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Multilateral Agreement for the recognition of calibration certificates

Accreditation No.: **SCS 108**

Client **PC Test**

Certificate No: **CD835V3-1082_Jul06**

CALIBRATION CERTIFICATE

Object **CD835V3 - SN: 1082**

Calibration procedure(s) **QA CAL-20.v4
Calibration procedure for dipoles in air**

Calibration date: **July 17, 2006**

Condition of the calibrated item **In Tolerance**

This calibration certificate documents the traceability to national standards, which realize the physical units of measurements (SI).
All calibrations have been conducted in the closed laboratory facility: environment temperature (22 ± 3)°C and humidity < 70%.

Calibration Equipment used (M&TE critical for calibration)

Primary Standards	ID #	Cal Date (Calibrated by, Certificate No.)	Scheduled Calibration
Power meter EPM-442A	GB37480704	04-Oct-05 (METAS, No. 251-00516)	Oct-06
Power sensor HP 8481A	US37292783	04-Oct-05 (METAS, No. 251-00516)	Oct-06
Reference 20 dB Attenuator	SN: 5086 (20g)	11-Aug-05 (METAS, No 251-00498)	Aug-06
Reference 10 dB Attenuator	SN: 5047.2 (10r)	11-Aug-05 (METAS, No 251-00498)	Aug-06
DAE4	SN: 660	1-Mar-06 (SPEAG, No. DAE4-660_Mar06)	Calibration, Mar-07
Probe ER3DV6	SN: 2336	20-Dec-05 (SPEAG, No. ER3-2336_Dec05)	Calibration, Dec-06
Probe H3DV6	SN: 6065	20-Dec-05 (SPEAG, No. H3-6065-Dec05)	Calibration, Dec-06
Secondary Standards	ID #	Check Date (in house)	Scheduled Check
Power meter EPM-4419B	GB43310788	12-Aug-03 (SPEAG, in house check Oct-05)	In house check: Oct-06
Power sensor HP 8481A	MY41093312	10-Aug-03 (SPEAG, in house check Oct-05)	In house check: Oct-07
Power sensor HP 8481A	MY41093315	10-Aug-03 (SPEAG, in house check Oct-05)	In house check: Oct-06
Network Analyzer HP 8753E	US37390585	18-Oct-01 (SPEAG, in house check Nov-05)	In house check: Nov-06
RF generator R&S SMT06	SN: 100005	26-Jul-04 (SPEAG, in house check Nov-05)	In house check: Nov-07

	Name	Function	Signature
Calibrated by:	Mike Meili	Laboratory Technician	<i>M. Meili</i>

Approved by:	Fin Bornholt	Technical Director	<i>F. Bornholt</i>
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Issued: July 18, 2006

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FCC ID: QMNRM-154		HAC (RF EMISSIONS) TEST REPORT		Reviewed by: Quality Manager
HAC Filename: 0705080403.QMN	Test Dates: May 5 - 7, 2007	EUT Type: Cellular/PCS CDMA Phone with AMPS and Bluetooth		Page 53 of 70



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Accreditation No.: **SCS 108**

References

- [1] ANSI-PC63.19-2001 (Draft 3.x, 2005)
 American National Standard for Methods of Measurement of Compatibility between Wireless Communications Devices and Hearing Aids.

Methods Applied and Interpretation of Parameters:

- **Coordinate System:** y-axis is in the direction of the dipole arms. z-axis is from the basis of the antenna (mounted on the table) towards its feed point between the two dipole arms. x-axis is normal to the other axes. In coincidence with standard [1], the measurement planes (probe sensor center) are selected to be at a distance of 10 mm above the top edge of the dipole arms.
- **Measurement Conditions:** Further details are available from the hardcopies at the end of the certificate. All figures stated in the certificate are valid at the frequency indicated. The forward power to the dipole connector is set with a calibrated power meter connected and monitored with an auxiliary power meter connected to a directional coupler. While the dipole under test is connected, the forward power is adjusted to the same level.
- **Antenna Positioning:** The dipole is mounted on a HAC Test Arch phantom using the matching dipole positioner with the arms horizontal and the feeding cable coming from the floor. The measurements are performed in a shielded room with absorbers around the setup to reduce the reflections. It is verified before the mounting of the dipole under the Test Arch phantom, that its arms are perfectly in a line. It is installed on the HAC dipole positioner with its arms parallel below the dielectric reference wire and able to move elastically in vertical direction without changing its relative position to the top center of the Test Arch phantom. The vertical distance to the probe is adjusted after dipole mounting with a DASY4 Surface Check job. Before the measurement, the distance between phantom surface and probe tip is verified. The proper measurement distance is selected by choosing the matching section of the HAC Test Arch phantom with the proper device reference point (upper surface of the dipole) and the matching grid reference point (tip of the probe) considering the probe sensor offset. The vertical distance to the probe is essential for the accuracy.
- **Feed Point Impedance and Return Loss:** These parameters are measured using a HP 8753E Vector Network Analyzer. The impedance is specified at the SMA connector of the dipole. The influence of reflections was eliminating by applying the averaging function while moving the dipole in the air, at least 70cm away from any obstacles.
- **E- field distribution:** E field is measured in the x-y-plane with an isotropic ER3D-field probe with 100 mW forward power to the antenna feed point. In accordance with [1], the scan area is 20mm wide, its length exceeds the dipole arm length (180 or 90mm). The sensor center is 10 mm (in z) above the top of the dipole arms. Two 3D maxima are available near the end of the dipole arms. Assuming the dipole arms are perfectly in one line, the average of these two maxima (in subgrid 2 and subgrid 8) is determined to compensate for any non-parallelity to the measurement plane as well as the sensor displacement. The E-field value stated as calibration value represents the maximum of the interpolated 3D-E-field, 10mm above the dipole surface.
- **H-field distribution:** H-field is measured with an isotropic H-field probe with 100mW forward power to the antenna feed point, in the x-y-plane. The scan area and sensor distance is equivalent to the E-field scan. The maximum of the field is available at the center (subgrid 5) above the feed point. The H-field value stated as calibration value represents the maximum of the interpolated H-field, 10mm above the dipole surface at the feed point.

FCC ID: QMNRM-154	PCTEST	HAC (RF EMISSIONS) TEST REPORT	NOKIA	Reviewed by: Quality Manager
HAC Filename: 0705080403.QMN	Test Dates: May 5 - 7, 2007	EUT Type: Cellular/PCS CDMA Phone with AMPS and Bluetooth		Page 54 of 70

1 Measurement Conditions

DASY system configuration, as far as not given on page 1.

DASY Version	DASY4	V4.7 B44
DASY PP Version	SEMCAD	V1.8 B171
Phantom	HAC Test Arch	SD HAC P01 BA, #1002
Distance Dipole Top - Probe Center	10 mm	
Scan resolution	dx, dy = 5 mm	area = 20 x 180 mm
Frequency	835 MHz \pm 1 MHz	
Forward power at dipole connector	20.0 dBm = 100mW	
Input power drift	< 0.05 dB	

2 Maximum Field values

H-field 10 mm above dipole surface	condition	interpolated maximum
Maximum measured	100 mW forward power	0.454 A/m

Uncertainty for H-field measurement: 8.2% (k=2)

E-field 10 mm above dipole surface	condition	Interpolated maximum
Maximum measured above high end	100 mW forward power	172.3 V/m
Maximum measured above low end	100 mW forward power	162.3 V/m
Averaged maximum above arm	100 mW forward power	167.3 V/m

Uncertainty for E-field measurement: 12.8% (k=2)

3 Appendix

3.1 Antenna Parameters

Frequency	Return Loss	Impedance
800 MHz	16.7 dB	(43.5 – j12.2) Ohm
835 MHz	27.6 dB	(51.3 + j4.0) Ohm
900 MHz	16.1 dB	(57.4 – j15.4) Ohm
950 MHz	21.1 dB	(44.3 + j6.0) Ohm
960 MHz	18.0 dB	(49.0 + j12.6) Ohm



3.2 Antenna Design and Handling

The calibration dipole has a symmetric geometry with a built-in two stub matching network, which leads to the enhanced bandwidth.

The dipole is built of standard semirigid coaxial cable. The internal matching line is open ended. The antenna is therefore open for DC signals.

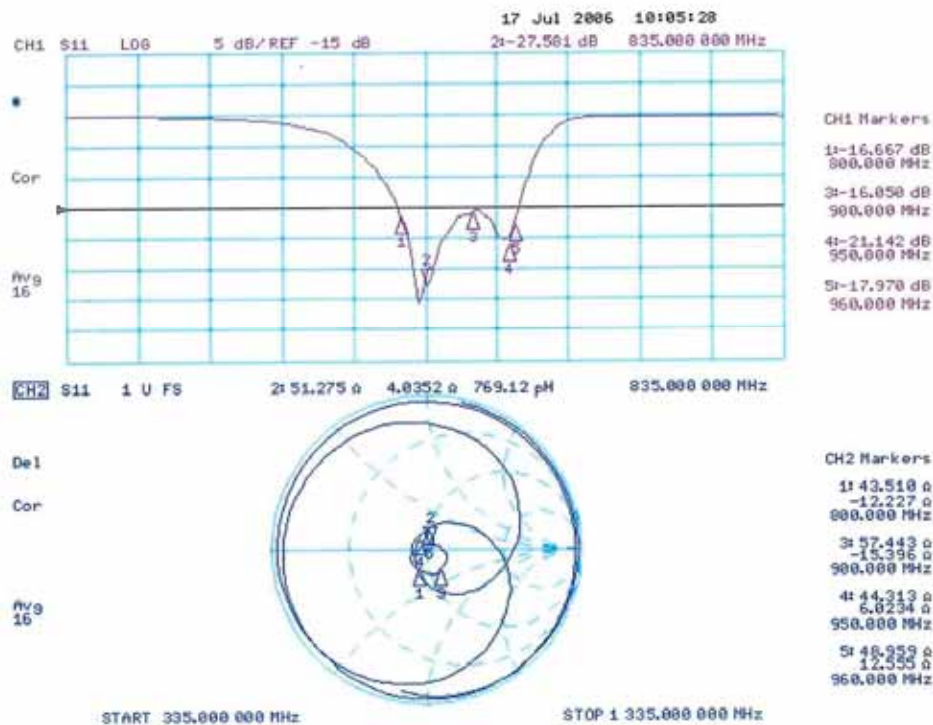
Do not apply force to dipole arms, as they are liable to bend. The soldered connections near the feedpoint may be damaged. After excessive mechanical stress or overheating, check the impedance characteristics to ensure that the internal matching network is not affected.



After long term use with 40W radiated power, only a slight warming of the dipole near the feedpoint can be measured.

FCC ID: QMNRM-154	 HAC (RF EMISSIONS) TEST REPORT 	Reviewed by: Quality Manager
HAC Filename: 0705080403.QMN	Test Dates: May 5 - 7, 2007	EUT Type: Cellular/PCS CDMA Phone with AMPS and Bluetooth
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3.3 Measurement Sheets

3.3.1 Return Loss and Smith Chart



FCC ID: QMNRM-154		HAC (RF EMISSIONS) TEST REPORT		Reviewed by: Quality Manager
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3.3.2 DASY4 H-field result

Date/Time: 7/17/2006 2:56:42 PM

Test Laboratory: SPEAG, Zurich, Switzerland
File Name: [H_CD835_1082_060717.daa4](#)

DUT: HAC-Dipole 835 MHz; Type: D835V3; Serial: 1082
Program Name: HAC H Dipole

Communication System: CW; Frequency: 835 MHz; Duty Cycle: 1:1
Medium: Air Medium parameters used: $\sigma = 0$ mho/m, $\epsilon_r = 1$; $\rho = 1$ kg/m³
Phantom section: H Dipole Section

DASY4 Configuration:

- Probe: H3DV6 - SN6065; ; Calibrated: 12/20/2005
- Sensor-Surface: (Fix Surface)
- Electronics: DAE4 Sn660; Calibrated: 3/1/2006
- Phantom: HAC Test Arch 4.6; Type: SD HAC P01 BA; Serial: 1002
- Measurement SW: DASY4, V4.7 Build 44; Postprocessing SW: SEMCAD, V1.8 Build 171

H Scan - Sensor Center 10mm above CD835 Dipole/Hearing Aid Compatibility Test (41x361x1): Measurement grid:
dx=5mm, dy=5mm

Maximum value of peak Total field = 0.454 A/m

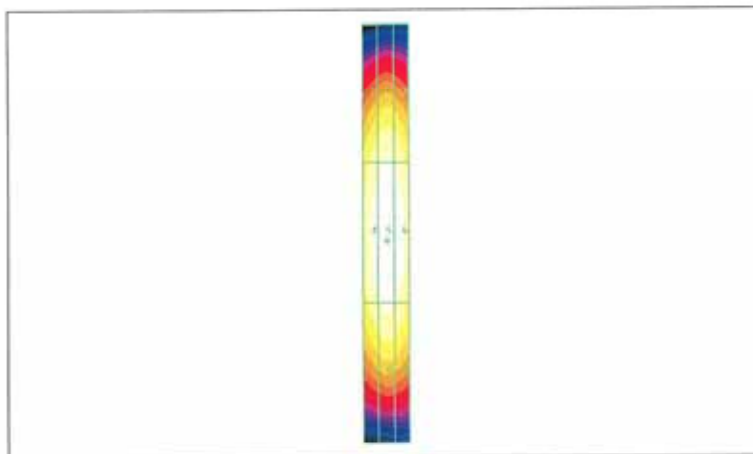
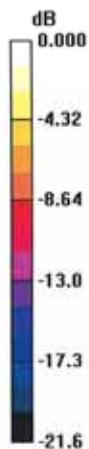
Probe Modulation Factor = 1.00

Reference Value = 0.482 A/m; Power Drift = -0.014 dB

Hearing Aid Near-Field Category: M2 (AWF 0 dB)

Peak H-field in A/m



Grid 1	Grid 2	Grid 3
0.372	0.402	0.386
Grid 4	Grid 5	Grid 6
0.425	0.454	0.438
Grid 7	Grid 8	Grid 9
0.379	0.404	0.388



0 dB = 0.454 A/m

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FCC ID: QMNRM-154		HAC (RF EMISSIONS) TEST REPORT		Reviewed by: Quality Manager
HAC Filename: 0705080403.QMN	Test Dates: May 5 - 7, 2007	EUT Type: Cellular/PCS CDMA Phone with AMPS and Bluetooth		Page 57 of 70

3.3.3 DASY4 E-Field result

Date/Time: 7/17/2006 11:50:47 AM

Test Laboratory: SPEAG, Zurich, Switzerland
File Name: [E_CD835_1082_060717.da4](#)

DUT: HAC-Dipole 835 MHz; Type: D835V3; Serial: 1082
Program Name: HAC E Dipole

Communication System: CW; Frequency: 835 MHz; Duty Cycle: 1:1
Medium: Air Medium parameters used: $\sigma = 0$ mho/m, $\epsilon_r = 1$; $\rho = 1000$ kg/m³
Phantom section: E Dipole Section

DASY4 Configuration:

- Probe: ER3DV6 - SN2336; ConvF(1, 1, 1); Calibrated: 12/20/2005
- Sensor-Surface: (Fix Surface)
- Electronics: DAE4 Sn660; Calibrated: 3/1/2006
- Phantom: HAC Test Arch 4.6; Type: SD HAC P01 BA; Serial: 1002
- Measurement SW: DASY4, V4.7 Build 44; Postprocessing SW: SEMCAD, V1.8 Build 171

E Scan - Sensor Center 10mm above CD835 Dipole/Hearing Aid Compatibility Test (41x361x1): Measurement grid:
dx=5mm, dy=5mm

Maximum value of peak Total field = 172.3 V/m

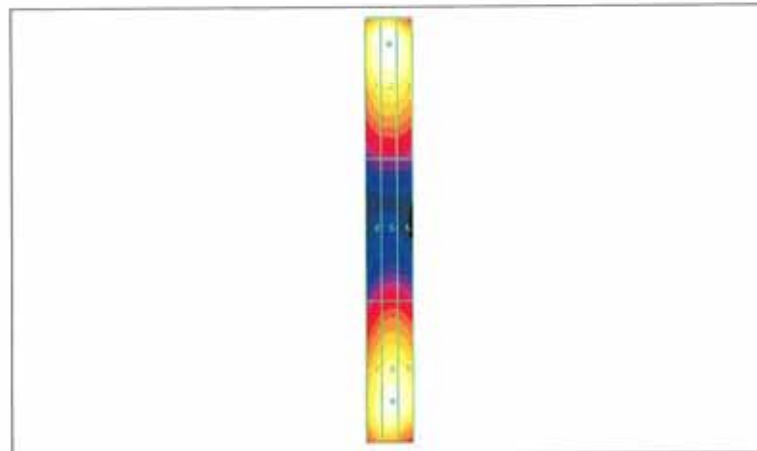
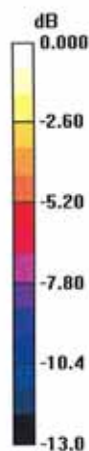
Probe Modulation Factor = 1.00

Reference Value = 122.7 V/m; Power Drift = -0.030 dB

Hearing Aid Near-Field Category: M2 (AWF 0 dB)

Peak E-field in V/m

Grid 1	Grid 2	Grid 3
166.8	172.3	165.8
Grid 4	Grid 5	Grid 6
84.7	88.9	87.9
Grid 7	Grid 8	Grid 9
154.6	162.3	160.4



0 dB = 172.3V/m

FCC ID: QMNRM-154	PCTEST	HAC (RF EMISSIONS) TEST REPORT	NOKIA	Reviewed by: Quality Manager
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Accreditation No.: **SCS 108**

Client **PC Test**

Certificate No: **CD1880V3-1064_Jul06**

CALIBRATION CERTIFICATE

Object **CD1880V3 - SN: 1064**

Calibration procedure(s) **QA CAL-20.v4**
Calibration procedure for dipoles in air

Calibration date: **July 18, 2006**

Condition of the calibrated item **In Tolerance**

This calibration certificate documents the traceability to national standards, which realize the physical units of measurements (SI).
All calibrations have been conducted in the closed laboratory facility: environment temperature (22 ± 3)°C and humidity < 70%.

Calibration Equipment used (M&TE critical for calibration)

Primary Standards	ID #	Cal Date (Calibrated by, Certificate No.)	Scheduled Calibration
Power meter EPM-442A	GB37480704	04-Oct-05 (METAS, No. 251-00516)	Oct-06
Power sensor HP 8481A	US37292783	04-Oct-05 (METAS, No. 251-00516)	Oct-06
Reference 20 dB Attenuator	SN: 5086 (20g)	11-Aug-05 (METAS, No 251-00498)	Aug-06
Reference 10 dB Attenuator	SN: 5047.2 (10r)	11-Aug-05 (METAS, No 251-00498)	Aug-06
DAE4	SN: 660	1-Mar-06 (SPEAG, No. DAE4-660_Mar06)	Calibration, Mar-07
Probe ER3DV6	SN: 2336	20-Dec-05 (SPEAG, No. ER3-2336_Dec05)	Calibration, Dec-06
Probe H3DV6	SN: 6065	20-Dec-05 (SPEAG, No. H3-6065-Dec05)	Calibration, Dec-06
Secondary Standards	ID #	Check Date (in house)	Scheduled Check
Power meter EPM-4419B	GB43310788	12-Aug-03 (SPEAG, in house check Oct-05)	In house check: Oct-06
Power sensor HP 8481A	MY41093312	10-Aug-03 (SPEAG, in house check Oct-05)	In house check: Oct-07
Power sensor HP 8481A	MY41093315	10-Aug-03 (SPEAG, in house check Oct-05)	In house check: Oct-06
Network Analyzer HP 8753E	US37390585	18-Oct-01 (SPEAG, in house check Nov-05)	In house check: Nov-06
RF generator R&S SMT06	SN: 100005	26-Jul-04 (SPEAG, in house check Nov-05)	In house check: Nov-07

Calibrated by:	Name Mike Meili	Function Laboratory Technician	Signature
Approved by:	Fin Bomholt	Technical Director	

Issued: July 20, 2006

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FCC ID: QMNRM-154		HAC (RF EMISSIONS) TEST REPORT		Reviewed by: Quality Manager
HAC Filename: 0705080403.QMN	Test Dates: May 5 - 7, 2007	EUT Type: Cellular/PCS CDMA Phone with AMPS and Bluetooth		Page 59 of 70





References

- [1] ANSI-PC63.19-2001 (Draft 3.x, 2005)
 American National Standard for Methods of Measurement of Compatibility between Wireless
 Communications Devices and Hearing Aids.

Methods Applied and Interpretation of Parameters:

- **Coordinate System:** y-axis is in the direction of the dipole arms. z-axis is from the basis of the antenna (mounted on the table) towards its feed point between the two dipole arms. x-axis is normal to the other axes. In coincidence with standard [1], the measurement planes (probe sensor center) are selected to be at a distance of 10 mm above the top edge of the dipole arms.
- **Measurement Conditions:** Further details are available from the hardcopies at the end of the certificate. All figures stated in the certificate are valid at the frequency indicated. The forward power to the dipole connector is set with a calibrated power meter connected and monitored with an auxiliary power meter connected to a directional coupler. While the dipole under test is connected, the forward power is adjusted to the same level.
- **Antenna Positioning:** The dipole is mounted on a HAC Test Arch phantom using the matching dipole positioner with the arms horizontal and the feeding cable coming from the floor. The measurements are performed in a shielded room with absorbers around the setup to reduce the reflections. It is verified before the mounting of the dipole under the Test Arch phantom, that its arms are perfectly in a line. It is installed on the HAC dipole positioner with its arms parallel below the dielectric reference wire and able to move elastically in vertical direction without changing its relative position to the top center of the Test Arch phantom. The vertical distance to the probe is adjusted after dipole mounting with a DASY4 Surface Check job. Before the measurement, the distance between phantom surface and probe tip is verified. The proper measurement distance is selected by choosing the matching section of the HAC Test Arch phantom with the proper device reference point (upper surface of the dipole) and the matching grid reference point (tip of the probe) considering the probe sensor offset. The vertical distance to the probe is essential for the accuracy.
- **Feed Point Impedance and Return Loss:** These parameters are measured using a HP 8753E Vector Network Analyzer. The impedance is specified at the SMA connector of the dipole. The influence of reflections was eliminating by applying the averaging function while moving the dipole in the air, at least 70cm away from any obstacles.
- **E-field distribution:** E field is measured in the x-y-plane with an isotropic ER3D-field probe with 100 mW forward power to the antenna feed point. In accordance with [1], the scan area is 20mm wide, its length exceeds the dipole arm length (180 or 90mm). The sensor center is 10 mm (in z) above the top of the dipole arms. Two 3D maxima are available near the end of the dipole arms. Assuming the dipole arms are perfectly in one line, the average of these two maxima (in subgrid 2 and subgrid 8) is determined to compensate for any non-parallelity to the measurement plane as well as the sensor displacement. The E-field value stated as calibration value represents the maximum of the interpolated 3D-E-field, 10mm above the dipole surface.
- **H-field distribution:** H-field is measured with an isotropic H-field probe with 100mW forward power to the antenna feed point, in the x-y-plane. The scan area and sensor distance is equivalent to the E-field scan. The maximum of the field is available at the center (subgrid 5) above the feed point. The H-field value stated as calibration value represents the maximum of the interpolated H-field, 10mm above the dipole surface at the feed point.

FCC ID: QMNRM-154		HAC (RF EMISSIONS) TEST REPORT		Reviewed by: Quality Manager
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1 Measurement Conditions

DASY system configuration, as far as not given on page 1.

DASY Version	DASY4	V4.7B44
DASY PP Version	SEMCAD	V1.8 B171
Phantom	HAC Test Arch	SD HAC P01 BA, #1002
Distance Dipole Top - Probe Center	10 mm	
Scan resolution	dx, dy = 5 mm	area = 20 x 90 mm
Frequency	1880 MHz \pm 1 MHz	
Forward power at dipole connector	20.0 dBm = 100mW	
Input power drift	< 0.05 dB	

2 Maximum Field values

H-field 10 mm above dipole surface	condition	Interpolated maximum
Maximum measured	100 mW forward power	0.451 A/m

Uncertainty for H-field measurement: 8.2% (k=2)

E-field 10 mm above dipole surface	condition	Interpolated maximum
Maximum measured above high end	100 mW forward power	137.9 V/m
Maximum measured above low end	100 mW forward power	131.3 V/m
Averaged maximum above arm	100 mW forward power	134.6 V/m

Uncertainty for E-field measurement: 12.8% (k=2)

3 Appendix

3.1 Antenna Parameters

Frequency	Return Loss	Impedance
1710 MHz	20.4 dB	(49.1 + j9.5) Ohm
1880 MHz	22.1 dB	(50.7 + j7.9) Ohm
1900 MHz	22.5 dB	(52.6 + j7.2) Ohm
1950 MHz	30.6 dB	(53.0 - j0.3) Ohm
2000 MHz	20.8 dB	(41.8 + j1.7) Ohm



3.2 Antenna Design and Handling

The calibration dipole has a symmetric geometry with a built-in two stub matching network, which leads to the enhanced bandwidth.

The dipole is built of standard semirigid coaxial cable. The internal matching line is open ended. The antenna is therefore open for DC signals.

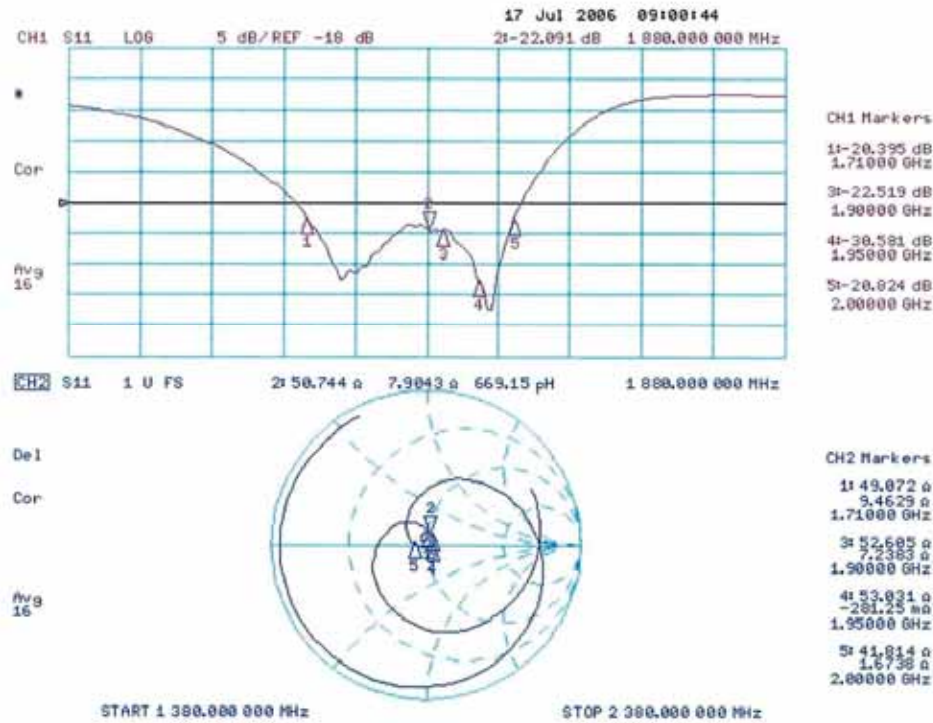
Do not apply force to dipole arms, as they are liable to bend. The soldered connections near the feedpoint may be damaged. After excessive mechanical stress or overheating, check the impedance characteristics to ensure that the internal matching network is not affected.



After long term use with 40W radiated power, only a slight warming of the dipole near the feedpoint can be measured.

FCC ID: QMNRM-154	 HAC (RF EMISSIONS) TEST REPORT 	Reviewed by: Quality Manager
HAC Filename: 0705080403.QMN	Test Dates: May 5 - 7, 2007	EUT Type: Cellular/PCS CDMA Phone with AMPS and Bluetooth
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3.3 Measurement Sheets

3.3.1 Return Loss and Smith Chart



FCC ID: QMNRM-154	 PCTEST	HAC (RF EMISSIONS) TEST REPORT	 NOKIA	Reviewed by: Quality Manager
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3.3.2 DASY4 H-field result

Date/Time: 7/18/2006 10:16:29 AM

Test Laboratory: SPEAG, Zurich, Switzerland

DUT: HAC Dipole 1880 MHz; Type: CD1880V3; Serial: 1064

Communication System: CW; Frequency: 1880 MHz; Duty Cycle: 1:1

Medium: Air

Medium parameters used: $\sigma = 0$ mho/m, $\epsilon_r = 1$; $\rho = 1$ kg/m³

Phantom section: H Dipole Section

DASY4 Configuration:

- Probe: H3DV6 - SN6065; Calibrated: 12/20/2005
- Sensor-Surface: (Fix Surface)
- Electronics: DAE4 Sn660; Calibrated: 3/1/2006
- Phantom: HAC Test Arch 4.6; Type: SD HAC P01 BA; Serial: 1002
- Measurement SW: DASY4, V4.7 Build 44; Postprocessing SW: SEMCAD, V1.8 Build 171

H Scan - Sensor Center 10mm above CD1880V3 Dipole/Hearing Aid Compatibility Test (41x181x1):

Measurement grid: dx=5mm, dy=5mm

Maximum value of peak Total field = 0.451 A/m

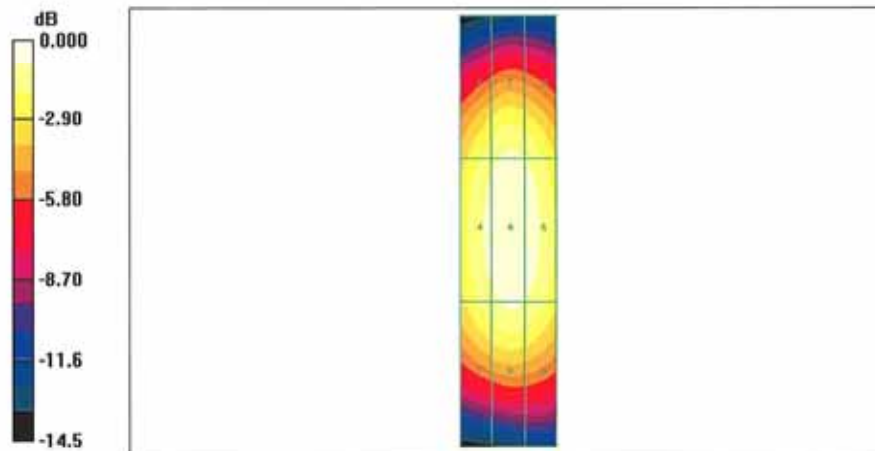
Probe Modulation Factor = 1.00

Reference Value = 0.476 A/m; Power Drift = -0.002 dB

Hearing Aid Near-Field Category: M2 (AWF 0 dB)

Peak H-field in A/m



Grid 1	Grid 2	Grid 3
0.389	0.417	0.402
Grid 4	Grid 5	Grid 6
0.425	0.451	0.437
Grid 7	Grid 8	Grid 9
0.387	0.412	0.398



0 dB = 0.451 A/m

Certificate No: CD1880V3-1064_Jul06

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FCC ID: QMNRM-154		HAC (RF EMISSIONS) TEST REPORT		Reviewed by: Quality Manager
HAC Filename: 0705080403.QMN	Test Dates: May 5 - 7, 2007	EUT Type: Cellular/PCS CDMA Phone with AMPS and Bluetooth		Page 63 of 70

3.3.3 DASY4 E-Field result

Date/Time: 7/18/2006 11:51:17 AM

Test Laboratory: SPEAG, Zurich, Switzerland

DUT: HAC Dipole 1880 MHz; Type: CD1880V3; Serial: 1064

Communication System: CW; Frequency: 1880 MHz; Duty Cycle: 1:1

Medium: Air

Medium parameters used: $\sigma = 0$ mho/m, $\epsilon_r = 1$; $\rho = 1000$ kg/m³

Phantom section: E Dipole Section

DASY4 Configuration:

- Probe: ER3DV6 - SN2336; ConvF(1, 1, 1); Calibrated: 12/20/2005
- Sensor-Surface: (Fix Surface)
- Electronics: DAE4 Sn660; Calibrated: 3/1/2006
- Phantom: HAC Test Arch 4.6; Type: SD HAC P01 BA; Serial: 1002
- Measurement SW: DASY4, V4.7 Build 44; Postprocessing SW: SEMCAD, V1.8 Build 171

E Scan - Sensor Center 10mm above CD1880V3 Dipole/Hearing Aid Compatibility Test (41x181x1):

Measurement grid: dx=5mm, dy=5mm

Maximum value of peak Total field = 137.9 V/m

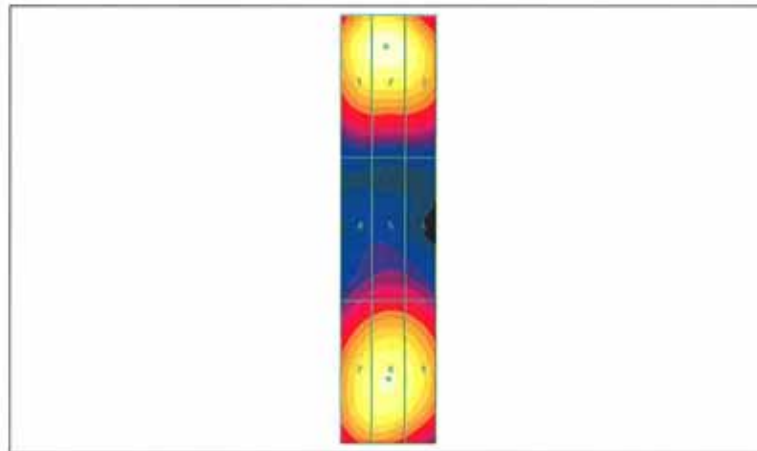
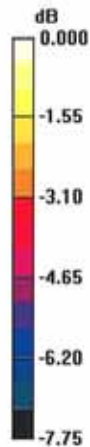
Probe Modulation Factor = 1.00

Reference Value = 132.3 V/m; Power Drift = 0.013 dB

Hearing Aid Near-Field Category: M2 (AWF 0 dB)

Peak E-field in V/m



Grid 1	Grid 2	Grid 3
134.7	137.9	131.1
Grid 4	Grid 5	Grid 6
86.8	90.4	88.7
Grid 7	Grid 8	Grid 9
128.1	131.3	127.7



0 dB = 137.9V/m

Certificate No: CD1880V3-1064_Jul06



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15. CONCLUSION



The measurements indicate that the wireless communications device complies with the HAC limits specified in accordance with the ANSI C63.19 Standard and FCC WT Docket No. 01-309 RM-8658. Precise laboratory measures were taken to assure repeatability of the tests. The tested device complies with the requirements in respect to all parameters specific to the test. The test results and statements relate only to the item(s) tested.

Please note that the M-rating for this equipment only represents the field interference possible against a hypothetical and typical hearing aid. The measurement system and techniques presented in this evaluation are proposed in the ANSI standard as a means of best approximating wireless device compatibility with a hearing-aid. The literature is under continual re-construction.



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