12. SAR Test Data

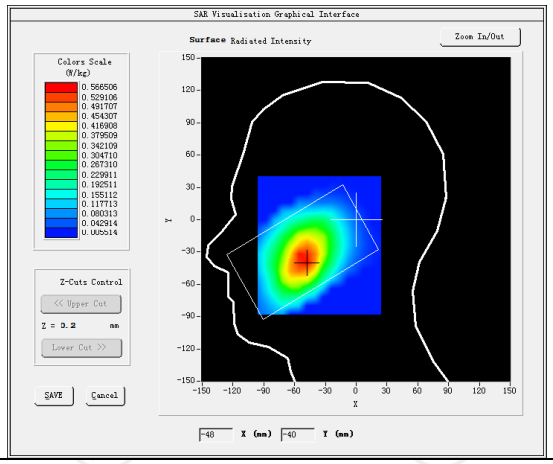
GSM850

MEASUREMENT 1

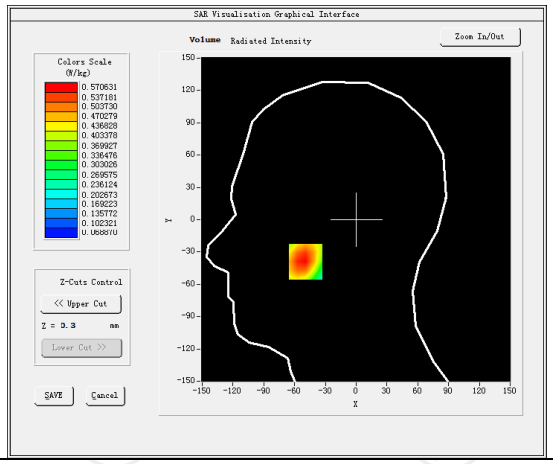
Middle Band SAR (Channel 190) Date: 03/10/2020

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 dz=5mm,Complete/ndx=8mm dy=8mm, h= 5.00 mm
Phantom	Left head
Device Position	Cheek
Band	GSM850(voice)

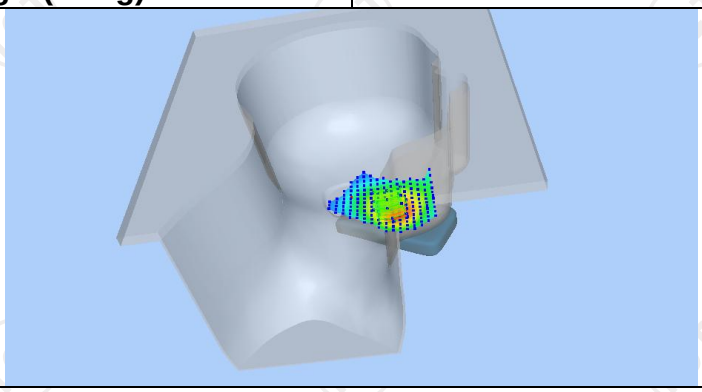
SURFACE SAR



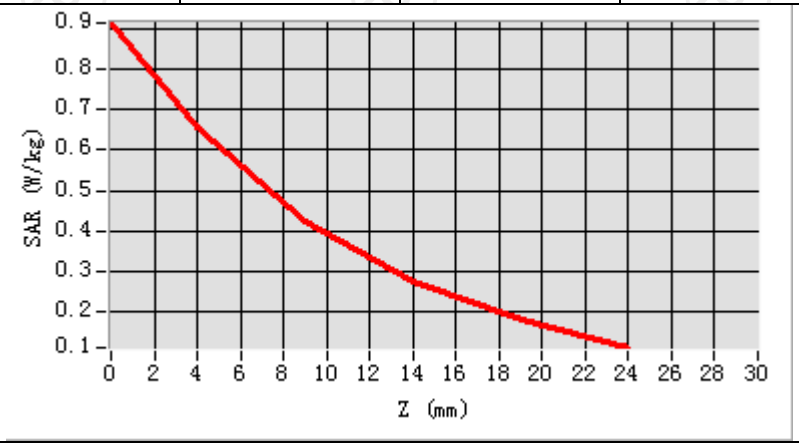
VOLUME SAR



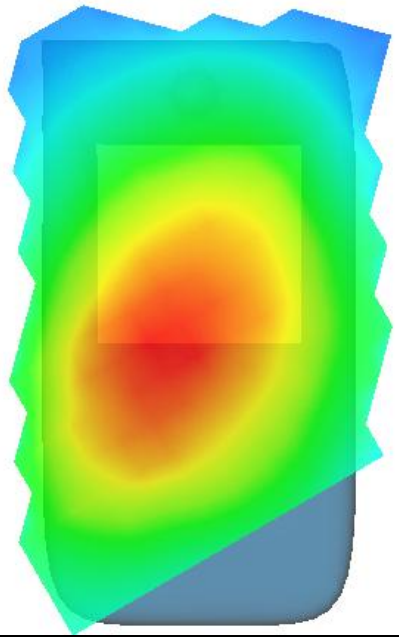
Maximum location: X=-49.00, Y=-39.00 SAR Peak: 0.75 W/kg	
SAR 10g (W/Kg)	0.384282
SAR 1g (W/Kg)	0.551701

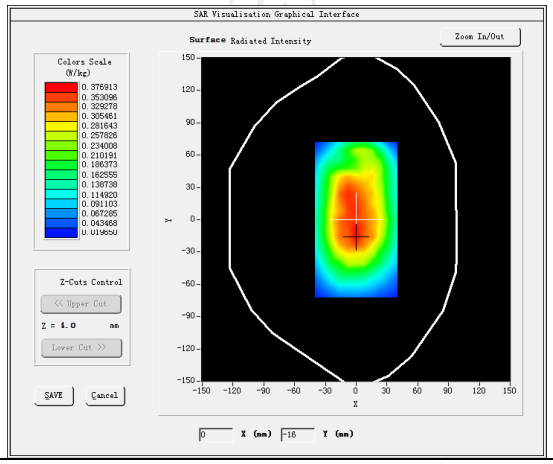
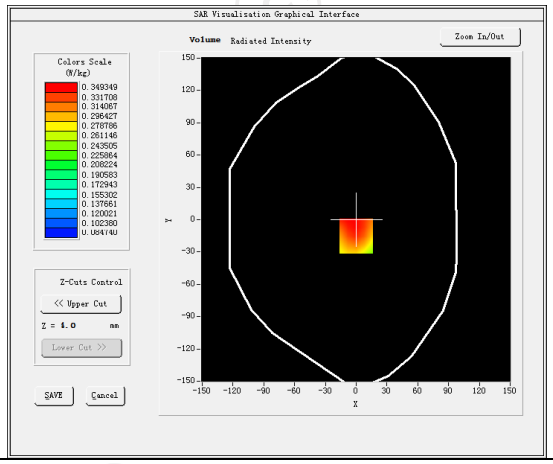
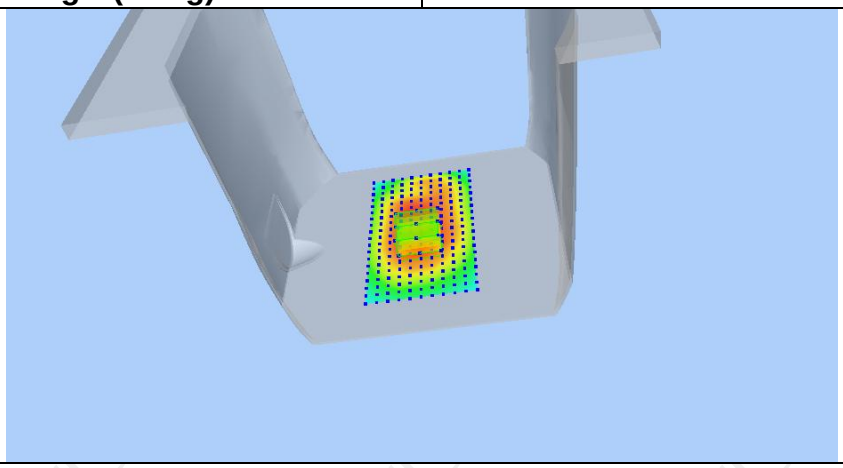


Z (mm)	0.00	4.00	9.00	14.00	19.00
SAR (W/Kg)	0.9139	0.6546	0.4255	0.2757	0.1792

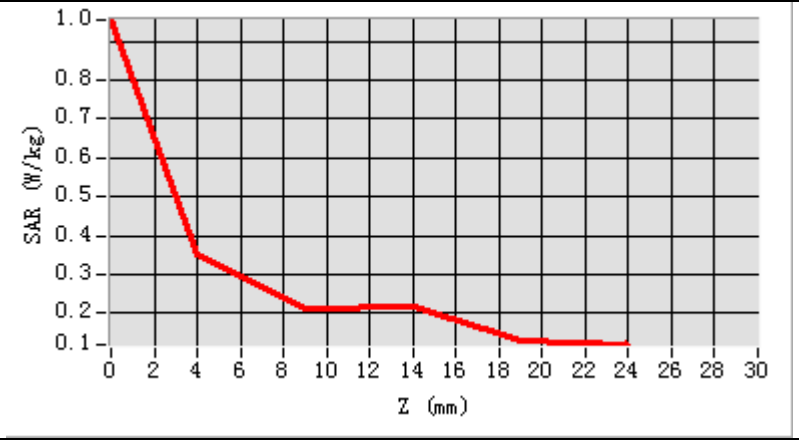


Hot spot position

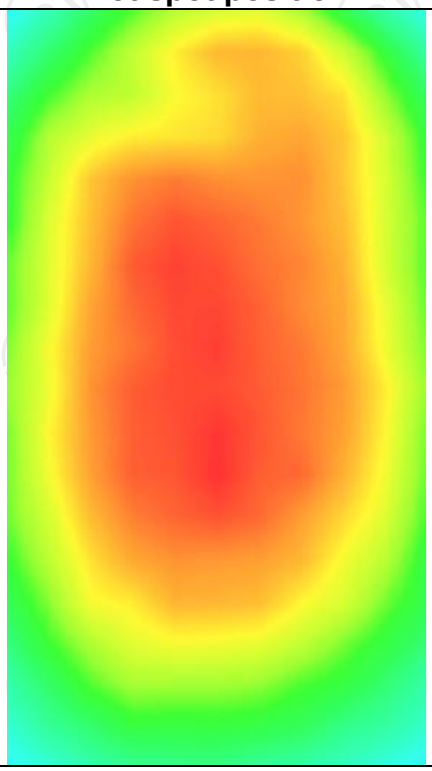


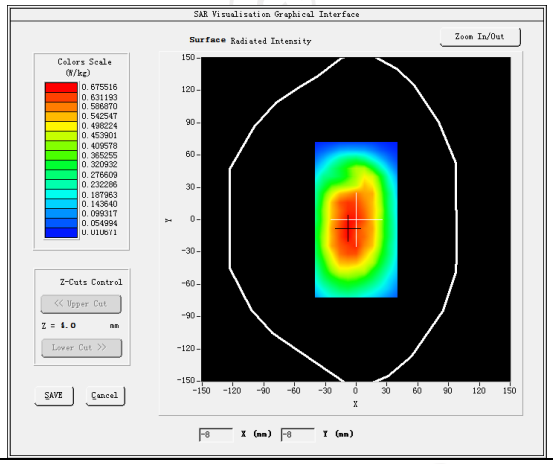
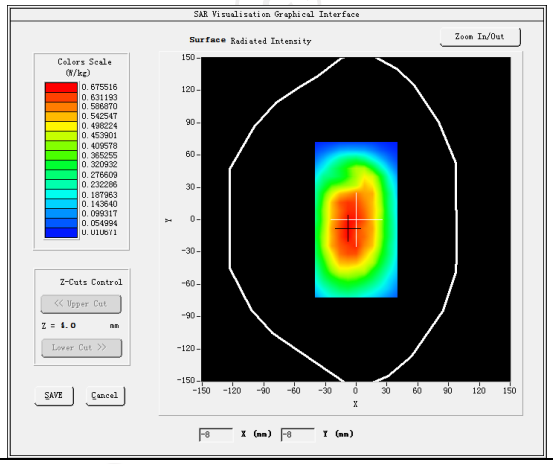
MEASUREMENT 2	
Middle Band SAR (Channel 190):	Date: 03/10/2020
Frequency (MHz)	836.600000
Relative permittivity (real part)	55.242927
Relative permittivity (imaginary part)	21.378266
Conductivity (S/m)	0.941230
Variation (%)	-4.600000
Crest Factor:	8.3
Probe Conversion factor	5.65
E-Field Probe:	SSE2 (SN 41/18 EP331)
Area Scan	dx=8mm dy=8mm, h= 5.00 mm
ZoomScan	5x5x7,dx=8mm dy=8mm 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
	

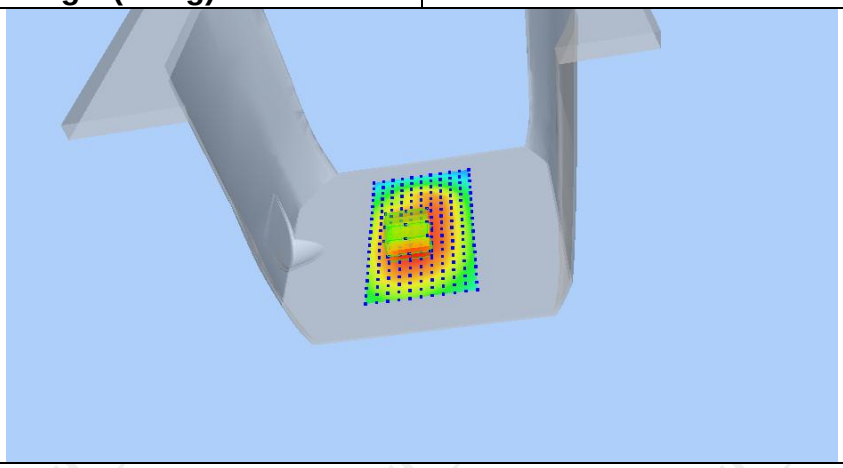
Z (mm)	0.00	4.00	9.00	14.00	19.00
SAR (W/Kg)	0.9547	0.3493	0.2145	0.2163	0.1300



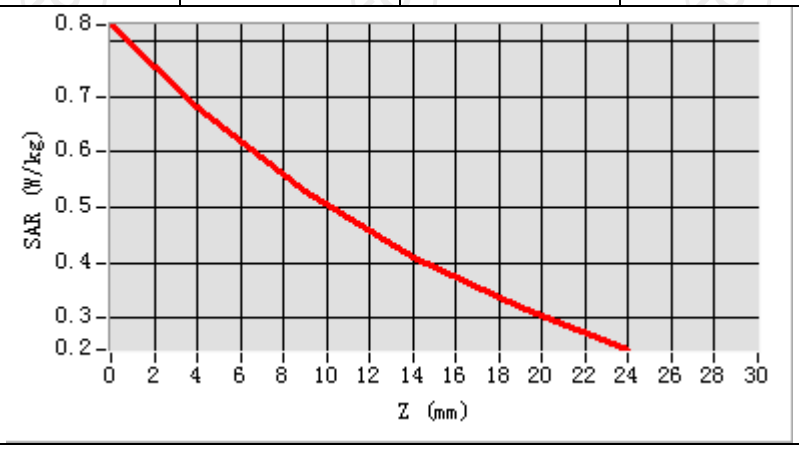
Hot spot position



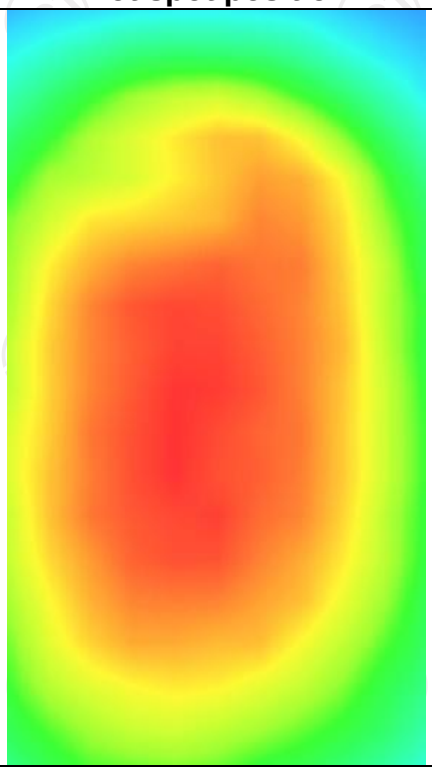
MEASUREMENT 3	
Middle Band SAR (Channel 190):	Date: 03/10/2020
Frequency (MHz)	836.600000
Relative permittivity (real part)	55.242927
Relative permittivity (imaginary part)	21.378266
Conductivity (S/m)	0.941230
Variation (%)	0.200000
Crest Factor:	2.0
Probe Conversion factor	5.65
E-Field Probe:	SSE2 (SN 41/18 EP331)
Area Scan	dx=8mm dy=8mm, h= 5.00 mm
ZoomScan	5x5x7,dx=8mm dy=8mm 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

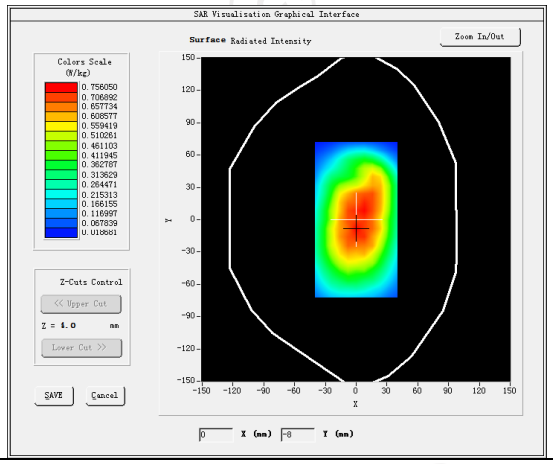
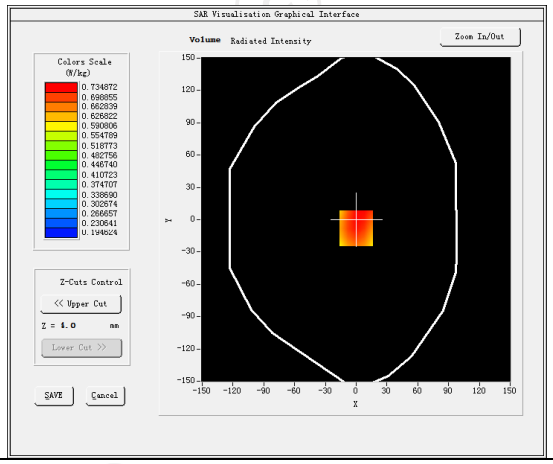
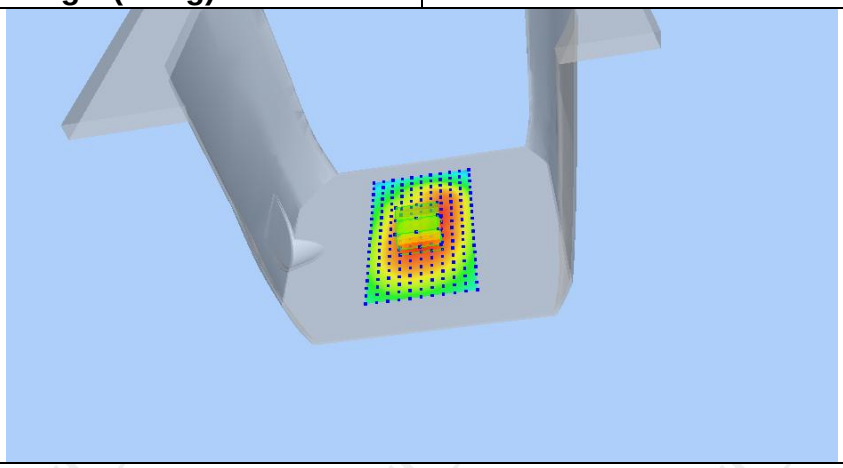


Z (mm)	0.00	4.00	9.00	14.00	19.00
SAR (W/Kg)	0.8297	0.6798	0.5281	0.4101	0.3180

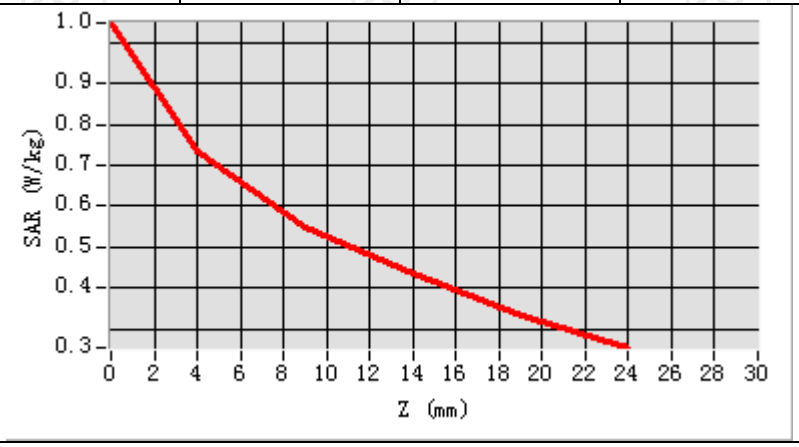


Hot spot position

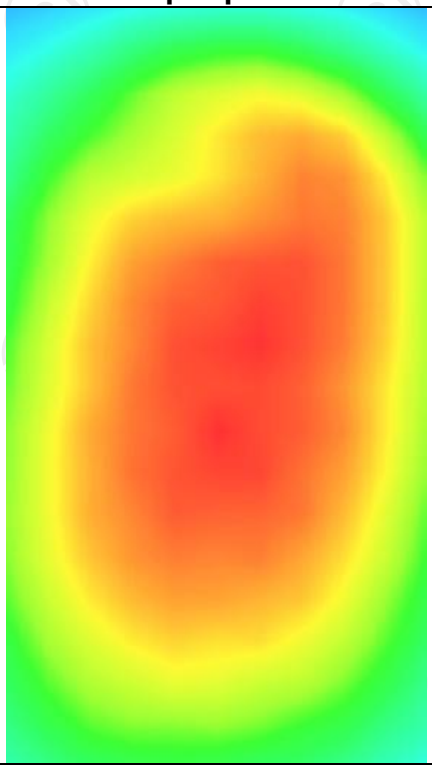


MEASUREMENT 4	
Middle Band SAR (Channel 661):	Date: 03/10/2020
Frequency (MHz)	1880.000000
Relative permittivity (real part)	55.242927
Relative permittivity (imaginary part)	21.378266
Conductivity (S/m)	0.941230
Variation (%)	-0.370000
Crest Factor:	2.0
Probe Conversion factor	5.65
E-Field Probe:	SSE2 (SN 41/18 EP331)
Area Scan	dx=8mm dy=8mm, h= 5.00 mm
ZoomScan	5x5x7,dx=8mm dy=8mm 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
	

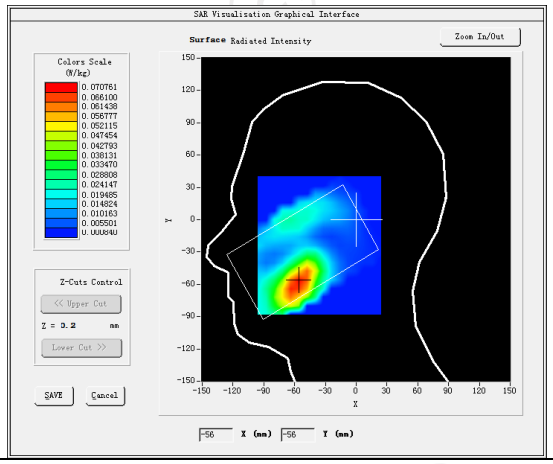
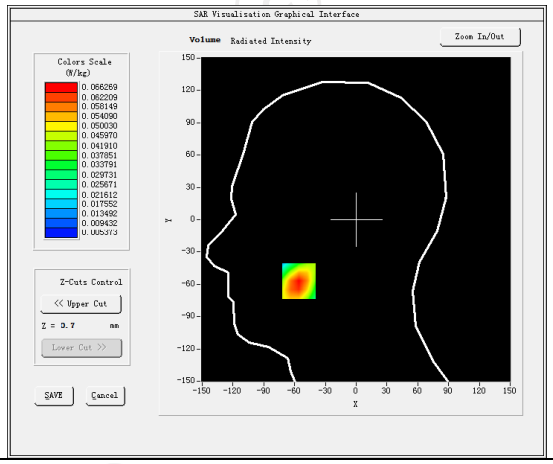
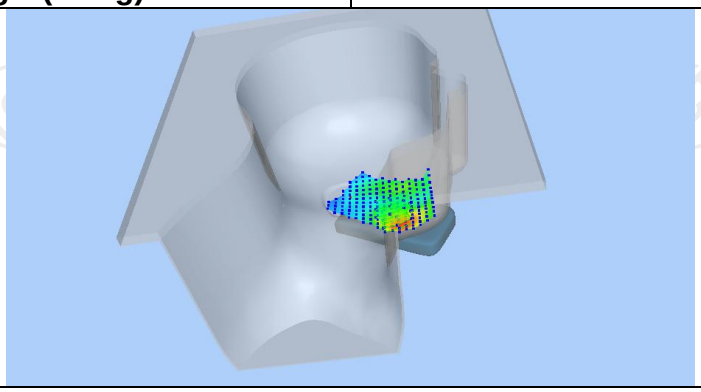
Z (mm)	0.00	4.00	9.00	14.00	19.00
SAR (W/Kg)	1.0470	0.7349	0.5467	0.4377	0.3352



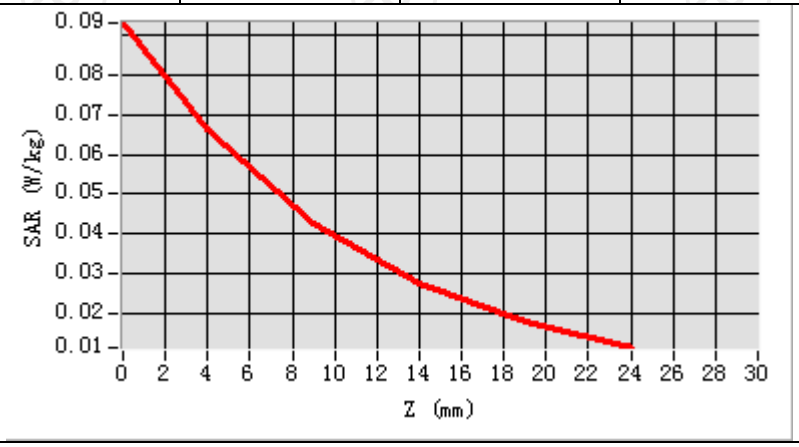
Hot spot position



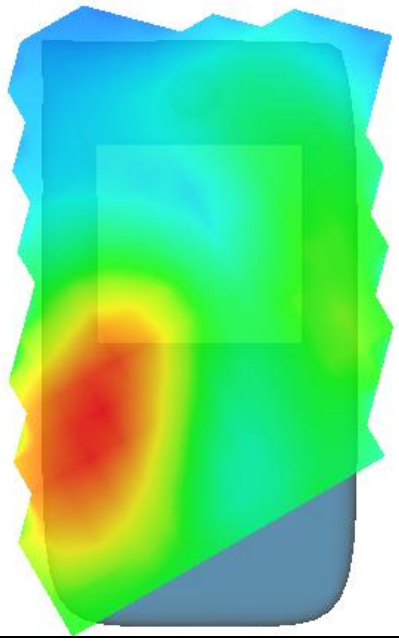
GPRS 1900

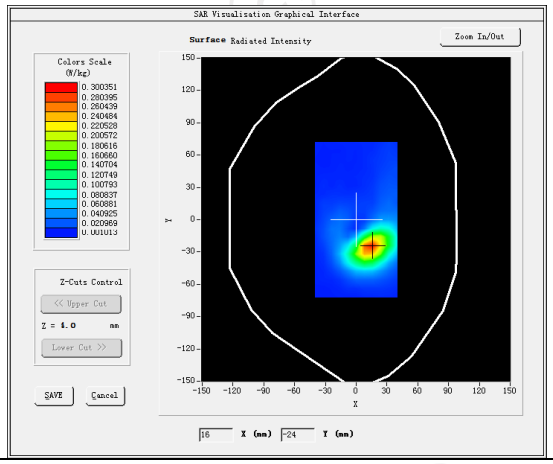
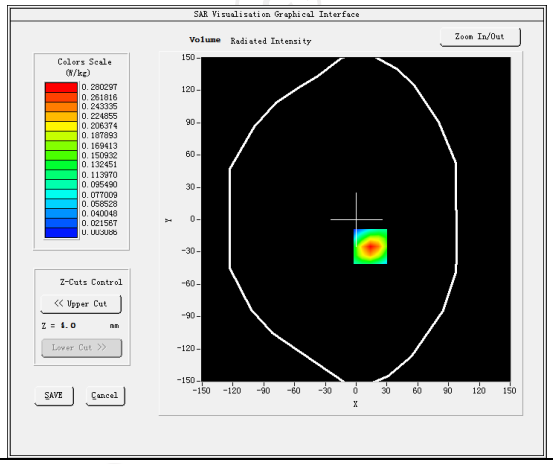
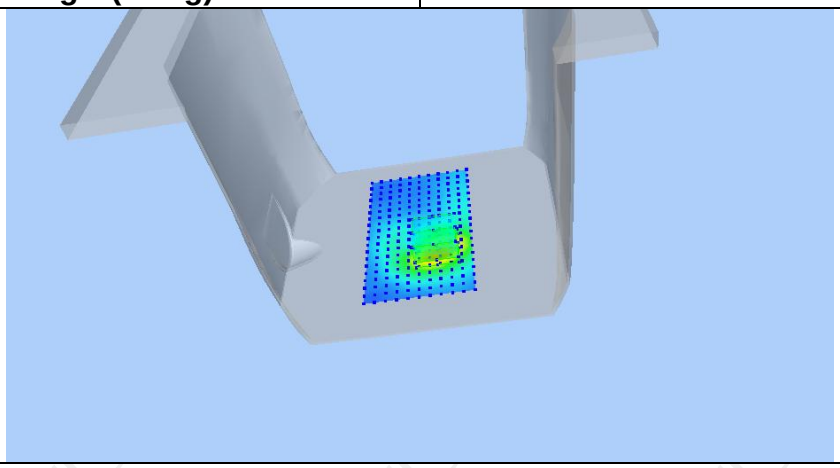
MEASUREMENT 1	
Lower Band SAR (Channel 512):	Date: 03/22/2020
Frequency (MHz)	1850.200000
Relative permittivity (real part)	39.105208
Relative permittivity (imaginary part)	12.607628
Conductivity (S/m)	1.342108
Variation (%)	2.720000
Crest Factor	8.3
Probe Conversion factor	4.85
E-Field Probe:	SSE2 (SN 41/18 EP331)
Area Scan	dx=8mm dy=8mm, h= 5.00 mm
ZoomScan	5x5x7,dx=8mm dy=8mm 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

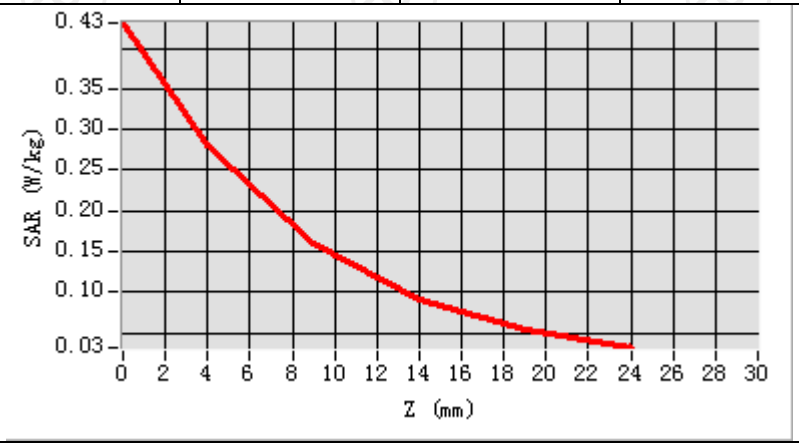


Hot spot position

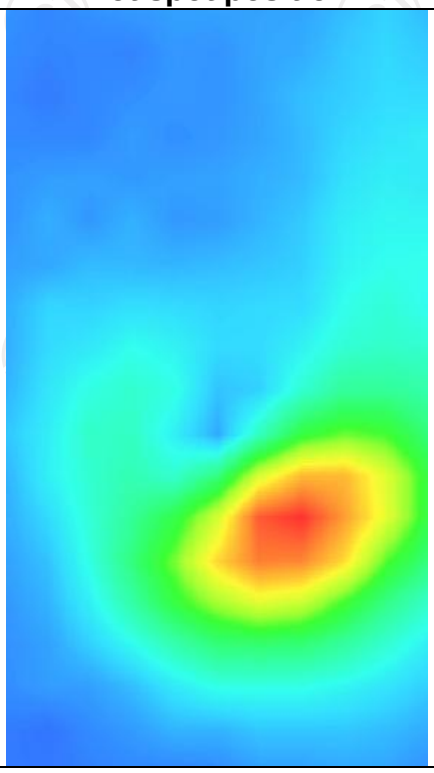


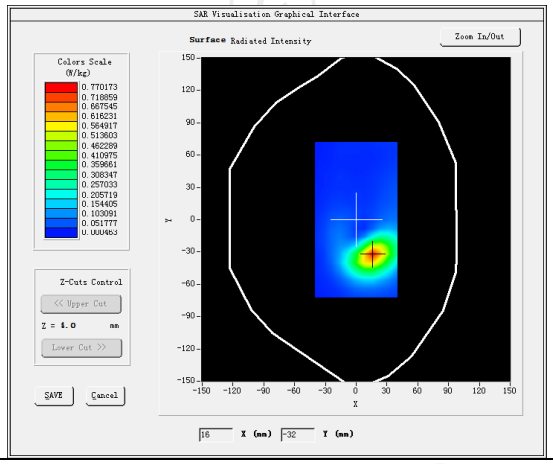
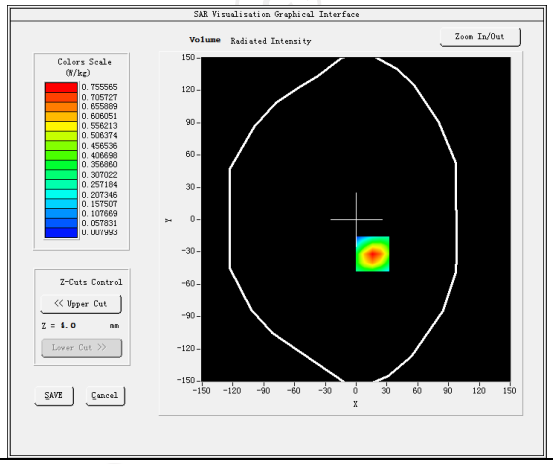
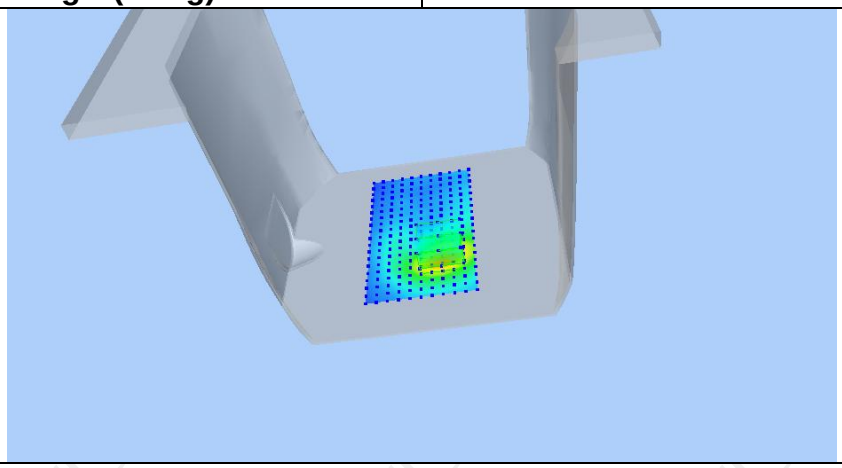
MEASUREMENT 2	
Lower Band SAR (Channel 512):	Date: 03/22/2020
Frequency (MHz)	1850.200000
Relative permittivity (real part)	53.341337
Relative permittivity (imaginary part)	14.232400
Conductivity (S/m)	1.491736
Variation (%)	-2.200000
Crest Factor	8.3
Probe Conversion factor	5.01
E-Field Probe:	SSE2 (SN 41/18 EP331)
Area Scan	dx=8mm dy=8mm, h= 5.00 mm
ZoomScan	5x5x7,dx=8mm dy=8mm dz=5mm,Complete/ndx=8mm dy=8mm, h= 5.00 mm
Phantom	Validation plane
Device Position	Body back(10mm)
Band	GSM1900(voice)
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

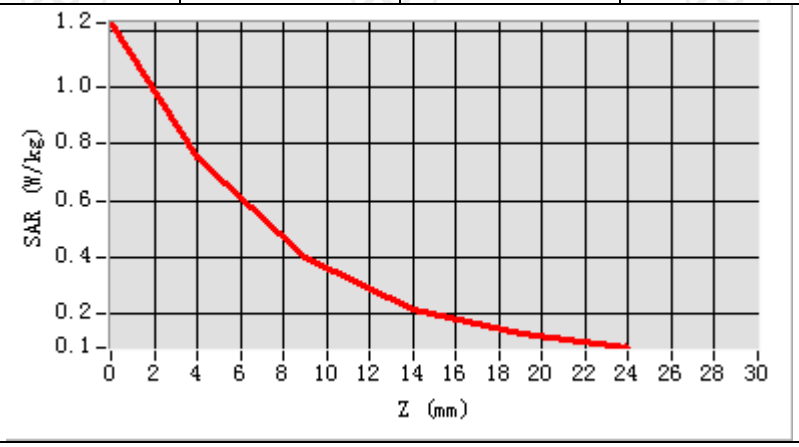


Hot spot position

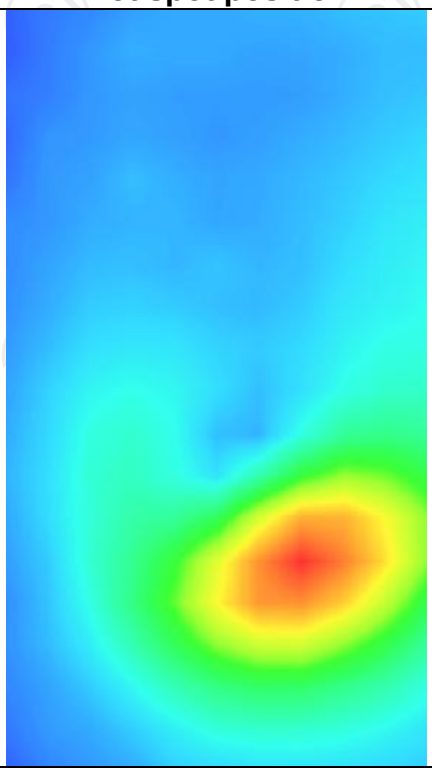


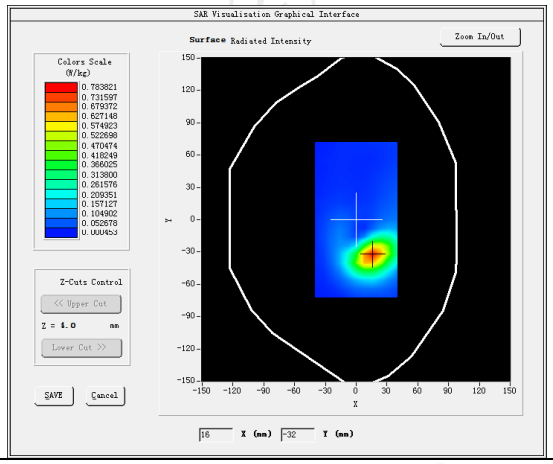
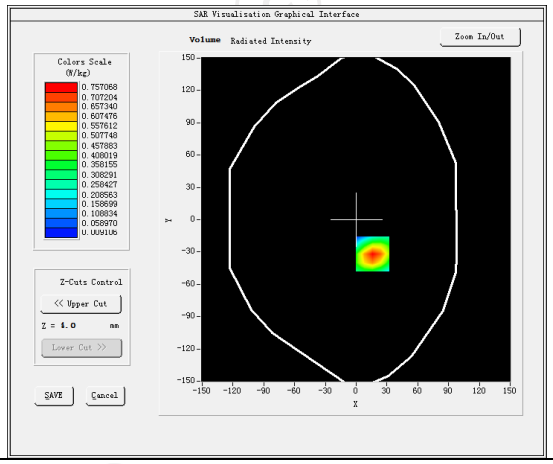
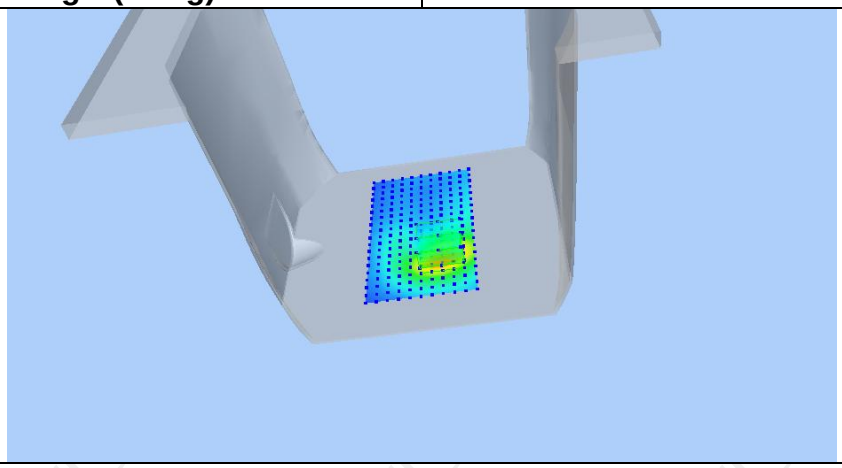
MEASUREMENT 3	
Lower Band SAR (Channel 512):	Date: 03/22/2020
Frequency (MHz)	1850.200000
Relative permittivity (real part)	53.341337
Relative permittivity (imaginary part)	14.232400
Conductivity (S/m)	1.491736
Variation (%)	-1.470000
Crest Factor	2.0
Probe Conversion factor	5.01
E-Field Probe:	SSE2 (SN 41/18 EP331)
Area Scan	dx=8mm dy=8mm, h= 5.00 mm
ZoomScan	5x5x7,dx=8mm dy=8mm dz=5mm,Complete/ndx=8mm dy=8mm, h= 5.00 mm
Phantom	Validation plane
Device Position	Body back(10mm)
Band	GSM1900(GPRS 4slot)
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

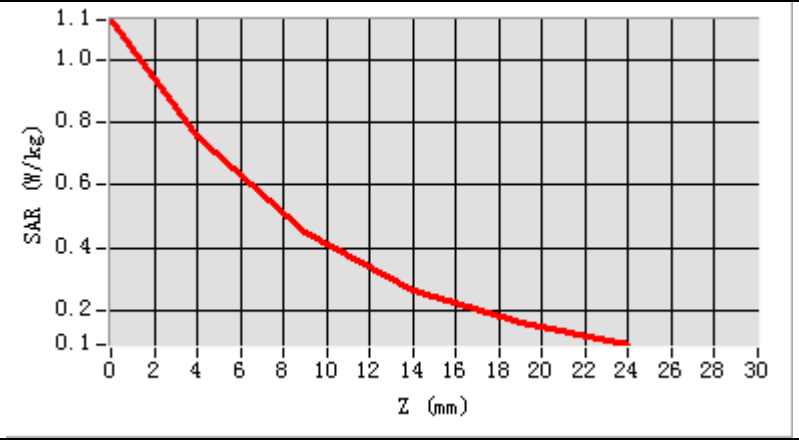


Hot spot position

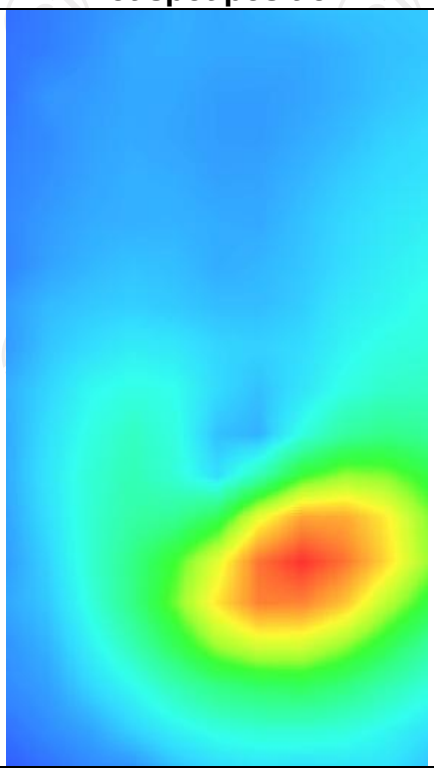


MEASUREMENT 4	
Lower Band SAR (Channel 512):	Date: 03/22/2020
Frequency (MHz)	1850.200000
Relative permittivity (real part)	53.341337
Relative permittivity (imaginary part)	14.232400
Conductivity (S/m)	1.491736
Variation (%)	-1.700000
Crest Factor	2.0
Probe Conversion factor	5.01
E-Field Probe:	SSE2 (SN 41/18 EP331)
Area Scan	dx=8mm dy=8mm, h= 5.00 mm
ZoomScan	5x5x7,dx=8mm dy=8mm dz=5mm,Complete/ndx=8mm dy=8mm, h= 5.00 mm
Phantom	Validation plane
Device Position	Body back(10mm)
Band	GSM1900(GPRS 4slot hotspot)
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
	

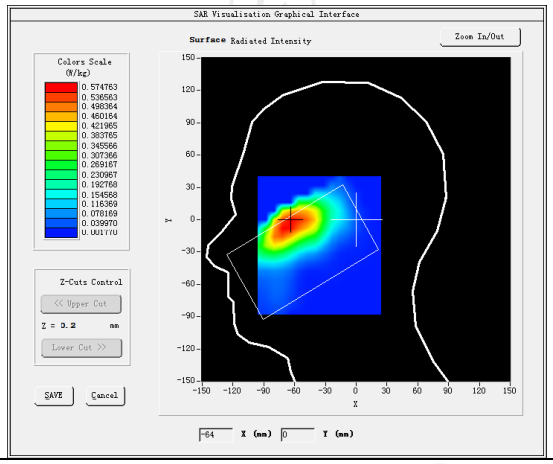
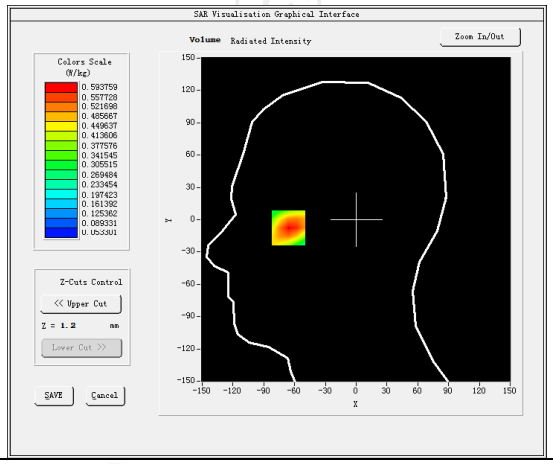
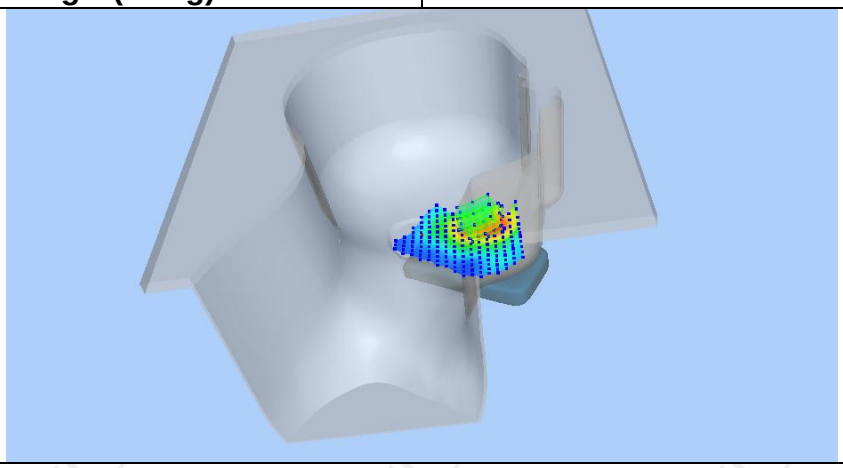
Z (mm)	0.00	4.00	9.00	14.00	19.00
SAR (W/Kg)	1.1277	0.7571	0.4501	0.2664	0.1596



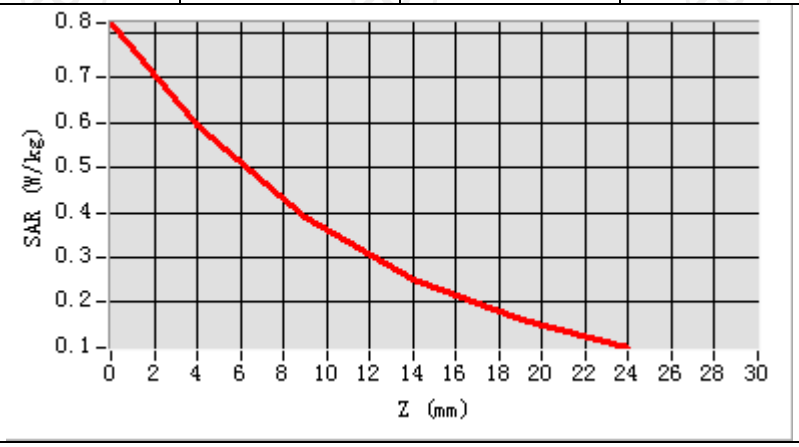
Hot spot position



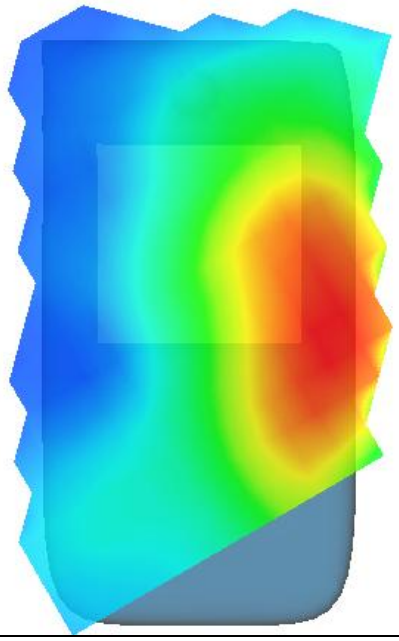
WCDMA Band II

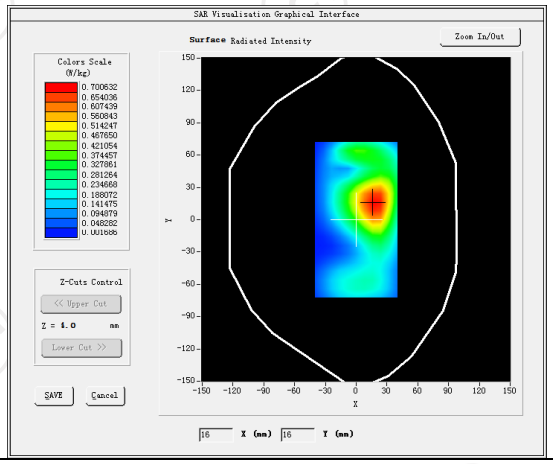
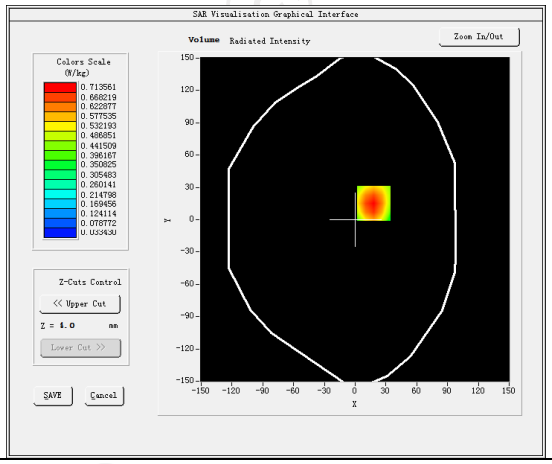
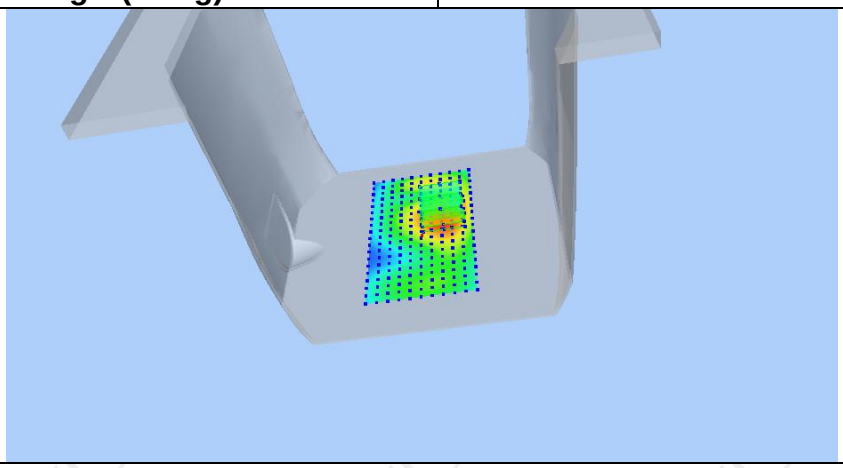
MEASUREMENT 1	
Middle Band SAR (Channel 9400):	Date: 03/22/2020
Frequency (MHz)	1880.000000
Relative permittivity (real part)	39.102437
Relative permittivity (imaginary part)	12.607241
Conductivity (S/m)	1.347279
Variation (%)	2.460000
Crest Factor	1.0
Probe Conversion factor	4.85
E-Field Probe:	SSE2 (SN 41/18 EP331)
Area Scan	dx=8mm dy=8mm, h= 5.00 mm
ZoomScan	5x5x7,dx=8mm dy=8mm 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

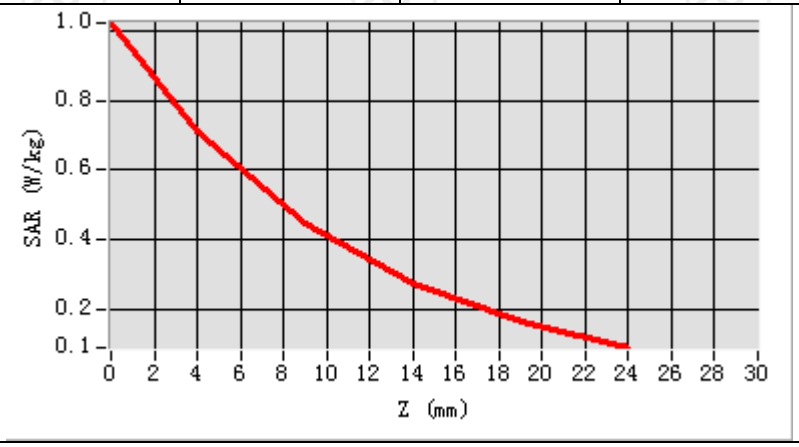


Hot spot position

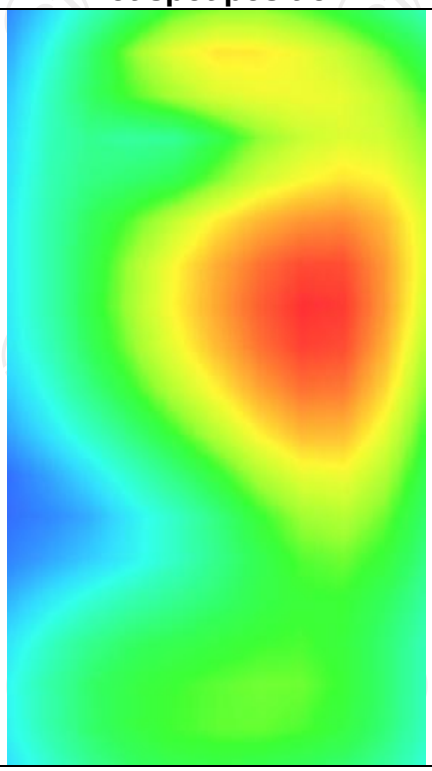


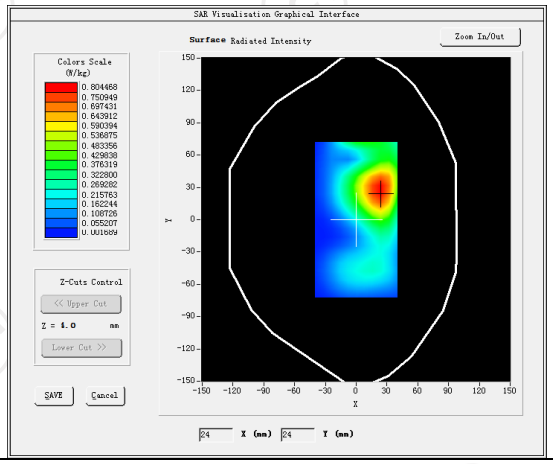
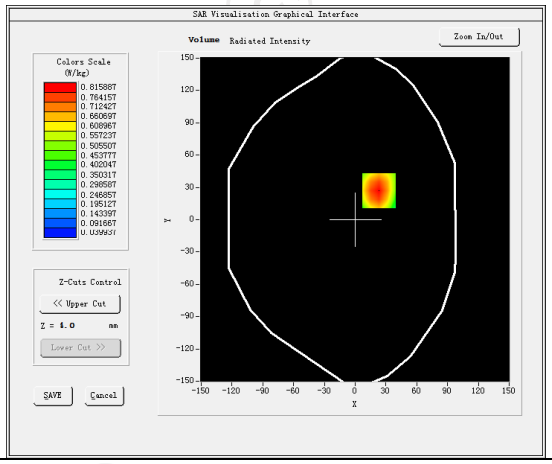
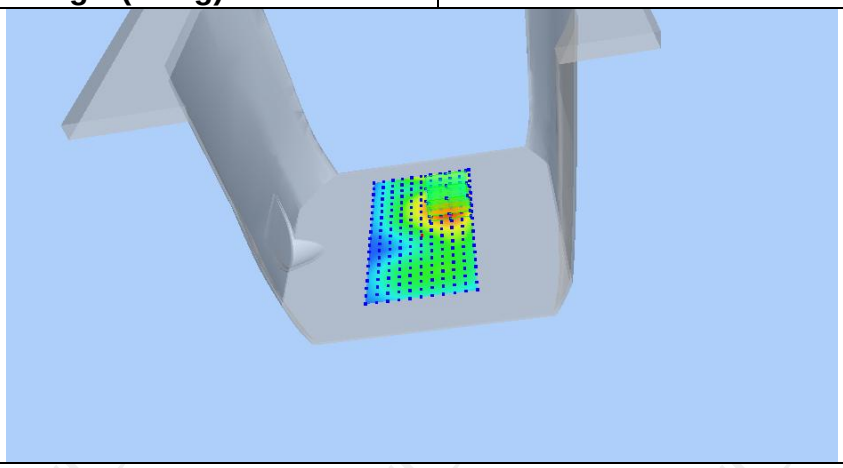
MEASUREMENT 2	
Middle Band SAR (Channel 9400):	Date: 03/22/2020
Frequency (MHz)	1880.000000
Relative permittivity (real part)	53.321337
Relative permittivity (imaginary part)	14.232400
Conductivity (S/m)	1.496736
Variation (%)	-1.730000
Crest Factor	1.0
Probe Conversion factor	5.01
E-Field Probe:	SSE2 (SN 41/18 EP331)
Area Scan	dx=8mm dy=8mm, h= 5.00 mm
ZoomScan	5x5x7,dx=8mm dy=8mm 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

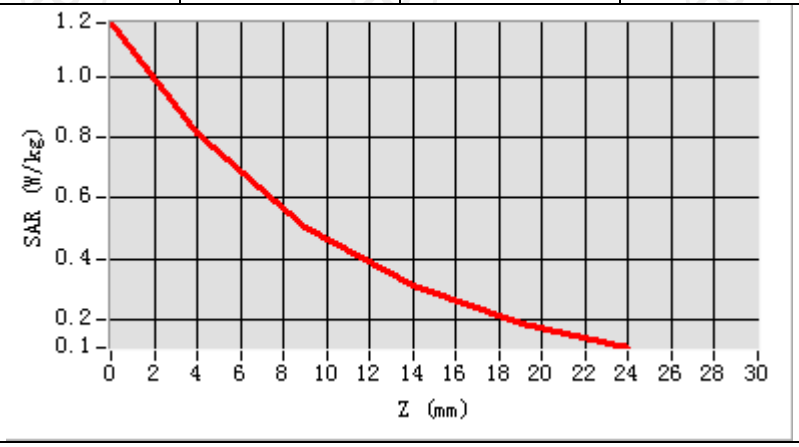


Hot spot position

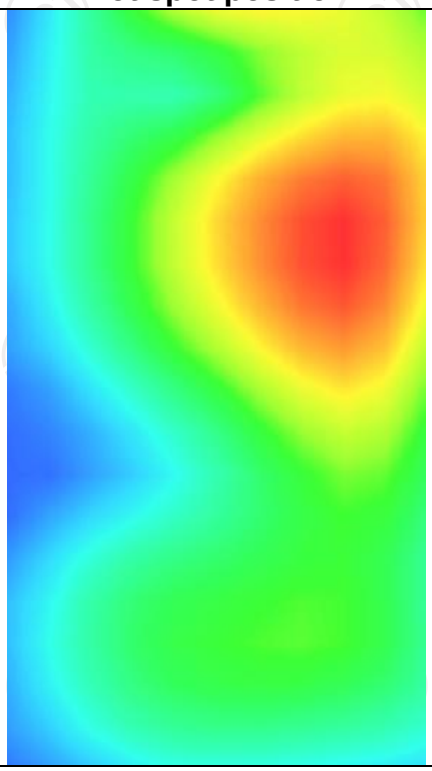


MEASUREMENT 3	
Middle Band SAR (Channel 9400):	Date: 03/22/2020
Frequency (MHz)	1880.000000
Relative permittivity (real part)	53.321337
Relative permittivity (imaginary part)	14.232400
Conductivity (S/m)	1.496736
Variation (%)	-1.170000
Crest Factor	1.0
Probe Conversion factor	5.01
E-Field Probe:	SSE2 (SN 41/18 EP331)
Area Scan	dx=8mm dy=8mm, h= 5.00 mm
ZoomScan	5x5x7,dx=8mm dy=8mm 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
	

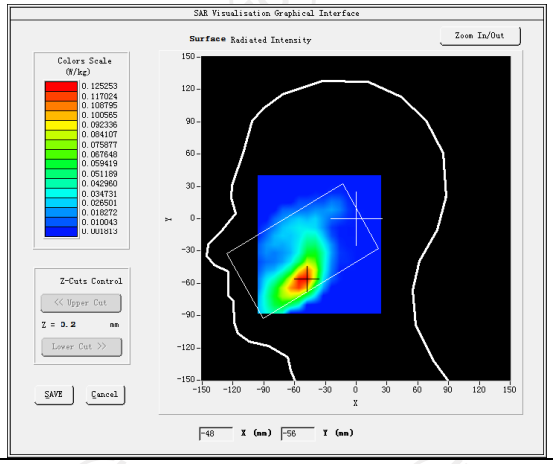
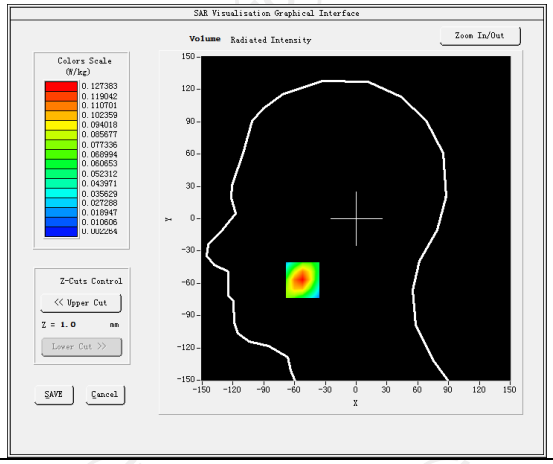
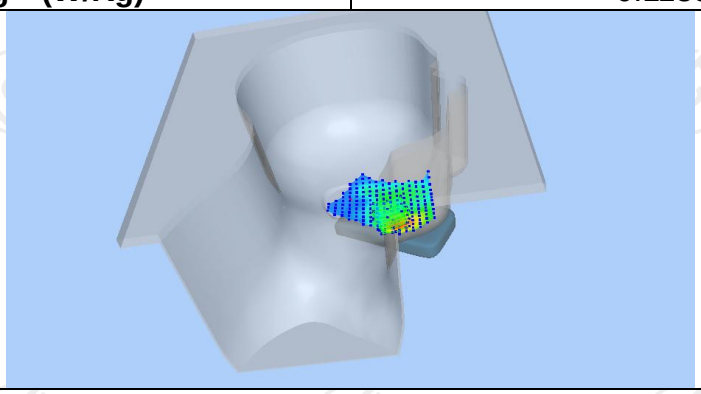
Z (mm)	0.00	4.00	9.00	14.00	19.00
SAR (W/Kg)	1.1768	0.8159	0.5054	0.3095	0.1885



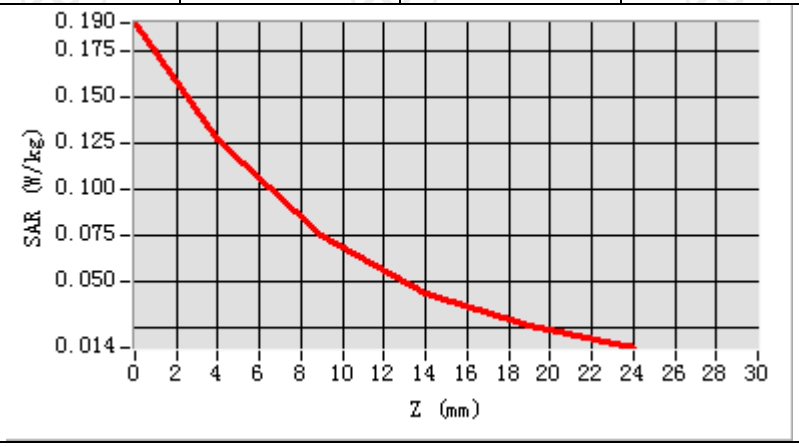
Hot spot position



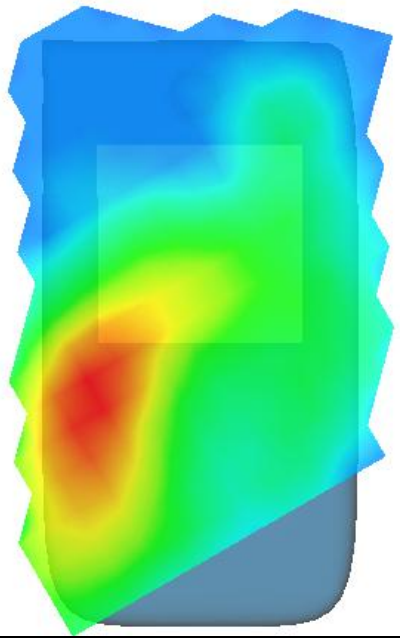
WCDMA Band IV

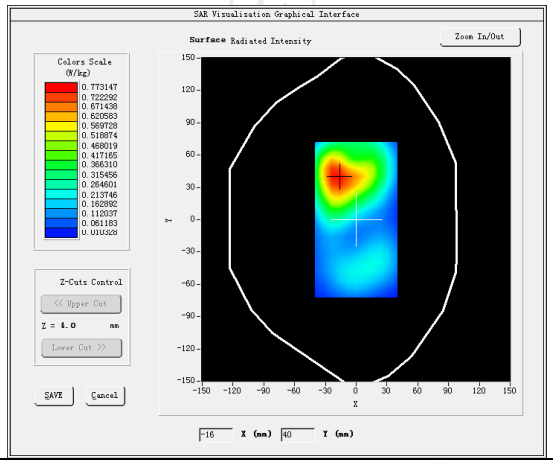
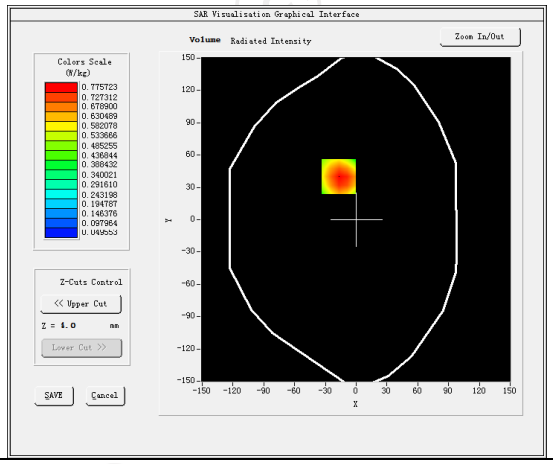
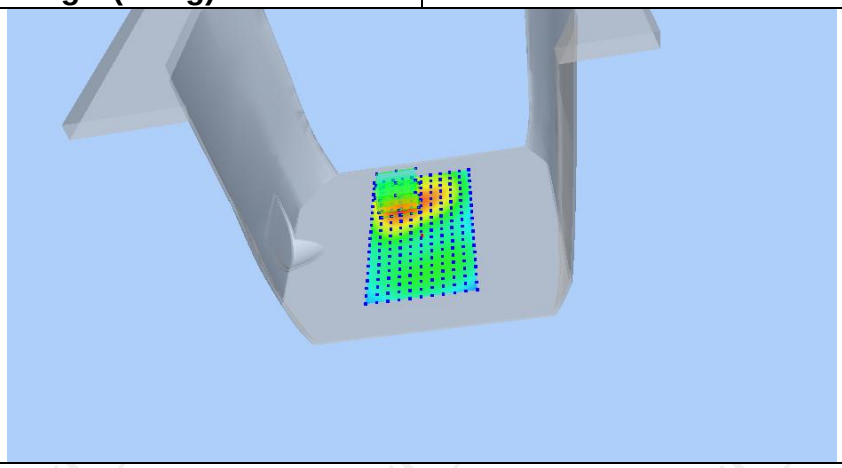
MEASUREMENT 1	
Middle Band SAR (Channel 1413):	Date: 03/16/2020
Frequency (MHz)	1732.600000
Relative permittivity (real part)	39.101249
Relative permittivity (imaginary part)	12.468850
Conductivity (S/m)	1.350792
Variation (%)	-2.840000
Crest Factor	1.0
Probe Conversion factor	4.38
E-Field Probe:	SSE2 (SN 41/18 EP331)
Area Scan	dx=8mm dy=8mm, h= 5.00 mm
ZoomScan	5x5x7,dx=8mm dy=8mm dz=5mm,Complete/ndx=8mm dy=8mm, h= 5.00 mm
Phantom	Left head
Device Position	Cheek
Band	BAND4_WCDMA1700
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

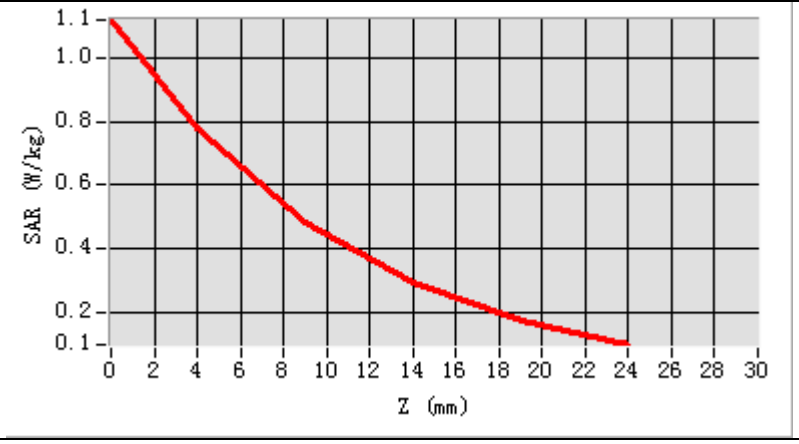


Hot spot position

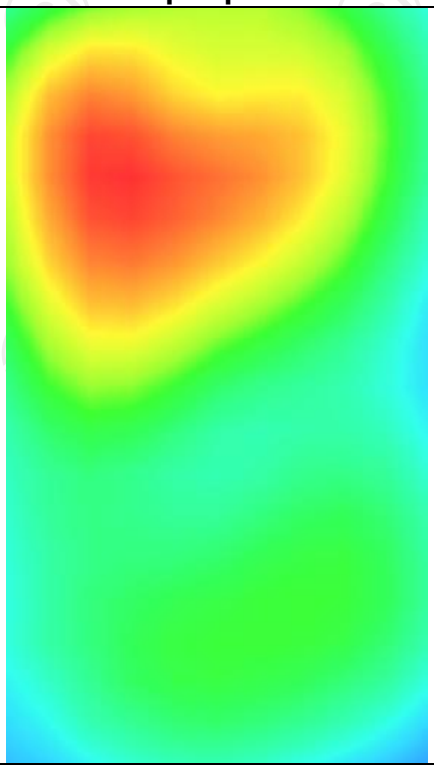


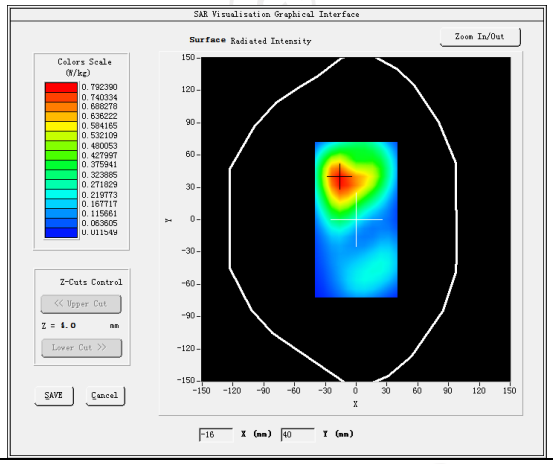
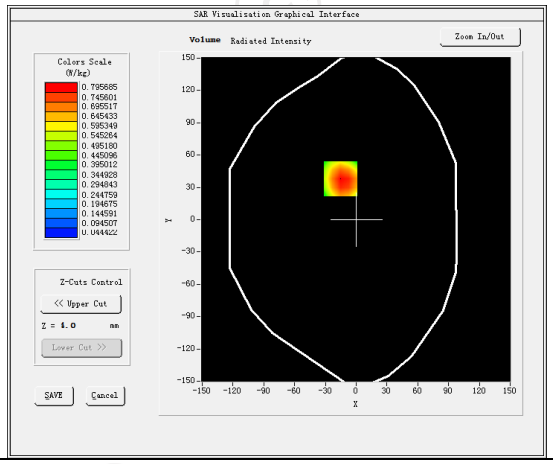
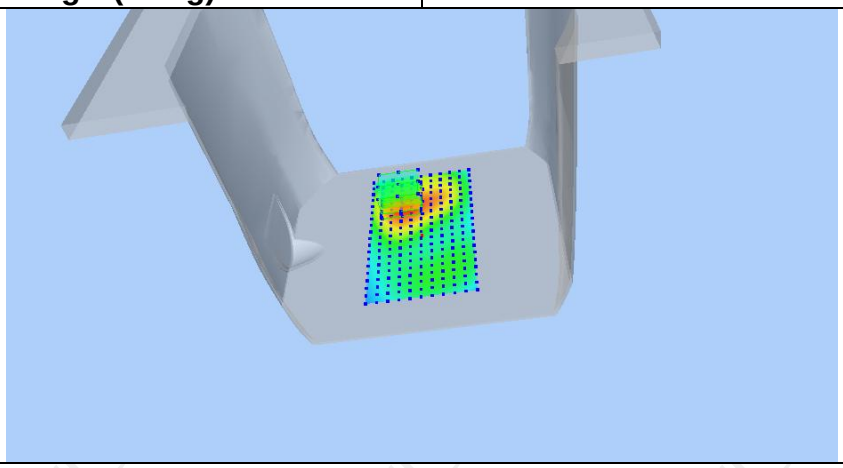
MEASUREMENT 2	
Middle Band SAR (Channel 1413):	Date: 03/16/2020
Frequency (MHz)	1732.600000
Relative permittivity (real part)	53.321249
Relative permittivity (imaginary part)	12.468850
Conductivity (S/m)	1.502592
Variation (%)	-1.300000
Crest Factor	1.0
Probe Conversion factor	4.52
E-Field Probe:	SSE2 (SN 41/18 EP331)
Area Scan	dx=8mm dy=8mm, h= 5.00 mm
ZoomScan	5x5x7,dx=8mm dy=8mm 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

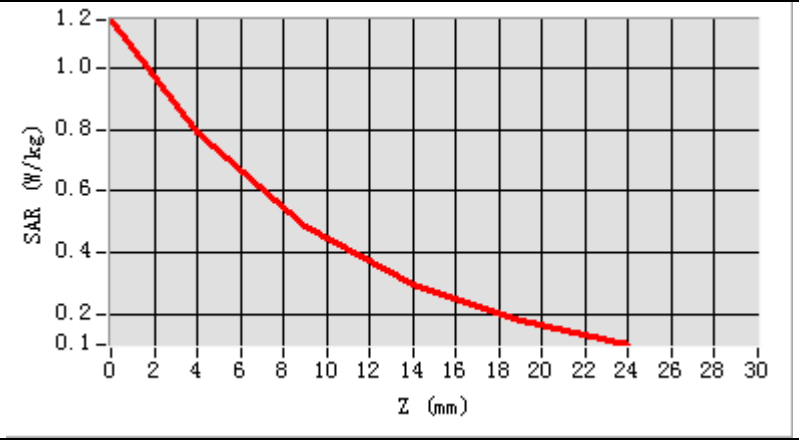


Hot spot position

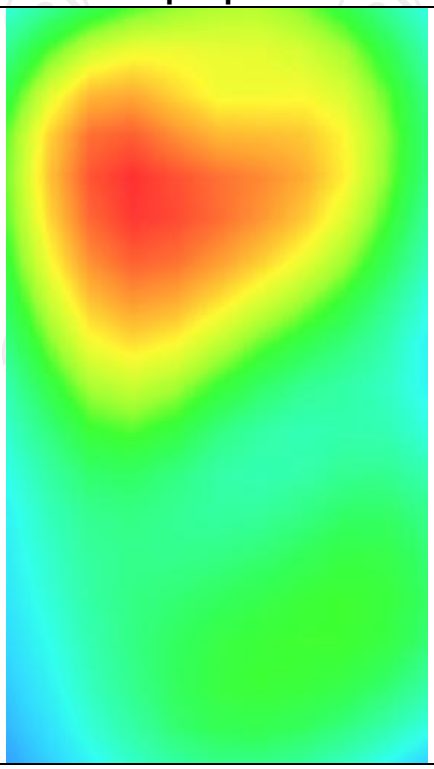


MEASUREMENT 3	
Middle Band SAR (Channel 1413):	Date: 03/16/2020
Frequency (MHz)	1732.600000
Relative permittivity (real part)	53.321249
Relative permittivity (imaginary part)	12.468850
Conductivity (S/m)	1.502592
Variation (%)	0.660000
Crest Factor	1.0
Probe Conversion factor	4.52
E-Field Probe:	SSE2 (SN 41/18 EP331)
Area Scan	dx=8mm dy=8mm, h= 5.00 mm
ZoomScan	5x5x7,dx=8mm dy=8mm dz=5mm,Complete/ndx=8mm dy=8mm, h= 5.00 mm
Phantom	Validation plane
Device Position	Body back(hotspot 10mm)
Band	BAND4 WCDMA1700
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
	

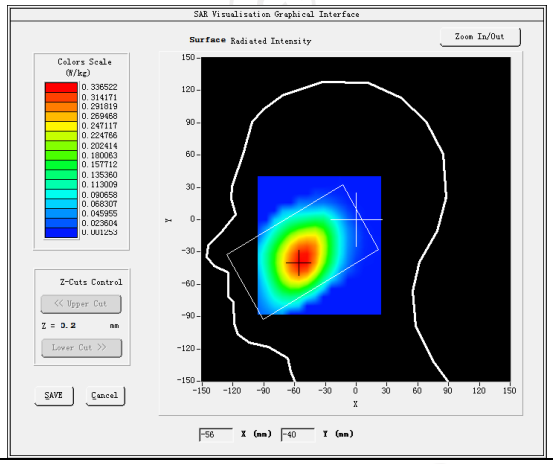
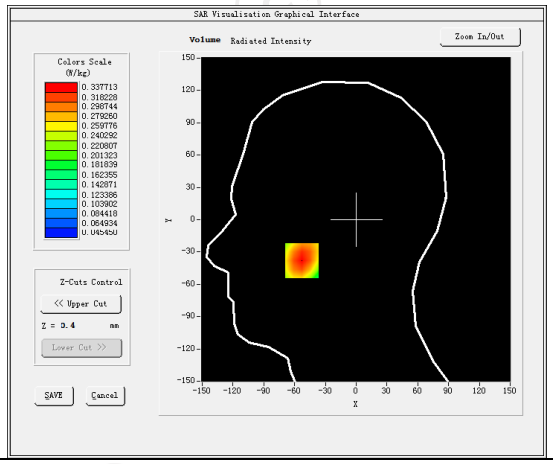
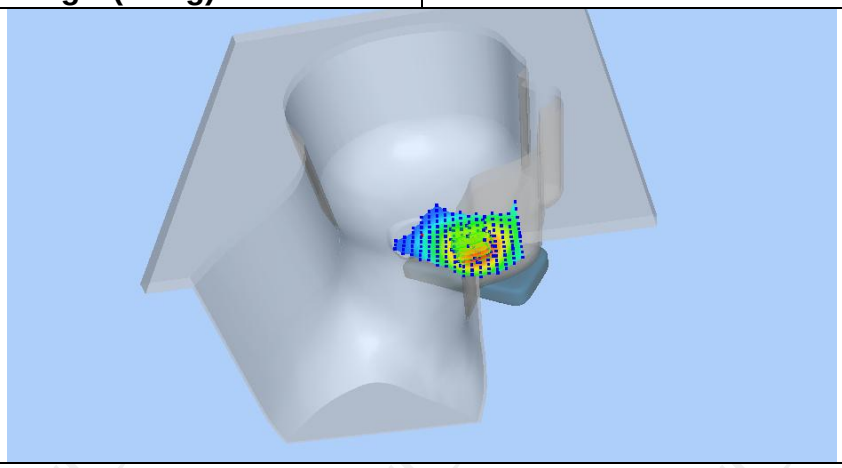
Z (mm)	0.00	4.00	9.00	14.00	19.00
SAR (W/Kg)	1.1590	0.7957	0.4863	0.2938	0.1768



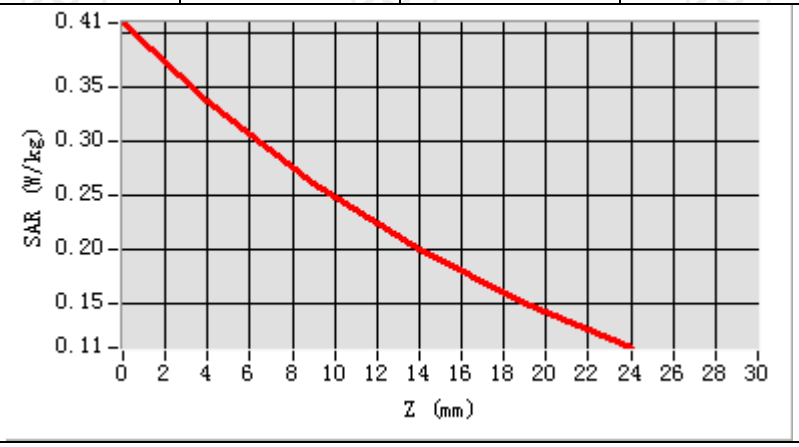
Hot spot position



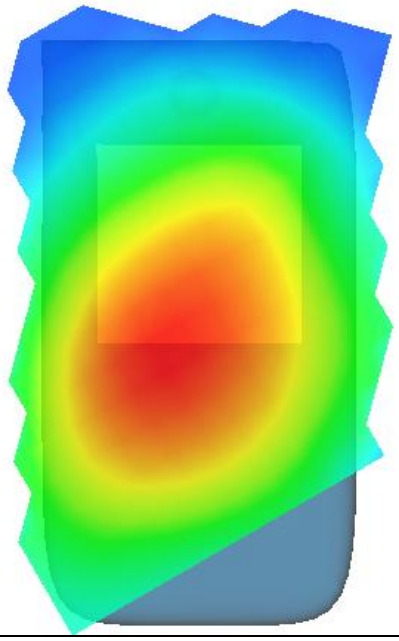
WCDMA Band V

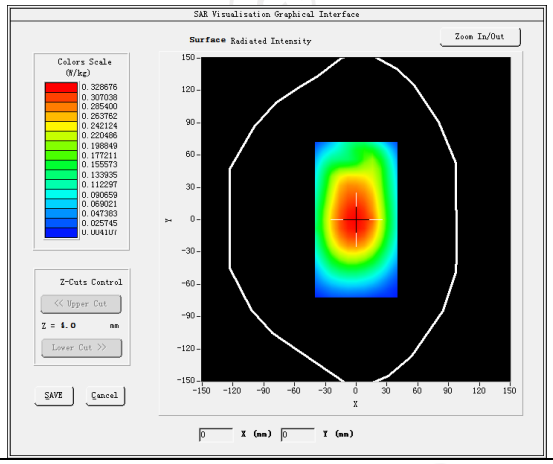
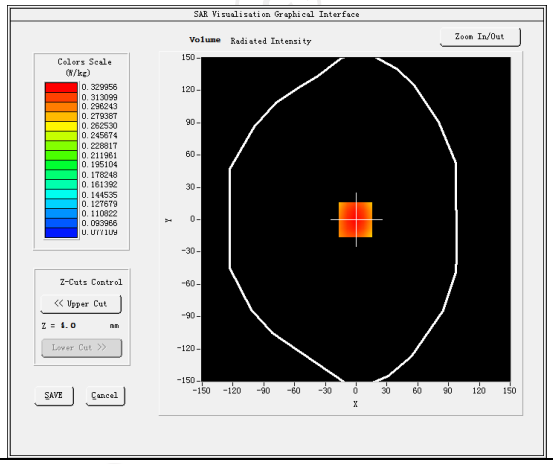
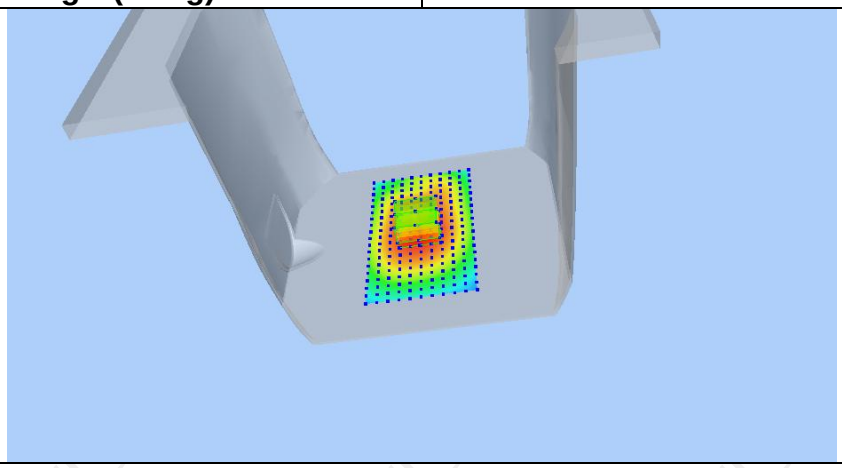
MEASUREMENT 1	
Middle Band SAR (Channel 9182):	Date: 03/10/2020
Frequency (MHz)	836.400000
Relative permittivity (real part)	41.422883
Relative permittivity (imaginary part)	18.129634
Conductivity (S/m)	0.867241
Variation (%)	1.480000
Crest Factor:	1.0
Probe Conversion factor	5.50
E-Field Probe:	SSE2 (SN 41/18 EP331)
Area Scan	dx=8mm dy=8mm, h= 5.00 mm
ZoomScan	5x5x7,dx=8mm dy=8mm 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

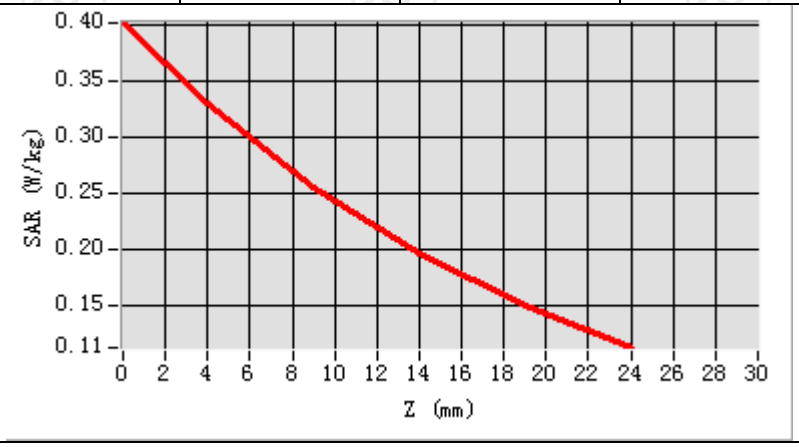


Hot spot position

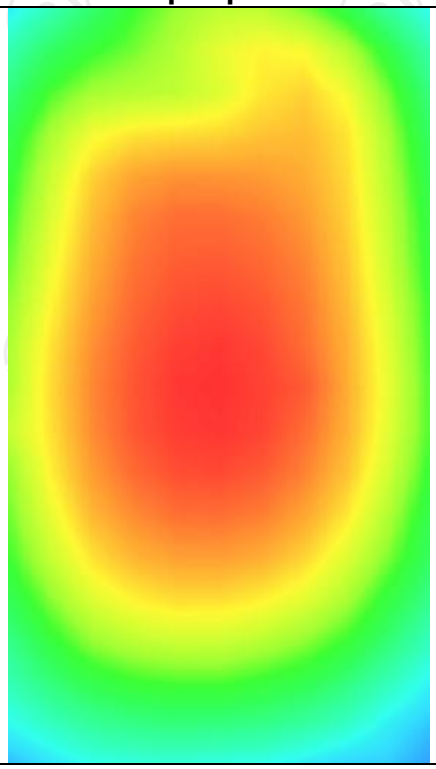


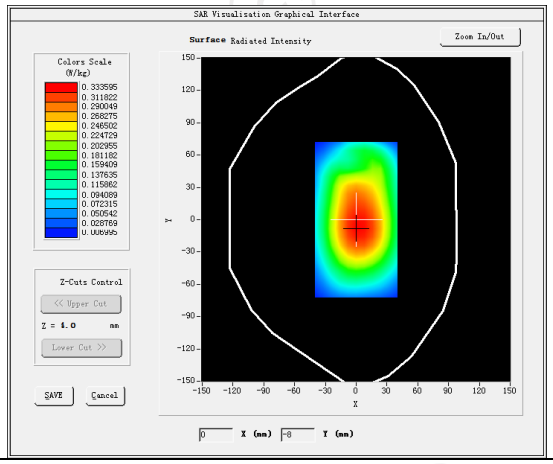
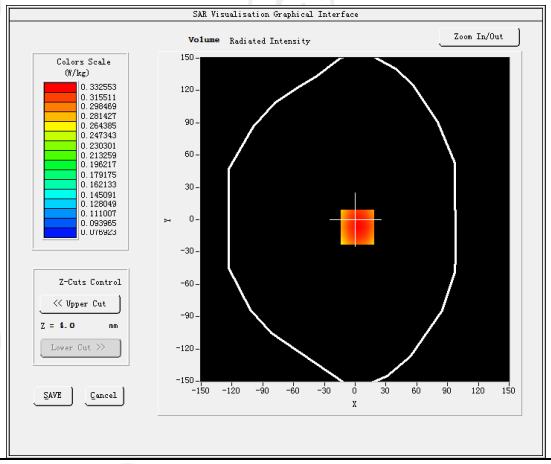
MEASUREMENT 2	
Middle Band SAR (Channel 9182):	Date: 03/10/2020
Frequency (MHz)	836.400000
Relative permittivity (real part)	55.242927
Relative permittivity (imaginary part)	21.378266
Conductivity (S/m)	0.941230
Variation (%)	1.110000
Crest Factor:	1.0
Probe Conversion factor	5.65
E-Field Probe:	SSE2 (SN 41/18 EP331)
Area Scan	dx=8mm dy=8mm, h= 5.00 mm
ZoomScan	5x5x7,dx=8mm dy=8mm dz=5mm,Complete/ndx=8mm dy=8mm, h= 5.00 mm
Phantom	Validation plane
Device Position	Body back(10mm)
Band	BAND5 WCDMA850
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
	

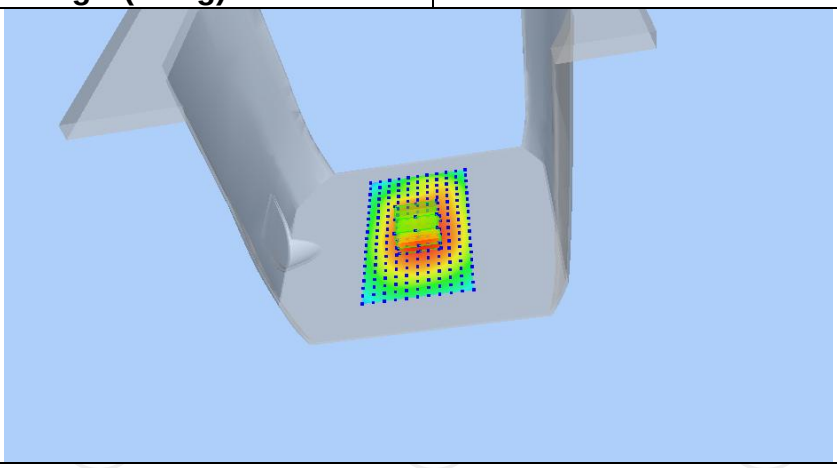
Z (mm)	0.00	4.00	9.00	14.00	19.00
SAR (W/Kg)	0.4019	0.3300	0.2561	0.1978	0.1515



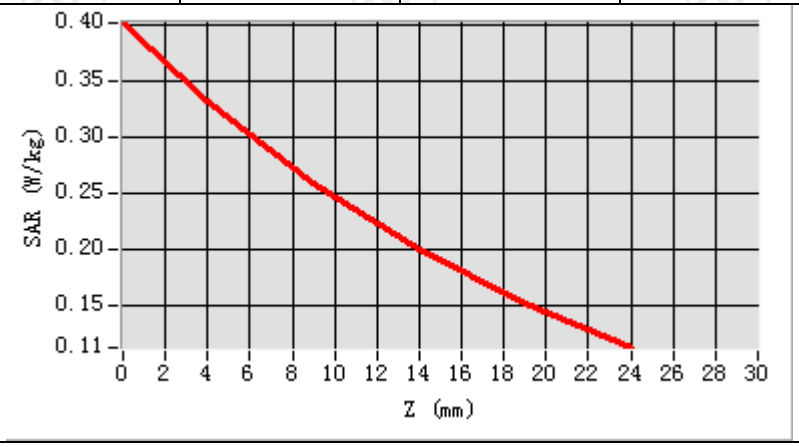
Hot spot position



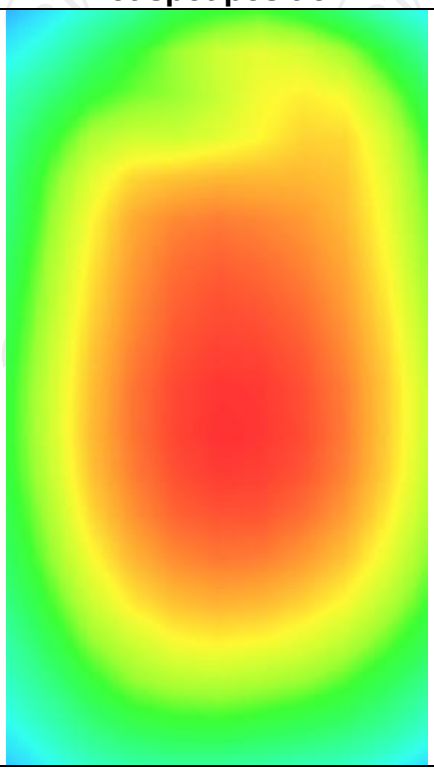
MEASUREMENT 3	
Middle Band SAR (Channel 9182):	Date: 03/10/2020
Frequency (MHz)	836.400000
Relative permittivity (real part)	55.242927
Relative permittivity (imaginary part)	21.378266
Conductivity (S/m)	0.941230
Variation (%)	0.010000
Crest Factor:	1.0
Probe Conversion factor	5.65
E-Field Probe:	SSE2 (SN 41/18 EP331)
Area Scan	dx=8mm dy=8mm, h= 5.00 mm
ZoomScan	5x5x7,dx=8mm dy=8mm dz=5mm,Complete/ndx=8mm dy=8mm, h= 5.00 mm
Phantom	Validation plane
Device Position	Body back(10mm)
Band	BAND5 WCDMA850(hotspot)
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



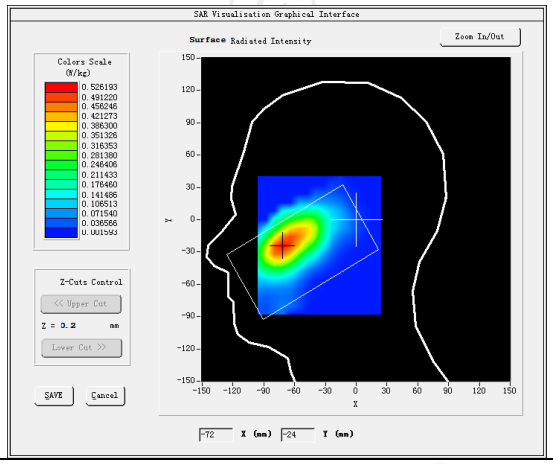
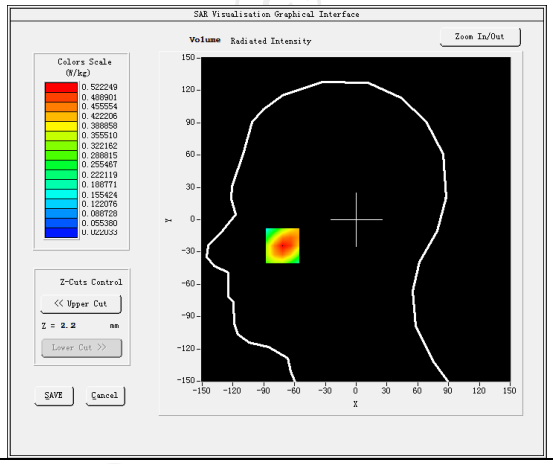
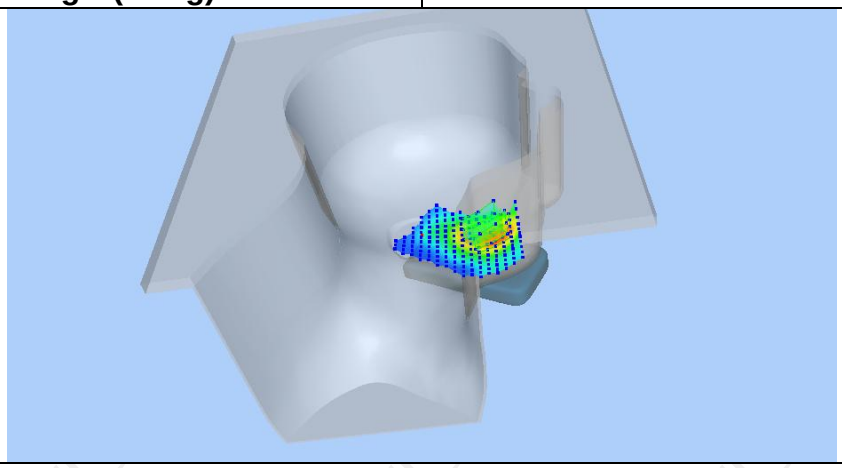
Z (mm)	0.00	4.00	9.00	14.00	19.00
SAR (W/Kg)	0.4021	0.3326	0.2598	0.2008	0.1530



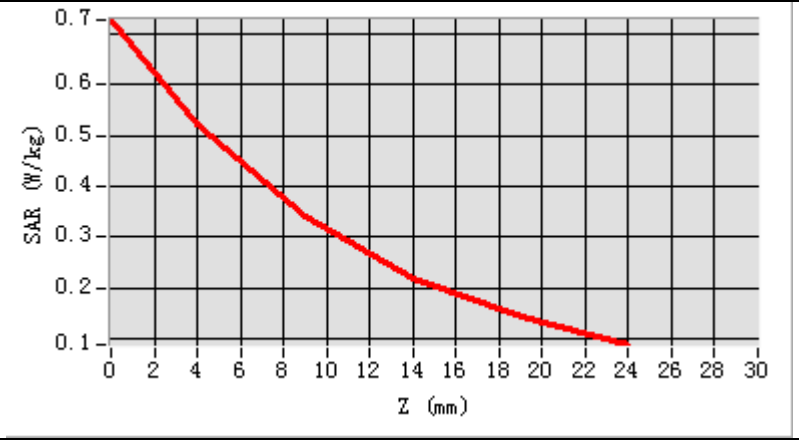
Hot spot position



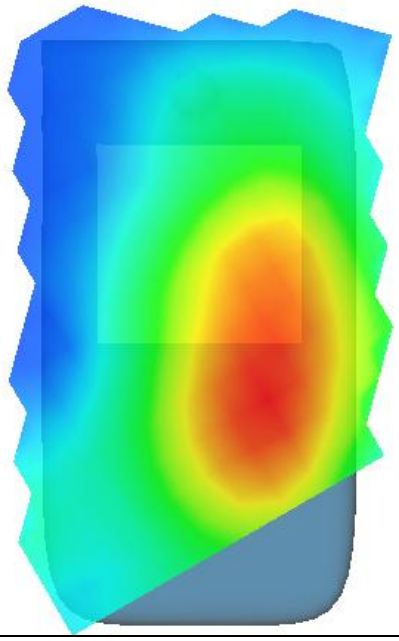
LTE Band 2

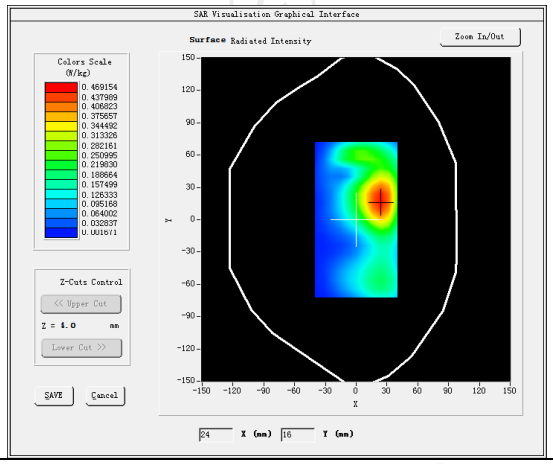
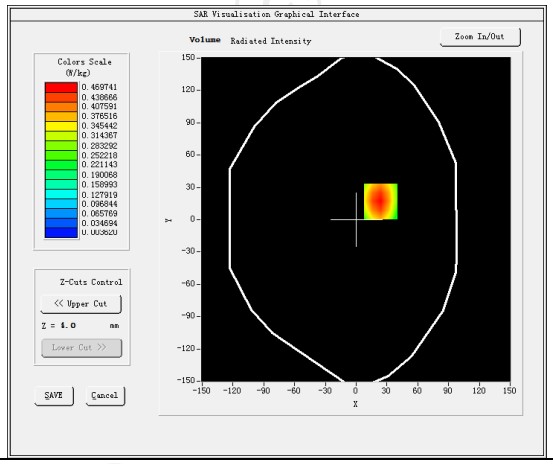
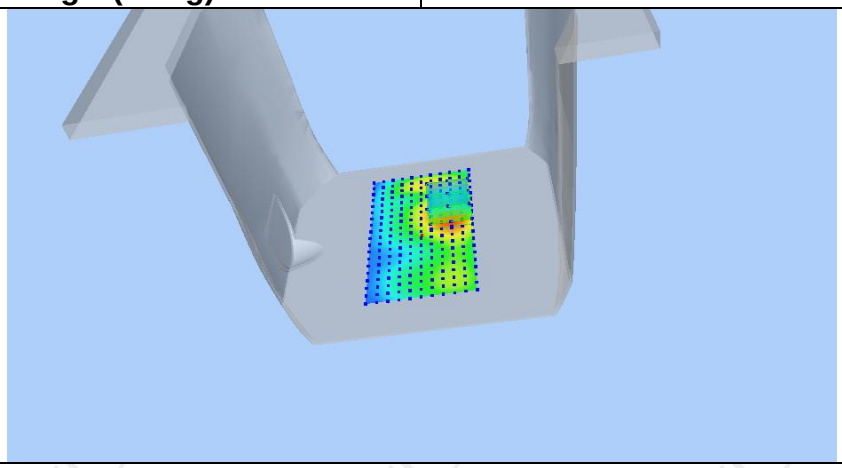
MEASUREMENT 1	
Lower Band SAR (Channel 18700):	Date: 03/22/2020
Frequency (MHz)	1860.000000
Relative permittivity (real part)	39.105208
Relative permittivity (imaginary part)	12.607628
Conductivity (S/m)	1.342108
Variation (%)	1.330000
Crest Factor	1.0
Probe Conversion factor	4.85
E-Field Probe:	SSE2 (SN 41/18 EP331)
Area Scan	dx=8mm dy=8mm, h= 5.00 mm
ZoomScan	5x5x7,dx=8mm dy=8mm 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

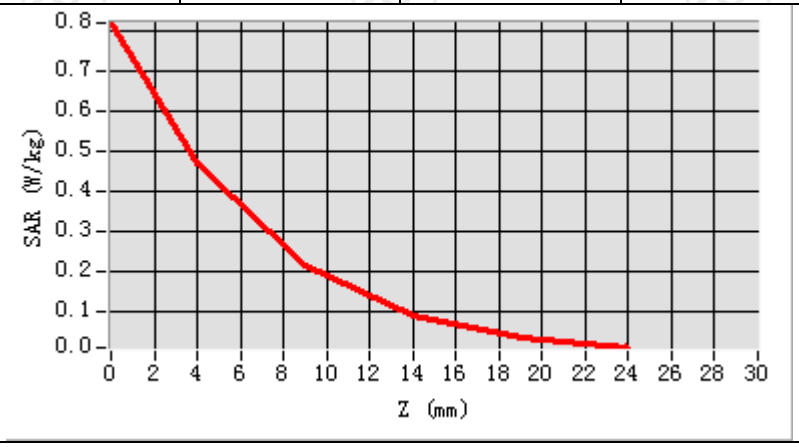


Hot spot position

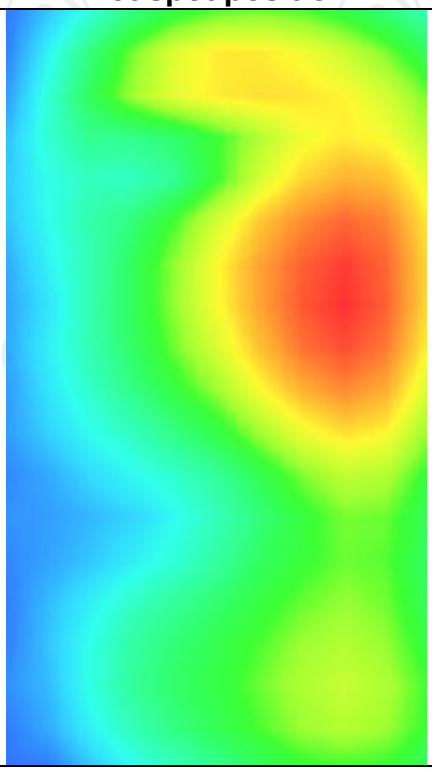


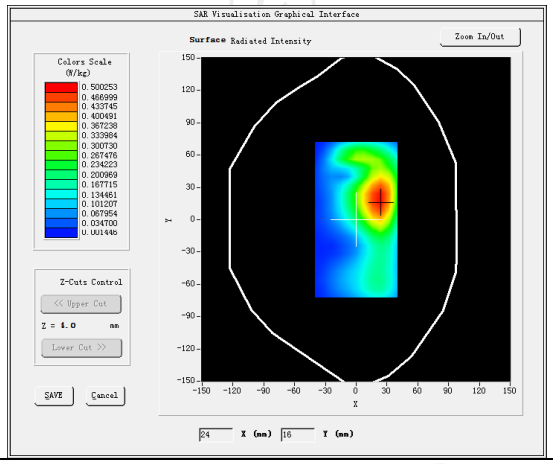
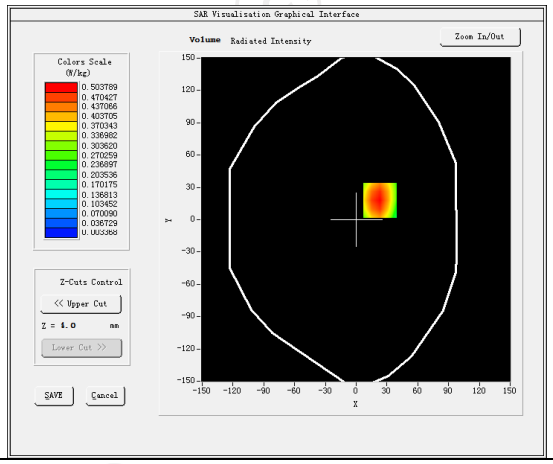
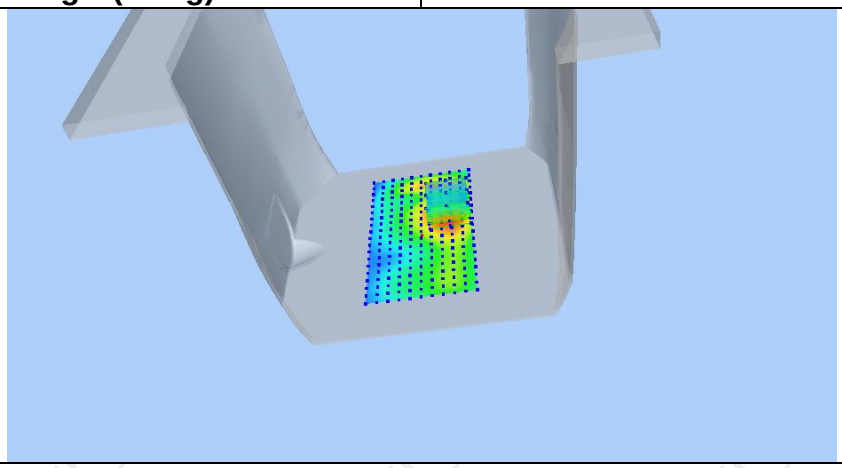
MEASUREMENT 2	
Lower Band SAR (Channel 18607):	Date: 03/22/2020
Frequency (MHz)	1850.700000
Relative permittivity (real part)	53.341337
Relative permittivity (imaginary part)	14.232400
Conductivity (S/m)	1.491736
Variation (%)	0.070000
Crest Factor	1.0
Probe Conversion factor	5.01
E-Field Probe:	SSE2 (SN 41/18 EP331)
Area Scan	dx=8mm dy=8mm, h= 5.00 mm
ZoomScan	5x5x7,dx=8mm dy=8mm 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

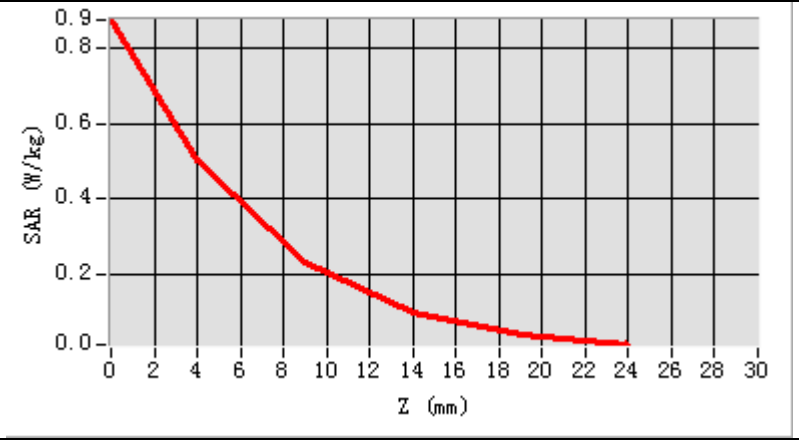


Hot spot position

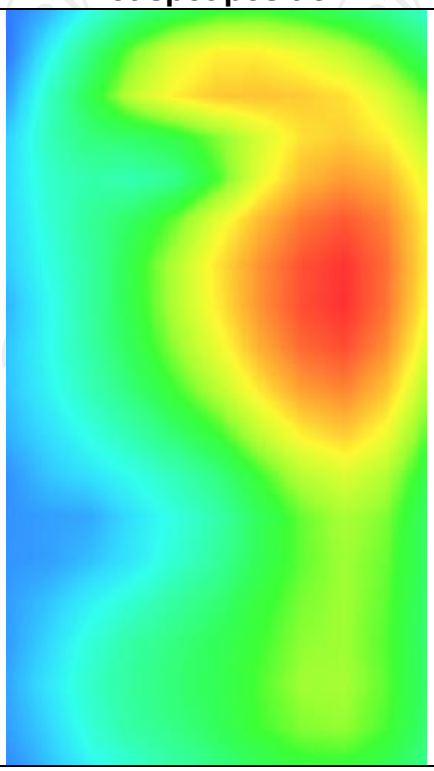


MEASUREMENT 3	
Lower Band SAR (Channel 18607):	Date: 03/22/2020
Frequency (MHz)	1850.700000
Relative permittivity (real part)	53.341337
Relative permittivity (imaginary part)	14.232400
Conductivity (S/m)	1.491736
Variation (%)	0.710000
Crest Factor	1.0
Probe Conversion factor	5.01
E-Field Probe:	SSE2 (SN 41/18 EP331)
Area Scan	dx=8mm dy=8mm, h= 5.00 mm
ZoomScan	5x5x7,dx=8mm dy=8mm dz=5mm,Complete/ndx=8mm dy=8mm, h= 5.00 mm
Phantom	Validation plane
Device Position	Body back(hotspot 10mm)
Band	LTE band 2 (1 RB#50)
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
	

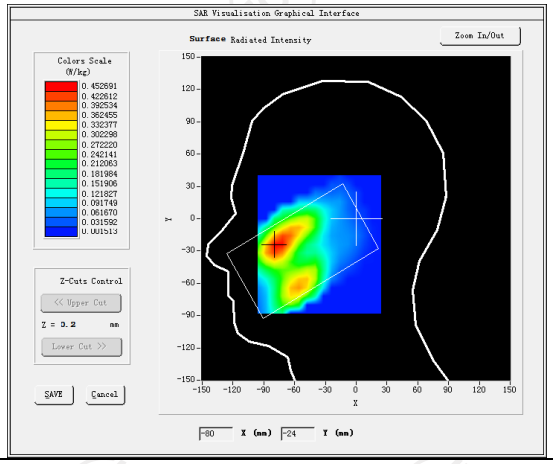
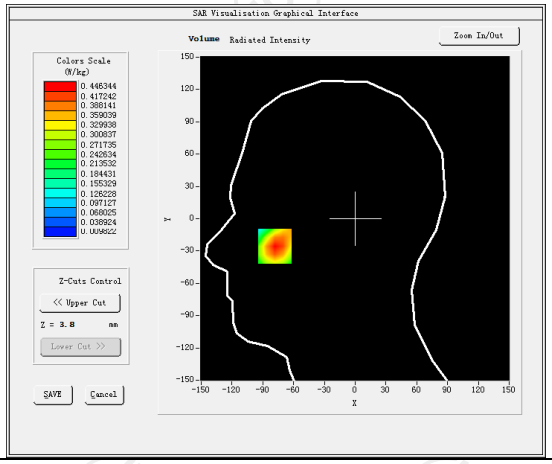
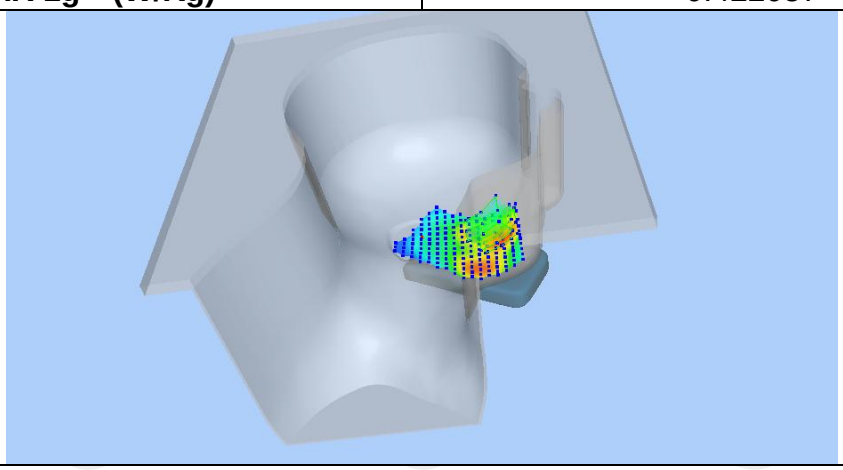
Z (mm)	0.00	4.00	9.00	14.00	19.00
SAR (W/Kg)	0.8767	0.5038	0.2324	0.0988	0.0391



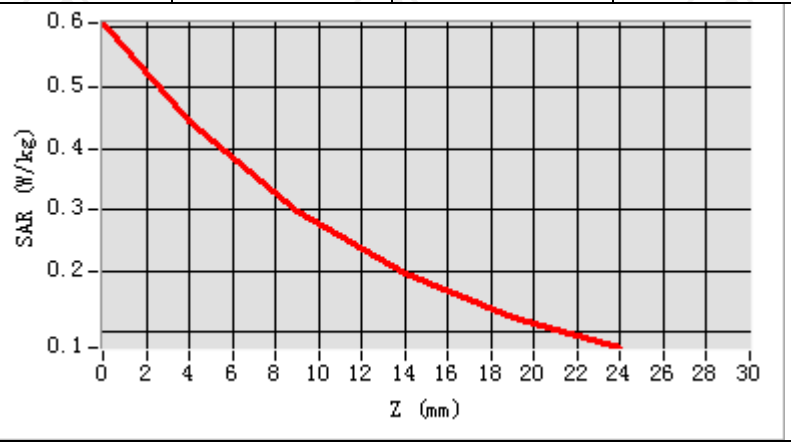
Hot spot position



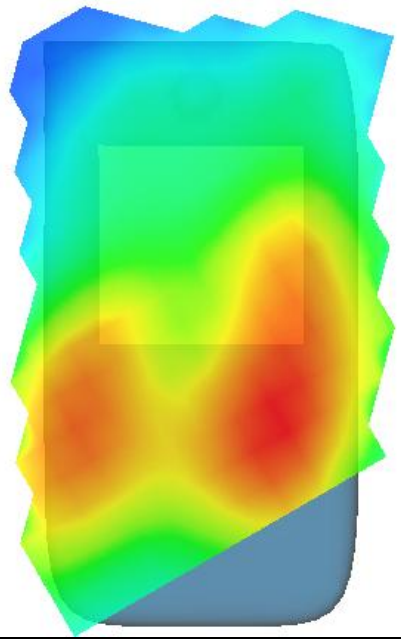
LTE Band 4

MEASUREMENT 1	
Lower Band SAR (Channel 20050):	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 (%)	-1.820000
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 dz=5mm,Complete/ndx=8mm dy=8mm, h= 5.00 mm
Phantom	Left head
Device Position	Cheek
Band	LTE band 4(1 RB#50)
SURFACE SAR	**VOLUME SAR**
	
Maximum location: X=-78.00, Y=-25.00 SAR Peak: 0.61 W/kg	
SAR 10g (W/Kg)	0.259129
SAR 1g (W/Kg)	0.422057
	

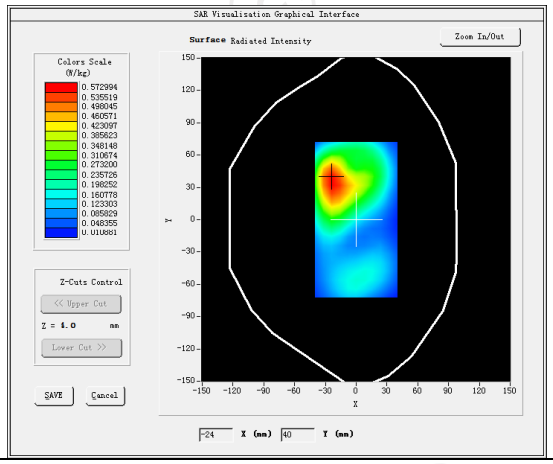
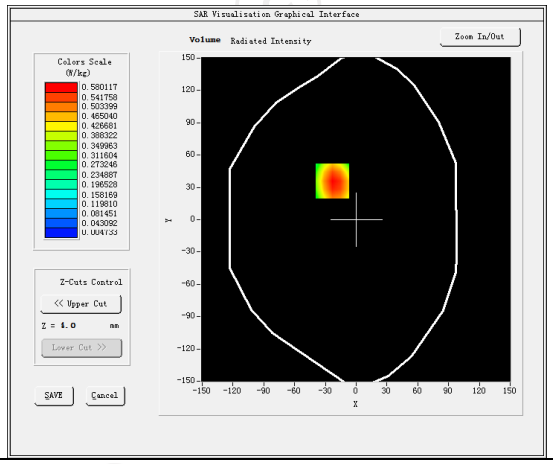
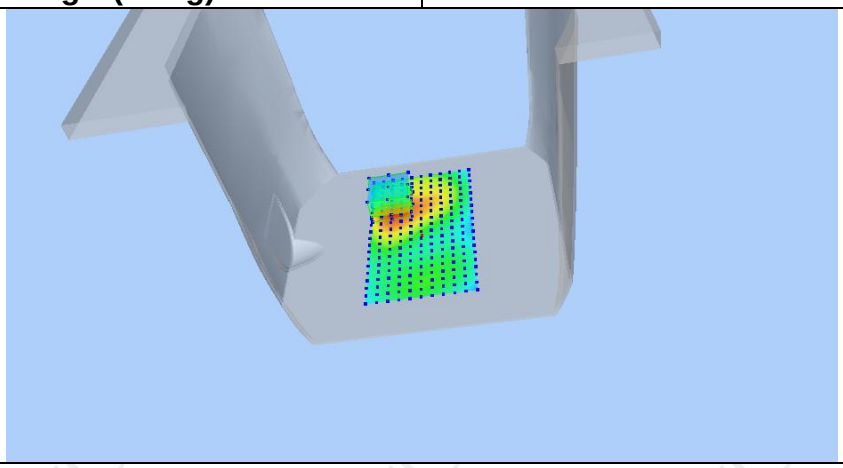
Z (mm)	0.00	4.00	9.00	14.00	19.00
SAR (W/Kg)	0.6067	0.4463	0.2982	0.1953	0.1248



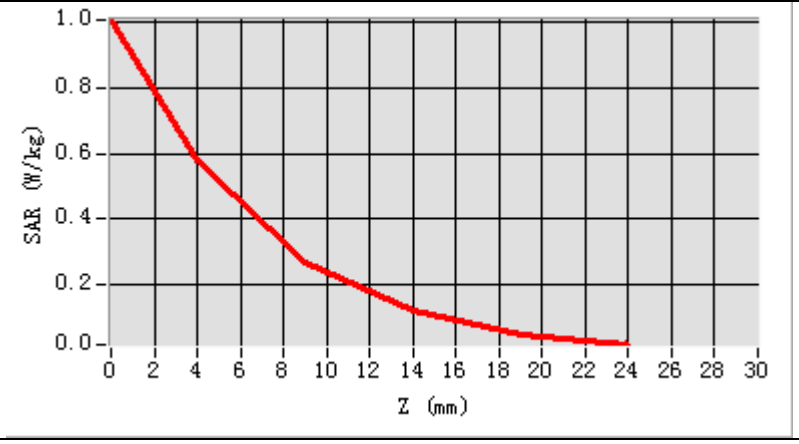
Hot spot position



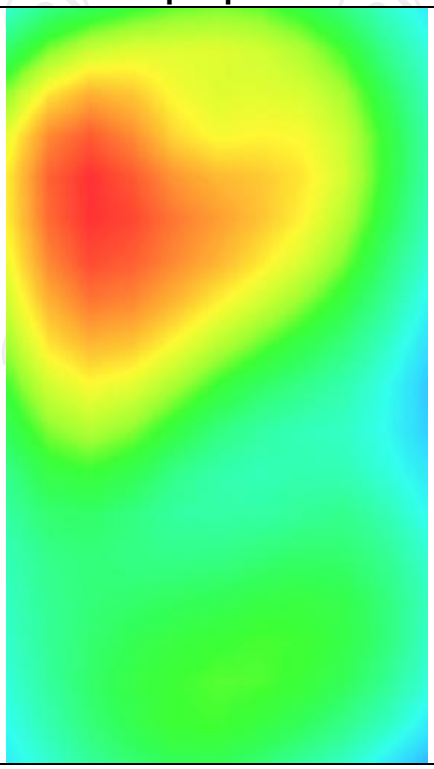
Hotline: 400-6611-140 Tel: 86-755-27673339 Fax: 86-755-27673332 http://www.tct-lab.com

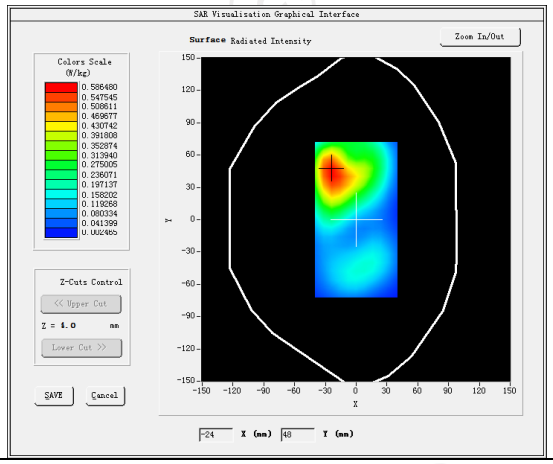
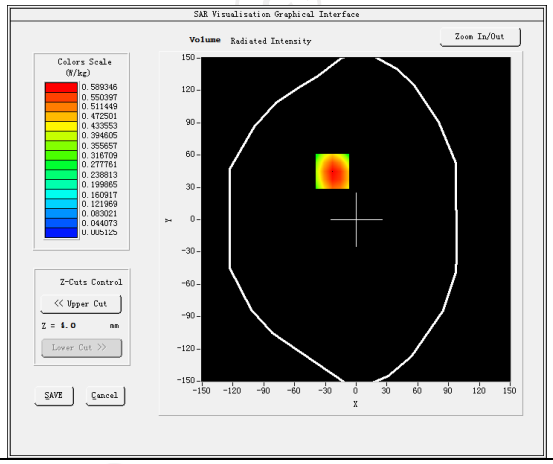
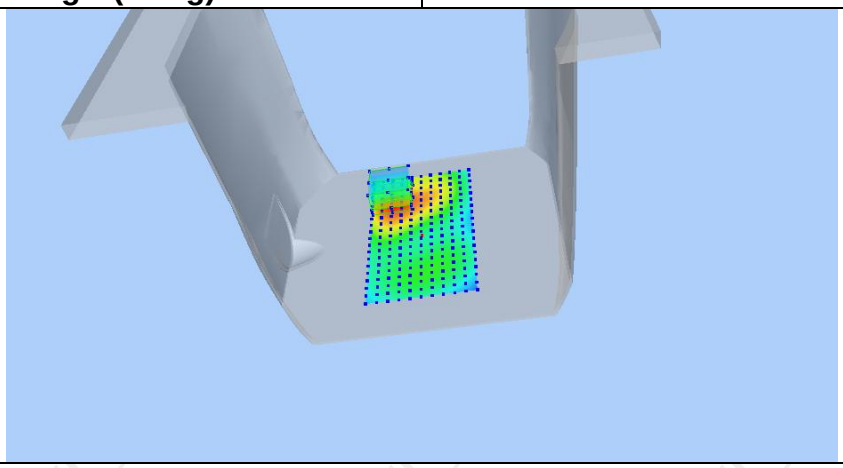
MEASUREMENT 2	
Lower Band SAR (Channel 20050):	Date: 03/16/2020
Frequency (MHz)	1720.000000
Relative permittivity (real part)	53.321249
Relative permittivity (imaginary part)	12.468850
Conductivity (S/m)	1.502592
Variation (%)	1.210000
Crest Factor	1.0
Probe Conversion factor	4.52
E-Field Probe:	SSE2 (SN 41/18 EP331)
Area Scan	dx=8mm dy=8mm, h= 5.00 mm
ZoomScan	5x5x7,dx=8mm dy=8mm dz=5mm,Complete/ndx=8mm dy=8mm, h= 5.00 mm
Phantom	Validation plane
Device Position	Body back(10mm)
Band	LTE band 4(1 RB#50)
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

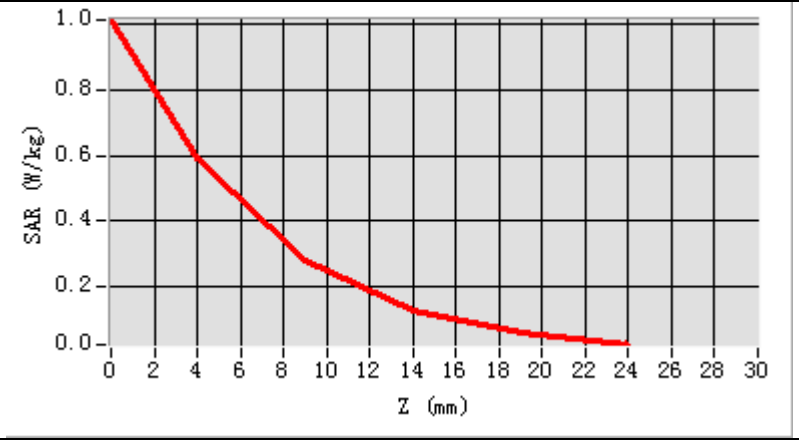


Hot spot position

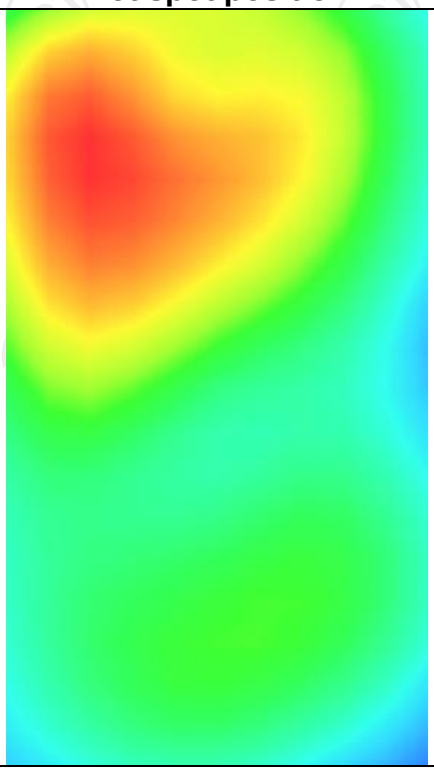


MEASUREMENT 3	
Lower Band SAR (Channel 20050):	Date: 03/16/2020
Frequency (MHz)	1720.000000
Relative permittivity (real part)	53.321249
Relative permittivity (imaginary part)	12.468850
Conductivity (S/m)	1.502592
Variation (%)	1.900000
Crest Factor	1.0
Probe Conversion factor	4.52
E-Field Probe:	SSE2 (SN 41/18 EP331)
Area Scan	dx=8mm dy=8mm, h= 5.00 mm
ZoomScan	5x5x7,dx=8mm dy=8mm dz=5mm,Complete/ndx=8mm dy=8mm, h= 5.00 mm
Phantom	Validation plane
Device Position	Body back(hotspot 10mm)
Band	LTE band 4(1 RB#50)
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
	

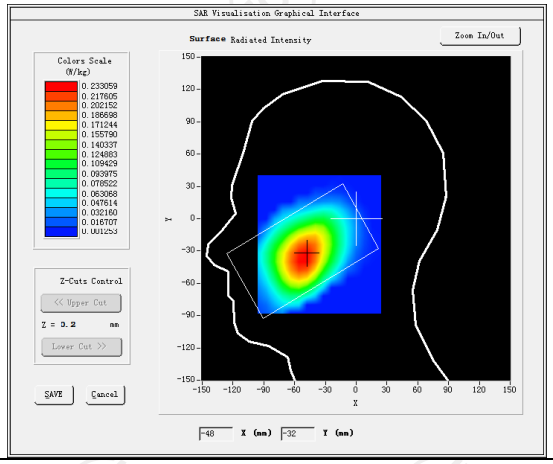
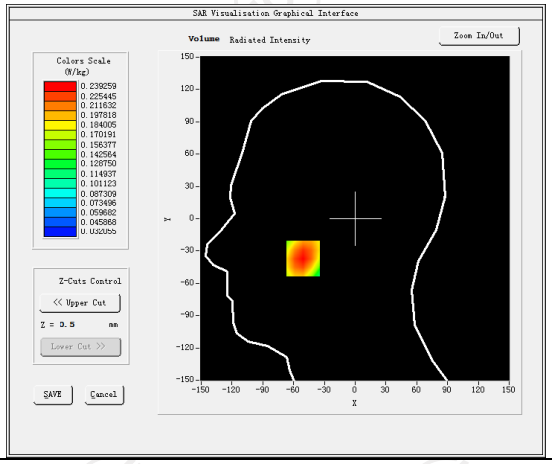
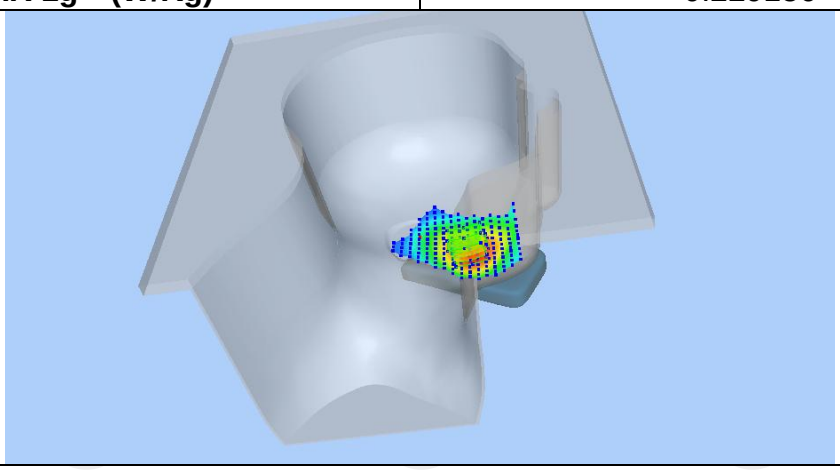
Z (mm)	0.00	4.00	9.00	14.00	19.00
SAR (W/Kg)	1.0151	0.5893	0.2786	0.1246	0.0547



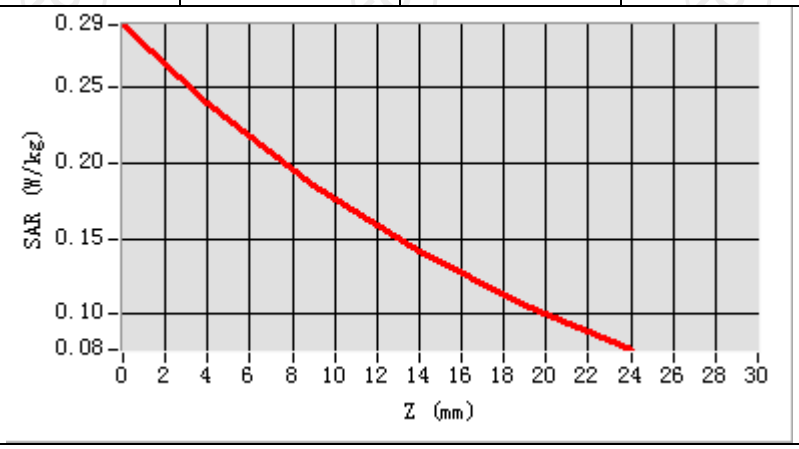
Hot spot position



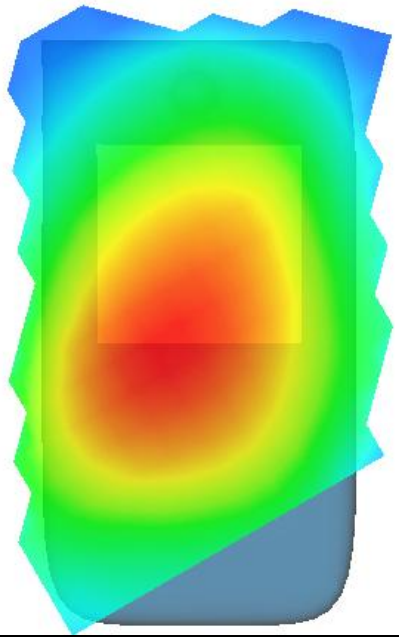
LTE Band 5

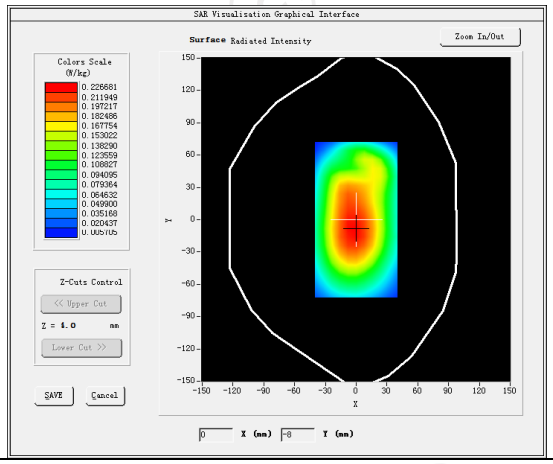
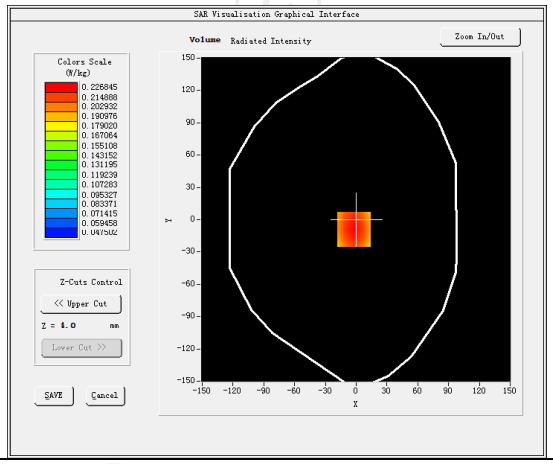
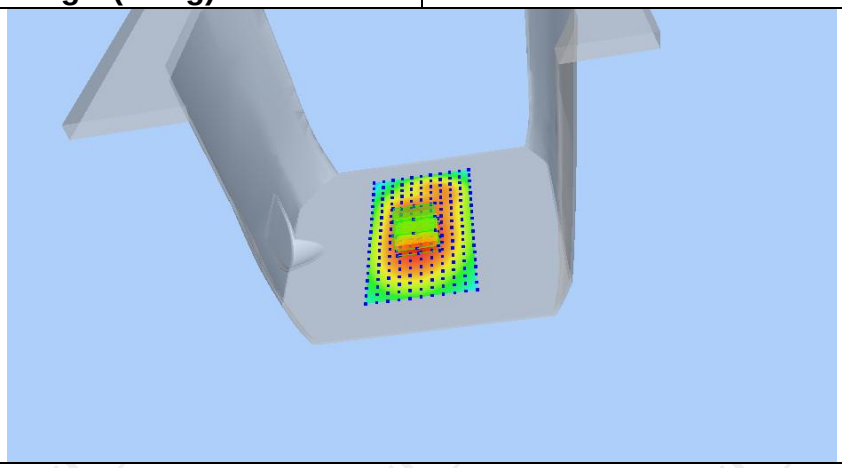
MEASUREMENT 1	
Lower Band SAR (Channel 20450):	Date: 03/10/2020
Frequency (MHz)	829.000000
Relative permittivity (real part)	41.432976
Relative permittivity (imaginary part)	12.468860
Conductivity (S/m)	0.862835
Variation (%)	1.690000
Crest Factor	1.0
Probe Conversion factor	4.38
E-Field Probe:	SSE2 (SN 41/18 EP331)
Area Scan	dx=8mm dy=8mm, h= 5.00 mm
ZoomScan	5x5x7,dx=8mm dy=8mm dz=5mm,Complete/ndx=8mm dy=8mm, h= 5.00 mm
Phantom	Left head
Device Position	Cheek
Band	LTE band 5(1 RB#25)
SURFACE SAR	**VOLUME SAR**
	
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

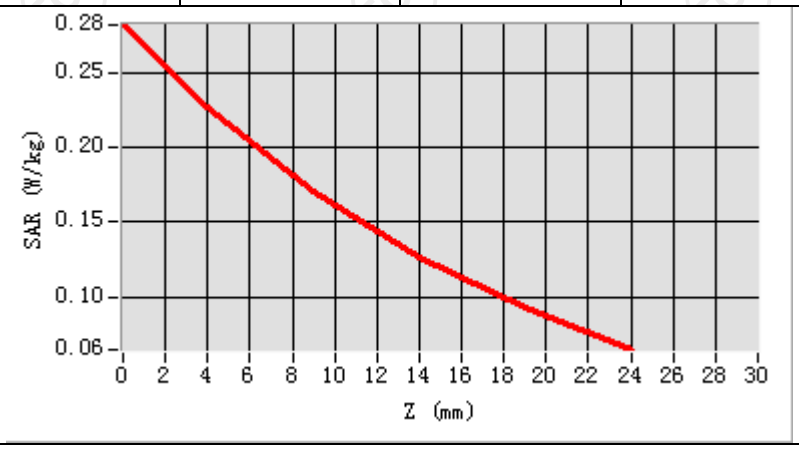


Hot spot position

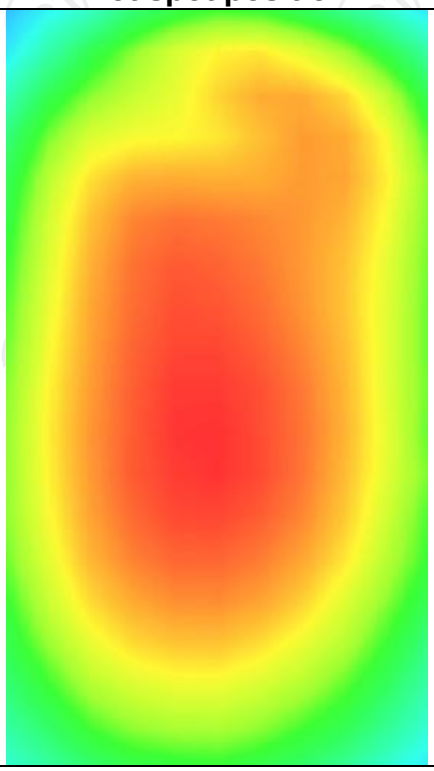


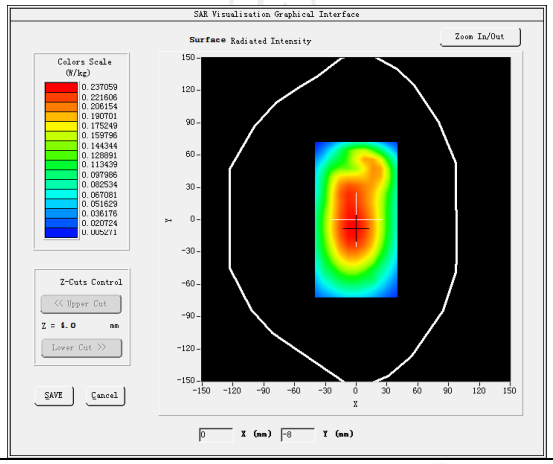
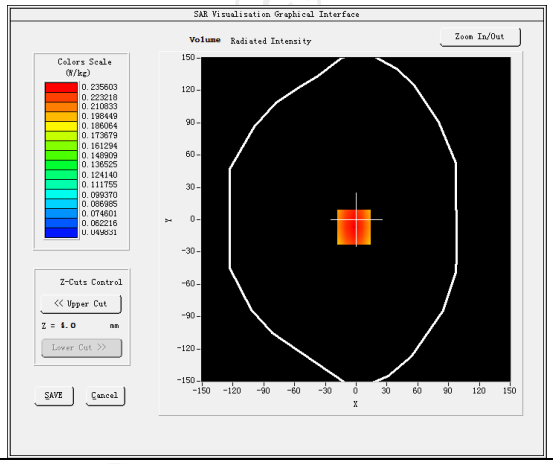
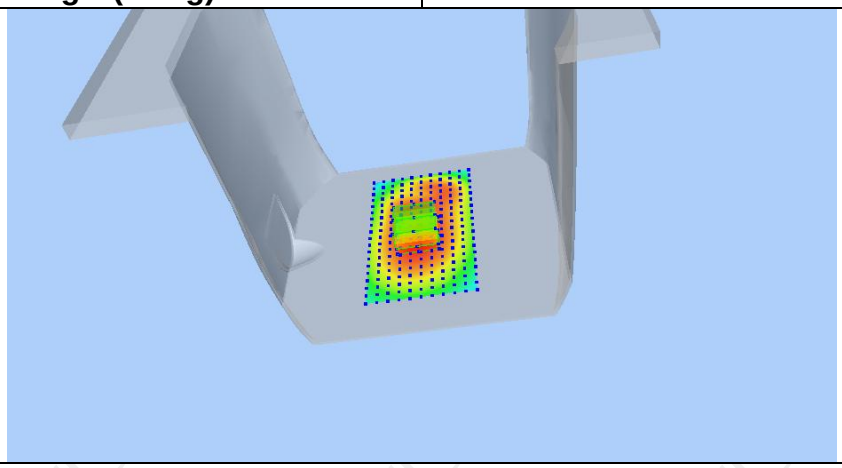
MEASUREMENT 2	
Lower Band SAR (Channel 20450):	Date: 03/10/2020
Frequency (MHz)	829.000000
Relative permittivity (real part)	55.260832
Relative permittivity (imaginary part)	12.468860
Conductivity (S/m)	0.934272
Variation (%)	-0.160000
Crest Factor	1.0
Probe Conversion factor	4.52
E-Field Probe:	SSE2 (SN 41/18 EP331)
Area Scan	dx=8mm dy=8mm, h= 5.00 mm
ZoomScan	5x5x7,dx=8mm dy=8mm 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

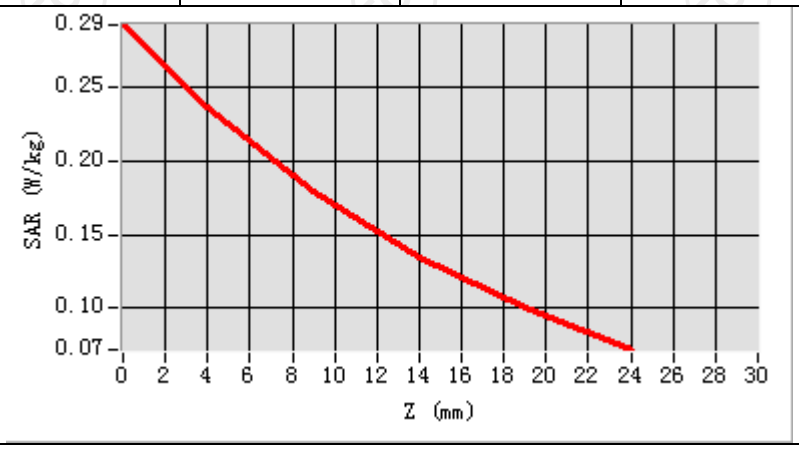


Hot spot position

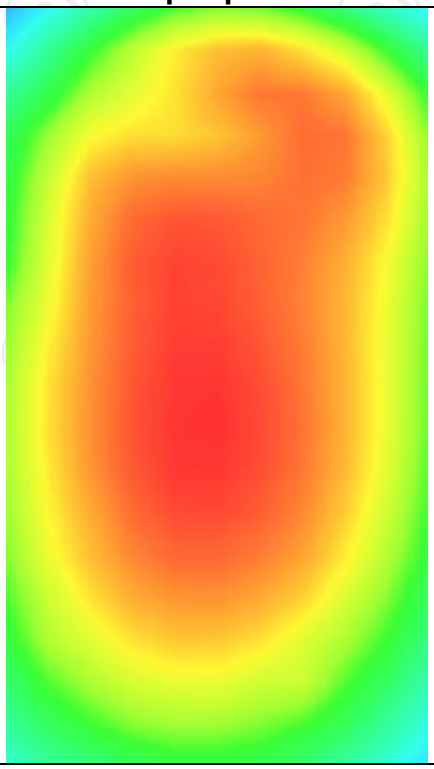


MEASUREMENT 3	
Lower Band SAR (Channel 20450):	Date: 03/10/2020
Frequency (MHz)	829.000000
Relative permittivity (real part)	55.260832
Relative permittivity (imaginary part)	12.468860
Conductivity (S/m)	0.934272
Variation (%)	-1.190000
Crest Factor	1.0
Probe Conversion factor	4.52
E-Field Probe:	SSE2 (SN 41/18 EP331)
Area Scan	dx=8mm dy=8mm, h= 5.00 mm
ZoomScan	5x5x7,dx=8mm dy=8mm 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=-7.00 SAR Peak: 0.29 W/kg	
SAR 10g (W/Kg)	0.165419
SAR 1g (W/Kg)	0.227376
	

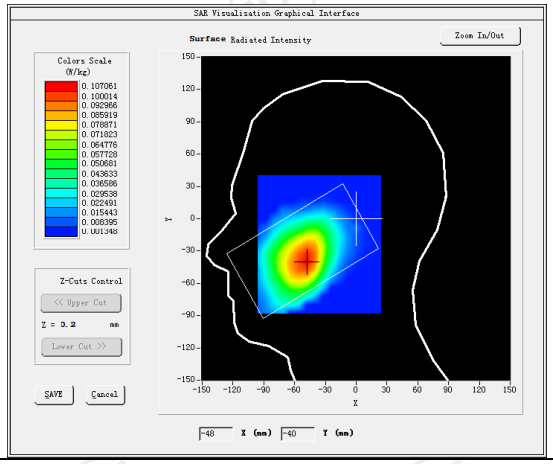
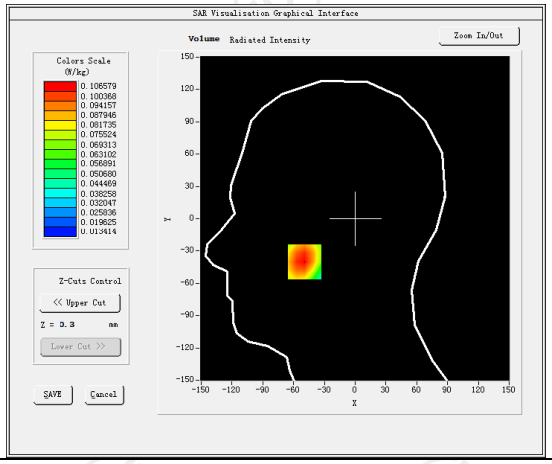
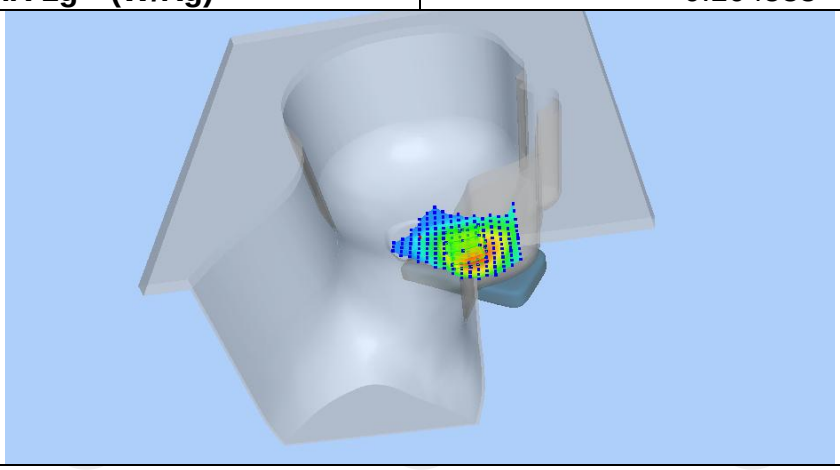
Z (mm)	0.00	4.00	9.00	14.00	19.00
SAR (W/Kg)	0.2917	0.2356	0.1788	0.1345	0.1000



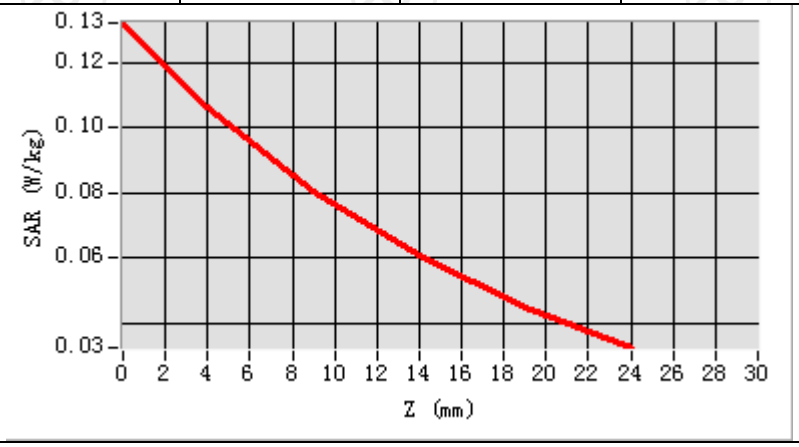
Hot spot position



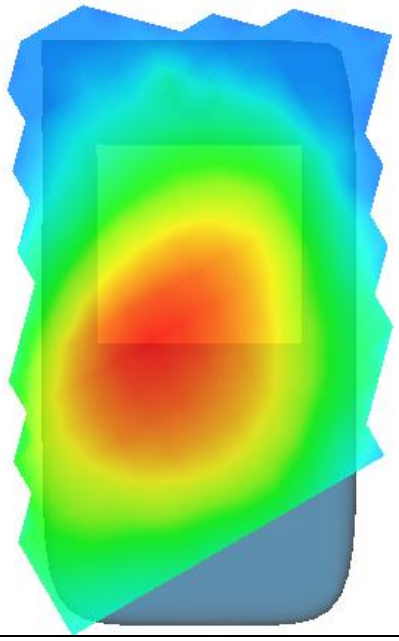
LTE Band 12

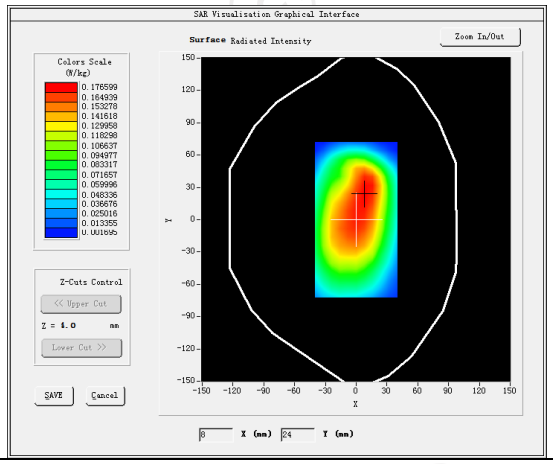
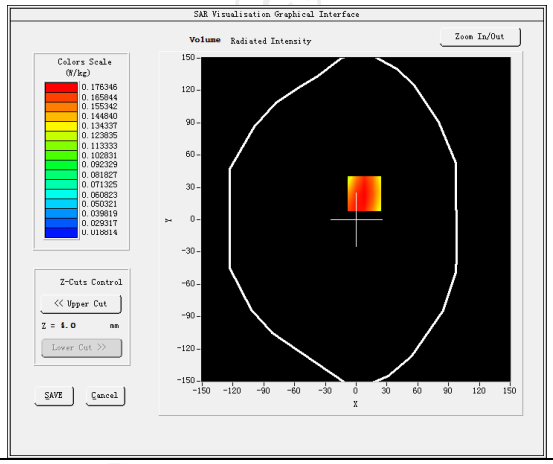
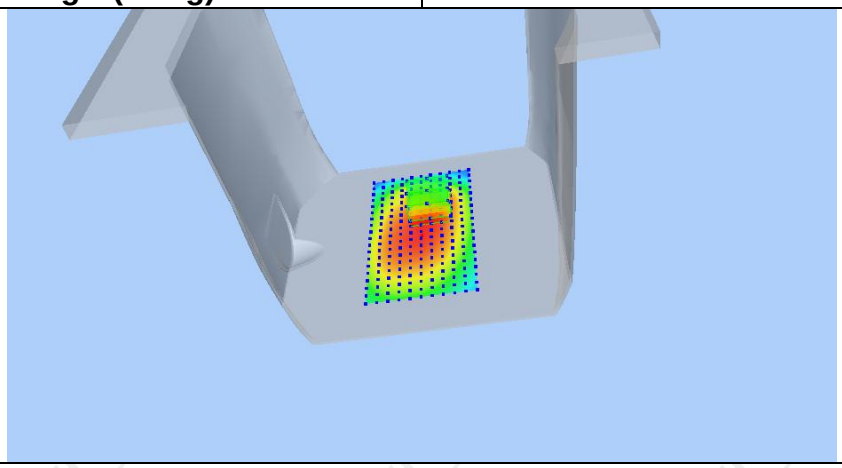
MEASUREMENT 1	
Lower Band SAR (Channel 23035):	Date: 03/10/2020
Frequency (MHz)	701.500000
Relative permittivity (real part)	41.432976
Relative permittivity (imaginary part)	12.468860
Conductivity (S/m)	0.862835
Variation (%)	-1.670000
Crest Factor	1.0
Probe Conversion factor	4.38
E-Field Probe:	SSE2 (SN 41/18 EP331)
Area Scan	dx=8mm dy=8mm, h= 5.00 mm
ZoomScan	5x5x7,dx=8mm dy=8mm dz=5mm,Complete/ndx=8mm dy=8mm, h= 5.00 mm
Phantom	Left head
Device Position	Cheek
Band	LTE band 12(1 RB#13)
SURFACE SAR	**VOLUME SAR**
	
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

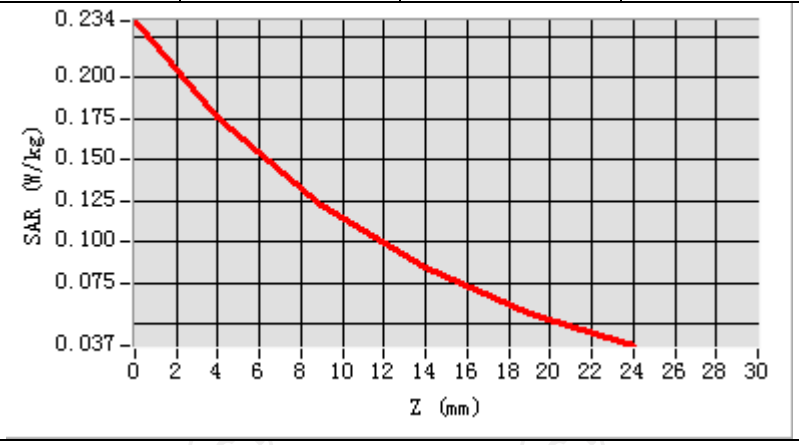


Hot spot position

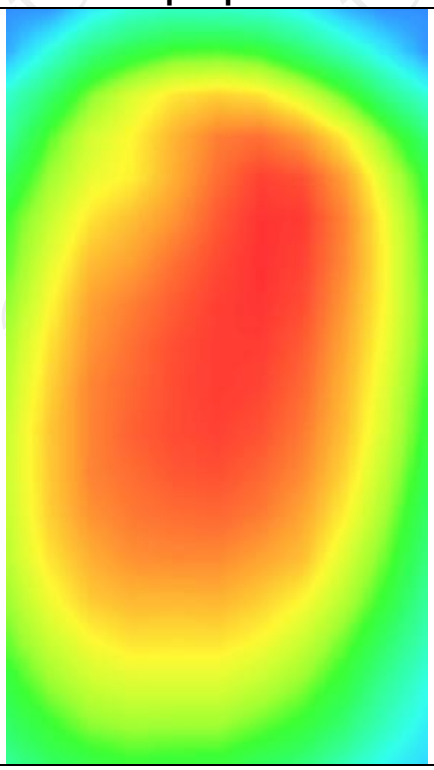


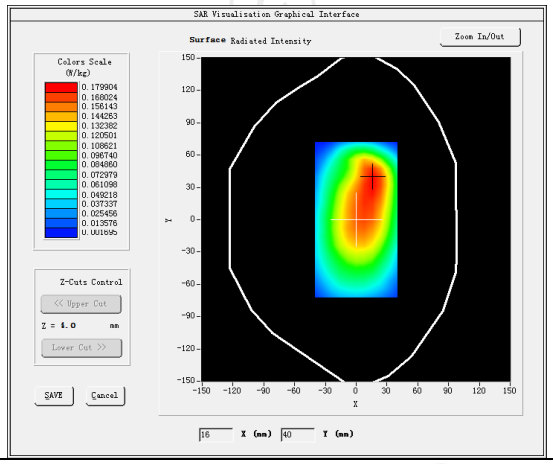
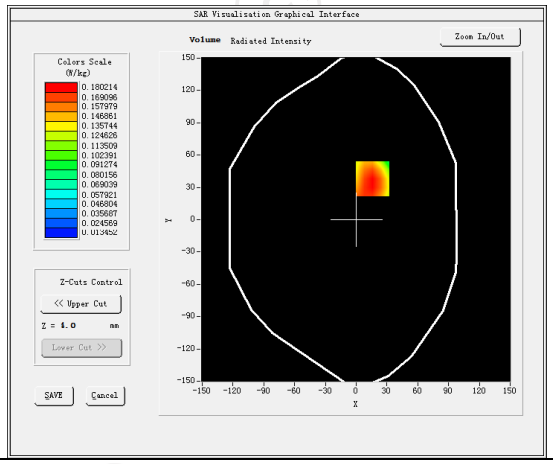
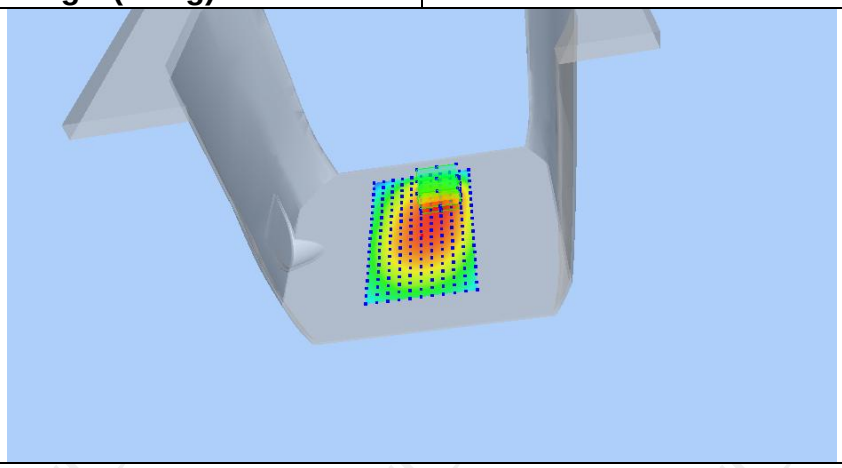
MEASUREMENT 2	
Lower Band SAR (Channel 23035):	Date: 03/10/2020
Frequency (MHz)	701.500000
Relative permittivity (real part)	55.260832
Relative permittivity (imaginary part)	12.468860
Conductivity (S/m)	0.934272
Variation (%)	-4.820000
Crest Factor	1.0
Probe Conversion factor	4.52
E-Field Probe:	SSE2 (SN 41/18 EP331)
Area Scan	dx=8mm dy=8mm, h= 5.00 mm
ZoomScan	5x5x7,dx=8mm dy=8mm 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

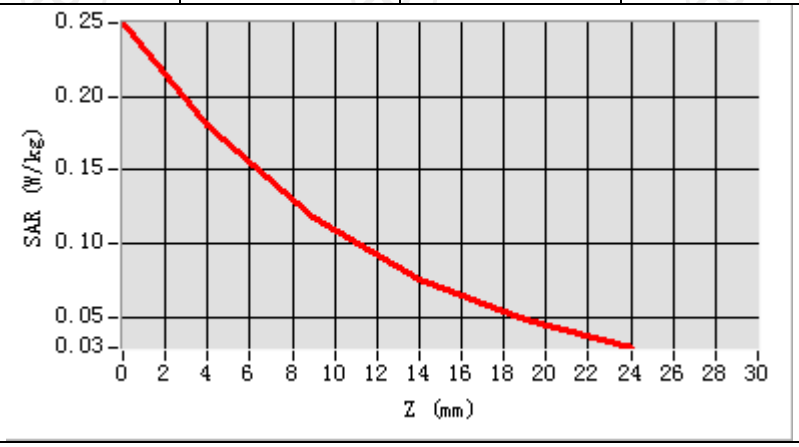


Hot spot position

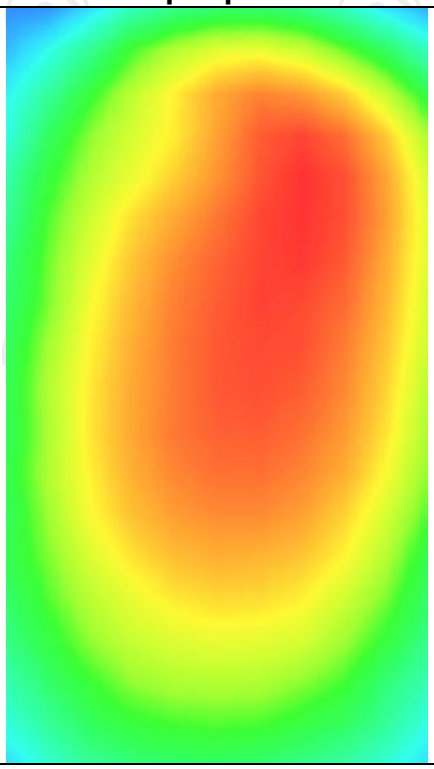


MEASUREMENT 3	
Lower Band SAR (Channel 23035):	Date: 03/10/2020
Frequency (MHz)	701.500000
Relative permittivity (real part)	55.260832
Relative permittivity (imaginary part)	12.468860
Conductivity (S/m)	0.934272
Variation (%)	1.060000
Crest Factor	1.0
Probe Conversion factor	4.52
E-Field Probe:	SSE2 (SN 41/18 EP331)
Area Scan	dx=8mm dy=8mm, h= 5.00 mm
ZoomScan	5x5x7,dx=8mm dy=8mm dz=5mm,Complete/ndx=8mm dy=8mm, h= 5.00 mm
Phantom	Validation plane
Device Position	Body back(hotspot 10mm)
Band	LTE band 12(1 RB#13)
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
	

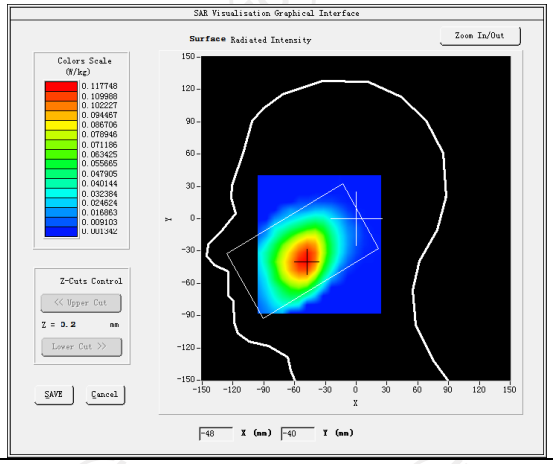
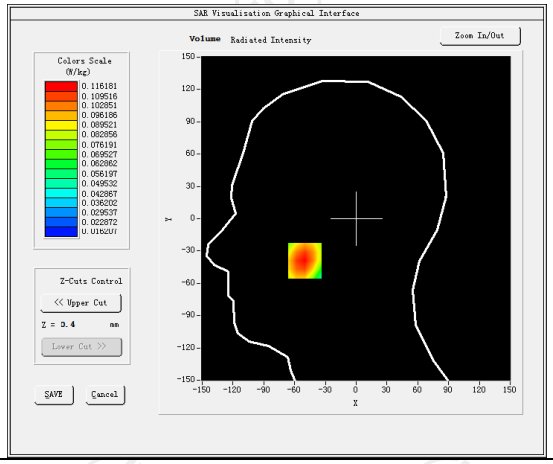
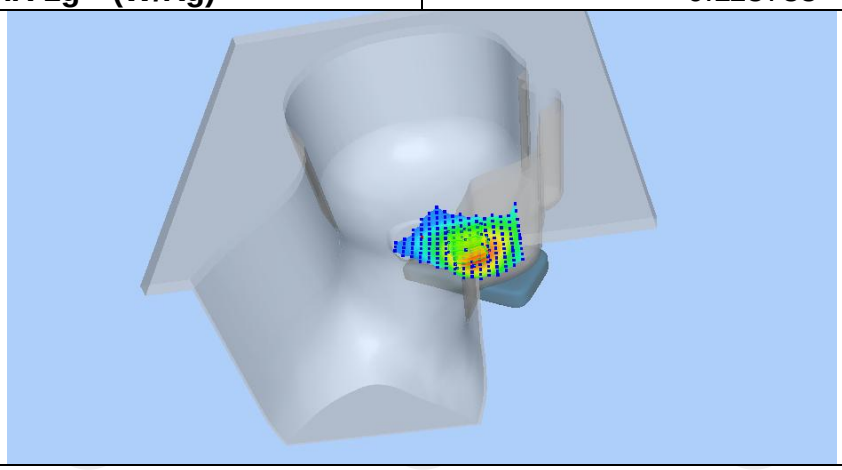
Z (mm)	0.00	4.00	9.00	14.00	19.00
SAR (W/Kg)	0.2499	0.1802	0.1176	0.0759	0.0483



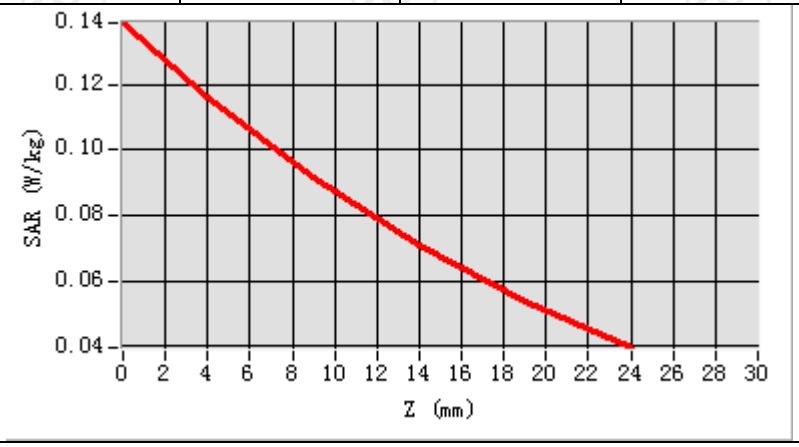
Hot spot position



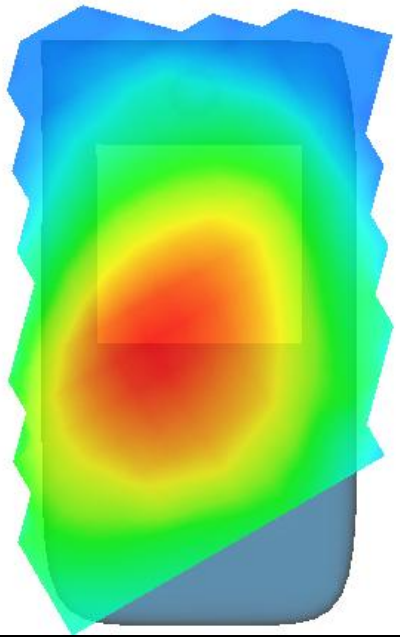
LTE Band 17

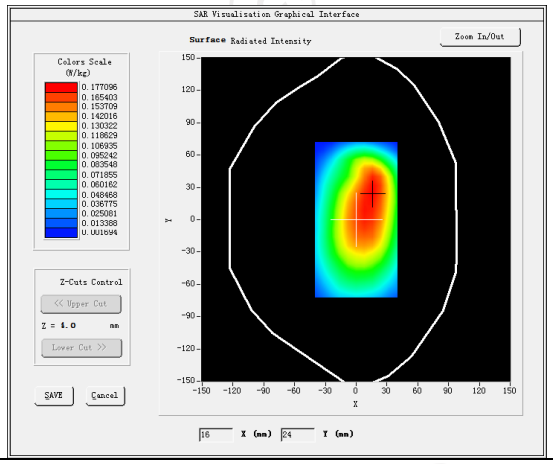
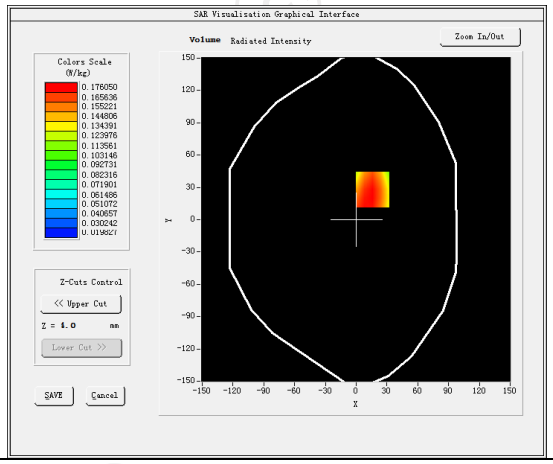
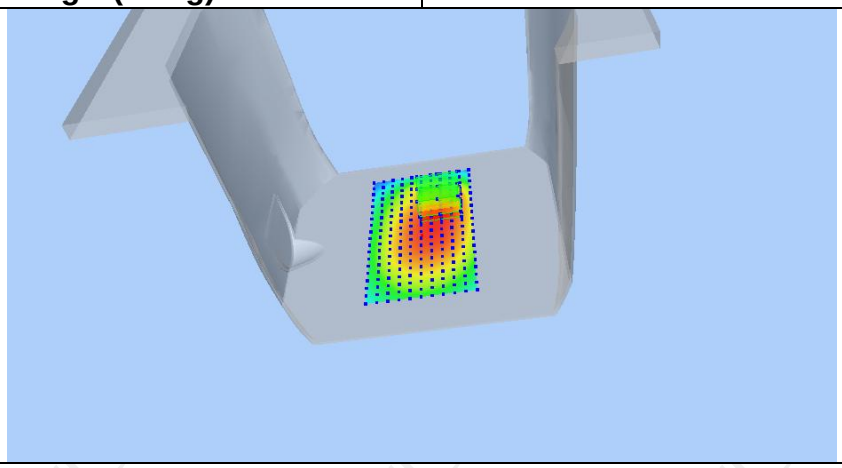
MEASUREMENT 1	
Middle Band SAR (Channel 23790):	Date: 03/10/2020
Frequency (MHz)	710.000000
Relative permittivity (real part)	41.430182
Relative permittivity (imaginary part)	12.468765
Conductivity (S/m)	0.859210
Variation (%)	0.720000
Crest Factor	1.0
Probe Conversion factor	4.38
E-Field Probe:	SSE2 (SN 41/18 EP331)
Area Scan	dx=8mm dy=8mm, h= 5.00 mm
ZoomScan	5x5x7,dx=8mm dy=8mm dz=5mm,Complete/ndx=8mm dy=8mm, h= 5.00 mm
Phantom	Left head
Device Position	Cheek
Band	LTE band 17(1 RB#13)
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

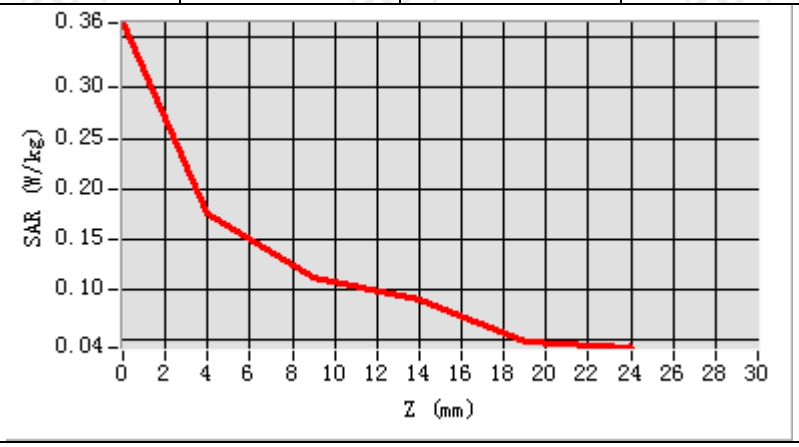


Hot spot position

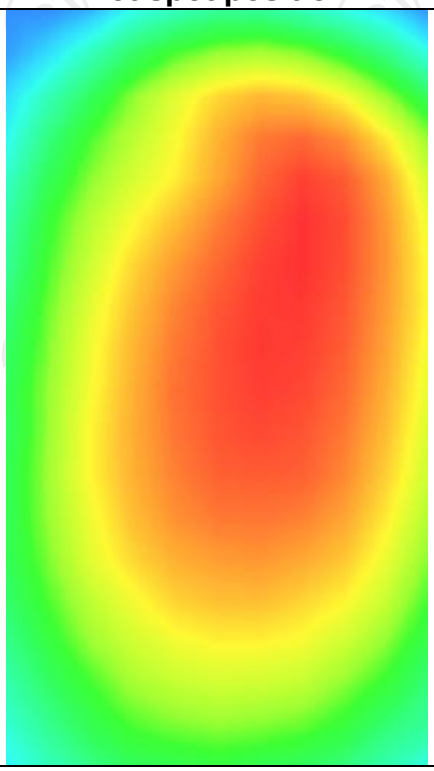


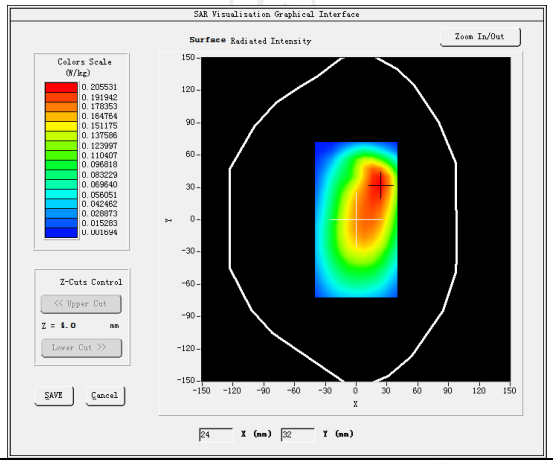
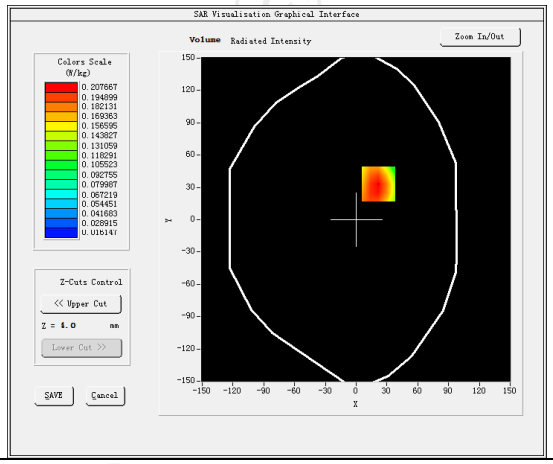
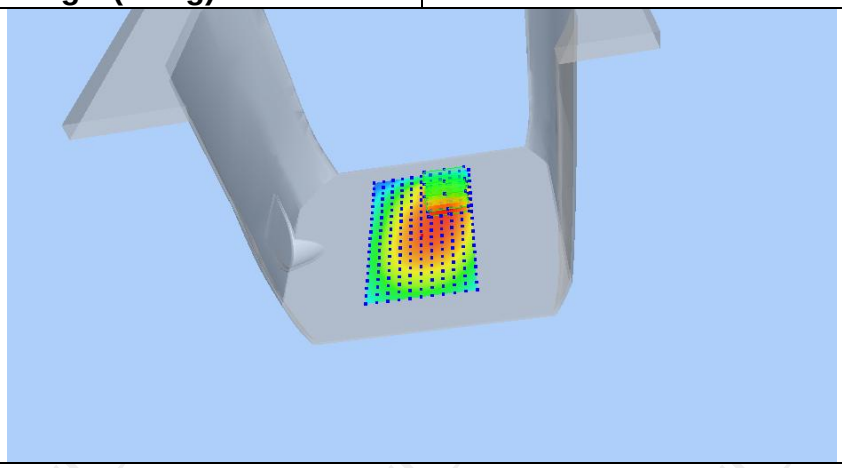
MEASUREMENT 2	
Middle Band SAR (Channel 23790):	Date: 03/10/2020
Frequency (MHz)	706.500000
Relative permittivity (real part)	55.263812
Relative permittivity (imaginary part)	12.468867
Conductivity (S/m)	0.930822
Variation (%)	0.290000
Crest Factor	1.0
Probe Conversion factor	4.52
E-Field Probe:	SSE2 (SN 41/18 EP331)
Area Scan	dx=8mm dy=8mm, h= 5.00 mm
ZoomScan	5x5x7,dx=8mm dy=8mm dz=5mm,Complete/ndx=8mm dy=8mm, h= 5.00 mm
Phantom	Validation plane
Device Position	Body back(10mm)
Band	LTE band 17(1 RB#13)
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

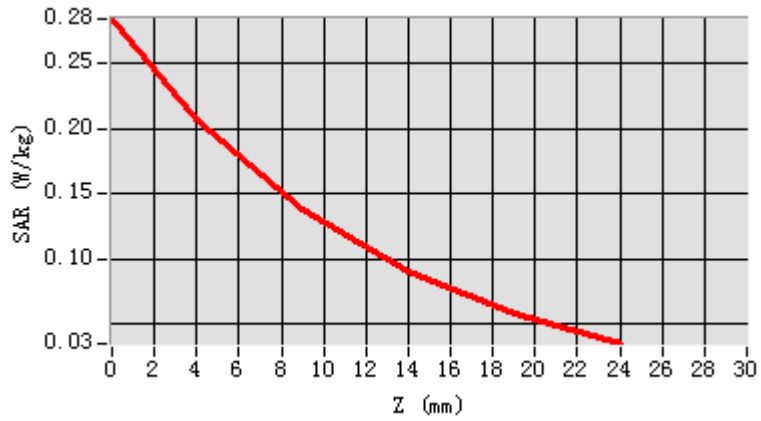


Hot spot position

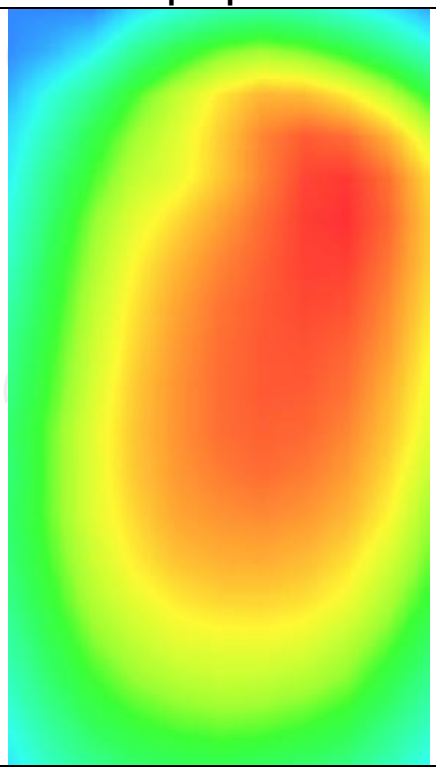


MEASUREMENT 3	
Middle Band SAR (Channel 23790):	Date: 03/10/2020
Frequency (MHz)	706.500000
Relative permittivity (real part)	55.263812
Relative permittivity (imaginary part)	12.468867
Conductivity (S/m)	0.881392
Variation (%)	0.170000
Crest Factor	1.0
Probe Conversion factor	4.52
E-Field Probe:	SSE2 (SN 41/18 EP331)
Area Scan	dx=8mm dy=8mm, h= 5.00 mm
ZoomScan	5x5x7,dx=8mm dy=8mm dz=5mm,Complete/ndx=8mm dy=8mm, h= 5.00 mm
Phantom	Validation plane
Device Position	Body back(hotspot 10mm)
Band	LTE band 17(1 RB#13)
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

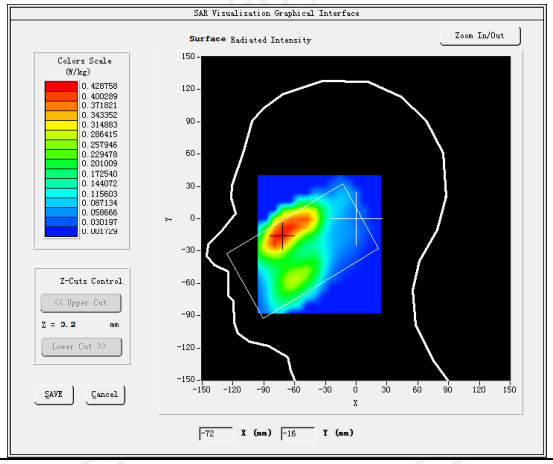
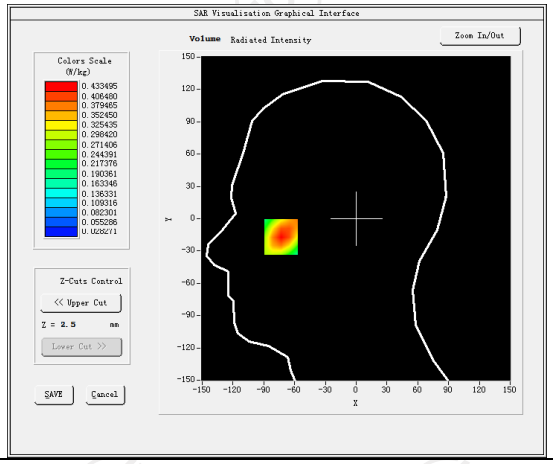
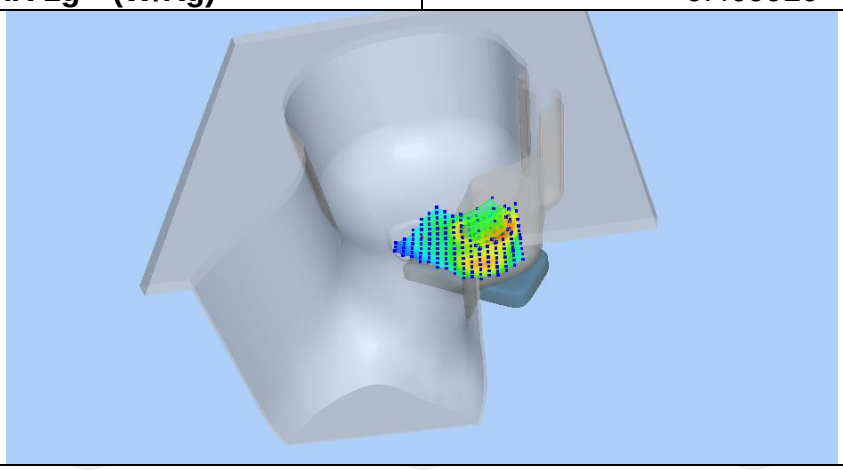


Hot spot position

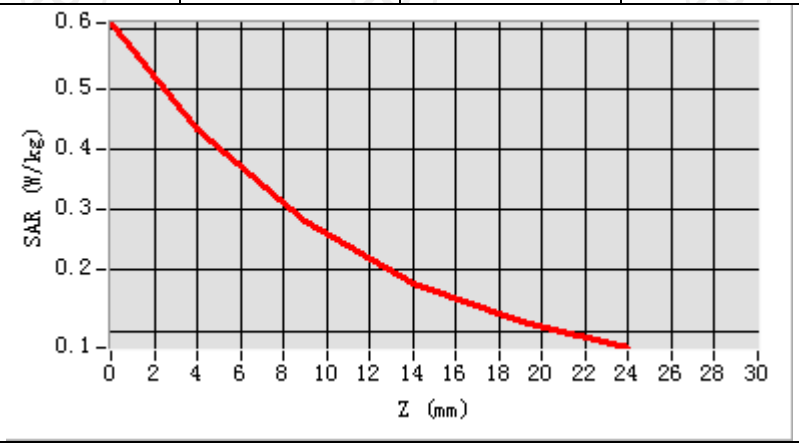


Hotline: 400-6611-140 Tel: 86-755-27673339 Fax: 86-755-27673332 http://www.tct-lab.com

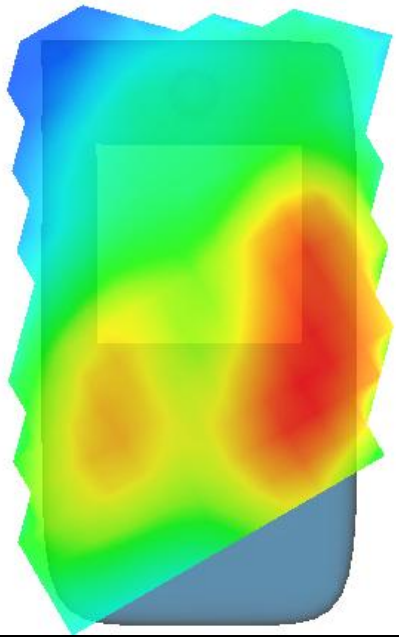
LTE Band 66

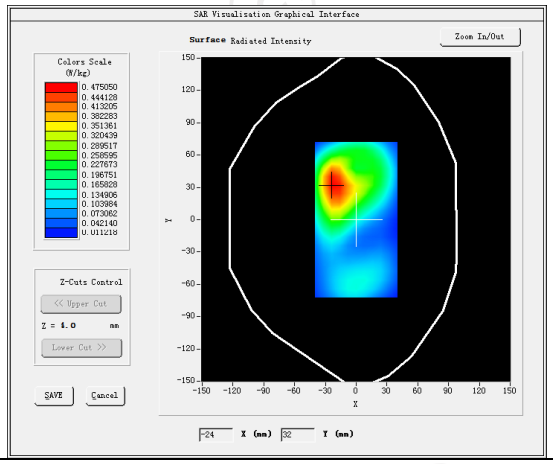
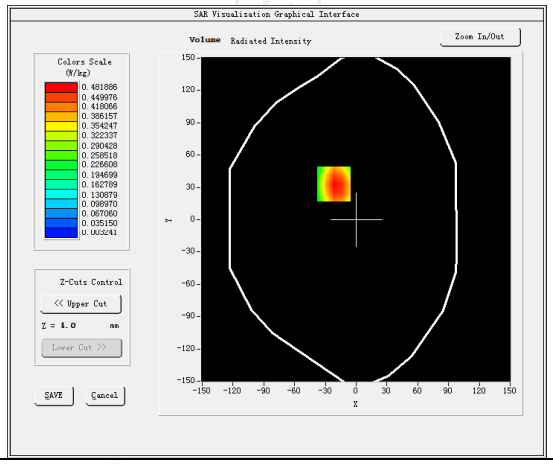
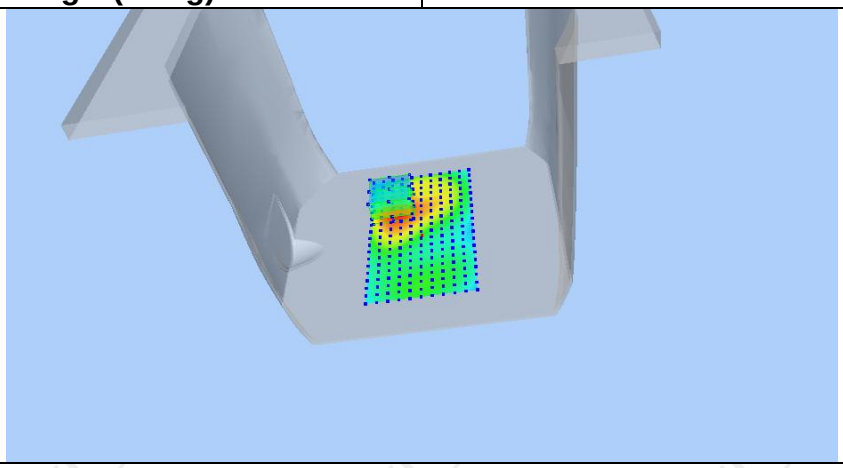
MEASUREMENT 1	
Lower Band SAR (Channel 132072):	Date: 03/16/2020
Frequency (MHz)	1720.000000
Relative permittivity (real part)	39.101249
Relative permittivity (imaginary part)	12.468850
Conductivity (S/m)	1.350792
Variation (%)	-1.310000
Crest Factor	1.0
Probe Conversion factor	4.38
E-Field Probe:	SSE2 (SN 41/18 EP331)
Area Scan	dx=8mm dy=8mm, h= 5.00 mm
ZoomScan	5x5x7,dx=8mm dy=8mm dz=5mm,Complete/ndx=8mm dy=8mm, h= 5.00 mm
Phantom	Left head
Device Position	Cheek
Band	LTE band 66(1 RB#50)
SURFACE SAR	**VOLUME SAR**
	
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

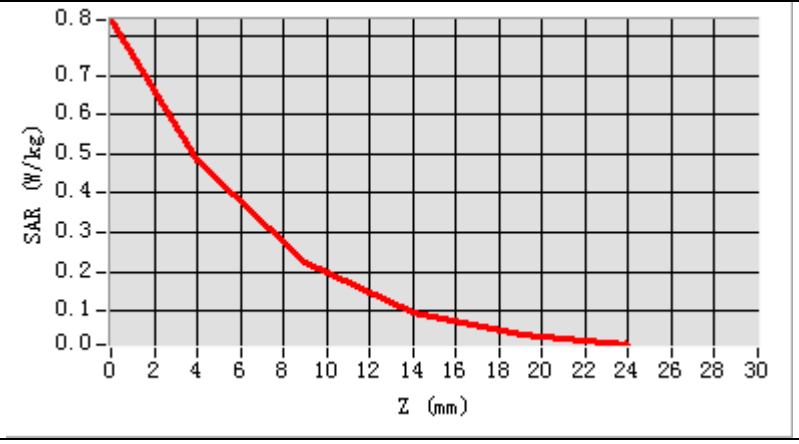


Hot spot position

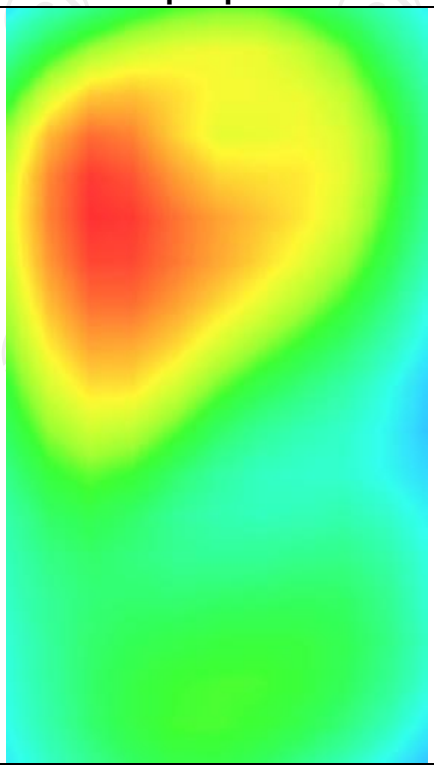


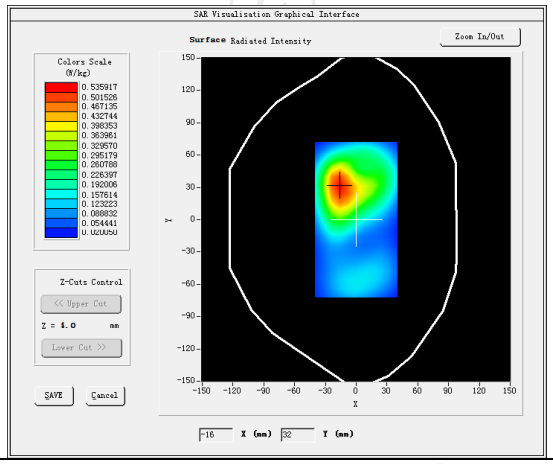
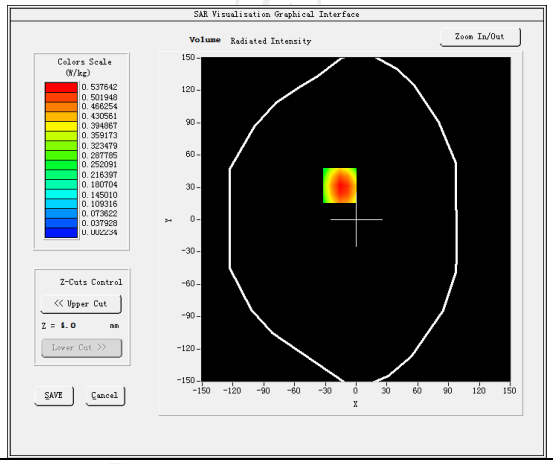
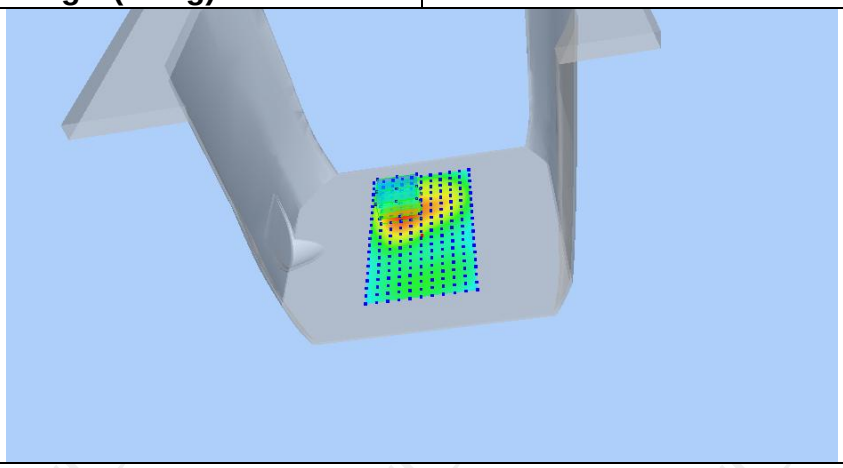
MEASUREMENT 2	
Lower Band SAR (Channel 132072):	Date: 03/16/2020
Frequency (MHz)	1720.000000
Relative permittivity (real part)	53.321249
Relative permittivity (imaginary part)	12.468850
Conductivity (S/m)	1.502592
Variation (%)	-0.400000
Crest Factor	1.0
Probe Conversion factor	4.52
E-Field Probe:	SSE2 (SN 41/18 EP331)
Area Scan	dx=8mm dy=8mm, h= 5.00 mm
ZoomScan	5x5x7,dx=8mm dy=8mm 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

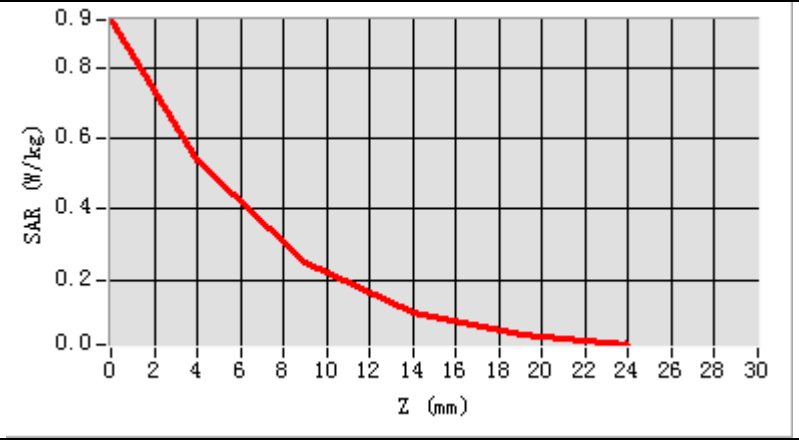


Hot spot position

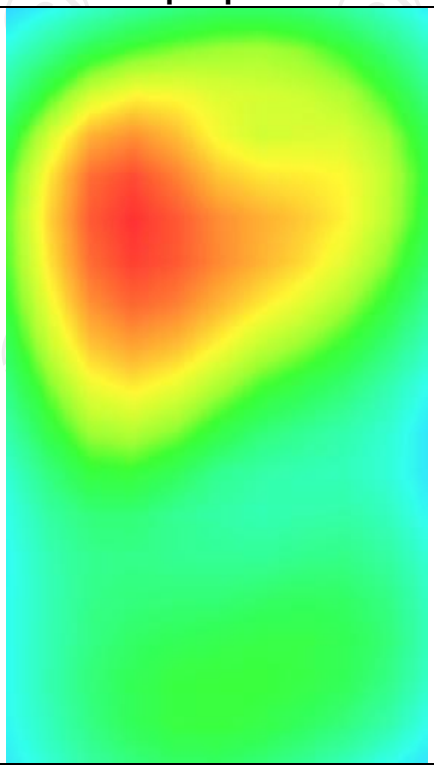


MEASUREMENT 3	
Lower Band SAR (Channel 132072):	Date: 03/16/2020
Frequency (MHz)	1720.000000
Relative permittivity (real part)	53.321249
Relative permittivity (imaginary part)	12.468850
Conductivity (S/m)	1.502592
Variation (%)	0.290000
Crest Factor	1.0
Probe Conversion factor	4.52
E-Field Probe:	SSE2 (SN 41/18 EP331)
Area Scan	dx=8mm dy=8mm, h= 5.00 mm
ZoomScan	5x5x7,dx=8mm dy=8mm dz=5mm,Complete/ndx=8mm dy=8mm, h= 5.00 mm
Phantom	Validation plane
Device Position	Body back(hotspot 10mm)
Band	LTE band 66(1 RB#50)
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
	

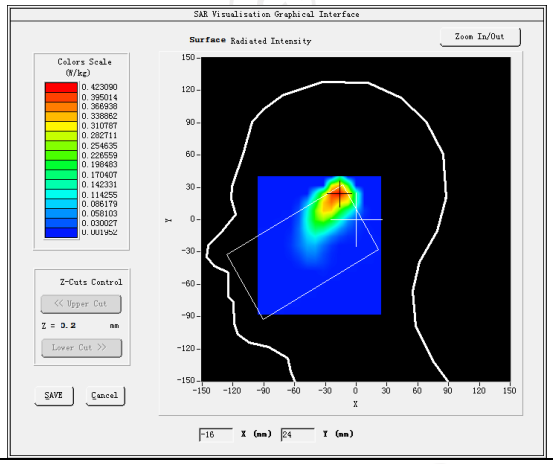
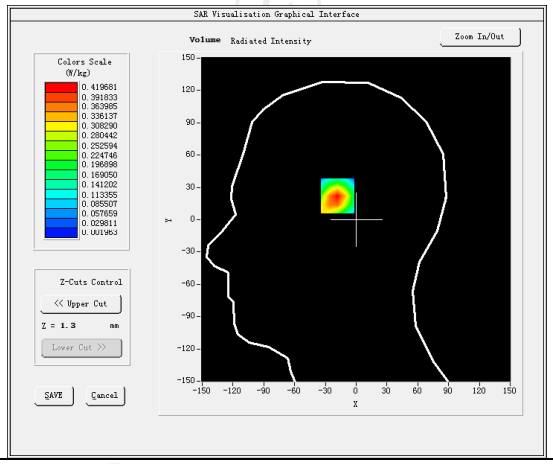
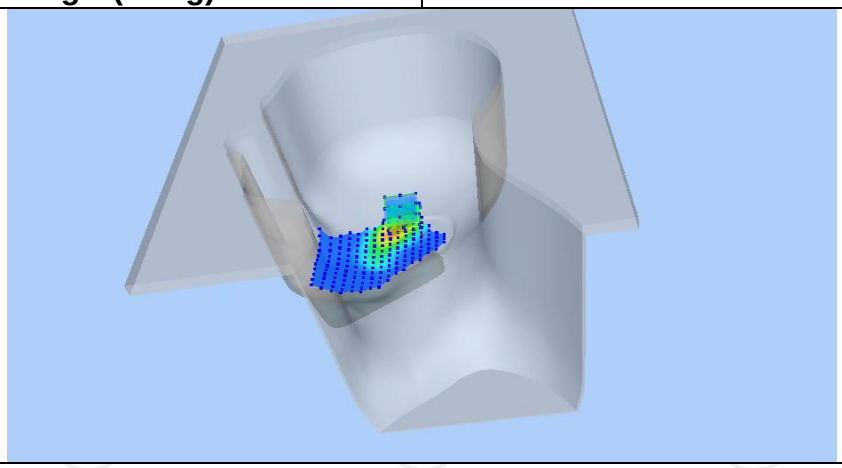
Z (mm)	0.00	4.00	9.00	14.00	19.00
SAR (W/Kg)	0.9366	0.5376	0.2491	0.1082	0.0457



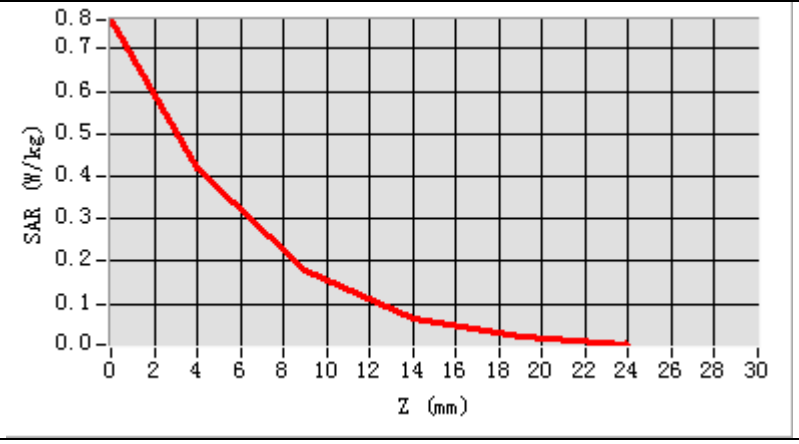
Hot spot position



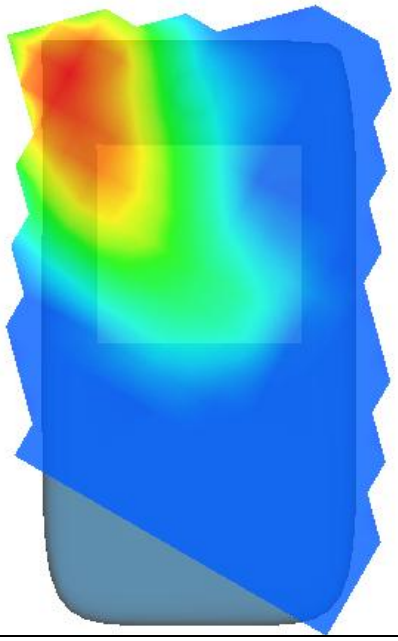
WIFI 2.4G

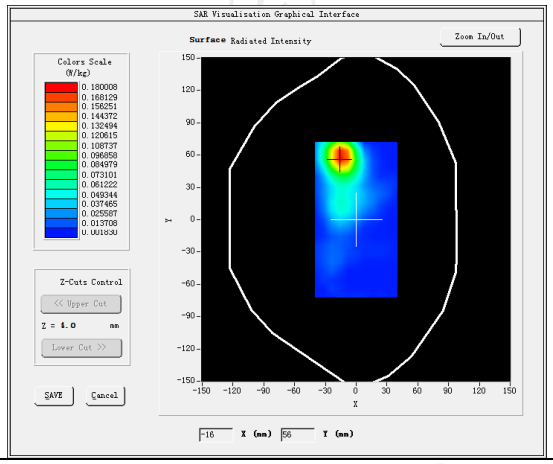
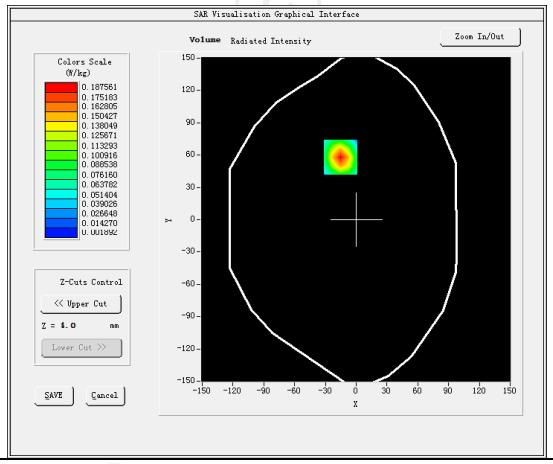
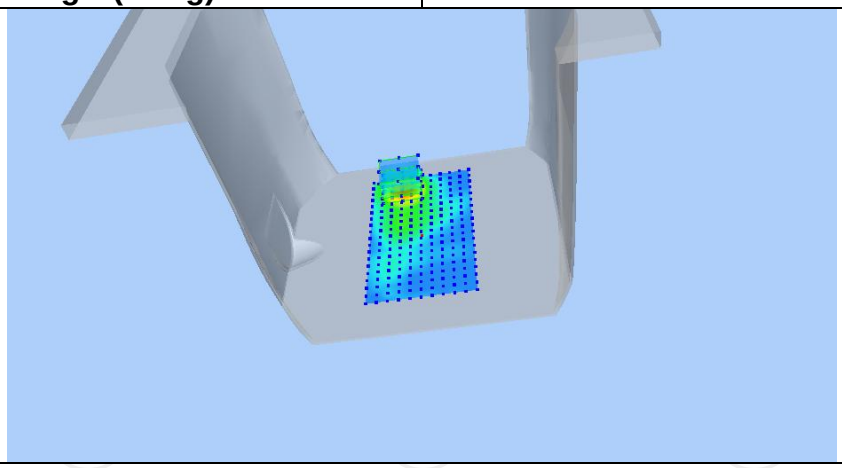
MEASUREMENT 1	
Higher Band SAR (Channel 11):	Date: 03/27/2020
Frequency (MHz)	2462.000000
Relative permittivity (real part)	37.802831
Relative permittivity (imaginary part)	13.546209
Conductivity (S/m)	1.842611
Variation (%)	-1.360000
Crest Factor	1.0
Probe Conversion factor	4.58
E-Field Probe:	SSE2 (SN 41/18 EP331)
Area Scan	dx=8mm dy=8mm, h= 5.00 mm
ZoomScan	5x5x7,dx=8mm dy=8mm 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

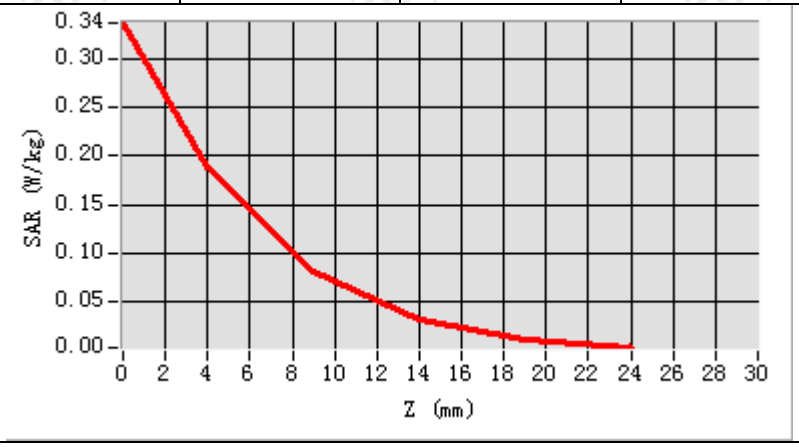


Hot spot position

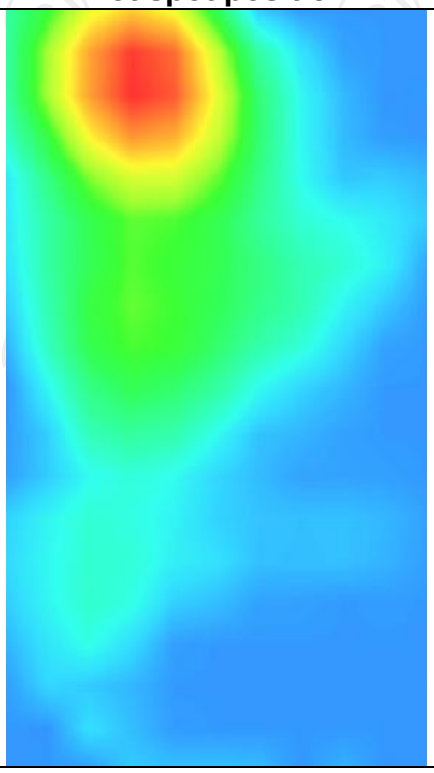


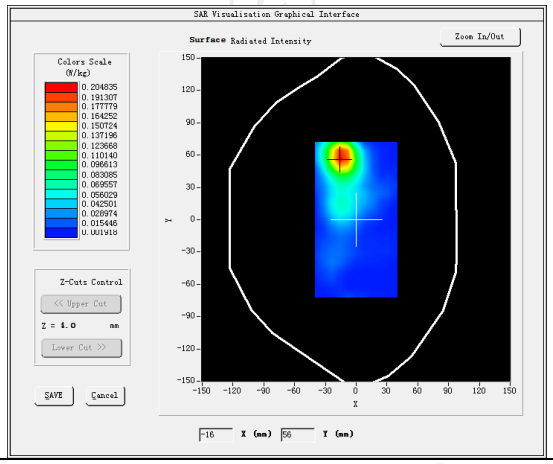
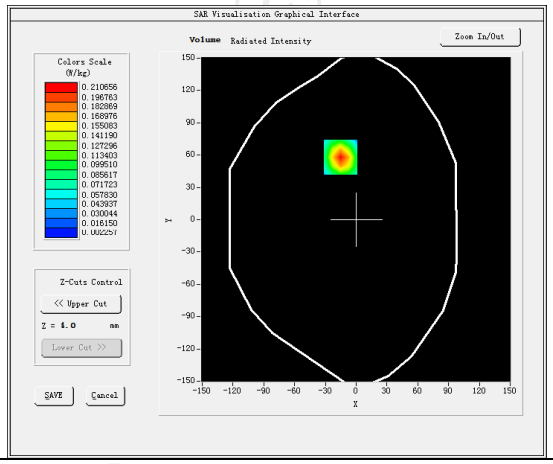
MEASUREMENT 2	
Higher Band SAR (Channel 11):	Date: 03/27/2020
Frequency (MHz)	2462.000000
Relative permittivity (real part)	54.590667
Relative permittivity (imaginary part)	14.318428
Conductivity (S/m)	2.032536
Variation (%)	4.010000
Crest Factor	1.0
Probe Conversion factor	4.70
E-Field Probe:	SSE2 (SN 41/18 EP331)
Area Scan	dx=8mm dy=8mm, h= 5.00 mm
ZoomScan	5x5x7,dx=8mm dy=8mm dz=5mm,Complete/ndx=8mm dy=8mm, h= 5.00 mm
Phantom	Validation plane
Device Position	Body back(10mm)
Band	IEEE 802.11b ISM
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
	

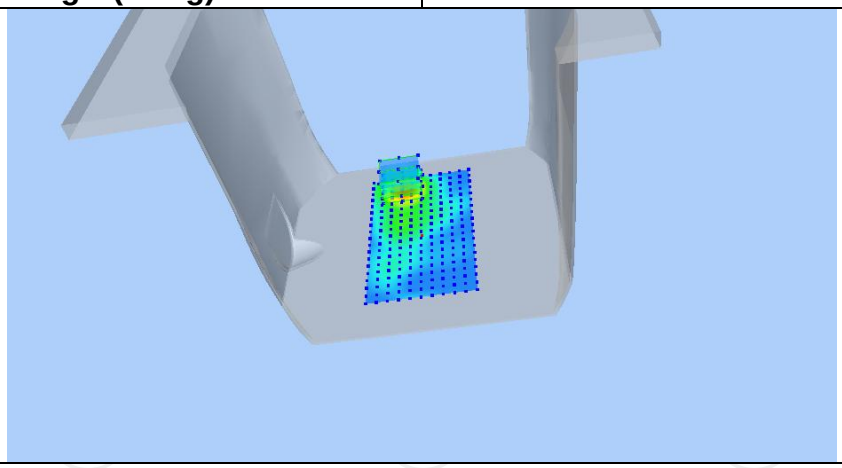
Z (mm)	0.00	4.00	9.00	14.00	19.00
SAR (W/Kg)	0.3372	0.1876	0.0816	0.0317	0.0109



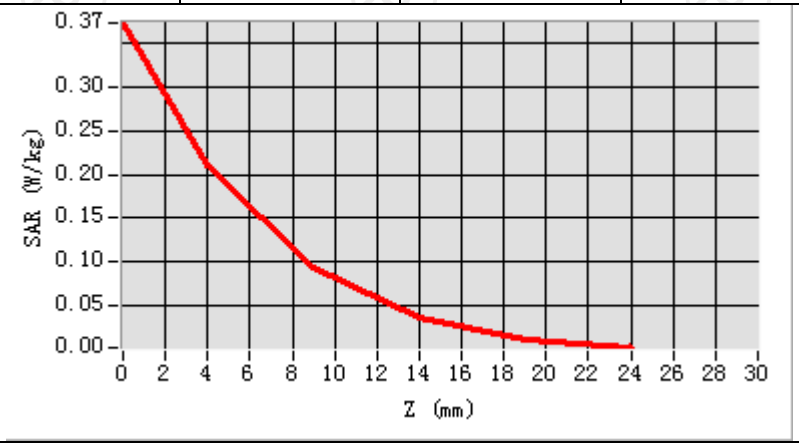
Hot spot position



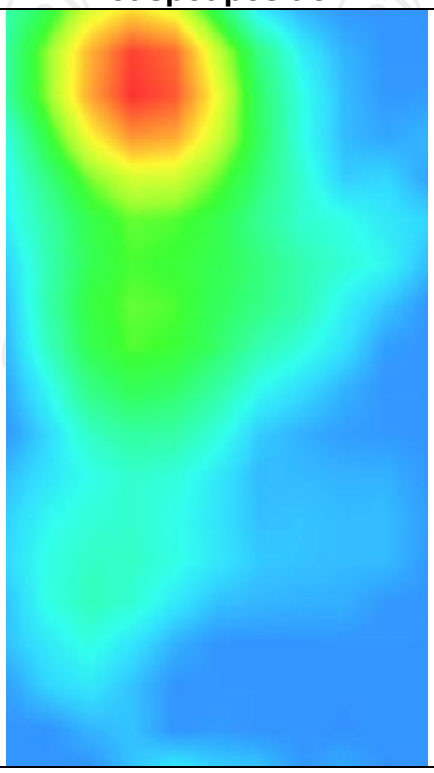
MEASUREMENT 3	
Higher Band SAR (Channel 11):	Date: 03/27/2020
Frequency (MHz)	2462.000000
Relative permittivity (real part)	54.590667
Relative permittivity (imaginary part)	14.318428
Conductivity (S/m)	2.032536
Variation (%)	-4.110000
Crest Factor	1.0
Probe Conversion factor	4.70
E-Field Probe:	SSE2 (SN 41/18 EP331)
Area Scan	dx=8mm dy=8mm, h= 5.00 mm
ZoomScan	5x5x7,dx=8mm dy=8mm dz=5mm,Complete/ndx=8mm dy=8mm, h= 5.00 mm
Phantom	Validation plane
Device Position	Body back(10mm)
Band	IEEE 802.11b ISM(hotspot)
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

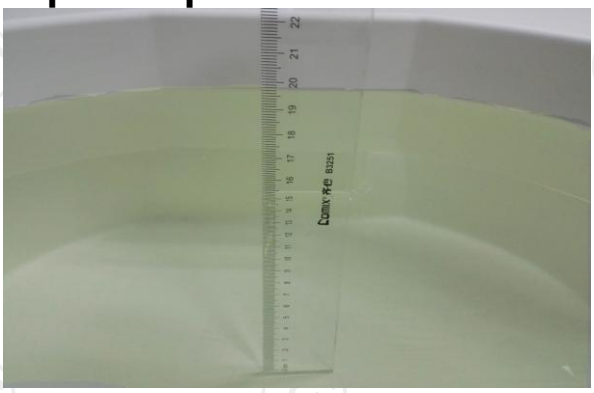


Hot spot position



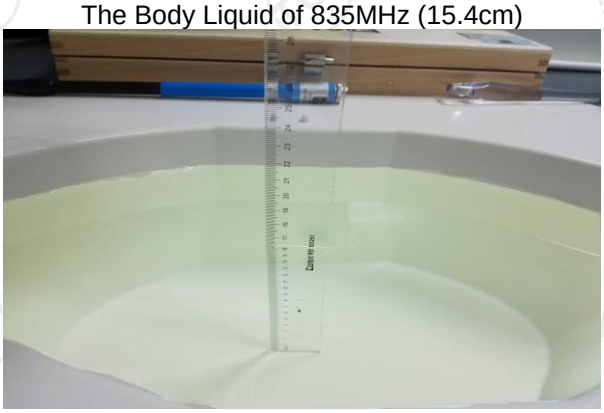
Appendix A: EUT Photos

Liquid depth

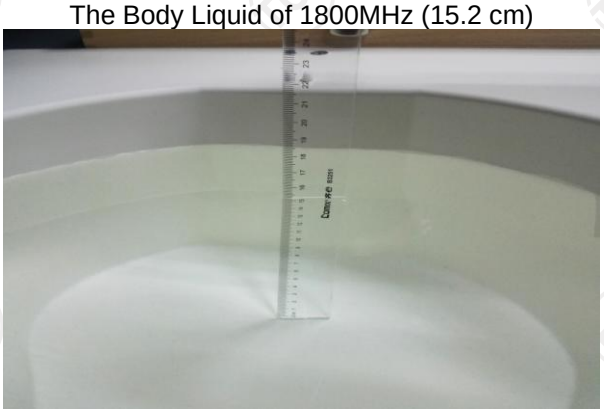


The Body Liquid of 835MHz (15.4cm)

The Body Liquid of 1800MHz (15.2 cm)



The Body Liquid of 1900MHz (16.4 cm)

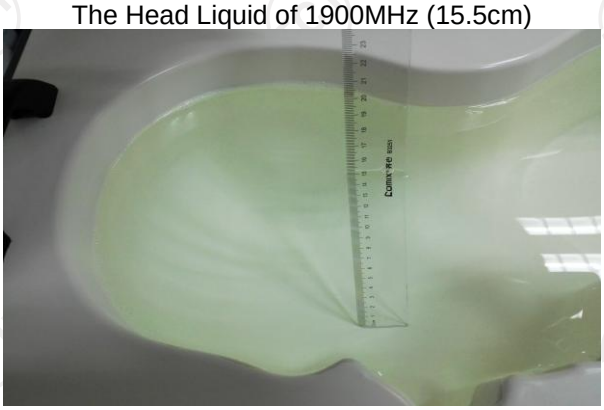


The Body Liquid of 2450MHz (15.3cm)

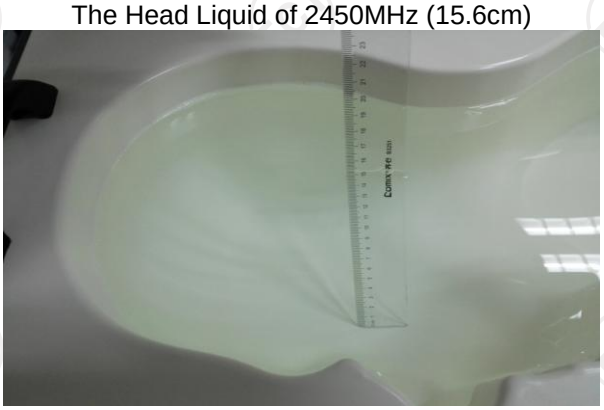
The Body Liquid of 2600MHz (16.5cm)

The Head Liquid of 1900MHz (15.5cm)

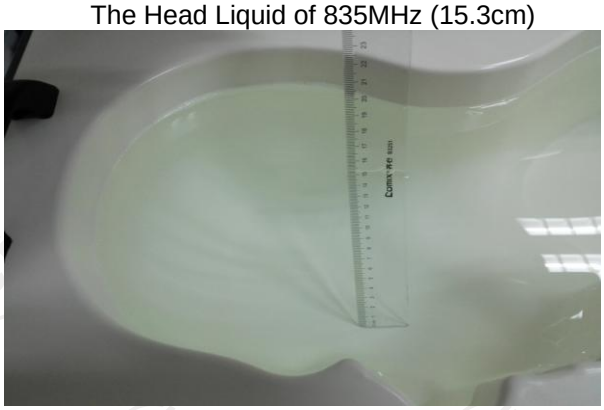
The Head Liquid of 2450MHz (15.6cm)



The Head Liquid of 835MHz (15.3cm)

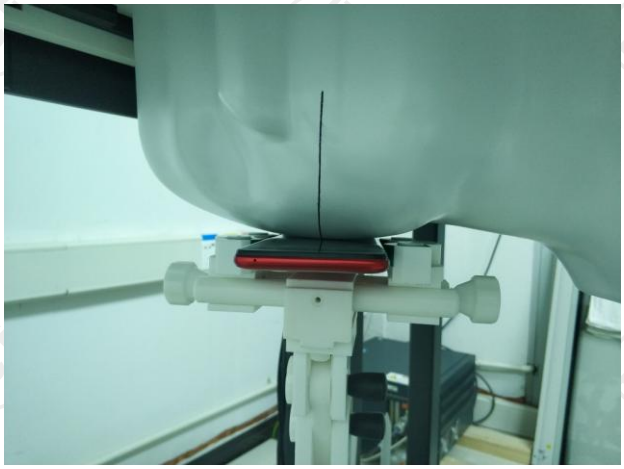


The Head Liquid of 2600MHz (15.1cm)

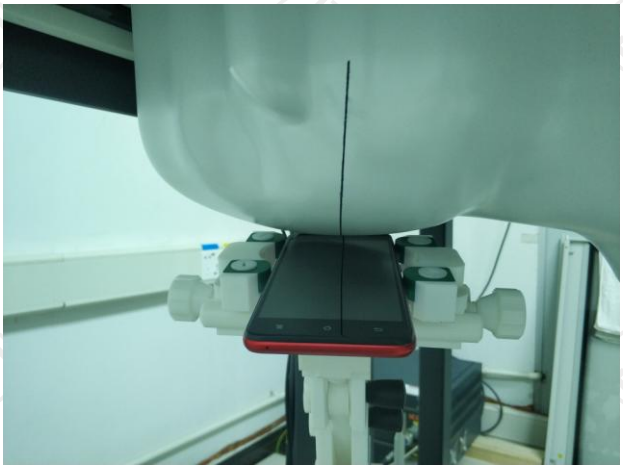


The Head Liquid of 1800MHz (15.2cm)

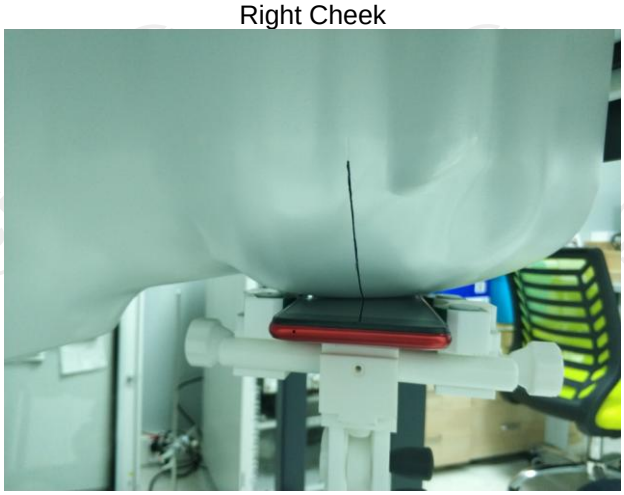
Appendix B: Test Setup Photos



Right Cheek

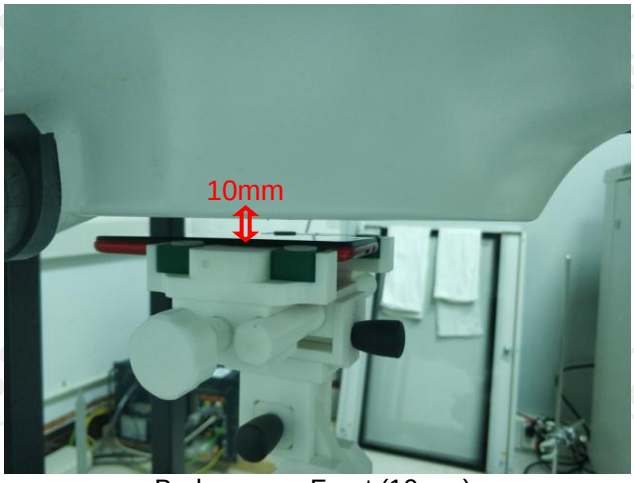


Right Tilted

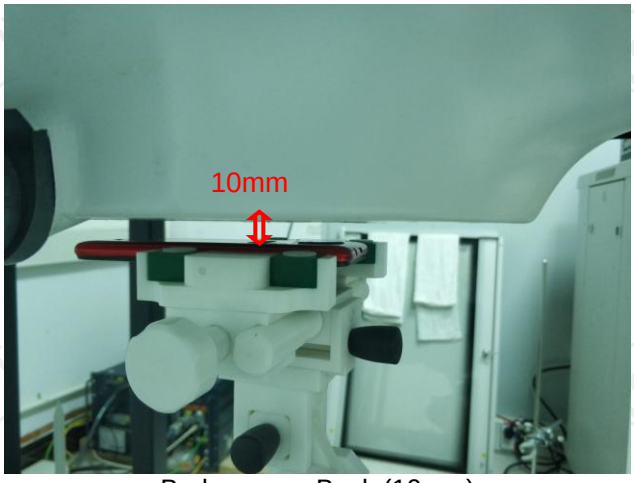


Left Cheek

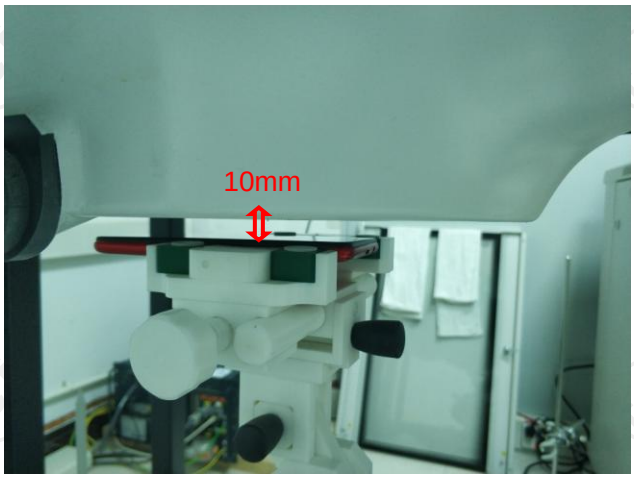
Left Tilted



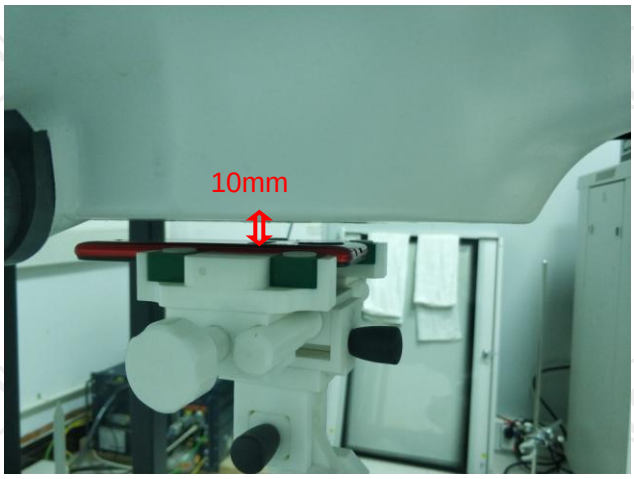
Body worn – Front (10mm)



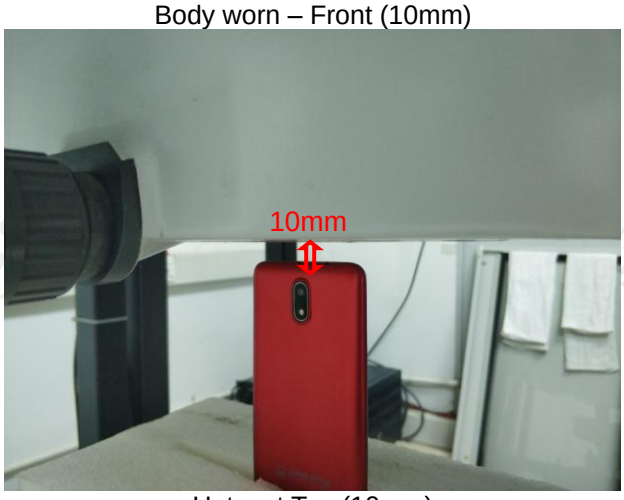
Body worn – Back (10mm)



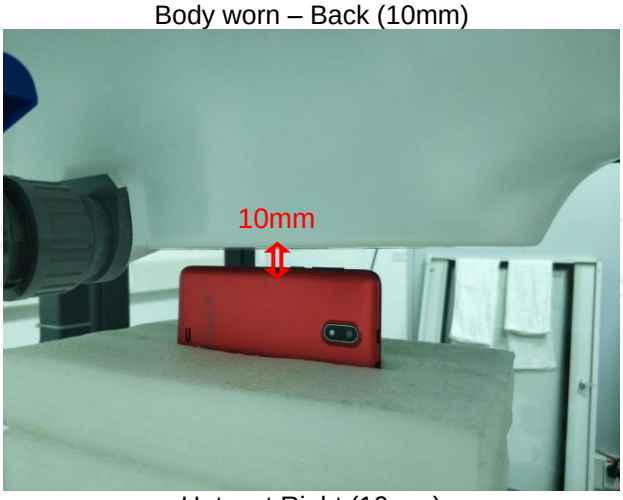
Body worn – Front (10mm)



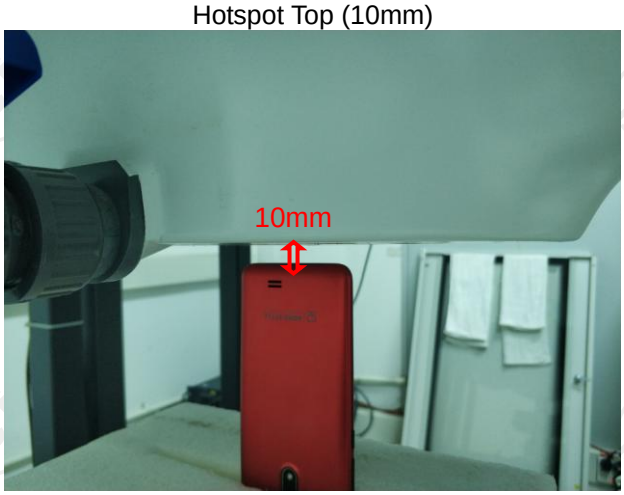
Body worn – Back (10mm)



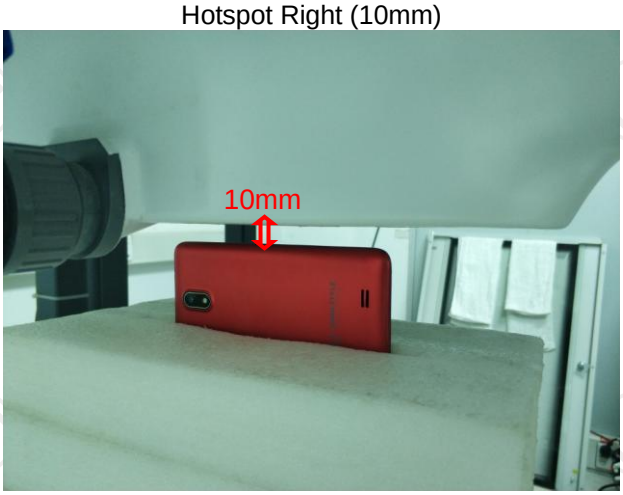
Hotspot Top (10mm)



Hotspot Right (10mm)



Hotspot Bottom (10mm)



Hotspot Left (10mm)