

	<u>Dates of Evaluation (K3)</u>	<u>Test Report Serial No.</u>	<u>Test Report Revision No.</u>	
	Jan. 4,6,26-28,31, 2011	121510ALH-T1070-S90U	Rev. 1.3 (4th Release)	
<u>Test Report Issue Date</u>	<u>Dates of Evaluation (K/K2)</u>	<u>Description of Test(s)</u>	<u>RF Exposure Category</u>	Test Lab Certificate No. 2470.01
April 14, 2011	March 30 - April 7, 2011	Specific Absorption Rate	Occupational (Controlled)	

Audio Accessory SAR Plot #2 (A2)

Date Tested: 01/27/2011

Body-worn SAR - KRA-23M "Antenna A" - KNB-57L 1400mAh Li-ion "Battery a" – 450.0 MHz

DUT: Kenwood NX-320-K3; Type: Portable FM UHF-H PTT Radio Transceiver; Serial: No. 10
Audio Accessory Category 2 (Earpiece); Type: D-Ring Ear Hanger w/ PTT & Mic (P/N: KHS-27)
Body-worn Accessory 1: Belt-Clip (P/N: KBH-12)

Ambient Temp: 23.1°C; Fluid Temp: 22.4°C; Barometric Pressure: 101.1 kPa; Humidity: 35%

Communication System: CW

Frequency: 450 MHz; Duty Cycle: 1:1

Medium: M450 Medium parameters used: $f = 450 \text{ MHz}$; $\sigma = 0.91 \text{ mho/m}$; $\epsilon_r = 58.2$; $\rho = 1000 \text{ kg/m}^3$

- Probe: ET3DV6 - SN1590; ConvF(7.73, 7.73, 7.73); Calibrated: 15/07/2010
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn353; Calibrated: 27/04/2010
- Phantom: Barski Industries; Type: Fiberglass Planar; Serial: 03-01
- Measurement SW: DASY4, V4.7 Build 44; Postprocessing SW: SEMCAD, V1.8 Build 171

Body-worn SAR – 1.6 cm Belt-Clip Spacing from Back of DUT to Planar Phantom

Area Scan (8x19x1): Measurement grid: $dx=15\text{mm}$, $dy=15\text{mm}$

Maximum value of SAR (measured) = 9.97 mW/g

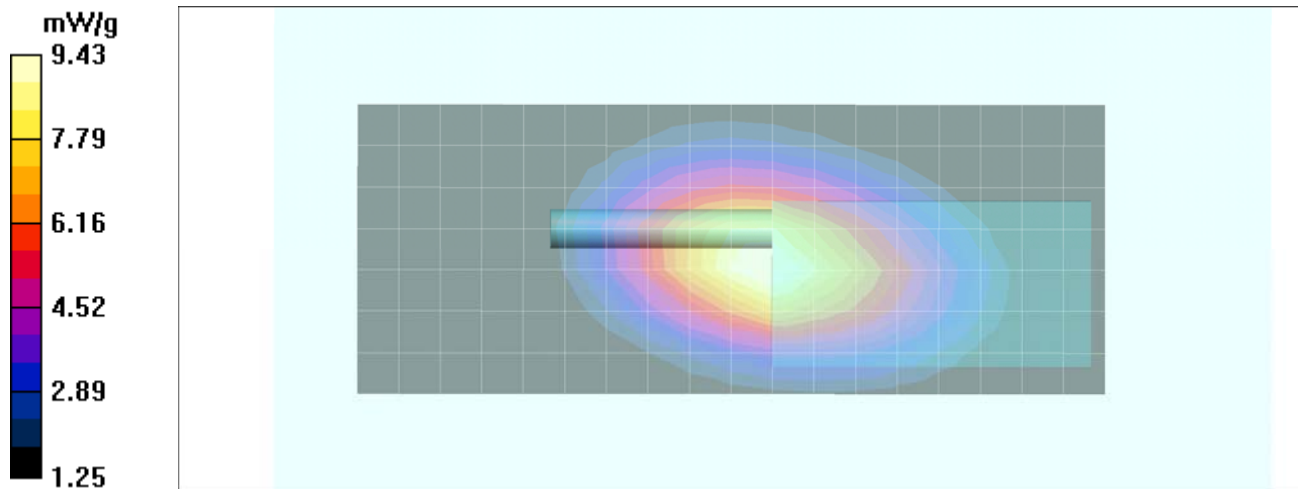
Zoom Scan (5x5x7)/Cube 0: Measurement grid: $dx=7.5\text{mm}$, $dy=7.5\text{mm}$, $dz=5\text{mm}$

Reference Value = 99.0 V/m; Power Drift = 0.027 dB

Peak SAR (extrapolated) = 13.1 W/kg

SAR(1 g) = 8.96 mW/g; SAR(10 g) = 6.34 mW/g

Maximum value of SAR (measured) = 9.43 mW/g



Applicant:	Kenwood USA Corporation	FCC ID:	ALH431000	DUT Models:	NX-320-K/K2/K3	KENWOOD
DUT Type:	Portable UHF-H PTT Radio Transceiver	Transmitter Frequency Range:	450.0 - 512.0 MHz			
2011 Celltech Labs Inc.	This document is not to be reproduced in whole or in part without the prior written permission of Celltech Labs Inc.					Page 132 of 361

	<u>Dates of Evaluation (K3)</u>	<u>Test Report Serial No.</u>	<u>Test Report Revision No.</u>	
	Jan. 4,6,26-28,31, 2011	121510ALH-T1070-S90U	Rev. 1.3 (4th Release)	
<u>Test Report Issue Date</u>	<u>Dates of Evaluation (K/K2)</u>	<u>Description of Test(s)</u>	<u>RF Exposure Category</u>	Test Lab Certificate No. 2470.01
April 14, 2011	March 30 - April 7, 2011	Specific Absorption Rate	Occupational (Controlled)	

Audio Accessory SAR Plot #3 (A3)

Date Tested: 01/27/2011

Body-worn SAR - KRA-23M "Antenna A" - KNB-57L 1400mAh Li-ion "Battery a" – 476.7 MHz

DUT: Kenwood NX-320-K3; Type: Portable FM UHF-H PTT Radio Transceiver; Serial: No. 10
Audio Accessory Category 2 (Earpiece); Type: D-Ring Ear Hanger w/ PTT & Mic (P/N: KHS-27)
Body-worn Accessory 1: Belt-Clip (P/N: KBH-12)

Ambient Temp: 23.1°C; Fluid Temp: 22.4°C; Barometric Pressure: 101.1 kPa; Humidity: 35%

Communication System: CW

Frequency: 476.7 MHz; Duty Cycle: 1:1

Medium: M450 Medium parameters used (interpolated): $f = 476.7 \text{ MHz}$; $\sigma = 0.93 \text{ mho/m}$; $\epsilon_r = 57.2$; $\rho = 1000 \text{ kg/m}^3$

- Probe: ET3DV6 - SN1590; ConvF(7.73, 7.73, 7.73); Calibrated: 15/07/2010
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn353; Calibrated: 27/04/2010
- Phantom: Barski Industries; Type: Fiberglass Planar; Serial: 03-01
- Measurement SW: DASY4, V4.7 Build 44; Postprocessing SW: SEMCAD, V1.8 Build 171

Body-worn SAR – 1.6 cm Belt-Clip Spacing from Back of DUT to Planar Phantom

Area Scan (8x19x1): Measurement grid: $dx=15\text{mm}$, $dy=15\text{mm}$

Maximum value of SAR (measured) = 7.76 mW/g

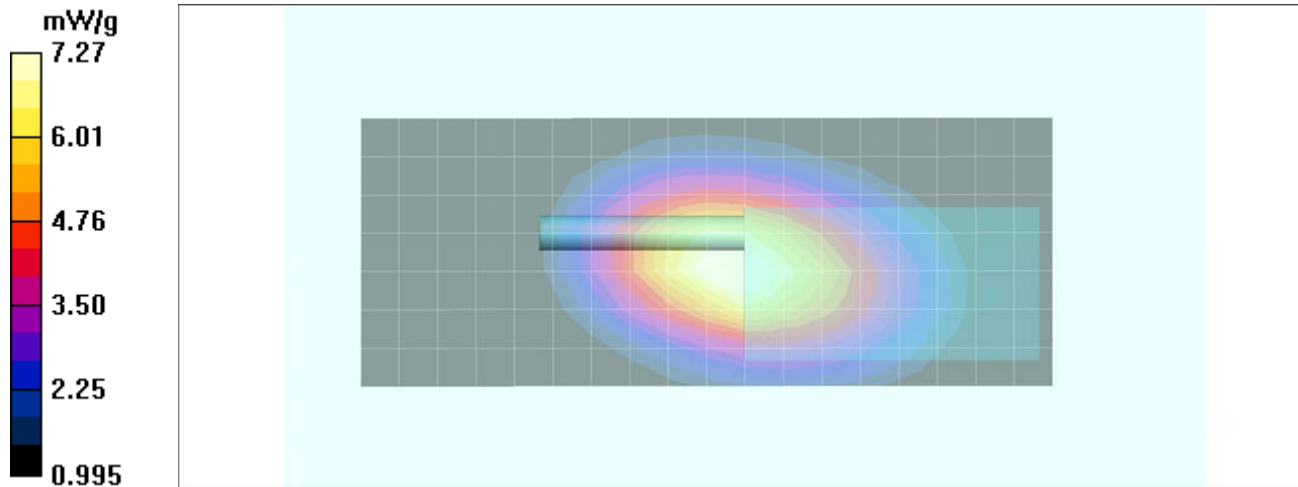
Zoom Scan (5x5x7)/Cube 0: Measurement grid: $dx=7.5\text{mm}$, $dy=7.5\text{mm}$, $dz=5\text{mm}$

Reference Value = 89.7 V/m; Power Drift = -0.619 dB

Peak SAR (extrapolated) = 10.2 W/kg

SAR(1 g) = 6.99 mW/g; SAR(10 g) = 4.99 mW/g

Maximum value of SAR (measured) = 7.27 mW/g



Applicant:	Kenwood USA Corporation	FCC ID:	ALH431000	DUT Models:	NX-320-K/K2/K3	KENWOOD
DUT Type:	Portable UHF-H PTT Radio Transceiver	Transmitter Frequency Range:		450.0 - 512.0 MHz		
2011 Celltech Labs Inc.		This document is not to be reproduced in whole or in part without the prior written permission of Celltech Labs Inc.				Page 133 of 361

	<u>Dates of Evaluation (K3)</u>	<u>Test Report Serial No.</u>	<u>Test Report Revision No.</u>	
	Jan. 4,6,26-28,31, 2011	121510ALH-T1070-S90U	Rev. 1.3 (4th Release)	
<u>Test Report Issue Date</u>	<u>Dates of Evaluation (K/K2)</u>	<u>Description of Test(s)</u>	<u>RF Exposure Category</u>	Test Lab Certificate No. 2470.01
April 14, 2011	March 30 - April 7, 2011	Specific Absorption Rate	Occupational (Controlled)	

Audio Accessory SAR Plot #4 (A4)

Date Tested: 01/27/2011

Body-worn SAR - KRA-23M "Antenna A" - KNB-57L 1400mAh Li-ion "Battery a" – 463.3 MHz

DUT: Kenwood NX-320-K3; Type: Portable FM UHF-H PTT Radio Transceiver; Serial: No. 10
Audio Accessory Category 3 (Palm-Microphone Kit); Type: 3-Wire Lapel Microphone w/ Earpiece (P/N: KHS-9BL)
Body-worn Accessory 1: Belt-Clip (P/N: KBH-12)

Ambient Temp: 23.1°C; Fluid Temp: 22.4°C; Barometric Pressure: 101.1 kPa; Humidity: 35%

Communication System: CW

Frequency: 463.3 MHz; Duty Cycle: 1:1

Medium: M450 Medium parameters used (interpolated): $f = 463.3 \text{ MHz}$; $\sigma = 0.923 \text{ mho/m}$; $\epsilon_r = 58$; $\rho = 1000 \text{ kg/m}^3$

- Probe: ET3DV6 - SN1590; ConvF(7.73, 7.73, 7.73); Calibrated: 15/07/2010
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn353; Calibrated: 27/04/2010
- Phantom: Barski Industries; Type: Fiberglass Planar; Serial: 03-01
- Measurement SW: DASy4, V4.7 Build 44; Postprocessing SW: SEMCAD, V1.8 Build 171

Body-worn SAR – 1.6 cm Belt-Clip Spacing from Back of DUT to Planar Phantom

Area Scan (8x19x1): Measurement grid: $dx=15\text{mm}$, $dy=15\text{mm}$

Maximum value of SAR (measured) = 10.1 mW/g

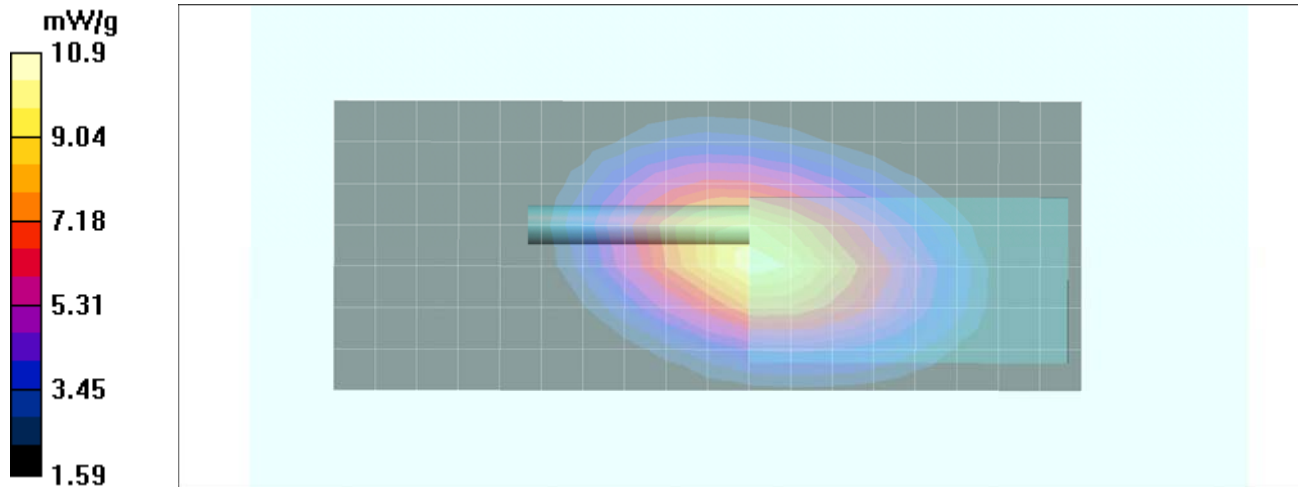
Zoom Scan (5x5x7)/Cube 0: Measurement grid: $dx=7.5\text{mm}$, $dy=7.5\text{mm}$, $dz=5\text{mm}$

Reference Value = 111.9 V/m; Power Drift = -0.503 dB

Peak SAR (extrapolated) = 15.3 W/kg

SAR(1 g) = 10.4 mW/g; SAR(10 g) = 7.43 mW/g

Maximum value of SAR (measured) = 10.9 mW/g



Applicant:	Kenwood USA Corporation	FCC ID:	ALH431000	DUT Models:	NX-320-K/K2/K3	KENWOOD
DUT Type:	Portable UHF-H PTT Radio Transceiver	Transmitter Frequency Range:		450.0 - 512.0 MHz		
2011 Celltech Labs Inc.		This document is not to be reproduced in whole or in part without the prior written permission of Celltech Labs Inc.				Page 134 of 361

	<u>Dates of Evaluation (K3)</u>	<u>Test Report Serial No.</u>	<u>Test Report Revision No.</u>	
	Jan. 4,6,26-28,31, 2011	121510ALH-T1070-S90U	Rev. 1.3 (4th Release)	
<u>Test Report Issue Date</u>	<u>Dates of Evaluation (K/K2)</u>	<u>Description of Test(s)</u>	<u>RF Exposure Category</u>	Test Lab Certificate No. 2470.01
April 14, 2011	March 30 - April 7, 2011	Specific Absorption Rate	Occupational (Controlled)	

Audio Accessory SAR Plot #5 (A5)

Date Tested: 01/27/2011

Body-worn SAR - KRA-23M "Antenna A" - KNB-57L 1400mAh Li-ion "Battery a" – 463.3 MHz

DUT: Kenwood NX-320-K3; Type: Portable FM UHF-H PTT Radio Transceiver; Serial: No. 10
Audio Accessory Category 4 (Speaker-Mic); Type: Speaker-Microphone w/ Integral GPS (P/N: KMC-48GPS)
Body-worn Accessory 1: Belt-Clip (P/N: KBH-12)

Ambient Temp: 23.1°C; Fluid Temp: 22.4°C; Barometric Pressure: 101.1 kPa; Humidity: 35%

Communication System: CW

Frequency: 463.3 MHz; Duty Cycle: 1:1

Medium: M450 Medium parameters used (interpolated): $f = 463.3 \text{ MHz}$; $\sigma = 0.923 \text{ mho/m}$; $\epsilon_r = 58$; $\rho = 1000 \text{ kg/m}^3$

- Probe: ET3DV6 - SN1590; ConvF(7.73, 7.73, 7.73); Calibrated: 15/07/2010
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn353; Calibrated: 27/04/2010
- Phantom: Barski Industries; Type: Fiberglass Planar; Serial: 03-01
- Measurement SW: DASY4, V4.7 Build 44; Postprocessing SW: SEMCAD, V1.8 Build 171

Body-worn SAR – 1.6 cm Belt-Clip Spacing from Back of DUT to Planar Phantom

Area Scan (8x19x1): Measurement grid: $dx=15\text{mm}$, $dy=15\text{mm}$

Maximum value of SAR (measured) = 10.5 mW/g

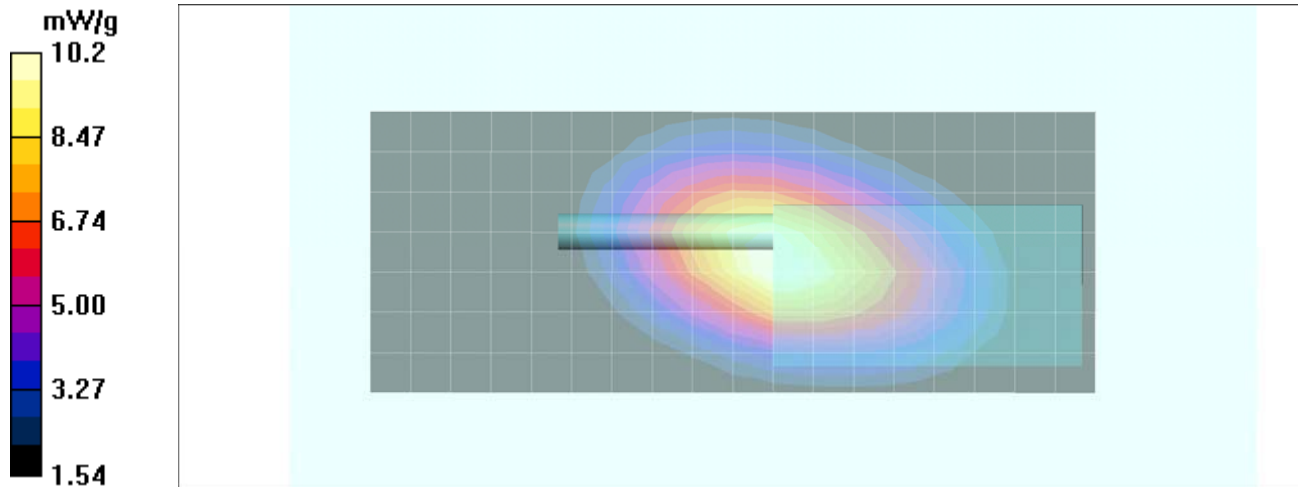
Zoom Scan (5x5x7)/Cube 0: Measurement grid: $dx=7.5\text{mm}$, $dy=7.5\text{mm}$, $dz=5\text{mm}$

Reference Value = 108.5 V/m; Power Drift = -0.526 dB


Peak SAR (extrapolated) = 14.2 W/kg

SAR(1 g) = 9.75 mW/g; SAR(10 g) = 6.97 mW/g

Maximum value of SAR (measured) = 10.2 mW/g



Applicant:	Kenwood USA Corporation	FCC ID:	ALH431000	DUT Models:	NX-320-K/K2/K3	KENWOOD
DUT Type:	Portable UHF-H PTT Radio Transceiver	Transmitter Frequency Range:		450.0 - 512.0 MHz		
2011 Celltech Labs Inc.		This document is not to be reproduced in whole or in part without the prior written permission of Celltech Labs Inc.				Page 135 of 361

	<u>Dates of Evaluation (K3)</u>	<u>Test Report Serial No.</u>	<u>Test Report Revision No.</u>	 
	Jan. 4,6,26-28,31, 2011	121510ALH-T1070-S90U	Rev. 1.3 (4th Release)	
<u>Test Report Issue Date</u>	<u>Dates of Evaluation (K/K2)</u>	<u>Description of Test(s)</u>	<u>RF Exposure Category</u>	Test Lab Certificate No. 2470.01
April 14, 2011	March 30 - April 7, 2011	Specific Absorption Rate	Occupational (Controlled)	

Audio Accessory SAR Plot #6 (A6)

Date Tested: 04/04/2011

Body-worn SAR - KRA-23M "Antenna A" - KNB-57L "Battery a" – 463.3 MHz

DUT: Kenwood NX-320-K; Type: Portable FM UHF-H PTT Radio Transceiver; Serial: No. 0320K124
Audio Accessory Category 2: Earpiece (P/N: KHS-27)
Body-worn Accessory 1: Belt-Clip (P/N: KBH-12)

Program Notes: Ambient Temp: 21.0°C; Fluid Temp: 20.5°C; Barometric Pressure: 101.1 kPa; Humidity: 30%

Communication System: CW

Frequency: 463.3 MHz; Duty Cycle: 1:1

Medium: M450 Medium parameters used (interpolated): $f = 463.3 \text{ MHz}$; $\sigma = 0.917 \text{ mho/m}$; $\epsilon_r = 58$; $\rho = 1000 \text{ kg/m}^3$

- Probe: ET3DV6 - SN1590; ConvF(7.73, 7.73, 7.73); Calibrated: 15/07/2010
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn353; Calibrated: 27/04/2010
- Phantom: Barski Industries; Type: Fiberglass Planar; Serial: 03-01
- Measurement SW: DASy4, V4.7 Build 44; Postprocessing SW: SEMCAD, V1.8 Build 171

Body-worn SAR – 1.6 cm Belt-Clip Spacing from Back of DUT to Planar Phantom

Area Scan (8x19x1): Measurement grid: $dx=15\text{mm}$, $dy=15\text{mm}$

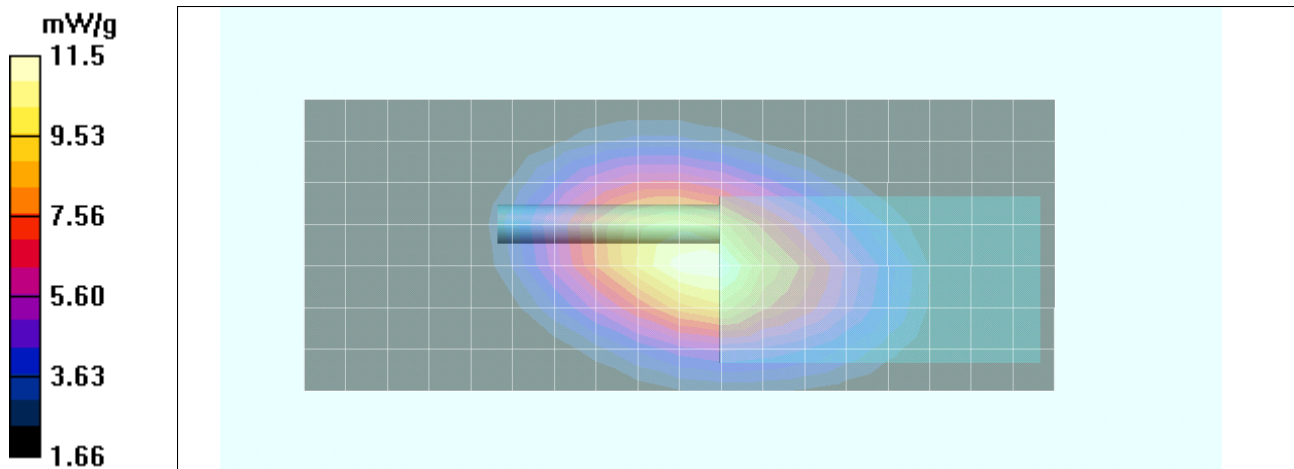
Maximum value of SAR (measured) = 11.5 mW/g

Zoom Scan (5x5x7)/Cube 0: Measurement grid: $dx=7.5\text{mm}$, $dy=7.5\text{mm}$, $dz=5\text{mm}$

Reference Value = 114.5 V/m; Power Drift = -0.381 dB

Peak SAR (extrapolated) = 16.1 W/kg

SAR(1 g) = 11 mW/g; SAR(10 g) = 7.77 mW/g



Applicant:	Kenwood USA Corporation	FCC ID:	ALH431000	DUT Models:	NX-320-K/K2/K3	KENWOOD
DUT Type:	Portable UHF-H PTT Radio Transceiver	Transmitter Frequency Range:		450.0 - 512.0 MHz		
2011 Celltech Labs Inc.		This document is not to be reproduced in whole or in part without the prior written permission of Celltech Labs Inc.				Page 136 of 361

	<u>Dates of Evaluation (K3)</u>	<u>Test Report Serial No.</u>	<u>Test Report Revision No.</u>	
	Jan. 4,6,26-28,31, 2011	121510ALH-T1070-S90U	Rev. 1.3 (4th Release)	
<u>Test Report Issue Date</u>	<u>Dates of Evaluation (K/K2)</u>	<u>Description of Test(s)</u>	<u>RF Exposure Category</u>	Test Lab Certificate No. 2470.01
April 14, 2011	March 30 - April 7, 2011	Specific Absorption Rate	Occupational (Controlled)	

Audio Accessory SAR Plot #7 (A7)

Date Tested: 04/04/2011

Body-worn SAR - KRA-23M "Antenna A" - KNB-57L "Battery a" – 463.3 MHz

DUT: Kenwood NX-320-K; Type: Portable FM UHF-H PTT Radio Transceiver; Serial: No. 0320K124
Audio Accessory Category 3: Palm-Mic (P/N: KHS-9BL)
Body-worn Accessory 1: Belt-Clip (P/N: KBH-12)

Ambient Temp: 21.0°C; Fluid Temp: 20.5°C; Barometric Pressure: 101.1 kPa; Humidity: 30%

Communication System: CW

Frequency: 463.3 MHz; Duty Cycle: 1:1

Medium: M450 Medium parameters used (interpolated): $f = 463.3 \text{ MHz}$; $\sigma = 0.917 \text{ mho/m}$; $\epsilon_r = 58$; $\rho = 1000 \text{ kg/m}^3$

- Probe: ET3DV6 - SN1590; ConvF(7.73, 7.73, 7.73); Calibrated: 15/07/2010
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn353; Calibrated: 27/04/2010
- Phantom: Barski Industries; Type: Fiberglass Planar; Serial: 03-01
- Measurement SW: DASy4, V4.7 Build 44; Postprocessing SW: SEMCAD, V1.8 Build 171

Body-worn SAR – 1.6 cm Belt-Clip Spacing from Back of DUT to Planar Phantom

Area Scan (8x19x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (measured) = 11.2 mW/g

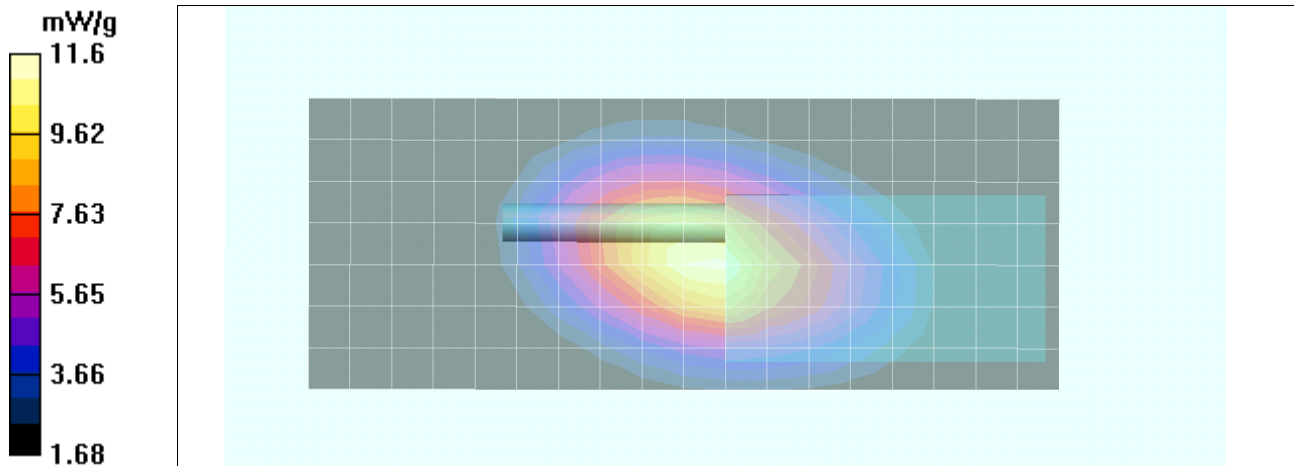
Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm

Reference Value = 114.5 V/m; Power Drift = -0.412 dB

Peak SAR (extrapolated) = 16.2 W/kg

SAR(1 g) = 11 mW/g; SAR(10 g) = 7.74 mW/g

Maximum value of SAR (measured) = 11.6 mW/g



Applicant:	Kenwood USA Corporation	FCC ID:	ALH431000	DUT Models:	NX-320-K/K2/K3	KENWOOD
DUT Type:	Portable UHF-H PTT Radio Transceiver	Transmitter Frequency Range:		450.0 - 512.0 MHz		
2011 Celltech Labs Inc.		This document is not to be reproduced in whole or in part without the prior written permission of Celltech Labs Inc.				Page 137 of 361

	<u>Dates of Evaluation (K3)</u>	<u>Test Report Serial No.</u>	<u>Test Report Revision No.</u>	
	Jan. 4,6,26-28,31, 2011	121510ALH-T1070-S90U	Rev. 1.3 (4th Release)	
<u>Test Report Issue Date</u>	<u>Dates of Evaluation (K/K2)</u>	<u>Description of Test(s)</u>	<u>RF Exposure Category</u>	
April 14, 2011	March 30 - April 7, 2011	Specific Absorption Rate	Occupational (Controlled)	

Audio Accessory SAR Plot #8 (A8)

Date Tested: 04/01/2011

Body-worn SAR - KRA-23M "Antenna A" - KNB-57L "Battery a" – 463.3 MHz

DUT: Kenwood NX-320-K2; Type: Portable FM UHF-H PTT Radio Transceiver; Serial: No. 0320K218
Audio Accessory Category 2: Earpiece (P/N: KHS-27)
Body-worn Accessory 1: Belt-Clip (P/N: KBH-12)

Ambient Temp: 21.0°C; Fluid Temp: 20.5°C; Barometric Pressure: 101.1 kPa; Humidity: 32%

Communication System: CW

Frequency: 463.3 MHz; Duty Cycle: 1:1

Medium: M450 Medium parameters used (interpolated): $f = 463.3 \text{ MHz}$; $\sigma = 0.94 \text{ mho/m}$; $\epsilon_r = 58.9$; $\rho = 1000 \text{ kg/m}^3$

- Probe: ET3DV6 - SN1590; ConvF(7.73, 7.73, 7.73); Calibrated: 15/07/2010
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn353; Calibrated: 27/04/2010
- Phantom: Barski Industries; Type: Fiberglass Planar; Serial: 03-01
- Measurement SW: DASY4, V4.7 Build 44; Postprocessing SW: SEMCAD, V1.8 Build 171

Body-worn SAR – 1.6 cm Belt-Clip Spacing from Back of DUT to Planar Phantom

Area Scan (8x19x1): Measurement grid: $dx=15\text{mm}$, $dy=15\text{mm}$

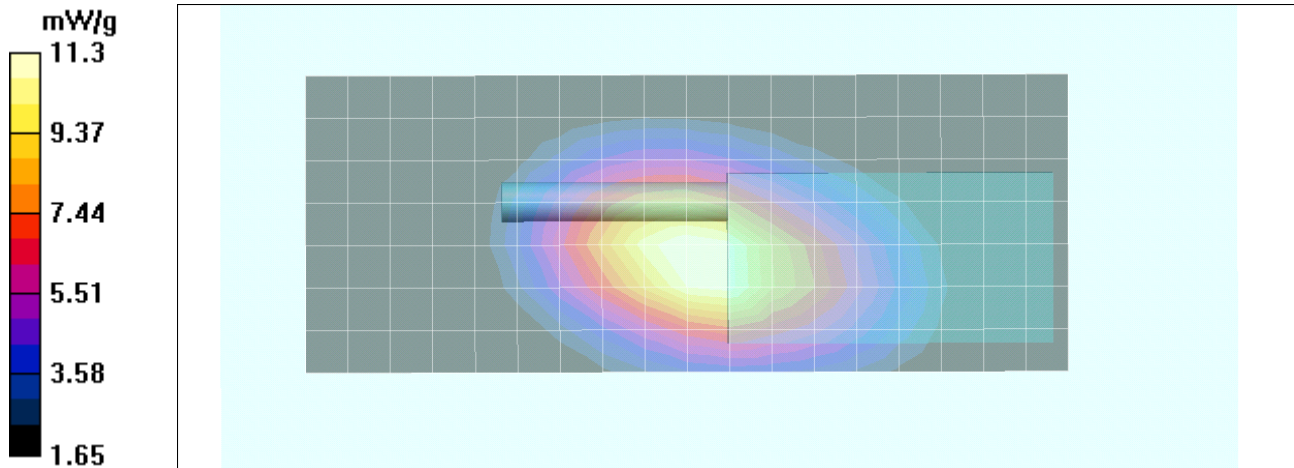
Maximum value of SAR (measured) = 11.3 mW/g

Zoom Scan (5x5x7)/Cube 0: Measurement grid: $dx=7.5\text{mm}$, $dy=7.5\text{mm}$, $dz=5\text{mm}$

Reference Value = 111.4 V/m; Power Drift = -0.353 dB

Peak SAR (extrapolated) = 15.7 W/kg

SAR(1 g) = 10.7 mW/g; SAR(10 g) = 7.62 mW/g



Applicant:	Kenwood USA Corporation	FCC ID:	ALH431000	DUT Models:	NX-320-K/K2/K3	KENWOOD
DUT Type:	Portable UHF-H PTT Radio Transceiver	Transmitter Frequency Range:		450.0 - 512.0 MHz		
2011 Celltech Labs Inc.		This document is not to be reproduced in whole or in part without the prior written permission of Celltech Labs Inc.				Page 138 of 361

	<u>Dates of Evaluation (K3)</u>	<u>Test Report Serial No.</u>	<u>Test Report Revision No.</u>	
	Jan. 4,6,26-28,31, 2011	121510ALH-T1070-S90U	Rev. 1.3 (4th Release)	
<u>Test Report Issue Date</u>	<u>Dates of Evaluation (K/K2)</u>	<u>Description of Test(s)</u>	<u>RF Exposure Category</u>	Test Lab Certificate No. 2470.01
April 14, 2011	March 30 - April 7, 2011	Specific Absorption Rate	Occupational (Controlled)	

Audio Accessory SAR Plot #9 (A9)

Date Tested: 04/05/2011

Body-worn SAR - KRA-23M "Antenna A" - KNB-57L "Battery a" – 463.3 MHz

DUT: Kenwood NX-320-K2; Type: Portable FM UHF-H PTT Radio Transceiver; Serial: No. 0320K218
Audio Accessory Category 3: Palm-Mic (P/N: KHS-9BL)
Body-worn Accessory 1: Belt-Clip (P/N: KBH-12)

Ambient Temp: 22.0°C; Fluid Temp: 20.5°C; Barometric Pressure: 101.1 kPa; Humidity: 28%

Communication System: CW

Frequency: 463.3 MHz; Duty Cycle: 1:1

Medium: M450 Medium parameters used (interpolated): $f = 463.3 \text{ MHz}$; $\sigma = 0.92 \text{ mho/m}$; $\epsilon_r = 58.4$; $\rho = 1000 \text{ kg/m}^3$

- Probe: ET3DV6 - SN1590; ConvF(7.73, 7.73, 7.73); Calibrated: 15/07/2010
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn353; Calibrated: 27/04/2010
- Phantom: Barski Industries; Type: Fiberglass Planar; Serial: 03-01
- Measurement SW: DASY4, V4.7 Build 44; Postprocessing SW: SEMCAD, V1.8 Build 171

Body-worn SAR – 1.6 cm Belt-Clip Spacing from Back of DUT to Planar Phantom

Area Scan (8x19x1): Measurement grid: $dx=15\text{mm}$, $dy=15\text{mm}$

Info: [Interpolated medium parameters used for SAR evaluation.](#)

Maximum value of SAR (measured) = 11.6 mW/g

Zoom Scan (5x5x7)/Cube 0: Measurement grid: $dx=7.5\text{mm}$, $dy=7.5\text{mm}$, $dz=5\text{mm}$

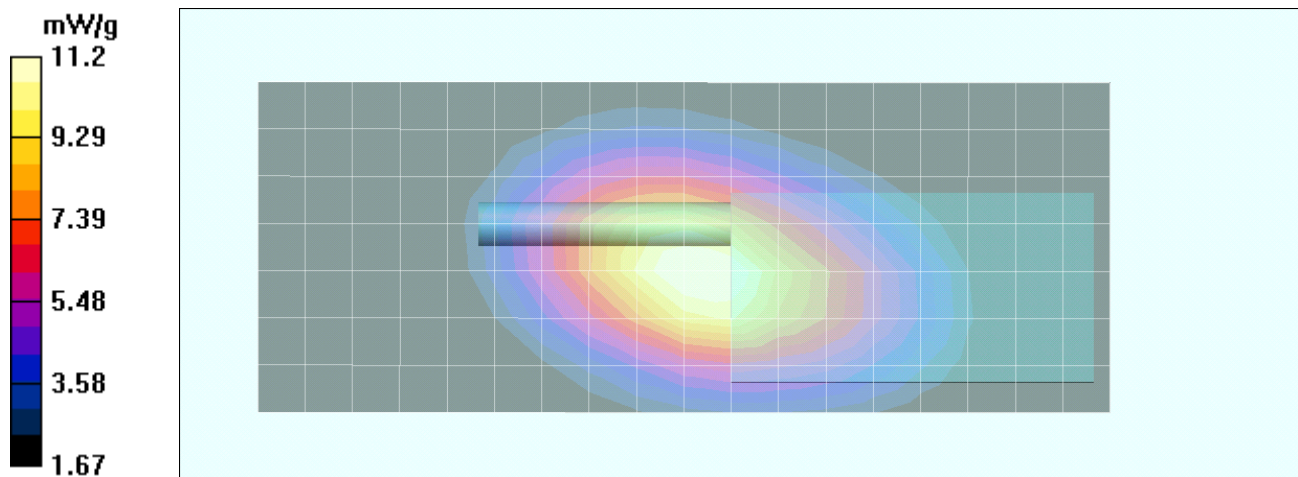
Reference Value = 111.0 V/m; Power Drift = -0.300 dB

Peak SAR (extrapolated) = 15.6 W/kg

SAR(1 g) = 10.6 mW/g; SAR(10 g) = 7.55 mW/g

Info: [Interpolated medium parameters used for SAR evaluation.](#)

Maximum value of SAR (measured) = 11.2 mW/g



Applicant:	Kenwood USA Corporation	FCC ID:	ALH431000	DUT Models:	NX-320-K/K2/K3	KENWOOD
DUT Type:	Portable UHF-H PTT Radio Transceiver	Transmitter Frequency Range:		450.0 - 512.0 MHz		
2011 Celltech Labs Inc.		This document is not to be reproduced in whole or in part without the prior written permission of Celltech Labs Inc.				Page 139 of 361

	<u>Dates of Evaluation (K3)</u>	<u>Test Report Serial No.</u>	<u>Test Report Revision No.</u>	
	Jan. 4,6,26-28,31, 2011	121510ALH-T1070-S90U	Rev. 1.3 (4th Release)	
<u>Test Report Issue Date</u>	<u>Dates of Evaluation (K/K2)</u>	<u>Description of Test(s)</u>	<u>RF Exposure Category</u>	Test Lab Certificate No. 2470.01
April 14, 2011	March 30 - April 7, 2011	Specific Absorption Rate	Occupational (Controlled)	

Audio Accessory SAR Plot #10 (A10)

Date Tested: 01/27/2011

Body-worn SAR - KRA-23M2 "Antenna B" - KNB-55L 1480mAh Li-ion "Battery b" – 512.0 MHz

DUT: Kenwood NX-320-K3; Type: Portable FM UHF-H PTT Radio Transceiver; Serial: No. 10
Audio Accessory Category 2 (Earpiece); Type: D-Ring Ear Hanger w/ PTT & Mic (P/N: KHS-27)
Body-worn Accessory 1: Belt-Clip (P/N: KBH-12)

Ambient Temp: 23.1°C; Fluid Temp: 22.4°C; Barometric Pressure: 101.1 kPa; Humidity: 35%

Communication System: CW

Frequency: 512 MHz; Duty Cycle: 1:1

Medium: M450 Medium parameters used (interpolated): $f = 512 \text{ MHz}$; $\sigma = 0.968 \text{ mho/m}$; $\epsilon_r = 57.1$; $\rho = 1000 \text{ kg/m}^3$

- Probe: ET3DV6 - SN1590; ConvF(7.73, 7.73, 7.73); Calibrated: 15/07/2010
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn353; Calibrated: 27/04/2010
- Phantom: Barski Industries; Type: Fiberglass Planar; Serial: 03-01
- Measurement SW: DASY4, V4.7 Build 44; Postprocessing SW: SEMCAD, V1.8 Build 171

Body-worn SAR – 1.5 cm Belt-Clip Spacing from Back of DUT to Planar Phantom

Area Scan (8x19x1): Measurement grid: $dx=15\text{mm}$, $dy=15\text{mm}$

Maximum value of SAR (measured) = 8.66 mW/g

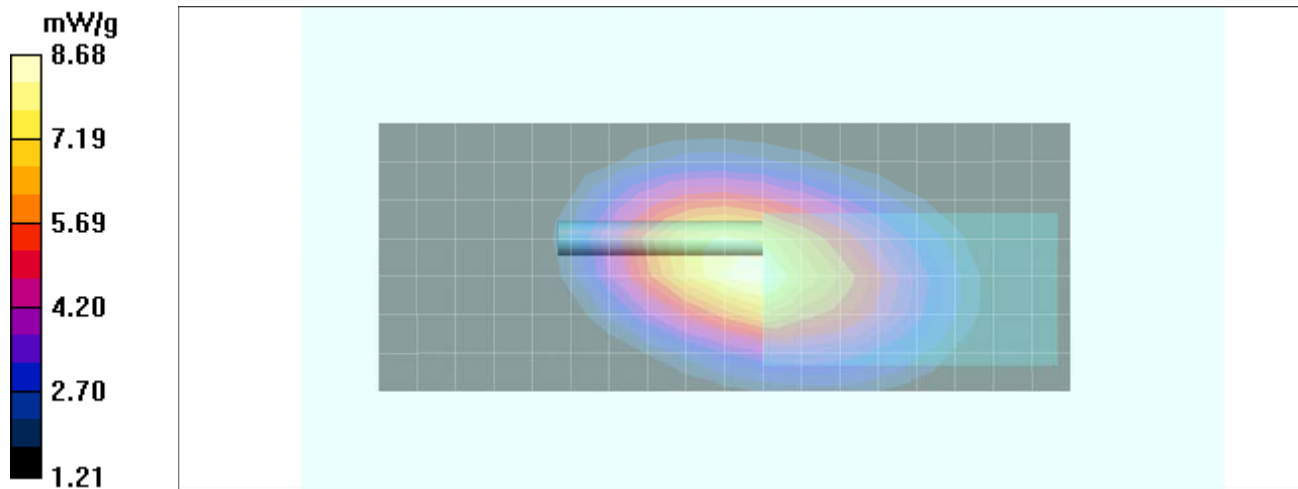
Zoom Scan (5x5x7)/Cube 0: Measurement grid: $dx=7.5\text{mm}$, $dy=7.5\text{mm}$, $dz=5\text{mm}$

Reference Value = 92.9 V/m; Power Drift = -0.200 dB

Peak SAR (extrapolated) = 12.1 W/kg

SAR(1 g) = 8.21 mW/g; SAR(10 g) = 5.8 mW/g

Maximum value of SAR (measured) = 8.68 mW/g



Applicant:	Kenwood USA Corporation	FCC ID:	ALH431000	DUT Models:	NX-320-K/K2/K3	KENWOOD
DUT Type:	Portable UHF-H PTT Radio Transceiver	Transmitter Frequency Range:		450.0 - 512.0 MHz		
2011 Celltech Labs Inc.		This document is not to be reproduced in whole or in part without the prior written permission of Celltech Labs Inc.				Page 140 of 361

	<u>Dates of Evaluation (K3)</u>	<u>Test Report Serial No.</u>	<u>Test Report Revision No.</u>	
	Jan. 4,6,26-28,31, 2011	121510ALH-T1070-S90U	Rev. 1.3 (4th Release)	
<u>Test Report Issue Date</u>	<u>Dates of Evaluation (K/K2)</u>	<u>Description of Test(s)</u>	<u>RF Exposure Category</u>	
April 14, 2011	March 30 - April 7, 2011	Specific Absorption Rate	Occupational (Controlled)	

Audio Accessory SAR Plot #11 (A11)

Date Tested: 01/27/2011

Body-worn SAR - KRA-23M2 "Antenna B" - KNB-55L 1480mAh Li-ion "Battery b" – 512.0 MHz

DUT: Kenwood NX-320-K3; Type: Portable FM UHF-H PTT Radio Transceiver; Serial: No. 10
Audio Accessory Category 3 (Palm-Microphone Kit); Type: 3-Wire Lapel Microphone w/ Earpiece (P/N: KHS-9BL)
Body-worn Accessory 1: Belt-Clip (P/N: KBH-12)

Ambient Temp: 23.1°C; Fluid Temp: 22.4°C; Barometric Pressure: 101.1 kPa; Humidity: 35%

Communication System: CW

Frequency: 512 MHz; Duty Cycle: 1:1

Medium: M450 Medium parameters used (interpolated): $f = 512 \text{ MHz}$; $\sigma = 0.968 \text{ mho/m}$; $\epsilon_r = 57.1$; $\rho = 1000 \text{ kg/m}^3$

- Probe: ET3DV6 - SN1590; ConvF(7.73, 7.73, 7.73); Calibrated: 15/07/2010
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn353; Calibrated: 27/04/2010
- Phantom: Barski Industries; Type: Fiberglass Planar; Serial: 03-01
- Measurement SW: DASY4, V4.7 Build 44; Postprocessing SW: SEMCAD, V1.8 Build 171

Body-worn SAR – 1.5 cm Belt-Clip Spacing from Back of DUT to Planar Phantom

Area Scan (8x19x1): Measurement grid: $dx=15\text{mm}$, $dy=15\text{mm}$

Maximum value of SAR (measured) = 8.77 mW/g

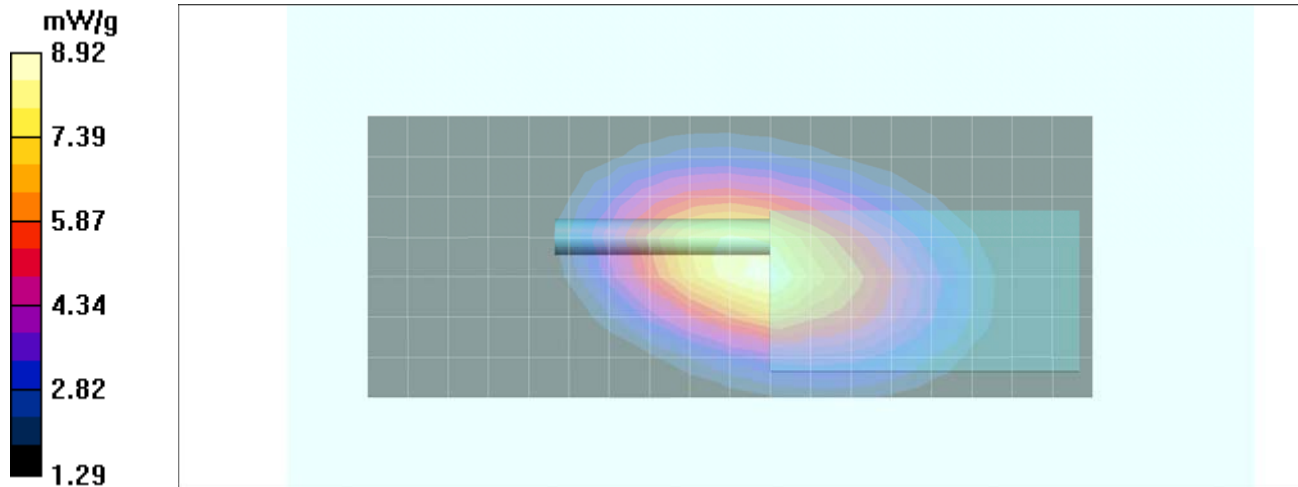
Zoom Scan (5x5x7)/Cube 0: Measurement grid: $dx=7.5\text{mm}$, $dy=7.5\text{mm}$, $dz=5\text{mm}$

Reference Value = 93.1 V/m; Power Drift = -0.014 dB


Peak SAR (extrapolated) = 12.4 W/kg

SAR(1 g) = 8.51 mW/g; SAR(10 g) = 6.05 mW/g

Maximum value of SAR (measured) = 8.92 mW/g



Applicant:	Kenwood USA Corporation	FCC ID:	ALH431000	DUT Models:	NX-320-K/K2/K3	KENWOOD
DUT Type:	Portable UHF-H PTT Radio Transceiver	Transmitter Frequency Range:		450.0 - 512.0 MHz		
2011 Celltech Labs Inc.		This document is not to be reproduced in whole or in part without the prior written permission of Celltech Labs Inc.				Page 141 of 361

	<u>Dates of Evaluation (K3)</u>	<u>Test Report Serial No.</u>	<u>Test Report Revision No.</u>	 
	Jan. 4,6,26-28,31, 2011	121510ALH-T1070-S90U	Rev. 1.3 (4th Release)	
<u>Test Report Issue Date</u>	<u>Dates of Evaluation (K/K2)</u>	<u>Description of Test(s)</u>	<u>RF Exposure Category</u>	Test Lab Certificate No. 2470.01
April 14, 2011	March 30 - April 7, 2011	Specific Absorption Rate	Occupational (Controlled)	

Audio Accessory SAR Plot #12 (A12)

Date Tested: 01/27/2011

Body-worn SAR - KRA-23M2 "Antenna B" - KNB-55L 1480mAh Li-ion "Battery b" – 512.0 MHz

DUT: Kenwood NX-320-K3; Type: Portable FM UHF-H PTT Radio Transceiver; Serial: No. 10
Audio Accessory Category 4 (Speaker-Mic); Type: Speaker-Microphone w/ Integral GPS (P/N: KMC-48GPS)
Body-worn Accessory 1: Belt-Clip (P/N: KBH-12)

Ambient Temp: 23.1°C; Fluid Temp: 22.4°C; Barometric Pressure: 101.1 kPa; Humidity: 35%

Communication System: CW

Frequency: 512 MHz; Duty Cycle: 1:1

Medium: M450 Medium parameters used (interpolated): $f = 512 \text{ MHz}$; $\sigma = 0.968 \text{ mho/m}$; $\epsilon_r = 57.1$; $\rho = 1000 \text{ kg/m}^3$

- Probe: ET3DV6 - SN1590; ConvF(7.73, 7.73, 7.73); Calibrated: 15/07/2010
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn353; Calibrated: 27/04/2010
- Phantom: Barski Industries; Type: Fiberglass Planar; Serial: 03-01
- Measurement SW: DASY4, V4.7 Build 44; Postprocessing SW: SEMCAD, V1.8 Build 171

Body-worn SAR – 1.5 cm Belt-Clip Spacing from Back of DUT to Planar Phantom

Area Scan (8x19x1): Measurement grid: $dx=15\text{mm}$, $dy=15\text{mm}$

Maximum value of SAR (measured) = 8.87 mW/g

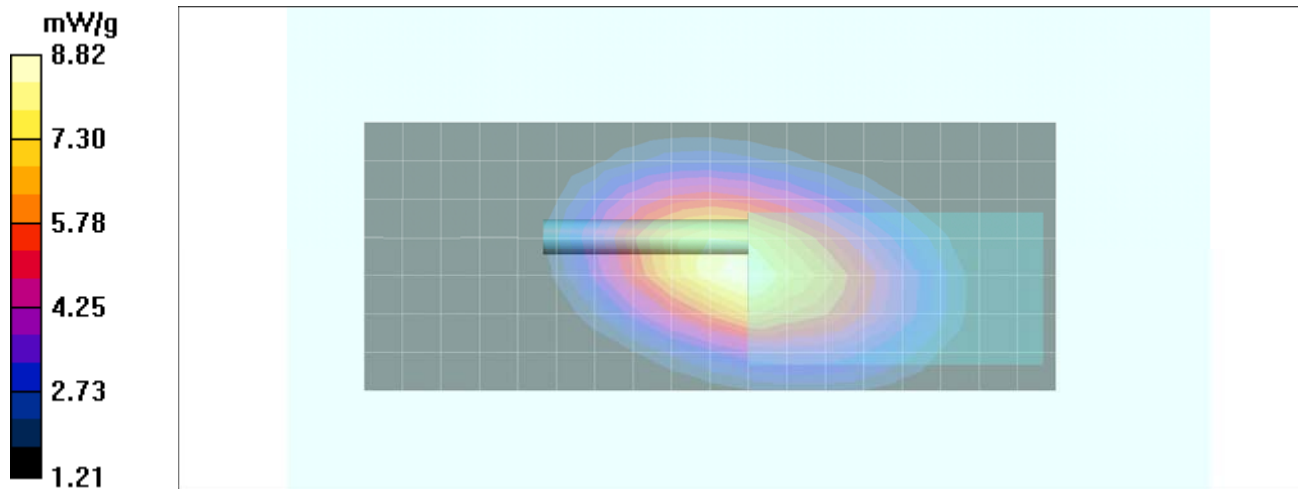
Zoom Scan (5x5x7)/Cube 0: Measurement grid: $dx=7.5\text{mm}$, $dy=7.5\text{mm}$, $dz=5\text{mm}$

Reference Value = 93.4 V/m; Power Drift = -0.132 dB

Peak SAR (extrapolated) = 12.4 W/kg

SAR(1 g) = 8.43 mW/g; SAR(10 g) = 5.95 mW/g

Maximum value of SAR (measured) = 8.82 mW/g



Applicant:	Kenwood USA Corporation	FCC ID:	ALH431000	DUT Models:	NX-320-K/K2/K3	KENWOOD
DUT Type:	Portable UHF-H PTT Radio Transceiver	Transmitter Frequency Range:		450.0 - 512.0 MHz		
2011 Celltech Labs Inc.		This document is not to be reproduced in whole or in part without the prior written permission of Celltech Labs Inc.				Page 142 of 361

	<u>Dates of Evaluation (K3)</u>	<u>Test Report Serial No.</u>	<u>Test Report Revision No.</u>	
	Jan. 4,6,26-28,31, 2011	121510ALH-T1070-S90U	Rev. 1.3 (4th Release)	
<u>Test Report Issue Date</u>	<u>Dates of Evaluation (K/K2)</u>	<u>Description of Test(s)</u>	<u>RF Exposure Category</u>	Test Lab Certificate No. 2470.01
April 14, 2011	March 30 - April 7, 2011	Specific Absorption Rate	Occupational (Controlled)	

Audio Accessory SAR Plot #13 (A13)

Date Tested: 01/27/2011

Body-worn SAR - KRA-27M "Antenna C" - KNB-55L 1480mAh Li-ion "Battery b" – 476.7 MHz

DUT: Kenwood NX-320-K3; Type: Portable FM UHF-H PTT Radio Transceiver; Serial: No. 10
Audio Accessory Category 2 (Earpiece); Type: D-Ring Ear Hanger w/ PTT & Mic (P/N: KHS-27)
Body-worn Accessory 1: Belt-Clip (P/N: KBH-12)

Ambient Temp: 23.1°C; Fluid Temp: 22.4°C; Barometric Pressure: 101.1 kPa; Humidity: 35%

Communication System: CW

Frequency: 476.7 MHz; Duty Cycle: 1:1

Medium: M450 Medium parameters used (interpolated): $f = 476.7 \text{ MHz}$; $\sigma = 0.93 \text{ mho/m}$; $\epsilon_r = 57.2$; $\rho = 1000 \text{ kg/m}^3$

- Probe: ET3DV6 - SN1590; ConvF(7.73, 7.73, 7.73); Calibrated: 15/07/2010
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn353; Calibrated: 27/04/2010
- Phantom: Barski Industries; Type: Fiberglass Planar; Serial: 03-01
- Measurement SW: DASY4, V4.7 Build 44; Postprocessing SW: SEMCAD, V1.8 Build 171

Body-worn SAR – 1.5 cm Belt-Clip Spacing from Back of DUT to Planar Phantom

Area Scan (8x19x1): Measurement grid: $dx=15\text{mm}$, $dy=15\text{mm}$

Maximum value of SAR (measured) = 10.1 mW/g

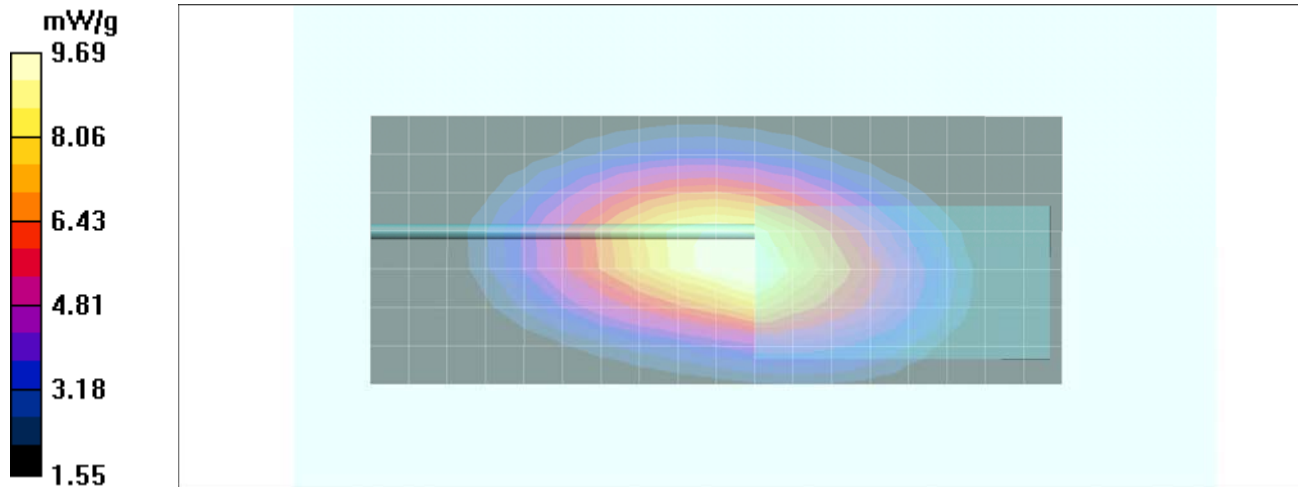
Zoom Scan (5x5x7)/Cube 0: Measurement grid: $dx=7.5\text{mm}$, $dy=7.5\text{mm}$, $dz=5\text{mm}$

Reference Value = 103.2 V/m; Power Drift = -0.347 dB

Peak SAR (extrapolated) = 13.5 W/kg

SAR(1 g) = 9.3 mW/g; SAR(10 g) = 6.69 mW/g

Maximum value of SAR (measured) = 9.69 mW/g



Applicant:	Kenwood USA Corporation	FCC ID:	ALH431000	DUT Models:	NX-320-K/K2/K3	KENWOOD
DUT Type:	Portable UHF-H PTT Radio Transceiver	Transmitter Frequency Range:		450.0 - 512.0 MHz		
2011 Celltech Labs Inc.		This document is not to be reproduced in whole or in part without the prior written permission of Celltech Labs Inc.				Page 143 of 361

	<u>Dates of Evaluation (K3)</u>	<u>Test Report Serial No.</u>	<u>Test Report Revision No.</u>	
	Jan. 4,6,26-28,31, 2011	121510ALH-T1070-S90U	Rev. 1.3 (4th Release)	
<u>Test Report Issue Date</u>	<u>Dates of Evaluation (K/K2)</u>	<u>Description of Test(s)</u>	<u>RF Exposure Category</u>	Test Lab Certificate No. 2470.01
April 14, 2011	March 30 - April 7, 2011	Specific Absorption Rate	Occupational (Controlled)	

Audio Accessory SAR Plot #14 (A14)

Date Tested: 01/27/2011

Body-worn SAR - KRA-27M "Antenna C" - KNB-55L 1480mAh Li-ion "Battery b" – 476.7 MHz

DUT: Kenwood NX-320-K3; Type: Portable FM UHF-H PTT Radio Transceiver; Serial: No. 10
Audio Accessory Category 3 (Palm-Microphone Kit); Type: 3-Wire Lapel Microphone w/ Earpiece (P/N: KHS-9BL)
Body-worn Accessory 1: Belt-Clip (P/N: KBH-12)

Ambient Temp: 23.1°C; Fluid Temp: 22.4°C; Barometric Pressure: 101.1 kPa; Humidity: 35%

Communication System: CW

Frequency: 476.7 MHz; Duty Cycle: 1:1

Medium: M450 Medium parameters used (interpolated): $f = 476.7 \text{ MHz}$; $\sigma = 0.93 \text{ mho/m}$; $\epsilon_r = 57.2$; $\rho = 1000 \text{ kg/m}^3$

- Probe: ET3DV6 - SN1590; ConvF(7.73, 7.73, 7.73); Calibrated: 15/07/2010
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn353; Calibrated: 27/04/2010
- Phantom: Barski Industries; Type: Fiberglass Planar; Serial: 03-01
- Measurement SW: DASY4, V4.7 Build 44; Postprocessing SW: SEMCAD, V1.8 Build 171

Body-worn SAR – 1.5 cm Belt-Clip Spacing from Back of DUT to Planar Phantom

Area Scan (8x19x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (measured) = 10.4 mW/g

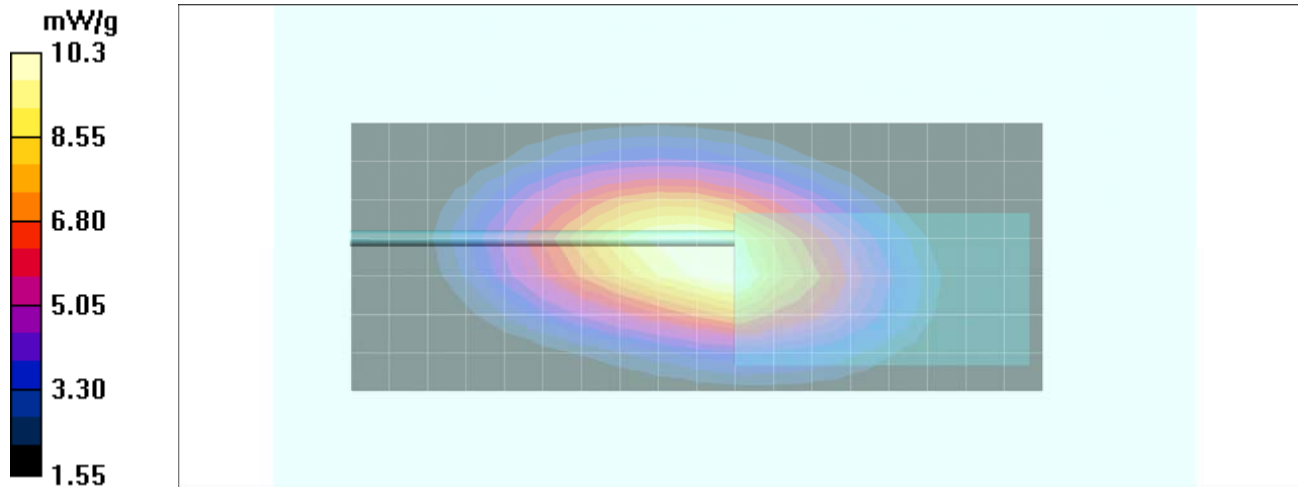
Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm

Reference Value = 102.7 V/m; Power Drift = -0.215 dB

Peak SAR (extrapolated) = 14.3 W/kg

SAR(1 g) = 9.86 mW/g; SAR(10 g) = 7.07 mW/g

Maximum value of SAR (measured) = 10.3 mW/g



Applicant:	Kenwood USA Corporation	FCC ID:	ALH431000	DUT Models:	NX-320-K/K2/K3	KENWOOD
DUT Type:	Portable UHF-H PTT Radio Transceiver	Transmitter Frequency Range:	450.0 - 512.0 MHz			
2011 Celltech Labs Inc.		This document is not to be reproduced in whole or in part without the prior written permission of Celltech Labs Inc.				Page 144 of 361

	<u>Dates of Evaluation (K3)</u>	<u>Test Report Serial No.</u>	<u>Test Report Revision No.</u>	
	Jan. 4,6,26-28,31, 2011	121510ALH-T1070-S90U	Rev. 1.3 (4th Release)	
<u>Test Report Issue Date</u>	<u>Dates of Evaluation (K/K2)</u>	<u>Description of Test(s)</u>	<u>RF Exposure Category</u>	Test Lab Certificate No. 2470.01
April 14, 2011	March 30 - April 7, 2011	Specific Absorption Rate	Occupational (Controlled)	

Audio Accessory SAR Plot #15 (A15)

Date Tested: 01/27/2011

Body-worn SAR - KRA-27M "Antenna C" - KNB-55L 1480mAh Li-ion "Battery b" – 476.7 MHz

DUT: Kenwood NX-320-K3; Type: Portable FM UHF-H PTT Radio Transceiver; Serial: No. 10
Audio Accessory Category 4 (Speaker-Mic); Type: Speaker-Microphone w/ Integral GPS (P/N: KMC-48GPS)
Body-worn Accessory 1: Belt-Clip (P/N: KBH-12)

Ambient Temp: 23.1°C; Fluid Temp: 22.4°C; Barometric Pressure: 101.1 kPa; Humidity: 35%

Communication System: CW

Frequency: 476.7 MHz; Duty Cycle: 1:1

Medium: M450 Medium parameters used (interpolated): $f = 476.7 \text{ MHz}$; $\sigma = 0.93 \text{ mho/m}$; $\epsilon_r = 57.2$; $\rho = 1000 \text{ kg/m}^3$

- Probe: ET3DV6 - SN1590; ConvF(7.73, 7.73, 7.73); Calibrated: 15/07/2010
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn353; Calibrated: 27/04/2010
- Phantom: Barski Industries; Type: Fiberglass Planar; Serial: 03-01
- Measurement SW: DASY4, V4.7 Build 44; Postprocessing SW: SEMCAD, V1.8 Build 171

Body-worn SAR – 1.5 cm Belt-Clip Spacing from Back of DUT to Planar Phantom

Area Scan (8x19x1): Measurement grid: $dx=15\text{mm}$, $dy=15\text{mm}$

Maximum value of SAR (measured) = 9.36 mW/g

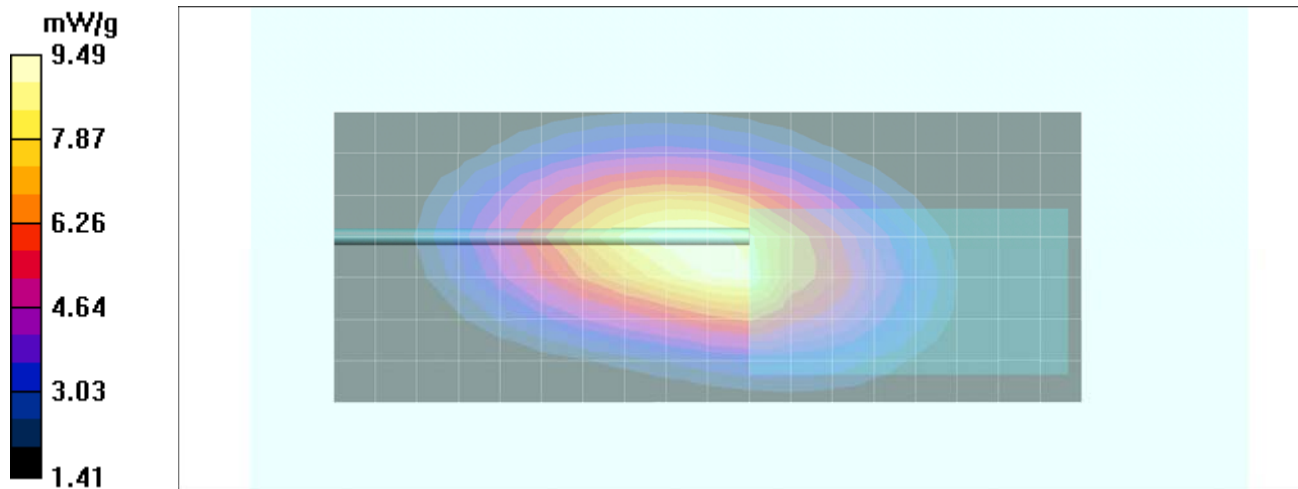
Zoom Scan (5x5x7)/Cube 0: Measurement grid: $dx=7.5\text{mm}$, $dy=7.5\text{mm}$, $dz=5\text{mm}$

Reference Value = 98.1 V/m; Power Drift = -0.220 dB

Peak SAR (extrapolated) = 13.1 W/kg

SAR(1 g) = 9.04 mW/g; SAR(10 g) = 6.48 mW/g

Maximum value of SAR (measured) = 9.49 mW/g



Applicant:	Kenwood USA Corporation	FCC ID:	ALH431000	DUT Models:	NX-320-K/K2/K3	KENWOOD
DUT Type:	Portable UHF-H PTT Radio Transceiver	Transmitter Frequency Range:		450.0 - 512.0 MHz		
2011 Celltech Labs Inc.		This document is not to be reproduced in whole or in part without the prior written permission of Celltech Labs Inc.				Page 145 of 361

	<u>Dates of Evaluation (K3)</u>	<u>Test Report Serial No.</u>	<u>Test Report Revision No.</u>	
	Jan. 4,6,26-28,31, 2011	121510ALH-T1070-S90U	Rev. 1.3 (4th Release)	
<u>Test Report Issue Date</u>	<u>Dates of Evaluation (K/K2)</u>	<u>Description of Test(s)</u>	<u>RF Exposure Category</u>	Test Lab Certificate No. 2470.01
April 14, 2011	March 30 - April 7, 2011	Specific Absorption Rate	Occupational (Controlled)	

Audio Accessory SAR Plot #16 (A16)

Date Tested: 01/27/2011

Body-worn SAR - KRA-27M2 “Antenna D” - KNB-56N 1400mAh Ni-MH “Battery c” – 512.0 MHz

DUT: Kenwood NX-320-K3; Type: Portable FM UHF-H PTT Radio Transceiver; Serial: No. 10
Audio Accessory Category 2 (Earpiece); Type: D-Ring Ear Hanger w/ PTT & Mic (P/N: KHS-27)
Body-worn Accessory 1: Belt-Clip (P/N: KBH-12)

Ambient Temp: 23.1°C; Fluid Temp: 22.4°C; Barometric Pressure: 101.1 kPa; Humidity: 35%

Communication System: CW

Frequency: 512 MHz; Duty Cycle: 1:1

Medium: M450 Medium parameters used (interpolated): $f = 512 \text{ MHz}$; $\sigma = 0.968 \text{ mho/m}$; $\epsilon_r = 57.1$; $\rho = 1000 \text{ kg/m}^3$

- Probe: ET3DV6 - SN1590; ConvF(7.73, 7.73, 7.73); Calibrated: 15/07/2010
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn353; Calibrated: 27/04/2010
- Phantom: Barski Industries; Type: Fiberglass Planar; Serial: 03-01
- Measurement SW: DASY4, V4.7 Build 44; Postprocessing SW: SEMCAD, V1.8 Build 171

Body-worn SAR – 1.7 cm Belt-Clip Spacing from Back of DUT to Planar Phantom

Area Scan (8x19x1): Measurement grid: $dx=15\text{mm}$, $dy=15\text{mm}$

Maximum value of SAR (measured) = 11.1 mW/g

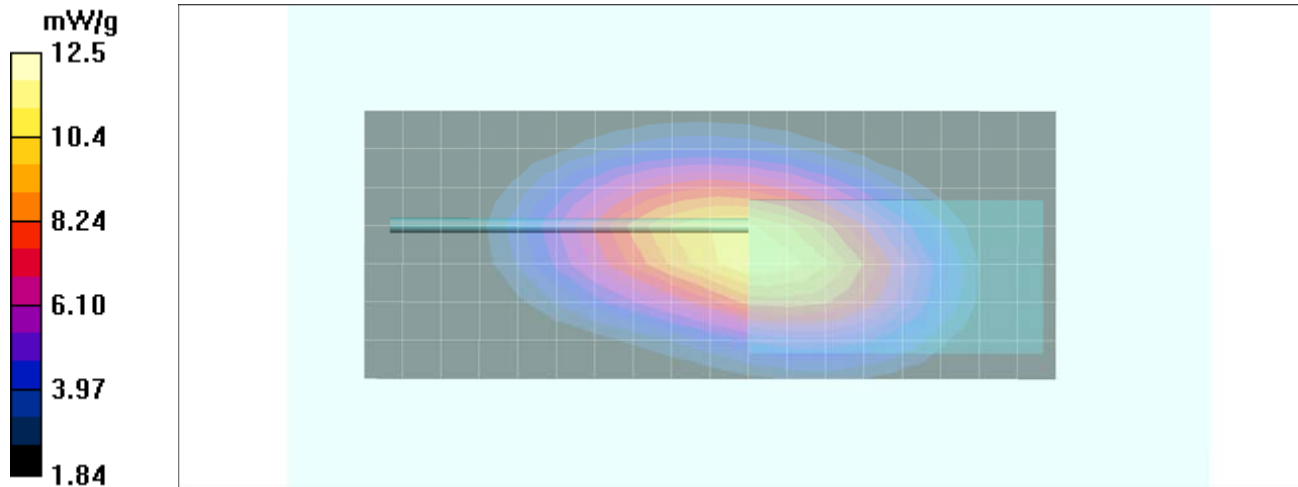
Zoom Scan (5x5x7)/Cube 0: Measurement grid: $dx=7.5\text{mm}$, $dy=7.5\text{mm}$, $dz=5\text{mm}$

Reference Value = 109.1 V/m; Power Drift = -0.189 dB

Peak SAR (extrapolated) = 17.2 W/kg

SAR(1 g) = 11.8 mW/g; SAR(10 g) = 8.42 mW/g

Maximum value of SAR (measured) = 12.5 mW/g



Applicant:	Kenwood USA Corporation	FCC ID:	ALH431000	DUT Models:	NX-320-K/K2/K3	KENWOOD
DUT Type:	Portable UHF-H PTT Radio Transceiver	Transmitter Frequency Range:		450.0 - 512.0 MHz		
2011 Celltech Labs Inc.		This document is not to be reproduced in whole or in part without the prior written permission of Celltech Labs Inc.				Page 146 of 361

	<u>Dates of Evaluation (K3)</u>	<u>Test Report Serial No.</u>	<u>Test Report Revision No.</u>	
	Jan. 4,6,26-28,31, 2011	121510ALH-T1070-S90U	Rev. 1.3 (4th Release)	
<u>Test Report Issue Date</u>	<u>Dates of Evaluation (K/K2)</u>	<u>Description of Test(s)</u>	<u>RF Exposure Category</u>	Test Lab Certificate No. 2470.01
April 14, 2011	March 30 - April 7, 2011	Specific Absorption Rate	Occupational (Controlled)	

Audio Accessory SAR Plot #17 (A17)

Date Tested: 01/27/2011

Body-worn SAR - KRA-27M2 “Antenna D” - KNB-56N 1400mAh Ni-MH “Battery c” – 498.0 MHz

DUT: Kenwood NX-320-K3; Type: Portable FM UHF-H PTT Radio Transceiver; Serial: No. 10
Audio Accessory Category 2 (Earpiece); Type: D-Ring Ear Hanger w/ PTT & Mic (P/N: KHS-27)
Body-worn Accessory 1: Belt-Clip (P/N: KBH-12)

Ambient Temp: 23.1°C; Fluid Temp: 22.4°C; Barometric Pressure: 101.1 kPa; Humidity: 35%

Communication System: CW

Frequency: 498 MHz; Duty Cycle: 1:1

Medium: M450 Medium parameters used (interpolated): $f = 498 \text{ MHz}$; $\sigma = 0.948 \text{ mho/m}$; $\epsilon_r = 57.5$; $\rho = 1000 \text{ kg/m}^3$

- Probe: ET3DV6 - SN1590; ConvF(7.73, 7.73, 7.73); Calibrated: 15/07/2010
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn353; Calibrated: 27/04/2010
- Phantom: Barski Industries; Type: Fiberglass Planar; Serial: 03-01
- Measurement SW: DASY4, V4.7 Build 44; Postprocessing SW: SEMCAD, V1.8 Build 171

Body-worn SAR – 1.7 cm Belt-Clip Spacing from Back of DUT to Planar Phantom

Area Scan (8x19x1): Measurement grid: $dx=15\text{mm}$, $dy=15\text{mm}$

Maximum value of SAR (measured) = 12.1 mW/g

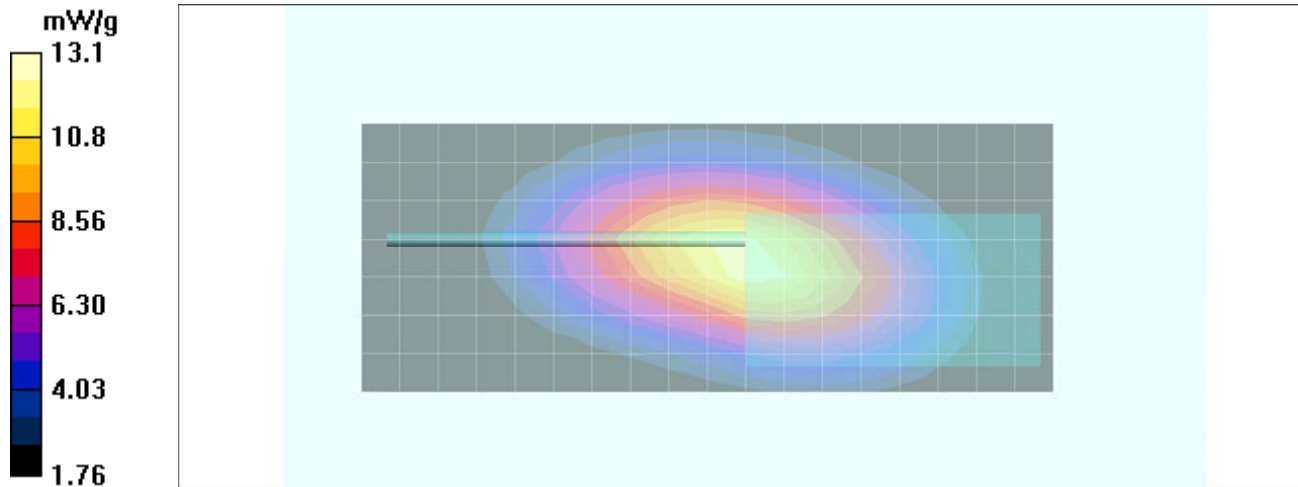
Zoom Scan (5x5x7)/Cube 0: Measurement grid: $dx=7.5\text{mm}$, $dy=7.5\text{mm}$, $dz=5\text{mm}$

Reference Value = 118.5 V/m; Power Drift = -0.650 dB

Peak SAR (extrapolated) = 18.3 W/kg

SAR(1 g) = 12.6 mW/g; SAR(10 g) = 9.02 mW/g

Maximum value of SAR (measured) = 13.1 mW/g



Applicant:	Kenwood USA Corporation	FCC ID:	ALH431000	DUT Models:	NX-320-K/K2/K3	KENWOOD
DUT Type:	Portable UHF-H PTT Radio Transceiver	Transmitter Frequency Range:		450.0 - 512.0 MHz		
2011 Celltech Labs Inc.		This document is not to be reproduced in whole or in part without the prior written permission of Celltech Labs Inc.				Page 147 of 361

	<u>Dates of Evaluation (K3)</u>	<u>Test Report Serial No.</u>	<u>Test Report Revision No.</u>	
	Jan. 4,6,26-28,31, 2011	121510ALH-T1070-S90U	Rev. 1.3 (4th Release)	
<u>Test Report Issue Date</u>	<u>Dates of Evaluation (K/K2)</u>	<u>Description of Test(s)</u>	<u>RF Exposure Category</u>	Test Lab Certificate No. 2470.01
April 14, 2011	March 30 - April 7, 2011	Specific Absorption Rate	Occupational (Controlled)	

Audio Accessory SAR Plot #18 (A18)

Date Tested: 01/27/2011

Body-worn SAR - KRA-27M2 "Antenna D" - KNB-56N 1400mAh Ni-MH "Battery c" – 484.0 MHz

DUT: Kenwood NX-320-K3; Type: Portable FM UHF-H PTT Radio Transceiver; Serial: No. 10
Audio Accessory Category 2 (Earpiece); Type: D-Ring Ear Hanger w/ PTT & Mic (P/N: KHS-27)
Body-worn Accessory 1: Belt-Clip (P/N: KBH-12)

Ambient Temp: 23.1°C; Fluid Temp: 22.4°C; Barometric Pressure: 101.1 kPa; Humidity: 35%

Communication System: CW

Frequency: 484 MHz; Duty Cycle: 1:1

Medium: M450 Medium parameters used (interpolated): $f = 484 \text{ MHz}$; $\sigma = 0.934 \text{ mho/m}$; $\epsilon_r = 57.1$; $\rho = 1000 \text{ kg/m}^3$

- Probe: ET3DV6 - SN1590; ConvF(7.73, 7.73, 7.73); Calibrated: 15/07/2010
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn353; Calibrated: 27/04/2010
- Phantom: Barski Industries; Type: Fiberglass Planar; Serial: 03-01
- Measurement SW: DASY4, V4.7 Build 44; Postprocessing SW: SEMCAD, V1.8 Build 171

Body-worn SAR – 1.7 cm Belt-Clip Spacing from Back of DUT to Planar Phantom

Area Scan (8x19x1): Measurement grid: $dx=15\text{mm}$, $dy=15\text{mm}$

Maximum value of SAR (measured) = 12.7 mW/g

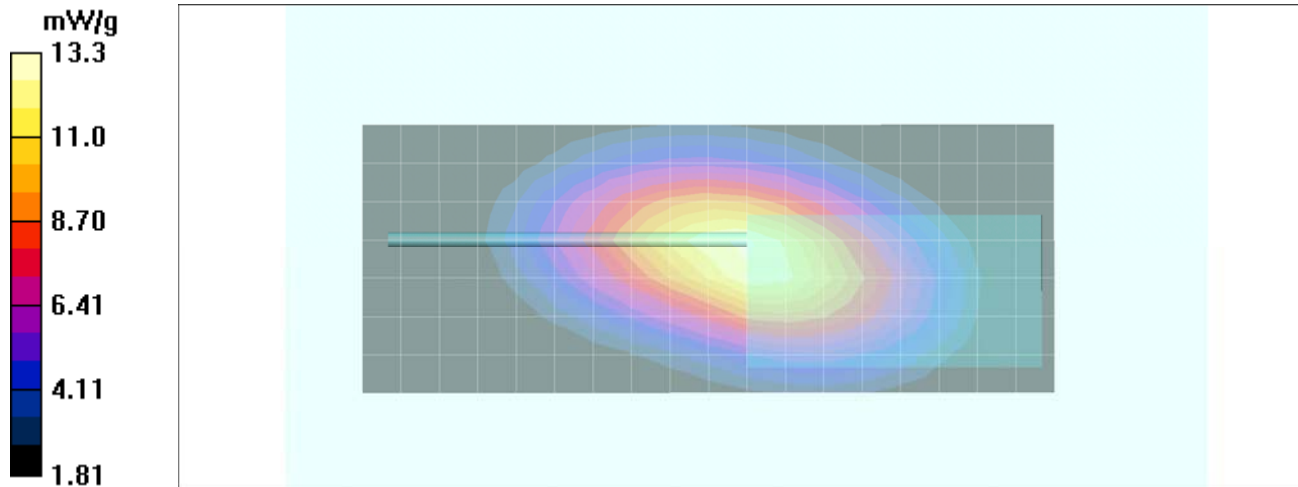
Zoom Scan (5x5x7)/Cube 0: Measurement grid: $dx=7.5\text{mm}$, $dy=7.5\text{mm}$, $dz=5\text{mm}$

Reference Value = 121.5 V/m; Power Drift = -0.649 dB

Peak SAR (extrapolated) = 18.2 W/kg

SAR(1 g) = 12.6 mW/g; SAR(10 g) = 9.11 mW/g

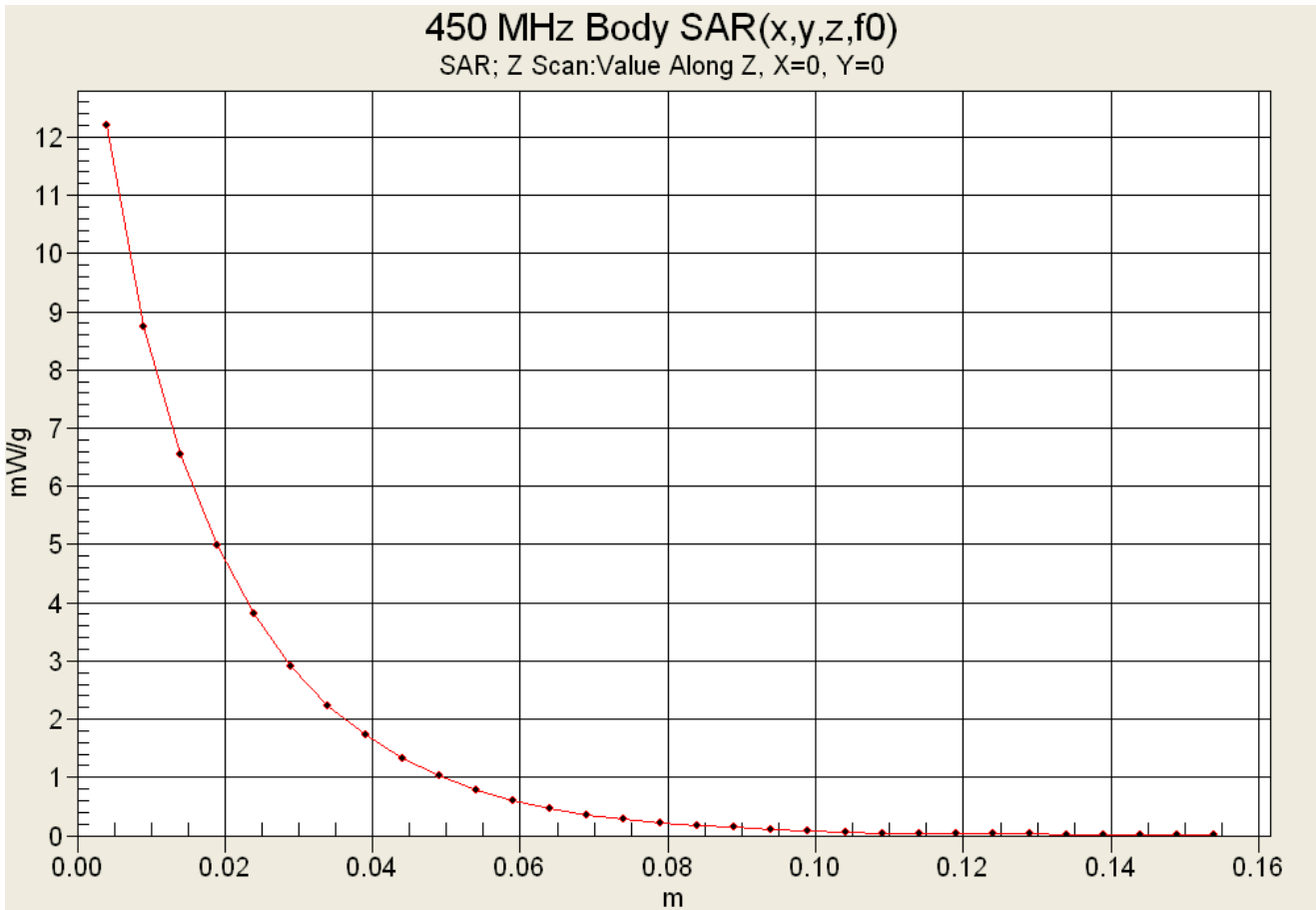
Maximum value of SAR (measured) = 13.3 mW/g



Applicant:	Kenwood USA Corporation	FCC ID:	ALH431000	DUT Models:	NX-320-K/K2/K3	KENWOOD
DUT Type:	Portable UHF-H PTT Radio Transceiver	Transmitter Frequency Range:		450.0 - 512.0 MHz		
2011 Celltech Labs Inc.		This document is not to be reproduced in whole or in part without the prior written permission of Celltech Labs Inc.				Page 148 of 361

	<u>Dates of Evaluation (K3)</u> Jan. 4,6,26-28,31, 2011	<u>Test Report Serial No.</u> 121510ALH-T1070-S90U	<u>Test Report Revision No.</u> Rev. 1.3 (4th Release)	 Test Lab Certificate No. 2470.01
	<u>Test Report Issue Date</u> April 14, 2011	<u>Dates of Evaluation (K/K2)</u> March 30 - April 7, 2011	<u>Description of Test(s)</u> Specific Absorption Rate	

Z-Axis Scan



Applicant:	Kenwood USA Corporation	FCC ID:	ALH431000	DUT Models:	NX-320-K/K2/K3	KENWOOD
DUT Type:	Portable UHF-H PTT Radio Transceiver	Transmitter Frequency Range:		450.0 - 512.0 MHz		
2011 Celltech Labs Inc.		This document is not to be reproduced in whole or in part without the prior written permission of Celltech Labs Inc.				Page 149 of 361

	<u>Dates of Evaluation (K3)</u>	<u>Test Report Serial No.</u>	<u>Test Report Revision No.</u>	
	Jan. 4,6,26-28,31, 2011	121510ALH-T1070-S90U	Rev. 1.3 (4th Release)	
<u>Test Report Issue Date</u>	<u>Dates of Evaluation (K/K2)</u>	<u>Description of Test(s)</u>	<u>RF Exposure Category</u>	Test Lab Certificate No. 2470.01
April 14, 2011	March 30 - April 7, 2011	Specific Absorption Rate	Occupational (Controlled)	

Audio Accessory SAR Plot #19 (A19)

Date Tested: 01/27/2011

Body-worn SAR - KRA-27M2 “Antenna D” - KNB-56N 1400mAh Ni-MH “Battery c” – 470.0 MHz

DUT: Kenwood NX-320-K3; Type: Portable FM UHF-H PTT Radio Transceiver; Serial: No. 10
Audio Accessory Category 2 (Earpiece); Type: D-Ring Ear Hanger w/ PTT & Mic (P/N: KHS-27)
Body-worn Accessory 1: Belt-Clip (P/N: KBH-12)

Ambient Temp: 23.1°C; Fluid Temp: 22.4°C; Barometric Pressure: 101.1 kPa; Humidity: 35%

Communication System: CW

Frequency: 470 MHz; Duty Cycle: 1:1

Medium: M450 Medium parameters used: $f = 470 \text{ MHz}$; $\sigma = 0.93 \text{ mho/m}$; $\epsilon_r = 57.5$; $\rho = 1000 \text{ kg/m}^3$

- Probe: ET3DV6 - SN1590; ConvF(7.73, 7.73, 7.73); Calibrated: 15/07/2010
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn353; Calibrated: 27/04/2010
- Phantom: Barski Industries; Type: Fiberglass Planar; Serial: 03-01
- Measurement SW: DASY4, V4.7 Build 44; Postprocessing SW: SEMCAD, V1.8 Build 171

Body-worn SAR – 1.7 cm Belt-Clip Spacing from Back of DUT to Planar Phantom

Area Scan (8x19x1): Measurement grid: $dx=15\text{mm}$, $dy=15\text{mm}$

Maximum value of SAR (measured) = 12.2 mW/g

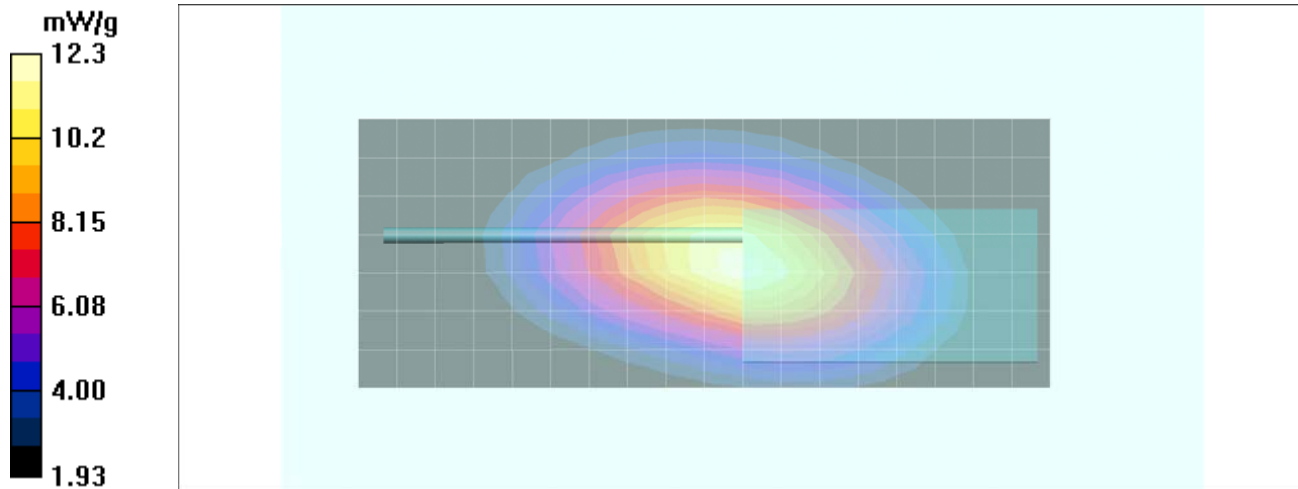
Zoom Scan (5x5x7)/Cube 0: Measurement grid: $dx=7.5\text{mm}$, $dy=7.5\text{mm}$, $dz=5\text{mm}$

Reference Value = 112.1 V/m; Power Drift = -0.050 dB

Peak SAR (extrapolated) = 16.9 W/kg

SAR(1 g) = 11.8 mW/g; SAR(10 g) = 8.49 mW/g

Maximum value of SAR (measured) = 12.3 mW/g



Applicant:	Kenwood USA Corporation	FCC ID:	ALH431000	DUT Models:	NX-320-K/K2/K3	KENWOOD
DUT Type:	Portable UHF-H PTT Radio Transceiver	Transmitter Frequency Range:		450.0 - 512.0 MHz		
2011 Celltech Labs Inc.		This document is not to be reproduced in whole or in part without the prior written permission of Celltech Labs Inc.				Page 150 of 361

	<u>Dates of Evaluation (K3)</u>	<u>Test Report Serial No.</u>	<u>Test Report Revision No.</u>	 
	Jan. 4,6,26-28,31, 2011	121510ALH-T1070-S90U	Rev. 1.3 (4th Release)	
<u>Test Report Issue Date</u>	<u>Dates of Evaluation (K/K2)</u>	<u>Description of Test(s)</u>	<u>RF Exposure Category</u>	Test Lab Certificate No. 2470.01
April 14, 2011	March 30 - April 7, 2011	Specific Absorption Rate	Occupational (Controlled)	

Audio Accessory SAR Plot #20 (A20)

Date Tested: 01/27/2011

Body-worn SAR - KRA-27M2 "Antenna D" - KNB-56N 1400mAh Ni-MH "Battery c" – 512.0 MHz

DUT: Kenwood NX-320-K3; Type: Portable FM UHF-H PTT Radio Transceiver; Serial: No. 10
Audio Accessory Category 3 (Palm-Microphone Kit); Type: 3-Wire Lapel Microphone w/ Earpiece (P/N: KHS-9BL)
Body-worn Accessory 1: Belt-Clip (P/N: KBH-12)

Ambient Temp: 23.1°C; Fluid Temp: 22.4°C; Barometric Pressure: 101.1 kPa; Humidity: 35%

Communication System: CW

Frequency: 512 MHz; Duty Cycle: 1:1

Medium: M450 Medium parameters used (interpolated): $f = 512 \text{ MHz}$; $\sigma = 0.968 \text{ mho/m}$; $\epsilon_r = 57.1$; $\rho = 1000 \text{ kg/m}^3$

- Probe: ET3DV6 - SN1590; ConvF(7.73, 7.73, 7.73); Calibrated: 15/07/2010
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn353; Calibrated: 27/04/2010
- Phantom: Barski Industries; Type: Fiberglass Planar; Serial: 03-01
- Measurement SW: DASY4, V4.7 Build 44; Postprocessing SW: SEMCAD, V1.8 Build 171

Body-worn SAR – 1.7 cm Belt-Clip Spacing from Back of DUT to Planar Phantom

Area Scan (8x19x1): Measurement grid: $dx=15\text{mm}$, $dy=15\text{mm}$

Maximum value of SAR (measured) = 11.8 mW/g

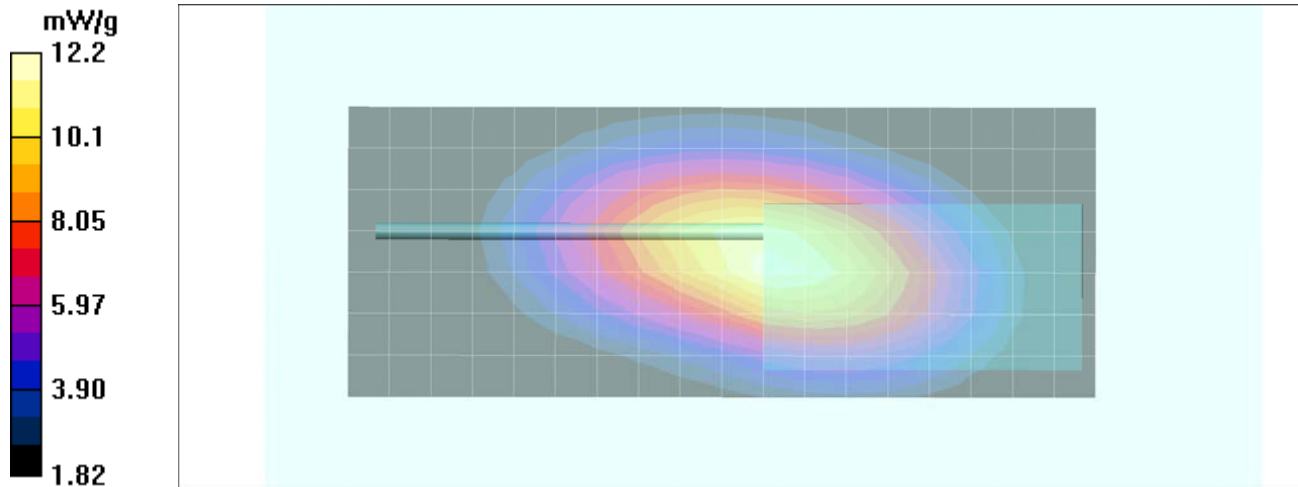
Zoom Scan (5x5x7)/Cube 0: Measurement grid: $dx=7.5\text{mm}$, $dy=7.5\text{mm}$, $dz=5\text{mm}$

Reference Value = 112.2 V/m; Power Drift = -0.312 dB


Peak SAR (extrapolated) = 16.7 W/kg

SAR(1 g) = 11.6 mW/g; SAR(10 g) = 8.38 mW/g

Maximum value of SAR (measured) = 12.2 mW/g



Applicant:	Kenwood USA Corporation	FCC ID:	ALH431000	DUT Models:	NX-320-K/K2/K3	KENWOOD
DUT Type:	Portable UHF-H PTT Radio Transceiver	Transmitter Frequency Range:		450.0 - 512.0 MHz		
2011 Celltech Labs Inc.		This document is not to be reproduced in whole or in part without the prior written permission of Celltech Labs Inc.				Page 151 of 361

	<u>Dates of Evaluation (K3)</u>	<u>Test Report Serial No.</u>	<u>Test Report Revision No.</u>	 
	Jan. 4,6,26-28,31, 2011	121510ALH-T1070-S90U	Rev. 1.3 (4th Release)	
<u>Test Report Issue Date</u>	<u>Dates of Evaluation (K/K2)</u>	<u>Description of Test(s)</u>	<u>RF Exposure Category</u>	Test Lab Certificate No. 2470.01
April 14, 2011	March 30 - April 7, 2011	Specific Absorption Rate	Occupational (Controlled)	

Audio Accessory SAR Plot #21 (A21)

Date Tested: 01/27/2011

Body-worn SAR - KRA-27M2 "Antenna D" - KNB-56N 1400mAh Ni-MH "Battery c" – 498.0 MHz

DUT: Kenwood NX-320-K3; Type: Portable FM UHF-H PTT Radio Transceiver; Serial: No. 10
Audio Accessory Category 3 (Palm-Microphone Kit); Type: 3-Wire Lapel Microphone w/ Earpiece (P/N: KHS-9BL)
Body-worn Accessory 1: Belt-Clip (P/N: KBH-12)

Ambient Temp: 23.1°C; Fluid Temp: 22.4°C; Barometric Pressure: 101.1 kPa; Humidity: 35%

Communication System: CW

Frequency: 498 MHz; Duty Cycle: 1:1

Medium: M450 Medium parameters used (interpolated): $f = 498 \text{ MHz}$; $\sigma = 0.948 \text{ mho/m}$; $\epsilon_r = 57.5$; $\rho = 1000 \text{ kg/m}^3$

- Probe: ET3DV6 - SN1590; ConvF(7.73, 7.73, 7.73); Calibrated: 15/07/2010
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn353; Calibrated: 27/04/2010
- Phantom: Barski Industries; Type: Fiberglass Planar; Serial: 03-01
- Measurement SW: DASY4, V4.7 Build 44; Postprocessing SW: SEMCAD, V1.8 Build 171

Body-worn SAR – 1.7 cm Belt-Clip Spacing from Back of DUT to Planar Phantom

Area Scan (8x19x1): Measurement grid: $dx=15\text{mm}$, $dy=15\text{mm}$

Maximum value of SAR (measured) = 14.0 mW/g

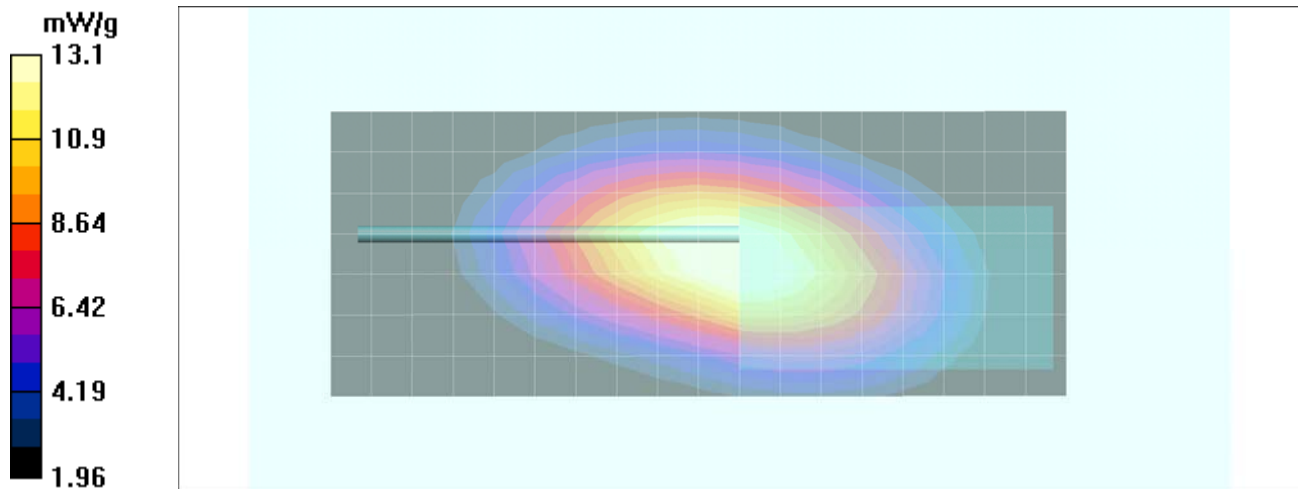
Zoom Scan (5x5x7)/Cube 0: Measurement grid: $dx=7.5\text{mm}$, $dy=7.5\text{mm}$, $dz=5\text{mm}$

Reference Value = 112.2 V/m; Power Drift = -0.159 dB

Peak SAR (extrapolated) = 18.1 W/kg

SAR(1 g) = 12.5 mW/g; SAR(10 g) = 8.92 mW/g

Maximum value of SAR (measured) = 13.1 mW/g



Applicant:	Kenwood USA Corporation	FCC ID:	ALH431000	DUT Models:	NX-320-K/K2/K3	KENWOOD
DUT Type:	Portable UHF-H PTT Radio Transceiver	Transmitter Frequency Range:		450.0 - 512.0 MHz		
2011 Celltech Labs Inc.		This document is not to be reproduced in whole or in part without the prior written permission of Celltech Labs Inc.				Page 152 of 361

	<u>Dates of Evaluation (K3)</u>	<u>Test Report Serial No.</u>	<u>Test Report Revision No.</u>	
	Jan. 4,6,26-28,31, 2011	121510ALH-T1070-S90U	Rev. 1.3 (4th Release)	
<u>Test Report Issue Date</u>	<u>Dates of Evaluation (K/K2)</u>	<u>Description of Test(s)</u>	<u>RF Exposure Category</u>	Test Lab Certificate No. 2470.01
April 14, 2011	March 30 - April 7, 2011	Specific Absorption Rate	Occupational (Controlled)	

Audio Accessory SAR Plot #22 (A22)

Date Tested: 01/27/2011

Body-worn SAR - KRA-27M2 "Antenna D" - KNB-56N 1400mAh Ni-MH "Battery c" – 484.0 MHz

DUT: Kenwood NX-320-K3; Type: Portable FM UHF-H PTT Radio Transceiver; Serial: No. 10
Audio Accessory Category 3 (Palm-Microphone Kit); Type: 3-Wire Lapel Microphone w/ Earpiece (P/N: KHS-9BL)
Body-worn Accessory 1: Belt-Clip (P/N: KBH-12)

Ambient Temp: 23.1°C; Fluid Temp: 22.4°C; Barometric Pressure: 101.1 kPa; Humidity: 35%

Communication System: CW

Frequency: 484 MHz; Duty Cycle: 1:1

Medium: M450 Medium parameters used (interpolated): $f = 484 \text{ MHz}$; $\sigma = 0.934 \text{ mho/m}$; $\epsilon_r = 57.1$; $\rho = 1000 \text{ kg/m}^3$

- Probe: ET3DV6 - SN1590; ConvF(7.73, 7.73, 7.73); Calibrated: 15/07/2010
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn353; Calibrated: 27/04/2010
- Phantom: Barski Industries; Type: Fiberglass Planar; Serial: 03-01
- Measurement SW: DASY4, V4.7 Build 44; Postprocessing SW: SEMCAD, V1.8 Build 171

Body-worn SAR – 1.7 cm Belt-Clip Spacing from Back of DUT to Planar Phantom

Area Scan (8x19x1): Measurement grid: $dx=15\text{mm}$, $dy=15\text{mm}$

Maximum value of SAR (measured) = 13.3 mW/g

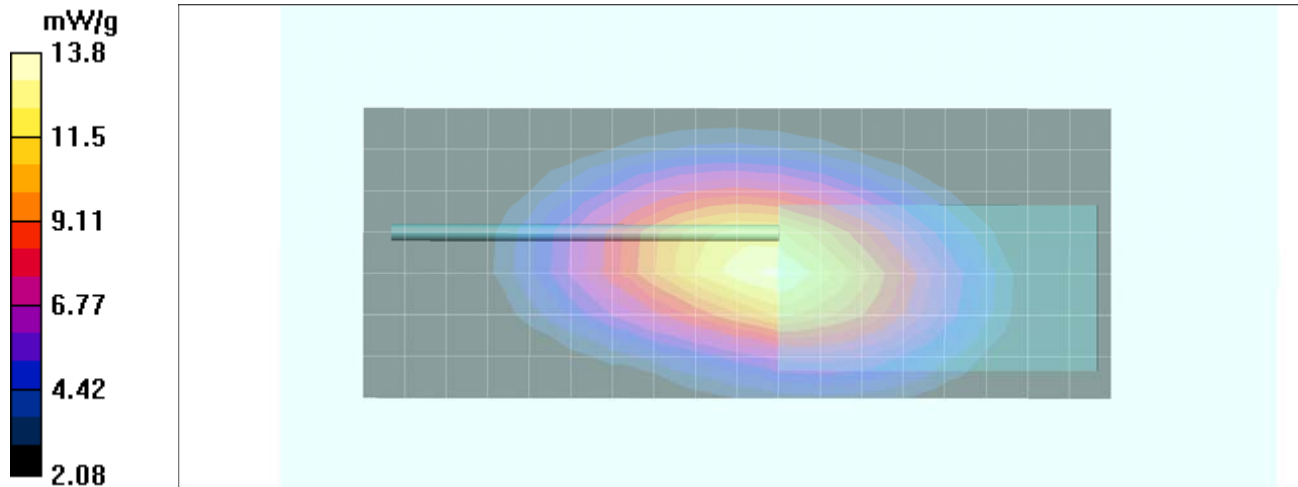
Zoom Scan (5x5x7)/Cube 0: Measurement grid: $dx=7.5\text{mm}$, $dy=7.5\text{mm}$, $dz=5\text{mm}$

Reference Value = 121.5 V/m; Power Drift = -0.424 dB

Peak SAR (extrapolated) = 18.9 W/kg

SAR(1 g) = 13 mW/g; SAR(10 g) = 9.29 mW/g

Maximum value of SAR (measured) = 13.8 mW/g



Applicant:	Kenwood USA Corporation	FCC ID:	ALH431000	DUT Models:	NX-320-K/K2/K3	KENWOOD
DUT Type:	Portable UHF-H PTT Radio Transceiver	Transmitter Frequency Range:		450.0 - 512.0 MHz		
2011 Celltech Labs Inc.		This document is not to be reproduced in whole or in part without the prior written permission of Celltech Labs Inc.				Page 153 of 361

	<u>Dates of Evaluation (K3)</u>	<u>Test Report Serial No.</u>	<u>Test Report Revision No.</u>	 Test Lab Certificate No. 2470.01
	Jan. 4,6,26-28,31, 2011	121510ALH-T1070-S90U	Rev. 1.3 (4th Release)	
<u>Test Report Issue Date</u>	<u>Dates of Evaluation (K/K2)</u>	<u>Description of Test(s)</u>	<u>RF Exposure Category</u>	
April 14, 2011	March 30 - April 7, 2011	Specific Absorption Rate	Occupational (Controlled)	

Audio Accessory SAR Plot #23 (A23)

Date Tested: 01/27/2011

Body-worn SAR - KRA-27M2 "Antenna D" - KNB-56N 1400mAh Ni-MH "Battery c" – 470.0 MHz

DUT: Kenwood NX-320-K3; Type: Portable FM UHF-H PTT Radio Transceiver; Serial: No. 10
Audio Accessory Category 3 (Palm-Microphone Kit); Type: 3-Wire Lapel Microphone w/ Earpiece (P/N: KHS-9BL)
Body-worn Accessory 1: Belt-Clip (P/N: KBH-12)

Ambient Temp: 23.1°C; Fluid Temp: 22.4°C; Barometric Pressure: 101.1 kPa; Humidity: 35%

Communication System: CW

Frequency: 470 MHz; Duty Cycle: 1:1

Medium: M450 Medium parameters used: $f = 470 \text{ MHz}$; $\sigma = 0.93 \text{ mho/m}$; $\epsilon_r = 57.5$; $\rho = 1000 \text{ kg/m}^3$

- Probe: ET3DV6 - SN1590; ConvF(7.73, 7.73, 7.73); Calibrated: 15/07/2010
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn353; Calibrated: 27/04/2010
- Phantom: Barski Industries; Type: Fiberglass Planar; Serial: 03-01
- Measurement SW: DASY4, V4.7 Build 44; Postprocessing SW: SEMCAD, V1.8 Build 171

Body-worn SAR – 1.7 cm Belt-Clip Spacing from Back of DUT to Planar Phantom

Area Scan (8x19x1): Measurement grid: $dx=15\text{mm}$, $dy=15\text{mm}$

Maximum value of SAR (measured) = 11.9 mW/g

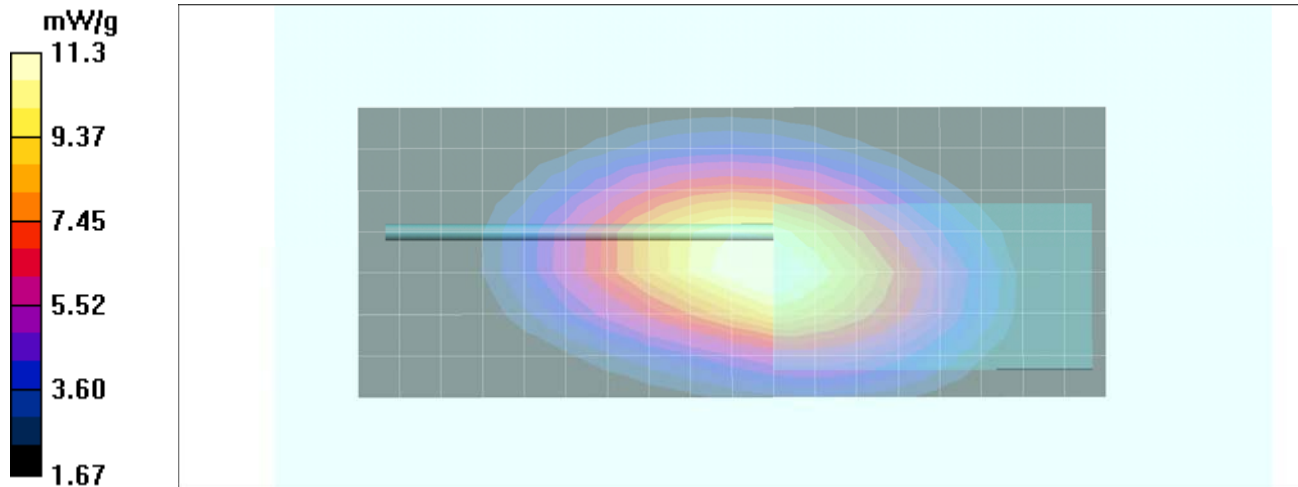
Zoom Scan (5x5x7)/Cube 0: Measurement grid: $dx=7.5\text{mm}$, $dy=7.5\text{mm}$, $dz=5\text{mm}$

Reference Value = 104.4 V/m; Power Drift = 0.100 dB

Peak SAR (extrapolated) = 15.7 W/kg

SAR(1 g) = 10.9 mW/g; SAR(10 g) = 7.85 mW/g

Maximum value of SAR (measured) = 11.3 mW/g



Applicant:	Kenwood USA Corporation	FCC ID:	ALH431000	DUT Models:	NX-320-K/K2/K3	KENWOOD
DUT Type:	Portable UHF-H PTT Radio Transceiver	Transmitter Frequency Range:		450.0 - 512.0 MHz		
2011 Celltech Labs Inc.		This document is not to be reproduced in whole or in part without the prior written permission of Celltech Labs Inc.				Page 154 of 361

	<u>Dates of Evaluation (K3)</u>	<u>Test Report Serial No.</u>	<u>Test Report Revision No.</u>	
	Jan. 4,6,26-28,31, 2011	121510ALH-T1070-S90U	Rev. 1.3 (4th Release)	
<u>Test Report Issue Date</u>	<u>Dates of Evaluation (K/K2)</u>	<u>Description of Test(s)</u>	<u>RF Exposure Category</u>	
April 14, 2011	March 30 - April 7, 2011	Specific Absorption Rate	Occupational (Controlled)	

Audio Accessory SAR Plot #24 (A24)

Date Tested: 01/27/2011

Body-worn SAR - KRA-27M2 "Antenna D" - KNB-56N 1400mAh Ni-MH "Battery c" – 512.0 MHz

DUT: Kenwood NX-320-K3; Type: Portable FM UHF-H PTT Radio Transceiver; Serial: No. 10
Audio Accessory Category 4 (Speaker-Mic); Type: Speaker-Microphone w/ Integral GPS (P/N: KMC-48GPS)
Body-worn Accessory 1: Belt-Clip (P/N: KBH-12)

Ambient Temp: 23.1°C; Fluid Temp: 22.4°C; Barometric Pressure: 101.1 kPa; Humidity: 35%

Communication System: CW

Frequency: 512 MHz; Duty Cycle: 1:1

Medium: M450 Medium parameters used (interpolated): $f = 512 \text{ MHz}$; $\sigma = 0.968 \text{ mho/m}$; $\epsilon_r = 57.1$; $\rho = 1000 \text{ kg/m}^3$

- Probe: ET3DV6 - SN1590; ConvF(7.73, 7.73, 7.73); Calibrated: 15/07/2010
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn353; Calibrated: 27/04/2010
- Phantom: Barski Industries; Type: Fiberglass Planar; Serial: 03-01
- Measurement SW: DASY4, V4.7 Build 44; Postprocessing SW: SEMCAD, V1.8 Build 171

Body-worn SAR – 1.7 cm Belt-Clip Spacing from Back of DUT to Planar Phantom

Area Scan (8x19x1): Measurement grid: $dx=15\text{mm}$, $dy=15\text{mm}$

Maximum value of SAR (measured) = 12.1 mW/g

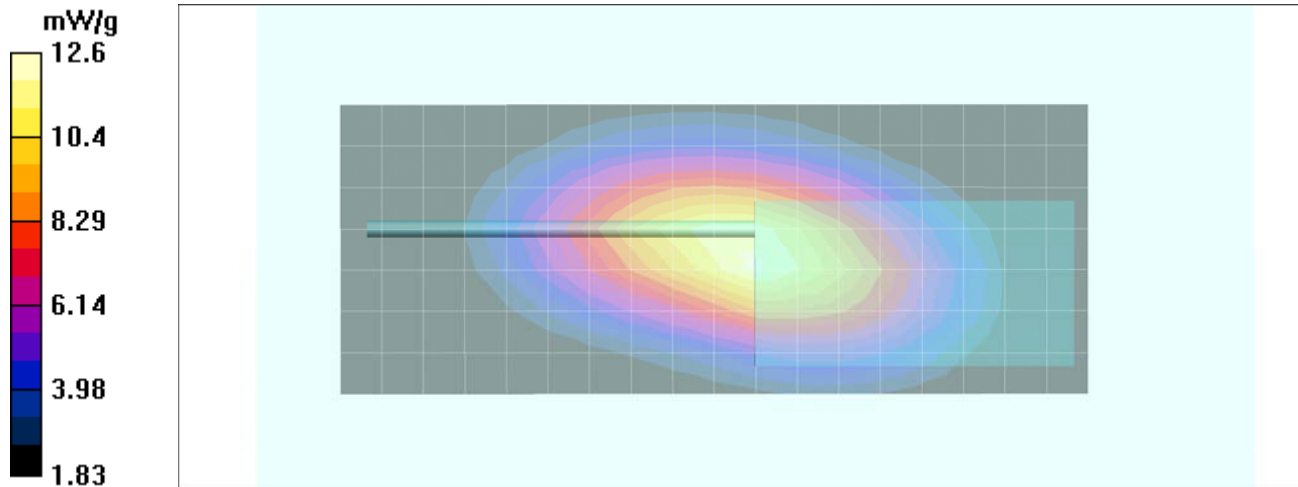
Zoom Scan (5x5x7)/Cube 0: Measurement grid: $dx=7.5\text{mm}$, $dy=7.5\text{mm}$, $dz=5\text{mm}$

Reference Value = 111.8 V/m; Power Drift = -0.254 dB

Peak SAR (extrapolated) = 17.5 W/kg

SAR(1 g) = 12.1 mW/g; SAR(10 g) = 8.62 mW/g

Maximum value of SAR (measured) = 12.6 mW/g



Applicant:	Kenwood USA Corporation	FCC ID:	ALH431000	DUT Models:	NX-320-K/K2/K3	KENWOOD
DUT Type:	Portable UHF-H PTT Radio Transceiver	Transmitter Frequency Range:		450.0 - 512.0 MHz		
2011 Celltech Labs Inc.		This document is not to be reproduced in whole or in part without the prior written permission of Celltech Labs Inc.				Page 155 of 361

	<u>Dates of Evaluation (K3)</u>	<u>Test Report Serial No.</u>	<u>Test Report Revision No.</u>	
	Jan. 4,6,26-28,31, 2011	121510ALH-T1070-S90U	Rev. 1.3 (4th Release)	
<u>Test Report Issue Date</u>	<u>Dates of Evaluation (K/K2)</u>	<u>Description of Test(s)</u>	<u>RF Exposure Category</u>	
April 14, 2011	March 30 - April 7, 2011	Specific Absorption Rate	Occupational (Controlled)	

Audio Accessory SAR Plot #25 (A25)

Date Tested: 01/27/2011

Body-worn SAR - KRA-27M2 "Antenna D" - KNB-56N 1400mAh Ni-MH "Battery c" – 498.0 MHz

DUT: Kenwood NX-320-K3; Type: Portable FM UHF-H PTT Radio Transceiver; Serial: No. 10
Audio Accessory Category 4 (Speaker-Mic); Type: Speaker-Microphone w/ Integral GPS (P/N: KMC-48GPS)
Body-worn Accessory 1: Belt-Clip (P/N: KBH-12)

Ambient Temp: 23.1°C; Fluid Temp: 22.4°C; Barometric Pressure: 101.1 kPa; Humidity: 35%

Communication System: CW

Frequency: 498 MHz; Duty Cycle: 1:1

Medium: M450 Medium parameters used (interpolated): $f = 498 \text{ MHz}$; $\sigma = 0.948 \text{ mho/m}$; $\epsilon_r = 57.5$; $\rho = 1000 \text{ kg/m}^3$

- Probe: ET3DV6 - SN1590; ConvF(7.73, 7.73, 7.73); Calibrated: 15/07/2010
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn353; Calibrated: 27/04/2010
- Phantom: Barski Industries; Type: Fiberglass Planar; Serial: 03-01
- Measurement SW: DASY4, V4.7 Build 44; Postprocessing SW: SEMCAD, V1.8 Build 171

Body-worn SAR – 1.7 cm Belt-Clip Spacing from Back of DUT to Planar Phantom

Area Scan (8x19x1): Measurement grid: $dx=15\text{mm}$, $dy=15\text{mm}$

Maximum value of SAR (measured) = 13.6 mW/g

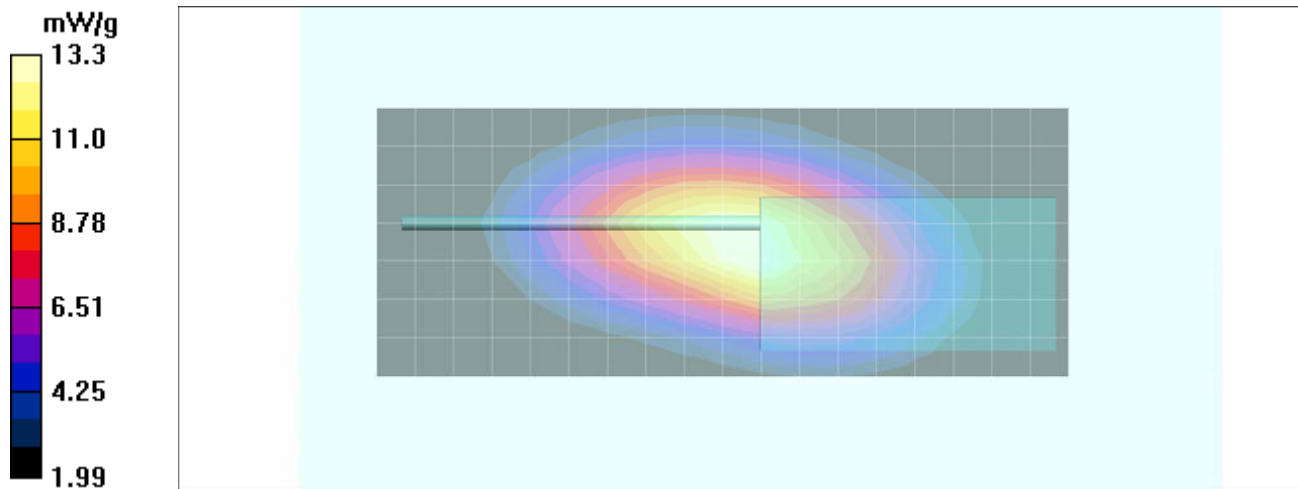
Zoom Scan (5x5x7)/Cube 0: Measurement grid: $dx=7.5\text{mm}$, $dy=7.5\text{mm}$, $dz=5\text{mm}$

Reference Value = 119.7 V/m; Power Drift = -0.430 dB


Peak SAR (extrapolated) = 18.5 W/kg

SAR(1 g) = 12.7 mW/g; SAR(10 g) = 9.05 mW/g

Maximum value of SAR (measured) = 13.3 mW/g



Applicant:	Kenwood USA Corporation	FCC ID:	ALH431000	DUT Models:	NX-320-K/K2/K3	KENWOOD
DUT Type:	Portable UHF-H PTT Radio Transceiver	Transmitter Frequency Range:		450.0 - 512.0 MHz		
2011 Celltech Labs Inc.		This document is not to be reproduced in whole or in part without the prior written permission of Celltech Labs Inc.				Page 156 of 361

	<u>Dates of Evaluation (K3)</u>	<u>Test Report Serial No.</u>	<u>Test Report Revision No.</u>	
	Jan. 4,6,26-28,31, 2011	121510ALH-T1070-S90U	Rev. 1.3 (4th Release)	
<u>Test Report Issue Date</u>	<u>Dates of Evaluation (K/K2)</u>	<u>Description of Test(s)</u>	<u>RF Exposure Category</u>	
April 14, 2011	March 30 - April 7, 2011	Specific Absorption Rate	Occupational (Controlled)	

Audio Accessory SAR Plot #26 (A26)

Date Tested: 01/27/2011

Body-worn SAR - KRA-27M2 "Antenna D" - KNB-56N 1400mAh Ni-MH "Battery c" – 484.0 MHz

DUT: Kenwood NX-320-K3; Type: Portable FM UHF-H PTT Radio Transceiver; Serial: No. 10
Audio Accessory Category 4 (Speaker-Mic); Type: Speaker-Microphone w/ Integral GPS (P/N: KMC-48GPS)
Body-worn Accessory 1: Belt-Clip (P/N: KBH-12)

Ambient Temp: 23.1°C; Fluid Temp: 22.4°C; Barometric Pressure: 101.1 kPa; Humidity: 35%

Communication System: CW

Frequency: 484 MHz; Duty Cycle: 1:1

Medium: M450 Medium parameters used (interpolated): $f = 484 \text{ MHz}$; $\sigma = 0.934 \text{ mho/m}$; $\epsilon_r = 57.1$; $\rho = 1000 \text{ kg/m}^3$

- Probe: ET3DV6 - SN1590; ConvF(7.73, 7.73, 7.73); Calibrated: 15/07/2010
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn353; Calibrated: 27/04/2010
- Phantom: Barski Industries; Type: Fiberglass Planar; Serial: 03-01
- Measurement SW: DASY4, V4.7 Build 44; Postprocessing SW: SEMCAD, V1.8 Build 171

Body-worn SAR – 1.7 cm Belt-Clip Spacing from Back of DUT to Planar Phantom

Area Scan (8x19x1): Measurement grid: $dx=15\text{mm}$, $dy=15\text{mm}$

Maximum value of SAR (measured) = 14.5 mW/g

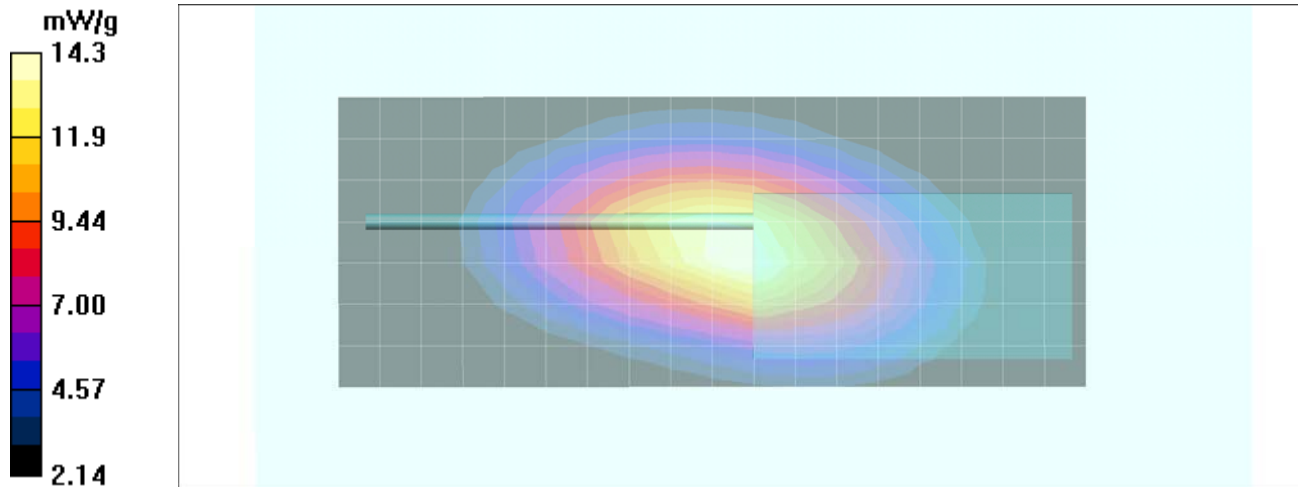
Zoom Scan (5x5x7)/Cube 0: Measurement grid: $dx=7.5\text{mm}$, $dy=7.5\text{mm}$, $dz=5\text{mm}$

Reference Value = 118.7 V/m; Power Drift = -0.333 dB

Peak SAR (extrapolated) = 19.7 W/kg

SAR(1 g) = 13.6 mW/g; SAR(10 g) = 9.72 mW/g

Maximum value of SAR (measured) = 14.3 mW/g



Applicant:	Kenwood USA Corporation	FCC ID:	ALH431000	DUT Models:	NX-320-K/K2/K3	KENWOOD
DUT Type:	Portable UHF-H PTT Radio Transceiver	Transmitter Frequency Range:		450.0 - 512.0 MHz		
2011 Celltech Labs Inc.		This document is not to be reproduced in whole or in part without the prior written permission of Celltech Labs Inc.				Page 157 of 361

	<u>Dates of Evaluation (K3)</u>	<u>Test Report Serial No.</u>	<u>Test Report Revision No.</u>	
	Jan. 4,6,26-28,31, 2011	121510ALH-T1070-S90U	Rev. 1.3 (4th Release)	
<u>Test Report Issue Date</u>	<u>Dates of Evaluation (K/K2)</u>	<u>Description of Test(s)</u>	<u>RF Exposure Category</u>	Test Lab Certificate No. 2470.01
April 14, 2011	March 30 - April 7, 2011	Specific Absorption Rate	Occupational (Controlled)	

Audio Accessory SAR Plot #27 (A27)

Date Tested: 01/27/2011

Body-worn SAR - KRA-27M2 "Antenna D" - KNB-56N 1400mAh Ni-MH "Battery c" – 470.0 MHz

DUT: Kenwood NX-320-K3; Type: Portable FM UHF-H PTT Radio Transceiver; Serial: No. 10
Audio Accessory Category 4 (Speaker-Mic); Type: Speaker-Microphone w/ Integral GPS (P/N: KMC-48GPS)
Body-worn Accessory 1: Belt-Clip (P/N: KBH-12)

Ambient Temp: 23.1°C; Fluid Temp: 22.4°C; Barometric Pressure: 101.1 kPa; Humidity: 35%

Communication System: CW

Frequency: 470 MHz; Duty Cycle: 1:1

Medium: M450 Medium parameters used: $f = 470 \text{ MHz}$; $\sigma = 0.93 \text{ mho/m}$; $\epsilon_r = 57.5$; $\rho = 1000 \text{ kg/m}^3$

- Probe: ET3DV6 - SN1590; ConvF(7.73, 7.73, 7.73); Calibrated: 15/07/2010
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn353; Calibrated: 27/04/2010
- Phantom: Barski Industries; Type: Fiberglass Planar; Serial: 03-01
- Measurement SW: DASY4, V4.7 Build 44; Postprocessing SW: SEMCAD, V1.8 Build 171

Body-worn SAR – 1.7 cm Belt-Clip Spacing from Back of DUT to Planar Phantom

Area Scan (8x19x1): Measurement grid: $dx=15\text{mm}$, $dy=15\text{mm}$

Maximum value of SAR (measured) = 12.9 mW/g

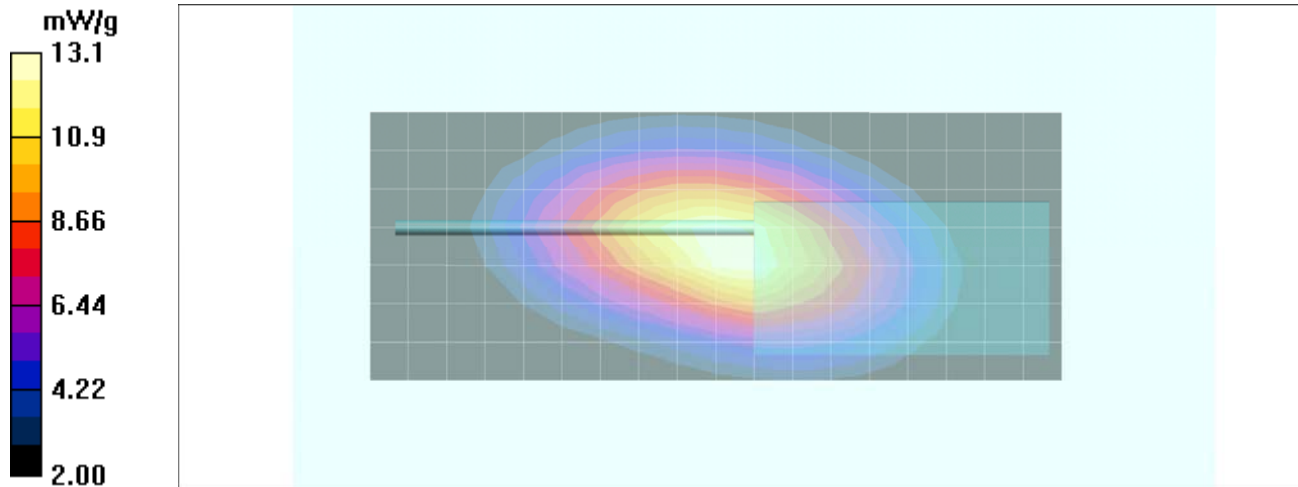
Zoom Scan (5x5x7)/Cube 0: Measurement grid: $dx=7.5\text{mm}$, $dy=7.5\text{mm}$, $dz=5\text{mm}$

Reference Value = 110.7 V/m; Power Drift = 0.040 dB


Peak SAR (extrapolated) = 18.0 W/kg

SAR(1 g) = 12.5 mW/g; SAR(10 g) = 8.95 mW/g

Maximum value of SAR (measured) = 13.1 mW/g



Applicant:	Kenwood USA Corporation	FCC ID:	ALH431000	DUT Models:	NX-320-K/K2/K3	KENWOOD
DUT Type:	Portable UHF-H PTT Radio Transceiver	Transmitter Frequency Range:		450.0 - 512.0 MHz		
2011 Celltech Labs Inc.		This document is not to be reproduced in whole or in part without the prior written permission of Celltech Labs Inc.				Page 158 of 361

	<u>Dates of Evaluation (K3)</u>	<u>Test Report Serial No.</u>	<u>Test Report Revision No.</u>	
	Jan. 4,6,26-28,31, 2011	121510ALH-T1070-S90U	Rev. 1.3 (4th Release)	
<u>Test Report Issue Date</u>	<u>Dates of Evaluation (K/K2)</u>	<u>Description of Test(s)</u>	<u>RF Exposure Category</u>	
April 14, 2011	March 30 - April 7, 2011	Specific Absorption Rate	Occupational (Controlled)	

Audio Accessory SAR Plot #28 (A28)

Date Tested: 04/01/2011

Body-worn SAR - KRA-27M2 "Antenna D" - KNB-56N "Battery c" – 498.0 MHz

DUT: Kenwood NX-320-K; Type: Portable FM UHF-H PTT Radio Transceiver; Serial: No. 0320K124
Audio Accessory Category 2: Earpiece (P/N: KHS-27)
Body-worn Accessory 1: Belt-Clip (P/N: KBH-12)

Ambient Temp: 21.0°C; Fluid Temp: 20.5°C; Barometric Pressure: 101.1 kPa; Humidity: 32%

Communication System: CW

Frequency: 498 MHz; Duty Cycle: 1:1

Medium: M450 Medium parameters used (interpolated): $f = 498 \text{ MHz}$; $\sigma = 0.952 \text{ mho/m}$; $\epsilon_r = 58.3$; $\rho = 1000 \text{ kg/m}^3$

- Probe: ET3DV6 - SN1590; ConvF(7.73, 7.73, 7.73); Calibrated: 15/07/2010
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn353; Calibrated: 27/04/2010
- Phantom: Barski Industries; Type: Fiberglass Planar; Serial: 03-01
- Measurement SW: DASy4, V4.7 Build 44; Postprocessing SW: SEMCAD, V1.8 Build 171

Body-worn SAR – 1.7 cm Belt-Clip Spacing from Back of DUT to Planar Phantom

Area Scan (8x19x1): Measurement grid: $dx=15\text{mm}$, $dy=15\text{mm}$

Maximum value of SAR (measured) = 12.9 mW/g

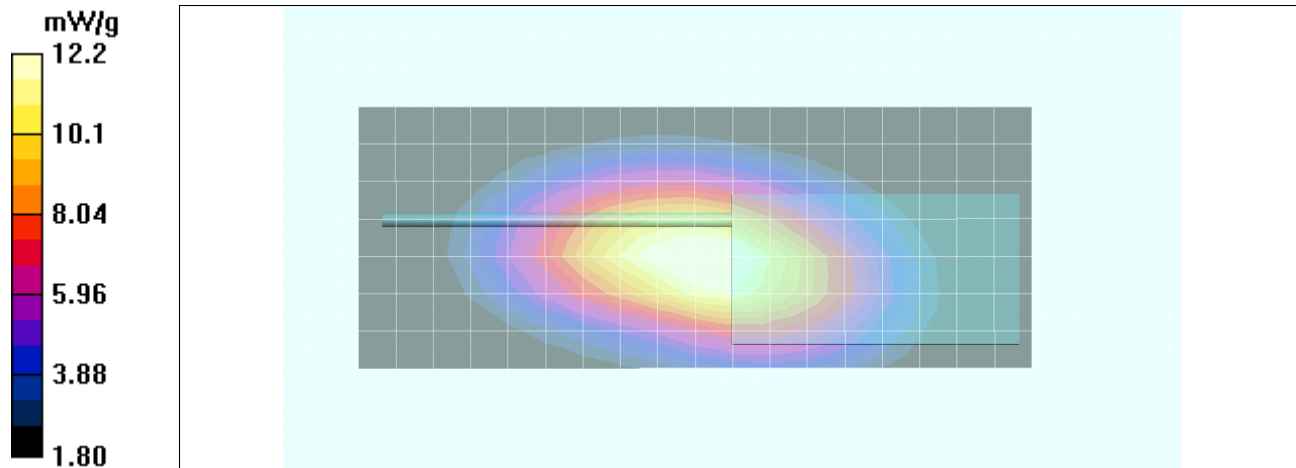
Zoom Scan (5x5x7)/Cube 0: Measurement grid: $dx=7.5\text{mm}$, $dy=7.5\text{mm}$, $dz=5\text{mm}$

Reference Value = 114.3 V/m; Power Drift = -0.365 dB

Peak SAR (extrapolated) = 16.8 W/kg

SAR(1 g) = 11.6 mW/g; SAR(10 g) = 8.33 mW/g

Maximum value of SAR (measured) = 12.2 mW/g



Applicant:	Kenwood USA Corporation	FCC ID:	ALH431000	DUT Models:	NX-320-K/K2/K3	KENWOOD
DUT Type:	Portable UHF-H PTT Radio Transceiver	Transmitter Frequency Range:		450.0 - 512.0 MHz		
2011 Celltech Labs Inc.		This document is not to be reproduced in whole or in part without the prior written permission of Celltech Labs Inc.				Page 159 of 361

	<u>Dates of Evaluation (K3)</u>	<u>Test Report Serial No.</u>	<u>Test Report Revision No.</u>	
	Jan. 4,6,26-28,31, 2011	121510ALH-T1070-S90U	Rev. 1.3 (4th Release)	
<u>Test Report Issue Date</u>	<u>Dates of Evaluation (K/K2)</u>	<u>Description of Test(s)</u>	<u>RF Exposure Category</u>	Test Lab Certificate No. 2470.01
April 14, 2011	March 30 - April 7, 2011	Specific Absorption Rate	Occupational (Controlled)	

Audio Accessory SAR Plot #29 (A29)

Date Tested: 04/01/2011

Body-worn SAR - KRA-27M2 "Antenna D" - KNB-56N "Battery c" – 484.0 MHz

DUT: Kenwood NX-320-K; Type: Portable FM UHF-H PTT Radio Transceiver; Serial: No. 0320K124
Audio Accessory Category 3: Palm-Mic (P/N: KHS-9BL)
Body-worn Accessory 1: Belt-Clip (P/N: KBH-12)

Ambient Temp: 21.0°C; Fluid Temp: 20.5°C; Barometric Pressure: 101.1 kPa; Humidity: 32%

Communication System: CW

Frequency: 484 MHz; Duty Cycle: 1:1

Medium: M450 Medium parameters used (interpolated): $f = 484 \text{ MHz}$; $\sigma = 0.954 \text{ mho/m}$; $\epsilon_r = 58.8$; $\rho = 1000 \text{ kg/m}^3$

- Probe: ET3DV6 - SN1590; ConvF(7.73, 7.73, 7.73); Calibrated: 15/07/2010
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn353; Calibrated: 27/04/2010
- Phantom: Barski Industries; Type: Fiberglass Planar; Serial: 03-01
- Measurement SW: DASy4, V4.7 Build 44; Postprocessing SW: SEMCAD, V1.8 Build 171

Body-worn SAR – 1.7 cm Belt-Clip Spacing from Back of DUT to Planar Phantom

Area Scan (8x19x1): Measurement grid: $dx=15\text{mm}$, $dy=15\text{mm}$

Maximum value of SAR (measured) = 12.9 mW/g

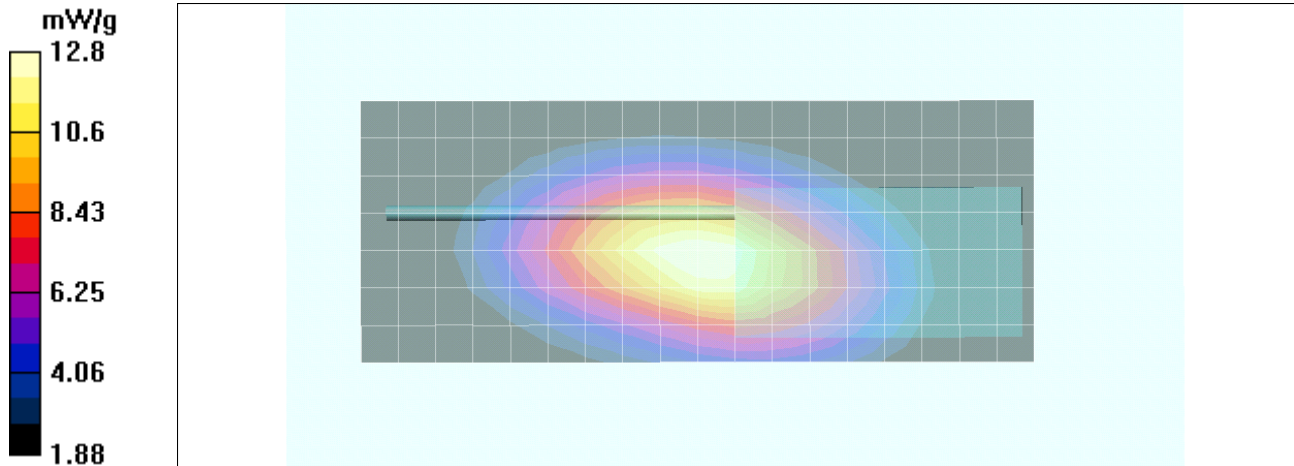
Zoom Scan (5x5x7)/Cube 0: Measurement grid: $dx=7.5\text{mm}$, $dy=7.5\text{mm}$, $dz=5\text{mm}$

Reference Value = 119.5 V/m; Power Drift = -0.551 dB

Peak SAR (extrapolated) = 17.5 W/kg

SAR(1 g) = 12.1 mW/g; SAR(10 g) = 8.72 mW/g

Maximum value of SAR (measured) = 12.8 mW/g



Applicant:	Kenwood USA Corporation	FCC ID:	ALH431000	DUT Models:	NX-320-K/K2/K3	KENWOOD
DUT Type:	Portable UHF-H PTT Radio Transceiver	Transmitter Frequency Range:		450.0 - 512.0 MHz		
2011 Celltech Labs Inc.		This document is not to be reproduced in whole or in part without the prior written permission of Celltech Labs Inc.				Page 160 of 361

	<u>Dates of Evaluation (K3)</u>	<u>Test Report Serial No.</u>	<u>Test Report Revision No.</u>	
	Jan. 4,6,26-28,31, 2011	121510ALH-T1070-S90U	Rev. 1.3 (4th Release)	
<u>Test Report Issue Date</u>	<u>Dates of Evaluation (K/K2)</u>	<u>Description of Test(s)</u>	<u>RF Exposure Category</u>	Test Lab Certificate No. 2470.01
April 14, 2011	March 30 - April 7, 2011	Specific Absorption Rate	Occupational (Controlled)	

Audio Accessory SAR Plot #30 (A30)

Date Tested: 04/01/2011

Body-worn SAR - KRA-27M2 "Antenna D" - KNB-56N "Battery c" – 484.0 MHz

DUT: Kenwood NX-320-K; Type: Portable FM UHF-H PTT Radio Transceiver; Serial: No. 0320K124
Audio Accessory Category 4: Speaker-Mic (P/N: KMC-48GPS)
Body-worn Accessory 1: Belt-Clip (P/N: KBH-12)

Ambient Temp: 21.0°C; Fluid Temp: 20.5°C; Barometric Pressure: 101.1 kPa; Humidity: 32%

Communication System: CW

Frequency: 484 MHz; Duty Cycle: 1:1

Medium: M450 Medium parameters used (interpolated): $f = 484 \text{ MHz}$; $\sigma = 0.954 \text{ mho/m}$; $\epsilon_r = 58.8$; $\rho = 1000 \text{ kg/m}^3$

- Probe: ET3DV6 - SN1590; ConvF(7.73, 7.73, 7.73); Calibrated: 15/07/2010
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn353; Calibrated: 27/04/2010
- Phantom: Barski Industries; Type: Fiberglass Planar; Serial: 03-01
- Measurement SW: DASY4, V4.7 Build 44; Postprocessing SW: SEMCAD, V1.8 Build 171

Body-worn SAR – 1.7 cm Belt-Clip Spacing from Back of DUT to Planar Phantom

Area Scan (8x19x1): Measurement grid: $dx=15\text{mm}$, $dy=15\text{mm}$

Maximum value of SAR (measured) = 12.8 mW/g

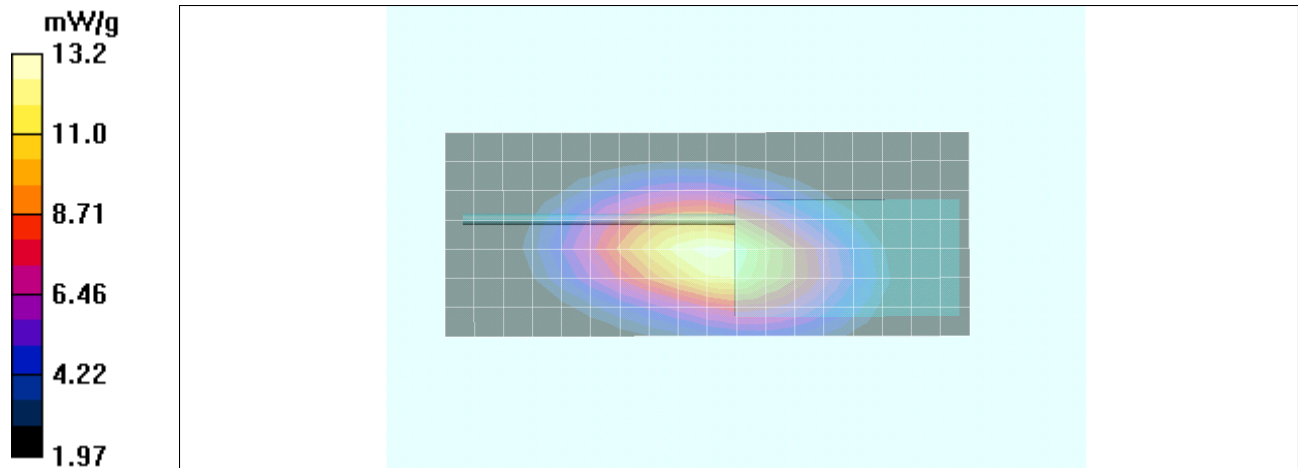
Zoom Scan (5x5x7)/Cube 0: Measurement grid: $dx=7.5\text{mm}$, $dy=7.5\text{mm}$, $dz=5\text{mm}$

Reference Value = 120.7 V/m; Power Drift = -0.499 dB

Peak SAR (extrapolated) = 18.2 W/kg

SAR(1 g) = 12.6 mW/g; SAR(10 g) = 8.98 mW/g

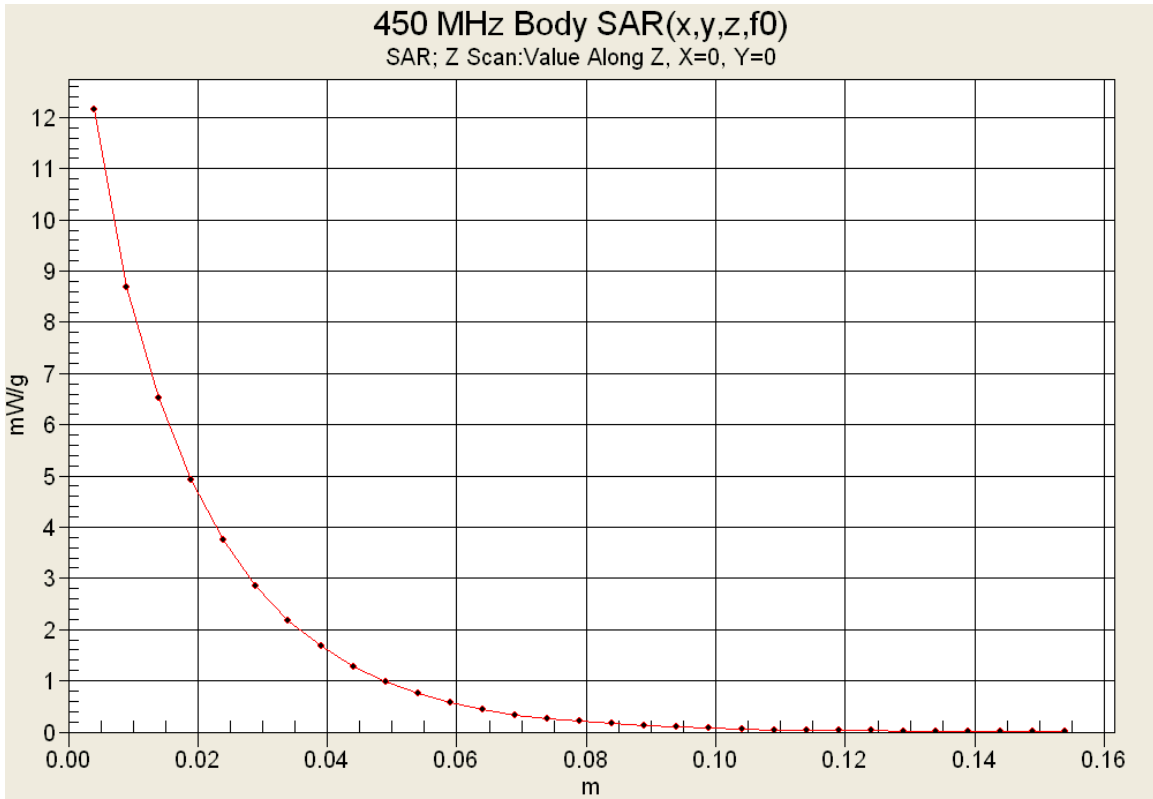
Maximum value of SAR (measured) = 13.2 mW/g




Applicant:	Kenwood USA Corporation	FCC ID:	ALH431000	DUT Models:	NX-320-K/K2/K3	KENWOOD
DUT Type:	Portable UHF-H PTT Radio Transceiver	Transmitter Frequency Range:		450.0 - 512.0 MHz		
2011 Celltech Labs Inc.		This document is not to be reproduced in whole or in part without the prior written permission of Celltech Labs Inc.				Page 161 of 361

	<u>Dates of Evaluation (K3)</u> Jan. 4,6,26-28,31, 2011	<u>Test Report Serial No.</u> 121510ALH-T1070-S90U	<u>Test Report Revision No.</u> Rev. 1.3 (4th Release)	 Test Lab Certificate No. 2470.01
	<u>Test Report Issue Date</u> April 14, 2011	<u>Dates of Evaluation (K/K2)</u> March 30 - April 7, 2011	<u>Description of Test(s)</u> Specific Absorption Rate	

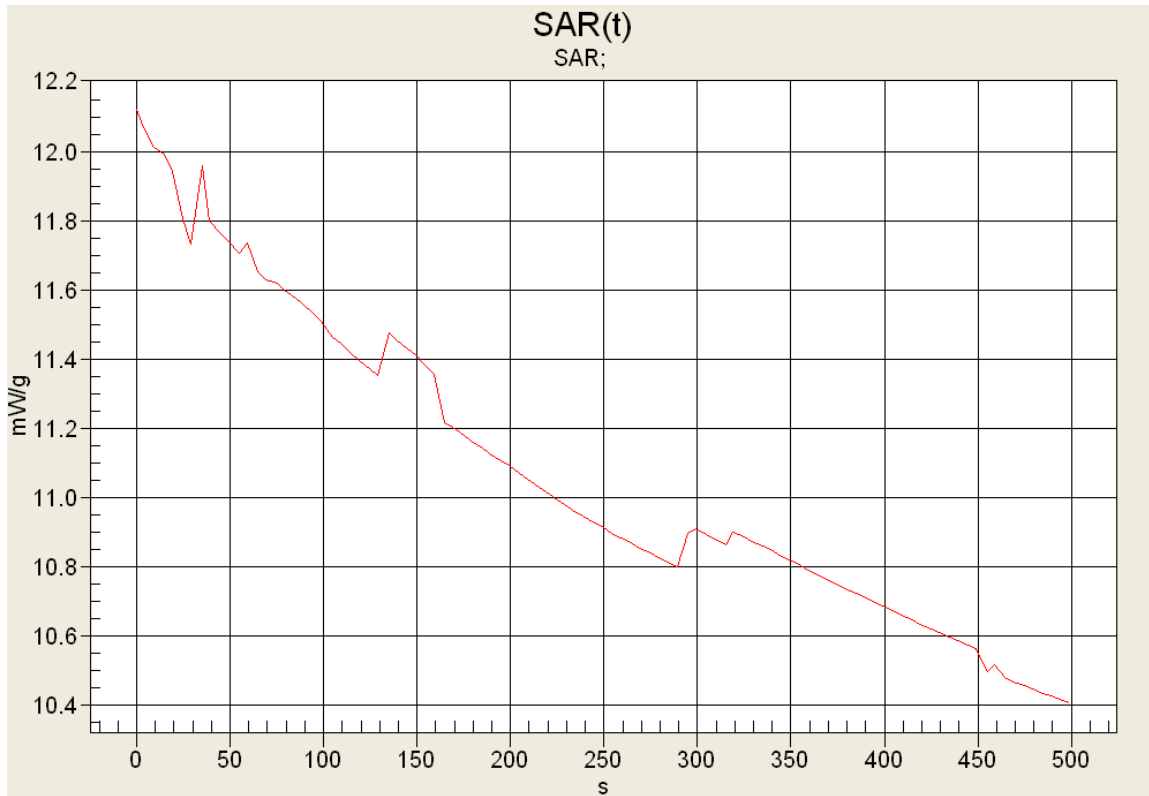
Z-Axis Scan



Applicant:	Kenwood USA Corporation	FCC ID:	ALH431000	DUT Models:	NX-320-K/K2/K3	KENWOOD
DUT Type:	Portable UHF-H PTT Radio Transceiver	Transmitter Frequency Range:		450.0 - 512.0 MHz		
2011 Celltech Labs Inc.		This document is not to be reproduced in whole or in part without the prior written permission of Celltech Labs Inc.				Page 162 of 361

	<u>Dates of Evaluation (K3)</u> Jan. 4,6,26-28,31, 2011	<u>Test Report Serial No.</u> 121510ALH-T1070-S90U	<u>Test Report Revision No.</u> Rev. 1.3 (4th Release)	  Test Lab Certificate No. 2470.01
	<u>Test Report Issue Date</u> April 14, 2011	<u>Dates of Evaluation (K/K2)</u> March 30 - April 7, 2011	<u>Description of Test(s)</u> Specific Absorption Rate	

SAR Droop Evaluation (SAR-versus-Time)



SAR 0s – 12.122 mW/g
SAR 340s – 10.849 mW/g (-0.482 dB)
SAR 500s – 10.408 mW/g (-0.662 dB)

Applicant:	Kenwood USA Corporation	FCC ID:	ALH431000	DUT Models:	NX-320-K/K2/K3	KENWOOD
DUT Type:	Portable UHF-H PTT Radio Transceiver	Transmitter Frequency Range:		450.0 - 512.0 MHz		
2011 Celltech Labs Inc.		This document is not to be reproduced in whole or in part without the prior written permission of Celltech Labs Inc.				Page 163 of 361

	<u>Dates of Evaluation (K3)</u>	<u>Test Report Serial No.</u>	<u>Test Report Revision No.</u>	
	Jan. 4,6,26-28,31, 2011	121510ALH-T1070-S90U	Rev. 1.3 (4th Release)	
<u>Test Report Issue Date</u>	<u>Dates of Evaluation (K/K2)</u>	<u>Description of Test(s)</u>	<u>RF Exposure Category</u>	Test Lab Certificate No. 2470.01
April 14, 2011	March 30 - April 7, 2011	Specific Absorption Rate	Occupational (Controlled)	

Audio Accessory SAR Plot #31 (A31)

Date Tested: 04/01/2011

Body-worn SAR - KRA-27M2 "Antenna D" - KNB-56N "Battery c" – 498.0 MHz

DUT: Kenwood NX-320-K2; Type: Portable FM UHF-H PTT Radio Transceiver; Serial: No. 0320K218
Audio Accessory Category 2: Earpiece (P/N: KHS-27)
Body-worn Accessory 1: Belt-Clip (P/N: KBH-12)

Ambient Temp: 21.0°C; Fluid Temp: 20.5°C; Barometric Pressure: 101.1 kPa; Humidity: 32%

Communication System: CW

Frequency: 498 MHz; Duty Cycle: 1:1

Medium: M450 Medium parameters used (interpolated): $f = 498 \text{ MHz}$; $\sigma = 0.952 \text{ mho/m}$; $\epsilon_r = 58.3$; $\rho = 1000 \text{ kg/m}^3$

- Probe: ET3DV6 - SN1590; ConvF(7.73, 7.73, 7.73); Calibrated: 15/07/2010
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn353; Calibrated: 27/04/2010
- Phantom: Barski Industries; Type: Fiberglass Planar; Serial: 03-01
- Measurement SW: DASy4, V4.7 Build 44; Postprocessing SW: SEMCAD, V1.8 Build 171

Body-worn SAR – 1.7 cm Belt-Clip Spacing from Back of DUT to Planar Phantom

Area Scan (8x19x1): Measurement grid: $dx=15\text{mm}$, $dy=15\text{mm}$

Maximum value of SAR (measured) = 13.1 mW/g

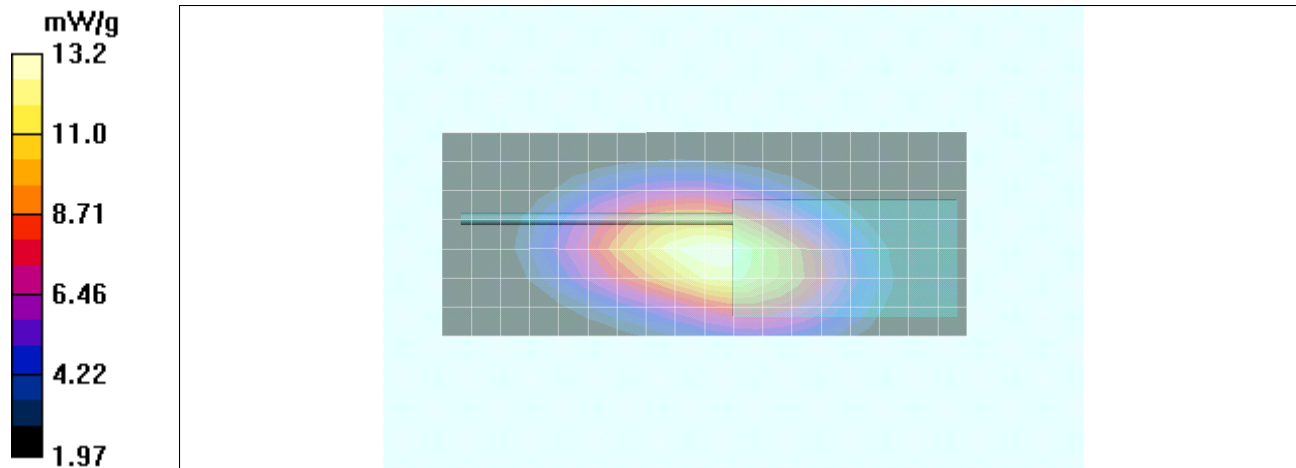
Zoom Scan (5x5x7)/Cube 0: Measurement grid: $dx=7.5\text{mm}$, $dy=7.5\text{mm}$, $dz=5\text{mm}$

Reference Value = 119.3 V/m; Power Drift = -0.287 dB

Peak SAR (extrapolated) = 18.3 W/kg

SAR(1 g) = 12.6 mW/g; SAR(10 g) = 9.05 mW/g

Maximum value of SAR (measured) = 13.2 mW/g



Applicant:	Kenwood USA Corporation	FCC ID:	ALH431000	DUT Models:	NX-320-K/K2/K3	KENWOOD
DUT Type:	Portable UHF-H PTT Radio Transceiver	Transmitter Frequency Range:		450.0 - 512.0 MHz		
2011 Celltech Labs Inc.		This document is not to be reproduced in whole or in part without the prior written permission of Celltech Labs Inc.				Page 164 of 361

	<u>Dates of Evaluation (K3)</u>	<u>Test Report Serial No.</u>	<u>Test Report Revision No.</u>	
	Jan. 4,6,26-28,31, 2011	121510ALH-T1070-S90U	Rev. 1.3 (4th Release)	
<u>Test Report Issue Date</u>	<u>Dates of Evaluation (K/K2)</u>	<u>Description of Test(s)</u>	<u>RF Exposure Category</u>	Test Lab Certificate No. 2470.01
April 14, 2011	March 30 - April 7, 2011	Specific Absorption Rate	Occupational (Controlled)	

Audio Accessory SAR Plot #32 (A32)

Date Tested: 04/04/2011

Body-worn SAR - KRA-27M2 "Antenna D" - KNB-56N "Battery c" – 484.0 MHz

DUT: Kenwood NX-320-K2; Type: Portable FM UHF-H PTT Radio Transceiver; Serial: No. 0320K218
Audio Accessory Category 3: Palm-Mic (P/N: KHS-9BL)
Body-worn Accessory 1: Belt-Clip (P/N: KBH-12)

Ambient Temp: 21.0°C; Fluid Temp: 20.5°C; Barometric Pressure: 101.1 kPa; Humidity: 30%

Communication System: CW

Frequency: 484 MHz; Duty Cycle: 1:1

Medium: M450 Medium parameters used (interpolated): $f = 484 \text{ MHz}$; $\sigma = 0.928 \text{ mho/m}$; $\epsilon_r = 57.9$; $\rho = 1000 \text{ kg/m}^3$

- Probe: ET3DV6 - SN1590; ConvF(7.73, 7.73, 7.73); Calibrated: 15/07/2010
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn353; Calibrated: 27/04/2010
- Phantom: Barski Industries; Type: Fiberglass Planar; Serial: 03-01
- Measurement SW: DASY4, V4.7 Build 44; Postprocessing SW: SEMCAD, V1.8 Build 171

Body-worn SAR – 1.7 cm Belt-Clip Spacing from Back of DUT to Planar Phantom

Area Scan (8x19x1): Measurement grid: $dx=15\text{mm}$, $dy=15\text{mm}$

Maximum value of SAR (measured) = 12.1 mW/g

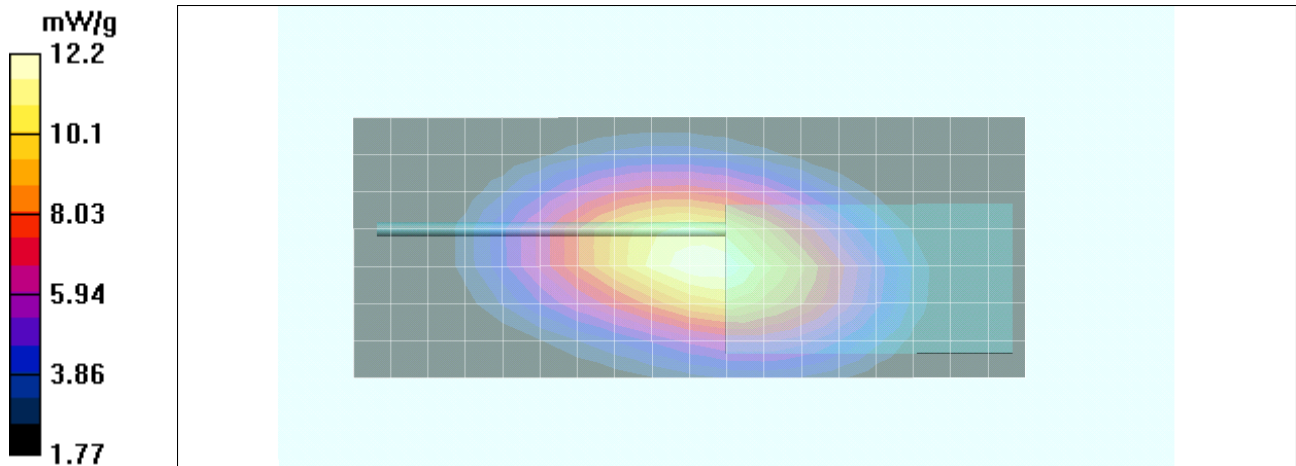
Zoom Scan (5x5x7)/Cube 0: Measurement grid: $dx=7.5\text{mm}$, $dy=7.5\text{mm}$, $dz=5\text{mm}$

Reference Value = 116.2 V/m; Power Drift = -0.549 dB

Peak SAR (extrapolated) = 16.9 W/kg

SAR(1 g) = 11.7 mW/g; SAR(10 g) = 8.36 mW/g

Maximum value of SAR (measured) = 12.2 mW/g



Applicant:	Kenwood USA Corporation	FCC ID:	ALH431000	DUT Models:	NX-320-K/K2/K3	KENWOOD
DUT Type:	Portable UHF-H PTT Radio Transceiver	Transmitter Frequency Range:		450.0 - 512.0 MHz		
2011 Celltech Labs Inc.		This document is not to be reproduced in whole or in part without the prior written permission of Celltech Labs Inc.				Page 165 of 361

	<u>Dates of Evaluation (K3)</u>	<u>Test Report Serial No.</u>	<u>Test Report Revision No.</u>	
	Jan. 4,6,26-28,31, 2011	121510ALH-T1070-S90U	Rev. 1.3 (4th Release)	
<u>Test Report Issue Date</u>	<u>Dates of Evaluation (K/K2)</u>	<u>Description of Test(s)</u>	<u>RF Exposure Category</u>	Test Lab Certificate No. 2470.01
April 14, 2011	March 30 - April 7, 2011	Specific Absorption Rate	Occupational (Controlled)	

Audio Accessory SAR Plot #33 (A33)

Date Tested: 04/04/2011

Body-worn SAR - KRA-27M2 "Antenna D" - KNB-56N "Battery c" – 484.0 MHz

DUT: Kenwood NX-320-K2; Type: Portable FM UHF-H PTT Radio Transceiver; Serial: No. 0320K218
Audio Accessory Category 4: Speaker-Mic (P/N: KMC-48GPS)
Body-worn Accessory 1: Belt-Clip (P/N: KBH-12)

Ambient Temp: 21.0°C; Fluid Temp: 20.5°C; Barometric Pressure: 101.1 kPa; Humidity: 30%

Communication System: CW

Frequency: 484 MHz; Duty Cycle: 1:1

Medium: M450 Medium parameters used (interpolated): $f = 484 \text{ MHz}$; $\sigma = 0.928 \text{ mho/m}$; $\epsilon_r = 57.9$; $\rho = 1000 \text{ kg/m}^3$

- Probe: ET3DV6 - SN1590; ConvF(7.73, 7.73, 7.73); Calibrated: 15/07/2010
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn353; Calibrated: 27/04/2010
- Phantom: Barski Industries; Type: Fiberglass Planar; Serial: 03-01
- Measurement SW: DASy4, V4.7 Build 44; Postprocessing SW: SEMCAD, V1.8 Build 171

Body-worn SAR – 1.7 cm Belt-Clip Spacing from Back of DUT to Planar Phantom

Area Scan (8x19x1): Measurement grid: $dx=15\text{mm}$, $dy=15\text{mm}$

Maximum value of SAR (measured) = 12.8 mW/g

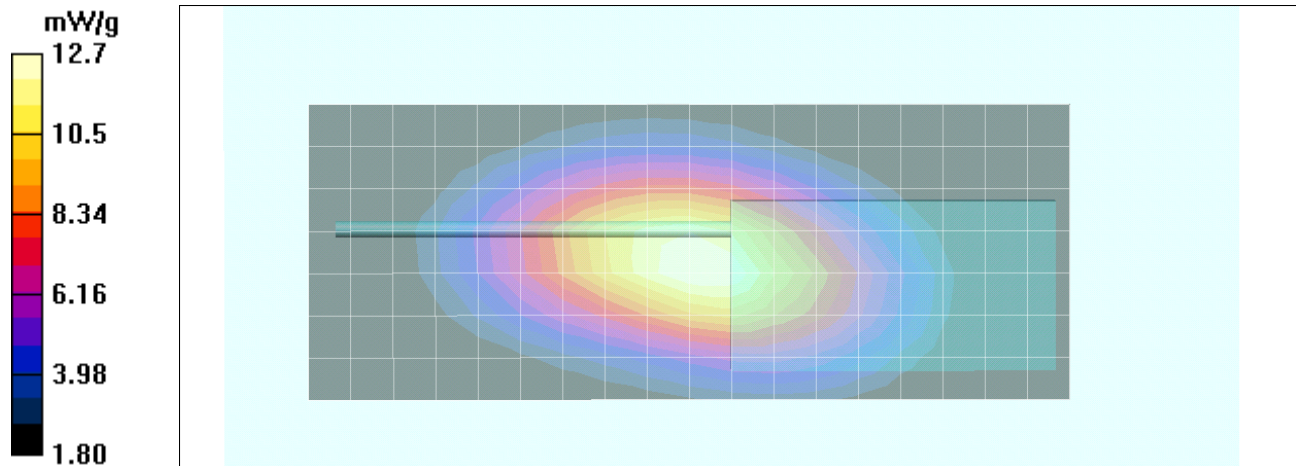
Zoom Scan (5x5x7)/Cube 0: Measurement grid: $dx=7.5\text{mm}$, $dy=7.5\text{mm}$, $dz=5\text{mm}$

Reference Value = 118.8 V/m; Power Drift = -0.550 dB

Peak SAR (extrapolated) = 17.5 W/kg

SAR(1 g) = 12.1 mW/g; SAR(10 g) = 8.68 mW/g

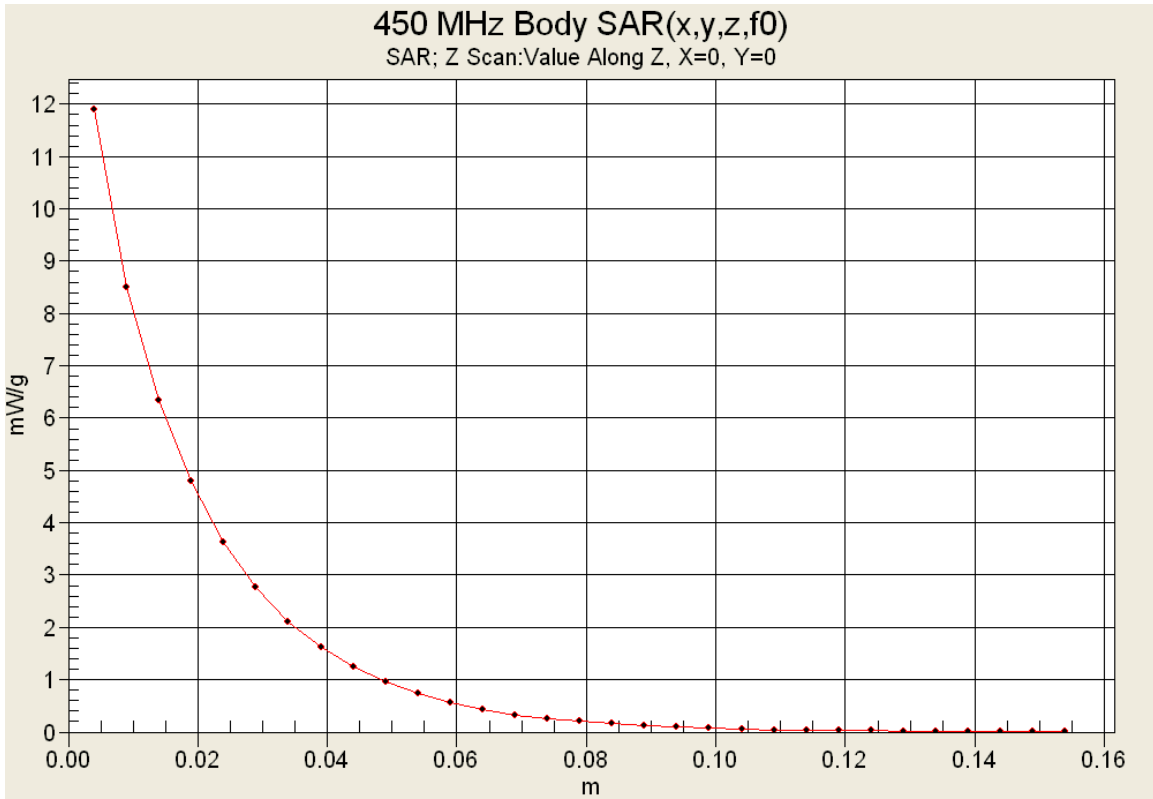
Maximum value of SAR (measured) = 12.7 mW/g



Applicant:	Kenwood USA Corporation	FCC ID:	ALH431000	DUT Models:	NX-320-K/K2/K3	KENWOOD
DUT Type:	Portable UHF-H PTT Radio Transceiver	Transmitter Frequency Range:		450.0 - 512.0 MHz		
2011 Celltech Labs Inc.		This document is not to be reproduced in whole or in part without the prior written permission of Celltech Labs Inc.				Page 166 of 361

	<u>Dates of Evaluation (K3)</u> Jan. 4,6,26-28,31, 2011	<u>Test Report Serial No.</u> 121510ALH-T1070-S90U	<u>Test Report Revision No.</u> Rev. 1.3 (4th Release)	 Test Lab Certificate No. 2470.01
	<u>Test Report Issue Date</u> April 14, 2011	<u>Dates of Evaluation (K/K2)</u> March 30 - April 7, 2011	<u>Description of Test(s)</u> Specific Absorption Rate	

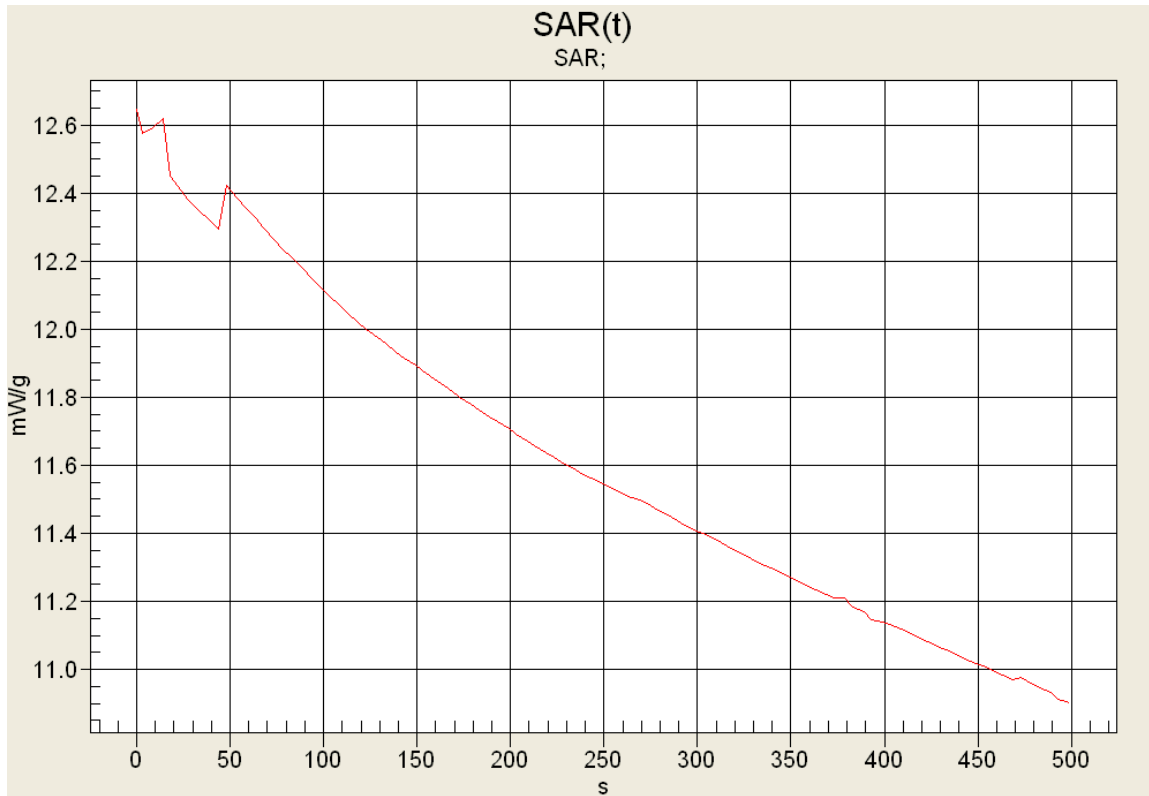
Z-Axis Scan



Applicant:	Kenwood USA Corporation	FCC ID:	ALH431000	DUT Models:	NX-320-K/K2/K3	KENWOOD
DUT Type:	Portable UHF-H PTT Radio Transceiver	Transmitter Frequency Range:		450.0 - 512.0 MHz		
2011 Celltech Labs Inc.		This document is not to be reproduced in whole or in part without the prior written permission of Celltech Labs Inc.				Page 167 of 361

	<u>Dates of Evaluation (K3)</u> Jan. 4,6,26-28,31, 2011	<u>Test Report Serial No.</u> 121510ALH-T1070-S90U	<u>Test Report Revision No.</u> Rev. 1.3 (4th Release)	 Test Lab Certificate No. 2470.01
	<u>Test Report Issue Date</u> April 14, 2011	<u>Dates of Evaluation (K/K2)</u> March 30 - April 7, 2011	<u>Description of Test(s)</u> Specific Absorption Rate	

SAR Droop Evaluation (SAR-versus-Time)



SAR 0s – 12.646 mW/g
SAR 340s – 11.298 mW/g (-0.490 dB)
SAR 500s – 10.903 mW/g (-0.644 dB)

Applicant:	Kenwood USA Corporation	FCC ID:	ALH431000	DUT Models:	NX-320-K/K2/K3	KENWOOD
DUT Type:	Portable UHF-H PTT Radio Transceiver	Transmitter Frequency Range:		450.0 - 512.0 MHz		
2011 Celltech Labs Inc.		This document is not to be reproduced in whole or in part without the prior written permission of Celltech Labs Inc.				Page 168 of 361

	<u>Dates of Evaluation (K3)</u>	<u>Test Report Serial No.</u>	<u>Test Report Revision No.</u>	
	Jan. 4,6,26-28,31, 2011	121510ALH-T1070-S90U	Rev. 1.3 (4th Release)	
<u>Test Report Issue Date</u>	<u>Dates of Evaluation (K/K2)</u>	<u>Description of Test(s)</u>	<u>RF Exposure Category</u>	Test Lab Certificate No. 2470.01
April 14, 2011	March 30 - April 7, 2011	Specific Absorption Rate	Occupational (Controlled)	

Audio Accessory SAR Plot #34 (A34)

Date Tested: 01/31/2011

Body-worn SAR - KRA-27M2 "Antenna D" - KNB-56N 1400mAh Ni-MH "Battery c" – 470.0 MHz

DUT: Kenwood NX-320-K3; Type: Portable FM UHF-H PTT Radio Transceiver; Serial: No. 10
Audio Accessory Category 1 (Headset); Type: Noise Reduction Headset (Over-the-Head) (P/N: KHS-10-OH)
Body-worn Accessory 1: Belt-Clip (P/N: KBH-12)

Ambient Temp: 24.1°C; Fluid Temp: 23.2°C; Barometric Pressure: 101.1 kPa; Humidity: 40%

Communication System: CW

Frequency: 470 MHz; Duty Cycle: 1:1

Medium: M450 Medium parameters used: $f = 470 \text{ MHz}$; $\sigma = 0.95 \text{ mho/m}$; $\epsilon_r = 58.6$; $\rho = 1000 \text{ kg/m}^3$

- Probe: ET3DV6 - SN1590; ConvF(7.73, 7.73, 7.73); Calibrated: 15/07/2010
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn353; Calibrated: 27/04/2010
- Phantom: Barski Industries; Type: Fiberglass Planar; Serial: 03-01
- Measurement SW: DASY4, V4.7 Build 44; Postprocessing SW: SEMCAD, V1.8 Build 171

Body-worn SAR – 1.7 cm Belt-Clip Spacing from Back of DUT to Planar Phantom

Area Scan (8x19x1): Measurement grid: $dx=15\text{mm}$, $dy=15\text{mm}$

Maximum value of SAR (measured) = 13.2 mW/g

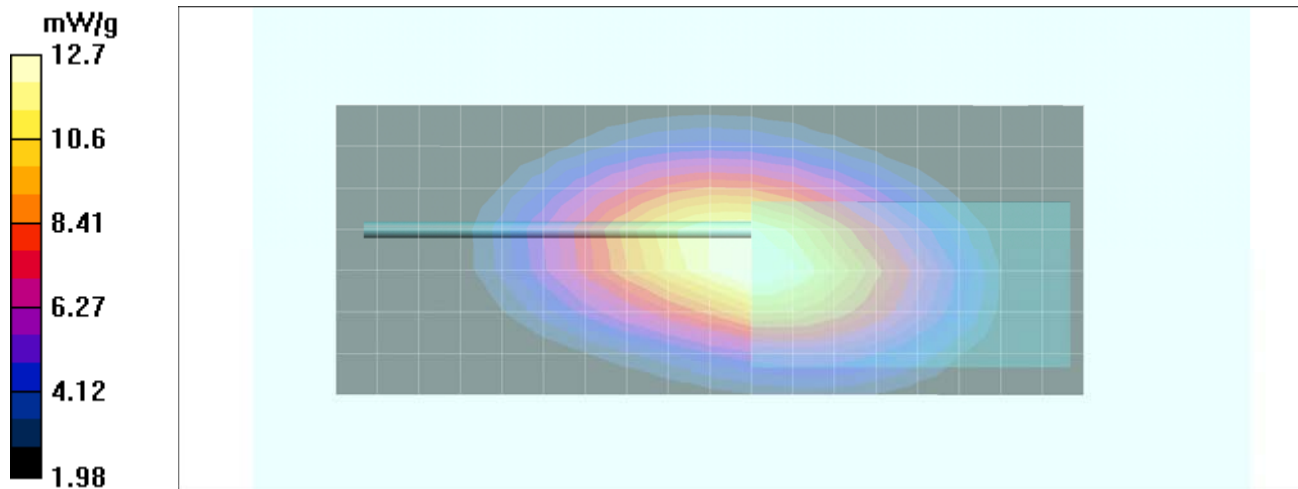
Zoom Scan (5x5x7)/Cube 0: Measurement grid: $dx=7.5\text{mm}$, $dy=7.5\text{mm}$, $dz=5\text{mm}$

Reference Value = 108.1 V/m; Power Drift = 0.189 dB

Peak SAR (extrapolated) = 17.4 W/kg

SAR(1 g) = 12.1 mW/g; SAR(10 g) = 8.69 mW/g

Maximum value of SAR (measured) = 12.7 mW/g



Applicant:	Kenwood USA Corporation	FCC ID:	ALH431000	DUT Models:	NX-320-K/K2/K3	KENWOOD
DUT Type:	Portable UHF-H PTT Radio Transceiver	Transmitter Frequency Range:		450.0 - 512.0 MHz		
2011 Celltech Labs Inc.		This document is not to be reproduced in whole or in part without the prior written permission of Celltech Labs Inc.				Page 169 of 361

	<u>Dates of Evaluation (K3)</u>	<u>Test Report Serial No.</u>	<u>Test Report Revision No.</u>	
	Jan. 4,6,26-28,31, 2011	121510ALH-T1070-S90U	Rev. 1.3 (4th Release)	
<u>Test Report Issue Date</u>	<u>Dates of Evaluation (K/K2)</u>	<u>Description of Test(s)</u>	<u>RF Exposure Category</u>	Test Lab Certificate No. 2470.01
April 14, 2011	March 30 - April 7, 2011	Specific Absorption Rate	Occupational (Controlled)	

Audio Accessory SAR Plot #35 (A35)

Date Tested: 01/31/2011

Body-worn SAR - KRA-27M2 “Antenna D” - KNB-56N 1400mAh Ni-MH “Battery c” – 484.0 MHz

DUT: Kenwood NX-320-K3; Type: Portable FM UHF-H PTT Radio Transceiver; Serial: No. 10
Audio Accessory Category 1 (Headset); Type: Noise Reduction Headset (Over-the-Head) (P/N: KHS-10-OH)
Body-worn Accessory 1: Belt-Clip (P/N: KBH-12)

Ambient Temp: 24.1°C; Fluid Temp: 23.2°C; Barometric Pressure: 101.1 kPa; Humidity: 40%

Communication System: CW

Frequency: 484 MHz; Duty Cycle: 1:1

Medium: M450 Medium parameters used (interpolated): $f = 484 \text{ MHz}$; $\sigma = 0.964 \text{ mho/m}$; $\epsilon_r = 59.4$; $\rho = 1000 \text{ kg/m}^3$

- Probe: ET3DV6 - SN1590; ConvF(7.73, 7.73, 7.73); Calibrated: 15/07/2010
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn353; Calibrated: 27/04/2010
- Phantom: Barski Industries; Type: Fiberglass Planar; Serial: 03-01
- Measurement SW: DASY4, V4.7 Build 44; Postprocessing SW: SEMCAD, V1.8 Build 171

Body-worn SAR – 1.7 cm Belt-Clip Spacing from Back of DUT to Planar Phantom

Area Scan (8x19x1): Measurement grid: $dx=15\text{mm}$, $dy=15\text{mm}$

Maximum value of SAR (measured) = 14.4 mW/g

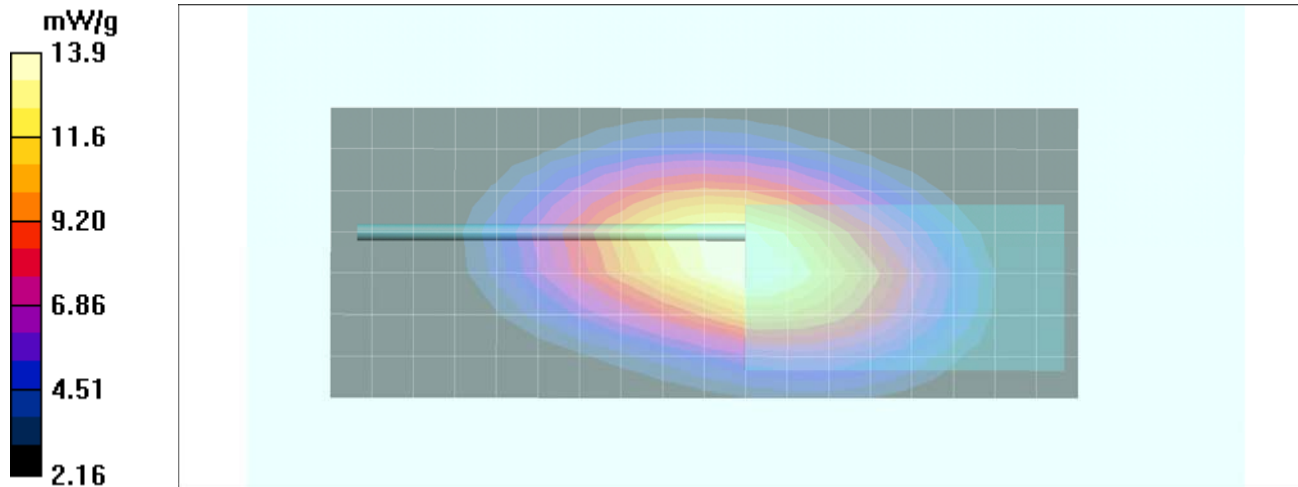
Zoom Scan (5x5x7)/Cube 0: Measurement grid: $dx=7.5\text{mm}$, $dy=7.5\text{mm}$, $dz=5\text{mm}$

Reference Value = 119.9 V/m; Power Drift = -0.511 dB

Peak SAR (extrapolated) = 19.0 W/kg

SAR(1 g) = 13.2 mW/g; SAR(10 g) = 9.56 mW/g

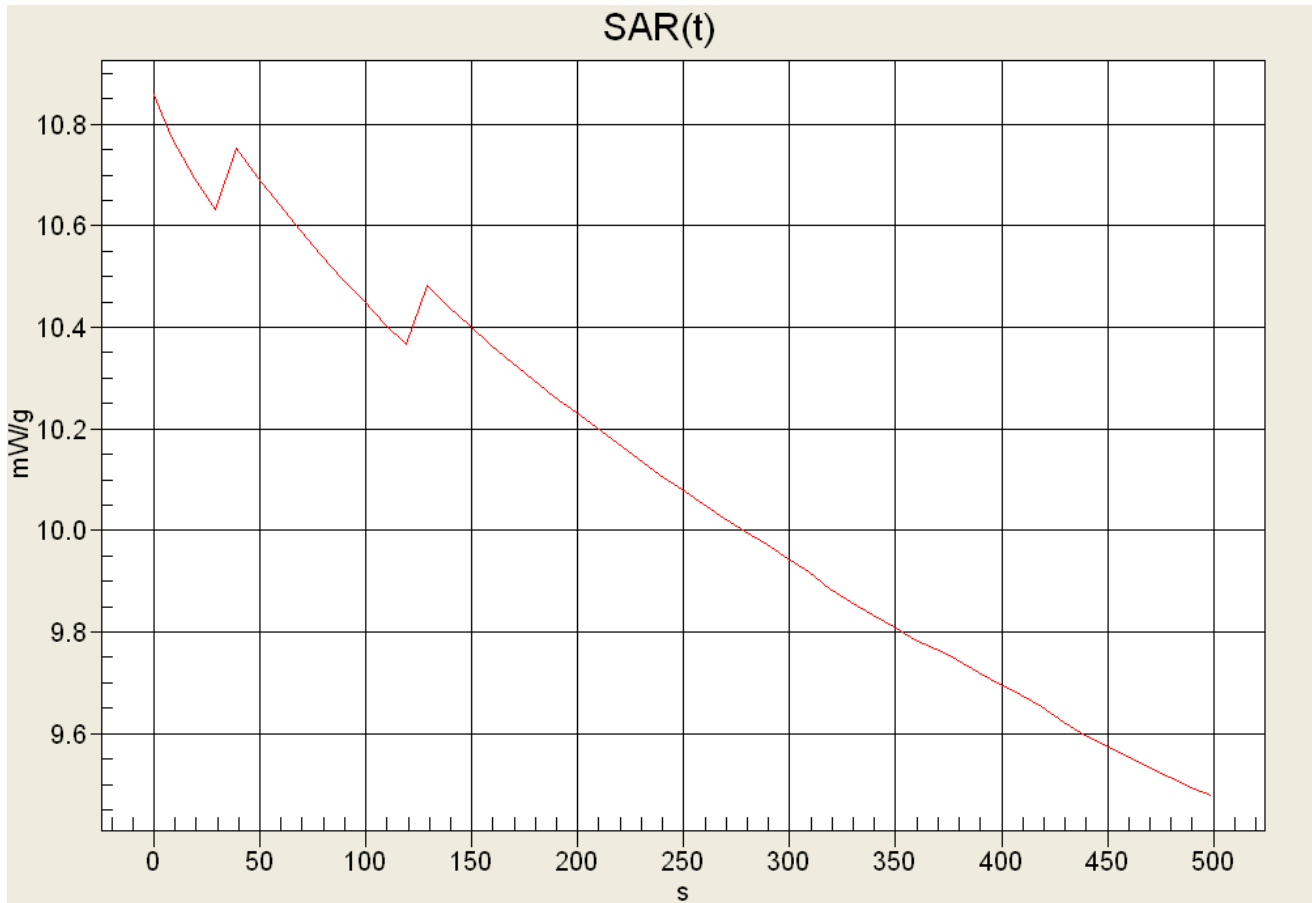
Maximum value of SAR (measured) = 13.9 mW/g



Applicant:	Kenwood USA Corporation	FCC ID:	ALH431000	DUT Models:	NX-320-K/K2/K3	KENWOOD
DUT Type:	Portable UHF-H PTT Radio Transceiver	Transmitter Frequency Range:		450.0 - 512.0 MHz		
2011 Celltech Labs Inc.		This document is not to be reproduced in whole or in part without the prior written permission of Celltech Labs Inc.				Page 170 of 361

	<u>Dates of Evaluation (K3)</u> Jan. 4,6,26-28,31, 2011	<u>Test Report Serial No.</u> 121510ALH-T1070-S90U	<u>Test Report Revision No.</u> Rev. 1.3 (4th Release)	  Test Lab Certificate No. 2470.01
	<u>Test Report Issue Date</u> April 14, 2011	<u>Dates of Evaluation (K/K2)</u> March 30 - April 7, 2011	<u>Description of Test(s)</u> Specific Absorption Rate	

SAR Droop Evaluation (SAR-versus-Time)



SAR 0s - 10.858 mW/g
SAR 340s - 9.834 mW/g (-0.430 dB)
SAR 500s - 9.479 mW/g (-0.590 dB)

Applicant:	Kenwood USA Corporation	FCC ID:	ALH431000	DUT Models:	NX-320-K/K2/K3	KENWOOD
DUT Type:	Portable UHF-H PTT Radio Transceiver	Transmitter Frequency Range:		450.0 - 512.0 MHz		
2011 Celltech Labs Inc.		This document is not to be reproduced in whole or in part without the prior written permission of Celltech Labs Inc.				Page 171 of 361