

2.2.2 Test exclusion for WLAN antenna based on antenna location

The WLAN PCB antenna for HERMES 3.0 LFT2 is located on the front side of the vehicle so that the shortest distance between the antenna and the passenger is 95.4mm (Figure 2). The maximum output powers for WLAN 2.4GHz 15 dBm and for WLAN 5GHz 15 dBm.

SAR test exclusions were defined according to the 447498D01 equation:

For 100 MHz to 6 GHz and test separation distances > 50 mm, the 1-g and 10-g SAR test exclusion thresholds are determined by the following:

$\{[\text{Power allowed at numeric threshold for 50 mm in step a)}] + [(\text{test separation distance} - 50 \text{ mm}) \cdot 10]\}$ mW,
for > 1500 MHz and ≤ 6 GHz

Separation distances >50mm							
Test Position	Operation mode	Frequency [GHz] (high channel)	Max time avg power (including tune-up tolerance)	Max Power [mW]	Antenna to edge distance [mm]	Threshold (4.3.1 b) [mW]	SAR test required (power > threshold)
Back	WLAN 2.4	2.462	15	32	95	546	No
Back	WLAN 5	5.835	15	32	95	512	No

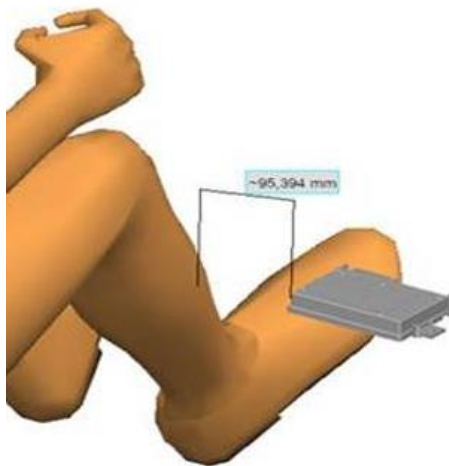


Figure 3 The minimum distance between the passenger and WLAN antenna in HERMES 3.0 LFT2

WLAN and Cellular can transmit simultaneously, but they are not co-located.