RF EXPOSURE EVALUATION

SPECIFIC ABSORPTION RATE

SAR TEST REPORT

FOR THE

M/A-COM PORTABLE FM PTT RADIO TRANSCEIVER

MODEL: P7200

FCC ID: BV8P7200

IC: 3670A-P7200

Test Report Serial Number

071105BV8-T656-S90F
Issue 1.3

Test Report Issue Date

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DECLARATION OF COMPLIANCE
SAR RF EXPOSURE EVALUATION

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FCC IDENTIFIER:	**BV8P7200**
IC IDENTIFIER:	**3670A-P7200**
Model No.(s) Tested:	**MAHROS0050 (P7270 System), MAHROS0051 (P7250 Scan), MAHROS0052 (P7230 Select)**
Part No.(s) Tested:	**1000017748-0001 (System), 1000017748-0002 (Scan), 1000017748-0003 (Select)**
Rule Part(s):	**FCC 47 CFR §2.1093; IC RSS-102 Issue 1 (Provisional)**
Test Procedure(s):	**FCC OET Bulletin 65, Supplement C (Edition 01-01)**
FCC Device Classification:	**Licensed Non-Broadcast Transmitter Held to Face (TNF)**
Device Description:	**Portable FM PTT Radio Transceiver**
Tx Frequency Range(s) Tested:	**764.0125 - 766.9875 MHz / 773.0125 - 775.9875 MHz / 794.0125 - 796.9875 MHz / 803.0125 - 805.9875 MHz 806.0125 - 823.9875 MHz / 851.0125 - 868.9875 MHz**
Max. RF Output Power Tested:	**35.16 dBm (3.28 Watts) Conducted (860.0000 MHz) 34.47 dBm (2.80 Watts) Conducted (796.9875 MHz)**
Antenna Type(s) Tested:	**Half-wave (P/N: KRE 101 1506/1) Quarter-wave (P/N: KRE 101 1506/2)**
Battery Type(s) Tested:	**NiCd 7.5V - immersible - Non-Intrinsically Safe (P/N: BKB 191 210/33) NiMH 7.5V - immersible - Non-Intrinsically Safe (P/N: BKB 191 210/34) NiCd 7.5V - immersible - Intrinsically Safe (P/N: BKB 191 210/35) NiMH 7.5V - immersible - Intrinsically Safe (P/N: BKB 191 210/36)**
Body-Worn Accessories Tested:	**Metal Belt-Clip (P/N: KRY 101 1647/1) Leather Belt Loop (P/N: KRY 101 1609/1) and Swivel-Mount Clip (P/N: KRY 101 1608/2) Leather Case Kit (P/N: KRY 101 1639/4): Leather Case (P/N: KRY 101 1639/3), Swivel-Mount (P/N: KRY 101 1608/2), Elastic Retaining Strap (P/N: CC102546V1), Shoulder Strap (P/N: CC103333V1) Leather Case (P/N: KRY 101 1639/3) and Belt-Loop (P/N: KRY 101 1609/1) Nylon (black) Case (P/N: KRY 101 1648/1) and Belt-Loop (P/N: KRY 101 1609/1) Nylon "T" Strap Holder (P/N: KRY 101 1656/1)**
Body-Worn Audio Access. Tested:	**Speaker-Microphone Antenna Version Plus (P/N: KRY 101 1617/184) Speaker-Microphone Antenna Version Ruggedized (P/N: KRY 101 1617/384) Speaker-Microphone Non-Antenna Version (P/N: KRY 101 1617/183)**
Additional Audio Access. Tested:	**Ranger Headset (P/N: OT-V4-10421); Earphone (Black) (P/N: OT-V1-10234)**
Max. SAR Levels Evaluated:	**Face-held: 2.03 W/kg (1g average) - 50% Duty Cycle Body-worn: 7.42 W/kg (1g average) - 50% Duty Cycle**

Celltech Labs Inc. declares under its sole responsibility that this wireless portable device has demonstrated compliance with the Specific Absorption Rate (SAR) RF exposure requirements specified in FCC 47 CFR §2.1093 and Health Canada's Safety Code 6. The device was tested in accordance with the measurement standards and procedures specified in FCC OET Bulletin 65, Supplement C (Edition 01-01) and Industry Canada RSS-102, Issue 1 (Provisional) for the Occupational / Controlled Exposure environment. All measurements were performed in accordance with the SAR system manufacturer recommendations.

I attest to the accuracy of data. All measurements were performed by me or were made under my supervision and are correct to the best of my knowledge and belief. I assume full responsibility for the completeness of these measurements and vouch for the qualifications of all persons taking them.

Tested By:

Sean Johnston
Compliance Technologist
Celltech Labs Inc.

Reviewed By:

Spencer Watson
Senior Compliance Technologist
Celltech Labs Inc.

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1.0 INTRODUCTION

This measurement report demonstrates that the M/A-COM, Inc. Model: P7200 Portable FM PTT Radio Transceiver FCC ID: BV8P7200 complies with the SAR (Specific Absorption Rate) RF exposure requirements specified in FCC 47 CFR §2.1093 (see reference [1]), and Health Canada's Safety Code 6 (see reference [2]) for the Occupational / Controlled Exposure environment. The test procedures described in FCC OET Bulletin 65, Supplement C, Edition 01-01 (see reference [3]) and IC RSS-102, Issue 1 (Provisional) (see reference [4]), were employed. A description of the device, operating configuration, detailed summary of the test results, methodology and procedures used in the evaluation, equipment used, and the various provisions of the rules are included within this test report.

2.0 DESCRIPTION OF DEVICE UNDER TEST (DUT)

FCC Rule Part(s)	47 CFR §2.1093					
IC Rule Part(s)	RSS-102 Issue 1 (Provisional)					
Test Procedure(s)	FCC OET Bulletin 65, Supplement C (Edition 01-01)					
Device Classification	Licensed Non-Broadcast Transmitter Held to Face (TNF)					
Device Description	Portable FM PTT Radio Transceiver					
FCC IDENTIFIER	BV8P7200					
IC IDENTIFIER	3670A-P7200					
Radio Model(s)	**P7270 System**		**P7250 Scan**		**P7230 Select**	
Model No. Tested	MAHROS0050		MAHROS0051		MAHROS0052	
Part No.(s) Tested	1000017748-0001		1000017748-0002		1000017748-0003	
Serial No.(s) Tested	A40041001002		none		none	
	Identical Prototype		Identical Prototype		Identical Prototype	
Tx Frequency Range(s) Tested	700 MHz Band	FM	764.0125 - 766.9875 MHz		Talk-Around Mode	
			773.0125 - 775.9875 MHz		Talk-Around Mode	
			794.0125 - 796.9875 MHz		Repeater Input Mode	
			803.0125 - 805.9875 MHz		Repeater Input Mode	
	800 MHz Band	FM	806.0125 - 823.9875 MHz		Repeater Input Mode	
			851.0125 - 868.9875 MHz		Talk-Around Mode	

Max. RF Conducted Output Power Measured	**Frequency (MHz)**	**dBm**	**Watts**	**Frequency (MHz)**	**dBm**	**Watts**
	764.0125	34.38	2.74	806.0125	34.65	2.92
	766.9875	34.35	2.72	815.0000	34.89	3.08
	775.9875	34.12	2.58	823.9875	34.93	3.11
	794.0125	34.42	2.77	851.0125	34.92	3.10
	796.9875	34.47	2.80	860.0000	35.16	3.28
	805.9875	34.12	2.58	868.9875	34.92	3.10

Antenna Type(s) Tested	Half-wave	Length: 181 mm	P/N: KRE 101 1506/1	
	Quarter-wave	Length: 91 mm	P/N: KRE 101 1506/2	

Battery Type(s) Tested					
	NiCd	7.5 V	Immersible	Non-Intrinsically Safe	P/N: BKB 191 210/33
	NiMH	7.5 V	Immersible	Non-Intrinsically Safe	P/N: BKB 191 210/34
	NiCd	7.5 V	Immersible	Intrinsically Safe	P/N: BKB 191 210/35
	NiMH	7.5 V	Immersible	Intrinsically Safe	P/N: BKB 191 210/36
Additional Battery Type(s) **Testing Not Required***	NiCd	7.5 V	Wind Driven Rain	Non-Intrinsically Safe	P/N: BKB 191 210/43
	NiMH	7.5 V	Wind Driven Rain	Non-Intrinsically Safe	P/N: BKB 191 210/44
	* Note: Wind driven rain batteries do not require additional SAR evaluation due to being physically and electrically identical to the immersible batteries listed above.				

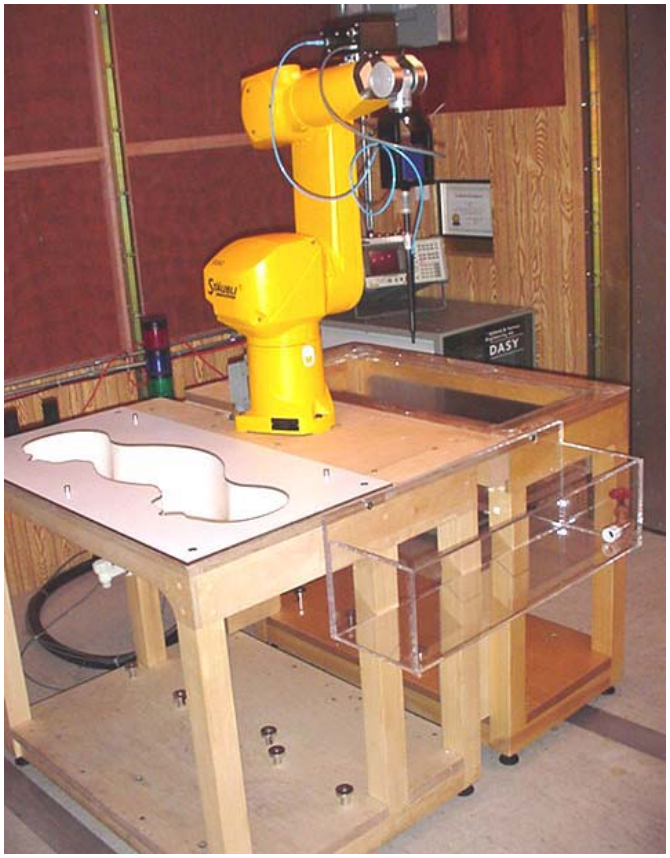
DESCRIPTION OF DEVICE UNDER TEST (DUT) - Cont.

	Accessory Type		Part No.
Body-worn Accessories Tested	Metal Belt-Clip		KRY 101 1647/1
	Leather Belt-Loop		KRY 101 1609/1
	Swivel-Mount		KRY 101 1608/2
	Leather Case Kit		KRY 101 1639/4
	Leather Case	P/N: KRY 101 1639/3	
	Swivel-Mount	P/N: KRY 101 1608/2	
	Elastic Retaining Strap	P/N: CC102546V1	
	Shoulder Strap	CC103333V1	
	Nylon (black) Case		KRY 101 1648/1
	Nylon "T" Strap Holder		KRY 101 1656/1
Body-worn Audio Accessories Tested	Speaker-Microphone Non-Antenna Version		KRY 101 1617/183
	Speaker-Microphone Antenna Version		KRY 101 1617/184
	Speaker-Microphone Antenna Version Ruggedized		KRY 101 1617/384
Additional Audio Accessories Tested	Ranger Headset (used with Speaker-Microphone Antenna Version Ruggedized)		OT-V4-10421
	Earpiece Kit - Intrinsically Safe (used with Speaker Microphone Antenna Version)		OT-V1-10234
Additional Body-Worn and Audio Accessories Testing Not Required	Nylon Case (Orange)		KRY 101 1649/1
	Leather Case Kit (with Leather Case P/N: KRY 101 1639/1)		KRY 101 1639/2
	Speaker Microphone - Vehicle Charger Compatible - Intrinsically Safe		KRY 101 1617/185
	Speaker Microphone - Antenna Version - Vehicle Charger Compatible - Intrinsically Safe		KRY 101 1617/186
	Speaker Microphone - Immersible - Intrinsically Safe		KRY 101 1617/283
	Speaker Microphone - Antenna Version - Immersible - Intrinsically Safe		KRY 101 1617/284
	Speaker Microphone - Antenna Version - Immersible - Intrinsically Safe, Charger Compatible		KRY 101 1617/287
	Speaker Microphone - Ruggedized - Intrinsically Safe		KRY 101 1617/383
	Speaker Microphone - Ruggedized - Vehicle Charger Compatible - Intrinsically Safe		KRY 101 1617/385
	Speaker Microphone - Ruggedized - Antenna Version - Intrinsically Safe, Charger Compatible		KRY 101 1617/387
	Speaker Microphone - Industrial		OT-V2-10121
	Speaker Microphone - Industrial PLUS		OT-V2-10122
	Earphone Kit, Black		OT-V1-10520
	Earphone Kit, Beige		OT-V1-10521
	2-Wire Earphone Kit, Black (Palm mic)		OT-V1-10522
	2-Wire Earphone Kit, Beige (Pam mic)		OT-V1-10523
	3-Wire Mini-Lapel (Beige)		OT-V1-10524
	3-Wire Mini -Lapel (Black)		OT-V1-10525
	Ultra-Lite Headset with Inline PTT		OT-V4-10314
	Liteweight Headset with Single Speaker		OT-V4-10315
	Over-the-Head Headset		OT-V4-10316
	Behind-the-Head Headset		OT-V4-10317
	Behind-the-Head Headset		OT-V4-10450
	Skull Microphone		OT-V4-10428
	Throat Microphone		OT-V4-10656

3.0 SAR MEASUREMENT SYSTEM

Celltech Labs Inc. SAR measurement facility utilizes the Dosimetric Assessment System (DASY™) manufactured by Schmid & Partner Engineering AG (SPEAG™) of Zurich, Switzerland. The DASY4 measurement system is comprised of the measurement server, robot controller, computer, near-field probe, probe alignment sensor, specific anthropomorphic mannequin (SAM) phantom, and various planar phantoms for brain and/or body SAR evaluations. The robot is a six-axis industrial robot performing precise movements to position the probe to the location (points) of maximum electromagnetic field (EMF). A cell controller system contains the power supply, robot controller, teach pendant (Joystick), and remote control, is used to drive the robot motors. The Staubli robot is connected to the cell controller to allow software manipulation of the robot. A data acquisition electronic (DAE) circuit performs the signal amplification, signal multiplexing, AD-conversion, offset measurements, mechanical surface detection, collision detection, etc. is connected to the Electro-optical coupler (EOC). The EOC performs the conversion from the optical into digital electric signal of the DAE and transfers data to the DASY4 measurement server. The DAE4 utilizes a highly sensitive electrometer-grade preamplifier with auto-zeroing, a channel and gain-switching multiplexer, a fast 16-bit AD-converter and a command decoder and control logic unit. Transmission to the DASY4 measurement server is accomplished through an optical downlink for data and status information and an optical uplink for commands and clock lines. The mechanical probe-mounting device includes two different sensor systems for frontal and sidewise probe contacts. The sensor systems are also used for mechanical surface detection and probe collision detection. The robot uses its own controller with a built in VME-bus computer.

DASY4 SAR Measurement System with SAM phantom



DASY4 SAR Measurement System with Plexiglas planar phantom

4.0 SAR COMPARISON

The only difference between the System Radio (Model No.: MAHROS0050), Scan Radio (Model No.: MAHROS0051), and Select Radio (Model No: MAHROS0052) is the front keypad as shown below. SAR measurements were initially performed with the System Radio (Model No.: MAHROS0050). The face-held test configuration with the maximum SAR level from the System Radio (Model No.: MAHROS0050) with each antenna type was subsequently reevaluated with the Scan Radio (Model No: MAHROS0051) and Select Radio (Model No: MAHROS0052). As shown in the comparison table below, the resulting SAR levels were lower with the Scan Radio (Model No: MAHROS0051) and Select Radio (Model No: MAHROS0052); therefore no further evaluations with the Scan and Select Radios were investigated.

FACE-HELD SAR COMPARISONS

Test Date	Radio Type	Radio Model No.	Freq. (MHz)	Antenna		Battery Type	Cond. Power Before Test (dBm)	SAR Drift During Test (dB)	Measured SAR 1g (W/kg)	
									Duty Cycle	
				Type	Part No.				100 %	50%
7/20/05	**System**	MAHROS0050	815.0000	½-wave	KRE 101 1506/1	NiMH NIS	34.79	0.0871	2.19	**1.10**
8/04/05	Scan	MAHROS0051	815.0000	½-wave	KRE 101 1506/1	NiMH NIS	34.65	0.0854	1.85	0.925
8/04/05	Select	MAHROS0052	815.0000	½-wave	KRE 101 1506/1	NiMH NIS	34.59	0.0551	1.91	0.955
7/20/05	**System**	MAHROS0050	815.0000	¼-wave	KRE 101 1506/2	NiCd IS	34.66	0.108	3.86	**1.93**
8/04/05	Scan	MAHROS0051	815.0000	¼-wave	KRE 101 1506/2	NiCd IS	34.62	0.150	3.72	1.86
8/04/05	Select	MAHROS0052	815.0000	¼-wave	KRE 101 1506/2	NiCd IS	34.69	0.153	3.79	1.90

ANSI / IEEE C95.1 1999 - SAFETY LIMIT	BRAIN: 8.0 W/kg (averaged over 1 gram)	Spatial Peak - Controlled Exposure

System Radio (P7270)
Model No.: MAHROS0050

Scan Radio (P7250)
Model No: MAHROS0051

Select Radio (P7230)
Model No: MAHROS0052

5.0 SAR MEASUREMENT SUMMARY

FACE-HELD SAR EVALUATION RESULTS

Handheld Radio Transceiver (System Radio Model No.: MAHROS0050)

Test Date	Freq. (MHz)	Chan.	Test Mode	Antenna Type	Antenna Part No.	Battery Type	Separation Distance to Planar Phantom (cm)	Cond. Power Before Test (dBm)	Measured SAR 1g (W/kg) Duty Cycle 100%		Measured SAR 1g (W/kg) Duty Cycle 50%	SAR Drift During Test (dB)	Scaled SAR 1g (W/kg) Duty Cycle 100%		Scaled SAR 1g (W/kg) Duty Cycle 50%
Jul 20	**766.9875**	Mid	CW	½-wave	KRE 101 1506/1	NiMH IS	2.5	33.96	P	1.06	0.530	0.171	P	-	-
									S	1.15	0.575		S	-	-
Jul 20	**766.9875**	Mid	CW	½-wave	KRE 101 1506/1	NiMH NIS	2.5	33.94	1.20		0.600	0.189	-		-
Jul 21	**766.9875**	Mid	CW	½-wave	KRE 101 1506/1	NiCd IS	2.5	34.03	1.14		0.570	0.134	-		-
Jul 21	**766.9875**	Mid	CW	½-wave	KRE 101 1506/1	NiCd NIS	2.5	34.27	1.31		0.655	0.0989	-		-
Jul 21	**766.9875**	Mid	CW	¼-wave	KRE 101 1506/2	NiMH IS	2.5	34.15	3.22		1.61	0.103	-		-
Jul 21	**766.9875**	Mid	CW	¼-wave	KRE 101 1506/2	NiMH NIS	2.5	34.22	3.43		**1.72**	0.0834	**3.53***		**1.77**
Jul 21	**766.9875**	Mid	CW	¼-wave	KRE 101 1506/2	NiCd IS	2.5	34.16	3.22		1.61	0.105	-		-
Jul 21	**766.9875**	Mid	CW	¼-wave	KRE 101 1506/2	NiCd NIS	2.5	34.21	3.32		1.66	0.0630	-		-

ANSI / IEEE C95.1 1999 - SAFETY LIMIT | **BRAIN: 8.0 W/kg (averaged over 1 gram)** | **Spatial Peak - Controlled Exposure**

Test Date(s)	July 20, 2005		July 21, 2005		
Dielectric Constant ε_r	767 MHz Brain Tissue Simulant				
	Interpolated Target		Date	Measured	Deviation
	41.8	± 5%	Jul 20	42.9	+2.6%
			Jul 21	42.7	+2.2%
Conductivity σ (mho/m)	767 MHz Brain Tissue Simulant				
	Interpolated Target		Date	Measured	Deviation
	0.89	± 5%	Jul 20	0.86	-3.4%
			Jul 21	0.85	-4.5%

Test Date(s)	Jul 20	Jul 21	Unit
Relative Humidity	30	30	%
Atmospheric Pressure	101.9	101.9	kPa
Ambient Temperature	25.7	23.5	°C
Fluid Temperature	23.7	22.2	°C
Fluid Depth	≥ 15	≥ 15	cm
ρ (Kg/m^3)	1000		

*** SAR level scaled up by + 0.13 dB to maximum conducted power level measured at 766.9875 MHz (see test data page 19).**

Note(s):

1. The measurement results were obtained with the DUT tested in the conditions described in this report. Detailed measurement data and plots showing the maximum SAR location of the DUT are reported in Appendix A.
2. If the scaled SAR levels evaluated at the mid channel (50% duty cycle) were ≥ 3 dB below the SAR limit, SAR evaluation for the low and high channels was optional per FCC OET Bulletin 65, Supplement C, Edition 01-01 (see reference [3]).
3. Secondary peak SAR levels were reported within 2 dB of the primary (P = Primary, S = Secondary).
4. The power drift of the DUT during the SAR evaluations was measured by the DASY4 system.
5. The ambient and fluid temperatures were measured prior to, and during, the fluid dielectric parameter check and the SAR evaluations. The temperatures reported were consistent for all measurement periods.
6. The dielectric parameters of the simulated tissue mixture were measured prior to the SAR evaluations using an ALS-PR-DIEL Dielectric Probe Kit and an HP 8753ET Network Analyzer (see Appendix C for measured fluid dielectric parameters).
7. SAR measurements were performed within 24 hours of the system performance check.

SAR MEASUREMENT SUMMARY (Cont.)

FACE-HELD SAR EVALUATION RESULTS

Handheld Radio Transceiver (System Radio Model No.: MAHROS0050)

Freq. (MHz)	Chan.	Test Mode	Antenna		Battery Type	Separation Distance to Planar Phantom (cm)	Cond. Power Before Test (dBm)	Measured SAR 1g (W/kg) Duty Cycle		SAR Drift During Test (dB)	Scaled SAR 1g (W/kg) Duty Cycle	
			Type	Part No.				100%	50%		100%	50%
796.9875	Mid	CW	½-wave	KRE 101 1506/1	NiMH IS	2.5	34.05	1.60	0.800	0.0583	-	-
796.9875	Mid	CW	½-wave	KRE 101 1506/1	NiMH NIS	2.5	34.05	1.46	0.730	0.112	-	-
796.9875	Mid	CW	½-wave	KRE 101 1506/1	NiCd IS	2.5	33.98	1.48	0.740	0.0975	-	-
796.9875	Mid	CW	½-wave	KRE 101 1506/1	NiCd NIS	2.5	33.95	1.43	0.715	0.121	-	-
796.9875	Mid	CW	¼-wave	KRE 101 1506/2	NiMH IS	2.5	34.01	3.33	1.67	0.227	-	-
796.9875	Mid	CW	¼-wave	KRE 101 1506/2	NiMH NIS	2.5	33.98	3.52	1.76	0.179	-	-
796.9875	Mid	CW	¼-wave	KRE 101 1506/2	NiCd IS	2.5	33.93	3.50	1.75	0.164	-	-
796.9875	Mid	CW	¼-wave	KRE 101 1506/2	NiCd NIS	2.5	33.96	3.68	**1.84**	0.185	**4.14***	**2.07**

ANSI / IEEE C95.1 1999 - SAFETY LIMIT	BRAIN: 8.0 W/kg (averaged over 1 gram)	Spatial Peak - Controlled Exposure

Test Date(s)	July 20, 2005				Relative Humidity	30	%
Measured Fluid Type	797 MHz Brain Tissue Simulant				Atmospheric Pressure	101.9	kPa
Dielectric Constant ε_r	Interpolated Target		Measured	Deviation	Ambient Temperature	25.7	°C
	41.7	**± 5%**	41.0	-1.7%	Fluid Temperature	23.7	°C
Conductivity σ (mho/m)	Interpolated Target		Measured	Deviation	Fluid Depth	≥ 15	cm
	0.89	**± 5%**	0.87	-2.2%	ρ (Kg/m^3)	1000	

*** SAR level scaled up by + 0.51 dB to maximum conducted power level measured at 796.9875 MHz (see test data page 17).**

Note(s):

1. The measurement results were obtained with the DUT tested in the conditions described in this report. Detailed measurement data and plots showing the maximum SAR location of the DUT are reported in Appendix A.
2. If the scaled SAR levels evaluated at the mid channel (50% duty cycle) were ≥ 3 dB below the SAR limit, SAR evaluation for the low and high channels was optional per FCC OET Bulletin 65, Supplement C, Edition 01-01 (see reference [3]).
3. The power drift of the DUT during the SAR evaluations was measured by the DASY4 system.
4. The ambient and fluid temperatures were measured prior to, and during, the fluid dielectric parameter check and the SAR evaluations. The temperatures reported were consistent for all measurement periods.
5. The dielectric parameters of the simulated tissue mixture were measured prior to the SAR evaluations using an ALS-PR-DIEL Dielectric Probe Kit and an HP 8753ET Network Analyzer (see Appendix C for measured fluid dielectric parameters).
6. SAR measurements were performed within 24 hours of the system performance check.

SAR MEASUREMENT SUMMARY (Cont.)

FACE-HELD SAR EVALUATION RESULTS

Handheld Radio Transceiver (System Radio Model No.: MAHROS0050)

Freq. (MHz)	Chan.	Test Mode	Antenna		Battery Type	Separation Distance to Planar Phantom (cm)	Cond. Power Before Test (dBm)	Measured SAR 1g (W/kg) Duty Cycle		SAR Drift During Test (dB)	Scaled SAR 1g (W/kg) with droop Duty Cycle	
			Type	Part No.				100%	50%		100%	50%
815.0000	Mid	CW	½-wave	KRE 101 1506/1	NiMH IS	2.5	34.78	1.99	0.995	-0.00242	1.99	0.996
815.0000	Mid	CW	½-wave	KRE 101 1506/1	NiMH NIS	2.5	34.79	2.19	1.10	0.0871	-	-
815.0000	Mid	CW	½-wave	KRE 101 1506/1	NiCd IS	2.5	34.56	1.91	0.955	0.0874	-	-
815.0000	Mid	CW	½-wave	KRE 101 1506/1	NiCd NIS	2.5	34.68	1.89	0.945	0.0966	-	-
815.0000	Mid	CW	¼-wave	KRE 101 1506/2	NiMH IS	2.5	34.56	3.71	1.86	0.0902	-	-
815.0000	Mid	CW	¼-wave	KRE 101 1506/2	NiMH NIS	2.5	34.60	3.78	1.89	0.0928	-	-
815.0000	Mid	CW	¼-wave	KRE 101 1506/2	NiCd IS	2.5	34.66	3.86	**1.93**	0.108	**4.07***	**2.03**
815.0000	Mid	CW	¼-wave	KRE 101 1506/2	NiCd NIS	2.5	34.58	3.45	1.73	0.233	-	-

ANSI / IEEE C95.1 1999 - SAFETY LIMIT	BRAIN: 8.0 W/kg (averaged over 1 gram)	Spatial Peak - Controlled Exposure

Test Date(s)	July 20, 2005				Relative Humidity	30	%
Measured Fluid Type	815 MHz Brain Tissue Simulant				Atmospheric Pressure	101.9	kPa
Dielectric Constant ε_r	Interpolated Target		Measured	Deviation	Ambient Temperature	24.0	°C
	41.6	**± 5%**	40.3	-3.1%	Fluid Temperature	22.7	°C
Conductivity σ (mho/m)	Interpolated Target		Measured	Deviation	Fluid Depth	≥ 15	cm
	0.90	**± 5%**	0.87	-3.3%	ρ (Kg/m^3)	1000	

*** SAR level scaled up by + 0.23 dB to maximum conducted power level measured at 815.0000 MHz (see test data page 25).**

Note(s):

1. The measurement results were obtained with the DUT tested in the conditions described in this report. Detailed measurement data and plots showing the maximum SAR location of the DUT are reported in Appendix A.
2. If the scaled SAR levels evaluated at the mid channel (50% duty cycle) were ≥ 3 dB below the SAR limit, SAR evaluation for the low and high channels was optional per FCC OET Bulletin 65, Supplement C, Edition 01-01 (see reference [3]).
3. The power drift of the DUT during the SAR evaluations was measured by the DASY4 system.
4. The power droop measured by the DASY4 system during the SAR evaluation was added to the measured SAR level to report a scaled SAR result as shown in the above table.
5. The ambient and fluid temperatures were measured prior to, and during, the fluid dielectric parameter check and the SAR evaluations. The temperatures reported were consistent for all measurement periods.
6. The dielectric parameters of the simulated tissue mixture were measured prior to the SAR evaluations using an ALS-PR-DIEL Dielectric Probe Kit and an HP 8753ET Network Analyzer (see Appendix C for measured fluid dielectric parameters).
7. SAR measurements were performed within 24 hours of the system performance check.

SAR MEASUREMENT SUMMARY (Cont.)

FACE-HELD SAR EVALUATION RESULTS

Handheld Radio Transceiver (System Radio Model No.: MAHROS0050)

Freq. (MHz)	Chan.	Test Mode	Antenna Type	Antenna Part No.	Battery Type	Separation Distance to Planar Phantom (cm)	Cond. Power Before Test (dBm)	Measured SAR 1g (W/kg) Duty Cycle 100%	Measured SAR 1g (W/kg) Duty Cycle 50%	SAR Drift During Test (dB)	Scaled SAR 1g (W/kg) with droop Duty Cycle 100%	Scaled SAR 1g (W/kg) with droop Duty Cycle 50%
860.0000	Mid	CW	½-wave	KRE 101 1506/1	NiMH IS	2.5	34.82	1.78	0.890	-0.167	1.85	0.925
860.0000	Mid	CW	½-wave	KRE 101 1506/1	NiMH NIS	2.5	34.83	1.78	0.890	-0.0297	1.79	0.896
860.0000	Mid	CW	½-wave	KRE 101 1506/1	NiCd IS	2.5	34.82	1.66	0.830	-0.132	1.71	0.856
860.0000	Mid	CW	½-wave	KRE 101 1506/1	NiCd NIS	2.5	34.78	2.02	1.01	-0.151	2.09	1.05
860.0000	Mid	CW	¼-wave	KRE 101 1506/2	NiMH IS	2.5	34.76	2.79	**1.40**	0.0704	**3.06***	**1.53**
860.0000	Mid	CW	¼-wave	KRE 101 1506/2	NiMH NIS	2.5	34.88	2.72	1.36	0.00887	-	-
860.0000	Mid	CW	¼-wave	KRE 101 1506/2	NiCd IS	2.5	34.81	P 2.73	1.37	0.177	P -	-
								S 1.78	0.890		S -	-
860.0000	Mid	CW	¼-wave	KRE 101 1506/2	NiCd NIS	2.5	34.79	2.72	1.36	0.0862	-	-

ANSI / IEEE C95.1 1999 - SAFETY LIMIT	BRAIN: 8.0 W/kg (averaged over 1 gram)	Spatial Peak - Controlled Exposure

Test Date(s)	**July 19, 2005**			**Relative Humidity**	30	**%**
Measured Fluid Type	**860 MHz Brain Tissue Simulant**			**Atmospheric Pressure**	102.2	**kPa**
Dielectric Constant ε_r	**Interpolated Target**	**Measured**	**Deviation**	**Ambient Temperature**	24.2	**°C**
	41.5 ± **5%**	40.2	-3.1%	**Fluid Temperature**	22.7	**°C**
Conductivity σ **(mho/m)**	**Interpolated Target**	**Measured**	**Deviation**	**Fluid Depth**	≥ 15	**cm**
	0.91 ± **5%**	0.92	+1.1%	**ρ (Kg/m³)**	1000	

*** SAR level scaled up by + 0.40 dB to maximum conducted power level measured at 860.0000 MHz (see test data page 28).**

Note(s):

1. The measurement results were obtained with the DUT tested in the conditions described in this report. Detailed measurement data and plots showing the maximum SAR location of the DUT are reported in Appendix A.
2. If the scaled SAR levels evaluated at the mid channel (50% duty cycle) were ≥ 3 dB below the SAR limit, SAR evaluation for the low and high channels was optional per FCC OET Bulletin 65, Supplement C, Edition 01-01 (see reference [3]).
3. Secondary peak SAR levels were reported within 2 dB of the primary (P = Primary, S = Secondary).
4. The power drift of the DUT during the SAR evaluations was measured by the DASY4 system.
5. The power droops measured by the DASY4 system for the duration of the SAR evaluations were added to the measured SAR levels to report scaled SAR results as shown in the above table.
6. The ambient and fluid temperatures were measured prior to, and during, the fluid dielectric parameter check and the SAR evaluations. The temperatures reported were consistent for all measurement periods.
7. The dielectric parameters of the simulated tissue mixture were measured prior to the SAR evaluations using an ALS-PR-DIEL Dielectric Probe Kit and an HP 8753ET Network Analyzer (see Appendix C for measured fluid dielectric parameters).
8. SAR measurements were performed within 24 hours of the system performance check.

SAR MEASUREMENT SUMMARY (Cont.)

FACE-HELD SAR EVALUATION RESULTS

Handheld System Radio (Model No.: MAHROS0050) with Speaker-Microphone Antenna Version (P/N: KRY 101 1617/184)

Freq. (MHz)	Chan.	Test Mode	Antenna		Battery Type	Separation Distance to Planar Phantom (cm)	Cond. Power Before Test (dBm)	Measured SAR 1g (W/kg)		SAR Drift During Test (dB)	Scaled SAR 1g (W/kg)	
								Duty Cycle			Duty Cycle	
			Type	Part No.				100%	50%		100%	50%
766.9875	Mid	CW	½-Wave	KRE 101 1506/1	NiCd NIS	2.5	34.13	1.21	0.605	0.0953	-	-
766.9875	Mid	CW	¼-Wave	KRE 101 1506/2	NiMH NIS	2.5	34.09	2.29	**1.15**	0.0949	**2.43***	**1.22**
796.9875	Mid	CW	½-Wave	KRE 101 1506/1	NiMH IS	2.5	33.96	2.18	1.09	0.115	-	-
796.9875	Mid	CW	¼-Wave	KRE 101 1506/2	NiCd NIS	2.5	33.93	2.53	**1.27**	0.114	**2.86****	**1.43**

ANSI / IEEE C95.1 1999 - SAFETY LIMIT | **BRAIN: 8.0 W/kg (averaged over 1 gram)** | **Spatial Peak - Controlled Exposure**

Test Date(s)	July 21, 2005		766.9875 MHz		July 20, 2005		796.9875 MHz		Test Date(s)	Jul 21	Jul 20	Unit
Dielectric Constant ε_r	767 MHz Brain Tissue Simulant				797 MHz Brain Tissue Simulant				Atmospheric Pressure	101.9	101.9	kPa
	Interpolated Target		Meas.	Dev.	Interpolated Target		Meas.	Dev.	Relative Humidity	30	30	%
	41.8	**± 5%**	42.7	+2.2%	**41.7**	**± 5%**	41.0	-1.7%	Ambient Temperature	23.5	25.7	°C
Conductivity σ (mho/m)	767 MHz Brain Tissue Simulant				797 MHz Brain Tissue Simulant				Fluid Temperature	22.2	23.7	°C
	Interpolated Target		Meas.	Dev.	Interpolated Target		Meas.	Dev.	Fluid Depth	≥ 15	≥ 15	cm
	0.89	**± 5%**	0.85	-4.5%	**0.89**	**± 5%**	0.87	-2.2%	ρ (Kg/m^3)	1000		

*** SAR level scaled up by + 0.26 dB to maximum conducted power level measured at 766.9875 MHz (see test data page 19).**
**** SAR level scaled up by + 0.54 dB to maximum conducted power level measured at 796.9875 MHz (see test data page 17).**

Note(s):

1. The measurement results were obtained with the DUT tested in the conditions described in this report. Detailed measurement data and plots showing the maximum SAR location of the DUT are reported in Appendix A.
2. The battery type tested with each antenna type for the Speaker-Microphone Antenna Version configuration was determined from the worst-case face-held SAR evaluation results with the Handheld System Radio (see test data pages 7-10).
3. If the scaled SAR levels evaluated at the mid channel (50% duty cycle) were ≥ 3 dB below the SAR limit, SAR evaluation for the low and high channels was optional per FCC OET Bulletin 65, Supplement C, Edition 01-01 (see reference [3]).
4. The power drift of the DUT during the SAR evaluations was measured by the DASY4 system.
5. The ambient and fluid temperatures were measured prior to, and during, the fluid dielectric parameter check and the SAR evaluations. The temperatures reported were consistent for all measurement periods.
6. The dielectric parameters of the simulated tissue mixture were measured prior to the SAR evaluations using an ALS-PR-DIEL Dielectric Probe Kit and an HP 8753ET Network Analyzer (see Appendix C for measured fluid dielectric parameters).
7. SAR measurements were performed within 24 hours of the system performance check.

SAR MEASUREMENT SUMMARY (Cont.)

FACE-HELD SAR EVALUATION RESULTS

Handheld System Radio (Model No.: MAHROS0050) with Speaker-Microphone Antenna Version (P/N: KRY 101 1617/184)

Freq. (MHz)	Chan.	Test Mode	Antenna		Battery Type	Separation Distance to Planar Phantom (cm)	Cond. Power Before Test (dBm)	Measured SAR 1g (W/kg)		SAR Drift During Test (dB)	Scaled SAR 1g (W/kg)	
								Duty Cycle			Duty Cycle	
			Type	Part No.				100%	50%		100%	50%
815.0000	Mid	CW	½-Wave	KRE 101 1506/1	NiMH NIS	2.5	34.75	3.10	**1.55**	0.140	**3.20***	**1.60**
815.0000	Mid	CW	¼-Wave	KRE 101 1506/2	NiCd IS	2.5	34.62	2.89	1.45	0.104	-	-
860.0000	Mid	CW	½-Wave	KRE 101 1506/1	NiCd NIS	2.5	34.86	2.48	1.24	0.0301	-	-
860.0000	Mid	CW	¼-Wave	KRE 101 1506/2	NiMH IS	2.5	34.90	2.56	**1.28**	0.110	**2.72****	**1.36**

ANSI / IEEE C95.1 1999 - SAFETY LIMIT | **BRAIN: 8.0 W/kg (averaged over 1 gram)** | **Spatial Peak - Controlled Exposure**

Test Date(s)	July 20, 2005		815.0000 MHz		July 19, 2005		860.0000 MHz		Test Date(s)	Jul 20	Jul 19	Unit
Dielectric Constant ε_r	815 MHz Brain Tissue Simulant				860 MHz Brain Tissue Simulant				Atmospheric Pressure	101.9	102.2	kPa
	Interpolated Target		Meas.	Dev.	Interpolated Target		Meas.	Dev.	Relative Humidity	30	30	%
	41.6	**± 5%**	40.3	-3.1%	**41.5**	**± 5%**	40.2	-3.1%	Ambient Temperature	24.0	24.2	°C
Conductivity σ (mho/m)	815 MHz Brain Tissue Simulant				860 MHz Brain Tissue Simulant				Fluid Temperature	22.7	22.7	°C
	Interpolated Target		Meas.	Dev.	Interpolated Target		Meas.	Dev.	Fluid Depth	≥ 15	≥ 15	cm
	0.90	**± 5%**	0.87	-3.3%	**0.91**	**± 5%**	0.92	+1.1%	ρ (Kg/m^3)	1000		

*** SAR level scaled up by + 0.14 dB to maximum conducted power level measured at 815.0000 MHz (see test data page 25).**
**** SAR level scaled up by + 0.26 dB to maximum conducted power level measured at 860.0000 MHz (see test data page 28).**

Note(s):

1. The measurement results were obtained with the DUT tested in the conditions described in this report. Detailed measurement data and plots showing the maximum SAR location of the DUT are reported in Appendix A.
2. The battery type tested with each antenna type for the Speaker-Microphone Antenna Version configuration was determined from the worst-case face-held SAR evaluation results with the Handheld System Radio (see test data pages 7-10).
3. If the scaled SAR levels evaluated at the mid channel (50% duty cycle) were ≥ 3 dB below the SAR limit, SAR evaluation for the low and high channels was optional per FCC OET Bulletin 65, Supplement C, Edition 01-01 (see reference [3]).
4. The power drift of the DUT during the SAR evaluations was measured by the DASY4 system.
5. The ambient and fluid temperatures were measured prior to, and during, the fluid dielectric parameter check and the SAR evaluations. The temperatures reported were consistent for all measurement periods.
6. The dielectric parameters of the simulated tissue mixture were measured prior to the SAR evaluations using an ALS-PR-DIEL Dielectric Probe Kit and an HP 8753ET Network Analyzer (see Appendix C for measured fluid dielectric parameters).
7. SAR measurements were performed within 24 hours of the system performance check.

SAR MEASUREMENT SUMMARY (Cont.)

FACE-HELD SAR EVALUATION RESULTS

Handheld System Radio (Model No.: MAHROS0050) with Speaker-Microphone Antenna Version Ruggedized (P/N: KRY 101 1617/384)

Freq. (MHz)	Chan.	Test Mode	Antenna		Battery Type	Separation Distance to Planar Phantom (cm)	Cond. Power Before Test (dBm)	Measured SAR 1g (W/kg)		SAR Drift During Test (dB)	Scaled SAR 1g (W/kg)	
								Duty Cycle			Duty Cycle	
			Type	Part No.				100%	50%		100%	50%
766.9875	Mid	CW	½-Wave	KRE 101 1506/1	NiCd NIS	2.5	34.12	0.786	0.393	0.0732	-	-
766.9875	Mid	CW	¼-Wave	KRE 101 1506/2	NiMH NIS	2.5	34.26	1.73	**0.865**	0.166	**1.77***	**0.883**
796.9875	Mid	CW	½-Wave	KRE 101 1506/1	NiMH IS	2.5	33.98	1.84	0.920	0.117	-	-
796.9875	Mid	CW	¼-Wave	KRE 101 1506/2	NiCd NIS	2.5	33.95	1.95	**0.975**	0.136	**2.20****	**1.10**

ANSI / IEEE C95.1 1999 - SAFETY LIMIT | **BRAIN: 8.0 W/kg (averaged over 1 gram)** | **Spatial Peak - Controlled Exposure**

Test Date(s)	July 21, 2005		766.9875 MHz		July 20, 2005		796.9875 MHz		Test Date(s)	Jul 21	Jul 20	Unit
Dielectric Constant ε_r	767 MHz Brain Tissue Simulant				797 MHz Brain Tissue Simulant				Atmospheric Pressure	101.9	101.9	kPa
	Interpolated Target		Meas.	Dev.	Interpolated Target		Meas.	Dev.	Relative Humidity	30	30	%
	41.8	± 5%	42.7	+2.2%	41.7	± 5%	41.0	-1.7%	Ambient Temperature	23.5	25.7	°C
Conductivity σ (mho/m)	767 MHz Brain Tissue Simulant				797 MHz Brain Tissue Simulant				Fluid Temperature	22.2	23.7	°C
	Interpolated Target		Meas.	Dev.	Interpolated Target		Meas.	Dev.	Fluid Depth	≥ 15	≥ 15	cm
	0.89	± 5%	0.85	-4.5%	0.89	± 5%	0.87	-2.2%	ρ (Kg/m^3)	1000		

*** SAR level scaled up by + 0.09 dB to maximum conducted power level measured at 766.9875 MHz (see test data page 19).**
**** SAR level scaled up by + 0.52 dB to maximum conducted power level measured at 796.9875 MHz (see test data page 17).**

Note(s):

1. The measurement results were obtained with the DUT tested in the conditions described in this report. Detailed measurement data and plots showing the maximum SAR location of the DUT are reported in Appendix A.
2. The battery type tested with each antenna type for the Speaker-Microphone Antenna Version configuration was determined from the worst-case face-held SAR evaluation results with the Handheld System Radio (see test data pages 7-10).
3. If the scaled SAR levels evaluated at the mid channel (50% duty cycle) were ≥ 3 dB below the SAR limit, SAR evaluation for the low and high channels was optional per FCC OET Bulletin 65, Supplement C, Edition 01-01 (see reference [3]).
4. The power drift of the DUT during the SAR evaluations was measured by the DASY4 system.
5. The ambient and fluid temperatures were measured prior to, and during, the fluid dielectric parameter check and the SAR evaluations. The temperatures reported were consistent for all measurement periods.
6. The dielectric parameters of the simulated tissue mixture were measured prior to the SAR evaluations using an ALS-PR-DIEL Dielectric Probe Kit and an HP 8753ET Network Analyzer (see Appendix C for measured fluid dielectric parameters).
7. SAR measurements were performed within 24 hours of the system performance check.

SAR MEASUREMENT SUMMARY (Cont.)

FACE-HELD SAR EVALUATION RESULTS

Handheld System Radio (Model No.: MAHROS0050) with Speaker-Microphone Antenna Version Ruggedized (P/N: KRY 101 1617/384)

Freq. (MHz)	Chan.	Test Mode	Antenna		Battery Type	Separation Distance to Planar Phantom (cm)	Cond. Power Before Test (dBm)	Measured SAR 1g (W/kg)		SAR Drift During Test (dB)	Scaled SAR 1g (W/kg) with droop	
								Duty Cycle			Duty Cycle	
			Type	Part No.				100%	50%		100%	50%
815.0000	Mid	CW	½-Wave	KRE 101 1506/1	NiMH NIS	2.5	34.77	2.22	**1.11**	-0.152	**2.36***	**1.18**
815.0000	Mid	CW	¼-Wave	KRE 101 1506/2	NiCd IS	2.5	34.68	1.90	0.950	0.0772	-	-
860.0000	Mid	CW	½-Wave	KRE 101 1506/1	NiCd NIS	2.5	34.88	1.60	0.800	-0.0688	1.63	0.813
860.0000	Mid	CW	¼-Wave	KRE 101 1506/2	NiMH IS	2.5	34.83	1.78	**0.890**	0.133	**1.92****	**0.960**

ANSI / IEEE C95.1 1999 - SAFETY LIMIT | **BRAIN: 8.0 W/kg (averaged over 1 gram)** | **Spatial Peak - Controlled Exposure**

Test Date(s)	July 20, 2005		815.0000 MHz		July 19, 2005		860.0000 MHz		Test Date(s)	Jul 20	Jul 19	Unit
Dielectric Constant ε_r	815 MHz Brain Tissue Simulant				860 MHz Brain Tissue Simulant				Atmospheric Pressure	101.9	102.2	kPa
	Interpolated Target		Meas.	Dev.	Interpolated Target		Meas.	Dev.	Relative Humidity	30	30	%
	41.6	**± 5%**	40.3	-3.1%	**41.5**	**± 5%**	40.2	-3.1%	Ambient Temperature	24.0	24.2	°C
Conductivity σ (mho/m)	815 MHz Brain Tissue Simulant				860 MHz Brain Tissue Simulant				Fluid Temperature	22.7	22.7	°C
	Interpolated Target		Meas.	Dev.	Interpolated Target		Meas.	Dev.	Fluid Depth	≥ 15	≥ 15	cm
	0.90	**± 5%**	0.87	-3.3%	**0.91**	**± 5%**	0.92	+1.1%	ρ (Kg/m^3)	1000		

*** SAR level scaled by droop + 0.12 dB to maximum conducted power level measured at 815.0000 MHz (see test data page 25).**
**** SAR level scaled up by + 0.33 dB to maximum conducted power level measured at 860.0000 MHz (see test data page 28).**

Note(s):

1. The measurement results were obtained with the DUT tested in the conditions described in this report. Detailed measurement data and plots showing the maximum SAR location of the DUT are reported in Appendix A.
2. The battery type tested with each antenna type for the Speaker-Microphone Antenna Version configuration was determined from the worst-case face-held SAR evaluation results with the Handheld System Radio (see test data pages 7-10).
3. If the scaled SAR levels evaluated at the mid channel (50% duty cycle) were ≥ 3 dB below the SAR limit, SAR evaluation for the low and high channels was optional per FCC OET Bulletin 65, Supplement C, Edition 01-01 (see reference [3]).
4. The power drift of the DUT during the SAR evaluations was measured by the DASY4 system.
5. The power droops measured by the DASY4 system for the duration of the SAR evaluations were added to the measured SAR levels to report scaled SAR results as shown in the above table.
6. The ambient and fluid temperatures were measured prior to, and during, the fluid dielectric parameter check and the SAR evaluations. The temperatures reported were consistent for all measurement periods.
7. The dielectric parameters of the simulated tissue mixture were measured prior to the SAR evaluations using an ALS-PR-DIEL Dielectric Probe Kit and an HP 8753ET Network Analyzer (see Appendix C for measured fluid dielectric parameters).
8. SAR measurements were performed within 24 hours of the system performance check.

SAR MEASUREMENT SUMMARY (Cont.)

BODY-WORN SAR EVALUATION RESULTS

Handheld System Radio (Model No.: MAHROS0050) with Speaker-Microphone Antenna Version (P/N: KRY 101 1617/184)

Freq. (MHz)	Chan.	Test Mode	Antenna		Battery Type	Audio Accessory	Body-worn Access.	Sep. Dist. to Planar Phantom (cm)	Cond. Power Before Test (dBm)	Measured SAR 1g (W/kg)		SAR Drift During Test (dB)	Scaled SAR 1g (W/kg)	
										Duty Cycle			Duty Cycle	
			Type	Part No.						100%	50%		100%	50%
766.9875	Mid	CW	½-wave	KRE 101 1506/1	NiCd NIS	Earphone	Lapel Clip	1.3	34.02	2.33	1.17	0.104	-	-
766.9875	Mid	CW	¼-wave	KRE 101 1506/2	NiMH NIS	Earphone	Lapel Clip	1.3	34.12	6.12	**3.06**	0.103	**6.45***	**3.23**
796.9875	Mid	CW	½-wave	KRE 101 1506/1	NiMH IS	Earphone	Lapel Clip	1.3	34.09	4.12	2.06	0.144	-	-
796.9875	Mid	CW	¼-wave	KRE 101 1506/2	NiCd NIS	Earphone	Lapel Clip	1.3	34.13	5.63	**2.82**	0.0948	**6.09****	**3.04**

ANSI / IEEE C95.1 1999 - SAFETY LIMIT | **BODY: 8.0 W/kg (averaged over 1 gram)** | **Spatial Peak - Controlled Exposure**

Test Date(s)	July 28, 2005		766.9875 MHz		July 26, 2005		796.9875 MHz		Test Date(s)	Jul 28	Jul 26	Unit
Dielectric Constant ε_r	767 MHz Body Tissue Simulant				797 MHz Body Tissue Simulant				Atmospheric Pressure	101.6	102.0	kPa
	Interpolated Target		Meas.	Dev.	Interpolated Target		Meas.	Dev.	Relative Humidity	31	30	%
	55.4	**± 5%**	54.3	-2.0%	**55.3**	**± 5%**	54.5	-1.4%	Ambient Temperature	25.0	25.5	°C
Conductivity σ (mho/m)	767 MHz Body Tissue Simulant				797 MHz Body Tissue Simulant				Fluid Temperature	22.7	23.3	°C
	Interpolated Target		Meas.	Dev.	Interpolated Target		Meas.	Dev.	Fluid Depth	≥ 15	≥ 15	cm
	0.96	**± 5%**	0.92	-4.2%	**0.96**	**± 5%**	0.91	-5.0%	ρ (Kg/m^3)	1000		

*** SAR level scaled up by + 0.23 dB to maximum conducted power level measured at 766.9875 MHz (see test data page 19).**
**** SAR level scaled up by + 0.34 dB to maximum conducted power level measured at 796.9875 MHz (see test data page 17).**

Note(s):

1. The measurement results were obtained with the DUT tested in the conditions described in this report. Detailed measurement data and plots showing the maximum SAR location of the DUT are reported in Appendix A.
2. The battery type tested with each antenna type for the Speaker-Microphone Antenna Version body-worn configuration was equivalent to the battery type used for the face-held SAR evaluations (see test data page 11).
3. If the scaled SAR levels evaluated at the mid channel (50% duty cycle) were ≥ 3 dB below the SAR limit, SAR evaluation for the low and high channels was optional per FCC OET Bulletin 65, Supplement C, Edition 01-01 (see reference [3]).
4. The power drift of the DUT during the SAR evaluations was measured by the DASY4 system.
5. The ambient and fluid temperatures were measured prior to, and during, the fluid dielectric parameter check and the SAR evaluations. The temperatures reported were consistent for all measurement periods.
6. The dielectric parameters of the simulated tissue mixture were measured prior to the SAR evaluations using an ALS-PR-DIEL Dielectric Probe Kit and an HP 8753ET Network Analyzer (see Appendix C for measured fluid dielectric parameters).
7. SAR measurements were performed within 24 hours of the system performance check.

SAR MEASUREMENT SUMMARY (Cont.)

BODY-WORN SAR EVALUATION RESULTS

Handheld System Radio (Model No.: MAHROS0050) with Speaker-Microphone Antenna Version (P/N: KRY 101 1617/184)

Freq. (MHz)	Chan.	Test Mode	Antenna Type	Antenna Part No.	Battery Type	Audio Accessory	Body-worn Access.	Separ. Dist. to Planar Phantom (cm)	Cond. Power Before Test (dBm)	Measured SAR 1g (W/kg) Duty Cycle 100%	Measured SAR 1g (W/kg) Duty Cycle 50%	SAR Drift During Test (dB)	Scaled SAR 1g (W/kg) with droop Duty Cycle 100%	Scaled SAR 1g (W/kg) with droop Duty Cycle 50%
815.0000	Mid	CW	½-wave	KRE 101 1506/1	NiMH NIS	Earphone	Lapel Clip	1.3	34.83	5.14	2.57	-0.0404	5.19	2.60
815.0000	Mid	CW	¼-wave	KRE 101 1506/2	NiCd IS	Earphone	Lapel Clip	1.3	34.81	6.02	**3.01**	0.161	**6.13***	**3.07**
860.0000	Mid	CW	½-wave	KRE 101 1506/1	NiCd NIS	Earphone	Lapel Clip	1.3	34.89	5.52	2.76	0.0536	-	-
860.0000	Mid	CW	¼-wave	KRE 101 1506/2	NiMH IS	Earphone	Lapel Clip	1.3	34.91	6.38	**3.19**	0.0725	**6.76****	**3.38**

ANSI / IEEE C95.1 1999 - SAFETY LIMIT	BODY: 8.0 W/kg (averaged over 1 gram)	Spatial Peak - Controlled Exposure

Test Date(s)	July 22, 2005	815.0000 MHz			July 21, 2005	860.0000 MHz			Test Date(s)	Jul 22	Jul 21	Unit
Dielectric Constant ε_r	815 MHz Body Tissue Simulant				860 MHz Body Tissue Simulant				Atmospheric Pressure	101.9	101.9	kPa
	Interpolated Target		Meas.	Dev.	Interpolated Target		Meas.	Dev.	Relative Humidity	31	30	%
	55.3	**± 5%**	54.9	-0.7%	**55.1**	**± 5%**	55.4	+0.5%	Ambient Temperature	24.5	25.3	°C
Conductivity σ (mho/m)	815 MHz Body Tissue Simulant				860 MHz Body Tissue Simulant				Fluid Temperature	22.5	22.8	°C
	Interpolated Target		Meas.	Dev.	Interpolated Target		Meas.	Dev.	Fluid Depth	≥ 15	≥ 15	cm
	0.97	**± 5%**	0.97	0.0%	**0.98**	**± 5%**	1.03	+5.0%	ρ (Kg/m^3)	1000		

*** SAR level scaled up by + 0.08 dB to maximum conducted power level measured at 815.0000 MHz (see test data page 25).**
**** SAR level scaled up by + 0.25 dB to maximum conducted power level measured at 860.0000 MHz (see test data page 28).**

Note(s):

1. The measurement results were obtained with the DUT tested in the conditions described in this report. Detailed measurement data and plots showing the maximum SAR location of the DUT are reported in Appendix A.
2. The battery type tested with each antenna type for the Speaker-Microphone Antenna Version body-worn configuration was equivalent to the battery type used for the face-held SAR evaluations (see test data page 12).
3. If the scaled SAR levels evaluated at the mid channel (50% duty cycle) were ≥ 3 dB below the SAR limit, SAR evaluation for the low and high channels was optional per FCC OET Bulletin 65, Supplement C, Edition 01-01 (see reference [3]).
4. The power drift of the DUT during the SAR evaluations was measured by the DASY4 system.
5. The power droop measured by the DASY4 system for the duration of the SAR evaluation was added to the measured SAR level to report a scaled SAR result as shown in the above table.
6. The ambient and fluid temperatures were measured prior to, and during, the fluid dielectric parameter check and the SAR evaluations. The temperatures reported were consistent for all measurement periods.
7. The dielectric parameters of the simulated tissue mixture were measured prior to the SAR evaluations using an ALS-PR-DIEL Dielectric Probe Kit and an HP 8753ET Network Analyzer (see Appendix C for measured fluid dielectric parameters).
8. SAR measurements were performed within 24 hours of the system performance check.

SAR MEASUREMENT SUMMARY (Cont.)

BODY-WORN SAR EVALUATION RESULTS

Handheld System Radio (Model No.: MAHROS0050) with Speaker-Microphone Antenna Version Ruggedized (P/N: KRY 101 1617/384)

Freq. (MHz)	Chan.	Test Mode	Antenna		Battery Type	Audio Accessory	Body-worn Access.	Separ. Dist. to Planar Phantom (cm)	Cond. Power Before Test (dBm)	Measured SAR 1g (W/kg)		SAR Drift During Test (dB)	Scaled SAR 1g (W/kg) with droop	
										Duty Cycle			Duty Cycle	
			Type	Part No.						100%	50%		100%	50%
766.9875	Mid	CW	½-wave	KRE 101 1506/1	NiCd NIS	Ranger Headset	Lapel Clip	1.3	34.06	1.97	0.985	0.0999	-	-
766.9875	Mid	CW	¼-wave	KRE 101 1506/2	NiMH NIS	Ranger Headset	Lapel Clip	1.3	34.16	5.48	**2.74**	0.129	**5.73***	**2.86**
796.9875	Mid	CW	½-wave	KRE 101 1506/1	NiMH IS	Ranger Headset	Lapel Clip	1.3	**34.47*****	3.77	1.89	-0.00433	3.77	1.89
796.9875	Mid	CW	¼-wave	KRE 101 1506/2	NiCd NIS	Ranger Headset	Lapel Clip	1.3	34.35	4.38	**2.19**	0.114	**4.50****	**2.25**

ANSI / IEEE C95.1 1999 - SAFETY LIMIT | **BODY: 8.0 W/kg (averaged over 1 gram)** | **Spatial Peak - Controlled Exposure**

Test Date(s)	July 28, 2005		766.9875 MHz		July 27, 2005		796.9875 MHz		Test Date(s)	Jul 28	Jul 27	Unit
Dielectric Constant ε_r	767 MHz Body Tissue Simulant				797 MHz Body Tissue Simulant				Atmospheric Pressure	101.6	102.2	kPa
	Interpolated Target		Meas.	Dev.	Interpolated Target		Meas.	Dev.	Relative Humidity	31	31	%
	55.4	**± 5%**	54.3	-2.0%	**55.3**	**± 5%**	54.1	-2.2%	Ambient Temperature	25.0	24.8	°C
Conductivity σ (mho/m)	767 MHz Body Tissue Simulant				797 MHz Body Tissue Simulant				Fluid Temperature	22.7	22.3	°C
	Interpolated Target		Meas.	Dev.	Interpolated Target		Meas.	Dev.	Fluid Depth	≥ 15	≥ 15	cm
	0.96	**± 5%**	0.92	-4.2%	**0.96**	**± 5%**	0.94	-2.1%	ρ (Kg/m^3)	1000		

*** SAR level scaled up by + 0.19 dB to maximum conducted power level measured at 766.9875 MHz (see test data page 19).**
**** SAR level scaled up by + 0.12 dB to maximum conducted power level measured at 796.9875 MHz.**
***** Maximum conducted power level measured at 796.9875 MHz.**

Note(s):

1. The measurement results were obtained with the DUT tested in the conditions described in this report. Detailed measurement data and plots showing the maximum SAR location of the DUT are reported in Appendix A.
2. The battery type tested with each antenna type for the Speaker-Microphone Antenna Version body-worn configuration was equivalent to the battery type used for the face-held SAR evaluations (see test data page 13).
3. If the scaled SAR levels evaluated at the mid channel (50% duty cycle) were ≥ 3 dB below the SAR limit, SAR evaluation for the low and high channels was optional per FCC OET Bulletin 65, Supplement C, Edition 01-01 (see reference [3]).
4. The power drift of the DUT during the SAR evaluations was measured by the DASY4 system.
5. The power droop measured by the DASY4 system for the duration of the SAR evaluation was added to the measured SAR level to report a scaled SAR result as shown in the above table.
6. The ambient and fluid temperatures were measured prior to, and during, the fluid dielectric parameter check and the SAR evaluations. The temperatures reported were consistent for all measurement periods.
7. The dielectric parameters of the simulated tissue mixture were measured prior to the SAR evaluations using an ALS-PR-DIEL Dielectric Probe Kit and an HP 8753ET Network Analyzer (see Appendix C for measured fluid dielectric parameters).
8. SAR measurements were performed within 24 hours of the system performance check.

SAR MEASUREMENT SUMMARY (Cont.)

BODY-WORN SAR EVALUATION RESULTS

Handheld System Radio (Model No.: MAHROS0050) with Speaker-Microphone Antenna Version Ruggedized (P/N: KRY 101 1617/384)

Freq. (MHz)	Chan.	Test Mode	Antenna		Battery Type	Audio Accessory	Body-worn Access.	Separ. Dist. to Planar Phantom (cm)	Cond. Power Before Test (dBm)	Measured SAR 1g (W/kg)		SAR Drift During Test (dB)	Scaled SAR 1g (W/kg) with droop	
										Duty Cycle			Duty Cycle	
			Type	Part No.						100%	50%		100%	50%
815.0000	Mid	CW	½-wave	KRE 101 1506/1	NiMH NIS	Ranger Headset	Lapel-Clip	1.3	34.80	4.94	2.47	-0.0533	5.00	2.50
815.0000	Mid	CW	¼-wave	KRE 101 1506/2	NiCd IS	Ranger Headset	Lapel-Clip	1.3	34.82	5.64	**2.82**	0.134	**5.73***	**2.87**
860.0000	Mid	CW	½-wave	KRE 101 1506/1	NiCd NIS	Ranger Headset	Lapel-Clip	1.3	34.89	5.24	2.62	0.0527	-	-
860.0000	Mid	CW	¼-wave	KRE 101 1506/2	NiMH IS	Ranger Headset	Lapel-Clip	1.3	34.83	5.47	**2.74**	-0.0553	**5.98****	**2.99**

ANSI / IEEE C95.1 1999 - SAFETY LIMIT | **BODY: 8.0 W/kg (averaged over 1 gram)** | **Spatial Peak - Controlled Exposure**

Test Date(s)	July 22, 2005		815.0000 MHz		July 21, 2005		860.0000 MHz		Test Date(s)	Jul 22	Jul 21	Unit
Dielectric Constant ε_r	815 MHz Body Tissue Simulant				860 MHz Body Tissue Simulant				Atmospheric Pressure	101.9	101.9	kPa
	Interpolated Target		Meas.	Dev.	Interpolated Target		Meas.	Dev.	Relative Humidity	31	30	%
	55.3	**± 5%**	54.9	-0.7%	**55.1**	**± 5%**	55.4	+0.5%	Ambient Temperature	24.5	25.3	°C
Conductivity σ (mho/m)	815 MHz Body Tissue Simulant				860 MHz Body Tissue Simulant				Fluid Temperature	22.5	22.8	°C
	Interpolated Target		Meas.	Dev.	Interpolated Target		Meas.	Dev.	Fluid Depth	≥ 15	≥ 15	cm
	0.97	**± 5%**	0.97	0.0%	**0.98**	**± 5%**	1.03	+5.0%	ρ (Kg/m^3)	1000		

*** SAR level scaled up by + 0.07 dB to maximum conducted power level measured at 815.0000 MHz (see test data page 25).**
**** SAR level scaled by droop + 0.33 dB to maximum conducted power level measured at 860.0000 MHz (see test data page 28).**

Note(s):

1. The measurement results were obtained with the DUT tested in the conditions described in this report. Detailed measurement data and plots showing the maximum SAR location of the DUT are reported in Appendix A.
2. The battery type tested with each antenna type for the Speaker-Microphone Antenna Version body-worn configuration was equivalent to the battery type used for the face-held SAR evaluations (see test data page 14).
3. If the scaled SAR levels evaluated at the mid channel (50% duty cycle) were ≥ 3 dB below the SAR limit, SAR evaluation for the low and high channels was optional per FCC OET Bulletin 65, Supplement C, Edition 01-01 (see reference [3]).
4. The power drift of the DUT during the SAR evaluations was measured by the DASY4 system.
5. The power droops measured by the DASY4 system for the duration of the SAR evaluations were added to the measured SAR levels to report scaled SAR results as shown in the above table.
6. The ambient and fluid temperatures were measured prior to, and during, the fluid dielectric parameter check and the SAR evaluations. The temperatures reported were consistent for all measurement periods.
7. The dielectric parameters of the simulated tissue mixture were measured prior to the SAR evaluations using an ALS-PR-DIEL Dielectric Probe Kit and an HP 8753ET Network Analyzer (see Appendix C for measured fluid dielectric parameters).
8. SAR measurements were performed within 24 hours of the system performance check.

SAR MEASUREMENT SUMMARY (Cont.)

BODY-WORN SAR EVALUATION RESULTS

Handheld Radio Transceiver (System Radio Model No.: MAHROS0050)

With Metal Belt-Clip (P/N: KRY 101 1647/1) & Speaker-Microphone (P/N: KRY 101 1617/183) Accessories

Freq. (MHz)	Chan.	Test Mode	Antenna Type	Antenna Part No.	Battery Type	Belt-Clip Separation Distance to Planar Phantom (cm)	Cond. Power Before Test (dBm)	Measured SAR 1g (W/kg) Duty Cycle 100%	Measured SAR 1g (W/kg) Duty Cycle 50%	SAR Drift During Test (dB)	Scaled SAR 1g (W/kg) with droop Duty Cycle 100%	Scaled SAR 1g (W/kg) with droop Duty Cycle 50%
766.9875	Mid	CW	½-Wave	KRE 101 1506/1	NiMH IS	1.1	34.25	P 2.25	1.13	0.0173	P -	-
								S 1.38	0.690		S -	-
766.9875	Mid	CW	½-Wave	KRE 101 1506/1	NiMH NIS	1.1	34.08	P 2.14	1.07	0.172	P -	-
								S 1.25	0.625		S -	-
766.9875	Mid	CW	½-Wave	KRE 101 1506/1	NiCd IS	1.1	34.21	2.06	1.03	0.0646	-	-
766.9875	Mid	CW	½-Wave	KRE 101 1506/1	NiCd NIS	1.1	34.33	P 2.14	1.07	0.0151	P -	-
								S 1.22	0.610		S -	-
766.9875	Mid	CW	¼-Wave	KRE 101 1506/2	NiMH IS	1.1	34.29	11.3	5.65	0.545	-	-
766.9875	Mid	CW	¼-Wave	KRE 101 1506/2	NiMH NIS	1.1	34.22	14.3	7.15	-0.0292	**14.8***	**7.42**
766.9875	Mid	CW	¼-Wave	KRE 101 1506/2	NiCd IS	1.1	34.21	12.2	6.10	0.201	-	-
766.9875	Mid	CW	¼-Wave	KRE 101 1506/2	NiCd NIS	1.1	**34.35****	14.4	**7.20**	0.104	-	**-**
764.0125	Low	CW	¼-Wave	KRE 101 1506/2	NiMH NIS	1.1	34.38	13.5	6.75	0.207	-	-
775.9875	High	CW	¼-Wave	KRE 101 1506/2	NiMH NIS	1.1	34.12	11.1	5.55	0.128	-	-

ANSI / IEEE C95.1 1999 - SAFETY LIMIT	BODY: 8.0 W/kg (averaged over 1 gram)	Spatial Peak - Controlled Exposure

Test Date(s)	July 28, 2005			Relative Humidity	31	%
Measured Fluid Type	767 MHz Body Tissue Simulant			Atmospheric Pressure	101.6	kPa
Dielectric Constant ε_r	Interpolated Target	Measured	Deviation	Ambient Temperature	25.0	°C
	55.4 ± 5%	54.3	-2.0%	Fluid Temperature	22.7	°C
Conductivity σ (mho/m)	Interpolated Target	Measured	Deviation	Fluid Depth	≥ 15	cm
	0.96 ± 5%	0.92	-4.2%	ρ (Kg/m^3)	1000	

*** SAR level scaled by power droop + 0.13 dB to maximum conducted power level measured at 766.9875 MHz.**
**** Maximum conducted power level measured at 766.9875 MHz.**

Note(s):
1. The measurement results were obtained with the DUT tested in the conditions described in this report. Detailed measurement data and plots showing the maximum SAR location of the DUT are reported in Appendix A.
2. If the scaled SAR levels evaluated at the mid channel (50% duty cycle) were ≥ 3 dB below the SAR limit, SAR evaluation for the low and high channels was optional per FCC OET Bulletin 65, Supplement C, Edition 01-01 (see reference [3]).
3. Secondary peak SAR levels were reported within 2 dB of the primary (P = Primary, S = Secondary).
4. The power drift of the DUT during the SAR evaluations was measured by the DASY4 system.
5. The power droop measured by the DASY4 system for the duration of the SAR evaluation was added to the measured SAR level to report a scaled SAR result as shown in the above table.
6. A SAR-versus-Time power drift evaluation was performed in the test configuration that reported the maximum scaled SAR level (Body-Worn, 766.9875 MHz, ¼-wave antenna, NiMH NIS battery). See Appendix A (SAR Test Plots) for SAR-versus-Time power drift evaluation plot.
7. SAR measurements were performed within 24 hours of the system performance check.

SAR MEASUREMENT SUMMARY (Cont.)

BODY-WORN SAR EVALUATION RESULTS

Handheld Radio Transceiver (System Radio Model No.: MAHROS0050)

With Metal Belt-Clip (P/N: KRY 101 1647/1) & Speaker-Microphone (P/N: KRY 101 1617/183) Accessories

Freq. (MHz)	Chan.	Test Mode	Antenna		Battery Type	Belt-Clip Separation Distance to Planar Phantom (cm)	Cond. Power Before Test (dBm)	Measured SAR 1g (W/kg)		SAR Drift During Test (dB)	Scaled SAR 1g (W/kg) with droop	
								Duty Cycle			Duty Cycle	
			Type	Part No.				100%	50%		100%	50%
796.9875	Mid	CW	½-Wave	KRE 101 1506/1	NiMH IS	1.1	34.30	2.17	1.09	-0.137	2.24	1.12
796.9875	Mid	CW	½-Wave	KRE 101 1506/1	NiMH NIS	1.1	34.16	2.26	1.13	-0.429	2.49	1.25
796.9875	Mid	CW	½-Wave	KRE 101 1506/1	NiCd IS	1.1	34.31	2.22	1.11	0.182	-	-
796.9875	Mid	CW	½-Wave	KRE 101 1506/1	NiCd NIS	1.1	34.35	2.32	1.16	0.0387	-	-
796.9875	Mid	CW	¼-Wave	KRE 101 1506/2	NiMH IS	1.1	34.38	10.7	5.35	0.0365	-	-
796.9875	Mid	CW	¼-Wave	KRE 101 1506/2	NiMH NIS	1.1	34.22	8.98	4.49	0.103	-	-
796.9875	Mid	CW	¼-Wave	KRE 101 1506/2	NiCd IS	1.1	34.27	10.6	5.30	-0.0757	**11.3***	**5.65**
796.9875	Mid	CW	¼-Wave	KRE 101 1506/2	NiCd NIS	1.1	34.31	11.1	**5.55**	0.0709	**11.5****	**5.76**
794.0125	Low	CW	¼-Wave	KRE 101 1506/2	NiCd NIS	1.1	34.42	10.7	5.35	0.0629	-	-
805.9875	High	CW	¼-Wave	KRE 101 1506/2	NiCd NIS	1.1	34.12	10.1	5.05	0.163	-	-

ANSI / IEEE C95.1 1999 - SAFETY LIMIT	BODY: 8.0 W/kg (averaged over 1 gram)	Spatial Peak - Controlled Exposure

Test Date(s)	July 27, 2005			Relative Humidity	31	%
Measured Fluid Type	797 MHz Body Tissue Simulant			Atmospheric Pressure	102.2	kPa
Dielectric Constant ε_r	Interpolated Target	Measured	Deviation	Ambient Temperature	24.8	°C
	55.3 ± 5%	54.1	-2.2%	Fluid Temperature	22.3	°C
Conductivity σ (mho/m)	Interpolated Target	Measured	Deviation	Fluid Depth	≥ 15	cm
	0.96 ± 5%	0.94	-2.1%	ρ (Kg/m^3)	1000	

*** SAR level scaled by droop + 0.20 dB to maximum conducted power level measured at 796.9875 MHz (see test data page 17).**
**** SAR level scaled up + 0.16 dB to maximum conducted power level measured at 796.9875 MHz (see test data page 17).**

Note(s):

1. The measurement results were obtained with the DUT tested in the conditions described in this report. Detailed measurement data and plots showing the maximum SAR location of the DUT are reported in Appendix A.
2. If the scaled SAR levels evaluated at the mid channel (50% duty cycle) were ≥ 3 dB below the SAR limit, SAR evaluation for the low and high channels was optional per FCC OET Bulletin 65, Supplement C, Edition 01-01 (see reference [3]).
3. The power drift of the DUT during the SAR evaluations was measured by the DASY4 system.
4. The power droops measured by the DASY4 system for the duration of the SAR evaluations were added to the measured SAR levels to report scaled SAR results as shown in the above table.
5. The ambient and fluid temperatures were measured prior to, and during, the fluid dielectric parameter check and the SAR evaluations. The temperatures reported were consistent for all measurement periods.
6. The dielectric parameters of the simulated tissue mixture were measured prior to the SAR evaluations using an ALS-PR-DIEL Dielectric Probe Kit and an HP 8753ET Network Analyzer (see Appendix C for measured fluid dielectric parameters).
7. SAR measurements were performed within 24 hours of the system performance check.

SAR MEASUREMENT SUMMARY (Cont.)

BODY-WORN SAR EVALUATION RESULTS

Handheld Radio Transceiver (System Radio Model No.: MAHROS0050)

With Metal Belt-Clip (P/N: KRY 101 1647/1) & Speaker-Microphone (P/N: KRY 101 1617/183) Accessories

Freq. (MHz)	Chan.	Test Mode	Antenna		Battery Type	Belt-Clip Separation Distance to Planar Phantom (cm)	Cond. Power Before Test (dBm)	Measured SAR 1g (W/kg)		SAR Drift During Test (dB)	Scaled SAR 1g (W/kg) with droop	
								Duty Cycle			Duty Cycle	
			Type	Part No,				100%	50%		100%	50%
815.0000	Mid	CW	½-Wave	KRE 101 1506/1	NiMH IS	1.1	34.68	3.32	1.66	0.237	-	-
815.0000	Mid	CW	½-Wave	KRE 101 1506/1	NiMH NIS	1.1	34.62	2.82	1.41	0.308	-	-
815.0000	Mid	CW	½-Wave	KRE 101 1506/1	NiCd IS	1.1	34.66	2.86	1.43	-0.0351	2.88	1.44
815.0000	Mid	CW	½-Wave	KRE 101 1506/1	NiCd NIS	1.1	34.61	2.98	1.49	-0.165	3.10	1.55
815.0000	Mid	CW	¼-Wave	KRE 101 1506/2	NiMH IS	1.1	34.73	8.28	4.14	-0.151	8.57	4.29
815.0000	Mid	CW	¼-Wave	KRE 101 1506/2	NiMH NIS	1.1	34.62	11.0	5.50	0.151	**11.7***	**5.85**
815.0000	Mid	CW	¼-Wave	KRE 101 1506/2	NiCd IS	1.1	34.62	9.64	4.82	-0.0236	9.69	4.85
815.0000	Mid	CW	¼-Wave	KRE 101 1506/2	NiCd NIS	1.1	34.70	10.5	5.25	0.119	-	-
806.0125	Low	CW	¼-Wave	KRE 101 1506/2	NiMH NIS	1.1	34.65	11.6	**5.80**	0.161	-	-
823.9875	High	CW	¼-Wave	KRE 101 1506/2	NiMH NIS	1.1	34.93	9.85	4.93	-0.203	10.3	5.16

ANSI / IEEE C95.1 1999 - SAFETY LIMIT	BODY: 8.0 W/kg (averaged over 1 gram)	Spatial Peak - Controlled Exposure

Test Date(s)	July 25, 2005			Relative Humidity	30	%
Measured Fluid Type	815 MHz Body Tissue Simulant			Atmospheric Pressure	101.9	kPa
Dielectric Constant ε_r	Interpolated Target	Measured	Deviation	Ambient Temperature	23.6	°C
	55.3 ± 5%	54.4	-1.6%	Fluid Temperature	22.8	°C
Conductivity σ (mho/m)	Interpolated Target	Measured	Deviation	Fluid Depth	≥ 15	cm
	0.97 ± 5%	0.96	-1.0%	ρ (Kg/m^3)	1000	

*** SAR level scaled up by + 0.27 dB to maximum conducted power level measured at 815.0000 MHz (see test data page 25).**

Note(s):

1. The measurement results were obtained with the DUT tested in the conditions described in this report. Detailed measurement data and plots showing the maximum SAR location of the DUT are reported in Appendix A.
2. If the scaled SAR levels evaluated at the mid channel (50% duty cycle) were ≥ 3 dB below the SAR limit, SAR evaluation for the low and high channels was optional per FCC OET Bulletin 65, Supplement C, Edition 01-01 (see reference [3]).
3. The power drift of the DUT during the SAR evaluations was measured by the DASY4 system.
4. The power droops measured by the DASY4 system for the duration of the SAR evaluations were added to the measured SAR levels to report scaled SAR results as shown in the above table.
5. The ambient and fluid temperatures were measured prior to, and during, the fluid dielectric parameter check and the SAR evaluations. The temperatures reported were consistent for all measurement periods.
6. The dielectric parameters of the simulated tissue mixture were measured prior to the SAR evaluations using an ALS-PR-DIEL Dielectric Probe Kit and an HP 8753ET Network Analyzer (see Appendix C for measured fluid dielectric parameters).
7. SAR measurements were performed within 24 hours of the system performance check.

SAR MEASUREMENT SUMMARY (Cont.)

BODY-WORN SAR EVALUATION RESULTS

Handheld Radio Transceiver (System Radio Model No.: MAHROS0050)

With Metal Belt-Clip (P/N: KRY 101 1647/1) & Speaker-Microphone (P/N: KRY 101 1617/183) Accessories

Freq. (MHz)	Chan.	Test Mode	Antenna		Battery Type	Belt-Clip Separation Distance to Planar Phantom (cm)	Cond. Power Before Test (dBm)	Measured SAR 1g (W/kg)		SAR Drift During Test (dB)	Scaled SAR 1g (W/kg) with droop	
								Duty Cycle			Duty Cycle	
			Type	Part No.				100%	50%		100%	50%
860.0000	Mid	CW	½-Wave	KRE 101 1506/1	NiMH IS	1.1	34.85	2.44	1.22	-0.279	2.60	1.30
860.0000	Mid	CW	½-Wave	KRE 101 1506/1	NiMH NIS	1.1	34.93	2.61	1.31	0.110	-	-
860.0000	Mid	CW	½-Wave	KRE 101 1506/1	NiCd IS	1.1	34.77	2.68	1.34	0.560	-	-
860.0000	Mid	CW	½-Wave	KRE 101 1506/1	NiCd NIS	1.1	35.00	2.52	1.26	0.585	-	-
860.0000	Mid	CW	¼-Wave	KRE 101 1506/2	NiMH IS	1.1	34.88	8.14	4.07	-0.0536	8.24	4.12
860.0000	Mid	CW	¼-Wave	KRE 101 1506/2	NiMH NIS	1.1	34.92	7.88	3.94	0.0342	-	-
860.0000	Mid	CW	¼-Wave	KRE 101 1506/2	NiCd IS	1.1	34.90	8.70	**4.35**	-0.0391	**9.32***	**4.66**
860.0000	Mid	CW	¼-Wave	KRE 101 1506/2	NiCd NIS	1.1	34.95	8.05	4.03	-0.0686	8.18	4.09
851.0125	Low	CW	¼-Wave	KRE 101 1506/2	NiCd IS	1.1	34.92	8.35	4.18	0.192	-	-
868.9875	High	CW	¼-Wave	KRE 101 1506/2	NiCd IS	1.1	34.92	6.93	3.47	-0.229	7.31	3.65

ANSI / IEEE C95.1 1999 - SAFETY LIMIT	BODY: 8.0 W/kg (averaged over 1 gram)	Spatial Peak - Controlled Exposure

Test Date(s)	July 22, 2005			Relative Humidity	33	%
Measured Fluid Type	860 MHz Body Tissue Simulant			Atmospheric Pressure	101.9	kPa
Dielectric Constant ε_r	Interpolated Target	Measured	Deviation	Ambient Temperature	25.1	°C
	55.1 ± **5%**	54.1	-1.8%	Fluid Temperature	22.5	°C
Conductivity σ (mho/m)	Interpolated Target	Measured	Deviation	Fluid Depth	≥ 15	cm
	0.98 ± **5%**	1.01	+3.1%	ρ (Kg/m^3)	1000	

*** SAR level scaled by droop + 0.26 dB to maximum conducted power level measured at 860.0000 MHz (see test data page 28).**

Note(s):

1. The measurement results were obtained with the DUT tested in the conditions described in this report. Detailed measurement data and plots showing the maximum SAR location of the DUT are reported in Appendix A.
2. If the scaled SAR levels evaluated at the mid channel (50% duty cycle) were ≥ 3 dB below the SAR limit, SAR evaluation for the low and high channels was optional per FCC OET Bulletin 65, Supplement C, Edition 01-01 (see reference [3]).
3. The power drift of the DUT during the SAR evaluations was measured by the DASY4 system.
4. The power droops measured by the DASY4 system for the duration of the SAR evaluations were added to the measured SAR levels to report scaled SAR results as shown in the above table.
5. The ambient and fluid temperatures were measured prior to, and during, the fluid dielectric parameter check and the SAR evaluations. The temperatures reported were consistent for all measurement periods.
6. The dielectric parameters of the simulated tissue mixture were measured prior to the SAR evaluations using an ALS-PR-DIEL Dielectric Probe Kit and an HP 8753ET Network Analyzer (see Appendix C for measured fluid dielectric parameters).
7. SAR measurements were performed within 24 hours of the system performance check.

SAR MEASUREMENT SUMMARY (Cont.)

BODY-WORN SAR EVALUATION RESULTS

Handheld Radio Transceiver (System Radio Model No.: MAHROS0050)

With Leather Case Kit (KRY 101 1639/4), Shoulder Strap (P/N: CC103333V1), & Speaker-Microphone (P/N: KRY 101 1617/183)

Freq. (MHz)	Chan.	Test Mode	Antenna Type	Antenna Part No.	Battery Type	Accessory Separation Distance to Planar Phantom (cm)	Cond. Power Before Test (dBm)	Measured SAR 1g (W/kg) Duty Cycle 100%	Measured SAR 1g (W/kg) Duty Cycle 50%	SAR Drift During Test (dB)	Scaled SAR 1g (W/kg) with droop Duty Cycle 100%	Scaled SAR 1g (W/kg) with droop Duty Cycle 50%
766.9875	Mid	CW	½-Wave	KRE 101 1506/1	NiMH IS	1.1	33.99	2.13	1.07	0.132	-	-
766.9875	Mid	CW	½-Wave	KRE 101 1506/1	NiMH NIS	1.1	33.96	2.04	1.02	-0.151	2.11	1.06
766.9875	Mid	CW	½-Wave	KRE 101 1506/1	NiCd IS	1.1	33.92	2.03	1.02	-0.0203	2.04	1.02
766.9875	Mid	CW	½-Wave	KRE 101 1506/1	NiCd NIS	1.1	33.90	**P** 2.15	1.08	0.306	**P** -	-
								S 0.975	0.488		**S** -	-
766.9875	Mid	CW	¼-Wave	KRE 101 1506/2	NiMH IS	1.1	33.99	**P** 3.72	1.86	0.178	**P** -	-
								S 3.67	1.84		**S** -	-
766.9875	Mid	CW	¼-Wave	KRE 101 1506/2	NiMH NIS	1.1	33.97	3.69	1.85	0.194	-	-
766.9875	Mid	CW	¼-Wave	KRE 101 1506/2	NiCd IS	1.1	34.01	4.02	2.01	0.183	-	-
766.9875	Mid	CW	¼-Wave	KRE 101 1506/2	NiCd NIS	1.1	33.96	5.07	**2.54**	0.0942	**5.55***	**2.77**

ANSI / IEEE C95.1 1999 - SAFETY LIMIT	BODY: 8.0 W/kg (averaged over 1 gram)	Spatial Peak - Controlled Exposure

Test Date(s)	July 28, 2005			Relative Humidity	31	%
Measured Fluid Type	767 MHz Body Tissue Simulant			Atmospheric Pressure	101.6	kPa
Dielectric Constant ε_r	Interpolated Target	Measured	Deviation	Ambient Temperature	25.0	°C
	55.4 ± 5%	54.3	-2.0%	Fluid Temperature	22.7	°C
Conductivity σ (mho/m)	Interpolated Target	Measured	Deviation	Fluid Depth	≥ 15	cm
	0.96 ± 5%	0.92	-4.2%	ρ (Kg/m^3)	1000	

*** SAR level scaled up by + 0.39 dB to maximum conducted power level measured at 766.9875 MHz (see test data page 19).**

Note(s):

1. The measurement results were obtained with the DUT tested in the conditions described in this report. Detailed measurement data and plots showing the maximum SAR location of the DUT are reported in Appendix A.
2. If the scaled SAR levels evaluated at the mid channel (50% duty cycle) were ≥ 3 dB below the SAR limit, SAR evaluation for the low and high channels was optional per FCC OET Bulletin 65, Supplement C, Edition 01-01 (see reference [3]).
3. Secondary peak SAR levels were reported within 2 dB of the primary (P = Primary, S = Secondary).
4. The power drift of the DUT during the SAR evaluations was measured by the DASY4 system.
5. The power droops measured by the DASY4 system for the duration of the SAR evaluations were added to the measured SAR levels to report scaled SAR results as shown in the above table.
6. The ambient and fluid temperatures were measured prior to, and during, the fluid dielectric parameter check and the SAR evaluations. The temperatures reported were consistent for all measurement periods.
7. The dielectric parameters of the simulated tissue mixture were measured prior to the SAR evaluations using an ALS-PR-DIEL Dielectric Probe Kit and an HP 8753ET Network Analyzer (see Appendix C for measured fluid dielectric parameters).
8. SAR measurements were performed within 24 hours of the system performance check.
9. The Leather Case and Shoulder-Strap accessories contain metallic components.

SAR MEASUREMENT SUMMARY (Cont.)

BODY-WORN SAR EVALUATION RESULTS

Handheld Radio Transceiver (System Radio Model No.: MAHROS0050)

With Leather Case Kit (KRY 101 1639/4), Shoulder Strap (P/N: CC103333V1), & Speaker-Microphone (P/N: KRY 101 1617/183)

Freq. (MHz)	Chan.	Test Mode	Antenna Type	Antenna Part No.	Battery Type	Accessory Separation Distance to Planar Phantom (cm)	Cond. Power Before Test (dBm)	Measured SAR 1g (W/kg) Duty Cycle 100%		Measured SAR 1g (W/kg) Duty Cycle 50%	SAR Drift During Test (dB)	Scaled SAR 1g (W/kg) with droop Duty Cycle 100%		Scaled SAR 1g (W/kg) with droop Duty Cycle 50%
796.9875	Mid	CW	½-Wave	KRE 101 1506/1	NiMH IS	1.1	34.08	**P**	2.47	1.24	-0.400	**P**	2.71	1.35
								S	1.44	0.720		**S**	1.58	0.789
796.9875	Mid	CW	½-Wave	KRE 101 1506/1	NiMH NIS	1.1	34.10	2.64		1.32	0.0512	-		-
796.9875	Mid	CW	½-Wave	KRE 101 1506/1	NiCd IS	1.1	34.04	**P**	2.48	1.24	-0.334	P	2.68	1.34
								S	1.97	0.985		S	2.13	1.06
796.9875	Mid	CW	½-Wave	KRE 101 1506/1	NiCd NIS	1.1	34.12	2.31		1.16	0.113	-		-
796.9875	Mid	CW	¼-Wave	KRE 101 1506/2	NiMH IS	1.1	34.09	7.42		3.71	0.0938	-		-
796.9875	Mid	CW	¼-Wave	KRE 101 1506/2	NiMH NIS	1.1	34.11	9.22		**4.61**	-0.0910	**10.2***		**5.11**
796.9875	Mid	CW	¼-Wave	KRE 101 1506/2	NiCd IS	1.1	34.13	9.03		4.52	0.134	-		-
796.9875	Mid	CW	¼-Wave	KRE 101 1506/2	NiCd NIS	1.1	34.08	3.72		1.86	0.171	-		-
794.0125	Low	CW	¼-Wave	KRE 101 1506/2	NiMH NIS	1.1	34.06	4.29		2.15	0.185	-		-
805.9875	High	CW	¼-Wave	KRE 101 1506/2	NiMH NIS	1.1	33.94	2.99		1.50	0.143	-		-

ANSI / IEEE C95.1 1999 - SAFETY LIMIT	BODY: 8.0 W/kg (averaged over 1 gram)	Spatial Peak - Controlled Exposure

Test Date(s)	July 26, 2005			Relative Humidity	30	%
Measured Fluid Type	797 MHz Body Tissue Simulant			Atmospheric Pressure	102.0	kPa
Dielectric Constant ε_r	Interpolated Target	Measured	Deviation	Ambient Temperature	25.5	°C
	55.3 ± **5%**	54.5	-1.4%	Fluid Temperature	23.3	°C
Conductivity σ (mho/m)	Interpolated Target	Measured	Deviation	Fluid Depth	≥ 15	cm
	0.96 ± **5%**	0.91	-5.0%	ρ (Kg/m^3)	1000	

*** SAR level scaled by droop + 0.36 dB to maximum conducted power level measured at 796.9875 MHz (see test data page 17).**

Note(s):

1. The measurement results were obtained with the DUT tested in the conditions described in this report. Detailed measurement data and plots showing the maximum SAR location of the DUT are reported in Appendix A.
2. If the scaled SAR levels evaluated at the mid channel (50% duty cycle) were ≥ 3 dB below the SAR limit, SAR evaluation for the low and high channels was optional per FCC OET Bulletin 65, Supplement C, Edition 01-01 (see reference [3]).
3. Secondary peak SAR levels were reported within 2 dB of the primary (P = Primary, S = Secondary).
4. The power drift of the DUT during the SAR evaluations was measured by the DASY4 system.
5. The power droops measured by the DASY4 system for the duration of the SAR evaluations were added to the measured SAR levels to report scaled SAR results as shown in the above table.
6. The ambient and fluid temperatures were measured prior to, and during, the fluid dielectric parameter check and the SAR evaluations. The temperatures reported in the table above were consistent for all measurement periods.
7. The dielectric parameters of the simulated tissue mixture were measured prior to the SAR evaluations using an ALS-PR-DIEL Dielectric Probe Kit and an HP 8753ET Network Analyzer (see Appendix C for measured fluid dielectric parameters).
8. SAR measurements were performed within 24 hours of the system performance check.
9. The Leather Case and Shoulder-Strap accessories contain metallic components.

SAR MEASUREMENT SUMMARY (Cont.)

BODY-WORN SAR EVALUATION RESULTS

Handheld Radio Transceiver (System Radio Model No.: MAHROS0050)

With Leather Case Kit (KRY 101 1639/4), Shoulder Strap (P/N: CC103333V1), & Speaker-Microphone (P/N: KRY 101 1617/183)

Freq. (MHz)	Chan.	Test Mode	Antenna		Battery Type	Accessory Separation Distance to Planar Phantom (cm)	Cond. Power Before Test (dBm)	Measured SAR 1g (W/kg)		SAR Drift During Test (dB)	Scaled SAR 1g (W/kg) with droop	
								Duty Cycle			Duty Cycle	
			Type	Part No,				100%	50%		100%	50%
815.0000	Mid	CW	½-Wave	KRE 101 1506/1	NiMH IS	1.1	**34.89****	2.87	1.44	-0.101	2.94	1.47
815.0000	Mid	CW	½-Wave	KRE 101 1506/1	NiMH NIS	1.1	34.86	3.10	1.55	-0.140	3.20	1.60
815.0000	Mid	CW	½-Wave	KRE 101 1506/1	NiCd IS	1.1	34.82	3.04	1.52	0.0246	-	-
815.0000	Mid	CW	½-Wave	KRE 101 1506/1	NiCd NIS	1.1	34.83	2.92	1.46	0.00684	-	-
815.0000	Mid	CW	¼-Wave	KRE 101 1506/2	NiMH IS	1.1	34.85	6.86	**3.43**	-0.128	**7.13***	**3.57**
815.0000	Mid	CW	¼-Wave	KRE 101 1506/2	NiMH NIS	1.1	34.83	3.99	2.00	0.107	-	-
815.0000	Mid	CW	¼-Wave	KRE 101 1506/2	NiCd IS	1.1	34.86	3.99	2.00	0.115	-	-
815.0000	Mid	CW	¼-Wave	KRE 101 1506/2	NiCd NIS	1.1	34.87	4.06	2.03	0.192	-	-

ANSI / IEEE C95.1 1999 - SAFETY LIMIT	BODY: 8.0 W/kg (averaged over 1 gram)	Spatial Peak - Controlled Exposure

Test Date(s)	July 22, 2005				Relative Humidity	31	%
Measured Fluid Type	815 MHz Body Tissue Simulant				Atmospheric Pressure	101.9	kPa
Dielectric Constant ε_r	Interpolated Target		Measured	Deviation	Ambient Temperature	24.5	°C
	55.3	**± 5%**	54.9	-0.7%	Fluid Temperature	22.5	°C
Conductivity σ (mho/m)	Interpolated Target		Measured	Deviation	Fluid Depth	≥ 15	cm
	0.97	**± 5%**	0.97	0.0%	ρ (Kg/m^3)	1000	

*** SAR level scaled by droop + 0.04 dB to maximum conducted power level measured at 815.0000 MHz.**
**** Maximum conducted power level measured at 815.0000 MHz.**

Note(s):

1. The measurement results were obtained with the DUT tested in the conditions described in this report. Detailed measurement data and plots showing the maximum SAR location of the DUT are reported in Appendix A.
2. If the scaled SAR levels evaluated at the mid channel (50% duty cycle) were ≥ 3 dB below the SAR limit, SAR evaluation for the low and high channels was optional per FCC OET Bulletin 65, Supplement C, Edition 01-01 (see reference [3]).
3. The power drift of the DUT during the SAR evaluations was measured by the DASY4 system.
4. The power droops measured by the DASY4 system for the duration of the SAR evaluations were added to the measured SAR levels to report scaled SAR results as shown in the above table.
5. The ambient and fluid temperatures were measured prior to, and during, the fluid dielectric parameter check and the SAR evaluations. The temperatures reported were consistent for all measurement periods.
6. The dielectric parameters of the simulated tissue mixture were measured prior to the SAR evaluations using an ALS-PR-DIEL Dielectric Probe Kit and an HP 8753ET Network Analyzer (see Appendix C for measured fluid dielectric parameters).
7. SAR measurements were performed within 24 hours of the system performance check.
8. The Leather Case and Shoulder-Strap accessories contain metallic components.

SAR MEASUREMENT SUMMARY (Cont.)

BODY-WORN SAR EVALUATION RESULTS

Handheld Radio Transceiver (System Radio Model No.: MAHROS0050)

With Leather Case Kit (KRY 101 1639/4), Shoulder Strap (P/N: CC103333V1), & Speaker-Microphone (P/N: KRY 101 1617/183)

Freq. (MHz)	Chan.	Test Mode	Antenna		Battery Type	Accessory Separation Distance to Planar Phantom (cm)	Cond. Power Before Test (dBm)	Measured SAR 1g (W/kg)		SAR Drift During Test (dB)	Scaled SAR 1g (W/kg) with droop	
								Duty Cycle			Duty Cycle	
			Type	Part No.				100%	50%		100%	50%
860.0000	Mid	CW	½-Wave	KRE 101 1506/1	NiMH IS	1.1	34.89	2.31	1.16	-0.0446	2.33	1.17
860.0000	Mid	CW	½-Wave	KRE 101 1506/1	NiMH NIS	1.1	34.93	2.15	1.08	0.211	-	-
860.0000	Mid	CW	½-Wave	KRE 101 1506/1	NiCd IS	1.1	34.86	2.55	1.28	0.230	-	-
860.0000	Mid	CW	½-Wave	KRE 101 1506/1	NiCd NIS	1.1	34.82	2.53	1.27	-0.124	2.60	1.30
860.0000	Mid	CW	¼-Wave	KRE 101 1506/2	NiMH IS	1.1	34.88	3.52	1.76	0.0766	-	-
860.0000	Mid	CW	¼-Wave	KRE 101 1506/2	NiMH NIS	1.1	34.91	8.10	**4.05**	0.0191	**8.58***	**4.29**
860.0000	Mid	CW	¼-Wave	KRE 101 1506/2	NiCd IS	1.1	34.83	4.14	2.07	0.0753	-	-
860.0000	Mid	CW	¼-Wave	KRE 101 1506/2	NiCd NIS	1.1	34.86	3.56	1.78	0.0984	-	-
851.0125	Low	CW	¼-Wave	KRE 101 1506/2	NiMH NIS	1.1	34.84	3.82	1.91	0.0575	-	-
868.9875	High	CW	¼-Wave	KRE 101 1506/2	NiMH NIS	1.1	34.83	3.78	1.89	0.204	-	-

ANSI / IEEE C95.1 1999 - SAFETY LIMIT	BODY: 8.0 W/kg (averaged over 1 gram)	Spatial Peak - Controlled Exposure

Test Date(s)	July 21, 2005			Relative Humidity	30	%
Measured Fluid Type	860 MHz BodyTissue Simulant			Atmospheric Pressure	101.9	kPa
Dielectric Constant ε_r	Interpolated Target	Measured	Deviation	Ambient Temperature	25.3	°C
	55.1 ± **5%**	55.4	+0.5%	Fluid Temperature	22.8	°C
Conductivity σ (mho/m)	Interpolated Target	Measured	Deviation	Fluid Depth	≥ 15	cm
	0.98 ± **5%**	1.03	+5.0%	ρ (Kg/m^3)	1000	

*** SAR level scaled up by + 0.25 dB to maximum conducted power level measured at 860.0000 MHz (see test data page 28).**

Note(s):

1. The measurement results were obtained with the DUT tested in the conditions described in this report. Detailed measurement data and plots showing the maximum SAR location of the DUT are reported in Appendix A.
2. If the scaled SAR levels evaluated at the mid channel (50% duty cycle) were ≥ 3 dB below the SAR limit, SAR evaluation for the low and high channels was optional per FCC OET Bulletin 65, Supplement C, Edition 01-01 (see reference [3]).
3. The power drift of the DUT during the SAR evaluations was measured by the DASY4 system.
4. The power droops measured by the DASY4 system for the duration of the SAR evaluations were added to the measured SAR levels to report scaled SAR results as shown in the above table.
5. The ambient and fluid temperatures were measured prior to, and during, the fluid dielectric parameter check and the SAR evaluations. The temperatures reported were consistent for all measurement periods.
6. The dielectric parameters of the simulated tissue mixture were measured prior to the SAR evaluations using an ALS-PR-DIEL Dielectric Probe Kit and an HP 8753ET Network Analyzer (see Appendix C for measured fluid dielectric parameters).
7. SAR measurements were performed within 24 hours of the system performance check.
8. The Leather Case and Shoulder-Strap accessories contain metallic components.

SAR MEASUREMENT SUMMARY (Cont.)

BODY-WORN SAR EVALUATION RESULTS

Handheld Radio Transceiver (System Radio Model No.: MAHROS0050)

With Leather Case Kit (P/N: KRY 101 1639/4), Belt-Loop (P/N: KRY 101 1609/1), & Speaker-Microphone (P/N: KRY 101 1617/183)

Freq. (MHz)	Chan.	Test Mode	Antenna		Battery Type	Accessory Separation Distance to Planar Phantom (cm)	Cond. Power Before Test (dBm)	Measured SAR 1g (W/kg)		SAR Drift During Test (dB)	Scaled SAR 1g (W/kg) with droop	
								Duty Cycle			Duty Cycle	
			Type	Part No.				100%	50%		100%	50%
766.9875	Mid	CW	½-wave	KRE 101 1506/1	NiMH IS	4.2	34.09	1.30	0.650	0.141	-	-
766.9875	Mid	CW	¼-wave	KRE 101 1506/2	NiMH NIS	4.2	34.11	1.69	**0.845**	0.147	**1.78***	**0.891**
796.9875	Mid	CW	½-wave	KRE 101 1506/1	NiMH IS	4.2	34.06	1.31	0.655	-0.0884	1.34	0.670
796.9875	Mid	CW	¼-wave	KRE 101 1506/2	NiCd NIS	4.2	34.04	1.34	**0.670**	0.170	**1.48****	**0.740**

ANSI / IEEE C95.1 1999 - SAFETY LIMIT | **BODY: 8.0 W/kg (averaged over 1 gram)** | **Spatial Peak - Controlled Exposure**

Test Date(s)	Aug 03, 2005		766.9875 MHz		July 27, 2005		796.9875 MHz		Test Date(s)	Aug 03	Jul 27	Unit
Dielectric Constant ε_r	767 MHz Body Tissue Simulant				797 MHz Body Tissue Simulant				Atmospheric Pressure	102.7	102.2	kPa
	Interpolated Target		Meas.	Dev.	IEEE Target		Meas.	Dev.	Relative Humidity	30	31	%
	55.4	± 5%	53.9	-2.7%	55.3	± 5%	54.1	-2.2%	Ambient Temperature	23.9	24.8	°C
Conductivity σ (mho/m)	767 MHz Body Tissue Simulant				797 MHz Body Tissue Simulant				Fluid Temperature	22.7	22.3	°C
	Interpolated Target		Meas.	Dev.	IEEE Target		Meas.	Dev.	Fluid Depth	≥ 15	≥ 15	cm
	0.96	± 5%	0.92	-4.2%	0.96	± 5%	0.94	-2.1%	ρ (Kg/m^3)	1000		

*** SAR level scaled up by + 0.23 dB to maximum conducted power level measured at 766.9875 MHz (see test data page 19).**
**** SAR level scaled up by + 0.43 dB to maximum conducted power level measured at 796.9875 MHz (see test data page 17).**

Note(s):

1. The measurement results were obtained with the DUT tested in the conditions described in this report. Detailed measurement data and plots showing the maximum SAR location of the DUT are reported in Appendix A.
2. The battery type tested with each of the above frequency and antenna combinations was determined from the worst-case body-worn accessory evaluations as follows:
   a. The worst-case battery type used for 766.9875 MHz with ½-wave antenna was determined worst-case from the Leather Case with Shoulder Strap body-worn evaluations.
   b. The worst-case battery type used for the remaining frequency and antenna combinations were determined worst-case from the Belt-Clip body-worn evaluations.
3. If the scaled SAR levels evaluated at the mid channel (50% duty cycle) were ≥ 3 dB below the SAR limit, SAR evaluation for the low and high channels was optional per FCC OET Bulletin 65, Supplement C, Edition 01-01 (see reference [3]).
4. The power drift of the DUT during the SAR evaluations was measured by the DASY4 system.
5. The power droop measured by the DASY4 system for the duration of the SAR evaluation was added to the measured SAR level to report a scaled SAR result as shown in the above table.
6. The ambient and fluid temperatures were measured prior to, and during, the fluid dielectric parameter check and the SAR evaluations. The temperatures reported were consistent for all measurement periods.
7. The dielectric parameters of the simulated tissue mixture were measured prior to the SAR evaluations using an ALS-PR-DIEL Dielectric Probe Kit and an HP 8753ET Network Analyzer (see Appendix C for measured fluid dielectric parameters).
8. SAR measurements were performed within 24 hours of the system performance check.
9. The Leather Case and Belt-Loop accessories contain metallic components.

SAR MEASUREMENT SUMMARY (Cont.)

BODY-WORN SAR EVALUATION RESULTS

Handheld Radio Transceiver (System Radio Model No.: MAHROS0050)

With Leather Case Kit (P/N: KRY 101 1639/4), Belt-Loop (P/N: KRY 101 1609/1), & Speaker-Microphone (P/N: KRY 101 1617/183)

Freq. (MHz)	Chan.	Test Mode	Antenna		Battery Type	Accessory Separation Distance to Planar Phantom (cm)	Cond. Power Before Test (dBm)	Measured SAR 1g (W/kg)		SAR Drift During Test (dB)	Scaled SAR 1g (W/kg) with droop	
								Duty Cycle			Duty Cycle	
			Type	Part No.				100%	50%		100%	50%
815.0000	Mid	CW	½-wave	KRE 101 1506/1	NiMH IS	4.2	34.58	1.79	**0.895**	-0.0063	**1.93***	**0.963**
815.0000	Mid	CW	¼-wave	KRE 101 1506/2	NiMH NIS	4.2	34.62	1.70	0.850	0.0468	-	-
860.0000	Mid	CW	½-wave	KRE 101 1506/1	NiCd IS	4.2	35.10	0.954	**0.477**	-0.391	**1.06****	**0.529**
860.0000	Mid	CW	¼-wave	KRE 101 1506/2	NiCd IS	4.2	**35.16*****	P 0.838	0.419	-0.466	P 0.933	0.466
								S 0.573	0.287		S 0.638	0.319

ANSI / IEEE C95.1 1999 - SAFETY LIMIT | **BODY: 8.0 W/kg (averaged over 1 gram)** | **Spatial Peak - Controlled Exposure**

Test Date(s)	July 25, 2005		815.0000 MHz		August 2, 2005		860.0000 MHz		Test Date(s)	Jul 25	Aug 02	Unit
Dielectric Constant ε_r	815 MHz Body Tissue Simulant				860 MHz Body Tissue Simulant				Atmospheric Pressure	30	30	kPa
	Interpolated Target		Meas.	Dev.	Interpolated Target		Meas.	Dev.	Relative Humidity	101.9	102.2	%
	55.3	**± 5%**	54.4	-1.6%	**55.1**	**± 5%**	53.2	-3.4%	Ambient Temperature	23.6	23.9	°C
Conductivity σ (mho/m)	815 MHz Body Tissue Simulant				860 MHz Body Tissue Simulant				Fluid Temperature	22.8	23.2	°C
	Interpolated Target		Meas.	Dev.	Interpolated Target		Meas.	Dev.	Fluid Depth	≥ 15	≥ 15	cm
	0.97	**± 5%**	0.96	-1.0%	**0.98**	**± 5%**	1.00	+2.0%	ρ (Kg/m^3)	1000		

*** SAR level scaled by droop + 0.31 dB to maximum conducted power level measured at 815.0000 MHz (see test data page 25).**
**** SAR level scaled by droop + 0.06 dB to maximum conducted power level measured at 860.0000 MHz.**
***** Maximum conducted power level measured at 860.0000 MHz.**

Note(s):
1. The measurement results were obtained with the DUT tested in the conditions described in this report. Detailed measurement data and plots showing the maximum SAR location of the DUT are reported in Appendix A.
2. The battery type tested with each of the above frequency and antenna combinations was determined from the worst-case body-worn evaluations with the Belt-Clip accessory.
3. If the scaled SAR levels evaluated at the mid channel (50% duty cycle) were ≥ 3 dB below the SAR limit, SAR evaluation for the low and high channels was optional per FCC OET Bulletin 65, Supplement C, Edition 01-01 (see reference [3]).
4. Secondary peak SAR levels were reported within 2 dB of the primary (P = Primary, S = Secondary).
5. The power drift of the DUT during the SAR evaluations was measured by the DASY4 system.
6. The power droops measured by the DASY4 system for the duration of the SAR evaluations were added to the measured SAR levels to report scaled SAR results as shown in the above table.
7. A SAR-versus-Time power drift evaluation was performed in the test configuration that reported the maximum power droop (Body-Worn with Leather Case & Belt-Loop, 860.0000 MHz, ¼-wave antenna, NiCd IS Batteries). See Appendix A (SAR Test Plots) for SAR-versus-Time power droop evaluation plot.
8. The ambient and fluid temperatures were measured prior to, and during, the fluid dielectric parameter check and the SAR evaluations. The temperatures reported were consistent for all measurement periods.
9. The dielectric parameters of the simulated tissue mixture were measured prior to the SAR evaluations using an ALS-PR-DIEL Dielectric Probe Kit and an HP 8753ET Network Analyzer (see Appendix C for measured fluid dielectric parameters).
10. SAR measurements were performed within 24 hours of the system performance check.
11. The Leather Case and Belt-Loop accessories contain metallic components.

SAR MEASUREMENT SUMMARY (Cont.)

BODY-WORN SAR EVALUATION RESULTS

Handheld Radio Transceiver (System Radio Model No.: MAHROS0050)

With Nylon Case (P/N: KRY 101 1648/1), Belt-Loop (P/N: KRY 101 1609/1), & Speaker-Microphone (P/N: KRY 101 1617/183)

Freq. (MHz)	Chan.	Test Mode	Antenna		Battery Type	Accessory Separation Distance to Planar Phantom (cm)	Cond. Power Before Test (dBm)	Measured SAR 1g (W/kg)		SAR Drift During Test (dB)	Scaled SAR 1g (W/kg) with droop	
								Duty Cycle			Duty Cycle	
			Type	Part No.				100%	50%		100%	50%
766.9875	Mid	CW	½-wave	KRE 101 1506/1	NiMH IS	4.0	34.32	0.852	0.426	-0.0201	0.856	0.428
766.9875	Mid	CW	¼-wave	KRE 101 1506/2	NiMH NIS	4.0	34.28	1.79	**0.895**	0.0340	**1.82***	**0.910**
796.9875	Mid	CW	½-wave	KRE 101 1506/1	NiMH IS	4.0	34.07	1.28	0.640	0.0552	-	-
796.9875	Mid	CW	¼-wave	KRE 101 1506/2	NiCd NIS	4.0	34.05	P 1.56	**0.780**	0.258	P **1.72****	**0.859**
								S 1.14	0.570		S -	-

ANSI / IEEE C95.1 1999 - SAFETY LIMIT	BODY: 8.0 W/kg (averaged over 1 gram)	Spatial Peak - Controlled Exposure

Test Date(s)	Aug. 03, 2005		766.9875 MHz		July 27, 2005		796.9875 MHz		Test Date(s)	Aug 03	Jul 27	Unit
Dielectric Constant ε_r	767 MHz Body Tissue Simulant				797 MHz Body Tissue Simulant				Atmospheric Pressure	102.7	102.2	kPa
	Interpolated Target		Meas.	Dev.	Interpolated Target		Meas.	Dev.	Relative Humidity	30	31	%
	55.4	**± 5%**	53.9	-2.7%	**55.3**	**± 5%**	54.1	-2.2%	Ambient Temperature	23.9	24.8	°C
Conductivity σ (mho/m)	767 MHz Body Tissue Simulant				797 MHz Body Tissue Simulant				Fluid Temperature	22.7	22.3	°C
	Interpolated Target		Meas.	Dev.	Interpolated Target		Meas.	Dev.	Fluid Depth	≥ 15	≥ 15	cm
	0.96	**± 5%**	0.92	-4.2%	**0.96**	**± 5%**	0.94	-2.1%	ρ (Kg/m^3)	1000		

*** SAR level scaled up by + 0.07 dB to maximum conducted power level measured at 766.9875 MHz (see test data page 19).**
**** SAR level scaled up by + 0.42 dB to maximum conducted power level measured at 796.9875 MHz (see test data page 17).**

Note(s):
1. The measurement results were obtained with the DUT tested in the conditions described in this report. Detailed measurement data and plots showing the maximum SAR location of the DUT are reported in Appendix A.
2. The battery type tested with each of the above frequency and antenna combinations was determined from the worst-case body-worn accessory evaluations as follows:
   a. The worst-case battery type used for 766.9875 MHz with ½-wave antenna was determined worst-case from the Leather Case with Shoulder Strap body-worn evaluations.
   b. The worst-case battery type used for the remaining frequency and antenna combinations were determined worst-case from the Belt-Clip body-worn evaluations.
3. If the scaled SAR levels evaluated at the mid channel (50% duty cycle) were ≥ 3 dB below the SAR limit, SAR evaluation for the low and high channels was optional per FCC OET Bulletin 65, Supplement C, Edition 01-01 (see reference [3]).
4. Secondary peak SAR levels were reported within 2 dB of the primary (P = Primary, S = Secondary).
5. The power drift of the DUT during the SAR evaluations was measured by the DASY4 system.
6. The power droop measured by the DASY4 system for the duration of the SAR evaluation was added to the measured SAR level to report a scaled SAR result as shown in the above table.
7. The ambient and fluid temperatures were measured prior to, and during, the fluid dielectric parameter check and the SAR evaluations. The temperatures reported were consistent for all measurement periods.
8. The dielectric parameters of the simulated tissue mixture were measured prior to the SAR evaluations using an ALS-PR-DIEL Dielectric Probe Kit and an HP 8753ET Network Analyzer (see Appendix C for measured fluid dielectric parameters).
9. SAR measurements were performed within 24 hours of the system performance check.
10. The Nylon Case and Belt-Loop accessories contain metallic components.

SAR MEASUREMENT SUMMARY (Cont.)

BODY-WORN SAR EVALUATION RESULTS

Handheld Radio Transceiver (System Radio Model No.: MAHROS0050)

With Nylon Case (P/N: KRY 101 1648/1), Belt-Loop (P/N: KRY 101 1609/1), & Speaker-Microphone (P/N: KRY 101 1617/183)

Freq. (MHz)	Chan.	Test Mode	Antenna Type	Antenna Part No.	Battery Type	Accessory Separation Distance to Planar Phantom (cm)	Cond. Power Before Test (dBm)	Measured SAR 1g (W/kg) Duty Cycle 100%	Measured SAR 1g (W/kg) Duty Cycle 50%	SAR Drift During Test (dB)	Scaled SAR 1g (W/kg) with droop Duty Cycle 100%	Scaled SAR 1g (W/kg) with droop Duty Cycle 50%
815.0000	Mid	CW	½-wave	KRE 101 1506/1	NiMH IS	4.0	34.54	1.56	**0.780**	0.0394	**1.69***	**0.845**
815.0000	Mid	CW	¼-wave	KRE 101 1506/2	NiMH NIS	4.0	34.58	P 1.50	0.750	0.209	P -	-
								S 1.03	0.515		S -	-
860.0000	Mid	CW	½-wave	KRE 101 1506/1	NiCd IS	4.0	34.92	0.759	0.380	0.211	-	-
860.0000	Mid	CW	¼-wave	KRE 101 1506/2	NiCd IS	4.0	34.88	1.55	0.775	0.000	**1.65****	**0.827**

ANSI / IEEE C95.1 1999 - SAFETY LIMIT | **BODY: 8.0 W/kg (averaged over 1 gram)** | **Spatial Peak - Controlled Exposure**

Test Date(s)	July 25, 2005	815.0000 MHz			Aug. 02, 2005	860.0000 MHz		
Dielectric Constant ε_r	815 MHz Body Tissue Simulant				860 MHz Body Tissue Simulant			
	Interpolated Target		Meas.	Dev.	Interpolated Target		Meas.	Dev.
	55.3	**± 5%**	54.4	-1.6%	**55.1**	**± 5%**	53.2	-3.4%
Conductivity σ (mho/m)	815 MHz Body Tissue Simulant				860 MHz Body Tissue Simulant			
	Interpolated Target		Meas.	Dev.	Interpolated Target		Meas.	Dev.
	0.97	**± 5%**	0.96	-1.0%	**0.98**	**± 5%**	1.00	+2.0%

Test Date(s)	Jul 25	Aug 02	Unit
Atmospheric Pressure	30	30	kPa
Relative Humidity	101.9	102.2	%
Ambient Temperature	23.6	23.9	°C
Fluid Temperature	22.8	23.2	°C
Fluid Depth	≥ 15	≥ 15	cm
ρ (Kg/m^3)	1000		

*** SAR level scaled up by + 0.35 dB to maximum conducted power level measured at 815.0000 MHz (see test data page 25).**
**** SAR levels scaled by droop + 0.28 dB to maximum conducted power level measured at 860.0000 MHz (see test data page 28).**

Note(s):
1. The measurement results were obtained with the DUT tested in the conditions described in this report. Detailed measurement data and plots showing the maximum SAR location of the DUT are reported in Appendix A.
2. The battery type tested with each of the above frequency and antenna combinations was determined from the worst-case body-worn evaluations with the Belt-Clip accessory.
3. If the scaled SAR levels evaluated at the mid channel (50% duty cycle) were ≥ 3 dB below the SAR limit, SAR evaluation for the low and high channels was optional per FCC OET Bulletin 65, Supplement C, Edition 01-01 (see reference [3]).
4. Secondary peak SAR levels were reported within 2 dB of the primary (P = Primary, S = Secondary).
5. The power drift of the DUT during the SAR evaluations was measured by the DASY4 system.
6. The ambient and fluid temperatures were measured prior to, and during, the fluid dielectric parameter check and the SAR evaluations. The temperatures reported were consistent for all measurement periods.
7. The dielectric parameters of the simulated tissue mixture were measured prior to the SAR evaluations using an ALS-PR-DIEL Dielectric Probe Kit and an HP 8753ET Network Analyzer (see Appendix C for measured fluid dielectric parameters).
8. SAR measurements were performed within 24 hours of the system performance check.
9. The Nylon Case and Belt-Loop accessories contain metallic components.

SAR MEASUREMENT SUMMARY (Cont.)

BODY-WORN SAR EVALUATION RESULTS

Handheld Radio Transceiver (System Radio Model No.: MAHROS0050)

With Belt-Loop (P/N: KRY 101 1609/1), Swivel-Mount (P/N: KRY 101 1608/2), & Speaker-Microphone (P/N: KRY 101 1617/183)

Freq. (MHz)	Chan.	Test Mode	Antenna		Battery Type	Accessory Separation Distance to Planar Phantom (cm)	Cond. Power Before Test (dBm)	Measured SAR 1g (W/kg)		SAR Drift During Test (dB)	Scaled SAR 1g (W/kg) with droop	
								Duty Cycle			Duty Cycle	
			Type	Part No.				100%	50%		100%	50%
766.9875	Mid	CW	½-wave	KRE 101 1506/1	NiMH IS	3.3	34.06	1.92	0.960	0.136	-	-
766.9875	Mid	CW	¼-wave	KRE 101 1506/2	NiMH NIS	3.3	33.99	3.50	**1.75**	0.194	**3.80***	**1.90**
796.9875	Mid	CW	½-wave	KRE 101 1506/1	NiMH IS	3.3	34.10	2.00	1.00	-0.0804	2.04	1.02
796.9875	Mid	CW	¼-wave	KRE 101 1506/2	NiCd NIS	3.3	34.04	3.10	**1.55**	0.170	**3.42****	**1.71**

ANSI / IEEE C95.1 1999 - SAFETY LIMIT | **BODY: 8.0 W/kg (averaged over 1 gram)** | **Spatial Peak - Controlled Exposure**

Test Date(s)	Aug 03, 2005		766.9875 MHz		July 27, 2005		796.9875 MHz		Test Date(s)	Aug 03	Jul 27	Unit
Dielectric Constant ε_r	767 MHz Body Tissue Simulant				797 MHz Body Tissue Simulant				Atmospheric Pressure	102.7	102.2	kPa
	Interpolated Target		Meas.	Dev.	Interpolated Target		Meas.	Dev.	Relative Humidity	30	31	%
	55.4	**± 5%**	53.9	-2.7%	**55.3**	**± 5%**	54.1	-2.2%	Ambient Temperature	23.9	24.8	°C
Conductivity σ (mho/m)	767 MHz Body Tissue Simulant				797 MHz Body Tissue Simulant				Fluid Temperature	22.7	22.3	°C
	Interpolated Target		Meas.	Dev.	Interpolated Target		Meas.	Dev.	Fluid Depth	≥ 15	≥ 15	cm
	0.96	**± 5%**	0.92	-4.2%	**0.96**	**± 5%**	0.94	-2.1%	ρ (Kg/m^3)	1000		

*** SAR level scaled up by + 0.36 dB to maximum conducted power level measured at 766.9875 MHz (see test data page 19).**
**** SAR level scaled up by + 0.43 dB to maximum conducted power level measured at 796.9875 MHz (see test data page 17).**

Note(s):

1. The measurement results were obtained with the DUT tested in the conditions described in this report. Detailed measurement data and plots showing the maximum SAR location of the DUT are reported in Appendix A.
2. The battery type tested with each of the above frequency and antenna combinations was determined from the worst-case body-worn accessory evaluations as follows:
   a. The worst-case battery type used for 766.9875 MHz with ½-wave antenna was determined worst-case from the Leather Case with Shoulder Strap body-worn evaluations.
   b. The worst-case battery type used for the remaining frequency and antenna combinations were determined worst-case from the Belt-Clip body-worn evaluations.
3. If the scaled SAR levels evaluated at the mid channel (50% duty cycle) were ≥ 3 dB below the SAR limit, SAR evaluation for the low and high channels was optional per FCC OET Bulletin 65, Supplement C, Edition 01-01 (see reference [3]).
4. The power drift of the DUT during the SAR evaluations was measured by the DASY4 system.
5. The power droop measured by the DASY4 system for the duration of the SAR evaluation was added to the measured SAR level to report a scaled SAR result as shown in the above table.
6. The ambient and fluid temperatures were measured prior to, and during, the fluid dielectric parameter check and the SAR evaluations. The temperatures reported were consistent for all measurement periods.
7. The dielectric parameters of the simulated tissue mixture were measured prior to the SAR evaluations using an ALS-PR-DIEL Dielectric Probe Kit and an HP 8753ET Network Analyzer (see Appendix C for measured fluid dielectric parameters).
8. SAR measurements were performed within 24 hours of the system performance check.
9. The Belt-Loop and Swivel-Mount accessories contain metallic components.

SAR MEASUREMENT SUMMARY (Cont.)

BODY-WORN SAR EVALUATION RESULTS

Handheld Radio Transceiver (System Radio Model No.: MAHROS0050)

With Belt-Loop (P/N: KRY 101 1609/1), Swivel-Mount (P/N: KRY 101 1608/2), & Speaker-Microphone (P/N: KRY 101 1617/183)

Freq. (MHz)	Chan.	Test Mode	Antenna		Battery Type	Accessory Separation Distance to Planar Phantom (cm)	Cond. Power Before Test (dBm)	Measured SAR 1g (W/kg)		SAR Drift During Test (dB)	Scaled SAR 1g (W/kg) with droop	
								Duty Cycle			Duty Cycle	
			Type	Part No.				100%	50%		100%	50%
815.0000	Mid	CW	½-wave	KRE 101 1506/1	NiMH IS	3.3	34.56	2.47	1.24	-0.0839	2.52	1.26
815.0000	Mid	CW	¼-wave	KRE 101 1506/2	NiMH NIS	3.3	34.61	2.57	**1.29**	0.118	**2.74***	**1.37**
860.0000	Mid	CW	½-wave	KRE 101 1506/1	NiCd IS	3.3	34.93	1.45	0.725	0.274	-	-
860.0000	Mid	CW	¼-wave	KRE 101 1506/2	NiCd IS	3.3	35.03	2.04	**1.02**	-0.130	**2.17****	**1.08**

ANSI / IEEE C95.1 1999 - SAFETY LIMIT | **BODY: 8.0 W/kg (averaged over 1 gram)** | **Spatial Peak - Controlled Exposure**

Test Date(s)	July 25, 2005		815.0000 MHz		Aug. 02, 2005		860.0000 MHz		Test Date(s)	Jul 25	Aug 02	Unit
Dielectric Constant ε_r	815 MHz Body Tissue Simulant				860 MHz Body Tissue Simulant				Atmospheric Pressure	30	30	kPa
	Interpolated Target		Meas.	Dev.	Interpolated Target		Meas.	Dev.	Relative Humidity	101.9	102.2	%
	55.3	**± 5%**	54.4	-1.6%	**55.1**	**± 5%**	53.2	-3.4%	Ambient Temperature	23.6	23.9	°C
Conductivity σ (mho/m)	815 MHz Body Tissue Simulant				860 MHz Body Tissue Simulant				Fluid Temperature	22.8	23.2	°C
	Interpolated Target		Meas.	Dev.	Interpolated Target		Meas.	Dev.	Fluid Depth	≥ 15	≥ 15	cm
	0.97	**± 5%**	0.96	-1.0%	**0.98**	**± 5%**	1.00	+2.0%	ρ (Kg/m^3)	1000		

*** SAR level scaled up by + 0.28 dB to maximum conducted power level measured at 815.0000 MHz (see test data page 25).**
**** SAR level scaled by droop + 0.13 dB to maximum conducted power level measured at 860.0000 MHz (see test data page 28).**

Note(s):

1. The measurement results were obtained with the DUT tested in the conditions described in this report. Detailed measurement data and plots showing the maximum SAR location of the DUT are reported in Appendix A.
2. The battery type tested with each of the above frequency and antenna combinations was determined from the worst-case body-worn evaluations with the Belt-Clip accessory.
3. If the scaled SAR levels evaluated at the mid channel (50% duty cycle) were ≥ 3 dB below the SAR limit, SAR evaluation for the low and high channels was optional per FCC OET Bulletin 65, Supplement C, Edition 01-01 (see reference [3]).
4. The power drift of the DUT during the SAR evaluations was measured by the DASY4 system.
5. The power droops measured by the DASY4 system for the duration of the SAR evaluations were added to the measured SAR levels to report scaled SAR results as shown in the above table.
6. The ambient and fluid temperatures were measured prior to, and during, the fluid dielectric parameter check and the SAR evaluations. The temperatures reported were consistent for all measurement periods.
7. The dielectric parameters of the simulated tissue mixture were measured prior to the SAR evaluations using an ALS-PR-DIEL Dielectric Probe Kit and an HP 8753ET Network Analyzer (see Appendix C for measured fluid dielectric parameters).
8. SAR measurements were performed within 24 hours of the system performance check.
9. The Belt-Loop and Swivel-Mount accessories contain metallic components.

SAR MEASUREMENT SUMMARY (Cont.)

BODY-WORN SAR EVALUATION RESULTS

Handheld Radio Transceiver (System Radio Model No.: MAHROS0050)

With Nylon "T" Strap Holder (P/N: KRY 101 1656/1) & Speaker-Microphone (P/N: KRY 101 1617/183) Accessories

Freq. (MHz)	Chan.	Test Mode	Antenna Type	Antenna Part No.	Battery Type	Accessory Separation Distance to Planar Phantom (cm)	Cond. Power Before Test (dBm)	Measured SAR 1g (W/kg) Duty Cycle			SAR Drift During Test (dB)	Scaled SAR 1g (W/kg) Duty Cycle		
									100%	50%			100%	50%
766.9875	Mid	CW	¼-wave	KRE 101 1506/2	NiMH NIS	1.6	34.28	P	4.76	**2.38**	0.140	P	**4.84***	**2.42**
								S	3.61	1.81		S	**3.67***	**1.83**
796.9875	Mid	CW	¼-wave	KRE 101 1506/2	NiCd NIS	1.6	34.02	5.85		**2.93**	0.138		**6.49****	**3.24**

ANSI / IEEE C95.1 1999 - SAFETY LIMIT | **BODY: 8.0 W/kg (averaged over 1 gram)** | **Spatial Peak - Controlled Exposure**

Test Date(s)	Aug. 3, 2005		766.9875 MHz		July 27, 2005		796.9875 MHz		Test Date(s)	Aug 03	Jul 27	Unit
Dielectric Constant ε_r	767 MHz Body Tissue Simulant				797 MHz Body Tissue Simulant				Atmospheric Pressure	102.7	102.2	kPa
	Interpolated Target		Meas.	Dev.	Interpolated Target		Meas.	Dev.	Relative Humidity	30	31	%
	55.4	**± 5%**	53.9	-2.7%	**55.3**	**± 5%**	54.1	-2.2%	Ambient Temperature	23.9	24.8	°C
Conductivity σ (mho/m)	767 MHz Body Tissue Simulant				797 MHz Body Tissue Simulant				Fluid Temperature	22.7	22.3	°C
	Interpolated Target		Meas.	Dev.	Interpolated Target		Meas.	Dev.	Fluid Depth	≥ 15	≥ 15	cm
	0.96	**± 5%**	0.92	-4.2%	**0.96**	**± 5%**	0.94	-2.1%	ρ (Kg/m^3)	1000		

*** SAR level scaled up by + 0.07 dB to maximum conducted power level measured at 766.9875 MHz (see test data page 19).**
**** SAR level scaled up by + 0.45 dB to maximum conducted power level measured at 796.9875 MHz (see test data page 17).**

Note(s):

1. The measurement results were obtained with the DUT tested in the conditions described in this report. Detailed measurement data and plots showing the maximum SAR location of the DUT are reported in Appendix A.
2. The battery and antenna type tested were determined from the worst-case body-worn evaluations with the Belt-Clip accessory.
3. If the scaled SAR levels evaluated at the mid channel (50% duty cycle) were ≥ 3 dB below the SAR limit, SAR evaluation for the low and high channels was optional per FCC OET Bulletin 65, Supplement C, Edition 01-01 (see reference [3]).
4. Secondary peak SAR levels were reported within 2 dB of the primary (P = Primary, S = Secondary).
5. The power drift of the DUT during the SAR evaluations was measured by the DASY4 system.
6. The ambient and fluid temperatures were measured prior to, and during, the fluid dielectric parameter check and the SAR evaluations. The temperatures reported were consistent for all measurement periods.
7. The dielectric parameters of the simulated tissue mixture were measured prior to the SAR evaluations using an ALS-PR-DIEL Dielectric Probe Kit and an HP 8753ET Network Analyzer (see Appendix C for measured fluid dielectric parameters).
8. SAR measurements were performed within 24 hours of the system performance check.
9. The Nylon "T" Strap Holder accessory does not contain metallic components.

SAR MEASUREMENT SUMMARY (Cont.)

BODY-WORN SAR EVALUATION RESULTS

Handheld Radio Transceiver (System Radio Model No.: MAHROS0050)

With Nylon "T" Strap Holder (P/N: KRY 101 1656/1) & Speaker-Microphone (P/N: KRY 101 1617/183) Accessories

Freq. (MHz)	Chan.	Test Mode	Antenna		Battery Type	Accessory Separation Distance to Planar Phantom (cm)	Cond. Power Before Test (dBm)	Measured SAR 1g (W/kg)		SAR Drift During Test (dB)	Scaled SAR 1g (W/kg) with droop	
								Duty Cycle			Duty Cycle	
			Type	Part No.,				100%	50%		100%	50%
815.0000	Mid	CW	¼-wave	KRE 101 1506/2	NiMH NIS	1.6	34.61	5.33	**2.67**	0.0932	**5.68***	**2.84**
860.0000	Mid	CW	¼-wave	KRE 101 1506/2	NiCd IS	1.6	34.86	4.37	**2.19**	-0.0386	**4.72****	**2.36**

ANSI / IEEE C95.1 1999 - SAFETY LIMIT | **BODY: 8.0 W/kg (averaged over 1 gram)** | **Spatial Peak - Controlled Exposure**

Test Date(s)	July 25, 2005		815.0000 MHz		Aug. 2, 2005		860.0000 MHz		Test Date(s)	Jul 25	Aug 02	Unit
Dielectric Constant ε_r	815 MHz Body Tissue Simulant				860 MHz Body Tissue Simulant				Atmospheric Pressure	30	30	kPa
	Interpolated Target		Meas.	Dev.	Interpolated Target		Meas.	Dev.	Relative Humidity	101.9	102.2	%
	55.3	**± 5%**	54.4	-1.6%	**55.1**	**± 5%**	53.2	-3.4%	Ambient Temperature	23.6	23.9	°C
Conductivity σ (mho/m)	815 MHz Body Tissue Simulant				860 MHz Body Tissue Simulant				Fluid Temperature	22.8	23.2	°C
	Interpolated Target		Meas.	Dev.	Interpolated Target		Meas.	Dev.	Fluid Depth	≥ 15	≥ 15	cm
	0.97	**± 5%**	0.96	-1.0%	**0.98**	**± 5%**	1.00	+2.0%	ρ (Kg/m^3)	1000		

*** SAR level scaled up by + 0.28 dB to maximum conducted power level measured at 815.0000 MHz (see test data page 25).**
**** SAR level scaled by droop + 0.30 dB to maximum conducted power level measured at 860.0000 MHz (see test data page 28).**

Note(s):

1. The measurement results were obtained with the DUT tested in the conditions described in this report. Detailed measurement data and plots showing the maximum SAR location of the DUT are reported in Appendix A.
2. The battery and antenna type tested were determined from the worst-case body-worn evaluations with the Belt-Clip accessory.
3. If the scaled SAR levels evaluated at the mid channel (50% duty cycle) were ≥ 3 dB below the SAR limit, SAR evaluation for the low and high channels was optional per FCC OET Bulletin 65, Supplement C, Edition 01-01 (see reference [3]).
4. The power drift of the DUT during the SAR evaluations was measured by the DASY4 system.
5. The power droop measured by the DASY4 system for the duration of the SAR evaluation was added to the measured SAR level to report a scaled SAR result as shown in the above table.
6. The ambient and fluid temperatures were measured prior to, and during, the fluid dielectric parameter check and the SAR evaluations. The temperatures reported were consistent for all measurement periods.
7. The dielectric parameters of the simulated tissue mixture were measured prior to the SAR evaluations using an ALS-PR-DIEL Dielectric Probe Kit and an HP 8753ET Network Analyzer (see Appendix C for measured fluid dielectric parameters).
8. SAR measurements were performed within 24 hours of the system performance check.
9. The Nylon "T" Strap Holder accessory does not contain metallic components.

6.0 DETAILS OF SAR EVALUATION

The M/A-COM, Inc. Model: P7200 (System, Scan, and Select) Portable FM PTT Radio Transceiver FCC ID: BV8P7200 was compliant for localized Specific Absorption Rate (Occupational / Controlled Exposure) based on the test provisions and conditions described below. Detailed photographs of the test setup are shown in Appendix D.

1. The DUT was evaluated in a face-held configuration with the front of the radio placed parallel to the outer surface of the planar phantom. A 2.5 cm separation distance was maintained between the front side of the DUT and the outer surface of the planar phantom for the duration of the tests.
2. The Speaker-Microphone Antenna Version (P/N: KRY 101 1617/184) and the Speaker-Microphone Antenna Version Ruggedized (P/N: KRY 101 1617/384) were evaluated in a face-held configuration connected to the handheld radio with the front of the speaker-microphone placed parallel to the outer surface of the planar phantom at a 2.5 cm separation distance.
3. The Speaker-Microphone Antenna Version Ruggedized (P/N: KRY 101 1617/384) was tested in a body-worn configuration connected to the handheld radio with the back of the speaker-microphone placed parallel to the outer surface of the planar phantom. The attached lapel-clip was touching the outer surface of the planar phantom and provided a 1.3 cm separation distance between the back of the speaker-microphone and the outer surface of the planar phantom. The Speaker-Microphone Antenna Version Ruggedized (P/N: KRY 101 1617/384) was evaluated for body-worn SAR with the Ranger Headset audio accessory (P/N: OT-V4-10421) connected to the audio jack.
4. The Speaker-Microphone Antenna Version (P/N: KRY 101 1617/184) was tested in a body-worn configuration connected to the handheld radio with the back of the speaker-microphone placed parallel to the outer surface of the planar phantom. The attached lapel-clip was touching the outer surface of the planar phantom and provided a 1.3 cm separation distance between the back of the speaker-microphone and the outer surface of the planar phantom. The Speaker-Microphone Antenna Version (P/N: KRY 101 1617/184) was evaluated for body-worn SAR with the Earphone audio accessory (P/N: OT-V1-10234) connected to the audio jack.
5. The DUT was tested in a body-worn configuration with the back of the radio placed parallel to the outer surface of the planar phantom. The attached Metal Belt-Clip accessory (P/N: KRY 101 1647/1) was touching the planar phantom and provided a 1.1 cm separation distance between the back of the DUT and the outer surface of the planar phantom. The DUT was evaluated for body-worn SAR with the Speaker-Microphone non-antenna version accessory (P/N: KRY 101 1617/183) connected.
6. The DUT was tested in a body-worn configuration with the Leather Case Kit (P/N: KRY 101 1639/4). The radio was placed inside the Leather Case accessory (P/N: KRY 101 1639/3) and the back of the radio facing parallel to the outer surface of the planar phantom. The metal Swivel-Mount (P/N: KRY 101 1608/2) attached to the back of the Leather Case accessory was touching the outer surface of the planar phantom. The Leather Case and Swivel-Mount provided a 1.1 cm separation distance between the back of the DUT and the outer surface of the planar phantom. The leather Shoulder Strap accessory (P/N: CC103333V1) was attached to the Leather Case, and the Speaker-Microphone non-antenna version accessory (P/N: KRY 101 1617/183) was connected to the DUT.
7. The DUT was tested in a body-worn configuration with the Leather Case Kit (P/N: KRY 101 1639/4) and leather Belt-Loop accessory (P/N: KRY 101 1609/1). The radio was placed inside the Leather Case accessory (P/N: KRY 101 1639/3) with the rear metal Swivel-Mount (P/N: KRY 101 1608/2) attached to the leather Belt-Loop accessory (P/N: KRY 101 1609/1) and the back of the radio facing parallel to the outer surface of the planar phantom. The back of the leather Belt-Loop accessory (P/N: KRY 101 1609/1) was touching the outer surface of the planar phantom and provided a 4.2 cm separation distance between the back of the DUT and the outer surface of the planar phantom. The DUT was evaluated for body-worn SAR with the Speaker-Microphone non-antenna version accessory (P/N: KRY 101 1617/183).
8. The DUT was tested in a body-worn configuration with the radio placed inside the Nylon Case accessory (P/N: KRY 101 1648/1) with the rear metal Swivel-Mount (P/N: KRY 101 1608/2) attached to the leather Belt-Loop accessory (P/N: KRY 101 1609/1) and the back of the radio facing parallel to the outer surface of the planar phantom. The back of the leather Belt-Loop accessory (P/N: KRY 101 1609/1) was touching the outer surface of the planar phantom and provided a 4.0 cm separation distance between the back of the DUT and the outer surface of the planar phantom. The DUT was evaluated for body-worn SAR with the Speaker-Microphone non-antenna version accessory (P/N: KRY 101 1617/183).
9. The DUT was evaluated in a body-worn configuration with the back of the radio placed parallel to the outer surface of the planar phantom. The metal Swivel-Mount (P/N: KRY 101 1608/2) attached to the back of the radio was attached to the leather Belt-Loop accessory (P/N: KRY 101 1609/1). The leather Belt-Loop was touching the outer surface of the planar phantom and provided a 3.3 cm separation distance between the back of the DUT and the outer surface of the planar phantom. The DUT was evaluated for body-worn SAR with the Speaker-Microphone non-antenna version accessory (P/N: KRY 101 1617/183).
10. The DUT was tested in a body-worn configuration with the back of the radio placed parallel to the outer surface of the planar phantom. The Nylon "T" Strap Holder accessory (P/N: KRY 101 1656/1) was attached to the radio and touching the outer surface of the planar phantom. The Nylon "T" Strap Holder provided a 1.6 cm separation distance between the back of the DUT and the outer surface of the planar phantom. The DUT was evaluated for body-worn SAR with the Speaker-Microphone non-antenna version accessory (P/N: KRY 101 1617/183).

DETAILS OF SAR EVALUATION (Cont.)

11. The conducted power levels were measured prior to each test using a Gigatronics 8652A Universal Power Meter according to the procedures described in FCC 47 CFR §2.1046.
12. The power drift of the DUT during the SAR evaluations was measured by the DASY4 system.
13. SAR-versus-time power drift evaluations were performed for the duration of the area scan measurements in the test configurations that reported the maximum scaled SAR level and the worst-case drift configuration. See Appendix A (SAR Test Plots) for SAR-versus-Time power drift evaluation plots.
14. The area scan evaluation was performed with a fully charged battery. After the area scan evaluation was completed the battery was replaced with a fully charged battery prior to the zoom scan evaluation.
15. The DUT was tested in unmodulated continuous transmit operation (Continuous Wave mode at 100% duty cycle) with the transmit key constantly depressed. For a push-to-talk device the 50% duty cycle compensation reported assumes a transmit/receive cycle of equal time base.
16. Due to the dimensions of the DUT a Plexiglas planar phantom was used in place of the SAM phantom.
17. The ambient and fluid temperatures were measured prior to, and during, the fluid dielectric parameter check and the SAR evaluations. The temperatures reported were consistent for all measurement periods.
18. The dielectric parameters of the simulated tissue mixtures were measured prior to the SAR evaluations using an ALS-PR-DIEL Dielectric Probe Kit and an HP 8753ET Network Analyzer (see Appendix C for measured fluid dielectric parameters).
19. SAR measurements were performed within 24 hours of the system performance check.

7.0 EVALUATION PROCEDURES

a. (i) The evaluation was performed in the applicable area of the phantom depending on the type of device being tested. For devices held to the ear during normal operation, both the left and right ear positions were evaluated using the SAM phantom.
(ii) For body-worn and face-held devices a planar phantom was used.

b. The SAR was determined by a pre-defined procedure within the DASY4 software. Upon completion of a reference and optical surface check, the exposed region of the phantom was scanned near the inner surface with a grid spacing of 15mm x 15mm.

An area scan was determined as follows:

c. Based on the defined area scan grid, a more detailed grid is created to increase the points by a factor of 10. The interpolation function then evaluates all field values between corresponding measurement points.

d. A linear search is applied to find all the candidate maxima. Subsequently, all maxima are removed that are >2 dB from the global maximum. The remaining maxima are then used to position the cube scans.

A 1 g and 10 g spatial peak SAR was determined as follows:

e. Extrapolation is used to find the points between the dipole center of the probe and the surface of the phantom. This data cannot be measured, since the center of the dipoles is 2.7 mm away form the tip of the probe and the distance between the surface and the lowest measuring point is 1.4 mm (see probe calibration document in Appendix F). The extrapolation was based on trivariate quadratics computed from the previously calculated 3D interpolated points nearest the phantom surface.

f. Interpolated data is used to calculate the average SAR over 1 g and 10 g cubes by spatially discretizing the entire measured cube. The volume used to determine the averaged SAR is a 1mm grid (42875 interpolated points).

g. A zoom scan volume of 32 mm x 32 mm x 30 mm (5 x 5 x 7 points) centered at the peak SAR location determined from the area scan is used for all zoom scans for devices with a transmit frequency < 800 MHz. Depending on the device type under evaluation, zoom scans for frequencies ≥ 800 MHz are typically determined with a scan volume of 30 mm x 30 mm x 30 mm (7 x 7 x 7) to ensure complete capture of the peak spatial-average SAR.

8.0 SYSTEM PERFORMANCE CHECK

Prior to the SAR evaluations a system check was performed at the planar section of the SAM phantom with an 835MHz dipole (see Appendix E for system validation procedures). Prior to the system performance check the dielectric parameters of the simulated brain tissue mixture were measured using an ALS-PR-DIEL Dielectric Probe Kit and an HP 8753ET Network Analyzer (see Appendix C for measured fluid dielectric parameters). A forward power of 250 mW was applied to the dipole and the system was verified to a tolerance of ±10% (see Appendix B for system performance check test plots).

SYSTEM PERFORMANCE CHECK EVALUATIONS

Test Date	835 MHz Equiv. Tissue	SAR 1g (W/kg)			Dielectric Constant ε_r			Conductivity σ (mho/m)			ρ (Kg/m^3)	Amb. Temp. (°C)	Fluid Temp. (°C)	Fluid Depth (cm)	Humid. (%)	Barom. Press. (kPa)
		IEEE Target	Meas.	Dev.	IEEE Target	Meas.	Dev.	IEEE Target	Meas.	Dev.						
7/19/05	Brain	2.38 ±10%	2.49	+4.6%	41.5 ±5%	40.1	-3.4%	0.90 ±5%	0.89	-1.1%	1000	25.3	22.7	≥ 15	30	102.2
7/20/05	Brain	2.38 ±10%	2.57	+8.0%	41.5 ±5%	40.1	-3.4%	0.90 ±5%	0.90	0.0%	1000	25.9	22.5	≥ 15	30	101.9
7/21/05	Brain	2.38 ±10%	2.44	+2.5%	41.5 ±5%	41.3	-0.5%	0.90 ±5%	0.91	+1.1%	1000	25.2	22.6	≥ 15	30	101.9
7/22/05	Brain	2.38 ±10%	2.54	+6.7%	41.5 ±5%	41.5	0.0%	0.90 ±5%	0.91	+1.1%	1000	25.2	21.9	≥ 15	31	101.9
7/25/05	Brain	2.38 ±10%	2.46	+3.4%	41.5 ±5%	40.9	-1.4%	0.90 ±5%	0.90	0.0%	1000	24.0	23.5	≥ 15	30	101.9
7/26/05	Brain	2.38 ±10%	2.47	+3.8%	41.5 ±5%	41.8	+0.7%	0.90 ±5%	0.91	+1.1%	1000	24.6	23.3	≥ 15	31	102.0
7/27/05	Brain	2.38 ±10%	2.32	-2.5%	41.5 ±5%	41.7	+0.5%	0.90 ±5%	0.92	+2.2%	1000	24.4	22.4	≥ 15	32	101.6
7/28/05	Brain	2.38 ±10%	2.47	+3.8%	41.5 ±5%	41.9	+1.0%	0.90 ±5%	0.90	0.0%	1000	25.2	23.1	≥ 15	32	101.2
8/02/05	Brain	2.38 ±10%	2.34	-1.7%	41.5 ±5%	41.5	0.0%	0.90 ±5%	0.91	+1.1%	1000	24.0	23.2	≥ 15	30	102.3
8/03/05	Brain	2.38 ±10%	2.42	+1.7%	41.5 ±5%	40.9	-1.4%	0.90 ±5%	0.89	-1.1%	1000	25.0	22.7	≥ 15	30	102.7
8/04/05	Brain	2.38 ±10%	2.46	+3.4%	41.5 ±5%	40.8	-1.7%	0.90 ±5%	0.92	+2.2%	1000	25.1	23.5	≥ 15	30	102.5

Note(s):

1. The ambient and fluid temperatures were measured prior to, and during, the fluid dielectric parameter check and the system performance check. The temperatures listed in the table above were consistent for all measurement periods.

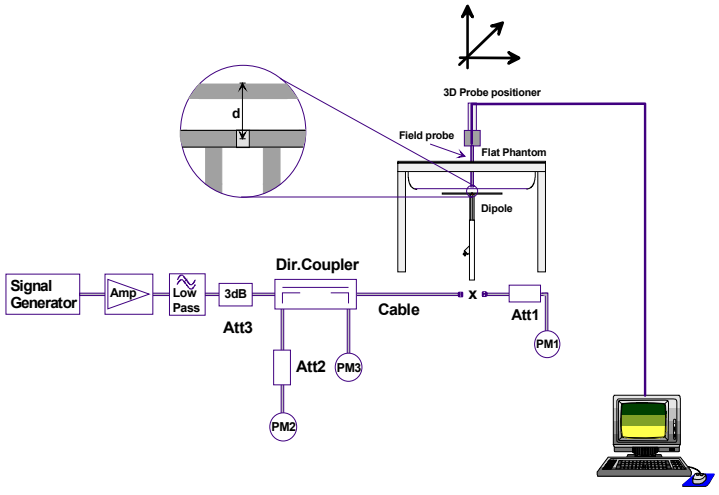


Figure 1. System Performance Check Setup Diagram

835MHz Dipole Setup

9.0 SIMULATED EQUIVALENT TISSUES

The simulated tissue mixtures consist of a viscous gel using hydroxethylcellulose (HEC) gelling agent and saline solution. Preservation with a bactericide is added and visual inspection is made to ensure air bubbles are not trapped during the mixing process. The fluid was prepared according to standardized procedures and measured for dielectric parameters (permittivity and conductivity).

SIMULATED TISSUE MIXTURES			
INGREDIENT	**835 MHz Brain**	**767/797/815/860 MHz Brain**	**767/797/815/860 MHz Body**
	System Performance Check	DUT Evaluation	DUT Evaluation
Water	40.71 %	40.71 %	53.79 %
Sugar	56.63 %	56.63 %	45.13 %
Salt	1.48 %	1.48 %	0.98 %
HEC	0.99 %	0.99 %	--
Bactericide	0.19 %	0.19 %	0.10 %

10.0 SAR SAFETY LIMITS

EXPOSURE LIMITS	SAR (W/kg)	
	(General Population / Uncontrolled Exposure Environment)	(Occupational / Controlled Exposure Environment)
Spatial Average (averaged over the whole body)	0.08	0.4
Spatial Peak (averaged over any 1 g of tissue)	1.60	8.0
Spatial Peak (hands/wrists/feet/ankles averaged over 10 g)	4.0	20.0

Notes:
1. Uncontrolled environments are defined as locations where there is potential exposure of individuals who have no knowledge or control of their potential exposure.
2. Controlled environments are defined as locations where there is potential exposure of individuals who have knowledge of their potential exposure and can exercise control over their exposure.

11.0 ROBOT SYSTEM SPECIFICATIONS

Specifications

POSITIONER: Stäubli Unimation Corp. Robot Model: RX60L
Repeatability: 0.02 mm
No. of axis: 6

Data Acquisition Electronic (DAE) System

Cell Controller

Processor: AMD Athlon XP 2400+
Clock Speed: 2.0 GHz
Operating System: Windows XP Professional

Data Converter

Features: Signal Amplifier, multiplexer, A/D converter, and control logic
Software: DASY4 software
Connecting Lines: Optical downlink for data and status info.
Optical uplink for commands and clock

DASY4 Measurement Server

Function: Real-time data evaluation for field measurements and surface detection
Hardware: PC/104 166MHz Pentium CPU; 32 MB chipdisk; 64 MB RAM
Connections: COM1, COM2, DAE, Robot, Ethernet, Service Interface

E-Field Probe

Model: ET3DV6
Serial No.: 1387
Construction: Triangular core fiber optic detection system
Frequency: 10 MHz to 6 GHz
Linearity: ±0.2 dB (30 MHz to 3 GHz)

Phantom(s)

Evaluation Phantom

Type: Planar Phantom
Shell Material: Plexiglas
Bottom Thickness: 2.0 mm ± 0.1 mm
Outer Dimensions: 75.0 cm (L) x 22.5 cm (W) x 20.5 cm (H); Back Plane: 25.7 cm (H)

Validation Phantom

Type: SAM V4.0C
Shell Material: Fiberglass
Thickness: 2.0 ±0.1 mm
Volume: Approx. 25 liters

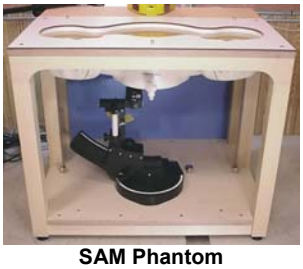
12.0 PROBE SPECIFICATION (ET3DV6)

Construction:	Symmetrical design with triangular core Built-in shielding against static charges PEEK enclosure material (resistant to organic solvents, e.g. glycol)
Calibration:	In air from 10 MHz to 2.5 GHz In brain simulating tissue at frequencies of 900 MHz and 1.8 GHz (accuracy ± 8%)
Frequency:	10 MHz to >6 GHz; Linearity: ±0.2 dB (30 MHz to 3 GHz)
Directivity:	±0.2 dB in brain tissue (rotation around probe axis) ±0.4 dB in brain tissue (rotation normal to probe axis)
Dynamic Range:	5 μW/g to >100 mW/g; Linearity: ±0.2 dB
Surface Detection:	±0.2 mm repeatability in air and clear liquids over diffuse reflecting surfaces
Dimensions:	Overall length: 330 mm Tip length: 16 mm Body diameter: 12 mm Tip diameter: 6.8 mm Distance from probe tip to dipole centers: 2.7 mm
Application:	General dosimetry up to 3 GHz Compliance tests of mobile phone

ET3DV6 E-Field Probe

13.0 SAM PHANTOM V4.0C

The SAM phantom V4.0C is a fiberglass shell phantom with a 2.0 mm (+/-0.2 mm) shell thickness for left and right head and flat planar area integrated in a wooden table. The shape of the fiberglass shell corresponds to the phantom defined by SCC34-SC2. The device holder positions are adjusted to the standard measurement positions in the three sections (see Appendix G for specifications of the SAM phantom V4.0C).



SAM Phantom

14.0 PLANAR PHANTOM

The planar phantom is constructed of Plexiglas material with a 2.0 mm shell thickness for face-held and body-worn SAR evaluations of portable radio transceivers. The planar phantom is mounted on the side of the DASY4 compact system table.

Plexiglas Planar Phantom

15.0 DEVICE HOLDER

The DASY4 device holder has two scales for device rotation (with respect to the body axis) and the device inclination (with respect to the line between the ear openings). The plane between the ear openings and the mouth tip has a rotation angle of 65°. The bottom plate contains three pair of bolts for locking the device holder. The device holder positions are adjusted to the standard measurement positions in the three sections.

Device Holder

16.0 TEST EQUIPMENT LIST

TEST EQUIPMENT		ASSET NO.	SERIAL NO.	DATE CALIBRATED		CALIBRATION DUE DATE
USED	DESCRIPTION					
x	Schmid & Partner DASY4 System	-	-	-		-
x	-DASY4 Measurement Server	00158	1078	N/A		N/A
x	-Robot	00046	599396-01	N/A		N/A
	-DAE4	00019	353	15Jun05		15Jun06
x	-DAE3	00018	370	25Jan05		25Jan06
x	-ET3DV6 E-Field Probe	00016	1387	18Mar05		18Mar06
	-ET3DV6 E-Field Probe	00017	1590	20May05		20May06
	-EX3DV4 E-Field Probe	00125	3547	21Jan05		21Jan06
	-300 MHz Validation Dipole	00023	135	26Oct04		26Oct05
	-450 MHz Validation Dipole	00024	136	04Nov04		04Nov05
x	-835 MHz Validation Dipole	00022	411	**Brain**	30Mar05	30Mar06
				Body	12Apr05	12Apr06
	-900 MHz Validation Dipole	00020	054	**Brain**	10Jun05	10Jun06
				Body	10Jun05	10Jun06
	-1800 MHz Validation Dipole	00021	247	**Brain**	14Jun05	14Jun06
				Body	14Jun05	14Jun06
	-1900 MHz Validation Dipole	00032	151	**Brain**	17Jun05	17Jun06
				Body	22Apr05	22Apr06
	-2450 MHz Validation Dipole	00025	150	**Brain**	30Sep04	30Sep05
				Body	22Apr05	22Apr06
	-5000 MHz Validation Dipole	00126	1031	**Brain**	11Jan05	11Jan06
				Body	11Jan05	11Jan06
x	-SAM Phantom V4.0C	00154	1033	N/A		N/A
	-Barski Planar Phantom	00155	03-01	N/A		N/A
x	-Plexiglas Planar Phantom	00156	161	N/A		N/A
	-Validation Planar Phantom	00157	137	N/A		N/A
	HP 85070C Dielectric Probe Kit	00033	N/A	N/A		N/A
x	ALS-PR-DIEL Dielectric Probe Kit	00160	260-00953	N/A		N/A
x	Gigatronics 8652A Power Meter	00110	1835801	16Apr05		16Apr06
	Gigatronics 8652A Power Meter	00008	1835267	29Apr05		29Apr06
	Gigatronics 8652A Power Meter	00007	1835272	18Oct04		18Oct05
	Gigatronics 80701A Power Sensor	00013	1833713	11Oct04		11Oct05
x	Gigatronics 80701A Power Sensor	00011	1833542	08Oct04		08Oct05
x	Gigatronics 80701A Power Sensor	00109	1834366	16Apr05		16Apr06
x	HP 8753ET Network Analyzer	00134	US39170292	04May05		04May06
x	HP 8648D Signal Generator	00005	3847A00611	29Apr05		29Apr06
	Rohde & Schwarz SMR40 Signal Generator	00006	100104	12Apr05		12Apr06
x	Amplifier Research 5S1G4 Power Amplifier	00106	26235	N/A		N/A

17.0 MEASUREMENT UNCERTAINTIES

UNCERTAINTY BUDGET FOR DEVICE EVALUATION						
Error Description	**Uncertainty Value ±%**	**Probability Distribution**	**Divisor**	**ci 1g**	**Uncertainty Value ±% (1g)**	**V_i or V_{eff}**
Measurement System						
Probe calibration	5.5	Normal	1	1	5.5	∞
Axial isotropy of the probe	4.7	Rectangular	1.732050808	0.7	1.9	∞
Spherical isotropy of the probe	9.6	Rectangular	1.732050808	0.7	3.9	∞
Spatial resolution	0	Rectangular	1.732050808	1	0.0	∞
Boundary effects	1	Rectangular	1.732050808	1	0.6	∞
Probe linearity	4.7	Rectangular	1.732050808	1	2.7	∞
Detection limit	1	Rectangular	1.732050808	1	0.6	∞
Readout electronics	0.3	Normal	1	1	0.3	∞
Response time	0.8	Rectangular	1.732050808	1	0.5	∞
Integration time	2.6	Rectangular	1.732050808	1	1.5	∞
RF ambient conditions	3	Rectangular	1.732050808	1	1.7	∞
Mech. constraints of robot	0.4	Rectangular	1.732050808	1	0.2	∞
Probe positioning	2.9	Rectangular	1.732050808	1	1.7	∞
Extrapolation & integration	1	Rectangular	1.732050808	1	0.6	∞
Test Sample Related						
Device positioning	2.9	Normal	1	1	2.9	12
Device holder uncertainty	3.6	Normal	1	1	3.6	8
Power drift	5	Rectangular	1.732050808	1	2.9	∞
Phantom and Setup						
Phantom uncertainty	4	Rectangular	1.732050808	1	2.3	∞
Liquid conductivity (target)	5	Rectangular	1.732050808	0.64	1.8	∞
Liquid conductivity (measured)	2.5	Normal	1	0.64	1.6	∞
Liquid permittivity (target)	5	Rectangular	1.732050808	0.6	1.7	∞
Liquid permittivity (measured)	2.5	Normal	1	0.6	1.5	∞
Combined Standard Uncertainty					**10.58**	
Expanded Uncertainty (k=2)					**21.16**	

Measurement Uncertainty Table in accordance with IEEE Standard 1528-2003 (see reference [5])

MEASUREMENT UNCERTAINTIES (Cont.)

UNCERTAINTY BUDGET FOR SYSTEM VALIDATION						
Error Description	**Uncertainty Value ±%**	**Probability Distribution**	**Divisor**	**ci 1g**	**Uncertainty Value ±% (1g)**	**V_i or V_{eff}**
Measurement System						
Probe calibration	5.5	Normal	1	1	5.5	∞
Axial isotropy of the probe	4.7	Rectangular	1.732050808	1	2.7	∞
Spherical isotropy of the probe	0	Rectangular	1.732050808	1	0.0	∞
Spatial resolution	0	Rectangular	1.732050808	1	0.0	∞
Boundary effects	1	Rectangular	1.732050808	1	0.6	∞
Probe linearity	4.7	Rectangular	1.732050808	1	2.7	∞
Detection limit	1	Rectangular	1.732050808	1	0.6	∞
Readout electronics	0.3	Normal	1	1	0.3	∞
Response time	0	Rectangular	1.732050808	1	0.0	∞
Integration time	0	Rectangular	1.732050808	1	0.0	∞
RF ambient conditions	3	Rectangular	1.732050808	1	1.7	∞
Mech. constraints of robot	0.4	Rectangular	1.732050808	1	0.2	∞
Probe positioning	2.9	Rectangular	1.732050808	1	1.7	∞
Extrapolation & integration	1	Rectangular	1.732050808	1	0.6	∞
Test Sample Related						
Dipole Positioning	2	Normal	1.732050808	1	1.2	∞
Power & Power Drift	4.7	Normal	1.732050808	1	2.7	∞
Phantom and Setup						
Phantom uncertainty	4	Rectangular	1.732050808	1	2.3	∞
Liquid conductivity (target)	5	Rectangular	1.732050808	0.64	1.8	∞
Liquid conductivity (measured)	2.5	Normal	1	0.64	1.6	∞
Liquid permittivity (target)	5	Rectangular	1.732050808	0.6	1.7	∞
Liquid permittivity (measured)	2.5	Normal	1	0.6	1.5	∞
Combined Standard Uncertainty					**8.79**	
Expanded Uncertainty (k=2)					**17.57**	

Measurement Uncertainty Table in accordance with IEEE Standard 1528-2003 (see reference [5])

18.0 REFERENCES

[1] Federal Communications Commission, "Radiofrequency radiation exposure evaluation: portable devices", Rule Part 47 CFR §2.1093: 1999.

[2] Health Canada, "Limits of Human Exposure to Radiofrequency Electromagnetic Fields in the Frequency Range from 3 kHz to 300 GHz", Safety Code 6: 1999.

[3] Federal Communications Commission, "Evaluating Compliance with FCC Guidelines for Human Exposure to Radio frequency Electromagnetic Fields", OET Bulletin 65, Supplement C (Edition 01-01), FCC, Washington, D.C.: June 2001.

[4] Industry Canada, "Evaluation Procedure for Mobile and Portable Radio Transmitters with respect to Health Canada's Safety Code 6 for Exposure of Humans to Radio Frequency Fields", Radio Standards Specification RSS-102 Issue 1 (Provisional): September 1999.

[5] IEEE Standard 1528-2003, "Recommended Practice for Determining the Peak Spatial-Average Specific Absorption Rate (SAR) in the Human Head from Wireless Communications Devices: Measurement Techniques": December 2003.