


	<u>Date(s) of Evaluation</u> Aug 20-30, Oct 4-10, 2012	<u>Test Report Serial No.</u> 081612ALH-T1191-S90V	<u>Test Report Revision No.</u> Rev. 1.0 (1st Release)	 Test Lab Certificate No. 2470.01
	<u>Test Report Issue Date</u> Oct. 22, 2012	<u>Description of Test(s)</u> Specific Absorption Rate	<u>RF Exposure Category</u> Occupational (Controlled)	

APPENDIX A - SAR MEASUREMENT PLOTS

Applicant:	Kenwood USA Corporation	FCC ID:	ALH435001	IC ID:	282D-435001	KENWOOD
DUT Type:	Portable UHF PTT Radio Transceiver	Models:	TK-3402-K2-P	406.1 - 470.0 MHz		
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	<u>Date(s) of Evaluation</u> Aug 20-30, Oct 4-10, 2012	<u>Test Report Serial No.</u> 081612ALH-T1191-S90V	<u>Test Report Revision No.</u> Rev. 1.0 (1st Release)	
	<u>Test Report Issue Date</u> Oct. 22, 2012	<u>Description of Test(s)</u> Specific Absorption Rate	<u>RF Exposure Category</u> Occupational (Controlled)	

Face SAR Plot F1

Date Tested: 08/22/2012

DUT: Kenwood TK-3402-P; Type: Portable FM UHF PTT Radio Transceiver; Serial: 0421

Program Notes: Ambient Temp: 24.0C; Fluid Temp: 23.3C; Barometric Pressure: 101.1 kPa; Humidity: 32%

Communication System: UHF 400-512

Frequency: 460 MHz; Duty Cycle: 1:1

Medium: HSL450 Medium parameters used: $f = 460 \text{ MHz}$; $\sigma = 0.85 \text{ mho/m}$; $\epsilon_r = 43.6$; $\rho = 1000 \text{ kg/m}^3$

- Probe: ET3DV6 - SN1590; ConvF(7.54, 7.54, 7.54); Calibrated: 24/04/2012
- Sensor-Surface: 4mm (Mechanical Surface Detection (Locations From Previous Scan Used))Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn353; Calibrated: 19/04/2012
- Phantom: Barski Industries; Type: Fiberglass Planar; Serial: 03-01
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 186

Area Scan (6x21x1): Measurement grid: $dx=15\text{mm}$, $dy=15\text{mm}$

Maximum value of SAR (measured) = 7.00 mW/g

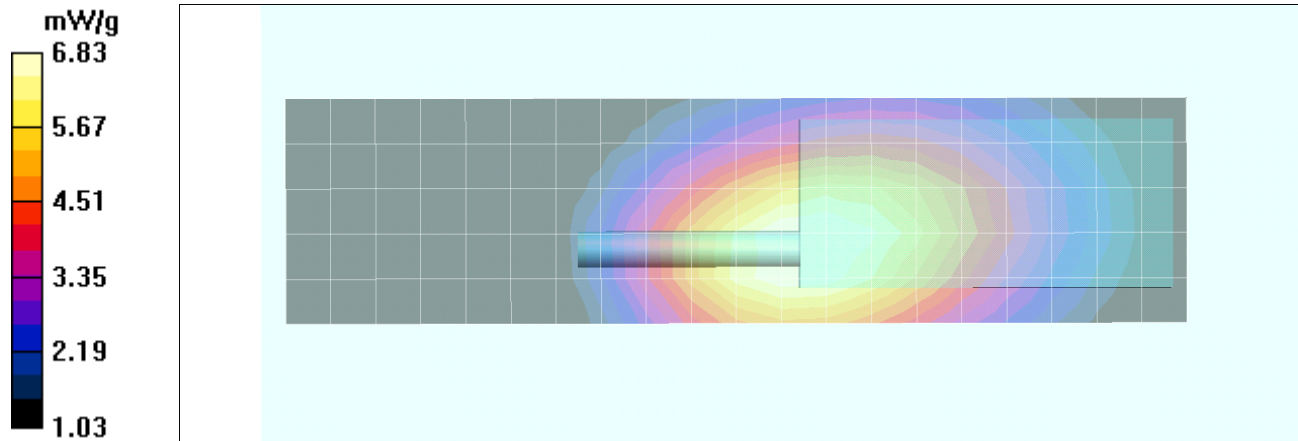
Zoom Scan (5x5x7)/Cube 0: Measurement grid: $dx=7.5\text{mm}$, $dy=7.5\text{mm}$, $dz=5\text{mm}$

Reference Value = 89.3 V/m; Power Drift = -0.507 dB

Peak SAR (extrapolated) = 9.11 W/kg

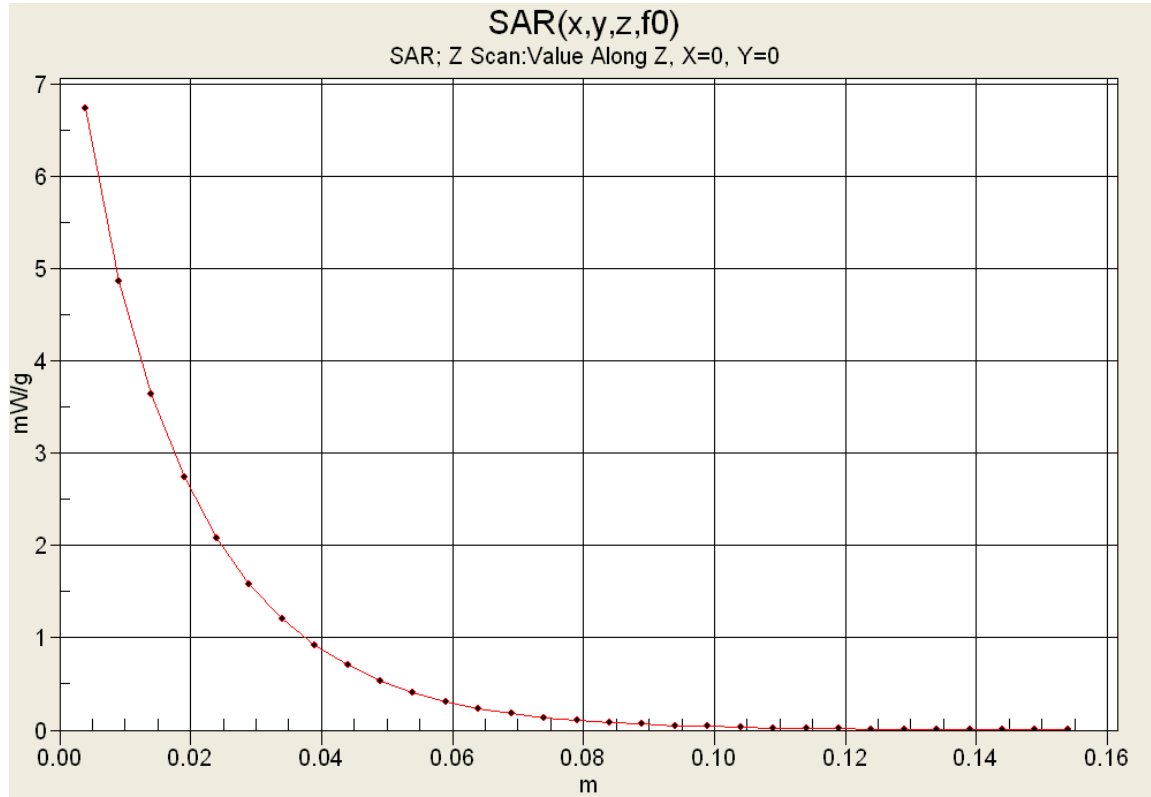
SAR(1 g) = 6.51 mW/g; SAR(10 g) = 4.74 mW/g



Maximum value of SAR (measured) = 6.83 mW/g



Applicant:	Kenwood USA Corporation	FCC ID:	ALH435001	IC ID:	282D-435001	KENWOOD
DUT Type:	Portable UHF PTT Radio Transceiver	Models:	TK-3402-K2-P	406.1 - 470.0 MHz		
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Z-Axis Scan



	<u>Date(s) of Evaluation</u> Aug 20-30, Oct 4-10, 2012	<u>Test Report Serial No.</u> 081612ALH-T1191-S90V	<u>Test Report Revision No.</u> Rev. 1.0 (1st Release)	
	<u>Test Report Issue Date</u> Oct. 22, 2012	<u>Description of Test(s)</u> Specific Absorption Rate	<u>RF Exposure Category</u> Occupational (Controlled)	

Face SAR Plot F2

Date Tested: 08/28/2012

DUT: Kenwood TK-3402-P; Type: Portable FM UHF PTT Radio Transceiver; Serial: 0421

Program Notes: Ambient Temp: 23.0C; Fluid Temp: 23.3C; Barometric Pressure: 101.1 kPa; Humidity: 35%

Communication System: UHF 400-512

Frequency: 418 MHz; Duty Cycle: 1:1

Medium: HSL450 Medium parameters used (interpolated): $f = 418 \text{ MHz}$; $\sigma = 0.83 \text{ mho/m}$; $\epsilon_r = 45.1$; $\rho = 1000 \text{ kg/m}^3$

- Probe: ET3DV6 - SN1590; ConvF(7.54, 7.54, 7.54); Calibrated: 24/04/2012
- Sensor-Surface: 4mm (Mechanical Surface Detection (Locations From Previous Scan Used))Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn353; Calibrated: 19/04/2012
- Phantom: Barski Industries; Type: Fiberglass Planar; Serial: 03-01
- Measurement SW: DASy4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 186

Area Scan (6x21x1): Measurement grid: $dx=15\text{mm}$, $dy=15\text{mm}$

Info: Interpolated medium parameters used for SAR evaluation.

Maximum value of SAR (measured) = 5.47 mW/g

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

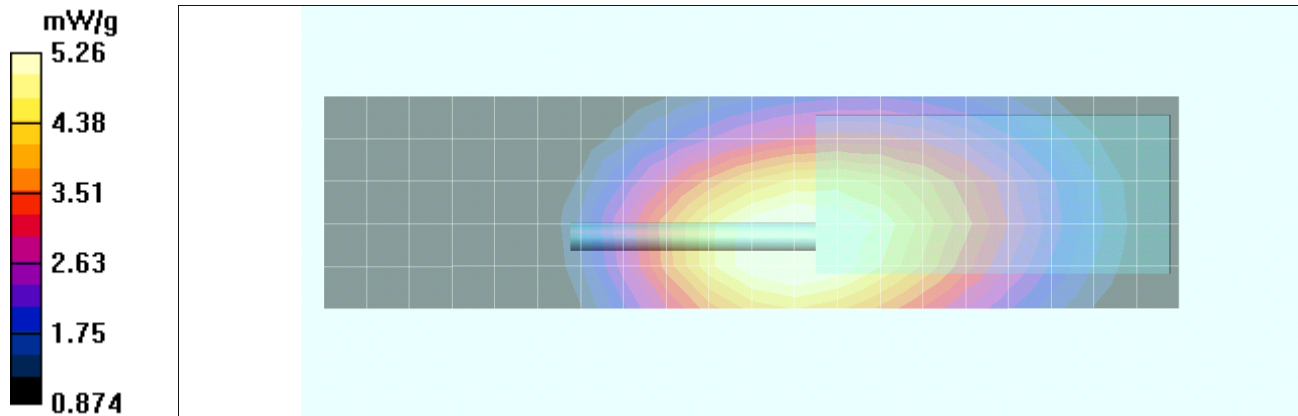
Reference Value = 81.3 V/m; Power Drift = -0.721 dB

Peak SAR (extrapolated) = 6.94 W/kg

SAR(1 g) = 5.01 mW/g; SAR(10 g) = 3.69 mW/g

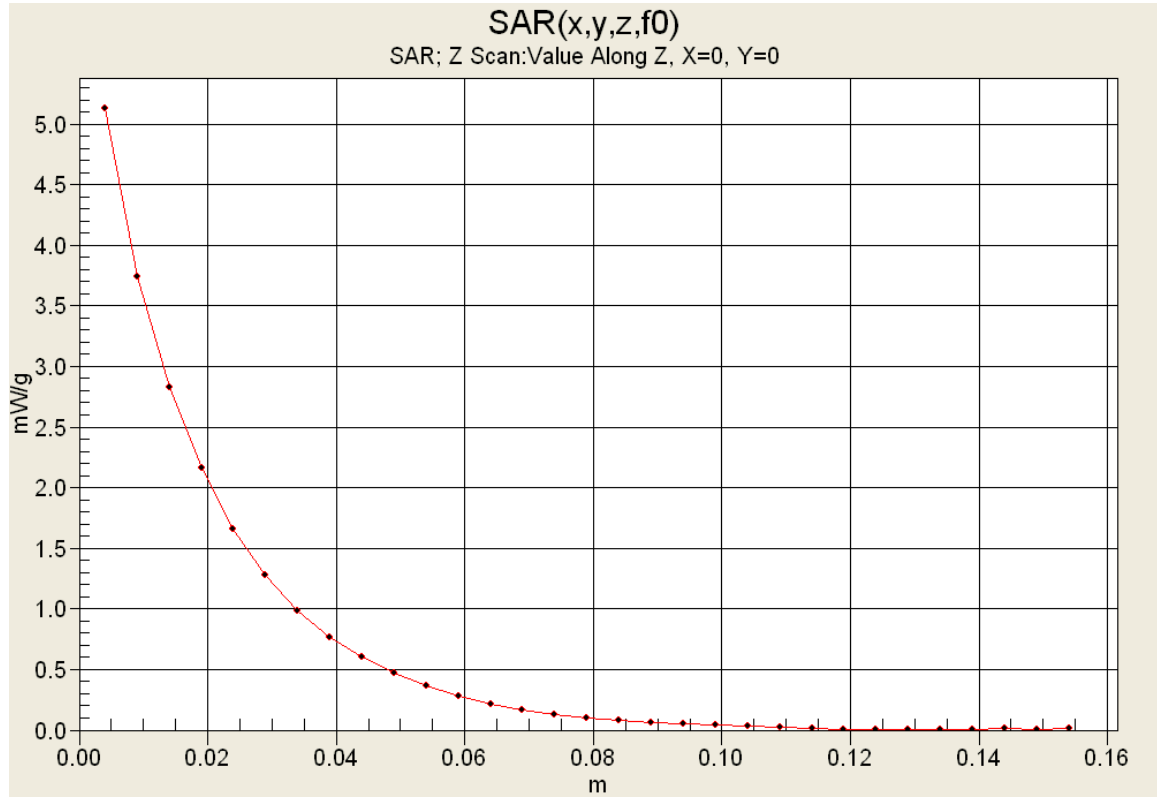
Info: Interpolated medium parameters used for SAR evaluation.



Maximum value of SAR (measured) = 5.26 mW/g



Applicant:	Kenwood USA Corporation	FCC ID:	ALH435001	IC ID:	282D-435001	KENWOOD
DUT Type:	Portable UHF PTT Radio Transceiver	Models:	TK-3402-K2-P	406.1 - 470.0 MHz		
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Z-Axis Scan



	<u>Date(s) of Evaluation</u> Aug 20-30, Oct 4-10, 2012	<u>Test Report Serial No.</u> 081612ALH-T1191-S90V	<u>Test Report Revision No.</u> Rev. 1.0 (1st Release)	
	<u>Test Report Issue Date</u> Oct. 22, 2012	<u>Description of Test(s)</u> Specific Absorption Rate	<u>RF Exposure Category</u> Occupational (Controlled)	

Face SAR Plot F3

Date Tested: 08/22/2012

DUT: Kenwood TK-3402-P; Type: Portable FM UHF PTT Radio Transceiver; Serial: 0421

Program Notes: Ambient Temp: 24.0C; Fluid Temp: 23.3C; Barometric Pressure: 101.1 kPa; Humidity: 32%

Communication System: UHF 400-512

Frequency: 455 MHz; Duty Cycle: 1:1

Medium: HSL450 Medium parameters used (interpolated): $f = 455 \text{ MHz}$; $\sigma = 0.84 \text{ mho/m}$; $\epsilon_r = 43.6$; $\rho = 1000 \text{ kg/m}^3$

- Probe: ET3DV6 - SN1590; ConvF(7.54, 7.54, 7.54); Calibrated: 24/04/2012
- Sensor-Surface: 4mm (Mechanical Surface Detection (Locations From Previous Scan Used))Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn353; Calibrated: 19/04/2012
- Phantom: Barski Industries; Type: Fiberglass Planar; Serial: 03-01
- Measurement SW: DASy4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 186

Area Scan (6x21x1): Measurement grid: $dx=15\text{mm}$, $dy=15\text{mm}$

Info: Interpolated medium parameters used for SAR evaluation.

Maximum value of SAR (measured) = 6.45 mW/g

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

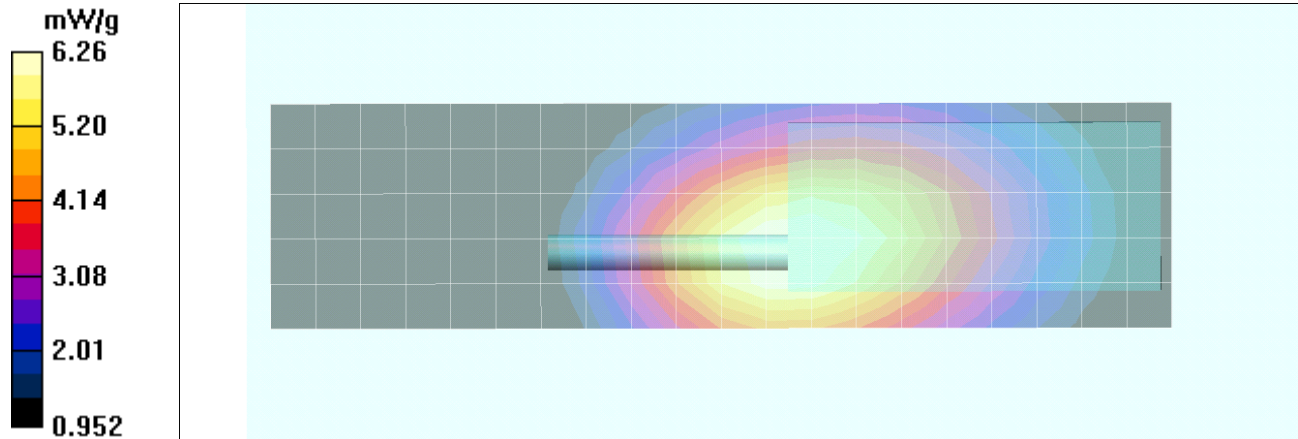
Reference Value = 86.4 V/m; Power Drift = -0.487 dB

Peak SAR (extrapolated) = 8.34 W/kg



SAR(1 g) = 5.97 mW/g; SAR(10 g) = 4.35 mW/g

Info: Interpolated medium parameters used for SAR evaluation.

Maximum value of SAR (measured) = 6.26 mW/g



Applicant:	Kenwood USA Corporation	FCC ID:	ALH435001	IC ID:	282D-435001	KENWOOD
DUT Type:	Portable UHF PTT Radio Transceiver	Models:	TK-3402-K2-P	406.1 - 470.0 MHz		
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	<u>Date(s) of Evaluation</u> Aug 20-30, Oct 4-10, 2012	<u>Test Report Serial No.</u> 081612ALH-T1191-S90V	<u>Test Report Revision No.</u> Rev. 1.0 (1st Release)	 Test Lab Certificate No. 2470.01
	<u>Test Report Issue Date</u> Oct. 22, 2012	<u>Description of Test(s)</u> Specific Absorption Rate	<u>RF Exposure Category</u> Occupational (Controlled)	

Face SAR Plot F4

Date Tested: 08/22/2012

DUT: Kenwood TK-3402-P; Type: Portable FM UHF PTT Radio Transceiver; Serial: 0421

Program Notes: Ambient Temp: 24.0C; Fluid Temp: 23.3C; Barometric Pressure: 101.1 kPa; Humidity: 32%

Communication System: UHF 400-512

Frequency: 435.4 MHz; Duty Cycle: 1:1

Medium: HSL450 Medium parameters used (interpolated): $f = 435.4 \text{ MHz}$; $\sigma = 0.826 \text{ mho/m}$; $\epsilon_r = 44.4$; $\rho = 1000 \text{ kg/m}^3$

- Probe: ET3DV6 - SN1590; ConvF(7.54, 7.54, 7.54); Calibrated: 24/04/2012
- Sensor-Surface: 4mm (Mechanical Surface Detection (Locations From Previous Scan Used))Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn353; Calibrated: 19/04/2012
- Phantom: Barski Industries; Type: Fiberglass Planar; Serial: 03-01
- Measurement SW: DASy4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 186

Area Scan (6x21x1): Measurement grid: $dx=15\text{mm}$, $dy=15\text{mm}$

Info: Interpolated medium parameters used for SAR evaluation.

Maximum value of SAR (measured) = 4.42 mW/g

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

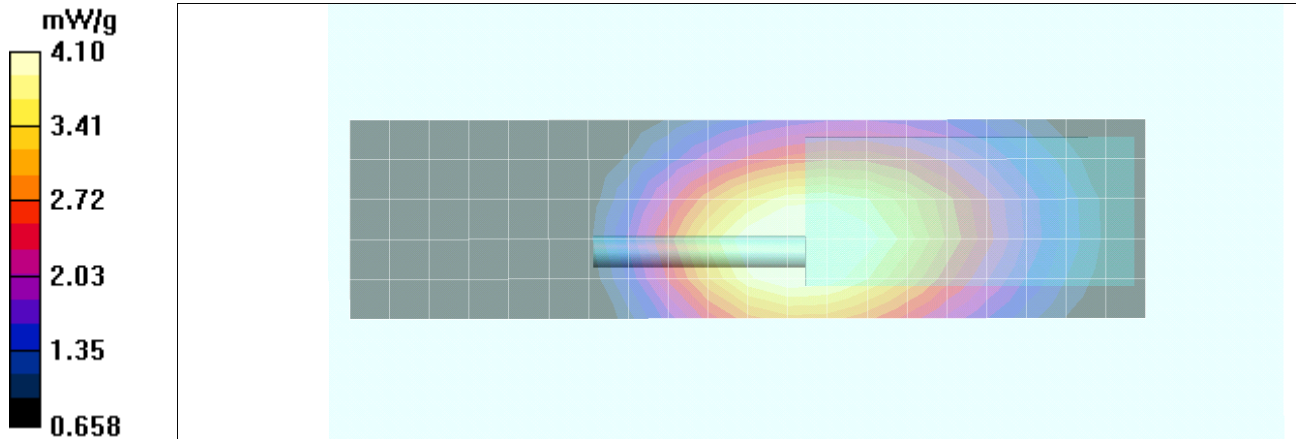
Reference Value = 75.0 V/m; Power Drift = -0.861 dB

Peak SAR (extrapolated) = 5.44 W/kg



SAR(1 g) = 3.92 mW/g; SAR(10 g) = 2.87 mW/g

Info: Interpolated medium parameters used for SAR evaluation.

Maximum value of SAR (measured) = 4.10 mW/g



Applicant:	Kenwood USA Corporation	FCC ID:	ALH435001	IC ID:	282D-435001	KENWOOD
DUT Type:	Portable UHF PTT Radio Transceiver	Models:	TK-3402-K2-P	406.1 - 470.0 MHz		
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	<u>Date(s) of Evaluation</u> Aug 20-30, Oct 4-10, 2012	<u>Test Report Serial No.</u> 081612ALH-T1191-S90V	<u>Test Report Revision No.</u> Rev. 1.0 (1st Release)	
	<u>Test Report Issue Date</u> Oct. 22, 2012	<u>Description of Test(s)</u> Specific Absorption Rate	<u>RF Exposure Category</u> Occupational (Controlled)	

Face SAR Plot F5

Date Tested: 08/22/2012

DUT: Kenwood TK-3402-P; Type: Portable FM UHF PTT Radio Transceiver; Serial: 0421

Program Notes: Ambient Temp: 24.0C; Fluid Temp: 23.3C; Barometric Pressure: 101.1 kPa; Humidity: 32%

Communication System: UHF 400-512

Frequency: 455 MHz; Duty Cycle: 1:1

Medium: HSL450 Medium parameters used (interpolated): $f = 455 \text{ MHz}$; $\sigma = 0.84 \text{ mho/m}$; $\epsilon_r = 43.6$; $\rho = 1000 \text{ kg/m}^3$

- Probe: ET3DV6 - SN1590; ConvF(7.54, 7.54, 7.54); Calibrated: 24/04/2012
- Sensor-Surface: 4mm (Mechanical Surface Detection (Locations From Previous Scan Used))Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn353; Calibrated: 19/04/2012
- Phantom: Barski Industries; Type: Fiberglass Planar; Serial: 03-01
- Measurement SW: DASy4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 186

Area Scan (6x21x1): Measurement grid: $dx=15\text{mm}$, $dy=15\text{mm}$

Info: Interpolated medium parameters used for SAR evaluation.

Maximum value of SAR (measured) = 7.05 mW/g

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

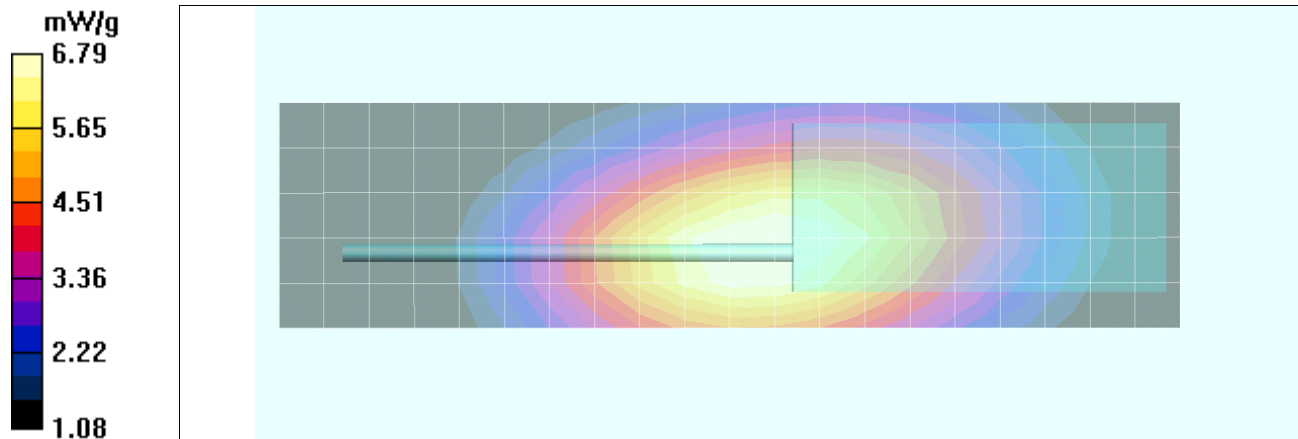
Reference Value = 91.0 V/m; Power Drift = -0.535 dB

Peak SAR (extrapolated) = 9.02 W/kg



SAR(1 g) = 6.46 mW/g; SAR(10 g) = 4.71 mW/g

Info: Interpolated medium parameters used for SAR evaluation.

Maximum value of SAR (measured) = 6.79 mW/g



Applicant:	Kenwood USA Corporation	FCC ID:	ALH435001	IC ID:	282D-435001	KENWOOD
DUT Type:	Portable UHF PTT Radio Transceiver	Models:	TK-3402-K2-P	406.1 - 470.0 MHz		
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	<u>Date(s) of Evaluation</u> Aug 20-30, Oct 4-10, 2012	<u>Test Report Serial No.</u> 081612ALH-T1191-S90V	<u>Test Report Revision No.</u> Rev. 1.0 (1st Release)	
	<u>Test Report Issue Date</u> Oct. 22, 2012	<u>Description of Test(s)</u> Specific Absorption Rate	<u>RF Exposure Category</u> Occupational (Controlled)	

Face SAR Plot F6

Date Tested: 08/22/2012

DUT: Kenwood TK-3402-P; Type: Portable FM UHF PTT Radio Transceiver; Serial: 0421

Program Notes: Ambient Temp: 24.0C; Fluid Temp: 23.3C; Barometric Pressure: 101.1 kPa; Humidity: 32%

Communication System: UHF 400-512

Frequency: 435.4 MHz; Duty Cycle: 1:1

Medium: HSL450 Medium parameters used (interpolated): $f = 435.4 \text{ MHz}$; $\sigma = 0.826 \text{ mho/m}$; $\epsilon_r = 44.4$; $\rho = 1000 \text{ kg/m}^3$

- Probe: ET3DV6 - SN1590; ConvF(7.54, 7.54, 7.54); Calibrated: 24/04/2012
- Sensor-Surface: 4mm (Mechanical Surface Detection (Locations From Previous Scan Used))Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn353; Calibrated: 19/04/2012
- Phantom: Barski Industries; Type: Fiberglass Planar; Serial: 03-01
- Measurement SW: DASy4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 186

Area Scan (6x21x1): Measurement grid: $dx=15\text{mm}$, $dy=15\text{mm}$

Info: Interpolated medium parameters used for SAR evaluation.

Maximum value of SAR (measured) = 5.20 mW/g

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

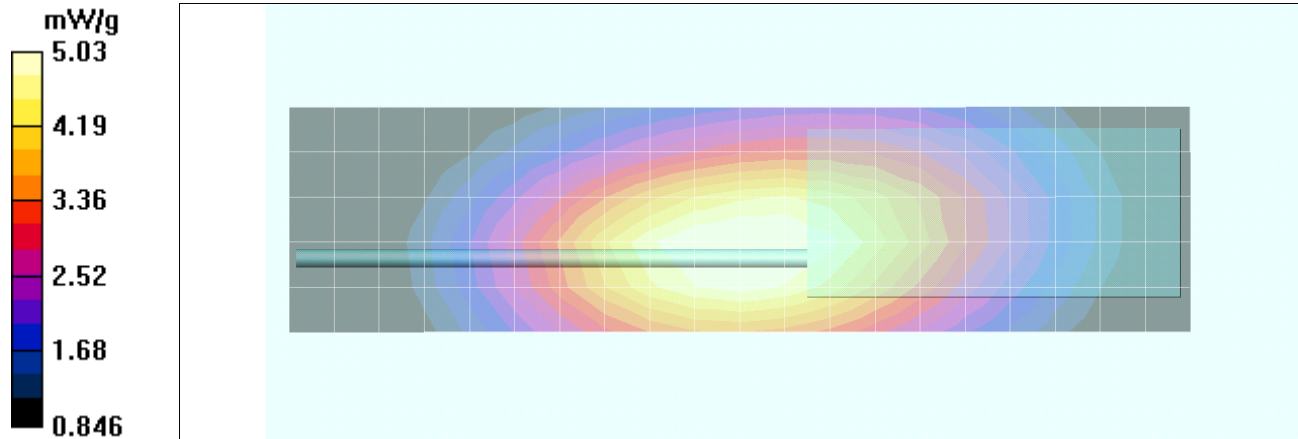
Reference Value = 78.4 V/m; Power Drift = -0.460 dB

Peak SAR (extrapolated) = 6.64 W/kg



SAR(1 g) = 4.79 mW/g; SAR(10 g) = 3.52 mW/g

Info: Interpolated medium parameters used for SAR evaluation.

Maximum value of SAR (measured) = 5.03 mW/g



Applicant:	Kenwood USA Corporation	FCC ID:	ALH435001	IC ID:	282D-435001	KENWOOD
DUT Type:	Portable UHF PTT Radio Transceiver	Models:	TK-3402-K2-P	406.1 - 470.0 MHz		
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	<u>Date(s) of Evaluation</u> Aug 20-30, Oct 4-10, 2012	<u>Test Report Serial No.</u> 081612ALH-T1191-S90V	<u>Test Report Revision No.</u> Rev. 1.0 (1st Release)	 Test Lab Certificate No. 2470.01
	<u>Test Report Issue Date</u> Oct. 22, 2012	<u>Description of Test(s)</u> Specific Absorption Rate	<u>RF Exposure Category</u> Occupational (Controlled)	

Face SAR Plot F7

Date Tested: 10/05/2012

DUT: Kenwood TK-3402-P; Type: Portable FM UHF PTT Radio Transceiver; Serial: 0421

Program Notes: Ambient Temp: 23.0C; Fluid Temp: 21.4C; Barometric Pressure: 101.1 kPa; Humidity: 30%

Communication System: UHF 400-512

Frequency: 455 MHz; Duty Cycle: 1:1

Medium: HSL450 Medium parameters used (interpolated): $f = 455 \text{ MHz}$; $\sigma = 0.865 \text{ mho/m}$; $\epsilon_r = 45.1$; $\rho = 1000 \text{ kg/m}^3$

- Probe: ET3DV6 - SN1590; ConvF(7.54, 7.54, 7.54); Calibrated: 24/04/2012
- Sensor-Surface: 4mm (Mechanical Surface Detection (Locations From Previous Scan Used))Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn353; Calibrated: 19/04/2012
- Phantom: Barski Industries; Type: Fiberglass Planar; Serial: 03-01
- Measurement SW: DASy4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 186

Area Scan (6x14x1): Measurement grid: $dx=15\text{mm}$, $dy=15\text{mm}$

Info: Interpolated medium parameters used for SAR evaluation.

Maximum value of SAR (measured) = 4.75 mW/g

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

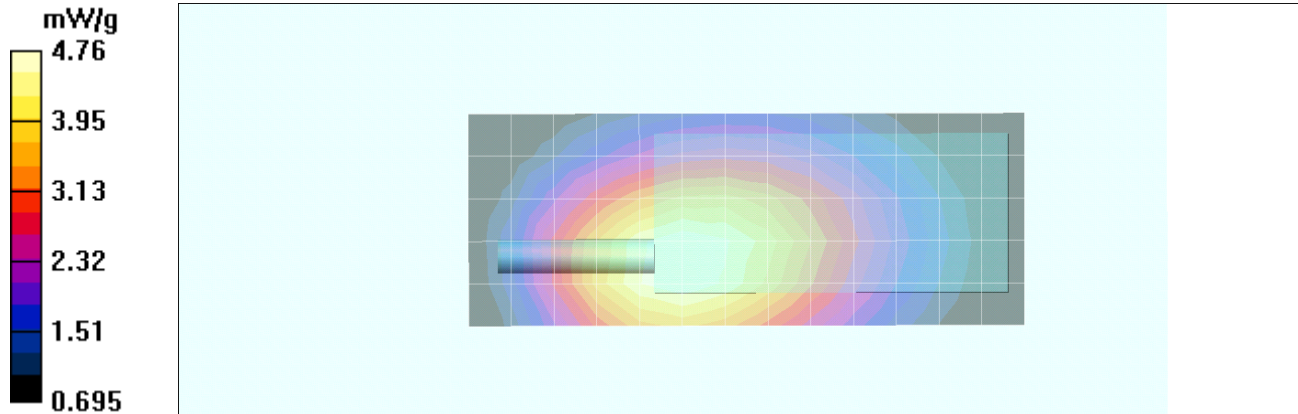
Reference Value = 70.2 V/m; Power Drift = -0.356 dB

Peak SAR (extrapolated) = 6.29 W/kg

SAR(1 g) = 4.52 mW/g; SAR(10 g) = 3.3 mW/g

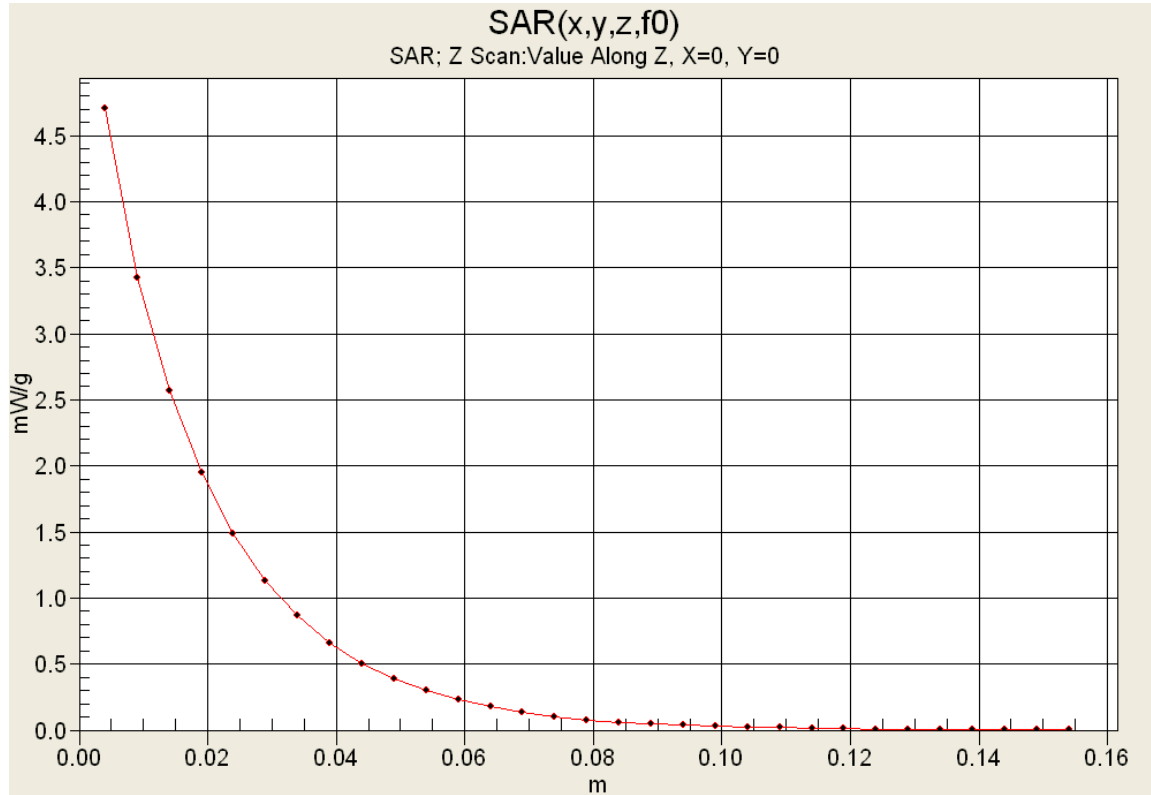
Info: Interpolated medium parameters used for SAR evaluation.



Maximum value of SAR (measured) = 4.76 mW/g



Applicant:	Kenwood USA Corporation	FCC ID:	ALH435001	IC ID:	282D-435001	KENWOOD
DUT Type:	Portable UHF PTT Radio Transceiver	Models:	TK-3402-K2-P	406.1 - 470.0 MHz		
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Z-Axis Scan



	<u>Date(s) of Evaluation</u> Aug 20-30, Oct 4-10, 2012	<u>Test Report Serial No.</u> 081612ALH-T1191-S90V	<u>Test Report Revision No.</u> Rev. 1.0 (1st Release)	
	<u>Test Report Issue Date</u> Oct. 22, 2012	<u>Description of Test(s)</u> Specific Absorption Rate	<u>RF Exposure Category</u> Occupational (Controlled)	

Face SAR Plot F8

Date Tested: 10/05/2012

DUT: Kenwood TK-3402-P; Type: Portable FM UHF PTT Radio Transceiver; Serial: 0421

Program Notes: Ambient Temp: 23.0C; Fluid Temp: 21.4C; Barometric Pressure: 101.1 kPa; Humidity: 30%

Communication System: UHF 400-512

Frequency: 435.4 MHz; Duty Cycle: 1:1

Medium: HSL450 Medium parameters used (interpolated): $f = 435.4$ MHz; $\sigma = 0.85$ mho/m; $\epsilon_r = 45.4$; $\rho = 1000$ kg/m³

- Probe: ET3DV6 - SN1590; ConvF(7.54, 7.54, 7.54); Calibrated: 24/04/2012
- Sensor-Surface: 4mm (Mechanical Surface Detection (Locations From Previous Scan Used))Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn353; Calibrated: 19/04/2012
- Phantom: Barski Industries; Type: Fiberglass Planar; Serial: 03-01
- Measurement SW: DASy4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 186

Area Scan (6x14x1): Measurement grid: dx=15mm, dy=15mm

Info: Interpolated medium parameters used for SAR evaluation.

Maximum value of SAR (measured) = 4.06 mW/g

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

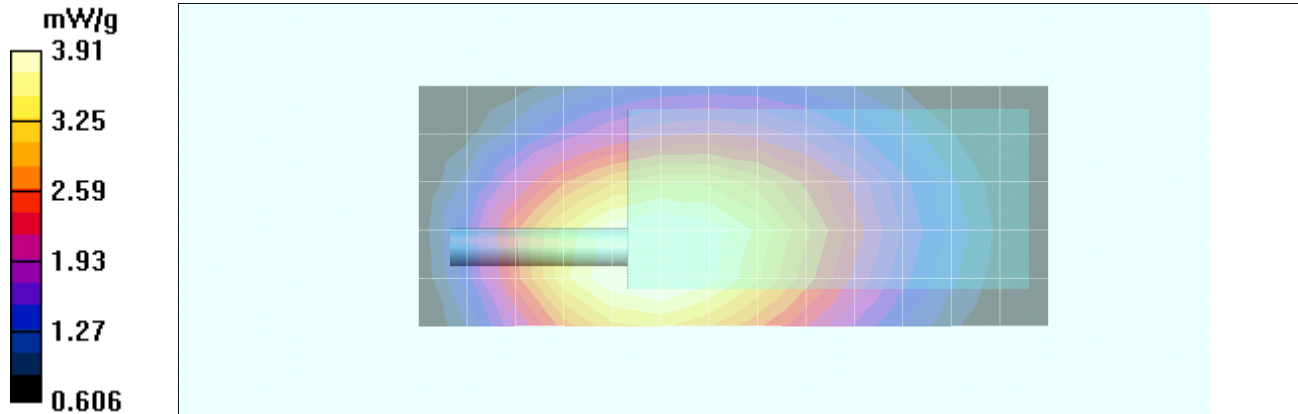
Reference Value = 66.1 V/m; Power Drift = -0.569 dB

Peak SAR (extrapolated) = 5.20 W/kg



SAR(1 g) = 3.73 mW/g; SAR(10 g) = 2.73 mW/g

Info: Interpolated medium parameters used for SAR evaluation.

Maximum value of SAR (measured) = 3.91 mW/g



Applicant:	Kenwood USA Corporation	FCC ID:	ALH435001	IC ID:	282D-435001	KENWOOD
DUT Type:	Portable UHF PTT Radio Transceiver	Models:	TK-3402-K2-P	406.1 - 470.0 MHz		
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	<u>Date(s) of Evaluation</u> Aug 20-30, Oct 4-10, 2012	<u>Test Report Serial No.</u> 081612ALH-T1191-S90V	<u>Test Report Revision No.</u> Rev. 1.0 (1st Release)	 Test Lab Certificate No. 2470.01
	<u>Test Report Issue Date</u> Oct. 22, 2012	<u>Description of Test(s)</u> Specific Absorption Rate	<u>RF Exposure Category</u> Occupational (Controlled)	

Face SAR Plot F9

Date Tested: 08/28/2012

DUT: Kenwood TK-3402-P; Type: Portable FM UHF PTT Radio Transceiver; Serial: 0421

Program Notes: Ambient Temp: 23.0C; Fluid Temp: 23.3C; Barometric Pressure: 101.1 kPa; Humidity: 35%

Communication System: UHF 400-512

Frequency: 460 MHz; Duty Cycle: 1:1

Medium: HSL450 Medium parameters used: $f = 460 \text{ MHz}$; $\sigma = 0.86 \text{ mho/m}$; $\epsilon_r = 43.9$; $\rho = 1000 \text{ kg/m}^3$

- Probe: ET3DV6 - SN1590; ConvF(7.54, 7.54, 7.54); Calibrated: 24/04/2012
- Sensor-Surface: 4mm (Mechanical Surface Detection (Locations From Previous Scan Used))Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn353; Calibrated: 19/04/2012
- Phantom: Barski Industries; Type: Fiberglass Planar; Serial: 03-01
- Measurement SW: DAS4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 186

Area Scan (6x21x1): Measurement grid: $dx=15\text{mm}$, $dy=15\text{mm}$

Maximum value of SAR (measured) = 1.97 mW/g

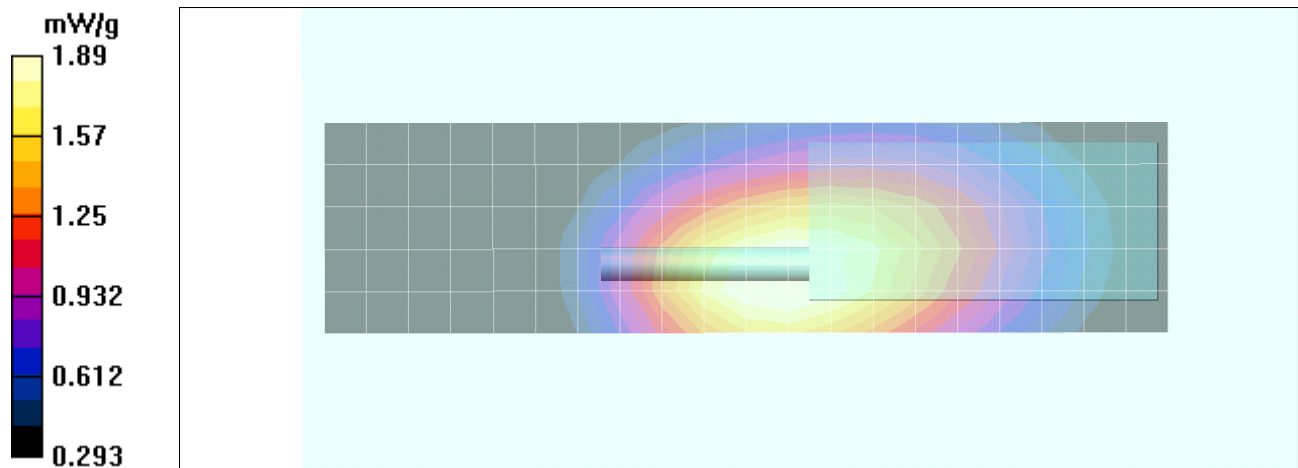
Zoom Scan (5x5x7)/Cube 0: Measurement grid: $dx=7.5\text{mm}$, $dy=7.5\text{mm}$, $dz=5\text{mm}$

Reference Value = 45.5 V/m; Power Drift = -0.458 dB



Peak SAR (extrapolated) = 2.50 W/kg

SAR(1 g) = 1.8 mW/g; SAR(10 g) = 1.31 mW/g

Maximum value of SAR (measured) = 1.89 mW/g



Applicant:	Kenwood USA Corporation	FCC ID:	ALH435001	IC ID:	282D-435001	KENWOOD
DUT Type:	Portable UHF PTT Radio Transceiver	Models:	TK-3402-K2-P	406.1 - 470.0 MHz		
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	<u>Date(s) of Evaluation</u> Aug 20-30, Oct 4-10, 2012	<u>Test Report Serial No.</u> 081612ALH-T1191-S90V	<u>Test Report Revision No.</u> Rev. 1.0 (1st Release)	
	<u>Test Report Issue Date</u> Oct. 22, 2012	<u>Description of Test(s)</u> Specific Absorption Rate	<u>RF Exposure Category</u> Occupational (Controlled)	

Body SAR Plot B1

Date Tested: 08/29/2012

DUT: Kenwood TK-3402-P; Type: Portable FM UHF PTT Radio Transceiver; Serial: 0421

Program Notes: Ambient Temp: 23.0C; Fluid Temp: 23.6C; Barometric Pressure: 101.1 kPa; Humidity: 30%

Communication System: UHF 400-512

Frequency: 450 MHz; Duty Cycle: 1:1

Medium: M450 Medium parameters used: $f = 450 \text{ MHz}$; $\sigma = 0.93 \text{ mho/m}$; $\epsilon_r = 55.9$; $\rho = 1000 \text{ kg/m}^3$

- Probe: ET3DV6 - SN1590; ConvF(7.93, 7.93, 7.93); Calibrated: 24/04/2012
- Sensor-Surface: 4mm (Mechanical Surface Detection (Locations From Previous Scan Used))Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn353; Calibrated: 19/04/2012
- Phantom: Barski Industries; Type: Fiberglass Planar; Serial: 03-01
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 186

Area Scan (6x21x1): Measurement grid: $dx=15\text{mm}$, $dy=15\text{mm}$

Maximum value of SAR (measured) = 8.93 mW/g

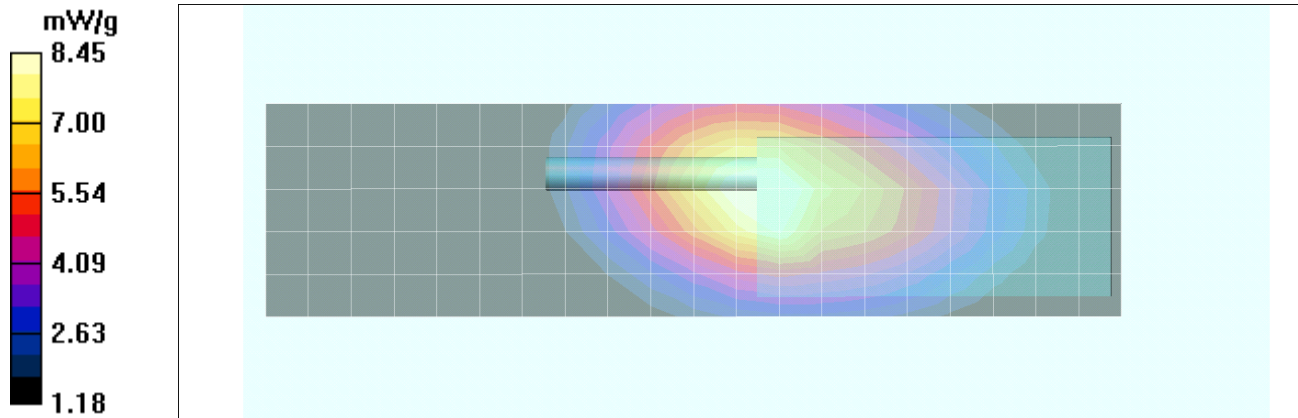
Zoom Scan (5x5x7)/Cube 0: Measurement grid: $dx=7.5\text{mm}$, $dy=7.5\text{mm}$, $dz=5\text{mm}$

Reference Value = 96.7 V/m; Power Drift = -0.356 dB



Peak SAR (extrapolated) = 12.0 W/kg

SAR(1 g) = 8.01 mW/g; SAR(10 g) = 5.66 mW/g

Maximum value of SAR (measured) = 8.45 mW/g



Applicant:	Kenwood USA Corporation	FCC ID:	ALH435001	IC ID:	282D-435001	KENWOOD
DUT Type:	Portable UHF PTT Radio Transceiver	Models:	TK-3402-K2-P	406.1 - 470.0 MHz		
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	<u>Date(s) of Evaluation</u> Aug 20-30, Oct 4-10, 2012	<u>Test Report Serial No.</u> 081612ALH-T1191-S90V	<u>Test Report Revision No.</u> Rev. 1.0 (1st Release)	 Test Lab Certificate No. 2470.01
	<u>Test Report Issue Date</u> Oct. 22, 2012	<u>Description of Test(s)</u> Specific Absorption Rate	<u>RF Exposure Category</u> Occupational (Controlled)	

Body SAR Plot B2

Date Tested: 08/20/2012

DUT: Kenwood TK-3402-P; Type: Portable FM UHF PTT Radio Transceiver; Serial: 0421

Program Notes: Ambient Temp: 24.0C; Fluid Temp: 22.8C; Barometric Pressure: 101.1 kPa; Humidity: 31%

Communication System: UHF 400-512

Frequency: 460 MHz; Duty Cycle: 1:1

Medium: M450 Medium parameters used: $f = 460 \text{ MHz}$; $\sigma = 0.94 \text{ mho/m}$; $\epsilon_r = 56.4$; $\rho = 1000 \text{ kg/m}^3$

- Probe: ET3DV6 - SN1590; ConvF(7.93, 7.93, 7.93); Calibrated: 24/04/2012
- Sensor-Surface: 4mm (Mechanical Surface Detection (Locations From Previous Scan Used))Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn353; Calibrated: 19/04/2012
- Phantom: Barski Industries; Type: Fiberglass Planar; Serial: 03-01
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 186

Area Scan (6x20x1): Measurement grid: $dx=15\text{mm}$, $dy=15\text{mm}$

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

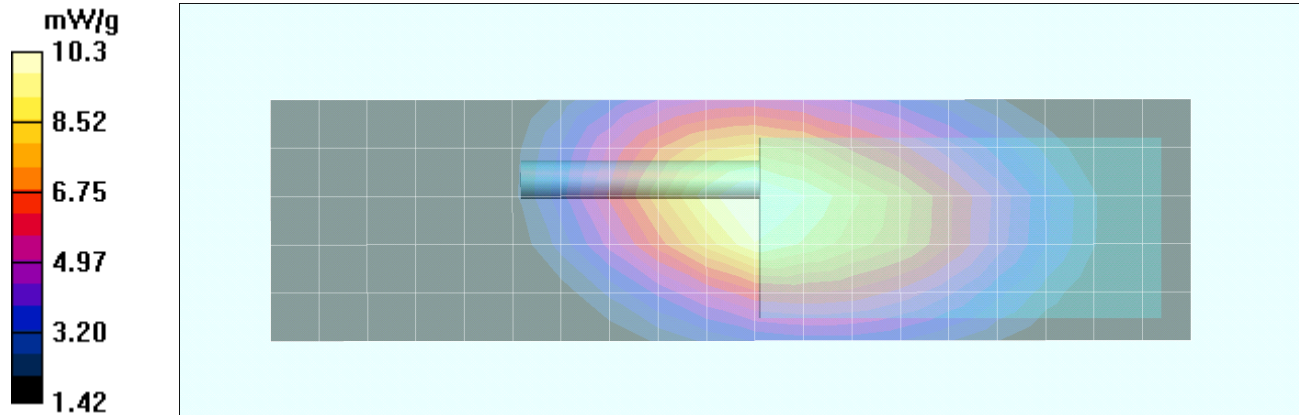
Zoom Scan (5x5x7)/Cube 0: Measurement grid: $dx=7.5\text{mm}$, $dy=7.5\text{mm}$, $dz=5\text{mm}$

Reference Value = 109.0 V/m; Power Drift = -0.424 dB



Peak SAR (extrapolated) = 14.7 W/kg

SAR(1 g) = 9.85 mW/g; SAR(10 g) = 6.97 mW/g

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



Applicant:	Kenwood USA Corporation	FCC ID:	ALH435001	IC ID:	282D-435001	KENWOOD
DUT Type:	Portable UHF PTT Radio Transceiver	Models:	TK-3402-K2-P	406.1 - 470.0 MHz		
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	<u>Date(s) of Evaluation</u> Aug 20-30, Oct 4-10, 2012	<u>Test Report Serial No.</u> 081612ALH-T1191-S90V	<u>Test Report Revision No.</u> Rev. 1.0 (1st Release)	 Test Lab Certificate No. 2470.01
	<u>Test Report Issue Date</u> Oct. 22, 2012	<u>Description of Test(s)</u> Specific Absorption Rate	<u>RF Exposure Category</u> Occupational (Controlled)	

Body SAR Plot B3

Date Tested: 08/20/2012

DUT: Kenwood TK-3402-P; Type: Portable FM UHF PTT Radio Transceiver; Serial: 0421

Program Notes: Ambient Temp: 24.0C; Fluid Temp: 22.8C; Barometric Pressure: 101.1 kPa; Humidity: 31%

Communication System: UHF 400-512

Frequency: 470 MHz; Duty Cycle: 1:1

Medium: M450 Medium parameters used: $f = 470 \text{ MHz}$; $\sigma = 0.95 \text{ mho/m}$; $\epsilon_r = 55.8$; $\rho = 1000 \text{ kg/m}^3$

- Probe: ET3DV6 - SN1590; ConvF(7.93, 7.93, 7.93); Calibrated: 24/04/2012
- Sensor-Surface: 4mm (Mechanical Surface Detection (Locations From Previous Scan Used))Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn353; Calibrated: 19/04/2012
- Phantom: Barski Industries; Type: Fiberglass Planar; Serial: 03-01
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 186

Area Scan (6x20x1): Measurement grid: $dx=15\text{mm}$, $dy=15\text{mm}$

Maximum value of SAR (measured) = 10.8 mW/g

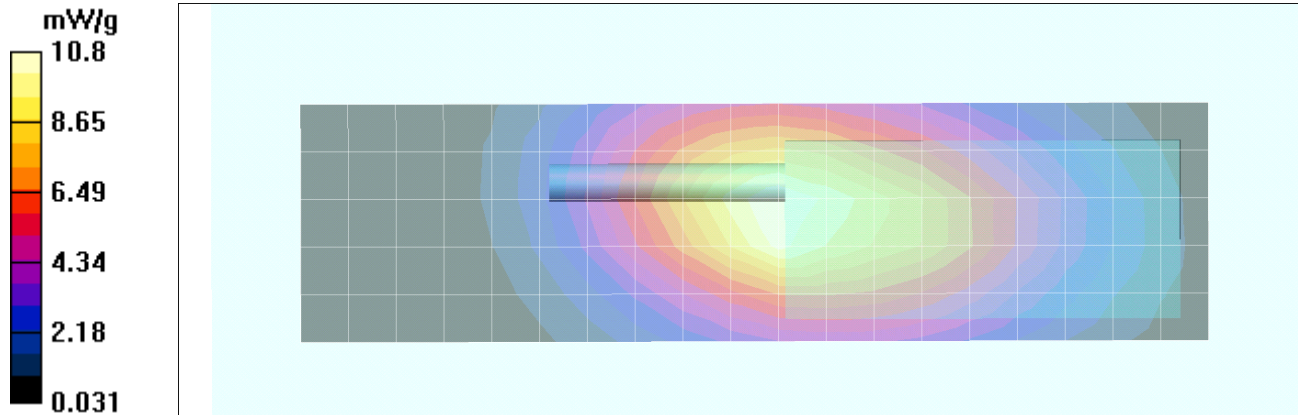
Zoom Scan (5x5x7)/Cube 0: Measurement grid: $dx=7.5\text{mm}$, $dy=7.5\text{mm}$, $dz=5\text{mm}$

Reference Value = 110.4 V/m; Power Drift = -0.423 dB

Peak SAR (extrapolated) = 15.1 W/kg

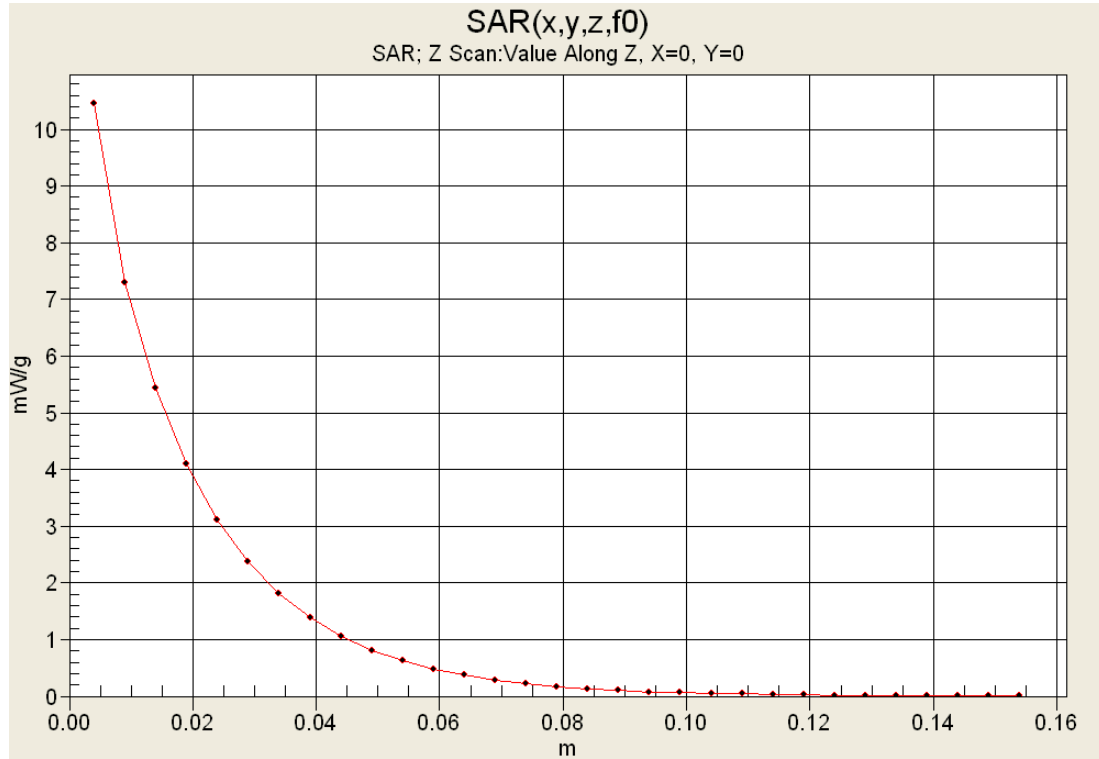
SAR(1 g) = 10.1 mW/g; SAR(10 g) = 7.16 mW/g

Maximum value of SAR (measured) = 10.7 mW/g

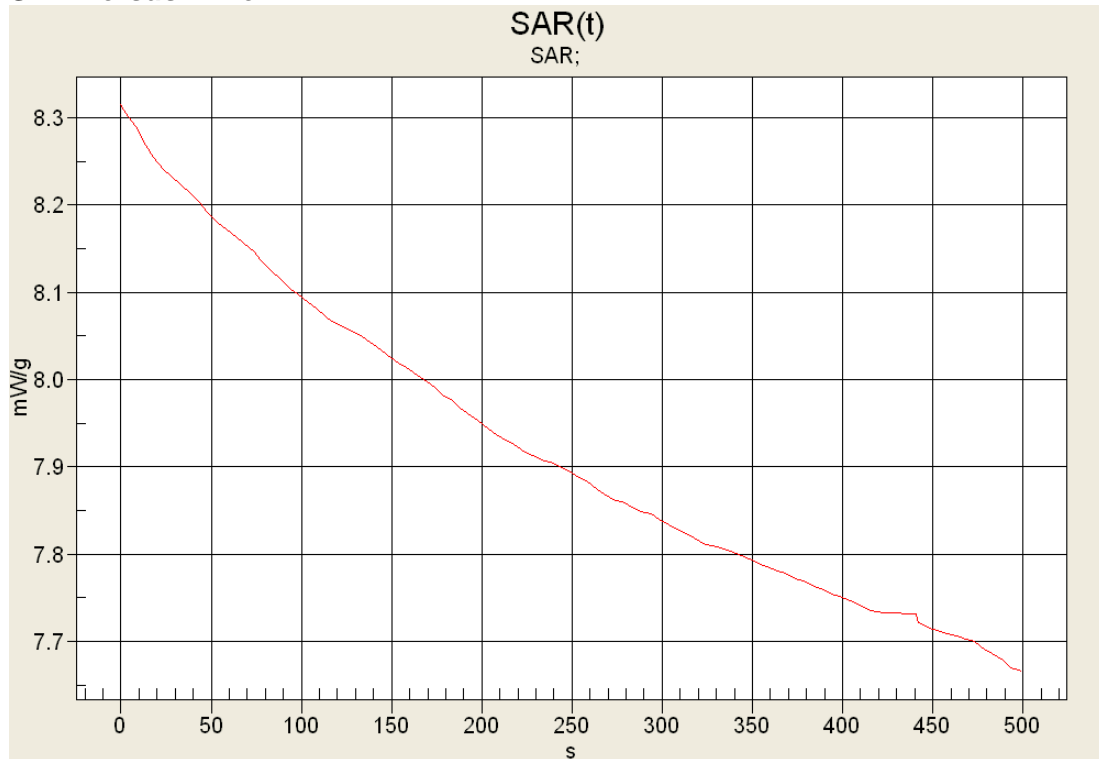




Applicant:	Kenwood USA Corporation	FCC ID:	ALH435001	IC ID:	282D-435001	KENWOOD
DUT Type:	Portable UHF PTT Radio Transceiver	Models:	TK-3402-K2-P	406.1 - 470.0 MHz		
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Z-Axis Scan



SAR-Versus-Time



	<u>Date(s) of Evaluation</u> Aug 20-30, Oct 4-10, 2012	<u>Test Report Serial No.</u> 081612ALH-T1191-S90V	<u>Test Report Revision No.</u> Rev. 1.0 (1st Release)	 Test Lab Certificate No. 2470.01
	<u>Test Report Issue Date</u> Oct. 22, 2012	<u>Description of Test(s)</u> Specific Absorption Rate	<u>RF Exposure Category</u> Occupational (Controlled)	

Body SAR Plot B4

Date Tested: 08/29/2012

DUT: Kenwood TK-3402-P; Type: Portable FM UHF PTT Radio Transceiver; Serial: 0421

Program Notes: Ambient Temp: 23.0C; Fluid Temp: 23.6C; Barometric Pressure: 101.1 kPa; Humidity: 30%

Communication System: UHF 400-512

Frequency: 418 MHz; Duty Cycle: 1:1

Medium: M450 Medium parameters used (interpolated): $f = 418 \text{ MHz}$; $\sigma = 0.896 \text{ mho/m}$; $\epsilon_r = 56.3$; $\rho = 1000 \text{ kg/m}^3$

- Probe: ET3DV6 - SN1590; ConvF(7.93, 7.93, 7.93); Calibrated: 24/04/2012
- Sensor-Surface: 4mm (Mechanical Surface Detection (Locations From Previous Scan Used))Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn353; Calibrated: 19/04/2012
- Phantom: Barski Industries; Type: Fiberglass Planar; Serial: 03-01
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 186

Area Scan (6x21x1): Measurement grid: $dx=15\text{mm}$, $dy=15\text{mm}$

Info: Interpolated medium parameters used for SAR evaluation.

Maximum value of SAR (measured) = 7.10 mW/g

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

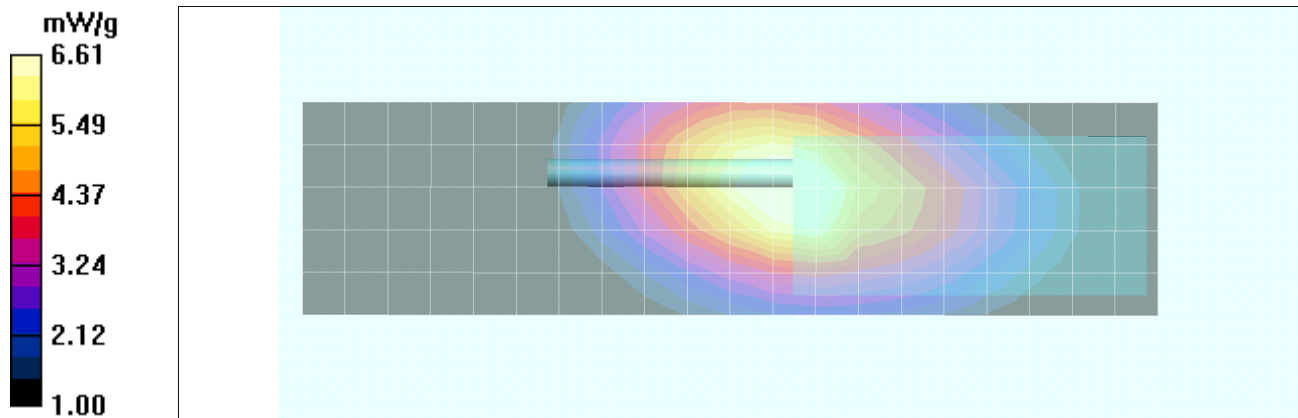
Reference Value = 90.7 V/m; Power Drift = -0.737 dB

Peak SAR (extrapolated) = 9.36 W/kg



SAR(1 g) = 6.28 mW/g; SAR(10 g) = 4.46 mW/g

Info: Interpolated medium parameters used for SAR evaluation.

Maximum value of SAR (measured) = 6.61 mW/g



Applicant:	Kenwood USA Corporation	FCC ID:	ALH435001	IC ID:	282D-435001	KENWOOD
DUT Type:	Portable UHF PTT Radio Transceiver	Models:	TK-3402-K2-P	406.1 - 470.0 MHz		
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	<u>Date(s) of Evaluation</u> Aug 20-30, Oct 4-10, 2012	<u>Test Report Serial No.</u> 081612ALH-T1191-S90V	<u>Test Report Revision No.</u> Rev. 1.0 (1st Release)	
	<u>Test Report Issue Date</u> Oct. 22, 2012	<u>Description of Test(s)</u> Specific Absorption Rate	<u>RF Exposure Category</u> Occupational (Controlled)	

Body SAR Plot B5

Date Tested: 08/29/2012

DUT: Kenwood TK-3402-P; Type: Portable FM UHF PTT Radio Transceiver; Serial: 0421

Program Notes: Ambient Temp: 23.0C; Fluid Temp: 23.6C; Barometric Pressure: 101.1 kPa; Humidity: 30%

Communication System: UHF 400-512

Frequency: 440 MHz; Duty Cycle: 1:1

Medium: M450 Medium parameters used: $f = 440 \text{ MHz}$; $\sigma = 0.91 \text{ mho/m}$; $\epsilon_r = 56$; $\rho = 1000 \text{ kg/m}^3$

- Probe: ET3DV6 - SN1590; ConvF(7.93, 7.93, 7.93); Calibrated: 24/04/2012
- Sensor-Surface: 4mm (Mechanical Surface Detection (Locations From Previous Scan Used))Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn353; Calibrated: 19/04/2012
- Phantom: Barski Industries; Type: Fiberglass Planar; Serial: 03-01
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 186

Area Scan (6x21x1): Measurement grid: $dx=15\text{mm}$, $dy=15\text{mm}$

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

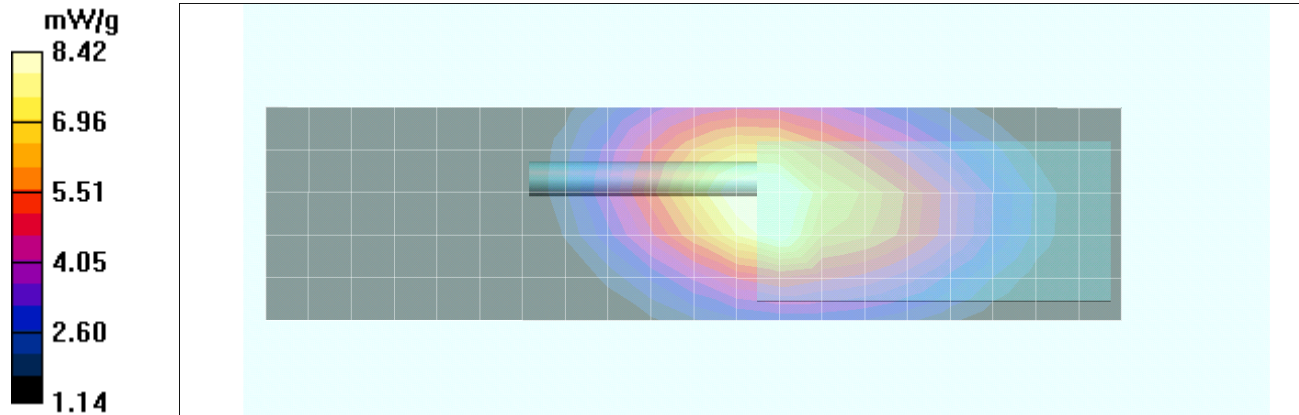
Zoom Scan (5x5x7)/Cube 0: Measurement grid: $dx=7.5\text{mm}$, $dy=7.5\text{mm}$, $dz=5\text{mm}$

Reference Value = 100.0 V/m; Power Drift = -0.510 dB



Peak SAR (extrapolated) = 12.1 W/kg

SAR(1 g) = 7.99 mW/g; SAR(10 g) = 5.61 mW/g

Maximum value of SAR (measured) = 8.42 mW/g



Applicant:	Kenwood USA Corporation	FCC ID:	ALH435001	IC ID:	282D-435001	KENWOOD
DUT Type:	Portable UHF PTT Radio Transceiver	Models:	TK-3402-K2-P	406.1 - 470.0 MHz		
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	<u>Date(s) of Evaluation</u> Aug 20-30, Oct 4-10, 2012	<u>Test Report Serial No.</u> 081612ALH-T1191-S90V	<u>Test Report Revision No.</u> Rev. 1.0 (1st Release)	 Test Lab Certificate No. 2470.01
	<u>Test Report Issue Date</u> Oct. 22, 2012	<u>Description of Test(s)</u> Specific Absorption Rate	<u>RF Exposure Category</u> Occupational (Controlled)	

Body SAR Plot B6

Date Tested: 08/20/2012

DUT: Kenwood TK-3402-P; Type: Portable FM UHF PTT Radio Transceiver; Serial: 0421

Program Notes: Ambient Temp: 24.0C; Fluid Temp: 22.8C; Barometric Pressure: 101.1 kPa; Humidity: 31%

Communication System: UHF 400-512

Frequency: 455 MHz; Duty Cycle: 1:1

Medium: M450 Medium parameters used (interpolated): $f = 455 \text{ MHz}$; $\sigma = 0.935 \text{ mho/m}$; $\epsilon_r = 56.2$; $\rho = 1000 \text{ kg/m}^3$

- Probe: ET3DV6 - SN1590; ConvF(7.93, 7.93, 7.93); Calibrated: 24/04/2012
- Sensor-Surface: 4mm (Mechanical Surface Detection (Locations From Previous Scan Used))Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn353; Calibrated: 19/04/2012
- Phantom: Barski Industries; Type: Fiberglass Planar; Serial: 03-01
- Measurement SW: DAS4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 186

Area Scan (6x20x1): Measurement grid: $dx=15\text{mm}$, $dy=15\text{mm}$

Info: Interpolated medium parameters used for SAR evaluation.

Maximum value of SAR (measured) = 9.59 mW/g

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

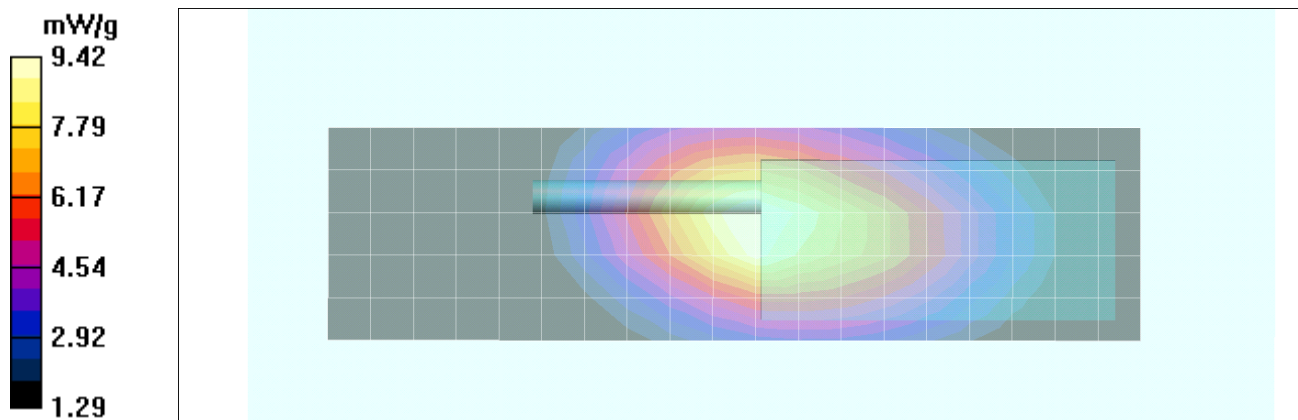
Reference Value = 106.1 V/m; Power Drift = -0.570 dB

Peak SAR (extrapolated) = 13.2 W/kg



SAR(1 g) = 8.96 mW/g; SAR(10 g) = 6.36 mW/g

Info: Interpolated medium parameters used for SAR evaluation.

Maximum value of SAR (measured) = 9.42 mW/g



Applicant:	Kenwood USA Corporation	FCC ID:	ALH435001	IC ID:	282D-435001	KENWOOD
DUT Type:	Portable UHF PTT Radio Transceiver	Models:	TK-3402-K2-P	406.1 - 470.0 MHz		
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	<u>Date(s) of Evaluation</u> Aug 20-30, Oct 4-10, 2012	<u>Test Report Serial No.</u> 081612ALH-T1191-S90V	<u>Test Report Revision No.</u> Rev. 1.0 (1st Release)	
	<u>Test Report Issue Date</u> Oct. 22, 2012	<u>Description of Test(s)</u> Specific Absorption Rate	<u>RF Exposure Category</u> Occupational (Controlled)	

Body SAR Plot B7

Date Tested: 08/29/2012

DUT: Kenwood TK-3402-P; Type: Portable FM UHF PTT Radio Transceiver; Serial: 0421

Program Notes: Ambient Temp: 23.0C; Fluid Temp: 23.6C; Barometric Pressure: 101.1 kPa; Humidity: 30%

Communication System: UHF 400-512

Frequency: 470 MHz; Duty Cycle: 1:1

Medium: M450 Medium parameters used: $f = 470 \text{ MHz}$; $\sigma = 0.93 \text{ mho/m}$; $\epsilon_r = 55.4$; $\rho = 1000 \text{ kg/m}^3$

- Probe: ET3DV6 - SN1590; ConvF(7.93, 7.93, 7.93); Calibrated: 24/04/2012
- Sensor-Surface: 4mm (Mechanical Surface Detection (Locations From Previous Scan Used))Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn353; Calibrated: 19/04/2012
- Phantom: Barski Industries; Type: Fiberglass Planar; Serial: 03-01
- Measurement SW: DAS4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 186

Area Scan (6x21x1): Measurement grid: $dx=15\text{mm}$, $dy=15\text{mm}$

Maximum value of SAR (measured) = 9.15 mW/g

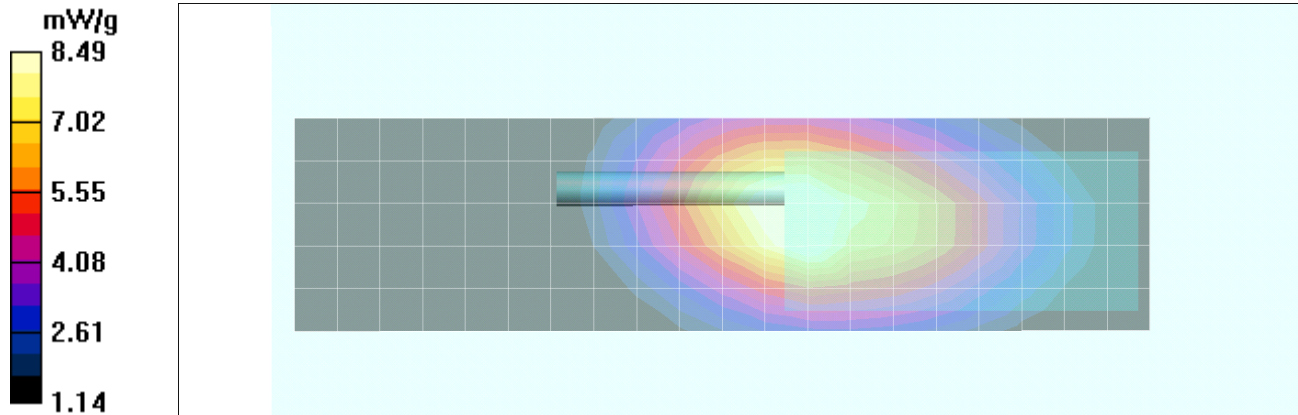
Zoom Scan (5x5x7)/Cube 0: Measurement grid: $dx=7.5\text{mm}$, $dy=7.5\text{mm}$, $dz=5\text{mm}$

Reference Value = 100.0 V/m; Power Drift = -0.617 dB



Peak SAR (extrapolated) = 12.0 W/kg

SAR(1 g) = 8.04 mW/g; SAR(10 g) = 5.67 mW/g

Maximum value of SAR (measured) = 8.49 mW/g



Applicant:	Kenwood USA Corporation	FCC ID:	ALH435001	IC ID:	282D-435001	KENWOOD
DUT Type:	Portable UHF PTT Radio Transceiver	Models:	TK-3402-K2-P	406.1 - 470.0 MHz		
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	<u>Date(s) of Evaluation</u> Aug 20-30, Oct 4-10, 2012	<u>Test Report Serial No.</u> 081612ALH-T1191-S90V	<u>Test Report Revision No.</u> Rev. 1.0 (1st Release)	 Test Lab Certificate No. 2470.01
	<u>Test Report Issue Date</u> Oct. 22, 2012	<u>Description of Test(s)</u> Specific Absorption Rate	<u>RF Exposure Category</u> Occupational (Controlled)	

Body SAR Plot B8

Date Tested: 08/21/2012

DUT: Kenwood TK-3402-P; Type: Portable FM UHF PTT Radio Transceiver; Serial: 0421

Program Notes: Ambient Temp: 24.0C; Fluid Temp: 22.5C; Barometric Pressure: 101.1 kPa; Humidity: 31%

Communication System: UHF 400-512

Frequency: 435.4 MHz; Duty Cycle: 1:1

Medium: M450 Medium parameters used (interpolated): $f = 435.4$ MHz; $\sigma = 0.92$ mho/m; $\epsilon_r = 56.6$; $\rho = 1000$ kg/m³

- Probe: ET3DV6 - SN1590; ConvF(7.93, 7.93, 7.93); Calibrated: 24/04/2012
- Sensor-Surface: 4mm (Mechanical Surface Detection (Locations From Previous Scan Used))Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn353; Calibrated: 19/04/2012
- Phantom: Barski Industries; Type: Fiberglass Planar; Serial: 03-01
- Measurement SW: DASy4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 186

Area Scan (6x21x1): Measurement grid: dx=15mm, dy=15mm

Info: Interpolated medium parameters used for SAR evaluation.

Maximum value of SAR (measured) = 6.15 mW/g

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

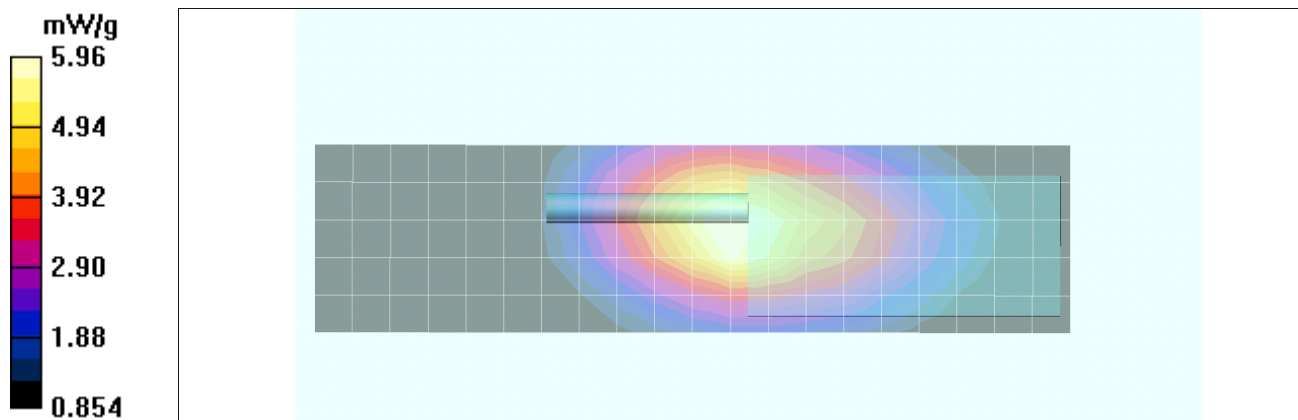
Reference Value = 84.4 V/m; Power Drift = -0.484 dB

Peak SAR (extrapolated) = 8.54 W/kg



SAR(1 g) = 5.66 mW/g; SAR(10 g) = 4 mW/g

Info: Interpolated medium parameters used for SAR evaluation.

Maximum value of SAR (measured) = 5.96 mW/g



Applicant:	Kenwood USA Corporation	FCC ID:	ALH435001	IC ID:	282D-435001	KENWOOD
DUT Type:	Portable UHF PTT Radio Transceiver	Models:	TK-3402-K2-P	406.1 - 470.0 MHz		
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	<u>Date(s) of Evaluation</u> Aug 20-30, Oct 4-10, 2012	<u>Test Report Serial No.</u> 081612ALH-T1191-S90V	<u>Test Report Revision No.</u> Rev. 1.0 (1st Release)	 Test Lab Certificate No. 2470.01
	<u>Test Report Issue Date</u> Oct. 22, 2012	<u>Description of Test(s)</u> Specific Absorption Rate	<u>RF Exposure Category</u> Occupational (Controlled)	

Body SAR Plot B9

Date Tested: 08/29/2012

DUT: Kenwood TK-3402-P; Type: Portable FM UHF PTT Radio Transceiver; Serial: 0421

Program Notes: Ambient Temp: 23.0C; Fluid Temp: 23.6C; Barometric Pressure: 101.1 kPa; Humidity: 30%

Communication System: UHF 400-512

Frequency: 440 MHz; Duty Cycle: 1:1

Medium: M450 Medium parameters used: $f = 440 \text{ MHz}$; $\sigma = 0.91 \text{ mho/m}$; $\epsilon_r = 56$; $\rho = 1000 \text{ kg/m}^3$

- Probe: ET3DV6 - SN1590; ConvF(7.93, 7.93, 7.93); Calibrated: 24/04/2012
- Sensor-Surface: 4mm (Mechanical Surface Detection (Locations From Previous Scan Used))Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn353; Calibrated: 19/04/2012
- Phantom: Barski Industries; Type: Fiberglass Planar; Serial: 03-01
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 186

Area Scan (6x21x1): Measurement grid: $dx=15\text{mm}$, $dy=15\text{mm}$

Maximum value of SAR (measured) = 8.38 mW/g

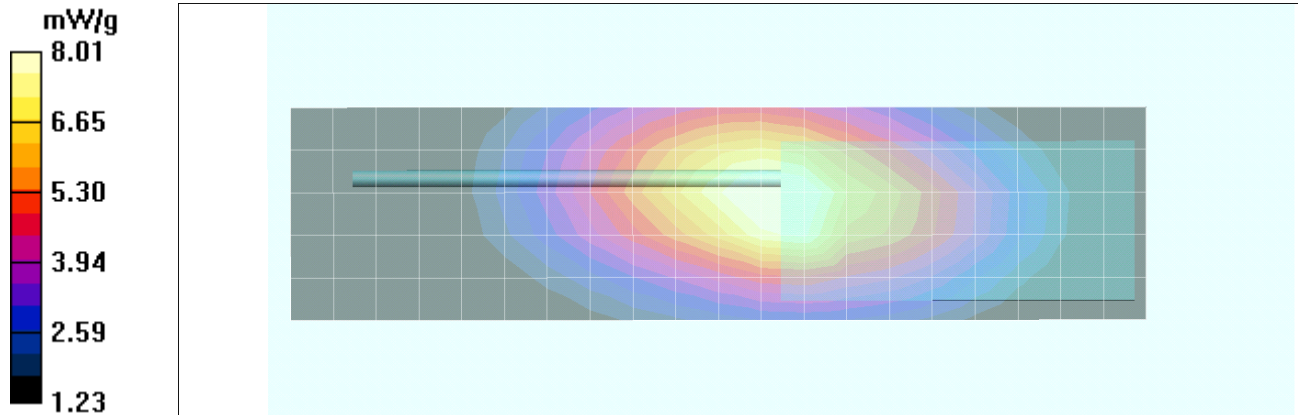
Zoom Scan (5x5x7)/Cube 0: Measurement grid: $dx=7.5\text{mm}$, $dy=7.5\text{mm}$, $dz=5\text{mm}$

Reference Value = 97.8 V/m; Power Drift = -0.457 dB



Peak SAR (extrapolated) = 11.4 W/kg

SAR(1 g) = 7.64 mW/g; SAR(10 g) = 5.46 mW/g

Maximum value of SAR (measured) = 8.01 mW/g



Applicant:	Kenwood USA Corporation	FCC ID:	ALH435001	IC ID:	282D-435001	KENWOOD
DUT Type:	Portable UHF PTT Radio Transceiver	Models:	TK-3402-K2-P	406.1 - 470.0 MHz		
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	<u>Date(s) of Evaluation</u> Aug 20-30, Oct 4-10, 2012	<u>Test Report Serial No.</u> 081612ALH-T1191-S90V	<u>Test Report Revision No.</u> Rev. 1.0 (1st Release)	
	<u>Test Report Issue Date</u> Oct. 22, 2012	<u>Description of Test(s)</u> Specific Absorption Rate	<u>RF Exposure Category</u> Occupational (Controlled)	

Body SAR Plot B10

Date Tested: 08/20/2012

DUT: Kenwood TK-3402-P; Type: Portable FM UHF PTT Radio Transceiver; Serial: 0421

Program Notes: Ambient Temp: 24.0C; Fluid Temp: 22.8C; Barometric Pressure: 101.1 kPa; Humidity: 31%

Communication System: UHF 400-512

Frequency: 455 MHz; Duty Cycle: 1:1

Medium: M450 Medium parameters used (interpolated): $f = 455 \text{ MHz}$; $\sigma = 0.935 \text{ mho/m}$; $\epsilon_r = 56.2$; $\rho = 1000 \text{ kg/m}^3$

- Probe: ET3DV6 - SN1590; ConvF(7.93, 7.93, 7.93); Calibrated: 24/04/2012
- Sensor-Surface: 4mm (Mechanical Surface Detection (Locations From Previous Scan Used))Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn353; Calibrated: 19/04/2012
- Phantom: Barski Industries; Type: Fiberglass Planar; Serial: 03-01
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 186

Area Scan (6x20x1): Measurement grid: $dx=15\text{mm}$, $dy=15\text{mm}$

Info: Interpolated medium parameters used for SAR evaluation.

Maximum value of SAR (measured) = 9.37 mW/g

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

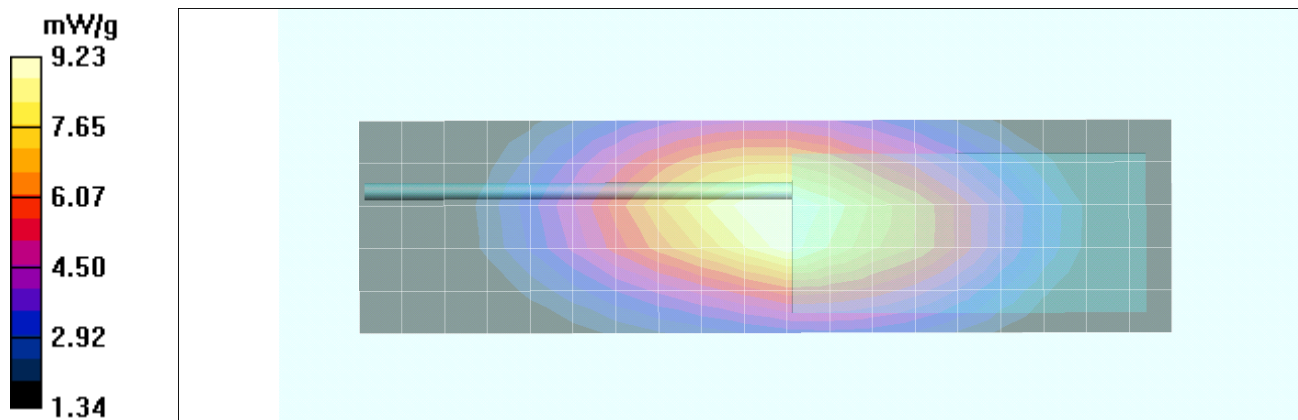
Reference Value = 104.9 V/m; Power Drift = -0.496 dB

Peak SAR (extrapolated) = 13.1 W/kg



SAR(1 g) = 8.8 mW/g; SAR(10 g) = 6.25 mW/g

Info: Interpolated medium parameters used for SAR evaluation.

Maximum value of SAR (measured) = 9.23 mW/g



Applicant:	Kenwood USA Corporation	FCC ID:	ALH435001	IC ID:	282D-435001	KENWOOD
DUT Type:	Portable UHF PTT Radio Transceiver	Models:	TK-3402-K2-P	406.1 - 470.0 MHz		
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	<u>Date(s) of Evaluation</u> Aug 20-30, Oct 4-10, 2012	<u>Test Report Serial No.</u> 081612ALH-T1191-S90V	<u>Test Report Revision No.</u> Rev. 1.0 (1st Release)	
	<u>Test Report Issue Date</u> Oct. 22, 2012	<u>Description of Test(s)</u> Specific Absorption Rate	<u>RF Exposure Category</u> Occupational (Controlled)	

Body SAR Plot B11

Date Tested: 08/29/2012

DUT: Kenwood TK-3402-P; Type: Portable FM UHF PTT Radio Transceiver; Serial: 0421

Program Notes: Ambient Temp: 23.0C; Fluid Temp: 23.6C; Barometric Pressure: 101.1 kPa; Humidity: 30%

Communication System: UHF 400-512

Frequency: 470 MHz; Duty Cycle: 1:1

Medium: M450 Medium parameters used: $f = 470 \text{ MHz}$; $\sigma = 0.93 \text{ mho/m}$; $\epsilon_r = 55.4$; $\rho = 1000 \text{ kg/m}^3$

- Probe: ET3DV6 - SN1590; ConvF(7.93, 7.93, 7.93); Calibrated: 24/04/2012
- Sensor-Surface: 4mm (Mechanical Surface Detection (Locations From Previous Scan Used))Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn353; Calibrated: 19/04/2012
- Phantom: Barski Industries; Type: Fiberglass Planar; Serial: 03-01
- Measurement SW: DASYS4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 186

Area Scan (6x21x1): Measurement grid: $dx=15\text{mm}$, $dy=15\text{mm}$

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

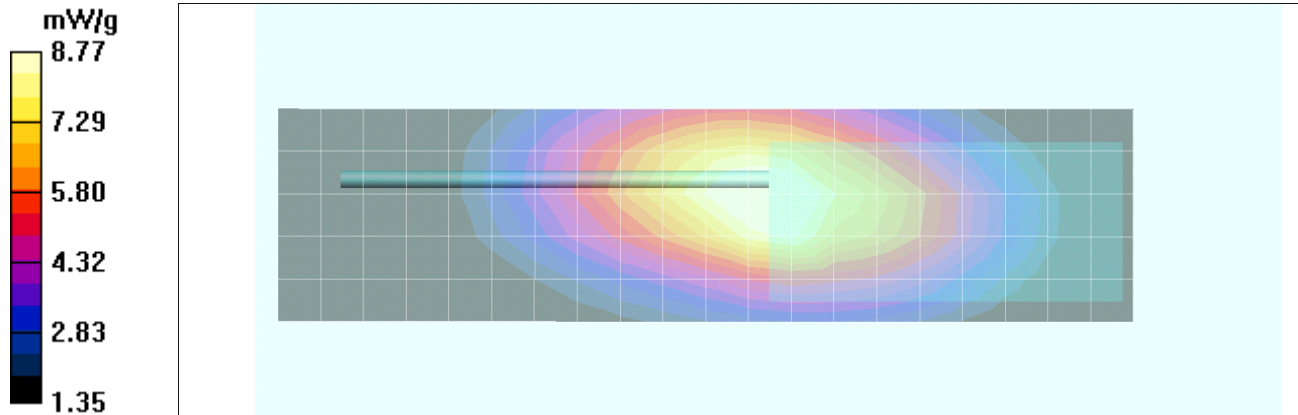
Zoom Scan (5x5x7)/Cube 0: Measurement grid: $dx=7.5\text{mm}$, $dy=7.5\text{mm}$, $dz=5\text{mm}$

Reference Value = 100.7 V/m; Power Drift = -0.519 dB

Peak SAR (extrapolated) = 12.2 W/kg

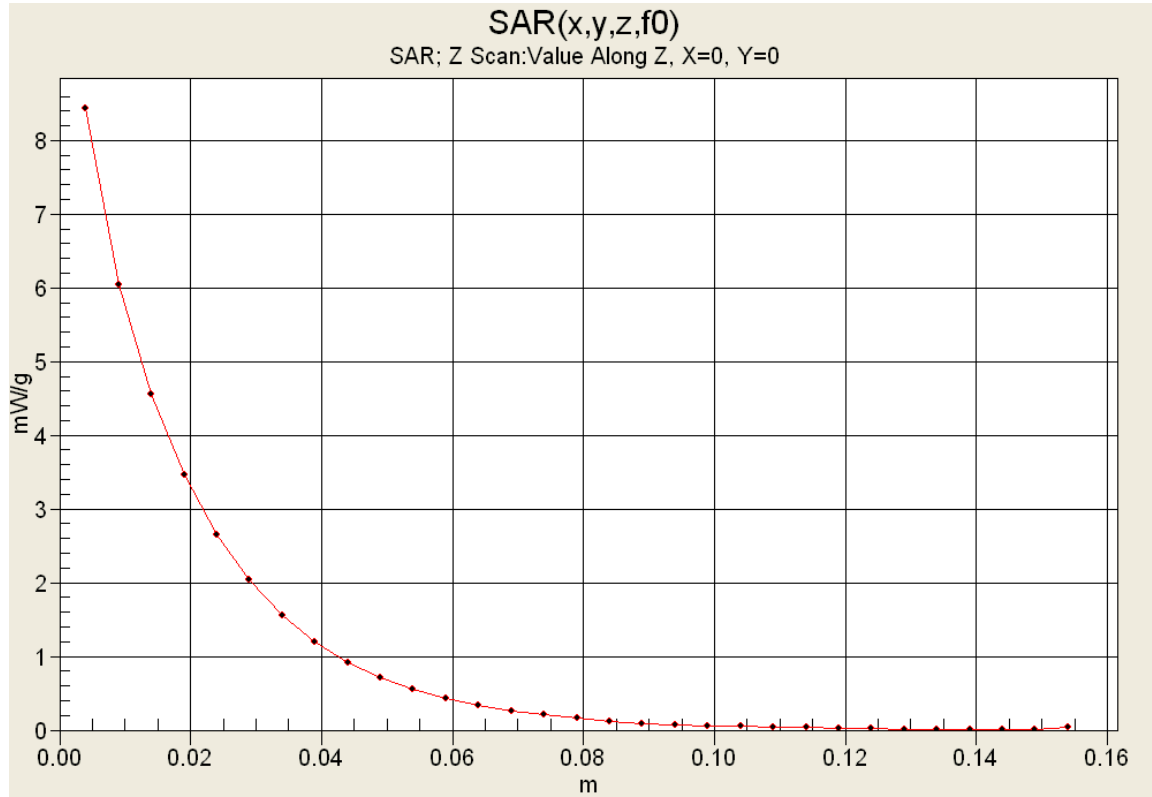
SAR(1 g) = 8.31 mW/g; SAR(10 g) = 5.95 mW/g



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



Applicant:	Kenwood USA Corporation	FCC ID:	ALH435001	IC ID:	282D-435001	KENWOOD
DUT Type:	Portable UHF PTT Radio Transceiver	Models:	TK-3402-K2-P	406.1 - 470.0 MHz		
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Z-Axis Scan



	<u>Date(s) of Evaluation</u> Aug 20-30, Oct 4-10, 2012	<u>Test Report Serial No.</u> 081612ALH-T1191-S90V	<u>Test Report Revision No.</u> Rev. 1.0 (1st Release)	 Test Lab Certificate No. 2470.01
	<u>Test Report Issue Date</u> Oct. 22, 2012	<u>Description of Test(s)</u> Specific Absorption Rate	<u>RF Exposure Category</u> Occupational (Controlled)	

Body SAR Plot B12

Date Tested: 08/21/2012

DUT: Kenwood TK-3402-P; Type: Portable FM UHF PTT Radio Transceiver; Serial: 0421

Program Notes: Ambient Temp: 24.0C; Fluid Temp: 22.5C; Barometric Pressure: 101.1 kPa; Humidity: 31%

Communication System: UHF 400-512

Frequency: 435.4 MHz; Duty Cycle: 1:1

Medium: M450 Medium parameters used (interpolated): $f = 435.4 \text{ MHz}$; $\sigma = 0.92 \text{ mho/m}$; $\epsilon_r = 56.6$; $\rho = 1000 \text{ kg/m}^3$

- Probe: ET3DV6 - SN1590; ConvF(7.93, 7.93, 7.93); Calibrated: 24/04/2012
- Sensor-Surface: 4mm (Mechanical Surface Detection (Locations From Previous Scan Used))Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn353; Calibrated: 19/04/2012
- Phantom: Barski Industries; Type: Fiberglass Planar; Serial: 03-01
- Measurement SW: DASy4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 186

Area Scan (6x21x1): Measurement grid: $dx=15\text{mm}$, $dy=15\text{mm}$

Info: Interpolated medium parameters used for SAR evaluation.

Maximum value of SAR (measured) = 7.53 mW/g

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

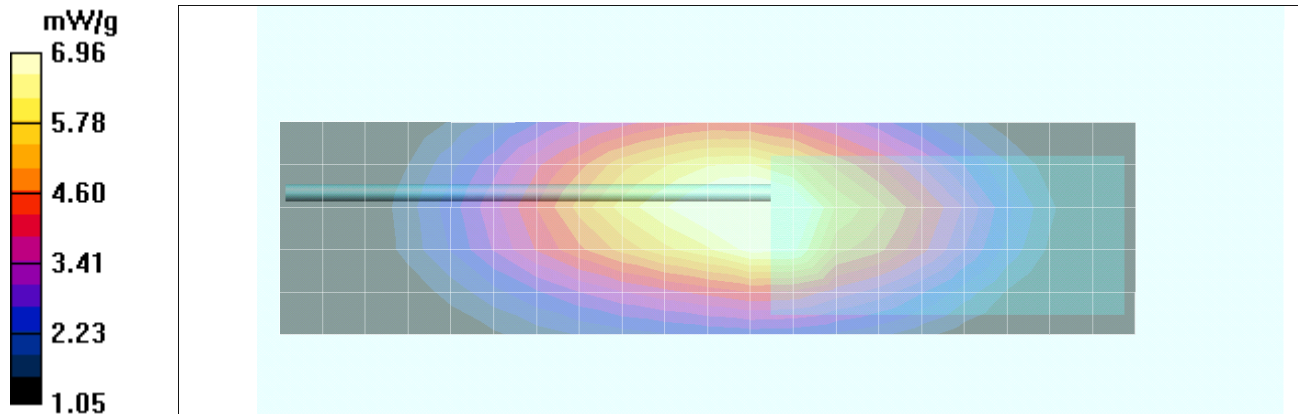
Reference Value = 90.9 V/m; Power Drift = -0.530 dB

Peak SAR (extrapolated) = 9.78 W/kg

SAR(1 g) = 6.65 mW/g; SAR(10 g) = 4.77 mW/g

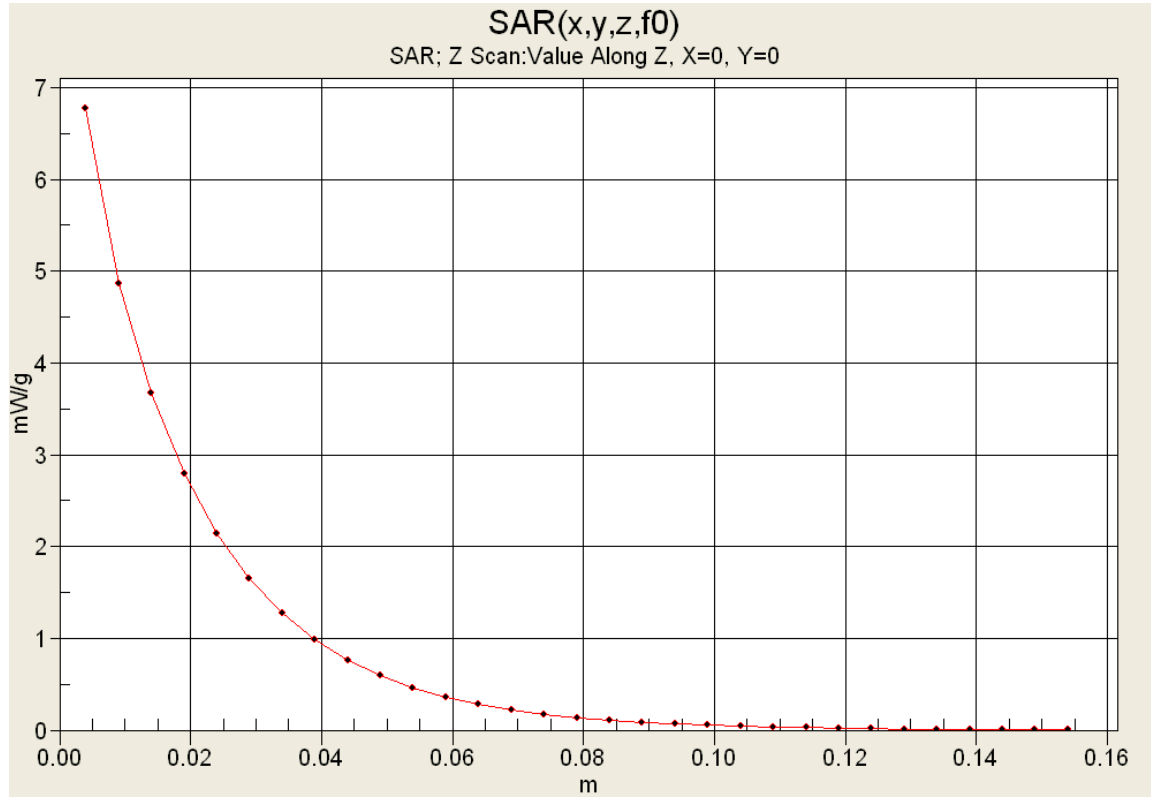
Info: Interpolated medium parameters used for SAR evaluation.



Maximum value of SAR (measured) = 6.96 mW/g



Applicant:	Kenwood USA Corporation	FCC ID:	ALH435001	IC ID:	282D-435001	KENWOOD
DUT Type:	Portable UHF PTT Radio Transceiver	Models:	TK-3402-K2-P	406.1 - 470.0 MHz		
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Z-Axis Scan



	<u>Date(s) of Evaluation</u> Aug 20-30, Oct 4-10, 2012	<u>Test Report Serial No.</u> 081612ALH-T1191-S90V	<u>Test Report Revision No.</u> Rev. 1.0 (1st Release)	 Test Lab Certificate No. 2470.01
	<u>Test Report Issue Date</u> Oct. 22, 2012	<u>Description of Test(s)</u> Specific Absorption Rate	<u>RF Exposure Category</u> Occupational (Controlled)	

Body SAR Plot B13

Date Tested: 10/09/2012

DUT: Kenwood TK-3402-P; Type: Portable FM UHF PTT Radio Transceiver; Serial: 0421

Program Notes: Ambient Temp: 22.0C; Fluid Temp: 21.7C; Barometric Pressure: 101.1 kPa; Humidity: 30%

Communication System: UHF 400-512

Frequency: 455 MHz; Duty Cycle: 1:1

Medium: M450 Medium parameters used (interpolated): $f = 455 \text{ MHz}$; $\sigma = 0.915 \text{ mho/m}$; $\epsilon_r = 56.4$; $\rho = 1000 \text{ kg/m}^3$

- Probe: ET3DV6 - SN1590; ConvF(7.93, 7.93, 7.93); Calibrated: 24/04/2012
- Sensor-Surface: 4mm (Mechanical Surface Detection (Locations From Previous Scan Used))Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn353; Calibrated: 19/04/2012
- Phantom: Barski Industries; Type: Fiberglass Planar; Serial: 03-01
- Measurement SW: DASy4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 186

Area Scan (6x14x1): Measurement grid: $dx=15\text{mm}$, $dy=15\text{mm}$

Info: Interpolated medium parameters used for SAR evaluation.

Maximum value of SAR (measured) = 6.96 mW/g

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

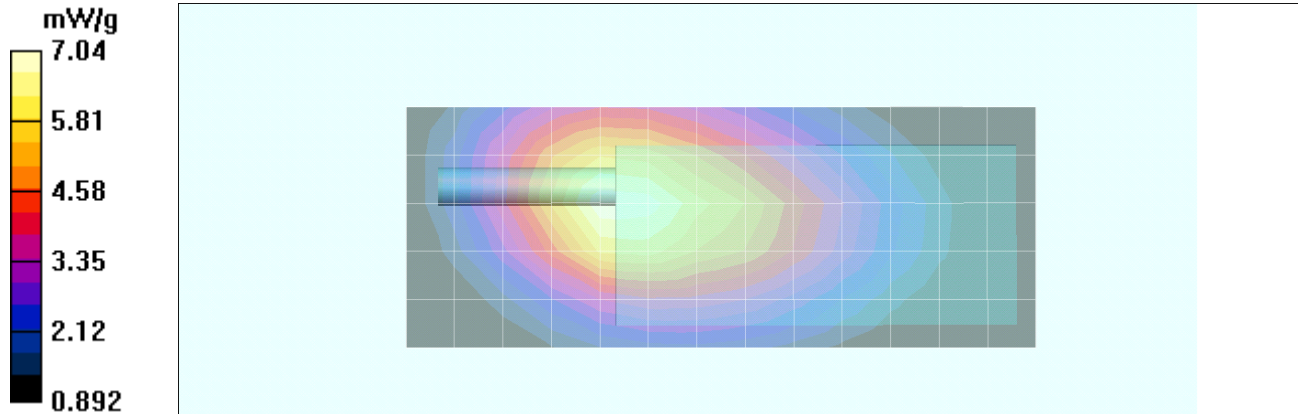
Reference Value = 89.0 V/m; Power Drift = -0.352 dB

Peak SAR (extrapolated) = 10.0 W/kg



SAR(1 g) = 6.68 mW/g; SAR(10 g) = 4.7 mW/g

Info: Interpolated medium parameters used for SAR evaluation.

Maximum value of SAR (measured) = 7.04 mW/g



Applicant:	Kenwood USA Corporation	FCC ID:	ALH435001	IC ID:	282D-435001	KENWOOD
DUT Type:	Portable UHF PTT Radio Transceiver	Models:	TK-3402-K2-P	406.1 - 470.0 MHz		
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	<u>Date(s) of Evaluation</u> Aug 20-30, Oct 4-10, 2012	<u>Test Report Serial No.</u> 081612ALH-T1191-S90V	<u>Test Report Revision No.</u> Rev. 1.0 (1st Release)	 Test Lab Certificate No. 2470.01
	<u>Test Report Issue Date</u> Oct. 22, 2012	<u>Description of Test(s)</u> Specific Absorption Rate	<u>RF Exposure Category</u> Occupational (Controlled)	

Body SAR Plot B14

Date Tested: 10/09/2012

DUT: Kenwood TK-3402-P; Type: Portable FM UHF PTT Radio Transceiver; Serial: 0421

Program Notes: Ambient Temp: 22.0C; Fluid Temp: 21.7C; Barometric Pressure: 101.1 kPa; Humidity: 30%

Communication System: UHF 400-512

Frequency: 435.4 MHz; Duty Cycle: 1:1

Medium: M450 Medium parameters used (interpolated): $f = 435.4$ MHz; $\sigma = 0.89$ mho/m; $\epsilon_r = 56.3$; $\rho = 1000$ kg/m³

- Probe: ET3DV6 - SN1590; ConvF(7.93, 7.93, 7.93); Calibrated: 24/04/2012
- Sensor-Surface: 4mm (Mechanical Surface Detection (Locations From Previous Scan Used))Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn353; Calibrated: 19/04/2012
- Phantom: Barski Industries; Type: Fiberglass Planar; Serial: 03-01
- Measurement SW: DASy4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 186

Area Scan (6x14x1): Measurement grid: dx=15mm, dy=15mm

Info: Interpolated medium parameters used for SAR evaluation.

Maximum value of SAR (measured) = 5.16 mW/g

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

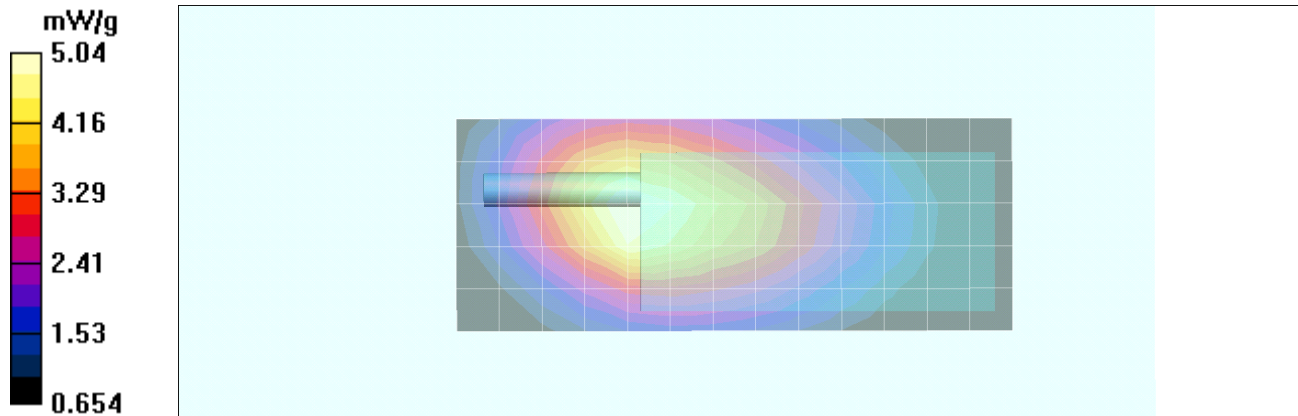
Reference Value = 79.0 V/m; Power Drift = -0.514 dB

Peak SAR (extrapolated) = 7.17 W/kg



SAR(1 g) = 4.79 mW/g; SAR(10 g) = 3.37 mW/g

Info: Interpolated medium parameters used for SAR evaluation.

Maximum value of SAR (measured) = 5.04 mW/g



Applicant:	Kenwood USA Corporation	FCC ID:	ALH435001	IC ID:	282D-435001	KENWOOD
DUT Type:	Portable UHF PTT Radio Transceiver	Models:	TK-3402-K2-P	406.1 - 470.0 MHz		
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	<u>Date(s) of Evaluation</u> Aug 20-30, Oct 4-10, 2012	<u>Test Report Serial No.</u> 081612ALH-T1191-S90V	<u>Test Report Revision No.</u> Rev. 1.0 (1st Release)	 Test Lab Certificate No. 2470.01
	<u>Test Report Issue Date</u> Oct. 22, 2012	<u>Description of Test(s)</u> Specific Absorption Rate	<u>RF Exposure Category</u> Occupational (Controlled)	

Body SAR Plot B15

Date Tested: 08/30/2012

DUT: Kenwood TK-3402-P; Type: Portable FM UHF PTT Radio Transceiver; Serial: 0421

Program Notes: Ambient Temp: 23.0C; Fluid Temp: 23.8C; Barometric Pressure: 101.1 kPa; Humidity: 30%

Communication System: UHF 400-512

Frequency: 470 MHz; Duty Cycle: 1:1

Medium: M450 Medium parameters used: $f = 470 \text{ MHz}$; $\sigma = 0.95 \text{ mho/m}$; $\epsilon_r = 56.5$; $\rho = 1000 \text{ kg/m}^3$

- Probe: ET3DV6 - SN1590; ConvF(7.93, 7.93, 7.93); Calibrated: 24/04/2012
- Sensor-Surface: 4mm (Mechanical Surface Detection (Locations From Previous Scan Used))Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn353; Calibrated: 19/04/2012
- Phantom: Barski Industries; Type: Fiberglass Planar; Serial: 03-01
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 186

Area Scan (6x21x1): Measurement grid: $dx=15\text{mm}$, $dy=15\text{mm}$

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

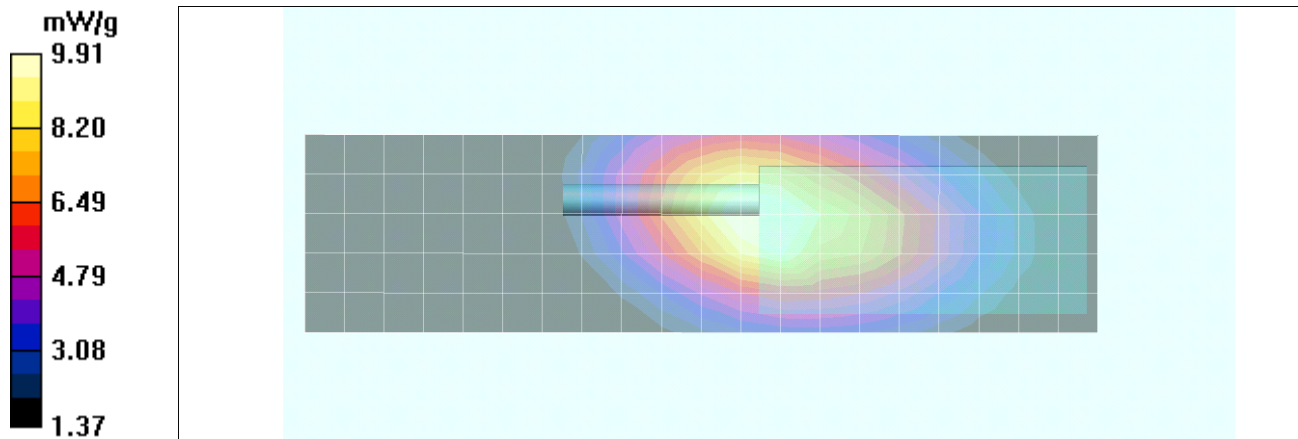
Zoom Scan (5x5x7)/Cube 0: Measurement grid: $dx=7.5\text{mm}$, $dy=7.5\text{mm}$, $dz=5\text{mm}$

Reference Value = 106.3 V/m; Power Drift = -0.566 dB

Peak SAR (extrapolated) = 13.9 W/kg

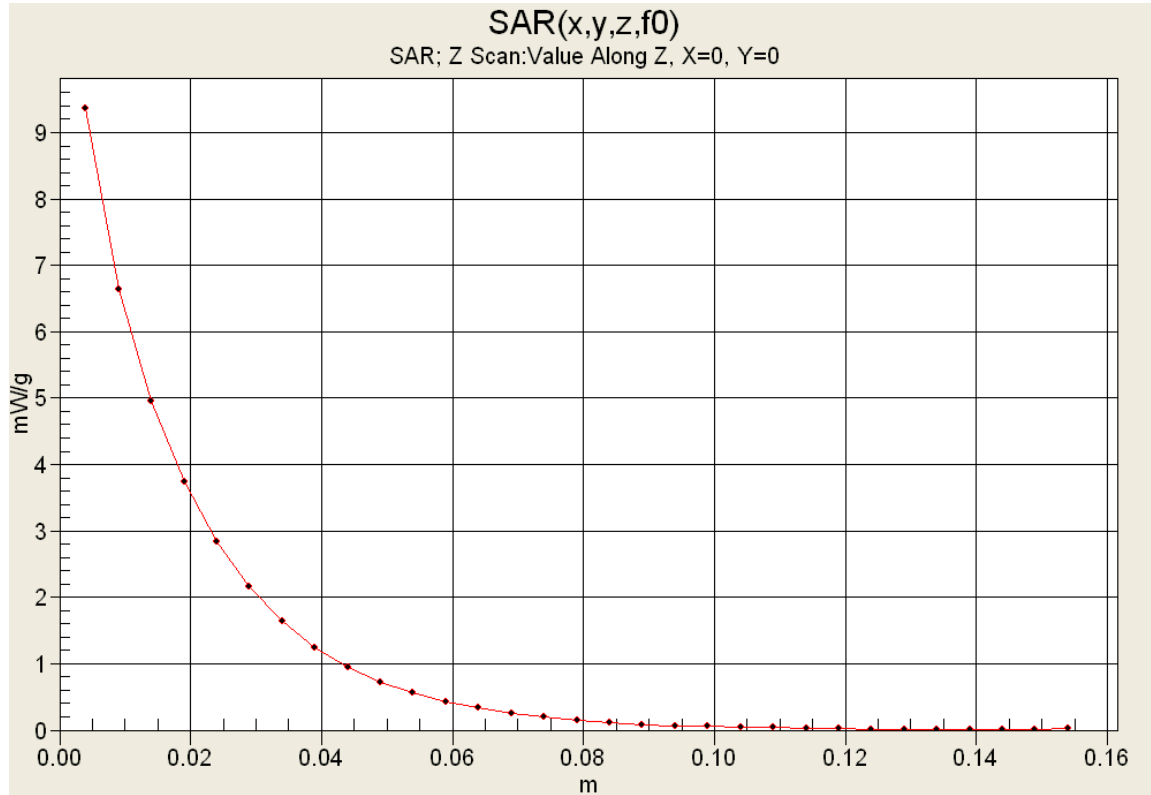
SAR(1 g) = 9.35 mW/g; SAR(10 g) = 6.61 mW/g



Maximum value of SAR (measured) = 9.91 mW/g



Applicant:	Kenwood USA Corporation	FCC ID:	ALH435001	IC ID:	282D-435001	KENWOOD
DUT Type:	Portable UHF PTT Radio Transceiver	Models:	TK-3402-K2-P	406.1 - 470.0 MHz		
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Z-Axis Scan



	<u>Date(s) of Evaluation</u> Aug 20-30, Oct 4-10, 2012	<u>Test Report Serial No.</u> 081612ALH-T1191-S90V	<u>Test Report Revision No.</u> Rev. 1.0 (1st Release)	 Test Lab Certificate No. 2470.01
	<u>Test Report Issue Date</u> Oct. 22, 2012	<u>Description of Test(s)</u> Specific Absorption Rate	<u>RF Exposure Category</u> Occupational (Controlled)	

Body SAR Plot B16

Date Tested: 08/30/2012

DUT: Kenwood TK-3402-P; Type: Portable FM UHF PTT Radio Transceiver; Serial: 0421

Program Notes: Ambient Temp: 23.0C; Fluid Temp: 23.8C; Barometric Pressure: 101.1 kPa; Humidity: 30%

Communication System: UHF 400-512

Frequency: 455 MHz; Duty Cycle: 1:1

Medium: M450 Medium parameters used (interpolated): $f = 455 \text{ MHz}$; $\sigma = 0.94 \text{ mho/m}$; $\epsilon_r = 56.1$; $\rho = 1000 \text{ kg/m}^3$

- Probe: ET3DV6 - SN1590; ConvF(7.93, 7.93, 7.93); Calibrated: 24/04/2012
- Sensor-Surface: 4mm (Mechanical Surface Detection (Locations From Previous Scan Used))Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn353; Calibrated: 19/04/2012
- Phantom: Barski Industries; Type: Fiberglass Planar; Serial: 03-01
- Measurement SW: DASy4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 186

Area Scan (6x21x1): Measurement grid: $dx=15\text{mm}$, $dy=15\text{mm}$

Info: Interpolated medium parameters used for SAR evaluation.

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

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

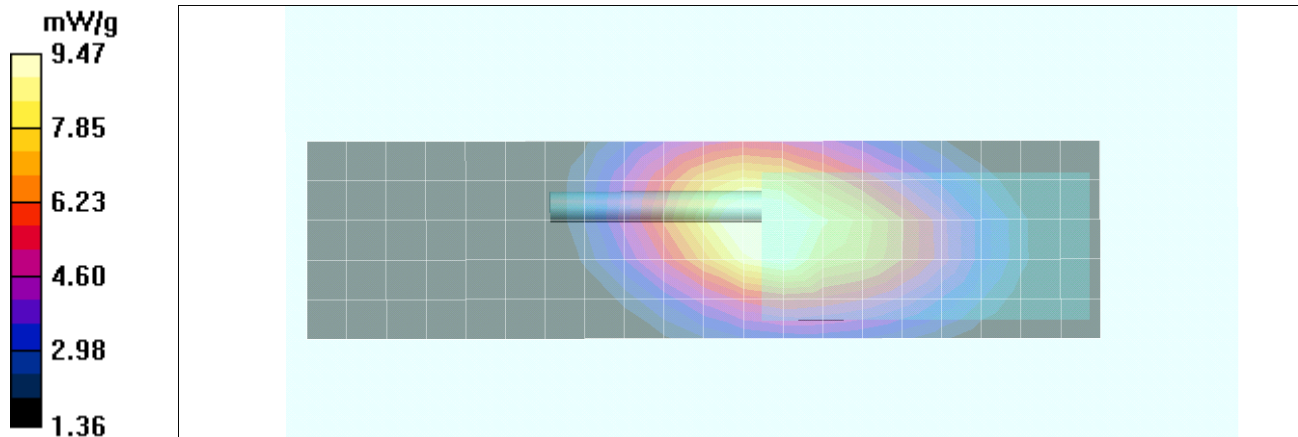
Reference Value = 108.6 V/m; Power Drift = -0.891 dB

Peak SAR (extrapolated) = 13.3 W/kg



SAR(1 g) = 8.97 mW/g; SAR(10 g) = 6.37 mW/g

Info: Interpolated medium parameters used for SAR evaluation.

Maximum value of SAR (measured) = 9.47 mW/g



Applicant:	Kenwood USA Corporation	FCC ID:	ALH435001	IC ID:	282D-435001	KENWOOD
DUT Type:	Portable UHF PTT Radio Transceiver	Models:	TK-3402-K2-P	406.1 - 470.0 MHz		
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	<u>Date(s) of Evaluation</u> Aug 20-30, Oct 4-10, 2012	<u>Test Report Serial No.</u> 081612ALH-T1191-S90V	<u>Test Report Revision No.</u> Rev. 1.0 (1st Release)	 Test Lab Certificate No. 2470.01
	<u>Test Report Issue Date</u> Oct. 22, 2012	<u>Description of Test(s)</u> Specific Absorption Rate	<u>RF Exposure Category</u> Occupational (Controlled)	

Body SAR Plot B17

Date Tested: 08/30/2012

DUT: Kenwood TK-3402-P; Type: Portable FM UHF PTT Radio Transceiver; Serial: 0421

Program Notes: Ambient Temp: 23.0C; Fluid Temp: 23.8C; Barometric Pressure: 101.1 kPa; Humidity: 30%

Communication System: UHF 400-512

Frequency: 455 MHz; Duty Cycle: 1:1

Medium: M450 Medium parameters used (interpolated): $f = 455 \text{ MHz}$; $\sigma = 0.94 \text{ mho/m}$; $\epsilon_r = 56.1$; $\rho = 1000 \text{ kg/m}^3$

- Probe: ET3DV6 - SN1590; ConvF(7.93, 7.93, 7.93); Calibrated: 24/04/2012
- Sensor-Surface: 4mm (Mechanical Surface Detection (Locations From Previous Scan Used))Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn353; Calibrated: 19/04/2012
- Phantom: Barski Industries; Type: Fiberglass Planar; Serial: 03-01
- Measurement SW: DASy4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 186

Area Scan (6x21x1): Measurement grid: $dx=15\text{mm}$, $dy=15\text{mm}$

Info: Interpolated medium parameters used for SAR evaluation.

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

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

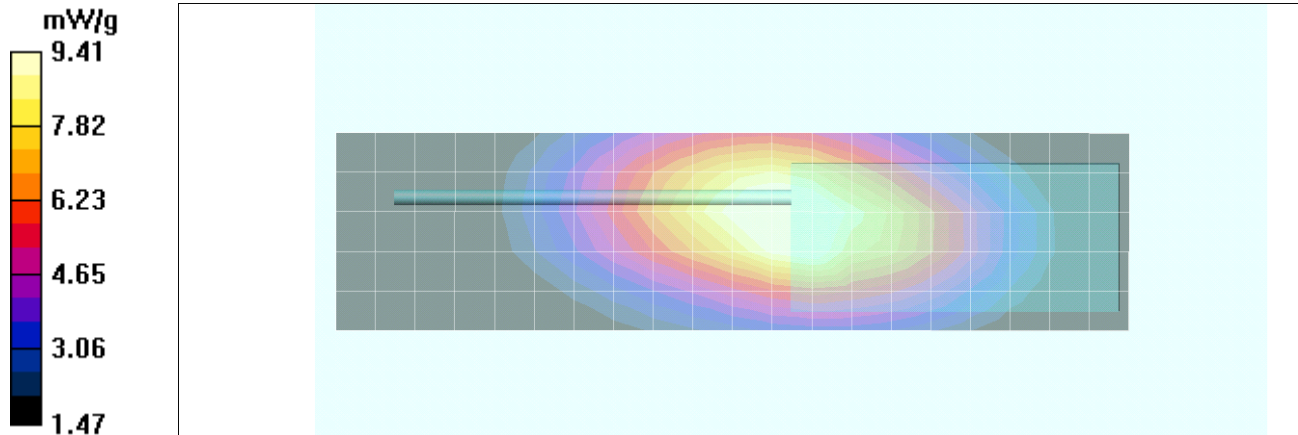
Reference Value = 108.7 V/m; Power Drift = -0.902 dB

Peak SAR (extrapolated) = 13.0 W/kg



SAR(1 g) = 8.93 mW/g; SAR(10 g) = 6.41 mW/g

Info: Interpolated medium parameters used for SAR evaluation.

Maximum value of SAR (measured) = 9.41 mW/g



Applicant:	Kenwood USA Corporation	FCC ID:	ALH435001	IC ID:	282D-435001	KENWOOD
DUT Type:	Portable UHF PTT Radio Transceiver	Models:	TK-3402-K2-P	406.1 - 470.0 MHz		
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	<u>Date(s) of Evaluation</u> Aug 20-30, Oct 4-10, 2012	<u>Test Report Serial No.</u> 081612ALH-T1191-S90V	<u>Test Report Revision No.</u> Rev. 1.0 (1st Release)	 Test Lab Certificate No. 2470.01
	<u>Test Report Issue Date</u> Oct. 22, 2012	<u>Description of Test(s)</u> Specific Absorption Rate	<u>RF Exposure Category</u> Occupational (Controlled)	

Body SAR Plot A1

Date Tested: 10/09/2012

DUT: Kenwood TK-3402-P; Type: Portable FM UHF PTT Radio Transceiver; Serial: 0421

Program Notes: Ambient Temp: 22.0C; Fluid Temp: 21.7C; Barometric Pressure: 101.1 kPa; Humidity: 30%

Communication System: UHF 400-512

Frequency: 470 MHz; Duty Cycle: 1:1

Medium: M450 Medium parameters used: $f = 470 \text{ MHz}$; $\sigma = 0.92 \text{ mho/m}$; $\epsilon_r = 55.7$; $\rho = 1000 \text{ kg/m}^3$

- Probe: ET3DV6 - SN1590; ConvF(7.93, 7.93, 7.93); Calibrated: 24/04/2012
- Sensor-Surface: 4mm (Mechanical Surface Detection (Locations From Previous Scan Used))Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn353; Calibrated: 19/04/2012
- Phantom: Barski Industries; Type: Fiberglass Planar; Serial: 03-01
- Measurement SW: DASy4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 186

Area Scan (6x14x1): Measurement grid: $dx=15\text{mm}$, $dy=15\text{mm}$

Maximum value of SAR (measured) = 9.80 mW/g

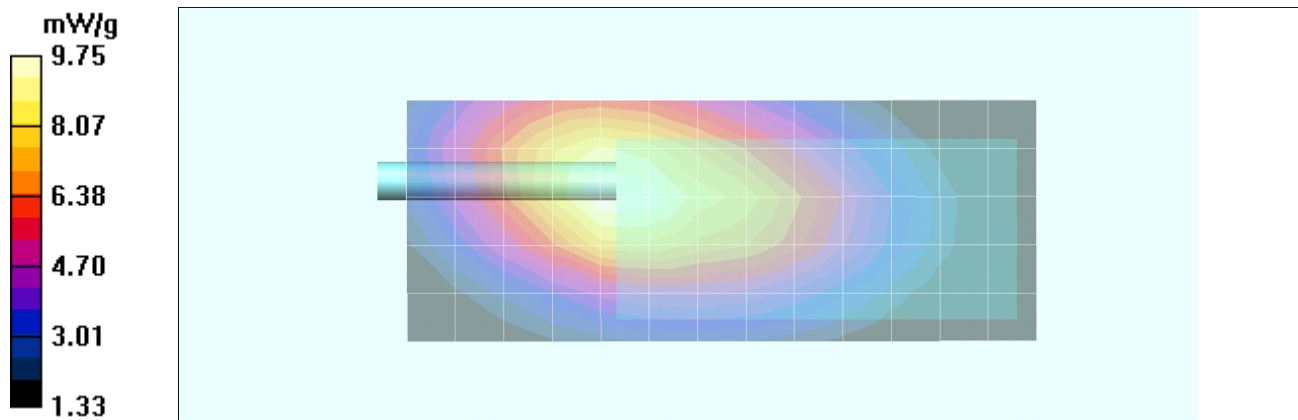
Zoom Scan (5x5x7)/Cube 0: Measurement grid: $dx=7.5\text{mm}$, $dy=7.5\text{mm}$, $dz=5\text{mm}$

Reference Value = 103.5 V/m; Power Drift = -0.514 dB

Peak SAR (extrapolated) = 13.9 W/kg

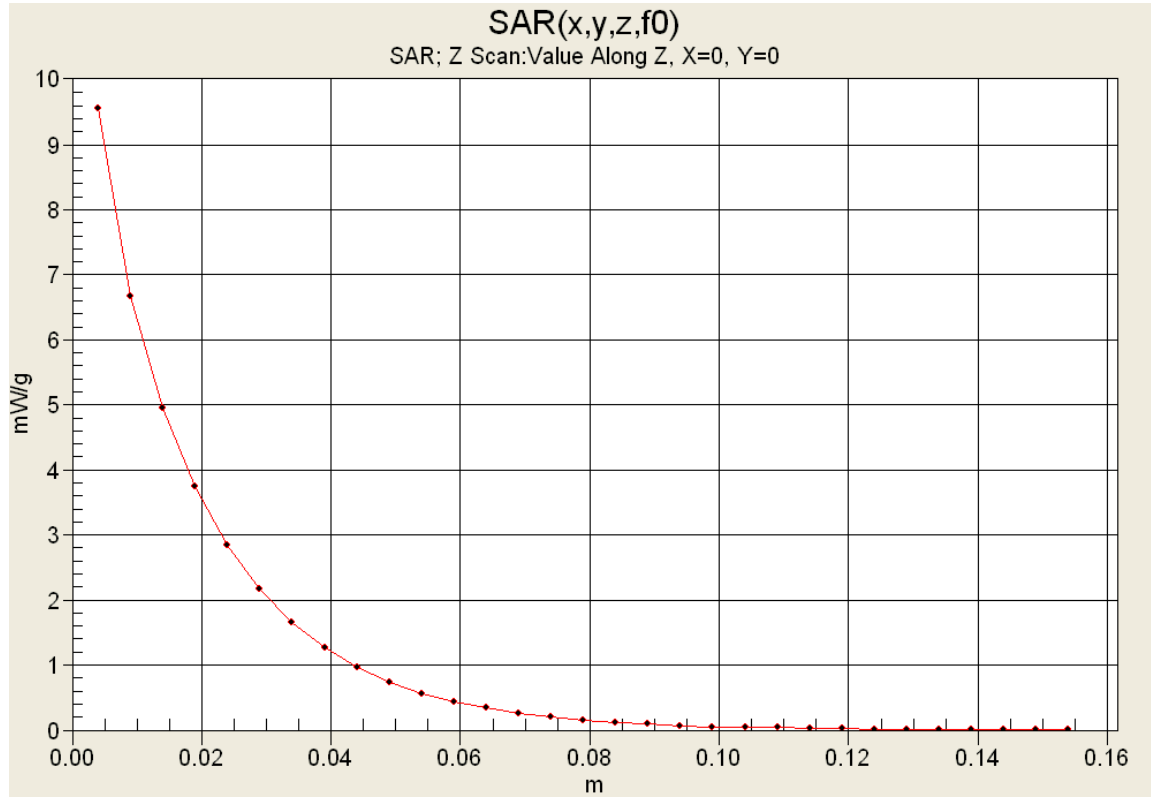
SAR(1 g) = 9.26 mW/g; SAR(10 g) = 6.52 mW/g



Maximum value of SAR (measured) = 9.75 mW/g



Applicant:	Kenwood USA Corporation	FCC ID:	ALH435001	IC ID:	282D-435001	KENWOOD
DUT Type:	Portable UHF PTT Radio Transceiver	Models:	TK-3402-K2-P	406.1 - 470.0 MHz		
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Z-Axis Scan



	<u>Date(s) of Evaluation</u> Aug 20-30, Oct 4-10, 2012	<u>Test Report Serial No.</u> 081612ALH-T1191-S90V	<u>Test Report Revision No.</u> Rev. 1.0 (1st Release)	 Test Lab Certificate No. 2470.01
	<u>Test Report Issue Date</u> Oct. 22, 2012	<u>Description of Test(s)</u> Specific Absorption Rate	<u>RF Exposure Category</u> Occupational (Controlled)	

Body SAR Plot A2

Date Tested: 10/09/2012

DUT: Kenwood TK-3402-P; Type: Portable FM UHF PTT Radio Transceiver; Serial: 0421

Program Notes: Ambient Temp: 22.0C; Fluid Temp: 21.7C; Barometric Pressure: 101.1 kPa; Humidity: 30%

Communication System: UHF 400-512

Frequency: 470 MHz; Duty Cycle: 1:1

Medium: M450 Medium parameters used: $f = 470 \text{ MHz}$; $\sigma = 0.92 \text{ mho/m}$; $\epsilon_r = 55.7$; $\rho = 1000 \text{ kg/m}^3$

- Probe: ET3DV6 - SN1590; ConvF(7.93, 7.93, 7.93); Calibrated: 24/04/2012
- Sensor-Surface: 4mm (Mechanical Surface Detection (Locations From Previous Scan Used))Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn353; Calibrated: 19/04/2012
- Phantom: Barski Industries; Type: Fiberglass Planar; Serial: 03-01
- Measurement SW: DASy4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 186

Area Scan (6x14x1): Measurement grid: $dx=15\text{mm}$, $dy=15\text{mm}$

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

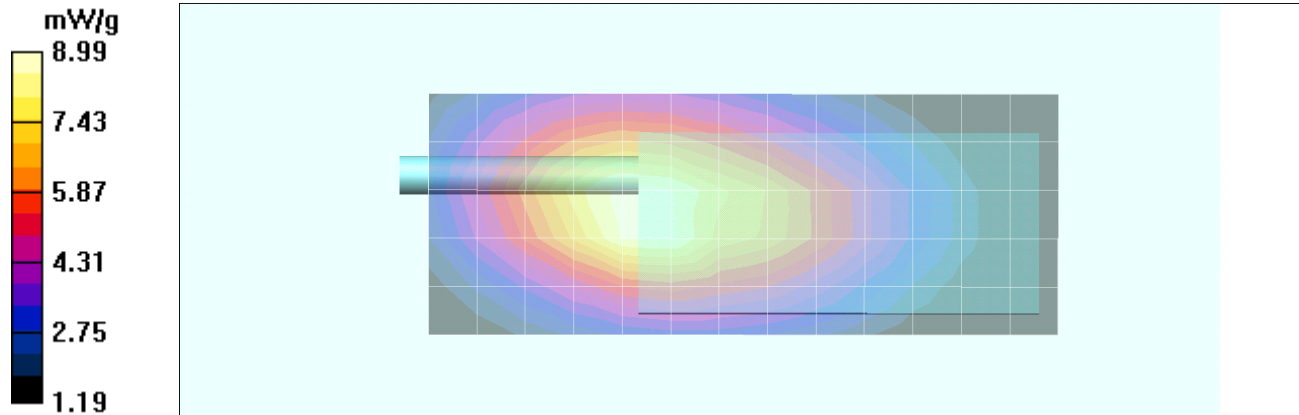
Zoom Scan (5x5x7)/Cube 0: Measurement grid: $dx=7.5\text{mm}$, $dy=7.5\text{mm}$, $dz=5\text{mm}$

Reference Value = 103.1 V/m; Power Drift = -0.440 dB



Peak SAR (extrapolated) = 12.9 W/kg

SAR(1 g) = 8.53 mW/g; SAR(10 g) = 5.99 mW/g

Maximum value of SAR (measured) = 8.99 mW/g



Applicant:	Kenwood USA Corporation	FCC ID:	ALH435001	IC ID:	282D-435001	KENWOOD
DUT Type:	Portable UHF PTT Radio Transceiver	Models:	TK-3402-K2-P	406.1 - 470.0 MHz		
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	<u>Date(s) of Evaluation</u> Aug 20-30, Oct 4-10, 2012	<u>Test Report Serial No.</u> 081612ALH-T1191-S90V	<u>Test Report Revision No.</u> Rev. 1.0 (1st Release)	 Test Lab Certificate No. 2470.01
	<u>Test Report Issue Date</u> Oct. 22, 2012	<u>Description of Test(s)</u> Specific Absorption Rate	<u>RF Exposure Category</u> Occupational (Controlled)	

Body SAR Plot A3

Date Tested: 10/10/2012

DUT: Kenwood TK-3402-P; Type: Portable FM UHF PTT Radio Transceiver; Serial: 0421

Program Notes: Ambient Temp: 22.0C; Fluid Temp: 21.6C; Barometric Pressure: 101.1 kPa; Humidity: 30%

Communication System: UHF 400-512

Frequency: 470 MHz; Duty Cycle: 1:1

Medium: M450 Medium parameters used: $f = 470 \text{ MHz}$; $\sigma = 0.92 \text{ mho/m}$; $\epsilon_r = 55.7$; $\rho = 1000 \text{ kg/m}^3$

- Probe: ET3DV6 - SN1590; ConvF(7.93, 7.93, 7.93); Calibrated: 24/04/2012
- Sensor-Surface: 4mm (Mechanical Surface Detection (Locations From Previous Scan Used))Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn353; Calibrated: 19/04/2012
- Phantom: Barski Industries; Type: Fiberglass Planar; Serial: 03-01
- Measurement SW: DASy4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 186

Area Scan (6x15x1): Measurement grid: $dx=15\text{mm}$, $dy=15\text{mm}$

Maximum value of SAR (measured) = 9.52 mW/g

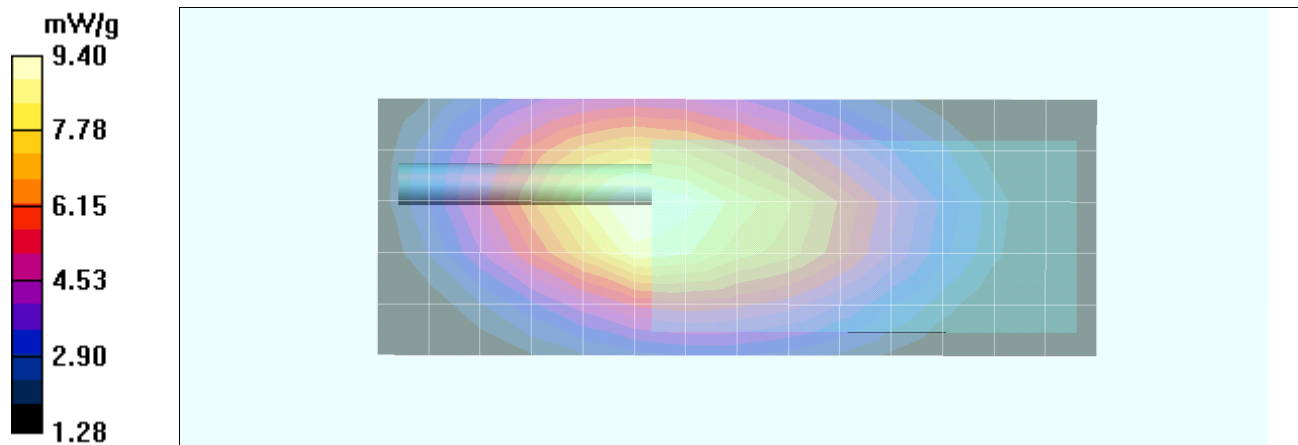
Zoom Scan (5x5x7)/Cube 0: Measurement grid: $dx=7.5\text{mm}$, $dy=7.5\text{mm}$, $dz=5\text{mm}$

Reference Value = 106.1 V/m; Power Drift = -0.597 dB



Peak SAR (extrapolated) = 13.3 W/kg

SAR(1 g) = 8.87 mW/g; SAR(10 g) = 6.25 mW/g

Maximum value of SAR (measured) = 9.40 mW/g



Applicant:	Kenwood USA Corporation	FCC ID:	ALH435001	IC ID:	282D-435001	KENWOOD
DUT Type:	Portable UHF PTT Radio Transceiver	Models:	TK-3402-K2-P	406.1 - 470.0 MHz		
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	<u>Date(s) of Evaluation</u> Aug 20-30, Oct 4-10, 2012	<u>Test Report Serial No.</u> 081612ALH-T1191-S90V	<u>Test Report Revision No.</u> Rev. 1.0 (1st Release)	
	<u>Test Report Issue Date</u> Oct. 22, 2012	<u>Description of Test(s)</u> Specific Absorption Rate	<u>RF Exposure Category</u> Occupational (Controlled)	

Body SAR Plot A4

Date Tested: 10/10/2012

DUT: Kenwood TK-3402-P; Type: Portable FM UHF PTT Radio Transceiver; Serial: 0421

Program Notes: Ambient Temp: 22.0C; Fluid Temp: 21.6C; Barometric Pressure: 101.1 kPa; Humidity: 30%

Communication System: UHF 400-512

Frequency: 470 MHz; Duty Cycle: 1:1

Medium: M450 Medium parameters used: $f = 470 \text{ MHz}$; $\sigma = 0.92 \text{ mho/m}$; $\epsilon_r = 55.7$; $\rho = 1000 \text{ kg/m}^3$

- Probe: ET3DV6 - SN1590; ConvF(7.93, 7.93, 7.93); Calibrated: 24/04/2012
- Sensor-Surface: 4mm (Mechanical Surface Detection (Locations From Previous Scan Used))Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn353; Calibrated: 19/04/2012
- Phantom: Barski Industries; Type: Fiberglass Planar; Serial: 03-01
- Measurement SW: DASy4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 186

Area Scan (6x15x1): Measurement grid: $dx=15\text{mm}$, $dy=15\text{mm}$

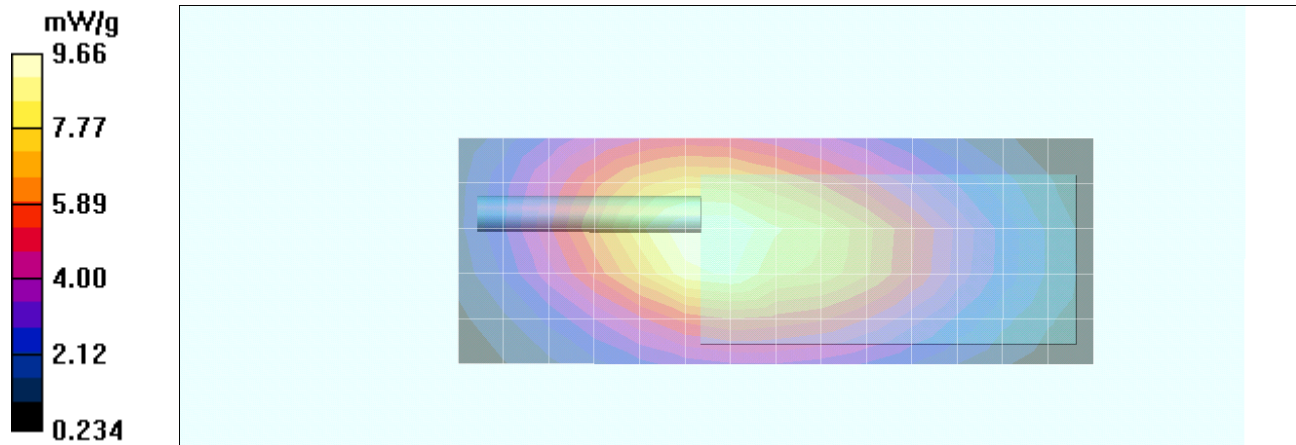
Maximum value of SAR (measured) = 9.66 mW/g

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

Reference Value = 107.1 V/m; Power Drift = -0.546 dB

Peak SAR (extrapolated) = 13.7 W/kg

SAR(1 g) = 9.14 mW/g; SAR(10 g) = 6.44 mW/g



Applicant:	Kenwood USA Corporation	FCC ID:	ALH435001	IC ID:	282D-435001	KENWOOD
DUT Type:	Portable UHF PTT Radio Transceiver	Models:	TK-3402-K2-P	406.1 - 470.0 MHz		
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Z-Axis Scan

