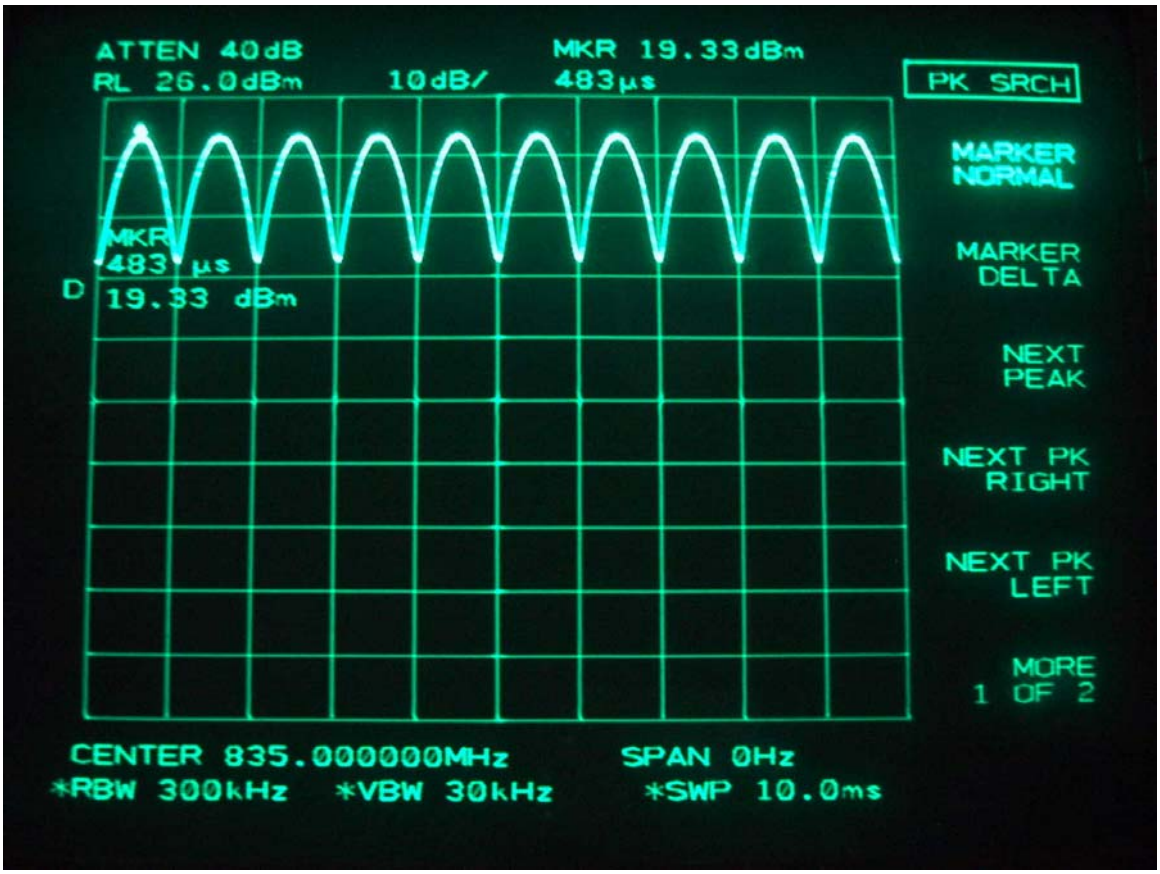
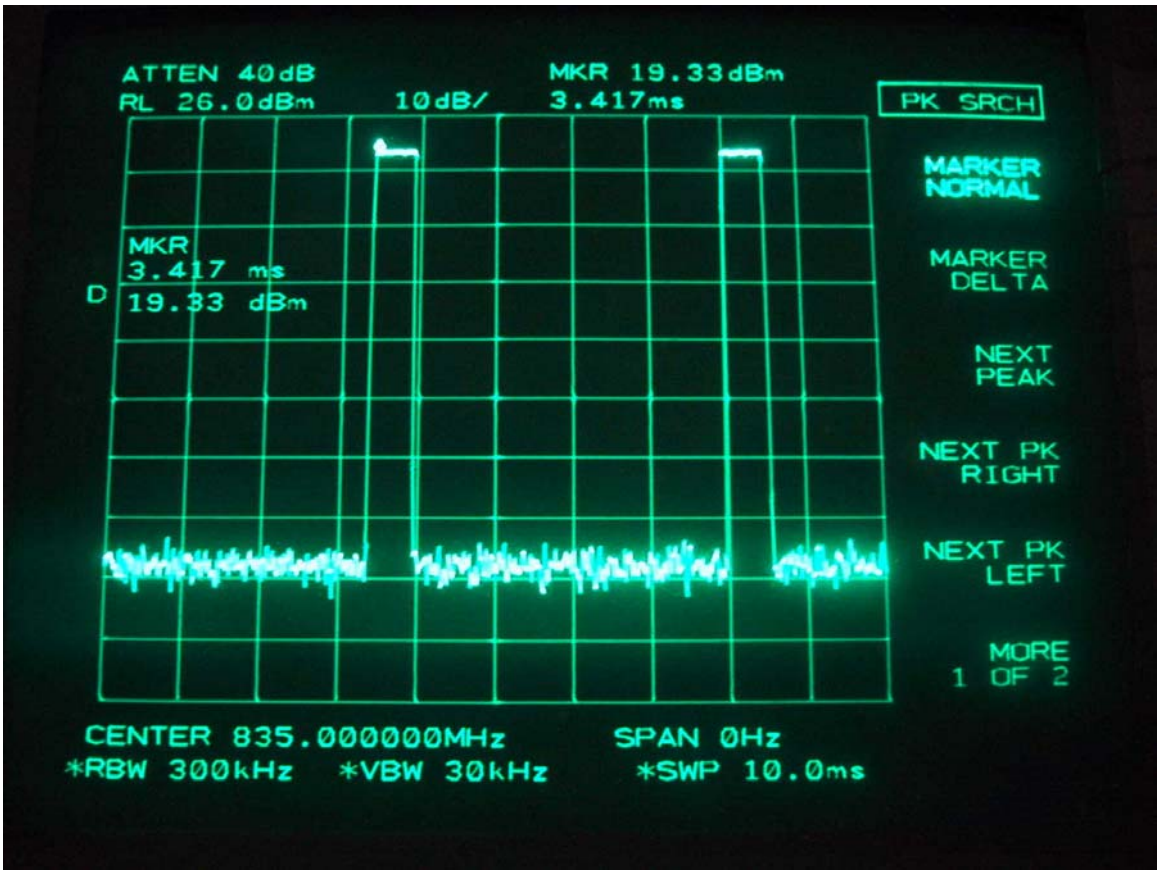
Annex A: Measurement data and plots

A.1 Spectrum analyser plots: CW, 80%AM and GSM signals

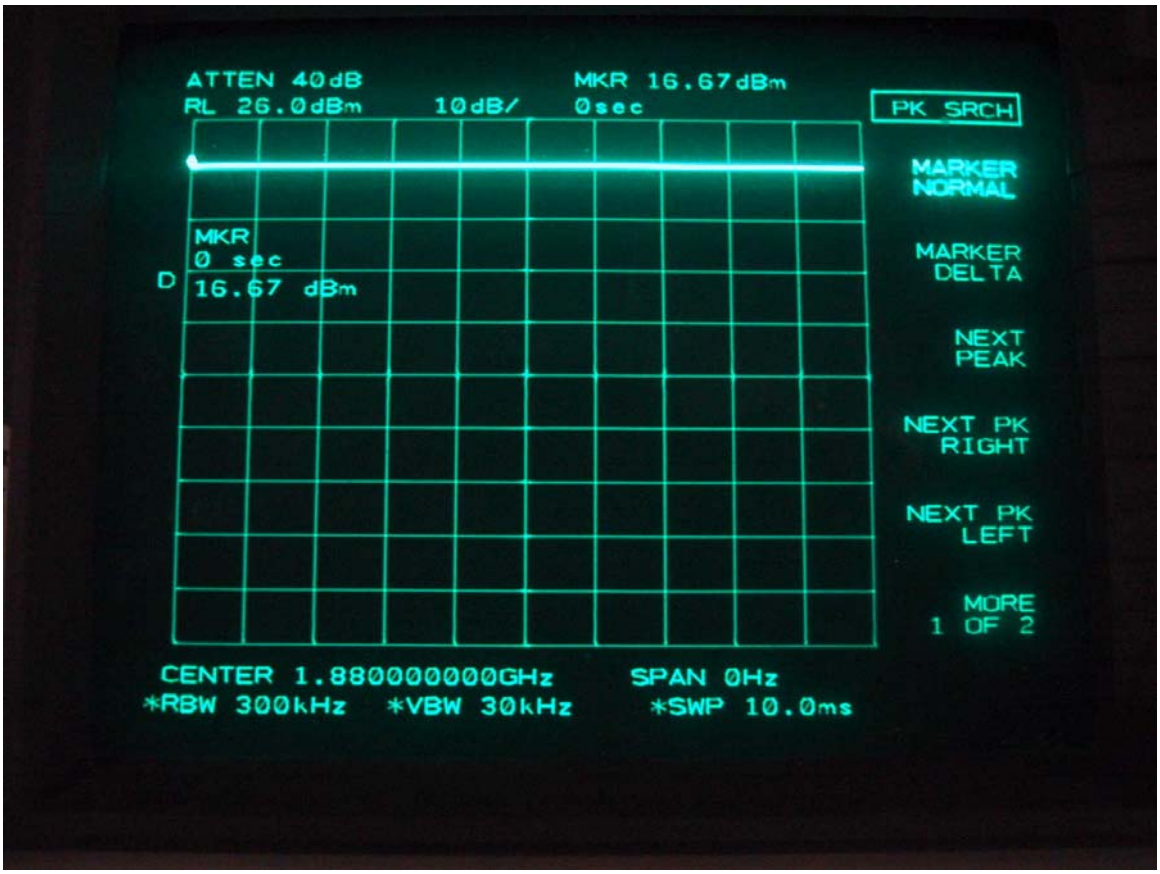
0 Hz Span CW Plot (835MHz)



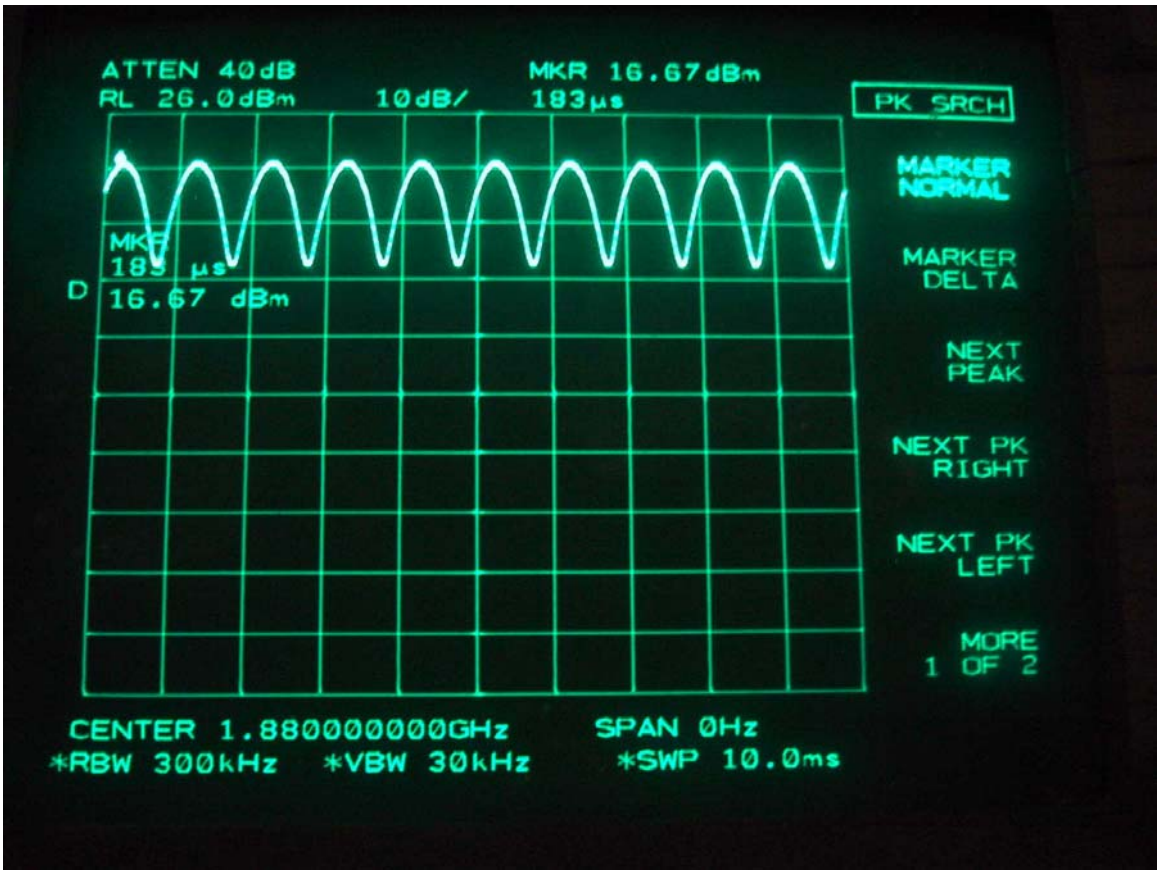
0 Hz Span 80% AM Plot (835MHz)



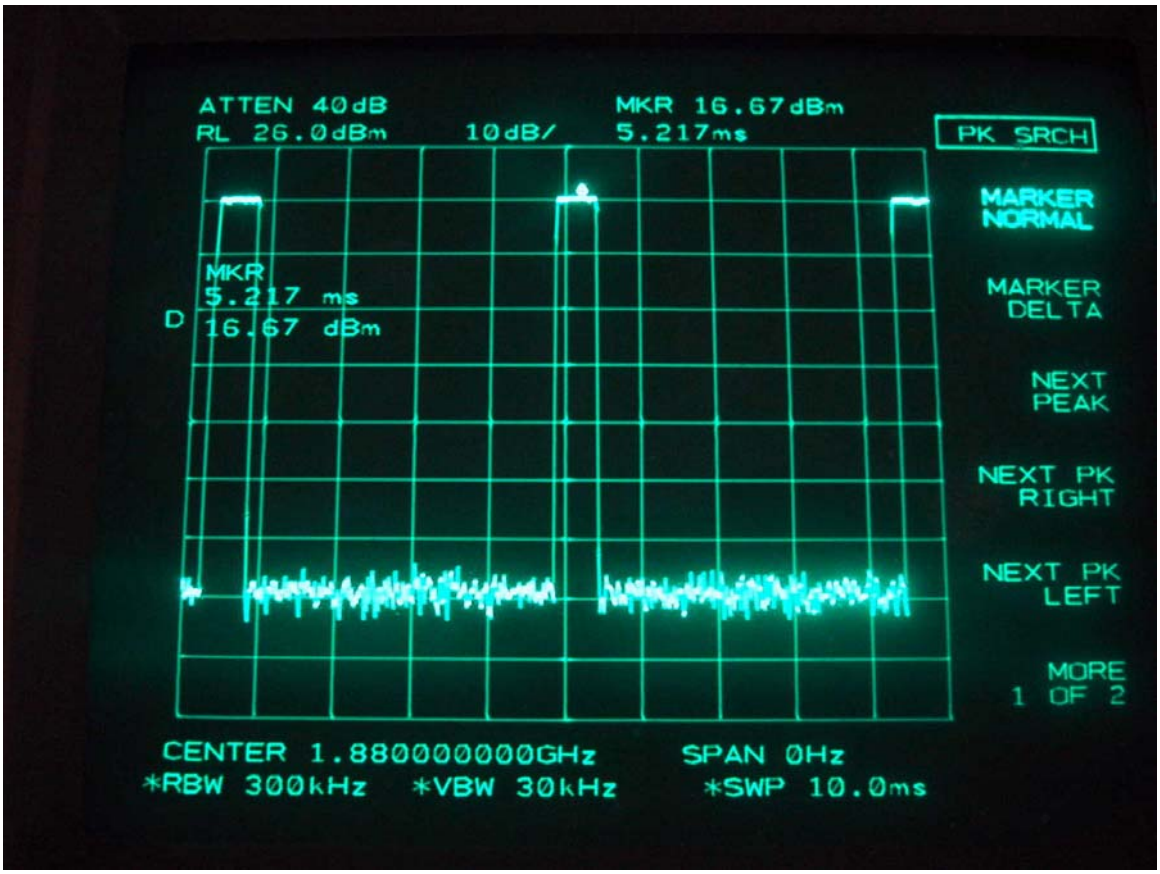
0 Hz Span GSM (835MHz)



0 Hz Span CW Plot (1880MHz)



0 Hz Span 80% AM Plot (1880MHz)



0 Hz Span GSM (1880MHz)

A.2 Dipole validation and probe modulation factor plots

Date/Time: 05/06/2007 10:10:02 AM

Test Laboratory: RTS

HAC_E_Dipole_835 MHz_CW_20dBm

DUT: HAC-Dipole 835 MHz; Type: D835V3; Serial: Not Specified

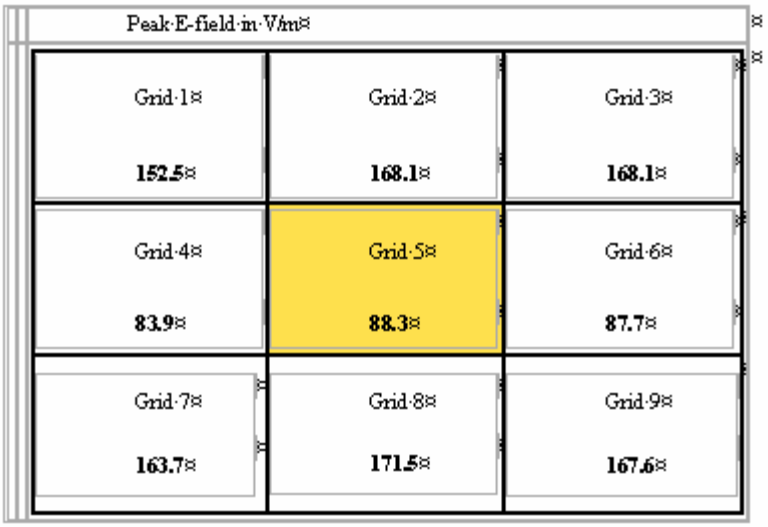
Communication System: CW; Frequency: 835 MHz;Duty Cycle: 1:1
Medium parameters used: σ = 0 mho/m, ε_r = 1; ρ = 1000 kg/m^3
Phantom section: H Device Section

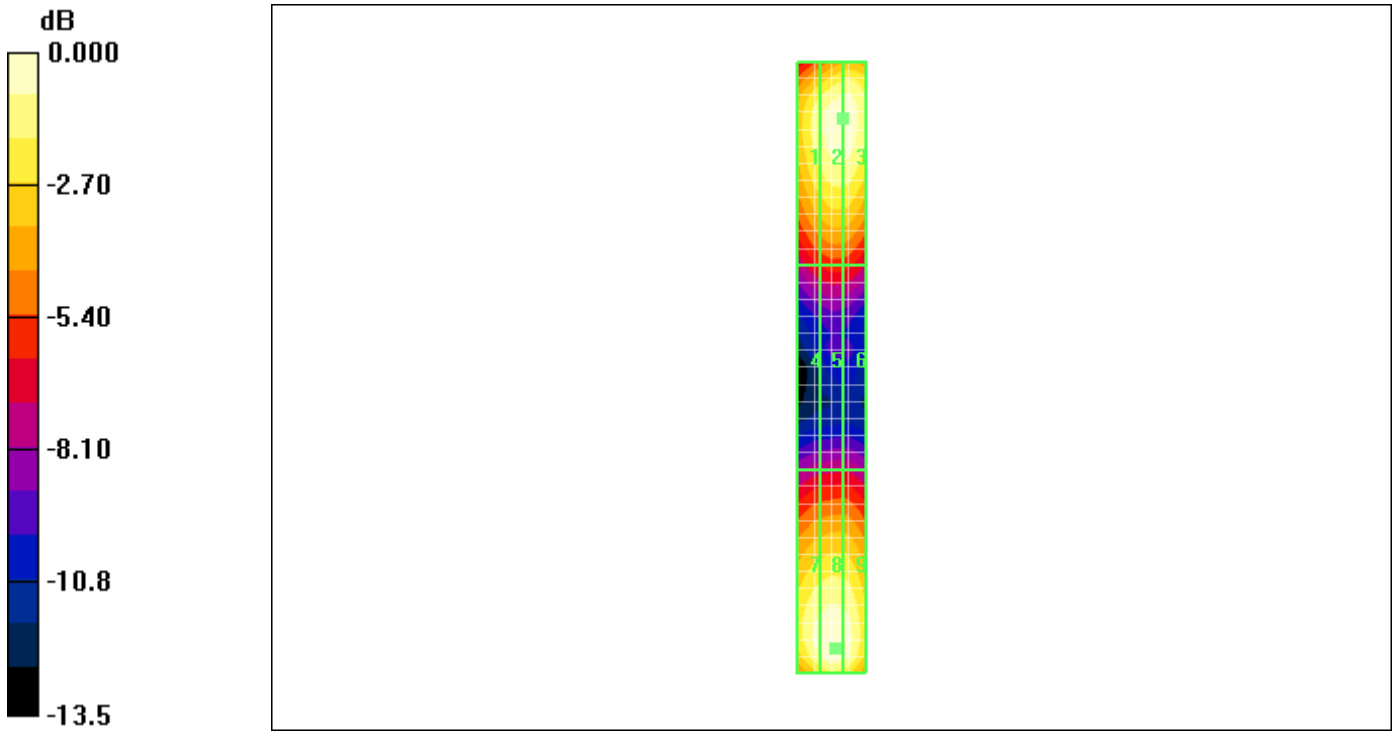
DASY4 Configuration:

- Probe: ER3DV6 - SN2286; ConvF(1, 1, 1); Calibrated: 10/01/2007
- Sensor-Surface: 0mm (Fix Surface)Sensor-Surface: (Fix Surface)
- Electronics: DAE3 Sn472; Calibrated: 07/03/2007
- Phantom: HAC Test Arch; Type: SD HAC P01 BA;
- Measurement SW: DASY4, V4.7 Build 53; Postprocessing SW: SEMCAD, V1.8 Build 172

E Scan - ER probe tip 10mm above CD835 Dipole/Hearing Aid Compatibility Test (5x37x1):
Measurement grid: dx=5mm, dy=5mm
Probe Modulation Factor = 1.00
Reference Value = 54.1 V/m; Power Drift = -0.018 dB
Maximum value of Total (measured) = 170.7 V/m

E Scan - ER probe tip 10mm above CD835 Dipole/Hearing Aid Compatibility Test (41x361x1): Measurement grid: dx=5mm, dy=5mm
Maximum value of peak Total field = 171.5 V/m
Probe Modulation Factor = 1.00
Reference Value = 54.1 V/m; Power Drift = -0.018 dB
Hearing Aid Near-Field Category: M4 (AWF 0 dB)





0 dB = 171.5V/m

Date/Time: 05/06/2007 10:20:35 AM

Test Laboratory: RTS

HAC_E_Dipole_835 MHz_CW_19_33dBm_PMF

DUT: HAC-Dipole 835 MHz; Type: D835V3; Serial: Not Specified

Communication System: CW; Frequency: 835 MHz;Duty Cycle: 1:1
Medium parameters used: σ = 0 mho/m, ε_r = 1; ρ = 1000 kg/m^3
Phantom section: H Device Section

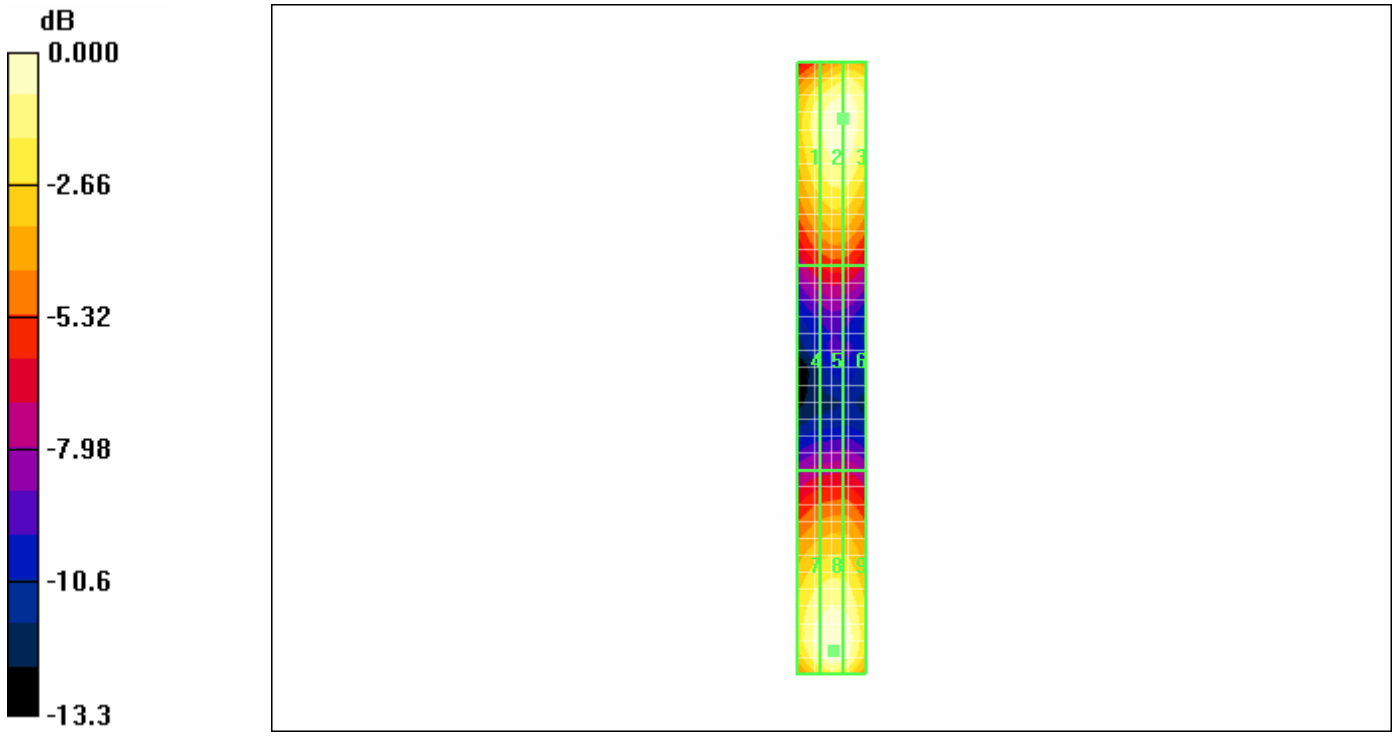
DASY4 Configuration:

- Probe: ER3DV6 - SN2286; ConvF(1, 1, 1); Calibrated: 10/01/2007
- Sensor-Surface: 0mm (Fix Surface)Sensor-Surface: (Fix Surface)
- Electronics: DAE3 Sn472; Calibrated: 07/03/2007
- Phantom: HAC Test Arch; Type: SD HAC P01 BA;
- Measurement SW: DASY4, V4.7 Build 53; Postprocessing SW: SEMCAD, V1.8 Build 172

E Scan - ER probe tip 10mm above CD835 Dipole/Hearing Aid Compatibility Test (5x37x1):
Measurement grid: dx=5mm, dy=5mm
Probe Modulation Factor = 1.00
Reference Value = 48.3 V/m; Power Drift = 0.008 dB
Maximum value of Total (measured) = 151.2 V/m

E Scan - ER probe tip 10mm above CD835 Dipole/Hearing Aid Compatibility Test (41x361x1): Measurement grid: dx=5mm, dy=5mm
Maximum value of peak Total field = 152.6 V/m
Probe Modulation Factor = 1.00
Reference Value = 48.3 V/m; Power Drift = 0.008 dB
Hearing Aid Near-Field Category: M4 (AWF 0 dB)

Peak E-field in V/m		
Grid 1	Grid 2	Grid 3
136.2	150.1	150.1
Grid 4	Grid 5	Grid 6
75.7	79.4	78.7
Grid 7	Grid 8	Grid 9
145.5	152.6	149.1



0 dB = 152.6V/m

Date/Time: 05/06/2007 10:30:00 AM

Test Laboratory: RTS

HAC_E_Dipole_835 MHz_80%AM_19_33dBm_PMF

DUT: HAC-Dipole 835 MHz; Type: D835V3; Serial: Not Specified

Communication System: AM 80%; Frequency: 835 MHz;Duty Cycle: 1:1
Medium parameters used: σ = 0 mho/m, ε_r = 1; ρ = 1000 kg/m^3
Phantom section: H Device Section

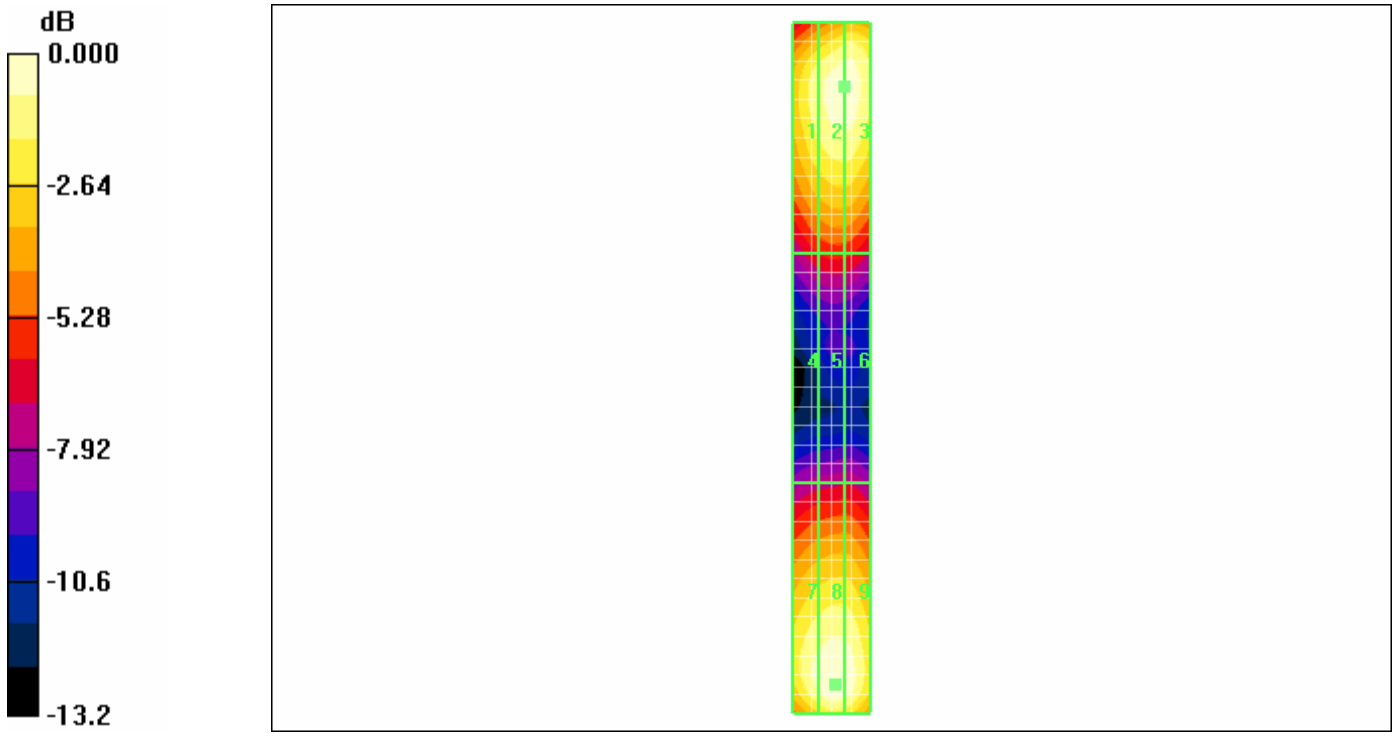
DASY4 Configuration:

- Probe: ER3DV6 - SN2286; ConvF(1, 1, 1); Calibrated: 10/01/2007
- Sensor-Surface: 0mm (Fix Surface)Sensor-Surface: (Fix Surface)
- Electronics: DAE3 Sn472; Calibrated: 07/03/2007
- Phantom: HAC Test Arch; Type: SD HAC P01 BA;
- Measurement SW: DASY4, V4.7 Build 53; Postprocessing SW: SEMCAD, V1.8 Build 172

E Scan - ER probe tip 10mm above CD835 Dipole/Hearing Aid Compatibility Test (5x37x1):
Measurement grid: dx=5mm, dy=5mm
Probe Modulation Factor = 1.00
Reference Value = 31.1 V/m; Power Drift = -0.038 dB
Maximum value of Total (measured) = 95.9 V/m

E Scan - ER probe tip 10mm above CD835 Dipole/Hearing Aid Compatibility Test (41x361x1): Measurement grid: dx=5mm, dy=5mm
Maximum value of peak Total field = 96.7 V/m
Probe Modulation Factor = 1.00
Reference Value = 31.1 V/m; Power Drift = -0.038 dB
Hearing Aid Near-Field Category: M4 (AWF 0 dB)

Peak E-field in V/m		
Grid 1	Grid 2	Grid 3
85.6	94.0	94.0
Grid 4	Grid 5	Grid 6
48.0	50.1	49.9
Grid 7	Grid 8	Grid 9
91.3	96.7	95.1



0 dB = 96.7V/m

Date/Time: 05/06/2007 9:53:49 AM

Test Laboratory: RTS

HAC_E_Dipole_835 MHz_GSM_19_33dBm_PMF

DUT: HAC-Dipole 835 MHz; Type: D835V3; Serial: Not Specified

Communication System: GSM 850; Frequency: 835 MHz;Duty Cycle: 1:8.3
Medium parameters used: σ = 0 mho/m, ε_r = 1; ρ = 1000 kg/m^3
Phantom section: H Device Section

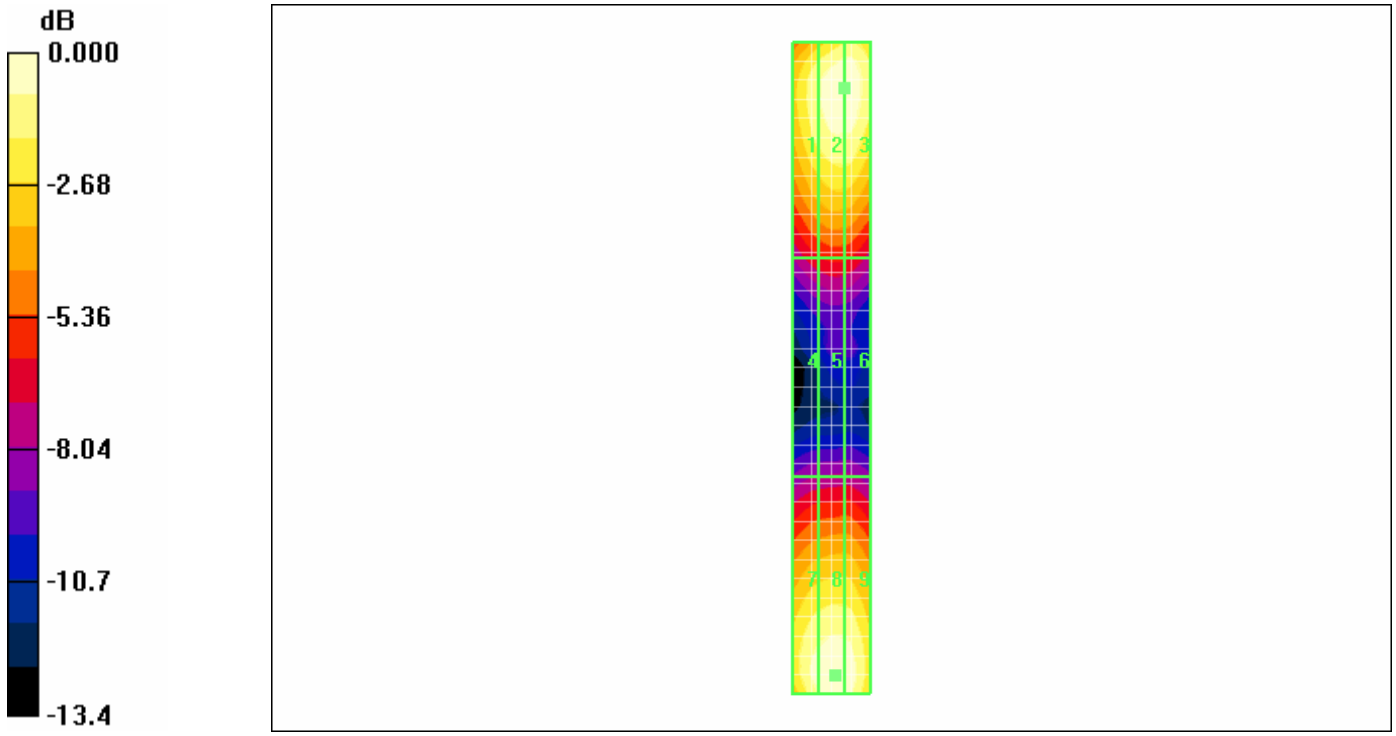
DASY4 Configuration:

- Probe: ER3DV6 - SN2286; ConvF(1, 1, 1); Calibrated: 10/01/2007
- Sensor-Surface: 0mm (Fix Surface)Sensor-Surface: (Fix Surface)
- Electronics: DAE3 Sn472; Calibrated: 07/03/2007
- Phantom: HAC Test Arch; Type: SD HAC P01 BA;
- Measurement SW: DASY4, V4.7 Build 53; Postprocessing SW: SEMCAD, V1.8 Build 172

E Scan - ER probe tip 10mm above CD835 Dipole/Hearing Aid Compatibility Test (5x35x1):
Measurement grid: dx=5mm, dy=5mm
Probe Modulation Factor = 1.00
Reference Value = 17.1 V/m; Power Drift = 0.098 dB
Maximum value of Total (measured) = 54.2 V/m

E Scan - ER probe tip 10mm above CD835 Dipole/Hearing Aid Compatibility Test (41x341x1): Measurement grid: dx=5mm, dy=5mm
Maximum value of peak Total field = 54.3 V/m
Probe Modulation Factor = 1.00
Reference Value = 17.1 V/m; Power Drift = 0.098 dB
Hearing Aid Near-Field Category: M4 (AWF -5 dB)

Peak E-field in V/m		
Grid 1	Grid 2	Grid 3
49.0	53.9	53.9
Grid 4	Grid 5	Grid 6
26.1	27.3	27.0
Grid 7	Grid 8	Grid 9
51.8	54.3	53.6



0 dB = 54.3V/m

Date/Time: 04/06/2007 1:01:25 PM

Test Laboratory: RTS

HAC_E_Dipole_1880 MHz_CW_20dBm

DUT: HAC Dipole 1880 MHz; Type: CD1880V3; Serial: Not Specified

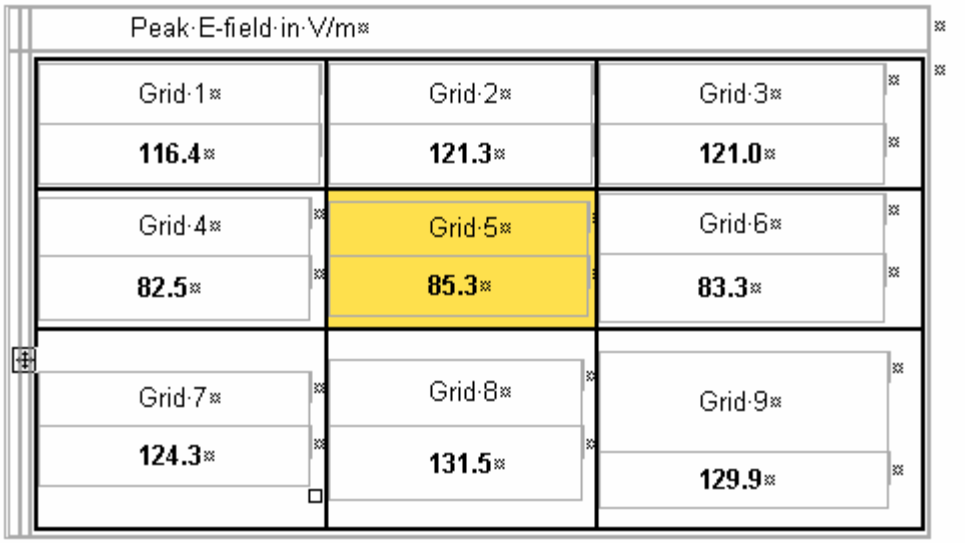
Communication System: CW; Frequency: 1880 MHz;Duty Cycle: 1:1
Medium parameters used: σ = 0 mho/m, ε_r = 1; ρ = 1000 kg/m^3
Phantom section: H Device Section

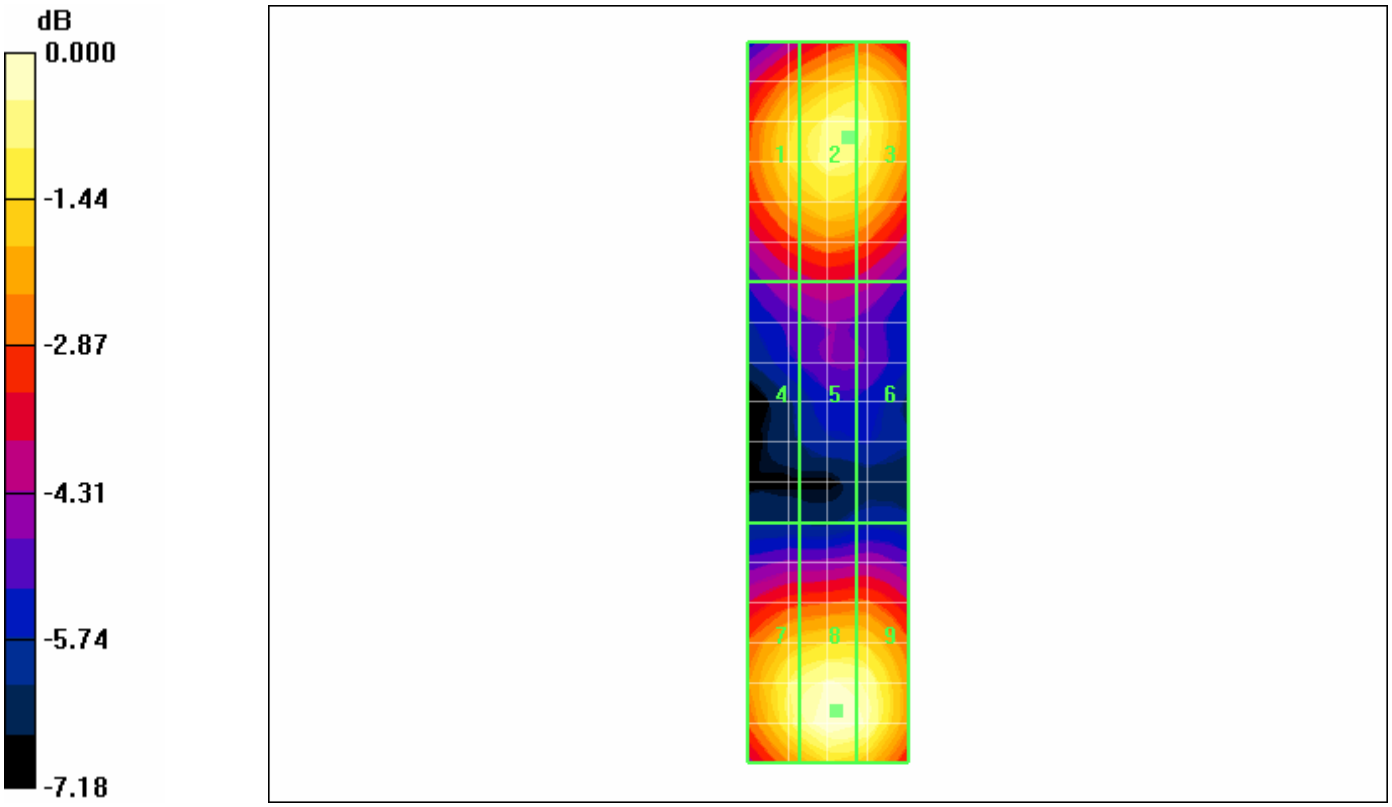
DASY4 Configuration:

- Probe: ER3DV6 - SN2286; ConvF(1, 1, 1); Calibrated: 10/01/2007
- Sensor-Surface: 0mm (Fix Surface)Sensor-Surface: (Fix Surface)
- Electronics: DAE3 Sn472; Calibrated: 07/03/2007
- Phantom: HAC Test Arch; Type: SD HAC P01 BA;
- Measurement SW: DASY4, V4.7 Build 53; Postprocessing SW: SEMCAD, V1.8 Build 172

E Scan - ER probe tip 10mm above CD1880 Dipole/Hearing Aid Compatibility Test (5x19x1): Measurement grid: dx=5mm, dy=5mm
Probe Modulation Factor = 1.00
Reference Value = 72.5 V/m; Power Drift = 0.004 dB
Maximum value of Total (measured) = 129.4 V/m

E Scan - ER probe tip 10mm above CD1880 Dipole/Hearing Aid Compatibility Test (41x181x1): Measurement grid: dx=5mm, dy=5mm
Maximum value of peak Total field = 131.5 V/m
Probe Modulation Factor = 1.00
Reference Value = 72.5 V/m; Power Drift = 0.004 dB
Hearing Aid Near-Field Category: M2 (AWF 0 dB)





0 dB = 131.5V/m

Date/Time: 04/06/2007 2:45:12 PM

Test Laboratory: RTS

HAC_E_Dipole_1880 MHz_CW_16_67dBm_PMF

DUT: HAC Dipole 1880 MHz; Type: CD1880V3; Serial: Not Specified

Communication System: CW; Frequency: 1880 MHz;Duty Cycle: 1:1
Medium parameters used: σ = 0 mho/m, ε_r = 1; ρ = 1000 kg/m^3
Phantom section: H Device Section

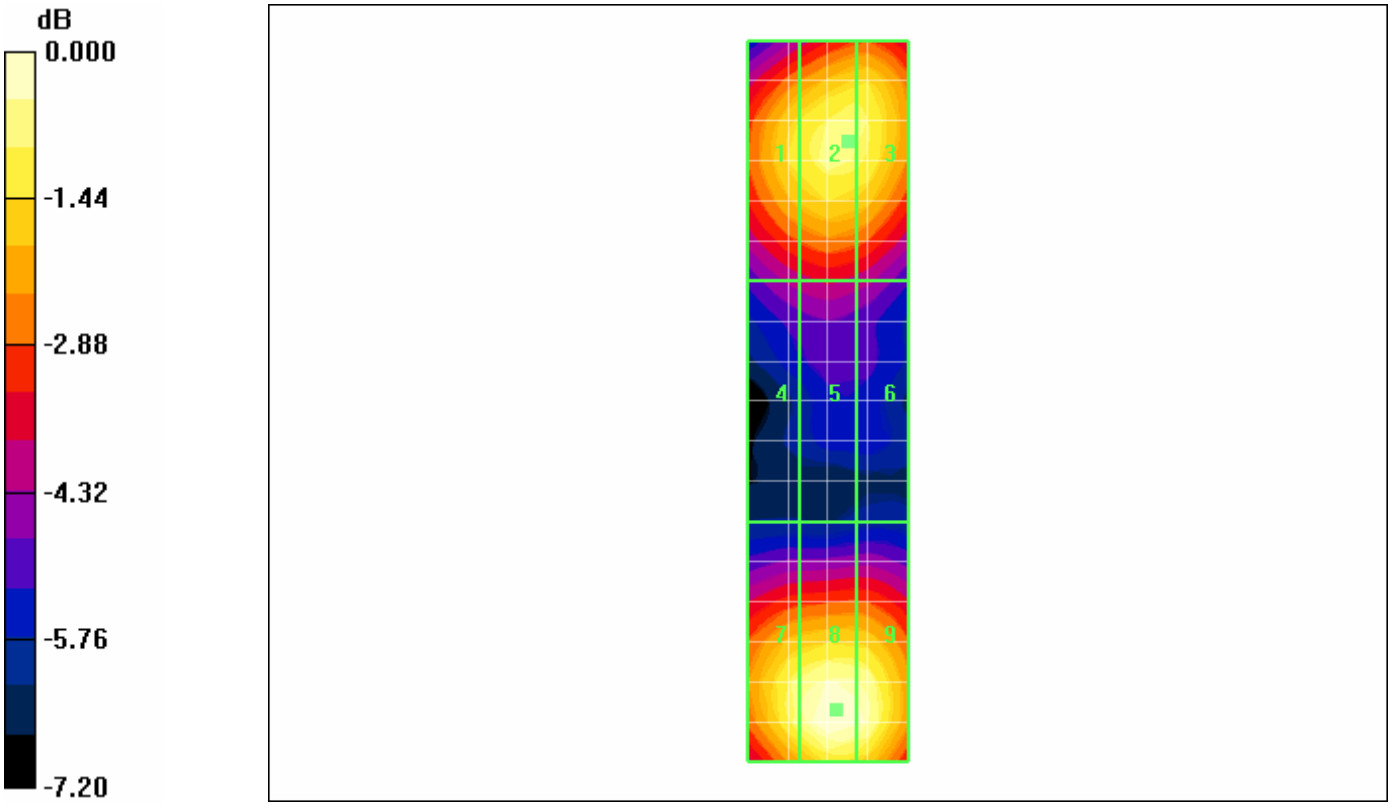
DASY4 Configuration:

- Probe: ER3DV6 - SN2286; ConvF(1, 1, 1); Calibrated: 10/01/2007
- Sensor-Surface: 0mm (Fix Surface)Sensor-Surface: (Fix Surface)
- Electronics: DAE3 Sn472; Calibrated: 07/03/2007
- Phantom: HAC Test Arch; Type: SD HAC P01 BA;
- Measurement SW: DASY4, V4.7 Build 53; Postprocessing SW: SEMCAD, V1.8 Build 172

E Scan - ER probe tip 10mm above CD1880 Dipole/Hearing Aid Compatibility Test (5x19x1): Measurement grid: dx=5mm, dy=5mm
Probe Modulation Factor = 1.00
Reference Value = 50.9 V/m; Power Drift = -0.045 dB
Maximum value of Total (measured) = 90.9 V/m

E Scan - ER probe tip 10mm above CD1880 Dipole/Hearing Aid Compatibility Test (41x181x1): Measurement grid: dx=5mm, dy=5mm
Maximum value of peak Total field = 92.1 V/m
Probe Modulation Factor = 1.00
Reference Value = 50.9 V/m; Power Drift = -0.045 dB
Hearing Aid Near-Field Category: M3 (AWF 0 dB)

Peak E-field in V/m		
Grid 1	Grid 2	Grid 3
81.2	84.6	84.4
Grid 4	Grid 5	Grid 6
57.9	59.9	58.2
Grid 7	Grid 8	Grid 9
86.8	92.1	90.8



0 dB = 92.1V/m

Date/Time: 04/06/2007 2:50:13 PM

Test Laboratory: RTS

HAC_E_Dipole_1880 MHz_80%AM_16_67dBm_PMF

DUT: HAC Dipole 1880 MHz; Type: CD1880V3; Serial: Not Specified

Communication System: CW; Frequency: 1880 MHz;Duty Cycle: 1:1
Medium parameters used: σ = 0 mho/m, ε_r = 1; ρ = 1000 kg/m^3
Phantom section: H Device Section

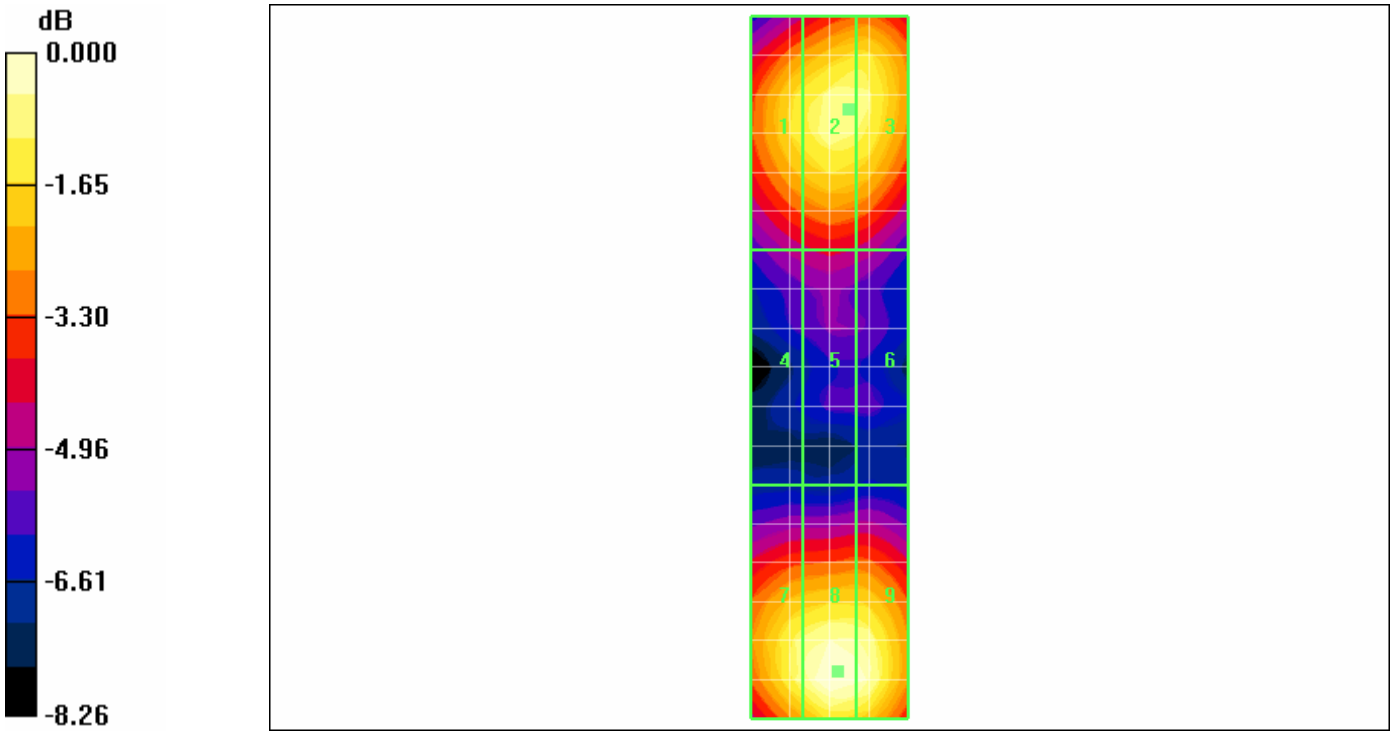
DASY4 Configuration:

- Probe: ER3DV6 - SN2286; ConvF(1, 1, 1); Calibrated: 10/01/2007
- Sensor-Surface: 0mm (Fix Surface)Sensor-Surface: (Fix Surface)
- Electronics: DAE3 Sn472; Calibrated: 07/03/2007
- Phantom: HAC Test Arch; Type: SD HAC P01 BA;
- Measurement SW: DASY4, V4.7 Build 53; Postprocessing SW: SEMCAD, V1.8 Build 172

E Scan - ER probe tip 10mm above CD1880 Dipole/Hearing Aid Compatibility Test (5x19x1): Measurement grid: dx=5mm, dy=5mm
Probe Modulation Factor = 1.00
Reference Value = 28.7 V/m; Power Drift = 0.001 dB
Maximum value of Total (measured) = 57.8 V/m

E Scan - ER probe tip 10mm above CD1880 Dipole/Hearing Aid Compatibility Test (41x181x1): Measurement grid: dx=5mm, dy=5mm
Maximum value of peak Total field = 58.6 V/m
Probe Modulation Factor = 1.00
Reference Value = 28.7 V/m; Power Drift = 0.001 dB
Hearing Aid Near-Field Category: M4 (AWF 0 dB)

Peak E-field in V/m		
Grid 1	Grid 2	Grid 3
51.0	53.6	53.4
Grid 4	Grid 5	Grid 6
34.7	36.1	34.9
Grid 7	Grid 8	Grid 9
54.6	58.6	57.7



0 dB = 58.6V/m

Date/Time: 04/06/2007 1:22:31 PM

Test Laboratory: RTS

HAC_E_Dipole_GSM1880_16_67dBm_PMF

DUT: HAC Dipole 1880 MHz; Type: CD1880V3; Serial: Not Specified

Communication System: GSM 1900; Frequency: 1880 MHz;Duty Cycle: 1:8.3
Medium parameters used: σ = 0 mho/m, ε_r = 1; ρ = 1000 kg/m^3
Phantom section: H Device Section

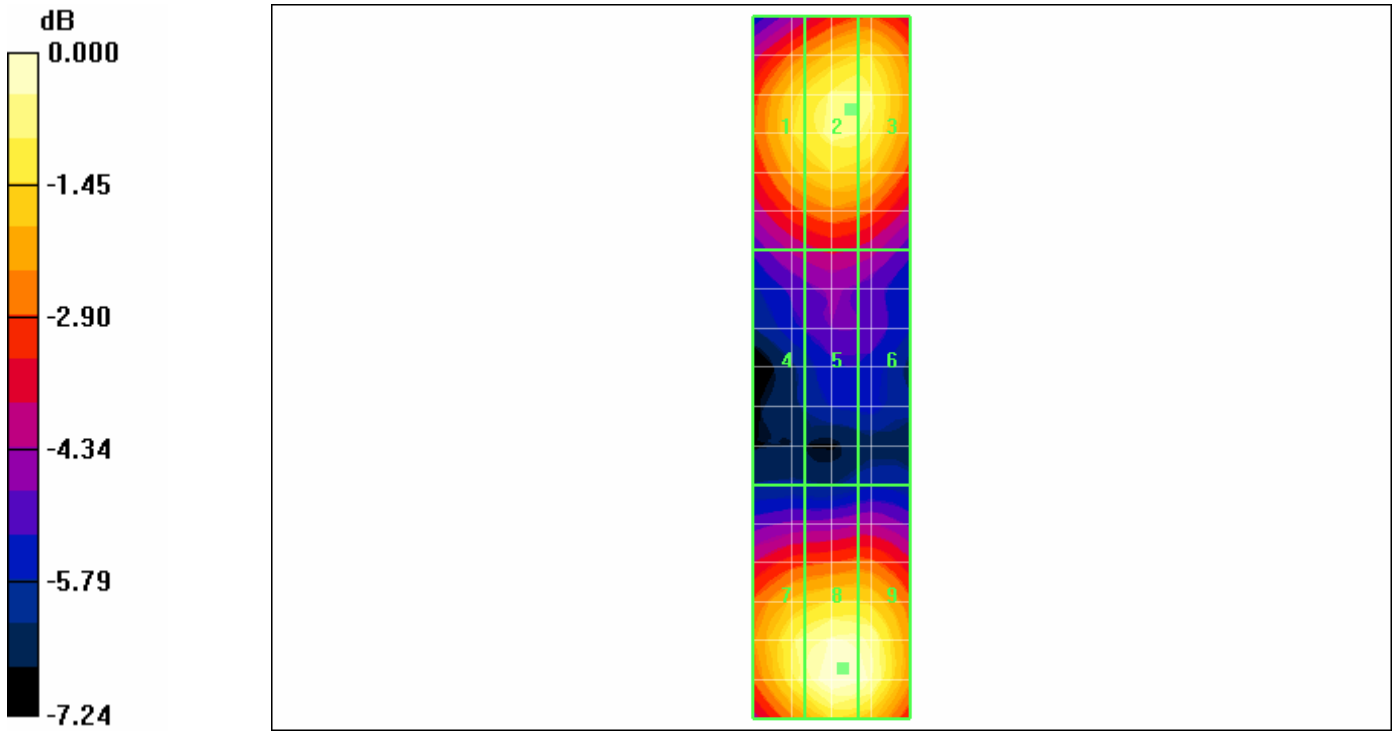
DASY4 Configuration:

- Probe: ER3DV6 - SN2286; ConvF(1, 1, 1); Calibrated: 10/01/2007
- Sensor-Surface: 0mm (Fix Surface)Sensor-Surface: (Fix Surface)
- Electronics: DAE3 Sn472; Calibrated: 07/03/2007
- Phantom: HAC Test Arch; Type: SD HAC P01 BA;
- Measurement SW: DASY4, V4.7 Build 53; Postprocessing SW: SEMCAD, V1.8 Build 172

E Scan - ER probe tip 10mm above CD1880 Dipole/Hearing Aid Compatibility Test (5x19x1): Measurement grid: dx=5mm, dy=5mm
Probe Modulation Factor = 1.00
Reference Value = 17.5 V/m; Power Drift = -0.017 dB
Maximum value of Total (measured) = 31.4 V/m

E Scan - ER probe tip 10mm above CD1880 Dipole/Hearing Aid Compatibility Test (41x181x1): Measurement grid: dx=5mm, dy=5mm
Maximum value of peak Total field = 32.0 V/m
Probe Modulation Factor = 1.00
Reference Value = 17.5 V/m; Power Drift = -0.017 dB
Hearing Aid Near-Field Category: M4 (AWF -5 dB)

Peak E-field in V/m		
Grid 1	Grid 2	Grid 3
28.1	29.5	29.5
Grid 4	Grid 5	Grid 6
20.1	20.8	20.3
Grid 7	Grid 8	Grid 9
30.1	32.0	31.6



0 dB = 32.0V/m

Date/Time: 05/06/2007 9:02:09 AM

Test Laboratory: RTS

HAC_H_Dipole_835 MHz_CW_20dBm

DUT: HAC-Dipole 835 MHz; Type: D835V3; Serial: Not Specified

Communication System: CW; Frequency: 835 MHz;Duty Cycle: 1:1
Medium parameters used: σ = 0 mho/m, ε_r = 1; ρ = 1 kg/m^3
Phantom section: H Device Section

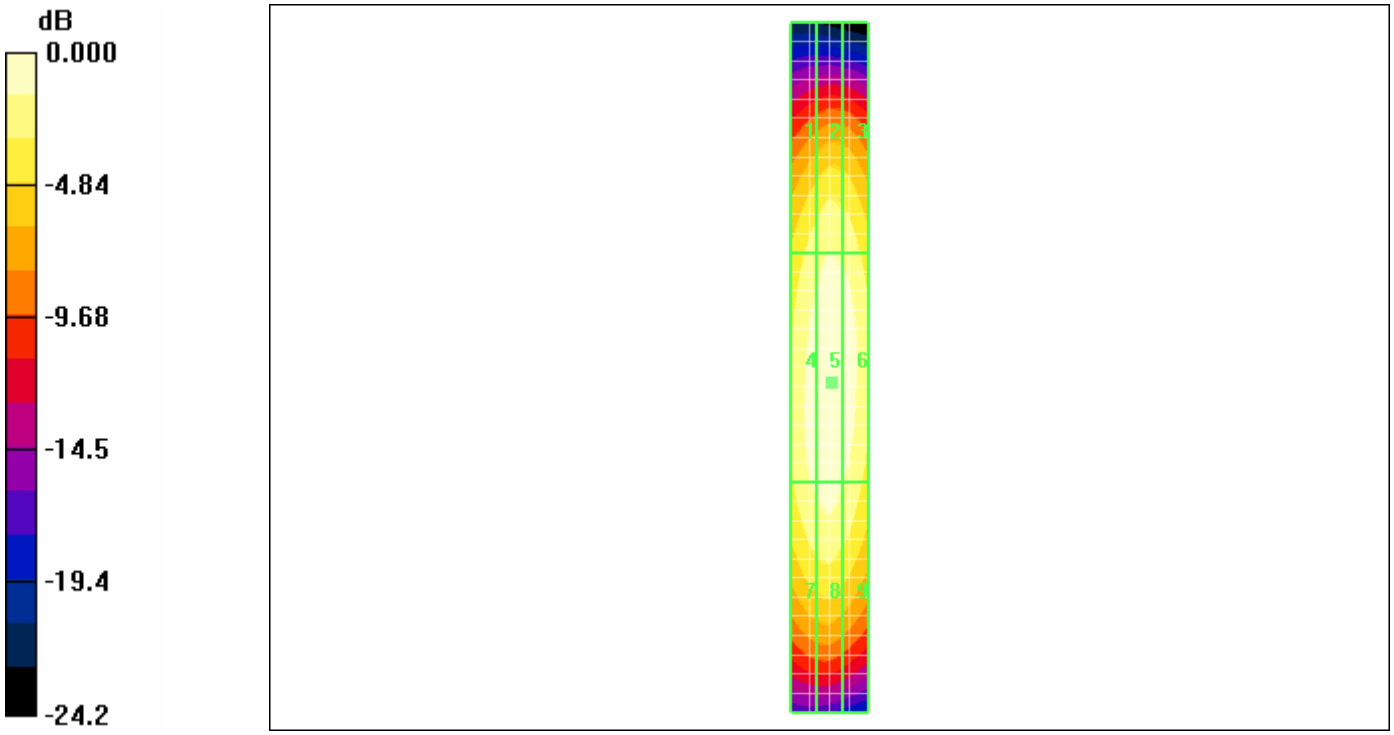
DASY4 Configuration:

- Probe: H3DV6 - SN6105; ; Calibrated: 15/11/2006
- Sensor-Surface: 0mm (Fix Surface)Sensor-Surface: (Fix Surface)
- Electronics: DAE3 Sn472; Calibrated: 07/03/2007
- Phantom: HAC Test Arch; Type: SD HAC P01 BA;
- Measurement SW: DASY4, V4.7 Build 53; Postprocessing SW: SEMCAD, V1.8 Build 172

H Scan - H3DV6 probe tip 10mm above CD1880 Dipole/Hearing Aid Compatibility Test (5x37x1): Measurement grid: dx=5mm, dy=5mm
Probe Modulation Factor = 1.00
Reference Value = 0.475 A/m; Power Drift = 0.007 dB
Maximum value of Total (measured) = 0.488 A/m

H Scan - H3DV6 probe tip 10mm above CD1880 Dipole/Hearing Aid Compatibility Test (41x361x1): Measurement grid: dx=5mm, dy=5mm
Maximum value of peak Total field = 0.488 A/m
Probe Modulation Factor = 1.00
Reference Value = 0.475 A/m; Power Drift = 0.007 dB
Hearing Aid Near-Field Category: M4 (AWF 0 dB)

Peak H-field in A/m		
Grid 1 0.377	Grid 2 0.407	Grid 3 0.395
Grid 4 0.455	Grid 5 0.488	Grid 6 0.466
Grid 7 0.420	Grid 8 0.440	Grid 9 0.410



0 dB = 0.488A/m

Date/Time: 27/06/2006 9:00:18 AM

Test Laboratory: RTS

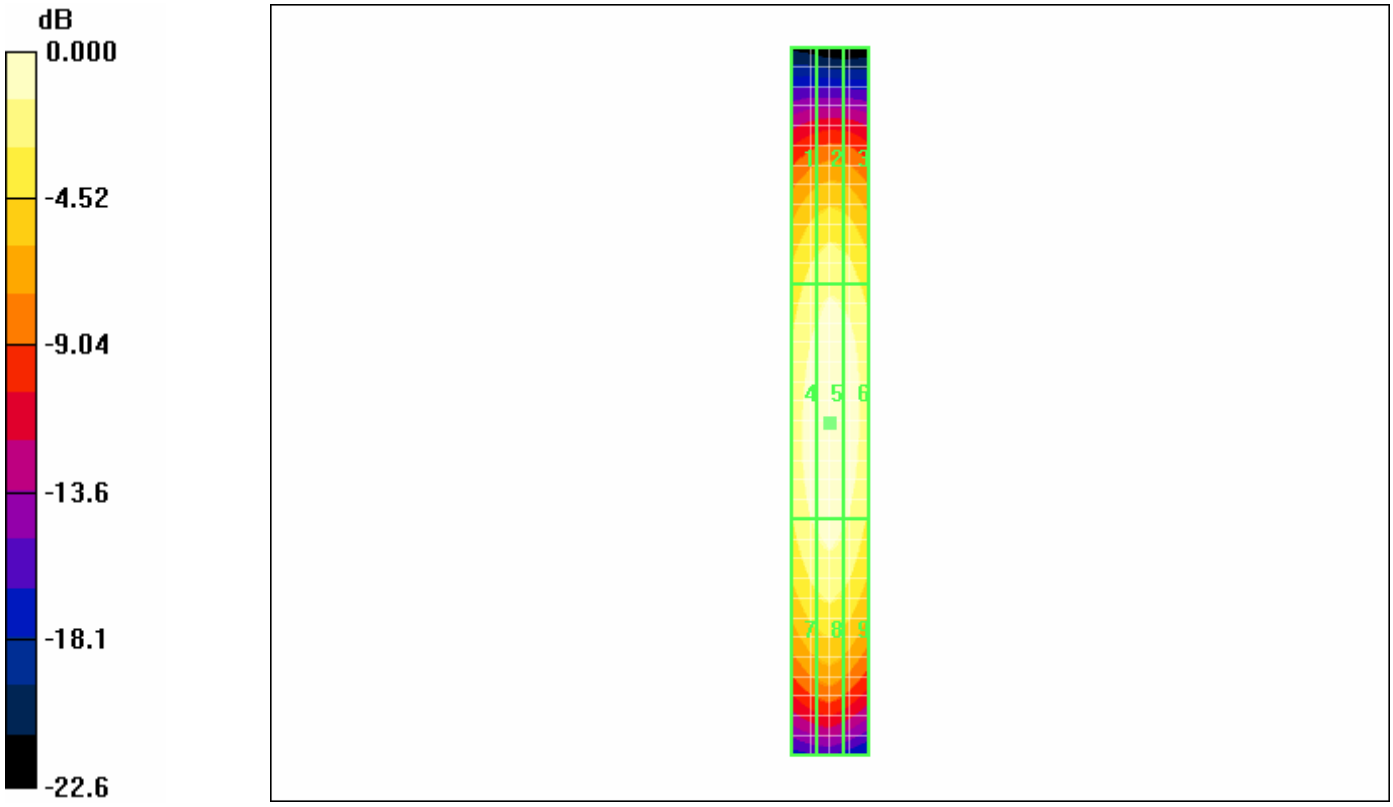
HAC_H_Dipole_835 MHz_CW_19_33dBm
DUT: HAC-Dipole 835 MHz; Type: D835V3; Serial: Not Specified
Communication System: CW; Frequency: 835 MHz;Duty Cycle: 1:1
Medium parameters used: σ = 0 mho/m, ε_r = 1; ρ = 1 kg/m^3
Phantom section: H Device Section
DASY4 Configuration:

- Probe: H3DV6 - SN6105; ; Calibrated: 15/11/2006
- Sensor-Surface: 0mm (Fix Surface)Sensor-Surface: (Fix Surface)
- Electronics: DAE3 Sn472; Calibrated: 07/03/2007
- Phantom: HAC Test Arch; Type: SD HAC P01 BA;
- Measurement SW: DASY4, V4.7 Build 44; Postprocessing SW: SEMCAD, V1.8 Build 172

H Scan - H3DV6 probe tip 10mm above CD1880 Dipole/Hearing Aid Compatibility Test (5x37x1): Measurement grid: dx=5mm, dy=5mm
Probe Modulation Factor = 1.00
Reference Value = 0.435 A/m; Power Drift = 0.124 dB
Maximum value of Total (measured) = 0.488 A/m

H Scan - H3DV6 probe tip 10mm above CD1880 Dipole/Hearing Aid Compatibility Test (41x361x1): Measurement grid: dx=5mm, dy=5mm
Maximum value of peak Total field = 0.488 A/m
Probe Modulation Factor = 1.00
Reference Value = 0.435 A/m; Power Drift = 0.124 dB
Hearing Aid Near-Field Category: M4 (AWF 0 dB)

Peak H-field in A/m		
Grid 1	Grid 2	Grid 3
0.392	0.386	0.398
Grid 4	Grid 5	Grid 6
0.470	0.488	0.462
Grid 7	Grid 8	Grid 9
0.388	0.391	0.401



0 dB = 0.377A/m

Date/Time: 05/06/2007 9:28:13 AM

Test Laboratory: RTS

HAC_H_Dipole_835 MHz_80%AM_19_33dBm

DUT: HAC-Dipole 835 MHz; Type: D835V3; Serial: Not Specified

Communication System: 80%AM; Frequency: 835 MHz;Duty Cycle: 1:1
Medium parameters used: σ = 0 mho/m, ε_r = 1; ρ = 1 kg/m^3
Phantom section: H Device Section

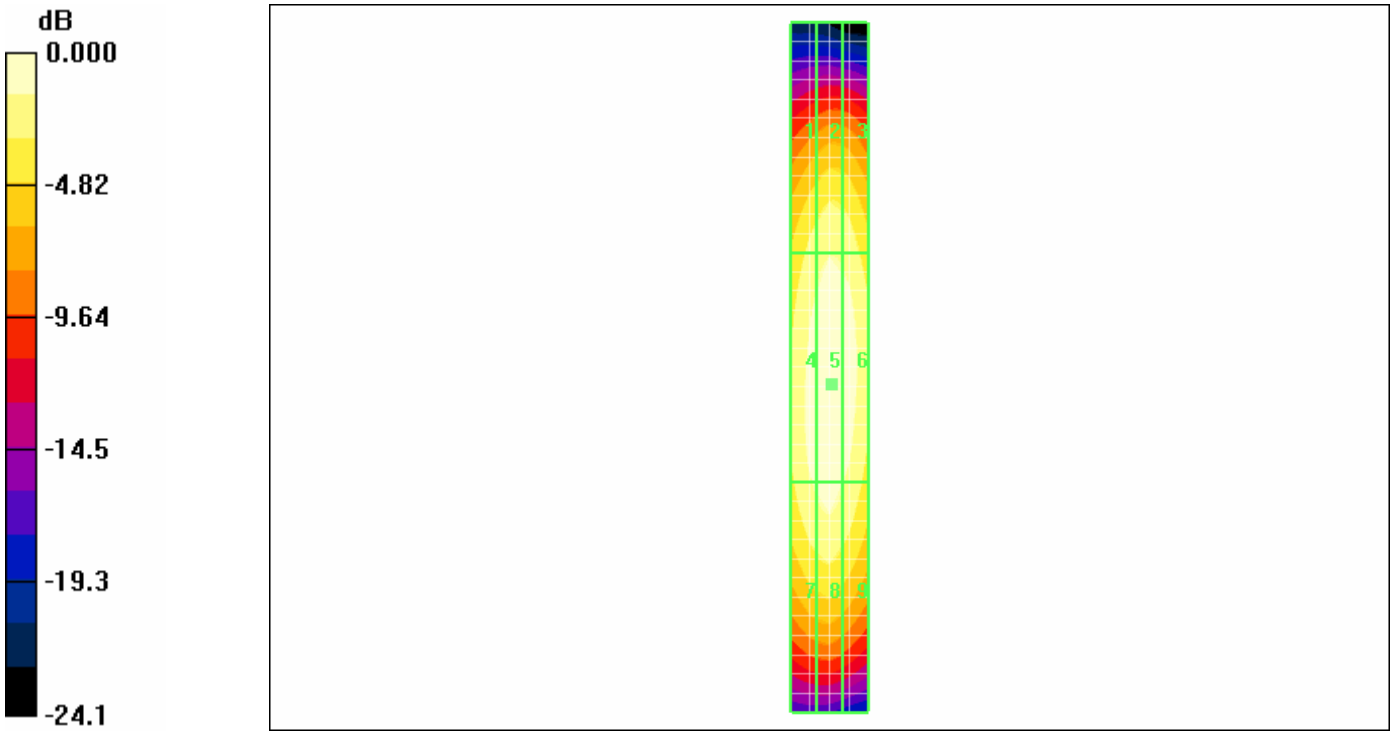
DASY4 Configuration:

- Probe: H3DV6 - SN6105; ; Calibrated: 15/11/2006
- Sensor-Surface: 0mm (Fix Surface)Sensor-Surface: (Fix Surface)
- Electronics: DAE3 Sn472; Calibrated: 07/03/2007
- Phantom: HAC Test Arch; Type: SD HAC P01 BA;
- Measurement SW: DASY4, V4.7 Build 53; Postprocessing SW: SEMCAD, V1.8 Build 172

H Scan - H3DV6 probe tip 10mm above CD835 Dipole/Hearing Aid Compatibility Test (5x37x1): Measurement grid: dx=5mm, dy=5mm
Probe Modulation Factor = 1.00
Reference Value = 0.281 A/m; Power Drift = -0.024 dB
Maximum value of Total (measured) = 0.290 A/m

H Scan - H3DV6 probe tip 10mm above CD835 Dipole/Hearing Aid Compatibility Test (41x361x1): Measurement grid: dx=5mm, dy=5mm
Maximum value of peak Total field = 0.290 A/m
Probe Modulation Factor = 1.00
Reference Value = 0.281 A/m; Power Drift = -0.024 dB
Hearing Aid Near-Field Category: M4 (AWF 0 dB)

Peak H-field in A/m		
Grid 1 0.222	Grid 2 0.239	Grid 3 0.233
Grid 4 0.270	Grid 5 0.290	Grid 6 0.275
Grid 7 0.248	Grid 8 0.261	Grid 9 0.244



0 dB = 0.290A/m

Date/Time: 05/06/2007 9:38:03 AM

Test Laboratory: RTS

HAC_H_Dipole_835 MHz_GSM_19_33dBm

DUT: HAC-Dipole 835 MHz; Type: D835V3; Serial: Not Specified

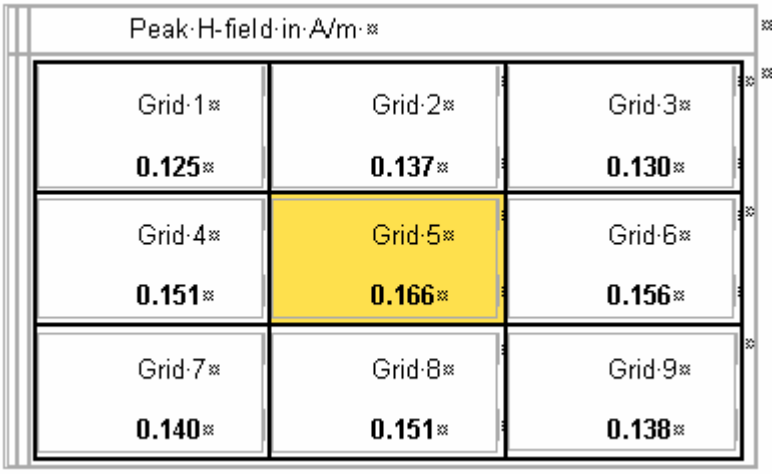
Communication System: GSM 850; Frequency: 835 MHz;Duty Cycle: 1:8.3
Medium parameters used: σ = 0 mho/m, ε_r = 1; ρ = 1 kg/m^3
Phantom section: H Device Section

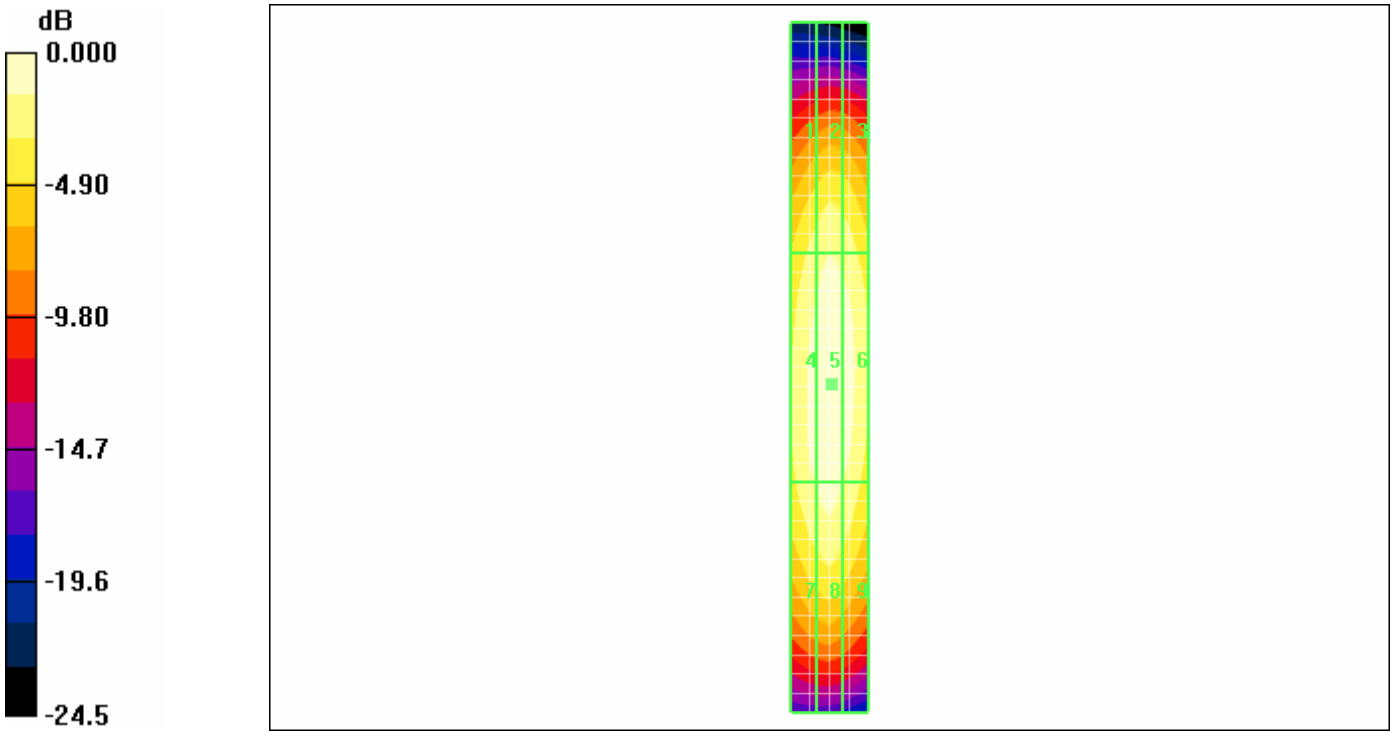
DASY4 Configuration:

- Probe: H3DV6 - SN6105; ; Calibrated: 15/11/2006
- Sensor-Surface: 0mm (Fix Surface)Sensor-Surface: (Fix Surface)
- Electronics: DAE3 Sn472; Calibrated: 07/03/2007
- Phantom: HAC Test Arch; Type: SD HAC P01 BA;
- Measurement SW: DASY4, V4.7 Build 53; Postprocessing SW: SEMCAD, V1.8 Build 172

H Scan - H3DV6 probe tip 10mm above CD1880 Dipole/Hearing Aid Compatibility Test (5x37x1): Measurement grid: dx=5mm, dy=5mm
Probe Modulation Factor = 1.00
Reference Value = 0.159 A/m; Power Drift = -0.087 dB
Maximum value of Total (measured) = 0.166 A/m

H Scan - H3DV6 probe tip 10mm above CD1880 Dipole/Hearing Aid Compatibility Test (41x361x1): Measurement grid: dx=5mm, dy=5mm
Maximum value of peak Total field = 0.166 A/m
Probe Modulation Factor = 1.00
Reference Value = 0.159 A/m; Power Drift = -0.087 dB
Hearing Aid Near-Field Category: M4 (AWF -5 dB)





0 dB = 0.166A/m

Date/Time: 04/06/2007 3:06:49 PM

Test Laboratory: RTS

HAC_H_Dipole_1880 MHz_CW_20dBm

DUT: HAC Dipole 1880 MHz; Type: CD1880V3; Serial: Not Specified

Communication System: CW; Frequency: 1880 MHz;Duty Cycle: 1:1
Medium parameters used: σ = 0 mho/m, ε_r = 1; ρ = 1 kg/m^3
Phantom section: H Device Section

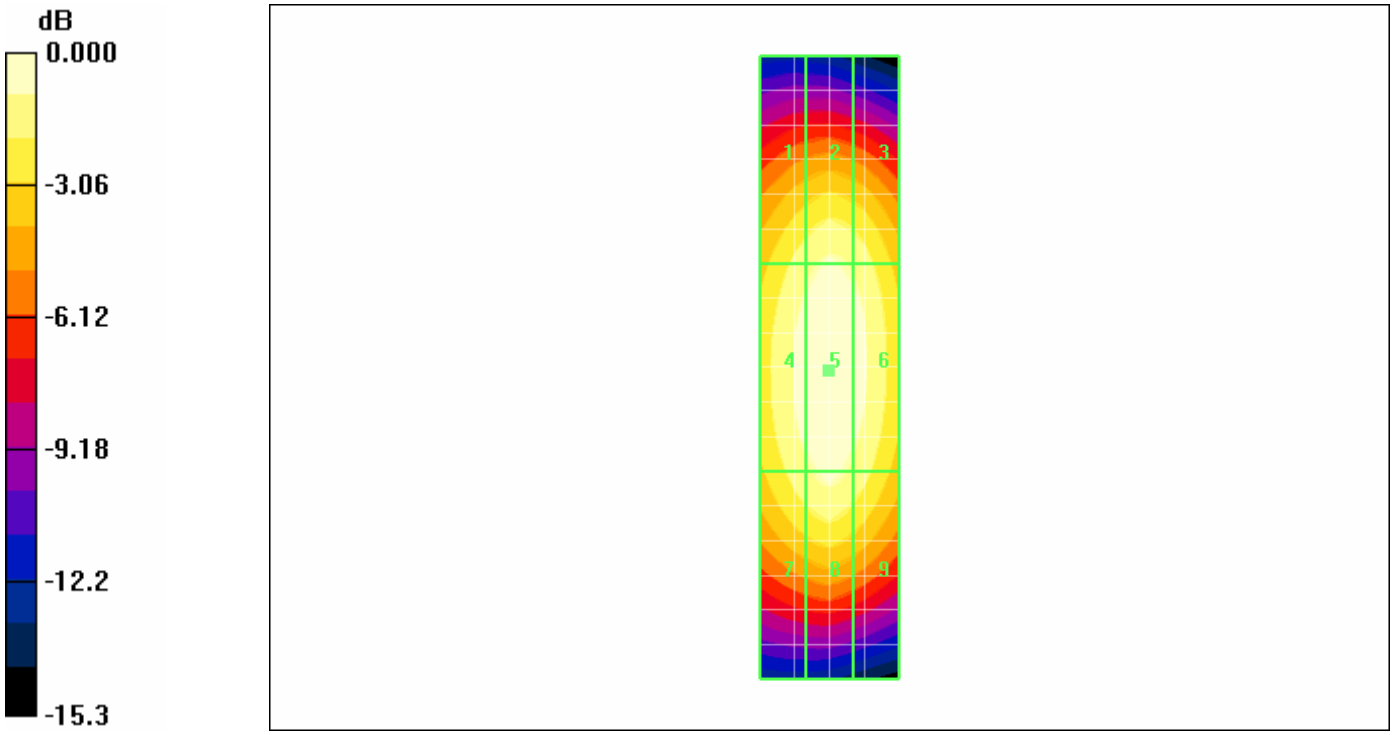
DASY4 Configuration:

- Probe: H3DV6 - SN6105; ; Calibrated: 15/11/2006
- Sensor-Surface: 0mm (Fix Surface)Sensor-Surface: (Fix Surface)
- Electronics: DAE3 Sn472; Calibrated: 07/03/2007
- Phantom: HAC Test Arch; Type: SD HAC P01 BA;
- Measurement SW: DASY4, V4.7 Build 53; Postprocessing SW: SEMCAD, V1.8 Build 172

H Scan - H3DV6 probe tip 10mm above CD1880 Dipole/Hearing Aid Compatibility Test (5x19x1): Measurement grid: dx=5mm, dy=5mm
Probe Modulation Factor = 1.00
Reference Value = 0.445 A/m; Power Drift = 0.052 dB
Maximum value of Total (measured) = 0.459 A/m

H Scan - H3DV6 probe tip 10mm above CD1880 Dipole/Hearing Aid Compatibility Test (41x181x1): Measurement grid: dx=5mm, dy=5mm
Maximum value of peak Total field = 0.459 A/m
Probe Modulation Factor = 1.00
Reference Value = 0.445 A/m; Power Drift = 0.052 dB
Hearing Aid Near-Field Category: M2 (AWF 0 dB)

Peak H-field in A/m		
Grid 1 **0.391**	Grid 2 **0.418**	Grid 3 **0.399**
Grid 4 **0.429**	Grid 5 **0.459**	Grid 6 **0.434**
Grid 7 **0.397**	Grid 8 **0.423**	Grid 9 **0.397**



0 dB = 0.459A/m

Date/Time: 04/06/2007 3:13:57 PM

Test Laboratory: RTS

HAC_H_Dipole_1880 MHz_CW_16_67dBm

DUT: HAC Dipole 1880 MHz; Type: CD1880V3; Serial: Not Specified

Communication System: CW; Frequency: 1880 MHz;Duty Cycle: 1:1
Medium parameters used: σ = 0 mho/m, ε_r = 1; ρ = 1 kg/m^3
Phantom section: H Device Section

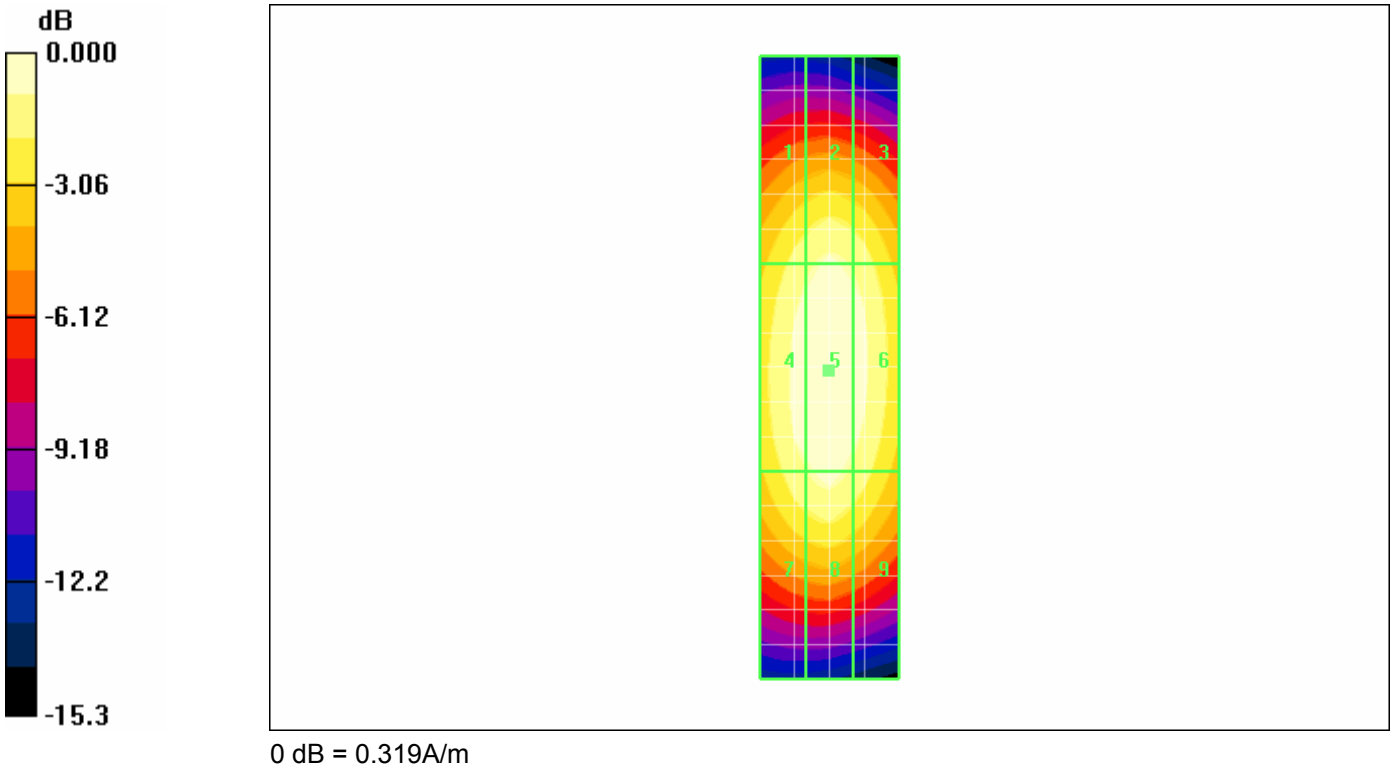
DASY4 Configuration:

- Probe: H3DV6 - SN6105; ; Calibrated: 15/11/2006
- Sensor-Surface: 0mm (Fix Surface)Sensor-Surface: (Fix Surface)
- Electronics: DAE3 Sn472; Calibrated: 07/03/2007
- Phantom: HAC Test Arch; Type: SD HAC P01 BA;
- Measurement SW: DASY4, V4.7 Build 53; Postprocessing SW: SEMCAD, V1.8 Build 172

H Scan - H3DV6 probe tip 10mm above CD1880 Dipole/Hearing Aid Compatibility Test (5x19x1): Measurement grid: dx=5mm, dy=5mm
Probe Modulation Factor = 1.00
Reference Value = 0.312 A/m; Power Drift = -0.011 dB
Maximum value of Total (measured) = 0.319 A/m

H Scan - H3DV6 probe tip 10mm above CD1880 Dipole/Hearing Aid Compatibility Test (41x181x1): Measurement grid: dx=5mm, dy=5mm
Maximum value of peak Total field = 0.319 A/m
Probe Modulation Factor = 1.00
Reference Value = 0.312 A/m; Power Drift = -0.011 dB
Hearing Aid Near-Field Category: M3 (AWF 0 dB)

Peak H-field in A/m		
Grid 1 0.274	Grid 2 0.291	Grid 3 0.278
Grid 4 0.304	Grid 5 0.319	Grid 6 0.303
Grid 7 0.281	Grid 8 0.296	Grid 9 0.277



0 dB = 0.319A/m

Date/Time: 04/06/2007 3:18:19 PM

Test Laboratory: RTS

HAC_H_Dipole_1880 MHz_80%AM_16_67dBm

DUT: HAC Dipole 1880 MHz; Type: CD1880V3; Serial: Not Specified

Communication System: 80%AM; Frequency: 1880 MHz;Duty Cycle: 1:1
Medium parameters used: σ = 0 mho/m, ε_r = 1; ρ = 1 kg/m^3
Phantom section: H Device Section

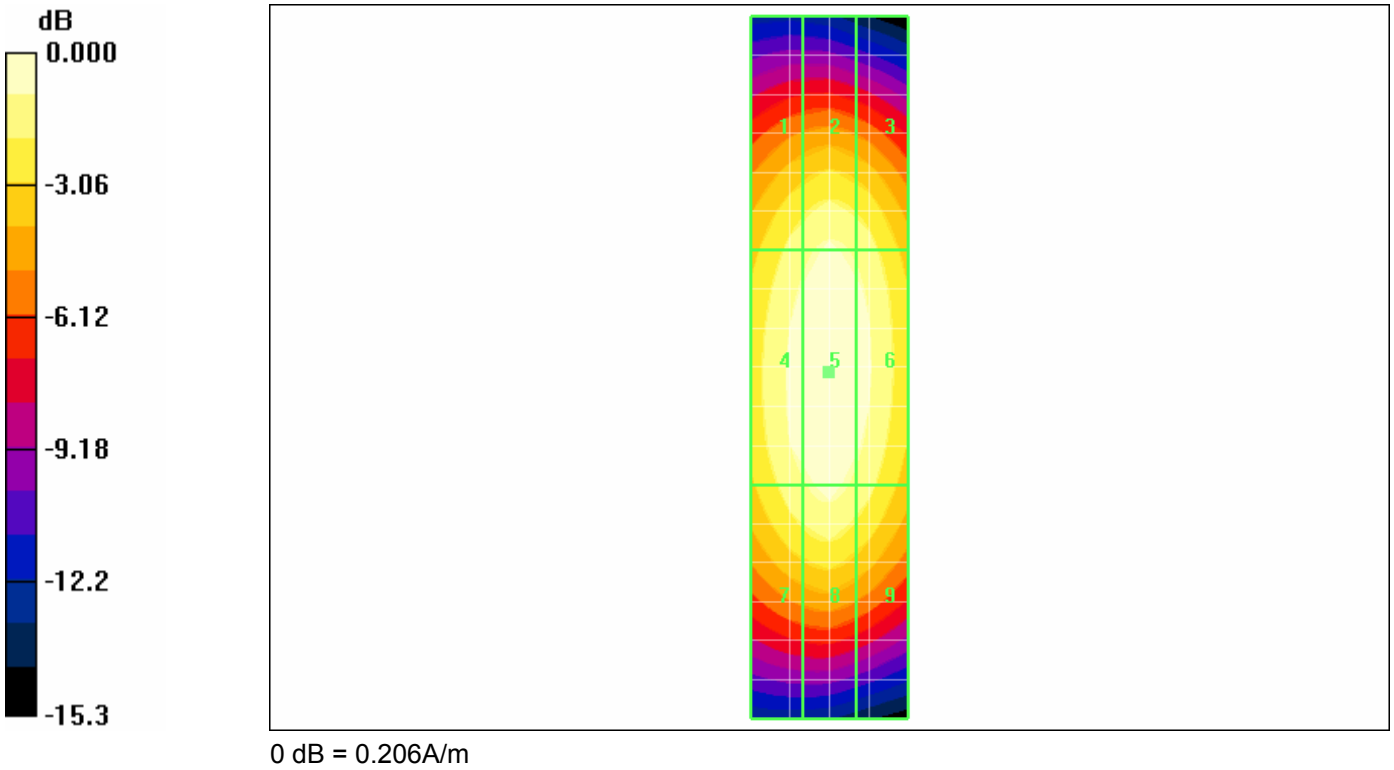
DASY4 Configuration:

- Probe: H3DV6 - SN6105; ; Calibrated: 15/11/2006
- Sensor-Surface: 0mm (Fix Surface)Sensor-Surface: (Fix Surface)
- Electronics: DAE3 Sn472; Calibrated: 07/03/2007
- Phantom: HAC Test Arch; Type: SD HAC P01 BA;
- Measurement SW: DASY4, V4.7 Build 53; Postprocessing SW: SEMCAD, V1.8 Build 172

H Scan - H3DV6 probe tip 10mm above CD1880 Dipole/Hearing Aid Compatibility Test (5x19x1): Measurement grid: dx=5mm, dy=5mm
Probe Modulation Factor = 1.00
Reference Value = 0.201 A/m; Power Drift = 0.073 dB
Maximum value of Total (measured) = 0.206 A/m

H Scan - H3DV6 probe tip 10mm above CD1880 Dipole/Hearing Aid Compatibility Test (41x181x1): Measurement grid: dx=5mm, dy=5mm
Maximum value of peak Total field = 0.206 A/m
Probe Modulation Factor = 1.00
Reference Value = 0.201 A/m; Power Drift = 0.073 dB
Hearing Aid Near-Field Category: M3 (AWF 0 dB)

Peak H-field in A/m		
Grid 1 0.176	Grid 2 0.188	Grid 3 0.179
Grid 4 0.195	Grid 5 0.206	Grid 6 0.194
Grid 7 0.181	Grid 8 0.190	Grid 9 0.177



0 dB = 0.206A/m

Date/Time: 04/06/2007 3:24:15 PM

Test Laboratory: RTS

HAC_H_Dipole_GSM 1880 MHz_16_67dBm

DUT: HAC Dipole 1880 MHz; Type: CD1880V3; Serial: Not Specified

Communication System: GSM 1900; Frequency: 1880 MHz;Duty Cycle: 1:8.3
Medium parameters used: σ = 0 mho/m, ε_r = 1; ρ = 1 kg/m^3
Phantom section: H Device Section

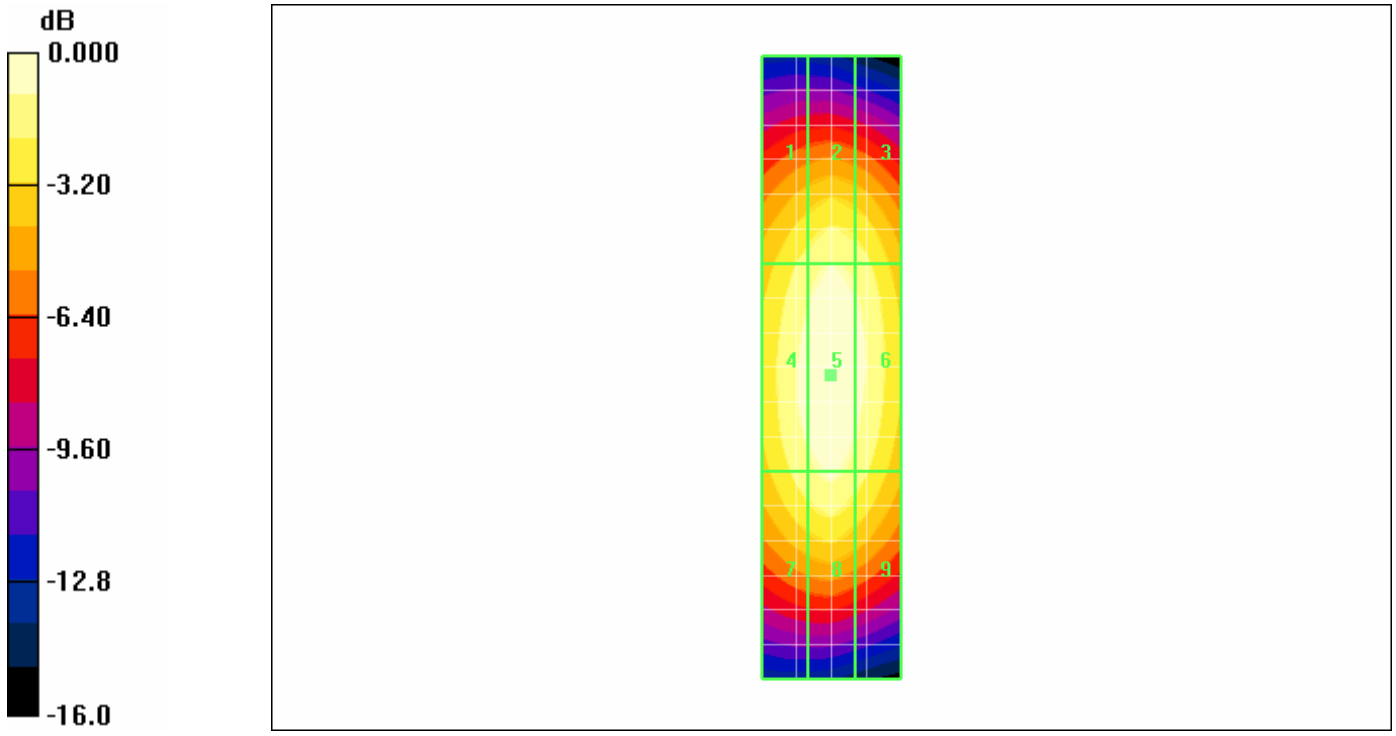
DASY4 Configuration:

- Probe: H3DV6 - SN6105; ; Calibrated: 15/11/2006
- Sensor-Surface: 0mm (Fix Surface)Sensor-Surface: (Fix Surface)
- Electronics: DAE3 Sn472; Calibrated: 07/03/2007
- Phantom: HAC Test Arch; Type: SD HAC P01 BA;
- Measurement SW: DASY4, V4.7 Build 53; Postprocessing SW: SEMCAD, V1.8 Build 172

H Scan - H3DV6 probe tip 10mm above CD1880 Dipole/Hearing Aid Compatibility Test (5x19x1): Measurement grid: dx=5mm, dy=5mm
Probe Modulation Factor = 1.00
Reference Value = 0.114 A/m; Power Drift = -0.023 dB
Maximum value of Total (measured) = 0.118 A/m

H Scan - H3DV6 probe tip 10mm above CD1880 Dipole/Hearing Aid Compatibility Test (41x181x1): Measurement grid: dx=5mm, dy=5mm
Maximum value of peak Total field = 0.118 A/m
Probe Modulation Factor = 1.00
Reference Value = 0.114 A/m; Power Drift = -0.023 dB
Hearing Aid Near-Field Category: M4 (AWF -5 dB)

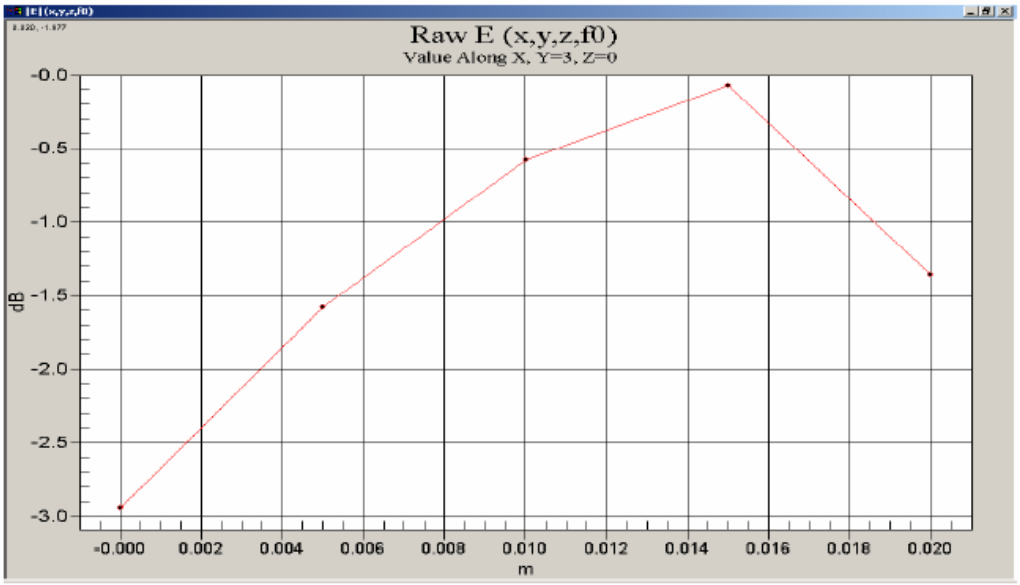
Peak H-field in A/m		
Grid 1	Grid 2	Grid 3
0.097	0.105	0.100
Grid 4	Grid 5	Grid 6
0.110	0.118	0.110
Grid 7	Grid 8	Grid 9
0.100	0.107	0.099



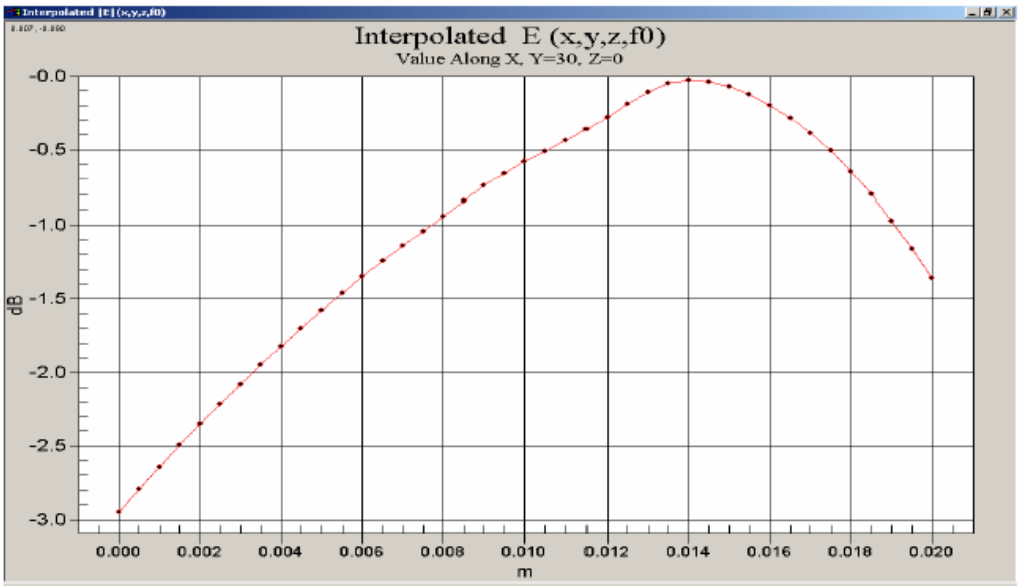
0 dB = 0.118A/m

Justification of Step Size and Interpolation

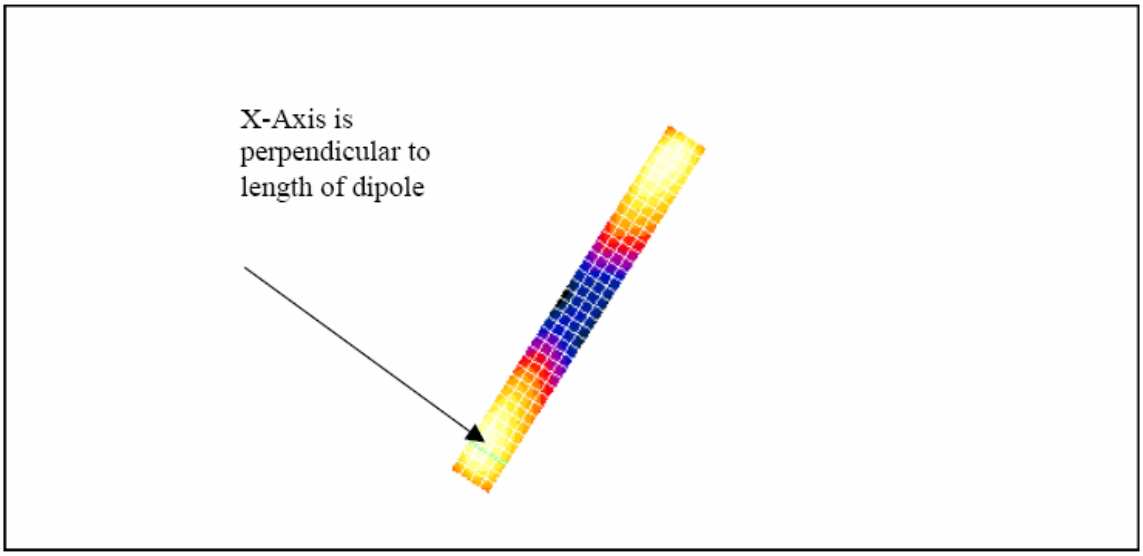
This section demonstrates that a 5mm step size with interpolation provides sufficient resolution for RF emissions measurements. The DASY 4 uses interpolation algorithms to derive 9 interpolated points between every measured point.



The figure above shows the raw measured field strength perpendicular to the length of the validation dipole. The TCB guidance slides require the 3dB width to be much larger than the step size. The width between -3dB points is > 21mm, at least 4 times the step size.



This figure shows the interpolated field strength perpendicular to the dipole. The interpolated points follow the raw points with no inconsistencies.



The green line in this figure shows the axis along which the points lie.

Comparison of 5mm and 2mm step sizes

An additional set of measurements was taken: dipole validations were performed using 5mm and 2mm step sizes. The delta between the two readings is insignificant for both field types (< 0.4% for E and 0% for H), demonstrating that 5mm is sufficient. The plots follow.

Date/Time: 14/07/2005 11:35:24 AM

Lab: RIM Testing Services (RTS)

Dipole Validation 1880 MHz_E-Field 07_14_05

DUT: HAC Dipole 1880 MHz; Type: CD1880V3

Communication System: CW; Frequency: 1880 MHz;Duty Cycle: 1:1
Medium: Air Medium parameters used: $\sigma = 0$ mho/m, $\varepsilon_r = 1$; $\rho = 1000$ kg/m^3
Phantom section: H Device Section

DASY4 Configuration:
- Probe: ER3DV6 - SN2285; ConvF(1, 1, 1); Calibrated: 10/12/2004
- Sensor-Surface: 0mm (Fix Surface)Sensor-Surface: (Fix Surface)
- Electronics: DAE3 Sn472; Calibrated: 03/01/2005
- Phantom: HAC Test Arch; Type: SD HAC P01 BA;
- Measurement SW: DASY4, V4.5 Build 19; Postprocessing SW: SEMCAD, V1.8 Build 146

E Scan 10mm above CD 1880 MHz/Hearing Aid Compatibility Test (5x19x1):
Measurement grid: dx=5mm, dy=5mm
Maximum value of Total (measured) = 134.8 V/m

E Scan 10mm above CD 1880 MHz/Hearing Aid Compatibility Test (41x181x1):
Measurement grid: dx=5mm, dy=5mm
Maximum value of Total field (slot averaged) = 131.0 V/m
Hearing Aid Near-Field Category: M2 (AWF 0 dB)

E in V/m (Time averaged)

Grid 1	Grid 2	Grid 3
123.2	**138.1**	**138.4**
Grid 4	Grid 5	Grid 6
80.9	**92.3**	**92.2**
Grid 7	Grid 8	Grid 9
119.8	**131.0**	**130.7**

E in V/m (Slot averaged)

Grid 1	Grid 2	Grid 3
123.2	**138.1**	**138.4**
Grid 4	Grid 5	Grid 6
80.9	**92.3**	**92.2**
Grid 7	Grid 8	Grid 9
119.8	**131.0**	**130.7**

Category	AWF (dB)	Limits for E-Field Emissions (V/m)	Limits for H-Field Emissions (A/m)
M1	0	199.5 - 354.8	0.6 - 1.07
	-5	149.6 - 266.1	0.45 - 0.8
M2	0	112.2 - 199.5	0.34 - 0.6
	-5	84.1 - 149.6	0.25 - 0.45
M3	0	63.1 - 112.2	0.19 - 0.34
	-5	47.3 - 84.1	0.15 - 0.25
M4	0	<63.1	<0.19

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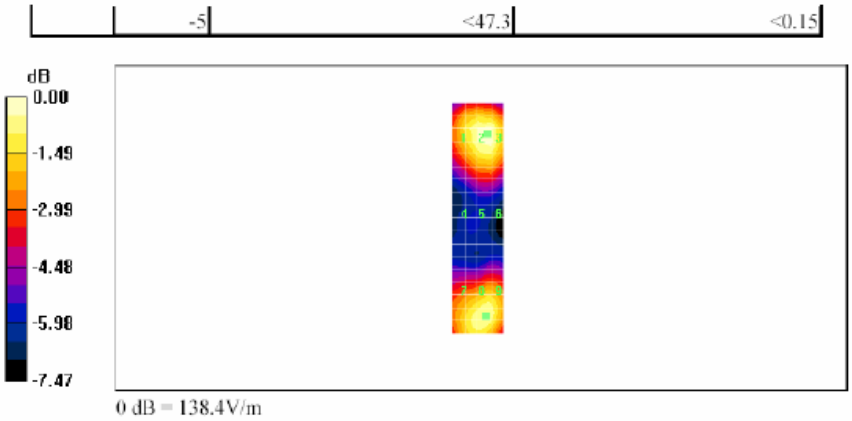


file://C:\Program%20Files\DASY4\Print_Templates\Dipole%20Validation%201880%20... 14/07/2005

Date/Time: 14/07/2005 11:44:51 AM

Lab: RIM Testing Services (RTS)

Dipole Validation 1880 MHz_2mm step_E-Field 07_14_05

DUT: HAC Dipole 1880 MHz; Type: CD1880V3

Communication System: CW; Frequency: 1880 MHz;Duty Cycle: 1:1
Medium: Air Medium parameters used: $\sigma = 0$ mho/m, $\varepsilon_r = 1$; $\rho = 1000$ kg/m^3
Phantom section: H Device Section

DASY4 Configuration:
- Probe: ER3DV6 - SN2285; ConvF(1, 1, 1); Calibrated: 10/12/2004
- Sensor-Surface: 0mm (Fix Surface)Sensor-Surface: (Fix Surface)
- Electronics: DAE3 Sn472; Calibrated: 03/01/2005
- Phantom: HAC Test Arch; Type: SD HAC P01 BA;
- Measurement SW: DASY4, V4.5 Build 19; Postprocessing SW: SEMCAD, V1.8 Build 146

E Scan 10mm above CD 1880 MHz/Hearing Aid Compatibility Test (11x46x1):
Measurement grid: dx=2mm, dy=2mm
Maximum value of Total (measured) = 138.0 V/m

E Scan 10mm above CD 1880 MHz/Hearing Aid Compatibility Test (101x451x1):
Measurement grid: dx=2mm, dy=2mm
Maximum value of Total field (slot averaged) = 131.2 V/m
Hearing Aid Near-Field Category: M2 (AWF 0 dB)

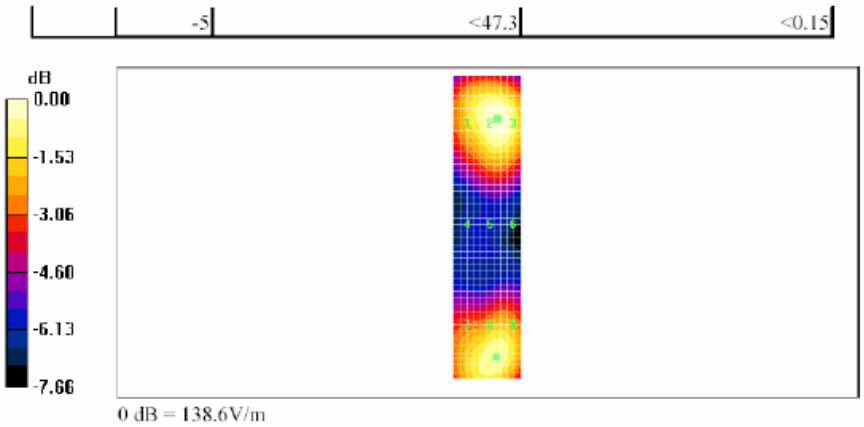
E in V/m (Time averaged)

Grid 1 **123.1**	Grid 2 **138.6**	Grid 3 **138.6**
Grid 4 **81.4**	Grid 5 **92.1**	Grid 6 **91.6**
Grid 7 **121.3**	Grid 8 **131.2**	Grid 9 **131.0**

E in V/m (Slot averaged)

Grid 1 **123.1**	Grid 2 **138.6**	Grid 3 **138.6**
Grid 4 **81.4**	Grid 5 **92.1**	Grid 6 **91.6**
Grid 7 **121.3**	Grid 8 **131.2**	Grid 9 **131.0**

Category	AWF (dB)	Limits for E-Field Emissions (V/m)	Limits for H-Field Emissions (A/m)
M1	0	199.5 - 354.8	0.6 - 1.07
	-5	149.6 - 266.1	0.45 - 0.8
M2	0	112.2 - 199.5	0.34 - 0.6
	-5	84.1 - 149.6	0.25 - 0.45
M3	0	63.1 - 112.2	0.19 - 0.34
	-5	47.3 - 84.1	0.15 - 0.25
M4	0	<63.1	<0.19



Date/Time: 14/07/2005 12:43:02 PM

Lab: RIM Testing Services (RTS)

HAC_H_Dipole_CW 1880_5 mm step_07_14_05

DUT: HAC Dipole 1880 MHz; Type: CD1880V3

Communication System: CW; Frequency: 1880 MHz;Duty Cycle: 1:1
Medium: Air Medium parameters used: $\sigma = 0$ mho/m, $\varepsilon_r = 1$; $\rho = 1$ kg/m^3
Phantom section: H Dipole Section

DASY4 Configuration:
- Probe: H3DV6 - SN6105; ; Calibrated: 10/12/2004
- Sensor-Surface: 0mm (Fix Surface)Sensor-Surface: (Fix Surface)
- Electronics: DAE3 Sn472; Calibrated: 03/01/2005
- Phantom: HAC Test Arch; Type: SD HAC P01 BA;
- Measurement SW: DASY4, V4.5 Build 19; Postprocessing SW: SEMCAD, V1.8 Build 146

H Scan 10mm above CD 1880 MHz/Hearing Aid Compatibility Test (5x19x1):
Measurement grid: dx=5mm, dy=5mm
Maximum value of Total (measured) = 0.406 A/m

H Scan 10mm above CD 1880 MHz/Hearing Aid Compatibility Test (41x181x1):
Measurement grid: dx=5mm, dy=5mm
Maximum value of Total field (slot averaged) = 0.406 A/m
Hearing Aid Near-Field Category: M2 (AWF 0 dB)

H in A/m (Time averaged)

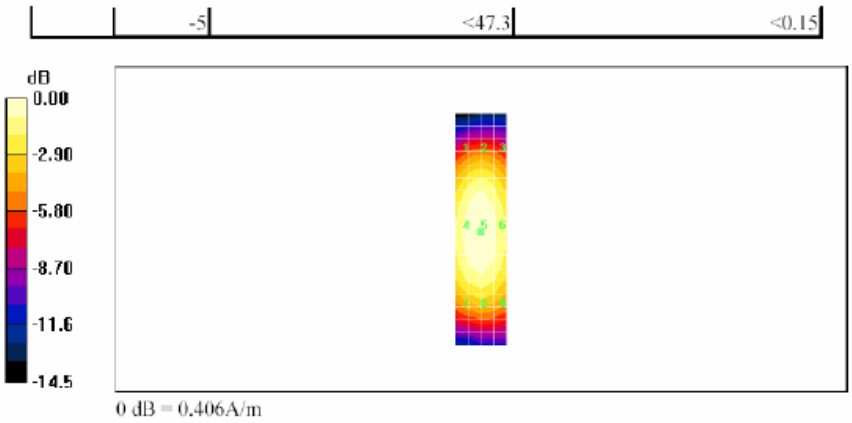
Grid 1 **0.342**	Grid 2 **0.359**	Grid 3 **0.344**
Grid 4 **0.389**	Grid 5 **0.406**	Grid 6 **0.389**
Grid 7 **0.363**	Grid 8 **0.378**	Grid 9 **0.363**

H in A/m (Slot averaged)

Grid 1 **0.342**	Grid 2 **0.359**	Grid 3 **0.344**
Grid 4 **0.389**	Grid 5 **0.406**	Grid 6 **0.389**
Grid 7 **0.363**	Grid 8 **0.378**	Grid 9 **0.363**

Category	AWF (dB)	Limits for E-Field Emissions (V/m)	Limits for H-Field Emissions (A/m)
M1	0	199.5 - 354.8	0.6 - 1.07
	-5	149.6 - 266.1	0.45 - 0.8
M2	0	112.2 - 199.5	0.34 - 0.6
	-5	84.1 - 149.6	0.25 - 0.45
M3	0	63.1 - 112.2	0.19 - 0.34
	-5	47.3 - 84.1	0.15 - 0.25
M4	0	<63.1	<0.19

Date/Time: 14/07/2005 12:43:02 PM Page 2 of 2



0 dB = 0.406A/m

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Date/Time: 14/07/2005 12:53:40 PM

Lab: RIM Testing Services (RTS)

HAC_H_Dipole_CW 1880_2 mm step_07_14_05

DUT: HAC Dipole 1880 MHz; Type: CD1880V3

Communication System: CW; Frequency: 1880 MHz;Duty Cycle: 1:1
Medium: Air Medium parameters used: $\sigma = 0$ mho/m, $\varepsilon_r = 1$; $\rho = 1$ kg/m^3
Phantom section: H Dipole Section

DASY4 Configuration:
- Probe: H3DV6 - SN6105; ; Calibrated: 10/12/2004
- Sensor-Surface: 0mm (Fix Surface)Sensor-Surface: (Fix Surface)
- Electronics: DAE3 Sn472; Calibrated: 03/01/2005
- Phantom: HAC Test Arch; Type: SD HAC P01 BA;
- Measurement SW: DASY4, V4.5 Build 19; Postprocessing SW: SEMCAD, V1.8 Build 146

H Scan 10mm above CD 1880 MHz/Hearing Aid Compatibility Test (11x46x1):
Measurement grid: dx=2mm, dy=2mm
Maximum value of Total (measured) = 0.406 A/m

H Scan 10mm above CD 1880 MHz/Hearing Aid Compatibility Test (101x451x1):
Measurement grid: dx=2mm, dy=2mm
Maximum value of Total field (slot averaged) = 0.406 A/m
Hearing Aid Near-Field Category: M2 (AWF 0 dB)

H in A/m (Time averaged)

Grid 1 **0.347**	Grid 2 **0.361**	Grid 3 **0.348**
Grid 4 **0.394**	Grid 5 **0.406**	Grid 6 **0.391**
Grid 7 **0.367**	Grid 8 **0.380**	Grid 9 **0.365**

H in A/m (Slot averaged)

Grid 1 **0.347**	Grid 2 **0.361**	Grid 3 **0.348**
Grid 4 **0.394**	Grid 5 **0.406**	Grid 6 **0.391**
Grid 7 **0.367**	Grid 8 **0.380**	Grid 9 **0.365**

Category	AWF (dB)	Limits for E-Field Emissions (V/m)	Limits for H-Field Emissions (A/m)
M1	0	199.5 - 354.8	0.6 - 1.07
	-5	149.6 - 266.1	0.45 - 0.8
M2	0	112.2 - 199.5	0.34 - 0.6
	-5	84.1 - 149.6	0.25 - 0.45
M3	0	63.1 - 112.2	0.19 - 0.34
	-5	47.3 - 84.1	0.15 - 0.25
M4	0	<63.1	<0.19

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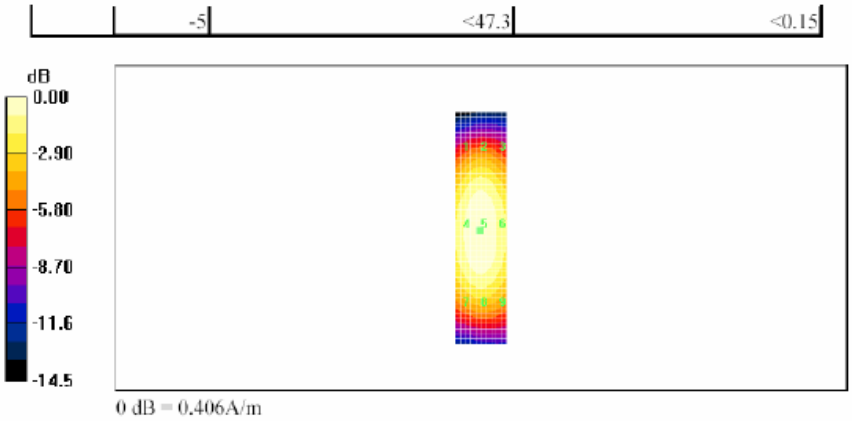

0 dB = 0.406A/m

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A.3 RF emission field plots

For plots where the probe was rotated, there is an arrow showing location of the probe rotation after the exclusion block.

Date/Time: 01/06/2007 8:43:35 PM

Test Laboratory: RTS

HAC_E_GSM850_Spk center_low_chan

DUT: BlackBerry Smartphone; Type: Sample ; Serial: 205E10F1

Communication System: GSM 850; Frequency: 824.2 MHz;Duty Cycle: 1:8.3
Medium parameters used: σ = 0 mho/m, ε_r = 1; ρ = 1000 kg/m^3
Phantom section: E Device Section

DASY4 Configuration:

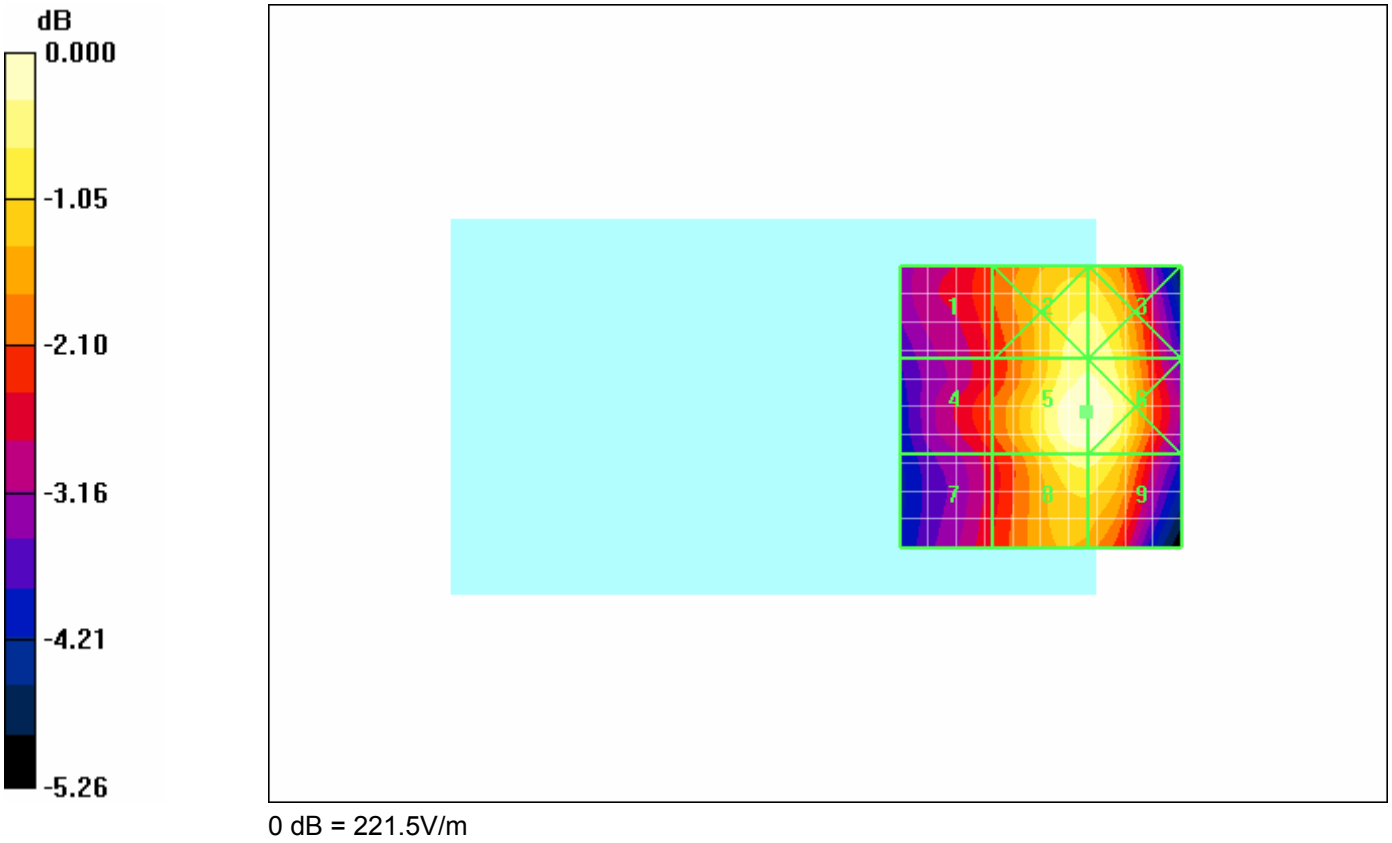
- Probe: ER3DV6 - SN2286; ConvF(1, 1, 1); Calibrated: 10/01/2007
- Sensor-Surface: 0mm (Fix Surface)Sensor-Surface: (Fix Surface)
- Electronics: DAE3 Sn472; Calibrated: 25/04/2006
- Phantom: HAC Test Arch; Type: SD HAC P01 BA;
- Measurement SW: DASY4, V4.7 Build 53; Postprocessing SW: SEMCAD, V1.8 Build 172

E Scan - ER probe tip 10mm above Device Reference/Z Scan (1x1x21): Measurement grid: dx=20mm, dy=20mm, dz=5mm
Maximum value of Total (measured) = 80.0 V/m

E Scan - ER probe tip 10mm above Device Reference/Hearing Aid Compatibility Test (11x11x1): Measurement grid: dx=5mm, dy=5mm
Probe Modulation Factor = 1.00
Reference Value = 77.7 V/m; Power Drift = 0.012 dB
Maximum value of Total (measured) = 78.2 V/m

E Scan - ER probe tip 10mm above Device Reference/Hearing Aid Compatibility Test (101x101x1): Measurement grid: dx=5mm, dy=5mm
Maximum value of peak Total field = 221.5 V/m
Probe Modulation Factor = 2.81
Reference Value = 77.7 V/m; Power Drift = 0.012 dB
Hearing Aid Near-Field Category: M3 (AWF -5 dB)

Peak E-field in V/m		
Grid 1	Grid 2	Grid 3
174.4	212.0	212.0
Grid 4	Grid 5	Grid 6
175.8	221.5	221.4
Grid 7	Grid 8	Grid 9
168.0	209.7	209.5



0 dB = 221.5V/m

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Test Laboratory: RTS

HAC_E_GSM850_Spk center_mid_chan

DUT: BlackBerry Smartphone; Type: Sample ; Serial: 205E3FCC

Communication System: GSM 850; Frequency: 836.8 MHz;Duty Cycle: 1:8.3
Medium parameters used: σ = 0 mho/m, ε_r = 1; ρ = 1000 kg/m^3
Phantom section: E Device Section

DASY4 Configuration:

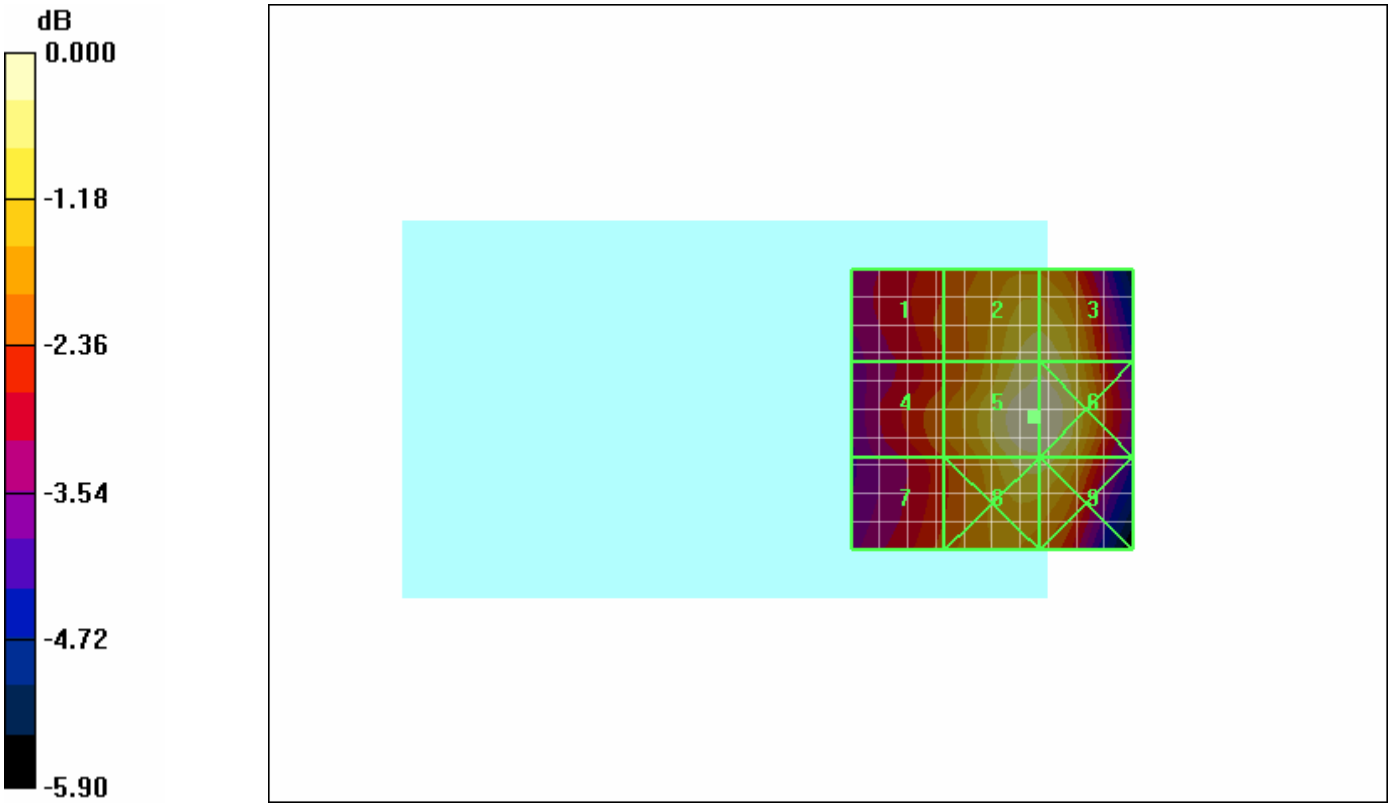
- Probe: ER3DV6 - SN2286; ConvF(1, 1, 1); Calibrated: 10/01/2007
- Sensor-Surface: 0mm (Fix Surface)Sensor-Surface: (Fix Surface)
- Electronics: DAE3 Sn472; Calibrated: 07/03/2007
- Phantom: HAC Test Arch; Type: SD HAC P01 BA;
- Measurement SW: DASY4, V4.7 Build 53; Postprocessing SW: SEMCAD, V1.8 Build 172

E Scan - ER probe tip 10mm above Device Reference/Z Scan (1x1x21): Measurement grid: dx=20mm, dy=20mm, dz=5mm
Maximum value of Total (measured) = 70.0 V/m

E Scan - ER probe tip 10mm above Device Reference/Hearing Aid Compatibility Test (11x11x1): Measurement grid: dx=5mm, dy=5mm
Probe Modulation Factor = 1.00
Reference Value = 68.0 V/m; Power Drift = -0.029 dB
Maximum value of Total (measured) = 67.5 V/m

E Scan - ER probe tip 10mm above Device Reference/Hearing Aid Compatibility Test (101x101x1): Measurement grid: dx=5mm, dy=5mm
Maximum value of peak Total field = 192.0 V/m
Probe Modulation Factor = 2.81
Reference Value = 68.0 V/m; Power Drift = -0.029 dB
Hearing Aid Near-Field Category: M3 (AWF -5 dB)

Peak E-field in V/m		
Grid 1	Grid 2	Grid 3
149.2	181.2	181.2
Grid 4	Grid 5	Grid 6
153.6	192.0	191.7
Grid 7	Grid 8	Grid 9
149.8	181.5	181.3



0 dB = 192.0V/m

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Test Laboratory: RTS

HAC_E_GSM850_Spk center_high_chan

DUT: BlackBerry Smartphone; Type: Sample ; Serial: 205E3FCC

Communication System: GSM 850; Frequency: 848.8 MHz;Duty Cycle: 1:8.3
Medium parameters used: σ = 0 mho/m, ε_r = 1; ρ = 1000 kg/m^3
Phantom section: E Device Section

DASY4 Configuration:

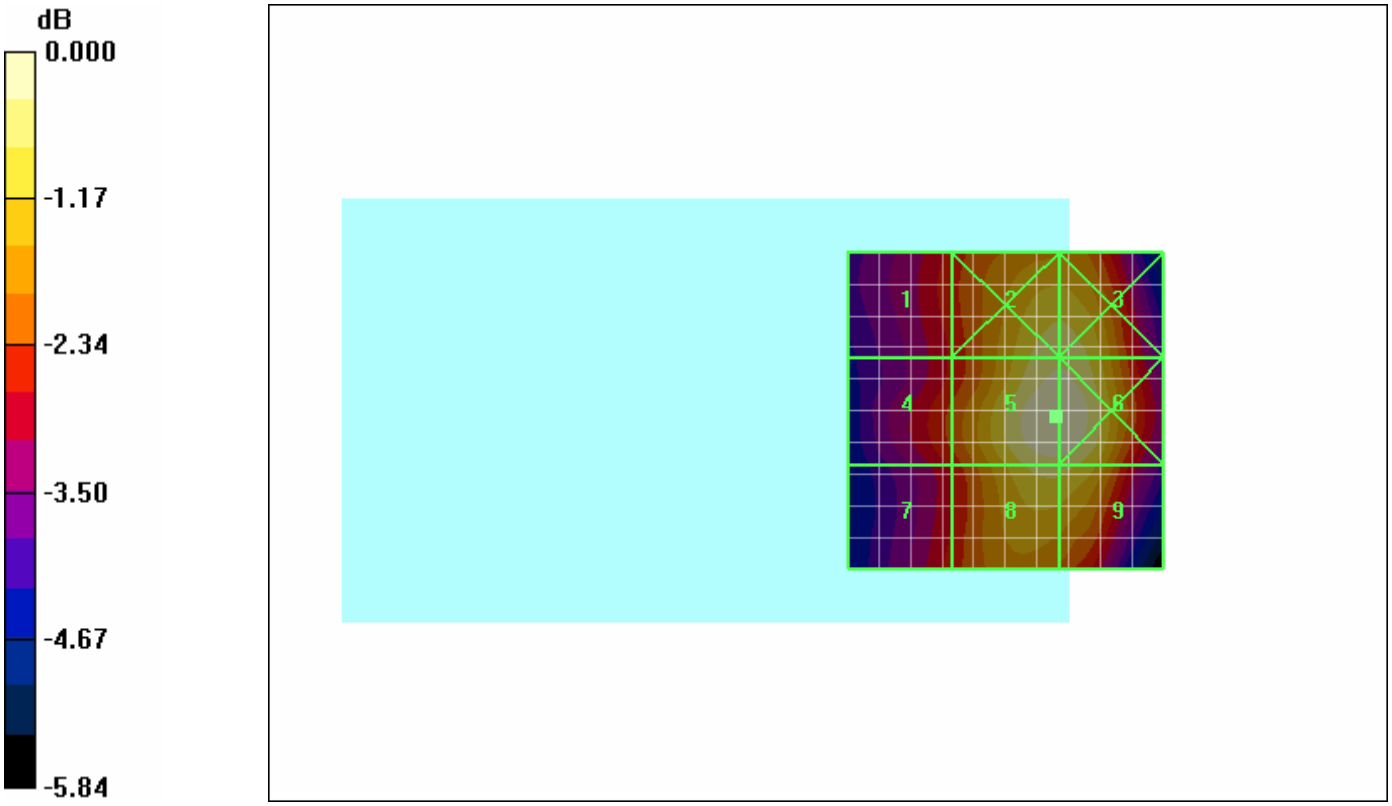
- Probe: ER3DV6 - SN2286; ConvF(1, 1, 1); Calibrated: 10/01/2007
- Sensor-Surface: 0mm (Fix Surface)Sensor-Surface: (Fix Surface)
- Electronics: DAE3 Sn472; Calibrated: 07/03/2007
- Phantom: HAC Test Arch; Type: SD HAC P01 BA;
- Measurement SW: DASY4, V4.7 Build 53; Postprocessing SW: SEMCAD, V1.8 Build 172

E Scan - ER probe tip 10mm above Device Reference/Z Scan (1x1x21): Measurement grid: dx=20mm, dy=20mm, dz=5mm
Maximum value of Total (measured) = 74.9 V/m

E Scan - ER probe tip 10mm above Device Reference/Hearing Aid Compatibility Test (11x11x1): Measurement grid: dx=5mm, dy=5mm
Probe Modulation Factor = 1.00
Reference Value = 72.4 V/m; Power Drift = 0.001 dB
Maximum value of Total (measured) = 73.1 V/m

E Scan - ER probe tip 10mm above Device Reference/Hearing Aid Compatibility Test (101x101x1): Measurement grid: dx=5mm, dy=5mm
Maximum value of peak Total field = 207.1 V/m
Probe Modulation Factor = 2.81
Reference Value = 72.4 V/m; Power Drift = 0.001 dB
Hearing Aid Near-Field Category: M3 (AWF -5 dB)

Peak E-field in V/m		
Grid 1	Grid 2	Grid 3
156.2	196.0	196.0
Grid 4	Grid 5	Grid 6
161.2	207.1	207.0
Grid 7	Grid 8	Grid 9
155.0	194.4	194.0



0 dB = 207.1V/m

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Test Laboratory: RTS

HAC_E_GSM850_T_coil center_low_chan

DUT: BlackBerry Smartphone Type: Sample ; Serial: 205E10F1

Communication System: GSM 850; Frequency: 824.2 MHz;Duty Cycle: 1:8.3
Medium parameters used: σ = 0 mho/m, ε_r = 1; ρ = 1000 kg/m^3
Phantom section: E Device Section

DASY4 Configuration:

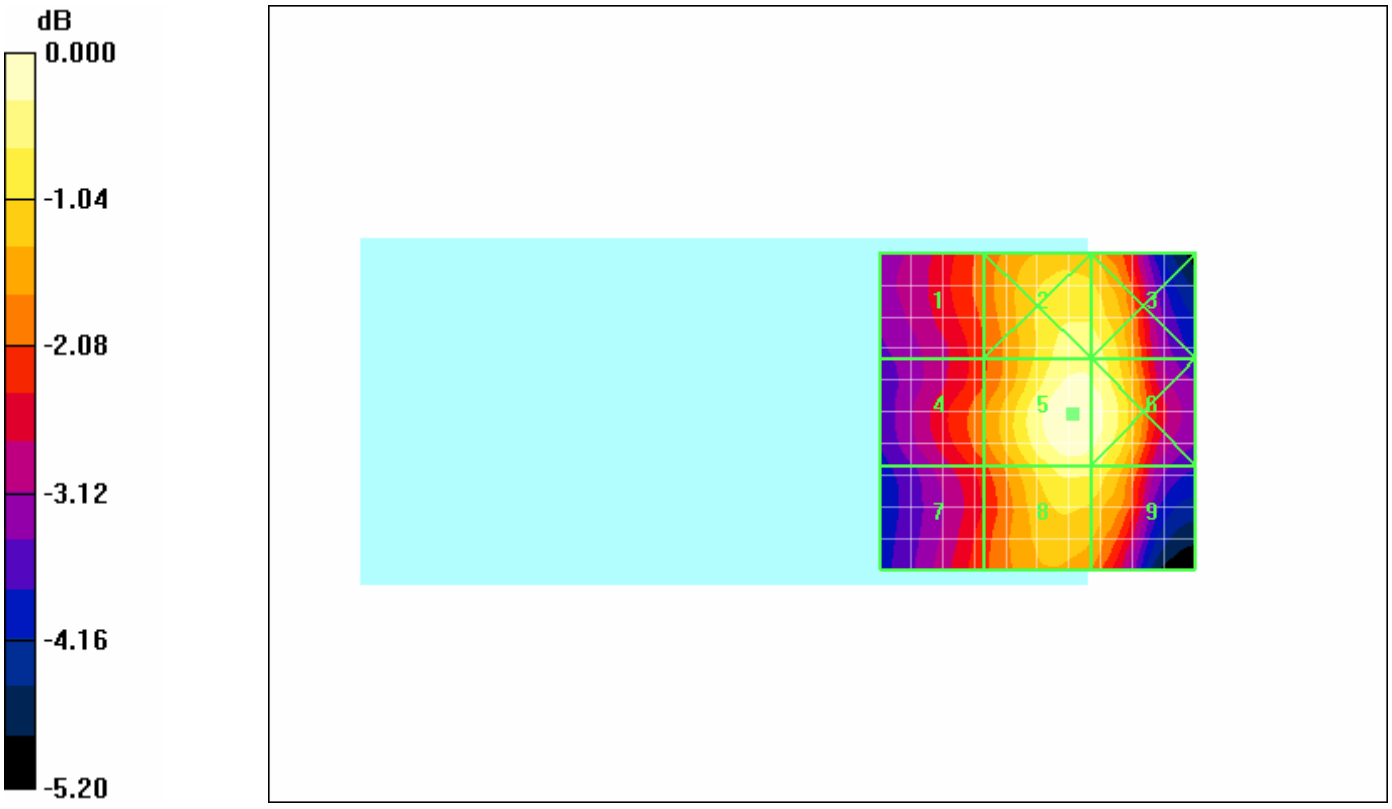
- Probe: ER3DV6 - SN2286; ConvF(1, 1, 1); Calibrated: 10/01/2007
- Sensor-Surface: 0mm (Fix Surface)Sensor-Surface: (Fix Surface)
- Electronics: DAE3 Sn472; Calibrated: 25/04/2006
- Phantom: HAC Test Arch; Type: SD HAC P01 BA;
- Measurement SW: DASY4, V4.7 Build 53; Postprocessing SW: SEMCAD, V1.8 Build 172

E Scan - ER probe tip 10mm above Device Reference/Z Scan (1x1x21): Measurement grid: dx=20mm, dy=20mm, dz=5mm
Maximum value of Total (measured) = 79.8 V/m

E Scan - ER probe tip 10mm above Device Reference/Hearing Aid Compatibility Test (11x11x1): Measurement grid: dx=5mm, dy=5mm
Probe Modulation Factor = 1.00
Reference Value = 77.6 V/m; Power Drift = 0.057 dB
Maximum value of Total (measured) = 79.9 V/m

E Scan - ER probe tip 10mm above Device Reference/Hearing Aid Compatibility Test (101x101x1): Measurement grid: dx=5mm, dy=5mm
Maximum value of peak Total field = 224.8 V/m
Probe Modulation Factor = 2.81
Reference Value = 77.6 V/m; Power Drift = 0.057 dB
Hearing Aid Near-Field Category: M3 (AWF -5 dB)

Peak E-field in V/m		
Grid 1	Grid 2	Grid 3
181.1	214.0	213.2
Grid 4	Grid 5	Grid 6
184.2	224.8	221.8
Grid 7	Grid 8	Grid 9
175.8	211.8	210.1



0 dB = 224.8V/m

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Test Laboratory: RTS

HAC_E_GSM1900_Spk center_low_chan

DUT: BlackBerry Smartphone; Type: Sample ; Serial: 205E10F1

Communication System: GSM 1900; Frequency: 1850.2 MHz;Duty Cycle: 1:8.3
Medium parameters used: $\sigma = 0$ mho/m, $\varepsilon_r = 1$; $\rho = 1000$ kg/m^3
Phantom section: E Device Section

DASY4 Configuration:

- Probe: ER3DV6 - SN2286; ConvF(1, 1, 1); Calibrated: 10/01/2007
- Sensor-Surface: 0mm (Fix Surface)Sensor-Surface: (Fix Surface)
- Electronics: DAE3 Sn472; Calibrated: 07/03/2007
- Phantom: HAC Test Arch; Type: SD HAC P01 BA;
- Measurement SW: DASY4, V4.7 Build 53; Postprocessing SW: SEMCAD, V1.8 Build 172

E Scan - ER probe tip 10mm above Device Reference/Z Scan (1x1x21): Measurement grid: dx=20mm, dy=20mm, dz=5mm
Maximum value of Total (measured) = 23.8 V/m

E Scan - ER probe tip 10mm above Device Reference/Hearing Aid Compatibility Test (11x11x1): Measurement grid: dx=5mm, dy=5mm
Probe Modulation Factor = 1.00
Reference Value = 12.9 V/m; Power Drift = -0.100 dB
Maximum value of Total (measured) = 32.8 V/m

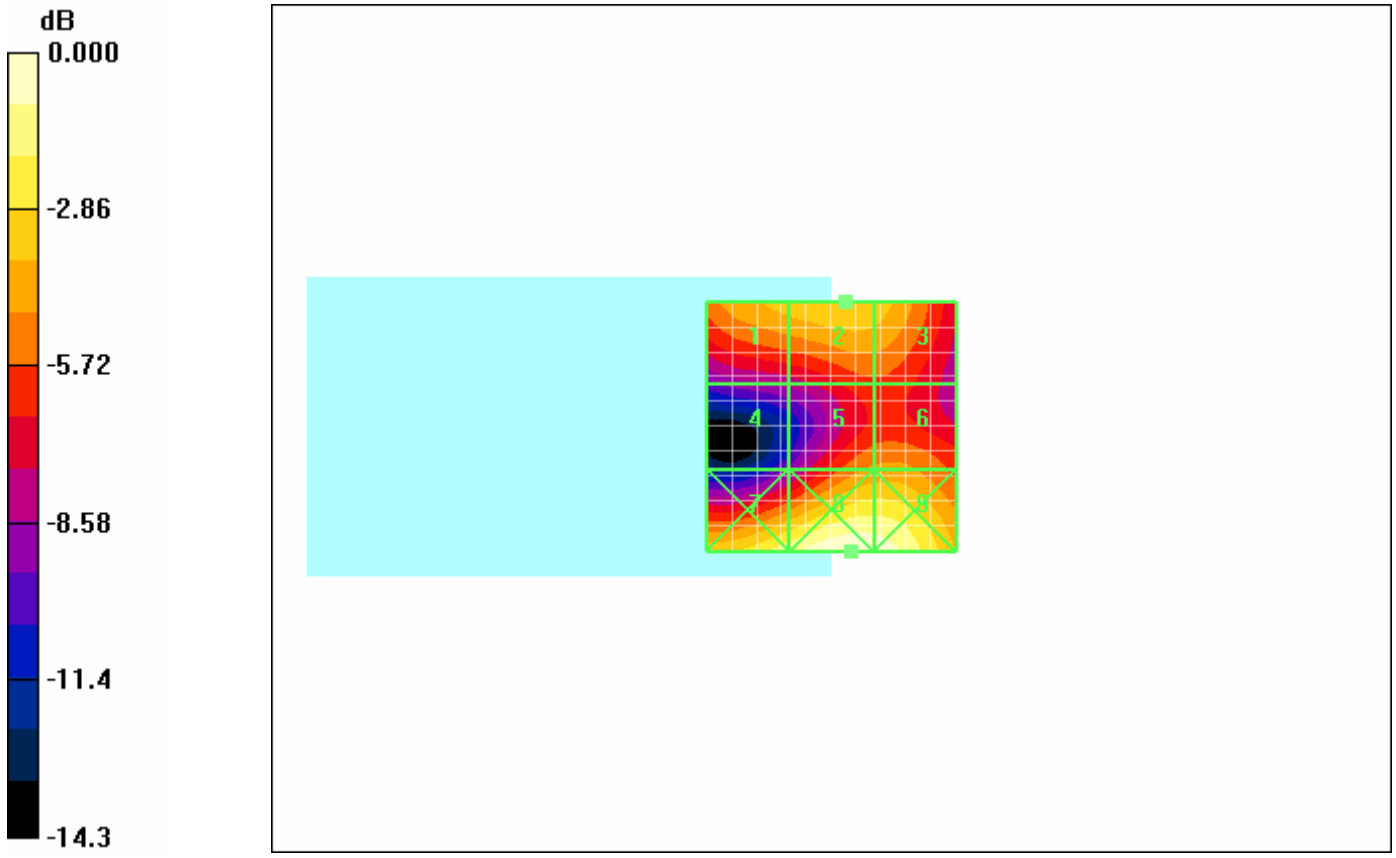
E Scan - ER probe tip 10mm above Device Reference/Hearing Aid Compatibility Test (101x101x1): Measurement grid: dx=5mm, dy=5mm
Maximum value of peak Total field = 68.3 V/m
Probe Modulation Factor = 2.88
Reference Value = 12.9 V/m; Power Drift = -0.100 dB
Hearing Aid Near-Field Category: M3 (AWF -5 dB)

Peak E-field in V/m

Grid **65.0**	Grid **68.3**	Grid **65.3**
Grid **36.6**	Grid **56.1**	Grid **57.0**

Grid	Grid	Grid
82.2	94.6	91.7

C



0 dB = 94.6V/m

Date/Time: 04/06/2007 9:39:28 AM

Test Laboratory: RTS

HAC_E_GSM1900_Spk center_low_chan_06_04_07

DUT: BlackBerry Smartphone; Type: Sample ; Serial: 205E3FCC

Communication System: GSM 1900; Frequency: 1850.2 MHz;Duty Cycle: 1:8.3
Medium parameters used: $\sigma = 0$ mho/m, $\varepsilon_r = 1$; $\rho = 1000$ kg/m^3
Phantom section: E Device Section

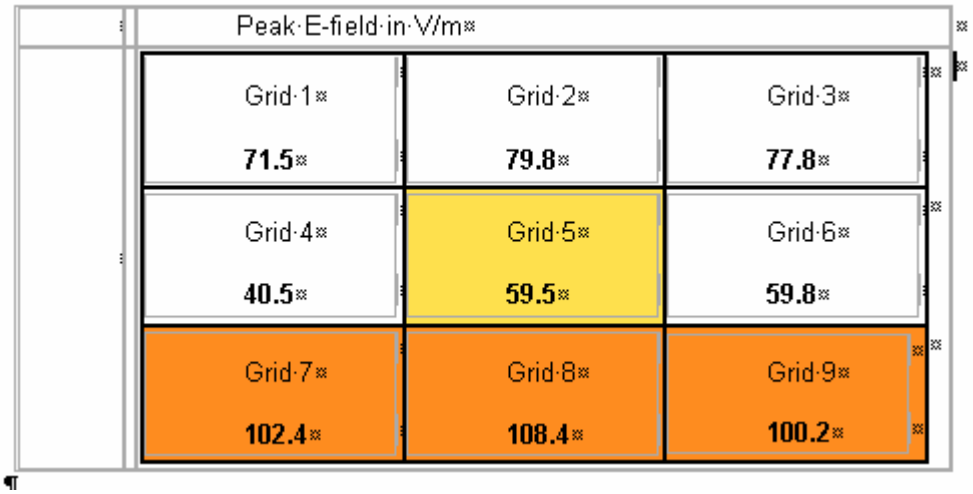
DASY4 Configuration:

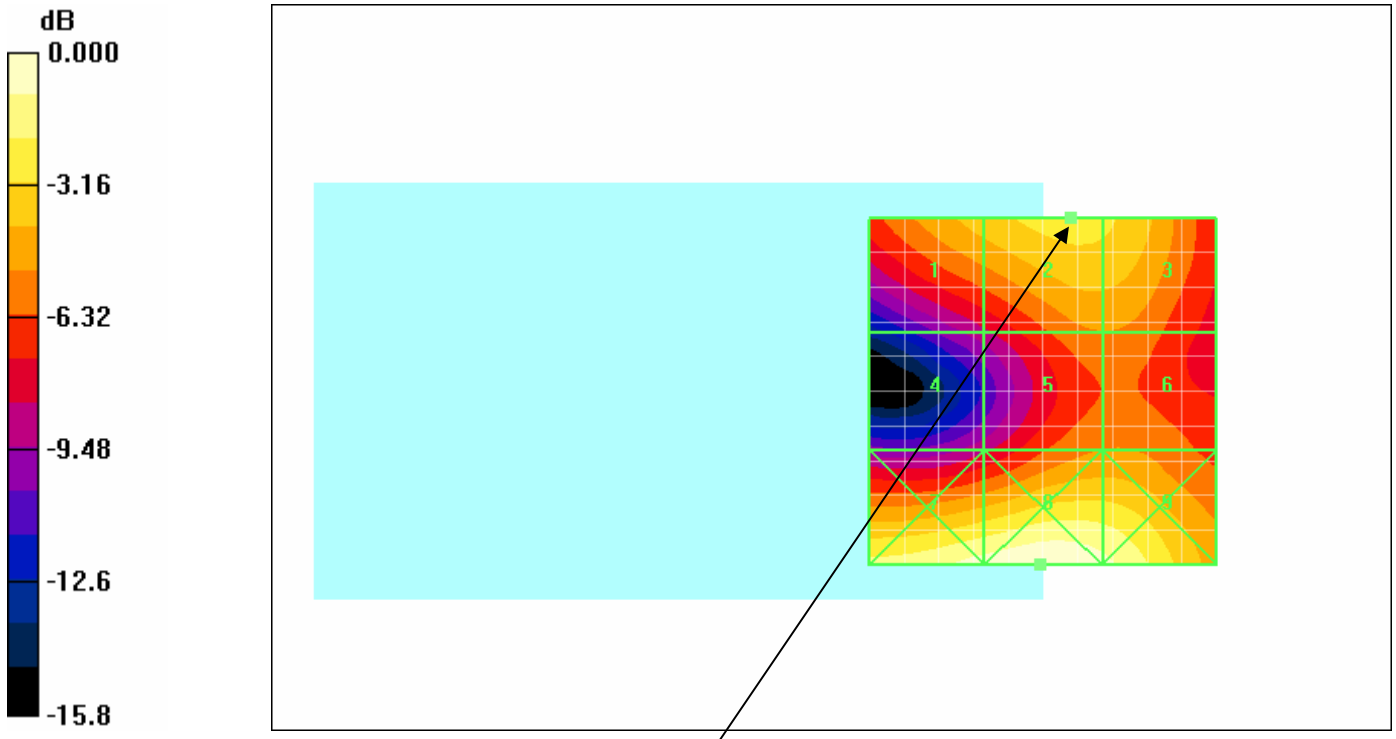
- Probe: ER3DV6 - SN2286; ConvF(1, 1, 1); Calibrated: 10/01/2007
- Sensor-Surface: 0mm (Fix Surface)Sensor-Surface: (Fix Surface)
- Electronics: DAE3 Sn472; Calibrated: 07/03/2007
- Phantom: HAC Test Arch; Type: SD HAC P01 BA;
- Measurement SW: DASY4, V4.7 Build 53; Postprocessing SW: SEMCAD, V1.8 Build 172

E Scan - ER probe tip 10mm above Device Reference/Z Scan (1x1x21): Measurement grid: dx=20mm, dy=20mm, dz=5mm
Maximum value of Total (measured) = 27.2 V/m

E Scan - ER probe tip 10mm above Device Reference/Hearing Aid Compatibility Test (11x11x1): Measurement grid: dx=5mm, dy=5mm
Probe Modulation Factor = 1.00
Reference Value = 15.9 V/m; Power Drift = -0.135 dB
Maximum value of Total (measured) = 37.6 V/m

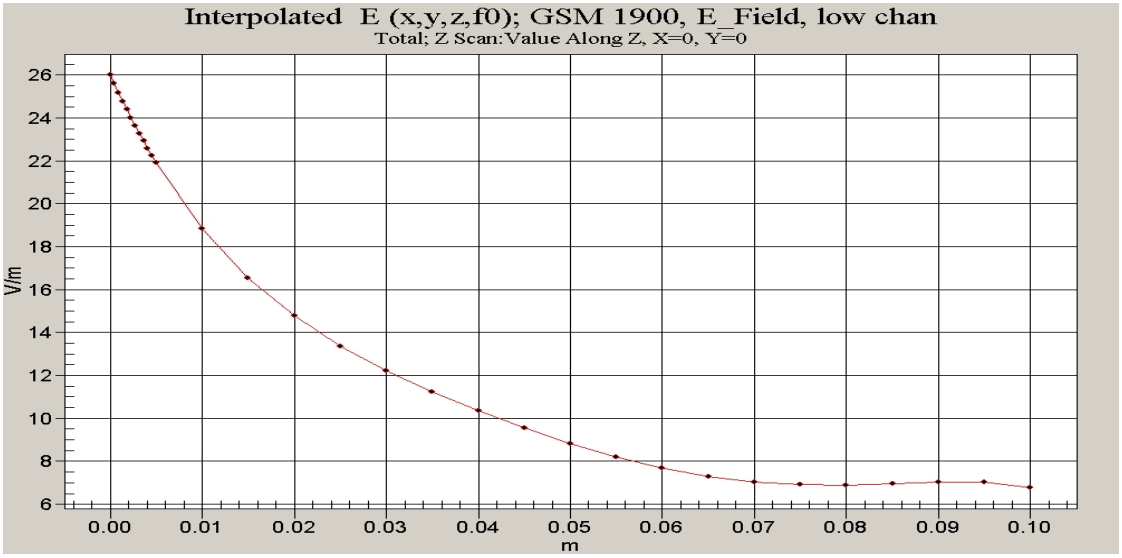
E Scan - ER probe tip 10mm above Device Reference/Hearing Aid Compatibility Test (101x101x1): Measurement grid: dx=5mm, dy=5mm
Maximum value of peak Total field = 79.8 V/m
Probe Modulation Factor = 2.88
Reference Value = 15.9 V/m; Power Drift = -0.135 dB
Hearing Aid Near-Field Category: M3 (AWF -5 dB)



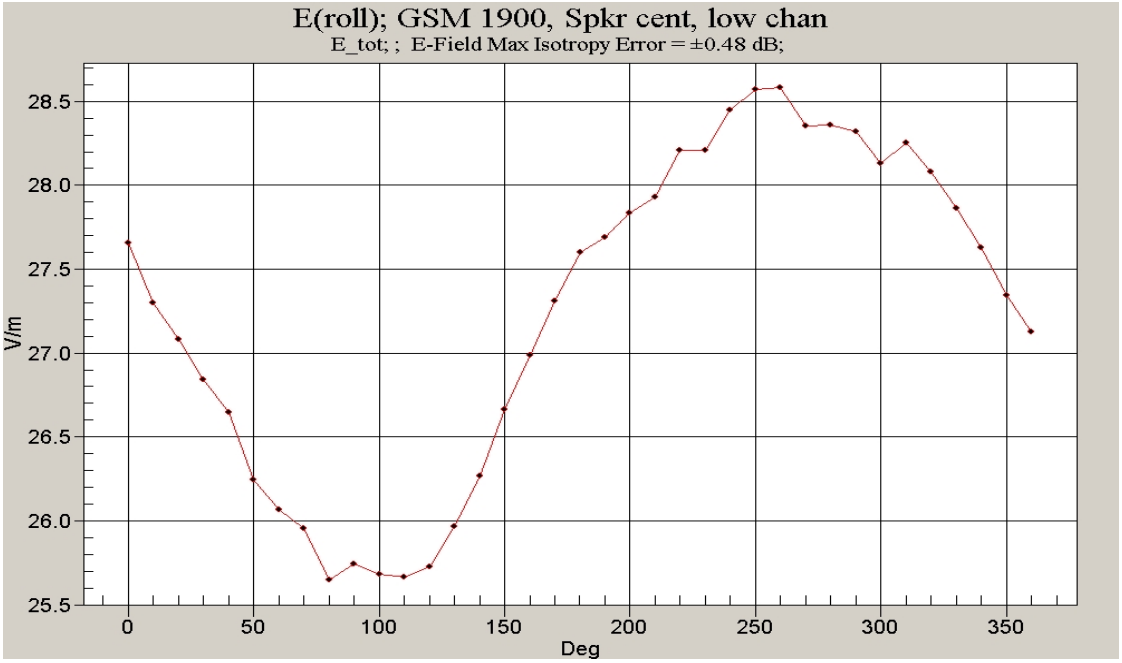


0 dB = 108.4V/m

Location of the probe rotation



Probe rotation at max location after exclusion block



E (delta) = (E max - E at zero degress) * PMF
= (28.5 – 27.5) * 2.88
= 1 * 2.88
= 2.88 V/m

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Test Laboratory: RTS

HAC_E_GSM1900_Spk center_mid_chan

DUT: BlackBerry Smartphone; Type: Sample ; Serial: 205E3FCC

Communication System: GSM 1900; Frequency: 1880 MHz;Duty Cycle: 1:8.3
Medium parameters used: σ = 0 mho/m, ε_r = 1; ρ = 1000 kg/m^3
Phantom section: E Device Section

DASY4 Configuration:

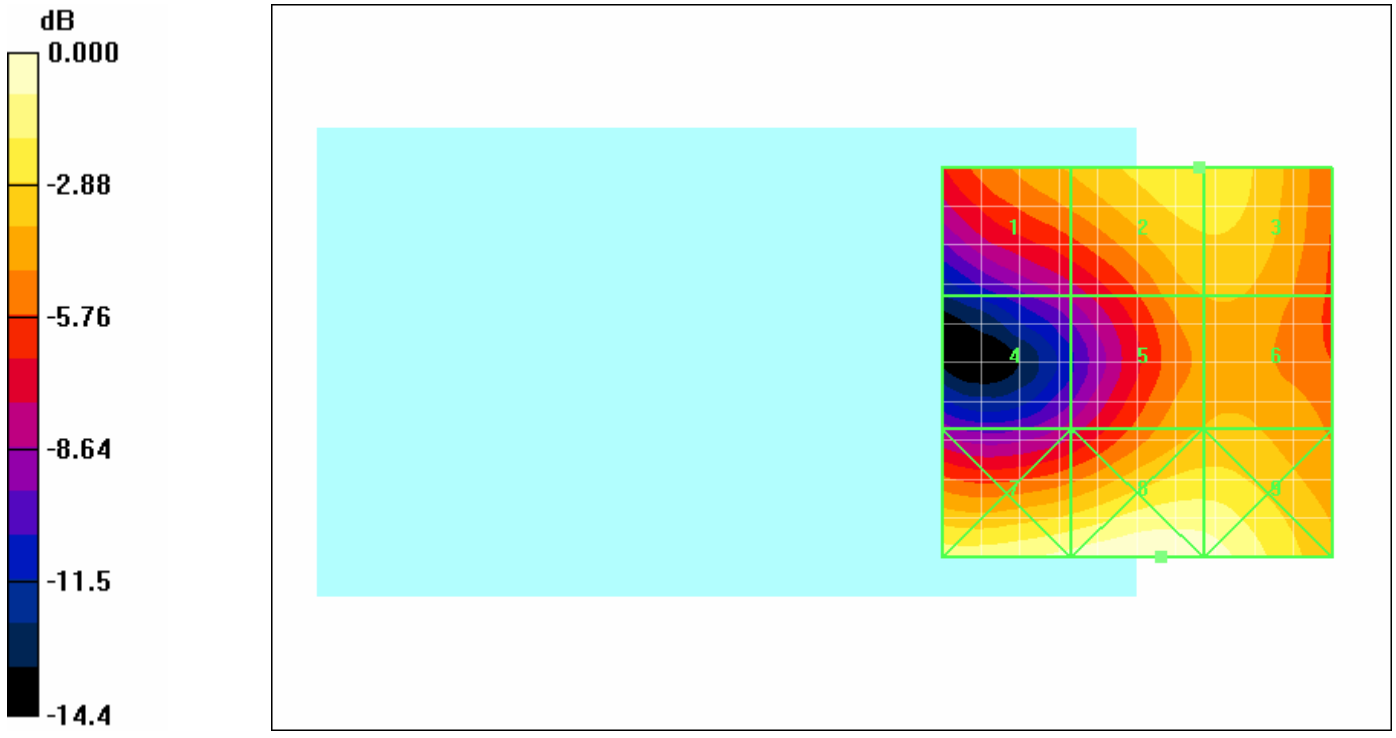
- Probe: ER3DV6 - SN2286; ConvF(1, 1, 1); Calibrated: 10/01/2007
- Sensor-Surface: 0mm (Fix Surface)Sensor-Surface: (Fix Surface)
- Electronics: DAE3 Sn472; Calibrated: 07/03/2007
- Phantom: HAC Test Arch; Type: SD HAC P01 BA;
- Measurement SW: DASY4, V4.7 Build 53; Postprocessing SW: SEMCAD, V1.8 Build 172

E Scan - ER probe tip 10mm above Device Reference/Z Scan (1x1x21): Measurement grid: dx=20mm, dy=20mm, dz=5mm
Maximum value of Total (measured) = 24.3 V/m

E Scan - ER probe tip 10mm above Device Reference/Hearing Aid Compatibility Test (11x11x1): Measurement grid: dx=5mm, dy=5mm
Probe Modulation Factor = 1.00
Reference Value = 14.7 V/m; Power Drift = -0.010 dB
Maximum value of Total (measured) = 31.1 V/m

E Scan - ER probe tip 10mm above Device Reference/Hearing Aid Compatibility Test (101x101x1): Measurement grid: dx=5mm, dy=5mm
Maximum value of peak Total field = 69.6 V/m
Probe Modulation Factor = 2.88
Reference Value = 14.7 V/m; Power Drift = -0.010 dB
Hearing Aid Near-Field Category: M3 (AWF -5 dB)

Peak E-field in V/m		
Grid 1	Grid 2	Grid 3
58.7	69.6	69.6
Grid 4	Grid 5	Grid 6
35.0	58.2	59.1
Grid 7	Grid 8	Grid 9
84.2	89.8	86.4



0 dB = 89.8V/m

Date/Time: 01/06/2007 5:18:02 PM

Test Laboratory: RTS
File Name: HAC_E_GSM1900_Spk center_high_chan.da4

DUT: BlackBerry Smartphone; Type: Sample ; Serial: 205E3FCC
Program Name: HAC E Device

Communication System: GSM 1900; Frequency: 1909.8 MHz;Duty Cycle: 1:8.3
Medium parameters used: $\sigma = 0$ mho/m, $\varepsilon_r = 1$; $\rho = 1000$ kg/m^3
Phantom section: E Device Section

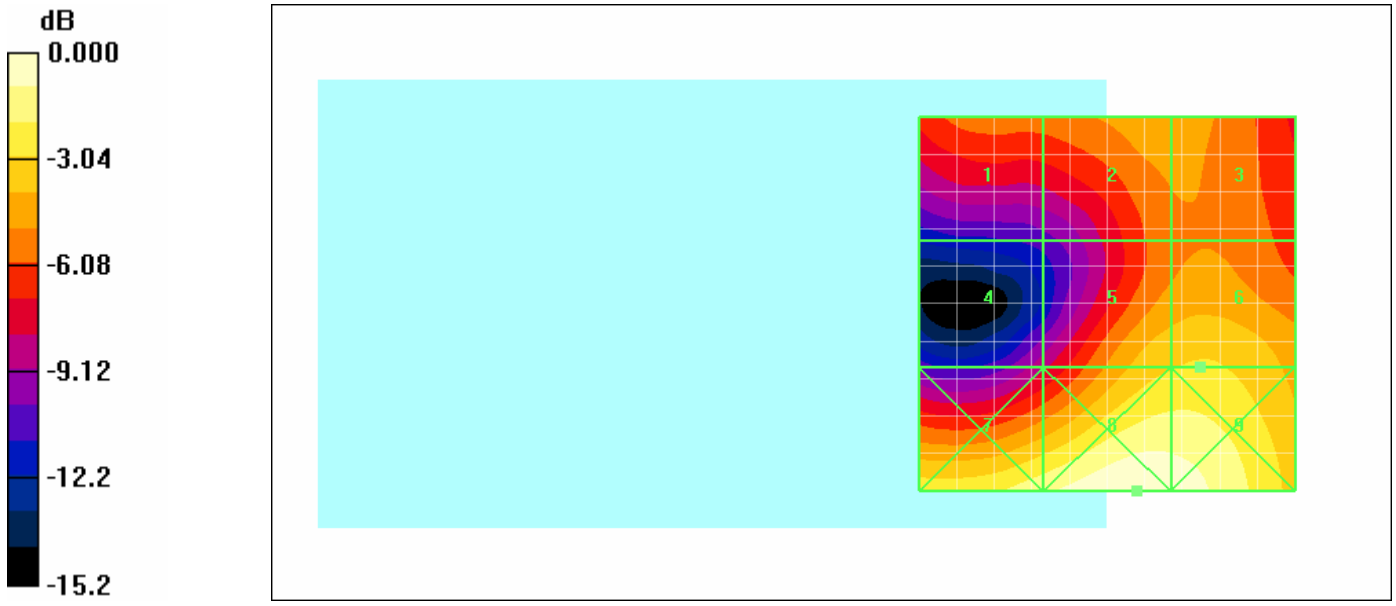
DASY4 Configuration:
- Probe: ER3DV6 - SN2286; ConvF(1, 1, 1); Calibrated: 10/01/2007
- Sensor-Surface: 0mm (Fix Surface)Sensor-Surface: (Fix Surface)
- Electronics: DAE3 Sn472; Calibrated: 07/03/2007
- Phantom: HAC Test Arch; Type: SD HAC P01 BA;
- Measurement SW: DASY4, V4.7 Build 53; Postprocessing SW: SEMCAD, V1.8 Build 172

E Scan - ER probe tip 10mm above Device Reference/Z Scan (1x1x21): Measurement grid: dx=20mm, dy=20mm, dz=5mm
Maximum value of Total (measured) = 22.9 V/m

E Scan - ER probe tip 10mm above Device Reference/Hearing Aid Compatibility Test (11x11x1): Measurement grid: dx=5mm, dy=5mm
Probe Modulation Factor = 1.00
Reference Value = 14.2 V/m; Power Drift = -0.046 dB
Maximum value of Total (measured) = 31.6 V/m

E Scan - ER probe tip 10mm above Device Reference/Hearing Aid Compatibility Test (101x101x1): Measurement grid: dx=5mm, dy=5mm
Maximum value of peak Total field = 65.2 V/m
Probe Modulation Factor = 2.88
Reference Value = 14.2 V/m; Power Drift = -0.046 dB
Hearing Aid Near-Field Category: M3 (AWF -5 dB)

Peak E-field in V/m		
Grid 1	Grid 2	Grid 3
48.0	54.6	53.9
Grid 4	Grid 5	Grid 6
35.0	63.8	65.2
Grid 7	Grid 8	Grid 9
79.1	91.0	88.2



0 dB = 91.0V/m

Date/Time: 01/06/2007 8:06:56 PM

Test Laboratory: RTS

HAC_E_GSM1900_T_coil_center_low_chan

DUT: BlackBerry Smartphone; Type: Sample ; Serial: 205E10F1

Communication System: GSM 1900; Frequency: 1850.2 MHz;Duty Cycle: 1:8.3
Medium parameters used: $\sigma = 0$ mho/m, $\varepsilon_r = 1$; $\rho = 1000$ kg/m^3
Phantom section: E Device Section

DASY4 Configuration:

- Probe: ER3DV6 - SN2286; ConvF(1, 1, 1); Calibrated: 10/01/2007
- Sensor-Surface: 0mm (Fix Surface)Sensor-Surface: (Fix Surface)
- Electronics: DAE3 Sn472; Calibrated: 25/04/2006
- Phantom: HAC Test Arch; Type: SD HAC P01 BA;
- Measurement SW: DASY4, V4.7 Build 53; Postprocessing SW: SEMCAD, V1.8 Build 172

E Scan - ER probe tip 10mm above Device Reference/Z Scan (1x1x21): Measurement grid: dx=20mm, dy=20mm, dz=5mm
Maximum value of Total (measured) = 23.9 V/m

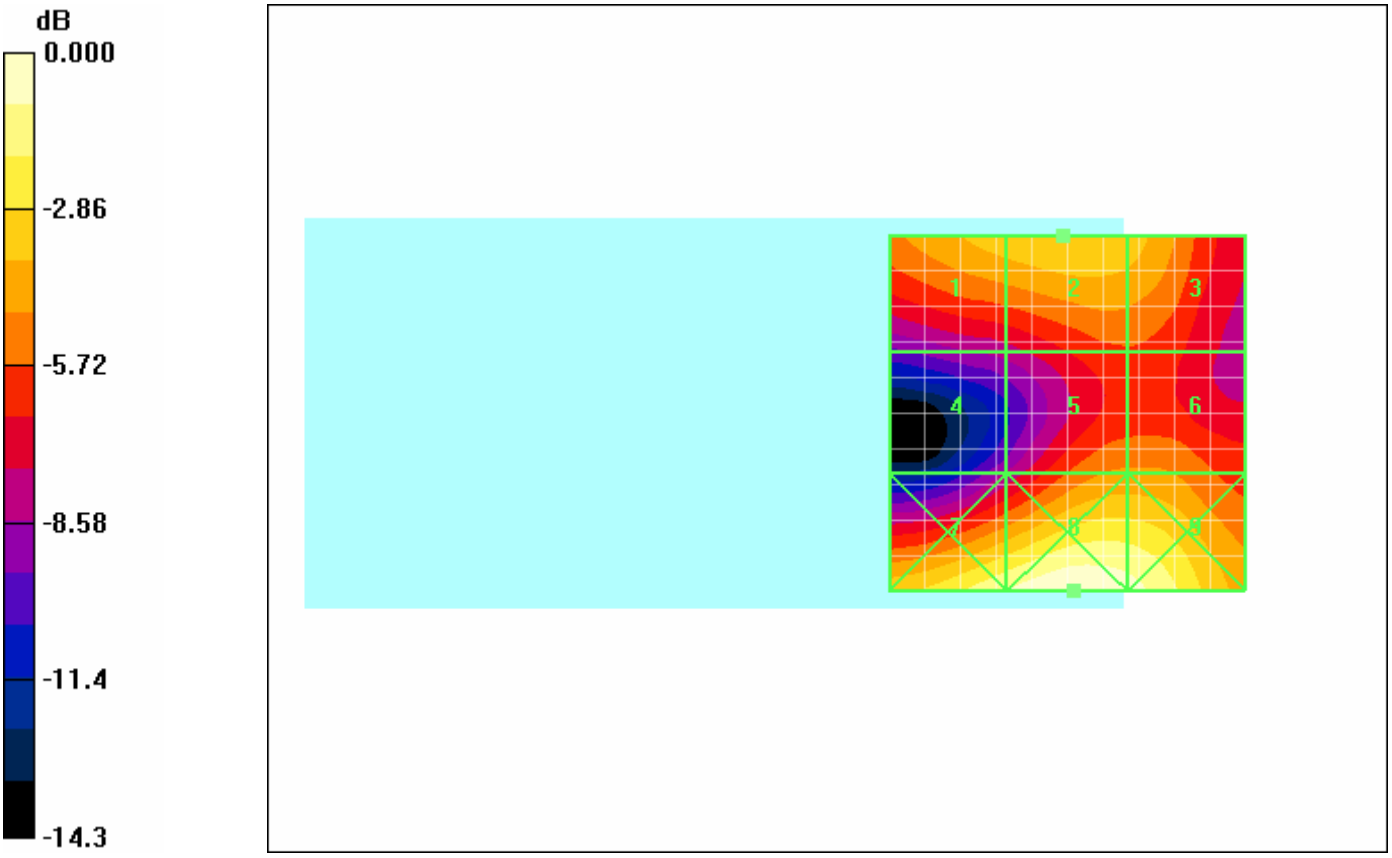
E Scan - ER probe tip 10mm above Device Reference/Hearing Aid Compatibility Test (11x11x1): Measurement grid: dx=5mm, dy=5mm
Probe Modulation Factor = 1.00
Reference Value = 13.0 V/m; Power Drift = 0.035 dB
Maximum value of Total (measured) = 32.7 V/m

E Scan - ER probe tip 10mm above Device Reference/Hearing Aid Compatibility Test (101x101x1): Measurement grid: dx=5mm, dy=5mm
Maximum value of peak Total field = 68.2 V/m
Probe Modulation Factor = 2.88
Reference Value = 13.0 V/m; Power Drift = 0.035 dB
Hearing Aid Near-Field Category: M3 (AWF -5 dB)

Peak E-field in V/m

Grid **65.6**	Grid **68.2**	Grid **64.7**
Grid **37.2**	Grid **56.0**	Grid **56.1**

Grid	Grid	Grid
85.3	94.5	89.4



0 dB = 94.5V/m

Date/Time: 04/06/2007 9:48:36 AM

Test Laboratory: RTS

HAC_E_GSM1900_T_Coil center_low_chan_06_04_07

DUT: BlackBerry Smartphone; Type: Sample ; Serial: 205E3FCC

Communication System: GSM 1900; Frequency: 1850.2 MHz;Duty Cycle: 1:8.3
Medium parameters used: $\sigma = 0$ mho/m, $\varepsilon_r = 1$; $\rho = 1000$ kg/m^3
Phantom section: E Device Section

DASY4 Configuration:

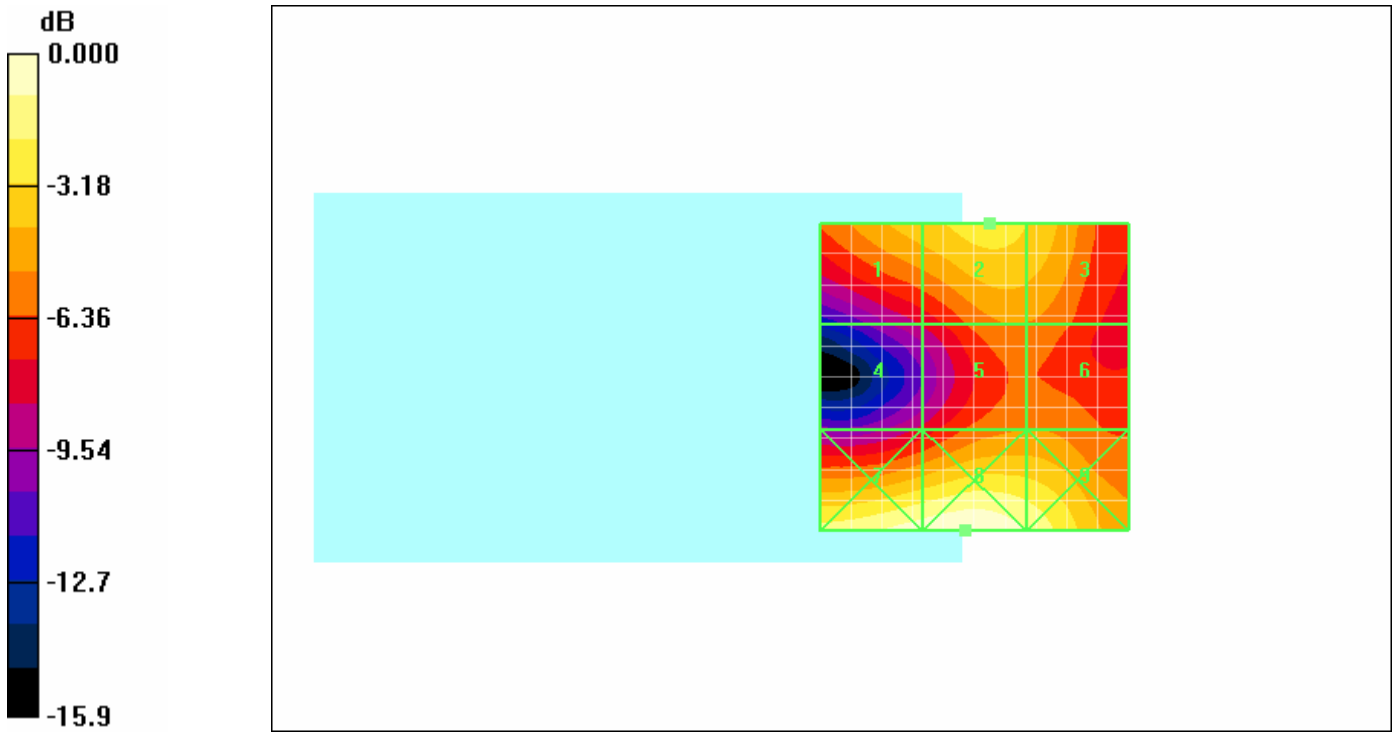
- Probe: ER3DV6 - SN2286; ConvF(1, 1, 1); Calibrated: 10/01/2007
- Sensor-Surface: 0mm (Fix Surface)Sensor-Surface: (Fix Surface)
- Electronics: DAE3 Sn472; Calibrated: 07/03/2007
- Phantom: HAC Test Arch; Type: SD HAC P01 BA;
- Measurement SW: DASY4, V4.7 Build 53; Postprocessing SW: SEMCAD, V1.8 Build 172

E Scan - ER probe tip 10mm above Device Reference/Z Scan (1x1x21): Measurement grid: dx=20mm, dy=20mm, dz=5mm
Maximum value of Total (measured) = 27.4 V/m

E Scan - ER probe tip 10mm above Device Reference/Hearing Aid Compatibility Test (11x11x1): Measurement grid: dx=5mm, dy=5mm
Probe Modulation Factor = 1.00
Reference Value = 15.6 V/m; Power Drift = 0.072 dB
Maximum value of Total (measured) = 37.3 V/m

E Scan - ER probe tip 10mm above Device Reference/Hearing Aid Compatibility Test (101x101x1): Measurement grid: dx=5mm, dy=5mm
Maximum value of peak Total field = 79.5 V/m
Probe Modulation Factor = 2.88
Reference Value = 15.6 V/m; Power Drift = 0.072 dB
Hearing Aid Near-Field Category: M3 (AWF -5 dB)

Peak E-field in V/m		
Grid 1	Grid 2	Grid 3
72.0	79.5	74.8
Grid 4	Grid 5	Grid 6
42.5	58.7	58.7
Grid 7	Grid 8	Grid 9
103.1	107.8	95.1



0 dB = 107.8V/m

Date/Time: 02/06/2007 2:32:52 PM

Test Laboratory: RTS

HAC_H_GSM850_Spk center_low_chan

DUT: BlackBerry Smartphone; Type: Sample ; Serial: 205E3FCC

Communication System: GSM 850; Frequency: 824.2 MHz;Duty Cycle: 1:8.3
Medium parameters used: σ = 0 mho/m, ε_r = 1; ρ = 1 kg/m^3
Phantom section: E Device Section

DASY4 Configuration:

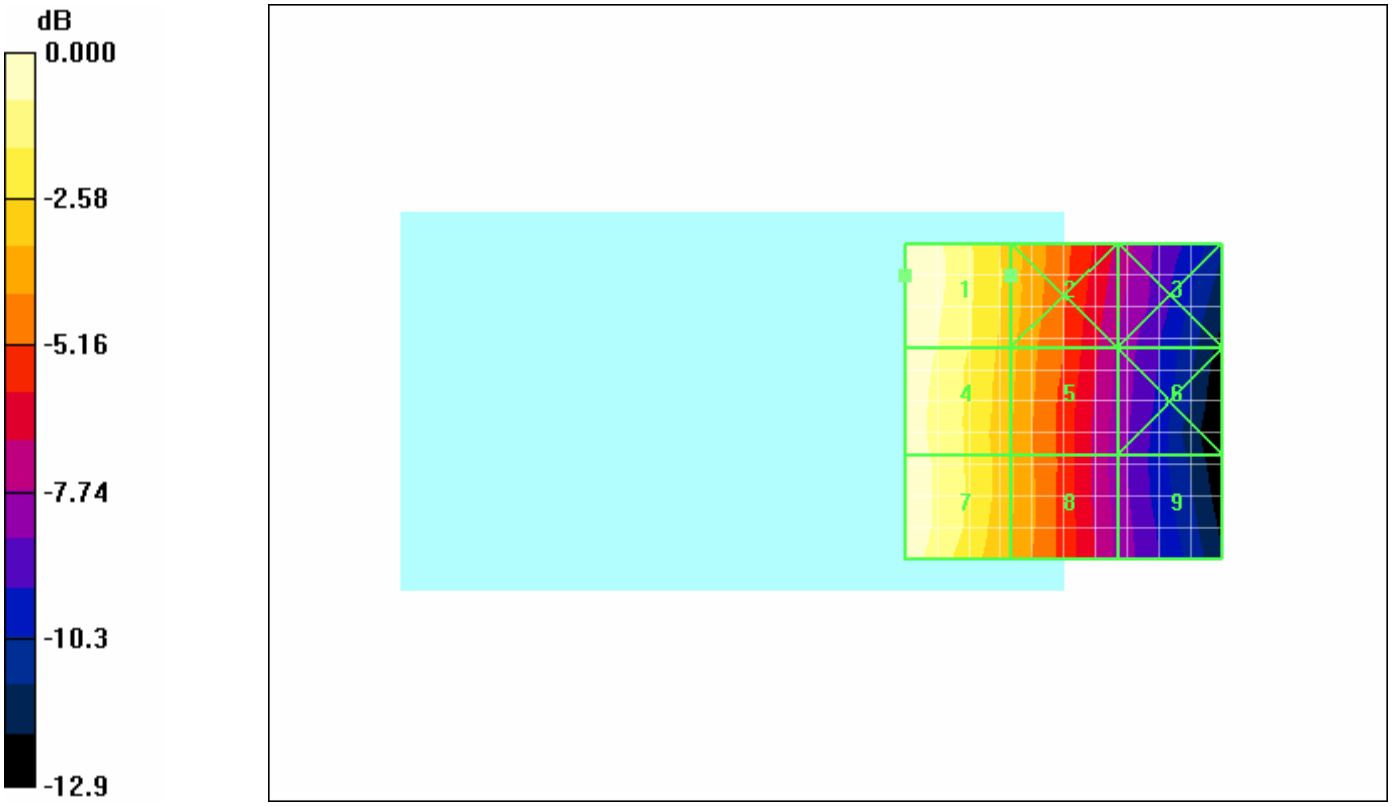
- Probe: H3DV6 - SN6105; ; Calibrated: 11/11/2005
- Sensor-Surface: 0mm (Fix Surface)Sensor-Surface: (Fix Surface)
- Electronics: DAE3 Sn472; Calibrated: 25/04/2006
- Phantom: HAC Test Arch; Type: SD HAC P01 BA;
- Measurement SW: DASY4, V4.7 Build 53; Postprocessing SW: SEMCAD, V1.8 Build 172

H Scan - H3DV6 probe tip 10mm above Device Reference/Z Scan (1x1x21): Measurement grid: dx=20mm, dy=20mm, dz=5mm
Maximum value of Total (measured) = 0.105 A/m

H Scan - H3DV6 probe tip 10mm above Device Reference/Hearing Aid Compatibility Test (11x11x1): Measurement grid: dx=5mm, dy=5mm
Probe Modulation Factor = 1.00
Reference Value = 0.080 A/m; Power Drift = 0.080 dB
Maximum value of Total (measured) = 0.148 A/m

H Scan - H3DV6 probe tip 10mm above Device Reference/Hearing Aid Compatibility Test (101x101x1): Measurement grid: dx=5mm, dy=5mm
Maximum value of peak Total field = 0.399 A/m
Probe Modulation Factor = 2.70
Reference Value = 0.080 A/m; Power Drift = 0.080 dB
Hearing Aid Near-Field Category: M4 (AWF -5 dB)

Peak H-field in A/m		
Grid 1	Grid 2	Grid 3
0.399	0.286	0.178
Grid 4	Grid 5	Grid 6
0.391	0.279	0.163
Grid 7	Grid 8	Grid 9
0.392	0.275	0.161



0 dB = 0.399A/m

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Test Laboratory: RTS

HAC_H_GSM850_Spk center_mid_chan

DUT: BlackBerry Smartphone; Type: Sample ; Serial: 205E3FCC

Communication System: GSM 850; Frequency: 836.8 MHz;Duty Cycle: 1:8.3
Medium parameters used: σ = 0 mho/m, ε_r = 1; ρ = 1 kg/m^3
Phantom section: E Device Section

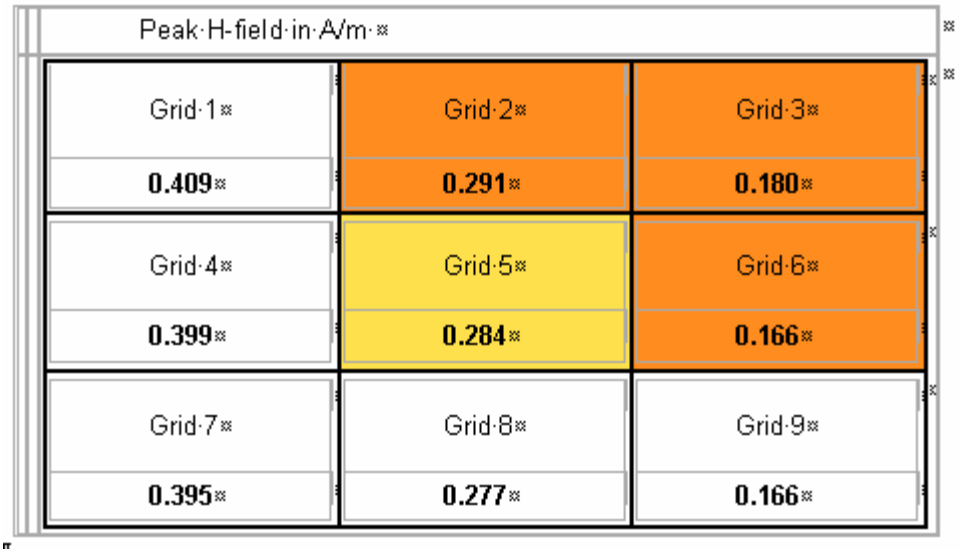
DASY4 Configuration:

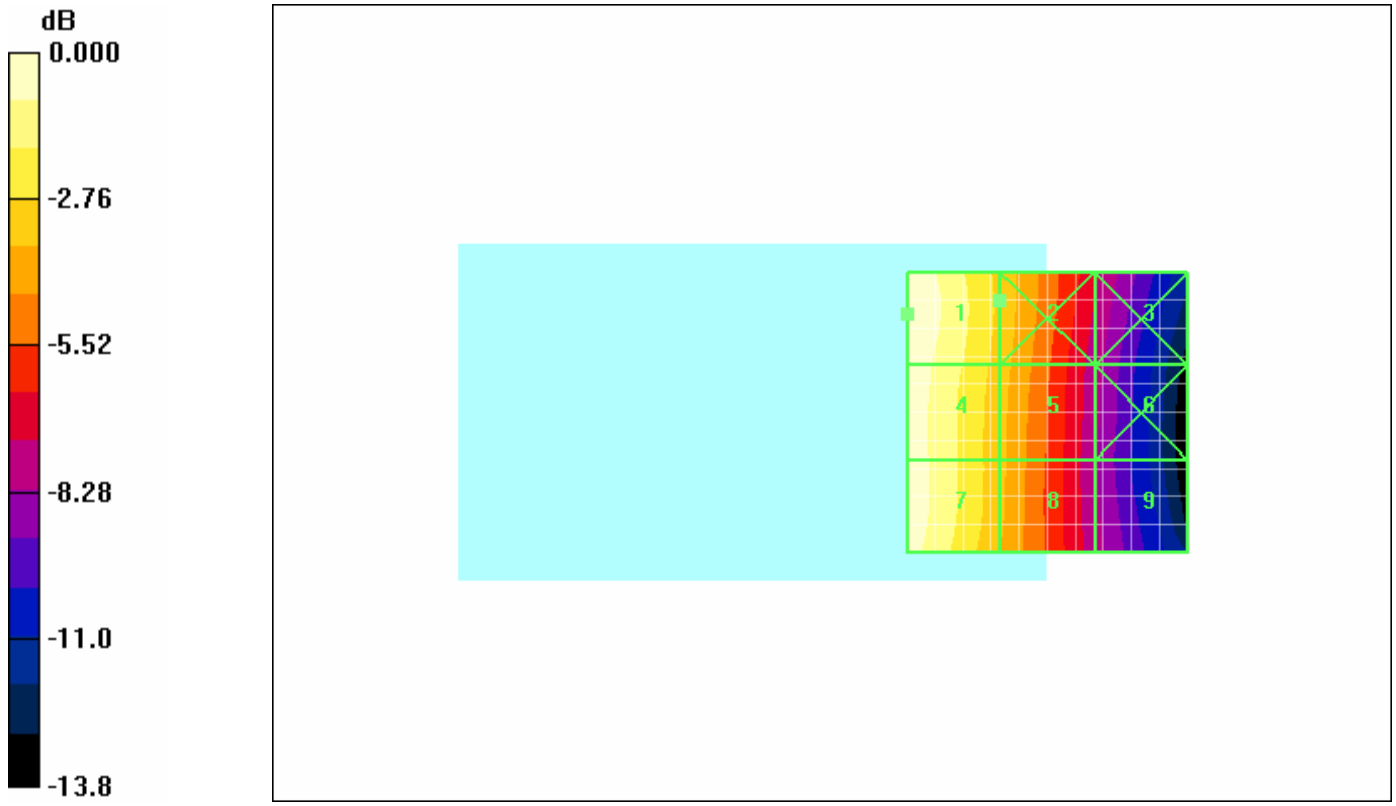
- Probe: H3DV6 - SN6105; ; Calibrated: 11/11/2005
- Sensor-Surface: 0mm (Fix Surface)Sensor-Surface: (Fix Surface)
- Electronics: DAE3 Sn472; Calibrated: 25/04/2006
- Phantom: HAC Test Arch; Type: SD HAC P01 BA;
- Measurement SW: DASY4, V4.7 Build 53; Postprocessing SW: SEMCAD, V1.8 Build 172

H Scan - H3DV6 probe tip 10mm above Device Reference/Z Scan (1x1x21): Measurement grid: dx=20mm, dy=20mm, dz=5mm
Maximum value of Total (measured) = 0.107 A/m

H Scan - H3DV6 probe tip 10mm above Device Reference/Hearing Aid Compatibility Test (11x11x1): Measurement grid: dx=5mm, dy=5mm
Probe Modulation Factor = 1.00
Reference Value = 0.082 A/m; Power Drift = 0.023 dB
Maximum value of Total (measured) = 0.151 A/m

H Scan - H3DV6 probe tip 10mm above Device Reference/Hearing Aid Compatibility Test (101x101x1): Measurement grid: dx=5mm, dy=5mm
Maximum value of peak Total field = 0.409 A/m
Probe Modulation Factor = 2.70
Reference Value = 0.082 A/m; Power Drift = 0.023 dB
Hearing Aid Near-Field Category: M4 (AWF -5 dB)





0 dB = 0.409A/m

Date/Time: 02/06/2007 2:09:45 PM

Test Laboratory: RTS

HAC_H_GSM850_Spk center_high_chan

DUT: BlackBerry Smartphone; Type: Sample ; Serial: 205E3FCC

Communication System: GSM 850; Frequency: 848.8 MHz;Duty Cycle: 1:8.3
Medium parameters used: σ = 0 mho/m, ε_r = 1; ρ = 1 kg/m^3
Phantom section: E Device Section

DASY4 Configuration:

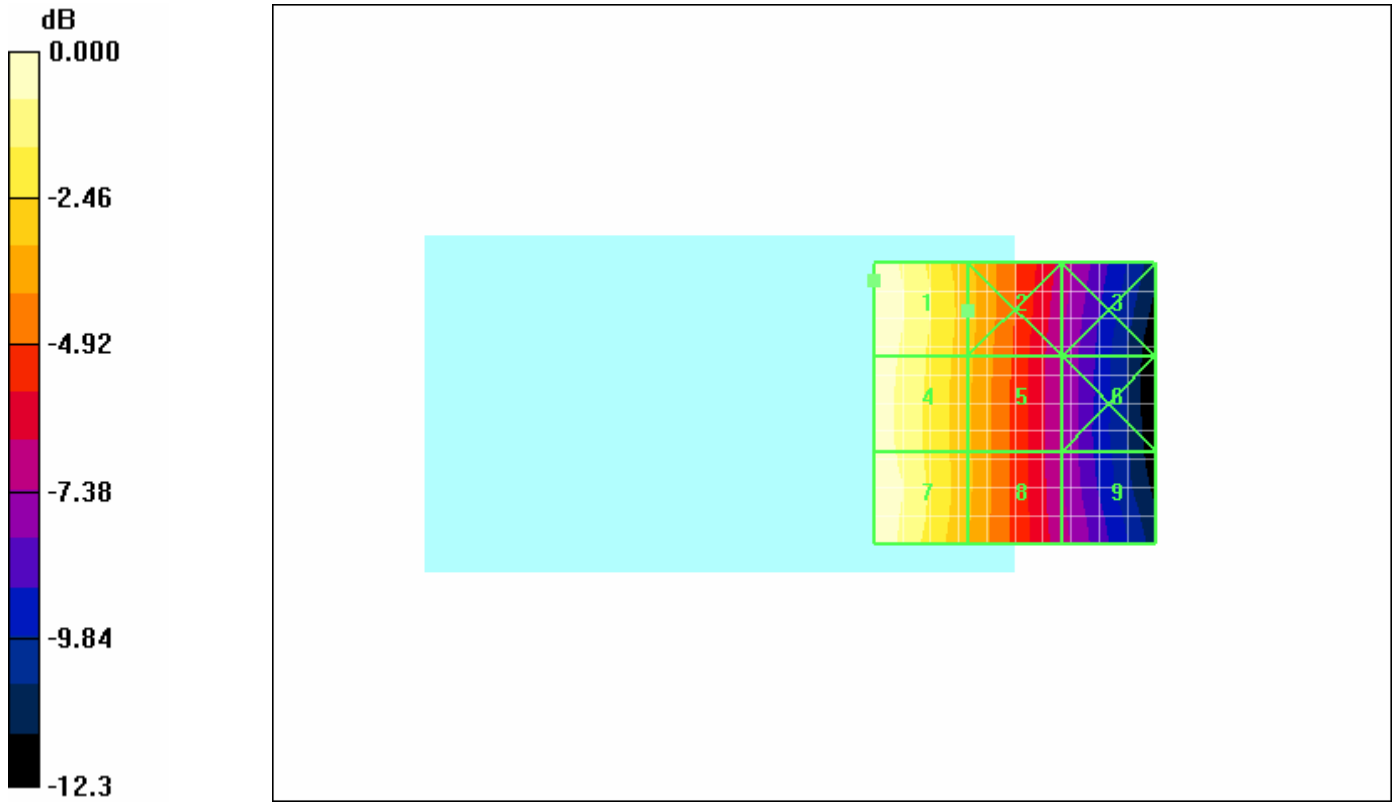
- Probe: H3DV6 - SN6105; ; Calibrated: 11/11/2005
- Sensor-Surface: 0mm (Fix Surface)Sensor-Surface: (Fix Surface)
- Electronics: DAE3 Sn472; Calibrated: 25/04/2006
- Phantom: HAC Test Arch; Type: SD HAC P01 BA;
- Measurement SW: DASY4, V4.7 Build 53; Postprocessing SW: SEMCAD, V1.8 Build 172

H Scan - H3DV6 probe tip 10mm above Device Reference/Z Scan (1x1x21): Measurement grid: dx=20mm, dy=20mm, dz=5mm
Maximum value of Total (measured) = 0.110 A/m

H Scan - H3DV6 probe tip 10mm above Device Reference/Hearing Aid Compatibility Test (11x11x1): Measurement grid: dx=5mm, dy=5mm
Probe Modulation Factor = 1.00
Reference Value = 0.086 A/m; Power Drift = 0.054 dB
Maximum value of Total (measured) = 0.153 A/m

H Scan - H3DV6 probe tip 10mm above Device Reference/Hearing Aid Compatibility Test (101x101x1): Measurement grid: dx=5mm, dy=5mm
Maximum value of peak Total field = 0.413 A/m
Probe Modulation Factor = 2.70
Reference Value = 0.086 A/m; Power Drift = 0.054 dB
Hearing Aid Near-Field Category: M4 (AWF -5 dB)

Peak H-field in A/m		
Grid 1	Grid 2	Grid 3
0.413	0.296	0.187
Grid 4	Grid 5	Grid 6
0.404	0.292	0.177
Grid 7	Grid 8	Grid 9
0.410	0.290	0.184



0 dB = 0.413A/m

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Test Laboratory: RTS

HAC_H_GSM850_Speaker_cent center_high_chan

DUT: BlackBerry Smartphone; Type: Sample ; Serial: 205E10F1

Communication System: GSM 850; Frequency: 848.8 MHz;Duty Cycle: 1:8.3
Medium parameters used: $\sigma = 0$ mho/m, $\varepsilon_r = 1$; $\rho = 1$ kg/m^3
Phantom section: E Device Section

DASY4 Configuration:

- Probe: H3DV6 - SN6105; ; Calibrated: 11/11/2005
- Sensor-Surface: 0mm (Fix Surface)Sensor-Surface: (Fix Surface)
- Electronics: DAE3 Sn472; Calibrated: 25/04/2006
- Phantom: HAC Test Arch; Type: SD HAC P01 BA;
- Measurement SW: DASY4, V4.7 Build 53; Postprocessing SW: SEMCAD, V1.8 Build 172

H Scan - H3DV6 probe tip 10mm above Device Reference/Z Scan (1x1x21): Measurement grid: dx=20mm, dy=20mm, dz=5mm
Maximum value of Total (measured) = 0.104 A/m

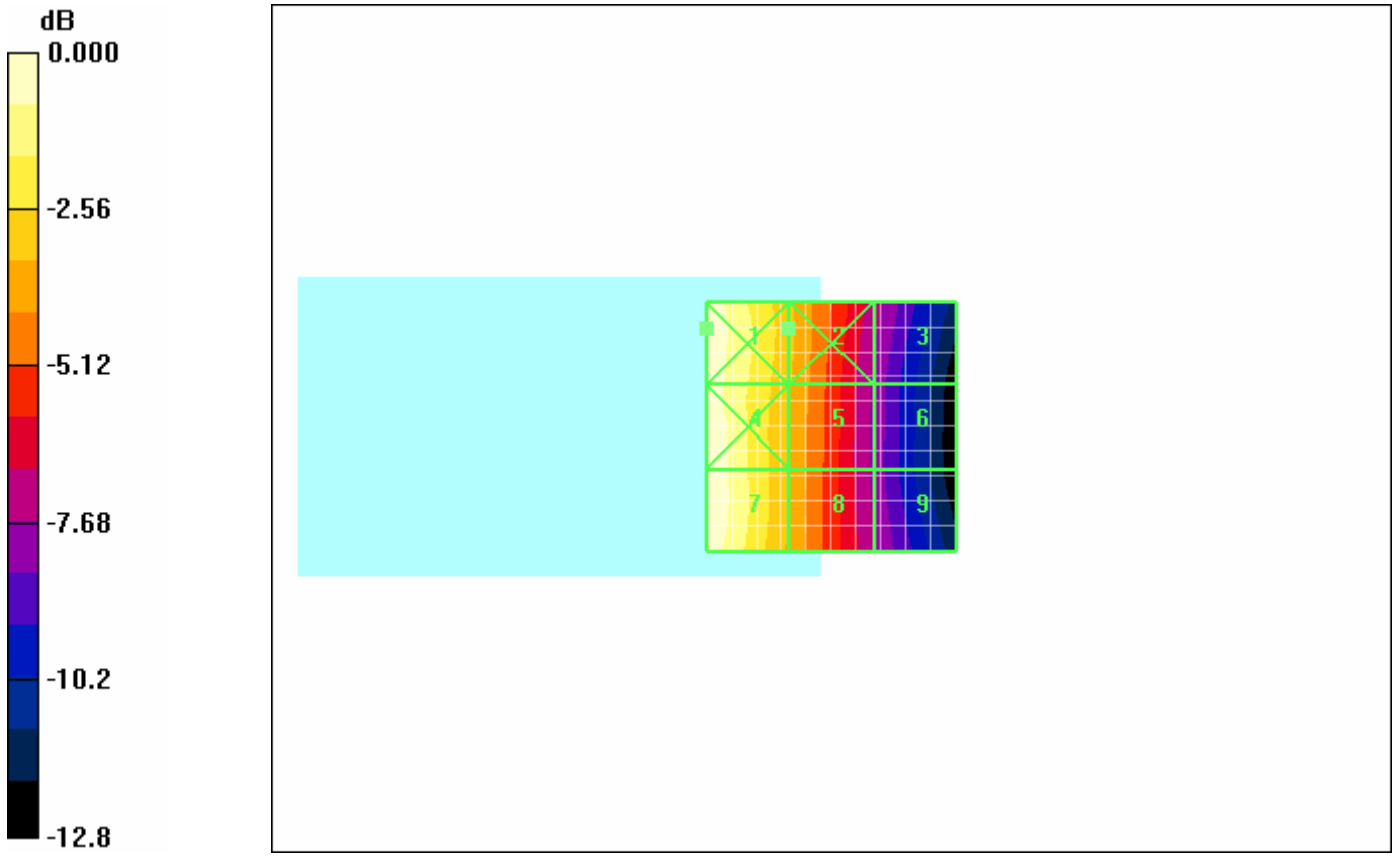
H Scan - H3DV6 probe tip 10mm above Device Reference/Hearing Aid Compatibility Test (11x11x1): Measurement grid: dx=5mm, dy=5mm
Probe Modulation Factor = 1.00
Reference Value = 0.087 A/m; Power Drift = -0.185 dB
Maximum value of Total (measured) = 0.149 A/m

H Scan - H3DV6 probe tip 10mm above Device Reference/Hearing Aid Compatibility Test (101x101x1): Measurement grid: dx=5mm, dy=5mm
Maximum value of peak Total field = 0.396 A/m
Probe Modulation Factor = 2.70
Reference Value = 0.087 A/m; Power Drift = -0.185 dB
Hearing Aid Near-Field Category: M4 (AWF -5 dB)

Peak H-field in A/m

Grid **0.403**	Grid **0.280**	Grid **0.175**
Grid **0.392**	Grid **0.275**	Grid **0.164**

Grid	Grid	Grid
0.396	**0.272**	**0.169**



0 dB = 0.403A/m

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Test Laboratory: RTS

HAC_H_GSM850_T_coil center_high_chan

DUT: BlackBerry Smartphone; Type: Sample ; Serial: 205E3FCC

Communication System: GSM 850; Frequency: 848.8 MHz;Duty Cycle: 1:8.3
Medium parameters used: σ = 0 mho/m, ε_r = 1; ρ = 1 kg/m^3
Phantom section: E Device Section

DASY4 Configuration:

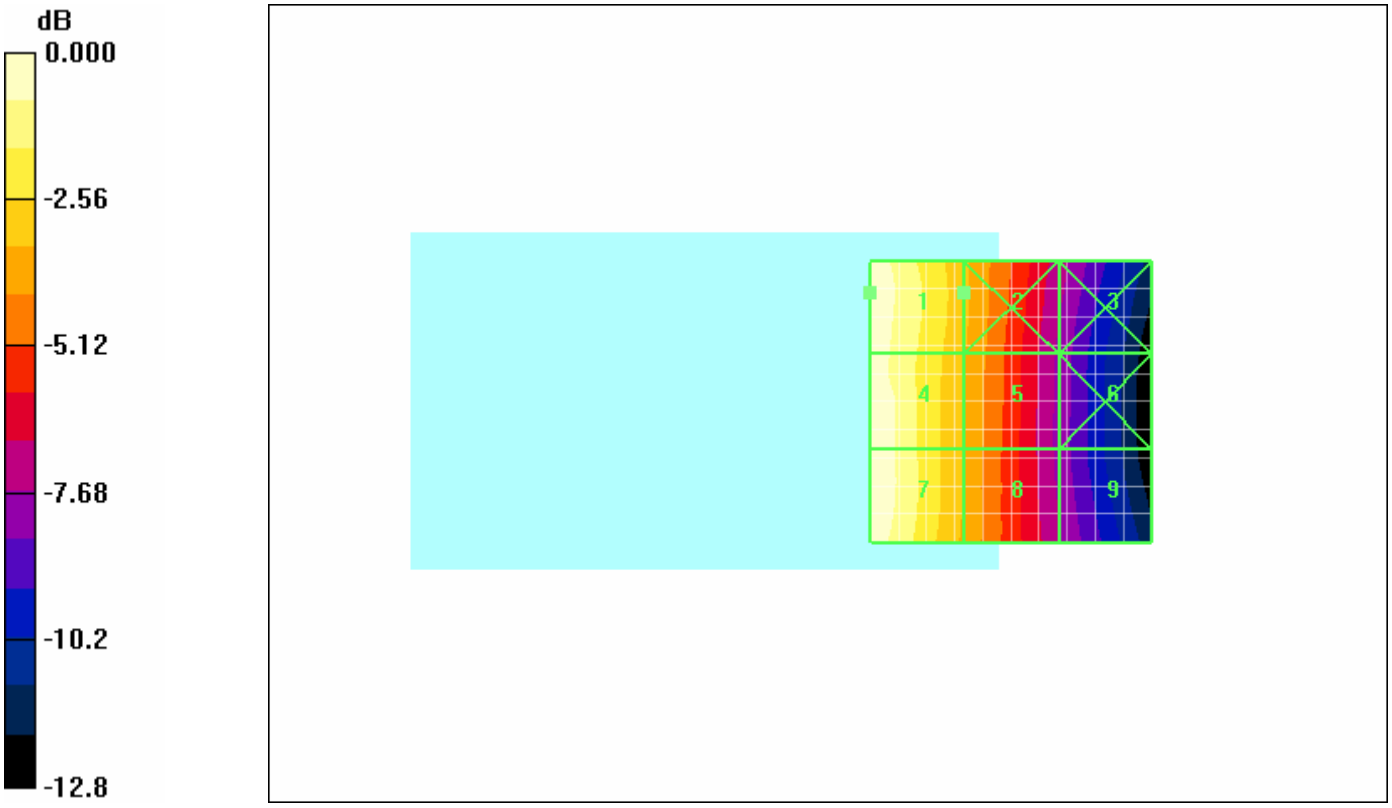
- Probe: H3DV6 - SN6105; ; Calibrated: 11/11/2005
- Sensor-Surface: 0mm (Fix Surface)Sensor-Surface: (Fix Surface)
- Electronics: DAE3 Sn472; Calibrated: 25/04/2006
- Phantom: HAC Test Arch; Type: SD HAC P01 BA;
- Measurement SW: DASY4, V4.7 Build 53; Postprocessing SW: SEMCAD, V1.8 Build 172

H Scan - H3DV6 probe tip 10mm above Device Reference/Z Scan (1x1x21): Measurement grid: dx=20mm, dy=20mm, dz=5mm
Maximum value of Total (measured) = 0.104 A/m

H Scan - H3DV6 probe tip 10mm above Device Reference/Hearing Aid Compatibility Test (11x11x1): Measurement grid: dx=5mm, dy=5mm
Probe Modulation Factor = 1.00
Reference Value = 0.087 A/m; Power Drift = -0.185 dB
Maximum value of Total (measured) = 0.149 A/m

H Scan - H3DV6 probe tip 10mm above Device Reference/Hearing Aid Compatibility Test (101x101x1): Measurement grid: dx=5mm, dy=5mm
Maximum value of peak Total field = 0.403 A/m
Probe Modulation Factor = 2.70
Reference Value = 0.087 A/m; Power Drift = -0.185 dB
Hearing Aid Near-Field Category: M4 (AWF -5 dB)

Peak H-field in A/m		
Grid 1	Grid 2	Grid 3
0.403	0.280	0.175
Grid 4	Grid 5	Grid 6
0.392	0.275	0.164
Grid 7	Grid 8	Grid 9
0.396	0.272	0.169



0 dB = 0.403A/m

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Test Laboratory: RTS

HAC_H_GSM1900_Spk center_low_chan

DUT: BlackBerry Smartphone; Type: Sample ; Serial: 205E3FCC

Communication System: GSM 1900; Frequency: 1850.2 MHz;Duty Cycle: 1:8.3
Medium parameters used: σ = 0 mho/m, ε_r = 1; ρ = 1 kg/m^3
Phantom section: H Dipole Section

DASY4 Configuration:

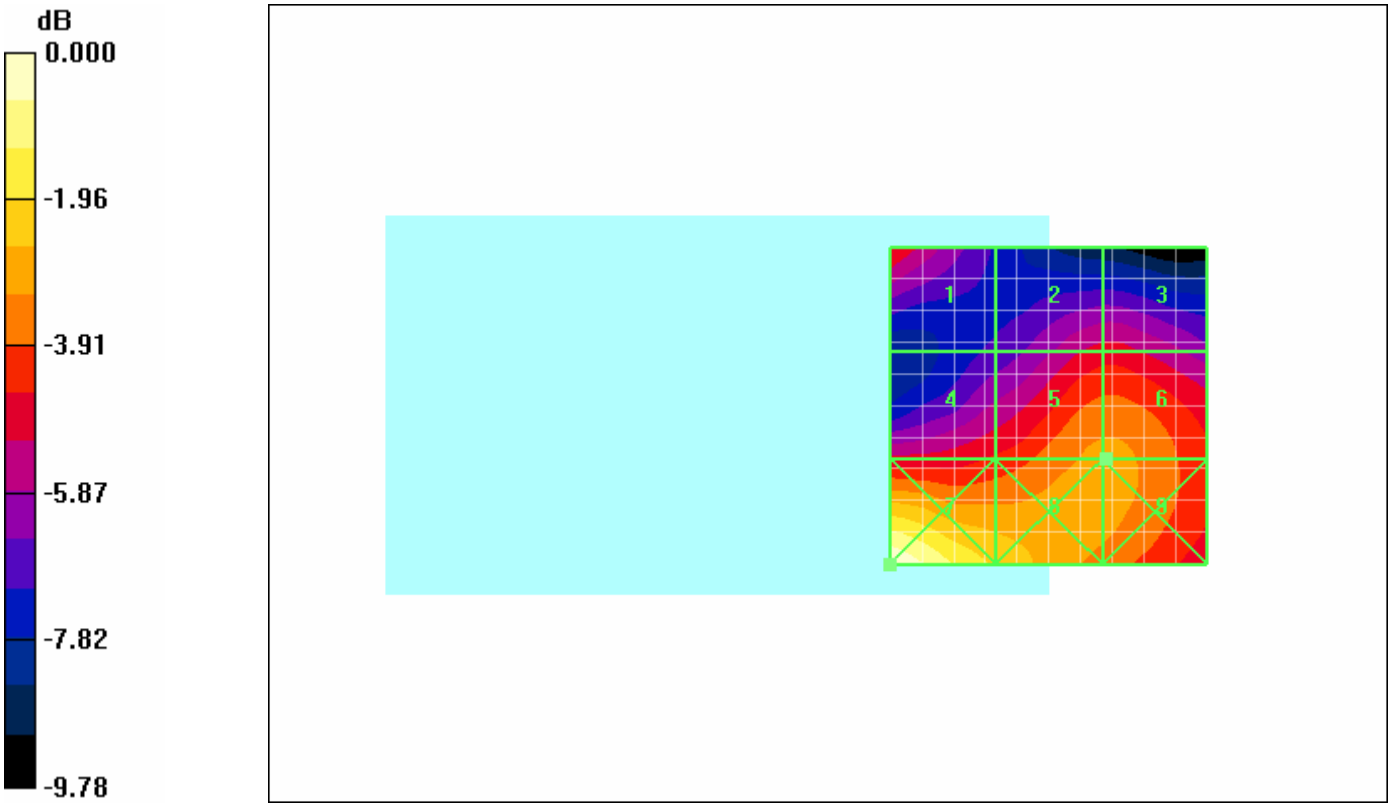
- Probe: H3DV6 - SN6105; ; Calibrated: 15/11/2006
- Sensor-Surface: 0mm (Fix Surface)Sensor-Surface: (Fix Surface)
- Electronics: DAE3 Sn472; Calibrated: 07/03/2007
- Phantom: HAC Test Arch; Type: SD HAC P01 BA;
- Measurement SW: DASY4, V4.7 Build 53; Postprocessing SW: SEMCAD, V1.8 Build 172

H Scan - H3DV6 probe tip 10mm above Device Reference/Z Scan (1x1x21): Measurement grid: dx=20mm, dy=20mm, dz=5mm
Maximum value of Total (measured) = 0.113 A/m

H Scan - H3DV6 probe tip 10mm above Device Reference/Hearing Aid Compatibility Test (11x11x1): Measurement grid: dx=5mm, dy=5mm
Probe Modulation Factor = 1.00
Reference Value = 0.070 A/m; Power Drift = 0.047 dB

H Scan - H3DV6 probe tip 10mm above Device Reference/Hearing Aid Compatibility Test (101x101x1): Measurement grid: dx=5mm, dy=5mm
Maximum value of peak Total field = 0.214 A/m
Probe Modulation Factor = 2.70
Reference Value = 0.070 A/m; Power Drift = 0.047 dB
Hearing Aid Near-Field Category: M3 (AWF -5 dB)

Peak H-field in A/m		
Grid 1	Grid 2	Grid 3
0.183	0.173	0.174
Grid 4	Grid 5	Grid 6
0.183	0.214	0.214
Grid 7	Grid 8	Grid 9
0.305	0.241	0.215



0 dB = 0.305A/m

Date/Time: 02/06/2007 4:15:25 PM

Test Laboratory: RTS

HAC_H_GSM1900_Spk center_mid_chan

DUT: BlackBerry Smartphone; Type: Sample ; Serial: 205E3FCC

Communication System: GSM 1900; Frequency: 1880 MHz;Duty Cycle: 1:8.3
Medium parameters used: σ = 0 mho/m, ε_r = 1; ρ = 1 kg/m^3
Phantom section: H Dipole Section

DASY4 Configuration:

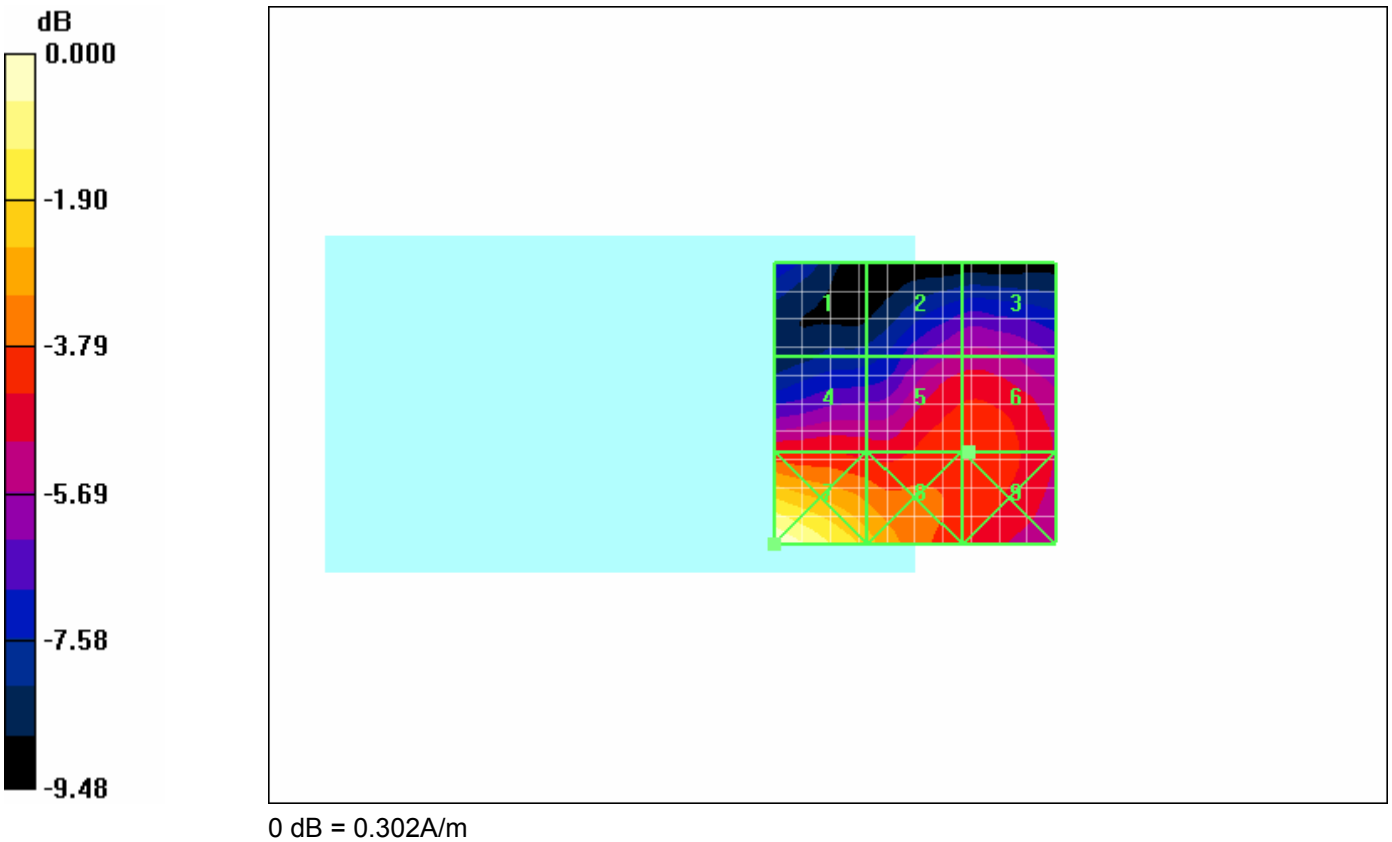
- Probe: H3DV6 - SN6105; ; Calibrated: 15/11/2006
- Sensor-Surface: 0mm (Fix Surface)Sensor-Surface: (Fix Surface)
- Electronics: DAE3 Sn472; Calibrated: 07/03/2007
- Phantom: HAC Test Arch; Type: SD HAC P01 BA;
- Measurement SW: DASY4, V4.7 Build 53; Postprocessing SW: SEMCAD, V1.8 Build 172

H Scan - H3DV6 probe tip 10mm above Device Reference/Z Scan (1x1x21): Measurement grid: dx=20mm, dy=20mm, dz=5mm
Maximum value of Total (measured) = 0.112 A/m

H Scan - H3DV6 probe tip 10mm above Device Reference/Hearing Aid Compatibility Test (11x11x1): Measurement grid: dx=5mm, dy=5mm
Probe Modulation Factor = 1.00
Reference Value = 0.063 A/m; Power Drift = 0.084 dB

H Scan - H3DV6 probe tip 10mm above Device Reference/Hearing Aid Compatibility Test (101x101x1): Measurement grid: dx=5mm, dy=5mm
Maximum value of peak Total field = 0.194 A/m
Probe Modulation Factor = 2.70
Reference Value = 0.063 A/m; Power Drift = 0.084 dB
Hearing Aid Near-Field Category: M3 (AWF -5 dB)

Peak H-field in A/m		
Grid 1	Grid 2	Grid 3
0.135	0.161	0.163
Grid 4	Grid 5	Grid 6
0.183	0.194	0.194
Grid 7	Grid 8	Grid 9
0.302	0.236	0.195



0 dB = 0.302A/m

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Test Laboratory: RTS

HAC_H_GSM1900_Spk center_high_chan

DUT: BlackBerry Smartphone; Type: Sample ; Serial: 205E3FCC

Communication System: GSM 1900; Frequency: 1909.8 MHz;Duty Cycle: 1:8.3
Medium parameters used: σ = 0 mho/m, ε_r = 1; ρ = 1 kg/m^3
Phantom section: H Dipole Section

DASY4 Configuration:

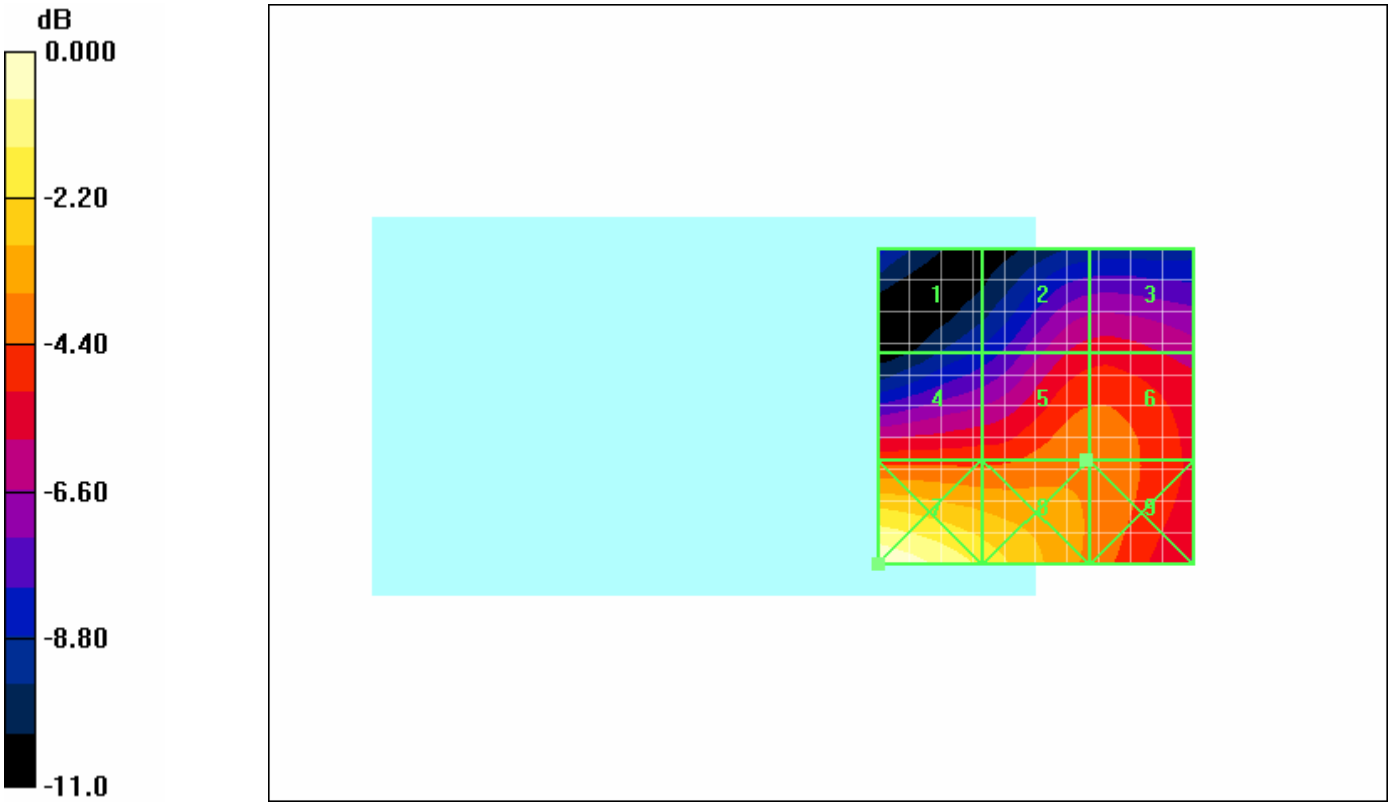
- Probe: H3DV6 - SN6105; ; Calibrated: 15/11/2006
- Sensor-Surface: 0mm (Fix Surface)Sensor-Surface: (Fix Surface)
- Electronics: DAE3 Sn472; Calibrated: 07/03/2007
- Phantom: HAC Test Arch; Type: SD HAC P01 BA;
- Measurement SW: DASY4, V4.7 Build 53; Postprocessing SW: SEMCAD, V1.8 Build 172

H Scan - H3DV6 probe tip 10mm above Device Reference/Z Scan (1x1x21): Measurement grid: dx=20mm, dy=20mm, dz=5mm
Maximum value of Total (measured) = 0.105 A/m

H Scan - H3DV6 probe tip 10mm above Device Reference/Hearing Aid Compatibility Test (11x11x1): Measurement grid: dx=5mm, dy=5mm
Probe Modulation Factor = 1.00
Reference Value = 0.060 A/m; Power Drift = -0.124 dB

H Scan - H3DV6 probe tip 10mm above Device Reference/Hearing Aid Compatibility Test (101x101x1): Measurement grid: dx=5mm, dy=5mm
Maximum value of peak Total field = 0.183 A/m
Probe Modulation Factor = 2.70
Reference Value = 0.060 A/m; Power Drift = -0.124 dB
Hearing Aid Near-Field Category: M3 (AWF -5 dB)

Peak H-field in A/m		
Grid 1	Grid 2	Grid 3
0.110	0.152	0.153
Grid 4	Grid 5	Grid 6
0.168	0.183	0.183
Grid 7	Grid 8	Grid 9
0.285	0.237	0.185



0 dB = 0.285A/m

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Test Laboratory: RTS

HAC_H_GSM1900_T-Coil_center_low_chan

DUT: BlackBerry Smartphone; Type: Sample ; Serial: 205E3FCC

Communication System: GSM 1900; Frequency: 1850.2 MHz;Duty Cycle: 1:8.3
Medium parameters used: σ = 0 mho/m, ε_r = 1; ρ = 1 kg/m^3
Phantom section: H Dipole Section

DASY4 Configuration:

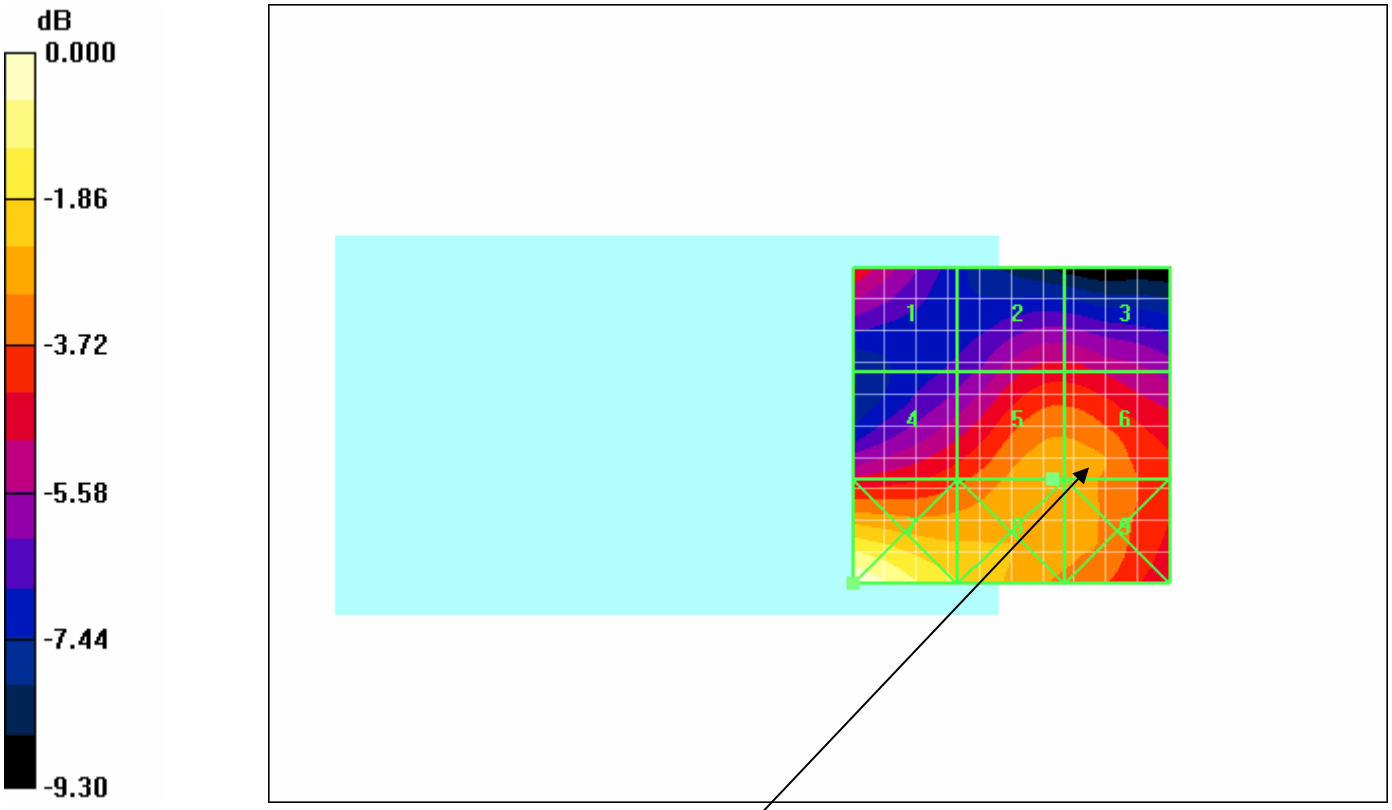
- Probe: H3DV6 - SN6105; ; Calibrated: 15/11/2006
- Sensor-Surface: 0mm (Fix Surface)Sensor-Surface: (Fix Surface)
- Electronics: DAE3 Sn472; Calibrated: 07/03/2007
- Phantom: HAC Test Arch; Type: SD HAC P01 BA;
- Measurement SW: DASY4, V4.7 Build 53; Postprocessing SW: SEMCAD, V1.8 Build 172

H Scan - H3DV6 probe tip 10mm above Device Reference/Z Scan (1x1x21): Measurement grid: dx=20mm, dy=20mm, dz=5mm
Maximum value of Total (measured) = 0.109 A/m

H Scan - H3DV6 probe tip 10mm above Device Reference/Hearing Aid Compatibility Test (11x11x1): Measurement grid: dx=5mm, dy=5mm
Probe Modulation Factor = 1.00
Reference Value = 0.070 A/m; Power Drift = -0.012 dB

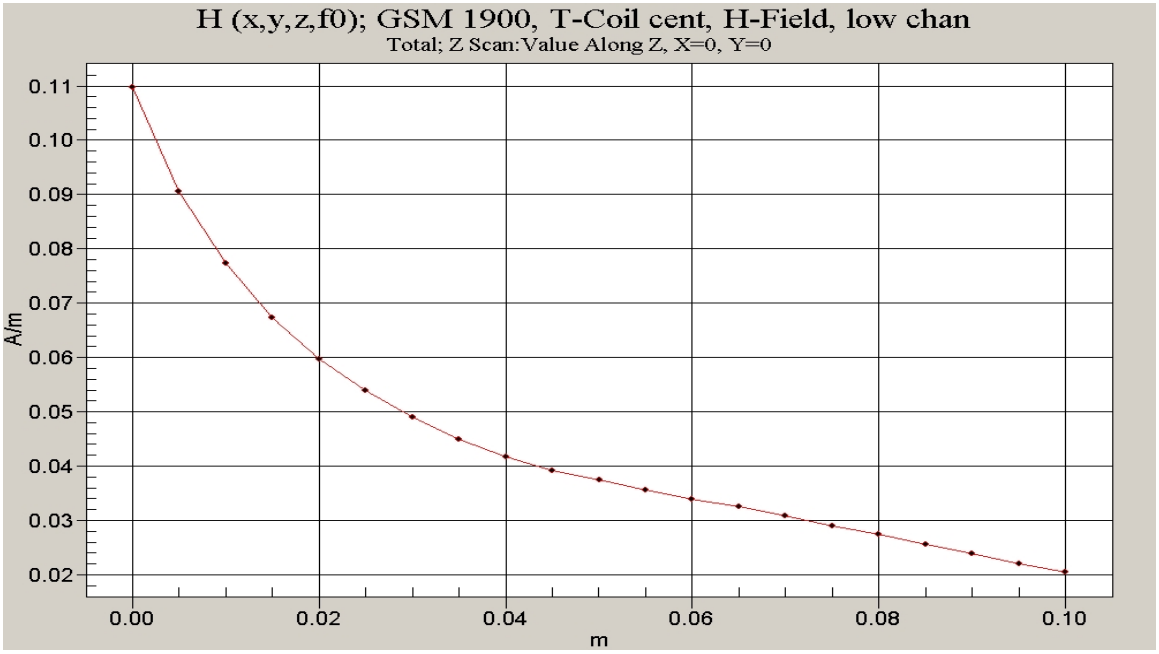
H Scan - H3DV6 probe tip 10mm above Device Reference/Hearing Aid Compatibility Test (101x101x1): Measurement grid: dx=5mm, dy=5mm
Maximum value of peak Total field = 0.217 A/m
Probe Modulation Factor = 2.70
Reference Value = 0.070 A/m; Power Drift = -0.012 dB
Hearing Aid Near-Field Category: M3 (AWF -5 dB)

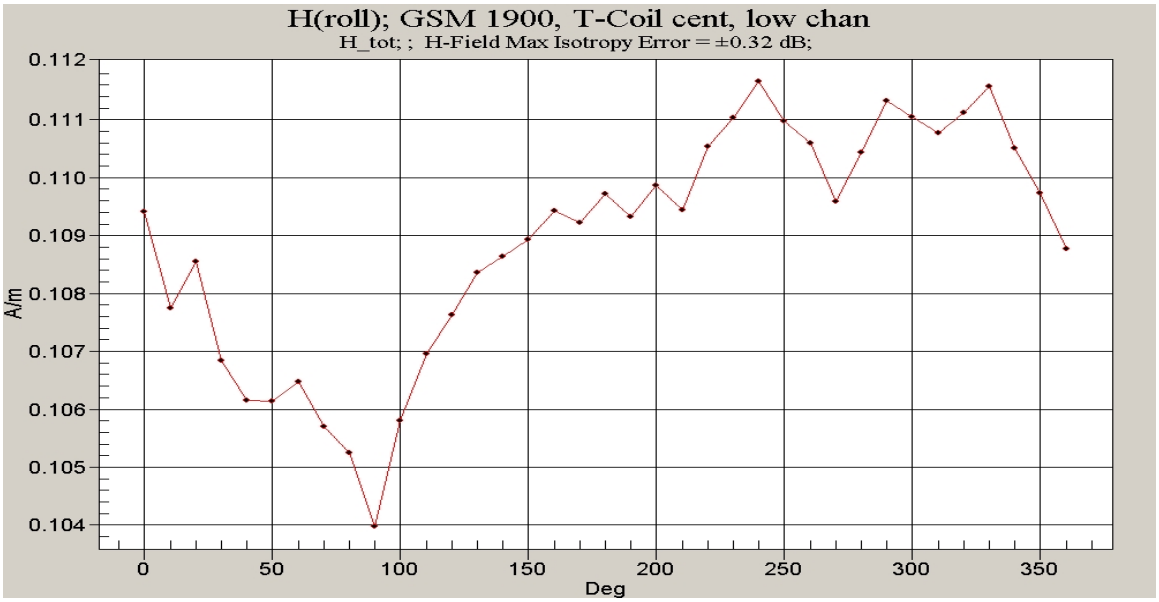
Peak H-field in A/m		
Grid 1: 0.178	Grid 2: 0.173	Grid 3: 0.173
Grid 4: 0.188	Grid 5: 0.217	Grid 6: 0.216
Grid 7: 0.294	Grid 8: 0.239	Grid 9: 0.217



0 dB = 0.294A/m

Location of the probe rotation





Probe rotation at max location after exclusion block

E (delta) = (H max - H at zero degress) * PMF
= (0.112 – 0.109) * 2.70
= 0.003 * 2.70
= 0.008 A/m