

Table 14.1-35: 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 | | | | | | | | | | |
| 132322 | 1745 | 1RB_Mid | Front | / | 23.36 | 24 | 0.153 | 0.18 | 0.251 | 0.29 | 0.09 |
| 132322 | 1745 | 1RB_Mid | Rear | Fig.35 | 23.36 | 24 | 0.271 | 0.31 | 0.460 | 0.53 | 0.09 |
| 132322 | 1745 | 50RB_Low | Front | / | 22.11 | 23 | 0.116 | 0.14 | 0.191 | 0.23 | -0.03 |
| 132322 | 1745 | 50RB_Low | Rear | / | 22.11 | 23 | 0.209 | 0.26 | 0.355 | 0.44 | 0.12 |

Note1: The distance between the EUT and the phantom bottom is 15mm.

Note2: The LTE mode is QPSK_20MHz.

14.2 SAR results for Standard procedure

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

Table 14.2-1: 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 | 28.70 | 29.5 | 0.254 | 0.31 | 0.322 | 0.39 | 0.08 |

Note: the head SAR of GSM850 is tested with GPRS (4Txslots) mode because of VoIP.

Table 14.2-2: 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 | | | | | | | | | | |
| 251 | 848.8 | GPRS (4) | Rear | Fig.2 | 28.70 | 29.5 | 0.367 | 0.44 | 0.620 | 0.75 | -0.03 |

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

Table 14.2-3: 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 | 27.95 | 29 | 0.207 | 0.26 | 0.426 | 0.54 | -0.18 |

Note: the head SAR of GSM1900 is tested with GPRS (3Txslots) mode because of VoIP.

Table 14.2-4: 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 (3) | Bottom | Fig.4 | 27.56 | 28 | 0.474 | 0.52 | 0.844 | 0.93 | -0.13 |

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

Table 14.2-5: 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 | | | | | | | | | | |
| 810 | 1909.8 | GPRS (3) | Rear | Fig.5 | 27.95 | 29 | 0.229 | 0.29 | 0.397 | 0.51 | -0.03 |

Note: The distance between the EUT and the phantom bottom is 15mm.

Table 14.2-6: 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 | | | | | | | | | | |
| 4182 | 836.4 | Right | Touch | Fig.6 | 23.56 | 24 | 0.206 | 0.23 | 0.262 | 0.29 | 0.13 |

Table 14.2-7: 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 | | | | | | | | | | |
| 4233 | 846.6 | Rear | Fig.7 | 23.68 | 24 | 0.259 | 0.28 | 0.432 | 0.47 | -0.09 | |

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

Table 14.2-8: 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 | | | | | | | | | | |
| 1537 | 1712.4 | Left | Touch | Fig.8 | 23.55 | 24 | 0.088 | 0.10 | 0.133 | 0.15 | 0.01 |

Table 14.2-9: SAR Values (WCDMA 1700 MHz Band - Body)

| Frequency | | Test Position | Figure No./ Note | Conducted Power (dBm) | Max. tune-up Power (dBm) | Ambient Temperature: 22.9°C | | Liquid Temperature: 22.5°C | | Power Drift (dB) |
|-----------|--------|---------------|------------------|-----------------------|--------------------------|-----------------------------|--------------------------|----------------------------|-------------------------|------------------|
| Ch. | MHz | | | | | Measured SAR(10g) (W/kg) | Reported SAR(10g) (W/kg) | Measured SAR(1g) (W/kg) | Reported SAR(1g) (W/kg) | |
| 1738 | 1752.6 | Rear | Fig.9 | 21.46 | 22 | 0.493 | 0.56 | 0.927 | 1.05 | -0.03 |

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

Table 14.2-10: SAR Values (WCDMA 1700 MHz Band - Body)

| Frequency | | Test Position | Figure No./ Note | Conducted Power (dBm) | Max. tune-up Power (dBm) | Ambient Temperature: 22.9°C | | Liquid Temperature: 22.5°C | | Power Drift (dB) |
|-----------|--------|---------------|------------------|-----------------------|--------------------------|-----------------------------|--------------------------|----------------------------|-------------------------|------------------|
| Ch. | MHz | | | | | Measured SAR(10g) (W/kg) | Reported SAR(10g) (W/kg) | Measured SAR(1g) (W/kg) | Reported SAR(1g) (W/kg) | |
| 1537 | 1712.4 | Rear | Fig.10 | 23.55 | 24 | 0.356 | 0.39 | 0.588 | 0.65 | 0.03 |

Note1: The distance between the EUT and the phantom bottom is 15mm.

Table 14.2-11: SAR Values (WCDMA 1900 MHz Band - Head)

| Frequency | | Side | Test Position | Figure No./ Note | Conducted Power (dBm) | Max. tune-up Power (dBm) | Ambient Temperature: 22.9°C | | Liquid Temperature: 22.5°C | | Power Drift (dB) |
|-----------|--------|------|---------------|------------------|-----------------------|--------------------------|-----------------------------|--------------------------|----------------------------|-------------------------|------------------|
| Ch. | MHz | | | | | | Measured SAR(10g) (W/kg) | Reported SAR(10g) (W/kg) | Measured SAR(1g) (W/kg) | Reported SAR(1g) (W/kg) | |
| 9938 | 1907.6 | Left | Touch | Fig.11 | 23.57 | 24 | 0.114 | 0.13 | 0.180 | 0.20 | 0.05 |

Table 14.2-12: SAR Values (WCDMA 1900 MHz Band - Body)

| Frequency | | Test Position | Figure No./ Note | Conducted Power (dBm) | Max. tune-up Power (dBm) | Ambient Temperature: 22.9°C | | Liquid Temperature: 22.5°C | | Power Drift (dB) |
|-----------|------|---------------|------------------|-----------------------|--------------------------|-----------------------------|--------------------------|----------------------------|-------------------------|------------------|
| Ch. | MHz | | | | | Measured SAR(10g) (W/kg) | Reported SAR(10g) (W/kg) | Measured SAR(1g) (W/kg) | Reported SAR(1g) (W/kg) | |
| 9800 | 1880 | Bottom | Fig.12 | 21.81 | 22 | 0.617 | 0.64 | 1.04 | 1.09 | 0.03 |

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

Table 14.2-13: SAR Values (WCDMA 1900 MHz Band - Body)

| Frequency | | Test Position | Figure No./ Note | Conducted Power (dBm) | Max. tune-up Power (dBm) | Ambient Temperature: 22.9°C | | Liquid Temperature: 22.5°C | | Power Drift (dB) |
|-----------|------|---------------|------------------|-----------------------|--------------------------|-----------------------------|--------------------------|----------------------------|-------------------------|------------------|
| Ch. | MHz | | | | | Measured SAR(10g) (W/kg) | Reported SAR(10g) (W/kg) | Measured SAR(1g) (W/kg) | Reported SAR(1g) (W/kg) | |
| 9800 | 1880 | Rear | Fig.13 | 23.70 | 24 | 0.273 | 0.29 | 0.472 | 0.51 | 0.01 |

Note1: The distance between the EUT and the phantom bottom is 15mm.

Table 14.2-14: 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 | | | | | | | | | | | |
| 18900 | 1880 | 1RB_Mid | Left | Touch | Fig.14 | 23.53 | 24 | 0.138 | 0.15 | 0.229 | 0.26 | 0.02 |

Note1: The LTE mode is QPSK_20MHz.

Table 14.2-15: SAR Values (LTE Band2 - Body)

| Ambient Temperature: 22.9°C | | | | | Liquid Temperature: 22.5°C | | | | | | |
|-----------------------------|------|----------|---------------|------------------|----------------------------|--------------------------|--------------------------|--------------------------|-------------------------|-------------------------|------------------|
| Frequency | | Mode | 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 | | | | | | | | | | |
| 19100 | 1900 | 50RB_Low | Bottom | Fig.15 | 21.28 | 22 | 0.587 | 0.69 | 1.10 | 1.30 | 0.04 |

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

Note2: The LTE mode is QPSK_20MHz.

Table 14.2-16: SAR Values (LTE Band2 - Body)

| Ambient Temperature: 22.9°C | | | | | Liquid Temperature: 22.5°C | | | | | | |
|-----------------------------|------|---------|---------------|------------------|----------------------------|--------------------------|--------------------------|--------------------------|-------------------------|-------------------------|------------------|
| Frequency | | Mode | 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 | | | | | | | | | | |
| 18900 | 1880 | 1RB_Mid | Rear | Fig.16 | 23.53 | 24 | 0.281 | 0.31 | 0.491 | 0.55 | 0.16 |

Note1: The distance between the EUT and the phantom bottom is 15mm.

Note2: The LTE mode is QPSK_20MHz.

Table 14.2-17: 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 | | | | | | | | | | | |
| 20600 | 844 | 1RB_High | Right | Touch | Fig.17 | 23.16 | 24 | 0.167 | 0.20 | 0.216 | 0.26 | 0.04 |

Note1: The LTE mode is QPSK_10MHz.

Table 14.2-18: 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 | | | | | | | | | | |
| 20600 | 844 | 1RB_High | Rear | Fig.18 | 23.16 | 24 | 0.272 | 0.33 | 0.386 | 0.47 | -0.01 |

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 Band7 - 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 | | | | | | | | | | | |
| 20850 | 2510 | 1RB_Low | Left | Touch | Fig.19 | 23.05 | 23.9 | 0.086 | 0.10 | 0.169 | 0.21 | -0.09 |

Note1: The LTE mode is QPSK_20MHz.

Table 14.2-20: 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 | | | | | | | | | | |
| 21350 | 2560 | 1RB_Mid | Bottom | Fig.20 | 19.04 | 19.9 | 0.515 | 0.63 | 1.08 | 1.32 | 0.11 |

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

Note2: The LTE mode is QPSK_20MHz.

Table 14.2-21: 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.21 | 23.05 | 23.9 | 0.240 | 0.29 | 0.422 | 0.51 | 0.01 |

Note1: The distance between the EUT and the phantom bottom is 15mm.

Note2: The LTE mode is QPSK_20MHz.

Table 14.2-22: SAR Values (LTE Band12 - 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 | | | | | | | | | | | |
| 23060 | 704 | 1RB_High | Right | Touch | Fig.22 | 23.02 | 24 | 0.121 | 0.15 | 0.152 | 0.19 | 0.00 |

Note1: The LTE mode is QPSK_10MHz.

Table 14.2-23: SAR Values (LTE Band12 - 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 | | | | | | | | | | |
| 23060 | 704 | 1RB_High | Rear | Fig.23 | 23.02 | 24 | 0.272 | 0.34 | 0.378 | 0.47 | 0.00 |

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

Note2: The LTE mode is QPSK_10MHz.

Table 14.2-24: SAR Values (LTE Band13 - 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 | | | | | | | | | | | |
| 23230 | 782 | 1RB_Low | Right | Touch | Fig.24 | 23.21 | 24 | 0.155 | 0.19 | 0.197 | 0.24 | 0.01 |

Note1: The LTE mode is QPSK_10MHz.

Table 14.2-25: SAR Values (LTE Band13 - 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 | | | | | | | | | | |
| 23230 | 782 | 1RB_Low | Rear | Fig.25 | 23.21 | 24 | 0.288 | 0.35 | 0.400 | 0.48 | 0.04 |

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

Note2: The LTE mode is QPSK_10MHz.

Table 14.2-26: SAR Values (LTE Band14 - 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 | | | | | | | | | | | |
| 23330 | 793 | 1RB_Mid | Right | Touch | Fig.26 | 23.06 | 24 | 0.143 | 0.18 | 0.183 | 0.23 | 0.07 |

Note1: The LTE mode is QPSK_10MHz.

Table 14.2-27: SAR Values (LTE Band14 - 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 | | | | | | | | | | |
| 23330 | 793 | 1RB_Mid | Rear | Fig.27 | 23.06 | 24 | 0.263 | 0.33 | 0.370 | 0.46 | 0.01 |

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

Note2: The LTE mode is QPSK_10MHz.

Table 14.2-28: SAR Values (LTE Band30 - 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 | | | | | | | | | | | |
| 27710 | 2310 | 1RB_High | Right | Touch | Fig.28 | 23.14 | 24 | 0.046 | 0.06 | 0.083 | 0.10 | 0.17 |

Note1: The LTE mode is QPSK_10MHz.

Table 14.2-29: SAR Values (LTE Band30 - 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 | | | | | | | | | | |
| 27710 | 2310 | 25RB_High | Bottom | Fig.29 | 21.27 | 22 | 0.603 | 0.71 | 1.15 | 1.36 | 0.01 |

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

Note2: The LTE mode is QPSK_10MHz.

Table 14.2-30: SAR Values (LTE Band30 - 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 | | | | | | | | | | |
| 27710 | 2310 | 1RB_High | Rear | Fig.30 | 23.14 | 24 | 0.187 | 0.23 | 0.325 | 0.40 | 0.13 |

Note1: The distance between the EUT and the phantom bottom is 15mm.

Note2: The LTE mode is QPSK_10MHz.

Table 14.2-31: SAR Values (LTE Band41 - 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 | | | | | | | | | | | |
| 40185 | 2549.5 | 1RB_Low | Left | Touch | Fig.31 | 23.09 | 24 | 0.055 | 0.07 | 0.113 | 0.14 | 0.14 |

Note1: The LTE mode is QPSK_20MHz.

Table 14.2-32: SAR Values (LTE Band41 - 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 | | | | | | | | | | |
| 40620 | 2593 | 1RB_Low | Bottom | Fig.32 | 23.06 | 24 | 0.436 | 0.54 | 0.929 | 1.15 | 0.08 |

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

Note2: The LTE mode is QPSK_20MHz.

Table 14.2-33: 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 | | | | | | | | | | | |
| 132322 | 1745 | 1RB_Mid | Left | Touch | Fig.33 | 23.36 | 24 | 0.081 | 0.09 | 0.133 | 0.15 | 0.02 |

Note1: The LTE mode is QPSK_20MHz.

Table 14.2-34: SAR Values (LTE band66 - Body)

| Frequency | | Mode | Test Position | Figure No./ Note | Ambient Temperature: 22.9°C | | Liquid Temperature: 22.5°C | | | | |
|-----------|------|-------------|---------------|------------------|-----------------------------|--------------------------|----------------------------|--------------------------|-------------------------|-------------------------|------------------|
| Ch. | MHz | | | | 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) |
| 132072 | 1720 | 50RB_Middle | Rear | Fig.34 | 21.02 | 22 | 0.448 | 0.56 | 0.812 | 1.02 | -0.05 |

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

Note2: The LTE mode is QPSK_20MHz.

Table 14.2-35: SAR Values (LTE band66 - Body)

| Frequency | | Mode | Test Position | Figure No./ Note | Ambient Temperature: 22.9°C | | Liquid Temperature: 22.5°C | | | | |
|-----------|------|---------|---------------|------------------|-----------------------------|--------------------------|----------------------------|--------------------------|-------------------------|-------------------------|------------------|
| Ch. | MHz | | | | 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) |
| 132322 | 1745 | 1RB_Mid | Rear | Fig.35 | 23.36 | 24 | 0.271 | 0.31 | 0.460 | 0.53 | 0.09 |

Note1: The distance between the EUT and the phantom bottom is 15mm.

Note2: The LTE mode is QPSK_20MHz.

14.3 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 14.3-1: SAR Values (WLAN - Head)– 802.11b (Fast SAR)

| 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. | | | | | | | | | | | |
| | | Ambient Temperature: 22.9°C | | | | | | Liquid Temperature: 22.5°C | | | | |
| 2437 | 6 | Left | Touch | / | 17.52 | 18.5 | 0.212 | 0.27 | 0.435 | 0.55 | -0.09 | |
| 2437 | 6 | Left | Tilt | / | 17.52 | 18.5 | 0.171 | 0.21 | 0.379 | 0.47 | 0.17 | |
| 2437 | 6 | Right | Touch | / | 17.52 | 18.5 | 0.103 | 0.13 | 0.204 | 0.26 | -0.02 | |
| 2437 | 6 | Right | Tilt | / | 17.52 | 18.5 | 0.101 | 0.13 | 0.205 | 0.26 | 0.06 | |

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

Table 14.3-2: SAR Values (WLAN - Head)– 802.11b (Full SAR)

| 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. | | | | | | | | | | | |
| | | Ambient Temperature: 22.9°C | | | | | | Liquid Temperature: 22.5°C | | | | |
| 2437 | 6 | Left | Touch | Fig.36 | 17.52 | 18.5 | 0.216 | 0.27 | 0.464 | 0.58 | -0.09 | |
| 2437 | 6 | Left | Tilt | / | 17.52 | 18.5 | 0.179 | 0.22 | 0.408 | 0.51 | 0.17 | |

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 14.3-3: SAR Values (WLAN - Head) – 802.11b (Scaled Reported SAR)

| Frequency | | Side | Test Position | Actual duty factor | maximum duty factor | Reported SAR (1g)(W/kg) | Scaled reported SAR (1g)(W/kg) | | | | | |
|-----------|-----|-----------------------------|---------------|--------------------|---------------------|-------------------------|--------------------------------|----------------------------|--|--|--|--|
| MHz | Ch. | | | | | | | | | | | |
| | | Ambient Temperature: 22.9°C | | | | | | Liquid Temperature: 22.5°C | | | | |
| 2437 | 6 | Left | Touch | 97.69% | 100% | 0.58 | 0.59 | | | | | |

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

Body Evaluation

Table 14.3-4: SAR Values (WLAN - Body)– 802.11b (Fast SAR)

| Frequency | | Test Position | Figure No./ Note | Conducted Power (dBm) | Max. tune-up Power (dBm) | Ambient Temperature: 22.9°C | | Liquid Temperature: 22.5°C | | Power Drift (dB) |
|-----------|-----|---------------|------------------|-----------------------|--------------------------|-----------------------------|--------------------------|----------------------------|------------------------|------------------|
| MHz | Ch. | | | | | Measured SAR(10g) (W/kg) | Reported SAR(10g) (W/kg) | Measured SAR(1g) (W/kg) | Reported SAR(1g)(W/kg) | |
| 2437 | 6 | Front | / | 18.50 | 20 | 0.036 | 0.05 | 0.063 | 0.09 | 0.04 |
| 2437 | 6 | Rear | / | 18.50 | 20 | 0.040 | 0.06 | 0.077 | 0.11 | 0.11 |
| 2437 | 6 | Right | / | 18.50 | 20 | 0.058 | 0.08 | 0.118 | 0.17 | -0.03 |
| 2437 | 6 | Top | / | 18.50 | 20 | 0.021 | 0.03 | 0.041 | 0.06 | 0.17 |

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

Table 14.3-5: SAR Values (WLAN - Body)– 802.11b (Full SAR)

| Frequency | | Test Position | Figure No./ Note | Conducted Power (dBm) | Max. tune-up Power (dBm) | Ambient Temperature: 22.9°C | | Liquid Temperature: 22.5°C | | Power Drift (dB) |
|-----------|-----|---------------|------------------|-----------------------|--------------------------|-----------------------------|--------------------------|----------------------------|------------------------|------------------|
| MHz | Ch. | | | | | Measured SAR(10g) (W/kg) | Reported SAR(10g) (W/kg) | Measured SAR(1g) (W/kg) | Reported SAR(1g)(W/kg) | |
| 2437 | 6 | Right | Fig.37 | 18.50 | 20 | 0.057 | 0.08 | 0.121 | 0.17 | -0.03 |

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.

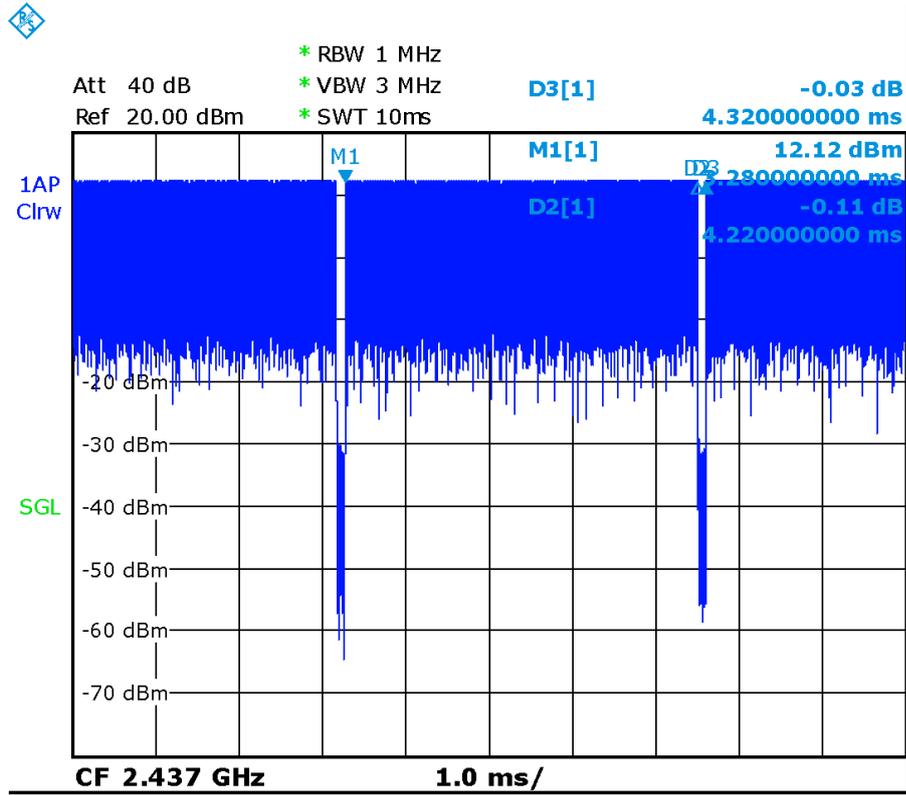
Note2: For all positions/configurations tested using the initial test position and subsequent test positions, when the reported SAR is > 0.8 W/kg, SAR is measured for these test positions/configurations on the subsequent next highest measured output power channel until the reported SAR is ≤ 1.2 W/kg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

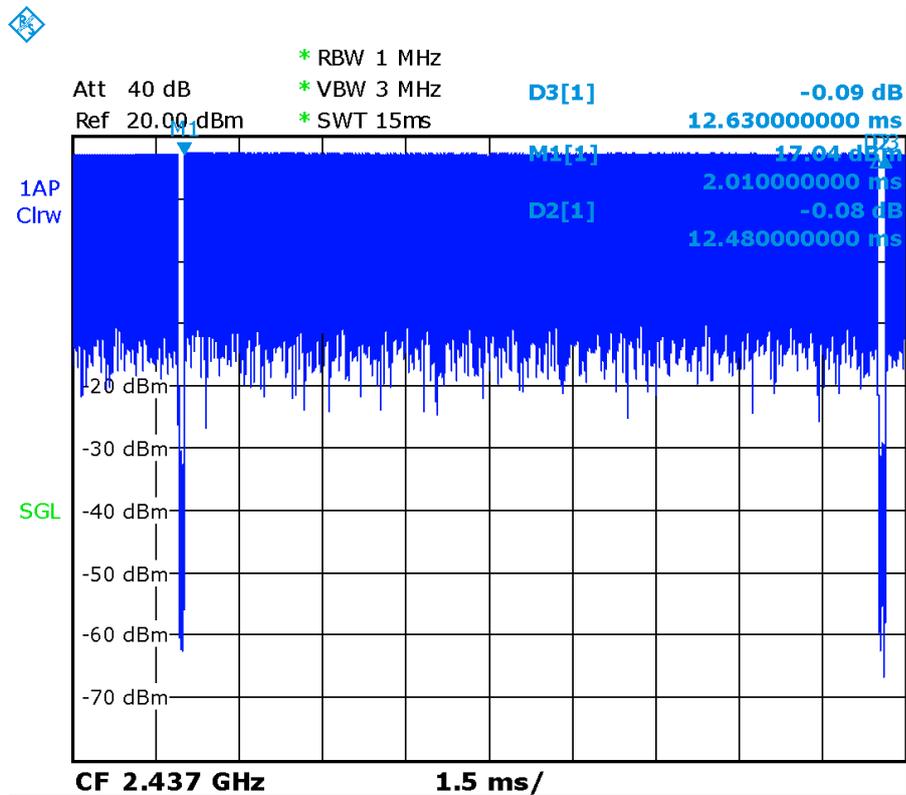
Table 14.3-6: SAR Values (WLAN - Body) – 802.11b (Scaled Reported SAR)

| Frequency | | Test Position | Ambient Temperature: 22.9°C | | Liquid Temperature: 22.5°C | |
|-----------|-----|---------------|-----------------------------|---------------------|----------------------------|--------------------------------|
| MHz | Ch. | | Actual duty factor | maximum duty factor | Reported SAR (1g)(W/kg) | Scaled reported SAR (1g)(W/kg) |
| 2437 | 6 | Right | 98.81% | 100% | 0.17 | 0.17 |

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



Picture 14.1 Duty factor plot for head



Picture 14.2 Duty factor plot for body

14.4 WLAN Evaluation For 5G

Table 14.4-1: OFDM mode specified maximum output power of WLAN antenna

| 802.11 mode | a | g | n | | ac | | | |
|--------------------|----|----|----|----|----|----|----|-----|
| Ch. BW(MHz) | 20 | 20 | 20 | 40 | 20 | 40 | 80 | 160 |
| U-NII-1 | X | | X | X | X | X | X | |
| U-NII-2A | X | | X | X | X | X | X | |
| U-NII-2C | X | | X | X | X | X | X | |
| U-NII-3 | X | | X | X | X | X | X | |
| § 15.247 (5.8 GHz) | | | | | | | | |

X: maximum(conducted) output power(mW), including tolerance, specified for production units

Table 14.4-2: Maximum output power specified of WLAN antenna

| 802.11 mode | a | g | n | | ac | | | |
|--------------------|----|----|----|----|----|----|----|-----|
| Ch. BW(MHz) | 20 | 20 | 20 | 40 | 20 | 40 | 80 | 160 |
| U-NII-1 | 71 | | 50 | 50 | 25 | 25 | 25 | |
| U-NII-2A | 63 | | 50 | 50 | 25 | 25 | 25 | |
| U-NII-2C | 63 | | 50 | 50 | 25 | 25 | 25 | |
| U-NII-3 | 71 | | 50 | 50 | 25 | 25 | 25 | |
| § 15.247 (5.8 GHz) | | | | | | | | |

- The maximum output power specified for production units is the same for all channels, modulations and data rates in each channel bandwidth configuration of the 802.11a/g/n/ac modes.
- The **blue highlighted** cells represent highest output configurations in each standalone or aggregated frequency band, with tune-up tolerance included.

Table 14.4-3: Maximum output power measured of WLAN antenna, for the applicable OFDM configurations according to the default power measurement procedures for selection initial test configurations

| 802.11 mode | a | n | | ac | | |
|-------------|--|---|----------------------------|---|----------------------------|--------------------|
| BW(MHz) | 20 | 20 | 40 | 20 | 40 | 80 |
| U-NII-1 | 36/40/44/48 67/66/60/45 | 36/40/44/48 Lower power | 38/46 Lower power | 36/40/44/48 Lower power | 38/46 Lower power | 42 Lower power |
| U-NII-2A | 52/56/60/64 59/62/62/63 | 52/56/60/64 Lower power | 54/62 Lower power | 52/56/60/64 Lower power | 54/62 Lower power | 58 Lower power |
| U-NII-2C | 100/104/108/112 58/54/51/52 116/120/124/128 54/57/59/61 132/136/140/144 62/61/60/59 | 100/104/108/112 116/132/136/140 Lower power | 102/110/134 Lower power | 100/104/108 /112 116/132/136/ 140 Lower power | 102/110/134 Lower power | 106 Lower power |
| U-NII-3 | 149/153/ 157 /161/165 63/63/67/67/67 | 149/153/157/161/165 1/165 Lower power | 151/159 Lower power | 149/153/157 /161/165 Lower power | 151/159 Lower power | 155 Lower power |

- Channels with measured maximum power within 0.25dB are considered to have the same measured output. Channels selected for initial test configuration are **highlighted in yellow**.

Table 14.4-4: Reported SAR of initial test configuration for Head

| 802.11 mode | a | n | | ac | | |
|-------------|--|------------------------------------|-------------------------|------------------------------------|-----------------|-----|
| BW(MHz) | 20 | 20 | 40 | 20 | 40 | 80 |
| U-NII-1 | 36/40/44/48 U-NII-2A exclusion applied | 36/40/44/48 | 38/46 | 36/40/44/48 | 38/46 | 42 |
| U-NII-2A | 52/56/60/64 1.04 / 1.00 | 52/56/60/64 | 54/62 | 52/56/60/64 | 54/62 | 58 |
| U-NII-2C | 100/104/108/112/116/120/124 /128/132/136/140/144 0.84 / 0.96 | 100/104/108/112 116/132/136/140 | 102/110/118/ 126/134 | 100/104/108/112 116/132/136/140 | 102/110 /134 | 106 |
| U-NII-3 | 149/153/157/161/165 0.99 / 1.03 | 149/153/157/161/ 165 | 151/159 | 149/153/157/161 /165 | 151/159 | 155 |

U-NII-1 and U-NII-2A bands have the same specified maximum output and tolerance; SAR is measured for U-NII-2A band first. Adjusted SAR of U-NII-2A band is ≤ 1.2 W/kg, SAR is not required for U-NII-1 band.
Initial test configuration SAR for U-NII-2A band is > 0.8 W/kg, SAR is required for next highest output channel in initial test configuration. The next highest output channel SAR is ≤ 1.2 W/kg, SAR is not required for subsequent next highest output channel. Similar circumstances apply to U-NII-2C band and U-NII-3 band.
 The **green highlighted** channels are next highest measured output channel in the initial test configuration. Highest measured output power channel tested initially are in **yellow highlight**.

Table 14.4-5: Reported SAR of initial test configuration for Body

| 802.11 mode | a | n | | ac | | |
|-------------|---|------------------------------------|-------------------------|------------------------------------|-----------------|-----|
| BW(MHz) | 20 | 20 | 40 | 20 | 40 | 80 |
| U-NII-1 | 36/40/44/48 U-NII-2A exclusion applied | 36/40/44/48 | 38/46 | 36/40/44/48 | 38/46 | 42 |
| U-NII-2A | 52/56/60/64 0.11 | 52/56/60/64 | 54/62 | 52/56/60/64 | 54/62 | 58 |
| U-NII-2C | 100/104/108/112/116/120/124 /128/132/136/140/144 0.16 | 100/104/108/112 116/132/136/140 | 102/110/118/ 126/134 | 100/104/108/112 116/132/136/140 | 102/110 /134 | 106 |
| U-NII-3 | 149/153/157/161/165 0.15 | 149/153/157/161/ 165 | 151/159 | 149/153/157/161 /165 | 151/159 | 155 |

U-NII-1 and U-NII-2A bands have the same specified maximum output and tolerance; SAR is measured for U-NII-2A band first. Adjusted SAR of U-NII-2A band is ≤ 1.2 W/kg, SAR is not required for U-NII-1 band.
 Highest measured output power channel tested initially are in **yellow highlight**.

Table 14.4-6: SAR Values (WLAN - Head) – 802.11a 18Mbps

| Frequency | | 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) |
|-----------|------|-------|---------------|------------|-----------------------|--------------------------|--------------------------|--------------------------|-------------------------|-------------------------|------------------|
| MHz | Ch. | | | | | | | | | | |
| 64 | 5320 | Left | Touch | / | 17.99 | 18 | 0.268 | 0.27 | 0.885 | 0.89 | 0.17 |
| 64 | 5320 | Left | Tilt | / | 17.99 | 18 | 0.230 | 0.23 | 0.758 | 0.76 | 0.03 |
| 64 | 5320 | Right | Touch | / | 17.99 | 18 | 0.263 | 0.26 | 0.803 | 0.80 | 0.01 |
| 64 | 5320 | Right | Tilt | / | 17.99 | 18 | 0.244 | 0.24 | 0.790 | 0.79 | 0.03 |
| 60 | 5300 | Left | Touch | Fig.38 | 17.95 | 18 | 0.255 | 0.26 | 0.913 | 0.92 | 0.07 |
| 132 | 5660 | Left | Touch | / | 17.89 | 18 | 0.287 | 0.29 | 0.824 | 0.85 | 0.13 |
| 132 | 5660 | Left | Tilt | / | 17.89 | 18 | 0.275 | 0.28 | 0.653 | 0.67 | 0.08 |
| 132 | 5660 | Right | Touch | / | 17.89 | 18 | 0.250 | 0.26 | 0.693 | 0.71 | 0.06 |
| 132 | 5660 | Right | Tilt | / | 17.89 | 18 | 0.264 | 0.27 | 0.638 | 0.65 | 0.05 |
| 128 | 5640 | Left | Touch | / | 17.87 | 18 | 0.254 | 0.26 | 0.717 | 0.74 | -0.06 |
| 157 | 5785 | Left | Touch | / | 18.29 | 18.5 | 0.299 | 0.31 | 0.826 | 0.87 | -0.02 |
| 157 | 5785 | Left | Tilt | / | 18.29 | 18.5 | 0.268 | 0.28 | 0.716 | 0.75 | 0.11 |
| 157 | 5785 | Right | Touch | / | 18.29 | 18.5 | 0.252 | 0.26 | 0.663 | 0.70 | 0.05 |
| 157 | 5785 | Right | Tilt | / | 18.29 | 18.5 | 0.239 | 0.25 | 0.654 | 0.69 | -0.12 |
| 161 | 5805 | Left | Touch | / | 18.27 | 18.5 | 0.305 | 0.32 | 0.867 | 0.91 | 0.18 |

Table 14.4-7: SAR Values (WLAN - Body) – 802.11a 18Mbps

| Frequency | | 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) |
|-----------|------|---------------|------------|-----------------------|--------------------------|--------------------------|--------------------------|-------------------------|-------------------------|------------------|
| MHz | Ch. | | | | | | | | | |
| 64 | 5320 | Front | / | 17.99 | 18 | <0.01 | <0.01 | <0.01 | <0.01 | / |
| 64 | 5320 | Rear | / | 17.99 | 18 | 0.041 | 0.04 | 0.100 | 0.10 | 0.09 |
| 64 | 5320 | Right | / | 17.99 | 18 | <0.01 | <0.01 | <0.01 | <0.01 | / |
| 64 | 5320 | Top | / | 17.99 | 18 | 0.028 | 0.03 | 0.084 | 0.08 | 0.05 |
| 132 | 5660 | Front | / | 17.89 | 18 | <0.01 | <0.01 | <0.01 | <0.01 | / |
| 132 | 5660 | Rear | Fig.39 | 17.89 | 18 | 0.054 | 0.06 | 0.133 | 0.14 | 0.08 |
| 132 | 5660 | Right | / | 17.89 | 18 | 0.002 | 0.00 | 0.012 | 0.01 | 0.06 |
| 132 | 5660 | Top | / | 17.89 | 18 | 0.042 | 0.04 | 0.118 | 0.12 | 0.05 |
| 157 | 5785 | Front | / | 18.29 | 18.5 | <0.01 | <0.01 | <0.01 | <0.01 | / |
| 157 | 5785 | Rear | / | 18.29 | 18.5 | 0.051 | 0.05 | 0.127 | 0.13 | 0.06 |
| 157 | 5785 | Right | / | 18.29 | 18.5 | <0.01 | <0.01 | <0.01 | <0.01 | / |
| 157 | 5785 | Top | / | 18.29 | 18.5 | 0.027 | 0.03 | 0.104 | 0.11 | 0.09 |

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

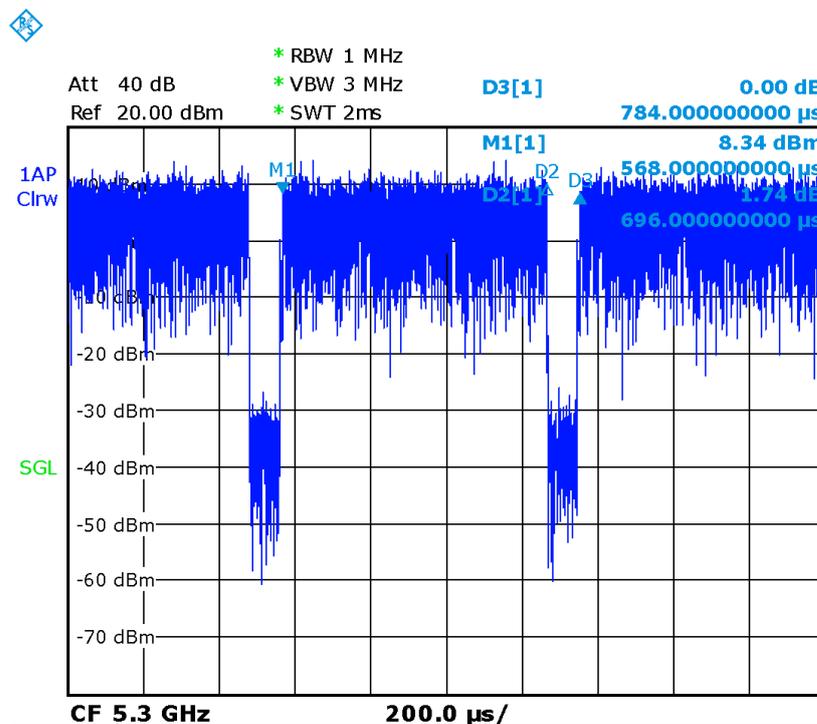
According to the KDB248227 D01, The reported SAR must be scaled to 100% transmission duty factor to determine compliance at the maximum tune-up tolerance limit. The scaled reported SAR is presented as below.

Table 14.4-8: SAR Values (WLAN - Head) – 802.11a 18Mbps (Scaled Reported SAR)

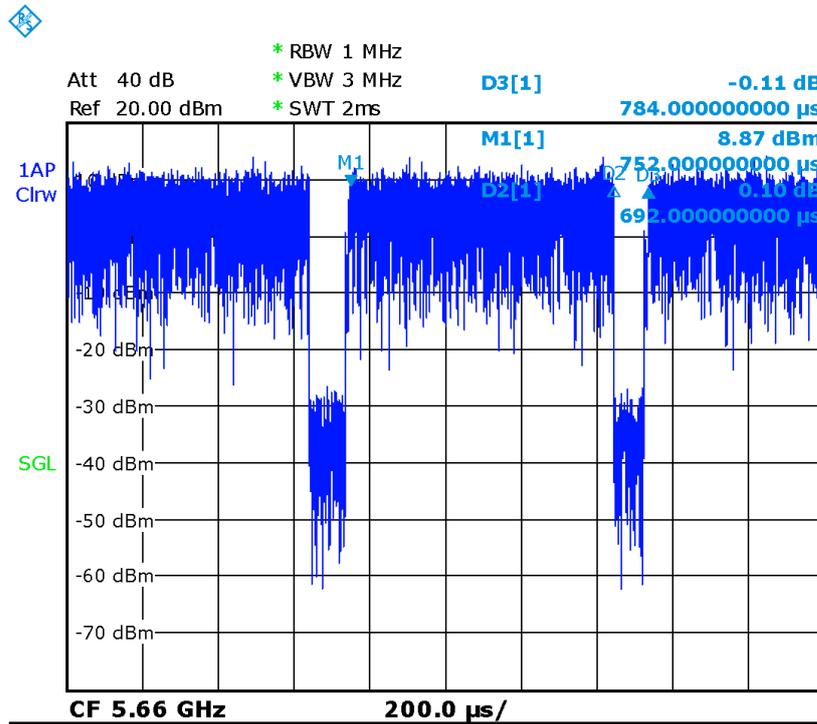
| Frequency | | Side | Test Position | Actual duty factor | maximum duty factor | Reported SAR (1g) (W/kg) | Scaled reported SAR (1g) (W/kg) |
|-----------|-----|-------|---------------|--------------------|---------------------|--------------------------|---------------------------------|
| MHz | Ch. | | | | | | |
| 5320 | 64 | Left | Touch | 88.78% | 100% | 0.89 | 1.00 |
| 5300 | 60 | Left | Touch | 88.78% | 100% | 0.92 | 1.04 |
| 5660 | 132 | Left | Touch | 88.27% | 100% | 0.85 | 0.96 |
| 5640 | 128 | Left | Touch | 88.27% | 100% | 0.74 | 0.84 |
| 5785 | 157 | Left | Touch | 88.32% | 100% | 0.87 | 0.99 |
| 5805 | 161 | Left | Touch | 88.32% | 100% | 0.91 | 1.03 |
| 5320 | 64 | Right | Touch | 88.78% | 100% | 0.80 | 0.90 |

Table 14.4-9: SAR Values (WLAN - Body) – 802.11a 18Mbps (Scaled Reported SAR)

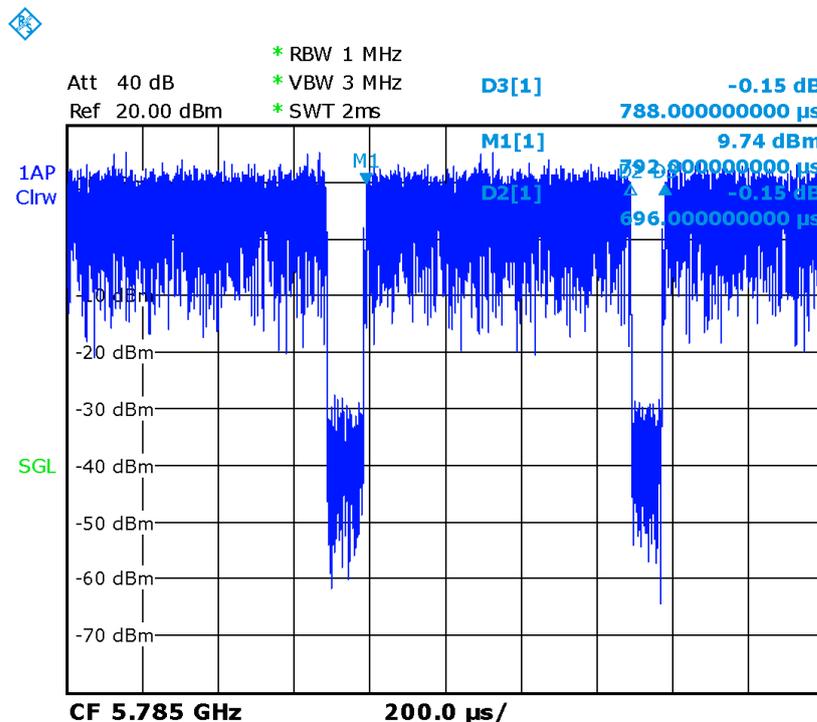
| Frequency | | Test Position | D (mm) | Actual duty factor | maximum duty factor | Reported SAR (1g) (W/kg) | Scaled reported SAR (1g) (W/kg) |
|-----------|-----|---------------|--------|--------------------|---------------------|--------------------------|---------------------------------|
| MHz | Ch. | | | | | | |
| 5320 | 64 | Rear | 10 | 88.78% | 100% | 0.10 | 0.11 |
| 5660 | 132 | Rear | 10 | 88.27% | 100% | 0.14 | 0.16 |
| 5785 | 157 | Rear | 10 | 88.32% | 100% | 0.13 | 0.15 |



Picture 14.3 The plot of duty factor for U-NII-2A



Picture 14.4 The plot of duty factor for U-NII-2C



Picture 14.5 The plot of duty factor for U-NII-3

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 ≥ 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 ≥ 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 ≥ 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 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 | 0.844 | 0.825 | 1.02 | / |

Table 15.2: 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 | | | | | | |
| 1738 | 1752.6 | Rear | 10 | 0.927 | 0.904 | 1.03 | / |

Table 15.3: 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 | | | | | | |
| 9800 | 1880 | Bottom | 10 | 1.04 | 1.01 | 1.03 | / |

Table 15.4: 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 | | | | | | | |
| 19100 | 1900 | 50RB_Low | Bottom | 10 | 1.10 | 1.05 | 1.05 | / |

Table 15.5: SAR Measurement Variability for Body LTE B7 (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 | | | | | | | |
| 21350 | 2560 | 1RB_Mid | Bottom | 10 | 1.08 | 1.06 | 1.02 | / |

Table 15.6: SAR Measurement Variability for Body LTE B30 (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 | | | | | | | |
| 27710 | 2310 | 25RB_High | Bottom | 10 | 1.15 | 1.11 | 1.04 | / |

Table 15.7: SAR Measurement Variability for Body LTE B41 (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 | | | | | | | |
| 40620 | 2593 | 1RB_Low | Bottom | 10 | 0.929 | 0.915 | 1.02 | / |

Table 15.8: SAR Measurement Variability for Body LTE B66 (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 | | | | | | | |
| 132072 | 1720 | 50RB_Mid | Rear | 10 | 0.812 | 0.798 | 1.02 | / |

Table 15.9: SAR Measurement Variability for Head WiFi-5G (1g)

| Frequency | | Mode | Side | Test Position | Original SAR (W/kg) | First Repeated SAR (W/kg) | The Ratio | Second Repeated SAR (W/kg) |
|-----------|------|---------|------|---------------|---------------------|---------------------------|-----------|----------------------------|
| Ch. | MHz | | | | | | | |
| 60 | 5300 | 11a-18M | Left | Touch | 0.913 | 0.901 | 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 |
|----------------------------|---|------|-------------------|-----------------------|------------|---------|----------|----------------|-----------------|-------------------|
| Measurement system | | | | | | | | | | |
| 1 | Probe calibration | B | 6.0 | N | 1 | 1 | 1 | 6.0 | 6.0 | ∞ |
| 2 | Isotropy | B | 4.7 | R | $\sqrt{3}$ | 0.7 | 0.7 | 1.9 | 1.9 | ∞ |
| 3 | Boundary effect | B | 1.0 | R | $\sqrt{3}$ | 1 | 1 | 0.6 | 0.6 | ∞ |
| 4 | Linearity | B | 4.7 | R | $\sqrt{3}$ | 1 | 1 | 2.7 | 2.7 | ∞ |
| 5 | Detection limit | B | 1.0 | N | 1 | 1 | 1 | 0.6 | 0.6 | ∞ |
| 6 | Readout electronics | B | 0.3 | R | $\sqrt{3}$ | 1 | 1 | 0.3 | 0.3 | ∞ |
| 7 | Response time | B | 0.8 | R | $\sqrt{3}$ | 1 | 1 | 0.5 | 0.5 | ∞ |
| 8 | Integration time | B | 2.6 | R | $\sqrt{3}$ | 1 | 1 | 1.5 | 1.5 | ∞ |
| 9 | RF ambient conditions-noise | B | 0 | R | $\sqrt{3}$ | 1 | 1 | 0 | 0 | ∞ |
| 10 | RF ambient conditions-reflection | B | 0 | R | $\sqrt{3}$ | 1 | 1 | 0 | 0 | ∞ |
| 11 | Probe positioned mech. restrictions | B | 0.4 | R | $\sqrt{3}$ | 1 | 1 | 0.2 | 0.2 | ∞ |
| 12 | Probe positioning with respect to phantom shell | B | 2.9 | R | $\sqrt{3}$ | 1 | 1 | 1.7 | 1.7 | ∞ |
| 13 | Post-processing | B | 1.0 | R | $\sqrt{3}$ | 1 | 1 | 0.6 | 0.6 | ∞ |
| Test sample related | | | | | | | | | | |
| 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 | ∞ |
| Phantom and set-up | | | | | | | | | | |
| 17 | Phantom uncertainty | B | 4.0 | R | $\sqrt{3}$ | 1 | 1 | 2.3 | 2.3 | ∞ |
| 18 | Liquid conductivity (target) | B | 5.0 | R | $\sqrt{3}$ | 0.64 | 0.43 | 1.8 | 1.2 | ∞ |
| 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 | ∞ |
| 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 |
|----------------------------|---|------|-------------------|-----------------------|------------|---------|----------|----------------|-----------------|-------------------|
| Measurement system | | | | | | | | | | |
| 1 | Probe calibration | B | 6.55 | N | 1 | 1 | 1 | 6.55 | 6.55 | ∞ |
| 2 | Isotropy | B | 4.7 | R | $\sqrt{3}$ | 0.7 | 0.7 | 1.9 | 1.9 | ∞ |
| 3 | Boundary effect | B | 2.0 | R | $\sqrt{3}$ | 1 | 1 | 1.2 | 1.2 | ∞ |
| 4 | Linearity | B | 4.7 | R | $\sqrt{3}$ | 1 | 1 | 2.7 | 2.7 | ∞ |
| 5 | Detection limit | B | 1.0 | R | $\sqrt{3}$ | 1 | 1 | 0.6 | 0.6 | ∞ |
| 6 | Readout electronics | B | 0.3 | R | $\sqrt{3}$ | 1 | 1 | 0.3 | 0.3 | ∞ |
| 7 | Response time | B | 0.8 | R | $\sqrt{3}$ | 1 | 1 | 0.5 | 0.5 | ∞ |
| 8 | Integration time | B | 2.6 | R | $\sqrt{3}$ | 1 | 1 | 1.5 | 1.5 | ∞ |
| 9 | RF ambient conditions-noise | B | 0 | R | $\sqrt{3}$ | 1 | 1 | 0 | 0 | ∞ |
| 10 | RF ambient conditions-reflection | B | 0 | R | $\sqrt{3}$ | 1 | 1 | 0 | 0 | ∞ |
| 11 | Probe positioned mech. restrictions | B | 0.8 | R | $\sqrt{3}$ | 1 | 1 | 0.5 | 0.5 | ∞ |
| 12 | Probe positioning with respect to phantom shell | B | 6.7 | R | $\sqrt{3}$ | 1 | 1 | 3.9 | 3.9 | ∞ |
| 13 | Post-processing | B | 4.0 | R | $\sqrt{3}$ | 1 | 1 | 2.3 | 2.3 | ∞ |
| Test sample related | | | | | | | | | | |
| 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 | ∞ |
| Phantom and set-up | | | | | | | | | | |
| 17 | Phantom uncertainty | B | 4.0 | R | $\sqrt{3}$ | 1 | 1 | 2.3 | 2.3 | ∞ |
| 18 | Liquid conductivity (target) | B | 5.0 | R | $\sqrt{3}$ | 0.64 | 0.43 | 1.8 | 1.2 | ∞ |
| 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 | ∞ |

| | | | | | | | | | | |
|--|-----------------------------|--|-----|---|---|-----|------|------|------|-----|
| | (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 |
|----------------------------|---|------|-------------------|-----------------------|------------|---------|----------|----------------|-----------------|-------------------|
| Measurement system | | | | | | | | | | |
| 1 | Probe calibration | B | 6.0 | N | 1 | 1 | 1 | 6.0 | 6.0 | ∞ |
| 2 | Isotropy | B | 4.7 | R | $\sqrt{3}$ | 0.7 | 0.7 | 1.9 | 1.9 | ∞ |
| 3 | Boundary effect | B | 1.0 | R | $\sqrt{3}$ | 1 | 1 | 0.6 | 0.6 | ∞ |
| 4 | Linearity | B | 4.7 | R | $\sqrt{3}$ | 1 | 1 | 2.7 | 2.7 | ∞ |
| 5 | Detection limit | B | 1.0 | R | $\sqrt{3}$ | 1 | 1 | 0.6 | 0.6 | ∞ |
| 6 | Readout electronics | B | 0.3 | R | $\sqrt{3}$ | 1 | 1 | 0.3 | 0.3 | ∞ |
| 7 | Response time | B | 0.8 | R | $\sqrt{3}$ | 1 | 1 | 0.5 | 0.5 | ∞ |
| 8 | Integration time | B | 2.6 | R | $\sqrt{3}$ | 1 | 1 | 1.5 | 1.5 | ∞ |
| 9 | RF ambient conditions-noise | B | 0 | R | $\sqrt{3}$ | 1 | 1 | 0 | 0 | ∞ |
| 10 | RF ambient conditions-reflection | B | 0 | R | $\sqrt{3}$ | 1 | 1 | 0 | 0 | ∞ |
| 11 | Probe positioned mech. Restrictions | B | 0.4 | R | $\sqrt{3}$ | 1 | 1 | 0.2 | 0.2 | ∞ |
| 12 | Probe positioning with respect to phantom shell | B | 2.9 | R | $\sqrt{3}$ | 1 | 1 | 1.7 | 1.7 | ∞ |
| 13 | Post-processing | B | 1.0 | R | $\sqrt{3}$ | 1 | 1 | 0.6 | 0.6 | ∞ |
| 14 | Fast SAR z-Approximation | B | 7.0 | R | $\sqrt{3}$ | 1 | 1 | 4.0 | 4.0 | ∞ |
| Test sample related | | | | | | | | | | |
| 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 | ∞ |
| Phantom and set-up | | | | | | | | | | |
| 18 | Phantom uncertainty | B | 4.0 | R | $\sqrt{3}$ | 1 | 1 | 2.3 | 2.3 | ∞ |

| | | | | | | | | | | |
|--|------------------------------|--|------|---|------------|------|------|------|------|----------|
| 19 | Liquid conductivity (target) | B | 5.0 | R | $\sqrt{3}$ | 0.64 | 0.43 | 1.8 | 1.2 | ∞ |
| 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 | ∞ |
| 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 |
|----------------------------|---|------|-------------------|-----------------------|------------|---------|----------|----------------|-----------------|-------------------|
| Measurement system | | | | | | | | | | |
| 1 | Probe calibration | B | 6.55 | N | 1 | 1 | 1 | 6.55 | 6.55 | ∞ |
| 2 | Isotropy | B | 4.7 | R | $\sqrt{3}$ | 0.7 | 0.7 | 1.9 | 1.9 | ∞ |
| 3 | Boundary effect | B | 2.0 | R | $\sqrt{3}$ | 1 | 1 | 1.2 | 1.2 | ∞ |
| 4 | Linearity | B | 4.7 | R | $\sqrt{3}$ | 1 | 1 | 2.7 | 2.7 | ∞ |
| 5 | Detection limit | B | 1.0 | R | $\sqrt{3}$ | 1 | 1 | 0.6 | 0.6 | ∞ |
| 6 | Readout electronics | B | 0.3 | R | $\sqrt{3}$ | 1 | 1 | 0.3 | 0.3 | ∞ |
| 7 | Response time | B | 0.8 | R | $\sqrt{3}$ | 1 | 1 | 0.5 | 0.5 | ∞ |
| 8 | Integration time | B | 2.6 | R | $\sqrt{3}$ | 1 | 1 | 1.5 | 1.5 | ∞ |
| 9 | RF ambient conditions-noise | B | 0 | R | $\sqrt{3}$ | 1 | 1 | 0 | 0 | ∞ |
| 10 | RFambient conditions-reflection | B | 0 | R | $\sqrt{3}$ | 1 | 1 | 0 | 0 | ∞ |
| 11 | Probe positioned mech. Restrictions | B | 0.8 | R | $\sqrt{3}$ | 1 | 1 | 0.5 | 0.5 | ∞ |
| 12 | Probe positioning with respect to phantom shell | B | 6.7 | R | $\sqrt{3}$ | 1 | 1 | 3.9 | 3.9 | ∞ |
| 13 | Post-processing | B | 1.0 | R | $\sqrt{3}$ | 1 | 1 | 0.6 | 0.6 | ∞ |
| 14 | Fast SAR z-Approximation | B | 14.0 | R | $\sqrt{3}$ | 1 | 1 | 8.1 | 8.1 | ∞ |
| Test sample related | | | | | | | | | | |
| 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 | ∞ |
| Phantom and set-up | | | | | | | | | | |
| 18 | Phantom uncertainty | B | 4.0 | R | $\sqrt{3}$ | 1 | 1 | 2.3 | 2.3 | ∞ |
| 19 | Liquid conductivity (target) | B | 5.0 | R | $\sqrt{3}$ | 0.64 | 0.43 | 1.8 | 1.2 | ∞ |
| 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 | ∞ |
| 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 D2300V2 | 1018 | July 21, 2017 | One year |
| 15 | Dipole Validation Kit | SPEAG D2450V2 | 853 | July 21, 2017 | One year |
| 16 | Dipole Validation Kit | SPEAG D2600V2 | 1012 | July 21, 2017 | One year |
| 17 | Dipole Validation Kit | SPEAG D5GHzV2 | 1060 | July 25, 2017 | One year |

END OF REPORT BODY

ANNEX A Graph Results

850 Right Cheek High

Date: 2018-5-2

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/m³

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

Communication System: GSM 850 GPRS Frequency: 848.8 MHz Duty Cycle: 1:2

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

Area Scan (71x131x1): Interpolated grid: dx=1.000 mm, dy=1.000 mm

Maximum value of SAR (interpolated) = 0.295 W/kg

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

Reference Value = 6.523 V/m; Power Drift = 0.08 dB

Peak SAR (extrapolated) = 0.394 W/kg

SAR(1 g) = 0.322 W/kg; SAR(10 g) = 0.254 W/kg

Maximum value of SAR (measured) = 0.347 W/kg

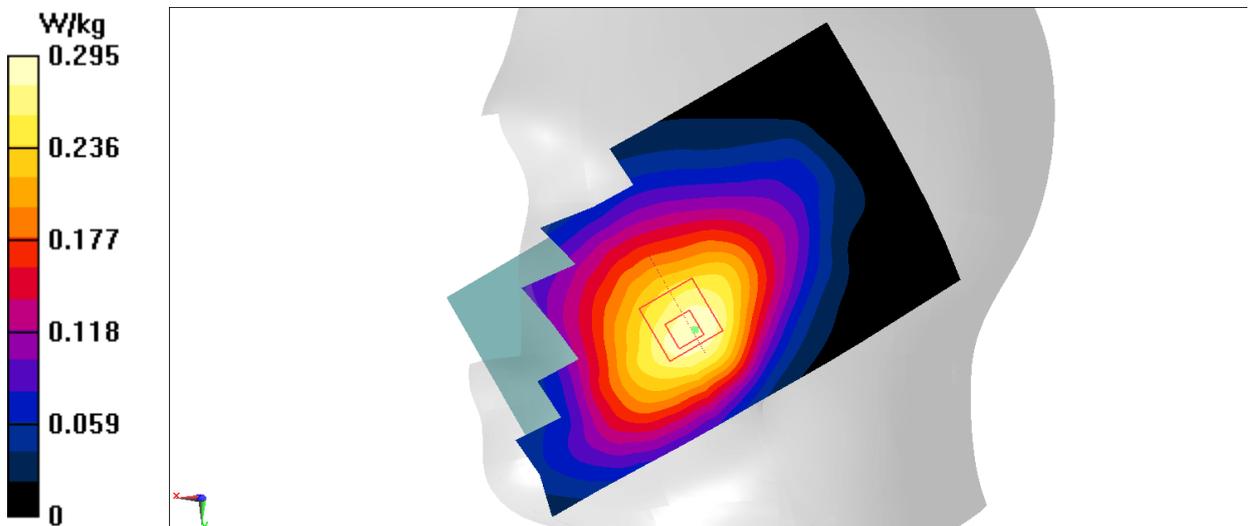


Fig.1 850MHz

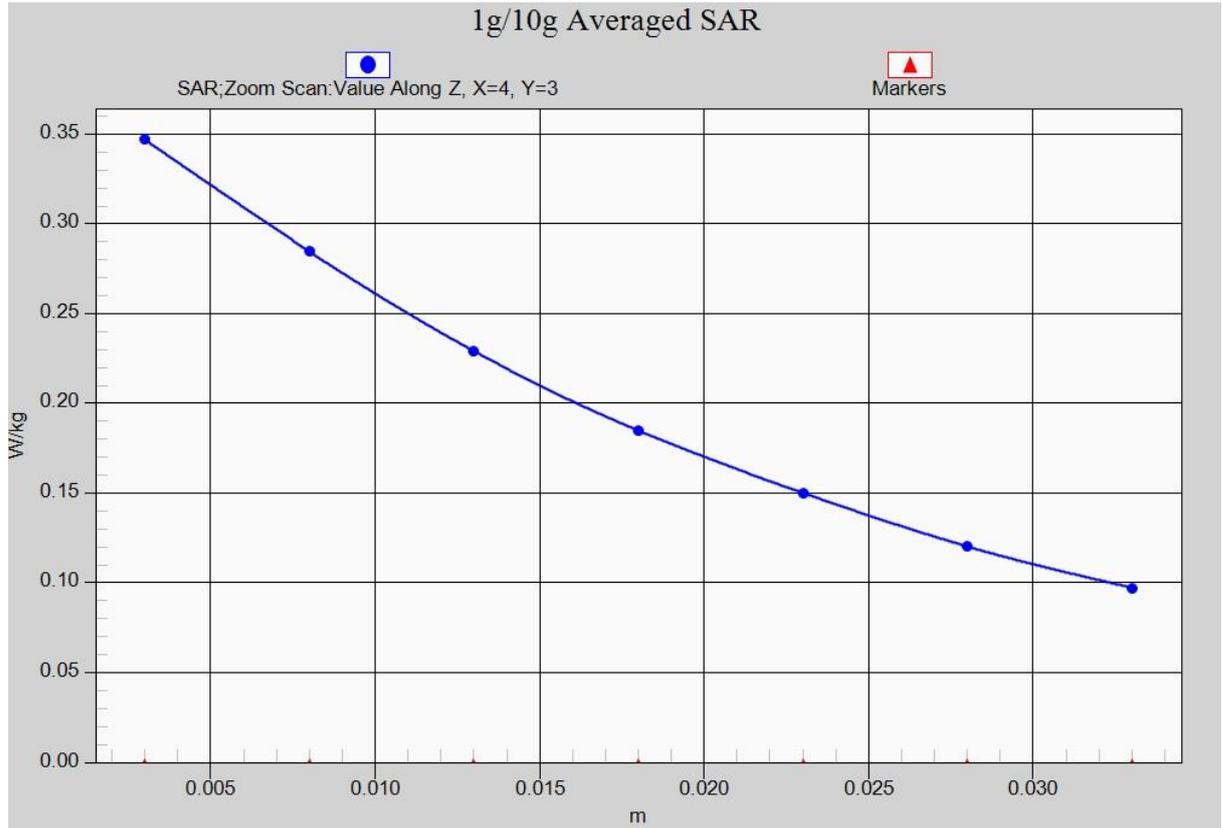


Fig. 1-1 Z-Scan at power reference point (850 MHz)

850 Body Rear High

Date: 2018-5-2

Electronics: DAE4 Sn1525

Medium: Body 850 MHz

Medium parameters used: $f = 848.8$ MHz; $\sigma = 0.984$ mho/m; $\epsilon_r = 55.87$; $\rho = 1000$ kg/m³

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

Communication System: GSM 850 GPRS Frequency: 848.8 MHz Duty Cycle: 1:2

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

Area Scan (71x131x1): Interpolated grid: dx=1.000 mm, dy=1.000 mm

Maximum value of SAR (interpolated) = 0.707 W/kg

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

Reference Value = 15.47 V/m; Power Drift = -0.03 dB

Peak SAR (extrapolated) = 1.02 W/kg

SAR(1 g) = 0.620 W/kg; SAR(10 g) = 0.367 W/kg

Maximum value of SAR (measured) = 0.684 W/kg

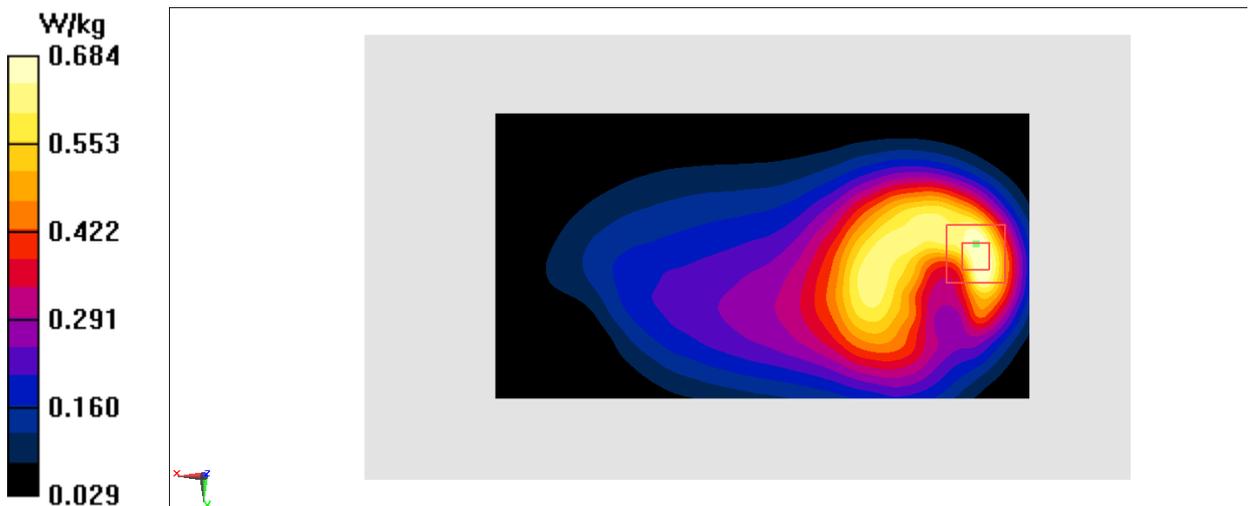


Fig.2 850 MHz

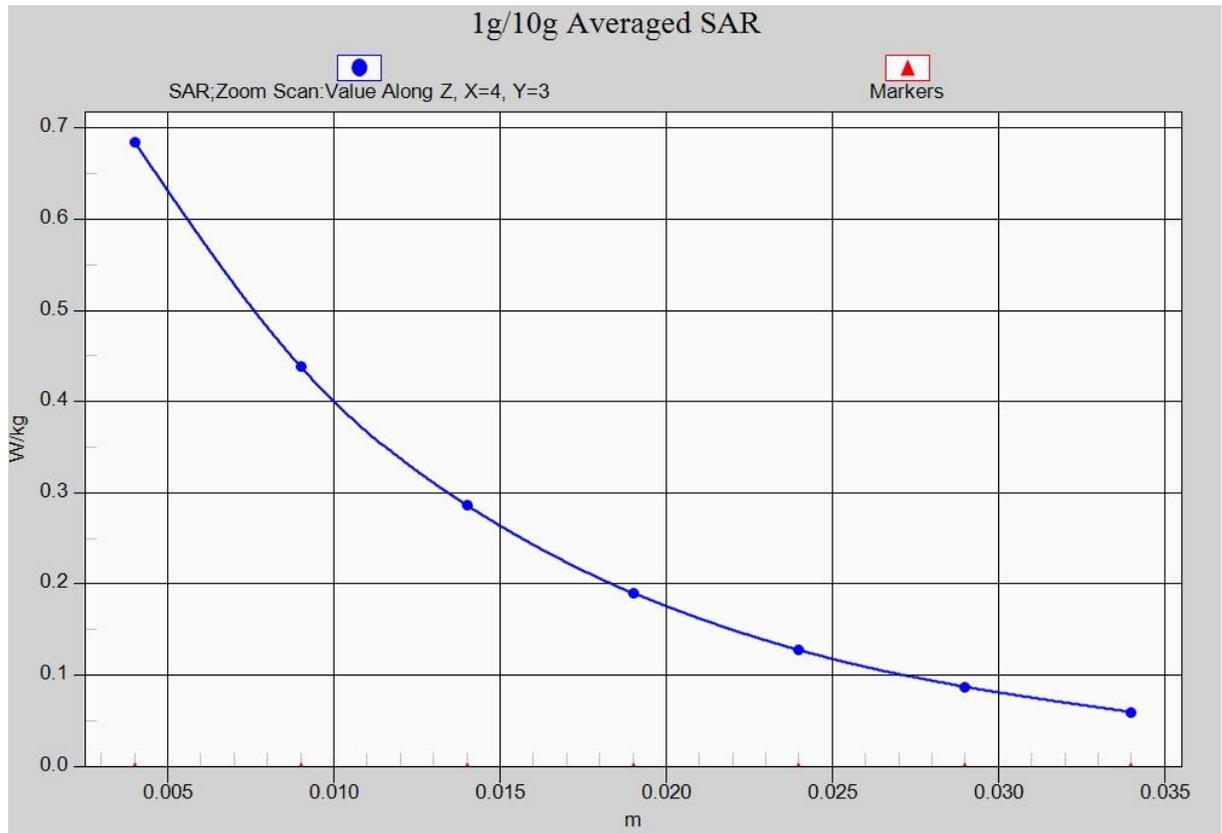


Fig. 2-1 Z-Scan at power reference point (850 MHz)

1900 Left Cheek High

Date: 2018-5-4

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/m³

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

Communication System: GSM 1900MHz Frequency: 1909.8 MHz Duty Cycle: 1:2.67

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

Area Scan (71x131x1): Interpolated grid: dx=1.000 mm, dy=1.000 mm

Maximum value of SAR (interpolated) = 0.647 W/kg

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

Reference Value = 13.22 V/m; Power Drift = -0.18 dB

Peak SAR (extrapolated) = 0.985 W/kg

SAR(1 g) = 0.426 W/kg; SAR(10 g) = 0.207 W/kg

Maximum value of SAR (measured) = 0.548 W/kg

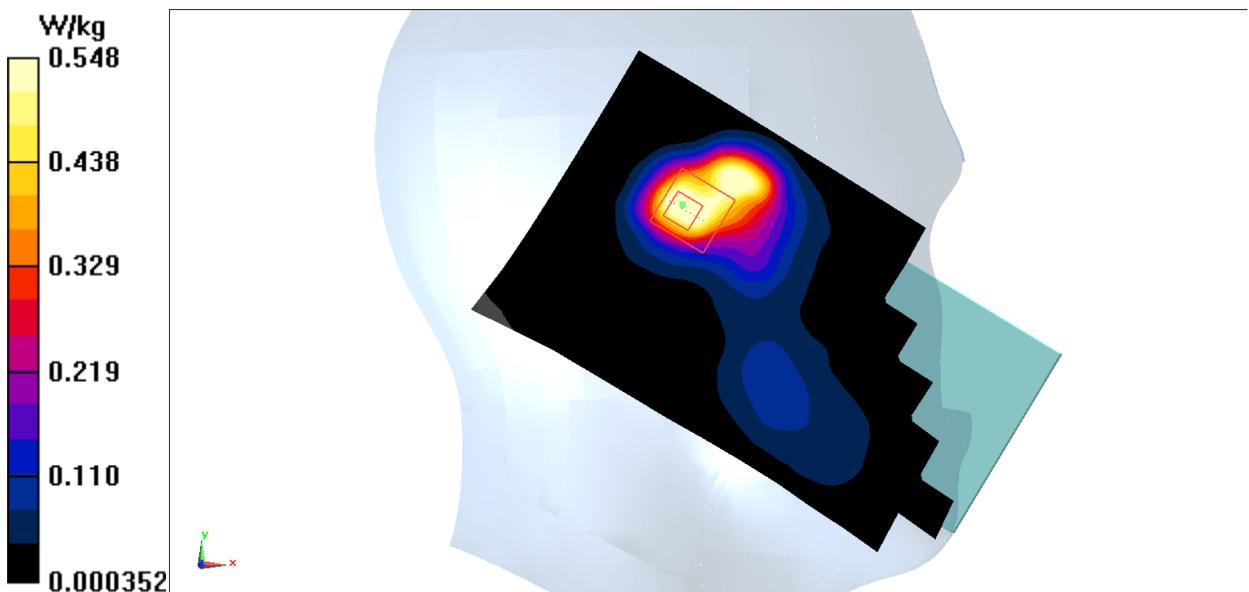


Fig.3 1900 MHz

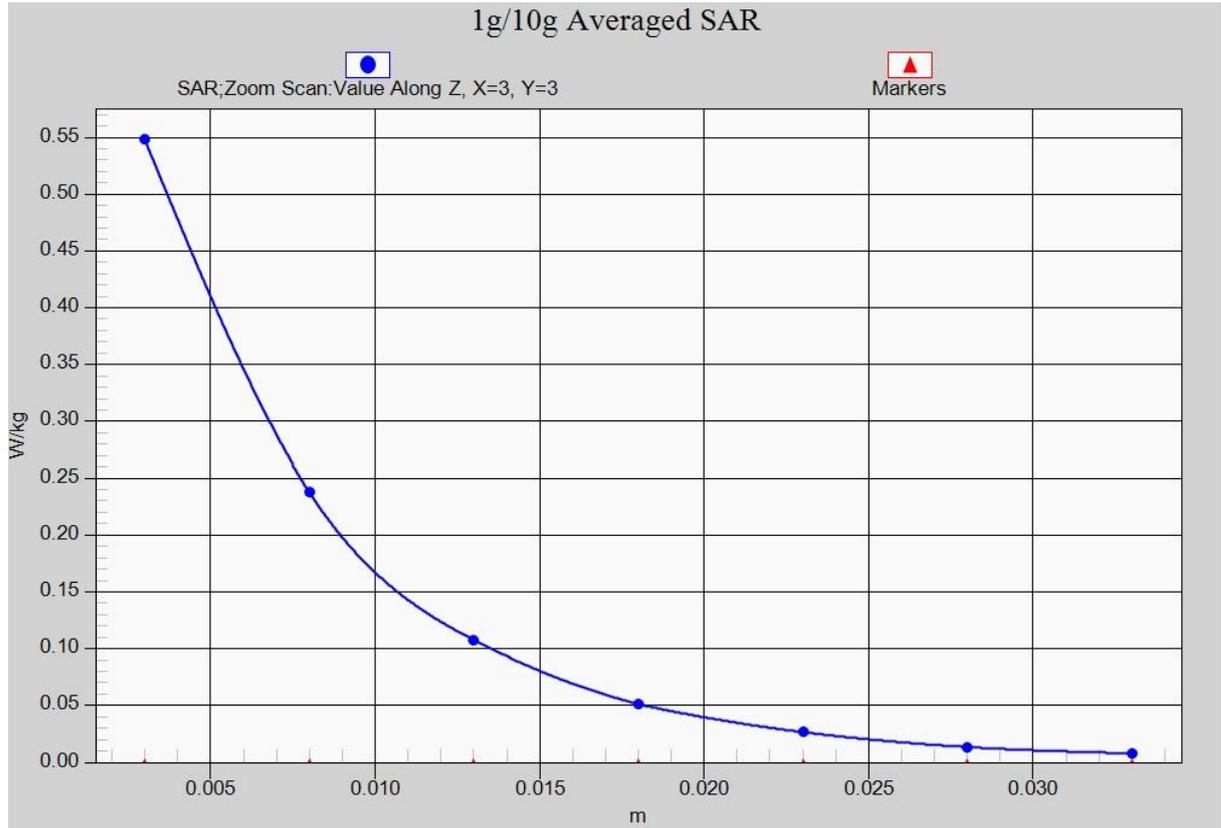


Fig. 3-1 Z-Scan at power reference point (1900 MHz)

1900 Body Bottom Low

Date: 2018-5-4

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/m³

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

Communication System: GSM 1900MHz GPRS Frequency: 1850.2 MHz Duty Cycle: 1:2.67

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) = 1.78 W/kg

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

Reference Value = 25.29 V/m; Power Drift = -0.13 dB

Peak SAR (extrapolated) = 1.39 W/kg

SAR(1 g) = 0.844 W/kg; SAR(10 g) = 0.474 W/kg

Maximum value of SAR (measured) = 1.02 W/kg

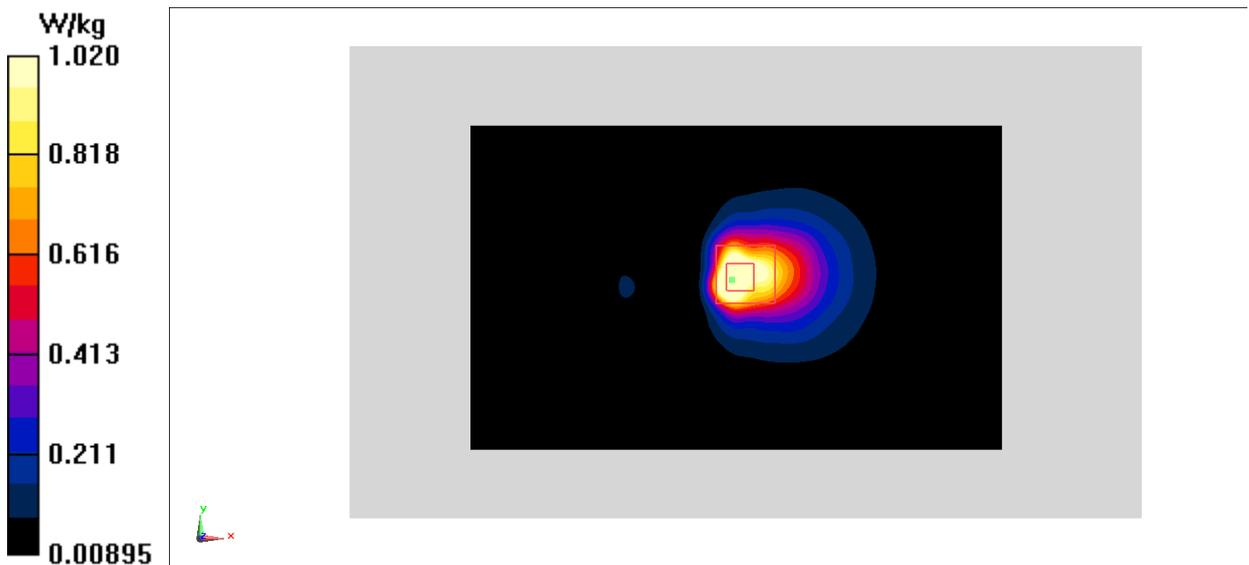


Fig.4 1900 MHz

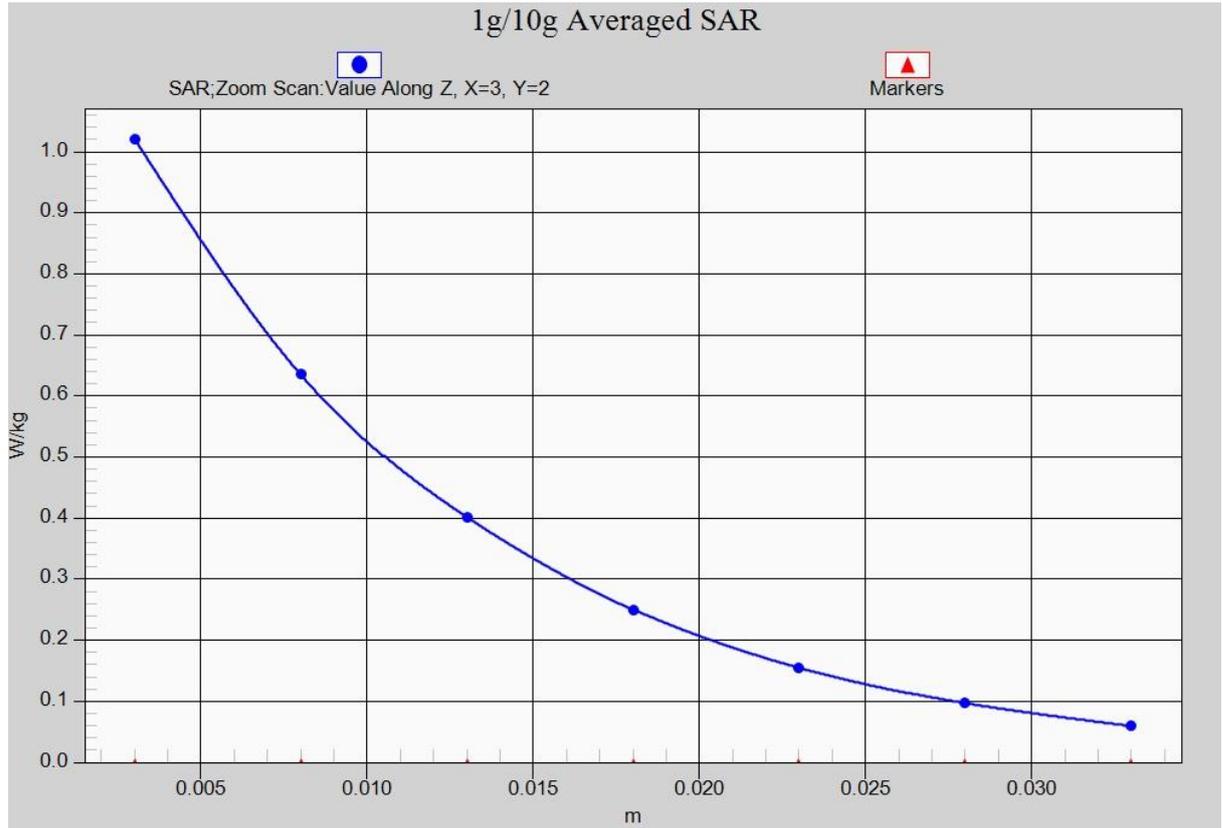


Fig. 4-1 Z-Scan at power reference point (1900 MHz)

1900 Body Rear High

Date: 2018-5-4

Electronics: DAE4 Sn1525

Medium: Body 1900 MHz

Medium parameters used: $f = 1909.8$ MHz; $\sigma = 1.575$ mho/m; $\epsilon_r = 52.65$; $\rho = 1000$ kg/m³

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

Communication System: GSM 1900MHz GPRS Frequency: 1909.8 MHz Duty Cycle: 1:2.67

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) = 0.446 W/kg

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

Reference Value = 6.437 V/m; Power Drift = -0.03 dB

Peak SAR (extrapolated) = 0.644 W/kg

SAR(1 g) = 0.397 W/kg; SAR(10 g) = 0.229 W/kg

Maximum value of SAR (measured) = 0.470 W/kg

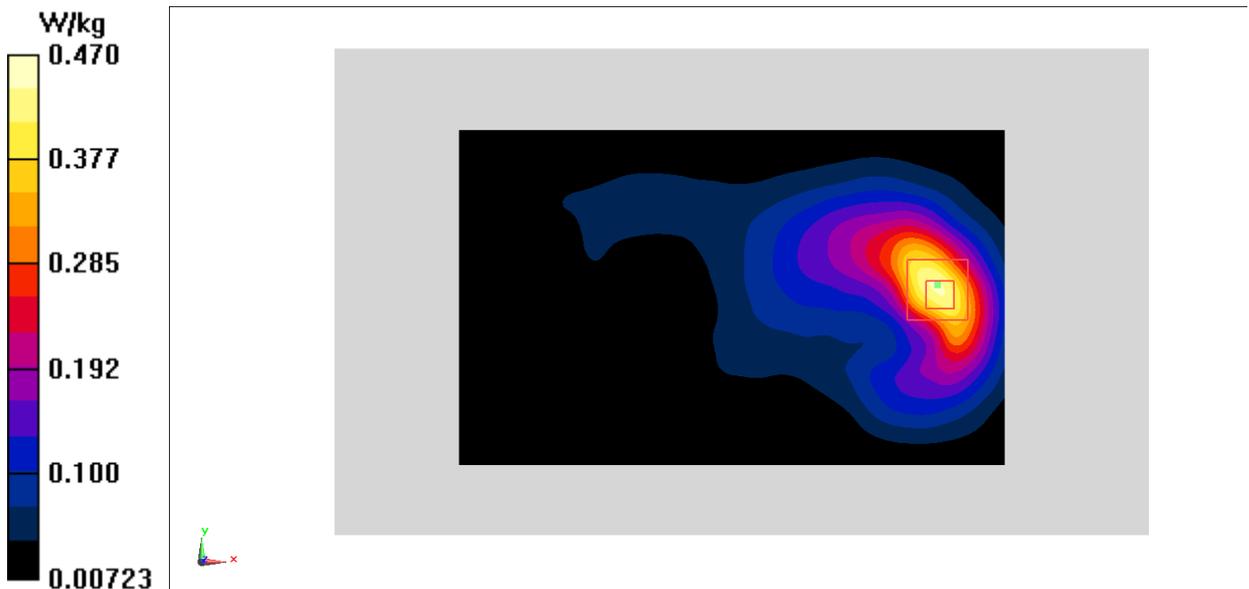


Fig.5 1900 MHz

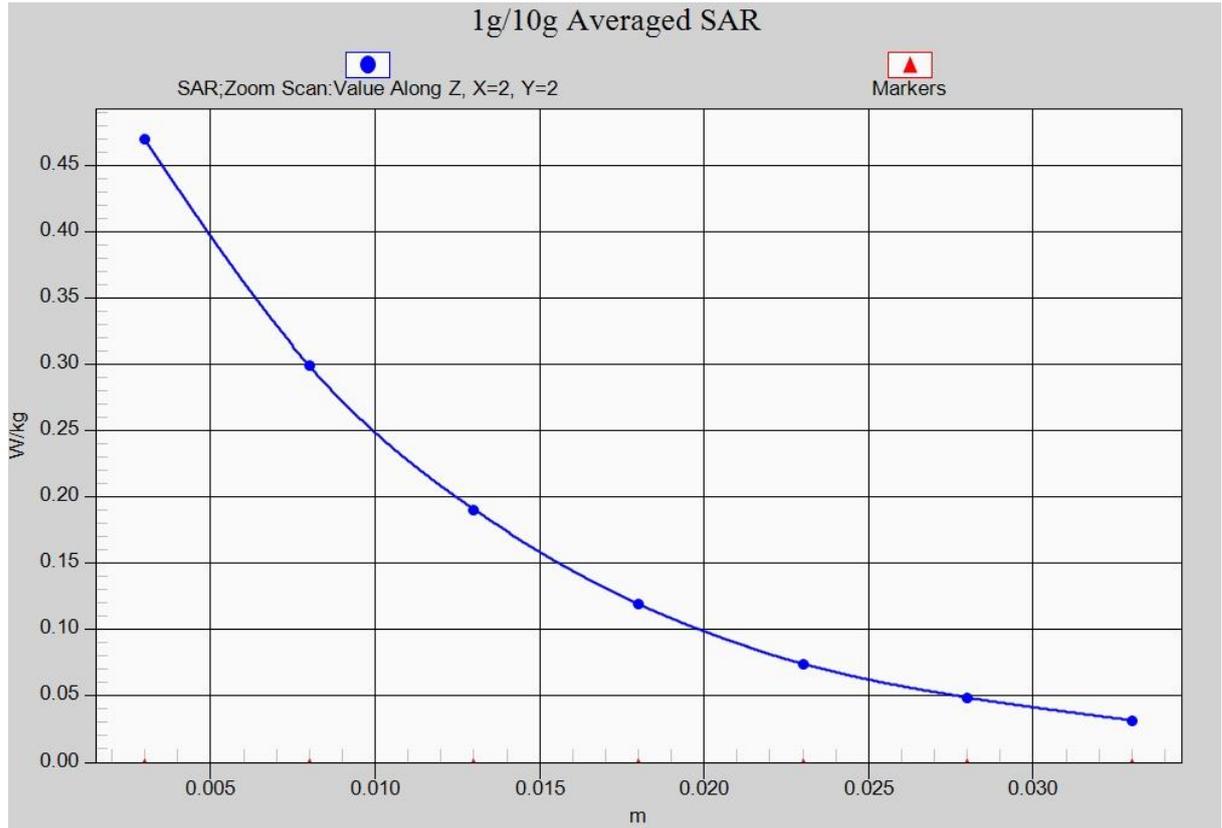


Fig. 5-1 Z-Scan at power reference point (1900 MHz)

WCDMA 850 Right Cheek Middle

Date: 2018-5-2

Electronics: DAE4 Sn1525

Medium: Head 850 MHz

Medium parameters used (interpolated): $f = 836.4$ MHz; $\sigma = 0.9$ mho/m; $\epsilon_r = 41.855$; $\rho = 1000$ kg/m³

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

Communication System: WCDMA; Frequency: 836.4 MHz; Duty Cycle: 1:1

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

Area Scan (71x131x1): Interpolated grid: $dx=1.000$ mm, $dy=1.000$ mm

Maximum value of SAR (interpolated) = 0.290 W/kg

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

Reference Value = 6.348 V/m; Power Drift = 0.13 dB

Peak SAR (extrapolated) = 0.325 W/kg

SAR(1 g) = 0.262 W/kg; SAR(10 g) = 0.206 W/kg

Maximum value of SAR (measured) = 0.285 W/kg

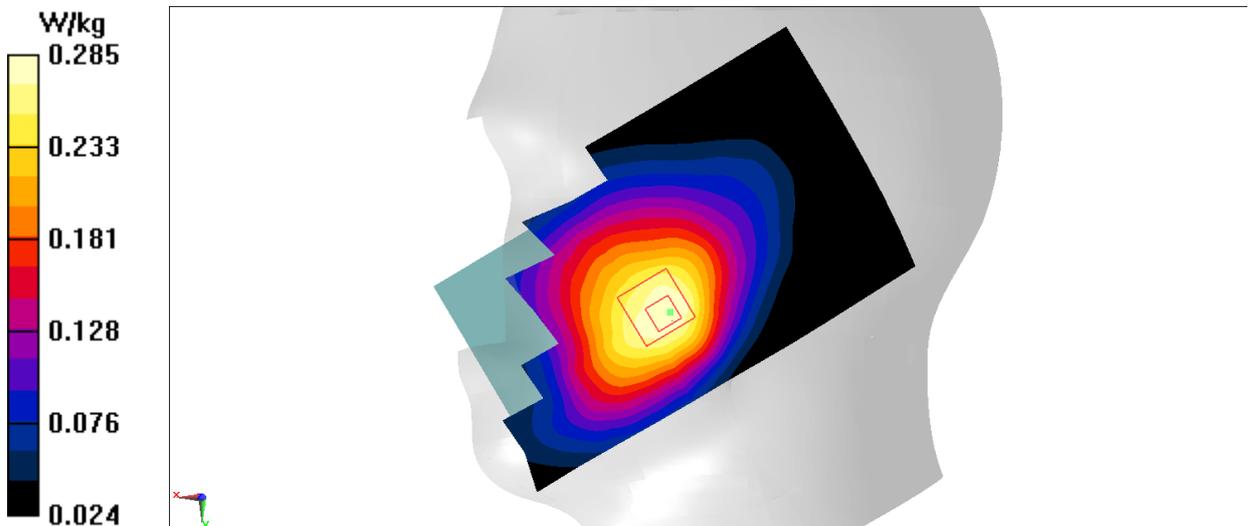


Fig.6 WCDMA 850

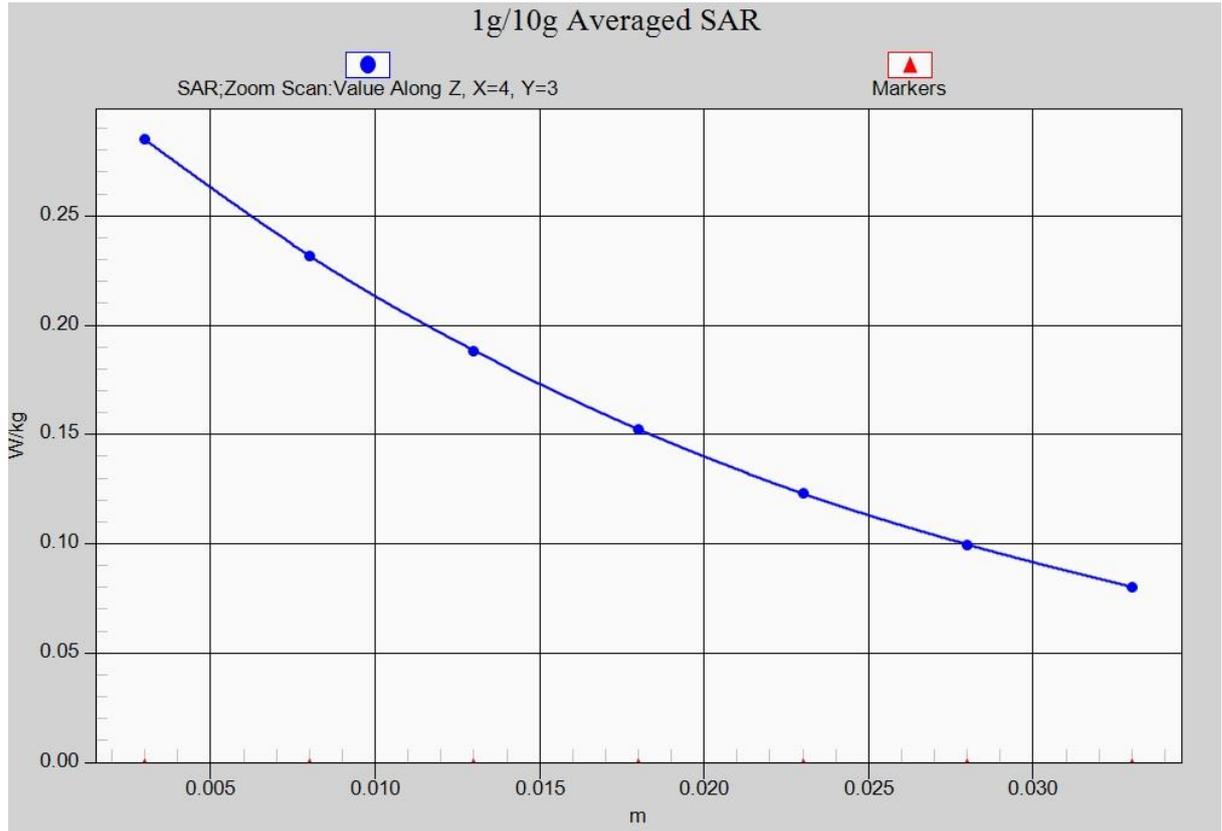


Fig. 6-1 Z-Scan at power reference point (850 MHz)

WCDMA 850 Body Rear High

Date: 2018-5-2

Electronics: DAE4 Sn1525

Medium: Body 850 MHz

Medium parameters used (interpolated): $f = 846.6$ MHz; $\sigma = 0.981$ mho/m; $\epsilon_r = 55.876$; $\rho = 1000$ kg/m³

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(10.21, 10.21, 10.21)

Area Scan (71x131x1): Interpolated grid: $dx=1.000$ mm, $dy=1.000$ mm

Maximum value of SAR (interpolated) = 0.498 W/kg

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

Reference Value = 13.70 V/m; Power Drift = -0.09 dB

Peak SAR (extrapolated) = 0.697 W/kg

SAR(1 g) = 0.432 W/kg; SAR(10 g) = 0.259 W/kg

Maximum value of SAR (measured) = 0.478 W/kg

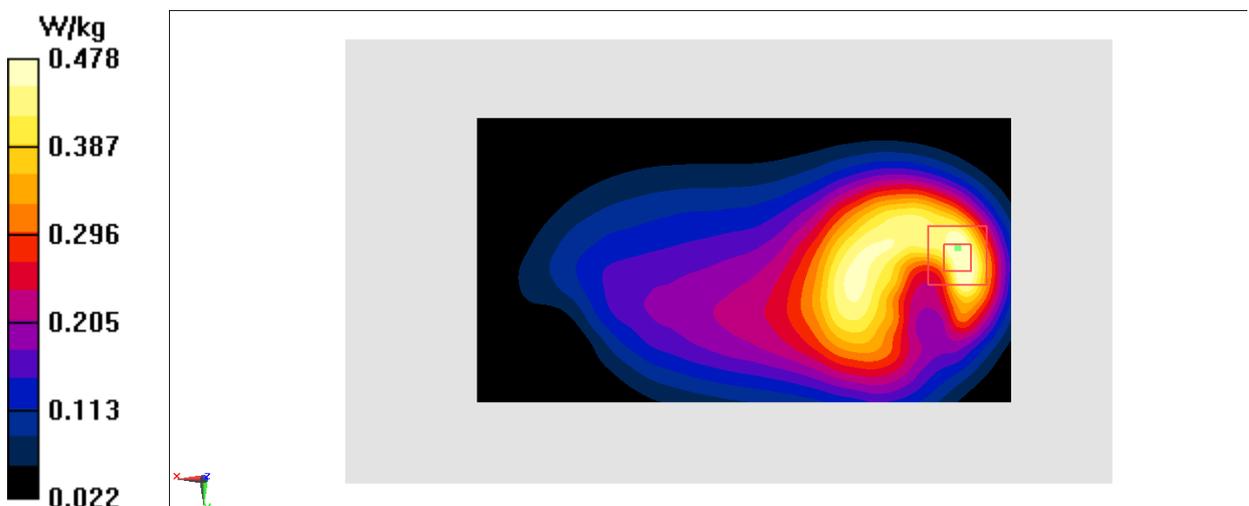


Fig.7 WCDMA 850

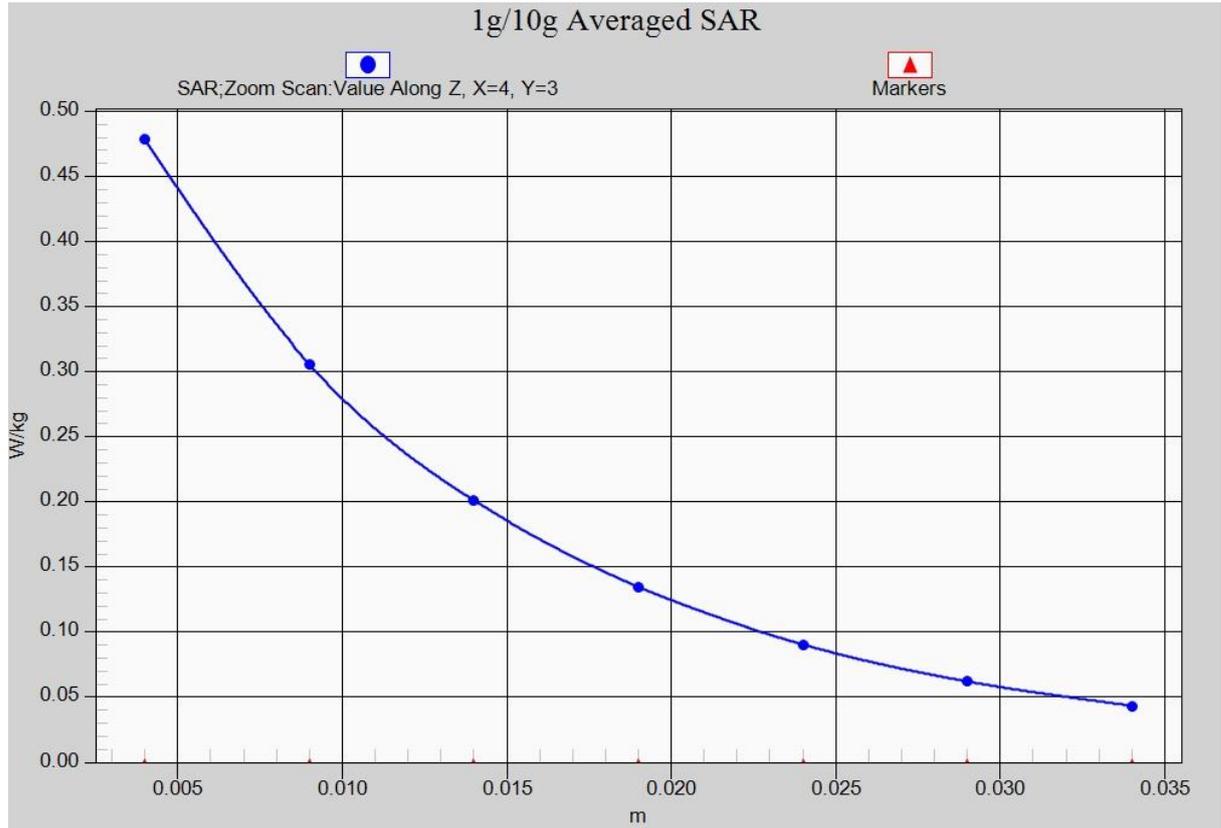


Fig. 7-1 Z-Scan at power reference point (WCDMA850)

WCDMA 1700 Left Cheek Low

Date: 2018-5-3

Electronics: DAE4 Sn1525

Medium: Head 1750 MHz

Medium parameters used (interpolated): $f = 1712.4$ MHz; $\sigma = 1.307$ mho/m; $\epsilon_r = 40.677$; $\rho = 1000$ kg/m³

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

Communication System: WCDMA 1750 Frequency: 1712.4 MHz Duty Cycle: 1:1

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

Area Scan (71x131x1): Interpolated grid: dx=1.000 mm, dy=1.000 mm

Maximum value of SAR (interpolated) = 0.156 W/kg

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

Reference Value = 4.648 V/m; Power Drift = 0.01 dB

Peak SAR (extrapolated) = 0.193 W/kg

SAR(1 g) = 0.133 W/kg; SAR(10 g) = 0.088 W/kg

Maximum value of SAR (measured) = 0.155 W/kg

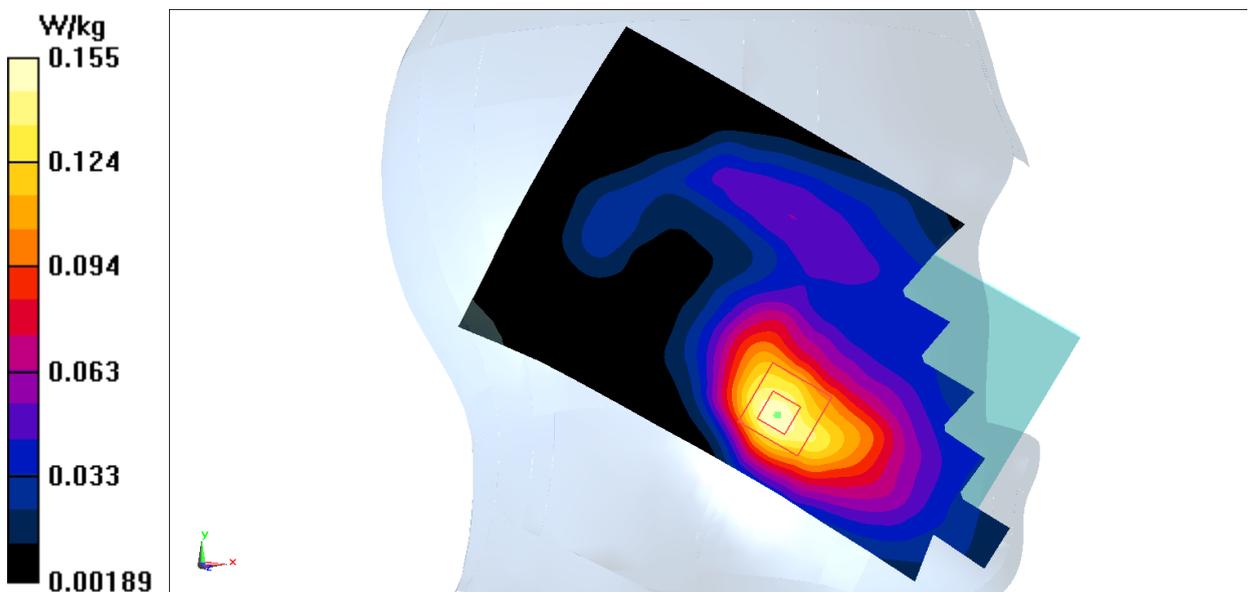


Fig.8 WCDMA1700

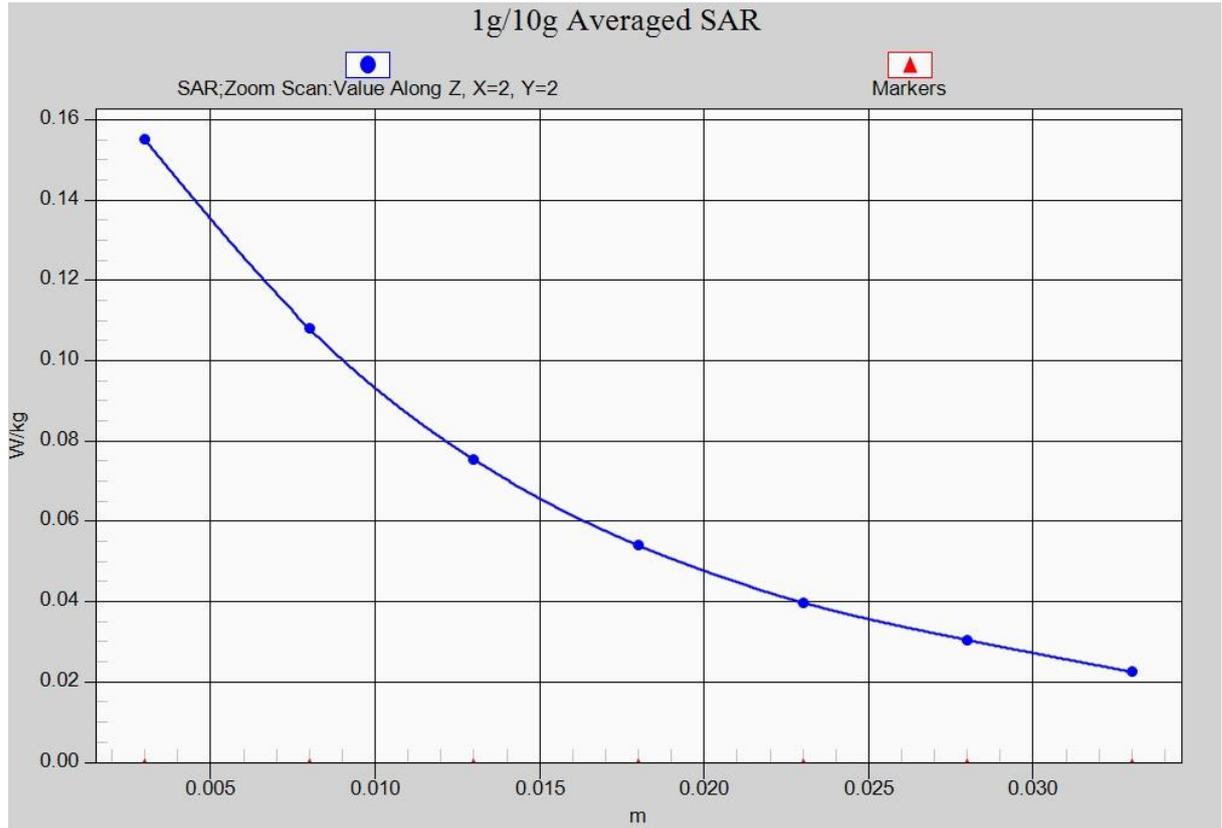


Fig. 8-1 Z-Scan at power reference point (WCDMA1700)

WCDMA 1700 Body Rear High

Date: 2018-5-3

Electronics: DAE4 Sn1525

Medium: Body 1750 MHz

Medium parameters used (interpolated): $f = 1752.6$ MHz; $\sigma = 1.509$ mho/m; $\epsilon_r = 53.718$; $\rho = 1000$ kg/m³

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

Communication System: WCDMA 1900 Frequency: 1752.6 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) = 1.04 W/kg

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

Reference Value = 7.752 V/m; Power Drift = -0.03 dB

Peak SAR (extrapolated) = 1.58 W/kg

SAR(1 g) = 0.927 W/kg; SAR(10 g) = 0.493 W/kg

Maximum value of SAR (measured) = 1.14 W/kg

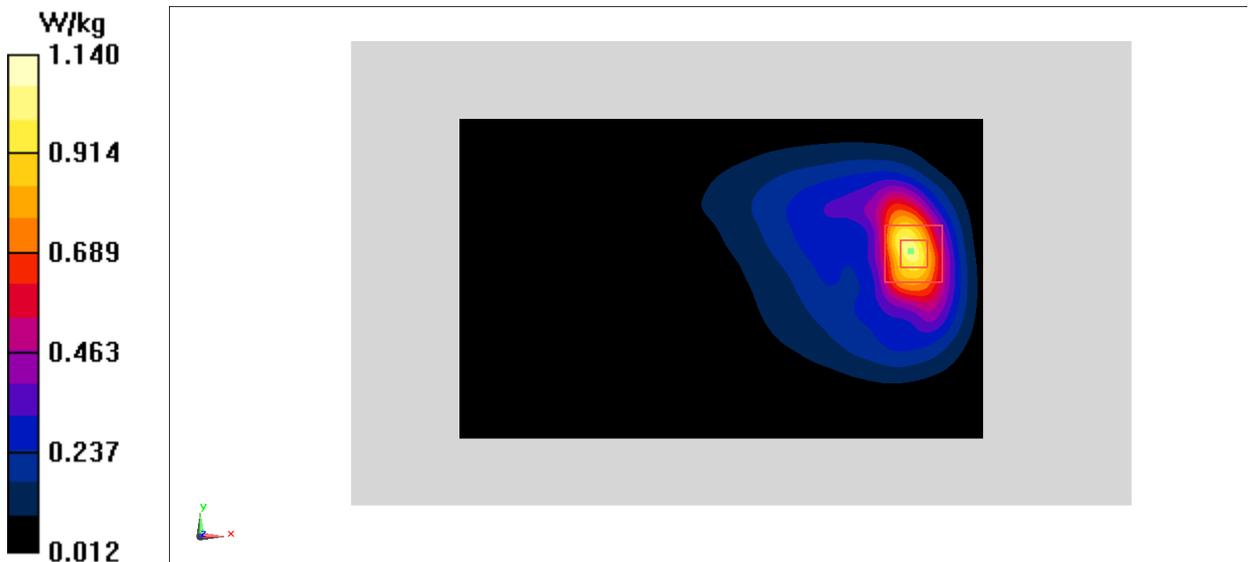


Fig.9 WCDMA1700

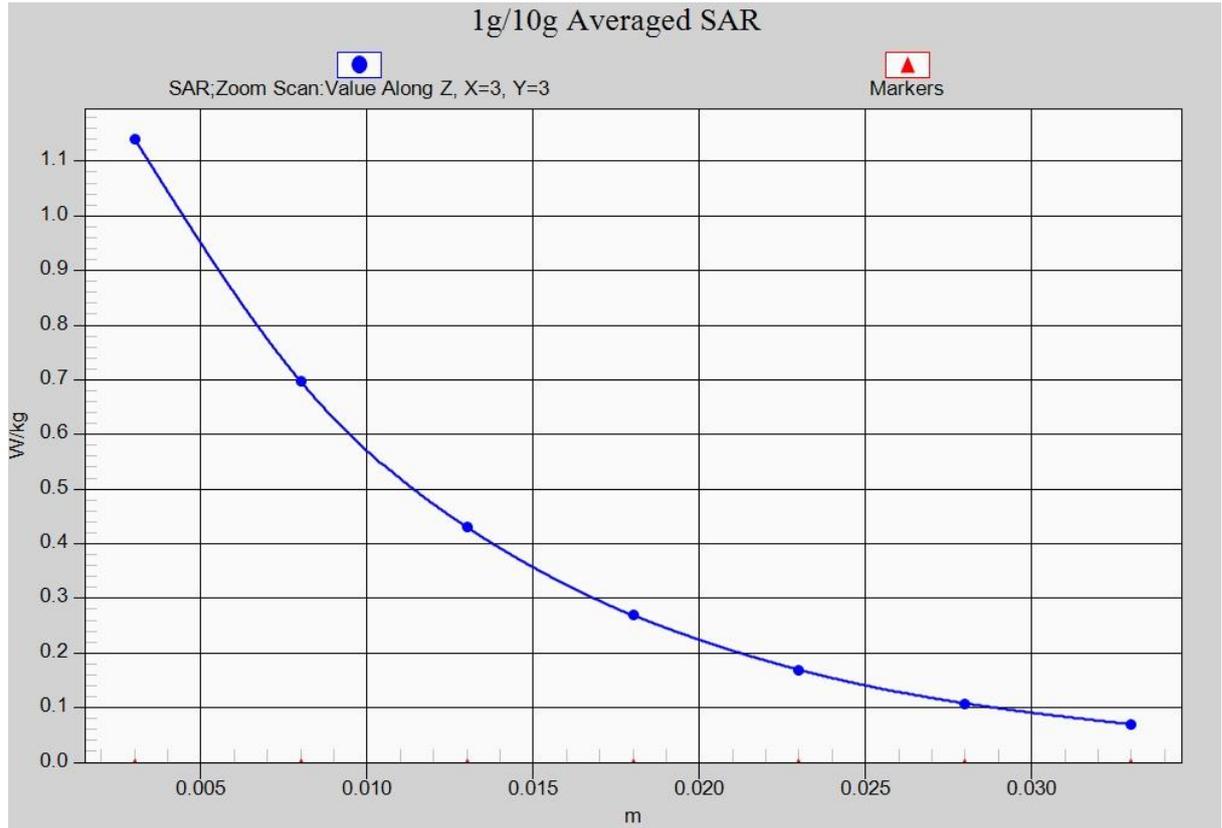


Fig. 9-1 Z-Scan at power reference point (WCDMA1700)

WCDMA 1700 Body Rear Low

Date: 2018-5-3

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/m³

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 (131x81x1): Interpolated grid: dx=1.000 mm, dy=1.000 mm

Maximum value of SAR (interpolated) = 0.671 W/kg

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

Reference Value = 7.729 V/m; Power Drift = 0.03 dB

Peak SAR (extrapolated) = 0.909 W/kg

SAR(1 g) = 0.588 W/kg; SAR(10 g) = 0.356 W/kg

Maximum value of SAR (measured) = 0.705 W/kg

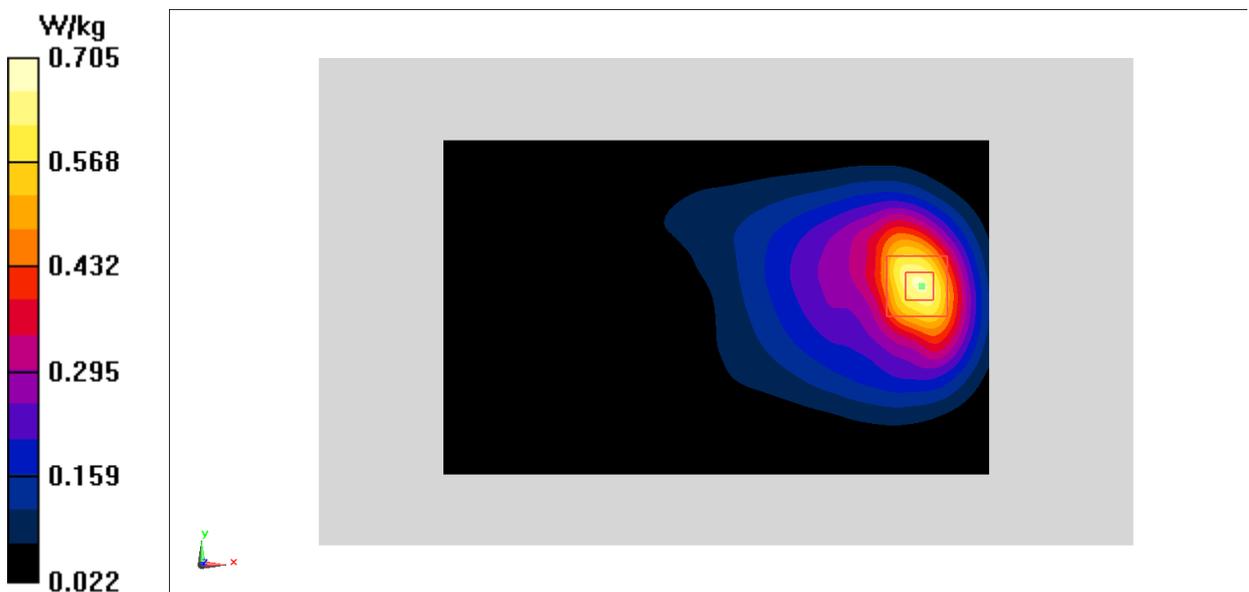


Fig.10 WCDMA1700

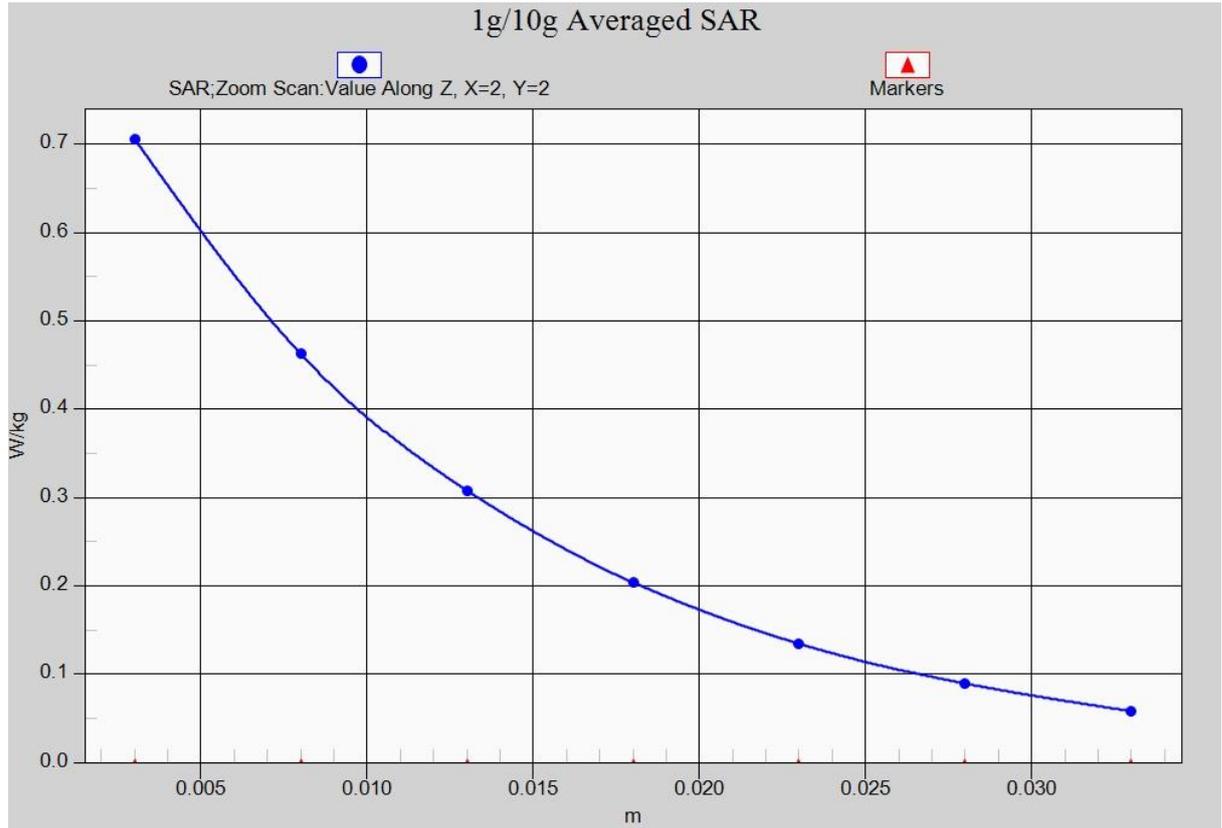


Fig. 10-1 Z-Scan at power reference point (WCDMA1700)

WCDMA 1900 Left Cheek High

Date: 2018-5-4

Electronics: DAE4 Sn1525

Medium: Head 1900 MHz

Medium parameters used (interpolated): $f = 1907.6$ MHz; $\sigma = 1.465$ mho/m; $\epsilon_r = 40.806$; $\rho = 1000$ kg/m³

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

Communication System: WCDMA 1900 Frequency: 1907.6 MHz Duty Cycle: 1:1

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

Area Scan (71x131x1): Interpolated grid: dx=1.000 mm, dy=1.000 mm

Maximum value of SAR (interpolated) = 0.202 W/kg

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

Reference Value = 4.173 V/m; Power Drift = 0.05 dB

Peak SAR (extrapolated) = 0.268 W/kg

SAR(1 g) = 0.180 W/kg; SAR(10 g) = 0.114 W/kg

Maximum value of SAR (measured) = 0.210 W/kg

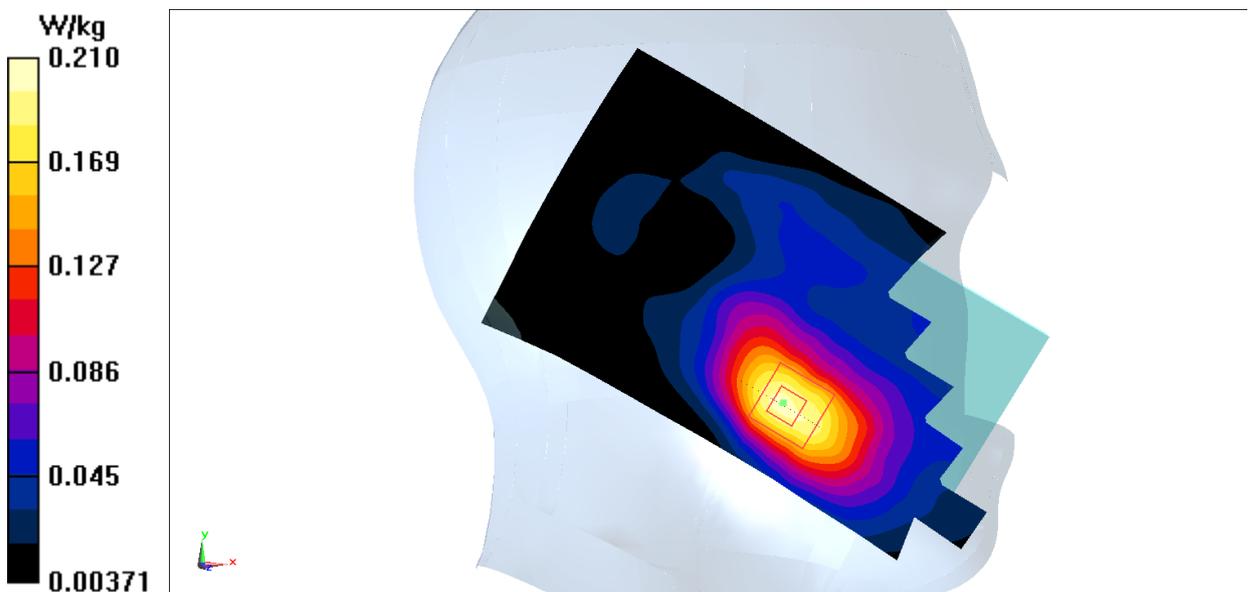


Fig.11 WCDMA1900

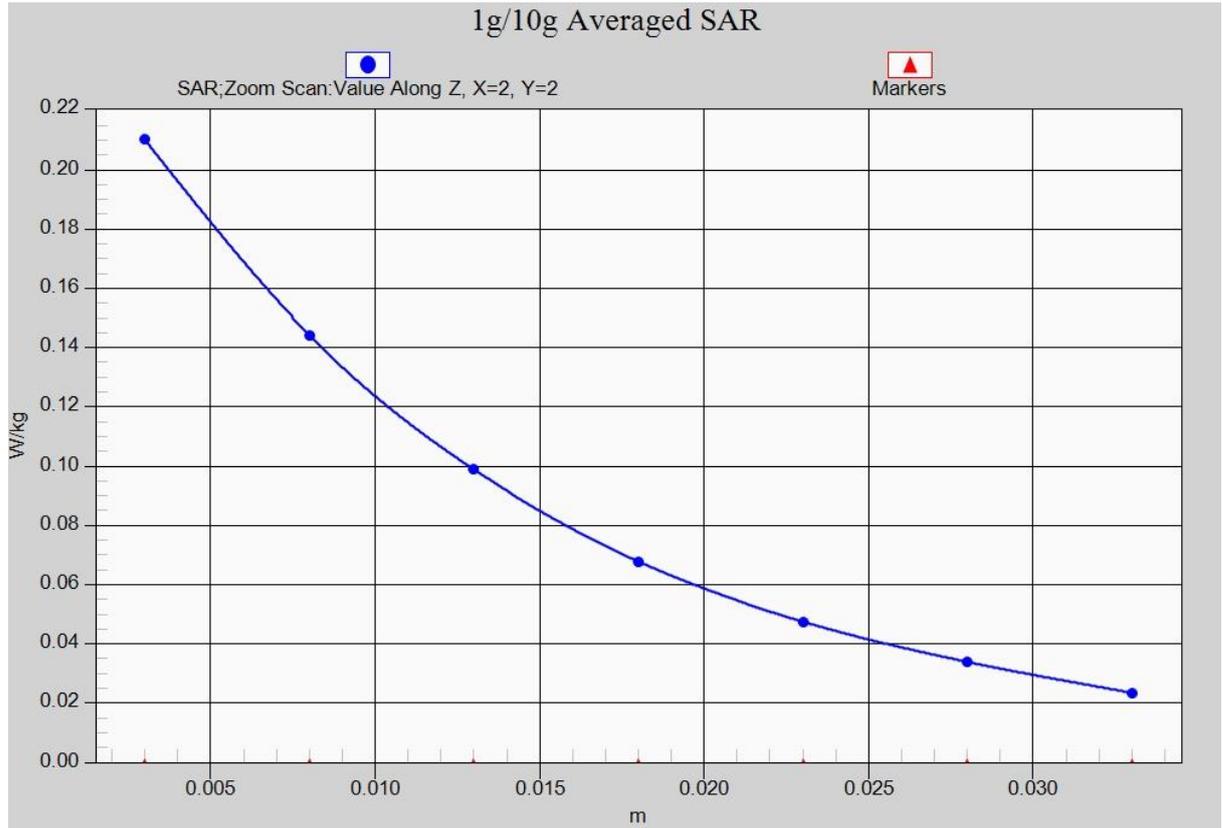


Fig. 11-1 Z-Scan at power reference point (WCDMA1900)

WCDMA 1900 Body Bottom Middle

Date: 2018-5-4

Electronics: DAE4 Sn1525

Medium: Body 1900 MHz

Medium parameters used: $f = 1880$ MHz; $\sigma = 1.561$ mho/m; $\epsilon_r = 53$; $\rho = 1000$ kg/m³

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(8.32, 8.32, 8.32)

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

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

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

Reference Value = 20.45 V/m; Power Drift = 0.03 dB

Peak SAR (extrapolated) = 1.74 W/kg

SAR(1 g) = 1.04 W/kg; SAR(10 g) = 0.617 W/kg

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

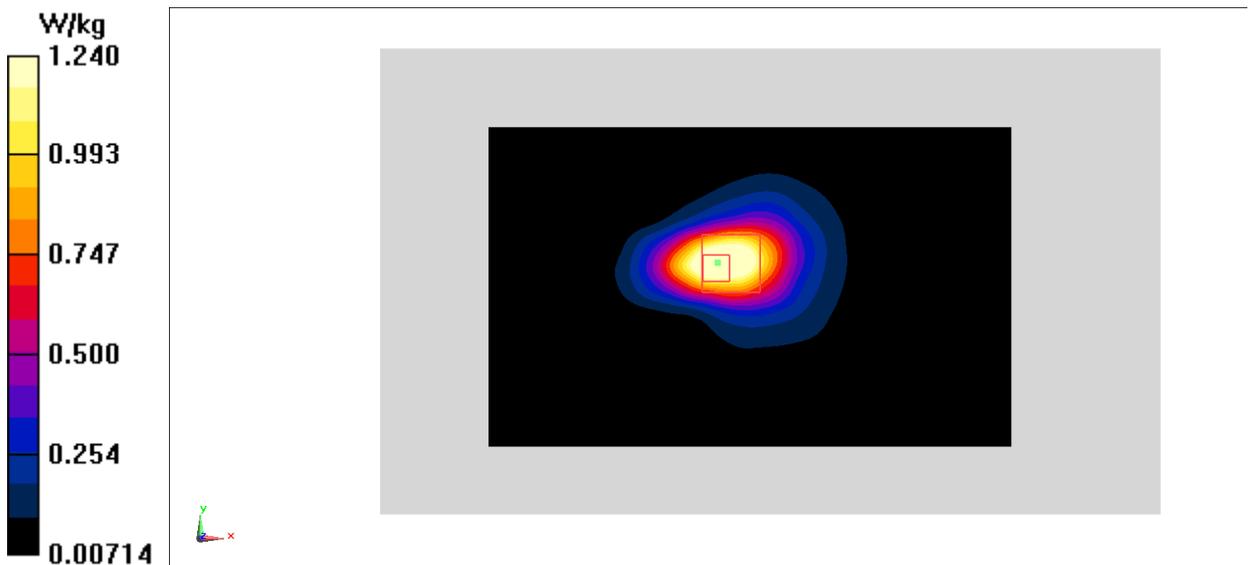


Fig.12 WCDMA1900

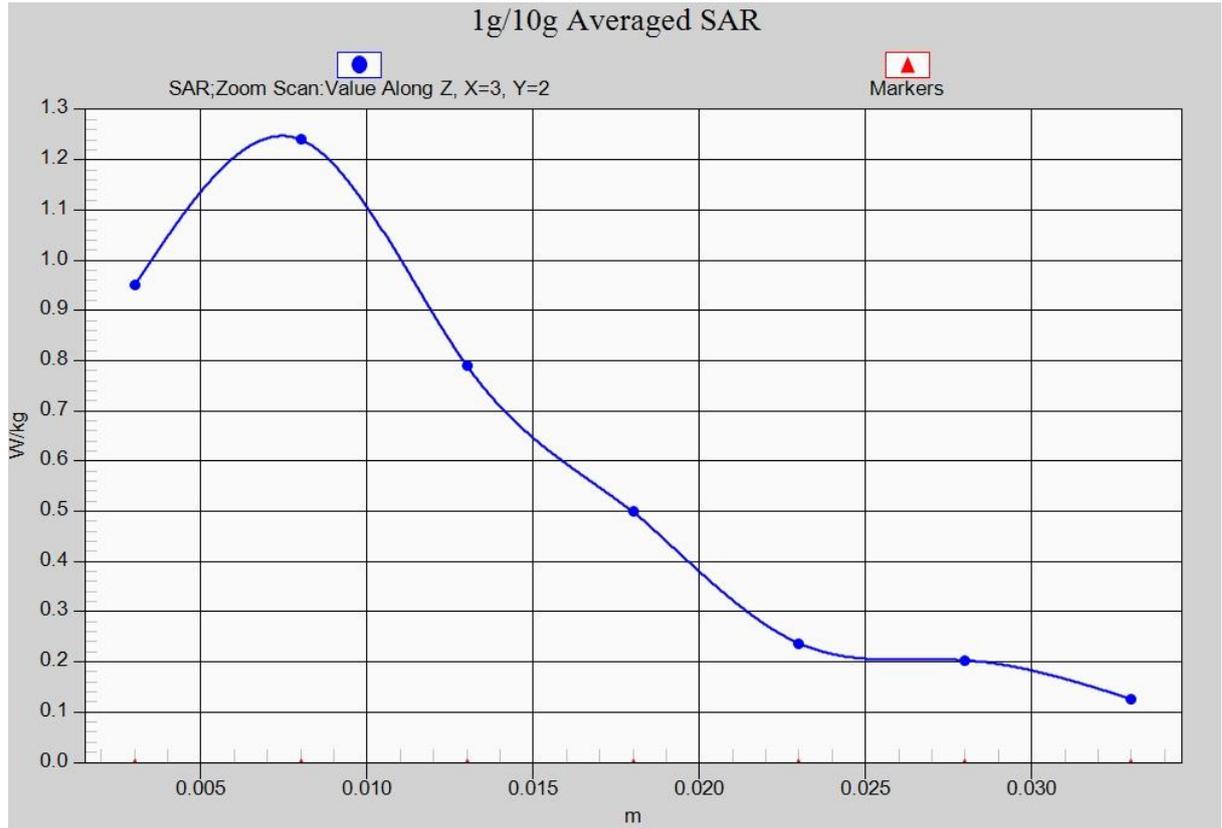


Fig. 12-1 Z-Scan at power reference point (WCDMA1900)

WCDMA 1900 Body Rear Middle

Date: 2018-5-4

Electronics: DAE4 Sn1525

Medium: Body 1900 MHz

Medium parameters used: $f = 1880$ MHz; $\sigma = 1.561$ mho/m; $\epsilon_r = 53$; $\rho = 1000$ kg/m³

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(8.32, 8.32, 8.32)

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

Maximum value of SAR (interpolated) = 0.543 W/kg

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

Reference Value = 6.421 V/m; Power Drift = 0.01 dB

Peak SAR (extrapolated) = 0.764 W/kg

SAR(1 g) = 0.472 W/kg; SAR(10 g) = 0.273 W/kg

Maximum value of SAR (measured) = 0.568 W/kg

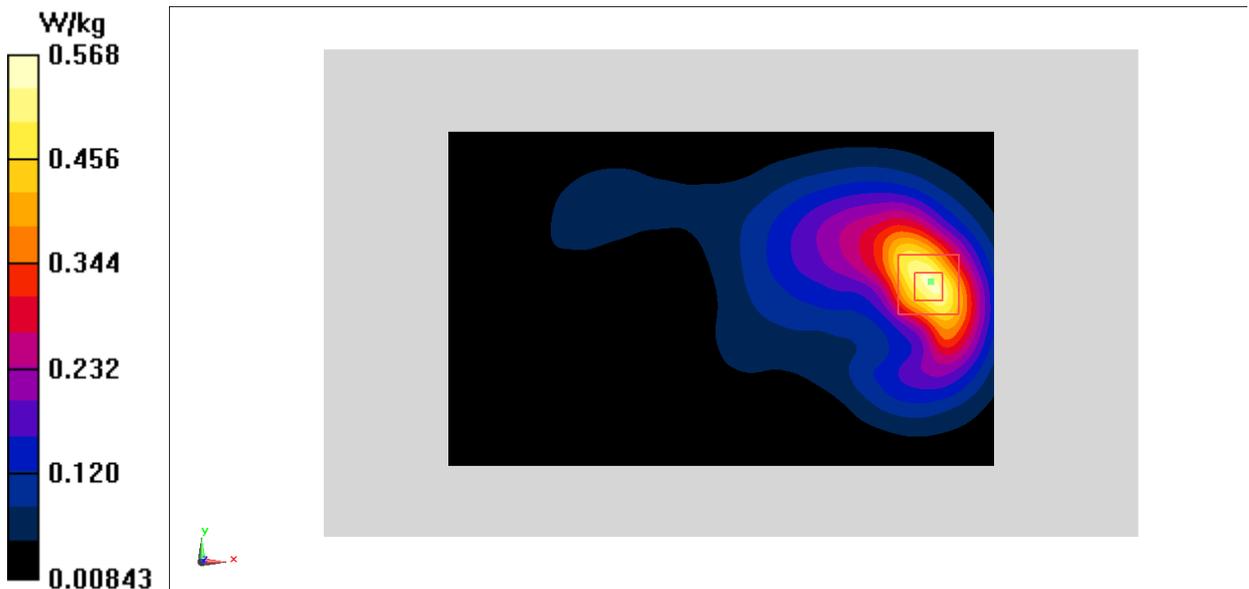


Fig.13 WCDMA1900

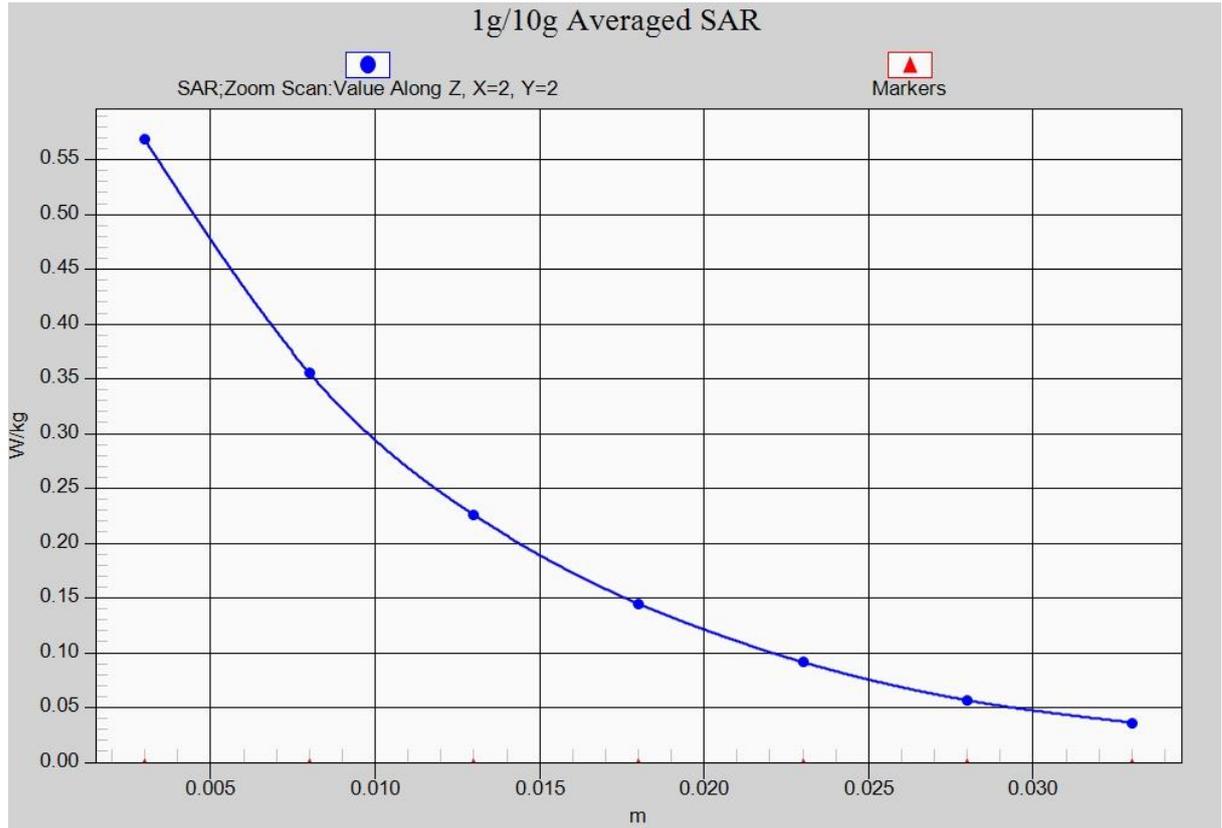


Fig. 13-1 Z-Scan at power reference point (WCDMA1900)

LTE Band2 Left Cheek Middle with QPSK_20M_1RB_Middle

Date: 2018-5-4

Electronics: DAE4 Sn1525

Medium: Head 1900 MHz

Medium parameters used: $f = 1880$ MHz; $\sigma = 1.393$ mho/m; $\epsilon_r = 40.69$; $\rho = 1000$ kg/m³

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

Communication System: LTE Band2 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) = 0.278 W/kg

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

Reference Value = 4.724 V/m; Power Drift = 0.02 dB

Peak SAR (extrapolated) = 0.369 W/kg

SAR(1 g) = 0.229 W/kg; SAR(10 g) = 0.138 W/kg

Maximum value of SAR (measured) = 0.249 W/kg

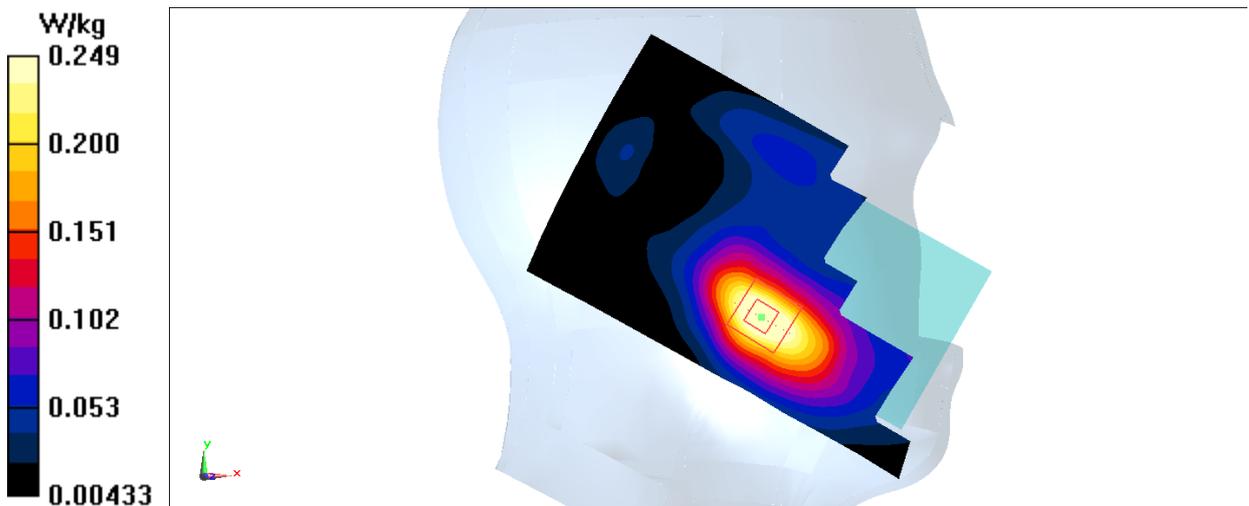


Fig.14 LTE Band2

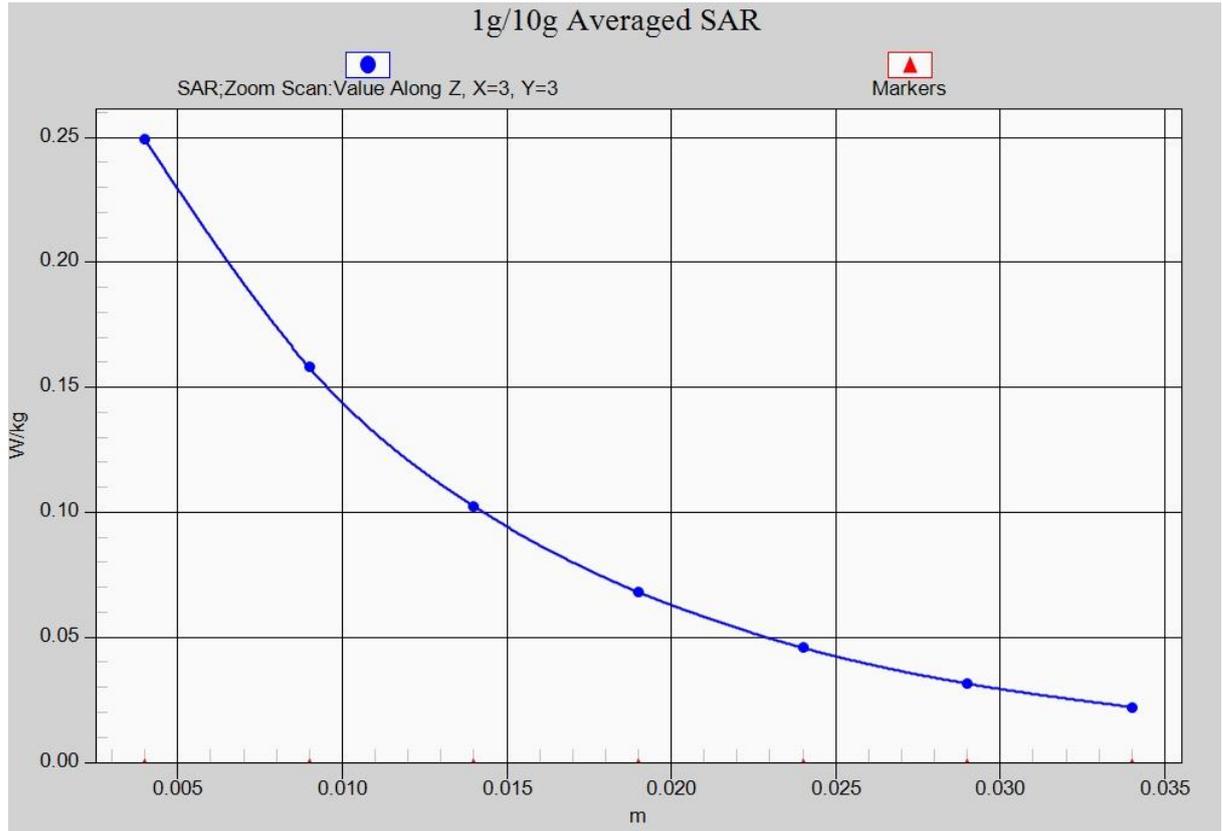


Fig. 14-1 Z-Scan at power reference point (LTE Band2)

LTE Band2 Body Bottom High with QPSK_20M_50RB_Low

Date: 2018-5-4

Electronics: DAE4 Sn1525

Medium: Body 1900 MHz

Medium parameters used: $f = 1900$ MHz; $\sigma = 1.507$ mho/m; $\epsilon_r = 52.71$; $\rho = 1000$ kg/m³

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

Communication System: LTE Band2 Frequency: 1900 MHz Duty Cycle: 1:1

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

Area Scan (121x71x1): Interpolated grid: $dx=1.000$ mm, $dy=1.000$ mm

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

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

Reference Value = 27.42 V/m; Power Drift = 0.04 dB

Peak SAR (extrapolated) = 1.90 W/kg

SAR(1 g) = 1.1 W/kg; SAR(10 g) = 0.587 W/kg

Maximum value of SAR (measured) = 1.36 W/kg

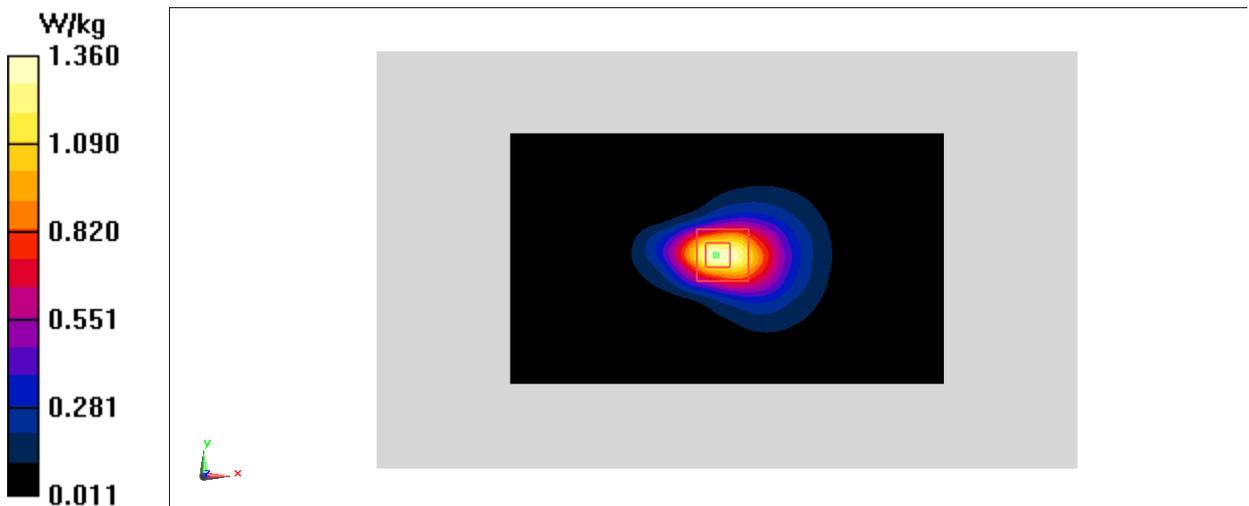


Fig.15 LTE Band2

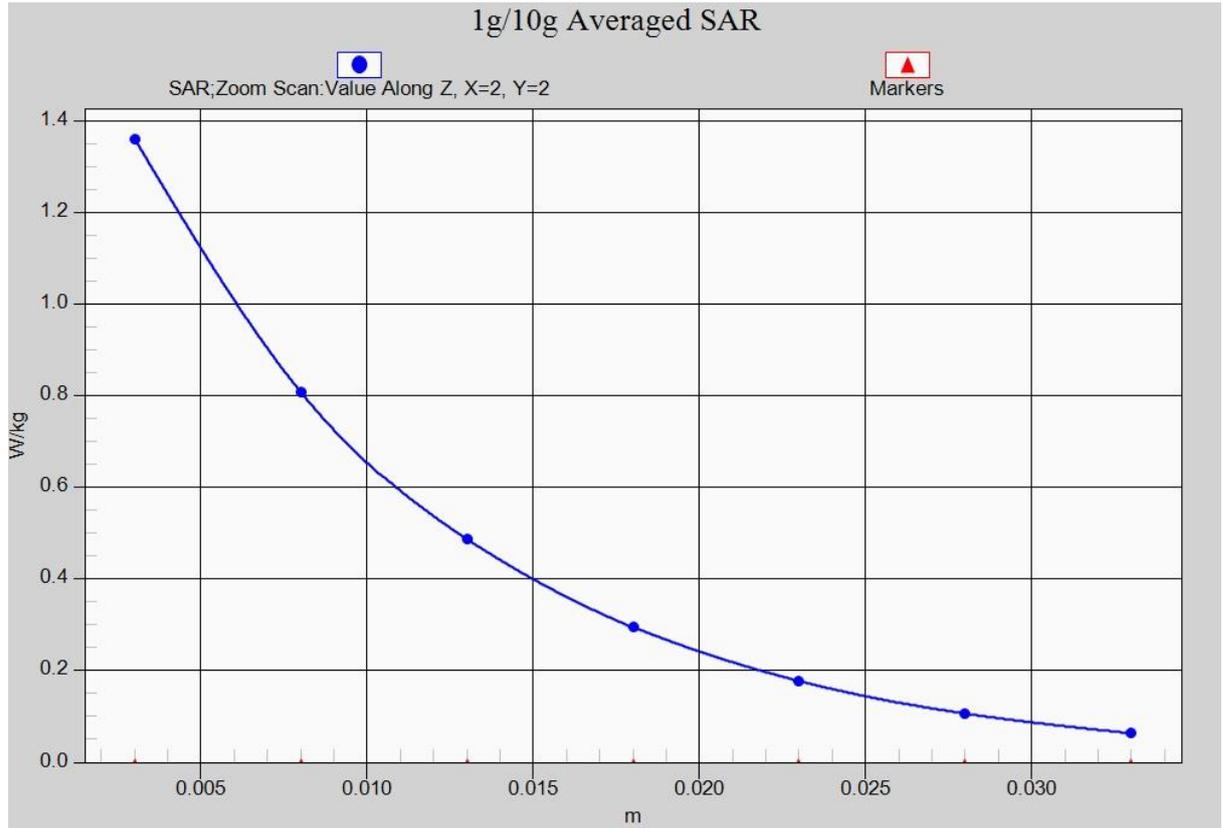


Fig. 15-1 Z-Scan at power reference point (LTE Band2)

LTE Band2 Body Rear Middle with QPSK_20M_1RB_Middle

Date: 2018-5-4

Electronics: DAE4 Sn1525

Medium: Body 1900 MHz

Medium parameters used: $f = 1880$ MHz; $\sigma = 1.488$ mho/m; $\epsilon_r = 52.77$; $\rho = 1000$ kg/m³

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

Communication System: LTE Band2 Frequency: 1880 MHz Duty Cycle: 1:1

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

Area Scan (71x131x1): Interpolated grid: dx=1.000 mm, dy=1.000 mm

Maximum value of SAR (interpolated) = 0.577 W/kg

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

Reference Value = 6.458 V/m; Power Drift = 0.16 dB

Peak SAR (extrapolated) = 0.794 W/kg

SAR(1 g) = 0.491 W/kg; SAR(10 g) = 0.281 W/kg

Maximum value of SAR (measured) = 0.537 W/kg

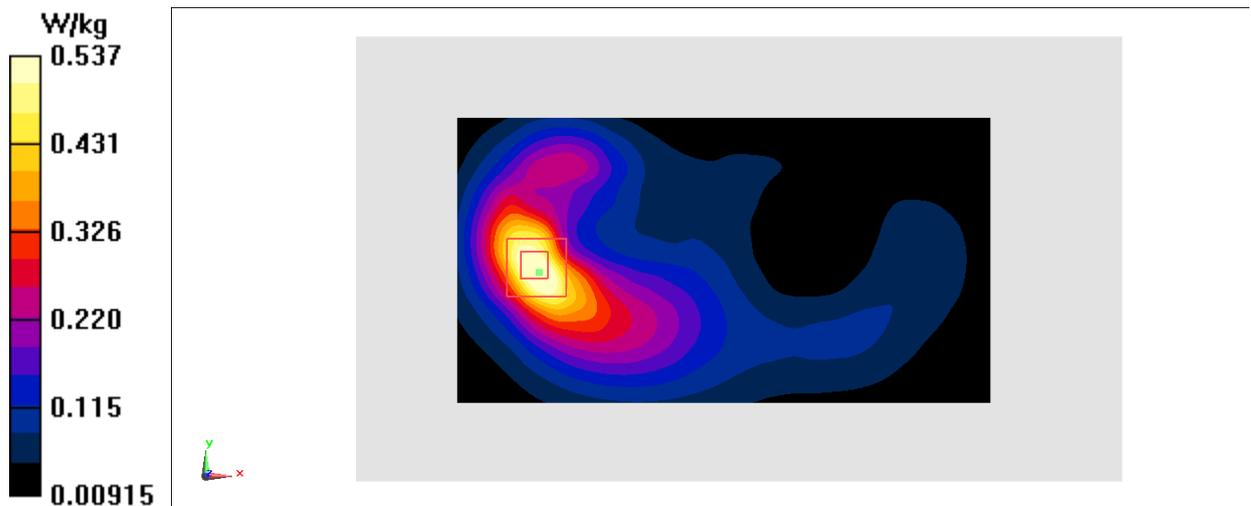


Fig.16 LTE Band2

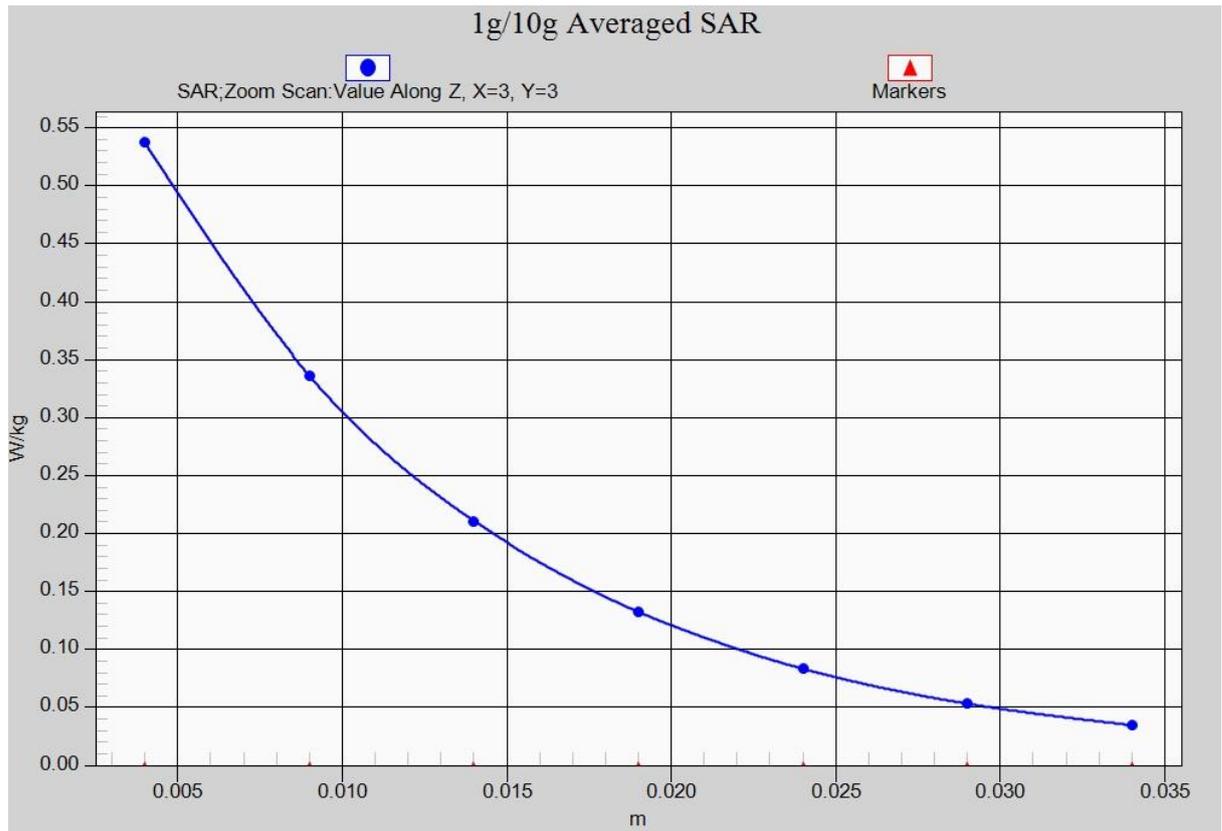


Fig. 16-1 Z-Scan at power reference point (LTE Band2)

LTE Band5 Right Cheek High with QPSK_10M_1RB_High

Date: 2018-5-2

Electronics: DAE4 Sn1525

Medium: Head 850 MHz

Medium parameters used (interpolated): $f = 844$ MHz; $\sigma = 0.918$ mho/m; $\epsilon_r = 41.631$; $\rho = 1000$ kg/m³

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

Communication System: LTE Band5 Frequency: 844 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) = 0.237 W/kg

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

Reference Value = 3.418 V/m; Power Drift = 0.04 dB

Peak SAR (extrapolated) = 0.266 W/kg

SAR(1 g) = 0.216 W/kg; SAR(10 g) = 0.167 W/kg

Maximum value of SAR (measured) = 0.226 W/kg

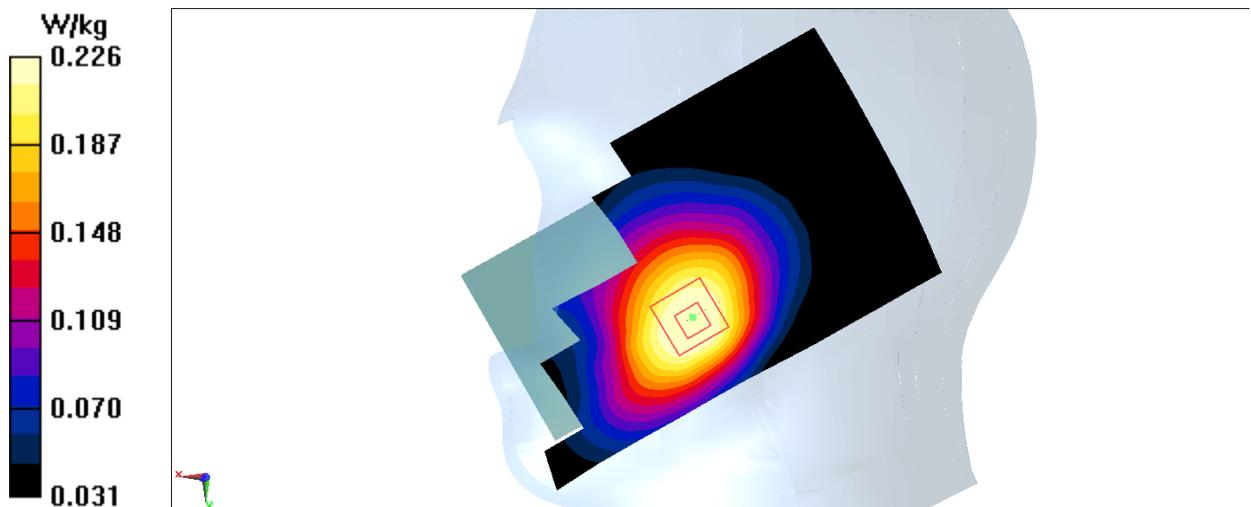


Fig.17 LTE Band5

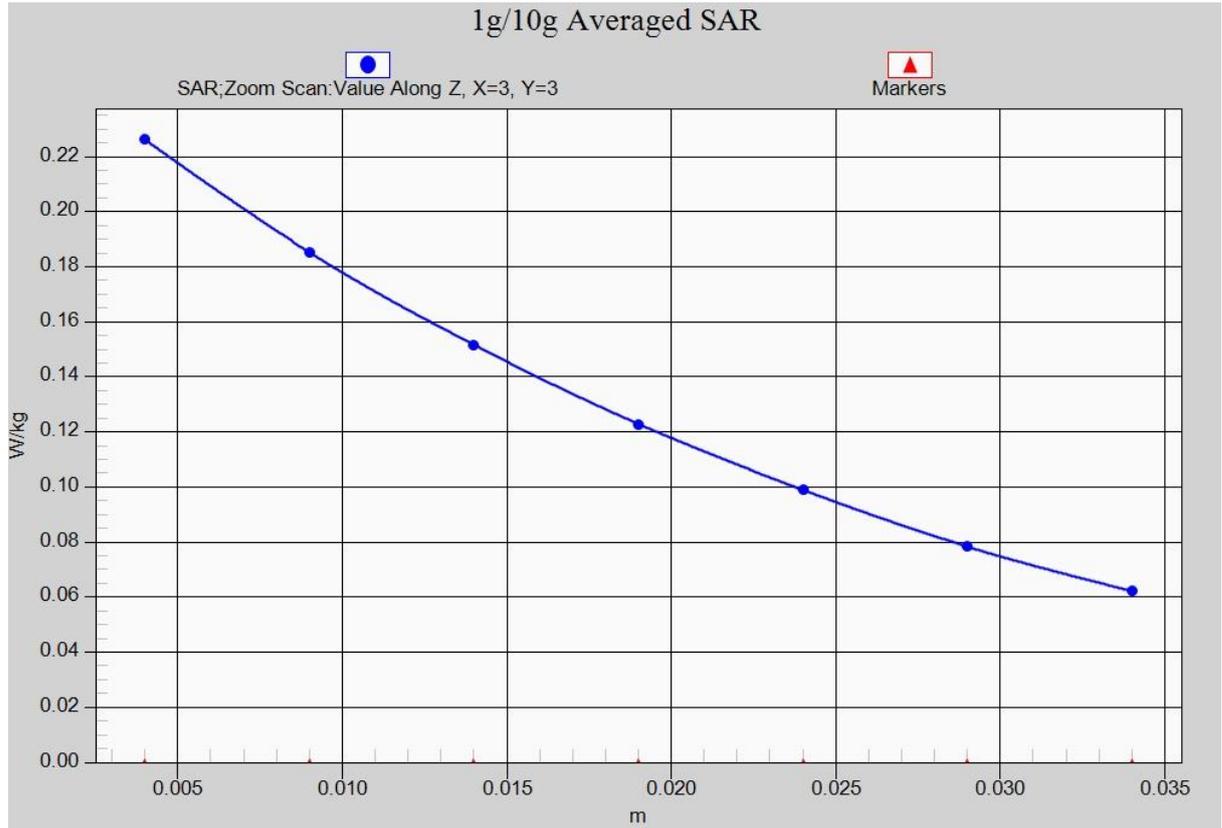


Fig. 17-1 Z-Scan at power reference point (LTE Band5)

LTE Band5 Body Rear High with QPSK_10M_1RB_High

Date: 2018-5-2

Electronics: DAE4 Sn1525

Medium: Body 850 MHz

Medium parameters used (interpolated): $f = 844$ MHz; $\sigma = 1.016$ mho/m; $\epsilon_r = 55.534$; $\rho = 1000$ kg/m³

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

Communication System: LTE Band5 Frequency: 844 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) = 0.435 W/kg

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

Reference Value = 14.27 V/m; Power Drift = -0.01 dB

Peak SAR (extrapolated) = 0.531 W/kg

SAR(1 g) = 0.386 W/kg; SAR(10 g) = 0.272 W/kg

Maximum value of SAR (measured) = 0.408 W/kg

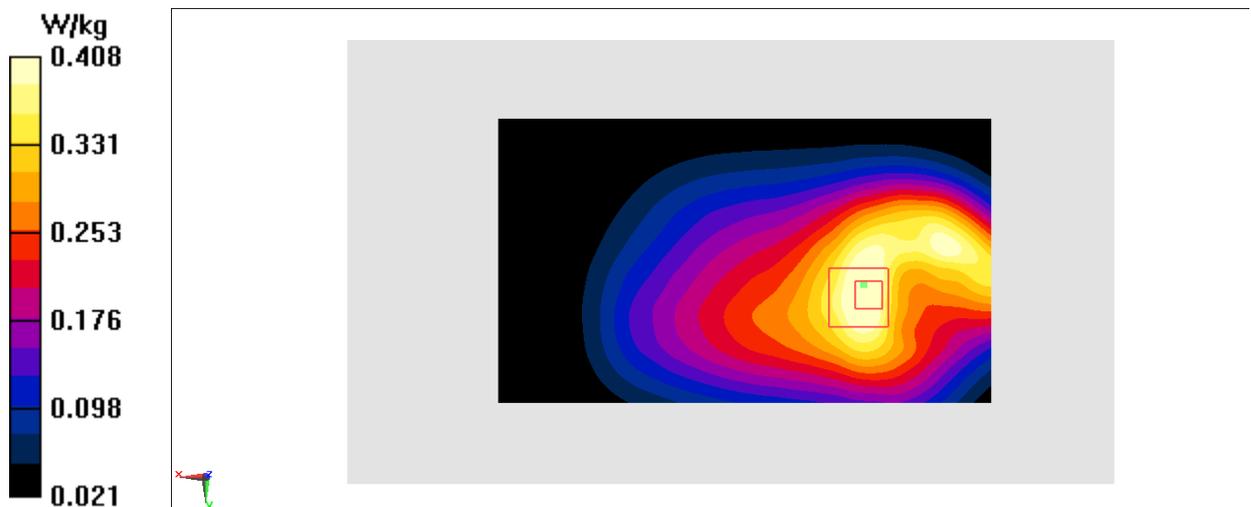


Fig.18 LTE Band5

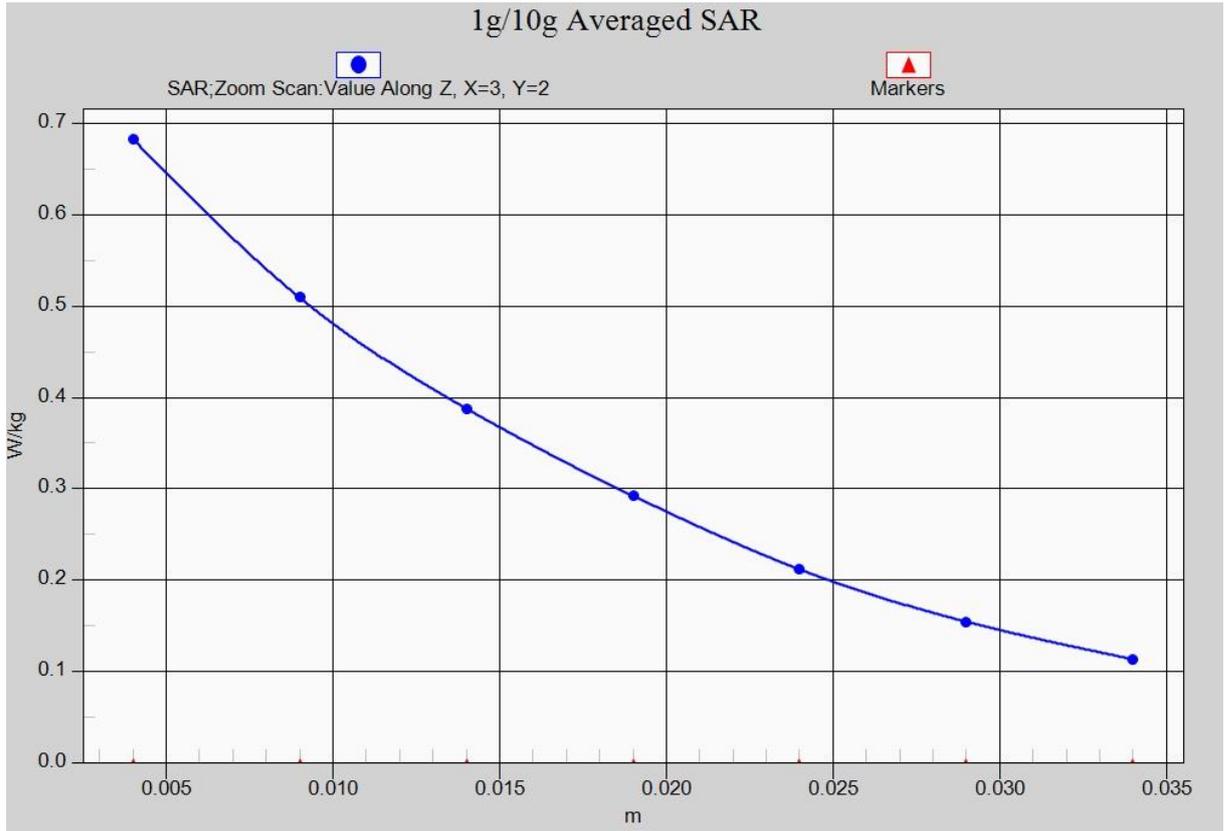


Fig. 18-1 Z-Scan at power reference point (LTE Band5)

LTE Band7 Left Cheek Low with QPSK_20M_1RB_Low

Date: 2018-5-5

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/m³

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 (91x161x1): Interpolated grid: dx=1.000 mm, dy=1.000 mm

Maximum value of SAR (interpolated) = 0.211 W/kg

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

Reference Value = 2.859 V/m; Power Drift = -0.09 dB

Peak SAR (extrapolated) = 0.335 W/kg

SAR(1 g) = 0.169 W/kg; SAR(10 g) = 0.086 W/kg

Maximum value of SAR (measured) = 0.189 W/kg

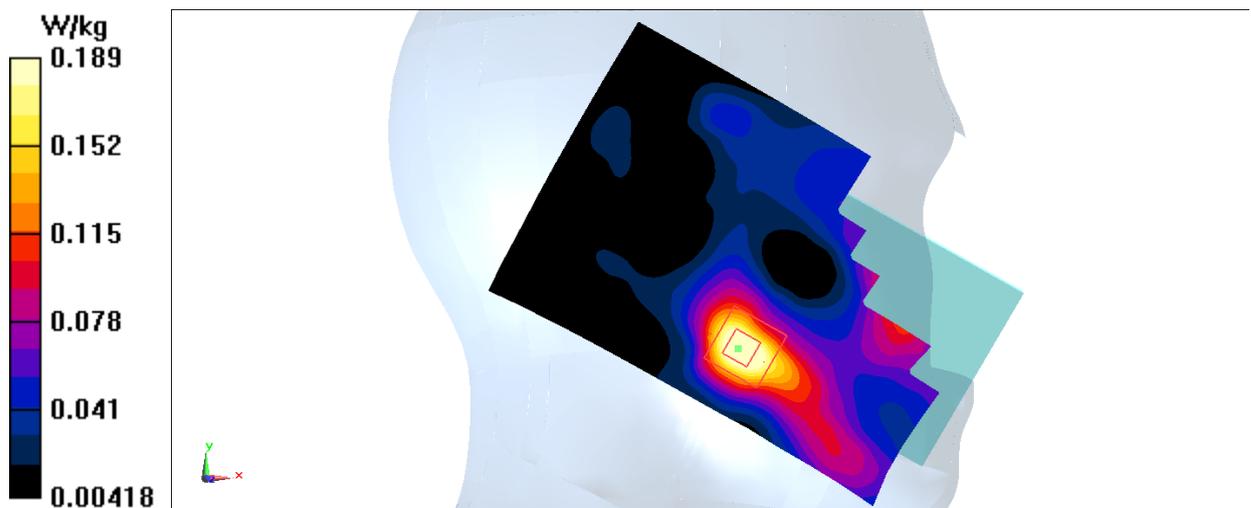


Fig.19 LTE Band7

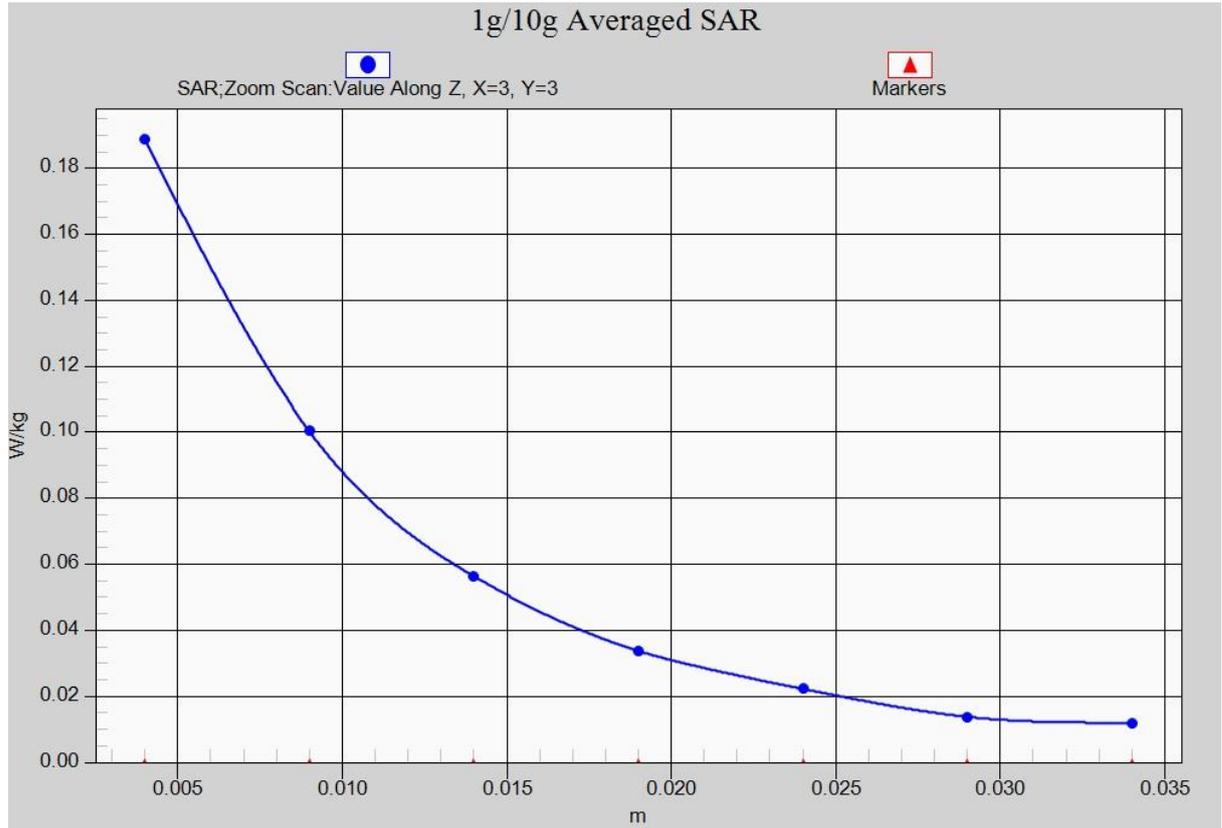


Fig. 19-1 Z-Scan at power reference point (LTE Band7)

LTE Band7 Body Bottom High with QPSK_20M_1RB_Middle

Date: 2018-5-5

Electronics: DAE4 Sn1525

Medium: Body 2600 MHz

Medium parameters used: $f = 2560$ MHz; $\sigma = 2.143$ mho/m; $\epsilon_r = 51.68$; $\rho = 1000$ kg/m³

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

Communication System: LTE Band7 Frequency: 2560 MHz Duty Cycle: 1:1

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

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

Maximum value of SAR (interpolated) = 1.35 W/kg

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

Reference Value = 22.32 V/m; Power Drift = 0.11 dB

Peak SAR (extrapolated) = 2.06 W/kg

SAR(1 g) = 1.08 W/kg; SAR(10 g) = 0.515 W/kg

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

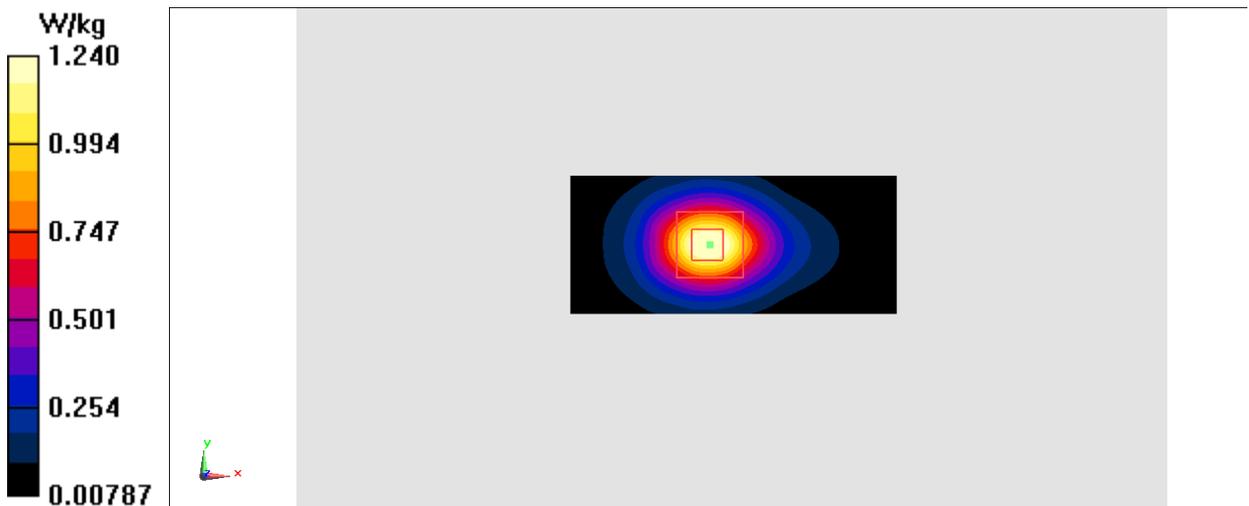


Fig.20 LTE Band7

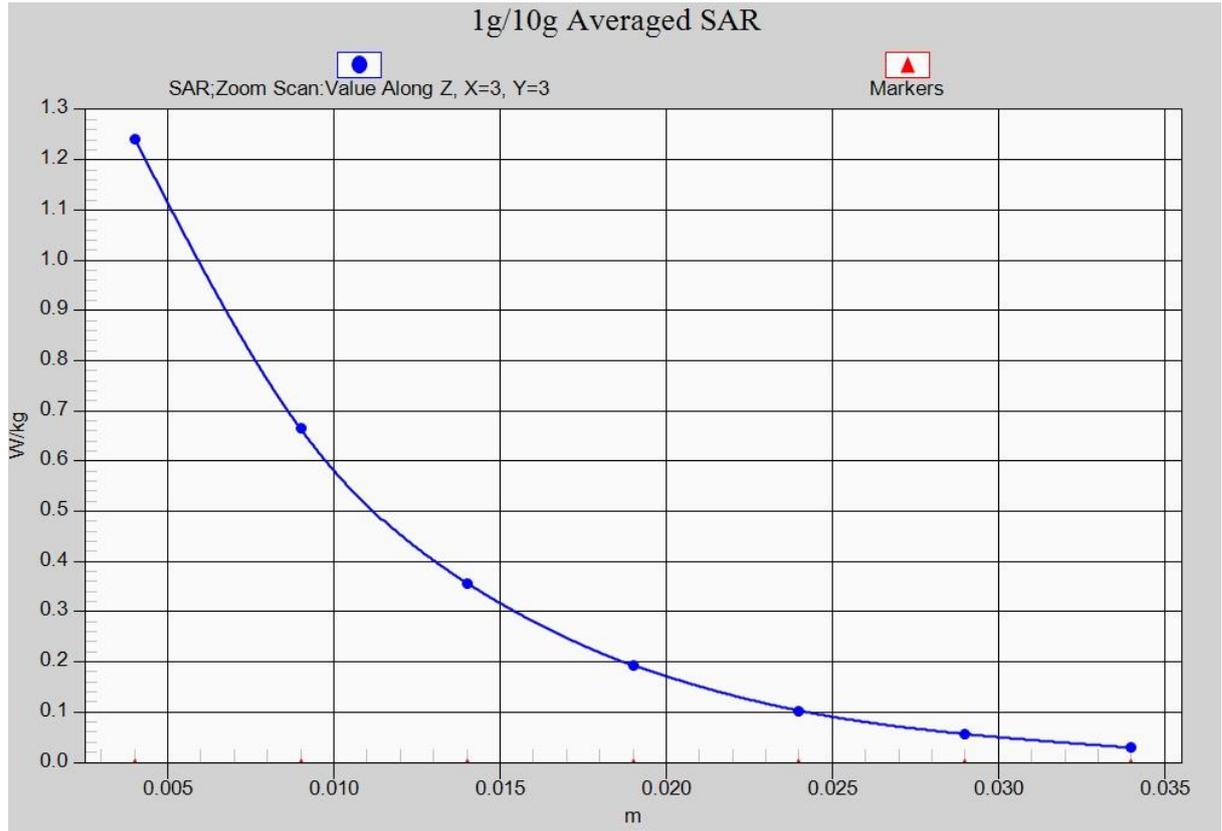


Fig. 20-1 Z-Scan at power reference point (LTE Band7)

LTE Band7 Body Rear Low with QPSK_20M_1RB_Low

Date: 2018-5-5

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/m³

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 (71x131x1): Interpolated grid: dx=1.000 mm, dy=1.000 mm

Maximum value of SAR (interpolated) = 0.511 W/kg

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

Reference Value = 4.737 V/m; Power Drift = 0.01 dB

Peak SAR (extrapolated) = 0.717 W/kg

SAR(1 g) = 0.422 W/kg; SAR(10 g) = 0.240 W/kg

Maximum value of SAR (measured) = 0.462 W/kg

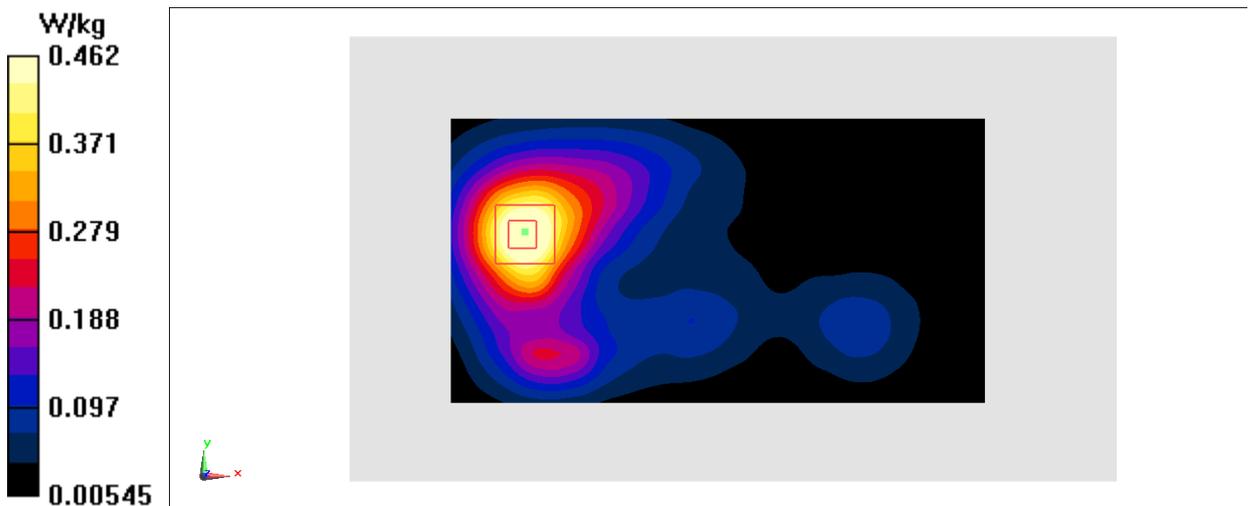


Fig.21 LTE Band7

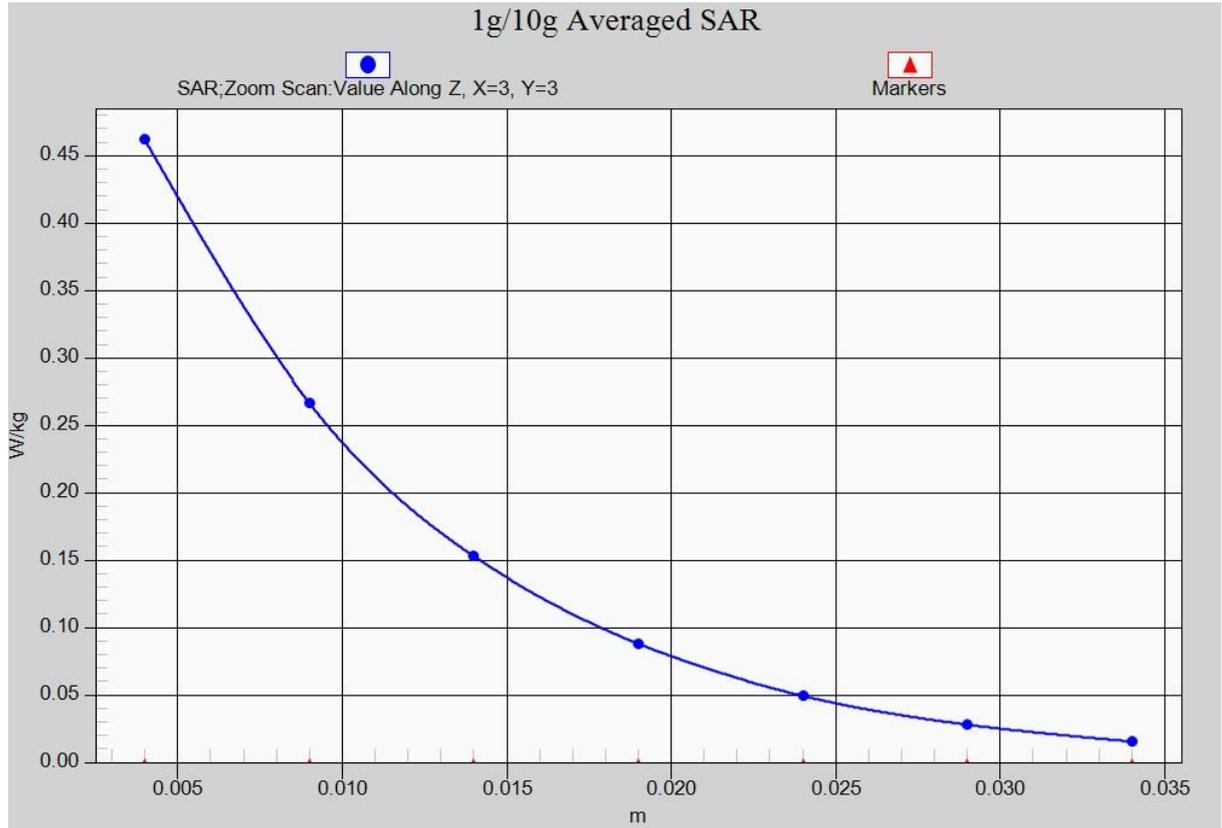


Fig. 21-1 Z-Scan at power reference point (LTE Band7)

LTE Band12 Right Cheek Low with QPSK_10M_1RB_High

Date: 2018-5-1

Electronics: DAE4 Sn1525

Medium: Head 750 MHz

Medium parameters used (interpolated): $f = 704$ MHz; $\sigma = 0.856$ mho/m; $\epsilon_r = 42.34$; $\rho = 1000$ kg/m³

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

Communication System: LTE Band12 Frequency: 704 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) = 0.166 W/kg

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

Reference Value = 5.422 V/m; Power Drift = 0.00 dB

Peak SAR (extrapolated) = 0.181 W/kg

SAR(1 g) = 0.152 W/kg; SAR(10 g) = 0.121 W/kg

Maximum value of SAR (measured) = 0.158 W/kg

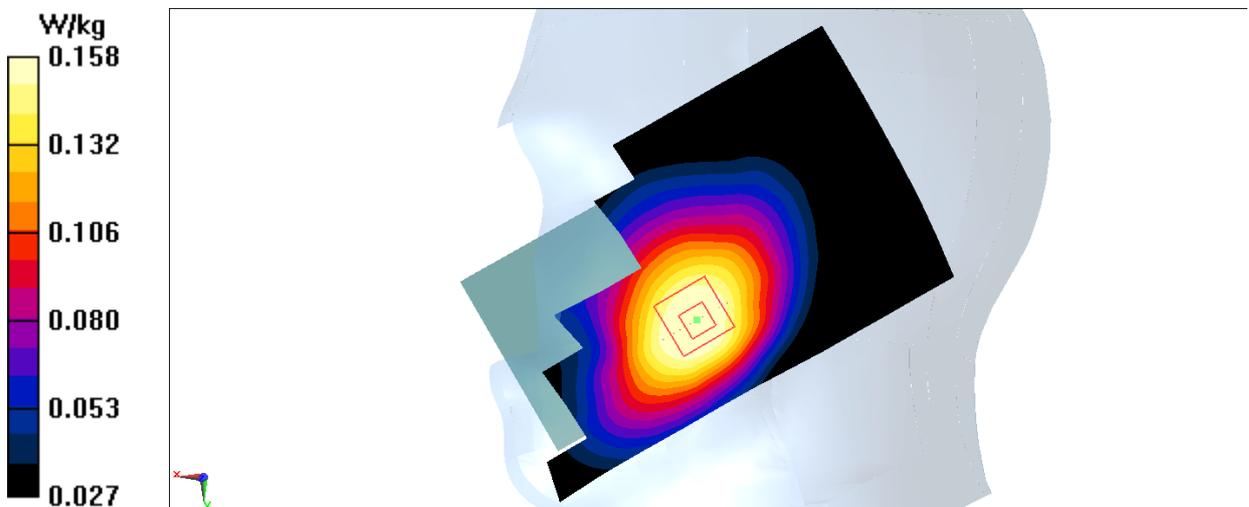


Fig.22 LTE Band12

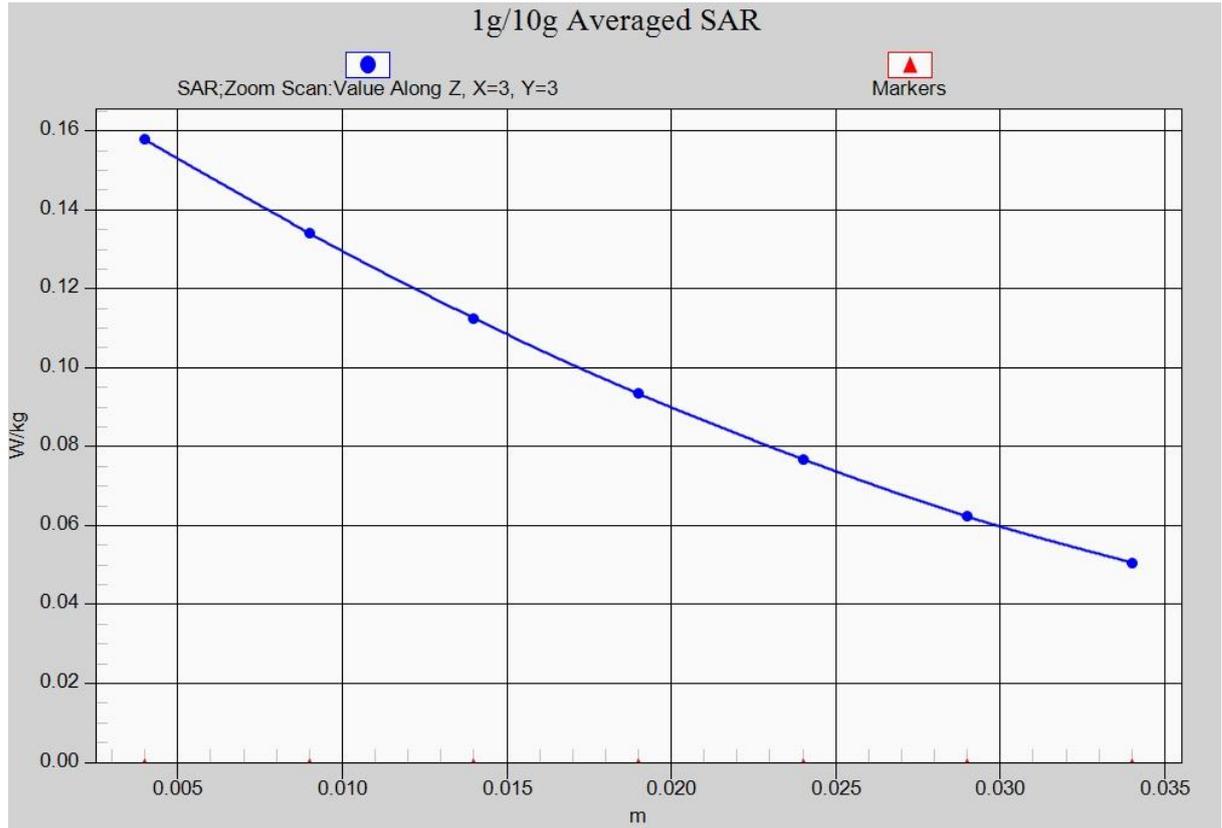


Fig. 22-1 Z-Scan at power reference point (LTE Band12)

LTE Band12 Body Rear Low with QPSK_10M_1RB_High

Date: 2018-5-1

Electronics: DAE4 Sn1525

Medium: Body750 MHz

Medium parameters used (interpolated): $f = 704$ MHz; $\sigma = 0.931$ mho/m; $\epsilon_r = 56.51$; $\rho = 1000$ kg/m³

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

Communication System: LTE Band12 Frequency: 704 MHz Duty Cycle: 1:1

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

Area Scan (71x131x1): Interpolated grid: dx=1.000 mm, dy=1.000 mm

Maximum value of SAR (interpolated) = 0.417 W/kg

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

Reference Value = 16.63 V/m; Power Drift = 0.00 dB

Peak SAR (extrapolated) = 0.522 W/kg

SAR(1 g) = 0.378 W/kg; SAR(10 g) = 0.272 W/kg

Maximum value of SAR (measured) = 0.399 W/kg

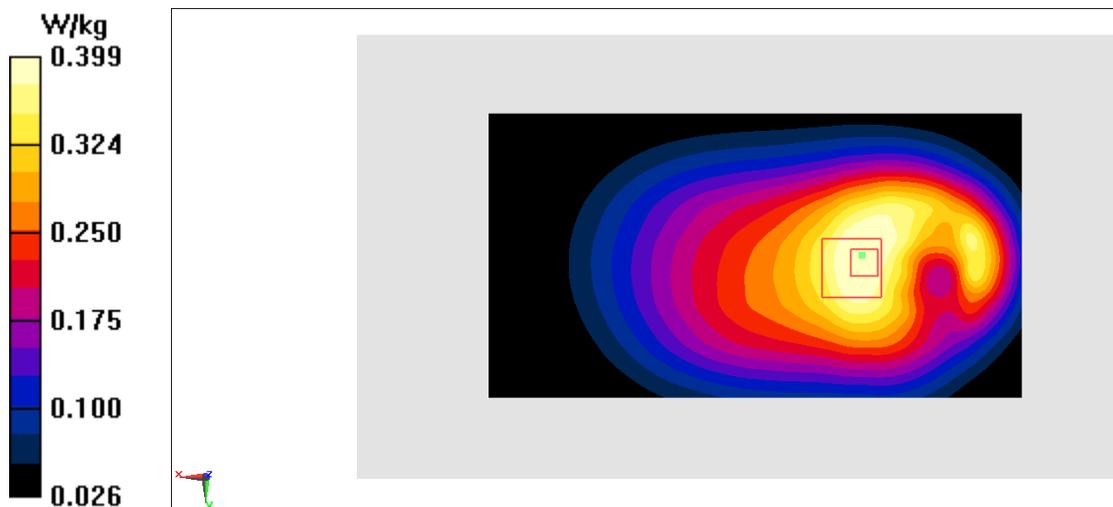


Fig.23 LTE Band12

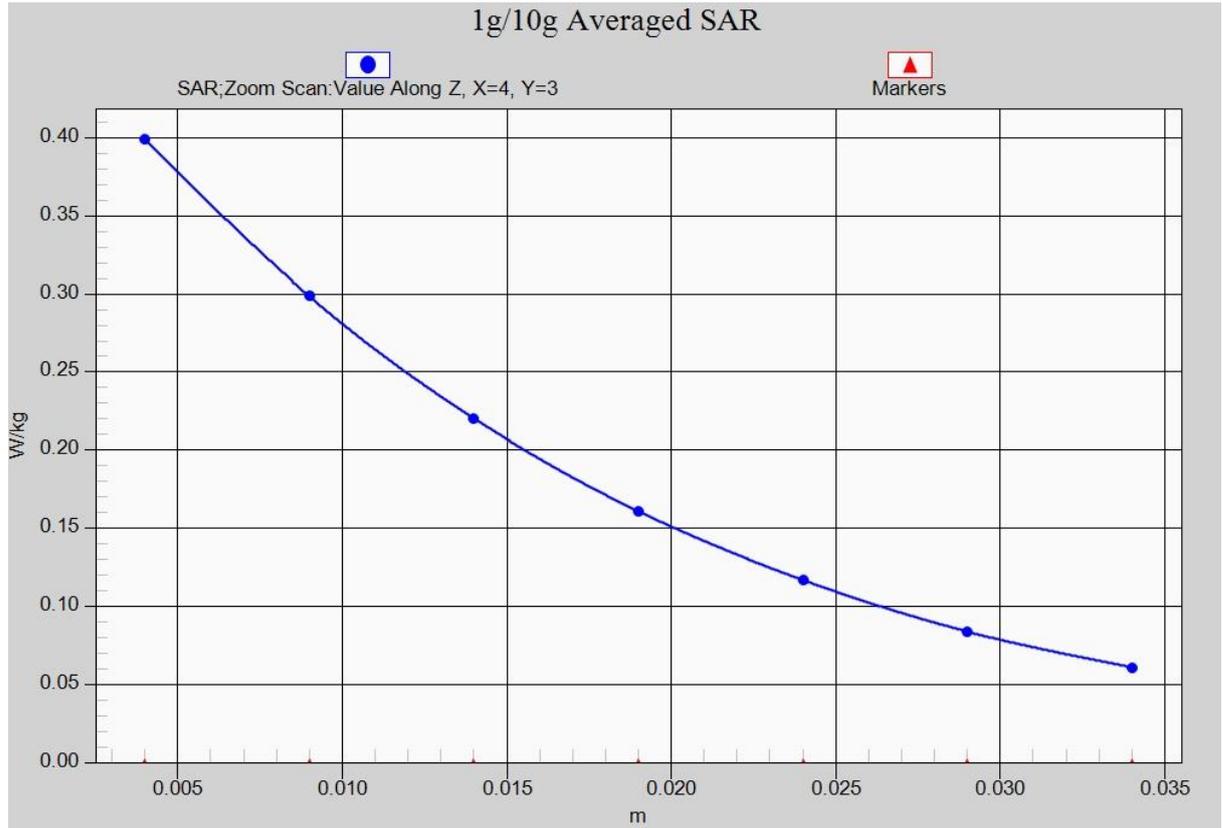


Fig. 23-1 Z-Scan at power reference point (LTE Band12)

LTE Band13 Right Cheek with QPSK_10M_1RB_Low

Date: 2018-5-1

Electronics: DAE4 Sn1525

Medium: Head 750 MHz

Medium parameters used (interpolated): $f = 782$ MHz; $\sigma = 0.899$ mho/m; $\epsilon_r = 42.28$; $\rho = 1000$ kg/m³

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

Communication System: LTE Band13 Frequency: 782 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) = 0.213 W/kg

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

Reference Value = 5.482 V/m; Power Drift = 0.01 dB

Peak SAR (extrapolated) = 0.242 W/kg

SAR(1 g) = 0.197 W/kg; SAR(10 g) = 0.155 W/kg

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

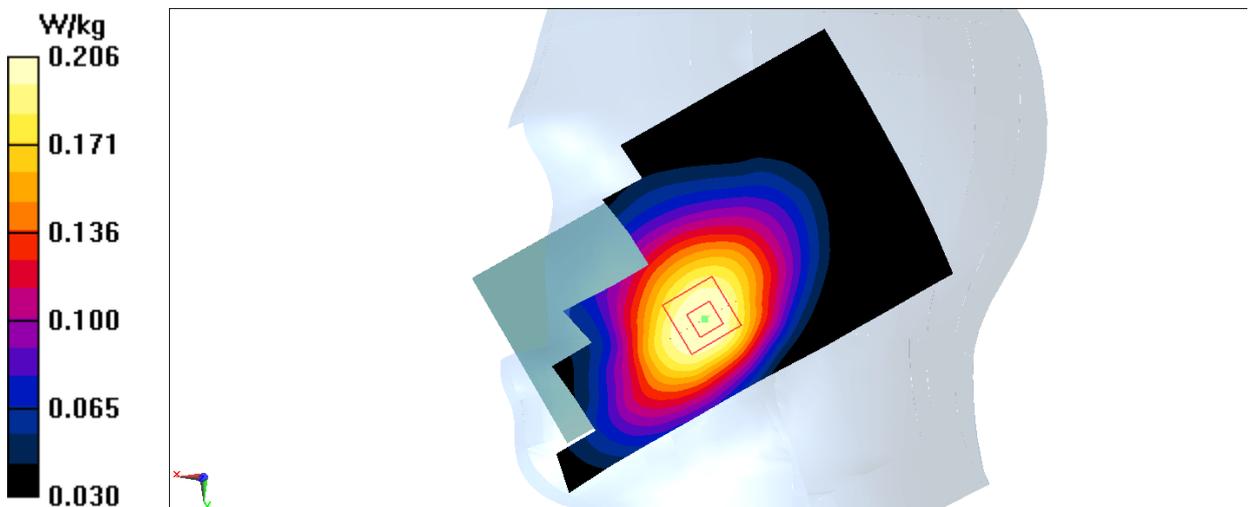


Fig.24 LTE Band13