

**Table 14.2-13: SAR Values (LTE Band5 - Head)**

| Ambient Temperature: 22.9°C |     |          |       |               |            | Liquid Temperature: 22.5°C |                          |                          |                          |                         |                         |                  |
|-----------------------------|-----|----------|-------|---------------|------------|----------------------------|--------------------------|--------------------------|--------------------------|-------------------------|-------------------------|------------------|
| Frequency                   |     | Mode     | Side  | Test Position | Figure No. | Conducted Power (dBm)      | Max. tune-up Power (dBm) | Measured SAR(10g) (W/kg) | Reported SAR(10g) (W/kg) | Measured SAR(1g) (W/kg) | Reported SAR(1g) (W/kg) | Power Drift (dB) |
| Ch.                         | MHz |          |       |               |            |                            |                          |                          |                          |                         |                         |                  |
| 20450                       | 829 | 1RB_High | Left  | Touch         | /          | 24.43                      | 25                       | 0.218                    | <b>0.25</b>              | 0.279                   | <b>0.32</b>             | 0.08             |
| 20450                       | 829 | 1RB_High | Left  | Tilt          | /          | 24.43                      | 25                       | 0.155                    | <b>0.18</b>              | 0.199                   | <b>0.23</b>             | 0.03             |
| 20450                       | 829 | 1RB_High | Right | Touch         | Fig.13     | 24.43                      | 25                       | 0.233                    | <b>0.27</b>              | 0.302                   | <b>0.34</b>             | 0.02             |
| 20450                       | 829 | 1RB_High | Right | Tilt          | /          | 24.43                      | 25                       | 0.172                    | <b>0.20</b>              | 0.218                   | <b>0.25</b>             | -0.09            |
| 20450                       | 829 | 25RB_Low | Left  | Touch         | /          | 23.36                      | 24                       | 0.174                    | <b>0.20</b>              | 0.224                   | <b>0.26</b>             | 0.12             |
| 20450                       | 829 | 25RB_Low | Left  | Tilt          | /          | 23.36                      | 24                       | 0.115                    | <b>0.13</b>              | 0.147                   | <b>0.17</b>             | 0.08             |
| 20450                       | 829 | 25RB_Low | Right | Touch         | /          | 23.36                      | 24                       | 0.188                    | <b>0.22</b>              | 0.245                   | <b>0.28</b>             | 0.01             |
| 20450                       | 829 | 25RB_Low | Right | Tilt          | /          | 23.36                      | 24                       | 0.128                    | <b>0.15</b>              | 0.163                   | <b>0.19</b>             | 0.13             |
| 20450                       | 829 | 1RB_High | Right | Touch         | B1         | 24.43                      | 25                       | 0.189                    | <b>0.22</b>              | 0.250                   | <b>0.29</b>             | -0.04            |

Note1: The LTE mode is QPSK\_10MHz.

**Table 14.2-14: SAR Values (LTE Band5 - Body)**

| Ambient Temperature: 22.9 °C |     |          |               |            |                       | Liquid Temperature: 22.5°C |                          |                          |                         |                         |                  |
|------------------------------|-----|----------|---------------|------------|-----------------------|----------------------------|--------------------------|--------------------------|-------------------------|-------------------------|------------------|
| Frequency                    |     | Mode     | Test Position | Figure No. | Conducted Power (dBm) | Max. tune-up Power (dBm)   | Measured SAR(10g) (W/kg) | Reported SAR(10g) (W/kg) | Measured SAR(1g) (W/kg) | Reported SAR(1g) (W/kg) | Power Drift (dB) |
| Ch.                          | MHz |          |               |            |                       |                            |                          |                          |                         |                         |                  |
| 20450                        | 829 | 1RB_High | Front         | /          | 24.43                 | 25                         | 0.268                    | <b>0.31</b>              | 0.340                   | <b>0.39</b>             | 0.07             |
| 20450                        | 829 | 1RB_High | Rear          | Fig.14     | 24.43                 | 25                         | 0.394                    | <b>0.45</b>              | 0.514                   | <b>0.59</b>             | -0.02            |
| 20450                        | 829 | 1RB_High | Left          | /          | 24.43                 | 25                         | 0.182                    | <b>0.21</b>              | 0.258                   | <b>0.29</b>             | -0.03            |
| 20450                        | 829 | 1RB_High | Right         | /          | 24.43                 | 25                         | 0.265                    | <b>0.30</b>              | 0.377                   | <b>0.43</b>             | 0.12             |
| 20450                        | 829 | 1RB_High | Bottom        | /          | 24.43                 | 25                         | 0.033                    | <b>0.04</b>              | 0.051                   | <b>0.06</b>             | -0.07            |
| 20450                        | 829 | 25RB_Low | Front         | /          | 23.36                 | 24                         | 0.218                    | <b>0.25</b>              | 0.286                   | <b>0.33</b>             | 0.03             |
| 20450                        | 829 | 25RB_Low | Rear          | /          | 23.36                 | 24                         | 0.329                    | <b>0.38</b>              | 0.430                   | <b>0.50</b>             | 0.01             |
| 20450                        | 829 | 25RB_Low | Left          | /          | 23.36                 | 24                         | 0.112                    | <b>0.13</b>              | 0.160                   | <b>0.19</b>             | 0.19             |
| 20450                        | 829 | 25RB_Low | Right         | /          | 23.36                 | 24                         | 0.182                    | <b>0.21</b>              | 0.258                   | <b>0.30</b>             | 0.03             |
| 20450                        | 829 | 25RB_Low | Bottom        | /          | 23.36                 | 24                         | 0.015                    | <b>0.02</b>              | 0.023                   | <b>0.03</b>             | 0.07             |
| 20450                        | 829 | 1RB_High | Rear          | B1         | 24.43                 | 25                         | 0.331                    | <b>0.38</b>              | 0.474                   | <b>0.54</b>             | -0.01            |

Note1: The distance between the EUT and the phantom bottom is 10mm.

Note2: The LTE mode is QPSK\_10MHz.

**Table 14.2-15: SAR Values (LTE Band7 - Head)**

| Ambient Temperature: 22.9 °C |      |          |       |               |                  | Liquid Temperature: 22.5°C |                          |                          |                          |                         |                         |                  |
|------------------------------|------|----------|-------|---------------|------------------|----------------------------|--------------------------|--------------------------|--------------------------|-------------------------|-------------------------|------------------|
| Frequency                    |      | Mode     | Side  | Test Position | Figure No./ Note | Conduct ed Power (dBm)     | Max. tune-up Power (dBm) | Measured SAR(10g) (W/kg) | Reported SAR(10g )(W/kg) | Measured SAR(1g) (W/kg) | Reported SAR(1g) (W/kg) | Power Drift (dB) |
| Ch.                          | MHz  |          |       |               |                  |                            |                          |                          |                          |                         |                         |                  |
| 20850                        | 2510 | 1RB_Low  | Left  | Touch         | /                | 21.93                      | 22.5                     | 0.046                    | <b>0.05</b>              | 0.088                   | <b>0.10</b>             | 0.09             |
| 20850                        | 2510 | 1RB_Low  | Left  | Tilt          | /                | 21.93                      | 22.5                     | 0.030                    | <b>0.03</b>              | 0.066                   | <b>0.08</b>             | -0.02            |
| 20850                        | 2510 | 1RB_Low  | Right | Touch         | Fig.15           | 21.93                      | 22.5                     | 0.131                    | <b>0.15</b>              | 0.268                   | <b>0.31</b>             | 0.09             |
| 20850                        | 2510 | 1RB_Low  | Right | Tilt          | /                | 21.93                      | 22.5                     | 0.025                    | <b>0.03</b>              | 0.048                   | <b>0.05</b>             | 0.11             |
| 21100                        | 2535 | 50RB_Low | Left  | Touch         | /                | 20.96                      | 21.5                     | 0.032                    | <b>0.04</b>              | 0.061                   | <b>0.07</b>             | 0.18             |
| 21100                        | 2535 | 50RB_Low | Left  | Tilt          | /                | 20.96                      | 21.5                     | 0.020                    | <b>0.02</b>              | 0.032                   | <b>0.04</b>             | 0.04             |
| 21100                        | 2535 | 50RB_Low | Right | Touch         | /                | 20.96                      | 21.5                     | 0.081                    | <b>0.09</b>              | 0.171                   | <b>0.19</b>             | 0.08             |
| 21100                        | 2535 | 50RB_Low | Right | Tilt          | /                | 20.96                      | 21.5                     | 0.010                    | <b>0.01</b>              | 0.016                   | <b>0.02</b>             | 0.05             |
| 20850                        | 2510 | 1RB_Low  | Right | Touch         | B1               | 21.93                      | 21.5                     | 0.121                    | <b>0.11</b>              | 0.247                   | <b>0.22</b>             | -0.01            |

Note1: The LTE mode is QPSK\_20MHz.

**Table 14.2-16: SAR Values (LTE Band7 - Body)**

| Ambient Temperature: 22.9 °C |      |          |               |                  |                       | Liquid Temperature: 22.5°C |                          |                          |                         |                         |                  |
|------------------------------|------|----------|---------------|------------------|-----------------------|----------------------------|--------------------------|--------------------------|-------------------------|-------------------------|------------------|
| Frequency                    |      | Mode     | Test Position | Figure No./ Note | Conducted Power (dBm) | Max. tune-up Power (dBm)   | Measured SAR(10g) (W/kg) | Reported SAR(10g) (W/kg) | Measured SAR(1g) (W/kg) | Reported SAR(1g) (W/kg) | Power Drift (dB) |
| Ch.                          | MHz  |          |               |                  |                       |                            |                          |                          |                         |                         |                  |
| 20850                        | 2510 | 1RB_Low  | Front         | /                | 21.93                 | 22.5                       | 0.333                    | <b>0.38</b>              | 0.664                   | <b>0.76</b>             | 0.08             |
| 21350                        | 2560 | 1RB_Low  | Rear          | /                | 21.85                 | 22.5                       | 0.320                    | <b>0.37</b>              | 0.723                   | <b>0.84</b>             | 0.06             |
| 21100                        | 2535 | 1RB_Low  | Rear          | /                | 21.88                 | 22.5                       | 0.307                    | <b>0.35</b>              | 0.700                   | <b>0.81</b>             | -0.08            |
| 20850                        | 2510 | 1RB_Low  | Rear          | Fig.16           | 21.93                 | 22.5                       | 0.352                    | <b>0.40</b>              | 0.763                   | <b>0.87</b>             | -0.09            |
| 20850                        | 2510 | 1RB_Low  | Left          | /                | 21.93                 | 22.5                       | 0.037                    | <b>0.04</b>              | 0.070                   | <b>0.08</b>             | 0.11             |
| 20850                        | 2510 | 1RB_Low  | Right         | /                | 21.93                 | 22.5                       | 0.090                    | <b>0.10</b>              | 0.169                   | <b>0.19</b>             | 0.17             |
| 20850                        | 2510 | 1RB_Low  | Bottom        | /                | 21.93                 | 22.5                       | 0.291                    | <b>0.33</b>              | 0.586                   | <b>0.67</b>             | -0.03            |
| 21100                        | 2535 | 50RB_Low | Front         | /                | 20.96                 | 21.5                       | 0.217                    | <b>0.25</b>              | 0.434                   | <b>0.49</b>             | 0.08             |
| 21100                        | 2535 | 50RB_Low | Rear          | /                | 20.96                 | 21.5                       | 0.229                    | <b>0.26</b>              | 0.504                   | <b>0.57</b>             | 0.06             |
| 21100                        | 2535 | 50RB_Low | Left          | /                | 20.96                 | 21.5                       | 0.028                    | <b>0.03</b>              | 0.054                   | <b>0.06</b>             | -0.09            |
| 21100                        | 2535 | 50RB_Low | Right         | /                | 20.96                 | 21.5                       | 0.057                    | <b>0.06</b>              | 0.110                   | <b>0.12</b>             | 0.14             |
| 21100                        | 2535 | 50RB_Low | Bottom        | /                | 20.96                 | 21.5                       | 0.219                    | <b>0.25</b>              | 0.449                   | <b>0.51</b>             | 0.08             |
| 20850                        | 2510 | 100RB    | Rear          | /                | 20.90                 | 21.5                       | 0.236                    | <b>0.27</b>              | 0.518                   | <b>0.59</b>             | 0.03             |
| 20850                        | 2510 | 1RB_Low  | Rear          | B1               | 21.93                 | 22.5                       | 0.318                    | <b>0.36</b>              | 0.663                   | <b>0.76</b>             | 0.01             |

Note1: The distance between the EUT and the phantom bottom is 10mm.

Note2: The LTE mode is QPSK\_20MHz.

**Table 14.2-17: SAR Values (LTE Band17 - Head)**

| Ambient Temperature: 22.9 °C |     |          |       |               |                  | Liquid Temperature: 22.5°C |                          |                          |                          |                         |                         |                  |
|------------------------------|-----|----------|-------|---------------|------------------|----------------------------|--------------------------|--------------------------|--------------------------|-------------------------|-------------------------|------------------|
| Frequency                    |     | Mode     | Side  | Test Position | Figure No./ Note | Conducted Power (dBm)      | Max. tune-up Power (dBm) | Measured SAR(10g) (W/kg) | Reported SAR(10g) (W/kg) | Measured SAR(1g) (W/kg) | Reported SAR(1g) (W/kg) | Power Drift (dB) |
| Ch.                          | MHz |          |       |               |                  |                            |                          |                          |                          |                         |                         |                  |
| 23790                        | 710 | 1RB_High | Left  | Touch         | Fig.17           | 23.72                      | 24.5                     | 0.180                    | <b>0.22</b>              | 0.229                   | <b>0.27</b>             | 0.16             |
| 23790                        | 710 | 1RB_High | Left  | Tilt          | /                | 23.72                      | 24.5                     | 0.140                    | <b>0.17</b>              | 0.176                   | <b>0.21</b>             | 0.12             |
| 23790                        | 710 | 1RB_High | Right | Touch         | /                | 23.72                      | 24.5                     | 0.169                    | <b>0.20</b>              | 0.218                   | <b>0.26</b>             | 0.07             |
| 23790                        | 710 | 1RB_High | Right | Tilt          | /                | 23.72                      | 24.5                     | 0.158                    | <b>0.19</b>              | 0.195                   | <b>0.23</b>             | -0.03            |
| 23800                        | 711 | 25RB_Low | Left  | Touch         | /                | 22.61                      | 23.5                     | 0.114                    | <b>0.14</b>              | 0.146                   | <b>0.18</b>             | 0.08             |
| 23800                        | 711 | 25RB_Low | Left  | Tilt          | /                | 22.61                      | 23.5                     | 0.078                    | <b>0.10</b>              | 0.099                   | <b>0.12</b>             | 0.06             |
| 23800                        | 711 | 25RB_Low | Right | Touch         | /                | 22.61                      | 23.5                     | 0.113                    | <b>0.14</b>              | 0.145                   | <b>0.18</b>             | -0.09            |
| 23800                        | 711 | 25RB_Low | Right | Tilt          | /                | 22.61                      | 23.5                     | 0.104                    | <b>0.13</b>              | 0.130                   | <b>0.16</b>             | 0.19             |
| 23790                        | 710 | 1RB_High | Left  | Touch         | B1               | 23.72                      | 24.5                     | 0.153                    | <b>0.18</b>              | 0.209                   | <b>0.25</b>             | -0.03            |

Note1: The LTE mode is QPSK\_10MHz.

**Table 14.2-18: SAR Values (LTE Band17 - Body)**

| Ambient Temperature: 22.9 °C |     |          |               |                 |                       | Liquid Temperature: 22.5°C |                          |                          |                         |                         |                  |
|------------------------------|-----|----------|---------------|-----------------|-----------------------|----------------------------|--------------------------|--------------------------|-------------------------|-------------------------|------------------|
| Frequency                    |     | Mode     | Test Position | Figure No./Note | Conducted Power (dBm) | Max. tune-up Power (dBm)   | Measured SAR(10g) (W/kg) | Reported SAR(10g) (W/kg) | Measured SAR(1g) (W/kg) | Reported SAR(1g) (W/kg) | Power Drift (dB) |
| Ch.                          | MHz |          |               |                 |                       |                            |                          |                          |                         |                         |                  |
| 23790                        | 710 | 1RB_High | Front         | /               | 23.72                 | 24.5                       | 0.277                    | <b>0.33</b>              | 0.351                   | <b>0.42</b>             | 0.04             |
| 23790                        | 710 | 1RB_High | Rear          | Fig.18          | 23.72                 | 24.5                       | 0.384                    | <b>0.46</b>              | 0.493                   | <b>0.59</b>             | -0.06            |
| 23790                        | 710 | 1RB_High | Left          | /               | 23.72                 | 24.5                       | 0.235                    | <b>0.28</b>              | 0.327                   | <b>0.39</b>             | 0.01             |
| 23790                        | 710 | 1RB_High | Right         | /               | 23.72                 | 24.5                       | 0.250                    | <b>0.30</b>              | 0.343                   | <b>0.41</b>             | 0.15             |
| 23790                        | 710 | 1RB_High | Bottom        | /               | 23.72                 | 24.5                       | 0.023                    | <b>0.03</b>              | 0.038                   | <b>0.05</b>             | -0.09            |
| 23800                        | 711 | 25RB_Low | Front         | /               | 22.61                 | 23.5                       | 0.168                    | <b>0.21</b>              | 0.215                   | <b>0.26</b>             | 0.04             |
| 23800                        | 711 | 25RB_Low | Rear          | /               | 22.61                 | 23.5                       | 0.289                    | <b>0.35</b>              | 0.376                   | <b>0.46</b>             | 0.07             |
| 23800                        | 711 | 25RB_Low | Left          | /               | 22.61                 | 23.5                       | 0.174                    | <b>0.21</b>              | 0.239                   | <b>0.29</b>             | 0.16             |
| 23800                        | 711 | 25RB_Low | Right         | /               | 22.61                 | 23.5                       | 0.184                    | <b>0.23</b>              | 0.255                   | <b>0.31</b>             | 0.02             |
| 23800                        | 711 | 25RB_Low | Bottom        | /               | 22.61                 | 23.5                       | 0.020                    | <b>0.02</b>              | 0.032                   | <b>0.04</b>             | 0.01             |
| 23790                        | 710 | 1RB_High | Rear          | B1              | 23.72                 | 24.5                       | 0.361                    | <b>0.43</b>              | 0.462                   | <b>0.55</b>             | 0.19             |

Note1: The distance between the EUT and the phantom bottom is 10mm.

Note2: The LTE mode is QPSK\_10MHz.

**Table 14.2-19: SAR Values (LTE band66 - Head)**

| Ambient Temperature: 22.9 °C |      |          |       |               |            | Liquid Temperature: 22.5°C |                          |                          |                          |                         |                         |                  |
|------------------------------|------|----------|-------|---------------|------------|----------------------------|--------------------------|--------------------------|--------------------------|-------------------------|-------------------------|------------------|
| Frequency                    |      | Mode     | Side  | Test Position | Figure No. | Conducted Power (dBm)      | Max. tune-up Power (dBm) | Measured SAR(10g) (W/kg) | Reported SAR(10g) (W/kg) | Measured SAR(1g) (W/kg) | Reported SAR(1g) (W/kg) | Power Drift (dB) |
| Ch.                          | MHz  |          |       |               |            |                            |                          |                          |                          |                         |                         |                  |
| 132572                       | 1770 | 1RB_High | Left  | Touch         | /          | 22.81                      | 23.5                     | 0.149                    | <b>0.17</b>              | 0.238                   | <b>0.28</b>             | 0.05             |
| 132572                       | 1770 | 1RB_High | Left  | Tilt          | /          | 22.81                      | 23.5                     | 0.090                    | <b>0.11</b>              | 0.147                   | <b>0.17</b>             | 0.12             |
| 132572                       | 1770 | 1RB_High | Right | Touch         | Fig.19     | 22.81                      | 23.5                     | 0.177                    | <b>0.21</b>              | 0.277                   | <b>0.32</b>             | -0.13            |
| 132572                       | 1770 | 1RB_High | Right | Tilt          | /          | 22.81                      | 23.5                     | 0.092                    | <b>0.11</b>              | 0.148                   | <b>0.17</b>             | -0.07            |
| 132572                       | 1770 | 50RB_Low | Left  | Touch         | /          | 21.72                      | 22.5                     | 0.102                    | <b>0.12</b>              | 0.162                   | <b>0.19</b>             | 0.02             |
| 132572                       | 1770 | 50RB_Low | Left  | Tilt          | /          | 21.72                      | 22.5                     | 0.064                    | <b>0.08</b>              | 0.105                   | <b>0.13</b>             | 0.18             |
| 132572                       | 1770 | 50RB_Low | Right | Touch         | /          | 21.72                      | 22.5                     | 0.110                    | <b>0.13</b>              | 0.181                   | <b>0.22</b>             | 0.06             |
| 132572                       | 1770 | 50RB_Low | Right | Tilt          | /          | 21.72                      | 22.5                     | 0.053                    | <b>0.06</b>              | 0.084                   | <b>0.10</b>             | 0.01             |
| 132572                       | 1770 | 1RB_High | Right | Touch         | B1         | 22.81                      | 23.5                     | 0.152                    | <b>0.18</b>              | 0.238                   | <b>0.28</b>             | 0.19             |

Note1: The LTE mode is QPSK\_20MHz.

**Table 14.2-20: SAR Values (LTE band66 - Body)**

| Ambient Temperature: 22.9 °C |      |          |               |                  |                       | Liquid Temperature: 22.5°C |                          |                          |                         |                         |                  |
|------------------------------|------|----------|---------------|------------------|-----------------------|----------------------------|--------------------------|--------------------------|-------------------------|-------------------------|------------------|
| Frequency                    |      | Mode     | Test Position | Figure No./ Note | Conducted Power (dBm) | Max. tune-up Power (dBm)   | Measured SAR(10g) (W/kg) | Reported SAR(10g) (W/kg) | Measured SAR(1g) (W/kg) | Reported SAR(1g) (W/kg) | Power Drift (dB) |
| Ch.                          | MHz  |          |               |                  |                       |                            |                          |                          |                         |                         |                  |
| 132572                       | 1770 | 1RB_High | Front         | /                | 22.81                 | 23.5                       | 0.211                    | <b>0.25</b>              | 0.368                   | <b>0.43</b>             | 0.04             |
| 132572                       | 1770 | 1RB_High | Rear          | /                | 22.81                 | 23.5                       | 0.268                    | <b>0.31</b>              | 0.509                   | <b>0.60</b>             | -0.09            |
| 132572                       | 1770 | 1RB_High | Left          | /                | 22.81                 | 23.5                       | 0.037                    | <b>0.04</b>              | 0.059                   | <b>0.07</b>             | 0.12             |
| 132572                       | 1770 | 1RB_High | Right         | /                | 22.81                 | 23.5                       | 0.076                    | <b>0.09</b>              | 0.122                   | <b>0.14</b>             | 0.04             |
| 132572                       | 1770 | 1RB_High | Bottom        | Fig.20           | 22.81                 | 23.5                       | 0.331                    | <b>0.39</b>              | 0.604                   | <b>0.71</b>             | 0.19             |
| 132572                       | 1770 | 50RB_Low | Front         | /                | 21.72                 | 22.5                       | 0.182                    | <b>0.22</b>              | 0.249                   | <b>0.30</b>             | 0.08             |
| 132572                       | 1770 | 50RB_Low | Rear          | /                | 21.72                 | 22.5                       | 0.243                    | <b>0.29</b>              | 0.453                   | <b>0.54</b>             | 0.14             |
| 132572                       | 1770 | 50RB_Low | Left          | /                | 21.72                 | 22.5                       | 0.034                    | <b>0.04</b>              | 0.056                   | <b>0.07</b>             | 0.17             |
| 132572                       | 1770 | 50RB_Low | Right         | /                | 21.72                 | 22.5                       | 0.056                    | <b>0.07</b>              | 0.092                   | <b>0.11</b>             | 0.02             |
| 132572                       | 1770 | 50RB_Low | Bottom        | /                | 21.72                 | 22.5                       | 0.28                     | <b>0.34</b>              | 0.512                   | <b>0.61</b>             | 0.07             |
| 132572                       | 1770 | 1RB_High | Bottom        | B1               | 22.81                 | 23.5                       | 0.308                    | <b>0.36</b>              | 0.583                   | <b>0.68</b>             | 0.11             |

Note1: The distance between the EUT and the phantom bottom is 10mm.

Note2: The LTE mode is QPSK\_20MHz.

### 14.3 SAR results for Standard procedure

There is zoom scan measurement to be added for the highest measured SAR in each exposure configuration/band.

**Table 14.3-1: SAR Values (GSM 850 MHz Band - Head)**

| Ambient Temperature: 22.9 °C |       |       |               |                 |                       | Liquid Temperature: 22.5°C |                          |                          |                         |                         |                  |
|------------------------------|-------|-------|---------------|-----------------|-----------------------|----------------------------|--------------------------|--------------------------|-------------------------|-------------------------|------------------|
| Frequency                    |       | Side  | Test Position | Figure No./Note | Conducted Power (dBm) | Max. tune-up Power (dBm)   | Measured SAR(10g) (W/kg) | Reported SAR(10g) (W/kg) | Measured SAR(1g) (W/kg) | Reported SAR(1g) (W/kg) | Power Drift (dB) |
| Ch.                          | MHz   |       |               |                 |                       |                            |                          |                          |                         |                         |                  |
| 251                          | 848.8 | Right | Touch         | Fig.1           | 31.97                 | 32.5                       | 0.437                    | <b>0.49</b>              | 0.571                   | <b>0.65</b>             | 0.18             |

Note: the head SAR of GSM850 is tested with GPRS (2Txslots) mode because of VoIP.

**Table 14.3-2: SAR Values (GSM 850 MHz Band - Body)**

| Ambient Temperature: 22.9 °C |       |                            |               |                 |                       | Liquid Temperature: 22.5°C |                          |                          |                         |                         |                  |
|------------------------------|-------|----------------------------|---------------|-----------------|-----------------------|----------------------------|--------------------------|--------------------------|-------------------------|-------------------------|------------------|
| Frequency                    |       | Mode (number of timeslots) | Test Position | Figure No./Note | Conducted Power (dBm) | Max. tune-up Power (dBm)   | Measured SAR(10g) (W/kg) | Reported SAR(10g) (W/kg) | Measured SAR(1g) (W/kg) | Reported SAR(1g) (W/kg) | Power Drift (dB) |
| Ch.                          | MHz   |                            |               |                 |                       |                            |                          |                          |                         |                         |                  |
| 190                          | 836.6 | GPRS (2)                   | Rear          | Fig.2           | 31.96                 | 32.5                       | 0.633                    | <b>0.72</b>              | 0.824                   | <b>0.93</b>             | -0.06            |

Note: The distance between the EUT and the phantom bottom is 10mm.

**Table 14.3-3: SAR Values (GSM 1900 MHz Band - Head)**

| Ambient Temperature: 22.9 °C |        |      |               |                 |                       | Liquid Temperature: 22.5°C |                          |                          |                         |                         |                  |
|------------------------------|--------|------|---------------|-----------------|-----------------------|----------------------------|--------------------------|--------------------------|-------------------------|-------------------------|------------------|
| Frequency                    |        | Side | Test Position | Figure No./Note | Conducted Power (dBm) | Max. tune-up Power (dBm)   | Measured SAR(10g) (W/kg) | Reported SAR(10g) (W/kg) | Measured SAR(1g) (W/kg) | Reported SAR(1g) (W/kg) | Power Drift (dB) |
| Ch.                          | MHz    |      |               |                 |                       |                            |                          |                          |                         |                         |                  |
| 810                          | 1909.8 | Left | Touch         | Fig.3           | 29.25                 | 29.5                       | 0.256                    | <b>0.27</b>              | 0.425                   | <b>0.45</b>             | 0.06             |

Note: the head SAR of GSM1900 is tested with GPRS (2Txslots) mode because of VoIP.

**Table 14.3-4: SAR Values (GSM 1900 MHz Band - Body)**

| Ambient Temperature: 22.9 °C |        |                            |               |                 |                       | Liquid Temperature: 22.5°C |                          |                          |                         |                         |                  |
|------------------------------|--------|----------------------------|---------------|-----------------|-----------------------|----------------------------|--------------------------|--------------------------|-------------------------|-------------------------|------------------|
| Frequency                    |        | Mode (number of timeslots) | Test Position | Figure No./Note | Conducted Power (dBm) | Max. tune-up Power (dBm)   | Measured SAR(10g) (W/kg) | Reported SAR(10g) (W/kg) | Measured SAR(1g) (W/kg) | Reported SAR(1g) (W/kg) | Power Drift (dB) |
| Ch.                          | MHz    |                            |               |                 |                       |                            |                          |                          |                         |                         |                  |
| 512                          | 1850.2 | GPRS (2)                   | Bottom        | Fig.4           | 28.95                 | 29.5                       | 0.551                    | <b>0.63</b>              | 1.02                    | <b>1.16</b>             | -0.01            |

Note: The distance between the EUT and the phantom bottom is 10mm.

**Table 14.3-5: SAR Values (WCDMA 850 MHz Band - Head)**

| Ambient Temperature: 22.9 °C |       |       |               |                 |                       | Liquid Temperature: 22.5°C |                          |                          |                         |                         |                  |
|------------------------------|-------|-------|---------------|-----------------|-----------------------|----------------------------|--------------------------|--------------------------|-------------------------|-------------------------|------------------|
| Frequency                    |       | Side  | Test Position | Figure No./Note | Conducted Power (dBm) | Max. tune-up Power (dBm)   | Measured SAR(10g) (W/kg) | Reported SAR(10g) (W/kg) | Measured SAR(1g) (W/kg) | Reported SAR(1g) (W/kg) | Power Drift (dB) |
| Ch.                          | MHz   |       |               |                 |                       |                            |                          |                          |                         |                         |                  |
| 4233                         | 846.6 | Right | Touch         | Fig.5           | 23.54                 | 24.5                       | 0.243                    | <b>0.30</b>              | 0.317                   | <b>0.40</b>             | 0.17             |

**Table 14.3-6: SAR Values (WCDMA 850 MHz Band - Body)**

| Ambient Temperature: 22.9 °C |       |               |                  |                       |                          | Liquid Temperature: 22.5°C |                          |                         |                         |                  |
|------------------------------|-------|---------------|------------------|-----------------------|--------------------------|----------------------------|--------------------------|-------------------------|-------------------------|------------------|
| Frequency                    |       | Test Position | Figure No./ Note | Conducted Power (dBm) | Max. tune-up Power (dBm) | Measured SAR(10g) (W/kg)   | Reported SAR(10g) (W/kg) | Measured SAR(1g) (W/kg) | Reported SAR(1g) (W/kg) | Power Drift (dB) |
| Ch.                          | MHz   |               |                  |                       |                          |                            |                          |                         |                         |                  |
| 4132                         | 826.4 | Rear          | Fig.6            | 23.61                 | 24.5                     | 0.314                      | <b>0.39</b>              | 0.410                   | <b>0.50</b>             | 0.10             |

Note: The distance between the EUT and the phantom bottom is 10mm.

**Table 14.3-7: SAR Values (WCDMA 1700 MHz Band - Head)**

| Ambient Temperature: 22.9 °C |        |       |               |                 |                       | Liquid Temperature: 22.5°C |                          |                          |                         |                         |                  |
|------------------------------|--------|-------|---------------|-----------------|-----------------------|----------------------------|--------------------------|--------------------------|-------------------------|-------------------------|------------------|
| Frequency                    |        | Side  | Test Position | Figure No./Note | Conducted Power (dBm) | Max. tune-up Power (dBm)   | Measured SAR(10g) (W/kg) | Reported SAR(10g) (W/kg) | Measured SAR(1g) (W/kg) | Reported SAR(1g) (W/kg) | Power Drift (dB) |
| Ch.                          | MHz    |       |               |                 |                       |                            |                          |                          |                         |                         |                  |
| 1738                         | 1752.6 | Right | Touch         | Fig.7           | 23.52                 | 24                         | 0.175                    | <b>0.20</b>              | 0.277                   | <b>0.31</b>             | 0.08             |

**Table 14.3-8: SAR Values (WCDMA 1700 MHz Band - Body)**

| Ambient Temperature: 22.9 °C |        |               |                  |                       |                          | Liquid Temperature: 22.5°C |                          |                         |                         |                  |
|------------------------------|--------|---------------|------------------|-----------------------|--------------------------|----------------------------|--------------------------|-------------------------|-------------------------|------------------|
| Frequency                    |        | Test Position | Figure No./ Note | Conducted Power (dBm) | Max. tune-up Power (dBm) | Measured SAR(10g) (W/kg)   | Reported SAR(10g) (W/kg) | Measured SAR(1g) (W/kg) | Reported SAR(1g) (W/kg) | Power Drift (dB) |
| Ch.                          | MHz    |               |                  |                       |                          |                            |                          |                         |                         |                  |
| 1537                         | 1712.4 | Bottom        | Fig.8            | 23.53                 | 24                       | 0.529                      | <b>0.59</b>              | 0.934                   | <b>1.04</b>             | 0.01             |

Note1: The distance between the EUT and the phantom bottom is 10mm.

**Table 14.3-9: SAR Values (WCDMA 1900 MHz Band - Head)**

| Ambient Temperature: 22.9 °C |      |      |               |                  |                       | Liquid Temperature: 22.5°C |                          |                          |                         |                         |                  |
|------------------------------|------|------|---------------|------------------|-----------------------|----------------------------|--------------------------|--------------------------|-------------------------|-------------------------|------------------|
| Frequency                    |      | Side | Test Position | Figure No./ Note | Conducted Power (dBm) | Max. tune-up Power (dBm)   | Measured SAR(10g) (W/kg) | Reported SAR(10g) (W/kg) | Measured SAR(1g) (W/kg) | Reported SAR(1g) (W/kg) | Power Drift (dB) |
| Ch.                          | MHz  |      |               |                  |                       |                            |                          |                          |                         |                         |                  |
| 9800                         | 1880 | Left | Touch         | Fig.9            | 22.37                 | 23.5                       | 0.201                    | <b>0.26</b>              | 0.333                   | <b>0.43</b>             | 0.00             |

**Table 14.1-10: SAR Values (WCDMA 1900 MHz Band - Body)**

| Ambient Temperature: 22.9 °C |        |               |                  |                       |                          | Liquid Temperature: 22.5°C |                          |                         |                         |                  |
|------------------------------|--------|---------------|------------------|-----------------------|--------------------------|----------------------------|--------------------------|-------------------------|-------------------------|------------------|
| Frequency                    |        | Test Position | Figure No./ Note | Conducted Power (dBm) | Max. tune-up Power (dBm) | Measured SAR(10g) (W/kg)   | Reported SAR(10g) (W/kg) | Measured SAR(1g) (W/kg) | Reported SAR(1g) (W/kg) | Power Drift (dB) |
| Ch.                          | MHz    |               |                  |                       |                          |                            |                          |                         |                         |                  |
| 9662                         | 1852.4 | Bottom        | Fig.10           | 22.44                 | 23.5                     | 0.503                      | <b>0.64</b>              | 0.936                   | <b>1.19</b>             | 0.07             |

Note1: The distance between the EUT and the phantom bottom is 10mm.



**Table 14.3-11: SAR Values (LTE Band2 - Head)**

| Ambient Temperature: 22.9 °C |      |         |       |               |                  | Liquid Temperature: 22.5°C |                          |                          |                          |                         |                         |                  |
|------------------------------|------|---------|-------|---------------|------------------|----------------------------|--------------------------|--------------------------|--------------------------|-------------------------|-------------------------|------------------|
| Frequency                    |      | Mode    | Side  | Test Position | Figure No./ Note | Conducted Power (dBm)      | Max. tune-up Power (dBm) | Measured SAR(10g) (W/kg) | Reported SAR(10g) (W/kg) | Measured SAR(1g) (W/kg) | Reported SAR(1g) (W/kg) | Power Drift (dB) |
| Ch.                          | MHz  |         |       |               |                  |                            |                          |                          |                          |                         |                         |                  |
| 18700                        | 1860 | 1RB_Low | Right | Touch         | Fig.11           | 23.33                      | 24                       | 0.249                    | <b>0.29</b>              | 0.403                   | <b>0.47</b>             | 0.12             |

Note1: The LTE mode is QPSK\_20MHz.

**Table 14.3-12: SAR Values (LTE Band2 - Body)**

| Ambient Temperature: 22.9 °C |      |         |               |                  |                       | Liquid Temperature: 22.5°C |                          |                          |                         |                         |                  |
|------------------------------|------|---------|---------------|------------------|-----------------------|----------------------------|--------------------------|--------------------------|-------------------------|-------------------------|------------------|
| Frequency                    |      | Mode    | Test Position | Figure No./ Note | Conducted Power (dBm) | Max. tune-up Power (dBm)   | Measured SAR(10g) (W/kg) | Reported SAR(10g) (W/kg) | Measured SAR(1g) (W/kg) | Reported SAR(1g) (W/kg) | Power Drift (dB) |
| Ch.                          | MHz  |         |               |                  |                       |                            |                          |                          |                         |                         |                  |
| 18700                        | 1860 | 1RB_Low | Bottom        | Fig.12           | 23.33                 | 24                         | 0.537                    | <b>0.63</b>              | 0.998                   | <b>1.16</b>             | 0.06             |

Note1: The distance between the EUT and the phantom bottom is 10mm.

Note2: The LTE mode is QPSK\_20MHz.

**Table 14.3-13: SAR Values (LTE Band5 - Head)**

| Ambient Temperature: 22.9°C |     |          |       |               |            | Liquid Temperature: 22.5°C |                          |                          |                          |                         |                         |                  |
|-----------------------------|-----|----------|-------|---------------|------------|----------------------------|--------------------------|--------------------------|--------------------------|-------------------------|-------------------------|------------------|
| Frequency                   |     | Mode     | Side  | Test Position | Figure No. | Conducted Power (dBm)      | Max. tune-up Power (dBm) | Measured SAR(10g) (W/kg) | Reported SAR(10g) (W/kg) | Measured SAR(1g) (W/kg) | Reported SAR(1g) (W/kg) | Power Drift (dB) |
| Ch.                         | MHz |          |       |               |            |                            |                          |                          |                          |                         |                         |                  |
| 20450                       | 829 | 1RB_High | Right | Touch         | Fig.13     | 24.43                      | 25                       | 0.233                    | <b>0.27</b>              | 0.302                   | <b>0.34</b>             | 0.02             |

Note1: The LTE mode is QPSK\_10MHz.

**Table 14.3-14: SAR Values (LTE Band5 - Body)**

| Ambient Temperature: 22.9 °C |     |          |               |            |                       | Liquid Temperature: 22.5°C |                          |                          |                         |                         |                  |
|------------------------------|-----|----------|---------------|------------|-----------------------|----------------------------|--------------------------|--------------------------|-------------------------|-------------------------|------------------|
| Frequency                    |     | Mode     | Test Position | Figure No. | Conducted Power (dBm) | Max. tune-up Power (dBm)   | Measured SAR(10g) (W/kg) | Reported SAR(10g) (W/kg) | Measured SAR(1g) (W/kg) | Reported SAR(1g) (W/kg) | Power Drift (dB) |
| Ch.                          | MHz |          |               |            |                       |                            |                          |                          |                         |                         |                  |
| 20450                        | 829 | 1RB_High | Rear          | Fig.14     | 24.43                 | 25                         | 0.394                    | <b>0.45</b>              | 0.514                   | <b>0.59</b>             | -0.02            |

Note1: The distance between the EUT and the phantom bottom is 10mm.

Note2: The LTE mode is QPSK\_10MHz.

**Table 14.3-15: SAR Values (LTE Band7 - Head)**

| Ambient Temperature: 22.9 °C |      |         |       |               |                  | Liquid Temperature: 22.5°C |                          |                          |                          |                         |                         |                  |
|------------------------------|------|---------|-------|---------------|------------------|----------------------------|--------------------------|--------------------------|--------------------------|-------------------------|-------------------------|------------------|
| Frequency                    |      | Mode    | Side  | Test Position | Figure No./ Note | Conduct ed Power (dBm)     | Max. tune-up Power (dBm) | Measured SAR(10g) (W/kg) | Reported SAR(10g) (W/kg) | Measured SAR(1g) (W/kg) | Reported SAR(1g) (W/kg) | Power Drift (dB) |
| Ch.                          | MHz  |         |       |               |                  |                            |                          |                          |                          |                         |                         |                  |
| 20850                        | 2510 | 1RB_Low | Right | Touch         | Fig.15           | 21.93                      | 22.5                     | 0.131                    | <b>0.15</b>              | 0.268                   | <b>0.31</b>             | 0.09             |

Note1: The LTE mode is QPSK\_20MHz.

**Table 14.3-16: SAR Values (LTE Band7 - Body)**

| Ambient Temperature: 22.9 °C      Liquid Temperature: 22.5°C |      |         |               |                  |                       |                          |                          |                          |                         |                         |                  |
|--------------------------------------------------------------|------|---------|---------------|------------------|-----------------------|--------------------------|--------------------------|--------------------------|-------------------------|-------------------------|------------------|
| Frequency                                                    |      | Mode    | Test Position | Figure No./ Note | Conducted Power (dBm) | Max. tune-up Power (dBm) | Measured SAR(10g) (W/kg) | Reported SAR(10g) (W/kg) | Measured SAR(1g) (W/kg) | Reported SAR(1g) (W/kg) | Power Drift (dB) |
| Ch.                                                          | MHz  |         |               |                  |                       |                          |                          |                          |                         |                         |                  |
| 20850                                                        | 2510 | 1RB_Low | Rear          | Fig.16           | 21.93                 | 22.5                     | 0.352                    | <b>0.40</b>              | 0.763                   | <b>0.87</b>             | -0.09            |

Note1: The distance between the EUT and the phantom bottom is 10mm.

Note2: The LTE mode is QPSK\_20MHz.

**Table 14.3-17: SAR Values (LTE Band17 - Head)**

| Ambient Temperature: 22.9 °C |     |          |      |               |                  | Liquid Temperature: 22.5°C |                          |                          |                          |                         |                         |                  |
|------------------------------|-----|----------|------|---------------|------------------|----------------------------|--------------------------|--------------------------|--------------------------|-------------------------|-------------------------|------------------|
| Frequency                    |     | Mode     | Side | Test Position | Figure No./ Note | Conduct ed Power (dBm)     | Max. tune-up Power (dBm) | Measured SAR(10g) (W/kg) | Reported SAR(10g) (W/kg) | Measured SAR(1g) (W/kg) | Reported SAR(1g) (W/kg) | Power Drift (dB) |
| Ch.                          | MHz |          |      |               |                  |                            |                          |                          |                          |                         |                         |                  |
| 23790                        | 710 | 1RB_High | Left | Touch         | Fig.17           | 23.72                      | 24.5                     | 0.180                    | <b>0.22</b>              | 0.229                   | <b>0.27</b>             | 0.16             |

Note1: The LTE mode is QPSK\_10MHz.

**Table 14.3-18: SAR Values (LTE Band17 - Body)**

| Ambient Temperature: 22.9 °C |     |          |               |                 |                       | Liquid Temperature: 22.5°C |                          |                          |                         |                         |                  |
|------------------------------|-----|----------|---------------|-----------------|-----------------------|----------------------------|--------------------------|--------------------------|-------------------------|-------------------------|------------------|
| Frequency                    |     | Mode     | Test Position | Figure No./Note | Conducted Power (dBm) | Max. tune-up Power (dBm)   | Measured SAR(10g) (W/kg) | Reported SAR(10g) (W/kg) | Measured SAR(1g) (W/kg) | Reported SAR(1g) (W/kg) | Power Drift (dB) |
| Ch.                          | MHz |          |               |                 |                       |                            |                          |                          |                         |                         |                  |
| 23790                        | 710 | 1RB_High | Rear          | Fig.18          | 23.72                 | 24.5                       | 0.384                    | <b>0.46</b>              | 0.493                   | <b>0.59</b>             | -0.06            |
| 23790                        | 710 | 1RB_High | Rear          | B1              | 23.72                 | 24.5                       | 0.361                    | <b>0.43</b>              | 0.462                   | <b>0.55</b>             | 0.19             |

Note1: The distance between the EUT and the phantom bottom is 10mm.

Note2: The LTE mode is QPSK\_10MHz.



**Table 14.3-19: SAR Values (LTE band66 - Head)**

| Ambient Temperature: 22.9 °C |      |          |       |               |            | Liquid Temperature: 22.5°C |                          |                          |                          |                         |                         |                  |
|------------------------------|------|----------|-------|---------------|------------|----------------------------|--------------------------|--------------------------|--------------------------|-------------------------|-------------------------|------------------|
| Frequency                    |      | Mode     | Side  | Test Position | Figure No. | Conducted Power (dBm)      | Max. tune-up Power (dBm) | Measured SAR(10g) (W/kg) | Reported SAR(10g) (W/kg) | Measured SAR(1g) (W/kg) | Reported SAR(1g) (W/kg) | Power Drift (dB) |
| Ch.                          | MHz  |          |       |               |            |                            |                          |                          |                          |                         |                         |                  |
| 132572                       | 1770 | 1RB_High | Right | Touch         | Fig.19     | 22.81                      | 23.5                     | 0.177                    | <b>0.21</b>              | 0.277                   | <b>0.32</b>             | -0.13            |

Note1: The LTE mode is QPSK\_20MHz.

**Table 14.3-20: SAR Values (LTE band66 - Body)**

| Ambient Temperature: 22.9 °C |      |          |               |                  |                       | Liquid Temperature: 22.5°C |                          |                          |                         |                         |                  |
|------------------------------|------|----------|---------------|------------------|-----------------------|----------------------------|--------------------------|--------------------------|-------------------------|-------------------------|------------------|
| Frequency                    |      | Mode     | Test Position | Figure No./ Note | Conducted Power (dBm) | Max. tune-up Power (dBm)   | Measured SAR(10g) (W/kg) | Reported SAR(10g) (W/kg) | Measured SAR(1g) (W/kg) | Reported SAR(1g) (W/kg) | Power Drift (dB) |
| Ch.                          | MHz  |          |               |                  |                       |                            |                          |                          |                         |                         |                  |
| 132572                       | 1770 | 1RB_High | Bottom        | Fig.20           | 22.81                 | 23.5                       | 0.331                    | <b>0.39</b>              | 0.604                   | <b>0.71</b>             | 0.19             |

Note1: The distance between the EUT and the phantom bottom is 10mm.

Note2: The LTE mode is QPSK\_20MHz.

## 14.4 WLAN Evaluation for 2.4G

According to the KDB248227 D01, SAR is measured for 2.4GHz 802.11b DSSS using the initial test position procedure.

### Head Evaluation

**Table 14.4-1: SAR Values (WLAN - Head)– 802.11b (Fast SAR)**

| Ambient Temperature: 22.9 °C |     |       |               |                  |                       | Liquid Temperature: 22.5°C |                          |                          |                         |                         |                  |
|------------------------------|-----|-------|---------------|------------------|-----------------------|----------------------------|--------------------------|--------------------------|-------------------------|-------------------------|------------------|
| Frequency                    |     | Side  | Test Position | Figure No./ Note | Conducted Power (dBm) | Max. tune-up Power (dBm)   | Measured SAR(10g) (W/kg) | Reported SAR(10g) (W/kg) | Measured SAR(1g) (W/kg) | Reported SAR(1g)( W/kg) | Power Drift (dB) |
| MHz                          | Ch. |       |               |                  |                       |                            |                          |                          |                         |                         |                  |
| 2462                         | 11  | Left  | Touch         | /                | 16.72                 | 17                         | 0.355                    | <b>0.38</b>              | 0.751                   | <b>0.80</b>             | 0.02             |
| 2462                         | 11  | Left  | Tilt          | /                | 16.72                 | 17                         | 0.227                    | <b>0.24</b>              | 0.438                   | <b>0.47</b>             | 0.01             |
| 2462                         | 11  | Right | Touch         | /                | 16.72                 | 17                         | 0.153                    | <b>0.16</b>              | 0.288                   | <b>0.31</b>             | 0.08             |
| 2462                         | 11  | Right | Tilt          | /                | 16.72                 | 17                         | 0.125                    | <b>0.13</b>              | 0.253                   | <b>0.27</b>             | 0.05             |

As shown above table, the initial test position for head is “Left Touch”. So the head SAR of WLAN is presented as below:

**Table 14.4-2: SAR Values (WLAN - Head)– 802.11b (Full SAR)**

| Ambient Temperature: 22.9 °C |     |      |               |                  |                       | Liquid Temperature: 22.5°C |                          |                          |                         |                         |                  |
|------------------------------|-----|------|---------------|------------------|-----------------------|----------------------------|--------------------------|--------------------------|-------------------------|-------------------------|------------------|
| Frequency                    |     | Side | Test Position | Figure No./ Note | Conducted Power (dBm) | Max. tune-up Power (dBm)   | Measured SAR(10g) (W/kg) | Reported SAR(10g) (W/kg) | Measured SAR(1g) (W/kg) | Reported SAR(1g)( W/kg) | Power Drift (dB) |
| MHz                          | Ch. |      |               |                  |                       |                            |                          |                          |                         |                         |                  |
| 2462                         | 11  | Left | Touch         | /                | 16.72                 | 17                         | 0.364                    | <b>0.39</b>              | 0.814                   | <b>0.87</b>             | 0.02             |
| 2462                         | 11  | Left | Tilt          | /                | 16.72                 | 17                         | 0.228                    | <b>0.24</b>              | 0.510                   | <b>0.54</b>             | 0.01             |
| 2437                         | 6   | Left | Touch         | Fig.21           | 16.69                 | 17                         | 0.370                    | <b>0.40</b>              | 0.822                   | <b>0.88</b>             | 0.08             |

Note1: When the reported SAR of the initial test position is > 0.4 W/kg, SAR is repeated for the 802.11 transmission mode configuration tested in the initial test position using subsequent highest estimated 1-g SAR conditions determined by area scans, on the highest maximum output power channel, until the reported SAR is  $\leq$  0.8 W/kg.

Note2: For all positions/configurations tested using the initial test position and subsequent test positions, when the reported SAR is > 0.8 W/kg, SAR is measured for these test positions/configurations on the subsequent next highest measured output power channel until the reported SAR is  $\leq$  1.2 W/kg or all required channels are tested.

According to the KDB248227 D01, The reported SAR must be scaled to 100% transmission duty factor to determine compliance at the maximum tune-up tolerance limit. The scaled reported SAR is presented as below.

**Table 14.4-3: SAR Values (WLAN - Head) – 802.11b (Scaled Reported SAR)**

| Ambient Temperature: 22.9 °C |     |       |               |                    | Liquid Temperature: 22.5°C |                         |                                |
|------------------------------|-----|-------|---------------|--------------------|----------------------------|-------------------------|--------------------------------|
| Frequency                    |     | Side  | Test Position | Actual duty factor | maximum duty factor        | Reported SAR (1g)(W/kg) | Scaled reported SAR (1g)(W/kg) |
| MHz                          | Ch. |       |               |                    |                            |                         |                                |
| 2437                         | 6   | Left  | Touch         | 98.76%             | 100%                       | <b>0.88</b>             | <b>0.89</b>                    |
| 2462                         | 11  | Right | Touch         | 98.76%             | 100%                       | <b>0.31</b>             | <b>0.31</b>                    |

SAR is not required for OFDM because the 802.11b adjusted SAR  $\leq$  1.2 W/kg.

### Body Evaluation

**Table 14.4-4: SAR Values (WLAN - Body)– 802.11b (Fast SAR)**

| Ambient Temperature: 22.9 °C |     |                  |                        |                             |                             | Liquid Temperature: 22.5°C     |                                |                               |                               |                        |
|------------------------------|-----|------------------|------------------------|-----------------------------|-----------------------------|--------------------------------|--------------------------------|-------------------------------|-------------------------------|------------------------|
| Frequency                    |     | Test<br>Position | Figure<br>No./<br>Note | Conducted<br>Power<br>(dBm) | Max. tune-up<br>Power (dBm) | Measured<br>SAR(10g)<br>(W/kg) | Reported<br>SAR(10g)<br>(W/kg) | Measured<br>SAR(1g)<br>(W/kg) | Reported<br>SAR(1g)(<br>W/kg) | Power<br>Drift<br>(dB) |
| MHz                          | Ch. |                  |                        |                             |                             |                                |                                |                               |                               |                        |
| 2462                         | 11  | Front            | /                      | 16.72                       | 17                          | 0.052                          | <b>0.06</b>                    | 0.097                         | <b>0.10</b>                   | 0.05                   |
| 2462                         | 11  | Rear             | /                      | 16.72                       | 17                          | 0.064                          | <b>0.07</b>                    | 0.125                         | <b>0.13</b>                   | -0.07                  |
| 2462                         | 11  | Right            | /                      | 16.72                       | 17                          | 0.048                          | <b>0.05</b>                    | 0.093                         | <b>0.10</b>                   | 0.07                   |
| 2462                         | 11  | Top              | /                      | 16.72                       | 17                          | 0.020                          | <b>0.02</b>                    | 0.037                         | <b>0.04</b>                   | 0.08                   |

As shown above table, the initial test position for body is “Rear”. So the body SAR of WLAN is presented as below:

**Table 14.4-5: SAR Values (WLAN - Body)– 802.11b (Full SAR)**

| Ambient Temperature: 22.9 °C |     |                  |                        |                             | Liquid Temperature: 22.5°C  |                                |                                |                               |                               |                        |
|------------------------------|-----|------------------|------------------------|-----------------------------|-----------------------------|--------------------------------|--------------------------------|-------------------------------|-------------------------------|------------------------|
| Frequency                    |     | Test<br>Position | Figure<br>No./<br>Note | Conducted<br>Power<br>(dBm) | Max. tune-up<br>Power (dBm) | Measured<br>SAR(10g)<br>(W/kg) | Reported<br>SAR(10g)<br>(W/kg) | Measured<br>SAR(1g)<br>(W/kg) | Reported<br>SAR(1g)(<br>W/kg) | Power<br>Drift<br>(dB) |
| MHz                          | Ch. |                  |                        |                             |                             |                                |                                |                               |                               |                        |
| 2462                         | 11  | Rear             | Fig.22                 | 16.72                       | 17                          | 0.064                          | <b>0.07</b>                    | 0.130                         | <b>0.14</b>                   | -0.07                  |

Note1: When the reported SAR of the initial test position is > 0.4 W/kg, SAR is repeated for the 802.11 transmission mode configuration tested in the initial test position using subsequent highest estimated 1-g SAR conditions determined by area scans, on the highest maximum output power channel, until the reported SAR is ≤ 0.8 W/kg.

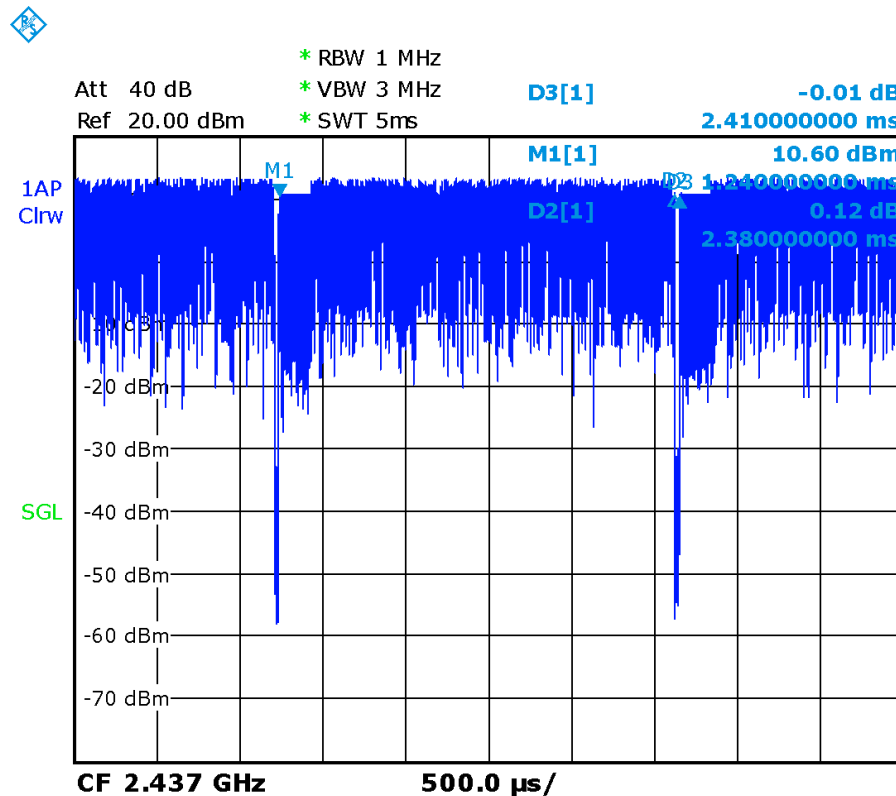
Note2: For all positions/configurations tested using the initial test position and subsequent test positions, when the reported SAR is > 0.8 W/kg, SAR is measured for these test positions/configurations on the subsequent next highest measured output power channel until the reported SAR is ≤ 1.2 W/kg or all required channels are tested.

According to the KDB248227 D01, The reported SAR must be scaled to 100% transmission duty factor to determine compliance at the maximum tune-up tolerance limit. The scaled reported SAR is presented as below.

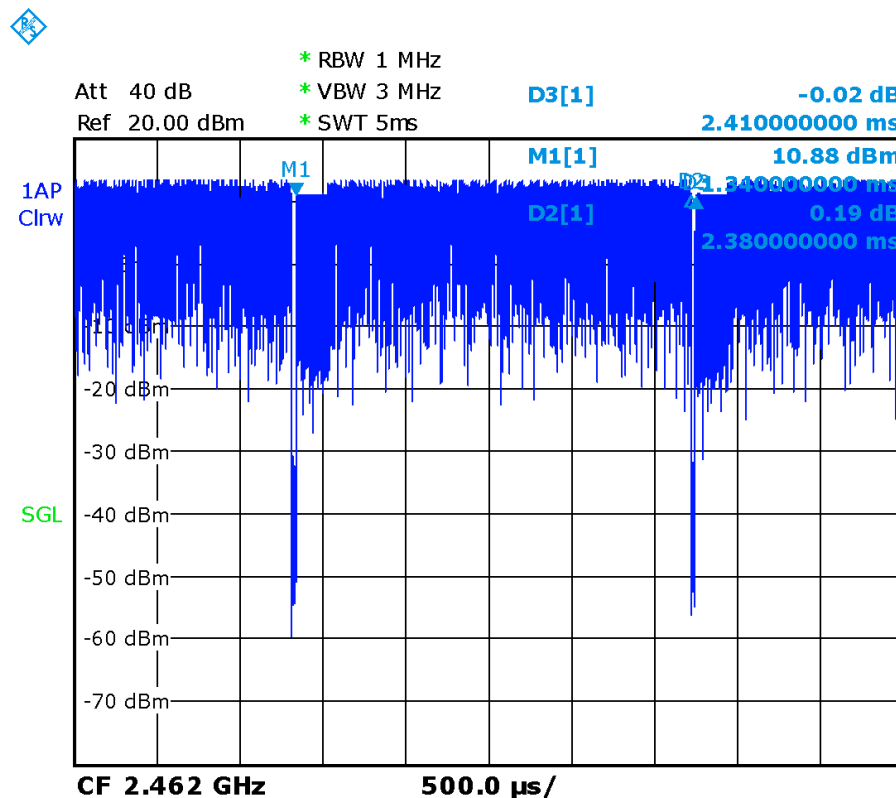
**Table 14.4-6: SAR Values (WLAN - Body) – 802.11b (Scaled Reported SAR)**

| Ambient Temperature: 22.9 °C |     |                  |                       |                        | Liquid Temperature: 22.5°C |                                   |
|------------------------------|-----|------------------|-----------------------|------------------------|----------------------------|-----------------------------------|
| Frequency                    |     | Test<br>Position | Actual duty<br>factor | maximum duty<br>factor | Reported SAR<br>(1g)(W/kg) | Scaled reported SAR<br>(1g)(W/kg) |
| MHz                          | Ch. |                  |                       |                        |                            |                                   |
| 2462                         | 11  | Rear             | 98.76%                | 100%                   | <b>0.14</b>                | <b>0.14</b>                       |

SAR is not required for OFDM because the 802.11b adjusted SAR ≤ 1.2 W/kg.



Picture 14.1 Duty factor plot for CH6



Picture 14.2 Duty factor plot for CH11

## 15 SAR Measurement Variability

SAR measurement variability must be assessed for each frequency band, which is determined by the SAR probe calibration point and tissue-equivalent medium used for the device measurements. When both head and body tissue-equivalent media are required for SAR measurements in a frequency band, the variability measurement procedures should be applied to the tissue medium with the highest measured SAR, using the highest measured SAR configuration for that tissue-equivalent medium.

The following procedures are applied to determine if repeated measurements are required.

- 1) Repeated measurement is not required when the original highest measured SAR is  $< 0.80$  W/kg; steps 2) through 4) do not apply.
- 2) When the original highest measured SAR is  $\geq 0.80$  W/kg, repeat that measurement once.
- 3) Perform a second repeated measurement only if the ratio of largest to smallest SAR for the original and first repeated measurements is  $> 1.20$  or when the original or repeated measurement is  $\geq 1.45$  W/kg ( $\sim 10\%$  from the 1-g SAR limit).
- 4) Perform a third repeated measurement only if the original, first or second repeated measurement is  $\geq 1.5$  W/kg and the ratio of largest to smallest SAR for the original, first and second repeated measurements is  $> 1.20$ .

**Table 15.1: SAR Measurement Variability for Body GSM850 (1g)**

| Frequency |       | Test Position | Spacing (mm) | Original SAR (W/kg) | First Repeated SAR (W/kg) | The Ratio | Second Repeated SAR (W/kg) |
|-----------|-------|---------------|--------------|---------------------|---------------------------|-----------|----------------------------|
| Ch.       | MHz   |               |              |                     |                           |           |                            |
| 190       | 836.6 | Rear          | 10           | 0.824               | 0.815                     | 1.01      | /                          |

**Table 15.2: SAR Measurement Variability for Body PCS1900 (1g)**

| Frequency |        | Test Position | Spacing (mm) | Original SAR (W/kg) | First Repeated SAR (W/kg) | The Ratio | Second Repeated SAR (W/kg) |
|-----------|--------|---------------|--------------|---------------------|---------------------------|-----------|----------------------------|
| Ch.       | MHz    |               |              |                     |                           |           |                            |
| 512       | 1850.2 | Bottom        | 10           | 1.02                | 1                         | 1.02      | /                          |

**Table 15.3: SAR Measurement Variability for Body W1700 (1g)**

| Frequency |        | Test Position | Spacing (mm) | Original SAR (W/kg) | First Repeated SAR (W/kg) | The Ratio | Second Repeated SAR (W/kg) |
|-----------|--------|---------------|--------------|---------------------|---------------------------|-----------|----------------------------|
| Ch.       | MHz    |               |              |                     |                           |           |                            |
| 1537      | 1712.4 | Bottom        | 10           | 0.934               | 0.921                     | 1.01      | /                          |

**Table 15.4: SAR Measurement Variability for Body W1900 (1g)**

| Frequency |        | Test Position | Spacing (mm) | Original SAR (W/kg) | First Repeated SAR (W/kg) | The Ratio | Second Repeated SAR (W/kg) |
|-----------|--------|---------------|--------------|---------------------|---------------------------|-----------|----------------------------|
| Ch.       | MHz    |               |              |                     |                           |           |                            |
| 9662      | 1852.4 | Bottom        | 10           | 0.936               | 0.929                     | 1.01      | /                          |

**Table 15.5: SAR Measurement Variability for Body LTE B2 (1g)**

| Frequency |      | Mode    | Test Position | Spacing (mm) | Original SAR (W/kg) | First Repeated SAR (W/kg) | The Ratio | Second Repeated SAR (W/kg) |
|-----------|------|---------|---------------|--------------|---------------------|---------------------------|-----------|----------------------------|
| Ch.       | MHz  |         |               |              |                     |                           |           |                            |
| 18700     | 1860 | 1RB_Low | Bottom        | 10           | 0.998               | 0.987                     | 1.01      | /                          |

## 16 Measurement Uncertainty

### 16.1 Measurement Uncertainty for Normal SAR Tests (300MHz~3GHz)

| No.                        | Error Description                               | Type | Uncertainty value | Probably Distribution | Div.       | (Ci) 1g | (Ci) 10g | Std. Unc. (1g) | Std. Unc. (10g) | Degree of freedom |
|----------------------------|-------------------------------------------------|------|-------------------|-----------------------|------------|---------|----------|----------------|-----------------|-------------------|
| <b>Measurement system</b>  |                                                 |      |                   |                       |            |         |          |                |                 |                   |
| 1                          | Probe calibration                               | B    | 6.0               | N                     | 1          | 1       | 1        | 6.0            | 6.0             | $\infty$          |
| 2                          | Isotropy                                        | B    | 4.7               | R                     | $\sqrt{3}$ | 0.7     | 0.7      | 1.9            | 1.9             | $\infty$          |
| 3                          | Boundary effect                                 | B    | 1.0               | R                     | $\sqrt{3}$ | 1       | 1        | 0.6            | 0.6             | $\infty$          |
| 4                          | Linearity                                       | B    | 4.7               | R                     | $\sqrt{3}$ | 1       | 1        | 2.7            | 2.7             | $\infty$          |
| 5                          | Detection limit                                 | B    | 1.0               | N                     | 1          | 1       | 1        | 0.6            | 0.6             | $\infty$          |
| 6                          | Readout electronics                             | B    | 0.3               | R                     | $\sqrt{3}$ | 1       | 1        | 0.3            | 0.3             | $\infty$          |
| 7                          | Response time                                   | B    | 0.8               | R                     | $\sqrt{3}$ | 1       | 1        | 0.5            | 0.5             | $\infty$          |
| 8                          | Integration time                                | B    | 2.6               | R                     | $\sqrt{3}$ | 1       | 1        | 1.5            | 1.5             | $\infty$          |
| 9                          | RF ambient conditions-noise                     | B    | 0                 | R                     | $\sqrt{3}$ | 1       | 1        | 0              | 0               | $\infty$          |
| 10                         | RF ambient conditions-reflection                | B    | 0                 | R                     | $\sqrt{3}$ | 1       | 1        | 0              | 0               | $\infty$          |
| 11                         | Probe positioned mech. restrictions             | B    | 0.4               | R                     | $\sqrt{3}$ | 1       | 1        | 0.2            | 0.2             | $\infty$          |
| 12                         | Probe positioning with respect to phantom shell | B    | 2.9               | R                     | $\sqrt{3}$ | 1       | 1        | 1.7            | 1.7             | $\infty$          |
| 13                         | Post-processing                                 | B    | 1.0               | R                     | $\sqrt{3}$ | 1       | 1        | 0.6            | 0.6             | $\infty$          |
| <b>Test sample related</b> |                                                 |      |                   |                       |            |         |          |                |                 |                   |
| 14                         | Test sample positioning                         | A    | 3.3               | N                     | 1          | 1       | 1        | 3.3            | 3.3             | 71                |
| 15                         | Device holder uncertainty                       | A    | 3.4               | N                     | 1          | 1       | 1        | 3.4            | 3.4             | 5                 |
| 16                         | Drift of output power                           | B    | 5.0               | R                     | $\sqrt{3}$ | 1       | 1        | 2.9            | 2.9             | $\infty$          |
| <b>Phantom and set-up</b>  |                                                 |      |                   |                       |            |         |          |                |                 |                   |
| 17                         | Phantom uncertainty                             | B    | 4.0               | R                     | $\sqrt{3}$ | 1       | 1        | 2.3            | 2.3             | $\infty$          |
| 18                         | Liquid conductivity (target)                    | B    | 5.0               | R                     | $\sqrt{3}$ | 0.64    | 0.43     | 1.8            | 1.2             | $\infty$          |
| 19                         | Liquid conductivity (meas.)                     | A    | 2.06              | N                     | 1          | 0.64    | 0.43     | 1.32           | 0.89            | 43                |
| 20                         | Liquid permittivity (target)                    | B    | 5.0               | R                     | $\sqrt{3}$ | 0.6     | 0.49     | 1.7            | 1.4             | $\infty$          |
| 21                         | Liquid permittivity (meas.)                     | A    | 1.6               | N                     | 1          | 0.6     | 0.49     | 1.0            | 0.8             | 521               |

|                                                    |                                             |  |  |  |  |      |      |     |
|----------------------------------------------------|---------------------------------------------|--|--|--|--|------|------|-----|
| Combined standard uncertainty                      | $u_c' = \sqrt{\sum_{i=1}^{21} c_i^2 u_i^2}$ |  |  |  |  | 9.55 | 9.43 | 257 |
| Expanded uncertainty (confidence interval of 95 %) | $u_e = 2u_c$                                |  |  |  |  | 19.1 | 18.9 |     |

### 16.2 Measurement Uncertainty for Normal SAR Tests (3~6GHz)

| No.                        | Error Description                               | Type | Uncertainty value | Probably Distribution | Div.       | (Ci) 1g | (Ci) 10g | Std. Unc. (1g) | Std. Unc. (10g) | Degree of freedom |
|----------------------------|-------------------------------------------------|------|-------------------|-----------------------|------------|---------|----------|----------------|-----------------|-------------------|
| <b>Measurement system</b>  |                                                 |      |                   |                       |            |         |          |                |                 |                   |
| 1                          | Probe calibration                               | B    | 6.55              | N                     | 1          | 1       | 1        | 6.55           | 6.55            | $\infty$          |
| 2                          | Isotropy                                        | B    | 4.7               | R                     | $\sqrt{3}$ | 0.7     | 0.7      | 1.9            | 1.9             | $\infty$          |
| 3                          | Boundary effect                                 | B    | 2.0               | R                     | $\sqrt{3}$ | 1       | 1        | 1.2            | 1.2             | $\infty$          |
| 4                          | Linearity                                       | B    | 4.7               | R                     | $\sqrt{3}$ | 1       | 1        | 2.7            | 2.7             | $\infty$          |
| 5                          | Detection limit                                 | B    | 1.0               | R                     | $\sqrt{3}$ | 1       | 1        | 0.6            | 0.6             | $\infty$          |
| 6                          | Readout electronics                             | B    | 0.3               | R                     | $\sqrt{3}$ | 1       | 1        | 0.3            | 0.3             | $\infty$          |
| 7                          | Response time                                   | B    | 0.8               | R                     | $\sqrt{3}$ | 1       | 1        | 0.5            | 0.5             | $\infty$          |
| 8                          | Integration time                                | B    | 2.6               | R                     | $\sqrt{3}$ | 1       | 1        | 1.5            | 1.5             | $\infty$          |
| 9                          | RF ambient conditions-noise                     | B    | 0                 | R                     | $\sqrt{3}$ | 1       | 1        | 0              | 0               | $\infty$          |
| 10                         | RF ambient conditions-reflection                | B    | 0                 | R                     | $\sqrt{3}$ | 1       | 1        | 0              | 0               | $\infty$          |
| 11                         | Probe positioned mech. restrictions             | B    | 0.8               | R                     | $\sqrt{3}$ | 1       | 1        | 0.5            | 0.5             | $\infty$          |
| 12                         | Probe positioning with respect to phantom shell | B    | 6.7               | R                     | $\sqrt{3}$ | 1       | 1        | 3.9            | 3.9             | $\infty$          |
| 13                         | Post-processing                                 | B    | 4.0               | R                     | $\sqrt{3}$ | 1       | 1        | 2.3            | 2.3             | $\infty$          |
| <b>Test sample related</b> |                                                 |      |                   |                       |            |         |          |                |                 |                   |
| 14                         | Test sample positioning                         | A    | 3.3               | N                     | 1          | 1       | 1        | 3.3            | 3.3             | 71                |
| 15                         | Device holder uncertainty                       | A    | 3.4               | N                     | 1          | 1       | 1        | 3.4            | 3.4             | 5                 |
| 16                         | Drift of output power                           | B    | 5.0               | R                     | $\sqrt{3}$ | 1       | 1        | 2.9            | 2.9             | $\infty$          |
| <b>Phantom and set-up</b>  |                                                 |      |                   |                       |            |         |          |                |                 |                   |
| 17                         | Phantom uncertainty                             | B    | 4.0               | R                     | $\sqrt{3}$ | 1       | 1        | 2.3            | 2.3             | $\infty$          |
| 18                         | Liquid conductivity (target)                    | B    | 5.0               | R                     | $\sqrt{3}$ | 0.64    | 0.43     | 1.8            | 1.2             | $\infty$          |
| 19                         | Liquid conductivity (meas.)                     | A    | 2.06              | N                     | 1          | 0.64    | 0.43     | 1.32           | 0.89            | 43                |
| 20                         | Liquid permittivity                             | B    | 5.0               | R                     | $\sqrt{3}$ | 0.6     | 0.49     | 1.7            | 1.4             | $\infty$          |



|                                                    |                             |                                             |     |   |   |     |      |      |      |     |
|----------------------------------------------------|-----------------------------|---------------------------------------------|-----|---|---|-----|------|------|------|-----|
|                                                    | (target)                    |                                             |     |   |   |     |      |      |      |     |
| 21                                                 | Liquid permittivity (meas.) | A                                           | 1.6 | N | 1 | 0.6 | 0.49 | 1.0  | 0.8  | 521 |
| Combined standard uncertainty                      |                             | $u_c' = \sqrt{\sum_{i=1}^{21} c_i^2 u_i^2}$ |     |   |   |     |      | 10.7 | 10.6 | 257 |
| Expanded uncertainty (confidence interval of 95 %) |                             | $u_e = 2u_c$                                |     |   |   |     |      | 21.4 | 21.1 |     |

### 16.3 Measurement Uncertainty for Fast SAR Tests (300MHz~3GHz)

| No.                        | Error Description                               | Type | Uncertainty value | Probably Distribution | Div.       | (Ci) 1g | (Ci) 10g | Std. Unc. (1g) | Std. Unc. (10g) | Degree of freedom |
|----------------------------|-------------------------------------------------|------|-------------------|-----------------------|------------|---------|----------|----------------|-----------------|-------------------|
| <b>Measurement system</b>  |                                                 |      |                   |                       |            |         |          |                |                 |                   |
| 1                          | Probe calibration                               | B    | 6.0               | N                     | 1          | 1       | 1        | 6.0            | 6.0             | $\infty$          |
| 2                          | Isotropy                                        | B    | 4.7               | R                     | $\sqrt{3}$ | 0.7     | 0.7      | 1.9            | 1.9             | $\infty$          |
| 3                          | Boundary effect                                 | B    | 1.0               | R                     | $\sqrt{3}$ | 1       | 1        | 0.6            | 0.6             | $\infty$          |
| 4                          | Linearity                                       | B    | 4.7               | R                     | $\sqrt{3}$ | 1       | 1        | 2.7            | 2.7             | $\infty$          |
| 5                          | Detection limit                                 | B    | 1.0               | R                     | $\sqrt{3}$ | 1       | 1        | 0.6            | 0.6             | $\infty$          |
| 6                          | Readout electronics                             | B    | 0.3               | R                     | $\sqrt{3}$ | 1       | 1        | 0.3            | 0.3             | $\infty$          |
| 7                          | Response time                                   | B    | 0.8               | R                     | $\sqrt{3}$ | 1       | 1        | 0.5            | 0.5             | $\infty$          |
| 8                          | Integration time                                | B    | 2.6               | R                     | $\sqrt{3}$ | 1       | 1        | 1.5            | 1.5             | $\infty$          |
| 9                          | RF ambient conditions-noise                     | B    | 0                 | R                     | $\sqrt{3}$ | 1       | 1        | 0              | 0               | $\infty$          |
| 10                         | RFambient conditions-reflection                 | B    | 0                 | R                     | $\sqrt{3}$ | 1       | 1        | 0              | 0               | $\infty$          |
| 11                         | Probe positioned mech. Restrictions             | B    | 0.4               | R                     | $\sqrt{3}$ | 1       | 1        | 0.2            | 0.2             | $\infty$          |
| 12                         | Probe positioning with respect to phantom shell | B    | 2.9               | R                     | $\sqrt{3}$ | 1       | 1        | 1.7            | 1.7             | $\infty$          |
| 13                         | Post-processing                                 | B    | 1.0               | R                     | $\sqrt{3}$ | 1       | 1        | 0.6            | 0.6             | $\infty$          |
| 14                         | Fast SAR z-Approximation                        | B    | 7.0               | R                     | $\sqrt{3}$ | 1       | 1        | 4.0            | 4.0             | $\infty$          |
| <b>Test sample related</b> |                                                 |      |                   |                       |            |         |          |                |                 |                   |
| 15                         | Test sample positioning                         | A    | 3.3               | N                     | 1          | 1       | 1        | 3.3            | 3.3             | 71                |
| 16                         | Device holder uncertainty                       | A    | 3.4               | N                     | 1          | 1       | 1        | 3.4            | 3.4             | 5                 |
| 17                         | Drift of output power                           | B    | 5.0               | R                     | $\sqrt{3}$ | 1       | 1        | 2.9            | 2.9             | $\infty$          |
| <b>Phantom and set-up</b>  |                                                 |      |                   |                       |            |         |          |                |                 |                   |
| 18                         | Phantom uncertainty                             | B    | 4.0               | R                     | $\sqrt{3}$ | 1       | 1        | 2.3            | 2.3             | $\infty$          |

|                                                    |                              |                                            |      |   |            |      |      |      |      |          |
|----------------------------------------------------|------------------------------|--------------------------------------------|------|---|------------|------|------|------|------|----------|
| 19                                                 | Liquid conductivity (target) | B                                          | 5.0  | R | $\sqrt{3}$ | 0.64 | 0.43 | 1.8  | 1.2  | $\infty$ |
| 20                                                 | Liquid conductivity (meas.)  | A                                          | 2.06 | N | 1          | 0.64 | 0.43 | 1.32 | 0.89 | 43       |
| 21                                                 | Liquid permittivity (target) | B                                          | 5.0  | R | $\sqrt{3}$ | 0.6  | 0.49 | 1.7  | 1.4  | $\infty$ |
| 22                                                 | Liquid permittivity (meas.)  | A                                          | 1.6  | N | 1          | 0.6  | 0.49 | 1.0  | 0.8  | 521      |
| Combined standard uncertainty                      |                              | $u_c = \sqrt{\sum_{i=1}^{22} c_i^2 u_i^2}$ |      |   |            |      |      | 10.4 | 10.3 | 257      |
| Expanded uncertainty (confidence interval of 95 %) |                              | $u_e = 2u_c$                               |      |   |            |      |      | 20.8 | 20.6 |          |

#### 16.4 Measurement Uncertainty for Fast SAR Tests (3~6GHz)

| No.                        | Error Description                               | Type | Uncertainty value | Probably Distribution | Div.       | (Ci) 1g | (Ci) 10g | Std. Unc. (1g) | Std. Unc. (10g) | Degree of freedom |
|----------------------------|-------------------------------------------------|------|-------------------|-----------------------|------------|---------|----------|----------------|-----------------|-------------------|
| <b>Measurement system</b>  |                                                 |      |                   |                       |            |         |          |                |                 |                   |
| 1                          | Probe calibration                               | B    | 6.55              | N                     | 1          | 1       | 1        | 6.55           | 6.55            | $\infty$          |
| 2                          | Isotropy                                        | B    | 4.7               | R                     | $\sqrt{3}$ | 0.7     | 0.7      | 1.9            | 1.9             | $\infty$          |
| 3                          | Boundary effect                                 | B    | 2.0               | R                     | $\sqrt{3}$ | 1       | 1        | 1.2            | 1.2             | $\infty$          |
| 4                          | Linearity                                       | B    | 4.7               | R                     | $\sqrt{3}$ | 1       | 1        | 2.7            | 2.7             | $\infty$          |
| 5                          | Detection limit                                 | B    | 1.0               | R                     | $\sqrt{3}$ | 1       | 1        | 0.6            | 0.6             | $\infty$          |
| 6                          | Readout electronics                             | B    | 0.3               | R                     | $\sqrt{3}$ | 1       | 1        | 0.3            | 0.3             | $\infty$          |
| 7                          | Response time                                   | B    | 0.8               | R                     | $\sqrt{3}$ | 1       | 1        | 0.5            | 0.5             | $\infty$          |
| 8                          | Integration time                                | B    | 2.6               | R                     | $\sqrt{3}$ | 1       | 1        | 1.5            | 1.5             | $\infty$          |
| 9                          | RF ambient conditions-noise                     | B    | 0                 | R                     | $\sqrt{3}$ | 1       | 1        | 0              | 0               | $\infty$          |
| 10                         | RFambient conditions-reflection                 | B    | 0                 | R                     | $\sqrt{3}$ | 1       | 1        | 0              | 0               | $\infty$          |
| 11                         | Probe positioned mech. Restrictions             | B    | 0.8               | R                     | $\sqrt{3}$ | 1       | 1        | 0.5            | 0.5             | $\infty$          |
| 12                         | Probe positioning with respect to phantom shell | B    | 6.7               | R                     | $\sqrt{3}$ | 1       | 1        | 3.9            | 3.9             | $\infty$          |
| 13                         | Post-processing                                 | B    | 1.0               | R                     | $\sqrt{3}$ | 1       | 1        | 0.6            | 0.6             | $\infty$          |
| 14                         | Fast SAR z-Approximation                        | B    | 14.0              | R                     | $\sqrt{3}$ | 1       | 1        | 8.1            | 8.1             | $\infty$          |
| <b>Test sample related</b> |                                                 |      |                   |                       |            |         |          |                |                 |                   |
| 15                         | Test sample positioning                         | A    | 3.3               | N                     | 1          | 1       | 1        | 3.3            | 3.3             | 71                |
| 16                         | Device holder                                   | A    | 3.4               | N                     | 1          | 1       | 1        | 3.4            | 3.4             | 5                 |

|                                                    |                              |                                            |      |   |            |      |      |      |      |          |
|----------------------------------------------------|------------------------------|--------------------------------------------|------|---|------------|------|------|------|------|----------|
|                                                    | uncertainty                  |                                            |      |   |            |      |      |      |      |          |
| 17                                                 | Drift of output power        | B                                          | 5.0  | R | $\sqrt{3}$ | 1    | 1    | 2.9  | 2.9  | $\infty$ |
| <b>Phantom and set-up</b>                          |                              |                                            |      |   |            |      |      |      |      |          |
| 18                                                 | Phantom uncertainty          | B                                          | 4.0  | R | $\sqrt{3}$ | 1    | 1    | 2.3  | 2.3  | $\infty$ |
| 19                                                 | Liquid conductivity (target) | B                                          | 5.0  | R | $\sqrt{3}$ | 0.64 | 0.43 | 1.8  | 1.2  | $\infty$ |
| 20                                                 | Liquid conductivity (meas.)  | A                                          | 2.06 | N | 1          | 0.64 | 0.43 | 1.32 | 0.89 | 43       |
| 21                                                 | Liquid permittivity (target) | B                                          | 5.0  | R | $\sqrt{3}$ | 0.6  | 0.49 | 1.7  | 1.4  | $\infty$ |
| 22                                                 | Liquid permittivity (meas.)  | A                                          | 1.6  | N | 1          | 0.6  | 0.49 | 1.0  | 0.8  | 521      |
| Combined standard uncertainty                      |                              | $u_c = \sqrt{\sum_{i=1}^{22} c_i^2 u_i^2}$ |      |   |            |      |      | 13.5 | 13.4 | 257      |
| Expanded uncertainty (confidence interval of 95 %) |                              | $u_e = 2u_c$                               |      |   |            |      |      | 27.0 | 26.8 |          |

## 17 MAIN TEST INSTRUMENTS

**Table 17.1: List of Main Instruments**

| No. | Name                  | Type          | Serial Number | Calibration Date         | Valid Period |
|-----|-----------------------|---------------|---------------|--------------------------|--------------|
| 01  | Network analyzer      | E5071C        | MY46110673    | January 24, 2018         | One year     |
| 02  | Power meter           | NRVD          | 102083        | November 01, 2017        | One year     |
| 03  | Power sensor          | NRV-Z5        | 100542        |                          |              |
| 04  | Signal Generator      | E4438C        | MY49071430    | January 2, 2018          | One Year     |
| 05  | Amplifier             | 60S1G4        | 0331848       | No Calibration Requested |              |
| 06  | BTS                   | E5515C        | MY50263375    | January 23, 2018         | One year     |
| 07  | BTS                   | CMW500        | 149646        | October 31, 2017         | One year     |
| 08  | E-field Probe         | SPEAG EX3DV4  | 7464          | September 12, 2017       | One year     |
| 09  | DAE                   | SPEAG DAE4    | 1525          | October 2, 2017          | One year     |
| 10  | Dipole Validation Kit | SPEAG D750V3  | 1017          | July 19, 2017            | One year     |
| 11  | Dipole Validation Kit | SPEAG D835V2  | 4d069         | July 19, 2017            | One year     |
| 12  | Dipole Validation Kit | SPEAG D1750V2 | 1003          | July 21, 2017            | One year     |
| 13  | Dipole Validation Kit | SPEAG D1900V2 | 5d101         | July 26, 2017            | One year     |
| 14  | Dipole Validation Kit | SPEAG D2450V2 | 853           | July 21, 2017            | One year     |
| 15  | Dipole Validation Kit | SPEAG D2600V2 | 1012          | July 21, 2017            | One year     |

\*\*\*END OF REPORT BODY\*\*\*

## ANNEX A Graph Results

### 850 Right Cheek High

Date: 2018-3-30

Electronics: DAE4 Sn1525

Medium: Head 850 MHz

Medium parameters used:  $f = 848.8$  MHz;  $\sigma = 0.912$  mho/m;  $\epsilon_r = 41.72$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Ambient Temperature: 22.9°C Liquid Temperature: 22.5°C

Communication System: GSM 850 GPRS Frequency: 848.8 MHz Duty Cycle: 1:4

Probe: EX3DV4 – SN7464 ConvF(10.28, 10.28, 10.28)

**Area Scan (71x121x1):** Interpolated grid:  $dx=1.000$  mm,  $dy=1.000$  mm

Maximum value of SAR (interpolated) = 0.621 W/kg

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

Reference Value = 7.825 V/m; Power Drift = 0.18 dB

Peak SAR (extrapolated) = 0.721 W/kg

**SAR(1 g) = 0.571 W/kg; SAR(10 g) = 0.437 W/kg**

Maximum value of SAR (measured) = 0.597 W/kg

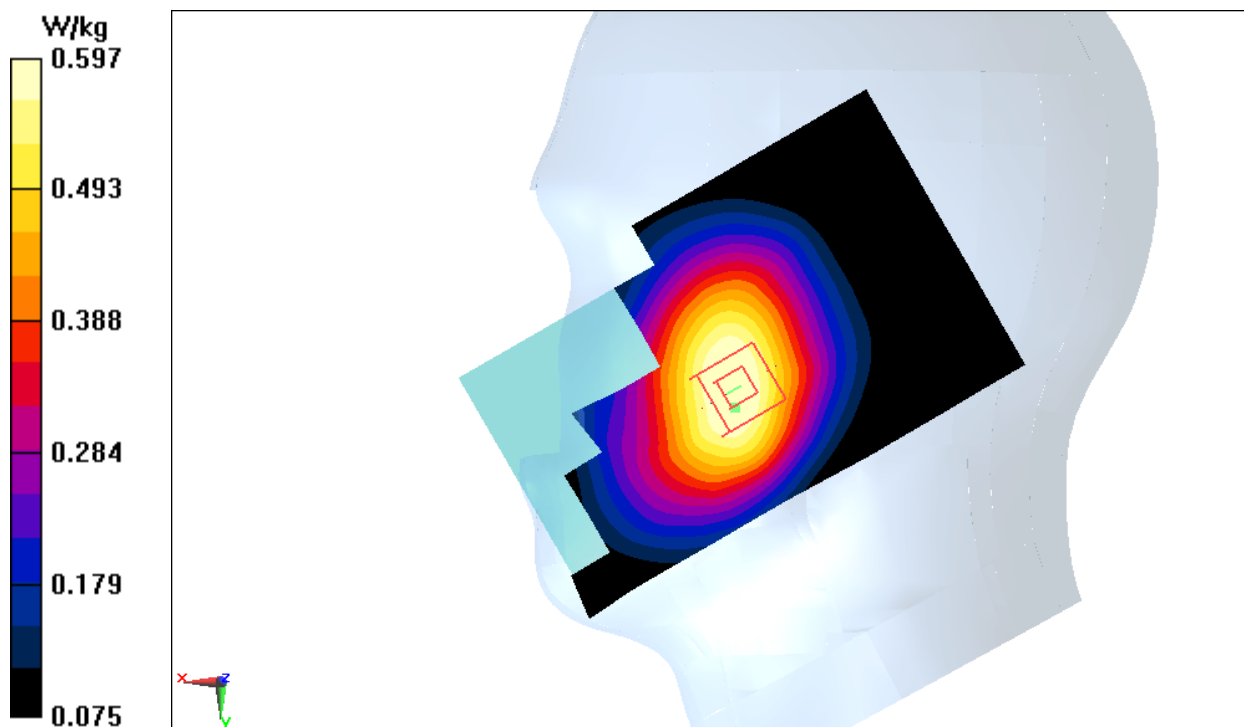
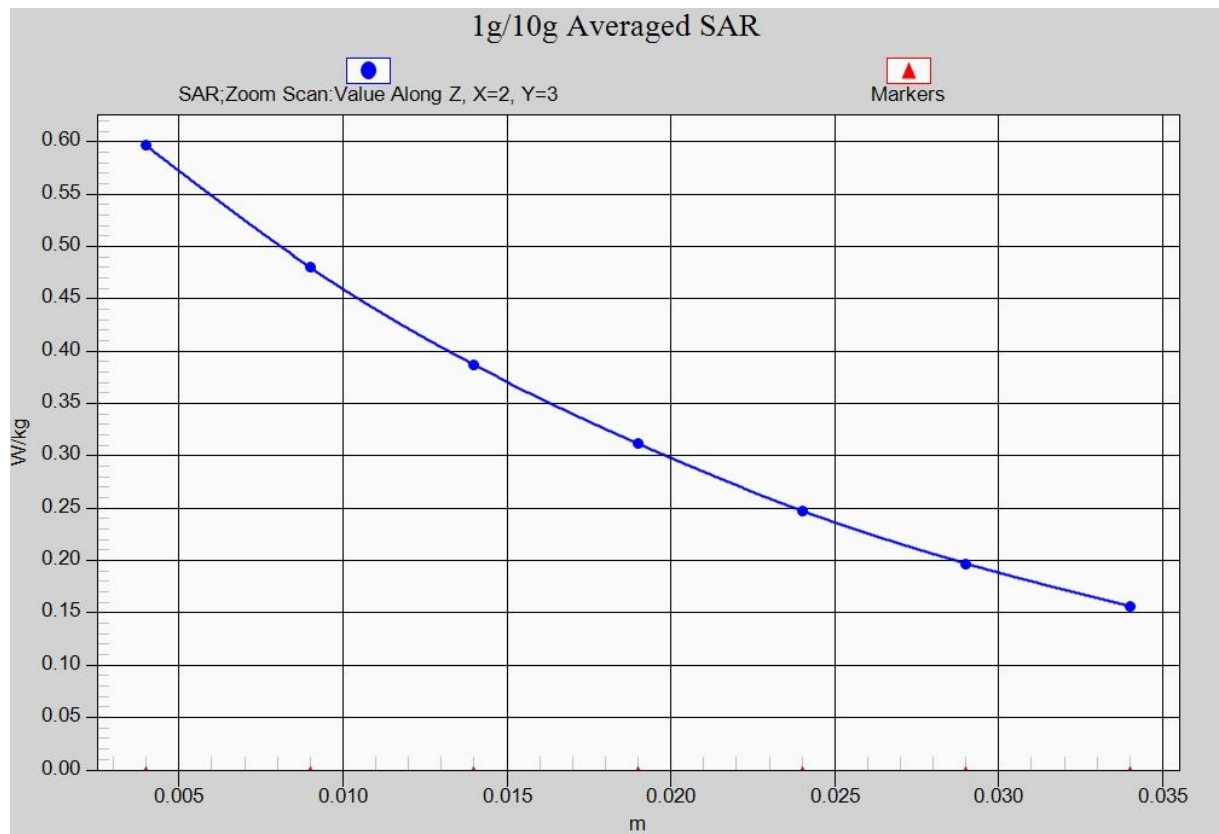


Fig.1 850MHz



**Fig. 1-1 Z-Scan at power reference point (850 MHz)**

### 850 Body Rear Middle

Date: 2018-3-30

Electronics: DAE4 Sn1525

Medium: Body 850 MHz

Medium parameters used:  $f = 836.6$  MHz;  $\sigma = 0.969$  mho/m;  $\epsilon_r = 56.01$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Ambient Temperature: 22.9°C      Liquid Temperature: 22.5°C

Communication System: GSM 850 GPRS Frequency: 824.2 MHz Duty Cycle: 1:4

Probe: EX3DV4 – SN7464 ConvF(10.21, 10.21, 10.21)

**Area Scan (71x121x1):** Interpolated grid:  $dx=1.000$  mm,  $dy=1.000$  mm

Maximum value of SAR (interpolated) = 0.895 W/kg

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

Reference Value = 30.54 V/m; Power Drift = -0.06 dB

Peak SAR (extrapolated) = 1.03 W/kg

**SAR(1 g) = 0.824 W/kg; SAR(10 g) = 0.633 W/kg**

Maximum value of SAR (measured) = 0.861 W/kg

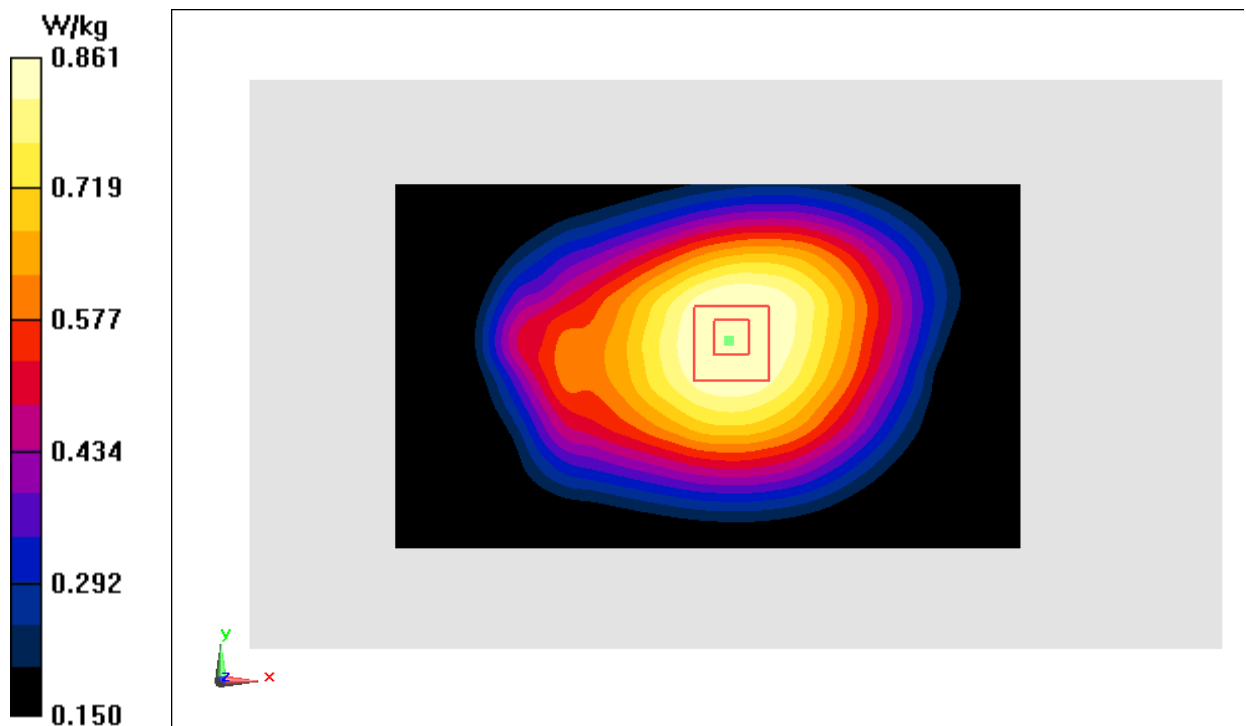
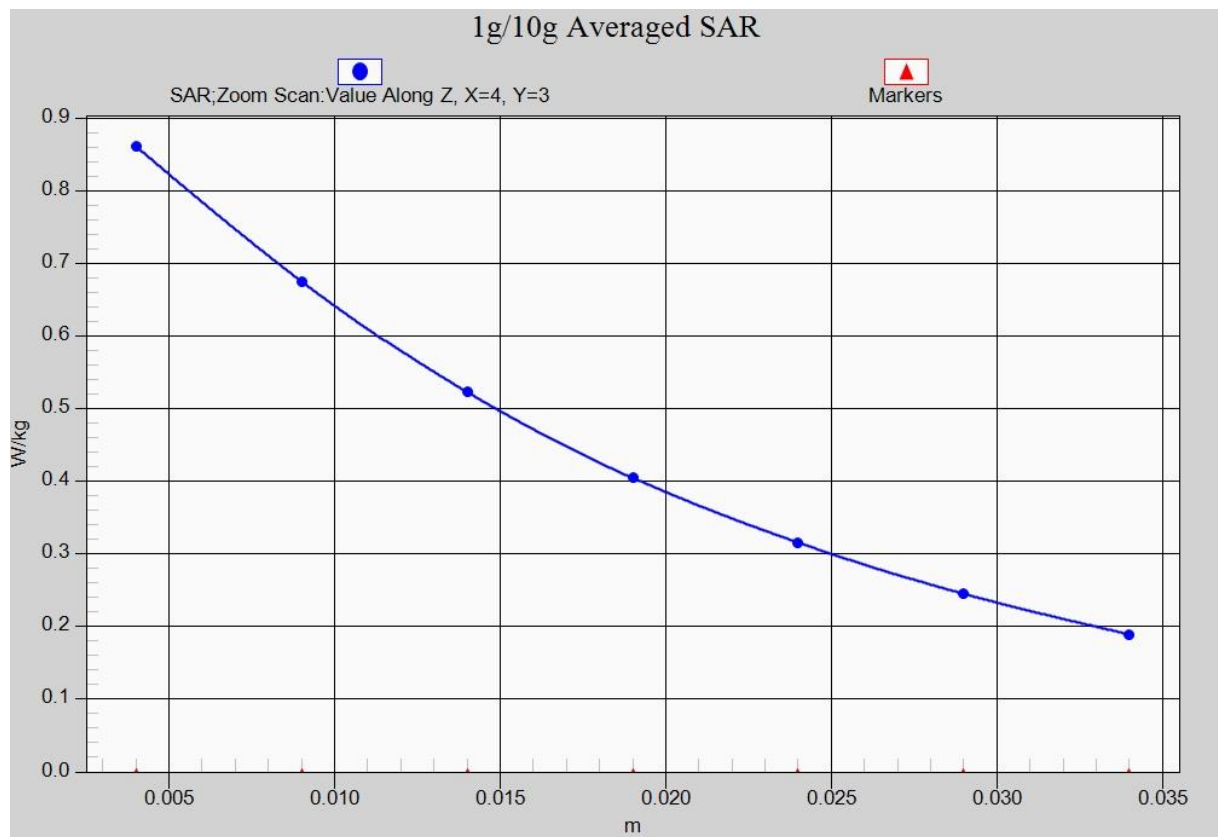


Fig.2 850 MHz



**Fig. 2-1 Z-Scan at power reference point (850 MHz)**



### 1900 Left Cheek High

Date: 2018-3-29

Electronics: DAE4 Sn1525

Medium: Head 1900 MHz

Medium parameters used (interpolated):  $f = 1909.8$  MHz;  $\sigma = 1.452$  mho/m;  $\epsilon_r = 40.39$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Ambient Temperature: 22.9°C      Liquid Temperature: 22.5°C

Communication System: GSM 1900MHz Frequency: 1909.8 MHz Duty Cycle: 1:4

Probe: EX3DV4– SN7464 ConvF(8.39, 8.39, 8.39)

**Area Scan (71x121x1):** Interpolated grid:  $dx=1.000$  mm,  $dy=1.000$  mm

Maximum value of SAR (interpolated) = 0.526 W/kg

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

Reference Value = 2.671 V/m; Power Drift = 0.06 dB

Peak SAR (extrapolated) = 0.693 W/kg

**SAR(1 g) = 0.425 W/kg; SAR(10 g) = 0.256 W/kg**

Maximum value of SAR (measured) = 0.459 W/kg

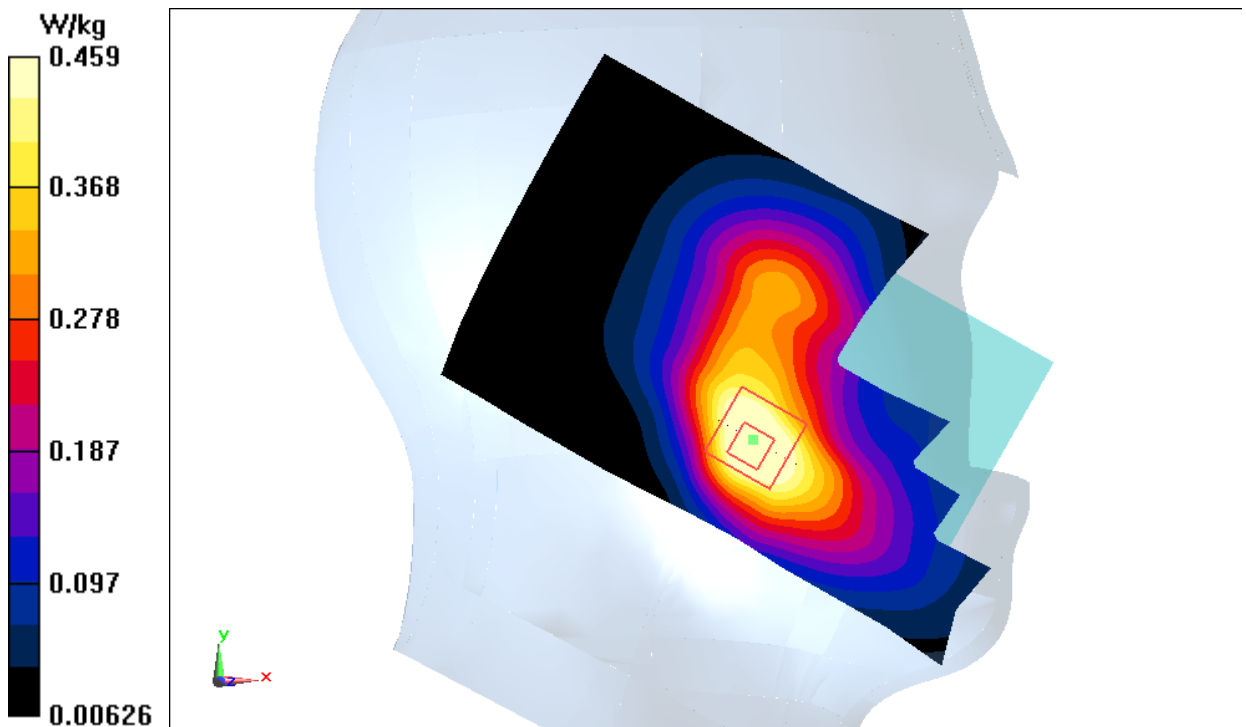


Fig.3 1900 MHz

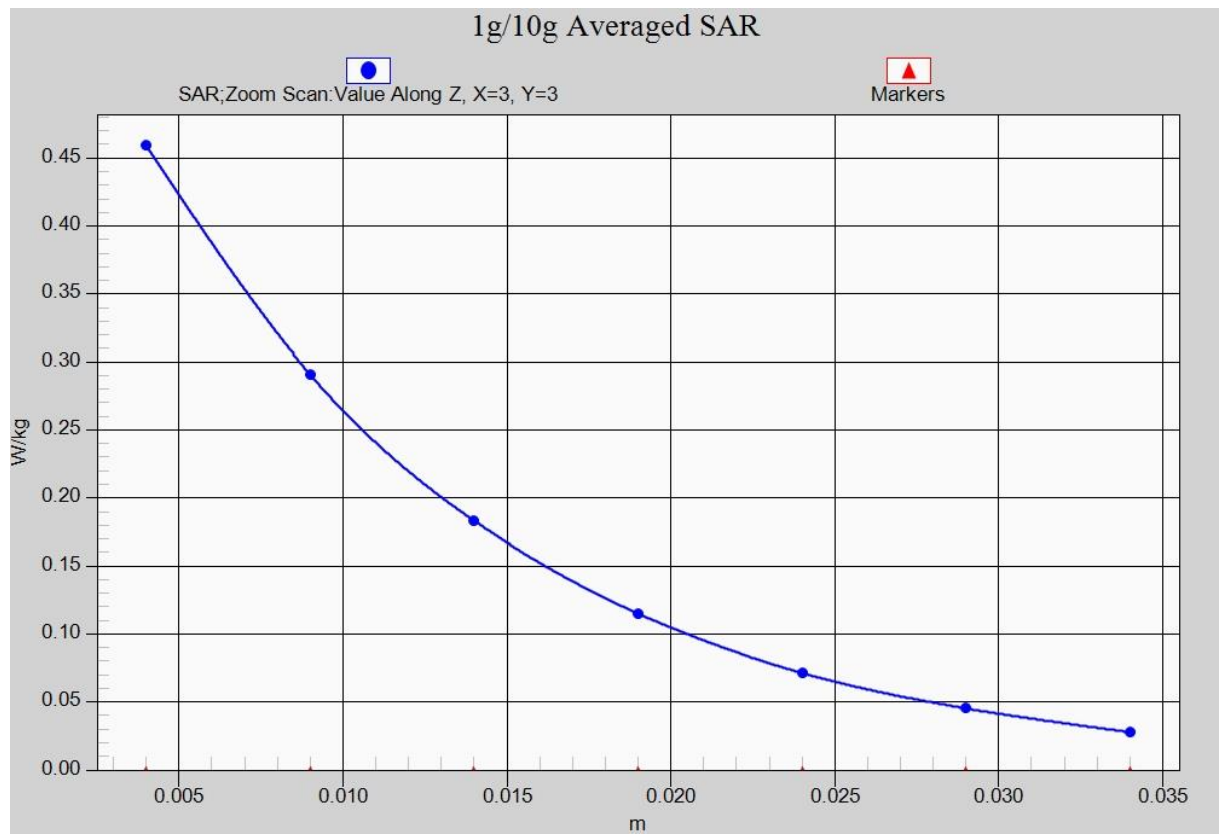


Fig. 3-1 Z-Scan at power reference point (1900 MHz)

### 1900 Body Bottom Low

Date: 2018-3-29

Electronics: DAE4 Sn1525

Medium: Body 1900 MHz

Medium parameters used:  $f = 1850.2$  MHz;  $\sigma = 1.515$  mho/m;  $\epsilon_r = 52.83$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Ambient Temperature: 22.9°C Liquid Temperature: 22.5°C

Communication System: GSM 1900MHz GPRS Frequency: 1850.2 MHz Duty Cycle: 1:4

Probe: EX3DV4- SN7464 ConvF(8.32, 8.32, 8.32)

**Area Scan (31x71x1):** Interpolated grid:  $dx=1.000$  mm,  $dy=1.000$  mm

Maximum value of SAR (interpolated) = 1.26 W/kg

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

Reference Value = 21.79 V/m; Power Drift = -0.01 dB

Peak SAR (extrapolated) = 1.68 W/kg

**SAR(1 g) = 1.02 W/kg; SAR(10 g) = 0.551 W/kg**

Maximum value of SAR (measured) = 1.15 W/kg

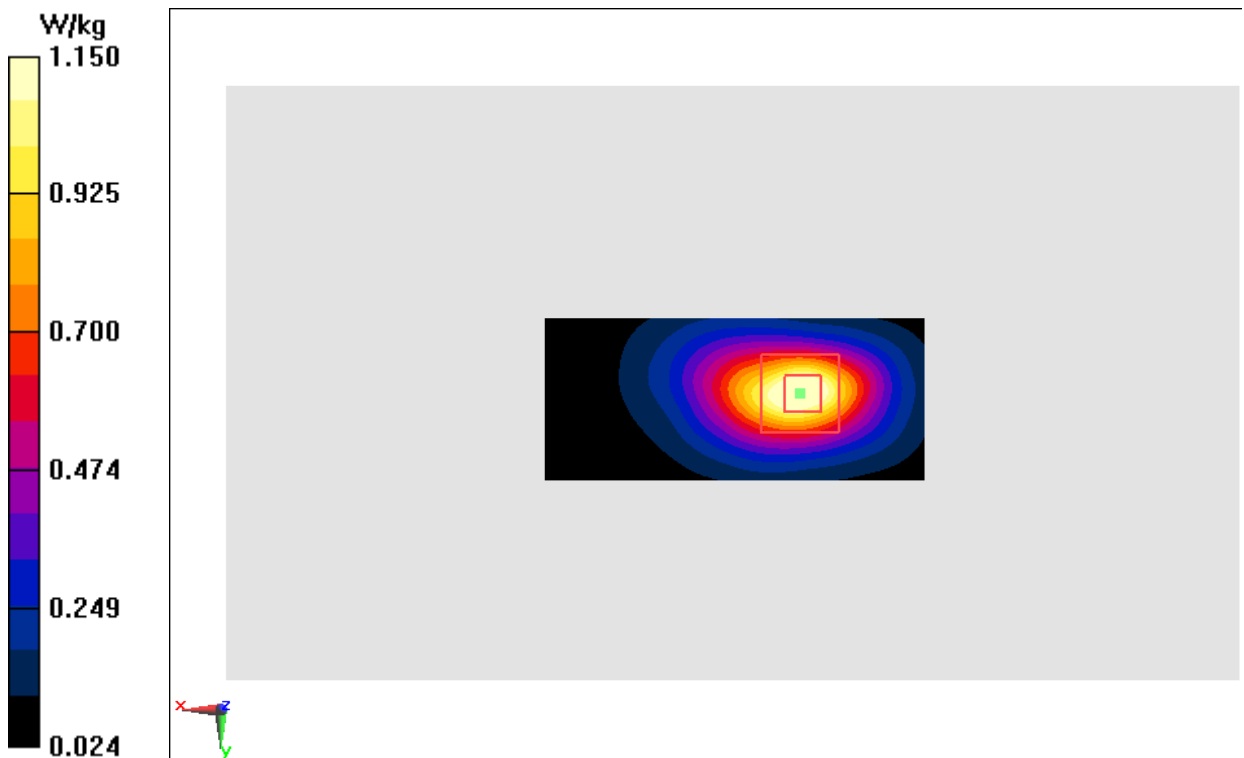


Fig.4 1900 MHz

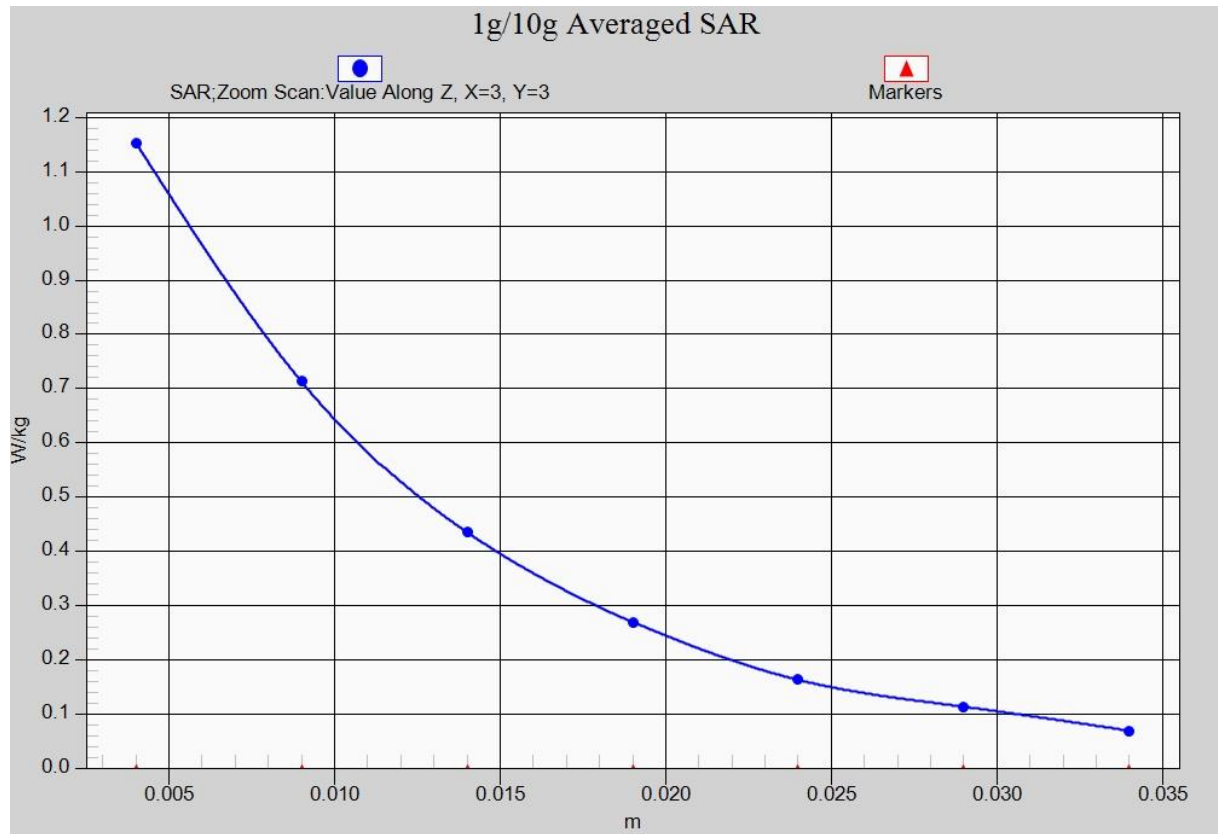


Fig. 4-1 Z-Scan at power reference point (1900 MHz)

## WCDMA 850 Right Cheek High

Date: 2018-3-30

Electronics: DAE4 Sn1525

Medium: Head 850 MHz

Medium parameters used (interpolated):  $f = 846.6$  MHz;  $\sigma = 0.909$  mho/m;  $\epsilon_r = 41.725$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Ambient Temperature: 22.9°C      Liquid Temperature: 22.5°C

Communication System: WCDMA; Frequency: 846.6 MHz; Duty Cycle: 1:1

Probe: EX3DV4 – SN7464 ConvF(10.28, 10.28, 10.28)

**Area Scan (71x121x1):** Interpolated grid:  $dx=1.000$  mm,  $dy=1.000$  mm

Maximum value of SAR (interpolated) = 0.349 W/kg

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

Reference Value = 5.793 V/m; Power Drift = 0.17 dB

Peak SAR (extrapolated) = 0.400 W/kg

**SAR(1 g) = 0.317 W/kg; SAR(10 g) = 0.243 W/kg**

Maximum value of SAR (measured) = 0.331 W/kg

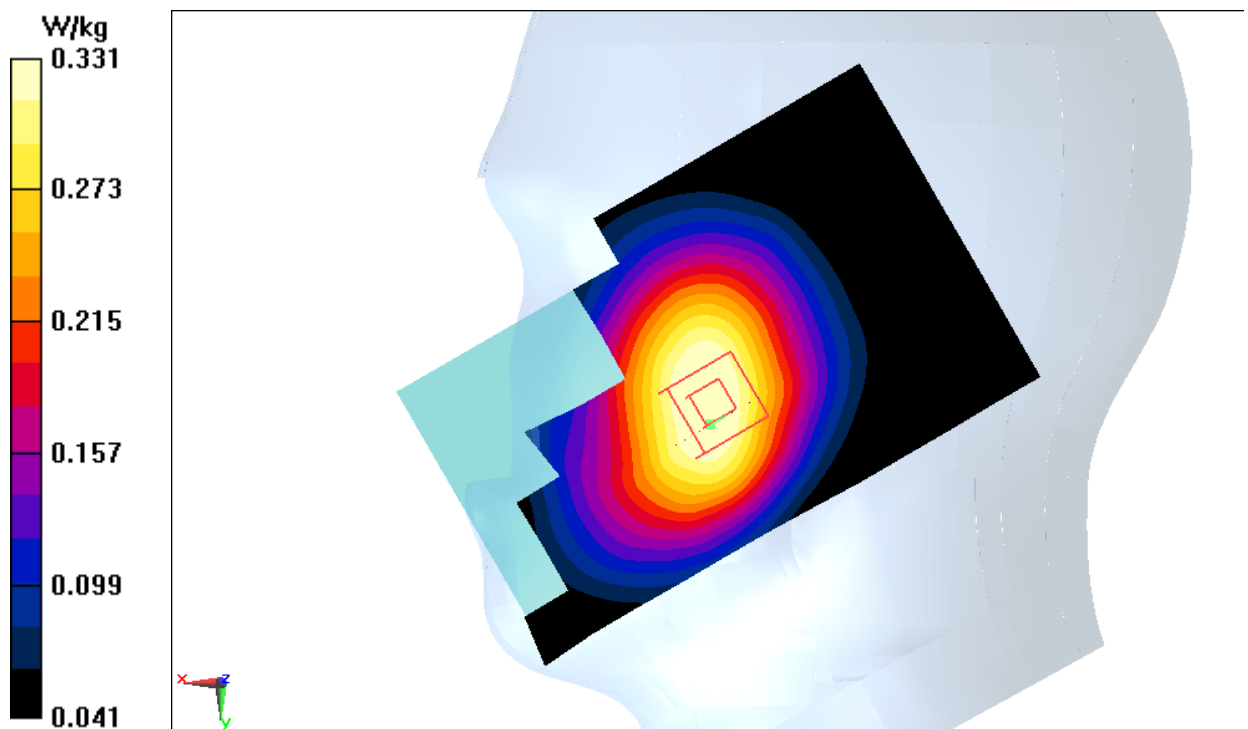


Fig.5 WCDMA 850

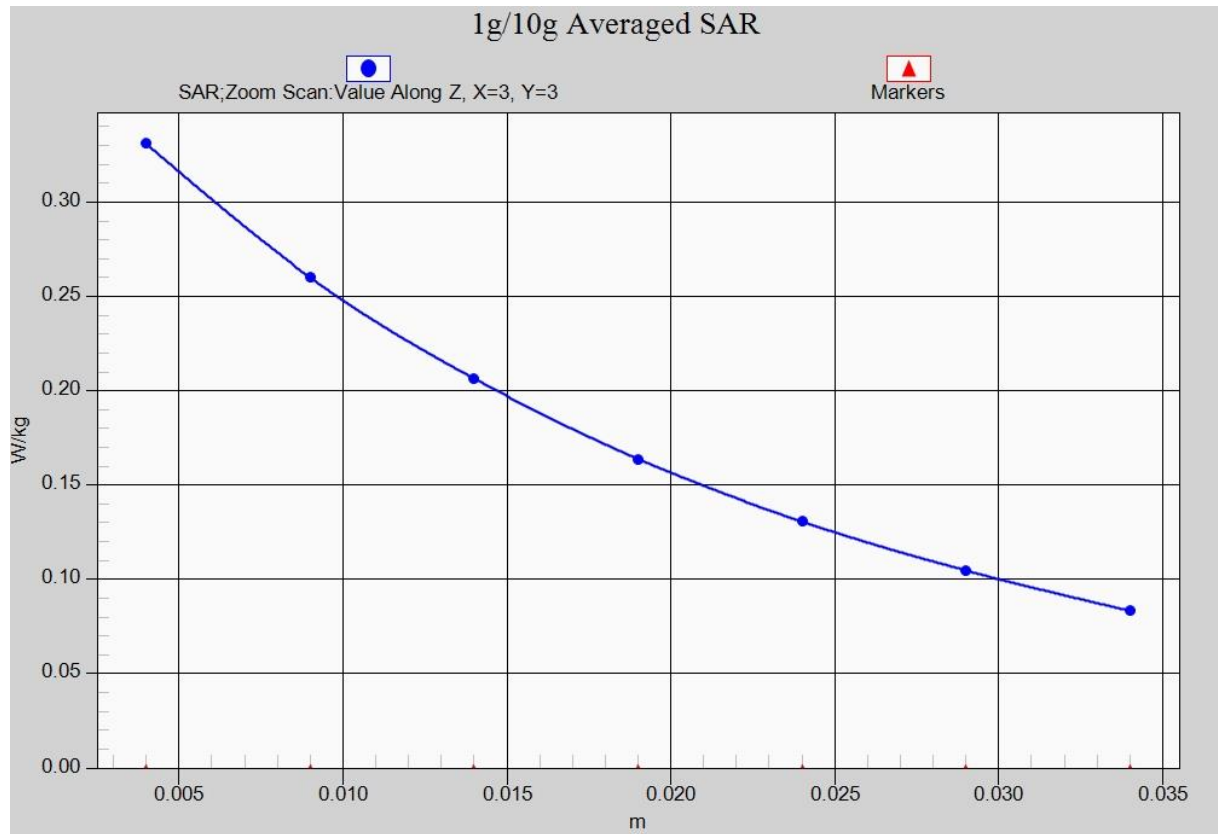


Fig. 5-1 Z-Scan at power reference point (850 MHz)

## WCDMA 850 Body Rear Low

Date: 2018-3-30

Electronics: DAE4 Sn1525

Medium: Body 850 MHz

Medium parameters used (interpolated):  $f = 826.4$  MHz;  $\sigma = 0.962$  mho/m;  $\epsilon_r = 56.066$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Ambient Temperature: 22.9°C      Liquid Temperature: 22.5°C

Communication System: WCDMA; Frequency: 826.4 MHz; Duty Cycle: 1:1

Probe: EX3DV4 – SN7464 ConvF(10.21, 10.21, 10.21)

**Area Scan (71x121x1):** Interpolated grid: dx=1.000 mm, dy=1.000 mm

Maximum value of SAR (interpolated) = 0.448 W/kg

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

Reference Value = 21.23 V/m; Power Drift = 0.10 dB

Peak SAR (extrapolated) = 0.512 W/kg

**SAR(1 g) = 0.410 W/kg; SAR(10 g) = 0.314 W/kg**

Maximum value of SAR (measured) = 0.429 W/kg

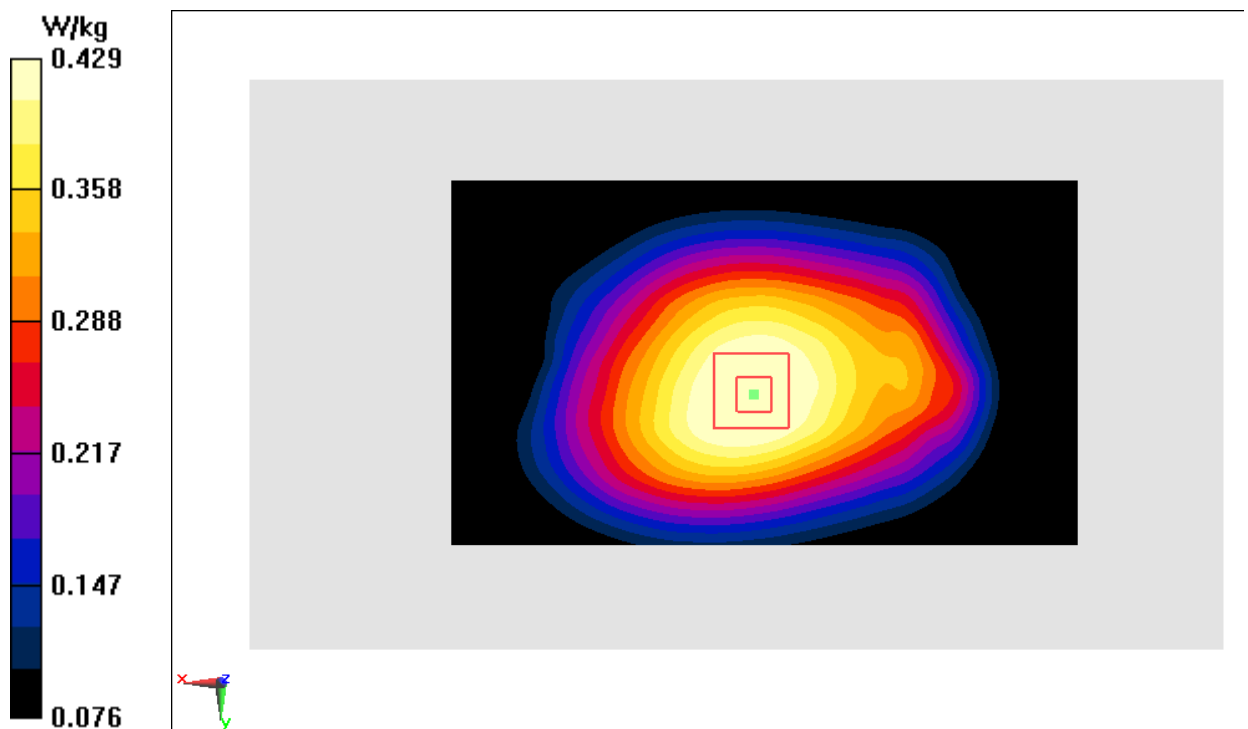
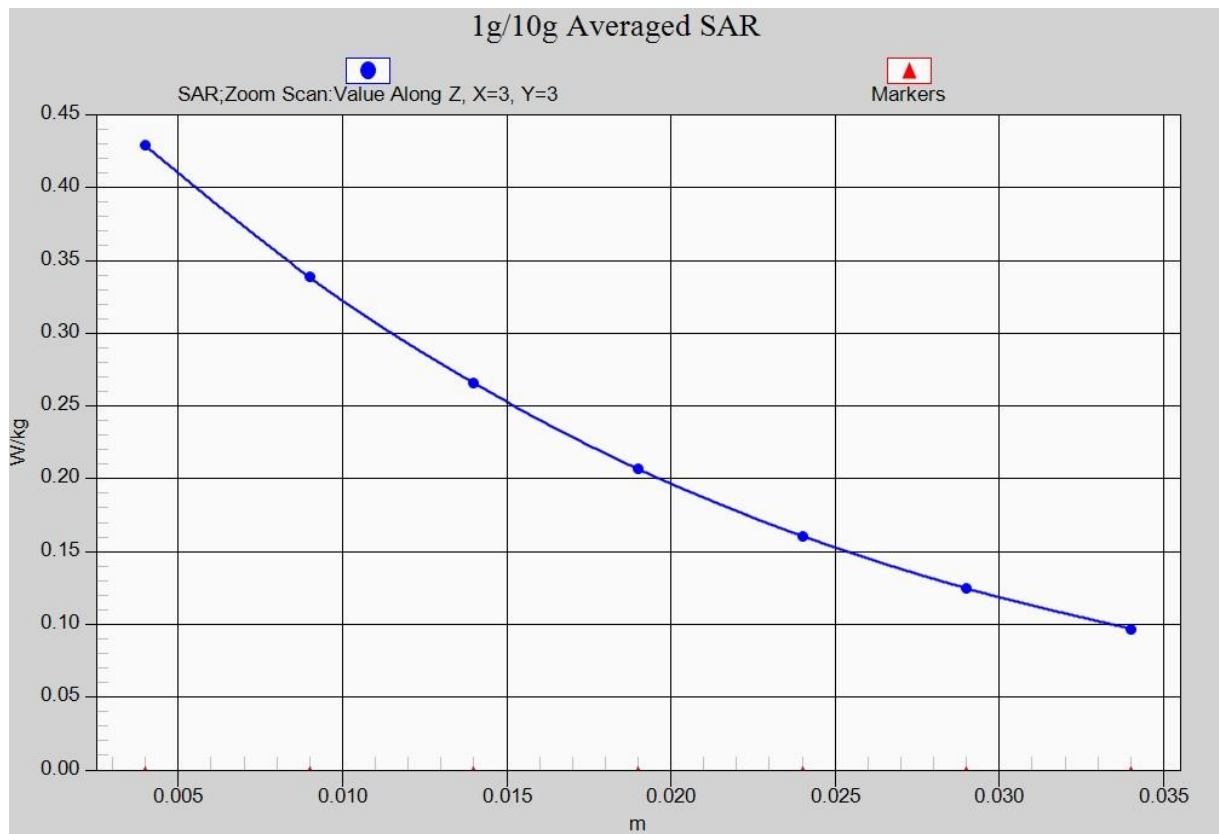


Fig.6 WCDMA 850



**Fig. 6-1 Z-Scan at power reference point (WCDMA850)**



## WCDMA 1700 Right Cheek High

Date: 2018-3-31

Electronics: DAE4 Sn1525

Medium: Head 1750 MHz

Medium parameters used (interpolated):  $f = 1752.6$  MHz;  $\sigma = 1.34$  mho/m;  $\epsilon_r = 40.567$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Ambient Temperature: 22.9°C      Liquid Temperature: 22.5°C

Communication System: WCDMA 1750 Frequency: 1752.6 MHz Duty Cycle: 1:1

Probe: EX3DV4– SN7464 ConvF(8.70, 8.70, 8.70)

**Area Scan (71x121x1):** Interpolated grid: dx=1.000 mm, dy=1.000 mm

Maximum value of SAR (interpolated) = 0.343 W/kg

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

Reference Value = 6.027 V/m; Power Drift = 0.08 dB

Peak SAR (extrapolated) = 0.415 W/kg

**SAR(1 g) = 0.277 W/kg; SAR(10 g) = 0.175 W/kg**

Maximum value of SAR (measured) = 0.297 W/kg

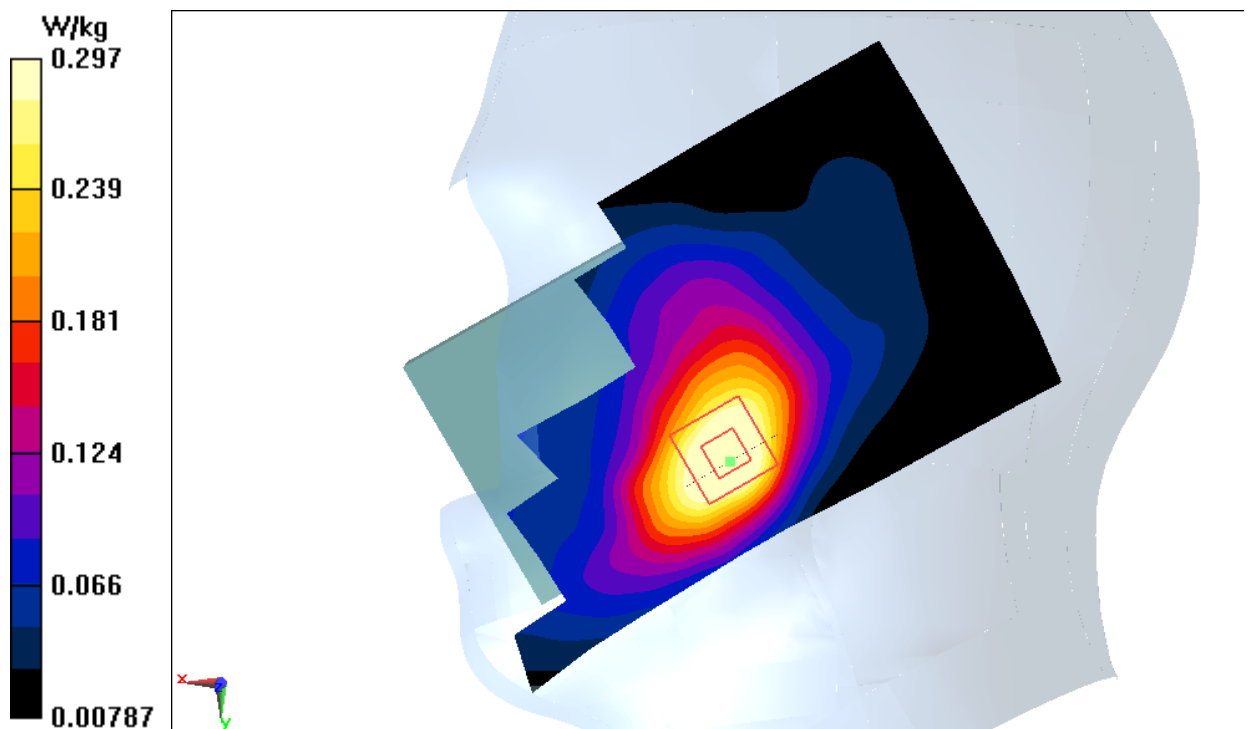
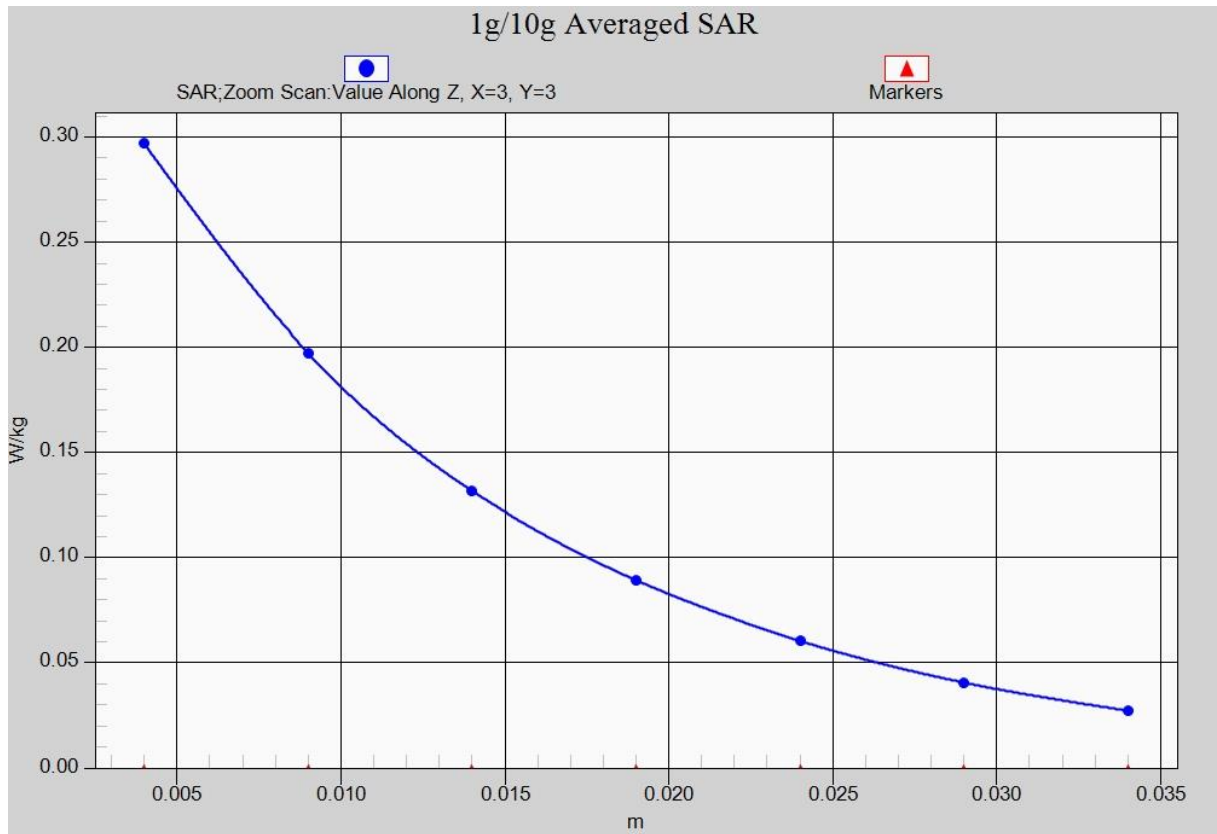


Fig.7 WCDMA1700



**Fig. 7-1 Z-Scan at power reference point (WCDMA1700)**

## WCDMA 1700 Body Bottom Low

Date: 2018-3-31

Electronics: DAE4 Sn1525

Medium: Body 1750 MHz

Medium parameters used (interpolated):  $f = 1712.4$  MHz;  $\sigma = 1.481$  mho/m;  $\epsilon_r = 53.828$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Ambient Temperature: 22.9°C      Liquid Temperature: 22.5°C

Communication System: WCDMA 1900 Frequency: 1712.4 MHz Duty Cycle: 1:1

Probe: EX3DV4– SN7464 ConvF(8.60, 8.60, 8.60)

**Area Scan (31x71x1):** Interpolated grid: dx=1.000 mm, dy=1.000 mm

Maximum value of SAR (interpolated) = 1.16 W/kg

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

Reference Value = 25.20 V/m; Power Drift = 0.01 dB

Peak SAR (extrapolated) = 1.52 W/kg

**SAR(1 g) = 0.934 W/kg; SAR(10 g) = 0.529 W/kg**

Maximum value of SAR (measured) = 1.04 W/kg

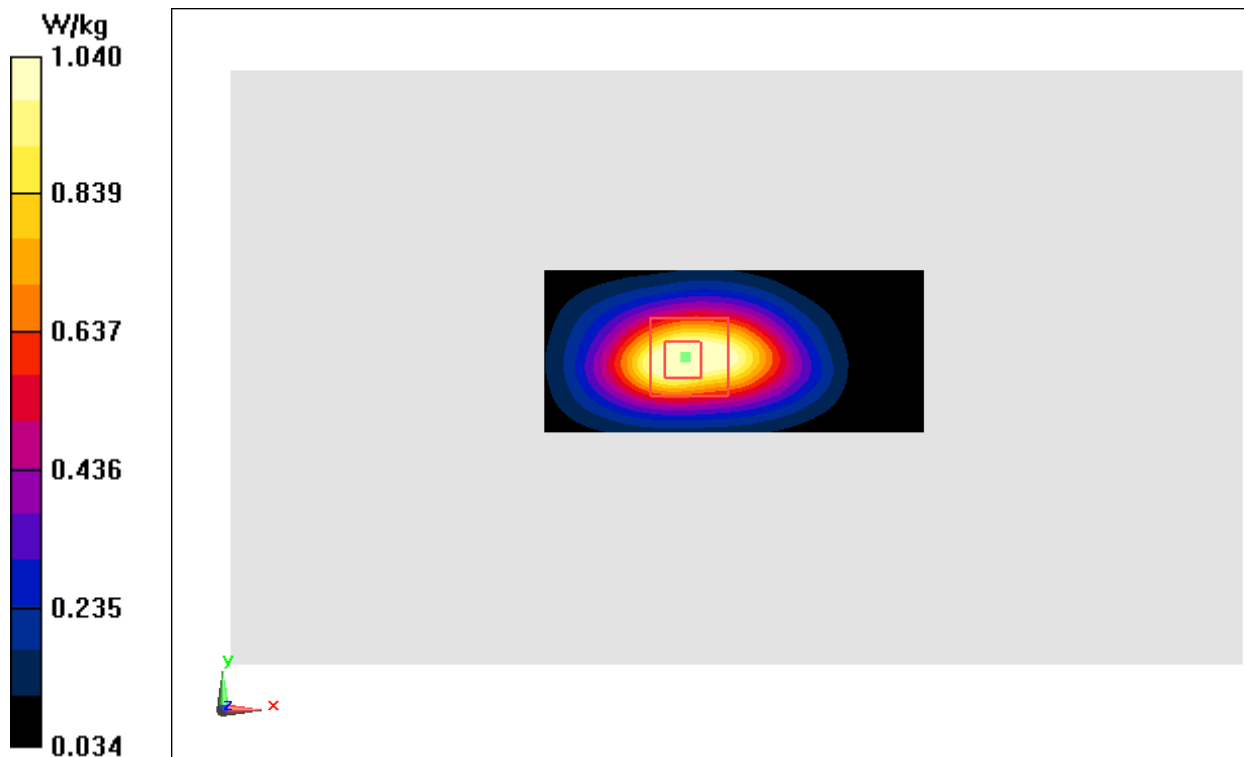


Fig.8 WCDMA1700

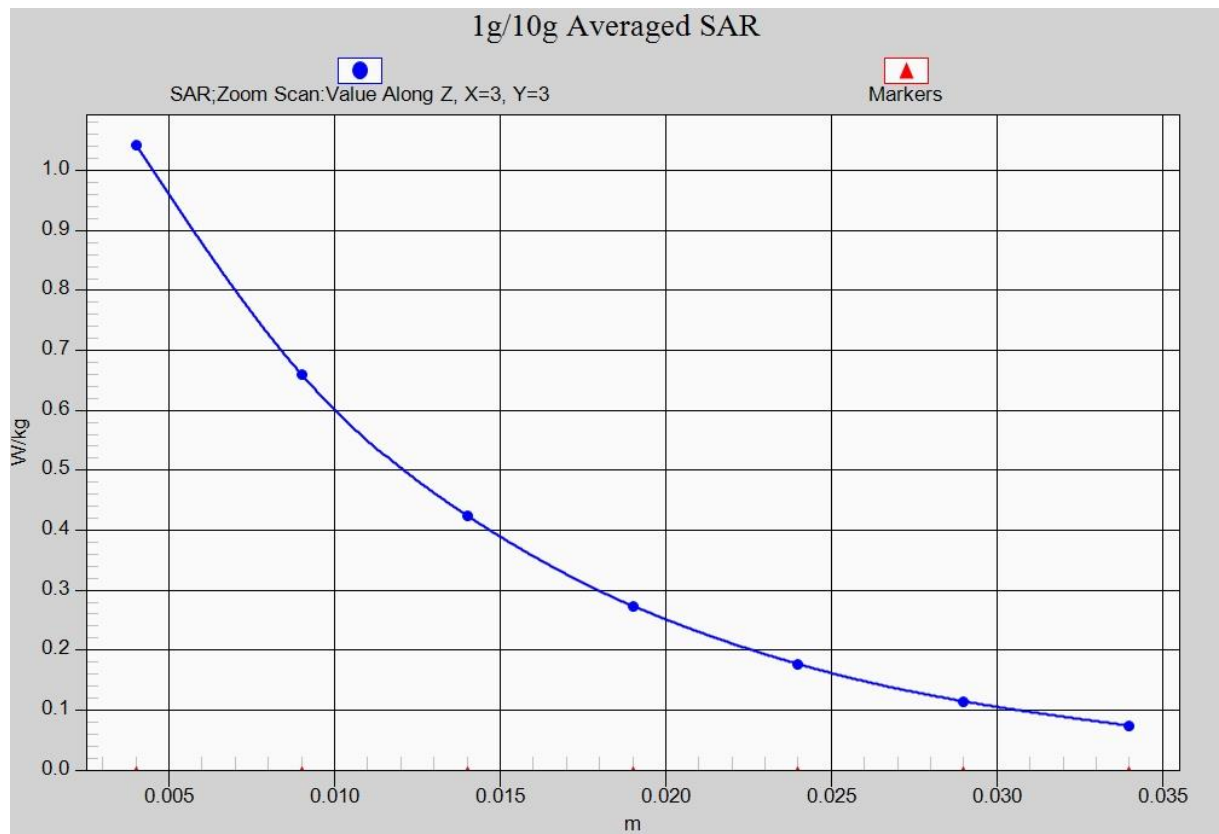


Fig. 8-1 Z-Scan at power reference point (WCDMA1700)

### WCDMA 1900 Left Cheek Middle

Date: 2018-3-29

Electronics: DAE4 Sn1525

Medium: Head 1900 MHz

Medium parameters used:  $f = 1880$  MHz;  $\sigma = 1.438$  mho/m;  $\epsilon_r = 40.926$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Ambient Temperature: 22.9°C      Liquid Temperature: 22.5°C

Communication System: WCDMA 1900 Frequency: 1880 MHz Duty Cycle: 1:1

Probe: EX3DV4– SN7464 ConvF(8.39, 8.39, 8.39)

**Area Scan (71x121x1):** Interpolated grid:  $dx=1.000$  mm,  $dy=1.000$  mm

Maximum value of SAR (interpolated) = 0.405 W/kg

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

Reference Value = 2.228 V/m; Power Drift = 0.00 dB

Peak SAR (extrapolated) = 0.535 W/kg

**SAR(1 g) = 0.333 W/kg; SAR(10 g) = 0.201 W/kg**

Maximum value of SAR (measured) = 0.360 W/kg

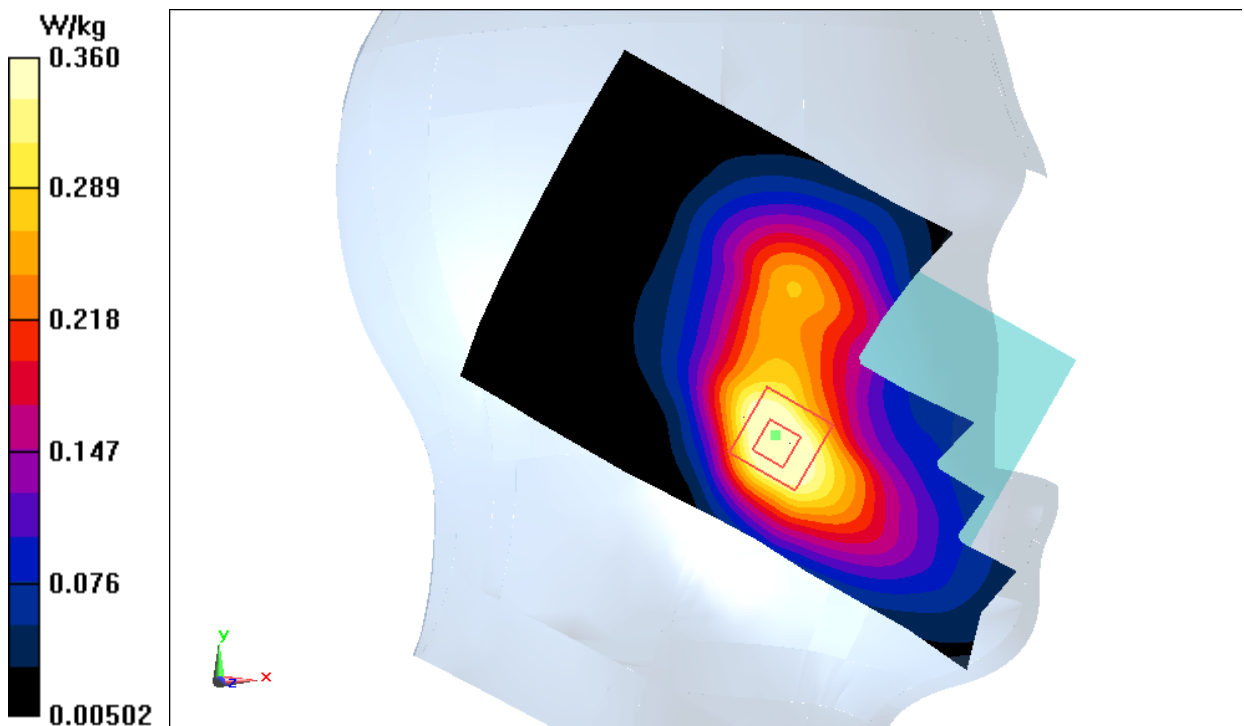
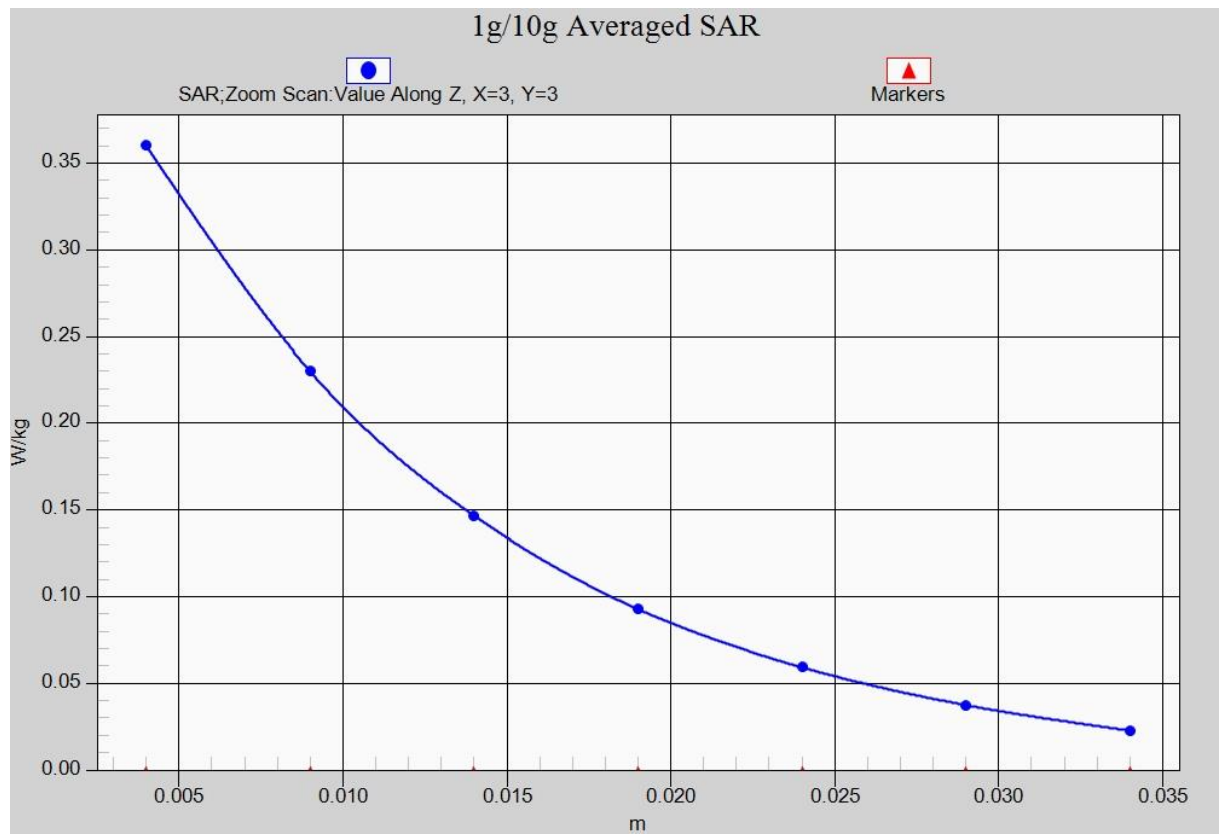


Fig.9 WCDMA1900



**Fig. 9-1 Z-Scan at power reference point (WCDMA1900)**

## WCDMA 1900 Body Bottom Low

Date: 2018-3-29

Electronics: DAE4 Sn1525

Medium: Body 1900 MHz

Medium parameters used (interpolated):  $f = 1852.4$  MHz;  $\sigma = 1.501$  mho/m;  $\epsilon_r = 53.18$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Ambient Temperature: 22.9°C      Liquid Temperature: 22.5°C

Communication System: WCDMA 1900 Frequency: 1852.4 MHz Duty Cycle: 1:1

Probe: EX3DV4– SN7464 ConvF(8.32, 8.32, 8.32)

**Area Scan (31x71x1):** Interpolated grid: dx=1.000 mm, dy=1.000 mm

Maximum value of SAR (interpolated) = 1.15 W/kg

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

Reference Value = 20.81 V/m; Power Drift = 0.07 dB

Peak SAR (extrapolated) = 1.57 W/kg

**SAR(1 g) = 0.936 W/kg; SAR(10 g) = 0.503 W/kg**

Maximum value of SAR (measured) = 1.05 W/kg

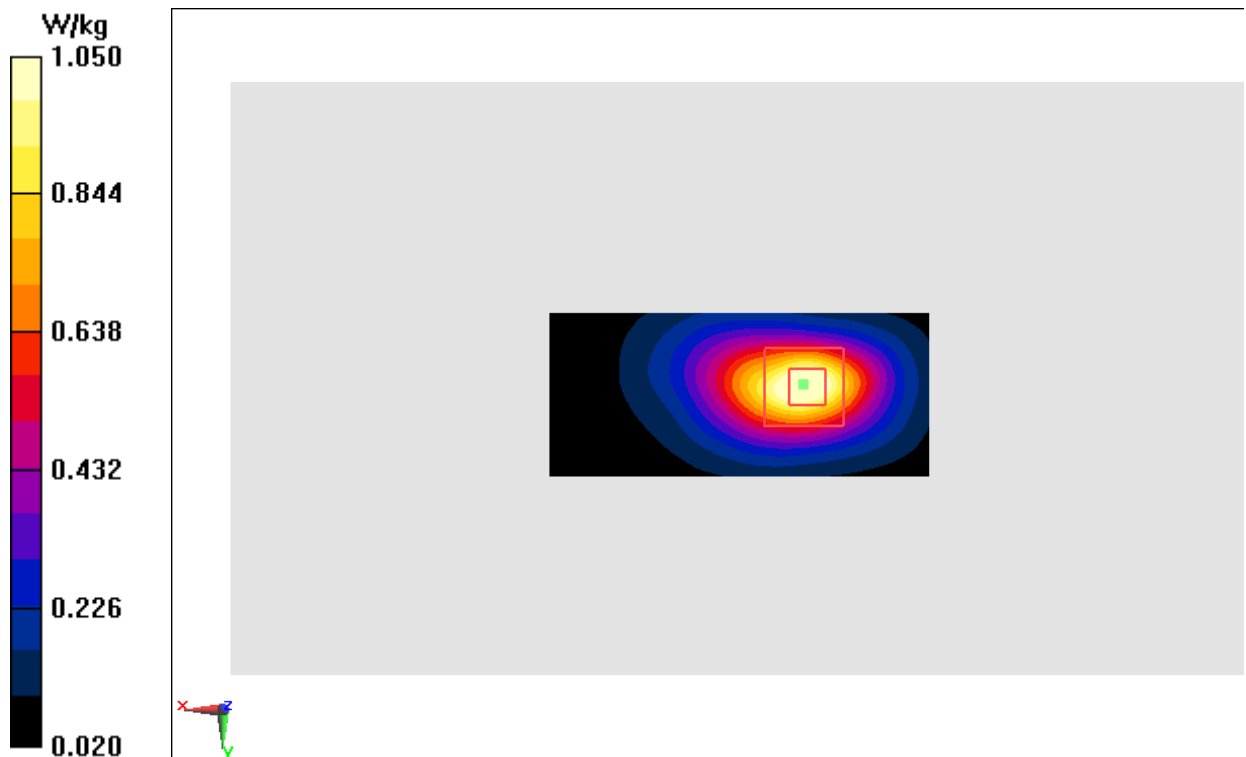


Fig.10 WCDMA1900

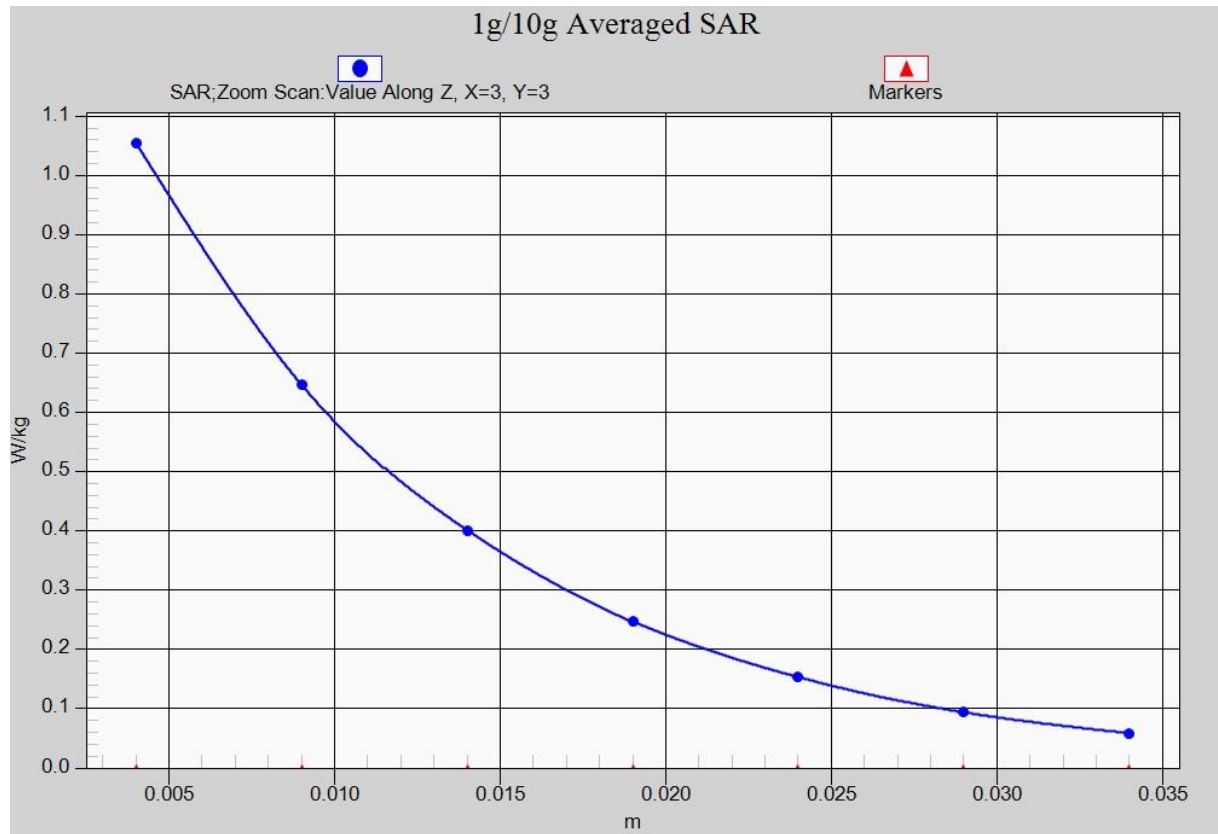


Fig. 10-1 Z-Scan at power reference point (WCDMA1900)



### LTE Band2 Right Cheek Low with QPSK\_20M\_1RB\_Low

Date: 2018-3-29

Electronics: DAE4 Sn1525

Medium: Head 1900 MHz

Medium parameters used:  $f = 1860$  MHz;  $\sigma = 1.367$  mho/m;  $\epsilon_r = 40.79$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Ambient Temperature: 22.9°C Liquid Temperature: 22.5°C

Communication System: LTE Band2 Frequency: 1860 MHz Duty Cycle: 1:1

Probe: EX3DV4– SN7464 ConvF(8.39, 8.39, 8.39)

**Area Scan (71x121x1):** Interpolated grid:  $dx=1.000$  mm,  $dy=1.000$  mm

Maximum value of SAR (interpolated) = 0.487 W/kg

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

Reference Value = 5.148 V/m; Power Drift = 0.12 dB

Peak SAR (extrapolated) = 0.625 W/kg

**SAR(1 g) = 0.403 W/kg; SAR(10 g) = 0.249 W/kg**

Maximum value of SAR (measured) = 0.436 W/kg

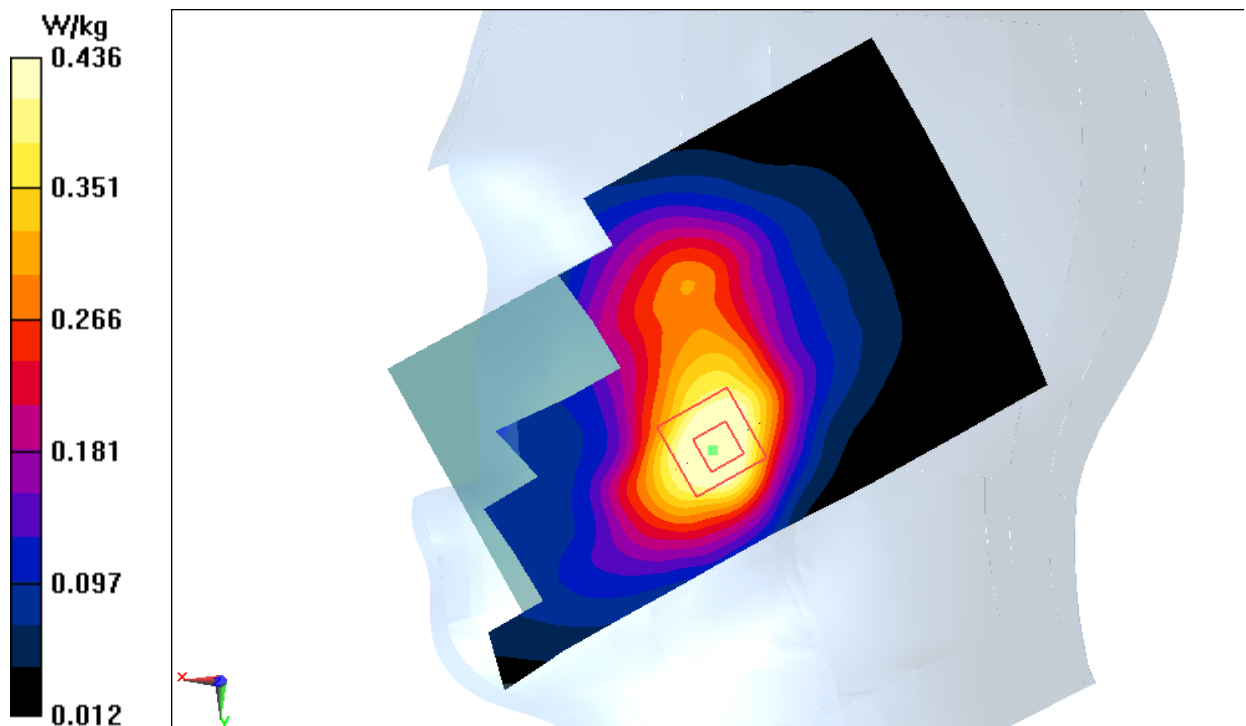


Fig.11 LTE Band2

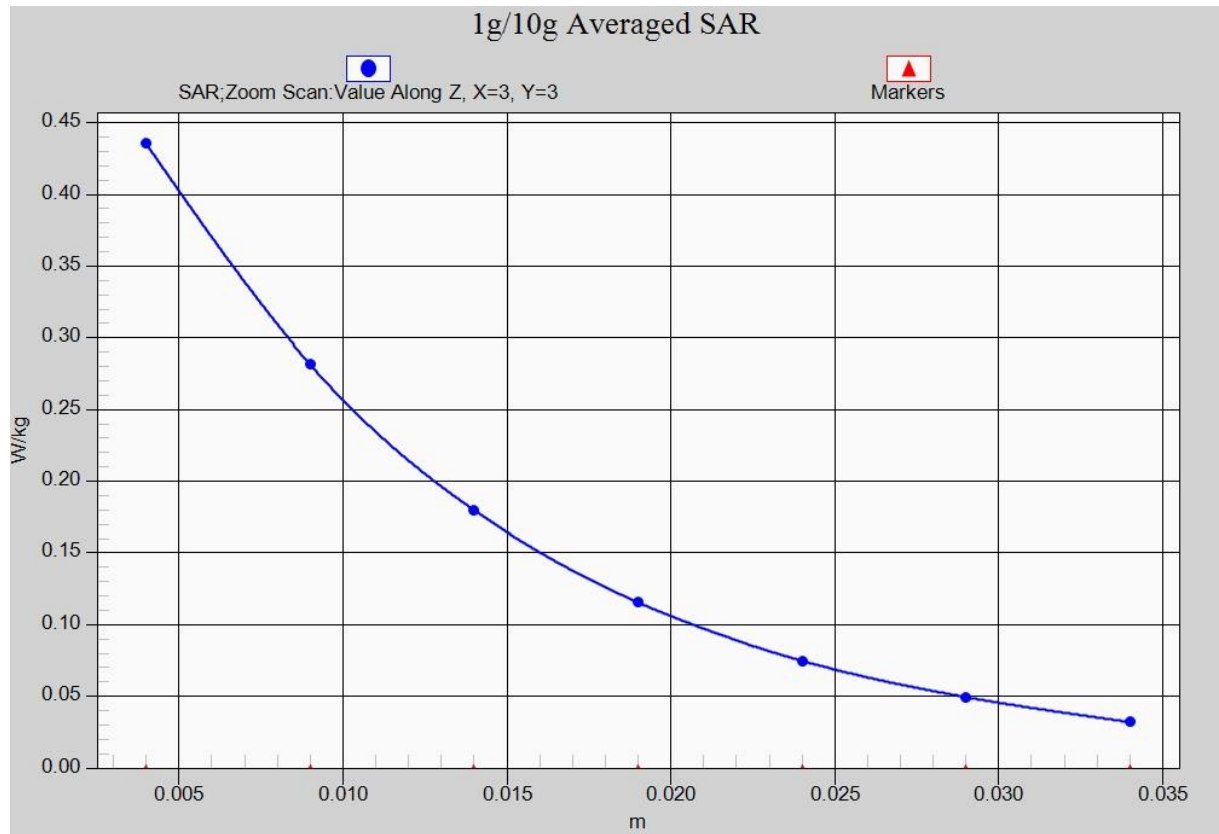


Fig. 11-1 Z-Scan at power reference point (LTE Band2)

### LTE Band2 Body Bottom Low with QPSK\_20M\_1RB\_Low

Date: 2018-3-29

Electronics: DAE4 Sn1525

Medium: Body 1900 MHz

Medium parameters used:  $f = 1860$  MHz;  $\sigma = 1.468$  mho/m;  $\epsilon_r = 52.83$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Ambient Temperature: 22.9°C      Liquid Temperature: 22.5°C

Communication System: LTE Band2 Frequency: 1860 MHz Duty Cycle: 1:1

Probe: EX3DV4– SN7464 ConvF(8.32, 8.32, 8.32)

**Area Scan (131x81x1):** Interpolated grid:  $dx=1.000$  mm,  $dy=1.000$  mm

Maximum value of SAR (interpolated) = 1.21 W/kg

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

Reference Value = 22.84 V/m; Power Drift = 0.06 dB

Peak SAR (extrapolated) = 1.68 W/kg

**SAR(1 g) = 0.998 W/kg; SAR(10 g) = 0.537 W/kg**

Maximum value of SAR (measured) = 1.24 W/kg

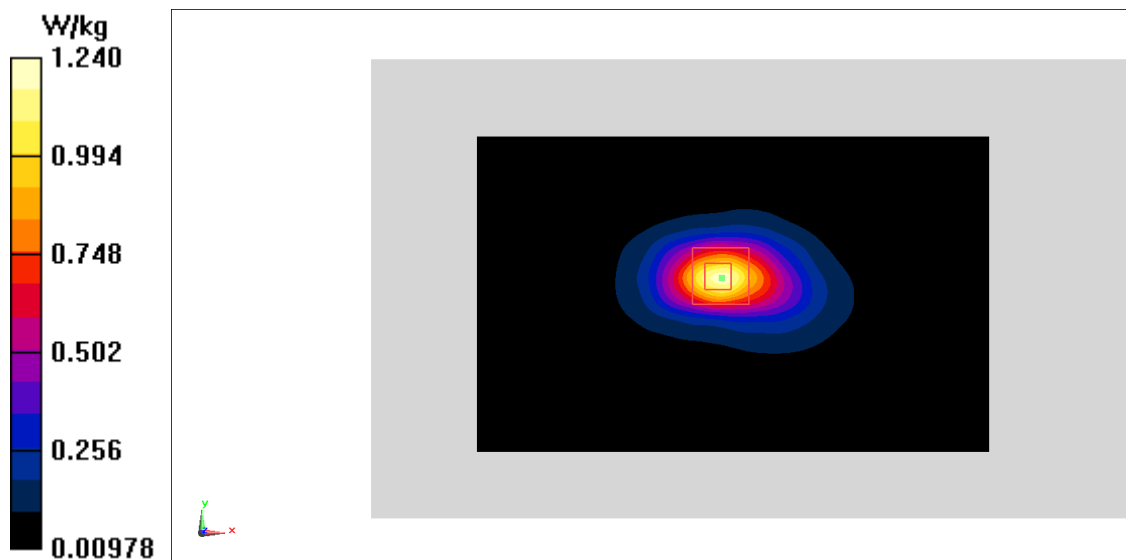
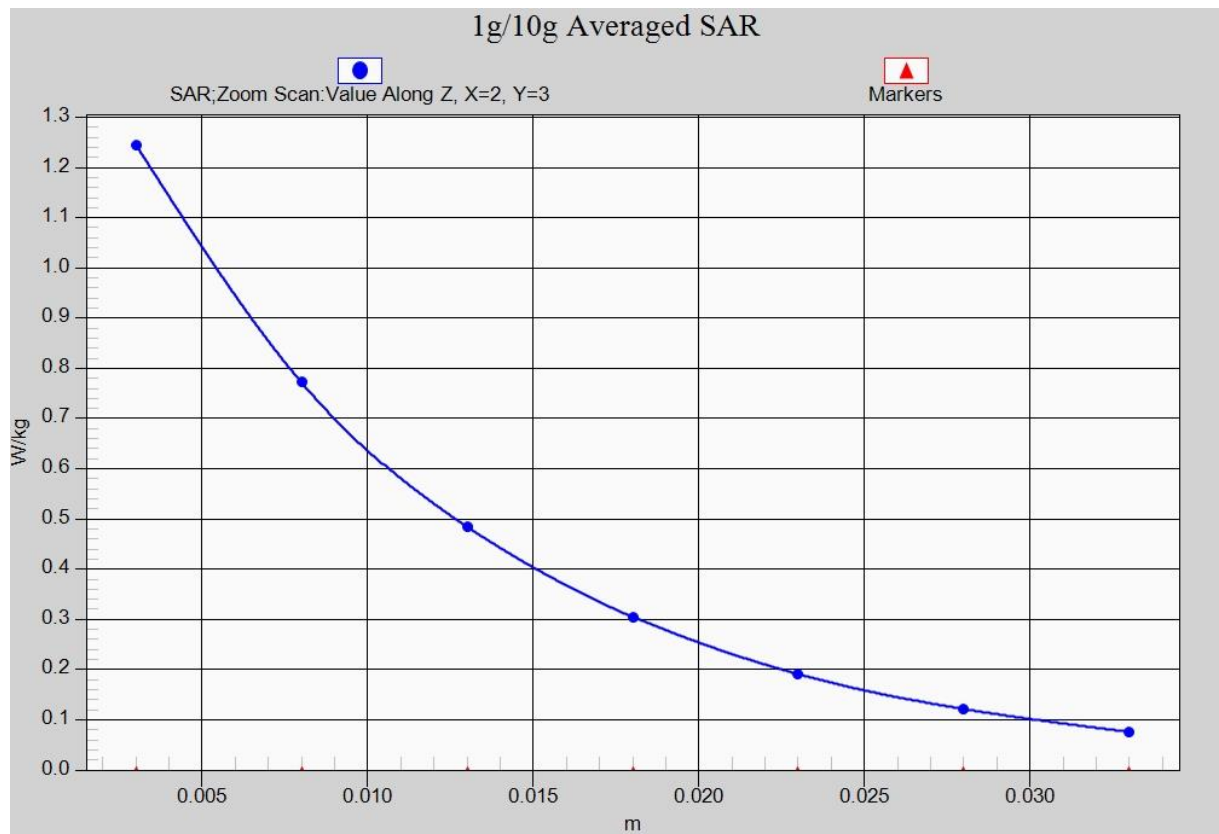


Fig.12 LTE Band2



**Fig. 12-1 Z-Scan at power reference point (LTE Band2)**

**LTE Band5 Right Cheek Low with QPSK\_10M\_1RB\_High**

Date: 2018-3-30

Electronics: DAE4 Sn1525

Medium: Head 850 MHz

Medium parameters used (interpolated):  $f = 829$  MHz;  $\sigma = 0.904$  mho/m;  $\epsilon_r = 41.851$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Ambient Temperature: 22.9°C      Liquid Temperature: 22.5°C

Communication System: LTE Band5 Frequency: 829 MHz Duty Cycle: 1:1

Probe: EX3DV4 - SN7464 ConvF(10.28, 10.28, 10.28)

**Area Scan (71x121x1):** Interpolated grid:  $dx=1.000$  mm,  $dy=1.000$  mm

Maximum value of SAR (interpolated) = 0.327 W/kg

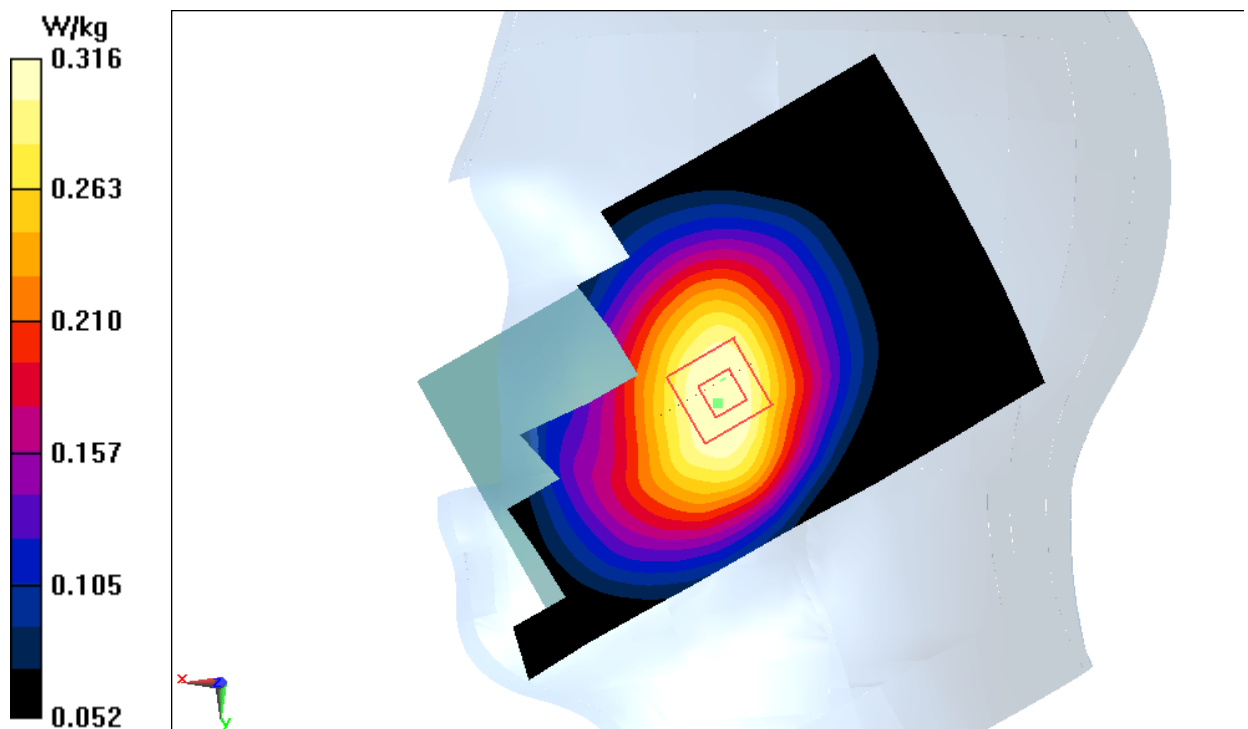
**Zoom Scan (7x7x7)/Cube 0:** Measurement grid:  $dx=5$ mm,  $dy=5$ mm,  $dz=5$ mm

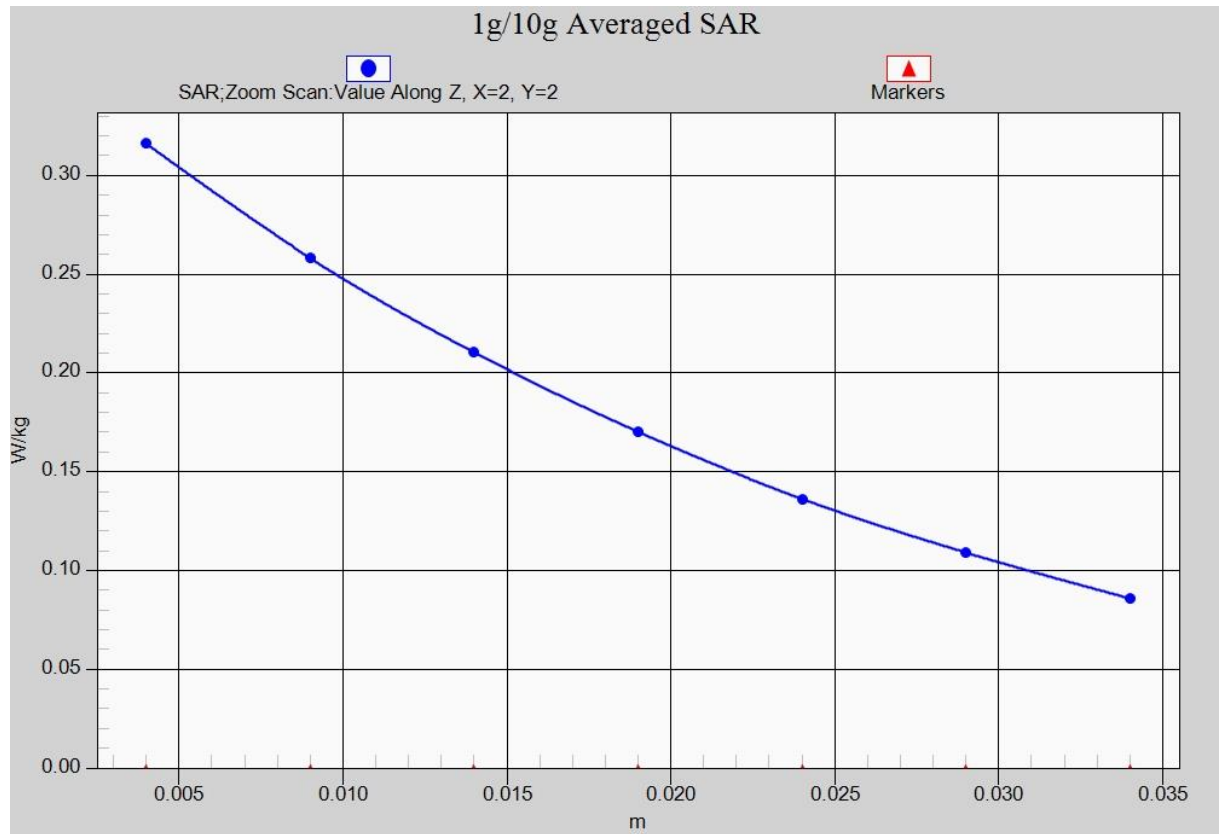
Reference Value = 6.550 V/m; Power Drift = 0.02 dB

Peak SAR (extrapolated) = 0.372 W/kg

**SAR(1 g) = 0.302 W/kg; SAR(10 g) = 0.233 W/kg**

Maximum value of SAR (measured) = 0.316 W/kg

**Fig.13 LTE Band5**



**Fig. 13-1 Z-Scan at power reference point (LTE Band5)**

### LTE Band5 Body Rear Low with QPSK\_10M\_1RB\_High

Date: 2018-3-30

Electronics: DAE4 Sn1525

Medium: Body 850 MHz

Medium parameters used (interpolated):  $f = 829$  MHz;  $\sigma = 1.003$  mho/m;  $\epsilon_r = 55.694$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Ambient Temperature: 22.9°C      Liquid Temperature: 22.5°C

Communication System: LTE Band5 Frequency: 829 MHz Duty Cycle: 1:1

Probe: EX3DV4 - SN7464 ConvF(10.21, 10.21, 10.21)

**Area Scan (71x121x1):** Interpolated grid:  $dx=1.000$  mm,  $dy=1.000$  mm

Maximum value of SAR (interpolated) = 0.566 W/kg

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

Reference Value = 24.02 V/m; Power Drift = -0.02 dB

Peak SAR (extrapolated) = 0.640 W/kg

**SAR(1 g) = 0.514 W/kg; SAR(10 g) = 0.394 W/kg**

Maximum value of SAR (measured) = 0.540 W/kg

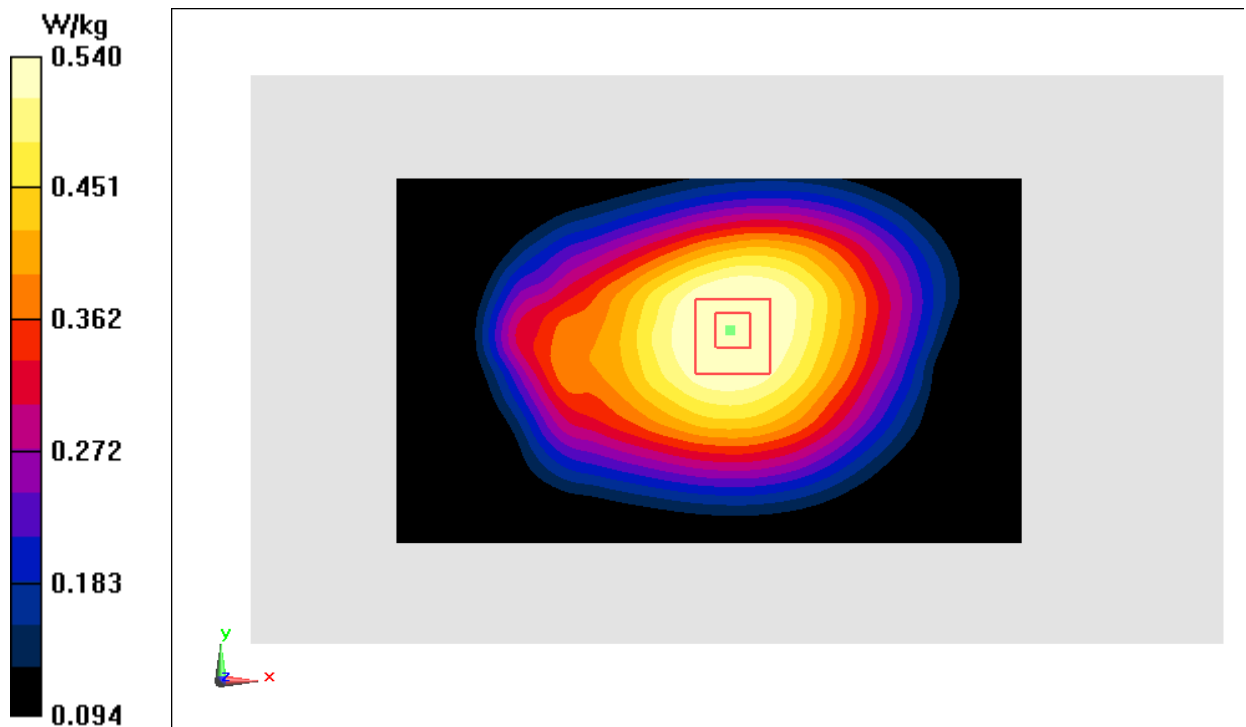
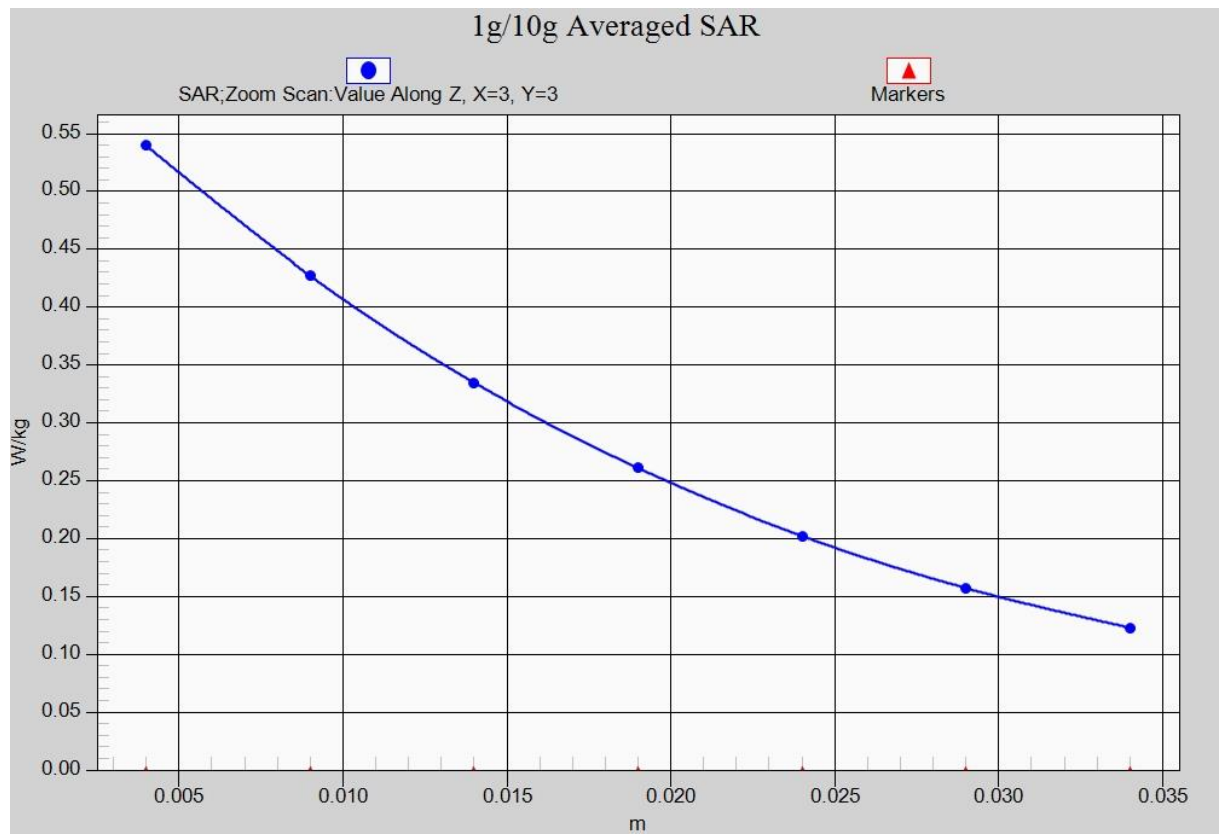


Fig.14 LTE Band5



**Fig. 14-1 Z-Scan at power reference point (LTE Band5)**



### LTE Band7 Right Cheek Low with QPSK\_20M\_1RB\_Low

Date: 2018-4-1

Electronics: DAE4 Sn1525

Medium: Head 2600 MHz

Medium parameters used:  $f = 2510$  MHz;  $\sigma = 1.925$  mho/m;  $\epsilon_r = 38.52$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Ambient Temperature: 22.9°C Liquid Temperature: 22.5°C

Communication System: LTE Band7 Frequency: 2510 MHz Duty Cycle: 1:1

Probe: EX3DV4– SN7464 ConvF(7.76, 7.76, 7.76)

**Area Scan (71x121x1):** Interpolated grid:  $dx=1.000$  mm,  $dy=1.000$  mm

Maximum value of SAR (interpolated) = 0.316 W/kg

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

Reference Value = 5.219 V/m; Power Drift = 0.09 dB

Peak SAR (extrapolated) = 0.547 W/kg

**SAR(1 g) = 0.268 W/kg; SAR(10 g) = 0.131 W/kg**

Maximum value of SAR (measured) = 0.294 W/kg

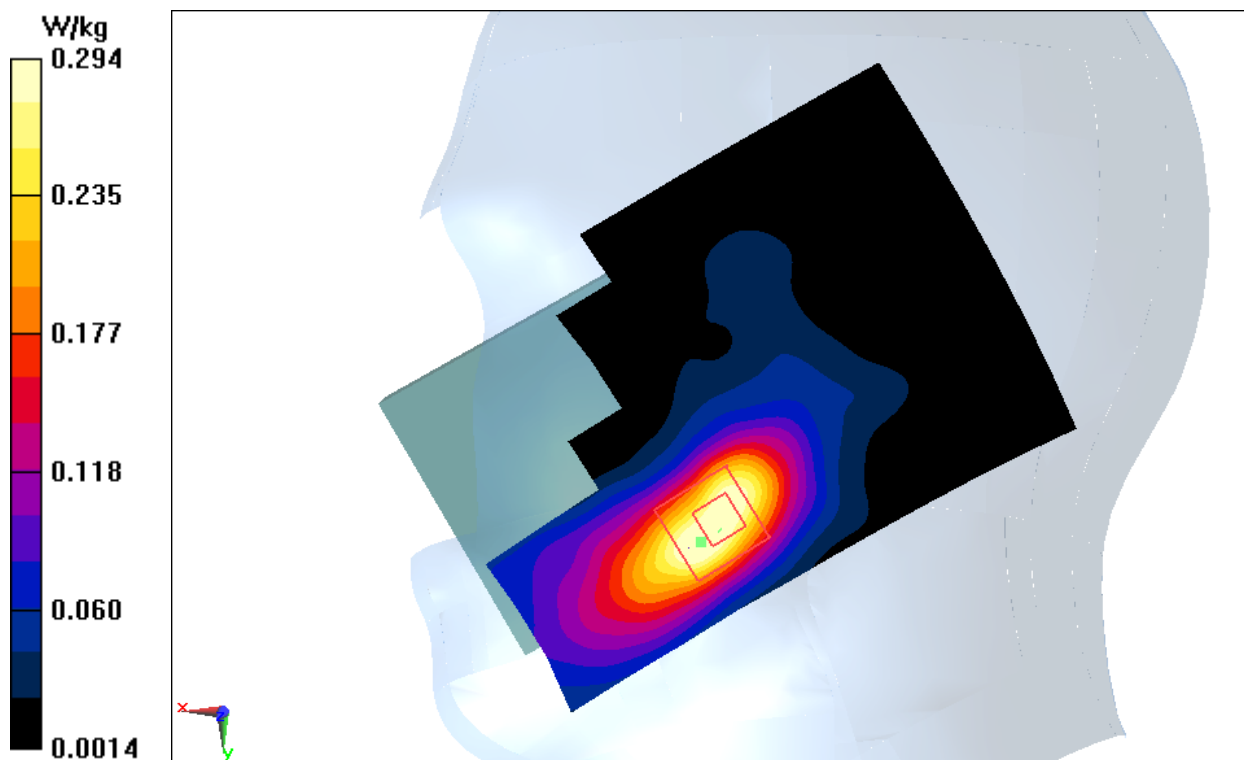
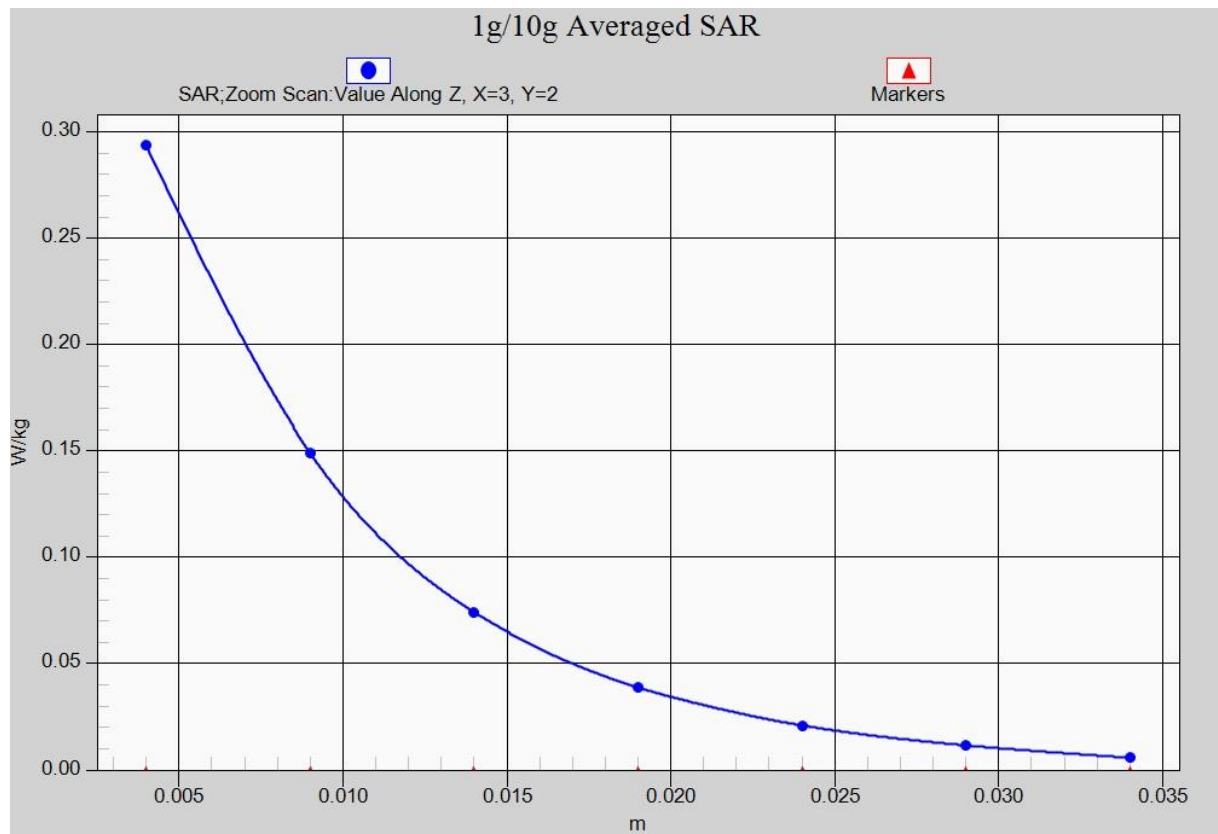


Fig.15 LTE Band7



**Fig. 15-1 Z-Scan at power reference point (LTE Band7)**

### LTE Band7 Body Rear Low with QPSK\_20M\_1RB Low

Date: 2018-4-1

Electronics: DAE4 Sn1525

Medium: Body 2600 MHz

Medium parameters used:  $f = 2510$  MHz;  $\sigma = 2.095$  mho/m;  $\epsilon_r = 51.85$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Ambient Temperature: 22.9°C Liquid Temperature: 22.5°C

Communication System: LTE Band7 Frequency: 2510 MHz Duty Cycle: 1:1

Probe: EX3DV4– SN7464 ConvF(7.84, 7.84, 7.84)

**Area Scan (81x151x1):** Interpolated grid:  $dx=1.000$  mm,  $dy=1.000$  mm

Maximum value of SAR (interpolated) = 0.902 W/kg

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

Reference Value = 4.527 V/m; Power Drift = -0.09 dB

Peak SAR (extrapolated) = 1.50 W/kg

**SAR(1 g) = 0.763 W/kg; SAR(10 g) = 0.352 W/kg**

Maximum value of SAR (measured) = 0.854 W/kg

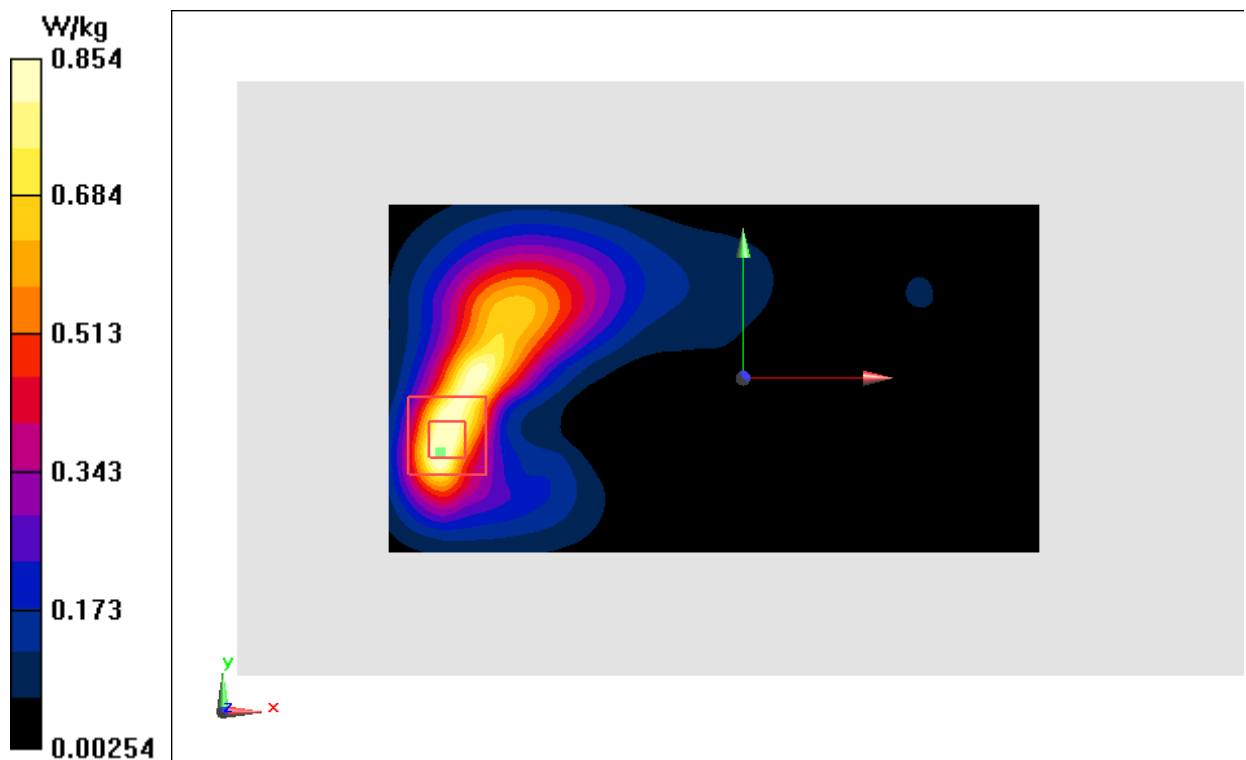
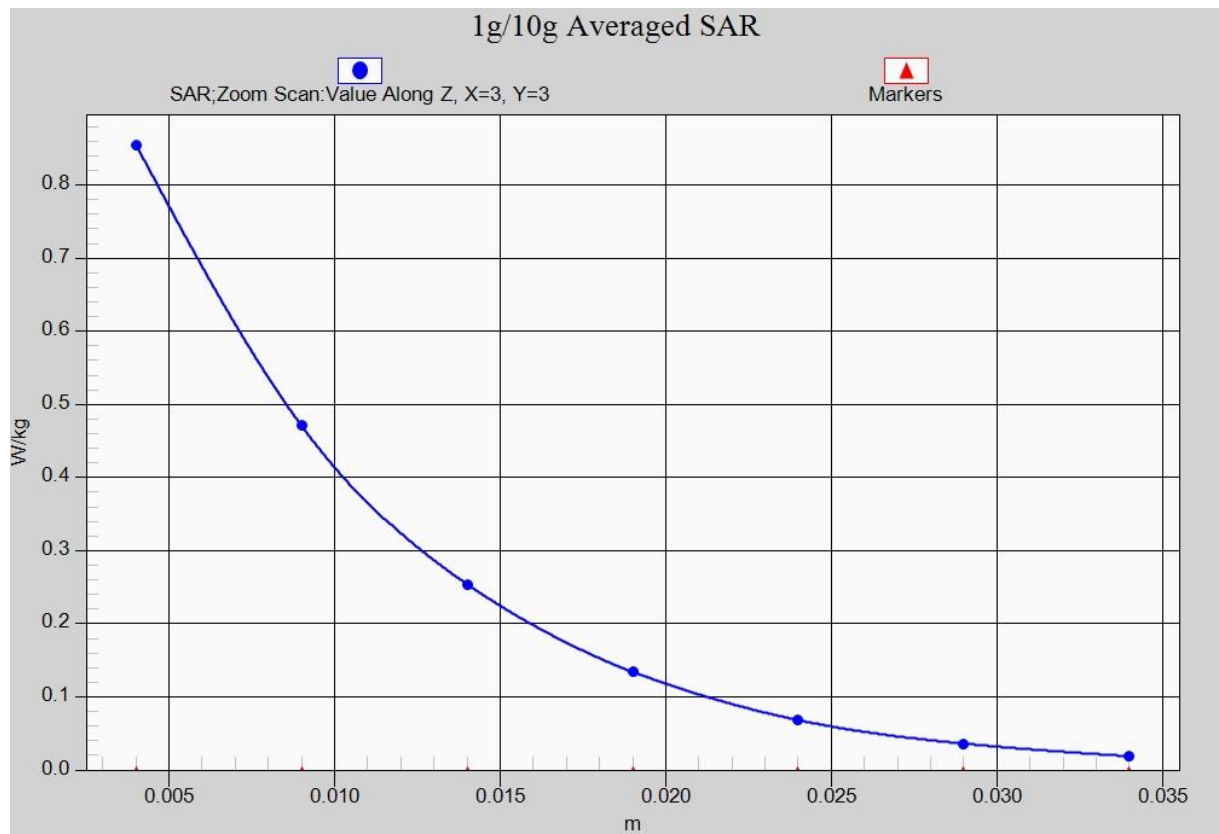


Fig.16 LTE Band7



**Fig. 16-1 Z-Scan at power reference point (LTE Band7)**

**LTE Band17 Left Cheek Middle with QPSK\_10M\_1RB\_High**

Date: 2018-4-1

Electronics: DAE4 Sn1525

Medium: Head750 MHz

Medium parameters used:  $f = 710$  MHz;  $\sigma = 0.848$  mho/m;  $\epsilon_r = 42.873$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Ambient Temperature: 22.9°C Liquid Temperature: 22.5°C

Communication System: LTE Band17 Frequency: 710 MHz Duty Cycle: 1:1

Probe: EX3DV4– SN7464 ConvF(10.57, 10.57, 10.57)

**Area Scan (71x121x1):** Interpolated grid: dx=1.000 mm, dy=1.000 mm

Maximum value of SAR (interpolated) = 0.250 W/kg

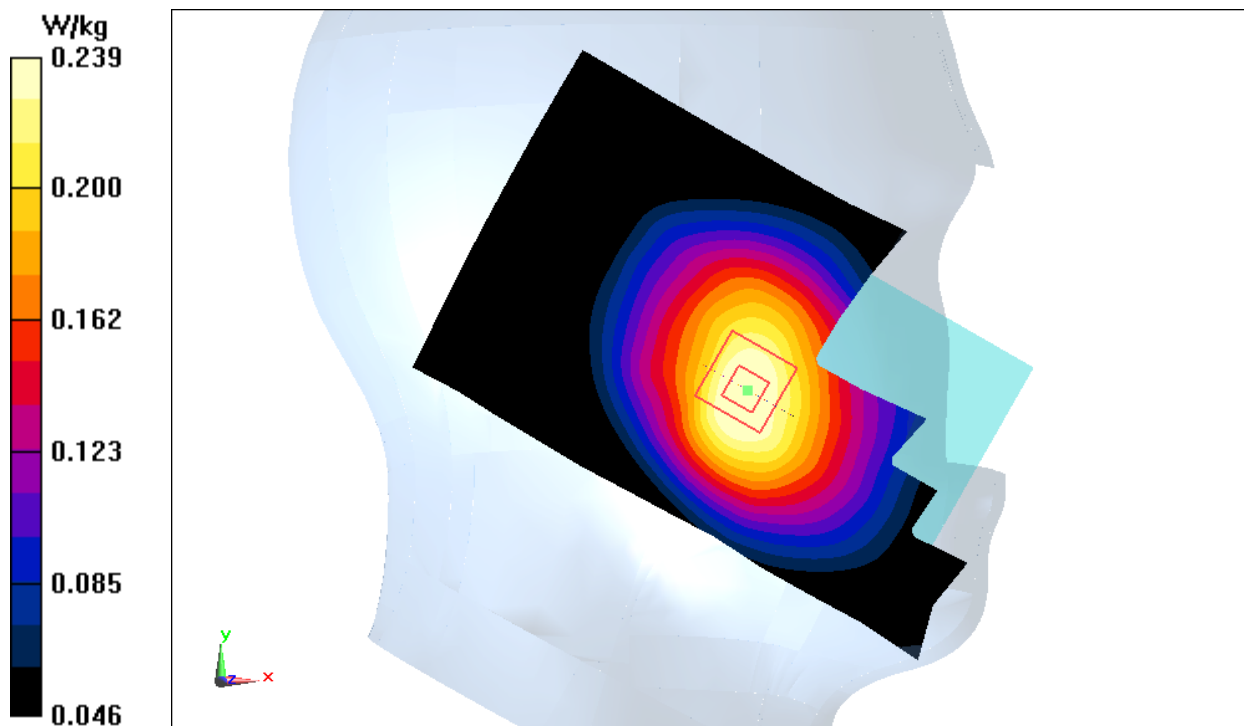
**Zoom Scan (7x7x7)/Cube 0:** Measurement grid: dx=5mm, dy=5mm, dz=5mm

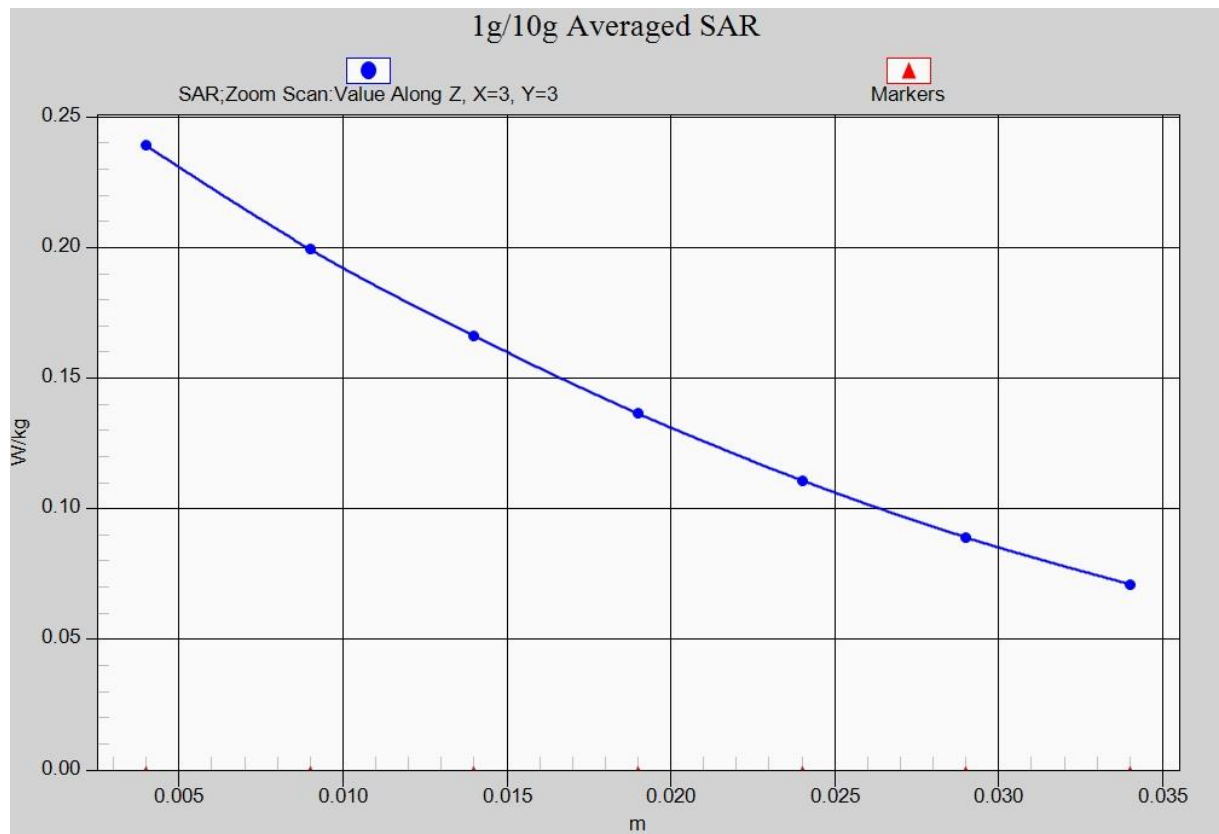
Reference Value = 6.152 V/m; Power Drift = 0.16 dB

Peak SAR (extrapolated) = 0.277 W/kg

**SAR(1 g) = 0.229 W/kg; SAR(10 g) = 0.180 W/kg**

Maximum value of SAR (measured) = 0.239 W/kg

**Fig.17 LTE Band17**



**Fig. 17-1 Z-Scan at power reference point (LTE Band17)**

### LTE Band17 Body Rear Middle with QPSK\_10M\_1RB\_High

Date: 2018-4-1

Electronics: DAE4 Sn1525

Medium: Body750 MHz

Medium parameters used:  $f = 710$  MHz;  $\sigma = 0.915$  mho/m;  $\epsilon_r = 56.662$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Ambient Temperature: 22.9°C      Liquid Temperature: 22.5°C

Communication System: LTE Band17 Frequency: 710 MHz Duty Cycle: 1:1

Probe: EX3DV4– SN7464 ConvF(10.63, 10.63, 10.63)

**Area Scan (71x121x1):** Interpolated grid:  $dx=1.000$  mm,  $dy=1.000$  mm

Maximum value of SAR (interpolated) = 0.538 W/kg

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

Reference Value = 24.54 V/m; Power Drift = -0.06 dB

Peak SAR (extrapolated) = 0.606 W/kg

**SAR(1 g) = 0.493 W/kg; SAR(10 g) = 0.384 W/kg**

Maximum value of SAR (measured) = 0.515 W/kg

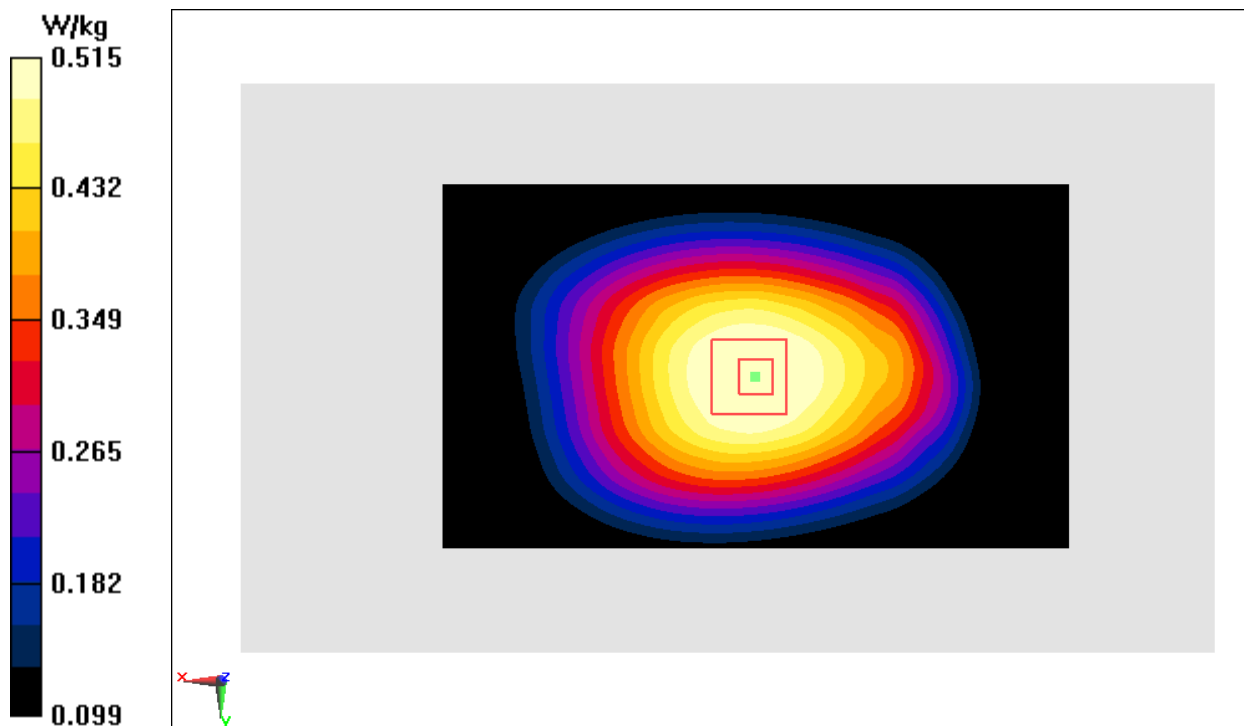
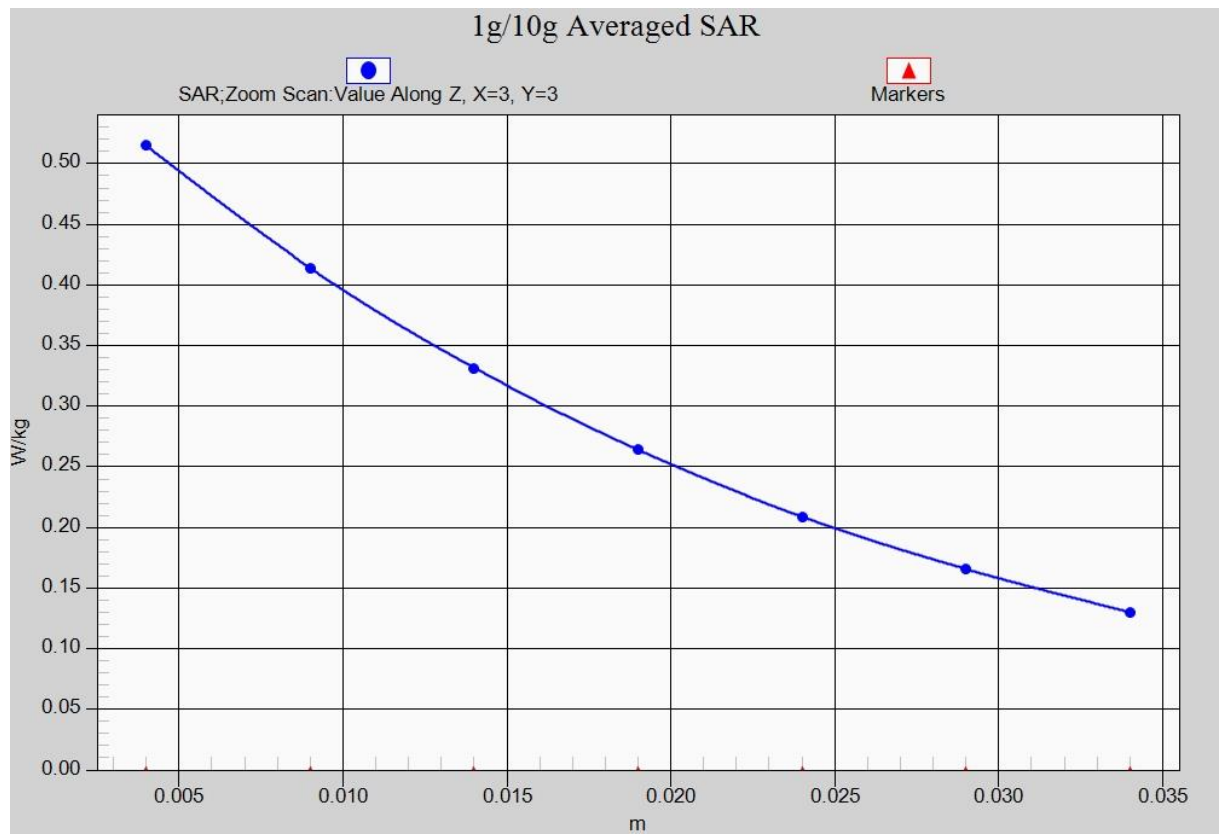


Fig.18 LTE Band17



**Fig. 18-1 Z-Scan at power reference point (LTE Band17)**



### LTE Band66 Right Cheek High with QPSK\_20M\_1RB\_High

Date: 2018-3-31

Electronics: DAE4 Sn1525

Medium: Head 1750 MHz

Medium parameters used  $f = 1770$  MHz;  $\sigma = 1.433$  mho/m;  $\epsilon_r = 40.355$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Ambient Temperature: 22.9°C Liquid Temperature: 22.5°C

Communication System: LTE Band66 Frequency: 1720 MHz Duty Cycle: 1:1

Probe: EX3DV4 – SN7464 ConvF(8.70, 8.70, 8.70)

**Area Scan (71x121x1):** Interpolated grid: dx=1.000 mm, dy=1.000 mm

Maximum value of SAR (interpolated) = 0.349 W/kg

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

Reference Value = 5.870 V/m; Power Drift = -0.13 dB

Peak SAR (extrapolated) = 0.414 W/kg

**SAR(1 g) = 0.277 W/kg; SAR(10 g) = 0.177 W/kg**

Maximum value of SAR (measured) = 0.297 W/kg

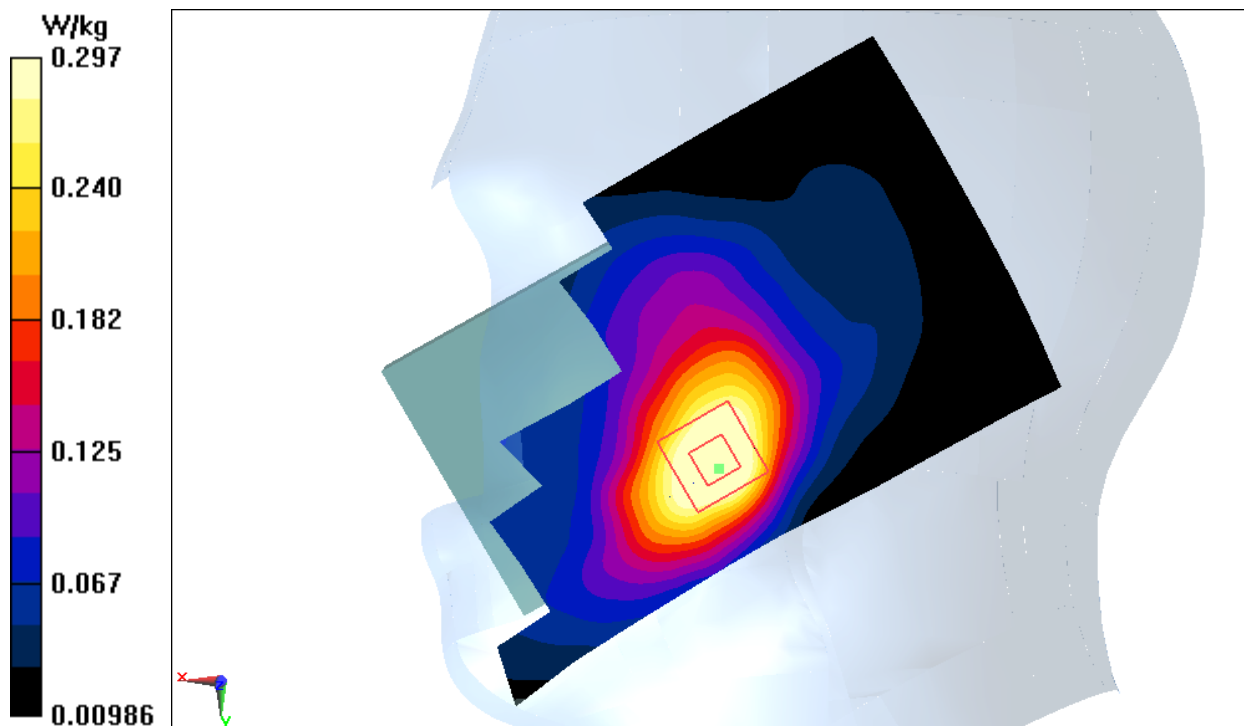
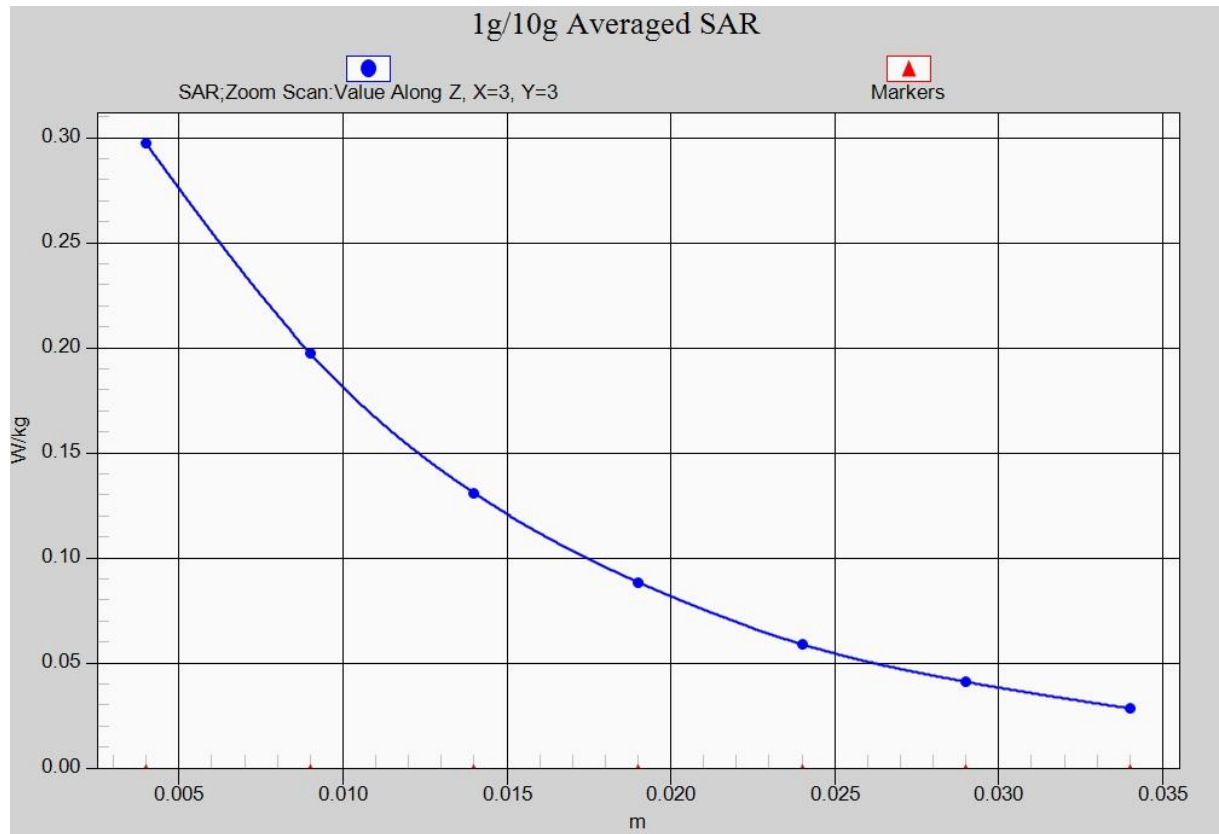


Fig.19 LTE Band66



**Fig. 19-1 Z-Scan at power reference point (LTE Band66)**

### LTE Band66 Body Bottom High with QPSK\_20M\_1RB\_High

Date: 2018-3-31

Electronics: DAE4 Sn1525

Medium: Body 1750 MHz

Medium parameters used:  $f = 1770$  MHz;  $\sigma = 1.54$  mho/m;  $\epsilon_r = 53.544$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Ambient Temperature: 22.9°C      Liquid Temperature: 22.5°C

Communication System: LTE Band66 Frequency: 1770 MHz Duty Cycle: 1:1

Probe: EX3DV4 – SN7464 ConvF(8.60, 8.60, 8.60)

**Area Scan (131x81x1):** Interpolated grid:  $dx=1.000$  mm,  $dy=1.000$  mm

Maximum value of SAR (interpolated) = 0.753 W/kg

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

Reference Value = 20.39 V/m; Power Drift = 0.19 dB

Peak SAR (extrapolated) = 1.01 W/kg

**SAR(1 g) = 0.604 W/kg; SAR(10 g) = 0.331 W/kg**

Maximum value of SAR (measured) = 0.744 W/kg

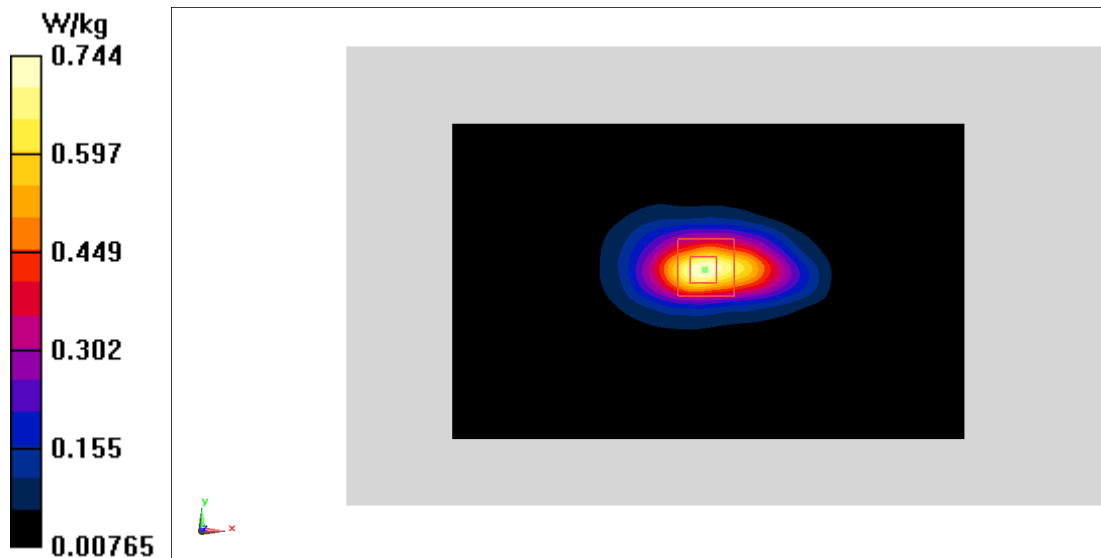
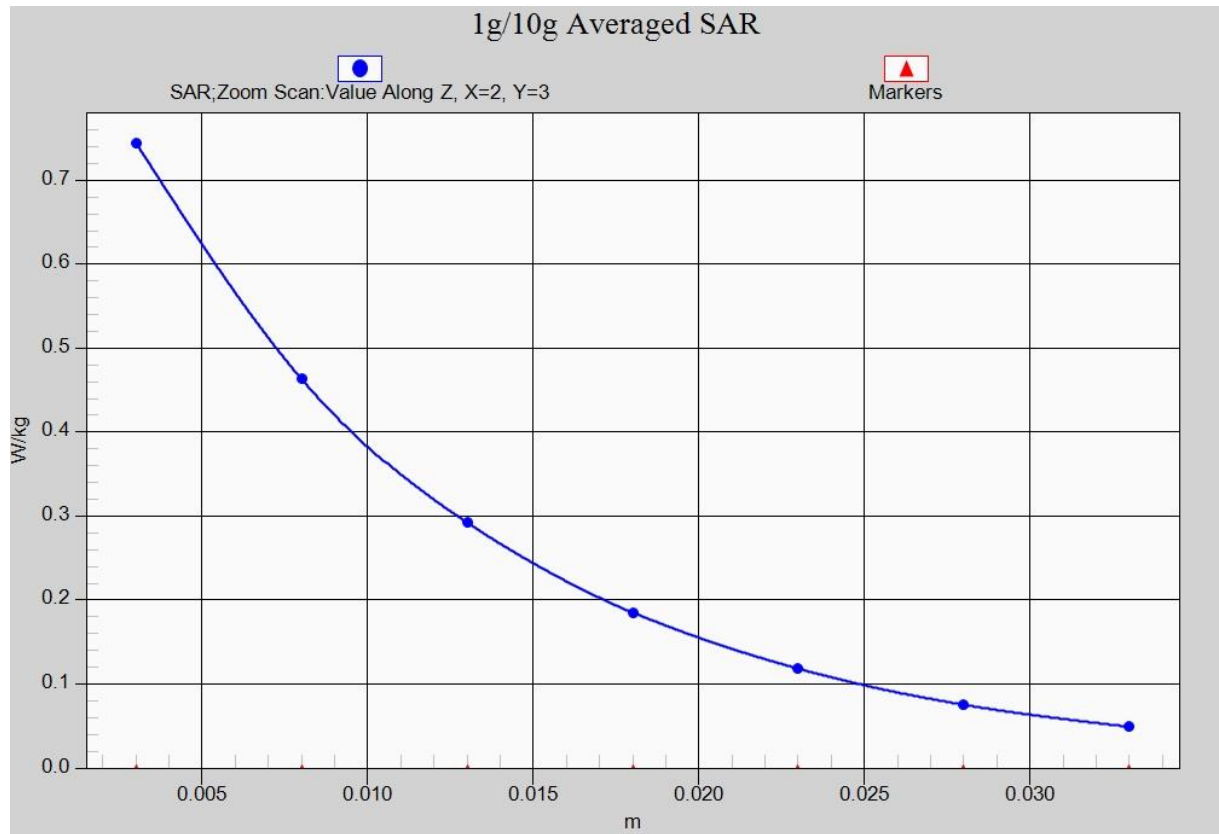


Fig.20 LTE Band66



**Fig. 20-1 Z-Scan at power reference point (LTE Band66)**

### Wifi 802.11b Left Cheek Channel 6

Date: 2018-4-1

Electronics: DAE4 Sn1525

Medium: Head 2450 MHz

Medium parameters used (interpolated):  $f = 2437$  MHz;  $\sigma = 1.799$  mho/m;  $\epsilon_r = 38.97$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Ambient Temperature: 22.9°C      Liquid Temperature: 22.5°C

Communication System: Wlan 2450 Frequency: 2437 MHz Duty Cycle: 1:1

Probe: EX3DV4- SN7464 ConvF(7.89, 7.89, 7.89)

**Area Scan (91x161x1):** Interpolated grid:  $dx=1.000$  mm,  $dy=1.000$  mm

Maximum value of SAR (interpolated) = 1.05 W/kg

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

Reference Value = 6.381 V/m; Power Drift = 0.08 dB

Peak SAR (extrapolated) = 1.81 W/kg

**SAR(1 g) = 0.822 W/kg; SAR(10 g) = 0.370 W/kg**

Maximum value of SAR (measured) = 1.08 W/kg

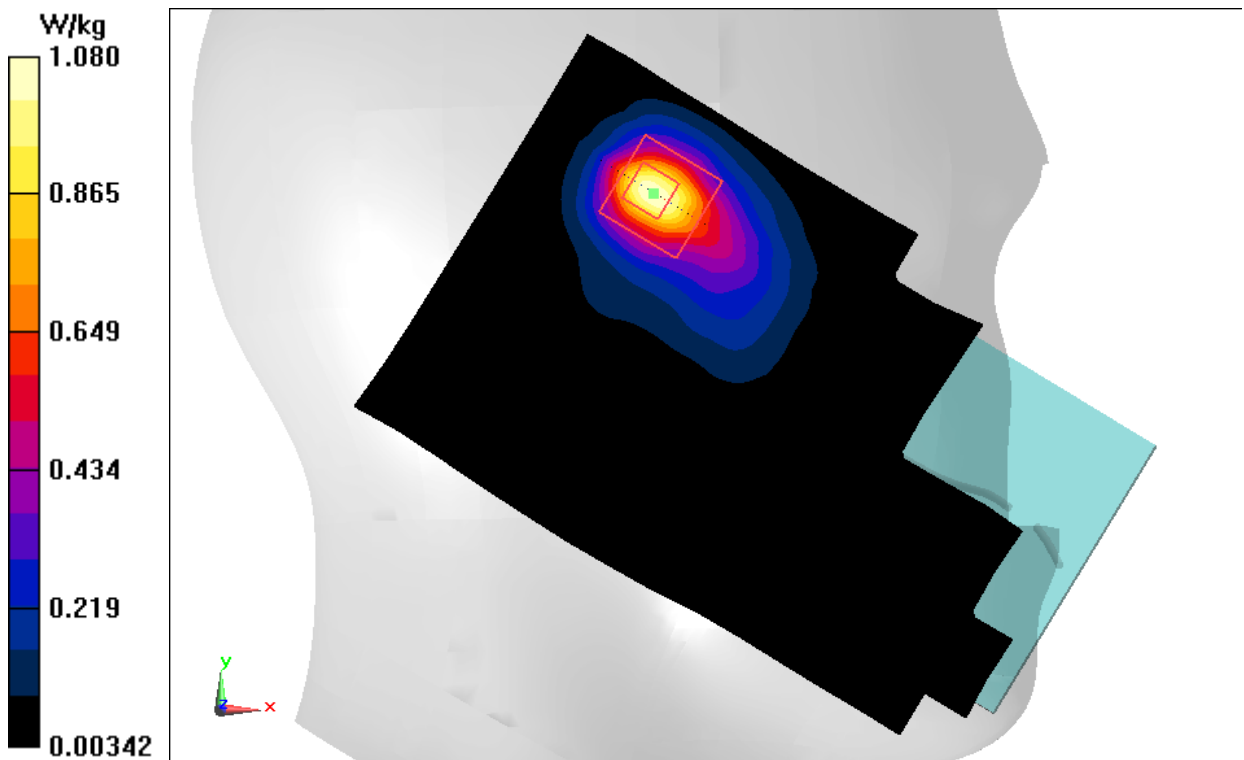
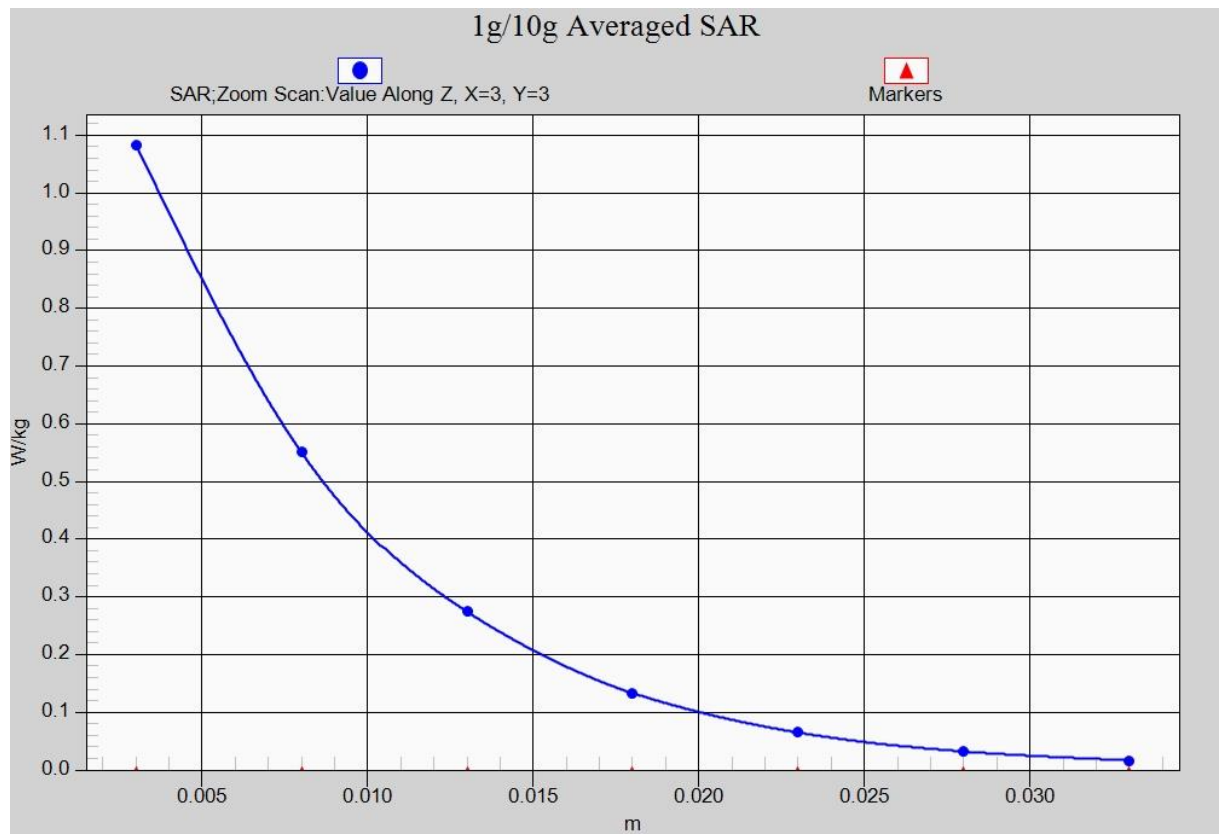


Fig.21 2450 MHz



**Fig. 21-1 Z-Scan at power reference point (2450 MHz)**

### Wifi 802.11b Body Rear Channel 11

Date: 2018-4-1

Electronics: DAE4 Sn1525

Medium: Body 2450 MHz

Medium parameters used (interpolated):  $f = 2462$  MHz;  $\sigma = 1.989$  mho/m;  $\epsilon_r = 52.12$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Ambient Temperature: 22.9°C      Liquid Temperature: 22.5°C

Communication System: WLan 2450 Frequency: 2462 MHz Duty Cycle: 1:1

Probe: EX3DV4 – SN7464 ConvF(8.09, 8.09, 8.09)

**Area Scan (151x91x1):** Interpolated grid:  $dx=1.000$  mm,  $dy=1.000$  mm

Maximum value of SAR (interpolated) = 0.165 W/kg

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

Reference Value = 4.505 V/m; Power Drift = -0.07 dB

Peak SAR (extrapolated) = 0.256 W/kg

**SAR(1 g) = 0.130 W/kg; SAR(10 g) = 0.064 W/kg**

Maximum value of SAR (measured) = 0.168 W/kg

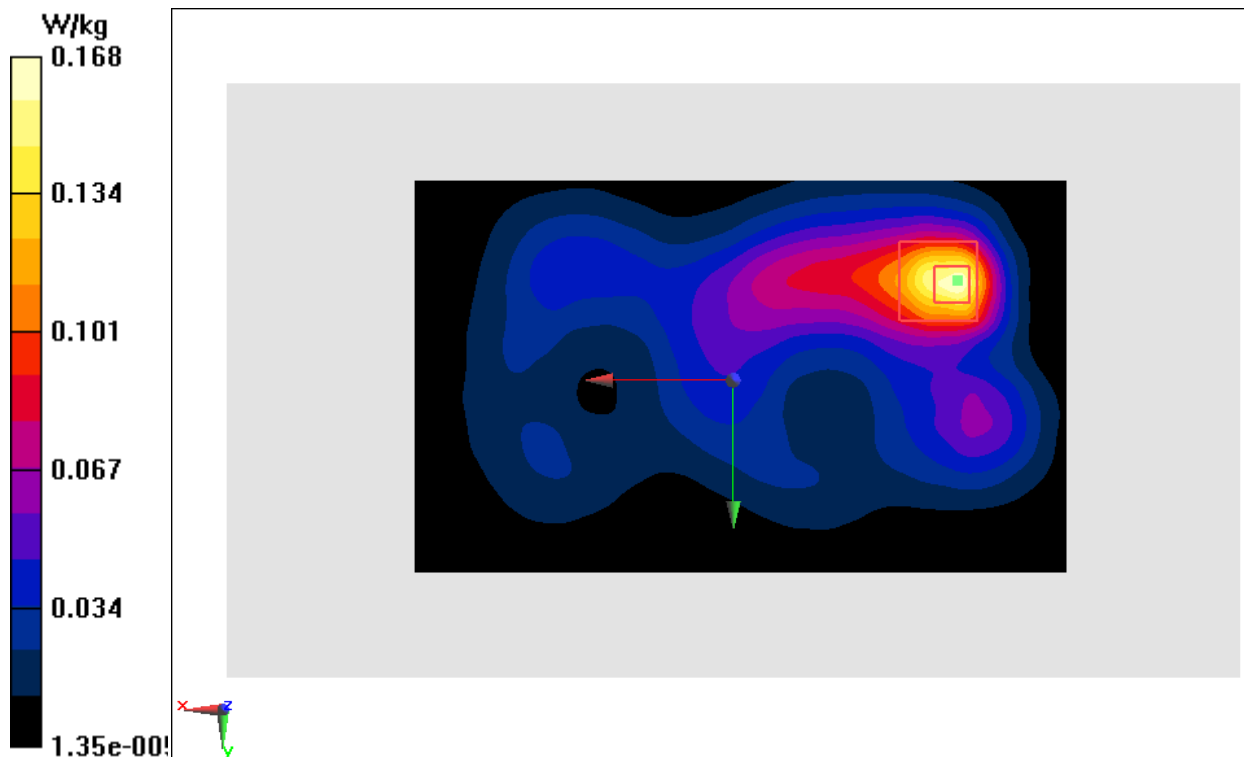
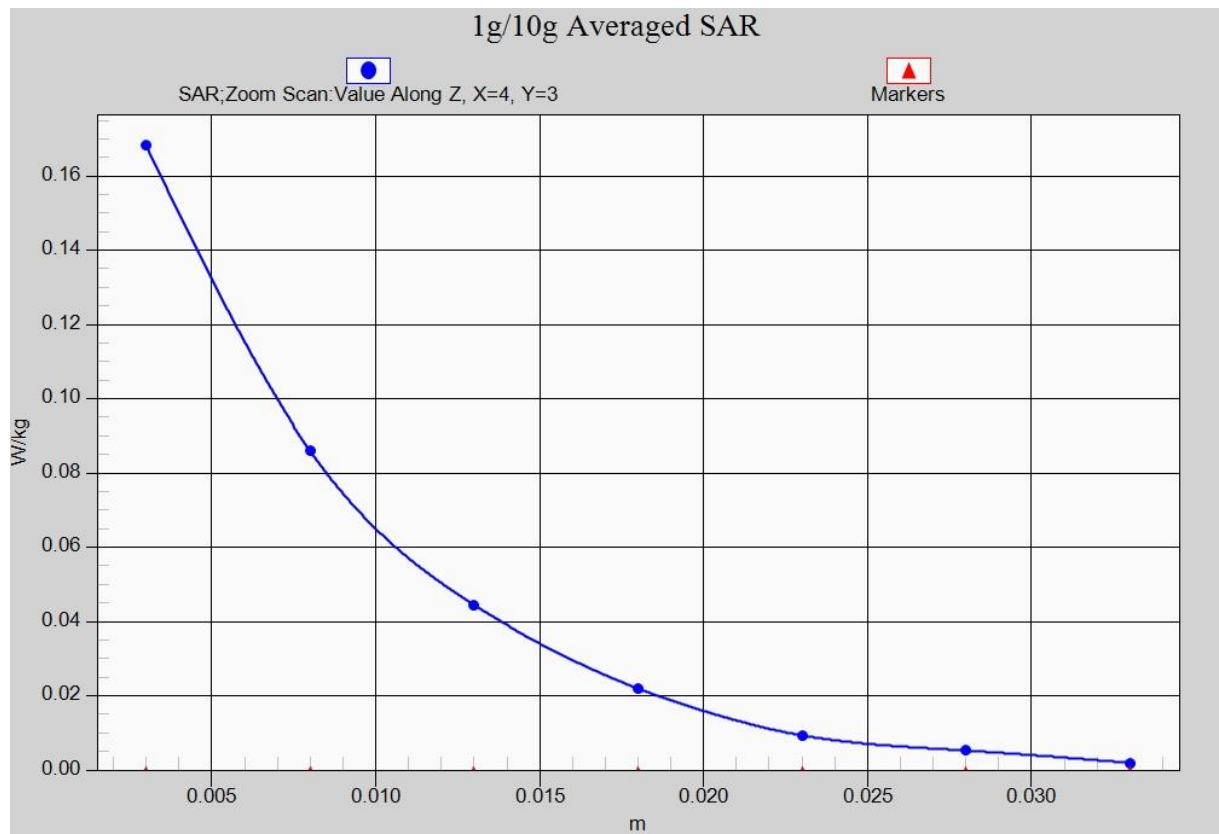


Fig.22 2450 MHz



**Fig. 22-1 Z-Scan at power reference point (2450 MHz)**



## ANNEX B System Verification Results

### 750MHz

Date: 2018-4-1

Electronics: DAE4 Sn1525

Medium: Head 750 MHz

Medium parameters used:  $f = 750 \text{ MHz}$ ;  $\sigma = 0.886 \text{ mho/m}$ ;  $\epsilon_r = 42.31$ ;  $\rho = 1000 \text{ kg/m}^3$

Ambient Temperature:  $22.9^\circ\text{C}$  Liquid Temperature:  $22.5^\circ\text{C}$

Communication System: CW Frequency: 750 MHz Duty Cycle: 1:1

Probe: EX3DV4 – SN7464 ConvF(10.57, 10.57, 10.57)

**System Validation /Area Scan (81x191x1):** Interpolated grid:  $dx=1.000 \text{ mm}$ ,  $dy=1.000 \text{ mm}$

Reference Value =  $49.217 \text{ V/m}$ ; Power Drift =  $-0.07 \text{ dB}$

**Fast SAR: SAR(1 g) =  $2.07 \text{ W/kg}$ ; SAR(10 g) =  $1.40 \text{ W/kg}$**

Maximum value of SAR (interpolated) =  $2.20 \text{ W/kg}$

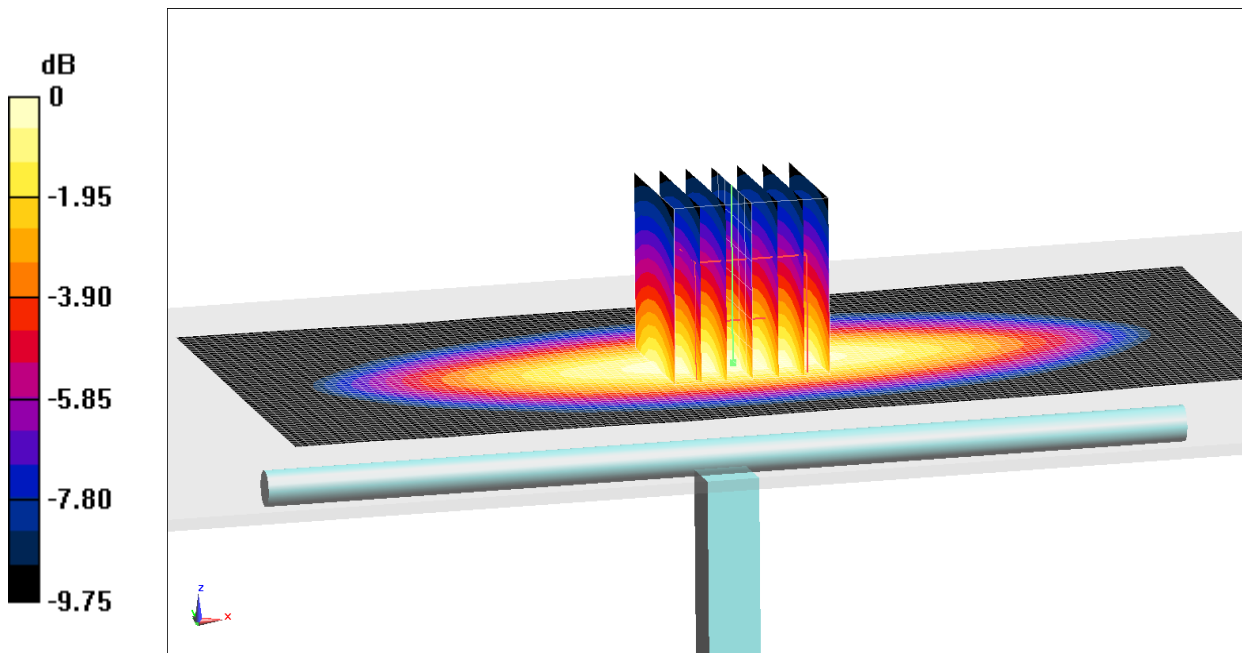
**System Validation /Zoom Scan (7x7x7)/Cube 0:** Measurement grid:  $dx=5\text{mm}$ ,  $dy=5\text{mm}$ ,  $dz=5\text{mm}$

Reference Value =  $49.217 \text{ V/m}$ ; Power Drift =  $-0.07 \text{ dB}$

Peak SAR (extrapolated) =  $2.84 \text{ W/kg}$

**SAR(1 g) =  $2.05 \text{ W/kg}$ ; SAR(10 g) =  $1.38 \text{ W/kg}$**

Maximum value of SAR (measured) =  $2.18 \text{ W/kg}$



0 dB =  $2.18 \text{ W/kg}$  =  $3.38 \text{ dB W/kg}$

**Fig.B.1 validation 750MHz 250mW**

## 750MHz

Date: 2018-4-1

Electronics: DAE4 Sn1525

Medium: Body750 MHz

Medium parameters used:  $f = 750 \text{ MHz}$ ;  $\sigma = 0.944 \text{ mho/m}$ ;  $\epsilon_r = 56.42$ ;  $\rho = 1000 \text{ kg/m}^3$

Ambient Temperature:  $22.9^\circ\text{C}$  Liquid Temperature:  $22.5^\circ\text{C}$

Communication System: CW Frequency: 750 MHz Duty Cycle: 1:1

Probe: EX3DV4 – SN7464 ConvF(10.63, 10.63, 10.63)

**System Validation/Area Scan (81x191x1):** Interpolated grid:  $dx=1.000 \text{ mm}$ ,  $dy=1.000 \text{ mm}$

Reference Value =  $51.669 \text{ V/m}$ ; Power Drift =  $-0.05 \text{ dB}$

**Fast SAR: SAR(1 g) =  $2.16 \text{ W/kg}$ ; SAR(10 g) =  $1.42 \text{ W/kg}$**

Maximum value of SAR (interpolated) =  $2.41 \text{ W/kg}$

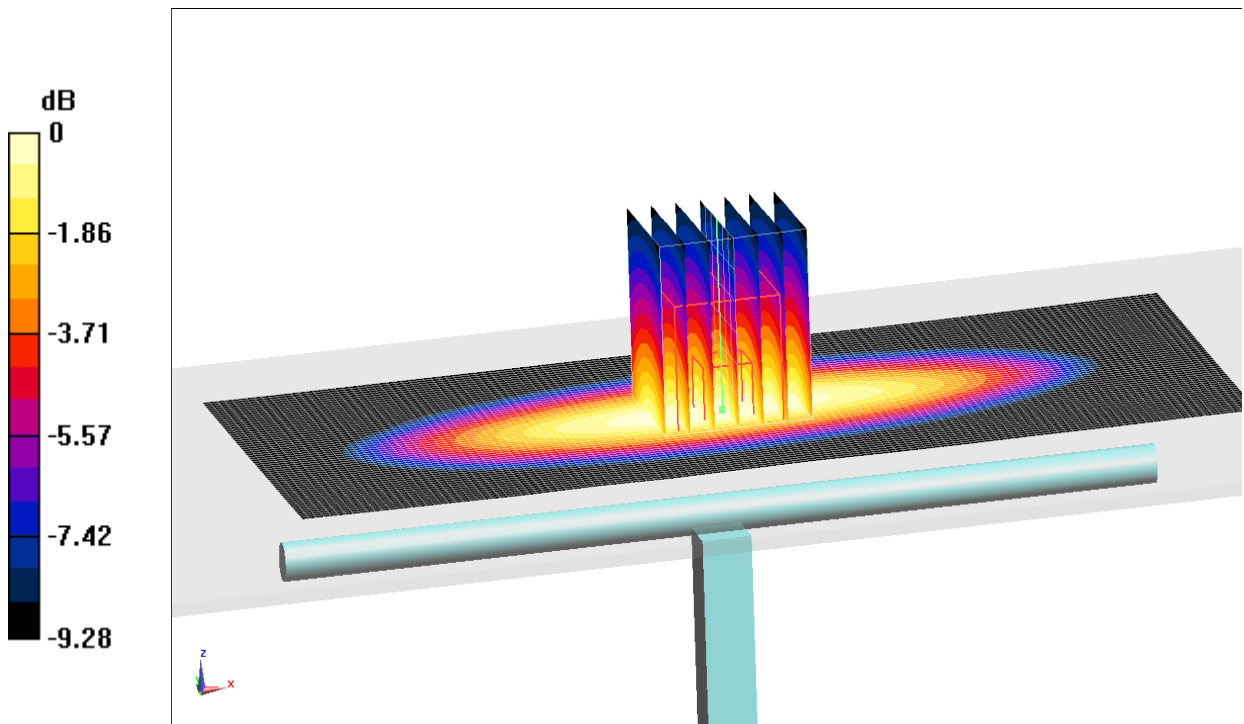
**System Validation/Zoom Scan (7x7x7)/Cube 0:** Measurement grid:  $dx=5\text{mm}$ ,  $dy=5\text{mm}$ ,  $dz=5\text{mm}$

Reference Value =  $51.669 \text{ V/m}$ ; Power Drift =  $-0.05 \text{ dB}$

Peak SAR (extrapolated) =  $3.06 \text{ W/kg}$

**SAR(1 g) =  $2.19 \text{ W/kg}$ ; SAR(10 g) =  $1.44 \text{ W/kg}$**

Maximum value of SAR (measured) =  $2.43 \text{ W/kg}$



0 dB =  $2.43 \text{ W/kg}$  =  $3.86 \text{ dB W/kg}$

**Fig.B.2 validation 750MHz 250mW**

## 835MHz

Date: 2018-3-30

Electronics: DAE4 Sn1525

Medium: Head 850 MHz

Medium parameters used:  $f = 835 \text{ MHz}$ ;  $\sigma = 0.908 \text{ S/m}$ ;  $\epsilon_r = 41.76$ ;  $\rho = 1000 \text{ kg/m}^3$

Ambient Temperature:  $22.9^\circ\text{C}$       Liquid Temperature:  $22.5^\circ\text{C}$

Communication System: CW Frequency: 835 MHz Duty Cycle: 1:1

Probe: EX3DV4 – SN7464 ConvF(10.28, 10.28, 10.28)

**System Validation/Area Scan (61x121x1):** Interpolated grid:  $dx=1.000 \text{ mm}$ ,  $dy=1.000 \text{ mm}$

Reference Value =  $54.82 \text{ V/m}$ ; Power Drift =  $0.04 \text{ dB}$

**Fast SAR: SAR(1 g) =  $2.41 \text{ W/kg}$ ; SAR(10 g) =  $1.55 \text{ W/kg}$**

Maximum value of SAR (interpolated) =  $2.60 \text{ W/kg}$

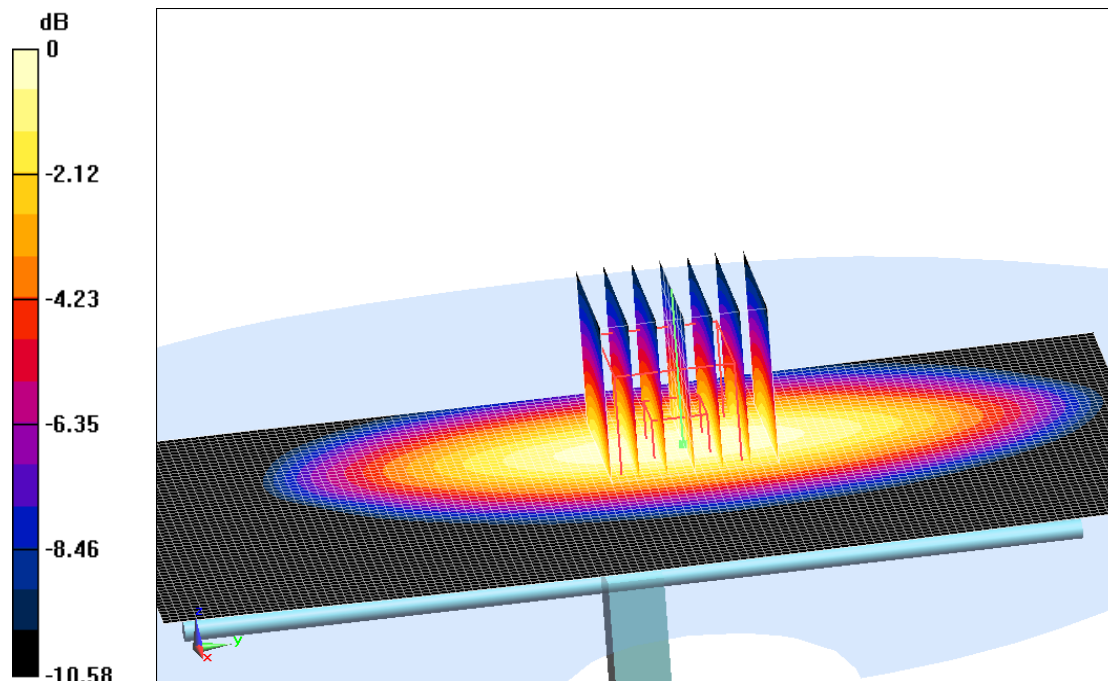
**System Validation/Zoom Scan (7x7x7)/Cube 0:** Measurement grid:  $dx=5\text{mm}$ ,  $dy=5\text{mm}$ ,  $dz=5\text{mm}$

Reference Value =  $54.82 \text{ V/m}$ ; Power Drift =  $0.04 \text{ dB}$

Peak SAR (extrapolated) =  $3.14 \text{ W/kg}$

**SAR(1 g) =  $2.37 \text{ W/kg}$ ; SAR(10 g) =  $1.53 \text{ W/kg}$**

Maximum value of SAR (measured) =  $2.57 \text{ W/kg}$



$0 \text{ dB} = 2.57 \text{ W/kg} = 4.00 \text{ dBW/kg}$

**Fig.B.3 validation 835MHz 250mW**

## 835MHz

Date: 2018-3-30

Electronics: DAE4 Sn1525

Medium: Body 850 MHz

Medium parameters used:  $f = 835 \text{ MHz}$ ;  $\sigma = 0.979 \text{ S/m}$ ;  $\epsilon_r = 55.91$ ;  $\rho = 1000 \text{ kg/m}^3$

Ambient Temperature:  $22.9^\circ\text{C}$       Liquid Temperature:  $22.5^\circ\text{C}$

Communication System: CW Frequency: 835 MHz Duty Cycle: 1:1

Probe: EX3DV4 – SN7464 ConvF(10.21, 10.21, 10.21)

**System Validation /Area Scan (61x121x1):** Interpolated grid:  $dx=1.000 \text{ mm}$ ,  $dy=1.000 \text{ mm}$

Reference Value =  $52.95 \text{ V/m}$ ; Power Drift =  $-0.04 \text{ dB}$

**Fast SAR: SAR(1 g) =  $2.38 \text{ W/kg}$ ; SAR(10 g) =  $1.56 \text{ W/kg}$**

Maximum value of SAR (interpolated) =  $2.72 \text{ W/kg}$

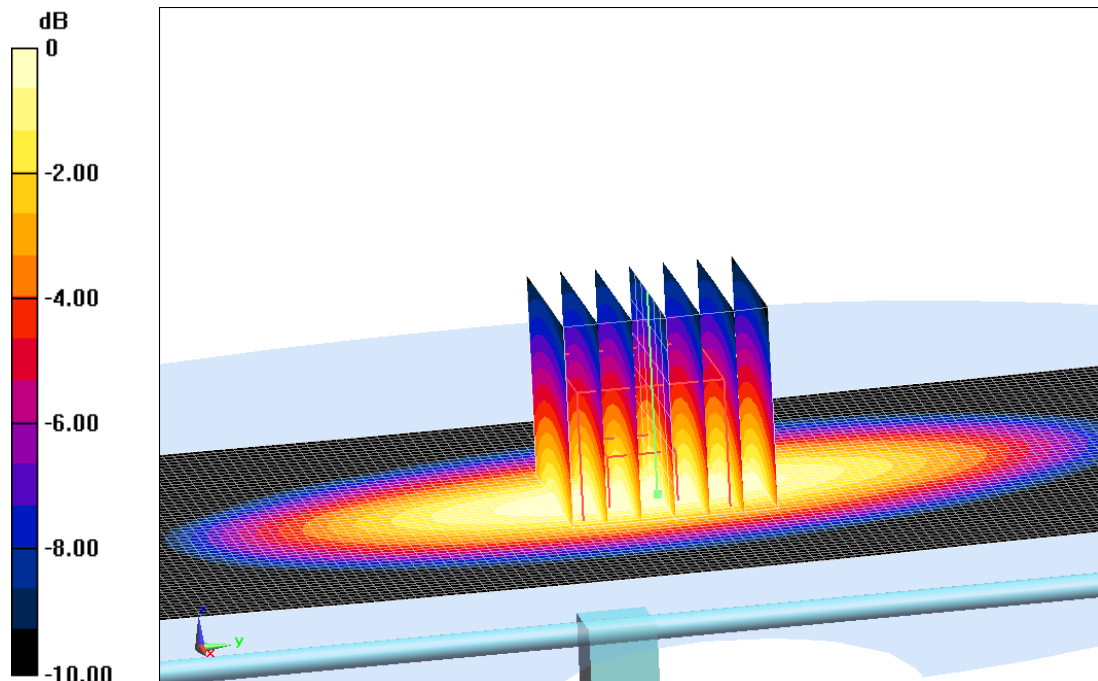
**System Validation /Zoom Scan (7x7x7)/Cube 0:** Measurement grid:  $dx=5\text{mm}$ ,  $dy=5\text{mm}$ ,  $dz=5\text{mm}$

Reference Value =  $52.95 \text{ V/m}$ ; Power Drift =  $-0.04 \text{ dB}$

Peak SAR (extrapolated) =  $3.19 \text{ W/kg}$

**SAR(1 g) =  $2.43 \text{ W/kg}$ ; SAR(10 g) =  $1.59 \text{ W/kg}$**

Maximum value of SAR (measured) =  $2.76 \text{ W/kg}$



0 dB =  $2.76 \text{ W/kg}$  =  $4.41 \text{ dBW/kg}$

**Fig.B.4 validation 835MHz 250mW**

## 1750MHz

Date: 2018-3-31

Electronics: DAE4 Sn1525

Medium: Head 1750 MHz

Medium parameters used:  $f=1750$  MHz;  $\sigma = 1.421$  mho/m;  $\epsilon_r = 40.41$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Ambient Temperature: 22.9°C      Liquid Temperature: 22.5°C

Communication System: CW Frequency: 1750 MHz Duty Cycle: 1:1

Probe: EX3DV4 – SN7464 ConvF(8.70, 8.70, 8.70)

**System Validation/Area Scan (81x121x1):** Interpolated grid:  $dx=1.000$  mm,  $dy=1.000$  mm

Reference Value = 89.61 V/m; Power Drift = 0.06 dB

**Fast SAR: SAR(1 g) = 9.08 W/kg; SAR(10 g) = 4.80 W/kg**

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

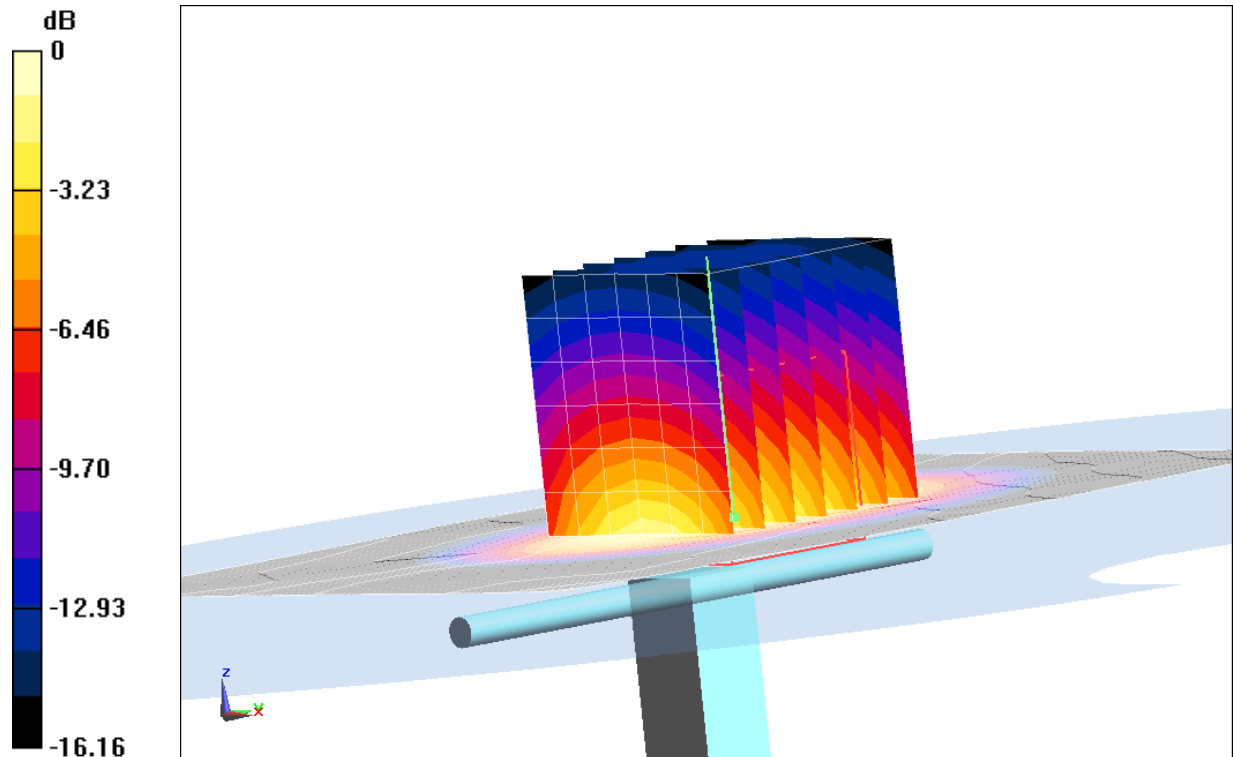
**System Validation/Zoom Scan (7x7x7)/Cube 0:** Measurement grid:  $dx=5$ mm,  $dy=5$ mm,  $dz=5$ mm

Reference Value = 89.61 V/m; Power Drift = 0.06 dB

Peak SAR (extrapolated) = 15.59 W/kg

**SAR(1 g) = 9.18 W/kg; SAR(10 g) = 4.88 W/kg**

Maximum value of SAR (measured) = 10.1 W/kg



0 dB = 10.1 W/kg = 10.04 dB W/kg

**Fig.B.5 validation 1750MHz 250mW**

## 1750MHz

Date: 2018-3-31

Electronics: DAE4 Sn1525

Medium: Body 1750 MHz

Medium parameters used:  $f=1750$  MHz;  $\sigma = 1.506$  mho/m;  $\epsilon_r = 53.72$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Ambient Temperature: 22.9°C      Liquid Temperature: 22.5°C

Communication System: CW Frequency: 1750 MHz Duty Cycle: 1:1

Probe: EX3DV4 – SN7464 ConvF(8.60, 8.60, 8.60)

**System Validation/Area Scan (81x121x1):** Interpolated grid:  $dx=1.000$  mm,  $dy=1.000$  mm

Reference Value = 95.17 V/m; Power Drift = -0.03 dB

**Fast SAR: SAR(1 g) = 9.51 W/kg; SAR(10 g) = 5.07 W/kg**

Maximum value of SAR (interpolated) = 10.4 W/kg

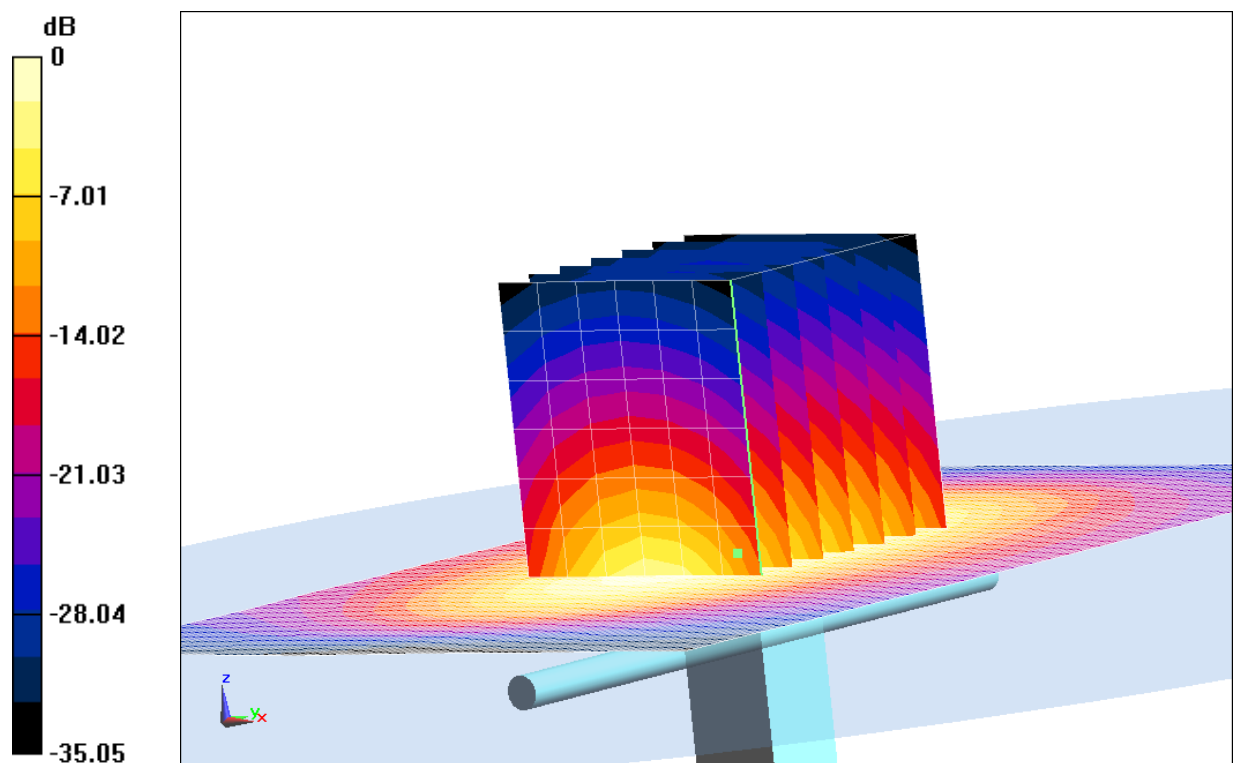
**System Validation/Zoom Scan (7x7x7)/Cube 0:** Measurement grid:  $dx=5$ mm,  $dy=5$ mm,  $dz=5$ mm

Reference Value = 95.17 V/m; Power Drift = -0.03 dB

Peak SAR (extrapolated) = 15.54 W/kg

**SAR(1 g) = 9.42 W/kg; SAR(10 g) = 4.99 W/kg**

Maximum value of SAR (measured) = 10.3 W/kg



0 dB = 10.3 W/kg = 10.13 dB W/kg

**Fig.B.6 validation 1750MHz 250mW**

## 1900MHz

Date: 2018-3-29

Electronics: DAE4 Sn1525

Medium: Head 1900 MHz

Medium parameters used:  $f = 1900 \text{ MHz}$ ;  $\sigma = 1.411 \text{ mho/m}$ ;  $\epsilon_r = 40.61$ ;  $\rho = 1000 \text{ kg/m}^3$

Ambient Temperature:  $22.9^\circ\text{C}$       Liquid Temperature:  $22.5^\circ\text{C}$

Communication System: CW Frequency: 1900 MHz Duty Cycle: 1:1

Probe: EX3DV4 – SN7464 ConvF (8.39, 8.39, 8.39)

**System Validation /Area Scan(61x81x1):** Interpolated grid:  $dx=1.000 \text{ mm}$ ,  $dy=1.000 \text{ mm}$

Reference Value =  $92.19 \text{ V/m}$ ; Power Drift =  $0.05 \text{ dB}$

**SAR(1 g) =  $10.4 \text{ W/kg}$ ; SAR(10 g) =  $5.52 \text{ W/kg}$**

Maximum value of SAR (interpolated) =  $12.6 \text{ W/kg}$

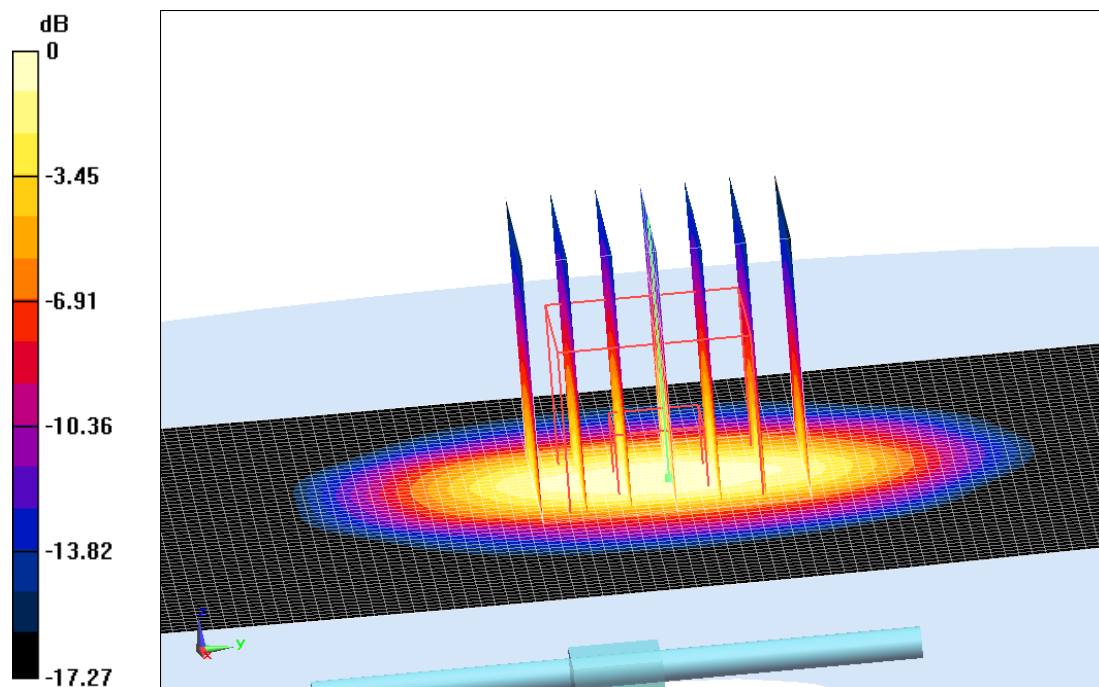
**System Validation /Zoom Scan (7x7x7)/Cube 0:** Measurement grid:  $dx=5\text{mm}$ ,  $dy=5\text{mm}$ ,  $dz=5\text{mm}$

Reference Value =  $92.19 \text{ V/m}$ ; Power Drift =  $0.05 \text{ dB}$

Peak SAR (extrapolated) =  $18.05 \text{ W/kg}$

**SAR(1 g) =  $10.2 \text{ W/kg}$ ; SAR(10 g) =  $5.38 \text{ W/kg}$**

Maximum value of SAR (measured) =  $12.4 \text{ W/kg}$



$0 \text{ dB} = 12.4 \text{ W/kg} = 10.93 \text{ dBW/kg}$

**Fig.B.7 validation 1900MHz 250mW**



## 1900MHz

Date: 2018-3-29

Electronics: DAE4 Sn1525

Medium: Body 1900 MHz

Medium parameters used:  $f = 1900$  MHz;  $\sigma = 1.527$  S/m;  $\epsilon_r = 52.71$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Ambient Temperature: 22.9°C      Liquid Temperature: 22.5°C

Communication System: CW Frequency: 1900 MHz Duty Cycle: 1:1

Probe: EX3DV4 – SN7464 ConvF(8.32, 8.32, 8.32)

**System Validation/Area Scan (81x121x1):** Interpolated grid:  $dx=1.000$  mm,  $dy=1.000$  mm

Reference Value = 94.27 V/m; Power Drift = -0.03 dB

**Fast SAR: SAR(1 g) = 10.5 W/kg; SAR(10 g) = 5.58 W/kg**

Maximum value of SAR (interpolated) = 12.5 W/kg

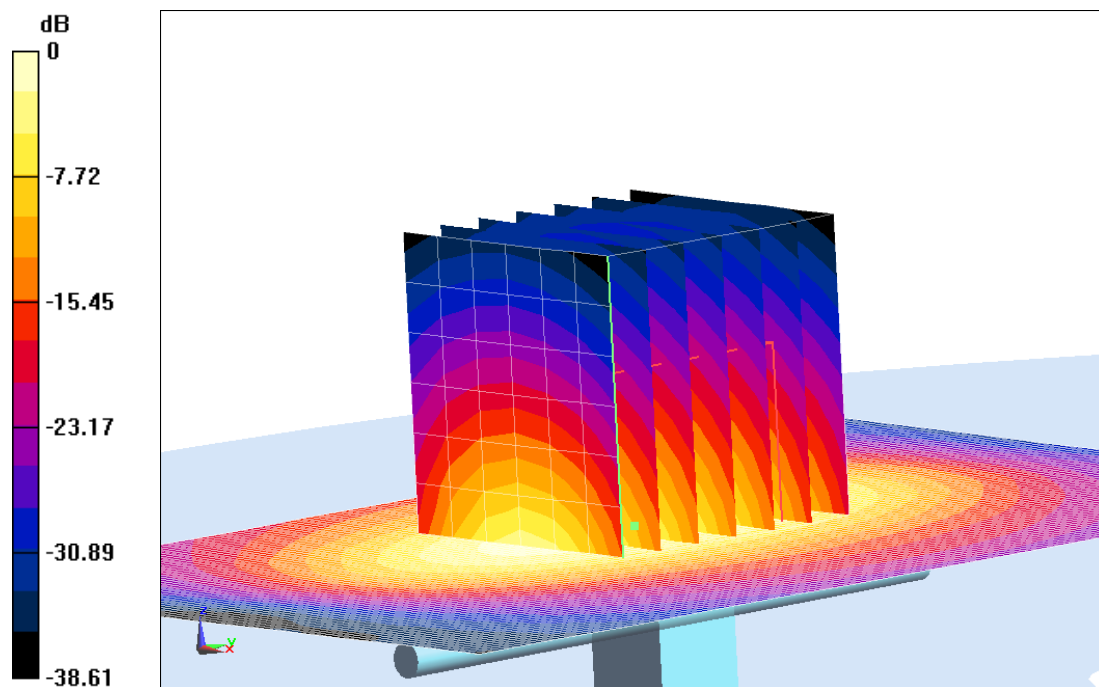
**System Validation/Zoom Scan (7x7x7)/Cube 0:** Measurement grid:  $dx=5$ mm,  $dy=5$ mm,  $dz=5$ mm

Reference Value = 94.27 V/m; Power Drift = -0.03 dB

Peak SAR (extrapolated) = 19.18 W/kg

**SAR(1 g) = 10.4 W/kg; SAR(10 g) = 5.49 W/kg**

Maximum value of SAR (measured) = 12.4 W/kg



0 dB = 12.4 W/kg = 10.93 dB W/kg

**Fig.B.8 validation 1900MHz 250mW**