

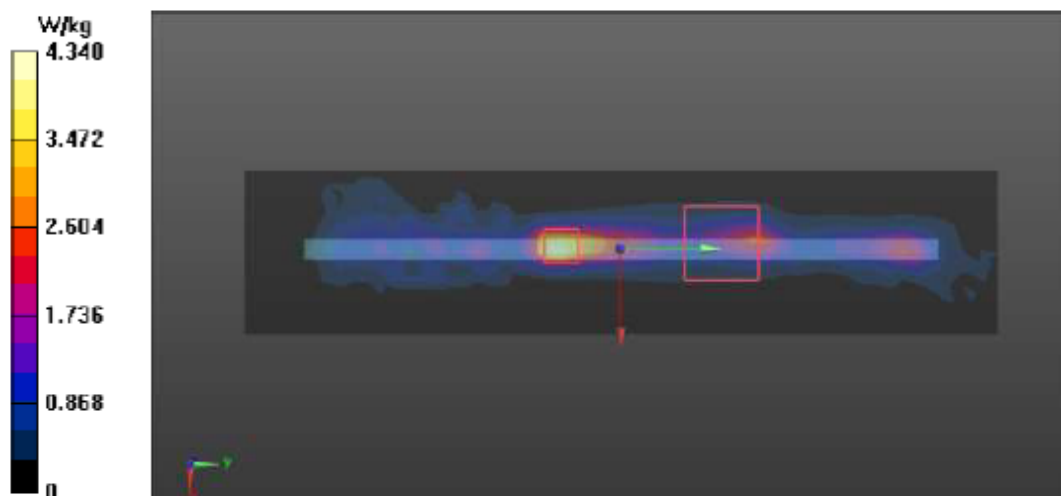
GSM850 Volume Scan – Top Position

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

GSM1900 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	1.616	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.

GSM1900 SPLSR – Rear Position													
Scenario	Scenario No.1		Scenario No.4		Scenario No.5		Scenario No.6		Scenario No.7		Scenario No.8		Scenario No.10
Rear	1.616		1.686		2.196		2.184		2.764		2.824		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
					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
					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

GSM1900 SPLSR – Top Position		
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	

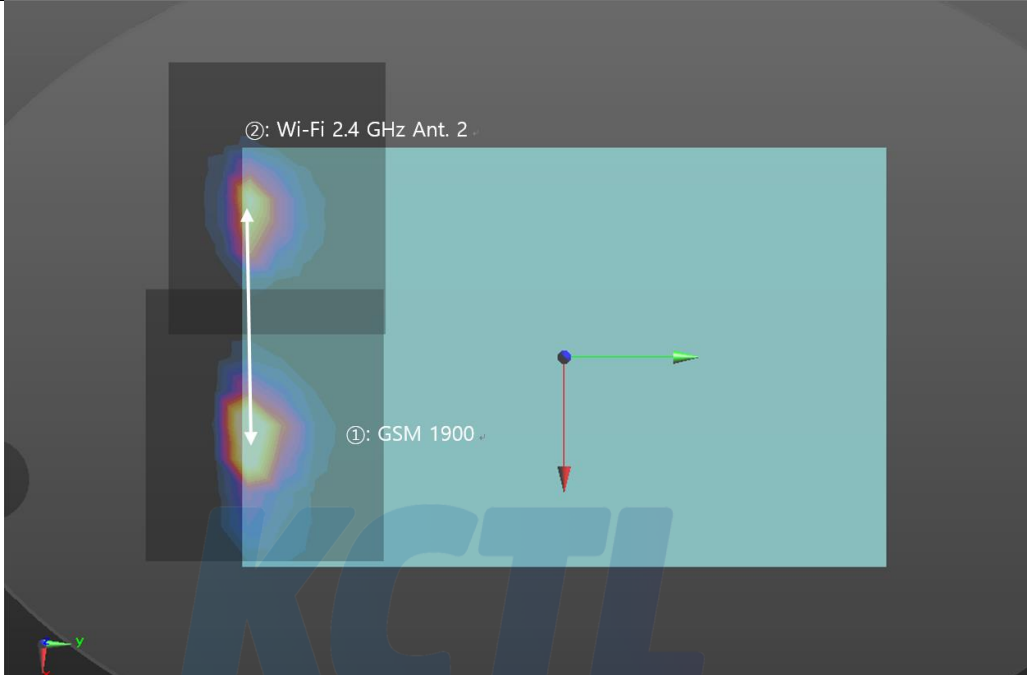
Note: Scenario No. 7 ~ 10 were analyzed according to the SPLSR hotspot combination procedure of the TCB Workshop Nov 2019.(Reference Section 12.5).

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Report No.:
KR20-SPF0026-B
Page (184) of (638)

KCTL**GSM1900 SPLSR – Rear Position**

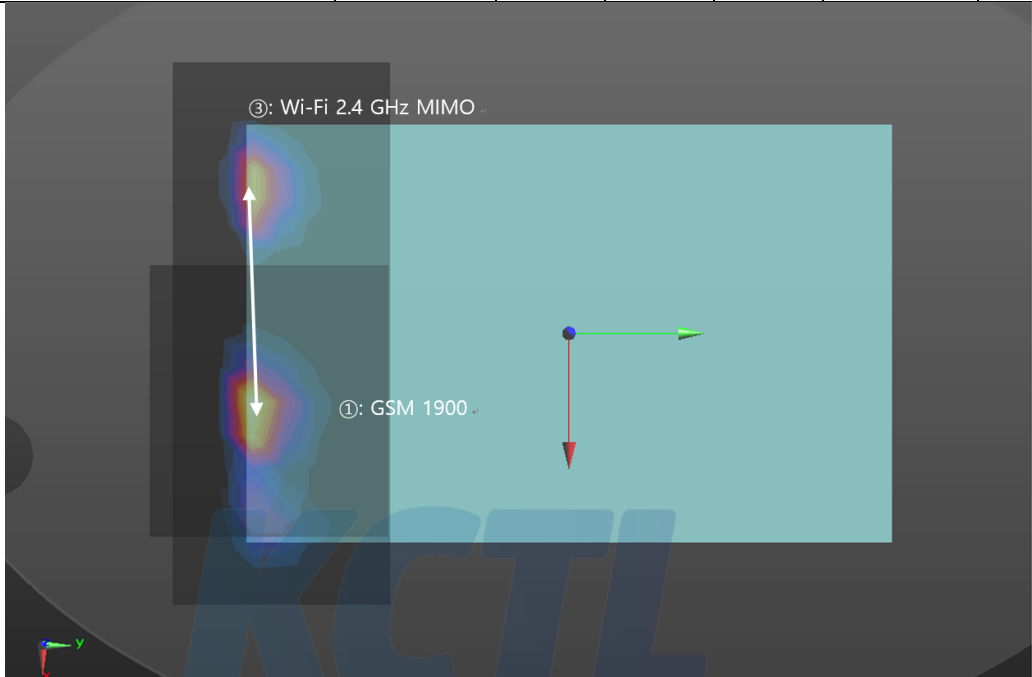
Scenario	Mode (Numbering)	SAR W/kg	Coordinates			Distance (mm)	SPLSR
			X	Y	Z		
Scenario No.1	GSM1900 (①)	0.939	0.035	-0.137	-0.183	110.0	0.02
	Wi-Fi 2.4 GHz Ant.2 (②)	0.677	-0.075	-0.140	-0.178		
							

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Report No.:
KR20-SPF0026-B
Page (185) of (638)

KCTL**GSM1900 SPLSR – Rear Position**

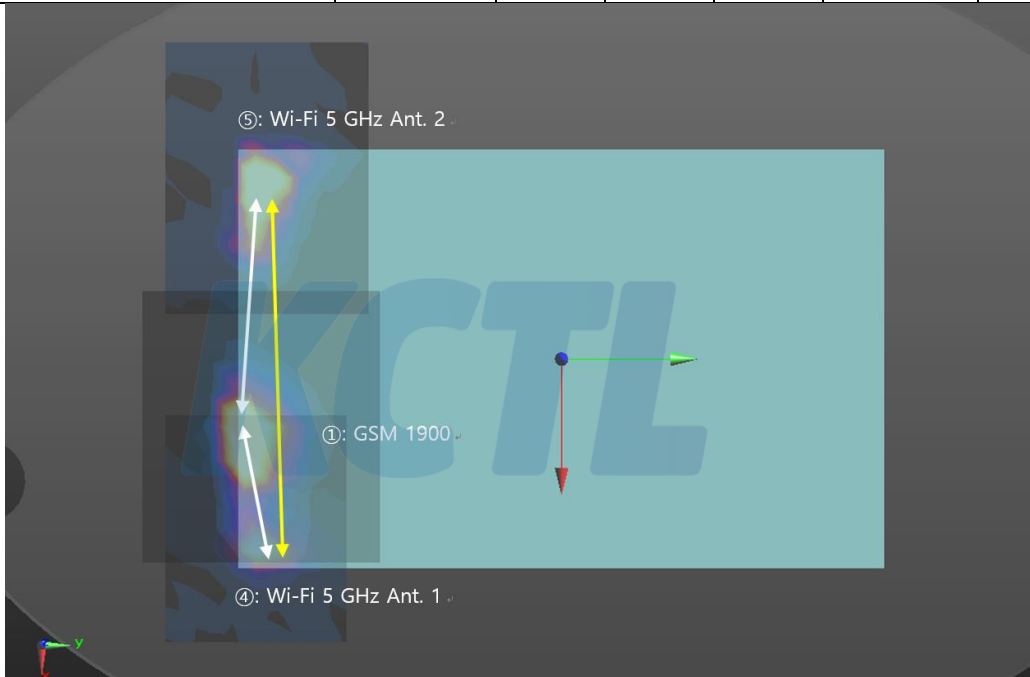
Scenario	Mode (Numbering)	SAR W/kg	Coordinates			Distance (mm)	SPLSR
			X	Y	Z		
Scenario No.4	GSM1900 (①)	0.939	0.035	-0.137	-0.183	110.8	0.02
	Wi-Fi 2.4 GHz MIMO (③)	0.747	-0.076	-0.140	-0.178		
							

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Report No.:
KR20-SPF0026-B
Page (186) of (638)

KCTL**GSM1900 SPLSR – Rear Position**

Scenario	Mode (Numbering)	SAR W/kg	Coordinates			Distance (mm)	SPLSR
			X	Y	Z		
	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		
Scenario No.5							

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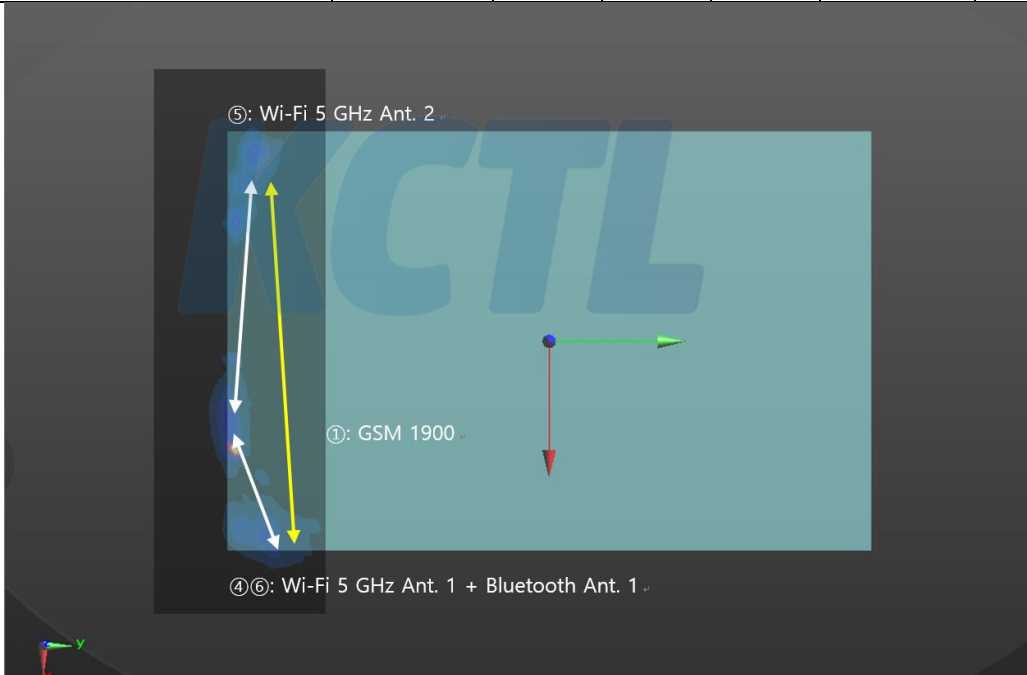
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Report No.:
KR20-SPF0026-B
Page (187) of (638)

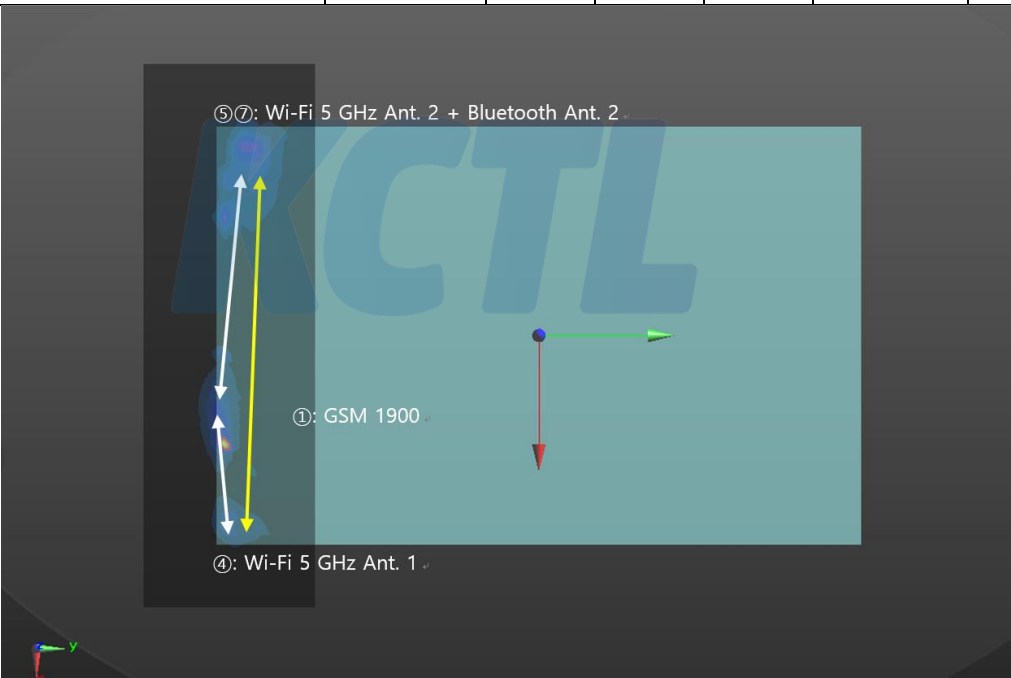
KCTL**GSM1900 SPLSR – Rear Position**

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		
							

GSM1900 SPLSR – Rear Position

Scenario	Mode (Numbering)	SAR W/kg	Coordinates			Distance (mm)	SPLSR
			X	Y	Z		
	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		
Scenario No.7							

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		
							

GSM1900 SPLSR – Rear Position

Scenario	Mode (Numbering)	SAR W/kg	Coordinates			Distance (mm)	SPLSR
			X	Y	Z		
	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		
Scenario No.9							

GSM1900 SPLSR – Rear Position

Scenario	Mode (Numbering)	SAR W/kg	Coordinates			Distance (mm)	SPLSR
			X	Y	Z		
	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		
Scenario No.10							

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Report No.:
KR20-SPF0026-B
Page (192) of (638)

**GSM1900 SPLSR – Top Position**

Scenario	Mode (Numbering)	SAR W/kg	Coordinates			Distance (mm)	SPLSR
			X	Y	Z		
	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		
Scenario No.9							

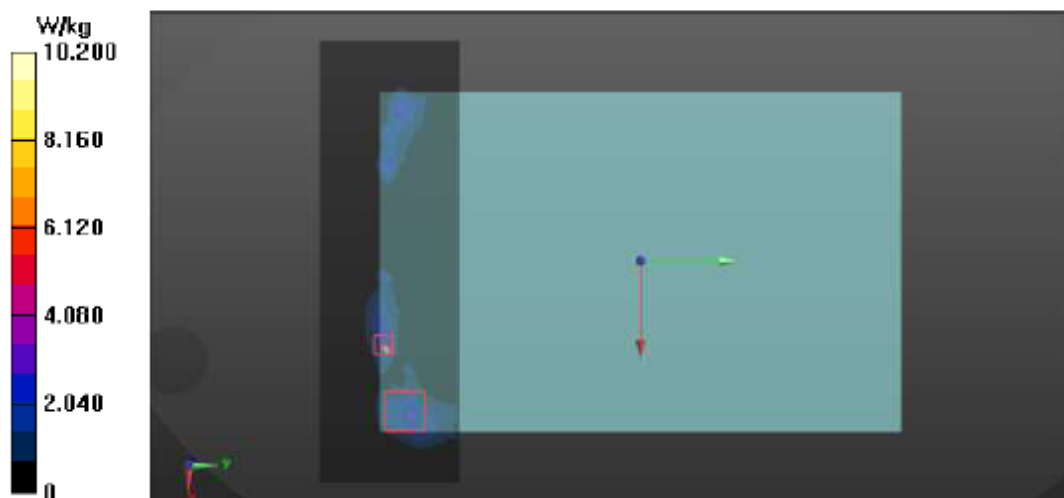
GSM1900 Volume Scan – Rear Position

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



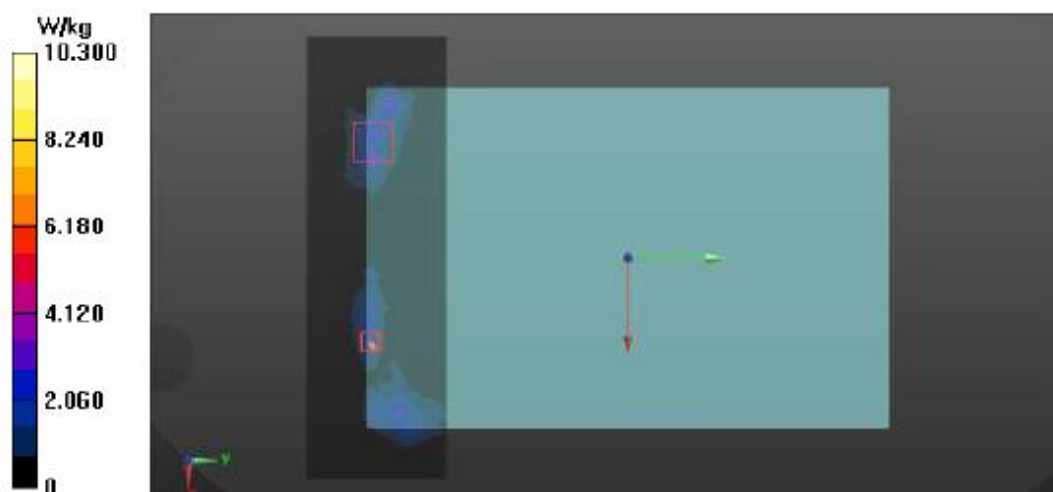
GSM1900 Volume Scan – Rear Position

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



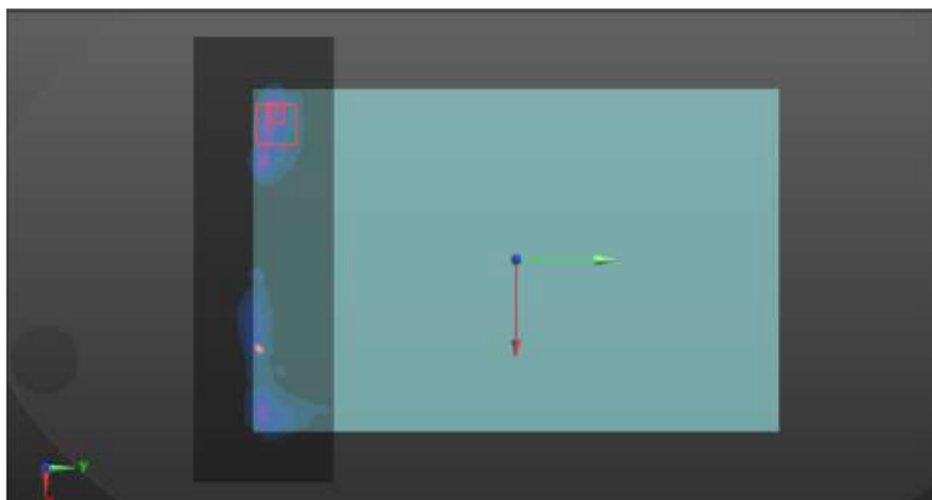
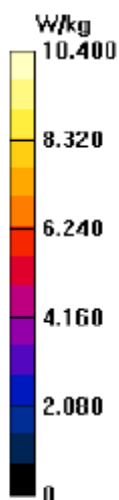
GSM1900 Volume Scan – Rear Position

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



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	

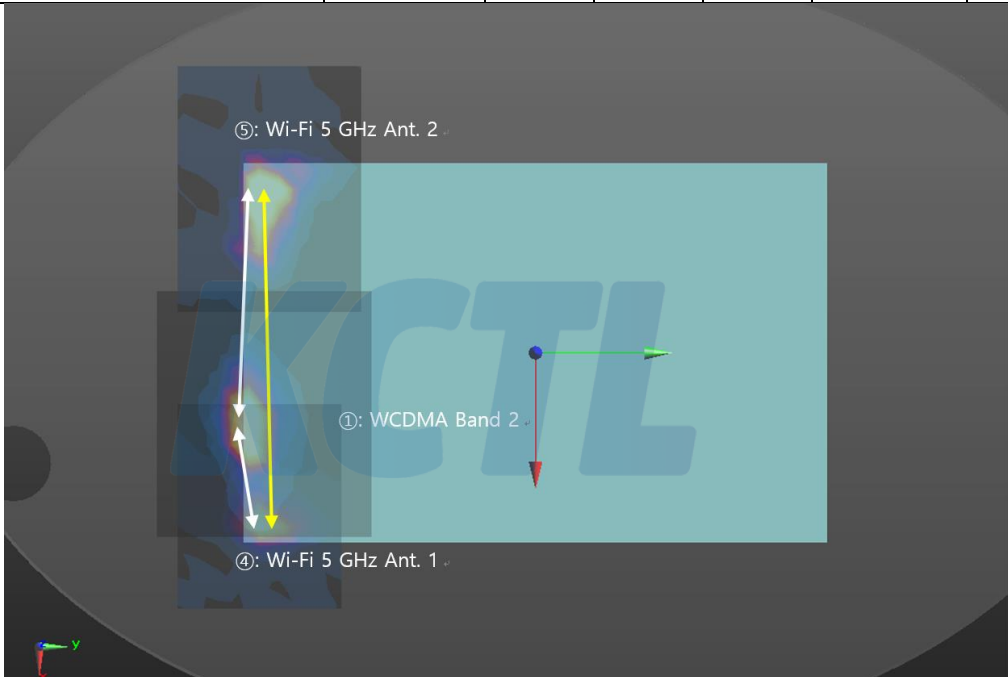
Note: Scenario No. 7 ~ 10 were analyzed according to the SPLSR hotspot combination procedure of the TCB Workshop Nov 2019.(Reference Section 12.5).

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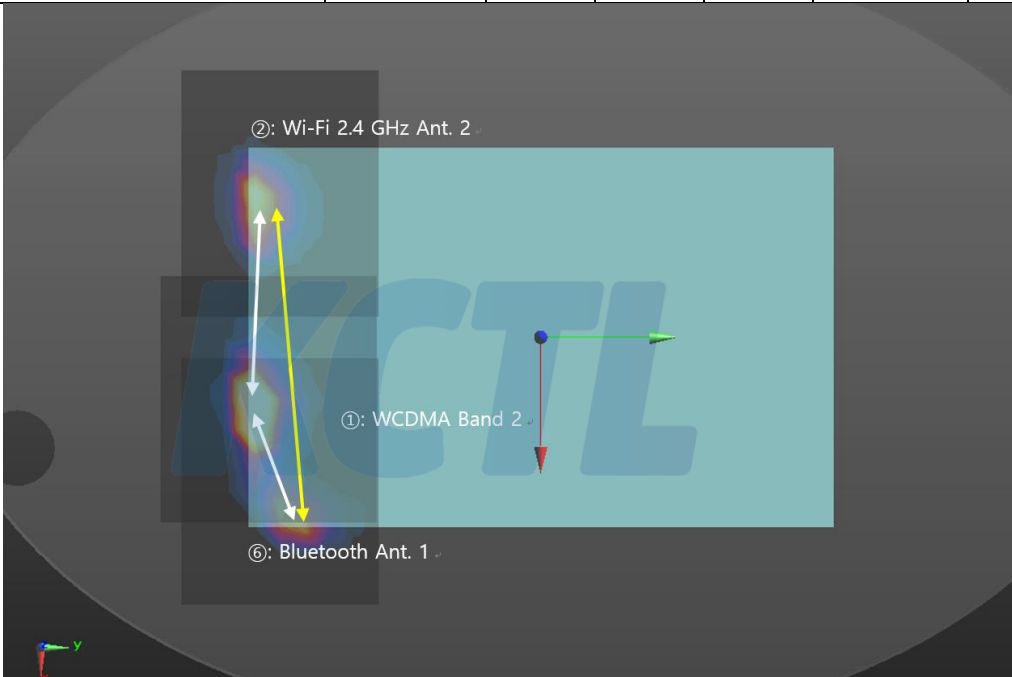
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Report No.:
KR20-SPF0026-B
Page (197) of (638)

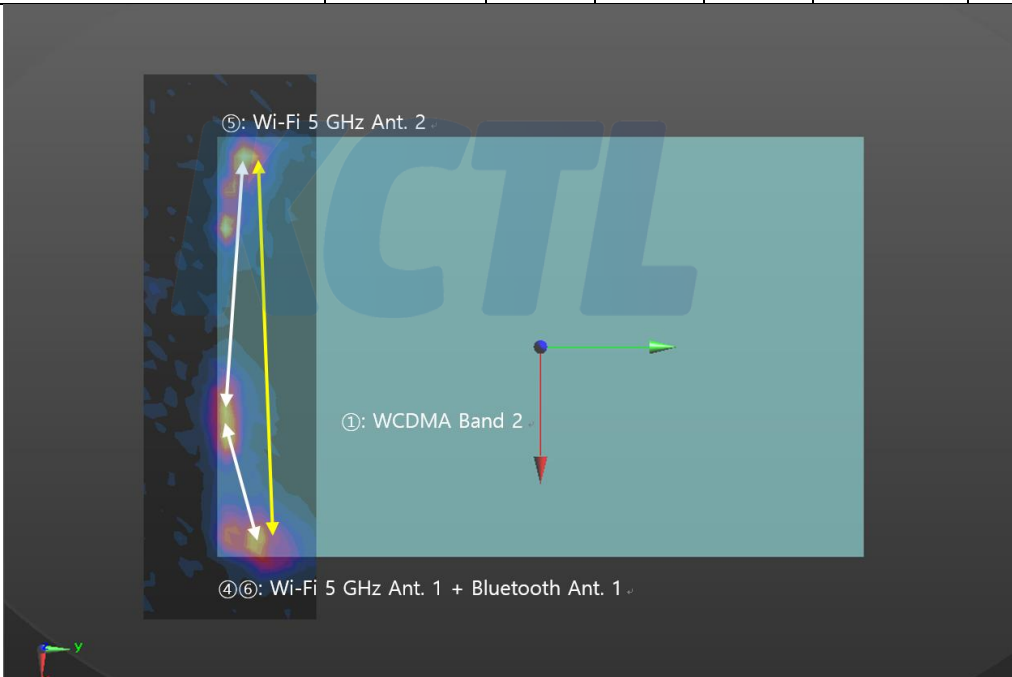
KCTL**WCDMA II SPLSR – Rear Position**

Scenario	Mode (Numbering)	SAR W/kg	Coordinates			Distance (mm)	SPLSR
			X	Y	Z		
	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		
Scenario No.5							

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		
							

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Report No.:
KR20-SPF0026-B
Page (200) of (638)

**WCDMA II SPLSR – Rear Position**

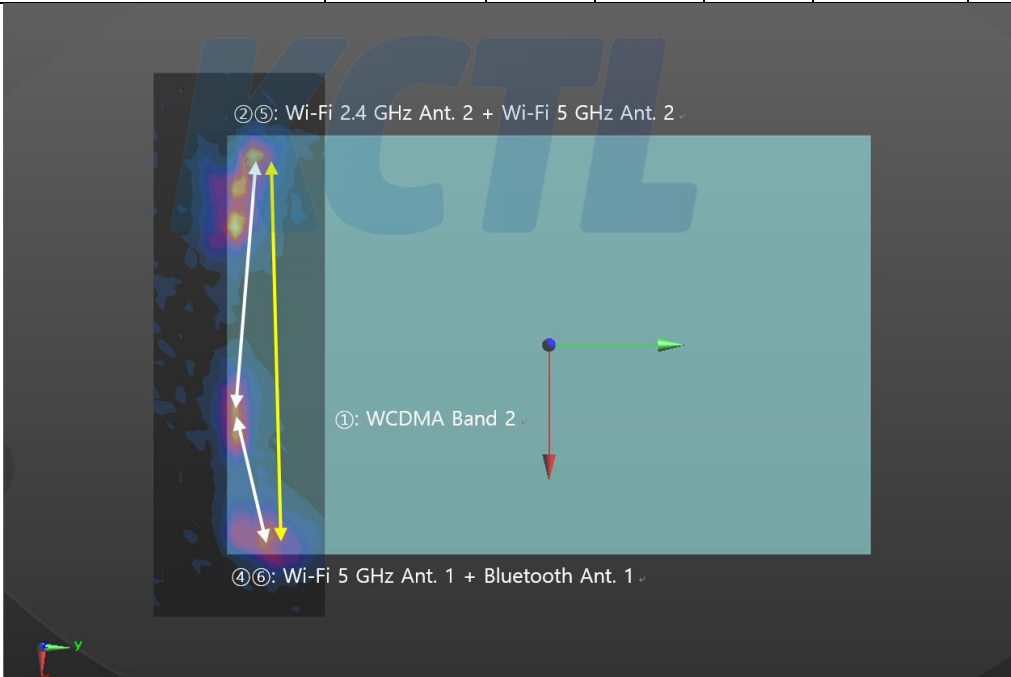
Scenario	Mode (Numbering)	SAR W/kg	Coordinates			Distance (mm)	SPLSR
			X	Y	Z		
Scenario No.8	WCDMA II (①)	0.819	0.036	-0.139	-0.182	120.3	0.02
	Wi-Fi 5 GHz Ant.2 (⑤) + Bluetooth Ant.2 (⑦)	1.000	-0.084	-0.131	-0.178		
	WCDMA II (①)	0.819	0.036	-0.139	-0.182	49.5	0.03
	Wi-Fi 5 GHz Ant.1 (④)	0.482	0.085	-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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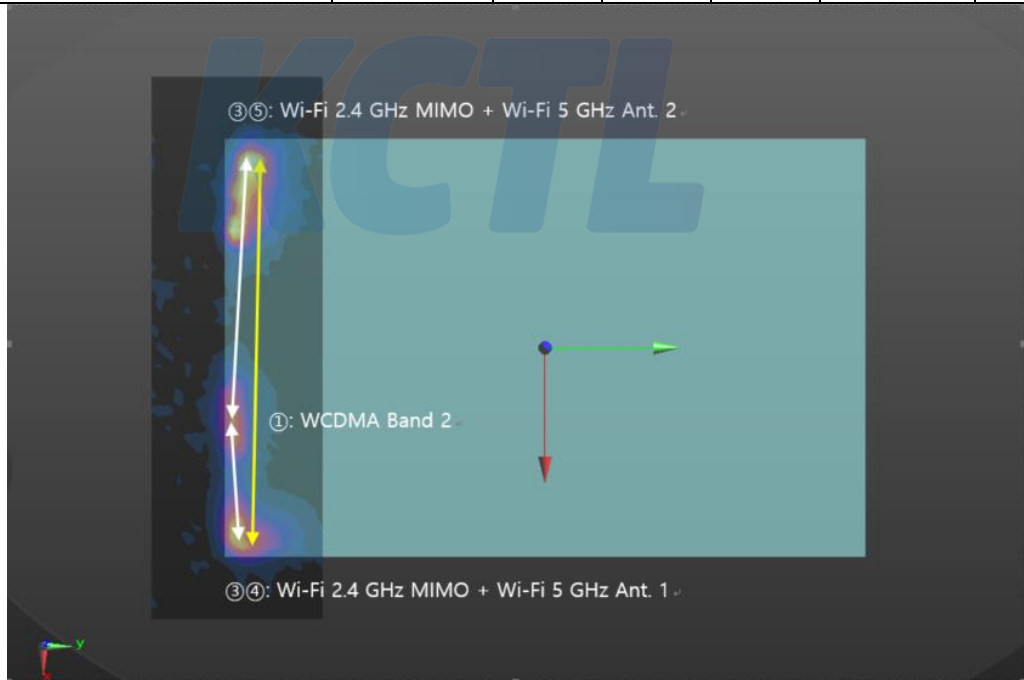
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Report No.:
KR20-SPF0026-B
Page (201) of (638)

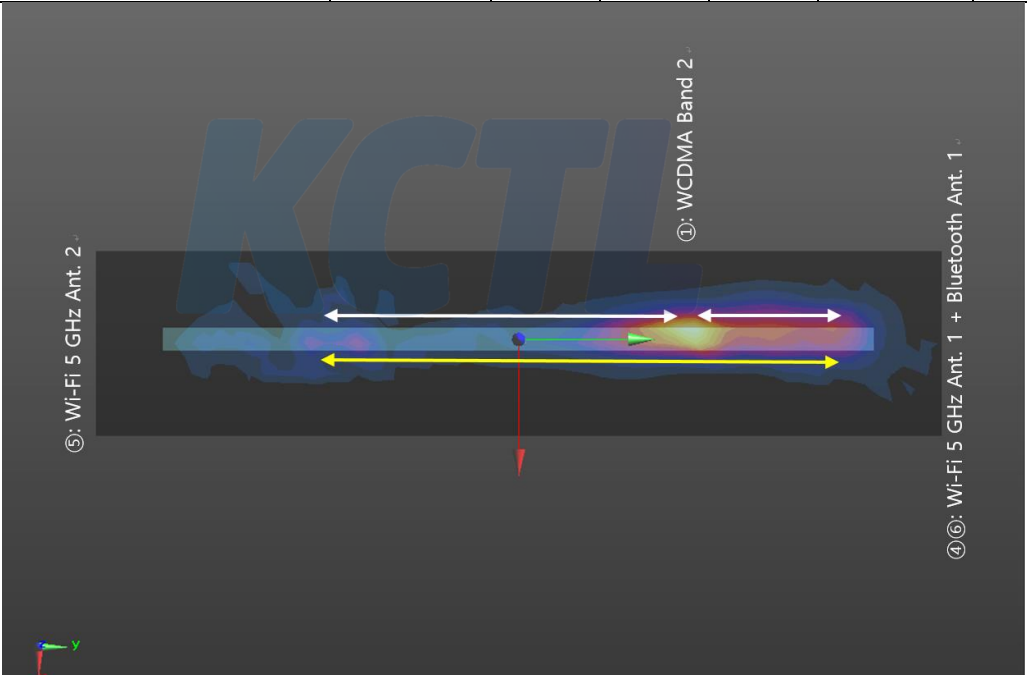
KCTL**WCDMA II SPLSR – Rear Position**

Scenario	Mode (Numbering)	SAR W/kg	Coordinates			Distance (mm)	SPLSR
			X	Y	Z		
	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		
Scenario No.9							

WCDMA II SPLSR – Rear Position

Scenario	Mode (Numbering)	SAR W/kg	Coordinates			Distance (mm)	SPLSR
			X	Y	Z		
	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		
Scenario No.10							

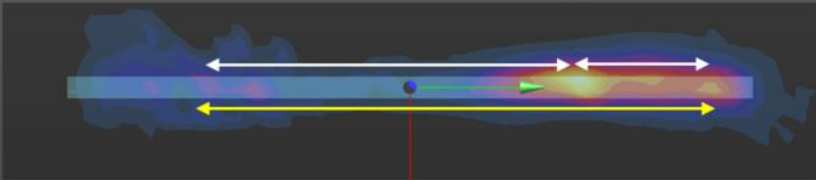
WCDMA II SPLSR – Top Position

Scenario	Mode (Numbering)	SAR W/kg	Coordinates			Distance (mm)	SPLSR
			X	Y	Z		
	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		
Scenario No.7							

WCDMA II SPLSR – Top Position

Scenario	Mode (Numbering)	SAR W/kg	Coordinates			Distance (mm)	SPLSR
			X	Y	Z		
	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		
Scenario No.9							

WCDMA II SPLSR – Top Position

Scenario	Mode (Numbering)	SAR W/kg	Coordinates			Distance (mm)	SPLSR
			X	Y	Z		
	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		
Scenario No.10	③⑤: Wi-Fi 2.4 GHz MIMO + Wi-Fi 5 GHz Ant. 2  ③④: Wi-Fi 2.4 GHz MIMO + Wi-Fi 5 GHz Ant. 1						

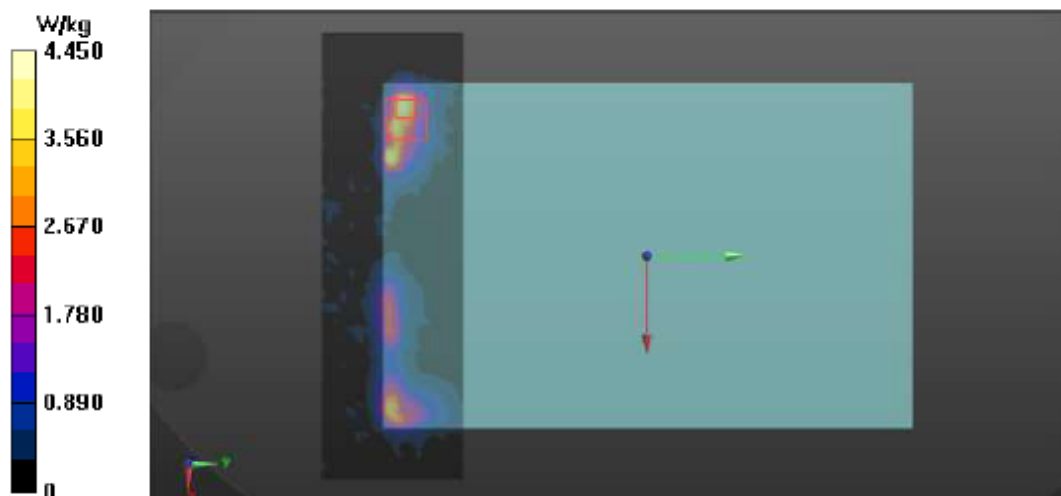
WCDMA II Volume Scan – Rear Position

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



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	

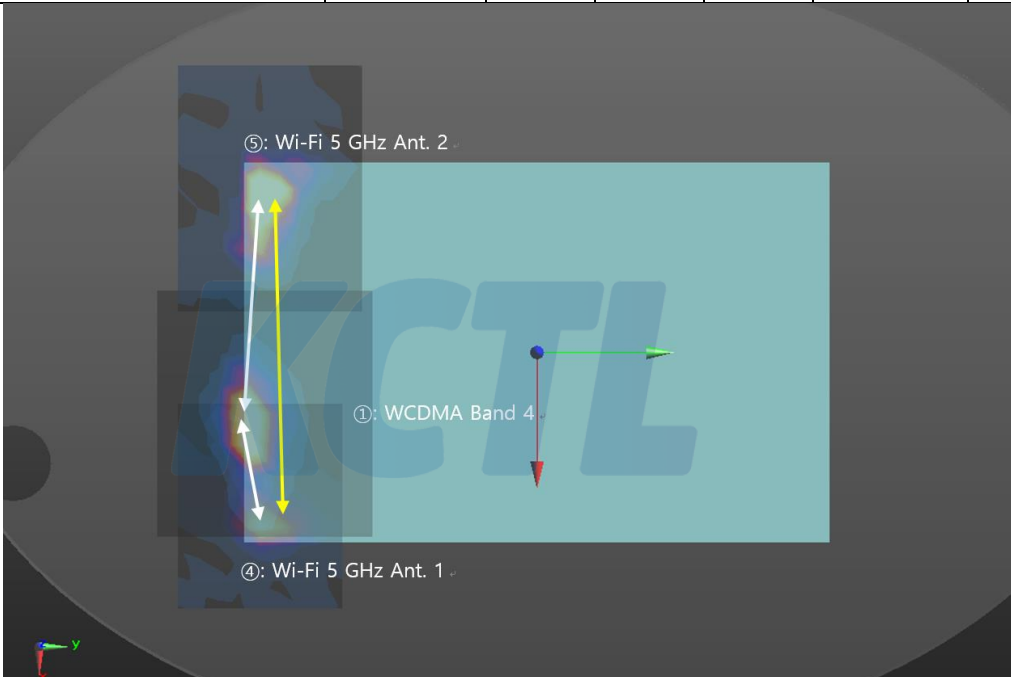
Note: Scenario No. 7 ~ 10 were analyzed according to the SPLSR hotspot combination procedure of the TCB Workshop Nov 2019.(Reference Section 12.5).

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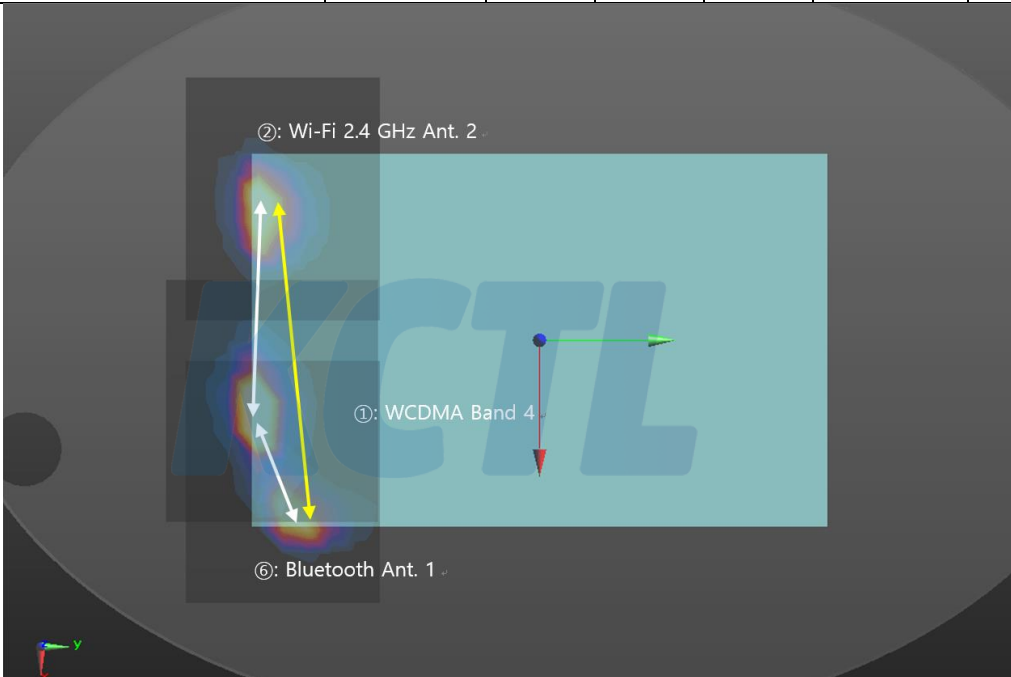
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Report No.:
KR20-SPF0026-B
Page (208) of (638)

KCTL**WCDMA IV SPLSR – Rear Position**

Scenario	Mode (Numbering)	SAR W/kg	Coordinates			Distance (mm)	SPLSR
			X	Y	Z		
	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		
Scenario No.5							

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		
							

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Report No.:
KR20-SPF0026-B
Page (210) of (638)

**WCDMA IV SPLSR – Rear Position**

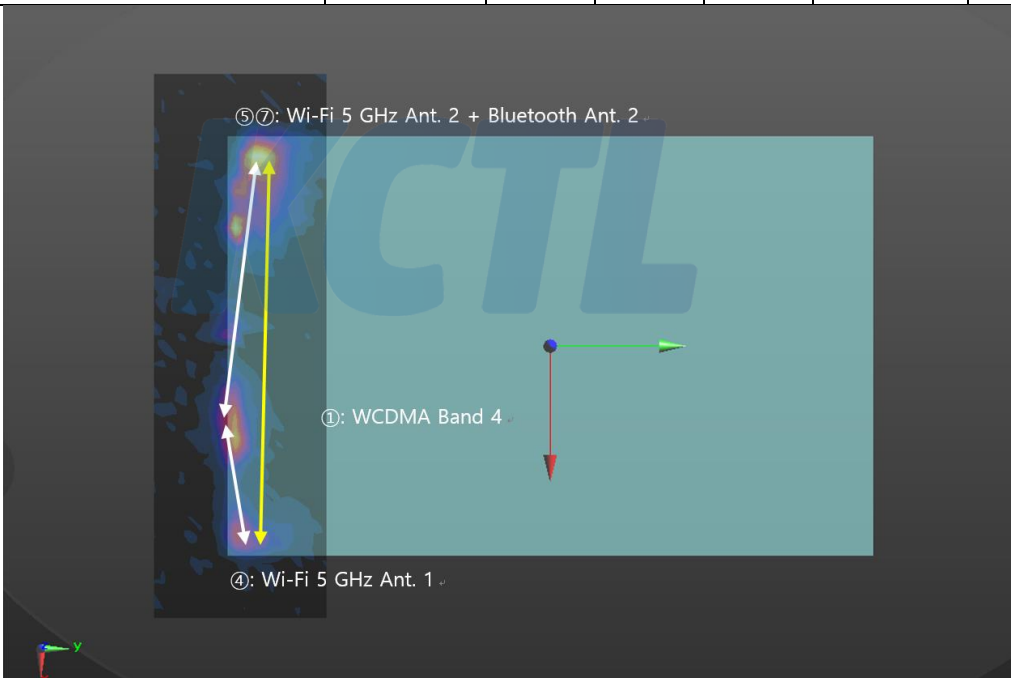
Scenario	Mode (Numbering)	SAR W/kg	Coordinates			Distance (mm)	SPLSR
			X	Y	Z		
Scenario No.7	WCDMA IV (①)	0.646	0.038	-0.140	-0.183	48.5	0.04
	Wi-Fi 5 GHz Ant.1 (④) + Bluetooth Ant.1 (⑥)	0.886	0.084	-0.127	-0.178		
	WCDMA IV (①)	0.646	0.038	-0.140	-0.183	121.3	0.01
	Wi-Fi 5 GHz Ant.2 (⑤)	0.775	-0.083	-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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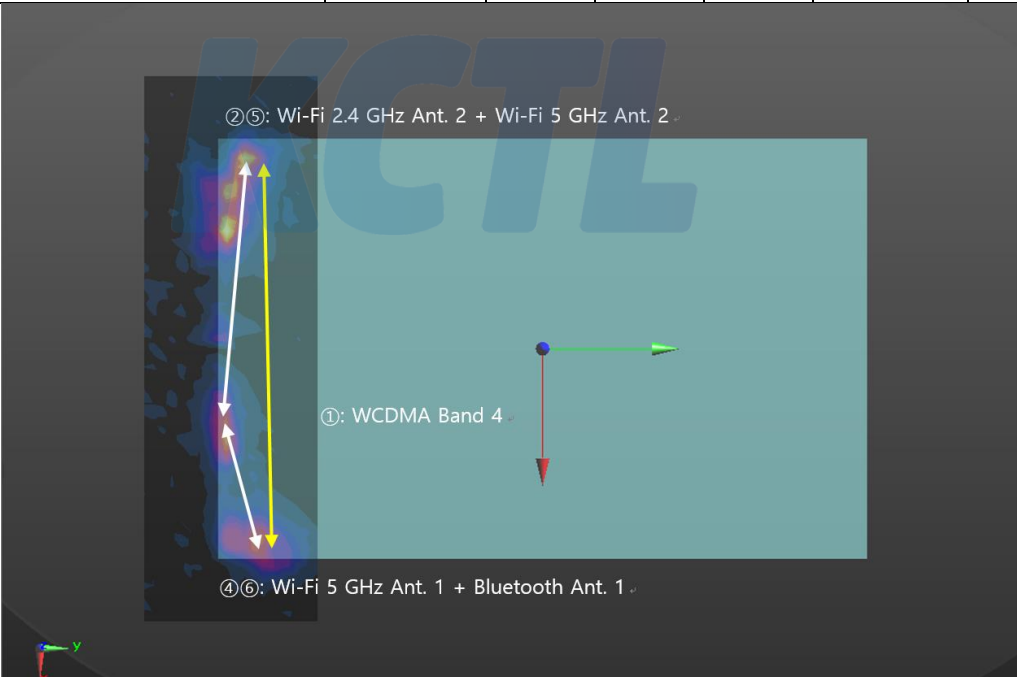
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Report No.:
KR20-SPF0026-B
Page (211) of (638)

KCTL**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		
							

WCDMA IV SPLSR – Rear Position

Scenario	Mode (Numbering)	SAR W/kg	Coordinates			Distance (mm)	SPLSR
			X	Y	Z		
	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		
Scenario No.9	 ②⑤: Wi-Fi 2.4 GHz Ant. 2 + Wi-Fi 5 GHz Ant. 2 ①: WCDMA Band 4 ④⑥: Wi-Fi 5 GHz Ant. 1 + Bluetooth Ant. 1						

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Report No.:
KR20-SPF0026-B
Page (213) of (638)

**WCDMA IV SPLSR – Rear Position**

Scenario	Mode (Numbering)	SAR W/kg	Coordinates			Distance (mm)	SPLSR
			X	Y	Z		
	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		
Scenario No.10							

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	

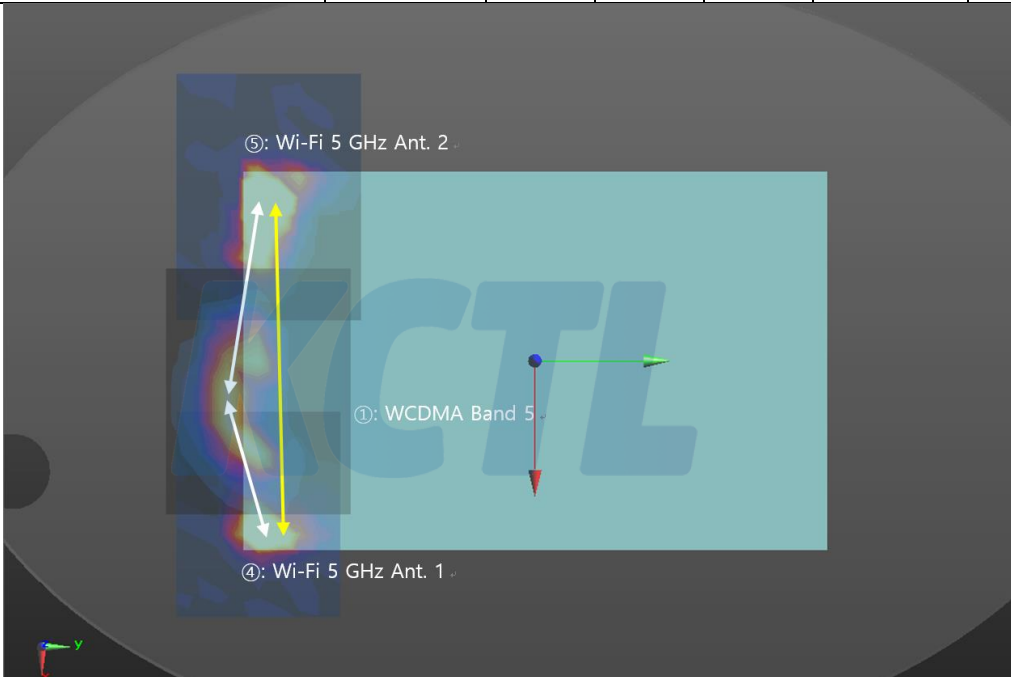
Note: Scenario No. 7 ~ 10 were analyzed according to the SPLSR hotspot combination procedure of the TCB Workshop Nov 2019.(Reference Section 12.5).

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Report No.:
KR20-SPF0026-B
Page (215) of (638)

KCTL**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		
							

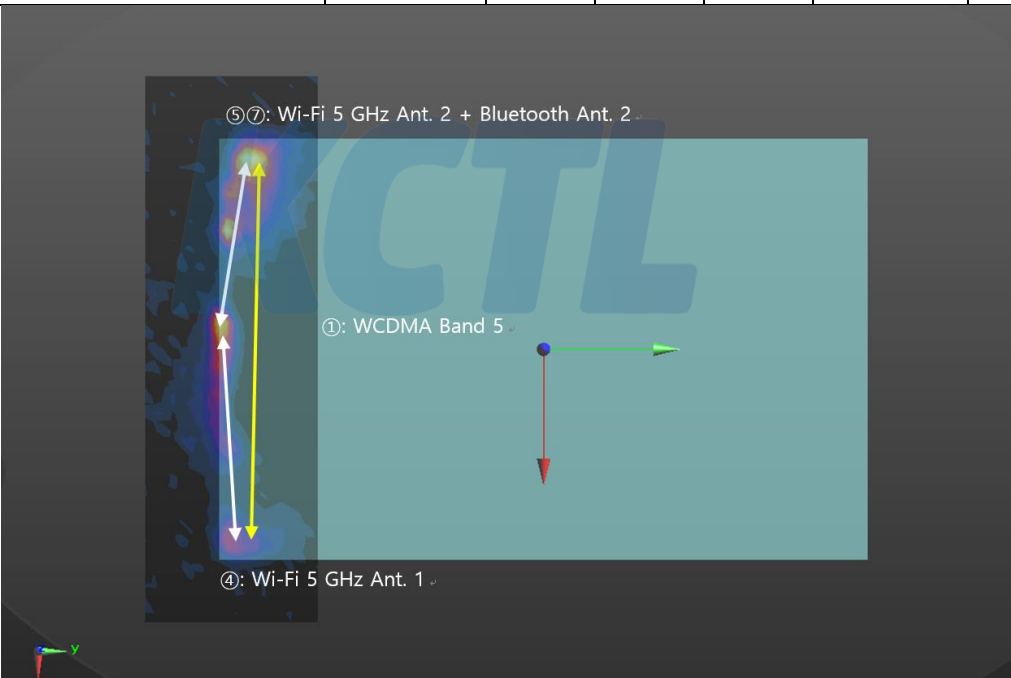
WCDMA V SPLSR – Rear Position

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		

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		
							

WCDMA V SPLSR – Rear Position

Scenario	Mode (Numbering)	SAR W/kg	Coordinates			Distance (mm)	SPLSR
			X	Y	Z		
	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		
Scenario No.8							

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Report No.:
KR20-SPF0026-B
Page (219) of (638)

**WCDMA V SPLSR – Rear Position**

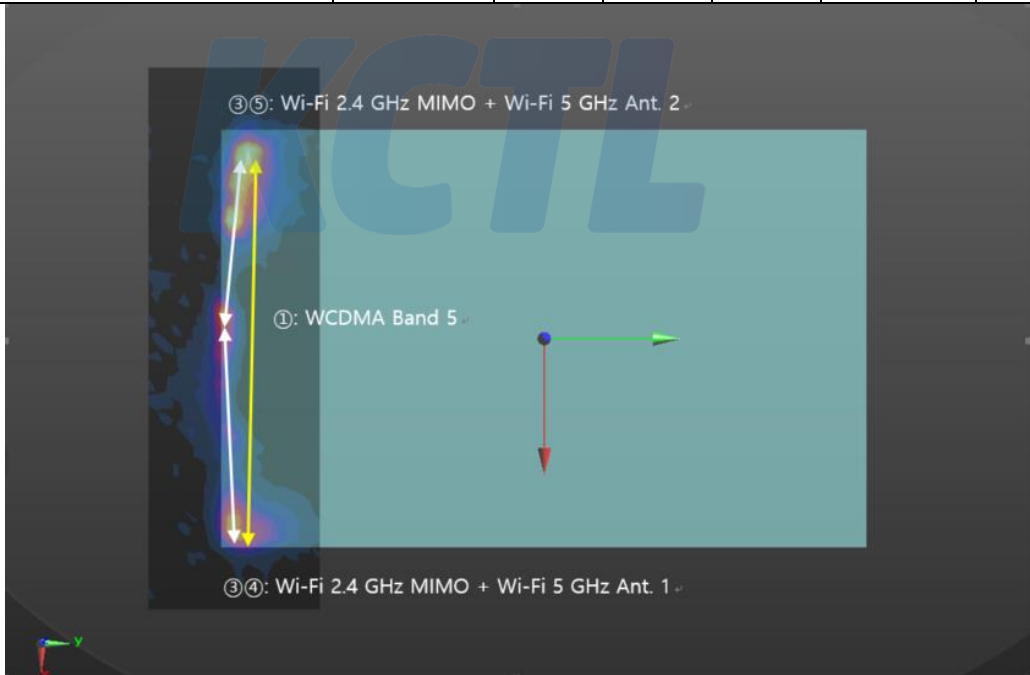
Scenario	Mode (Numbering)	SAR W/kg	Coordinates			Distance (mm)	SPLSR
			X	Y	Z		
	WCDMA V (①)	0.688	-0.013	-0.141	-0.184	40.0	0.06
	Wi-Fi 2.4 GHz Ant.2 (②) + Wi-Fi 5 GHz Ant.2 (⑤)	1.010	-0.052	-0.139	-0.178		
	WCDMA V (①)	0.688	-0.013	-0.141	-0.184	97.7	0.02
	Wi-Fi 5 GHz Ant.1 (④) + Bluetooth Ant.1 (⑥)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

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Report No.:
KR20-SPF0026-B
Page (220) of (638)

KCTL**WCDMA V SPLSR – Rear Position**

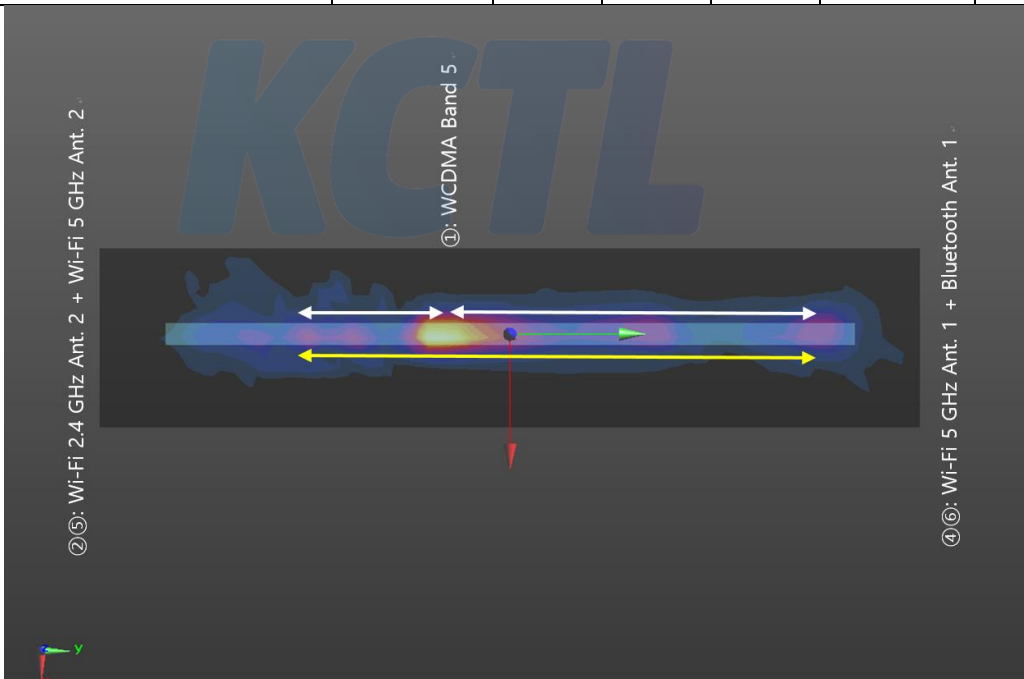
Scenario	Mode (Numbering)	SAR W/kg	Coordinates			Distance (mm)	SPLSR
			X	Y	Z		
	WCDMA V (①)	0.688	-0.013	-0.141	-0.184	96.7	0.02
	Wi-Fi 2.4 GHz MIMO (③) + Wi-Fi 5 GHz Ant.1 (④)	0.926	0.084	-0.139	-0.178		
	WCDMA V (①)	0.688	-0.013	-0.141	-0.184	72.4	0.04
	Wi-Fi 2.4 GHz MIMO (③) + Wi-Fi 5 GHz Ant.2 (⑤)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

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Report No.:
KR20-SPF0026-B
Page (221) of (638)

KCTL**WCDMA V SPLSR – Top Position**

Scenario	Mode (Numbering)	SAR W/kg	Coordinates			Distance (mm)	SPLSR
			X	Y	Z		
	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		
Scenario No.9							

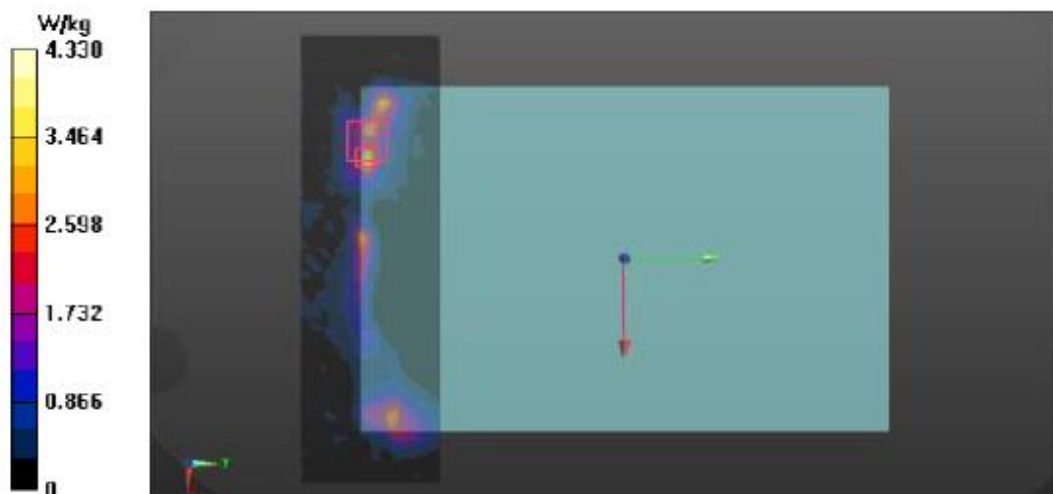
WCDMA V Volume Scan – Rear Position

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



12.3.6 LTE Band 2 SPLSR and Volume Scan Analysis_Sensor On

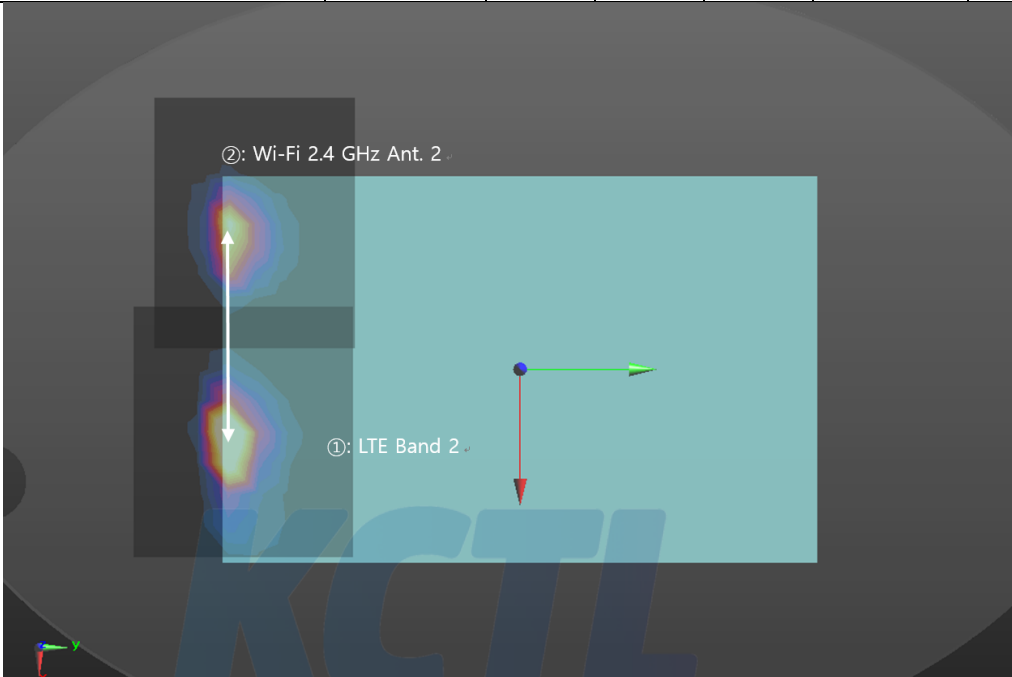
LTE Band 2 Simultaneous										
Scenario	Scenario No.1	Scenario No.2	Scenario No.3	Scenario No.4	Scenario No.5	Scenario No.6	Scenario No.7	Scenario No.8	Scenario No.9	Scenario No.10
SUM	①②	①⑥	①⑦	①③	①④⑤	①②⑥	①④⑤⑥	①④⑤⑦	①②④⑤⑥	①③④⑤
Rear	1.606	1.497	1.557	1.676	2.186	2.174	2.754	2.814	3.431	2.933
Left	0.345	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.

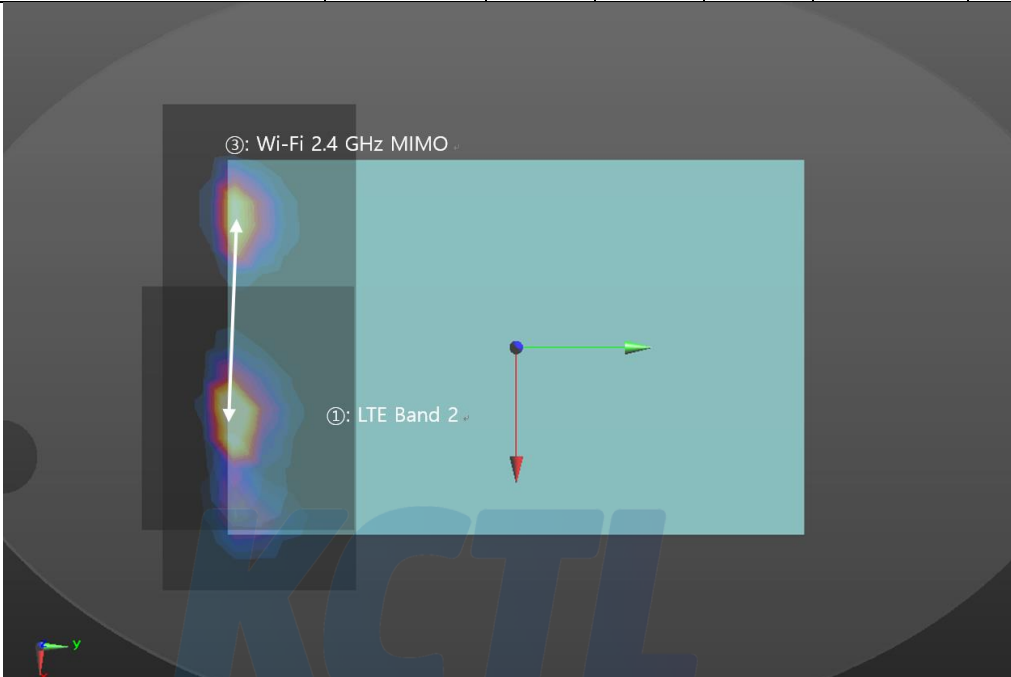
LTE Band 2 SPLSR – Rear Position																
Scenario	Scenario No.1		Scenario No.4		Scenario No.5		Scenario No.6		Scenario No.7		Scenario No.8		Scenario No.9		Scenario No.10	
Rear	1.606		1.676		2.186		2.174		2.754		2.814		3.431		2.933	
Distance [mm]	①-②	113.5	①-③	114.3	①-④	47.5	①-②	113.5	①-④⑥	47.24	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
					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
					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					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).

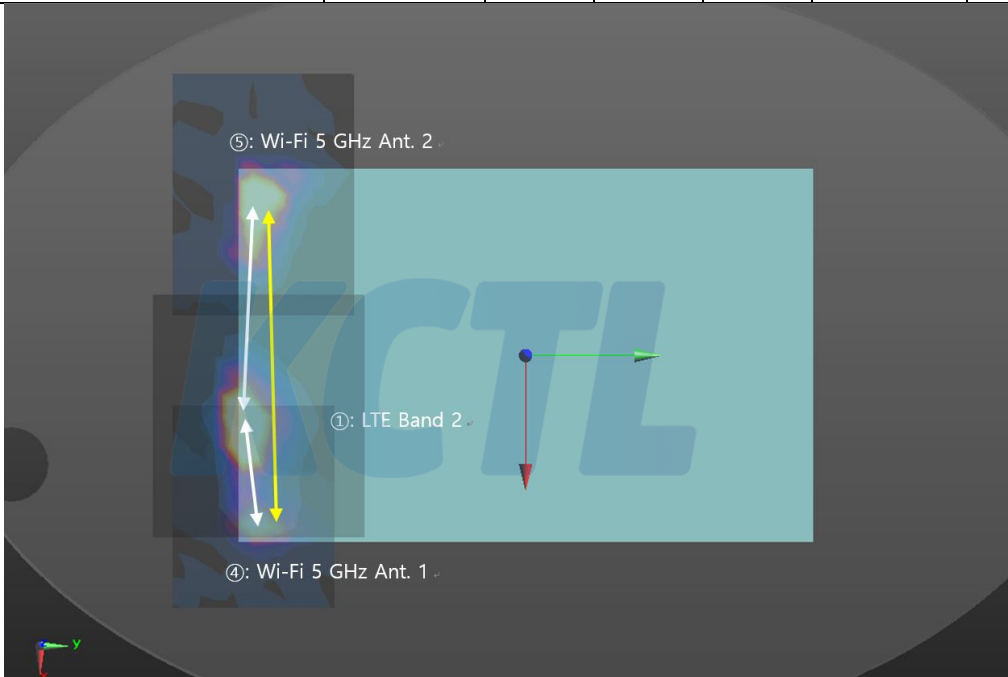
LTE Band 2 SPLSR – Rear Position

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		
							

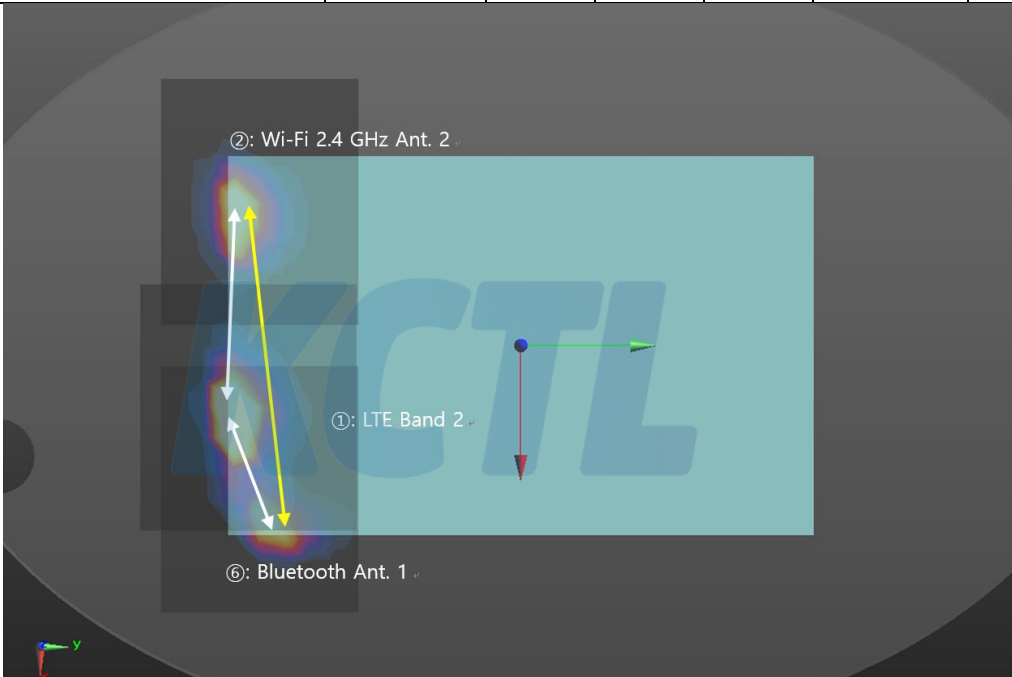
LTE Band 2 SPLSR – Rear Position

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		
							

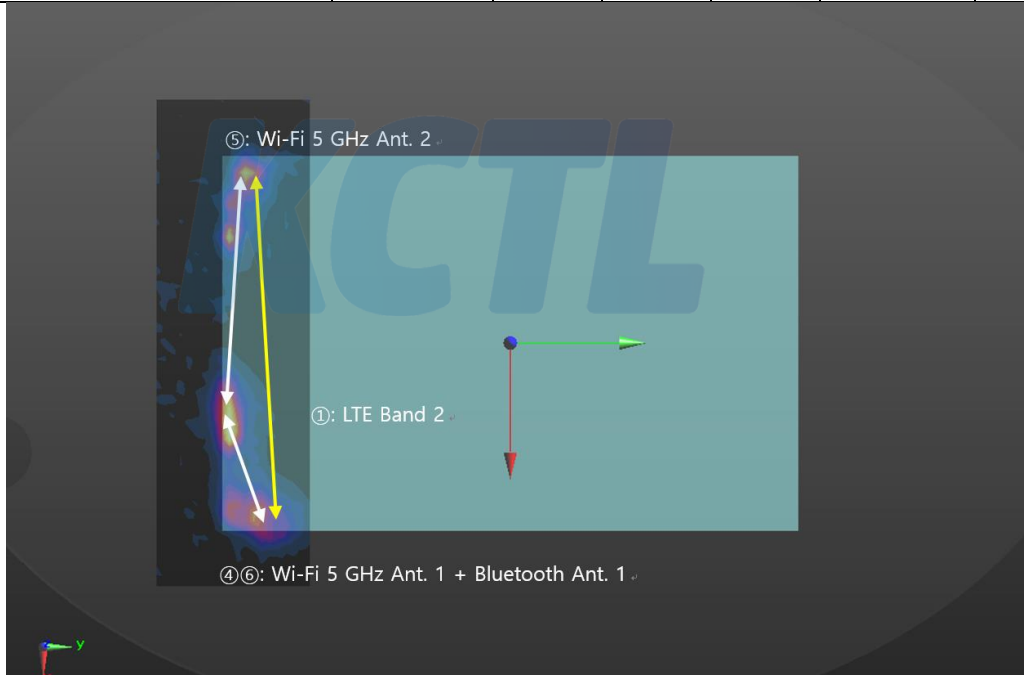
LTE Band 2 SPLSR – Rear Position

Scenario	Mode (Numbering)	SAR W/kg	Coordinates			Distance (mm)	SPLSR
			X	Y	Z		
	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		
Scenario No.5							

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		
	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		
Scenario No.7							

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Report No.:
KR20-SPF0026-B
Page (229) of (638)

KCTL**LTE Band 2 SPLSR – Rear Position**

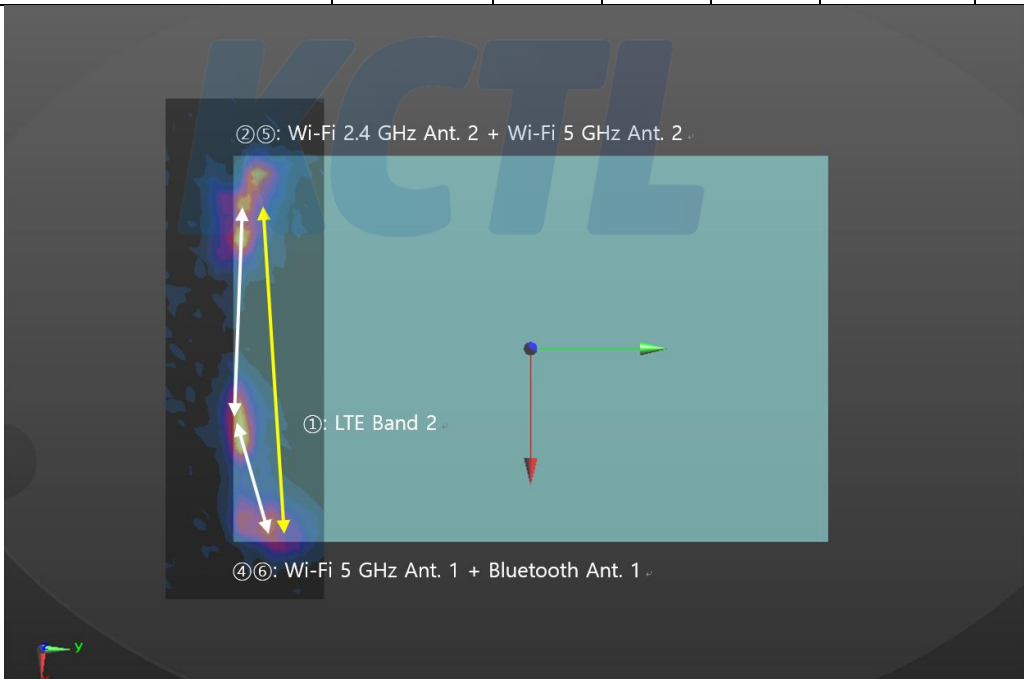
Scenario	Mode (Numbering)	SAR W/kg	Coordinates			Distance (mm)	SPLSR
			X	Y	Z		
	LTE Band 2 (①)	0.929	0.038	-0.137	-0.182	122.2	0.02
	Wi-Fi 5 GHz Ant.2 (⑤) + Bluetooth Ant.2 (⑦)	1.000	-0.084	-0.131	-0.178		
	LTE Band 2 (①)	0.929	0.038	-0.137	-0.182	47.5	0.04
	Wi-Fi 5 GHz Ant.1 (④)	0.482	0.085	-0.138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

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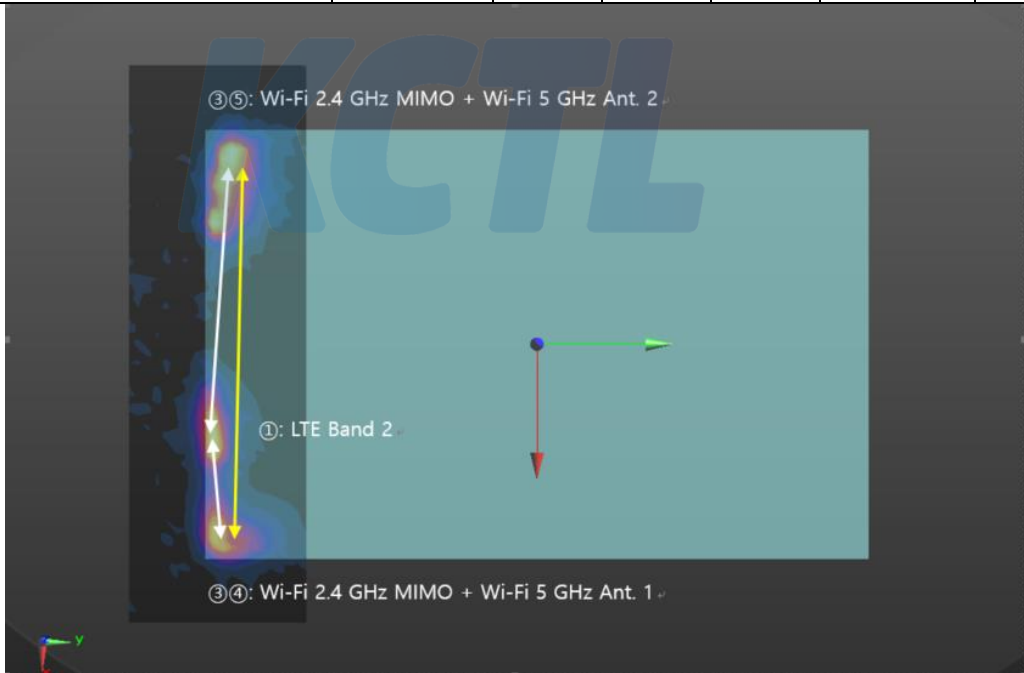
65, Sinwon-ro, Yeongtong-gu,
Suwon-si, Gyeonggi-do, 16677, Korea
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Report No.:
KR20-SPF0026-B
Page (230) of (638)

KCTL**LTE Band 2 SPLSR – Rear Position**

Scenario	Mode (Numbering)	SAR W/kg	Coordinates			Distance (mm)	SPLSR
			X	Y	Z		
	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		
Scenario No.9							

LTE Band 2 SPLSR – Rear Position

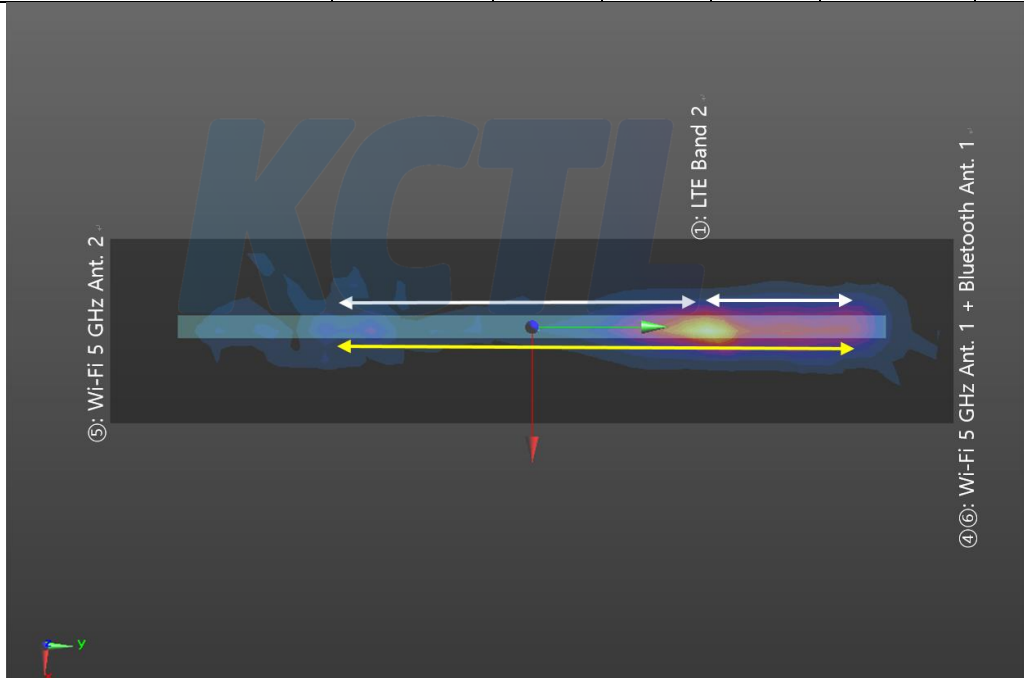
Scenario	Mode (Numbering)	SAR W/kg	Coordinates			Distance (mm)	SPLSR
			X	Y	Z		
	LTE Band 2 (①)	0.929	0.038	-0.137	-0.182	46.22	0.05
	Wi-Fi 2.4 GHz MIMO (③) + Wi-Fi 5 GHz Ant.1 (④)	0.926	0.084	-0.139	-0.178		
	LTE Band 2 (①)	0.929	0.038	-0.137	-0.182	122.2	0.03
	Wi-Fi 2.4 GHz MIMO (③) + Wi-Fi 5 GHz Ant.2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

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Report No.:
KR20-SPF0026-B
Page (232) of (638)

KCTL**LTE Band 2 SPLSR – Top Position**

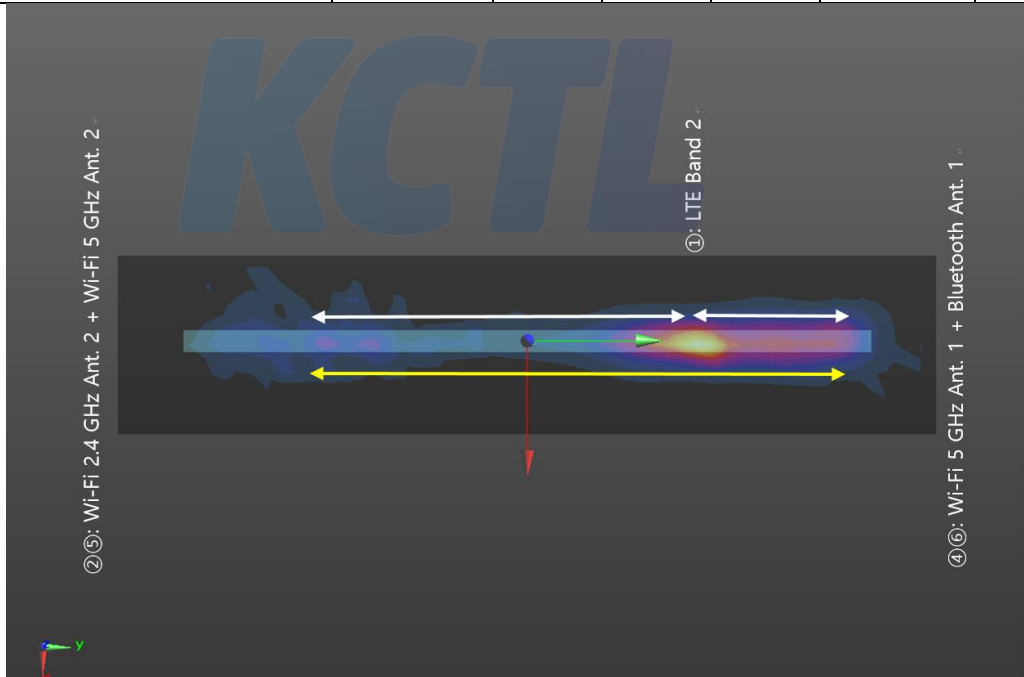
Scenario	Mode (Numbering)	SAR W/kg	Coordinates			Distance (mm)	SPLSR
			X	Y	Z		
	LTE Band 2 (①)	0.940	0.000	0.044	-0.184	38.13	0.04
	Wi-Fi 5 GHz Ant.1 (④) + Bluetooth Ant.1 (⑥)	0.486	0.001	0.082	-0.181		
	LTE Band 2 (①)	0.940	0.000	0.044	-0.184	85.69	0.01
	Wi-Fi 5 GHz Ant.2 (⑤)	0.204	0.000	-0.042	-0.180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

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Report No.:
KR20-SPF0026-B
Page (233) of (638)

KCTL**LTE Band 2 SPLSR – Top Position**

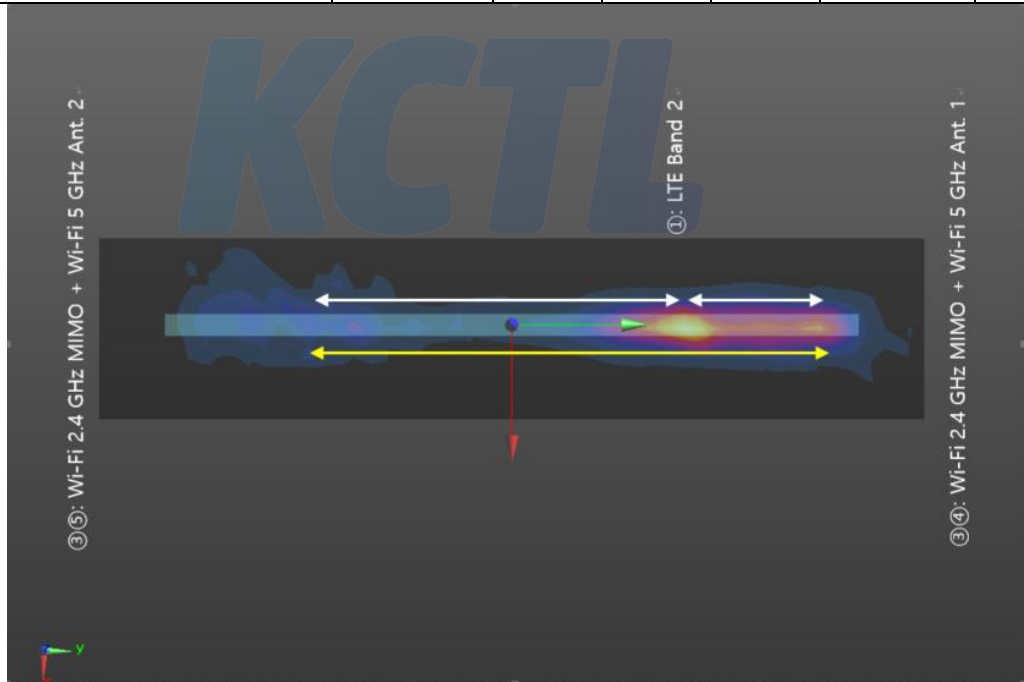
Scenario	Mode (Numbering)	SAR W/kg	Coordinates			Distance (mm)	SPLSR
			X	Y	Z		
	LTE Band 2 (①)	0.940	0.000	0.044	-0.184	98.05	0.01
	Wi-Fi 2.4 GHz Ant.2 (②) + Wi-Fi 5 GHz Ant.2 (⑤)	0.283	0.001	-0.054	-0.181		
	LTE Band 2 (①)	0.940	0.000	0.044	-0.184	38.13	0.04
	Wi-Fi 5 GHz Ant.1 (④) + Bluetooth Ant.1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

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Report No.:
KR20-SPF0026-B
Page (234) of (638)

KCTL**LTE Band 2 SPLSR – Top Position**

Scenario	Mode (Numbering)	SAR W/kg	Coordinates			Distance (mm)	SPLSR
			X	Y	Z		
	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		
Scenario No.10							

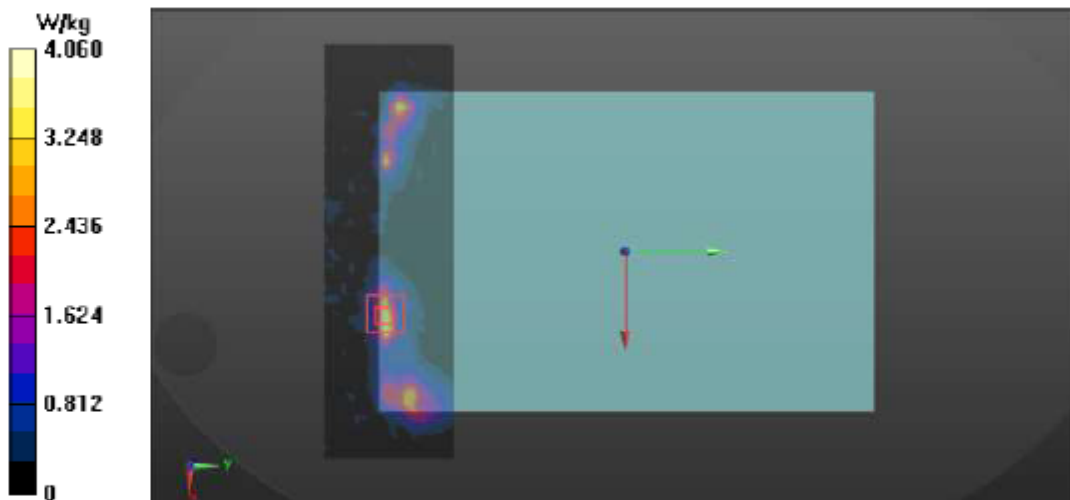
LTE Band 2 Volume Scan – Rear Position

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



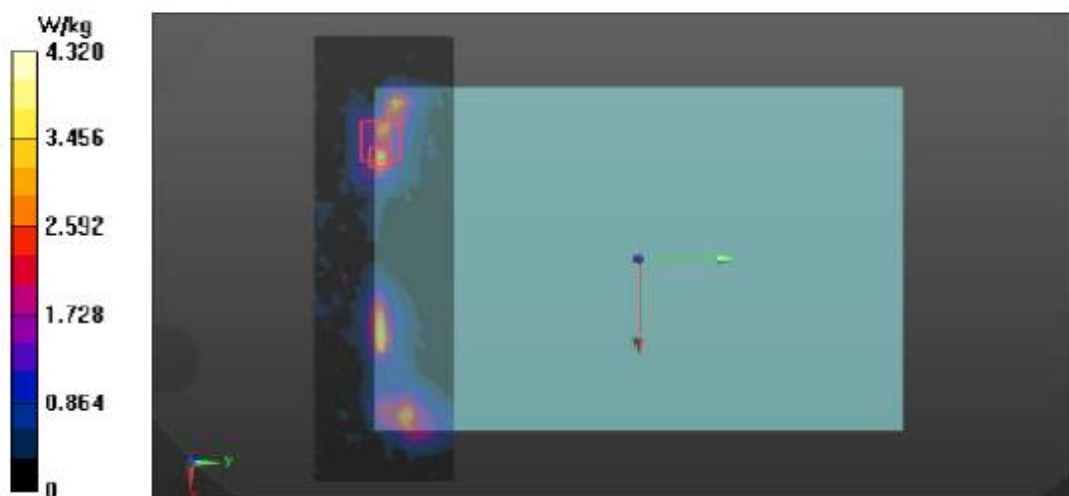
LTE Band 2 Volume Scan – Rear Position

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



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

