

Annex A: Measurement data and plots

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



0 Hz Span CW Plot (835MHz)



0 Hz Span 80% AM Plot (835MHz)





0 Hz Span GSM (835MHz)

Testing Services™	Annex A to Hearing Report for the Black	Aid Compatibility RF Emis Berry® Smartphone model	sions Test RCX71UW	Page 4 (100)
Author Data	Dates of Test	Report No	FCC ID	
Daoud Attayi	Feb. 26-Mar. 04, 2010	RTS-2474-1003-02	L6ARCX70U	W



0 Hz Span CW Plot (1880MHz)

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Daoud Attayi	Feb. 26-Mar. 04, 2010	RTS-2474-1003-02	L6ARCX70U	W
	•	•		
CITE CONTRACTOR				



0 Hz Span 80% AM Plot (1880MHz)



0 Hz Span GSM (1880MHz)

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Daoud Attayi	Feb. 26-Mar. 04, 2010	RTS-2474-1003-02	L6ARCX70U	W



0 Hz Span CW Plot (1733 MHz)



0 Hz Span 80% AM Plot (1733 MHz)

Author Data Data Data Data Data Data Data Dat	Pates of Test Feb. 26-Mar. 04, 2010	Report No RTS-2474-1003-02	FCC ID L6ARCX70UW
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PRESET	62R 1 7 es 39 CBa Att 68 (RBH 10 1912 Narker 1 [T1] = UBH 30 kHz 11.4 80 SHT 2.5 ee 1.97000	2 dBa SELECT MARKER

CENTER = MKR FREQ REF LEVEL - MKR LVL

NEXT PEAK

NEXT PEAK RIGH NEXT PEAK LEFT SEARCH LIMITS 0

- TRI



250 ys/

1.733 GHz

PUR METER

SPECTRUM

Testing Services™	Annex A to Hearing Report for the Black	Aid Compatibility RF Emis Berry® Smartphone model	sions Test RCX71UW	Page 10 (100)
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Daoud Attayi	Feb. 26-Mar. 04, 2010	RTS-2474-1003-02	L6ARCX70U	W

A.2 Dipole validation and probe modulation factor plots



Date/Time: 2/26/2010 5:37:12 PM

Test Laboratory: RIM Testing Services File Name: HAC_E_Dipole_835MHz_.da4

DUT: HAC-Dipole 835 MHz; Type: D835V3; Serial: Not Specified Program Name: HAC RF E Dipole

Communication System: CW; Frequency: 835 MHz; Duty Cycle: 1:1

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

Phantom section: RF Section

DASY4 Configuration:

- Probe: ER3DV6 SN2286; ConvF(1, 1, 1); Calibrated: 1/8/2010
- Sensor-Surface: 0mm (Fix Surface)Sensor-Surface: (Fix Surface)
- Electronics: DAE3 Sn473; Calibrated: 1/4/2010
- Phantom: HAC RF Test Arch with AMCC; Type: SD HAC P01 BA;
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 186

E Scan - measurement distance from the probe sensor center to CD835

Dipole = 10mm/Hearing Aid Compatibility Test (5x37x1): Measurement grid:

dx=5mm, dy=5mm

Probe Modulation Factor = 1.00

Device Reference Point: 0.000, 0.000, -6.30 mm

Reference Value = 128.0 V/m; Power Drift = 0.027 dB

Maximum value of Total (measured) = 174.7 V/m

E Scan - measurement distance from the probe sensor center to CD835

Dipole = 10mm/Hearing Aid Compatibility Test (41x361x1): Measurement grid:



Maximum value of peak Total field = 177.7 V/m

Probe Modulation Factor = 1.00

Device Reference Point: 0.000, 0.000, -6.30 mm

Reference Value = 128.0 V/m; Power Drift = 0.027 dB

Peak E-field in	V/m	
Grid 1	Grid 2	Grid 3
173.7 M4	173.7 M4	161.2 M4
Grid 4	Grid 5	Grid 6
92.7 M4	93.3 M4	86.1 M4
Grid 7	Grid 8	Grid 9
177.7 M4	177.7 M4	158.8 M4





Date/Time: 3/4/2010 11:41:24 AM

Test Laboratory: RIM Testing Services

File Name: <u>HAC_E_Dipole_835MHz_CW_GSM_mod.da4</u>

DUT: HAC-Dipole 835 MHz; Type: D835V3; Serial: Not Specified Program Name: HAC RF E Dipole

Communication System: CW; Frequency: 835 MHz; Duty Cycle: 1:1

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

Phantom section: RF Section

DASY4 Configuration:

- Probe: ER3DV6 - SN2286; ConvF(1, 1, 1); Calibrated: 1/8/2010

- Sensor-Surface: 0mm (Fix Surface)Sensor-Surface: (Fix Surface)

- Electronics: DAE3 Sn473; Calibrated: 1/4/2010

- Phantom: HAC RF Test Arch with AMCC; Type: SD HAC P01 BA;

- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 186

E Scan - measurement distance from the probe sensor center to CD835

Dipole = 10mm/Hearing Aid Compatibility Test (5x37x1): Measurement grid:

dx=5mm, dy=5mm

Probe Modulation Factor = 1.00

Device Reference Point: 0.000, 0.000, -6.30 mm

Reference Value = 108.1 V/m; Power Drift = -0.048 dB

Maximum value of Total (measured) = 169.4 V/m

E Scan - measurement distance from the probe sensor center to CD835 Dipole = 10mm/Hearing Aid Compatibility Test (41x361x1): Measurement grid:



Maximum value of peak Total field = 170.3 V/m

Probe Modulation Factor = 1.00

Device Reference Point: 0.000, 0.000, -6.30 mm

Reference Value = 108.1 V/m; Power Drift = -0.048 dB

Peak E-field in	V/m	
Grid 1	Grid 2	Grid 3
157.1 M4	163.3 M4	160.3 M4
Grid 4	Grid 5	Grid 6
89.5 M4	90.8 M4	87.2 M4
Grid 7	Grid 8	Grid 9
160.0 M4	170.3 M4	167.8 M4





Date/Time: 3/4/2010 12:47:29 PM

Test Laboratory: RIM Testing Services

File Name: HAC_E_Dipole_835MHz_AM80%_GSM_modda4.da4

DUT: HAC-Dipole 835 MHz; Type: D835V3; Serial: Not Specified Program Name: HAC RF E Dipole

Communication System: AM; Frequency: 835 MHz; Duty Cycle: 1:1

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

Phantom section: RF Section

DASY4 Configuration:

- Probe: ER3DV6 - SN2286; ConvF(1, 1, 1); Calibrated: 1/8/2010

- Sensor-Surface: 0mm (Fix Surface)Sensor-Surface: (Fix Surface)

- Electronics: DAE3 Sn473; Calibrated: 1/4/2010

- Phantom: HAC RF Test Arch with AMCC; Type: SD HAC P01 BA;

- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 186

E Scan - measurement distance from the probe sensor center to CD835

Dipole = 10mm/Hearing Aid Compatibility Test (5x37x1): Measurement grid:

dx=5mm, dy=5mm

Probe Modulation Factor = 1.00

Device Reference Point: 0.000, 0.000, -6.30 mm

Reference Value = 69.5 V/m; Power Drift = 0.031 dB

Maximum value of Total (measured) = 108.6 V/m

E Scan - measurement distance from the probe sensor center to CD835

Dipole = 10mm/Hearing Aid Compatibility Test (41x361x1): Measurement grid:



Maximum value of peak Total field = 109.6 V/m

Probe Modulation Factor = 1.00

Device Reference Point: 0.000, 0.000, -6.30 mm

Reference Value = 69.5 V/m; Power Drift = 0.031 dB

Peak E-field in V	//m	
Grid 1	Grid 2	Grid 3
102.8 M4	106.6 M4	105.8 M4
Grid 4	Grid 5	Grid 6
58.2 M4	59.2 M4	57.5 M4
Grid 7	Grid 8	Grid 9
102.7 M4	109.6 M4	108.5 M4





Date/Time: 3/4/2010 11:06:08 AM

Test Laboratory: RIM Testing Services

File Name: <u>HAC_E_Dipole_835MHz_GSM_mod.da4</u>

DUT: HAC-Dipole 835 MHz; Type: D835V3; Serial: Not Specified Program Name: HAC RF E Dipole

Communication System: GSM 850; Frequency: 835 MHz;Duty Cycle: 1:8.3

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

Phantom section: RF Section

DASY4 Configuration:

- Probe: ER3DV6 - SN2286; ConvF(1, 1, 1); Calibrated: 1/8/2010

- Sensor-Surface: 0mm (Fix Surface)Sensor-Surface: (Fix Surface)

- Electronics: DAE3 Sn473; Calibrated: 1/4/2010

- Phantom: HAC RF Test Arch with AMCC; Type: SD HAC P01 BA;

- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 186

E Scan - measurement distance from the probe sensor center to CD835

Dipole = 10mm/Hearing Aid Compatibility Test (5x37x1): Measurement grid:

dx=5mm, dy=5mm

Probe Modulation Factor = 1.00

Device Reference Point: 0.000, 0.000, -6.30 mm

Reference Value = 37.8 V/m; Power Drift = -0.093 dB

Maximum value of Total (measured) = 58.6 V/m

E Scan - measurement distance from the probe sensor center to CD835

Dipole = 10mm/Hearing Aid Compatibility Test (41x361x1): Measurement grid:



Maximum value of peak Total field = 58.8 V/m

Probe Modulation Factor = 1.00

Device Reference Point: 0.000, 0.000, -6.30 mm

Reference Value = 37.8 V/m; Power Drift = -0.093 dB

Peak E-field in	V/m	
Grid 1	Grid 2	Grid 3
53.2 M4	55.7 M4	55.4 M4
Grid 4	Grid 5	Grid 6
30.1 M4	30.9 M4	29.9 M4
Grid 7	Grid 8	Grid 9
55.9 M4	58.8 M4	57.7 M4





Date/Time: 2/26/2010 5:31:16 PM

Test Laboratory: RIM Testing Services

File Name: <u>HAC_E_Dipole_1880MHz.da4</u>

DUT: HAC Dipole 1880 MHz; Type: CD1880V3; Serial: Not Specified Program Name: HAC RF E Dipole

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

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

Phantom section: RF Section

DASY4 Configuration:

- Probe: ER3DV6 - SN2286; ConvF(1, 1, 1); Calibrated: 1/8/2010

- Sensor-Surface: 0mm (Fix Surface)Sensor-Surface: (Fix Surface)

- Electronics: DAE3 Sn473; Calibrated: 1/4/2010

- Phantom: HAC RF Test Arch with AMCC; Type: SD HAC P01 BA;

- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 186

E Scan - measurement distance from the probe sensor center to CD1880

Dipole = 10mm/Hearing Aid Compatibility Test (5x19x1): Measurement grid:

dx=5mm, dy=5mm

Probe Modulation Factor = 1.00

Device Reference Point: 0.000, 0.000, -6.30 mm

Reference Value = 138.0 V/m; Power Drift = -0.068 dB

Maximum value of Total (measured) = 128.6 V/m

E Scan - measurement distance from the probe sensor center to CD1880

Dipole = 10mm/Hearing Aid Compatibility Test (41x181x1): Measurement grid:



Maximum value of peak Total field = 131.5 V/m

Probe Modulation Factor = 1.00

Device Reference Point: 0.000, 0.000, -6.30 mm

Reference Value = 138.0 V/m; Power Drift = -0.068 dB

Peak E-field in V	V/m	
Grid 1	Grid 2	Grid 3
131.2 M2	131.5 M2	123.6 M2
Grid 4	Grid 5	Grid 6
86.6 M3	87.2 M3	81.3 M3
Grid 7	Grid 8	Grid 9
129.7 M2	130.5 M2	119.6 M2





Date/Time: 3/4/2010 2:26:01 PM

Test Laboratory: RIM Testing Services

File Name: HAC_E_Dipole_1880MHz_CW_GSM_mod.da4

DUT: HAC Dipole 1880 MHz; Type: CD1880V3; Serial: Not Specified Program Name: HAC RF E Dipole

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

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

Phantom section: RF Section

DASY4 Configuration:

- Probe: ER3DV6 - SN2286; ConvF(1, 1, 1); Calibrated: 1/8/2010

- Sensor-Surface: 0mm (Fix Surface)Sensor-Surface: (Fix Surface)

- Electronics: DAE3 Sn473; Calibrated: 1/4/2010

- Phantom: HAC RF Test Arch with AMCC; Type: SD HAC P01 BA;

 Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 186

E Scan - measurement distance from the probe sensor center to CD1880

Dipole = 10mm/Hearing Aid Compatibility Test (5x19x1): Measurement grid:

dx=5mm, dy=5mm

Probe Modulation Factor = 1.00

Device Reference Point: 0.000, 0.000, -6.30 mm

Reference Value = 105.6 V/m; Power Drift = -0.024 dB

Maximum value of Total (measured) = 99.7 V/m

E Scan - measurement distance from the probe sensor center to CD1880 **Dipole = 10mm/Hearing Aid Compatibility Test (41x181x1):** Measurement grid:



Maximum value of peak Total field = 100.9 V/m

Probe Modulation Factor = 1.00

Device Reference Point: 0.000, 0.000, -6.30 mm

Reference Value = 105.6 V/m; Power Drift = -0.024 dB

	v/III	
Grid 1	Grid 2	Grid 3
99.7 M3	99.8 M3	92.6 M3
Grid 4	Grid 5	Grid 6
66.5 M3	67.4 M3	63.5 M3
66.5 M3 Grid 7	67.4 M3 Grid 8	63.5 M3 Grid 9





Date/Time: 3/4/2010 2:32:58 PM

L6ARCX70UW

Test Laboratory: RIM Testing Services

File Name: HAC_E_Dipole_1880MHz_AM80%_GSM.da4

DUT: HAC Dipole 1880 MHz; Type: CD1880V3; Serial: Not Specified Program Name: HAC RF E Dipole

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

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

Phantom section: RF Section

DASY4 Configuration:

- Probe: ER3DV6 - SN2286; ConvF(1, 1, 1); Calibrated: 1/8/2010

- Sensor-Surface: 0mm (Fix Surface)Sensor-Surface: (Fix Surface)

- Electronics: DAE3 Sn473; Calibrated: 1/4/2010

- Phantom: HAC RF Test Arch with AMCC; Type: SD HAC P01 BA;

 Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 186

E Scan - measurement distance from the probe sensor center to CD1880

Dipole = 10mm/Hearing Aid Compatibility Test (5x19x1): Measurement grid:

dx=5mm, dy=5mm

Probe Modulation Factor = 1.00

Device Reference Point: 0.000, 0.000, -6.30 mm

Reference Value = 66.9 V/m; Power Drift = -0.043 dB

Maximum value of Total (measured) = 63.3 V/m

E Scan - measurement distance from the probe sensor center to CD1880 **Dipole = 10mm/Hearing Aid Compatibility Test (41x181x1):** Measurement grid:



Maximum value of peak Total field = 63.9 V/m

Probe Modulation Factor = 1.00

Device Reference Point: 0.000, 0.000, -6.30 mm

Reference Value = 66.9 V/m; Power Drift = -0.043 dB

Peak E-field in	NV/m	
Grid 1	Grid 2	Grid 3
62.8 M4	62.8 M4	58.7 M4
Grid 4	Grid 5	Grid 6
42.1 M4	42.8 M4	40.4 M4
Grid 7	Grid 8	Grid 9
62.7 M4	63.9 M3	59.5 M4





Date/Time: 3/4/2010 1:58:33 PM

Test Laboratory: RIM Testing Services

File Name: <u>HAC_E_Dipole_1880MHz_GSM_mod.da4</u>

DUT: HAC Dipole 1880 MHz; Type: CD1880V3; Serial: Not Specified Program Name: HAC RF H3DV6 Dipole

Communication System: GSM 1900; Frequency: 1880 MHz; Duty Cycle: 1:8.3

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

Phantom section: RF Section

DASY4 Configuration:

- Probe: ER3DV6 - SN2286; ConvF(1, 1, 1); Calibrated: 1/8/2010

- Sensor-Surface: 0mm (Fix Surface)Sensor-Surface: (Fix Surface)

- Electronics: DAE3 Sn473; Calibrated: 1/4/2010

- Phantom: HAC RF Test Arch with AMCC; Type: SD HAC P01 BA;

- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 186

H Scan - measurement distance from the probe sensor center to CD1880

Dipole = 10mm/Hearing Aid Compatibility Test (5x19x1): Measurement grid:

dx=5mm, dy=5mm

Probe Modulation Factor = 1.00

Device Reference Point: 0.000, 0.000, -6.30 mm

Reference Value = 19.1 V/m; Power Drift = -0.041 dB

Maximum value of Total (measured) = 36.3 V/m

H Scan - measurement distance from the probe sensor center to CD1880

Dipole = 10mm/Hearing Aid Compatibility Test (41x181x1): Measurement grid:



Maximum value of peak Total field = 36.8 V/m

Probe Modulation Factor = 1.00

Device Reference Point: 0.000, 0.000, -6.30 mm

Reference Value = 19.1 V/m; Power Drift = -0.041 dB

Hearing Aid Near-Field Category: M4 (AWF -5 dB)

Peak E-field in V/m

Grid 1	Grid 2	Grid 3
36.1 M4	36.1 M4	33.5 M4
Grid 4	Grid 5	Grid 6
23.6 M4	24.0 M4	22.4 M4
Grid 7	Grid 8	Grid 9
36.4 M4	36.8 M4	33.8 M4





Date/Time: 3/4/2010 2:50:24 PM

Test Laboratory: RIM Testing Services

File Name: HAC_E_Dipole_1733MHz_CW_WCDMA_mod.da4

DUT: HAC Dipole 1880 MHz; Type: CD1880V3; Serial: Not Specified Program Name: HAC RF E Dipole

Communication System: CW; Frequency: 1733 MHz; Duty Cycle: 1:1

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

Phantom section: RF Section

DASY4 Configuration:

- Probe: ER3DV6 - SN2286; ConvF(1, 1, 1); Calibrated: 1/8/2010

- Sensor-Surface: 0mm (Fix Surface)Sensor-Surface: (Fix Surface)

- Electronics: DAE3 Sn473; Calibrated: 1/4/2010

- Phantom: HAC RF Test Arch with AMCC; Type: SD HAC P01 BA;

 Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 186

E Scan - measurement distance from the probe sensor center to CD1880

Dipole = 10mm/Hearing Aid Compatibility Test (5x19x1): Measurement grid:

dx=5mm, dy=5mm

Probe Modulation Factor = 1.00

Device Reference Point: 0.000, 0.000, -6.30 mm

Reference Value = 55.6 V/m; Power Drift = 0.027 dB

Maximum value of Total (measured) = 52.3 V/m

E Scan - measurement distance from the probe sensor center to CD1880

Dipole = 10mm/Hearing Aid Compatibility Test (41x181x1): Measurement grid:



Maximum value of peak Total field = 53.2 V/m

Probe Modulation Factor = 1.00

Device Reference Point: 0.000, 0.000, -6.30 mm

Reference Value = 55.6 V/m; Power Drift = 0.027 dB

Peak E-field in	n V/m	
Grid 1	Grid 2	Grid 3
51.3 M4	51.3 M4	47.7 M4
Grid 4	Grid 5	Grid 6
36.8 M4	37.1 M4	34.2 M4
Grid 7	Grid 8	Grid 9
52.6 M4	53.2 M4	48.6 M4





Date/Time: 3/4/2010 3:00:33 PM

Test Laboratory: RIM Testing Services

File Name: HAC_E_Dipole_1733MHz_AM80%.da4

DUT: HAC Dipole 1880 MHz; Type: CD1880V3; Serial: Not Specified Program Name: HAC RF E Dipole

Communication System: AM; Frequency: 1733 MHz; Duty Cycle: 1:1

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

Phantom section: RF Section

DASY4 Configuration:

- Probe: ER3DV6 - SN2286; ConvF(1, 1, 1); Calibrated: 1/8/2010

- Sensor-Surface: 0mm (Fix Surface)Sensor-Surface: (Fix Surface)

- Electronics: DAE3 Sn473; Calibrated: 1/4/2010

- Phantom: HAC RF Test Arch with AMCC; Type: SD HAC P01 BA;

 Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 186

E Scan - measurement distance from the probe sensor center to CD1880

Dipole = 10mm/Hearing Aid Compatibility Test (5x19x1): Measurement grid:

dx=5mm, dy=5mm

Probe Modulation Factor = 1.00

Device Reference Point: 0.000, 0.000, -6.30 mm

Reference Value = 35.3 V/m; Power Drift = 0.029 dB

Maximum value of Total (measured) = 33.2 V/m

E Scan - measurement distance from the probe sensor center to CD1880 **Dipole = 10mm/Hearing Aid Compatibility Test (41x181x1):** Measurement grid:



Maximum value of peak Total field = 33.7 V/m

Probe Modulation Factor = 1.00

Device Reference Point: 0.000, 0.000, -6.30 mm

Reference Value = 35.3 V/m; Power Drift = 0.029 dB

Peak E-field in	V/m	
Grid 1	Grid 2	Grid 3
32.5 M4	32.5 M4	30.3 M4
Grid 4	Grid 5	Grid 6
23.4 M4	23.6 M4	21.7 M4
Grid 7	Grid 8	Grid 9
33.4 M4	33.7 M4	31.0 M4





Date/Time: 3/4/2010 2:13:44 PM

Test Laboratory: RIM Testing Services

File Name: HAC_E_Dipole_1733MHz_WCDMA_mod.da4

DUT: HAC Dipole 1880 MHz; Type: CD1880V3; Serial: Not Specified Program Name: HAC RF E Dipole

Communication System: WCDMA FDD IV; Frequency: 1732.6 MHz;Duty Cycle: 1:1

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

Phantom section: RF Section

DASY4 Configuration:

- Probe: ER3DV6 - SN2286; ConvF(1, 1, 1); Calibrated: 1/8/2010

- Sensor-Surface: 0mm (Fix Surface)Sensor-Surface: (Fix Surface)

- Electronics: DAE3 Sn473; Calibrated: 1/4/2010

- Phantom: HAC RF Test Arch with AMCC; Type: SD HAC P01 BA;

 Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 186

E Scan - measurement distance from the probe sensor center to CD1880

Dipole = 10mm/Hearing Aid Compatibility Test (5x19x1): Measurement grid:

dx=5mm, dy=5mm

Probe Modulation Factor = 1.00

Device Reference Point: 0.000, 0.000, -6.30 mm

Reference Value = 56.9 V/m; Power Drift = 0.012 dB

Maximum value of Total (measured) = 53.6 V/m

E Scan - measurement distance from the probe sensor center to CD1880

Dipole = 10mm/Hearing Aid Compatibility Test (41x181x1): Measurement grid:



Maximum value of peak Total field = 54.3 V/m

Probe Modulation Factor = 1.00

Device Reference Point: 0.000, 0.000, -6.30 mm

Reference Value = 56.9 V/m; Power Drift = 0.012 dB

Peak E-field in	V/m	
Grid 1	Grid 2	Grid 3
52.3 M4	52.4 M4	48.7 M4
Grid 4	Grid 5	Grid 6
37.6 M4	37.9 M4	35.2 M4
Grid 7	Grid 8	Grid 9
53.5 M4	54.3 M4	50.0 M4







Date/Time: 3/1/2010 9:24:08 AM

Test Laboratory: RIM Testing Services

File Name: <u>HAC_H_Dipole_835MHz.da4</u>

DUT: HAC-Dipole 835 MHz; Type: D835V3; Serial: Not Specified Program Name: HAC RF H3DV6 Dipole

Communication System: CW; Frequency: 835 MHz; Duty Cycle: 1:1

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

Phantom section: RF Section

DASY4 Configuration:

- Probe: H3DV6 - SN6105; ; Calibrated: 11/13/2009

- Sensor-Surface: 0mm (Fix Surface)Sensor-Surface: (Fix Surface)

- Electronics: DAE3 Sn473; Calibrated: 1/4/2010

- Phantom: HAC RF Test Arch with AMCC; Type: SD HAC P01 BA;

- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 186

H Scan - measurement distance from the probe sensor center to CD835

Dipole = 10mm/Hearing Aid Compatibility Test (5x37x1): Measurement grid:

dx=5mm, dy=5mm

Probe Modulation Factor = 1.00

Device Reference Point: 0.000, 0.000, -6.30 mm

Reference Value = 0.523 A/m; Power Drift = -0.122 dB

Maximum value of Total (measured) = 0.492 A/m

H Scan - measurement distance from the probe sensor center to CD835 Dipole = 10mm/Hearing Aid Compatibility Test (41x361x1): Measurement grid:



Maximum value of peak Total field = 0.492 A/m

Probe Modulation Factor = 1.00

Device Reference Point: 0.000, 0.000, -6.30 mm

Reference Value = 0.523 A/m; Power Drift = -0.122 dB

Hearing Aid Near-Field Category: M4 (AWF 0 dB)

Grid 1	Grid 2	Grid 3
0.397 M4	0.416 M4	0.397 M4
Grid 4	Grid 5	Grid 6
0.466 M4	0.492 M4	0.469 M4
Grid 7	Grid 8	Grid 9
0.426 M4	0.444 M4	0.417 M4

Peak H-field in A/m





Date/Time: 3/4/2010 4:23:41 PM

Test Laboratory: RIM Testing Services

File Name: <u>HAC_H_Dipole_835MHz_CW_GSM_mod.da4</u>

DUT: HAC-Dipole 835 MHz; Type: D835V3; Serial: Not Specified Program Name: HAC RF H3DV6 Dipole

Communication System: CW; Frequency: 835 MHz;Duty Cycle: 1:1

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

Phantom section: RF Section

DASY4 Configuration:

- Probe: H3DV6 - SN6105; ; Calibrated: 11/13/2009

- Sensor-Surface: 0mm (Fix Surface)Sensor-Surface: (Fix Surface)

- Electronics: DAE3 Sn473; Calibrated: 1/4/2010

- Phantom: HAC RF Test Arch with AMCC; Type: SD HAC P01 BA;

- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 186

H Scan - measurement distance from the probe sensor center to CD835

Dipole = 10mm/Hearing Aid Compatibility Test (5x11x1): Measurement grid:

dx=5mm, dy=5mm

Probe Modulation Factor = 1.00

Device Reference Point: 0.000, 0.000, -6.30 mm

Reference Value = 0.546 A/m; Power Drift = 0.046 dB

Maximum value of Total (measured) = 0.518 A/m

H Scan - measurement distance from the probe sensor center to CD835 Dipole = 10mm/Hearing Aid Compatibility Test (41x101x1): Measurement grid:



Maximum value of peak Total field = 0.518 A/m

Probe Modulation Factor = 1.00

Device Reference Point: 0.000, 0.000, -6.30 mm

Reference Value = 0.546 A/m; Power Drift = 0.046 dB

Grid 1	Grid 2	Grid 3
0.476 M4	0.501 M4	0.486 M4
Grid 4	Grid 5	Grid 6
0.494 M4	0.518 M4	0.498 M4
Grid 7	Grid 8	Grid 9
0.494 M4	0.518 M4	0.496 M4




Report No

Date/Time: 3/4/2010 4:28:17 PM

Test Laboratory: RIM Testing Services

File Name: HAC_H_Dipole_835MHz_AM80%_mod.da4

DUT: HAC-Dipole 835 MHz; Type: D835V3; Serial: Not Specified Program Name: HAC RF H3DV6 Dipole

Communication System: AM 80%; Frequency: 835 MHz; Duty Cycle: 1:1

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

Phantom section: RF Section

DASY4 Configuration:

- Probe: H3DV6 - SN6105; ; Calibrated: 11/13/2009

- Sensor-Surface: 0mm (Fix Surface)Sensor-Surface: (Fix Surface)

- Electronics: DAE3 Sn473; Calibrated: 1/4/2010

- Phantom: HAC RF Test Arch with AMCC; Type: SD HAC P01 BA;

- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 186

H Scan - measurement distance from the probe sensor center to CD835

Dipole = 10mm/Hearing Aid Compatibility Test (5x13x1): Measurement grid:

dx=5mm, dy=5mm

Probe Modulation Factor = 1.00

Device Reference Point: 0.000, 0.000, -6.30 mm

Reference Value = 0.354 A/m; Power Drift = 0.082 dB

Maximum value of Total (measured) = 0.335 A/m

H Scan - measurement distance from the probe sensor center to CD835 **Dipole = 10mm/Hearing Aid Compatibility Test (41x121x1):** Measurement grid:



dx=5mm, dy=5mm

Maximum value of peak Total field = 0.335 A/m

Probe Modulation Factor = 1.00

Device Reference Point: 0.000, 0.000, -6.30 mm

Reference Value = 0.354 A/m; Power Drift = 0.082 dB

Hearing Aid Near-Field Category: M4 (AWF 0 dB)

Peak H-field in A/m Grid 1 Grid 2 Grid 3 0.307 M4 0.324 M4 0.314 M4 Grid 4 Grid 5 Grid 6 0.321 M4 0.335 M4 0.323 M4 Grid 8 Grid 9 Grid 7 0.321 M4 0.335 M4 0.320 M4





Date/Time: 3/4/2010 4:00:04 PM

Test Laboratory: RIM Testing Services

File Name: HAC_H_Dipole_835MHz_GSM_mod.da4

DUT: HAC-Dipole 835 MHz; Type: D835V3; Serial: Not Specified Program Name: HAC RF H3DV6 Dipole

Communication System: GSM 850; Frequency: 835 MHz; Duty Cycle: 1:8.3

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

Phantom section: RF Section

DASY4 Configuration:

- Probe: H3DV6 - SN6105; ; Calibrated: 11/13/2009

- Sensor-Surface: 0mm (Fix Surface)Sensor-Surface: (Fix Surface)

- Electronics: DAE3 Sn473; Calibrated: 1/4/2010

- Phantom: HAC RF Test Arch with AMCC; Type: SD HAC P01 BA;

- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 186

H Scan - measurement distance from the probe sensor center to CD835

Dipole = 10mm/Hearing Aid Compatibility Test (5x19x1): Measurement grid:

dx=5mm, dy=5mm

Probe Modulation Factor = 1.00

Device Reference Point: 0.000, 0.000, -6.30 mm

Reference Value = 0.198 A/m; Power Drift = 0.024 dB

Maximum value of Total (measured) = 0.185 A/m

H Scan - measurement distance from the probe sensor center to CD835 Dipole = 10mm/Hearing Aid Compatibility Test (41x181x1): Measurement grid:



dx=5mm, dy=5mm

Maximum value of peak Total field = 0.185 A/m

Probe Modulation Factor = 1.00

Device Reference Point: 0.000, 0.000, -6.30 mm

Reference Value = 0.198 A/m; Power Drift = 0.024 dB

Hearing Aid Near-Field Category: M4 (AWF -5 dB)

Peak H-field in A/m Grid 3 Grid 1 Grid 2 0.162 M4 0.172 M4 0.166 M4 Grid 4 Grid 6 Grid 5 0.173 M4 0.185 M4 0.176 M4 Grid 9 Grid 7 Grid 8 0.171 M4 0.182 M4 0.172 M4





Daoud Attayi

Report No Feb. 26-Mar. 04, 2010 | RTS-2474-1003-02

L6ARCX70UW

Date/Time: 3/1/2010 9:32:45 AM

Test Laboratory: RIM Testing Services

File Name: HAC_H_Dipole_1880MHz.da4

DUT: HAC Dipole 1880 MHz; Type: CD1880V3; Serial: Not Specified Program Name: HAC RF H3DV6 Dipole

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

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

Phantom section: RF Section

DASY4 Configuration:

- Probe: H3DV6 - SN6105; ; Calibrated: 11/13/2009

- Sensor-Surface: 0mm (Fix Surface)Sensor-Surface: (Fix Surface)

- Electronics: DAE3 Sn473; Calibrated: 1/4/2010

- Phantom: HAC RF Test Arch with AMCC; Type: SD HAC P01 BA;

 Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 186

H Scan - measurement distance from the probe sensor center to CD1880

Dipole = 10mm/Hearing Aid Compatibility Test (5x19x1): Measurement grid:

dx=5mm, dy=5mm

Probe Modulation Factor = 1.00

Device Reference Point: 0.000, 0.000, -6.30 mm

Reference Value = 0.493 A/m; Power Drift = -0.036 dB

Maximum value of Total (measured) = 0.464 A/m

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 = 0.464 A/m

Probe Modulation Factor = 1.00

Device Reference Point: 0.000, 0.000, -6.30 mm

Reference Value = 0.493 A/m; Power Drift = -0.036 dB

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

Peak H-field in A/m						
Grid 1	Grid 2	Grid 3				
0.391 M2	0.410 M2	0.398 M2				
Grid 4	Grid 5	Grid 6				
0.438 M2	0.464 M2	0.446 M2				
Grid 7	Grid 8	Grid 9				
0.403 M2	0.427 M2	0.405 M2				





Date/Time: 3/4/2010 3:36:14 PM

Test Laboratory: RIM Testing Services

File Name: HAC_H_Dipole_1880MHz_CW_GSM_mod.da4

DUT: HAC Dipole 1880 MHz; Type: CD1880V3; Serial: Not Specified Program Name: HAC RF H3DV6 Dipole

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

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

Phantom section: RF Section

DASY4 Configuration:

- Probe: H3DV6 - SN6105; ; Calibrated: 11/13/2009

- Sensor-Surface: 0mm (Fix Surface)Sensor-Surface: (Fix Surface)

- Electronics: DAE3 Sn473; Calibrated: 1/4/2010

- Phantom: HAC RF Test Arch with AMCC; Type: SD HAC P01 BA;

 Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 186

H Scan - measurement distance from the probe sensor center to CD1880

Dipole = 10mm/Hearing Aid Compatibility Test (5x10x1): Measurement grid:

dx=5mm, dy=5mm

Probe Modulation Factor = 1.00

Device Reference Point: 0.000, 0.000, -6.30 mm

Reference Value = 0.384 A/m; Power Drift = 0.005 dB

Maximum value of Total (measured) = 0.362 A/m

H Scan - measurement distance from the probe sensor center to CD1880

Dipole = 10mm/Hearing Aid Compatibility Test (41x91x1): Measurement grid:

dx=5mm, dy=5mm



Maximum value of peak Total field = 0.362 A/m

Probe Modulation Factor = 1.00

Device Reference Point: 0.000, 0.000, -6.30 mm

Reference Value = 0.384 A/m; Power Drift = 0.005 dB

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

Peak H-field in A	Peak H-field in A/m					
Grid 1	Grid 2	Grid 3				
0.331 M3	0.350 M2	0.338 M3				
Grid 4	Grid 5	Grid 6				
0.341 M2	0.362 M2	0.348 M2				
Grid 7	Grid 8	Grid 9				
0.339 M3	0.357 M2	0.342 M2				





Date/Time: 3/4/2010 3:40:18 PM

Test Laboratory: RIM Testing Services

File Name: <u>HAC_H_Dipole_1880MHz_AM80%_GSM_mod.da4</u>

DUT: HAC Dipole 1880 MHz; Type: CD1880V3; Serial: Not Specified Program Name: HAC RF H3DV6 Dipole

Communication System: AM 80%; Frequency: 1880 MHz; Duty Cycle: 1:1

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

Phantom section: RF Section

DASY4 Configuration:

- Probe: H3DV6 - SN6105; ; Calibrated: 11/13/2009

- Sensor-Surface: 0mm (Fix Surface)Sensor-Surface: (Fix Surface)

- Electronics: DAE3 Sn473; Calibrated: 1/4/2010

- Phantom: HAC RF Test Arch with AMCC; Type: SD HAC P01 BA;

- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 186

H Scan - measurement distance from the probe sensor center to CD1880

Dipole = 10mm/Hearing Aid Compatibility Test (5x11x1): Measurement grid:

dx=5mm, dy=5mm

Probe Modulation Factor = 1.00

Device Reference Point: 0.000, 0.000, -6.30 mm

Reference Value = 0.249 A/m; Power Drift = 0.016 dB

Maximum value of Total (measured) = 0.234 A/m

H Scan - measurement distance from the probe sensor center to CD1880

Dipole = 10mm/Hearing Aid Compatibility Test (41x101x1): Measurement grid:

dx=5mm, dy=5mm



Maximum value of peak Total field = 0.234 A/m

Probe Modulation Factor = 1.00

Device Reference Point: 0.000, 0.000, -6.30 mm

Reference Value = 0.249 A/m; Power Drift = 0.016 dB

Hearing Aid Near-Field Category: M3 (AWF 0 dB)

Peak H-field in A/m

Grid 1	Grid 2	Grid 3
0.210 M3	0.224 M3	0.216 M3
Grid 4	Grid 5	Grid 6
0.219 M3	0.234 M3	0.223 M3
Grid 7	Grid 8	Grid 9
0.215 M3	0.229 M3	0.218 M3





Date/Time: 3/4/2010 3:28:50 PM

Test Laboratory: RIM Testing Services

File Name: <u>HAC_H_Dipole_1880MHz_GSM_mod.da4</u>

DUT: HAC Dipole 1880 MHz; Type: CD1880V3; Serial: Not Specified Program Name: HAC RF H3DV6 Dipole

Communication System: GSM 1900; Frequency: 1880 MHz; Duty Cycle: 1:8.3

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

Phantom section: RF Section

DASY4 Configuration:

- Probe: H3DV6 - SN6105; ; Calibrated: 11/13/2009

- Sensor-Surface: 0mm (Fix Surface)Sensor-Surface: (Fix Surface)

- Electronics: DAE3 Sn473; Calibrated: 1/4/2010

- Phantom: HAC RF Test Arch with AMCC; Type: SD HAC P01 BA;

- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 186

H Scan - measurement distance from the probe sensor center to CD1880

Dipole = 10mm/Hearing Aid Compatibility Test (5x11x1): Measurement grid:

dx=5mm, dy=5mm

Probe Modulation Factor = 1.00

Device Reference Point: 0.000, 0.000, -6.30 mm

Reference Value = 0.145 A/m; Power Drift = 0.018 dB

Maximum value of Total (measured) = 0.134 A/m

H Scan - measurement distance from the probe sensor center to CD1880

Dipole = 10mm/Hearing Aid Compatibility Test (41x101x1): Measurement grid:

dx=5mm, dy=5mm



Maximum value of peak Total field = 0.134 A/m

Probe Modulation Factor = 1.00

Device Reference Point: 0.000, 0.000, -6.30 mm

Reference Value = 0.145 A/m; Power Drift = 0.018 dB

Hearing Aid Near-Field Category: M4 (AWF -5 dB)

Peak H-field in A/m

Grid 1	Grid 2	Grid 3
0.119 M4	0.128 M4	0.122 M4
Grid 4	Grid 5	Grid 6
0.126 M4	0.134 M4	0.128 M4
Grid 7	Grid 8	Grid 9
0.124 M4	0.132 M4	0.125 M4





Date/Time: 3/4/2010 3:50:22 PM

Test Laboratory: RIM Testing Services

File Name: HAC_H_Dipole_1733MHz_CW_WCDMA_mod.da4

DUT: HAC Dipole 1880 MHz; Type: CD1880V3; Serial: Not Specified Program Name: HAC RF H3DV6 Dipole

Communication System: CW; Frequency: 1733 MHz; Duty Cycle: 1:1

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

Phantom section: RF Section

DASY4 Configuration:

- Probe: H3DV6 - SN6105; ; Calibrated: 11/13/2009

- Sensor-Surface: 0mm (Fix Surface)Sensor-Surface: (Fix Surface)

- Electronics: DAE3 Sn473; Calibrated: 1/4/2010

- Phantom: HAC RF Test Arch with AMCC; Type: SD HAC P01 BA;

 Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 186

H Scan - measurement distance from the probe sensor center to CD1880

Dipole = 10mm/Hearing Aid Compatibility Test (5x11x1): Measurement grid:

dx=5mm, dy=5mm

Probe Modulation Factor = 1.00

Device Reference Point: 0.000, 0.000, -6.30 mm

Reference Value = 0.200 A/m; Power Drift = -0.037 dB

Maximum value of Total (measured) = 0.188 A/m

H Scan - measurement distance from the probe sensor center to CD1880

Dipole = 10mm/Hearing Aid Compatibility Test (41x101x1): Measurement grid:

dx=5mm, dy=5mm



Maximum value of peak Total field = 0.188 A/m

Probe Modulation Factor = 1.00

Device Reference Point: 0.000, 0.000, -6.30 mm

Reference Value = 0.200 A/m; Power Drift = -0.037 dB

Hearing Aid Near-Field Category: M4 (AWF 0 dB)

Peak H-field in A/m

Grid 1	Grid 2	Grid 3
0.167 M4	0.177 M4	0.172 M4
Grid 4	Grid 5	Grid 6
0.176 M4	0.188 M4	0.181 M4
Grid 7	Grid 8	Grid 9
0.171 M4	0.182 M4	0.175 M4





Date/Time: 3/4/2010 3:53:11 PM

FCC ID

Test Laboratory: RIM Testing Services

File Name: HAC_H_Dipole_1733MHz_AM80%_WCDMA_mod.da4

DUT: HAC Dipole 1880 MHz; Type: CD1880V3; Serial: Not Specified Program Name: HAC RF H3DV6 Dipole

Communication System: AM 80%; Frequency: 1733 MHz; Duty Cycle: 1:1

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

Phantom section: RF Section

DASY4 Configuration:

- Probe: H3DV6 - SN6105; ; Calibrated: 11/13/2009

- Sensor-Surface: 0mm (Fix Surface)Sensor-Surface: (Fix Surface)

- Electronics: DAE3 Sn473; Calibrated: 1/4/2010

- Phantom: HAC RF Test Arch with AMCC; Type: SD HAC P01 BA;

 Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 186

H Scan - measurement distance from the probe sensor center to CD1880

Dipole = 10mm/Hearing Aid Compatibility Test (5x11x1): Measurement grid:

dx=5mm, dy=5mm

Probe Modulation Factor = 1.00

Device Reference Point: 0.000, 0.000, -6.30 mm

Reference Value = 0.127 A/m; Power Drift = 0.019 dB

Maximum value of Total (measured) = 0.118 A/m

H Scan - measurement distance from the probe sensor center to CD1880

Dipole = 10mm/Hearing Aid Compatibility Test (41x101x1): Measurement grid:

dx=5mm, dy=5mm



Maximum value of peak Total field = 0.118 A/m

Probe Modulation Factor = 1.00

Device Reference Point: 0.000, 0.000, -6.30 mm

Reference Value = 0.127 A/m; Power Drift = 0.019 dB

Hearing Aid Near-Field Category: M4 (AWF 0 dB)

Peak H-field in A	Peak H-field in A/m					
Grid 1	Grid 2	Grid 3				
0.104 M4	0.111 M4	0.108 M4				
Grid 4	Grid 5	Grid 6				
0.110 M4	0.118 M4	0.114 M4				
Grid 7	Grid 8	Grid 9				
0.107 M4	0.114 M4	0.110 M4				





Date/Time: 3/4/2010 3:15:05 PM

Test Laboratory: RIM Testing Services

File Name: HAC_H_Dipole_1733MHz_WCDMA_mod.da4

DUT: HAC Dipole 1880 MHz; Type: CD1880V3; Serial: Not Specified Program Name: HAC RF H3DV6 Dipole

Communication System: WCDMA FDD IV; Frequency: 1732.6 MHz;Duty Cycle: 1:1

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

Phantom section: RF Section

DASY4 Configuration:

- Probe: H3DV6 - SN6105; ; Calibrated: 11/13/2009

- Sensor-Surface: 0mm (Fix Surface)Sensor-Surface: (Fix Surface)

- Electronics: DAE3 Sn473; Calibrated: 1/4/2010

- Phantom: HAC RF Test Arch with AMCC; Type: SD HAC P01 BA;

 Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 186

H Scan - measurement distance from the probe sensor center to CD1880

Dipole = 10mm/Hearing Aid Compatibility Test (5x11x1): Measurement grid:

dx=5mm, dy=5mm

Probe Modulation Factor = 1.00

Device Reference Point: 0.000, 0.000, -6.30 mm

Reference Value = 0.205 A/m; Power Drift = 0.015 dB

Maximum value of Total (measured) = 0.192 A/m

H Scan - measurement distance from the probe sensor center to CD1880

Dipole = 10mm/Hearing Aid Compatibility Test (41x101x1): Measurement grid:

dx=5mm, dy=5mm



Maximum value of peak Total field = 0.193 A/m

Probe Modulation Factor = 1.00

Device Reference Point: 0.000, 0.000, -6.30 mm

Reference Value = 0.205 A/m; Power Drift = 0.015 dB

Hearing Aid Near-Field Category: M3 (AWF 0 dB)

Peak H-field in A/m

Grid 1	Grid 2	Grid 3
0.171 M4	0.182 M4	0.177 M4
Grid 4	Grid 5	Grid 6
0.180 M4	0.193 M3	0.186 M4
Grid 7	Grid 8	Grid 9
0.175 M4	0.186 M4	0.179 M4



Testing Services™	Document Annex A to Hearing Aid Compatibility RF Emissions Test Report for the BlackBerry® Smartphone model RCX71UW			Page 55 (100)
Author Data	Dates of Test	Report No	FCC ID	
Daoud Attayi	Feb. 26-Mar. 04, 2010	RTS-2474-1003-02	L6ARCX70U	W

Justification of Step Size and Interpolation

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



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



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

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

Comparison of 5mm and 2mm step sizes

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



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

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

Lab: RIM Testing Services (RTS)

Dipole Validation 1880 MHz_E-Field 07_14_05

DUT: HAC Dipole 1880 MHz; Type: CD1880V3

Communication System: CW; Frequency: 1880 MHz;Duty Cycle: 1:1 Medium: Air Medium parameters used: $\sigma = 0$ mho/m, $\varepsilon_r = 1$; $\rho = 1000$ kg/m³ Phantom section: H Device Section

DASY4 Configuration:

- Probe: ER3DV6 - SN2285; ConvF(1, 1, 1); Calibrated: 10/12/2004

- Sensor-Surface: 0mm (Fix Surface)Sensor-Surface: (Fix Surface)

- Electronics: DAE3 Sn472; Calibrated: 03/01/2005
- Phantom: HAC Test Arch; Type: SD HAC P01 BA;

- Measurement SW: DASY4, V4.5 Build 19; Postprocessing SW: SEMCAD, V1.8 Build 146

E Scan 10mm above CD 1880 MHz/Hearing Aid Compatibility Test (5x19x1): Measurement grid: dx=5mm, dy=5mm

Maximum value of Total (measured) = 134.8 V/m

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

E in V/m (Time averaged) E in V/m (Slot averaged)

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

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







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

Page 1 of 2

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

Lab: RIM Testing Services (RTS)

Dipole Validation 1880 MHz_2mm step_E-Field 07_14_05

DUT: HAC Dipole 1880 MHz; Type: CD1880V3

Communication System: CW; Frequency: 1880 MHz;Duty Cycle: 1:1 Medium: Air Medium parameters used: $\sigma = 0$ mho/m, $\varepsilon_r = 1$; $\rho = 1000$ kg/m³ Phantom section: H Device Section

DASY4 Configuration:

- Probe: ER3DV6 - SN2285; ConvF(1, 1, 1); Calibrated: 10/12/2004

- Sensor-Surface: 0mm (Fix Surface)Sensor-Surface: (Fix Surface)

- Electronics: DAE3 Sn472; Calibrated: 03/01/2005
- Phantom: HAC Test Arch; Type: SD HAC P01 BA;

- Measurement SW: DASY4, V4.5 Build 19; Postprocessing SW: SEMCAD, V1.8 Build 146

E Scan 10mm above CD 1880 MHz/Hearing Aid Compatibility Test (11x46x1): Measurement grid: dx=2mm, dy=2mm

Maximum value of Total (measured) = 138.0 V/m

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

E in V/m (Time averaged) E in V/m (Slot averaged)

Grid 1	Grid 2	Grid 3		Grid 1	Grid 2	Grid 3
123.1	138.6	138.6		123.1	138.6	138.6
Grid 4	Grid 5	Grid 6		Grid 4	Grid 5	Grid 6
-	-	-	_			
81.4	92.1	91.6		81.4	92.1	91.6
81.4 Grid 7	92.1 Grid 8	91.6 Grid 9		81.4 Grid 7	92.1 Grid 8	91.6 Grid 9

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







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Lab: RIM Testing Services (RTS)

HAC_H_Dipole_CW 1880_5 mm step_07_14_05

DUT: HAC Dipole 1880 MHz; Type: CD1880V3

Communication System: CW; Frequency: 1880 MHz;Duty Cycle: 1:1 Medium: Air Medium parameters used: $\sigma = 0$ mho/m, $\varepsilon_r = 1$; $\rho = 1$ kg/m³ Phantom section: H Dipole Section

DASY4 Configuration:

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

H Scan 10mm above CD 1880 MHz/Hearing Aid Compatibility Test (5x19x1):

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

Maximum value of Total (measured) = 0.406 A/m

H Scan 10mm above CD 1880 MHz/Hearing Aid Compatibility Test (41x181x1):

Measurement grid: dx=5mm, dy=5mm Maximum value of Total field (slot averaged) = 0.406 A/m Hearing Aid Near-Field Category: M2 (AWF 0 dB)

H in A/m (Time averaged) H in A/m (Slot averaged)

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

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

file://C:\Program%20Files\DASY4\Print_Templates\HAC_H_Dipole_CW%201880_5%... 14/07/2005

Testing Services™	Annex A to Hearing Aid Compatibility RF Emissions Test Report for the BlackBerry® Smartphone model RCX71UW			Page 62 (100)
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Date/Time: 14/07/2005 12:53:40 PM

Lab: RIM Testing Services (RTS)

HAC_H_Dipole_CW 1880_2 mm step_07_14_05

DUT: HAC Dipole 1880 MHz; Type: CD1880V3

Communication System: CW; Frequency: 1880 MHz;Duty Cycle: 1:1 Medium: Air Medium parameters used: $\sigma = 0$ mho/m, $\varepsilon_r = 1$; $\rho = 1$ kg/m³ Phantom section: H Dipole Section

DASY4 Configuration:

- Probe: H3DV6 SN6105; ; Calibrated: 10/12/2004
- Sensor-Surface: 0mm (Fix Surface)Sensor-Surface: (Fix Surface)
- Electronics: DAE3 Sn472; Calibrated: 03/01/2005
- Phantom: HAC Test Arch; Type: SD HAC P01 BA;

- Measurement SW: DASY4, V4.5 Build 19; Postprocessing SW: SEMCAD, V1.8 Build 146

H Scan 10mm above CD 1880 MHz/Hearing Aid Compatibility Test (11x46x1):

Measurement grid: dx=2mm, dy=2mm Maximum value of Total (measured) = 0.406 A/m

H Scan 10mm above CD 1880 MHz/Hearing Aid Compatibility Test (101x451x1):

Measurement grid: dx=2mm, dy=2mm Maximum value of Total field (slot averaged) = 0.406 A/m

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

H in A/m (Time averaged) H in A/m (Slot averaged)

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

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

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Date/Time: 3/1/2010 1:51:53 PM

Test Laboratory: RIM Testing Services

File Name: <u>HAC_E_GSM_850_low chan.da4</u>

DUT: BlackBerry Smartphone;

Program Name: HAC RF ER3D Device

Communication System: GSM 850; Frequency: 824.2 MHz; Duty Cycle: 1:8.3

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

Phantom section: RF Section

DASY4 Configuration:

- Probe: ER3DV6 - SN2286; ConvF(1, 1, 1); Calibrated: 1/8/2010

- Sensor-Surface: 0mm (Fix Surface)Sensor-Surface: (Fix Surface)

- Electronics: DAE3 Sn473; Calibrated: 1/4/2010

- Phantom: HAC RF Test Arch with AMCC; Type: SD HAC P01 BA;

- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 186

E Scan - ER3D - 2007: 15 mm from Probe Center to the Device/Hearing Aid

Compatibility Test (11x11x1): Measurement grid: dx=5mm, dy=5mm

Probe Modulation Factor = 1.00 Device Reference Point: 0.000, 0.000, -6.30 mm Reference Value = 92.4 V/m; Power Drift = -0.019 dB

Maximum value of Total (measured) = 71.2 V/m

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 = 206.6 V/m

Testing Services ^{**}	Annex A to Hearing Aid Compatibility RF Emissions Test Report for the BlackBerry® Smartphone model RCX71UW			
Author Data	Dates of Test	Report No	FCC ID	
Daoud Attayi	Feb. 26-Mar. 04, 2010 RTS-2474-1003-02 L6ARCX70UW			W

Probe Modulation Factor = 2.90

Device Reference Point: 0.000, 0.000, -6.30 mm

Reference Value = 92.4 V/m; Power Drift = -0.019 dB

Hearing Aid Near-Field Category: M3 (AWF -5 dB)

Peak E-field in	V/m	
Grid 1	Grid 2	Grid 3
193.8 M3	203.4 M3	194.9 M3
Grid 4	Grid 5	Grid 6
197.0 M3	206.6 M3	197.3 M3
Grid 7	Grid 8	Grid 9
191.2 M3	201.6 M3	191.0 M3





Date/Time: 3/1/2010 2:06:03 PM

Test Laboratory: RIM Testing Services

File Name: <u>HAC_E_GSM_850_mid chan.da4</u>

DUT: BlackBerry Smartphone;

Program Name: HAC RF ER3D Device

Communication System: GSM 850; Frequency: 836.8 MHz; Duty Cycle: 1:8.3

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

Phantom section: RF Section

DASY4 Configuration:

- Probe: ER3DV6 - SN2286; ConvF(1, 1, 1); Calibrated: 1/8/2010

- Sensor-Surface: 0mm (Fix Surface)Sensor-Surface: (Fix Surface)

- Electronics: DAE3 Sn473; Calibrated: 1/4/2010

- Phantom: HAC RF Test Arch with AMCC; Type: SD HAC P01 BA;

- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 186

E Scan - ER3D - 2007: 15 mm from Probe Center to the Device/Hearing Aid

Compatibility Test (11x11x1): Measurement grid: dx=5mm, dy=5mm

Probe Modulation Factor = 1.00

Device Reference Point: 0.000, 0.000, -6.30 mm

Reference Value = 100.8 V/m; Power Drift = 0.040 dB

Maximum value of Total (measured) = 77.8 V/m

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 = 226.8 V/m

Testing Services ^{**}	Annex A to Hearing Aid Compatibility RF Emissions Test Report for the BlackBerry® Smartphone model RCX71UW			
Author Data	Dates of Test	Report No	FCC ID	
Daoud Attayi	Feb. 26-Mar. 04, 2010 RTS-2474-1003-02 L6ARCX70UW			W

Probe Modulation Factor = 2.90

Device Reference Point: 0.000, 0.000, -6.30 mm

Reference Value = 100.8 V/m; Power Drift = 0.040 dB

Hearing Aid Near-Field Category: M3 (AWF -5 dB)

Peak E-field in	V/m	
Grid 1	Grid 2	Grid 3
206.1 M3	223.0 M3	216.0 M3
Grid 4	Grid 5	Grid 6
209.5 M3	226.8 M3	220.7 M3
Grid 7	Grid 8	Grid 9
205 6 M3	222.2 M3	214.5 M3





Date/Time: 3/1/2010 2:11:00 PM

Test Laboratory: RIM Testing Services

File Name: <u>HAC_E_GSM_850_high chan.da4</u>

DUT: BlackBerry Smartphone;

Program Name: HAC RF ER3D Device

Communication System: GSM 850; Frequency: 848.8 MHz; Duty Cycle: 1:8.3

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

Phantom section: RF Section

DASY4 Configuration:

- Probe: ER3DV6 - SN2286; ConvF(1, 1, 1); Calibrated: 1/8/2010

- Sensor-Surface: 0mm (Fix Surface)Sensor-Surface: (Fix Surface)

- Electronics: DAE3 Sn473; Calibrated: 1/4/2010

- Phantom: HAC RF Test Arch with AMCC; Type: SD HAC P01 BA;

- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 186

E Scan - ER3D - 2007: 15 mm from Probe Center to the Device/Hearing Aid

Compatibility Test (11x11x1): Measurement grid: dx=5mm, dy=5mm

Probe Modulation Factor = 1.00

Device Reference Point: 0.000, 0.000, -6.30 mm

Reference Value = 105.3 V/m; Power Drift = 0.021 dB

Maximum value of Total (measured) = 82.5 V/m

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 = 240.2 V/m

Testing Services™	Annex A to Hearing Aid Compatibility RF Emissions Test Report for the BlackBerry® Smartphone model RCX71UW			
Author Data	Dates of Test	Report No	FCC ID	
Daoud Attayi	Feb. 26-Mar. 04, 2010 RTS-2474-1003-02 L6ARCX70UV			W

Probe Modulation Factor = 2.90

Device Reference Point: 0.000, 0.000, -6.30 mm

Reference Value = 105.3 V/m; Power Drift = 0.021 dB

Hearing Aid Near-Field Category: M3 (AWF -5 dB)

Peak E-field in	V/m	
Grid 1	Grid 2	Grid 3
218.5 M3	238.2 M3	231.3 M3
Grid 4	Grid 5	Grid 6
221.3 M3	240.2 M3	233.6 M3
Grid 7	Grid 8	Grid 9
213.2 M3	231.1 M3	224.1 M3





Date/Time: 3/1/2010 2:17:49 PM

Test Laboratory: RIM Testing Services

File Name: <u>HAC_E_GSM_1900_low chan.da4</u>

DUT: BlackBerry Smartphone;

Program Name: HAC RF ER3D Device

Communication System: GSM 1900; Frequency: 1850.2 MHz; Duty Cycle: 1:8.3

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

Phantom section: RF Section

DASY4 Configuration:

- Probe: ER3DV6 - SN2286; ConvF(1, 1, 1); Calibrated: 1/8/2010

- Sensor-Surface: 0mm (Fix Surface)Sensor-Surface: (Fix Surface)

- Electronics: DAE3 Sn473; Calibrated: 1/4/2010

- Phantom: HAC RF Test Arch with AMCC; Type: SD HAC P01 BA;

- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 186

E Scan - ER3D - 2007: 15 mm from Probe Center to the Device/Hearing Aid

Compatibility Test (11x11x1): Measurement grid: dx=5mm, dy=5mm

Probe Modulation Factor = 1.00 Device Reference Point: 0.000, 0.000, -6.30 mm Reference Value = 17.4 V/m; Power Drift = 0.214 dB Maximum value of Total (measured) = 23.9 V/m

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 = 52.2 V/m

Testing Services ^{**}	Annex A to Hearing Aid Compatibility RF Emissions Test Report for the BlackBerry® Smartphone model RCX71UW			
Author Data	Dates of Test	Report No	FCC ID	
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Probe Modulation Factor = 2.74

Device Reference Point: 0.000, 0.000, -6.30 mm

Reference Value = 17.4 V/m; Power Drift = 0.214 dB

Hearing Aid Near-Field Category: M3 (AWF -5 dB)

Peak E-field in	N/m	
Grid 1	Grid 2	Grid 3
33.4 M4	39.7 M4	40.0 M4
Grid 4	Grid 5	Grid 6
43.8 M4	52.2 M3	51.2 M3
Grid 7	Grid 8	Grid 9
64.2 M3	65.8 M3	59.3 M3




Date/Time: 3/1/2010 2:23:10 PM

Test Laboratory: RIM Testing Services

File Name: <u>HAC_E_GSM_1900_mid chan.da4</u>

DUT: BlackBerry Smartphone;

Program Name: HAC RF ER3D Device

Communication System: GSM 1900; Frequency: 1880 MHz; Duty Cycle: 1:8.3

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

Phantom section: RF Section

DASY4 Configuration:

- Probe: ER3DV6 - SN2286; ConvF(1, 1, 1); Calibrated: 1/8/2010

- Sensor-Surface: 0mm (Fix Surface)Sensor-Surface: (Fix Surface)

- Electronics: DAE3 Sn473; Calibrated: 1/4/2010

- Phantom: HAC RF Test Arch with AMCC; Type: SD HAC P01 BA;

- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 186

E Scan - ER3D - 2007: 15 mm from Probe Center to the Device/Hearing Aid

Compatibility Test (11x11x1): Measurement grid: dx=5mm, dy=5mm

Probe Modulation Factor = 1.00 Device Reference Point: 0.000, 0.000, -6.30 mm Reference Value = 16.9 V/m; Power Drift = -0.148 dB

Maximum value of Total (measured) = 25.8 V/m

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 = 52.8 V/m

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Probe Modulation Factor = 2.74

Device Reference Point: 0.000, 0.000, -6.30 mm

Reference Value = 16.9 V/m; Power Drift = -0.148 dB

Hearing Aid Near-Field Category: M3 (AWF -5 dB)

Peak E-field in	Peak E-field in V/m			
Grid 1	Grid 2	Grid 3		
41.3 M4	39.5 M4	37.7 M4		
Grid 4	Grid 5	Grid 6		
44.8 M4	52.8 M3	52.0 M3		
Grid 7	Grid 8	Grid 9		
68.3 M3	71.0 M3	65.2 M3		





Date/Time: 3/1/2010 2:29:33 PM

Test Laboratory: RIM Testing Services

File Name: HAC_E_GSM_1900_high chan.da4

DUT: BlackBerry Smartphone;

Program Name: HAC RF ER3D Device

Communication System: GSM 1900; Frequency: 1909.8 MHz; Duty Cycle: 1:8.3

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

Phantom section: RF Section

DASY4 Configuration:

- Probe: ER3DV6 - SN2286; ConvF(1, 1, 1); Calibrated: 1/8/2010

- Sensor-Surface: 0mm (Fix Surface)Sensor-Surface: (Fix Surface)

- Electronics: DAE3 Sn473; Calibrated: 1/4/2010

- Phantom: HAC RF Test Arch with AMCC; Type: SD HAC P01 BA;

 Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 186

E Scan - ER3D - 2007: 15 mm from Probe Center to the Device/Hearing Aid

Compatibility Test (11x11x1): Measurement grid: dx=5mm, dy=5mm

Probe Modulation Factor = 1.00

Device Reference Point: 0.000, 0.000, -6.30 mm

Reference Value = 14.0 V/m; Power Drift = 0.135 dB

Maximum value of Total (measured) = 23.6 V/m

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 = 47.0 V/m

Probe Modulation Factor = 2.74

Device Reference Point: 0.000, 0.000, -6.30 mm

Reference Value = 14.0 V/m; Power Drift = 0.135 dB

Hearing Aid Near-Field Category: M4 (AWF -5 dB)

Peak E-field in	n V/m	
Grid 1	Grid 2	Grid 3
37.9 M4	35.8 M4	31.9 M4
Grid 4	Grid 5	Grid 6
42.4 M4	47.0 M4	45.3 M4
Grid 7	Grid 8	Grid 9
63.6 M3	64.8 M3	57.3 M3





Date/Time: 3/1/2010 2:43:29 PM

Test Laboratory: RIM Testing Services

File Name: HAC_E_UMTS_band_IV_1700_low chan.da4

DUT: BlackBerry Smartphone;

Program Name: HAC RF ER3D Device

Communication System: WCDMA FDD IV; Frequency: 1712.4 MHz; Duty Cycle: 1:1

Report No

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

Phantom section: RF Section

DASY4 Configuration:

- Probe: ER3DV6 - SN2286; ConvF(1, 1, 1); Calibrated: 1/8/2010

- Sensor-Surface: 0mm (Fix Surface)Sensor-Surface: (Fix Surface)

- Electronics: DAE3 Sn473; Calibrated: 1/4/2010

- Phantom: HAC RF Test Arch with AMCC; Type: SD HAC P01 BA;

 Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 186

E Scan - ER3D - 2007: 15 mm from Probe Center to the Device/Hearing Aid

Compatibility Test (11x11x1): Measurement grid: dx=5mm, dy=5mm

Probe Modulation Factor = 1.00

Device Reference Point: 0.000, 0.000, -6.30 mm

Reference Value = 37.2 V/m; Power Drift = -0.133 dB

Maximum value of Total (measured) = 34.5 V/m

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 = 30.7 V/m

Probe Modulation Factor = 0.980

Device Reference Point: 0.000, 0.000, -6.30 mm

Reference Value = 37.2 V/m; Power Drift = -0.133 dB

Hearing Aid Near-Field Category: M4 (AWF 0 dB)

Peak E-field in	V/m	
Grid 1	Grid 2	Grid 3
21.7 M4	27.1 M4	26.9 M4
Grid 4	Grid 5	Grid 6
27.3 M4	30.7 M4	29.2 M4
Grid 7	Grid 8	Grid 9
33.3 M4	33.9 M4	29.6 M4





Date/Time: 3/1/2010 2:48:34 PM

Test Laboratory: RIM Testing Services

File Name: <u>HAC_E_UMTS_band_IV_1700_mid chan.da4</u>

DUT: BlackBerry Smartphone;

Program Name: HAC RF ER3D Device

Communication System: WCDMA FDD IV; Frequency: 1732.6 MHz;Duty Cycle: 1:1

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

Phantom section: RF Section

DASY4 Configuration:

- Probe: ER3DV6 - SN2286; ConvF(1, 1, 1); Calibrated: 1/8/2010

- Sensor-Surface: 0mm (Fix Surface)Sensor-Surface: (Fix Surface)

- Electronics: DAE3 Sn473; Calibrated: 1/7/2010

- Phantom: HAC RF Test Arch with AMCC; Type: SD HAC P01 BA;

- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 186

E Scan - ER3D - 2007: 15 mm from Probe Center to the Device/Hearing Aid

Compatibility Test (11x11x1): Measurement grid: dx=5mm, dy=5mm

Probe Modulation Factor = 1.00 Device Reference Point: 0.000, 0.000, -6.30 mm

Reference Value = 37.4 V/m; Power Drift = -0.089 dB

Maximum value of Total (measured) = 34.8 V/m

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 = 31.5 V/m

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Probe Modulation Factor = 0.980

Device Reference Point: 0.000, 0.000, -6.30 mm

Reference Value = 37.4 V/m; Power Drift = -0.089 dB

Hearing Aid Near-Field Category: M4 (AWF 0 dB)

Peak E-field i	n V/m	
Grid 1	Grid 2	Grid 3
21.8 M4	28.6 M4	28.5 M4
Grid 4	Grid 5	Grid 6
26.9 M4	31.5 M4	30.7 M4
Grid 7	Grid 8	Grid 9
33.4 M4	34.2 M4	31.1 M4





Date/Time: 3/1/2010 2:53:40 PM

Test Laboratory: RIM Testing Services

File Name: <u>HAC_E_UMTS_band_IV_1700_high chan.da4</u>

DUT: BlackBerry Smartphone;

Program Name: HAC RF ER3D Device

Communication System: WCDMA FDD IV; Frequency: 1752.6 MHz;Duty Cycle: 1:1

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

Phantom section: RF Section

DASY4 Configuration:

- Probe: ER3DV6 - SN2286; ConvF(1, 1, 1); Calibrated: 1/8/2010

- Sensor-Surface: 0mm (Fix Surface)Sensor-Surface: (Fix Surface)

- Electronics: DAE3 Sn473; Calibrated: 1/4/2010

- Phantom: HAC RF Test Arch with AMCC; Type: SD HAC P01 BA;

- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 186

E Scan - ER3D - 2007: 15 mm from Probe Center to the Device/Hearing Aid

Compatibility Test (11x11x1): Measurement grid: dx=5mm, dy=5mm

Probe Modulation Factor = 1.00

Device Reference Point: 0.000, 0.000, -6.30 mm

Reference Value = 34.2 V/m; Power Drift = -0.022 dB

Maximum value of Total (measured) = 34.7 V/m

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 = 29.8 V/m

Probe Modulation Factor = 0.980

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Author Data	Dates of Test	Report No	FCC ID	
Daoud Attayi	Feb. 26-Mar. 04, 2010	RTS-2474-1003-02	L6ARCX70U	W

Reference Value = 34.2 V/m; Power Drift = -0.022 dB

Hearing Aid Near-Field Category: M4 (AWF 0 dB)

Peak E-field in	n V/m	
Grid 1	Grid 2	Grid 3
18.7 M4	25.1 M4	25.1 M4
Grid 4	Grid 5	Grid 6
24.9 M4	29.8 M4	29.1 M4
Grid 7	Grid 8	Grid 9
33.0 M4	34.2 M4	31.3 M4





Date/Time: 3/1/2010 12:05:29 PM

Test Laboratory: RIM Testing Services

File Name: <u>HAC_H_GSM_850_low_chan.da4</u>

DUT: BlackBerry Smartphone;

Program Name: HAC RF H3DV6 Device

Communication System: GSM 850; Frequency: 824.2 MHz; Duty Cycle: 1:8.3

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

Phantom section: RF Section

DASY4 Configuration:

- Probe: H3DV6 - SN6105; ; Calibrated: 11/13/2009

- Sensor-Surface: 0mm (Fix Surface)Sensor-Surface: (Fix Surface)

- Electronics: DAE3 Sn473; Calibrated: 1/4/2010

- Phantom: HAC RF Test Arch with AMCC; Type: SD HAC P01 BA;

- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 186

H Scan - H3DV6 - 2007: 15 mm from Probe Center to the Device/Hearing Aid

Compatibility Test (11x11x1): Measurement grid: dx=5mm, dy=5mm

Probe Modulation Factor = 1.00

Device Reference Point: 0.000, 0.000, -6.30 mm

Reference Value = 0.085 A/m; Power Drift = -0.233 dB

Maximum value of Total (measured) = 0.159 A/m

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 = 0.306 A/m

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Daoud Attayi	Feb. 26-Mar. 04, 2010	RTS-2474-1003-02	L6ARCX70U	W

Probe Modulation Factor = 2.80

Device Reference Point: 0.000, 0.000, -6.30 mm

Reference Value = 0.085 A/m; Power Drift = -0.233 dB

Hearing Aid Near-Field Category: M4 (AWF -5 dB)

Peak H-field in A/m

Grid 1	Grid 2	Grid 3
0.444 M4	0.306 M4	0.178 M4
Grid 4	Grid 5	Grid 6
0.428 M4	0.294 M4	0.169 M4
Grid 7	Grid 8	Grid 9
0.419 M4	0.282 M4	0.162 M4





Test Laboratory: RIM Testing Services

File Name: <u>HAC_H_GSM_850_mid_chan.da4</u>

DUT: BlackBerry Smartphone;

Program Name: HAC RF H3DV6 Device

Communication System: GSM 850; Frequency: 836.8 MHz; Duty Cycle: 1:8.3

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

Phantom section: RF Section

DASY4 Configuration:

- Probe: H3DV6 - SN6105; ; Calibrated: 11/13/2009

- Sensor-Surface: 0mm (Fix Surface)Sensor-Surface: (Fix Surface)

- Electronics: DAE3 Sn473; Calibrated: 1/4/2010

- Phantom: HAC RF Test Arch with AMCC; Type: SD HAC P01 BA;

- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 186

H Scan - H3DV6 - 2007: 15 mm from Probe Center to the Device/Hearing Aid

Compatibility Test (11x11x1): Measurement grid: dx=5mm, dy=5mm

Probe Modulation Factor = 1.00

Device Reference Point: 0.000, 0.000, -6.30 mm

Reference Value = 0.103 A/m; Power Drift = -0.034 dB

Maximum value of Total (measured) = 0.184 A/m

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 = 0.364 A/m

Probe Modulation Factor = 2.80

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Reference Value = 0.103 A/m; Power Drift = -0.034 dB

Hearing Aid Near-Field Category: M4 (AWF -5 dB)

Peak H-field in A/m		
Grid 1	Grid 2	Grid 3
0.516 M3	0.364 M4	0.223 M4
Grid 4	Grid 5	Grid 6
0.495 M3	0.353 M4	0.217 M4
Grid 7	Grid 8	Grid 9
0.498 M3	0.348 M4	0.208 M4





Date/Time: 3/1/2010 12:17:03 PM

Test Laboratory: RIM Testing Services

File Name: HAC_H_GSM_850_high_chan.da4

DUT: BlackBerry Smartphone;

Program Name: HAC RF H3DV6 Device

Communication System: GSM 850; Frequency: 848.8 MHz; Duty Cycle: 1:8.3

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

Phantom section: RF Section

DASY4 Configuration:

- Probe: H3DV6 - SN6105; ; Calibrated: 11/13/2009

- Sensor-Surface: 0mm (Fix Surface)Sensor-Surface: (Fix Surface)

- Electronics: DAE3 Sn473; Calibrated: 1/4/2010

- Phantom: HAC RF Test Arch with AMCC; Type: SD HAC P01 BA;

 Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 186

H Scan - H3DV6 - 2007: 15 mm from Probe Center to the Device/Hearing Aid

Compatibility Test (11x11x1): Measurement grid: dx=5mm, dy=5mm

Probe Modulation Factor = 1.00

Device Reference Point: 0.000, 0.000, -6.30 mm

Reference Value = 0.117 A/m; Power Drift = 0.097 dB

Maximum value of Total (measured) = 0.200 A/m

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 = 0.405 A/m

Probe Modulation Factor = 2.80

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Daoud Attayi	Feb. 26-Mar. 04, 2010	RTS-2474-1003-02	L6ARCX70U	W

Reference Value = 0.117 A/m; Power Drift = 0.097 dB

Hearing Aid Near-Field Category: M4 (AWF -5 dB)

Peak H-field in A/m				
Grid 1	Grid 2	Grid 3		
0.558 M3	0.392 M4	0.239 M4		
Grid 4	Grid 5	Grid 6		
0.555 M3	0.391 M4	0.250 M4		
Grid 7	Grid 8	Grid 9		
0.562 M3	0.405 M4	0.258 M4		





Date/Time: 3/1/2010 12:30:54 PM

Test Laboratory: RIM Testing Services

File Name: HAC_H_GSM_1900_low_chan.da4

Dates of Test

DUT: BlackBerry Smartphone;

Program Name: HAC RF H3DV6 Device

Communication System: GSM 1900; Frequency: 1850.2 MHz; Duty Cycle: 1:8.3

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

Phantom section: RF Section

DASY4 Configuration:

- Probe: H3DV6 - SN6105; ; Calibrated: 11/13/2009

- Sensor-Surface: 0mm (Fix Surface)Sensor-Surface: (Fix Surface)

- Electronics: DAE3 Sn473; Calibrated: 1/4/2010

- Phantom: HAC RF Test Arch with AMCC; Type: SD HAC P01 BA;

 Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 186

H Scan - H3DV6 - 2007: 15 mm from Probe Center to the Device/Hearing Aid

Compatibility Test (11x11x1): Measurement grid: dx=5mm, dy=5mm

Probe Modulation Factor = 1.00

Device Reference Point: 0.000, 0.000, -6.30 mm

Reference Value = 0.055 A/m; Power Drift = -0.225 dB

Maximum value of Total (measured) = 0.085 A/m

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 = 0.155 A/m

Probe Modulation Factor = 2.70

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Author Data	Dates of Test	Report No	FCC ID	
Daoud Attayi	Feb. 26-Mar. 04, 2010	RTS-2474-1003-02	L6ARCX70U	W

Reference Value = 0.055 A/m; Power Drift = -0.225 dB

Hearing Aid Near-Field Category: M3 (AWF -5 dB)

Peak H-field in	A/m	
Grid 1	Grid 2	Grid 3
0.112 M4	0.112 M4	0.112 M4
Grid 4	Grid 5	Grid 6
0.171 M3	0.155 M3	0.135 M4
Grid 7	Grid 8	Grid 9
0.229 M3	0.187 M3	0.142 M3





Date/Time: 3/1/2010 12:36:44 PM

Test Laboratory: RIM Testing Services

File Name: <u>HAC_H_GSM_1900_mid_chan.da4</u>

DUT: BlackBerry Smartphone;

Program Name: HAC RF H3DV6 Device

Communication System: GSM 1900; Frequency: 1880 MHz; Duty Cycle: 1:8.3

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

Phantom section: RF Section

DASY4 Configuration:

- Probe: H3DV6 - SN6105; ; Calibrated: 11/13/2009

- Sensor-Surface: 0mm (Fix Surface)Sensor-Surface: (Fix Surface)

- Electronics: DAE3 Sn473; Calibrated: 1/4/2010

- Phantom: HAC RF Test Arch with AMCC; Type: SD HAC P01 BA;

- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 186

H Scan - H3DV6 - 2007: 15 mm from Probe Center to the Device/Hearing Aid

Compatibility Test (11x11x1): Measurement grid: dx=5mm, dy=5mm

Probe Modulation Factor = 1.00

Device Reference Point: 0.000, 0.000, -6.30 mm

Reference Value = 0.061 A/m; Power Drift = 0.037 dB

Maximum value of Total (measured) = 0.093 A/m

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 = 0.169 A/m

Probe Modulation Factor = 2.70

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Reference Value = 0.061 A/m; Power Drift = 0.037 dB

Hearing Aid Near-Field Category: M3 (AWF -5 dB)

Peak H-field in A/m				
Grid 1	Grid 2	Grid 3		
0.119 M4	0.128 M4	0.133 M4		
Grid 4	Grid 5	Grid 6		
0.175 M3	0.169 M3	0.150 M3		
Grid 7	Grid 8	Grid 9		
0.252 M2	0.210 M3	0.159 M3		



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Date/Time: 3/1/2010 12:41:40 PM

Test Laboratory: RIM Testing Services

File Name: HAC_H_GSM_1900_high_chan.da4

DUT: BlackBerry Smartphone;

Program Name: HAC RF H3DV6 Device

Communication System: GSM 1900; Frequency: 1909.8 MHz; Duty Cycle: 1:8.3

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

Phantom section: RF Section

DASY4 Configuration:

- Probe: H3DV6 - SN6105; ; Calibrated: 11/13/2009

- Sensor-Surface: 0mm (Fix Surface)Sensor-Surface: (Fix Surface)

- Electronics: DAE3 Sn473; Calibrated: 1/4/2010

- Phantom: HAC RF Test Arch with AMCC; Type: SD HAC P01 BA;

 Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 186

H Scan - H3DV6 - 2007: 15 mm from Probe Center to the Device/Hearing Aid

Compatibility Test (11x11x1): Measurement grid: dx=5mm, dy=5mm

Probe Modulation Factor = 1.00

Device Reference Point: 0.000, 0.000, -6.30 mm

Reference Value = 0.049 A/m; Power Drift = -0.150 dB

Maximum value of Total (measured) = 0.085 A/m

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 = 0.146 A/m

Probe Modulation Factor = 2.70

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Reference Value = 0.049 A/m; Power Drift = -0.150 dB

Hearing Aid Near-Field Category: M3 (AWF -5 dB)

Peak H-field in A/m				
Grid 1	Grid 2	Grid 3		
0.096 M4	0.098 M4	0.096 M4		
Grid 4	Grid 5	Grid 6		
0.163 M3	0.146 M3	0.113 M4		
Grid 7	Grid 8	Grid 9		
0.230 M3	0.180 M3	0.117 M4		





Date/Time: 3/1/2010 11:43:33 AM

Test Laboratory: RIM Testing Services

File Name: HAC_H_UMTS_band_IV_1700_low_chan.da4

DUT: BlackBerry Smartphone;

Program Name: HAC RF H3DV6 Device

Communication System: WCDMA FDD IV; Frequency: 1712.4 MHz; Duty Cycle: 1:1

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

Phantom section: RF Section

DASY4 Configuration:

- Probe: H3DV6 - SN6105; ; Calibrated: 11/13/2009

- Sensor-Surface: 0mm (Fix Surface)Sensor-Surface: (Fix Surface)

- Electronics: DAE3 Sn473; Calibrated: 1/4/2010

- Phantom: HAC RF Test Arch with AMCC; Type: SD HAC P01 BA;

 Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 186

H Scan - H3DV6 - 2007: 15 mm from Probe Center to the Device/Hearing Aid

Compatibility Test (11x11x1): Measurement grid: dx=5mm, dy=5mm

Probe Modulation Factor = 1.00

Device Reference Point: 0.000, 0.000, -6.30 mm

Reference Value = 0.075 A/m; Power Drift = -0.100 dB

Maximum value of Total (measured) = 0.132 A/m

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 = 0.089 A/m

Probe Modulation Factor = 0.970

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Reference Value = 0.075 A/m; Power Drift = -0.100 dB

Hearing Aid Near-Field Category: M4 (AWF 0 dB)

Peak H-field in A/m				
Grid 1	Grid 2	Grid 3		
0.084 M4	0.068 M4	0.049 M4		
Grid 4	Grid 5	Grid 6		
0.107 M4	0.089 M4	0.067 M4		
Grid 7	Grid 8	Grid 9		
0.128 M4	0.103 M4	0.075 M4		





Date/Time: 3/1/2010 11:50:54 AM

Test Laboratory: RIM Testing Services

File Name: <u>HAC_H_UMTS_band_IV_1700_mid_chan.da4</u>

DUT: BlackBerry Smartphone;

Program Name: HAC RF H3DV6 Device

Communication System: WCDMA FDD IV; Frequency: 1732.6 MHz;Duty Cycle: 1:1

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

Phantom section: RF Section

DASY4 Configuration:

- Probe: H3DV6 - SN6105; ; Calibrated: 11/13/2009

- Sensor-Surface: 0mm (Fix Surface)Sensor-Surface: (Fix Surface)

- Electronics: DAE3 Sn473; Calibrated: 1/4/2010

- Phantom: HAC RF Test Arch with AMCC; Type: SD HAC P01 BA;

- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 186

H Scan - H3DV6 - 2007: 15 mm from Probe Center to the Device/Hearing Aid

Compatibility Test (11x11x1): Measurement grid: dx=5mm, dy=5mm

Probe Modulation Factor = 1.00

Device Reference Point: 0.000, 0.000, -6.30 mm

Reference Value = 0.078 A/m; Power Drift = -0.138 dB

Maximum value of Total (measured) = 0.135 A/m

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 = 0.093 A/m

Probe Modulation Factor = 0.970

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Reference Value = 0.078 A/m; Power Drift = -0.138 dB

Hearing Aid Near-Field Category: M4 (AWF 0 dB)

Peak H-field in A/m				
Grid 1	Grid 2	Grid 3		
0.082 M4	0.068 M4	0.052 M4		
Grid 4	Grid 5	Grid 6		
0.108 M4	0.093 M4	0.075 M4		
Grid 7	Grid 8	Grid 9		
0.131 M4	0.110 M4	0.084 M4		



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L6ARCX70UW

Test Laboratory: RIM Testing Services

File Name: HAC_H_UMTS_band_IV_1700_high_chan.da4

DUT: BlackBerry Smartphone;

Program Name: HAC RF H3DV6 Device

Communication System: WCDMA FDD IV; Frequency: 1752.6 MHz;Duty Cycle: 1:1

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

Phantom section: RF Section

DASY4 Configuration:

- Probe: H3DV6 - SN6105; ; Calibrated: 11/13/2009

- Sensor-Surface: 0mm (Fix Surface)Sensor-Surface: (Fix Surface)

- Electronics: DAE3 Sn473; Calibrated: 1/4/2010

- Phantom: HAC RF Test Arch with AMCC; Type: SD HAC P01 BA;

 Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 186

H Scan - H3DV6 - 2007: 15 mm from Probe Center to the Device/Hearing Aid

Compatibility Test (11x11x1): Measurement grid: dx=5mm, dy=5mm

Probe Modulation Factor = 1.00

Device Reference Point: 0.000, 0.000, -6.30 mm

Reference Value = 0.083 A/m; Power Drift = 0.035 dB

Maximum value of Total (measured) = 0.138 A/m

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 = 0.097 A/m

Probe Modulation Factor = 0.970

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Reference Value = 0.083 A/m; Power Drift = 0.035 dB

Hearing Aid Near-Field Category: M4 (AWF 0 dB)

Peak H-field in A/m				
Grid 1	Grid 2	Grid 3		
0.082 M4	0.072 M4	0.056 M4		
Grid 4	Grid 5	Grid 6		
0.109 M4	0.097 M4	0.076 M4		
Grid 7	Grid 8	Grid 9		
0.134 M4	0.112 M4	0.082 M4		

