



## Appendix F. Sim-Tx SAR consideration

### F.1 Sim-Tx Configuration

Exposure Condition	Tx mode	Capable TX Configurations	WWAN Power Index	WiFi Power Index	BT Power Index	
Head	WWAN standalone	WWAN	Index 2			
		WiFi 2.4G SISO (Ant4 or Ant3)		Index 1		
	WiFi standalone	WiFi 2.4G MIMO/CDD (Ant4+3)				
		WiFi 5G MIMO (Ant4+3)				
		WiFi 6E MIMO (Ant4+3)				
	BT standalone	WiFi 2.4G SISO (Ant3) + WiFi 5G SISO (Ant4)		Index 2 (SDB)		
		WiFi 2.4G SISO (Ant3) + WiFi 6E SISO (Ant4)				
	WiFi +BT	Bluetooth (Ant4)		Index 1	Index 1	
		Bluetooth (Ant3)				
		WiFi 5G MIMO (Ant4+3) + Bluetooth (Ant4)				
		WiFi 5G MIMO (Ant4+3) + Bluetooth (Ant3)				
		WiFi 6E MIMO (Ant4+3) + Bluetooth (Ant4)				
		WiFi 6E MIMO (Ant4+3) + Bluetooth (Ant3)				
		WiFi 5G SISO (Ant 4) + Bluetooth (Ant 4)		Index 2 (SDB)		
		WiFi 5G SISO (Ant 4) + Bluetooth (Ant 3)				
	WWAN + WiFi	WiFi 6E SISO (Ant4) + Bluetooth (Ant4)		Index 3	Index 1	
		WiFi 6E SISO (Ant4) + Bluetooth (Ant3)				
		WWAN + WiFi 2.4G SISO (Ant3) + WiFi 5G SISO(Ant4)		Index 4 (SDB)		
		WWAN + WiFi 2.4G SISO (Ant3) + WiFi 6E SISO(Ant4)				
	WWAN + BT	WWAN + Bluetooth (Ant4)			Index 1	
		WWAN + Bluetooth (Ant3)				
	WWAN + WiFi +BT	WWAN + WiFi 5G MIMO (Ant4+3) + Bluetooth (Ant4)		Index 3	Index 1	
		WWAN + WiFi 5G MIMO (Ant4+3) + Bluetooth (Ant3)				
		WWAN + WiFi 6E MIMO (Ant4+3) + Bluetooth (Ant4)		Index 4 (SDB)		
		WWAN + WiFi 6E MIMO (Ant4+3) + Bluetooth (Ant3)				
		WWAN + WiFi 5G SISO (Ant 4) + Bluetooth (Ant 4)			Index 1	
		WWAN + WiFi 5G SISO (Ant 4) + Bluetooth (Ant 3)				
		WWAN + WiFi 6E SISO (Ant4) + Bluetooth (Ant4)				
		WWAN + WiFi 6E SISO (Ant4) + Bluetooth (Ant3)				



Exposure Condition	Tx mode	Capable TX Configurations	WWAN Power Index	WiFi Power Index	BT Power Index	
Body	WWAN standalone	WWAN	Index 5			
	WiFi standalone	WiFi 2.4G SISO (Ant4 or Ant3)		Index 5		
		WiFi 2.4G MIMO/CDD (Ant4+3)				
		WiFi 5G MIMO (Ant4+3)				
		WiFi 6E MIMO (Ant4+3)				
		WiFi 2.4G SISO (Ant3) + WiFi 5G SISO (Ant4)		Index 6 (SDB)		
		WiFi 2.4G SISO (Ant3) + WiFi 6E SISO (Ant4)				
	BT standalone	Bluetooth (Ant4)			Index 2	
		Bluetooth (Ant3)				
	WiFi +BT	WiFi 5G MIMO (Ant4+3) + Bluetooth (Ant4)		Index 5	Index 3	
		WiFi 5G MIMO (Ant4+3) + Bluetooth (Ant3)				
		WiFi 6E MIMO (Ant4+3) + Bluetooth (Ant4)				
		WiFi 6E MIMO (Ant4+3) + Bluetooth (Ant3)				
		WiFi 5G SISO (Ant 4) + Bluetooth (Ant 4)				
		WiFi 5G SISO (Ant 4) + Bluetooth (Ant 3)				
		WiFi 6E SISO (Ant4) + Bluetooth (Ant4)				
		WiFi 6E SISO (Ant4) + Bluetooth (Ant3)				
		WWAN + WiFi 2.4G SISO (Ant4 or Ant3)	Index 6 / Index 4 (Hotspot)	Index 7	Index 3	
	WWAN + WiFi	WWAN + WiFi 2.4G MIMO/CDD (Ant4+3)				
		WWAN + WiFi 5G MIMO (Ant4+3)				
		WWAN + WiFi 6E MIMO (Ant4+3)		Index 8 (SDB)		
		WWAN + WiFi 2.4G SISO (Ant3) + WiFi 5G SISO(Ant4)				
	WWAN + BT	WWAN + WiFi 2.4G SISO (Ant3) + WiFi 6E SISO(Ant4)	Index 6 / Index 4 (Hotspot)		Index 3	
		WWAN + Bluetooth (Ant4)				
	WWAN + WiFi +BT	WWAN + Bluetooth (Ant3)				
		WWAN + WiFi 5G MIMO (Ant4+3) + Bluetooth (Ant4)	Index 6 / Index 4 (Hotspot)	Index 9	Index 4	
		WWAN + WiFi 5G MIMO (Ant4+3) + Bluetooth (Ant3)				
		WWAN + WiFi 6E MIMO (Ant4+3) + Bluetooth (Ant4)				
		WWAN + WiFi 6E MIMO (Ant4+3) + Bluetooth (Ant3)				
		WWAN + WiFi 5G SISO (Ant 4) + Bluetooth (Ant 4)				
		WWAN + WiFi 5G SISO (Ant 4) + Bluetooth (Ant 3)				
		WWAN + WiFi 6E SISO (Ant4) + Bluetooth (Ant4)				
		WWAN + WiFi 6E SISO (Ant4) + Bluetooth (Ant3)				

**General Note:**

1. This device WLAN 2.4GHz / 5.2GHz / 5.8GHz and WLAN 6GHz VLP supports Hotspot operation and Bluetooth support tethering applications.
2. The worst case reported SAR from each transmit antennas were using for SAR summation. Therefore, the following summations represent the absolute worst cases for simultaneous transmission configuration.
3. The NFC mainly operate in hand-held extremity condition; therefore, the NFC Sim-Tx analysis was including in section F6.
4. The SAR summation is calculated based on the same exposure configuration and test position from each transmit antenna worst case reported SAR results.
5. Per KDB 447498 D01v06, simultaneous transmission SAR is compliant if,
  - i) Scalar SAR summation < 1.6W/kg.
  - ii) SPLSR =  $(\text{SAR1} + \text{SAR2})^{1.5} / (\text{min. separation distance, mm})$ , and the peak separation distance is determined from the square root of  $[(x_1-x_2)^2 + (y_1-y_2)^2 + (z_1-z_2)^2]$ , where  $(x_1, y_1, z_1)$  and  $(x_2, y_2, z_2)$  are the coordinates of the extrapolated peak SAR locations in the zoom scan.
  - iii) If SPLSR  $\leq 0.04$ , simultaneously transmission SAR measurement is not necessary.
  - iv) Simultaneously transmission SAR measurement, and the reported multi-band SAR  $< 1.6W/kg$ .



## F.2 5G NR + LTE + WLAN + BT Sim-Tx analysis

Samsung proprietary TAS feature manages transmitting power effectively in real time and ensures that overall average RF exposure from 3G/4G/5G NR WWAN including 5GNR EN-DC, and LTE intra-band/inter-band uplink CA are in compliance with FCC requirements, while the RF exposure from 2G and WLAN/BT radios is managed using the legacy approach, i.e., through a fixed power back-off if needed. The test device features a TAS function to keep average RF exposure below the given limit for all cases while allowing temporarily high power transmission for better performance.

For the 5GNR EN-DC, the power ratio factors are g1 and g2 for LTE and NR respectively. The purpose of these power ratio factors is to split the available SAR budget among different RATs, so  $g1 + g2 \leq 1$ . The value of g1 is computed based on the need of the anchor (LTE) and can be changed if the anchor changes its power request. Based on the SAR Budget portion allocated to the anchor, the value of g2 will be computed. At steady state (where all RATs are being on for a while), the allocated power ratio factors will guarantee that the total exposure ratio never exceeds the highest exposure of either one.

$$g1 * \text{LTEexposure} + g2 * \text{NReposure} \leq 1.0,$$

$$\text{then, } g1 * \text{LTEexposure} + g2 * \text{NReposure} \leq \max(\text{LTEexposure}, \text{NReposure})$$

In simultaneous transmission for this device, 5G NR and LTE transmission are managed and controlled by Samsung S.LSI TAS, while the RF exposure from WLAN, BT radios are managed using legacy approach, therefore, compliance of simultaneous transmission of LTE+5GNR+WiFi+BT can be justified from the compliance of LTE+WiFi+BT and 5GNR+WiFi+BT

The device also enabled Samsung Spatial TAS to improve antenna performance by applying separate SAR budgets to each predefined antenna group. There are three predefined antenna groups of AG0(Ant0, Ant6), AG1(Ant1, Ant5), AG2(Ant2). Each antenna group is spatially separated to others. Simultaneous transmission analysis is performed per antenna group. Below analysis demonstrates the spatial separation of AG0, AG1, AG2 and the compliance between AG0 and BT/WLAN/NFC, AG1 and BT/WLAN/NFC and between AG2 and BT/WLAN/NFC.

Thus, the concept was to split the SAR/TER on the transmitting RATs even they are transmitting on different antennas. Such approach is considered as a worst case scenario in terms of transmitting power. Thus, to enhance the performance of the transmission power of RATs, consider the spatial properties of each antenna and the correlations between the antennas transmissions.

	AG0	AG1	AG2	external radio
Antenna	Ant 0, Ant 6	Ant 1, Ant 5	Ant 2	WLAN/BT/NFC

The verification of spatial separation of the antenna groups is demonstrated through the following steps, together with WIF/BT simultaneous transmission analysis results.

- i) The highest reported SAR at Plimit (or Pmax when Plimit > Pmax) for each antenna should be obtained out of all supported technologies and frequency bands for each power index. Demonstrate that the sum of reported SAR of one antenna from each of the antenna groups and the sum of RF exposure from all supported radios outside of TAS feature should be less than the regulatory limit as given below for each power index.
- ii) If the sum of SAR from step i) is over 1.6 W/kg for 1g, demonstrate for a given power index that every antenna from one antenna group meets SPLSR criteria with every antenna in another antenna group for all frequency bands. SPLSR criteria must be demonstrated for all antenna pair combinations irrespective of supported simultaneous transmission scenarios, SPLSR Hotspot combination procedure (Hybrid SPLSR) also be considered for simultaneous transmission analysis.
- iii) If SPLSR evaluation and analysis is needed to determine compliance for a certain power index configuration, SPLSR is performed by taking the highest summation SAR for each of the supported technologies and bands per antenna, along with the minimum of peak SAR location distance. The minimum of peak location distance are documented in the Highest Report SAR and Hotspot Location below for each power index configuration.
- iv) In section F.6 SPLSR analysis only evaluation Sim-Tx SAR configuration are rounded to two decimal higher or equal to 1.6W/kg.
- v) The analysis addresses the simultaneous transmission and the transition among non-simultaneous transmission radios



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### F.3 Head Sim-Tx analysis

#### <WLAN Index1, BT Index1>

Exposure Position	1	2	3	4	5	6	4+5 Summed 1g SAR (W/kg)	4+6 Summed 1g SAR (W/kg)
	WLAN2.4GHz Ant 4	WLAN2.4GHz Ant 3	WLAN2.4GHz Ant 4+3	WLAN5G / 6GHz Ant 4+3	Bluetooth Ant 4	Bluetooth Ant 3		
	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)		
Right Cheek	0.136	1.143	1.171	1.176	0.038	0.238	1.214	1.414
Right Tilted	0.136	0.203	0.285	0.708	0.035	0.037	0.743	0.745
Left Cheek	0.584	0.351	0.446	1.065	0.001	0.087	1.066	1.152
Left Tilted	0.311	0.077	0.333	1.000	0.001	0.029	1.001	1.029
Right Cheek	0.136	1.143	1.171	1.176	0.038	0.238	1.214	1.414
Right Tilted	0.136	0.203	0.285	0.708	0.035	0.037	0.743	0.745
Left Cheek	0.584	0.351	0.446	1.190	0.001	0.087	1.191	1.277
Left Tilted	0.311	0.077	0.333	1.000	0.001	0.029	1.001	1.029

#### <WLAN Index2, BT Index1>

Exposure Position	1	2	3	4	1+2 Summed 1g SAR (W/kg)	2+3 Summed 1g SAR (W/kg)	2+4 Summed 1g SAR (W/kg)	SPLSR	Case No
	WLAN2.4GHz Ant 3	WLAN5G / 6GHz Ant 4	Bluetooth Ant 4	Bluetooth Ant 3					
	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)					
Right Cheek	1.143	0.645	0.038	0.238	1.788	0.683	0.883	0.04	Case 1
Right Tilted	0.203	0.638	0.035	0.037	0.841	0.673	0.675		
Left Cheek	0.351	1.128	0.001	0.087	1.479	1.129	1.215		
Left Tilted	0.077	1.085	0.001	0.029	1.162	1.086	1.114		

#### <WWAN Index2>

Exposure Position	Max Ant 0	Max Ant 1	Max Ant 2	Max Ant 5	Max Ant 6	Ant 0+1 Summed 1g SAR (W/kg)	Ant 0+2 Summed 1g SAR (W/kg)	Ant 0+5 Summed 1g SAR (W/kg)	Ant 1+2 Summed 1g SAR (W/kg)	Ant 1+6 Summed 1g SAR (W/kg)	Ant 2+5 Summed 1g SAR (W/kg)	Ant 2+6 Summed 1g SAR (W/kg)	Ant 5+6 Summed 1g SAR (W/kg)	Ant 1+2 SPLSR	Ant 1+2 Case No.
	WWAN	WWAN	WWAN	WWAN	WWAN										
	1g SAR (W/kg)														
Right Cheek at 0mm	0.418	0.989	0.983	0.219	0.409	1.407	1.401	0.637	1.972	1.398	1.202	1.392	0.628	0.04	Case 2
Right Tilted at 0mm	0.259	0.971	0.292	0.125	0.443	1.230	0.551	0.384	1.263	1.414	0.417	0.735	0.568		
Left Cheek at 0mm	0.601	0.696	0.504	0.824	0.767	1.297	1.105	1.425	1.200	1.463	1.328	1.271	1.591		
Left Tilted at 0mm	0.311	0.626	0.420	0.325	0.311	0.937	0.731	0.636	1.046	0.937	0.745	0.731	0.636		



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Report No. :FA451607B

## <WWAN Index3, WLAN Index3, BT Index1>

WWAN Band	Exposure Position	0	1	2	3	4	5	6	7	0+1+2 Summed 1g SAR (W/kg)	0+1+3 Summed 1g SAR (W/kg)	0+1+4 Summed 1g SAR (W/kg)	0+1+5+6 Summed 1g SAR (W/kg)	0+1+5+7 Summed 1g SAR (W/kg)	0+1+5+6 SPLSR	0+1+5+6 Case No.	0+1+5+7 SPLSR	0+1+5+7 Case No.
		Maximum WWAN	Maximum WWAN	WLAN 2.4GHz Ant 4	WLAN 2.4GHz Ant 3	WLAN 2.4GHz Ant 4+3	WLAN 5/6GHz Ant 4+3	Bluetooth Ant 4	Bluetooth Ant 3									
		1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)									
Ant 0+1	Right Cheek	0.296	0.599	0.028	0.283	0.336	0.438	0.038	0.238	0.923	1.178	1.231	1.371	1.571				
	Right Tilted	0.259	0.590	0.028	0.048	0.071	0.201	0.035	0.037	0.877	0.897	0.920	1.085	1.087				
	Left Cheek	0.549	0.425	0.126	0.116	0.141	0.356	0.001	0.087	1.100	1.090	1.115	1.331	1.417				
	Left Tilted	0.262	0.399	0.110	0.043	0.110	0.424	0.001	0.029	0.771	0.704	0.771	1.086	1.114				
Ant 0+2	Right Cheek	0.296	0.609	0.028	0.283	0.336	0.438	0.038	0.238	0.933	1.188	1.241	1.381	1.581				
	Right Tilted	0.259	0.254	0.028	0.048	0.071	0.201	0.035	0.037	0.541	0.561	0.584	0.749	0.751				
	Left Cheek	0.549	0.350	0.126	0.116	0.141	0.356	0.001	0.087	1.025	1.015	1.040	1.256	1.342				
	Left Tilted	0.262	0.289	0.110	0.043	0.110	0.424	0.001	0.029	0.661	0.594	0.661	0.976	1.004				
Ant 0+5	Right Cheek	0.296	0.186	0.028	0.283	0.336	0.438	0.038	0.238	0.510	0.765	0.818	0.958	1.158				
	Right Tilted	0.259	0.107	0.028	0.048	0.071	0.201	0.035	0.037	0.394	0.414	0.437	0.602	0.604				
	Left Cheek	0.549	0.701	0.126	0.116	0.141	0.356	0.001	0.087	1.376	1.366	1.391	1.607	1.693	0.03	Case 3	0.03 Case 4	
	Left Tilted	0.262	0.277	0.110	0.043	0.110	0.424	0.001	0.029	0.649	0.582	0.649	0.964	0.992				
Ant 1+2	Right Cheek	0.599	0.609	0.028	0.283	0.336	0.438	0.038	0.238	1.236	1.491	1.544	1.684	1.884	0.04	Case 5	0.04 Case 6	
	Right Tilted	0.590	0.254	0.028	0.048	0.071	0.201	0.035	0.037	0.872	0.892	0.915	1.080	1.082				
	Left Cheek	0.425	0.350	0.126	0.116	0.141	0.356	0.001	0.087	0.901	0.891	0.916	1.132	1.218				
	Left Tilted	0.399	0.289	0.110	0.043	0.110	0.424	0.001	0.029	0.798	0.731	0.798	1.113	1.141				
Ant 1+6	Right Cheek	0.599	0.291	0.028	0.283	0.336	0.438	0.038	0.238	0.918	1.173	1.226	1.366	1.566				
	Right Tilted	0.590	0.309	0.028	0.048	0.071	0.201	0.035	0.037	0.927	0.947	0.970	1.135	1.137				
	Left Cheek	0.425	0.598	0.126	0.116	0.141	0.356	0.001	0.087	1.149	1.139	1.164	1.380	1.466				
	Left Tilted	0.399	0.217	0.110	0.043	0.110	0.424	0.001	0.029	0.726	0.659	0.726	1.041	1.069				
Ant 2+5	Right Cheek	0.609	0.186	0.028	0.283	0.336	0.438	0.038	0.238	0.823	1.078	1.131	1.271	1.471				
	Right Tilted	0.254	0.107	0.028	0.048	0.071	0.201	0.035	0.037	0.389	0.409	0.432	0.597	0.599				
	Left Cheek	0.350	0.701	0.126	0.116	0.141	0.356	0.001	0.087	1.177	1.167	1.192	1.408	1.494				
	Left Tilted	0.289	0.277	0.110	0.043	0.110	0.424	0.001	0.029	0.676	0.609	0.676	0.991	1.019				
Ant 2+6	Right Cheek	0.609	0.291	0.028	0.283	0.336	0.438	0.038	0.238	0.928	1.183	1.236	1.376	1.576				
	Right Tilted	0.254	0.309	0.028	0.048	0.071	0.201	0.035	0.037	0.591	0.611	0.634	0.799	0.801				
	Left Cheek	0.350	0.598	0.126	0.116	0.141	0.356	0.001	0.087	1.074	1.064	1.089	1.305	1.391				
	Left Tilted	0.289	0.217	0.110	0.043	0.110	0.424	0.001	0.029	0.616	0.549	0.616	0.931	0.959				
Ant 5+6	Right Cheek	0.186	0.291	0.028	0.283	0.336	0.438	0.038	0.238	0.505	0.760	0.813	0.953	1.153				
	Right Tilted	0.107	0.309	0.028	0.048	0.071	0.201	0.035	0.037	0.444	0.464	0.487	0.652	0.654				
	Left Cheek	0.701	0.598	0.126	0.116	0.141	0.356	0.001	0.087	1.425	1.415	1.440	1.656	1.742	0.03	Case 7	0.03 Case 8	
	Left Tilted	0.277	0.217	0.110	0.043	0.110	0.424	0.001	0.029	0.604	0.537	0.604	0.919	0.947				



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Report No. :FA451607B

## <WWAN Index3, WLAN Index4, BT Index1>

WWAN Band	Exposure Position	0	1	2	3	4	5	0+1+2+3 Summed 1g SAR (W/kg)	0+1+3+4 Summed 1g SAR (W/kg)	0+1+3+5 Summed 1g SAR (W/kg)	0+1+2+3 SPLSR	0+1+2+3 Case No.	0+1+3+4 SPLSR	0+1+3+4 Case No.	0+1+3+5 SPLSR	0+1+3+5 Case No.
		Maximum WWAN	Maximum WWAN	WLAN 2.4GHz Ant 3	WLAN 5/6GHz Ant 4	Bluetooth Ant 4	Bluetooth Ant 3									
		1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)									
Ant 0+1	Right Cheek	0.296	0.599	0.283	0.195	0.038	0.238	1.373	1.128	1.328						
	Right Tilted	0.259	0.590	0.048	0.202	0.035	0.037	1.099	1.086	1.088						
	Left Cheek	0.549	0.425	0.116	0.405	0.001	0.087	1.495	1.380	1.466						
	Left Tilted	0.262	0.399	0.043	0.337	0.001	0.029	1.041	0.999	1.027						
Ant 0+2	Right Cheek	0.296	0.609	0.283	0.195	0.038	0.238	1.383	1.138	1.338						
	Right Tilted	0.259	0.254	0.048	0.202	0.035	0.037	0.763	0.750	0.752						
	Left Cheek	0.549	0.350	0.116	0.405	0.001	0.087	1.420	1.305	1.391						
	Left Tilted	0.262	0.289	0.043	0.337	0.001	0.029	0.931	0.889	0.917						
Ant 0+5	Right Cheek	0.296	0.186	0.283	0.195	0.038	0.238	0.960	0.715	0.915						
	Right Tilted	0.259	0.107	0.048	0.202	0.035	0.037	0.616	0.603	0.605						
	Left Cheek	0.549	0.701	0.116	0.405	0.001	0.087	1.771	1.656	1.742	0.04	Case 9	0.04	Case 10	0.04	Case 11
	Left Tilted	0.262	0.277	0.043	0.337	0.001	0.029	0.919	0.877	0.905						
Ant 1+2	Right Cheek	0.599	0.609	0.283	0.195	0.038	0.238	1.686	1.441	1.641	0.04	Case 12			0.03	Case 13
	Right Tilted	0.590	0.254	0.048	0.202	0.035	0.037	1.094	1.081	1.083						
	Left Cheek	0.425	0.350	0.116	0.405	0.001	0.087	1.296	1.181	1.267						
	Left Tilted	0.399	0.289	0.043	0.337	0.001	0.029	1.068	1.026	1.054						
Ant 1+6	Right Cheek	0.599	0.291	0.283	0.195	0.038	0.238	1.368	1.123	1.323						
	Right Tilted	0.590	0.309	0.048	0.202	0.035	0.037	1.149	1.136	1.138						
	Left Cheek	0.425	0.598	0.116	0.405	0.001	0.087	1.544	1.429	1.515						
	Left Tilted	0.399	0.217	0.043	0.337	0.001	0.029	0.996	0.954	0.982						
Ant 2+5	Right Cheek	0.609	0.186	0.283	0.195	0.038	0.238	1.273	1.028	1.228						
	Right Tilted	0.254	0.107	0.048	0.202	0.035	0.037	0.611	0.598	0.600						
	Left Cheek	0.350	0.701	0.116	0.405	0.001	0.087	1.572	1.457	1.543						
	Left Tilted	0.289	0.277	0.043	0.337	0.001	0.029	0.946	0.904	0.932						
Ant 2+6	Right Cheek	0.609	0.291	0.283	0.195	0.038	0.238	1.378	1.133	1.333						
	Right Tilted	0.254	0.309	0.048	0.202	0.035	0.037	0.813	0.800	0.802						
	Left Cheek	0.350	0.598	0.116	0.405	0.001	0.087	1.469	1.354	1.440						
	Left Tilted	0.289	0.217	0.043	0.337	0.001	0.029	0.886	0.844	0.872						
Ant 5+6	Right Cheek	0.186	0.291	0.283	0.195	0.038	0.238	0.955	0.710	0.910						
	Right Tilted	0.107	0.309	0.048	0.202	0.035	0.037	0.666	0.653	0.655						
	Left Cheek	0.701	0.598	0.116	0.405	0.001	0.087	1.820	1.705	1.791	0.03	Case 14	0.03	Case 15	0.03	Case 16
	Left Tilted	0.277	0.217	0.043	0.337	0.001	0.029	0.874	0.832	0.860						



# FCC SAR TEST REPORT

Report No.:FA451607B

## F.4 Hotspot Sim-Tx analysis

### <WWAN Index4, WLAN Index7>

Antenna	Exposure Position	0	1	2	3	4	5	0+1+2 Summed 1g SAR (W/kg)	0+1+3 Summed 1g SAR (W/kg)	0+1+4 Summed 1g SAR (W/kg)	0+1+5 Summed 1g SAR (W/kg)	0+1+5 SPLSR	0+1+5 Case No.	
		Maximum WWAN	Maximum WWAN	WLAN 2.4GHz Ant 4	WLAN 2.4GHz Ant 3	WLAN 2.4GHz Ant 4+3	WLAN 5/6GHz Ant 4+3							
		1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)							
Ant 0+1	Front	0.451	0.415	0.097	0.180	0.166	0.335	0.963	1.046	1.032	1.201			
	Back	0.454	0.450	0.093	0.201	0.193	0.439	0.997	1.105	1.097	1.343			
	Left side	0.649	0.374	0.001	0.288	0.295	0.205	1.024	1.311	1.318	1.228			
	Right side	0.312	0.261	0.080	0.001	0.061	0.115	0.653	0.574	0.634	0.688			
	Top side		0.514	0.032	0.071	0.097	0.493	0.546	0.585	0.611	1.007			
	Bottom side	0.516						0.516	0.516	0.516	0.516			
Ant 0+2	Front	0.451	0.659	0.097	0.180	0.166	0.335	1.207	1.290	1.276	1.445			
	Back	0.454	0.803	0.093	0.201	0.193	0.439	1.350	1.458	1.450	1.696	0.04	Case 17	
	Left side	0.649	0.072	0.001	0.288	0.295	0.205	0.722	1.009	1.016	0.926			
	Right side	0.312	0.842	0.080	0.001	0.061	0.115	1.234	1.155	1.215	1.269			
	Top side			0.032	0.071	0.097	0.493	0.032	0.071	0.097	0.493			
	Bottom side	0.516	0.605					1.121	1.121	1.121	1.121			
Ant 0+5	Front	0.451	0.351	0.097	0.180	0.166	0.335	0.899	0.982	0.968	1.137			
	Back	0.454	0.448	0.093	0.201	0.193	0.439	0.995	1.103	1.095	1.341			
	Left side	0.649	0.001	0.001	0.288	0.295	0.205	0.651	0.938	0.945	0.855			
	Right side	0.312	0.313	0.080	0.001	0.061	0.115	0.705	0.626	0.686	0.740			
	Top side		0.068	0.032	0.071	0.097	0.493	0.100	0.139	0.165	0.561			
	Bottom side	0.516						0.516	0.516	0.516	0.516			
Ant 1+2	Front	0.415	0.659	0.097	0.180	0.166	0.335	1.171	1.254	1.240	1.409			
	Back	0.450	0.803	0.093	0.201	0.193	0.439	1.346	1.454	1.446	1.692	0.02	Case 18	
	Left side	0.374	0.072	0.001	0.288	0.295	0.205	0.447	0.734	0.741	0.651			
	Right side	0.261	0.842	0.080	0.001	0.061	0.115	1.183	1.104	1.164	1.218			
	Top side	0.514		0.032	0.071	0.097	0.493	0.546	0.585	0.611	1.007			
	Bottom side		0.605					0.605	0.605	0.605	0.605			
Ant 1+6	Front	0.415	0.381	0.097	0.180	0.166	0.335	0.893	0.976	0.962	1.131			
	Back	0.450	0.438	0.093	0.201	0.193	0.439	0.981	1.089	1.081	1.327			
	Left side	0.374	0.605	0.001	0.288	0.295	0.205	0.980	1.267	1.274	1.184			
	Right side	0.261	0.088	0.080	0.001	0.061	0.115	0.429	0.350	0.410	0.464			
	Top side	0.514		0.032	0.071	0.097	0.493	0.546	0.585	0.611	1.007			
	Bottom side		0.244					0.244	0.244	0.244	0.244			
Ant 2+5	Front	0.659	0.351	0.097	0.180	0.166	0.335	1.107	1.190	1.176	1.345			
	Back	0.803	0.448	0.093	0.201	0.193	0.439	1.344	1.452	1.444	1.690	0.02	Case 19	
	Left side	0.072	0.001	0.001	0.288	0.295	0.205	0.074	0.361	0.368	0.278			
	Right side	0.842	0.313	0.080	0.001	0.061	0.115	1.235	1.156	1.216	1.270			
	Top side		0.068	0.032	0.071	0.097	0.493	0.100	0.139	0.165	0.561			
	Bottom side	0.605						0.605	0.605	0.605	0.605			
Ant 2+6	Front	0.659	0.381	0.097	0.180	0.166	0.335	1.137	1.220	1.206	1.375			
	Back	0.803	0.438	0.093	0.201	0.193	0.439	1.334	1.442	1.434	1.680	0.03	Case 20	
	Left side	0.072	0.605	0.001	0.288	0.295	0.205	0.678	0.965	0.972	0.882			
	Right side	0.842	0.088	0.080	0.001	0.061	0.115	1.010	0.931	0.991	1.045			
	Top side			0.032	0.071	0.097	0.493	0.032	0.071	0.097	0.493			
	Bottom side	0.605	0.244					0.849	0.849	0.849	0.849			
Ant 5+6	Front	0.351	0.381	0.097	0.180	0.166	0.335	0.829	0.912	0.898	1.067			
	Back	0.448	0.438	0.093	0.201	0.193	0.439	0.979	1.087	1.079	1.325			
	Left side	0.001	0.605	0.001	0.288	0.295	0.205	0.607	0.894	0.901	0.811			
	Right side	0.313	0.088	0.080	0.001	0.061	0.115	0.481	0.402	0.462	0.516			
	Top side		0.068		0.032	0.071	0.097	0.493	0.100	0.139	0.165	0.561		
	Bottom side		0.244					0.244	0.244	0.244	0.244			

<WWAN Index4, WLAN Index8, BT Index4>

Antenna	Exposure Position	0	1	2	3	4	5	0+1+2+3 Summed 1g SAR (W/kg)	0+1+3+4 Summed 1g SAR (W/kg)	0+1+3+5 Summed 1g SAR (W/kg)	0+1+2+3 SPLSR	0+1+2+3 Case No.	0+1+3+4 SPLSR	0+1+3+4 Case No.	0+1+3+5 SPLSR	0+1+3+5 Case No.
		Maximum WWAN	Maximum WWAN	WLAN 2.4GHz	WLAN 5/6GHz	Bluetooth Ant 4	Bluetooth Ant 3									
		1g SAR (W/kg)	1g SAR (W/kg)													
Ant 0+1	Front	0.451	0.415	0.180	0.292	0.054	0.139	1.338	1.212	1.297						
	Back	0.454	0.450	0.201	0.427	0.064	0.165	1.532	1.395	1.496						
	Left side	0.649	0.374	0.288	0.006	0.001	0.228	1.317	1.030	1.257						
	Right side	0.312	0.261	0.001	0.105	0.038	0.001	0.679	0.716	0.679						
	Top side	0.514	0.071	0.445	0.035	0.052	0.1030	0.994	1.011							
	Bottom side	0.516						0.516	0.516	0.516						
Ant 0+2	Front	0.451	0.659	0.180	0.292	0.054	0.139	1.582	1.456	1.541						
	Back	0.454	0.803	0.201	0.427	0.064	0.165	1.885	1.748	1.849	0.04	Case 21	0.04	Case 22	0.04	Case 23
	Left side	0.649	0.072	0.288	0.006	0.001	0.228	1.015	0.728	0.955						
	Right side	0.312	0.842	0.001	0.105	0.038	0.001	1.260	1.297	1.260						
	Top side			0.071	0.445	0.035	0.052	0.516	0.480	0.497						
	Bottom side	0.516	0.605					1.121	1.121	1.121						
Ant 0+5	Front	0.451	0.351	0.180	0.292	0.054	0.139	1.274	1.148	1.233						
	Back	0.454	0.448	0.201	0.427	0.064	0.165	1.530	1.393	1.494						
	Left side	0.649	0.001	0.288	0.006	0.001	0.228	0.944	0.657	0.884						
	Right side	0.312	0.313	0.001	0.105	0.038	0.001	0.731	0.768	0.731						
	Top side		0.068	0.071	0.445	0.035	0.052	0.584	0.548	0.565						
	Bottom side	0.516						0.516	0.516	0.516						
Ant 1+2	Front	0.415	0.659	0.180	0.292	0.054	0.139	1.546	1.420	1.505						
	Back	0.450	0.803	0.201	0.427	0.064	0.165	1.881	1.744	1.845	0.03	Case 24	0.03	Case 25	0.03	Case 26
	Left side	0.374	0.072	0.288	0.006	0.001	0.228	0.740	0.453	0.680						
	Right side	0.261	0.842	0.001	0.105	0.038	0.001	1.209	1.246	1.209						
	Top side	0.514		0.071	0.445	0.035	0.052	1.030	0.994	1.011						
	Bottom side		0.605					0.605	0.605	0.605						
Ant 1+6	Front	0.415	0.381	0.180	0.292	0.054	0.139	1.268	1.142	1.227						
	Back	0.450	0.438	0.201	0.427	0.064	0.165	1.516	1.379	1.480						
	Left side	0.374	0.605	0.288	0.006	0.001	0.228	1.273	0.986	1.213						
	Right side	0.261	0.088	0.001	0.105	0.038	0.001	0.455	0.492	0.455						
	Top side	0.514		0.071	0.445	0.035	0.052	1.030	0.994	1.011						
	Bottom side		0.244					0.244	0.244	0.244						
Ant 2+5	Front	0.659	0.351	0.180	0.292	0.054	0.139	1.482	1.356	1.441						
	Back	0.803	0.448	0.201	0.427	0.064	0.165	1.879	1.742	1.843	0.03	Case 27	0.03	Case 28	0.03	Case 29
	Left side	0.072	0.001	0.288	0.006	0.001	0.228	0.367	0.080	0.307						
	Right side	0.842	0.313	0.001	0.105	0.038	0.001	1.261	1.298	1.261						
	Top side		0.068	0.071	0.445	0.035	0.052	0.584	0.548	0.565						
	Bottom side	0.605						0.605	0.605	0.605						
Ant 2+6	Front	0.659	0.381	0.180	0.292	0.054	0.139	1.512	1.386	1.471						
	Back	0.803	0.438	0.201	0.427	0.064	0.165	1.869	1.732	1.833	0.04	Case 30	0.03	Case 31	0.04	Case 32
	Left side	0.072	0.605	0.288	0.006	0.001	0.228	0.971	0.684	0.911						
	Right side	0.842	0.088	0.001	0.105	0.038	0.001	1.036	1.073	1.036						
	Top side			0.071	0.445	0.035	0.052	0.516	0.480	0.497						
	Bottom side	0.605	0.244					0.849	0.849	0.849						
Ant 5+6	Front	0.351	0.381	0.180	0.292	0.054	0.139	1.204	1.078	1.163						
	Back	0.448	0.438	0.201	0.427	0.064	0.165	1.514	1.377	1.478						
	Left side	0.001	0.605	0.288	0.006	0.001	0.228	0.900	0.613	0.840						
	Right side	0.313	0.088	0.001	0.105	0.038	0.001	0.507	0.544	0.507						
	Top side	0.068		0.071	0.445	0.035	0.052	0.584	0.548	0.565						
	Bottom side		0.244					0.244	0.244	0.244						



# FCC SAR TEST REPORT

Report No. :FA451607B

## <WWAN Index4, WLAN Index9, BT Index4>

Antenna	Exposure Position	0	1	2	3	4	0+1+2+3 Summed 1g SAR (W/kg)	0+1+2+4 Summed 1g SAR (W/kg)	0+1+2+4 SPLSR	0+1+2+4 Case No.
		Maximum WWAN	Maximum WWAN	WLAN5/6GHz Ant 4+3	Bluetooth Ant 4	Bluetooth Ant 3				
		1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)				
Ant 0+1	Front	0.451	0.415	0.196	0.054	0.139	1.116	1.201		
	Back	0.454	0.450	0.259	0.064	0.165	1.227	1.328		
	Left side	0.649	0.374	0.205	0.001	0.228	1.229	1.456		
	Right side	0.312	0.261	0.084	0.038	0.001	0.695	0.658		
	Top side	0.514		0.366	0.035	0.052	0.915	0.932		
	Bottom side	0.516					0.516	0.516		
Ant 0+2	Front	0.451	0.659	0.196	0.054	0.139	1.360	1.445		
	Back	0.454	0.803	0.259	0.064	0.165	1.580	1.681	0.04	Case 33
	Left side	0.649	0.072	0.205	0.001	0.228	0.927	1.154		
	Right side	0.312	0.842	0.084	0.038	0.001	1.276	1.239		
	Top side			0.366	0.035	0.052	0.401	0.418		
	Bottom side	0.516	0.605				1.121	1.121		
Ant 0+5	Front	0.451	0.351	0.196	0.054	0.139	1.052	1.137		
	Back	0.454	0.448	0.259	0.064	0.165	1.225	1.326		
	Left side	0.649	0.001	0.205	0.001	0.228	0.856	1.083		
	Right side	0.312	0.313	0.084	0.038	0.001	0.747	0.710		
	Top side	0.068		0.366	0.035	0.052	0.469	0.486		
	Bottom side	0.516					0.516	0.516		
Ant 1+2	Front	0.415	0.659	0.196	0.054	0.139	1.324	1.409		
	Back	0.450	0.803	0.259	0.064	0.165	1.576	1.677	0.02	Case 34
	Left side	0.374	0.072	0.205	0.001	0.228	0.652	0.879		
	Right side	0.261	0.842	0.084	0.038	0.001	1.225	1.188		
	Top side	0.514		0.366	0.035	0.052	0.915	0.932		
	Bottom side		0.605				0.605	0.605		
Ant 1+6	Front	0.415	0.381	0.196	0.054	0.139	1.046	1.131		
	Back	0.450	0.438	0.259	0.064	0.165	1.211	1.312		
	Left side	0.374	0.605	0.205	0.001	0.228	1.185	1.412		
	Right side	0.261	0.088	0.084	0.038	0.001	0.471	0.434		
	Top side	0.514		0.366	0.035	0.052	0.915	0.932		
	Bottom side		0.244				0.244	0.244		
Ant 2+5	Front	0.659	0.351	0.196	0.054	0.139	1.260	1.345		
	Back	0.803	0.448	0.259	0.064	0.165	1.574	1.675	0.02	Case 35
	Left side	0.072	0.001	0.205	0.001	0.228	0.279	0.506		
	Right side	0.842	0.313	0.084	0.038	0.001	1.277	1.240		
	Top side	0.068		0.366	0.035	0.052	0.469	0.486		
	Bottom side	0.605					0.605	0.605		
Ant 2+6	Front	0.659	0.381	0.196	0.054	0.139	1.290	1.375		
	Back	0.803	0.438	0.259	0.064	0.165	1.564	1.665	0.03	Case 36
	Left side	0.072	0.605	0.205	0.001	0.228	0.883	1.110		
	Right side	0.842	0.088	0.084	0.038	0.001	1.052	1.015		
	Top side			0.366	0.035	0.052	0.401	0.418		
	Bottom side	0.605	0.244				0.849	0.849		
Ant 5+6	Front	0.351	0.381	0.196	0.054	0.139	0.982	1.067		
	Back	0.448	0.438	0.259	0.064	0.165	1.209	1.310		
	Left side	0.001	0.605	0.205	0.001	0.228	0.812	1.039		
	Right side	0.313	0.088	0.084	0.038	0.001	0.523	0.486		
	Top side	0.068		0.366	0.035	0.052	0.469	0.486		
	Bottom side		0.244				0.244	0.244		



# FCC SAR TEST REPORT

Report No.:FA451607B

## F.5 Body-worn Sim-Tx analysis

### <WLAN Index5, BT index 3>

Exposure Position	1	2	3	4	5	6	4+5 Summed 1g SAR (W/kg)	4+6 Summed 1g SAR (W/kg)
	WLAN2.4GHz Ant 4	WLAN2.4GHz Ant 3	WLAN2.4GHz Ant 4+3	WLAN5G / 6GHz Ant 4+3	Bluetooth Ant 4	Bluetooth Ant 3		
	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)		
Front	0.282	0.607	0.551	0.633	0.054	0.139	<b>0.687</b>	<b>0.772</b>
Back	0.322	0.701	0.732	0.764	0.064	0.165	<b>0.828</b>	<b>0.929</b>

### <WLAN Index6, BT index 3>

Exposure Position	1	2	3	4	1+2 Summed 1g SAR (W/kg)	2+3 Summed 1g SAR (W/kg)	2+4 Summed 1g SAR (W/kg)
	WLAN2.4GHz Ant 3	WLAN5G / 6GHz Ant 4	Bluetooth Ant 4	Bluetooth Ant 3			
	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)			
Front	0.607	0.661	0.054	0.139	<b>1.268</b>	<b>0.715</b>	<b>0.800</b>
Back	0.701	0.768	0.064	0.165	<b>1.469</b>	<b>0.832</b>	<b>0.933</b>

### <WWAN Index5>

Exposure Position	Max Ant 0	Max Ant 1	Max Ant 2	Max Ant 5	Max Ant 6	Ant 0+1 Summed 1g SAR (W/kg)	Ant 0+2 Summed 1g SAR (W/kg)	Ant 0+5 Summed 1g SAR (W/kg)	Ant 1+2 Summed 1g SAR (W/kg)	Ant 1+6 Summed 1g SAR (W/kg)	Ant 2+5 Summed 1g SAR (W/kg)	Ant 2+6 Summed 1g SAR (W/kg)	Ant 5+6 Summed 1g SAR (W/kg)	Ant 0+1 SPLSR	Ant 0+1 Case No.	Ant 0+2 SPLSR	Ant 0+2 Case No.	Ant 0+5 SPLSR	Ant 0+5 Case No.	Ant 1+2 SPLSR	Ant 1+2 Case No.	Ant 2+5 SPLSR	Ant 2+5 Case No.	
	WWAN	WWAN	WWAN	WWAN	WWAN	1g SAR (W/kg)	Ant 0+1 SPLSR	Ant 0+1 Case No.	Ant 0+2 SPLSR	Ant 0+2 Case No.	Ant 0+5 SPLSR	Ant 0+5 Case No.	Ant 1+2 SPLSR	Ant 1+2 Case No.	Ant 2+5 SPLSR	Ant 2+5 Case No.								
	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	Ant 0+1 SPLSR	Ant 0+1 Case No.	Ant 0+2 SPLSR	Ant 0+2 Case No.	Ant 0+5 SPLSR	Ant 0+5 Case No.	Ant 1+2 SPLSR	Ant 1+2 Case No.	Ant 2+5 SPLSR	Ant 2+5 Case No.						
Front at 10mm	0.985	0.702	0.768	0.744	0.381	<b>1.687</b>	<b>1.753</b>	<b>1.729</b>	1.470	1.083	1.512	1.149	1.125	<b>0.02</b>	Case 37	<b>0.04</b>	Case 38	<b>0.02</b>	Case 39					
Back at 10mm	0.917	0.904	0.943	0.789	0.438	<b>1.821</b>	<b>1.860</b>	<b>1.706</b>	<b>1.847</b>	1.342	<b>1.732</b>	1.381	1.227	<b>0.04</b>	Case 40	<b>0.04</b>	Case 41	<b>0.02</b>	Case 42	<b>0.02</b>	Case 43	<b>0.02</b>	Case 44	



# FCC SAR TEST REPORT

Report No. :FA451607B

## <WWAN Index6, WLAN Index7>

Antenna	Exposure Position	0	1	2	3	4	5	0+1+2 Summed 1g SAR (W/kg)	0+1+3 Summed 1g SAR (W/kg)	0+1+4 Summed 1g SAR (W/kg)	0+1+5 Summed 1g SAR (W/kg)	0+1+5 SPLSR	0+1+5 Case No.
		Maximum WWAN	Maximum WWAN	WLAN 2.4GHz Ant 4	WLAN 2.4GHz Ant 3	WLAN 2.4GHz Ant 4+3	WLAN 5/6GHz Ant 4+3						
		1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)						
Ant 0+1	Front	0.451	0.415	0.097	0.180	0.166	0.633	0.963	1.046	1.032	1.499		
	Back	0.454	0.450	0.093	0.201	0.193	0.764	0.997	1.105	1.097	1.668	0.04	Case 45
Ant 0+2	Front	0.451	0.659	0.097	0.180	0.166	0.633	1.207	1.290	1.276	1.743	0.04	Case 46
	Back	0.454	0.803	0.093	0.201	0.193	0.764	1.350	1.458	1.450	2.021	0.04	Case 47
Ant 0+5	Front	0.451	0.351	0.097	0.180	0.166	0.633	0.899	0.982	0.968	1.435		
	Back	0.454	0.448	0.093	0.201	0.193	0.764	0.995	1.103	1.095	1.666	0.04	Case 48
Ant 1+2	Front	0.415	0.659	0.097	0.180	0.166	0.633	1.171	1.254	1.240	1.707	0.02	Case 49
	Back	0.450	0.803	0.093	0.201	0.193	0.764	1.346	1.454	1.446	2.017	0.02	Case 50
Ant 1+6	Front	0.415	0.381	0.097	0.180	0.166	0.633	0.893	0.976	0.962	1.429		
	Back	0.450	0.438	0.093	0.201	0.193	0.764	0.981	1.089	1.081	1.652	0.02	Case 51
Ant 2+5	Front	0.659	0.351	0.097	0.180	0.166	0.633	1.107	1.190	1.176	1.643	0.02	Case 52
	Back	0.803	0.448	0.093	0.201	0.193	0.764	1.344	1.452	1.444	2.015	0.02	Case 53
Ant 2+6	Front	0.659	0.381	0.097	0.180	0.166	0.633	1.137	1.220	1.206	1.673	0.03	Case 54
	Back	0.803	0.438	0.093	0.201	0.193	0.764	1.334	1.442	1.434	2.005	0.04	Case 55
Ant 5+6	Front	0.351	0.381	0.097	0.180	0.166	0.633	0.829	0.912	0.898	1.365		
	Back	0.448	0.438	0.093	0.201	0.193	0.764	0.979	1.087	1.079	1.650	0.02	Case 56

## <WWAN Index6, WLAN Index8, BT Index4>

Antenna	Exposure Position	0	1	2	3	4	5	0+1+2+3 Summed 1g SAR (W/kg)	0+1+3+4 Summed 1g SAR (W/kg)	0+1+3+5 Summed 1g SAR (W/kg)	0+1+2+3 SPLSR	0+1+2+3 Case No.	0+1+3+4 SPLSR	0+1+3+4 Case No.	0+1+3+5 SPLSR	0+1+3+5 Case No.
		Maximum WWAN	Maximum WWAN	WLAN 2.4GHz Ant 3	WLAN 5/6GHz Ant 4	Bluetooth Ant 4	Bluetooth Ant 3									
		1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)									
Ant 0+1	Front	0.451	0.415	0.180	0.519	0.054	0.139	1.565	1.439	1.524						
	Back	0.454	0.450	0.201	0.576	0.064	0.165	1.681	1.544	1.645	0.03	Case 57			0.03	Case 58
Ant 0+2	Front	0.451	0.659	0.180	0.519	0.054	0.139	1.809	1.683	1.768	0.04	Case 59	0.03	Case 60	0.03	Case 61
	Back	0.454	0.803	0.201	0.576	0.064	0.165	2.034	1.897	1.998	0.04	Case 62	0.04	Case 63	0.04	Case 64
Ant 0+5	Front	0.451	0.351	0.180	0.519	0.054	0.139	1.501	1.375	1.460					0.03	Case 66
	Back	0.454	0.448	0.201	0.576	0.064	0.165	1.679	1.542	1.643	0.03	Case 65			0.03	Case 66
Ant 1+2	Front	0.415	0.659	0.180	0.519	0.054	0.139	1.773	1.647	1.732	0.02	Case 67	0.02	Case 68	0.02	Case 69
	Back	0.450	0.803	0.201	0.576	0.064	0.165	2.030	1.893	1.994	0.02	Case 70	0.02	Case 71	0.02	Case 72
Ant 1+6	Front	0.415	0.381	0.180	0.519	0.054	0.139	1.495	1.369	1.454					0.02	Case 74
	Back	0.450	0.438	0.201	0.576	0.064	0.165	1.665	1.528	1.629	0.02	Case 73			0.02	Case 74
Ant 2+5	Front	0.659	0.351	0.180	0.519	0.054	0.139	1.709	1.583	1.668	0.02	Case 75			0.02	Case 76
	Back	0.803	0.448	0.201	0.576	0.064	0.165	2.028	1.891	1.992	0.02	Case 77	0.02	Case 78	0.02	Case 79
Ant 2+6	Front	0.659	0.381	0.180	0.519	0.054	0.139	1.739	1.613	1.698	0.03	Case 80	0.04	Case 81	0.03	Case 82
	Back	0.803	0.438	0.201	0.576	0.064	0.165	2.018	1.881	1.982	0.04	Case 83	0.04	Case 84	0.04	Case 85
Ant 5+6	Front	0.351	0.381	0.180	0.519	0.054	0.139	1.431	1.305	1.390					0.02	Case 87
	Back	0.448	0.438	0.201	0.576	0.064	0.165	1.663	1.526	1.627	0.02	Case 86			0.02	Case 87



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### <WWAN Index6, WLAN Index9, BT Index 4>

Antenna	Exposure Position	0	1	2	3	4	0+1+2+3 Summed 1g SAR (W/kg)	0+1+2+4 Summed 1g SAR (W/kg)	0+1+2+3 SPLSR	0+1+2+3 Case No.	0+1+2+4 SPLSR	0+1+2+4 Case No.
		Maximum WWAN	Maximum WWAN	WLAN5/6GHz Ant 4+3	Bluetooth Ant 4	Bluetooth Ant 3						
		1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)						
Ant 0+1	Front	0.451	0.415	0.364	0.054	0.139	1.284	1.369				
	Back	0.454	0.450	0.448	0.064	0.165	1.416	1.517				
Ant 0+2	Front	0.451	0.659	0.364	0.054	0.139	1.528	1.613			0.04	Case 88
	Back	0.454	0.803	0.448	0.064	0.165	1.769	1.870	0.04	Case 89	0.04	Case 90
Ant 0+5	Front	0.451	0.351	0.364	0.054	0.139	1.220	1.305				
	Back	0.454	0.448	0.448	0.064	0.165	1.414	1.515				
Ant 1+2	Front	0.415	0.659	0.364	0.054	0.139	1.492	1.577				
	Back	0.450	0.803	0.448	0.064	0.165	1.765	1.866	0.02	Case 91	0.02	Case 92
Ant 1+6	Front	0.415	0.381	0.364	0.054	0.139	1.214	1.299				
	Back	0.450	0.438	0.448	0.064	0.165	1.400	1.501				
Ant 2+5	Front	0.659	0.351	0.364	0.054	0.139	1.428	1.513				
	Back	0.803	0.448	0.448	0.064	0.165	1.763	1.864	0.02	Case 93	0.02	Case 94
Ant 2+6	Front	0.659	0.381	0.364	0.054	0.139	1.458	1.543				
	Back	0.803	0.438	0.448	0.064	0.165	1.753	1.854	0.03	Case 95	0.04	Case 96
Ant 5+6	Front	0.351	0.381	0.364	0.054	0.139	1.150	1.235				
	Back	0.448	0.438	0.448	0.064	0.165	1.398	1.499				

### <WWAN Index6, BT Index 3>

Antenna	Exposure Position	0	1	2	3	0+1+2 Summed 1g SAR (W/kg)	0+1+3 Summed 1g SAR (W/kg)	0+1+3 SPLSR	0+1+3 Case No.
		Maximum WWAN	Maximum WWAN	Bluetooth Ant 4	Bluetooth Ant 3				
		1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)				
Ant 0+1	Front	0.451	0.415	0.207	0.397	1.073	1.263		
	Back	0.454	0.450	0.210	0.524	1.114	1.428		
Ant 0+2	Front	0.451	0.659	0.207	0.397	1.317	1.507		
	Back	0.454	0.803	0.210	0.524	1.467	1.781	0.04	Case 97
Ant 0+5	Front	0.451	0.351	0.207	0.397	1.009	1.199		
	Back	0.454	0.448	0.210	0.524	1.112	1.426		
Ant 1+2	Front	0.415	0.659	0.207	0.397	1.281	1.471		
	Back	0.450	0.803	0.210	0.524	1.463	1.777	0.02	Case 98
Ant 1+6	Front	0.415	0.381	0.207	0.397	1.003	1.193		
	Back	0.450	0.438	0.210	0.524	1.098	1.412		
Ant 2+5	Front	0.659	0.351	0.207	0.397	1.217	1.407		
	Back	0.803	0.448	0.210	0.524	1.461	1.775	0.02	Case 99
Ant 2+6	Front	0.659	0.381	0.207	0.397	1.247	1.437		
	Back	0.803	0.438	0.210	0.524	1.451	1.765	0.03	Case 100
Ant 5+6	Front	0.351	0.381	0.207	0.397	0.939	1.129		
	Back	0.448	0.438	0.210	0.524	1.096	1.410		

**F.5 Product Specific Sim-Tx analysis****<WLAN Index5, NFC>**

Exposure Position	4	19	4+19 Summed 10g SAR (W/kg)
	WLAN5G / 6GHz Ant 4+3	NFC	
	10g SAR (W/kg)	10g SAR (W/kg)	
Front	2.790	0.001	<b>2.791</b>
Back	2.073	0.062	<b>2.135</b>
Left side	0.902	0.001	<b>0.903</b>
Right side	0.263	0.001	<b>0.264</b>
Top side	1.703	0.001	<b>1.704</b>

**<WLAN Index6, NFC>**

Exposure Position	2	19	2+19 Summed 10g SAR (W/kg)
	WLAN5G / 6GHz Ant 4	NFC	
	10g SAR (W/kg)	10g SAR (W/kg)	
Front	2.745	0.001	<b>2.746</b>
Back	1.830	0.062	<b>1.892</b>
Left side	0.029	0.001	<b>0.030</b>
Right side	0.299	0.001	<b>0.300</b>
Top side	1.666	0.001	<b>1.667</b>

**<WLAN Index7, NFC>**

Exposure Position	6	19	6+19 Summed 10g SAR (W/kg)
	WLAN5G / 6GHz Ant 4+3	NFC	
	10g SAR (W/kg)	10g SAR (W/kg)	
Front	2.790	0.001	<b>2.791</b>
Back	2.073	0.062	<b>2.135</b>
Left side	0.902	0.001	<b>0.903</b>
Right side	0.263	0.001	<b>0.264</b>
Top side	1.703	0.001	<b>1.704</b>

**<WLAN Index8, NFC>**

Exposure Position	6	19	<b>6+19 Summed 10g SAR (W/kg)</b>
	WLAN5G / 6GHz Ant 4	NFC	
	10g SAR (W/kg)	10g SAR (W/kg)	
Front	2.745	0.001	<b>2.746</b>
Back	1.830	0.062	<b>1.892</b>
Left side	0.029	0.001	<b>0.030</b>
Right side	0.299	0.001	<b>0.300</b>
Top side	1.666	0.001	<b>1.667</b>

**<WLAN Index9, NFC>**

Exposure Position	3	19	20	<b>3+19 Summed 10g SAR (W/kg)</b>
	WLAN5G / 6GHz Ant 4+3	NFC	WLAN6GHz APD	
	10g SAR (W/kg)	10g SAR (W/kg)	4cm^2(W/m^2)	
Front	1.714	0.001	14.642	<b>1.715</b>
Back	1.142	0.062	14.522	<b>1.204</b>
Left side	0.902	0.001	7.420	<b>0.903</b>
Right side	0.136	0.001	2.364	<b>0.137</b>
Top side	0.988	0.001	11.281	<b>0.989</b>

**F.6 SAR Peak Location Distance and SPLSR analysis****<Case 1>**

SPLSR calculation for antenna 3,4

Band	Position	SAR (W/kg)	Gap (mm)	SAR peak location (mm)			3D distance (mm)	Summed SAR (W/kg)	SPLSR Results	Simultaneous SAR
				X	Y	Z				
WLAN2.4GHz Ant 3	Right Cheek	1.143	0	50.3	-327.0	-174.3	58.2	1.788	0.04	Not required
WLAN5GHz Ant 4		0.645	0	1.5	-295.5	-171.1				

**<Case 2>**

SAR summation (blue colored) for each band of antenna 1,2

Exposure Position	WWAN SAR	GSM1900 Ant 2	WCDMA II Ant 2	WCDMA IV Ant 2	LTE Band 2 Ant 2	LTE Band 7 Ant 2	LTE Band 41 Ant 2	LTE Band 66 Ant 2	FR1 n2 Ant 2	FR1 n7 Ant 2	FR1 n41 Ant 2	FR1 n66 Ant 2	FR1 n77 Ant 2
Right Cheek	1g SAR (W/kg)	0.477	0.671	0.767	0.618	0.954	0.712	0.667	0.612	0.853	0.949	0.626	0.983
GSM850_Ant 1	0.989	1.466	1.660	1.756	1.607	1.943	1.701	1.656	1.601	1.842	1.938	1.615	1.972
WCDMA V_Ant 1	0.985	1.462	1.656	1.752	1.603	1.939	1.697	1.652	1.597	1.838	1.934	1.611	1.968
LTE Band 12_Ant 1	0.827	1.304	1.498	1.594	1.445	1.781	1.539	1.494	1.439	1.680	1.776	1.453	1.810
LTE Band 26_Ant 1	0.978	1.455	1.649	1.745	1.596	1.932	1.690	1.645	1.590	1.831	1.927	1.604	1.961
FR1 n12_Ant 1	0.867	1.344	1.538	1.634	1.485	1.821	1.579	1.534	1.479	1.720	1.816	1.493	1.850
FR1 n26_Ant 1	0.883	1.360	1.554	1.650	1.501	1.837	1.595	1.550	1.495	1.736	1.832	1.509	1.866
FR1 n77_HPUE_Ant 1	0.866	1.343	1.537	1.633	1.484	1.820	1.578	1.533	1.478	1.719	1.815	1.492	1.849

SPLSR calculation for above summation SAR&gt;1.6W/kg

Combination	SAR	SAR peak location (mm)			3D distance (mm)	Summed SAR (W/kg)	SPLSR Results	Simultaneous SAR
		X	Y	Z				
Max WWAN Ant 1	0.989	16.3	-323.7	-174.4	69.9	1.972	0.04	Not required
Max WWAN Ant 2	0.983	54.7	-265.4	-178.4				



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### <Case 3>

SAR summation (blue colored) for each band of antenna 0,5,3,4

Exposure Position	WWAN SAR	WLAN 5/6GHz Ant 4+3	Bluetooth Ant 4	GSM1900 Ant 0	WCDMA II Ant 0	WCDMA IV Ant 0	WCDMA V Ant 0	LTE Band 2 Ant 0	LTE Band 7 Ant 0	LTE Band 12 Ant 0	LTE Band 26 Ant 0	LTE Band 41 Ant 0	LTE Band 66 Ant 0	FR1 n2 Ant 0	FR1 n7 Ant 0	FR1 n12 Ant 0	FR1 n41 Ant 0	FR1 n66 Ant 0	
Left Cheek		1g SAR (W/kg)		0.454	0.481	0.467	0.363	0.549	0.544	0.241	0.374	0.245	0.527	0.549	0.548	0.293	0.396	0.538	0.534
FR1 n77_HPUE_Ant 5	0.701	0.356	0.001	1.512	1.539	1.525	1.421	1.607	1.602	1.299	1.432	1.303	1.585	1.607	1.606	1.351	1.454	1.596	1.592

Hybrid SPLSR calculation for above summation SAR>1.6W/kg

Combination	SAR	SAR peak location (mm)			3D distance (mm)	Summed SAR (W/kg)	SPLSR Results	Simultaneous SAR
		X	Y	Z				
Max WWAN Ant 0	0.549	53.8	251.3	-174.6	76.7	1.607	0.03	Not required
Max WWAN Ant 5 + WLAN5/6GHz Ant 4+3 + Bluetooth Ant 4	1.058	41.9	327.1	-175.0				

### <Case 4>

SAR summation (blue colored) for each band of antenna 0,5,3,4

Exposure Position	WWAN SAR	WLAN 5/6GHz Ant 4+3	Bluetooth Ant 3	GSM 1900 Ant 0	WCDMA II Ant 0	WCDMA IV Ant 0	WCDMA V Ant 0	LTE Band 2 Ant 0	LTE Band 7 Ant 0	LTE Band 12 Ant 0	LTE Band 26 Ant 0	LTE Band 41 Ant 0	LTE Band 66 Ant 0	FR1 n2 Ant 0	FR1 n7 Ant 0	FR1 n12 Ant 0	FR1 n41 Ant 0	FR1 n66 Ant 0	
Left Cheek		1g SAR (W/kg)		0.454	0.481	0.467	0.363	0.549	0.544	0.241	0.374	0.245	0.527	0.549	0.548	0.293	0.396	0.538	0.534
FR1 n77_HPUE_Ant 5	0.701	0.356	0.087	1.598	1.625	1.611	1.507	1.693	1.688	1.385	1.518	1.389	1.671	1.693	1.692	1.437	1.540	1.682	1.678

SPLSR calculation for above summation SAR>1.6W/kg

Combination	SAR	SAR peak location (mm)			3D distance (mm)	Summed SAR (W/kg)	SPLSR Results	Simultaneous SAR
		X	Y	Z				
Max WWAN Ant 0	0.549	52.2	275.2	-176.4	52.9	1.25	0.03	Not required
Max WWAN Ant 5	0.701	41.9	327.1	-175.0				
Max WWAN Ant 0	0.549	52.2	275.2	-176.4	58.2	0.68	0.01	Not required
WLAN5/6GHz Ant 4+3(3)	0.131	-0.5	299.4	-171.2				
Max WWAN Ant 0	0.549	54.6	263.9	-175.6	30.0	0.636	0.02	Not required
Bluetooth Ant 3	0.087	25.1	260.3	-171.7				
Max WWAN Ant 0	0.549	52.2	275.2	-176.4	68.4	0.905	0.01	Not required
WLAN5/6GHz Ant 4+3(4)	0.356	10.1	329.1	-173.7				
Max WWAN Ant 5	0.701	41.9	327.1	-175.0	50.8	0.832	0.01	Not required
WLAN5/6GHz Ant 4+3(3)	0.131	-0.5	299.4	-171.2				
Max WWAN Ant 5	0.701	41.9	327.1	-175.0	69.0	0.788	0.01	Not required
Bluetooth Ant 3	0.087	25.1	260.3	-171.7				
Max WWAN Ant 5	0.701	41.9	327.1	-175.0	31.9	1.057	0.03	Not required
WLAN5/6GHz Ant 4+3(4)	0.356	10.1	329.1	-173.7				
WLAN5/6GHz Ant 4+3(3)	0.131	-0.5	299.4	-171.2	46.7	0.218	0.00	Not required
Bluetooth Ant 3	0.087	25.1	260.3	-171.7				
WLAN5/6GHz Ant 4+3(3)	0.131	-0.5	299.4	-171.2	31.6	0.487	0.01	Not required
WLAN5/6GHz Ant 4+3(4)	0.356	10.1	329.1	-173.7				
Bluetooth Ant 3	0.087	25.1	260.3	-171.7	70.4	0.443	0.00	Not required
WLAN5/6GHz Ant 4+3(4)	0.356	10.1	329.1	-173.7				



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### <Case 5>

SAR summation (blue colored) for each band of antenna 1,2,3,4

Exposure Position	WWAN SAR	WLAN 5/6GHz Ant 4+3	Bluetooth Ant 4	GSM1900 Ant 2	WCDMA II Ant 2	WCDMA IV Ant 2	LTE Band 2 Ant 2	LTE Band 7 Ant 2	LTE Band 41 Ant 2	LTE Band 66 Ant 2	FR1 n2 Ant 2	FR1 n7 Ant 2	FR1 n41 Ant 2	FR1 n66 Ant 2	FR1 n77 Ant 2
Right Cheek		1g SAR (W/kg)		0.477	0.598	0.609	0.604	0.581	0.606	0.608	0.598	0.604	0.586	0.598	0.592
GSM850_Ant 1	0.598	0.438	0.038	1.551	1.672	1.683	1.678	1.655	1.680	1.682	1.672	1.678	1.660	1.672	1.666
WCDMA V_Ant 1	0.596	0.438	0.038	1.549	1.670	1.681	1.676	1.653	1.678	1.680	1.670	1.676	1.658	1.670	1.664
LTE Band 12_Ant 1	0.599	0.438	0.038	1.552	1.673	1.684	1.679	1.656	1.681	1.683	1.673	1.679	1.661	1.673	1.667
LTE Band 26_Ant 1	0.596	0.438	0.038	1.549	1.670	1.681	1.676	1.653	1.678	1.680	1.670	1.676	1.658	1.670	1.664
FR1 n12_Ant 1	0.599	0.438	0.038	1.552	1.673	1.684	1.679	1.656	1.681	1.683	1.673	1.679	1.661	1.673	1.667
FR1 n26_Ant 1	0.588	0.438	0.038	1.541	1.662	1.673	1.668	1.645	1.670	1.672	1.662	1.668	1.650	1.662	1.656
FR1 n77_HPUE_Ant 1	0.599	0.438	0.038	1.552	1.673	1.684	1.679	1.656	1.681	1.683	1.673	1.679	1.661	1.673	1.667

Hybrid SPLSR calculation for above summation SAR>1.6W/kg

Combination	SAR	SAR peak location (mm)			3D distance (mm)	Summed SAR (W/kg)	SPLSR Results	Simultaneous SAR
		X	Y	Z				
Max WWAN Ant 1 + WLAN5/6GHz Ant 4+3(3)	1.037	46.5	-323.9	-175.1	59.2	1.646	0.04	Not required
Max WWAN Ant 2	0.609	54.7	-265.4	-178.4				
Max WWAN Ant 1 + WLAN5/6GHz Ant 4+3(3)	1.037	15.8	-323.3	-174.4	31.1	1.249	0.04	Not required
WLAN5/6GHz Ant 4+3(4)	0.212	-6.9	-302.4	-170.3				
Max WWAN Ant 1 + WLAN5/6GHz Ant 4+3(3)	1.037	15.8	-323.3	-174.4	51.9	1.075	0.02	Not required
Bluetooth Ant 4	0.038	27.4	-272.7	-173.7				

### <Case 6>

SAR summation (blue colored) for each band of antenna 1,2,3,4

Exposure Position	WWAN SAR	WLAN5/6GHz Ant 4+3	Bluetooth Ant 3	GSM1900 Ant 2	WCDMA II Ant 2	WCDMA IV Ant 2	LTE Band 2 Ant 2	LTE Band 7 Ant 2	LTE Band 41 Ant 2	LTE Band 66 Ant 2	FR1 n2 Ant 2	FR1 n7 Ant 2	FR1 n41 Ant 2	FR1 n66 Ant 2	FR1 n77 Ant 2
Right Cheek		1g SAR (W/kg)		0.477	0.598	0.609	0.604	0.581	0.606	0.608	0.598	0.604	0.586	0.598	0.592
GSM850_Ant 1	0.598	0.438	0.238	1.751	1.872	1.883	1.878	1.855	1.880	1.882	1.872	1.878	1.860	1.872	1.866
WCDMA V_Ant 1	0.596	0.438	0.238	1.749	1.870	1.881	1.876	1.853	1.878	1.880	1.870	1.876	1.858	1.870	1.864
LTE Band 12_Ant 1	0.599	0.438	0.238	1.752	1.873	1.884	1.879	1.856	1.881	1.883	1.873	1.879	1.861	1.873	1.867
LTE Band 26_Ant 1	0.596	0.438	0.238	1.749	1.870	1.881	1.876	1.853	1.878	1.880	1.870	1.876	1.858	1.870	1.864
FR1 n12_Ant 1	0.599	0.438	0.238	1.752	1.873	1.884	1.879	1.856	1.881	1.883	1.873	1.879	1.861	1.873	1.867
FR1 n26_Ant 1	0.588	0.438	0.238	1.741	1.862	1.873	1.868	1.845	1.870	1.872	1.862	1.868	1.850	1.862	1.856
FR1 n77_HPUE_Ant 1	0.599	0.438	0.238	1.752	1.873	1.884	1.879	1.856	1.881	1.883	1.873	1.879	1.861	1.873	1.867

Hybrid SPLSR calculation for above summation SAR>1.6W/kg

Combination	SAR	SAR peak location (mm)			3D distance (mm)	Summed SAR (W/kg)	SPLSR Results	Simultaneous SAR
		X	Y	Z				
Max WWAN Ant 2	0.609	54.7	-265.4	-178.4	61.1	1.884	0.04	Not required
Max WWAN Ant 1 + WLAN5/6GHz Ant 4+3 + Bluetooth Ant 3	1.275	50.5	-326.3	-177.1				



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### <Case 7>

SAR summation (blue colored) for each band of antenna 5,6,3,4

Exposure Position	WWAN SAR	WLAN5/6GHz Ant 4+3	Bluetooth Ant 4	FR1 n77_Ant 6
Left Cheek	1g SAR (W/kg)			0.598
FR1 n77_HPUE_Ant 5	0.701	0.356	0.001	1.656

Hybrid SPLSR calculation for above summation SAR>1.6W/kg

Combination	SAR	SAR peak location (mm)			3D distance (mm)	Summed SAR (W/kg)	SPLSR Results	Simultaneous SAR
		X	Y	Z				
Max WWAN Ant 6	0.598	52.6	243.5	-173.8	84.3	1.656	0.03	Not required
Max WWAN Ant 5 + WLAN5/6GHz Ant 4+3 + Bluetooth Ant 4	1.058	41.9	327.1	-175.0				

### <Case 8>

SAR summation (blue colored) for each band of antenna 5,6,3,4

Exposure Position	WWAN SAR	WLAN5/6GHz Ant 4+3	Bluetooth Ant 3	FR1 n77_Ant 6
Left Cheek	1g SAR (W/kg)			0.598
FR1 n77_HPUE_Ant 5	0.701	0.356	0.087	1.742

SPLSR calculation for above summation SAR>1.6W/kg

Combination	SAR	SAR peak location (mm)			3D distance (mm)	Summed SAR (W/kg)	SPLSR Results	Simultaneous SAR
		X	Y	Z				
Max WWAN Ant 5	0.701	41.9	327.1	-175.0	84.3	1.299	0.02	Not required
Max WWAN Ant 6	0.598	52.6	243.5	-173.8				
Max WWAN Ant 5	0.701	41.9	327.1	-175.0				
WLAN5/6GHz Ant 4+3(3)	0.131	-0.5	299.4	-171.2				
Max WWAN Ant 5	0.701	41.9	327.1	-175.0	50.8	0.832	0.01	Not required
Bluetooth Ant 3	0.087	25.1	260.3	-171.7				
Max WWAN Ant 5	0.701	41.9	327.1	-175.0				
WLAN5/6GHz Ant 4+3(4)	0.356	10.1	329.1	-173.7	69.0	0.788	0.01	Not required
Max WWAN Ant 6	0.598	52.6	243.5	-173.8				
WLAN5/6GHz Ant 4+3(3)	0.131	-0.5	299.4	-171.2				
Max WWAN Ant 6	0.598	52.6	243.5	-173.8	31.9	1.057	0.03	Not required
Bluetooth Ant 3	0.087	25.1	260.3	-171.7				
Max WWAN Ant 5	0.701	41.9	327.1	-175.0				
WLAN5/6GHz Ant 4+3(3)	0.131	-0.5	299.4	-171.2	77.1	0.729	0.01	Not required
Max WWAN Ant 6	0.598	52.6	243.5	-173.8				
WLAN5/6GHz Ant 4+3(3)	0.131	-0.5	299.4	-171.2				
Max WWAN Ant 6	0.598	52.6	243.5	-173.8	32.3	0.685	0.02	Not required
Bluetooth Ant 3	0.087	25.1	260.3	-171.7				
Max WWAN Ant 6	0.598	52.6	243.5	-173.8				
WLAN5/6GHz Ant 4+3(4)	0.356	10.1	329.1	-173.7	95.6	0.954	0.01	Not required
WLAN5/6GHz Ant 4+3(3)	0.131	-0.5	299.4	-171.2				
Max WWAN Ant 6	0.598	52.6	243.5	-173.8				
Bluetooth Ant 3	0.087	25.1	260.3	-171.7	46.7	0.218	0.00	Not required
WLAN5/6GHz Ant 4+3(3)	0.131	-0.5	299.4	-171.2				
WLAN5/6GHz Ant 4+3(4)	0.356	10.1	329.1	-173.7				
Bluetooth Ant 3	0.087	25.1	260.3	-171.7	31.6	0.487	0.01	Not required
WLAN5/6GHz Ant 4+3(3)	0.131	-0.5	299.4	-171.2				
WLAN5/6GHz Ant 4+3(4)	0.356	10.1	329.1	-173.7				
Bluetooth Ant 3	0.087	25.1	260.3	-171.7	70.4	0.443	0.00	Not required
WLAN5/6GHz Ant 4+3(4)	0.356	10.1	329.1	-173.7				



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### <Case 9>

SAR summation (blue colored) for each band of antenna 0,5,3,4

Exposure Position	WWAN SAR	WLAN2.4GHz Ant 3	WLAN5/6GHz Ant 4	FR1 n77_HPUE_Ant 5
Left Cheek	1g SAR (W/kg)			
GSM850_Ant 0	0.381	0.116	0.405	1.603
GSM1900_Ant 0	0.454	0.116	0.405	1.676
WCDMA II_Ant 0	0.481	0.116	0.405	1.703
WCDMA IV_Ant 0	0.467	0.116	0.405	1.689
WCDMA V_Ant 0	0.363	0.116	0.405	1.585
LTE Band 2_Ant 0	0.549	0.116	0.405	1.771
LTE Band 7_Ant 0	0.544	0.116	0.405	1.766
LTE Band 12_Ant 0	0.241	0.116	0.405	1.463
LTE Band 26_Ant 0	0.374	0.116	0.405	1.596
LTE Band 41_Ant 0	0.245	0.116	0.405	1.467
LTE Band 66_Ant 0	0.527	0.116	0.405	1.749
FR1 n2_Ant 0	0.549	0.116	0.405	1.771
FR1 n7_Ant 0	0.548	0.116	0.405	1.770
FR1 n12_Ant 0	0.293	0.116	0.405	1.515
FR1 n26_Ant 0	0.396	0.116	0.405	1.618
FR1 n41_Ant 0	0.538	0.116	0.405	1.760
FR1 n66_Ant 0	0.534	0.116	0.405	1.756

Hybrid SPLSR calculation for above summation SAR>1.6W/kg

Combination	SAR	SAR peak location (mm)			3D distance (mm)	Summed SAR (W/kg)	SPLSR Results	Simultaneous SAR
		X	Y	Z				
Max WWAN Ant 5 + WLAN5/6GHz Ant 4	1.106	41.9	327.1	-175.0	52.3	1.655	0.04	Not required
Max WWAN Ant 0	0.549	54.6	276.4	-176.2				
Max WWAN Ant 5 + WLAN5/6GHz Ant 4	1.106	16.6	327.2	-174.3	70.7	1.222	0.02	Not required
WLAN2.4GHz Ant 3	0.116	26.7	257.3	-171.7				
Max WWAN Ant 0	0.549	53.8	251.3	-174.6	27.9	0.665	0.02	Not required
WLAN2.4GHz Ant 3	0.116	26.7	257.3	-171.7				



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**<Case 10>**

SAR summation (blue colored) for each band of antenna 0,5,4

Exposure Position	WWAN SAR	WLAN5/6GHz Ant 4	Bluetooth Ant 4	FR1 n77_HPUE_Ant 5
Left Cheek	1g SAR (W/kg)			0.701
GSM850_Ant 0	0.381	0.405	0.001	1.488
GSM1900_Ant 0	0.454	0.405	0.001	1.561
WCDMA II_Ant 0	0.481	0.405	0.001	1.588
WCDMA IV_Ant 0	0.467	0.405	0.001	1.574
WCDMA V_Ant 0	0.363	0.405	0.001	1.470
LTE Band 2_Ant 0	0.549	0.405	0.001	1.656
LTE Band 7_Ant 0	0.544	0.405	0.001	1.651
LTE Band 12_Ant 0	0.241	0.405	0.001	1.348
LTE Band 26_Ant 0	0.374	0.405	0.001	1.481
LTE Band 41_Ant 0	0.245	0.405	0.001	1.352
LTE Band 66_Ant 0	0.527	0.405	0.001	1.634
FR1 n2_Ant 0	0.549	0.405	0.001	1.656
FR1 n7_Ant 0	0.548	0.405	0.001	1.655
FR1 n12_Ant 0	0.293	0.405	0.001	1.400
FR1 n26_Ant 0	0.396	0.405	0.001	1.503
FR1 n41_Ant 0	0.538	0.405	0.001	1.645
FR1 n66_Ant 0	0.534	0.405	0.001	1.641

Hybrid SPLSR calculation for above summation SAR>1.6W/kg

Combination	SAR	SAR peak location (mm)			3D distance (mm)	Summed SAR (W/kg)	SPLSR Results	Simultaneous SAR
		X	Y	Z				
Max WWAN Ant 5 + WLAN5/6GHz Ant 4 + Bluetooth Ant 4	1.107	41.9	327.1	-175.0	52.3	1.656	0.04	Not required
Max WWAN Ant 0	0.549	54.6	276.4	-176.2				



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**<Case 11>**

SAR summation (blue colored) for each band of antenna 0,5,3,4

Exposure Position	WWAN SAR	WLAN5/6GHz Ant 4	Bluetooth Ant 3	FR1 n77_HPUE_Ant 5
Left Cheek	1g SAR (W/kg)			
GSM850_Ant 0	0.381	0.405	0.087	1.574
GSM1900_Ant 0	0.454	0.405	0.087	1.647
WCDMA II_Ant 0	0.481	0.405	0.087	1.674
WCDMA IV_Ant 0	0.467	0.405	0.087	1.660
WCDMA V_Ant 0	0.363	0.405	0.087	1.556
LTE Band 2_Ant 0	0.549	0.405	0.087	1.742
LTE Band 7_Ant 0	0.544	0.405	0.087	1.737
LTE Band 12_Ant 0	0.241	0.405	0.087	1.434
LTE Band 26_Ant 0	0.374	0.405	0.087	1.567
LTE Band 41_Ant 0	0.245	0.405	0.087	1.438
LTE Band 66_Ant 0	0.527	0.405	0.087	1.720
FR1 n2_Ant 0	0.549	0.405	0.087	1.742
FR1 n7_Ant 0	0.548	0.405	0.087	1.741
FR1 n12_Ant 0	0.293	0.405	0.087	1.486
FR1 n26_Ant 0	0.396	0.405	0.087	1.589
FR1 n41_Ant 0	0.538	0.405	0.087	1.731
FR1 n66_Ant 0	0.534	0.405	0.087	1.727

Hybrid SPLSR calculation for above summation SAR>1.6W/kg

Combination	SAR	SAR peak location (mm)			3D distance (mm)	Summed SAR (W/kg)	SPLSR Results	Simultaneous SAR
		X	Y	Z				
Max WWAN Ant 5 + WLAN5/6GHz Ant 4	1.106	41.9	327.1	-175.0	52.3	1.655	0.04	Not required
Max WWAN Ant 0	0.549	54.6	276.4	-176.2				
Max WWAN Ant 5 + WLAN5/6GHz Ant 4	1.106	16.6	327.2	-174.3	67.5	1.193	0.02	Not required
Bluetooth Ant 3	0.087	25.1	260.3	-171.7				
Max WWAN Ant 0	0.549	54.6	263.9	-175.6	30.0	0.636	0.02	Not required
Bluetooth Ant 3	0.087	25.1	260.3	-171.7				



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Report No. :FA451607B

### <Case 12>

SAR summation (blue colored) for each band of antenna 1,2,3,4

Exposure Position	WWAN SAR	WLAN 2.4GHz Ant 3	WLAN 5/6GHz Ant 4	GSM1900 _Ant 2	WCDMA II Ant 2	WCDMA IV Ant 2	LTE Band 2 Ant 2	LTE Band 7 Ant 2	LTE Band 41 Ant 2	LTE Band 66 Ant 2	FR1 n2 Ant 2	FR1 n7 Ant 2	FR1 n41 Ant 2	FR1 n66 Ant 2	FR1 n77 Ant 2
Right Cheek		1g SAR (W/kg)		0.477	0.598	0.609	0.604	0.581	0.606	0.608	0.598	0.604	0.586	0.598	0.592
GSM850_Ant 1	0.598	0.283	0.195	1.553	1.674	1.685	1.680	1.657	1.682	1.684	1.674	1.680	1.662	1.674	1.668
WCDMA V_Ant 1	0.596	0.283	0.195	1.551	1.672	1.683	1.678	1.655	1.680	1.682	1.672	1.678	1.660	1.672	1.666
LTE Band 12_Ant 1	0.599	0.283	0.195	1.554	1.675	1.686	1.681	1.658	1.683	1.685	1.675	1.681	1.663	1.675	1.669
LTE Band 26_Ant 1	0.596	0.283	0.195	1.551	1.672	1.683	1.678	1.655	1.680	1.682	1.672	1.678	1.660	1.672	1.666
FR1 n12_Ant 1	0.599	0.283	0.195	1.554	1.675	1.686	1.681	1.658	1.683	1.685	1.675	1.681	1.663	1.675	1.669
FR1 n26_Ant 1	0.588	0.283	0.195	1.543	1.664	1.675	1.670	1.647	1.672	1.674	1.664	1.670	1.652	1.664	1.658
FR1 n77_HPUE_Ant 1	0.599	0.283	0.195	1.554	1.675	1.686	1.681	1.658	1.683	1.685	1.675	1.681	1.663	1.675	1.669

Hybrid SPLSR calculation for above summation SAR>1.6W/kg

Combination	SAR	SAR peak location (mm)			3D distance (mm)	Summed SAR (W/kg)	SPLSR Results	Simultaneous SAR
		X	Y	Z				
Max WWAN Ant 2	0.609	54.7	-265.4	-178.4	62.2	1.686	0.04	Not required
Max WWAN Ant 1 + WLAN2.4GHz Ant 3 + WLAN5/6GHz Ant 4	1.077	51.1	-327.5	-177.0				

### <Case 13>

SAR summation (blue colored) for each band of antenna 1,2,3,4

Exposure Position	WWAN SAR	WLAN 5/6GHz Ant 4	Bluetooth Ant 3	GSM1900 Ant 2	WCDMA II Ant 2	WCDMA IV Ant 2	LTE Band 2 Ant 2	LTE Band 7 Ant 2	LTE Band 41 Ant 2	LTE Band 66 Ant 2	FR1 n2 Ant 2	FR1 n7 Ant 2	FR1 n41 Ant 2	FR1 n66 Ant 2	FR1 n77 Ant 2
Right Cheek		1g SAR (W/kg)		0.477	0.598	0.609	0.604	0.581	0.606	0.608	0.598	0.604	0.586	0.598	0.592
GSM850_Ant 1	0.598	0.195	0.238	1.508	1.629	1.640	1.635	1.612	1.637	1.639	1.629	1.635	1.617	1.629	1.623
WCDMA V_Ant 1	0.596	0.195	0.238	1.506	1.627	1.638	1.633	1.610	1.635	1.637	1.627	1.633	1.615	1.627	1.621
LTE Band 12_Ant 1	0.599	0.195	0.238	1.509	1.630	1.641	1.636	1.613	1.638	1.640	1.630	1.636	1.618	1.630	1.624
LTE Band 26_Ant 1	0.596	0.195	0.238	1.506	1.627	1.638	1.633	1.610	1.635	1.637	1.627	1.633	1.615	1.627	1.621
FR1 n12_Ant 1	0.599	0.195	0.238	1.509	1.630	1.641	1.636	1.613	1.638	1.640	1.630	1.636	1.618	1.630	1.624
FR1 n26_Ant 1	0.588	0.195	0.238	1.498	1.619	1.630	1.625	1.602	1.627	1.629	1.619	1.625	1.607	1.619	1.613
FR1 n77_HPUE_Ant 1	0.599	0.195	0.238	1.509	1.630	1.641	1.636	1.613	1.638	1.640	1.630	1.636	1.618	1.630	1.624

Hybrid SPLSR calculation for above summation SAR>1.6W/kg

Combination	SAR	SAR peak location (mm)			3D distance (mm)	Summed SAR (W/kg)	SPLSR Results	Simultaneous SAR
		X	Y	Z				
Max WWAN Ant 2	0.609	54.7	-265.4	-178.4	61.1	1.641	0.03	Not required
Max WWAN Ant 1 + WLAN5/6GHz Ant 4 + Bluetooth Ant 3	1.032	50.5	-326.3	-177.1				



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### <Case 14>

SAR summation (blue colored) for each band of antenna 5,6,3,4

Exposure Position	WWAN SAR	WLAN2.4GHz Ant 3	WLAN5/6GHz Ant 4	FR1 n77_Ant 6
Left Cheek	1g SAR (W/kg)			0.598
FR1 n77_HPUE_Ant 5	0.701	0.116	0.405	1.820

Hybrid SPLSR calculation for above summation SAR>1.6W/kg

Combination	SAR	SAR peak location (mm)			3D distance (mm)	Summed SAR (W/kg)	SPLSR Results	Simultaneous SAR
		X	Y	Z				
Max WWAN Ant 5 + WLAN5/6GHz Ant 4	1.106	41.9	327.1	-175.0	84.3	1.704	0.03	Not required
Max WWAN Ant 6	0.598	52.6	243.5	-173.8				
Max WWAN Ant 5 + WLAN5/6GHz Ant 4	1.106	16.6	327.2	-174.3	70.7	1.222	0.02	Not required
WLAN2.4GHz Ant 3	0.116	26.7	257.3	-171.7				
Max WWAN Ant 6	0.598	52.6	243.5	-173.8	29.4	0.714	0.02	Not required
WLAN2.4GHz Ant 3	0.116	26.7	257.3	-171.7				

### <Case 15>

SAR summation (blue colored) for each band of antenna 5,6,4

Exposure Position	WWAN SAR	WLAN5/6GHz Ant 4	Bluetooth Ant 4	FR1 n77_Ant 6
Left Cheek	1g SAR (W/kg)			0.598
FR1 n77_HPUE_Ant 5	0.701	0.405	0.001	1.705

Hybrid SPLSR calculation for above summation SAR>1.6W/kg

Combination	SAR	SAR peak location (mm)			3D distance (mm)	Summed SAR (W/kg)	SPLSR Results	Simultaneous SAR
		X	Y	Z				
Max WWAN Ant 6	0.598	52.6	243.5	-173.8	84.3	1.705	0.03	Not required
Max WWAN Ant 5 + WLAN5/6GHz Ant 4 + Bluetooth Ant 4	1.107	41.9	327.1	-175.0				

### <Case 16>

SAR summation (blue colored) for each band of antenna 5,6,3,4

Exposure Position	WWAN SAR	WLAN5/6GHz Ant 4	Bluetooth Ant 3	FR1 n77_Ant 6
Left Cheek	1g SAR (W/kg)			0.598
FR1 n77_HPUE_Ant 5	0.701	0.405	0.087	1.791

Hybrid SPLSR calculation for above summation SAR>1.6W/kg

Combination	SAR	SAR peak location (mm)			3D distance (mm)	Summed SAR (W/kg)	SPLSR Results	Simultaneous SAR
		X	Y	Z				
Max WWAN Ant 5 + WLAN5/6GHz Ant 4	1.106	41.9	327.1	-175.0	84.3	1.704	0.03	Not required
Max WWAN Ant 6	0.598	52.6	243.5	-173.8				
Max WWAN Ant 5 + WLAN5/6GHz Ant 4	1.106	16.6	327.2	-174.3	67.5	1.193	0.02	Not required
Bluetooth Ant 3	0.087	25.1	260.3	-171.7				
Max WWAN Ant 6	0.598	52.6	243.5	-173.8	32.3	0.685	0.02	Not required
Bluetooth Ant 3	0.087	25.1	260.3	-171.7				



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### <Case 17>

SAR summation (blue colored) for each band of antenna 0,2,3,4

Exposure Position	WWAN SAR	WLAN5/6GHz Ant 4+3	GSM1900 Ant 2	WCDMA II Ant 2	WCDMA IV Ant 2	LTE Band 2 Ant 2	LTE Band 7 Ant 2	LTE Band 41 Ant 2	LTE Band 66 Ant 2	FR1 n2 Ant 2	FR1 n7 Ant 2	FR1 n41 Ant 2	FR1 n66 Ant 2	FR1 n77 Ant 2
Back	1g SAR (W/kg)	0.739	0.603	0.571	0.708	0.650	0.639	0.577	0.803	0.690	0.655	0.743	0.321	
GSM850_Ant 0	0.446	0.439	1.624	1.488	1.456	1.593	1.535	1.524	1.462	1.688	1.575	1.540	1.628	1.206
GSM1900_Ant 0	0.450	0.439	1.628	1.492	1.460	1.597	1.539	1.528	1.466	1.692	1.579	1.544	1.632	1.210
WCDMA II_Ant 0	0.449	0.439	1.627	1.491	1.459	1.596	1.538	1.527	1.465	1.691	1.578	1.543	1.631	1.209
WCDMA IV_Ant 0	0.454	0.439	1.632	1.496	1.464	1.601	1.543	1.532	1.470	1.696	1.583	1.548	1.636	1.214
WCDMA V_Ant 0	0.454	0.439	1.632	1.496	1.464	1.601	1.543	1.532	1.470	1.696	1.583	1.548	1.636	1.214
LTE Band 2_Ant 0	0.380	0.439	1.558	1.422	1.390	1.527	1.469	1.458	1.396	1.622	1.509	1.474	1.562	1.140
LTE Band 7_Ant 0	0.386	0.439	1.564	1.428	1.396	1.533	1.475	1.464	1.402	1.628	1.515	1.480	1.568	1.146
LTE Band 12_Ant 0	0.367	0.439	1.545	1.409	1.377	1.514	1.456	1.445	1.383	1.609	1.496	1.461	1.549	1.127
LTE Band 26_Ant 0	0.421	0.439	1.599	1.463	1.431	1.568	1.510	1.499	1.437	1.663	1.550	1.515	1.603	1.181
LTE Band 41_Ant 0	0.453	0.439	1.631	1.495	1.463	1.600	1.542	1.531	1.469	1.695	1.582	1.547	1.635	1.213
LTE Band 66_Ant 0	0.452	0.439	1.630	1.494	1.462	1.599	1.541	1.530	1.468	1.694	1.581	1.546	1.634	1.212
FR1 n2_Ant 0	0.393	0.439	1.571	1.435	1.403	1.540	1.482	1.471	1.409	1.635	1.522	1.487	1.575	1.153
FR1 n7_Ant 0	0.418	0.439	1.596	1.460	1.428	1.565	1.507	1.496	1.434	1.660	1.547	1.512	1.600	1.178
FR1 n12_Ant 0	0.339	0.439	1.517	1.381	1.349	1.486	1.428	1.417	1.355	1.581	1.468	1.433	1.521	1.099
FR1 n26_Ant 0	0.436	0.439	1.614	1.478	1.446	1.583	1.525	1.514	1.452	1.678	1.565	1.530	1.618	1.196
FR1 n41_Ant 0	0.445	0.439	1.623	1.487	1.455	1.592	1.534	1.523	1.461	1.687	1.574	1.539	1.627	1.205
FR1 n66_Ant 0	0.452	0.439	1.630	1.494	1.462	1.599	1.541	1.530	1.468	1.694	1.581	1.546	1.634	1.212

Hybrid SPLSR calculation for above summation SAR>1.6W/kg

Combination	SAR	SAR peak location (mm)			3D distance (mm)	Summed SAR (W/kg)	SPLSR Results	Simultaneous SAR
		X	Y	Z				
Max WWAN Ant 2	0.803	-60.4	-64.6	-207.0	49.6	1.696	0.04	Not required
Max WWAN Ant 0 + WLAN5/6GHz Ant 4+3	0.893	-12.0	-75.6	-207.0				

### <Case 18>

SAR summation (blue colored) for each band of antenna 1,2,3,4

Exposure Position	WWAN SAR	WLAN 5/6GHz Ant 4+3	GSM1900 Ant 2	WCDMA II Ant 2	WCDMA IV Ant 2	LTE Band 2 Ant 2	LTE Band 7 Ant 2	LTE Band 41 Ant 2	LTE Band 66 Ant 2	FR1 n2 Ant 2	FR1 n7 Ant 2	FR1 n41 Ant 2	FR1 n66 Ant 2	FR1 n77 Ant 2
Back	1g SAR (W/kg)	0.739	0.603	0.571	0.708	0.650	0.639	0.577	0.803	0.690	0.655	0.743	0.321	
GSM850_Ant 1	0.427	0.439	1.605	1.469	1.437	1.574	1.516	1.505	1.443	1.669	1.556	1.521	1.609	1.187
WCDMA V_Ant 1	0.355	0.439	1.533	1.397	1.365	1.502	1.444	1.433	1.371	1.597	1.484	1.449	1.537	1.115
LTE Band 12_Ant 1	0.447	0.439	1.625	1.489	1.457	1.594	1.536	1.525	1.463	1.689	1.576	1.541	1.629	1.207
LTE Band 26_Ant 1	0.385	0.439	1.563	1.427	1.395	1.532	1.474	1.463	1.401	1.627	1.514	1.479	1.567	1.145
FR1 n12_Ant 1	0.373	0.439	1.551	1.415	1.383	1.520	1.462	1.451	1.389	1.615	1.502	1.467	1.555	1.133
FR1 n26_Ant 1	0.406	0.439	1.584	1.448	1.416	1.553	1.495	1.484	1.422	1.648	1.535	1.500	1.588	1.166
FR1 n77_HPUE_Ant 1	0.450	0.439	1.628	1.492	1.460	1.597	1.539	1.528	1.466	1.692	1.579	1.544	1.632	1.210

Hybrid SPLSR calculation for above summation SAR>1.6W/kg

Combination	SAR	SAR peak location (mm)			3D distance (mm)	Summed SAR (W/kg)	SPLSR Results	Simultaneous SAR
		X	Y	Z				
Max WWAN Ant 2	0.803	-59.6	-57.3	-207.0	130.0	1.692	0.02	Not required
Max WWAN Ant 1 + WLAN5/6GHz Ant 4+3	0.889	-2.2	59.3	-207.0				



## FCC SAR TEST REPORT

Report No. :FA451607B

### <Case 19>

SAR summation (blue colored) for each band of antenna 2,5,3,4

Exposure Position	WWAN SAR	WLAN 5/6GHz Ant 4+3	GSM1900 Ant 2	WCDMA II Ant 2	WCDMA IV Ant 2	LTE Band 2 Ant 2	LTE Band 7 Ant 2	LTE Band 41 Ant 2	LTE Band 66 Ant 2	FR1 n2 Ant 2	FR1 n7 Ant 2	FR1 n41 Ant 2	FR1 n66 Ant 2	FR1 n77 Ant 2
Back	1g SAR (W/kg)		0.739	0.603	0.571	0.708	0.650	0.639	0.577	0.803	0.690	0.655	0.743	0.321
FR1 n77_HPUE_Ant 5	0.448	0.439	1.626	1.490	1.458	1.595	1.537	1.526	1.464	1.690	1.577	1.542	1.630	1.208

Hybrid SPLSR calculation for above summation SAR>1.6W/kg

Combination	SAR	SAR peak location (mm)			3D distance (mm)	Summed SAR (W/kg)	SPLSR Results	Simultaneous SAR
		X	Y	Z				
Max WWAN Ant 2	0.803	-59.6	-57.3	-207.0	123.4	1.690	0.02	Not required
Max WWAN Ant 5 + WLAN5/6GHz Ant 4+3	0.887	-40.0	64.5	-207.0				

### <Case 20>

SAR summation (blue colored) for each band of antenna 2,6,3,4

Exposure Position	WWAN SAR	WLAN 5/6GHz Ant 4+3	GSM1900 Ant 2	WCDMA II Ant 2	WCDMA IV Ant 2	LTE Band 2 Ant 2	LTE Band 7 Ant 2	LTE Band 41 Ant 2	LTE Band 66 Ant 2	FR1 n2 Ant 2	FR1 n7 Ant 2	FR1 n41 Ant 2	FR1 n66 Ant 2	FR1 n77 Ant 2
Back	1g SAR (W/kg)		0.739	0.603	0.571	0.708	0.650	0.639	0.577	0.803	0.690	0.655	0.743	0.321
FR1 n77_Ant 6	0.438	0.439	1.616	1.480	1.448	1.585	1.527	1.516	1.454	1.680	1.567	1.532	1.620	1.198

Hybrid SPLSR calculation for above summation SAR>1.6W/kg

Combination	SAR	SAR peak location (mm)			3D distance (mm)	Summed SAR (W/kg)	SPLSR Results	Simultaneous SAR
		X	Y	Z				
Max WWAN Ant 2	0.803	-59.6	-57.3	-207.0	73.2	1.680	0.03	Not required
Max WWAN Ant 6 + WLAN5/6GHz Ant 4+3	0.877	12.0	-42.0	-207.0				



# FCC SAR TEST REPORT

Report No.:FA451607B

**<Case 21>**

SAR summation (blue colored) for each band of antenna 0,2,3,4

Exposure Position	WWAN SAR	WLAN 2.4GHz Ant 3	WLAN 5/6GHz Ant 4	GSM1900 Ant 2	WCDMA II Ant 2	WCDMA IV Ant 2	LTE Band 2 Ant 2	LTE Band 7 Ant 2	LTE Band 41 Ant 2	LTE Band 66 Ant 2	FR1 n2 Ant 2	FR1 n7 Ant 2	FR1 n41 Ant 2	FR1 n66 Ant 2	FR1 n77 Ant 2	
Back	1g SAR (W/kg)				0.739	0.603	0.571	0.708	0.650	0.639	0.577	0.803	0.690	0.655	0.743	0.321
GSM850_Ant 0	0.446	0.201	0.427	1.813	1.677	1.645	1.782	1.724	1.713	1.651	1.877	1.764	1.729	1.817	1.395	
GSM1900_Ant 0	0.450	0.201	0.427	1.817	1.681	1.649	1.786	1.728	1.717	1.655	1.881	1.768	1.733	1.821	1.399	
WCDMA II_Ant 0	0.449	0.201	0.427	1.816	1.680	1.648	1.785	1.727	1.716	1.654	1.880	1.767	1.732	1.820	1.398	
WCDMA IV_Ant 0	0.454	0.201	0.427	1.821	1.685	1.653	1.790	1.732	1.721	1.659	1.885	1.772	1.737	1.825	1.403	
WCDMA V_Ant 0	0.454	0.201	0.427	1.821	1.685	1.653	1.790	1.732	1.721	1.659	1.885	1.772	1.737	1.825	1.403	
LTE Band 2_Ant 0	0.380	0.201	0.427	1.747	1.611	1.579	1.716	1.658	1.647	1.585	1.811	1.698	1.663	1.751	1.329	
LTE Band 7_Ant 0	0.386	0.201	0.427	1.753	1.617	1.585	1.722	1.664	1.653	1.591	1.817	1.704	1.669	1.757	1.335	
LTE Band 12_Ant 0	0.367	0.201	0.427	1.734	1.598	1.566	1.703	1.645	1.634	1.572	1.798	1.685	1.650	1.738	1.316	
LTE Band 26_Ant 0	0.421	0.201	0.427	1.788	1.652	1.620	1.757	1.699	1.688	1.626	1.852	1.739	1.704	1.792	1.370	
LTE Band 41_Ant 0	0.453	0.201	0.427	1.820	1.684	1.652	1.789	1.731	1.720	1.658	1.884	1.771	1.736	1.824	1.402	
LTE Band 66_Ant 0	0.452	0.201	0.427	1.819	1.683	1.651	1.788	1.730	1.719	1.657	1.883	1.770	1.735	1.823	1.401	
FR1 n2_Ant 0	0.393	0.201	0.427	1.760	1.624	1.592	1.729	1.671	1.660	1.598	1.824	1.711	1.676	1.764	1.342	
FR1 n7_Ant 0	0.418	0.201	0.427	1.785	1.649	1.617	1.754	1.696	1.685	1.623	1.849	1.736	1.701	1.789	1.367	
FR1 n12_Ant 0	0.339	0.201	0.427	1.706	1.570	1.538	1.675	1.617	1.606	1.544	1.770	1.657	1.622	1.710	1.288	
FR1 n26_Ant 0	0.436	0.201	0.427	1.803	1.667	1.635	1.772	1.714	1.703	1.641	1.867	1.754	1.719	1.807	1.385	
FR1 n41_Ant 0	0.445	0.201	0.427	1.812	1.676	1.644	1.781	1.723	1.712	1.650	1.876	1.763	1.728	1.816	1.394	
FR1 n66_Ant 0	0.452	0.201	0.427	1.819	1.683	1.651	1.788	1.730	1.719	1.657	1.883	1.770	1.735	1.823	1.401	

SPLSR calculation for above summation SAR>1.6W/kg

Combination	SAR	SAR peak location (mm)			3D distance (mm)	Summed SAR (W/kg)	SPLSR Results	Simultaneous SAR
		X	Y	Z				
Max WWAN Ant 0	0.454	-12.0	-75.6	-207.0	38.7	1.257	0.04	Not required
Max WWAN Ant 2	0.803	-49.4	-65.6	-207.0				
Max WWAN Ant 0	0.454	-3.5	-59.5	-207.0	104.9	0.655	0.01	Not required
WLAN2.4GHz Ant 3	0.201	10.0	44.5	-207.0				
Max WWAN Ant 0	0.454	-3.5	-59.5	-207.0	79.2	0.881	0.01	Not required
WLAN5/6GHz Ant 4	0.427	-24.3	16.9	-207.0				
Max WWAN Ant 2	0.803	-59.6	-57.3	-207.0	123.3	1.004	0.01	Not required
WLAN2.4GHz Ant 3	0.201	10.0	44.5	-207.0				
Max WWAN Ant 2	0.803	-59.6	-57.3	-207.0	82.2	1.230	0.02	Not required
WLAN5/6GHz Ant 4	0.427	-24.3	16.9	-207.0				
WLAN2.4GHz Ant 3	0.201	10.0	44.5	-207.0	44.0	0.628	0.01	Not required
WLAN5/6GHz Ant 4	0.427	-24.3	16.9	-207.0				



## FCC SAR TEST REPORT

Report No. :FA451607B

### <Case 22>

SAR summation (blue colored) for each band of antenna 0,2,4

Exposure Position	WWAN SAR	WLAN 5/6GHz Ant 4	Bluetooth Ant 4	GSM1900 Ant 2	WCDMA II Ant 2	WCDMA IV Ant 2	LTE Band 2 Ant 2	LTE Band 7 Ant 2	LTE Band 41 Ant 2	LTE Band 66 Ant 2	FR1 n2 Ant 2	FR1 n7 Ant 2	FR1 n41 Ant 2	FR1 n66 Ant 2	FR1 n77 Ant 2
Back	1g SAR (W/kg)			0.739	0.603	0.571	0.708	0.650	0.639	0.577	0.803	0.690	0.655	0.743	0.321
GSM850_Ant 0	0.446	0.427	0.064	1.676	1.540	1.508	1.645	1.587	1.576	1.514	1.740	1.627	1.592	1.680	1.258
GSM1900_Ant 0	0.450	0.427	0.064	1.680	1.544	1.512	1.649	1.591	1.580	1.518	1.744	1.631	1.596	1.684	1.262
WCDMA II_Ant 0	0.449	0.427	0.064	1.679	1.543	1.511	1.648	1.590	1.579	1.517	1.743	1.630	1.595	1.683	1.261
WCDMA IV_Ant 0	0.454	0.427	0.064	1.684	1.548	1.516	1.653	1.595	1.584	1.522	1.748	1.635	1.600	1.688	1.266
WCDMA V_Ant 0	0.454	0.427	0.064	1.684	1.548	1.516	1.653	1.595	1.584	1.522	1.748	1.635	1.600	1.688	1.266
LTE Band 2_Ant 0	0.380	0.427	0.064	1.610	1.474	1.442	1.579	1.521	1.510	1.448	1.674	1.561	1.526	1.614	1.192
LTE Band 7_Ant 0	0.386	0.427	0.064	1.616	1.480	1.448	1.585	1.527	1.516	1.454	1.680	1.567	1.532	1.620	1.198
LTE Band 12_Ant 0	0.367	0.427	0.064	1.597	1.461	1.429	1.566	1.508	1.497	1.435	1.661	1.548	1.513	1.601	1.179
LTE Band 26_Ant 0	0.421	0.427	0.064	1.651	1.515	1.483	1.620	1.562	1.551	1.489	1.715	1.602	1.567	1.655	1.233
LTE Band 41_Ant 0	0.453	0.427	0.064	1.683	1.547	1.515	1.652	1.594	1.583	1.521	1.747	1.634	1.599	1.687	1.265
LTE Band 66_Ant 0	0.452	0.427	0.064	1.682	1.546	1.514	1.651	1.593	1.582	1.520	1.746	1.633	1.598	1.686	1.264
FR1 n2_Ant 0	0.393	0.427	0.064	1.623	1.487	1.455	1.592	1.534	1.523	1.461	1.687	1.574	1.539	1.627	1.205
FR1 n7_Ant 0	0.418	0.427	0.064	1.648	1.512	1.480	1.617	1.559	1.548	1.486	1.712	1.599	1.564	1.652	1.230
FR1 n12_Ant 0	0.339	0.427	0.064	1.569	1.433	1.401	1.538	1.480	1.469	1.407	1.633	1.520	1.485	1.573	1.151
FR1 n26_Ant 0	0.436	0.427	0.064	1.666	1.530	1.498	1.635	1.577	1.566	1.504	1.730	1.617	1.582	1.670	1.248
FR1 n41_Ant 0	0.445	0.427	0.064	1.675	1.539	1.507	1.644	1.586	1.575	1.513	1.739	1.626	1.591	1.679	1.257
FR1 n66_Ant 0	0.452	0.427	0.064	1.682	1.546	1.514	1.651	1.593	1.582	1.520	1.746	1.633	1.598	1.686	1.264

SPLSR calculation for above summation SAR>1.6W/kg

Combination	SAR	SAR peak location (mm)			3D distance (mm)	Summed SAR (W/kg)	SPLSR Results	Simultaneous SAR
		X	Y	Z				
Max WWAN Ant 0	0.454	-12.0	-75.6	-207.0	38.7	1.257	0.04	Not required
Max WWAN Ant 2	0.803	-49.4	-65.6	-207.0				
Max WWAN Ant 0	0.454	-12.0	-75.6	-207.0	93.3	0.881	0.01	Not required
WLAN5/6GHz Ant 4	0.427	-24.3	16.9	-207.0				
Max WWAN Ant 0	0.454	-12.0	-75.6	-207.0	157.6	0.518	0.00	Not required
Bluetooth Ant 4	0.064	-58.5	75.0	-207.0				
Max WWAN Ant 2	0.803	-59.9	-62.6	-207.0	87.1	1.230	0.02	Not required
WLAN5/6GHz Ant 4	0.427	-24.3	16.9	-207.0				
Max WWAN Ant 2	0.803	-59.9	-62.6	-207.0	137.6	0.867	0.01	Not required
Bluetooth Ant 4	0.064	-58.5	75.0	-207.0				
WLAN5/6GHz Ant 4	0.427	-24.3	16.9	-207.0	67.4	0.491	0.01	Not required
Bluetooth Ant 4	0.064	-58.5	75.0	-207.0				



# FCC SAR TEST REPORT

Report No. :FA451607B

**<Case 23>**

SAR summation (blue colored) for each band of antenna 0,2,3,4

Exposure Position	WWAN SAR	WLAN 5/6GHz Ant 4	Bluetooth Ant 3	GSM1900 Ant 2	WCDMA II Ant 2	WCDMA IV Ant 2	LTE Band 2 Ant 2	LTE Band 7 Ant 2	LTE Band 41 Ant 2	LTE Band 66 Ant 2	FR1 n2 Ant 2	FR1 n7 Ant 2	FR1 n41 Ant 2	FR1 n66 Ant 2	FR1 n77 Ant 2
Back		1g SAR (W/kg)		0.739	0.603	0.571	0.708	0.650	0.639	0.577	0.803	0.690	0.655	0.743	0.321
GSM850_Ant 0	0.446	0.427	0.165	1.777	1.641	1.609	1.746	1.688	1.677	1.615	1.841	1.728	1.693	1.781	1.359
GSM1900_Ant 0	0.450	0.427	0.165	1.781	1.645	1.613	1.750	1.692	1.681	1.619	1.845	1.732	1.697	1.785	1.363
WCDMA II_Ant 0	0.449	0.427	0.165	1.780	1.644	1.612	1.749	1.691	1.680	1.618	1.844	1.731	1.696	1.784	1.362
WCDMA IV_Ant 0	0.454	0.427	0.165	1.785	1.649	1.617	1.754	1.696	1.685	1.623	1.849	1.736	1.701	1.789	1.367
WCDMA V_Ant 0	0.454	0.427	0.165	1.785	1.649	1.617	1.754	1.696	1.685	1.623	1.849	1.736	1.701	1.789	1.367
LTE Band 2_Ant 0	0.380	0.427	0.165	1.711	1.575	1.543	1.680	1.622	1.611	1.549	1.775	1.662	1.627	1.715	1.293
LTE Band 7_Ant 0	0.386	0.427	0.165	1.717	1.581	1.549	1.686	1.628	1.617	1.555	1.781	1.668	1.633	1.721	1.299
LTE Band 12_Ant 0	0.367	0.427	0.165	1.698	1.562	1.530	1.667	1.609	1.598	1.536	1.762	1.649	1.614	1.702	1.280
LTE Band 26_Ant 0	0.421	0.427	0.165	1.752	1.616	1.584	1.721	1.663	1.652	1.590	1.816	1.703	1.668	1.756	1.334
LTE Band 41_Ant 0	0.453	0.427	0.165	1.784	1.648	1.616	1.753	1.695	1.684	1.622	1.848	1.735	1.700	1.788	1.366
LTE Band 66_Ant 0	0.452	0.427	0.165	1.783	1.647	1.615	1.752	1.694	1.683	1.621	1.847	1.734	1.699	1.787	1.365
FR1 n2_Ant 0	0.393	0.427	0.165	1.724	1.588	1.556	1.693	1.635	1.624	1.562	1.788	1.675	1.640	1.728	1.306
FR1 n7_Ant 0	0.418	0.427	0.165	1.749	1.613	1.581	1.718	1.660	1.649	1.587	1.813	1.700	1.665	1.753	1.331
FR1 n12_Ant 0	0.339	0.427	0.165	1.670	1.534	1.502	1.639	1.581	1.570	1.508	1.734	1.621	1.586	1.674	1.252
FR1 n26_Ant 0	0.436	0.427	0.165	1.767	1.631	1.599	1.736	1.678	1.667	1.605	1.831	1.718	1.683	1.771	1.349
FR1 n41_Ant 0	0.445	0.427	0.165	1.776	1.640	1.608	1.745	1.687	1.676	1.614	1.840	1.727	1.692	1.780	1.358
FR1 n66_Ant 0	0.452	0.427	0.165	1.783	1.647	1.615	1.752	1.694	1.683	1.621	1.847	1.734	1.699	1.787	1.365

SPLSR calculation for above summation SAR>1.6W/kg

Combination	SAR	SAR peak location (mm)			3D distance (mm)	Summed SAR (W/kg)	SPLSR Results	Simultaneous SAR
		X	Y	Z				
Max WWAN Ant 0	0.454	-12.0	-75.6	-207.0	38.7	1.257	0.04	Not required
Max WWAN Ant 2	0.803	-49.4	-65.6	-207.0				
Max WWAN Ant 0	0.454	-12.0	-75.6	-207.0	93.3	0.881	0.01	Not required
WLAN5/6GHz Ant 4	0.427	-24.3	16.9	-207.0				
Max WWAN Ant 0	0.454	-5.0	-75.2	-207.0	118.8	0.619	0.00	Not required
Bluetooth Ant 3	0.165	11.0	42.5	-207.0				
Max WWAN Ant 2	0.803	-59.6	-57.3	-207.0	82.2	1.230	0.02	Not required
WLAN5/6GHz Ant 4	0.427	-24.3	16.9	-207.0				
Max WWAN Ant 2	0.803	-59.6	-57.3	-207.0	122.2	0.968	0.01	Not required
Bluetooth Ant 3	0.165	11.0	42.5	-207.0				
WLAN5/6GHz Ant 4	0.427	-24.3	16.9	-207.0	43.6	0.592	0.01	Not required
Bluetooth Ant 3	0.165	11.0	42.5	-207.0				



## FCC SAR TEST REPORT

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### <Case 24>

SAR summation (blue colored) for each band of antenna 1,2,3,4

Exposure Position	WWAN SAR	WLAN 2.4GHz Ant 3	WLAN 5/6GHz Ant 4	GSM1900	WCDMA II	WCDMA IV	LTE Band 2	LTE Band 7	LTE Band 41	LTE Band 66	FR1 n2	FR1 n7	FR1 n41	FR1 n66	FR1 n77
Back	1g SAR (W/kg)			0.739	0.603	0.571	0.708	0.650	0.639	0.577	0.803	0.690	0.655	0.743	0.321
GSM850_Ant 1	0.427	0.201	0.427	1.794	1.658	1.626	1.763	1.705	1.694	1.632	1.858	1.745	1.710	1.798	1.376
WCDMA V_Ant 1	0.355	0.201	0.427	1.722	1.586	1.554	1.691	1.633	1.622	1.560	1.786	1.673	1.638	1.726	1.304
LTE Band 12_Ant 1	0.447	0.201	0.427	1.814	1.678	1.646	1.783	1.725	1.714	1.652	1.878	1.765	1.730	1.818	1.396
LTE Band 26_Ant 1	0.385	0.201	0.427	1.752	1.616	1.584	1.721	1.663	1.652	1.590	1.816	1.703	1.668	1.756	1.334
FR1 n12_Ant 1	0.373	0.201	0.427	1.740	1.604	1.572	1.709	1.651	1.640	1.578	1.804	1.691	1.656	1.744	1.322
FR1 n26_Ant 1	0.406	0.201	0.427	1.773	1.637	1.605	1.742	1.684	1.673	1.611	1.837	1.724	1.689	1.777	1.355
FR1 n77_HPUE_Ant 1	0.450	0.201	0.427	1.817	1.681	1.649	1.786	1.728	1.717	1.655	1.881	1.768	1.733	1.821	1.399

Hybrid SPLSR calculation for above summation SAR>1.6W/kg

Combination	SAR	SAR peak location (mm)			3D distance (mm)	Summed SAR (W/kg)	SPLSR Results	Simultaneous SAR
		X	Y	Z				
Max WWAN Ant 2	0.803	-55.4	-56.1	-207.0	79.3	1.881	0.03	Not required
Max WWAN Ant 1 + WLAN2.4GHz Ant 3 + WLAN5/6GHz Ant 4	1.078	-24.3	16.9	-207.0				

### <Case 25>

SAR summation (blue colored) for each band of antenna 1,2,3,4

Exposure Position	WWAN SAR	WLAN 5/6GHz Ant 4	Bluetooth Ant 4	GSM1900	WCDMA II	WCDMA IV	LTE Band 2	LTE Band 7	LTE Band 41	LTE Band 66	FR1 n2	FR1 n7	FR1 n41	FR1 n66	FR1 n77
Back	1g SAR (W/kg)			0.739	0.603	0.571	0.708	0.650	0.639	0.577	0.803	0.690	0.655	0.743	0.321
GSM850_Ant 1	0.427	0.427	0.064	1.657	1.521	1.489	1.626	1.568	1.557	1.495	1.721	1.608	1.573	1.661	1.239
WCDMA V_Ant 1	0.355	0.427	0.064	1.585	1.449	1.417	1.554	1.496	1.485	1.423	1.649	1.536	1.501	1.589	1.167
LTE Band 12_Ant 1	0.447	0.427	0.064	1.677	1.541	1.509	1.646	1.588	1.577	1.515	1.741	1.628	1.593	1.681	1.259
LTE Band 26_Ant 1	0.385	0.427	0.064	1.615	1.479	1.447	1.584	1.526	1.515	1.453	1.679	1.566	1.531	1.619	1.197
FR1 n12_Ant 1	0.373	0.427	0.064	1.603	1.467	1.435	1.572	1.514	1.503	1.441	1.667	1.554	1.519	1.607	1.185
FR1 n26_Ant 1	0.406	0.427	0.064	1.636	1.500	1.468	1.605	1.547	1.536	1.474	1.700	1.587	1.552	1.640	1.218
FR1 n77_HPUE_Ant 1	0.450	0.427	0.064	1.680	1.544	1.512	1.649	1.591	1.580	1.518	1.744	1.631	1.596	1.684	1.262

Hybrid SPLSR calculation for above summation SAR>1.6W/kg

Combination	SAR	SAR peak location (mm)			3D distance (mm)	Summed SAR (W/kg)	SPLSR Results	Simultaneous SAR
		X	Y	Z				
Max WWAN Ant 2	0.803	-59.6	-57.3	-207.0	82.2	1.744	0.03	Not required
Max WWAN Ant 1 + WLAN5/6GHz Ant 4 + Bluetooth Ant 4	0.941	-24.3	16.9	-207.0				

### <Case 26>

SAR summation (blue colored) for each band of antenna 1,2,3,4

Exposure Position	WWAN SAR	WLAN 5/6GHz Ant 4	Bluetooth Ant 3	GSM1900	WCDMA II	WCDMA IV	LTE Band 2	LTE Band 7	LTE Band 41	LTE Band 66	FR1 n2	FR1 n7	FR1 n41	FR1 n66	FR1 n77
Back	1g SAR (W/kg)			0.739	0.603	0.571	0.708	0.650	0.639	0.577	0.803	0.690	0.655	0.743	0.321
GSM850_Ant 1	0.427	0.427	0.165	1.758	1.622	1.590	1.727	1.669	1.658	1.596	1.822	1.709	1.674	1.762	1.340
WCDMA V_Ant 1	0.355	0.427	0.165	1.686	1.550	1.518	1.655	1.597	1.586	1.524	1.750	1.637	1.602	1.690	1.268
LTE Band 12_Ant 1	0.447	0.427	0.165	1.778	1.642	1.610	1.747	1.689	1.678	1.616	1.842	1.729	1.694	1.782	1.360
LTE Band 26_Ant 1	0.385	0.427	0.165	1.716	1.580	1.548	1.685	1.627	1.616	1.554	1.780	1.667	1.632	1.720	1.298
FR1 n12_Ant 1	0.373	0.427	0.165	1.704	1.568	1.536	1.673	1.615	1.604	1.542	1.768	1.655	1.620	1.708	1.286
FR1 n26_Ant 1	0.406	0.427	0.165	1.737	1.601	1.569	1.706	1.648	1.637	1.575	1.801	1.688	1.653	1.741	1.319
FR1 n77_HPUE_Ant 1	0.450	0.427	0.165	1.781	1.645	1.613	1.750	1.692	1.681	1.619	1.845	1.732	1.697	1.785	1.363

Hybrid SPLSR calculation for above summation SAR>1.6W/kg

Combination	SAR	SAR peak location (mm)			3D distance (mm)	Summed SAR (W/kg)	SPLSR Results	Simultaneous SAR
		X	Y	Z				
Max WWAN Ant 2	0.803	-55.4	-56.1	-207.0	79.3	1.845	0.03	Not required
Max WWAN Ant 1 + WLAN5/6GHz Ant 4 + Bluetooth Ant 3	1.042	-24.3	16.9	-207.0				



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### <Case 27>

SAR summation (blue colored) for each band of antenna 2,5,3,4

Exposure Position	WWAN SAR	WLAN 2.4GHz Ant 3	WLAN 5/6GHz Ant 4	GSM1900 Ant 2	WCDMA II Ant 2	WCDMA IV Ant 2	LTE Band 2 Ant 2	LTE Band 7 Ant 2	LTE Band 41 Ant 2	LTE Band 66 Ant 2	FR1 n2 Ant 2	FR1 n7 Ant 2	FR1 n41 Ant 2	FR1 n66 Ant 2	FR1 n77 Ant 2
Back	1g SAR (W/kg)			0.739	0.603	0.571	0.708	0.650	0.639	0.577	0.803	0.690	0.655	0.743	0.321
FR1 n77_HPUE_Ant 5	0.448	0.201	0.427	1.815	1.679	1.647	1.784	1.726	1.715	1.653	1.879	1.766	1.731	1.819	1.397

Hybrid SPLSR calculation for above summation SAR>1.6W/kg

Combination	SAR	SAR peak location (mm)			3D distance (mm)	Summed SAR (W/kg)	SPLSR Results	Simultaneous SAR
		X	Y	Z				
Max WWAN Ant 2	0.803	-55.4	-56.1	-207.0	79.3	1.879	0.03	Not required
Max WWAN Ant 5 + WLAN2.4GHz Ant 3 + WLAN5/6GHz Ant 4	1.076	-24.3	16.9	-207.0				

### <Case 28>

SAR summation (blue colored) for each band of antenna 2,5,4

Exposure Position	WWAN SAR	WLAN 5/6GHz Ant 4	Bluetooth Ant 4	GSM1900 Ant 2	WCDMA II Ant 2	WCDMA IV Ant 2	LTE Band 2 Ant 2	LTE Band 7 Ant 2	LTE Band 41 Ant 2	LTE Band 66 Ant 2	FR1 n2 Ant 2	FR1 n7 Ant 2	FR1 n41 Ant 2	FR1 n66 Ant 2	FR1 n77 Ant 2
Back	1g SAR (W/kg)			0.739	0.603	0.571	0.708	0.650	0.639	0.577	0.803	0.690	0.655	0.743	0.321
FR1 n77_HPUE_Ant 5	0.448	0.427	0.064	1.678	1.542	1.510	1.647	1.589	1.578	1.516	1.742	1.629	1.594	1.682	1.260

Hybrid SPLSR calculation for above summation SAR>1.6W/kg

Combination	SAR	SAR peak location (mm)			3D distance (mm)	Summed SAR (W/kg)	SPLSR Results	Simultaneous SAR
		X	Y	Z				
Max WWAN Ant 2	0.803	-59.6	-57.3	-207.0	82.2	1.742	0.03	Not required
Max WWAN Ant 5 + WLAN5/6GHz Ant 4 + Bluetooth Ant 4	0.939	-24.3	16.9	-207.0				

### <Case 29>

SAR summation (blue colored) for each band of antenna 2,5,3,4

Exposure Position	WWAN SAR	WLAN 5/6GHz Ant 4	Bluetooth Ant 3	GSM1900 Ant 2	WCDMA II Ant 2	WCDMA IV Ant 2	LTE Band 2 Ant 2	LTE Band 7 Ant 2	LTE Band 41 Ant 2	LTE Band 66 Ant 2	FR1 n2 Ant 2	FR1 n7 Ant 2	FR1 n41 Ant 2	FR1 n66 Ant 2	FR1 n77 Ant 2
Back	1g SAR (W/kg)			0.739	0.603	0.571	0.708	0.650	0.639	0.577	0.803	0.690	0.655	0.743	0.321
FR1 n77_HPUE_Ant 5	0.448	0.427	0.165	1.779	1.643	1.611	1.748	1.690	1.679	1.617	1.843	1.730	1.695	1.783	1.361

Hybrid SPLSR calculation for above summation SAR>1.6W/kg

Combination	SAR	SAR peak location (mm)			3D distance (mm)	Summed SAR (W/kg)	SPLSR Results	Simultaneous SAR
		X	Y	Z				
Max WWAN Ant 2	0.803	-55.4	-56.1	-207.0	79.3	1.843	0.03	Not required
Max WWAN Ant 5 + WLAN5/6GHz Ant 4 + Bluetooth Ant 3	1.040	-24.3	16.9	-207.0				



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### <Case 30>

SAR summation (blue colored) for each band of antenna 2,6,3,4

Exposure Position	WWAN SAR	WLAN 2.4GHz Ant 3	WLAN 5/6GHz Ant 4	GSM1900 Ant 2	WCDMA II Ant 2	WCDMA IV Ant 2	LTE Band 2 Ant 2	LTE Band 7 Ant 2	LTE Band 41 Ant 2	LTE Band 66 Ant 2	FR1 n2 Ant 2	FR1 n7 Ant 2	FR1 n41 Ant 2	FR1 n66 Ant 2	FR1 n77 Ant 2
Back	1g SAR (W/kg)			0.739	0.603	0.571	0.708	0.650	0.639	0.577	0.803	0.690	0.655	0.743	0.321
FR1 n77_Ant 6	0.438	0.201	0.427	1.805	1.669	1.637	1.774	1.716	1.705	1.643	1.869	1.756	1.721	1.809	1.387

Hybrid SPLSR calculation for above summation SAR>1.6W/kg

Combination	SAR	SAR peak location (mm)			3D distance (mm)	Summed SAR (W/kg)	SPLSR Results	Simultaneous SAR
		X	Y	Z				
Max WWAN Ant 2	0.803	-49.4	-65.6	-207.0	65.8	1.869	0.04	Not required
Max WWAN Ant 6 + WLAN2.4GHz Ant 3 + WLAN5/6GHz Ant 4	1.066	12.0	-42.0	-207.0				

### <Case 31>

SAR summation (blue colored) for each band of antenna 2,6,4

Exposure Position	WWAN SAR	WLAN 5/6GHz Ant 4	Bluetooth Ant 4	GSM1900 Ant 2	WCDMA II Ant 2	WCDMA IV Ant 2	LTE Band 2 Ant 2	LTE Band 7 Ant 2	LTE Band 41 Ant 2	LTE Band 66 Ant 2	FR1 n2 Ant 2	FR1 n7 Ant 2	FR1 n41 Ant 2	FR1 n66 Ant 2	FR1 n77 Ant 2
Back	1g SAR (W/kg)			0.739	0.603	0.571	0.708	0.650	0.639	0.577	0.803	0.690	0.655	0.743	0.321
FR1 n77_Ant 6	0.438	0.427	0.064	1.668	1.532	1.500	1.637	1.579	1.568	1.506	1.732	1.619	1.584	1.672	1.250

Hybrid SPLSR calculation for above summation SAR>1.6W/kg

Combination	SAR	SAR peak location (mm)			3D distance (mm)	Summed SAR (W/kg)	SPLSR Results	Simultaneous SAR
		X	Y	Z				
Max WWAN Ant 2	0.803	-59.6	-57.3	-207.0	73.2	1.732	0.03	Not required
Max WWAN Ant 6 + WLAN5/6GHz Ant 4 + Bluetooth Ant 4	0.929	12.0	-42.0	-207.0				

### <Case 32>

SAR summation (blue colored) for each band of antenna 2,6,3,4

Exposure Position	WWAN SAR	WLAN 5/6GHz Ant 4	Bluetooth Ant 3	GSM1900 Ant 2	WCDMA II Ant 2	WCDMA IV Ant 2	LTE Band 2 Ant 2	LTE Band 7 Ant 2	LTE Band 41 Ant 2	LTE Band 66 Ant 2	FR1 n2 Ant 2	FR1 n7 Ant 2	FR1 n41 Ant 2	FR1 n66 Ant 2	FR1 n77 Ant 2
Back	1g SAR (W/kg)			0.739	0.603	0.571	0.708	0.650	0.639	0.577	0.803	0.690	0.655	0.743	0.321
FR1 n77_Ant 6	0.438	0.427	0.165	1.769	1.633	1.601	1.738	1.680	1.669	1.607	1.833	1.720	1.685	1.773	1.351

Hybrid SPLSR calculation for above summation SAR>1.6W/kg

Combination	SAR	SAR peak location (mm)			3D distance (mm)	Summed SAR (W/kg)	SPLSR Results	Simultaneous SAR
		X	Y	Z				
Max WWAN Ant 2	0.803	-49.4	-65.6	-207.0	65.8	1.833	0.04	Not required
Max WWAN Ant 6 + WLAN5/6GHz Ant 4 + Bluetooth Ant 3	1.030	12.0	-42.0	-207.0				



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### <Case 33>

SAR summation (blue colored) for each band of antenna 0,2,3,4

Exposure Position	WWAN SAR	WLAN 5/6GHz Ant 4+3	Bluetooth Ant 3	GSM1900 Ant 2	WCDMA II Ant 2	WCDMA IV Ant 2	LTE Band 2 Ant 2	LTE Band 7 Ant 2	LTE Band 41 Ant 2	LTE Band 66 Ant 2	FR1 n2 Ant 2	FR1 n7 Ant 2	FR1 n41 Ant 2	FR1 n66 Ant 2	FR1 n77 Ant 2
Back	1g SAR (W/kg)			0.739	0.603	0.571	0.708	0.650	0.639	0.577	0.803	0.690	0.655	0.743	0.321
GSM850_Ant 0	0.446	0.259	0.165	1.609	1.473	1.441	1.578	1.520	1.509	1.447	1.673	1.560	1.525	1.613	1.191
GSM1900_Ant 0	0.450	0.259	0.165	1.613	1.477	1.445	1.582	1.524	1.513	1.451	1.677	1.564	1.529	1.617	1.195
WCDMA II_Ant 0	0.449	0.259	0.165	1.612	1.476	1.444	1.581	1.523	1.512	1.450	1.676	1.563	1.528	1.616	1.194
WCDMA IV_Ant 0	0.454	0.259	0.165	1.617	1.481	1.449	1.586	1.528	1.517	1.455	1.681	1.568	1.533	1.621	1.199
WCDMA V_Ant 0	0.454	0.259	0.165	1.617	1.481	1.449	1.586	1.528	1.517	1.455	1.681	1.568	1.533	1.621	1.199
LTE Band 2_Ant 0	0.380	0.259	0.165	1.543	1.407	1.375	1.512	1.454	1.443	1.381	1.607	1.494	1.459	1.547	1.125
LTE Band 7_Ant 0	0.386	0.259	0.165	1.549	1.413	1.381	1.518	1.460	1.449	1.387	1.613	1.500	1.465	1.553	1.131
LTE Band 12_Ant 0	0.367	0.259	0.165	1.530	1.394	1.362	1.499	1.441	1.430	1.368	1.594	1.481	1.446	1.534	1.112
LTE Band 26_Ant 0	0.421	0.259	0.165	1.584	1.448	1.416	1.553	1.495	1.484	1.422	1.648	1.535	1.500	1.588	1.166
LTE Band 41_Ant 0	0.453	0.259	0.165	1.616	1.480	1.448	1.585	1.527	1.516	1.454	1.680	1.567	1.532	1.620	1.198
LTE Band 66_Ant 0	0.452	0.259	0.165	1.615	1.479	1.447	1.584	1.526	1.515	1.453	1.679	1.566	1.531	1.619	1.197
FR1 n2_Ant 0	0.393	0.259	0.165	1.556	1.420	1.388	1.525	1.467	1.456	1.394	1.620	1.507	1.472	1.560	1.138
FR1 n7_Ant 0	0.418	0.259	0.165	1.581	1.445	1.413	1.550	1.492	1.481	1.419	1.645	1.532	1.497	1.585	1.163
FR1 n12_Ant 0	0.339	0.259	0.165	1.502	1.366	1.334	1.471	1.413	1.402	1.340	1.566	1.453	1.418	1.506	1.084
FR1 n26_Ant 0	0.436	0.259	0.165	1.599	1.463	1.431	1.568	1.510	1.499	1.437	1.663	1.550	1.515	1.603	1.181
FR1 n41_Ant 0	0.445	0.259	0.165	1.608	1.472	1.440	1.577	1.519	1.508	1.446	1.672	1.559	1.524	1.612	1.190
FR1 n66_Ant 0	0.452	0.259	0.165	1.615	1.479	1.447	1.584	1.526	1.515	1.453	1.679	1.566	1.531	1.619	1.197

Hybrid SPLSR calculation for above summation SAR>1.6W/kg

Combination	SAR	SAR peak location (mm)			3D distance (mm)	Summed SAR (W/kg)	SPLSR Results	Simultaneous SAR
		X	Y	Z				
Max WWAN Ant 2	0.803	-59.9	-62.6	-207.0	49.6	1.681	0.04	Not required
Max WWAN Ant 0 + WLAN5/6GHz Ant 4+3 + Bluetooth Ant 3	0.878	-12.0	-75.6	-207.0				

### <Case 34>

SAR summation (blue colored) for each band of antenna 1,2,3,4

Exposure Position	WWAN SAR	WLAN 5/6GHz Ant 4+3	Bluetooth Ant 3	GSM1900 Ant 2	WCDMA II Ant 2	WCDMA IV Ant 2	LTE Band 2 Ant 2	LTE Band 7 Ant 2	LTE Band 41 Ant 2	LTE Band 66 Ant 2	FR1 n2 Ant 2	FR1 n7 Ant 2	FR1 n41 Ant 2	FR1 n66 Ant 2	FR1 n77 Ant 2
Back	1g SAR (W/kg)			0.739	0.603	0.571	0.708	0.650	0.639	0.577	0.803	0.690	0.655	0.743	0.321
GSM850_Ant 1	0.427	0.259	0.165	1.590	1.454	1.422	1.559	1.501	1.490	1.428	1.654	1.541	1.506	1.594	1.172
WCDMA V_Ant 1	0.355	0.259	0.165	1.518	1.382	1.350	1.487	1.429	1.418	1.356	1.582	1.469	1.434	1.522	1.100
LTE Band 12_Ant 1	0.447	0.259	0.165	1.610	1.474	1.442	1.579	1.521	1.510	1.448	1.674	1.561	1.526	1.614	1.192
LTE Band 26_Ant 1	0.385	0.259	0.165	1.548	1.412	1.380	1.517	1.459	1.448	1.386	1.612	1.499	1.464	1.552	1.130
FR1 n12_Ant 1	0.373	0.259	0.165	1.536	1.400	1.368	1.505	1.447	1.436	1.374	1.600	1.487	1.452	1.540	1.118
FR1 n26_Ant 1	0.406	0.259	0.165	1.569	1.433	1.401	1.538	1.480	1.469	1.407	1.633	1.520	1.485	1.573	1.151
FR1 n77_HPUE_Ant 1	0.450	0.259	0.165	1.613	1.477	1.445	1.582	1.524	1.513	1.451	1.677	1.564	1.529	1.617	1.195

Hybrid SPLSR calculation for above summation SAR>1.6W/kg

Combination	SAR	SAR peak location (mm)			3D distance (mm)	Summed SAR (W/kg)	SPLSR Results	Simultaneous SAR
		X	Y	Z				
Max WWAN Ant 2	0.803	-59.6	-57.3	-207.0	122.2	1.677	0.02	Not required
Max WWAN Ant 1 + WLAN5/6GHz Ant 4+3 + Bluetooth Ant 3	0.874	11.0	42.5	-207.0				



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**<Case 35>**

SAR summation (blue colored) for each band of antenna 2,5,3,4

Exposure Position	WWAN SAR	WLAN5/6GHz Ant 4+3	Bluetooth Ant 3	GSM1900 Ant 2	WCDMA II Ant 2	WCDMA IV Ant 2	LTE Band 2 Ant 2	LTE Band 7 Ant 2	LTE Band 41 Ant 2	LTE Band 66 Ant 2	FR1 n2 Ant 2	FR1 n7 Ant 2	FR1 n41 Ant 2	FR1 n66 Ant 2	FR1 n77 Ant 2
Back		1g SAR (W/kg)		0.739	0.603	0.571	0.708	0.650	0.639	0.577	0.803	0.690	0.655	0.743	0.321
FR1 n77_HPUE_Ant 5	0.448	0.259	0.165	1.611	1.475	1.443	1.580	1.522	1.511	1.449	1.675	1.562	1.527	1.615	1.193

Hybrid SPLSR calculation for above summation SAR>1.6W/kg

Combination	SAR	SAR peak location (mm)			3D distance (mm)	Summed SAR (W/kg)	SPLSR Results	Simultaneous SAR
		X	Y	Z				
Max WWAN Ant 2	0.803	-59.6	-57.3	-207.0				
Max WWAN Ant 5 + WLAN5/6GHz Ant 4+3 + Bluetooth Ant 3	0.872	11.0	42.5	-207.0	122.2	1.675	0.02	Not required

**<Case 36>**

SAR summation (blue colored) for each band of antenna 2,6,3,4

Exposure Position	WWAN SAR	WLAN5/6GHz Ant 4+3	Bluetooth Ant 3	GSM1900 Ant 2	WCDMA II Ant 2	WCDMA IV Ant 2	LTE Band 2 Ant 2	LTE Band 7 Ant 2	LTE Band 41 Ant 2	LTE Band 66 Ant 2	FR1 n2 Ant 2	FR1 n7 Ant 2	FR1 n41 Ant 2	FR1 n66 Ant 2	FR1 n77 Ant 2
Back		1g SAR (W/kg)		0.739	0.603	0.571	0.708	0.650	0.639	0.577	0.803	0.690	0.655	0.743	0.321
FR1 n77_Ant 6	0.438	0.259	0.165	1.601	1.465	1.433	1.570	1.512	1.501	1.439	1.665	1.552	1.517	1.605	1.183

Hybrid SPLSR calculation for above summation SAR>1.6W/kg

Combination	SAR	SAR peak location (mm)			3D distance (mm)	Summed SAR (W/kg)	SPLSR Results	Simultaneous SAR
		X	Y	Z				
Max WWAN Ant 2	0.803	-59.6	-57.3	-207.0				
Max WWAN Ant 6 + WLAN5/6GHz Ant 4+3 + Bluetooth Ant 3	0.862	12.0	-42.0	-207.0	73.2	1.665	0.03	Not required



## FCC SAR TEST REPORT

Report No. :FA451607B

<Case 37>

SAR summation (blue colored) for each band of antenna 0,1

Exposure Position	WWAN SAR	GSM850_Ant 1	WCDMA V_Ant 1	LTE Band 12_Ant 1	LTE Band 26_Ant 1	FR1 n12_Ant 1	FR1 n26_Ant 1	FR1 n77_HPUE_Ant 1
Front	1g SAR (W/kg)	0.659	0.529	0.319	0.534	0.249	0.432	0.702
GSM850_Ant 0	0.688	1.347	1.217	1.007	1.222	0.937	1.120	1.390
GSM1900_Ant 0	0.427	1.086	0.956	0.746	0.961	0.676	0.859	1.129
WCDMA II_Ant 0	0.350	1.009	0.879	0.669	0.884	0.599	0.782	1.052
WCDMA IV_Ant 0	0.477	1.136	1.006	0.796	1.011	0.726	0.909	1.179
WCDMA V_Ant 0	0.468	1.127	0.997	0.787	1.002	0.717	0.900	1.170
LTE Band 2_Ant 0	0.469	1.128	0.998	0.788	1.003	0.718	0.901	1.171
LTE Band 7_Ant 0	0.882	1.541	1.411	1.201	1.416	1.131	1.314	1.584
LTE Band 12_Ant 0	0.332	0.991	0.861	0.651	0.866	0.581	0.764	1.034
LTE Band 26_Ant 0	0.422	1.081	0.951	0.741	0.956	0.671	0.854	1.124
LTE Band 41_Ant 0	0.577	1.236	1.106	0.896	1.111	0.826	1.009	1.279
LTE Band 66_Ant 0	0.612	1.271	1.141	0.931	1.146	0.861	1.044	1.314
FR1 n2_Ant 0	0.407	1.066	0.936	0.726	0.941	0.656	0.839	1.109
FR1 n7_Ant 0	0.985	1.644	1.514	1.304	1.519	1.234	1.417	1.687
FR1 n12_Ant 0	0.323	0.982	0.852	0.642	0.857	0.572	0.755	1.025
FR1 n26_Ant 0	0.406	1.065	0.935	0.725	0.940	0.655	0.838	1.108
FR1 n41_Ant 0	0.884	1.543	1.413	1.203	1.418	1.133	1.316	1.586
FR1 n66_Ant 0	0.522	1.181	1.051	0.841	1.056	0.771	0.954	1.224

SPLSR calculation for above summation SAR>1.6W/kg

Combination	SAR	SAR peak location (mm)			3D distance (mm)	Summed SAR (W/kg)	SPLSR Results	Simultaneous SAR
		X	Y	Z				
Max WWAN Ant 0	0.985	-46.5	-61.0	-207.0	122.2	1.687	0.02	Not required
Max WWAN Ant 1	0.702	-52.1	61.1	-207.0				



# FCC SAR TEST REPORT

Report No. :FA451607B

**<Case 38>**

SAR summation (blue colored) for each band of antenna 0,2

Exposure Position	WWAN SAR	GSM1900 Ant 2	WCDMA II Ant 2	WCDMA IV Ant 2	LTE Band 2 Ant 2	LTE Band 7 Ant 2	LTE Band 41 Ant 2	LTE Band 66 Ant 2	FR1 n2 Ant 2	FR1 n7 Ant 2	FR1 n41 Ant 2	FR1 n66 Ant 2	FR1 n77 Ant 2
Front	1g SAR (W/kg)	0.493	0.507	0.467	0.659	0.557	0.551	0.513	0.768	0.605	0.582	0.586	0.354
GSM850_Ant 0	0.688	1.181	1.195	1.155	1.347	1.245	1.239	1.201	1.456	1.293	1.270	1.274	1.042
GSM1900_Ant 0	0.427	0.920	0.934	0.894	1.086	0.984	0.978	0.940	1.195	1.032	1.009	1.013	0.781
WCDMA II_Ant 0	0.350	0.843	0.857	0.817	1.009	0.907	0.901	0.863	1.118	0.955	0.932	0.936	0.704
WCDMA IV_Ant 0	0.477	0.970	0.984	0.944	1.136	1.034	1.028	0.990	1.245	1.082	1.059	1.063	0.831
WCDMA V_Ant 0	0.468	0.961	0.975	0.935	1.127	1.025	1.019	0.981	1.236	1.073	1.050	1.054	0.822
LTE Band 2_Ant 0	0.469	0.962	0.976	0.936	1.128	1.026	1.020	0.982	1.237	1.074	1.051	1.055	0.823
LTE Band 7_Ant 0	0.882	1.375	1.389	1.349	1.541	1.439	1.433	1.395	1.650	1.487	1.464	1.468	1.236
LTE Band 12_Ant 0	0.332	0.825	0.839	0.799	0.991	0.889	0.883	0.845	1.100	0.937	0.914	0.918	0.686
LTE Band 26_Ant 0	0.422	0.915	0.929	0.889	1.081	0.979	0.973	0.935	1.190	1.027	1.004	1.008	0.776
LTE Band 41_Ant 0	0.577	1.070	1.084	1.044	1.236	1.134	1.128	1.090	1.345	1.182	1.159	1.163	0.931
LTE Band 66_Ant 0	0.612	1.105	1.119	1.079	1.271	1.169	1.163	1.125	1.380	1.217	1.194	1.198	0.966
FR1 n2_Ant 0	0.407	0.900	0.914	0.874	1.066	0.964	0.958	0.920	1.175	1.012	0.989	0.993	0.761
FR1 n7_Ant 0	0.985	1.478	1.492	1.452	1.644	1.542	1.536	1.498	1.753	1.590	1.567	1.571	1.339
FR1 n12_Ant 0	0.323	0.816	0.830	0.790	0.982	0.880	0.874	0.836	1.091	0.928	0.905	0.909	0.677
FR1 n26_Ant 0	0.406	0.899	0.913	0.873	1.065	0.963	0.957	0.919	1.174	1.011	0.988	0.992	0.760
FR1 n41_Ant 0	0.884	1.377	1.391	1.351	1.543	1.441	1.435	1.397	1.652	1.489	1.466	1.470	1.238
FR1 n66_Ant 0	0.522	1.015	1.029	0.989	1.181	1.079	1.073	1.035	1.290	1.127	1.104	1.108	0.876

SPLSR calculation for above summation SAR>1.6W/kg

Combination	SAR	SAR peak location (mm)			3D distance (mm)	Summed SAR (W/kg)	SPLSR Results	Simultaneous SAR
		X	Y	Z				
FR1 n7_Ant 0	0.985	-46.5	-61.0	-207.0	64.7	1.644	0.03	Not required
LTE Band 2_Ant 2	0.659	18.1	-64.6	-207.0				
LTE Band 7_Ant 0	0.882	-50.0	-60.5	-207.0	60.3	1.650	0.04	Not required
FR1 n2_Ant 2	0.768	9.9	-67.1	-207.0				
FR1 n7_Ant 0	0.985	-46.5	-61.0	-207.0	56.7	1.753	0.04	Not required
FR1 n2_Ant 2	0.768	9.9	-67.1	-207.0				
FR1 n41_Ant 0	0.884	-38.0	-58.0	-207.0	48.8	1.652	0.04	Not required
FR1 n2_Ant 2	0.768	9.9	-67.1	-207.0				



## FCC SAR TEST REPORT

Report No. :FA451607B

### <Case 39>

SAR summation (blue colored) for each band of antenna 0,5

Exposure Position	WWAN SAR	FR1 n77_HPUE_Ant 5
Front	1g SAR (W/kg)	0.744
GSM850_Ant 0	0.688	1.432
GSM1900_Ant 0	0.427	1.171
WCDMA II_Ant 0	0.350	1.094
WCDMA IV_Ant 0	0.477	1.221
WCDMA V_Ant 0	0.468	1.212
LTE Band 2_Ant 0	0.469	1.213
LTE Band 7_Ant 0	0.882	1.626
LTE Band 12_Ant 0	0.332	1.076
LTE Band 26_Ant 0	0.422	1.166
LTE Band 41_Ant 0	0.577	1.321
LTE Band 66_Ant 0	0.612	1.356
FR1 n2_Ant 0	0.407	1.151
FR1 n7_Ant 0	0.985	1.729
FR1 n12_Ant 0	0.323	1.067
FR1 n26_Ant 0	0.406	1.150
FR1 n41_Ant 0	0.884	1.628
FR1 n66_Ant 0	0.522	1.266

SPLSR calculation for above summation SAR>1.6W/kg

Combination	SAR	SAR peak location (mm)			3D distance (mm)	Summed SAR (W/kg)	SPLSR Results	Simultaneous SAR
		X	Y	Z				
Max WWAN Ant 0	0.985	-38.0	-58.0	-207.0	131.6	1.729	0.02	Not required
Max WWAN Ant 5	0.744	16.0	62.0	-207.0				



# FCC SAR TEST REPORT

Report No. :FA451607B

**<Case 40>**

SAR summation (blue colored) for each band of antenna 0,1

Exposure Position	WWAN SAR	GSM850_Ant 1	WCDMA V_Ant 1	LTE Band 12_Ant 1	LTE Band 26_Ant 1	FR1 n12_Ant 1	FR1 n26_Ant 1	FR1 n77_HPUE_Ant 1
Back	1g SAR (W/kg)	0.904	0.823	0.457	0.783	0.373	0.726	0.760
GSM850_Ant 0	0.708	1.612	1.531	1.165	1.491	1.081	1.434	1.468
GSM1900_Ant 0	0.630	1.534	1.453	1.087	1.413	1.003	1.356	1.390
WCDMA II_Ant 0	0.559	1.463	1.382	1.016	1.342	0.932	1.285	1.319
WCDMA IV_Ant 0	0.534	1.438	1.357	0.991	1.317	0.907	1.260	1.294
WCDMA V_Ant 0	0.476	1.380	1.299	0.933	1.259	0.849	1.202	1.236
LTE Band 2_Ant 0	0.648	1.552	1.471	1.105	1.431	1.021	1.374	1.408
LTE Band 7_Ant 0	0.835	1.739	1.658	1.292	1.618	1.208	1.561	1.595
LTE Band 12_Ant 0	0.367	1.271	1.190	0.824	1.150	0.740	1.093	1.127
LTE Band 26_Ant 0	0.441	1.345	1.264	0.898	1.224	0.814	1.167	1.201
LTE Band 41_Ant 0	0.661	1.565	1.484	1.118	1.444	1.034	1.387	1.421
LTE Band 66_Ant 0	0.563	1.467	1.386	1.020	1.346	0.936	1.289	1.323
FR1 n7_Ant 0	0.917	1.821	1.740	1.374	1.700	1.290	1.643	1.677
FR1 n12_Ant 0	0.339	1.243	1.162	0.796	1.122	0.712	1.065	1.099
FR1 n26_Ant 0	0.436	1.340	1.259	0.893	1.219	0.809	1.162	1.196
FR1 n41_Ant 0	0.886	1.790	1.709	1.343	1.669	1.259	1.612	1.646
FR1 n66_Ant 0	0.690	1.594	1.513	1.147	1.473	1.063	1.416	1.450

SPLSR calculation for above summation SAR>1.6W/kg

Combination	SAR	SAR peak location (mm)			3D distance (mm)	Summed SAR (W/kg)	SPLSR Results	Simultaneous SAR
		X	Y	Z				
GSM850_Ant 1	0.904	-2.2	59.3	-207.0	46.7	1.612	0.04	Not required
GSM850_Ant 0	0.708	-19.8	16.0	-207.0				
GSM850_Ant 1	0.904	-2.2	59.3	-207.0	116.3	1.739	0.02	Not required
LTE Band 7_Ant 0	0.835	-4.5	-57.0	-207.0				
GSM850_Ant 1	0.904	-2.2	59.3	-207.0	118.8	1.821	0.02	Not required
FR1 n7_Ant 0	0.917	-3.5	-59.5	-207.0				
GSM850_Ant 1	0.904	-2.2	59.3	-207.0	118.8	1.790	0.02	Not required
FR1 n41_Ant 0	0.886	-2.0	-59.5	-207.0				
WCDMA V_Ant 1	0.823	-15.5	62.0	-207.0	119.5	1.658	0.02	Not required
LTE Band 7_Ant 0	0.835	-4.5	-57.0	-207.0				
WCDMA V_Ant 1	0.823	-15.5	62.0	-207.0	122.1	1.740	0.02	Not required
FR1 n7_Ant 0	0.917	-3.5	-59.5	-207.0				
WCDMA V_Ant 1	0.823	-15.5	62.0	-207.0	122.2	1.709	0.02	Not required
FR1 n41_Ant 0	0.886	-2.0	-59.5	-207.0				
LTE Band 26_Ant 1	0.783	-2.4	63.1	-207.0	120.1	1.618	0.02	Not required
LTE Band 7_Ant 0	0.835	-4.5	-57.0	-207.0				
LTE Band 26_Ant 1	0.783	-2.4	63.1	-207.0	122.6	1.70	0.02	Not required
FR1 n7_Ant 0	0.917	-3.5	-59.5	-207.0				
LTE Band 26_Ant 1	0.783	-2.4	63.1	-207.0	122.6	1.669	0.02	Not required
FR1 n41_Ant 0	0.886	-2.0	-59.5	-207.0				
FR1 n26_Ant 1	0.726	-2.7	64.8	-207.0	124.3	1.643	0.02	Not required
FR1 n7_Ant 0	0.917	-3.5	-59.5	-207.0				
FR1 n26_Ant 1	0.726	-2.7	64.8	-207.0	124.3	1.612	0.02	Not required
FR1 n41_Ant 0	0.886	-2.0	-59.5	-207.0				
FR1 n77_HPUE_Ant 1	0.760	-6.0	76.5	-207.0	133.5	1.595	0.02	Not required
LTE Band 7_Ant 0	0.835	-4.5	-57.0	-207.0				
FR1 n77_HPUE_Ant 1	0.760	-6.0	76.5	-207.0	136.0	1.677	0.02	Not required
FR1 n7_Ant 0	0.917	-3.5	-59.5	-207.0				
FR1 n77_HPUE_Ant 1	0.760	-6.0	76.5	-207.0	136.1	1.646	0.02	Not required
FR1 n41_Ant 0	0.886	-2.0	-59.5	-207.0				



# FCC SAR TEST REPORT

Report No. :FA451607B

**<Case 41>**

SAR summation (blue colored) for each band of antenna 0,2

Exposure Position	WWAN SAR	GSM1900 Ant 2	WCDMA II Ant 2	WCDMA IV Ant 2	LTE Band 2 Ant 2	LTE Band 7 Ant 2	LTE Band 41 Ant 2	LTE Band 66 Ant 2	FR1 n2 Ant 2	FR1 n7 Ant 2	FR1 n41 Ant 2	FR1 n66 Ant 2	FR1 n77 Ant 2
Back	1g SAR (W/kg)	0.739	0.603	0.571	0.708	0.696	0.700	0.577	0.943	0.810	0.671	0.743	0.517
GSM850_Ant 0	0.708	1.447	1.311	1.279	1.416	1.404	1.408	1.285	1.651	1.518	1.379	1.451	1.225
GSM1900_Ant 0	0.630	1.369	1.233	1.201	1.338	1.326	1.330	1.207	1.573	1.440	1.301	1.373	1.147
WCDMA II_Ant 0	0.559	1.298	1.162	1.130	1.267	1.255	1.259	1.136	1.502	1.369	1.230	1.302	1.076
WCDMA IV_Ant 0	0.534	1.273	1.137	1.105	1.242	1.230	1.234	1.111	1.477	1.344	1.205	1.277	1.051
WCDMA V_Ant 0	0.476	1.215	1.079	1.047	1.184	1.172	1.176	1.053	1.419	1.286	1.147	1.219	0.993
LTE Band 2_Ant 0	0.648	1.387	1.251	1.219	1.356	1.344	1.348	1.225	1.591	1.458	1.319	1.391	1.165
LTE Band 7_Ant 0	0.835	1.574	1.438	1.406	1.543	1.531	1.535	1.412	1.778	1.645	1.506	1.578	1.352
LTE Band 12_Ant 0	0.367	1.106	0.970	0.938	1.075	1.063	1.067	0.944	1.310	1.177	1.038	1.110	0.884
LTE Band 26_Ant 0	0.441	1.180	1.044	1.012	1.149	1.137	1.141	1.018	1.384	1.251	1.112	1.184	0.958
LTE Band 41_Ant 0	0.661	1.400	1.264	1.232	1.369	1.357	1.361	1.238	1.604	1.471	1.332	1.404	1.178
LTE Band 66_Ant 0	0.563	1.302	1.166	1.134	1.271	1.259	1.263	1.140	1.506	1.373	1.234	1.306	1.080
FR1 n7_Ant 0	0.917	1.656	1.520	1.488	1.625	1.613	1.617	1.494	1.860	1.727	1.588	1.660	1.434
FR1 n12_Ant 0	0.339	1.078	0.942	0.910	1.047	1.035	1.039	0.916	1.282	1.149	1.010	1.082	0.856
FR1 n26_Ant 0	0.436	1.175	1.039	1.007	1.144	1.132	1.136	1.013	1.379	1.246	1.107	1.179	0.953
FR1 n41_Ant 0	0.886	1.625	1.489	1.457	1.594	1.582	1.586	1.463	1.829	1.696	1.557	1.629	1.403
FR1 n66_Ant 0	0.690	1.429	1.293	1.261	1.398	1.386	1.390	1.267	1.633	1.500	1.361	1.433	1.207

SPLSR calculation for above summation SAR>1.6W/kg

Combination	SAR	SAR peak location (mm)			3D distance (mm)	Summed SAR (W/kg)	SPLSR Results	Simultaneous SAR
		X	Y	Z				
GSM1900_Ant 2	0.739	-60.4	-64.6	-207.0	57.1	1.656	0.04	Not required
FR1 n7_Ant 0	0.917	-3.5	-59.5	-207.0				
GSM1900_Ant 2	0.739	-60.4	-64.6	-207.0	58.6	1.625	0.04	Not required
FR1 n41_Ant 0	0.886	-2.0	-59.5	-207.0				
LTE Band 2_Ant 2	0.708	-59.4	-61.1	-207.0	55.9	1.625	0.04	Not required
FR1 n7_Ant 0	0.917	-3.5	-59.5	-207.0				
LTE Band 7_Ant 2	0.696	-56.0	-70.5	-207.0	53.6	1.613	0.04	Not required
FR1 n7_Ant 0	0.917	-3.5	-59.5	-207.0				
LTE Band 41_Ant 2	0.700	-60.5	-70.0	-207.0	58.0	1.617	0.04	Not required
FR1 n7_Ant 0	0.917	-3.5	-59.5	-207.0				
FR1 n2_Ant 2	0.943	-59.9	-62.6	-207.0	88.2	1.651	0.02	Not required
GSM850_Ant 0	0.708	-19.8	16.0	-207.0				
FR1 n2_Ant 2	0.943	-59.9	-62.6	-207.0	55.7	1.778	0.04	Not required
LTE Band 7_Ant 0	0.835	-4.5	-57.0	-207.0				
FR1 n2_Ant 2	0.943	-59.9	-62.6	-207.0	60.9	1.604	0.03	Not required
LTE Band 41_Ant 0	0.661	1.0	-62.5	-207.0				
FR1 n2_Ant 2	0.943	-59.9	-62.6	-207.0	67.1	1.622	0.03	Not required
FR1 n2_Ant 0	0.679	7.1	-66.1	-207.0				
FR1 n2_Ant 2	0.943	-59.9	-62.6	-207.0	56.5	1.860	0.04	Not required
FR1 n7_Ant 0	0.917	-3.5	-59.5	-207.0				
FR1 n2_Ant 2	0.943	-59.9	-62.6	-207.0	58.0	1.829	0.04	Not required
FR1 n41_Ant 0	0.886	-2.0	-59.5	-207.0				
FR1 n2_Ant 2	0.943	-59.9	-62.6	-207.0	67.4	1.633	0.03	Not required
FR1 n66_Ant 0	0.690	1.1	-33.9	-207.0				
FR1 n7_Ant 2	0.810	-58.0	-73.0	-207.0	55.8	1.645	0.04	Not required
LTE Band 7_Ant 0	0.835	-4.5	-57.0	-207.0				
FR1 n7_Ant 2	0.810	-58.0	-73.0	-207.0	56.1	1.727	0.04	Not required
FR1 n7_Ant 0	0.917	-3.5	-59.5	-207.0				
FR1 n7_Ant 2	0.810	-58.0	-73.0	-207.0	57.6	1.696	0.04	Not required
FR1 n41_Ant 0	0.886	-2.0	-59.5	-207.0				
FR1 n2_Ant 2	0.743	-59.6	-57.3	-207.0	56.1	1.66	0.04	Not required
FR1 n7_Ant 0	0.917	-3.5	-59.5	-207.0				
FR1 n66_Ant 2	0.743	-59.6	-57.3	-207.0	57.6	1.629	0.04	Not required
FR1 n41_Ant 0	0.886	-2.0	-59.5	-207.0				



## FCC SAR TEST REPORT

Report No. :FA451607B

**<Case 42>**

SAR summation (blue colored) for each band of antenna 0,5

Exposure Position	WWAN SAR	FR1 n77_HPUE_Ant 5
Back	1g SAR (W/kg)	
GSM850_Ant 0	0.708	1.497
GSM1900_Ant 0	0.630	1.419
WCDMA II_Ant 0	0.559	1.348
WCDMA IV_Ant 0	0.534	1.323
WCDMA V_Ant 0	0.476	1.265
LTE Band 2_Ant 0	0.648	1.437
LTE Band 7_Ant 0	0.835	1.624
LTE Band 12_Ant 0	0.367	1.156
LTE Band 26_Ant 0	0.441	1.230
LTE Band 41_Ant 0	0.661	1.450
LTE Band 66_Ant 0	0.563	1.352
FR1 n2_Ant 0	0.679	1.468
FR1 n7_Ant 0	0.917	1.706
FR1 n12_Ant 0	0.339	1.128
FR1 n26_Ant 0	0.436	1.225
FR1 n41_Ant 0	0.886	1.675
FR1 n66_Ant 0	0.690	1.479

SPLSR calculation for above summation SAR>1.6W/kg

Combination	SAR	SAR peak location (mm)			3D distance (mm)	Summed SAR (W/kg)	SPLSR Results	Simultaneous SAR
		X	Y	Z				
Max WWAN Ant 0	0.917	-4.5	-57.0	-207.0	126.6	1.706	0.02	Not required
Max WWAN Ant 5	0.789	-40.0	64.5	-207.0				



## FCC SAR TEST REPORT

Report No. :FA451607B

### <Case 43>

SAR summation (blue colored) for each band of antenna 1,2

Exposure Position	WWAN SAR	GSM1900 Ant 2	WCDMA II Ant 2	WCDMA IV Ant 2	LTE Band 2 Ant 2	LTE Band 7 Ant 2	LTE Band 41 Ant 2	LTE Band 66 Ant 2	FR1 n2 Ant 2	FR1 n7 Ant 2	FR1 n41 Ant 2	FR1 n66 Ant 2	FR1 n77 Ant 2
Back	1g SAR (W/kg)	0.739	0.603	0.571	0.708	0.696	0.700	0.577	0.943	0.810	0.671	0.743	0.517
GSM850_Ant 1	0.904	1.643	1.507	1.475	1.612	1.600	1.604	1.481	1.847	1.714	1.575	1.647	1.421
WCDMA V_Ant 1	0.823	1.562	1.426	1.394	1.531	1.519	1.523	1.400	1.766	1.633	1.494	1.566	1.340
LTE Band 12_Ant 1	0.457	1.196	1.060	1.028	1.165	1.153	1.157	1.034	1.400	1.267	1.128	1.200	0.974
LTE Band 26_Ant 1	0.783	1.522	1.386	1.354	1.491	1.479	1.483	1.360	1.726	1.593	1.454	1.526	1.300
FR1 n12_Ant 1	0.373	1.112	0.976	0.944	1.081	1.069	1.073	0.950	1.316	1.183	1.044	1.116	0.890
FR1 n26_Ant 1	0.726	1.465	1.329	1.297	1.434	1.422	1.426	1.303	1.669	1.536	1.397	1.469	1.243
FR1 n77_HPUE_Ant 1	0.760	1.499	1.363	1.331	1.468	1.456	1.460	1.337	1.703	1.570	1.431	1.503	1.277

SPLSR calculation for above summation SAR>1.6W/kg

Combination	SAR	SAR peak location (mm)			3D distance (mm)	Summed SAR (W/kg)	SPLSR Results	Simultaneous SAR
		X	Y	Z				
Max WWAN Ant 1	0.904	-2.2	59.3	-207.0	130.0	1.847	0.02	Not required
Max WWAN Ant 2	0.943	-59.6	-57.3	-207.0				

### <Case 44>

SAR summation (blue colored) for each band of antenna 2,5

Exposure Position	WWAN SAR			FR1 n77_HPUE_Ant 5		
Back	1g SAR (W/kg)			0.789		
GSM1900_Ant 2	0.739			1.528		
WCDMA II_Ant 2	0.603			1.392		
WCDMA IV_Ant 2	0.571			1.360		
LTE Band 2_Ant 2	0.708			1.497		
LTE Band 7_Ant 2	0.696			1.485		
LTE Band 41_Ant 2	0.700			1.489		
LTE Band 66_Ant 2	0.577			1.366		
FR1 n2_Ant 2	0.943			1.732		
FR1 n7_Ant 2	0.810			1.599		
FR1 n41_Ant 2	0.671			1.460		
FR1 n66_Ant 2	0.743			1.532		
FR1 n77_Ant 2	0.517			1.306		

SPLSR calculation for above summation SAR>1.6W/kg

Combination	SAR	SAR peak location (mm)			3D distance (mm)	Summed SAR (W/kg)	SPLSR Results	Simultaneous SAR
		X	Y	Z				
Max WWAN Ant 2	0.943	-59.9	-62.6	-207.0	128.6	1.732	0.02	Not required
Max WWAN Ant 5	0.789	-40.0	64.5	-207.0				



## FCC SAR TEST REPORT

Report No. :FA451607B

**<Case 45>**

SAR summation (blue colored) for each band of antenna 0,1,3,4

Exposure Position	WWAN SAR	WLAN 5/6GHz Ant 4+3	GSM850 Ant 0	GSM1900 Ant 0	WCDMA II Ant 0	WCDMA IV Ant 0	WCDMA V Ant 0	LTE Band 2 Ant 0	LTE Band 7 Ant 0	LTE Band 12 Ant 0	LTE Band 26 Ant 0	LTE Band 41 Ant 0	LTE Band 66 Ant 0	FR1 n2 Ant 0	FR1 n7 Ant 0	FR1 n12 Ant 0	FR1 n26 Ant 0	FR1 n41 Ant 0	FR1 n66 Ant 0
Back	1g SAR (W/kg)		0.446	0.450	0.449	0.454	0.454	0.380	0.386	0.367	0.441	0.369	0.452	0.393	0.418	0.339	0.436	0.445	0.452
GSM850_Ant 1	0.427	0.764	1.637	1.641	1.640	1.645	1.645	1.571	1.577	1.558	1.632	1.560	1.643	1.584	1.609	1.530	1.627	1.636	1.643
WCDMA V_Ant 1	0.355	0.764	1.565	1.569	1.568	1.573	1.573	1.499	1.505	1.486	1.560	1.488	1.571	1.512	1.537	1.458	1.555	1.564	1.571
LTE Band 12_Ant 1	0.447	0.764	1.657	1.661	1.660	1.665	1.665	1.591	1.597	1.578	1.652	1.580	1.663	1.604	1.629	1.550	1.647	1.656	1.663
LTE Band 26_Ant 1	0.385	0.764	1.595	1.599	1.598	1.603	1.603	1.529	1.535	1.516	1.590	1.518	1.601	1.542	1.567	1.488	1.585	1.594	1.601
FR1 n12_Ant 1	0.373	0.764	1.583	1.587	1.586	1.591	1.591	1.517	1.523	1.504	1.578	1.506	1.589	1.530	1.555	1.476	1.573	1.582	1.589
FR1 n26_Ant 1	0.406	0.764	1.616	1.620	1.619	1.624	1.624	1.550	1.556	1.537	1.611	1.539	1.622	1.563	1.588	1.509	1.606	1.615	1.622
FR1 n77_HPUE_Ant 1	0.450	0.764	1.660	1.664	1.663	1.668	1.668	1.594	1.600	1.581	1.655	1.583	1.666	1.607	1.632	1.553	1.650	1.659	1.666

SAR peak location (mm)			X (axis)		-47.9	-19.8	8.1	5.9	4.1	-12	3.6	-4.5	-9.2	-10.5	1	-8.2	7.1	-3.5	-26.3	-5	-2	1.1
			Y (axis)		77.2	16	-71.1	-68.6	-35.3	-75.6	-69.6	-57	-24	-75.6	-62.5	-76.6	-66.1	-59.5	-12.5	-75.2	-59.5	-33.9
			Z (axis)		-207	-207	-207	-207	-207	-207	-207	-207	-207	-207	-207	-207	-207	-207	-207	-207	-207	-207
X (axis)	Y (axis)	Z (axis)	Exposure Position	WWAN SAR	WLAN 5/6GHz Ant 4+3	GSM850 Ant 0	GSM1900 Ant 0	WCDMA II Ant 0	WCDMA IV Ant 0	WCDMA V Ant 0	LTE Band 2 Ant 0	LTE Band 7 Ant 0	LTE Band 12 Ant 0	LTE Band 26 Ant 0	LTE Band 41 Ant 0	LTE Band 66 Ant 0	FR1 n2 Ant 0	FR1 n7 Ant 0	FR1 n12 Ant 0	FR1 n26 Ant 0	FR1 n41 Ant 0	FR1 n66 Ant 0
			Back	1g SAR (W/kg)	0.446	0.45	0.449	0.454	0.454	0.454	0.38	0.386	0.367	0.441	0.369	0.452	0.393	0.418	0.339	0.436	0.445	0.452
-2.2	59.3	-207	GSM850_Ant 1	0.427	0.764	0.04	0.02	0.02	0.02	0.02				0.02			0.02		0.02		0.02	0.02
-15.5	62	-207	WCDMA V_Ant 1	0.355	0.764																	
6.8	63.6	-207	LTE Band 12_Ant 1	0.447	0.764	0.04	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	
-2.4	63.1	-207	LTE Band 26_Ant 1	0.385	0.764	0.04	0.02	0.02	0.02	0.01							0.01					0.02
0.3	61.3	-207	FR1 n12_Ant 1	0.373	0.764																	
-2.7	64.8	-207	FR1 n26_Ant 1	0.406	0.764	0.04	0.02	0.02	0.02	0.01				0.01		0.01				0.01	0.02	0.02
-6	76.5	-207	FR1 n77_HPUE_Ant 1	0.450	0.764	0.03	0.01	0.01	0.02	0.01	0.02	0.02	0.01	0.01	0.01	0.01	0.01	0.02	0.01	0.02	0.01	0.02



# FCC SAR TEST REPORT

Report No. :FA451607B

**<Case 46>**

SAR summation (blue colored) for each band of antenna 0,2,3,4

Exposure Position	WWAN SAR	WLAN 5/6GHz Ant 4+3	GSM1900 Ant 2	WCDMA II Ant 2	WCDMA IV Ant 2	LTE Band 2 Ant 2	LTE Band 7 Ant 2	LTE Band 41 Ant 2	LTE Band 66 Ant 2	FR1 n2 Ant 2	FR1 n7 Ant 2	FR1 n41 Ant 2	FR1 n66 Ant 2	FR1 n77 Ant 2
Front	1g SAR (W/kg)		0.493	0.507	0.467	0.659	0.557	0.551	0.513	0.654	0.515	0.582	0.586	0.354
GSM850_Ant 0	0.429	0.633	1.555	1.569	1.529	1.721	1.619	1.613	1.575	1.716	1.577	1.644	1.648	1.416
GSM1900_Ant 0	0.304	0.633	1.430	1.444	1.404	1.596	1.494	1.488	1.450	1.591	1.452	1.519	1.523	1.291
WCDMA II_Ant 0	0.282	0.633	1.408	1.422	1.382	1.574	1.472	1.466	1.428	1.569	1.430	1.497	1.501	1.269
WCDMA IV_Ant 0	0.406	0.633	1.532	1.546	1.506	1.698	1.596	1.590	1.552	1.693	1.554	1.621	1.625	1.393
WCDMA V_Ant 0	0.447	0.633	1.573	1.587	1.547	1.739	1.637	1.631	1.593	1.734	1.595	1.662	1.666	1.434
LTE Band 2_Ant 0	0.275	0.633	1.401	1.415	1.375	1.567	1.465	1.459	1.421	1.562	1.423	1.490	1.494	1.262
LTE Band 7_Ant 0	0.406	0.633	1.532	1.546	1.506	1.698	1.596	1.590	1.552	1.693	1.554	1.621	1.625	1.393
LTE Band 12_Ant 0	0.332	0.633	1.458	1.472	1.432	1.624	1.522	1.516	1.478	1.619	1.480	1.547	1.551	1.319
LTE Band 26_Ant 0	0.422	0.633	1.548	1.562	1.522	1.714	1.612	1.606	1.568	1.709	1.570	1.637	1.641	1.409
LTE Band 41_Ant 0	0.346	0.633	1.472	1.486	1.446	1.638	1.536	1.530	1.492	1.633	1.494	1.561	1.565	1.333
LTE Band 66_Ant 0	0.415	0.633	1.541	1.555	1.515	1.707	1.605	1.599	1.561	1.702	1.563	1.630	1.634	1.402
FR1 n2_Ant 0	0.239	0.633	1.365	1.379	1.339	1.531	1.429	1.423	1.385	1.526	1.387	1.454	1.458	1.226
FR1 n7_Ant 0	0.451	0.633	1.577	1.591	1.551	1.743	1.641	1.635	1.597	1.738	1.599	1.666	1.670	1.438
FR1 n12_Ant 0	0.323	0.633	1.449	1.463	1.423	1.615	1.513	1.507	1.469	1.610	1.471	1.538	1.542	1.310
FR1 n26_Ant 0	0.406	0.633	1.532	1.546	1.506	1.698	1.596	1.590	1.552	1.693	1.554	1.621	1.625	1.393
FR1 n41_Ant 0	0.440	0.633	1.566	1.580	1.540	1.732	1.630	1.624	1.586	1.727	1.588	1.655	1.659	1.427
FR1 n66_Ant 0	0.322	0.633	1.448	1.462	1.422	1.614	1.512	1.506	1.468	1.609	1.470	1.537	1.541	1.309

SPLSR calculation for above summation SAR>1.6W/kg

Combination	SAR	SAR peak location (mm)			3D distance (mm)	Summed SAR (W/kg)	SPLSR Results	Simultaneous SAR
		X	Y	Z				
Max WWAN Ant 0	0.451	-25.0	-86.0	-207.0	29.6	1.110	0.04	Not required
Max WWAN Ant 2	0.659	3.5	-78.0	-207.0				
Max WWAN Ant 0	0.451	-34.5	16.8	-207.0	42.1	0.906	0.02	Not required
WLAN5/6GHz Ant 4+3(3)	0.455	-56.2	52.9	-207.0				
Max WWAN Ant 0	0.451	-34.5	16.8	-207.0	67.2	1.084	0.02	Not required
WLAN5/6GHz Ant 4+3(4)	0.633	-11.4	79.9	-207.0				
Max WWAN Ant 2	0.659	-8.0	-54.0	-207.0	117.3	1.114	0.01	Not required
WLAN5/6GHz Ant 4+3(3)	0.455	-56.2	52.9	-207.0				
Max WWAN Ant 2	0.659	16.0	-48.0	-207.0	130.8	1.292	0.01	Not required
WLAN5/6GHz Ant 4+3(4)	0.633	-11.4	79.9	-207.0				
WLAN5/6GHz Ant 4+3(3)	0.455	-56.2	52.9	-207.0	52.3	1.088	0.02	Not required
WLAN5/6GHz Ant 4+3(4)	0.633	-11.4	79.9	-207.0				



## FCC SAR TEST REPORT

Report No. :FA451607B

### <Case 47>

SAR summation (blue colored) for each band of antenna 0,2,3,4

Exposure Position	WWAN SAR	WLAN 5/6GHz Ant 4+3	GSM 1900 Ant 2	WCDMA II Ant 2	WCDMA IV Ant 2	LTE Band 2 Ant 2	LTE Band 7 Ant 2	LTE Band 41 Ant 2	LTE Band 66 Ant 2	FR1 n2 Ant 2	FR1 n7 Ant 2	FR1 n41 Ant 2	FR1 n66 Ant 2	FR1 n77 Ant 2
Back	1g SAR (W/kg)	0.739	0.603	0.571	0.708	0.696	0.700	0.577	0.803	0.690	0.671	0.743	0.517	
GSM850_Ant 0	0.446	0.764	1.949	1.813	1.781	1.918	1.906	1.910	1.787	2.013	1.900	1.881	1.953	1.727
GSM1900_Ant 0	0.450	0.764	1.953	1.817	1.785	1.922	1.910	1.914	1.791	2.017	1.904	1.885	1.957	1.731
WCDMA II_Ant 0	0.449	0.764	1.952	1.816	1.784	1.921	1.909	1.913	1.790	2.016	1.903	1.884	1.956	1.730
WCDMA IV_Ant 0	0.454	0.764	1.957	1.821	1.789	1.926	1.914	1.918	1.795	2.021	1.908	1.889	1.961	1.735
WCDMA V_Ant 0	0.454	0.764	1.957	1.821	1.789	1.926	1.914	1.918	1.795	2.021	1.908	1.889	1.961	1.735
LTE Band 2_Ant 0	0.380	0.764	1.883	1.747	1.715	1.852	1.840	1.844	1.721	1.947	1.834	1.815	1.887	1.661
LTE Band 7_Ant 0	0.386	0.764	1.889	1.753	1.721	1.858	1.846	1.850	1.727	1.953	1.840	1.821	1.893	1.667
LTE Band 12_Ant 0	0.367	0.764	1.870	1.734	1.702	1.839	1.827	1.831	1.708	1.934	1.821	1.802	1.874	1.648
LTE Band 26_Ant 0	0.441	0.764	1.944	1.808	1.776	1.913	1.901	1.905	1.782	2.008	1.895	1.876	1.948	1.722
LTE Band 41_Ant 0	0.369	0.764	1.872	1.736	1.704	1.841	1.829	1.833	1.710	1.936	1.823	1.804	1.876	1.650
LTE Band 66_Ant 0	0.452	0.764	1.955	1.819	1.787	1.924	1.912	1.916	1.793	2.019	1.906	1.887	1.959	1.733
FR1 n2_Ant 0	0.393	0.764	1.896	1.760	1.728	1.865	1.853	1.857	1.734	1.960	1.847	1.828	1.900	1.674
FR1 n7_Ant 0	0.418	0.764	1.921	1.785	1.753	1.890	1.878	1.882	1.759	1.985	1.872	1.853	1.925	1.699
FR1 n12_Ant 0	0.339	0.764	1.842	1.706	1.674	1.811	1.799	1.803	1.680	1.906	1.793	1.774	1.846	1.620
FR1 n26_Ant 0	0.436	0.764	1.939	1.803	1.771	1.908	1.896	1.900	1.777	2.003	1.890	1.871	1.943	1.717
FR1 n41_Ant 0	0.445	0.764	1.948	1.812	1.780	1.917	1.905	1.909	1.786	2.012	1.899	1.880	1.952	1.726
FR1 n66_Ant 0	0.452	0.764	1.955	1.819	1.787	1.924	1.912	1.916	1.793	2.019	1.906	1.887	1.959	1.733

SPLSR calculation for above summation SAR>1.6W/kg

Combination	SAR	SAR peak location (mm)			3D distance (mm)	Summed SAR (W/kg)	SPLSR Results	Simultaneous SAR
		X	Y	Z				
Max WWAN Ant 0	0.454	-12.0	-75.6	-207.0	38.7	1.257	0.04	Not required
Max WWAN Ant 2	0.803	-49.4	-65.6	-207.0				
Max WWAN Ant 0	0.454	-19.8	16.0	-207.0	43.9	0.8	0.02	Not required
WLAN5/6GHz Ant 4+3(3)	0.346	10.8	47.5	-207.0				
Max WWAN Ant 0	0.454	-19.8	16.0	-207.0	67.3	1.218	0.02	Not required
WLAN5/6GHz Ant 4+3(4)	0.764	-47.9	77.2	-207.0				
Max WWAN Ant 2	0.803	-61.0	-51.0	-207.0	121.9	1.149	0.01	Not required
WLAN5/6GHz Ant 4+3(3)	0.346	10.8	47.5	-207.0				
Max WWAN Ant 2	0.803	-61.0	-51.0	-207.0	128.9	1.567	0.02	Not required
WLAN5/6GHz Ant 4+3(4)	0.764	-47.9	77.2	-207.0				
WLAN5/6GHz Ant 4+3(3)	0.346	10.8	47.5	-207.0	65.8	1.11	0.02	Not required
WLAN5/6GHz Ant 4+3(4)	0.764	-47.9	77.2	-207.0				



## FCC SAR TEST REPORT

Report No. :FA451607B

**<Case 48>**

SAR summation (blue colored) for each band of antenna 0,5,3,4

Exposure Position	WWAN SAR	WLAN 5/6GHz Ant 4+3	GSM 850 Ant 0	GSM 1900 Ant 0	WCDMA II Ant 0	WCDMA IV Ant 0	WCDMA V Ant 0	LTE Band 2 Ant 0	LTE Band 7 Ant 0	LTE Band 12 Ant 0	LTE Band 26 Ant 0	LTE Band 41 Ant 0	LTE Band 66 Ant 0	FR1 n2 Ant 0	FR1 n7 Ant 0	FR1 n12 Ant 0	FR1 n26 Ant 0	FR1 n41 Ant 0	FR1 n66 Ant 0
Back	1g SAR (W/kg)	0.446	0.450	0.449	0.454	0.454	0.380	0.386	0.367	0.441	0.369	0.452	0.393	0.418	0.339	0.436	0.445	0.452	
FR1 n77_HPUE_Ant 5	0.448	0.764	1.658	1.662	1.661	1.666	1.666	1.592	1.598	1.579	1.653	1.581	1.664	1.605	1.630	1.551	1.648	1.657	1.664

Hybrid SPLSR calculation for above summation SAR>1.6W/kg

Combination	SAR	SAR peak location (mm)			3D distance (mm)	Summed SAR (W/kg)	SPLSR Results	Simultaneous SAR
		X	Y	Z				
Max WWAN Ant 0	0.454	-19.8	16.0	-207.0	52.5	1.666	0.04	Not required
Max WWAN Ant 5 + WLAN5/6GHz Ant 4+3	1.212	-40.0	64.5	-207.0				

**<Case 49>**

SAR summation (blue colored) for each band of antenna 1,2,3,4

Exposure Position	WWAN SAR	WLAN 5/6GHz Ant 4+3	GSM1900 Ant 2	WCDMA II Ant 2	WCDMA IV Ant 2	LTE Band 2 Ant 2	LTE Band 7 Ant 2	LTE Band 41 Ant 2	LTE Band 66 Ant 2	FR1 n2 Ant 2	FR1 n7 Ant 2	FR1 n41 Ant 2	FR1 n66 Ant 2	FR1 n77 Ant 2
Front	1g SAR (W/kg)	0.493	0.507	0.467	0.659	0.557	0.551	0.513	0.654	0.515	0.582	0.586	0.354	
GSM850_Ant 1	0.310	0.633	1.436	1.450	1.410	1.602	1.500	1.494	1.456	1.597	1.458	1.525	1.529	1.297
WCDMA V_Ant 1	0.230	0.633	1.356	1.370	1.330	1.522	1.420	1.414	1.376	1.517	1.378	1.445	1.449	1.217
LTE Band 12_Ant 1	0.312	0.633	1.438	1.452	1.412	1.604	1.502	1.496	1.458	1.599	1.460	1.527	1.531	1.299
LTE Band 26_Ant 1	0.261	0.633	1.387	1.401	1.361	1.553	1.451	1.445	1.407	1.548	1.409	1.476	1.480	1.248
FR1 n12_Ant 1	0.249	0.633	1.375	1.389	1.349	1.541	1.439	1.433	1.395	1.536	1.397	1.464	1.468	1.236
FR1 n26_Ant 1	0.242	0.633	1.368	1.382	1.342	1.534	1.432	1.426	1.388	1.529	1.390	1.457	1.461	1.229
FR1 n77_HPUE_Ant 1	0.415	0.633	1.541	1.555	1.515	1.707	1.605	1.599	1.561	1.702	1.563	1.630	1.634	1.402

Hybrid SPLSR calculation for above summation SAR>1.6W/kg

Combination	SAR	SAR peak location (mm)			3D distance (mm)	Summed SAR (W/kg)	SPLSR Results	Simultaneous SAR
		X	Y	Z				
Max WWAN Ant 2	0.659	-8.0	-54.0	-207.0	133.9	1.707	0.02	Not required
Max WWAN Ant 1 + WLAN5/6GHz Ant 4+3	1.048	-11.4	79.9	-207.0				



## FCC SAR TEST REPORT

Report No. :FA451607B

### <Case 50>

SAR summation (blue colored) for each band of antenna 1,2,3,4

Exposure Position	WWAN SAR	WLAN 5/6GHz Ant 4+3	GSM1900 Ant 2	WCDMA II Ant 2	WCDMA IV Ant 2	LTE Band 2 Ant 2	LTE Band 7 Ant 2	LTE Band 41 Ant 2	LTE Band 66 Ant 2	FR1 n2 Ant 2	FR1 n7 Ant 2	FR1 n41 Ant 2	FR1 n66 Ant 2	FR1 n77 Ant 2
Back	1g SAR (W/kg)	0.739	0.603	0.571	0.708	0.696	0.700	0.577	0.803	0.690	0.671	0.743	0.517	
GSM850_Ant 1	0.427	0.764	1.930	1.794	1.762	1.899	1.887	1.891	1.768	1.994	1.881	1.862	1.934	1.708
WCDMA V_Ant 1	0.355	0.764	1.858	1.722	1.690	1.827	1.815	1.819	1.696	1.922	1.809	1.790	1.862	1.636
LTE Band 12_Ant 1	0.447	0.764	1.950	1.814	1.782	1.919	1.907	1.911	1.788	2.014	1.901	1.882	1.954	1.728
LTE Band 26_Ant 1	0.385	0.764	1.888	1.752	1.720	1.857	1.845	1.849	1.726	1.952	1.839	1.820	1.892	1.666
FR1 n12_Ant 1	0.373	0.764	1.876	1.740	1.708	1.845	1.833	1.837	1.714	1.940	1.827	1.808	1.880	1.654
FR1 n26_Ant 1	0.406	0.764	1.909	1.773	1.741	1.878	1.866	1.870	1.747	1.973	1.860	1.841	1.913	1.687
FR1 n77_HPUE_Ant 1	0.450	0.764	1.953	1.817	1.785	1.922	1.910	1.914	1.791	2.017	1.904	1.885	1.957	1.731

Hybrid SPLSR calculation for above summation SAR>1.6W/kg

Combination	SAR	SAR peak location (mm)			3D distance (mm)	Summed SAR (W/kg)	SPLSR Results	Simultaneous SAR
		X	Y	Z				
Max WWAN Ant 2	0.803	-61.0	-51.0	-207.0	121.8	2.017	0.02	Not required
Max WWAN Ant 1 + WLAN5/6GHz Ant 4+3	1.214	-15.5	62.0	-207.0				

### <Case 51>

SAR summation (blue colored) for each band of antenna 1,6,3,4

Exposure Position	WWAN SAR	WLAN5/6GHz Ant 4+3			FR1 n77_Ant 6		
Back	1g SAR (W/kg)				0.438		
GSM850_Ant 1	0.427	0.764			1.629		
WCDMA V_Ant 1	0.355	0.764			1.557		
LTE Band 12_Ant 1	0.447	0.764			1.649		
LTE Band 26_Ant 1	0.385	0.764			1.587		
FR1 n12_Ant 1	0.373	0.764			1.575		
FR1 n26_Ant 1	0.406	0.764			1.608		
FR1 n77_HPUE_Ant 1	0.450	0.764			1.652		

Hybrid SPLSR calculation for above summation SAR>1.6W/kg

Combination	SAR	SAR peak location (mm)			3D distance (mm)	Summed SAR (W/kg)	SPLSR Results	Simultaneous SAR
		X	Y	Z				
Max WWAN Ant 6	0.438	11.5	-47.5	-207.0	107.7	1.652	0.02	Not required
Max WWAN Ant 1 + WLAN5/6GHz Ant 4+3	1.214	-2.2	59.3	-207.0				



## FCC SAR TEST REPORT

Report No. :FA451607B

### <Case 52>

SAR summation (blue colored) for each band of antenna 2,5,3,4

Exposure Position	WWAN SAR	WLAN 5/6GHz Ant 4+3	GSM 1900 Ant 2	WCDMA II Ant 2	WCDMA IV Ant 2	LTE Band 2 Ant 2	LTE Band 7 Ant 2	LTE Band 41 Ant 2	LTE Band 66 Ant 2	FR1 n2 Ant 2	FR1 n7 Ant 2	FR1 n41 Ant 2	FR1 n66 Ant 2	FR1 n77 Ant 2
Front	1g SAR (W/kg)	0.493	0.507	0.467	0.659	0.557	0.551	0.513	0.654	0.515	0.582	0.586	0.354	
FR1 n77_HPUE_Ant 5	0.351	0.633	1.477	1.491	1.451	1.643	1.541	1.535	1.497	1.638	1.499	1.566	1.570	1.338

Hybrid SPLSR calculation for above summation SAR>1.6W/kg

Combination	SAR	SAR peak location (mm)			3D distance (mm)	Summed SAR (W/kg)	SPLSR Results	Simultaneous SAR
		X	Y	Z				
Max WWAN Ant 2	0.659	18.1	-64.6	-207.0				
Max WWAN Ant 5 + WLAN5/6GHz Ant 4+3	0.984	16.0	62.0	-207.0	126.6	1.643	0.02	Not required

### <Case 53>

SAR summation (blue colored) for each band of antenna 2,5,3,4

Exposure Position	WWAN SAR	WLAN 5/6GHz Ant 4+3	GSM 1900 Ant 2	WCDMA II Ant 2	WCDMA IV Ant 2	LTE Band 2 Ant 2	LTE Band 7 Ant 2	LTE Band 41 Ant 2	LTE Band 66 Ant 2	FR1 n2 Ant 2	FR1 n7 Ant 2	FR1 n41 Ant 2	FR1 n66 Ant 2	FR1 n77 Ant 2
Back	1g SAR (W/kg)	0.739	0.603	0.571	0.708	0.696	0.700	0.577	0.803	0.690	0.671	0.743	0.517	
FR1 n77_HPUE_Ant 5	0.448	0.764	1.951	1.815	1.783	1.920	1.908	1.912	1.789	2.015	1.902	1.883	1.955	1.729

Hybrid SPLSR calculation for above summation SAR>1.6W/kg

Combination	SAR	SAR peak location (mm)			3D distance (mm)	Summed SAR (W/kg)	SPLSR Results	Simultaneous SAR
		X	Y	Z				
Max WWAN Ant 2	0.803	-61.0	-51.0	-207.0				
Max WWAN Ant 5 + WLAN5/6GHz Ant 4+3	1.212	-40.0	64.5	-207.0	117.4	2.015	0.02	Not required



## FCC SAR TEST REPORT

Report No. :FA451607B

### <Case 54>

SAR summation (blue colored) for each band of antenna 2,6,3,4

Exposure Position	WWAN SAR	WLAN 5/6GHz Ant 4+3	GSM1900 Ant 2	WCDMA II Ant 2	WCDMA IV Ant 2	LTE Band 2 Ant 2	LTE Band 7 Ant 2	LTE Band 41 Ant 2	LTE Band 66 Ant 2	FR1 n2 Ant 2	FR1 n7 Ant 2	FR1 n41 Ant 2	FR1 n66 Ant 2	FR1 n77 Ant 2
Front	1g SAR (W/kg)		0.493	0.507	0.467	0.659	0.557	0.551	0.513	0.654	0.515	0.582	0.586	0.354
FR1 n77_Ant 6	0.381	0.633	1.507	1.521	1.481	1.673	1.571	1.565	1.527	1.668	1.529	1.596	1.600	1.368

SPLSR calculation for above summation SAR>1.6W/kg

Combination	SAR	SAR peak location (mm)			3D distance (mm)	Summed SAR (W/kg)	SPLSR Results	Simultaneous SAR
		X	Y	Z				
Max WWAN Ant 2	0.659	-8.0	-54.0	-207.0	36.9	1.040	0.03	Not required
Max WWAN Ant 6	0.381	-40.5	-71.5	-207.0				
Max WWAN Ant 2	0.659	-8.0	-54.0	-207.0	133.9	1.292	0.01	Not required
WLAN5/6GHz Ant 4+3(4)	0.633	-11.4	79.9	-207.0				
Max WWAN Ant 2	0.659	-8.0	-54.0	-207.0	117.3	1.114	0.01	Not required
WLAN5/6GHz Ant 4+3(3)	0.455	-56.2	52.9	-207.0				
Max WWAN Ant 6	0.381	-40.5	-71.5	-207.0	154.2	1.014	0.01	Not required
WLAN5/6GHz Ant 4+3(4)	0.633	-11.4	79.9	-207.0				
Max WWAN Ant 6	0.381	-40.5	-71.5	-207.0	125.4	0.836	0.01	Not required
WLAN5/6GHz Ant 4+3(3)	0.455	-56.2	52.9	-207.0				
WLAN5/6GHz Ant 4+3(4)	0.633	-11.4	79.9	-207.0	52.3	1.088	0.02	Not required
WLAN5/6GHz Ant 4+3(3)	0.455	-56.2	52.9	-207.0				

### <Case 55>

SAR summation (blue colored) for each band of antenna 2,6,3,4

Exposure Position	WWAN SAR	WLAN 5/6GHz Ant 4+3	GSM1900 Ant 2	WCDMA II Ant 2	WCDMA IV Ant 2	LTE Band 2 Ant 2	LTE Band 7 Ant 2	LTE Band 41 Ant 2	LTE Band 66 Ant 2	FR1 n2 Ant 2	FR1 n7 Ant 2	FR1 n41 Ant 2	FR1 n66 Ant 2	FR1 n77 Ant 2
Back	1g SAR (W/kg)		0.739	0.603	0.571	0.708	0.696	0.700	0.577	0.803	0.690	0.671	0.743	0.517
FR1 n77_Ant 6	0.438	0.764	1.941	1.805	1.773	1.910	1.898	1.902	1.779	2.005	1.892	1.873	1.945	1.719

Hybrid SPLSR calculation for above summation SAR>1.6W/kg

Combination	SAR	SAR peak location (mm)			3D distance (mm)	Summed SAR (W/kg)	SPLSR Results	Simultaneous SAR
		X	Y	Z				
Max WWAN Ant 2	0.803	-49.4	-65.6	-207.0	63.5	2.005	0.04	Not required
Max WWAN Ant 6 + WLAN5/6GHz Ant 4+3	1.202	11.5	-47.5	-207.0				

### <Case 56>

SAR summation (blue colored) for each band of antenna 5,6,3,4

Exposure Position	WWAN SAR	WLAN5/6GHz Ant 4+3			FR1 n77_Ant 6		
Back		1g SAR (W/kg)			0.438		
FR1 n77_HPUE_Ant 5	0.448	0.764			1.650		

Hybrid SPLSR calculation for above summation SAR>1.6W/kg

Combination	SAR	SAR peak location (mm)			3D distance (mm)	Summed SAR (W/kg)	SPLSR Results	Simultaneous SAR
		X	Y	Z				
Max WWAN Ant 6	0.438	11.5	-47.5	-207.0	123.3	1.65	0.02	Not required
Max WWAN Ant 5 + WLAN5/6GHz Ant 4+3	1.212	-40.0	64.5	-207.0				



# FCC SAR TEST REPORT

Report No. :FA451607B

**<Case 57>**

SAR summation (blue colored) for each band of antenna 0,1,3,4

Exposure Position	WWAN SAR	WLAN 2.4GHz Ant 3	WLAN 5/6GHz Ant 4	GSM 850 Ant 0	GSM 1900 Ant 0	WCDMA II Ant 0	WCDMA IV Ant 0	WCDMA V Ant 0	LTE Band 2 Ant 0	LTE Band 7 Ant 0	LTE Band 12 Ant 0	LTE Band 26 Ant 0	LTE Band 41 Ant 0	LTE Band 66 Ant 0	FR1 n2 Ant 0	FR1 n7 Ant 0	FR1 n12 Ant 0	FR1 n26 Ant 0	FR1 n41 Ant 0	FR1 n66 Ant 0
Back	1g SAR (W/kg)			0.446	0.450	0.449	0.454	0.454	0.380	0.386	0.367	0.441	0.369	0.452	0.393	0.418	0.339	0.436	0.445	0.452
GSM850_Ant 1	0.427	0.201	0.576	1.650	1.654	1.653	1.658	1.658	1.584	1.590	1.571	1.645	1.573	1.656	1.597	1.622	1.543	1.640	1.649	1.656
WCDMA V_Ant 1	0.355	0.201	0.576	1.578	1.582	1.581	1.586	1.586	1.512	1.518	1.499	1.573	1.501	1.584	1.525	1.550	1.471	1.568	1.577	1.584
LTE Band 12_Ant 1	0.447	0.201	0.576	1.670	1.674	1.673	1.678	1.678	1.604	1.610	1.591	1.665	1.593	1.676	1.617	1.642	1.563	1.660	1.669	1.676
LTE Band 26_Ant 1	0.385	0.201	0.576	1.608	1.612	1.611	1.616	1.616	1.542	1.548	1.529	1.603	1.531	1.614	1.555	1.580	1.501	1.598	1.607	1.614
FR1 n12_Ant 1	0.373	0.201	0.576	1.596	1.600	1.599	1.604	1.604	1.530	1.536	1.517	1.591	1.519	1.602	1.543	1.568	1.489	1.586	1.595	1.602
FR1 n26_Ant 1	0.406	0.201	0.576	1.629	1.633	1.632	1.637	1.637	1.563	1.569	1.550	1.624	1.552	1.635	1.576	1.601	1.522	1.619	1.628	1.635
FR1 n77_HPUE_Ant 1	0.450	0.201	0.576	1.673	1.677	1.676	1.681	1.681	1.607	1.613	1.594	1.668	1.596	1.679	1.620	1.645	1.566	1.663	1.672	1.679

SPLSR calculation for above summation SAR>1.6W/kg

Combination	SAR	SAR peak location (mm)			3D distance (mm)	Summed SAR (W/kg)	SPLSR Results	Simultaneous SAR
		X	Y	Z				
Max WWAN Ant 0	0.454	-19.8	16.0	-207.0	46.2	0.904	0.02	Not required
Max WWAN Ant 1	0.450	-15.5	62.0	-207.0				
Max WWAN Ant 0	0.454	-19.8	16.0	-207.0	41.2	0.655	0.01	Not required
WLAN2.4GHz Ant 3	0.201	10.0	44.5	-207.0				
Max WWAN Ant 0	0.454	-19.8	16.0	-207.0	69.4	1.03	0.02	Not required
WLAN5/6GHz Ant 4	0.576	-53.4	76.7	-207.0				
Max WWAN Ant 1	0.450	-2.2	59.3	-207.0	19.2	0.651	0.03	Not required
WLAN2.4GHz Ant 3	0.201	10.0	44.5	-207.0				
Max WWAN Ant 1	0.450	-15.5	62.0	-207.0	40.7	1.026	0.03	Not required
WLAN5/6GHz Ant 4	0.576	-53.4	76.7	-207.0				
WLAN2.4GHz Ant 3	0.201	10.0	44.5	-207.0	71.1	0.777	0.01	Not required
WLAN5/6GHz Ant 4	0.576	-53.4	76.7	-207.0				



## FCC SAR TEST REPORT

Report No. :FA451607B

**<Case 58>**

SAR summation (blue colored) for each band of antenna 0,1,3,4

Exposure Position	WWAN SAR	WLAN 5/6GHz Ant 4	Bluetooth Ant 3	GSM 850 Ant 0	GSM 1900 Ant 0	WCDMA II Ant 0	WCDMA IV Ant 0	WCDMA V Ant 0	LTE Band 2 Ant 0	LTE Band 7 Ant 0	LTE Band 12 Ant 0	LTE Band 26 Ant 0	LTE Band 41 Ant 0	LTE Band 66 Ant 0	FR1 n2 Ant 0	FR1 n7 Ant 0	FR1 n12 Ant 0	FR1 n26 Ant 0	FR1 n41 Ant 0	FR1 n66 Ant 0
Back	1g SAR (W/kg)		0.446	0.450	0.449	0.454	0.454	0.380	0.386	0.367	0.441	0.369	0.452	0.393	0.418	0.339	0.436	0.445	0.452	
GSM850_Ant 1	0.427	0.576	0.165	1.614	1.618	1.617	1.622	1.622	1.548	1.554	1.535	1.609	1.537	1.620	1.561	1.586	1.507	1.604	1.613	1.620
WCDMA V_Ant 1	0.355	0.576	0.165	1.542	1.546	1.545	1.550	1.550	1.476	1.482	1.463	1.537	1.465	1.548	1.489	1.514	1.435	1.532	1.541	1.548
LTE Band 12_Ant 1	0.447	0.576	0.165	1.634	1.638	1.637	1.642	1.642	1.568	1.574	1.555	1.629	1.557	1.640	1.581	1.606	1.527	1.624	1.633	1.640
LTE Band 26_Ant 1	0.385	0.576	0.165	1.572	1.576	1.575	1.580	1.580	1.506	1.512	1.493	1.567	1.495	1.578	1.519	1.544	1.465	1.562	1.571	1.578
FR1 n12_Ant 1	0.373	0.576	0.165	1.560	1.564	1.563	1.568	1.568	1.494	1.500	1.481	1.555	1.483	1.566	1.507	1.532	1.453	1.550	1.559	1.566
FR1 n26_Ant 1	0.406	0.576	0.165	1.593	1.597	1.596	1.601	1.601	1.527	1.533	1.514	1.588	1.516	1.599	1.540	1.565	1.486	1.583	1.592	1.599
FR1 n77_HPUE_Ant 1	0.450	0.576	0.165	1.637	1.641	1.640	1.645	1.645	1.571	1.577	1.558	1.632	1.560	1.643	1.584	1.609	1.530	1.627	1.636	1.643

SPLSR calculation for above summation SAR>1.6W/kg

Combination	SAR	SAR peak location (mm)			3D distance (mm)	Summed SAR (W/kg)	SPLSR Results	Simultaneous SAR
		X	Y	Z				
Max WWAN Ant 0	0.454	-19.8	16.0	-207.0	46.2	0.904	0.02	Not required
Max WWAN Ant 1	0.450	-15.5	62.0	-207.0				
Max WWAN Ant 0	0.454	-19.8	16.0	-207.0	40.6	0.619	0.01	Not required
Bluetooth Ant 3	0.165	11.0	42.5	-207.0				
Max WWAN Ant 0	0.454	-19.8	16.0	-207.0	69.4	1.03	0.02	Not required
WLAN5/6GHz Ant 4	0.576	-53.4	76.7	-207.0				
Max WWAN Ant 1	0.450	-2.2	59.3	-207.0	21.4	0.615	0.02	Not required
Bluetooth Ant 3	0.165	11.0	42.5	-207.0				
Max WWAN Ant 1	0.450	-15.5	62.0	-207.0	40.7	1.026	0.03	Not required
WLAN5/6GHz Ant 4	0.576	-53.4	76.7	-207.0				
Bluetooth Ant 3	0.165	11.0	42.5	-207.0	72.9	0.741	0.01	Not required
WLAN5/6GHz Ant 4	0.576	-53.4	76.7	-207.0				



# FCC SAR TEST REPORT

Report No. :FA451607B

**<Case 59>**

SAR summation (blue colored) for each band of antenna 0,2,3,4

Exposure Position	WWAN SAR	WLAN 2.4GHz Ant 3	WLAN 5/6GHz Ant 4	GSM 1900 Ant 2	WCDMA II Ant 2	WCDMA IV Ant 2	LTE Band 2 Ant 2	LTE Band 7 Ant 2	LTE Band 41 Ant 2	LTE Band 66 Ant 2	FR1 n2 Ant 2	FR1 n7 Ant 2	FR1 n41 Ant 2	FR1 n66 Ant 2	FR1 n77 Ant 2
Front	1g SAR (W/kg)			0.493	0.507	0.467	0.659	0.557	0.551	0.513	0.654	0.515	0.582	0.586	0.354
GSM850_Ant 0	0.429	0.180	0.519	1.621	1.635	1.595	1.787	1.685	1.679	1.641	1.782	1.643	1.710	1.714	1.482
GSM1900_Ant 0	0.304	0.180	0.519	1.496	1.510	1.470	1.662	1.560	1.554	1.516	1.657	1.518	1.585	1.589	1.357
WCDMA II_Ant 0	0.282	0.180	0.519	1.474	1.488	1.448	1.640	1.538	1.532	1.494	1.635	1.496	1.563	1.567	1.335
WCDMA IV_Ant 0	0.406	0.180	0.519	1.598	1.612	1.572	1.764	1.662	1.656	1.618	1.759	1.620	1.687	1.691	1.459
WCDMA V_Ant 0	0.447	0.180	0.519	1.639	1.653	1.613	1.805	1.703	1.697	1.659	1.800	1.661	1.728	1.732	1.500
LTE Band 2_Ant 0	0.275	0.180	0.519	1.467	1.481	1.441	1.633	1.531	1.525	1.487	1.628	1.489	1.556	1.560	1.328
LTE Band 7_Ant 0	0.406	0.180	0.519	1.598	1.612	1.572	1.764	1.662	1.656	1.618	1.759	1.620	1.687	1.691	1.459
LTE Band 12_Ant 0	0.332	0.180	0.519	1.524	1.538	1.498	1.690	1.588	1.582	1.544	1.685	1.546	1.613	1.617	1.385
LTE Band 26_Ant 0	0.422	0.180	0.519	1.614	1.628	1.588	1.780	1.678	1.672	1.634	1.775	1.636	1.703	1.707	1.475
LTE Band 41_Ant 0	0.346	0.180	0.519	1.538	1.552	1.512	1.704	1.602	1.596	1.558	1.699	1.560	1.627	1.631	1.399
LTE Band 66_Ant 0	0.415	0.180	0.519	1.607	1.621	1.581	1.773	1.671	1.665	1.627	1.768	1.629	1.696	1.700	1.468
FR1 n2_Ant 0	0.239	0.180	0.519	1.431	1.445	1.405	1.597	1.495	1.489	1.451	1.592	1.453	1.520	1.524	1.292
FR1 n7_Ant 0	0.451	0.180	0.519	1.643	1.657	1.617	1.809	1.707	1.701	1.663	1.804	1.665	1.732	1.736	1.504
FR1 n12_Ant 0	0.323	0.180	0.519	1.515	1.529	1.489	1.681	1.579	1.573	1.535	1.676	1.537	1.604	1.608	1.376
FR1 n26_Ant 0	0.406	0.180	0.519	1.598	1.612	1.572	1.764	1.662	1.656	1.618	1.759	1.620	1.687	1.691	1.459
FR1 n41_Ant 0	0.440	0.180	0.519	1.632	1.646	1.606	1.798	1.696	1.690	1.652	1.793	1.654	1.721	1.725	1.493
FR1 n66_Ant 0	0.322	0.180	0.519	1.514	1.528	1.488	1.680	1.578	1.572	1.534	1.675	1.536	1.603	1.607	1.375

SPLSR calculation for above summation SAR>1.6W/kg

Combination	SAR	SAR peak location (mm)			3D distance (mm)	Summed SAR (W/kg)	SPLSR Results	Simultaneous SAR
		X	Y	Z				
Max WWAN Ant 0 + Max WWAN Ant 2	1.110	-34.5	16.8	-207.0	35.6	1.29	0.04	Not required
WLAN2.4GHz Ant 3	0.180	-61.0	40.5	-207.0				
Max WWAN Ant 0 + Max WWAN Ant 2	1.110	-34.5	16.8	-207.0	69.8	1.629	0.03	Not required
WLAN5/6GHz Ant 4	0.519	-9.4	81.9	-207.0				
WLAN2.4GHz Ant 3	0.180	-61.0	40.5	-207.0	66.2	0.699	0.01	Not required
WLAN5/6GHz Ant 4	0.519	-9.4	81.9	-207.0				



## FCC SAR TEST REPORT

Report No. :FA451607B

**<Case 60>**

SAR summation (blue colored) for each band of antenna 0,2,4

Exposure Position	WWAN SAR	WLAN 5/6GHz Ant 4	Bluetooth Ant 4	GSM1900 Ant 2	WCDMA II Ant 2	WCDMA IV Ant 2	LTE Band 2 Ant 2	LTE Band 7 Ant 2	LTE Band 41 Ant 2	LTE Band 66 Ant 2	FR1 n2 Ant 2	FR1 n7 Ant 2	FR1 n41 Ant 2	FR1 n66 Ant 2	FR1 n77 Ant 2
Front	1g SAR (W/kg)			0.493	0.507	0.467	0.659	0.557	0.551	0.513	0.654	0.515	0.582	0.586	0.354
GSM850_Ant 0	0.429	0.519	0.054	1.495	1.509	1.469	1.661	1.559	1.553	1.515	1.656	1.517	1.584	1.588	1.356
GSM1900_Ant 0	0.304	0.519	0.054	1.370	1.384	1.344	1.536	1.434	1.428	1.390	1.531	1.392	1.459	1.463	1.231
WCDMA II_Ant 0	0.282	0.519	0.054	1.348	1.362	1.322	1.514	1.412	1.406	1.368	1.509	1.370	1.437	1.441	1.209
WCDMA IV_Ant 0	0.406	0.519	0.054	1.472	1.486	1.446	1.638	1.536	1.530	1.492	1.633	1.494	1.561	1.565	1.333
WCDMA V_Ant 0	0.447	0.519	0.054	1.513	1.527	1.487	1.679	1.577	1.571	1.533	1.674	1.535	1.602	1.606	1.374
LTE Band 2_Ant 0	0.275	0.519	0.054	1.341	1.355	1.315	1.507	1.405	1.399	1.361	1.502	1.363	1.430	1.434	1.202
LTE Band 7_Ant 0	0.406	0.519	0.054	1.472	1.486	1.446	1.638	1.536	1.530	1.492	1.633	1.494	1.561	1.565	1.333
LTE Band 12_Ant 0	0.332	0.519	0.054	1.398	1.412	1.372	1.564	1.462	1.456	1.418	1.559	1.420	1.487	1.491	1.259
LTE Band 26_Ant 0	0.422	0.519	0.054	1.488	1.502	1.462	1.654	1.552	1.546	1.508	1.649	1.510	1.577	1.581	1.349
LTE Band 41_Ant 0	0.346	0.519	0.054	1.412	1.426	1.386	1.578	1.476	1.470	1.432	1.573	1.434	1.501	1.505	1.273
LTE Band 66_Ant 0	0.415	0.519	0.054	1.481	1.495	1.455	1.647	1.545	1.539	1.501	1.642	1.503	1.570	1.574	1.342
FR1 n2_Ant 0	0.239	0.519	0.054	1.305	1.319	1.279	1.471	1.369	1.363	1.325	1.466	1.327	1.394	1.398	1.166
FR1 n7_Ant 0	0.451	0.519	0.054	1.517	1.531	1.491	1.683	1.581	1.575	1.537	1.678	1.539	1.606	1.610	1.378
FR1 n12_Ant 0	0.323	0.519	0.054	1.389	1.403	1.363	1.555	1.453	1.447	1.409	1.550	1.411	1.478	1.482	1.250
FR1 n26_Ant 0	0.406	0.519	0.054	1.472	1.486	1.446	1.638	1.536	1.530	1.492	1.633	1.494	1.561	1.565	1.333
FR1 n41_Ant 0	0.440	0.519	0.054	1.506	1.520	1.480	1.672	1.570	1.564	1.526	1.667	1.528	1.595	1.599	1.367
FR1 n66_Ant 0	0.322	0.519	0.054	1.388	1.402	1.362	1.554	1.452	1.446	1.408	1.549	1.410	1.477	1.481	1.249

SPLSR calculation for above summation SAR>1.6W/kg

Combination	SAR	SAR peak location (mm)			3D distance (mm)	Summed SAR (W/kg)	SPLSR Results	Simultaneous SAR
		X	Y	Z				
Max WWAN Ant 0 + Max WWAN Ant 2	1.110	-34.5	16.8	-207.0	69.8	1.629	0.03	Not required
WLAN5/6GHz Ant 4	0.519	-9.4	81.9	-207.0				
Max WWAN Ant 0 + Max WWAN Ant 2	1.110	-22.5	9.5	-207.0	73.3	1.164	0.02	Not required
Bluetooth Ant 4	0.054	10.5	75.0	-207.0				
WLAN5/6GHz Ant 4	0.519	-9.4	81.9	-207.0	21.1	0.573	0.02	Not required
Bluetooth Ant 4	0.054	10.5	75.0	-207.0				



# FCC SAR TEST REPORT

Report No. :FA451607B

**<Case 61>**

SAR summation (blue colored) for each band of antenna 0,2,3,4

Exposure Position	WWAN SAR	WLAN 5/6GHz Ant 4	Bluetooth Ant 3	GSM1900 Ant 2	WCDMA II Ant 2	WCDMA IV Ant 2	LTE Band 2 Ant 2	LTE Band 7 Ant 2	LTE Band 41 Ant 2	LTE Band 66 Ant 2	FR1 n2 Ant 2	FR1 n7 Ant 2	FR1 n41 Ant 2	FR1 n66 Ant 2	FR1 n77 Ant 2
Front	1g SAR (W/kg)			0.493	0.507	0.467	0.659	0.557	0.551	0.513	0.654	0.515	0.582	0.586	0.354
GSM850_Ant 0	0.429	0.519	0.139	1.580	1.594	1.554	1.746	1.644	1.638	1.600	1.741	1.602	1.669	1.673	1.441
GSM1900_Ant 0	0.304	0.519	0.139	1.455	1.469	1.429	1.621	1.519	1.513	1.475	1.616	1.477	1.544	1.548	1.316
WCDMA II_Ant 0	0.282	0.519	0.139	1.433	1.447	1.407	1.599	1.497	1.491	1.453	1.594	1.455	1.522	1.526	1.294
WCDMA IV_Ant 0	0.406	0.519	0.139	1.557	1.571	1.531	1.723	1.621	1.615	1.577	1.718	1.579	1.646	1.650	1.418
WCDMA V_Ant 0	0.447	0.519	0.139	1.598	1.612	1.572	1.764	1.662	1.656	1.618	1.759	1.620	1.687	1.691	1.459
LTE Band 2_Ant 0	0.275	0.519	0.139	1.426	1.440	1.400	1.592	1.490	1.484	1.446	1.587	1.448	1.515	1.519	1.287
LTE Band 7_Ant 0	0.406	0.519	0.139	1.557	1.571	1.531	1.723	1.621	1.615	1.577	1.718	1.579	1.646	1.650	1.418
LTE Band 12_Ant 0	0.332	0.519	0.139	1.483	1.497	1.457	1.649	1.547	1.541	1.503	1.644	1.505	1.572	1.576	1.344
LTE Band 26_Ant 0	0.422	0.519	0.139	1.573	1.587	1.547	1.739	1.637	1.631	1.593	1.734	1.595	1.662	1.666	1.434
LTE Band 41_Ant 0	0.346	0.519	0.139	1.497	1.511	1.471	1.663	1.561	1.555	1.517	1.658	1.519	1.586	1.590	1.358
LTE Band 66_Ant 0	0.415	0.519	0.139	1.566	1.580	1.540	1.732	1.630	1.624	1.586	1.727	1.588	1.655	1.659	1.427
FR1 n2_Ant 0	0.239	0.519	0.139	1.390	1.404	1.364	1.556	1.454	1.448	1.410	1.551	1.412	1.479	1.483	1.251
FR1 n7_Ant 0	0.451	0.519	0.139	1.602	1.616	1.576	1.768	1.666	1.660	1.622	1.763	1.624	1.691	1.695	1.463
FR1 n12_Ant 0	0.323	0.519	0.139	1.474	1.488	1.448	1.640	1.538	1.532	1.494	1.635	1.496	1.563	1.567	1.335
FR1 n26_Ant 0	0.406	0.519	0.139	1.557	1.571	1.531	1.723	1.621	1.615	1.577	1.718	1.579	1.646	1.650	1.418
FR1 n41_Ant 0	0.440	0.519	0.139	1.591	1.605	1.565	1.757	1.655	1.649	1.611	1.752	1.613	1.680	1.684	1.452
FR1 n66_Ant 0	0.322	0.519	0.139	1.473	1.487	1.447	1.639	1.537	1.531	1.493	1.634	1.495	1.562	1.566	1.334

SPLSR calculation for above summation SAR>1.6W/kg

Combination	SAR	SAR peak location (mm)			3D distance (mm)	Summed SAR (W/kg)	SPLSR Results	Simultaneous SAR
		X	Y	Z				
Max WWAN Ant 0 + Max WWAN Ant 2	1.110	-34.5	16.8	-207.0	69.8	1.629	0.03	Not required
WLAN5/6GHz Ant 4	0.519	-9.4	81.9	-207.0				
Max WWAN Ant 0 + Max WWAN Ant 2	1.110	-22.5	9.5	-207.0	52.5	1.249	0.03	Not required
Bluetooth Ant 3	0.139	-64.5	41.0	-207.0				
WLAN5/6GHz Ant 4	0.519	-9.4	81.9	-207.0	68.6	0.658	0.01	Not required
Bluetooth Ant 3	0.139	-64.5	41.0	-207.0				



# FCC SAR TEST REPORT

Report No.:FA451607B

**<Case 62>**

SAR summation (blue colored) for each band of antenna 0,2,3,4

Exposure Position	WWAN SAR	WLAN 2.4GHz Ant 3	WLAN 5/6GHz Ant 4	GSM 1900 Ant 2	WCDMA II Ant 2	WCDMA IV Ant 2	LTE Band 2 Ant 2	LTE Band 7 Ant 2	LTE Band 41 Ant 2	LTE Band 66 Ant 2	FR1 n2 Ant 2	FR1 n7 Ant 2	FR1 n41 Ant 2	FR1 n66 Ant 2	FR1 n77 Ant 2
Back	1g SAR (W/kg)			0.739	0.603	0.571	0.708	0.696	0.700	0.577	0.803	0.690	0.671	0.743	0.517
GSM850_Ant 0	0.446	0.201	0.576	1.962	1.826	1.794	1.931	1.919	1.923	1.800	2.026	1.913	1.894	1.966	1.740
GSM1900_Ant 0	0.450	0.201	0.576	1.966	1.830	1.798	1.935	1.923	1.927	1.804	2.030	1.917	1.898	1.970	1.744
WCDMA II_Ant 0	0.449	0.201	0.576	1.965	1.829	1.797	1.934	1.922	1.926	1.803	2.029	1.916	1.897	1.969	1.743
WCDMA IV_Ant 0	0.454	0.201	0.576	1.970	1.834	1.802	1.939	1.927	1.931	1.808	2.034	1.921	1.902	1.974	1.748
WCDMA V_Ant 0	0.454	0.201	0.576	1.970	1.834	1.802	1.939	1.927	1.931	1.808	2.034	1.921	1.902	1.974	1.748
LTE Band 2_Ant 0	0.380	0.201	0.576	1.896	1.760	1.728	1.865	1.853	1.857	1.734	1.960	1.847	1.828	1.900	1.674
LTE Band 7_Ant 0	0.386	0.201	0.576	1.902	1.766	1.734	1.871	1.859	1.863	1.740	1.966	1.853	1.834	1.906	1.680
LTE Band 12_Ant 0	0.367	0.201	0.576	1.883	1.747	1.715	1.852	1.840	1.844	1.721	1.947	1.834	1.815	1.887	1.661
LTE Band 26_Ant 0	0.441	0.201	0.576	1.957	1.821	1.789	1.926	1.914	1.918	1.795	2.021	1.908	1.889	1.961	1.735
LTE Band 41_Ant 0	0.369	0.201	0.576	1.885	1.749	1.717	1.854	1.842	1.846	1.723	1.949	1.836	1.817	1.889	1.663
LTE Band 66_Ant 0	0.452	0.201	0.576	1.968	1.832	1.800	1.937	1.925	1.929	1.806	2.032	1.919	1.900	1.972	1.746
FR1 n2_Ant 0	0.393	0.201	0.576	1.909	1.773	1.741	1.878	1.866	1.870	1.747	1.973	1.860	1.841	1.913	1.687
FR1 n7_Ant 0	0.418	0.201	0.576	1.934	1.798	1.766	1.903	1.891	1.895	1.772	1.998	1.885	1.866	1.938	1.712
FR1 n12_Ant 0	0.339	0.201	0.576	1.855	1.719	1.687	1.824	1.812	1.816	1.693	1.919	1.806	1.787	1.859	1.633
FR1 n26_Ant 0	0.436	0.201	0.576	1.952	1.816	1.784	1.921	1.909	1.913	1.790	2.016	1.903	1.884	1.956	1.730
FR1 n41_Ant 0	0.445	0.201	0.576	1.961	1.825	1.793	1.930	1.918	1.922	1.799	2.025	1.912	1.893	1.965	1.739
FR1 n66_Ant 0	0.452	0.201	0.576	1.968	1.832	1.800	1.937	1.925	1.929	1.806	2.032	1.919	1.900	1.972	1.746

SPLSR calculation for above summation SAR>1.6W/kg

Combination	SAR	SAR peak location (mm)			3D distance (mm)	Summed SAR (W/kg)	SPLSR Results	Simultaneous SAR
		X	Y	Z				
Max WWAN Ant 0	0.454	-12.0	-75.6	-207.0	38.7	1.257	0.04	Not required
Max WWAN Ant 2	0.803	-49.4	-65.6	-207.0				
Max WWAN Ant 0	0.454	-19.8	16.0	-207.0	41.2	0.655	0.01	Not required
WLAN2.4GHz Ant 3	0.201	10.0	44.5	-207.0				
Max WWAN Ant 0	0.454	-19.8	16.0	-207.0	69.4	1.030	0.02	Not required
WLAN5/6GHz Ant 4	0.576	-53.4	76.7	-207.0				
Max WWAN Ant 2	0.803	-61.0	-51.0	-207.0	119.0	1.004	0.01	Not required
WLAN2.4GHz Ant 3	0.201	10.0	44.5	-207.0				
Max WWAN Ant 2	0.803	-61.0	-51.0	-207.0	127.9	1.379	0.01	Not required
WLAN5/6GHz Ant 4	0.576	-53.4	76.7	-207.0				
WLAN2.4GHz Ant 3	0.201	10.0	44.5	-207.0	71.1	0.777	0.01	Not required
WLAN5/6GHz Ant 4	0.576	-53.4	76.7	-207.0				



## FCC SAR TEST REPORT

Report No. :FA451607B

**<Case 63>**

SAR summation (blue colored) for each band of antenna 0,2, 4

Exposure Position	WWAN SAR	WLAN 5/6GHz Ant 4	Bluetooth Ant 4	GSM1900 Ant 2	WCDMA II Ant 2	WCDMA IV Ant 2	LTE Band 2 Ant 2	LTE Band 7 Ant 2	LTE Band 41 Ant 2	LTE Band 66 Ant 2	FR1 n2 Ant 2	FR1 n7 Ant 2	FR1 n41 Ant 2	FR1 n66 Ant 2	FR1 n77 Ant 2
Back		1g SAR (W/kg)		0.739	0.603	0.571	0.708	0.696	0.700	0.577	0.803	0.690	0.671	0.743	0.517
GSM850_Ant 0	0.446	0.576	0.064	1.825	1.689	1.657	1.794	1.782	1.786	1.663	1.889	1.776	1.757	1.829	1.603
GSM1900_Ant 0	0.450	0.576	0.064	1.829	1.693	1.661	1.798	1.786	1.790	1.667	1.893	1.780	1.761	1.833	1.607
WCDMA II_Ant 0	0.449	0.576	0.064	1.828	1.692	1.660	1.797	1.785	1.789	1.666	1.892	1.779	1.760	1.832	1.606
WCDMA IV_Ant 0	0.454	0.576	0.064	1.833	1.697	1.665	1.802	1.790	1.794	1.671	1.897	1.784	1.765	1.837	1.611
WCDMA V_Ant 0	0.454	0.576	0.064	1.833	1.697	1.665	1.802	1.790	1.794	1.671	1.897	1.784	1.765	1.837	1.611
LTE Band 2_Ant 0	0.380	0.576	0.064	1.759	1.623	1.591	1.728	1.716	1.720	1.597	1.823	1.710	1.691	1.763	1.537
LTE Band 7_Ant 0	0.386	0.576	0.064	1.765	1.629	1.597	1.734	1.722	1.726	1.603	1.829	1.716	1.697	1.769	1.543
LTE Band 12_Ant 0	0.367	0.576	0.064	1.746	1.610	1.578	1.715	1.703	1.707	1.584	1.810	1.697	1.678	1.750	1.524
LTE Band 26_Ant 0	0.441	0.576	0.064	1.820	1.684	1.652	1.789	1.777	1.781	1.658	1.884	1.771	1.752	1.824	1.598
LTE Band 41_Ant 0	0.369	0.576	0.064	1.748	1.612	1.580	1.717	1.705	1.709	1.586	1.812	1.699	1.680	1.752	1.526
LTE Band 66_Ant 0	0.452	0.576	0.064	1.831	1.695	1.663	1.800	1.788	1.792	1.669	1.895	1.782	1.763	1.835	1.609
FR1 n2_Ant 0	0.393	0.576	0.064	1.772	1.636	1.604	1.741	1.729	1.733	1.610	1.836	1.723	1.704	1.776	1.550
FR1 n7_Ant 0	0.418	0.576	0.064	1.797	1.661	1.629	1.766	1.754	1.758	1.635	1.861	1.748	1.729	1.801	1.575
FR1 n12_Ant 0	0.339	0.576	0.064	1.718	1.582	1.550	1.687	1.675	1.679	1.556	1.782	1.669	1.650	1.722	1.496
FR1 n26_Ant 0	0.436	0.576	0.064	1.815	1.679	1.647	1.784	1.772	1.776	1.653	1.879	1.766	1.747	1.819	1.593
FR1 n41_Ant 0	0.445	0.576	0.064	1.824	1.688	1.656	1.793	1.781	1.785	1.662	1.888	1.775	1.756	1.828	1.602
FR1 n66_Ant 0	0.452	0.576	0.064	1.831	1.695	1.663	1.800	1.788	1.792	1.669	1.895	1.782	1.763	1.835	1.609

SPLSR calculation for above summation SAR>1.6W/kg

Combination	SAR	SAR peak location (mm)			3D distance (mm)	Summed SAR (W/kg)	SPLSR Results	Simultaneous SAR
		X	Y	Z				
WLAN5/6GHz Ant 4 + Bluetooth Ant 4	0.640	-53.4	76.7	-207.0	69.4	1.094	0.02	Not required
Max WWAN Ant 0	0.454	-19.8	16.0	-207.0				
WLAN5/6GHz Ant 4 + Bluetooth Ant 4	0.640	-58.5	75.0	-207.0	126.0	1.443	0.01	Not required
Max WWAN Ant 2	0.803	-61.0	-51.0	-207.0				
Max WWAN Ant 0	0.454	-12.0	-75.6	-207.0	38.7	1.257	0.04	Not required
Max WWAN Ant 2	0.803	-49.4	-65.6	-207.0				



## FCC SAR TEST REPORT

Report No. :FA451607B

### <Case 64>

SAR summation (blue colored) for each band of antenna 0,2,3,4

Exposure Position	WWAN SAR	WLAN 5/6GHz Ant 4	Bluetooth Ant 3	GSM1900 Ant 2	WCDMA II Ant 2	WCDMA IV Ant 2	LTE Band 2 Ant 2	LTE Band 7 Ant 2	LTE Band 41 Ant 2	LTE Band 66 Ant 2	FR1 n2 Ant 2	FR1 n7 Ant 2	FR1 n41 Ant 2	FR1 n66 Ant 2	FR1 n77 Ant 2
Back	1g SAR (W/kg)			0.739	0.603	0.571	0.708	0.696	0.700	0.577	0.803	0.690	0.671	0.743	0.517
GSM850_Ant 0	0.446	0.576	0.165	1.926	1.790	1.758	1.895	1.883	1.887	1.764	1.990	1.877	1.858	1.930	1.704
GSM1900_Ant 0	0.450	0.576	0.165	1.930	1.794	1.762	1.899	1.887	1.891	1.768	1.994	1.881	1.862	1.934	1.708
WCDMA II_Ant 0	0.449	0.576	0.165	1.929	1.793	1.761	1.898	1.886	1.890	1.767	1.993	1.880	1.861	1.933	1.707
WCDMA IV_Ant 0	0.454	0.576	0.165	1.934	1.798	1.766	1.903	1.891	1.895	1.772	1.998	1.885	1.866	1.938	1.712
WCDMA V_Ant 0	0.454	0.576	0.165	1.934	1.798	1.766	1.903	1.891	1.895	1.772	1.998	1.885	1.866	1.938	1.712
LTE Band 2_Ant 0	0.380	0.576	0.165	1.860	1.724	1.692	1.829	1.817	1.821	1.698	1.924	1.811	1.792	1.864	1.638
LTE Band 7_Ant 0	0.386	0.576	0.165	1.866	1.730	1.698	1.835	1.823	1.827	1.704	1.930	1.817	1.798	1.870	1.644
LTE Band 12_Ant 0	0.367	0.576	0.165	1.847	1.711	1.679	1.816	1.804	1.808	1.685	1.911	1.798	1.779	1.851	1.625
LTE Band 26_Ant 0	0.441	0.576	0.165	1.921	1.785	1.753	1.890	1.878	1.882	1.759	1.985	1.872	1.853	1.925	1.699
LTE Band 41_Ant 0	0.369	0.576	0.165	1.849	1.713	1.681	1.818	1.806	1.810	1.687	1.913	1.800	1.781	1.853	1.627
LTE Band 66_Ant 0	0.452	0.576	0.165	1.932	1.796	1.764	1.901	1.889	1.893	1.770	1.996	1.883	1.864	1.936	1.710
FR1 n2_Ant 0	0.393	0.576	0.165	1.873	1.737	1.705	1.842	1.830	1.834	1.711	1.937	1.824	1.805	1.877	1.651
FR1 n7_Ant 0	0.418	0.576	0.165	1.898	1.762	1.730	1.867	1.855	1.859	1.736	1.962	1.849	1.830	1.902	1.676
FR1 n12_Ant 0	0.339	0.576	0.165	1.819	1.683	1.651	1.788	1.776	1.780	1.657	1.883	1.770	1.751	1.823	1.597
FR1 n26_Ant 0	0.436	0.576	0.165	1.916	1.780	1.748	1.885	1.873	1.877	1.754	1.980	1.867	1.848	1.920	1.694
FR1 n41_Ant 0	0.445	0.576	0.165	1.925	1.789	1.757	1.894	1.882	1.886	1.763	1.989	1.876	1.857	1.929	1.703
FR1 n66_Ant 0	0.452	0.576	0.165	1.932	1.796	1.764	1.901	1.889	1.893	1.770	1.996	1.883	1.864	1.936	1.710

SPLSR calculation for above summation SAR>1.6W/kg

Combination	SAR	SAR peak location (mm)			3D distance (mm)	Summed SAR (W/kg)	SPLSR Results	Simultaneous SAR
		X	Y	Z				
Max WWAN Ant 0	0.454	-12.0	-75.6	-207.0	38.7	1.257	0.04	Not required
Max WWAN Ant 2	0.803	-49.4	-65.6	-207.0				
Max WWAN Ant 0	0.454	-19.8	16.0	-207.0	69.4	1.030	0.02	Not required
WLAN5/6GHz Ant 4	0.576	-53.4	76.7	-207.0				
Max WWAN Ant 0	0.454	-19.8	16.0	-207.0	40.6	0.619	0.01	Not required
Bluetooth Ant 3	0.165	11.0	42.5	-207.0				
Max WWAN Ant 2	0.803	-61.0	-51.0	-207.0	127.9	1.379	0.01	Not required
WLAN5/6GHz Ant 4	0.576	-53.4	76.7	-207.0				
Max WWAN Ant 2	0.803	-61.0	-51.0	-207.0	118.0	0.968	0.01	Not required
Bluetooth Ant 3	0.165	11.0	42.5	-207.0				
WLAN5/6GHz Ant 4	0.576	-53.4	76.7	-207.0	72.9	0.741	0.01	Not required
Bluetooth Ant 3	0.165	11.0	42.5	-207.0				



## FCC SAR TEST REPORT

Report No. :FA451607B

### <Case 65>

SAR summation (blue colored) for each band of antenna 0,5,3,4

Exposure Position	WWAN SAR	WLAN 2.4GHz Ant 3	WLAN 5/6GHz Ant 4	GSM 850 Ant 0	GSM 1900 Ant 0	WCDMA II Ant 0	WCDMA IV Ant 0	WCDMA V Ant 0	LTE Band 2 Ant 0	LTE Band 7 Ant 0	LTE Band 12 Ant 0	LTE Band 26 Ant 0	LTE Band 41 Ant 0	LTE Band 66 Ant 0	FR1 n2 Ant 0	FR1 n7 Ant 0	FR1 n12 Ant 0	FR1 n26 Ant 0	FR1 n41 Ant 0	FR1 n66 Ant 0
Back	1g SAR (W/kg)	0.446	0.450	0.449	0.454	0.454	0.380	0.386	0.367	0.441	0.369	0.452	0.393	0.418	0.339	0.436	0.445	0.452		
FR1 n77_HPUE_Ant 5	0.448	0.201	0.576	1.671	1.675	1.674	1.679	1.679	1.605	1.611	1.592	1.666	1.594	1.677	1.618	1.643	1.564	1.661	1.670	1.677

Hybrid SPLSR calculation for above summation SAR>1.6W/kg

Combination	SAR	SAR peak location (mm)			3D distance (mm)	Summed SAR (W/kg)	SPLSR Results	Simultaneous SAR
		X	Y	Z				
Max WWAN Ant 0	0.446	-19.8	16.0	-207.0	52.5	1.470	0.03	Not required
Max WWAN Ant 5 + WLAN5/6GHz Ant 4	1.024	-40.0	64.5	-207.0				
WLAN2.4GHz Ant 3	0.201	10.0	44.5	-207.0	53.9	1.225	0.03	Not required
Max WWAN Ant 5 + WLAN5/6GHz Ant 4	1.024	-40.0	64.5	-207.0				
Max WWAN Ant 0	0.446	-19.8	16.0	-207.0	41.2	0.647	0.01	Not required
WLAN2.4GHz Ant 3	0.201	10.0	44.5	-207.0				

### <Case 66>

SAR summation (blue colored) for each band of antenna 0,5,3,4

Exposure Position	WWAN SAR	WLAN 5/6GHz Ant 4	Bluetooth Ant 3	GSM 850 Ant 0	GSM 1900 Ant 0	WCDMA II Ant 0	WCDMA IV Ant 0	WCDMA V Ant 0	LTE Band 2 Ant 0	LTE Band 7 Ant 0	LTE Band 12 Ant 0	LTE Band 26 Ant 0	LTE Band 41 Ant 0	LTE Band 66 Ant 0	FR1 n2 Ant 0	FR1 n7 Ant 0	FR1 n12 Ant 0	FR1 n26 Ant 0	FR1 n41 Ant 0	FR1 n66 Ant 0
Back	1g SAR (W/kg)	0.446	0.450	0.449	0.454	0.454	0.380	0.386	0.367	0.441	0.369	0.452	0.393	0.418	0.339	0.436	0.445	0.452		
FR1 n77_HPUE_Ant 5	0.448	0.576	0.165	1.635	1.639	1.638	1.643	1.643	1.569	1.575	1.556	1.630	1.558	1.641	1.582	1.607	1.528	1.625	1.634	1.641

Hybrid SPLSR calculation for above summation SAR>1.6W/kg

Combination	SAR	SAR peak location (mm)			3D distance (mm)	Summed SAR (W/kg)	SPLSR Results	Simultaneous SAR
		X	Y	Z				
Max WWAN Ant 0	0.446	-19.8	16.0	-207.0	52.5	1.470	0.03	Not required
Max WWAN Ant 5 + WLAN5/6GHz Ant 4	1.024	-40.0	64.5	-207.0				
Bluetooth Ant 3	0.165	11.0	42.5	-207.0	55.5	1.189	0.02	Not required
Max WWAN Ant 5 + WLAN5/6GHz Ant 4	1.024	-40.0	64.5	-207.0				
Max WWAN Ant 0	0.446	-19.8	16.0	-207.0	40.6	0.611	0.01	Not required
Bluetooth Ant 3	0.165	11.0	42.5	-207.0				



## FCC SAR TEST REPORT

Report No. :FA451607B

### <Case 67>

SAR summation (blue colored) for each band of antenna 1,2,3,4

Exposure Position	WWAN SAR	WLAN 2.4GHz Ant 3	WLAN 5/6GHz Ant 4	GSM 1900 Ant 2	WCDMA II Ant 2	WCDMA IV Ant 2	LTE Band 2 Ant 2	LTE Band 7 Ant 2	LTE Band 41 Ant 2	LTE Band 66 Ant 2	FR1 n2 Ant 2	FR1 n7 Ant 2	FR1 n41 Ant 2	FR1 n66 Ant 2	FR1 n77 Ant 2
Front		1g SAR (W/kg)		0.493	0.507	0.467	0.659	0.557	0.551	0.513	0.654	0.515	0.582	0.586	0.354
GSM850_Ant 1	0.310	0.180	0.519	1.502	1.516	1.476	1.668	1.566	1.560	1.522	1.663	1.524	1.591	1.595	1.363
WCDMA V_Ant 1	0.230	0.180	0.519	1.422	1.436	1.396	1.588	1.486	1.480	1.442	1.583	1.444	1.511	1.515	1.283
LTE Band 12_Ant 1	0.312	0.180	0.519	1.504	1.518	1.478	1.670	1.568	1.562	1.524	1.665	1.526	1.593	1.597	1.365
LTE Band 26_Ant 1	0.261	0.180	0.519	1.453	1.467	1.427	1.619	1.517	1.511	1.473	1.614	1.475	1.542	1.546	1.314
FR1 n12_Ant 1	0.249	0.180	0.519	1.441	1.455	1.415	1.607	1.505	1.499	1.461	1.602	1.463	1.530	1.534	1.302
FR1 n26_Ant 1	0.242	0.180	0.519	1.434	1.448	1.408	1.600	1.498	1.492	1.454	1.595	1.456	1.523	1.527	1.295
FR1 n77_HPUE_Ant 1	0.415	0.180	0.519	1.607	1.621	1.581	1.773	1.671	1.665	1.627	1.768	1.629	1.696	1.700	1.468

Hybrid SPLSR calculation for above summation SAR>1.6W/kg

Combination	SAR	SAR peak location (mm)			3D distance (mm)	Summed SAR (W/kg)	SPLSR Results	Simultaneous SAR
		X	Y	Z				
Max WWAN Ant 2	0.659	-8.0	-54.0	-207.0	108.3	1.773	0.02	Not required
Max WWAN Ant 1 + WLAN2.4GHz Ant 3 + WLAN5/6GHz Ant 4	1.114	-61.0	40.5	-207.0				

### <Case 68>

SAR summation (blue colored) for each band of antenna 1,2,4

Exposure Position	WWAN SAR	WLAN 5/6GHz Ant 4	Bluetooth Ant 4	GSM 1900 Ant 2	WCDMA II Ant 2	WCDMA IV Ant 2	LTE Band 2 Ant 2	LTE Band 7 Ant 2	LTE Band 41 Ant 2	LTE Band 66 Ant 2	FR1 n2 Ant 2	FR1 n7 Ant 2	FR1 n41 Ant 2	FR1 n66 Ant 2	FR1 n77 Ant 2
Front		1g SAR (W/kg)		0.493	0.507	0.467	0.659	0.557	0.551	0.513	0.654	0.515	0.582	0.586	0.354
GSM850_Ant 1	0.310	0.519	0.054	1.376	1.390	1.350	1.542	1.440	1.434	1.396	1.537	1.398	1.465	1.469	1.237
WCDMA V_Ant 1	0.230	0.519	0.054	1.296	1.310	1.270	1.462	1.360	1.354	1.316	1.457	1.318	1.385	1.389	1.157
LTE Band 12_Ant 1	0.312	0.519	0.054	1.378	1.392	1.352	1.544	1.442	1.436	1.398	1.539	1.400	1.467	1.471	1.239
LTE Band 26_Ant 1	0.261	0.519	0.054	1.327	1.341	1.301	1.493	1.391	1.385	1.347	1.488	1.349	1.416	1.420	1.188
FR1 n12_Ant 1	0.249	0.519	0.054	1.315	1.329	1.289	1.481	1.379	1.373	1.335	1.476	1.337	1.404	1.408	1.176
FR1 n26_Ant 1	0.242	0.519	0.054	1.308	1.322	1.282	1.474	1.372	1.366	1.328	1.469	1.330	1.397	1.401	1.169
FR1 n77_HPUE_Ant 1	0.415	0.519	0.054	1.481	1.495	1.455	1.647	1.545	1.539	1.501	1.642	1.503	1.570	1.574	1.342

Hybrid SPLSR calculation for above summation SAR>1.6W/kg

Combination	SAR	SAR peak location (mm)			3D distance (mm)	Summed SAR (W/kg)	SPLSR Results	Simultaneous SAR
		X	Y	Z				
Max WWAN Ant 2	0.659	18.1	-64.6	-207.0	139.8	1.647	0.02	Not required
Max WWAN Ant 1 + WLAN5/6GHz Ant 4 + Bluetooth Ant 4	0.988	10.5	75.0	-207.0				

### <Case 69>

SAR summation (blue colored) for each band of antenna 1,2,3,4

Exposure Position	WWAN SAR	WLAN 5/6GHz Ant 4	Bluetooth Ant 3	GSM 1900 Ant 2	WCDMA II Ant 2	WCDMA IV Ant 2	LTE Band 2 Ant 2	LTE Band 7 Ant 2	LTE Band 41 Ant 2	LTE Band 66 Ant 2	FR1 n2 Ant 2	FR1 n7 Ant 2	FR1 n41 Ant 2	FR1 n66 Ant 2	FR1 n77 Ant 2
Front		1g SAR (W/kg)		0.493	0.507	0.467	0.659	0.557	0.551	0.513	0.654	0.515	0.582	0.586	0.354
GSM850_Ant 1	0.310	0.519	0.139	1.461	1.475	1.435	1.627	1.525	1.519	1.481	1.622	1.483	1.550	1.554	1.322
WCDMA V_Ant 1	0.230	0.519	0.139	1.381	1.395	1.355	1.547	1.445	1.439	1.401	1.542	1.403	1.470	1.474	1.242
LTE Band 12_Ant 1	0.312	0.519	0.139	1.463	1.477	1.437	1.629	1.527	1.521	1.483	1.624	1.485	1.552	1.556	1.324
LTE Band 26_Ant 1	0.261	0.519	0.139	1.412	1.426	1.386	1.578	1.476	1.470	1.432	1.573	1.434	1.501	1.505	1.273
FR1 n12_Ant 1	0.249	0.519	0.139	1.400	1.414	1.374	1.566	1.464	1.458	1.420	1.561	1.422	1.489	1.493	1.261
FR1 n26_Ant 1	0.242	0.519	0.139	1.393	1.407	1.367	1.559	1.457	1.451	1.413	1.554	1.415	1.482	1.486	1.254
FR1 n77_HPUE_Ant 1	0.415	0.519	0.139	1.566	1.580	1.540	1.732	1.630	1.624	1.586	1.727	1.588	1.655	1.659	1.427

Hybrid SPLSR calculation for above summation SAR>1.6W/kg

Combination	SAR	SAR peak location (mm)			3D distance (mm)	Summed SAR (W/kg)	SPLSR Results	Simultaneous SAR
		X	Y	Z				
Max WWAN Ant 2	0.659	-8.0	-54.0	-207.0	110.5	1.732	0.02	Not required
Max WWAN Ant 1 + WLAN5/6GHz Ant 4 + Bluetooth Ant 3	1.073	-64.5	41.0	-207.0				



## FCC SAR TEST REPORT

Report No. :FA451607B

### <Case 70>

SAR summation (blue colored) for each band of antenna 1,2,3,4

Exposure Position	WWAN SAR	WLAN 2.4GHz Ant 3	WLAN 5/6GHz Ant 4	GSM1900 Ant 2	WCDMA II Ant 2	WCDMA IV Ant 2	LTE Band 2 Ant 2	LTE Band 7 Ant 2	LTE Band 41 Ant 2	LTE Band 66 Ant 2	FR1 n2 Ant 2	FR1 n7 Ant 2	FR1 n41 Ant 2	FR1 n66 Ant 2	FR1 n77 Ant 2
Back	1g SAR (W/kg)			0.739	0.603	0.571	0.708	0.696	0.700	0.577	0.803	0.690	0.671	0.743	0.517
GSM850_Ant 1	0.427	0.201	0.576	1.943	1.807	1.775	1.912	1.900	1.904	1.781	2.007	1.894	1.875	1.947	1.721
WCDMA V_Ant 1	0.355	0.201	0.576	1.871	1.735	1.703	1.840	1.828	1.832	1.709	1.935	1.822	1.803	1.875	1.649
LTE Band 12_Ant 1	0.447	0.201	0.576	1.963	1.827	1.795	1.932	1.920	1.924	1.801	2.027	1.914	1.895	1.967	1.741
LTE Band 26_Ant 1	0.385	0.201	0.576	1.901	1.765	1.733	1.870	1.858	1.862	1.739	1.965	1.852	1.833	1.905	1.679
FR1 n12_Ant 1	0.373	0.201	0.576	1.889	1.753	1.721	1.858	1.846	1.850	1.727	1.953	1.840	1.821	1.893	1.667
FR1 n26_Ant 1	0.406	0.201	0.576	1.922	1.786	1.754	1.891	1.879	1.883	1.760	1.986	1.873	1.854	1.926	1.700
FR1 n77_HPUE_Ant 1	0.450	0.201	0.576	1.966	1.830	1.798	1.935	1.923	1.927	1.804	2.030	1.917	1.898	1.970	1.744

Hybrid SPLSR calculation for above summation SAR>1.6W/kg

Combination	SAR	SAR peak location (mm)			3D distance (mm)	Summed SAR (W/kg)	SPLSR Results	Simultaneous SAR
		X	Y	Z				
Max WWAN Ant 2	0.803	-61.0	-51.0	-207.0	119.0	2.03	0.02	Not required
Max WWAN Ant 1 + WLAN2.4GHz Ant 3 + WLAN5/6GHz Ant 4	1.227	10.0	44.5	-207.0				

### <Case 71>

SAR summation (blue colored) for each band of antenna 1,2,4

Exposure Position	WWAN SAR	WLAN 5/6GHz Ant 4	Bluetooth Ant 4	GSM1900 Ant 2	WCDMA II Ant 2	WCDMA IV Ant 2	LTE Band 2 Ant 2	LTE Band 7 Ant 2	LTE Band 41 Ant 2	LTE Band 66 Ant 2	FR1 n2 Ant 2	FR1 n7 Ant 2	FR1 n41 Ant 2	FR1 n66 Ant 2	FR1 n77 Ant 2
Back	1g SAR (W/kg)			0.739	0.603	0.571	0.708	0.696	0.700	0.577	0.803	0.690	0.671	0.743	0.517
GSM850_Ant 1	0.427	0.576	0.064	1.806	1.670	1.638	1.775	1.763	1.767	1.644	1.870	1.757	1.738	1.810	1.584
WCDMA V_Ant 1	0.355	0.576	0.064	1.734	1.598	1.566	1.703	1.691	1.695	1.572	1.798	1.685	1.666	1.738	1.512
LTE Band 12_Ant 1	0.447	0.576	0.064	1.826	1.690	1.658	1.795	1.783	1.787	1.664	1.890	1.777	1.758	1.830	1.604
LTE Band 26_Ant 1	0.385	0.576	0.064	1.764	1.628	1.596	1.733	1.721	1.725	1.602	1.828	1.715	1.696	1.768	1.542
FR1 n12_Ant 1	0.373	0.576	0.064	1.752	1.616	1.584	1.721	1.709	1.713	1.590	1.816	1.703	1.684	1.756	1.530
FR1 n26_Ant 1	0.406	0.576	0.064	1.785	1.649	1.617	1.754	1.742	1.746	1.623	1.849	1.736	1.717	1.789	1.563
FR1 n77_HPUE_Ant 1	0.450	0.576	0.064	1.829	1.693	1.661	1.798	1.786	1.790	1.667	1.893	1.780	1.761	1.833	1.607

Hybrid SPLSR calculation for above summation SAR>1.6W/kg

Combination	SAR	SAR peak location (mm)			3D distance (mm)	Summed SAR (W/kg)	SPLSR Results	Simultaneous SAR
		X	Y	Z				
Max WWAN Ant 2	0.803	-61.0	-51.0	-207.0	126.0	1.893	0.02	Not required
Max WWAN Ant 1 + WLAN5/6GHz Ant 4 + Bluetooth Ant 4	1.090	-58.5	75.0	-207.0				

### <Case 72>

SAR summation (blue colored) for each band of antenna 1,2,3,4

Exposure Position	WWAN SAR	WLAN 5/6GHz Ant 4	Bluetooth Ant 3	GSM1900 Ant 2	WCDMA II Ant 2	WCDMA IV Ant 2	LTE Band 2 Ant 2	LTE Band 7 Ant 2	LTE Band 41 Ant 2	LTE Band 66 Ant 2	FR1 n2 Ant 2	FR1 n7 Ant 2	FR1 n41 Ant 2	FR1 n66 Ant 2	FR1 n77 Ant 2
Back	1g SAR (W/kg)			0.739	0.603	0.571	0.708	0.696	0.700	0.577	0.803	0.690	0.671	0.743	0.517
GSM850_Ant 1	0.427	0.576	0.165	1.907	1.771	1.739	1.876	1.864	1.868	1.745	1.971	1.858	1.839	1.911	1.685
WCDMA V_Ant 1	0.355	0.576	0.165	1.835	1.699	1.667	1.804	1.792	1.796	1.673	1.899	1.786	1.767	1.839	1.613
LTE Band 12_Ant 1	0.447	0.576	0.165	1.927	1.791	1.759	1.896	1.884	1.888	1.765	1.991	1.878	1.859	1.931	1.705
LTE Band 26_Ant 1	0.385	0.576	0.165	1.865	1.729	1.697	1.834	1.822	1.826	1.703	1.929	1.816	1.797	1.869	1.643
FR1 n12_Ant 1	0.373	0.576	0.165	1.853	1.717	1.685	1.822	1.810	1.814	1.691	1.917	1.804	1.785	1.857	1.631
FR1 n26_Ant 1	0.406	0.576	0.165	1.886	1.750	1.718	1.855	1.843	1.847	1.724	1.950	1.837	1.818	1.890	1.664
FR1 n77_HPUE_Ant 1	0.450	0.576	0.165	1.930	1.794	1.762	1.899	1.887	1.891	1.768	1.994	1.881	1.862	1.934	1.708

Hybrid SPLSR calculation for above summation SAR>1.6W/kg

Combination	SAR	SAR peak location (mm)			3D distance (mm)	Summed SAR (W/kg)	SPLSR Results	Simultaneous SAR
		X	Y	Z				
Max WWAN Ant 2	0.803	-61.0	-51.0	-207.0	118.0	1.994	0.02	Not required
Max WWAN Ant 1 + WLAN5/6GHz Ant 4 + Bluetooth Ant 3	1.191	11.0	42.5	-207.0				



## FCC SAR TEST REPORT

Report No. :FA451607B

### <Case 73>

SAR summation (blue colored) for each band of antenna 1,6,3,4

Exposure Position	WWAN SAR	WLAN2.4GHz Ant 3	WLAN5/6GHz Ant 4	FR1 n77_Ant 6
Back	1g SAR (W/kg)			0.438
GSM850_Ant 1	0.427	0.201	0.576	1.642
WCDMA V_Ant 1	0.355	0.201	0.576	1.570
LTE Band 12_Ant 1	0.447	0.201	0.576	1.662
LTE Band 26_Ant 1	0.385	0.201	0.576	1.600
FR1 n12_Ant 1	0.373	0.201	0.576	1.588
FR1 n26_Ant 1	0.406	0.201	0.576	1.621
FR1 n77_HPUE_Ant 1	0.450	0.201	0.576	1.665

Hybrid SPLSR calculation for above summation SAR>1.6W/kg

Combination	SAR	SAR peak location (mm)			3D distance (mm)	Summed SAR (W/kg)	SPLSR Results	Simultaneous SAR
		X	Y	Z				
Max WWAN Ant 6	0.438	11.5	-47.5	-207.0	92.0	1.665	0.02	Not required
Max WWAN Ant 1 + WLAN2.4GHz Ant 3 + WLAN5/6GHz Ant 4	1.227	10.0	44.5	-207.0				

### <Case 74>

SAR summation (blue colored) for each band of antenna 1,6,3,4

Exposure Position	WWAN SAR	WLAN5/6GHz Ant 4	Bluetooth Ant 3	FR1 n77_Ant 6
Back	1g SAR (W/kg)			0.438
GSM850_Ant 1	0.427	0.576	0.165	1.606
WCDMA V_Ant 1	0.355	0.576	0.165	1.534
LTE Band 12_Ant 1	0.447	0.576	0.165	1.626
LTE Band 26_Ant 1	0.385	0.576	0.165	1.564
FR1 n12_Ant 1	0.373	0.576	0.165	1.552
FR1 n26_Ant 1	0.406	0.576	0.165	1.585
FR1 n77_HPUE_Ant 1	0.450	0.576	0.165	1.629

Hybrid SPLSR calculation for above summation SAR>1.6W/kg

Combination	SAR	SAR peak location (mm)			3D distance (mm)	Summed SAR (W/kg)	SPLSR Results	Simultaneous SAR
		X	Y	Z				
Max WWAN Ant 6	0.438	11.5	-47.5	-207.0	90.0	1.629	0.02	Not required
Max WWAN Ant 1 + WLAN5/6GHz Ant 4 + Bluetooth Ant 3	1.191	11.0	42.5	-207.0				



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### <Case 75>

SAR summation (blue colored) for each band of antenna 2,5,3,4

Exposure Position	WWAN SAR	WLAN 2.4GHz Ant 3	WLAN 5/6GHz Ant 4	GSM 1900 Ant 2	WCDMA II Ant 2	WCDMA IV Ant 2	LTE Band 2 Ant 2	LTE Band 7 Ant 2	LTE Band 41 Ant 2	LTE Band 66 Ant 2	FR1 n2 Ant 2	FR1 n7 Ant 2	FR1 n41 Ant 2	FR1 n66 Ant 2	FR1 n77 Ant 2
Front	1g SAR (W/kg)		0.493	0.507	0.467	0.659	0.557	0.551	0.513	0.654	0.515	0.582	0.586	0.354	
FR1 n77_HPUE_Ant 5	0.351	0.180	0.519	1.543	1.557	1.517	1.709	1.607	1.601	1.563	1.704	1.565	1.632	1.636	1.404

Hybrid SPLSR calculation for above summation SAR>1.6W/kg

Combination	SAR	SAR peak location (mm)			3D distance (mm)	Summed SAR (W/kg)	SPLSR Results	Simultaneous SAR
		X	Y	Z				
Max WWAN Ant 2	0.659	-8.0	-54.0	-207.0				
Max WWAN Ant 5 + WLAN2.4GHz Ant 3 + WLAN5/6GHz Ant 4	1.050	-61.0	40.5	-207.0	108.3	1.709	0.02	Not required

### <Case 76>

SAR summation (blue colored) for each band of antenna 2,5,3,4

Exposure Position	WWAN SAR	WLAN 5/6GHz Ant 4	Bluetooth Ant 3	GSM 1900 Ant 2	WCDMA II Ant 2	WCDMA IV Ant 2	LTE Band 2 Ant 2	LTE Band 7 Ant 2	LTE Band 41 Ant 2	LTE Band 66 Ant 2	FR1 n2 Ant 2	FR1 n7 Ant 2	FR1 n41 Ant 2	FR1 n66 Ant 2	FR1 n77 Ant 2
Front	1g SAR (W/kg)		0.493	0.507	0.467	0.659	0.557	0.551	0.513	0.654	0.515	0.582	0.586	0.354	
FR1 n77_HPUE_Ant 5	0.351	0.519	0.139	1.502	1.516	1.476	1.668	1.566	1.560	1.522	1.663	1.524	1.591	1.595	1.363

Hybrid SPLSR calculation for above summation SAR>1.6W/kg

Combination	SAR	SAR peak location (mm)			3D distance (mm)	Summed SAR (W/kg)	SPLSR Results	Simultaneous SAR
		X	Y	Z				
Max WWAN Ant 2	0.659	-8.0	-54.0	-207.0				
Max WWAN Ant 5 + WLAN5/6GHz Ant 4 + Bluetooth Ant 3	1.009	-64.5	41.0	-207.0	110.5	1.668	0.02	Not required



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Report No. :FA451607B

### <Case 77>

SAR summation (blue colored) for each band of antenna 2,5,3,4

Exposure Position	WWAN SAR	WLAN 2.4GHz Ant 3	WLAN 5/6GHz Ant 4	GSM 1900 Ant 2	WCDMA II Ant 2	WCDMA IV Ant 2	LTE Band 2 Ant 2	LTE Band 7 Ant 2	LTE Band 41 Ant 2	LTE Band 66 Ant 2	FR1 n2 Ant 2	FR1 n7 Ant 2	FR1 n41 Ant 2	FR1 n66 Ant 2	FR1 n77 Ant 2
Back		1g SAR (W/kg)		0.739	0.603	0.571	0.708	0.696	0.700	0.577	0.803	0.690	0.671	0.743	0.517
FR1 n77_HPUE_Ant 5	0.448	0.201	0.576	1.964	1.828	1.796	1.933	1.921	1.925	1.802	2.028	1.915	1.896	1.968	1.742

Hybrid SPLSR calculation for above summation SAR>1.6W/kg

Combination	SAR	SAR peak location (mm)			3D distance (mm)	Summed SAR (W/kg)	SPLSR Results	Simultaneous SAR
		X	Y	Z				
Max WWAN Ant 2	0.803	-61.0	-51.0	-207.0				
Max WWAN Ant 5 + WLAN2.4GHz Ant 3 + WLAN5/6GHz Ant 4	1.225	-40.0	64.5	-207.0	117.4	2.028	0.02	Not required

### <Case 78>

SAR summation (blue colored) for each band of antenna 2,5,4

Exposure Position	WWAN SAR	WLAN 5/6GHz Ant 4	Bluetooth Ant 4	GSM 1900 Ant 2	WCDMA II Ant 2	WCDMA IV Ant 2	LTE Band 2 Ant 2	LTE Band 7 Ant 2	LTE Band 41 Ant 2	LTE Band 66 Ant 2	FR1 n2 Ant 2	FR1 n7 Ant 2	FR1 n41 Ant 2	FR1 n66 Ant 2	FR1 n77 Ant 2
Back		1g SAR (W/kg)		0.739	0.603	0.571	0.708	0.696	0.700	0.577	0.803	0.690	0.671	0.743	0.517
FR1 n77_HPUE_Ant 5	0.448	0.576	0.064	1.827	1.691	1.659	1.796	1.784	1.788	1.665	1.891	1.778	1.759	1.831	1.605

Hybrid SPLSR calculation for above summation SAR>1.6W/kg

Combination	SAR	SAR peak location (mm)			3D distance (mm)	Summed SAR (W/kg)	SPLSR Results	Simultaneous SAR
		X	Y	Z				
Max WWAN Ant 2	0.803	-61.0	-51.0	-207.0				
Max WWAN Ant 5 + WLAN5/6GHz Ant 4 + Bluetooth Ant 4	1.088	-40.0	64.5	-207.0	117.4	1.891	0.02	Not required

### <Case 79>

SAR summation (blue colored) for each band of antenna 2,5,3,4

Exposure Position	WWAN SAR	WLAN 5/6GHz Ant 4	Bluetooth Ant 3	GSM 1900 Ant 2	WCDMA II Ant 2	WCDMA IV Ant 2	LTE Band 2 Ant 2	LTE Band 7 Ant 2	LTE Band 41 Ant 2	LTE Band 66 Ant 2	FR1 n2 Ant 2	FR1 n7 Ant 2	FR1 n41 Ant 2	FR1 n66 Ant 2	FR1 n77 Ant 2
Back		1g SAR (W/kg)		0.739	0.603	0.571	0.708	0.696	0.700	0.577	0.803	0.690	0.671	0.743	0.517
FR1 n77_HPUE_Ant 5	0.448	0.576	0.165	1.928	1.792	1.760	1.897	1.885	1.889	1.766	1.992	1.879	1.860	1.932	1.706

Hybrid SPLSR calculation for above summation SAR>1.6W/kg

Combination	SAR	SAR peak location (mm)			3D distance (mm)	Summed SAR (W/kg)	SPLSR Results	Simultaneous SAR
		X	Y	Z				
Max WWAN Ant 2	0.803	-61.0	-51.0	-207.0				
Max WWAN Ant 5 + WLAN5/6GHz Ant 4 + Bluetooth Ant 3	1.189	-40.0	64.5	-207.0	117.4	1.992	0.02	Not required



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### <Case 80>

SAR summation (blue colored) for each band of antenna 2,6,3,4

Exposure Position	WWAN SAR	WLAN 2.4GHz Ant 3	WLAN 5/6GHz Ant 4	GSM1900 Ant 2	WCDMA II Ant 2	WCDMA IV Ant 2	LTE Band 2 Ant 2	LTE Band 7 Ant 2	LTE Band 41 Ant 2	LTE Band 66 Ant 2	FR1 n2 Ant 2	FR1 n7 Ant 2	FR1 n41 Ant 2	FR1 n66 Ant 2	FR1 n77 Ant 2
Front	1g SAR (W/kg)			0.493	0.507	0.467	0.659	0.557	0.551	0.513	0.654	0.515	0.582	0.586	0.354
FR1 n77_Ant 6	0.381	0.180	0.519	1.573	1.587	1.547	1.739	1.637	1.631	1.593	1.734	1.595	1.662	1.666	1.434

SPLSR calculation for above summation SAR>1.6W/kg

Combination	SAR	SAR peak location (mm)			3D distance (mm)	Summed SAR (W/kg)	SPLSR Results	Simultaneous SAR
		X	Y	Z				
Max WWAN Ant 2	0.659	-8.0	-54.0	-207.0	36.9	1.04	0.03	Not required
Max WWAN Ant 6	0.381	-40.5	-71.5	-207.0				
Max WWAN Ant 2	0.659	-8.0	-54.0	-207.0	135.9	1.178	0.01	Not required
WLAN5/6GHz Ant 4	0.519	-9.4	81.9	-207.0				
Max WWAN Ant 2	0.659	-8.0	-54.0	-207.0	108.3	0.839	0.01	Not required
WLAN2.4GHz Ant 3	0.180	-61.0	40.5	-207.0				
Max WWAN Ant 6	0.381	-40.5	-71.5	-207.0	156.5	0.9	0.01	Not required
WLAN5/6GHz Ant 4	0.519	-9.4	81.9	-207.0				
Max WWAN Ant 6	0.381	-40.5	-71.5	-207.0	113.9	0.561	0.00	Not required
WLAN2.4GHz Ant 3	0.180	-61.0	40.5	-207.0				
WLAN5/6GHz Ant 4	0.519	-9.4	81.9	-207.0	66.2	0.699	0.01	Not required
WLAN2.4GHz Ant 3	0.180	-61.0	40.5	-207.0				

### <Case 81>

SAR summation (blue colored) for each band of antenna 2,6,4

Exposure Position	WWAN SAR	WLAN 5/6GHz Ant 4	Bluetooth Ant 4	GSM 1900 Ant 2	WCDMA II Ant 2	WCDMA IV Ant 2	LTE Band 2 Ant 2	LTE Band 7 Ant 2	LTE Band 41 Ant 2	LTE Band 66 Ant 2	FR1 n2 Ant 2	FR1 n7 Ant 2	FR1 n41 Ant 2	FR1 n66 Ant 2	FR1 n77 Ant 2
Front	1g SAR (W/kg)			0.493	0.507	0.467	0.659	0.557	0.551	0.513	0.654	0.515	0.582	0.586	0.354
FR1 n77_Ant 6	0.381	0.519	0.054	1.447	1.461	1.421	1.613	1.511	1.505	1.467	1.608	1.469	1.536	1.540	1.308

Hybrid SPLSR calculation for above summation SAR>1.6W/kg

Combination	SAR	SAR peak location (mm)			3D distance (mm)	Summed SAR (W/kg)	SPLSR Results	Simultaneous SAR
		X	Y	Z				
Max WWAN Ant 2	0.659	9.9	-67.1	-207.0	50.6	1.613	0.04	Not required
Max WWAN Ant 6 + WLAN5/6GHz Ant 4 + Bluetooth Ant 4	0.954	-40.5	-71.5	-207.0				

### <Case 82>

SAR summation (blue colored) for each band of antenna 2,6,3,4

Exposure Position	WWAN SAR	WLAN 5/6GHz Ant 4	Bluetooth Ant 3	GSM 1900 Ant 2	WCDMA II Ant 2	WCDMA IV Ant 2	LTE Band 2 Ant 2	LTE Band 7 Ant 2	LTE Band 41 Ant 2	LTE Band 66 Ant 2	FR1 n2 Ant 2	FR1 n7 Ant 2	FR1 n41 Ant 2	FR1 n66 Ant 2	FR1 n77 Ant 2
Front	1g SAR (W/kg)			0.493	0.507	0.467	0.659	0.557	0.551	0.513	0.654	0.515	0.582	0.586	0.354
FR1 n77_Ant 6	0.381	0.519	0.139	1.532	1.546	1.506	1.698	1.596	1.590	1.552	1.693	1.554	1.621	1.625	1.393

SPLSR calculation for above summation SAR>1.6W/kg

Combination	SAR	SAR peak location (mm)			3D distance (mm)	Summed SAR (W/kg)	SPLSR Results	Simultaneous SAR
		X	Y	Z				
Max WWAN Ant 2	0.659	-8.0	-54.0	-207.0	36.9	1.040	0.03	Not required
Max WWAN Ant 6	0.381	-40.5	-71.5	-207.0				
Max WWAN Ant 2	0.659	-8.0	-54.0	-207.0	135.9	1.178	0.01	Not required
WLAN5/6GHz Ant 4	0.519	-9.4	81.9	-207.0				
Max WWAN Ant 2	0.659	-8.0	-54.0	-207.0	110.5	0.798	0.01	Not required
Bluetooth Ant 3	0.139	-64.5	41.0	-207.0				
Max WWAN Ant 6	0.381	-40.5	-71.5	-207.0	156.5	0.900	0.01	Not required
WLAN5/6GHz Ant 4	0.519	-9.4	81.9	-207.0				
Max WWAN Ant 6	0.381	-40.5	-71.5	-207.0	115.0	0.520	0.00	Not required
Bluetooth Ant 3	0.139	-64.5	41.0	-207.0				
WLAN5/6GHz Ant 4	0.519	-9.4	81.9	-207.0	68.6	0.658	0.01	Not required
Bluetooth Ant 3	0.139	-64.5	41.0	-207.0				



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### <Case 83>

SAR summation (blue colored) for each band of antenna 2,6,3,4

Exposure Position	WWAN SAR	WLAN 2.4GHz Ant 3	WLAN 5/6GHz Ant 4	GSM1900 Ant 2	WCDMA II Ant 2	WCDMA IV Ant 2	LTE Band 2 Ant 2	LTE Band 7 Ant 2	LTE Band 41 Ant 2	LTE Band 66 Ant 2	FR1 n2 Ant 2	FR1 n7 Ant 2	FR1 n41 Ant 2	FR1 n66 Ant 2	FR1 n77 Ant 2
Back	1g SAR (W/kg)			0.739	0.603	0.571	0.708	0.696	0.700	0.577	0.803	0.690	0.671	0.743	0.517
FR1 n77_Ant 6	0.438	0.201	0.576	1.954	1.818	1.786	1.923	1.911	1.915	1.792	2.018	1.905	1.886	1.958	1.732

SAR peak location (mm)			X (axis)		10	-53.4	-60.4	-49.4	-61.9	-59.4	-56	-60.5	-55.4	-59.9	-58	-58	-59.6	-61
			Y (axis)		44.5	76.7	-64.6	-65.6	-60.6	-61.1	-70.5	-70	-56.1	-62.6	-73	-73	-57.3	-51
			Z (axis)		-207	-207	-207	-207	-207	-207	-207	-207	-207	-207	-207	-207	-207	-207
X (axis)	Y (axis)	Z (axis)	Exposure Position	WWAN SAR	WLAN 2.4GHz Ant 3	WLAN 5/6GHz Ant 4	GSM1900 Ant 2	WCDMA II Ant 2	WCDMA IV Ant 2	LTE Band 2 Ant 2	LTE Band 7 Ant 2	LTE Band 41 Ant 2	LTE Band 66 Ant 2	FR1 n2 Ant 2	FR1 n7 Ant 2	FR1 n41 Ant 2	FR1 n66 Ant 2	FR1 n77 Ant 2
			Back	1g SAR (W/kg)			0.739	0.603	0.571	0.708	0.696	0.7	0.577	0.803	0.690	0.671	0.743	0.517
			FR1 n77_Ant 6	0.438	0.201	0.576	0.04	0.04	0.03	0.04	0.04	0.04	0.04	0.04	0.03	0.04	0.04	0.03

### <Case 84>

SAR summation (blue colored) for each band of antenna 2,6,4

Exposure Position	WWAN SAR	WLAN 5/6GHz Ant 4	Bluetooth Ant 4	GSM1900 Ant 2	WCDMA II Ant 2	WCDMA IV Ant 2	LTE Band 2 Ant 2	LTE Band 7 Ant 2	LTE Band 41 Ant 2	LTE Band 66 Ant 2	FR1 n2 Ant 2	FR1 n7 Ant 2	FR1 n41 Ant 2	FR1 n66 Ant 2	FR1 n77 Ant 2
Back	1g SAR (W/kg)			0.739	0.603	0.571	0.708	0.696	0.700	0.577	0.803	0.690	0.671	0.743	0.517
FR1 n77_Ant 6	0.438	0.576	0.064	1.817	1.681	1.649	1.786	1.774	1.778	1.655	1.881	1.768	1.749	1.821	1.595

Hybrid SPLSR calculation for above summation SAR>1.6W/kg

Combination				SAR	SAR peak location (mm)			3D distance (mm)	Summed SAR (W/kg)	SPLSR Results	Simultaneous SAR
					X	Y	Z				
Max WWAN Ant 2				0.803	-49.4	-65.6	-207.0	63.5	1.881	0.04	Not required
Max WWAN Ant 6 + WLAN5/6GHz Ant 4 + Bluetooth Ant 4				1.078	11.5	-47.5	-207.0				

### <Case 85>

SAR summation (blue colored) for each band of antenna 2,6,3,4

Exposure Position	WWAN SAR	WLAN 5/6GHz Ant 4	Bluetooth Ant 3	GSM1900 Ant 2	WCDMA II Ant 2	WCDMA IV Ant 2	LTE Band 2 Ant 2	LTE Band 7 Ant 2	LTE Band 41 Ant 2	LTE Band 66 Ant 2	FR1 n2 Ant 2	FR1 n7 Ant 2	FR1 n41 Ant 2	FR1 n66 Ant 2	FR1 n77 Ant 2
Back	1g SAR (W/kg)			0.739	0.603	0.571	0.708	0.696	0.700	0.577	0.803	0.690	0.671	0.743	0.517
FR1 n77_Ant 6	0.438	0.576	0.165	1.918	1.782	1.750	1.887	1.875	1.879	1.756	1.982	1.869	1.850	1.922	1.696

Hybrid SPLSR calculation for above summation SAR>1.6W/kg

Combination				SAR	SAR peak location (mm)			3D distance (mm)	Summed SAR (W/kg)	SPLSR Results	Simultaneous SAR
					X	Y	Z				
Max WWAN Ant 2				0.803	-49.4	-65.6	-207.0	63.5	1.982	0.04	Not required
Max WWAN Ant 6 + WLAN5/6GHz Ant 4 + Bluetooth Ant 3				1.179	11.5	-47.5	-207.0				



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### <Case 86>

SAR summation (blue colored) for each band of antenna 5,6,3,4

Exposure Position		WWAN SAR	WLAN2.4GHz Ant 3			WLAN5/6GHz Ant 4		FR1 n77_Ant 6
Back		1g SAR (W/kg)						0.438
FR1 n77_HPUE_Ant 5		0.448	0.201			0.576		1.663

Hybrid SPLSR calculation for above summation SAR>1.6W/kg

Combination	SAR	SAR peak location (mm)			3D distance (mm)	Summed SAR (W/kg)	SPLSR Results	Simultaneous SAR
		X	Y	Z				
Max WWAN Ant 6	0.438	11.5	-47.5	-207.0	92.0	1.663	0.02	Not required
Max WWAN Ant 5 + WLAN2.4GHz Ant 3 + WLAN5/6GHz Ant 4	1.225	10.0	44.5	-207.0				

### <Case 87>

SAR summation (blue colored) for each band of antenna 5,6,3,4

Exposure Position		WWAN SAR	WLAN5/6GHz Ant 4			Bluetooth Ant 3		FR1 n77_Ant 6
Back		1g SAR (W/kg)						0.438
FR1 n77_HPUE_Ant 5		0.448	0.576			0.165		1.627

Hybrid SPLSR calculation for above summation SAR>1.6W/kg

Combination	SAR	SAR peak location (mm)			3D distance (mm)	Summed SAR (W/kg)	SPLSR Results	Simultaneous SAR
		X	Y	Z				
Max WWAN Ant 6	0.438	11.5	-47.5	-207.0	90.0	1.627	0.02	Not required
Max WWAN Ant 5 + WLAN5/6GHz Ant 4 + Bluetooth Ant 3	1.189	11.0	42.5	-207.0				

### <Case 88>

SAR summation (blue colored) for each band of antenna 0,2,3,4

Exposure Position	WWAN SAR	WLAN 5/6GHz Ant 4+3	Bluetooth Ant 3	GSM1900 Ant 2	WCDMA II Ant 2	WCDMA IV Ant 2	LTE Band 2 Ant 2	LTE Band 7 Ant 2	LTE Band 41 Ant 2	LTE Band 66 Ant 2	FR1 n2 Ant 2	FR1 n7 Ant 2	FR1 n41 Ant 2	FR1 n66 Ant 2	FR1 n77 Ant 2
Front	1g SAR (W/kg)		0.493	0.507	0.467	0.659	0.557	0.551	0.513	0.654	0.515	0.582	0.586	0.354	
GSM850_Ant 0	0.429	0.364	0.139	1.425	1.439	1.399	1.591	1.489	1.483	1.445	1.586	1.447	1.514	1.518	1.286
GSM1900_Ant 0	0.304	0.364	0.139	1.300	1.314	1.274	1.466	1.364	1.358	1.320	1.461	1.322	1.389	1.393	1.161
WCDMA II_Ant 0	0.282	0.364	0.139	1.278	1.292	1.252	1.444	1.342	1.336	1.298	1.439	1.300	1.367	1.371	1.139
WCDMA IV_Ant 0	0.406	0.364	0.139	1.402	1.416	1.376	1.568	1.466	1.460	1.422	1.563	1.424	1.491	1.495	1.263
WCDMA V_Ant 0	0.447	0.364	0.139	1.443	1.457	1.417	1.609	1.507	1.501	1.463	1.604	1.465	1.532	1.536	1.304
LTE Band 2_Ant 0	0.275	0.364	0.139	1.271	1.285	1.245	1.437	1.335	1.329	1.291	1.432	1.293	1.360	1.364	1.132
LTE Band 7_Ant 0	0.406	0.364	0.139	1.402	1.416	1.376	1.568	1.466	1.460	1.422	1.563	1.424	1.491	1.495	1.263
LTE Band 12_Ant 0	0.332	0.364	0.139	1.328	1.342	1.302	1.494	1.392	1.386	1.348	1.489	1.350	1.417	1.421	1.189
LTE Band 26_Ant 0	0.422	0.364	0.139	1.418	1.432	1.392	1.584	1.482	1.476	1.438	1.579	1.440	1.507	1.511	1.279
LTE Band 41_Ant 0	0.346	0.364	0.139	1.342	1.356	1.316	1.508	1.406	1.400	1.362	1.503	1.364	1.431	1.435	1.203
LTE Band 66_Ant 0	0.415	0.364	0.139	1.411	1.425	1.385	1.577	1.475	1.469	1.431	1.572	1.433	1.500	1.504	1.272
FR1 n2_Ant 0	0.239	0.364	0.139	1.235	1.249	1.209	1.401	1.299	1.293	1.255	1.396	1.257	1.324	1.328	1.096
FR1 n7_Ant 0	0.451	0.364	0.139	1.447	1.461	1.421	1.613	1.511	1.505	1.467	1.608	1.469	1.536	1.540	1.308
FR1 n12_Ant 0	0.323	0.364	0.139	1.319	1.333	1.293	1.485	1.383	1.377	1.339	1.480	1.341	1.408	1.412	1.180
FR1 n26_Ant 0	0.406	0.364	0.139	1.402	1.416	1.376	1.568	1.466	1.460	1.422	1.563	1.424	1.491	1.495	1.263
FR1 n41_Ant 0	0.440	0.364	0.139	1.436	1.450	1.410	1.602	1.500	1.494	1.456	1.597	1.458	1.525	1.529	1.297
FR1 n66_Ant 0	0.322	0.364	0.139	1.318	1.332	1.292	1.484	1.382	1.376	1.338	1.479	1.340	1.407	1.411	1.179

Hybrid SPLSR calculation for above summation SAR>1.6W/kg

Combination	SAR	SAR peak location (mm)			3D distance (mm)	Summed SAR (W/kg)	SPLSR Results	Simultaneous SAR
		X	Y	Z				
Max WWAN Ant 2	0.659	9.9	-67.1	-207.0	48.8	1.613	0.04	Not required
Max WWAN Ant 0 + WLAN5/6GHz Ant 4+3 + Bluetooth Ant 3	0.954	-38.0	-58.0	-207.0				



# FCC SAR TEST REPORT

Report No. :FA451607B

**<Case 89>**

SAR summation (blue colored) for each band of antenna 0,2,3,4

Exposure Position	WWAN SAR	WLAN 5/6GHz Ant 4+3	Bluetooth Ant 4	GSM1900 Ant 2	WCDMA II Ant 2	WCDMA IV Ant 2	LTE Band 2 Ant 2	LTE Band 7 Ant 2	LTE Band 41 Ant 2	LTE Band 66 Ant 2	FR1 n2 Ant 2	FR1 n7 Ant 2	FR1 n41 Ant 2	FR1 n66 Ant 2	FR1 n77 Ant 2
Back	1g SAR (W/kg)			0.739	0.603	0.571	0.708	0.696	0.700	0.577	0.803	0.690	0.671	0.743	0.517
GSM850_Ant 0	0.446	0.448	0.064	1.697	1.561	1.529	1.666	1.654	1.658	1.535	1.761	1.648	1.629	1.701	1.475
GSM1900_Ant 0	0.450	0.448	0.064	1.701	1.565	1.533	1.670	1.658	1.662	1.539	1.765	1.652	1.633	1.705	1.479
WCDMA II_Ant 0	0.449	0.448	0.064	1.700	1.564	1.532	1.669	1.657	1.661	1.538	1.764	1.651	1.632	1.704	1.478
WCDMA IV_Ant 0	0.454	0.448	0.064	1.705	1.569	1.537	1.674	1.662	1.666	1.543	1.769	1.656	1.637	1.709	1.483
WCDMA V_Ant 0	0.454	0.448	0.064	1.705	1.569	1.537	1.674	1.662	1.666	1.543	1.769	1.656	1.637	1.709	1.483
LTE Band 2_Ant 0	0.380	0.448	0.064	1.631	1.495	1.463	1.600	1.588	1.592	1.469	1.695	1.582	1.563	1.635	1.409
LTE Band 7_Ant 0	0.386	0.448	0.064	1.637	1.501	1.469	1.606	1.594	1.598	1.475	1.701	1.588	1.569	1.641	1.415
LTE Band 12_Ant 0	0.367	0.448	0.064	1.618	1.482	1.450	1.587	1.575	1.579	1.456	1.682	1.569	1.550	1.622	1.396
LTE Band 26_Ant 0	0.441	0.448	0.064	1.692	1.556	1.524	1.661	1.649	1.653	1.530	1.756	1.643	1.624	1.696	1.470
LTE Band 41_Ant 0	0.369	0.448	0.064	1.620	1.484	1.452	1.589	1.577	1.581	1.458	1.684	1.571	1.552	1.624	1.398
LTE Band 66_Ant 0	0.452	0.448	0.064	1.703	1.567	1.535	1.672	1.660	1.664	1.541	1.767	1.654	1.635	1.707	1.481
FR1 n2_Ant 0	0.393	0.448	0.064	1.644	1.508	1.476	1.613	1.601	1.605	1.482	1.708	1.595	1.576	1.648	1.422
FR1 n7_Ant 0	0.418	0.448	0.064	1.669	1.533	1.501	1.638	1.626	1.630	1.507	1.733	1.620	1.601	1.673	1.447
FR1 n12_Ant 0	0.339	0.448	0.064	1.590	1.454	1.422	1.559	1.547	1.551	1.428	1.654	1.541	1.522	1.594	1.368
FR1 n26_Ant 0	0.436	0.448	0.064	1.687	1.551	1.519	1.656	1.644	1.648	1.525	1.751	1.638	1.619	1.691	1.465
FR1 n41_Ant 0	0.445	0.448	0.064	1.696	1.560	1.528	1.665	1.653	1.657	1.534	1.760	1.647	1.628	1.700	1.474
FR1 n66_Ant 0	0.452	0.448	0.064	1.703	1.567	1.535	1.672	1.660	1.664	1.541	1.767	1.654	1.635	1.707	1.481

SPLSR calculation for above summation SAR>1.6W/kg

Combination	SAR	SAR peak location (mm)			3D distance (mm)	Summed SAR (W/kg)	SPLSR Results	Simultaneous SAR
		X	Y	Z				
Max WWAN Ant 0	0.454	-12.0	-75.6	-207.0	38.7	1.257	0.04	Not required
Max WWAN Ant 2	0.803	-49.4	-65.6	-207.0				
Max WWAN Ant 0	0.454	-19.8	16.0	-207.0	44.4	0.767	0.02	Not required
WLAN5/6GHz Ant 4+3(3)	0.313	8.3	50.4	-207.0				
Max WWAN Ant 0	0.454	-19.8	16.0	-207.0	66.5	0.902	0.01	Not required
WLAN5/6GHz Ant 4+3(4)	0.448	-48.7	75.9	-207.0				
Max WWAN Ant 0	0.454	-19.8	16.0	-207.0	70.6	0.518	0.01	Not required
Bluetooth Ant 4	0.064	-58.5	75.0	-207.0				
Max WWAN Ant 2	0.803	-61.0	-51.0	-207.0	122.8	1.116	0.01	Not required
WLAN5/6GHz Ant 4+3(3)	0.313	8.3	50.4	-207.0				
Max WWAN Ant 2	0.803	-61.0	-51.0	-207.0	127.5	1.251	0.01	Not required
WLAN5/6GHz Ant 4+3(4)	0.448	-48.7	75.9	-207.0				
Max WWAN Ant 2	0.803	-61.0	-51.0	-207.0	126.0	0.867	0.01	Not required
Bluetooth Ant 4	0.064	-58.5	75.0	-207.0				
WLAN5/6GHz Ant 4+3(3)	0.313	8.3	50.4	-207.0	62.4	0.761	0.01	Not required
WLAN5/6GHz Ant 4+3(4)	0.448	-48.7	75.9	-207.0				
WLAN5/6GHz Ant 4+3(3)	0.313	8.3	50.4	-207.0	71.2	0.377	0.00	Not required
Bluetooth Ant 4	0.064	-58.5	75.0	-207.0				
WLAN5/6GHz Ant 4+3(4)	0.448	-48.7	75.9	-207.0	9.8	0.512	0.04	Not required
Bluetooth Ant 4	0.064	-58.5	75.0	-207.0				



# FCC SAR TEST REPORT

Report No. :FA451607B

**<Case 90>**

SAR summation (blue colored) for each band of antenna 0,2,3,4

Exposure Position	WWAN SAR	WLAN 5/6GHz Ant 4+3	Bluetooth Ant 3	GSM1900 Ant 2	WCDMA II Ant 2	WCDMA IV Ant 2	LTE Band 2 Ant 2	LTE Band 7 Ant 2	LTE Band 41 Ant 2	LTE Band 66 Ant 2	FR1 n2 Ant 2	FR1 n7 Ant 2	FR1 n41 Ant 2	FR1 n66 Ant 2	FR1 n77 Ant 2
Back	1g SAR (W/kg)			0.739	0.603	0.571	0.708	0.696	0.700	0.577	0.803	0.690	0.671	0.743	0.517
GSM850_Ant 0	0.446	0.448	0.165	1.798	1.662	1.630	1.767	1.755	1.759	1.636	1.862	1.749	1.730	1.802	1.576
GSM1900_Ant 0	0.450	0.448	0.165	1.802	1.666	1.634	1.771	1.759	1.763	1.640	1.866	1.753	1.734	1.806	1.580
WCDMA II_Ant 0	0.449	0.448	0.165	1.801	1.665	1.633	1.770	1.758	1.762	1.639	1.865	1.752	1.733	1.805	1.579
WCDMA IV_Ant 0	0.454	0.448	0.165	1.806	1.670	1.638	1.775	1.763	1.767	1.644	1.870	1.757	1.738	1.810	1.584
WCDMA V_Ant 0	0.454	0.448	0.165	1.806	1.670	1.638	1.775	1.763	1.767	1.644	1.870	1.757	1.738	1.810	1.584
LTE Band 2_Ant 0	0.380	0.448	0.165	1.732	1.596	1.564	1.701	1.689	1.693	1.570	1.796	1.683	1.664	1.736	1.510
LTE Band 7_Ant 0	0.386	0.448	0.165	1.738	1.602	1.570	1.707	1.695	1.699	1.576	1.802	1.689	1.670	1.742	1.516
LTE Band 12_Ant 0	0.367	0.448	0.165	1.719	1.583	1.551	1.688	1.676	1.680	1.557	1.783	1.670	1.651	1.723	1.497
LTE Band 26_Ant 0	0.441	0.448	0.165	1.793	1.657	1.625	1.762	1.750	1.754	1.631	1.857	1.744	1.725	1.797	1.571
LTE Band 41_Ant 0	0.369	0.448	0.165	1.721	1.585	1.553	1.690	1.678	1.682	1.559	1.785	1.672	1.653	1.725	1.499
LTE Band 66_Ant 0	0.452	0.448	0.165	1.804	1.668	1.636	1.773	1.761	1.765	1.642	1.868	1.755	1.736	1.808	1.582
FR1 n2_Ant 0	0.393	0.448	0.165	1.745	1.609	1.577	1.714	1.702	1.706	1.583	1.809	1.696	1.677	1.749	1.523
FR1 n7_Ant 0	0.418	0.448	0.165	1.770	1.634	1.602	1.739	1.727	1.731	1.608	1.834	1.721	1.702	1.774	1.548
FR1 n12_Ant 0	0.339	0.448	0.165	1.691	1.555	1.523	1.660	1.648	1.652	1.529	1.755	1.642	1.623	1.695	1.469
FR1 n26_Ant 0	0.436	0.448	0.165	1.788	1.652	1.620	1.757	1.745	1.749	1.626	1.852	1.739	1.720	1.792	1.566
FR1 n41_Ant 0	0.445	0.448	0.165	1.797	1.661	1.629	1.766	1.754	1.758	1.635	1.861	1.748	1.729	1.801	1.575
FR1 n66_Ant 0	0.452	0.448	0.165	1.804	1.668	1.636	1.773	1.761	1.765	1.642	1.868	1.755	1.736	1.808	1.582

SPLSR calculation for above summation SAR>1.6W/kg

Combination	SAR	SAR peak location (mm)			3D distance (mm)	Summed SAR (W/kg)	SPLSR Results	Simultaneous SAR
		X	Y	Z				
Max WWAN Ant 0	0.454	-12.0	-75.6	-207.0	38.7	1.257	0.04	Not required
Max WWAN Ant 2	0.803	-49.4	-65.6	-207.0				
Max WWAN Ant 0	0.454	-19.8	16.0	-207.0	44.4	0.767	0.02	Not required
WLAN5/6GHz Ant 4+3(3)	0.313	8.3	50.4	-207.0				
Max WWAN Ant 0	0.454	-19.8	16.0	-207.0	66.5	0.902	0.01	Not required
WLAN5/6GHz Ant 4+3(4)	0.448	-48.7	75.9	-207.0				
Max WWAN Ant 0	0.454	-19.8	16.0	-207.0	40.6	0.619	0.01	Not required
Bluetooth Ant 3	0.165	11.0	42.5	-207.0				
Max WWAN Ant 2	0.803	-61.0	-51.0	-207.0	122.8	1.116	0.01	Not required
WLAN5/6GHz Ant 4+3(3)	0.313	8.3	50.4	-207.0				
Max WWAN Ant 2	0.803	-61.0	-51.0	-207.0	127.5	1.251	0.01	Not required
WLAN5/6GHz Ant 4+3(4)	0.448	-48.7	75.9	-207.0				
Max WWAN Ant 2	0.803	-61.0	-51.0	-207.0	118.0	0.968	0.01	Not required
Bluetooth Ant 3	0.165	11.0	42.5	-207.0				
WLAN5/6GHz Ant 4+3(3)	0.313	8.3	50.4	-207.0	62.4	0.761	0.01	Not required
WLAN5/6GHz Ant 4+3(4)	0.448	-48.7	75.9	-207.0				
WLAN5/6GHz Ant 4+3(3)	0.313	8.3	50.4	-207.0	8.3	0.478	0.04	Not required
Bluetooth Ant 3	0.165	11.0	42.5	-207.0				
WLAN5/6GHz Ant 4+3(4)	0.448	-48.7	75.9	-207.0	68.4	0.613	0.01	Not required
Bluetooth Ant 3	0.165	11.0	42.5	-207.0				



# FCC SAR TEST REPORT

Report No. :FA451607B

**<Case 91>**

SAR summation (blue colored) for each band of antenna 1,2,3,4

Exposure Position	WWAN SAR	WLAN 5/6GHz Ant 4+3	Bluetooth Ant 4	GSM1900 Ant 2	WCDMA II Ant 2	WCDMA IV Ant 2	LTE Band 2 Ant 2	LTE Band 7 Ant 2	LTE Band 41 Ant 2	LTE Band 66 Ant 2	FR1 n2 Ant 2	FR1 n7 Ant 2	FR1 n41 Ant 2	FR1 n66 Ant 2	FR1 n77 Ant 2
Back	1g SAR (W/kg)			0.739	0.603	0.571	0.708	0.696	0.700	0.577	0.803	0.690	0.671	0.743	0.517
GSM850_Ant 1	0.427	0.448	0.064	1.678	1.542	1.510	1.647	1.635	1.639	1.516	1.742	1.629	1.610	1.682	1.456
WCDMA V_Ant 1	0.355	0.448	0.064	1.606	1.470	1.438	1.575	1.563	1.567	1.444	1.670	1.557	1.538	1.610	1.384
LTE Band 12_Ant 1	0.447	0.448	0.064	1.698	1.562	1.530	1.667	1.655	1.659	1.536	1.762	1.649	1.630	1.702	1.476
LTE Band 26_Ant 1	0.385	0.448	0.064	1.636	1.500	1.468	1.605	1.593	1.597	1.474	1.700	1.587	1.568	1.640	1.414
FR1 n12_Ant 1	0.373	0.448	0.064	1.624	1.488	1.456	1.593	1.581	1.585	1.462	1.688	1.575	1.556	1.628	1.402
FR1 n26_Ant 1	0.406	0.448	0.064	1.657	1.521	1.489	1.626	1.614	1.618	1.495	1.721	1.608	1.589	1.661	1.435
FR1 n77_HPUE_Ant 1	0.450	0.448	0.064	1.701	1.565	1.533	1.670	1.658	1.662	1.539	1.765	1.652	1.633	1.705	1.479

Hybrid SPLSR calculation for above summation SAR>1.6W/kg

Combination	SAR	SAR peak location (mm)			3D distance (mm)	Summed SAR (W/kg)	SPLSR Results	Simultaneous SAR
		X	Y	Z				
Max WWAN Ant 2	0.803	-59.6	-57.3	-207.0	132.3	1.765	0.02	Not required
Max WWAN Ant 1 + WLAN5/6GHz Ant 4+3 + Bluetooth Ant 4	0.962	-58.5	75.0	-207.0				

**<Case 92>**

SAR summation (blue colored) for each band of antenna 1,2,3,4

Exposure Position	WWAN SAR	WLAN 5/6GHz Ant 4+3	Bluetooth Ant 3	GSM1900 Ant 2	WCDMA II Ant 2	WCDMA IV Ant 2	LTE Band 2 Ant 2	LTE Band 7 Ant 2	LTE Band 41 Ant 2	LTE Band 66 Ant 2	FR1 n2 Ant 2	FR1 n7 Ant 2	FR1 n41 Ant 2	FR1 n66 Ant 2	FR1 n77 Ant 2
Back	1g SAR (W/kg)			0.739	0.603	0.571	0.708	0.696	0.700	0.577	0.803	0.690	0.671	0.743	0.517
GSM850_Ant 1	0.427	0.448	0.165	1.779	1.643	1.611	1.748	1.736	1.740	1.617	1.843	1.730	1.711	1.783	1.557
WCDMA V_Ant 1	0.355	0.448	0.165	1.707	1.571	1.539	1.676	1.664	1.668	1.545	1.771	1.658	1.639	1.711	1.485
LTE Band 12_Ant 1	0.447	0.448	0.165	1.799	1.663	1.631	1.768	1.756	1.760	1.637	1.863	1.750	1.731	1.803	1.577
LTE Band 26_Ant 1	0.385	0.448	0.165	1.737	1.601	1.569	1.706	1.694	1.698	1.575	1.801	1.688	1.669	1.741	1.515
FR1 n12_Ant 1	0.373	0.448	0.165	1.725	1.589	1.557	1.694	1.682	1.686	1.563	1.789	1.676	1.657	1.729	1.503
FR1 n26_Ant 1	0.406	0.448	0.165	1.758	1.622	1.590	1.727	1.715	1.719	1.596	1.822	1.709	1.690	1.762	1.536
FR1 n77_HPUE_Ant 1	0.450	0.448	0.165	1.802	1.666	1.634	1.771	1.759	1.763	1.640	1.866	1.753	1.734	1.806	1.580

Hybrid SPLSR calculation for above summation SAR>1.6W/kg

Combination	SAR	SAR peak location (mm)			3D distance (mm)	Summed SAR (W/kg)	SPLSR Results	Simultaneous SAR
		X	Y	Z				
Max WWAN Ant 2	0.803	-55.4	-56.1	-207.0	118.9	1.866	0.02	Not required
Max WWAN Ant 1 + WLAN5/6GHz Ant 4+3 + Bluetooth Ant 3	1.063	11.0	42.5	-207.0				



## FCC SAR TEST REPORT

Report No.: FA451607B

### <Case 93>

SAR summation (blue colored) for each band of antenna 2,5,3,4

Exposure Position	WWAN SAR	WLAN 5/6GHz Ant 4+3	Bluetooth Ant 4	GSM1900 Ant 2	WCDMA II Ant 2	WCDMA IV Ant 2	LTE Band 2 Ant 2	LTE Band 7 Ant 2	LTE Band 41 Ant 2	LTE Band 66 Ant 2	FR1 n2 Ant 2	FR1 n7 Ant 2	FR1 n41 Ant 2	FR1 n66 Ant 2	FR1 n77 Ant 2
Back	1g SAR (W/kg)			0.739	0.603	0.571	0.708	0.696	0.700	0.577	0.803	0.690	0.671	0.743	0.517
FR1 n77_HPUE_Ant 5	0.448	0.448	0.064	1.699	1.563	1.531	1.668	1.656	1.660	1.537	1.763	1.650	1.631	1.703	1.477

Hybrid SPLSR calculation for above summation SAR>1.6W/kg

Combination	SAR	SAR peak location (mm)			3D distance (mm)	Summed SAR (W/kg)	SPLSR Results	Simultaneous SAR
		X	Y	Z				
Max WWAN Ant 2	0.803	-59.6	-57.3	-207.0				
Max WWAN Ant 5 + WLAN5/6GHz Ant 4+3 + Bluetooth Ant 4	0.960	-40.0	64.5	-207.0	123.4	1.763	0.02	Not required

### <Case 94>

SAR summation (blue colored) for each band of antenna 2,5,3,4

Exposure Position	WWAN SAR	WLAN 5/6GHz Ant 4+3	Bluetooth Ant 3	GSM1900 Ant 2	WCDMA II Ant 2	WCDMA IV Ant 2	LTE Band 2 Ant 2	LTE Band 7 Ant 2	LTE Band 41 Ant 2	LTE Band 66 Ant 2	FR1 n2 Ant 2	FR1 n7 Ant 2	FR1 n41 Ant 2	FR1 n66 Ant 2	FR1 n77 Ant 2
Back	1g SAR (W/kg)			0.739	0.603	0.571	0.708	0.696	0.700	0.577	0.803	0.690	0.671	0.743	0.517
FR1 n77_HPUE_Ant 5	0.448	0.448	0.165	1.800	1.664	1.632	1.769	1.757	1.761	1.638	1.864	1.751	1.732	1.804	1.578

Hybrid SPLSR calculation for above summation SAR>1.6W/kg

Combination	SAR	SAR peak location (mm)			3D distance (mm)	Summed SAR (W/kg)	SPLSR Results	Simultaneous SAR
		X	Y	Z				
Max WWAN Ant 2	0.803	-55.4	-56.1	-207.0				
Max WWAN Ant 5 + WLAN5/6GHz Ant 4+3 + Bluetooth Ant 3	1.061	11.0	42.5	-207.0	118.9	1.864	0.02	Not required

### <Case 95>

SAR summation (blue colored) for each band of antenna 2,6,3,4

Exposure Position	WWAN SAR	WLAN 5/6GHz Ant 4+3	Bluetooth Ant 4	GSM1900 Ant 2	WCDMA II Ant 2	WCDMA IV Ant 2	LTE Band 2 Ant 2	LTE Band 7 Ant 2	LTE Band 41 Ant 2	LTE Band 66 Ant 2	FR1 n2 Ant 2	FR1 n7 Ant 2	FR1 n41 Ant 2	FR1 n66 Ant 2	FR1 n77 Ant 2
Back	1g SAR (W/kg)			0.739	0.603	0.571	0.708	0.696	0.700	0.577	0.803	0.690	0.671	0.743	0.517
FR1 n77_Ant 6	0.438	0.448	0.064	1.689	1.553	1.521	1.658	1.646	1.650	1.527	1.753	1.640	1.621	1.693	1.467

Hybrid SPLSR calculation for above summation SAR>1.6W/kg

Combination	SAR	SAR peak location (mm)			3D distance (mm)	Summed SAR (W/kg)	SPLSR Results	Simultaneous SAR
		X	Y	Z				
Max WWAN Ant 2	0.803	-56.0	-70.5	-207.0				
Max WWAN Ant 6 + WLAN5/6GHz Ant 4+3 + Bluetooth Ant 4	0.950	11.5	-47.5	-207.0	71.3	1.753	0.03	Not required

### <Case 96>

SAR summation (blue colored) for each band of antenna 2,6,3,4

Exposure Position	WWAN SAR	WLAN 5/6GHz Ant 4+3	Bluetooth Ant 3	GSM1900 Ant 2	WCDMA II Ant 2	WCDMA IV Ant 2	LTE Band 2 Ant 2	LTE Band 7 Ant 2	LTE Band 41 Ant 2	LTE Band 66 Ant 2	FR1 n2 Ant 2	FR1 n7 Ant 2	FR1 n41 Ant 2	FR1 n66 Ant 2	FR1 n77 Ant 2
Back	1g SAR (W/kg)			0.739	0.603	0.571	0.708	0.696	0.700	0.577	0.803	0.690	0.671	0.743	0.517
FR1 n77_Ant 6	0.438	0.448	0.165	1.790	1.654	1.622	1.759	1.747	1.751	1.628	1.854	1.741	1.722	1.794	1.568

Hybrid SPLSR calculation for above summation SAR>1.6W/kg

Combination	SAR	SAR peak location (mm)			3D distance (mm)	Summed SAR (W/kg)	SPLSR Results	Simultaneous SAR
		X	Y	Z				
Max WWAN Ant 2	0.803	-49.4	-65.6	-207.0				
Max WWAN Ant 6 + WLAN5/6GHz Ant 4+3 + Bluetooth Ant 3	1.051	11.5	-47.5	-207.0	63.5	1.854	0.04	Not required



## FCC SAR TEST REPORT

Report No. :FA451607B

### <Case 97>

SAR summation (blue colored) for each band of antenna 0,2,3

Exposure Position	WWAN SAR	Bluetooth Ant 3	GSM 1900 Ant 2	WCDMA II Ant 2	WCDMA IV Ant 2	LTE Band 2 Ant 2	LTE Band 7 Ant 2	LTE Band 41 Ant 2	LTE Band 66 Ant 2	FR1 n2 Ant 2	FR1 n7 Ant 2	FR1 n41 Ant 2	FR1 n66 Ant 2	FR1 n77 Ant 2
Back	1g SAR (W/kg)	0.739	0.603	0.571	0.708	0.696	0.700	0.577	0.803	0.690	0.671	0.743	0.517	
GSM850_Ant 0	0.446	0.524	1.709	1.573	1.541	1.678	1.666	1.670	1.547	1.773	1.660	1.641	1.713	1.487
GSM1900_Ant 0	0.450	0.524	1.713	1.577	1.545	1.682	1.670	1.674	1.551	1.777	1.664	1.645	1.717	1.491
WCDMA II_Ant 0	0.449	0.524	1.712	1.576	1.544	1.681	1.669	1.673	1.550	1.776	1.663	1.644	1.716	1.490
WCDMA IV_Ant 0	0.454	0.524	1.717	1.581	1.549	1.686	1.674	1.678	1.555	1.781	1.668	1.649	1.721	1.495
WCDMA V_Ant 0	0.454	0.524	1.717	1.581	1.549	1.686	1.674	1.678	1.555	1.781	1.668	1.649	1.721	1.495
LTE Band 2_Ant 0	0.380	0.524	1.643	1.507	1.475	1.612	1.600	1.604	1.481	1.707	1.594	1.575	1.647	1.421
LTE Band 7_Ant 0	0.386	0.524	1.649	1.513	1.481	1.618	1.606	1.610	1.487	1.713	1.600	1.581	1.653	1.427
LTE Band 12_Ant 0	0.367	0.524	1.630	1.494	1.462	1.599	1.587	1.591	1.468	1.694	1.581	1.562	1.634	1.408
LTE Band 26_Ant 0	0.441	0.524	1.704	1.568	1.536	1.673	1.661	1.665	1.542	1.768	1.655	1.636	1.708	1.482
LTE Band 41_Ant 0	0.369	0.524	1.632	1.496	1.464	1.601	1.589	1.593	1.470	1.696	1.583	1.564	1.636	1.410
LTE Band 66_Ant 0	0.452	0.524	1.715	1.579	1.547	1.684	1.672	1.676	1.553	1.779	1.666	1.647	1.719	1.493
FR1 n2_Ant 0	0.393	0.524	1.656	1.520	1.488	1.625	1.613	1.617	1.494	1.720	1.607	1.588	1.660	1.434
FR1 n7_Ant 0	0.418	0.524	1.681	1.545	1.513	1.650	1.638	1.642	1.519	1.745	1.632	1.613	1.685	1.459
FR1 n12_Ant 0	0.339	0.524	1.602	1.466	1.434	1.571	1.559	1.563	1.440	1.666	1.553	1.534	1.606	1.380
FR1 n26_Ant 0	0.436	0.524	1.699	1.563	1.531	1.668	1.656	1.660	1.537	1.763	1.650	1.631	1.703	1.477
FR1 n41_Ant 0	0.445	0.524	1.708	1.572	1.540	1.677	1.665	1.669	1.546	1.772	1.659	1.640	1.712	1.486
FR1 n66_Ant 0	0.452	0.524	1.715	1.579	1.547	1.684	1.672	1.676	1.553	1.779	1.666	1.647	1.719	1.493

SPLSR calculation for above summation SAR>1.6W/kg

Combination	SAR	SAR peak location (mm)			3D distance (mm)	Summed SAR (W/kg)	SPLSR Results	Simultaneous SAR
		X	Y	Z				
Max WWAN Ant 0	0.454	-12.0	-75.6	-207.0	38.7	1.257	0.04	Not required
Max WWAN Ant 2	0.803	-49.4	-65.6	-207.0				
Max WWAN Ant 0	0.454	-19.8	16.0	-207.0	40.8	0.978	0.02	Not required
Bluetooth Ant 3	0.524	12.5	41.0	-207.0				
Max WWAN Ant 2	0.803	-61.0	-51.0	-207.0	117.8	1.327	0.01	Not required
Bluetooth Ant 3	0.524	12.5	41.0	-207.0				



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### <Case 98>

SAR summation (blue colored) for each band of antenna 1,2,3

Exposure Position	WWAN SAR	Bluetooth Ant 3	GSM1900 Ant 2	WCDMA II Ant 2	WCDMA IV Ant 2	LTE Band 2 Ant 2	LTE Band 7 Ant 2	LTE Band 41 Ant 2	LTE Band 66 Ant 2	FR1 n2 Ant 2	FR1 n7 Ant 2	FR1 n41 Ant 2	FR1 n66 Ant 2	FR1 n77 Ant 2
Back	1g SAR (W/kg)		0.739	0.603	0.571	0.708	0.696	0.700	0.577	0.803	0.690	0.671	0.743	0.517
GSM850_Ant 1	0.427	0.524	1.690	1.554	1.522	1.659	1.647	1.651	1.528	1.754	1.641	1.622	1.694	1.468
WCDMA V_Ant 1	0.355	0.524	1.618	1.482	1.450	1.587	1.575	1.579	1.456	1.682	1.569	1.550	1.622	1.396
LTE Band 12_Ant 1	0.447	0.524	1.710	1.574	1.542	1.679	1.667	1.671	1.548	1.774	1.661	1.642	1.714	1.488
LTE Band 26_Ant 1	0.385	0.524	1.648	1.512	1.480	1.617	1.605	1.609	1.486	1.712	1.599	1.580	1.652	1.426
FR1 n12_Ant 1	0.373	0.524	1.636	1.500	1.468	1.605	1.593	1.597	1.474	1.700	1.587	1.568	1.640	1.414
FR1 n26_Ant 1	0.406	0.524	1.669	1.533	1.501	1.638	1.626	1.630	1.507	1.733	1.620	1.601	1.673	1.447
FR1 n77_HPUE_Ant 1	0.450	0.524	1.713	1.577	1.545	1.682	1.670	1.674	1.551	1.777	1.664	1.645	1.717	1.491

Hybrid SPLSR calculation for above summation SAR>1.6W/kg

Combination	SAR	SAR peak location (mm)			3D distance (mm)	Summed SAR (W/kg)	SPLSR Results	Simultaneous SAR
		X	Y	Z				
Max WWAN Ant 2	0.803	-59.6	-57.3	-207.0	121.9	1.777	0.02	Not required
Max WWAN Ant 1 + WLAN5/6GHz Ant 4+3 + Bluetooth Ant 3	0.974	12.5	41.0	-207.0				

### <Case 99>

SAR summation (blue colored) for each band of antenna 2,5,3

Exposure Position	WWAN SAR	Bluetooth Ant 3	GSM1900 Ant 2	WCDMA II Ant 2	WCDMA IV Ant 2	LTE Band 2 Ant 2	LTE Band 7 Ant 2	LTE Band 41 Ant 2	LTE Band 66 Ant 2	FR1 n2 Ant 2	FR1 n7 Ant 2	FR1 n41 Ant 2	FR1 n66 Ant 2	FR1 n77 Ant 2
Back	1g SAR (W/kg)		0.739	0.603	0.571	0.708	0.696	0.700	0.577	0.803	0.690	0.671	0.743	0.517
FR1 n77_HPUE_Ant 5	0.448	0.524	1.711	1.575	1.543	1.680	1.668	1.672	1.549	1.775	1.662	1.643	1.715	1.489

Hybrid SPLSR calculation for above summation SAR>1.6W/kg

Combination	SAR	SAR peak location (mm)			3D distance (mm)	Summed SAR (W/kg)	SPLSR Results	Simultaneous SAR
		X	Y	Z				
Max WWAN Ant 2	0.803	-59.6	-57.3	-207.0	121.9	1.775	0.02	Not required
Max WWAN Ant 5 + Bluetooth Ant 3	0.972	12.5	41.0	-207.0				

### <Case 100>

SAR summation (blue colored) for each band of antenna 2,6,3

Exposure Position	WWAN SAR	Bluetooth Ant 3	GSM1900 Ant 2	WCDMA II Ant 2	WCDMA IV Ant 2	LTE Band 2 Ant 2	LTE Band 7 Ant 2	LTE Band 41 Ant 2	LTE Band 66 Ant 2	FR1 n2 Ant 2	FR1 n7 Ant 2	FR1 n41 Ant 2	FR1 n66 Ant 2	FR1 n77 Ant 2
Back	1g SAR (W/kg)		0.739	0.603	0.571	0.708	0.696	0.700	0.577	0.803	0.690	0.671	0.743	0.517
FR1 n77_Ant 6	0.438	0.524	1.701	1.565	1.533	1.670	1.658	1.662	1.539	1.765	1.652	1.633	1.705	1.479

Hybrid SPLSR calculation for above summation SAR>1.6W/kg

Combination	SAR	SAR peak location (mm)			3D distance (mm)	Summed SAR (W/kg)	SPLSR Results	Simultaneous SAR
		X	Y	Z				
Max WWAN Ant 2	0.803	-56.0	-70.5	-207.0	71.3	1.765	0.03	Not required
Max WWAN Ant 6 + Bluetooth Ant 3	0.962	11.5	-47.5	-207.0				