



| LTE Band 38 |            |         |           | Conducted Power(dBm) |         |         |         |
|-------------|------------|---------|-----------|----------------------|---------|---------|---------|
| Bandwidth   | Modulation | RB size | RB offset | Channel              | Channel | Channel | Tune up |
|             |            |         |           | 37775                | 38000   | 38225   |         |
| 5MHz        | QPSK       | 1       | 0         | 22.82                | 22.75   | 22.91   | 24.00   |
|             |            | 1       | 13        | 22.90                | 22.74   | 22.65   | 24.00   |
|             |            | 1       | 24        | 22.66                | 22.59   | 22.52   | 24.00   |
|             |            | 12      | 0         | 21.75                | 21.59   | 21.63   | 23.00   |
|             |            | 12      | 6         | 21.80                | 21.63   | 21.58   | 23.00   |
|             |            | 12      | 13        | 21.80                | 21.60   | 21.67   | 23.00   |
|             |            | 25      | 0         | 21.79                | 21.67   | 21.60   | 23.00   |
|             | 16QAM      | 1       | 0         | 21.97                | 21.81   | 21.84   | 23.00   |
|             |            | 1       | 13        | 21.89                | 21.78   | 21.78   | 23.00   |
|             |            | 1       | 24        | 21.77                | 21.75   | 21.87   | 23.00   |
|             |            | 12      | 0         | 20.79                | 20.59   | 20.64   | 22.00   |
|             |            | 12      | 6         | 20.77                | 20.61   | 20.61   | 22.00   |
|             |            | 12      | 13        | 20.76                | 20.55   | 20.65   | 22.00   |
|             |            | 25      | 0         | 20.78                | 20.63   | 20.64   | 22.00   |
|             | 64QAM      | 1       | 0         | 21.03                | 20.68   | 20.62   | 22.00   |
|             |            | 1       | 13        | 20.73                | 20.54   | 20.54   | 22.00   |
|             |            | 1       | 24        | 20.60                | 20.51   | 20.92   | 22.00   |
|             |            | 12      | 0         | 19.82                | 19.55   | 19.54   | 21.00   |
|             |            | 12      | 6         | 19.69                | 19.57   | 19.67   | 21.00   |
|             |            | 12      | 13        | 19.84                | 19.54   | 19.55   | 21.00   |
|             |            | 25      | 0         | 19.77                | 19.71   | 19.71   | 21.00   |
| Bandwidth   | Modulation | RB size | RB offset | Channel              | Channel | Channel | Tune up |
|             |            |         |           | 37800                | 38000   | 38200   |         |
| 10MHz       | QPSK       | 1       | 0         | 23.04                | 22.85   | 22.72   | 24.00   |
|             |            | 1       | 25        | 22.89                | 22.70   | 22.75   | 24.00   |
|             |            | 1       | 49        | 23.01                | 22.86   | 22.93   | 24.00   |
|             |            | 25      | 0         | 21.81                | 21.67   | 21.75   | 23.00   |
|             |            | 25      | 13        | 21.79                | 21.72   | 21.77   | 23.00   |
|             |            | 25      | 25        | 21.96                | 21.80   | 21.91   | 23.00   |
|             |            | 50      | 0         | 21.99                | 21.85   | 21.84   | 23.00   |
|             | 16QAM      | 1       | 0         | 22.09                | 22.03   | 22.17   | 23.00   |
|             |            | 1       | 25        | 21.94                | 21.78   | 21.90   | 23.00   |
|             |            | 1       | 49        | 21.85                | 21.97   | 22.07   | 23.00   |
|             |            | 25      | 0         | 21.00                | 20.87   | 20.78   | 22.00   |
|             |            | 25      | 13        | 20.89                | 20.80   | 20.62   | 22.00   |
|             |            | 25      | 25        | 20.87                | 20.73   | 20.77   | 22.00   |
|             |            | 50      | 0         | 21.00                | 20.90   | 20.72   | 22.00   |
|             | 64QAM      | 1       | 0         | 21.02                | 20.73   | 20.63   | 22.00   |
|             |            | 1       | 25        | 20.76                | 20.46   | 20.50   | 22.00   |
|             |            | 1       | 49        | 20.66                | 20.51   | 20.94   | 22.00   |
|             |            | 25      | 0         | 19.72                | 19.60   | 19.52   | 21.00   |
|             |            | 25      | 13        | 19.73                | 19.69   | 19.70   | 21.00   |
|             |            | 25      | 25        | 19.88                | 19.61   | 19.45   | 21.00   |
|             |            | 50      | 0         | 19.74                | 19.80   | 19.75   | 21.00   |
| Bandwidth   | Modulation | RB size | RB offset | Channel              | Channel | Channel | Tune up |
|             |            |         |           | 37825                | 38000   | 38175   |         |
| 15MHz       | QPSK       | 1       | 0         | 23.43                | 23.20   | 22.85   | 24.00   |



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|           |            |         |           |              |              |              |         |
|-----------|------------|---------|-----------|--------------|--------------|--------------|---------|
|           |            | 1       | 38        | 22.83        | 22.55        | 22.84        | 24.00   |
|           |            | 1       | 74        | 23.19        | 23.06        | 22.97        | 24.00   |
|           |            | 36      | 0         | 21.98        | 21.63        | 21.58        | 23.00   |
|           |            | 36      | 18        | 21.94        | 21.83        | 21.61        | 23.00   |
|           |            | 36      | 39        | 21.92        | 21.77        | 21.96        | 23.00   |
|           |            | 75      | 0         | 21.85        | 21.82        | 21.82        | 23.00   |
|           |            | 1       | 0         | 22.44        | 21.96        | 21.93        | 23.00   |
|           |            | 1       | 38        | 21.92        | 21.58        | 22.05        | 23.00   |
|           |            | 1       | 74        | 21.96        | 21.89        | 22.07        | 23.00   |
|           |            | 36      | 0         | 20.80        | 20.61        | 20.57        | 22.00   |
|           |            | 36      | 18        | 20.97        | 20.54        | 20.63        | 22.00   |
|           |            | 36      | 39        | 20.85        | 20.72        | 20.77        | 22.00   |
|           | 16QAM      | 75      | 0         | 20.92        | 20.60        | 20.79        | 22.00   |
|           |            | 1       | 0         | 21.02        | 20.78        | 20.68        | 22.00   |
|           |            | 1       | 38        | 20.79        | 20.55        | 20.62        | 22.00   |
|           |            | 1       | 74        | 20.65        | 20.53        | 20.87        | 22.00   |
|           |            | 36      | 0         | 19.78        | 19.62        | 19.60        | 21.00   |
|           |            | 36      | 18        | 19.67        | 19.64        | 19.71        | 21.00   |
|           |            | 36      | 39        | 19.91        | 19.65        | 19.52        | 21.00   |
|           |            | 75      | 0         | 19.76        | 19.80        | 19.77        | 21.00   |
|           | 64QAM      | 1       | 0         | 21.02        | 20.78        | 20.68        | 22.00   |
|           |            | 1       | 38        | 20.79        | 20.55        | 20.62        | 22.00   |
|           |            | 1       | 74        | 20.65        | 20.53        | 20.87        | 22.00   |
|           |            | 36      | 0         | 19.78        | 19.62        | 19.60        | 21.00   |
|           |            | 36      | 18        | 19.67        | 19.64        | 19.71        | 21.00   |
|           |            | 36      | 39        | 19.91        | 19.65        | 19.52        | 21.00   |
|           |            | 75      | 0         | 19.76        | 19.80        | 19.77        | 21.00   |
|           |            | 75      | 0         | 19.76        | 19.80        | 19.77        | 21.00   |
| Bandwidth | Modulation | RB size | RB offset | Channel      | Channel      | Channel      | Tune up |
|           |            |         |           | 37850        | 38000        | 38150        |         |
| 20MHz     | QPSK       | 1       | 0         | 22.83        | 22.96        | 22.93        | 24.00   |
|           |            | 1       | 50        | 22.87        | 22.66        | 22.64        | 24.00   |
|           |            | 1       | 99        | <b>22.90</b> | <b>23.24</b> | <b>23.11</b> | 24.00   |
|           |            | 50      | 0         | 22.00        | 21.73        | 21.82        | 23.00   |
|           |            | 50      | 25        | 21.86        | 21.66        | 21.60        | 23.00   |
|           |            | 50      | 50        | <b>21.98</b> | <b>22.01</b> | <b>21.92</b> | 23.00   |
|           |            | 100     | 0         | 22.01        | <b>22.02</b> | 21.96        | 23.00   |
|           |            | 100     | 0         | 22.01        | <b>22.02</b> | 21.96        | 23.00   |
|           | 16QAM      | 1       | 0         | 22.15        | 21.88        | 21.86        | 23.00   |
|           |            | 1       | 50        | 21.98        | 21.71        | 21.72        | 23.00   |
|           |            | 1       | 99        | 21.85        | 21.70        | 22.07        | 23.00   |
|           |            | 50      | 0         | 20.97        | 20.77        | 20.77        | 22.00   |
|           |            | 50      | 25        | 20.86        | 20.81        | 20.85        | 22.00   |
|           |            | 50      | 50        | 21.01        | 20.75        | 20.65        | 22.00   |
|           |            | 100     | 0         | 20.89        | 20.95        | 20.92        | 22.00   |
|           |            | 100     | 0         | 20.89        | 20.95        | 20.92        | 22.00   |
|           | 64QAM      | 1       | 0         | 21.03        | 20.77        | 20.74        | 22.00   |
|           |            | 1       | 50        | 20.82        | 20.56        | 20.54        | 22.00   |
|           |            | 1       | 99        | 20.75        | 20.55        | 20.97        | 22.00   |
|           |            | 50      | 0         | 19.77        | 19.64        | 19.67        | 21.00   |
|           |            | 50      | 25        | 19.74        | 19.70        | 19.73        | 21.00   |
|           |            | 50      | 50        | 19.82        | 19.60        | 19.48        | 21.00   |
|           |            | 100     | 0         | 19.73        | 19.77        | 19.77        | 21.00   |
|           |            | 100     | 0         | 19.73        | 19.77        | 19.77        | 21.00   |



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| LTE Band 41 |            |         |           | Conducted Power(dBm) |         |         |         |         |         |
|-------------|------------|---------|-----------|----------------------|---------|---------|---------|---------|---------|
| Bandwidth   | Modulation | RB size | RB offset | Channel              | Channel | Channel | Channel | Channel | Tune up |
|             |            |         |           | 40064                | 40353   | 40640   | 40928   | 41215   |         |
| 5MHz        | QPSK       | 1       | 0         | 22.71                | 22.80   | 22.83   | 22.75   | 22.64   | 24.00   |
|             |            | 1       | 13        | 22.53                | 22.52   | 22.54   | 22.16   | 22.11   | 24.00   |
|             |            | 1       | 24        | 22.73                | 22.79   | 22.78   | 22.41   | 22.56   | 24.00   |
|             |            | 12      | 0         | 21.66                | 21.62   | 21.52   | 21.19   | 21.08   | 23.00   |
|             |            | 12      | 6         | 21.61                | 21.54   | 22.00   | 21.21   | 21.11   | 23.00   |
|             |            | 12      | 13        | 21.53                | 21.56   | 21.96   | 21.23   | 21.22   | 23.00   |
|             |            | 25      | 0         | 21.65                | 21.64   | 21.95   | 21.21   | 21.09   | 23.00   |
|             | 16QAM      | 1       | 0         | 21.54                | 21.78   | 22.12   | 21.35   | 21.40   | 23.00   |
|             |            | 1       | 13        | 22.01                | 21.62   | 21.52   | 21.04   | 21.20   | 23.00   |
|             |            | 1       | 24        | 21.77                | 22.07   | 21.91   | 21.93   | 21.73   | 23.00   |
|             |            | 12      | 0         | 20.54                | 20.52   | 20.56   | 20.14   | 20.20   | 22.00   |
|             |            | 12      | 6         | 20.53                | 20.62   | 20.67   | 20.20   | 20.12   | 22.00   |
|             |            | 12      | 13        | 20.64                | 20.53   | 20.56   | 20.02   | 20.07   | 22.00   |
|             |            | 25      | 0         | 20.78                | 20.67   | 20.54   | 20.22   | 20.24   | 22.00   |
|             | 64QAM      | 1       | 0         | 21.06                | 20.38   | 20.50   | 20.87   | 21.16   | 22.00   |
|             |            | 1       | 13        | 21.28                | 21.25   | 21.28   | 20.84   | 21.09   | 22.00   |
|             |            | 1       | 24        | 21.02                | 20.34   | 20.79   | 20.68   | 20.94   | 22.00   |
|             |            | 12      | 0         | 19.87                | 19.73   | 19.73   | 19.92   | 20.19   | 21.00   |
|             |            | 12      | 6         | 20.10                | 19.87   | 19.83   | 19.69   | 19.99   | 21.00   |
|             |            | 12      | 13        | 19.71                | 19.56   | 19.78   | 19.86   | 20.02   | 21.00   |
|             |            | 25      | 0         | 19.96                | 19.67   | 19.70   | 19.49   | 19.81   | 21.00   |
| Bandwidth   | Modulation | RB size | RB offset | Channel              | Channel | Channel | Channel | Channel | Tune up |
|             |            |         |           | 40090                | 40365   | 40640   | 40915   | 41190   |         |
| 10MHz       | QPSK       | 1       | 0         | 22.75                | 22.64   | 22.47   | 22.44   | 22.80   | 24.00   |
|             |            | 1       | 25        | 22.16                | 22.11   | 22.09   | 22.08   | 22.14   | 24.00   |
|             |            | 1       | 49        | 22.41                | 22.56   | 22.23   | 22.37   | 22.35   | 24.00   |
|             |            | 25      | 0         | 21.19                | 21.08   | 21.10   | 21.11   | 21.08   | 23.00   |
|             |            | 25      | 13        | 21.21                | 21.11   | 21.05   | 21.09   | 21.11   | 23.00   |
|             |            | 25      | 25        | 21.23                | 21.22   | 21.01   | 21.26   | 21.27   | 23.00   |
|             |            | 50      | 0         | 21.21                | 21.09   | 21.09   | 21.15   | 21.17   | 23.00   |
|             | 16QAM      | 1       | 0         | 21.35                | 21.40   | 21.45   | 21.61   | 21.64   | 23.00   |
|             |            | 1       | 25        | 21.04                | 21.20   | 21.27   | 21.03   | 21.23   | 23.00   |
|             |            | 1       | 49        | 21.93                | 21.73   | 21.19   | 21.44   | 21.31   | 23.00   |
|             |            | 25      | 0         | 20.14                | 20.20   | 20.09   | 20.12   | 20.12   | 22.00   |
|             |            | 25      | 13        | 20.20                | 20.12   | 20.02   | 20.05   | 20.05   | 22.00   |
|             |            | 25      | 25        | 20.02                | 20.07   | 20.12   | 20.14   | 20.10   | 22.00   |
|             |            | 50      | 0         | 20.22                | 20.24   | 20.12   | 20.10   | 20.20   | 22.00   |
|             | 64QAM      | 1       | 0         | 21.03                | 20.38   | 20.58   | 20.94   | 21.10   | 22.00   |
|             |            | 1       | 25        | 21.23                | 21.29   | 21.28   | 20.83   | 21.11   | 22.00   |
|             |            | 1       | 49        | 21.06                | 20.36   | 20.86   | 20.69   | 20.94   | 22.00   |
|             |            | 25      | 0         | 19.87                | 19.64   | 19.80   | 19.94   | 20.20   | 21.00   |
|             |            | 25      | 13        | 20.04                | 19.87   | 19.87   | 19.74   | 19.93   | 21.00   |
|             |            | 25      | 25        | 19.81                | 19.57   | 19.85   | 19.78   | 20.02   | 21.00   |
|             |            | 50      | 0         | 19.94                | 19.73   | 19.70   | 19.55   | 19.79   | 21.00   |
| Bandwidth   | Modulation | RB size | RB offset | Channel              | Channel | Channel | Channel | Channel | Tune up |
|             |            |         |           | 40115                | 40378   | 40640   | 40903   | 41165   |         |
| 15MHz       | QPSK       | 1       | 0         | 22.54                | 22.90   | 22.52   | 22.45   | 22.49   | 24.00   |





|           |            |         |           |              |              |              |              |              |         |
|-----------|------------|---------|-----------|--------------|--------------|--------------|--------------|--------------|---------|
|           |            | 1       | 38        | 22.18        | 22.24        | 22.17        | 22.12        | 22.19        | 24.00   |
|           |            | 1       | 74        | 22.47        | 22.45        | 22.44        | 22.44        | 22.44        | 24.00   |
|           |            | 36      | 0         | 21.21        | 21.18        | 21.11        | 21.40        | 21.30        | 23.00   |
|           |            | 36      | 18        | 21.19        | 21.21        | 21.21        | 21.19        | 21.17        | 23.00   |
|           |            | 36      | 39        | 21.36        | 21.37        | 21.29        | 21.36        | 21.34        | 23.00   |
|           |            | 75      | 0         | 21.25        | 21.27        | 21.19        | 21.26        | 21.22        | 23.00   |
|           | 16QAM      | 1       | 0         | 21.71        | 21.74        | 21.76        | 21.91        | 21.85        | 23.00   |
|           |            | 1       | 38        | 21.13        | 21.33        | 21.15        | 21.50        | 21.46        | 23.00   |
|           |            | 1       | 74        | 21.54        | 21.41        | 21.42        | 21.82        | 21.84        | 23.00   |
|           |            | 36      | 0         | 20.22        | 20.22        | 20.24        | 20.22        | 20.23        | 22.00   |
|           |            | 36      | 18        | 20.15        | 20.15        | 20.12        | 20.26        | 20.21        | 22.00   |
|           |            | 36      | 39        | 20.24        | 20.20        | 20.21        | 20.25        | 20.25        | 22.00   |
|           |            | 75      | 0         | 20.22        | 20.22        | 20.24        | 20.22        | 20.23        | 22.00   |
|           | 64QAM      | 1       | 0         | 21.05        | 20.50        | 20.55        | 20.92        | 21.22        | 22.00   |
|           |            | 1       | 38        | 21.29        | 21.32        | 21.35        | 20.94        | 21.16        | 22.00   |
|           |            | 1       | 74        | 21.10        | 20.39        | 20.88        | 20.72        | 20.99        | 22.00   |
|           |            | 36      | 0         | 19.90        | 19.74        | 19.76        | 20.01        | 20.22        | 21.00   |
|           |            | 36      | 18        | 20.14        | 19.86        | 19.95        | 19.80        | 19.99        | 21.00   |
|           |            | 36      | 39        | 19.76        | 19.61        | 19.88        | 19.87        | 20.12        | 21.00   |
|           |            | 75      | 0         | 20.04        | 19.73        | 19.78        | 19.56        | 19.87        | 21.00   |
| Bandwidth | Modulation | RB size | RB offset | Channel      | Channel      | Channel      | Channel      | Channel      | Tune up |
|           |            |         |           | 40140        | 40390        | 40640        | 40890        | 41140        |         |
| 20MHz     | QPSK       | 1       | 0         | 22.86        | 22.85        | 22.79        | 22.93        | 23.19        | 24.00   |
|           |            | 1       | 50        | 23.16        | 23.17        | 22.95        | 22.94        | 23.19        | 24.00   |
|           |            | 1       | 99        | <b>23.24</b> | <b>23.18</b> | <b>22.96</b> | <b>22.95</b> | <b>23.20</b> | 24.00   |
|           |            | 50      | 0         | 21.98        | 21.96        | 21.93        | 21.70        | 21.95        | 23.00   |
|           |            | 50      | 25        | 22.12        | 22.02        | 22.12        | 21.99        | 22.24        | 23.00   |
|           |            | 50      | 50        | <b>22.26</b> | <b>22.03</b> | <b>22.13</b> | <b>22.00</b> | <b>22.25</b> | 23.00   |
|           |            | 100     | 0         | <b>22.11</b> | 21.97        | 21.97        | 21.77        | 22.03        | 23.00   |
|           | 16QAM      | 1       | 0         | 22.24        | 21.62        | 21.73        | 22.11        | 22.34        | 23.00   |
|           |            | 1       | 50        | 22.45        | 22.47        | 22.47        | 22.06        | 22.29        | 23.00   |
|           |            | 1       | 99        | 22.27        | 21.55        | 22.01        | 21.91        | 22.11        | 23.00   |
|           |            | 50      | 0         | 21.02        | 20.88        | 20.96        | 21.11        | 21.40        | 22.00   |
|           |            | 50      | 25        | 21.28        | 21.02        | 21.07        | 20.94        | 21.14        | 22.00   |
|           |            | 50      | 50        | 20.96        | 20.79        | 21.00        | 21.03        | 21.25        | 22.00   |
|           |            | 100     | 0         | 21.17        | 20.91        | 20.92        | 20.71        | 21.01        | 22.00   |
|           | 64QAM      | 1       | 0         | 21.14        | 20.50        | 20.61        | 20.91        | 21.22        | 22.00   |
|           |            | 1       | 50        | 21.32        | 21.29        | 21.37        | 20.88        | 21.09        | 22.00   |
|           |            | 1       | 99        | 21.15        | 20.36        | 20.89        | 20.79        | 20.98        | 22.00   |
|           |            | 50      | 0         | 19.90        | 19.74        | 19.81        | 20.00        | 20.24        | 21.00   |
|           |            | 50      | 25        | 20.11        | 19.83        | 19.90        | 19.81        | 19.94        | 21.00   |
|           |            | 50      | 50        | 19.78        | 19.61        | 19.85        | 19.90        | 20.14        | 21.00   |
|           |            | 100     | 0         | 19.98        | 19.74        | 19.76        | 19.53        | 19.83        | 21.00   |

Table 12: Conducted Power of LTE



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### 8.1.2 Conducted Power of WIFI and BT

| Mode full power      | Channel | Frequency(MHz) | Data Rate(Mbps) | Tune up | Average Power (dBm) | SAR Test |
|----------------------|---------|----------------|-----------------|---------|---------------------|----------|
| 802.11b              | 1       | 2412           | 1               | 19.50   | <b>18.74</b>        | Yes      |
|                      | 6       | 2437           |                 | 19.50   | <b>18.79</b>        | Yes      |
|                      | 11      | 2462           |                 | 19.50   | <b>18.87</b>        | Yes      |
| 802.11g              | 1       | 2412           | 6               | 15.00   | 14.08               | No       |
|                      | 6       | 2437           |                 | 15.00   | 14.20               | No       |
|                      | 11      | 2462           |                 | 15.00   | 14.19               | No       |
| 802.11n<br>HT20 SISO | 1       | 2412           | 6.5             | 14.50   | 13.48               | No       |
|                      | 6       | 2437           |                 | 14.50   | 13.70               | No       |
|                      | 11      | 2462           |                 | 14.50   | 13.69               | No       |
| 802.11n<br>HT40 SISO | 3       | 2422           | 13.5            | 14.50   | 13.85               | No       |
|                      | 6       | 2437           |                 | 14.50   | 14.23               | No       |
|                      | 9       | 2452           |                 | 14.50   | 13.90               | No       |

| Mode reduce power    | Channel | Frequency(MHz) | Data Rate(Mbps) | Tune up | Average Power (dBm) | SAR Test |
|----------------------|---------|----------------|-----------------|---------|---------------------|----------|
| 802.11b              | 1       | 2412           | 1               | 19.00   | <b>18.09</b>        | Yes      |
|                      | 6       | 2437           |                 | 19.00   | <b>18.10</b>        | Yes      |
|                      | 11      | 2462           |                 | 19.00   | <b>18.13</b>        | Yes      |
| 802.11g              | 1       | 2412           | 6               | 15.00   | 14.08               | No       |
|                      | 6       | 2437           |                 | 15.00   | 14.20               | No       |
|                      | 11      | 2462           |                 | 15.00   | 14.19               | No       |
| 802.11n<br>HT20 SISO | 1       | 2412           | 6.5             | 14.50   | 13.48               | No       |
|                      | 6       | 2437           |                 | 14.50   | 13.70               | No       |
|                      | 11      | 2462           |                 | 14.50   | 13.69               | No       |
| 802.11n<br>HT40 SISO | 3       | 2422           | 13.5            | 14.50   | 13.85               | No       |
|                      | 6       | 2437           |                 | 14.50   | 14.23               | No       |
|                      | 9       | 2452           |                 | 14.50   | 13.90               | No       |



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| 5GHz         | mode     | Channel | Frequency(MHz) | Data Rate(Mbps) | Tune up | Average Power (dBm) | SAR Test |
|--------------|----------|---------|----------------|-----------------|---------|---------------------|----------|
| 802.11a      | U-NII-1  | 36      | 5180           | 6               | 18.00   | 17.33               | No       |
|              |          | 40      | 5200           |                 | 18.00   | 17.7                | No       |
|              |          | 44      | 5220           |                 | 18.00   | 17.31               | No       |
|              |          | 48      | 5240           |                 | 18.00   | 17.69               | No       |
|              | U-NII-2A | 52      | 5260           |                 | 18.00   | 17.72               | No       |
|              |          | 56      | 5280           |                 | 18.00   | 17.54               | No       |
|              |          | 60      | 5300           |                 | 18.00   | <b>17.73</b>        | Yes      |
|              |          | 64      | 5320           |                 | 18.00   | 17.51               | No       |
|              | U-NII-2C | 100     | 5500           |                 | 18.00   | <b>17.29</b>        | Yes      |
|              |          | 104     | 5520           |                 | 18.00   | 17.24               | No       |
|              |          | 108     | 5540           |                 | 18.00   | 17.13               | No       |
|              |          | 112     | 5560           |                 | 18.00   | 17.21               | No       |
|              |          | 116     | 5580           |                 | 18.00   | <b>17.42</b>        | Yes      |
|              |          | 120     | 5600           |                 | 18.00   | 17.12               | No       |
|              |          | 124     | 5620           |                 | 18.00   | 17.11               | No       |
|              |          | 128     | 5640           |                 | 18.00   | 17.22               | No       |
|              |          | 132     | 5660           |                 | 18.00   | 17.23               | No       |
|              |          | 136     | 5680           |                 | 18.00   | 17.2                | No       |
|              |          | 140     | 5700           |                 | 18.00   | <b>17.24</b>        | Yes      |
|              |          | 144     | 5720           |                 | 18.00   | 17.12               | No       |
|              | U-NII-3  | 149     | 5745           |                 | 18.00   | 17.56               | No       |
|              |          | 153     | 5765           |                 | 18.00   | 17.51               | No       |
|              |          | 157     | 5785           |                 | 18.00   | <b>17.62</b>        | Yes      |
|              |          | 161     | 5805           |                 | 18.00   | 17.51               | No       |
|              |          | 165     | 5825           |                 | 18.00   | 17.54               | No       |
| 5GHz         | mode     | Channel | Frequency(MHz) | Data Rate(Mbps) | Tune up | Average Power (dBm) | SAR Test |
| 802.11n-HT20 | U-NII-1  | 36      | 5180           | MCS0            | 17.50   | 16.72               | No       |
|              |          | 40      | 5200           |                 | 17.50   | 16.86               | No       |
|              |          | 44      | 5220           |                 | 17.50   | 17.08               | No       |
|              |          | 48      | 5240           |                 | 17.50   | 17.29               | No       |
|              | U-NII-2A | 52      | 5260           |                 | 17.50   | 17.27               | No       |
|              |          | 56      | 5280           |                 | 17.50   | 17.08               | No       |
|              |          | 60      | 5300           |                 | 17.50   | 16.93               | No       |
|              |          | 64      | 5320           |                 | 17.50   | 16.52               | No       |
|              | U-NII-2C | 100     | 5500           |                 | 17.50   | 16.79               | No       |
|              |          | 104     | 5520           |                 | 17.50   | 16.80               | No       |
|              |          | 108     | 5540           |                 | 17.50   | 16.79               | No       |
|              |          | 112     | 5560           |                 | 17.50   | 16.75               | No       |
|              |          | 116     | 5580           |                 | 17.50   | 16.75               | No       |
|              |          | 120     | 5600           |                 | 17.50   | 16.59               | No       |
|              |          | 124     | 5620           |                 | 17.50   | 16.62               | No       |
|              |          | 128     | 5640           |                 | 17.50   | 16.65               | No       |
|              |          | 132     | 5660           |                 | 17.50   | 16.54               | No       |
|              |          | 136     | 5680           |                 | 17.50   | 16.51               | No       |



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Report No.: ZR/2020/8000406  
Page : 104 of 142

|              |          | 140     | 5700           |                 | 17.50   | 16.69               | No       |
|--------------|----------|---------|----------------|-----------------|---------|---------------------|----------|
|              |          | 144     | 5720           |                 | 17.50   | 16.67               | No       |
|              | U-NII-3  | 149     | 5745           |                 | 17.50   | 16.89               | No       |
|              |          | 153     | 5765           |                 | 17.50   | 17.05               | No       |
|              |          | 157     | 5785           |                 | 17.50   | 17.10               | No       |
|              |          | 161     | 5805           |                 | 17.50   | 17.19               | No       |
|              |          | 165     | 5825           |                 | 17.50   | 17.16               | No       |
| 5GHz         | mode     | Channel | Frequency(MHz) | Data Rate(Mbps) | Tune up | Average Power (dBm) | SAR Test |
| 802.11n-HT40 | U-NII-1  | 38      | 5190           | MCS0            | 15.00   | 14.34               | No       |
|              |          | 46      | 5230           |                 | 15.00   | 14.72               | No       |
|              | U-NII-2A | 54      | 5270           |                 | 15.00   | 14.74               | No       |
|              |          | 62      | 5310           |                 | 15.00   | 14.49               | No       |
|              | U-NII-2C | 102     | 5510           |                 | 15.00   | 14.58               | No       |
|              |          | 110     | 5550           |                 | 15.00   | 14.35               | No       |
|              |          | 118     | 5590           |                 | 15.00   | 14.34               | No       |
|              |          | 126     | 5630           |                 | 15.00   | 14.11               | No       |
|              |          | 134     | 5670           |                 | 15.00   | 14.15               | No       |
|              |          | 142     | 5710           |                 | 15.00   | 14.08               | No       |
|              |          | 151     | 5755           |                 | 15.00   | 14.47               | No       |
|              |          | 159     | 5795           |                 | 15.00   | 14.84               | No       |
|              | U-NII-3  |         |                |                 |         |                     |          |
|              |          |         |                |                 |         |                     |          |
|              |          |         |                |                 |         |                     |          |
|              |          |         |                |                 |         |                     |          |
| 5GHz         | mode     | Channel | Frequency(MHz) | Data Rate(Mbps) | Tune up | Average Power (dBm) | SAR Test |
| 802.11ac-20  | U-NII-1  | 36      | 5180           | MCS0            | 16.00   | 15.02               | No       |
|              |          | 40      | 5200           |                 | 16.00   | 15.16               | No       |
|              |          | 44      | 5220           |                 | 16.00   | 15.38               | No       |
|              |          | 48      | 5240           |                 | 16.00   | 15.59               | No       |
|              | U-NII-2A | 52      | 5260           |                 | 16.00   | 15.57               | No       |
|              |          | 56      | 5280           |                 | 16.00   | 15.38               | No       |
|              |          | 60      | 5300           |                 | 16.00   | 15.23               | No       |
|              |          | 64      | 5320           |                 | 16.00   | 14.82               | No       |
|              | U-NII-2C | 100     | 5500           |                 | 16.00   | 15.09               | No       |
|              |          | 104     | 5520           |                 | 16.00   | 15.10               | No       |
|              |          | 108     | 5540           |                 | 16.00   | 15.09               | No       |
|              |          | 112     | 5560           |                 | 16.00   | 15.05               | No       |
|              |          | 116     | 5580           |                 | 16.00   | 15.05               | No       |
|              |          | 120     | 5600           |                 | 16.00   | 14.89               | No       |
|              |          | 124     | 5620           |                 | 16.00   | 14.92               | No       |
|              |          | 128     | 5640           |                 | 16.00   | 14.95               | No       |
|              |          | 132     | 5660           |                 | 16.00   | 14.84               | No       |
|              |          | 136     | 5680           |                 | 16.00   | 14.81               | No       |
|              |          | 140     | 5700           |                 | 16.00   | 14.99               | No       |
|              |          | 144     | 5720           |                 | 16.00   | 14.97               | No       |
|              | U-NII-3  | 149     | 5745           |                 | 16.00   | 15.19               | No       |
|              |          | 153     | 5765           |                 | 16.00   | 15.35               | No       |
|              |          | 157     | 5785           |                 | 16.00   | 15.40               | No       |
|              |          | 161     | 5805           |                 | 16.00   | 15.49               | No       |



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|                 |          |         |                |                 |         |                     |          |
|-----------------|----------|---------|----------------|-----------------|---------|---------------------|----------|
|                 |          | 165     | 5825           |                 | 16.00   | 15.46               | No       |
| 5GHz            | mode     | Channel | Frequency(MHz) | Data Rate(Mbps) | Tune up | Average Power (dBm) | SAR Test |
| 802.11ac-40     | U-NII-1  | 38      | 5190           | MCS0            | 16.00   | 15.34               | No       |
|                 |          | 46      | 5230           |                 | 16.00   | 15.72               | No       |
|                 | U-NII-2A | 54      | 5270           |                 | 16.00   | 15.74               | No       |
|                 |          | 62      | 5310           |                 | 16.00   | 15.49               | No       |
|                 | U-NII-2C | 102     | 5510           |                 | 16.00   | 15.58               | No       |
|                 |          | 110     | 5550           |                 | 16.00   | 15.35               | No       |
|                 |          | 118     | 5590           |                 | 16.00   | 15.34               | No       |
|                 |          | 126     | 5630           |                 | 16.00   | 15.11               | No       |
|                 |          | 134     | 5670           |                 | 16.00   | 15.15               | No       |
|                 |          | 142     | 5710           |                 | 16.00   | 15.08               | No       |
|                 | U-NII-3  | 151     | 5755           |                 | 16.00   | 15.47               | No       |
|                 |          | 159     | 5795           |                 | 16.00   | 15.84               | No       |
| 5GHz            | mode     | Channel | Frequency(MHz) | Data Rate(Mbps) | Tune up | Average Power (dBm) | SAR Test |
| 802.11ac<br>80M | U-NII-1  | 42      | 5210           | MCS0            | 14.50   | 13.69               | No       |
|                 | U-NII-2A | 58      | 5290           |                 | 14.50   | 13.83               | No       |
|                 | U-NII-2C | 106     | 5530           |                 | 14.50   | 12.52               | No       |
|                 |          | 122     | 5610           |                 | 14.50   | 13.43               | No       |
|                 |          | 138     | 5690           |                 | 14.50   | 12.93               | No       |
|                 | U-NII-3  | 155     | 5775           |                 | 14.50   | 13.74               | No       |
|                 |          |         |                |                 |         |                     |          |



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| 5GHz-Hotspot on | mode    | Channel | Frequency(MHz) | Data Rate(Mbps) | Tune up | Average Power (dBm) | SAR Test |
|-----------------|---------|---------|----------------|-----------------|---------|---------------------|----------|
| 802.11a         | U-NII-1 | 36      | 5180           | 6               | 17.00   | <b>16.36</b>        | Yes      |
|                 |         | 40      | 5200           |                 | 17.00   | <b>16.59</b>        | Yes      |
|                 |         | 44      | 5220           |                 | 17.00   | 16.24               | No       |
|                 |         | 48      | 5240           |                 | 17.00   | <b>16.34</b>        | Yes      |
|                 | U-NII-3 | 149     | 5745           |                 | 16.00   | <b>15.56</b>        | Yes      |
|                 |         | 153     | 5765           |                 | 16.00   | 15.48               | No       |
|                 |         | 157     | 5785           |                 | 16.00   | <b>15.59</b>        | Yes      |
|                 |         | 161     | 5805           |                 | 16.00   | 15.51               | No       |
|                 |         | 165     | 5825           |                 | 16.00   | <b>15.52</b>        | Yes      |
|                 |         |         |                |                 |         |                     |          |

Table 13: Conducted Power of WiFi

Note:

- Power must be measured at each transmit antenna port according to the DSSS and OFDM transmission configurations in each standalone and aggregated frequency band.
- Power measurement is required for the transmission mode configuration with the highest maximum output power specified for production units.
  - When the same highest maximum output power specification applies to multiple transmission modes, the largest channel bandwidth configuration with the lowest order modulation and lowest data rate is measured.
  - When the same highest maximum output power is specified for multiple largest channel bandwidth configurations with the same lowest order modulation or lowest order modulation and lowest data rate, power measurement is required for all equivalent 802.11 configurations with the same maximum output power.
- For each transmission mode configuration, power must be measured for the highest and lowest channels; and at the mid-band channel(s) when there are at least 3 channels. For configurations with multiple mid-band channels, due to an even number of channels, both channels should be measured.



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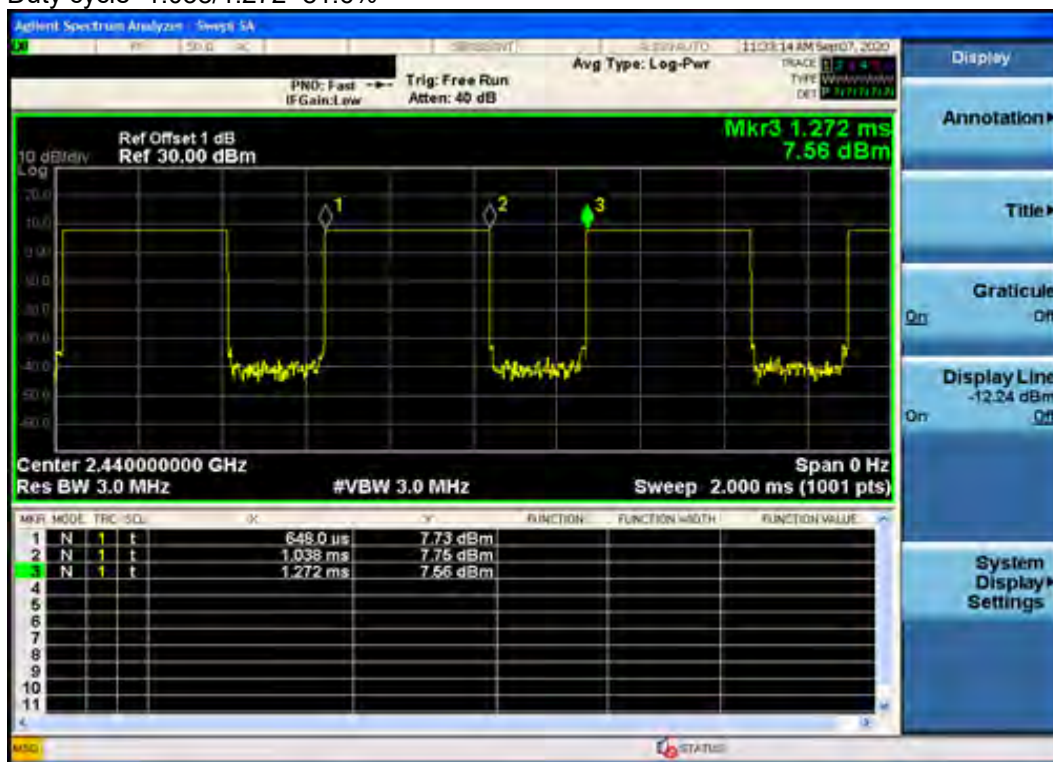


| BT   |               | Average Conducted Power(dBm) |       |       |         |
|------|---------------|------------------------------|-------|-------|---------|
| Band | Channel       | 0                            | 39    | 78    | Tune up |
| BT   | GFSK          | 12.83                        | 12.75 | 12.69 | 13.50   |
|      | $\pi/4$ DQPSK | 10.21                        | 10.11 | 10.08 | 11.00   |
|      | 8DPSK         | 10.35                        | 10.27 | 10.31 | 11.00   |
| Band | Channel       | 0                            | 19    | 39    | Tune up |
| BLE  | GFSK          | 7.22                         | 7.41  | 7.71  | 8.00    |

Table 14: Conducted Power of BT

**Bluetooth DH5(GFSK):**

Duty cycle=1.038/1.272=81.6%



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## 8.2 Stand-alone SAR test evaluation

Unless specifically required by the published RF exposure KDB procedures, standalone 1-g head or body and Product specific 10g SAR evaluation for general population exposure conditions, by measurement or numerical simulation, is not required when the corresponding SAR Test Exclusion Threshold condition is satisfied. These test exclusion conditions are based on source-based time-averaged maximum conducted output power of the RF channel requiring evaluation, adjusted for tune-up tolerance, and the minimum test separation distance required for the exposure conditions.

| Freq. Band | Frequency (GHz) | Position  | Average Power |       | Test Separation (mm) | Calculate Value | Exclusion Threshold | Exclusion (Yes/No) |
|------------|-----------------|-----------|---------------|-------|----------------------|-----------------|---------------------|--------------------|
|            |                 |           | dBm           | mW    |                      |                 |                     |                    |
| Wi-Fi      | 2.462           | Head      | 19.00         | 79.43 | 0                    | 24.9            | 3                   | No                 |
|            |                 | Body-worn | 19.50         | 89.13 | 5                    | 28.0            | 3                   | No                 |
|            |                 | hotspot   | 19.50         | 89.13 | 5                    | 28.0            | 3                   | No                 |
| Wi-Fi      | 5               | Head      | 18.00         | 63.10 | 0                    | 28.2            | 3                   | No                 |
|            |                 | Body-worn | 18.00         | 63.10 | 5                    | 28.2            | 3                   | No                 |
|            |                 | hotspot   | 17.00         | 50.12 | 5                    | 22.4            | 3                   | No                 |
| Bluetooth  | 2.48            | Head      | 13.50         | 22.39 | 0                    | 7.1             | 3                   | No                 |
|            |                 | Body-worn | 13.50         | 22.39 | 5                    | 7.1             | 3                   | No                 |
|            |                 | hotspot   | 13.50         | 22.39 | 5                    | 7.1             | 3                   | No                 |

The 1-g and 10-g SAR test exclusion thresholds for 100 MHz to 6 GHz at test separation distances  $\leq 50$  mm are determined by:

$[(\text{max. power of channel, including tune-up tolerance, mW})/(\text{min. test separation distance, mm})] \cdot [\sqrt{f(\text{GHz})}] \leq 3.0$  for 1-g SAR and  $\leq 7.5$  for 10-g extremity SAR, where

- $f(\text{GHz})$  is the RF channel transmit frequency in GHz
- Power and distance are rounded to the nearest mW and mm before calculation
- The result is rounded to one decimal place for comparison

The test exclusions are applicable only when the minimum test separation distance is  $\leq 50$  mm and for transmission frequencies between 100 MHz and 6 GHz. When the minimum test separation distance is  $< 5$  mm, a distance of 5 mm is applied to determine SAR test exclusion.

### Estimated SAR:

When the standalone SAR test exclusion is applied to an antenna that transmits simultaneously with other antennas, the standalone SAR must be estimated according to the following to determine simultaneous transmission SAR test exclusion:

- $(\text{max. power of channel, including tune-up tolerance, mW})/(\text{min. test separation distance, mm}) \cdot [\sqrt{f(\text{GHz})}/x] \text{ W/kg}$  for test separation distances  $\leq 50$  mm;

Where  $x = 7.5$  for 1-g SAR, and  $x = 18.75$  for 10-g SAR.

When the minimum test separation distance is  $< 5$  mm, a distance of 5 mm is applied to determine SAR test exclusion.



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## 8.3 Measurement of SAR Data

### 8.3.1 SAR Result of GSM850

| Test position                                    | Test mode | Test Ch./Freq. | Duty Cycle | SAR (W/kg)1-g  | Power Drift(dB) | Conducted Power(dBm) | Tune up Limit(dBm) | Scaled factor | Scaled SAR(W/kg) | Liquid Temp |
|--------------------------------------------------|-----------|----------------|------------|----------------|-----------------|----------------------|--------------------|---------------|------------------|-------------|
| Head Test data                                   |           |                |            |                |                 |                      |                    |               |                  |             |
| Left cheek                                       | GSM       | 190/836.6      | 1:8.3      | 0.155          | 0.03            | 32.01                | 33.50              | 1.409         | 0.218            | 22.1        |
| Left tilted                                      | GSM       | 190/836.6      | 1:8.3      | 0.149          | 0.01            | 32.01                | 33.50              | 1.409         | 0.210            | 22.1        |
| Right cheek                                      | GSM       | 190/836.6      | 1:8.3      | 0.185          | 0.02            | 32.01                | 33.50              | 1.409         | <b>0.261</b>     | 22.1        |
| Right tilted                                     | GSM       | 190/836.6      | 1:8.3      | 0.160          | 0.03            | 32.01                | 33.50              | 1.409         | 0.225            | 22.1        |
| Body worn Test data(Separate 5mm)                |           |                |            |                |                 |                      |                    |               |                  |             |
| Front side                                       | GSM       | 190/836.6      | 1:8.3      | 0.439          | 0.03            | 32.01                | 33.50              | 1.409         | 0.619            | 22.1        |
| Back side                                        | GSM       | 190/836.6      | 1:8.3      | 0.808          | 0.01            | 32.01                | 33.50              | 1.409         | 1.139            | 22.1        |
| Back side                                        | GSM       | 128/824.2      | 1:8.3      | 0.940          | 0.05            | 31.94                | 33.50              | 1.432         | <b>1.346</b>     | 22.1        |
| Back side-repeat                                 | GSM       | 128/824.2      | 1:8.3      | 0.899          | 0.03            | 31.94                | 33.50              | 1.432         | 1.288            | 22.1        |
| Back side                                        | GSM       | 251/848.8      | 1:8.3      | 0.714          | 0.01            | 32.03                | 33.50              | 1.403         | 1.002            | 22.1        |
| Back side with headset                           | GSM       | 128/824.2      | 1:8.3      | 0.868          | 0.03            | 31.94                | 33.50              | 1.432         | 1.243            | 22.1        |
| Hotspot Test data(Separate 5mm)                  |           |                |            |                |                 |                      |                    |               |                  |             |
| Front side                                       | GPRS 2TS  | 190/836.6      | 1:4.15     | 0.327          | -0.01           | 29.50                | 31.50              | 1.585         | 0.518            | 22.1        |
| Back side                                        | GPRS 2TS  | 190/836.6      | 1:4.15     | 0.649          | 0.14            | 29.50                | 31.50              | 1.585         | <b>1.029</b>     | 22.1        |
| Left side                                        | GPRS 2TS  | 190/836.6      | 1:4.15     | 0.190          | 0.06            | 29.50                | 31.50              | 1.585         | 0.301            | 22.1        |
| Right side                                       | GPRS 2TS  | 190/836.6      | 1:4.15     | 0.209          | 0.01            | 29.50                | 31.50              | 1.585         | 0.331            | 22.1        |
| Bottom side                                      | GPRS 2TS  | 190/836.6      | 1:4.15     | 0.267          | -0.01           | 29.50                | 31.50              | 1.585         | 0.423            | 22.1        |
| Back side                                        | GPRS 2TS  | 128/824.2      | 1:4.15     | 0.629          | 0.04            | 29.56                | 31.50              | 1.563         | 0.983            | 22.1        |
| Back side                                        | GPRS 2TS  | 251/848.8      | 1:4.15     | 0.611          | 0.04            | 29.54                | 31.50              | 1.570         | 0.959            | 22.1        |
| Test position                                    | Test mode | Test Ch./Freq. | Duty Cycle | SAR (W/kg)10-g | Power Drift(dB) | Conducted Power(dBm) | Tune up Limit(dBm) | Scaled factor | Scaled SAR(W/kg) | Liquid Temp |
| Product specific 10g SAR Test data(Separate 0mm) |           |                |            |                |                 |                      |                    |               |                  |             |
| Back side                                        | GPRS 2TS  | 190/836.6      | 1:4.15     | 0.501          | 0.1             | 29.50                | 31.50              | 1.585         | <b>0.794</b>     | 22.1        |

Table 15: SAR of GSM850 for Head, Body and Product specific 10g SAR.

Note:

- 1) The maximum Scaled SAR value is marked in bold. Graph results refer to Appendix B.
- 2) Per KDB447498 D01, testing of other required channels within the operating mode of a frequency band is not required when the reported 1-g or 10-g SAR for the mid-band or highest output power channel is:
  - $\leq 0.8\text{W/kg}$  for 1-g or  $2.0\text{W/kg}$  for 10-g respectively, when the transmission band is  $\leq 100\text{MHz}$ .
  - $\leq 0.6\text{ W/kg}$  or  $1.5\text{ W/kg}$ , for 1-g or 10-g respectively, when the transmission band is between 100 MHz and 200 MHz.
  - $\leq 0.4\text{ W/kg}$  or  $1.0\text{ W/kg}$ , for 1-g or 10-g respectively, when the transmission band is  $\geq 200\text{ MHz}$ .

| Test Position | Channel/ Frequency | Measured SAR (1g) | 1 <sup>st</sup> Repeated | Ratio | 2 <sup>nd</sup> Repeated | 3 <sup>rd</sup> Repeated |
|---------------|--------------------|-------------------|--------------------------|-------|--------------------------|--------------------------|
|               | (MHz)              |                   | SAR (1g)                 |       | SAR (1g)                 | SAR (1g)                 |
| Back side     | 128/824.2          | 0.940             | 0.899                    | 1.046 | N/A                      | N/A                      |

Note: 1) When the original highest measured SAR is  $\geq 0.80\text{ W/kg}$ , the measurement was repeated once.

2) A second repeated measurement was performed only if the ratio of largest to smallest SAR for the original and first repeated measurements was  $> 1.20$  or when the original or repeated measurement was  $\geq 1.45\text{ W/kg}$  ( $\sim 10\%$  from the 1-g SAR limit).

3) A third repeated measurement was performed only if the original, first or second repeated measurement was  $\geq 1.5\text{ W/kg}$  and the ratio of largest to smallest SAR for the original, first and second repeated measurements is  $> 1.20$ .

4) Repeated measurements are not required when the original highest measured SAR is  $< 0.80\text{ W/kg}$



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### 8.3.2 SAR Result of GSM1900

| Test position                                    | Test mode | Test Ch./Freq. | Duty Cycle | SAR (W/kg)1-g  | Power Drift(dB) | Conducted Power(dBm) | Tune up Limit(dBm) | Scaled factor | Scaled SAR(W/kg) | Liquid Temp |
|--------------------------------------------------|-----------|----------------|------------|----------------|-----------------|----------------------|--------------------|---------------|------------------|-------------|
| Head Test data                                   |           |                |            |                |                 |                      |                    |               |                  |             |
| Left cheek                                       | GSM       | 661/1880       | 1:8.3      | 0.059          | 0.03            | 29.65                | 30.50              | 1.216         | 0.072            | 22.3        |
| Left tilted                                      | GSM       | 661/1880       | 1:8.3      | 0.067          | 0.01            | 29.65                | 30.50              | 1.216         | 0.081            | 22.3        |
| Right cheek                                      | GSM       | 661/1880       | 1:8.3      | 0.089          | 0.01            | 29.65                | 30.50              | 1.216         | <b>0.108</b>     | 22.3        |
| Right tilted                                     | GSM       | 661/1880       | 1:8.3      | 0.074          | 0.03            | 29.65                | 30.50              | 1.216         | 0.090            | 22.3        |
| Body worn Test data(Separate 5mm) sensor on      |           |                |            |                |                 |                      |                    |               |                  |             |
| Front side                                       | GSM       | 661/1880       | 1:8.3      | 0.471          | 0.02            | 26.50                | 27.50              | 1.259         | 0.593            | 22.3        |
| Back side                                        | GSM       | 661/1880       | 1:8.3      | 0.921          | 0.03            | 26.50                | 27.50              | 1.259         | 1.159            | 22.3        |
| Back side                                        | GSM       | 512/1850.2     | 1:8.3      | 1.030          | 0.10            | 26.31                | 27.50              | 1.315         | <b>1.355</b>     | 22.3        |
| Back side                                        | GSM       | 810/1909.8     | 1:8.3      | 0.919          | 0.01            | 26.69                | 27.50              | 1.205         | 1.107            | 22.3        |
| Back side with headset                           | GSM       | 512/1850.2     | 1:8.3      | 1.010          | 0.01            | 26.31                | 27.50              | 1.315         | 1.328            | 22.3        |
| Body worn Test data sensor off                   |           |                |            |                |                 |                      |                    |               |                  |             |
| Front side 10mm                                  | GSM       | 661/1880       | 1:8.3      | 0.402          | 0.04            | 29.65                | 30.50              | 1.216         | 0.489            | 22.3        |
| Back side 17mm                                   | GSM       | 661/1880       | 1:8.3      | 0.280          | 0.02            | 29.65                | 30.50              | 1.216         | 0.341            | 22.3        |
| Hotspot Test data(Separate 5mm)                  |           |                |            |                |                 |                      |                    |               |                  |             |
| Front side                                       | GPRS 3TS  | 661/1880       | 1:2.77     | 0.339          | 0.01            | 21.57                | 22.50              | 1.239         | 0.420            | 22.3        |
| Back side                                        | GPRS 3TS  | 661/1880       | 1:2.77     | 0.639          | 0.03            | 21.57                | 22.50              | 1.239         | 0.792            | 22.3        |
| Left side                                        | GPRS 3TS  | 661/1880       | 1:2.77     | 0.086          | 0.02            | 21.57                | 22.50              | 1.239         | 0.106            | 22.3        |
| Right side                                       | GPRS 3TS  | 661/1880       | 1:2.77     | 0.051          | 0.02            | 21.57                | 22.50              | 1.239         | 0.063            | 22.3        |
| Bottom side                                      | GPRS 3TS  | 661/1880       | 1:2.77     | 1.040          | 0.02            | 21.57                | 22.50              | 1.239         | 1.288            | 22.3        |
| Bottom side                                      | GPRS 3TS  | 512/1850.2     | 1:2.77     | 1.130          | -0.06           | 21.61                | 22.50              | 1.227         | <b>1.387</b>     | 22.3        |
| Bottom side-repeat                               | GPRS 3TS  | 512/1850.2     | 1:2.77     | 1.010          | -0.04           | 21.61                | 22.50              | 1.227         | 1.240            | 22.3        |
| Bottom side                                      | GPRS 3TS  | 810/1909.8     | 1:2.77     | 1.020          | 0.01            | 21.60                | 22.50              | 1.230         | 1.255            | 22.3        |
| Test position                                    | Test mode | Test Ch./Freq. | Duty Cycle | SAR (W/kg)10-g | Power Drift(dB) | Conducted Power(dBm) | Tune up Limit(dBm) | Scaled factor | Scaled SAR(W/kg) | Liquid Temp |
| Product specific 10g SAR Test data(Separate 0mm) |           |                |            |                |                 |                      |                    |               |                  |             |
| Back side                                        | GPRS 3TS  | 661/1880       | 1:2.77     | 1.780          | 0.03            | 25.12                | 26.00              | 1.225         | 2.180            | 22.3        |
| Bottom side                                      | GPRS 3TS  | 661/1880       | 1:2.77     | 2.330          | -0.02           | 25.12                | 26.00              | 1.225         | 2.853            | 22.3        |
| Back side                                        | GPRS 3TS  | 512/1850.2     | 1:2.77     | 1.990          | 0.01            | 25.23                | 26.00              | 1.194         | 2.376            | 22.3        |
| Back side                                        | GPRS 3TS  | 810/1909.8     | 1:2.77     | 1.770          | 0.05            | 25.24                | 26.00              | 1.191         | 2.108            | 22.3        |
| Bottom side                                      | GPRS 3TS  | 512/1850.2     | 1:2.77     | 2.410          | -0.08           | 25.23                | 26.00              | 1.194         | 2.878            | 22.3        |
| Bottom side                                      | GPRS 3TS  | 810/1909.8     | 1:2.77     | 2.420          | 0.16            | 25.24                | 26.00              | 1.191         | <b>2.883</b>     | 22.3        |

Table 16: SAR of GSM1900 for Head, Body and Product specific 10g SAR.

Note:

- 1) The maximum Scaled SAR value is marked in bold. Graph results refer to Appendix B.
- 2) Per KDB447498 D01, testing of other required channels within the operating mode of a frequency band is not required when the reported 1-g or 10-g SAR for the mid-band or highest output power channel is:
  - $\leq 0.8\text{W/kg}$  for 1-g or  $2.0\text{W/kg}$  for 10-g respectively, when the transmission band is  $\leq 100\text{MHz}$ .
  - $\leq 0.6\text{ W/kg}$  or  $1.5\text{ W/kg}$ , for 1-g or 10-g respectively, when the transmission band is between 100 MHz and 200 MHz.
  - $\leq 0.4\text{ W/kg}$  or  $1.0\text{ W/kg}$ , for 1-g or 10-g respectively, when the transmission band is  $\geq 200\text{ MHz}$ .





| Test Position | Channel/ Frequency | Measured SAR (1g) | 1 <sup>st</sup> Repeated | Ratio | 2 <sup>nd</sup> Repeated | 3 <sup>rd</sup> Repeated |
|---------------|--------------------|-------------------|--------------------------|-------|--------------------------|--------------------------|
|               | (MHz)              |                   | SAR (1g)                 |       | SAR (1g)                 | SAR (1g)                 |
| Bottom side   | 512/1850.2         | 1.130             | 1.010                    | 1.119 | N/A                      | N/A                      |

Note: 1) When the original highest measured SAR is  $\geq 0.80$  W/kg, the measurement was repeated once.

2) A second repeated measurement was performed only if the ratio of largest to smallest SAR for the original and first repeated measurements was  $> 1.20$  or when the original or repeated measurement was  $\geq 1.45$  W/kg ( $\sim 10\%$  from the 1-g SAR limit).

3) A third repeated measurement was performed only if the original, first or second repeated measurement was  $\geq 1.5$  W/kg and the ratio of largest to smallest SAR for the original, first and second repeated measurements is  $> 1.20$ .

4) Repeated measurements are not required when the original highest measured SAR is  $< 0.80$  W/kg





### 8.3.3 SAR Result of WCDMA Band II

| Test position                                              | Test mode | Test Ch./Freq. | Duty Cycle | SAR (W/kg)1-g  | Power Drift(dB) | Conducted Power(dBm) | Tune up Limit(dBm) | Scaled factor | Scaled SAR(W/kg) | Liquid Temp |
|------------------------------------------------------------|-----------|----------------|------------|----------------|-----------------|----------------------|--------------------|---------------|------------------|-------------|
| Head Test data                                             |           |                |            |                |                 |                      |                    |               |                  |             |
| Left cheek                                                 | RMC       | 9400/1880      | 1:1        | 0.071          | 0.04            | 23.08                | 24.00              | 1.236         | 0.087            | 22.3        |
| Left tilted                                                | RMC       | 9400/1880      | 1:1        | 0.093          | 0.03            | 23.08                | 24.00              | 1.236         | 0.115            | 22.3        |
| Right cheek                                                | RMC       | 9400/1880      | 1:1        | 0.094          | 0.09            | 23.08                | 24.00              | 1.236         | <b>0.116</b>     | 22.3        |
| Right tilted                                               | RMC       | 9400/1880      | 1:1        | 0.091          | 0.01            | 23.08                | 24.00              | 1.236         | 0.112            | 22.3        |
| Body Worn Test data(Separate 5mm) sensor on                |           |                |            |                |                 |                      |                    |               |                  |             |
| Front side                                                 | RMC       | 9400/1880      | 1:1        | 0.416          | 0.04            | 17.11                | 18.00              | 1.227         | 0.511            | 22.3        |
| Back side                                                  | RMC       | 9400/1880      | 1:1        | 0.712          | -0.02           | 17.11                | 18.00              | 1.227         | 0.874            | 22.3        |
| Back side                                                  | RMC       | 9262/1852.4    | 1:1        | 0.995          | 0.09            | 17.10                | 18.00              | 1.230         | <b>1.224</b>     | 22.3        |
| Back side                                                  | RMC       | 9538/1907.6    | 1:1        | 0.774          | 0.02            | 17.09                | 18.00              | 1.233         | 0.954            | 22.3        |
| Back side with headset                                     | RMC       | 9262/1852.4    | 1:1        | 0.965          | -0.01           | 17.10                | 18.00              | 1.230         | 1.187            | 22.3        |
| Body Worn Test data sensor off                             |           |                |            |                |                 |                      |                    |               |                  |             |
| Front side 10mm                                            | RMC       | 9400/1880      | 1:1        | 0.696          | 0.03            | 23.08                | 24.00              | 1.236         | 0.860            | 22.3        |
| Back side 17mm                                             | RMC       | 9400/1880      | 1:1        | 0.198          | -0.18           | 23.08                | 24.00              | 1.236         | 0.245            | 22.3        |
| Front side 10mm                                            | RMC       | 9262/1852.4    | 1:1        | 0.812          | 0.03            | 22.98                | 24.00              | 1.265         | 1.027            | 22.3        |
| Front side 10mm                                            | RMC       | 9538/1907.6    | 1:1        | 0.704          | 0.01            | 23.06                | 24.00              | 1.242         | 0.874            | 22.3        |
| Hotspot Test data(Separate 5mm)                            |           |                |            |                |                 |                      |                    |               |                  |             |
| Front side                                                 | RMC       | 9400/1880      | 1:1        | 0.416          | 0.04            | 17.11                | 18.00              | 1.227         | 0.511            | 22.3        |
| Back side                                                  | RMC       | 9400/1880      | 1:1        | 0.712          | -0.02           | 17.11                | 18.00              | 1.227         | 0.874            | 22.3        |
| Left side                                                  | RMC       | 9400/1880      | 1:1        | 0.085          | 0.03            | 16.10                | 17.00              | 1.230         | 0.105            | 22.3        |
| Right side                                                 | RMC       | 9400/1880      | 1:1        | 0.055          | 0.03            | 16.10                | 17.00              | 1.230         | 0.068            | 22.3        |
| Bottom side                                                | RMC       | 9400/1880      | 1:1        | 0.955          | 0.01            | 16.10                | 17.00              | 1.230         | 1.175            | 22.3        |
| Back side                                                  | RMC       | 9262/1852.4    | 1:1        | 0.995          | 0.09            | 17.10                | 18.00              | 1.230         | 1.224            | 22.3        |
| Back side                                                  | RMC       | 9538/1907.6    | 1:1        | 0.774          | 0.02            | 17.09                | 18.00              | 1.233         | 0.954            | 22.3        |
| Bottom side                                                | RMC       | 9262/1852.4    | 1:1        | 1.030          | -0.18           | 16.08                | 17.00              | 1.236         | <b>1.273</b>     | 22.3        |
| Bottom side-repeat                                         | RMC       | 9262/1852.4    | 1:1        | 1.000          | 0.07            | 16.08                | 17.00              | 1.236         | 1.236            | 22.3        |
| Bottom side                                                | RMC       | 9538/1907.6    | 1:1        | 0.898          | 0.05            | 16.05                | 17.00              | 1.245         | 1.118            | 22.3        |
| Test position                                              | Test mode | Test Ch./Freq. | Duty Cycle | SAR (W/kg)10-g | Power Drift(dB) | Conducted Power(dBm) | Tune up Limit(dBm) | Scaled factor | Scaled SAR(W/kg) | Liquid Temp |
| Product specific 10g SAR Test data(Separate 0mm) sensor on |           |                |            |                |                 |                      |                    |               |                  |             |
| Front side                                                 | RMC       | 9400/1880      | 1:1        | 1.030          | 0.07            | 20.48                | 21.50              | 1.265         | 1.303            | 22.3        |
| Back side                                                  | RMC       | 9400/1880      | 1:1        | 1.640          | -0.09           | 20.48                | 21.50              | 1.265         | 2.074            | 22.3        |
| Bottom side                                                | RMC       | 9400/1880      | 1:1        | 2.520          | -0.01           | 20.48                | 21.50              | 1.265         | 3.187            | 22.3        |
| Back side                                                  | RMC       | 9262/1852.4    | 1:1        | 1.820          | -0.04           | 20.47                | 21.50              | 1.268         | 2.307            | 22.3        |
| Back side                                                  | RMC       | 9538/1907.6    | 1:1        | 1.640          | -0.08           | 20.38                | 21.50              | 1.294         | 2.122            | 22.3        |
| Bottom side                                                | RMC       | 9262/1852.4    | 1:1        | 2.660          | -0.03           | 20.47                | 21.50              | 1.268         | <b>3.372</b>     | 22.3        |
| Bottom side                                                | RMC       | 9538/1907.6    | 1:1        | 2.570          | -0.04           | 20.38                | 21.50              | 1.294         | 3.326            | 22.3        |
| Product specific 10g SAR Test data(Sensor off)             |           |                |            |                |                 |                      |                    |               |                  |             |
| Front side-4mm                                             | RMC       | 9400/1880      | 1:1        | 1.050          | -0.02           | 23.08                | 24.00              | 1.236         | 1.298            | 22.3        |
| Back side-6mm                                              | RMC       | 9400/1880      | 1:1        | 1.350          | 0.09            | 23.08                | 24.00              | 1.236         | 1.669            | 22.3        |
| Bottom side-7mm                                            | RMC       | 9400/1880      | 1:1        | 1.690          | 0.02            | 23.08                | 24.00              | 1.236         | 2.089            | 22.3        |
| Bottom side-7mm                                            | RMC       | 9262/1852.4    | 1:1        | 1.550          | -0.01           | 22.98                | 24.00              | 1.265         | 1.960            | 22.3        |
| Bottom side-7mm                                            | RMC       | 9538/1907.6    | 1:1        | 1.590          | -0.03           | 23.06                | 24.00              | 1.242         | 1.974            | 22.3        |



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Table 17: SAR of WCDMA Band II for Head, Body and Product specific 10g SAR.

Note:

- 1) The maximum Scaled SAR value is marked in bold. Graph results refer to Appendix B.
- 2) Per KDB447498 D01, testing of other required channels within the operating mode of a frequency band is not required when the reported 1-g or 10-g SAR for the mid-band or highest output power channel is:
  - $\leq 0.8\text{W/kg}$  for 1-g or  $2.0\text{W/kg}$  for 10-g respectively, when the transmission band is  $\leq 100\text{MHz}$ .
  - $\leq 0.6\text{ W/kg}$  or  $1.5\text{ W/kg}$ , for 1-g or 10-g respectively, when the transmission band is between 100 MHz and 200 MHz.
  - $\leq 0.4\text{ W/kg}$  or  $1.0\text{ W/kg}$ , for 1-g or 10-g respectively, when the transmission band is  $\geq 200\text{ MHz}$ .

| Test Position | Channel/ Frequency<br>(MHz) | Measured SAR (1g) | 1 <sup>st</sup> Repeated | Ratio | 2 <sup>nd</sup> Repeated | 3 <sup>rd</sup> Repeated |
|---------------|-----------------------------|-------------------|--------------------------|-------|--------------------------|--------------------------|
|               |                             |                   | SAR (1g)                 |       | SAR (1g)                 | SAR (1g)                 |
| Bottom side   | 9262/1852.4                 | 1.030             | 1.000                    | 1.030 | N/A                      | N/A                      |

Note: 1) When the original highest measured SAR is  $\geq 0.80\text{ W/kg}$ , the measurement was repeated once.

2) A second repeated measurement was performed only if the ratio of largest to smallest SAR for the original and first repeated measurements was  $> 1.20$  or when the original or repeated measurement was  $\geq 1.45\text{ W/kg}$  ( $\sim 10\%$  from the 1-g SAR limit).

3) A third repeated measurement was performed only if the original, first or second repeated measurement was  $\geq 1.5\text{ W/kg}$  and the ratio of largest to smallest SAR for the original, first and second repeated measurements is  $> 1.20$ .

4) Repeated measurements are not required when the original highest measured SAR is  $< 0.80\text{ W/kg}$



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### 8.3.4 SAR Result of WCDMA Band IV

| Test position                                              | Test mode | Test Ch./Freq. | Duty Cycle | SAR (W/kg)1-g  | Power Drift(dB) | Conducted Power(dBm) | Tune up Limit(dBm) | Scaled factor | Scaled SAR(W/kg) | Liquid Temp |
|------------------------------------------------------------|-----------|----------------|------------|----------------|-----------------|----------------------|--------------------|---------------|------------------|-------------|
| Head Test data                                             |           |                |            |                |                 |                      |                    |               |                  |             |
| Left cheek                                                 | RMC       | 1412/1732.4    | 1:1        | 0.149          | 0.02            | 23.13                | 24.00              | 1.222         | 0.182            | 22.3        |
| Left tilted                                                | RMC       | 1412/1732.4    | 1:1        | 0.135          | 0.03            | 23.13                | 24.00              | 1.222         | 0.165            | 22.3        |
| Right cheek                                                | RMC       | 1412/1732.4    | 1:1        | 0.151          | 0.02            | 23.13                | 24.00              | 1.222         | <b>0.184</b>     | 22.3        |
| Right tilted                                               | RMC       | 1412/1732.4    | 1:1        | 0.091          | 0.01            | 23.13                | 24.00              | 1.222         | 0.111            | 22.3        |
| Body Worn Test data(Separate 5mm) sensor on                |           |                |            |                |                 |                      |                    |               |                  |             |
| Front side                                                 | RMC       | 1412/1732.4    | 1:1        | 0.606          | 0.02            | 18.05                | 19.00              | 1.245         | 0.754            | 22.3        |
| Back side                                                  | RMC       | 1412/1732.4    | 1:1        | 0.836          | -0.13           | 18.05                | 19.00              | 1.245         | 1.040            | 22.3        |
| Back side                                                  | RMC       | 1312/1712.4    | 1:1        | 0.795          | 0.05            | 18.00                | 19.00              | 1.259         | 1.001            | 22.3        |
| Back side                                                  | RMC       | 1513/1752.6    | 1:1        | 1.150          | 0.01            | 18.01                | 19.00              | 1.256         | <b>1.444</b>     | 22.3        |
| Back side-repeat                                           | RMC       | 1513/1752.6    | 1:1        | 1.088          | -0.04           | 18.01                | 19.00              | 1.256         | 1.367            | 22.3        |
| Back side with headset                                     | RMC       | 1513/1752.6    | 1:1        | 0.945          | -0.04           | 18.01                | 19.00              | 1.256         | 1.187            | 22.3        |
| Body Worn Test data sensor off                             |           |                |            |                |                 |                      |                    |               |                  |             |
| Front side 10mm                                            | RMC       | 1412/1732.4    | 1:1        | 0.957          | -0.02           | 23.13                | 24.00              | 1.222         | 1.169            | 22.3        |
| Back side 17mm                                             | RMC       | 1412/1732.4    | 1:1        | 0.154          | -0.04           | 23.13                | 24.00              | 1.222         | 0.188            | 22.3        |
| Front side 10mm                                            | RMC       | 1312/1712.4    | 1:1        | 0.888          | 0.03            | 22.95                | 24.00              | 1.274         | 1.131            | 22.3        |
| Front side 10mm                                            | RMC       | 1513/1752.6    | 1:1        | 0.887          | -0.03           | 23.12                | 24.00              | 1.225         | 1.086            | 22.3        |
| Hotspot Test data(Separate 5mm)                            |           |                |            |                |                 |                      |                    |               |                  |             |
| Front side                                                 | RMC       | 1412/1732.4    | 1:1        | 0.606          | 0.02            | 18.05                | 19.00              | 1.245         | 0.754            | 22.3        |
| Back side                                                  | RMC       | 1412/1732.4    | 1:1        | 0.836          | -0.13           | 18.05                | 19.00              | 1.245         | 1.040            | 22.3        |
| Left side                                                  | RMC       | 1412/1732.4    | 1:1        | 0.066          | -0.01           | 16.55                | 17.50              | 1.245         | 0.082            | 22.3        |
| Right side                                                 | RMC       | 1412/1732.4    | 1:1        | 0.077          | -0.02           | 16.55                | 17.50              | 1.245         | 0.096            | 22.3        |
| Bottom side                                                | RMC       | 1412/1732.4    | 1:1        | 0.978          | 0.03            | 16.55                | 17.50              | 1.245         | 1.217            | 22.3        |
| Back side                                                  | RMC       | 1312/1712.4    | 1:1        | 0.795          | 0.05            | 18.00                | 19.00              | 1.259         | 1.001            | 22.3        |
| Back side                                                  | RMC       | 1513/1752.6    | 1:1        | 1.150          | 0.01            | 18.01                | 19.00              | 1.256         | <b>1.444</b>     | 22.3        |
| Bottom side                                                | RMC       | 1312/1712.4    | 1:1        | 1.050          | -0.03           | 16.51                | 17.50              | 1.256         | 1.319            | 22.3        |
| Bottom side                                                | RMC       | 1513/1752.6    | 1:1        | 0.962          | 0.01            | 16.53                | 17.50              | 1.250         | 1.203            | 22.3        |
| Test position                                              | Test mode | Test Ch./Freq. | Duty Cycle | SAR (W/kg)10-g | Power Drift(dB) | Conducted Power(dBm) | Tune up Limit(dBm) | Scaled factor | Scaled SAR(W/kg) | Liquid Temp |
| Product specific 10g SAR Test data(Separate 0mm) sensor on |           |                |            |                |                 |                      |                    |               |                  |             |
| Front side                                                 | RMC       | 1412/1732.4    | 1:1        | 1.390          | 0.07            | 20.54                | 21.50              | 1.247         | 1.734            | 22.3        |
| Back side                                                  | RMC       | 1412/1732.4    | 1:1        | 2.620          | 0.10            | 20.54                | 21.50              | 1.247         | 3.268            | 22.3        |
| Bottom side                                                | RMC       | 1412/1732.4    | 1:1        | 1.890          | 0.01            | 20.54                | 21.50              | 1.247         | 2.358            | 22.3        |
| Back side                                                  | RMC       | 1312/1712.4    | 1:1        | 2.610          | 0.09            | 20.45                | 21.50              | 1.274         | 3.324            | 22.3        |
| Back side                                                  | RMC       | 1513/1752.6    | 1:1        | 2.640          | 0.04            | 20.50                | 21.50              | 1.259         | <b>3.324</b>     | 22.3        |
| Bottom side                                                | RMC       | 1312/1712.4    | 1:1        | 1.750          | 0.07            | 20.45                | 21.50              | 1.274         | 2.229            | 22.3        |
| Bottom side                                                | RMC       | 1513/1752.6    | 1:1        | 1.790          | -0.05           | 20.50                | 21.50              | 1.259         | 2.253            | 22.3        |
| Product specific 10g SAR Test data(Sensor off)             |           |                |            |                |                 |                      |                    |               |                  |             |
| Front side-4mm                                             | RMC       | 1412/1732.4    | 1:1        | 1.290          | 0.03            | 23.13                | 24.00              | 1.222         | 1.576            | 22.3        |
| Back side-6mm                                              | RMC       | 1412/1732.4    | 1:1        | 1.350          | 0.01            | 23.13                | 24.00              | 1.222         | 1.649            | 22.3        |
| Bottom side-7mm                                            | RMC       | 1412/1732.4    | 1:1        | 1.550          | 0.07            | 23.13                | 24.00              | 1.222         | 1.894            | 22.3        |

Table 18: SAR of WCDMA Band IV for Head, Body and Product specific 10g SAR.





Note:

- 1) The maximum Scaled SAR value is marked in bold. Graph results refer to Appendix B.
- 2) Per KDB447498 D01, testing of other required channels within the operating mode of a frequency band is not required when the reported 1-g or 10-g SAR for the mid-band or highest output power channel is:
  - $\leq 0.8\text{W/kg}$  for 1-g or  $2.0\text{W/kg}$  for 10-g respectively, when the transmission band is  $\leq 100\text{MHz}$ .
  - $\leq 0.6\text{ W/kg}$  or  $1.5\text{ W/kg}$ , for 1-g or 10-g respectively, when the transmission band is between 100 MHz and 200 MHz.
  - $\leq 0.4\text{ W/kg}$  or  $1.0\text{ W/kg}$ , for 1-g or 10-g respectively, when the transmission band is  $\geq 200\text{ MHz}$ .

| Test Position | Channel/ Frequency | Measured SAR (1g) | 1 <sup>st</sup> Repeated | Ratio | 2 <sup>nd</sup> Repeated | 3 <sup>rd</sup> Repeated |
|---------------|--------------------|-------------------|--------------------------|-------|--------------------------|--------------------------|
|               | (MHz)              |                   | SAR (1g)                 |       | SAR (1g)                 | SAR (1g)                 |
| Back side     | 1513/1752.6        | 1.150             | 1.088                    | 1.057 | N/A                      | N/A                      |

Note: 1) When the original highest measured SAR is  $\geq 0.80\text{ W/kg}$ , the measurement was repeated once.

2) A second repeated measurement was performed only if the ratio of largest to smallest SAR for the original and first repeated measurements was  $> 1.20$  or when the original or repeated measurement was  $\geq 1.45\text{ W/kg}$  ( $\sim 10\%$  from the 1-g SAR limit).

3) A third repeated measurement was performed only if the original, first or second repeated measurement was  $\geq 1.5\text{ W/kg}$  and the ratio of largest to smallest SAR for the original, first and second repeated measurements is  $> 1.20$ .

4) Repeated measurements are not required when the original highest measured SAR is  $< 0.80\text{ W/kg}$



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### 8.3.5 SAR Result of WCDMA Band V

| Test position                     | Test mode | Test Ch./Freq. | Duty Cycle | SAR (W/kg)1-g | Power Drift(dB) | Conducted Power(dBm) | Tune up Limit(dBm) | Scaled factor | Scaled SAR(W/kg) | Liquid Temp |
|-----------------------------------|-----------|----------------|------------|---------------|-----------------|----------------------|--------------------|---------------|------------------|-------------|
| Head Test data                    |           |                |            |               |                 |                      |                    |               |                  |             |
| Left cheek                        | RMC       | 4182/836.4     | 1:1        | 0.204         | 0.03            | 23.14                | 24.00              | 1.219         | 0.249            | 22.1        |
| Left tilted                       | RMC       | 4182/836.4     | 1:1        | 0.152         | 0.01            | 23.14                | 24.00              | 1.219         | 0.185            | 22.1        |
| Right cheek                       | RMC       | 4182/836.4     | 1:1        | 0.229         | 0.08            | 23.14                | 24.00              | 1.219         | <b>0.279</b>     | 22.1        |
| Right tilted                      | RMC       | 4182/836.4     | 1:1        | 0.163         | 0.03            | 23.14                | 24.00              | 1.219         | 0.199            | 22.1        |
| Body Worn Test data(Separate 5mm) |           |                |            |               |                 |                      |                    |               |                  |             |
| Front side                        | RMC       | 4182/836.4     | 1:1        | 0.495         | -0.01           | 23.14                | 24.00              | 1.219         | 0.603            | 22.1        |
| Back side                         | RMC       | 4182/836.4     | 1:1        | 0.875         | 0.03            | 23.14                | 24.00              | 1.219         | 1.067            | 22.1        |
| Back side                         | RMC       | 4132/826.4     | 1:1        | 0.969         | -0.02           | 23.11                | 24.00              | 1.227         | <b>1.189</b>     | 22.1        |
| Back side-repeat                  | RMC       | 4132/826.4     | 1:1        | 0.955         | 0.03            | 23.11                | 24.00              | 1.227         | 1.172            | 22.1        |
| Back side                         | RMC       | 4233/846.6     | 1:1        | 0.665         | -0.04           | 23.07                | 24.00              | 1.239         | 0.824            | 22.1        |
| Hotspot Test data(Separate 5mm)   |           |                |            |               |                 |                      |                    |               |                  |             |
| Front side                        | RMC       | 4182/836.4     | 1:1        | 0.495         | -0.01           | 23.14                | 24.00              | 1.219         | 0.603            | 22.1        |
| Back side                         | RMC       | 4182/836.4     | 1:1        | 0.875         | 0.03            | 23.14                | 24.00              | 1.219         | 1.067            | 22.1        |
| Left side                         | RMC       | 4182/836.4     | 1:1        | 0.237         | 0.03            | 23.14                | 24.00              | 1.219         | 0.289            | 22.1        |
| Right side                        | RMC       | 4182/836.4     | 1:1        | 0.305         | 0.01            | 23.14                | 24.00              | 1.219         | 0.372            | 22.1        |
| Bottom side                       | RMC       | 4182/836.4     | 1:1        | 0.543         | 0.04            | 23.14                | 24.00              | 1.219         | 0.662            | 22.1        |
| Back side                         | RMC       | 4132/826.4     | 1:1        | 0.969         | -0.02           | 23.11                | 24.00              | 1.227         | <b>1.189</b>     | 22.1        |
| Back side                         | RMC       | 4233/846.6     | 1:1        | 0.665         | -0.04           | 23.07                | 24.00              | 1.239         | 0.824            | 22.1        |

Table 19: SAR of WCDMA Band V for Head, Body.

Note:

- 1) The maximum Scaled SAR value is marked in bold. Graph results refer to Appendix B.
- 2) Per KDB447498 D01, testing of other required channels within the operating mode of a frequency band is not required when the reported 1-g or 10-g SAR for the mid-band or highest output power channel is:
  - $\leq 0.8\text{W/kg}$  for 1-g or  $2.0\text{W/kg}$  for 10-g respectively, when the transmission band is  $\leq 100\text{MHz}$ .
  - $\leq 0.6\text{ W/kg}$  or  $1.5\text{ W/kg}$ , for 1-g or 10-g respectively, when the transmission band is between 100 MHz and 200 MHz.
  - $\leq 0.4\text{ W/kg}$  or  $1.0\text{ W/kg}$ , for 1-g or 10-g respectively, when the transmission band is  $\geq 200\text{ MHz}$ .

| Test Position | Channel/ Frequency | Measured SAR (1g) | 1 <sup>st</sup> Repeated | Ratio | 2 <sup>nd</sup> Repeated | 3 <sup>rd</sup> Repeated |
|---------------|--------------------|-------------------|--------------------------|-------|--------------------------|--------------------------|
|               | (MHz)              |                   | SAR (1g)                 |       | SAR (1g)                 | SAR (1g)                 |
| Back side     | 4132/826.4         | 0.969             | 0.955                    | 1.015 | N/A                      | N/A                      |

Note: 1) When the original highest measured SAR is  $\geq 0.80\text{ W/kg}$ , the measurement was repeated once.

2) A second repeated measurement was performed only if the ratio of largest to smallest SAR for the original and first repeated measurements was  $> 1.20$  or when the original or repeated measurement was  $\geq 1.45\text{ W/kg}$  ( $\sim 10\%$  from the 1-g SAR limit).

3) A third repeated measurement was performed only if the original, first or second repeated measurement was  $\geq 1.5\text{ W/kg}$  and the ratio of largest to smallest SAR for the original, first and second repeated measurements is  $> 1.20$ .

4) Repeated measurements are not required when the original highest measured SAR is  $< 0.80\text{ W/kg}$



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### 8.3.6 SAR Result of LTE Band 2

| Test position                                       | BW. | Test mode    | Test Ch./Freq. | Duty Cycle | SAR (W/kg)1-g | Power Drift(dB) | Conducted power(dBm) | Tune up Limit(dBm) | Scaled factor | Scaled SAR(W/kg) | Liquid Temp. |
|-----------------------------------------------------|-----|--------------|----------------|------------|---------------|-----------------|----------------------|--------------------|---------------|------------------|--------------|
| Head Test data(1RB)                                 |     |              |                |            |               |                 |                      |                    |               |                  |              |
| Left cheek                                          | 20  | QPSK 1RB_99  | 18700/1860     | 1:1        | 0.112         | 0.09            | 23.29                | 24.00              | 1.178         | 0.132            | 22.3         |
| Left tilted                                         | 20  | QPSK 1RB_99  | 18700/1860     | 1:1        | 0.101         | 0.08            | 23.29                | 24.00              | 1.178         | 0.119            | 22.3         |
| Right cheek                                         | 20  | QPSK 1RB_99  | 18700/1860     | 1:1        | 0.151         | 0.07            | 23.29                | 24.00              | 1.178         | <b>0.178</b>     | 22.3         |
| Right tilted                                        | 20  | QPSK 1RB_99  | 18700/1860     | 1:1        | 0.104         | 0.06            | 23.29                | 24.00              | 1.178         | 0.122            | 22.3         |
| Head Test data(50%RB)                               |     |              |                |            |               |                 |                      |                    |               |                  |              |
| Left cheek                                          | 20  | QPSK 50RB_50 | 18700/1860     | 1:1        | 0.064         | 0.01            | 22.20                | 23.00              | 1.202         | 0.076            | 22.3         |
| Left tilted                                         | 20  | QPSK 50RB_50 | 18700/1860     | 1:1        | 0.068         | 0.05            | 22.20                | 23.00              | 1.202         | 0.082            | 22.3         |
| Right cheek                                         | 20  | QPSK 50RB_50 | 18700/1860     | 1:1        | 0.081         | 0.03            | 22.20                | 23.00              | 1.202         | 0.098            | 22.3         |
| Right tilted                                        | 20  | QPSK 50RB_50 | 18700/1860     | 1:1        | 0.054         | 0.01            | 22.20                | 23.00              | 1.202         | 0.064            | 22.3         |
| Body worn Test data(Separate 5mm 1RB) sensor on     |     |              |                |            |               |                 |                      |                    |               |                  |              |
| Front side                                          | 20  | QPSK 1RB_99  | 18700/1860     | 1:1        | 0.483         | 0.03            | 17.82                | 18.50              | 1.169         | 0.565            | 22.3         |
| Back side                                           | 20  | QPSK 1RB_99  | 18700/1860     | 1:1        | 0.776         | 0.00            | 17.82                | 18.50              | 1.169         | 0.908            | 22.1         |
| Back side                                           | 20  | QPSK 1RB_99  | 18900/1880     | 1:1        | 0.634         | -0.03           | 17.80                | 18.50              | 1.175         | 0.745            | 22.1         |
| Back side                                           | 20  | QPSK 1RB_99  | 19100/1900     | 1:1        | 0.623         | -0.05           | 17.78                | 18.50              | 1.180         | 0.735            | 22.1         |
| Body worn Test data (Separate 5mm 50%RB) sensor on  |     |              |                |            |               |                 |                      |                    |               |                  |              |
| Front side                                          | 20  | QPSK 50RB_50 | 18700/1860     | 1:1        | 0.412         | -0.01           | 17.78                | 18.50              | 1.180         | 0.486            | 22.3         |
| Back side                                           | 20  | QPSK 50RB_50 | 18700/1860     | 1:1        | 1.010         | -0.04           | 17.78                | 18.50              | 1.180         | 1.192            | 22.3         |
| Back side                                           | 20  | QPSK 50RB_50 | 18900/1880     | 1:1        | 0.785         | -0.02           | 17.46                | 18.50              | 1.271         | 0.997            | 22.3         |
| Back side                                           | 20  | QPSK 50RB_50 | 19100/1900     | 1:1        | 0.792         | -0.07           | 17.42                | 18.50              | 1.282         | 1.016            | 22.3         |
| Body worn Test data (Separate 5mm 100%RB) sensor on |     |              |                |            |               |                 |                      |                    |               |                  |              |
| Back side                                           | 20  | QPSK 100RB_0 | 18700/1860     | 1:1        | 1.040         | -0.12           | 17.75                | 18.50              | 1.189         | <b>1.236</b>     | 22.3         |
| Back side-repeat                                    | 20  | QPSK 100RB_0 | 18700/1860     | 1:1        | 1.020         | 0.01            | 17.75                | 18.50              | 1.189         | 1.212            | 22.3         |
| Back side with headset                              | 20  | QPSK 100RB_0 | 18700/1860     | 1:1        | 0.998         | 0.01            | 17.75                | 18.50              | 1.189         | 1.186            | 22.3         |
| Body worn Test data sensor off                      |     |              |                |            |               |                 |                      |                    |               |                  |              |
| Front side 10mm                                     | 20  | QPSK 1RB_99  | 18700/1860     | 1:1        | 0.686         | 0.04            | 23.29                | 24.00              | 1.178         | 0.808            | 22.3         |
| Back side 17mm                                      | 20  | QPSK 1RB_99  | 18700/1860     | 1:1        | 0.501         | -0.06           | 23.29                | 24.00              | 1.178         | 0.590            | 22.1         |
| Front side 10mm                                     | 20  | QPSK 1RB_0   | 18900/1880     | 1:1        | 0.640         | -0.15           | 23.20                | 24.00              | 1.202         | 0.769            | 22.1         |
| Front side 10mm                                     | 20  | QPSK 1RB_0   | 19100/1900     | 1:1        | 0.578         | 0.01            | 23.28                | 24.00              | 1.180         | 0.682            | 22.1         |
| Hotspot Test data(Separate 5mm 1RB)                 |     |              |                |            |               |                 |                      |                    |               |                  |              |
| Front side                                          | 20  | QPSK 1RB_99  | 18700/1860     | 1:1        | 0.483         | 0.03            | 17.82                | 18.50              | 1.169         | 0.565            | 22.3         |
| Back side                                           | 20  | QPSK 1RB_99  | 18700/1860     | 1:1        | 0.776         | 0.00            | 17.82                | 18.50              | 1.169         | 0.908            | 22.1         |
| Left side                                           | 20  | QPSK 1RB_99  | 18700/1860     | 1:1        | 0.074         | 0.06            | 16.85                | 17.50              | 1.161         | 0.086            | 22.3         |
| Right side                                          | 20  | QPSK 1RB_99  | 18700/1860     | 1:1        | 0.040         | 0.04            | 16.85                | 17.50              | 1.161         | 0.047            | 22.3         |
| Bottom side                                         | 20  | QPSK 1RB_99  | 18700/1860     | 1:1        | 0.946         | -0.15           | 16.85                | 17.50              | 1.161         | 1.099            | 22.3         |
| Back side                                           | 20  | QPSK 1RB_99  | 18900/1880     | 1:1        | 0.634         | -0.03           | 17.80                | 18.50              | 1.175         | 0.745            | 22.1         |
| Back side                                           | 20  | QPSK 1RB_99  | 19100/1900     | 1:1        | 0.623         | -0.05           | 17.78                | 18.50              | 1.180         | 0.735            | 22.1         |
| Bottom side                                         | 20  | QPSK 1RB_99  | 18900/1880     | 1:1        | 0.931         | 0.01            | 16.82                | 17.50              | 1.169         | 1.089            | 22.3         |
| Bottom side                                         | 20  | QPSK 1RB_99  | 19100/1900     | 1:1        | 0.946         | -0.06           | 16.76                | 17.50              | 1.186         | 1.122            | 22.3         |
| Hotspot Test data (Separate 5mm 50%RB)              |     |              |                |            |               |                 |                      |                    |               |                  |              |
| Front side                                          | 20  | QPSK 50RB_50 | 18700/1860     | 1:1        | 0.412         | -0.01           | 17.78                | 18.50              | 1.180         | 0.486            | 22.3         |
| Back side                                           | 20  | QPSK 50RB_50 | 18700/1860     | 1:1        | 1.010         | -0.04           | 17.78                | 18.50              | 1.180         | 1.192            | 22.3         |
| Left side                                           | 20  | QPSK 50RB_50 | 18700/1860     | 1:1        | 0.076         | 0.05            | 16.75                | 17.50              | 1.189         | 0.090            | 22.3         |





|                                                                    |            |                  |                       |                   |                       |                        |                             |                           |                      |                         |                     |
|--------------------------------------------------------------------|------------|------------------|-----------------------|-------------------|-----------------------|------------------------|-----------------------------|---------------------------|----------------------|-------------------------|---------------------|
| Right side                                                         | 20         | QPSK 50RB_50     | 18700/1860            | 1:1               | 0.045                 | -0.01                  | 16.75                       | 17.50                     | 1.189                | 0.053                   | 22.3                |
| Bottom side                                                        | 20         | QPSK 50RB_50     | 18700/1860            | 1:1               | 1.020                 | -0.07                  | 16.75                       | 17.50                     | 1.189                | 1.212                   | 22.3                |
| Back side                                                          | 20         | QPSK 50RB_50     | 18900/1880            | 1:1               | 0.785                 | -0.02                  | 17.46                       | 18.50                     | 1.271                | 0.997                   | 22.3                |
| Back side                                                          | 20         | QPSK 50RB_50     | 19100/1900            | 1:1               | 0.792                 | -0.07                  | 17.42                       | 18.50                     | 1.282                | 1.016                   | 22.3                |
| Bottom side                                                        | 20         | QPSK 50RB_50     | 18900/1880            | 1:1               | 1.010                 | -0.12                  | 16.41                       | 17.50                     | 1.285                | <b>1.298</b>            | 22.3                |
| Bottom side                                                        | 20         | QPSK 50RB_50     | 19100/1900            | 1:1               | 1.000                 | -0.10                  | 16.49                       | 17.50                     | 1.262                | 1.262                   | 22.3                |
| Hotspot Test data (Separate 5mm 100%RB)                            |            |                  |                       |                   |                       |                        |                             |                           |                      |                         |                     |
| Back side                                                          | 20         | QPSK 100RB_0     | 18700/1860            | 1:1               | 0.790                 | 0.05                   | 17.75                       | 18.50                     | 1.189                | 0.939                   | 22.3                |
| Bottom side                                                        | 20         | QPSK 100RB_0     | 18700/1860            | 1:1               | 1.030                 | -0.08                  | 16.72                       | 17.50                     | 1.197                | 1.233                   | 22.3                |
| <b>Test position</b>                                               | <b>BW.</b> | <b>Test mode</b> | <b>Test Ch./Freq.</b> | <b>Duty Cycle</b> | <b>SAR (W/kg)10-g</b> | <b>Power Drift(dB)</b> | <b>Conducted power(dBm)</b> | <b>Tune up Limit(dBm)</b> | <b>Scaled factor</b> | <b>Scaled SAR(W/kg)</b> | <b>Liquid Temp.</b> |
| Product specific 10g SAR Test data(Separate 0mm 1RB) sensor on     |            |                  |                       |                   |                       |                        |                             |                           |                      |                         |                     |
| Front side                                                         | 20         | QPSK 1RB_99      | 18700/1860            | 1:1               | 1.140                 | 0.05                   | 20.67                       | 21.50                     | 1.211                | 1.380                   | 22.3                |
| Back side                                                          | 20         | QPSK 1RB_99      | 18700/1860            | 1:1               | 1.750                 | -0.09                  | 20.67                       | 21.50                     | 1.211                | 2.119                   | 22.3                |
| Bottom side                                                        | 20         | QPSK 1RB_99      | 18700/1860            | 1:1               | 2.200                 | 0.01                   | 20.67                       | 21.50                     | 1.211                | 2.663                   | 22.3                |
| Back side                                                          | 20         | QPSK 1RB_99      | 18900/1880            | 1:1               | 1.970                 | -0.01                  | 20.63                       | 21.50                     | 1.222                | 2.407                   | 22.3                |
| Back side                                                          | 20         | QPSK 1RB_99      | 19100/1900            | 1:1               | 1.870                 | -0.05                  | 20.58                       | 21.50                     | 1.236                | 2.311                   | 22.3                |
| Bottom side                                                        | 20         | QPSK 1RB_99      | 18900/1880            | 1:1               | 2.210                 | 0.06                   | 20.63                       | 21.50                     | 1.222                | 2.700                   | 22.3                |
| Bottom side                                                        | 20         | QPSK 1RB_99      | 19100/1900            | 1:1               | 2.200                 | 0.11                   | 20.58                       | 21.50                     | 1.236                | 2.719                   | 22.3                |
| Product specific 10g SAR Test data(Separate 0mm 50%RB) sensor on   |            |                  |                       |                   |                       |                        |                             |                           |                      |                         |                     |
| Front side                                                         | 20         | QPSK 50RB_50     | 18700/1860            | 1:1               | 1.050                 | 0.03                   | 20.62                       | 21.50                     | 1.225                | 1.286                   | 22.3                |
| Back side                                                          | 20         | QPSK 50RB_50     | 18700/1860            | 1:1               | 1.890                 | -0.07                  | 20.62                       | 21.50                     | 1.225                | 2.315                   | 22.3                |
| Bottom side                                                        | 20         | QPSK 50RB_50     | 18700/1860            | 1:1               | 2.240                 | 0.13                   | 20.62                       | 21.50                     | 1.225                | 2.743                   | 22.3                |
| Back side                                                          | 20         | QPSK 50RB_50     | 18900/1880            | 1:1               | 1.840                 | -0.01                  | 20.30                       | 21.50                     | 1.318                | 2.426                   | 22.3                |
| Back side                                                          | 20         | QPSK 50RB_50     | 19100/1900            | 1:1               | 1.920                 | -0.06                  | 20.30                       | 21.50                     | 1.318                | 2.531                   | 22.3                |
| Bottom side                                                        | 20         | QPSK 50RB_50     | 18900/1880            | 1:1               | 2.240                 | 0.05                   | 20.30                       | 21.50                     | 1.318                | 2.953                   | 22.3                |
| Bottom side                                                        | 20         | QPSK 50RB_50     | 19100/1900            | 1:1               | 2.230                 | -0.07                  | 20.30                       | 21.50                     | 1.318                | 2.940                   | 22.3                |
| Product specific 10g SAR Test data (Separate 0mm 100%RB) sensor on |            |                  |                       |                   |                       |                        |                             |                           |                      |                         |                     |
| Back side                                                          | 20         | QPSK 100RB_0     | 18700/1860            | 1:1               | 1.910                 | -0.07                  | 20.55                       | 21.50                     | 1.245                | 2.377                   | 22.3                |
| Bottom side                                                        | 20         | QPSK 100RB_0     | 18700/1860            | 1:1               | 2.440                 | -0.05                  | 20.55                       | 21.50                     | 1.245                | <b>3.037</b>            | 22.3                |
| Product specific 10g SAR Test data sensor off                      |            |                  |                       |                   |                       |                        |                             |                           |                      |                         |                     |
| Front side-4mm                                                     | 20         | QPSK 1RB_99      | 18700/1860            | 1:1               | 0.992                 | -0.05                  | 23.29                       | 24.00                     | 1.178                | 1.168                   | 22.3                |
| Back side-6mm                                                      | 20         | QPSK 1RB_99      | 18700/1860            | 1:1               | 1.240                 | 0.01                   | 23.29                       | 24.00                     | 1.178                | 1.460                   | 22.3                |
| Bottom side-7mm                                                    | 20         | QPSK 1RB_99      | 18700/1860            | 1:1               | 1.690                 | -0.06                  | 23.29                       | 24.00                     | 1.178                | 1.990                   | 22.3                |

Table 20: SAR of LTE Band 2 for Head, Body and Product specific 10g SAR.

Note:

- 1) The maximum Scaled SAR value is marked in bold. Graph results refer to Appendix B.
- 2) Per KDB447498 D01, testing of other required channels within the operating mode of a frequency band is not required when the reported 1-g or 10-g SAR for the mid-band or highest output power channel is:
  - $\leq 0.8\text{W/kg}$  for 1-g or  $2.0\text{W/kg}$  for 10-g respectively, when the transmission band is  $\leq 100\text{MHz}$ .
  - $\leq 0.6\text{ W/kg}$  or  $1.5\text{ W/kg}$ , for 1-g or 10-g respectively, when the transmission band is between 100 MHz and 200 MHz.
  - $\leq 0.4\text{ W/kg}$  or  $1.0\text{ W/kg}$ , for 1-g or 10-g respectively, when the transmission band is  $\geq 200\text{ MHz}$ .



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Report No.: ZR/2020/8000406  
Page : 119 of 142

| Test Position                                                                                                                                                                                                                                                      | Channel/ Frequency | Measured SAR (1g) | 1 <sup>st</sup> Repeated | Ratio | 2 <sup>nd</sup> Repeated | 3 <sup>rd</sup> Repeated |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------|-------------------|--------------------------|-------|--------------------------|--------------------------|
|                                                                                                                                                                                                                                                                    | (MHz)              |                   | SAR (1g)                 |       | SAR (1g)                 | SAR (1g)                 |
| Back side                                                                                                                                                                                                                                                          | 18700/1860         | 1.040             | 1.020                    | 1.020 | N/A                      | N/A                      |
| Note: 1) When the original highest measured SAR is $\geq 0.80$ W/kg, the measurement was repeated once.                                                                                                                                                            |                    |                   |                          |       |                          |                          |
| 2) A second repeated measurement was performed only if the ratio of largest to smallest SAR for the original and first repeated measurements was $> 1.20$ or when the original or repeated measurement was $\geq 1.45$ W/kg ( $\sim 10\%$ from the 1-g SAR limit). |                    |                   |                          |       |                          |                          |
| 3) A third repeated measurement was performed only if the original, first or second repeated measurement was $\geq 1.5$ W/kg and the ratio of largest to smallest SAR for the original, first and second repeated measurements is $> 1.20$ .                       |                    |                   |                          |       |                          |                          |
| 4) Repeated measurements are not required when the original highest measured SAR is $< 0.80$ W/kg                                                                                                                                                                  |                    |                   |                          |       |                          |                          |



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### 8.3.7 SAR Result of LTE Band 4

| Test position                                       | BW. | Test mode    | Test Ch./Freq. | Duty Cycle | SAR (W/kg)1-g | Power Drift(dB) | Conducted power(dBm) | Tune up Limit(dBm) | Scaled factor | Scaled SAR(W/kg) | Liquid Temp. |
|-----------------------------------------------------|-----|--------------|----------------|------------|---------------|-----------------|----------------------|--------------------|---------------|------------------|--------------|
| Head Test data(1RB)                                 |     |              |                |            |               |                 |                      |                    |               |                  |              |
| Left cheek                                          | 20  | QPSK 1RB_99  | 20175/1732.5   | 1:1        | 0.102         | 0.03            | 22.99                | 24.00              | 1.262         | 0.129            | 22.3         |
| Left tilted                                         | 20  | QPSK 1RB_99  | 20175/1732.5   | 1:1        | 0.106         | 0.03            | 22.99                | 24.00              | 1.262         | 0.134            | 22.3         |
| Right cheek                                         | 20  | QPSK 1RB_99  | 20175/1732.5   | 1:1        | 0.127         | 0.07            | 22.99                | 24.00              | 1.262         | <b>0.160</b>     | 22.3         |
| Right tilted                                        | 20  | QPSK 1RB_99  | 20175/1732.5   | 1:1        | 0.080         | 0.06            | 22.99                | 24.00              | 1.262         | 0.101            | 22.3         |
| Head Test data(50%RB)                               |     |              |                |            |               |                 |                      |                    |               |                  |              |
| Left cheek                                          | 20  | QPSK 50RB_50 | 20175/1732.5   | 1:1        | 0.078         | 0.01            | 21.88                | 23.00              | 1.294         | 0.101            | 22.3         |
| Left tilted                                         | 20  | QPSK 50RB_50 | 20175/1732.5   | 1:1        | 0.066         | 0.05            | 21.88                | 23.00              | 1.294         | 0.085            | 22.3         |
| Right cheek                                         | 20  | QPSK 50RB_50 | 20175/1732.5   | 1:1        | 0.109         | 0.03            | 21.88                | 23.00              | 1.294         | 0.141            | 22.3         |
| Right tilted                                        | 20  | QPSK 50RB_50 | 20175/1732.5   | 1:1        | 0.055         | 0.01            | 21.88                | 23.00              | 1.294         | 0.071            | 22.3         |
| Body worn Test data(Separate 5mm 1RB) sensor on     |     |              |                |            |               |                 |                      |                    |               |                  |              |
| Front side                                          | 20  | QPSK 1RB_99  | 20175/1732.5   | 1:1        | 0.717         | 0.05            | 17.84                | 19.00              | 1.306         | 0.937            | 22.3         |
| Back side                                           | 20  | QPSK 1RB_99  | 20175/1732.5   | 1:1        | 0.887         | -0.04           | 17.84                | 19.00              | 1.306         | 1.159            | 22.3         |
| Front side                                          | 20  | QPSK 1RB_99  | 20050/1720     | 1:1        | 0.625         | 0.03            | 17.65                | 19.00              | 1.365         | 0.853            | 22.3         |
| Front side                                          | 20  | QPSK 1RB_99  | 20300/1745     | 1:1        | 0.651         | 0.07            | 17.56                | 19.00              | 1.393         | 0.907            | 22.1         |
| Back side                                           | 20  | QPSK 1RB_99  | 20050/1720     | 1:1        | 0.767         | -0.05           | 17.65                | 19.00              | 1.365         | 1.047            | 22.3         |
| Back side                                           | 20  | QPSK 1RB_99  | 20300/1745     | 1:1        | 0.800         | -0.01           | 17.56                | 19.00              | 1.393         | 1.115            | 22.1         |
| Body worn Test data (Separate 5mm 50%RB) sensor on  |     |              |                |            |               |                 |                      |                    |               |                  |              |
| Front side                                          | 20  | QPSK 50RB_50 | 20175/1732.5   | 1:1        | 0.679         | 0.03            | 17.70                | 19.00              | 1.349         | 0.916            | 22.3         |
| Back side                                           | 20  | QPSK 50RB_50 | 20175/1732.5   | 1:1        | 0.911         | 0.00            | 17.70                | 19.00              | 1.349         | 1.229            | 22.3         |
| Front side                                          | 20  | QPSK 50RB_50 | 20050/1720     | 1:1        | 0.650         | -0.05           | 17.41                | 19.00              | 1.442         | 0.937            | 22.3         |
| Front side                                          | 20  | QPSK 50RB_50 | 20300/1745     | 1:1        | 0.661         | 0.04            | 17.69                | 19.00              | 1.352         | 0.894            | 22.3         |
| Back side                                           | 20  | QPSK 50RB_50 | 20050/1720     | 1:1        | 0.900         | -0.08           | 17.41                | 19.00              | 1.442         | <b>1.298</b>     | 22.3         |
| Back side                                           | 20  | QPSK 50RB_50 | 20300/1745     | 1:1        | 0.906         | -0.01           | 17.69                | 19.00              | 1.352         | 1.225            | 22.3         |
| Back side with headset                              | 20  | QPSK 50RB_50 | 20050/1720     | 1:1        | 0.895         | -0.04           | 17.41                | 19.00              | 1.442         | 1.291            | 22.1         |
| Body worn Test data (Separate 5mm 100%RB) sensor on |     |              |                |            |               |                 |                      |                    |               |                  |              |
| Front side                                          | 20  | QPSK 100RB_0 | 20175/1732.5   | 1:1        | 0.662         | 0.02            | 17.63                | 19.00              | 1.371         | 0.908            | 22.3         |
| Back side                                           | 20  | QPSK 100RB_0 | 20175/1732.5   | 1:1        | 0.910         | 0.00            | 17.63                | 19.00              | 1.371         | 1.248            | 22.3         |
| Body worn Test data sensor off                      |     |              |                |            |               |                 |                      |                    |               |                  |              |
| Front side 10mm                                     | 20  | QPSK 1RB_99  | 20175/1732.5   | 1:1        | 0.926         | 0.00            | 22.99                | 24.00              | 1.262         | 1.168            | 22.3         |
| Back side 17mm                                      | 20  | QPSK 1RB_99  | 20175/1732.5   | 1:1        | 0.592         | -0.04           | 22.99                | 24.00              | 1.262         | 0.747            | 22.3         |
| Front side 10mm                                     | 20  | QPSK 1RB_99  | 20050/1720     | 1:1        | 0.877         | -0.08           | 22.89                | 24.00              | 1.291         | 1.132            | 22.3         |
| Front side 10mm                                     | 20  | QPSK 1RB_0   | 20300/1745     | 1:1        | 0.902         | -0.01           | 22.81                | 24.00              | 1.315         | 1.186            | 22.1         |
| Hotspot Test data(Separate 5mm 1RB)                 |     |              |                |            |               |                 |                      |                    |               |                  |              |
| Front side                                          | 20  | QPSK 1RB_99  | 20175/1732.5   | 1:1        | 0.717         | 0.05            | 17.84                | 19.00              | 1.306         | 0.937            | 22.3         |
| Back side                                           | 20  | QPSK 1RB_99  | 20175/1732.5   | 1:1        | 0.887         | -0.04           | 17.84                | 19.00              | 1.306         | 1.159            | 22.3         |
| Left side                                           | 20  | QPSK 1RB_99  | 20175/1732.5   | 1:1        | 0.057         | 0.12            | 16.68                | 17.50              | 1.208         | 0.069            | 22.3         |
| Right side                                          | 20  | QPSK 1RB_99  | 20175/1732.5   | 1:1        | 0.084         | -0.06           | 16.68                | 17.50              | 1.208         | 0.101            | 22.3         |
| Bottom side                                         | 20  | QPSK 1RB_99  | 20175/1732.5   | 1:1        | 1.050         | -0.13           | 16.68                | 17.50              | 1.208         | 1.268            | 22.3         |
| Front side                                          | 20  | QPSK 1RB_99  | 20050/1720     | 1:1        | 0.650         | -0.02           | 17.65                | 19.00              | 1.365         | 0.887            | 22.3         |
| Front side                                          | 20  | QPSK 1RB_99  | 20300/1745     | 1:1        | 0.671         | 0.01            | 17.56                | 19.00              | 1.393         | 0.935            | 22.1         |
| Back side                                           | 20  | QPSK 1RB_99  | 20050/1720     | 1:1        | 0.767         | -0.05           | 17.65                | 19.00              | 1.365         | 1.047            | 22.3         |
| Back side                                           | 20  | QPSK 1RB_99  | 20300/1745     | 1:1        | 0.800         | -0.01           | 17.56                | 19.00              | 1.393         | 1.115            | 22.1         |



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|                                                                   |            |                  |                       |                   |                       |                        |                             |                           |                      |                         |                     |
|-------------------------------------------------------------------|------------|------------------|-----------------------|-------------------|-----------------------|------------------------|-----------------------------|---------------------------|----------------------|-------------------------|---------------------|
| Bottom side                                                       | 20         | QPSK 1RB_99      | 20050/1720            | 1:1               | 1.020                 | 0.04                   | 16.45                       | 17.50                     | 1.274                | 1.299                   | 22.3                |
| Bottom side                                                       | 20         | QPSK 1RB_99      | 20300/1745            | 1:1               | 1.010                 | 0.01                   | 16.42                       | 17.50                     | 1.282                | 1.295                   | 22.3                |
| Hotspot Test data (Separate 5mm 50%RB)                            |            |                  |                       |                   |                       |                        |                             |                           |                      |                         |                     |
| Front side                                                        | 20         | QPSK 50RB_50     | 20175/1732.5          | 1:1               | 0.679                 | 0.03                   | 17.70                       | 19.00                     | 1.349                | 0.916                   | 22.3                |
| Back side                                                         | 20         | QPSK 50RB_50     | 20175/1732.5          | 1:1               | 0.911                 | 0.00                   | 17.70                       | 19.00                     | 1.349                | 1.229                   | 22.3                |
| Left side                                                         | 20         | QPSK 50RB_50     | 20175/1732.5          | 1:1               | 0.059                 | 0.02                   | 16.58                       | 17.50                     | 1.236                | 0.073                   | 22.3                |
| Right side                                                        | 20         | QPSK 50RB_50     | 20175/1732.5          | 1:1               | 0.080                 | 0.03                   | 16.58                       | 17.50                     | 1.236                | 0.099                   | 22.3                |
| Bottom side                                                       | 20         | QPSK 50RB_50     | 20175/1732.5          | 1:1               | 1.070                 | -0.13                  | 16.58                       | 17.50                     | 1.236                | 1.322                   | 22.3                |
| Front side                                                        | 20         | QPSK 50RB_50     | 20050/1720            | 1:1               | 0.624                 | -0.06                  | 17.41                       | 19.00                     | 1.442                | 0.900                   | 22.3                |
| Front side                                                        | 20         | QPSK 50RB_50     | 20300/1745            | 1:1               | 0.640                 | 0.04                   | 17.69                       | 19.00                     | 1.352                | 0.865                   | 22.3                |
| Back side                                                         | 20         | QPSK 50RB_50     | 20050/1720            | 1:1               | 0.900                 | -0.08                  | 17.41                       | 19.00                     | 1.442                | 1.298                   | 22.3                |
| Back side                                                         | 20         | QPSK 50RB_50     | 20300/1745            | 1:1               | 0.906                 | -0.01                  | 17.69                       | 19.00                     | 1.352                | 1.225                   | 22.3                |
| Bottom side                                                       | 20         | QPSK 50RB_50     | 20050/1720            | 1:1               | 1.050                 | 0.01                   | 16.31                       | 17.50                     | 1.315                | <b>1.381</b>            | 22.3                |
| Bottom side                                                       | 20         | QPSK 50RB_50     | 20300/1745            | 1:1               | 1.040                 | 0.02                   | 16.57                       | 17.50                     | 1.239                | 1.288                   | 22.3                |
| Hotspot Test data (Separate 5mm 100%RB)                           |            |                  |                       |                   |                       |                        |                             |                           |                      |                         |                     |
| Front side                                                        | 20         | QPSK 100RB_0     | 20175/1732.5          | 1:1               | 0.657                 | 0.05                   | 16.51                       | 17.50                     | 1.256                | 0.825                   | 22.3                |
| Back side                                                         | 20         | QPSK 100RB_0     | 20175/1732.5          | 1:1               | 0.832                 | 0.03                   | 16.51                       | 17.50                     | 1.256                | 1.045                   | 22.3                |
| Bottom side                                                       | 20         | QPSK 100RB_0     | 20175/1732.5          | 1:1               | 1.090                 | -0.15                  | 16.51                       | 17.50                     | 1.256                | 1.369                   | 22.3                |
| Bottom side-repeat                                                | 20         | QPSK 100RB_0     | 20175/1732.5          | 1:1               | 1.080                 | 0.01                   | 16.51                       | 17.50                     | 1.256                | 1.357                   | 22.3                |
| <b>Test position</b>                                              | <b>BW.</b> | <b>Test mode</b> | <b>Test Ch./Freq.</b> | <b>Duty Cycle</b> | <b>SAR (W/kg)10-g</b> | <b>Power Drift(dB)</b> | <b>Conducted power(dBm)</b> | <b>Tune up Limit(dBm)</b> | <b>Scaled factor</b> | <b>Scaled SAR(W/kg)</b> | <b>Liquid Temp.</b> |
| Product specific 10g SAR Test data(Separate 0mm 1RB) sensor on    |            |                  |                       |                   |                       |                        |                             |                           |                      |                         |                     |
| Front side                                                        | 20         | QPSK 1RB_99      | 20175/1732.5          | 1:1               | 1.420                 | 0.02                   | 20.86                       | 21.50                     | 1.159                | 1.645                   | 22.3                |
| Back side                                                         | 20         | QPSK 1RB_99      | 20175/1732.5          | 1:1               | 2.290                 | 0.07                   | 20.86                       | 21.50                     | 1.159                | 2.654                   | 22.3                |
| Bottom side                                                       | 20         | QPSK 1RB_99      | 20175/1732.5          | 1:1               | 1.970                 | 0.02                   | 20.86                       | 21.50                     | 1.159                | 2.283                   | 22.3                |
| Back side                                                         | 20         | QPSK 1RB_99      | 20050/1720            | 1:1               | 2.240                 | -0.13                  | 20.66                       | 21.50                     | 1.213                | 2.718                   | 22.3                |
| Back side                                                         | 20         | QPSK 1RB_99      | 20300/1745            | 1:1               | 2.230                 | 0.01                   | 20.61                       | 21.50                     | 1.227                | 2.737                   | 22.3                |
| Bottom side                                                       | 20         | QPSK 1RB_99      | 20050/1720            | 1:1               | 2.080                 | 0.03                   | 20.66                       | 21.50                     | 1.213                | 2.524                   | 22.3                |
| Bottom side                                                       | 20         | QPSK 1RB_99      | 20300/1745            | 1:1               | 1.870                 | 0.02                   | 20.61                       | 21.50                     | 1.227                | 2.295                   | 22.3                |
| Product specific 10g SAR Test data(Separate 0mm 50%RB) sensor on  |            |                  |                       |                   |                       |                        |                             |                           |                      |                         |                     |
| Front side                                                        | 20         | QPSK 50RB_50     | 20175/1732.5          | 1:1               | 1.360                 | -0.04                  | 20.71                       | 21.50                     | 1.199                | 1.631                   | 22.3                |
| Back side                                                         | 20         | QPSK 50RB_50     | 20175/1732.5          | 1:1               | 2.380                 | 0.07                   | 20.71                       | 21.50                     | 1.199                | 2.855                   | 22.3                |
| Bottom side                                                       | 20         | QPSK 50RB_50     | 20175/1732.5          | 1:1               | 2.010                 | 0.08                   | 20.71                       | 21.50                     | 1.199                | 2.411                   | 22.3                |
| Back side                                                         | 20         | QPSK 50RB_50     | 20050/1720            | 1:1               | 2.390                 | 0.08                   | 20.55                       | 21.50                     | 1.245                | <b>2.974</b>            | 22.3                |
| Back side                                                         | 20         | QPSK 50RB_50     | 20300/1745            | 1:1               | 2.330                 | 0.01                   | 20.70                       | 21.50                     | 1.202                | 2.801                   | 22.3                |
| Bottom side                                                       | 20         | QPSK 50RB_50     | 20050/1720            | 1:1               | 2.200                 | 0.07                   | 20.55                       | 21.50                     | 1.245                | 2.738                   | 22.3                |
| Bottom side                                                       | 20         | QPSK 50RB_50     | 20300/1745            | 1:1               | 1.980                 | 0.05                   | 20.70                       | 21.50                     | 1.202                | 2.380                   | 22.3                |
| Product specific 10g SAR Test data(Separate 0mm 100%RB) sensor on |            |                  |                       |                   |                       |                        |                             |                           |                      |                         |                     |
| Back side                                                         | 20         | QPSK 100RB_0     | 20175/1732.5          | 1:1               | 2.410                 | 0.04                   | 20.67                       | 21.50                     | 1.211                | 2.918                   | 22.3                |
| Bottom side                                                       | 20         | QPSK 100RB_0     | 20175/1732.5          | 1:1               | 2.270                 | 0.05                   | 20.67                       | 21.50                     | 1.211                | 2.748                   | 22.3                |
| Product specific 10g SAR Test data sensor off                     |            |                  |                       |                   |                       |                        |                             |                           |                      |                         |                     |
| Front side-4mm                                                    | 20         | QPSK 1RB_99      | 20175/1732.5          | 1:1               | 1.220                 | 0.08                   | 22.99                       | 24.00                     | 1.262                | 1.539                   | 22.3                |
| Back side-6mm                                                     | 20         | QPSK 1RB_99      | 20175/1732.5          | 1:1               | 1.300                 | 0.07                   | 22.99                       | 24.00                     | 1.262                | 1.640                   | 22.3                |
| Bottom side-7mm                                                   | 20         | QPSK 1RB_99      | 20175/1732.5          | 1:1               | 1.540                 | 0.01                   | 22.99                       | 24.00                     | 1.262                | 1.943                   | 22.3                |

Table 21: SAR of LTE Band 4 for Head, Body and Product specific 10g SAR.

Note:

- 1) The maximum Scaled SAR value is marked in bold. Graph results refer to Appendix B.



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- 2) Per KDB447498 D01, testing of other required channels within the operating mode of a frequency band is not required when the reported 1-g or 10-g SAR for the mid-band or highest output power channel is:
- $\leq 0.8 \text{ W/kg}$  for 1-g or  $2.0 \text{ W/kg}$  for 10-g respectively, when the transmission band is  $\leq 100 \text{ MHz}$ .
  - $\leq 0.6 \text{ W/kg}$  or  $1.5 \text{ W/kg}$ , for 1-g or 10-g respectively, when the transmission band is between 100 MHz and 200 MHz.
  - $\leq 0.4 \text{ W/kg}$  or  $1.0 \text{ W/kg}$ , for 1-g or 10-g respectively, when the transmission band is  $\geq 200 \text{ MHz}$ .

| Test Position | Channel/ Frequency | Measured SAR (1g) | 1 <sup>st</sup> Repeated | Ratio | 2 <sup>nd</sup> Repeated | 3 <sup>rd</sup> Repeated |
|---------------|--------------------|-------------------|--------------------------|-------|--------------------------|--------------------------|
|               | (MHz)              |                   | SAR (1g)                 |       | SAR (1g)                 | SAR (1g)                 |
| Bottom side   | 20175/1732.5       | 1.090             | 1.080                    | 1.009 | N/A                      | N/A                      |

Note: 1) When the original highest measured SAR is  $\geq 0.80 \text{ W/kg}$ , the measurement was repeated once.

2) A second repeated measurement was performed only if the ratio of largest to smallest SAR for the original and first repeated measurements was  $> 1.20$  or when the original or repeated measurement was  $\geq 1.45 \text{ W/kg}$  ( $\sim 10\%$  from the 1-g SAR limit).

3) A third repeated measurement was performed only if the original, first or second repeated measurement was  $\geq 1.5 \text{ W/kg}$  and the ratio of largest to smallest SAR for the original, first and second repeated measurements is  $> 1.20$ .

4) Repeated measurements are not required when the original highest measured SAR is  $< 0.80 \text{ W/kg}$





### 8.3.8 SAR Result of LTE Band 5

| Test position                            | BW. | Test mode    | Test Ch./Freq. | Duty Cycle | SAR (W/kg)1-g  | Power Drift(dB) | Conducted power(dBm) | Tune up Limit(dBm) | Scaled factor | Scaled SAR(W/kg) | Liquid Temp. |
|------------------------------------------|-----|--------------|----------------|------------|----------------|-----------------|----------------------|--------------------|---------------|------------------|--------------|
| Head Test data(1RB)                      |     |              |                |            |                |                 |                      |                    |               |                  |              |
| Left cheek                               | 10  | QPSK 1RB_49  | 20525/836.5    | 1:1        | 0.195          | 0.03            | 22.94                | 24.00              | 1.276         | <b>0.249</b>     | 22.1         |
| Left tilted                              | 10  | QPSK 1RB_49  | 20525/836.5    | 1:1        | 0.110          | -0.03           | 22.94                | 24.00              | 1.276         | 0.140            | 22.1         |
| Right cheek                              | 10  | QPSK 1RB_49  | 20525/836.5    | 1:1        | 0.124          | 0.02            | 22.94                | 24.00              | 1.276         | 0.158            | 22.1         |
| Right tilted                             | 10  | QPSK 1RB_49  | 20525/836.5    | 1:1        | 0.100          | 0.03            | 22.94                | 24.00              | 1.276         | 0.128            | 22.1         |
| Head Test data(50%RB)                    |     |              |                |            |                |                 |                      |                    |               |                  |              |
| Left cheek                               | 10  | QPSK 25RB_25 | 20525/836.5    | 1:1        | 0.112          | 0.01            | 21.65                | 23.00              | 1.365         | 0.153            | 22.1         |
| Left tilted                              | 10  | QPSK 25RB_25 | 20525/836.5    | 1:1        | 0.077          | 0.03            | 21.65                | 23.00              | 1.365         | 0.105            | 22.1         |
| Right cheek                              | 10  | QPSK 25RB_25 | 20525/836.5    | 1:1        | 0.106          | 0.05            | 21.65                | 23.00              | 1.365         | 0.145            | 22.1         |
| Right tilted                             | 10  | QPSK 25RB_25 | 20525/836.5    | 1:1        | 0.087          | 0.03            | 21.65                | 23.00              | 1.365         | 0.119            | 22.1         |
| Body Worn Test data(Separate 5mm 1RB)    |     |              |                |            |                |                 |                      |                    |               |                  |              |
| Front side                               | 10  | QPSK 1RB_49  | 20525/836.5    | 1:1        | 0.436          | 0.01            | 22.94                | 24.00              | 1.276         | 0.557            | 22.1         |
| Back side                                | 10  | QPSK 1RB_49  | 20525/836.5    | 1:1        | 0.982          | 0.03            | 22.94                | 24.00              | 1.276         | 1.253            | 22.1         |
| Back side                                | 10  | QPSK 1RB_49  | 20450/829      | 1:1        | 1.060          | 0.05            | 22.91                | 24.00              | 1.285         | <b>1.362</b>     | 22.1         |
| Back side-repeat                         | 10  | QPSK 1RB_49  | 20450/829      | 1:1        | 0.991          | 0.01            | 22.91                | 24.00              | 1.285         | 1.274            | 22.1         |
| Back side                                | 10  | QPSK 1RB_49  | 20600/844      | 1:1        | 0.892          | 0.03            | 22.93                | 24.00              | 1.279         | 1.141            | 22.1         |
| Back side with headset                   | 10  | QPSK 1RB_49  | 20450/829      | 1:1        | 0.981          | 0.01            | 22.91                | 24.00              | 1.285         | 1.261            | 22.1         |
| Body Worn Test data(Separate 5mm 50%RB)  |     |              |                |            |                |                 |                      |                    |               |                  |              |
| Front side                               | 10  | QPSK 25RB_25 | 20525/836.5    | 1:1        | 0.294          | -0.01           | 21.65                | 23.00              | 1.365         | 0.401            | 22.1         |
| Back side                                | 10  | QPSK 25RB_25 | 20525/836.5    | 1:1        | 0.758          | 0.06            | 21.65                | 23.00              | 1.365         | 1.034            | 22.1         |
| Back side                                | 10  | QPSK 25RB_25 | 20450/829      | 1:1        | 0.741          | 0.06            | 21.56                | 23.00              | 1.393         | 1.032            | 22.1         |
| Back side                                | 10  | QPSK 25RB_25 | 20600/844      | 1:1        | 0.751          | 0.06            | 21.64                | 23.00              | 1.368         | 1.027            | 22.1         |
| Body Worn Test data(Separate 5mm 100%RB) |     |              |                |            |                |                 |                      |                    |               |                  |              |
| Back side                                | 10  | QPSK 50RB_0  | 20525/836.5    | 1:1        | 0.777          | 0.03            | 21.64                | 23.00              | 1.368         | 1.063            | 22.1         |
| Hotspot Test data(Separate 5mm 1RB)      |     |              |                |            |                |                 |                      |                    |               |                  |              |
| Front side                               | 10  | QPSK 1RB_49  | 20525/836.5    | 1:1        | 0.436          | 0.01            | 22.94                | 24.00              | 1.276         | 0.557            | 22.1         |
| Back side                                | 10  | QPSK 1RB_49  | 20525/836.5    | 1:1        | 0.982          | 0.03            | 22.94                | 24.00              | 1.276         | 1.253            | 22.1         |
| Left side                                | 10  | QPSK 1RB_49  | 20525/836.5    | 1:1        | 0.191          | 0.01            | 22.94                | 24.00              | 1.276         | 0.244            | 22.1         |
| Right side                               | 10  | QPSK 1RB_49  | 20525/836.5    | 1:1        | 0.253          | 0.03            | 22.94                | 24.00              | 1.276         | 0.323            | 22.1         |
| Bottom side                              | 10  | QPSK 1RB_49  | 20525/836.5    | 1:1        | 0.415          | 0.01            | 22.94                | 24.00              | 1.276         | 0.530            | 22.1         |
| Back side                                | 10  | QPSK 1RB_49  | 20450/829      | 1:1        | 1.060          | 0.05            | 22.91                | 24.00              | 1.285         | <b>1.362</b>     | 22.1         |
| Back side                                | 10  | QPSK 1RB_49  | 20600/844      | 1:1        | 0.892          | 0.03            | 22.93                | 24.00              | 1.279         | 1.141            | 22.1         |
| Hotspot Test data (Separate 5mm 50%RB)   |     |              |                |            |                |                 |                      |                    |               |                  |              |
| Front side                               | 10  | QPSK 25RB_25 | 20525/836.5    | 1:1        | 0.294          | -0.01           | 21.65                | 23.00              | 1.365         | 0.401            | 22.1         |
| Back side                                | 10  | QPSK 25RB_25 | 20525/836.5    | 1:1        | 0.758          | 0.06            | 21.65                | 23.00              | 1.365         | 1.034            | 22.1         |
| Left side                                | 10  | QPSK 25RB_25 | 20525/836.5    | 1:1        | 0.128          | 0.08            | 21.65                | 23.00              | 1.365         | 0.175            | 22.1         |
| Right side                               | 10  | QPSK 25RB_25 | 20525/836.5    | 1:1        | 0.172          | 0.06            | 21.65                | 23.00              | 1.365         | 0.235            | 22.1         |
| Bottom side                              | 10  | QPSK 25RB_25 | 20525/836.5    | 1:1        | 0.269          | 0.01            | 21.65                | 23.00              | 1.365         | 0.367            | 22.1         |
| Back side                                | 10  | QPSK 25RB_25 | 20450/829      | 1:1        | 0.741          | 0.06            | 21.56                | 23.00              | 1.393         | 1.032            | 22.1         |
| Back side                                | 10  | QPSK 25RB_25 | 20600/844      | 1:1        | 0.751          | 0.06            | 21.64                | 23.00              | 1.368         | 1.027            | 22.1         |
| Hotspot Test data (Separate 5mm 100%RB)  |     |              |                |            |                |                 |                      |                    |               |                  |              |
| Back side                                | 10  | QPSK 50RB_0  | 20525/836.5    | 1:1        | 0.554          | 0.03            | 21.64                | 23.00              | 1.368         | 0.758            | 22.1         |
| Test position                            | BW. | Test mode    | Test Ch./Freq. | Duty Cycle | SAR (W/kg)10-g | Power Drift(dB) | Conducted power(dBm) | Tune up Limit(dBm) | Scaled factor | Scaled SAR(W/kg) | Liquid Temp. |



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| Product specific 10g SAR Test data (Separate 0mm) |    |             |             |     |       |      |       |       |       |              |      |
|---------------------------------------------------|----|-------------|-------------|-----|-------|------|-------|-------|-------|--------------|------|
| Back side                                         | 10 | QPSK 1RB 49 | 20525/836.5 | 1:1 | 1.060 | 0.02 | 22.94 | 24.00 | 1.276 | <b>1.353</b> | 22.1 |

Table 22: SAR of LTE Band 5 for Head, Body and Product specific 10g SAR.

Note:

- 1) The maximum Scaled SAR value is marked in bold. Graph results refer to Appendix B.
- 2) Per KDB447498 D01, testing of other required channels within the operating mode of a frequency band is not required when the reported 1-g or 10-g SAR for the mid-band or highest output power channel is:
  - $\leq 0.8\text{W/kg}$  for 1-g or  $2.0\text{W/kg}$  for 10-g respectively, when the transmission band is  $\leq 100\text{MHz}$ .
  - $\leq 0.6\text{ W/kg}$  or  $1.5\text{ W/kg}$ , for 1-g or 10-g respectively, when the transmission band is between 100 MHz and 200 MHz
  - $\leq 0.4\text{ W/kg}$  or  $1.0\text{ W/kg}$ , for 1-g or 10-g respectively, when the transmission band is  $\geq 200\text{ MHz}$ .

| Test Position | Channel/ Frequency | Measured SAR (1g) | 1 <sup>st</sup> Repeated | Ratio | 2 <sup>nd</sup> Repeated | 3 <sup>rd</sup> Repeated |
|---------------|--------------------|-------------------|--------------------------|-------|--------------------------|--------------------------|
|               | (MHz)              |                   | SAR (1g)                 |       | SAR (1g)                 | SAR (1g)                 |
| Back side     | 20450/829          | 1.060             | 0.991                    | 1.070 | N/A                      | N/A                      |

Note: 1) When the original highest measured SAR is  $\geq 0.80\text{ W/kg}$ , the measurement was repeated once.

2) A second repeated measurement was performed only if the ratio of largest to smallest SAR for the original and first repeated measurements was  $> 1.20$  or when the original or repeated measurement was  $\geq 1.45\text{ W/kg}$  ( $\sim 10\%$  from the 1-g SAR limit).

3) A third repeated measurement was performed only if the original, first or second repeated measurement was  $\geq 1.5\text{ W/kg}$  and the ratio of largest to smallest SAR for the original, first and second repeated measurements is  $> 1.20$ .

4) Repeated measurements are not required when the original highest measured SAR is  $< 0.80\text{ W/kg}$



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### 8.3.9 SAR Result of LTE Band 7

| Test position                                       | BW. | Test mode    | Test Ch./Freq. | Duty Cycle | SAR (W/kg)1-g | Power Drift(dB) | Conducted power(dBm) | Tune up Limit(dBm) | Scaled factor | Scaled SAR(W/kg) | Liquid Temp. |
|-----------------------------------------------------|-----|--------------|----------------|------------|---------------|-----------------|----------------------|--------------------|---------------|------------------|--------------|
| Head Test data(1RB)                                 |     |              |                |            |               |                 |                      |                    |               |                  |              |
| Left cheek                                          | 20  | QPSK 1RB_99  | 20850/2510     | 1:1        | 0.352         | -0.06           | 23.57                | 24.00              | 1.104         | <b>0.389</b>     | 22.1         |
| Left tilted                                         | 20  | QPSK 1RB_99  | 20850/2510     | 1:1        | 0.185         | 0.05            | 23.57                | 24.00              | 1.104         | 0.204            | 22.1         |
| Right cheek                                         | 20  | QPSK 1RB_99  | 20850/2510     | 1:1        | 0.277         | 0.03            | 23.57                | 24.00              | 1.104         | 0.306            | 22.1         |
| Right tilted                                        | 20  | QPSK 1RB_99  | 20850/2510     | 1:1        | 0.247         | 0.03            | 23.57                | 24.00              | 1.104         | 0.273            | 22.1         |
| Head Test data(50%RB)                               |     |              |                |            |               |                 |                      |                    |               |                  |              |
| Left cheek                                          | 20  | QPSK 50RB_50 | 20850/2510     | 1:1        | 0.286         | 0.02            | 22.71                | 23.00              | 1.069         | 0.306            | 22.1         |
| Left tilted                                         | 20  | QPSK 50RB_50 | 20850/2510     | 1:1        | 0.107         | 0.06            | 22.71                | 23.00              | 1.069         | 0.114            | 22.1         |
| Right cheek                                         | 20  | QPSK 50RB_50 | 20850/2510     | 1:1        | 0.165         | 0.08            | 22.71                | 23.00              | 1.069         | 0.176            | 22.1         |
| Right tilted                                        | 20  | QPSK 50RB_50 | 20850/2510     | 1:1        | 0.145         | -0.01           | 22.71                | 23.00              | 1.069         | 0.155            | 22.1         |
| Body worn Test data(Separate 5mm 1RB) sensor on     |     |              |                |            |               |                 |                      |                    |               |                  |              |
| Front side                                          | 20  | QPSK 1RB_99  | 20850/2510     | 1:1        | 0.924         | -0.15           | 20.28                | 21.00              | 1.180         | 1.091            | 22.1         |
| Back side                                           | 20  | QPSK 1RB_99  | 20850/2510     | 1:1        | 0.985         | -0.14           | 20.28                | 21.00              | 1.180         | 1.163            | 22.1         |
| Front side                                          | 20  | QPSK 1RB_99  | 21100/2535.5   | 1:1        | 0.867         | -0.01           | 20.27                | 21.00              | 1.182         | 1.025            | 22.1         |
| Front side                                          | 20  | QPSK 1RB_99  | 21350/2560     | 1:1        | 0.788         | -0.06           | 20.25                | 21.00              | 1.189         | 0.937            | 22.1         |
| Back side                                           | 20  | QPSK 1RB_99  | 21100/2535.5   | 1:1        | 0.953         | -0.06           | 20.27                | 21.00              | 1.182         | 1.126            | 22.1         |
| Back side                                           | 20  | QPSK 1RB_99  | 21350/2560     | 1:1        | 0.866         | -0.08           | 20.25                | 21.00              | 1.189         | 1.029            | 22.1         |
| Body worn Test data (Separate 5mm 50%RB) sensor on  |     |              |                |            |               |                 |                      |                    |               |                  |              |
| Front side                                          | 20  | QPSK 50RB_50 | 20850/2510     | 1:1        | 0.928         | -0.10           | 20.29                | 21.00              | 1.178         | 1.093            | 22.1         |
| Back side                                           | 20  | QPSK 50RB_50 | 20850/2510     | 1:1        | 0.984         | -0.17           | 20.29                | 21.00              | 1.178         | 1.159            | 22.1         |
| Front side                                          | 20  | QPSK 50RB_50 | 21100/2535.5   | 1:1        | 0.911         | -0.02           | 20.28                | 21.00              | 1.180         | 1.075            | 22.1         |
| Front side                                          | 20  | QPSK 50RB_50 | 21350/2560     | 1:1        | 0.813         | -0.03           | 20.26                | 21.00              | 1.186         | 0.964            | 22.1         |
| Back side                                           | 20  | QPSK 50RB_50 | 21100/2535.5   | 1:1        | 0.987         | -0.03           | 20.28                | 21.00              | 1.180         | 1.165            | 22.1         |
| Back side                                           | 20  | QPSK 50RB_50 | 21350/2560     | 1:1        | 0.887         | -0.01           | 20.26                | 21.00              | 1.186         | 1.052            | 22.1         |
| Body worn Test data (Separate 5mm 100%RB) sensor on |     |              |                |            |               |                 |                      |                    |               |                  |              |
| Front side                                          | 20  | QPSK 100RB_0 | 20850/2510     | 1:1        | 0.942         | 0.01            | 20.22                | 21.00              | 1.197         | 1.127            | 22.1         |
| Back side                                           | 20  | QPSK 100RB_0 | 20850/2510     | 1:1        | 1.030         | 0.04            | 20.22                | 21.00              | 1.197         | <b>1.233</b>     | 22.1         |
| Back side-repeat                                    | 20  | QPSK 100RB_0 | 20850/2510     | 1:1        | 0.970         | 0.01            | 20.22                | 21.00              | 1.197         | 1.161            | 22.1         |
| Back side with headset                              | 20  | QPSK 100RB_0 | 20850/2510     | 1:1        | 0.933         | -0.02           | 20.22                | 21.00              | 1.197         | 1.117            | 22.1         |
| Body worn Test data sensor off                      |     |              |                |            |               |                 |                      |                    |               |                  |              |
| Front side-10mm                                     | 20  | QPSK 1RB_99  | 20850/2510     | 1:1        | 0.767         | -0.01           | 23.57                | 24.00              | 1.104         | 0.847            | 22.1         |
| Back side-17mm                                      | 20  | QPSK 1RB_99  | 20850/2510     | 1:1        | 0.322         | -0.06           | 23.57                | 24.00              | 1.104         | 0.356            | 22.1         |
| Front side-10mm                                     | 20  | QPSK 1RB_99  | 21100/2535.5   | 1:1        | 0.512         | -0.06           | 23.56                | 24.00              | 1.107         | 0.567            | 22.1         |
| Front side-10mm                                     | 20  | QPSK 1RB_99  | 21350/2560     | 1:1        | 0.618         | -0.14           | 23.32                | 24.00              | 1.169         | 0.723            | 22.1         |
| Hotspot Test data(Separate 5mm 1RB)                 |     |              |                |            |               |                 |                      |                    |               |                  |              |
| Front side                                          | 20  | QPSK 1RB_99  | 20850/2510     | 1:1        | 0.924         | -0.15           | 20.28                | 21.00              | 1.180         | 1.091            | 22.1         |
| Back side                                           | 20  | QPSK 1RB_99  | 20850/2510     | 1:1        | 0.985         | -0.04           | 20.28                | 21.00              | 1.180         | <b>1.163</b>     | 22.1         |
| Left side                                           | 20  | QPSK 1RB_99  | 20850/2510     | 1:1        | 0.534         | 0.01            | 20.28                | 21.00              | 1.180         | 0.630            | 22.1         |
| Bottom side                                         | 20  | QPSK 1RB_99  | 20850/2510     | 1:1        | 0.936         | 0.08            | 20.28                | 21.00              | 1.180         | 1.105            | 22.1         |
| Front side                                          | 20  | QPSK 1RB_99  | 21100/2535.5   | 1:1        | 0.867         | -0.01           | 20.27                | 21.00              | 1.182         | 1.025            | 22.1         |
| Front side                                          | 20  | QPSK 1RB_99  | 21350/2560     | 1:1        | 0.788         | -0.06           | 20.25                | 21.00              | 1.189         | 0.937            | 22.1         |
| Back side                                           | 20  | QPSK 1RB_99  | 21100/2535.5   | 1:1        | 0.953         | -0.06           | 20.27                | 21.00              | 1.182         | 1.126            | 22.1         |
| Back side                                           | 20  | QPSK 1RB_99  | 21350/2560     | 1:1        | 0.866         | -0.08           | 20.25                | 21.00              | 1.189         | 1.029            | 22.1         |



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Report No.: ZR/2020/8000406  
Page : 126 of 142

|                                                                   |            |                  |                       |                   |                       |                        |                             |                           |                      |                         |                     |
|-------------------------------------------------------------------|------------|------------------|-----------------------|-------------------|-----------------------|------------------------|-----------------------------|---------------------------|----------------------|-------------------------|---------------------|
| Bottom side                                                       | 20         | QPSK 1RB_99      | 21100/2535.5          | 1:1               | 0.905                 | 0.08                   | 20.27                       | 21.00                     | 1.182                | 1.070                   | 22.1                |
| Bottom side                                                       | 20         | QPSK 1RB_99      | 21350/2560            | 1:1               | 0.818                 | -0.04                  | 20.25                       | 21.00                     | 1.189                | 0.972                   | 22.1                |
| Hotspot Test data (Separate 5mm 50%RB)                            |            |                  |                       |                   |                       |                        |                             |                           |                      |                         |                     |
| Front side                                                        | 20         | QPSK 50RB_50     | 20850/2510            | 1:1               | 0.928                 | -0.10                  | 20.29                       | 21.00                     | 1.178                | 1.093                   | 22.1                |
| Back side                                                         | 20         | QPSK 50RB_50     | 20850/2510            | 1:1               | 0.981                 | -0.17                  | 20.29                       | 21.00                     | 1.178                | 1.155                   | 22.1                |
| Left side                                                         | 20         | QPSK 50RB_50     | 20850/2510            | 1:1               | 0.545                 | -0.03                  | 20.29                       | 21.00                     | 1.178                | 0.642                   | 22.1                |
| Bottom side                                                       | 20         | QPSK 50RB_50     | 20850/2510            | 1:1               | 0.948                 | 0.03                   | 20.29                       | 21.00                     | 1.178                | 1.116                   | 22.1                |
| Front side                                                        | 20         | QPSK 50RB_50     | 21100/2535.5          | 1:1               | 0.911                 | -0.02                  | 20.28                       | 21.00                     | 1.180                | 1.075                   | 22.1                |
| Front side                                                        | 20         | QPSK 50RB_50     | 21350/2560            | 1:1               | 0.813                 | -0.03                  | 20.26                       | 21.00                     | 1.186                | 0.964                   | 22.1                |
| Back side                                                         | 20         | QPSK 50RB_50     | 21100/2535.5          | 1:1               | 0.980                 | -0.03                  | 20.28                       | 21.00                     | 1.180                | 1.157                   | 22.1                |
| Back side                                                         | 20         | QPSK 50RB_50     | 21350/2560            | 1:1               | 0.887                 | -0.01                  | 20.26                       | 21.00                     | 1.186                | 1.052                   | 22.1                |
| Bottom side                                                       | 20         | QPSK 50RB_50     | 21100/2535.5          | 1:1               | 0.937                 | 0.07                   | 20.28                       | 21.00                     | 1.180                | 1.106                   | 22.1                |
| Bottom side                                                       | 20         | QPSK 50RB_50     | 21350/2560            | 1:1               | 0.847                 | -0.01                  | 20.26                       | 21.00                     | 1.186                | 1.004                   | 22.1                |
| Hotspot Test data (Separate 5mm 100%RB)                           |            |                  |                       |                   |                       |                        |                             |                           |                      |                         |                     |
| Front side                                                        | 20         | QPSK 100RB_0     | 20850/2510            | 1:1               | 0.915                 | 0.03                   | 20.22                       | 21.00                     | 1.197                | 1.095                   | 22.1                |
| Back side                                                         | 20         | QPSK 100RB_0     | 20850/2510            | 1:1               | 0.936                 | 0.07                   | 20.22                       | 21.00                     | 1.197                | 1.120                   | 22.1                |
| Bottom side                                                       | 20         | QPSK 100RB_0     | 20850/2510            | 1:1               | 0.951                 | 0.09                   | 20.22                       | 21.00                     | 1.197                | 1.138                   | 22.1                |
| <b>Test position</b>                                              | <b>BW.</b> | <b>Test mode</b> | <b>Test Ch./Freq.</b> | <b>Duty Cycle</b> | <b>SAR (W/kg)10-g</b> | <b>Power Drift(dB)</b> | <b>Conducted power(dBm)</b> | <b>Tune up Limit(dBm)</b> | <b>Scaled factor</b> | <b>Scaled SAR(W/kg)</b> | <b>Liquid Temp.</b> |
| Product specific 10g SAR Test data(Separate 0mm 1RB) sensor on    |            |                  |                       |                   |                       |                        |                             |                           |                      |                         |                     |
| Front side                                                        | 20         | QPSK 1RB_99      | 20850/2510            | 1:1               | 2.100                 | 0.01                   | 21.23                       | 22.00                     | 1.194                | 2.507                   | 22.1                |
| Back side                                                         | 20         | QPSK 1RB_99      | 20850/2510            | 1:1               | 2.340                 | 0.04                   | 21.23                       | 22.00                     | 1.194                | <b>2.794</b>            | 22.1                |
| Left side                                                         | 20         | QPSK 1RB_99      | 20850/2510            | 1:1               | 1.280                 | 0.09                   | 21.23                       | 22.00                     | 1.194                | 1.528                   | 22.1                |
| Bottom side                                                       | 20         | QPSK 1RB_99      | 20850/2510            | 1:1               | 1.560                 | -0.04                  | 21.23                       | 22.00                     | 1.194                | 1.863                   | 22.1                |
| Front side                                                        | 20         | QPSK 1RB_99      | 21100/2535.5          | 1:1               | 1.540                 | 0.09                   | 21.22                       | 22.00                     | 1.197                | 1.843                   | 22.1                |
| Front side                                                        | 20         | QPSK 1RB_99      | 21350/2560            | 1:1               | 1.550                 | 0.07                   | 21.18                       | 22.00                     | 1.208                | 1.872                   | 22.1                |
| Back side                                                         | 20         | QPSK 1RB_99      | 21100/2535.5          | 1:1               | 2.190                 | -0.07                  | 21.22                       | 22.00                     | 1.197                | 2.621                   | 22.1                |
| Back side                                                         | 20         | QPSK 1RB_99      | 21350/2560            | 1:1               | 1.980                 | -0.04                  | 21.18                       | 22.00                     | 1.208                | 2.391                   | 22.1                |
| Product specific 10g SAR Test data(Separate 0mm 50%RB) sensor on  |            |                  |                       |                   |                       |                        |                             |                           |                      |                         |                     |
| Front side                                                        | 20         | QPSK 50RB_50     | 20850/2510            | 1:1               | 1.780                 | 0.03                   | 21.21                       | 22.00                     | 1.199                | 2.135                   | 22.1                |
| Back side                                                         | 20         | QPSK 50RB_50     | 20850/2510            | 1:1               | 1.910                 | -0.05                  | 21.21                       | 22.00                     | 1.199                | 2.291                   | 22.1                |
| Left side                                                         | 20         | QPSK 50RB_50     | 20850/2510            | 1:1               | 1.140                 | 0.09                   | 21.21                       | 22.00                     | 1.199                | 1.367                   | 22.1                |
| Bottom side                                                       | 20         | QPSK 50RB_50     | 20850/2510            | 1:1               | 1.440                 | -0.01                  | 21.21                       | 22.00                     | 1.199                | 1.727                   | 22.1                |
| Front side                                                        | 20         | QPSK 50RB_50     | 21100/2535.5          | 1:1               | 1.410                 | -0.02                  | 21.20                       | 22.00                     | 1.202                | 1.695                   | 22.1                |
| Front side                                                        | 20         | QPSK 50RB_50     | 21350/2560            | 1:1               | 1.410                 | -0.04                  | 21.11                       | 22.00                     | 1.227                | 1.731                   | 22.1                |
| Back side                                                         | 20         | QPSK 50RB_50     | 21100/2535.5          | 1:1               | 1.830                 | 0.02                   | 21.20                       | 22.00                     | 1.202                | 2.200                   | 22.1                |
| Back side                                                         | 20         | QPSK 50RB_50     | 21350/2560            | 1:1               | 1.980                 | -0.04                  | 21.11                       | 22.00                     | 1.227                | 2.430                   | 22.1                |
| Product specific 10g SAR Test data(Separate 0mm 100%RB) sensor on |            |                  |                       |                   |                       |                        |                             |                           |                      |                         |                     |
| Front side                                                        | 20         | QPSK 100RB_0     | 20850/2510            | 1:1               | 1.480                 | -0.01                  | 21.09                       | 22.00                     | 1.233                | 1.825                   | 22.1                |
| Back side                                                         | 20         | QPSK 100RB_0     | 20850/2510            | 1:1               | 1.980                 | -0.03                  | 21.09                       | 22.00                     | 1.233                | 2.442                   | 22.1                |
| Product specific 10g SAR Test data sensor off                     |            |                  |                       |                   |                       |                        |                             |                           |                      |                         |                     |
| Front side-4mm                                                    | 20         | QPSK 1RB_99      | 20850/2510            | 1:1               | 1.150                 | 0.09                   | 23.57                       | 24.00                     | 1.104                | 1.270                   | 22.1                |
| Back side-6mm                                                     | 20         | QPSK 1RB_99      | 20850/2510            | 1:1               | 0.840                 | -0.01                  | 23.57                       | 24.00                     | 1.104                | 0.927                   | 22.1                |
| Left side-4mm                                                     | 20         | QPSK 1RB_99      | 20850/2510            | 1:1               | 0.726                 | -0.04                  | 23.57                       | 24.00                     | 1.104                | 0.802                   | 22.1                |
| Bottom side-7mm                                                   | 20         | QPSK 1RB_99      | 20850/2510            | 1:1               | 0.722                 | -0.02                  | 23.57                       | 24.00                     | 1.104                | 0.797                   | 22.1                |

Table 23: SAR of LTE Band 7 for Head, Body and Product specific 10g SAR.

Note:



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- 1) The maximum Scaled SAR value is marked in bold. Graph results refer to Appendix B.
- 2) Per KDB447498 D01, testing of other required channels within the operating mode of a frequency band is not required when the reported 1-g or 10-g SAR for the mid-band or highest output power channel is:
  - $\leq 0.8\text{W/kg}$  for 1-g or  $2.0\text{W/kg}$  for 10-g respectively, when the transmission band is  $\leq 100\text{MHz}$ .
  - $\leq 0.6\text{ W/kg}$  or  $1.5\text{ W/kg}$ , for 1-g or 10-g respectively, when the transmission band is between  $100\text{ MHz}$  and  $200\text{ MHz}$ .
  - $\leq 0.4\text{ W/kg}$  or  $1.0\text{ W/kg}$ , for 1-g or 10-g respectively, when the transmission band is  $\geq 200\text{ MHz}$ .

| Test Position | Channel/ Frequency | Measured SAR (1g) | 1 <sup>st</sup> Repeated | Ratio | 2 <sup>nd</sup> Repeated | 3 <sup>rd</sup> Repeated |
|---------------|--------------------|-------------------|--------------------------|-------|--------------------------|--------------------------|
|               | (MHz)              |                   | SAR (1g)                 |       | SAR (1g)                 | SAR (1g)                 |
| Back side     | 20850/2510         | 1.030             | 0.970                    | 1.062 | N/A                      | N/A                      |

Note: 1) When the original highest measured SAR is  $\geq 0.80\text{ W/kg}$ , the measurement was repeated once.

2) A second repeated measurement was performed only if the ratio of largest to smallest SAR for the original and first repeated measurements was  $> 1.20$  or when the original or repeated measurement was  $\geq 1.45\text{ W/kg}$  ( $\sim 10\%$  from the 1-g SAR limit).

3) A third repeated measurement was performed only if the original, first or second repeated measurement was  $\geq 1.5\text{ W/kg}$  and the ratio of largest to smallest SAR for the original, first and second repeated measurements is  $> 1.20$ .

4) Repeated measurements are not required when the original highest measured SAR is  $< 0.80\text{ W/kg}$





### 8.3.10 SAR Result of LTE Band 26

| Test position                                          | BW. | Test mode   | Test Ch./Freq. | Duty Cycle | SAR (W/kg)1-g  | Power Drift(dB) | Conducted power(dBm) | Tune up Limit(dBm) | Scaled factor | Scaled SAR(W/kg) | Liquid Temp. |
|--------------------------------------------------------|-----|-------------|----------------|------------|----------------|-----------------|----------------------|--------------------|---------------|------------------|--------------|
| Head Test data(1RB)                                    |     |             |                |            |                |                 |                      |                    |               |                  |              |
| Left cheek                                             | 15  | QPSK 1RB_74 | 26965/841.5    | 1:1        | 0.160          | -0.01           | 23.08                | 24.00              | 1.236         | 0.198            | 22.1         |
| Left tilted                                            | 15  | QPSK 1RB_74 | 26965/841.5    | 1:1        | 0.102          | 0.03            | 23.08                | 24.00              | 1.236         | 0.126            | 22.1         |
| Right cheek                                            | 15  | QPSK 1RB_74 | 26965/841.5    | 1:1        | 0.214          | 0.04            | 23.08                | 24.00              | 1.236         | <b>0.264</b>     | 22.1         |
| Right tilted                                           | 15  | QPSK 1RB_74 | 26965/841.5    | 1:1        | 0.111          | 0.01            | 23.08                | 24.00              | 1.236         | 0.137            | 22.1         |
| Head Test data(50%RB)                                  |     |             |                |            |                |                 |                      |                    |               |                  |              |
| Left cheek                                             | 15  | QPSK 36RB_0 | 26965/841.5    | 1:1        | 0.144          | 0.03            | 21.93                | 23.00              | 1.279         | 0.184            | 22.1         |
| Left tilted                                            | 15  | QPSK 36RB_0 | 26965/841.5    | 1:1        | 0.081          | 0.01            | 21.93                | 23.00              | 1.279         | 0.104            | 22.1         |
| Right cheek                                            | 15  | QPSK 36RB_0 | 26965/841.5    | 1:1        | 0.141          | 0.05            | 21.93                | 23.00              | 1.279         | 0.180            | 22.1         |
| Right tilted                                           | 15  | QPSK 36RB_0 | 26965/841.5    | 1:1        | 0.088          | 0.03            | 21.93                | 23.00              | 1.279         | 0.113            | 22.1         |
| Body worn Test data(Separate 5mm 1RB)                  |     |             |                |            |                |                 |                      |                    |               |                  |              |
| Front side                                             | 15  | QPSK 1RB_74 | 26965/841.5    | 1:1        | 0.376          | 0.01            | 23.08                | 24.00              | 1.236         | 0.465            | 22.1         |
| Back side                                              | 15  | QPSK 1RB_74 | 26965/841.5    | 1:1        | 0.698          | 0.03            | 23.08                | 24.00              | 1.236         | 0.863            | 22.1         |
| Back side                                              | 15  | QPSK 1RB_74 | 26765/821.5    | 1:1        | 1.080          | 0.01            | 23.07                | 24.00              | 1.239         | <b>1.338</b>     | 22.1         |
| Back side-repeat                                       | 15  | QPSK 1RB_74 | 26765/821.5    | 1:1        | 1.010          | 0.05            | 23.07                | 24.00              | 1.239         | 1.251            | 22.1         |
| Back side                                              | 15  | QPSK 1RB_74 | 26865/831.5    | 1:1        | 0.983          | 0.01            | 22.98                | 24.00              | 1.265         | 1.243            | 22.1         |
| Back side with headset                                 | 15  | QPSK 1RB_74 | 26765/821.5    | 1:1        | 0.977          | 0.03            | 23.07                | 24.00              | 1.239         | 1.210            | 22.1         |
| Body worn Test data (Separate 5mm 50%RB)               |     |             |                |            |                |                 |                      |                    |               |                  |              |
| Front side                                             | 15  | QPSK 36RB_0 | 26965/841.5    | 1:1        | 0.300          | 0.01            | 21.93                | 23.00              | 1.279         | 0.384            | 22.1         |
| Back side                                              | 15  | QPSK 36RB_0 | 26965/841.5    | 1:1        | 0.579          | 0.03            | 21.93                | 23.00              | 1.279         | 0.741            | 22.1         |
| Body worn Test data (Separate 5mm 100%RB)              |     |             |                |            |                |                 |                      |                    |               |                  |              |
| Back side                                              | 15  | QPSK 75RB_0 | 26865/831.5    | 1:1        | 0.538          | 0.01            | 21.80                | 23.00              | 1.318         | 0.709            | 22.1         |
| Hotspot Test data(Separate 5mm 1RB)                    |     |             |                |            |                |                 |                      |                    |               |                  |              |
| Front side                                             | 15  | QPSK 1RB_74 | 26965/841.5    | 1:1        | 0.376          | 0.01            | 23.08                | 24.00              | 1.236         | 0.465            | 22.1         |
| Back side                                              | 15  | QPSK 1RB_74 | 26965/841.5    | 1:1        | 0.698          | 0.03            | 23.08                | 24.00              | 1.236         | 0.863            | 22.1         |
| Left side                                              | 15  | QPSK 1RB_74 | 26965/841.5    | 1:1        | 0.157          | 0.05            | 23.08                | 24.00              | 1.236         | 0.194            | 22.1         |
| Right side                                             | 15  | QPSK 1RB_74 | 26965/841.5    | 1:1        | 0.207          | 0.06            | 23.08                | 24.00              | 1.236         | 0.256            | 22.1         |
| Bottom side                                            | 15  | QPSK 1RB_74 | 26965/841.5    | 1:1        | 0.331          | 0.01            | 23.08                | 24.00              | 1.236         | 0.409            | 22.1         |
| Back side                                              | 15  | QPSK 1RB_74 | 26765/821.5    | 1:1        | 1.080          | 0.01            | 23.07                | 24.00              | 1.239         | <b>1.338</b>     | 22.1         |
| Back side                                              | 15  | QPSK 1RB_74 | 26865/831.5    | 1:1        | 0.983          | 0.01            | 22.98                | 24.00              | 1.265         | 1.243            | 22.1         |
| Hotspot Test data (Separate 5mm 50%RB)                 |     |             |                |            |                |                 |                      |                    |               |                  |              |
| Front side                                             | 15  | QPSK 36RB_0 | 26965/841.5    | 1:1        | 0.300          | 0.01            | 21.93                | 23.00              | 1.279         | 0.384            | 22.1         |
| Back side                                              | 15  | QPSK 36RB_0 | 26965/841.5    | 1:1        | 0.579          | 0.03            | 21.93                | 23.00              | 1.279         | 0.741            | 22.1         |
| Left side                                              | 15  | QPSK 36RB_0 | 26965/841.5    | 1:1        | 0.134          | 0.00            | 21.93                | 23.00              | 1.279         | 0.171            | 22.1         |
| Right side                                             | 15  | QPSK 36RB_0 | 26965/841.5    | 1:1        | 0.186          | 0.03            | 21.93                | 23.00              | 1.279         | 0.238            | 22.1         |
| Bottom side                                            | 15  | QPSK 36RB_0 | 26765/821.5    | 1:1        | 0.227          | 0.01            | 21.93                | 23.00              | 1.279         | 0.290            | 22.1         |
| Hotspot Test data (Separate 5mm 100%RB)                |     |             |                |            |                |                 |                      |                    |               |                  |              |
| Back side                                              | 15  | QPSK 75RB_0 | 26865/831.5    | 1:1        | 0.538          | 0.01            | 21.80                | 23.00              | 1.318         | 0.709            | 22.1         |
| Test position                                          | BW. | Test mode   | Test Ch./Freq. | Duty Cycle | SAR (W/kg)10-g | Power Drift(dB) | Conducted power(dBm) | Tune up Limit(dBm) | Scaled factor | Scaled SAR(W/kg) | Liquid Temp. |
| Product specific 10g SAR Test data(Separate 0mm 1RB)   |     |             |                |            |                |                 |                      |                    |               |                  |              |
| Back side                                              | 15  | QPSK 1RB_74 | 26965/841.5    | 1:1        | 1.110          | 0.05            | 23.08                | 24.00              | 1.236         | <b>1.372</b>     | 22.1         |
| Product specific 10g SAR Test data(Separate 0mm 50%RB) |     |             |                |            |                |                 |                      |                    |               |                  |              |
| Back side                                              | 15  | QPSK 36RB_0 | 26965/841.5    | 1:1        | 0.563          | 0.06            | 21.93                | 23.00              | 1.279         | 0.720            | 22.1         |



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Table 24: SAR of LTE Band 26 for Head, Body and Product specific 10g SAR.

Note:

- 1) The maximum Scaled SAR value is marked in bold. Graph results refer to Appendix B.
- 2) Per KDB447498 D01, testing of other required channels within the operating mode of a frequency band is not required when the reported 1-g or 10-g SAR for the mid-band or highest output power channel is:
  - $\leq 0.8\text{W/kg}$  for 1-g or  $2.0\text{W/kg}$  for 10-g respectively, when the transmission band is  $\leq 100\text{MHz}$ .
  - $\leq 0.6\text{ W/kg}$  or  $1.5\text{ W/kg}$ , for 1-g or 10-g respectively, when the transmission band is between  $100\text{ MHz}$  and  $200\text{ MHz}$ .
  - $\leq 0.4\text{ W/kg}$  or  $1.0\text{ W/kg}$ , for 1-g or 10-g respectively, when the transmission band is  $\geq 200\text{ MHz}$ .

| Test Position | Channel/ Frequency | Measured SAR (1g) | 1 <sup>st</sup> Repeated | Ratio | 2 <sup>nd</sup> Repeated | 3 <sup>rd</sup> Repeated |
|---------------|--------------------|-------------------|--------------------------|-------|--------------------------|--------------------------|
|               | (MHz)              |                   | SAR (1g)                 |       | SAR (1g)                 | SAR (1g)                 |
| Back side     | 26765/821.5        | 1.080             | 1.010                    | 1.069 | N/A                      | N/A                      |

Note: 1) When the original highest measured SAR is  $\geq 0.80\text{ W/kg}$ , the measurement was repeated once.

2) A second repeated measurement was performed only if the ratio of largest to smallest SAR for the original and first repeated measurements was  $> 1.20$  or when the original or repeated measurement was  $\geq 1.45\text{ W/kg}$  ( $\sim 10\%$  from the 1-g SAR limit).

3) A third repeated measurement was performed only if the original, first or second repeated measurement was  $\geq 1.5\text{ W/kg}$  and the ratio of largest to smallest SAR for the original, first and second repeated measurements is  $> 1.20$ .

4) Repeated measurements are not required when the original highest measured SAR is  $< 0.80\text{ W/kg}$



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### 8.3.11 SAR Result of LTE Band 38

| Test position                             | BW. | Test mode    | Test Ch./Freq. | Duty Cycle | SAR (W/kg)1-g | Power Drift(dB) | Conducted power(dBm) | Tune up Limit(dBm) | Scaled factor | Scaled SAR(W/kg) | Liquid Temp. |
|-------------------------------------------|-----|--------------|----------------|------------|---------------|-----------------|----------------------|--------------------|---------------|------------------|--------------|
| Head Test data(1RB)                       |     |              |                |            |               |                 |                      |                    |               |                  |              |
| Left cheek                                | 20  | QPSK 1RB_99  | 38000/2595     | 1:1.58     | 0.180         | 0.03            | 23.24                | 24.00              | 1.191         | <b>0.214</b>     | 22.1         |
| Left tilted                               | 20  | QPSK 1RB_99  | 38000/2595     | 1:1.58     | 0.089         | 0.01            | 23.24                | 24.00              | 1.191         | 0.106            | 22.1         |
| Right cheek                               | 20  | QPSK 1RB_99  | 38000/2595     | 1:1.58     | 0.149         | 0.05            | 23.24                | 24.00              | 1.191         | 0.177            | 22.1         |
| Right tilted                              | 20  | QPSK 1RB_99  | 38000/2595     | 1:1.58     | 0.131         | 0.06            | 23.24                | 24.00              | 1.191         | 0.156            | 22.1         |
| Head Test data(50%RB)                     |     |              |                |            |               |                 |                      |                    |               |                  |              |
| Left cheek                                | 20  | QPSK 50RB_50 | 38000/2595     | 1:1.58     | 0.157         | 0.01            | 22.01                | 23.00              | 1.256         | 0.197            | 22.1         |
| Left tilted                               | 20  | QPSK 50RB_50 | 38000/2595     | 1:1.58     | 0.051         | 0.03            | 22.01                | 23.00              | 1.256         | 0.064            | 22.1         |
| Right cheek                               | 20  | QPSK 50RB_50 | 38000/2595     | 1:1.58     | 0.096         | 0.05            | 22.01                | 23.00              | 1.256         | 0.121            | 22.1         |
| Right tilted                              | 20  | QPSK 50RB_50 | 38000/2595     | 1:1.58     | 0.077         | 0.01            | 22.01                | 23.00              | 1.256         | 0.097            | 22.1         |
| Body worn Test data(Separate 5mm 1RB)     |     |              |                |            |               |                 |                      |                    |               |                  |              |
| Front side                                | 20  | QPSK 1RB_99  | 38000/2595     | 1:1.58     | 0.813         | 0.01            | 23.24                | 24.00              | 1.191         | 0.968            | 22.1         |
| Back side                                 | 20  | QPSK 1RB_99  | 38000/2595     | 1:1.58     | 0.834         | -0.10           | 23.24                | 24.00              | 1.191         | 0.993            | 22.1         |
| Front side                                | 20  | QPSK 1RB_99  | 37850/2580     | 1:1.58     | 0.815         | 0.03            | 22.90                | 24.00              | 1.288         | 1.050            | 22.1         |
| Front side                                | 20  | QPSK 1RB_99  | 38150/2610     | 1:1.58     | 0.815         | 0.02            | 23.11                | 24.00              | 1.227         | 1.000            | 22.1         |
| Back side                                 | 20  | QPSK 1RB_99  | 37850/2580     | 1:1.58     | 0.946         | 0.04            | 22.90                | 24.00              | 1.288         | <b>1.219</b>     | 22.1         |
| Back side-repeat                          | 20  | QPSK 1RB_99  | 37850/2580     | 1:1.58     | 0.941         | 0.02            | 22.90                | 24.00              | 1.288         | 1.212            | 22.1         |
| Back side                                 | 20  | QPSK 1RB_99  | 38150/2610     | 1:1.58     | 0.824         | -0.02           | 23.11                | 24.00              | 1.227         | 1.011            | 22.1         |
| Back side with headset                    | 20  | QPSK 1RB_99  | 37850/2580     | 1:1.58     | 0.926         | 0.08            | 22.90                | 24.00              | 1.288         | 1.193            | 22.1         |
| Body worn Test data (Separate 5mm 50%RB)  |     |              |                |            |               |                 |                      |                    |               |                  |              |
| Front side                                | 20  | QPSK 50RB_50 | 38000/2595     | 1:1.58     | 0.484         | 0.08            | 22.01                | 23.00              | 1.256         | 0.608            | 22.1         |
| Back side                                 | 20  | QPSK 50RB_50 | 38000/2595     | 1:1.58     | 0.608         | -0.03           | 22.01                | 23.00              | 1.256         | 0.764            | 22.1         |
| Body worn Test data (Separate 5mm 100%RB) |     |              |                |            |               |                 |                      |                    |               |                  |              |
| Back side                                 | 20  | QPSK 100RB_0 | 38000/2595     | 1:1.58     | 0.632         | -0.01           | 22.02                | 23.00              | 1.253         | 0.792            | 22.1         |
| Hotspot Test data(Separate 5mm 1RB)       |     |              |                |            |               |                 |                      |                    |               |                  |              |
| Front side                                | 20  | QPSK 1RB_99  | 38000/2595     | 1:1.58     | 0.813         | 0.01            | 23.24                | 24.00              | 1.191         | 0.968            | 22.1         |
| Back side                                 | 20  | QPSK 1RB_99  | 38000/2595     | 1:1.58     | 0.834         | -0.10           | 23.24                | 24.00              | 1.191         | 0.993            | 22.1         |
| Left side                                 | 20  | QPSK 1RB_99  | 38000/2595     | 1:1.58     | 0.507         | -0.03           | 23.24                | 24.00              | 1.191         | 0.604            | 22.1         |
| Bottom side                               | 20  | QPSK 1RB_99  | 38000/2595     | 1:1.58     | 0.738         | 0.01            | 23.24                | 24.00              | 1.191         | 0.879            | 22.1         |
| Front side                                | 20  | QPSK 1RB_99  | 37850/2580     | 1:1.58     | 0.815         | 0.03            | 22.90                | 24.00              | 1.288         | 1.050            | 22.1         |
| Front side                                | 20  | QPSK 1RB_99  | 38150/2610     | 1:1.58     | 0.815         | 0.02            | 23.11                | 24.00              | 1.227         | 1.000            | 22.1         |
| Back side                                 | 20  | QPSK 1RB_99  | 37850/2580     | 1:1.58     | 0.946         | 0.04            | 22.90                | 24.00              | 1.288         | <b>1.219</b>     | 22.1         |
| Back side                                 | 20  | QPSK 1RB_99  | 38150/2610     | 1:1.58     | 0.824         | -0.02           | 23.11                | 24.00              | 1.227         | 1.011            | 22.1         |
| Bottom side                               | 20  | QPSK 1RB_99  | 37850/2580     | 1:1.58     | 0.746         | 0.09            | 22.90                | 24.00              | 1.288         | 0.961            | 22.1         |
| Bottom side                               | 20  | QPSK 1RB_99  | 38150/2610     | 1:1.58     | 0.741         | 0.07            | 23.11                | 24.00              | 1.227         | 0.910            | 22.1         |
| Hotspot Test data (Separate 5mm 50%RB)    |     |              |                |            |               |                 |                      |                    |               |                  |              |
| Front side                                | 20  | QPSK 50RB_50 | 38000/2595     | 1:1.58     | 0.484         | 0.08            | 22.01                | 23.00              | 1.256         | 0.608            | 22.1         |
| Back side                                 | 20  | QPSK 50RB_50 | 38000/2595     | 1:1.58     | 0.608         | -0.03           | 22.01                | 23.00              | 1.256         | 0.764            | 22.1         |
| Left side                                 | 20  | QPSK 50RB_50 | 38000/2595     | 1:1.58     | 0.406         | 0.08            | 22.01                | 23.00              | 1.256         | 0.510            | 22.1         |
| Bottom side                               | 20  | QPSK 50RB_50 | 38000/2595     | 1:1.58     | 0.565         | -0.08           | 22.01                | 23.00              | 1.256         | 0.710            | 22.1         |
| Hotspot Test data (Separate 5mm 100%RB)   |     |              |                |            |               |                 |                      |                    |               |                  |              |
| Front side                                | 20  | QPSK 100RB_0 | 38000/2595     | 1:1.58     | 0.452         | 0.04            | 22.02                | 23.00              | 1.253         | 0.566            | 22.1         |
| Back side                                 | 20  | QPSK 100RB_0 | 38000/2595     | 1:1.58     | 0.570         | 0.02            | 22.02                | 23.00              | 1.253         | 0.714            | 22.1         |



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|                                                        |     |              |                |            |            |                |                            |                    |               |                  |              |
|--------------------------------------------------------|-----|--------------|----------------|------------|------------|----------------|----------------------------|--------------------|---------------|------------------|--------------|
| Bottom side                                            | 20  | QPSK 100RB_0 | 38000/2595     | 1:1.58     | 0.518      | -0.06          | 22.02                      | 23.00              | 1.253         | 0.649            | 22.1         |
| Test position                                          | BW. | Test mode    | Test Ch./Freq. | Duty Cycle | SAR (W/kg) | 10-g Drift(dB) | Power Conducted power(dBm) | Tune up Limit(dBm) | Scaled factor | Scaled SAR(W/kg) | Liquid Temp. |
| Product specific 10g SAR Test data(Separate 0mm 1RB)   |     |              |                |            |            |                |                            |                    |               |                  |              |
| Back side                                              | 20  | QPSK 1RB_99  | 38000/2595     | 1:1.58     | 1.470      | -0.11          | 23.24                      | 24.00              | 1.191         | <b>1.751</b>     | 22.1         |
| Product specific 10g SAR Test data(Separate 0mm 50%RB) |     |              |                |            |            |                |                            |                    |               |                  |              |
| Back side                                              | 20  | QPSK 50RB_50 | 38000/2595     | 1:1.58     | 1.160      | 0.05           | 22.01                      | 23.00              | 1.256         | 1.457            | 22.1         |

Table 25: SAR of LTE Band 38 for Head, Body and Product specific 10g SAR.

Note:

- 1) The maximum Scaled SAR value is marked in bold. Graph results refer to Appendix B.
- 2) Per KDB447498 D01, testing of other required channels within the operating mode of a frequency band is not required when the reported 1-g or 10-g SAR for the mid-band or highest output power channel is:
  - $\leq 0.8\text{W/kg}$  for 1-g or  $2.0\text{W/kg}$  for 10-g respectively, when the transmission band is  $\leq 100\text{MHz}$ .
  - $\leq 0.6\text{ W/kg}$  or  $1.5\text{ W/kg}$ , for 1-g or 10-g respectively, when the transmission band is between  $100\text{ MHz}$  and  $200\text{ MHz}$ .
  - $\leq 0.4\text{ W/kg}$  or  $1.0\text{ W/kg}$ , for 1-g or 10-g respectively, when the transmission band is  $\geq 200\text{ MHz}$ .

| Test Position | Channel/ Frequency | Measured SAR (1g) | 1 <sup>st</sup> Repeated | Ratio | 2 <sup>nd</sup> Repeated | 3 <sup>rd</sup> Repeated |
|---------------|--------------------|-------------------|--------------------------|-------|--------------------------|--------------------------|
|               | (MHz)              |                   | SAR (1g)                 |       | SAR (1g)                 | SAR (1g)                 |
| Back side     | 37850/2580         | 0.946             | 0.941                    | 1.005 | N/A                      | N/A                      |

Note: 1) When the original highest measured SAR is  $\geq 0.80\text{ W/kg}$ , the measurement was repeated once.

2) A second repeated measurement was performed only if the ratio of largest to smallest SAR for the original and first repeated measurements was  $> 1.20$  or when the original or repeated measurement was  $\geq 1.45\text{ W/kg}$  (~ 10% from the 1-g SAR limit).

3) A third repeated measurement was performed only if the original, first or second repeated measurement was  $\geq 1.5\text{ W/kg}$  and the ratio of largest to smallest SAR for the original, first and second repeated measurements is  $> 1.20$ .

4) Repeated measurements are not required when the original highest measured SAR is  $< 0.80\text{ W/kg}$



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### 8.3.12 SAR Result of LTE Band 41

| Test position                             | BW | Test mode    | Test Ch./Freq. | Duty Cycle | SAR (W/kg)1-g | Power Drift(dB) | Conducted power(dBm) | Tune up Limit(dBm) | Scaled factor | Scaled SAR(W/kg) | Liquid Temp. |
|-------------------------------------------|----|--------------|----------------|------------|---------------|-----------------|----------------------|--------------------|---------------|------------------|--------------|
| Head Test data(1RB)                       |    |              |                |            |               |                 |                      |                    |               |                  |              |
| Left cheek                                | 20 | QPSK 1RB_99  | 40140/2545     | 1:1.58     | 0.173         | 0.01            | 23.24                | 24.00              | 1.191         | <b>0.206</b>     | 22.1         |
| Left tilted                               | 20 | QPSK 1RB_99  | 40140/2545     | 1:1.58     | 0.090         | 0.01            | 23.24                | 24.00              | 1.191         | 0.107            | 22.1         |
| Right cheek                               | 20 | QPSK 1RB_99  | 40140/2545     | 1:1.58     | 0.139         | 0.05            | 23.24                | 24.00              | 1.191         | 0.166            | 22.1         |
| Right tilted                              | 20 | QPSK 1RB_99  | 40140/2545     | 1:1.58     | 0.113         | 0.03            | 23.24                | 24.00              | 1.191         | 0.135            | 22.1         |
| Head Test data(50%RB)                     |    |              |                |            |               |                 |                      |                    |               |                  |              |
| Left cheek                                | 20 | QPSK 50RB_50 | 40140/2545     | 1:1.58     | 0.151         | 0.03            | 22.26                | 23.00              | 1.186         | 0.179            | 22.1         |
| Left tilted                               | 20 | QPSK 50RB_50 | 40140/2545     | 1:1.58     | 0.065         | 0.03            | 22.26                | 23.00              | 1.186         | 0.077            | 22.1         |
| Right cheek                               | 20 | QPSK 50RB_50 | 40140/2545     | 1:1.58     | 0.106         | 0.01            | 22.26                | 23.00              | 1.186         | 0.126            | 22.1         |
| Right tilted                              | 20 | QPSK 50RB_50 | 40140/2545     | 1:1.58     | 0.086         | 0.06            | 22.26                | 23.00              | 1.186         | 0.102            | 22.1         |
| Body worn Test data(Separate 5mm 1RB)     |    |              |                |            |               |                 |                      |                    |               |                  |              |
| Front side                                | 20 | QPSK 1RB_99  | 40140/2545     | 1:1.58     | 0.742         | 0.01            | 23.24                | 24.00              | 1.191         | 0.884            | 22.1         |
| Back side                                 | 20 | QPSK 1RB_99  | 40140/2545     | 1:1.58     | 0.989         | -0.01           | 23.24                | 24.00              | 1.191         | <b>1.178</b>     | 22.1         |
| Back side-repeat                          | 20 | QPSK 1RB_99  | 40140/2545     | 1:1.58     | 0.954         | 0.08            | 23.24                | 24.00              | 1.191         | 1.136            | 22.1         |
| Front side                                | 20 | QPSK 1RB_99  | 40390/2570     | 1:1.58     | 0.707         | -0.04           | 23.18                | 24.00              | 1.208         | 0.854            | 22.1         |
| Front side                                | 20 | QPSK 1RB_99  | 40640/2595     | 1:1.58     | 0.685         | 0.06            | 22.96                | 24.00              | 1.271         | 0.870            | 22.1         |
| Front side                                | 20 | QPSK 1RB_99  | 40890/2620     | 1:1.58     | 0.666         | 0.04            | 22.95                | 24.00              | 1.274         | 0.848            | 22.1         |
| Front side                                | 20 | QPSK 1RB_99  | 41140/2645     | 1:1.58     | 0.640         | 0.09            | 23.20                | 24.00              | 1.202         | 0.769            | 22.1         |
| Back side                                 | 20 | QPSK 1RB_99  | 40390/2570     | 1:1.58     | 0.922         | 0.02            | 23.18                | 24.00              | 1.208         | 1.114            | 22.1         |
| Back side                                 | 20 | QPSK 1RB_99  | 40640/2595     | 1:1.58     | 0.885         | 0.03            | 22.96                | 24.00              | 1.271         | 1.124            | 22.1         |
| Back side                                 | 20 | QPSK 1RB_99  | 40890/2620     | 1:1.58     | 0.823         | 0.01            | 22.95                | 24.00              | 1.274         | 1.048            | 22.1         |
| Back side                                 | 20 | QPSK 1RB_99  | 41140/2645     | 1:1.58     | 0.823         | -0.07           | 23.20                | 24.00              | 1.202         | 0.989            | 22.1         |
| Back side with headset                    | 20 | QPSK 1RB_99  | 40140/2545     | 1:1.58     | 0.835         | 0.04            | 23.24                | 24.00              | 1.191         | 0.995            | 22.1         |
| Body worn Test data (Separate 5mm 50%RB)  |    |              |                |            |               |                 |                      |                    |               |                  |              |
| Front side                                | 20 | QPSK 50RB_50 | 40140/2545     | 1:1.58     | 0.499         | 0.02            | 22.26                | 23.00              | 1.186         | 0.592            | 22.1         |
| Back side                                 | 20 | QPSK 50RB_50 | 40140/2545     | 1:1.58     | 0.667         | 0.02            | 22.26                | 23.00              | 1.186         | 0.791            | 22.1         |
| Back side                                 | 20 | QPSK 50RB_50 | 40390/2570     | 1:1.58     | 0.659         | 0.06            | 22.03                | 23.00              | 1.250         | 0.824            | 22.1         |
| Back side                                 | 20 | QPSK 50RB_50 | 40640/2595     | 1:1.58     | 0.615         | -0.06           | 22.13                | 23.00              | 1.222         | 0.751            | 22.1         |
| Back side                                 | 20 | QPSK 50RB_50 | 40890/2620     | 1:1.58     | 0.567         | 0.01            | 22.00                | 23.00              | 1.259         | 0.714            | 22.1         |
| Back side                                 | 20 | QPSK 50RB_50 | 41140/2645     | 1:1.58     | 0.594         | 0.02            | 22.25                | 23.00              | 1.189         | 0.706            | 22.1         |
| Body worn Test data (Separate 5mm 100%RB) |    |              |                |            |               |                 |                      |                    |               |                  |              |
| Front side                                | 20 | QPSK 100RB_0 | 40140/2545     | 1:1.58     | 0.448         | 0.01            | 22.11                | 23.00              | 1.227         | 0.550            | 22.1         |
| Back side                                 | 20 | QPSK 100RB_0 | 40140/2545     | 1:1.58     | 0.683         | 0.08            | 22.11                | 23.00              | 1.227         | 0.838            | 22.1         |
| Hotspot Test data(Separate 5mm 1RB)       |    |              |                |            |               |                 |                      |                    |               |                  |              |
| Front side                                | 20 | QPSK 1RB_99  | 40140/2545     | 1:1.58     | 0.742         | 0.01            | 23.24                | 24.00              | 1.191         | 0.884            | 22.1         |
| Back side                                 | 20 | QPSK 1RB_99  | 40140/2545     | 1:1.58     | 0.989         | -0.01           | 23.24                | 24.00              | 1.191         | <b>1.178</b>     | 22.1         |
| Left side                                 | 20 | QPSK 1RB_99  | 40140/2545     | 1:1.58     | 0.590         | 0.05            | 23.24                | 24.00              | 1.191         | 0.703            | 22.1         |
| Bottom side                               | 20 | QPSK 1RB_99  | 40140/2545     | 1:1.58     | 0.898         | 0.02            | 23.24                | 24.00              | 1.191         | 1.070            | 22.1         |
| Front side                                | 20 | QPSK 1RB_99  | 40390/2570     | 1:1.58     | 0.707         | -0.04           | 23.18                | 24.00              | 1.208         | 0.854            | 22.1         |
| Front side                                | 20 | QPSK 1RB_99  | 40640/2595     | 1:1.58     | 0.685         | 0.06            | 22.96                | 24.00              | 1.271         | 0.870            | 22.1         |
| Front side                                | 20 | QPSK 1RB_99  | 40890/2620     | 1:1.58     | 0.666         | 0.04            | 22.95                | 24.00              | 1.274         | 0.848            | 22.1         |
| Front side                                | 20 | QPSK 1RB_99  | 41140/2645     | 1:1.58     | 0.640         | 0.09            | 23.20                | 24.00              | 1.202         | 0.769            | 22.1         |
| Back side                                 | 20 | QPSK 1RB_99  | 40390/2570     | 1:1.58     | 0.922         | 0.02            | 23.18                | 24.00              | 1.208         | 1.114            | 22.1         |



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|                                         |    |              |            |        |       |       |       |       |       |       |      |
|-----------------------------------------|----|--------------|------------|--------|-------|-------|-------|-------|-------|-------|------|
| Back side                               | 20 | QPSK 1RB_99  | 40640/2595 | 1:1.58 | 0.885 | 0.03  | 22.96 | 24.00 | 1.271 | 1.124 | 22.1 |
| Back side                               | 20 | QPSK 1RB_99  | 40890/2620 | 1:1.58 | 0.823 | 0.01  | 22.95 | 24.00 | 1.274 | 1.048 | 22.1 |
| Back side                               | 20 | QPSK 1RB_99  | 41140/2645 | 1:1.58 | 0.823 | -0.07 | 23.20 | 24.00 | 1.202 | 0.989 | 22.1 |
| Left side                               | 20 | QPSK 1RB_99  | 40390/2570 | 1:1.58 | 0.561 | 0.02  | 23.18 | 24.00 | 1.208 | 0.678 | 22.1 |
| Left side                               | 20 | QPSK 1RB_99  | 40640/2595 | 1:1.58 | 0.506 | 0.04  | 22.96 | 24.00 | 1.271 | 0.643 | 22.1 |
| Left side                               | 20 | QPSK 1RB_99  | 40890/2620 | 1:1.58 | 0.498 | 0.03  | 22.95 | 24.00 | 1.274 | 0.634 | 22.1 |
| Left side                               | 20 | QPSK 1RB_99  | 41140/2645 | 1:1.58 | 0.514 | 0.03  | 23.20 | 24.00 | 1.202 | 0.618 | 22.1 |
| Bottom side                             | 20 | QPSK 1RB_99  | 40390/2570 | 1:1.58 | 0.827 | 0.15  | 23.18 | 24.00 | 1.208 | 0.999 | 22.1 |
| Bottom side                             | 20 | QPSK 1RB_99  | 40640/2595 | 1:1.58 | 0.791 | -0.03 | 22.96 | 24.00 | 1.271 | 1.005 | 22.1 |
| Bottom side                             | 20 | QPSK 1RB_99  | 40890/2620 | 1:1.58 | 0.762 | 0.02  | 22.95 | 24.00 | 1.274 | 0.970 | 22.1 |
| Bottom side                             | 20 | QPSK 1RB_99  | 41140/2645 | 1:1.58 | 0.807 | 0.11  | 23.20 | 24.00 | 1.202 | 0.970 | 22.1 |
| Hotspot Test data (Separate 5mm 50%RB)  |    |              |            |        |       |       |       |       |       |       |      |
| Front side                              | 20 | QPSK 50RB_50 | 40140/2545 | 1:1.58 | 0.499 | 0.02  | 22.26 | 23.00 | 1.186 | 0.592 | 22.1 |
| Back side                               | 20 | QPSK 50RB_50 | 40140/2545 | 1:1.58 | 0.667 | 0.02  | 22.26 | 23.00 | 1.186 | 0.791 | 22.1 |
| Left side                               | 20 | QPSK 50RB_50 | 40140/2545 | 1:1.58 | 0.460 | 0.08  | 22.26 | 23.00 | 1.186 | 0.545 | 22.1 |
| Bottom side                             | 20 | QPSK 50RB_50 | 40140/2545 | 1:1.58 | 0.633 | -0.02 | 22.26 | 23.00 | 1.186 | 0.751 | 22.1 |
| Back side                               | 20 | QPSK 50RB_50 | 40390/2570 | 1:1.58 | 0.659 | 0.06  | 22.03 | 23.00 | 1.250 | 0.824 | 22.1 |
| Back side                               | 20 | QPSK 50RB_50 | 40640/2595 | 1:1.58 | 0.615 | -0.06 | 22.13 | 23.00 | 1.222 | 0.751 | 22.1 |
| Back side                               | 20 | QPSK 50RB_50 | 40890/2620 | 1:1.58 | 0.567 | 0.01  | 22.00 | 23.00 | 1.259 | 0.714 | 22.1 |
| Back side                               | 20 | QPSK 50RB_50 | 41140/2645 | 1:1.58 | 0.594 | 0.02  | 22.25 | 23.00 | 1.189 | 0.706 | 22.1 |
| Bottom side                             | 20 | QPSK 50RB_50 | 40390/2570 | 1:1.58 | 0.596 | -0.01 | 22.03 | 23.00 | 1.250 | 0.745 | 22.1 |
| Bottom side                             | 20 | QPSK 50RB_50 | 40640/2595 | 1:1.58 | 0.548 | -0.03 | 22.13 | 23.00 | 1.222 | 0.670 | 22.1 |
| Bottom side                             | 20 | QPSK 50RB_50 | 40890/2620 | 1:1.58 | 0.543 | 0.01  | 22.00 | 23.00 | 1.259 | 0.684 | 22.1 |
| Bottom side                             | 20 | QPSK 50RB_50 | 41140/2645 | 1:1.58 | 0.576 | -0.02 | 22.25 | 23.00 | 1.189 | 0.685 | 22.1 |
| Hotspot Test data (Separate 5mm 100%RB) |    |              |            |        |       |       |       |       |       |       |      |
| Front side                              | 20 | QPSK 100RB_0 | 40140/2545 | 1:1.58 | 0.452 | 0.05  | 22.11 | 23.00 | 1.227 | 0.555 | 22.1 |
| Back side                               | 20 | QPSK 100RB_0 | 40140/2545 | 1:1.58 | 0.627 | -0.03 | 22.11 | 23.00 | 1.227 | 0.770 | 22.1 |
| Bottom side                             | 20 | QPSK 100RB_0 | 40140/2545 | 1:1.58 | 0.752 | -0.08 | 22.11 | 23.00 | 1.227 | 0.923 | 22.1 |

Table 26: SAR of LTE Band 41 for Head, Body.

Note:

- 1) The maximum Scaled SAR value is marked in bold. Graph results refer to Appendix B.
- 2) Per KDB447498 D01, testing of other required channels within the operating mode of a frequency band is not required when the reported 1-g or 10-g SAR for the mid-band or highest output power channel is:
  - $\leq 0.8\text{W/kg}$  for 1-g or  $2.0\text{W/kg}$  for 10-g respectively, when the transmission band is  $\leq 100\text{MHz}$ .
  - $\leq 0.6\text{ W/kg}$  or  $1.5\text{ W/kg}$ , for 1-g or 10-g respectively, when the transmission band is between 100 MHz and 200 MHz.
  - $\leq 0.4\text{ W/kg}$  or  $1.0\text{ W/kg}$ , for 1-g or 10-g respectively, when the transmission band is  $\geq 200\text{ MHz}$ .

| Test Position | Channel/ Frequency<br>(MHz) | Measured SAR (1g) | 1 <sup>st</sup> Repeated | Ratio | 2 <sup>nd</sup> Repeated | 3 <sup>rd</sup> Repeated |
|---------------|-----------------------------|-------------------|--------------------------|-------|--------------------------|--------------------------|
|               |                             |                   | SAR (1g)                 |       | SAR (1g)                 | SAR (1g)                 |
| Back side     | 40140/2545                  | 0.989             | 0.954                    | 1.037 | N/A                      | N/A                      |

Note: 1) When the original highest measured SAR is  $\geq 0.80\text{ W/kg}$ , the measurement was repeated once.

2) A second repeated measurement was performed only if the ratio of largest to smallest SAR for the original and first repeated measurements was  $> 1.20$  or when the original or repeated measurement was  $\geq 1.45\text{ W/kg}$  ( $\sim 10\%$  from the 1-g SAR limit).

3) A third repeated measurement was performed only if the original, first or second repeated measurement was  $\geq 1.5\text{ W/kg}$  and the ratio of largest to smallest SAR for the original, first and second repeated measurements is  $> 1.20$ .

4) Repeated measurements are not required when the original highest measured SAR is  $< 0.80\text{ W/kg}$



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### 8.3.13 SAR Result of WIFI 2.4G

| Test position                      | Test mode | Test Ch./Freq. | Duty Cycle | Duty Cycle Scaled factor | SAR (W/kg)1-g | Power drift(dB) | Conducted power(dBm) | Tune up Limit(dBm) | Scaled factor | Scaled SAR(W/kg) | Liquid Temp. |
|------------------------------------|-----------|----------------|------------|--------------------------|---------------|-----------------|----------------------|--------------------|---------------|------------------|--------------|
| Head Test data                     |           |                |            |                          |               |                 |                      |                    |               |                  |              |
| Left cheek                         | 802.11b   | 11/2462        | 99.26%     | 1.007                    | 0.896         | 0.07            | 18.13                | 19.00              | 1.222         | <b>1.095</b>     | 22.0         |
| Left cheek-repeat                  | 802.11b   | 11/2462        | 99.26%     | 1.007                    | 0.843         | 0.07            | 18.13                | 19.00              | 1.222         | 1.030            | 22.0         |
| Left tilted                        | 802.11b   | 11/2462        | 99.26%     | 1.007                    | 0.644         | 0.03            | 18.13                | 19.00              | 1.222         | 0.787            | 22.0         |
| Right cheek                        | 802.11b   | 11/2462        | 99.26%     | 1.007                    | 0.304         | 0.01            | 18.13                | 19.00              | 1.222         | 0.371            | 22.0         |
| Right tilted                       | 802.11b   | 11/2462        | 99.26%     | 1.007                    | 0.185         | 0.05            | 18.13                | 19.00              | 1.222         | 0.226            | 22.0         |
| Left cheek                         | 802.11b   | 6/2437         | 99.26%     | 1.007                    | 0.806         | 0.01            | 18.10                | 19.00              | 1.230         | 0.992            | 22.0         |
| Left cheek                         | 802.11b   | 1/2412         | 99.26%     | 1.007                    | 0.785         | 0.01            | 18.09                | 19.00              | 1.233         | 0.968            | 22.0         |
| Body worn Test data (Separate 5mm) |           |                |            |                          |               |                 |                      |                    |               |                  |              |
| Front side                         | 802.11b   | 11/2462        | 99.26%     | 1.007                    | 0.317         | 0.03            | 18.87                | 19.50              | 1.156         | 0.366            | 22.0         |
| Back side                          | 802.11b   | 11/2462        | 99.26%     | 1.007                    | 0.754         | 0.04            | 18.87                | 19.50              | 1.156         | <b>0.872</b>     | 22.0         |
| Back side                          | 802.11b   | 6/2437         | 99.26%     | 1.007                    | 0.658         | 0.06            | 18.79                | 19.50              | 1.178         | 0.775            | 22.0         |
| Back side                          | 802.11b   | 1/2412         | 99.26%     | 1.007                    | 0.687         | 0.06            | 18.74                | 19.50              | 1.191         | 0.818            | 22.0         |
| Hotspot Test data (Separate 5mm)   |           |                |            |                          |               |                 |                      |                    |               |                  |              |
| Front side                         | 802.11b   | 11/2462        | 99.26%     | 1.007                    | 0.317         | 0.03            | 18.87                | 19.50              | 1.156         | 0.366            | 22.0         |
| Back side                          | 802.11b   | 11/2462        | 99.26%     | 1.007                    | 0.754         | 0.04            | 18.87                | 19.50              | 1.156         | <b>0.872</b>     | 22.0         |
| Right side                         | 802.11b   | 11/2462        | 99.26%     | 1.007                    | 0.217         | 0.03            | 18.87                | 19.50              | 1.156         | 0.251            | 22.0         |
| Top side                           | 802.11b   | 11/2462        | 99.26%     | 1.007                    | 0.387         | -0.05           | 18.87                | 19.50              | 1.156         | 0.447            | 22.0         |
| Back side                          | 802.11b   | 6/2437         | 99.26%     | 1.007                    | 0.658         | 0.06            | 18.79                | 19.50              | 1.178         | 0.775            | 22.0         |
| Back side                          | 802.11b   | 1/2412         | 99.26%     | 1.007                    | 0.687         | 0.06            | 18.74                | 19.50              | 1.191         | 0.818            | 22.0         |

Table 27: SAR of WIFI 2.4G for Head and Body.

Note:

- 1) The maximum Scaled SAR value is marked in bold. Graph results refer to Appendix B.
- 2) When the highest reported SAR for the initial test configuration is adjusted by the ratio of the subsequent test configuration to initial test configuration specified maximum output power and the adjusted SAR is  $\leq 1.2$  W/kg, SAR test for the other 802.11 modes are not required.

| Test Position | Channel/ Frequency | Measured SAR (1g) | 1 <sup>st</sup> Repeated | Ratio | 2 <sup>nd</sup> Repeated | 3 <sup>rd</sup> Repeated |
|---------------|--------------------|-------------------|--------------------------|-------|--------------------------|--------------------------|
|               | (MHz)              |                   | SAR (1g)                 |       | SAR (1g)                 | SAR (1g)                 |
| Left cheek    | 11/2462            | 0.896             | 0.843                    | 1.063 | N/A                      | N/A                      |

Note: 1) When the original highest measured SAR is  $\geq 0.80$  W/kg, the measurement was repeated once.

2) A second repeated measurement was performed only if the ratio of largest to smallest SAR for the original and first repeated measurements was  $> 1.20$  or when the original or repeated measurement was  $\geq 1.45$  W/kg ( $\sim 10\%$  from the 1-g SAR limit).

3) A third repeated measurement was performed only if the original, first or second repeated measurement was  $\geq 1.5$  W/kg and the ratio of largest to smallest SAR for the original, first and second repeated measurements is  $> 1.20$ .

4) Repeated measurements are not required when the original highest measured SAR is  $< 0.80$  W/kg



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### 8.3.14 SAR Result of WIFI 5G

| Test position                                                | Test mode | Test Ch./Freq. | Duty Cycle | Duty Cycle Scaled factor | SAR (W/kg)1-g  | Power drift(dB) | Conducted power(dBm) | Tune up Limit(dBm) | Scaled factor | Scaled SAR(W/kg) | Liquid Temp. |
|--------------------------------------------------------------|-----------|----------------|------------|--------------------------|----------------|-----------------|----------------------|--------------------|---------------|------------------|--------------|
| Head Test data of U-NII-2A                                   |           |                |            |                          |                |                 |                      |                    |               |                  |              |
| Left cheek                                                   | 802.11a   | 60/5300        | 97.81%     | 1.022                    | 0.359          | 0.12            | 17.73                | 18.00              | 1.064         | 0.391            | 22.2         |
| Left tilted                                                  | 802.11a   | 60/5300        | 97.81%     | 1.022                    | 0.646          | 0.05            | 17.73                | 18.00              | 1.064         | 0.703            | 22.2         |
| Right cheek                                                  | 802.11a   | 60/5300        | 97.81%     | 1.022                    | 0.425          | 0.02            | 17.73                | 18.00              | 1.064         | 0.462            | 22.2         |
| Right tilted                                                 | 802.11a   | 60/5300        | 97.81%     | 1.022                    | 0.548          | 0.06            | 17.73                | 18.00              | 1.064         | 0.596            | 22.2         |
| Head Test data of U-NII-2C                                   |           |                |            |                          |                |                 |                      |                    |               |                  |              |
| Left cheek                                                   | 802.11a   | 116/5580       | 97.81%     | 1.022                    | 0.344          | 0.03            | 17.42                | 18.00              | 1.143         | 0.402            | 22.2         |
| Left tilted                                                  | 802.11a   | 116/5580       | 97.81%     | 1.022                    | 0.648          | 0.06            | 17.42                | 18.00              | 1.143         | 0.757            | 22.2         |
| Right cheek                                                  | 802.11a   | 116/5580       | 97.81%     | 1.022                    | 0.522          | 0.04            | 17.42                | 18.00              | 1.143         | 0.610            | 22.2         |
| Right tilted                                                 | 802.11a   | 116/5580       | 97.81%     | 1.022                    | 0.674          | 0.05            | 17.42                | 18.00              | 1.143         | <b>0.788</b>     | 22.2         |
| Head Test data of U-NII-3                                    |           |                |            |                          |                |                 |                      |                    |               |                  |              |
| Left cheek                                                   | 802.11a   | 157/5785       | 97.81%     | 1.022                    | 0.372          | 0.07            | 17.62                | 18.00              | 1.091         | 0.415            | 22.2         |
| Left tilted                                                  | 802.11a   | 157/5785       | 97.81%     | 1.022                    | 0.644          | 0.06            | 17.62                | 18.00              | 1.091         | 0.719            | 22.2         |
| Right cheek                                                  | 802.11a   | 157/5785       | 97.81%     | 1.022                    | 0.433          | 0.06            | 17.62                | 18.00              | 1.091         | 0.483            | 22.2         |
| Right tilted                                                 | 802.11a   | 157/5785       | 97.81%     | 1.022                    | 0.594          | 0.05            | 17.62                | 18.00              | 1.091         | 0.663            | 22.2         |
| Body worn Test data of U-NII-2A (Separate 5mm)               |           |                |            |                          |                |                 |                      |                    |               |                  |              |
| Front side                                                   | 802.11a   | 60/5300        | 97.81%     | 1.022                    | 0.219          | -0.05           | 17.73                | 18.00              | 1.064         | 0.238            | 22.2         |
| Back side                                                    | 802.11a   | 60/5300        | 97.81%     | 1.022                    | 0.547          | -0.01           | 17.73                | 18.00              | 1.064         | 0.595            | 22.2         |
| Body worn Test data of U-NII-2C (Separate 5mm)               |           |                |            |                          |                |                 |                      |                    |               |                  |              |
| Front side                                                   | 802.11a   | 116/5580       | 97.81%     | 1.022                    | 0.204          | 0.03            | 17.42                | 18.00              | 1.143         | 0.238            | 22.2         |
| Back side                                                    | 802.11a   | 116/5580       | 97.81%     | 1.022                    | 0.661          | 0.02            | 17.42                | 18.00              | 1.143         | <b>0.772</b>     | 22.2         |
| Body worn Test data of U-NII-3 (Separate 5mm)                |           |                |            |                          |                |                 |                      |                    |               |                  |              |
| Front side                                                   | 802.11a   | 157/5785       | 97.81%     | 1.022                    | 0.211          | 0.07            | 17.62                | 18.00              | 1.091         | 0.235            | 22.2         |
| Back side                                                    | 802.11a   | 157/5785       | 97.81%     | 1.022                    | 0.625          | -0.04           | 17.62                | 18.00              | 1.091         | 0.697            | 22.2         |
| Hotspot Test data of U-NII-1 (Separate 5mm)                  |           |                |            |                          |                |                 |                      |                    |               |                  |              |
| Front side                                                   | 802.11a   | 40/5200        | 97.81%     | 1.022                    | 0.138          | 0.03            | 16.59                | 17.00              | 1.099         | 0.155            | 22.2         |
| Back side                                                    | 802.11a   | 40/5200        | 97.81%     | 1.022                    | 0.365          | 0.07            | 16.59                | 17.00              | 1.099         | 0.410            | 22.2         |
| Right side                                                   | 802.11a   | 40/5200        | 97.81%     | 1.022                    | 0.062          | 0.04            | 16.59                | 17.00              | 1.099         | 0.070            | 22.2         |
| Top side                                                     | 802.11a   | 40/5200        | 97.81%     | 1.022                    | 0.864          | -0.04           | 16.59                | 17.00              | 1.099         | 0.971            | 22.2         |
| Top side                                                     | 802.11a   | 36/5180        | 97.81%     | 1.022                    | 0.818          | 0.04            | 16.36                | 17.00              | 1.159         | 0.969            | 22.2         |
| Top side                                                     | 802.11a   | 48/5240        | 97.81%     | 1.022                    | 0.812          | -0.06           | 16.34                | 17.00              | 1.164         | 0.966            | 22.2         |
| Hotspot Test data of U-NII-3 (Separate 5mm)                  |           |                |            |                          |                |                 |                      |                    |               |                  |              |
| Front side                                                   | 802.11a   | 157/5785       | 97.81%     | 1.022                    | 0.133          | 0.04            | 15.59                | 16.00              | 1.099         | 0.149            | 22.2         |
| Back side                                                    | 802.11a   | 157/5785       | 97.81%     | 1.022                    | 0.515          | 0.03            | 15.59                | 16.00              | 1.099         | 0.579            | 22.2         |
| Right side                                                   | 802.11a   | 157/5785       | 97.81%     | 1.022                    | 0.135          | 0.01            | 15.59                | 16.00              | 1.099         | 0.152            | 22.2         |
| Top side                                                     | 802.11a   | 157/5785       | 97.81%     | 1.022                    | 0.835          | 0.00            | 15.59                | 16.00              | 1.099         | 0.938            | 22.2         |
| Top side                                                     | 802.11a   | 149/5745       | 97.81%     | 1.022                    | 0.797          | 0.08            | 15.56                | 16.00              | 1.107         | 0.902            | 22.2         |
| Top side                                                     | 802.11a   | 165/5825       | 97.81%     | 1.022                    | 0.940          | 0.07            | 15.52                | 16.00              | 1.117         | <b>1.073</b>     | 22.2         |
| Top side-repeat                                              | 802.11a   | 165/5825       | 97.81%     | 1.022                    | 0.938          | -0.01           | 15.52                | 16.00              | 1.117         | 1.071            | 22.2         |
| Test position                                                | Test mode | Test Ch./Freq. | Duty Cycle | Duty Cycle Scaled factor | SAR (W/kg)10-g | Power drift(dB) | Conducted power(dBm) | Tune up Limit(dBm) | Scaled factor | Scaled SAR(W/kg) | Liquid Temp. |
| Product specific 10gSAR Test data of U-NII-2A (Separate 0mm) |           |                |            |                          |                |                 |                      |                    |               |                  |              |
| Front side                                                   | 802.11a   | 60/5300        | 97.81%     | 1.022                    | 0.243          | 0.08            | 17.73                | 18.00              | 1.064         | 0.264            | 22.2         |
| Back side                                                    | 802.11a   | 60/5300        | 97.81%     | 1.022                    | 0.444          | 0.02            | 17.73                | 18.00              | 1.064         | 0.483            | 22.2         |



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|                                                             |         |          |        |       |       |      |       |       |       |              |      |
|-------------------------------------------------------------|---------|----------|--------|-------|-------|------|-------|-------|-------|--------------|------|
| Right side                                                  | 802.11a | 60/5300  | 97.81% | 1.022 | 0.097 | 0.01 | 17.73 | 18.00 | 1.064 | 0.106        | 22.2 |
| Top side                                                    | 802.11a | 60/5300  | 97.81% | 1.022 | 1.370 | 0.04 | 17.73 | 18.00 | 1.064 | <b>1.491</b> | 22.2 |
| Product specific 10gSAR Test data of U-NII-2C(Separate 0mm) |         |          |        |       |       |      |       |       |       |              |      |
| Front side                                                  | 802.11a | 116/5580 | 97.81% | 1.022 | 0.257 | 0.01 | 17.42 | 18.00 | 1.143 | 0.300        | 22.2 |
| Back side                                                   | 802.11a | 116/5580 | 97.81% | 1.022 | 0.413 | 0.09 | 17.42 | 18.00 | 1.143 | 0.483        | 22.2 |
| Right side                                                  | 802.11a | 116/5580 | 97.81% | 1.022 | 0.157 | 0.01 | 17.42 | 18.00 | 1.143 | 0.183        | 22.2 |
| Top side                                                    | 802.11a | 116/5580 | 97.81% | 1.022 | 1.110 | 0.16 | 17.42 | 18.00 | 1.143 | 1.297        | 22.2 |

Table 28: SAR of WIFI 5G for Head, Body and Product specific 10g SAR.

Note:

- 1) The maximum Scaled SAR value is marked in bold. Graph results refer to Appendix B.
- 2) When the highest reported SAR for the initial test configuration is adjusted by the ratio of the subsequent test configuration to initial test configuration specified maximum output power and the adjusted SAR is  $\leq 1.2$  W/kg, SAR test for the other 802.11 modes are not required.

| Test Position | Channel/ Frequency | Measured SAR (1g) | 1 <sup>st</sup> Repeated | Ratio | 2 <sup>nd</sup> Repeated | 3 <sup>rd</sup> Repeated |
|---------------|--------------------|-------------------|--------------------------|-------|--------------------------|--------------------------|
|               | (MHz)              |                   | SAR (1g)                 |       | SAR (1g)                 | SAR (1g)                 |
| Top side      | 165/5825           | 0.940             | 0.938                    | 1.002 | N/A                      | N/A                      |

Note: 1) When the original highest measured SAR is  $\geq 0.80$  W/kg, the measurement was repeated once.

2) A second repeated measurement was performed only if the ratio of largest to smallest SAR for the original and first repeated measurements was  $> 1.20$  or when the original or repeated measurement was  $\geq 1.45$  W/kg ( $\sim 10\%$  from the 1-g SAR limit).

3) A third repeated measurement was performed only if the original, first or second repeated measurement was  $\geq 1.5$  W/kg and the ratio of largest to smallest SAR for the original, first and second repeated measurements is  $> 1.20$ .

4) Repeated measurements are not required when the original highest measured SAR is  $< 0.80$  W/kg



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### 8.3.15 SAR Result of BT

| Test position                    | Test mode | Test Ch./Freq. | Duty Cycle | Duty Cycle Scaled factor | SAR (W/kg) 1-g | Power drift (dB) | Conducted power (dBm) | Tune up Limit (dBm) | Scaled factor | Scaled SAR (W/kg) | Liquid Temp. |
|----------------------------------|-----------|----------------|------------|--------------------------|----------------|------------------|-----------------------|---------------------|---------------|-------------------|--------------|
| Head Test data                   |           |                |            |                          |                |                  |                       |                     |               |                   |              |
| Left cheek                       | DH5       | 0/2402         | 81.60%     | 1.225                    | <b>0.091</b>   | 0.02             | 12.83                 | 13.50               | 1.167         | <b>0.106</b>      | 22.0         |
| Left tilted                      | DH5       | 0/2402         | 81.60%     | 1.225                    | 0.082          | 0.03             | 12.83                 | 13.50               | 1.167         | 0.096             | 22.0         |
| Right cheek                      | DH5       | 0/2402         | 81.60%     | 1.225                    | 0.012          | 0.01             | 12.83                 | 13.50               | 1.167         | 0.014             | 22.0         |
| Right tilted                     | DH5       | 0/2402         | 81.60%     | 1.225                    | 0.011          | 0.02             | 12.83                 | 13.50               | 1.167         | 0.013             | 22.0         |
| Hotspot Test data (Separate 5mm) |           |                |            |                          |                |                  |                       |                     |               |                   |              |
| Front side                       | DH5       | 0/2402         | 81.60%     | 1.225                    | 0.012          | 0.03             | 12.83                 | 13.50               | 1.167         | 0.014             | 22           |
| Back side                        | DH5       | 0/2402         | 81.60%     | 1.225                    | <b>0.051</b>   | -0.09            | 12.83                 | 13.50               | 1.167         | <b>0.060</b>      | 22           |
| Right side                       | DH5       | 0/2402         | 81.60%     | 1.225                    | 0.010          | 0.03             | 12.83                 | 13.50               | 1.167         | 0.012             | 22           |
| Top side                         | DH5       | 0/2402         | 81.60%     | 1.225                    | 0.012          | 0.04             | 12.83                 | 13.50               | 1.167         | 0.014             | 22           |

Table 29: SAR of BT for Head and Body.

Note:

- 1) The maximum Scaled SAR value is marked in bold. Graph results refer to Appendix B.
- 2) Per KDB447498 D01, testing of other required channels within the operating mode of a frequency band is not required when the reported 1-g or 10-g SAR for the mid-band or highest output power channel is:
  - $\leq 0.8\text{W/kg}$  for 1-g or  $2.0\text{W/kg}$  for 10-g respectively, when the transmission band is  $\leq 100\text{MHz}$ .
  - $\leq 0.6\text{ W/kg}$  or  $1.5\text{ W/kg}$ , for 1-g or 10-g respectively, when the transmission band is between 100 MHz and 200 MHz.
  - $\leq 0.4\text{ W/kg}$  or  $1.0\text{ W/kg}$ , for 1-g or 10-g respectively, when the transmission band is  $\geq 200\text{ MHz}$ .



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## 8.4 Multiple Transmitter Evaluation

### 8.4.1 Simultaneous SAR test evaluation

- Simultaneous Transmission Possibilities

| NO. | Simultaneous Tx Combination | Head | Body | Hotspot | Product Specific 10-g (0mm) |
|-----|-----------------------------|------|------|---------|-----------------------------|
| 1   | WWAN + WiFi 2.4G            | Yes  | Yes  | Yes     | Yes                         |
| 2   | WWAN + WiFi 5G              | Yes  | Yes  | Yes     | Yes                         |
| 3   | WWAN + WiFi 5G + BT         | Yes  | Yes  | Yes     | Yes                         |

Note:

- WiFi 2.4G and Bluetooth can't transmit simultaneously.
- The device does not support DTM function.



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## 8.4.2 Simultaneous Transmission SAR Summation Scenario

| Test position             |             | 1                          |         |               |               |              |            |            |            |            |             |             |             | 2                          | 3       | 4     | 1+2                     | 1+3                     | 1+3+4                   | SPLSR No. |
|---------------------------|-------------|----------------------------|---------|---------------|---------------|--------------|------------|------------|------------|------------|-------------|-------------|-------------|----------------------------|---------|-------|-------------------------|-------------------------|-------------------------|-----------|
|                           |             | Main Antenna SARmax (W/kg) |         |               |               |              |            |            |            |            |             |             |             | WiFi Antenna SARmax (W/kg) |         |       | Summed 1g SARmax (W/kg) | Summed 1g SARmax (W/kg) | Summed 1g SARmax (W/kg) |           |
|                           |             | GSM850                     | GSM1900 | WCDMA Band II | WCDMA Band IV | WCDMA Band V | LTE Band 2 | LTE Band 4 | LTE Band 5 | LTE Band 7 | LTE Band 26 | LTE Band 38 | LTE Band 41 | WLAN 2.4G                  | WLAN 5G | BT    |                         |                         |                         |           |
| Head                      | Left Touch  | 0.218                      | 0.072   | 0.087         | 0.182         | 0.249        | 0.132      | 0.129      | 0.249      | 0.389      | 0.198       | 0.214       | 0.206       | 1.095                      | 0.415   | 0.106 | 1.484                   | 0.804                   | 0.910                   | NA        |
|                           | Left Tilt   | 0.210                      | 0.081   | 0.115         | 0.165         | 0.185        | 0.119      | 0.134      | 0.140      | 0.204      | 0.126       | 0.106       | 0.107       | 0.787                      | 0.757   | 0.096 | 0.997                   | 0.967                   | 1.063                   | NA        |
|                           | Right Touch | 0.261                      | 0.108   | 0.116         | 0.184         | 0.279        | 0.178      | 0.160      | 0.158      | 0.306      | 0.264       | 0.177       | 0.166       | 0.371                      | 0.610   | 0.014 | 0.677                   | 0.916                   | 0.930                   | NA        |
|                           | Right Tilt  | 0.225                      | 0.090   | 0.112         | 0.111         | 0.199        | 0.122      | 0.101      | 0.128      | 0.273      | 0.137       | 0.156       | 0.135       | 0.226                      | 0.788   | 0.013 | 0.499                   | 1.061                   | 1.074                   | NA        |
| Body 5mm                  | Front       | 0.619                      | 0.593   | 0.511         | 0.754         | 0.603        | 0.565      | 0.937      | 0.557      | 1.154      | 0.465       | 0.968       | 0.884       | 0.366                      | 0.238   | 0.014 | 1.520                   | 1.392                   | 1.406                   | NA        |
|                           | Back        | 1.346                      | 1.355   | 1.224         | 1.444         | 1.189        | 1.236      | 1.298      | 1.362      | 1.233      | 1.338       | 1.219       | 1.178       | 0.872                      | 0.772   | 0.060 | 2.316                   | 2.216                   | 2.276                   | 1#        |
| Hotspot 5mm               | Front       | 0.518                      | 0.444   | 0.511         | 0.754         | 0.603        | 0.565      | 0.937      | 0.557      | 1.095      | 0.465       | 0.968       | 0.884       | 0.366                      | 0.155   | 0.014 | 1.461                   | 1.250                   | 1.264                   | NA        |
|                           | Back        | 1.029                      | 0.837   | 1.224         | 1.444         | 1.189        | 1.192      | 1.298      | 1.362      | 1.163      | 1.338       | 1.219       | 1.178       | 0.872                      | 0.579   | 0.060 | 2.316                   | 2.023                   | 2.083                   | 2#        |
|                           | Left        | 0.301                      | 0.112   | 0.105         | 0.082         | 0.289        | 0.090      | 0.073      | 0.244      | 0.642      | 0.194       | 0.604       | 0.703       | /                          | /       | /     | /                       | /                       | /                       | NA        |
|                           | Right       | 0.331                      | 0.066   | 0.068         | 0.096         | 0.372        | 0.053      | 0.101      | 0.323      | /          | 0.256       | /           | /           | 0.251                      | 0.152   | 0.012 | 0.623                   | 0.524                   | 0.536                   | NA        |
|                           | Top         | /                          | /       | /             | /             | /            | /          | /          | /          | /          | /           | /           | /           | 0.447                      | 1.073   | 0.014 | 0.447                   | 1.073                   | 1.087                   | NA        |
|                           | Bottom      | 0.423                      | 1.387   | 1.273         | 1.319         | 0.662        | 1.298      | 1.381      | 0.530      | 1.138      | 0.409       | 0.961       | 1.070       | /                          | /       | /     | /                       | /                       | /                       | NA        |
| Test position             |             | Main Antenna SARmax (W/kg) |         |               |               |              |            |            |            |            |             |             |             | WiFi Antenna SARmax (W/kg) |         |       | Summed 10g SARmax       | Summed 10g SARmax       | Summed 10g SARmax       | SPLSR No. |
|                           |             | GSM850                     | GSM1900 | WCDMA Band II | WCDMA Band IV | WCDMA Band V | LTE Band 2 | LTE Band 4 | LTE Band 5 | LTE Band 7 | LTE Band 26 | LTE Band 38 | LTE Band 41 | WLAN 2.4G                  | WLAN 5G | BT    |                         |                         |                         |           |
| Product Specific 10-g SAR | Front       | /                          | /       | 1.303         | 1.734         | /            | 1.380      | 1.645      | /          | 2.507      | /           | /           | /           | /                          | 0.300   | /     | /                       | 2.807                   | /                       | NA        |
|                           | Back        | 0.794                      | 2.376   | 2.307         | 3.324         | /            | 2.531      | 2.974      | 1.353      | 2.794      | 1.372       | 1.751       | /           | /                          | 0.483   | /     | /                       | 3.807                   | /                       | NA        |
|                           | Left        | /                          | /       | /             | /             | /            | /          | /          | /          | 1.528      | /           | /           | /           | /                          | /       | /     | /                       | /                       | /                       | NA        |
|                           | Right       | /                          | /       | /             | /             | /            | /          | /          | /          | /          | /           | /           | /           | /                          | 0.183   | /     | /                       | 0.183                   | /                       | NA        |
|                           | Top         | /                          | /       | /             | /             | /            | /          | /          | /          | /          | /           | /           | /           | /                          | 1.491   | /     | /                       | 1.491                   | /                       | NA        |
|                           | Bottom      | /                          | 2.883   | 3.372         | 2.358         | /            | 3.037      | 2.748      | /          | 1.863      | /           | /           | /           | /                          | /       | /     | /                       | /                       | /                       | NA        |



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### 8.4.3 SPLSR Evaluation and Analysis

According to KDB447498 D01, When the sum of SAR is larger than the limit, SAR test exclusion is determined by the SAR to peak location separation ratio(SPLSR). When the SAR to peak location ratio for each pair of antennas is  $\leq 1\text{-g } 0.04$  and  $10\text{-g } 0.10$ , simultaneous SAR evaluation is not required. When SAR is measured for both antennas in the pair, the peak location separation distance is computed by the following formula:

$$\text{Distance}_{\text{Tx1-Tx2}} = R_i = \sqrt{(x_1 - x_2)^2 + (y_1 - y_2)^2 + (z_1 - z_2)^2}$$

$$\text{SPLS Ratio} = (\text{SAR}_1 + \text{SAR}_2)^{1.5} / R_i$$

| Case No. | Position  | Band          | SAR (W/kg) | SAR peak location (cm) |       |       | 3D distance (mm) | Summed SAR (W/kg) | SPLSR Results | Simultaneous SAR |
|----------|-----------|---------------|------------|------------------------|-------|-------|------------------|-------------------|---------------|------------------|
|          |           |               |            | X                      | Y     | Z     |                  |                   |               |                  |
| 1#       | Back side | WCDMA Band IV | 1.444      | 13.7                   | -70.3 | -2.37 | 132.159          | 2.316             | 0.03          | Not Required     |
|          |           | Wi-Fi 2.4G    | 0.872      | -18                    | 58    | -2.71 |                  |                   |               |                  |



| Case No. | Position  | Band          | SAR (W/kg) | SAR peak location (cm) |       |       | 3D distance (mm) | Summed SAR (W/kg) | SPLSR Results | Simultaneous SAR |
|----------|-----------|---------------|------------|------------------------|-------|-------|------------------|-------------------|---------------|------------------|
|          |           |               |            | X                      | Y     | Z     |                  |                   |               |                  |
| 2#       | Back side | WCDMA Band IV | 1.444      | 13.7                   | -70.3 | -2.37 | 144.973          | 2.216             | 0.02          | Not Required     |
|          |           | Wi-Fi 5G      | 0.772      | -16.4                  | 71.5  | -0.38 |                  |                   |               |                  |
|          |           | Bluetooth     | 0.060      | -13.8                  | 57.4  | -2.99 |                  |                   |               |                  |
|          |           | WCDMA Band IV | 1.444      | 13.7                   | -70.3 | -2.37 | 130.629          | 1.504             | NA            | Not Required     |
|          |           | Bluetooth     | 0.060      | -13.8                  | 57.4  | -2.99 |                  |                   |               |                  |
|          |           | Wi-Fi 5G      | 0.772      | -16.4                  | 71.5  | -0.38 | 14.573           | 0.832             | NA            | Not Required     |





## 9 Equipment list

|                                     |                                      |                                               |             |               |                  |                         |
|-------------------------------------|--------------------------------------|-----------------------------------------------|-------------|---------------|------------------|-------------------------|
| Test Platform                       |                                      | SPEAG DASY5 Professional                      |             |               |                  |                         |
| Description                         |                                      | SAR Test System (Frequency range 300MHz-6GHz) |             |               |                  |                         |
| Software Reference                  |                                      | DASY52 52.8.8(1258); SEMCAD X 14.6.10(7373)   |             |               |                  |                         |
| Hardware Reference                  |                                      |                                               |             |               |                  |                         |
| Equipment                           |                                      | Manufacturer                                  | Model       | Serial Number | Calibration Date | Due date of calibration |
| <input checked="" type="checkbox"/> | Twin Phantom                         | SPEAG                                         | SAM 5       | 1481          | NCR              | NCR                     |
| <input checked="" type="checkbox"/> | Twin Phantom                         | SPEAG                                         | SAM 6       | 1824          | NCR              | NCR                     |
| <input checked="" type="checkbox"/> | DAE                                  | SPEAG                                         | DAE3        | 414           | 2019-12-17       | 2020-12-16              |
| <input checked="" type="checkbox"/> | DAE                                  | SPEAG                                         | DAE4        | 1374          | 2019-09-24       | 2020-09-23              |
| <input checked="" type="checkbox"/> | E-Field Probe                        | SPEAG                                         | EX3DV4      | 3748          | 2020-07-29       | 2021-07-28              |
| <input checked="" type="checkbox"/> | E-Field Probe                        | SPEAG                                         | EX3DV4      | 3789          | 2020-06-16       | 2021-06-15              |
| <input checked="" type="checkbox"/> | Validation Kits                      | SPEAG                                         | D835V2      | 4d105         | 2019-12-17       | 2022-12-16              |
| <input checked="" type="checkbox"/> | Validation Kits                      | SPEAG                                         | D1750V2     | 1149          | 2019-05-21       | 2022-05-20              |
| <input checked="" type="checkbox"/> | Validation Kits                      | SPEAG                                         | D1900V2     | 5d028         | 2019-12-17       | 2022-12-16              |
| <input checked="" type="checkbox"/> | Validation Kits                      | SPEAG                                         | D2450V2     | 733           | 2019-12-17       | 2022-12-16              |
| <input checked="" type="checkbox"/> | Validation Kits                      | SPEAG                                         | D2600V2     | 1125          | 2019-05-20       | 2022-05-19              |
| <input checked="" type="checkbox"/> | Validation Kits                      | SPEAG                                         | D5GHzV2     | 1165          | 2019-12-20       | 2022-12-19              |
| <input checked="" type="checkbox"/> | Agilent Network Analyzer             | Agilent                                       | E5071C      | MY46523590    | 2020-04-02       | 2021-04-01              |
| <input checked="" type="checkbox"/> | Dielectric Probe Kit                 | Agilent                                       | 85070E      | US01440210    | NCR              | NCR                     |
| <input checked="" type="checkbox"/> | Radio Communication Analyzer         | Anritsu Corporation                           | MT8820C     | 6201010267    | 2020-04-02       | 2021-04-01              |
| <input checked="" type="checkbox"/> | Universal Radio Communication Tester | R&S                                           | CMW500      | 124587        | 2020-04-02       | 2021-04-01              |
| <input checked="" type="checkbox"/> | RF Bi-Directional Coupler            | Agilent                                       | 86205-60001 | MY31400031    | NCR              | NCR                     |
| <input checked="" type="checkbox"/> | Signal Generator                     | Agilent                                       | N5171B      | MY53050736    | 2020-04-15       | 2021-04-14              |
| <input checked="" type="checkbox"/> | Preamplifier                         | Mini-Circuits                                 | ZHL-42W     | 15542         | NCR              | NCR                     |
| <input checked="" type="checkbox"/> | Preamplifier                         | Compliance Directions Systems Inc.            | AMP28-3W    | 073501433     | NCR              | NCR                     |
| <input checked="" type="checkbox"/> | Power Meter                          | Agilent                                       | E4416A      | GB41292095    | 2020-04-15       | 2021-04-14              |
| <input checked="" type="checkbox"/> | Power Sensor                         | Agilent                                       | 8481H       | MY41091234    | 2020-04-15       | 2021-04-14              |
| <input checked="" type="checkbox"/> | Power Sensor                         | R&S                                           | NRP-Z92     | 100025        | 2020-04-16       | 2021-04-15              |
| <input checked="" type="checkbox"/> | Speed reading thermometer            | MingGao                                       | T809        | NA            | 2020-04-15       | 2021-04-14              |

Note: All the equipments are within the valid period when the tests are performed.



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## 10 Calibration certificate

Please see the Appendix C

## 11 Photographs

Please see the Appendix D

## Appendix A: Detailed System Check Results

## Appendix B: Detailed Test Results

## Appendix C: Calibration certificate

## Appendix D: Photographs

---END---





# **Appendix A**

## **Detailed System Check Results**

|                                        |
|----------------------------------------|
| <b>1. System Performance Check</b>     |
| System Performance Check 835 MHz Head  |
| System Performance Check 1750 MHz Head |
| System Performance Check 1900 MHz Head |
| System Performance Check 2450 MHz Head |
| System Performance Check 2600 MHz Head |
| System Performance Check 5250 MHz Head |
| System Performance Check 5600 MHz Head |
| System Performance Check 5750 MHz Head |

Test Laboratory: SGS-SAR Lab

## System Performance Check 835 MHz Head

**DUT: D835V2; Type: D835V2; Serial: 4d105**

Communication System: UID 0, CW (0); Frequency: 835 MHz; Duty Cycle: 1:1

Medium: HSL835; Medium parameters used:  $f = 835$  MHz;  $\sigma = 0.879$  S/m;  $\epsilon_r = 42.04$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Phantom section: Flat Section

DASY 5 Configuration:

- Probe: EX3DV4 - SN3789; ConvF(8.53, 8.53, 8.53); Calibrated: 2020-06-16;
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1374; Calibrated: 2019-09-24
- Phantom: SAM5; Type: SAM; Serial: 1481
- DASY52 52.8.8(1258); SEMCAD X 14.6.10(7331)

**Body/d=15mm, Pin=250mW/Area Scan (8x13x1):** Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (measured) = 3.17 W/kg

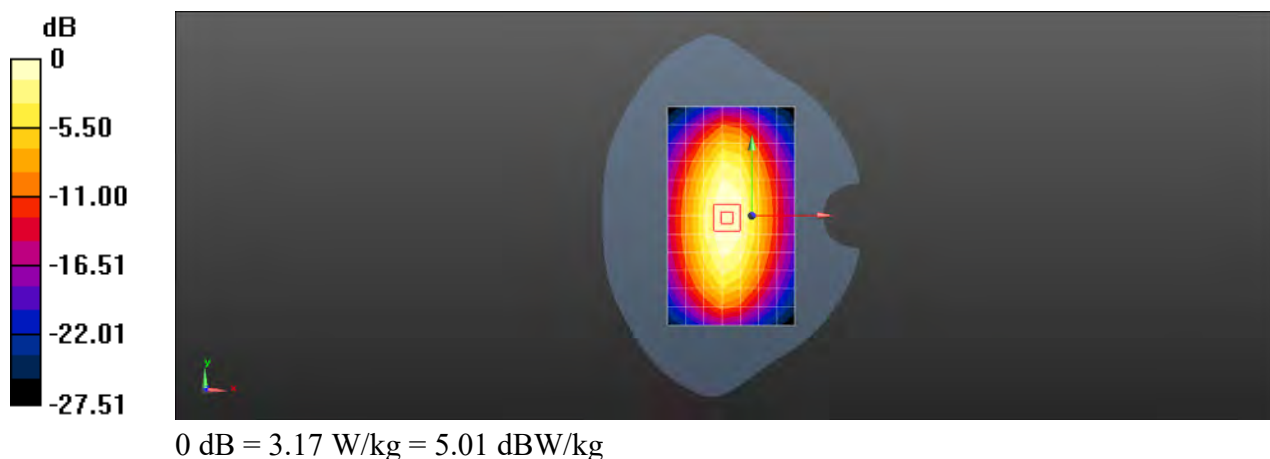
**Body/d=15mm, Pin=250mW/Zoom Scan (5x5x7)/Cube 0:** Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 55.70 V/m; Power Drift = -0.02 dB

Peak SAR (extrapolated) = 3.93 W/kg

**SAR(1 g) = 2.5 W/kg; SAR(10 g) = 1.6 W/kg**

Maximum value of SAR (measured) = 3.30 W/kg



Test Laboratory: SGS-SAR Lab

## System Performance Check 835 MHz Head

**DUT: D835V2; Type: D835V2; Serial: 4d105**

Communication System: UID 0, CW (0); Frequency: 835 MHz; Duty Cycle: 1:1

Medium: HSL835; Medium parameters used:  $f = 835$  MHz;  $\sigma = 0.891$  S/m;  $\epsilon_r = 40.849$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Phantom section: Flat Section

DASY 5 Configuration:

- Probe: EX3DV4 - SN3789; ConvF(8.53, 8.53, 8.53); Calibrated: 2020-06-16;
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1374; Calibrated: 2019-09-24
- Phantom: SAM5; Type: SAM; Serial: 1481
- DASY52 52.8.8(1258); SEMCAD X 14.6.10(7331)

**Body/d=15mm, Pin=250mW/Area Scan (7x13x1):** Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (measured) = 3.25 W/kg

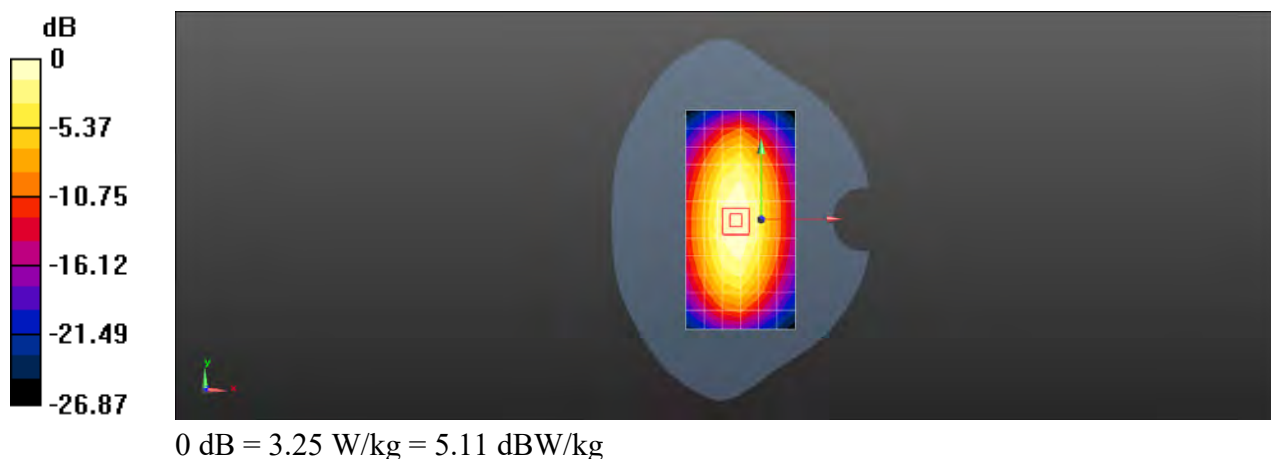
**Body/d=15mm, Pin=250mW/Zoom Scan (5x5x7)/Cube 0:** Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 55.71 V/m; Power Drift = -0.02 dB

Peak SAR (extrapolated) = 4.02 W/kg

**SAR(1 g) = 2.35 W/kg; SAR(10 g) = 1.63 W/kg**

Maximum value of SAR (measured) = 3.38 W/kg



Test Laboratory: SGS-SAR Lab

## System Performance Check 1750 MHz Head

**DUT: D1750V2; Type: D1750V2; Serial: 1149**

Communication System: UID 0, CW (0); Frequency: 1750 MHz; Duty Cycle: 1:1

Medium: HSL1750; Medium parameters used:  $f = 1750$  MHz;  $\sigma = 1.331$  S/m;  $\epsilon_r = 40.87$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Phantom section: Flat Section

DASY 5 Configuration:

- Probe: EX3DV4 - SN3789; ConvF(7.61, 7.61, 7.61); Calibrated: 2020-06-16;
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1374; Calibrated: 2019-09-24
- Phantom: SAM5; Type: SAM; Serial: 1481
- DASY52 52.8.8(1258); SEMCAD X 14.6.10(7331)

**Body/d=10mm, Pin=250mW/Area Scan (7x10x1):** Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (measured) = 14.2 W/kg

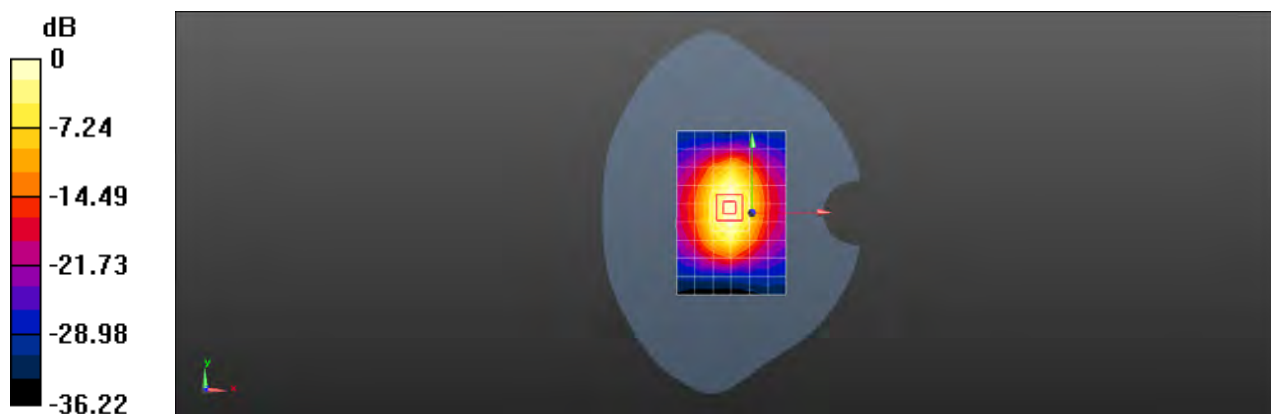
**Body/d=10mm, Pin=250mW/Zoom Scan (5x5x7)/Cube 0:** Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 87.76 V/m; Power Drift = -0.01 dB

Peak SAR (extrapolated) = 17.6 W/kg

**SAR(1 g) = 9.62 W/kg; SAR(10 g) = 5.12 W/kg**

Maximum value of SAR (measured) = 14.7 W/kg



0 dB = 14.2 W/kg = 11.53 dBW/kg

Test Laboratory: SGS-SAR Lab

## System Performance Check 1900 MHz Head

**DUT: D1900V2; Type: D1900V2; Serial: 5d028**

Communication System: UID 0, CW (0); Frequency: 1900 MHz; Duty Cycle: 1:1

Medium: HSL1900; Medium parameters used:  $f = 1900$  MHz;  $\sigma = 1.389$  S/m;  $\epsilon_r = 40.284$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Phantom section: Flat Section

DASY 5 Configuration:

- Probe: EX3DV4 - SN3789; ConvF(7.32, 7.32, 7.32); Calibrated: 2020-06-16;
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1374; Calibrated: 2019-09-24
- Phantom: SAM5; Type: SAM; Serial: 1481
- DASY52 52.8.8(1258); SEMCAD X 14.6.10(7331)

**Body/d=10mm, Pin=250mW/Area Scan (7x9x1):** Measurement grid: dx=15mm, dy=15mm  
Maximum value of SAR (measured) = 11.2 W/kg

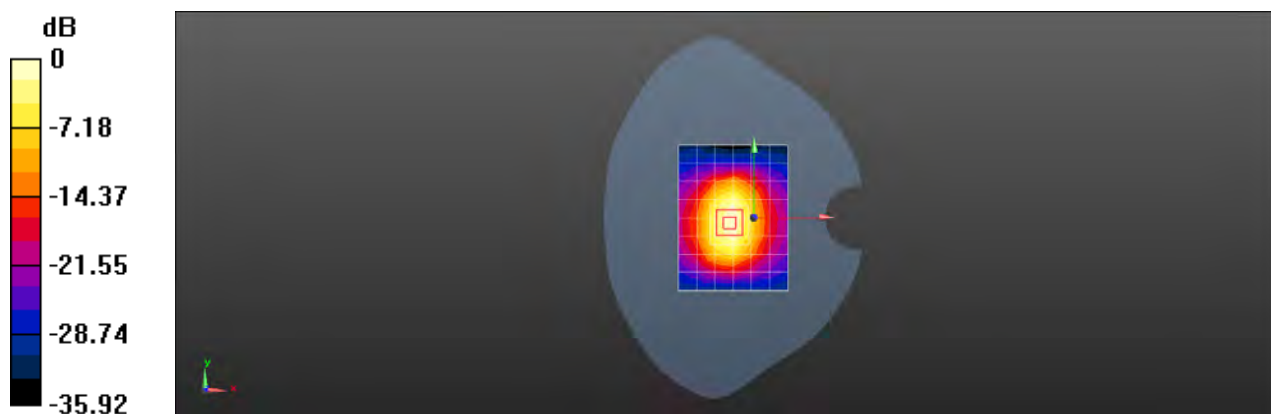
**Body/d=10mm, Pin=250mW/Zoom Scan (5x5x7)/Cube 0:** Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 90.34 V/m; Power Drift = -0.01 dB

Peak SAR (extrapolated) = 19.7 W/kg

**SAR(1 g) = 10.7 W/kg; SAR(10 g) = 5.43 W/kg**

Maximum value of SAR (measured) = 12.0 W/kg



0 dB = 11.2 W/kg = 10.51 dBW/kg

Test Laboratory: SGS-SAR Lab

## System Performance Check 1900 MHz Head

**DUT: D1900V2; Type: D1900V2; Serial: 5d028**

Communication System: UID 0, CW (0); Frequency: 1900 MHz; Duty Cycle: 1:1

Medium: HSL1900; Medium parameters used:  $f = 1900$  MHz;  $\sigma = 1.374$  S/m;  $\epsilon_r = 39.917$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Phantom section: Flat Section

DASY 5 Configuration:

- Probe: EX3DV4 - SN3789; ConvF(7.32, 7.32, 7.32); Calibrated: 2020-06-16;
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1374; Calibrated: 2019-09-24
- Phantom: SAM5; Type: SAM; Serial: 1481
- DASY52 52.8.8(1258); SEMCAD X 14.6.10(7331)

**Body/d=10mm, Pin=250mW/Area Scan (8x11x1):** Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (measured) = 10.0 W/kg

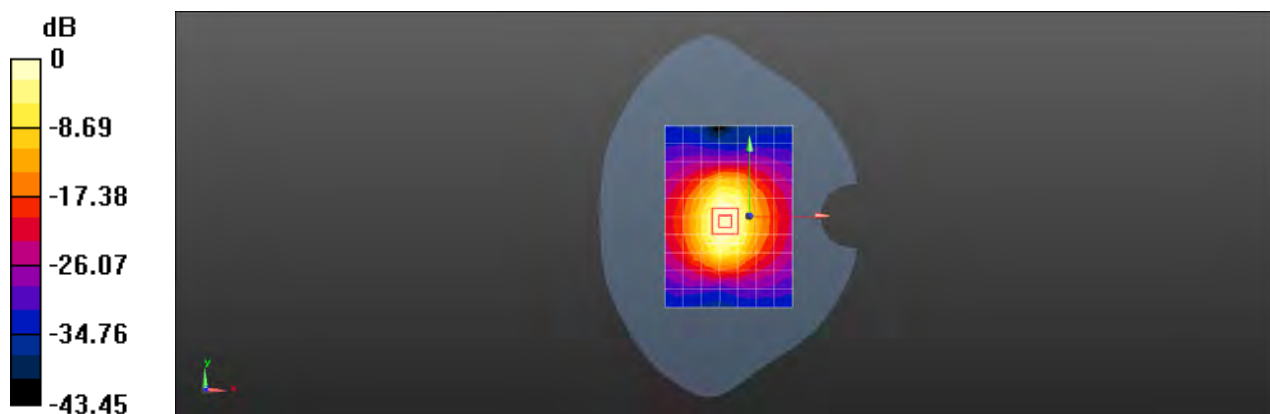
**Body/d=10mm, Pin=250mW/Zoom Scan (5x5x7)/Cube 0:** Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 90.27 V/m; Power Drift = -0.02 dB

Peak SAR (extrapolated) = 19.5 W/kg

**SAR(1 g) = 10.6 W/kg; SAR(10 g) = 5.47 W/kg**

Maximum value of SAR (measured) = 11.8 W/kg



Test Laboratory: SGS-SAR Lab

## System Performance Check 2450MHz Head

**DUT: D2450V2; Type: D2450V2; Serial: 733**

Communication System: UID 0, CW; Frequency: 2450 MHz; Duty Cycle: 1:1

Medium: HSL2450; Medium parameters used:  $f = 2450$  MHz;  $\sigma = 1.805$  S/m;  $\epsilon_r = 38.744$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Phantom section: Flat Section

DASY 5 Configuration:

- Probe: EX3DV4 - SN3748; ConvF(7, 7, 7); Calibrated: 2020-07-29;
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn414; Calibrated: 2019-12-17
- Phantom: SAM6; Type: SAM; Serial: 1824
- DASY52 52.8.8(1258); SEMCAD X 14.6.10(7331)

**Body/d=10mm, Pin=250mW/Area Scan (9x10x1):** Measurement grid: dx=12mm, dy=12mm

Maximum value of SAR (measured) = 21.9 W/kg

**Body/d=10mm, Pin=250mW/Zoom Scan (7x7x7)/Cube 0:** Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 94.73 V/m; Power Drift = -0.02 dB

Peak SAR (extrapolated) = 28.9 W/kg

**SAR(1 g) = 14 W/kg; SAR(10 g) = 6.47 W/kg**

Maximum value of SAR (measured) = 23.3 W/kg



0 dB = 21.9 W/kg = 13.41 dBW/kg

Test Laboratory: SGS-SAR Lab

## System Performance Check 2600MHz Head

**DUT: D2600V2; Type: D2600V2; Serial: 1125**

Communication System: UID 0, CW (0); Frequency: 2600 MHz; Duty Cycle: 1:1

Medium: HSL2600; Medium parameters used:  $f = 2600$  MHz;  $\sigma = 1.948$  S/m;  $\epsilon_r = 38.949$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Phantom section: Flat Section

DASY 5 Configuration:

- Probe: EX3DV4 - SN3748; ConvF(6.79, 6.79, 6.79); Calibrated: 2020-07-29;
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn414; Calibrated: 2019-12-17
- Phantom: SAM6; Type: SAM; Serial: 1824
- DASY52 52.8.8(1258); SEMCAD X 14.6.10(7331)

**Body/d=10mm, Pin=250mW/Area Scan (9x10x1):** Measurement grid: dx=12mm, dy=12mm

Maximum value of SAR (measured) = 24.4 W/kg

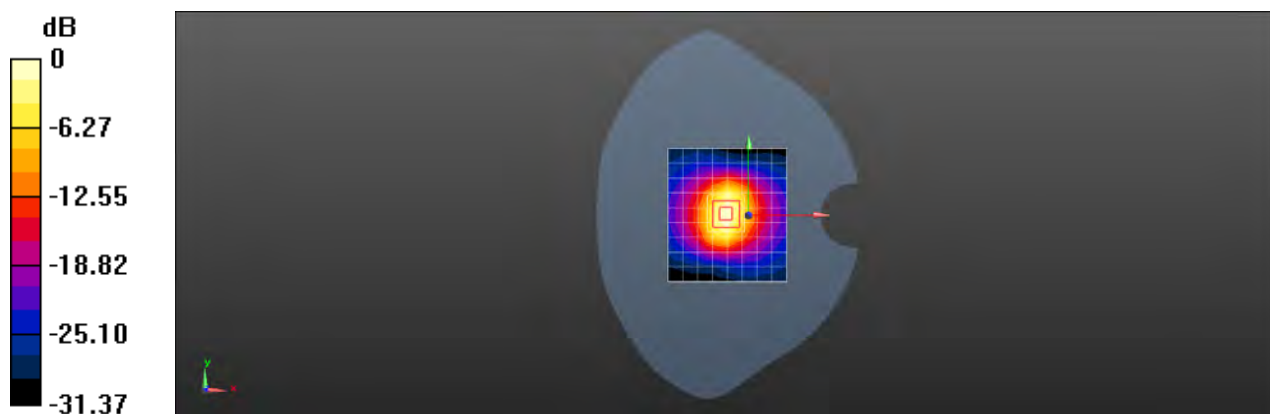
**Body/d=10mm, Pin=250mW/Zoom Scan (7x7x7)/Cube 0:** Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 94.15 V/m; Power Drift = -0.03 dB

Peak SAR (extrapolated) = 32.5 W/kg

**SAR(1 g) = 15.1 W/kg; SAR(10 g) = 6.65 W/kg**

Maximum value of SAR (measured) = 26.1 W/kg



0 dB = 24.4 W/kg = 13.88 dBW/kg

Test Laboratory: SGS-SAR Lab

## System Performance Check 2600MHz Head

**DUT: D2600V2; Type: D2600V2; Serial: 1125**

Communication System: UID 0, CW (0); Frequency: 2600 MHz; Duty Cycle: 1:1

Medium: HSL2600; Medium parameters used:  $f = 2600$  MHz;  $\sigma = 1.939$  S/m;  $\epsilon_r = 37.735$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Phantom section: Flat Section

DASY 5 Configuration:

- Probe: EX3DV4 - SN3748; ConvF(6.79, 6.79, 6.79); Calibrated: 2020-07-29;
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn414; Calibrated: 2019-12-17
- Phantom: SAM6; Type: SAM; Serial: 1824
- DASY52 52.8.8(1258); SEMCAD X 14.6.10(7331)

**Body/d=10mm, Pin=250mW/Area Scan (9x10x1):** Measurement grid: dx=12mm, dy=12mm

Maximum value of SAR (measured) = 23.9 W/kg

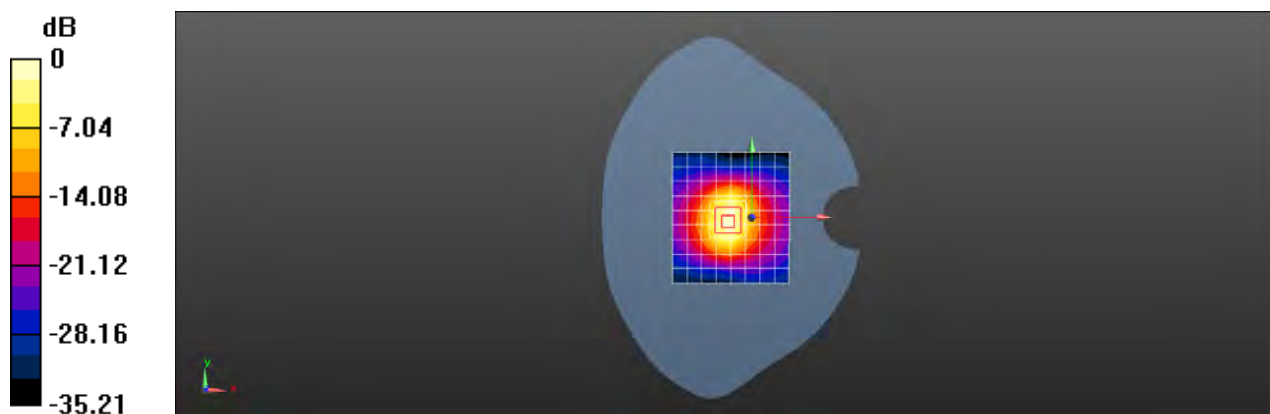
**Body/d=10mm, Pin=250mW/Zoom Scan (7x7x7)/Cube 0:** Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 92.44 V/m; Power Drift = 0.02 dB

Peak SAR (extrapolated) = 33.0 W/kg

**SAR(1 g) = 15.2 W/kg; SAR(10 g) = 6.6 W/kg**

Maximum value of SAR (measured) = 26.3 W/kg



0 dB = 23.9 W/kg = 13.78 dBW/kg

Test Laboratory: SGS-SAR Lab

## System Performance Check 2600MHz Head

**DUT: D2600V2; Type: D2600V2; Serial: 1125**

Communication System: UID 0, CW (0); Frequency: 2600 MHz; Duty Cycle: 1:1

Medium: HSL2600; Medium parameters used:  $f = 2600$  MHz;  $\sigma = 1.917$  S/m;  $\epsilon_r = 38.018$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Phantom section: Flat Section

DASY 5 Configuration:

- Probe: EX3DV4 - SN3748; ConvF(6.79, 6.79, 6.79); Calibrated: 2020-07-29;
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn414; Calibrated: 2019-12-17
- Phantom: SAM6; Type: SAM; Serial: 1824
- DASY52 52.8.8(1258); SEMCAD X 14.6.10(7331)

**Body/d=10mm, Pin=250mW/Area Scan (9x10x1):** Measurement grid: dx=12mm, dy=12mm

Maximum value of SAR (measured) = 24.0 W/kg

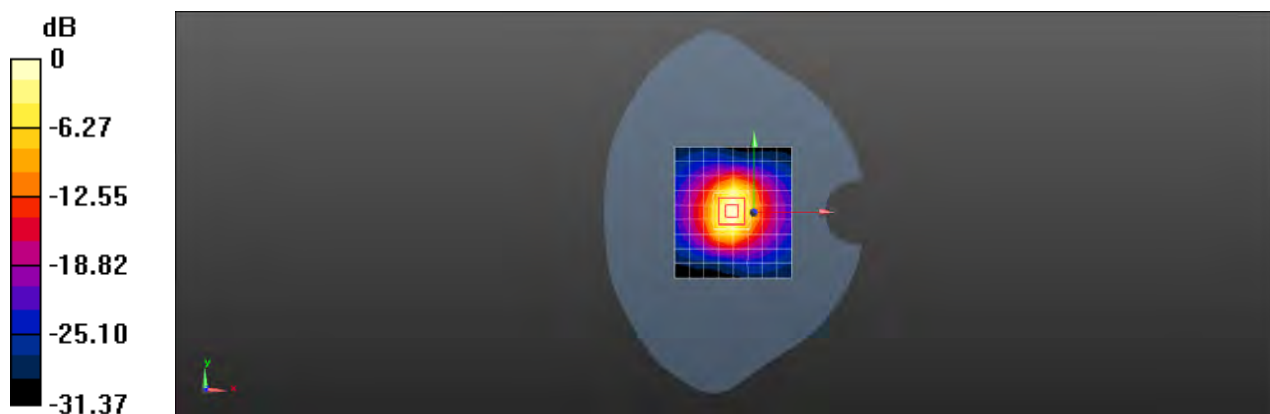
**Body/d=10mm, Pin=250mW/Zoom Scan (7x7x7)/Cube 0:** Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 94.15 V/m; Power Drift = -0.03 dB

Peak SAR (extrapolated) = 32.0 W/kg

**SAR(1 g) = 14.8 W/kg; SAR(10 g) = 6.64 W/kg**

Maximum value of SAR (measured) = 25.7 W/kg



0 dB = 24.0 W/kg = 13.81 dBW/kg

Test Laboratory: SGS-SAR Lab

## System Performance Check 5.25GHz Head

**DUT: D5GHzV2; Type: D5GHzV2; Serial: 1165**

Communication System: UID 0, CW (0); Frequency: 5250 MHz; Duty Cycle: 1:1

Medium: HSL5G; Medium parameters used:  $f = 5250$  MHz;  $\sigma = 4.715$  S/m;  $\epsilon_r = 35.824$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Phantom section: Flat Section

DASY 5 Configuration:

- Probe: EX3DV4 - SN3748; ConvF(5.05, 5.05, 5.05); Calibrated: 2020-07-29;
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn414; Calibrated: 2019-12-17
- Phantom: SAM6; Type: SAM; Serial: 1824
- DASY52 52.8.8(1258); SEMCAD X 14.6.10(7331)

**Body/d=10mm, Pin=100mW, f=5250 MHz/Area Scan (10x10x1):** Measurement grid:

dx=10mm, dy=10mm

Maximum value of SAR (measured) = 13.0 W/kg

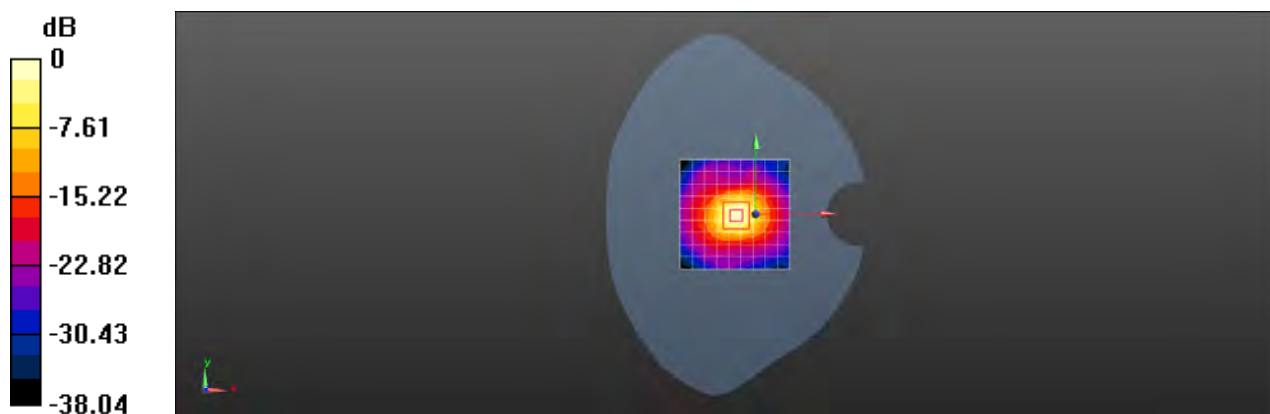
**Body/d=10mm, Pin=100mW, f=5250 MHz/Zoom Scan (8x8x7)/Cube 0:** Measurement grid: dx=4mm, dy=4mm, dz=1.4mm

Reference Value = 69.25 V/m; Power Drift = -0.06 dB

Peak SAR (extrapolated) = 31.1 W/kg

**SAR(1 g) = 7.56 W/kg; SAR(10 g) = 2.15 W/kg**

Maximum value of SAR (measured) = 17.7 W/kg



Test Laboratory: SGS-SAR Lab

## System Performance Check 5.6GHz Head

**DUT: D5GHzV2; Type: D5GHzV2; Serial: 1165**

Communication System: UID 0, CW (0); Frequency: 5600 MHz; Duty Cycle: 1:1

Medium: HSL5G; Medium parameters used:  $f = 5600$  MHz;  $\sigma = 5.101$  S/m;  $\epsilon_r = 34.871$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Phantom section: Flat Section

DASY 5 Configuration:

- Probe: EX3DV4 - SN3748; ConvF(4.64, 4.64, 4.64); Calibrated: 2020-07-29;
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn414; Calibrated: 2019-12-17
- Phantom: SAM6; Type: SAM; Serial: 1824
- DASY52 52.8.8(1258); SEMCAD X 14.6.10(7331)

**Body/d=10mm, Pin=100mW, f=5600 MHz/Area Scan (10x10x1):** Measurement grid:

dx=10mm, dy=10mm

Maximum value of SAR (measured) = 16.8 W/kg

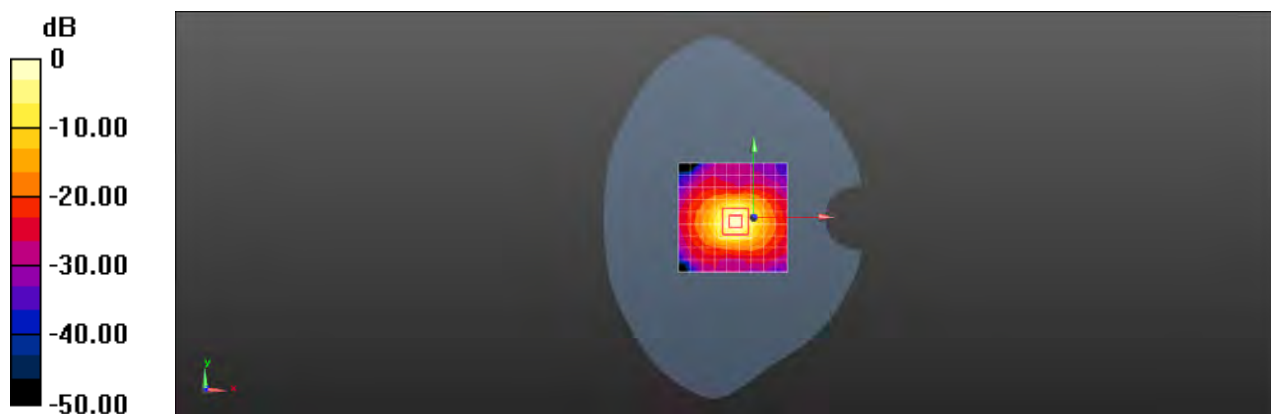
**Body/d=10mm, Pin=100mW, f=5600 MHz/Zoom Scan (8x8x7)/Cube 0:** Measurement grid: dx=4mm, dy=4mm, dz=1.4mm

Reference Value = 64.45 V/m; Power Drift = -0.11 dB

Peak SAR (extrapolated) = 35.1 W/kg

**SAR(1 g) = 7.86 W/kg; SAR(10 g) = 2.22 W/kg**

Maximum value of SAR (measured) = 19.7 W/kg



0 dB = 16.8 W/kg = 12.24 dBW/kg

Test Laboratory: SGS-SAR Lab

## System Performance Check 5.75GHz Head

**DUT: D5GHzV2; Type: D5GHzV2; Serial: 1165**

Communication System: UID 0, CW (0); Frequency: 5750 MHz; Duty Cycle: 1:1

Medium: HSL5G; Medium parameters used:  $f = 5750$  MHz;  $\sigma = 5.272$  S/m;  $\epsilon_r = 34.508$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Phantom section: Flat Section

DASY 5 Configuration:

- Probe: EX3DV4 - SN3748; ConvF(4.7, 4.7, 4.7); Calibrated: 2020-07-29;
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn414; Calibrated: 2019-12-17
- Phantom: SAM6; Type: SAM; Serial: 1824
- DASY52 52.8.8(1258); SEMCAD X 14.6.10(7331)

**Body/d=10mm, Pin=100mW, f=5750 MHz/Area Scan (10x10x1):** Measurement grid:

dx=10mm, dy=10mm

Maximum value of SAR (measured) = 19.0 W/kg

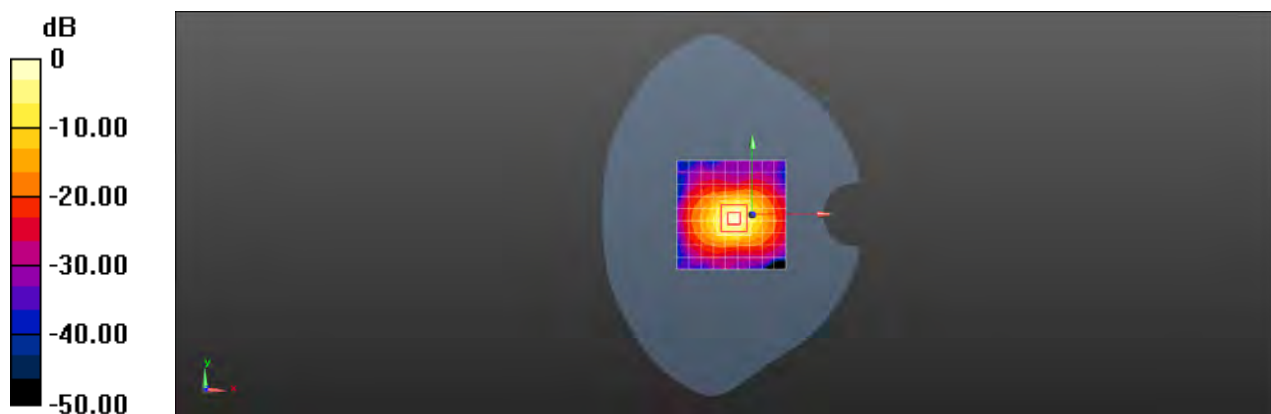
**Body/d=10mm, Pin=100mW, f=5750 MHz/Zoom Scan (8x8x7)/Cube 0:** Measurement grid: dx=4mm, dy=4mm, dz=1.4mm

Reference Value = 64.78 V/m; Power Drift = -0.09 dB

Peak SAR (extrapolated) = 37.4 W/kg

**SAR(1 g) = 8.31 W/kg; SAR(10 g) = 2.37 W/kg**

Maximum value of SAR (measured) = 20.4 W/kg





# Appendix B

## Detailed Test Results

|                               |
|-------------------------------|
| 1. GSM                        |
| GSM850 for Head & Body        |
| GSM1900 for Head & Body       |
| 2. WCDMA                      |
| WCDMA Band II for Head & Body |
| WCDMA Band IV for Head & Body |
| WCDMA Band V for Head & Body  |
| 3. LTE                        |
| LTE Band 2 for Head & Body    |
| LTE Band 4 for Head & Body    |
| LTE Band 5 for Head & Body    |
| LTE Band 7 for Head & Body    |
| LTE Band 26 for Head & Body   |
| LTE Band 38 for Head & Body   |
| LTE Band 41 for Head & Body   |
| 4. WIFI & BT                  |
| WIFI 2.4GHz for Head & Body   |
| WIFI 5GHz for Head & Body     |
| BT for Head & Body            |

Test Laboratory: SGS-SAR Lab

## XT2091-3 GSM 850 GSM 190CH Right cheek

**DUT: XT2091-3; Type: Mobile Cellular Phone; Serial: NU2E2K0299**

Communication System: UID 0, GSM Only Communication System (0); Frequency: 836.6 MHz; Duty Cycle: 1:8.30

Medium: HSL835; Medium parameters used:  $f = 837$  MHz;  $\sigma = 0.892$  S/m;  $\epsilon_r = 40.837$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Phantom section: Right Section

DASY 5 Configuration:

- Probe: EX3DV4 - SN3789; ConvF(8.53, 8.53, 8.53); Calibrated: 2020-06-16;
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1374; Calibrated: 2019-09-24
- Phantom: SAM5; Type: SAM; Serial: 1481
- DASY52 52.8.8(1258); SEMCAD X 14.6.10(7331)

**Configuration/Head/Area Scan (8x13x1):** Measurement grid:  $dx=15$ mm,  $dy=15$ mm  
Maximum value of SAR (measured) = 0.221 W/kg

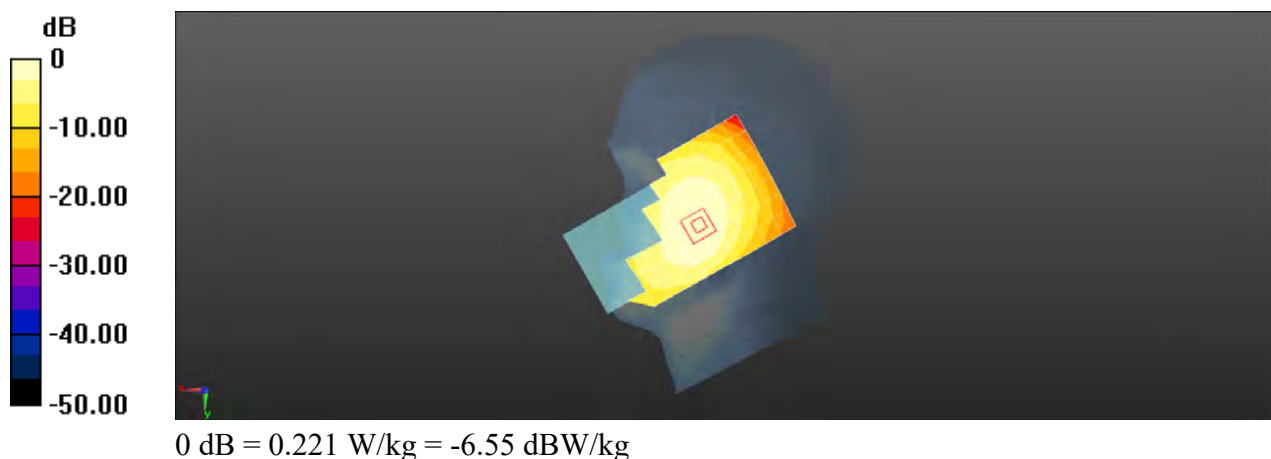
**Configuration/Head/Zoom Scan (5x5x7)/Cube 0:** Measurement grid:  $dx=8$ mm,  $dy=8$ mm,  $dz=5$ mm

Reference Value = 3.252 V/m; Power Drift = 0.02 dB

Peak SAR (extrapolated) = 0.256 W/kg

**SAR(1 g) = 0.185 W/kg; SAR(10 g) = 0.137 W/kg**

Maximum value of SAR (measured) = 0.225 W/kg



Test Laboratory: SGS-SAR Lab

## XT2091-3 GSM850 GSM 128CH Back side 5mm

**DUT: XT2091-3; Type: Mobile Cellular Phone; Serial: NU2E2K0299**

Communication System: UID 0, GSM Only Communication System (0); Frequency: 824.2 MHz; Duty Cycle: 1:8.30/P>

Medium: HSL835; Medium parameters used:  $f = 824.2$  MHz;  $\sigma = 0.884$  S/m;  $\epsilon_r = 40.921$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Phantom section: Flat Section

DASY 5 Configuration:

- Probe: EX3DV4 - SN3789; ConvF(8.53, 8.53, 8.53); Calibrated: 2020-06-16;
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1374; Calibrated: 2019-09-24
- Phantom: SAM5; Type: SAM; Serial: 1481
- DASY52 52.8.8(1258); SEMCAD X 14.6.10(7331)

**Configuration/Body/Area Scan (8x13x1):** Measurement grid: dx=15mm, dy=15mm  
Maximum value of SAR (measured) = 1.33 W/kg

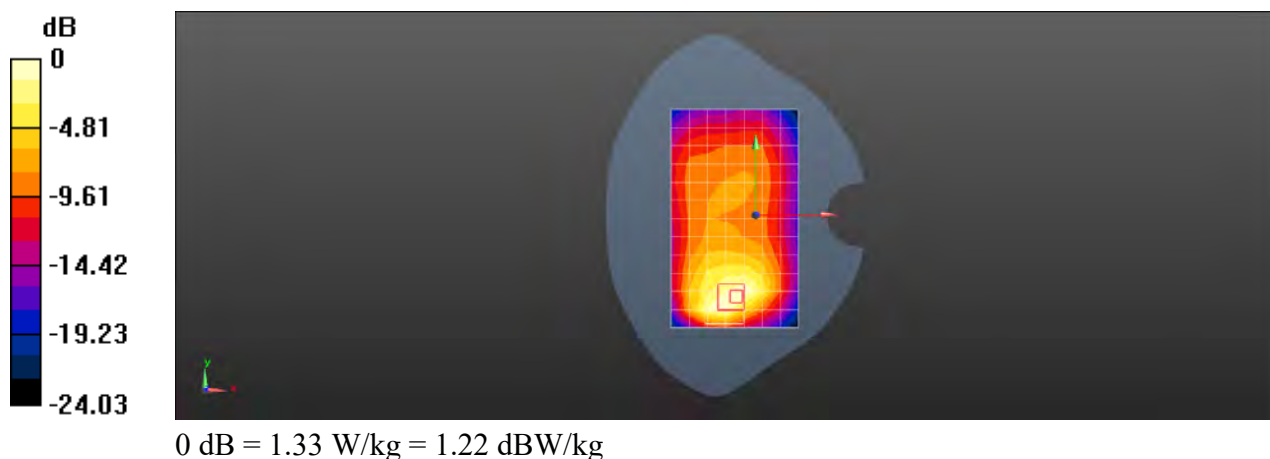
**Configuration/Body/Zoom Scan (5x5x7)/Cube 0:** Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 13.92 V/m; Power Drift = 0.05 dB

Peak SAR (extrapolated) = 1.97 W/kg

**SAR(1 g) = 0.940 W/kg; SAR(10 g) = 0.507 W/kg**

Maximum value of SAR (measured) = 1.47 W/kg



Test Laboratory: SGS-SAR Lab

## XT2091-3 GSM850 GRPS 2TS 190CH Back side 5mm

**DUT: XT2091-3; Type: Mobile Cellular Phone; Serial: NU2E2K0299**

Communication System: UID 0, GPRS/EGPRS Mode(2up) Communication System (0); Frequency: 836.6 MHz; Duty Cycle: 1:4.15

Medium: HSL835; Medium parameters used:  $f = 837$  MHz;  $\sigma = 0.892$  S/m;  $\epsilon_r = 40.837$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Phantom section: Flat Section

DASY 5 Configuration:

- Probe: EX3DV4 - SN3789; ConvF(8.53, 8.53, 8.53); Calibrated: 2020-06-16;
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1374; Calibrated: 2019-09-24
- Phantom: SAM5; Type: SAM; Serial: 1481
- DASY52 52.8.8(1258); SEMCAD X 14.6.10(7331)

**Configuration/Body/Area Scan (8x13x1):** Measurement grid:  $dx=15$ mm,  $dy=15$ mm  
Maximum value of SAR (measured) = 0.930 W/kg

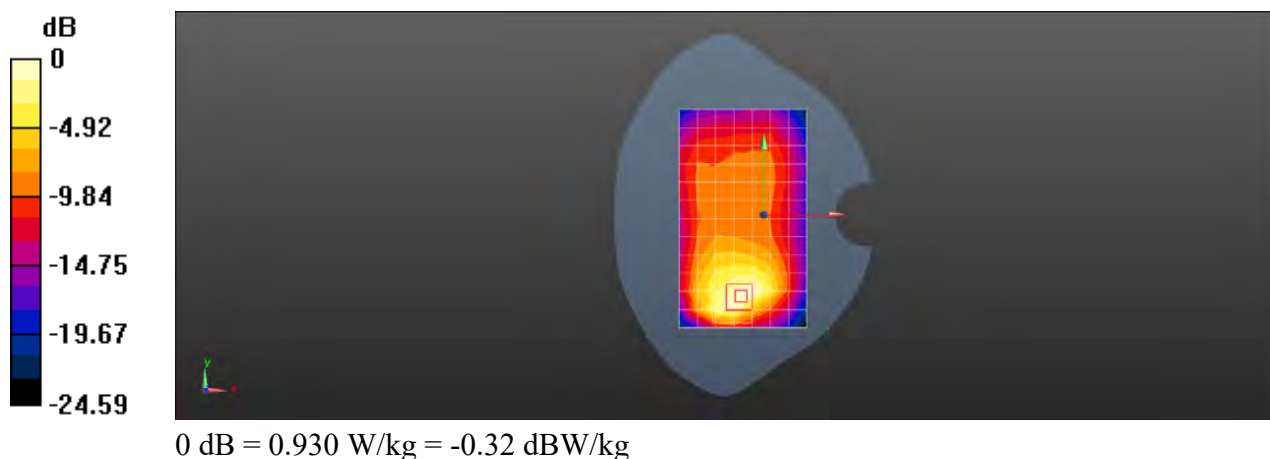
**Configuration/Body/Zoom Scan (5x5x7)/Cube 0:** Measurement grid:  $dx=8$ mm,  $dy=8$ mm,  $dz=5$ mm

Reference Value = 10.33 V/m; Power Drift = 0.14 dB

Peak SAR (extrapolated) = 1.42 W/kg

**SAR(1 g) = 0.649 W/kg; SAR(10 g) = 0.343 W/kg**

Maximum value of SAR (measured) = 1.07 W/kg



Test Laboratory: SGS-SAR Lab

## XT2091-3 GSM 850 GRPS 2TS 190CH Back side 0mm

**DUT: XT2091-3; Type: Mobile Cellular Phone; Serial: NU2E2K0299**

Communication System: UID 0, GPRS/EGPRS Mode(2up) Communication System (0); Frequency: 836.6 MHz; Duty Cycle: 1:4.15

Medium: HSL835; Medium parameters used:  $f = 837$  MHz;  $\sigma = 0.892$  S/m;  $\epsilon_r = 40.837$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Phantom section: Flat Section

DASY 5 Configuration:

- Probe: EX3DV4 - SN3789; ConvF(8.53, 8.53, 8.53); Calibrated: 2020-06-16;
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1374; Calibrated: 2019-09-24
- Phantom: SAM5; Type: SAM; Serial: 1481
- DASY52 52.8.8(1258); SEMCAD X 14.6.10(7331)

**Configuration/Body/Area Scan (8x13x1):** Measurement grid:  $dx=15$ mm,  $dy=15$ mm  
Maximum value of SAR (measured) = 1.92 W/kg

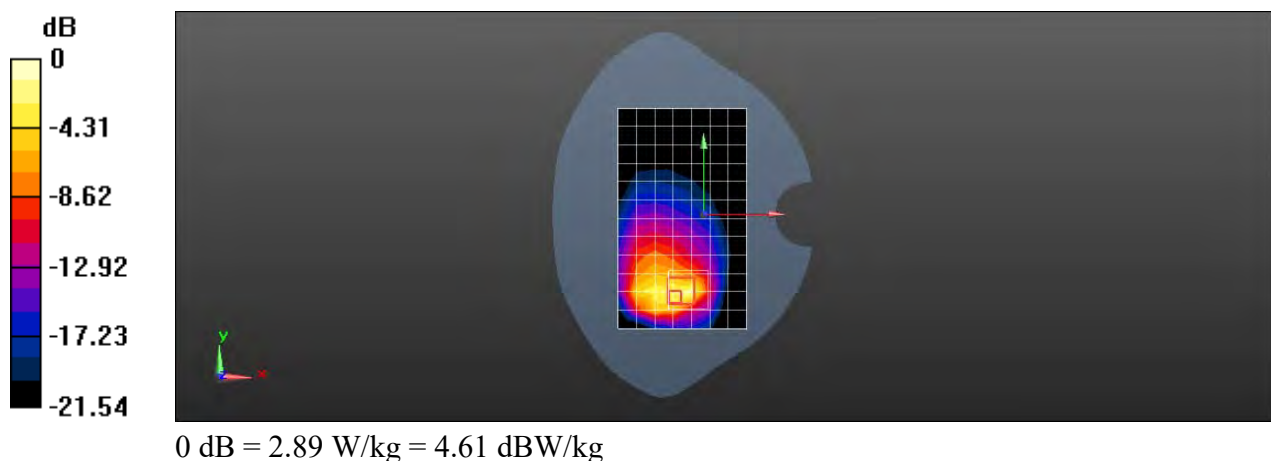
**Configuration/Body/Zoom Scan (5x5x7)/Cube 0:** Measurement grid:  $dx=8$ mm,  $dy=8$ mm,  $dz=5$ mm

Reference Value = 8.752 V/m; Power Drift = 0.10 dB

Peak SAR (extrapolated) = 4.25 W/kg

**SAR(1 g) = 1.21 W/kg; SAR(10 g) = 0.501 W/kg**

Maximum value of SAR (measured) = 2.89 W/kg



Test Laboratory: SGS-SAR Lab

## XT2091-3 GSM 1900 GSM 661CH Right cheek

**DUT: XT2091-3; Type: Mobile Cellular Phone; Serial: NU2E2K0299**

Communication System: UID 0, GSM Only Communication System (0); Frequency: 1880 MHz; Duty Cycle: 1:8.30

Medium: HSL1900; Medium parameters used:  $f = 1880$  MHz;  $\sigma = 1.408$  S/m;  $\epsilon_r = 41.51$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Phantom section: Right Section

DASY 5 Configuration:

- Probe: EX3DV4 - SN3789; ConvF(7.32, 7.32, 7.32); Calibrated: 2020-06-16;
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1374; Calibrated: 2019-09-24
- Phantom: SAM5; Type: SAM; Serial: 1481
- DASY52 52.8.8(1258); SEMCAD X 14.6.10(7331)

**Configuration/Head/Area Scan (8x13x1):** Measurement grid:  $dx=15$ mm,  $dy=15$ mm  
Maximum value of SAR (measured) = 0.119 W/kg

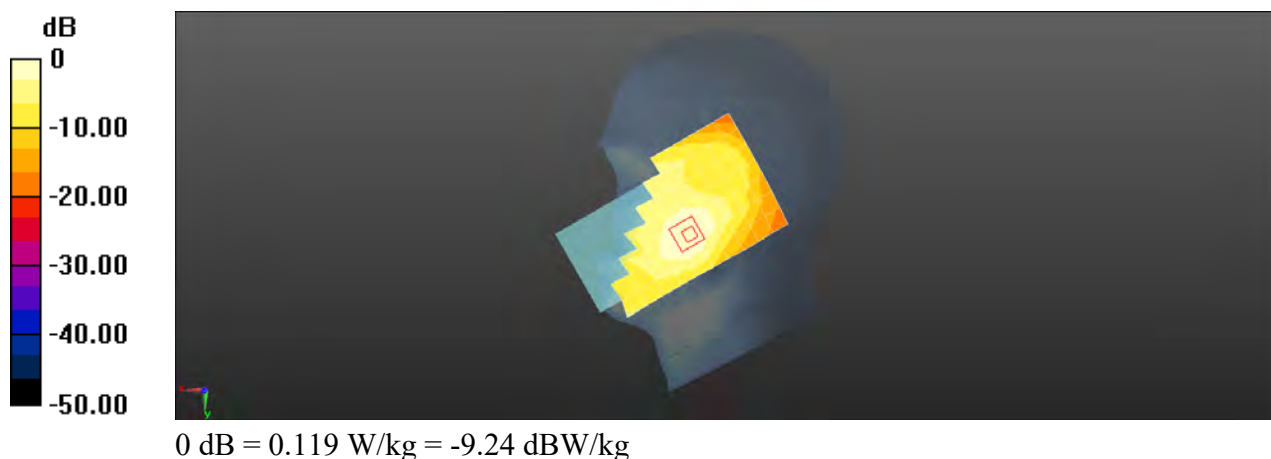
**Configuration/Head/Zoom Scan (5x5x7)/Cube 0:** Measurement grid:  $dx=8$ mm,  $dy=8$ mm,  $dz=5$ mm

Reference Value = 2.669 V/m; Power Drift = 0.01 dB

Peak SAR (extrapolated) = 0.147 W/kg

**SAR(1 g) = 0.089 W/kg; SAR(10 g) = 0.055 W/kg**

Maximum value of SAR (measured) = 0.124 W/kg



Test Laboratory: SGS-SAR Lab

## XT2091-3 GSM1900 GSM 512CH Back side 5mm

**DUT: XT2091-3; Type: Mobile Cellular Phone; Serial: NU2E2K0299**

Communication System: UID 0, GSM Only Communication System (0); Frequency: 1850.2 MHz; Duty Cycle: 1:8.30

Medium: HSL1900; Medium parameters used:  $f = 1850.2$  MHz;  $\sigma = 1.366$  S/m;  $\epsilon_r = 40.044$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Phantom section: Flat Section

DASY 5 Configuration:

- Probe: EX3DV4 - SN3789; ConvF(7.32, 7.32, 7.32); Calibrated: 2020-06-16;
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1374; Calibrated: 2019-09-24
- Phantom: SAM5; Type: SAM; Serial: 1481
- DASY52 52.8.8(1258); SEMCAD X 14.6.10(7331)

**Configuration/Body/Area Scan (8x13x1):** Measurement grid:  $dx=15$ mm,  $dy=15$ mm  
Maximum value of SAR (measured) = 1.11 W/kg

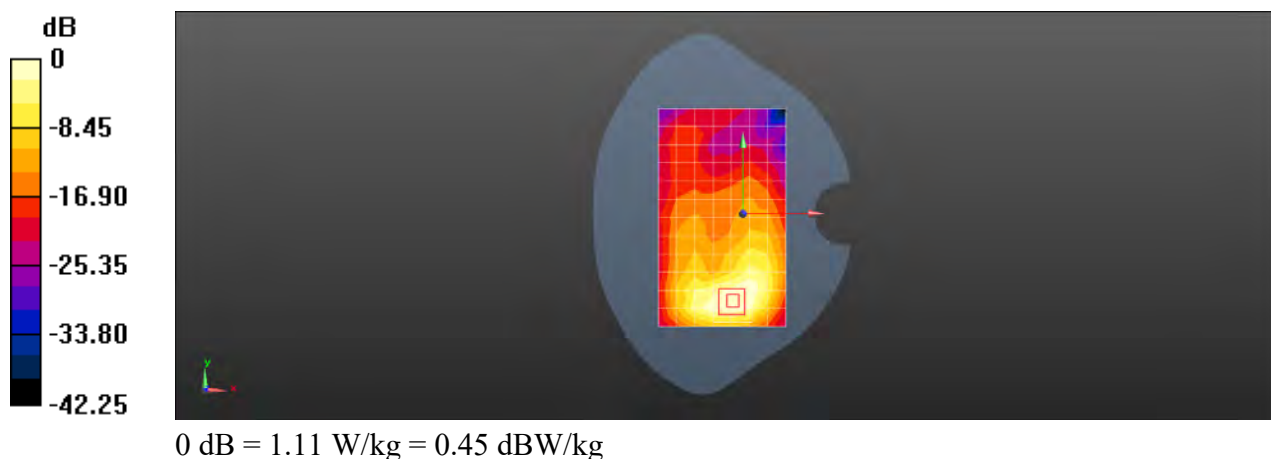
**Configuration/Body/Zoom Scan (5x5x7)/Cube 0:** Measurement grid:  $dx=8$ mm,  $dy=8$ mm,  $dz=5$ mm

Reference Value = 4.472 V/m; Power Drift = 0.10 dB

Peak SAR (extrapolated) = 2.01 W/kg

**SAR(1 g) = 1.03 W/kg; SAR(10 g) = 0.500 W/kg**

Maximum value of SAR (measured) = 1.60 W/kg



Test Laboratory: SGS-SAR Lab

## XT2091-3 GSM1900 GRPS 3TS 512CH Bottom side 5mm

**DUT: XT2091-3; Type: Mobile Cellular Phone; Serial: NU2E2K0299**

Communication System: UID 0, GPRS/EGPRS Mode(3up) Communication System (0); Frequency: 1850.2 MHz; Duty Cycle: 1:2.77

Medium: HSL1900; Medium parameters used:  $f = 1850.2$  MHz;  $\sigma = 1.366$  S/m;  $\epsilon_r = 40.044$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Phantom section: Flat Section

DASY 5 Configuration:

- Probe: EX3DV4 - SN3789; ConvF(7.32, 7.32, 7.32); Calibrated: 2020-06-16;
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1374; Calibrated: 2019-09-24
- Phantom: SAM5; Type: SAM; Serial: 1481
- DASY52 52.8.8(1258); SEMCAD X 14.6.10(7331)

**Configuration/Body/Area Scan (5x7x1):** Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (measured) = 1.43 W/kg

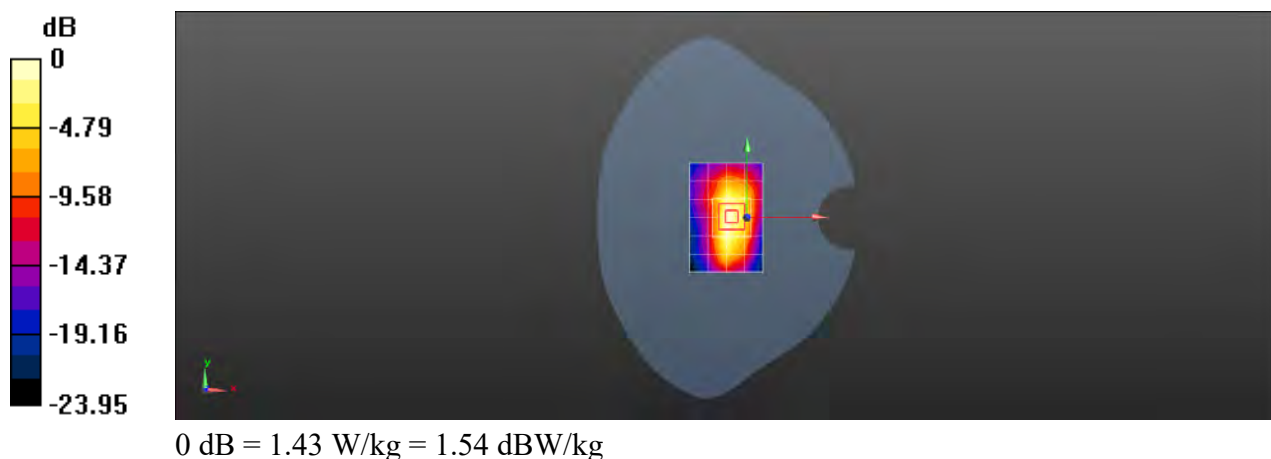
**Configuration/Body/Zoom Scan (5x5x7)/Cube 0:** Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 28.12 V/m; Power Drift = -0.06 dB

Peak SAR (extrapolated) = 2.34 W/kg

**SAR(1 g) = 1.13 W/kg; SAR(10 g) = 0.530 W/kg**

Maximum value of SAR (measured) = 1.92 W/kg



Test Laboratory: SGS-SAR Lab

## XT2091-3 GSM1900 GRPS 3TS 810CH Bottom side 0mm

**DUT: XT2091-3; Type: Mobile Cellular Phone; Serial: NU2E2K0513**

Communication System: UID 0, GPRS/EGPRS Mode(3up) Communication System (0); Frequency: 1909.8 MHz; Duty Cycle: 1:2.77

Medium: HSL1900; Medium parameters used:  $f = 1910$  MHz;  $\sigma = 1.496$  S/m;  $\epsilon_r = 39.671$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Phantom section: Flat Section

DASY 5 Configuration:

- Probe: EX3DV4 - SN3789; ConvF(7.32, 7.32, 7.32); Calibrated: 2020-06-16;
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1374; Calibrated: 2019-09-24
- Phantom: SAM5; Type: SAM; Serial: 1481
- DASY52 52.8.8(1258); SEMCAD X 14.6.10(7331)

**Configuration/Body/Area Scan (5x7x1):** Measurement grid:  $dx=15$ mm,  $dy=15$ mm

Maximum value of SAR (measured) = 11.4 W/kg

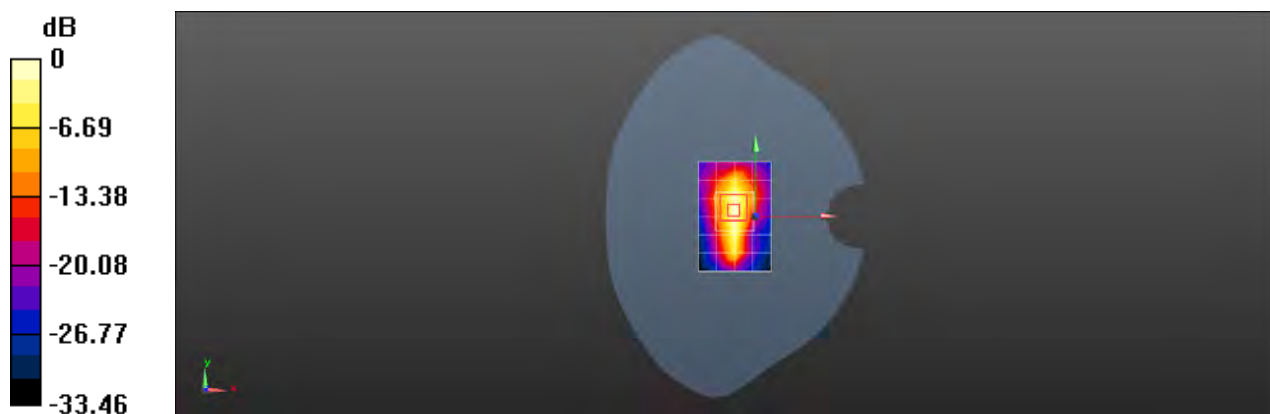
**Configuration/Body/Zoom Scan (5x5x7)/Cube 0:** Measurement grid:  $dx=8$ mm,  $dy=8$ mm,  $dz=5$ mm

Reference Value = 65.85 V/m; Power Drift = 0.16 dB

Peak SAR (extrapolated) = 17.9 W/kg

**SAR(1 g) = 6.2 W/kg; SAR(10 g) = 2.42 W/kg**

Maximum value of SAR (measured) = 14.1 W/kg



Test Laboratory: SGS-SAR Lab

## XT2091-3 WCDMA Band II 9400CH Right cheek

**DUT: XT2091-3; Type: Mobile Cellular Phone; Serial: NU2E2K0513**

Communication System: UID 0, WCDMA (0); Frequency: 1880 MHz; Duty Cycle: 1:1

Medium: HSL1900; Medium parameters used:  $f = 1880$  MHz;  $\sigma = 1.391$  S/m;  $\epsilon_r = 39.96$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Phantom section: Right Section

DASY 5 Configuration:

- Probe: EX3DV4 - SN3789; ConvF(7.32, 7.32, 7.32); Calibrated: 2020-06-16;
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1374; Calibrated: 2019-09-24
- Phantom: SAM5; Type: SAM; Serial: 1481
- DASY52 52.8.8(1258); SEMCAD X 14.6.10(7331)

**Configuration/Head/Area Scan (8x13x1):** Measurement grid:  $dx=15$ mm,  $dy=15$ mm  
Maximum value of SAR (measured) = 0.126 W/kg

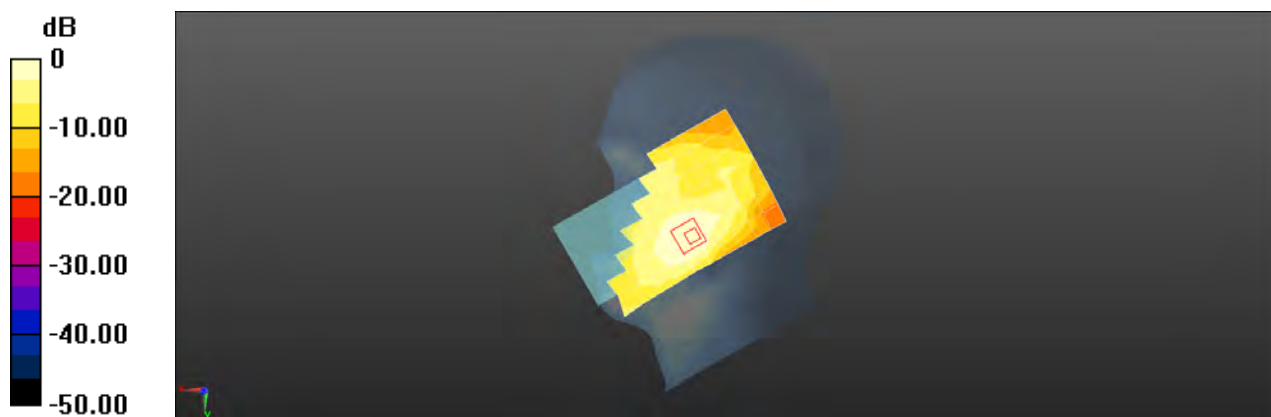
**Configuration/Head/Zoom Scan (5x5x7)/Cube 0:** Measurement grid:  $dx=8$ mm,  $dy=8$ mm,  $dz=5$ mm

Reference Value = 2.882 V/m; Power Drift = 0.09 dB

Peak SAR (extrapolated) = 0.161 W/kg

**SAR(1 g) = 0.094 W/kg; SAR(10 g) = 0.057 W/kg**

Maximum value of SAR (measured) = 0.131 W/kg



0 dB = 0.126 W/kg = -9.00 dBW/kg

Test Laboratory: SGS-SAR Lab

## XT2091-3 WCDMA Band II 9262CH Back side 5mm

**DUT: XT2091-3; Type: Mobile Cellular Phone; Serial: NU2E2K0513**

Communication System: UID 0, WCDMA (0); Frequency: 1852.4 MHz; Duty Cycle: 1:1

Medium: HSL1900; Medium parameters used (interpolated):  $f = 1852.4$  MHz;  $\sigma = 1.368$  S/m;  $\epsilon_r = 40.037$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Phantom section: Flat Section

DASY 5 Configuration:

- Probe: EX3DV4 - SN3789; ConvF(7.32, 7.32, 7.32); Calibrated: 2020-06-16;
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1374; Calibrated: 2019-09-24
- Phantom: SAM5; Type: SAM; Serial: 1481
- DASY52 52.8.8(1258); SEMCAD X 14.6.10(7331)

**Configuration/Body/Area Scan (7x13x1):** Measurement grid: dx=15mm, dy=15mm  
Maximum value of SAR (measured) = 1.00 W/kg

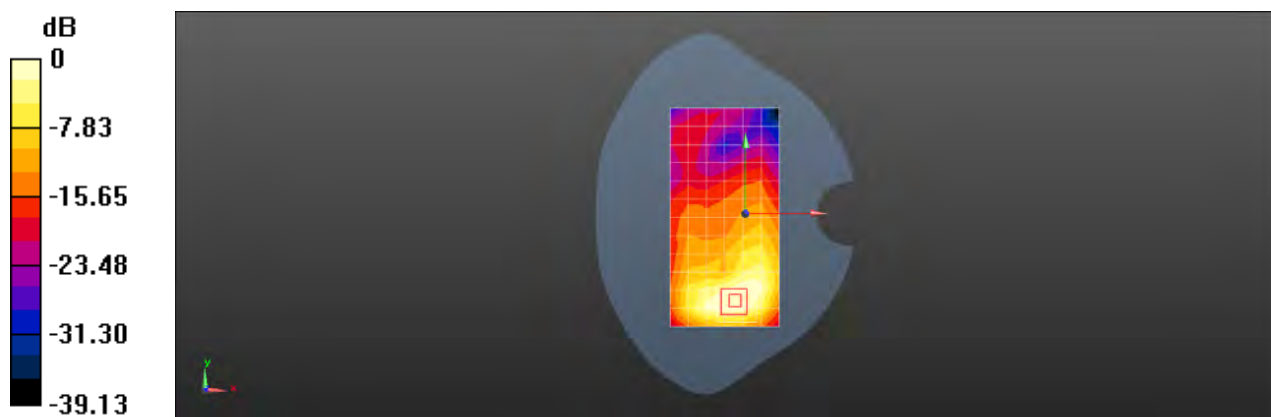
**Configuration/Body/Zoom Scan (5x5x7)/Cube 0:** Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 4.371 V/m; Power Drift = 0.09 dB

Peak SAR (extrapolated) = 1.94 W/kg

**SAR(1 g) = 0.995 W/kg; SAR(10 g) = 0.486 W/kg**

Maximum value of SAR (measured) = 1.53 W/kg



Test Laboratory: SGS-SAR Lab

## XT2091-3 WCDMA Band II 9262CH Bottom side 5mm

**DUT: XT2091-3; Type: Mobile Cellular Phone; Serial: NU2E2K0513**

Communication System: UID 0, WCDMA (0); Frequency: 1852.4 MHz; Duty Cycle: 1:1

Medium: HSL1900; Medium parameters used:  $f = 1852.4$  MHz;  $\sigma = 1.368$  S/m;  $\epsilon_r = 40.037$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Phantom section: Flat Section

DASY 5 Configuration:

- Probe: EX3DV4 - SN3789; ConvF(7.32, 7.32, 7.32); Calibrated: 2020-06-16;
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1374; Calibrated: 2019-09-24
- Phantom: SAM5; Type: SAM; Serial: 1481
- DASY52 52.8.8(1258); SEMCAD X 14.6.10(7331)

**Configuration/Body/Area Scan (5x7x1):** Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (measured) = 1.45 W/kg

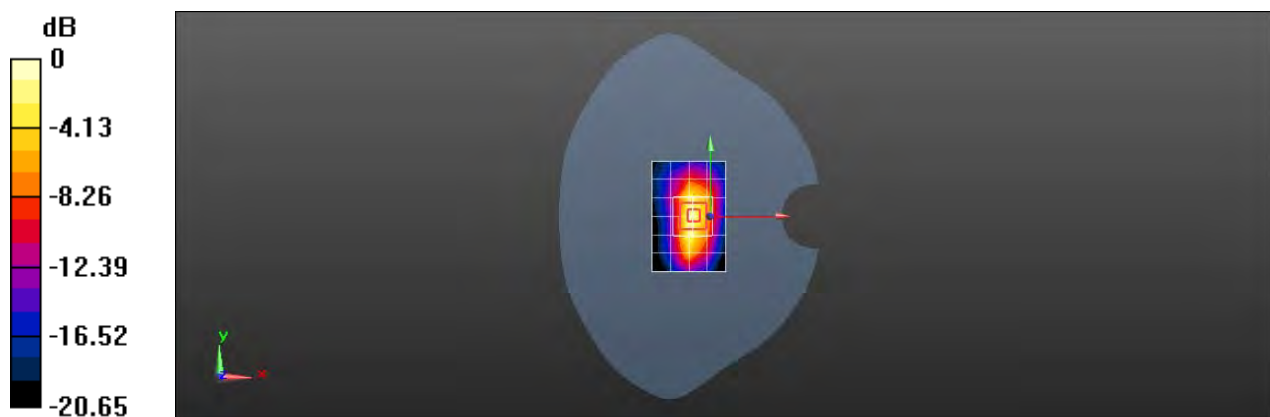
**Configuration/Body/Zoom Scan (5x5x7)/Cube 0:** Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 27.66 V/m; Power Drift = -0.18 dB

Peak SAR (extrapolated) = 2.11 W/kg

**SAR(1 g) = 1.03 W/kg; SAR(10 g) = 0.480 W/kg**

Maximum value of SAR (measured) = 1.73 W/kg



Test Laboratory: SGS-SAR Lab

## XT2091-3 WCDMA Band II 9262CH Bottom side 0mm

**DUT: XT2091-3; Type: Mobile Cellular Phone; Serial: NU2E2K0513**

Communication System: UID 0, WCDMA (0); Frequency: 1852.4 MHz; Duty Cycle: 1:1

Medium: HSL1900; Medium parameters used (interpolated):  $f = 1852.4$  MHz;  $\sigma = 1.368$  S/m;  $\epsilon_r = 40.037$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Phantom section: Flat Section

DASY 5 Configuration:

- Probe: EX3DV4 - SN3789; ConvF(7.32, 7.32, 7.32); Calibrated: 2020-06-16;
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1374; Calibrated: 2019-09-24
- Phantom: SAM5; Type: SAM; Serial: 1481
- DASY52 52.8.8(1258); SEMCAD X 14.6.10(7331)

**Configuration/Body/Area Scan (5x7x1):** Measurement grid:  $dx=15$ mm,  $dy=15$ mm  
Maximum value of SAR (measured) = 7.15 W/kg

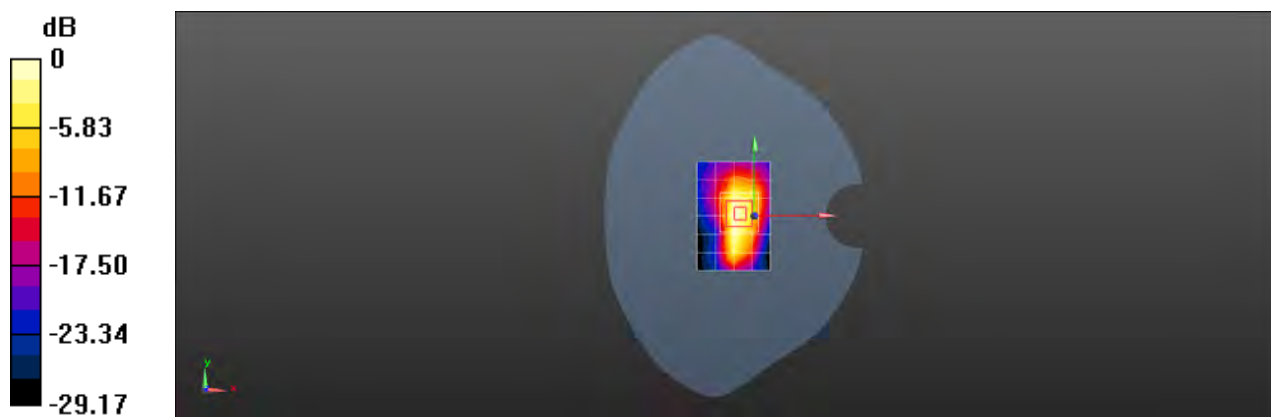
**Configuration/Body/Zoom Scan (5x5x7)/Cube 0:** Measurement grid:  $dx=8$ mm,  $dy=8$ mm,  $dz=5$ mm

Reference Value = 62.67 V/m; Power Drift = -0.03 dB

Peak SAR (extrapolated) = 17.8 W/kg

**SAR(1 g) = 6.71 W/kg; SAR(10 g) = 2.66 W/kg**

Maximum value of SAR (measured) = 14.3 W/kg



Test Laboratory: SGS-SAR Lab

## XT2091-3 WCDMA Band IV 1412CH Right cheek

**DUT: XT2091-3; Type: Mobile Cellular Phone; Serial: NU2E2K0513**

Communication System: UID 0, WCDMA (0); Frequency: 1732.4 MHz; Duty Cycle: 1:1

Medium: HSL1750; Medium parameters used (interpolated):  $f = 1732.4$  MHz;  $\sigma = 1.32$  S/m;  $\epsilon_r = 40.265$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Phantom section: Right Section

DASY 5 Configuration:

- Probe: EX3DV4 - SN3789; ConvF(7.61, 7.61, 7.61); Calibrated: 2020-06-16;
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1374; Calibrated: 2019-09-24
- Phantom: SAM5; Type: SAM; Serial: 1481
- DASY52 52.8.8(1258); SEMCAD X 14.6.10(7331)

**Configuration/Head/Area Scan (8x13x1):** Measurement grid:  $dx=15$ mm,  $dy=15$ mm  
Maximum value of SAR (measured) = 0.213 W/kg

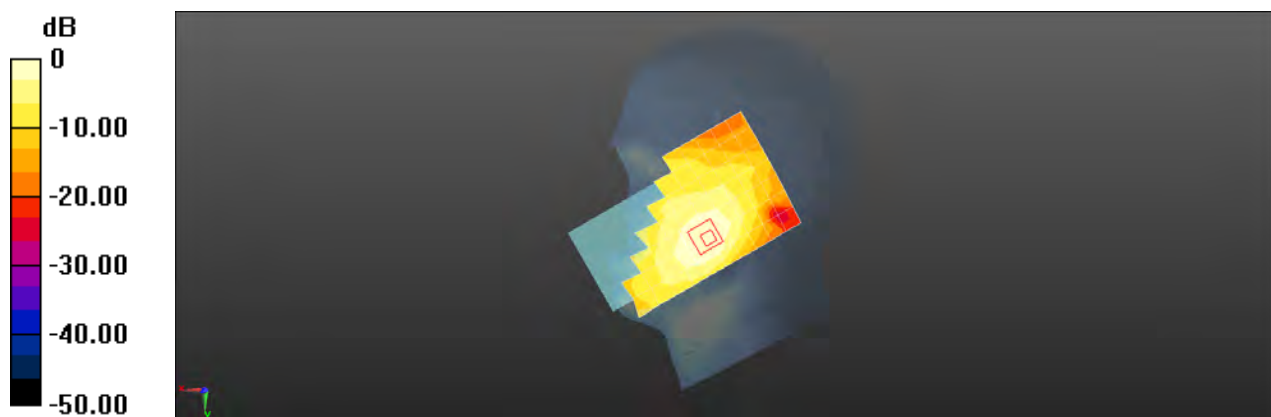
**Configuration/Head/Zoom Scan (5x5x7)/Cube 0:** Measurement grid:  $dx=8$ mm,  $dy=8$ mm,  $dz=5$ mm

Reference Value = 2.799 V/m; Power Drift = 0.02 dB

Peak SAR (extrapolated) = 0.255 W/kg

**SAR(1 g) = 0.151 W/kg; SAR(10 g) = 0.093 W/kg**

Maximum value of SAR (measured) = 0.206 W/kg



0 dB = 0.213 W/kg = -6.73 dBW/kg

Test Laboratory: SGS-SAR Lab

## XT2091-3 WCDMA Band IV 1513CH Back side 5mm

**DUT: XT2091-3; Type: Mobile Cellular Phone; Serial: NU2E2K0513**

Communication System: UID 0, WCDMA (0); Frequency: 1752.6 MHz; Duty Cycle: 1:1

Medium: HSL1750; Medium parameters used:  $f = 1753$  MHz;  $\sigma = 1.341$  S/m;  $\epsilon_r = 40.204$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Phantom section: Flat Section

DASY 5 Configuration:

- Probe: EX3DV4 - SN3789; ConvF(7.61, 7.61, 7.61); Calibrated: 2020-06-16;
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1374; Calibrated: 2019-09-24
- Phantom: SAM5; Type: SAM; Serial: 1481
- DASY52 52.8.8(1258); SEMCAD X 14.6.10(7331)

**Configuration/Body/Area Scan (7x13x1):** Measurement grid: dx=15mm, dy=15mm  
Maximum value of SAR (measured) = 1.27 W/kg

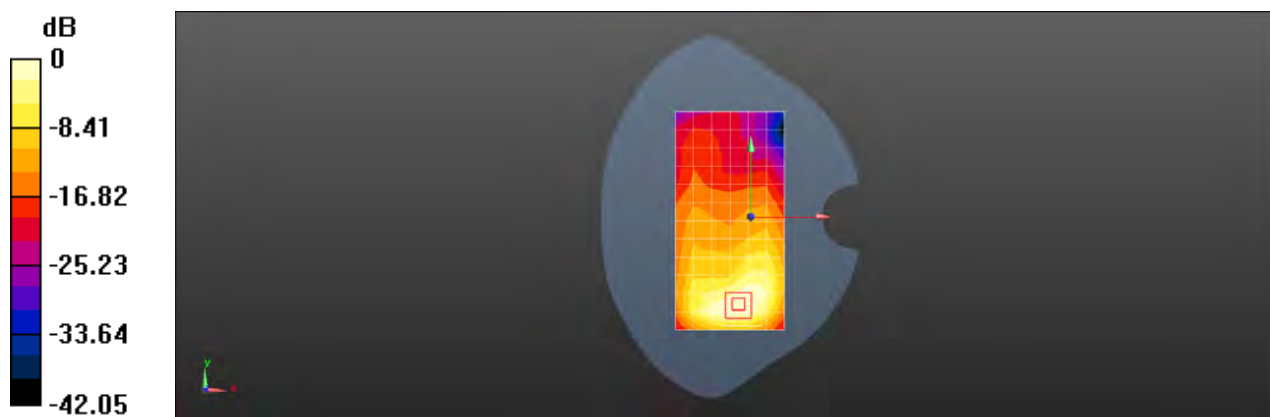
**Configuration/Body/Zoom Scan (5x5x7)/Cube 0:** Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 5.157 V/m; Power Drift = 0.01 dB

Peak SAR (extrapolated) = 2.15 W/kg

**SAR(1 g) = 1.15 W/kg; SAR(10 g) = 0.586 W/kg**

Maximum value of SAR (measured) = 1.73 W/kg



Test Laboratory: SGS-SAR Lab

## XT2091-3 WCDMA Band IV 1513CH Back side 0mm

**DUT: XT2091-3; Type: Mobile Cellular Phone; Serial: NU2E2K0513**

Communication System: UID 0, WCDMA (0); Frequency: 1752.6 MHz; Duty Cycle: 1:1

Medium: HSL1750; Medium parameters used:  $f = 1753$  MHz;  $\sigma = 1.341$  S/m;  $\epsilon_r = 40.204$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Phantom section: Flat Section

DASY 5 Configuration:

- Probe: EX3DV4 - SN3789; ConvF(7.61, 7.61, 7.61); Calibrated: 2020-06-16;
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1374; Calibrated: 2019-09-24
- Phantom: SAM5; Type: SAM; Serial: 1481
- DASY52 52.8.8(1258); SEMCAD X 14.6.10(7331)

**Configuration/Body/Area Scan (7x13x1):** Measurement grid: dx=15mm, dy=15mm  
Maximum value of SAR (measured) = 6.96 W/kg

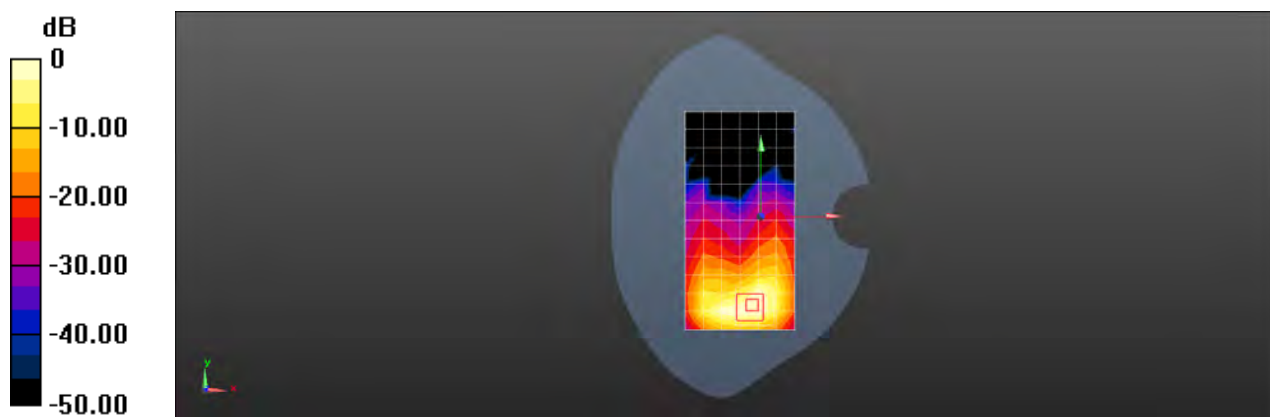
**Configuration/Body/Zoom Scan (5x5x7)/Cube 0:** Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 2.260 V/m; Power Drift = 0.04 dB

Peak SAR (extrapolated) = 19.1 W/kg

**SAR(1 g) = 6.21 W/kg; SAR(10 g) = 2.64 W/kg**

Maximum value of SAR (measured) = 11.6 W/kg



0 dB = 6.96 W/kg = 8.43 dBW/kg

Test Laboratory: SGS-SAR Lab

## XT2091-3 WCDMA Band V 4182CH Right cheek

**DUT: XT2091-3; Type: Mobile Cellular Phone; Serial: NU2E2K0513**

Communication System: UID 0, WCDMA (0); Frequency: 836.4 MHz; Duty Cycle: 1:1

Medium: HSL835; Medium parameters used (interpolated):  $f = 836.4$  MHz;  $\sigma = 0.901$  S/m;  $\epsilon_r = 42.051$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Phantom section: Right Section

DASY 5 Configuration:

- Probe: EX3DV4 - SN3789; ConvF(8.53, 8.53, 8.53); Calibrated: 2020-06-16;
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1374; Calibrated: 2019-09-24
- Phantom: SAM5; Type: SAM; Serial: 1481
- DASY52 52.8.8(1258); SEMCAD X 14.6.10(7331)

**Configuration/Head/Area Scan (8x13x1):** Measurement grid:  $dx=15$ mm,  $dy=15$ mm  
Maximum value of SAR (measured) = 0.279 W/kg

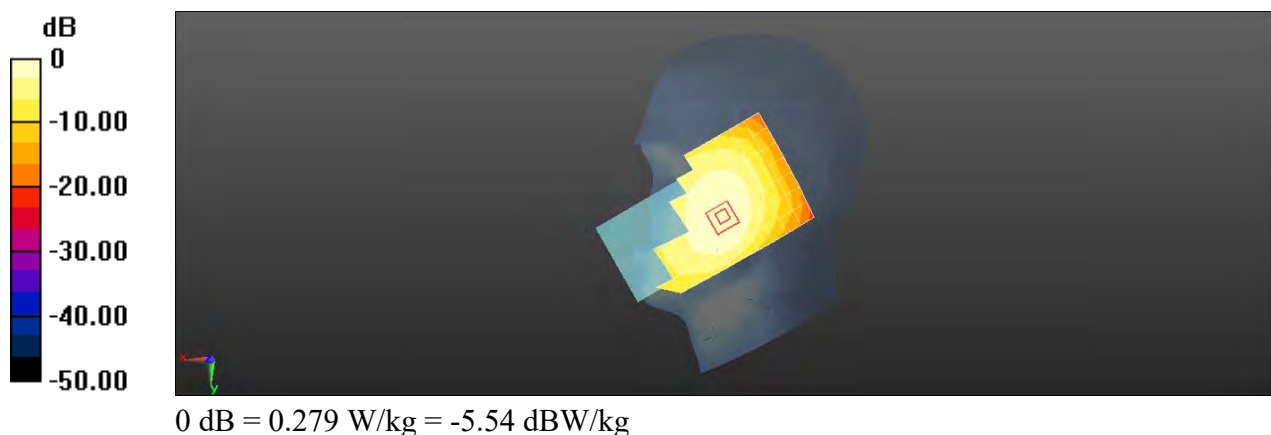
**Configuration/Head/Zoom Scan (5x5x7)/Cube 0:** Measurement grid:  $dx=8$ mm,  $dy=8$ mm,  $dz=5$ mm

Reference Value = 3.931 V/m; Power Drift = 0.08 dB

Peak SAR (extrapolated) = 0.315 W/kg

**SAR(1 g) = 0.229 W/kg; SAR(10 g) = 0.170 W/kg**

Maximum value of SAR (measured) = 0.277 W/kg



Test Laboratory: SGS-SAR Lab

## XT2091-3 WCDMA Band V 4132CH Back side 5mm

**DUT: XT2091-3; Type: Mobile Cellular Phone; Serial: NU2E2K0513**

Communication System: UID 0, WCDMA (0); Frequency: 826.4 MHz; Duty Cycle: 1:1

Medium: HSL835; Medium parameters used (interpolated):  $f = 826.4$  MHz;  $\sigma = 0.894$  S/m;  $\epsilon_r = 42.097$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Phantom section: Flat Section

DASY 5 Configuration:

- Probe: EX3DV4 - SN3789; ConvF(8.53, 8.53, 8.53); Calibrated: 2020-06-16;
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1374; Calibrated: 2019-09-24
- Phantom: SAM5; Type: SAM; Serial: 1481
- DASY52 52.8.8(1258); SEMCAD X 14.6.10(7331)

**Configuration/Body/Area Scan (8x13x1):** Measurement grid: dx=15mm, dy=15mm  
Maximum value of SAR (measured) = 1.60 W/kg

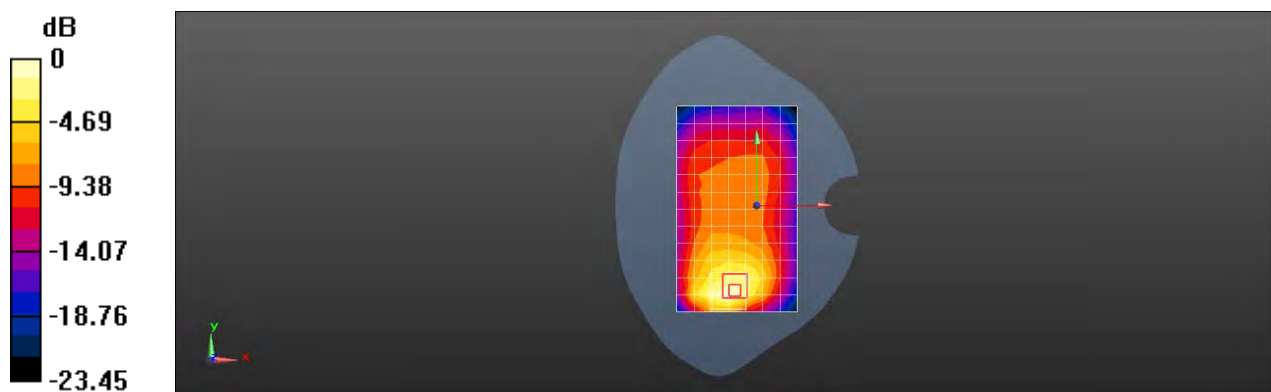
**Configuration/Body/Zoom Scan (5x5x7)/Cube 0:** Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 14.91 V/m; Power Drift = -0.02 dB

Peak SAR (extrapolated) = 2.07 W/kg

**SAR(1 g) = 0.969 W/kg; SAR(10 g) = 0.532 W/kg**

Maximum value of SAR (measured) = 1.61 W/kg



0 dB = 1.60 W/kg = 2.05 dBW/kg

Test Laboratory: SGS-SAR Lab

## XT2091-3 LTE Band 2 20M QPSK 1RB0 19100CH Right cheek

**DUT: XT2091-3; Type: Mobile Cellular Phone; Serial: NU2E2K0299**

Communication System: UID 0, LTE-FDD BW 20MHz (0); Frequency: 1900 MHz; Duty Cycle: 1:1

Medium: HSL1900; Medium parameters used:  $f = 1900$  MHz;  $\sigma = 1.389$  S/m;  $\epsilon_r = 40.284$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Phantom section: Right Section

DASY 5 Configuration:

- Probe: EX3DV4 - SN3789; ConvF(7.32, 7.32, 7.32); Calibrated: 2020-06-16;
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1374; Calibrated: 2019-09-24
- Phantom: SAM5; Type: SAM; Serial: 1481
- DASY52 52.8.8(1258); SEMCAD X 14.6.10(7331)

**Configuration/Head/Area Scan (8x14x1):** Measurement grid:  $dx=15$ mm,  $dy=15$ mm  
Maximum value of SAR (measured) = 0.197 W/kg

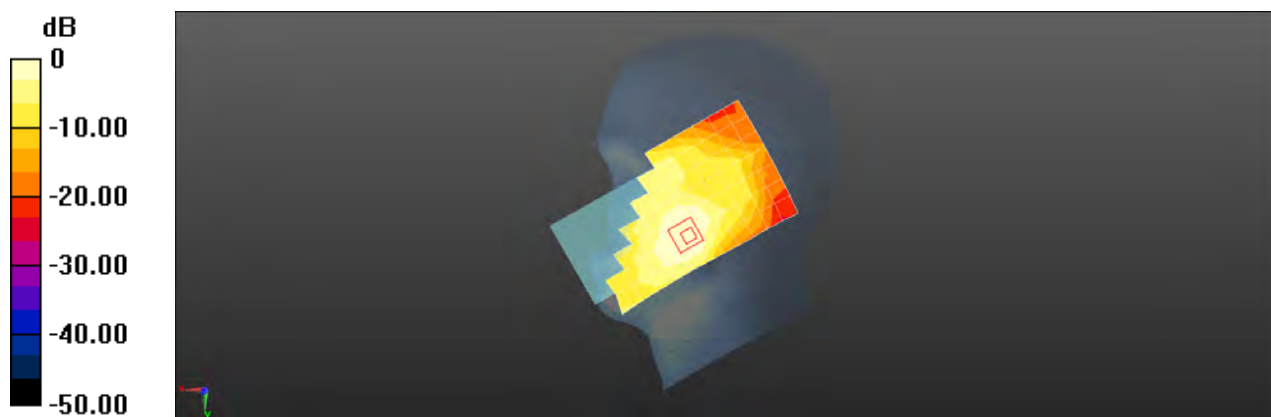
**Configuration/Head/Zoom Scan (5x5x7)/Cube 0:** Measurement grid:  $dx=8$ mm,  $dy=8$ mm,  $dz=5$ mm

Reference Value = 3.519 V/m; Power Drift = 0.07 dB

Peak SAR (extrapolated) = 0.239 W/kg

**SAR(1 g) = 0.151 W/kg; SAR(10 g) = 0.096 W/kg**

Maximum value of SAR (measured) = 0.201 W/kg



0 dB = 0.197 W/kg = -7.06 dBW/kg

Test Laboratory: SGS-SAR Lab

## XT2091-3 LTE Band 2 20M QPSK 100RB0 18700CH Back side 5mm

**DUT: XT2091-3; Type: Mobile Cellular Phone; Serial: NU2E2K0299**

Communication System: UID 0, LTE-FDD BW 20MHz (0); Frequency: 1860 MHz; Duty Cycle: 1:1

Medium: HSL1900; Medium parameters used:  $f = 1860$  MHz;  $\sigma = 1.375$  S/m;  $\epsilon_r = 40.009$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Phantom section: Flat Section

DASY 5 Configuration:

- Probe: EX3DV4 - SN3789; ConvF(7.32, 7.32, 7.32); Calibrated: 2020-06-16;
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1374; Calibrated: 2019-09-24
- Phantom: SAM5; Type: SAM; Serial: 1481
- DASY52 52.8.8(1258); SEMCAD X 14.6.10(7331)

**Configuration/Body/Area Scan (8x13x1):** Measurement grid: dx=15mm, dy=15mm  
Maximum value of SAR (measured) = 1.26 W/kg

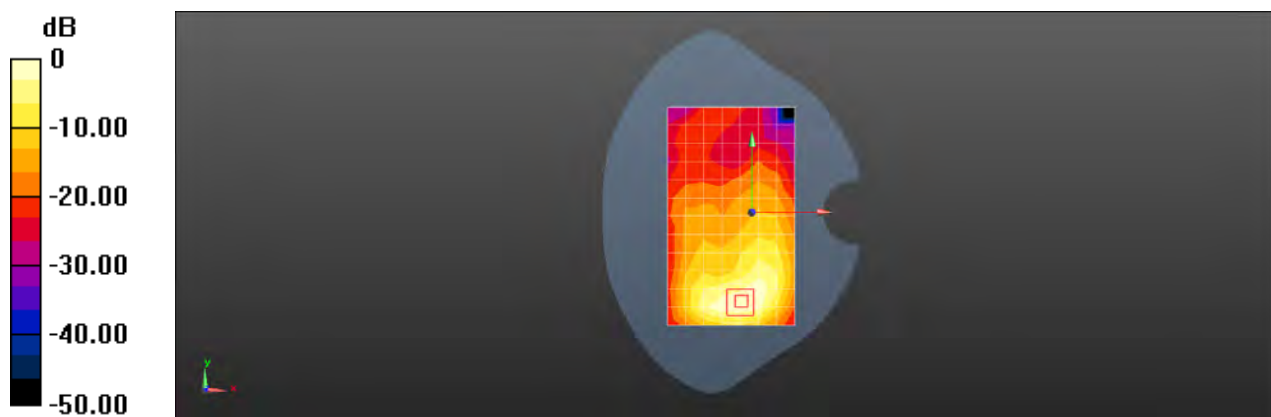
**Configuration/Body/Zoom Scan (5x5x7)/Cube 0:** Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 4.228 V/m; Power Drift = -0.12 dB

Peak SAR (extrapolated) = 2.05 W/kg

**SAR(1 g) = 1.04 W/kg; SAR(10 g) = 0.501 W/kg**

Maximum value of SAR (measured) = 1.58 W/kg



Test Laboratory: SGS-SAR Lab

## **XT2091-3 LTE Band 2 20M QPSK 50RB50 18900CH Bottom side 5mm**

**DUT: XT2091-3; Type: Mobile Cellular Phone; Serial: NU2E2K0299**

Communication System: UID 0, LTE-FDD BW 20MHz (0); Frequency: 1880 MHz; Duty Cycle: 1:1

Medium: HSL1900; Medium parameters used:  $f = 1880$  MHz;  $\sigma = 1.391$  S/m;  $\epsilon_r = 39.96$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Phantom section: Flat Section

DASY 5 Configuration:

- Probe: EX3DV4 - SN3789; ConvF(7.32, 7.32, 7.32); Calibrated: 2020-06-16;
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1374; Calibrated: 2019-09-24
- Phantom: SAM5; Type: SAM; Serial: 1481
- DASY52 52.8.8(1258); SEMCAD X 14.6.10(7331)

**Configuration/Body/Area Scan (5x7x1):** Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (measured) = 1.70 W/kg

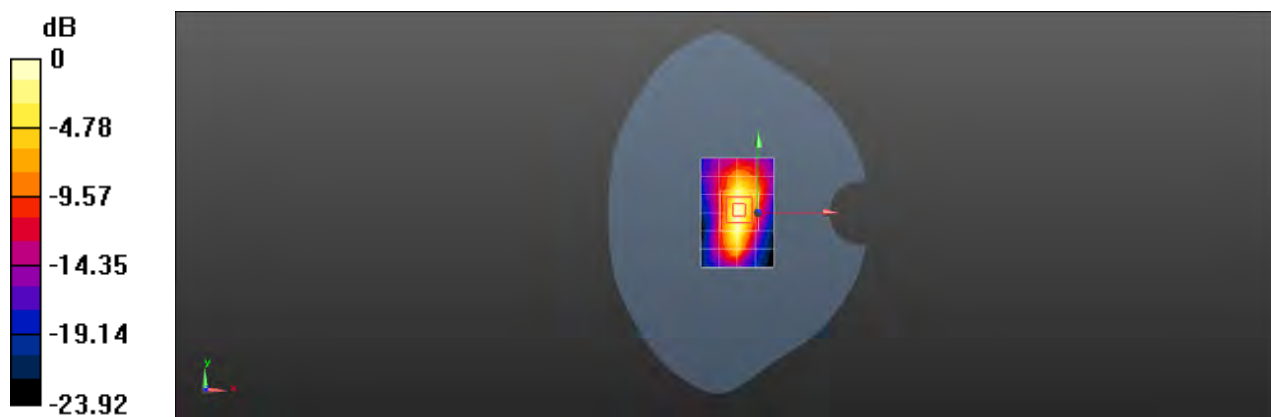
**Configuration/Body/Zoom Scan (5x5x7)/Cube 0:** Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 28.80 V/m; Power Drift = -0.12 dB

Peak SAR (extrapolated) = 2.19 W/kg

**SAR(1 g) = 1.01 W/kg; SAR(10 g) = 0.463 W/kg**

Maximum value of SAR (measured) = 1.77 W/kg



0 dB = 1.70 W/kg = 2.31 dBW/kg

Test Laboratory: SGS-SAR Lab

## **XT2091-3 LTE Band 2 20M QPSK 100RB0 19100CH Bottom side 0mm**

**DUT: XT2091-3; Type: Mobile Cellular Phone; Serial: NU2E2K0299**

Communication System: UID 0, LTE-FDD BW 20MHz (0); Frequency: 1900 MHz; Duty Cycle: 1:1

Medium: HSL1900; Medium parameters used:  $f = 1900$  MHz;  $\sigma = 1.374$  S/m;  $\epsilon_r = 39.917$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Phantom section: Flat Section

DASY 5 Configuration:

- Probe: EX3DV4 - SN3789; ConvF(7.32, 7.32, 7.32); Calibrated: 2020-06-16;
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1374; Calibrated: 2019-09-24
- Phantom: SAM5; Type: SAM; Serial: 1481
- DASY52 52.8.8(1258); SEMCAD X 14.6.10(7331)

**Configuration/Body/Area Scan (5x7x1):** Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (measured) = 7.10 W/kg

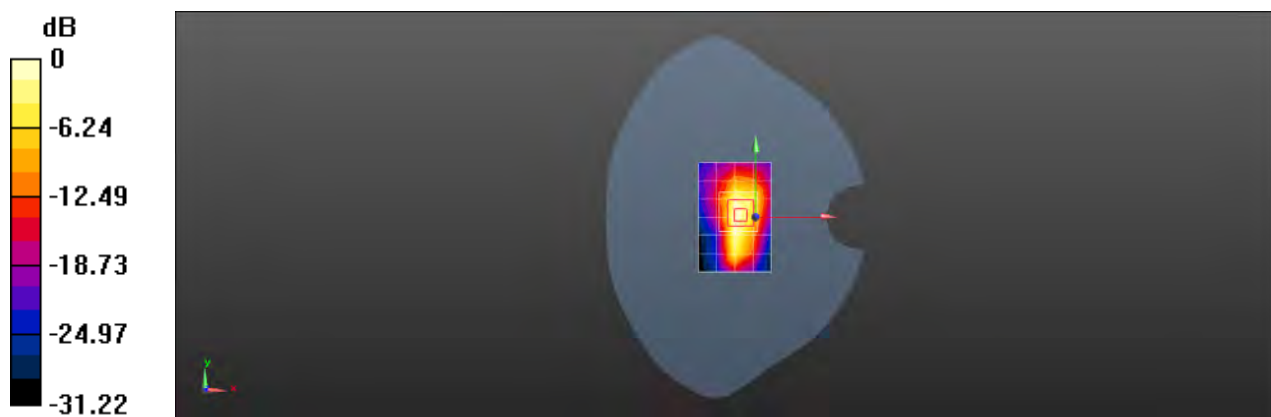
**Configuration/Body/Zoom Scan (5x5x7)/Cube 0:** Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 61.16 V/m; Power Drift = -0.05 dB

Peak SAR (extrapolated) = 15.7 W/kg

**SAR(1 g) = 6.09 W/kg; SAR(10 g) = 2.44 W/kg**

Maximum value of SAR (measured) = 10.9 W/kg



Test Laboratory: SGS-SAR Lab

## XT2091-3 LTE Band 4 20M QPSK 1RB99 20175CH Right cheek

**DUT: XT2091-3; Type: Mobile Cellular Phone; Serial: NU2E2K0513**

Communication System: UID 0, LTE-FDD BW 20MHz (0); Frequency: 1732.5 MHz; Duty Cycle: 1:1

Medium: HSL1750; Medium parameters used (interpolated):  $f = 1732.5$  MHz;  $\sigma = 1.321$  S/m;  $\epsilon_r = 40.264$ ;  $\rho = 1000$  kg/m<sup>3</sup>  
Phantom section: Right Section

DASY 5 Configuration:

- Probe: EX3DV4 - SN3789; ConvF(7.61, 7.61, 7.61); Calibrated: 2020-06-16;
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1374; Calibrated: 2019-09-24
- Phantom: SAM5; Type: SAM; Serial: 1481
- DASY52 52.8.8(1258); SEMCAD X 14.6.10(7331)

**Configuration/Head/Area Scan (8x13x1):** Measurement grid: dx=15mm, dy=15mm  
Maximum value of SAR (measured) = 0.182 W/kg

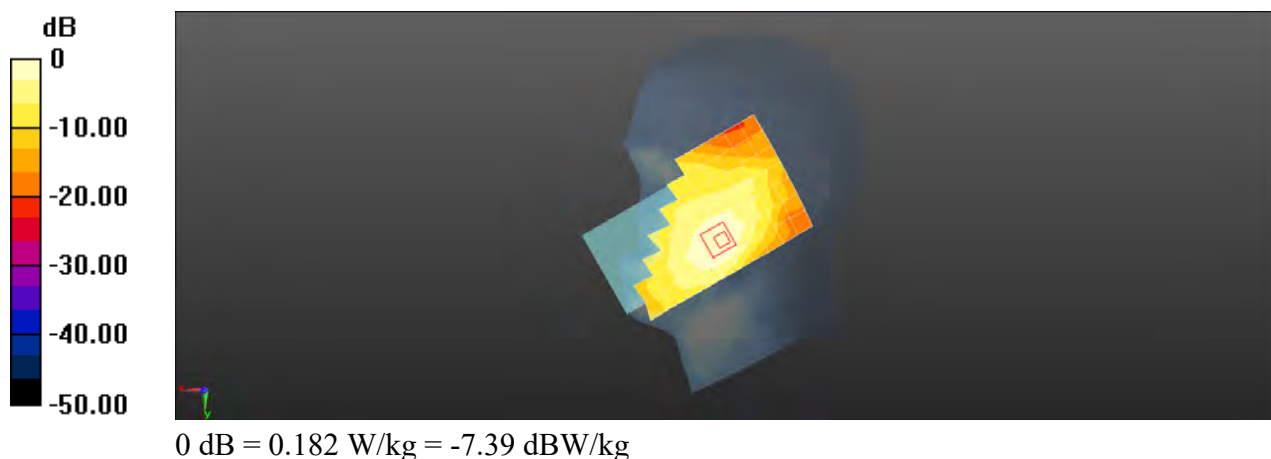
**Configuration/Head/Zoom Scan (5x5x7)/Cube 0:** Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 2.855 V/m; Power Drift = 0.07 dB

Peak SAR (extrapolated) = 0.210 W/kg

**SAR(1 g) = 0.127 W/kg; SAR(10 g) = 0.079 W/kg**

Maximum value of SAR (measured) = 0.172 W/kg



Test Laboratory: SGS-SAR Lab

## **XT2091-3 LTE Band 4 20M QPSK 50RB50 20050CH Back side 5mm**

**DUT: XT2091-3; Type: Mobile Cellular Phone; Serial: NU2E2K0513**

Communication System: UID 0, LTE-FDD BW 20MHz (0); Frequency: 1720 MHz;Duty Cycle: 1:1

Medium: HSL1750;Medium parameters used:  $f = 1720$  MHz;  $\sigma = 1.309$  S/m;  $\epsilon_r = 40.247$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Phantom section: Flat Section

DASY 5 Configuration:

- Probe: EX3DV4 - SN3789; ConvF(7.61, 7.61, 7.61); Calibrated: 2020-06-16;
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1374; Calibrated: 2019-09-24
- Phantom: SAM5; Type: SAM; Serial: 1481
- DASY52 52.8.8(1258); SEMCAD X 14.6.10(7331)

**Configuration/Body/Area Scan (8x14x1):** Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (measured) = 1.41 W/kg

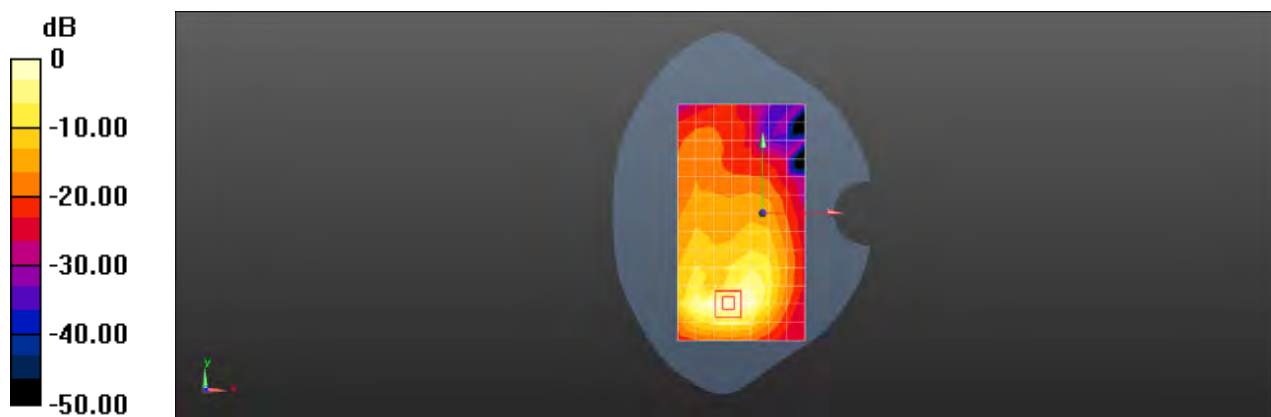
**Configuration/Body/Zoom Scan (5x5x7)/Cube 0:** Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 5.524 V/m; Power Drift = -0.08 dB

Peak SAR (extrapolated) = 1.67 W/kg

**SAR(1 g) = 0.900 W/kg; SAR(10 g) = 0.459 W/kg**

Maximum value of SAR (measured) = 1.38 W/kg



Test Laboratory: SGS-SAR Lab

## **XT2091-3 LTE Band 4 20M QPSK 50RB50 20050CH Bottom side 5mm**

**DUT: XT2091-3; Type: Mobile Cellular Phone; Serial: NU2E2K0513**

Communication System: UID 0, LTE-FDD BW 20MHz (0); Frequency: 1720 MHz; Duty Cycle: 1:1

Medium: HSL1750; Medium parameters used:  $f = 1720$  MHz;  $\sigma = 1.309$  S/m;  $\epsilon_r = 40.247$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Phantom section: Flat Section

DASY 5 Configuration:

- Probe: EX3DV4 - SN3789; ConvF(7.61, 7.61, 7.61); Calibrated: 2020-06-16;
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1374; Calibrated: 2019-09-24
- Phantom: SAM5; Type: SAM; Serial: 1481
- DASY52 52.8.8(1258); SEMCAD X 14.6.10(7331)

**Configuration/Body/Area Scan (5x8x1):** Measurement grid:  $dx=15$ mm,  $dy=15$ mm

Maximum value of SAR (measured) = 1.63 W/kg

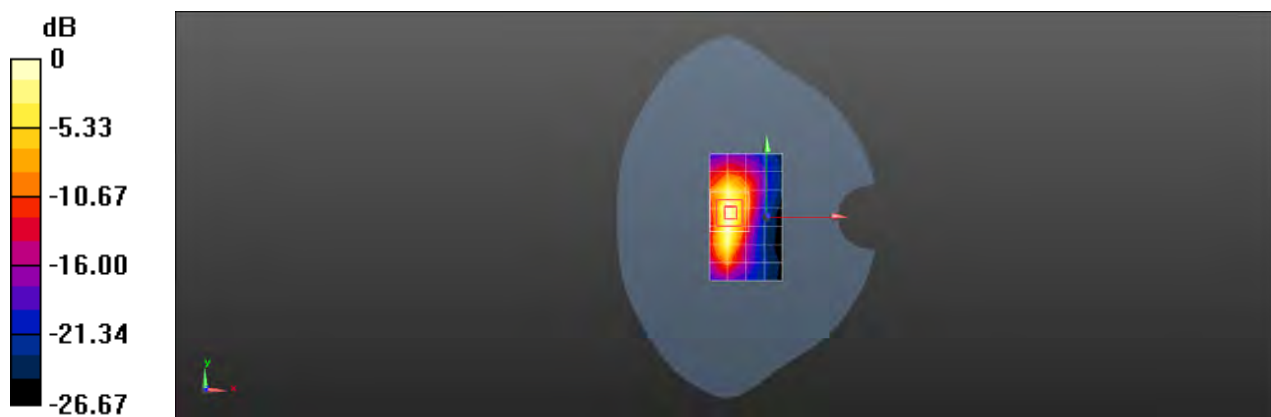
**Configuration/Body/Zoom Scan (5x5x7)/Cube 0:** Measurement grid:  $dx=8$ mm,  $dy=8$ mm,  $dz=5$ mm

Reference Value = 12.10 V/m; Power Drift = 0.01 dB

Peak SAR (extrapolated) = 2.24 W/kg

**SAR(1 g) = 1.05 W/kg; SAR(10 g) = 0.483 W/kg**

Maximum value of SAR (measured) = 1.83 W/kg



Test Laboratory: SGS-SAR Lab

## **XT2091-3 LTE Band 4 20M QPSK 50RB50 20050CH Back side 0mm**

**DUT: XT2091-3; Type: Mobile Cellular Phone; Serial: NU2E2K0513**

Communication System: UID 0, LTE-FDD BW 20MHz (0); Frequency: 1720 MHz; Duty Cycle: 1:1

Medium: HSL1750; Medium parameters used:  $f = 1720$  MHz;  $\sigma = 1.309$  S/m;  $\epsilon_r = 40.247$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Phantom section: Flat Section

DASY 5 Configuration:

- Probe: EX3DV4 - SN3789; ConvF(7.61, 7.61, 7.61); Calibrated: 2020-06-16;
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1374; Calibrated: 2019-09-24
- Phantom: SAM5; Type: SAM; Serial: 1481
- DASY52 52.8.8(1258); SEMCAD X 14.6.10(7331)

**Configuration/Body/Area Scan (8x14x1):** Measurement grid: dx=15mm, dy=15mm  
Maximum value of SAR (measured) = 9.97 W/kg

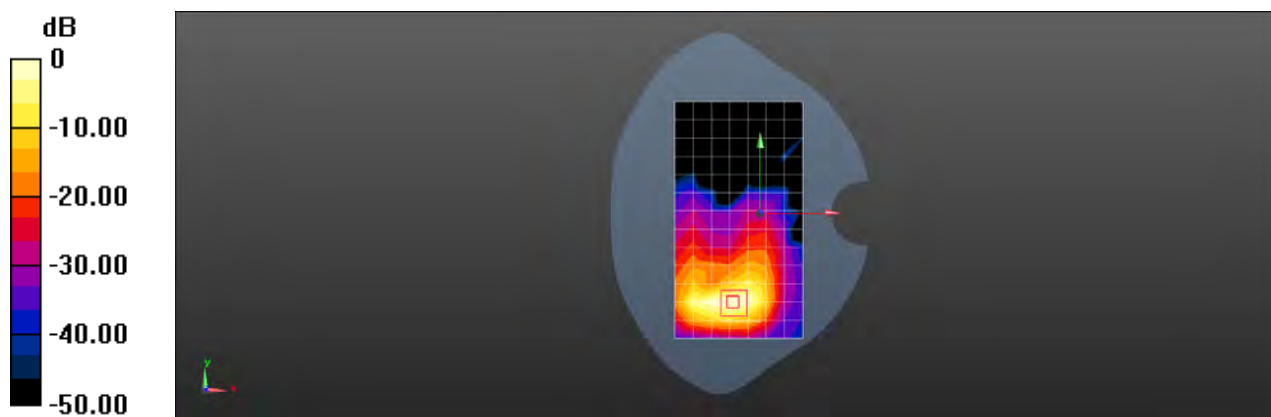
**Configuration/Body/Zoom Scan (5x5x7)/Cube 0:** Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 2.408 V/m; Power Drift = 0.08 dB

Peak SAR (extrapolated) = 15.7 W/kg

**SAR(1 g) = 5.6 W/kg; SAR(10 g) = 2.39 W/kg**

Maximum value of SAR (measured) = 10.8 W/kg



Test Laboratory: SGS-SAR Lab

## XT2091-3 LTE Band 5 10M QPSK 1RB49 20525CH Left cheek

**DUT: XT2091-3; Type: Mobile Cellular Phone; Serial: NU2E2K0513**

Communication System: UID 0, LTE-FDD BW 10MHZ (0); Frequency: 836.5 MHz; Duty Cycle: 1:1

Medium: HSL835; Medium parameters used (interpolated):  $f = 836.5$  MHz;  $\sigma = 0.892$  S/m;  $\epsilon_r = 40.84$ ;  $\rho = 1000$  kg/m<sup>3</sup>  
Phantom section: Left Section

DASY 5 Configuration:

- Probe: EX3DV4 - SN3789; ConvF(8.53, 8.53, 8.53); Calibrated: 2020-06-16;
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1374; Calibrated: 2019-09-24
- Phantom: SAM5; Type: SAM; Serial: 1481
- DASY52 52.8.8(1258); SEMCAD X 14.6.10(7331)

**Configuration/Head/Area Scan (8x13x1):** Measurement grid: dx=15mm, dy=15mm  
Maximum value of SAR (measured) = 0.231 W/kg

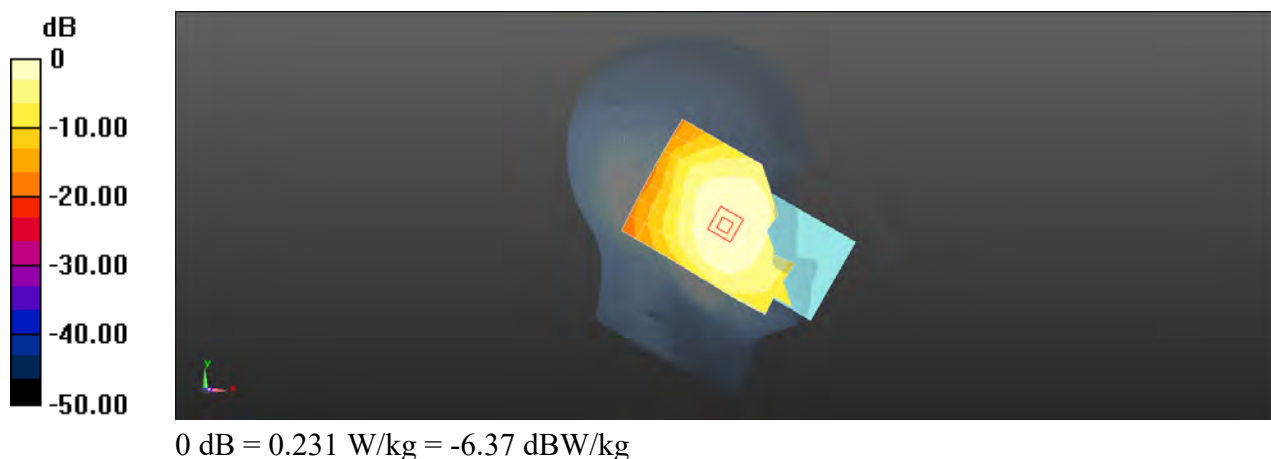
**Configuration/Head/Zoom Scan (5x5x7)/Cube 0:** Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 3.131 V/m; Power Drift = 0.03 dB

Peak SAR (extrapolated) = 0.254 W/kg

**SAR(1 g) = 0.195 W/kg; SAR(10 g) = 0.150 W/kg**

Maximum value of SAR (measured) = 0.232 W/kg



Test Laboratory: SGS-SAR Lab

## XT2091-3 LTE Band 5 10M QPSK 1RB49 20450CH Back side 5mm

**DUT: XT2091-3; Type: Mobile Cellular Phone; Serial: NU2E2K0299**

Communication System: UID 0, LTE-FDD BW 10MHZ (0); Frequency: 829 MHz; Duty Cycle: 1:1

Medium: HSL835; Medium parameters used:  $f = 829 \text{ MHz}$ ;  $\sigma = 0.887 \text{ S/m}$ ;  $\epsilon_r = 40.887$ ;  $\rho = 1000 \text{ kg/m}^3$

Phantom section: Flat Section

DASY 5 Configuration:

- Probe: EX3DV4 - SN3789; ConvF(8.53, 8.53, 8.53); Calibrated: 2020-06-16;
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1374; Calibrated: 2019-09-24
- Phantom: SAM5; Type: SAM; Serial: 1481
- DASY52 52.8.8(1258); SEMCAD X 14.6.10(7331)

**Configuration/Body/Area Scan (8x13x1):** Measurement grid:  $dx=15\text{mm}$ ,  $dy=15\text{mm}$   
Maximum value of SAR (measured) =  $1.52 \text{ W/kg}$

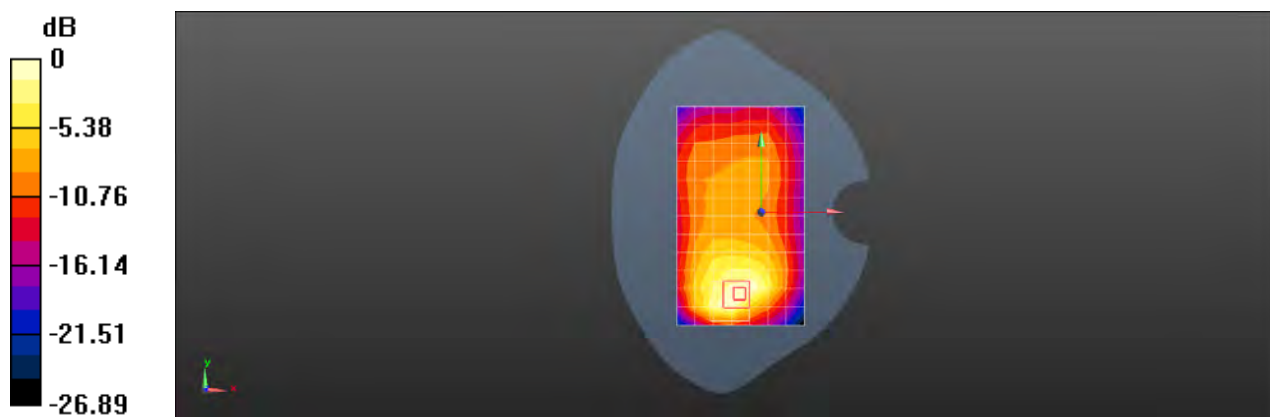
**Configuration/Body/Zoom Scan (5x5x7)/Cube 0:** Measurement grid:  $dx=8\text{mm}$ ,  $dy=8\text{mm}$ ,  $dz=5\text{mm}$

Reference Value =  $13.82 \text{ V/m}$ ; Power Drift =  $0.05 \text{ dB}$

Peak SAR (extrapolated) =  $2.27 \text{ W/kg}$

**SAR(1 g) =  $1.06 \text{ W/kg}$ ; SAR(10 g) =  $0.567 \text{ W/kg}$**

Maximum value of SAR (measured) =  $1.72 \text{ W/kg}$



0 dB =  $1.52 \text{ W/kg}$  =  $1.81 \text{ dBW/kg}$

Test Laboratory: SGS-SAR Lab

## **XT2091-3 LTE Band 5 10M QPSK 1RB49 20450CH Back side 0mm**

**DUT: XT2091-3; Type: Mobile Cellular Phone; Serial: NU2E2K0299**

Communication System: UID 0, LTE-FDD BW 10MHZ (0); Frequency: 829 MHz; Duty Cycle: 1:1

Medium: HSL835; Medium parameters used:  $f = 829 \text{ MHz}$ ;  $\sigma = 0.887 \text{ S/m}$ ;  $\epsilon_r = 40.887$ ;  $\rho = 1000 \text{ kg/m}^3$

Phantom section: Flat Section

DASY 5 Configuration:

- Probe: EX3DV4 - SN3789; ConvF(8.53, 8.53, 8.53); Calibrated: 2020-06-16;
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1374; Calibrated: 2019-09-24
- Phantom: SAM5; Type: SAM; Serial: 1481
- DASY52 52.8.8(1258); SEMCAD X 14.6.10(7331)

**Configuration/Body/Area Scan (8x14x1):** Measurement grid:  $dx=15\text{mm}$ ,  $dy=15\text{mm}$   
Maximum value of SAR (measured) =  $5.49 \text{ W/kg}$

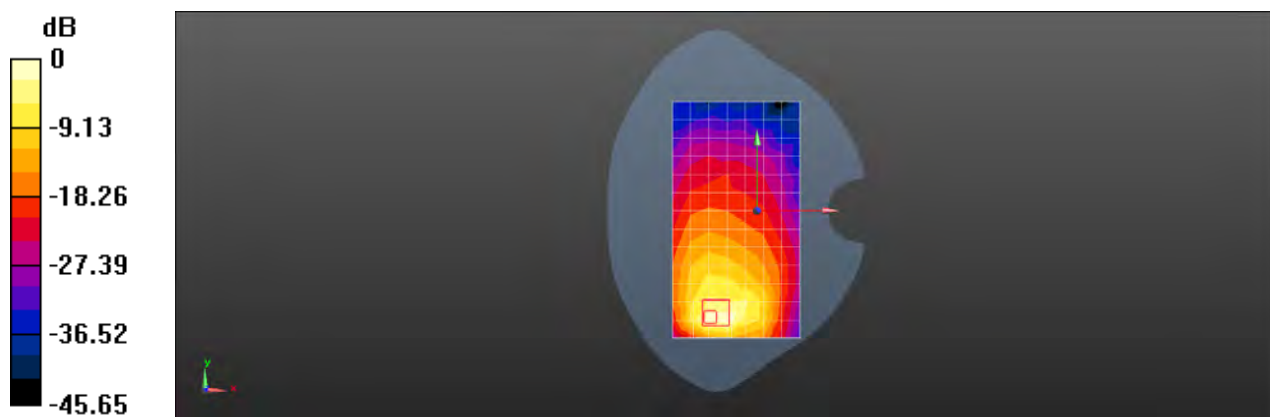
**Configuration/Body/Zoom Scan (5x5x7)/Cube 0:** Measurement grid:  $dx=8\text{mm}$ ,  $dy=8\text{mm}$ ,  $dz=5\text{mm}$

Reference Value =  $8.257 \text{ V/m}$ ; Power Drift =  $0.02 \text{ dB}$

Peak SAR (extrapolated) =  $8.34 \text{ W/kg}$

**SAR(1 g) =  $2.33 \text{ W/kg}$ ; SAR(10 g) =  $1.06 \text{ W/kg}$**

Maximum value of SAR (measured) =  $5.40 \text{ W/kg}$



Test Laboratory: SGS-SAR Lab

## XT2091-3 LTE Band 7 20M QPSK 1RB99 20850CH Left cheek

**DUT: XT2091-3; Type: Mobile Cellular Phone; Serial: NU2E2K0513**

Communication System: UID 0, LTE-FDD BW 20MHz (0); Frequency: 2510 MHz;Duty Cycle: 1:1

Medium: HSL2600;Medium parameters used:  $f = 2510$  MHz;  $\sigma = 1.878$  S/m;  $\epsilon_r = 39.266$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Phantom section: Left Section

DASY 5 Configuration:

- Probe: EX3DV4 - SN3748; ConvF(6.79, 6.79, 6.79); Calibrated: 2020-07-29;
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn414; Calibrated: 2019-12-17
- Phantom: SAM6; Type: SAM; Serial: 1824
- DASY52 52.8.8(1258); SEMCAD X 14.6.10(7331)

**Configuration/Head/Area Scan (9x16x1):** Measurement grid: dx=12mm, dy=12mm  
Maximum value of SAR (measured) = 0.504 W/kg

**Configuration/Head/Zoom Scan (7x7x7)/Cube 0:** Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 4.561 V/m; Power Drift = -0.06 dB

Peak SAR (extrapolated) = 0.648 W/kg

**SAR(1 g) = 0.352 W/kg; SAR(10 g) = 0.185 W/kg**

Maximum value of SAR (measured) = 0.542 W/kg



Test Laboratory: SGS-SAR Lab

## **XT2091-3 LTE Band 7 20M QPSK 100RB0 20850CH Back side 5mm**

**DUT: XT2091-3; Type: Mobile Cellular Phone; Serial: NU2E2K0513**

Communication System: UID 0, LTE-FDD BW 20MHz (0); Frequency: 2510 MHz; Duty Cycle: 1:1

Medium: HSL2600; Medium parameters used:  $f = 2510$  MHz;  $\sigma = 1.878$  S/m;  $\epsilon_r = 39.266$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Phantom section: Flat Section

DASY 5 Configuration:

- Probe: EX3DV4 - SN3748; ConvF(6.79, 6.79, 6.79); Calibrated: 2020-07-29;
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn414; Calibrated: 2019-12-17
- Phantom: SAM6; Type: SAM; Serial: 1824
- DASY52 52.8.8(1258); SEMCAD X 14.6.10(7331)

**Configuration/Body/Area Scan (9x17x1):** Measurement grid: dx=12mm, dy=12mm  
Maximum value of SAR (measured) = 1.25 W/kg

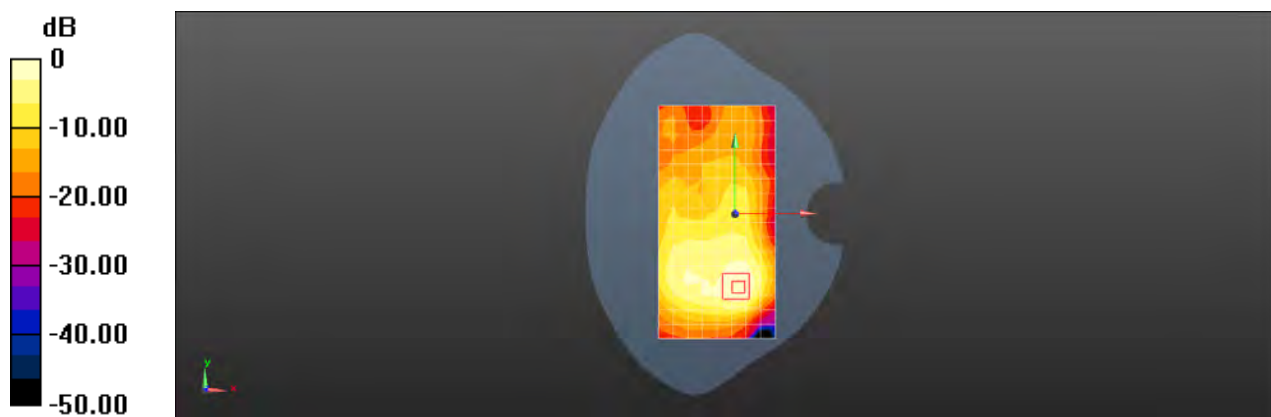
**Configuration/Body/Zoom Scan (7x7x7)/Cube 0:** Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 7.024 V/m; Power Drift = 0.04 dB

Peak SAR (extrapolated) = 2.40 W/kg

**SAR(1 g) = 1.03 W/kg; SAR(10 g) = 0.481 W/kg**

Maximum value of SAR (measured) = 1.78 W/kg



0 dB = 1.25 W/kg = 0.96 dBW/kg

Test Laboratory: SGS-SAR Lab

## XT2091-3 LTE Band 7 20M QPSK 1RB99 20850CH Back side 5mm

**DUT: XT2091-3; Type: Mobile Cellular Phone; Serial: NU2E2K0513**

Communication System: UID 0, LTE-FDD BW 20MHz (0); Frequency: 2510 MHz; Duty Cycle: 1:1

Medium: HSL2600; Medium parameters used:  $f = 2510$  MHz;  $\sigma = 1.878$  S/m;  $\epsilon_r = 39.266$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Phantom section: Flat Section

DASY 5 Configuration:

- Probe: EX3DV4 - SN3748; ConvF(6.79, 6.79, 6.79); Calibrated: 2020-07-29;
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn414; Calibrated: 2019-12-17
- Phantom: SAM6; Type: SAM; Serial: 1824
- DASY52 52.8.8(1258); SEMCAD X 14.6.10(7331)

**Configuration/Body/Area Scan (8x14x1):** Measurement grid: dx=12mm, dy=12mm  
Maximum value of SAR (measured) = 1.30 W/kg

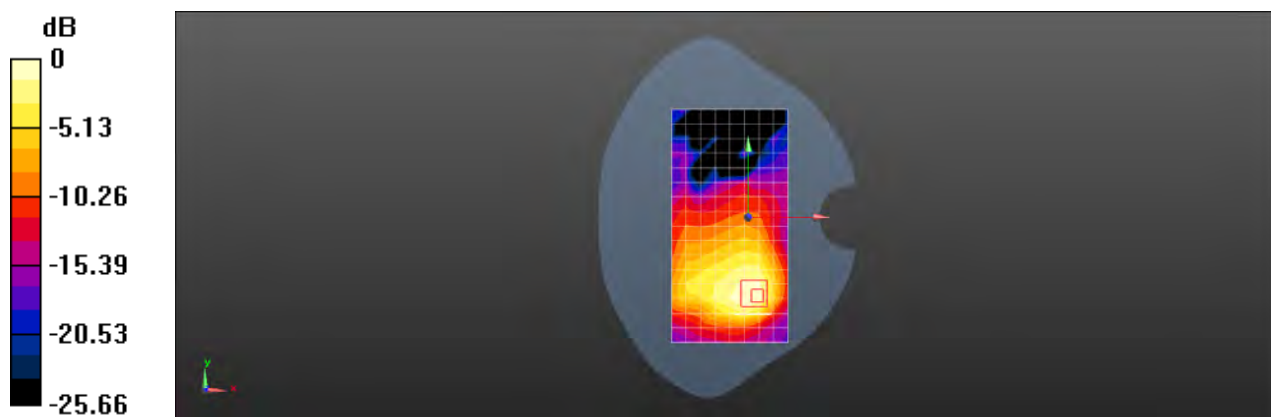
**Configuration/Body/Zoom Scan (5x5x7)/Cube 0:** Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 8.071 V/m; Power Drift = -0.04 dB

Peak SAR (extrapolated) = 2.19 W/kg

**SAR(1 g) = 0.985 W/kg; SAR(10 g) = 0.473 W/kg**

Maximum value of SAR (measured) = 1.71 W/kg



Test Laboratory: SGS-SAR Lab

## **XT2091-3 LTE Band 7 20M QPSK 1RB50 20850CH Back side 0mm**

**DUT: XT2091-3; Type: Mobile Cellular Phone; Serial: NU2E2K0513**

Communication System: UID 0, LTE-FDD BW 20MHz (0); Frequency: 2510 MHz; Duty Cycle: 1:1

Medium: HSL2600; Medium parameters used:  $f = 2510$  MHz;  $\sigma = 1.878$  S/m;  $\epsilon_r = 39.266$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Phantom section: Flat Section

DASY 5 Configuration:

- Probe: EX3DV4 - SN3748; ConvF(6.79, 6.79, 6.79); Calibrated: 2020-07-29;
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn414; Calibrated: 2019-12-17
- Phantom: SAM6; Type: SAM; Serial: 1824
- DASY52 52.8.8(1258); SEMCAD X 14.6.10(7331)

**Configuration/Body/Area Scan (8x14x1):** Measurement grid:  $dx=12$ mm,  $dy=12$ mm  
Maximum value of SAR (measured) = 8.28 W/kg

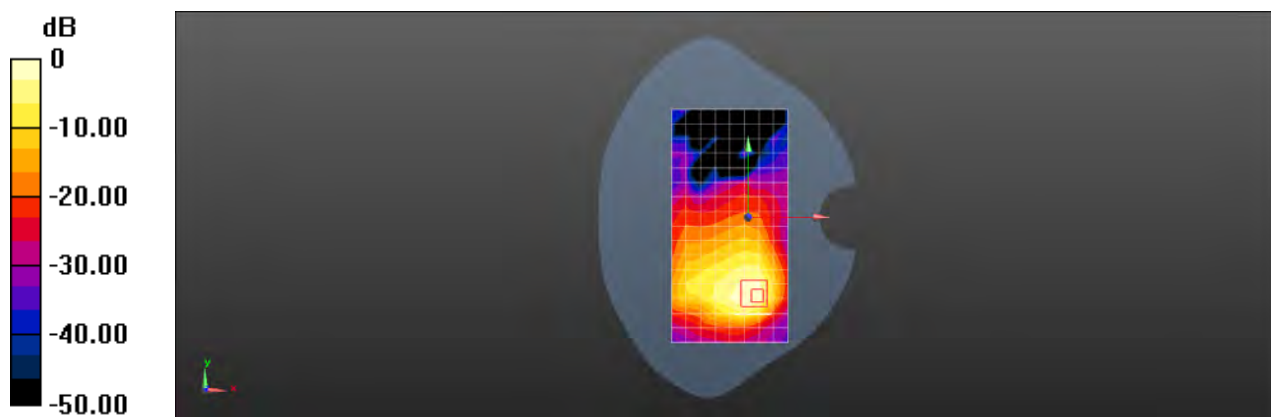
**Configuration/Body/Zoom Scan (5x5x7)/Cube 0:** Measurement grid:  $dx=5$ mm,  $dy=5$ mm,  $dz=5$ mm

Reference Value = 5.431 V/m; Power Drift = 0.04 dB

Peak SAR (extrapolated) = 13.0 W/kg

**SAR(1 g) = 5.12 W/kg; SAR(10 g) = 2.34 W/kg**

Maximum value of SAR (measured) = 9.07 W/kg



0 dB = 8.28 W/kg = 9.18 dBW/kg

Test Laboratory: SGS-SAR Lab

## XT2091-3 LTE Band 26 15M QPSK 1RB74 26965CH Right cheek

**DUT: XT2091-3; Type: Mobile Cellular Phone; Serial: NU2E2K0513**

Communication System: UID 0, LTE-FDD BW 15MHz (0); Frequency: 841.5 MHz; Duty Cycle: 1:1

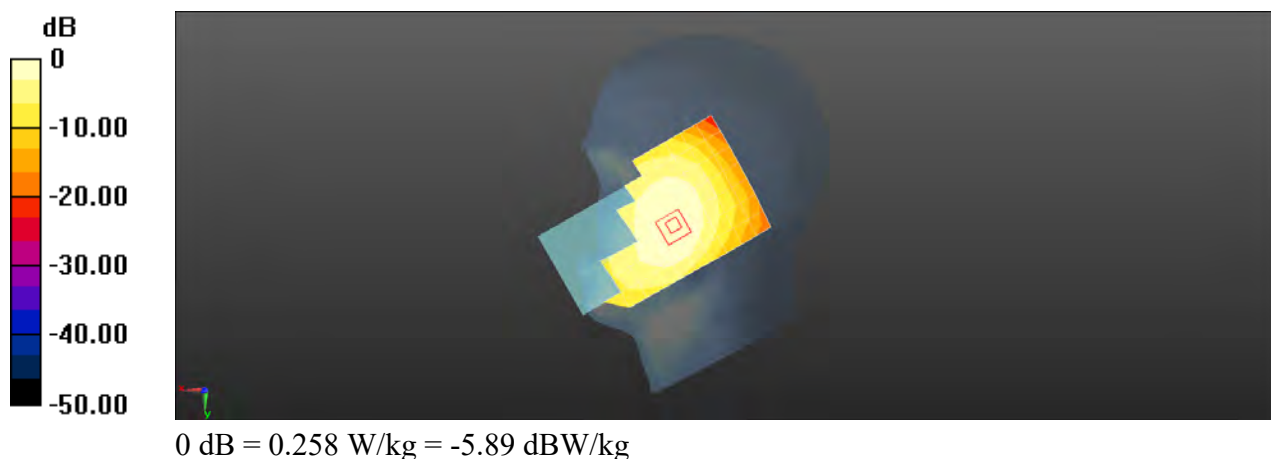
Medium: HSL835; Medium parameters used (interpolated):  $f = 841.5$  MHz;  $\sigma = 0.924$  S/m;  $\epsilon_r = 42.355$ ;  $\rho = 1000$  kg/m<sup>3</sup>  
Phantom section: Right Section

DASY 5 Configuration:

- Probe: EX3DV4 - SN3789; ConvF(8.53, 8.53, 8.53); Calibrated: 2020-06-16;
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1374; Calibrated: 2019-09-24
- Phantom: SAM5; Type: SAM; Serial: 1481
- DASY52 52.8.8(1258); SEMCAD X 14.6.10(7331)

**Configuration/Head/Area Scan (8x13x1):** Measurement grid: dx=15mm, dy=15mm  
Maximum value of SAR (measured) = 0.258 W/kg

**Configuration/Head/Zoom Scan (5x5x7)/Cube 0:** Measurement grid: dx=8mm, dy=8mm, dz=5mm  
Reference Value = 3.722 V/m; Power Drift = 0.04 dB  
Peak SAR (extrapolated) = 0.293 W/kg  
**SAR(1 g) = 0.214 W/kg; SAR(10 g) = 0.159 W/kg**  
Maximum value of SAR (measured) = 0.259 W/kg



Test Laboratory: SGS-SAR Lab

## XT2091-3 LTE Band 26 15M QPSK 1RB74 26765CH Back side 5mm

**DUT: XT2091-3; Type: Mobile Cellular Phone; Serial: NU2E2K0299**

Communication System: UID 0, LTE-FDD BW 15MHz (0); Frequency: 821.5 MHz; Duty Cycle: 1:1

Medium: HSL835; Medium parameters used (interpolated):  $f = 821.5$  MHz;  $\sigma = 0.882$  S/m;  $\epsilon_r = 40.937$ ;  $\rho = 1000$  kg/m<sup>3</sup>  
Phantom section: Flat Section

DASY 5 Configuration:

- Probe: EX3DV4 - SN3789; ConvF(8.53, 8.53, 8.53); Calibrated: 2020-06-16;
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1374; Calibrated: 2019-09-24
- Phantom: SAM5; Type: SAM; Serial: 1481
- DASY52 52.8.8(1258); SEMCAD X 14.6.10(7331)

**Configuration/Body/Area Scan (8x14x1):** Measurement grid: dx=15mm, dy=15mm  
Maximum value of SAR (measured) = 1.72 W/kg

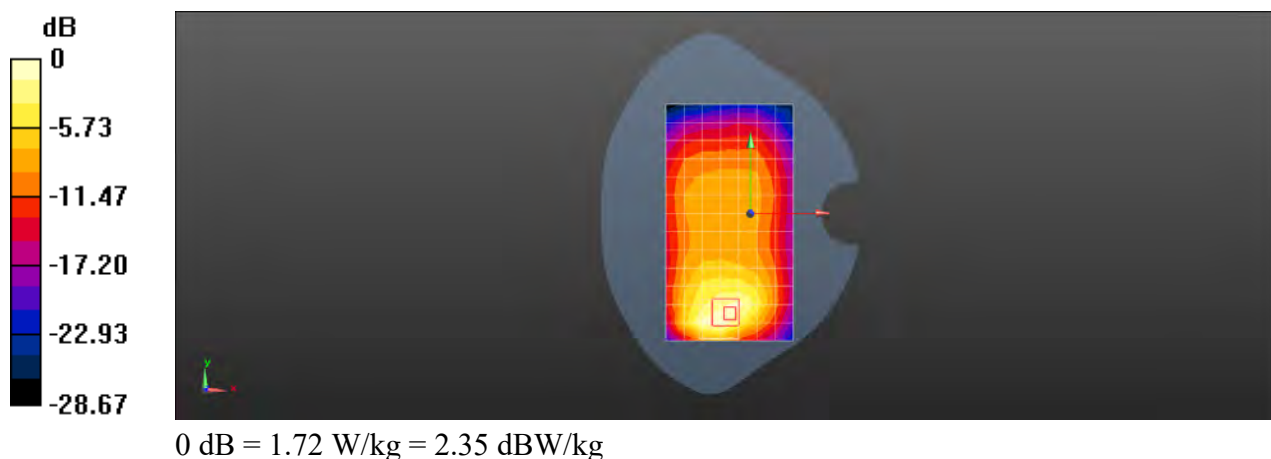
**Configuration/Body/Zoom Scan (5x5x7)/Cube 0:** Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 15.25 V/m; Power Drift = 0.01 dB

Peak SAR (extrapolated) = 2.31 W/kg

**SAR(1 g) = 1.08 W/kg; SAR(10 g) = 0.587 W/kg**

Maximum value of SAR (measured) = 1.85 W/kg



Test Laboratory: SGS-SAR Lab

## XT2091-3 LTE Band 26 15M QPSK 1RB74 26765CH Back side 0mm

**DUT: XT2091-3; Type: Mobile Cellular Phone; Serial: NU2E2K0299**

Communication System: UID 0, LTE-FDD BW 15MHz (0); Frequency: 821.5 MHz; Duty Cycle: 1:1

Medium: HSL835; Medium parameters used (interpolated):  $f = 821.5$  MHz;  $\sigma = 0.882$  S/m;  $\epsilon_r = 40.937$ ;  $\rho = 1000$  kg/m<sup>3</sup>  
Phantom section: Flat Section

DASY 5 Configuration:

- Probe: EX3DV4 - SN3789; ConvF(8.53, 8.53, 8.53); Calibrated: 2020-06-16;
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1374; Calibrated: 2019-09-24
- Phantom: SAM5; Type: SAM; Serial: 1481
- DASY52 52.8.8(1258); SEMCAD X 14.6.10(7331)

**Configuration/Body/Area Scan (8x14x1):** Measurement grid: dx=15mm, dy=15mm  
Maximum value of SAR (measured) = 5.82 W/kg

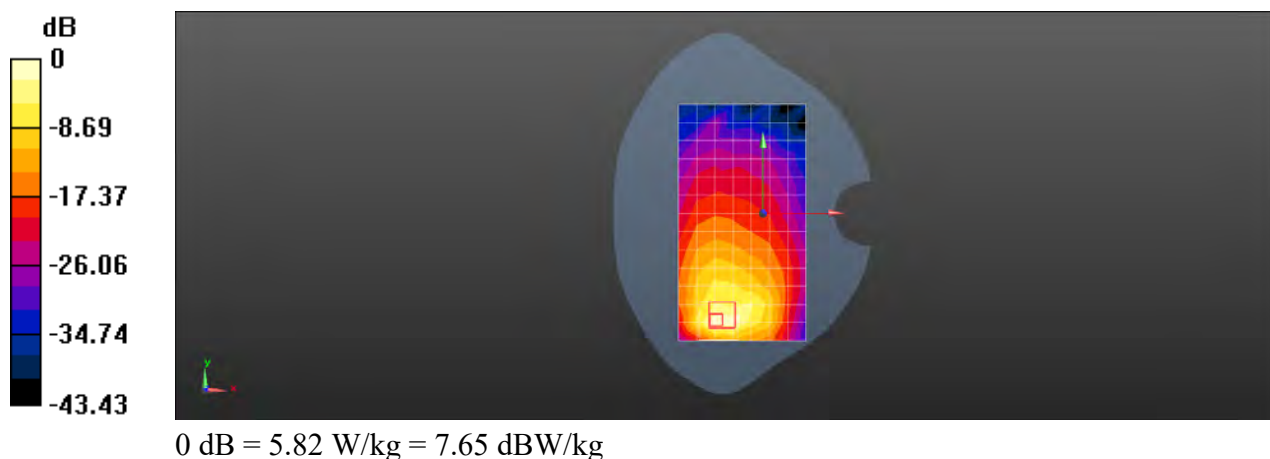
**Configuration/Body/Zoom Scan (5x5x7)/Cube 0:** Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 8.696 V/m; Power Drift = 0.05 dB

Peak SAR (extrapolated) = 8.50 W/kg

**SAR(1 g) = 2.42 W/kg; SAR(10 g) = 1.11 W/kg**

Maximum value of SAR (measured) = 5.60 W/kg



Test Laboratory: SGS-SAR Lab

## XT2091-3 LTE Band 38 20M QPSK 1RB0 37850CH Left cheek

**DUT: XT2091-3; Type: Mobile Cellular Phone; Serial: NU2E2K0299**

Communication System: UID 0, LTE-TDD BW 20MHz (0); Frequency: 2580 MHz; Duty Cycle: 1:1.57906

Medium: HSL2600; Medium parameters used:  $f = 2580$  MHz;  $\sigma = 1.946$  S/m;  $\epsilon_r = 37.773$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Phantom section: Left Section

DASY 5 Configuration:

- Probe: EX3DV4 - SN3748; ConvF(6.79, 6.79, 6.79); Calibrated: 2020-07-29;
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn414; Calibrated: 2019-12-17
- Phantom: SAM6; Type: SAM; Serial: 1824
- DASY52 52.8.8(1258); SEMCAD X 14.6.10(7331)

**Configuration/Head/Area Scan (9x16x1):** Measurement grid:  $dx=12$ mm,  $dy=12$ mm  
Maximum value of SAR (measured) = 0.254 W/kg

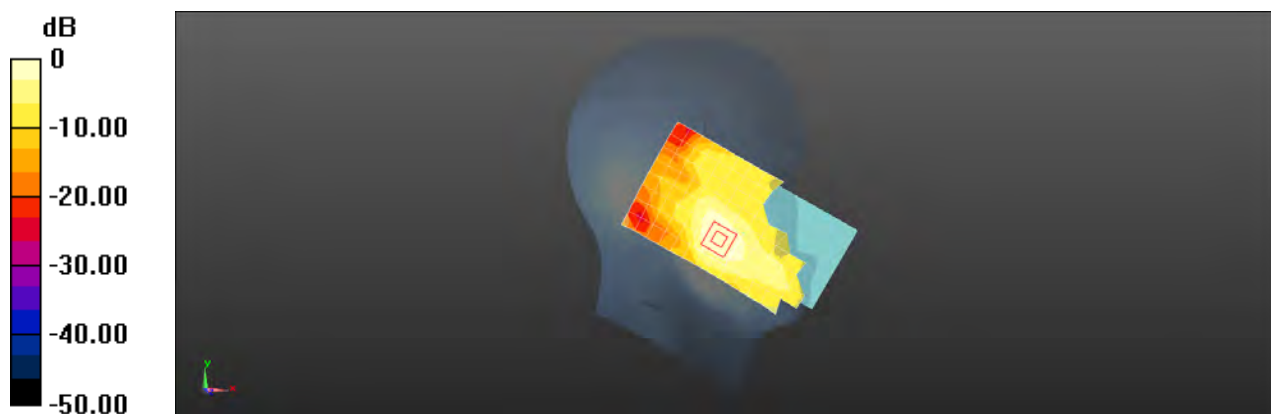
**Configuration/Head/Zoom Scan (7x7x7)/Cube 0:** Measurement grid:  $dx=5$ mm,  $dy=5$ mm,  $dz=5$ mm

Reference Value = 1.606 V/m; Power Drift = 0.03 dB

Peak SAR (extrapolated) = 0.336 W/kg

**SAR(1 g) = 0.180 W/kg; SAR(10 g) = 0.097 W/kg**

Maximum value of SAR (measured) = 0.274 W/kg



0 dB = 0.254 W/kg = -5.95 dBW/kg

Test Laboratory: SGS-SAR Lab

## XT2091-3 LTE Band 38 20M QPSK 1RB99 37850CH Back side 5mm

**DUT: XT2091-3; Type: Mobile Cellular Phone; Serial: NU2E2K0513**

Communication System: UID 0, LTE-TDD BW 20MHz (0); Frequency: 2580 MHz; Duty Cycle: 1:1.57906

Medium: HSL2600; Medium parameters used:  $f = 2580$  MHz;  $\sigma = 1.946$  S/m;  $\epsilon_r = 37.773$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Phantom section: Flat Section

DASY 5 Configuration:

- Probe: EX3DV4 - SN3748; ConvF(6.79, 6.79, 6.79); Calibrated: 2020-07-29;
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn414; Calibrated: 2019-12-17
- Phantom: SAM6; Type: SAM; Serial: 1824
- DASY52 52.8.8(1258); SEMCAD X 14.6.10(7331)

**Configuration/Body/Area Scan (9x16x1):** Measurement grid:  $dx=12$ mm,  $dy=12$ mm  
Maximum value of SAR (measured) = 1.58 W/kg

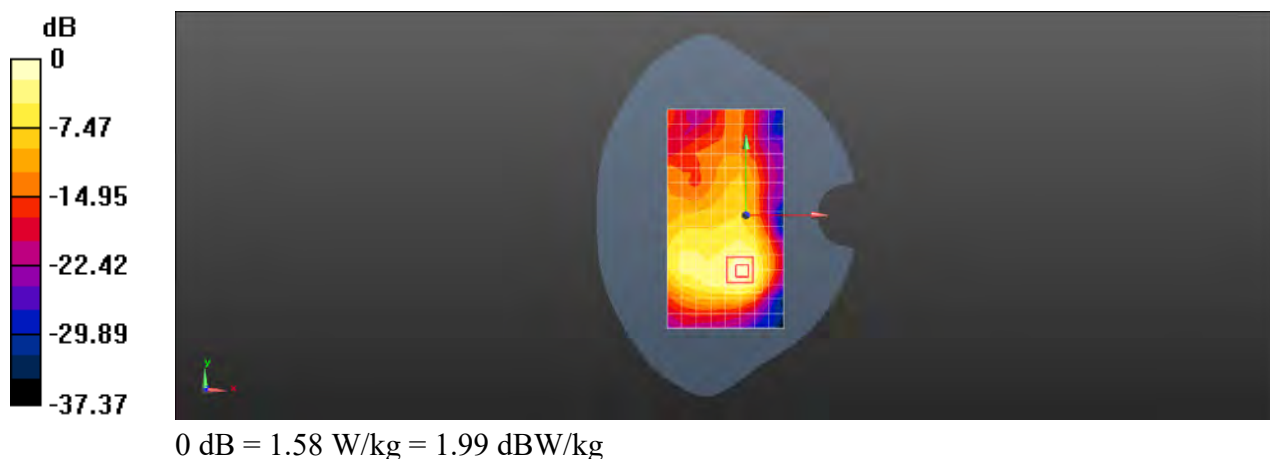
**Configuration/Body/Zoom Scan (7x7x7)/Cube 0:** Measurement grid:  $dx=5$ mm,  $dy=5$ mm,  $dz=5$ mm

Reference Value = 9.617 V/m; Power Drift = 0.04 dB

Peak SAR (extrapolated) = 2.17 W/kg

**SAR(1 g) = 0.946 W/kg; SAR(10 g) = 0.447 W/kg**

Maximum value of SAR (measured) = 1.66 W/kg



Test Laboratory: SGS-SAR Lab

## XT2091-3 LTE Band 38 20M QPSK 1RB99 37850CH Back side 0mm

**DUT: XT2091-3; Type: Mobile Cellular Phone; Serial: NU2E2K0513**

Communication System: UID 0, LTE-TDD BW 20MHz (0); Frequency: 2580 MHz; Duty Cycle: 1:1.57906

Medium: HSL2600; Medium parameters used:  $f = 2580$  MHz;  $\sigma = 1.946$  S/m;  $\epsilon_r = 37.773$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Phantom section: Flat Section

DASY 5 Configuration:

- Probe: EX3DV4 - SN3748; ConvF(6.79, 6.79, 6.79); Calibrated: 2020-07-29;
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn414; Calibrated: 2019-12-17
- Phantom: SAM6; Type: SAM; Serial: 1824
- DASY52 52.8.8(1258); SEMCAD X 14.6.10(7331)

**Configuration/Body/Area Scan (9x16x1):** Measurement grid: dx=12mm, dy=12mm  
Maximum value of SAR (measured) = 5.75 W/kg

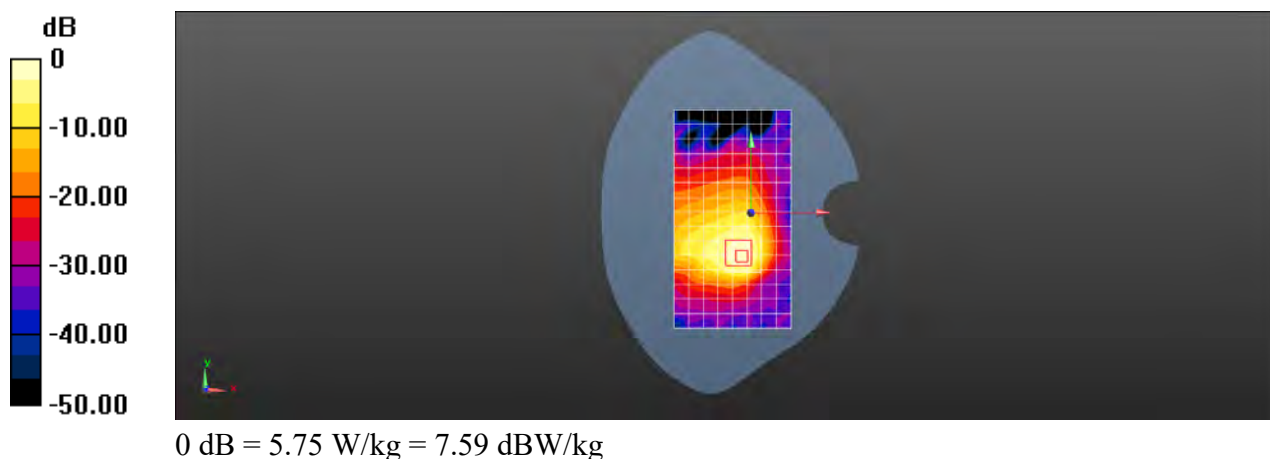
**Configuration/Body/Zoom Scan (7x7x7)/Cube 0:** Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 14.37 V/m; Power Drift = -0.11 dB

Peak SAR (extrapolated) = 9.74 W/kg

**SAR(1 g) = 3.34 W/kg; SAR(10 g) = 1.47 W/kg**

Maximum value of SAR (measured) = 6.31 W/kg



Test Laboratory: SGS-SAR Lab

## XT2091-3 LTE Band 41 20M QPSK 1RB99 40140CH Left cheek

**DUT: XT2091-3; Type: Mobile Cellular Phone; Serial: NU2E2K0299**

Communication System: UID 0, LTE-TDD BW 20MHz (0); Frequency: 2545 MHz; Duty Cycle: 1:1.57906

Medium: HSL2600; Medium parameters used:  $f = 2545$  MHz;  $\sigma = 1.955$  S/m;  $\epsilon_r = 38.241$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Phantom section: Left Section

DASY 5 Configuration:

- Probe: EX3DV4 - SN3748; ConvF(7, 7, 7); Calibrated: 2020-07-29;
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn414; Calibrated: 2019-12-17
- Phantom: SAM6; Type: SAM; Serial: 1824
- DASY52 52.8.8(1258); SEMCAD X 14.6.10(7331)

**Configuration/Head/Area Scan (9x16x1):** Measurement grid: dx=12mm, dy=12mm  
Maximum value of SAR (measured) = 0.262 W/kg

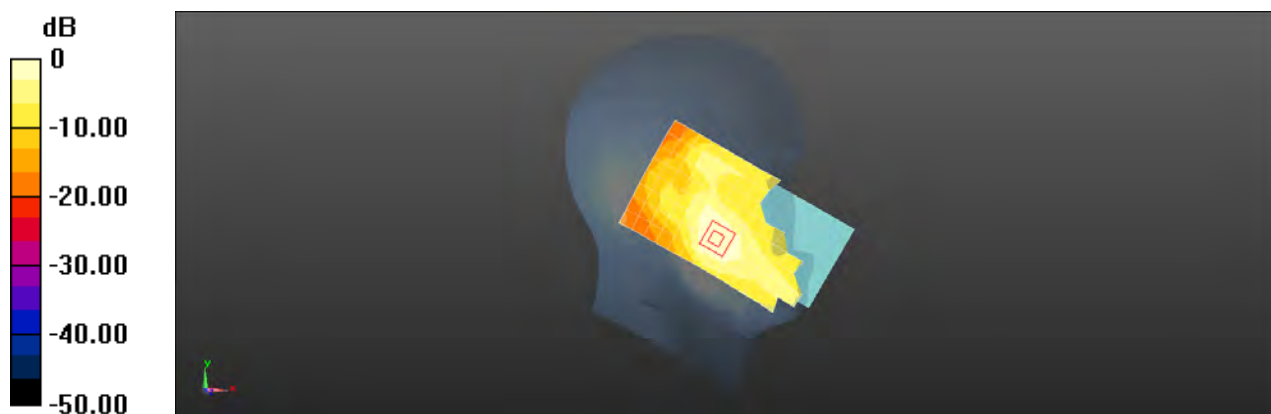
**Configuration/Head/Zoom Scan (7x7x7)/Cube 0:** Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 2.941 V/m; Power Drift = 0.01 dB

Peak SAR (extrapolated) = 0.320 W/kg

**SAR(1 g) = 0.173 W/kg; SAR(10 g) = 0.095 W/kg**

Maximum value of SAR (measured) = 0.261 W/kg



Test Laboratory: SGS-SAR Lab

## XT2091-3 LTE Band 41 20M QPSK 1RB99 40140CH Back side 5mm

**DUT: XT2091-3; Type: Mobile Cellular Phone; Serial: NU2E2K0513**

Communication System: UID 0, LTE-TDD BW 20MHz (0); Frequency: 2545 MHz; Duty Cycle: 1:1.57906

Medium: HSL2600; Medium parameters used:  $f = 2545$  MHz;  $\sigma = 1.955$  S/m;  $\epsilon_r = 38.241$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Phantom section: Flat Section

DASY 5 Configuration:

- Probe: EX3DV4 - SN3748; ConvF(7, 7, 7); Calibrated: 2020-07-29;
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn414; Calibrated: 2019-12-17
- Phantom: SAM6; Type: SAM; Serial: 1824
- DASY52 52.8.8(1258); SEMCAD X 14.6.10(7331)

**Configuration/Body/Area Scan (10x17x1):** Measurement grid: dx=12mm, dy=12mm  
Maximum value of SAR (measured) = 1.63 W/kg

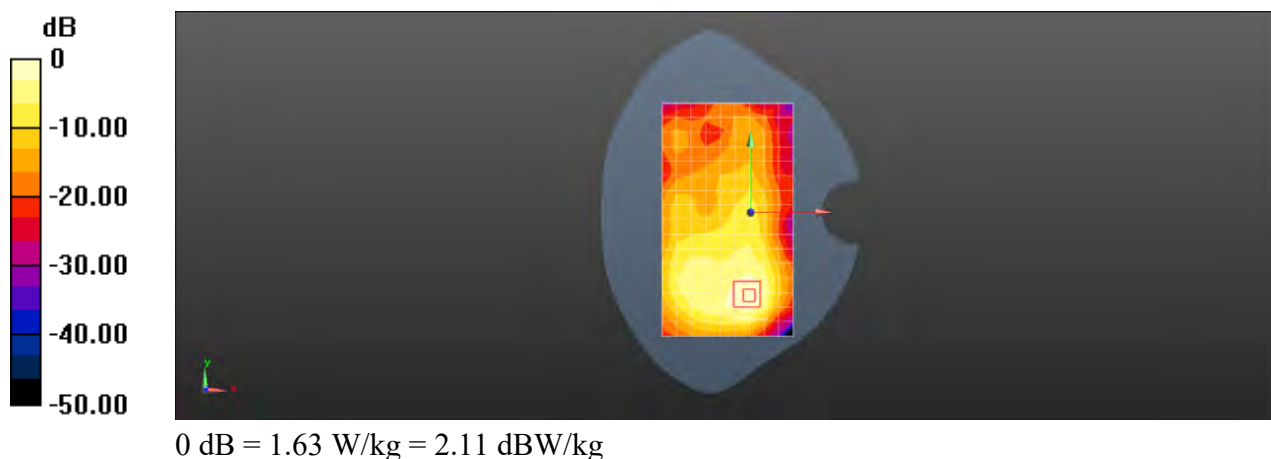
**Configuration/Body/Zoom Scan (5x5x7)/Cube 0:** Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 7.676 V/m; Power Drift = -0.01 dB

Peak SAR (extrapolated) = 2.24 W/kg

**SAR(1 g) = 0.989 W/kg; SAR(10 g) = 0.467 W/kg**

Maximum value of SAR (measured) = 1.68 W/kg



Test Laboratory: SGS-SAR Lab

## XT2091-3 WIFI 2.4G 802.11b 11CH Left cheek

**DUT: XT2091-3; Type: Mobile Cellular Phone; Serial: NU2E2K0513**

Communication System: UID 0, WI-FI(2.4GHz) (0); Frequency: 2462 MHz; Duty Cycle: 1:1

Medium: HSL2450; Medium parameters used:  $f = 2462$  MHz;  $\sigma = 1.874$  S/m;  $\epsilon_r = 38.706$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Phantom section: Left Section

DASY 5 Configuration:

- Probe: EX3DV4 - SN3748; ConvF(7, 7, 7); Calibrated: 2020-07-29;
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn414; Calibrated: 2019-12-17
- Phantom: SAM6; Type: SAM; Serial: 1824
- DASY52 52.8.8(1258); SEMCAD X 14.6.10(7331)

**Configuration/Head/Area Scan (9x17x1):** Measurement grid: dx=12mm, dy=12mm  
Maximum value of SAR (measured) = 1.21 W/kg

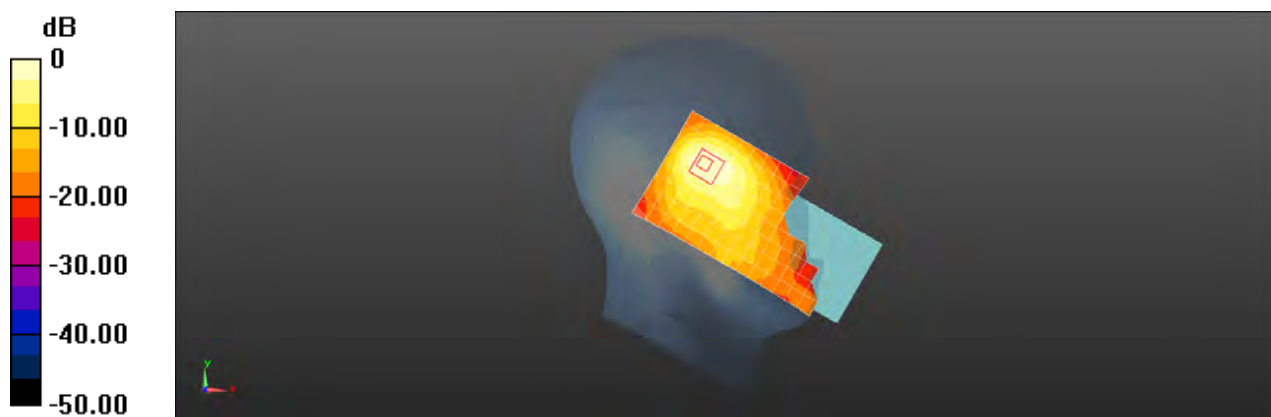
**Configuration/Head/Zoom Scan (7x7x7)/Cube 0:** Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 10.15 V/m; Power Drift = 0.07 dB

Peak SAR (extrapolated) = 1.82 W/kg

**SAR(1 g) = 0.896 W/kg; SAR(10 g) = 0.442 W/kg**

Maximum value of SAR (measured) = 1.43 W/kg



0 dB = 1.21 W/kg = 0.84 dBW/kg

Test Laboratory: SGS-SAR Lab

## XT2091-3 WIFI 2.4G 802.11b 11CH Back side 5mm

**DUT: XT2091-3; Type: Mobile Cellular Phone; Serial: NU2E2K0513**

Communication System: UID 0, WI-FI(2.4GHz) (0); Frequency: 2462 MHz;Duty Cycle: 1:1

Medium: HSL2450;Medium parameters used:  $f = 2462$  MHz;  $\sigma = 1.874$  S/m;  $\epsilon_r = 38.706$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Phantom section: Flat Section

DASY 5 Configuration:

- Probe: EX3DV4 - SN3748; ConvF(7, 7, 7); Calibrated: 2020-07-29;
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn414; Calibrated: 2019-12-17
- Phantom: SAM6; Type: SAM; Serial: 1824
- DASY52 52.8.8(1258); SEMCAD X 14.6.10(7331)

**Configuration/Body/Area Scan (9x16x1):** Measurement grid: dx=12mm, dy=12mm  
Maximum value of SAR (measured) = 1.39 W/kg

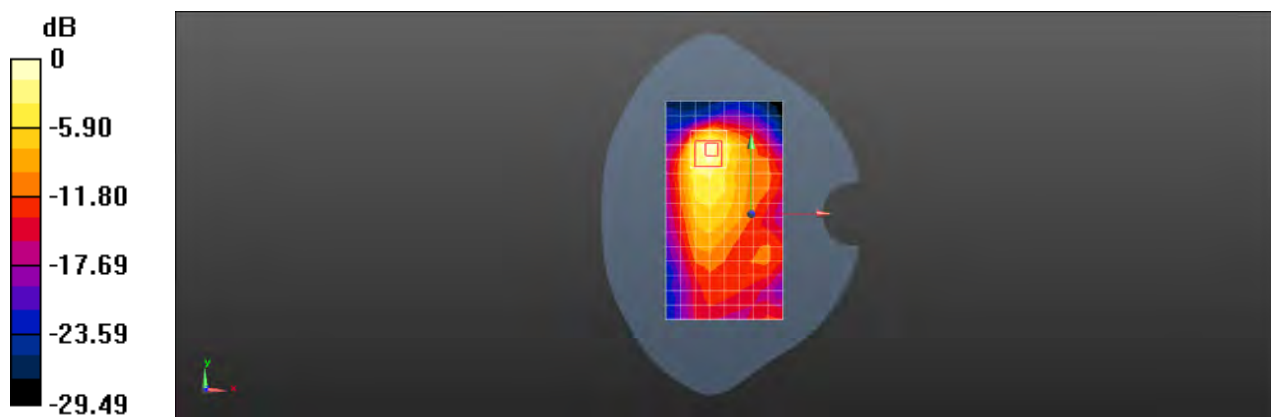
**Configuration/Body/Zoom Scan (7x7x7)/Cube 0:** Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 9.263 V/m; Power Drift = 0.04 dB

Peak SAR (extrapolated) = 1.99 W/kg

**SAR(1 g) = 0.754 W/kg; SAR(10 g) = 0.340 W/kg**

Maximum value of SAR (measured) = 1.40 W/kg



0 dB = 1.39 W/kg = 1.43 dBW/kg

Test Laboratory: SGS-SAR Lab

## XT2091-3 WIFI 5G 802.11a 116CH Right tilted

**DUT: XT2091-3; Type: Mobile Cellular Phone; Serial: NU2E2K0513**

Communication System: UID 0, WI-FI(5GHz) (0); Frequency: 5580 MHz; Duty Cycle: 1:1

Medium: HSL5G; Medium parameters used:  $f = 5580$  MHz;  $\sigma = 5.098$  S/m;  $\epsilon_r = 34.916$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Phantom section: Right Section

DASY 5 Configuration:

- Probe: EX3DV4 - SN3748; ConvF(4.64, 4.64, 4.64); Calibrated: 2020-07-29;
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn414; Calibrated: 2019-12-17
- Phantom: SAM6; Type: SAM; Serial: 1824
- DASY52 52.8.8(1258); SEMCAD X 14.6.10(7331)

**Configuration/Head/Area Scan (11x20x1):** Measurement grid:  $dx=10$ mm,  $dy=10$ mm  
Maximum value of SAR (measured) = 1.35 W/kg

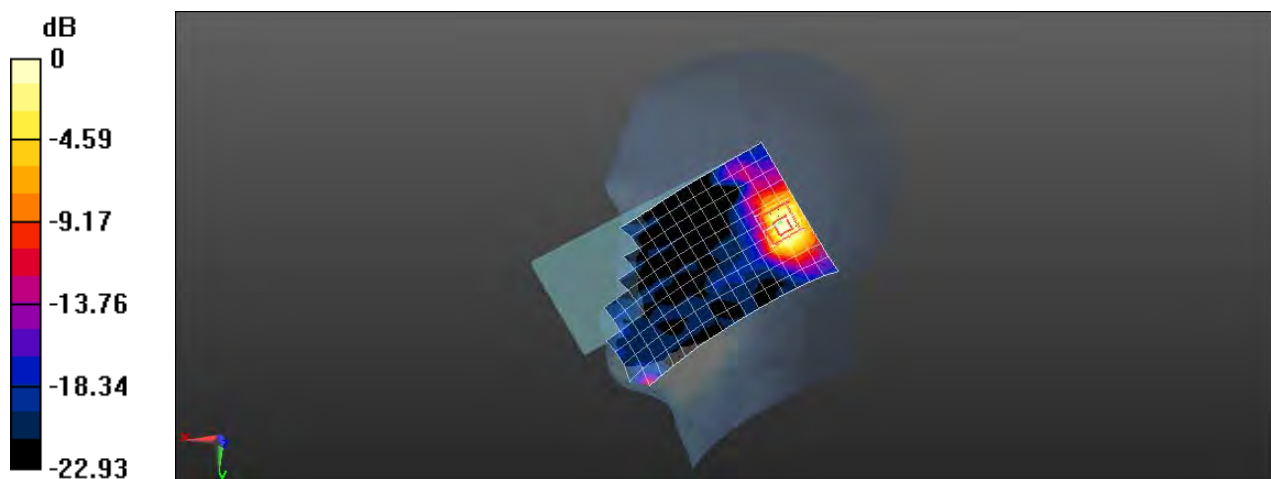
**Configuration/Head/Zoom Scan (7x7x12)/Cube 0:** Measurement grid:  $dx=4$ mm,  $dy=4$ mm,  $dz=2$ mm

Reference Value = 4.498 V/m; Power Drift = 0.05 dB

Peak SAR (extrapolated) = 2.79 W/kg

**SAR(1 g) = 0.674 W/kg; SAR(10 g) = 0.251 W/kg**

Maximum value of SAR (measured) = 1.53 W/kg



0 dB = 1.53 W/kg = 1.85 dBW/kg

Test Laboratory: SGS-SAR Lab

## XT2091-3 WIFI 5G 802.11a 116CH Back side 5mm

**DUT: XT2091-3; Type: Mobile Cellular Phone; Serial: NU2E2K0513**

Communication System: UID 0, WI-FI(5GHz) (0); Frequency: 5580 MHz; Duty Cycle: 1:1

Medium: HSL5G; Medium parameters used:  $f = 5580 \text{ MHz}$ ;  $\sigma = 5.098 \text{ S/m}$ ;  $\epsilon_r = 34.916$ ;  $\rho = 1000 \text{ kg/m}^3$

Phantom section: Flat Section

DASY 5 Configuration:

- Probe: EX3DV4 - SN3748; ConvF(4.64, 4.64, 4.64); Calibrated: 2020-07-29;
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn414; Calibrated: 2019-12-17
- Phantom: SAM6; Type: SAM; Serial: 1824
- DASY52 52.8.8(1258); SEMCAD X 14.6.10(7331)

**Configuration/Body/Area Scan (11x19x1):** Measurement grid:  $dx=10\text{mm}$ ,  $dy=10\text{mm}$   
Maximum value of SAR (measured) =  $1.72 \text{ W/kg}$

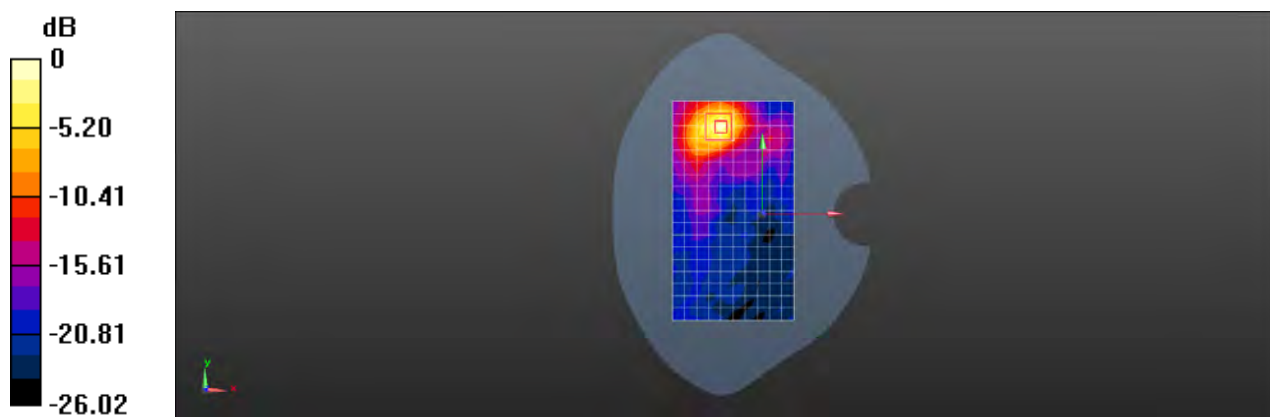
**Configuration/Body/Zoom Scan (7x7x12)/Cube 0:** Measurement grid:  $dx=4\text{mm}$ ,  $dy=4\text{mm}$ ,  $dz=2\text{mm}$

Reference Value =  $1.389 \text{ V/m}$ ; Power Drift =  $0.02 \text{ dB}$

Peak SAR (extrapolated) =  $3.21 \text{ W/kg}$

**SAR(1 g) =  $0.661 \text{ W/kg}$ ; SAR(10 g) =  $0.208 \text{ W/kg}$**

Maximum value of SAR (measured) =  $1.66 \text{ W/kg}$



0 dB =  $1.72 \text{ W/kg}$  =  $2.37 \text{ dBW/kg}$

Test Laboratory: SGS-SAR Lab

## XT2091-3 WIFI 5G 802.11a 165CH Top side 5mm

**DUT: XT2091-3; Type: Mobile Cellular Phone; Serial: NU2E2K0513**

Communication System: UID 0, WI-FI(5GHz) (0); Frequency: 5825 MHz;Duty Cycle: 1:1

Medium: HSL5G;Medium parameters used:  $f = 5825 \text{ MHz}$ ;  $\sigma = 5.062 \text{ S/m}$ ;  $\epsilon_r = 34.273$ ;  $\rho = 1000 \text{ kg/m}^3$

Phantom section: Flat Section

DASY 5 Configuration:

- Probe: EX3DV4 - SN3748; ConvF(4.7, 4.7, 4.7); Calibrated: 2020-07-29;
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn414; Calibrated: 2019-12-17
- Phantom: SAM6; Type: SAM; Serial: 1824
- DASY52 52.8.8(1258); SEMCAD X 14.6.10(7331)

**Configuration/Body/Area Scan (6x10x1):** Measurement grid:  $dx=10\text{mm}$ ,  $dy=10\text{mm}$   
Maximum value of SAR (measured) =  $1.86 \text{ W/kg}$

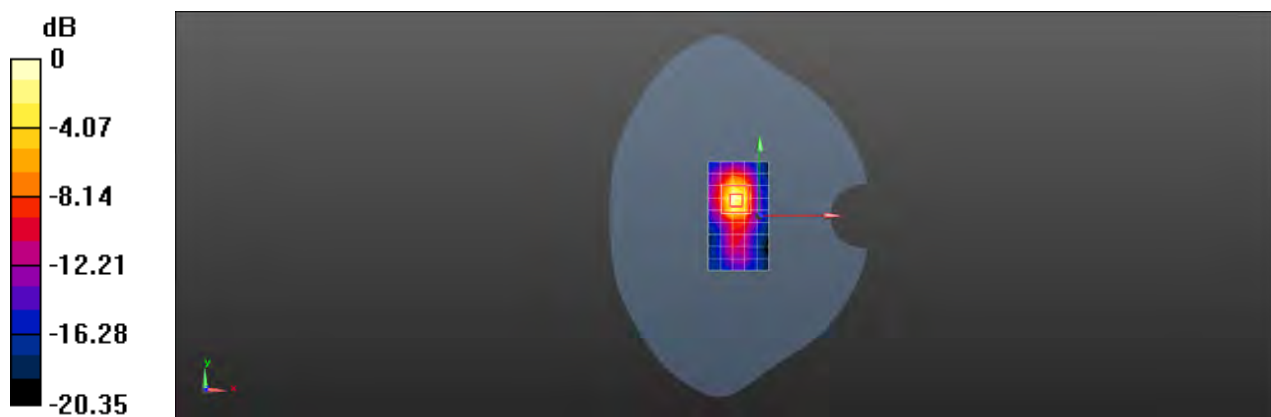
**Configuration/Body/Zoom Scan (7x7x12)/Cube 0:** Measurement grid:  $dx=4\text{mm}$ ,  $dy=4\text{mm}$ ,  $dz=2\text{mm}$

Reference Value =  $6.841 \text{ V/m}$ ; Power Drift =  $0.07 \text{ dB}$

Peak SAR (extrapolated) =  $4.99 \text{ W/kg}$

**SAR(1 g) =  $0.940 \text{ W/kg}$ ; SAR(10 g) =  $0.255 \text{ W/kg}$**

Maximum value of SAR (measured) =  $2.59 \text{ W/kg}$



Test Laboratory: SGS-SAR Lab

## XT2091-3 WIFI 5G 802.11a 60CH Top side 0mm

**DUT: XT2091-3; Type: Mobile Cellular Phone; Serial: NU2E2K0513**

Communication System: UID 0, WI-FI(5GHz) (0); Frequency: 5300 MHz; Duty Cycle: 1:1

Medium: HSL5G; Medium parameters used:  $f = 5300$  MHz;  $\sigma = 4.505$  S/m;  $\epsilon_r = 35.658$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Phantom section: Flat Section

DASY 5 Configuration:

- Probe: EX3DV4 - SN3748; ConvF(5.05, 5.05, 5.05); Calibrated: 2020-07-29;
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn414; Calibrated: 2019-12-17
- Phantom: SAM6; Type: SAM; Serial: 1824
- DASY52 52.8.8(1258); SEMCAD X 14.6.10(7331)

**Configuration/Body/Area Scan (6x10x1):** Measurement grid: dx=10mm, dy=10mm  
Maximum value of SAR (measured) = 12.3 W/kg

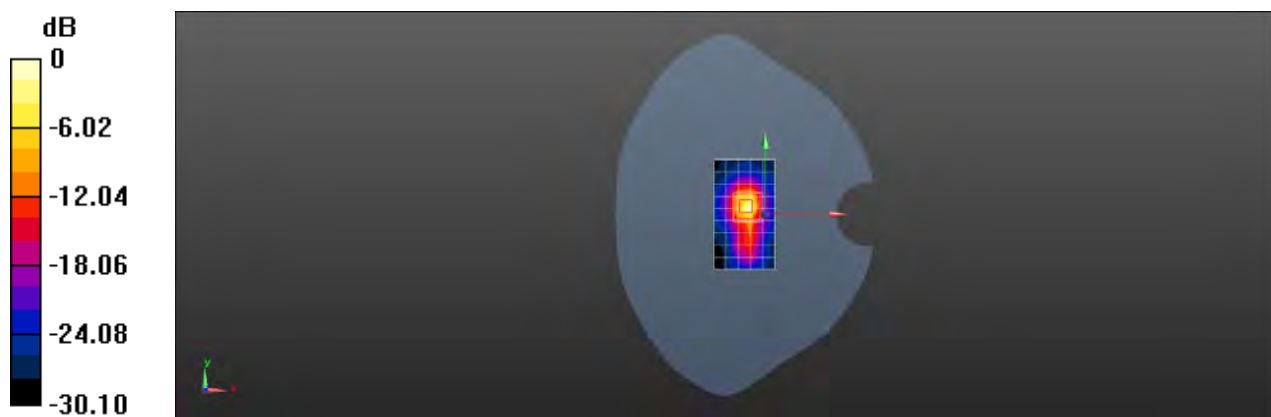
**Configuration/Body/Zoom Scan (7x7x12)/Cube 0:** Measurement grid: dx=4mm, dy=4mm, dz=2mm

Reference Value = 18.34 V/m; Power Drift = 0.04 dB

Peak SAR (extrapolated) = 89.1 W/kg

**SAR(1 g) = 8.74 W/kg; SAR(10 g) = 1.37 W/kg**

Maximum value of SAR (measured) = 34.5 W/kg



0 dB = 12.3 W/kg = 10.89 dBW/kg

Test Laboratory: SGS-SAR Lab

## XT2091-3 Bluetooth DH5 0CH Left cheek

**DUT: XT2091-3; Type: Mobile Cellular Phone; Serial: NU2E2K0513**

Communication System: UID 0, Bluetooth (0); Frequency: 2402 MHz; Duty Cycle: 1:1

Medium: HSL2450; Medium parameters used:  $f = 2402$  MHz;  $\sigma = 1.808$  S/m;  $\epsilon_r = 38.907$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Phantom section: Left Section

DASY 5 Configuration:

- Probe: EX3DV4 - SN3748; ConvF(7, 7, 7); Calibrated: 2020-07-29;
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn414; Calibrated: 2019-12-17
- Phantom: SAM6; Type: SAM; Serial: 1824
- DASY52 52.8.8(1258); SEMCAD X 14.6.10(7331)

**Configuration/Head/Area Scan (9x17x1):** Measurement grid:  $dx=12$ mm,  $dy=12$ mm  
Maximum value of SAR (measured) = 0.123 W/kg

**Configuration/Head/Zoom Scan (7x7x7)/Cube 0:** Measurement grid:  $dx=5$ mm,  $dy=5$ mm,  $dz=5$ mm

Reference Value = 3.128 V/m; Power Drift = 0.02 dB

Peak SAR (extrapolated) = 0.194 W/kg

**SAR(1 g) = 0.091 W/kg; SAR(10 g) = 0.045 W/kg**

Maximum value of SAR (measured) = 0.147 W/kg



0 dB = 0.123 W/kg = -9.12 dBW/kg

Test Laboratory: SGS-SAR Lab

## XT2091-3 Bluetooth DH5 0CH Back side 5mm

**DUT: XT2091-3; Type: Mobile Cellular Phone; Serial: NU2E2K0513**

Communication System: UID 0, Bluetooth (0); Frequency: 2402 MHz; Duty Cycle: 1:1

Medium: HSL2450; Medium parameters used:  $f = 2402$  MHz;  $\sigma = 1.808$  S/m;  $\epsilon_r = 38.907$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Phantom section: Flat Section

DASY 5 Configuration:

- Probe: EX3DV4 - SN3748; ConvF(7, 7, 7); Calibrated: 2020-07-29;
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn414; Calibrated: 2019-12-17
- Phantom: SAM6; Type: SAM; Serial: 1824
- DASY52 52.8.8(1258); SEMCAD X 14.6.10(7331)

**Configuration/Body/Area Scan (9x16x1):** Measurement grid:  $dx=12$ mm,  $dy=12$ mm  
Maximum value of SAR (measured) = 0.0890 W/kg

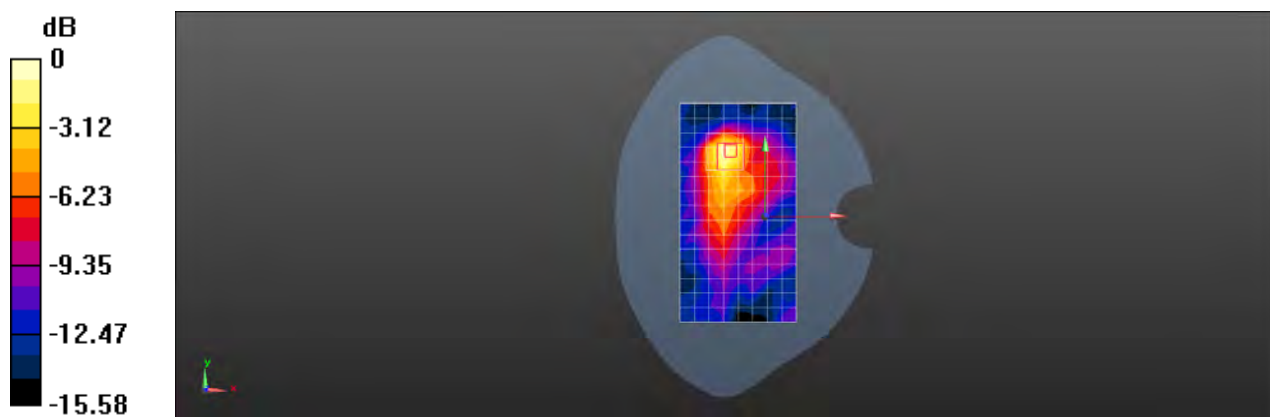
**Configuration/Body/Zoom Scan (7x7x7)/Cube 0:** Measurement grid:  $dx=5$ mm,  $dy=5$ mm,  $dz=5$ mm

Reference Value = 2.745 V/m; Power Drift = -0.09 dB

Peak SAR (extrapolated) = 0.183 W/kg

**SAR(1 g) = 0.051 W/kg; SAR(10 g) = 0.021 W/kg**

Maximum value of SAR (measured) = 0.0862 W/kg





# Appendix C

## Calibration certificate

|                              |
|------------------------------|
| 1. Dipole                    |
| D835V2-SN 4d105(2019-12-17)  |
| D1750V2-SN 1149(2019-05-21)  |
| D1900V2-SN 5d028(2019-12-17) |
| D2450V2-SN 733(2019-12-17)   |
| D2600V2-SN 1125(2019-05-20)  |
| D5GHzV2-SN 1165(2019-12-20)  |
| 2. DAE                       |
| DAE3-SN 414(2019-12-17)      |
| DAE4-SN 1374(2019-09-24)     |
| 3. Probe                     |
| EX3DV4-SN 3748(2020-07-29)   |
| EX3DV4-SN 3789(2020-06-16)   |



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Client **SGS**

Certificate No: **Z19-60472**

## CALIBRATION CERTIFICATE

Object

D835V2 - SN: 4d105

Calibration Procedure(s)

FF-Z11-003-01

Calibration Procedures for dipole validation kits

Calibration date:

December 17, 2019

This calibration Certificate documents the traceability to national standards, which realize the physical units of measurements(SI). The measurements and the uncertainties with confidence probability are given on the following pages and are part of the certificate.

All calibrations have been conducted in the closed laboratory facility: environment temperature(22±3)°C and humidity<70%.

Calibration Equipment used (M&TE critical for calibration)

| Primary Standards       | ID #       | Cal Date(Calibrated by, Certificate No.) | Scheduled Calibration |
|-------------------------|------------|------------------------------------------|-----------------------|
| Power Meter NRP2        | 106276     | 11-Apr-19 (CTTL, No.J19X02605)           | Apr-20                |
| Power sensor NRP6A      | 101369     | 11-Apr-19 (CTTL, No.J19X02605)           | Apr-20                |
| Reference Probe EX3DV4  | SN 3617    | 31-Jan-19(SPEAG,No.EX3-3617_Jan19)       | Jan-20                |
| DAE4                    | SN 1555    | 22-Aug-19(CTTL-SPEAG,No.Z19-60295)       | Aug-20                |
| Secondary Standards     | ID #       | Cal Date(Calibrated by, Certificate No.) | Scheduled Calibration |
| Signal Generator E4438C | MY49071430 | 23-Jan-19 (CTTL, No.J19X00336)           | Jan-20                |
| NetworkAnalyzer E5071C  | MY46110673 | 24-Jan-19 (CTTL, No.J19X00547)           | Jan-20                |

|                | Name        | Function           | Signature |
|----------------|-------------|--------------------|-----------|
| Calibrated by: | Zhao Jing   | SAR Test Engineer  |           |
| Reviewed by:   | Lin Hao     | SAR Test Engineer  |           |
| Approved by:   | Qi Dianyuan | SAR Project Leader |           |

Issued: December 23, 2019

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#### Glossary:

|       |                                            |
|-------|--------------------------------------------|
| TSL   | tissue simulating liquid                   |
| ConvF | sensitivity in TSL / NORM <sub>x,y,z</sub> |
| N/A   | not applicable or not measured             |

#### Calibration is Performed According to the Following Standards:

- IEEE Std 1528-2013, "IEEE Recommended Practice for Determining the Peak Spatial-Averaged Specific Absorption Rate (SAR) in the Human Head from Wireless Communications Devices: Measurement Techniques", June 2013
- IEC 62209-1, "Measurement procedure for assessment of specific absorption rate of human exposure to radio frequency fields from hand-held and body-mounted wireless communication devices- Part 1: Device used next to the ear (Frequency range of 300MHz to 6GHz)", July 2016
- IEC 62209-2, "Procedure to measure the Specific Absorption Rate (SAR) For wireless communication devices used in close proximity to the human body (frequency range of 30MHz to 6GHz)", March 2010
- KDB865664, SAR Measurement Requirements for 100 MHz to 6 GHz

#### Additional Documentation:

- DASY4/5 System Handbook

#### Methods Applied and Interpretation of Parameters:

- Measurement Conditions:** Further details are available from the Validation Report at the end of the certificate. All figures stated in the certificate are valid at the frequency indicated.
- Antenna Parameters with TSL:** The dipole is mounted with the spacer to position its feed point exactly below the center marking of the flat phantom section, with the arms oriented parallel to the body axis.
- Feed Point Impedance and Return Loss:** These parameters are measured with the dipole positioned under the liquid filled phantom. The impedance stated is transformed from the measurement at the SMA connector to the feed point. The Return Loss ensures low reflected power. No uncertainty required.
- Electrical Delay:** One-way delay between the SMA connector and the antenna feed point. No uncertainty required.
- SAR measured:** SAR measured at the stated antenna input power.
- SAR normalized:** SAR as measured, normalized to an input power of 1 W at the antenna connector.
- SAR for nominal TSL parameters:** The measured TSL parameters are used to calculate the nominal SAR result.

The reported uncertainty of measurement is stated as the standard uncertainty of Measurement multiplied by the coverage factor  $k=2$ , which for a normal distribution Corresponds to a coverage probability of approximately 95%.



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### Measurement Conditions

DASY system configuration, as far as not given on page 1.

|                              |                          |             |
|------------------------------|--------------------------|-------------|
| DASY Version                 | DASY52                   | V52.10.3    |
| Extrapolation                | Advanced Extrapolation   |             |
| Phantom                      | Triple Flat Phantom 5.1C |             |
| Distance Dipole Center - TSL | 15 mm                    | with Spacer |
| Zoom Scan Resolution         | dx, dy, dz = 5 mm        |             |
| Frequency                    | 835 MHz $\pm$ 1 MHz      |             |

### Head TSL parameters

The following parameters and calculations were applied.

|                                         | Temperature         | Permittivity   | Conductivity         |
|-----------------------------------------|---------------------|----------------|----------------------|
| Nominal Head TSL parameters             | 22.0 °C             | 41.5           | 0.90 mho/m           |
| Measured Head TSL parameters            | (22.0 $\pm$ 0.2) °C | 41.4 $\pm$ 6 % | 0.88 mho/m $\pm$ 6 % |
| Head TSL temperature change during test | <1.0 °C             | ----           | ----                 |

### SAR result with Head TSL

|                                                         |                    |                              |
|---------------------------------------------------------|--------------------|------------------------------|
| SAR averaged over 1 cm <sup>3</sup> (1 g) of Head TSL   | Condition          |                              |
| SAR measured                                            | 250 mW input power | 2.37 W/kg                    |
| SAR for nominal Head TSL parameters                     | normalized to 1W   | 9.64 W/kg $\pm$ 18.8 % (k=2) |
| SAR averaged over 10 cm <sup>3</sup> (10 g) of Head TSL | Condition          |                              |
| SAR measured                                            | 250 mW input power | 1.55 W/kg                    |
| SAR for nominal Head TSL parameters                     | normalized to 1W   | 6.29 W/kg $\pm$ 18.7 % (k=2) |



## Appendix (Additional assessments outside the scope of CNAS L0570)

### Antenna Parameters with Head TSL

|                                      |               |
|--------------------------------------|---------------|
| Impedance, transformed to feed point | 49.5Ω- 4.96jΩ |
| Return Loss                          | - 26.0dB      |

### General Antenna Parameters and Design

|                                  |          |
|----------------------------------|----------|
| Electrical Delay (one direction) | 1.261 ns |
|----------------------------------|----------|

After long term use with 100W radiated power, only a slight warming of the dipole near the feedpoint can be measured.

The dipole is made of standard semirigid coaxial cable. The center conductor of the feeding line is directly connected to the second arm of the dipole. The antenna is therefore short-circuited for DC-signals. On some of the dipoles, small end caps are added to the dipole arms in order to improve matching when loaded according to the position as explained in the "Measurement Conditions" paragraph. The SAR data are not affected by this change. The overall dipole length is still according to the Standard.

No excessive force must be applied to the dipole arms, because they might bend or the soldered connections near the feedpoint may be damaged.

### Additional EUT Data

|                 |       |
|-----------------|-------|
| Manufactured by | SPEAG |
|-----------------|-------|



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## DASY5 Validation Report for Head TSL

Date: 12.17.2019

Test Laboratory: CTTL, Beijing, China

**DUT: Dipole 835 MHz; Type: D835V2; Serial: D835V2 - SN: 4d105**

Communication System: UID 0, CW; Frequency: 835 MHz; Duty Cycle: 1:1

Medium parameters used:  $f = 835$  MHz;  $\sigma = 0.879$  S/m;  $\epsilon_r = 41.4$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Phantom section: Right Section

DASY5 Configuration:

- Probe: EX3DV4 - SN3617; ConvF(9.75, 9.75, 9.75) @ 835 MHz; Calibrated: 1/31/2019
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1555; Calibrated: 8/22/2019
- Phantom: MFP\_V5.1C ; Type: QD 000 P51CA; Serial: 1062
- Measurement SW: DASY52, Version 52.10 (3); SEMCAD X Version 14.6.13 (7474)

**Dipole Calibration/Zoom Scan (7x7x7) (7x7x7)/Cube 0:** Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 58.62 V/m; Power Drift = -0.04 dB

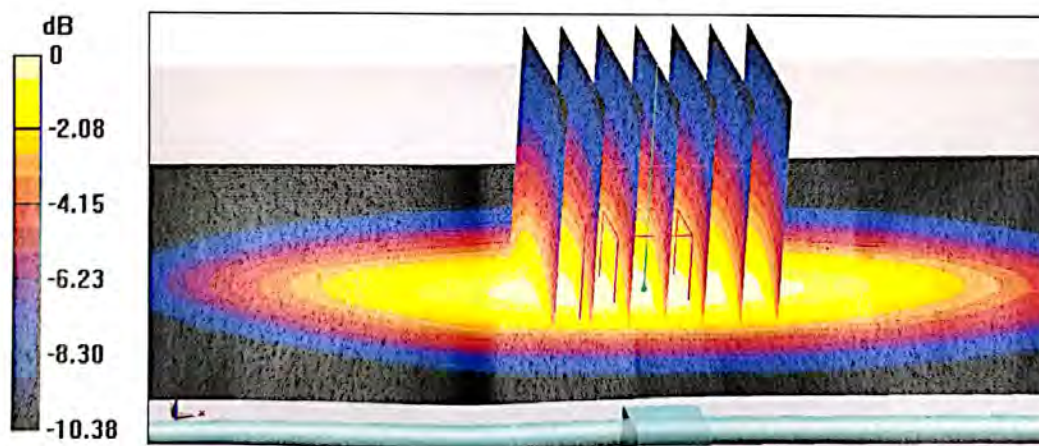
Peak SAR (extrapolated) = 3.58 W/kg

**SAR(1 g) = 2.37 W/kg; SAR(10 g) = 1.55 W/kg**

Smallest distance from peaks to all points 3 dB below = 19.8 mm

Ratio of SAR at M2 to SAR at M1 = 66.2%

Maximum value of SAR (measured) = 3.18 W/kg



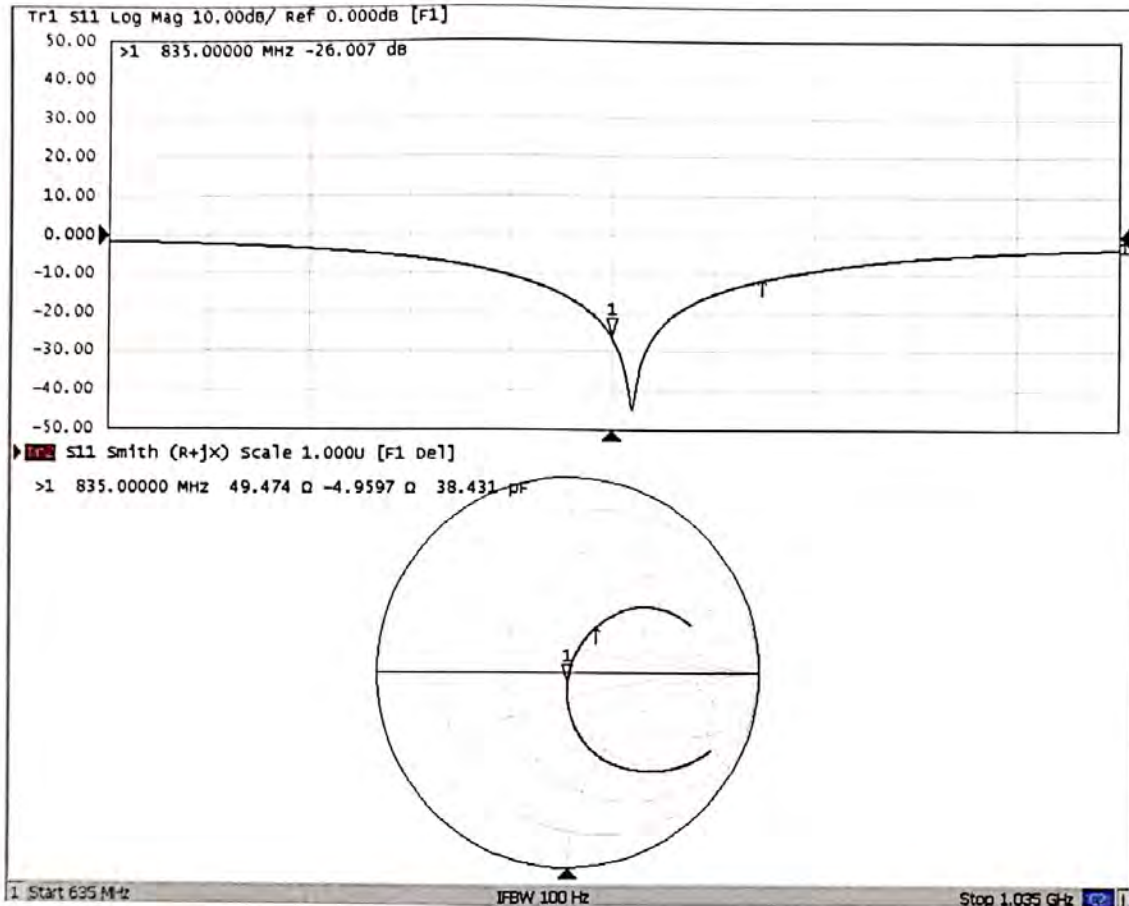
0 dB = 3.18 W/kg = 5.02 dBW/kg



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### Impedance Measurement Plot for Head TSL





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Client **SGS**

Certificate No: **Z19-60153**

## CALIBRATION CERTIFICATE

Object **D1750V2 - SN: 1149**

Calibration Procedure(s) **FF-Z11-003-01**  
**Calibration Procedures for dipole validation kits**

Calibration date: **May 21, 2019**

This calibration Certificate documents the traceability to national standards, which realize the physical units of measurements(SI). The measurements and the uncertainties with confidence probability are given on the following pages and are part of the certificate.

All calibrations have been conducted in the closed laboratory facility: environment temperature(22±3)°C and humidity<70%.

Calibration Equipment used (M&TE critical for calibration)

| Primary Standards       | ID #       | Cal Date(Calibrated by, Certificate No.) | Scheduled Calibration |
|-------------------------|------------|------------------------------------------|-----------------------|
| Power Meter NRP2        | 106277     | 20-Aug-18 (CTTL, No.J18X06862)           | Aug-19                |
| Power sensor NRP8S      | 104291     | 20-Aug-18 (CTTL, No.J18X06862)           | Aug-19                |
| Reference Probe EX3DV4  | SN 3617    | 31-Jan-19(SPEAG,No.EX3-3617_Jan19)       | Jan-20                |
| DAE4                    | SN 1331    | 06-Feb-19(SPEAG,No.DAE4-1331_Feb19)      | Feb-20                |
| Secondary Standards     | ID #       | Cal Date(Calibrated by, Certificate No.) | Scheduled Calibration |
| Signal Generator E4438C | MY49071430 | 23-Jan-19 (CTTL, No.J19X00336)           | Jan-20                |
| NetworkAnalyzer E5071C  | MY46110673 | 24-Jan-19 (CTTL, No.J19X00547)           | Jan-20                |

|                | Name        | Function           |
|----------------|-------------|--------------------|
| Calibrated by: | Zhao Jing   | SAR Test Engineer  |
| Reviewed by:   | Lin Hao     | SAR Test Engineer  |
| Approved by:   | Qi Dianyuan | SAR Project Leader |

Signature

Issued: May 25, 2019

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#### **Glossary:**

|       |                                            |
|-------|--------------------------------------------|
| TSL   | tissue simulating liquid                   |
| ConvF | sensitivity in TSL / NORM <sub>x,y,z</sub> |
| N/A   | not applicable or not measured             |

#### **Calibration is Performed According to the Following Standards:**

- IEEE Std 1528-2013, "IEEE Recommended Practice for Determining the Peak Spatial-Averaged Specific Absorption Rate (SAR) in the Human Head from Wireless Communications Devices: Measurement Techniques", June 2013
- IEC 62209-1, "Measurement procedure for assessment of specific absorption rate of human exposure to radio frequency fields from hand-held and body-mounted wireless communication devices- Part 1: Device used next to the ear (Frequency range of 300MHz to 6GHz)", July 2016
- IEC 62209-2, "Procedure to measure the Specific Absorption Rate (SAR) For wireless communication devices used in close proximity to the human body (frequency range of 30MHz to 6GHz)", March 2010
- KDB865664, SAR Measurement Requirements for 100 MHz to 6 GHz

#### **Additional Documentation:**

- DASY4/5 System Handbook

#### **Methods Applied and Interpretation of Parameters:**

- Measurement Conditions:** Further details are available from the Validation Report at the end of the certificate. All figures stated in the certificate are valid at the frequency indicated.
- Antenna Parameters with TSL:** The dipole is mounted with the spacer to position its feed point exactly below the center marking of the flat phantom section, with the arms oriented parallel to the body axis.
- Feed Point Impedance and Return Loss:** These parameters are measured with the dipole positioned under the liquid filled phantom. The impedance stated is transformed from the measurement at the SMA connector to the feed point. The Return Loss ensures low reflected power. No uncertainty required.
- Electrical Delay:** One-way delay between the SMA connector and the antenna feed point. No uncertainty required.
- SAR measured:** SAR measured at the stated antenna input power.
- SAR normalized:** SAR as measured, normalized to an input power of 1 W at the antenna connector.
- SAR for nominal TSL parameters:** The measured TSL parameters are used to calculate the nominal SAR result.

The reported uncertainty of measurement is stated as the standard uncertainty of Measurement multiplied by the coverage factor  $k=2$ , which for a normal distribution Corresponds to a coverage probability of approximately 95%.



## Measurement Conditions

DASY system configuration, as far as not given on page 1.

|                              |                          |              |
|------------------------------|--------------------------|--------------|
| DASY Version                 | DASY52                   | 52.10.2.1495 |
| Extrapolation                | Advanced Extrapolation   |              |
| Phantom                      | Triple Flat Phantom 5.1C |              |
| Distance Dipole Center - TSL | 10 mm                    | with Spacer  |
| Zoom Scan Resolution         | dx, dy, dz = 5 mm        |              |
| Frequency                    | 1750 MHz $\pm$ 1 MHz     |              |

## Head TSL parameters

The following parameters and calculations were applied.

|                                         | Temperature         | Permittivity   | Conductivity         |
|-----------------------------------------|---------------------|----------------|----------------------|
| Nominal Head TSL parameters             | 22.0 °C             | 40.1           | 1.37 mho/m           |
| Measured Head TSL parameters            | (22.0 $\pm$ 0.2) °C | 39.8 $\pm$ 6 % | 1.38 mho/m $\pm$ 6 % |
| Head TSL temperature change during test | <1.0 °C             | ---            | ---                  |

## SAR result with Head TSL

|                                                         |                    |                              |
|---------------------------------------------------------|--------------------|------------------------------|
| SAR averaged over 1 cm <sup>3</sup> (1 g) of Head TSL   | Condition          |                              |
| SAR measured                                            | 250 mW input power | 9.12 W/kg                    |
| SAR for nominal Head TSL parameters                     | normalized to 1W   | 36.3 W/kg $\pm$ 18.8 % (k=2) |
| SAR averaged over 10 cm <sup>3</sup> (10 g) of Head TSL | Condition          |                              |
| SAR measured                                            | 250 mW input power | 4.81 W/kg                    |
| SAR for nominal Head TSL parameters                     | normalized to 1W   | 19.2 W/kg $\pm$ 18.7 % (k=2) |

## Body TSL parameters

The following parameters and calculations were applied.

|                                         | Temperature         | Permittivity   | Conductivity         |
|-----------------------------------------|---------------------|----------------|----------------------|
| Nominal Body TSL parameters             | 22.0 °C             | 53.4           | 1.49 mho/m           |
| Measured Body TSL parameters            | (22.0 $\pm$ 0.2) °C | 54.2 $\pm$ 6 % | 1.48 mho/m $\pm$ 6 % |
| Body TSL temperature change during test | <1.0 °C             | ---            | ---                  |

## SAR result with Body TSL

|                                                         |                    |                              |
|---------------------------------------------------------|--------------------|------------------------------|
| SAR averaged over 1 cm <sup>3</sup> (1 g) of Body TSL   | Condition          |                              |
| SAR measured                                            | 250 mW input power | 9.34 W/kg                    |
| SAR for nominal Body TSL parameters                     | normalized to 1W   | 37.6 W/kg $\pm$ 18.8 % (k=2) |
| SAR averaged over 10 cm <sup>3</sup> (10 g) of Body TSL | Condition          |                              |
| SAR measured                                            | 250 mW input power | 4.90 W/kg                    |
| SAR for nominal Body TSL parameters                     | normalized to 1W   | 19.7 W/kg $\pm$ 18.7 % (k=2) |



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## Appendix (Additional assessments outside the scope of CNAS L0570)

### Antenna Parameters with Head TSL

|                                      |                |
|--------------------------------------|----------------|
| Impedance, transformed to feed point | 47.6Ω+ 0.70 jΩ |
| Return Loss                          | - 31.8 dB      |

### Antenna Parameters with Body TSL

|                                      |                |
|--------------------------------------|----------------|
| Impedance, transformed to feed point | 44.9Ω+ 0.29 jΩ |
| Return Loss                          | - 25.3 dB      |

### General Antenna Parameters and Design

|                                  |          |
|----------------------------------|----------|
| Electrical Delay (one direction) | 1.082 ns |
|----------------------------------|----------|

After long term use with 100W radiated power, only a slight warming of the dipole near the feedpoint can be measured.

The dipole is made of standard semirigid coaxial cable. The center conductor of the feeding line is directly connected to the second arm of the dipole. The antenna is therefore short-circuited for DC-signals. On some of the dipoles, small end caps are added to the dipole arms in order to improve matching when loaded according to the position as explained in the "Measurement Conditions" paragraph. The SAR data are not affected by this change. The overall dipole length is still according to the Standard.

No excessive force must be applied to the dipole arms, because they might bend or the soldered connections near the feedpoint may be damaged.

### Additional EUT Data

|                 |       |
|-----------------|-------|
| Manufactured by | SPEAG |
|-----------------|-------|



## DASY5 Validation Report for Head TSL

Date: 05.21.2019

Test Laboratory: CTTL, Beijing, China

**DUT: Dipole 1750 MHz; Type: D1750V2; Serial: D1750V2 - SN: 1149**

Communication System: UID 0, CW; Frequency: 1750 MHz; Duty Cycle: 1:1

Medium parameters used:  $f = 1750$  MHz;  $\sigma = 1.379$  S/m;  $\epsilon_r = 39.84$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Phantom section: Right Section

### DASY5 Configuration:

- Probe: EX3DV4 - SN3617; ConvF(8.38, 8.38, 8.38) @ 1750 MHz; Calibrated: 1/31/2019
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1331; Calibrated: 2/6/2019
- Phantom: MFP\_V5.1C ; Type: QD 000 P51CA; Serial: 1062
- Measurement SW: DASY52, Version 52.10 (2); SEMCAD X Version 14.6.12 (7450)

### System Performance Check/Zoom Scan (7x7x7) (7x7x7)/Cube 0: Measurement grid:

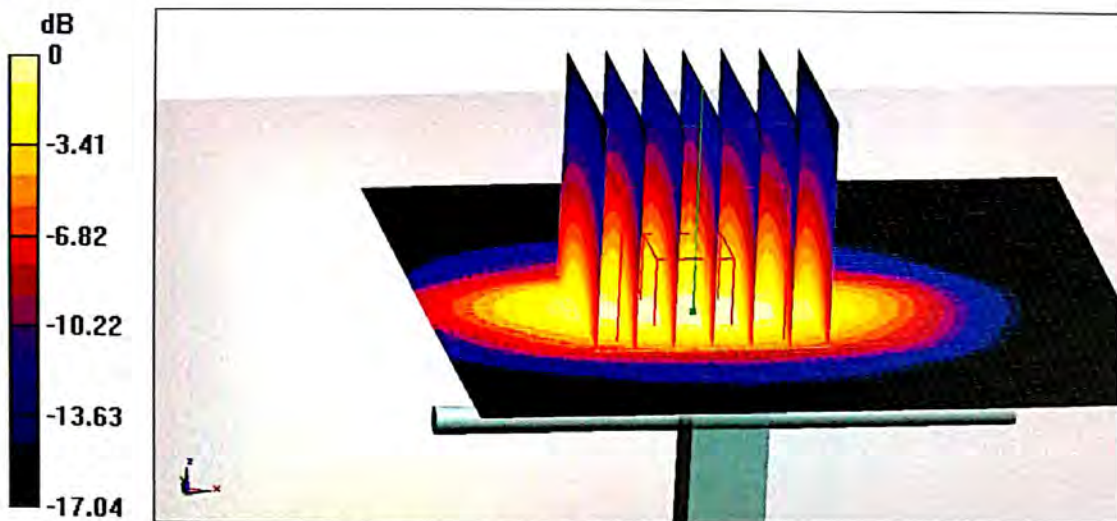
$dx=5$ mm,  $dy=5$ mm,  $dz=5$ mm

Reference Value = 88.07 V/m; Power Drift = 0.02 dB

Peak SAR (extrapolated) = 17.2 W/kg

SAR(1 g) = 9.12 W/kg; SAR(10 g) = 4.81 W/kg

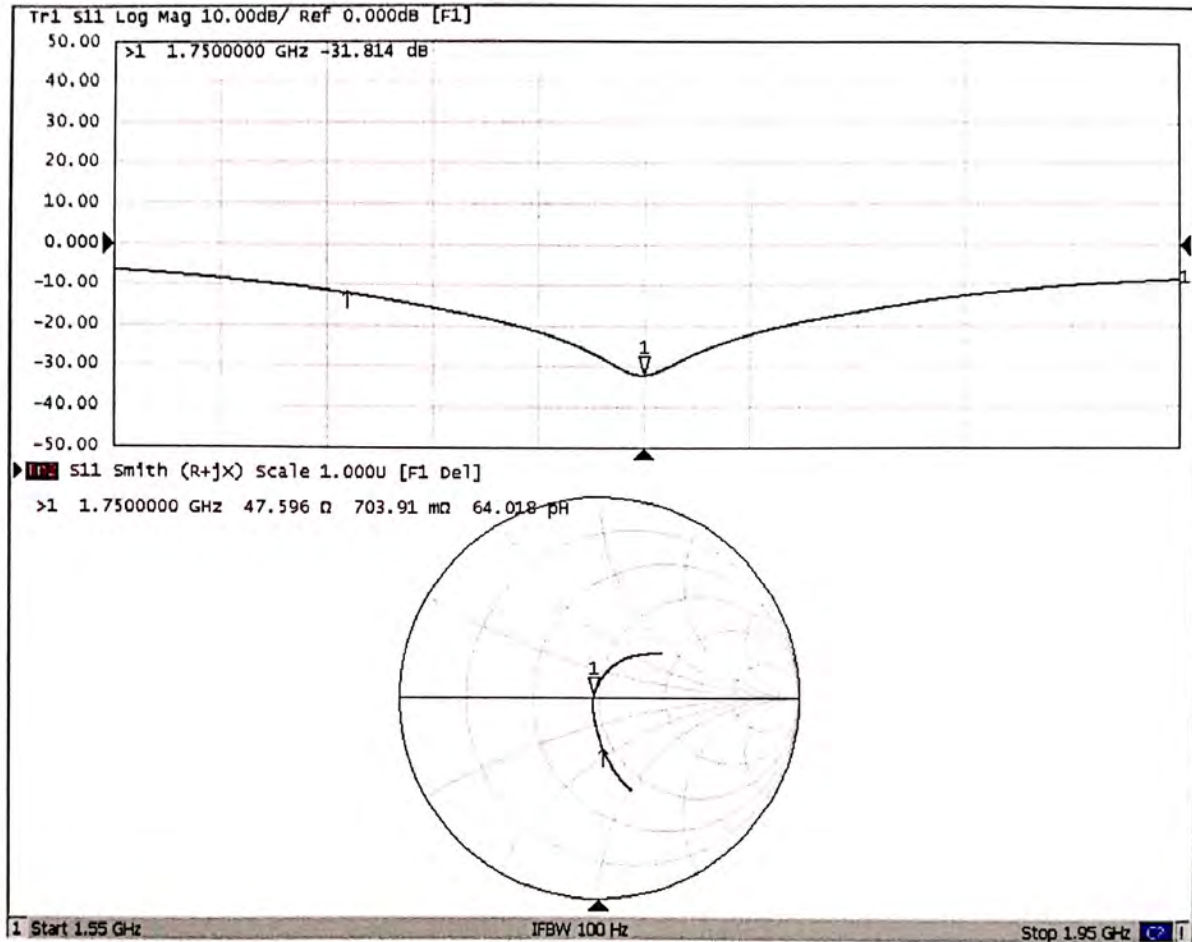
Maximum value of SAR (measured) = 14.2 W/kg



0 dB = 14.2 W/kg = 11.52 dBW/kg



## Impedance Measurement Plot for Head TSL





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## DASY5 Validation Report for Body TSL

Date: 05.21.2019

Test Laboratory: CTTL, Beijing, China

**DUT: Dipole 1750 MHz; Type: D1750V2; Serial: D1750V2 - SN: 1149**

Communication System: UID 0, CW; Frequency: 1750 MHz; Duty Cycle: 1:1

Medium parameters used:  $f = 1750$  MHz;  $\sigma = 1.482$  S/m;  $\epsilon_r = 54.22$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Phantom section: Center Section

DASY5 Configuration:

- Probe: EX3DV4 - SN3617; ConvF(8.03, 8.03, 8.03) @ 1750 MHz; Calibrated: 1/31/2019
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1331; Calibrated: 2/6/2019
- Phantom: MFP\_V5.1C ; Type: QD 000 P51CA; Serial: 1062
- Measurement SW: DASY52, Version 52.10 (2); SEMCAD X Version 14.6.12 (7450)

**System Performance Check/Zoom Scan (7x7x7) (7x7x7)/Cube 0:** Measurement grid:

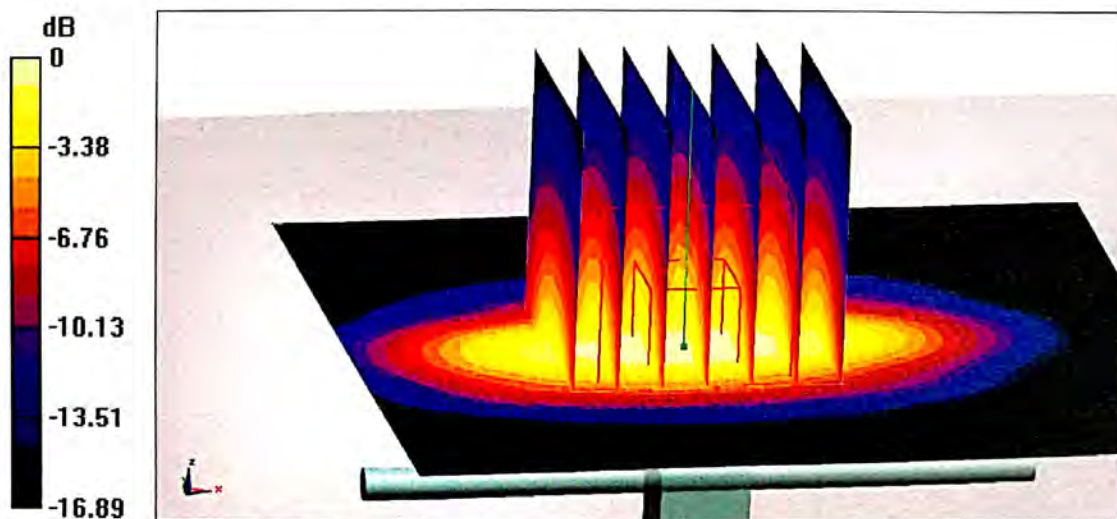
$dx=5$ mm,  $dy=5$ mm,  $dz=5$ mm

Reference Value = 93.60 V/m; Power Drift = 0.00 dB

Peak SAR (extrapolated) = 17.5 W/kg

**SAR(1 g) = 9.34 W/kg; SAR(10 g) = 4.9 W/kg**

Maximum value of SAR (measured) = 14.6 W/kg



0 dB = 14.6 W/kg = 11.64 dBW/kg



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## Impedance Measurement Plot for Body TSL

