APPENDIX B. SAR MEASUREMENT DATA

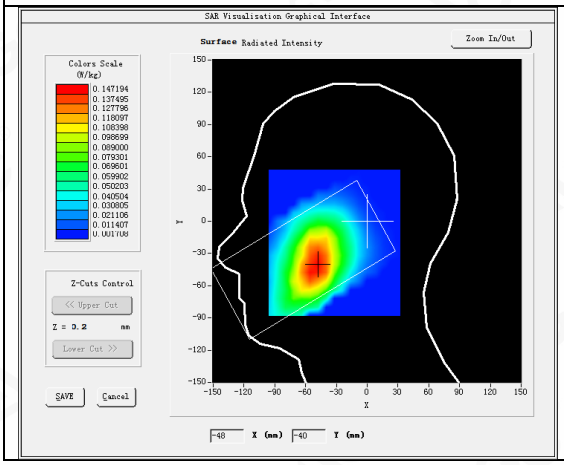
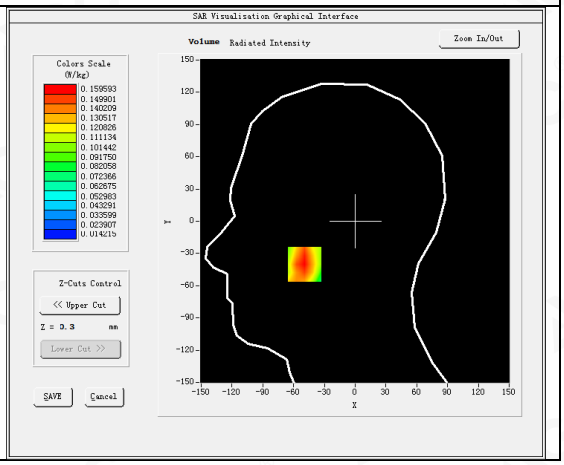
Test Laboratory: AGC Lab **Date: Aug. 21,2020**
GSM 850 Mid-Touch-Left <SIM 1>
DUT: Smart Phone; Type: NOTE 20 PRO

Communication System: Generic GSM; Communication System Band: GSM 850; Duty Cycle: 1:8.3; Conv.F=5.26; Frequency: 836.6 MHz; Medium parameters used: f = 835 MHz; σ=0.91 mho/m; εr =39.62; ρ= 1000 kg/m³;
Phantom section: Left Section
Ambient temperature (℃): 21.6, Liquid temperature (℃): 21.3

SATIMO Configuration
- Probe: SSE5; Calibrated: Jun. 24,2020; Serial No.: SN 24/20 EP336
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Phantom: SAM twin phantom
- Measurement SW: OpenSAR V4_02_35

Configuration/GSM 850 Mid-Touch-Left/Area Scan: Measurement grid: dx=8mm, dy=8mm
Configuration/GSM 850 Mid-Touch-Left/Zoom Scan : Measurement grid: dx=8mm,dy=8mm, dz=5mm

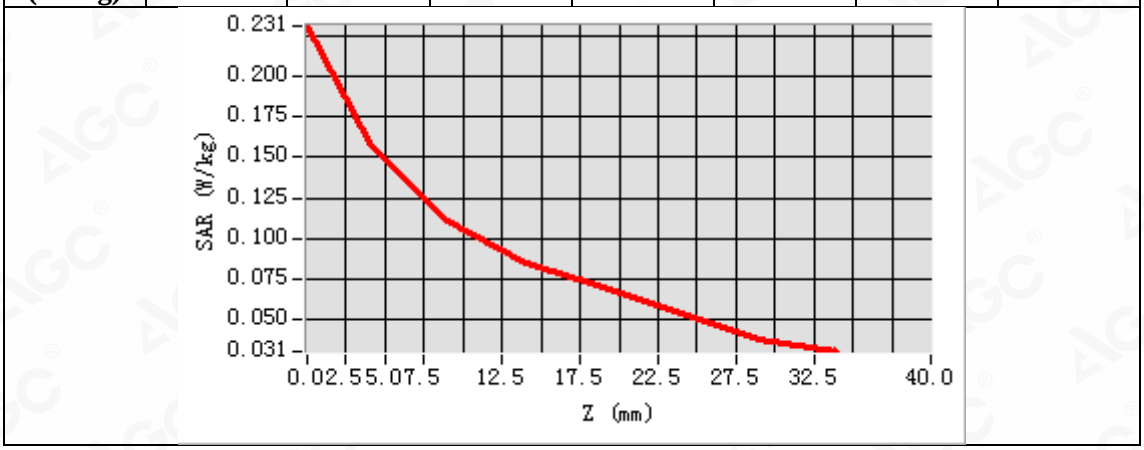
Area Scan	dx=8mm dy=8mm, h= 5.00 mm
ZoomScan	5x5x7,dx=8mm dy=8mm dz=5mm,Complete
Phantom	Left head
Device Position	Cheek
Band	GSM 850
Channels	Middle
Signal	TDMA (Crest factor: 8.0)

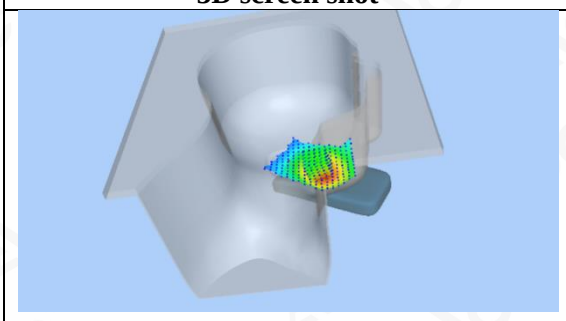
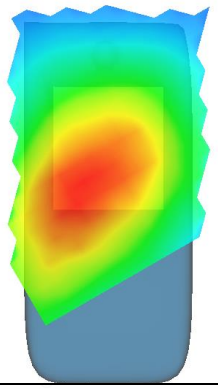
SURFACE SAR	VOLUME SAR
	

Maximum location: X=-49.00, Y=-40.00
SAR Peak: 0.23 W/kg

SAR 10g (W/Kg)	0.105012
SAR 1g (W/Kg)	0.155498

Z (mm)	0.00	4.00	9.00	14.00	19.00	24.00	29.00
SAR (W/Kg)	0.2306	0.1596	0.1116	0.0853	0.0705	0.0538	0.0386



3D screen shot	Hot spot position
	

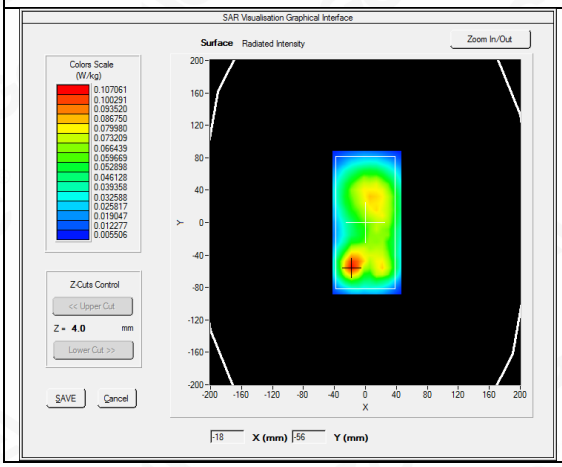
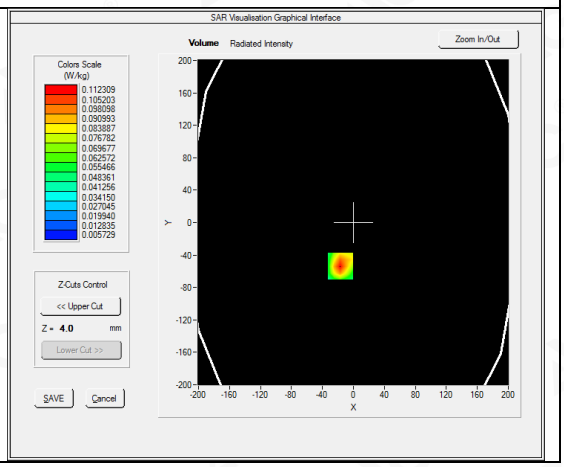
Test Laboratory: AGC Lab **Date: Aug. 21,2020**
GSM 850 Mid- Body- Back (MS)<SIM 1>
DUT: Smart Phone; Type: NOTE 20 PRO

Communication System: Generic GSM; Communication System Band: GSM 850; Duty Cycle: 1:8.3; Conv.F=5.26; Frequency: 836.6 MHz; Medium parameters used: f = 835 MHz; σ= 0.91 mho/m; εr = 39.62; ρ= 1000 kg/m³ ;
Phantom section: Flat Section
Ambient temperature (℃): 21.6, Liquid temperature (℃): 21.3

SATIMO Configuration:
- Probe: SSE5; Calibrated: Jun. 24,2020; Serial No.: SN 24/20 EP336
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Phantom: ELLI39 Phantom
- Measurement SW: OpenSAR V4_02_35

Configuration/GSM 850 Mid-Body-Back/Area Scan: Measurement grid: dx=8mm, dy=8mm
Configuration/GSM 850 Mid-Body-Back/Zoom Scan: Measurement grid: dx=8mm,dy=8mm, dz=5mm;

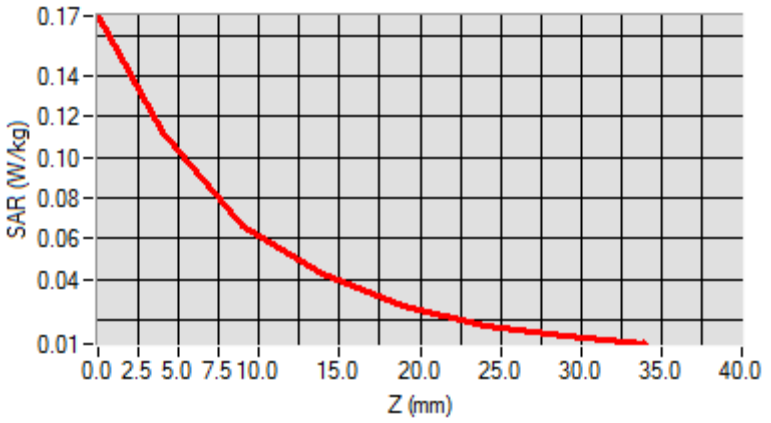
Area Scan	dx=8mm dy=8mm, h= 5.00 mm
ZoomScan	5x5x7,dx=8mm dy=8mm dz=5mm,Complete
Phantom	ELLI
Device Position	Body Back
Band	GSM 850
Channels	Middle
Signal	TDMA (Crest factor: 8.0)

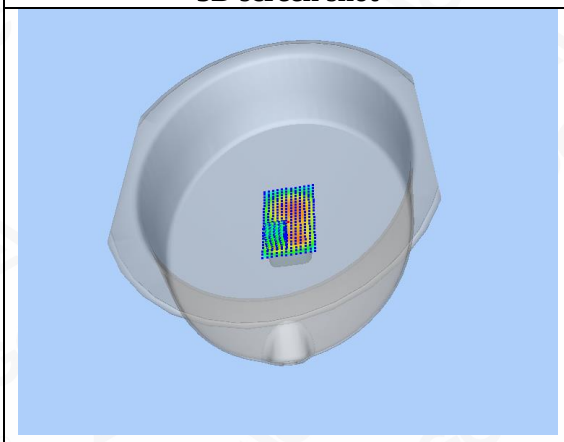
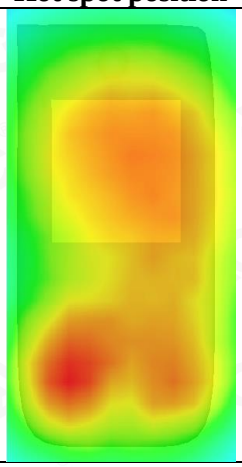
SURFACE SAR	VOLUME SAR
	

Maximum location: X=-17.00, Y=-54.00
SAR Peak: 0.17 W/kg

SAR 10g (W/Kg)	0.061136
SAR 1g (W/Kg)	0.105686

Z (mm)	0.00	4.00	9.00	14.00	19.00	24.00	29.00
SAR (W/Kg)	0.1697	0.1123	0.0665	0.0427	0.0268	0.0174	0.0119



3D screen shot	Hot spot position
	

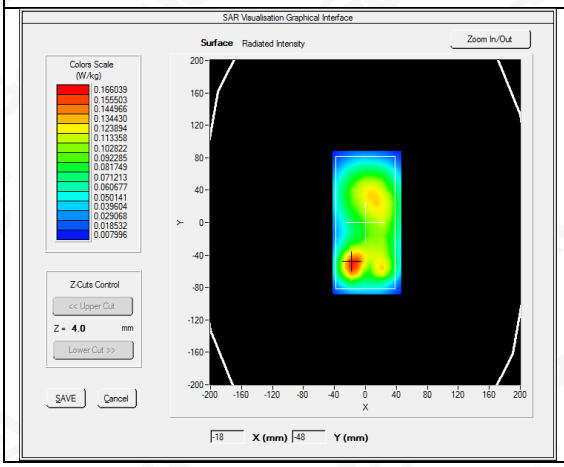
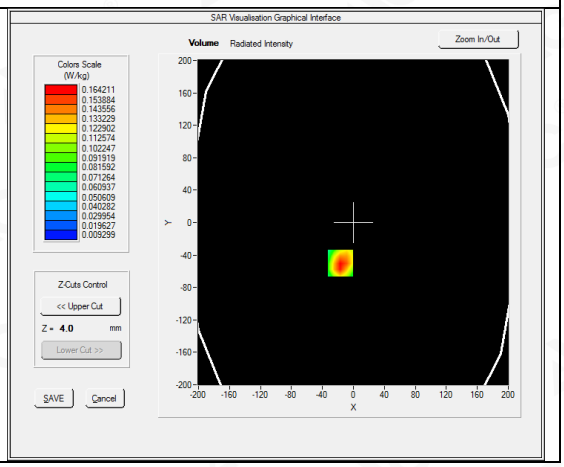
Test Laboratory: AGC Lab **Date: Aug. 21,2020**
GPRS 850 Mid- Body- Back (2up)
DUT: Smart Phone; Type: NOTE 20 PRO

Communication System: GPRS-2 Slot; Communication System Band: GSM 850; Duty Cycle: 1:4.2; Conv.F=5.26; Frequency: 836.6 MHz; Medium parameters used: f = 835 MHz; σ= 0.91 mho/m; εr = 39.62; ρ= 1000 kg/m³ ;
Phantom section: Flat Section
Ambient temperature (℃): 21.6, Liquid temperature (℃): 21.3

SATIMO Configuration:
- Probe: SSE5; Calibrated: Jun. 24,2020; Serial No.: SN 24/20 EP336
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Phantom: ELLI39 Phantom
- Measurement SW: OpenSAR V4_02_35

Configuration/GPRS 850 Mid-Body-Back/Area Scan: Measurement grid: dx=8mm, dy=8mm
Configuration/GPRS 850 Mid-Body-Back/Zoom Scan: Measurement grid: dx=8mm,dy=8mm, dz=5mm;

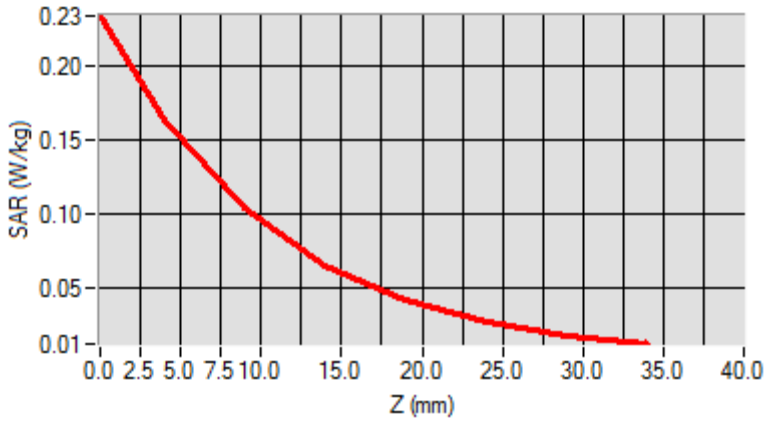
Area Scan	dx=8mm dy=8mm, h= 5.00 mm
Zoom Scan	5x5x7,dx=8mm dy=8mm dz=5mm,Complete
Phantom	ELLI
Device Position	Body Back
Band	GSM 850
Channels	Middle
Signal	TDMA (Crest factor: 4.0)

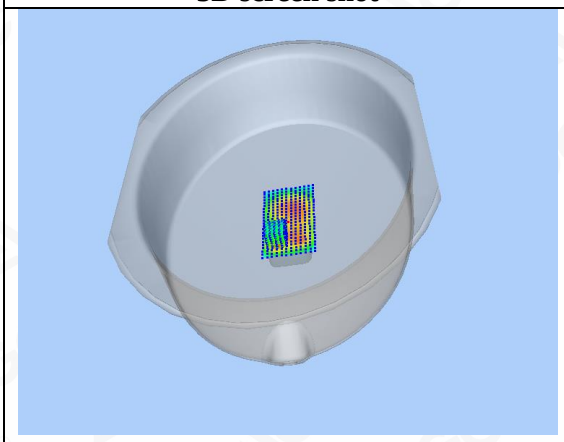
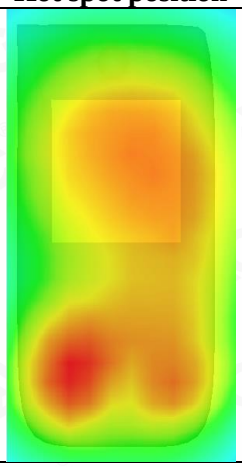
SURFACE SAR	VOLUME SAR
	

Maximum location: X=-17.00, Y=-50.00
SAR Peak: 0.24 W/kg

SAR 10g (W/Kg)	0.092379
SAR 1g (W/Kg)	0.157018

Z (mm)	0.00	4.00	9.00	14.00	19.00	24.00	29.00
SAR (W/Kg)	0.2345	0.1642	0.1039	0.0652	0.0419	0.0267	0.0178



3D screen shot	Hot spot position
	

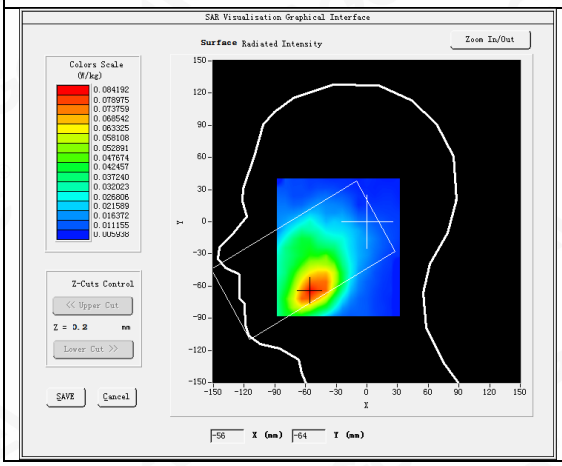
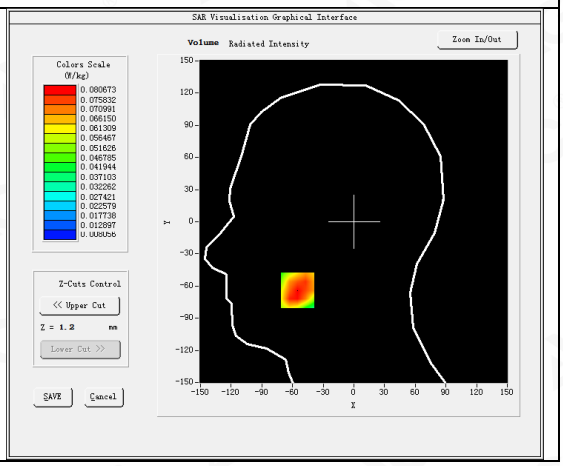
Test Laboratory: AGC Lab **Date: Aug. 31,2020**
PCS 1900 Mid-Touch-Right <SIM 1>
DUT: Smart Phone; Type: NOTE 20 PRO

Communication System: Generic GSM; Communication System Band: PCS 1900; Duty Cycle: 1:8.3; Conv.F=4.72; Frequency: 1880 MHz; Medium parameters used: f = 1900 MHz; σ= 1.41 mho/m; εr =39.55; ρ= 1000 kg/m³ ;
Phantom section: Right Section
Ambient temperature (℃): 21.4, Liquid temperature (℃): 21.1

SATIMO Configuration:
- Probe: SSE5; Calibrated: Jun. 24,2020; Serial No.: SN 24/20 EP336
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Phantom: SAM twin phantom
- Measurement SW: OpenSAR V4_02_35

Configuration/PCS1900 Mid-Touch-Right/Area Scan: Measurement grid: dx=8mm, dy=8mm
Configuration/PCS1900 Mid-Touch-Right/Zoom Scan: Measurement grid: dx=8mm,dy=8mm, dz=5mm;

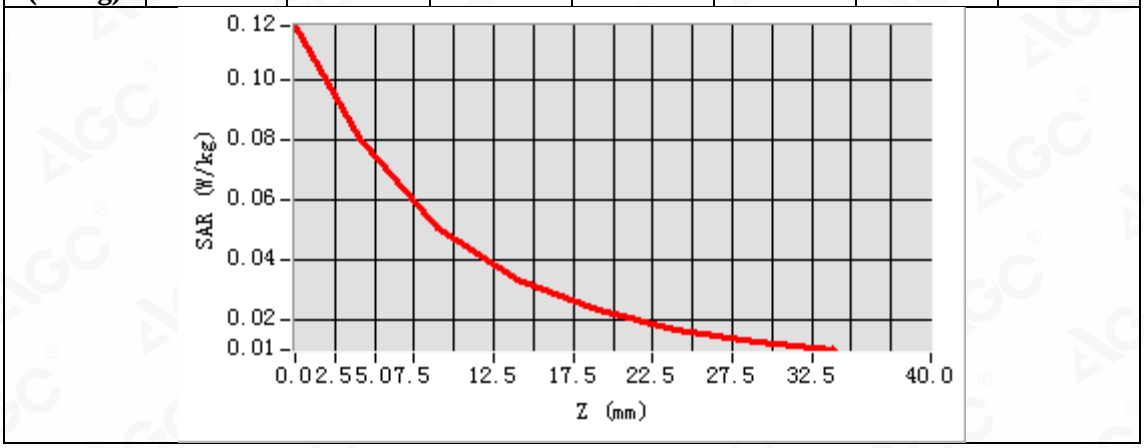
Area Scan	dx=8mm dy=8mm, h= 5.00 mm
ZoomScan	5x5x7,dx=8mm dy=8mm dz=5mm,Complete
Phantom	Right head
Device Position	Cheek
Band	PCS 1900
Channels	Middle
Signal	TDMA (Crest factor: 8.0)

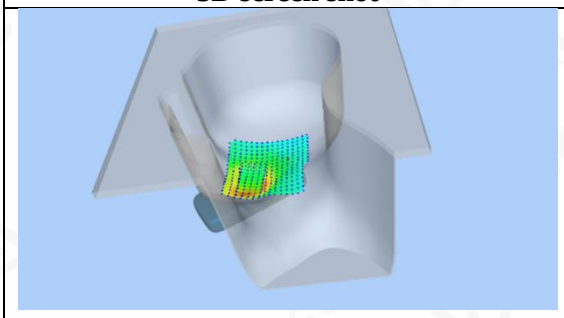
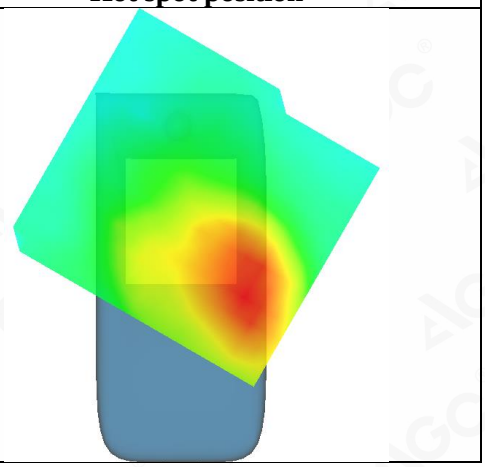
SURFACE SAR	**VOLUME SAR**
	

Maximum location: X=-55.00, Y=-64.00
SAR Peak: 0.13 W/kg

SAR 10g (W/Kg)	0.048194
SAR 1g (W/Kg)	0.080236

Z (mm)	0.00	4.00	9.00	14.00	19.00	24.00	29.00
SAR (W/Kg)	0.1182	0.0807	0.0511	0.0331	0.0237	0.0166	0.0125



3D screen shot	Hot spot position
	

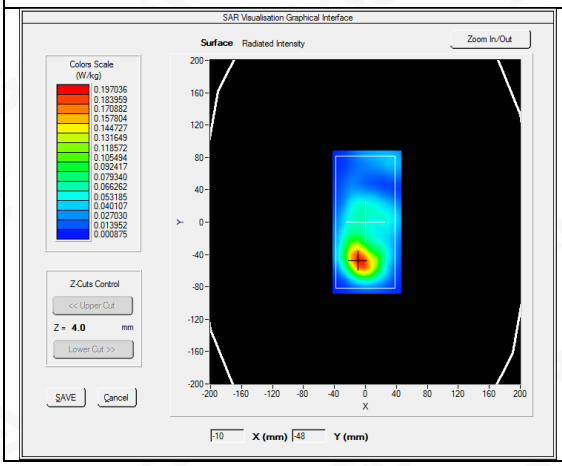
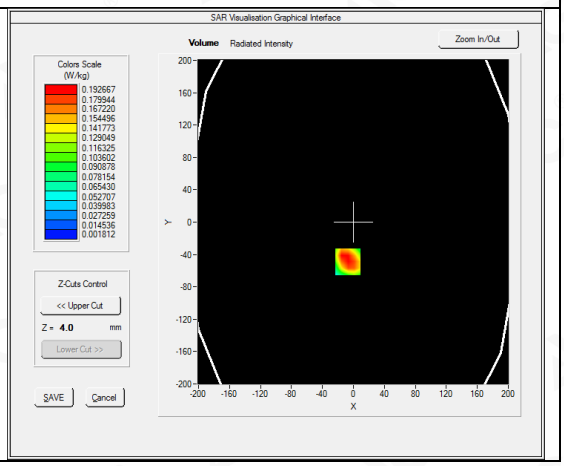
Test Laboratory: AGC Lab **Date: Aug. 31,2020**
PCS 1900 Mid-Body-Back (MS)<SIM 1>
DUT: Smart Phone; Type: NOTE 20 PRO

Communication System: Generic GSM; Communication System Band: PCS 1900; Duty Cycle: 1:8.3; Conv.F=4.72; Frequency: 1880 MHz; Medium parameters used: f = 1900 MHz; σ= 1.41 mho/m; εr =39.55; ρ= 1000 kg/m³ ;
Phantom section: Flat Section
Ambient temperature (℃): 21.4, Liquid temperature (℃): 21.1

SATIMO Configuration:
- Probe: SSE5; Calibrated: Jun. 24,2020; Serial No.: SN 24/20 EP336
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Phantom: ELLI39 Phantom
- Measurement SW: OpenSAR V4_02_35

Configuration/PCS1900 Mid-Body-Back/Area Scan: Measurement grid: dx=8mm, dy=8mm
Configuration/PCS1900 Mid-Body-Back/Zoom Scan: Measurement grid: dx=8mm,dy=8mm, dz=5mm;

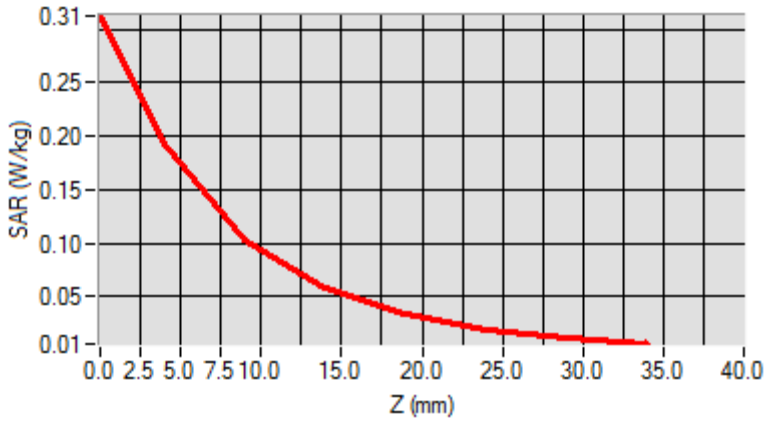
Area Scan	dx=8mm dy=8mm, h= 5.00 mm
ZoomScan	5x5x7,dx=8mm dy=8mm dz=5mm,Complete
Phantom	ELLI
Device Position	Body Back
Band	PCS 1900
Channels	Middle
Signal	TDMA (Crest factor: 8.0)

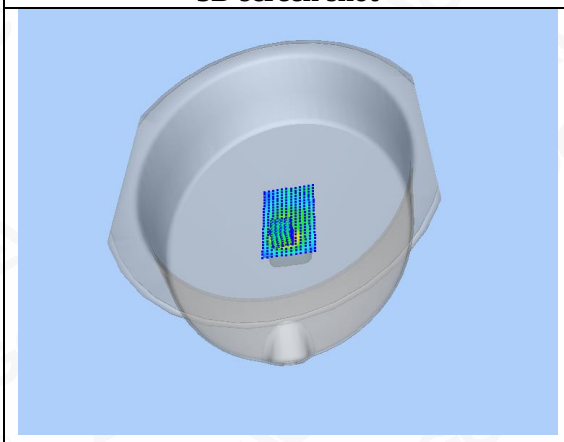
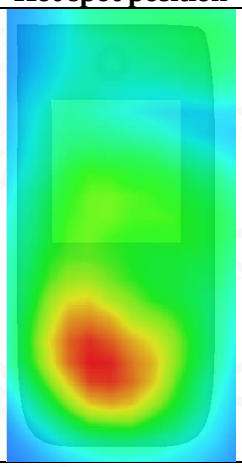
SURFACE SAR	VOLUME SAR
	

Maximum location: X=-7.00, Y=-49.00
SAR Peak: 0.33 W/kg

SAR 10g (W/Kg)	0.101231
SAR 1g (W/Kg)	0.188933

Z (mm)	0.00	4.00	9.00	14.00	19.00	24.00	29.00
SAR (W/Kg)	0.3122	0.1927	0.1030	0.0589	0.0343	0.0188	0.0111



3D screen shot	Hot spot position
	

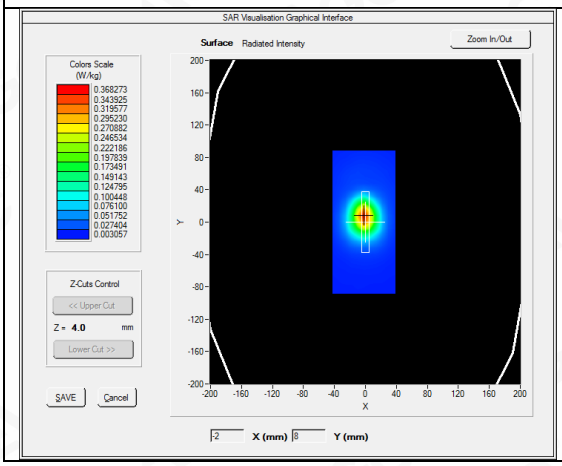
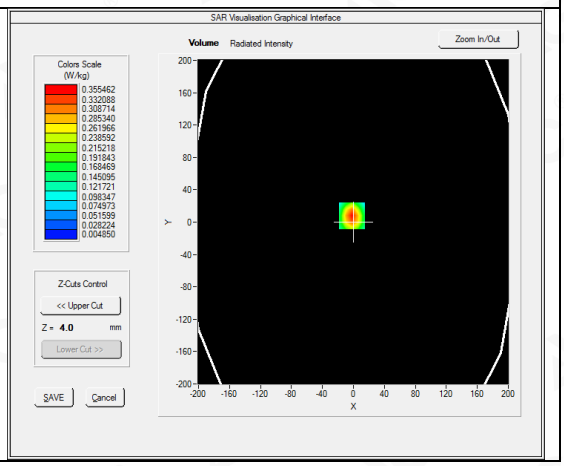
Test Laboratory: AGC Lab **Date: Aug. 31,2020**
GPRS 1900 Mid-Edge 3(2up)
DUT: Smart Phone; Type: NOTE 20 PRO

Communication System: GPRS-2Slot; Communication System Band: PCS 1900; Duty Cycle: 1:4.2; Conv.F=4.72; Frequency: 1880 MHz; Medium parameters used: f = 1900 MHz; σ= 1.41 mho/m; εr =39.55; ρ= 1000 kg/m³ ;
Phantom section: Flat Section
Ambient temperature (℃): 21.4, Liquid temperature (℃): 21.1

SATIMO Configuration:
- Probe: SSE5; Calibrated: Jun. 24,2020; Serial No.: SN 24/20 EP336
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Phantom: ELLI39 Phantom
- Measurement SW: OpenSAR V4_02_35

Configuration/GPRS1900 Mid-Edge 3/Area Scan: Measurement grid: dx=8mm, dy=8mm
Configuration/GPRS1900 Mid-Edge 3/Zoom Scan: Measurement grid: dx=8mm,dy=8mm, dz=5mm;

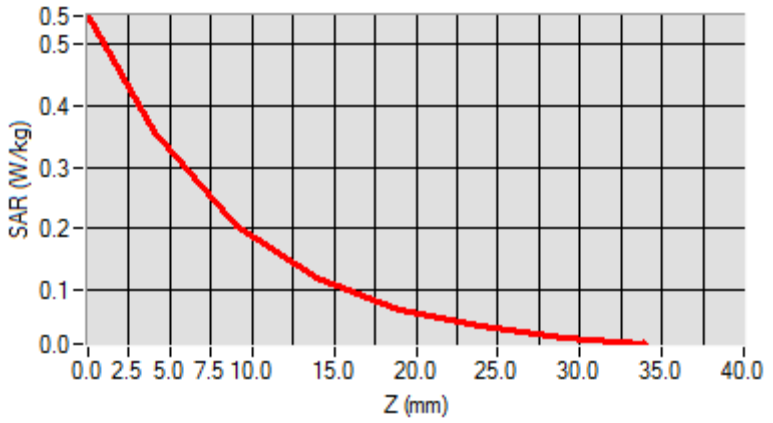
Area Scan	dx=8mm dy=8mm, h= 5.00 mm
Zoom Scan	5x5x7,dx=8mm dy=8mm dz=5mm,Complete
Phantom	ELLI
Device Position	Edge 3
Band	PCS 1900
Channels	Middle
Signal	TDMA (Crest factor: 4.0)

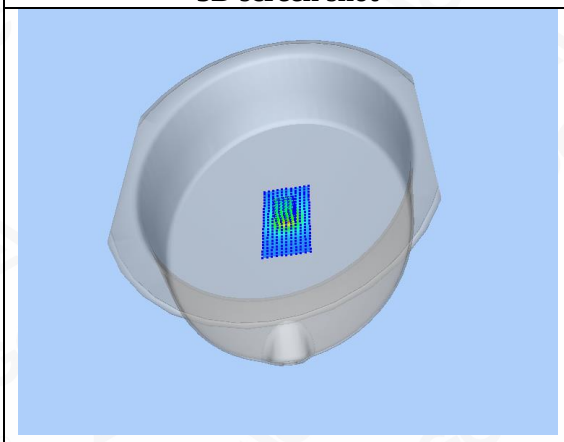
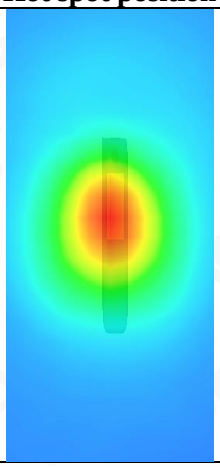
SURFACE SAR	VOLUME SAR
	

Maximum location: X=-2.00, Y=8.00
SAR Peak: 0.54 W/kg

SAR 10g (W/Kg)	0.180113
SAR 1g (W/Kg)	0.334714

Z (mm)	0.00	4.00	9.00	14.00	19.00	24.00	29.00
SAR (W/Kg)	0.5447	0.3555	0.2050	0.1206	0.0702	0.0414	0.0226



3D screen shot	Hot spot position
	

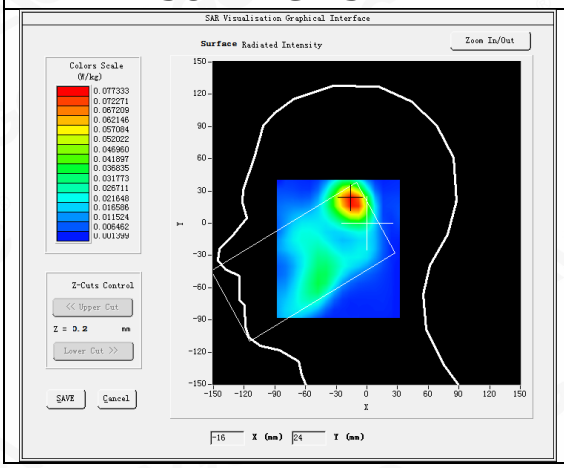
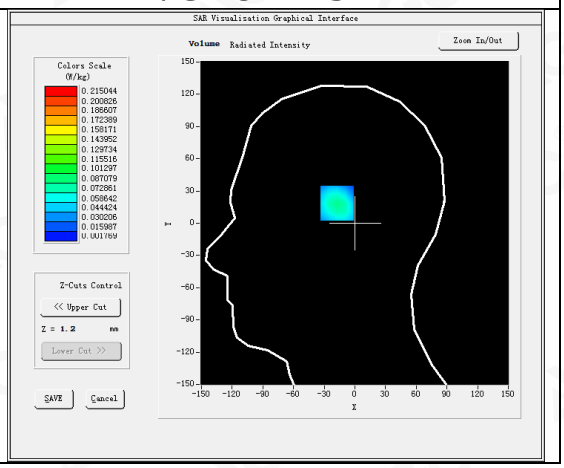
Test Laboratory: AGC Lab **Date: Aug. 31,2020**
WCDMA Band II Mid-Tilt-Right <RMC>
DUT: Smart Phone; Type: NOTE 20 PRO

Communication System: UMTS; Communication System Band: Band II UTRA/FDD ;Duty Cycle:1:1; Conv.F=4.72; Frequency: 1880 MHz; Medium parameters used: f = 1900 MHz; σ= 1.41 mho/m;εr =39.55; ρ= 1000 kg/m³ ;
Phantom section: Right Section
Ambient temperature (℃): 21.4, Liquid temperature (℃): 21.1

SATIMO Configuration:
- Probe: SSE5; Calibrated: Jun. 24,2020; Serial No.: SN 24/20 EP336
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Phantom: SAM twin phantom
- Measurement SW: OpenSAR V4_02_35

Configuration/WCDMA Band II Mid-Tilt-Right/Area Scan: Measurement grid: dx=8mm, dy=8mm
Configuration/WCDMA Band II Mid-Tilt-Right/Zoom Scan: Measurement grid: dx=8mm,dy=8mm, dz=5mm;

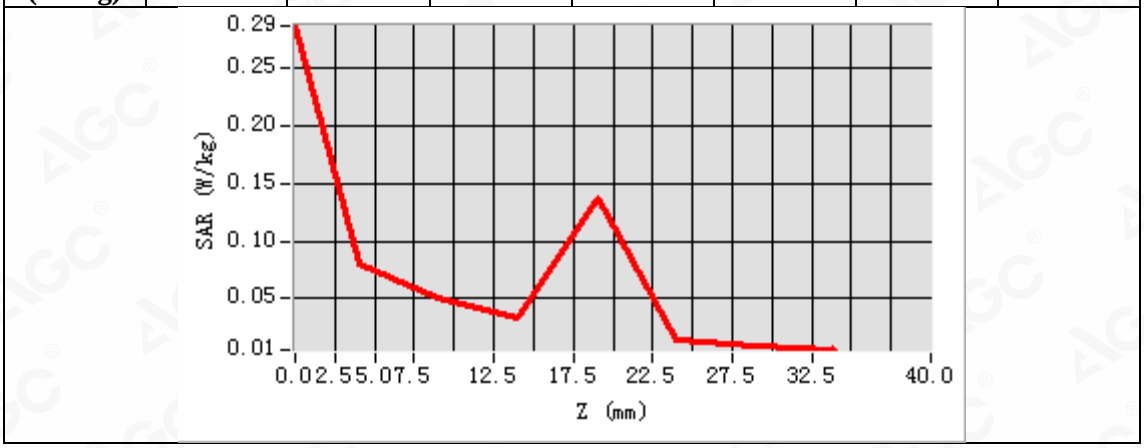
Area Scan	dx=8mm dy=8mm, h= 5.00 mm
ZoomScan	5x5x7,dx=8mm dy=8mm dz=5mm,Complete
Phantom	Right head
Device Position	Tilt
Band	WCDMA band II
Channels	Middle
Signal	CDMA (Crest factor: 1.0)

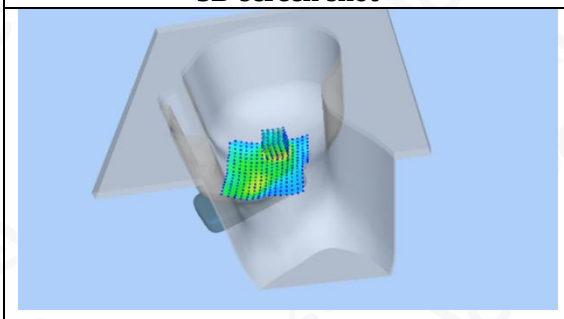
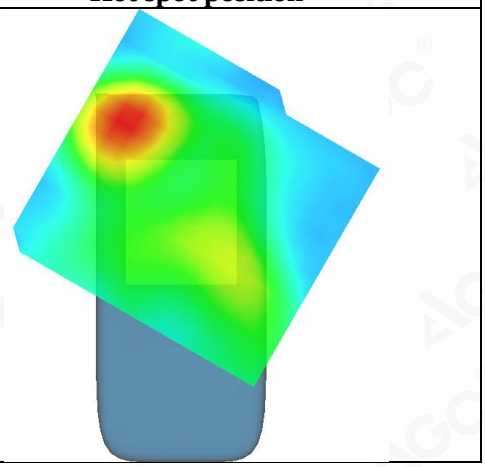
SURFACE SAR	VOLUME SAR
	

Maximum location: X=-15.00, Y=21.00
SAR Peak: 0.41 W/kg

SAR 10g (W/Kg)	0.062520
SAR 1g (W/Kg)	0.103465

Z (mm)	0.00	4.00	9.00	14.00	19.00	24.00	29.00
SAR (W/Kg)	0.2862	0.0803	0.0511	0.0331	0.1376	0.0137	0.0088



3D screen shot	Hot spot position
	

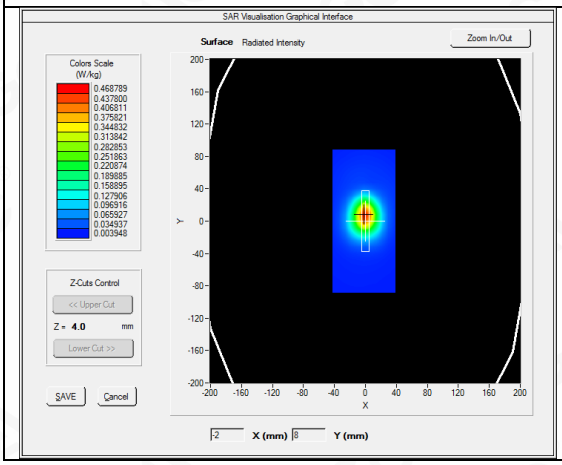
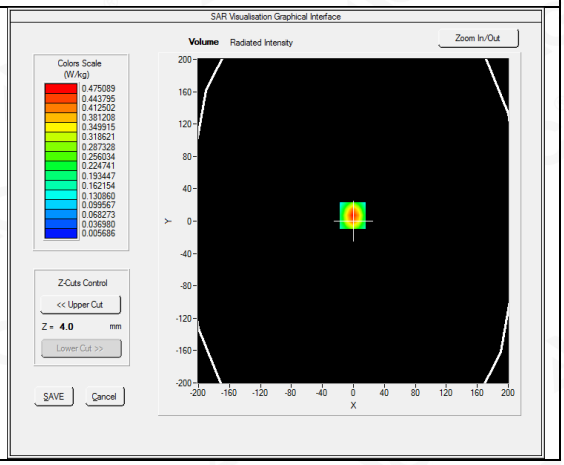
Test Laboratory: AGC Lab **Date: Aug. 31,2020**
WCDMA Band II Mid-Edge 3(RMC)
DUT: Smart Phone; Type: NOTE 20 PRO

Communication System: UMTS; Communication System Band: Band II UTRA/FDD ;Duty Cycle:1:1; Conv.F=4.72
Frequency: 1880 MHz; Medium parameters used: f = 1900 MHz; σ=1.41 mho/m; εr =39.55; ρ= 1000 kg/m³ ;
Phantom section: Flat Section
Ambient temperature (℃): 21.4, Liquid temperature (℃): 21.1

SATIMO Configuration:
- Probe: SSE5; Calibrated: Jun. 24,2020; Serial No.: SN 24/20 EP336
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Phantom: ELLI39 Phantom
- Measurement SW: OpenSAR V4_02_35

Configuration/ WCDMA band II Mid-Edge 3/Area Scan: Measurement grid: dx=8mm, dy=8mm
Configuration/ WCDMA band II Mid-Edge 3/Zoom Scan: Measurement grid: dx=8mm,dy=8mm, dz=5mm;

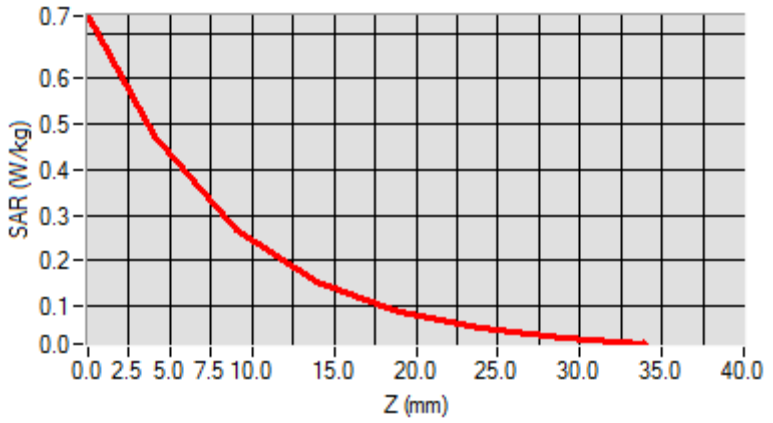
Area Scan	dx=8mm dy=8mm, h= 5.00 mm
Zoom Scan	5x5x7,dx=8mm dy=8mm dz=5mm,Complete
Phantom	ELLI
Device Position	Edge 3
Band	WCDMA band II
Channels	Middle
Signal	CDMA (Crest factor: 1.0)

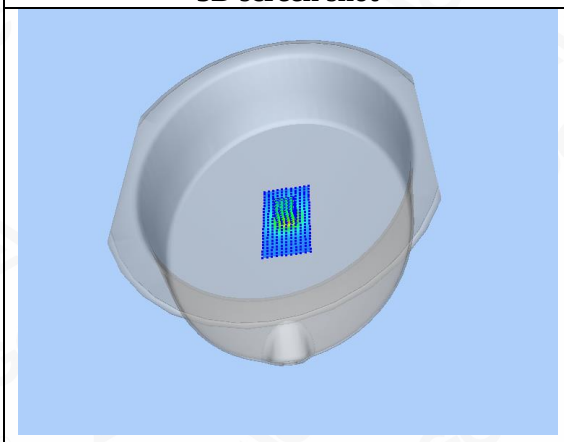
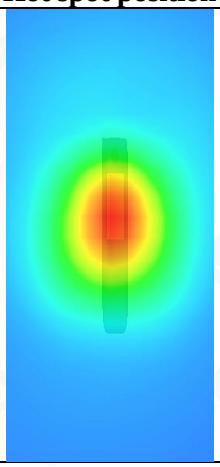
SURFACE SAR	VOLUME SAR
	

Maximum location: X=-1.00, Y=7.00
SAR Peak: 0.73 W/kg

SAR 10g (W/Kg)	0.234667
SAR 1g (W/Kg)	0.446167

Z (mm)	0.00	4.00	9.00	14.00	19.00	24.00	29.00
SAR (W/Kg)	0.7377	0.4751	0.2671	0.1543	0.0880	0.0504	0.0291



3D screen shot	Hot spot position
	

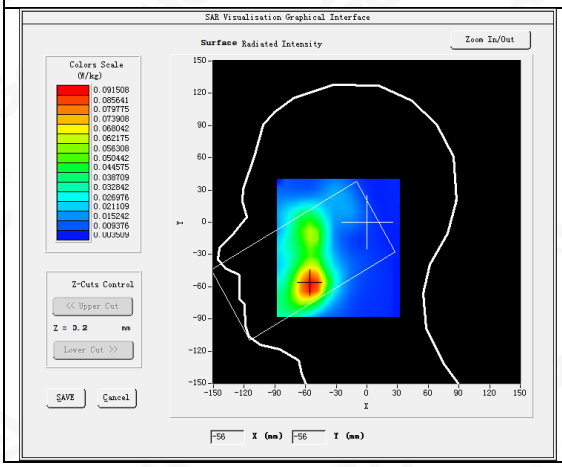
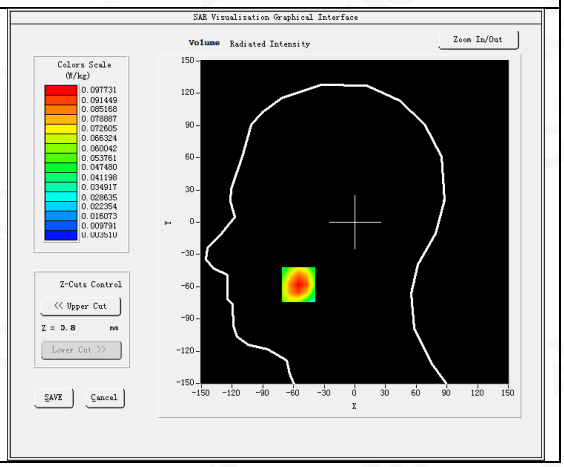
Test Laboratory: AGC Lab **Date: Aug. 28,2020**
WCDMA Band IV Mid-Touch-Right (RMC)
DUT: Smart Phone; Type: NOTE 20 PRO

Communication System: UMTS; Communication System Band: BAND IV UTRA/FDD; Duty Cycle:1: 1; Conv.F=4.48; Frequency:1732.5 MHz; Medium parameters used: f =1800 MHz; σ= 1.32 mho/m; εr =40.83; ρ= 1000 kg/m³ ;
Phantom section: Right Section
Ambient temperature (℃): 20.8, Liquid temperature (℃): 20.5

SATIMO Configuration:
- Probe: SSE5; Calibrated: Jun. 24,2020; Serial No.: SN 24/20 EP336
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Phantom: SAM twin phantom
- Measurement SW: OpenSAR V4_02_35

Configuration/ WCDMA Band IV Mid-Touch- Right /Area Scan: Measurement grid: dx=8mm, dy=8mm
Configuration/ WCDMA Band IV Mid-Touch- Right /Zoom Scan: Measurement grid: dx=8mm, dy=8mm, dz=5mm

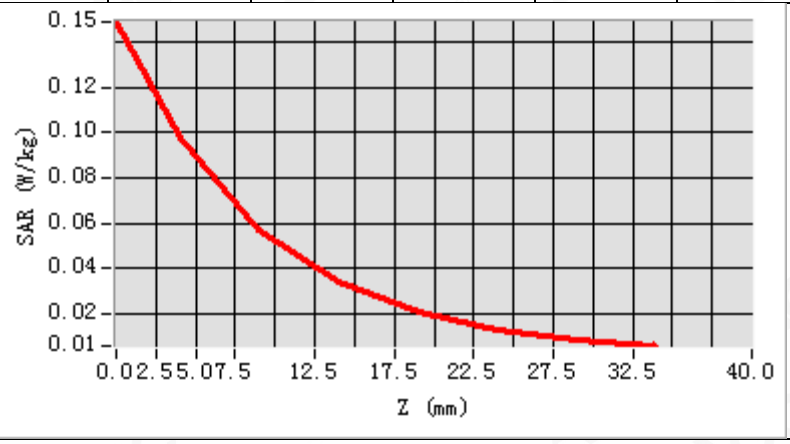
Area Scan	dx=8mm dy=8mm, h= 5.00 mm
ZoomScan	5x5x7,dx=8mm dy=8mm dz=5mm,Complete
Phantom	Right head
Device Position	Cheek
Band	WCDMA Band IV
Channels	Middle
Signal	CDMA (Crest factor: 1.0)

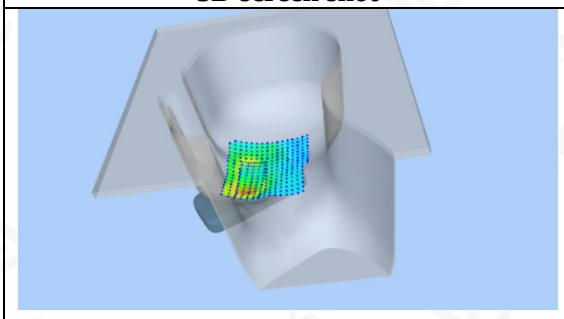
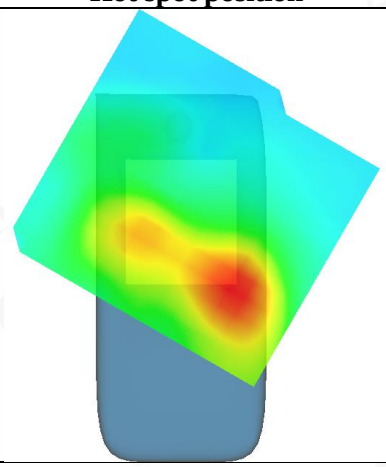
SURFACE SAR	VOLUME SAR
	

Maximum location: X=-55.00, Y=-58.00
SAR Peak: 0.15 W/kg

SAR 10g (W/Kg)	0.052252
SAR 1g (W/Kg)	0.094170

Z (mm)	0.00	4.00	9.00	14.00	19.00	24.00	29.00
SAR (W/Kg)	0.1491	0.0977	0.0566	0.0336	0.0201	0.0124	0.0079



3D screen shot	Hot spot position
	

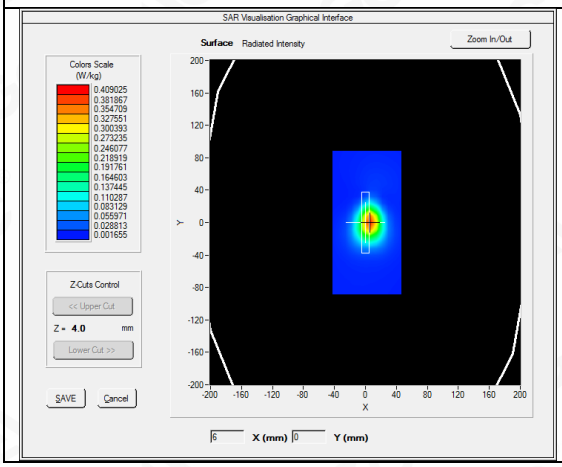
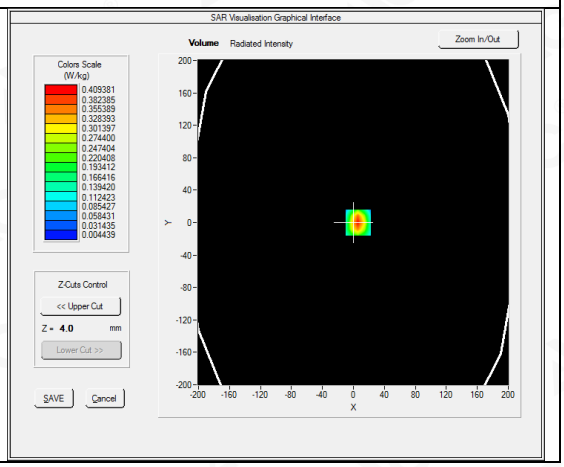
Test Laboratory: AGC Lab **Date: Aug. 28,2020**
WCDMA Band IV Mid-Edge3 (RMC)
DUT: Smart Phone; Type: NOTE 20 PRO

Communication System: UMTS; Communication System Band: BAND IV UTRA/FDD; Duty Cycle:1: 1; Conv.F=4.48; Frequency:1732.5 MHz; Medium parameters used: f = 1800 MHz; σ=1.32 mho/m; εr =40.83; ρ= 1000 kg/m³;
Phantom section: Flat Section
Ambient temperature (℃): 20.8, Liquid temperature (℃): 20.5

SATIMO Configuration:
- Probe: SSE5; Calibrated: Jun. 24,2020; Serial No.: SN 24/20 EP336
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Phantom: ELLI39 Phantom
- Measurement SW: OpenSAR V4_02_35

Configuration/ WCDMA Band IV Mid- Edge3/Area Scan: Measurement grid: dx=8mm, dy=8mm
Configuration/ WCDMA Band IV Mid- Edge3/Zoom Scan: Measurement grid: dx=8mm,dy=8mm, dz=5mm;

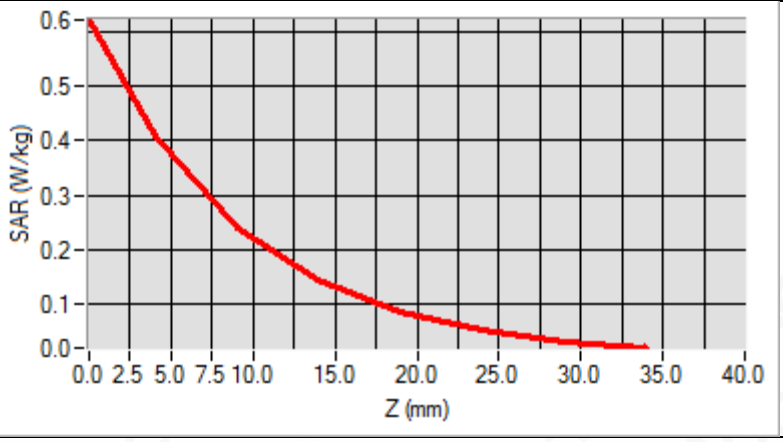
Area Scan	dx=8mm dy=8mm, h= 5.00 mm
ZoomScan	5x5x7,dx=8mm dy=8mm dz=5mm,Complete
Phantom	ELLI
Device Position	Edge3
Band	WCDMA Band IV
Channels	Middle
Signal	CDMA (Crest factor: 1.0)

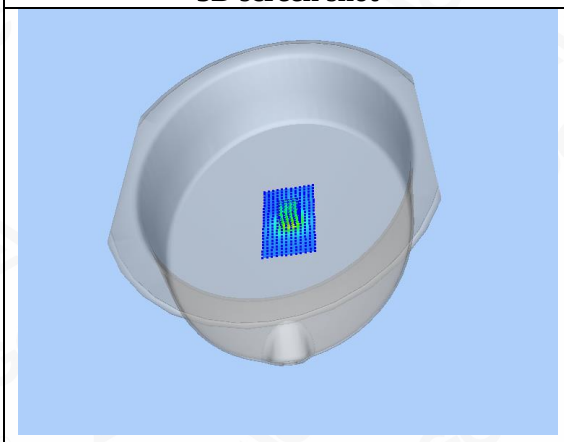
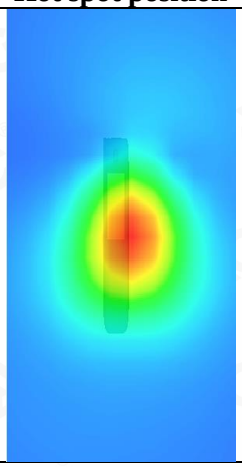
SURFACE SAR	VOLUME SAR
	

Maximum location: X=6.00, Y=0.00
SAR Peak: 0.62 W/kg

SAR 10g (W/Kg)	0.199242
SAR 1g (W/Kg)	0.379361

Z (mm)	0.00	4.00	9.00	14.00	19.00	24.00	29.00
SAR (W/Kg)	0.6218	0.4094	0.2391	0.1454	0.0870	0.0524	0.0317



3D screen shot	Hot spot position
	

Test Laboratory: AGC Lab **Date: Aug. 21,2020**

WCDMA Band Ⅴ Mid-Touch-Left (RMC)

DUT: Smart Phone; Type: NOTE 20 PRO

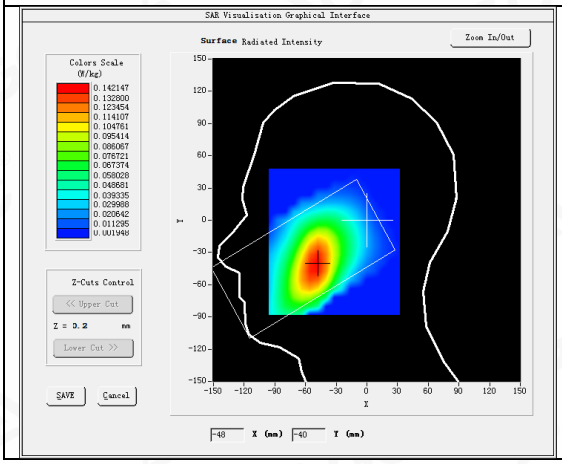
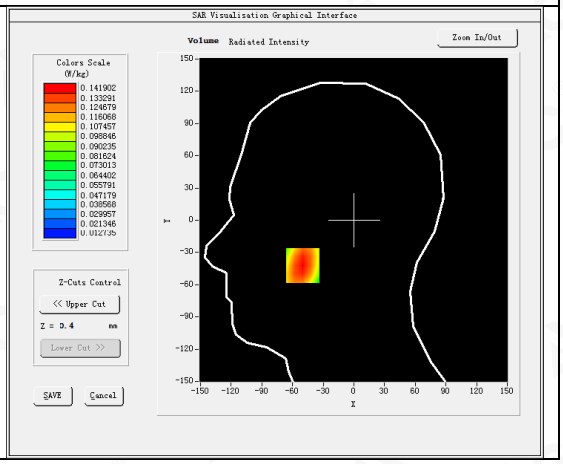
Communication System: UMTS; Communication System Band: BAND V UTRA/FDD ; Duty Cycle:1: 1; Conv.F=5.26;
Frequency: 836.6 MHz; Medium parameters used: f = 835MHz; σ=0.91 mho/m; εr =39.62; ρ= 1000 kg/m³ ;
Phantom section: Left Section
Ambient temperature (℃): 21.6, Liquid temperature (℃): 21.3

SATIMO Configuration:

- Probe: SSE5; Calibrated: Jun. 24,2020; Serial No.: SN 24/20 EP336
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Phantom: SAM twin phantom
- Measurement SW: OpenSAR V4_02_35

Configuration/ WCDMA Band V Mid-Touch-Left/Area Scan: Measurement grid: dx=8mm, dy=8mm
Configuration/ WCDMA Band V Mid-Touch-Left/Zoom Scan: Measurement grid: dx=8mm, dy=8mm, dz=5mm

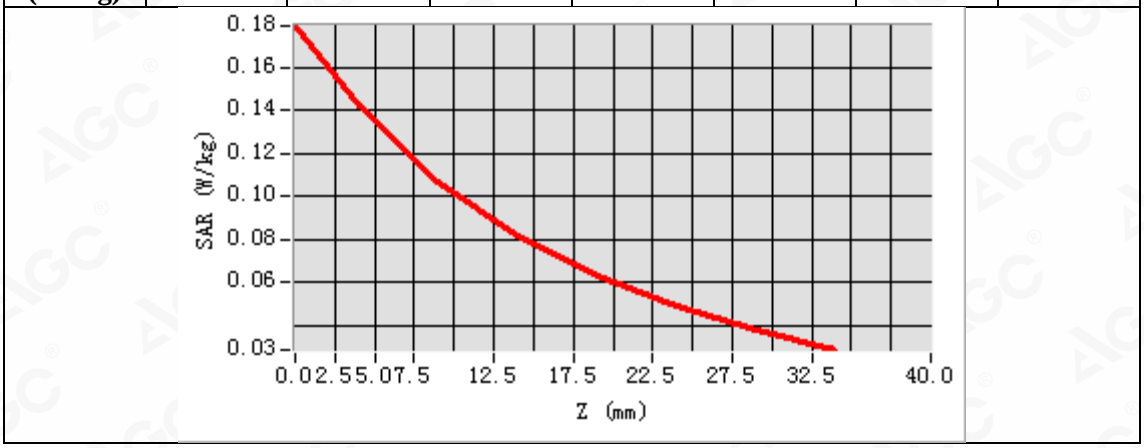
Area Scan	dx=8mm dy=8mm, h= 5.00 mm
ZoomScan	5x5x7,dx=8mm dy=8mm dz=5mm,Complete
Phantom	Left head
Device Position	Cheek
Band	WCDMA Band V
Channels	Middle
Signal	CDMA (Crest factor: 1.0)

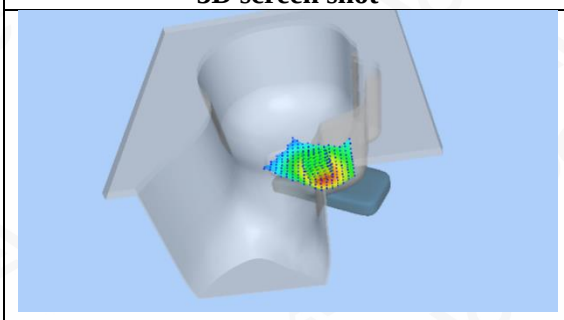
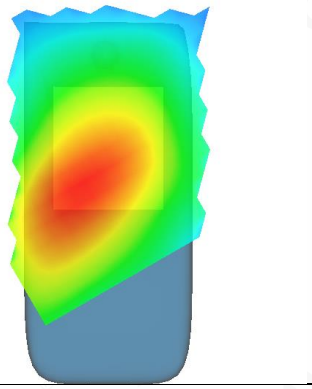
SURFACE SAR	VOLUME SAR
	

Maximum location: X=-50.00, Y=-42.00
SAR Peak: 0.18 W/kg

SAR 10g (W/Kg)	0.098306
SAR 1g (W/Kg)	0.137029

Z (mm)	0.00	4.00	9.00	14.00	19.00	24.00	29.00
SAR (W/Kg)	0.1794	0.1419	0.1068	0.0821	0.0632	0.0488	0.0379



3D screen shot	Hot spot position
	

Test Laboratory: AGC Lab **Date: Aug. 21,2020**

WCDMA Band Ⅴ Mid-Body-Towards Grounds (RMC)

DUT: Smart Phone; Type: NOTE 20 PRO

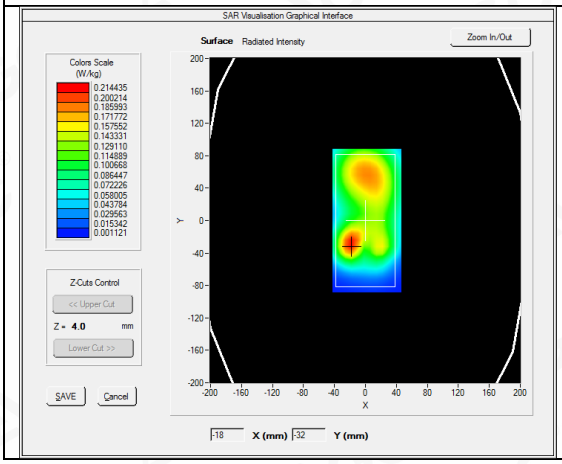
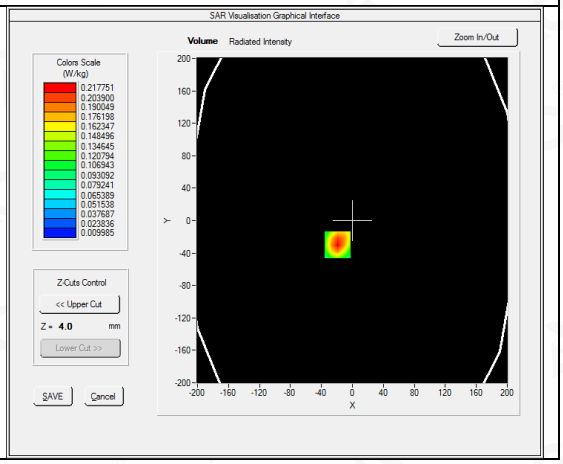
Communication System: UMTS; Communication System Band: BAND V UTRA/FDD; Duty Cycle:1: 1; Conv.F=5.26;
Frequency: 836.6 MHz; Medium parameters used: f = 835MHz; σ= 0.91 mho/m; εr = 39.62; ρ= 1000 kg/m³ ;
Phantom section: Flat Section
Ambient temperature (℃): 21.6, Liquid temperature (℃): 21.3

SATIMO Configuration:

- Probe: SSE5; Calibrated: Jun. 24,2020; Serial No.: SN 24/20 EP336
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Phantom: ELLI39 Phantom
- Measurement SW: OpenSAR V4_02_35

Configuration/ WCDMA Band V Mid-Body-Back/Area Scan: Measurement grid: dx=8mm, dy=8mm
Configuration/ WCDMA Band V Mid-Body-Back/Zoom Scan: Measurement grid: dx=8mm,dy=8mm, dz=5mm;

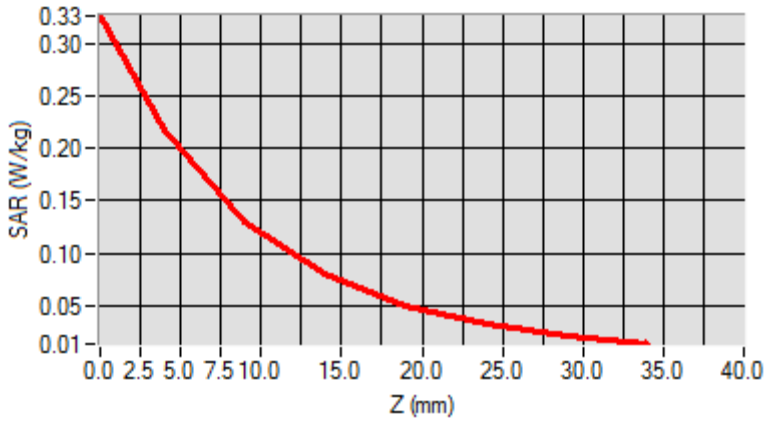
Area Scan	dx=8mm dy=8mm, h= 5.00 mm
ZoomScan	5x5x7,dx=8mm dy=8mm dz=5mm,Complete
Phantom	ELLI
Device Position	Body Back
Band	WCDMA Band V
Channels	Middle
Signal	CDMA (Crest factor: 1.0)

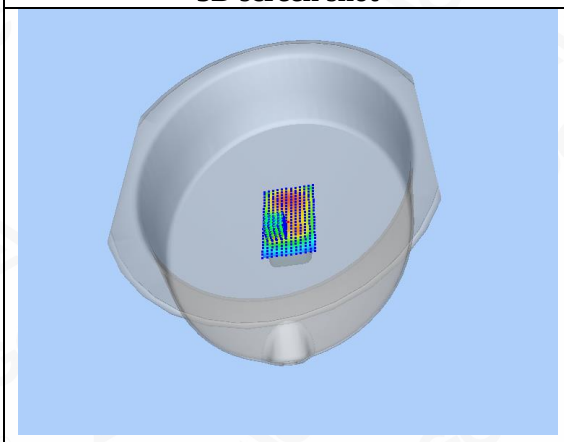
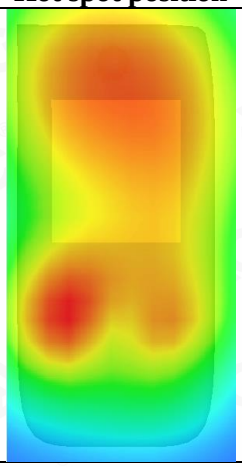
SURFACE SAR	VOLUME SAR
	

Maximum location: X=-19.00, Y=-30.00
SAR Peak: 0.32 W/kg

SAR 10g (W/Kg)	0.121067
SAR 1g (W/Kg)	0.207233

Z (mm)	0.00	4.00	9.00	14.00	19.00	24.00	29.00
SAR (W/Kg)	0.3258	0.2178	0.1303	0.0799	0.0500	0.0318	0.0206



3D screen shot	Hot spot position
	

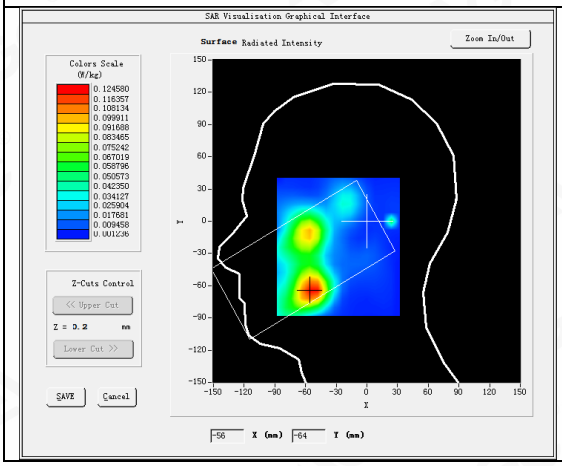
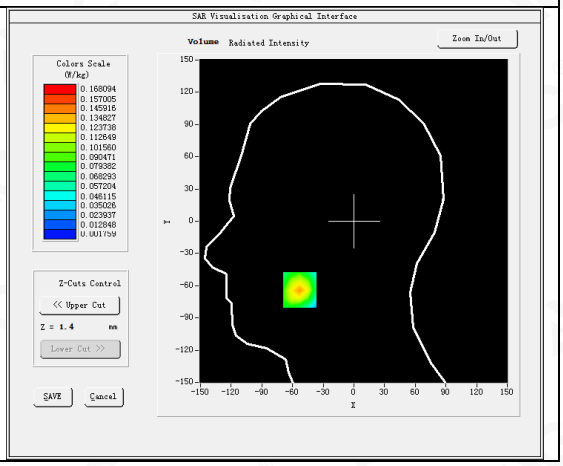
Test Laboratory: AGC Lab **Date: Aug. 20,2020**
LTE Band 2 Mid-Touch- Right (1 RB#0)
DUT: Smart Phone; Type: NOTE 20 PRO

Communication System: LTE; Communication System Band: LTE Band 2; Duty Cycle:1:1; Conv.F=4.72; Frequency:1880MHz; Medium parameters used: f =1900 MHz; σ= 1.34 mho/m; εr =40.02; ρ= 1000 kg/m³ ; Phantom section: Left Section
Ambient temperature (℃): 21.7, Liquid temperature (℃): 21.4

SATIMO Configuration:
- Probe: SSE5; Calibrated: Jun. 24,2020; Serial No.: SN 24/20 EP336
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Phantom: SAM twin phantom
- Measurement SW: OpenSAR V4_02_35

Configuration/ LTE Band 2 Mid- Touch- Right /Area Scan: Measurement grid: dx=8mm, dy=8mm
Configuration/ LTE Band 2 Mid- Touch- Right /Zoom Scan: Measurement grid: dx=8mm,dy=8mm, dz=5mm;

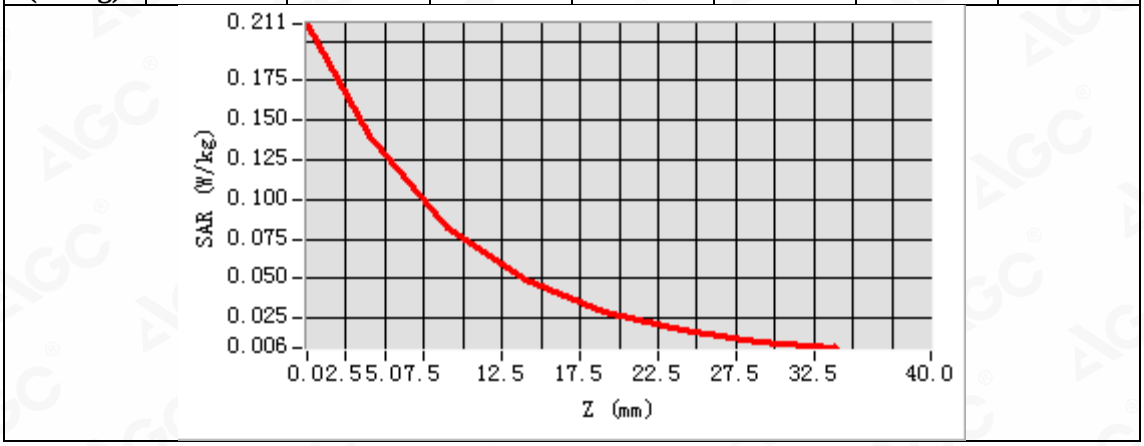
Area Scan	dx=8mm dy=8mm, h= 5.00 mm
Zoom Scan	5x5x7,dx=8mm dy=8mm dz=5mm
Phantom	Right head
Device Position	Cheek
Band	LTE Band 2
Channels	Middle
Signal	OFDM (Crest factor: 1.0)

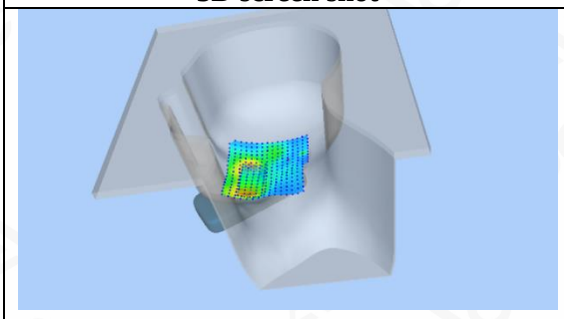
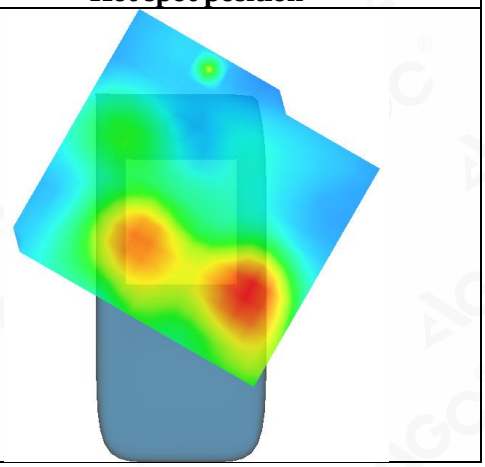
SURFACE SAR	VOLUME SAR
	

Maximum location: X=-53.00, Y=-64.00
SAR Peak: 0.22 W/kg

SAR 10g (W/Kg)	0.071872
SAR 1g (W/Kg)	0.131387

Z (mm)	0.00	4.00	9.00	14.00	19.00	24.00	29.00
SAR (W/Kg)	0.2108	0.1397	0.0819	0.0495	0.0290	0.0178	0.0104



3D screen shot	Hot spot position
	

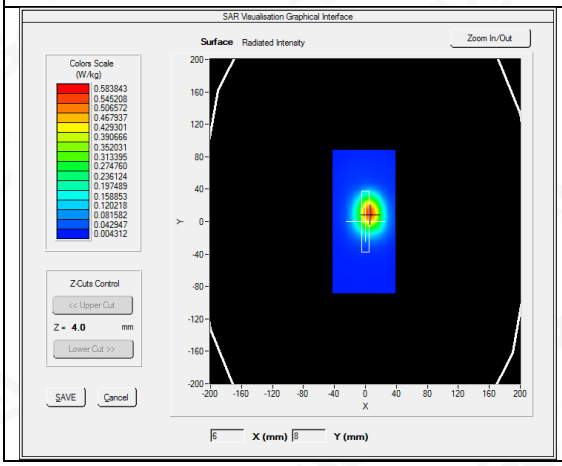
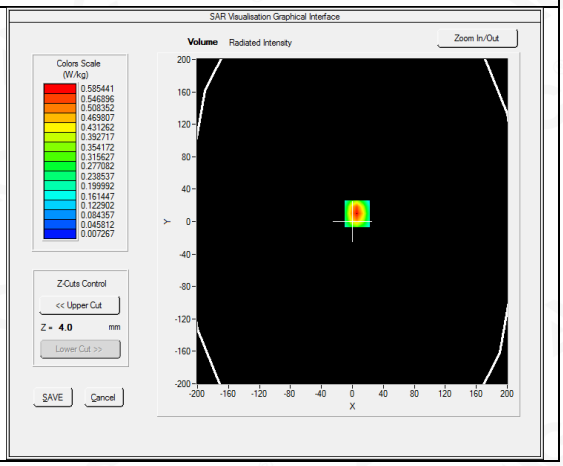
Test Laboratory: AGC Lab **Date: Aug. 20,2020**
LTE Band 2 Mid-Edge3 (1 RB#0)
DUT: Smart Phone; Type: NOTE 20 PRO

Communication System: LTE; Communication System Band: LTE Band 2; Duty Cycle:1:1; Conv.F=4.72; Frequency:1880MHz; Medium parameters used: f = 1900 MHz; σ= 1.34 mho/m; εr =40.02; ρ= 1000 kg/m³ ; Phantom section: Flat Section
Ambient temperature (℃): 21.7, Liquid temperature (℃): 21.4

SATIMO Configuration:
- Probe: SSE5; Calibrated: Jun. 24,2020; Serial No.: SN 24/20 EP336
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Phantom: ELLI39 Phantom
- Measurement SW: OpenSAR V4_02_35

Configuration/ LTE Band 2 Mid- Edge3/Area Scan: Measurement grid: dx=8mm, dy=8mm
Configuration/ LTE Band 2 Mid- Edge3/Zoom Scan: Measurement grid: dx=8mm,dy=8mm, dz=5m;

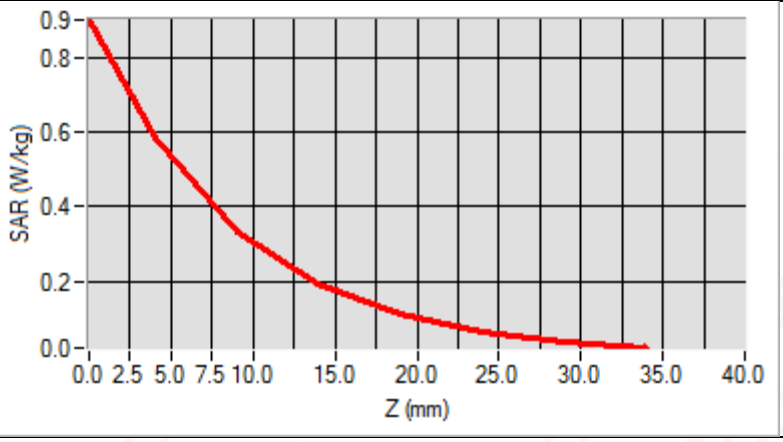
Area Scan	dx=8mm dy=8mm, h= 5.00 mm
Zoom Scan	5x5x7,dx=8mm dy=8mm dz=5mm
Phantom	ELLI
Device Position	Edge3
Band	LTE Band 2
Channels	Middle
Signal	OFDM (Crest factor: 1.0)

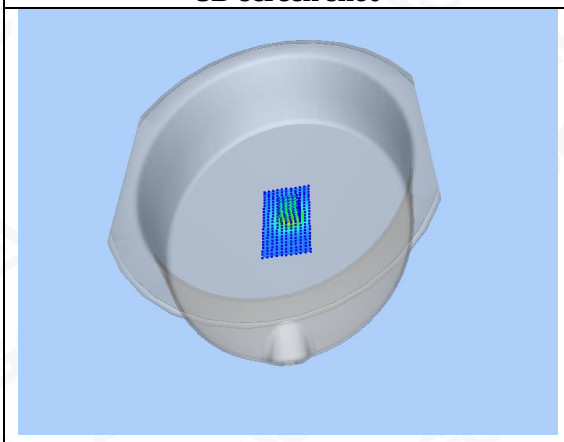
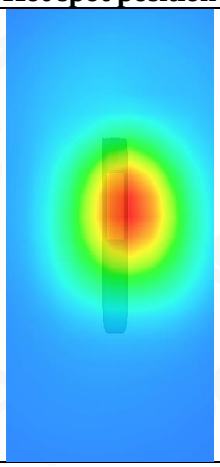
SURFACE SAR	VOLUME SAR
	

Maximum location: X=6.00, Y=10.00
SAR Peak: 0.90 W/kg

SAR 10g (W/Kg)	0.287903
SAR 1g (W/Kg)	0.549014

Z (mm)	0.00	4.00	9.00	14.00	19.00	24.00	29.00
SAR (W/Kg)	0.8996	0.5854	0.3332	0.1925	0.1098	0.0631	0.0365



3D screen shot	Hot spot position
	

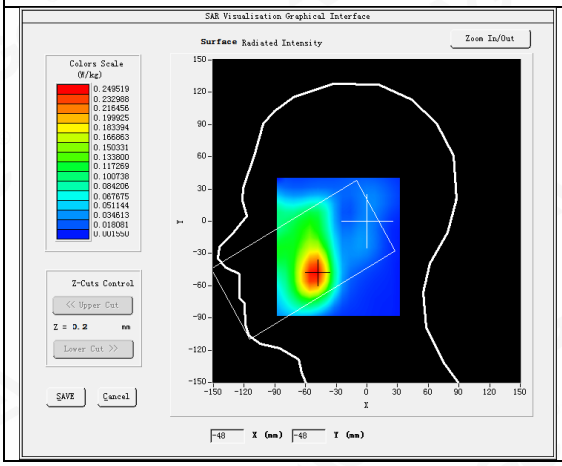
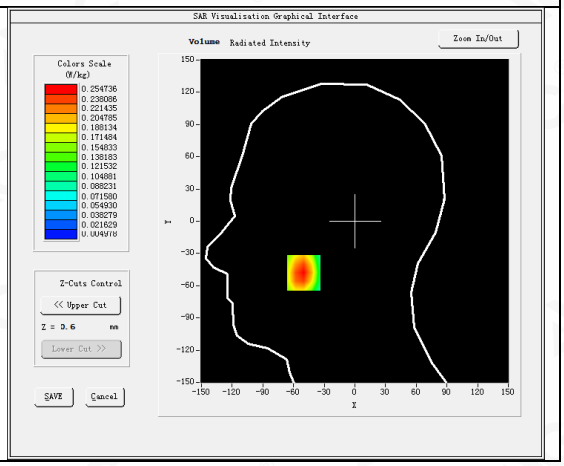
Test Laboratory: AGC Lab **Date: Aug. 28,2020**
LTE Band 4 Mid-Touch-Left (1 RB#0)
DUT: Smart Phone; Type: NOTE 20 PRO

Communication System: LTE; Communication System Band: LTE Band 4; Duty Cycle:1:1; Conv.F=4.48; Frequency:1732.5 MHz; Medium parameters used: f =1750 MHz; σ= 1.32 mho/m; εr =40.83; ρ= 1000 kg/m³ ;
Phantom section: Left Section
Ambient temperature (℃): 20.8, Liquid temperature (℃): 20.5

SATIMO Configuration:
- Probe: SSE5; Calibrated: Jun. 24,2020; Serial No.: SN 24/20 EP336
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Phantom: SAM twin phantom
- Measurement SW: OpenSAR V4_02_35

Configuration/ LTE Band 4 Mid- Touch-Left /Area Scan: Measurement grid: dx=8mm, dy=8mm
Configuration/ LTE Band 4 Mid- Touch-Left /Zoom Scan: Measurement grid: dx=8mm,dy=8mm, dz=5mm;

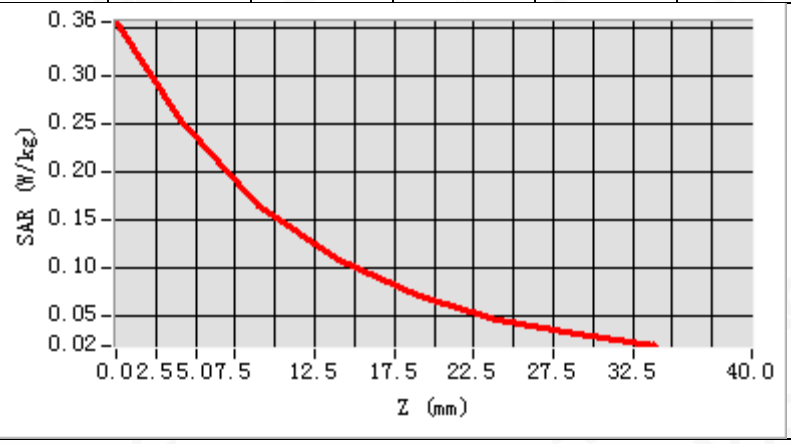
Area Scan	dx=8mm dy=8mm, h= 5.00 mm
Zoom Scan	5x5x7,dx=8mm dy=8mm dz=5mm
Phantom	Left head
Device Position	Cheek
Band	LTE Band 4
Channels	Middle
Signal	OFDM (Crest factor: 1.0)

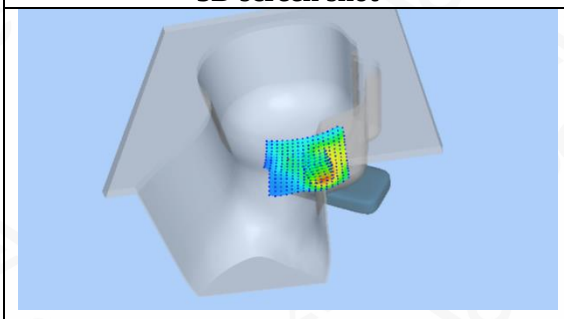
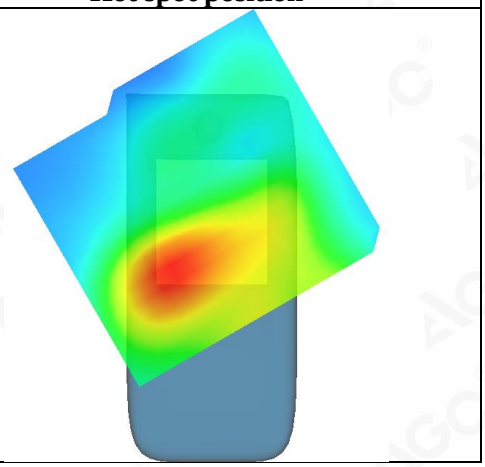
SURFACE SAR	VOLUME SAR
	

Maximum location: X=-50.00, Y=-48.00
SAR Peak: 0.36 W/kg

SAR 10g (W/Kg)	0.149503
SAR 1g (W/Kg)	0.244192

Z (mm)	0.00	4.00	9.00	14.00	19.00	24.00	29.00
SAR (W/Kg)	0.3573	0.2547	0.1658	0.1100	0.0723	0.0477	0.0314



3D screen shot	Hot spot position
	

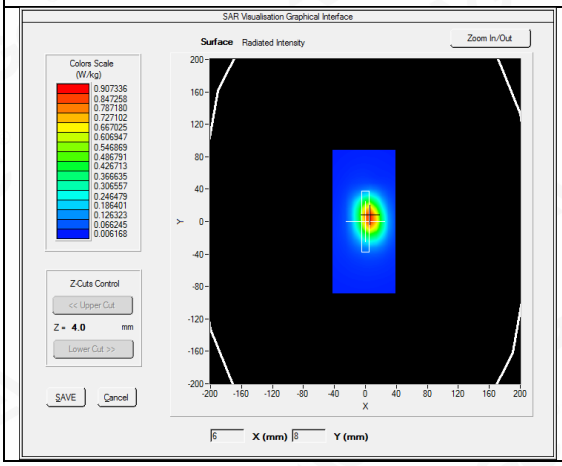
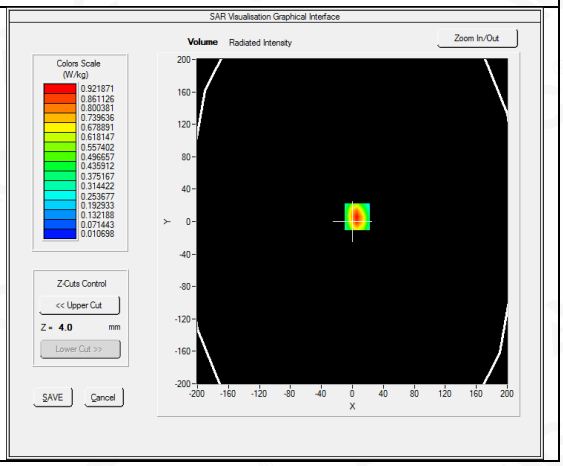
Test Laboratory: AGC Lab **Date: Aug. 28,2020**
LTE Band 4 High- Edge3 (1 RB#0)
DUT: Smart Phone; Type: NOTE 20 PRO

Communication System: LTE; Communication System Band: LTE Band 4; Duty Cycle:1:1; Conv.F=4.48; Frequency:1745 MHz; Medium parameters used: f = 1800 MHz; σ= 1.34mho/m; εr =40.20; ρ= 1000 kg/m^3 ;
Phantom section: Flat Section
Ambient temperature (℃): 20.8, Liquid temperature (℃): 20.5

SATIMO Configuration:
- Probe: SSE5; Calibrated: Jun. 24,2020; Serial No.: SN 24/20 EP336
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Phantom: ELLI39 Phantom
- Measurement SW: OpenSAR V4_02_35

Configuration/ LTE Band 4 High- Edge3/Area Scan: Measurement grid: dx=8mm, dy=8mm
Configuration/ LTE Band 4 High- Edge3/Zoom Scan: Measurement grid: dx=8mm,dy=8mm, dz=5m;

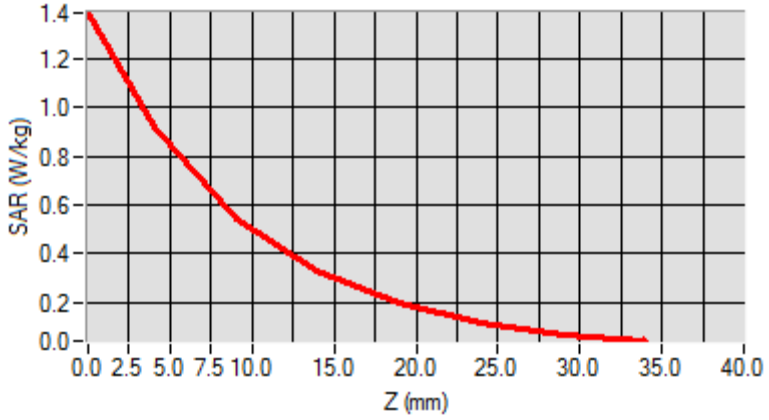
Area Scan	dx=8mm dy=8mm, h= 5.00 mm
Zoom Scan	5x5x7,dx=8mm dy=8mm dz=5mm
Phantom	ELLI
Device Position	Edge3
Band	LTE Band 4
Channels	High
Signal	OFDM (Crest factor: 1.0)

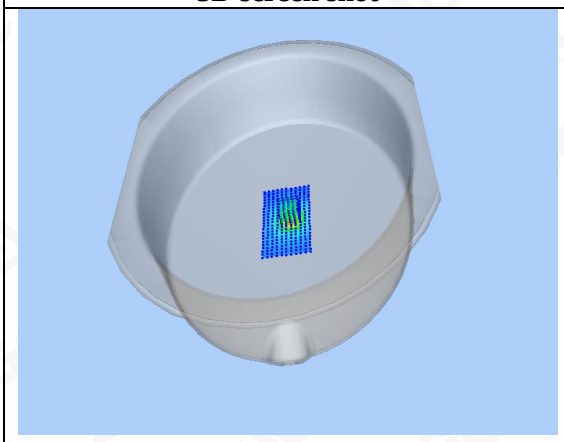
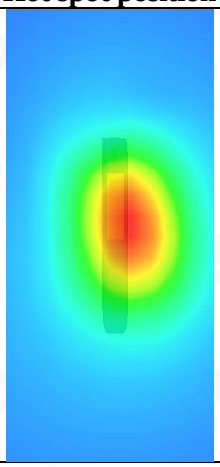
SURFACE SAR	VOLUME SAR
	

Maximum location: X=6.00, Y=6.00
SAR Peak: 1.38 W/kg

SAR 10g (W/Kg)	0.474071
SAR 1g (W/Kg)	0.866330

Z (mm)	0.00	4.00	9.00	14.00	19.00	24.00	29.00
SAR (W/Kg)	1.3885	0.9219	0.5439	0.3298	0.1976	0.1174	0.0701



3D screen shot	Hot spot position
	

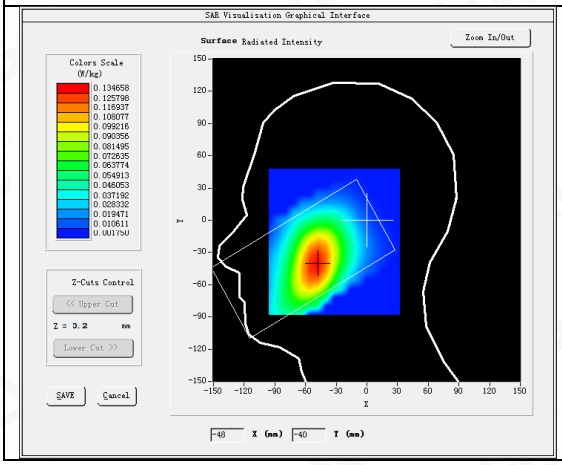
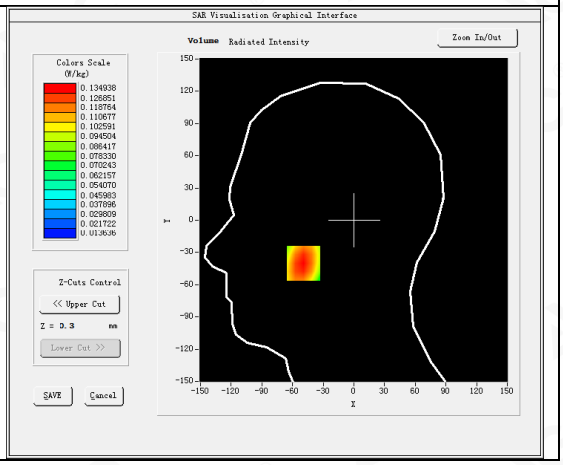
Test Laboratory: AGC Lab **Date: Aug. 15,2020**
LTE Band 5 Mid-Touch-Left (1 RB#0)
DUT: Smart Phone; Type: NOTE 20 PRO

Communication System: LTE; Communication System Band: LTE Band 5; Duty Cycle:1:1; Conv.F=5.26
Frequency: 836.5 MHz; Medium parameters used: f = 835 MHz; σ=0.89 mho/m; εr =40.53; ρ= 1000 kg/m³ ;
Phantom section: Left Section
Ambient temperature (℃): 20.3, Liquid temperature (℃): 20.1

SATIMO Configuration:
Probe: SSE5; Calibrated: Jun. 24,2020; Serial No.: SN 24/20 EP336
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Phantom: SAM twin phantom
- Measurement SW: OpenSAR V4_02_35

Configuration/ LTE Band 5 Mid- Touch-Left /Area Scan: Measurement grid: dx=8mm, dy=8mm
Configuration/ LTE Band 5 Mid- Touch-Left /Zoom Scan: Measurement grid: dx=8mm,dy=8mm, dz=5mm;

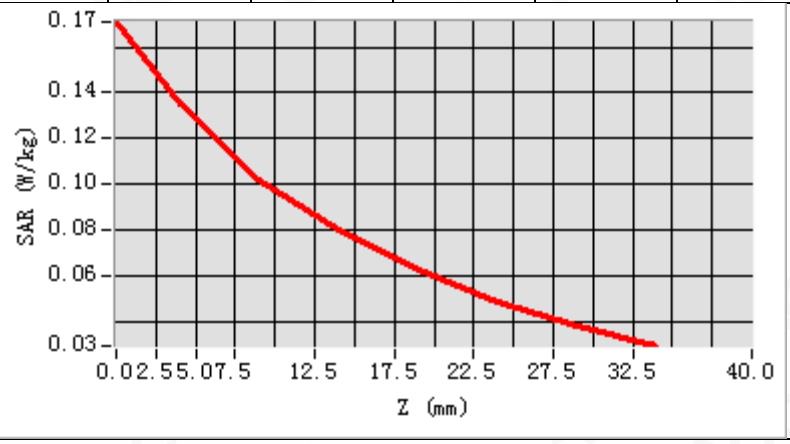
Area Scan	dx=8mm dy=8mm, h= 5.00 mm
Zoom Scan	5x5x7,dx=8mm dy=8mm dz=5mm
Phantom	Left head
Device Position	Cheek
Band	LTE Band 5
Channels	Middle
Signal	OFDM (Crest factor: 1.0)

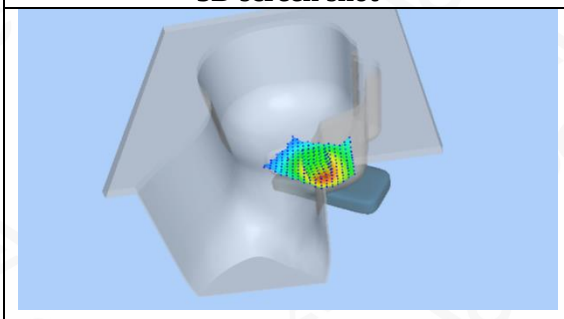
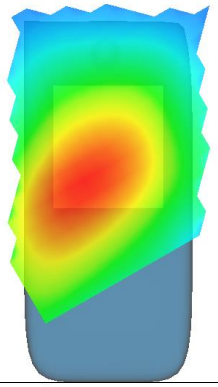
SURFACE SAR	VOLUME SAR
	

Maximum location: X=-49.00, Y=-40.00
SAR Peak: 0.17 W/kg

SAR 10g (W/Kg)	0.094482
SAR 1g (W/Kg)	0.131099

Z (mm)	0.00	4.00	9.00	14.00	19.00	24.00	29.00
SAR (W/Kg)	0.1711	0.1349	0.1022	0.0803	0.0624	0.0487	0.0377



3D screen shot	Hot spot position
	

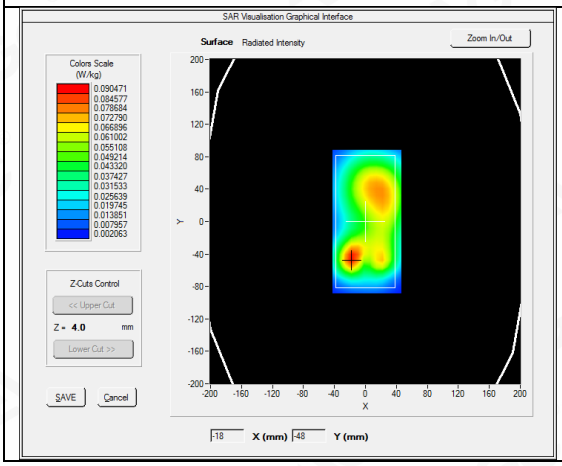
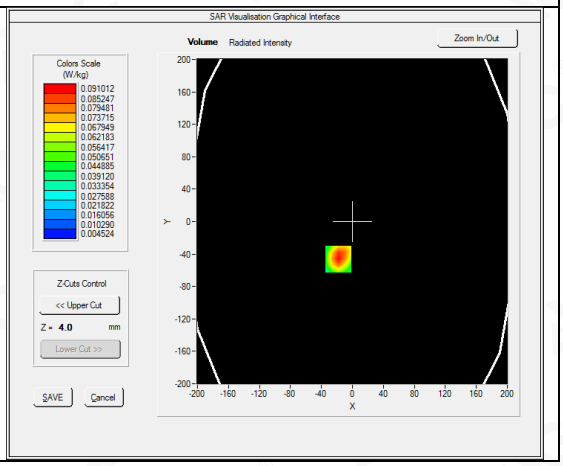
Test Laboratory: AGC Lab **Date: Aug. 15,2020**
LTE Band 5 Mid-Body-Back (1 RB#0)
DUT: Smart Phone; Type: NOTE 20 PRO

Communication System: LTE; Communication System Band: LTE Band 5; Duty Cycle:1:1; Conv.F=5.26
Frequency:836.5 MHz; Medium parameters used: f = 835 MHz; σ=0.89mho/m; εr =40.53; ρ= 1000 kg/m³ ;
Phantom section: Flat Section
Ambient temperature (℃): 20.3, Liquid temperature (℃): 20.1

SATIMO Configuration:
- Probe: SSE5; Calibrated: Jun. 24,2020; Serial No.: SN 24/20 EP336
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Phantom: ELLI39 Phantom
- Measurement SW: OpenSAR V4_02_35

Configuration/ LTE Band 5 Mid-Body-back/Area Scan: Measurement grid: dx=8mm, dy=8mm
Configuration/ LTE Band 5 Mid-Body-back/Zoom Scan: Measurement grid: dx=8mm,dy=8mm, dz=5m;

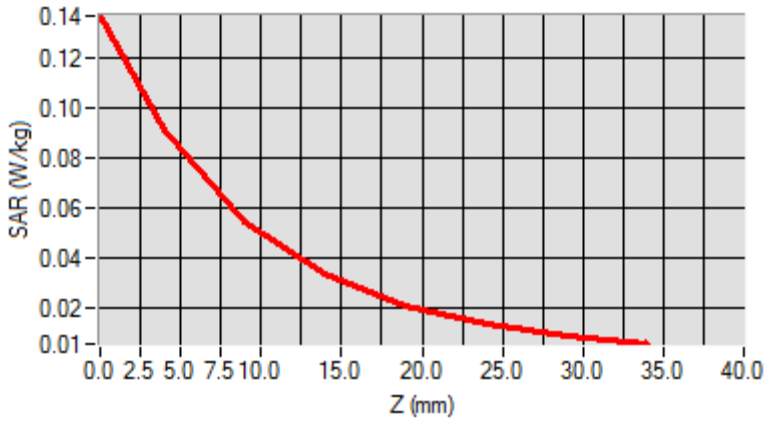
Area Scan	dx=8mm dy=8mm, h= 5.00 mm
Zoom Scan	5x5x7,dx=8mm dy=8mm dz=5mm
Phantom	ELLI
Device Position	Body Back
Band	LTE Band 5
Channels	Middle
Signal	OFDM (Crest factor: 1.0)

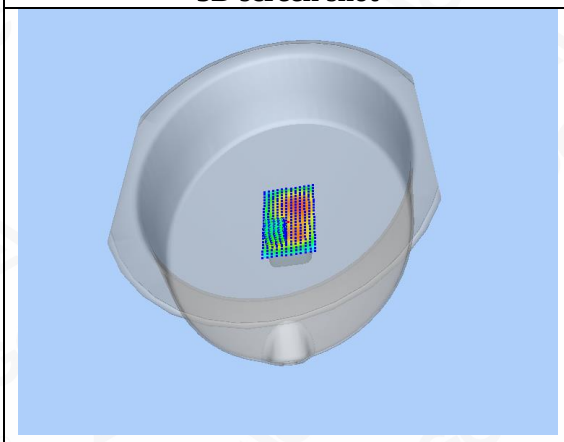
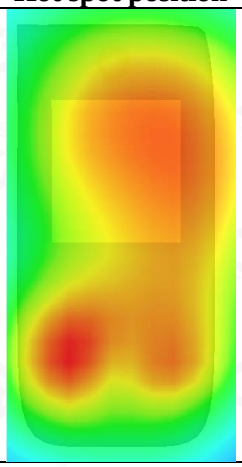
SURFACE SAR	VOLUME SAR
	

Maximum location: X=-18.00, Y=-46.00
SAR Peak: 0.14 W/kg

SAR 10g (W/Kg)	0.050887
SAR 1g (W/Kg)	0.086909

Z (mm)	0.00	4.00	9.00	14.00	19.00	24.00	29.00
SAR (W/Kg)	0.1367	0.0910	0.0545	0.0336	0.0214	0.0137	0.0089



3D screen shot	Hot spot position
	

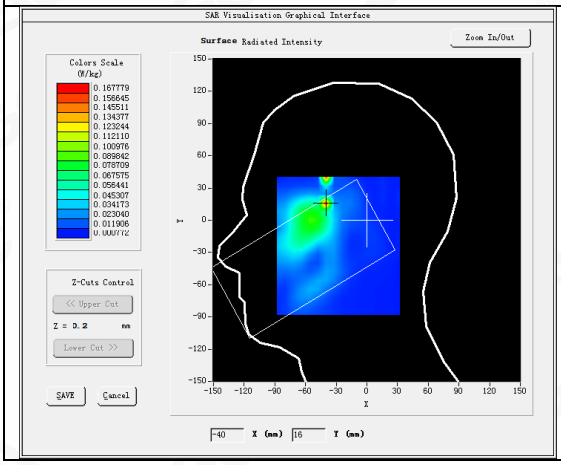
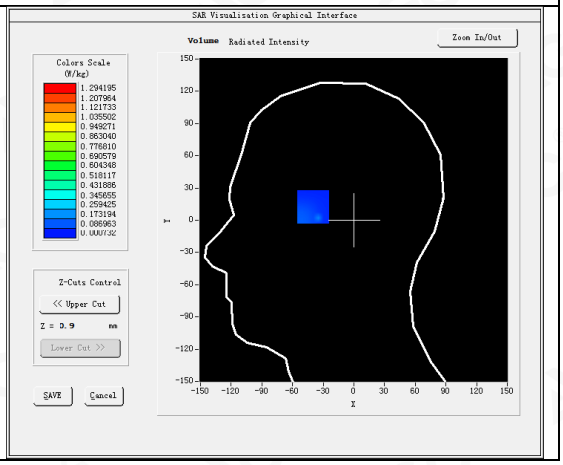
Test Laboratory: AGC Lab **Date: Aug. 27,2020**
LTE Band 7 Mid-Touch-Left (1RB#0)
DUT: Smart Phone; Type: NOTE 20 PRO

Communication System: LTE; Communication System Band: LTE Band 7; Duty Cycle:1:1; Conv.F=3.81
Frequency: 2535MHz; Medium parameters used: f =2600 MHz; σ=1.85 mho/m; εr =39.91; ρ= 1000 kg/m³ ;
Phantom section: Left Section
Ambient temperature (℃): 19.5, Liquid temperature (℃): 19.2

SATIMO Configuration:
- Probe: SSE5; Calibrated: Jun. 24,2020; Serial No.: SN 24/20 EP336
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Phantom: SAM twin phantom
- Measurement SW: OpenSAR V4_02_35

Configuration/ LTE BAND 7 Mid-Touch-Left/Area Scan: Measurement grid: dx=8mm, y=8mm
Configuration/ LTE BAND 7 Mid-Touch-Left/Zoom Scan: Measurement grid: dx=5mm, dy=5mm, dz=5mm

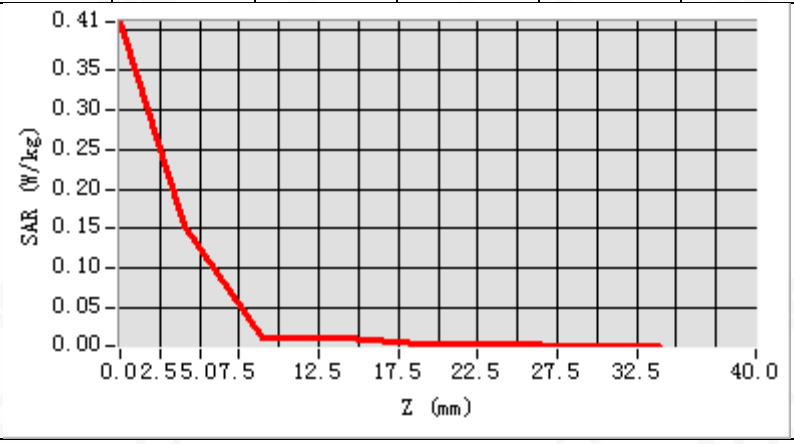
Area Scan	dx=8mm dy=8mm, h= 5.00 mm
ZoomScan	7x7x7,dx=5mm dy=5mm dz=5mm
Phantom	Left head
Device Position	Cheek
Band	LTE BAND 7
Channels	Middle
Signal	OFDM (Crest factor: 1.0)

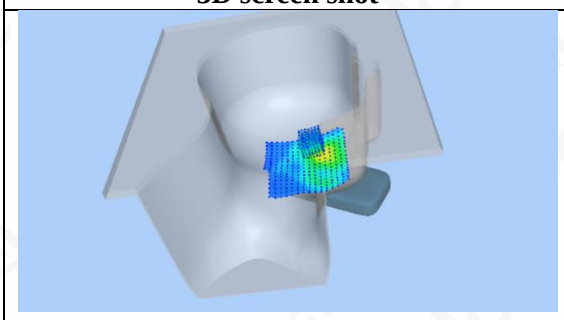
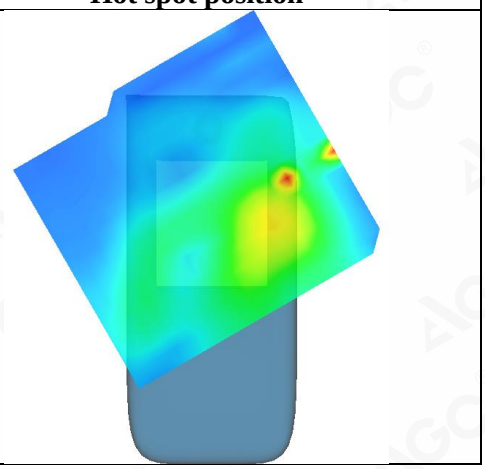
SURFACE SAR	VOLUME SAR
	

Maximum location: X=-40.00, Y=16.00
SAR Peak: 0.48 W/kg

SAR 10g (W/Kg)	0.021902
SAR 1g (W/Kg)	0.095049

Z (mm)	0.00	4.00	9.00	14.00	19.00	24.00	29.00
SAR (W/Kg)	0.4111	0.1543	0.0126	0.0123	0.0038	0.0039	0.0018



3D screen shot	Hot spot position
	

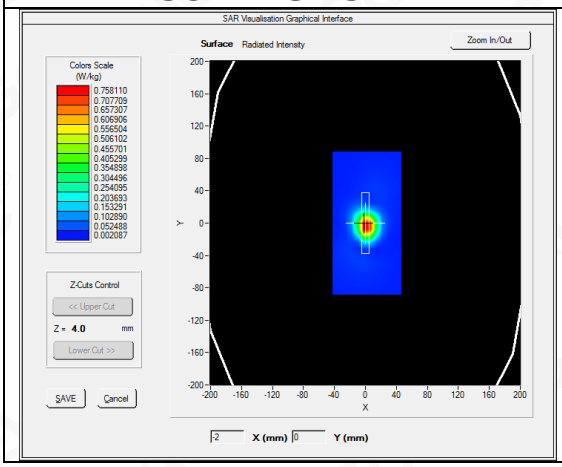
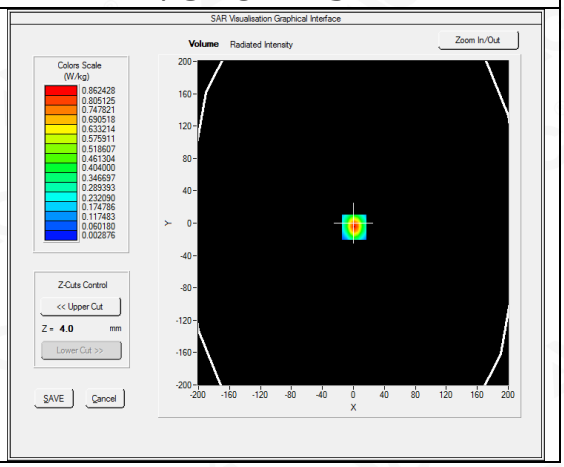
Test Laboratory: AGC Lab **Date: Aug. 27,2020**
LTE Band 7 Mid-Edge3(1RB#0)
DUT: Smart Phone; Type: NOTE 20 PRO

Communication System: LTE; Communication System Band: LTE Band 7; Duty Cycle:1:1; Conv.F=3.81
Frequency: 2535MHz; Medium parameters used: f =2600 MHz; σ=1.85 mho/m; εr =39.91; ρ= 1000 kg/m^3 ;
Phantom section: Flat Section
Ambient temperature (℃): 19.5, Liquid temperature (℃): 19.2

SATIMO Configuration:
- Probe: SSE5; Calibrated: Jun. 24,2020; Serial No.: SN 24/20 EP336
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Phantom: ELLI39 Phantom
- Measurement SW: OpenSAR V4_02_35

Configuration/ LTE BAND 7 Mid- Edge3 /Area Scan: Measurement grid: dx=10mm, y=10mm
Configuration/ LTE BAND 7 Mid- Edge3 /Zoom Scan: Measurement grid: dx=5mm, dy=5mm, dz=5mm

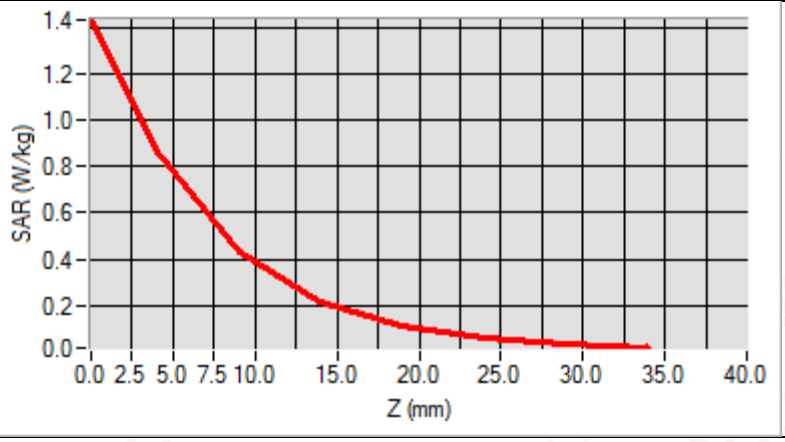
Area Scan	dx=8mm dy=8mm, h= 5.00 mm
ZoomScan	7x7x7,dx=5mm dy=5mm dz=5mm
Phantom	ELLI
Device Position	Edge3
Band	LTE BAND 7
Channels	Middle
Signal	OFDM (Crest factor: 1.0)

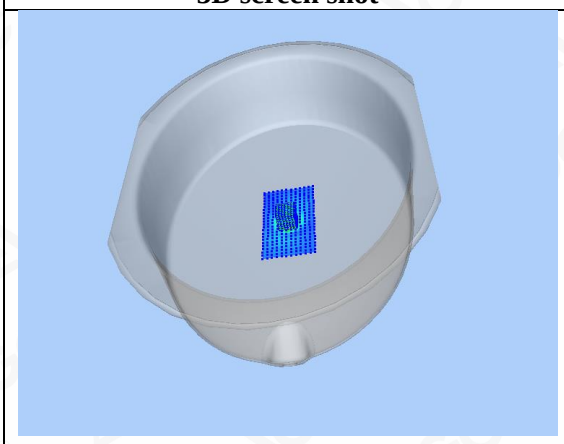
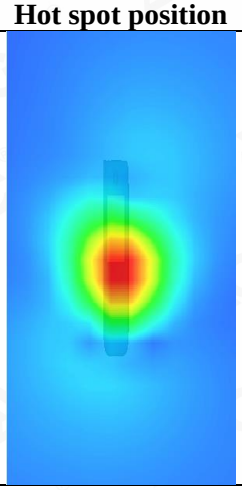
SURFACE SAR	**VOLUME SAR**
	

Maximum location: X=1.00, Y=-5.00
SAR Peak: 1.42 W/kg

SAR 10g (W/Kg)	0.354195
SAR 1g (W/Kg)	0.742480

Z (mm)	0.00	4.00	9.00	14.00	19.00	24.00	29.00
SAR (W/Kg)	1.4334	0.8624	0.4336	0.2178	0.1106	0.0565	0.0294



3D screen shot	Hot spot position
	

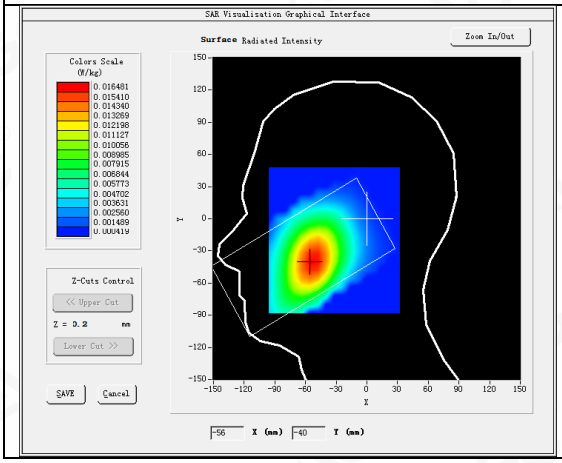
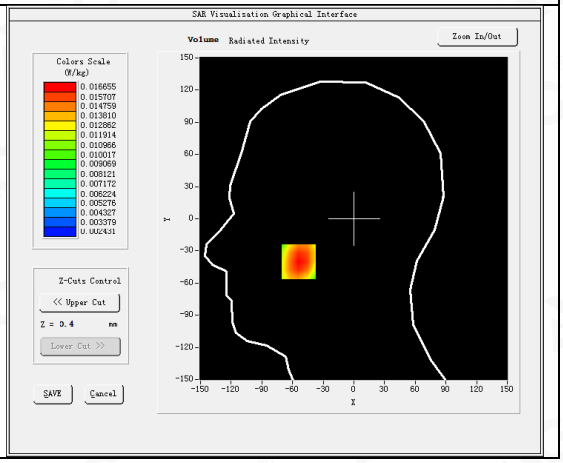
Test Laboratory: AGC Lab **Date: Aug. 22,2020**
LTE Band 12 Mid-Touch-Left (1 RB#0)
DUT: Smart Phone; Type: NOTE 20 PRO

Communication System: LTE; Communication System Band: LTE Band 12; Duty Cycle:1:1; Conv.F=5.06
Frequency: 707.5 MHz; Medium parameters used: f = 750 MHz; σ=0.88 mho/m; εr =43.73; ρ= 1000 kg/m³ ;
Phantom section: Left Section
Ambient temperature (℃): 20.9, Liquid temperature (℃): 20.7

SATIMO Configuration:
- Probe: SSE5; Calibrated: Jun. 24,2020; Serial No.: SN 24/20 EP336
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Phantom: SAM twin phantom
- Measurement SW: OpenSAR V4_02_35

Configuration/ LTE Band 12 Mid- Touch-Left /Area Scan: Measurement grid: dx=8mm, dy=8mm
Configuration/ LTE Band 12 Mid- Touch-Left /Zoom Scan: Measurement grid: dx=8mm,dy=8mm, dz=5mm;

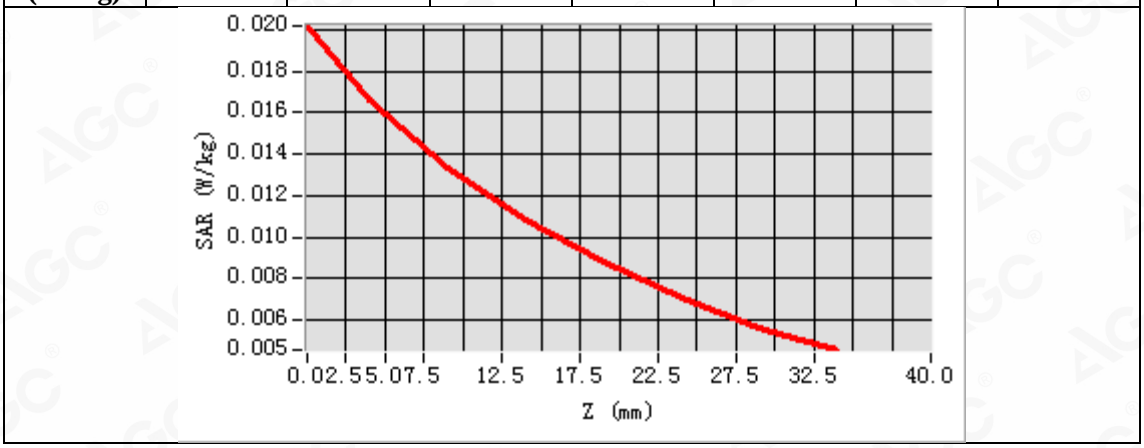
Area Scan	dx=8mm dy=8mm, h= 5.00 mm
Zoom Scan	5x5x7,dx=8mm dy=8mm dz=5mm
Phantom	Left head
Device Position	Cheek
Band	LTE Band 12
Channels	Middle
Signal	OFDM (Crest factor: 1.0)

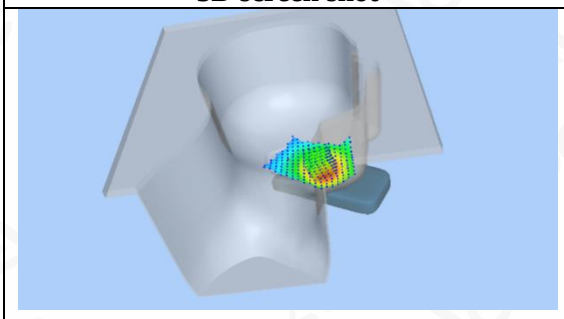
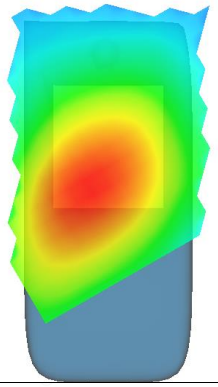
SURFACE SAR	VOLUME SAR
	

Maximum location: X=-54.00, Y=-40.00
SAR Peak: 0.02 W/kg

SAR 10g (W/Kg)	0.012435
SAR 1g (W/Kg)	0.016582

Z (mm)	0.00	4.00	9.00	14.00	19.00	24.00	29.00
SAR (W/Kg)	0.0202	0.0167	0.0133	0.0108	0.0088	0.0071	0.0056



3D screen shot	Hot spot position
	

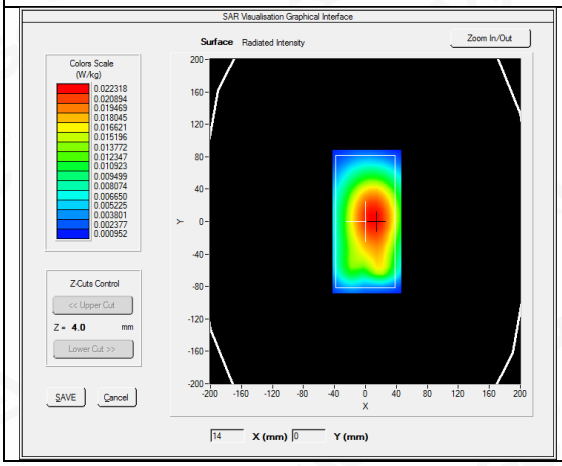
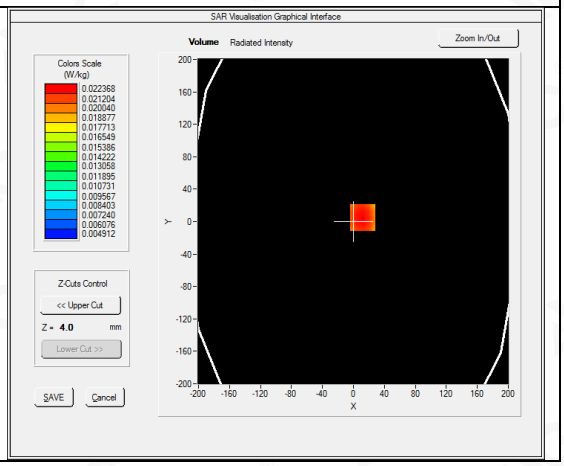
Test Laboratory: AGC Lab **Date: Aug. 22,2020**
LTE Band 12 Mid-Body-Back (1 RB#0)
DUT: Smart Phone; Type: NOTE 20 PRO

Communication System: LTE; Communication System Band: LTE Band 12; Duty Cycle:1:1; Conv.F=5.06;
Frequency: 707.5 MHz; Medium parameters used: f = 750 MHz; σ=0.88 mho/m; εr =43.73; ρ= 1000 kg/m³ ;
Phantom section: Flat Section
Ambient temperature (℃): 20.9, Liquid temperature (℃): 20.7

SATIMO Configuration:
- Probe: SSE5; Calibrated: Jun. 24,2020; Serial No.: SN 24/20 EP336
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Phantom: ELLI39 Phantom
- Measurement SW: OpenSAR V4_02_35

Configuration/ LTE Band 12 Mid-Body-back/Area Scan: Measurement grid: dx=8mm, dy=8mm
Configuration/ LTE Band 12 Mid-Body-back/Zoom Scan: Measurement grid: dx=8mm,dy=8mm, dz=5m;

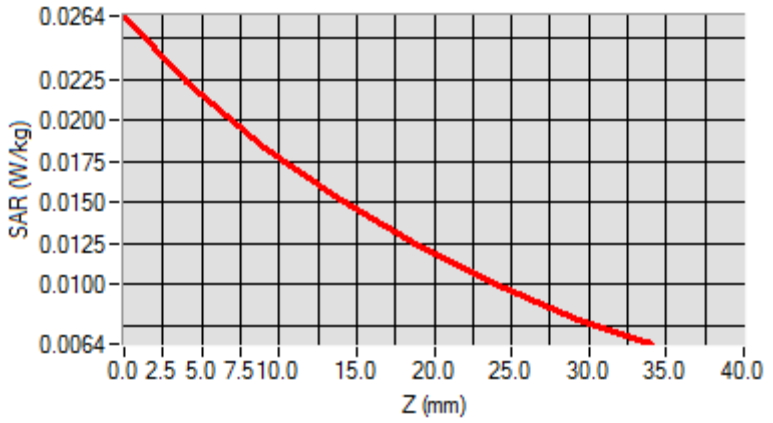
Area Scan	dx=8mm dy=8mm, h= 5.00 mm
Zoom Scan	5x5x7,dx=8mm dy=8mm dz=5mm
Phantom	ELLI
Device Position	Body Back
Band	LTE Band 12
Channels	Middle
Signal	OFDM (Crest factor: 1.0)

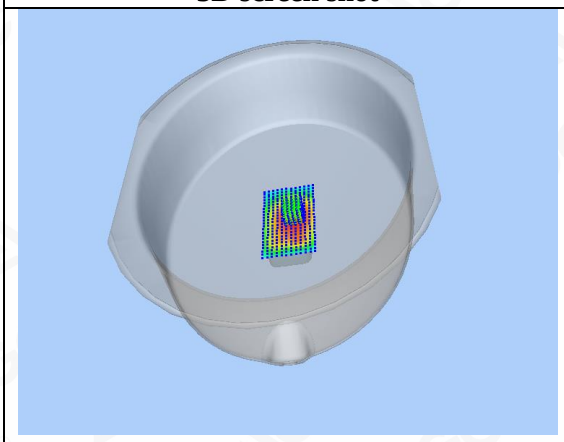
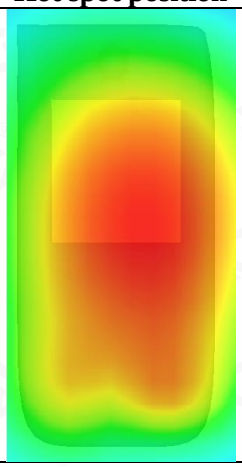
SURFACE SAR	VOLUME SAR
	

Maximum location: X=12.00, Y=5.00
SAR Peak: 0.03 W/kg

SAR 10g (W/Kg)	0.018159
SAR 1g (W/Kg)	0.023094

Z (mm)	0.00	4.00	9.00	14.00	19.00	24.00	29.00
SAR (W/Kg)	0.0264	0.0224	0.0183	0.0152	0.0123	0.0100	0.0080



3D screen shot	Hot spot position
	

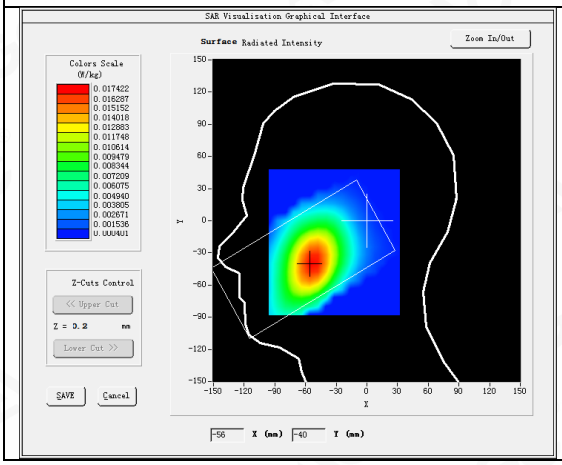
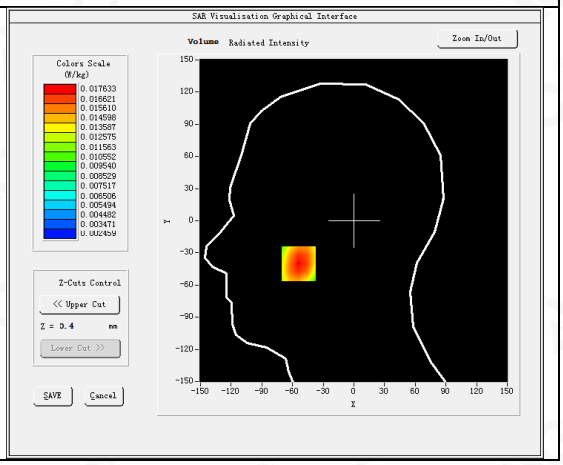
Test Laboratory: AGC Lab **Date: Aug. 22,2020**
LTE Band 17 Mid-Touch-Left (1 RB#0)
DUT: Smart Phone; Type: NOTE 20 PRO

Communication System: LTE; Communication System Band: LTE Band 17; Duty Cycle:1:1; Conv.F=5.06
Frequency: 710 MHz; Medium parameters used: f = 750 MHz; σ=0.90 mho/m; εr =43.61; ρ= 1000 kg/m³ ;
Phantom section: Left Section
Ambient temperature (℃): 20.9, Liquid temperature (℃): 20.7

SATIMO Configuration:
- Probe: SSE5; Calibrated: Jun. 24,2020; Serial No.: SN 24/20 EP336
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Phantom: SAM twin phantom
- Measurement SW: OpenSAR V4_02_35

Configuration/ LTE Band 17 Mid- Touch-Left /Area Scan: Measurement grid: dx=8mm, dy=8mm
Configuration/ LTE Band 17 Mid- Touch-Left /Zoom Scan: Measurement grid: dx=8mm,dy=8mm, dz=5mm;

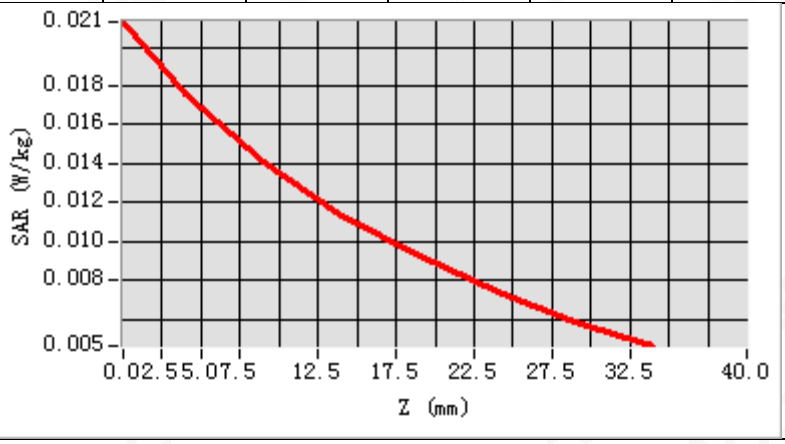
Area Scan	dx=8mm dy=8mm, h= 5.00 mm
Zoom Scan	5x5x7,dx=8mm dy=8mm dz=5mm
Phantom	Left head
Device Position	Cheek
Band	LTE Band 17
Channels	Middle
Signal	OFDM (Crest factor: 1.0)

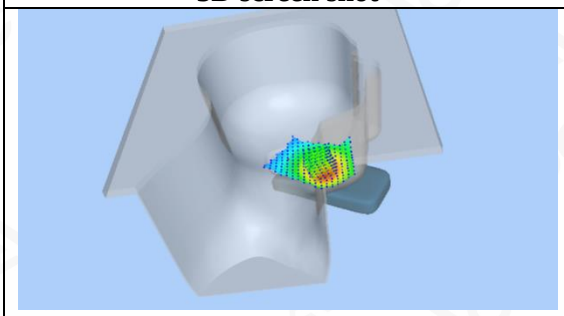
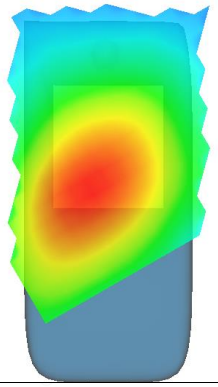
SURFACE SAR	VOLUME SAR
	

Maximum location: X=-54.00, Y=-40.00
SAR Peak: 0.02 W/kg

SAR 10g (W/Kg)	0.013093
SAR 1g (W/Kg)	0.017424

Z (mm)	0.00	4.00	9.00	14.00	19.00	24.00	29.00
SAR (W/Kg)	0.0213	0.0176	0.0141	0.0114	0.0092	0.0074	0.0059



3D screen shot	Hot spot position
	

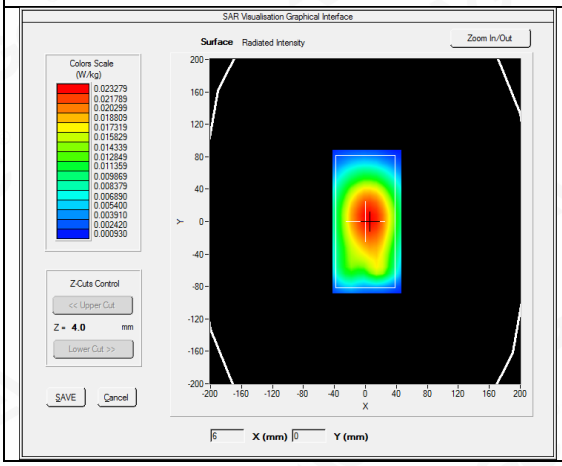
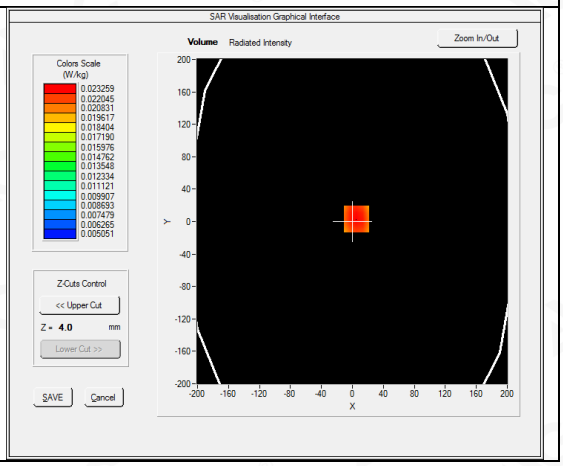
Test Laboratory: AGC Lab **Date: Aug. 22,2020**
LTE Band 17 Mid-Body-Back (1 RB#0)
DUT: Smart Phone; Type: NOTE 20 PRO

Communication System: LTE; Communication System Band: LTE Band 17; Duty Cycle:1:1; Conv.F=5.06;
Frequency: 710 MHz; Medium parameters used: f = 750 MHz; σ=0.90 mho/m; εr =43.61; ρ= 1000 kg/m³ ;
Phantom section: Flat Section
Ambient temperature (℃): 20.9, Liquid temperature (℃): 20.7

SATIMO Configuration:
- Probe: SSE5; Calibrated: Jun. 24,2020; Serial No.: SN 24/20 EP336
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Phantom: ELLI39 Phantom
- Measurement SW: OpenSAR V4_02_35

Configuration/ LTE Band 17 Mid-Body-back/Area Scan: Measurement grid: dx=8mm, dy=8mm
Configuration/ LTE Band 17 Mid-Body-back/Zoom Scan: Measurement grid: dx=8mm,dy=8mm, dz=5m;

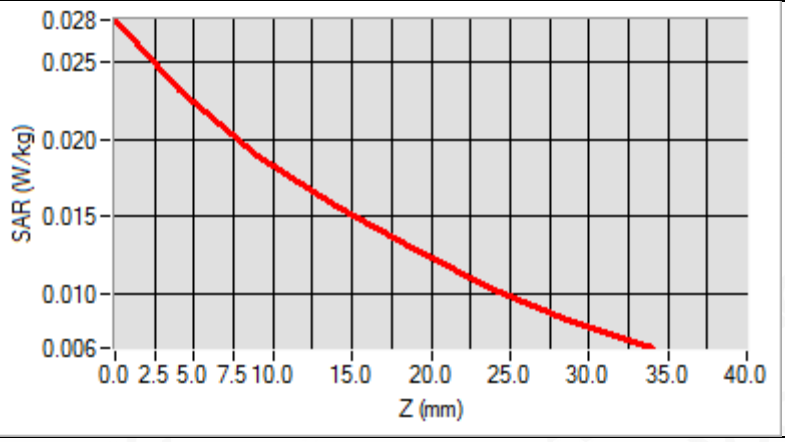
Area Scan	dx=8mm dy=8mm, h= 5.00 mm
Zoom Scan	5x5x7,dx=8mm dy=8mm dz=5mm
Phantom	ELLI
Device Position	Body Back
Band	LTE Band 17
Channels	Middle
Signal	OFDM (Crest factor: 1.0)

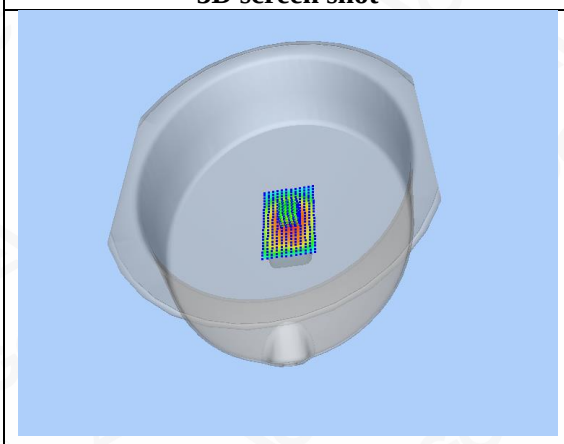
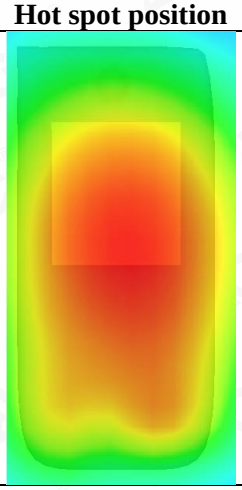
SURFACE SAR	VOLUME SAR
	

Maximum location: X=5.00, Y=3.00
SAR Peak: 0.03 W/kg

SAR 10g (W/Kg)	0.018850
SAR 1g (W/Kg)	0.024082

Z (mm)	0.00	4.00	9.00	14.00	19.00	24.00	29.00
SAR (W/Kg)	0.0278	0.0233	0.0190	0.0157	0.0128	0.0102	0.0081



3D screen shot	Hot spot position
	

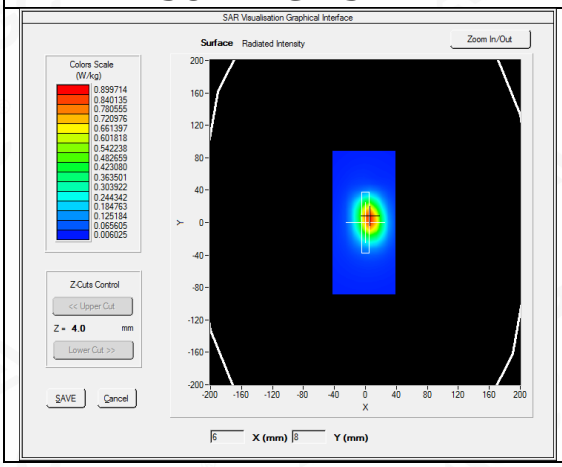
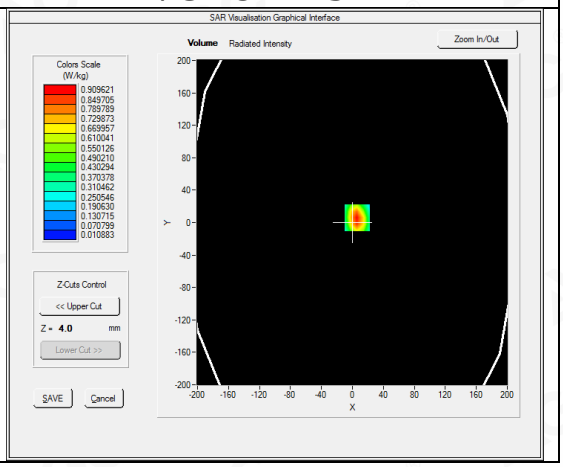
Repeated SAR
Test Laboratory: AGC Lab **Date: Aug. 28,2020**
LTE Band 4 High- Edge3 (1 RB#0)
DUT: Smart Phone; Type: NOTE 20 PRO

Communication System: LTE; Communication System Band: LTE Band 4; Duty Cycle:1:1; Conv.F=4.48; Frequency:1745 MHz; Medium parameters used: f = 1800 MHz; σ= 1.34mho/m; εr =40.20; ρ= 1000 kg/m³ ;
Phantom section: Flat Section
Ambient temperature (℃): 20.8, Liquid temperature (℃): 20.5

SATIMO Configuration:
- Probe: SSE5; Calibrated: Jun. 24,2020; Serial No.: SN 24/20 EP336
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Phantom: ELLI39 Phantom
- Measurement SW: OpenSAR V4_02_35

Configuration/ LTE Band 4 High- Edge3/Area Scan: Measurement grid: dx=8mm, dy=8mm
Configuration/ LTE Band 4 High- Edge3/Zoom Scan: Measurement grid: dx=8mm,dy=8mm, dz=5m;

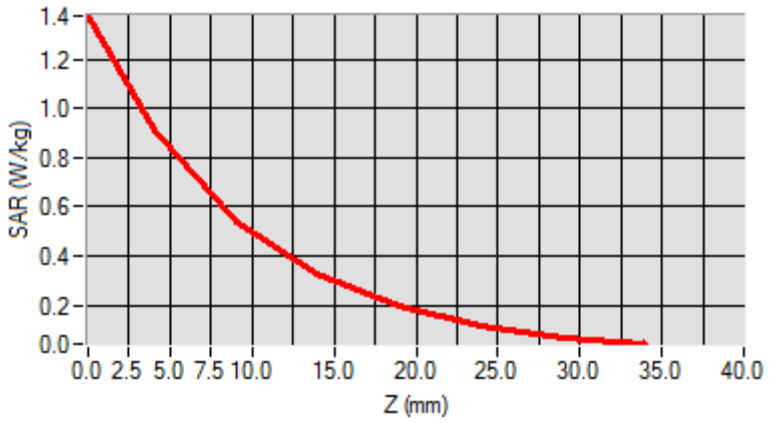
Area Scan	dx=8mm dy=8mm, h= 5.00 mm
Zoom Scan	5x5x7,dx=8mm dy=8mm dz=5mm
Phantom	ELLI
Device Position	Edge3
Band	LTE Band 4
Channels	High
Signal	OFDM (Crest factor: 1.0)

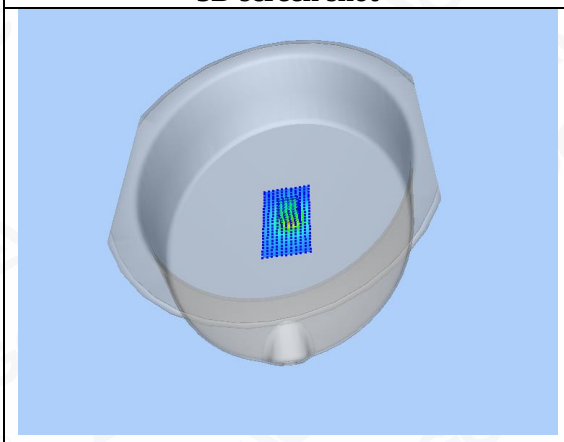
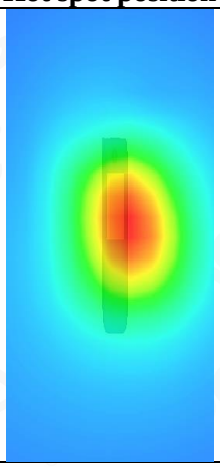
SURFACE SAR	VOLUME SAR
	

Maximum location: X=6.00, Y=6.00
SAR Peak: 1.37 W/kg

SAR 10g (W/Kg)	0.468562
SAR 1g (W/Kg)	0.857682

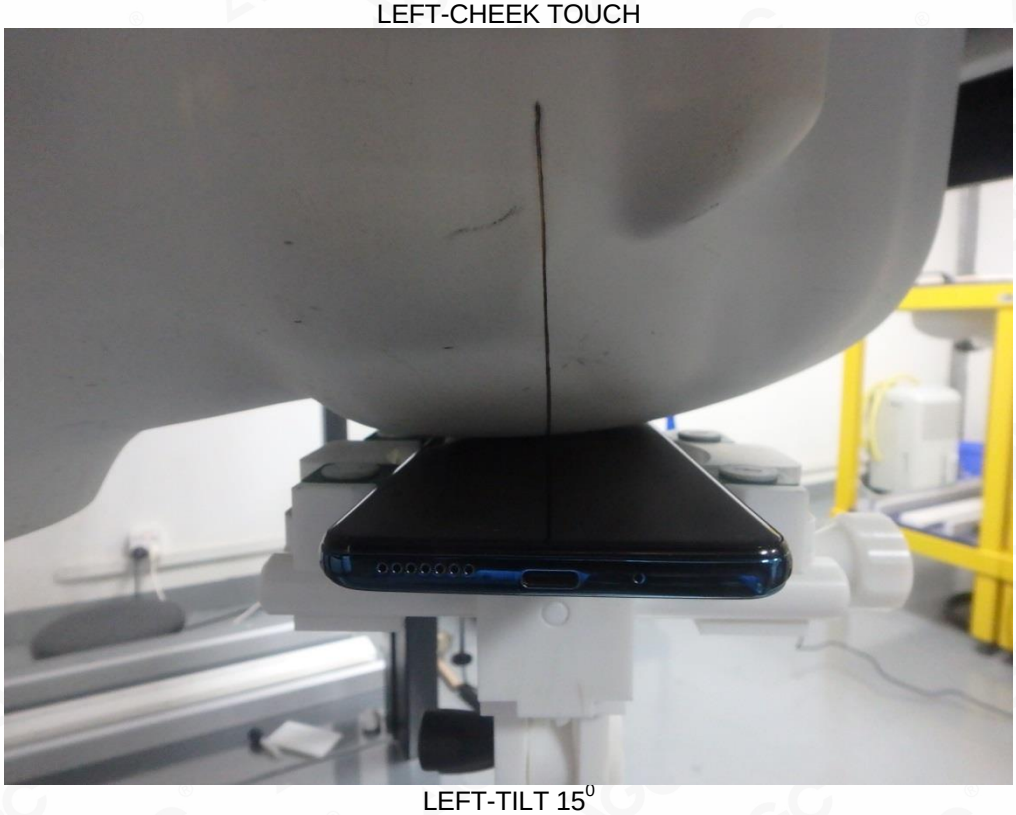
Z (mm)	0.00	4.00	9.00	14.00	19.00	24.00	29.00
SAR (W/Kg)	1.3756	0.9095	0.5347	0.3249	0.1960	0.1178	0.0704



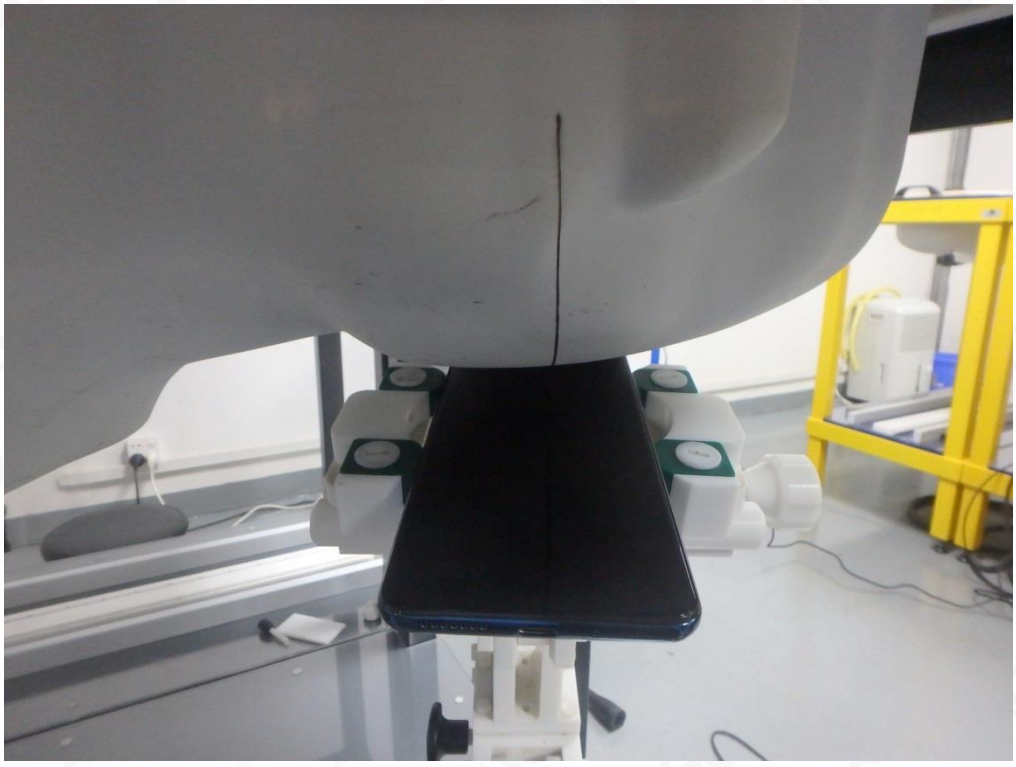
3D screen shot	Hot spot position
	

APPENDIX C. TEST SETUP PHOTOGRAPHS

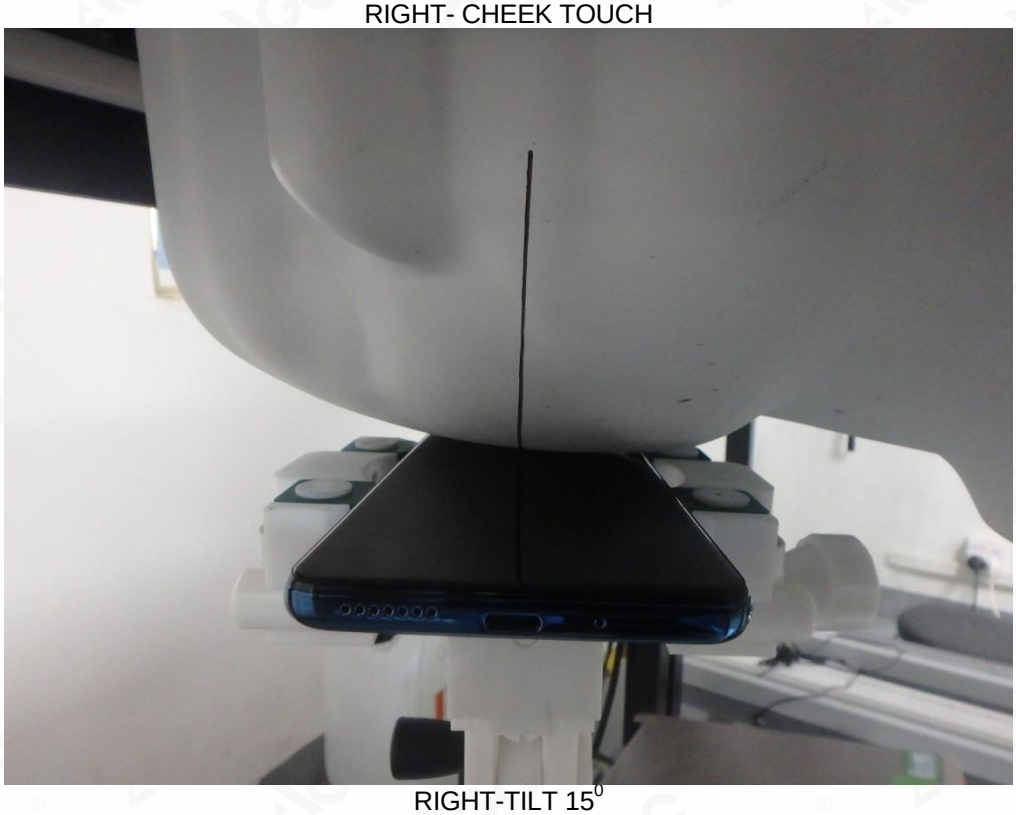
LEFT-CHEEK TOUCH



LEFT-TILT 15^0



RIGHT- CHEEK TOUCH



RIGHT-TILT 15^0