

## 12. SAR Test Data

GSM850

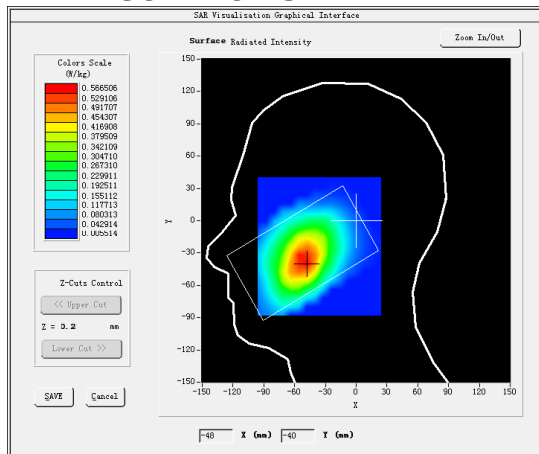
### MEASUREMENT 1

Middle Band SAR (Channel 190)

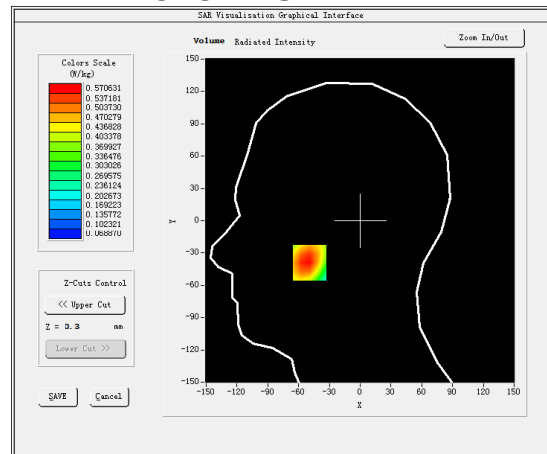
Date: 03/10/2020

|                                        |                                                                     |
|----------------------------------------|---------------------------------------------------------------------|
| Frequency (MHz)                        | 836.600000                                                          |
| Relative permittivity (real part)      | 41.422883                                                           |
| Relative permittivity (imaginary part) | 18.129634                                                           |
| Conductivity (S/m)                     | 0.867241                                                            |
| Variation (%)                          | 3.240000                                                            |
| Crest Factor:                          | 8.3                                                                 |
| Probe Conversion factor                | 5.50                                                                |
| E-Field Probe:                         | SSE2 (SN 41/18 EP331)                                               |
| Area Scan                              | dx=8mm dy=8mm, h= 5.00 mm                                           |
| ZoomScan                               | 5x5x7, dx=8mm dy=8mm<br>dz=5mm, Complete/ndx=8mm dy=8mm, h= 5.00 mm |
| Phantom                                | Left head                                                           |
| Device Position                        | Cheek                                                               |
| Band                                   | GSM850(voice)                                                       |

#### SURFACE SAR



#### VOLUME SAR



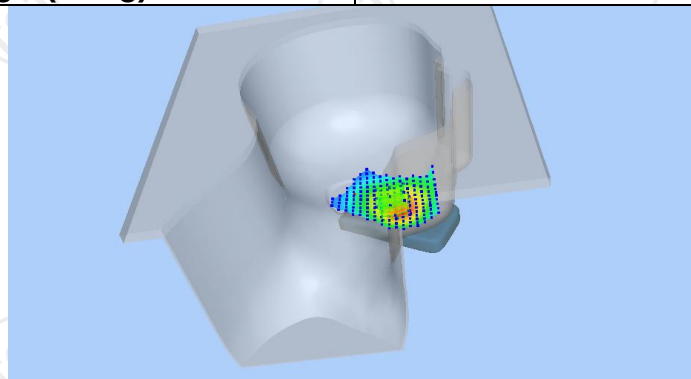
Maximum location: X=-49.00, Y=-39.00 SAR Peak: 0.75 W/kg

SAR 10g (W/Kg)

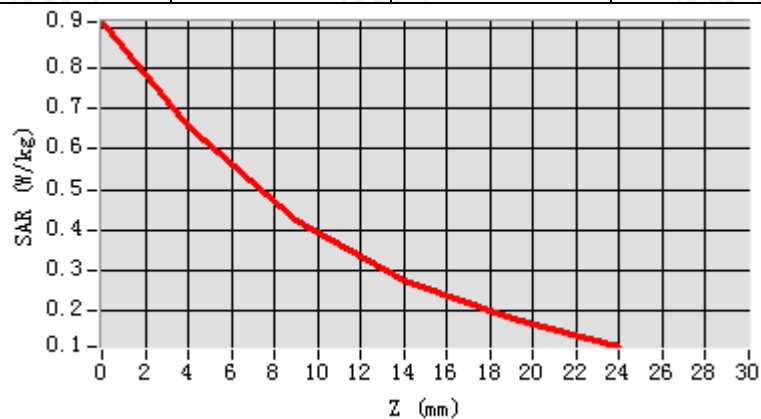
0.384282

SAR 1g (W/Kg)

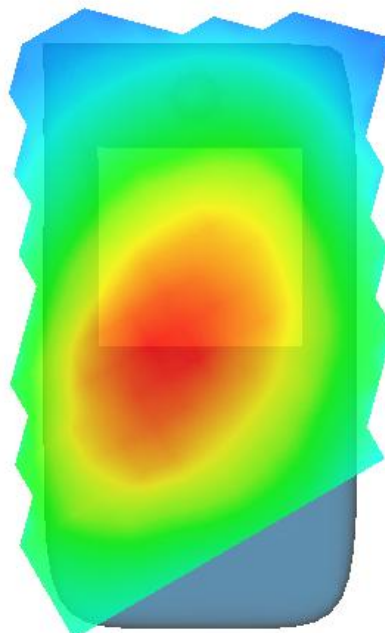
0.551701



| Z (mm)     | 0.00   | 4.00   | 9.00   | 14.00  | 19.00  |
|------------|--------|--------|--------|--------|--------|
| SAR (W/Kg) | 0.9139 | 0.6546 | 0.4255 | 0.2757 | 0.1792 |



Hot spot position



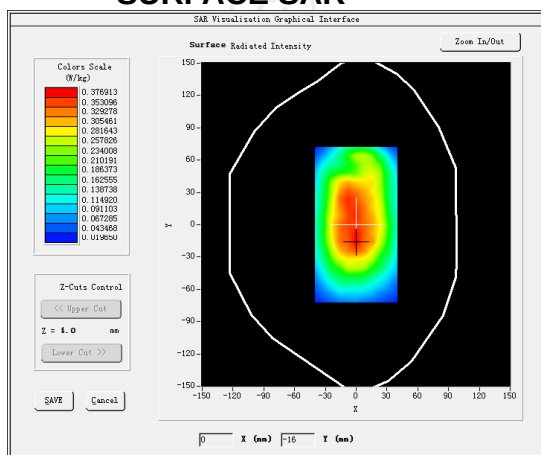
## MEASUREMENT 2

Middle Band SAR (Channel 190):

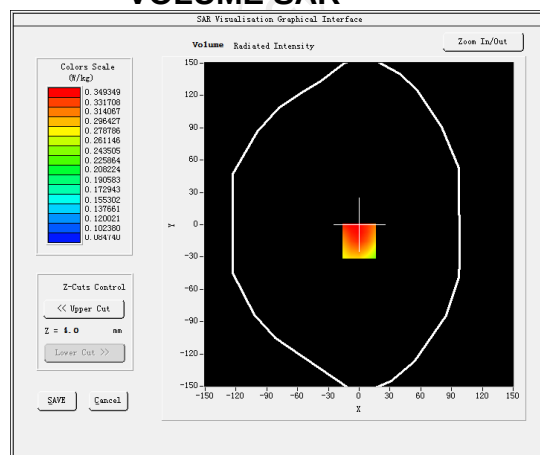
Date: 03/10/2020

|                                        |                                                                     |
|----------------------------------------|---------------------------------------------------------------------|
| Frequency (MHz)                        | 836.600000                                                          |
| Relative permittivity (real part)      | 55.242927                                                           |
| Relative permittivity (imaginary part) | 21.378266                                                           |
| Conductivity (S/m)                     | 0.941230                                                            |
| Variation (%)                          | -4.600000                                                           |
| Crest Factor:                          | 8.3                                                                 |
| Probe Conversion factor                | 5.65                                                                |
| E-Field Probe:                         | SSE2 (SN 41/18 EP331)                                               |
| Area Scan                              | dx=8mm dy=8mm, h= 5.00 mm                                           |
| ZoomScan                               | 5x5x7, dx=8mm dy=8mm<br>dz=5mm, Complete/ndx=8mm dy=8mm, h= 5.00 mm |
| Phantom                                | Validation plane                                                    |
| Device Position                        | Body back(10mm)                                                     |
| Band                                   | GSM850(Voice)                                                       |

### SURFACE SAR



### VOLUME SAR



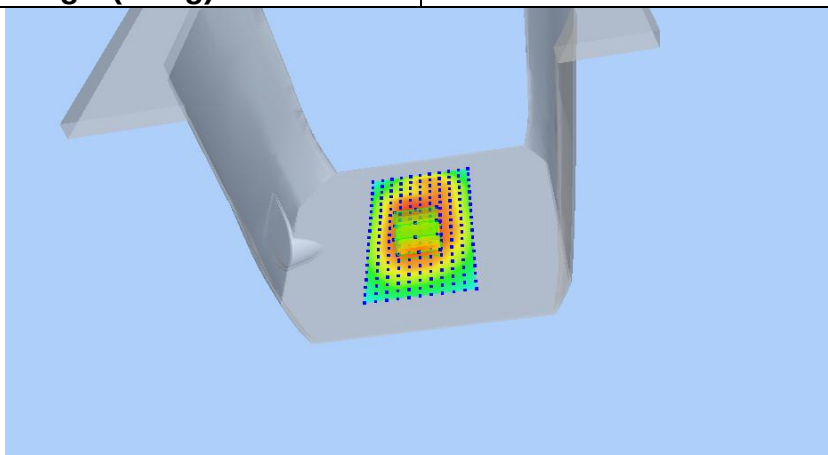
Maximum location: X=0.00, Y=-15.00 SAR Peak: 0.43 W/kg

SAR 10g (W/Kg)

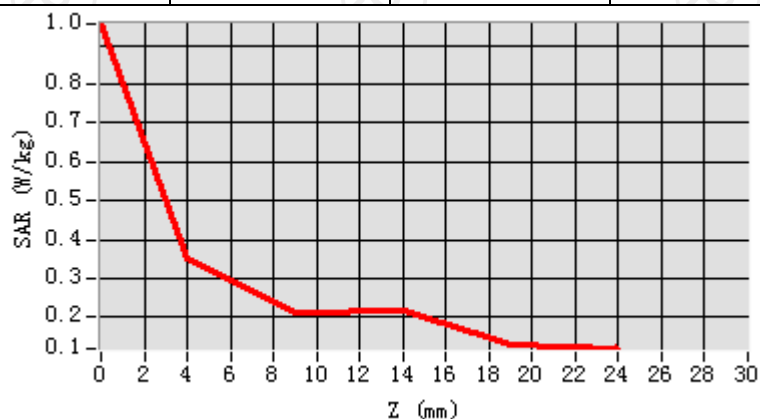
0.259375

SAR 1g (W/Kg)

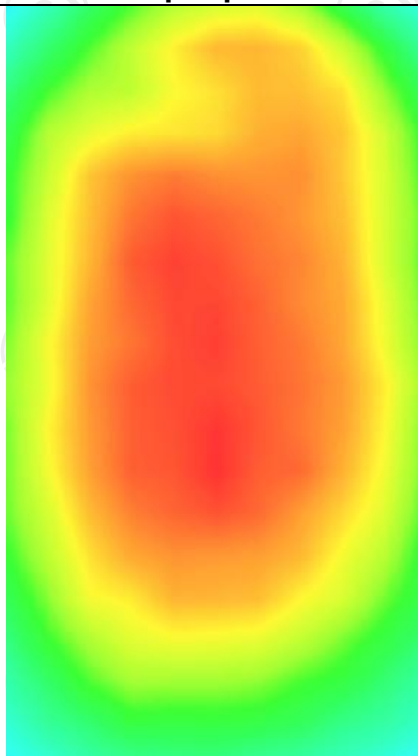
0.339121



| Z (mm)     | 0.00   | 4.00   | 9.00   | 14.00  | 19.00  |
|------------|--------|--------|--------|--------|--------|
| SAR (W/Kg) | 0.9547 | 0.3493 | 0.2145 | 0.2163 | 0.1300 |



Hot spot position



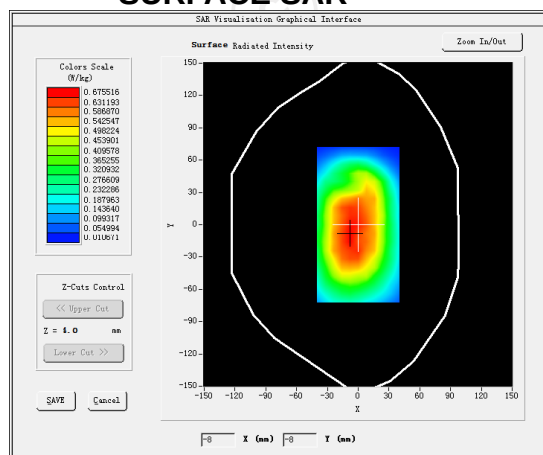
## MEASUREMENT 3

Middle Band SAR (Channel 190):

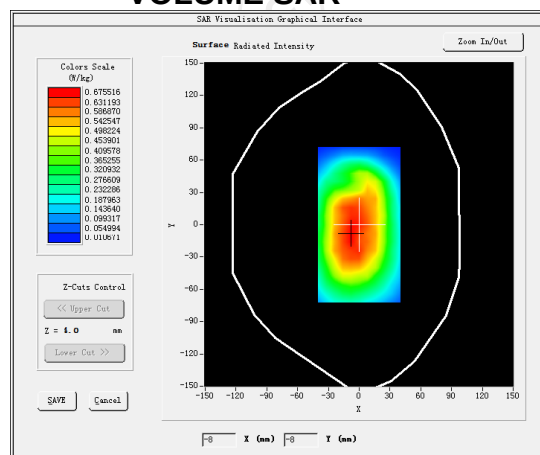
Date: 03/10/2020

|                                        |                                                                     |
|----------------------------------------|---------------------------------------------------------------------|
| Frequency (MHz)                        | 836.600000                                                          |
| Relative permittivity (real part)      | 55.242927                                                           |
| Relative permittivity (imaginary part) | 21.378266                                                           |
| Conductivity (S/m)                     | 0.941230                                                            |
| Variation (%)                          | 0.200000                                                            |
| Crest Factor:                          | 2.0                                                                 |
| Probe Conversion factor                | 5.65                                                                |
| E-Field Probe:                         | SSE2 (SN 41/18 EP331)                                               |
| Area Scan                              | dx=8mm dy=8mm, h= 5.00 mm                                           |
| ZoomScan                               | 5x5x7, dx=8mm dy=8mm<br>dz=5mm, Complete/ndx=8mm dy=8mm, h= 5.00 mm |
| Phantom                                | Validation plane                                                    |
| Device Position                        | Body back(10mm)                                                     |
| Band                                   | GSM850(GPRS 4slot)                                                  |

### SURFACE SAR



### VOLUME SAR



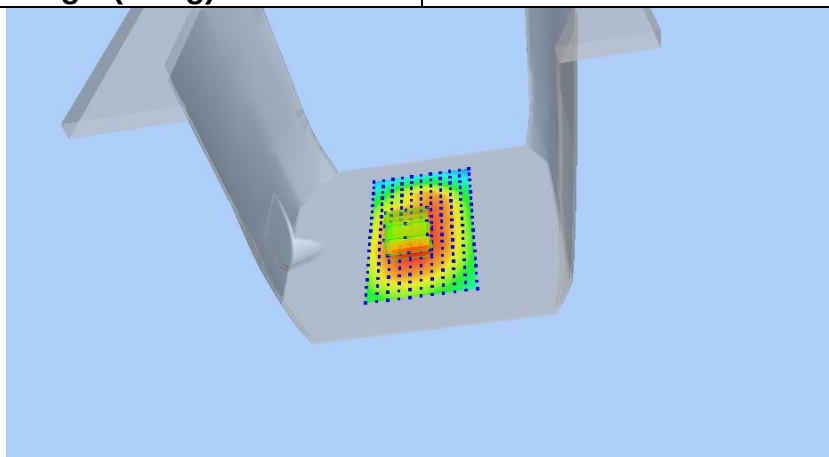
Maximum location: X=-8.00, Y=-14.00 SAR Peak: 0.84 W/kg

SAR 10g (W/Kg)

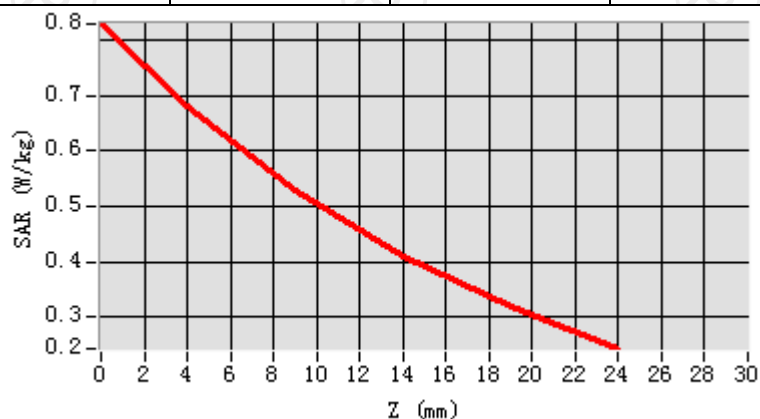
0.494016

SAR 1g (W/Kg)

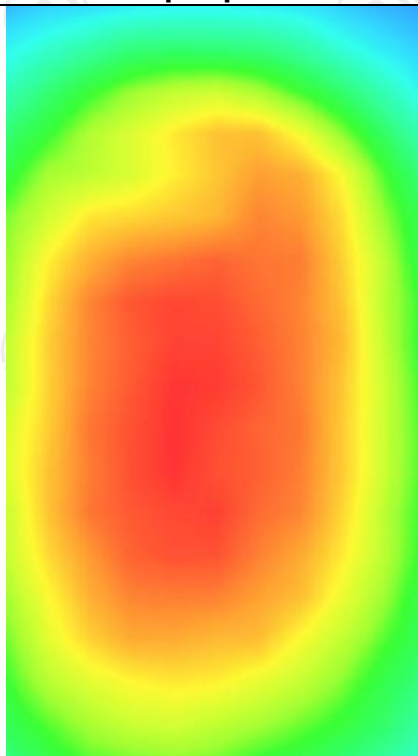
0.660314



| Z (mm)     | 0.00   | 4.00   | 9.00   | 14.00  | 19.00  |
|------------|--------|--------|--------|--------|--------|
| SAR (W/Kg) | 0.8297 | 0.6798 | 0.5281 | 0.4101 | 0.3180 |



Hot spot position



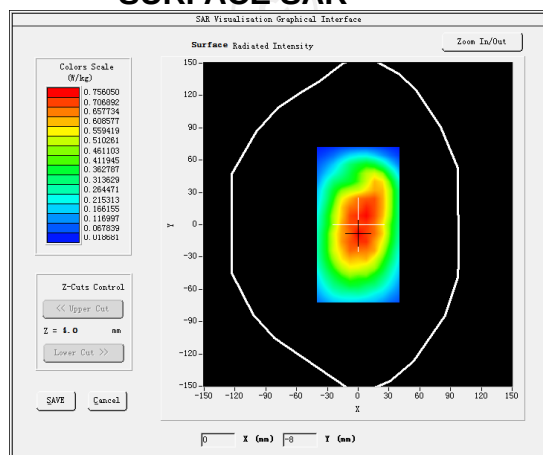
## MEASUREMENT 4

Middle Band SAR (Channel 661):

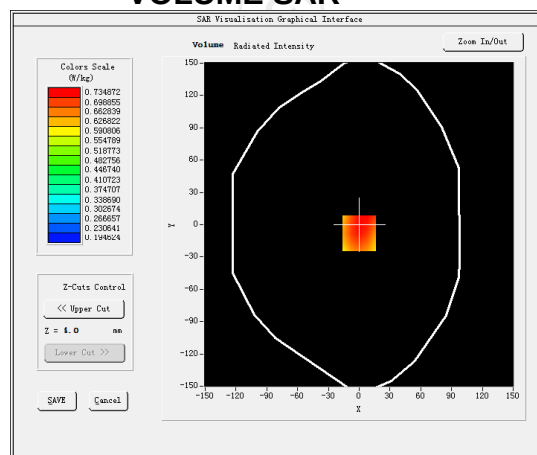
Date: 03/10/2020

|                                        |                                                                     |
|----------------------------------------|---------------------------------------------------------------------|
| Frequency (MHz)                        | 1880.000000                                                         |
| Relative permittivity (real part)      | 55.242927                                                           |
| Relative permittivity (imaginary part) | 21.378266                                                           |
| Conductivity (S/m)                     | 0.941230                                                            |
| Variation (%)                          | -0.370000                                                           |
| Crest Factor:                          | 2.0                                                                 |
| Probe Conversion factor                | 5.65                                                                |
| E-Field Probe:                         | SSE2 (SN 41/18 EP331)                                               |
| Area Scan                              | dx=8mm dy=8mm, h= 5.00 mm                                           |
| ZoomScan                               | 5x5x7, dx=8mm dy=8mm<br>dz=5mm, Complete/ndx=8mm dy=8mm, h= 5.00 mm |
| Phantom                                | Validation plane                                                    |
| Device Position                        | Body back(10mm)                                                     |
| Band                                   | GSM850(GPRS 4slot hotspot)                                          |

### SURFACE SAR



### VOLUME SAR



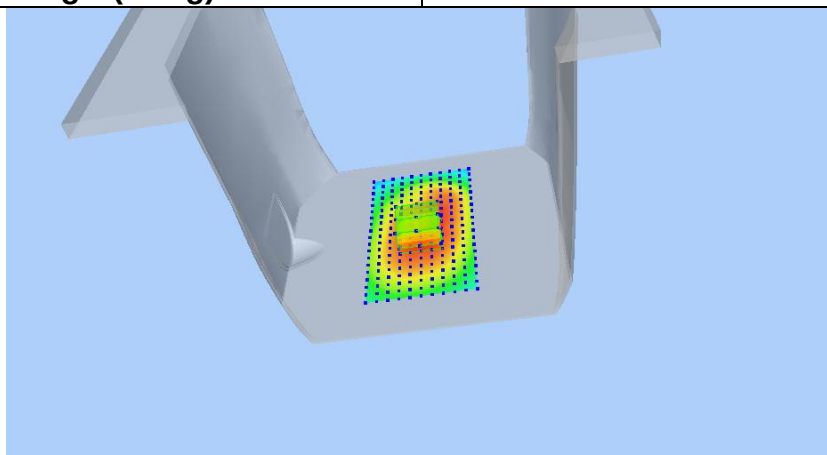
Maximum location: X=0.00, Y=-8.00 SAR Peak: 0.92 W/kg

SAR 10g (W/Kg)

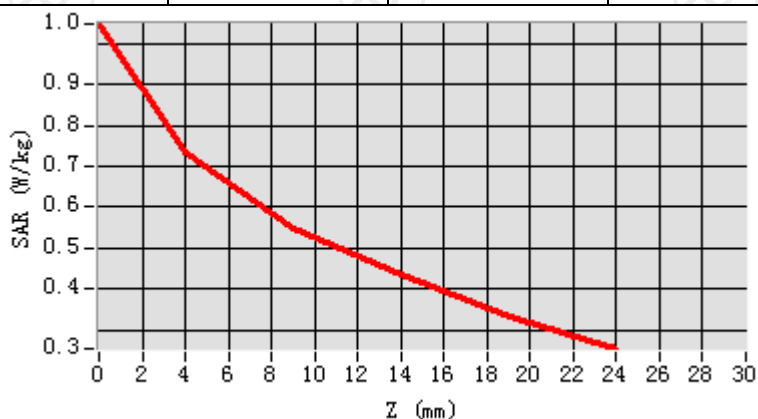
0.490886

SAR 1g (W/Kg)

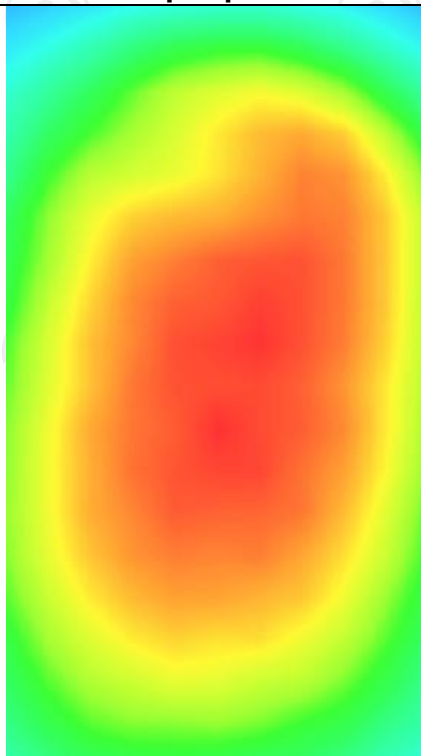
0.664912



| Z (mm)     | 0.00   | 4.00   | 9.00   | 14.00  | 19.00  |
|------------|--------|--------|--------|--------|--------|
| SAR (W/Kg) | 1.0470 | 0.7349 | 0.5467 | 0.4377 | 0.3352 |



Hot spot position



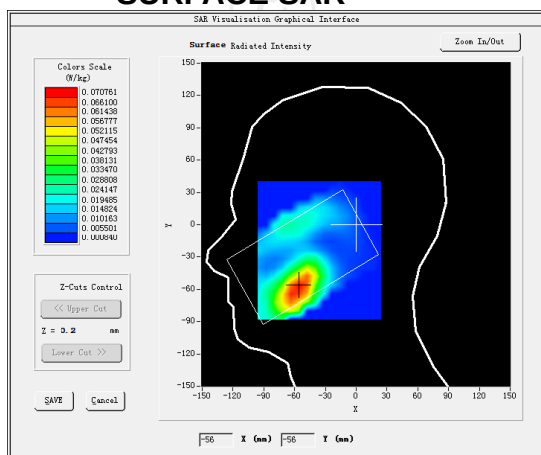


## GPRS 1900

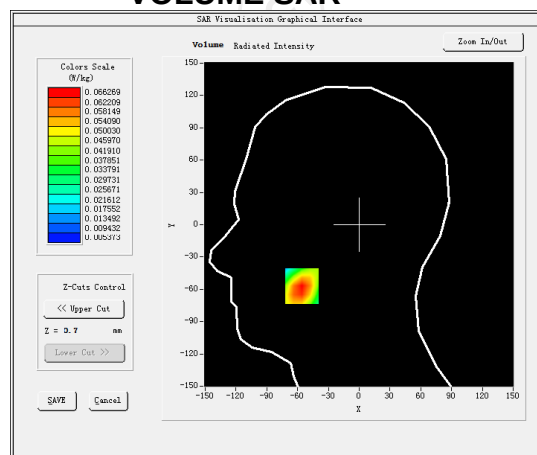
### MEASUREMENT 1

|                                        |                                                                     |                  |
|----------------------------------------|---------------------------------------------------------------------|------------------|
| Lower Band SAR (Channel 512):          |                                                                     | Date: 03/22/2020 |
| Frequency (MHz)                        | 1850.200000                                                         |                  |
| Relative permittivity (real part)      | 39.105208                                                           |                  |
| Relative permittivity (imaginary part) | 12.607628                                                           |                  |
| Conductivity (S/m)                     | 1.342108                                                            |                  |
| Variation (%)                          | 2.720000                                                            |                  |
| Crest Factor                           | 8.3                                                                 |                  |
| Probe Conversion factor                | 4.85                                                                |                  |
| E-Field Probe:                         | SSE2 (SN 41/18 EP331)                                               |                  |
| Area Scan                              | dx=8mm dy=8mm, h= 5.00 mm                                           |                  |
| ZoomScan                               | 5x5x7, dx=8mm dy=8mm<br>dz=5mm, Complete/ndx=8mm dy=8mm, h= 5.00 mm |                  |
| Phantom                                | Left head                                                           |                  |
| Device Position                        | Cheek                                                               |                  |
| Band                                   | GSM1900(voice)                                                      |                  |

#### SURFACE SAR



#### VOLUME SAR



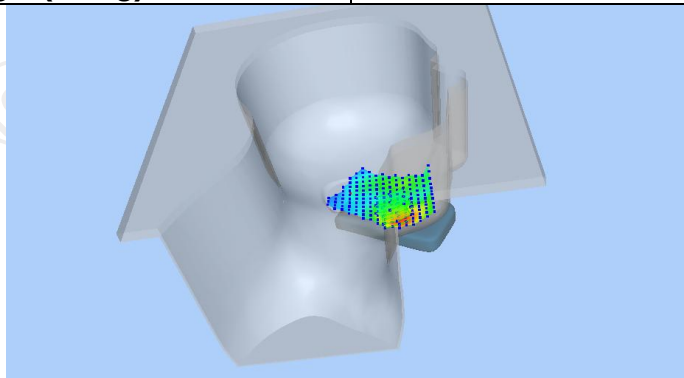
Maximum location: X=-56.00, Y=-57.00 SAR Peak: 0.09 W/kg

SAR 10g (W/Kg)

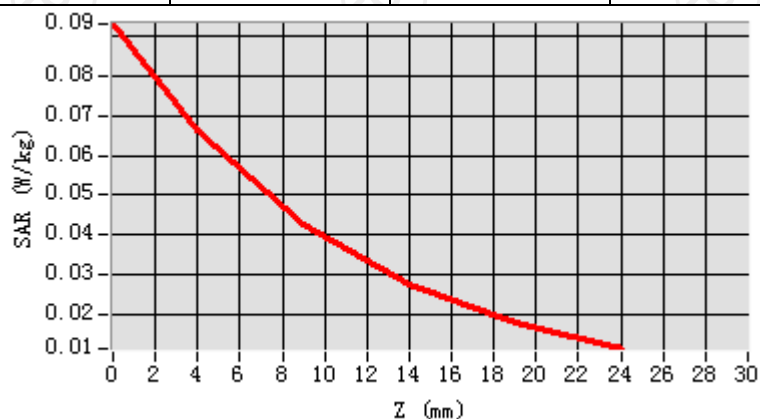
0.038330

SAR 1g (W/Kg)

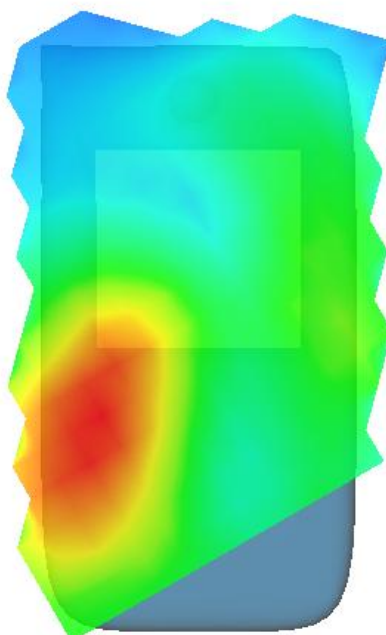
0.063015



| Z (mm)     | 0.00   | 4.00   | 9.00   | 14.00  | 19.00  |
|------------|--------|--------|--------|--------|--------|
| SAR (W/Kg) | 0.0932 | 0.0663 | 0.0427 | 0.0275 | 0.0178 |



### Hot spot position



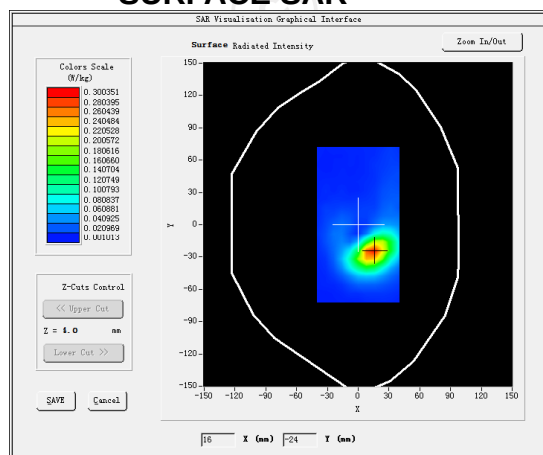
## MEASUREMENT 2

Lower Band SAR (Channel 512):

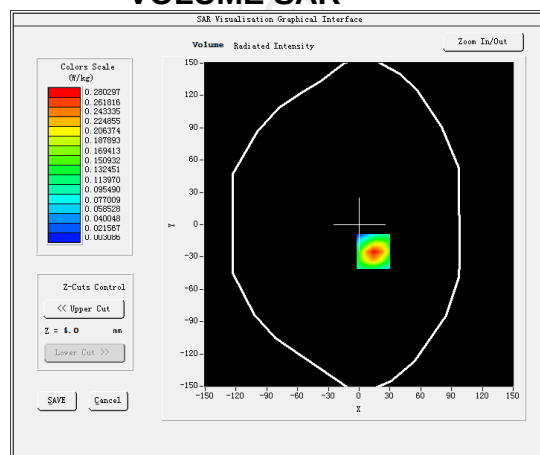
Date: 03/22/2020

|                                        |                                                                                             |
|----------------------------------------|---------------------------------------------------------------------------------------------|
| Frequency (MHz)                        | 1850.200000                                                                                 |
| Relative permittivity (real part)      | 53.341337                                                                                   |
| Relative permittivity (imaginary part) | 14.232400                                                                                   |
| Conductivity (S/m)                     | 1.491736                                                                                    |
| Variation (%)                          | -2.200000                                                                                   |
| Crest Factor                           | 8.3                                                                                         |
| Probe Conversion factor                | 5.01                                                                                        |
| E-Field Probe:                         | SSE2 (SN 41/18 EP331)                                                                       |
| Area Scan                              | <u>dx=8mm dy=8mm, h= 5.00 mm</u>                                                            |
| ZoomScan                               | <u>5x5x7, dx=8mm dy=8mm</u><br><u>dz=5mm, Complete/ndx=8mm dy=8mm, h=</u><br><u>5.00 mm</u> |
| Phantom                                | <u>Validation plane</u>                                                                     |
| Device Position                        | <u>Body back(10mm)</u>                                                                      |
| Band                                   | <u>GSM1900(voice)</u>                                                                       |

### SURFACE SAR



### VOLUME SAR



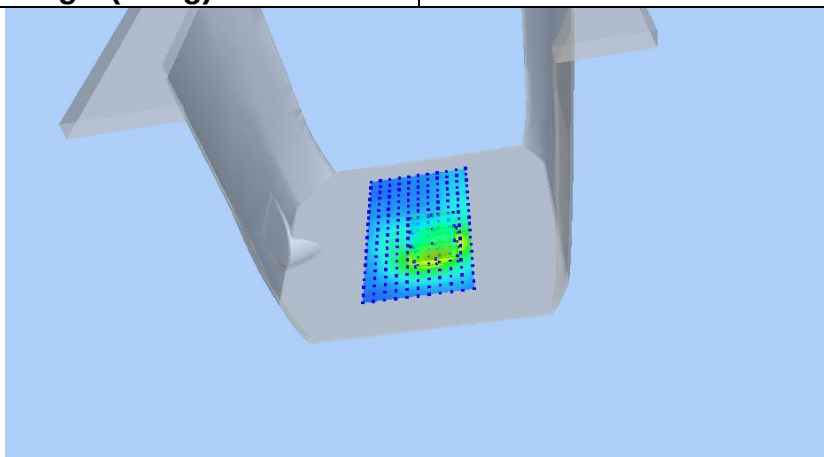
Maximum location: X=14.00, Y=-25.00 SAR Peak: 0.43 W/kg

SAR 10g (W/Kg)

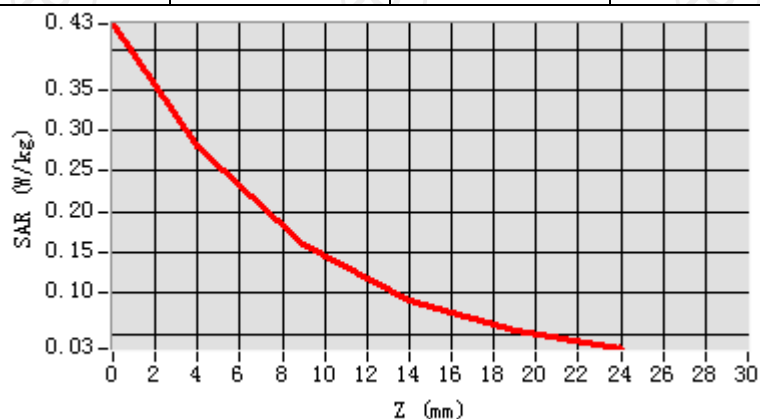
0.133387

SAR 1g (W/Kg)

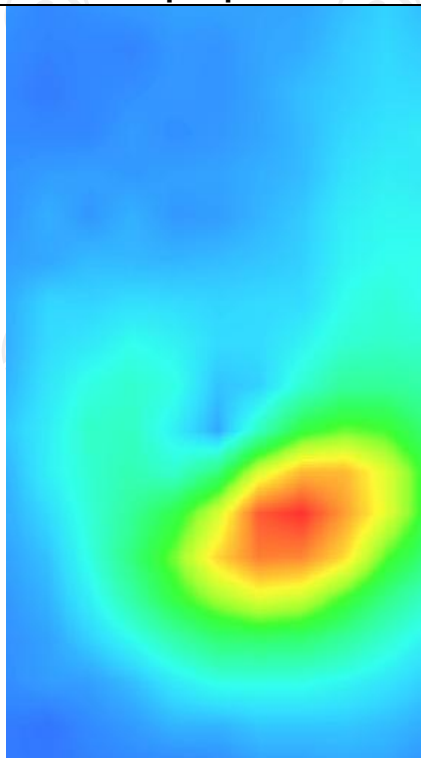
0.258472



| Z (mm)     | 0.00   | 4.00   | 9.00   | 14.00  | 19.00  |
|------------|--------|--------|--------|--------|--------|
| SAR (W/Kg) | 0.4314 | 0.2803 | 0.1598 | 0.0915 | 0.0543 |



Hot spot position



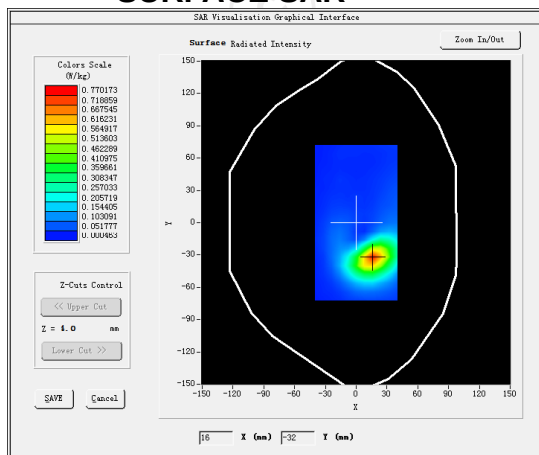
## MEASUREMENT 3

Lower Band SAR (Channel 512):

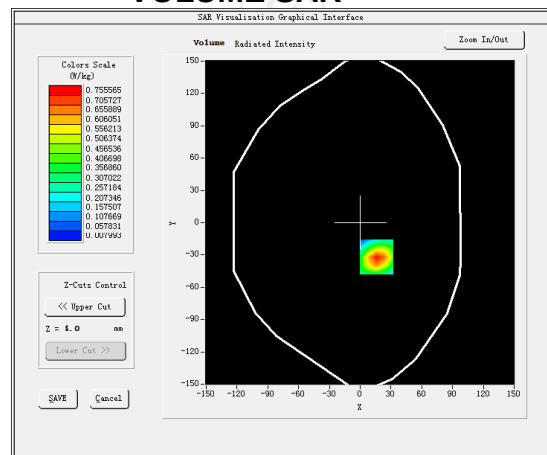
Date: 03/22/2020

|                                        |                                                                                             |
|----------------------------------------|---------------------------------------------------------------------------------------------|
| Frequency (MHz)                        | 1850.200000                                                                                 |
| Relative permittivity (real part)      | 53.341337                                                                                   |
| Relative permittivity (imaginary part) | 14.232400                                                                                   |
| Conductivity (S/m)                     | 1.491736                                                                                    |
| Variation (%)                          | -1.470000                                                                                   |
| Crest Factor                           | 2.0                                                                                         |
| Probe Conversion factor                | 5.01                                                                                        |
| E-Field Probe:                         | SSE2 (SN 41/18 EP331)                                                                       |
| Area Scan                              | <u>dx=8mm dy=8mm, h= 5.00 mm</u>                                                            |
| ZoomScan                               | <u>5x5x7, dx=8mm dy=8mm</u><br><u>dz=5mm, Complete/ndx=8mm dy=8mm, h=</u><br><u>5.00 mm</u> |
| Phantom                                | <u>Validation plane</u>                                                                     |
| Device Position                        | <u>Body back(10mm)</u>                                                                      |
| Band                                   | <u>GSM1900(GPRS 4slot)</u>                                                                  |

### SURFACE SAR



### VOLUME SAR



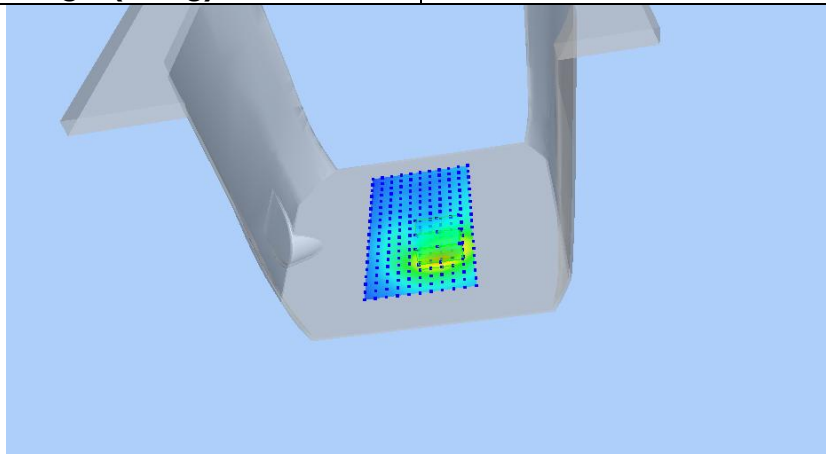
Maximum location: X=16.00, Y=-32.00 SAR Peak: 1.23 W/kg

SAR 10g (W/Kg)

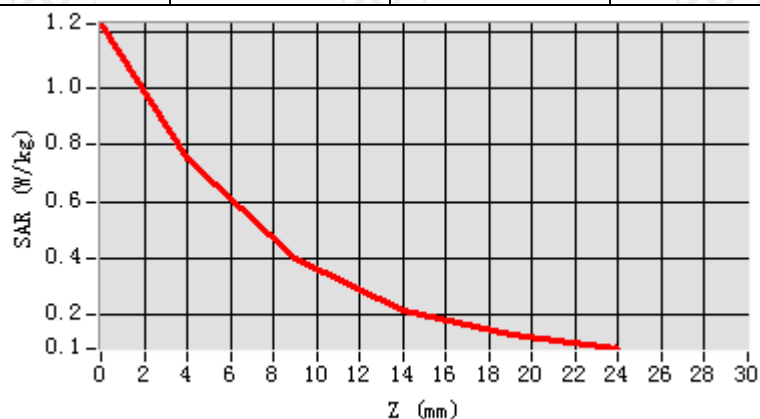
0.356599

SAR 1g (W/Kg)

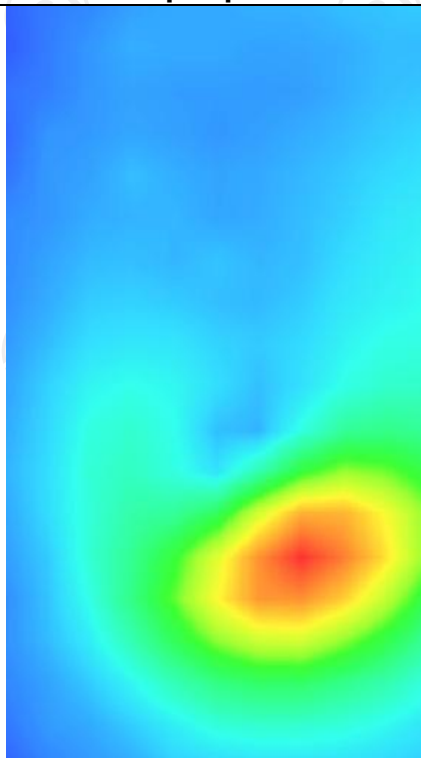
0.700530



| Z (mm)     | 0.00   | 4.00   | 9.00   | 14.00  | 19.00  |
|------------|--------|--------|--------|--------|--------|
| SAR (W/Kg) | 1.2264 | 0.7556 | 0.4017 | 0.2188 | 0.1306 |



Hot spot position



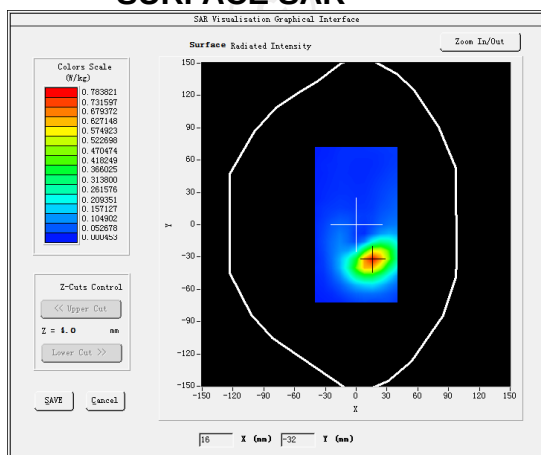
## MEASUREMENT 4

Lower Band SAR (Channel 512):

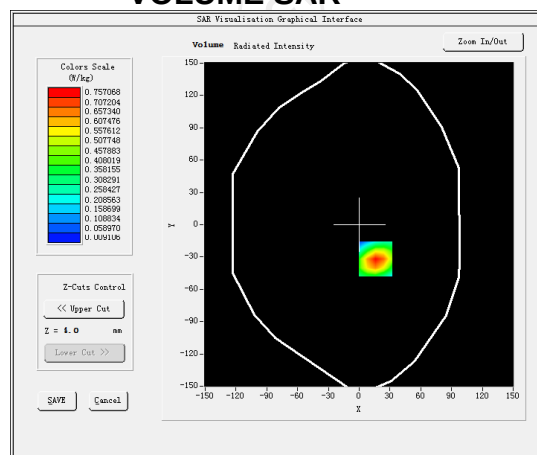
Date: 03/22/2020

|                                        |                                                                                             |
|----------------------------------------|---------------------------------------------------------------------------------------------|
| Frequency (MHz)                        | 1850.200000                                                                                 |
| Relative permittivity (real part)      | 53.341337                                                                                   |
| Relative permittivity (imaginary part) | 14.232400                                                                                   |
| Conductivity (S/m)                     | 1.491736                                                                                    |
| Variation (%)                          | -1.700000                                                                                   |
| Crest Factor                           | 2.0                                                                                         |
| Probe Conversion factor                | 5.01                                                                                        |
| E-Field Probe:                         | SSE2 (SN 41/18 EP331)                                                                       |
| Area Scan                              | <u>dx=8mm dy=8mm, h= 5.00 mm</u>                                                            |
| ZoomScan                               | <u>5x5x7, dx=8mm dy=8mm</u><br><u>dz=5mm, Complete/ndx=8mm dy=8mm, h=</u><br><u>5.00 mm</u> |
| Phantom                                | <u>Validation plane</u>                                                                     |
| Device Position                        | <u>Body back(10mm)</u>                                                                      |
| Band                                   | <u>GSM1900(GPRS 4slot hotspot)</u>                                                          |

### SURFACE SAR



### VOLUME SAR



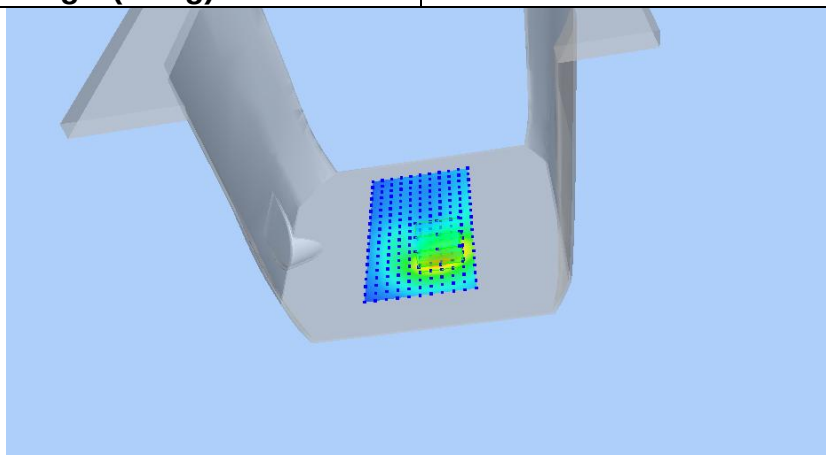
Maximum location: X=16.00, Y=-32.00 SAR Peak: 1.14 W/kg

SAR 10g (W/Kg)

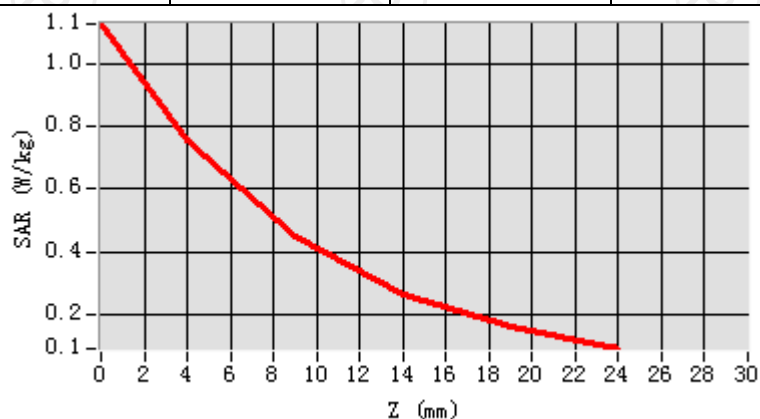
0.375484

SAR 1g (W/Kg)

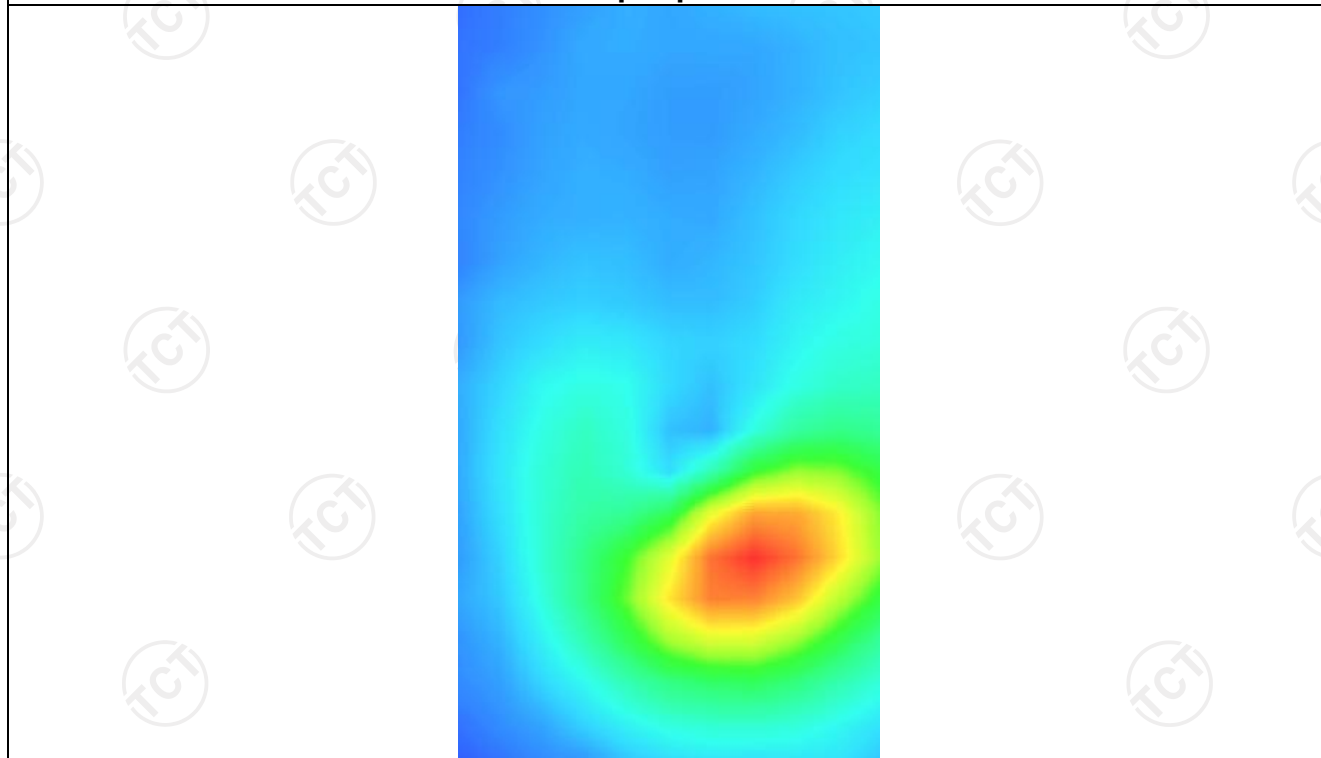
0.701961



| Z (mm)     | 0.00   | 4.00   | 9.00   | 14.00  | 19.00  |
|------------|--------|--------|--------|--------|--------|
| SAR (W/Kg) | 1.1277 | 0.7571 | 0.4501 | 0.2664 | 0.1596 |



Hot spot position

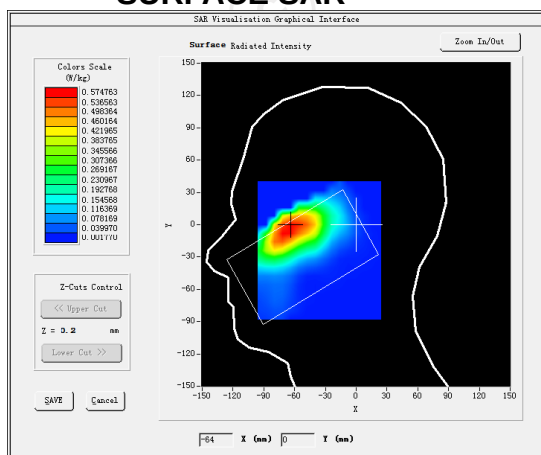




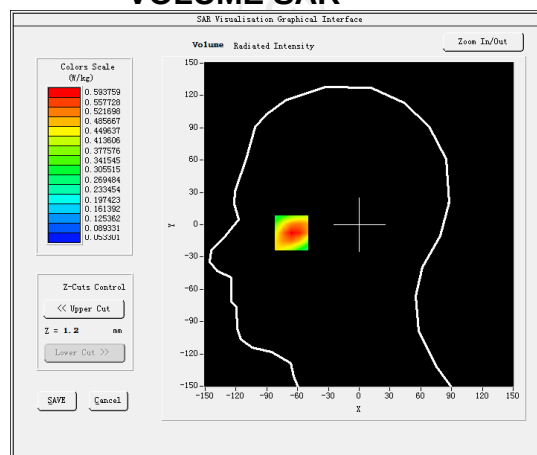
## WCDMA Band II MEASUREMENT 1

|                                        |                                                                   |                  |
|----------------------------------------|-------------------------------------------------------------------|------------------|
| Middle Band SAR (Channel 9400):        |                                                                   | Date: 03/22/2020 |
| Frequency (MHz)                        | 1880.000000                                                       |                  |
| Relative permittivity (real part)      | 39.102437                                                         |                  |
| Relative permittivity (imaginary part) | 12.607241                                                         |                  |
| Conductivity (S/m)                     | 1.347279                                                          |                  |
| Variation (%)                          | 2.460000                                                          |                  |
| Crest Factor                           | 1.0                                                               |                  |
| Probe Conversion factor                | 4.85                                                              |                  |
| E-Field Probe:                         | SSE2 (SN 41/18 EP331)                                             |                  |
| Area Scan                              | dx=8mm dy=8mm, h= 5.00 mm                                         |                  |
| ZoomScan                               | 5x5x7,dx=8mm dy=8mm<br>dz=5mm,Complete/ndx=8mm dy=8mm, h= 5.00 mm |                  |
| Phantom                                | Left head                                                         |                  |
| Device Position                        | Cheek                                                             |                  |
| Band                                   | BAND2 WCDMA1900                                                   |                  |

### SURFACE SAR



### VOLUME SAR



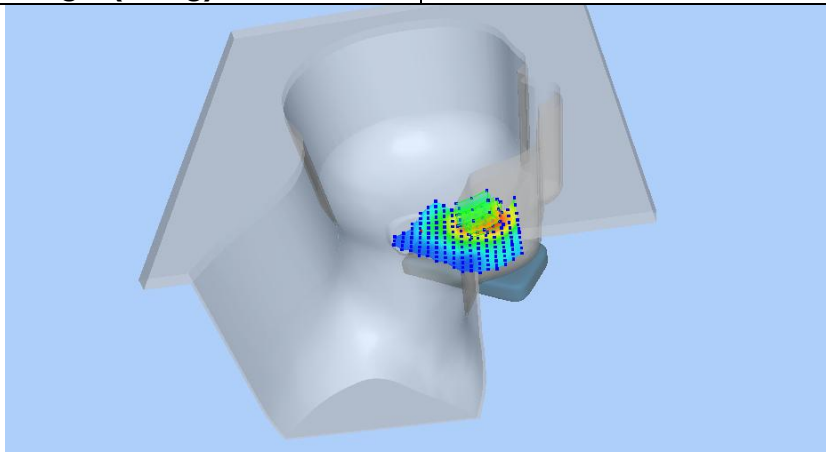
Maximum location: X=-66.00, Y=-5.00 SAR Peak: 0.83 W/kg

SAR 10g (W/Kg)

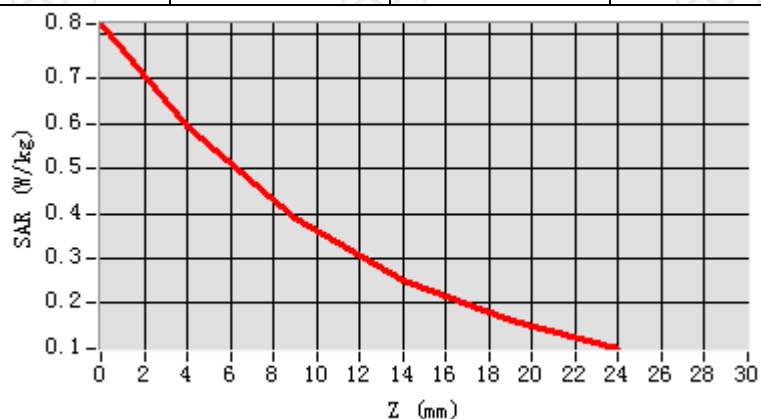
0.348773

SAR 1g (W/Kg)

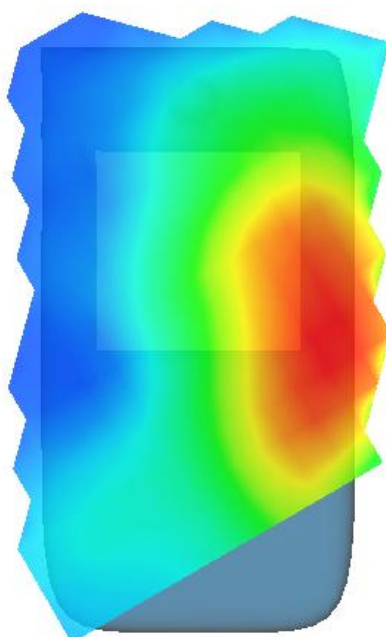
0.562938



| Z (mm)     | 0.00   | 4.00   | 9.00   | 14.00  | 19.00  |
|------------|--------|--------|--------|--------|--------|
| SAR (W/Kg) | 0.8227 | 0.5938 | 0.3887 | 0.2521 | 0.1623 |



Hot spot position



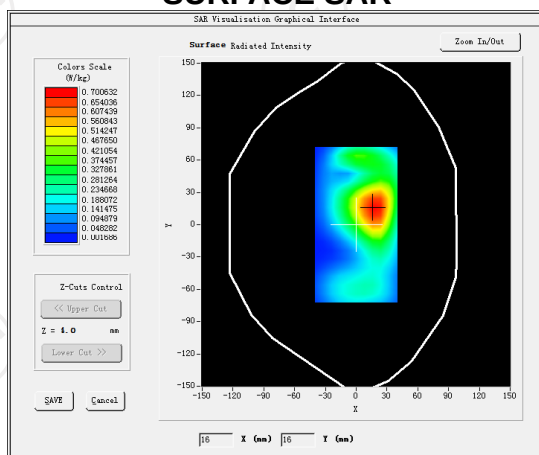
## MEASUREMENT 2

Middle Band SAR (Channel 9400):

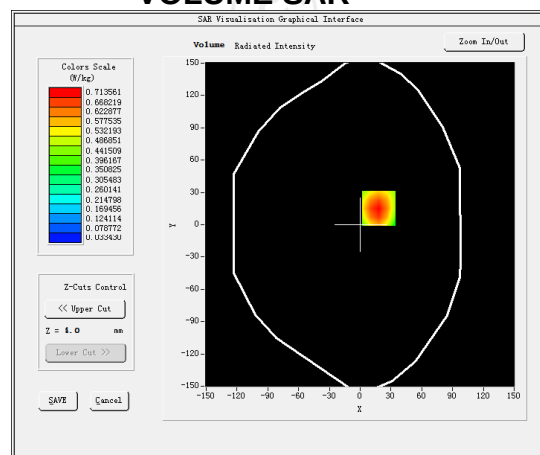
Date: 03/22/2020

|                                        |                                                                     |
|----------------------------------------|---------------------------------------------------------------------|
| Frequency (MHz)                        | 1880.000000                                                         |
| Relative permittivity (real part)      | 53.321337                                                           |
| Relative permittivity (imaginary part) | 14.232400                                                           |
| Conductivity (S/m)                     | 1.496736                                                            |
| Variation (%)                          | -1.730000                                                           |
| Crest Factor                           | 1.0                                                                 |
| Probe Conversion factor                | 5.01                                                                |
| E-Field Probe:                         | SSE2 (SN 41/18 EP331)                                               |
| Area Scan                              | dx=8mm dy=8mm, h= 5.00 mm                                           |
| ZoomScan                               | 5x5x7, dx=8mm dy=8mm<br>dz=5mm, Complete/ndx=8mm dy=8mm, h= 5.00 mm |
| Phantom                                | Validation plane                                                    |
| Device Position                        | Body back(10mm)                                                     |
| Band                                   | BAND2 WCDMA1900                                                     |

### SURFACE SAR



### VOLUME SAR



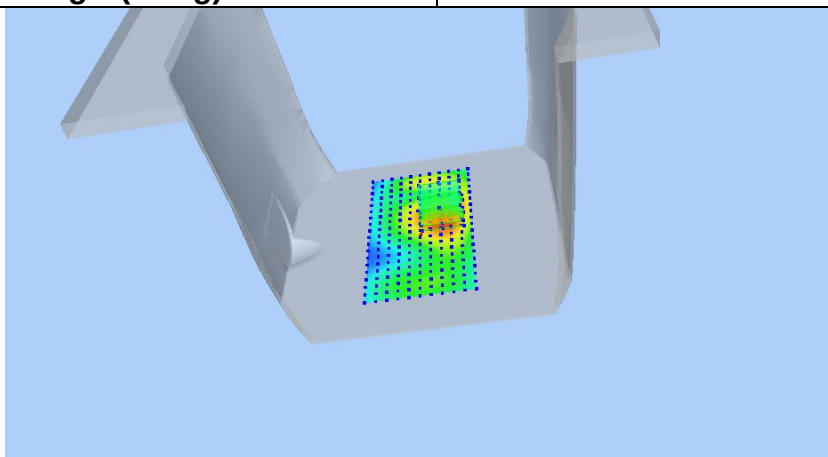
Maximum location: X=18.00, Y=15.00 SAR Peak: 1.02 W/kg

SAR 10g (W/Kg)

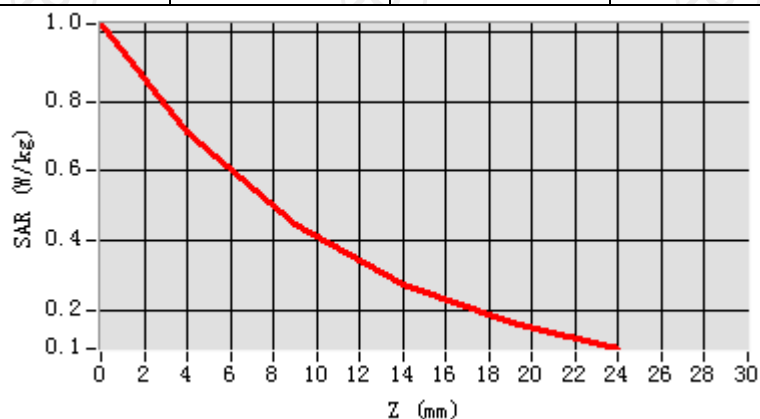
0.403860

SAR 1g (W/Kg)

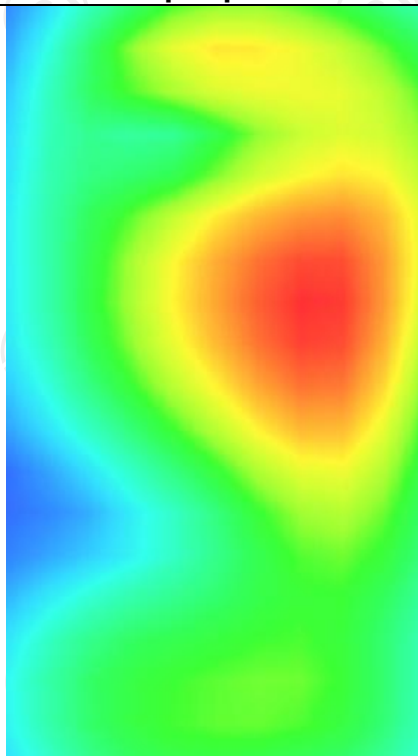
0.676382



| Z (mm)     | 0.00   | 4.00   | 9.00   | 14.00  | 19.00  |
|------------|--------|--------|--------|--------|--------|
| SAR (W/Kg) | 1.0209 | 0.7136 | 0.4457 | 0.2737 | 0.1655 |



Hot spot position



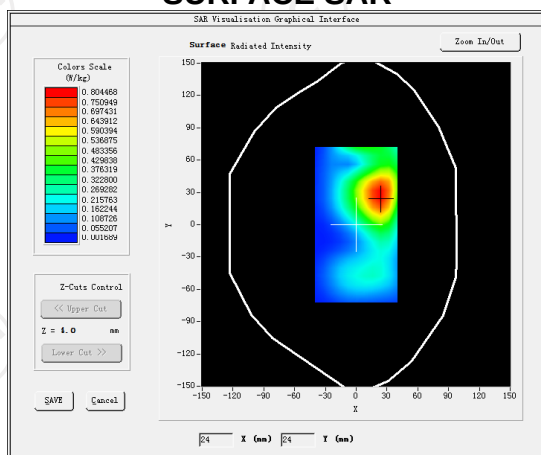
## MEASUREMENT 3

Middle Band SAR (Channel 9400):

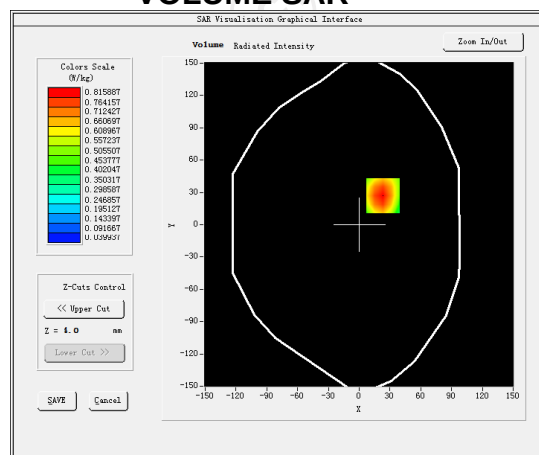
Date: 03/22/2020

|                                        |                                                                     |
|----------------------------------------|---------------------------------------------------------------------|
| Frequency (MHz)                        | 1880.000000                                                         |
| Relative permittivity (real part)      | 53.321337                                                           |
| Relative permittivity (imaginary part) | 14.232400                                                           |
| Conductivity (S/m)                     | 1.496736                                                            |
| Variation (%)                          | -1.170000                                                           |
| Crest Factor                           | 1.0                                                                 |
| Probe Conversion factor                | 5.01                                                                |
| E-Field Probe:                         | SSE2 (SN 41/18 EP331)                                               |
| Area Scan                              | dx=8mm dy=8mm, h= 5.00 mm                                           |
| ZoomScan                               | 5x5x7, dx=8mm dy=8mm<br>dz=5mm, Complete/ndx=8mm dy=8mm, h= 5.00 mm |
| Phantom                                | Validation plane                                                    |
| Device Position                        | Body back(10mm)                                                     |
| Band                                   | BAND2 WCDMA1900                                                     |

### SURFACE SAR



### VOLUME SAR



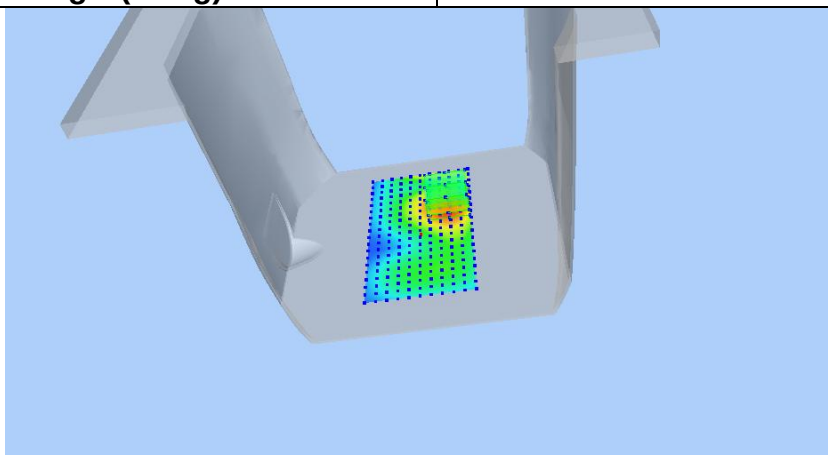
Maximum location: X=23.00, Y=27.00 SAR Peak: 1.18 W/kg

SAR 10g (W/Kg)

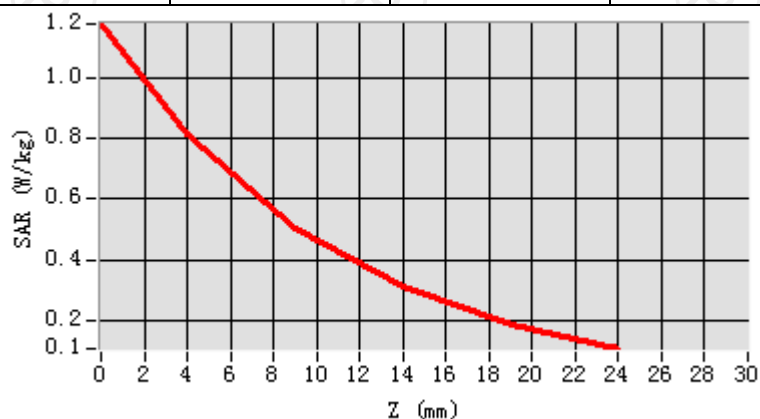
0.419745

SAR 1g (W/Kg)

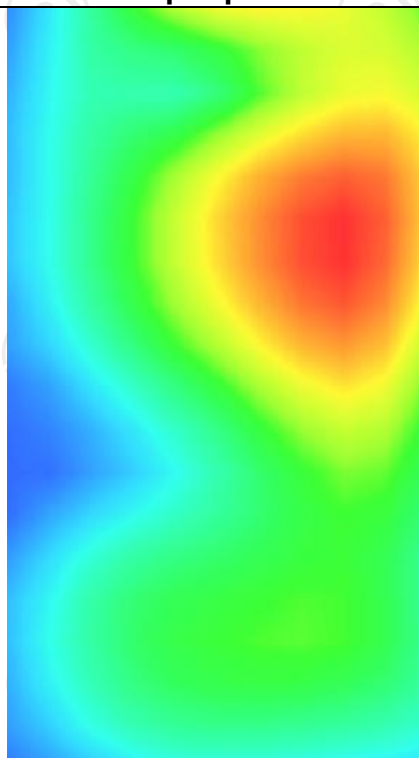
0.734034



| Z (mm)     | 0.00   | 4.00   | 9.00   | 14.00  | 19.00  |
|------------|--------|--------|--------|--------|--------|
| SAR (W/Kg) | 1.1768 | 0.8159 | 0.5054 | 0.3095 | 0.1885 |



Hot spot position



## WCDMA Band IV

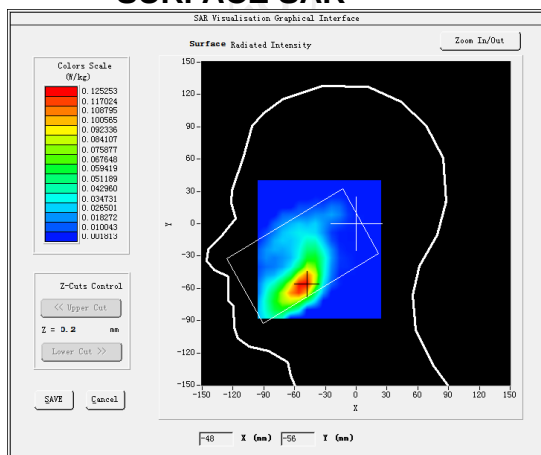
### MEASUREMENT 1

Middle Band SAR (Channel 1413):

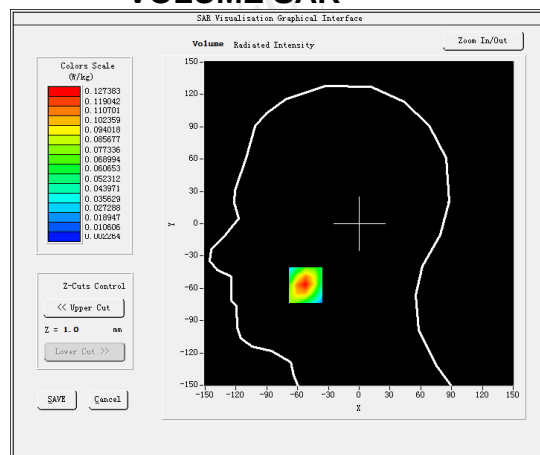
Date: 03/16/2020

|                                        |                                                                                             |
|----------------------------------------|---------------------------------------------------------------------------------------------|
| Frequency (MHz)                        | 1732.600000                                                                                 |
| Relative permittivity (real part)      | 39.101249                                                                                   |
| Relative permittivity (imaginary part) | 12.468850                                                                                   |
| Conductivity (S/m)                     | 1.350792                                                                                    |
| Variation (%)                          | -2.840000                                                                                   |
| Crest Factor                           | 1.0                                                                                         |
| Probe Conversion factor                | 4.38                                                                                        |
| E-Field Probe:                         | SSE2 (SN 41/18 EP331)                                                                       |
| Area Scan                              | <u>dx=8mm dy=8mm, h= 5.00 mm</u>                                                            |
| ZoomScan                               | <u>5x5x7, dx=8mm dy=8mm</u><br><u>dz=5mm, Complete/ndx=8mm dy=8mm, h=</u><br><u>5.00 mm</u> |
| Phantom                                | <u>Left head</u>                                                                            |
| Device Position                        | <u>Cheek</u>                                                                                |
| Band                                   | <u>BAND4 WCDMA1700</u>                                                                      |

#### SURFACE SAR

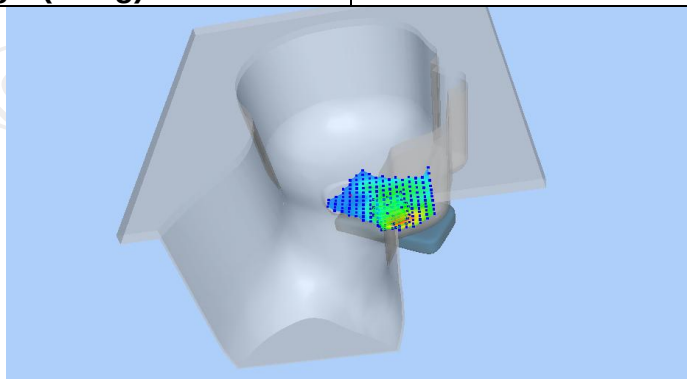


#### VOLUME SAR

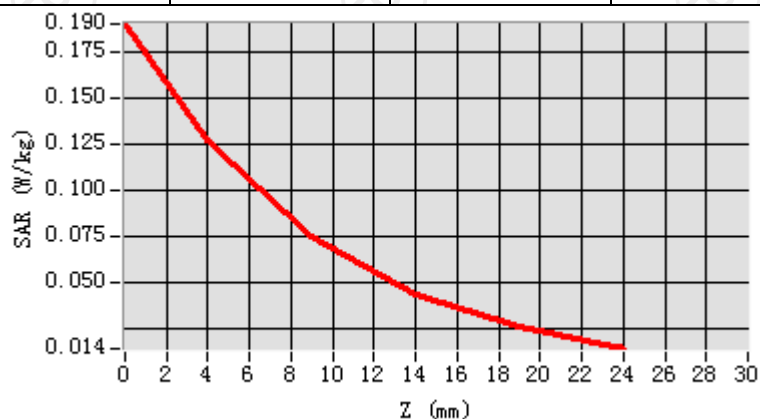


Maximum location: X=-52.00, Y=-57.00 SAR Peak: 0.19 W/kg

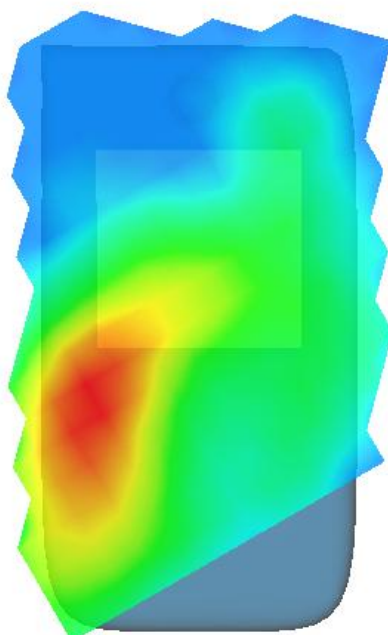
|                |          |
|----------------|----------|
| SAR 10g (W/Kg) | 0.063903 |
| SAR 1g (W/Kg)  | 0.118369 |



| Z (mm)     | 0.00   | 4.00   | 9.00   | 14.00  | 19.00  |
|------------|--------|--------|--------|--------|--------|
| SAR (W/Kg) | 0.1901 | 0.1274 | 0.0753 | 0.0440 | 0.0258 |



### Hot spot position





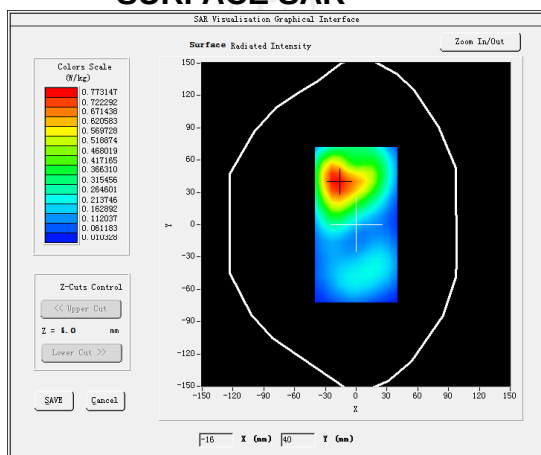
## MEASUREMENT 2

Middle Band SAR (Channel 1413):

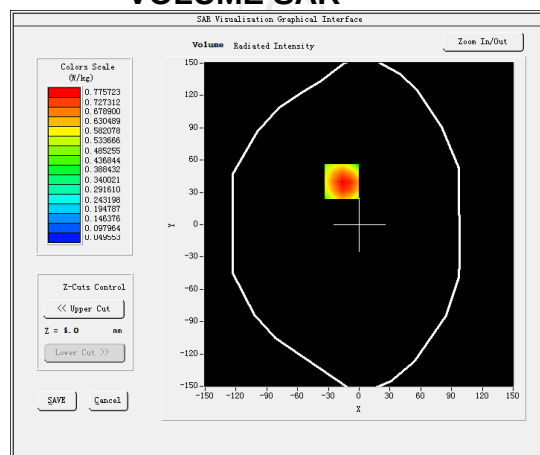
Date: 03/16/2020

|                                        |                                                                     |
|----------------------------------------|---------------------------------------------------------------------|
| Frequency (MHz)                        | 1732.600000                                                         |
| Relative permittivity (real part)      | 53.321249                                                           |
| Relative permittivity (imaginary part) | 12.468850                                                           |
| Conductivity (S/m)                     | 1.502592                                                            |
| Variation (%)                          | -1.300000                                                           |
| Crest Factor                           | 1.0                                                                 |
| Probe Conversion factor                | 4.52                                                                |
| E-Field Probe:                         | SSE2 (SN 41/18 EP331)                                               |
| Area Scan                              | dx=8mm dy=8mm, h= 5.00 mm                                           |
| ZoomScan                               | 5x5x7, dx=8mm dy=8mm<br>dz=5mm, Complete/ndx=8mm dy=8mm, h= 5.00 mm |
| Phantom                                | Validation plane                                                    |
| Device Position                        | Body back(10mm)                                                     |
| Band                                   | BAND4 WCDMA1700                                                     |

### SURFACE SAR



### VOLUME SAR



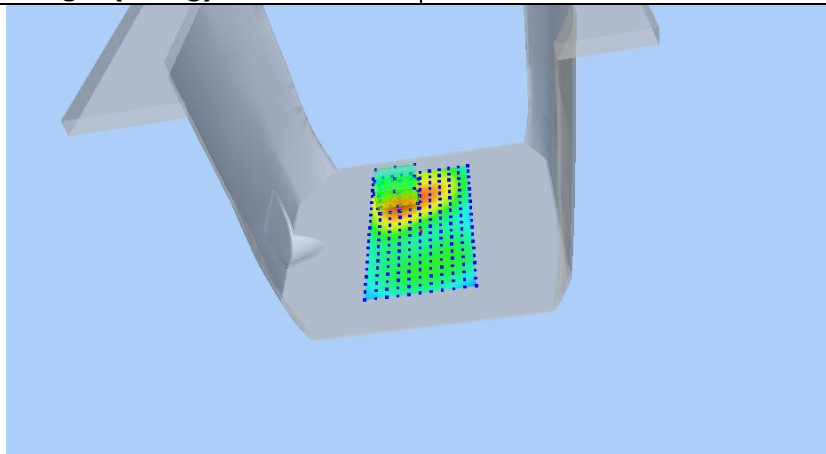
Maximum location: X=-17.00, Y=40.00 SAR Peak: 1.12 W/kg

SAR 10g (W/Kg)

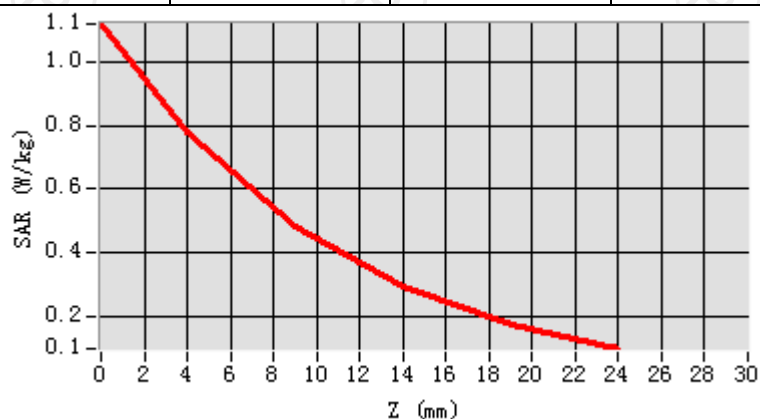
0.429877

SAR 1g (W/Kg)

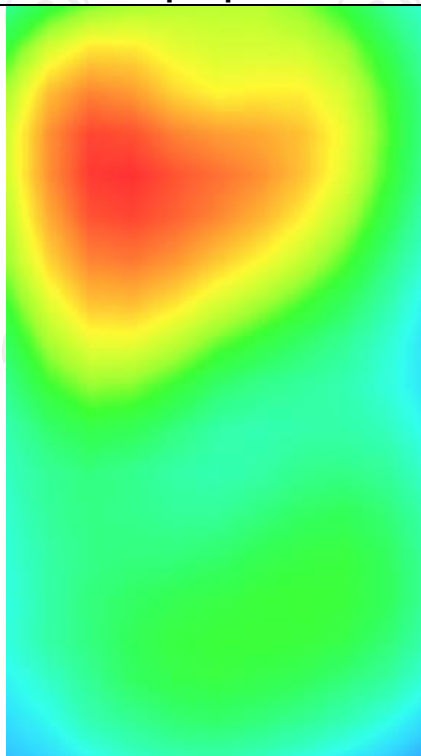
0.720716



| Z (mm)     | 0.00   | 4.00   | 9.00   | 14.00  | 19.00  |
|------------|--------|--------|--------|--------|--------|
| SAR (W/Kg) | 1.1165 | 0.7757 | 0.4816 | 0.2952 | 0.1795 |



Hot spot position



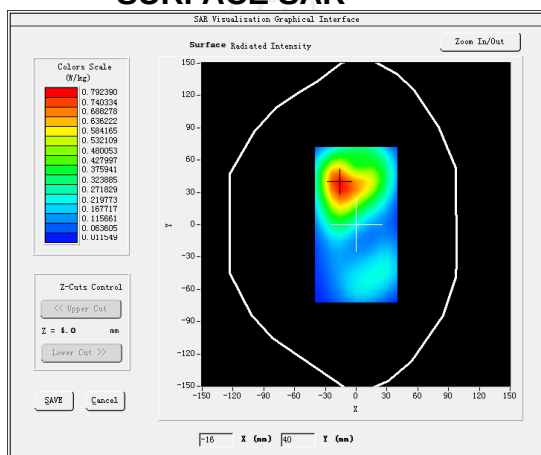
## MEASUREMENT 3

Middle Band SAR (Channel 1413):

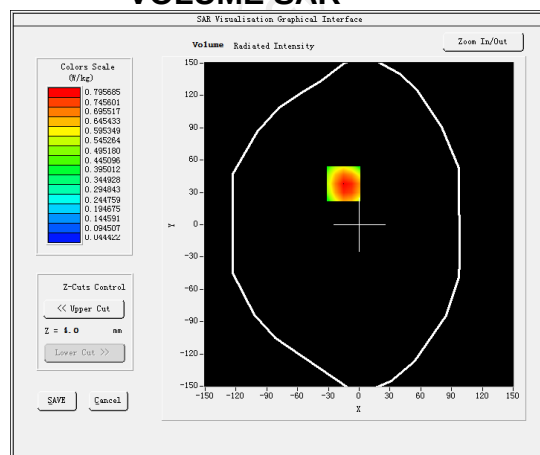
Date: 03/16/2020

|                                        |                                                                                             |
|----------------------------------------|---------------------------------------------------------------------------------------------|
| Frequency (MHz)                        | 1732.600000                                                                                 |
| Relative permittivity (real part)      | 53.321249                                                                                   |
| Relative permittivity (imaginary part) | 12.468850                                                                                   |
| Conductivity (S/m)                     | 1.502592                                                                                    |
| Variation (%)                          | 0.660000                                                                                    |
| Crest Factor                           | 1.0                                                                                         |
| Probe Conversion factor                | 4.52                                                                                        |
| E-Field Probe:                         | SSE2 (SN 41/18 EP331)                                                                       |
| Area Scan                              | <u>dx=8mm dy=8mm, h= 5.00 mm</u>                                                            |
| ZoomScan                               | <u>5x5x7, dx=8mm dy=8mm</u><br><u>dz=5mm, Complete/ndx=8mm dy=8mm, h=</u><br><u>5.00 mm</u> |
| Phantom                                | <u>Validation plane</u>                                                                     |
| Device Position                        | <u>Body back(hotspot 10mm)</u>                                                              |
| Band                                   | <u>BAND4 WCDMA1700</u>                                                                      |

### SURFACE SAR



### VOLUME SAR



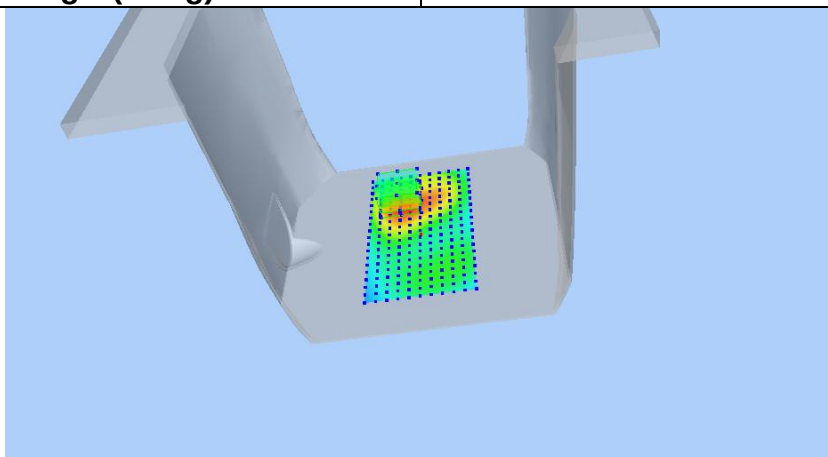
Maximum location: X=-15.00, Y=38.00 SAR Peak: 1.17 W/kg

SAR 10g (W/Kg)

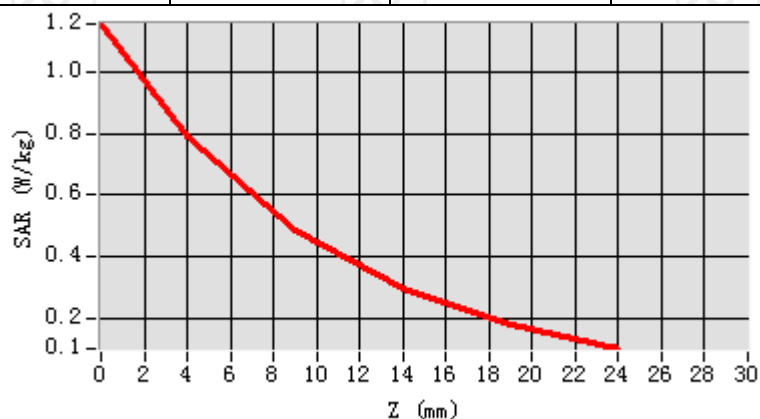
0.399273

SAR 1g (W/Kg)

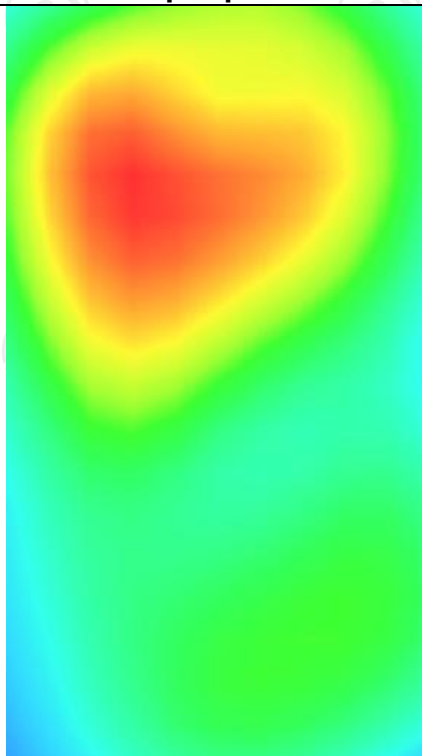
0.721618



| Z (mm)     | 0.00   | 4.00   | 9.00   | 14.00  | 19.00  |
|------------|--------|--------|--------|--------|--------|
| SAR (W/Kg) | 1.1590 | 0.7957 | 0.4863 | 0.2938 | 0.1768 |



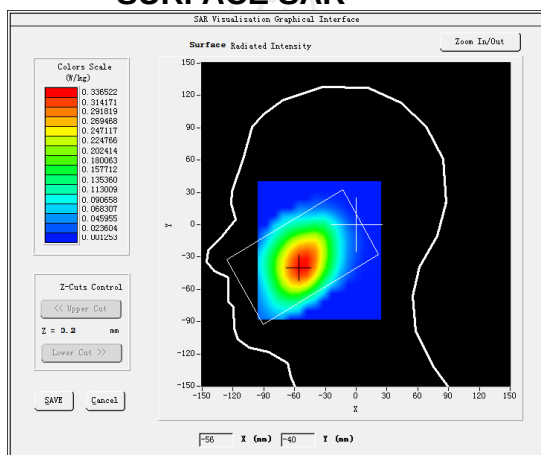
Hot spot position



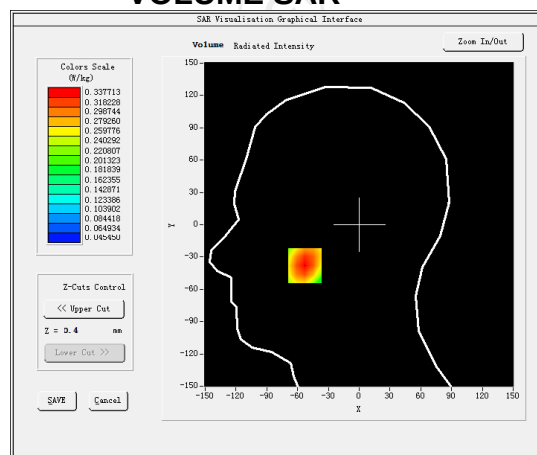
## WCDMA Band V MEASUREMENT 1

|                                        |                                                                   |                  |
|----------------------------------------|-------------------------------------------------------------------|------------------|
| Middle Band SAR (Channel 9182):        |                                                                   | Date: 03/10/2020 |
| Frequency (MHz)                        | 836.400000                                                        |                  |
| Relative permittivity (real part)      | 41.422883                                                         |                  |
| Relative permittivity (imaginary part) | 18.129634                                                         |                  |
| Conductivity (S/m)                     | 0.867241                                                          |                  |
| Variation (%)                          | 1.480000                                                          |                  |
| Crest Factor:                          | 1.0                                                               |                  |
| Probe Conversion factor                | 5.50                                                              |                  |
| E-Field Probe:                         | SSE2 (SN 41/18 EP331)                                             |                  |
| Area Scan                              | dx=8mm dy=8mm, h= 5.00 mm                                         |                  |
| ZoomScan                               | 5x5x7,dx=8mm dy=8mm<br>dz=5mm,Complete/ndx=8mm dy=8mm, h= 5.00 mm |                  |
| Phantom                                | Left head                                                         |                  |
| Device Position                        | Cheek                                                             |                  |
| Band                                   | BAND5 WCDMA850                                                    |                  |

### SURFACE SAR



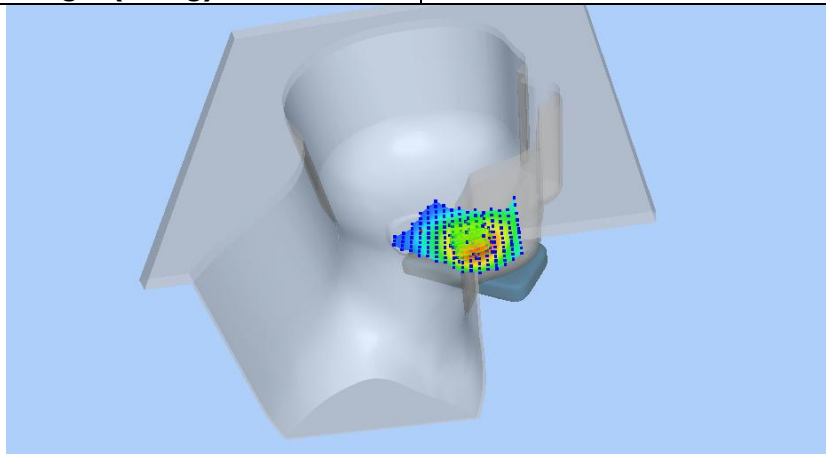
### VOLUME SAR



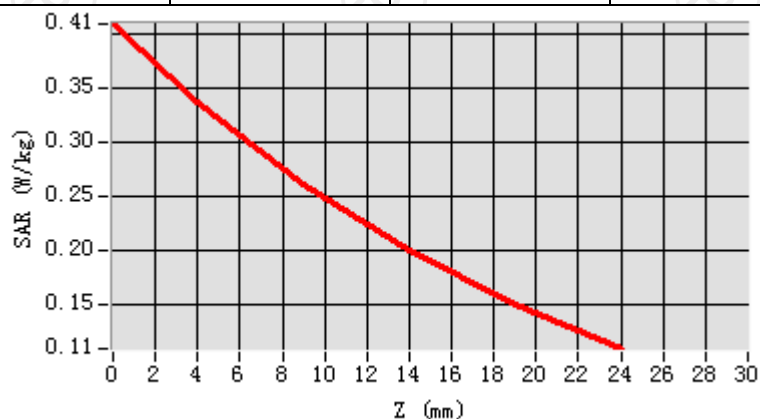
Maximum location: X=-53.00, Y=-38.00 SAR Peak: 0.41 W/kg

SAR 10g (W/Kg) 0.231938

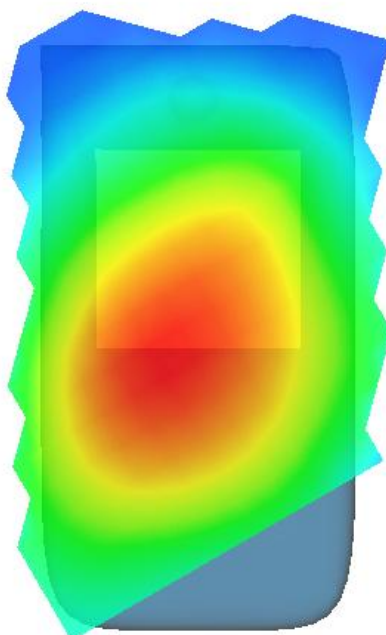
SAR 1g (W/Kg) 0.323504



| Z (mm)     | 0.00   | 4.00   | 9.00   | 14.00  | 19.00  |
|------------|--------|--------|--------|--------|--------|
| SAR (W/Kg) | 0.4100 | 0.3377 | 0.2619 | 0.2003 | 0.1504 |



Hot spot position



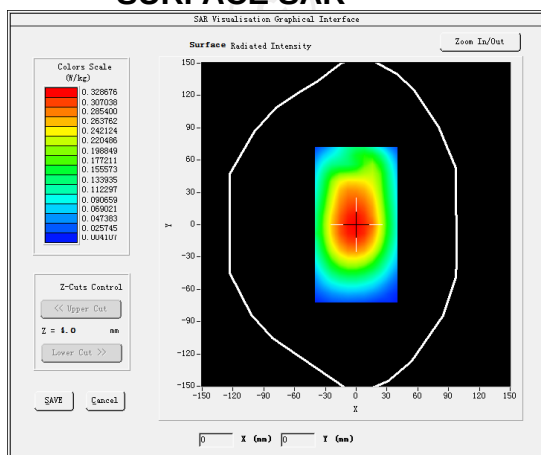
## MEASUREMENT 2

Middle Band SAR (Channel 9182):

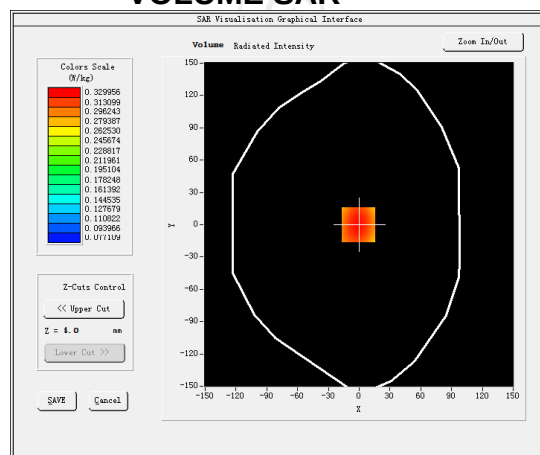
Date: 03/10/2020

|                                        |                                                                                             |
|----------------------------------------|---------------------------------------------------------------------------------------------|
| Frequency (MHz)                        | 836.400000                                                                                  |
| Relative permittivity (real part)      | 55.242927                                                                                   |
| Relative permittivity (imaginary part) | 21.378266                                                                                   |
| Conductivity (S/m)                     | 0.941230                                                                                    |
| Variation (%)                          | 1.110000                                                                                    |
| Crest Factor:                          | 1.0                                                                                         |
| Probe Conversion factor                | 5.65                                                                                        |
| E-Field Probe:                         | SSE2 (SN 41/18 EP331)                                                                       |
| Area Scan                              | <u>dx=8mm dy=8mm, h= 5.00 mm</u>                                                            |
| ZoomScan                               | <u>5x5x7, dx=8mm dy=8mm</u><br><u>dz=5mm, Complete/ndx=8mm dy=8mm, h=</u><br><u>5.00 mm</u> |
| Phantom                                | <u>Validation plane</u>                                                                     |
| Device Position                        | <u>Body back(10mm)</u>                                                                      |
| Band                                   | <u>BAND5 WCDMA850</u>                                                                       |

### SURFACE SAR



### VOLUME SAR



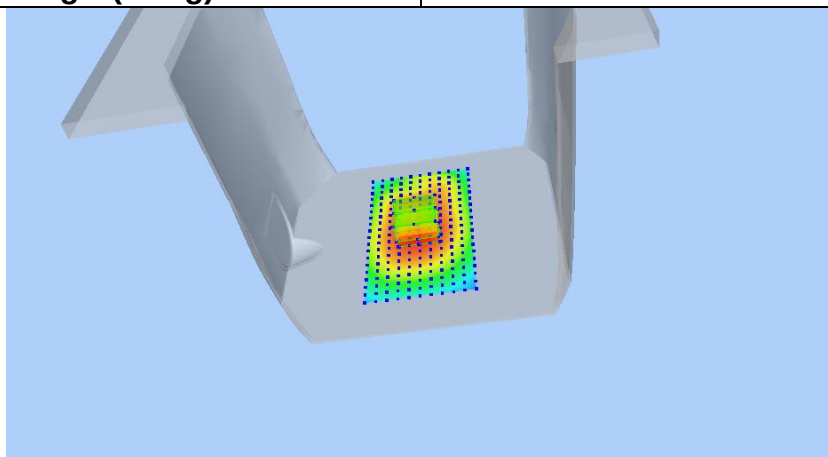
Maximum location: X=-1.00, Y=0.00 SAR Peak: 0.40 W/kg

SAR 10g (W/Kg)

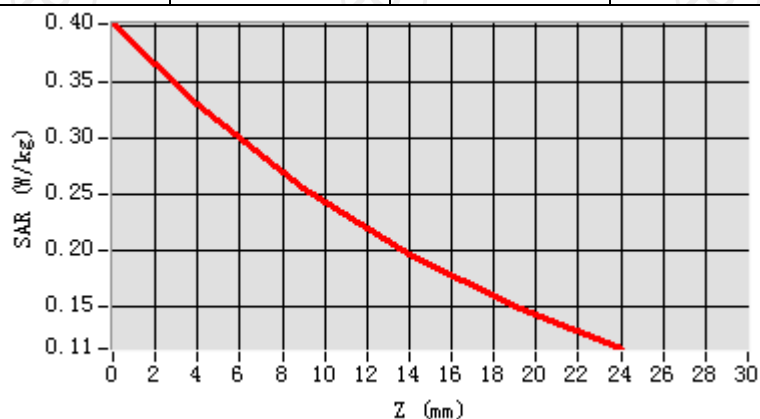
0.236853

SAR 1g (W/Kg)

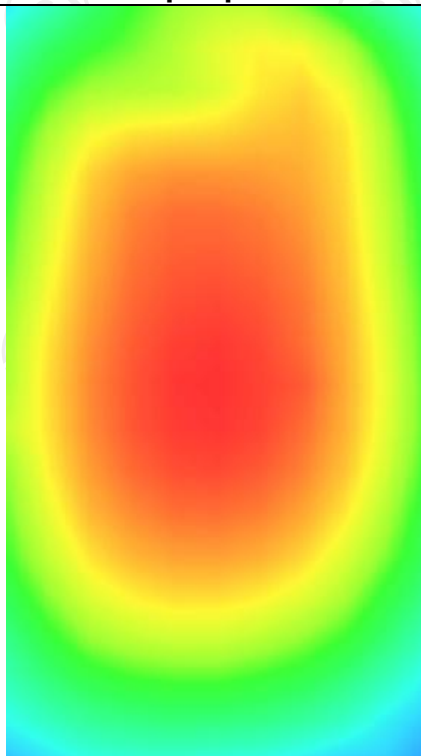
0.318832



| Z (mm)     | 0.00   | 4.00   | 9.00   | 14.00  | 19.00  |
|------------|--------|--------|--------|--------|--------|
| SAR (W/Kg) | 0.4019 | 0.3300 | 0.2561 | 0.1978 | 0.1515 |



Hot spot position





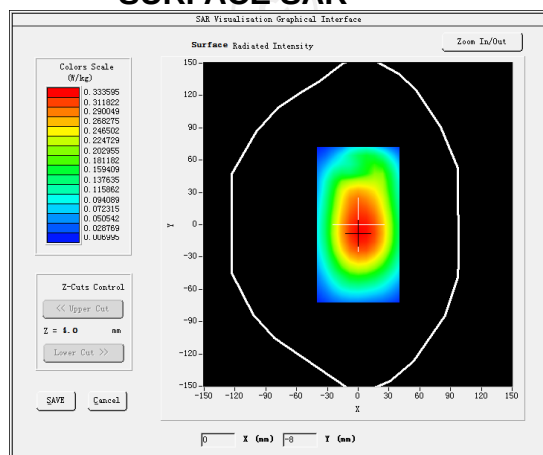
## MEASUREMENT 3

Middle Band SAR (Channel 9182):

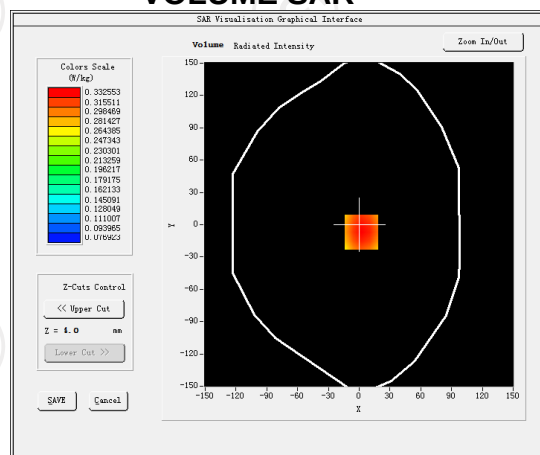
Date: 03/10/2020

|                                        |                                                                                             |
|----------------------------------------|---------------------------------------------------------------------------------------------|
| Frequency (MHz)                        | 836.400000                                                                                  |
| Relative permittivity (real part)      | 55.242927                                                                                   |
| Relative permittivity (imaginary part) | 21.378266                                                                                   |
| Conductivity (S/m)                     | 0.941230                                                                                    |
| Variation (%)                          | 0.010000                                                                                    |
| Crest Factor:                          | 1.0                                                                                         |
| Probe Conversion factor                | 5.65                                                                                        |
| E-Field Probe:                         | SSE2 (SN 41/18 EP331)                                                                       |
| Area Scan                              | <u>dx=8mm dy=8mm, h= 5.00 mm</u>                                                            |
| ZoomScan                               | <u>5x5x7, dx=8mm dy=8mm</u><br><u>dz=5mm, Complete/ndx=8mm dy=8mm,</u><br><u>h= 5.00 mm</u> |
| Phantom                                | <u>Validation plane</u>                                                                     |
| Device Position                        | <u>Body back(10mm)</u>                                                                      |
| Band                                   | <u>BAND5 WCDMA850(hotspot)</u>                                                              |

### SURFACE SAR



### VOLUME SAR



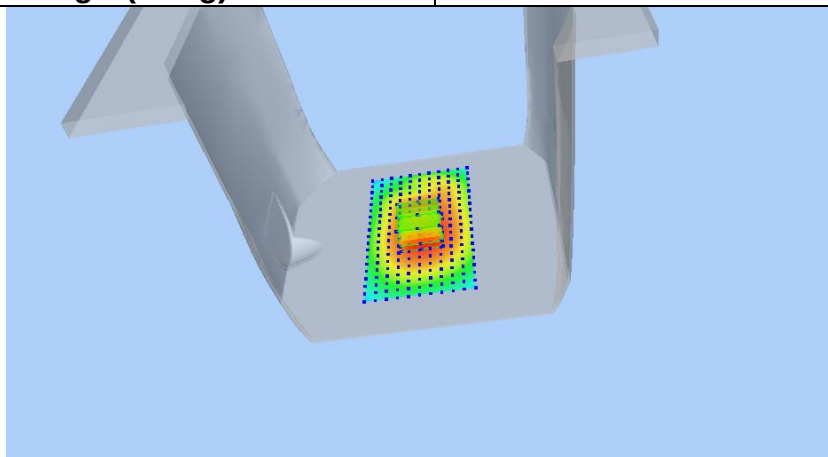
Maximum location: X=2.00, Y=-7.00 SAR Peak: 0.40 W/kg

SAR 10g (W/Kg)

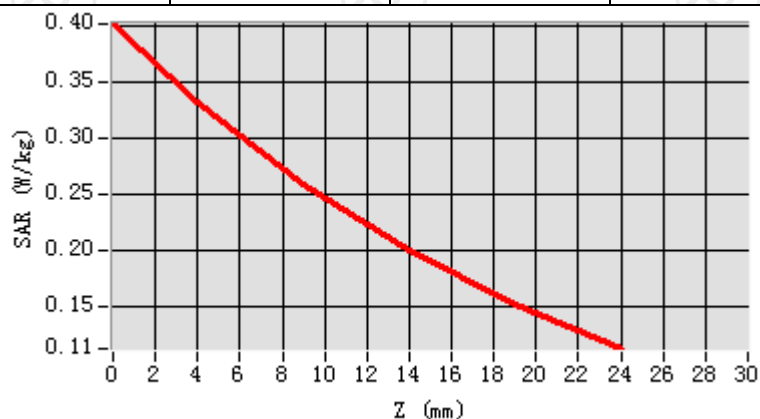
0.239471

SAR 1g (W/Kg)

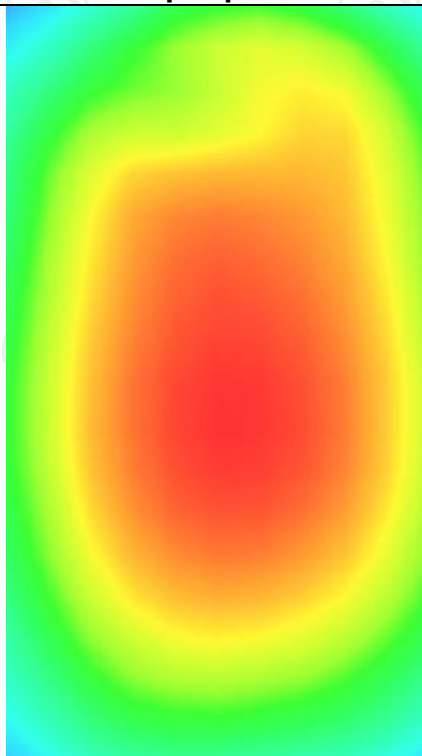
0.321681



| Z (mm)     | 0.00   | 4.00   | 9.00   | 14.00  | 19.00  |
|------------|--------|--------|--------|--------|--------|
| SAR (W/Kg) | 0.4021 | 0.3326 | 0.2598 | 0.2008 | 0.1530 |



Hot spot position



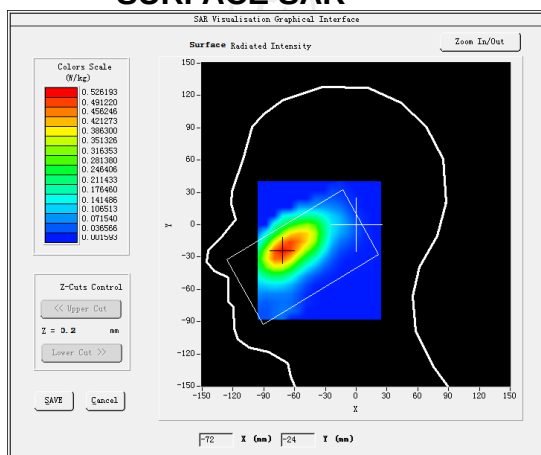
## LTE Band 2

### MEASUREMENT 1

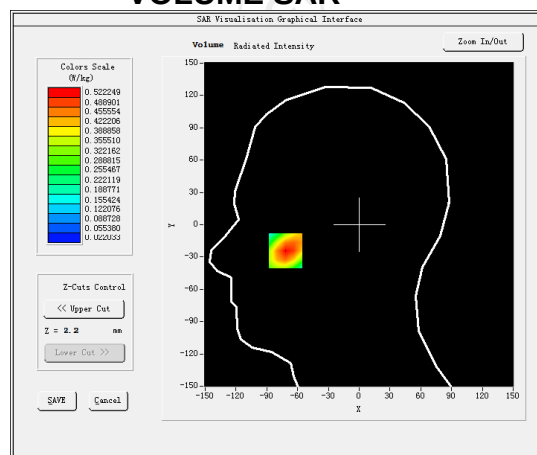
Lower Band SAR (Channel 18700): Date: 03/22/2020

|                                        |                                                                     |
|----------------------------------------|---------------------------------------------------------------------|
| Frequency (MHz)                        | 1860.000000                                                         |
| Relative permittivity (real part)      | 39.105208                                                           |
| Relative permittivity (imaginary part) | 12.607628                                                           |
| Conductivity (S/m)                     | 1.342108                                                            |
| Variation (%)                          | 1.330000                                                            |
| Crest Factor                           | 1.0                                                                 |
| Probe Conversion factor                | 4.85                                                                |
| E-Field Probe:                         | SSE2 (SN 41/18 EP331)                                               |
| Area Scan                              | dx=8mm dy=8mm, h= 5.00 mm                                           |
| ZoomScan                               | 5x5x7, dx=8mm dy=8mm<br>dz=5mm, Complete/ndx=8mm dy=8mm, h= 5.00 mm |
| Phantom                                | Left head                                                           |
| Device Position                        | Cheek                                                               |
| Band                                   | LTE band 2 (1 RB#50)                                                |

#### SURFACE SAR



#### VOLUME SAR



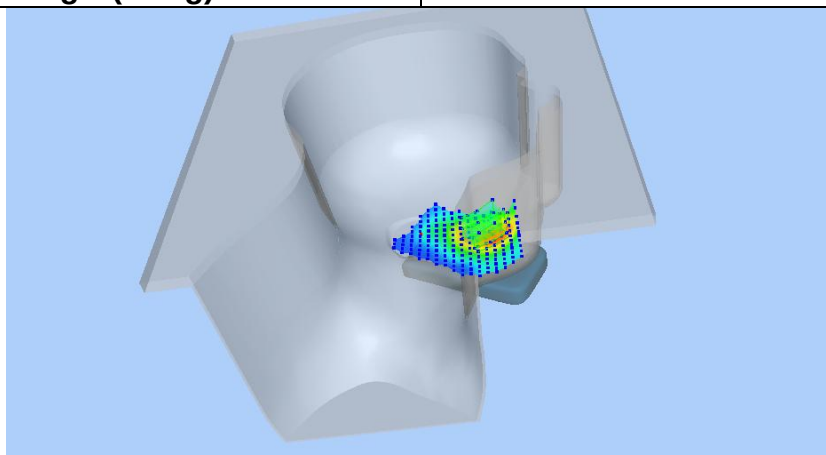
Maximum location: X=-72.00, Y=-24.00 SAR Peak: 0.73 W/kg

SAR 10g (W/Kg)

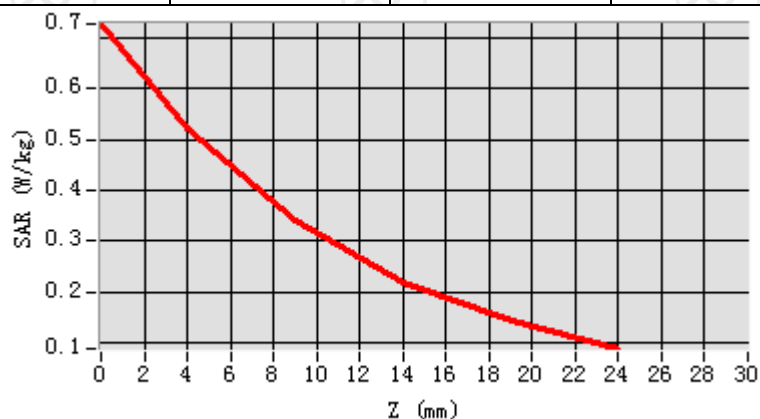
0.300930

SAR 1g (W/Kg)

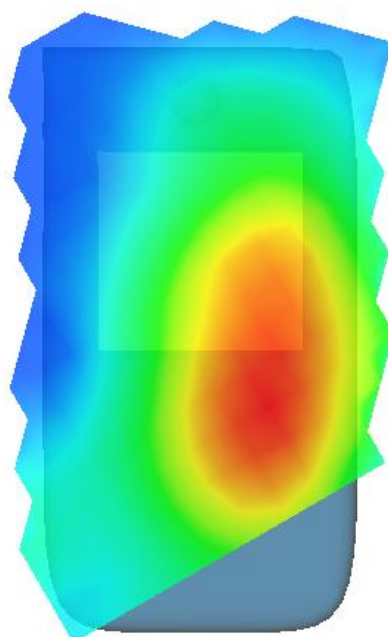
0.494180



| Z (mm)     | 0.00   | 4.00   | 9.00   | 14.00  | 19.00  |
|------------|--------|--------|--------|--------|--------|
| SAR (W/Kg) | 0.7282 | 0.5222 | 0.3398 | 0.2200 | 0.1425 |



### Hot spot position



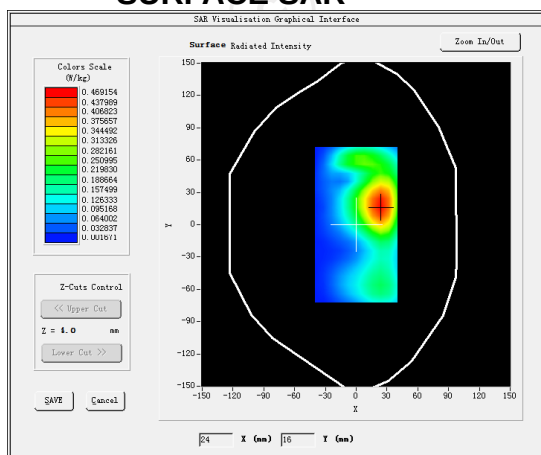
## MEASUREMENT 2

Lower Band SAR (Channel 18607):

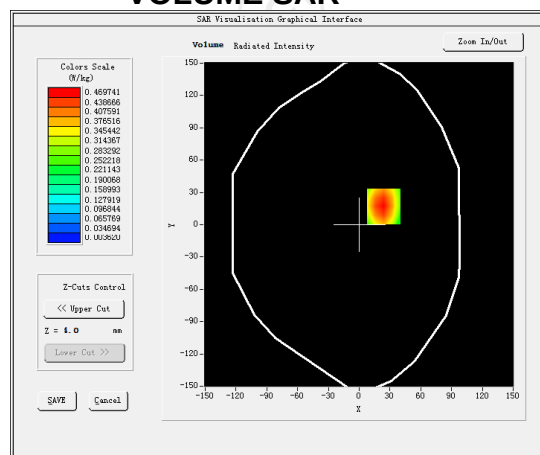
Date: 03/22/2020

|                                        |                                                                     |
|----------------------------------------|---------------------------------------------------------------------|
| Frequency (MHz)                        | 1850.700000                                                         |
| Relative permittivity (real part)      | 53.341337                                                           |
| Relative permittivity (imaginary part) | 14.232400                                                           |
| Conductivity (S/m)                     | 1.491736                                                            |
| Variation (%)                          | 0.070000                                                            |
| Crest Factor                           | 1.0                                                                 |
| Probe Conversion factor                | 5.01                                                                |
| E-Field Probe:                         | SSE2 (SN 41/18 EP331)                                               |
| Area Scan                              | dx=8mm dy=8mm, h= 5.00 mm                                           |
| ZoomScan                               | 5x5x7, dx=8mm dy=8mm<br>dz=5mm, Complete/ndx=8mm dy=8mm, h= 5.00 mm |
| Phantom                                | Validation plane                                                    |
| Device Position                        | Body back(10mm)                                                     |
| Band                                   | LTE band 2 (1 RB#50)                                                |

### SURFACE SAR



### VOLUME SAR



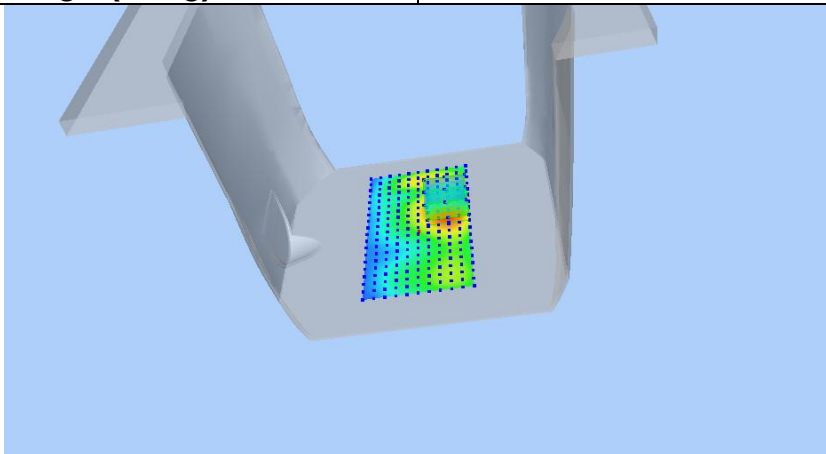
Maximum location: X=24.00, Y=17.00 SAR Peak: 0.83 W/kg

SAR 10g (W/Kg)

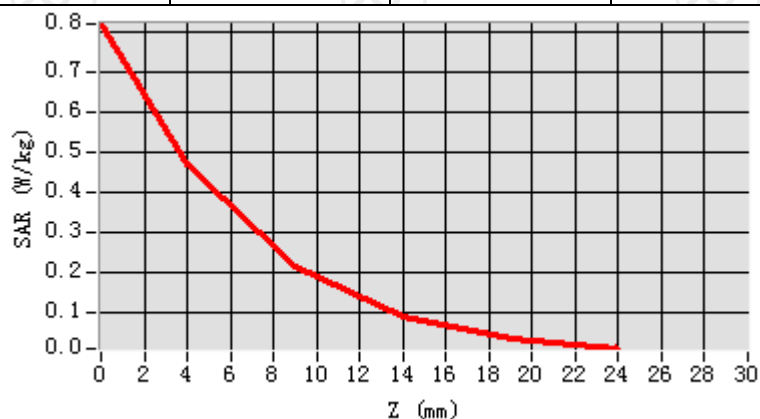
0.226883

SAR 1g (W/Kg)

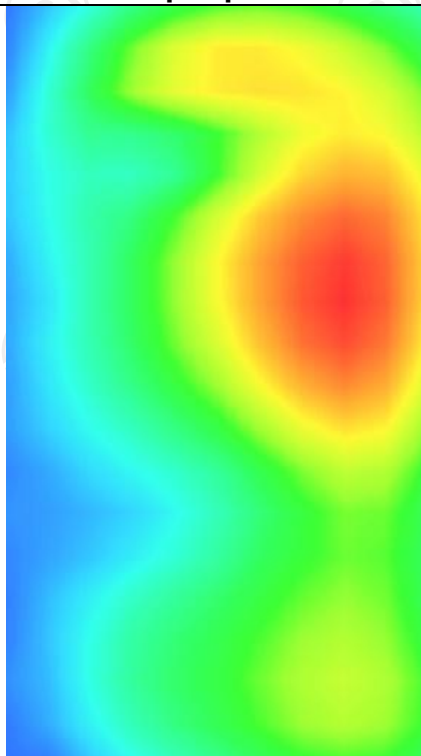
0.448118



| Z (mm)     | 0.00   | 4.00   | 9.00   | 14.00  | 19.00  |
|------------|--------|--------|--------|--------|--------|
| SAR (W/Kg) | 0.8221 | 0.4697 | 0.2156 | 0.0922 | 0.0378 |



Hot spot position



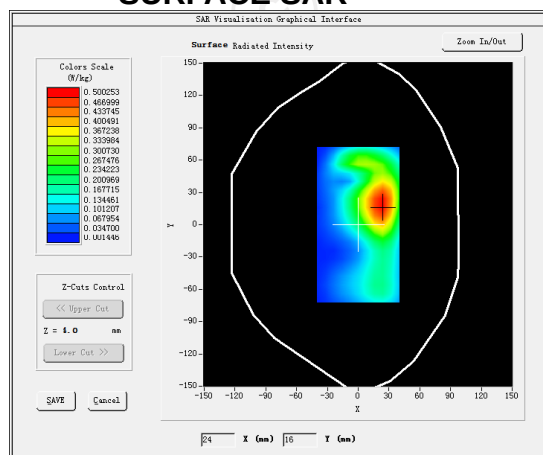
## MEASUREMENT 3

Lower Band SAR (Channel 18607):

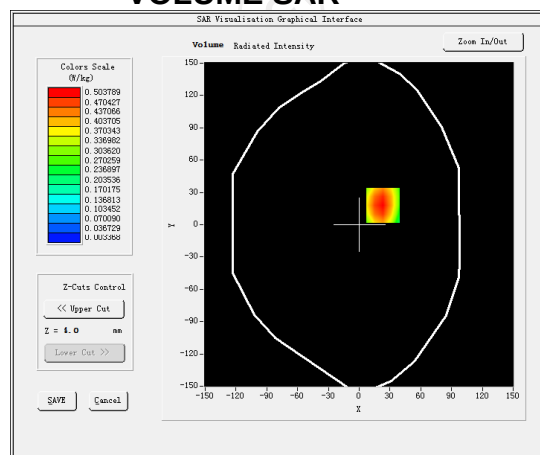
Date: 03/22/2020

|                                        |                                                                                             |
|----------------------------------------|---------------------------------------------------------------------------------------------|
| Frequency (MHz)                        | 1850.700000                                                                                 |
| Relative permittivity (real part)      | 53.341337                                                                                   |
| Relative permittivity (imaginary part) | 14.232400                                                                                   |
| Conductivity (S/m)                     | 1.491736                                                                                    |
| Variation (%)                          | 0.710000                                                                                    |
| Crest Factor                           | 1.0                                                                                         |
| Probe Conversion factor                | 5.01                                                                                        |
| E-Field Probe:                         | SSE2 (SN 41/18 EP331)                                                                       |
| Area Scan                              | <u>dx=8mm dy=8mm, h= 5.00 mm</u>                                                            |
| ZoomScan                               | <u>5x5x7, dx=8mm dy=8mm</u><br><u>dz=5mm, Complete/ndx=8mm dy=8mm, h=</u><br><u>5.00 mm</u> |
| Phantom                                | <u>Validation plane</u>                                                                     |
| Device Position                        | <u>Body back(hotspot 10mm)</u>                                                              |
| Band                                   | <u>LTE band 2 (1 RB#50)</u>                                                                 |

### SURFACE SAR



### VOLUME SAR



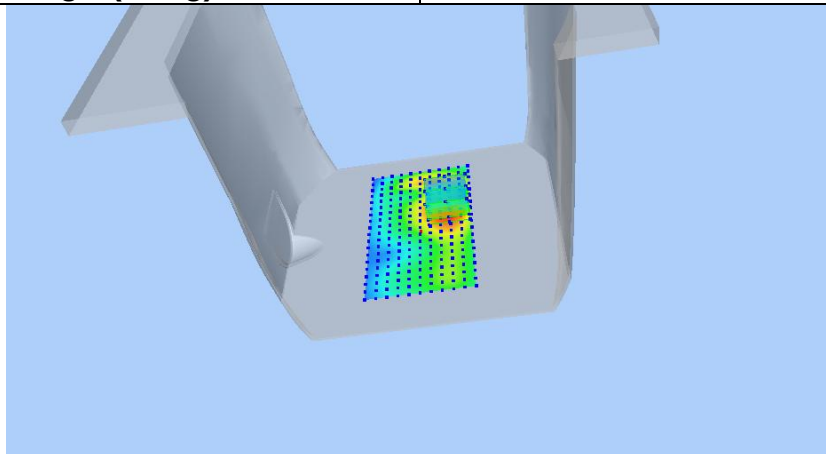
Maximum location: X=23.00, Y=18.00 SAR Peak: 0.88 W/kg

SAR 10g (W/Kg)

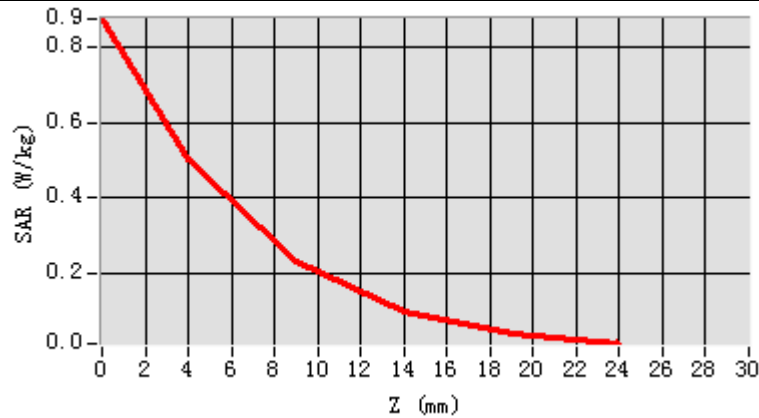
0.244385

SAR 1g (W/Kg)

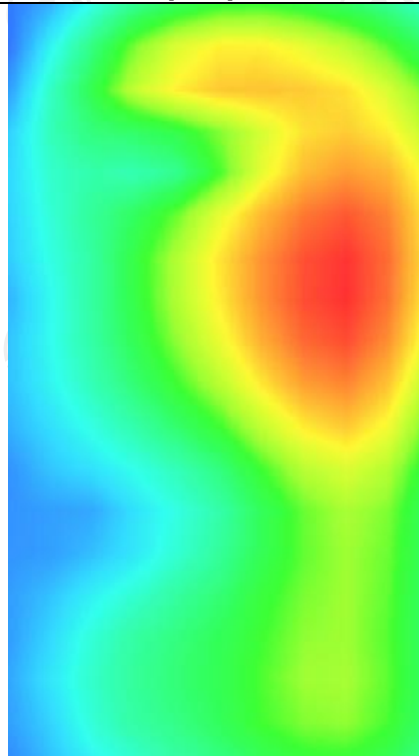
0.481488



| Z (mm)     | 0.00   | 4.00   | 9.00   | 14.00  | 19.00  |
|------------|--------|--------|--------|--------|--------|
| SAR (W/Kg) | 0.8767 | 0.5038 | 0.2324 | 0.0988 | 0.0391 |



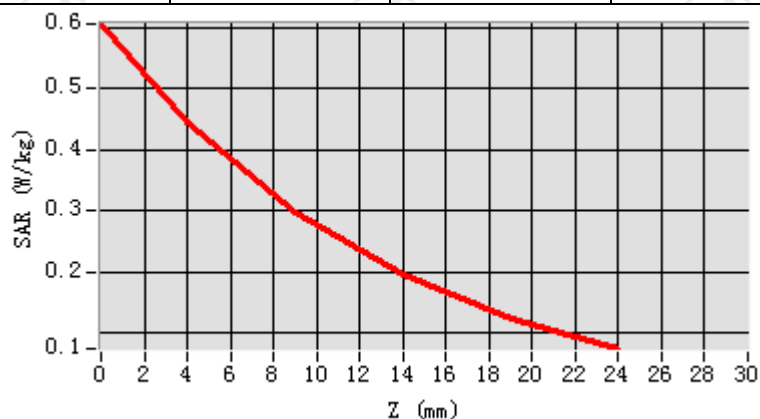
Hot spot position



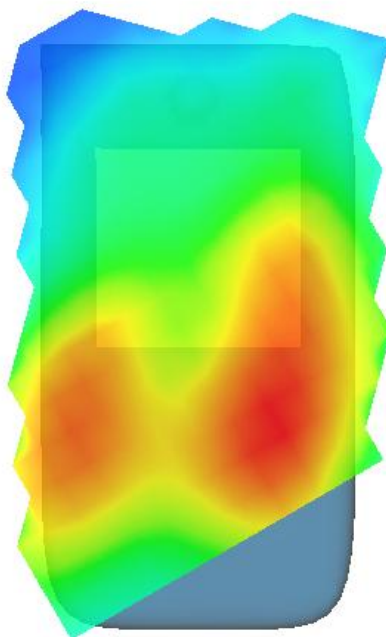




| Z (mm)     | 0.00   | 4.00   | 9.00   | 14.00  | 19.00  |
|------------|--------|--------|--------|--------|--------|
| SAR (W/Kg) | 0.6067 | 0.4463 | 0.2982 | 0.1953 | 0.1248 |



## Hot spot position



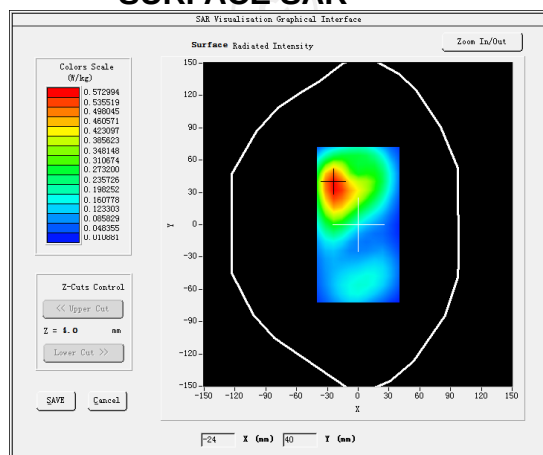
## MEASUREMENT 2

Lower Band SAR (Channel 20050):

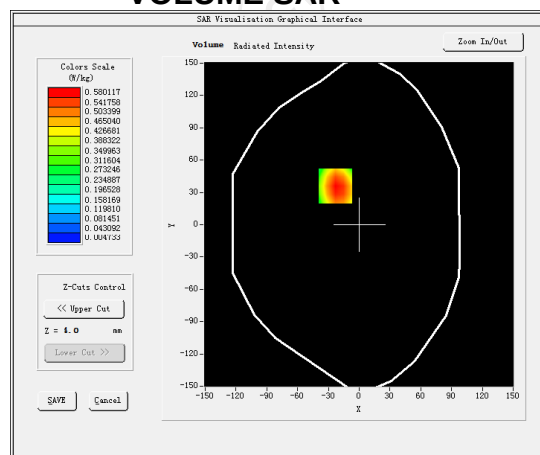
Date: 03/16/2020

|                                        |                                                                                             |
|----------------------------------------|---------------------------------------------------------------------------------------------|
| Frequency (MHz)                        | 1720.000000                                                                                 |
| Relative permittivity (real part)      | 53.321249                                                                                   |
| Relative permittivity (imaginary part) | 12.468850                                                                                   |
| Conductivity (S/m)                     | 1.502592                                                                                    |
| Variation (%)                          | 1.210000                                                                                    |
| Crest Factor                           | 1.0                                                                                         |
| Probe Conversion factor                | 4.52                                                                                        |
| E-Field Probe:                         | SSE2 (SN 41/18 EP331)                                                                       |
| Area Scan                              | <u>dx=8mm dy=8mm, h= 5.00 mm</u>                                                            |
| ZoomScan                               | <u>5x5x7, dx=8mm dy=8mm</u><br><u>dz=5mm, Complete/ndx=8mm dy=8mm, h=</u><br><u>5.00 mm</u> |
| Phantom                                | <u>Validation plane</u>                                                                     |
| Device Position                        | <u>Body back(10mm)</u>                                                                      |
| Band                                   | <u>LTE band 4(1 RB#50)</u>                                                                  |

### SURFACE SAR



### VOLUME SAR



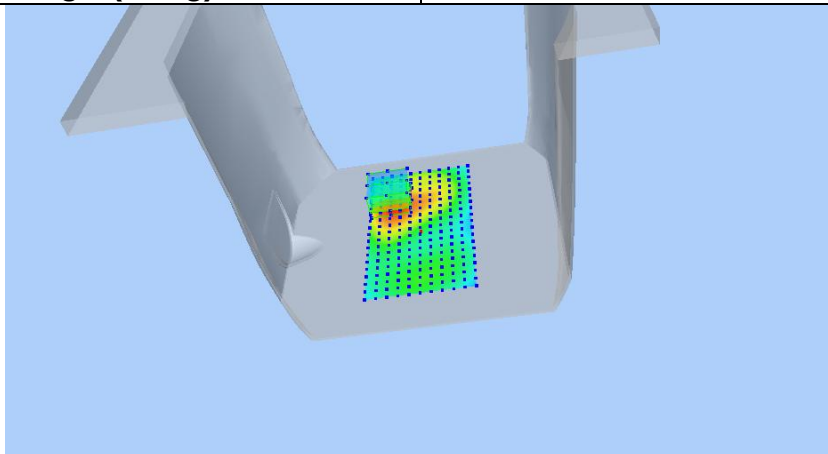
Maximum location: X=-23.00, Y=36.00 SAR Peak: 1.01 W/kg

SAR 10g (W/Kg)

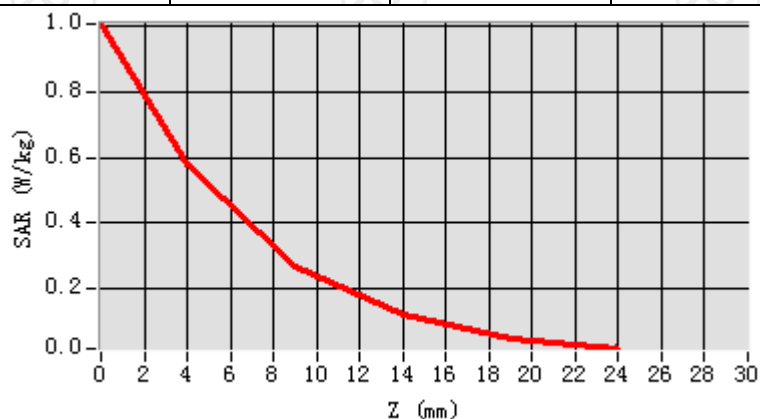
0.289505

SAR 1g (W/Kg)

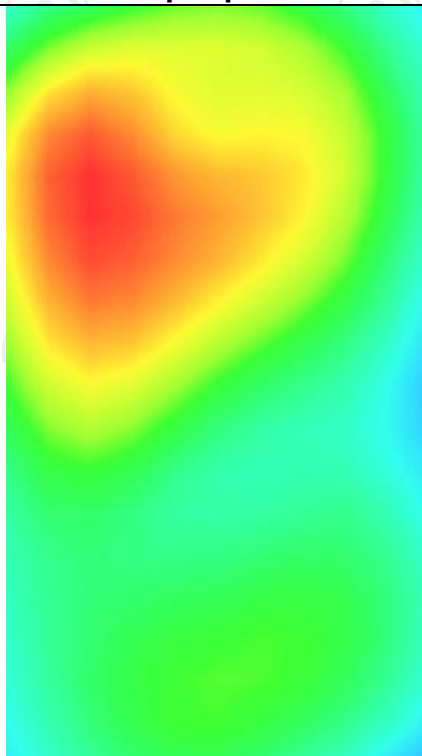
0.556694



| Z (mm)     | 0.00   | 4.00   | 9.00   | 14.00  | 19.00  |
|------------|--------|--------|--------|--------|--------|
| SAR (W/Kg) | 1.0050 | 0.5801 | 0.2718 | 0.1204 | 0.0526 |



Hot spot position



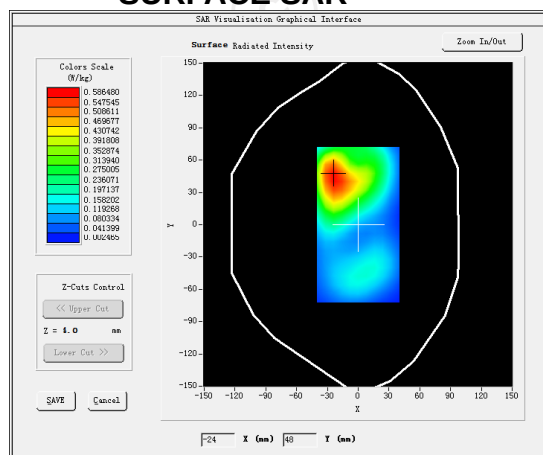
## MEASUREMENT 3

Lower Band SAR (Channel 20050):

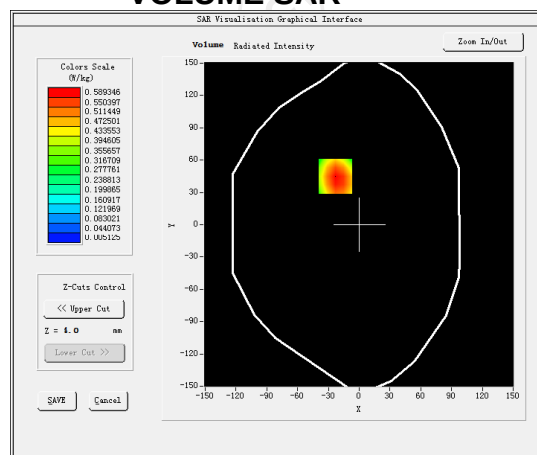
Date: 03/16/2020

|                                        |                                                                                             |
|----------------------------------------|---------------------------------------------------------------------------------------------|
| Frequency (MHz)                        | 1720.000000                                                                                 |
| Relative permittivity (real part)      | 53.321249                                                                                   |
| Relative permittivity (imaginary part) | 12.468850                                                                                   |
| Conductivity (S/m)                     | 1.502592                                                                                    |
| Variation (%)                          | 1.900000                                                                                    |
| Crest Factor                           | 1.0                                                                                         |
| Probe Conversion factor                | 4.52                                                                                        |
| E-Field Probe:                         | SSE2 (SN 41/18 EP331)                                                                       |
| Area Scan                              | <u>dx=8mm dy=8mm, h= 5.00 mm</u>                                                            |
| ZoomScan                               | <u>5x5x7, dx=8mm dy=8mm</u><br><u>dz=5mm, Complete/ndx=8mm dy=8mm, h=</u><br><u>5.00 mm</u> |
| Phantom                                | <u>Validation plane</u>                                                                     |
| Device Position                        | <u>Body back(hotspot 10mm)</u>                                                              |
| Band                                   | <u>LTE band 4(1 RB#50)</u>                                                                  |

### SURFACE SAR



### VOLUME SAR



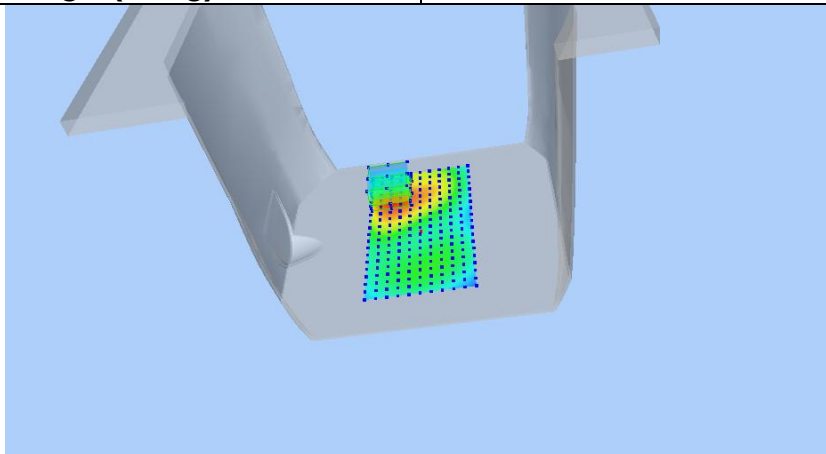
Maximum location: X=-23.00, Y=45.00 SAR Peak: 1.02 W/kg

SAR 10g (W/Kg)

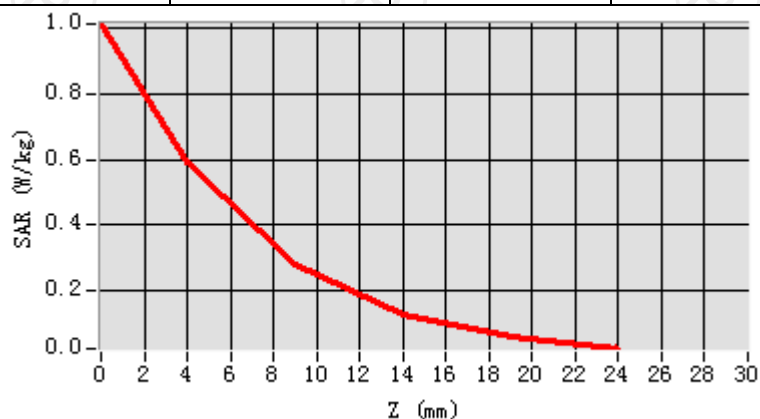
0.296885

SAR 1g (W/Kg)

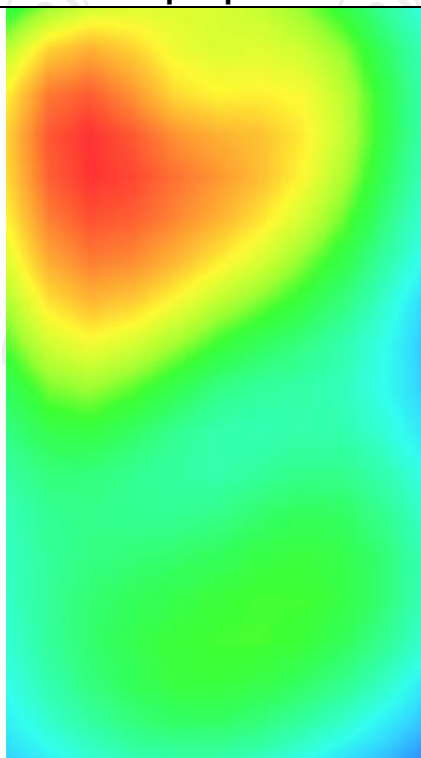
0.565742



| Z (mm)     | 0.00   | 4.00   | 9.00   | 14.00  | 19.00  |
|------------|--------|--------|--------|--------|--------|
| SAR (W/Kg) | 1.0151 | 0.5893 | 0.2786 | 0.1246 | 0.0547 |

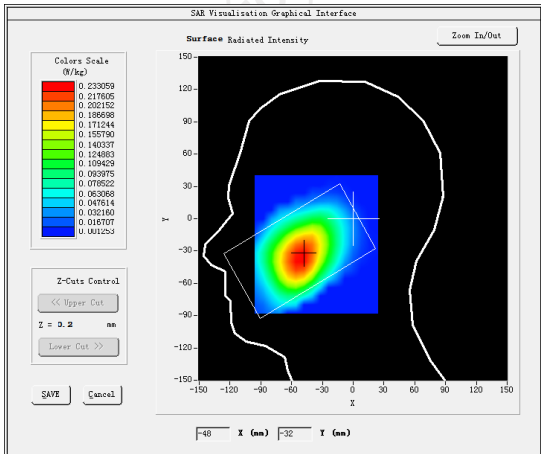
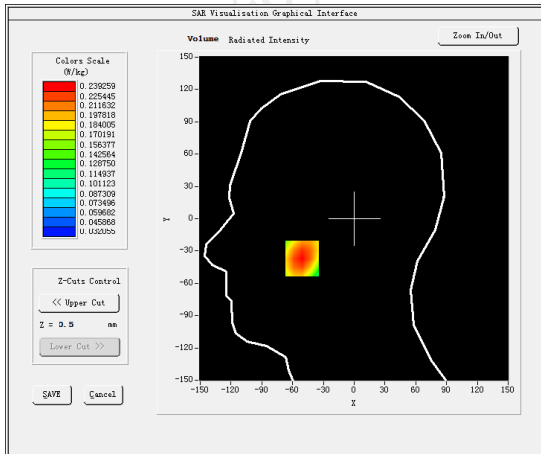


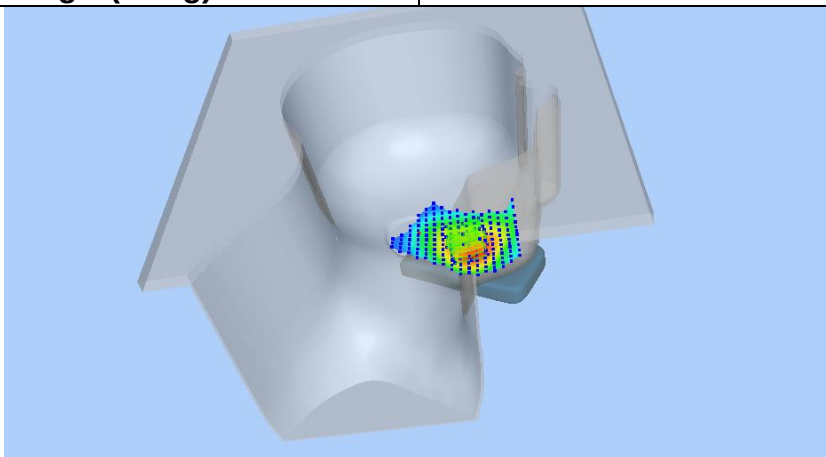
Hot spot position



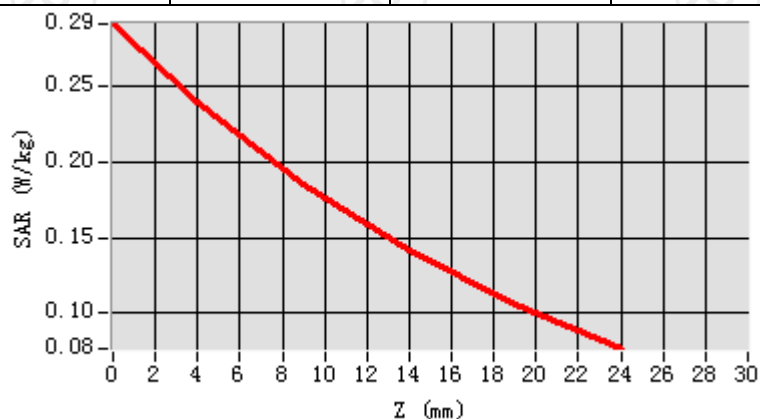
## LTE Band 5

### MEASUREMENT 1

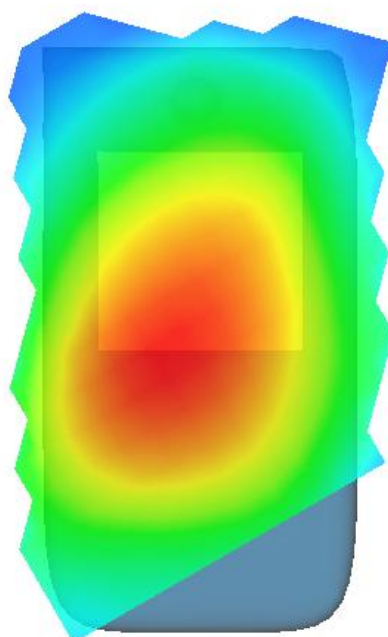
|                                                                                    |                                                                     |                                                                                     |
|------------------------------------------------------------------------------------|---------------------------------------------------------------------|-------------------------------------------------------------------------------------|
| Lower Band SAR (Channel 20450):                                                    |                                                                     | Date: 03/10/2020                                                                    |
| Frequency (MHz)                                                                    | 829.000000                                                          |                                                                                     |
| Relative permittivity (real part)                                                  | 41.432976                                                           |                                                                                     |
| Relative permittivity (imaginary part)                                             | 12.468860                                                           |                                                                                     |
| Conductivity (S/m)                                                                 | 0.862835                                                            |                                                                                     |
| Variation (%)                                                                      | 1.690000                                                            |                                                                                     |
| Crest Factor                                                                       | 1.0                                                                 |                                                                                     |
| Probe Conversion factor                                                            | 4.38                                                                |                                                                                     |
| E-Field Probe:                                                                     | SSE2 (SN 41/18 EP331)                                               |                                                                                     |
| Area Scan                                                                          | dx=8mm dy=8mm, h= 5.00 mm                                           |                                                                                     |
| ZoomScan                                                                           | 5x5x7, dx=8mm dy=8mm<br>dz=5mm, Complete/ndx=8mm dy=8mm, h= 5.00 mm |                                                                                     |
| Phantom                                                                            | Left head                                                           |                                                                                     |
| Device Position                                                                    | Cheek                                                               |                                                                                     |
| Band                                                                               | LTE band 5(1 RB#25)                                                 |                                                                                     |
| <b>SURFACE SAR</b>                                                                 | <b>VOLUME SAR</b>                                                   |                                                                                     |
|  |                                                                     |  |
| Maximum location: X=-51.00, Y=-37.00 SAR Peak: 0.29 W/kg                           |                                                                     |                                                                                     |
| SAR 10g (W/Kg)                                                                     | 0.163789                                                            |                                                                                     |
| SAR 1g (W/Kg)                                                                      | 0.229156                                                            |                                                                                     |



| Z (mm)     | 0.00   | 4.00   | 9.00   | 14.00  | 19.00  |
|------------|--------|--------|--------|--------|--------|
| SAR (W/Kg) | 0.2913 | 0.2393 | 0.1850 | 0.1411 | 0.1058 |



## Hot spot position





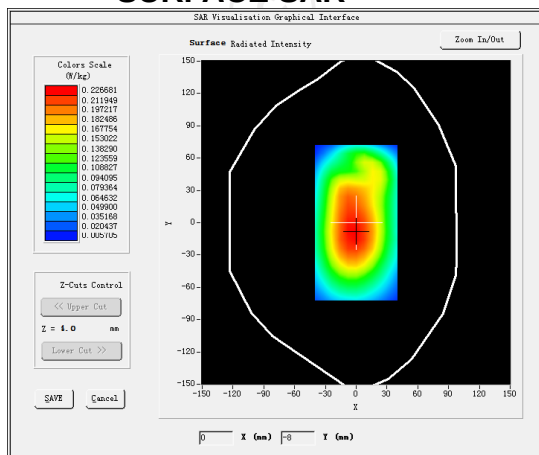
## MEASUREMENT 2

Lower Band SAR (Channel 20450):

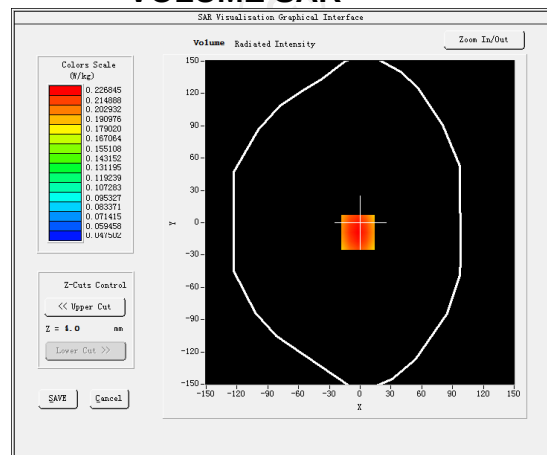
Date: 03/10/2020

|                                        |                                                                     |
|----------------------------------------|---------------------------------------------------------------------|
| Frequency (MHz)                        | 829.000000                                                          |
| Relative permittivity (real part)      | 55.260832                                                           |
| Relative permittivity (imaginary part) | 12.468860                                                           |
| Conductivity (S/m)                     | 0.934272                                                            |
| Variation (%)                          | -0.160000                                                           |
| Crest Factor                           | 1.0                                                                 |
| Probe Conversion factor                | 4.52                                                                |
| E-Field Probe:                         | SSE2 (SN 41/18 EP331)                                               |
| Area Scan                              | dx=8mm dy=8mm, h= 5.00 mm                                           |
| ZoomScan                               | 5x5x7, dx=8mm dy=8mm<br>dz=5mm, Complete/ndx=8mm dy=8mm, h= 5.00 mm |
| Phantom                                | Validation plane                                                    |
| Device Position                        | Body back(10mm)                                                     |
| Band                                   | LTE band 5(1 RB#13)                                                 |

### SURFACE SAR



### VOLUME SAR



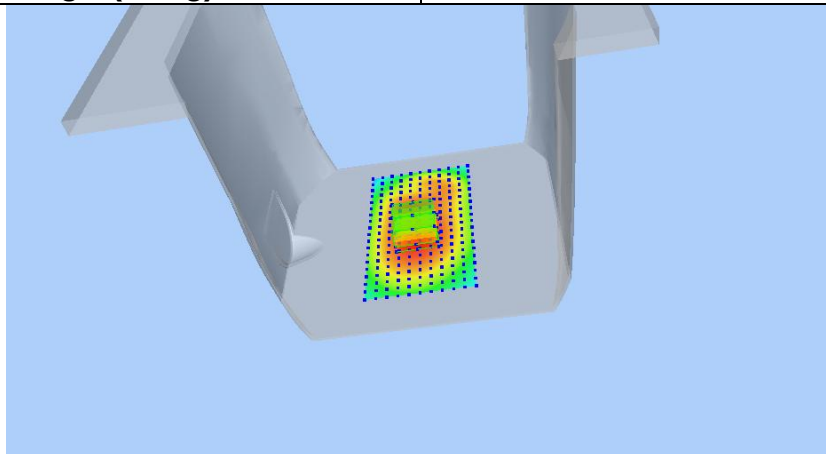
Maximum location: X=-2.00, Y=-9.00 SAR Peak: 0.28 W/kg

SAR 10g (W/Kg)

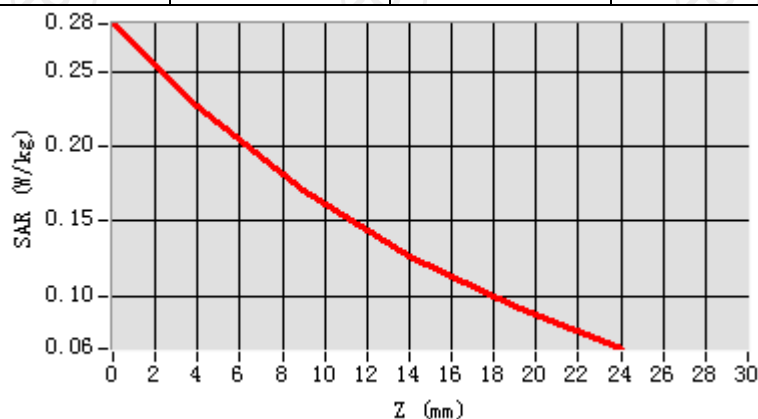
0.157407

SAR 1g (W/Kg)

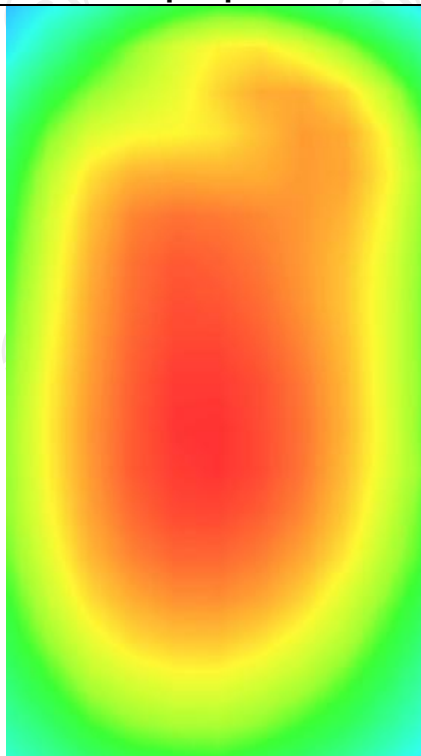
0.218518



| Z (mm)     | 0.00   | 4.00   | 9.00   | 14.00  | 19.00  |
|------------|--------|--------|--------|--------|--------|
| SAR (W/Kg) | 0.2817 | 0.2268 | 0.1708 | 0.1268 | 0.0924 |



Hot spot position



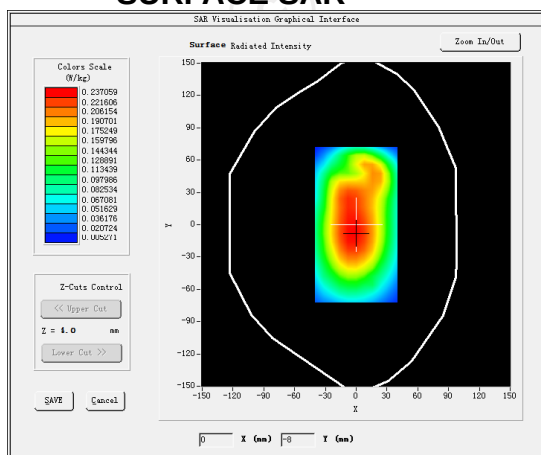
## MEASUREMENT 3

Lower Band SAR (Channel 20450):

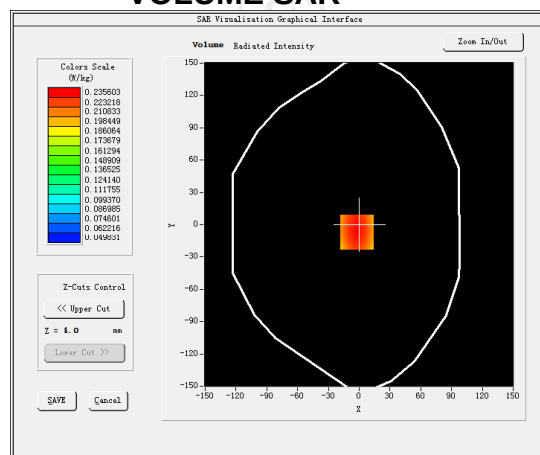
Date: 03/10/2020

|                                        |                                                                                             |
|----------------------------------------|---------------------------------------------------------------------------------------------|
| Frequency (MHz)                        | 829.000000                                                                                  |
| Relative permittivity (real part)      | 55.260832                                                                                   |
| Relative permittivity (imaginary part) | 12.468860                                                                                   |
| Conductivity (S/m)                     | 0.934272                                                                                    |
| Variation (%)                          | -1.190000                                                                                   |
| Crest Factor                           | 1.0                                                                                         |
| Probe Conversion factor                | 4.52                                                                                        |
| E-Field Probe:                         | SSE2 (SN 41/18 EP331)                                                                       |
| Area Scan                              | <u>dx=8mm dy=8mm, h= 5.00 mm</u>                                                            |
| ZoomScan                               | <u>5x5x7, dx=8mm dy=8mm</u><br><u>dz=5mm, Complete/ndx=8mm dy=8mm, h=</u><br><u>5.00 mm</u> |
| Phantom                                | <u>Validation plane</u>                                                                     |
| Device Position                        | <u>Body back(10mm)</u>                                                                      |
| Band                                   | <u>LTE band 5(1 RB#13)</u>                                                                  |

### SURFACE SAR



### VOLUME SAR



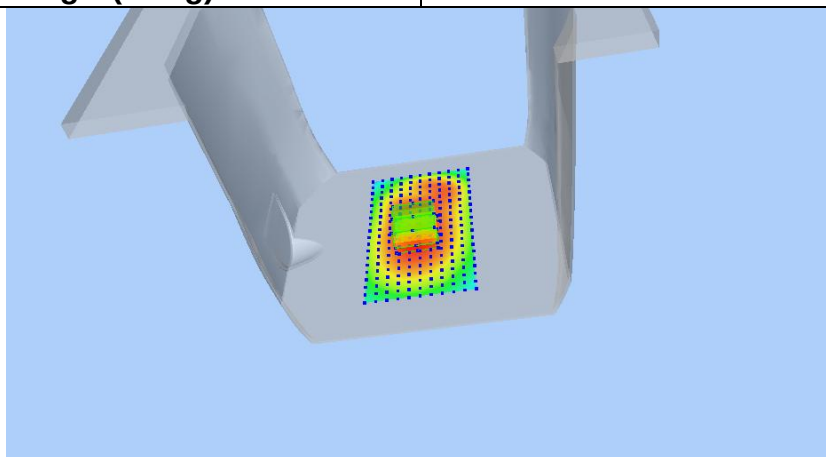
Maximum location: X=-2.00, Y=-7.00 SAR Peak: 0.29 W/kg

SAR 10g (W/Kg)

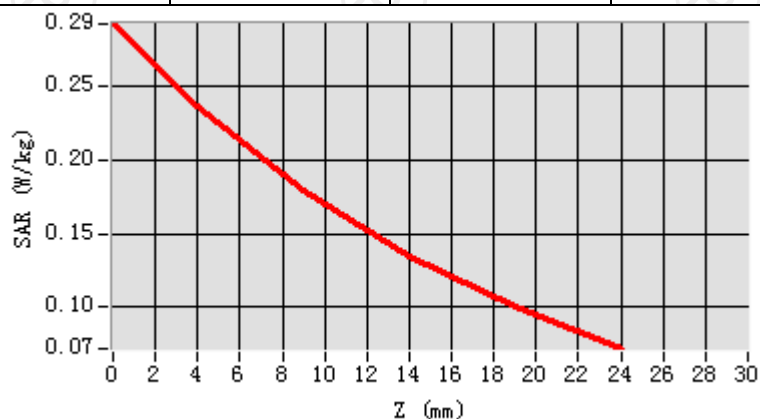
0.165419

SAR 1g (W/Kg)

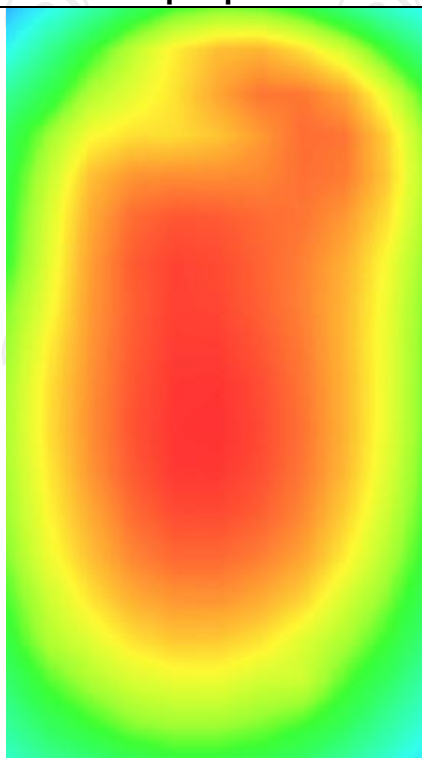
0.227376



| Z (mm)     | 0.00   | 4.00   | 9.00   | 14.00  | 19.00  |
|------------|--------|--------|--------|--------|--------|
| SAR (W/Kg) | 0.2917 | 0.2356 | 0.1788 | 0.1345 | 0.1000 |

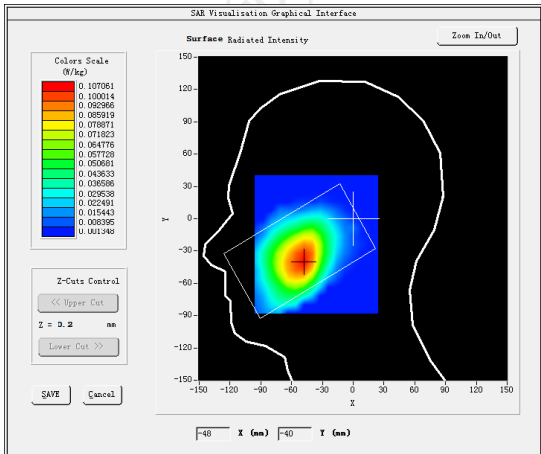
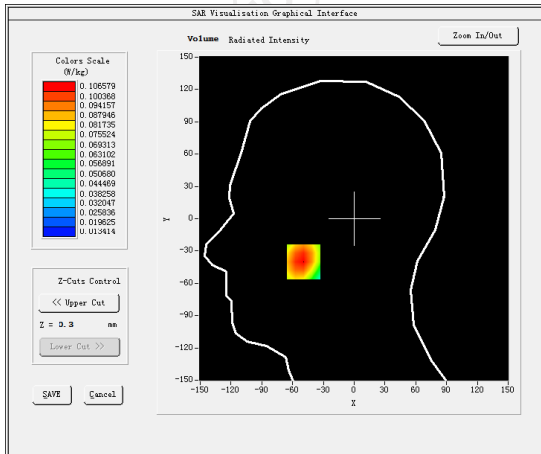


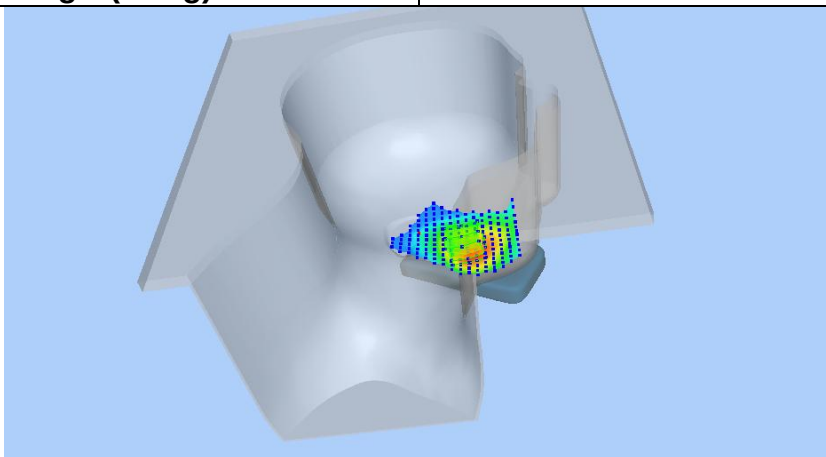
Hot spot position



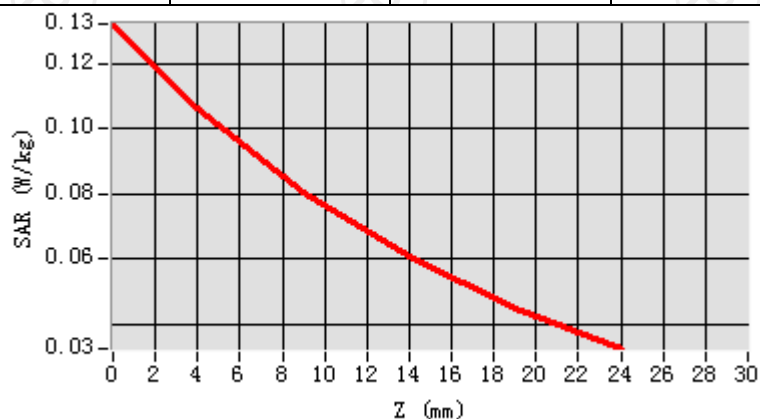
## LTE Band 12

### MEASUREMENT 1

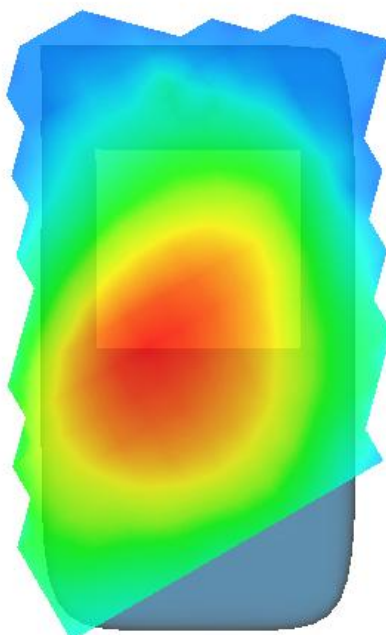
|                                                                                    |                                                                     |                                                                                     |
|------------------------------------------------------------------------------------|---------------------------------------------------------------------|-------------------------------------------------------------------------------------|
| Lower Band SAR (Channel 23035):                                                    |                                                                     | Date: 03/10/2020                                                                    |
| Frequency (MHz)                                                                    | 701.500000                                                          |                                                                                     |
| Relative permittivity (real part)                                                  | 41.432976                                                           |                                                                                     |
| Relative permittivity (imaginary part)                                             | 12.468860                                                           |                                                                                     |
| Conductivity (S/m)                                                                 | 0.862835                                                            |                                                                                     |
| Variation (%)                                                                      | -1.670000                                                           |                                                                                     |
| Crest Factor                                                                       | 1.0                                                                 |                                                                                     |
| Probe Conversion factor                                                            | 4.38                                                                |                                                                                     |
| E-Field Probe:                                                                     | SSE2 (SN 41/18 EP331)                                               |                                                                                     |
| Area Scan                                                                          | dx=8mm dy=8mm, h= 5.00 mm                                           |                                                                                     |
| ZoomScan                                                                           | 5x5x7, dx=8mm dy=8mm<br>dz=5mm, Complete/ndx=8mm dy=8mm, h= 5.00 mm |                                                                                     |
| Phantom                                                                            | Left head                                                           |                                                                                     |
| Device Position                                                                    | Cheek                                                               |                                                                                     |
| Band                                                                               | LTE band 12(1 RB#13)                                                |                                                                                     |
| <b>SURFACE SAR</b>                                                                 | <b>VOLUME SAR</b>                                                   |                                                                                     |
|  |                                                                     |  |
| Maximum location: X=-49.00, Y=-40.00 SAR Peak: 0.13 W/kg                           |                                                                     |                                                                                     |
| SAR 10g (W/Kg)                                                                     | 0.073466                                                            |                                                                                     |
| SAR 1g (W/Kg)                                                                      | 0.104583                                                            |                                                                                     |



| Z (mm)     | 0.00   | 4.00   | 9.00   | 14.00  | 19.00  |
|------------|--------|--------|--------|--------|--------|
| SAR (W/Kg) | 0.1321 | 0.1066 | 0.0808 | 0.0608 | 0.0452 |



### Hot spot position



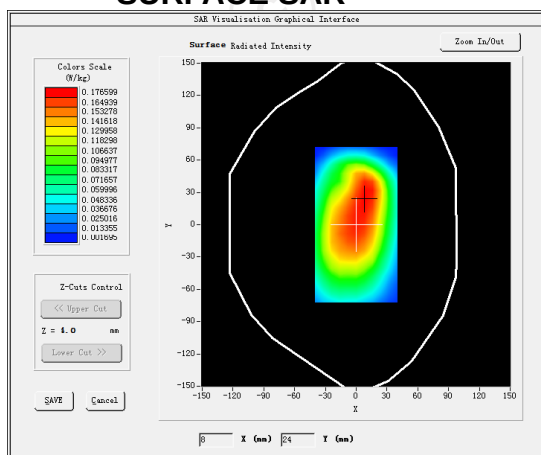
## MEASUREMENT 2

Lower Band SAR (Channel 23035):

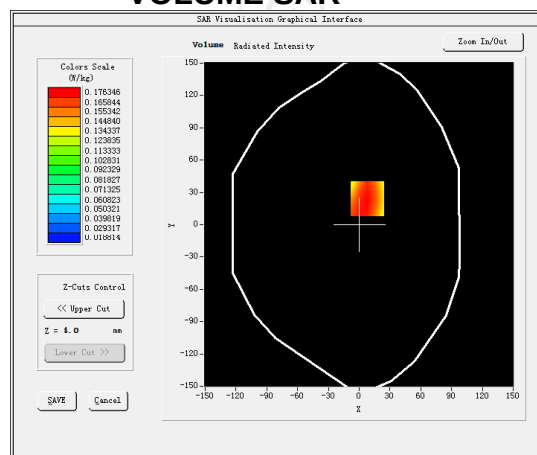
Date: 03/10/2020

|                                        |                                                                     |
|----------------------------------------|---------------------------------------------------------------------|
| Frequency (MHz)                        | 701.500000                                                          |
| Relative permittivity (real part)      | 55.260832                                                           |
| Relative permittivity (imaginary part) | 12.468860                                                           |
| Conductivity (S/m)                     | 0.934272                                                            |
| Variation (%)                          | -4.820000                                                           |
| Crest Factor                           | 1.0                                                                 |
| Probe Conversion factor                | 4.52                                                                |
| E-Field Probe:                         | SSE2 (SN 41/18 EP331)                                               |
| Area Scan                              | dx=8mm dy=8mm, h= 5.00 mm                                           |
| ZoomScan                               | 5x5x7, dx=8mm dy=8mm<br>dz=5mm, Complete/ndx=8mm dy=8mm, h= 5.00 mm |
| Phantom                                | Validation plane                                                    |
| Device Position                        | Body back(10mm)                                                     |
| Band                                   | LTE band 12(1 RB#13)                                                |

### SURFACE SAR



### VOLUME SAR



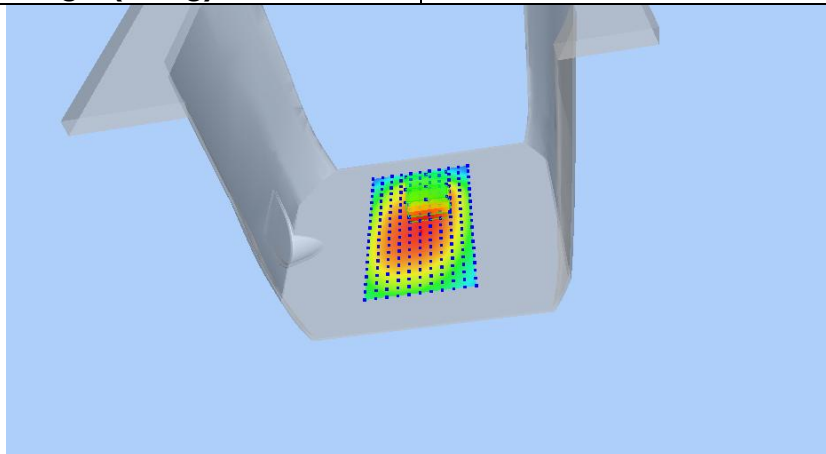
Maximum location: X=8.00, Y=24.00 SAR Peak: 0.25 W/kg

SAR 10g (W/Kg)

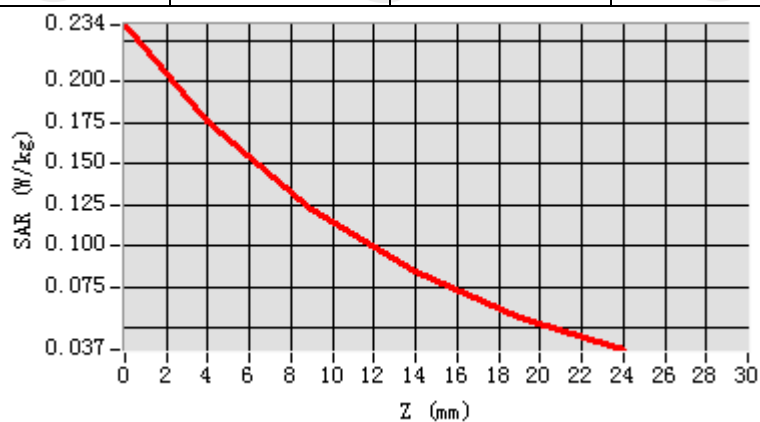
0.123666

SAR 1g (W/Kg)

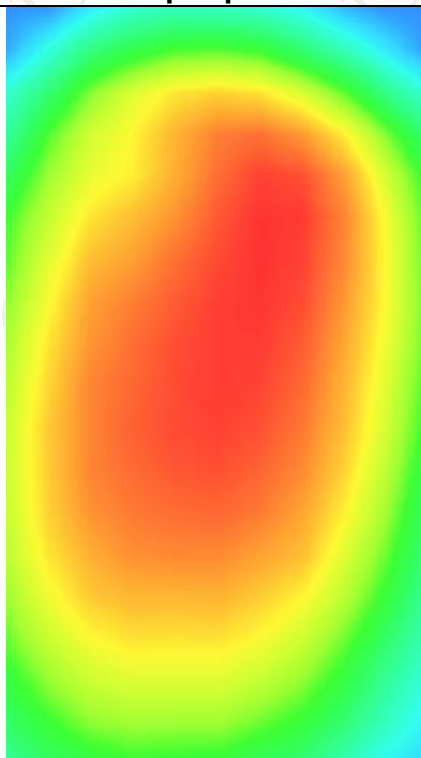
0.181840



| Z (mm)     | 0.00   | 4.00   | 9.00   | 14.00  | 19.00  |
|------------|--------|--------|--------|--------|--------|
| SAR (W/Kg) | 0.2343 | 0.1763 | 0.1220 | 0.0836 | 0.0566 |



Hot spot position





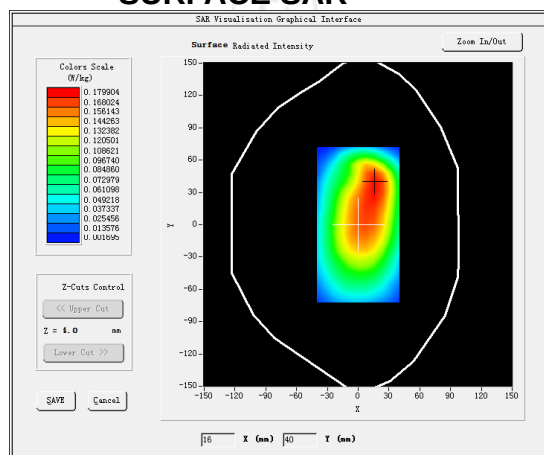
## MEASUREMENT 3

Lower Band SAR (Channel 23035):

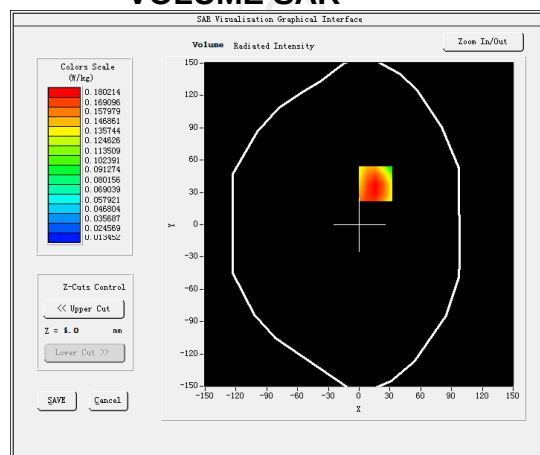
Date: 03/10/2020

|                                        |                                                                                             |
|----------------------------------------|---------------------------------------------------------------------------------------------|
| Frequency (MHz)                        | 701.500000                                                                                  |
| Relative permittivity (real part)      | 55.260832                                                                                   |
| Relative permittivity (imaginary part) | 12.468860                                                                                   |
| Conductivity (S/m)                     | 0.934272                                                                                    |
| Variation (%)                          | 1.060000                                                                                    |
| Crest Factor                           | 1.0                                                                                         |
| Probe Conversion factor                | 4.52                                                                                        |
| E-Field Probe:                         | SSE2 (SN 41/18 EP331)                                                                       |
| Area Scan                              | <u>dx=8mm dy=8mm, h= 5.00 mm</u>                                                            |
| ZoomScan                               | <u>5x5x7, dx=8mm dy=8mm</u><br><u>dz=5mm, Complete/ndx=8mm dy=8mm, h=</u><br><u>5.00 mm</u> |
| Phantom                                | <u>Validation plane</u>                                                                     |
| Device Position                        | <u>Body back(hotspot 10mm)</u>                                                              |
| Band                                   | <u>LTE band 12(1 RB#13)</u>                                                                 |

### SURFACE SAR



### VOLUME SAR



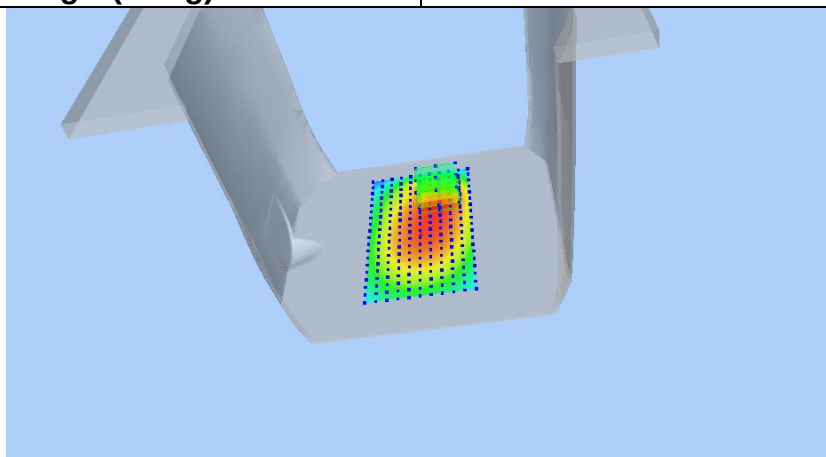
Maximum location: X=16.00, Y=38.00 SAR Peak: 0.25 W/kg

SAR 10g (W/Kg)

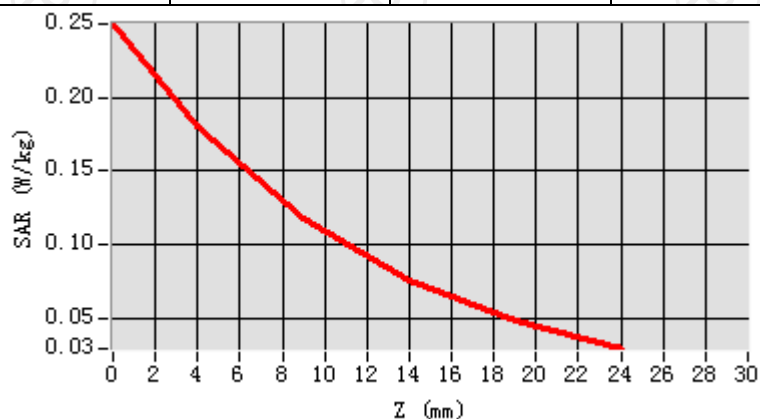
0.119531

SAR 1g (W/Kg)

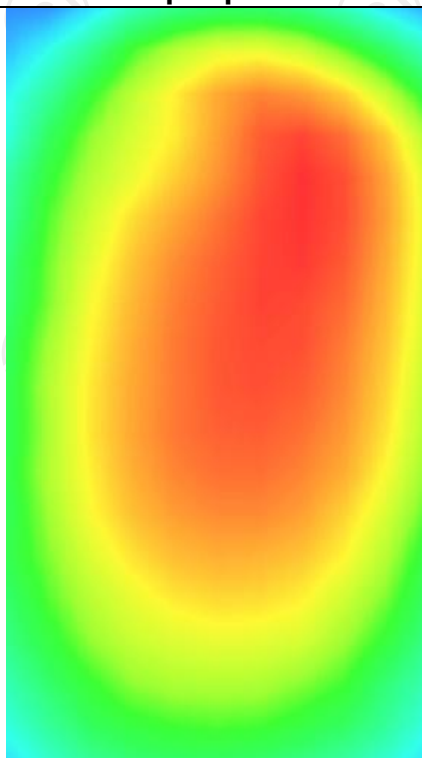
0.184340



| Z (mm)     | 0.00   | 4.00   | 9.00   | 14.00  | 19.00  |
|------------|--------|--------|--------|--------|--------|
| SAR (W/Kg) | 0.2499 | 0.1802 | 0.1176 | 0.0759 | 0.0483 |



Hot spot position



## LTE Band 17

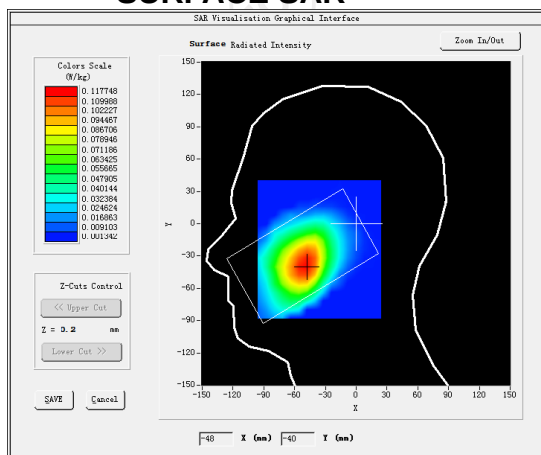
### MEASUREMENT 1

Middle Band SAR (Channel 23790):

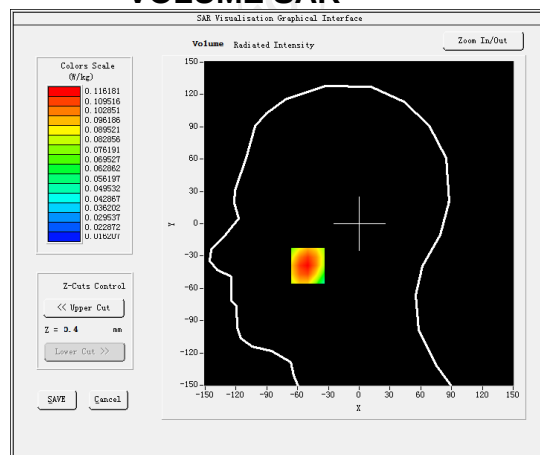
Date: 03/10/2020

|                                        |                                                                                             |
|----------------------------------------|---------------------------------------------------------------------------------------------|
| Frequency (MHz)                        | 710.000000                                                                                  |
| Relative permittivity (real part)      | 41.430182                                                                                   |
| Relative permittivity (imaginary part) | 12.468765                                                                                   |
| Conductivity (S/m)                     | 0.859210                                                                                    |
| Variation (%)                          | 0.720000                                                                                    |
| Crest Factor                           | 1.0                                                                                         |
| Probe Conversion factor                | 4.38                                                                                        |
| E-Field Probe:                         | SSE2 (SN 41/18 EP331)                                                                       |
| Area Scan                              | <u>dx=8mm dy=8mm, h= 5.00 mm</u>                                                            |
| ZoomScan                               | <u>5x5x7, dx=8mm dy=8mm</u><br><u>dz=5mm, Complete/ndx=8mm dy=8mm, h=</u><br><u>5.00 mm</u> |
| Phantom                                | <u>Left head</u>                                                                            |
| Device Position                        | <u>Cheek</u>                                                                                |
| Band                                   | <u>LTE band 17(1 RB#13)</u>                                                                 |

### SURFACE SAR



### VOLUME SAR



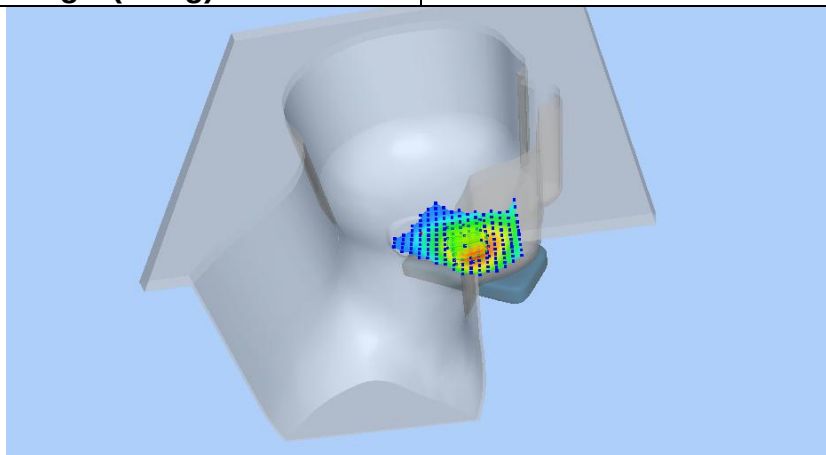
Maximum location: X=-50.00, Y=-39.00 SAR Peak: 0.14 W/kg

SAR 10g (W/Kg)

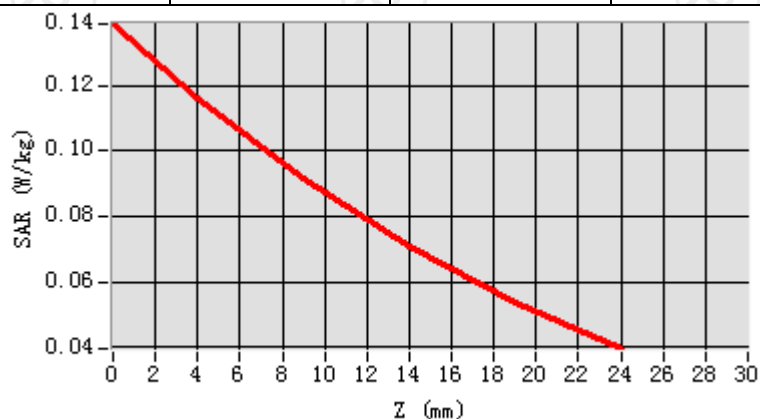
0.081643

SAR 1g (W/Kg)

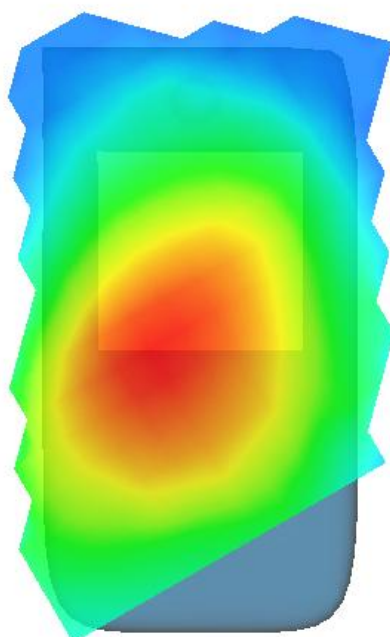
0.113733



| Z (mm)     | 0.00   | 4.00   | 9.00   | 14.00  | 19.00  |
|------------|--------|--------|--------|--------|--------|
| SAR (W/Kg) | 0.1390 | 0.1162 | 0.0916 | 0.0710 | 0.0539 |



### Hot spot position



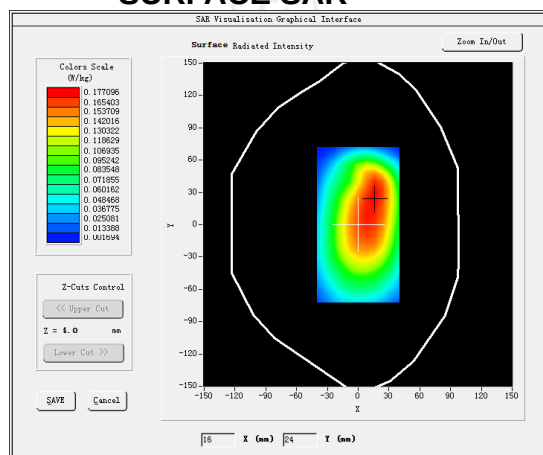
## MEASUREMENT 2

Middle Band SAR (Channel 23790):

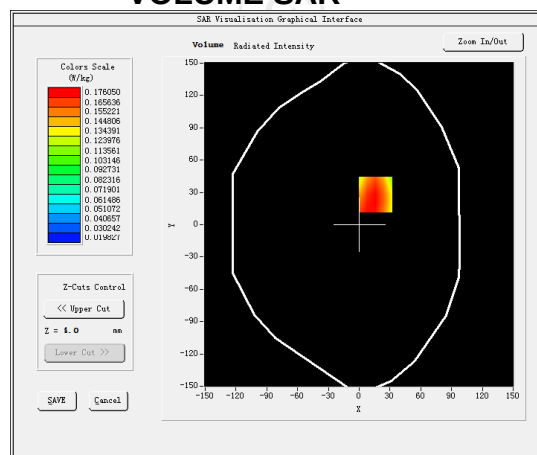
Date: 03/10/2020

|                                        |                                                                                             |
|----------------------------------------|---------------------------------------------------------------------------------------------|
| Frequency (MHz)                        | 706.500000                                                                                  |
| Relative permittivity (real part)      | 55.263812                                                                                   |
| Relative permittivity (imaginary part) | 12.468867                                                                                   |
| Conductivity (S/m)                     | 0.930822                                                                                    |
| Variation (%)                          | 0.290000                                                                                    |
| Crest Factor                           | 1.0                                                                                         |
| Probe Conversion factor                | 4.52                                                                                        |
| E-Field Probe:                         | SSE2 (SN 41/18 EP331)                                                                       |
| Area Scan                              | <u>dx=8mm dy=8mm, h= 5.00 mm</u>                                                            |
| ZoomScan                               | <u>5x5x7, dx=8mm dy=8mm</u><br><u>dz=5mm, Complete/ndx=8mm dy=8mm, h=</u><br><u>5.00 mm</u> |
| Phantom                                | <u>Validation plane</u>                                                                     |
| Device Position                        | <u>Body back(10mm)</u>                                                                      |
| Band                                   | <u>LTE band 17(1 RB#13)</u>                                                                 |

### SURFACE SAR



### VOLUME SAR



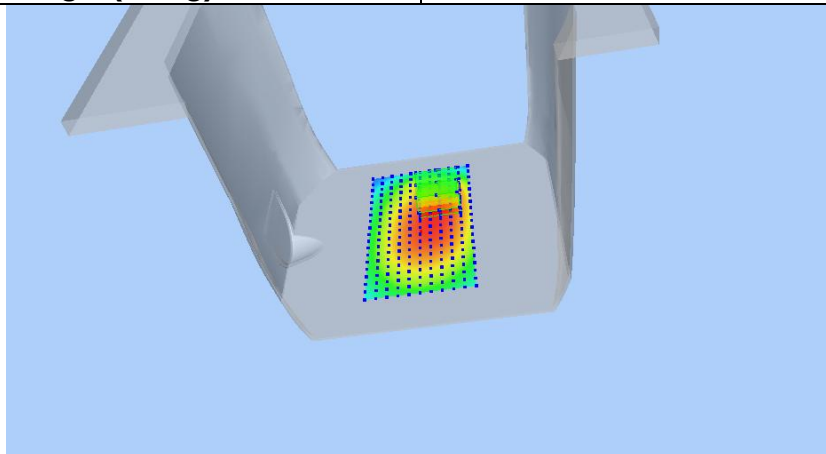
Maximum location: X=16.00, Y=28.00 SAR Peak: 0.23 W/kg

SAR 10g (W/Kg)

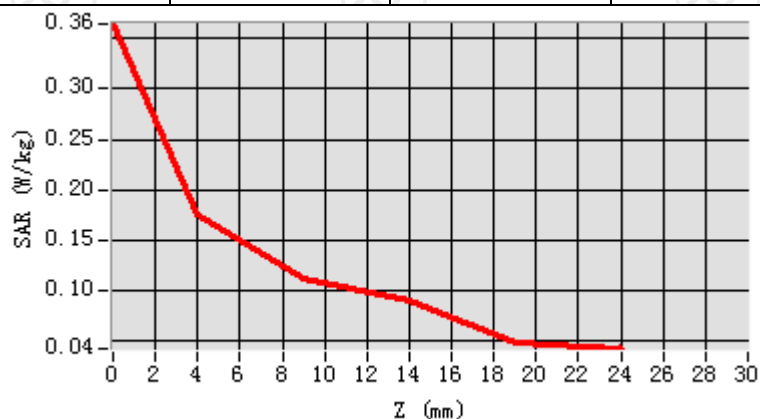
0.122715

SAR 1g (W/Kg)

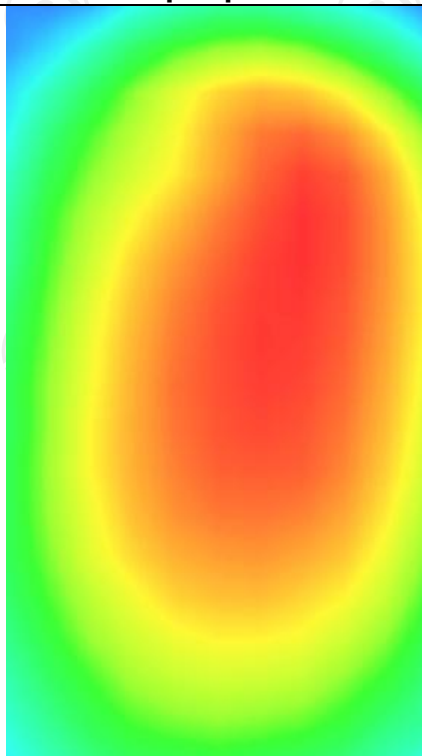
0.180877



| Z (mm)     | 0.00   | 4.00   | 9.00   | 14.00  | 19.00  |
|------------|--------|--------|--------|--------|--------|
| SAR (W/Kg) | 0.3647 | 0.1761 | 0.1123 | 0.0891 | 0.0484 |



Hot spot position



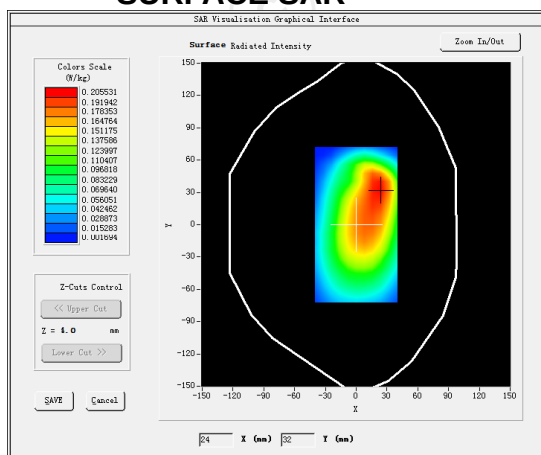
## MEASUREMENT 3

Middle Band SAR (Channel 23790):

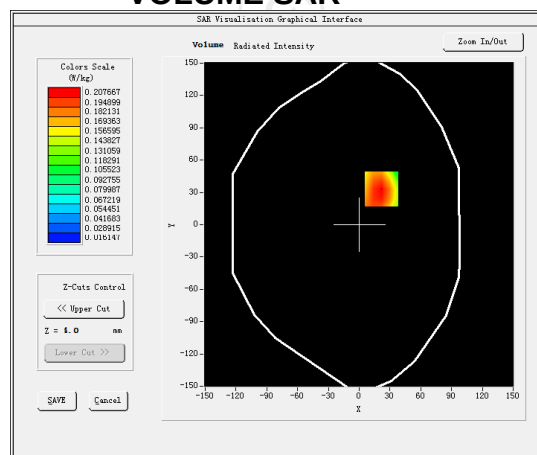
Date: 03/10/2020

|                                        |                                                                                             |
|----------------------------------------|---------------------------------------------------------------------------------------------|
| Frequency (MHz)                        | 706.500000                                                                                  |
| Relative permittivity (real part)      | 55.263812                                                                                   |
| Relative permittivity (imaginary part) | 12.468867                                                                                   |
| Conductivity (S/m)                     | 0.881392                                                                                    |
| Variation (%)                          | 0.170000                                                                                    |
| Crest Factor                           | 1.0                                                                                         |
| Probe Conversion factor                | 4.52                                                                                        |
| E-Field Probe:                         | SSE2 (SN 41/18 EP331)                                                                       |
| Area Scan                              | <u>dx=8mm dy=8mm, h= 5.00 mm</u>                                                            |
| ZoomScan                               | <u>5x5x7, dx=8mm dy=8mm</u><br><u>dz=5mm, Complete/ndx=8mm dy=8mm, h=</u><br><u>5.00 mm</u> |
| Phantom                                | <u>Validation plane</u>                                                                     |
| Device Position                        | <u>Body back(hotspot 10mm)</u>                                                              |
| Band                                   | <u>LTE band 17(1 RB#13)</u>                                                                 |

### SURFACE SAR



### VOLUME SAR



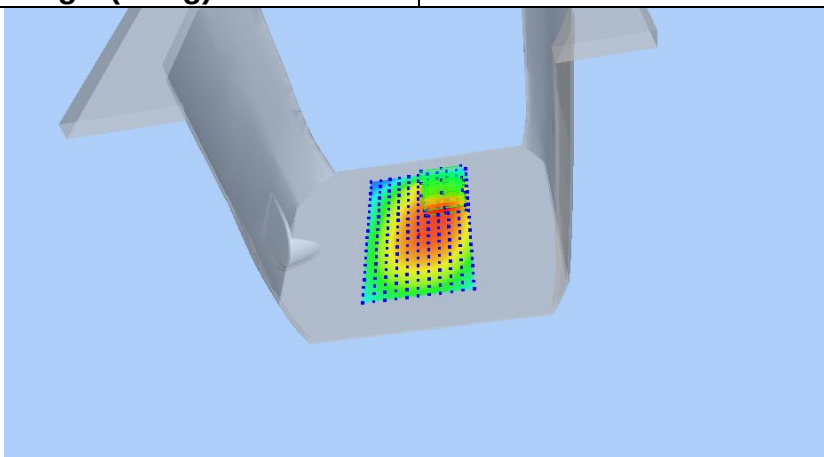
Maximum location: X=22.00, Y=33.00 SAR Peak: 0.29 W/kg

SAR 10g (W/Kg)

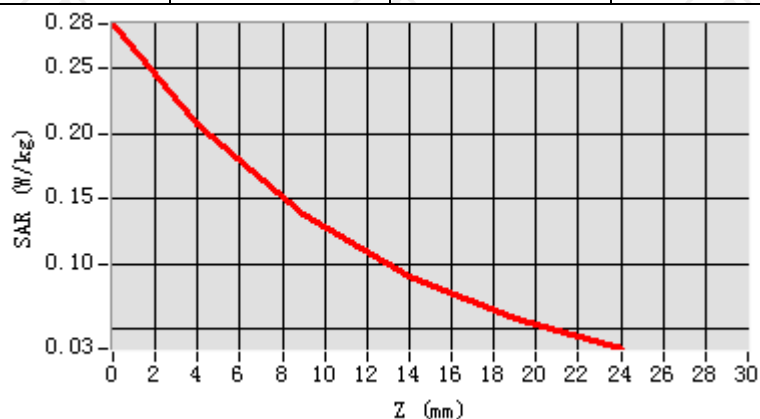
0.138321

SAR 1g (W/Kg)

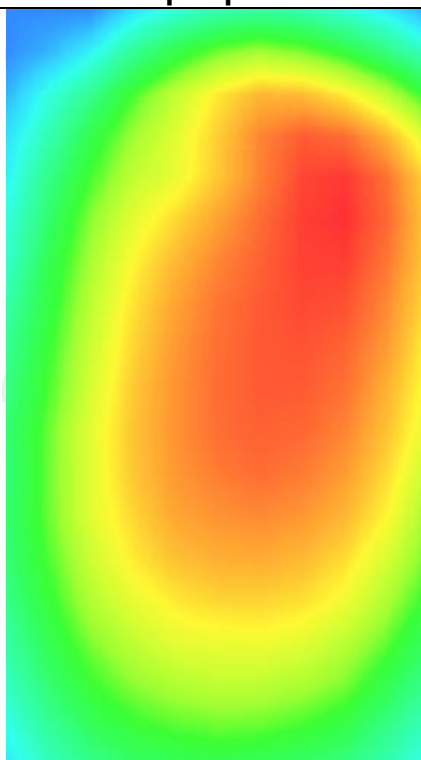
0.211390



| Z (mm)     | 0.00   | 4.00   | 9.00   | 14.00  | 19.00  |
|------------|--------|--------|--------|--------|--------|
| SAR (W/Kg) | 0.2842 | 0.2077 | 0.1378 | 0.0901 | 0.0578 |



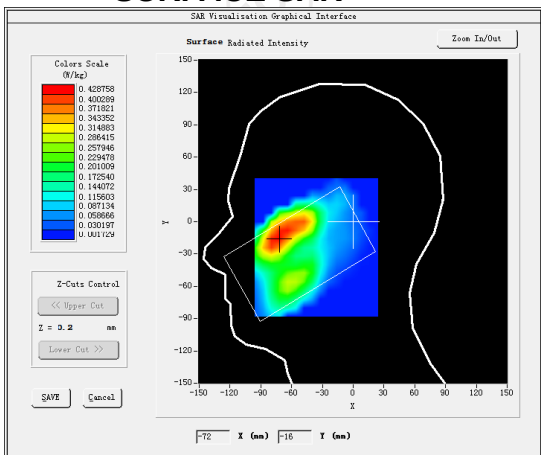
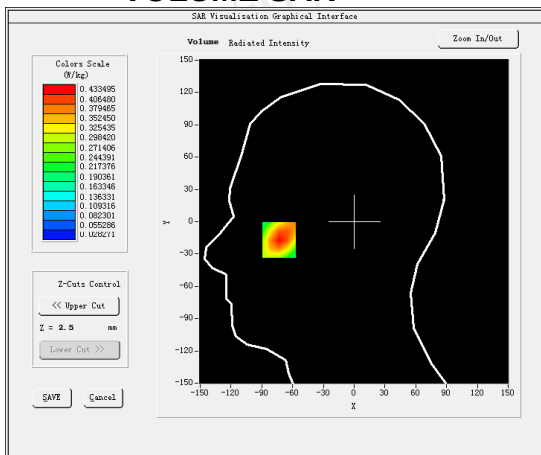
Hot spot position

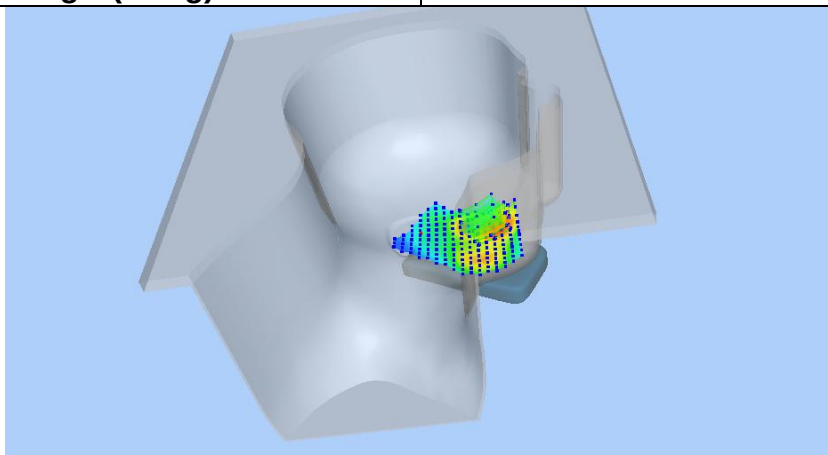




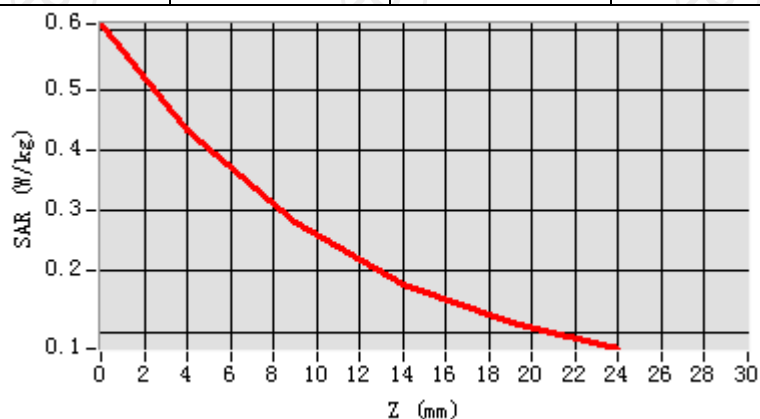
## LTE Band 66

### MEASUREMENT 1

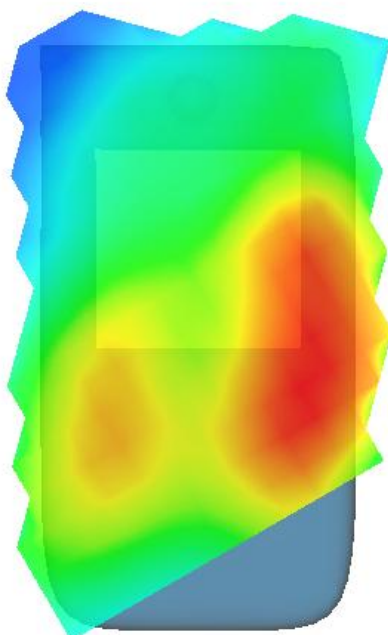
|                                                                                                          |                                                                     |                                                                                                          |
|----------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------|
| Lower Band SAR (Channel 132072):                                                                         |                                                                     | Date: 03/16/2020                                                                                         |
| Frequency (MHz)                                                                                          | 1720.000000                                                         |                                                                                                          |
| Relative permittivity (real part)                                                                        | 39.101249                                                           |                                                                                                          |
| Relative permittivity (imaginary part)                                                                   | 12.468850                                                           |                                                                                                          |
| Conductivity (S/m)                                                                                       | 1.350792                                                            |                                                                                                          |
| Variation (%)                                                                                            | -1.310000                                                           |                                                                                                          |
| Crest Factor                                                                                             | 1.0                                                                 |                                                                                                          |
| Probe Conversion factor                                                                                  | 4.38                                                                |                                                                                                          |
| E-Field Probe:                                                                                           | SSE2 (SN 41/18 EP331)                                               |                                                                                                          |
| Area Scan                                                                                                | dx=8mm dy=8mm, h= 5.00 mm                                           |                                                                                                          |
| ZoomScan                                                                                                 | 5x5x7, dx=8mm dy=8mm<br>dz=5mm, Complete/ndx=8mm dy=8mm, h= 5.00 mm |                                                                                                          |
| Phantom                                                                                                  | Left head                                                           |                                                                                                          |
| Device Position                                                                                          | Cheek                                                               |                                                                                                          |
| Band                                                                                                     | LTE band 66(1 RB#50)                                                |                                                                                                          |
| <b>SURFACE SAR</b><br> |                                                                     | <b>VOLUME SAR</b><br> |
| Maximum location: X=-73.00, Y=-15.00 SAR Peak: 0.61 W/kg                                                 |                                                                     |                                                                                                          |
| SAR 10g (W/Kg)                                                                                           | 0.254114                                                            |                                                                                                          |
| SAR 1g (W/Kg)                                                                                            | 0.409920                                                            |                                                                                                          |



| Z (mm)     | 0.00   | 4.00   | 9.00   | 14.00  | 19.00  |
|------------|--------|--------|--------|--------|--------|
| SAR (W/Kg) | 0.6091 | 0.4335 | 0.2795 | 0.1799 | 0.1163 |



### Hot spot position



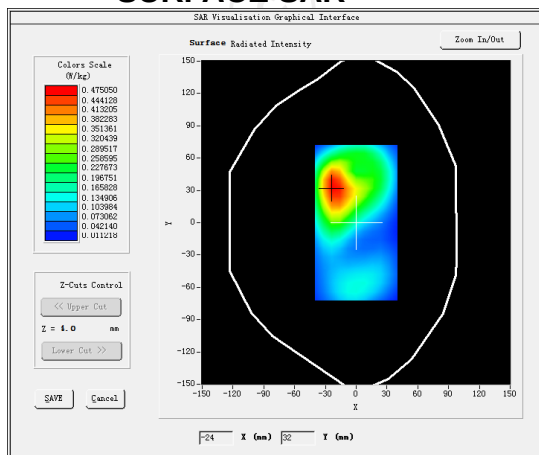
## MEASUREMENT 2

Lower Band SAR (Channel 132072):

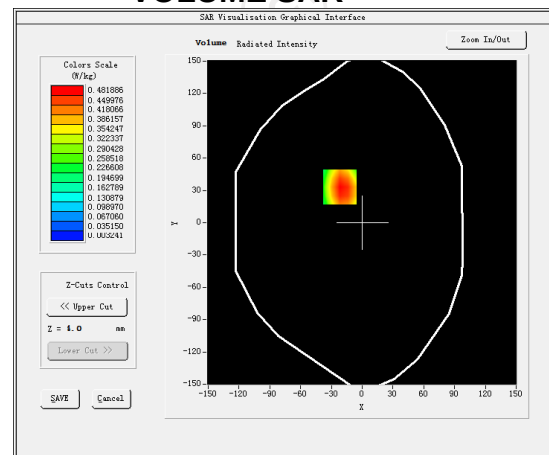
Date: 03/16/2020

|                                        |                                                                     |
|----------------------------------------|---------------------------------------------------------------------|
| Frequency (MHz)                        | 1720.000000                                                         |
| Relative permittivity (real part)      | 53.321249                                                           |
| Relative permittivity (imaginary part) | 12.468850                                                           |
| Conductivity (S/m)                     | 1.502592                                                            |
| Variation (%)                          | -0.400000                                                           |
| Crest Factor                           | 1.0                                                                 |
| Probe Conversion factor                | 4.52                                                                |
| E-Field Probe:                         | SSE2 (SN 41/18 EP331)                                               |
| Area Scan                              | dx=8mm dy=8mm, h= 5.00 mm                                           |
| ZoomScan                               | 5x5x7, dx=8mm dy=8mm<br>dz=5mm, Complete/ndx=8mm dy=8mm, h= 5.00 mm |
| Phantom                                | Validation plane                                                    |
| Device Position                        | Body back(10mm)                                                     |
| Band                                   | LTE band 66(1 RB#50)                                                |

### SURFACE SAR



### VOLUME SAR



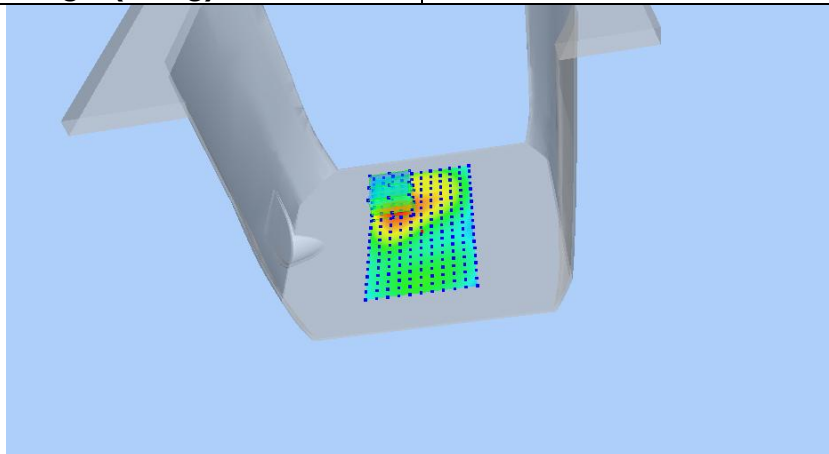
Maximum location: X=-22.00, Y=33.00 SAR Peak: 0.85 W/kg

SAR 10g (W/Kg)

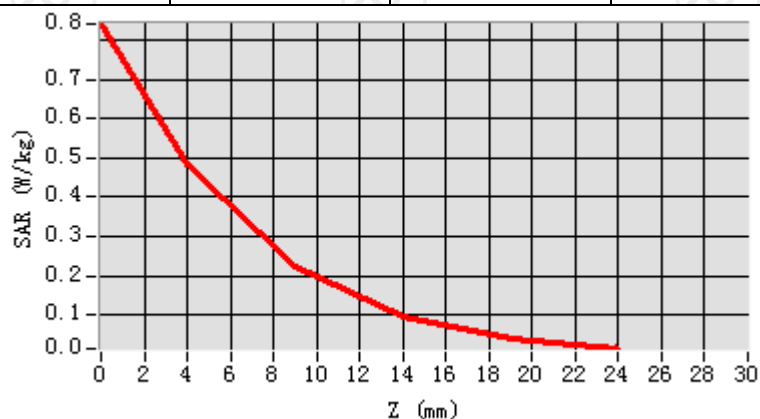
0.238743

SAR 1g (W/Kg)

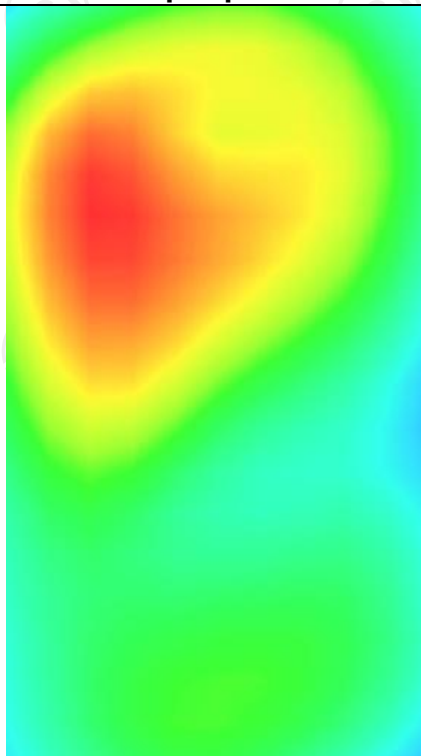
0.463235



| Z (mm)     | 0.00   | 4.00   | 9.00   | 14.00  | 19.00  |
|------------|--------|--------|--------|--------|--------|
| SAR (W/Kg) | 0.8405 | 0.4819 | 0.2230 | 0.0970 | 0.0413 |



Hot spot position



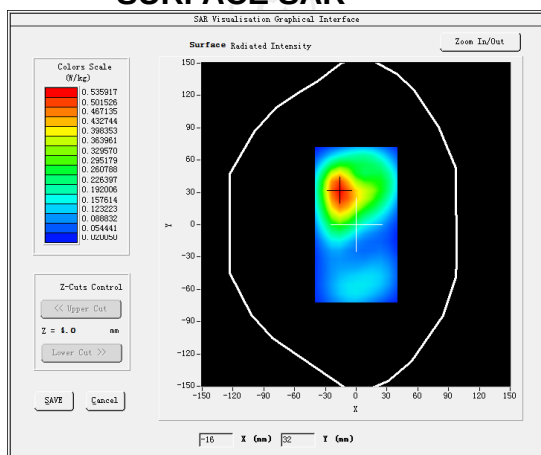
## MEASUREMENT 3

Lower Band SAR (Channel 132072):

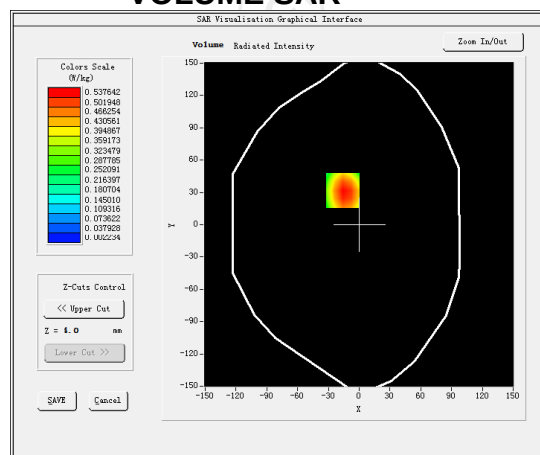
Date: 03/16/2020

|                                        |                                                                                             |
|----------------------------------------|---------------------------------------------------------------------------------------------|
| Frequency (MHz)                        | 1720.000000                                                                                 |
| Relative permittivity (real part)      | 53.321249                                                                                   |
| Relative permittivity (imaginary part) | 12.468850                                                                                   |
| Conductivity (S/m)                     | 1.502592                                                                                    |
| Variation (%)                          | 0.290000                                                                                    |
| Crest Factor                           | 1.0                                                                                         |
| Probe Conversion factor                | 4.52                                                                                        |
| E-Field Probe:                         | SSE2 (SN 41/18 EP331)                                                                       |
| Area Scan                              | <u>dx=8mm dy=8mm, h= 5.00 mm</u>                                                            |
| ZoomScan                               | <u>5x5x7, dx=8mm dy=8mm</u><br><u>dz=5mm, Complete/ndx=8mm dy=8mm, h=</u><br><u>5.00 mm</u> |
| Phantom                                | <u>Validation plane</u>                                                                     |
| Device Position                        | <u>Body back(hotspot 10mm)</u>                                                              |
| Band                                   | <u>LTE band 66(1 RB#50)</u>                                                                 |

### SURFACE SAR



### VOLUME SAR



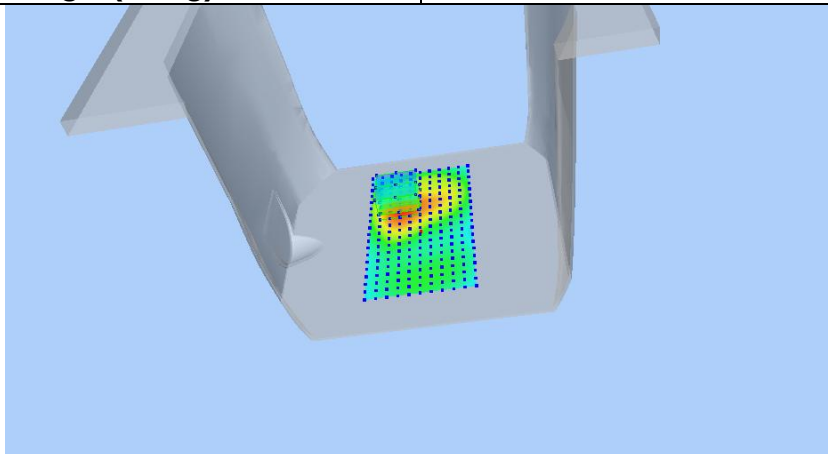
Maximum location: X=-16.00, Y=32.00 SAR Peak: 0.94 W/kg

SAR 10g (W/Kg)

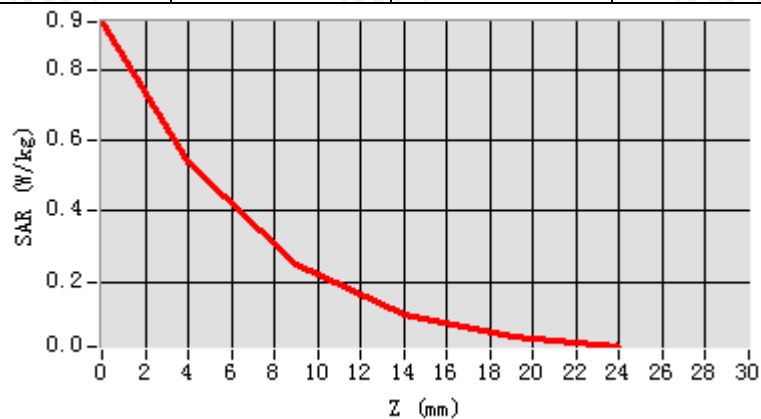
0.266158

SAR 1g (W/Kg)

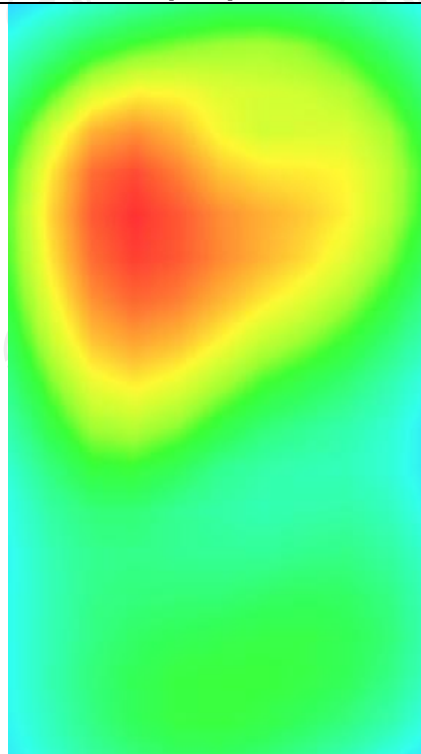
0.516035



| Z (mm)     | 0.00   | 4.00   | 9.00   | 14.00  | 19.00  |
|------------|--------|--------|--------|--------|--------|
| SAR (W/Kg) | 0.9366 | 0.5376 | 0.2491 | 0.1082 | 0.0457 |



Hot spot position

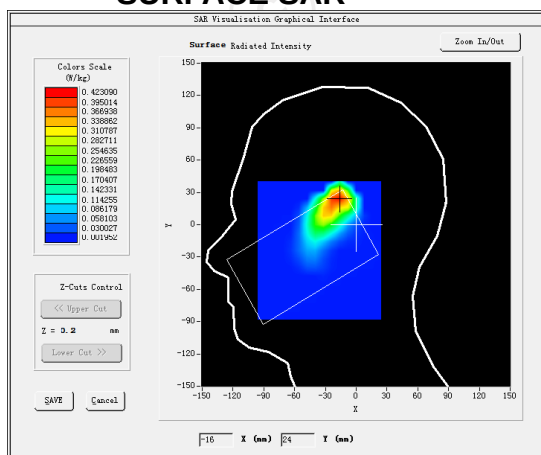


## WIFI 2.4G

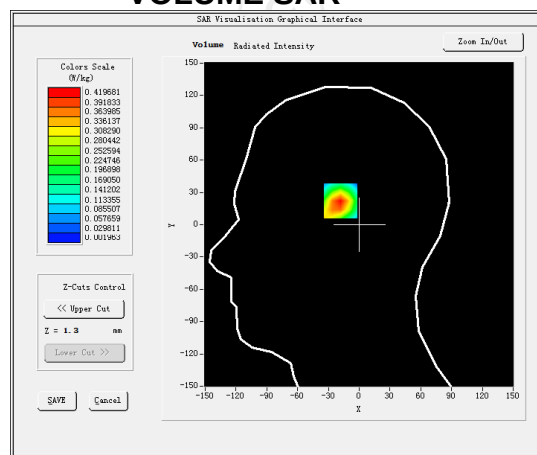
### MEASUREMENT 1

|                                        |                                                                   |                  |
|----------------------------------------|-------------------------------------------------------------------|------------------|
| Higher Band SAR (Channel 11):          |                                                                   | Date: 03/27/2020 |
| Frequency (MHz)                        | 2462.000000                                                       |                  |
| Relative permittivity (real part)      | 37.802831                                                         |                  |
| Relative permittivity (imaginary part) | 13.546209                                                         |                  |
| Conductivity (S/m)                     | 1.842611                                                          |                  |
| Variation (%)                          | -1.360000                                                         |                  |
| Crest Factor                           | 1.0                                                               |                  |
| Probe Conversion factor                | 4.58                                                              |                  |
| E-Field Probe:                         | SSE2 (SN 41/18 EP331)                                             |                  |
| Area Scan                              | dx=8mm dy=8mm, h= 5.00 mm                                         |                  |
| ZoomScan                               | 5x5x7,dx=8mm dy=8mm<br>dz=5mm,Complete/ndx=8mm dy=8mm, h= 5.00 mm |                  |
| Phantom                                | Right head                                                        |                  |
| Device Position                        | Cheek                                                             |                  |
| Band                                   | IEEE 802.11b ISM                                                  |                  |

#### SURFACE SAR



#### VOLUME SAR



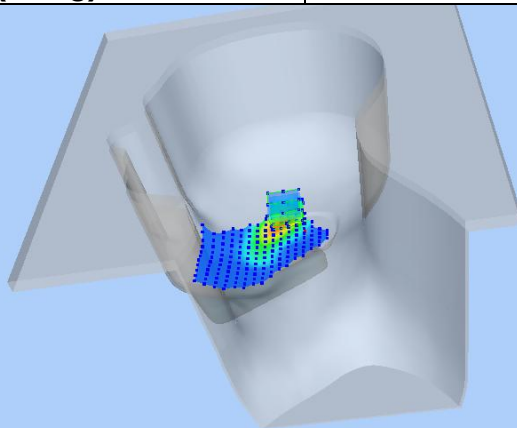
Maximum location: X=-17.00, Y=24.00 SAR Peak: 0.78 W/kg

SAR 10g (W/Kg)

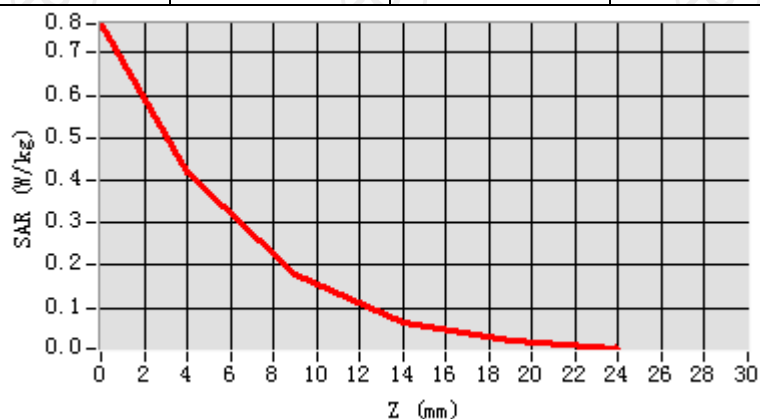
0.180066

SAR 1g (W/Kg)

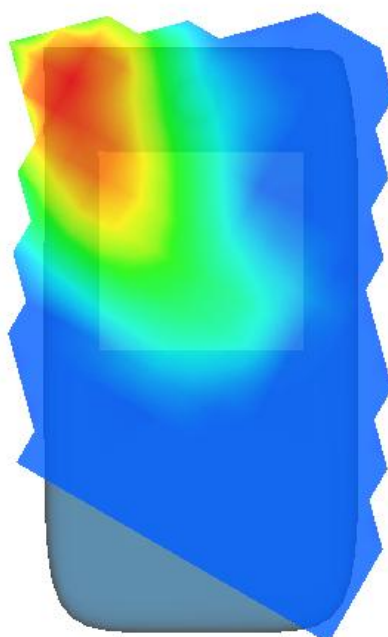
0.395053



| Z (mm)     | 0.00   | 4.00   | 9.00   | 14.00  | 19.00  |
|------------|--------|--------|--------|--------|--------|
| SAR (W/Kg) | 0.7682 | 0.4197 | 0.1767 | 0.0654 | 0.0210 |



Hot spot position





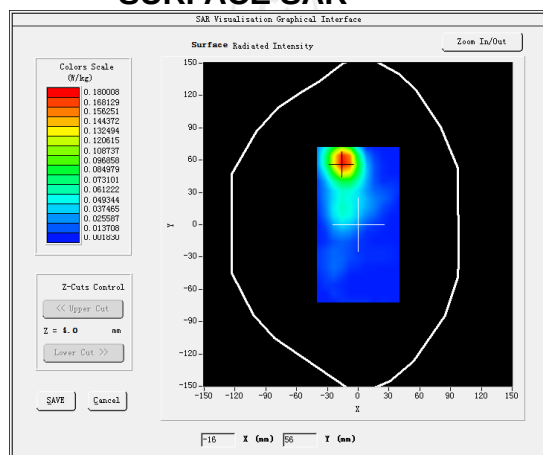
## MEASUREMENT 2

Higher Band SAR (Channel 11):

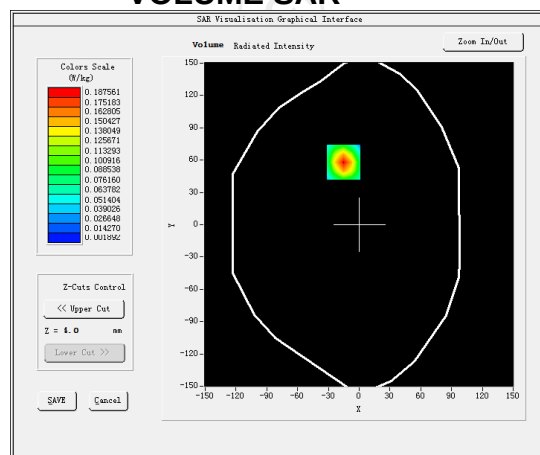
Date: 03/27/2020

|                                        |                                                                                             |
|----------------------------------------|---------------------------------------------------------------------------------------------|
| Frequency (MHz)                        | 2462.000000                                                                                 |
| Relative permittivity (real part)      | 54.590667                                                                                   |
| Relative permittivity (imaginary part) | 14.318428                                                                                   |
| Conductivity (S/m)                     | 2.032536                                                                                    |
| Variation (%)                          | 4.010000                                                                                    |
| Crest Factor                           | 1.0                                                                                         |
| Probe Conversion factor                | 4.70                                                                                        |
| E-Field Probe:                         | SSE2 (SN 41/18 EP331)                                                                       |
| Area Scan                              | <u>dx=8mm dy=8mm, h= 5.00 mm</u>                                                            |
| ZoomScan                               | <u>5x5x7, dx=8mm dy=8mm</u><br><u>dz=5mm, Complete/ndx=8mm dy=8mm, h=</u><br><u>5.00 mm</u> |
| Phantom                                | Validation plane                                                                            |
| Device Position                        | Body back(10mm)                                                                             |
| Band                                   | <u>IEEE 802.11b ISM</u>                                                                     |

### SURFACE SAR



### VOLUME SAR



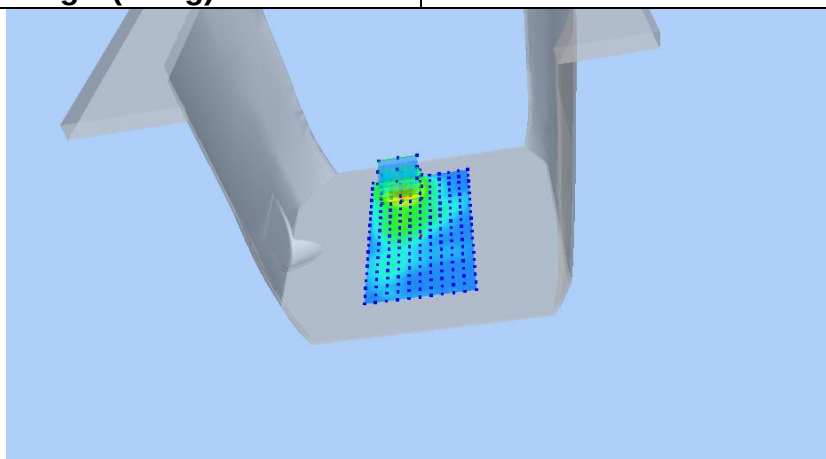
Maximum location: X=-15.00, Y=58.00 SAR Peak: 0.34 W/kg

SAR 10g (W/Kg)

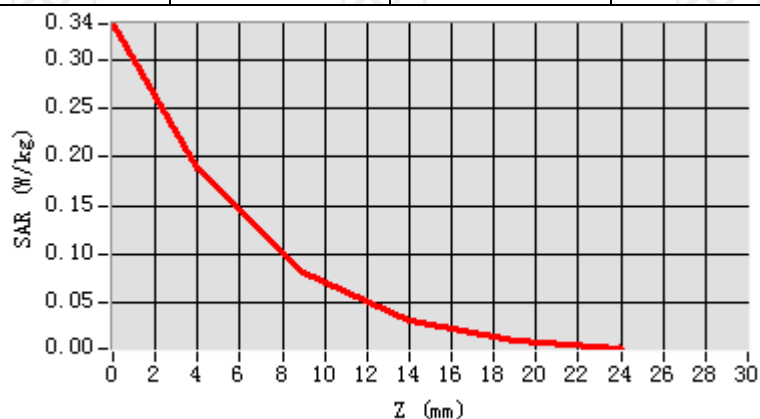
0.077530

SAR 1g (W/Kg)

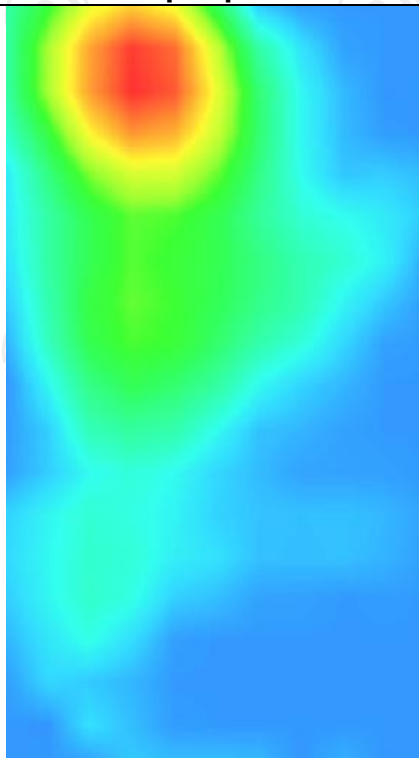
0.173292



| Z (mm)     | 0.00   | 4.00   | 9.00   | 14.00  | 19.00  |
|------------|--------|--------|--------|--------|--------|
| SAR (W/Kg) | 0.3372 | 0.1876 | 0.0816 | 0.0317 | 0.0109 |



Hot spot position



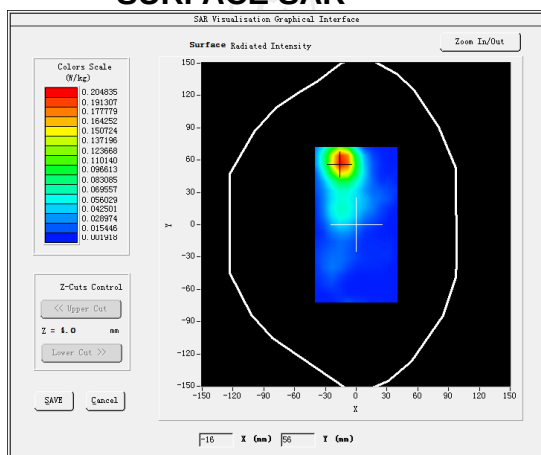
## MEASUREMENT 3

Higher Band SAR (Channel 11):

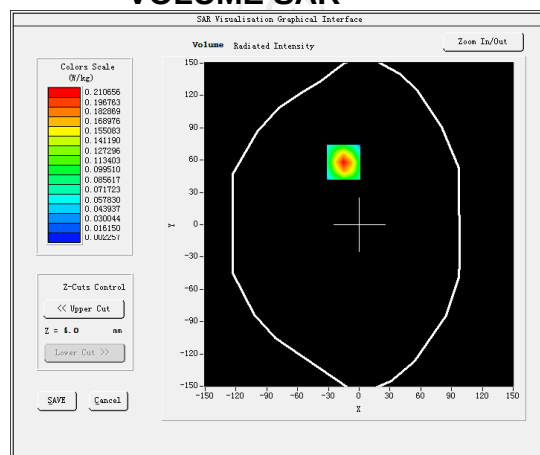
Date: 03/27/2020

|                                        |                                                                                             |
|----------------------------------------|---------------------------------------------------------------------------------------------|
| Frequency (MHz)                        | 2462.000000                                                                                 |
| Relative permittivity (real part)      | 54.590667                                                                                   |
| Relative permittivity (imaginary part) | 14.318428                                                                                   |
| Conductivity (S/m)                     | 2.032536                                                                                    |
| Variation (%)                          | -4.110000                                                                                   |
| Crest Factor                           | 1.0                                                                                         |
| Probe Conversion factor                | 4.70                                                                                        |
| E-Field Probe:                         | SSE2 (SN 41/18 EP331)                                                                       |
| Area Scan                              | <u>dx=8mm dy=8mm, h= 5.00 mm</u>                                                            |
| ZoomScan                               | <u>5x5x7, dx=8mm dy=8mm</u><br><u>dz=5mm, Complete/ndx=8mm dy=8mm, h=</u><br><u>5.00 mm</u> |
| Phantom                                | Validation plane                                                                            |
| Device Position                        | Body back(10mm)                                                                             |
| Band                                   | <u>IEEE 802.11b ISM(hotspot)</u>                                                            |

### SURFACE SAR



### VOLUME SAR



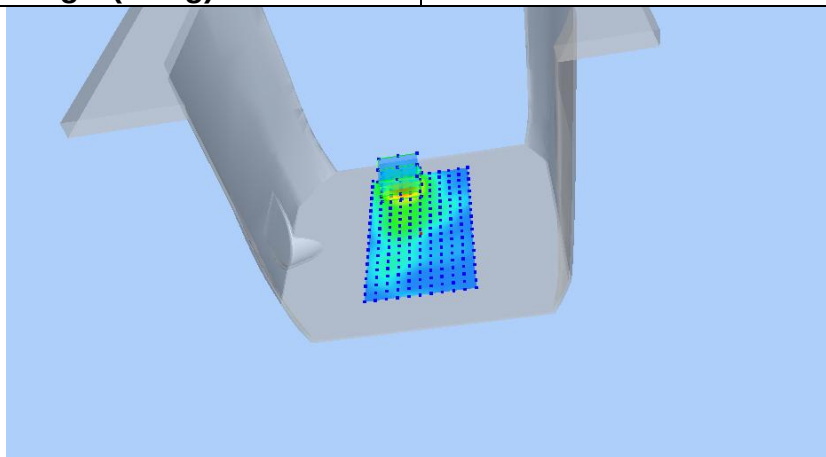
Maximum location: X=-15.00, Y=58.00 SAR Peak: 0.37 W/kg

SAR 10g (W/Kg)

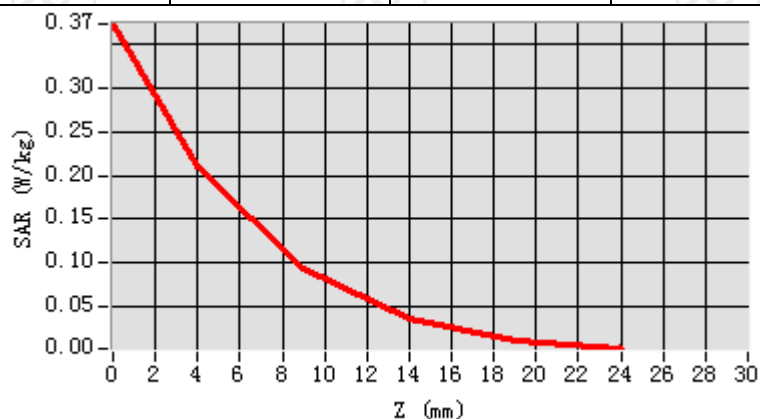
0.087182

SAR 1g (W/Kg)

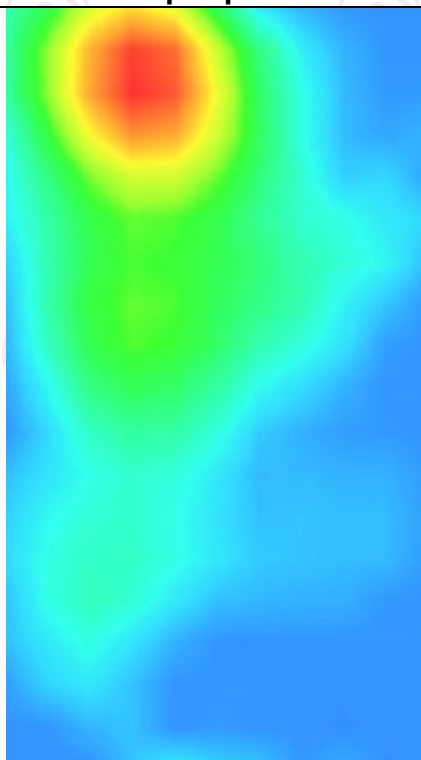
0.193788



| Z (mm)     | 0.00   | 4.00   | 9.00   | 14.00  | 19.00  |
|------------|--------|--------|--------|--------|--------|
| SAR (W/Kg) | 0.3732 | 0.2107 | 0.0935 | 0.0368 | 0.0124 |



Hot spot position



## Appendix A: EUT Photos



## Liquid depth



The Body Liquid of 835MHz (15.4cm)



The Body Liquid of 1800MHz (15.2 cm)



The Body Liquid of 1900MHz (16.4 cm)



The Body Liquid of 2450MHz (15.3cm)



The Body Liquid of 2600MHz (16.5cm)

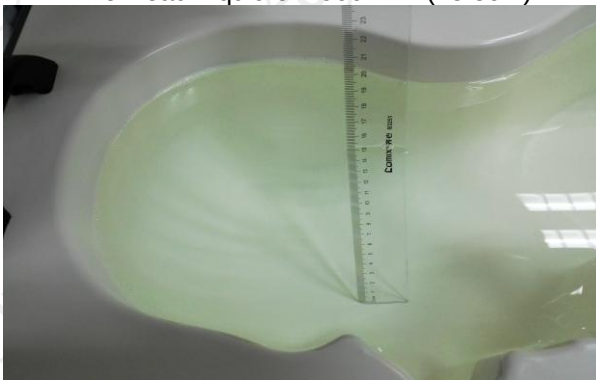




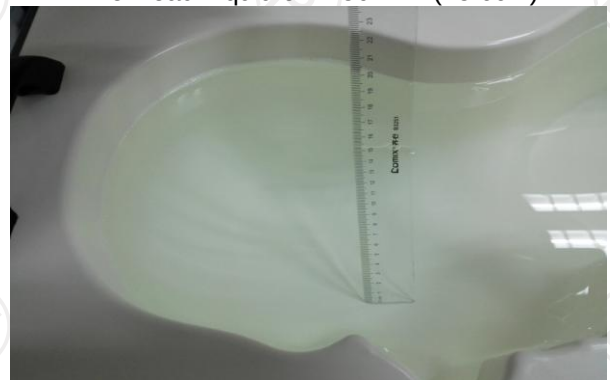
The Head Liquid of 1900MHz (15.5cm)



The Head Liquid of 2450MHz (15.6cm)



The Head Liquid of 835MHz (15.3cm)

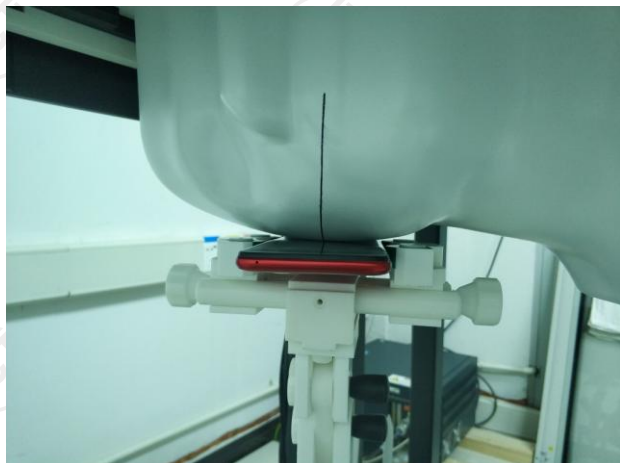


The Head Liquid of 2600MHz (15.1cm)

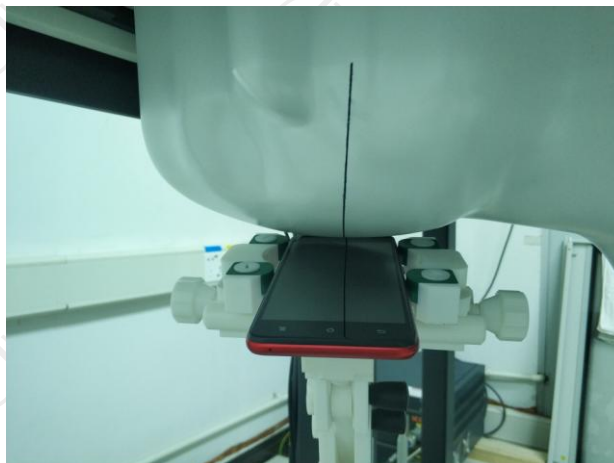


The Head Liquid of 1800MHz (15.2cm)

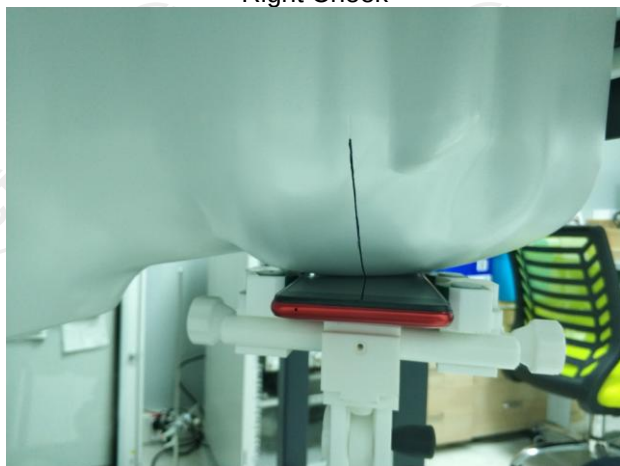
## Appendix B: Test Setup Photos



Right Cheek



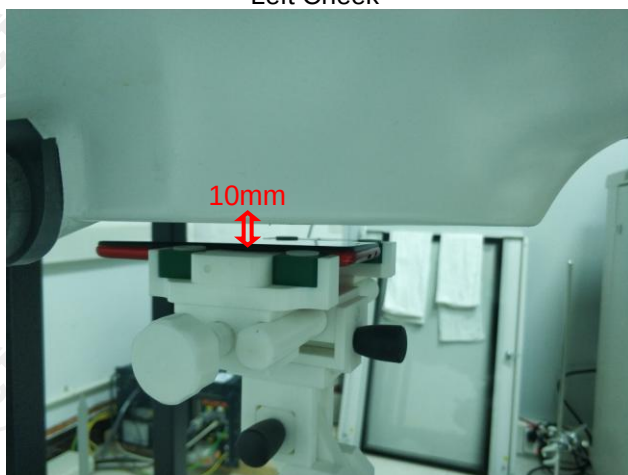
Right Tilted



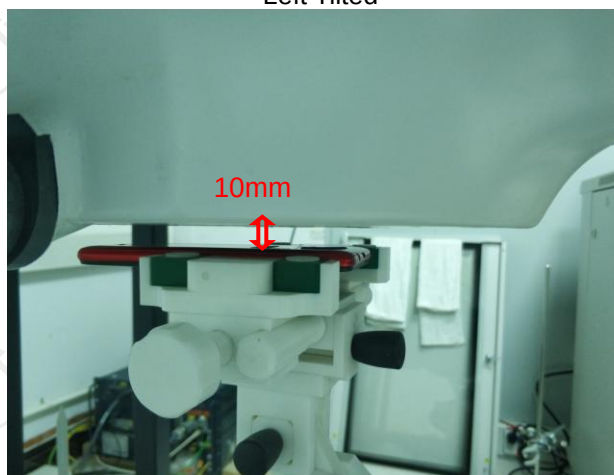
Left Cheek



Left Tilted

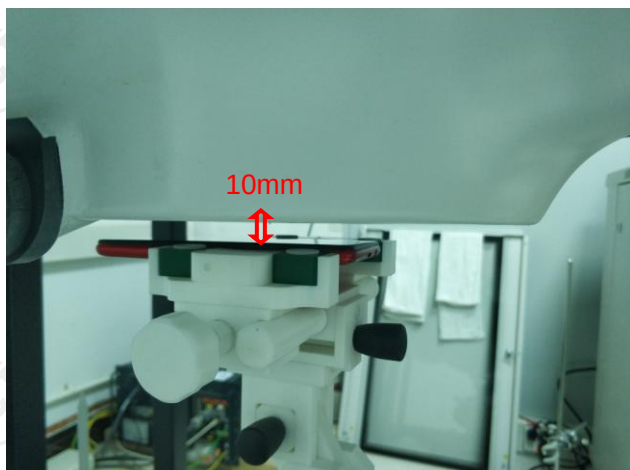


Body worn – Front (10mm)

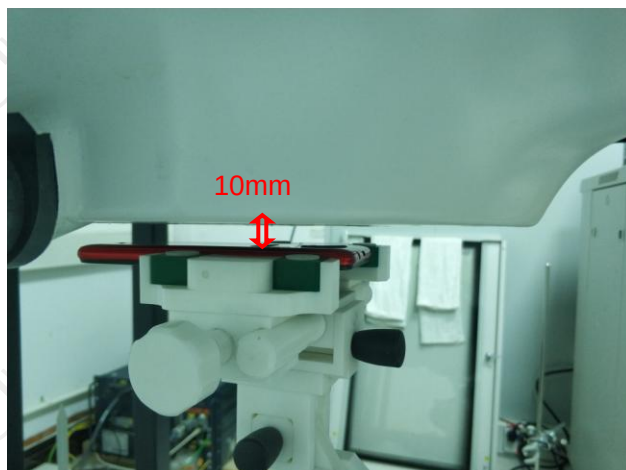


Body worn – Back (10mm)





Body worn – Front (10mm)



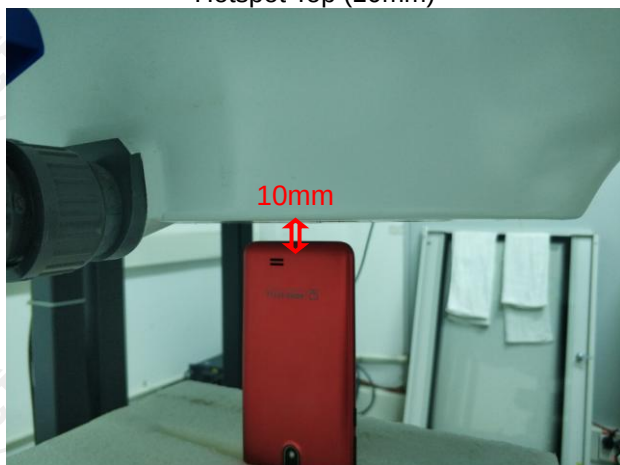
Body worn – Back (10mm)



Hotspot Top (10mm)



Hotspot Right (10mm)



Hotspot Bottom (10mm)



Hotspot Left (10mm)