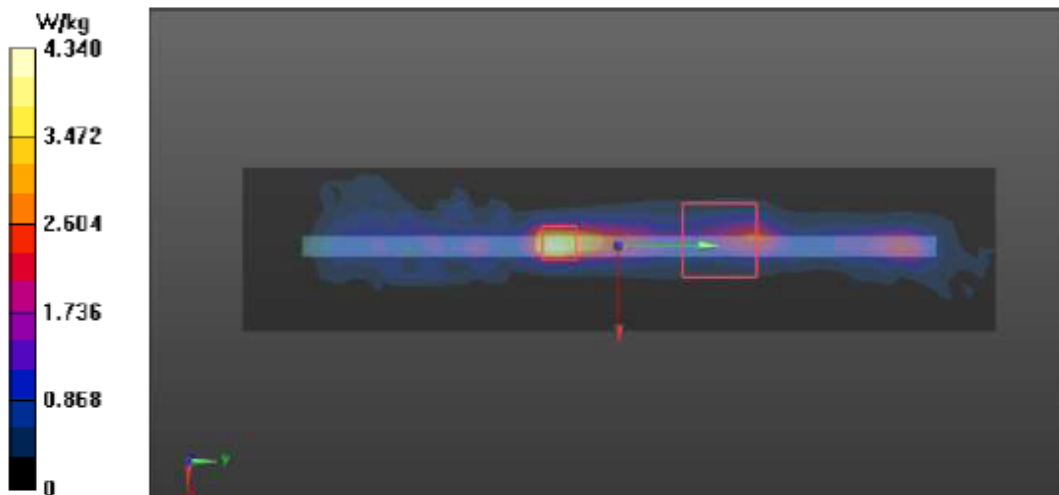
DASY Configuration for Configuration 5/802.11\_b\_MIMO\_CH11\_Top\_0 mm  
Sensor On VS/Volume Scan:

DASY Configuration for Configuration 5/802.11 ac\_VHT80\_WLAN1\_CH122\_Top\_0  
mm Sensor On\_VS/Volume Scan:

DASY Configuration for Configuration 5/802.11 ac\_VHT80\_WLAN2\_CH155\_Top\_0  
mm Sensor On\_VS 2/Volume Scan:

#### Multi Band Result:

SAR(1 g) = 0.918 W/kg; SAR(10 g) = 0.352 W/kg  
Maximum value of SAR (interpolated) = 4.34 W/kg



### 12.3.2 GSM1900 SPLSR and Volume Scan Analysis\_Sensor On

<b>GSM1900 Simultaneous</b>										
Scenario	Scenario No.1	Scenario No.2	Scenario No.3	Scenario No.4	Scenario No.5	Scenario No.6	Scenario No.7	Scenario No.8	Scenario No.9	Scenario No.10
SUM	①②	①⑥	①⑦	①③	①④⑤	①②⑥	①④⑤⑥	①④⑤⑦	①②④⑤⑥	①③④⑤
Rear	1.616	1.507	1.567	1.686	2.196	2.184	2.764	2.824	3.441	2.943
Left	0.224	0.153	0.632	0.216	0.749	0.224	0.749	1.228	0.820	0.812
Left Corner	0.465	0.800	0.528	0.478	0.762	0.865	1.162	0.890	1.227	0.840
Right	0.056	0.630	0.044	0.501	0.712	0.642	1.298	0.712	1.310	1.169
Right Corner	0.505	0.415	0.505	0.349	0.635	0.815	0.945	1.035	1.345	0.879
Top	0.861	0.988	0.830	1.013	1.226	1.124	1.489	1.331	1.625	1.514

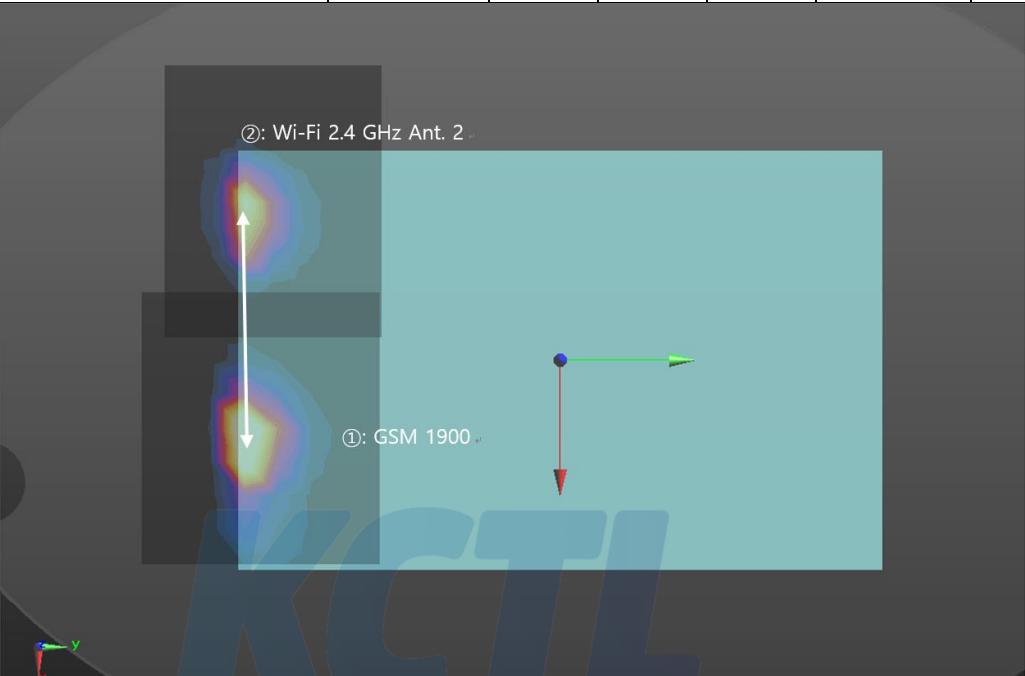
Note: Yellow highlight cells require SPLSR or Volume Scan analysis.

<b>GSM1900 SPLSR – Rear Position</b>																
Scenario	Scenario No.1		Scenario No.4		Scenario No.5		Scenario No.6		Scenario No.7		Scenario No.8		Scenario No.9		Scenario No.10	
Rear	1.616		1.686		2.196		2.184		2.764		2.824		3.441		2.943	
Distance [mm]	①-②	110	①-③	110.8	①-④	51.06	①-②	110.0	①-④⑥	50.75	①-⑤⑦	118.8	①-②⑤	86.67	①-③④	49.79
	N/A		N/A		①-⑤	118.1	①-⑥	60.74	①-⑤	118.1	①-④	51.06	①-④⑥	50.75	①-③⑤	118.8
	N/A		N/A		④-⑤	168.9	②-⑥	169.5	④⑥-⑤	167.5	④-⑤⑦	169.5	②⑤-④⑥	136.5	③④-③⑤	168.2
SPLSR ≤ 0.04 Limit	①-②	0.02	①-③	0.02	①-④	0.03	①-②	0.02	①-④⑥	0.05	①-⑤⑦	0.02	①-②⑤	0.03	①-③④	0.05
	N/A		N/A		①-⑤	0.02	①-⑥	0.03	①-⑤	0.02	①-④	0.03	①-④⑥	0.05	①-③⑤	0.03
	N/A		N/A		④-⑤	0.01	②-⑥	0.01	④⑥-⑤	0.01	④-⑤⑦	0.01	②⑤-④⑥	0.02	③④-③⑤	0.02
Volume scan	Not Required		Not Required		Not Required		Not Required		Required		Not Required		Required		Required	
<b>GSM1900 SPLSR – Top Position</b>																
Scenario	Scenario No.9															
Top	1.625															
Distance [mm]	①-②⑤													98.08		
	①-④⑥													38.2		
	②⑤-④⑥													136.0		
SPLSR ≤ 0.04 Limit	①-②⑤													0.01		
	①-④⑥													0.03		
	②⑤-④⑥													0.00		
Volume scan	Not Required															

Note: Scenario No. 7 ~ 10 were analyzed according to the SPLSR hotspot combination procedure of the TCB Workshop Nov 2019.(Reference Section 12.5).

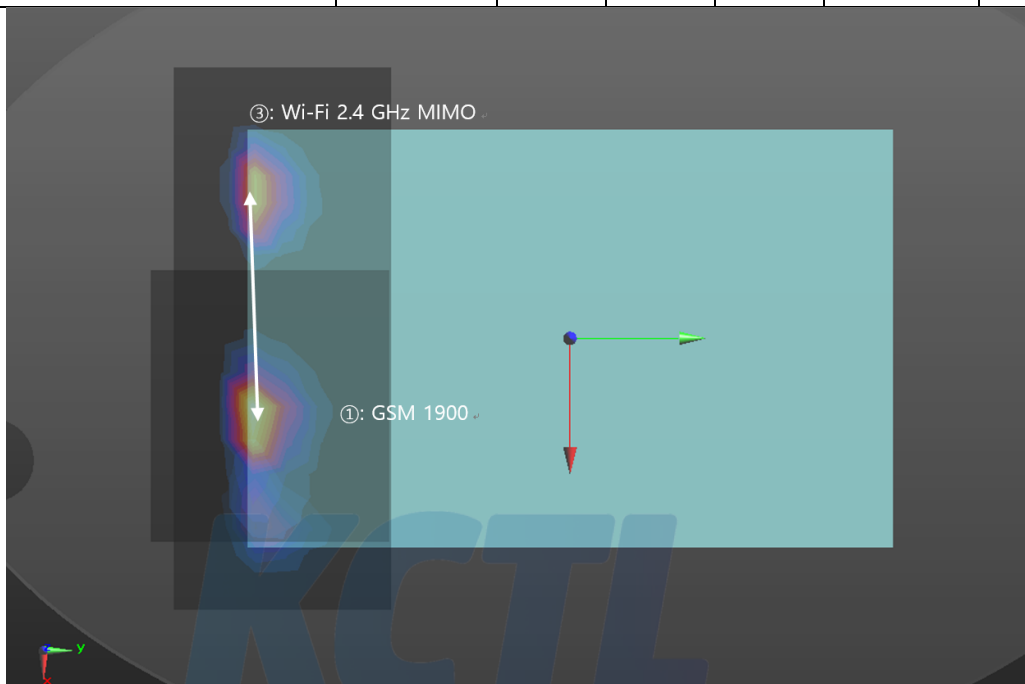
**GSM1900 SPLSR – Rear Position**

Scenario	Mode (Numbering)	SAR W/kg	Coordinates			Distance (mm)	SPLSR
			X	Y	Z		
Scenario No.1	GSM1900 (①)	0.939	0.035	-0.137	-0.183	110.0	0.02
	Wi-Fi 2.4 GHz Ant.2 (②)	0.677	-0.075	-0.140	-0.178		

**GSM1900 SPLSR – Rear Position**

Scenario	Mode (Numbering)	SAR W/kg	Coordinates			Distance (mm)	SPLSR
			X	Y	Z		
Scenario No.4	GSM1900 (①)	0.939	0.035	-0.137	-0.183	110.8	0.02
	Wi-Fi 2.4 GHz MIMO (③)	0.747	-0.076	-0.140	-0.178		



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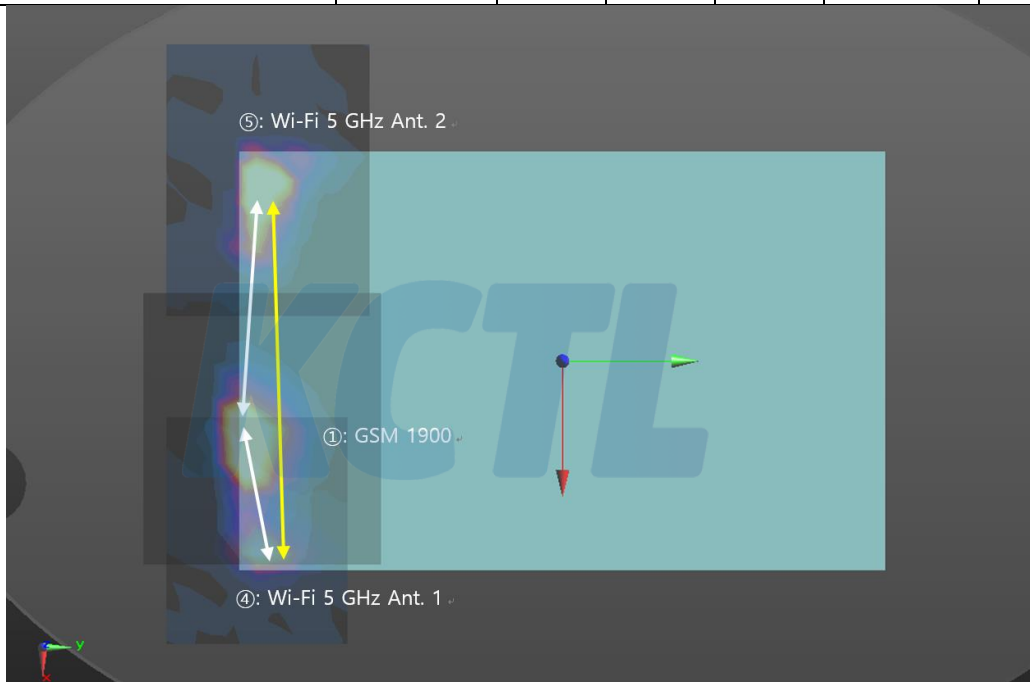
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## GSM1900 SPLSR – Rear Position

Scenario	Mode (Numbering)	SAR W/kg	Coordinates			Distance (mm)	SPLSR
			X	Y	Z		
Scenario No.5	GSM1900 (①)	0.939	0.035	-0.137	-0.183	51.1	0.03
	Wi-Fi 5 GHz Ant.1 (④)	0.482	0.085	-0.138	-0.179		
	GSM1900 (①)	0.939	0.035	-0.137	-0.183	118.1	0.02
	Wi-Fi 5 GHz Ant.2 (⑤)	0.775	-0.083	-0.131	-0.179		
	Wi-Fi 5 GHz Ant.1 (④)	0.482	0.085	-0.138	-0.179	168.9	0.01
	Wi-Fi 5 GHz Ant.2 (⑤)	0.775	-0.083	-0.131	-0.179		



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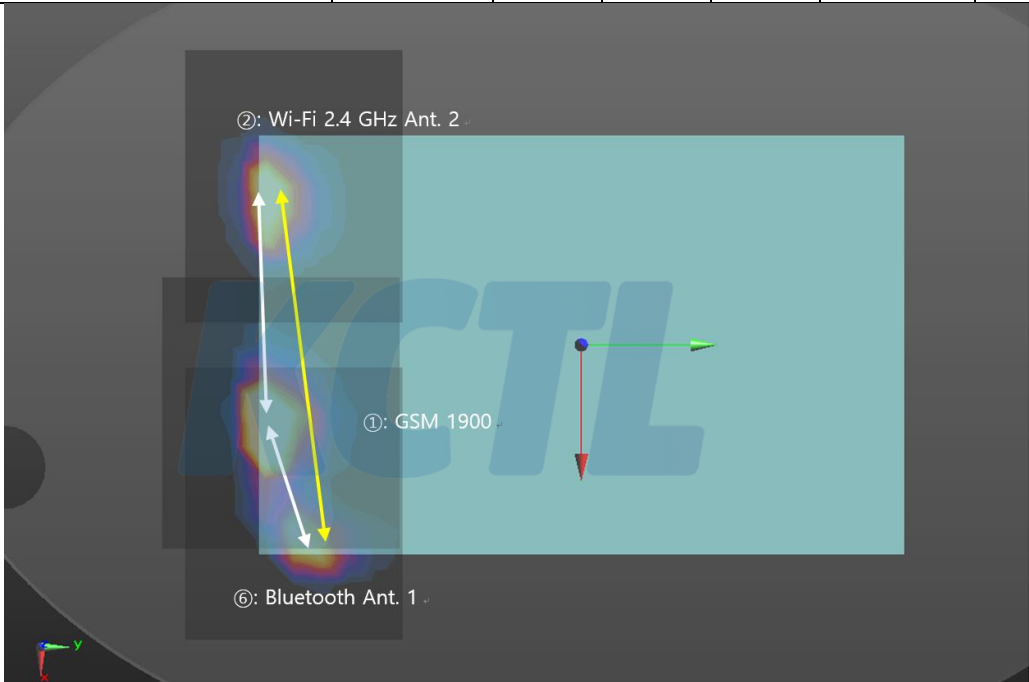
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## GSM1900 SPLSR – Rear Position

Scenario	Mode (Numbering)	SAR W/kg	Coordinates			Distance (mm)	SPLSR
			X	Y	Z		
Scenario No.6	GSM1900 (①)	0.939	0.035	-0.137	-0.183	110.0	0.02
	Wi-Fi 2.4 GHz Ant.2 (②)	0.677	-0.075	-0.140	-0.178		
	GSM1900 (①)	0.939	0.035	-0.137	-0.183	60.7	0.03
	Bluetooth Ant.1 (⑥)	0.568	0.093	-0.122	-0.178		
	Wi-Fi 2.4 GHz Ant.2 (②)	0.677	-0.075	-0.140	-0.178	169.5	0.01
	Bluetooth Ant.1 (⑥)	0.568	0.093	-0.122	-0.178		



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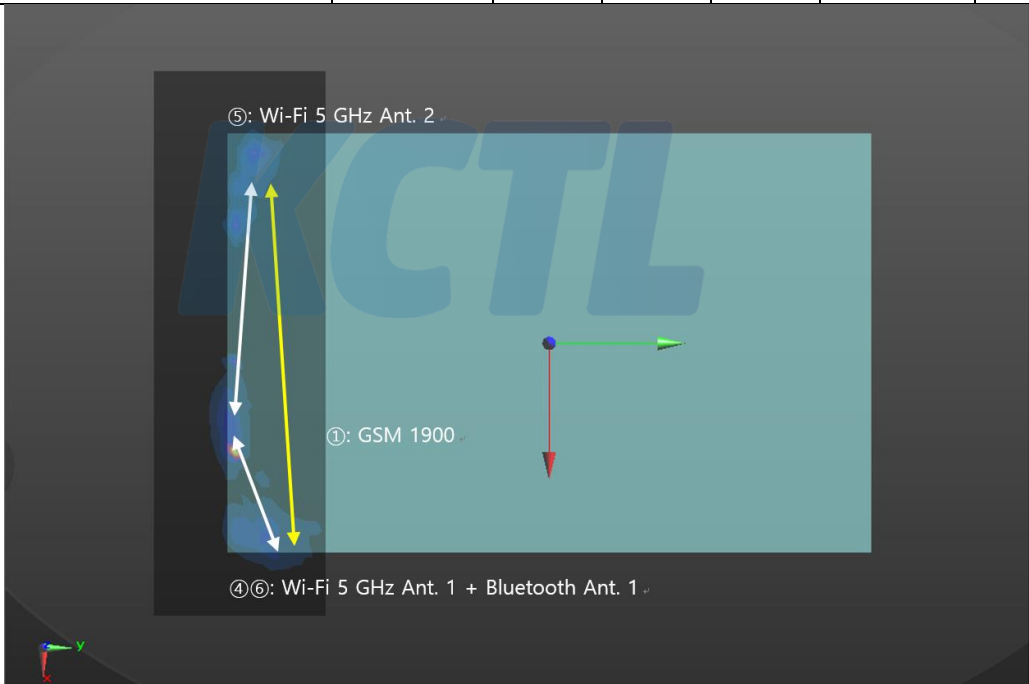
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## GSM1900 SPLSR – Rear Position

Scenario	Mode (Numbering)	SAR W/kg	Coordinates			Distance (mm)	SPLSR
			X	Y	Z		
Scenario No.7	GSM1900 (①)	0.939	0.035	-0.137	-0.183	50.8	0.05
	Wi-Fi 5 GHz Ant.1 (④) + Bluetooth Ant.1 (⑥)	0.886	0.084	-0.127	-0.178		
	GSM1900 (①)	0.939	0.035	-0.137	-0.183	118.1	0.02
	Wi-Fi 5 GHz Ant.2 (⑤)	0.775	-0.083	-0.131	-0.179		
	Wi-Fi 5 GHz Ant.1 (④) + Bluetooth Ant.1 (⑥)	0.886	0.084	-0.127	-0.178	167.5	0.01
	Wi-Fi 5 GHz Ant.2 (⑤)	0.775	-0.083	-0.131	-0.179		



**GSM1900 SPLSR – Rear Position**

Scenario	Mode (Numbering)	SAR W/kg	Coordinates			Distance (mm)	SPLSR
			X	Y	Z		
Scenario No.8	GSM1900 (①)	0.939	0.035	-0.137	-0.183	118.8	0.02
	Wi-Fi 5 GHz Ant.2 (⑤) + Bluetooth Ant.2 (⑦)	1.000	-0.084	-0.131	-0.178		
	GSM1900 (①)	0.939	0.035	-0.137	-0.183	51.1	0.03
	Wi-Fi 5 GHz Ant.1 (④)	0.482	0.085	-0.138	-0.179		
	Wi-Fi 5 GHz Ant.1 (④)	0.482	0.085	-0.138	-0.179	169.5	0.01
	Wi-Fi 5 GHz Ant.2 (⑤) + Bluetooth Ant.2 (⑦)	1.000	-0.084	-0.131	-0.178		
							



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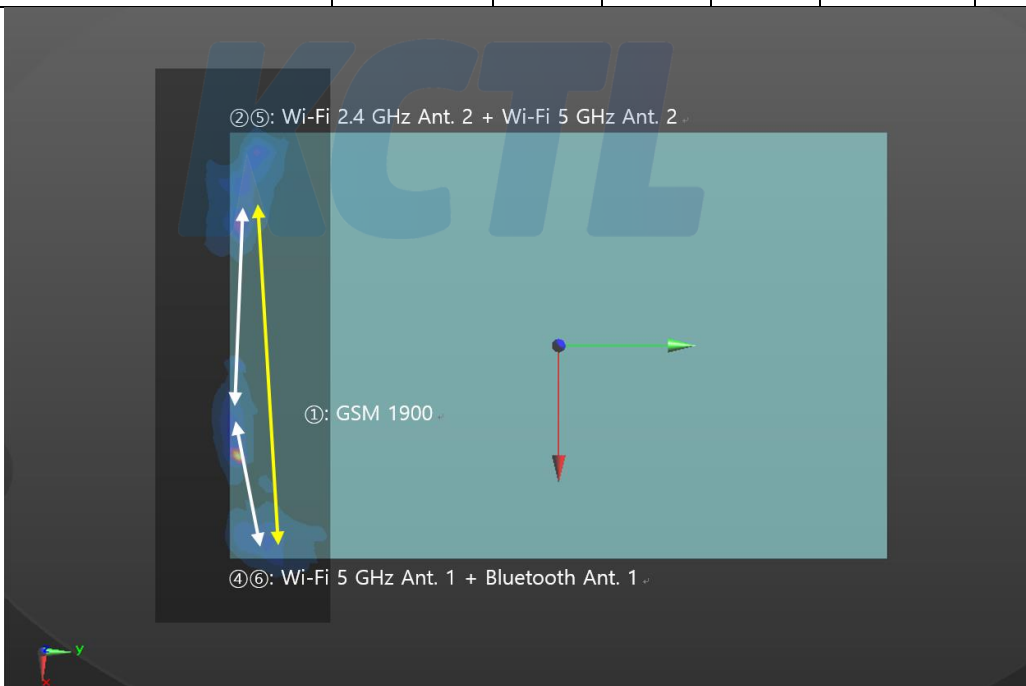
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## GSM1900 SPLSR – Rear Position

Scenario	Mode (Numbering)	SAR W/kg	Coordinates			Distance (mm)	SPLSR
			X	Y	Z		
Scenario No.9	GSM1900 (①)	0.939	0.035	-0.137	-0.183	86.7	0.03
	Wi-Fi 2.4 GHz Ant.2 (②) + Wi-Fi 5 GHz Ant.2 (⑤)	1.010	-0.052	-0.139	-0.178		
	GSM1900 (①)	0.939	0.035	-0.137	-0.183	50.8	0.05
	Wi-Fi 5 GHz Ant.1 (④) + Bluetooth Ant.1 (⑥)	0.886	0.084	-0.127	-0.178		
	Wi-Fi 2.4 GHz Ant.2 (②) + Wi-Fi 5 GHz Ant.2 (⑤)	1.010	-0.052	-0.139	-0.178	136.5	0.02
	Wi-Fi 5 GHz Ant.1 (④) + Bluetooth Ant.1 (⑥)	0.886	0.084	-0.127	-0.178		



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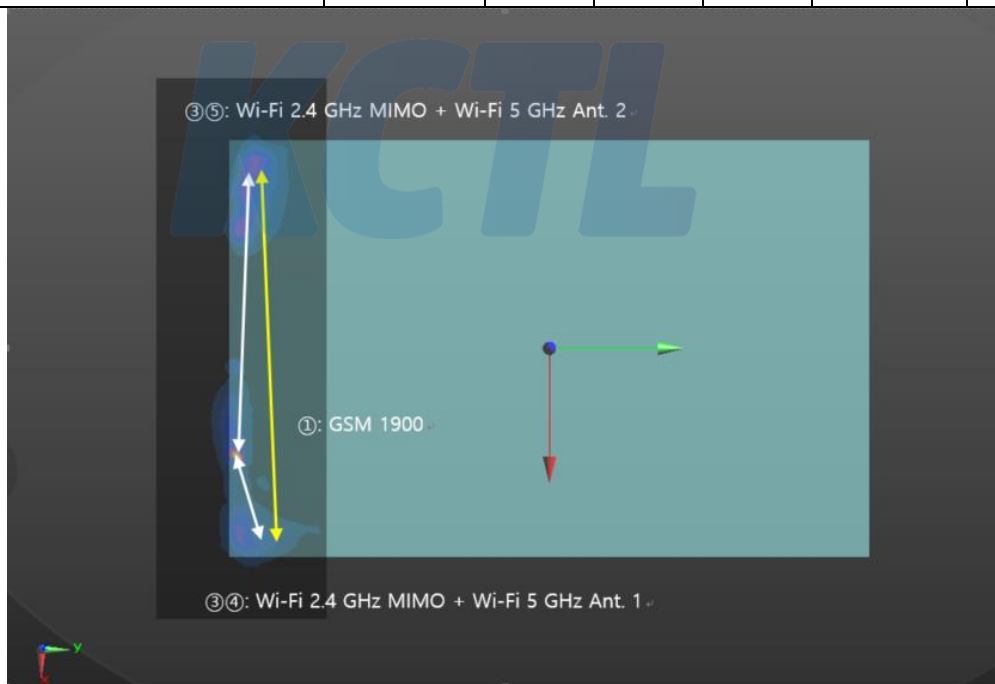
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## GSM1900 SPLSR – Rear Position

Scenario	Mode (Numbering)	SAR W/kg	Coordinates			Distance (mm)	SPLSR
			X	Y	Z		
Scenario No.10	GSM1900 (①)	0.939	0.035	-0.137	-0.183	49.79	0.05
	Wi-Fi 2.4 GHz MIMO (③) + Wi-Fi 5 GHz Ant.1 (④)	0.926	0.084	-0.139	-0.178		
	GSM1900 (①)	0.939	0.035	-0.137	-0.183	118.8	0.03
	Wi-Fi 2.4 GHz MIMO (③) + Wi-Fi 5 GHz Ant.2 (⑤)	1.240	-0.084	-0.131	-0.178		
	Wi-Fi 2.4 GHz MIMO (③) + Wi-Fi 5 GHz Ant.1 (④)	0.926	0.084	-0.139	-0.178	168.2	0.02
	Wi-Fi 2.4 GHz MIMO (③) + Wi-Fi 5 GHz Ant.2 (⑤)	1.240	-0.084	-0.131	-0.178		



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## GSM1900 SPLSR – Top Position

Scenario	Mode (Numbering)	SAR W/kg	Coordinates			Distance (mm)	SPLSR
			X	Y	Z		
Scenario No.9	GSM1900 (①)	0.725	-0.002	0.044	-0.184	98.08	0.01
	Wi-Fi 2.4 GHz Ant.2 (②) + Wi-Fi 5 GHz Ant.2 (⑤)	0.283	0.001	-0.054	-0.181		
	GSM1900 (①)	0.725	-0.002	0.044	-0.184	38.2	0.03
	Wi-Fi 5 GHz Ant.1 (④) + Bluetooth Ant.1 (⑥)	0.486	0.001	0.082	-0.181		
	Wi-Fi 2.4 GHz Ant.2 (②) + Wi-Fi 5 GHz Ant.2 (⑤)	0.283	0.001	-0.054	-0.181	136.0	0.00
	Wi-Fi 5 GHz Ant.1 (④) + Bluetooth Ant.1 (⑥)	0.486	0.001	0.082	-0.181		

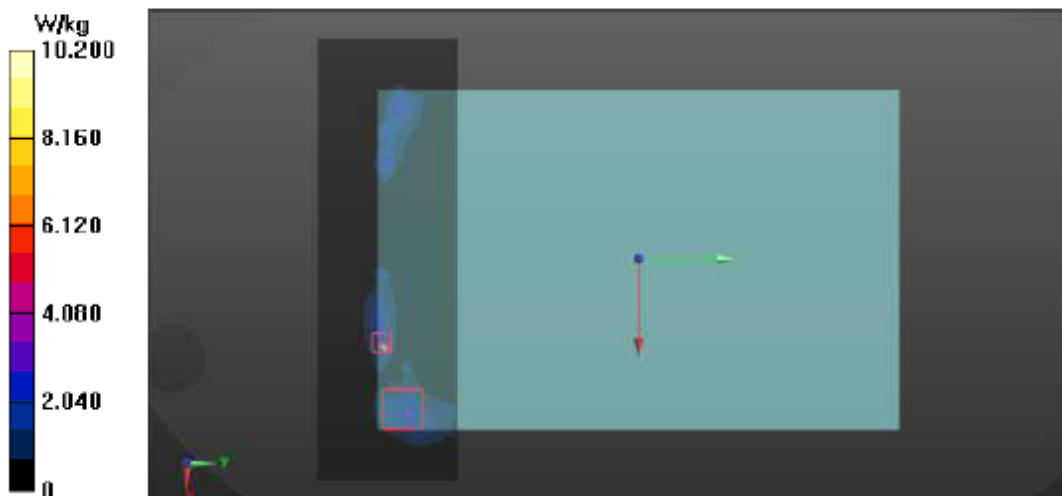
**GSM1900 Volume Scan – Rear Position**

Scenario No.7

Licensed Band + WLAN 5 GHz MIMO + Bluetooth Ant 1  
= 1.06 W/kg**Multi-Band Average SAR****Multi-Band Configurations:**DASY Configuration for Configuration/GSM1900\_GPRS 2Tx\_CH661\_Rear\_0 mm  
Grip Sensor On\_VS/Volume Scan:DASY Configuration for Configuration/802.11 ac\_VHT80\_WLAN2\_CH155\_Rear\_0  
mm Sensor On/Volume Scan:DASY Configuration for Configuration/802.11 ac\_VHT80\_WLAN1\_CH122\_Rear\_0  
mm Sensor On/Volume Scan:DASY Configuration for Configuration/Bluetooth\_GFSK\_DH5\_Ant.1\_CH0\_Rear\_0  
mm Sensor On/Volume Scan:**Multi Band Result:**

SAR(1 g) = 1.06 W/kg; SAR(10 g) = 0.480 W/kg

Maximum value of SAR (interpolated) = 10.2 W/kg



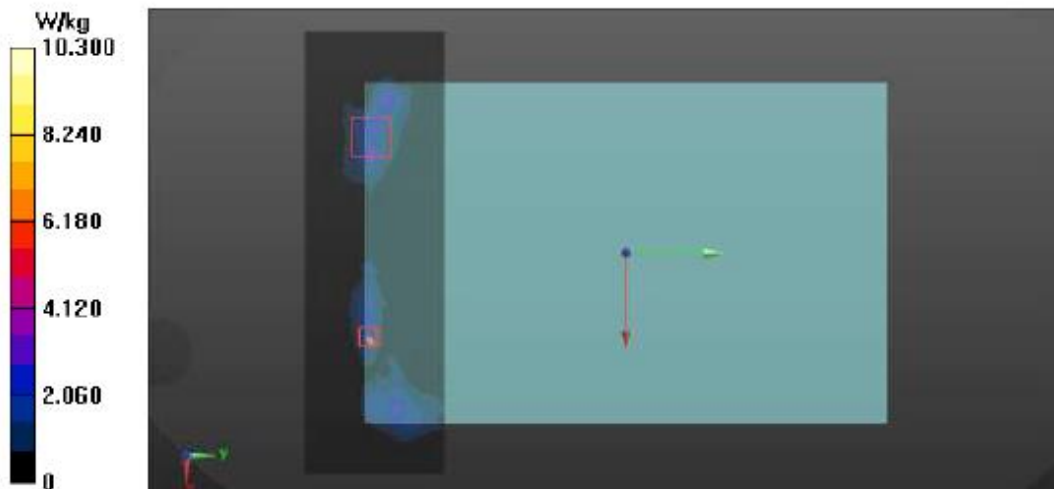
**GSM1900 Volume Scan – Rear Position**

Scenario No.9

Licensed Band + WLAN 2.4 GHz Ant.2 + WLAN 5 GHz MIMO + Bluetooth Ant 1  
= 1.07 W/kg**Multi-Band Average SAR****Multi-Band Configurations:**DASY Configuration for Configuration/GSM1900\_GPRS 2Tx\_CH661\_Rear\_0 mm  
Grip Sensor On\_VS/Volume Scan:DASY Configuration for Configuration/802.11 ac\_VHT80\_WLAN2\_CH155\_Rear\_0  
mm Sensor On/Volume Scan:DASY Configuration for Configuration/802.11 b\_WLAN2\_CH1\_Rear\_0 mm Sensor  
On VS/Volume Scan:DASY Configuration for Configuration/802.11 ac\_VHT80\_WLAN1\_CH122\_Rear\_0  
mm Sensor On/Volume Scan:DASY Configuration for Configuration/Bluetooth\_GFSK\_DH5\_Ant.1\_CH0\_Rear\_0  
mm Sensor On/Volume Scan:**Multi Band Result:**

SAR(1 g) = 1.07 W/kg; SAR(10 g) = 0.553 W/kg

Maximum value of SAR (interpolated) = 10.3 W/kg



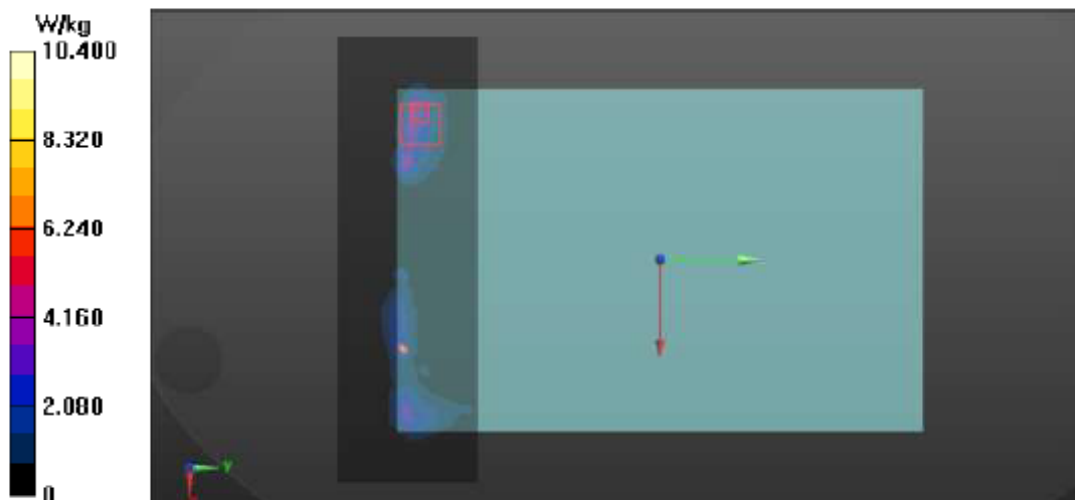
**GSM1900 Volume Scan – Rear Position**

Scenario No.10

Licensed Band + WLAN 2.4 GHz MIMO + WLAN 5 GHz MIMO  
= 1.29 W/kg**Multi-Band Average SAR****Multi-Band Configurations:**DASY Configuration for Configuration/802.11 b\_MIMO\_CH11\_Rear\_0 mm Sensor  
On VS/Volume Scan:DASY Configuration for Configuration/802.11 ac\_VHT80\_WLAN2\_CH155\_Rear\_0  
mm Sensor On/Volume Scan:DASY Configuration for Configuration/GSM1900\_GPRS 2Tx\_CH661\_Rear\_0 mm  
Grip Sensor On\_VS/Volume Scan:DASY Configuration for Configuration/802.11 ac\_VHT80\_WLAN1\_CH122\_Rear\_0  
mm Sensor On/Volume Scan:**Multi Band Result:**

SAR(1 g) = 1.29 W/kg; SAR(10 g) = 0.656 W/kg

Maximum value of SAR (interpolated) = 10.4 W/kg



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## 12.3.3 WCDMA II SPLSR and Volume Scan Analysis\_Sensor On

WCDMA II Simultaneous										
Scenario	Scenario No.1	Scenario No.2	Scenario No.3	Scenario No.4	Scenario No.5	Scenario No.6	Scenario No.7	Scenario No.8	Scenario No.9	Scenario No.10
SUM	①②	①⑥	①⑦	①③	①④⑤	①②⑥	①④⑤⑥	①④⑤⑦	①②④⑤⑥	①③④⑤
Rear	1.496	1.387	1.447	1.566	2.076	2.064	2.644	2.704	3.321	2.823
Left	0.335	0.264	0.743	0.327	0.860	0.335	0.860	1.339	0.931	0.923
Left Corner	0.465	0.800	0.528	0.478	0.762	0.865	1.162	0.890	1.227	0.840
Right	0.055	0.629	0.043	0.500	0.711	0.641	1.297	0.711	1.309	1.168
Right Corner	0.511	0.421	0.511	0.355	0.641	0.821	0.951	1.041	1.351	0.885
Top	0.999	1.126	0.968	1.151	1.364	1.262	1.627	1.469	1.763	1.652

Note: Yellow highlight cells require SPLSR or Volume Scan analysis.

WCDMA II SPLSR – Rear Position												
Scenario	Scenario No.5		Scenario No.6		Scenario No.7		Scenario No.8		Scenario No.9		Scenario No.10	
Rear	2.076		2.064		2.644		2.704		3.321		2.823	
Distance [mm]	①-④	49.51	①-②	111.5	①-④⑥	49.64	①-⑤⑦	120.3	①-②⑤	88.09	①-③④	48.17
	①-⑤	119.7	①-⑥	59.75	①-⑤	119.7	①-④	49.51	①-④⑥	49.64	①-③⑤	120.3
	④-⑤	168.9	②-⑥	169.5	④⑥-⑤	167.5	④-⑤⑦	169.5	②⑤-④⑥	136.5	③④-③⑤	168.2
SPLSR ≤ 0.04 Limit	①-④	0.03	①-②	0.02	①-④⑥	0.04	①-⑤⑦	0.02	①-②⑤	0.03	①-③④	0.05
	①-⑤	0.02	①-⑥	0.03	①-⑤	0.02	①-④	0.03	①-④⑥	0.04	①-③⑤	0.02
	④-⑤	0.01	②-⑥	0.01	④⑥-⑤	0.01	④-⑤⑦	0.01	②⑤-④⑥	0.02	③④-③⑤	0.02
Volume scan	Not Required		Not Required		Not Required		Not Required		Not Required		Required	

WCDMA II SPLSR – Top Position						
Scenario	Scenario No.7		Scenario No.9		Scenario No.10	
Top	1.627		1.763		1.652	
Distance [mm]	①-④⑥	38.13	①-②⑤	98.05	①-③④	38.13
	①-⑤	85.69	①-④⑥	38.13	①-③⑤	86.06
	④⑥-⑤	123.6	②⑤-④⑥	136.0	③④-③⑤	124.0
SPLSR ≤ 0.04 Limit	①-④⑥	0.04	①-②⑤	0.01	①-③④	0.04
	①-⑤	0.01	①-④⑥	0.04	①-③⑤	0.01
	④⑥-⑤	0.00	②⑤-④⑥	0.00	③④-③⑤	0.01
Volume scan	Not Required		Not Required		Not Required	

Note: Scenario No. 7 ~ 10 were analyzed according to the SPLSR hotspot combination procedure of the TCB Workshop Nov 2019.(Reference Section 12.5).

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## WCDMA II SPLSR – Rear Position

Scenario	Mode (Numbering)	SAR W/kg	Coordinates			Distance (mm)	SPLSR
			X	Y	Z		
Scenario No.5	WCDMA II (①)	0.819	0.036	-0.139	-0.182	49.5	0.03
	Wi-Fi 5 GHz Ant.1 (④)	0.482	0.085	-0.138	-0.179		
	WCDMA II (①)	0.819	0.036	-0.139	-0.182	119.7	0.02
	Wi-Fi 5 GHz Ant.2 (⑤)	0.775	-0.083	-0.131	-0.179		
	Wi-Fi 5 GHz Ant.1 (④)	0.482	0.085	-0.138	-0.179	168.9	0.01
	Wi-Fi 5 GHz Ant.2 (⑤)	0.775	-0.083	-0.131	-0.179		



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## WCDMA II SPLSR – Rear Position

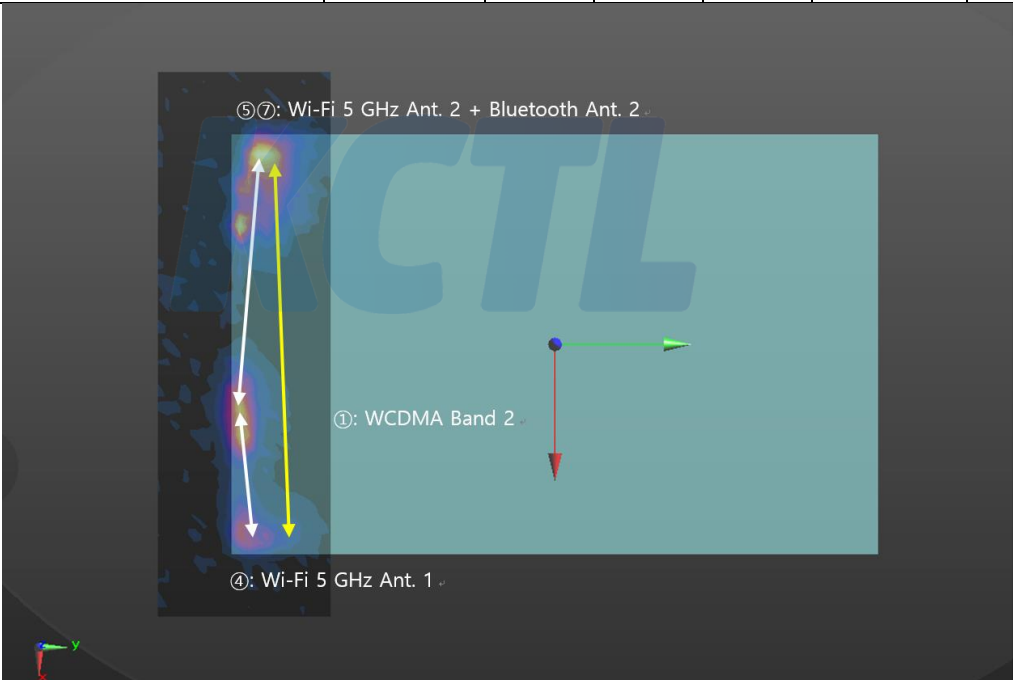
Scenario	Mode (Numbering)	SAR W/kg	Coordinates			Distance (mm)	SPLSR
			X	Y	Z		
Scenario No.6	WCDMA II (①)	0.819	0.036	-0.139	-0.182	111.5	0.02
	Wi-Fi 2.4 GHz Ant.2 (②)	0.677	-0.075	-0.140	-0.178		
	WCDMA II (①)	0.819	0.036	-0.139	-0.182	59.8	0.03
	Bluetooth Ant.1 (⑥)	0.568	0.093	-0.122	-0.178		
	Wi-Fi 2.4 GHz Ant.2 (②)	0.677	-0.075	-0.140	-0.178	169.5	0.01
	Bluetooth Ant.1 (⑥)	0.568	0.093	-0.122	-0.178		

**WCDMA II SPLSR – Rear Position**

Scenario	Mode (Numbering)	SAR W/kg	Coordinates			Distance (mm)	SPLSR
			X	Y	Z		
Scenario No.7	WCDMA II (①)	0.819	0.036	-0.139	-0.182	49.6	0.04
	Wi-Fi 5 GHz Ant.1 (④) + Bluetooth Ant.1 (⑥)	0.886	0.084	-0.127	-0.178		
	WCDMA II (①)	0.819	0.036	-0.139	-0.182	119.7	0.02
	Wi-Fi 5 GHz Ant.2 (⑤)	0.775	-0.083	-0.131	-0.179		
	Wi-Fi 5 GHz Ant.1 (④) + Bluetooth Ant.1 (⑥)	0.886	0.084	-0.127	-0.178	167.5	0.01
	Wi-Fi 5 GHz Ant.2 (⑤)	0.775	-0.083	-0.131	-0.179		



**WCDMA II SPLSR – Rear Position**

Scenario	Mode (Numbering)	SAR W/kg	Coordinates			Distance (mm)	SPLSR
			X	Y	Z		
Scenario No.8	WCDMA II (①)	0.819	0.036	-0.139	-0.182	120.3	0.02
	Wi-Fi 5 GHz Ant.2 (⑤) + Bluetooth Ant.2 (⑦)	1.000	-0.084	-0.131	-0.178		
	WCDMA II (①)	0.819	0.036	-0.139	-0.182	49.5	0.03
	Wi-Fi 5 GHz Ant.1 (④)	0.482	0.085	-0.138	-0.179		
	Wi-Fi 5 GHz Ant.1 (④)	0.482	0.085	-0.138	-0.179	169.5	0.01
	Wi-Fi 5 GHz Ant.2 (⑤) + Bluetooth Ant.2 (⑦)	1.000	-0.084	-0.131	-0.178		
							

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## WCDMA II SPLSR – Rear Position

Scenario	Mode (Numbering)	SAR W/kg	Coordinates			Distance (mm)	SPLSR
			X	Y	Z		
Scenario No.9	WCDMA II (①)	0.819	0.036	-0.139	-0.182	88.0	0.03
	Wi-Fi 2.4 GHz Ant.2 (②) + Wi-Fi 5 GHz Ant.2 (⑤)	1.010	-0.052	-0.139	-0.178		
	WCDMA II (①)	0.819	0.036	-0.139	-0.182	49.6	0.04
	Wi-Fi 5 GHz Ant.1 (④) + Bluetooth Ant. 1 (⑥)	0.886	0.084	-0.127	-0.178		
	Wi-Fi 2.4 GHz Ant.2 (②) + Wi-Fi 5 GHz Ant.2 (⑤)	1.010	-0.052	-0.139	-0.178	136.5	0.02
	Wi-Fi 5 GHz Ant.1 (④) + Bluetooth Ant. 1 (⑥)	0.886	0.084	-0.127	-0.178		

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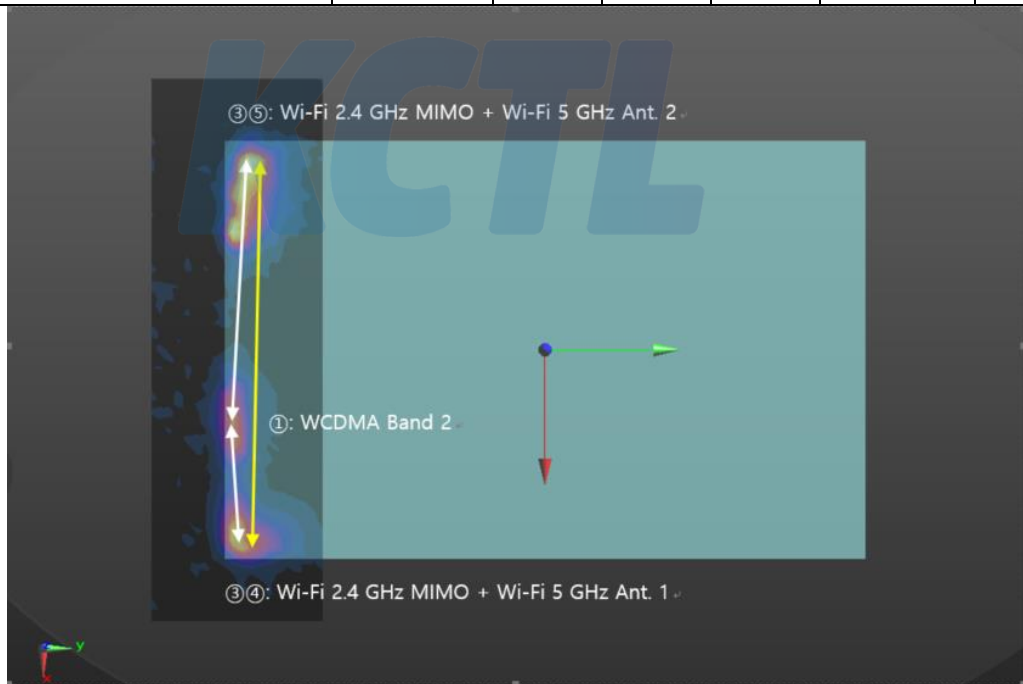
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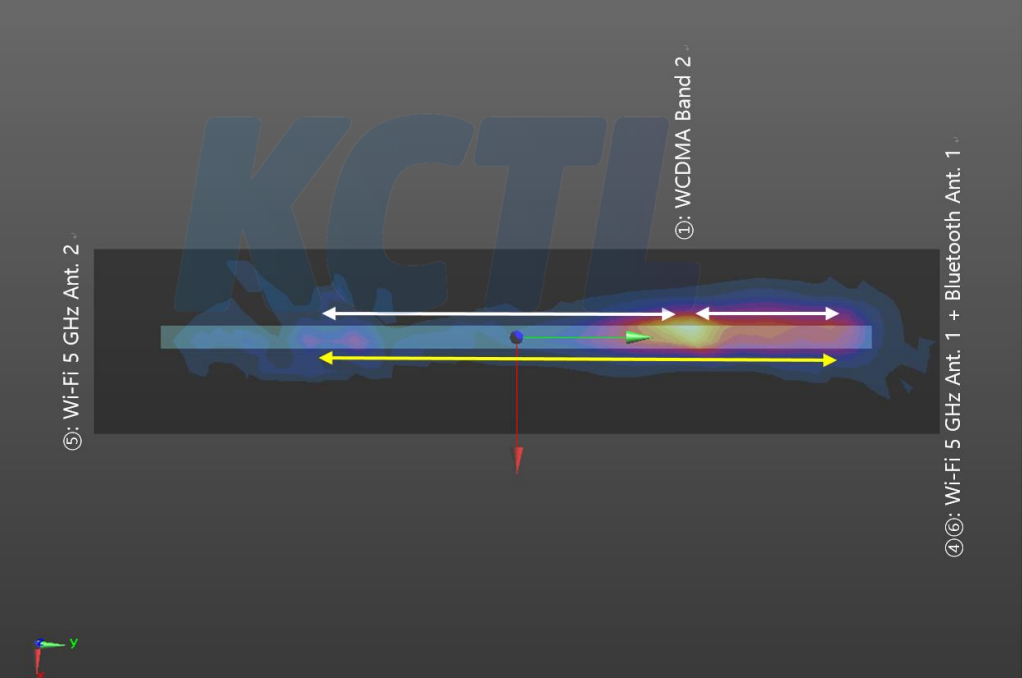


## WCDMA II SPLSR – Rear Position

Scenario	Mode (Numbering)	SAR W/kg	Coordinates			Distance (mm)	SPLSR
			X	Y	Z		
Scenario No.10	WCDMA II (①)	0.819	0.036	-0.139	-0.182	48.2	0.05
	Wi-Fi 2.4 GHz MIMO (③) + Wi-Fi 5 GHz Ant.1 (④)	0.926	0.084	-0.139	-0.178		
	WCDMA II (①)	0.819	0.036	-0.139	-0.182	120.3	0.02
	Wi-Fi 2.4 GHz MIMO (③) + Wi-Fi 5 GHz Ant.2 (⑤)	1.240	-0.084	-0.131	-0.178		
	Wi-Fi 2.4 GHz MIMO (③) + Wi-Fi 5 GHz Ant.1 (④)	0.926	0.084	-0.139	-0.178	168.2	0.02
	Wi-Fi 2.4 GHz MIMO (③) + Wi-Fi 5 GHz Ant.2 (⑤)	1.240	-0.084	-0.131	-0.178		



**WCDMA II SPLSR – Top Position**

Scenario	Mode (Numbering)	SAR W/kg	Coordinates			Distance (mm)	SPLSR
			X	Y	Z		
Scenario No.7	WCDMA II (①)	0.863	0.000	0.044	-0.184	38.1	0.04
	Wi-Fi 5 GHz Ant.1 (④) + Bluetooth Ant.1 (⑥)	0.486	0.001	0.082	-0.181		
	WCDMA II (①)	0.863	0.000	0.044	-0.184	85.7	0.01
	Wi-Fi 5 GHz Ant.2 (⑤)	0.204	0.000	-0.042	-0.180		
	Wi-Fi 5 GHz Ant.1 (④) + Bluetooth Ant.1 (⑥)	0.486	0.001	0.082	-0.181	123.6	0.00
	Wi-Fi 5 GHz Ant.2 (⑤)	0.204	0.000	-0.042	-0.180		
							

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## WCDMA II SPLSR – Top Position

Scenario	Mode (Numbering)	SAR W/kg	Coordinates			Distance (mm)	SPLSR
			X	Y	Z		
Scenario No.9	WCDMA II (①)	0.863	0.000	0.044	-0.184	98.1	0.01
	Wi-Fi 2.4 GHz Ant.2 (②) + Wi-Fi 5 GHz Ant.2 (⑤)	0.283	0.001	-0.054	-0.181		
	WCDMA II (①)	0.863	0.000	0.044	-0.184	38.1	0.04
	Wi-Fi 5 GHz Ant.1 (④) + Bluetooth Ant. 1 (⑥)	0.486	0.001	0.082	-0.181		
	Wi-Fi 2.4 GHz Ant.2 (②) + Wi-Fi 5 GHz Ant.2 (⑤)	0.283	0.001	-0.054	-0.181	136.0	0.00
	Wi-Fi 5 GHz Ant.1 (④) + Bluetooth Ant. 1 (⑥)	0.486	0.001	0.082	-0.181		

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## WCDMA II SPLSR – Top Position

Scenario	Mode (Numbering)	SAR W/kg	Coordinates			Distance (mm)	SPLSR
			X	Y	Z		
Scenario No.10	WCDMA II (①)	0.863	0.000	0.044	-0.184	38.1	0.04
	Wi-Fi 2.4 GHz MIMO (③) + Wi-Fi 5 GHz Ant.1 (④)	0.546	0.001	0.082	-0.181		
	WCDMA II (①)	0.863	0.000	0.044	-0.184	86.1	0.01
	Wi-Fi 2.4 GHz MIMO (③) + Wi-Fi 5 GHz Ant.2 (⑤)	0.279	0.001	-0.042	-0.181		
	Wi-Fi 2.4 GHz MIMO (③) + Wi-Fi 5 GHz Ant.1 (④)	0.546	0.001	0.082	-0.181	124.0	0.01
	Wi-Fi 2.4 GHz MIMO (③) + Wi-Fi 5 GHz Ant.2 (⑤)	0.279	0.001	-0.042	-0.181		



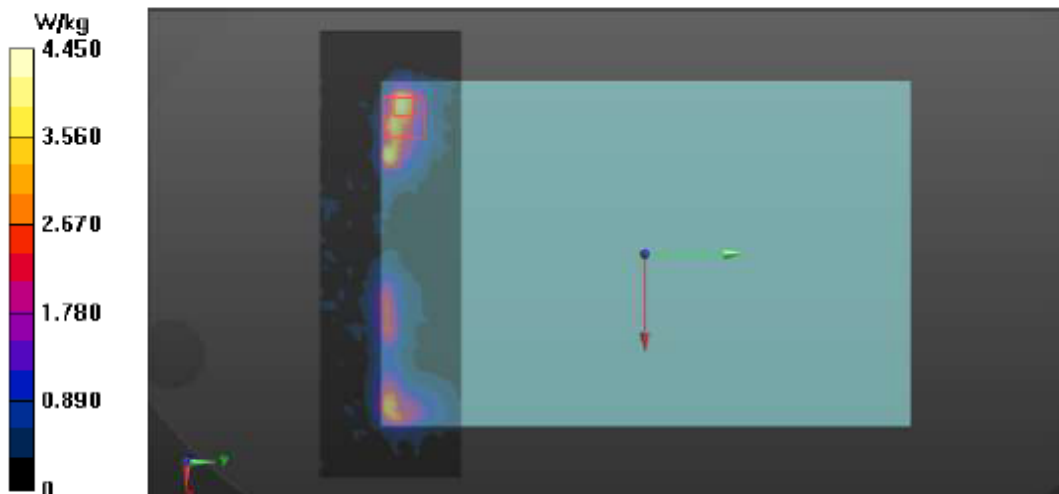
**WCDMA II Volume Scan – Rear Position**

Scenario No.10

Licensed Band + WLAN 2.4 GHz MIMO + WLAN 5 GHz MIMO  
= 1.29 W/kg**Multi-Band Average SAR****Multi-Band Configurations:**DASY Configuration for Configuration/802.11 b\_MIMO\_CH11\_Rear\_0 mm Sensor  
On VS/Volume Scan:DASY Configuration for Configuration/802.11 ac\_VHT80\_WLAN2\_CH155\_Rear\_0  
mm Sensor On/Volume Scan:DASY Configuration for Configuration/WCDMA FDD II\_CH9400\_Rear\_0 mm Grip  
Sensor On\_VS/Volume Scan:DASY Configuration for Configuration/802.11 ac\_VHT80\_WLAN1\_CH122\_Rear\_0  
mm Sensor On/Volume Scan:**Multi Band Result:**

SAR(1 g) = 1.29 W/kg; SAR(10 g) = 0.656 W/kg

Maximum value of SAR (interpolated) = 4.45 W/kg



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### 12.3.4 WCDMA IV SPLSR and Volume Scan Analysis\_Sensor On

WCDMA IV Simultaneous										
Scenario	Scenario No.1	Scenario No.2	Scenario No.3	Scenario No.4	Scenario No.5	Scenario No.6	Scenario No.7	Scenario No.8	Scenario No.9	Scenario No.10
SUM	①②	①⑥	①⑦	①③	①④⑤	①②⑥	①④⑤⑥	①④⑤⑦	①②④⑤⑥	①③④⑤
Rear	1.323	1.214	1.274	1.393	1.903	1.891	2.471	2.531	3.148	2.650
Left	0.234	0.163	0.642	0.226	0.759	0.234	0.759	1.238	0.830	0.822
Left Corner	0.465	0.800	0.528	0.478	0.762	0.865	1.162	0.890	1.227	0.840
Right	0.053	0.627	0.041	0.498	0.709	0.639	1.295	0.709	1.307	1.166
Right Corner	0.454	0.364	0.454	0.298	0.584	0.764	0.894	0.984	1.294	0.828
Top	0.808	0.935	0.777	0.960	1.173	1.071	1.436	1.278	1.572	1.461

Note: Yellow highlight cells require SPLSR or Volume Scan analysis.

WCDMA IV SPLSR – Rear Position												
Scenario	Scenario No.5		Scenario No.6		Scenario No.7		Scenario No.8		Scenario No.9		Scenario No.10	
Rear	1.903		1.891		2.471		2.531		3.148		2.650	
Distance [mm]	①-④	48.12	①-②	113.0	①-④⑥	48.54	①-⑤⑦	121.9	①-②⑤	89.65	①-③④	46.78
	①-⑤	121.3	①-⑥	58.69	①-⑤	121.3	①-④	48.12	①-④⑥	48.54	①-③⑤	121.9
	④-⑤	168.9	②-⑥	169.5	④⑥-⑤	167.5	④-⑤⑦	169.5	②⑤-④⑥	136.5	③④-③⑤	168.2
SPLSR ≤ 0.04 Limit	①-④	0.02	①-②	0.01	①-④⑥	0.04	①-⑤⑦	0.02	①-②⑤	0.02	①-③④	0.04
	①-⑤	0.01	①-⑥	0.02	①-⑤	0.01	①-④	0.02	①-④⑥	0.04	①-③⑤	0.02
	④-⑤	0.01	②-⑥	0.01	④⑥-⑤	0.01	④-⑤⑦	0.01	②⑤-④⑥	0.02	③④-③⑤	0.02
Volume scan	Not Required		Not Required		Not Required		Not Required		Not Required		Not Required	

Note: Scenario No. 7 ~ 10 were analyzed according to the SPLSR hotspot combination procedure of the TCB Workshop Nov 2019.(Reference Section 12.5).

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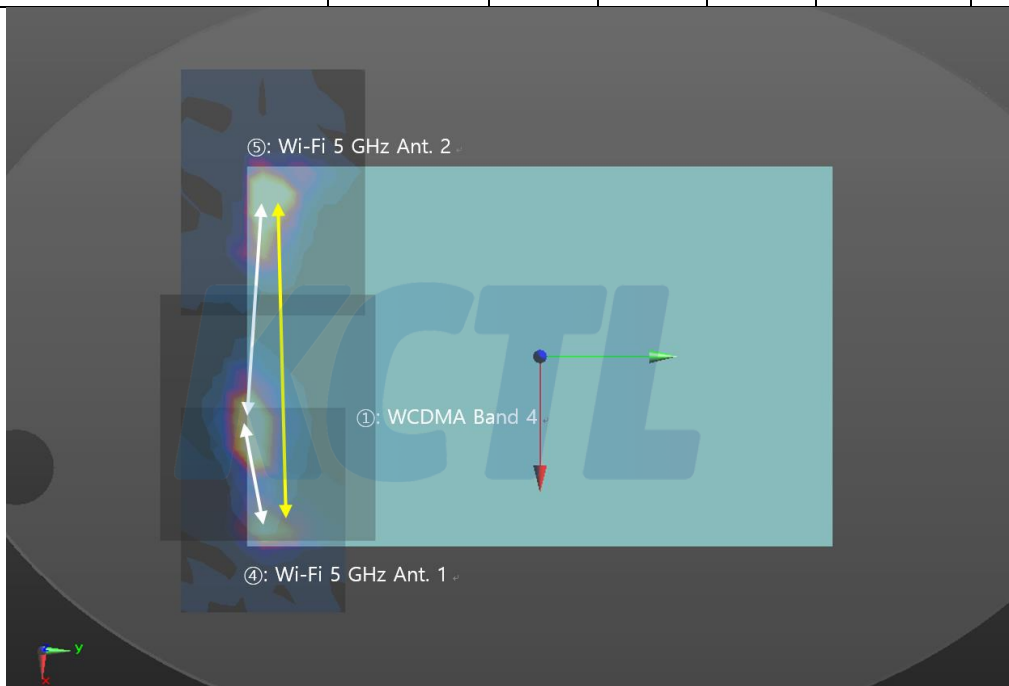
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## WCDMA IV SPLSR – Rear Position

Scenario	Mode (Numbering)	SAR W/kg	Coordinates			Distance (mm)	SPLSR
			X	Y	Z		
Scenario No.5	WCDMA IV (①)	0.646	0.038	-0.140	-0.183	48.1	0.02
	Wi-Fi 5 GHz Ant.1 (④)	0.482	0.085	-0.138	-0.179		
	WCDMA IV (①)	0.646	0.038	-0.140	-0.183	121.3	0.01
	Wi-Fi 5 GHz Ant.2 (⑤)	0.775	-0.083	-0.131	-0.179		
	Wi-Fi 5 GHz Ant.1 (④)	0.482	0.085	-0.138	-0.179	168.9	0.01
	Wi-Fi 5 GHz Ant.2 (⑤)	0.775	-0.083	-0.131	-0.179		



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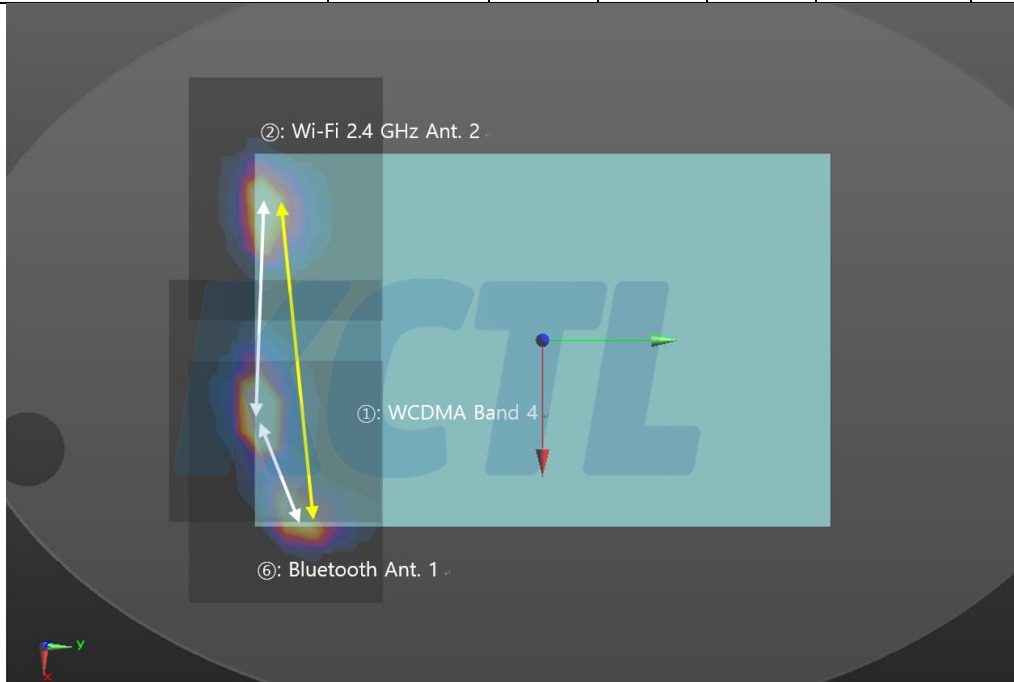
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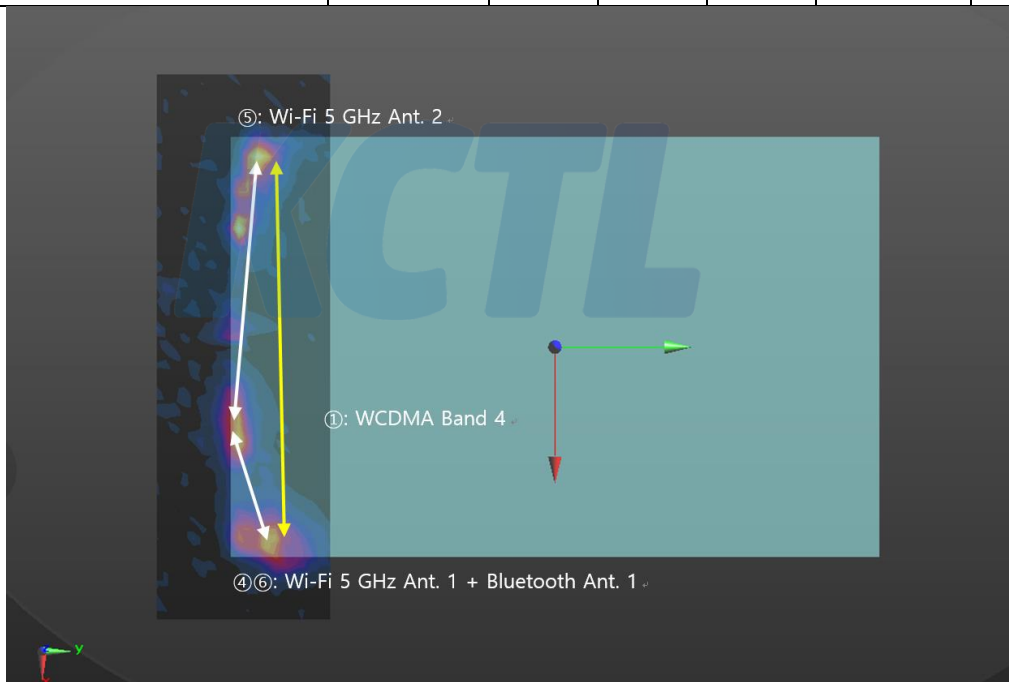
## WCDMA IV SPLSR – Rear Position

Scenario	Mode (Numbering)	SAR W/kg	Coordinates			Distance (mm)	SPLSR
			X	Y	Z		
Scenario No.6	WCDMA IV (①)	0.646	0.038	-0.140	-0.183	113.0	0.01
	Wi-Fi 2.4 GHz Ant.2 (②)	0.677	-0.075	-0.140	-0.178		
	WCDMA IV (①)	0.646	0.038	-0.140	-0.183	58.7	0.02
	Bluetooth Ant.1 (⑥)	0.568	0.093	-0.122	-0.178		
	Wi-Fi 2.4 GHz Ant.2 (②)	0.677	-0.075	-0.140	-0.178	169.5	0.01
	Bluetooth Ant.1 (⑥)	0.568	0.093	-0.122	-0.178		



**WCDMA IV SPLSR – Rear Position**

Scenario	Mode (Numbering)	SAR W/kg	Coordinates			Distance (mm)	SPLSR
			X	Y	Z		
Scenario No.7	WCDMA IV (①)	0.646	0.038	-0.140	-0.183	48.5	0.04
	Wi-Fi 5 GHz Ant.1 (④) + Bluetooth Ant.1 (⑥)	0.886	0.084	-0.127	-0.178		
	WCDMA IV (①)	0.646	0.038	-0.140	-0.183	121.3	0.01
	Wi-Fi 5 GHz Ant.2 (⑤)	0.775	-0.083	-0.131	-0.179		
	Wi-Fi 5 GHz Ant.1 (④) + Bluetooth Ant.1 (⑥)	0.886	0.084	-0.127	-0.178	167.5	0.01
	Wi-Fi 5 GHz Ant.2 (⑤)	0.775	-0.083	-0.131	-0.179		



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## WCDMA IV SPLSR – Rear Position

Scenario	Mode (Numbering)	SAR W/kg	Coordinates			Distance (mm)	SPLSR
			X	Y	Z		
Scenario No.8	WCDMA IV (①)	0.646	0.038	-0.140	-0.183	121.9	0.02
	Wi-Fi 5 GHz Ant.2 (⑤) + Bluetooth Ant.2 (⑦)	1.000	-0.084	-0.131	-0.178		
	WCDMA IV (①)	0.646	0.038	-0.140	-0.183	48.1	0.02
	Wi-Fi 5 GHz Ant.1 (④)	0.482	0.085	-0.138	-0.179		
	Wi-Fi 5 GHz Ant.1 (④)	0.482	0.085	-0.138	-0.179	169.5	0.01
	Wi-Fi 5 GHz Ant.2 (⑤) + Bluetooth Ant.2 (⑦)	1.000	-0.084	-0.131	-0.178		

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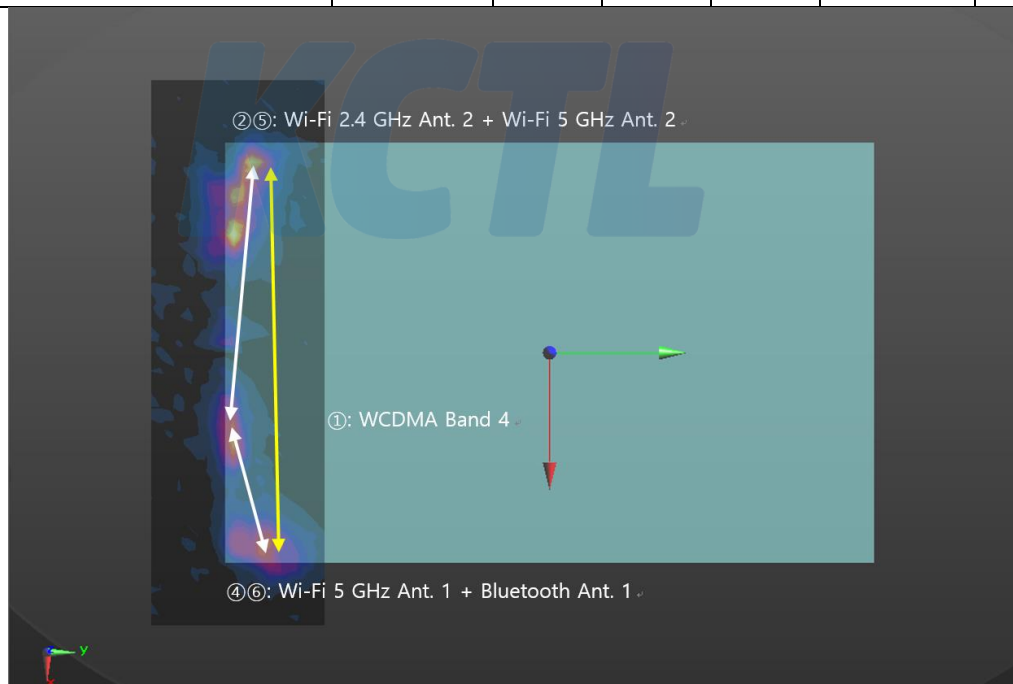
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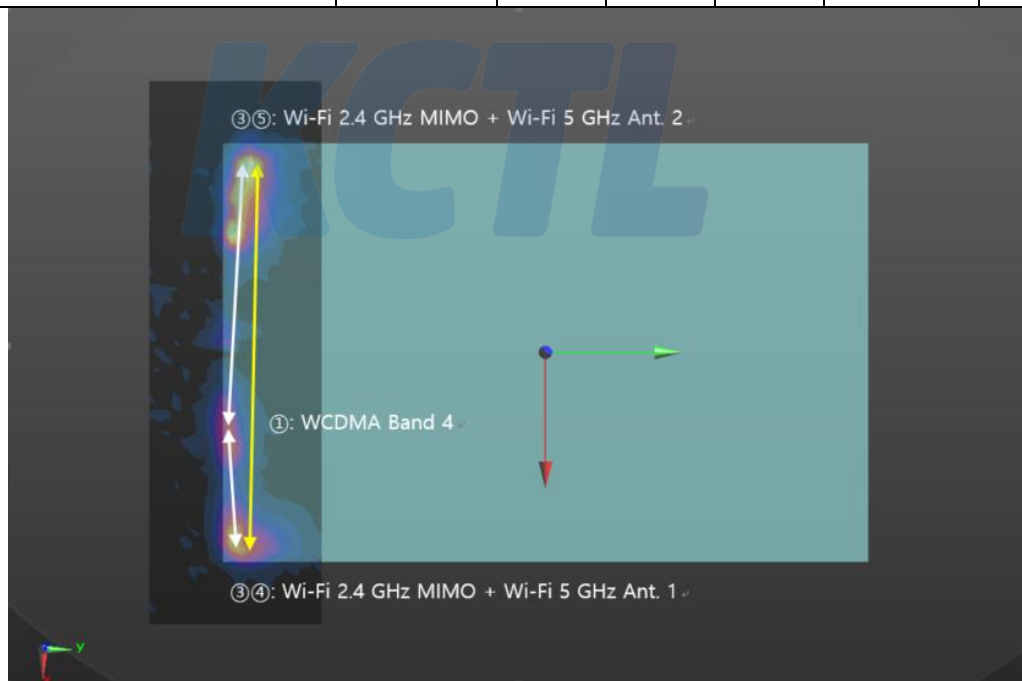
## WCDMA IV SPLSR – Rear Position

Scenario	Mode (Numbering)	SAR W/kg	Coordinates			Distance (mm)	SPLSR
			X	Y	Z		
Scenario No.9	WCDMA IV (①)	0.646	0.038	-0.140	-0.183	89.7	0.02
	Wi-Fi 2.4 GHz Ant.2 (②) + Wi-Fi 5 GHz Ant.2 (⑤)	1.010	-0.052	-0.139	-0.178		
	WCDMA IV (①)	0.646	0.038	-0.140	-0.183	48.5	0.01
	Wi-Fi 5 GHz Ant.1 (④) + Bluetooth Ant.1 (⑥)	0.886	0.084	-0.127	-0.178		
	Wi-Fi 2.4 GHz Ant.2 (②) + Wi-Fi 5 GHz Ant.2 (⑤)	1.010	-0.052	-0.139	-0.178	136.5	0.02
	Wi-Fi 5 GHz Ant.1 (④) + Bluetooth Ant.1 (⑥)	0.886	0.084	-0.127	-0.178		



**WCDMA IV SPLSR – Rear Position**

Scenario	Mode (Numbering)	SAR W/kg	Coordinates			Distance (mm)	SPLSR
			X	Y	Z		
Scenario No.10	WCDMA IV (①)	0.646	0.038	-0.140	-0.183	46.8	0.04
	Wi-Fi 2.4 GHz MIMO (③) + Wi-Fi 5 GHz Ant.1 (④)	0.926	0.084	-0.139	-0.178		
	WCDMA IV (①)	0.646	0.038	-0.140	-0.183	121.9	0.02
	Wi-Fi 2.4 GHz MIMO (③) + Wi-Fi 5 GHz Ant.2 (⑤)	1.240	-0.084	-0.131	-0.178		
	Wi-Fi 2.4 GHz MIMO (③) + Wi-Fi 5 GHz Ant.1 (④)	0.926	0.084	-0.139	-0.178	168.2	0.02
	Wi-Fi 2.4 GHz MIMO (③) + Wi-Fi 5 GHz Ant.2 (⑤)	1.240	-0.084	-0.131	-0.178		





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## 12.3.5 WCDMA V SPLSR and Volume Scan Analysis\_Sensor On

WCDMA V Simultaneous										
Scenario	Scenario No.1	Scenario No.2	Scenario No.3	Scenario No.4	Scenario No.5	Scenario No.6	Scenario No.7	Scenario No.8	Scenario No.9	Scenario No.10
SUM	①②	①⑥	①⑦	①③	①④⑤	①②⑥	①④⑤⑥	①④⑤⑦	①②④⑤⑥	①③④⑤
Rear	1.365	1.256	1.316	1.435	1.945	1.933	2.513	2.573	3.190	2.692
Left	0.301	0.230	0.709	0.293	0.826	0.301	0.826	1.305	0.897	0.889
Left Corner	0.465	0.800	0.528	0.478	0.762	0.865	1.162	0.890	1.227	0.840
Right	0.049	0.623	0.037	0.494	0.705	0.635	1.291	0.705	1.303	1.162
Right Corner	0.466	0.376	0.466	0.310	0.596	0.776	0.906	0.996	1.306	0.840
Top	0.841	0.968	0.810	0.993	1.206	1.104	1.469	1.311	1.605	1.494

Note: Yellow highlight cells require SPLSR or Volume Scan analysis.

WCDMA V SPLSR – Rear Position												
Scenario	Scenario No.5		Scenario No.6		Scenario No.7		Scenario No.8		Scenario No.9		Scenario No.10	
Rear	1.945		1.933		2.513		2.573		3.190		2.692	
Distance [mm]	①-④	98.08	①-②	63.2	①-④⑥	97.69	①-⑤⑦	72.44	①-②⑤	40.0	①-③④	96.71
	①-⑤	71.75	①-⑥	107.5	①-⑤	71.75	①-④	98.08	①-④⑥	97.69	①-③⑤	72.44
	④-⑤	168.9	②-⑥	169.5	④⑥-⑤	167.5	④-⑤⑦	169.5	②⑤-④⑥	136.5	③④-③⑤	168.2
SPLSR ≤ 0.04 Limit	①-④	0.01	①-②	0.03	①-④⑥	0.02	①-⑤⑦	0.03	①-②⑤	0.06	①-③④	0.02
	①-⑤	0.02	①-⑥	0.01	①-⑤	0.02	①-④	0.01	①-④⑥	0.02	①-③⑤	0.04
	④-⑤	0.01	②-⑥	0.01	④⑥-⑤	0.01	④-⑤⑦	0.01	②⑤-④⑥	0.02	③④-③⑤	0.02
Volume scan	Not Required		Not Required		Not Required		Not Required		Required		Not Required	

WCDMA V SPLSR – Top Position												
Scenario	Scenario No.9											
Top	1.605											
Distance [mm]	①-②⑤						33.75					
	①-④⑥						102.6					
	②⑤-④⑥						136					
SPLSR ≤ 0.04 Limit	①-②⑤						0.03					
	①-④⑥						0.01					
	②⑤-④⑥						0.00					
Volume scan	Not Required											

Note: Scenario No. 7 ~ 10 were analyzed according to the SPLSR hotspot combination procedure of the TCB Workshop Nov 2019.(Reference Section 12.5).

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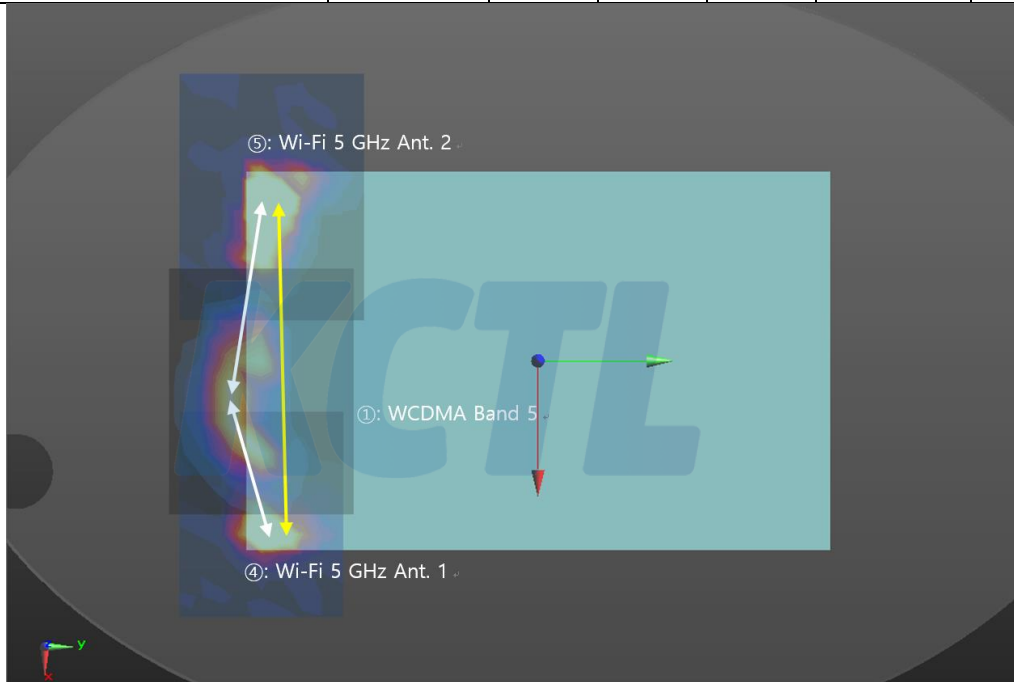
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## WCDMA V SPLSR – Rear Position

Scenario	Mode (Numbering)	SAR W/kg	Coordinates			Distance (mm)	SPLSR
			X	Y	Z		
Scenario No.5	WCDMA V (①)	0.688	-0.013	-0.141	-0.184	98.1	0.01
	Wi-Fi 5 GHz Ant.1 (④)	0.482	0.085	-0.138	-0.179		
	WCDMA V (①)	0.688	-0.013	-0.141	-0.184	71.8	0.02
	Wi-Fi 5 GHz Ant.2 (⑤)	0.775	-0.083	-0.131	-0.179		
	Wi-Fi 5 GHz Ant.1 (④)	0.482	0.085	-0.138	-0.179	168.9	0.01
	Wi-Fi 5 GHz Ant.2 (⑤)	0.775	-0.083	-0.131	-0.179		



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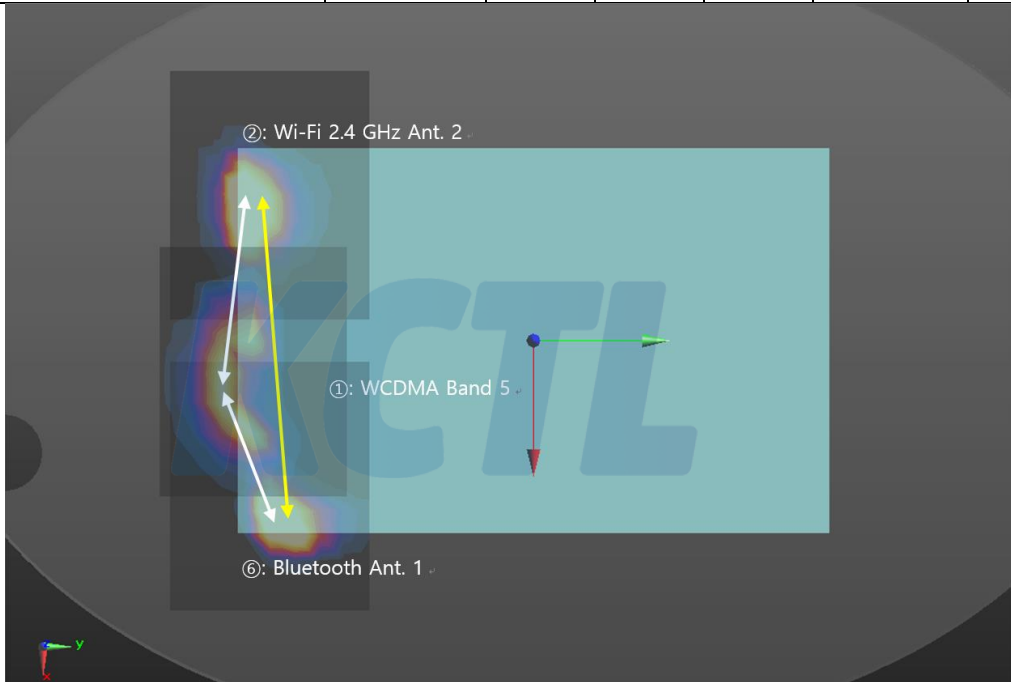
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## WCDMA V SPLSR – Rear Position

Scenario	Mode (Numbering)	SAR W/kg	Coordinates			Distance (mm)	SPLSR
			X	Y	Z		
Scenario No.6	WCDMA V (①)	0.688	-0.013	-0.141	-0.184	63.2	0.03
	Wi-Fi 2.4 GHz Ant.2 (②)	0.677	-0.075	-0.140	-0.178		
	WCDMA V (①)	0.688	-0.013	-0.141	-0.184	107.5	0.01
	Bluetooth Ant.1 (⑥)	0.568	0.093	-0.122	-0.178		
	Wi-Fi 2.4 GHz Ant.2 (②)	0.677	-0.075	-0.140	-0.178	169.5	0.01
	Bluetooth Ant.1 (⑥)	0.568	0.093	-0.122	-0.178		



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## WCDMA V SPLSR – Rear Position

Scenario	Mode (Numbering)	SAR W/kg	Coordinates			Distance (mm)	SPLSR
			X	Y	Z		
Scenario No.7	WCDMA V (①)	0.688	-0.013	-0.141	-0.184	97.7	0.02
	Wi-Fi 5 GHz Ant.1 (④) + Bluetooth Ant.1 (⑥)	0.886	0.084	-0.127	-0.178		
	WCDMA V (①)	0.688	-0.013	-0.141	-0.184	71.8	0.02
	Wi-Fi 5 GHz Ant.2 (⑤)	0.775	-0.083	-0.131	-0.179		
	Wi-Fi 5 GHz Ant.1 (④) + Bluetooth Ant.1 (⑥)	0.886	0.084	-0.127	-0.178	167.5	0.01
	Wi-Fi 5 GHz Ant.2 (⑤)	0.775	-0.083	-0.131	-0.179		

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## WCDMA V SPLSR – Rear Position

Scenario	Mode (Numbering)	SAR W/kg	Coordinates			Distance (mm)	SPLSR
			X	Y	Z		
Scenario No.8	WCDMA V (①)	0.688	-0.013	-0.141	-0.184	72.4	0.03
	Wi-Fi 5 GHz Ant.2 (⑤) + Bluetooth Ant.2 (⑦)	1.000	-0.084	-0.131	-0.178		
	WCDMA V (①)	0.688	-0.013	-0.141	-0.184	98.1	0.01
	Wi-Fi 5 GHz Ant.1 (④)	0.482	0.085	-0.138	-0.179		
	Wi-Fi 5 GHz Ant.1 (④)	0.482	0.085	-0.138	-0.179	169.5	0.01
	Wi-Fi 5 GHz Ant.2 (⑤) + Bluetooth Ant.2 (⑦)	1.000	-0.084	-0.131	-0.178		

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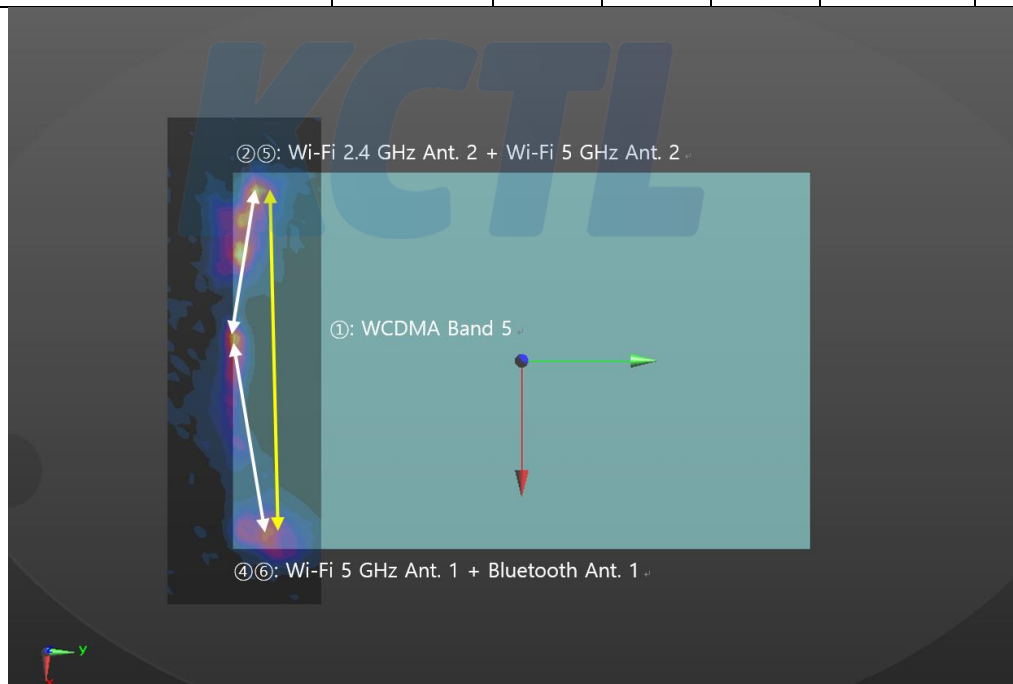
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## WCDMA V SPLSR – Rear Position

Scenario	Mode (Numbering)	SAR W/kg	Coordinates			Distance (mm)	SPLSR
			X	Y	Z		
Scenario No.9	WCDMA V (①)	0.688	-0.013	-0.141	-0.184	40.0	0.06
	Wi-Fi 2.4 GHz Ant.2 (②) + Wi-Fi 5 GHz Ant.2 (⑤)	1.010	-0.052	-0.139	-0.178		
	WCDMA V (①)	0.688	-0.013	-0.141	-0.184	97.7	0.02
	Wi-Fi 5 GHz Ant.1 (④) + Bluetooth Ant.1 (⑥)	0.886	0.084	-0.127	-0.178		
	Wi-Fi 2.4 GHz Ant.2 (②) + Wi-Fi 5 GHz Ant.2 (⑤)	1.010	-0.052	-0.139	-0.178	136.5	0.02
	Wi-Fi 5 GHz Ant.1 (④) + Bluetooth Ant.1 (⑥)	0.886	0.084	-0.127	-0.178		



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## WCDMA V SPLSR – Rear Position

Scenario	Mode (Numbering)	SAR W/kg	Coordinates			Distance (mm)	SPLSR
			X	Y	Z		
Scenario No.10	WCDMA V (①)	0.688	-0.013	-0.141	-0.184	96.7	0.02
	Wi-Fi 2.4 GHz MIMO (③) + Wi-Fi 5 GHz Ant.1 (④)	0.926	0.084	-0.139	-0.178		
	WCDMA V (①)	0.688	-0.013	-0.141	-0.184	72.4	0.04
	Wi-Fi 2.4 GHz MIMO (③) + Wi-Fi 5 GHz Ant.2 (⑤)	1.240	-0.084	-0.131	-0.178		
	Wi-Fi 2.4 GHz MIMO (③) + Wi-Fi 5 GHz Ant.1 (④)	0.926	0.084	-0.139	-0.178	168.2	0.02
	Wi-Fi 2.4 GHz MIMO (③) + Wi-Fi 5 GHz Ant.2 (⑤)	1.240	-0.084	-0.131	-0.178		

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## WCDMA V SPLSR – Top Position

Scenario	Mode (Numbering)	SAR W/kg	Coordinates			Distance (mm)	SPLSR
			X	Y	Z		
Scenario No.9	WCDMA V (①)	0.705	0.000	-0.021	-0.185	33.8	0.03
	Wi-Fi 2.4 GHz Ant.2 (②) + Wi-Fi 5 GHz Ant.2 (⑤)	0.283	0.001	-0.054	-0.181		
	WCDMA V (①)	0.705	0.000	-0.021	-0.185	102.6	0.01
	Wi-Fi 5 GHz Ant.1 (④) + Bluetooth Ant. 1 (⑥)	0.486	0.001	0.082	-0.181		
	Wi-Fi 2.4 GHz Ant.2 (②) + Wi-Fi 5 GHz Ant.2 (⑤)	0.283	0.001	-0.054	-0.181	136.0	0.00
	Wi-Fi 5 GHz Ant.1 (④) + Bluetooth Ant. 1 (⑥)	0.486	0.001	0.082	-0.181		



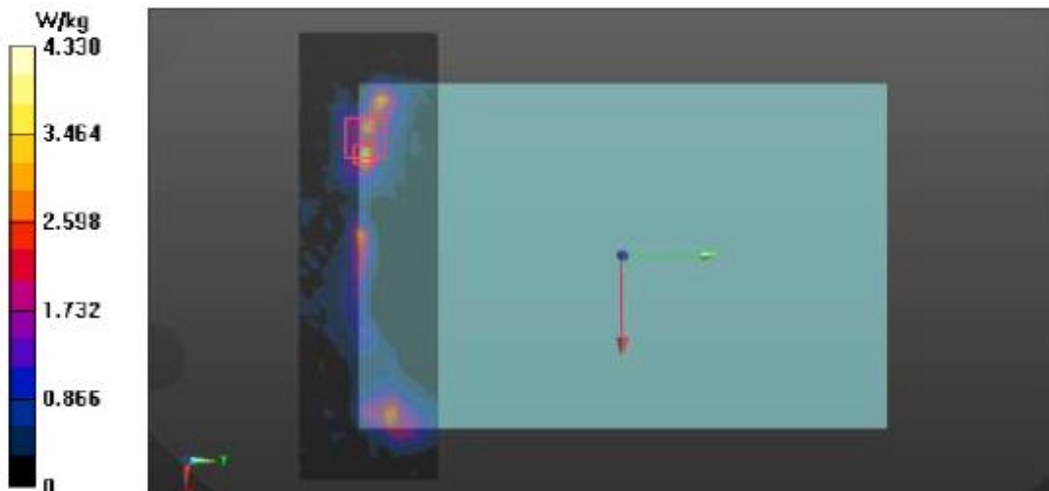
**WCDMA V Volume Scan – Rear Position**

Scenario No.9

Licensed Band + WLAN 2.4 GHz Ant.2 + WLAN 5 GHz MIMO + Bluetooth Ant 1  
= 1.07 W/kg**Multi-Band Average SAR****Multi-Band Configurations:**DASY Configuration for Configuration/802.11 ac\_VHT80\_WLAN2\_CH155\_Rear\_0  
mm Sensor On/Volume Scan:DASY Configuration for Configuration/WCDMA FDD V\_CH4183\_Rear\_0 mm Grip  
Sensor On\_VS/Volume Scan:DASY Configuration for Configuration/802.11 b\_WLAN2\_CH1\_Rear\_0 mm Sensor  
On VS/Volume Scan:DASY Configuration for Configuration/802.11 ac\_VHT80\_WLAN1\_CH122\_Rear\_0  
mm Sensor On/Volume Scan:DASY Configuration for Configuration/Bluetooth\_GFSK\_DH5\_Ant.1\_CH0\_Rear\_0  
mm Sensor On/Volume Scan:**Multi Band Result:**

SAR(1 g) = 1.07 W/kg; SAR(10 g) = 0.556 W/kg

Maximum value of SAR (interpolated) = 4.33 W/kg



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## 12.3.6 LTE Band 2 SPLSR and Volume Scan Analysis\_Sensor On

LTE Band 2 Simultaneous										
Scenario	Scenario No.1	Scenario No.2	Scenario No.3	Scenario No.4	Scenario No.5	Scenario No.6	Scenario No.7	Scenario No.8	Scenario No.9	Scenario No.10
SUM	①②	①⑥	①⑦	①③	①④⑤	①②⑥	①④⑤⑥	①④⑤⑦	①②④⑤⑥	①③④⑤
Rear	1.606	1.497	1.557	1.676	2.186	2.174	2.754	2.814	3.431	2.933
Left	0.345	0.274	0.753	0.337	0.870	0.345	0.870	1.349	0.941	0.933
Left Corner	0.465	0.800	0.528	0.478	0.762	0.865	1.162	0.890	1.227	0.840
Right	0.074	0.648	0.062	0.519	0.730	0.660	1.316	0.730	1.328	1.187
Right Corner	0.513	0.423	0.513	0.357	0.643	0.823	0.953	1.043	1.353	0.887
Top	1.076	1.203	1.045	1.228	1.441	1.339	1.704	1.546	1.840	1.729

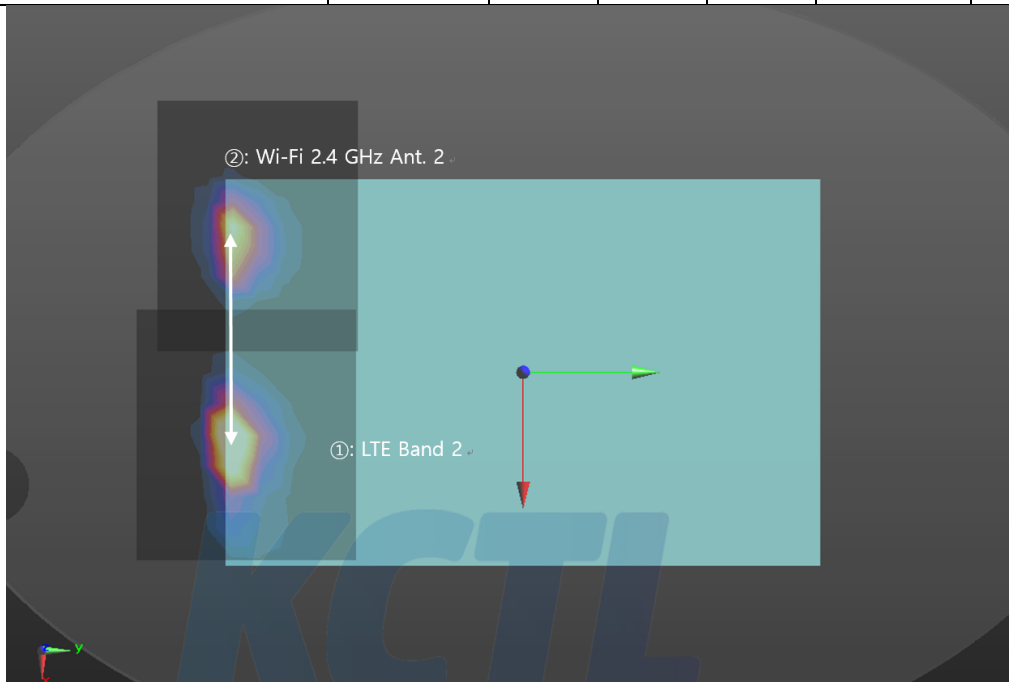
Note: Yellow highlight cells require SPLSR or Volume Scan analysis.

LTE Band 2 SPLSR – Rear Position																								
Scenario	Scenario No.1		Scenario No.4		Scenario No.5		Scenario No.6		Scenario No.7		Scenario No.8		Scenario No.9		Scenario No.10									
Rear	1.606		1.676		2.186		2.174		2.754		2.814		3.431		2.933									
Distance [mm]	①-②	113.5	①-③	114.3	①-④	47.5	①-②	113.5	①-④⑥	47.24	①-⑤⑦	122.2	①-②⑤	90.11	①-③④	46.22								
	N/A		N/A		①-⑤	121.6	①-⑥	57.29	①-⑤	121.6	①-④	47.5	①-④⑥	47.24	①-③⑤	122.2								
	N/A		N/A		④-⑤	168.9	②-⑥	169.5	④⑥-⑤	167.5	④-⑤⑦	169.5	②⑤-④⑥	136.5	③④-③⑤	168.2								
SPLSR ≤ 0.04 Limit	①-②	0.02	①-③	0.02	①-④	0.04	①-②	0.02	①-④⑥	0.05	①-⑤⑦	0.02	①-②⑤	0.03	①-③④	0.05								
	N/A		N/A		①-⑤	0.02	①-⑥	0.03	①-⑤	0.02	①-④	0.04	①-④⑥	0.05	①-③⑤	0.03								
	N/A		N/A		④-⑤	0.01	②-⑥	0.01	④⑥-⑤	0.01	④-⑤⑦	0.01	②⑤-④⑥	0.02	③④-③⑤	0.02								
Volume scan	Not Required		Not Required		Not Required		Not Required		Required		Not Required		Required		Required									
LTE Band 2 SPLSR – Top Position																								
Scenario	Scenario No.7				Scenario No.9				Scenario No.10															
Top	1.704				1.840				1.729															
Distance [mm]	①-④⑥				38.13				①-②⑤				98.05				①-③④				38.13			
	①-⑤				85.69				①-④⑥				38.13				①-③⑤				86.06			
	④⑥-⑤				123.6				②⑤-④⑥				136.0				③④-③⑤				124.0			
SPLSR ≤ 0.04 Limit	①-④⑥				0.04				①-②⑤				0.01				①-③④				0.05			
	①-⑤				0.01				①-④⑥				0.04				①-③⑤				0.02			
	④⑥-⑤				0.00				②⑤-④⑥				0.00				③④-③⑤				0.01			
Volume scan	Not Required				Not Required				Not Required				Required											

Note: Scenario No. 7 ~ 10 were analyzed according to the SPLSR hotspot combination procedure of the TCB Workshop Nov 2019.(Reference Section 12.5).

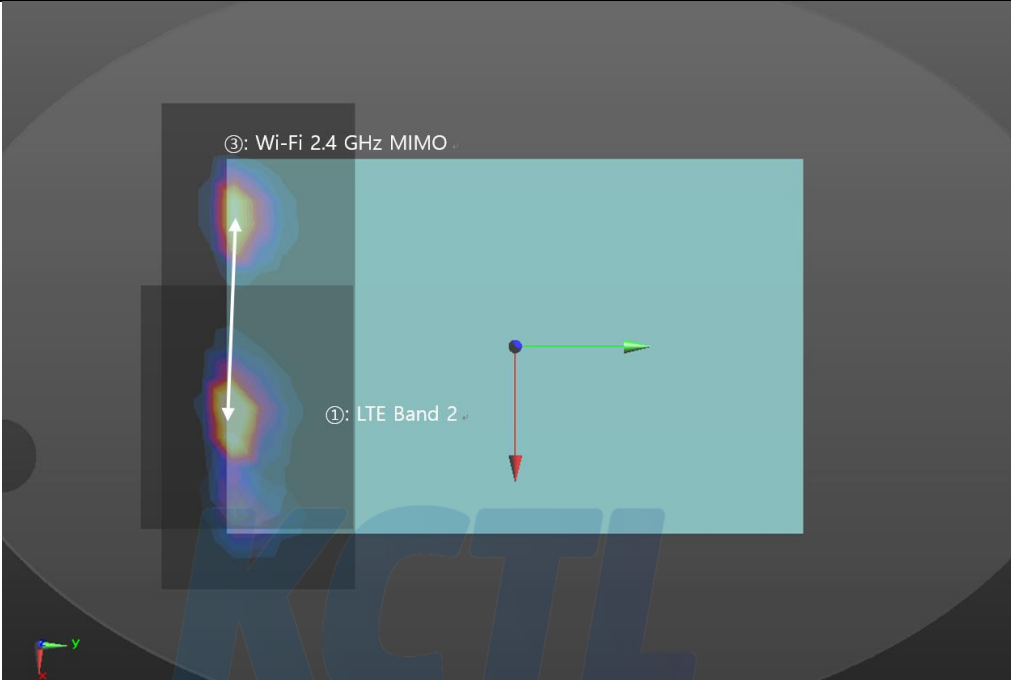
**LTE Band 2 SPLSR – Rear Position**

Scenario	Mode (Numbering)	SAR W/kg	Coordinates			Distance (mm)	SPLSR
			X	Y	Z		
Scenario No.1	LTE Band 2 (①)	0.929	0.038	-0.137	-0.182	113.5	0.02
	Wi-Fi 2.4 GHz Ant.2 (②)	0.677	-0.075	-0.140	-0.178		



**LTE Band 2 SPLSR – Rear Position**

Scenario	Mode (Numbering)	SAR W/kg	Coordinates			Distance (mm)	SPLSR
			X	Y	Z		
Scenario No.4	LTE Band 2 (①)	0.929	0.038	-0.137	-0.182	114.3	0.02
	Wi-Fi 2.4 GHz MIMO (③)	0.747	-0.076	-0.140	-0.178		



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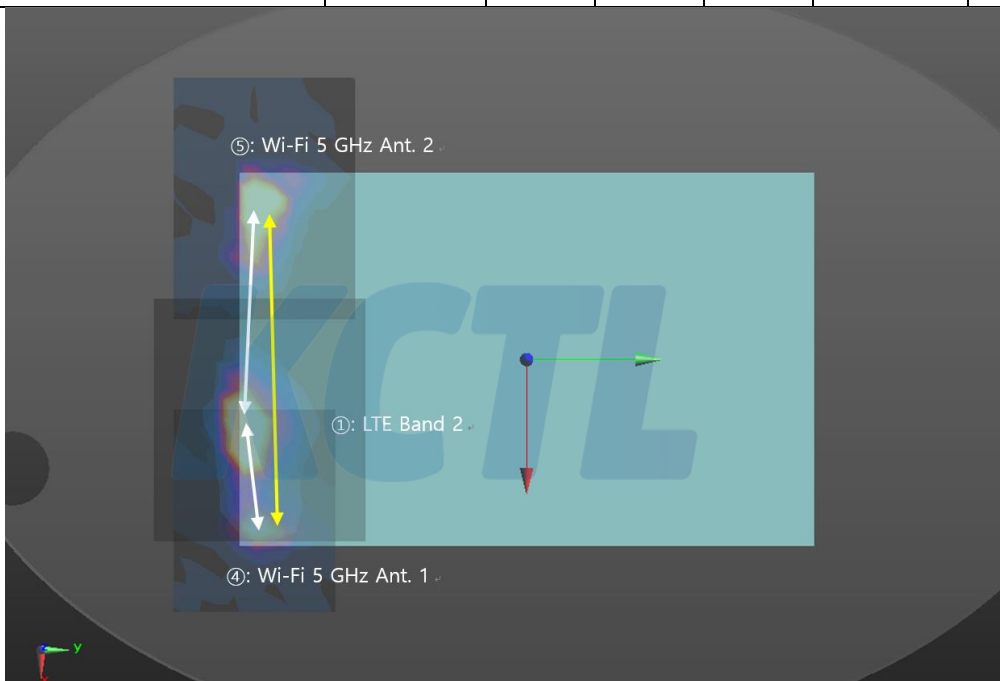
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## LTE Band 2 SPLSR – Rear Position

Scenario	Mode (Numbering)	SAR W/kg	Coordinates			Distance (mm)	SPLSR
			X	Y	Z		
Scenario No.5	LTE Band 2 (①)	0.929	0.038	-0.137	-0.182	47.5	0.04
	Wi-Fi 5 GHz Ant.1 (④)	0.482	0.085	-0.138	-0.179		
	LTE Band 2 (①)	0.929	0.038	-0.137	-0.182	121.6	0.02
	Wi-Fi 5 GHz Ant.2 (⑤)	0.775	-0.083	-0.131	-0.179		
	Wi-Fi 5 GHz Ant.1 (④)	0.482	0.085	-0.138	-0.179	168.9	0.01
	Wi-Fi 5 GHz Ant.2 (⑤)	0.775	-0.083	-0.131	-0.179		



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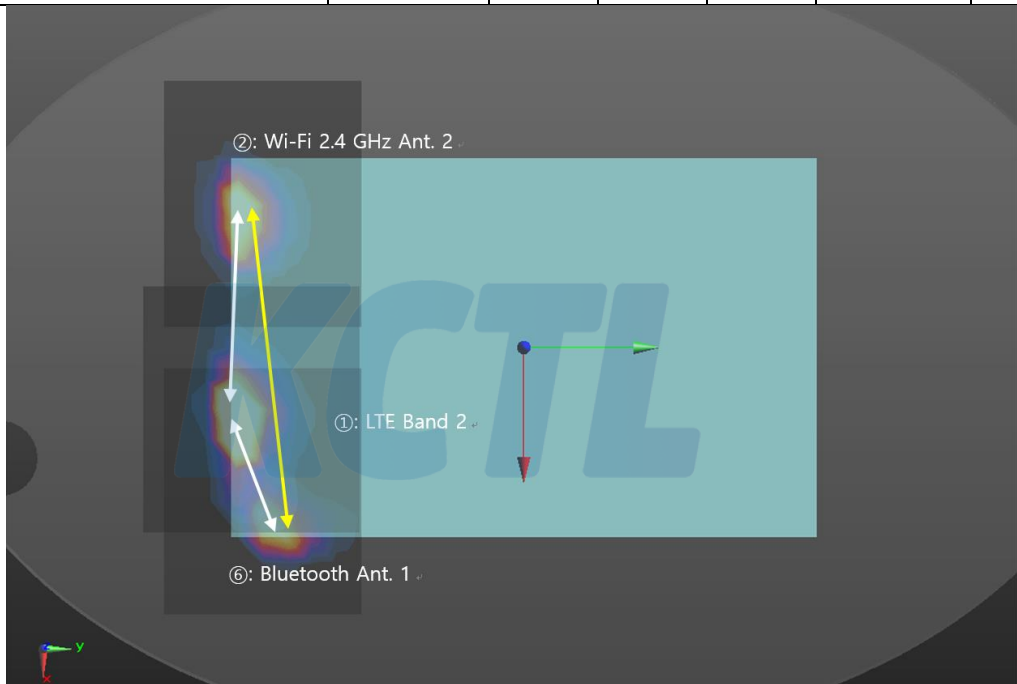
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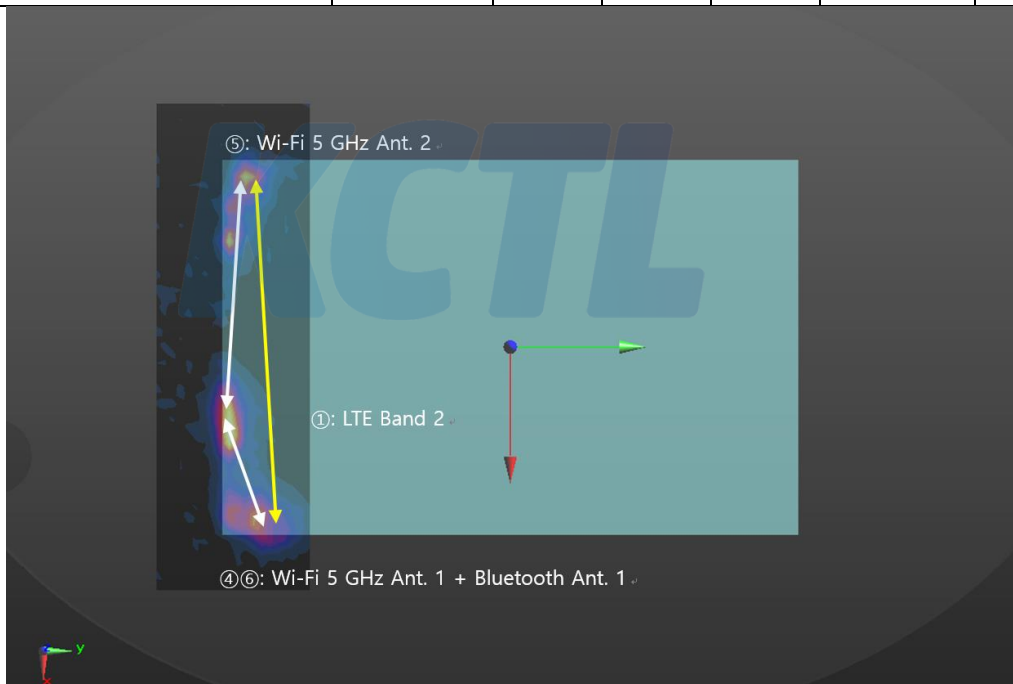
## LTE Band 2 SPLSR – Rear Position

Scenario	Mode (Numbering)	SAR W/kg	Coordinates			Distance (mm)	SPLSR
			X	Y	Z		
Scenario No.6	LTE Band 2 (①)	0.929	0.038	-0.137	-0.182	113.5	0.02
	Wi-Fi 2.4 GHz Ant.2 (②)	0.677	-0.075	-0.140	-0.178		
	LTE Band 2 (①)	0.929	0.038	-0.137	-0.182	57.29	0.03
	Bluetooth Ant.1 (⑥)	0.568	0.093	-0.122	-0.178		
	Wi-Fi 2.4 GHz Ant.2 (②)	0.677	-0.075	-0.140	-0.178	169.5	0.01
	Bluetooth Ant.1 (⑥)	0.568	0.093	-0.122	-0.178		




**LTE Band 2 SPLSR – Rear Position**

Scenario	Mode (Numbering)	SAR W/kg	Coordinates			Distance (mm)	SPLSR
			X	Y	Z		
Scenario No.7	LTE Band 2 (①)	0.929	0.038	-0.137	-0.182	47.24	0.05
	Wi-Fi 5 GHz Ant.1 (④) + Bluetooth Ant.1 (⑥)	0.886	0.084	-0.127	-0.178		
	LTE Band 2 (①)	0.929	0.038	-0.137	-0.182	121.6	0.02
	Wi-Fi 5 GHz Ant.2 (⑤)	0.775	-0.083	-0.131	-0.179		
	Wi-Fi 5 GHz Ant.1 (④) + Bluetooth Ant.1 (⑥)	0.886	0.084	-0.127	-0.178	167.5	0.01
	Wi-Fi 5 GHz Ant.2 (⑤)	0.775	-0.083	-0.131	-0.179		



**LTE Band 2 SPLSR – Rear Position**

Scenario	Mode (Numbering)	SAR W/kg	Coordinates			Distance (mm)	SPLSR
			X	Y	Z		
Scenario No.8	LTE Band 2 (①)	0.929	0.038	-0.137	-0.182	122.2	0.02
	Wi-Fi 5 GHz Ant.2 (⑤) + Bluetooth Ant.2 (⑦)	1.000	-0.084	-0.131	-0.178		
	LTE Band 2 (①)	0.929	0.038	-0.137	-0.182	47.5	0.04
	Wi-Fi 5 GHz Ant.1 (④)	0.482	0.085	-0.138	-0.179		
	Wi-Fi 5 GHz Ant.1 (④)	0.482	0.085	-0.138	-0.179	169.5	0.01
	Wi-Fi 5 GHz Ant.2 (⑤) + Bluetooth Ant.2 (⑦)	1.000	-0.084	-0.131	-0.178		
							



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## LTE Band 2 SPLSR – Rear Position

Scenario	Mode (Numbering)	SAR W/kg	Coordinates			Distance (mm)	SPLSR
			X	Y	Z		
Scenario No.9	LTE Band 2 (①)	0.929	0.038	-0.137	-0.182	90.11	0.03
	Wi-Fi 2.4 GHz Ant.2 (②) + Wi-Fi 5 GHz Ant.2 (⑤)	1.010	-0.052	-0.139	-0.178		
	LTE Band 2 (①)	0.929	0.038	-0.137	-0.182	47.24	0.05
	Wi-Fi 5 GHz Ant.1 (④) + Bluetooth Ant.1 (⑥)	0.886	0.084	-0.127	-0.178		
	Wi-Fi 2.4 GHz Ant.2 (②) + Wi-Fi 5 GHz Ant.2 (⑤)	1.010	-0.052	-0.139	-0.178	136.5	0.02
	Wi-Fi 5 GHz Ant.1 (④) + Bluetooth Ant.1 (⑥)	0.886	0.084	-0.127	-0.178		



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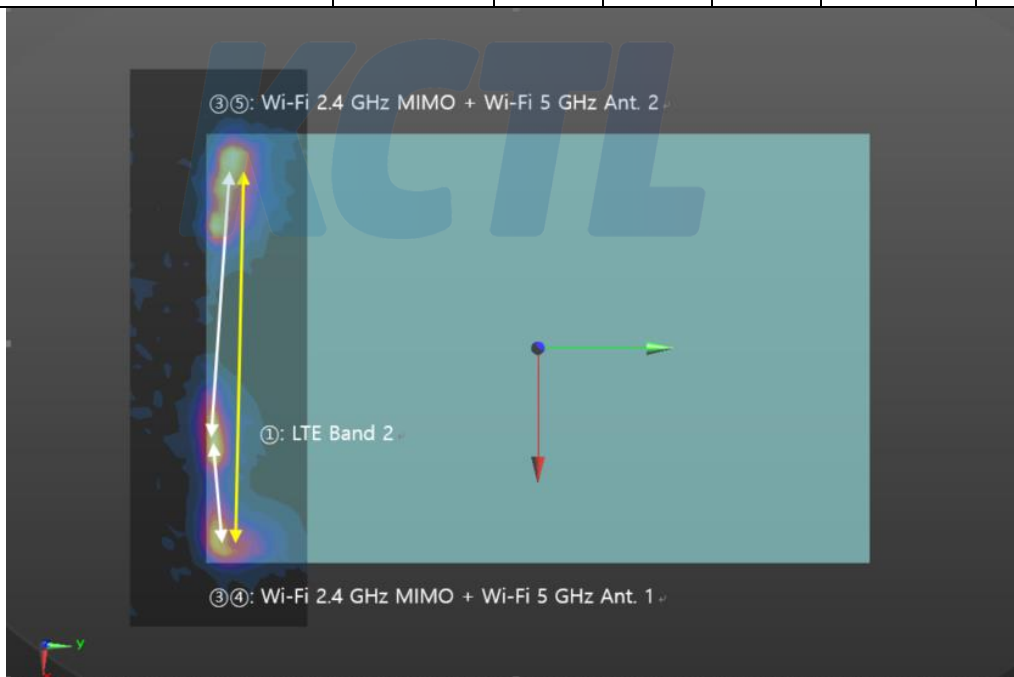
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## LTE Band 2 SPLSR – Rear Position

Scenario	Mode (Numbering)	SAR W/kg	Coordinates			Distance (mm)	SPLSR
			X	Y	Z		
Scenario No.10	LTE Band 2 (①)	0.929	0.038	-0.137	-0.182	46.22	0.05
	Wi-Fi 2.4 GHz MIMO (③) + Wi-Fi 5 GHz Ant.1 (④)	0.926	0.084	-0.139	-0.178		
	LTE Band 2 (①)	0.929	0.038	-0.137	-0.182	122.2	0.03
	Wi-Fi 2.4 GHz MIMO (③) + Wi-Fi 5 GHz Ant.2 (⑤)	1.240	-0.084	-0.131	-0.178		
	Wi-Fi 2.4 GHz MIMO (③) + Wi-Fi 5 GHz Ant.1 (④)	0.926	0.084	-0.139	-0.178	168.2	0.02
	Wi-Fi 2.4 GHz MIMO (③) + Wi-Fi 5 GHz Ant.2 (⑤)	1.240	-0.084	-0.131	-0.178		



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## LTE Band 2 SPLSR – Top Position

Scenario	Mode (Numbering)	SAR W/kg	Coordinates			Distance (mm)	SPLSR
			X	Y	Z		
Scenario No.7	LTE Band 2 (①)	0.940	0.000	0.044	-0.184	38.13	0.04
	Wi-Fi 5 GHz Ant.1 (④) + Bluetooth Ant.1 (⑥)	0.486	0.001	0.082	-0.181		
	LTE Band 2 (①)	0.940	0.000	0.044	-0.184	85.69	0.01
	Wi-Fi 5 GHz Ant.2 (⑤)	0.204	0.000	-0.042	-0.180		
	Wi-Fi 5 GHz Ant.1 (④) + Bluetooth Ant.1 (⑥)	0.486	0.001	0.082	-0.181	123.6	0.00
	Wi-Fi 5 GHz Ant.2 (⑤)	0.204	0.000	-0.042	-0.180		

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## LTE Band 2 SPLSR – Top Position

Scenario	Mode (Numbering)	SAR W/kg	Coordinates			Distance (mm)	SPLSR
			X	Y	Z		
Scenario No.9	LTE Band 2 (①)	0.940	0.000	0.044	-0.184	<b>98.05</b>	0.01
	Wi-Fi 2.4 GHz Ant.2 (②) + Wi-Fi 5 GHz Ant.2 (⑤)	0.283	0.001	-0.054	-0.181		
	LTE Band 2 (①)	0.940	0.000	0.044	-0.184	<b>38.13</b>	0.04
	Wi-Fi 5 GHz Ant.1 (④) + Bluetooth Ant.1 (⑥)	0.486	0.001	0.082	-0.181		
	Wi-Fi 2.4 GHz Ant.2 (②) + Wi-Fi 5 GHz Ant.2 (⑤)	0.283	0.001	-0.054	-0.181	<b>136.0</b>	0.00
	Wi-Fi 5 GHz Ant.1 (④) + Bluetooth Ant.1 (⑥)	0.486	0.001	0.082	-0.181		

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## LTE Band 2 SPLSR – Top Position

Scenario	Mode (Numbering)	SAR W/kg	Coordinates			Distance (mm)	SPLSR
			X	Y	Z		
Scenario No.10	LTE Band 2 (①)	0.940	0.000	0.044	-0.184	38.13	0.05
	Wi-Fi 2.4 GHz MIMO (③) + Wi-Fi 5 GHz Ant.1 (④)	0.546	0.001	0.082	-0.181		
	LTE Band 2 (①)	0.940	0.000	0.044	-0.184	86.06	0.02
	Wi-Fi 2.4 GHz MIMO (③) + Wi-Fi 5 GHz Ant.2 (⑤)	0.279	0.001	-0.042	-0.181		
	Wi-Fi 2.4 GHz MIMO (③) + Wi-Fi 5 GHz Ant.1 (④)	0.546	0.001	0.082	-0.181	124.0	0.01
	Wi-Fi 2.4 GHz MIMO (③) + Wi-Fi 5 GHz Ant.2 (⑤)	0.279	0.001	-0.042	-0.181		

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## LTE Band 2 Volume Scan – Rear Position

Scenario No.7

Licensed Band + WLAN 5 GHz MIMO + Bluetooth Ant 1  
= 1.04 W/kg

### Multi-Band Average SAR

### Multi-Band Configurations:

DASY Configuration for Configuration/LTE Band 2\_QPSK\_20  
MHz\_1RB\_0offset\_CH18900\_Rear\_0 mm Grip Sensor On VS/Volume Scan:

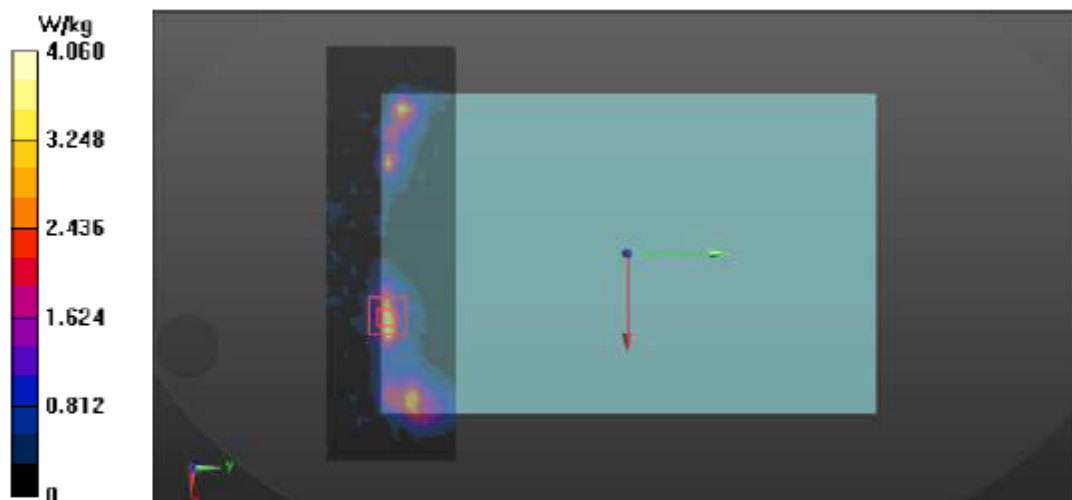
DASY Configuration for Configuration/802.11 ac\_VHT80\_WLAN2\_CH155\_Rear\_0  
mm Sensor On/Volume Scan:

DASY Configuration for Configuration/802.11 ac\_VHT80\_WLAN1\_CH122\_Rear\_0  
mm Sensor On/Volume Scan:

DASY Configuration for Configuration/Bluetooth\_GFSK\_DH5\_Ant.1\_CH0\_Rear\_0  
mm Sensor On/Volume Scan:

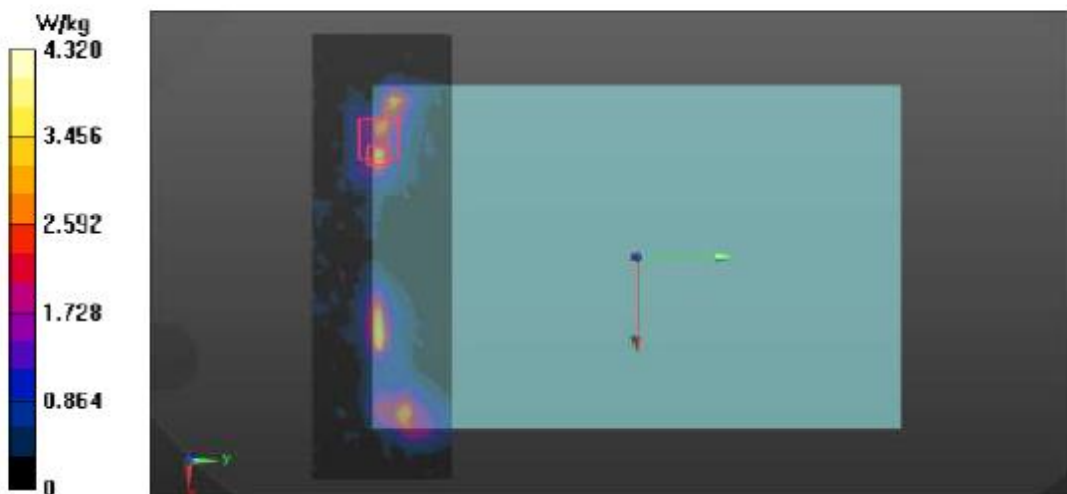
### Multi Band Result:

SAR(1 g) = 1.04 W/kg; SAR(10 g) = 0.497 W/kg  
Maximum value of SAR (interpolated) = 4.06 W/kg



**LTE Band 2 Volume Scan – Rear Position**

Scenario No.9

Licensed Band + WLAN 2.4 GHz Ant.2 + WLAN 5 GHz MIMO + Bluetooth Ant 1  
= 1.06 W/kg**Multi-Band Average SAR****Multi-Band Configurations:**DASY Configuration for Configuration/LTE Band 2\_QPSK\_20  
MHz\_1RB\_0offset\_CH18900\_Rear\_0 mm Grip Sensor On VS/Volume Scan:DASY Configuration for Configuration/802.11 ac\_VHT80\_WLAN2\_CH155\_Rear\_0  
mm Sensor On/Volume Scan:DASY Configuration for Configuration/802.11 b\_WLAN2\_CH1\_Rear\_0 mm Sensor  
On VS/Volume Scan:DASY Configuration for Configuration/802.11 ac\_VHT80\_WLAN1\_CH122\_Rear\_0  
mm Sensor On/Volume Scan:DASY Configuration for Configuration/Bluetooth\_GFSK\_DH5\_Ant.1\_CH0\_Rear\_0  
mm Sensor On/Volume Scan:**Multi Band Result:**SAR(1 g) = 1.06 W/kg; SAR(10 g) = 0.553 W/kg  
Maximum value of SAR (interpolated) = 4.32 W/kg



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## LTE Band 2 Volume Scan – Rear Position

Scenario No.10

Licensed Band + WLAN 2.4 GHz MIMO + WLAN 5 GHz MIMO  
= 1.29 W/kg

### Multi-Band Average SAR

#### Multi-Band Configurations:

DASY Configuration for Configuration/802.11 b\_MIMO\_CH11\_Rear\_0 mm Sensor On VS/Volume Scan:

DASY Configuration for Configuration/802.11 ac\_VHT80\_WLAN2\_CH155\_Rear\_0 mm Sensor On/Volume Scan:

DASY Configuration for Configuration/LTE Band 2\_QPSK\_20 MHz\_1RB\_0offset\_CH18900\_Rear\_0 mm Grip Sensor On VS/Volume Scan:

DASY Configuration for Configuration/802.11 ac\_VHT80\_WLAN1\_CH122\_Rear\_0 mm Sensor On/Volume Scan:

#### Multi Band Result:

SAR(1 g) = 1.29 W/kg; SAR(10 g) = 0.656 W/kg  
Maximum value of SAR (interpolated) = 4.45 W/kg

