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**APPENDIX C: RELEVANT PAGES FROM PROBE CALIBRATION REPORT(S)**

See the following pages.



Accredited by the Swiss Accreditation Service (SAS)  
The Swiss Accreditation Service is one of the signatories to the EA  
Multilateral Agreement for the recognition of calibration certificates

Accreditation No.: **SCS 108**

Client **Nokia Salo TCC**

Certificate No: **ES3-3131\_Apr08**

## CALIBRATION CERTIFICATE

Object **ES3DV3 - SN:3131**

Calibration procedure(s) **QA CAL-01.v6 and QA CAL-23.v3**  
**Calibration procedure for dosimetric E-field probes**

Calibration date: **April 22, 2008**

Condition of the calibrated item **In Tolerance**

This calibration certificate documents the traceability to national standards, which realize the physical units of measurements (SI).  
The measurements and the uncertainties with confidence probability are given on the following pages and are part of the certificate.

All calibrations have been conducted in the closed laboratory facility: environment temperature  $(22 \pm 3)^\circ\text{C}$  and humidity  $< 70\%$ .

Calibration Equipment used (M&TE critical for calibration)

| Primary Standards          | ID #            | Cal Date (Certificate No.)    | Scheduled Calibration |
|----------------------------|-----------------|-------------------------------|-----------------------|
| Power meter E4419B         | GB41293874      | 1-Apr-08 (No. 217-00788)      | Apr-09                |
| Power sensor E4412A        | MY41495277      | 1-Apr-08 (No. 217-00788)      | Apr-09                |
| Power sensor E4412A        | MY41498087      | 1-Apr-08 (No. 217-00788)      | Apr-09                |
| Reference 3 dB Attenuator  | SN: S5054 (3c)  | 8-Aug-07 (No. 217-00719)      | Aug-08                |
| Reference 20 dB Attenuator | SN: S5086 (20b) | 31-Mar-08 (No. 217-00787)     | Apr-09                |
| Reference 30 dB Attenuator | SN: S5129 (30b) | 8-Aug-07 (No. 217-00720)      | Aug-08                |
| Reference Probe ES3DV2     | SN: 3013        | 2-Jan-08 (No. ES3-3013_Jan08) | Jan-09                |
| DAE4                       | SN: 660         | 3-Sep-07 (No. DAE4-660_Sep07) | Sep-08                |

| Secondary Standards       | ID #         | Check Date (in house)             | Scheduled Check        |
|---------------------------|--------------|-----------------------------------|------------------------|
| RF generator HP 8648C     | US3642U01700 | 4-Aug-99 (in house check Oct-07)  | In house check: Oct-09 |
| Network Analyzer HP 8753E | US37390585   | 18-Oct-01 (in house check Oct-07) | In house check: Oct-08 |

Calibrated by: **Katja Pokovic** **Technical Manager**

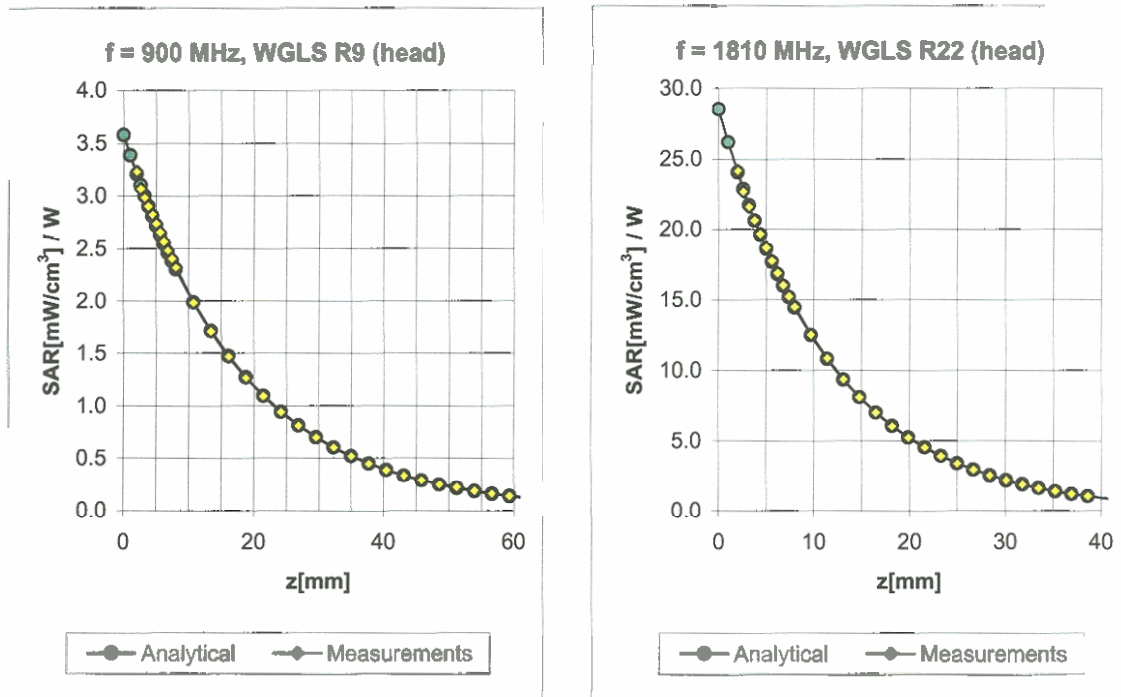
Approved by: **Niels Kuster** **Quality Manager**

Signature

Issued: April 22, 2008

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## Conversion Factor Assessment



| f [MHz] | Validity [MHz] <sup>c</sup> | TSL  | Permittivity | Conductivity | Alpha | Depth | ConvF | Uncertainty   |
|---------|-----------------------------|------|--------------|--------------|-------|-------|-------|---------------|
| 900     | ± 50 / ± 100                | Head | 41.5 ± 5%    | 0.97 ± 5%    | 0.92  | 1.17  | 6.14  | ± 11.0% (k=2) |
| 1810    | ± 50 / ± 100                | Head | 40.0 ± 5%    | 1.40 ± 5%    | 0.60  | 1.58  | 5.02  | ± 11.0% (k=2) |
| 1950    | ± 50 / ± 100                | Head | 40.0 ± 5%    | 1.40 ± 5%    | 0.94  | 1.13  | 4.78  | ± 11.0% (k=2) |
| 2450    | ± 50 / ± 100                | Head | 39.2 ± 5%    | 1.80 ± 5%    | 0.72  | 1.30  | 4.48  | ± 11.0% (k=2) |
| 900     | ± 50 / ± 100                | Body | 55.0 ± 5%    | 1.05 ± 5%    | 1.00  | 1.17  | 5.68  | ± 11.0% (k=2) |
| 1810    | ± 50 / ± 100                | Body | 53.3 ± 5%    | 1.52 ± 5%    | 0.58  | 1.61  | 5.15  | ± 11.0% (k=2) |
| 1950    | ± 50 / ± 100                | Body | 53.3 ± 5%    | 1.52 ± 5%    | 0.87  | 1.19  | 4.85  | ± 11.0% (k=2) |
| 2450    | ± 50 / ± 100                | Body | 52.7 ± 5%    | 1.95 ± 5%    | 0.68  | 1.42  | 4.16  | ± 11.0% (k=2) |

<sup>c</sup> The validity of ± 100 MHz only applies for DASY v4.4 and higher (see Page 2). The uncertainty is the RSS of the ConvF uncertainty at calibration frequency and the uncertainty for the indicated frequency band.



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Accreditation No.: **SCS 108**

Client **Nokia Salo TCC**

Certificate No: **ES3-3165\_Apr08**

## CALIBRATION CERTIFICATE

Object **ES3DV3 - SN:3165**

Calibration procedure(s) **QA CAL-01.v6 and QA CAL-23.v3  
Calibration procedure for dosimetric E-field probes**

Calibration date: **April 23, 2008**

Condition of the calibrated item **In Tolerance**

This calibration certificate documents the traceability to national standards, which realize the physical units of measurements (SI).  
The measurements and the uncertainties with confidence probability are given on the following pages and are part of the certificate.

All calibrations have been conducted in the closed laboratory facility: environment temperature ( $22 \pm 3$ )°C and humidity < 70%.

Calibration Equipment used (M&TE critical for calibration)

| Primary Standards          | ID #            | Cal Date (Certificate No.)    | Scheduled Calibration |
|----------------------------|-----------------|-------------------------------|-----------------------|
| Power meter E4419B         | GB41293874      | 1-Apr-08 (No. 217-00788)      | Apr-09                |
| Power sensor E4412A        | MY41495277      | 1-Apr-08 (No. 217-00788)      | Apr-09                |
| Power sensor E4412A        | MY41498087      | 1-Apr-08 (No. 217-00788)      | Apr-09                |
| Reference 3 dB Attenuator  | SN: S5054 (3c)  | 8-Aug-07 (No. 217-00719)      | Aug-08                |
| Reference 20 dB Attenuator | SN: S5086 (20b) | 31-Mar-08 (No. 217-00787)     | Apr-09                |
| Reference 30 dB Attenuator | SN: S5129 (30b) | 8-Aug-07 (No. 217-00720)      | Aug-08                |
| Reference Probe ES3DV2     | SN: 3013        | 2-Jan-08 (No. ES3-3013_Jan08) | Jan-09                |
| DAE4                       | SN: 660         | 3-Sep-07 (No. DAE4-660_Sep07) | Sep-08                |

| Secondary Standards       | ID #         | Check Date (in house)             | Scheduled Check        |
|---------------------------|--------------|-----------------------------------|------------------------|
| RF generator HP 8648C     | US3642U01700 | 4-Aug-99 (in house check Oct-07)  | In house check: Oct-09 |
| Network Analyzer HP 8753E | US37390585   | 18-Oct-01 (in house check Oct-07) | In house check: Oct-08 |

Calibrated by: **Katja Pokovic** Technical Manager

Approved by: **Niels Kuster** Quality Manager

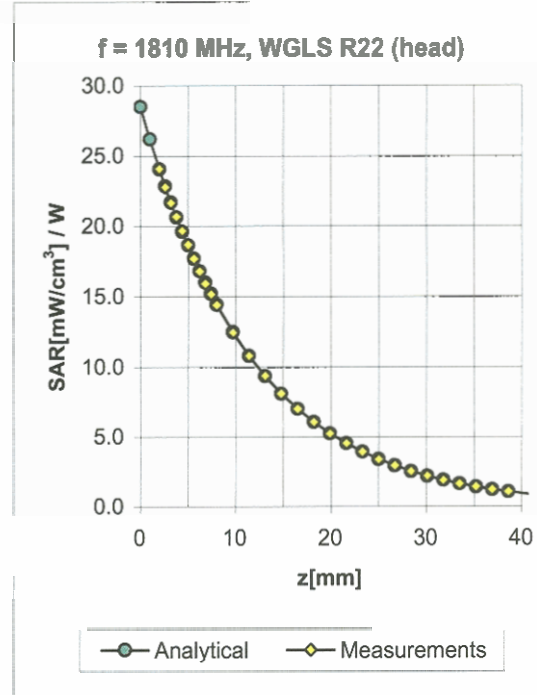
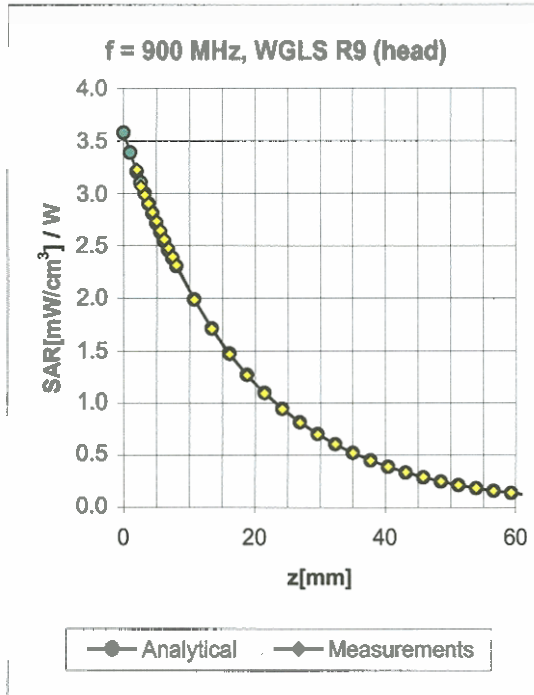
Signature

Issued: April 23, 2008

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## Conversion Factor Assessment



| f [MHz] | Validity [MHz] <sup>c</sup> | TSL  | Permittivity | Conductivity | Alpha | Depth | ConvF Uncertainty  |
|---------|-----------------------------|------|--------------|--------------|-------|-------|--------------------|
| 900     | ± 50 / ± 100                | Head | 41.5 ± 5%    | 0.97 ± 5%    | 0.84  | 1.20  | 6.23 ± 11.0% (k=2) |
| 1810    | ± 50 / ± 100                | Head | 40.0 ± 5%    | 1.40 ± 5%    | 0.93  | 1.13  | 5.14 ± 11.0% (k=2) |
| 1950    | ± 50 / ± 100                | Head | 40.0 ± 5%    | 1.40 ± 5%    | 0.88  | 1.17  | 4.87 ± 11.0% (k=2) |
| 2450    | ± 50 / ± 100                | Head | 39.2 ± 5%    | 1.80 ± 5%    | 0.79  | 1.24  | 4.57 ± 11.0% (k=2) |
| 2600    | ± 50 / ± 100                | Head | 39.0 ± 5%    | 1.96 ± 5%    | 0.73  | 1.30  | 4.49 ± 11.0% (k=2) |
|         |                             |      |              |              |       |       |                    |
| 900     | ± 50 / ± 100                | Body | 55.0 ± 5%    | 1.05 ± 5%    | 1.00  | 1.14  | 5.75 ± 11.0% (k=2) |
| 1810    | ± 50 / ± 100                | Body | 53.3 ± 5%    | 1.52 ± 5%    | 0.97  | 1.12  | 5.23 ± 11.0% (k=2) |
| 1950    | ± 50 / ± 100                | Body | 53.3 ± 5%    | 1.52 ± 5%    | 0.79  | 1.29  | 4.96 ± 11.0% (k=2) |
| 2450    | ± 50 / ± 100                | Body | 52.7 ± 5%    | 1.95 ± 5%    | 0.63  | 1.50  | 4.24 ± 11.0% (k=2) |
| 2600    | ± 50 / ± 100                | Body | 52.5 ± 5%    | 2.16 ± 5%    | 0.70  | 1.44  | 4.07 ± 11.0% (k=2) |

<sup>c</sup> The validity of ± 100 MHz only applies for DASY v4.4 and higher (see Page 2). The uncertainty is the RSS of the ConvF uncertainty at calibration frequency and the uncertainty for the indicated frequency band.