FCC ID : NM8MAPL120

No simultaneous SAR justification

Per " 648474 D01 SAR Handsets Multi Xmiter and Ant, v01r05" , Test mode of SAR is as below

Test mode	Test channel	Max sar value (W/kg)	Remark
GSM WCDMA	Low ,middle, High	1.26	
11 b/g	Highest power	0.503	less than 0.8W/kg , other channels is unnecessary
Bluetooth	na	na	Distance between Bluetooth and GSM / WCDMA antenna is 8.01 cm > 5cm and highest output power is 1.663 mW < 60/f(GHz) mW. Therefore, stand-alone SAR is unnecessary

Max SAR value (W/ kg) of each mode :

Test mode	Right head		Left head		Body
	Cheek	Tilt	Cheek	Tilt	
GSM 850	0.280	0.188	0.313	0.203	0.334
WCDMA850	0.250	0.167	0.269	0.177	0.522
GSM1900	0.610	0.363	0.336	0.246	0.697
WCDMA1900	**1.260**	0.800	0.732	0.552	0.530
11 B/G	**0.356**	0.217	0.503	0.238	0.154
Bluetooth	na	na	na	na	na

Distance between antennas (cm) :

	GSM / WCDMA	WLAN	BT
GSM / WCDMA		8.01	8.01
WLAN	8.01		0
BT	8.01	0	

Note

1) The EUT used the same antenna for Wireless LAN & Bluetooth function, but the two functions CAN NOT be used at the same time.

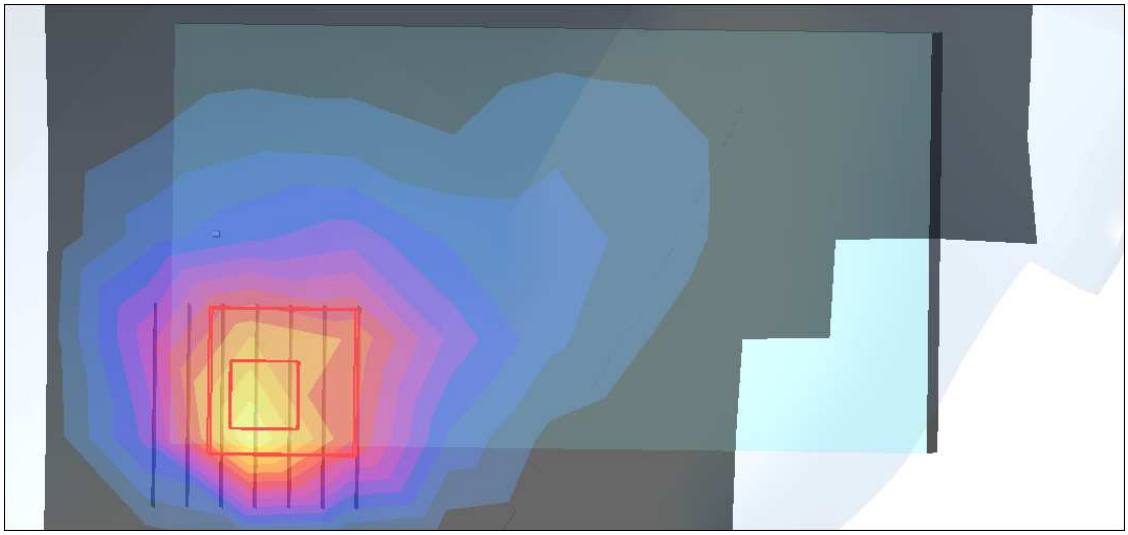
2) Please refer to" OpDes-Antenna_NM8MAPL120 " for antenna separation distance

Peak-locations spacing

Cheek position of Right head has max sum of SAR .
Plot 1 and 2 are shown peak sar location of WCDMA and WLAN.

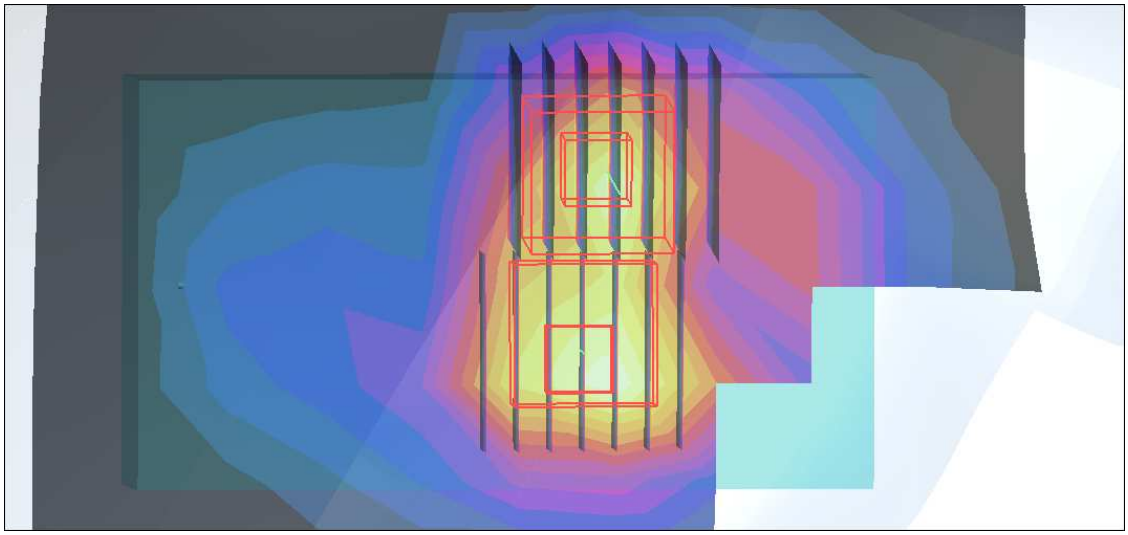
Plot 1 : WCDMA Peak SAR location

M37 of Test Rpt-SAR (Mobile)_NM8MAPL120



Plot 2 : WLAN Peak SAR location

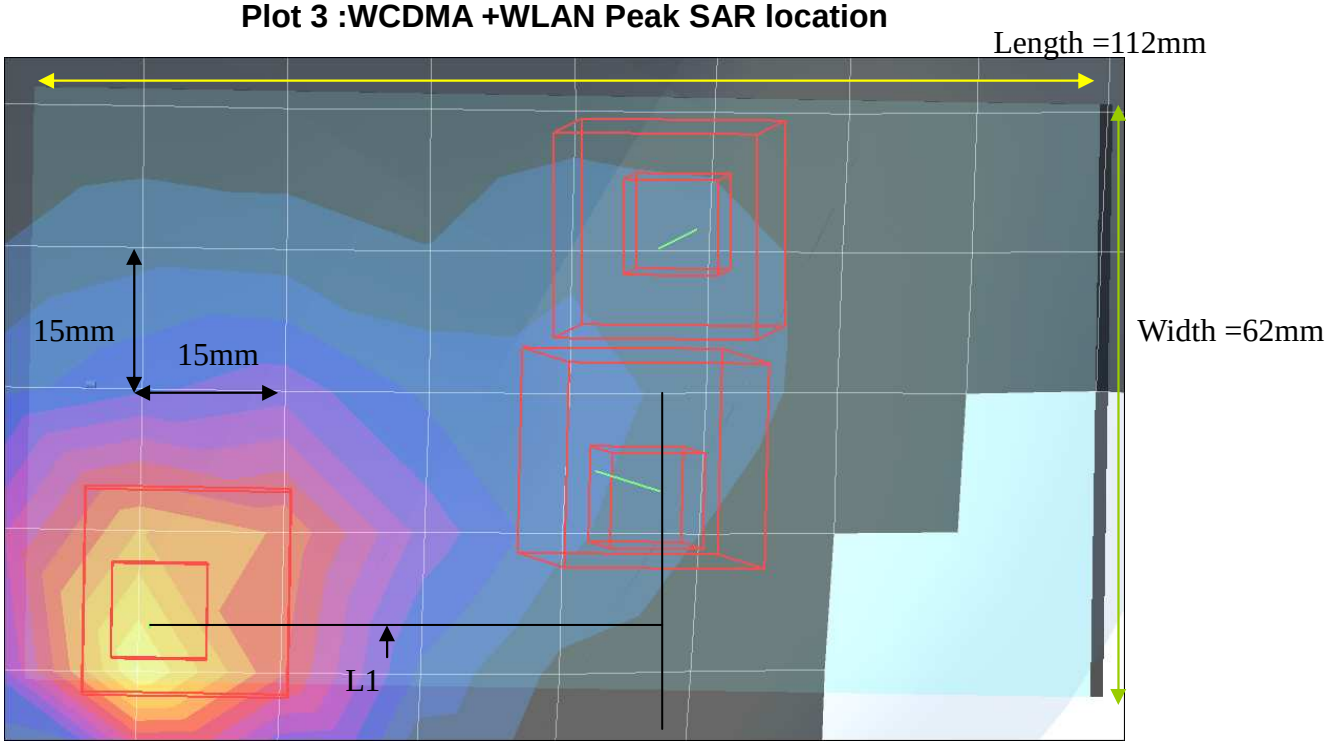
M01 of Test Rpt-SAR WLAN)_NM8MAPL120



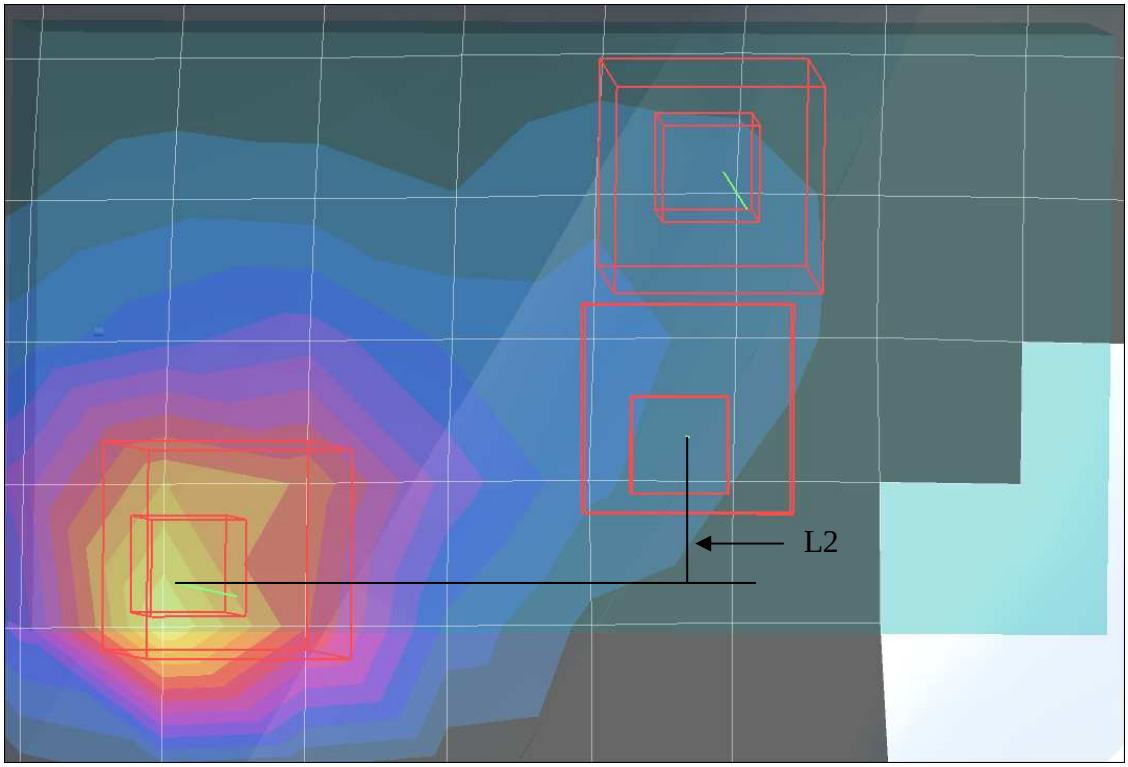
FCC ID : NM8MAPL120

Plot 1 and plot 2 are merged into Plot 3 and Plot 4 by DASY5 test program.
Green points are peak SAR point of WCDMA and WLAN.
Distance between green points can be calculated by using method as below.
Length of L1 is 48.1% of length of eut = 48.1 % X 112mm =53.87mm
Length of L2 is 24.7% of width of eut = 24.7% X 62mm=15.31mm
Peak-locations spacing = Green point to Green point
$=\sqrt{}$(53.87 x 53.87 + 15.31 x 15.31)
=56 mm

Plot 3 :WCDMA +WLAN Peak SAR location



Plot 4 :WCDMA +WLAN Peak SAR location



Conclusion:

1. Antenna Separation is 8.01cm > 5cm

2. Sum of SAR is 1.26+0.356=1.616 W / kg > 1.6 W/kg
   SPLSRxy = (SARx+SARy) / Lxy
   = 1.616 / *5.6 (* Peak-locations spacing)
   = 0.289 < 0.3

Accordingly, simultaneous Transmission SAR is not required for this EUT