ATTACHMENT O - SAR TEST PLOTS -1/2-

1 of 37

**DATE: June 10, 2006** 

TEL: +82 31 639 8518 FAX: +82 31 639 8525 <u>www.hct.co.kr</u>

**DATE: June 10, 2006** 

Report No.: HCT-SAR06-0604 FCC ID

# Test Laboratory: HCT

Company: Smart Networks Limited
Mode: GSM850 / Channel: 128

Mode : GSM850 / Channel : 128 |Liquid Temperature : 22.4 ℃ / Ambient Temperature : 22.8 ℃

Date Tested: June 09, 2006

#### DUT: SP-115C; Type: Bar; Serial: #1

Communication System: GSM 850; Frequency: 824.2 MHz; Duty Cycle: 1:8.3 Medium parameters used: f = 825 MHz;  $\sigma = 0.866$  mho/m;  $\epsilon_r = 41$ ;  $\rho = 1000$  kg/m<sup>3</sup>

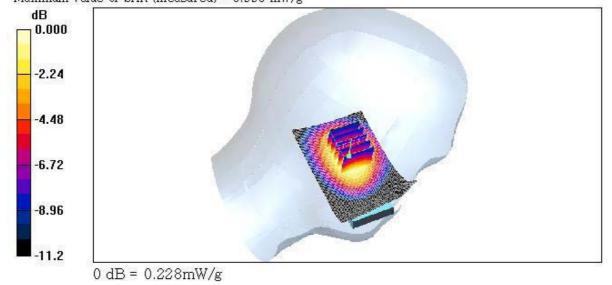
Phantom section: Left Section ; Measurement SW: DASY4, V4.6 Build 23

# DASY4 Configuration:

- Probe: ET3DV6 SN1609; ConvF(6.85, 6.85, 6.85); Calibrated: 2006-03-23
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn447; Calibrated: 2005-11-30
- Phantom: SAM 835/900 MHz; Type: SAM

# Left touch 128/Area Scan (51x81x1): Measurement grid: dx=15mm, dy=15mm Maximum value of SAR (interpolated) = 0.229 mW/g

Left touch 128/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm Reference Value = 13.3 V/m; Power Drift = -0.091 dB Peak SAR (extrapolated) = 0.292 W/kg SAR(1 g) = 0.212 mW/g; SAR(10 g) = 0.144 mW/g Maximum value of SAR (measured) = 0.228 mW/g



TEL: +82 31 639 8518 FAX: +82 31 639 8525

## Test Laboratory: HCT

Company: Smart Networks Limited

Mode : GSM850 / Channel : 190 Liquid Temperature : 22.4 ℃ / Ambient Temperature : 22.8 ℃

Date Tested: June 09, 2006

#### DUT: SP-115C; Type: Bar; Serial: #1

Communication System: GSM 850; Frequency: 836.6 MHz; Duty Cycle: 1:8.3

Medium parameters used (interpolated): f = 836.6 MHz;  $\sigma = 0.877 \text{ mho/m}$ ;  $\epsilon_r = 40.9$ ;  $\rho = 1000 \text{ kg/m}^3$ 

Phantom section: Left Section ; Measurement SW: DASY4, V4.6 Build 23

## DASY4 Configuration:

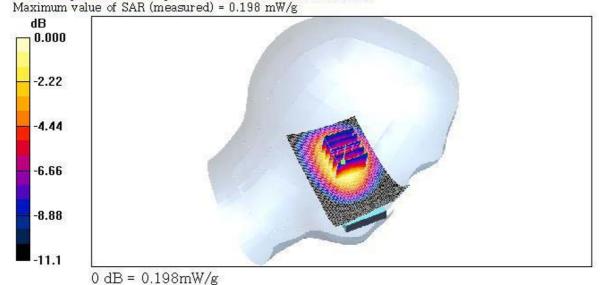
- Probe: ET3DV6 SN1609; ConvF(6.85, 6.85, 6.85); Calibrated: 2006-03-23
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn447; Calibrated: 2005-11-30
- Phantom: SAM 835/900 MHz; Type: SAM

# Left touch 190/Area Scan (51x81x1): Measurement grid: dx=15mm, dy=15mm

Info: Interpolated medium parameters used for SAR evaluation. Maximum value of SAR (interpolated) = 0.200 mW/g

Left touch 190/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm Reference Value = 12.2 V/m; Power Drift = -0.034 dB Peak SAR (extrapolated) = 0.252 W/kg SAR(1 g) = 0.184 mW/g; SAR(10 g) = 0.124 mW/g

Info: Interpolated medium parameters used for SAR evaluation.



# Test Laboratory: HCT

Company: Smart Networks Limited

Mode: GSM850 / Channel: 251 Liquid Temperature: 22.4 °C / Ambient Temperature: 22.8 °C

Date Tested: June 09, 2006

## DUT: SP-115C; Type: Bar; Serial: #1

Communication System: GSM 850; Frequency: 849.8 MHz; Duty Cycle: 1:8.3 Medium parameters used: f = 850 MHz;  $\sigma = 0.889 \text{ mho/m}$ ;  $\epsilon_r = 40.8$ ;  $\rho = 1000 \text{ kg/m}^3$ 

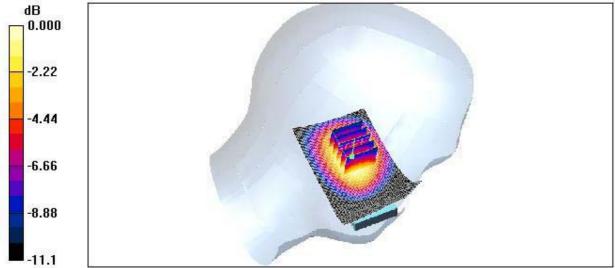
Phantom section: Left Section ; Measurement SW: DASY4, V4.6 Build 23

## DASY4 Configuration:

- Probe: ET3DV6 SN1609; ConvF(6.85, 6.85, 6.85); Calibrated: 2006-03-23
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn447; Calibrated: 2005-11-30
- Phantom: SAM 835/900 MHz; Type: SAM

# Left touch 251/Area Scan (51x81x1): Measurement grid: dx=15mm, dy=15mm Maximum value of SAR (interpolated) = 0.192 mW/g

Left touch 251/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm Reference Value = 11.9 V/m; Power Drift = -0.117 dB Peak SAR (extrapolated) = 0.237 W/kg SAR(1 g) = 0.176 mW/g; SAR(10 g) = 0.120 mW/g Maximum value of SAR (measured) = 0.188 mW/g



0 dB = 0.188 mW/g

# Test Laboratory: HCT

Company: Smart Networks Limited Mode: GSM850 / Channel: 128

Liquid Temperature: 22.4 °C / Ambient Temperature: 22.8 °C

Date Tested: June 09, 2006

# DUT: SP-115C; Type: Bar; Serial: #1

Communication System: GSM 850; Frequency: 824.2 MHz; Duty Cycle: 1:8.3 Medium parameters used: f = 825 MHz;  $\sigma = 0.866 \text{ mho/m}$ ;  $\epsilon_* = 41$ ;  $\rho = 1000 \text{ kg/m}^3$ 

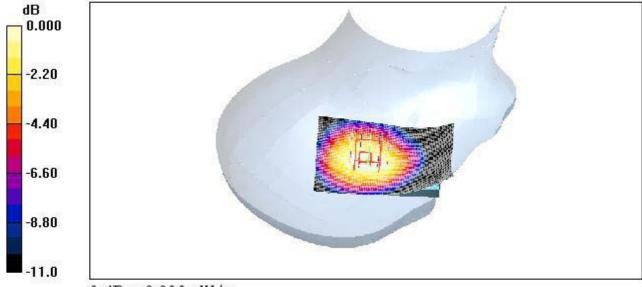
Phantom section: Right Section ; Measurement SW: DASY4, V4.6 Build 23

# DASY4 Configuration:

- Probe: ET3DV6 SN1609; ConvF(6.85, 6.85, 6.85); Calibrated: 2006-03-23
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn447; Calibrated: 2005-11-30
- Phantom: SAM 835/900 MHz; Type: SAM

Right touch 128/Area Scan (51x81x1): Measurement grid: dx=15mm, dy=15mm Maximum value of SAR (interpolated) = 0.210 mW/g

Right touch 128/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm Reference Value = 12.9 V/m; Power Drift = -0.143 dB Peak SAR (extrapolated) = 0.276 W/kg SAR(1 g) = 0.196 mW/g; SAR(10 g) = 0.132 mW/g Maximum value of SAR (measured) = 0.208 mW/g



0 dB = 0.208 mW/g

# Test Laboratory: HCT

Company: Smart Networks Limited Mode: GSM850 / Channel:190

Liquid Temperature : 22.4 °C / Ambient Temperature : 22.8 °C

Date Tested: June 09, 2006

# DUT: SP-115C; Type: Bar; Serial: #1

Communication System: GSM 850; Frequency: 836.6 MHz; Duty Cycle: 1:8.3

Medium parameters used (interpolated): f = 836.6 MHz;  $\sigma = 0.877 \text{ mho/m}$ ;  $\epsilon_* = 40.9$ ;  $\rho = 1000 \text{ kg/m}^3$ 

Phantom section: Right Section; Measurement SW: DASY4, V4.6 Build 23

## DASY4 Configuration:

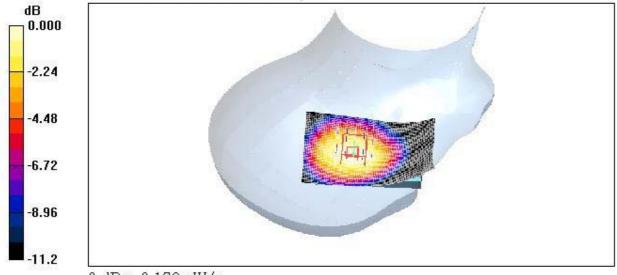
- Probe: ET3DV6 SN1609; ConvF(6.85, 6.85, 6.85); Calibrated: 2006-03-23
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn447; Calibrated: 2005-11-30
- Phantom: SAM 835/900 MHz; Type: SAM

# Right touch 190/Area Scan (51x81x1): Measurement grid: dx=15mm, dy=15mm

Info: Interpolated medium parameters used for SAR evaluation. Maximum value of SAR (interpolated) = 0.182 mW/g

Right touch 190/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm Reference Value = 12.0 V/m; Power Drift = -0.118 dB Peak SAR (extrapolated) = 0.228 W/kg SAR(1 g) = 0.167 mW/g; SAR(10 g) = 0.114 mW/g

Info: Interpolated medium parameters used for SAR evaluation. Maximum value of SAR (measured) = 0.178 mW/g



# Test Laboratory: HCT

Company: Smart Networks Limited Mode: GSM850 / Channel: 251 Liquid Temperature: 22.4 ℃ / Ambient Temperature: 22.8 ℃

Date Tested: June 09, 2006

## DUT: SP-115C; Type: Bar; Serial: #1

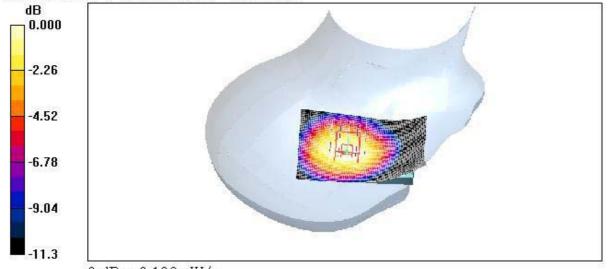
Communication System: GSM 850; Frequency: 849.8 MHz; Duty Cycle: 1:8.3 Medium parameters used: f = 850 MHz;  $\sigma = 0.889 \text{ mho/m}$ ;  $\epsilon_r = 40.8$ ;  $\rho = 1000 \text{ kg/m}^3$ Phantom section: Right Section; Measurement SW: DASY4, V4.6 Build 23

## DASY4 Configuration:

- Probe: ET3DV6 SN1609; ConvF(6.85, 6.85, 6.85); Calibrated: 2006-03-23
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn447; Calibrated: 2005-11-30
- Phantom: SAM 835/900 MHz; Type: SAM

Right touch 251/Area Scan (51x81x1): Measurement grid: dx=15mm, dy=15mm Maximum value of SAR (interpolated) = 0.172 mW/g

Right touch 251/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm Reference Value = 11.4 V/m: Power Drift = 0.005 dB Peak SAR (extrapolated) = 0.214 W/kg SAR(1 g) = 0.158 mW/g: SAR(10 g) = 0.107 mW/g Maximum value of SAR (measured) = 0.169 mW/g



0 dB = 0.169 mW/g

# Test Laboratory: HCT

Company: Smart Networks Limited Mode: GSM850 / Channel: 190

Liquid Temperature: 22.4 °C / Ambient Temperature: 22.8 °C

Date Tested: June 09, 2006

## DUT: SP-115C; Type: Bar; Serial: #1

Communication System: GSM 850; Frequency: 836.6 MHz; Duty Cycle: 1:8.3

Medium parameters used (interpolated): f = 836.6 MHz;  $\sigma = 0.877 \text{ mho/m}$ ;  $\epsilon_r = 40.9$ ;  $\rho = 1000 \text{ kg/m}^3$ 

Phantom section: Left Section ; Measurement SW: DASY4, V4.6 Build 23

#### DASY4 Configuration:

- Probe: ET3DV6 SN1609; ConvF(6.85, 6.85, 6.85); Calibrated: 2006-03-23
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn447; Calibrated: 2005-11-30
- Phantom: SAM 835/900 MHz; Type: SAM

# Left tilt 190/Area Scan (51x81x1): Measurement grid: dx=15mm, dy=15mm

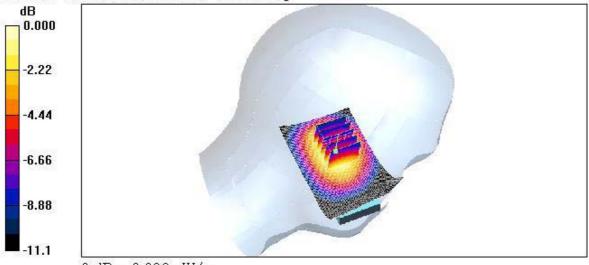
Info: Interpolated medium parameters used for SAR evaluation. Maximum value of SAR (interpolated) = 0.086 mW/g

Left tilt 190/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm Reference Value = 8.75 V/m; Power Drift = -0.131 dB Peak SAR (extrapolated) = 0.110 W/kg

SAR(1 g) = 0.080 mW/g; SAR(10 g) = 0.054 mW/g

Info: Interpolated medium parameters used for SAR evaluation.

Maximum value of SAR (measured) = 0.086 mW/g



# Test Laboratory: HCT

Company: Smart Networks Limited Mode: GSM850 / Channel: 190

Liquid Temperature : 22.4 °C / Ambient Temperature : 22.8 °C

Date Tested: June 09, 2006

## DUT: SP-115C; Type: Bar; Serial: #1

Communication System: GSM 850; Frequency: 836.6 MHz; Duty Cycle: 1:8.3

Medium parameters used (interpolated): f = 836.6 MHz;  $\sigma = 0.877 \text{ mho/m}$ ;  $\epsilon_r = 40.9$ ;  $\rho = 1000 \text{ kg/m}^3$ 

Phantom section: Right Section; Measurement SW: DASY4, V4.6 Build 23

## DASY4 Configuration:

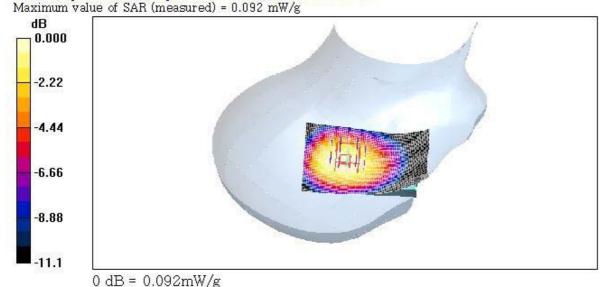
- Probe: ET3DV6 SN1609; ConvF(6.85, 6.85, 6.85); Calibrated: 2006-03-23
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn447; Calibrated: 2005-11-30
- Phantom: SAM 835/900 MHz; Type: SAM

# Right tilt 190/Area Scan (51x81x1): Measurement grid: dx=15mm, dy=15mm

Info: Interpolated medium parameters used for SAR evaluation. Maximum value of SAR (interpolated) = 0.092 mW/g

Right tilt 190/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm Reference Value = 9.70 V/m: Power Drift = 0.167 dB Peak SAR (extrapolated) = 0.120 W/kg SAR(1 g) = 0.087 mW/g; SAR(10 g) = 0.059 mW/g

Info: Interpolated medium parameters used for SAR evaluation.



TEL: +82 31 639 8518 FAX: +82 31 639 8525