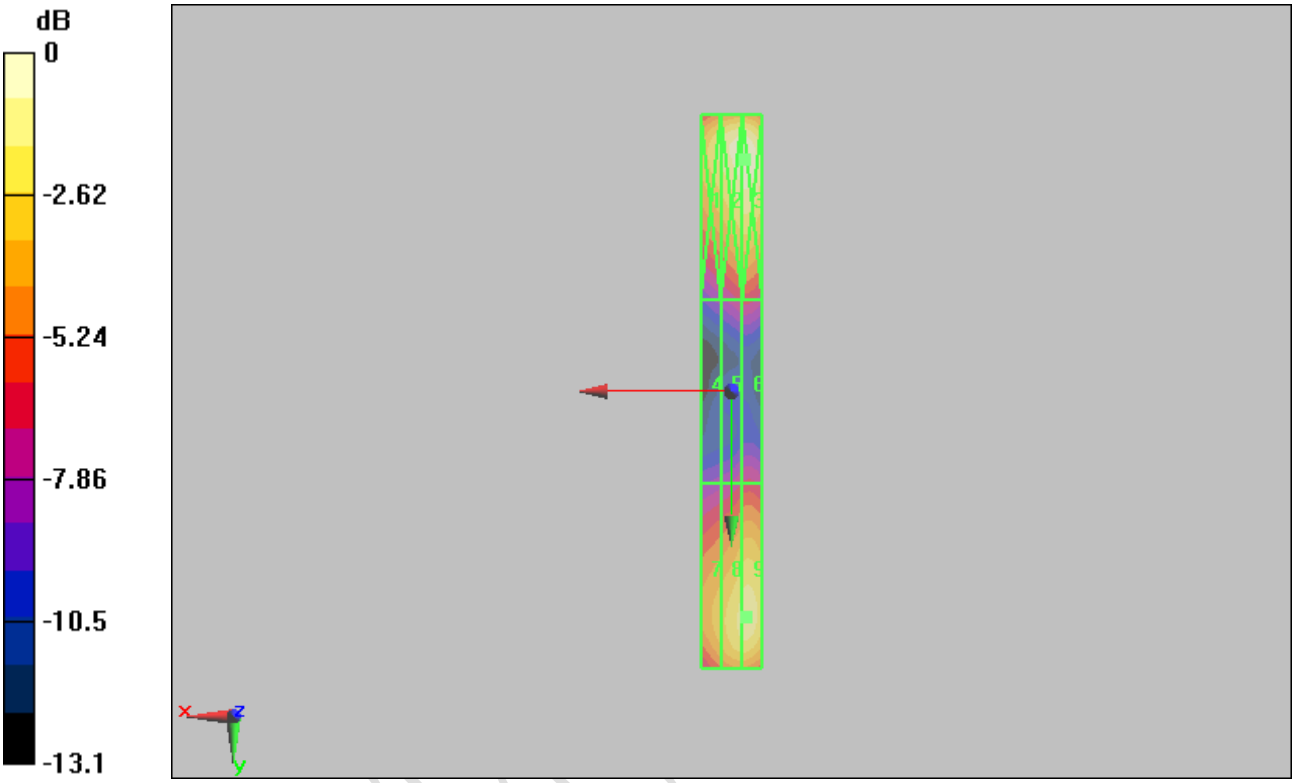
Cursor:

Total = 193.1 V/m

E Category: M4

Location: -4.5, -75.5, 4.7 mm



0 dB = 193.1V/m

C.2 E-field 80% AM signal at 835 MHz(GSM)

Test Laboratory: CTTL

HAC_RF_E_PMF_835MHz_AM80%_20dBm

DUT: HAC-Dipole 835 MHz; Type: D835V3; Serial: --

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: RF Section
Measurement Standard: DASY5 (IEEE/IEC)

DASY4 Configuration:

- Probe: ER3DV6 - SN2435; ConvF(1, 1, 1); Calibrated: 2010-5-20
- Sensor-Surface: (Fix Surface)
- Electronics: DAE4 Sn549; Calibrated: 2010-5-20
- Phantom: HAC Test Arch with AMCC; Type: SD HAC P01 BA;
- Measurement SW: DASY5, V5.0 Build 119; SEMCAD X Version 13.2 Build 87

E Scan - measurement distance from the probe sensor center to CD835 Dipole = 10mm/Hearing Aid Compatibility Test (41x361x1): Measurement grid: dx=5mm, dy=5mm
Maximum value of peak Total field = 104.2 V/m
Probe Modulation Factor = 1
Device Reference Point: 0, 0, -6.3 mm
Reference Value = 68.4 V/m; Power Drift = -0.011 dB
Hearing Aid Near-Field Category: M4 (AWF 0 dB)

Peak E-field in V/m

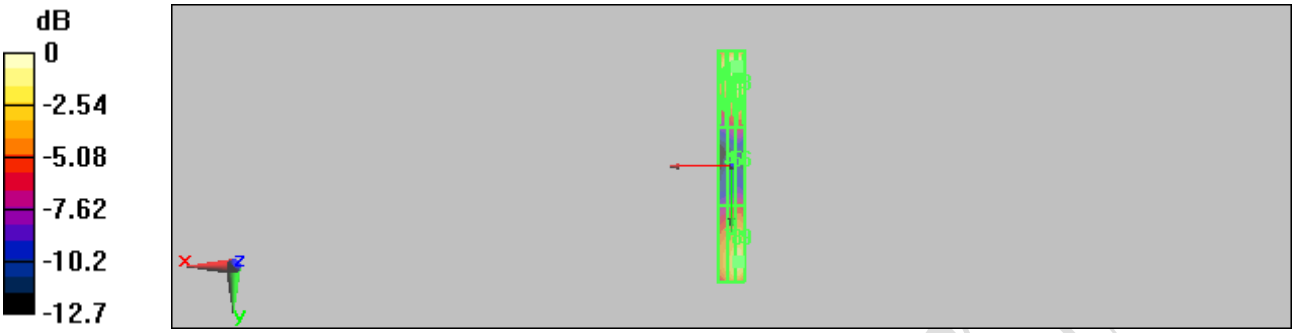
Grid 1 **102.6 M4**	Grid 2 **118.3 M4**	Grid 3 **118.7 M4**
Grid 4 **48.3 M4**	Grid 5 **57.1 M4**	Grid 6 **57.6 M4**
Grid 7 **86.8 M4**	Grid 8 **102.6 M4**	Grid 9 **104.2 M4**

Cursor:

Total = 118.7 V/m

E Category: M4

Location: -4, -78, 4.7 mm



0 dB = 118.7V/m

C.3 E-field GSM signal at 835 MHz(GSM)

Test Laboratory: CTTL

HAC_RF_E_PMF_835MHz_GSM_20dBm

DUT: HAC-Dipole 835 MHz; Type: D835V3; Serial: --

Communication System: GSM Signal; 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: RF Section
Measurement Standard: DASY5 (IEEE/IEC)

DASY4 Configuration:

- Probe: ER3DV6 - SN2435; ConvF(1, 1, 1); Calibrated: 2010-5-20
- Sensor-Surface: (Fix Surface)
- Electronics: DAE4 Sn549; Calibrated: 2010-5-20
- Phantom: HAC Test Arch with AMCC; Type: SD HAC P01 BA;
- Measurement SW: DASY5, V5.0 Build 119; SEMCAD X Version 13.2 Build 87

E Scan - measurement distance from the probe sensor center to CD835 Dipole = 10mm/Hearing Aid Compatibility Test (41x361x1): Measurement grid: dx=5mm, dy=5mm
Maximum value of peak Total field = 59.2 V/m
Probe Modulation Factor = 1
Device Reference Point: 0, 0, -6.3 mm
Reference Value = 37.4 V/m; Power Drift = 0.029 dB
Hearing Aid Near-Field Category: M4 (AWF -5 dB)

Peak E-field in V/m

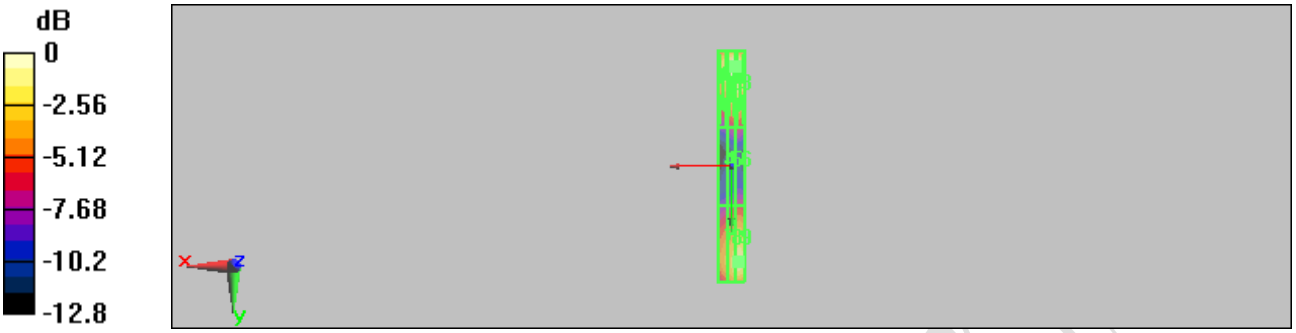
Grid 1 **59.6 M4**	Grid 2 **67.1 M4**	Grid 3 **67 M4**
Grid 4 **27 M4**	Grid 5 **32 M4**	Grid 6 **32.1 M4**
Grid 7 **47.3 M4**	Grid 8 **57.4 M4**	Grid 9 **59.2 M4**

Cursor:

Total = 67.1 V/m

E Category: M4

Location: -3, -77.5, 4.7 mm



0 dB = 67.1V/m

C.4 E-field CW at 1880 MHz(GSM)

Test Laboratory: CTTL

HAC_RF_E_PMF_1880MHz_CW_20dBm

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

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: RF Section
Measurement Standard: DASY5 (IEEE/IEC)

DASY4 Configuration:

- Probe: ER3DV6 - SN2435; ConvF(1, 1, 1); Calibrated: 2010-5-20
- Sensor-Surface: (Fix Surface)
- Electronics: DAE4 Sn549; Calibrated: 2010-5-20
- Phantom: HAC Test Arch with AMCC; Type: SD HAC P01 BA;
- Measurement SW: DASY5, V5.0 Build 119; SEMCAD X Version 13.2 Build 87

E Scan - measurement distance from the probe sensor center to CD1880 Dipole = 10mm/Hearing Aid Compatibility Test (41x181x1): Measurement grid: dx=5mm, dy=5mm
Maximum value of peak Total field = 65.2 V/m
Probe Modulation Factor = 1
Device Reference Point: 0, 0, -6.3 mm
Reference Value = 62.8 V/m; Power Drift = 0.029 dB
Hearing Aid Near-Field Category: M3 (AWF 0 dB)

Peak E-field in V/m

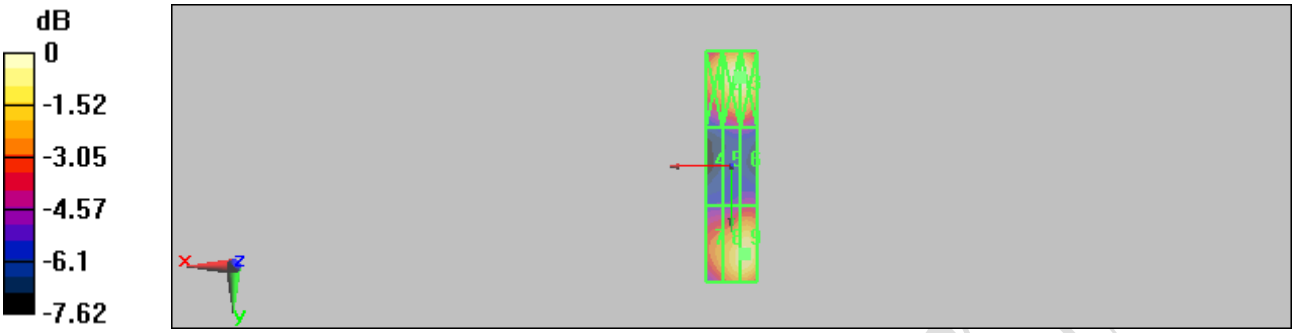
Grid 1 **60.7 M4**	Grid 2 **68 M3**	Grid 3 **68 M3**
Grid 4 **36.6 M4**	Grid 5 **40.1 M4**	Grid 6 **41.3 M4**
Grid 7 **54.2 M4**	Grid 8 **64.3 M3**	Grid 9 **65.2 M3**

Cursor:

Total = 68 V/m

E Category: M3

Location: -3.5, -34.5, 4.7 mm



0 dB = 68V/m

C.5 E-field 80% AM signal at 1880 MHz(GSM)

Test Laboratory: CTTL

HAC_RF_E_PMF_1880MHz_AM80%_20dBm

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

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: RF Section
Measurement Standard: DASY5 (IEEE/IEC)

DASY4 Configuration:

- Probe: ER3DV6 - SN2435; ConvF(1, 1, 1); Calibrated: 2010-5-20
- Sensor-Surface: (Fix Surface)
- Electronics: DAE4 Sn549; Calibrated: 2010-5-20
- Phantom: HAC Test Arch with AMCC; Type: SD HAC P01 BA;
- Measurement SW: DASY5, V5.0 Build 119; SEMCAD X Version 13.2 Build 87

E Scan - measurement distance from the probe sensor center to CD1880 Dipole = 10mm/Hearing Aid Compatibility Test (41x181x1): Measurement grid: dx=5mm, dy=5mm
Maximum value of peak Total field = 41.9 V/m
Probe Modulation Factor = 1
Device Reference Point: 0, 0, -6.3 mm
Reference Value = 40.8 V/m; Power Drift = 0.00713 dB
Hearing Aid Near-Field Category: M4 (AWF 0 dB)

Peak E-field in V/m

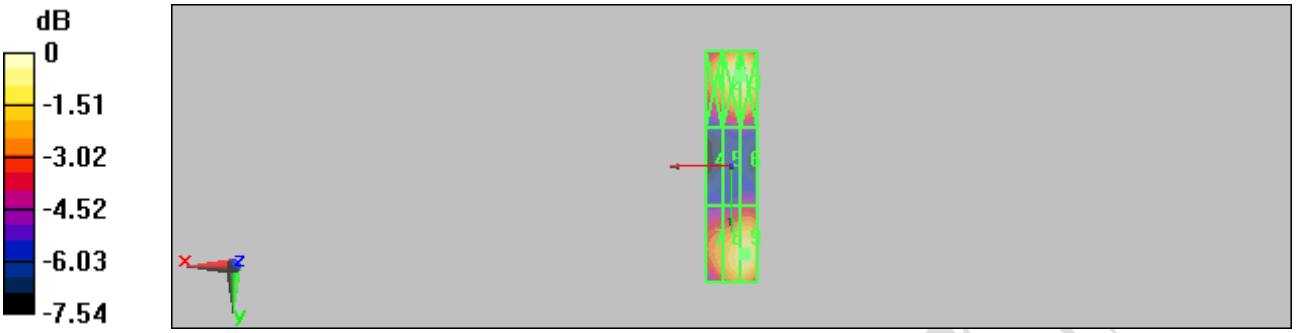
Grid 1 **38.6 M4**	Grid 2 **43.6 M4**	Grid 3 **43.6 M4**
Grid 4 **23.8 M4**	Grid 5 **26 M4**	Grid 6 **26.7 M4**
Grid 7 **35.2 M4**	Grid 8 **41.4 M4**	Grid 9 **41.9 M4**

Cursor:

Total = 43.6 V/m

E Category: M4

Location: -3.5, -35, 4.7 mm



0 dB = 43.6V/m

C.6 E-field GSM signal at 1880 MHz(GSM)

Test Laboratory: CTTL

HAC_RF_E_PMF_1880MHz_GSM_20dBm

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

Communication System: GSM Signal; 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: RF Section
Measurement Standard: DASY5 (IEEE/IEC)

DASY4 Configuration:

- Probe: ER3DV6 - SN2435; ConvF(1, 1, 1); Calibrated: 2010-5-20
- Sensor-Surface: (Fix Surface)
- Electronics: DAE4 Sn549; Calibrated: 2010-5-20
- Phantom: HAC Test Arch with AMCC; Type: SD HAC P01 BA;
- Measurement SW: DASY5, V5.0 Build 119; SEMCAD X Version 13.2 Build 87

E Scan - measurement distance from the probe sensor center to CD1880 Dipole = 10mm/Hearing Aid Compatibility Test (41x181x1): Measurement grid: dx=5mm, dy=5mm
Maximum value of peak Total field = 22.4 V/m
Probe Modulation Factor = 1
Device Reference Point: 0, 0, -6.3 mm
Reference Value = 22 V/m; Power Drift = 0.045 dB
Hearing Aid Near-Field Category: M4 (AWF -5 dB)

Peak E-field in V/m

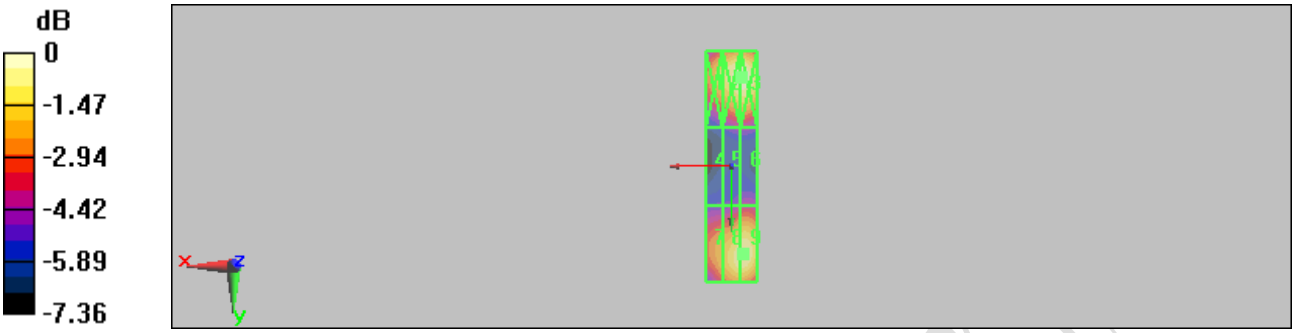
Grid 1 **20.4 M4**	Grid 2 **23.3 M4**	Grid 3 **23.4 M4**
Grid 4 **12.9 M4**	Grid 5 **14.2 M4**	Grid 6 **14.5 M4**
Grid 7 **18.9 M4**	Grid 8 **22.3 M4**	Grid 9 **22.4 M4**

Cursor:

Total = 23.4 V/m

E Category: M4

Location: -4, -34.5, 4.7 mm



0 dB = 23.4V/m

C.7 E-field CW at 835 MHz(WCDMA)

Test Laboratory: CTTL

HAC_RF_E_PMF_BandV_835MHz_CW_20dBm

DUT: HAC-Dipole 835 MHz; Type: D835V3; Serial: --

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: RF Section
Measurement Standard: DASY5 (IEEE/IEC)

DASY4 Configuration:

- Probe: ER3DV6 - SN2435; ConvF(1, 1, 1); Calibrated: 2010-5-20
- Sensor-Surface: (Fix Surface)
- Electronics: DAE4 Sn549; Calibrated: 2010-5-20
- Phantom: HAC Test Arch with AMCC; Type: SD HAC P01 BA;
- Measurement SW: DASY5, V5.0 Build 119; SEMCAD X Version 13.2 Build 87

E Scan - measurement distance from the probe sensor center to CD835 Dipole = 10mm/Hearing Aid Compatibility Test (41x361x1): Measurement grid: dx=5mm, dy=5mm
Maximum value of peak Total field = 74.7 V/m
Probe Modulation Factor = 1
Device Reference Point: 0, 0, -6.3 mm
Reference Value = 47.9 V/m; Power Drift = 0.227 dB
Hearing Aid Near-Field Category: M4 (AWF 0 dB)

Peak E-field in V/m

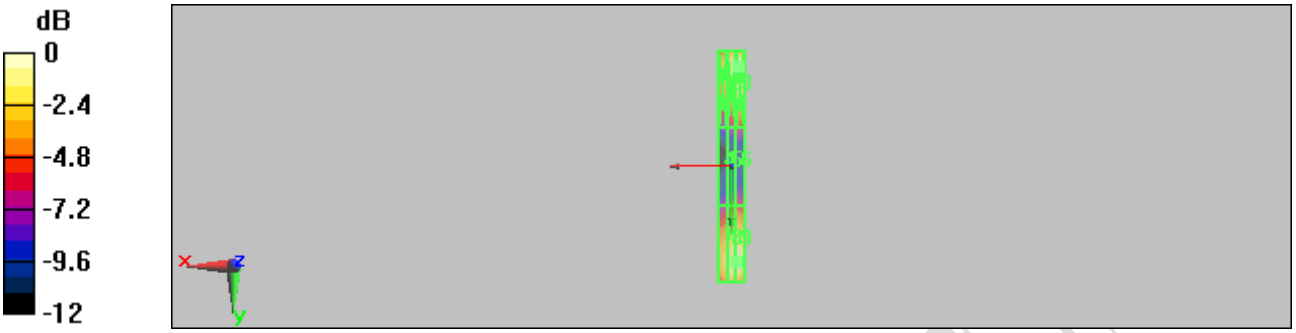
Grid 1 **62.8 M4**	Grid 2 **74.6 M4**	Grid 3 **76.5 M4**
Grid 4 **33.5 M4**	Grid 5 **39 M4**	Grid 6 **39.6 M4**
Grid 7 **63.8 M4**	Grid 8 **74.7 M4**	Grid 9 **74.7 M4**

Cursor:

Total = 76.5 V/m

E Category: M4

Location: -6, -78, 4.7 mm



0 dB = 76.5V/m

C.8 E-field 80% AM signal at 835 MHz(WCDMA)

Test Laboratory: CTTL

HAC_RF_E_PMF_BandV_835MHz_AM80%_20dBm

DUT: HAC-Dipole 835 MHz; Type: D835V3; Serial: --

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: RF Section
Measurement Standard: DASY5 (IEEE/IEC)

DASY4 Configuration:

- Probe: ER3DV6 - SN2435; ConvF(1, 1, 1); Calibrated: 2010-5-20
- Sensor-Surface: (Fix Surface)
- Electronics: DAE4 Sn549; Calibrated: 2010-5-20
- Phantom: HAC Test Arch with AMCC; Type: SD HAC P01 BA;
- Measurement SW: DASY5, V5.0 Build 119; SEMCAD X Version 13.2 Build 87

E Scan - measurement distance from the probe sensor center to CD835 Dipole = 10mm/Hearing Aid Compatibility Test (41x361x1): Measurement grid: dx=5mm, dy=5mm
Maximum value of peak Total field = 47.9 V/m
Probe Modulation Factor = 1
Device Reference Point: 0, 0, -6.3 mm
Reference Value = 29.8 V/m; Power Drift = 0.056 dB
Hearing Aid Near-Field Category: M4 (AWF 0 dB)

Peak E-field in V/m

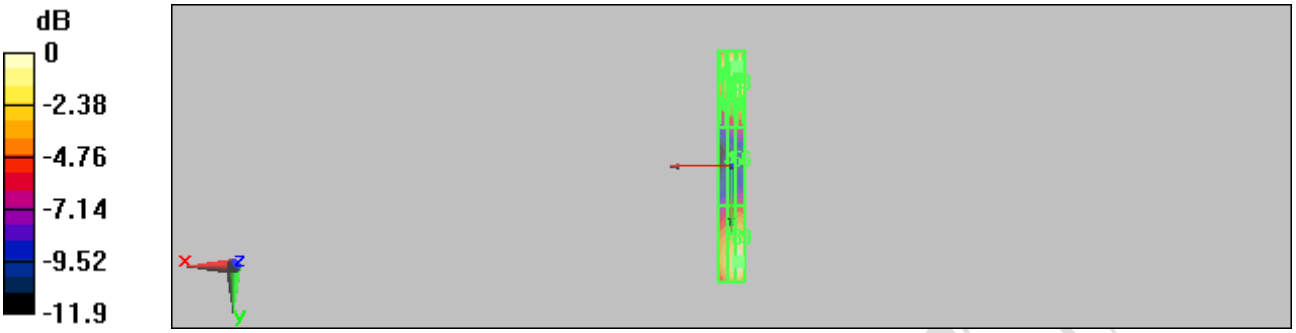
Grid 1 **42.7 M4**	Grid 2 **49 M4**	Grid 3 **49.2 M4**
Grid 4 **21.4 M4**	Grid 5 **24.7 M4**	Grid 6 **25.5 M4**
Grid 7 **39.2 M4**	Grid 8 **46.7 M4**	Grid 9 **47.9 M4**

Cursor:

Total = 49.2 V/m

E Category: M4

Location: -4.5, -78, 4.7 mm



0 dB = 49.2V/m

C.9 E-field WCDMA signal at 835 MHz(WCDMA)

Test Laboratory: CTTL

HAC_RF_E_PMF_BandV_835MHz_WCDMA_20dBm

DUT: HAC-Dipole 835 MHz; Type: D835V3; Serial: --

Communication System: WCDMA-FDDV; Frequency: 835 MHz;Duty Cycle: 1:1
Medium parameters used: σ = 0 mho/m, ε_r = 1; ρ = 1000 kg/m^3
Phantom section: RF Section
Measurement Standard: DASY5 (IEEE/IEC)

DASY4 Configuration:

- Probe: ER3DV6 - SN2435; ConvF(1, 1, 1); Calibrated: 2010-5-20
- Sensor-Surface: (Fix Surface)
- Electronics: DAE4 Sn549; Calibrated: 2010-5-20
- Phantom: HAC Test Arch with AMCC; Type: SD HAC P01 BA;
- Measurement SW: DASY5, V5.0 Build 119; SEMCAD X Version 13.2 Build 87

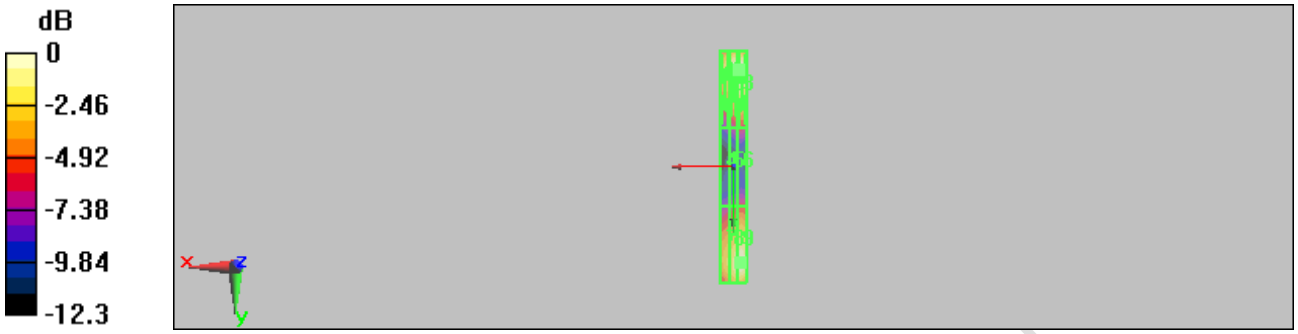
E Scan - measurement distance from the probe sensor center to CD835 Dipole = 10mm/Hearing Aid Compatibility Test (41x361x1): Measurement grid: dx=5mm, dy=5mm
Maximum value of peak Total field = 74.2 V/m
Probe Modulation Factor = 1
Device Reference Point: 0, 0, -6.3 mm
Reference Value = 45.5 V/m; Power Drift = 0.026 dB
Hearing Aid Near-Field Category: M4 (AWF 0 dB)

Peak E-field in V/m

Grid 1 **65.3 M4**	Grid 2 **75.8 M4**	Grid 3 **76.1 M4**
Grid 4 **32.1 M4**	Grid 5 **37.2 M4**	Grid 6 **38.3 M4**
Grid 7 **59.7 M4**	Grid 8 **72.5 M4**	Grid 9 **74.2 M4**

Cursor:

Total = 76.1 V/m
E Category: M4
Location: -4.5, -75, 4.7 mm



0 dB = 76.1V/m

C.10 E-field CW at 1880 MHz(WCDMA)

Test Laboratory: CTTL

HAC_RF_E_PMF_BandII_1880MHz_CW_20dBm

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

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: RF Section
Measurement Standard: DASY5 (IEEE/IEC)

DASY4 Configuration:

- Probe: ER3DV6 - SN2435; ConvF(1, 1, 1); Calibrated: 2010-5-20
- Sensor-Surface: (Fix Surface)
- Electronics: DAE4 Sn549; Calibrated: 2010-5-20
- Phantom: HAC Test Arch with AMCC; Type: SD HAC P01 BA;
- Measurement SW: DASY5, V5.0 Build 119; SEMCAD X Version 13.2 Build 87

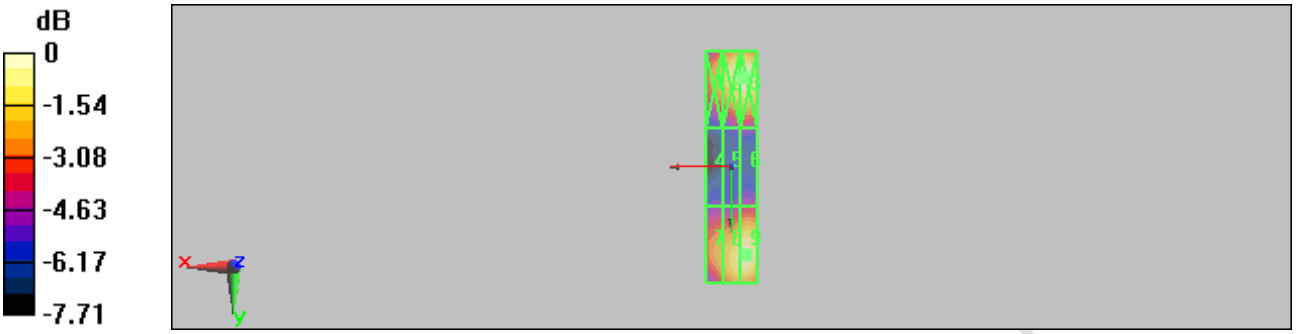
E Scan - measurement distance from the probe sensor center to CD1880 Dipole = 10mm/Hearing Aid Compatibility Test (41x181x1): Measurement grid: dx=5mm, dy=5mm
Maximum value of peak Total field = 65.5 V/m
Probe Modulation Factor = 1
Device Reference Point: 0, 0, -6.3 mm
Reference Value = 62 V/m; Power Drift = 0.043 dB
Hearing Aid Near-Field Category: M3 (AWF 0 dB)

Peak E-field in V/m

Grid 1 **57.2 M4**	Grid 2 **67 M3**	Grid 3 **67.6 M3**
Grid 4 **37 M4**	Grid 5 **39.6 M4**	Grid 6 **40.9 M4**
Grid 7 **54.3 M4**	Grid 8 **64.2 M3**	Grid 9 **65.5 M3**

Cursor:

Total = 67.6 V/m
E Category: M3
Location: -4.5, -34.5, 4.7 mm



0 dB = 67.6V/m

C.11 E-field 80% AM signal at 1880 MHz(WCDMA)

Test Laboratory: CTTL

HAC_RF_E_PMF_BandII_1880MHz_AM80%_20dBm

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

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: RF Section
Measurement Standard: DASY5 (IEEE/IEC)

DASY4 Configuration:

- Probe: ER3DV6 - SN2435; ConvF(1, 1, 1); Calibrated: 2010-5-20
- Sensor-Surface: (Fix Surface)
- Electronics: DAE4 Sn549; Calibrated: 2010-5-20
- Phantom: HAC Test Arch with AMCC; Type: SD HAC P01 BA;
- Measurement SW: DASY5, V5.0 Build 119; SEMCAD X Version 13.2 Build 87

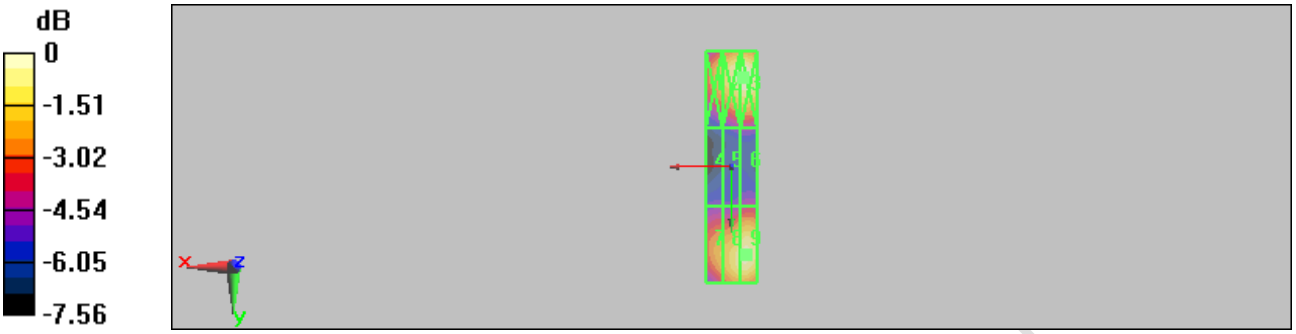
E Scan - measurement distance from the probe sensor center to CD1880 Dipole = 10mm/Hearing Aid Compatibility Test (41x181x1): Measurement grid: dx=5mm, dy=5mm
Maximum value of peak Total field = 41.7 V/m
Probe Modulation Factor = 1
Device Reference Point: 0, 0, -6.3 mm
Reference Value = 39.6 V/m; Power Drift = 0.048 dB
Hearing Aid Near-Field Category: M4 (AWF 0 dB)

Peak E-field in V/m

Grid 1 **36.7 M4**	Grid 2 **42.8 M4**	Grid 3 **43.2 M4**
Grid 4 **24 M4**	Grid 5 **25.5 M4**	Grid 6 **26.4 M4**
Grid 7 **34.8 M4**	Grid 8 **41 M4**	Grid 9 **41.7 M4**

Cursor:

Total = 43.2 V/m
E Category: M4
Location: -4.5, -34.5, 4.7 mm



0 dB = 43.2V/m

C.12 E-field WCDMA signal at 1880 MHz(WCDMA)

Test Laboratory: CTTL

HAC_RF_E_PMF_BandII_1880MHz_WCDMA_20dBm

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

Communication System: W-CDMA Band II; Frequency: 1880 MHz;Duty Cycle: 1:1
Medium parameters used: σ = 0 mho/m, ε_r = 1; ρ = 1000 kg/m^3
Phantom section: RF Section
Measurement Standard: DASY5 (IEEE/IEC)

DASY4 Configuration:

- Probe: ER3DV6 - SN2435; ConvF(1, 1, 1); Calibrated: 2010-5-20
- Sensor-Surface: (Fix Surface)
- Electronics: DAE4 Sn549; Calibrated: 2010-5-20
- Phantom: HAC Test Arch with AMCC; Type: SD HAC P01 BA;
- Measurement SW: DASY5, V5.0 Build 119; SEMCAD X Version 13.2 Build 87

E Scan - measurement distance from the probe sensor center to CD1880 Dipole = 10mm/Hearing Aid Compatibility Test (41x181x1): Measurement grid: dx=5mm, dy=5mm
Maximum value of peak Total field = 64.4 V/m
Probe Modulation Factor = 1
Device Reference Point: 0, 0, -6.3 mm
Reference Value = 60.8 V/m; Power Drift = 0.029 dB
Hearing Aid Near-Field Category: M3 (AWF 0 dB)

Peak E-field in V/m

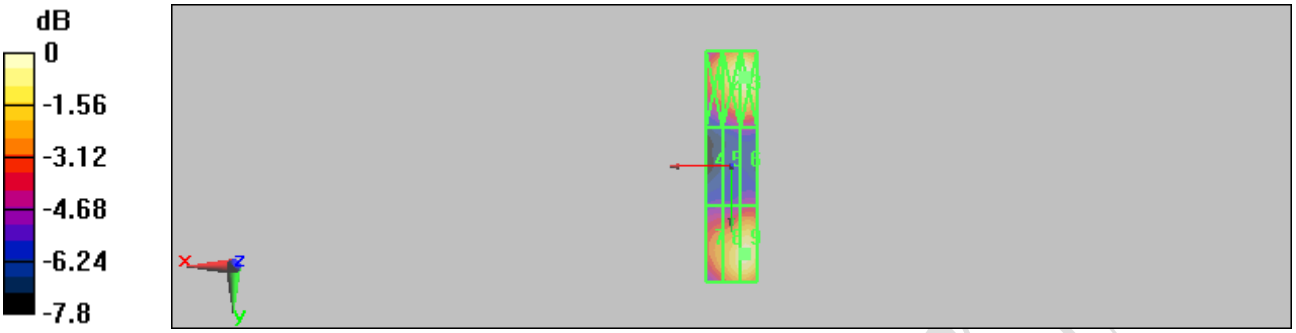
Grid 1 **55.8 M4**	Grid 2 **65.7 M3**	Grid 3 **66.3 M3**
Grid 4 **36 M4**	Grid 5 **38.5 M4**	Grid 6 **39.8 M4**
Grid 7 **53 M4**	Grid 8 **63.1 M3**	Grid 9 **64.4 M3**

Cursor:

Total = 66.3 V/m

E Category: M3

Location: -5, -34.5, 4.7 mm



0 dB = 66.3V/m

C.13 H-field CW at 835 MHz(GSM)

Test Laboratory: CTTL

HAC_RF_H_PMF_835MHz_CW_20dBm

DUT: HAC-Dipole 835 MHz; Type: D835V3; Serial: --

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: RF Section
Measurement Standard: DASY5 (IEEE/IEC)

DASY4 Configuration:

- Probe: H3DV6 - SN6268; ; Calibrated: 2010-5-21
- Sensor-Surface: (Fix Surface)
- Electronics: DAE4 Sn549; Calibrated: 2010-5-20
- Phantom: HAC Test Arch with AMCC; Type: SD HAC P01 BA;
- Measurement SW: DASY5, V5.0 Build 119; SEMCAD X Version 13.2 Build 87

H Scan - measurement distance from the probe sensor center to CD835 Dipole = 10mm/Hearing Aid Compatibility Test (41x361x1): Measurement grid: dx=5mm, dy=5mm
Maximum value of peak Total field = 0.468 A/m
Probe Modulation Factor = 1
Device Reference Point: 0, 0, -6.3 mm
Reference Value = 0.495 A/m; Power Drift = -0.017 dB
Hearing Aid Near-Field Category: M4 (AWF 0 dB)

Peak H-field in A/m

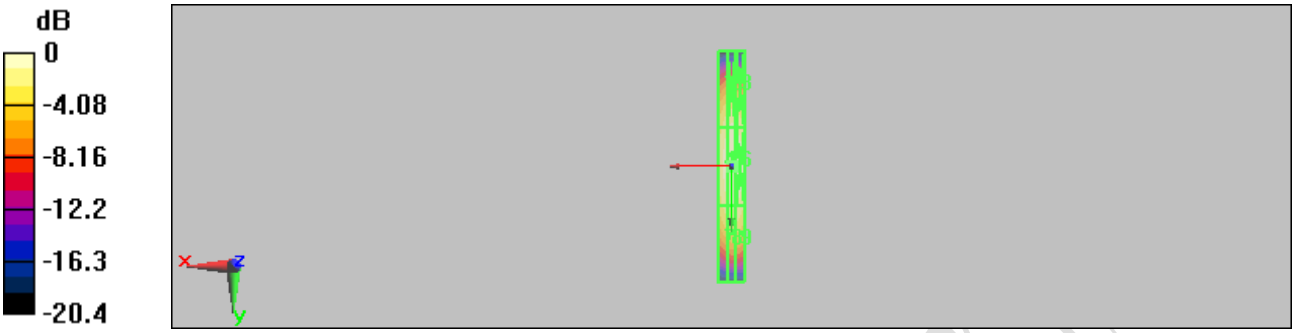
Grid 1 **0.391 M4**	Grid 2 **0.415 M4**	Grid 3 **0.404 M4**
Grid 4 **0.439 M4**	Grid 5 **0.468 M4**	Grid 6 **0.457 M4**
Grid 7 **0.383 M4**	Grid 8 **0.410 M4**	Grid 9 **0.402 M4**

Cursor:

Total = 0.468 A/m

H Category: M4

Location: -1, 0, 4.7 mm



0 dB = 0.468A/m

C.14 H-field 80% AM signal at 835 MHz(GSM)

Test Laboratory: CTTL

HAC_RF_H_PMF_835MHz_AM80%_20dBm

DUT: HAC-Dipole 835 MHz; Type: D835V3; Serial: --

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: RF Section
Measurement Standard: DASY5 (IEEE/IEC)

DASY4 Configuration:

- Probe: H3DV6 - SN6268; ; Calibrated: 2010-5-21
- Sensor-Surface: (Fix Surface)
- Electronics: DAE4 Sn549; Calibrated: 2010-5-20
- Phantom: HAC Test Arch with AMCC; Type: SD HAC P01 BA;
- Measurement SW: DASY5, V5.0 Build 119; SEMCAD X Version 13.2 Build 87

H Scan - measurement distance from the probe sensor center to CD835 Dipole = 10mm/Hearing Aid Compatibility Test (41x361x1): Measurement grid: dx=5mm, dy=5mm
Maximum value of peak Total field = 0.306 A/m
Probe Modulation Factor = 1
Device Reference Point: 0, 0, -6.3 mm
Reference Value = 0.326 A/m; Power Drift = -0.044 dB
Hearing Aid Near-Field Category: M4 (AWF 0 dB)

Peak H-field in A/m

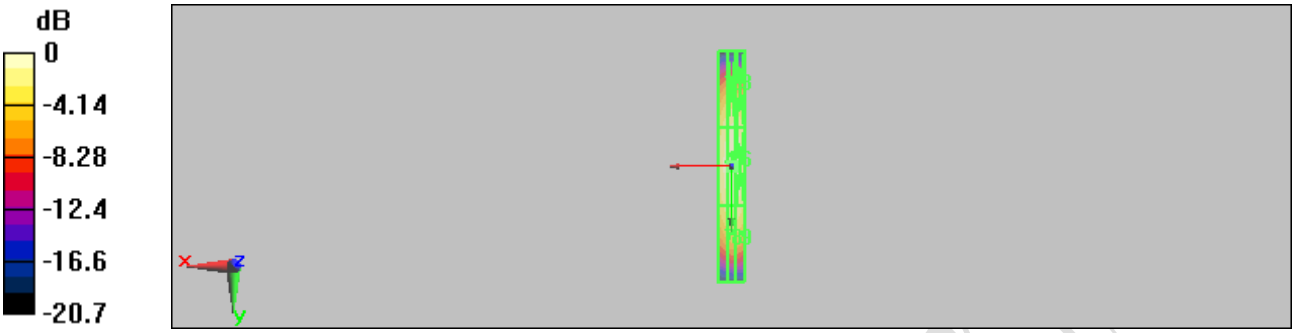
Grid 1 **0.253 M4**	Grid 2 **0.270 M4**	Grid 3 **0.262 M4**
Grid 4 **0.285 M4**	Grid 5 **0.306 M4**	Grid 6 **0.298 M4**
Grid 7 **0.247 M4**	Grid 8 **0.268 M4**	Grid 9 **0.261 M4**

Cursor:

Total = 0.306 A/m

H Category: M4

Location: -1, 0, 4.7 mm



0 dB = 0.306A/m

C.15 H-field GSM signal at 835 MHz(GSM)

Test Laboratory: CTTL

HAC_RF_H_PMF_835MHz_GSM_20dBm

DUT: HAC-Dipole 835 MHz; Type: D835V3; Serial: --

Communication System: GSM Signal; 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: RF Section
Measurement Standard: DASY5 (IEEE/IEC)

DASY4 Configuration:

- Probe: H3DV6 - SN6268; ; Calibrated: 2010-5-21
- Sensor-Surface: (Fix Surface)
- Electronics: DAE4 Sn549; Calibrated: 2010-5-20
- Phantom: HAC Test Arch with AMCC; Type: SD HAC P01 BA;
- Measurement SW: DASY5, V5.0 Build 119; SEMCAD X Version 13.2 Build 87

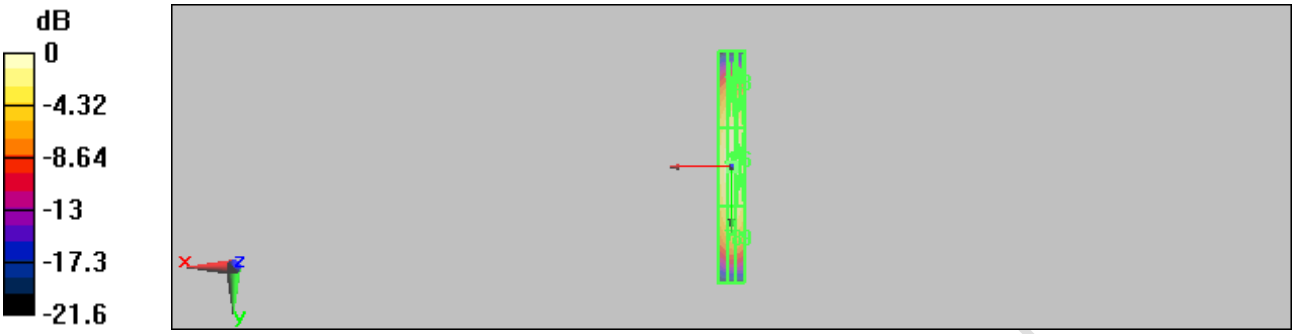
H Scan - measurement distance from the probe sensor center to CD835 Dipole = 10mm/Hearing Aid Compatibility Test (41x361x1): Measurement grid: dx=5mm, dy=5mm
Maximum value of peak Total field = 0.171 A/m
Probe Modulation Factor = 1
Device Reference Point: 0, 0, -6.3 mm
Reference Value = 0.182 A/m; Power Drift = 0.049 dB
Hearing Aid Near-Field Category: M4 (AWF -5 dB)

Peak H-field in A/m

Grid 1 **0.137 M4**	Grid 2 **0.149 M4**	Grid 3 **0.143 M4**
Grid 4 **0.156 M4**	Grid 5 **0.171 M4**	Grid 6 **0.165 M4**
Grid 7 **0.134 M4**	Grid 8 **0.148 M4**	Grid 9 **0.143 M4**

Cursor:

Total = 0.171 A/m
H Category: M4
Location: -1, 0, 4.7 mm



0 dB = 0.171A/m

C.16 H-field CW at 1880 MHz(GSM)

Test Laboratory: CTTL

HAC_RF_H_PMF_1880MHz_CW_20dBm

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

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: RF Section
Measurement Standard: DASY5 (IEEE/IEC)

DASY4 Configuration:

- Probe: H3DV6 - SN6268; ; Calibrated: 2010-5-21
- Sensor-Surface: (Fix Surface)
- Electronics: DAE4 Sn549; Calibrated: 2010-5-20
- Phantom: HAC Test Arch with AMCC; Type: SD HAC P01 BA;
- Measurement SW: DASY5, V5.0 Build 119; SEMCAD X Version 13.2 Build 87

H Scan - measurement distance from the probe sensor center to CD835 Dipole = 10mm 2/Hearing Aid Compatibility Test (41x361x1): Measurement grid: dx=5mm, dy=5mm
Maximum value of peak Total field = 0.216 A/m
Probe Modulation Factor = 1
Device Reference Point: 0, 0, -6.3 mm
Reference Value = 0.227 A/m; Power Drift = 0.00543 dB
Hearing Aid Near-Field Category: M3 (AWF 0 dB)

Peak H-field in A/m

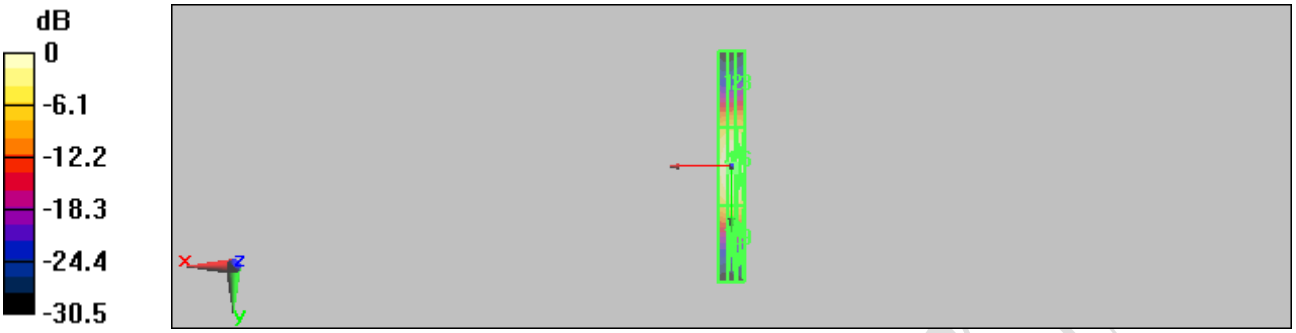
Grid 1 **0.116 M4**	Grid 2 **0.122 M4**	Grid 3 **0.120 M4**
Grid 4 **0.204 M3**	Grid 5 **0.216 M3**	Grid 6 **0.212 M3**
Grid 7 **0.123 M4**	Grid 8 **0.132 M4**	Grid 9 **0.130 M4**

Cursor:

Total = 0.216 A/m

H Category: M3

Location: -1, 1.5, 4.7 mm



0 dB = 0.216A/m

C.17 H-field 80% AM signal at 1880 MHz(GSM)

Test Laboratory: CTTL

HAC_RF_H_PMF_1880MHz_AM80%_20dBm

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

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: RF Section
Measurement Standard: DASY5 (IEEE/IEC)

DASY4 Configuration:

- Probe: H3DV6 - SN6268; ; Calibrated: 2010-5-21
- Sensor-Surface: (Fix Surface)
- Electronics: DAE4 Sn549; Calibrated: 2010-5-20
- Phantom: HAC Test Arch with AMCC; Type: SD HAC P01 BA;
- Measurement SW: DASY5, V5.0 Build 119; SEMCAD X Version 13.2 Build 87

H Scan - measurement distance from the probe sensor center to CD835 Dipole = 10mm 2/Hearing Aid Compatibility Test (41x361x1): Measurement grid: dx=5mm, dy=5mm
Maximum value of peak Total field = 0.143 A/m
Probe Modulation Factor = 1
Device Reference Point: 0, 0, -6.3 mm
Reference Value = 0.151 A/m; Power Drift = -0.0013 dB
Hearing Aid Near-Field Category: M4 (AWF 0 dB)

Peak H-field in A/m

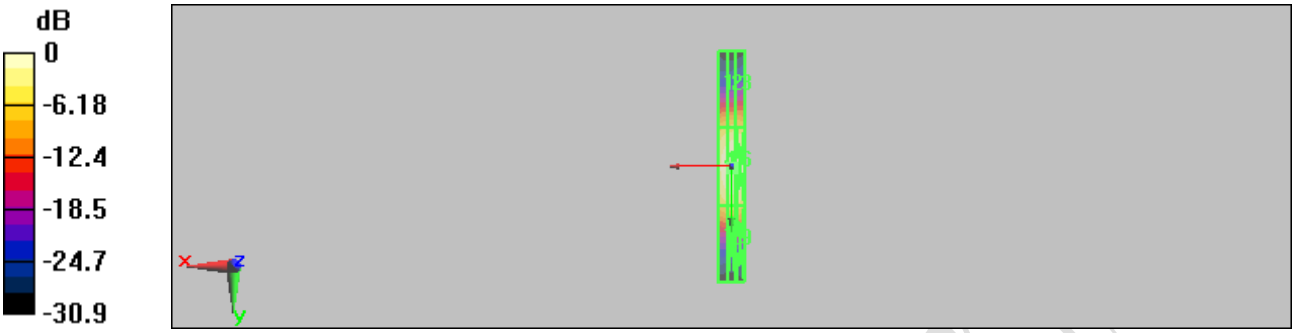
Grid 1 **0.075 M4**	Grid 2 **0.079 M4**	Grid 3 **0.078 M4**
Grid 4 **0.134 M4**	Grid 5 **0.143 M4**	Grid 6 **0.139 M4**
Grid 7 **0.080 M4**	Grid 8 **0.086 M4**	Grid 9 **0.084 M4**

Cursor:

Total = 0.143 A/m

H Category: M4

Location: -1, 1, 4.7 mm



0 dB = 0.143A/m

C.18 H-field GSM signal at 1880 MHz(GSM)

Test Laboratory: CTTL

HAC_RF_H_PMF_1880MHz_GSM_20dBm

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

Communication System: GSM Signal; 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: RF Section
Measurement Standard: DASY5 (IEEE/IEC)

DASY4 Configuration:

- Probe: H3DV6 - SN6268; ; Calibrated: 2010-5-21
- Sensor-Surface: (Fix Surface)
- Electronics: DAE4 Sn549; Calibrated: 2010-5-20
- Phantom: HAC Test Arch with AMCC; Type: SD HAC P01 BA;
- Measurement SW: DASY5, V5.0 Build 119; SEMCAD X Version 13.2 Build 87

H Scan - measurement distance from the probe sensor center to CD1880 Dipole = 10mm 3/Hearing Aid Compatibility Test (41x361x1): Measurement grid: dx=5mm, dy=5mm
Maximum value of peak Total field = 0.083 A/m
Probe Modulation Factor = 1
Device Reference Point: 0, 0, -6.3 mm
Reference Value = 0.088 A/m; Power Drift = 0.014 dB
Hearing Aid Near-Field Category: M4 (AWF -5 dB)

Peak H-field in A/m

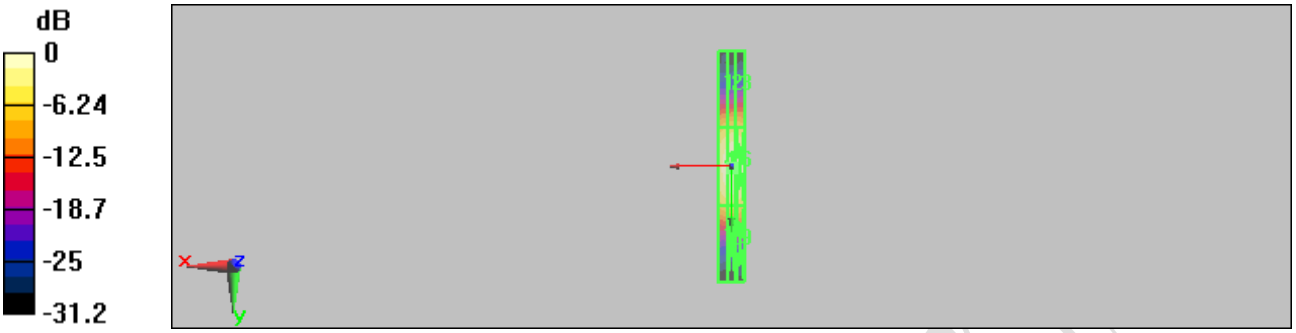
Grid 1 **0.040 M4**	Grid 2 **0.043 M4**	Grid 3 **0.042 M4**
Grid 4 **0.076 M4**	Grid 5 **0.083 M4**	Grid 6 **0.080 M4**
Grid 7 **0.043 M4**	Grid 8 **0.047 M4**	Grid 9 **0.046 M4**

Cursor:

Total = 0.083 A/m

H Category: M4

Location: -0.5, 1, 4.7 mm



0 dB = 0.083A/m

C.19 H-field CW at 835 MHz(WCDMA)

Test Laboratory: CTTL

HAC_RF_H_PMF_BandV_835MHz_CW_20dBm

DUT: HAC-Dipole 835 MHz; Type: D835V3; Serial: --

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: RF Section
Measurement Standard: DASY5 (IEEE/IEC)

DASY4 Configuration:

- Probe: H3DV6 - SN6268; ; Calibrated: 2010-5-21
- Sensor-Surface: (Fix Surface)
- Electronics: DAE4 Sn549; Calibrated: 2010-5-20
- Phantom: HAC Test Arch with AMCC; Type: SD HAC P01 BA;
- Measurement SW: DASY5, V5.0 Build 119; SEMCAD X Version 13.2 Build 87

H Scan - measurement distance from the probe sensor center to CD835 Dipole = 10mm/Hearing Aid Compatibility Test (41x361x1): Measurement grid: dx=5mm, dy=5mm
Maximum value of peak Total field = 0.206 A/m
Probe Modulation Factor = 1
Device Reference Point: 0, 0, -6.3 mm
Reference Value = 0.218 A/m; Power Drift = -0.012 dB
Hearing Aid Near-Field Category: M4 (AWF 0 dB)

Peak H-field in A/m

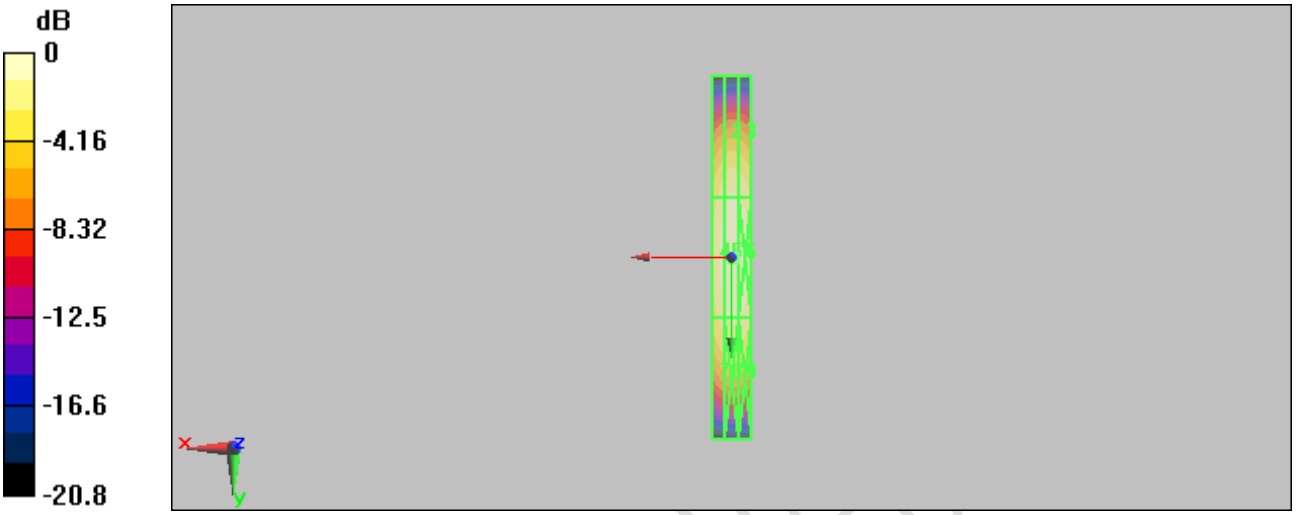
Grid 1 **0.169 M4**	Grid 2 **0.182 M4**	Grid 3 **0.178 M4**
Grid 4 **0.191 M4**	Grid 5 **0.206 M4**	Grid 6 **0.202 M4**
Grid 7 **0.168 M4**	Grid 8 **0.182 M4**	Grid 9 **0.179 M4**

Cursor:

Total = 0.206 A/m

H Category: M4

Location: -1, 0.5, 4.7 mm



0 dB = 0.206A/m

C.20 H-field 80% AM signal at 835 MHz(WCDMA)

Test Laboratory: CTTL

HAC_RF_H_PMF_BandV_835MHz_AM80%_20dBm

DUT: HAC-Dipole 835 MHz; Type: D835V3; Serial: --

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: RF Section
Measurement Standard: DASY5 (IEEE/IEC)

DASY4 Configuration:

- Probe: H3DV6 - SN6268; ; Calibrated: 2010-5-21
- Sensor-Surface: (Fix Surface)
- Electronics: DAE4 Sn549; Calibrated: 2010-5-20
- Phantom: HAC Test Arch with AMCC; Type: SD HAC P01 BA;
- Measurement SW: DASY5, V5.0 Build 119; SEMCAD X Version 13.2 Build 87

H Scan - measurement distance from the probe sensor center to CD835 Dipole = 10mm/Hearing Aid Compatibility Test (41x361x1): Measurement grid: dx=5mm, dy=5mm
Maximum value of peak Total field = 0.132 A/m
Probe Modulation Factor = 1
Device Reference Point: 0, 0, -6.3 mm
Reference Value = 0.139 A/m; Power Drift = 0.010 dB
Hearing Aid Near-Field Category: M4 (AWF 0 dB)

Peak H-field in A/m

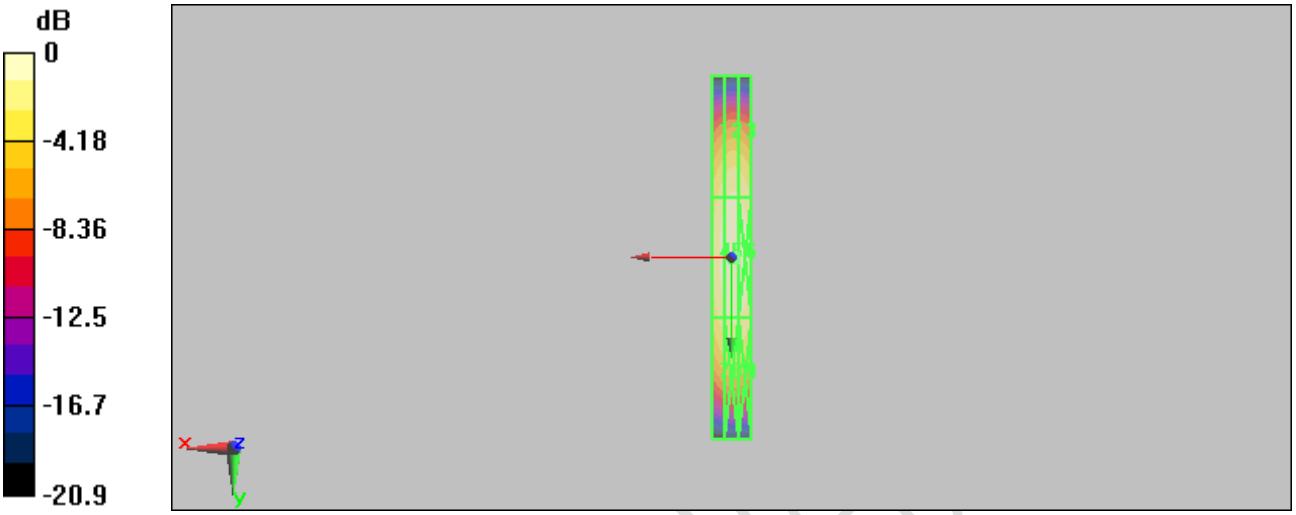
Grid 1 **0.108 M4**	Grid 2 **0.116 M4**	Grid 3 **0.114 M4**
Grid 4 **0.122 M4**	Grid 5 **0.132 M4**	Grid 6 **0.129 M4**
Grid 7 **0.107 M4**	Grid 8 **0.116 M4**	Grid 9 **0.114 M4**

Cursor:

Total = 0.132 A/m

H Category: M4

Location: -1, 0.5, 4.7 mm



0 dB = 0.132A/m

C.21 H-field WCDMA signal at 835 MHz(WCDMA)

Test Laboratory: CTTL

HAC_RF_H_PMF_BandV_835MHz_WCDMA_20dBm

DUT: HAC-Dipole 835 MHz; Type: D835V3; Serial: --

Communication System: WCDMA-FDDV; Frequency: 835 MHz;Duty Cycle: 1:1
Medium parameters used: σ = 0 mho/m, ε_r = 1; ρ = 1 kg/m^3
Phantom section: RF Section
Measurement Standard: DASY5 (IEEE/IEC)

DASY4 Configuration:

- Probe: H3DV6 - SN6268; ; Calibrated: 2010-5-21
- Sensor-Surface: (Fix Surface)
- Electronics: DAE4 Sn549; Calibrated: 2010-5-20
- Phantom: HAC Test Arch with AMCC; Type: SD HAC P01 BA;
- Measurement SW: DASY5, V5.0 Build 119; SEMCAD X Version 13.2 Build 87

H Scan - measurement distance from the probe sensor center to CD835 Dipole = 10mm/Hearing Aid Compatibility Test (41x361x1): Measurement grid: dx=5mm, dy=5mm
Maximum value of peak Total field = 0.203 A/m
Probe Modulation Factor = 1
Device Reference Point: 0, 0, -6.3 mm
Reference Value = 0.215 A/m; Power Drift = 0.00453 dB
Hearing Aid Near-Field Category: M4 (AWF 0 dB)

Peak H-field in A/m

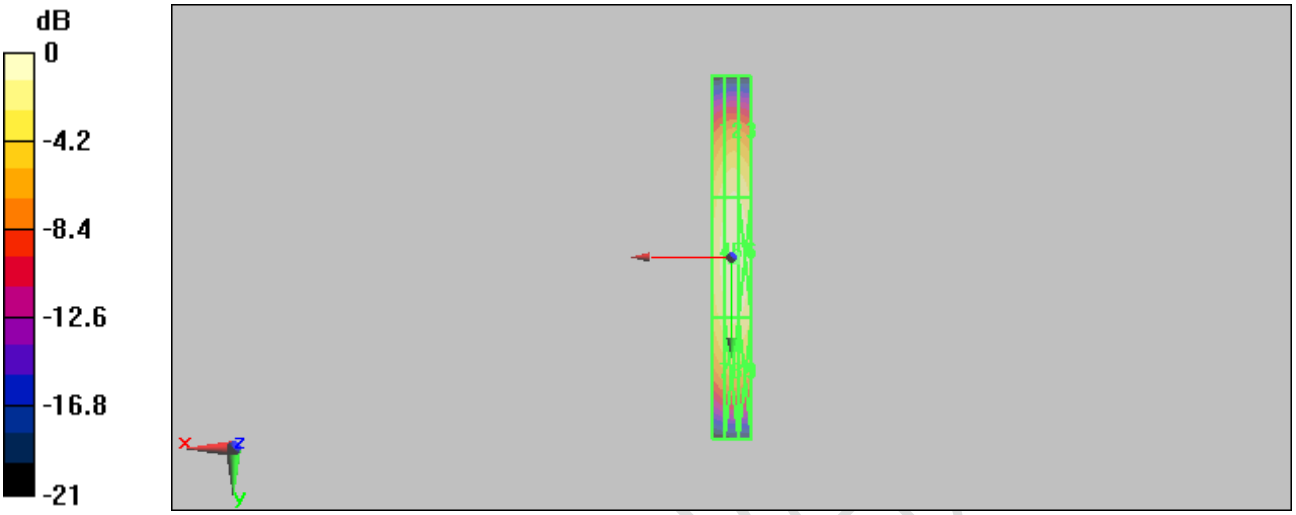
Grid 1 **0.165 M4**	Grid 2 **0.178 M4**	Grid 3 **0.174 M4**
Grid 4 **0.187 M4**	Grid 5 **0.203 M4**	Grid 6 **0.198 M4**
Grid 7 **0.163 M4**	Grid 8 **0.178 M4**	Grid 9 **0.174 M4**

Cursor:

Total = 0.203 A/m

H Category: M4

Location: -1, 0.5, 4.7 mm



0 dB = 0.203A/m

C.22 H-field CW at 1880 MHz(WCDMA)

Test Laboratory: CTTL

HAC_RF_H_PMF_BandII_1880MHz_CW_20dBm

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

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: RF Section
Measurement Standard: DASY5 (IEEE/IEC)

DASY4 Configuration:

- Probe: H3DV6 - SN6268; ; Calibrated: 2010-5-21
- Sensor-Surface: (Fix Surface)
- Electronics: DAE4 Sn549; Calibrated: 2010-5-20
- Phantom: HAC Test Arch with AMCC; Type: SD HAC P01 BA;
- Measurement SW: DASY5, V5.0 Build 119; SEMCAD X Version 13.2 Build 87

H Scan - measurement distance from the probe sensor center to CD835 Dipole = 10mm 2/Hearing Aid Compatibility Test (41x361x1): Measurement grid: dx=5mm, dy=5mm
Maximum value of peak Total field = 0.211 A/m
Probe Modulation Factor = 1
Device Reference Point: 0, 0, -6.3 mm
Reference Value = 0.221 A/m; Power Drift = 0.00385 dB
Hearing Aid Near-Field Category: M3 (AWF 0 dB)

Peak H-field in A/m

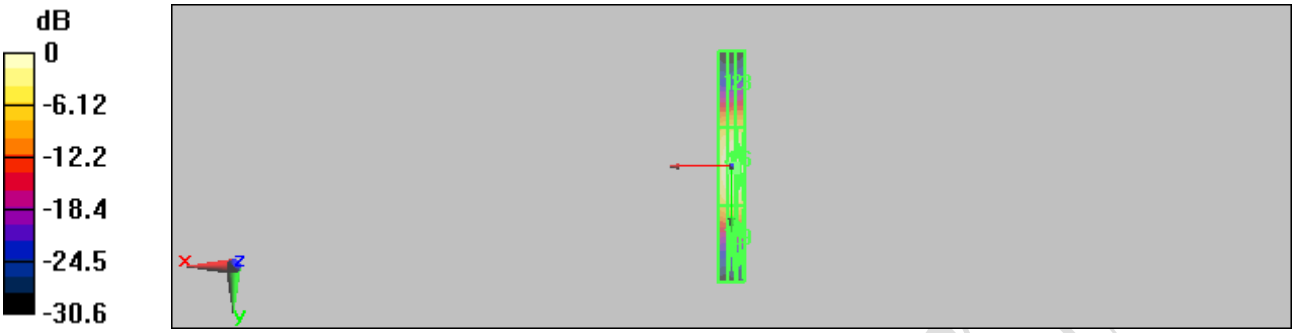
Grid 1 **0.111 M4**	Grid 2 **0.119 M4**	Grid 3 **0.118 M4**
Grid 4 **0.196 M3**	Grid 5 **0.211 M3**	Grid 6 **0.209 M3**
Grid 7 **0.119 M4**	Grid 8 **0.129 M4**	Grid 9 **0.128 M4**

Cursor:

Total = 0.211 A/m

H Category: M3

Location: -1.5, 1.5, 4.7 mm



0 dB = 0.211A/m

C.23 H-field 80% AM signal at 1880 MHz(WCDMA)

Test Laboratory: CTTL

HAC_RF_H_PMF_BandII_1880MHz_AM80%_20dBm

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

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: RF Section
Measurement Standard: DASY5 (IEEE/IEC)

DASY4 Configuration:

- Probe: H3DV6 - SN6268; ; Calibrated: 2010-5-21
- Sensor-Surface: (Fix Surface)
- Electronics: DAE4 Sn549; Calibrated: 2010-5-20
- Phantom: HAC Test Arch with AMCC; Type: SD HAC P01 BA;
- Measurement SW: DASY5, V5.0 Build 119; SEMCAD X Version 13.2 Build 87

H Scan - measurement distance from the probe sensor center to CD835 Dipole = 10mm 2/Hearing Aid Compatibility Test (41x361x1): Measurement grid: dx=5mm, dy=5mm
Maximum value of peak Total field = 0.138 A/m
Probe Modulation Factor = 1
Device Reference Point: 0, 0, -6.3 mm
Reference Value = 0.145 A/m; Power Drift = -0.00889 dB
Hearing Aid Near-Field Category: M4 (AWF 0 dB)

Peak H-field in A/m

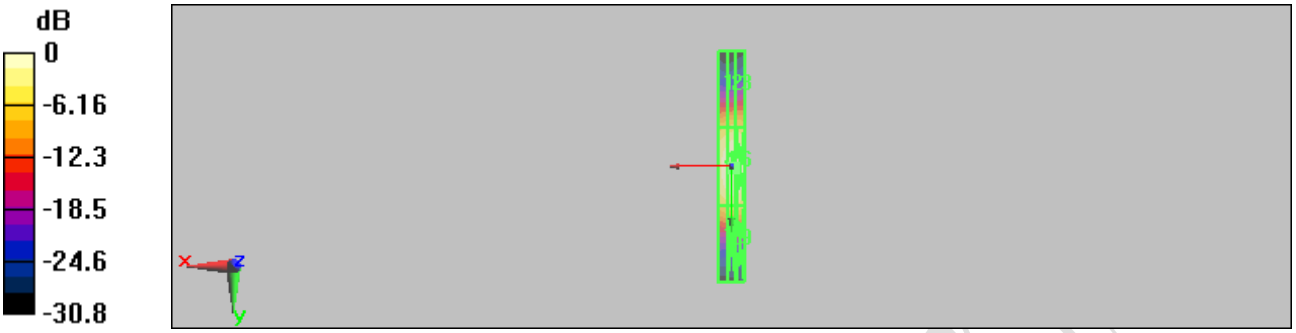
Grid 1 **0.072 M4**	Grid 2 **0.077 M4**	Grid 3 **0.076 M4**
Grid 4 **0.127 M4**	Grid 5 **0.138 M4**	Grid 6 **0.136 M4**
Grid 7 **0.076 M4**	Grid 8 **0.084 M4**	Grid 9 **0.083 M4**

Cursor:

Total = 0.138 A/m

H Category: M4

Location: -1.5, 1.5, 4.7 mm



0 dB = 0.138A/m

C.24 H-field WCDMA signal at 1880 MHz(WCDMA)

Test Laboratory: CTTL

HAC_RF_H_PMF_BandII_1880MHz_WCDMA_20dBm

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

Communication System: W-CDMA Band II; Frequency: 1880 MHz;Duty Cycle: 1:1
Medium parameters used: σ = 0 mho/m, ε_r = 1; ρ = 1 kg/m^3
Phantom section: RF Section
Measurement Standard: DASY5 (IEEE/IEC)

DASY4 Configuration:

- Probe: H3DV6 - SN6268; ; Calibrated: 2010-5-21
- Sensor-Surface: (Fix Surface)
- Electronics: DAE4 Sn549; Calibrated: 2010-5-20
- Phantom: HAC Test Arch with AMCC; Type: SD HAC P01 BA;
- Measurement SW: DASY5, V5.0 Build 119; SEMCAD X Version 13.2 Build 87

H Scan - measurement distance from the probe sensor center to CD1880 Dipole = 10mm 3/Hearing Aid Compatibility Test (41x361x1): Measurement grid: dx=5mm, dy=5mm
Maximum value of peak Total field = 0.237 A/m
Probe Modulation Factor = 1
Device Reference Point: 0, 0, -6.3 mm
Reference Value = 0.252 A/m; Power Drift = 0.00461 dB
Hearing Aid Near-Field Category: M3 (AWF 0 dB)

Peak H-field in A/m

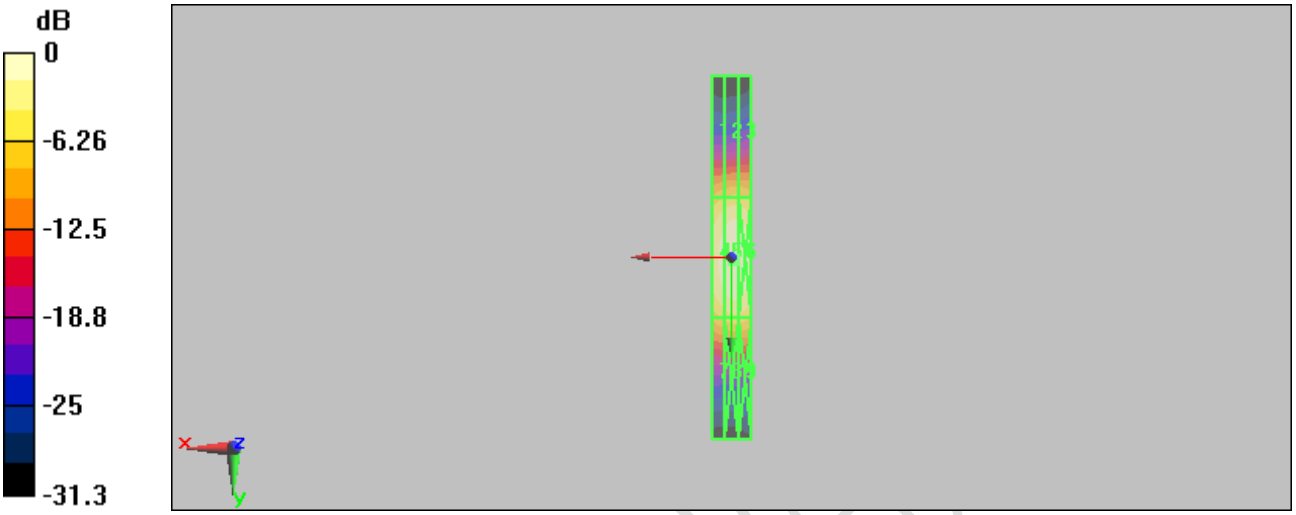
Grid 1 **0.114 M4**	Grid 2 **0.123 M4**	Grid 3 **0.121 M4**
Grid 4 **0.213 M3**	Grid 5 **0.237 M3**	Grid 6 **0.231 M3**
Grid 7 **0.122 M4**	Grid 8 **0.135 M4**	Grid 9 **0.133 M4**

Cursor:

Total = 0.237 A/m

H Category: M3

Location: -1, 1.5, 4.7 mm



0 dB = 0.237A/m

ANNEX D RF Emission Graphical Results

D.1 E-field GSM850 band Low Channel

Test Laboratory: CTTL

HAC_RF_E_GSM850_Low_Roll

DUT: Alcatel Onetouch900A; Type: Alcatel Onetouch900A; Serial: 012596000000839

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: RF Section
Measurement Standard: DASY5 (IEEE/IEC)

DASY4 Configuration:

- Probe: ER3DV6 - SN2435; ConvF(1, 1, 1); Calibrated: 2010-5-20
- Sensor-Surface: (Fix Surface)
- Electronics: DAE4 Sn549; Calibrated: 2010-5-20
- Phantom: HAC Test Arch with AMCC; Type: SD HAC P01 BA; Serial: - -
- Measurement SW: DASY5, V5.0 Build 119; SEMCAD X Version 13.2 Build 87

E Scan - ER3D - 2007: 15 mm from Probe Center to the Device/Hearing Aid Compatibility Test (101x101x1): Measurement grid: dx=5mm, dy=5mm
Maximum value of peak Total field = 223.9 V/m
Probe Modulation Factor = 2.88
Device Reference Point: 0, 0, -6.3 mm
Reference Value = 100.7 V/m; Power Drift = -0.00295 dB
Hearing Aid Near-Field Category: M3 (AWF -5 dB)

Peak E-field in V/m

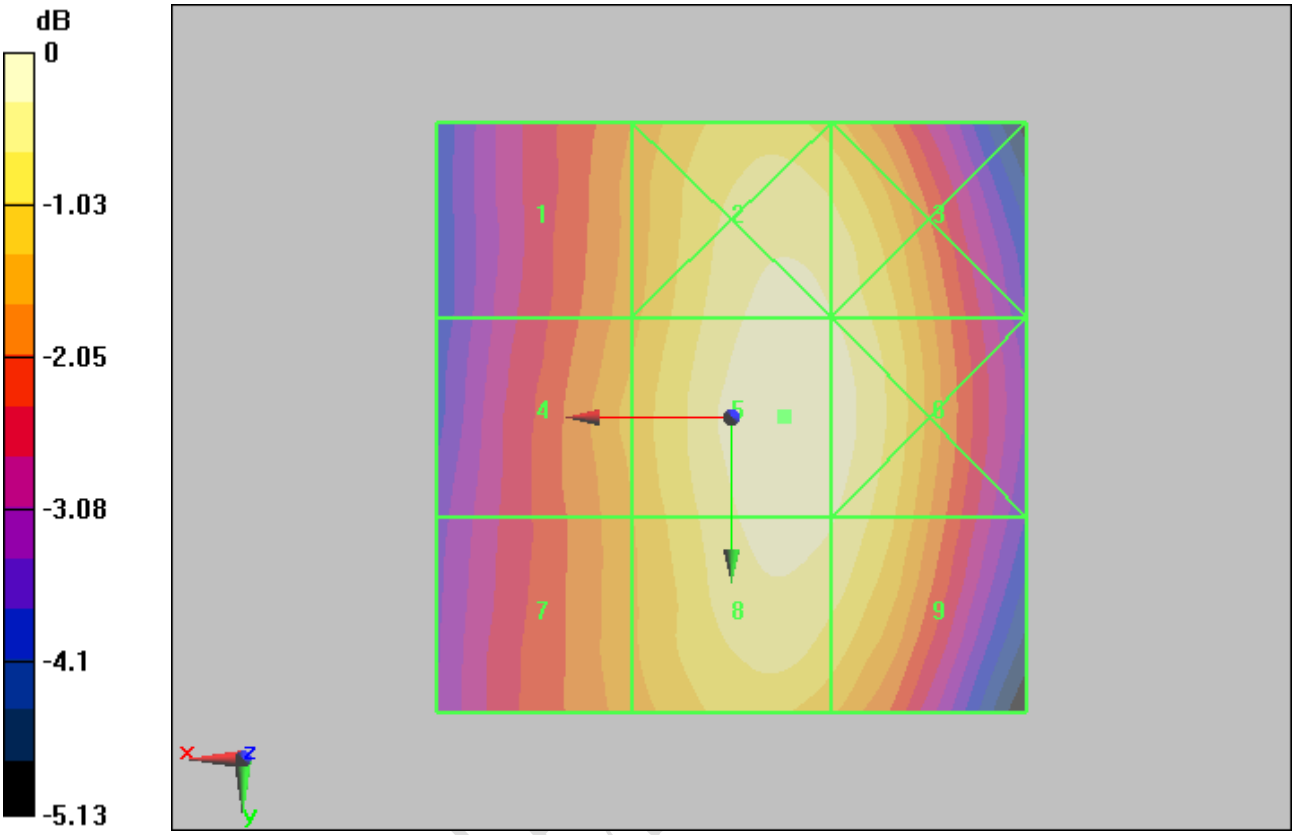
Grid 1 **188.9 M3**	Grid 2 **219.6 M3**	Grid 3 **215.7 M3**
Grid 4 **194.2 M3**	Grid 5 **223.9 M3**	Grid 6 **220.8 M3**
Grid 7 **190.8 M3**	Grid 8 **219.3 M3**	Grid 9 **215.9 M3**

Cursor:

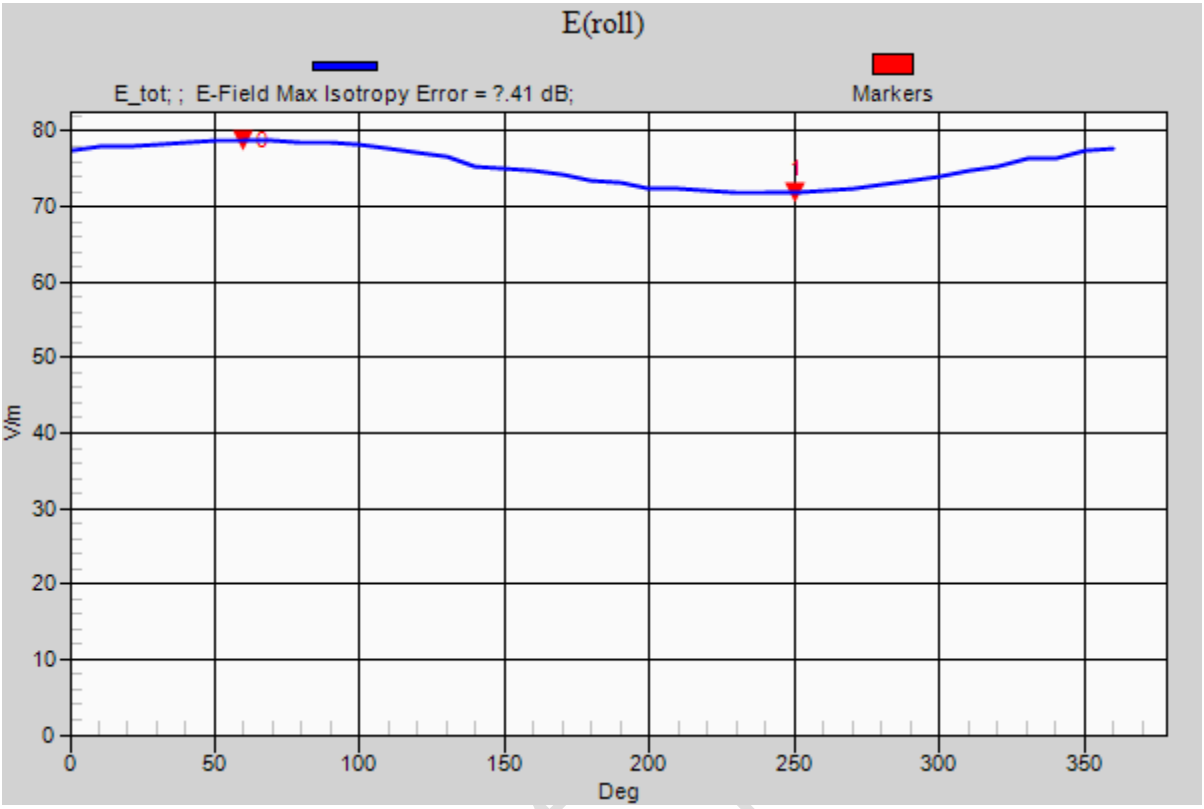
Total = 223.9 V/m

E Category: M3

Location: -4.5, 0, 8.7 mm



0 dB = 223.9V/m


E(roll)
E_tot; ; E-Field Max Isotropy Error = ?.41 dB;
Markers
V/m
Deg
0
50
100
150
200
250
300
350
10
20
30
40
60
70
80

D.2 E-field GSM850 band Middle Channel

Test Laboratory: CTTL

HAC_RF_E_GSM850_Middle

DUT: Alcatel Onetouch900A; Type: Alcatel Onetouch900A; Serial: 012596000000839

Communication System: GSM 850; Frequency: 836.6 MHz;Duty Cycle: 1:8.3
Medium parameters used: σ = 0 mho/m, ε_r = 1; ρ = 1000 kg/m^3
Phantom section: RF Section
Measurement Standard: DASY5 (IEEE/IEC)

DASY4 Configuration:

- Probe: ER3DV6 - SN2435; ConvF(1, 1, 1); Calibrated: 2010-5-20
- Sensor-Surface: (Fix Surface)
- Electronics: DAE4 Sn549; Calibrated: 2010-5-20
- Phantom: HAC Test Arch with AMCC; Type: SD HAC P01 BA; Serial: - -
- Measurement SW: DASY5, V5.0 Build 119; SEMCAD X Version 13.2 Build 87

E Scan - ER3D - 2007: 15 mm from Probe Center to the Device Middle/Hearing Aid Compatibility Test (101x101x1): Measurement grid: dx=5mm, dy=5mm
Maximum value of peak Total field = 216.7 V/m
Probe Modulation Factor = 2.88
Device Reference Point: 0, 0, -6.3 mm
Reference Value = 98.4 V/m; Power Drift = 0.047 dB
Hearing Aid Near-Field Category: M3 (AWF -5 dB)

Peak E-field in V/m

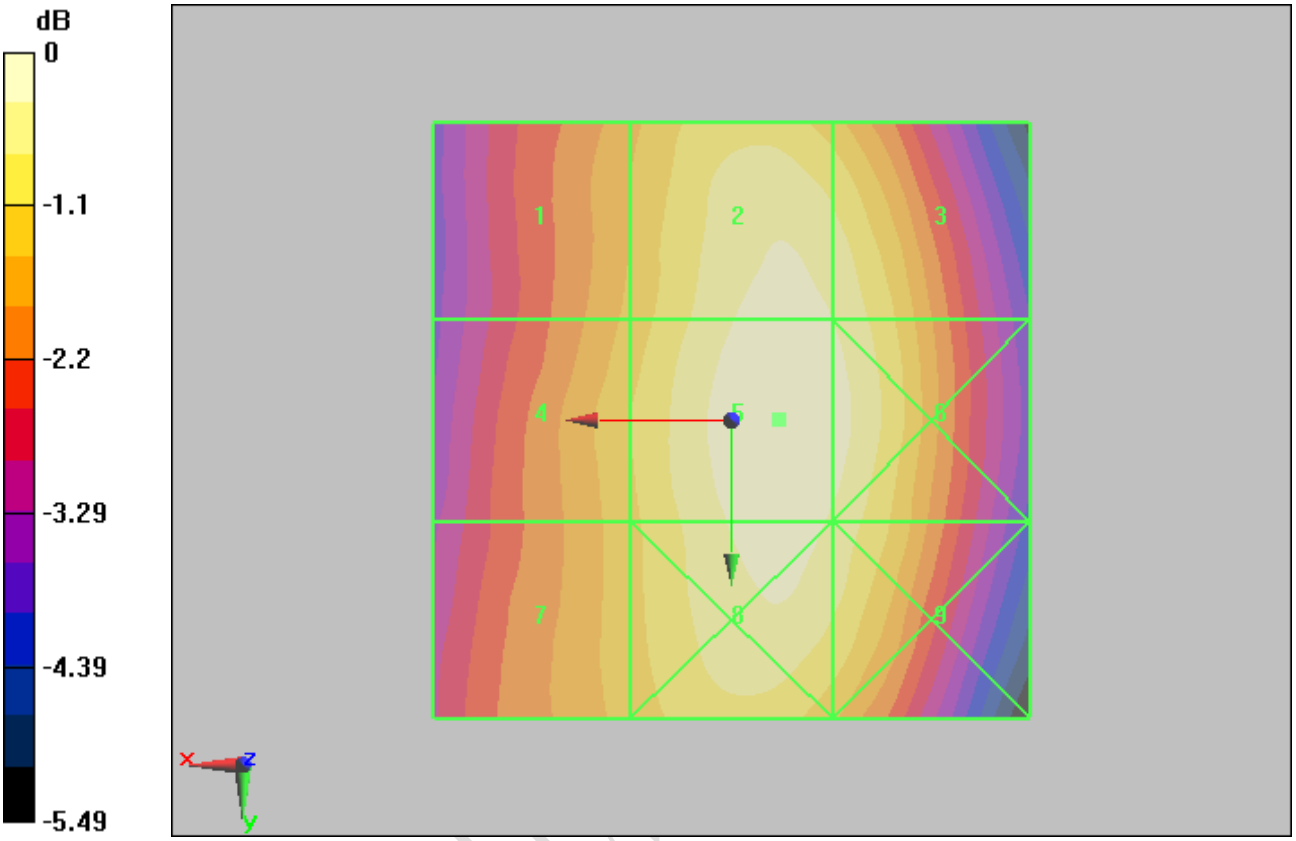
Grid 1 **185.7 M3**	Grid 2 **211.7 M3**	Grid 3 **207.8 M3**
Grid 4 **191.3 M3**	Grid 5 **216.7 M3**	Grid 6 **212.1 M3**
Grid 7 **188.9 M3**	Grid 8 **212.2 M3**	Grid 9 **206.4 M3**

Cursor:

Total = 216.7 V/m

E Category: M3

Location: -4, 0, 8.7 mm



0 dB = 216.7V/m

D.3 E-field GSM850 band High Channel

Test Laboratory: CTTL

HAC_RF_E_GSM850_High

DUT: Alcatel Onetouch900A; Type: Alcatel Onetouch900A; Serial: 012596000000839

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: RF Section
Measurement Standard: DASY5 (IEEE/IEC)

DASY4 Configuration:

- Probe: ER3DV6 - SN2435; ConvF(1, 1, 1); Calibrated: 2010-5-20
- Sensor-Surface: (Fix Surface)
- Electronics: DAE4 Sn549; Calibrated: 2010-5-20
- Phantom: HAC Test Arch with AMCC; Type: SD HAC P01 BA; Serial: --
- Measurement SW: DASY5, V5.0 Build 119; SEMCAD X Version 13.2 Build 87

E Scan - ER3D - 2007: 15 mm from Probe Center to the Device High/Hearing Aid Compatibility Test (101x101x1): Measurement grid: dx=5mm, dy=5mm
Maximum value of peak Total field = 219.1 V/m
Probe Modulation Factor = 2.88
Device Reference Point: 0, 0, -6.3 mm
Reference Value = 97.7 V/m; Power Drift = 0.069 dB
Hearing Aid Near-Field Category: M3 (AWF -5 dB)

Peak E-field in V/m

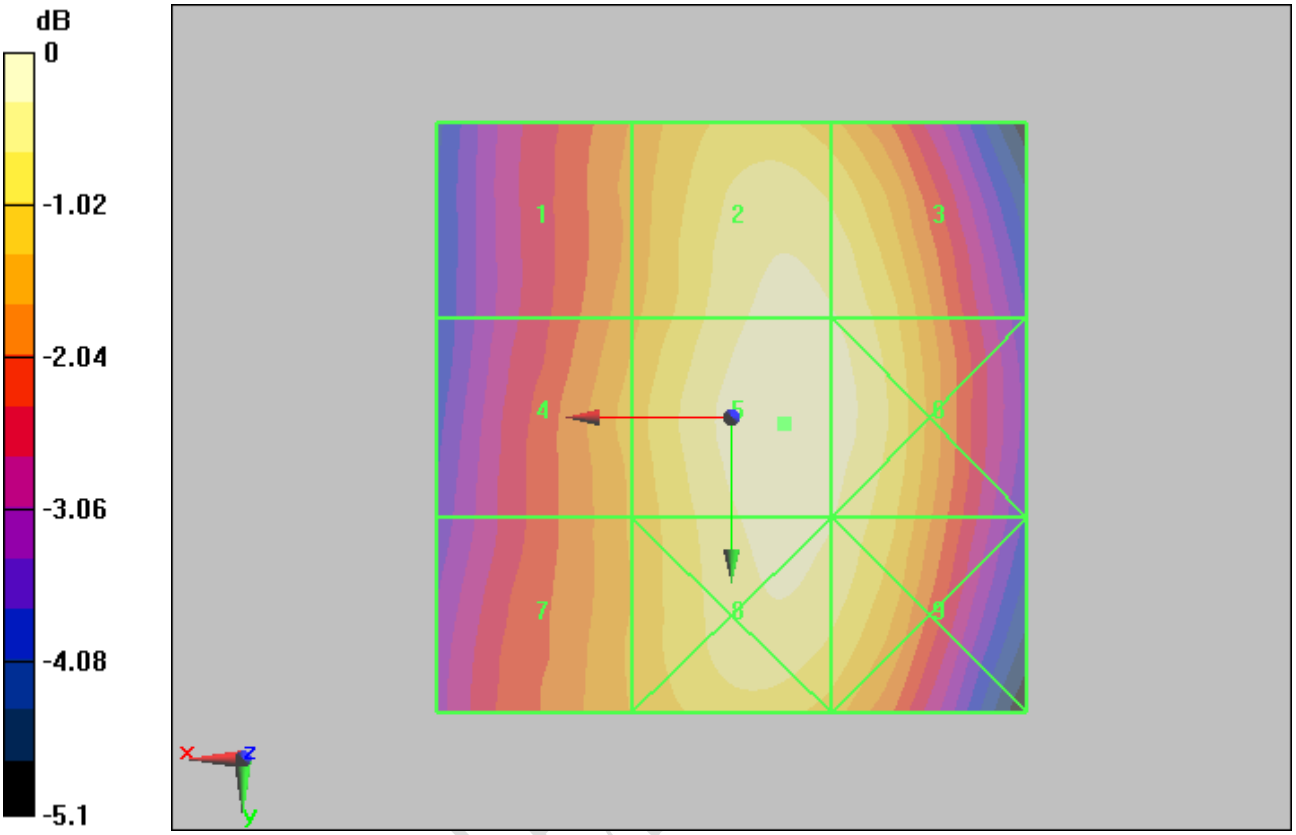
Grid 1 **185.2 M3**	Grid 2 **214.2 M3**	Grid 3 **211.4 M3**
Grid 4 **191.0 M3**	Grid 5 **219.1 M3**	Grid 6 **216.0 M3**
Grid 7 **188.7 M3**	Grid 8 **214.6 M3**	Grid 9 **211.1 M3**

Cursor:

Total = 219.1 V/m

E Category: M3

Location: -4.5, 0.5, 8.7 mm



0 dB = 219.1V/m

D.4 E-field PCS1900 band Low Channel

Test Laboratory: CTTL

HAC_RF_E_GSM1900_Low_Roll

DUT: Alcatel Onetouch900A; Type: Alcatel Onetouch900A; Serial: 012596000000839

Communication System: PCS 1900; Frequency: 1850.2 MHz;Duty Cycle: 1:8.3
Medium parameters used: σ = 0 mho/m, ε_r = 1; ρ = 1000 kg/m^3
Phantom section: RF Section
Measurement Standard: DASY5 (IEEE/IEC)

DASY4 Configuration:

- Probe: ER3DV6 - SN2435; ConvF(1, 1, 1); Calibrated: 2010-5-20
- Sensor-Surface: (Fix Surface)
- Electronics: DAE4 Sn549; Calibrated: 2010-5-20
- Phantom: HAC Test Arch with AMCC; Type: SD HAC P01 BA; Serial: --
- Measurement SW: DASY5, V5.0 Build 119; SEMCAD X Version 13.2 Build 87

E Scan - ER3D - 2007: 15 mm from Probe Center to the Device/Hearing Aid Compatibility Test (101x101x1): Measurement grid: dx=5mm, dy=5mm
Maximum value of peak Total field = 73.9 V/m
Probe Modulation Factor = 2.91
Device Reference Point: 0, 0, -6.3 mm
Reference Value = 21 V/m; Power Drift = 0.013 dB
Hearing Aid Near-Field Category: M3 (AWF -5 dB)

Peak E-field in V/m

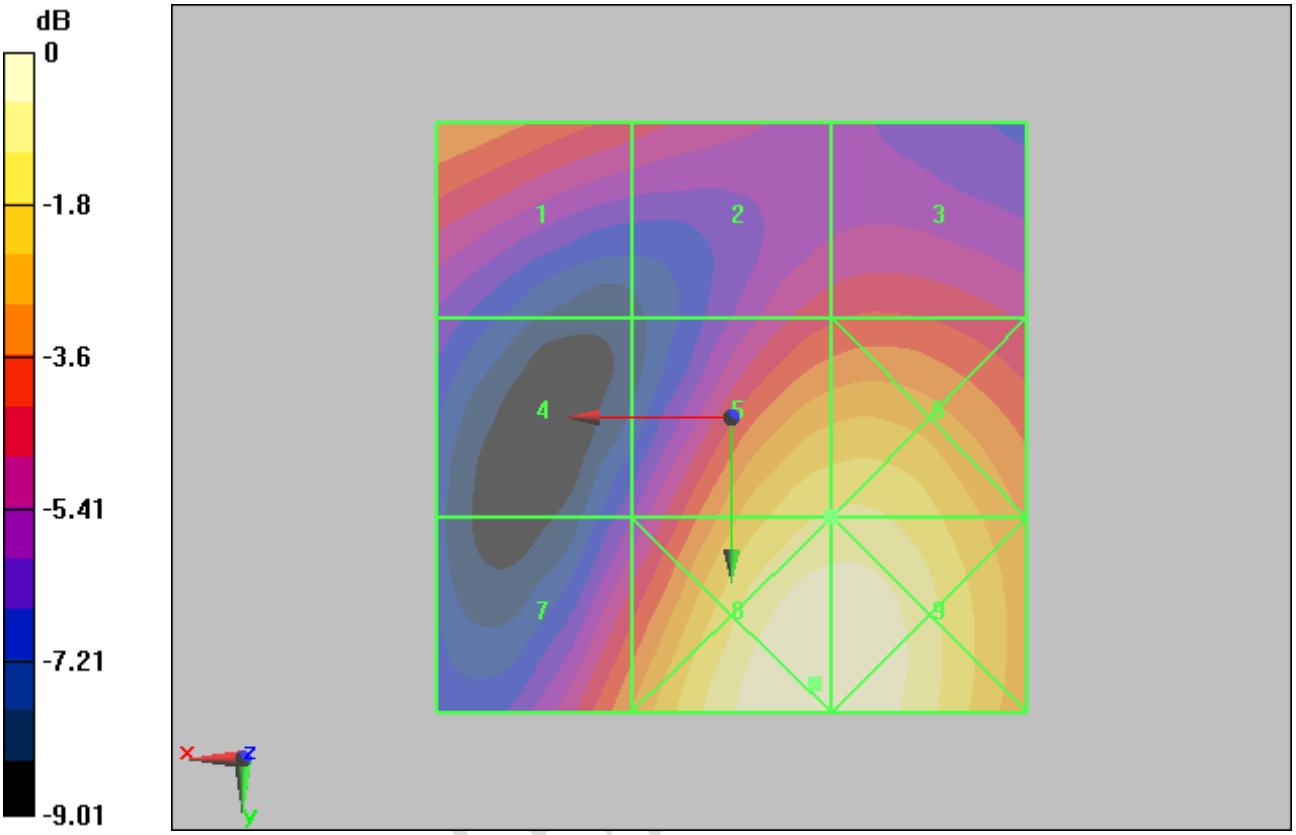
Grid 1 **60 M3**	Grid 2 **51.1 M3**	Grid 3 **52.4 M3**
Grid 4 **42 M4**	Grid 5 **73.9 M3**	Grid 6 **74.3 M3**
Grid 7 **59.7 M3**	Grid 8 **83.9 M3**	Grid 9 **83.7 M3**

Cursor:

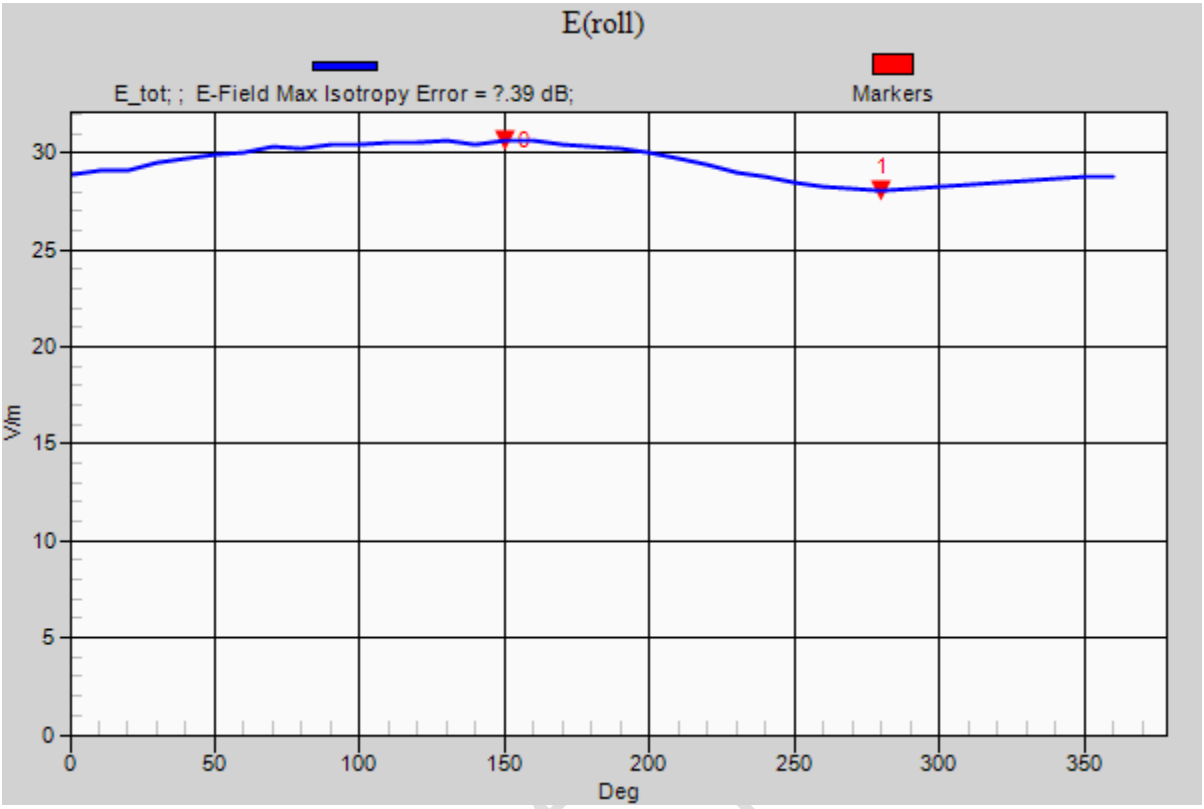
Total = 83.9 V/m

E Category: M3

Location: -7, 22.5, 8.7 mm



0 dB = 83.9V/m


E(roll)
E_tot; ; E-Field Max Isotropy Error = ?.39 dB;
Markers
V/m
Deg
0
1
30
25
20
15
10
5
0
0
50
100
150
200
250
300
350

D.5 E-field PCS1900 band Middle Channel

Test Laboratory: CTTL

HAC_RF_E_GSM1900_Middle

DUT: Alcatel Onetouch900A; Type: Alcatel Onetouch900A; Serial: 012596000000839

Communication System: PCS 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: RF Section
Measurement Standard: DASY5 (IEEE/IEC)

DASY4 Configuration:

- Probe: ER3DV6 - SN2435; ConvF(1, 1, 1); Calibrated: 2010-5-20
- Sensor-Surface: (Fix Surface)
- Electronics: DAE4 Sn549; Calibrated: 2010-5-20
- Phantom: HAC Test Arch with AMCC; Type: SD HAC P01 BA; Serial: --
- Measurement SW: DASY5, V5.0 Build 119; SEMCAD X Version 13.2 Build 87

E Scan - ER3D - 2007: 15 mm from Probe Center to the Device Middle/Hearing Aid Compatibility Test (101x101x1): Measurement grid: dx=5mm, dy=5mm
Maximum value of peak Total field = 69.5 V/m
Probe Modulation Factor = 2.91
Device Reference Point: 0, 0, -6.3 mm
Reference Value = 19.5 V/m; Power Drift = 0.000787 dB
Hearing Aid Near-Field Category: M3 (AWF -5 dB)

Peak E-field in V/m

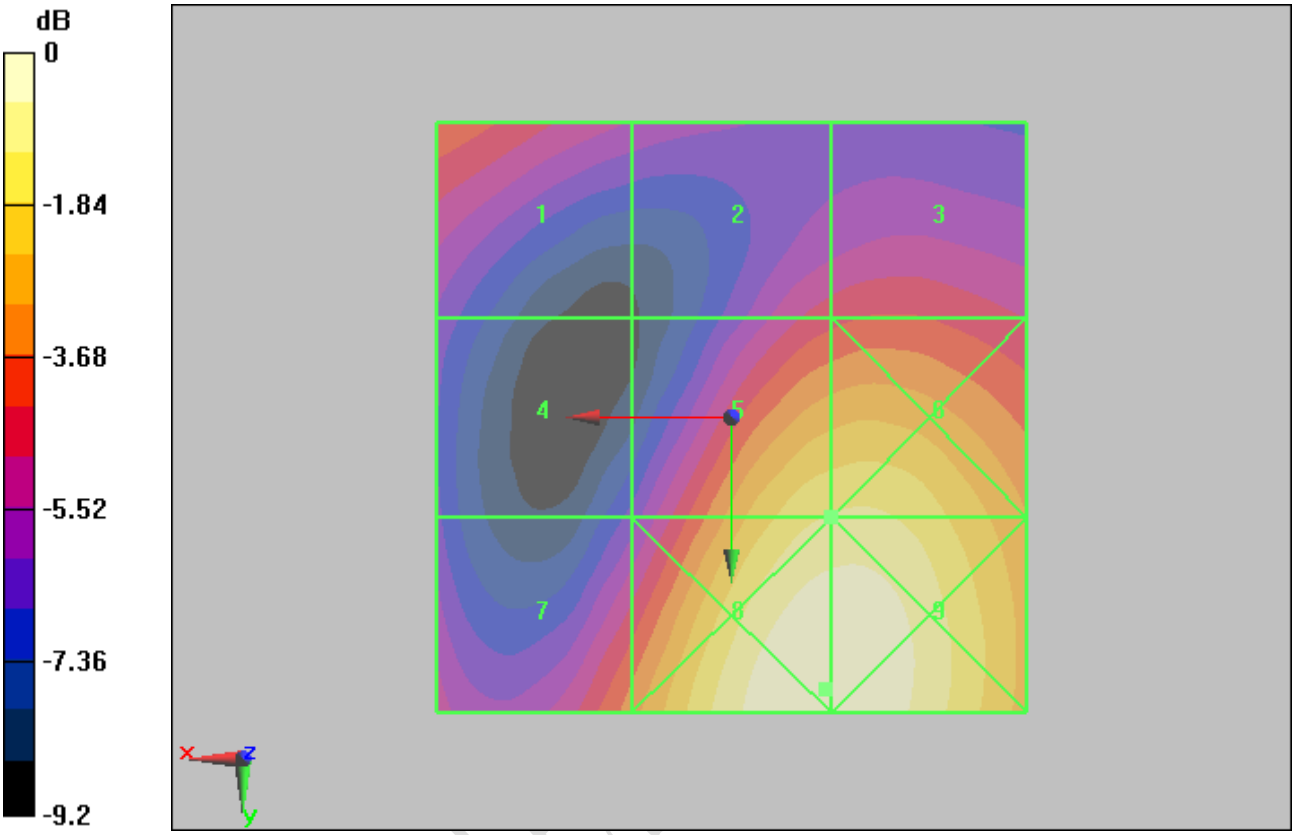
Grid 1 **51.9 M3**	Grid 2 **47.3 M3**	Grid 3 **48.9 M3**
Grid 4 **39.1 M4**	Grid 5 **69.5 M3**	Grid 6 **70.2 M3**
Grid 7 **54.2 M3**	Grid 8 **79.5 M3**	Grid 9 **79.4 M3**

Cursor:

Total = 79.5 V/m

E Category: M3

Location: -8, 23, 8.7 mm



0 dB = 79.5V/m

D.6 E-field PCS1900 band High Channel

Test Laboratory: CTTL

HAC_RF_E_GSM1900_High

DUT: Alcatel Onetouch900A; Type: Alcatel Onetouch900A; Serial: 012596000000839

Communication System: PCS 1900; Frequency: 1909.8 MHz;Duty Cycle: 1:8.3
Medium parameters used: σ = 0 mho/m, ε_r = 1; ρ = 1000 kg/m^3
Phantom section: RF Section
Measurement Standard: DASY5 (IEEE/IEC)

DASY4 Configuration:

- Probe: ER3DV6 - SN2435; ConvF(1, 1, 1); Calibrated: 2010-5-20
- Sensor-Surface: (Fix Surface)
- Electronics: DAE4 Sn549; Calibrated: 2010-5-20
- Phantom: HAC Test Arch with AMCC; Type: SD HAC P01 BA; Serial: --
- Measurement SW: DASY5, V5.0 Build 119; SEMCAD X Version 13.2 Build 87

E Scan - ER3D - 2007: 15 mm from Probe Center to the Device High/Hearing Aid Compatibility Test (101x101x1): Measurement grid: dx=5mm, dy=5mm
Maximum value of peak Total field = 66.3 V/m
Probe Modulation Factor = 2.91
Device Reference Point: 0, 0, -6.3 mm
Reference Value = 19.4 V/m; Power Drift = -0.025 dB
Hearing Aid Near-Field Category: M3 (AWF -5 dB)

Peak E-field in V/m

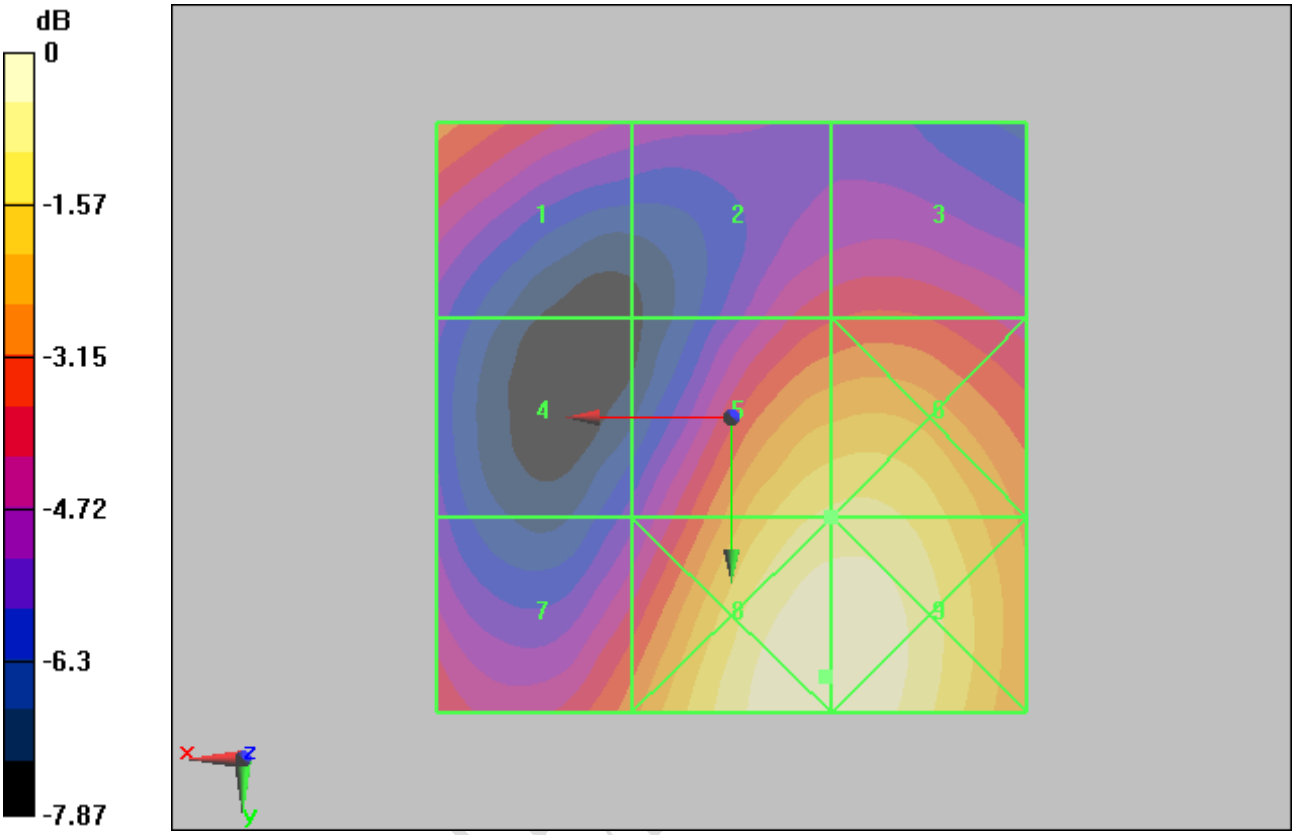
Grid 1 **53.1 M3**	Grid 2 **47.9 M3**	Grid 3 **49 M3**
Grid 4 **39.6 M4**	Grid 5 **66.3 M3**	Grid 6 **66.8 M3**
Grid 7 **53.3 M3**	Grid 8 **73.7 M3**	Grid 9 **73.6 M3**

Cursor:

Total = 73.7 V/m

E Category: M3

Location: -8, 22, 8.7 mm



0 dB = 73.7V/m

D.7 E-field FDD band V Low Channel

Test Laboratory: CTTL

HAC_RF_E_FDD_BandV_Low

DUT: Alcatel Onetouch900A; Type: Alcatel Onetouch900A; Serial: 012596000000839

Communication System: WCDMA-FDDV; Frequency: 826.4 MHz;Duty Cycle: 1:1
Medium parameters used: σ = 0 mho/m, ε_r = 1; ρ = 1000 kg/m^3
Phantom section: RF Section
Measurement Standard: DASY5 (IEEE/IEC)

DASY4 Configuration:

- Probe: ER3DV6 - SN2435; ConvF(1, 1, 1); Calibrated: 2010-5-20
- Sensor-Surface: (Fix Surface)
- Electronics: DAE4 Sn549; Calibrated: 2010-5-20
- Phantom: HAC Test Arch with AMCC; Type: SD HAC P01 BA; Serial: - -
- Measurement SW: DASY5, V5.0 Build 119; SEMCAD X Version 13.2 Build 87

E Scan - ER3D - 2007: 15 mm from Probe Center to the Device/Hearing Aid Compatibility Test (101x101x1): Measurement grid: dx=5mm, dy=5mm
Maximum value of peak Total field = 77.5 V/m
Probe Modulation Factor = 1
Device Reference Point: 0, 0, -6.3 mm
Reference Value = 98.9 V/m; Power Drift = -0.149 dB
Hearing Aid Near-Field Category: M4 (AWF 0 dB)

Peak E-field in V/m

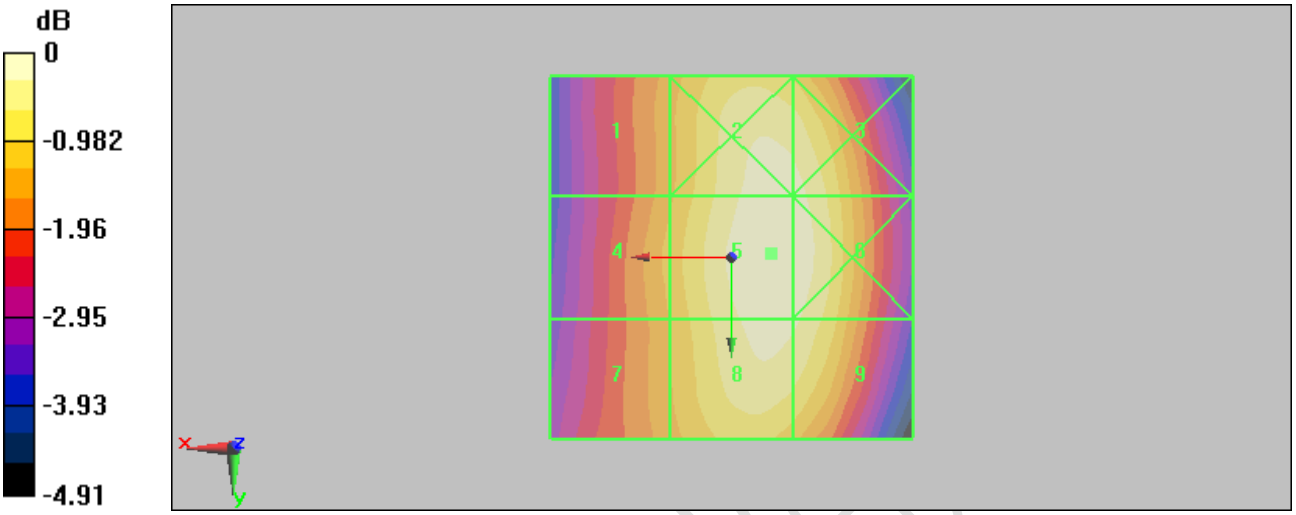
Grid 1 **66.2 M4**	Grid 2 **76.4 M4**	Grid 3 **75.9 M4**
Grid 4 **67.8 M4**	Grid 5 **77.5 M4**	Grid 6 **77 M4**
Grid 7 **66.8 M4**	Grid 8 **76 M4**	Grid 9 **75.2 M4**

Cursor:

Total = 77.5 V/m

E Category: M4

Location: -5.5, -0.5, 8.7 mm



0 dB = 77.5V/m

D.8 E-field FDD band V Middle Channel

Test Laboratory: CTTL

HAC_RF_E_FDD_BandV_Middle

DUT: Alcatel Onetouch900A; Type: Alcatel Onetouch900A; Serial: 012596000000839

Communication System: WCDMA-FDDV; Frequency: 835 MHz;Duty Cycle: 1:1
Medium parameters used: σ = 0 mho/m, ε_r = 1; ρ = 1000 kg/m^3
Phantom section: RF Section
Measurement Standard: DASY5 (IEEE/IEC)

DASY4 Configuration:

- Probe: ER3DV6 - SN2435; ConvF(1, 1, 1); Calibrated: 2010-5-20
- Sensor-Surface: (Fix Surface)
- Electronics: DAE4 Sn549; Calibrated: 2010-5-20
- Phantom: HAC Test Arch with AMCC; Type: SD HAC P01 BA; Serial: - -
- Measurement SW: DASY5, V5.0 Build 119; SEMCAD X Version 13.2 Build 87

E Scan - ER3D - 2007: 15 mm from Probe Center to the Device Middle/Hearing Aid Compatibility Test (101x101x1): Measurement grid: dx=5mm, dy=5mm
Maximum value of peak Total field = 72.7 V/m
Probe Modulation Factor = 1
Device Reference Point: 0, 0, -6.3 mm
Reference Value = 92.3 V/m; Power Drift = -0.030 dB
Hearing Aid Near-Field Category: M4 (AWF 0 dB)

Peak E-field in V/m

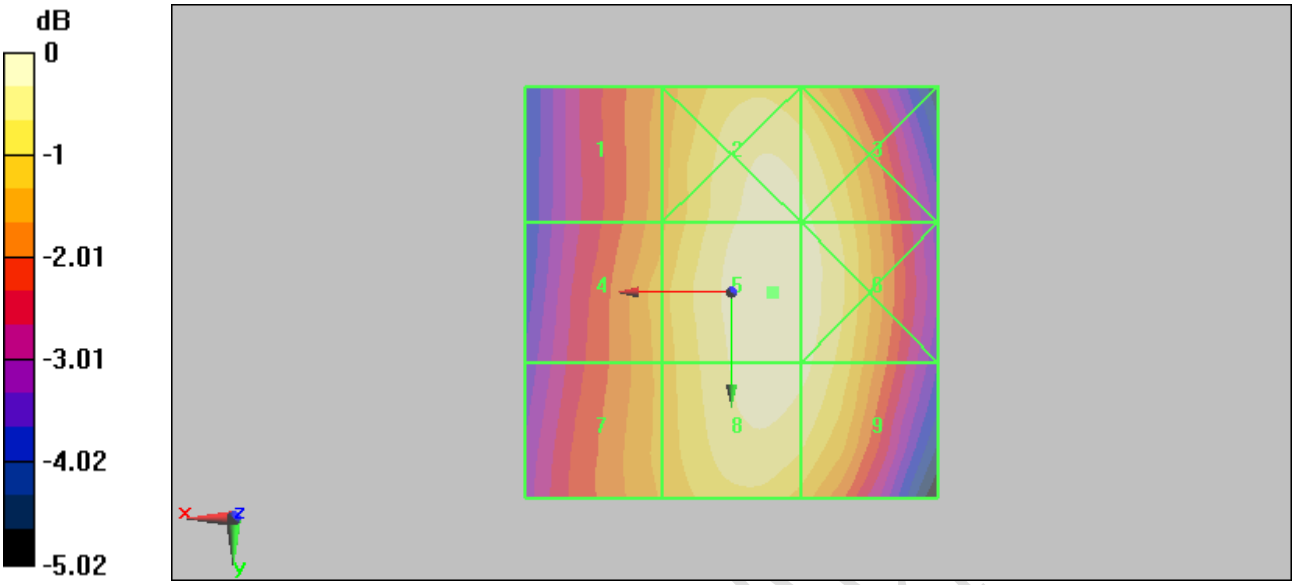
Grid 1 **61.8 M4**	Grid 2 **71.8 M4**	Grid 3 **70.9 M4**
Grid 4 **63.9 M4**	Grid 5 **72.7 M4**	Grid 6 **71.8 M4**
Grid 7 **63.3 M4**	Grid 8 **71.7 M4**	Grid 9 **70.8 M4**

Cursor:

Total = 72.7 V/m

E Category: M4

Location: -5, 0, 8.7 mm



0 dB = 72.7V/m

D.9 E-field FDD band V High Channel

Test Laboratory: CTTL

HAC_RF_E_FDD_BandV_High_Roll

DUT: Alcatel Onetouch900A; Type: Alcatel Onetouch900A; Serial: 012596000000839

Communication System: WCDMA-FDDV; Frequency: 846.6 MHz;Duty Cycle: 1:1
Medium parameters used: σ = 0 mho/m, ε_r = 1; ρ = 1000 kg/m^3
Phantom section: RF Section
Measurement Standard: DASY5 (IEEE/IEC)

DASY4 Configuration:

- Probe: ER3DV6 - SN2435; ConvF(1, 1, 1); Calibrated: 2010-5-20
- Sensor-Surface: (Fix Surface)
- Electronics: DAE4 Sn549; Calibrated: 2010-5-20
- Phantom: HAC Test Arch with AMCC; Type: SD HAC P01 BA; Serial: --
- Measurement SW: DASY5, V5.0 Build 119; SEMCAD X Version 13.2 Build 87

E Scan - ER3D - 2007: 15 mm from Probe Center to the Device High/Hearing Aid Compatibility Test (101x101x1): Measurement grid: dx=5mm, dy=5mm
Maximum value of peak Total field = 81.2 V/m
Probe Modulation Factor = 1
Device Reference Point: 0, 0, -6.3 mm
Reference Value = 101.8 V/m; Power Drift = -0.051 dB
Hearing Aid Near-Field Category: M4 (AWF 0 dB)

Peak E-field in V/m

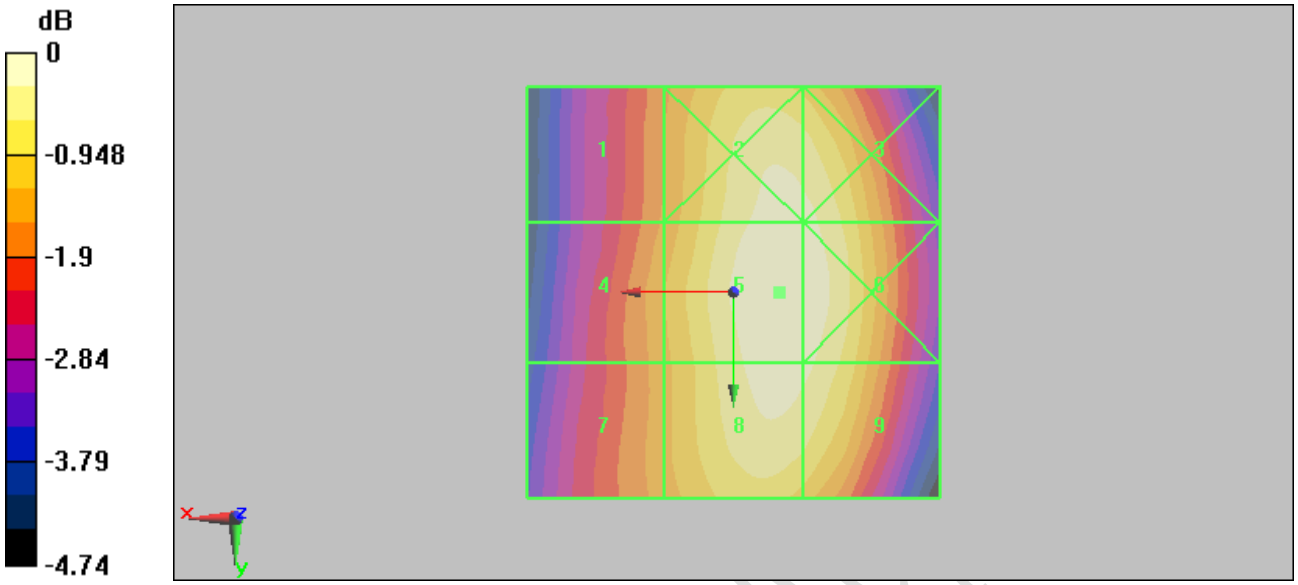
Grid 1 **68.2 M4**	Grid 2 **79.6 M4**	Grid 3 **79.4 M4**
Grid 4 **70.1 M4**	Grid 5 **81.2 M4**	Grid 6 **80.8 M4**
Grid 7 **69.5 M4**	Grid 8 **79.9 M4**	Grid 9 **79.1 M4**

Cursor:

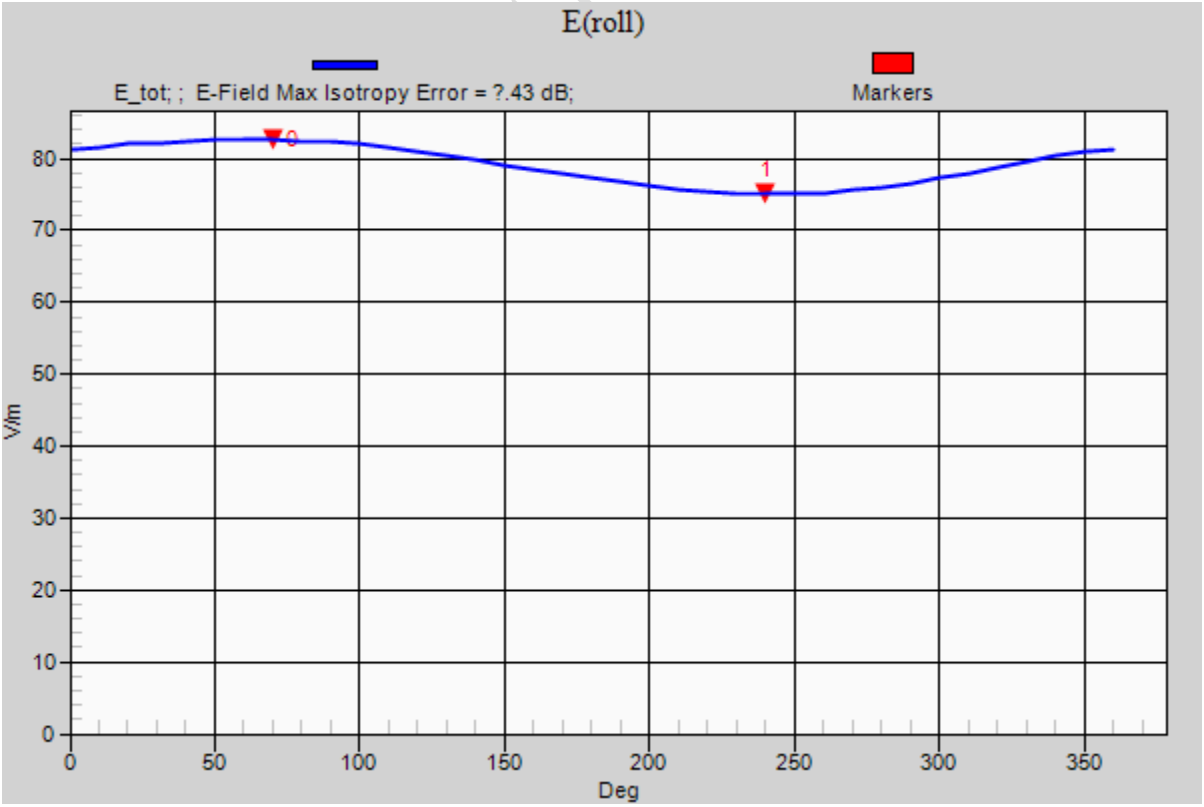
Total = 81.2 V/m

E Category: M4

Location: -5.5, 0, 8.7 mm



0 dB = 81.2V/m



D.10 E-field FDD band II Low Channel

Test Laboratory: CTTL

HAC_RF_E_FDD_BandII_Low

DUT: Alcatel Onetouch900A; Type: Alcatel Onetouch900A; Serial: 012596000000839

Communication System: W-CDMA Band II; Frequency: 1852.4 MHz;Duty Cycle: 1:1
Medium parameters used: σ = 0 mho/m, ε_r = 1; ρ = 1000 kg/m^3
Phantom section: RF Section
Measurement Standard: DASY5 (IEEE/IEC)

DASY4 Configuration:

- Probe: ER3DV6 - SN2435; ConvF(1, 1, 1); Calibrated: 2010-5-20
- Sensor-Surface: (Fix Surface)
- Electronics: DAE4 Sn549; Calibrated: 2010-5-20
- Phantom: HAC Test Arch with AMCC; Type: SD HAC P01 BA; Serial: --
- Measurement SW: DASY5, V5.0 Build 119; SEMCAD X Version 13.2 Build 87

E Scan - ER3D - 2007: 15 mm from Probe Center to the Device/Hearing Aid Compatibility Test (101x101x1): Measurement grid: dx=5mm, dy=5mm
Maximum value of peak Total field = 33 V/m
Probe Modulation Factor = 1.02
Device Reference Point: 0, 0, -6.3 mm
Reference Value = 24.9 V/m; Power Drift = -0.051 dB
Hearing Aid Near-Field Category: M4 (AWF 0 dB)

Peak E-field in V/m

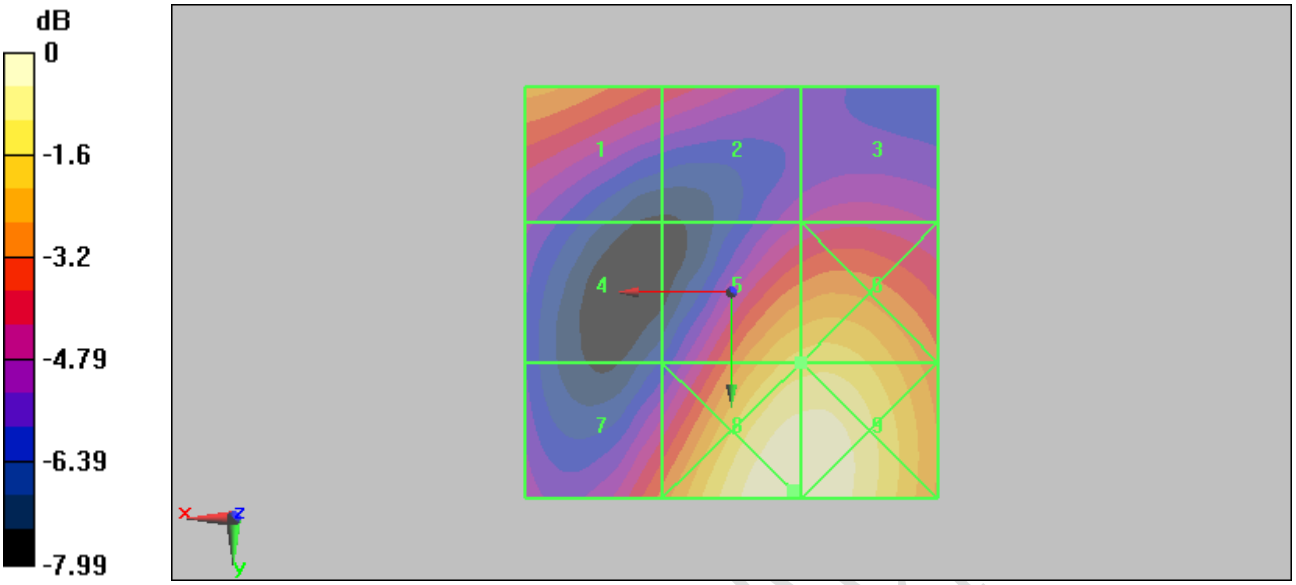
Grid 1 **29.2 M4**	Grid 2 **24.9 M4**	Grid 3 **23.3 M4**
Grid 4 **21.3 M4**	Grid 5 **33 M4**	Grid 6 **33.4 M4**
Grid 7 **27.3 M4**	Grid 8 **38.5 M4**	Grid 9 **38.5 M4**

Cursor:

Total = 38.5 V/m

E Category: M4

Location: -7.5, 24, 8.7 mm



0 dB = 38.5V/m

D.11 E-field FDD band II Middle Channel

Test Laboratory: CTTL

HAC_RF_E_FDD_BandII_Middle_Roll

DUT: Alcatel Onetouch900A; Type: Alcatel Onetouch900A; Serial: 012596000000839

Communication System: W-CDMA Band II; Frequency: 1880 MHz;Duty Cycle: 1:1
Medium parameters used: σ = 0 mho/m, ε_r = 1; ρ = 1000 kg/m^3
Phantom section: RF Section
Measurement Standard: DASY5 (IEEE/IEC)

DASY4 Configuration:

- Probe: ER3DV6 - SN2435; ConvF(1, 1, 1); Calibrated: 2010-5-20
- Sensor-Surface: (Fix Surface)
- Electronics: DAE4 Sn549; Calibrated: 2010-5-20
- Phantom: HAC Test Arch with AMCC; Type: SD HAC P01 BA; Serial: --
- Measurement SW: DASY5, V5.0 Build 119; SEMCAD X Version 13.2 Build 87

E Scan - ER3D - 2007: 15 mm from Probe Center to the Device Middle/Hearing Aid Compatibility Test (101x101x1): Measurement grid: dx=5mm, dy=5mm
Maximum value of peak Total field = 36.9 V/m
Probe Modulation Factor = 1.02
Device Reference Point: 0, 0, -6.3 mm
Reference Value = 29.9 V/m; Power Drift = -0.426 dB
Hearing Aid Near-Field Category: M4 (AWF 0 dB)

Peak E-field in V/m

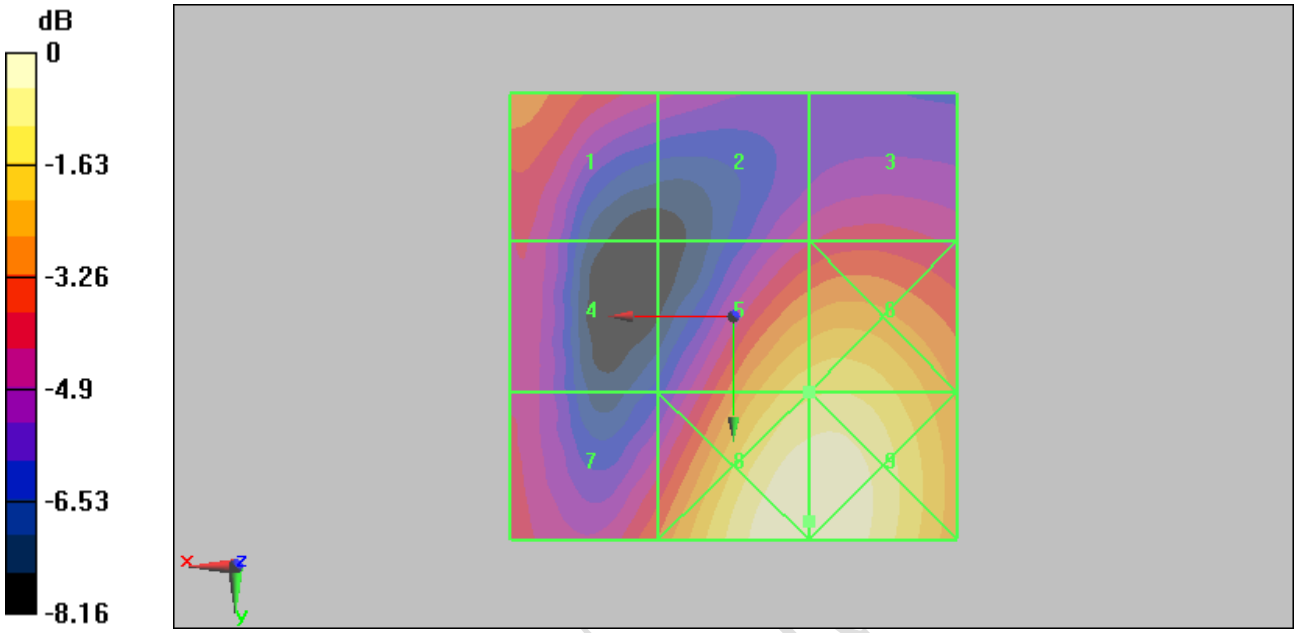
Grid 1 **30.9 M4**	Grid 2 **25.5 M4**	Grid 3 **26.7 M4**
Grid 4 **25.8 M4**	Grid 5 **36.9 M4**	Grid 6 **37.5 M4**
Grid 7 **29.3 M4**	Grid 8 **42.4 M4**	Grid 9 **42.4 M4**

Cursor:

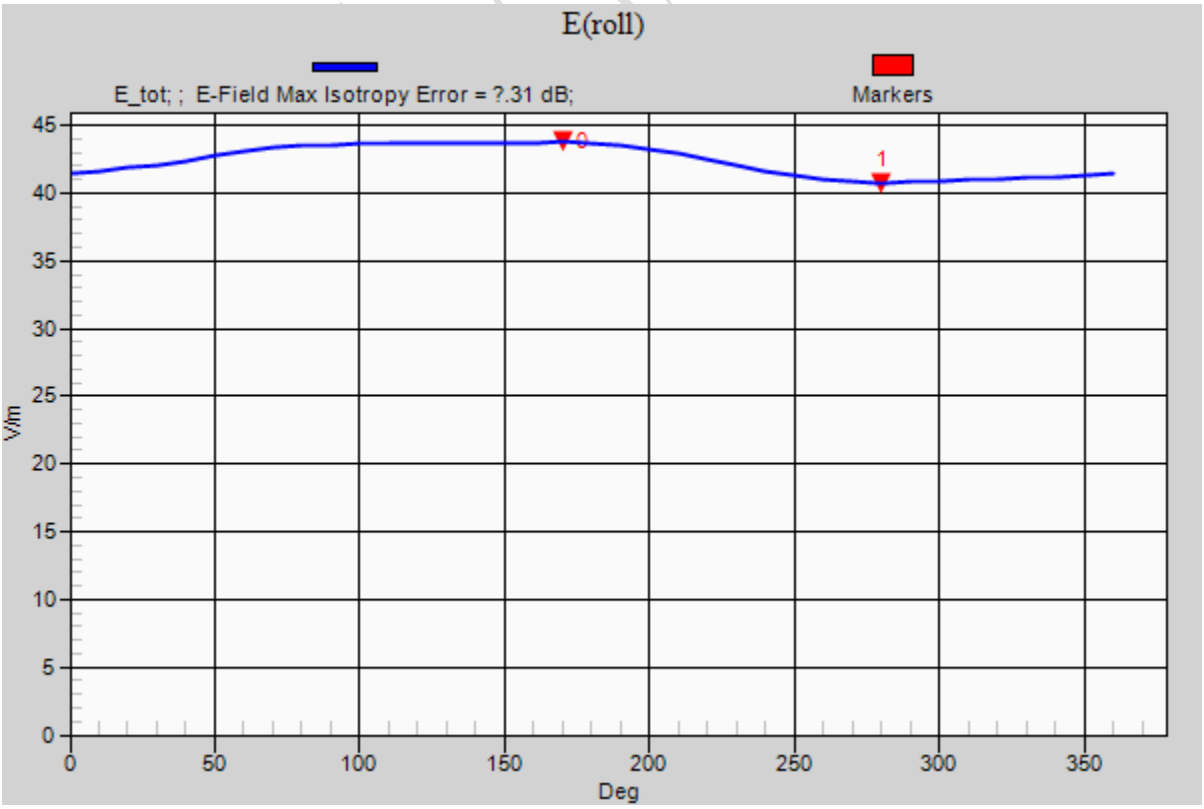
Total = 42.4 V/m

E Category: M4

Location: -8.5, 23, 8.7 mm



0 dB = 42.4V/m



D.12 E-field FDD band II High Channel

Test Laboratory: CTTL

HAC_RF_E_FDD_BandII_High

DUT: Alcatel Onetouch900A; Type: Alcatel Onetouch900A; Serial: 012596000000839

Communication System: W-CDMA Band II; Frequency: 1907.6 MHz;Duty Cycle: 1:1
Medium parameters used: σ = 0 mho/m, ε_r = 1; ρ = 1000 kg/m^3
Phantom section: RF Section
Measurement Standard: DASY5 (IEEE/IEC)

DASY4 Configuration:

- Probe: ER3DV6 - SN2435; ConvF(1, 1, 1); Calibrated: 2010-5-20
- Sensor-Surface: (Fix Surface)
- Electronics: DAE4 Sn549; Calibrated: 2010-5-20
- Phantom: HAC Test Arch with AMCC; Type: SD HAC P01 BA; Serial: --
- Measurement SW: DASY5, V5.0 Build 119; SEMCAD X Version 13.2 Build 87

E Scan - ER3D - 2007: 15 mm from Probe Center to the Device High/Hearing Aid Compatibility Test (101x101x1): Measurement grid: dx=5mm, dy=5mm
Maximum value of peak Total field = 31.3 V/m
Probe Modulation Factor = 1.02
Device Reference Point: 0, 0, -6.3 mm
Reference Value = 24.7 V/m; Power Drift = 0.014 dB
Hearing Aid Near-Field Category: M4 (AWF 0 dB)

Peak E-field in V/m

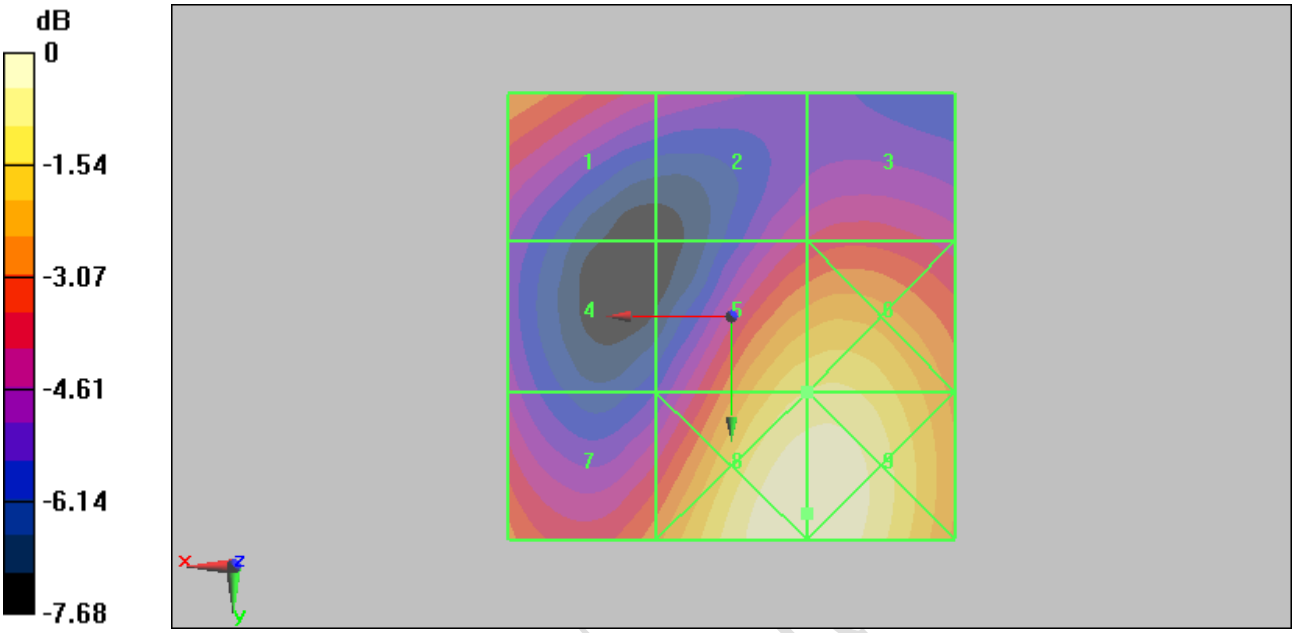
Grid 1 **26.2 M4**	Grid 2 **22.1 M4**	Grid 3 **22.9 M4**
Grid 4 **20.5 M4**	Grid 5 **31.3 M4**	Grid 6 **31.7 M4**
Grid 7 **25.6 M4**	Grid 8 **35.1 M4**	Grid 9 **35.1 M4**

Cursor:

Total = 35.1 V/m

E Category: M4

Location: -8.5, 22, 8.7 mm



0 dB = 35.1V/m

D.13 H-field GSM850 band Low Channel

Test Laboratory: CTTL

HAC_RF_H_GSM850_Low_Roll

DUT: Alcatel Onetouch900A; Type: Alcatel Onetouch900A; Serial: 012596000000839

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: RF Section
Measurement Standard: DASY5 (IEEE/IEC)

DASY4 Configuration:

- Probe: H3DV6 - SN6268; ; Calibrated: 2010-5-21
- Sensor-Surface: (Fix Surface)
- Electronics: DAE4 Sn549; Calibrated: 2010-5-20
- Phantom: HAC Test Arch with AMCC; Type: SD HAC P01 BA; Serial: --
- Measurement SW: DASY5, V5.0 Build 119; SEMCAD X Version 13.2 Build 87

H Scan - H3DV6 - 2007: 15 mm from Probe Center to the Device/Hearing Aid Compatibility Test (101x101x1): Measurement grid: dx=5mm, dy=5mm
Maximum value of peak Total field = 0.324 A/m
Probe Modulation Factor = 2.73
Device Reference Point: 0, 0, -6.3 mm
Reference Value = 0.089 A/m; Power Drift = -0.060 dB
Hearing Aid Near-Field Category: M4 (AWF -5 dB)

Peak H-field in A/m

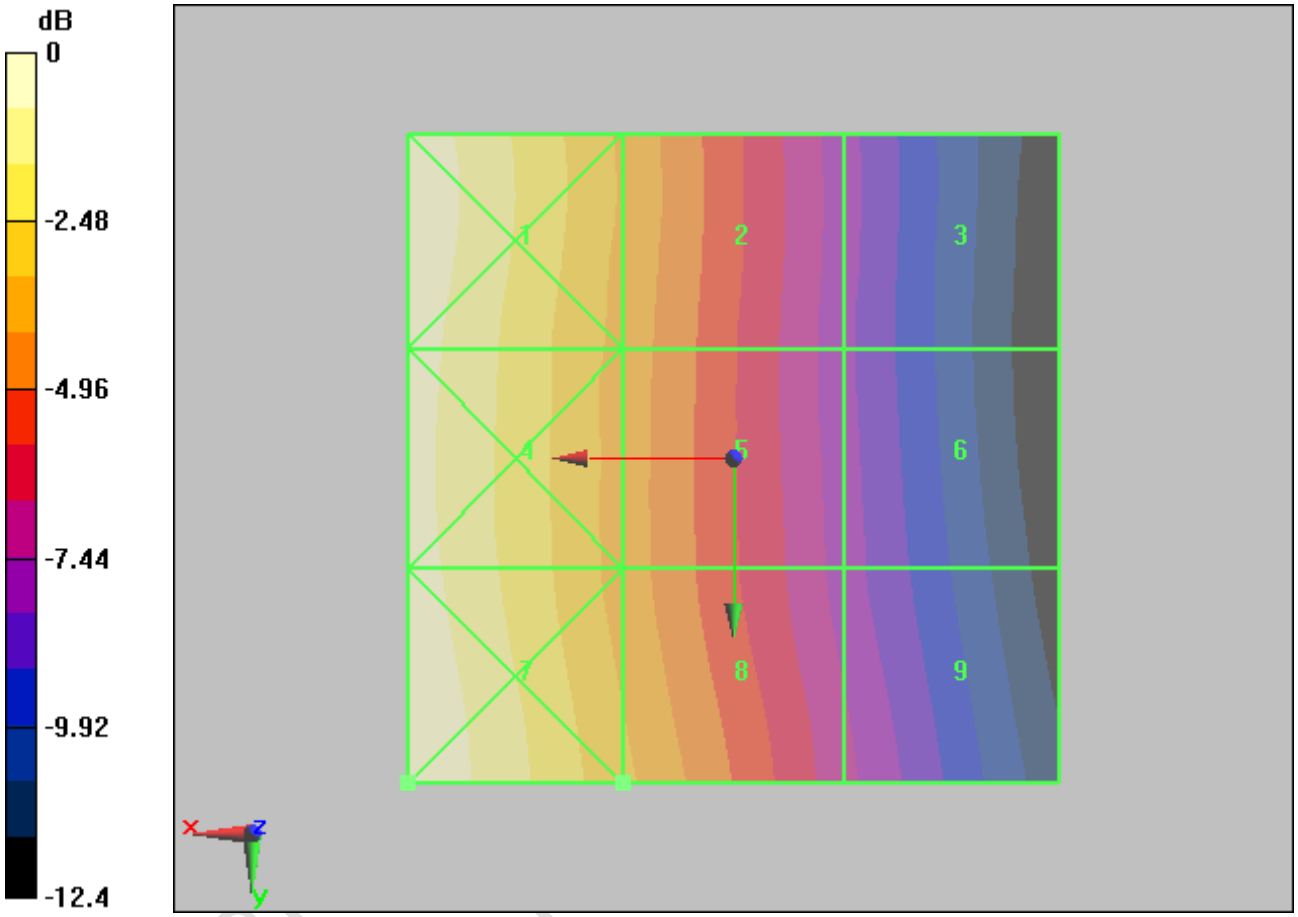
Grid 1 **0.457 M3**	Grid 2 **0.312 M4**	Grid 3 **0.187 M4**
Grid 4 **0.443 M4**	Grid 5 **0.305 M4**	Grid 6 **0.189 M4**
Grid 7 **0.462 M3**	Grid 8 **0.324 M4**	Grid 9 **0.203 M4**

Cursor:

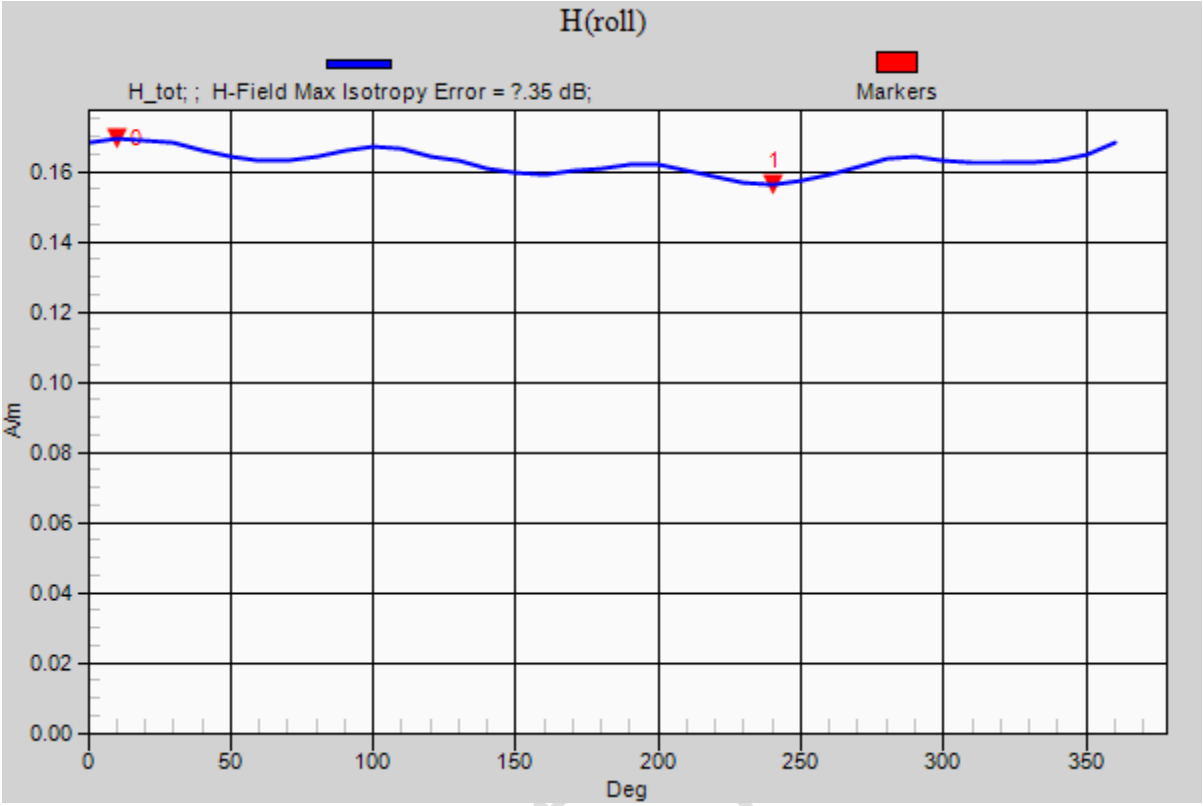
Total = 0.462 A/m

H Category: M3

Location: 25, 25, 8.7 mm



0 dB = 0.462A/m


H(roll)
H_tot; ; H-Field Max Isotropy Error = ?.35 dB;
Markers
0
1
A/m
0.16
0.14
0.12
0.10
0.08
0.06
0.04
0.02
0.00
0
50
100
150
200
250
300
350
Deg

D.14 H-field GSM850 band Middle Channel

Test Laboratory: CTTL

HAC_RF_H_GSM850_Middle

DUT: Alcatel Onetouch900A; Type: Alcatel Onetouch900A; Serial: 012596000000839

Communication System: GSM 850; Frequency: 836.6 MHz;Duty Cycle: 1:8.3
Medium parameters used: σ = 0 mho/m, ε_r = 1; ρ = 1 kg/m^3
Phantom section: RF Section
Measurement Standard: DASY5 (IEEE/IEC)

DASY4 Configuration:

- Probe: H3DV6 - SN6268; ; Calibrated: 2010-5-21
- Sensor-Surface: (Fix Surface)
- Electronics: DAE4 Sn549; Calibrated: 2010-5-20
- Phantom: HAC Test Arch with AMCC; Type: SD HAC P01 BA; Serial: --
- Measurement SW: DASY5, V5.0 Build 119; SEMCAD X Version 13.2 Build 87

H Scan - H3DV6 - 2007: 15 mm from Probe Center to the Device Middle/Hearing Aid Compatibility Test (101x101x1): Measurement grid: dx=5mm, dy=5mm
Maximum value of peak Total field = 0.323 A/m
Probe Modulation Factor = 2.73
Device Reference Point: 0, 0, -6.3 mm
Reference Value = 0.089 A/m; Power Drift = 0.046 dB
Hearing Aid Near-Field Category: M4 (AWF -5 dB)

Peak H-field in A/m

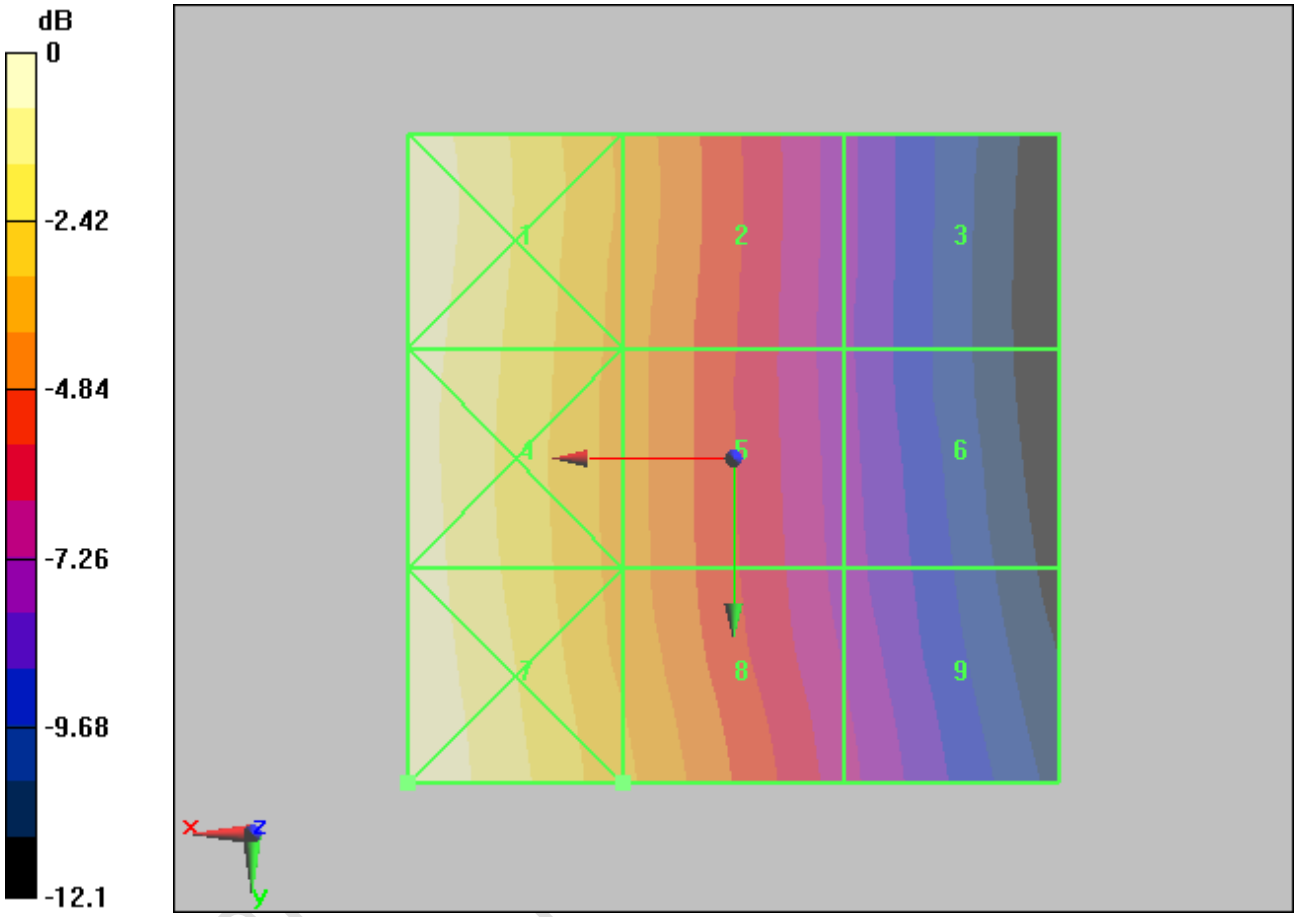
Grid 1 **0.451 M3**	Grid 2 **0.310 M4**	Grid 3 **0.187 M4**
Grid 4 **0.445 M4**	Grid 5 **0.303 M4**	Grid 6 **0.191 M4**
Grid 7 **0.456 M3**	Grid 8 **0.323 M4**	Grid 9 **0.206 M4**

Cursor:

Total = 0.456 A/m

H Category: M3

Location: 25, 25, 8.7 mm



0 dB = 0.456A/m

D.15 H-field GSM850 band High Channel

Test Laboratory: CTTL

HAC_RF_H_GSM850_High

DUT: Alcatel Onetouch900A; Type: Alcatel Onetouch900A; Serial: 012596000000839

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: RF Section
Measurement Standard: DASY5 (IEEE/IEC)

DASY4 Configuration:

- Probe: H3DV6 - SN6268; ; Calibrated: 2010-5-21
- Sensor-Surface: (Fix Surface)
- Electronics: DAE4 Sn549; Calibrated: 2010-5-20
- Phantom: HAC Test Arch with AMCC; Type: SD HAC P01 BA; Serial: --
- Measurement SW: DASY5, V5.0 Build 119; SEMCAD X Version 13.2 Build 87

H Scan - H3DV6 - 2007: 15 mm from Probe Center to the Device High 2/Hearing Aid Compatibility Test (101x101x1): Measurement grid: dx=5mm, dy=5mm
Maximum value of peak Total field = 0.304 A/m
Probe Modulation Factor = 2.73
Device Reference Point: 0, 0, -6.3 mm
Reference Value = 0.082 A/m; Power Drift = -0.00697 dB
Hearing Aid Near-Field Category: M4 (AWF -5 dB)

Peak H-field in A/m

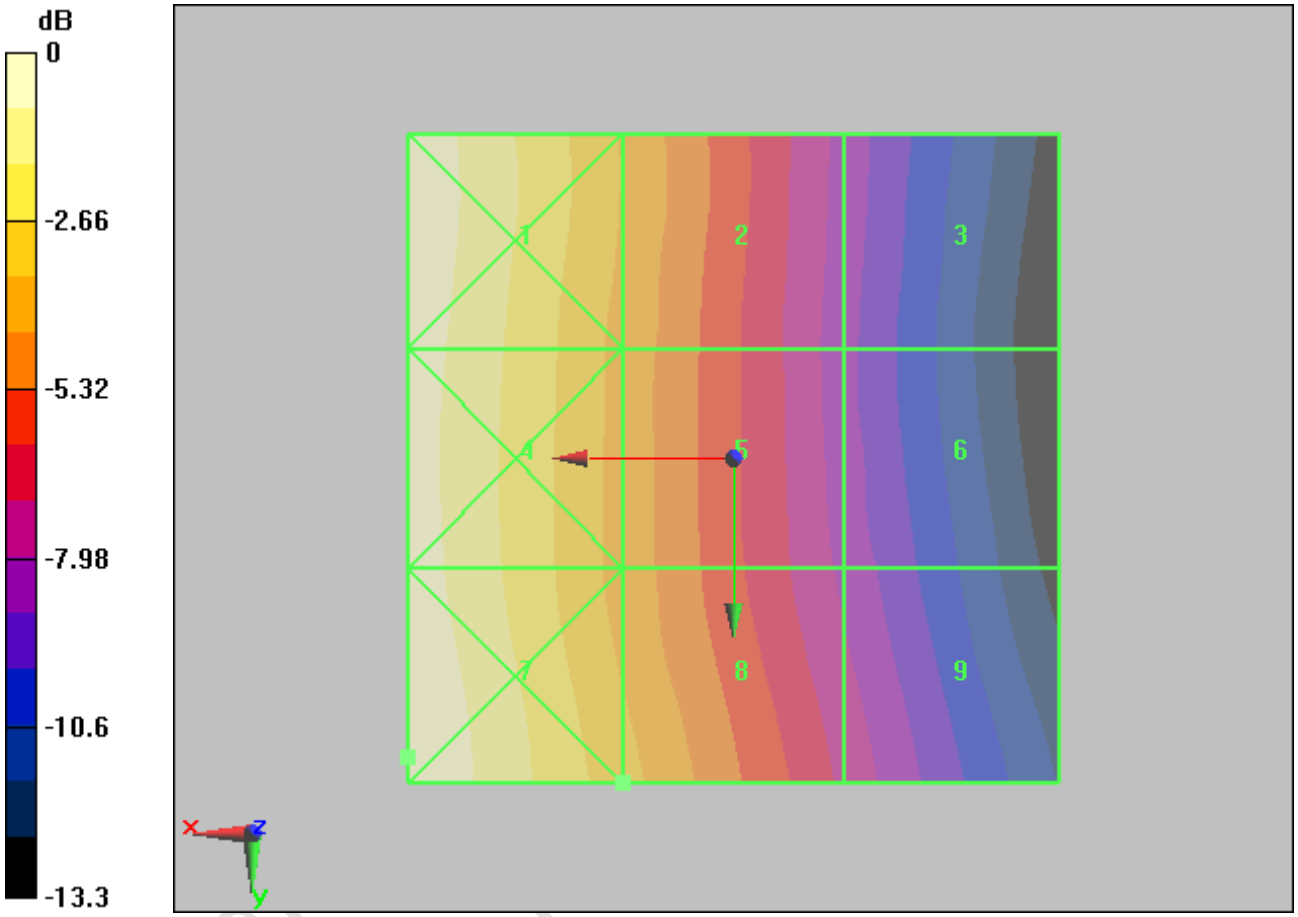
Grid 1 **0.430 M4**	Grid 2 **0.291 M4**	Grid 3 **0.170 M4**
Grid 4 **0.421 M4**	Grid 5 **0.282 M4**	Grid 6 **0.172 M4**
Grid 7 **0.439 M4**	Grid 8 **0.304 M4**	Grid 9 **0.190 M4**

Cursor:

Total = 0.439 A/m

H Category: M4

Location: 25, 23, 8.7 mm



0 dB = 0.439A/m

D.16 H-field PCS1900 band Low Channel

Test Laboratory: CTTL

HAC_RF_H_GSM1900_Low_Roll

DUT: Alcatel Onetouch900A; Type: Alcatel Onetouch900A; Serial: 012596000000839

Communication System: PCS 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: RF Section
Measurement Standard: DASY5 (IEEE/IEC)

DASY4 Configuration:

- Probe: H3DV6 - SN6268; ; Calibrated: 2010-5-21
- Sensor-Surface: (Fix Surface)
- Electronics: DAE4 Sn549; Calibrated: 2010-5-20
- Phantom: HAC Test Arch with AMCC; Type: SD HAC P01 BA; Serial: --
- Measurement SW: DASY5, V5.0 Build 119; SEMCAD X Version 13.2 Build 87

H Scan - H3DV6 - 2007: 15 mm from Probe Center to the Device/Hearing Aid Compatibility Test (101x101x1): Measurement grid: dx=5mm, dy=5mm
Maximum value of peak Total field = 0.177 A/m
Probe Modulation Factor = 2.61
Device Reference Point: 0, 0, -6.3 mm
Reference Value = 0.069 A/m; Power Drift = 0.063 dB
Hearing Aid Near-Field Category: M3 (AWF -5 dB)

Peak H-field in A/m

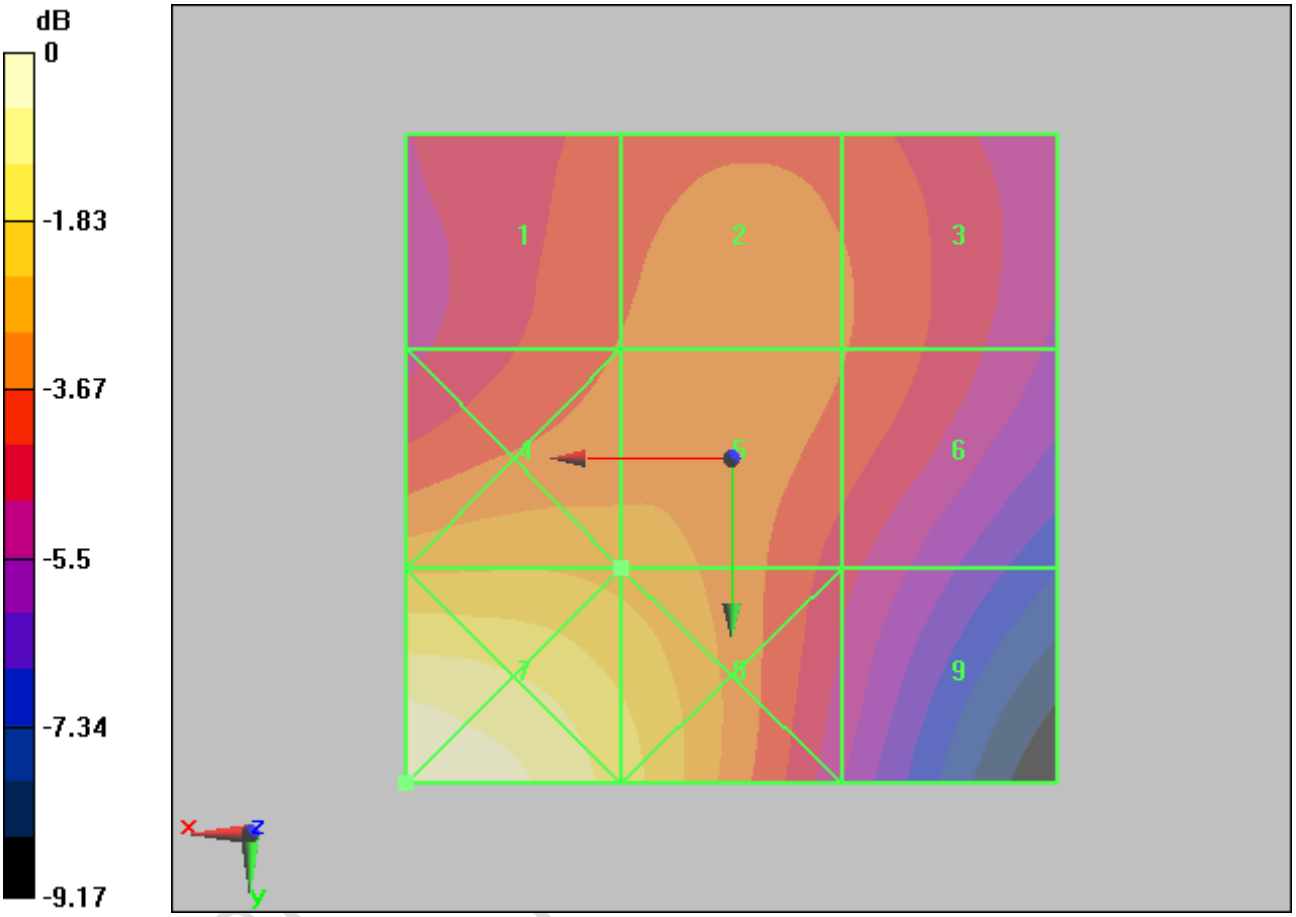
Grid 1 **0.158 M3**	Grid 2 **0.164 M3**	Grid 3 **0.159 M3**
Grid 4 **0.181 M3**	Grid 5 **0.177 M3**	Grid 6 **0.158 M3**
Grid 7 **0.240 M3**	Grid 8 **0.201 M3**	Grid 9 **0.141 M3**

Cursor:

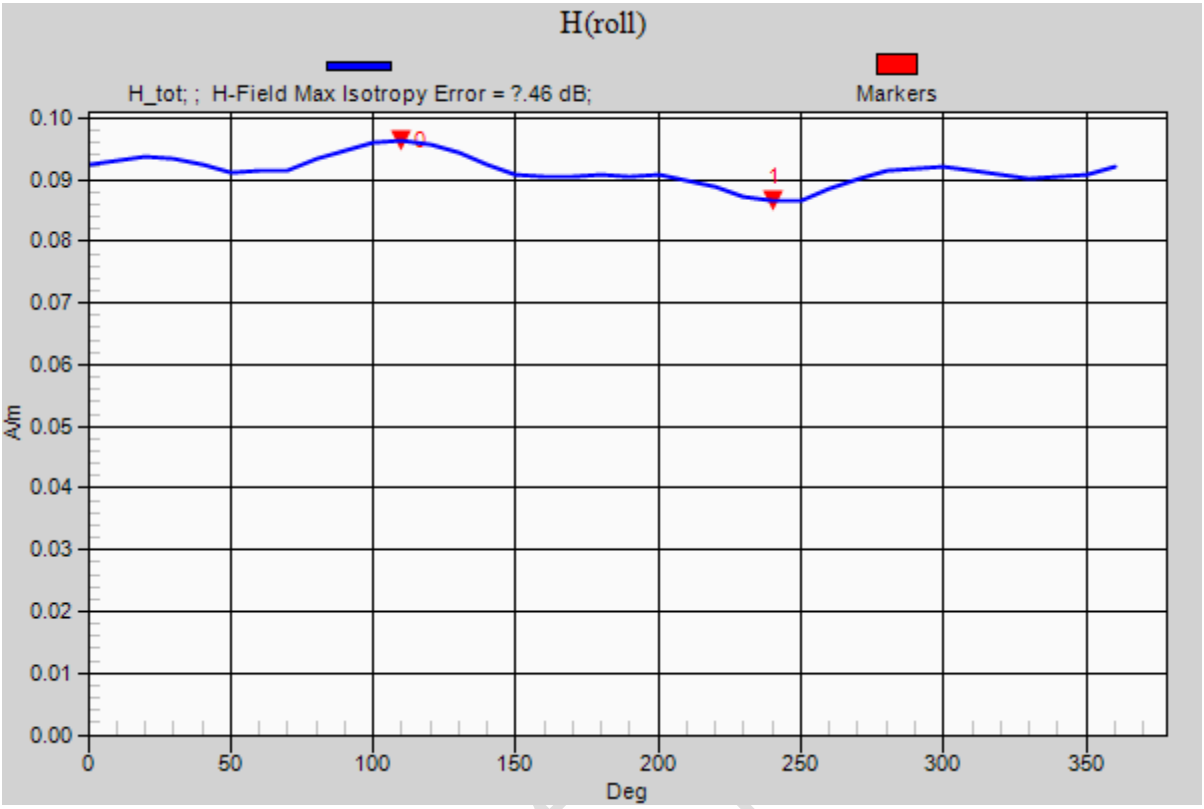
Total = 0.240 A/m

H Category: M3

Location: 25, 25, 8.7 mm



0 dB = 0.240A/m


H(roll)
H_tot; ; H-Field Max Isotropy Error = ?.46 dB;
Markers
0.10
0.09
0.08
0.07
0.06
0.05
0.04
0.03
0.02
0.01
0.00
A/m
0
50
100
150
200
250
300
350
Deg
0
1

D.17 H-field PCS1900 band Middle Channel

Test Laboratory: CTTL

HAC_RF_H_GSM1900_Middle

DUT: Alcatel Onetouch900A; Type: Alcatel Onetouch900A; Serial: 012596000000839

Communication System: PCS 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: RF Section
Measurement Standard: DASY5 (IEEE/IEC)

DASY4 Configuration:

- Probe: H3DV6 - SN6268; ; Calibrated: 2010-5-21
- Sensor-Surface: (Fix Surface)
- Electronics: DAE4 Sn549; Calibrated: 2010-5-20
- Phantom: HAC Test Arch with AMCC; Type: SD HAC P01 BA; Serial: --
- Measurement SW: DASY5, V5.0 Build 119; SEMCAD X Version 13.2 Build 87

H Scan - H3DV6 - 2007: 15 mm from Probe Center to the Device Middle/Hearing Aid Compatibility Test (101x101x1): Measurement grid: dx=5mm, dy=5mm
Maximum value of peak Total field = 0.173 A/m
Probe Modulation Factor = 2.61
Device Reference Point: 0, 0, -6.3 mm
Reference Value = 0.064 A/m; Power Drift = -0.039 dB
Hearing Aid Near-Field Category: M3 (AWF -5 dB)

Peak H-field in A/m

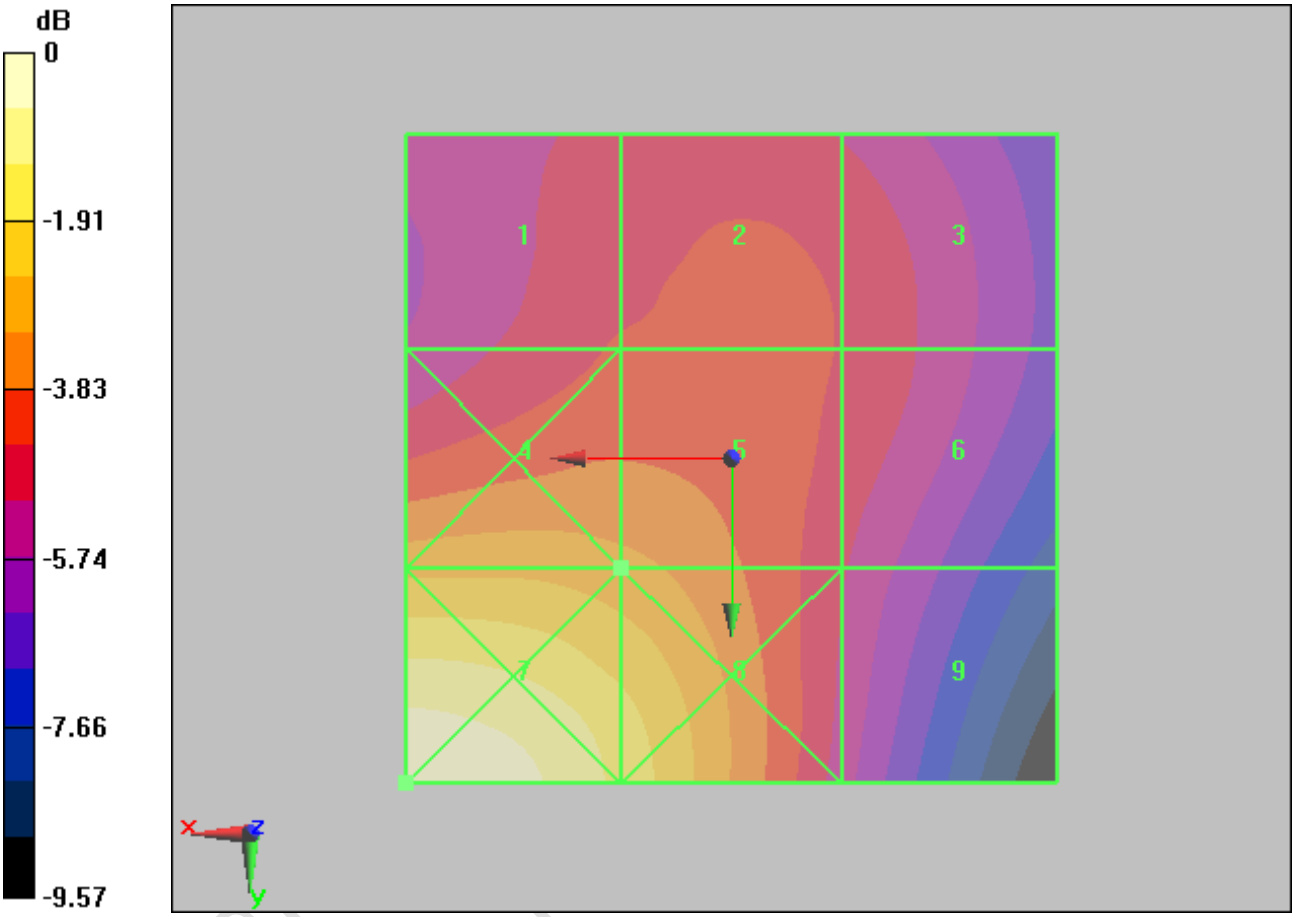
Grid 1 **0.146 M3**	Grid 2 **0.151 M3**	Grid 3 **0.145 M3**
Grid 4 **0.179 M3**	Grid 5 **0.173 M3**	Grid 6 **0.145 M3**
Grid 7 **0.243 M3**	Grid 8 **0.205 M3**	Grid 9 **0.136 M4**

Cursor:

Total = 0.243 A/m

H Category: M3

Location: 25, 25, 8.7 mm



0 dB = 0.243A/m

D.18 H-field PCS1900 band High Channel

Test Laboratory: CTTL

HAC_RF_H_GSM1900_High

DUT: Alcatel Onetouch900A; Type: Alcatel Onetouch900A; Serial: 012596000000839

Communication System: PCS 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: RF Section
Measurement Standard: DASY5 (IEEE/IEC)

DASY4 Configuration:

- Probe: H3DV6 - SN6268; ; Calibrated: 2010-5-21
- Sensor-Surface: (Fix Surface)
- Electronics: DAE4 Sn549; Calibrated: 2010-5-20
- Phantom: HAC Test Arch with AMCC; Type: SD HAC P01 BA; Serial: --
- Measurement SW: DASY5, V5.0 Build 119; SEMCAD X Version 13.2 Build 87

H Scan - H3DV6 - 2007: 15 mm from Probe Center to the Device High/Hearing Aid Compatibility Test (101x101x1): Measurement grid: dx=5mm, dy=5mm
Maximum value of peak Total field = 0.162 A/m
Probe Modulation Factor = 2.61
Device Reference Point: 0, 0, -6.3 mm
Reference Value = 0.060 A/m; Power Drift = 0.058 dB
Hearing Aid Near-Field Category: M3 (AWF -5 dB)

Peak H-field in A/m

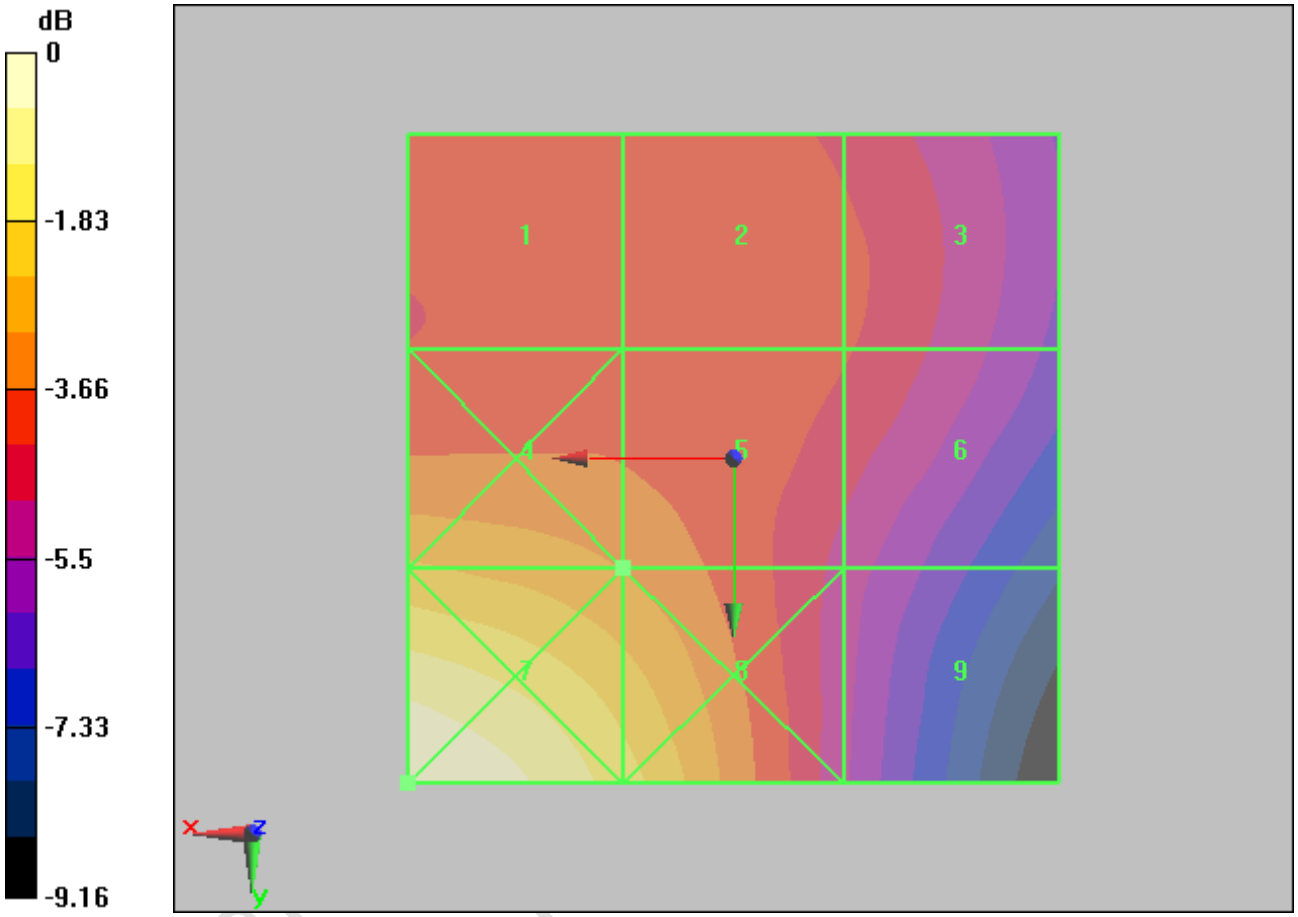
Grid 1 **0.150 M3**	Grid 2 **0.149 M3**	Grid 3 **0.144 M3**
Grid 4 **0.177 M3**	Grid 5 **0.162 M3**	Grid 6 **0.142 M3**
Grid 7 **0.231 M3**	Grid 8 **0.193 M3**	Grid 9 **0.128 M4**

Cursor:

Total = 0.231 A/m

H Category: M3

Location: 25, 25, 8.7 mm



0 dB = 0.231A/m

D.19 H-field FDD band V Low Channel

Test Laboratory: CTTL

HAC_RF_H_FDD_BandV_Low

DUT: Alcatel Onetouch900A; Type: Alcatel Onetouch900A; Serial: 012596000000839

Communication System: WCDMA-FDDV; Frequency: 826.4 MHz;Duty Cycle: 1:1
Medium parameters used: σ = 0 mho/m, ε_r = 1; ρ = 1 kg/m^3
Phantom section: RF Section
Measurement Standard: DASY5 (IEEE/IEC)

DASY4 Configuration:

- Probe: H3DV6 - SN6268; ; Calibrated: 2010-5-21
- Sensor-Surface: (Fix Surface)
- Electronics: DAE4 Sn549; Calibrated: 2010-5-20
- Phantom: HAC Test Arch with AMCC; Type: SD HAC P01 BA; Serial: --
- Measurement SW: DASY5, V5.0 Build 119; SEMCAD X Version 13.2 Build 87

H Scan - H3DV6 - 2007: 15 mm from Probe Center to the Device Low/Hearing Aid Compatibility Test (101x101x1): Measurement grid: dx=5mm, dy=5mm
Maximum value of peak Total field = 0.115 A/m
Probe Modulation Factor = 1.02
Device Reference Point: 0, 0, -6.3 mm
Reference Value = 0.083 A/m; Power Drift = -0.00559 dB
Hearing Aid Near-Field Category: M4 (AWF 0 dB)

Peak H-field in A/m

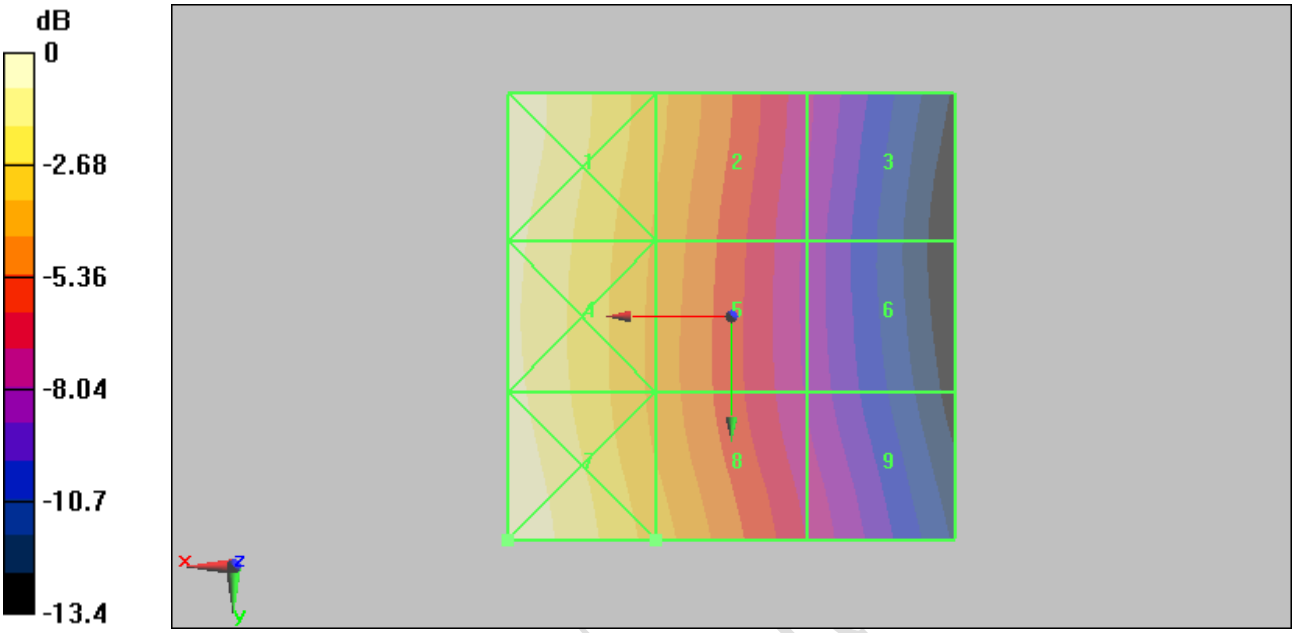
Grid 1 **0.160 M4**	Grid 2 **0.113 M4**	Grid 3 **0.067 M4**
Grid 4 **0.154 M4**	Grid 5 **0.107 M4**	Grid 6 **0.064 M4**
Grid 7 **0.164 M4**	Grid 8 **0.115 M4**	Grid 9 **0.072 M4**

Cursor:

Total = 0.164 A/m

H Category: M4

Location: 25, 25, 8.7 mm



0 dB = 0.164A/m

D.20 H-field FDD band V Middle Channel

Test Laboratory: CTTL

HAC_RF_H_FDD_BandV_Middle

DUT: Alcatel Onetouch900A; Type: Alcatel Onetouch900A; Serial: 012596000000839

Communication System: WCDMA-FDDV; Frequency: 835 MHz;Duty Cycle: 1:1
Medium parameters used: σ = 0 mho/m, ε_r = 1; ρ = 1 kg/m^3
Phantom section: RF Section
Measurement Standard: DASY5 (IEEE/IEC)

DASY4 Configuration:

- Probe: H3DV6 - SN6268; ; Calibrated: 2010-5-21
- Sensor-Surface: (Fix Surface)
- Electronics: DAE4 Sn549; Calibrated: 2010-5-20
- Phantom: HAC Test Arch with AMCC; Type: SD HAC P01 BA; Serial: --
- Measurement SW: DASY5, V5.0 Build 119; SEMCAD X Version 13.2 Build 87

H Scan - H3DV6 - 2007: 15 mm from Probe Center to the Device Middle/Hearing Aid Compatibility Test (101x101x1): Measurement grid: dx=5mm, dy=5mm
Maximum value of peak Total field = 0.115 A/m
Probe Modulation Factor = 1.02
Device Reference Point: 0, 0, -6.3 mm
Reference Value = 0.083 A/m; Power Drift = 0.017 dB
Hearing Aid Near-Field Category: M4 (AWF 0 dB)

Peak H-field in A/m

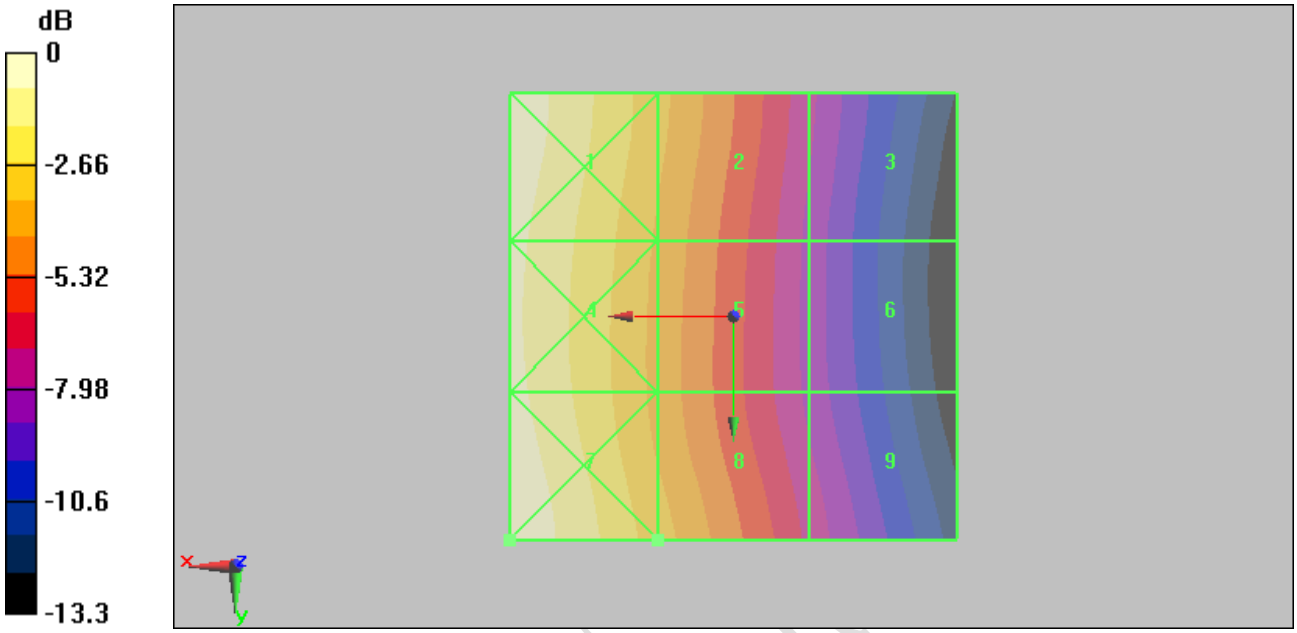
Grid 1 **0.161 M4**	Grid 2 **0.114 M4**	Grid 3 **0.068 M4**
Grid 4 **0.155 M4**	Grid 5 **0.108 M4**	Grid 6 **0.064 M4**
Grid 7 **0.165 M4**	Grid 8 **0.115 M4**	Grid 9 **0.071 M4**

Cursor:

Total = 0.165 A/m

H Category: M4

Location: 25, 25, 8.7 mm



0 dB = 0.165A/m

D.21 H-field FDD band V High Channel

Test Laboratory: CTTL

HAC_RF_H_FDD_BandV_High_Roll

DUT: Alcatel Onetouch900A; Type: Alcatel Onetouch900A; Serial: 012596000000839

Communication System: WCDMA-FDDV; Frequency: 846.6 MHz;Duty Cycle: 1:1
Medium parameters used: σ = 0 mho/m, ε_r = 1; ρ = 1 kg/m^3
Phantom section: RF Section
Measurement Standard: DASY5 (IEEE/IEC)

DASY4 Configuration:

- Probe: H3DV6 - SN6268; ; Calibrated: 2010-5-21
- Sensor-Surface: (Fix Surface)
- Electronics: DAE4 Sn549; Calibrated: 2010-5-20
- Phantom: HAC Test Arch with AMCC; Type: SD HAC P01 BA; Serial: --
- Measurement SW: DASY5, V5.0 Build 119; SEMCAD X Version 13.2 Build 87

H Scan - H3DV6 - 2007: 15 mm from Probe Center to the Device High/Hearing Aid Compatibility Test (101x101x1): Measurement grid: dx=5mm, dy=5mm
Maximum value of peak Total field = 0.116 A/m
Probe Modulation Factor = 1.02
Device Reference Point: 0, 0, -6.3 mm
Reference Value = 0.082 A/m; Power Drift = -0.012 dB
Hearing Aid Near-Field Category: M4 (AWF 0 dB)

Peak H-field in A/m

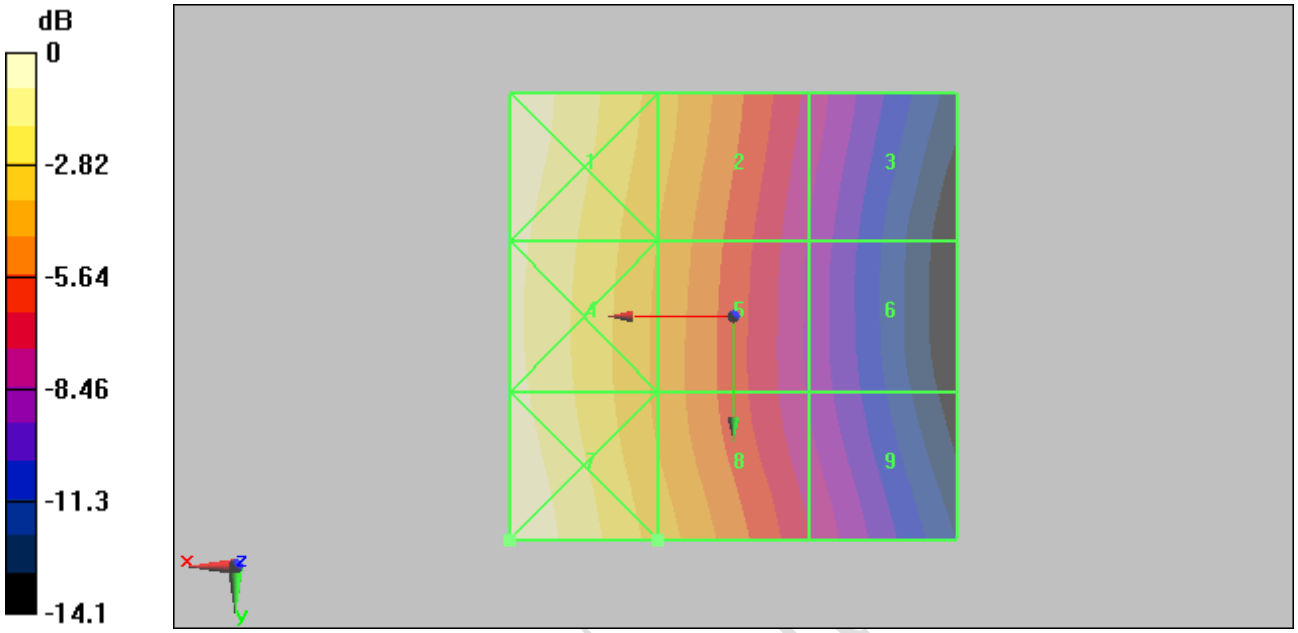
Grid 1 **0.164 M4**	Grid 2 **0.116 M4**	Grid 3 **0.068 M4**
Grid 4 **0.156 M4**	Grid 5 **0.108 M4**	Grid 6 **0.063 M4**
Grid 7 **0.167 M4**	Grid 8 **0.116 M4**	Grid 9 **0.071 M4**

Cursor:

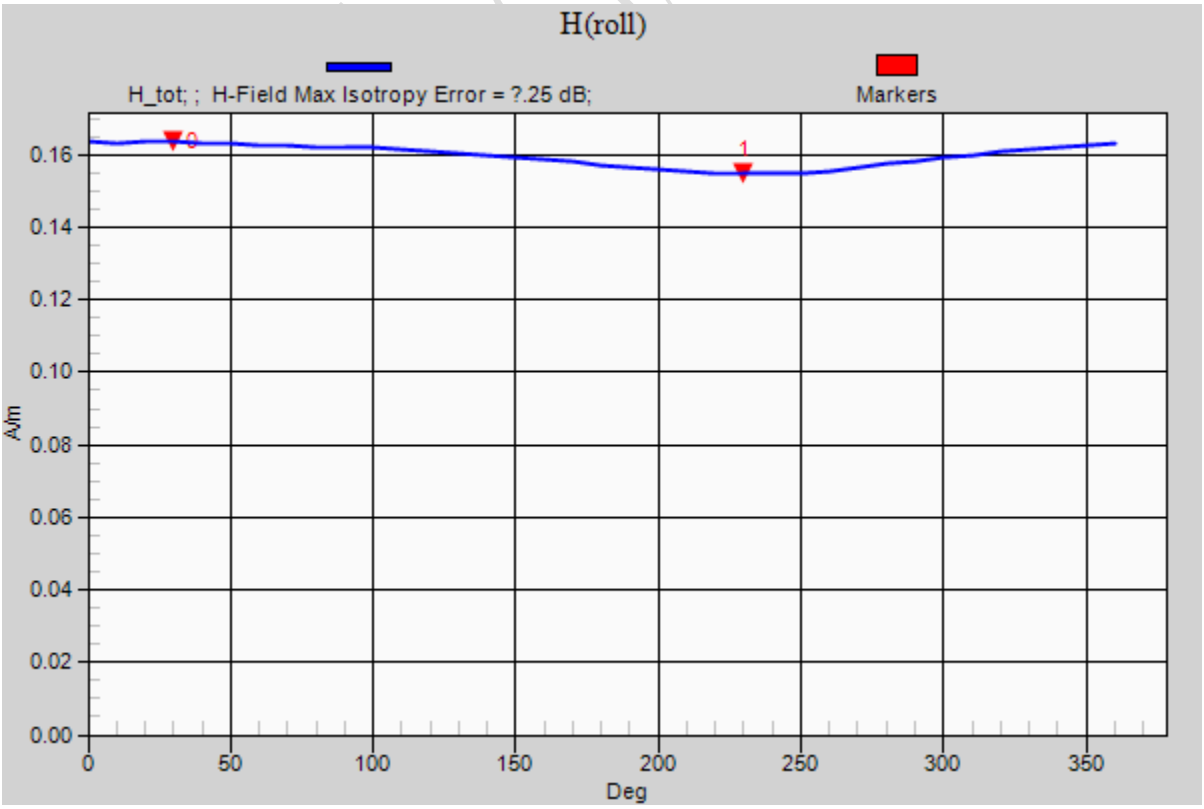
Total = 0.167 A/m

H Category: M4

Location: 25, 25, 8.7 mm



0 dB = 0.167A/m



D.22 H-field FDD band II Low Channel

Test Laboratory: CTTL

HAC_RF_H_FDD_BandII_Low

DUT: Alcatel Onetouch900A; Type: Alcatel Onetouch900A; Serial: 012596000000839

Communication System: W-CDMA Band II; Frequency: 1852.4 MHz;Duty Cycle: 1:1
Medium parameters used: σ = 0 mho/m, ε_r = 1; ρ = 1 kg/m^3
Phantom section: RF Section
Measurement Standard: DASY5 (IEEE/IEC)

DASY4 Configuration:

- Probe: H3DV6 - SN6268; ; Calibrated: 2010-5-21
- Sensor-Surface: (Fix Surface)
- Electronics: DAE4 Sn549; Calibrated: 2010-5-20
- Phantom: HAC Test Arch with AMCC; Type: SD HAC P01 BA; Serial: --
- Measurement SW: DASY5, V5.0 Build 119; SEMCAD X Version 13.2 Build 87

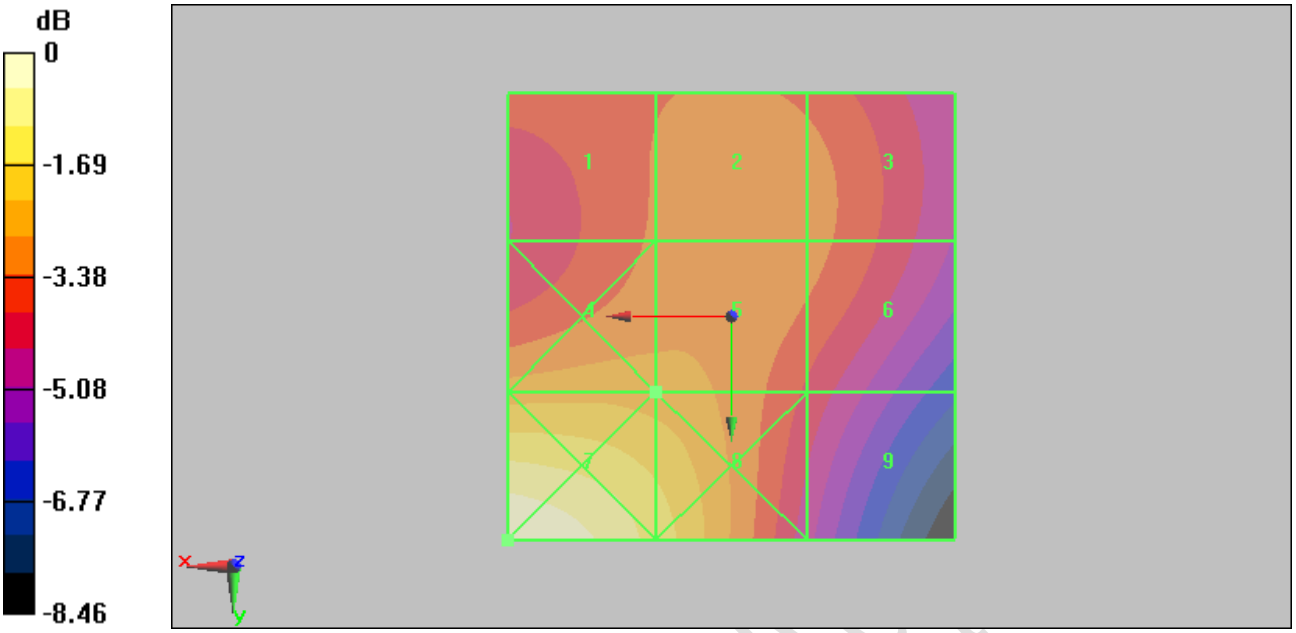
H Scan - H3DV6 - 2007: 15 mm from Probe Center to the Device/Hearing Aid Compatibility Test (101x101x1): Measurement grid: dx=5mm, dy=5mm
Maximum value of peak Total field = 0.074 A/m
Probe Modulation Factor = 0.890
Device Reference Point: 0, 0, -6.3 mm
Reference Value = 0.087 A/m; Power Drift = 0.00432 dB
Hearing Aid Near-Field Category: M4 (AWF 0 dB)

Peak H-field in A/m

Grid 1 **0.068 M4**	Grid 2 **0.071 M4**	Grid 3 **0.069 M4**
Grid 4 **0.075 M4**	Grid 5 **0.074 M4**	Grid 6 **0.069 M4**
Grid 7 **0.099 M4**	Grid 8 **0.085 M4**	Grid 9 **0.062 M4**

Cursor:

Total = 0.099 A/m
H Category: M4
Location: 25, 25, 8.7 mm



0 dB = 0.099A/m

D.23 H-field FDD band II Middle Channel

Test Laboratory: CTTL

HAC_RF_H_FDD_BandII_Middle_Roll

DUT: Alcatel Onetouch900A; Type: Alcatel Onetouch900A; Serial: 012596000000839

Communication System: W-CDMA Band II; Frequency: 1880 MHz;Duty Cycle: 1:1
Medium parameters used: σ = 0 mho/m, ε_r = 1; ρ = 1 kg/m^3
Phantom section: RF Section
Measurement Standard: DASY5 (IEEE/IEC)

DASY4 Configuration:

- Probe: H3DV6 - SN6268; ; Calibrated: 2010-5-21
- Sensor-Surface: (Fix Surface)
- Electronics: DAE4 Sn549; Calibrated: 2010-5-20
- Phantom: HAC Test Arch with AMCC; Type: SD HAC P01 BA; Serial: --
- Measurement SW: DASY5, V5.0 Build 119; SEMCAD X Version 13.2 Build 87

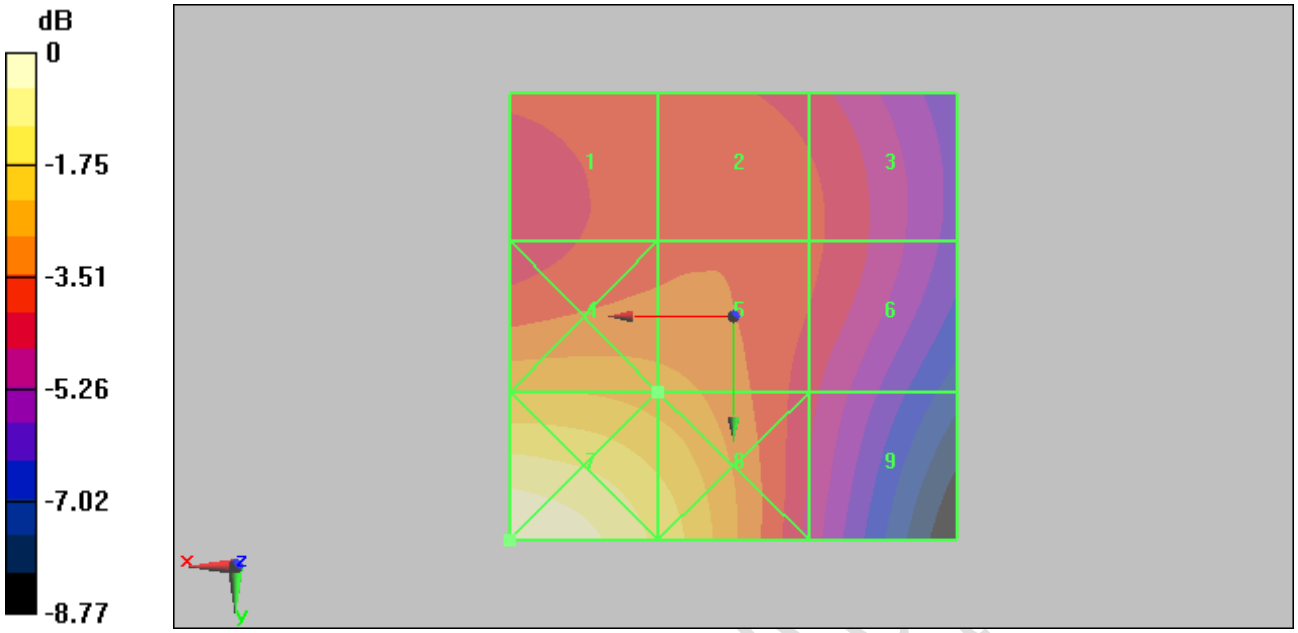
H Scan - H3DV6 - 2007: 15 mm from Probe Center to the Device Middle/Hearing Aid Compatibility Test (101x101x1): Measurement grid: dx=5mm, dy=5mm
Maximum value of peak Total field = 0.085 A/m
Probe Modulation Factor = 0.890
Device Reference Point: 0, 0, -6.3 mm
Reference Value = 0.094 A/m; Power Drift = -0.020 dB
Hearing Aid Near-Field Category: M4 (AWF 0 dB)

Peak H-field in A/m

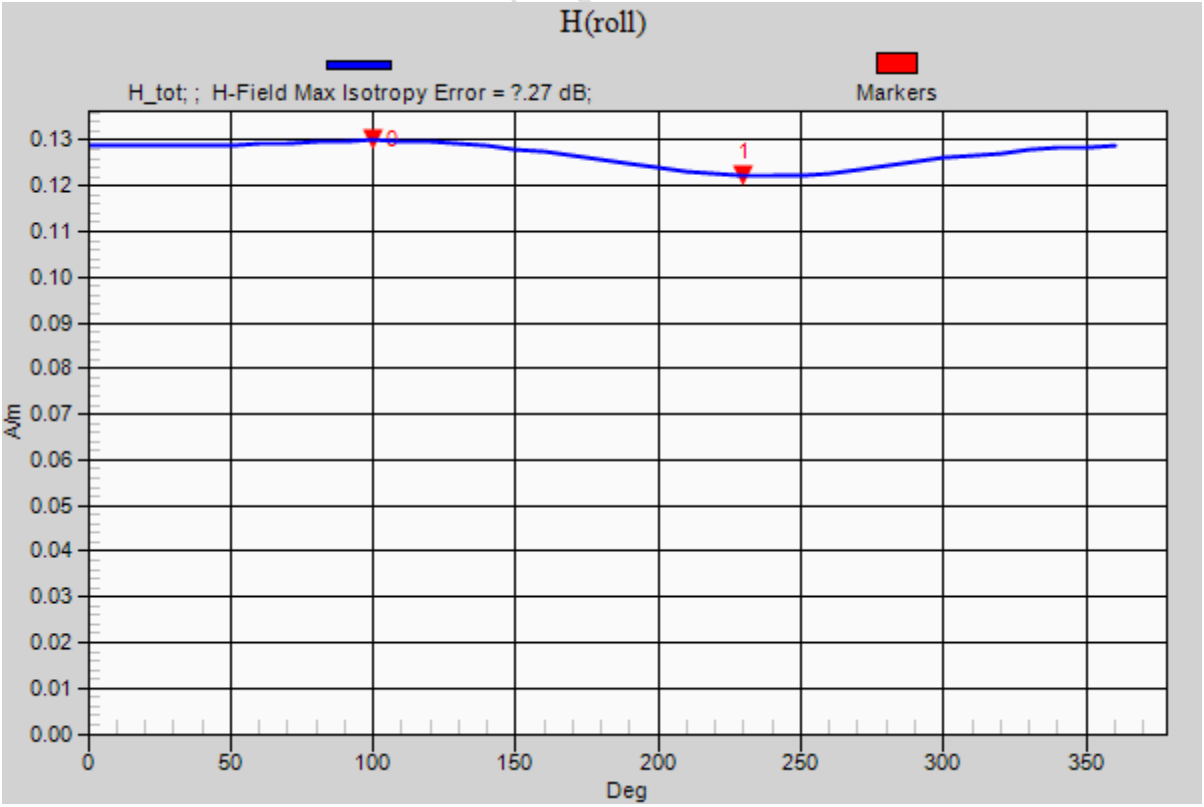
Grid 1 **0.075 M4**	Grid 2 **0.077 M4**	Grid 3 **0.073 M4**
Grid 4 **0.088 M4**	Grid 5 **0.085 M4**	Grid 6 **0.073 M4**
Grid 7 **0.115 M4**	Grid 8 **0.099 M4**	Grid 9 **0.069 M4**

Cursor:

Total = 0.115 A/m
H Category: M4
Location: 25, 25, 8.7 mm



0 dB = 0.115A/m



D.24 H-field FDD band II High Channel

Test Laboratory: CTTL

HAC_RF_H_FDD_BandII_High

DUT: Alcatel Onetouch900A; Type: Alcatel Onetouch900A; Serial: 012596000000839

Communication System: W-CDMA Band II; Frequency: 1907.6 MHz;Duty Cycle: 1:1
Medium parameters used: σ = 0 mho/m, ε_r = 1; ρ = 1 kg/m^3
Phantom section: RF Section
Measurement Standard: DASY5 (IEEE/IEC)

DASY4 Configuration:

- Probe: H3DV6 - SN6268; ; Calibrated: 2010-5-21
- Sensor-Surface: (Fix Surface)
- Electronics: DAE4 Sn549; Calibrated: 2010-5-20
- Phantom: HAC Test Arch with AMCC; Type: SD HAC P01 BA; Serial: --
- Measurement SW: DASY5, V5.0 Build 119; SEMCAD X Version 13.2 Build 87

H Scan - H3DV6 - 2007: 15 mm from Probe Center to the Device High/Hearing Aid Compatibility Test (101x101x1): Measurement grid: dx=5mm, dy=5mm
Maximum value of peak Total field = 0.074 A/m
Probe Modulation Factor = 0.890
Device Reference Point: 0, 0, -6.3 mm
Reference Value = 0.082 A/m; Power Drift = -0.019 dB
Hearing Aid Near-Field Category: M4 (AWF 0 dB)

Peak H-field in A/m

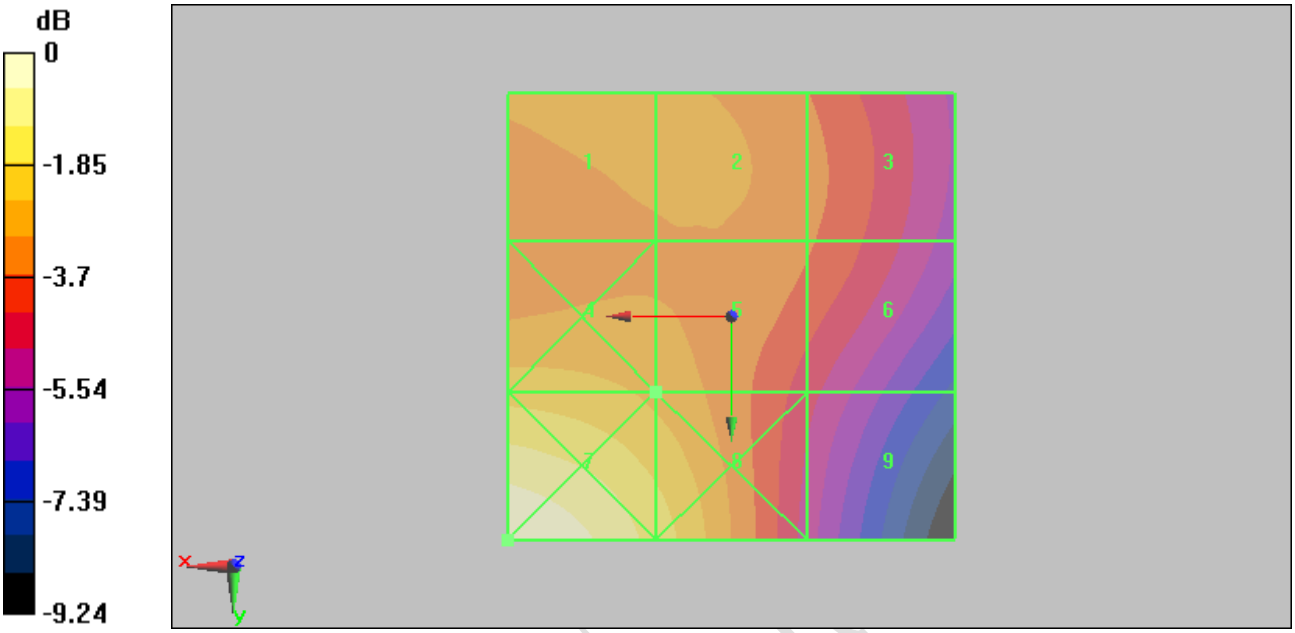
Grid 1 **0.072 M4**	Grid 2 **0.072 M4**	Grid 3 **0.067 M4**
Grid 4 **0.079 M4**	Grid 5 **0.074 M4**	Grid 6 **0.066 M4**
Grid 7 **0.100 M4**	Grid 8 **0.084 M4**	Grid 9 **0.059 M4**

Cursor:

Total = 0.100 A/m

H Category: M4

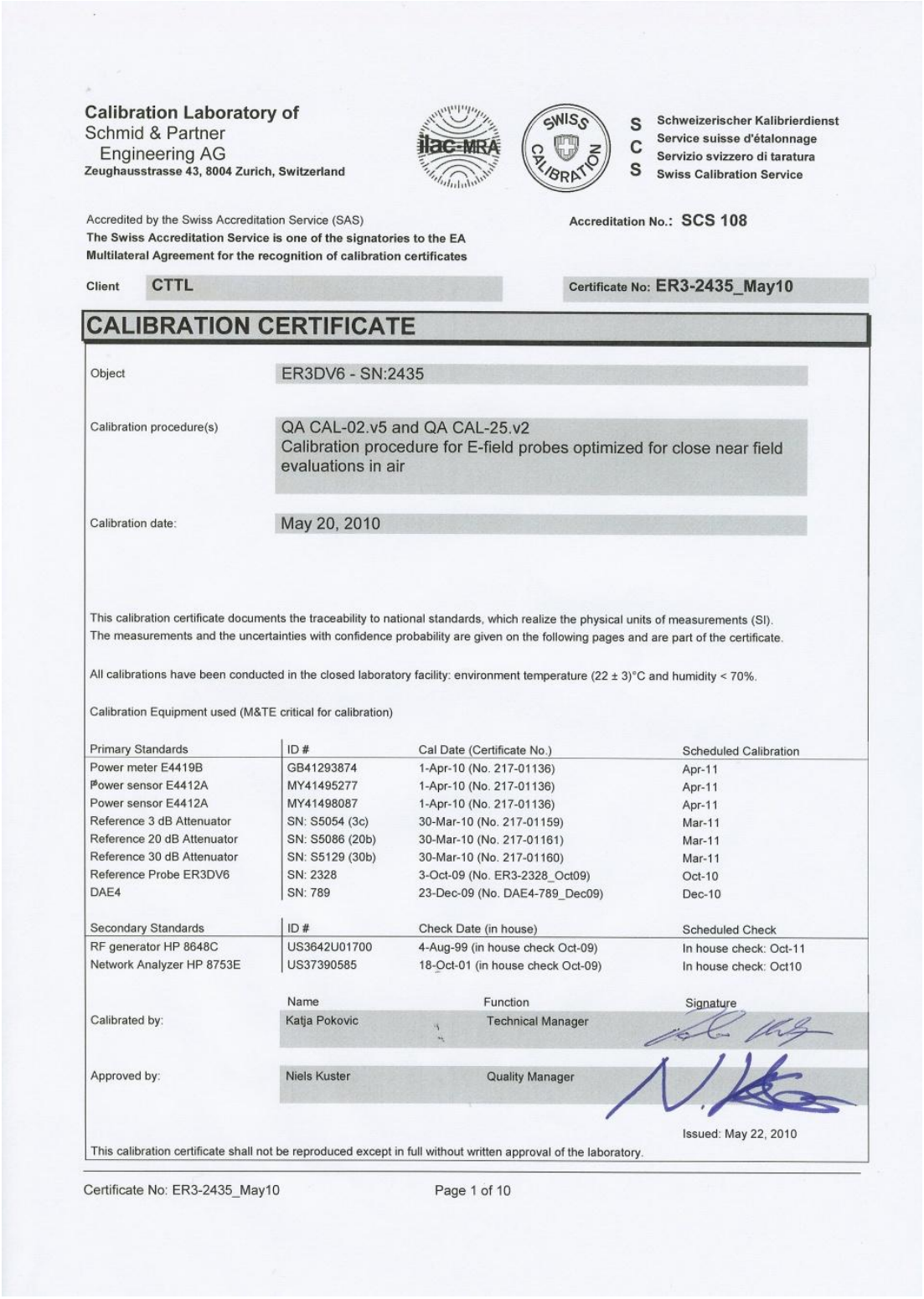
Location: 25, 25, 8.7 mm



0 dB = 0.100A/m

ANNEX E Probes Calibration Certificates

E.1 E-field Probe Certificate



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Accreditation No.: SCS 108

Client CTTL

Certificate No: ER3-2435_May10

CALIBRATION CERTIFICATE

Object ER3DV6 - SN:2435

Calibration procedure(s) QA CAL-02.v5 and QA CAL-25.v2
Calibration procedure for E-field probes optimized for close near field evaluations in air

Calibration date: May 20, 2010

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

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

Calibration Equipment used (M&TE critical for calibration)

Primary Standards	ID #	Cal Date (Certificate No.)	Scheduled Calibration
Power meter E4419B	GB41293874	1-Apr-10 (No. 217-01136)	Apr-11
Power sensor E4412A	MY41495277	1-Apr-10 (No. 217-01136)	Apr-11
Power sensor E4412A	MY41498087	1-Apr-10 (No. 217-01136)	Apr-11
Reference 3 dB Attenuator	SN: S5054 (3c)	30-Mar-10 (No. 217-01159)	Mar-11
Reference 20 dB Attenuator	SN: S5086 (20b)	30-Mar-10 (No. 217-01161)	Mar-11
Reference 30 dB Attenuator	SN: S5129 (30b)	30-Mar-10 (No. 217-01160)	Mar-11
Reference Probe ER3DV6	SN: 2328	3-Oct-09 (No. ER3-2328_Oct09)	Oct-10
DAE4	SN: 789	23-Dec-09 (No. DAE4-789_Dec09)	Dec-10

Secondary Standards	ID #	Check Date (in house)	Scheduled Check
RF generator HP 8648C	US3642U01700	4-Aug-99 (in house check Oct-09)	In house check: Oct-11
Network Analyzer HP 8753E	US37390585	18-Oct-01 (in house check Oct-09)	In house check: Oct10

	Name	Function	Signature
Calibrated by:	Katja Pokovic	Technical Manager	
Approved by:	Niels Kuster	Quality Manager	

Issued: May 22, 2010

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Certificate No: ER3-2435_May10 Page 1 of 10

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Accreditation No.: SCS 108

Glossary:

NORMx,y,z	sensitivity in free space
DCP	diode compression point
CF	crest factor (1/duty_cycle) of the RF signal
A, B, C	modulation dependent linearization parameters
Polarization φ	φ rotation around probe axis
Polarization ϑ	ϑ rotation around an axis that is in the plane normal to probe axis (at measurement center), i.e., ϑ = 0 is normal to probe axis
Connector Angle	information used in DASY system to align probe sensor X to the robot coordinate system

Calibration is Performed According to the Following Standards:

a) IEEE Std 1309-2005, " IEEE Standard for calibration of electromagnetic field sensors and probes, excluding antennas, from 9 kHz to 40 GHz", December 2005.

Methods Applied and Interpretation of Parameters:

- *NORMx,y,z:* Assessed for E-field polarization ϑ = 0 for XY sensors and ϑ = 90 for Z sensor (f ≤ 900 MHz in TEM-cell; f > 1800 MHz: R22 waveguide).
- *NORM(f)x,y,z = NORMx,y,z * frequency_response* (see Frequency Response Chart).
- *DCPx,y,z:* DCP are numerical linearization parameters assessed based on the data of power sweep with CW signal (no uncertainty required). DCP does not depend on frequency nor media.
- *Ax,y,z; Bx,y,z; Cx,y,z, VRx,y,z: A, B, C* are numerical linearization parameters assessed based on the data of power sweep for specific modulation signal. The parameters do not depend on frequency nor media. *VR* is the maximum calibration range expressed in RMS voltage across the diode.
- *Spherical isotropy (3D deviation from isotropy)*: in a locally homogeneous field realized using an open waveguide setup.
- *Sensor Offset*: The sensor offset corresponds to the offset of virtual measurement center from the probe tip (on probe axis). No tolerance required.
- *Connector Angle*: The angle is assessed using the information gained by determining the *NORMx* (no uncertainty required).

ER3DV6 SN:2435 May 20, 2010

Probe ER3DV6

SN:2435

Manufactured:	November 27, 2007
Last calibrated:	April 15, 2009
Recalibrated:	May 20, 2010

Calibrated for DASY/EASY Systems

(Note: non-compatible with DASY2 system!)

ER3DV6 SN:2435 May 20, 2010

DASY/EASY - Parameters of Probe: ER3DV6 SN:2435

Basic Calibration Parameters

	Sensor X	Sensor Y	Sensor Z	Unc (k=2)
Norm ($\mu V/(V/m)^2$)	1.41	1.64	1.89	± 10.1%
DCP (mV)[A]	91.5	93.5	95.9	

Modulation Calibration Parameters

UID	Communication System Name	PAR		A dB	B dBuV	C	VR mV	Unc[E] (k=2)
10000	CW	0.00	X	0.00	0.00	1.00	300	± 1.5 %
			Y	0.00	0.00	1.00	300	
			Z	0.00	0.00	1.00	300	

The reported uncertainty of measurement is stated as the standard uncertainty of measurement multiplied by the coverage factor k=2, which for a normal distribution corresponds to a coverage probability of approximately 95%.

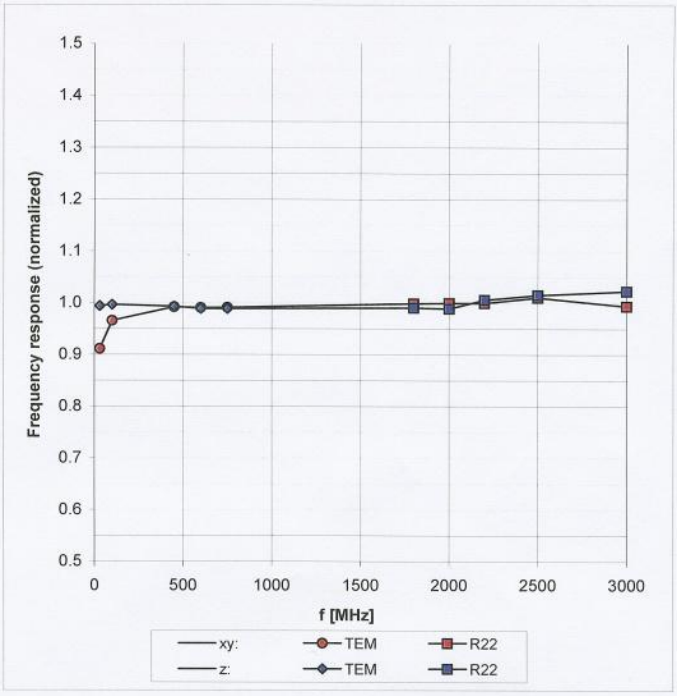
[A] numerical linearization parameter: uncertainty not required

[E] Uncertainty is determined using the maximum deviation from linear response applying recatangular distribution and is expressed for the square of the field value.

ER3DV6 SN:2435 May 20, 2010

Frequency Response of E-Field

(TEM-Cell:ifi110 EXX, Waveguide R22)

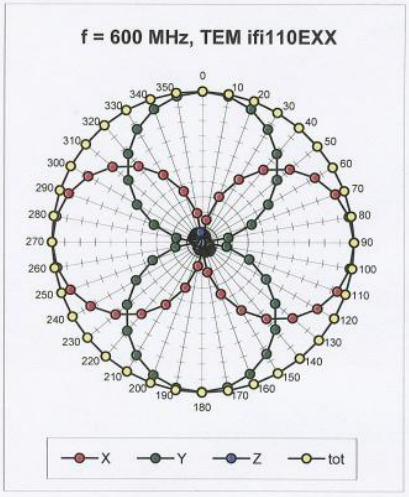


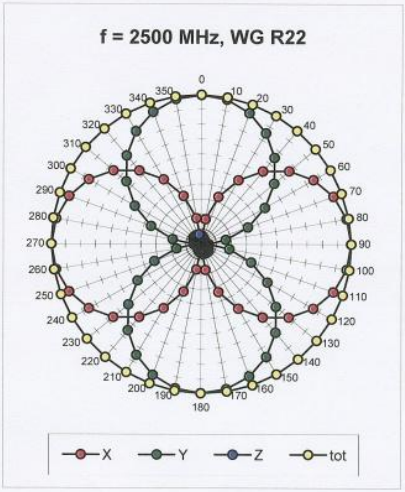
Uncertainty of Frequency Response of E-field: ± 6.3% (k=2)

Certificate No: ER3-2435_May10 Page 5 of 10

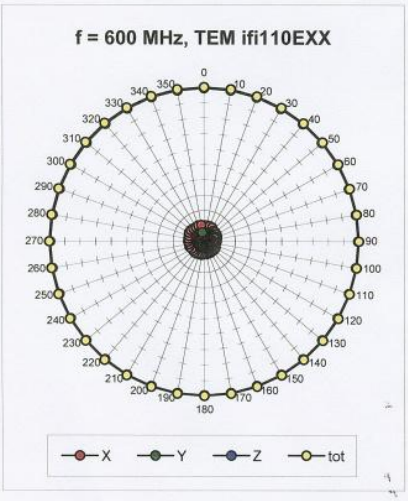
ER3DV6 SN:2435 May 20, 2010

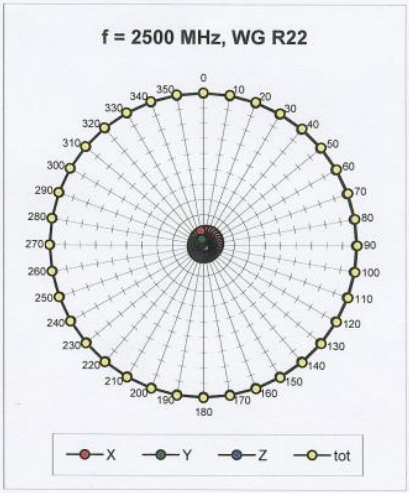
Receiving Pattern (ϕ), ϑ = 0°





Receiving Pattern (ϕ), ϑ = 90°

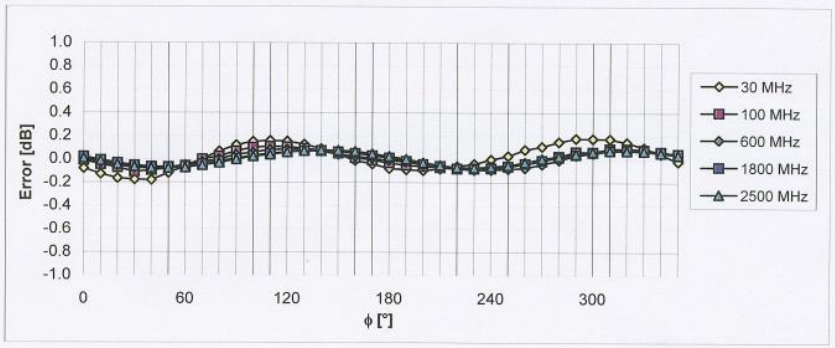




Certificate No: ER3-2435_May10 Page 6 of 10

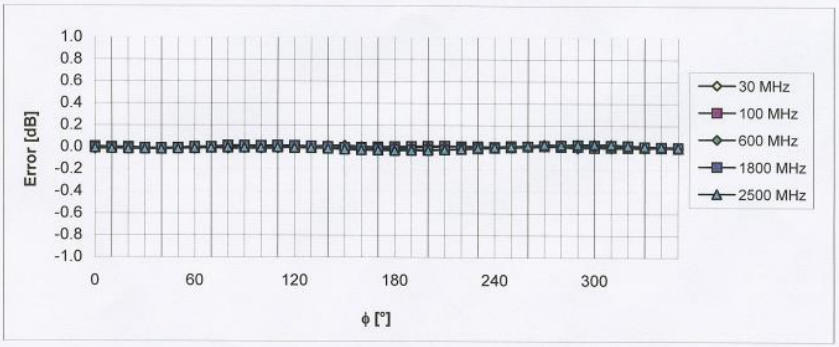
ER3DV6 SN:2435 May 20, 2010

Receiving Pattern (ϕ), ϑ = 0°



Uncertainty of Axial Isotropy Assessment: ± 0.5% (k=2)

Receiving Pattern (ϕ), ϑ = 90°



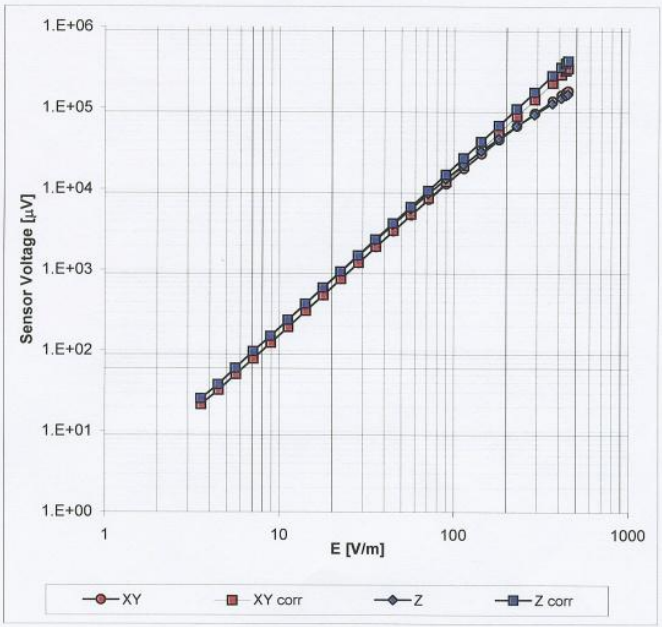
Uncertainty of Axial Isotropy Assessment: ± 0.5% (k=2)

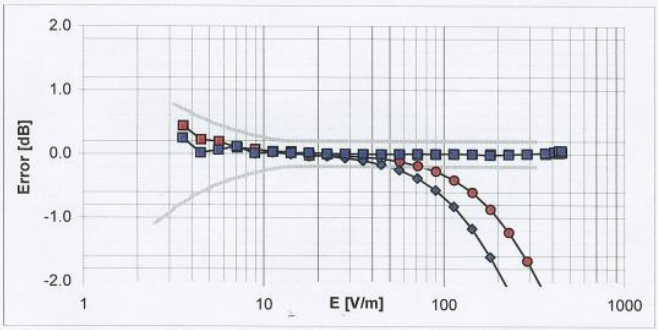
Certificate No: ER3-2435_May10 Page 7 of 10

ER3DV6 SN:2435 May 20, 2010

Dynamic Range f(E-field)

(Waveguide R22, f = 1800 MHz)



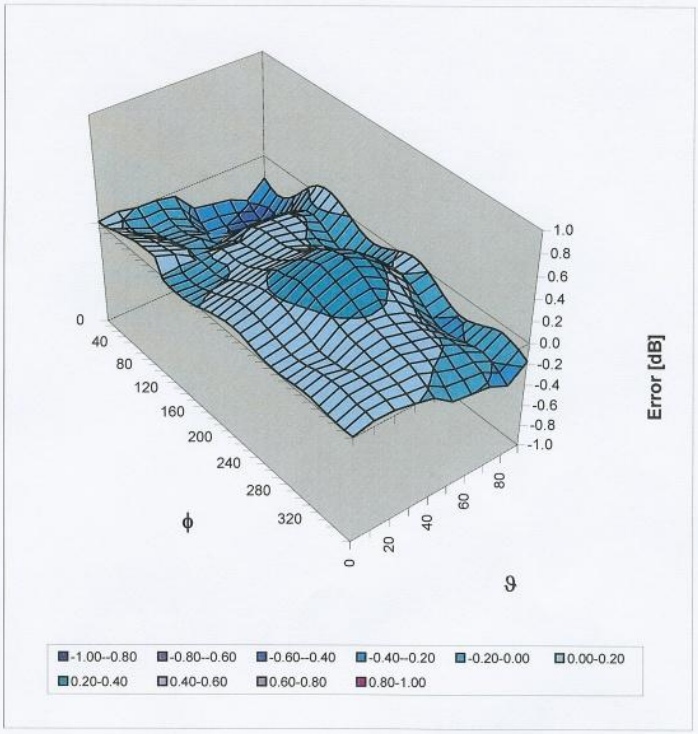


Uncertainty of Linearity Assessment: ± 0.6% (k=2)

Certificate No: ER3-2435_May10 Page 8 of 10

ER3DV6 SN:2435 May 20, 2010

Deviation from Isotropy in Air
Error (ϕ, ϑ), f = 900 MHz



Uncertainty of Spherical Isotropy Assessment: ± 2.6% (k=2)

Certificate No: ER3-2435_May10 Page 9 of 10

ER3DV6 SN:2435 May 20, 2010

Other Probe Parameters

Sensor Arrangement	Rectangular
Connector Angle (°)	-229.7
Mechanical Surface Detection Mode	enabled
Optical Surface Detection Mode	disabled
Probe Overall Length	337 mm
Probe Body Diameter	10 mm
Tip Length	10 mm
Tip Diameter	8.0 mm
Probe Tip to Sensor X Calibration Point	2.5 mm
Probe Tip to Sensor Y Calibration Point	2.5 mm
Probe Tip to Sensor Z Calibration Point	2.5 mm

Certificate No: ER3-2435_May10 Page 10 of 10

E.2 H-field Probe

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Accreditation No.: SCS 108

Client CTTL Certificate No: H3-6268_May10

CALIBRATION CERTIFICATE

Object	H3DV6 - SN:6268
Calibration procedure(s)	QA CAL-03.v5 and QA CAL-25.v2 Calibration procedure for H-field probes optimized for close near field evaluations in air
Calibration date:	May 21, 2010

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

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

Calibration Equipment used (M&TE critical for calibration)

Primary Standards	ID #	Cal Date (Certificate No.)	Scheduled Calibration
Power meter E4419B	GB41293874	1-Apr-10 (No. 217-01136)	Apr-11
Power sensor E4412A	MY41495277	1-Apr-10 (No. 217-01136)	Apr-11
Power sensor E4412A	MY41498087	1-Apr-10 (No. 217-01136)	Apr-11
Reference 3 dB Attenuator	SN: S5054 (3c)	30-Mar-10 (No. 217-01159)	Mar-11
Reference 20 dB Attenuator	SN: S5086 (20b)	30-Mar-10 (No. 217-01161)	Mar-11
Reference 30 dB Attenuator	SN: S5129 (30b)	30-Mar-10 (No. 217-01160)	Mar-11
Reference Probe H3DV6	SN: 6182	3-Oct-09 (No. H3-6182_Oct09)	Oct-10
DAE4	SN: 789	23-Dec-09 (No. DAE4-789_Dec09)	Dec-10

Secondary Standards	ID #	Check Date (in house)	Scheduled Check
RF generator HP 8648C	US3642U01700	4-Aug-99 (in house check Oct-09)	In house check: Oct-11
Network Analyzer HP 8753E	US37390585	18-Oct-01 (in house check Oct-09)	In house check: Oct10

	Name	Function	Signature
Calibrated by:	Claudio Leubler	Laboratory Technician	
Approved by:	Katja Pokovic	Technical Manager	

Issued: May 22, 2010

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Certificate No: H3-6268_May10 Page 1 of 10

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Accreditation No.: SCS 108

Glossary:

NORMx,y,z	sensitivity in free space
DCP	diode compression point
CF	crest factor (1/duty_cycle) of the RF signal
A, B, C	modulation dependent linearization parameters
Polarization φ	φ rotation around probe axis
Polarization ϑ	ϑ rotation around an axis that is in the plane normal to probe axis (at measurement center), i.e., ϑ = 0 is normal to probe axis
Connector Angle	information used in DASY system to align probe sensor X to the robot coordinate system

Calibration is Performed According to the Following Standards:

a) IEEE Std 1309-2005, " IEEE Standard for calibration of electromagnetic field sensors and probes, excluding antennas, from 9 kHz to 40 GHz", December 2005.

Methods Applied and Interpretation of Parameters:

- *NORMx,y,z:* Assessed for E-field polarization ϑ = 0 for XY sensors and ϑ = 90 for Z sensor (f ≤ 900 MHz in TEM-cell; f > 1800 MHz: R22 waveguide).
- *X,Y,Z(f)_a0a1a2= X,Y,Z_a0a1a2* frequency_response* (see Frequency Response Chart).
- *DCPx,y,z:* DCP are numerical linearization parameters assessed based on the data of power sweep with CW signal (no uncertainty required). DCP does not depend on frequency nor media.
- *Ax,y,z; Bx,y,z; Cx,y,z, VRx,y,z*: *A, B, C* are numerical linearization parameters assessed based on the data of power sweep for specific modulation signal. The parameters do not depend on frequency nor media. *VR* is the maximum calibration range expressed in RMS voltage across the diode.
- *Spherical isotropy (3D deviation from isotropy)*: in a locally homogeneous field realized using an open waveguide setup.
- *Sensor Offset*: The sensor offset corresponds to the offset of virtual measurement center from the probe tip (on probe axis). No tolerance required.
- *Connector Angle*: The angle is assessed using the information gained by determining the *X_a0a1a2* (no uncertainty required).

H3DV6 SN:6268 May 21, 2010

Probe H3DV6

SN:6268

Manufactured:	November 30, 2007
Last calibrated:	April 15, 2009
Recalibrated:	May 21, 2010

Calibrated for DASY/EASY Systems

(Note: non-compatible with DASY2 system!)

Certificate No: H3-6268_May10 Page 3 of 10

H3DV6 SN:6268 May 21, 2010

DASY/EASY - Parameters of Probe: H3DV6 SN:6268

Basic Calibration Parameters

		Sensor X	Sensor Y	Sensor Z	Unc (k=2)
Norm (A/m / √(μV))	a0	2.54E-3	2.49E-3	2.92E-3	± 5.1%
Norm (A/m / √(μV))	a1	-5.47E-5	-7.82E-5	-1.17E-4	± 5.1%
Norm (A/m / √(μV))	a2	1.09E-5	-4.09E-6	3.05E-5	± 5.1%
DCP (mV)[A]		86.1	93.5	83.4	

Modulation Calibration Parameters

UID	Communication System Name	PAR		A dB	B dBuV	C	VR mV	Unc[E] (k=2)
10000	CW	0.00	X	0.00	0.00	1.00	300	± 1.5 %
			Y	0.00	0.00	1.00	300	
			Z	0.00	0.00	1.00	300	

The reported uncertainty of measurement is stated as the standard uncertainty of measurement multiplied by the coverage factor k=2, which for a normal distribution corresponds to a coverage probability of approximately 95%.

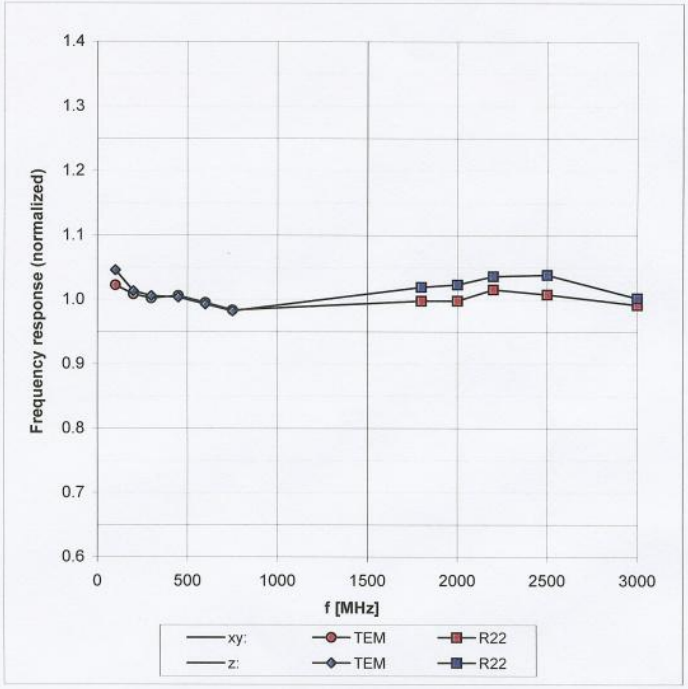
[A] numerical linearization parameter: uncertainty not required

[E] Uncertainty is determined using the maximum deviation from linear response applying recatangular distribution and is expressed for the square of the field value.

H3DV6 SN:6268 May 21, 2010

Frequency Response of H-Field

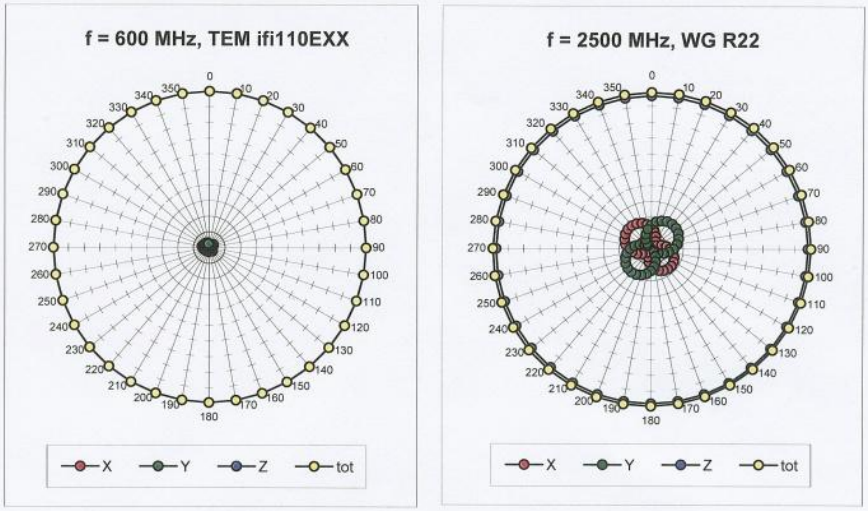
(TEM-Cell:ifi110 EXX, Waveguide R22)



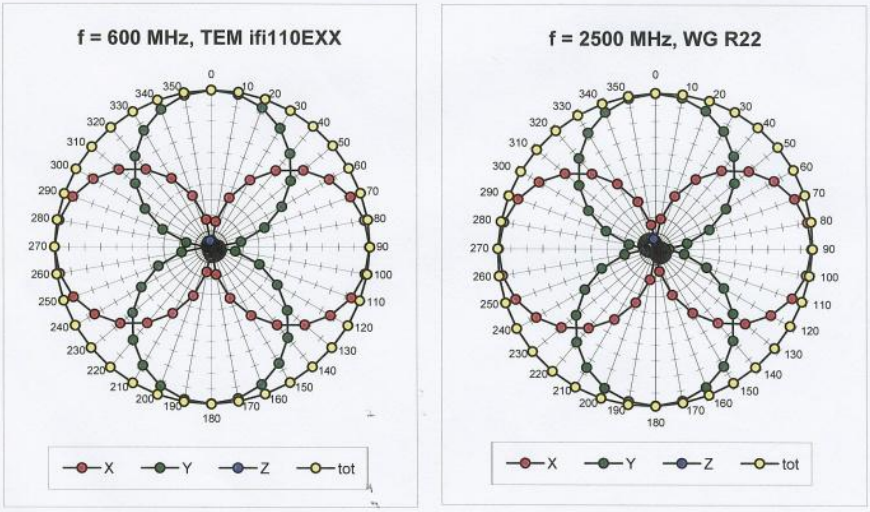
Uncertainty of Frequency Response of H-field: ± 6.3% (k=2)

H3DV6 SN:6268 May 21, 2010

Receiving Pattern (ϕ), ϑ = 90°



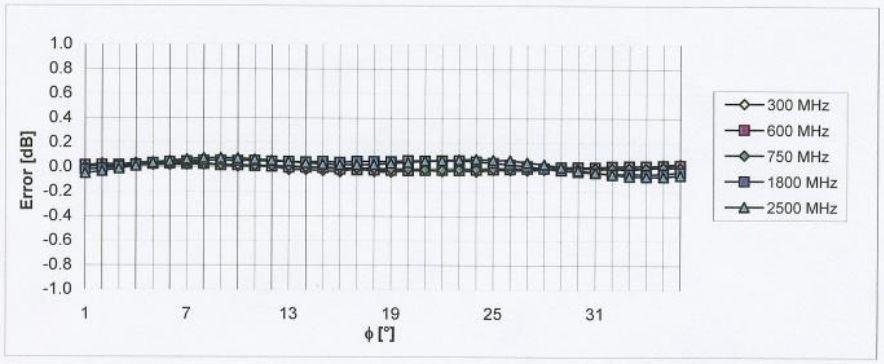
Receiving Pattern (ϕ), ϑ = 0°



Certificate No: H3-6268_May10 Page 6 of 10

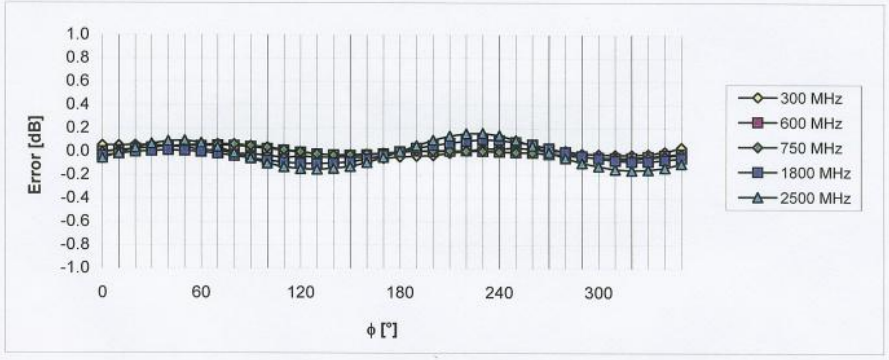
H3DV6 SN:6268 May 21, 2010

Receiving Pattern (ϕ), ϑ = 90°



Uncertainty of Axial Isotropy Assessment: ± 0.5% (k=2)

Receiving Pattern (ϕ), ϑ = 0°



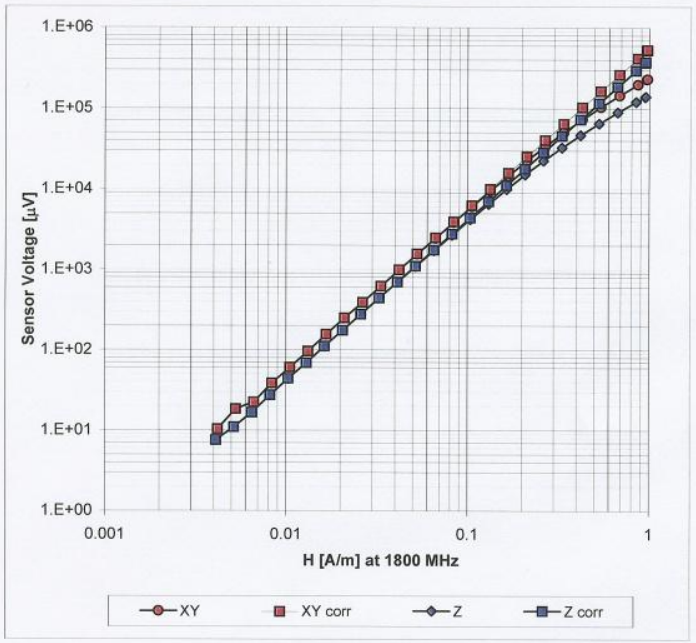
Uncertainty of Axial Isotropy Assessment: ± 0.5% (k=2)

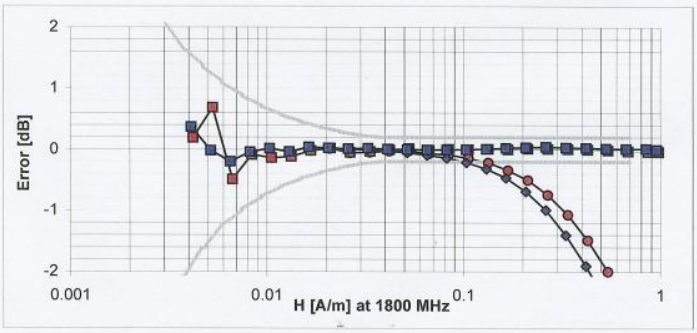
Certificate No: H3-6268_May10 Page 7 of 10

H3DV6 SN:6268 May 21, 2010

Dynamic Range f(H-field)

(Waveguide R22, f = 1800 MHz)



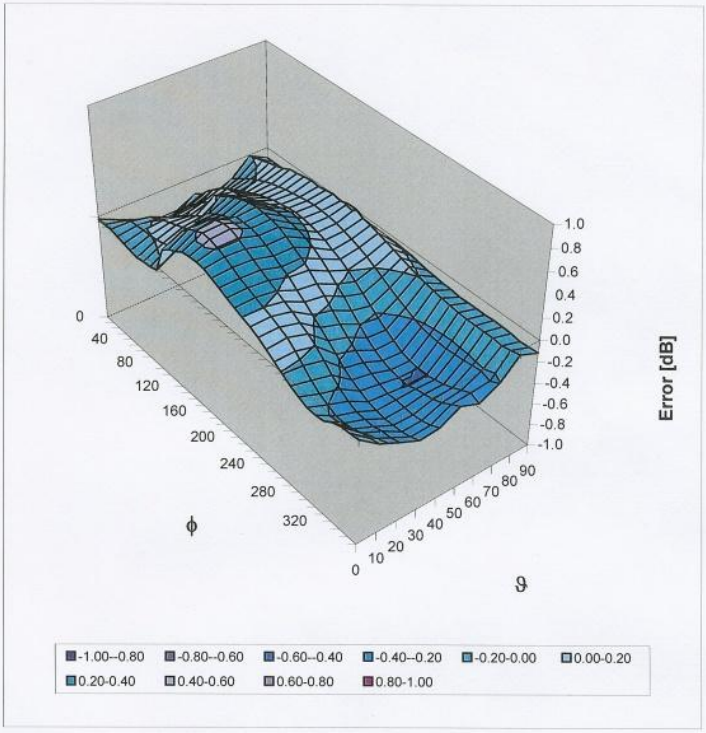


Uncertainty of Linearity Assessment: ± 0.6% (k=2)

Certificate No: H3-6268_May10 Page 8 of 10

H3DV6 SN:6268 May 21, 2010

Deviation from Isotropy in Air
Error (ϕ, ϑ), f = 900 MHz



Uncertainty of Spherical Isotropy Assessment: ± 2.6% (k=2)

H3DV6 SN:6268 May 21, 2010

Other Probe Parameters

Sensor Arrangement	Rectangular
Connector Angle (°)	-224.8
Mechanical Surface Detection Mode	enabled
Optical Surface Detection Mode	disabled
Probe Overall Length	337 mm
Probe Body Diameter	10 mm
Tip Length	20 mm
Tip Diameter	6.0 mm
Probe Tip to Sensor X Calibration Point	3 mm
Probe Tip to Sensor Y Calibration Point	3 mm
Probe Tip to Sensor Z Calibration Point	3 mm

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ANNEX F Deviations from Prescribed Test Methods

No deviation from Prescribed Test Methods.

The End of this Report