

Validation E Field Probe SN2341, Dipole SN1020, 835MHz

Date: 6/12/2009

Communication System: CW, Frequency: 835 MHz, Duty Cycle: 1:1
Medium: Air_1, Medium parameters used: $\sigma = 0$ mho/m, $\epsilon_r = 1$; $\rho = 1000$ kg/m³
Phantom: HAC Test Arch, Phantom section: E Dipole Section

DASY4 Configuration:

Probe: ER3DV6 - SN2341, ConvF(1, 1, 1), Calibrated: 3/10/2009
Sensor-Surface: (Fix Surface),
Electronics: DAE4 Sn530, Calibrated: 3/12/2009
Measurement SW: DASY4, V4.7 Build 71
Postprocessing SW: SEMCAD, V1.8 Build 184

Temperature:

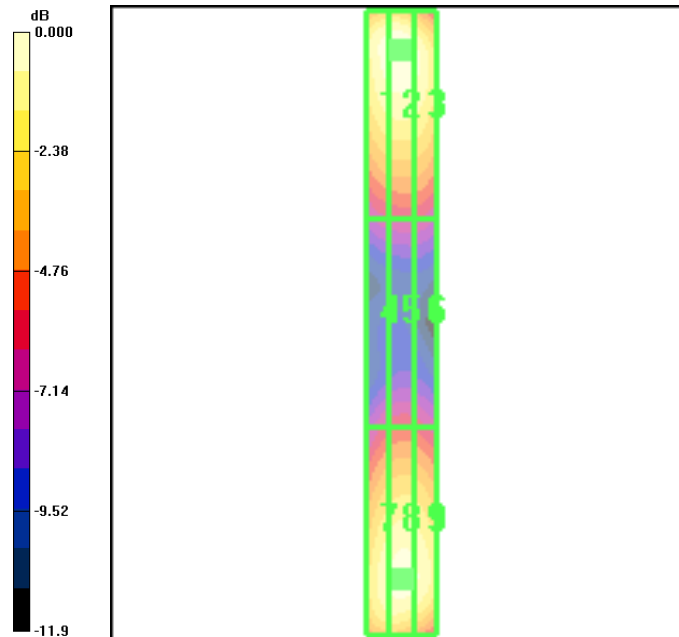
Room T = 21.8 ± 1 deg C, Liquid T = 22.0 ± 1 deg C

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 = 157.2 V/m
Probe Modulation Factor = 1.00
Device Reference Point: 0.000, 0.000, 354.7 mm
Reference Value = 53.1 V/m; Power Drift = 0.074 dB

Peak E-field in V/m

Grid 1 153.7 M4	Grid 2 157.2 M4	Grid 3 150.0 M4
Grid 4 79.9 M4	Grid 5 83.0 M4	Grid 6 81.9 M4
Grid 7 144.3 M4	Grid 8 150.1 M4	Grid 9 147.0 M4



0 dB = 157.2V/m

Date: 6/12/2009

Validation E Field Probe SN2341, Dipole SN1015, 1700MHz

Communication System: CW, Frequency: 1800 MHz, Duty Cycle: 1:1
Medium: Air_1, Medium parameters used: $\sigma = 0$ mho/m, $\epsilon_r = 1$; $\rho = 1000$ kg/m³
Phantom: HAC Test Arch, Phantom section: E Dipole Section

DASY4 Configuration:

Probe: ER3DV6 - SN2341, ConvF(1, 1, 1), Calibrated: 3/10/2009
Sensor-Surface: (Fix Surface),
Electronics: DAE4 Sn530, Calibrated: 3/12/2009
Measurement SW: DASY4, V4.7 Build 71
Postprocessing SW: SEMCAD, V1.8 Build 184

Temperature:

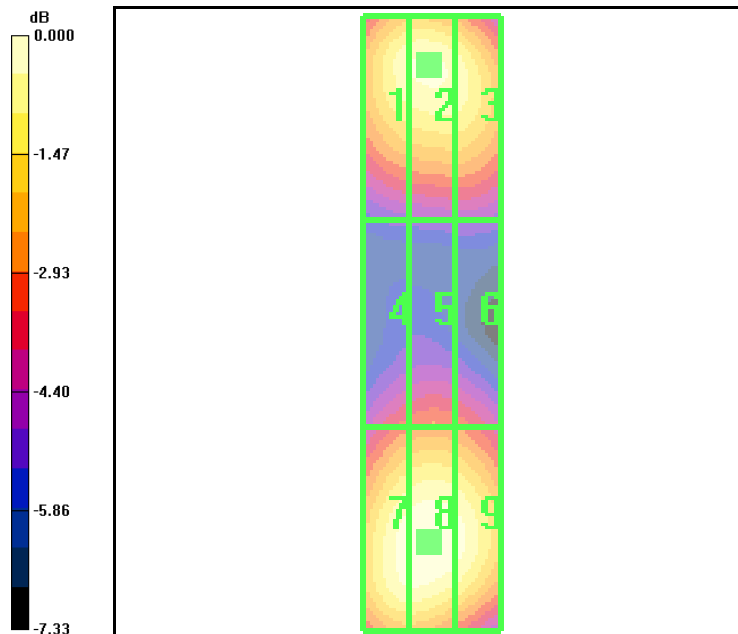
Room T = 21.8̄ 1 deg C, Liquid T = 22.0̄ 1 deg C

E Scan - measurement distance from the probe sensor center to CD1700 Dipole = 10mm/Hearing Aid Compatibility Test

(41x181x1): Measurement grid: dx=5mm, dy=5mm
Maximum value of peak Total field = 138.7 V/m
Probe Modulation Factor = 1.00
Device Reference Point: 0.000, 0.000, 354.7 mm
Reference Value = 113.6 V/m; Power Drift = 0.016 dB

Peak E-field in V/m

Grid 1 130.8 M2	Grid 2 133.1 M2	Grid 3 129.3 M2
Grid 4 97.5 M3	Grid 5 100.6 M3	Grid 6 98.4 M3
Grid 7 136.5 M2	Grid 8 138.7 M2	Grid 9 134.7 M2



0 dB = 138.7V/m

Date: 6/12/2009

Validation E Field Probe SN2341, Dipole SN1015, 1900MHz

Communication System: CW, Frequency: 1900 MHz, Duty Cycle: 1:1
Medium: Air_1, Medium parameters used: $\sigma = 0$ mho/m, $\epsilon_r = 1$; $\rho = 1000$ kg/m³
Phantom: HAC Test Arch, Phantom section: RF Section

DASY4 Configuration:

Probe: ER3DV6 - SN2341, ConvF(1, 1, 1), Calibrated: 3/10/2009
Sensor-Surface: (Fix Surface),
Electronics: DAE4 Sn530, Calibrated: 3/12/2009
Measurement SW: DASY4, V4.7 Build 71
Postprocessing SW: SEMCAD, V1.8 Build 184

Temperature:

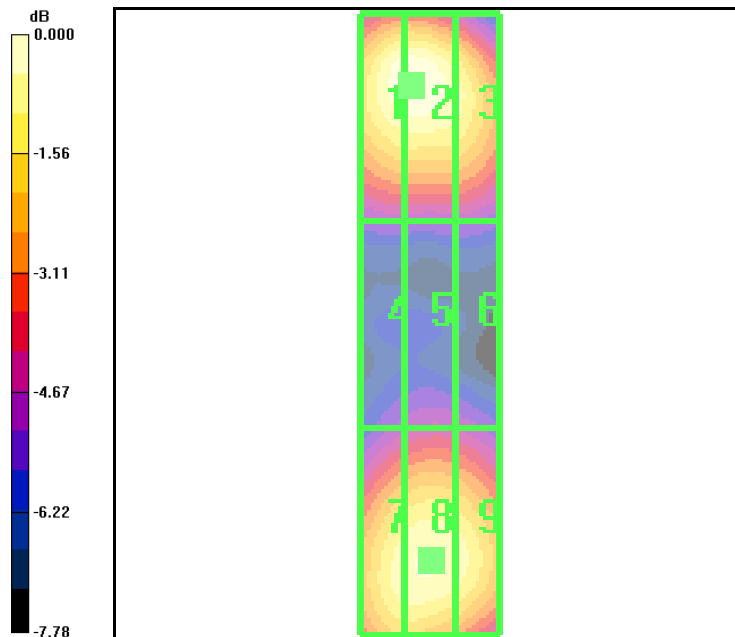
Room T = 21.8 ± 1 deg C, Liquid T = 22.0 ± 1 deg C

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 = 141.3 V/m
Probe Modulation Factor = 1.00
Device Reference Point: 0.000, 0.000, -6.30 mm
Reference Value = 137.9 V/m; Power Drift = -0.170 dB

Peak E-field in V/m

Grid 1 140.4 M2	Grid 2 141.3 M2	Grid 3 131.5 M2
Grid 4 81.3 M3	Grid 5 84.4 M3	Grid 6 83.0 M3
Grid 7 131.5 M2	Grid 8 134.4 M2	Grid 9 131.2 M2



0 dB = 141.3V/m

Date: 6/11/2009

Validation H Field Probe SN6123, Dipole SN1020, 835MHz

Communication System: CW, Frequency: 835 MHz, Duty Cycle: 1:1
Medium: Air_1, Medium parameters used: $\sigma = 0$ mho/m, $\epsilon_r = 1$; $\rho = 1$ kg/m³
Phantom: HAC Test Arch, Phantom section: E Dipole Section

DASY4 Configuration:

Probe: H3DV6 - SN6123, , Calibrated: 8/18/2008
Sensor-Surface: (Fix Surface),
Electronics: DAE4 Sn530, Calibrated: 3/12/2009
Measurement SW: DASY4, V4.7 Build 71
Postprocessing SW: SEMCAD, V1.8 Build 184

Temperature:

Room T = 21.8̄ 1 deg C, Liquid T = 22.0̄ 1 deg C

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 = 0.442 A/m

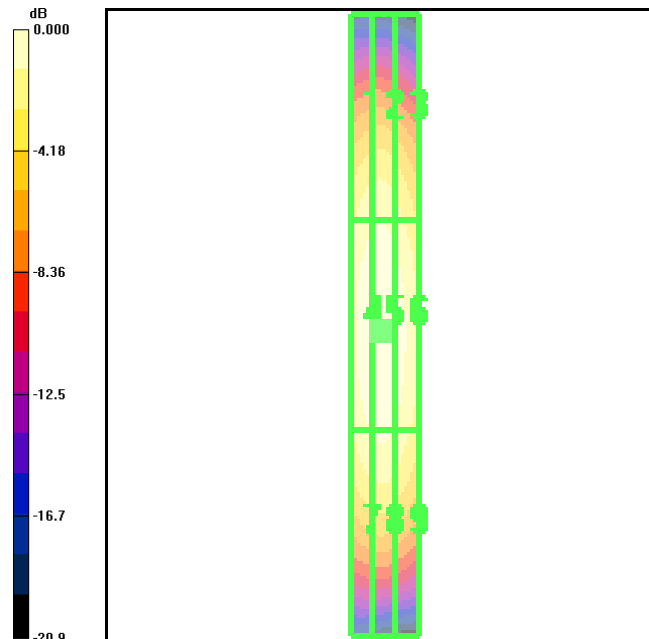
Probe Modulation Factor = 1.00

Device Reference Point: 0.000, 0.000, 354.7 mm

Reference Value = 0.407 A/m; Power Drift = 0.028 dB

Peak H-field in A/m

Grid 1 0.369 M4	Grid 2 0.374 M4	Grid 3 0.344 M4
Grid 4 0.431 M4	Grid 5 0.442 M4	Grid 6 0.411 M4
Grid 7 0.384 M4	Grid 8 0.392 M4	Grid 9 0.364 M4



0 dB = 0.442A/m

Validation H Field Probe SN6123, Dipole SN1015, 1700MHz

Communication System: CW, Frequency: 1800 MHz, Duty Cycle: 1:1
Medium: Air_1, Medium parameters used: $\sigma = 0$ mho/m, $\epsilon_r = 1$; $\rho = 1$ kg/m³
Phantom: HAC Test Arch, Phantom section: E Dipole Section

DASY4 Configuration:

Probe: H3DV6 - SN6123, , Calibrated: 8/18/2008
Sensor-Surface: (Fix Surface),
Electronics: DAE4 Sn530, Calibrated: 3/12/2009
Measurement SW: DASY4, V4.7 Build 71
Postprocessing SW: SEMCAD, V1.8 Build 184

Temperature:

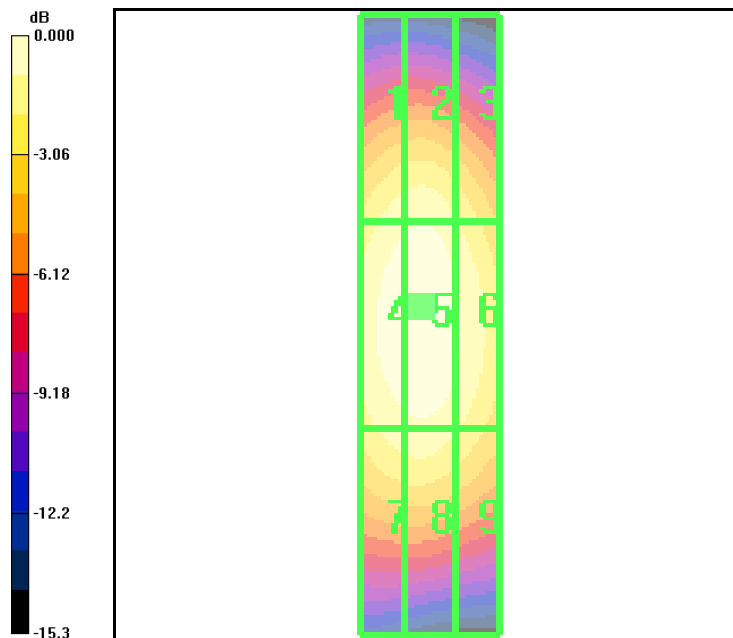
Room T = 21.8̄ 1 deg C, Liquid T = 22.0̄ 1 deg C

H Scan - measurement distance from the probe sensor center to CD1700 Dipole = 10mm/Hearing Aid Compatibility Test

(41x181x1): Measurement grid: dx=5mm, dy=5mm
Maximum value of peak Total field = 0.428 A/m
Probe Modulation Factor = 1.00
Device Reference Point: 0.000, 0.000, 354.7 mm
Reference Value = 0.392 A/m; Power Drift = -0.009 dB

Peak H-field in A/m

Grid 1 0.372 M2	Grid 2 0.380 M2	Grid 3 0.347 M2
Grid 4 0.420 M2	Grid 5 0.428 M2	Grid 6 0.395 M2
Grid 7 0.366 M2	Grid 8 0.372 M2	Grid 9 0.345 M2



0 dB = 0.428A/m

Date: 6/11/2009

Validation H Field Probe SN6123, Dipole SN1015, 1900MHz

Communication System: CW, Frequency: 1900 MHz, Duty Cycle: 1:1
Medium: Air_1, Medium parameters used: $\sigma = 0$ mho/m, $\epsilon_r = 1$; $\rho = 1$ kg/m³
Phantom: HAC Test Arch, Phantom section: H Dipole Section

DASY4 Configuration:

Probe: H3DV6 - SN6123, , Calibrated: 8/18/2008
Sensor-Surface: (Fix Surface),
Electronics: DAE4 Sn530, Calibrated: 3/12/2009
Measurement SW: DASY4, V4.7 Build 71
Postprocessing SW: SEMCAD, V1.8 Build 184

Temperature:

Room T = 21.8̄ 1 deg C, Liquid T = 22.0̄ 1 deg C

H 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 = 0.460 A/m

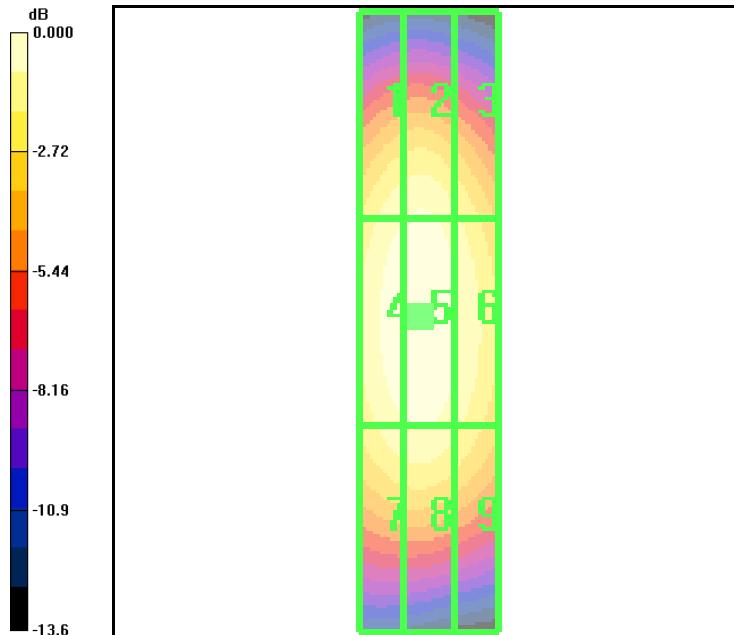
Probe Modulation Factor = 1.00

Device Reference Point: 0.000, 0.000, 354.7 mm

Reference Value = 0.426 A/m; Power Drift = 0.005 dB

Peak H-field in A/m

Grid 1	Grid 2	Grid 3
0.415 M2	0.424 M2	0.388 M2
Grid 4	Grid 5	Grid 6
0.450 M2	0.460 M2	0.426 M2
Grid 7	Grid 8	Grid 9
0.410 M2	0.417 M2	0.387 M2



0 dB = 0.460A/m