

APPENDIX 1

SAR Measurement Data

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EXHIBIT 1. PRESCAN MEASUREMENT SUMMARY

With MB-133

Battery	Antenna	Power (dBm)	CH	CH. Freq	BODY SAR1g (W/Kg)
				(MHz)	
BP-283	FA-S82V 150-162 MHz	37.03	3	150	0.75
BP-284		37.03	3	150	0.76

With BP-283

Belt Clip	Antenna	Power (dBm)	CH	CH. Freq	BODY SAR1g (W/Kg)
				(MHz)	BP-283 2010mAh
MB-133	FA-S82V 150-162 MHz	37.03	3	150	0.75
MB-136		37.03	3	150	0.12
MB-96N		37.03	3	150	0.09

Test Laboratory: Ultratech Group of Labs

FILE NAME: [ICOM-448QR1 MB-133 BP-283 FA-S82VS 150MHZ.DA52:0](#)

DUT: IC-F7010; Type: VHF Transciever ; Serial: 0000235

Communication System: UID 0, CW (0); Frequency: 150 MHz; Duty Cycle: 1:1
Medium parameters used: $f = 150 \text{ MHz}$; $\sigma = 0.808 \text{ S/m}$; $\epsilon_r = 59.672$; $\rho = 1000 \text{ kg/m}^3$; Phantom section:
Flat Section ; Measurement Standard: DASYS (IEEE/IEC/ANSI C63.19-2007)

DASY Configuration:

- Probe: ES3DV3 - SN3250; ConvF(7.18, 7.18, 7.18); Calibrated: 3/22/2016;
- Sensor-Surface: 3mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn874; Calibrated: 8/22/2016
- Phantom: ELI 4.0; Type: QD OVA 001 BB; Serial: 1057
- DASYS 52.8.8(1222); SEMCAD X 14.6.10(7331)

Configuration_Head_IC-F7010/Body Back, P=5W, d=0mm/Area Scan (51x201x1):

Interpolated grid: $dx=1.500 \text{ mm}$, $dy=1.500 \text{ mm}$

Maximum value of SAR (interpolated) = 0.875 W/kg

Configuration_Head_IC-F7010/Body Back, P=5W, d=0mm/Zoom Scan (5x5x7)

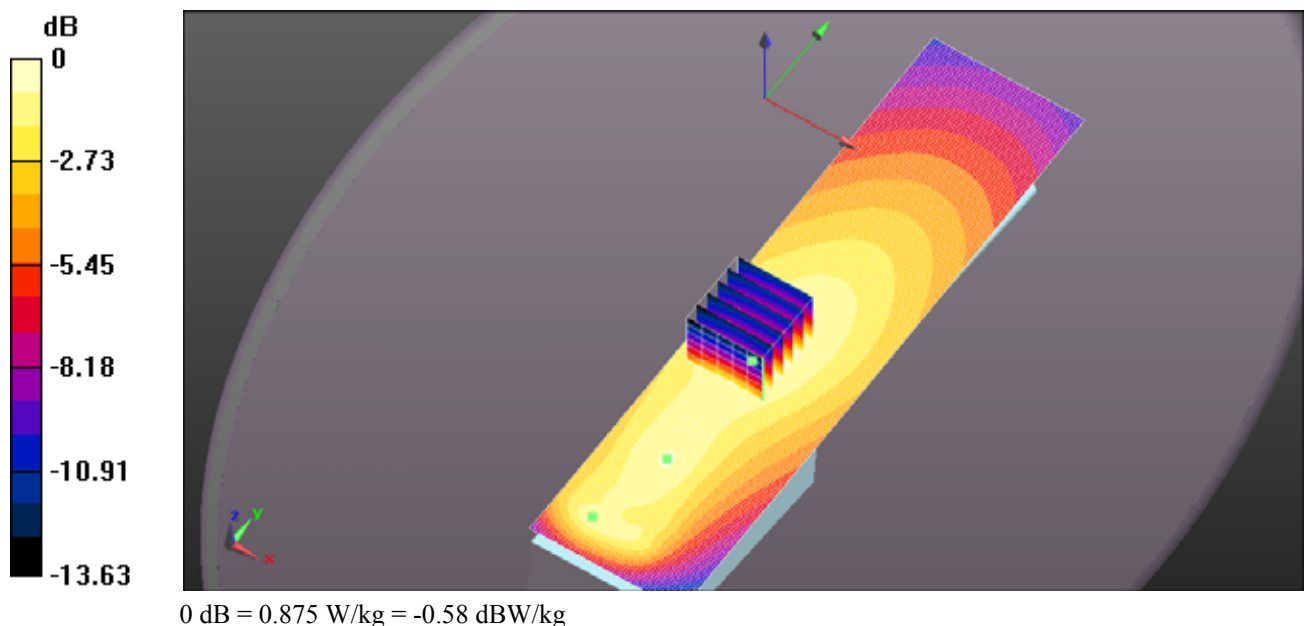
(6x6x7)/Cube 0: Measurement grid: $dx=7.5\text{mm}$, $dy=7.5\text{mm}$, $dz=5\text{mm}$

Reference Value = 11.49 V/m ; Power Drift = 0.01 dB

Peak SAR (extrapolated) = 1.25 W/kg

SAR(1 g) = 0.750 W/kg ; SAR(10 g) = 0.539 W/kg (SAR corrected for target medium)

Maximum value of SAR (measured) = 0.860 W/kg



Test Laboratory: Ultratech Group of Labs

FILE NAME: [ICOM-448QR1 MB-133 BP-284 FA-S82VS 150MHZ.DA52:0](#)

DUT: IC-F7010; Type: VHF Transciever ; Serial: 0000235

Communication System: UID 0, CW (0); Frequency: 150 MHz; Duty Cycle: 1:1
Medium parameters used: $f = 150 \text{ MHz}$; $\sigma = 0.808 \text{ S/m}$; $\epsilon_r = 59.672$; $\rho = 1000 \text{ kg/m}^3$; Phantom section:
Flat Section ; Measurement Standard: DASYS (IEEE/IEC/ANSI C63.19-2007)

DASY Configuration:

- Probe: ES3DV3 - SN3250; ConvF(7.18, 7.18, 7.18); Calibrated: 3/22/2016;
- Sensor-Surface: 3mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn874; Calibrated: 8/22/2016
- Phantom: ELI 4.0; Type: QD OVA 001 BB; Serial: 1057
- DASYS 52.8.8(1222); SEMCAD X 14.6.10(7331)

Configuration_Head_IC-F7010/Body Back, P=5W, d=0mm/Area Scan (51x201x1):

Interpolated grid: $dx=1.500 \text{ mm}$, $dy=1.500 \text{ mm}$

Maximum value of SAR (interpolated) = 0.949 W/kg

Configuration_Head_IC-F7010/Body Back, P=5W, d=0mm/Zoom Scan (5x5x7)

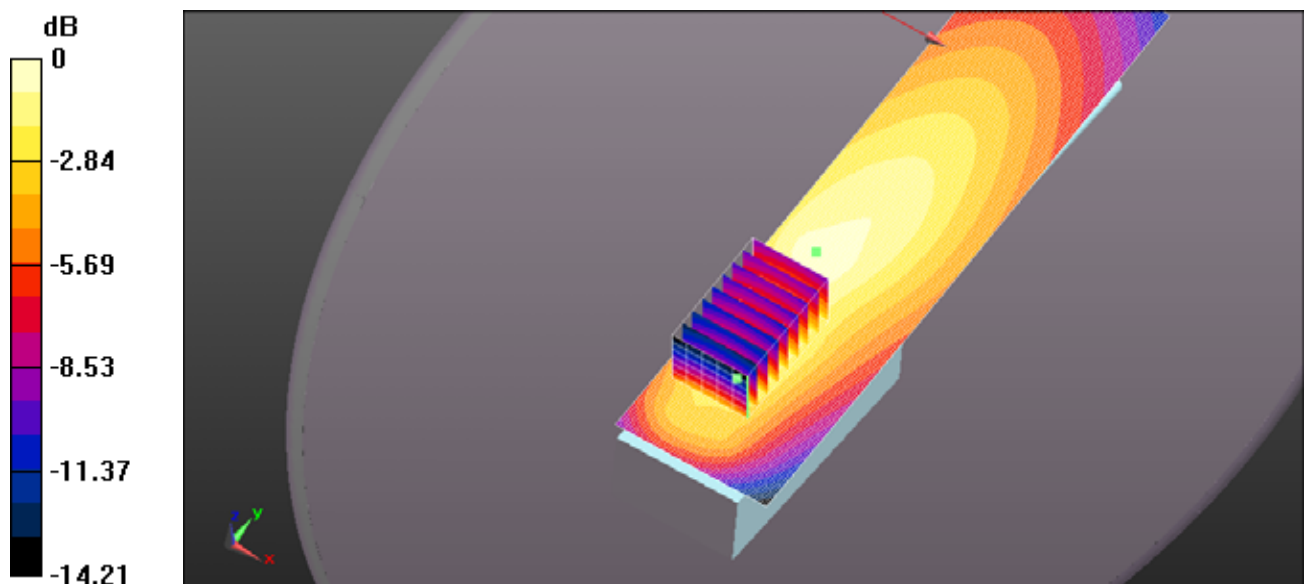
(6x9x7)/Cube 0: Measurement grid: $dx=7.5\text{mm}$, $dy=7.5\text{mm}$, $dz=5\text{mm}$

Reference Value = 11.53 V/m ; Power Drift = -0.12 dB

Peak SAR (extrapolated) = 1.57 W/kg

SAR(1 g) = 0.759 W/kg ; SAR(10 g) = 0.515 W/kg (SAR corrected for target medium)

Maximum value of SAR (measured) = 0.900 W/kg



0 dB = 0.949 W/kg = -0.23 dBW/kg

Test Laboratory: Ultratech Group of Labs

FILE NAME: [ICOM-448QR1 MB-136 BP-283 FA-S82VS 150MHZ.DA52:0](#)

DUT: IC-F7010; Type: VHF Transciever ; Serial: 0000235

Communication System: UID 0, CW (0); Frequency: 150 MHz; Duty Cycle: 1:1
Medium parameters used: $f = 150 \text{ MHz}$; $\sigma = 0.808 \text{ S/m}$; $\epsilon_r = 59.672$; $\rho = 1000 \text{ kg/m}^3$; Phantom section:
Flat Section ; Measurement Standard: DASYS (IEEE/IEC/ANSI C63.19-2007)

DASY Configuration:

- Probe: ES3DV3 - SN3250; ConvF(7.18, 7.18, 7.18); Calibrated: 3/22/2016;
- Sensor-Surface: 3mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn874; Calibrated: 8/22/2016
- Phantom: ELI 4.0; Type: QD OVA 001 BB; Serial: 1057
- DASYS 52.8.8(1222); SEMCAD X 14.6.10(7331)

Configuration_Body_IC-F7010/Body Back, P=5W, d=0mm/Area Scan (51x201x1):

Interpolated grid: $dx=1.500 \text{ mm}$, $dy=1.500 \text{ mm}$

Maximum value of SAR (interpolated) = 0.141 W/kg

Configuration_Body_IC-F7010/Body Back, P=5W, d=0mm/Zoom Scan (5x5x7)

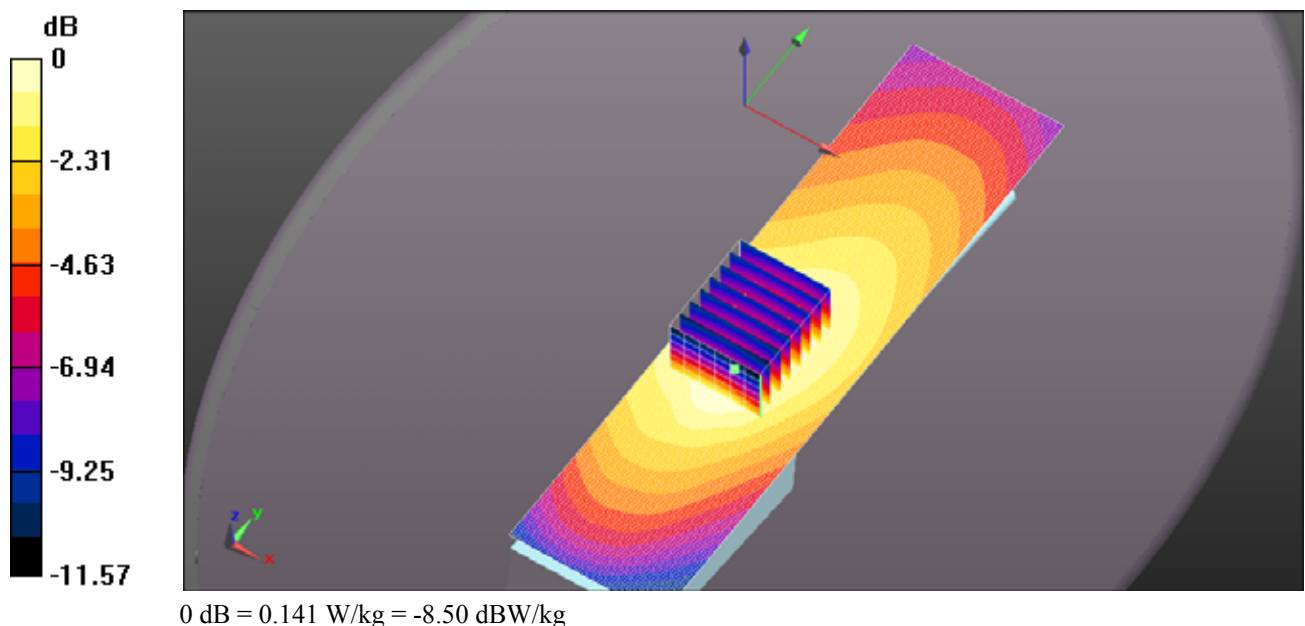
(7x8x7)/Cube 0: Measurement grid: $dx=7.5\text{mm}$, $dy=7.5\text{mm}$, $dz=5\text{mm}$

Reference Value = 4.279 V/m ; Power Drift = -0.09 dB

Peak SAR (extrapolated) = 0.188 W/kg

SAR(1 g) = 0.124 W/kg ; SAR(10 g) = 0.094 W/kg (SAR corrected for target medium)

Maximum value of SAR (measured) = 0.140 W/kg



Test Laboratory: Ultratech Group of Labs

FILE NAME: [ICOM-448QR1 MB-96N BP-283 FA-S82VS 150MHZ.DA52:0](#)

DUT: IC-F7010; Type: VHF Transciever ; Serial: 0000235

Communication System: UID 0, CW (0); Frequency: 150 MHz; Duty Cycle: 1:1
Medium parameters used: $f = 150 \text{ MHz}$; $\sigma = 0.808 \text{ S/m}$; $\epsilon_r = 59.672$; $\rho = 1000 \text{ kg/m}^3$; Phantom section:
Flat Section ; Measurement Standard: DASYS (IEEE/IEC/ANSI C63.19-2007)

DASY Configuration:

- Probe: ES3DV3 - SN3250; ConvF(7.18, 7.18, 7.18); Calibrated: 3/22/2016;
- Sensor-Surface: 3mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn874; Calibrated: 8/22/2016
- Phantom: ELI 4.0; Type: QD OVA 001 BB; Serial: 1057
- DASYS 52.8.8(1222); SEMCAD X 14.6.10(7331)

Configuration_Body_IC-F7010/Body Back, P=5W, d=0mm/Area Scan (51x201x1):

Interpolated grid: $dx=1.500 \text{ mm}$, $dy=1.500 \text{ mm}$

Maximum value of SAR (interpolated) = 0.101 W/kg

Configuration_Body_IC-F7010/Body Back, P=5W, d=0mm/Zoom Scan (5x5x7)

(6x6x7)/Cube 0: Measurement grid: $dx=7.5\text{mm}$, $dy=7.5\text{mm}$, $dz=5\text{mm}$

Reference Value = 2.108 V/m ; Power Drift = 0.18 dB

Peak SAR (extrapolated) = 0.139 W/kg

SAR(1 g) = 0.090 W/kg ; SAR(10 g) = 0.068 W/kg (SAR corrected for target medium)

Maximum value of SAR (measured) = 0.105 W/kg

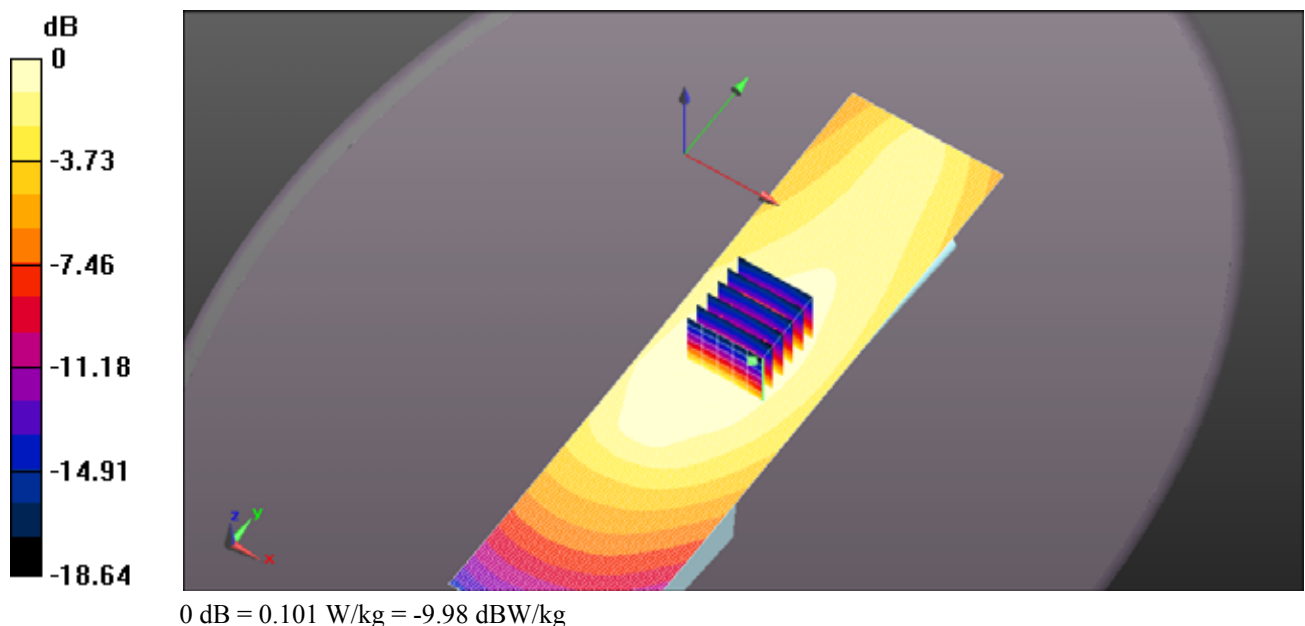


EXHIBIT 2. HEAD SAR MEASUREMENTS

Antenna	Power (dBm)	CH	CH. Freq	HEAD SAR1g (W/Kg)
				BP-284
			(MHz)	3210mAh
FA-S81V 136-150 MHz	37.02	1	136	0.94
	36.97	2	143	2.02
	37.03	3	150	0.59
FA-S82V 150-162 MHz	37.03	3	150	2.59
	37.03	4	156	1.66
	37.07	6	162	0.77
FA-S83V 160-174 MHz	37.05	9	160	1.90
	37.12	6	167	1.62
	37.12	8	174	0.89
FA-S81VS 136-150 MHz	37.02	1	136	0.14
	36.97	2	143	1.31
	37.03	3	150	0.32
FA-S82VS 150-162 MHz	37.03	3	150	0.27
	37.03	4	156	1.37
	37.07	6	162	0.46
FA-S83VS 160-174 MHz	37.05	9	160	0.02
	37.12	6	167	0.99
	37.12	8	174	0.70

Cut Antenna	Power (dBm)	CH	CH. Freq	HEAD SAR1g (W/Kg)
			(MHz)	BP-284
				3210mAh
FA-S67VC 177mm 136MHz Cut	37.02	1	136	0.37
	36.97	2	143	
	37.03	3	150	0.86
	37.03	4	156	
	37.07	6	162	0.16
	37.19	7	168	
	37.12	8	174	0.10
FA-S67VC 169mm 140MHz Cut	37.02	1	136	
	36.97	2	143	0.69
	37.03	3	150	
	37.03	4	156	0.71
	37.07	6	162	
	37.19	7	168	0.23
	37.12	8	174	
FA-S67VC 163mm 145MHz Cut	37.02	1	136	0.19
	36.97	2	143	
	37.03	3	150	1.04
	37.03	4	156	
	37.07	6	162	0.35
	37.19	7	168	
	37.12	8	174	0.24
FA-S67VC 157mm 150MHz Cut	37.02	1	136	0.12
	36.97	2	143	
	37.03	3	150	0.71
	37.03	4	156	
	37.07	6	162	0.56
	37.19	7	168	
	37.12	8	174	0.33
FA-S67VC 151mm 155MHz Cut	37.02	1	136	
	36.97	2	143	0.18
	37.03	3	150	
	37.03	4	156	0.95
	37.07	6	162	
	37.19	7	168	0.99
	37.12	8	174	

Cut Antenna	Power (dBm)	CH	CH. Freq	HEAD SAR1g (W/Kg)
			(MHz)	BP-284
				3210mAh
FA-S67VC 151mm 155MHz Cut	37.02	1	136	
	36.97	2	143	0.18
	37.03	3	150	
	37.03	4	156	0.95
	37.07	6	162	
	37.19	7	168	0.99
	37.12	8	174	
FA-S67VC 146mm 160MHz Cut	37.02	1	136	0.07
	36.97	2	143	
	37.03	3	150	0.23
	37.03	4	156	
	37.07	6	162	1.44
	37.19	7	168	
	37.12	8	174	0.98
FA-S67VC 141mm 165MHz Cut	37.02	1	136	
	36.97	2	143	0.10
	37.03	3	150	
	37.03	4	156	0.30
	37.07	6	162	
	37.19	7	168	1.28
	37.12	8	174	
FA-S67VC 137mm 170MHz Cut	37.02	1	136	
	36.97	2	143	0.08
	37.03	3	150	
	37.03	4	156	0.21
	37.07	6	162	
	37.19	7	168	0.79
	37.12	8	174	
FA-S67VC 133mm 175MHz Cut	37.02	1	136	0.05
	36.97	2	143	
	37.03	3	150	0.11
	37.03	4	156	
	37.07	6	162	0.31
	37.19	7	168	
	37.12	8	174	1.11

Test Laboratory: Ultratech Group of Labs

FILE NAME: [ICOM-448QR! BP-284 FA-S81V 136MHZ.DA52:0](#)

DUT: IC-F7010; Type: VHF Transceiver ; Serial: 0000235

Communication System: UID 0, CW (0); Frequency: 136 MHz; Duty Cycle: 1:1
Medium parameters used: $f = 136 \text{ MHz}$; $\sigma = 0.713 \text{ S/m}$; $\epsilon_r = 52.937$; $\rho = 1000 \text{ kg/m}^3$; Phantom section:
Flat Section ; Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)

DASY Configuration:

- Probe: ES3DV3 - SN3250; ConvF(7.57, 7.57, 7.57); Calibrated: 3/22/2016;
- Sensor-Surface: 3mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn874; Calibrated: 8/22/2016
- Phantom: ELI 4.0; Type: QD OVA 001 BB; Serial: 1057
- DASY52 52.8.8(1222); SEMCAD X 14.6.10(7331)

Configuration_Head_IC-F7010/Head Front, P=5W, d=25mm/Area Scan (51x211x1):

Interpolated grid: $dx=1.500 \text{ mm}$, $dy=1.500 \text{ mm}$

Maximum value of SAR (interpolated) = 1.05 W/kg

Configuration_Head_IC-F7010/Head Front, P=5W, d=25mm/Zoom Scan (5x5x7)

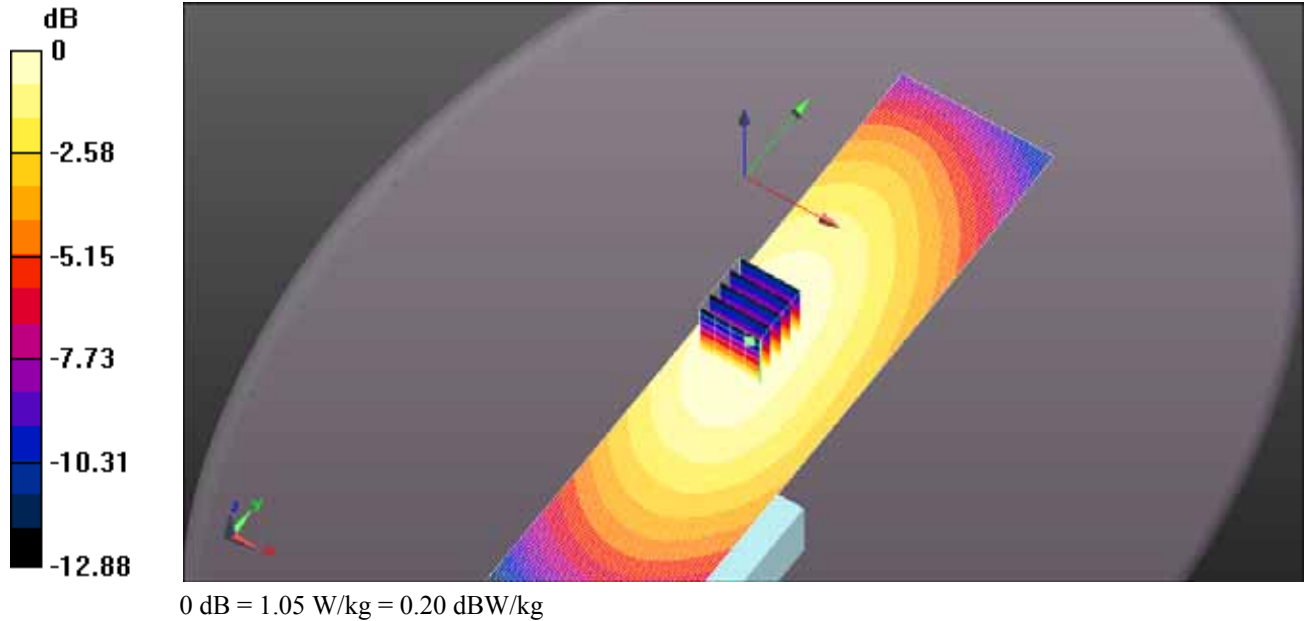
(5x5x7)/Cube 0: Measurement grid: $dx=7.5\text{mm}$, $dy=7.5\text{mm}$, $dz=5\text{mm}$

Reference Value = 35.53 V/m ; Power Drift = -0.18 dB

Peak SAR (extrapolated) = 1.31 W/kg

SAR(1 g) = 0.938 W/kg ; SAR(10 g) = 0.726 W/kg (SAR corrected for target medium)

Maximum value of SAR (measured) = 1.04 W/kg



Test Laboratory: Ultratech Group of Labs

FILE NAME: [ICOM-448QR1 BP-284 FA-S81V 143MHZ.DA52:0](#)

DUT: IC-F7010; Type: VHF Transceiver ; Serial: 0000235

Communication System: UID 0, CW (0); Frequency: 143 MHz; Duty Cycle: 1:1

Medium parameters used (interpolated): $f = 143 \text{ MHz}$; $\sigma = 0.718 \text{ S/m}$; $\epsilon_r = 52.877$; $\rho = 1000 \text{ kg/m}^3$;

Phantom section: Flat Section ; Measurement Standard: DASYS (IEEE/IEC/ANSI C63.19-2007)

DASY Configuration:

- Probe: ES3DV3 - SN3250; ConvF(7.57, 7.57, 7.57); Calibrated: 3/22/2016;
- Sensor-Surface: 3mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn874; Calibrated: 8/22/2016
- Phantom: ELI 4.0; Type: QD OVA 001 BB; Serial: 1057
- DASYS 52.8.8(1222); SEMCAD X 14.6.10(7331)

Configuration_Head_IC-F7010/Head Front, P=5W, d=25mm/Area Scan (51x211x1):

Interpolated grid: $dx=1.500 \text{ mm}$, $dy=1.500 \text{ mm}$

Maximum value of SAR (interpolated) = 2.24 W/kg

Configuration_Head_IC-F7010/Head Front, P=5W, d=25mm/Zoom Scan (5x5x7)

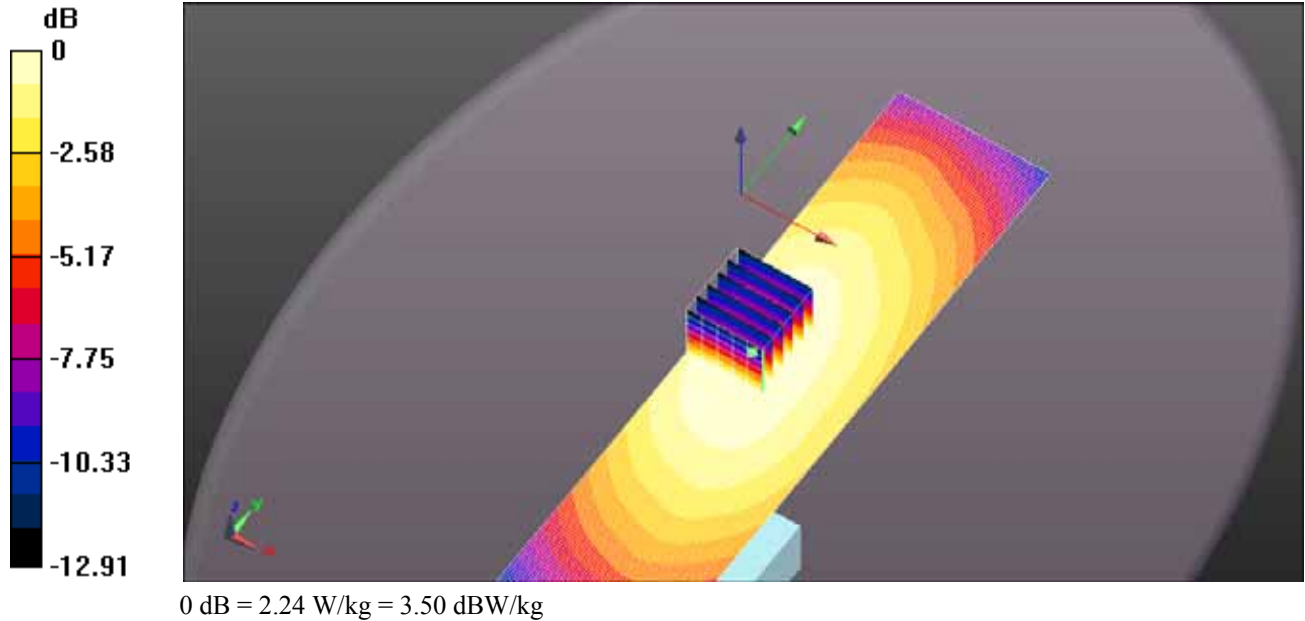
(6x6x7)/Cube 0: Measurement grid: $dx=7.5\text{mm}$, $dy=7.5\text{mm}$, $dz=5\text{mm}$

Reference Value = 56.43 V/m ; Power Drift = -0.14 dB

Peak SAR (extrapolated) = 2.84 W/kg

SAR(1 g) = 2.02 W/kg ; SAR(10 g) = 1.57 W/kg (SAR corrected for target medium)

Maximum value of SAR (measured) = 2.24 W/kg



Test Laboratory: Ultratech Group of Labs

FILE NAME: [ICOM-448QR1 BP-284 FA-S81V 150MHZ.DA52:0](#)

DUT: IC-F7010; Type: VHF Transciever ; Serial: 0000235

Communication System: UID 0, CW (0); Frequency: 150 MHz; Duty Cycle: 1:1
Medium parameters used: $f = 150$ MHz; $\sigma = 0.723$ S/m; $\epsilon_r = 52.638$; $\rho = 1000$ kg/m³ ; Phantom section:
Flat Section ; Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)

DASY Configuration:

- Probe: ES3DV3 - SN3250; ConvF(7.57, 7.57, 7.57); Calibrated: 3/22/2016;
- Sensor-Surface: 3mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn874; Calibrated: 8/22/2016
- Phantom: ELI 4.0; Type: QD OVA 001 BB; Serial: 1057
- DASY52 52.8.8(1222); SEMCAD X 14.6.10(7331)

Configuration_Head_IC-F7010/Head Front, P=5W, d=25mm/Area Scan (51x211x1):

Interpolated grid: dx=1.500 mm, dy=1.500 mm

Maximum value of SAR (interpolated) = 0.625 W/kg

Configuration_Head_IC-F7010/Head Front, P=5W, d=25mm/Zoom Scan (5x5x7)

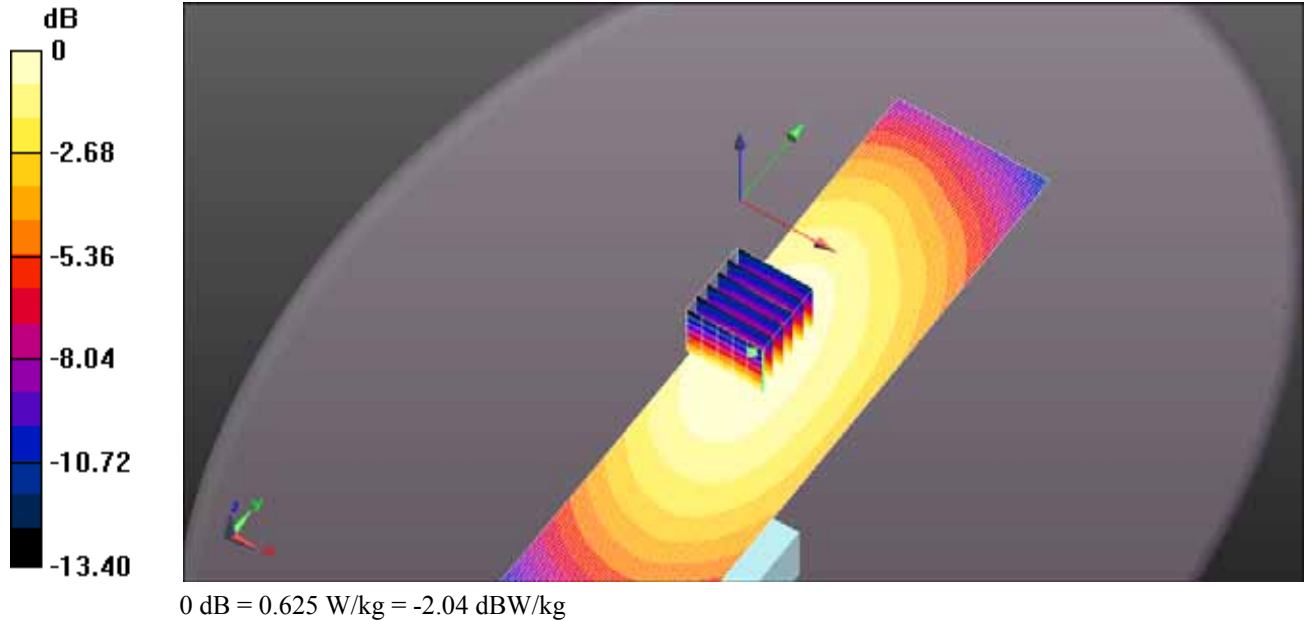
(6x6x7)/Cube 0: Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm

Reference Value = 27.38 V/m; Power Drift = -0.21 dB

Peak SAR (extrapolated) = 0.791 W/kg

SAR(1 g) = 0.587 W/kg; SAR(10 g) = 0.453 W/kg (SAR corrected for target medium)

Maximum value of SAR (measured) = 0.623 W/kg



Test Laboratory: Ultratech Group of Labs

FILE NAME: [ICOM-448QR1 BP-284 FA-S82V 150MHZ.DA52:0](#)

DUT: IC-F7010; Type: VHF Transciever ; Serial: 0000235

Communication System: UID 0, CW (0); Frequency: 150 MHz; Duty Cycle: 1:1
Medium parameters used: $f = 150$ MHz; $\sigma = 0.723$ S/m; $\epsilon_r = 52.638$; $\rho = 1000$ kg/m³ ; Phantom section:
Flat Section ; Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)

DASY Configuration:

- Probe: ES3DV3 - SN3250; ConvF(7.57, 7.57, 7.57); Calibrated: 3/22/2016;
- Sensor-Surface: 3mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn874; Calibrated: 8/22/2016
- Phantom: ELI 4.0; Type: QD OVA 001 BB; Serial: 1057
- DASY52 52.8.8(1222); SEMCAD X 14.6.10(7331)

Configuration_Head_IC-F7010/Head Front, P=5W, d=25mm/Area Scan (51x211x1):

Interpolated grid: dx=1.500 mm, dy=1.500 mm

Maximum value of SAR (interpolated) = 2.83 W/kg

Configuration_Head_IC-F7010/Head Front, P=5W, d=25mm/Zoom Scan (5x5x7)

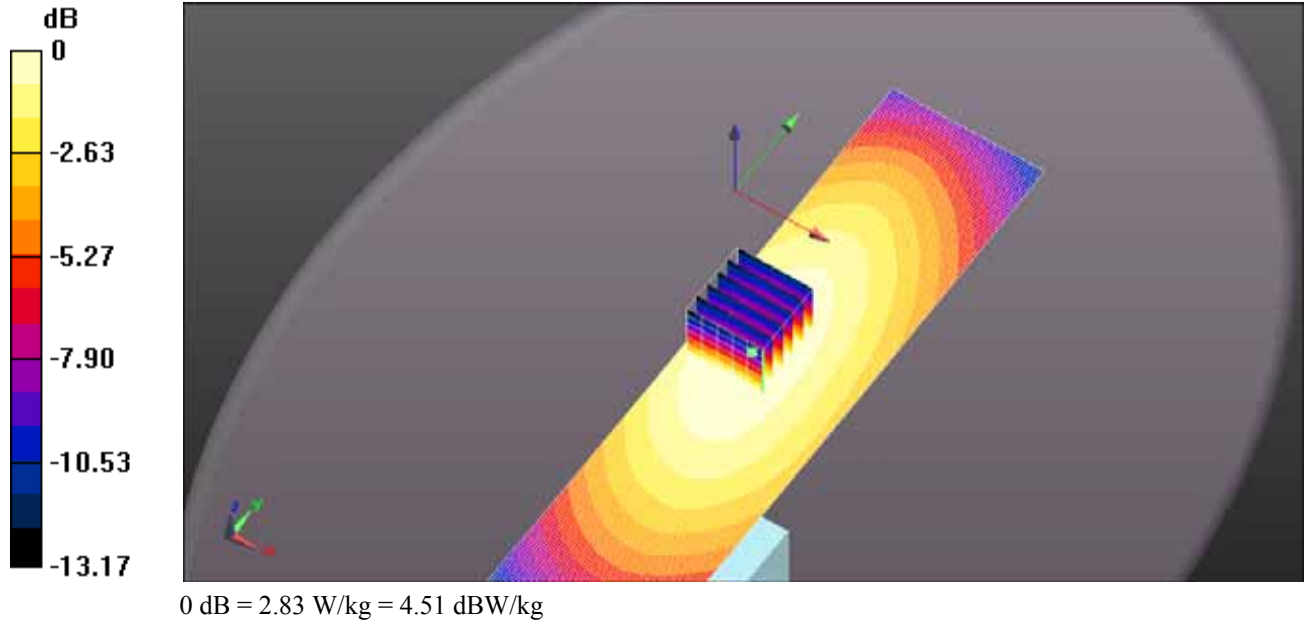
(6x6x7)/Cube 0: Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm

Reference Value = 13.75 V/m; Power Drift = 0.05 dB

Peak SAR (extrapolated) = 3.47 W/kg

SAR(1 g) = 2.59 W/kg; SAR(10 g) = 1.99 W/kg (SAR corrected for target medium)

Maximum value of SAR (measured) = 2.75 W/kg



Test Laboratory: Ultratech Group of Labs

FILE NAME: [ICOM-448QR1 BP-284 FA-S82V 156MHZ.DA52:0](#)

DUT: IC-F7010; Type: VHF Transciever ; Serial: 0000235

Communication System: UID 0, CW (0); Frequency: 156 MHz; Duty Cycle: 1:1
Medium parameters used: $f = 156 \text{ MHz}$; $\sigma = 0.727 \text{ S/m}$; $\epsilon_r = 52.214$; $\rho = 1000 \text{ kg/m}^3$; Phantom section:
Flat Section ; Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)

DASY Configuration:

- Probe: ES3DV3 - SN3250; ConvF(7.57, 7.57, 7.57); Calibrated: 3/22/2016;
- Sensor-Surface: 3mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn874; Calibrated: 8/22/2016
- Phantom: ELI 4.0; Type: QD OVA 001 BB; Serial: 1057
- DASY52 52.8.8(1222); SEMCAD X 14.6.10(7331)

Configuration_Head_IC-F7010/Head Front, P=5W, d=25mm/Area Scan (51x211x1):

Interpolated grid: $dx=1.500 \text{ mm}$, $dy=1.500 \text{ mm}$

Maximum value of SAR (interpolated) = 1.83 W/kg

Configuration_Head_IC-F7010/Head Front, P=5W, d=25mm/Zoom Scan (5x5x7)

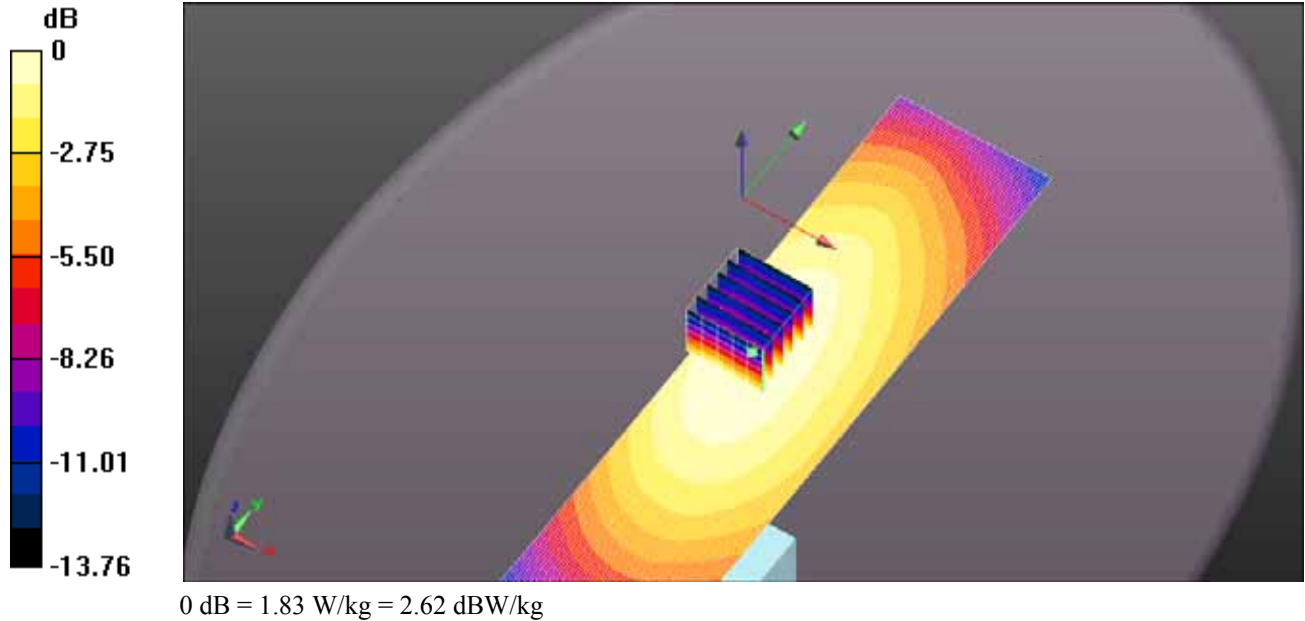
(6x6x7)/Cube 0: Measurement grid: $dx=7.5\text{mm}$, $dy=7.5\text{mm}$, $dz=5\text{mm}$

Reference Value = 10.26 V/m ; Power Drift = 0.23 dB

Peak SAR (extrapolated) = 2.36 W/kg

SAR(1 g) = 1.66 W/kg ; SAR(10 g) = 1.26 W/kg (SAR corrected for target medium)

Maximum value of SAR (measured) = 1.85 W/kg



Test Laboratory: Ultratech Group of Labs

FILE NAME: [ICOM-448QR1 BP-284 FA-S82V 162MHZ.DA52:0](#)

DUT: IC-F7010; Type: VHF Transceiver ; Serial: 0000235

Communication System: UID 0, CW (0); Frequency: 162 MHz; Duty Cycle: 1:1
Medium parameters used: $f = 162 \text{ MHz}$; $\sigma = 0.732 \text{ S/m}$; $\epsilon_r = 52.084$; $\rho = 1000 \text{ kg/m}^3$; Phantom section:
Flat Section ; Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)

DASY Configuration:

- Probe: ES3DV3 - SN3250; ConvF(7.57, 7.57, 7.57); Calibrated: 3/22/2016;
- Sensor-Surface: 3mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn874; Calibrated: 8/22/2016
- Phantom: ELI 4.0; Type: QD OVA 001 BB; Serial: 1057
- DASY52 52.8.8(1222); SEMCAD X 14.6.10(7331)

Configuration_Head_IC-F7010/Head Front, P=5W, d=25mm/Area Scan (51x211x1):

Interpolated grid: $dx=1.500 \text{ mm}$, $dy=1.500 \text{ mm}$

Maximum value of SAR (interpolated) = 0.925 W/kg

Configuration_Head_IC-F7010/Head Front, P=5W, d=25mm/Zoom Scan (5x5x7)

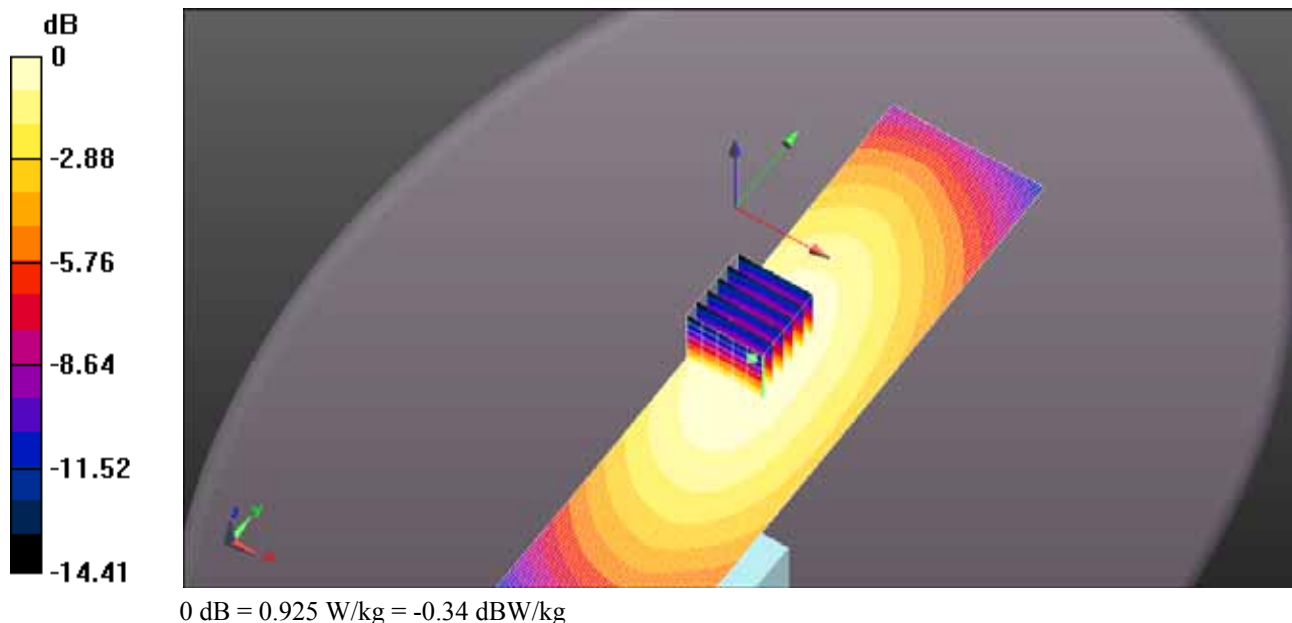
(6x6x7)/Cube 0: Measurement grid: $dx=7.5\text{mm}$, $dy=7.5\text{mm}$, $dz=5\text{mm}$

Reference Value = 6.770 V/m ; Power Drift = -0.04 dB

Peak SAR (extrapolated) = 1.09 W/kg

SAR(1 g) = 0.772 W/kg ; SAR(10 g) = 0.593 W/kg (SAR corrected for target medium)

Maximum value of SAR (measured) = 0.855 W/kg



Test Laboratory: Ultratech Group of Labs

FILE NAME: [ICOM-448QR1 BP-284 FA-S83V 160MHZ.DA52:0](#)

DUT: IC-F7010; Type: VHF Transciever ; Serial: 0000235

Communication System: UID 0, CW (0); Frequency: 160 MHz; Duty Cycle: 1:1
Medium parameters used: $f = 160$ MHz; $\sigma = 0.729$ S/m; $\epsilon_r = 52.094$; $\rho = 1000$ kg/m³ ; Phantom section:
Flat Section ; Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)

DASY Configuration:

- Probe: ES3DV3 - SN3250; ConvF(7.57, 7.57, 7.57); Calibrated: 3/22/2016;
- Sensor-Surface: 3mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn874; Calibrated: 8/22/2016
- Phantom: ELI 4.0; Type: QD OVA 001 BB; Serial: 1057
- DASY52 52.8.8(1222); SEMCAD X 14.6.10(7331)

Configuration_Head_IC-F7010/Head Front, P=5W, d=25mm/Area Scan (51x211x1):

Interpolated grid: dx=1.500 mm, dy=1.500 mm

Maximum value of SAR (interpolated) = 2.14 W/kg

Configuration_Head_IC-F7010/Head Front, P=5W, d=25mm/Zoom Scan (5x5x7)

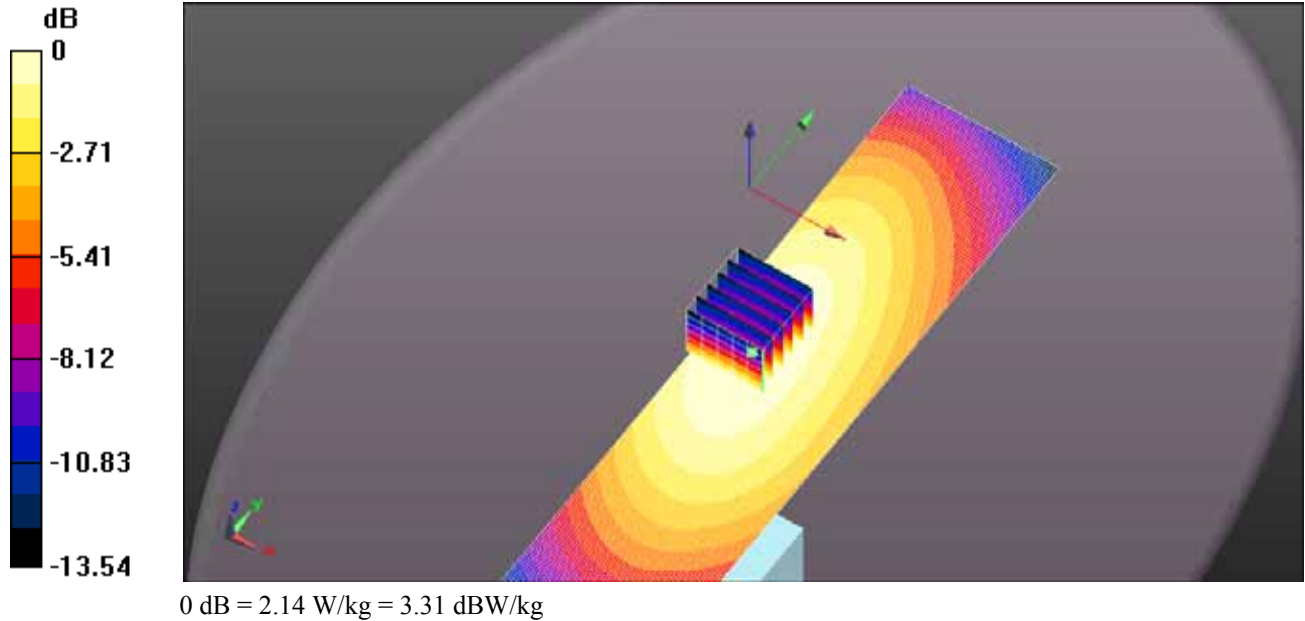
(6x6x7)/Cube 0: Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm

Reference Value = 11.38 V/m; Power Drift = -0.07 dB

Peak SAR (extrapolated) = 2.69 W/kg

SAR(1 g) = 1.9 W/kg; SAR(10 g) = 1.45 W/kg (SAR corrected for target medium)

Maximum value of SAR (measured) = 2.11 W/kg



Test Laboratory: Ultratech Group of Labs

FILE NAME: [ICOM-448QR1 BP-284 FA-S83V 167MHZ.DA52:0](#)

DUT: IC-F7010; Type: VHF Transceiver ; Serial: 0000235

Communication System: UID 0, CW (0); Frequency: 167 MHz; Duty Cycle: 1:1

Medium parameters used (interpolated): $f = 167$ MHz; $\sigma = 0.734$ S/m; $\epsilon_r = 51.736$; $\rho = 1000$ kg/m³ ;

Phantom section: Flat Section ; Measurement Standard: DASYS (IEEE/IEC/ANSI C63.19-2007)

DASY Configuration:

- Probe: ES3DV3 - SN3250; ConvF(7.57, 7.57, 7.57); Calibrated: 3/22/2016;
- Sensor-Surface: 3mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn874; Calibrated: 8/22/2016
- Phantom: ELI 4.0; Type: QD OVA 001 BB; Serial: 1057
- DASYS 52.8.8(1222); SEMCAD X 14.6.10(7331)

Configuration_Head_IC-F7010/Head Front, P=5W, d=25mm/Area Scan (51x211x1):

Interpolated grid: dx=1.500 mm, dy=1.500 mm

Maximum value of SAR (interpolated) = 1.84 W/kg

Configuration_Head_IC-F7010/Head Front, P=5W, d=25mm/Zoom Scan (5x5x7)

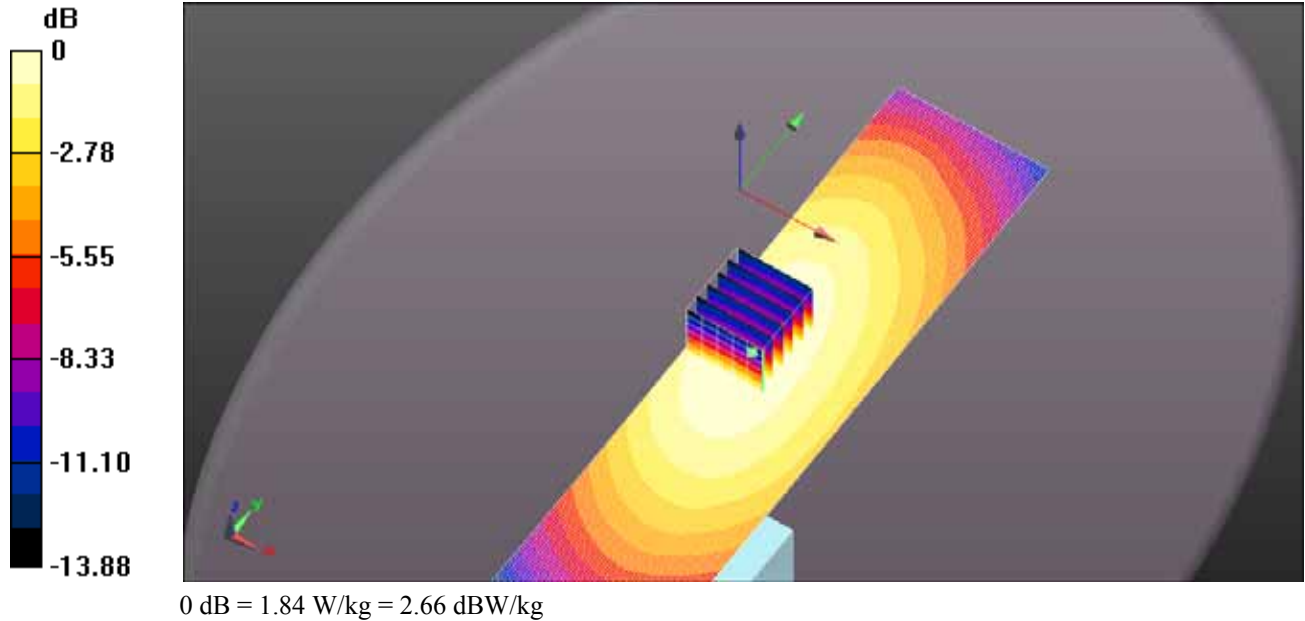
(6x6x7)/Cube 0: Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm

Reference Value = 10.18 V/m; Power Drift = -0.11 dB

Peak SAR (extrapolated) = 2.30 W/kg

SAR(1 g) = 1.62 W/kg; SAR(10 g) = 1.25 W/kg (SAR corrected for target medium)

Maximum value of SAR (measured) = 1.80 W/kg



Test Laboratory: Ultratech Group of Labs

FILE NAME: [ICOM-448QR1 BP-284 FA-S83V 167MHZ.DA52:0](#)

DUT: IC-F7010; Type: VHF Transciever ; Serial: 0000235

Communication System: UID 0, CW (0); Frequency: 167 MHz; Duty Cycle: 1:1
Medium parameters used (interpolated): $f = 167$ MHz; $\sigma = 0.734$ S/m; $\epsilon_r = 51.736$; $\rho = 1000$ kg/m³ ;
Phantom section: Flat Section ; Measurement Standard: DASYS (IEEE/IEC/ANSI C63.19-2007)

DASY Configuration:

- Probe: ES3DV3 - SN3250; ConvF(7.57, 7.57, 7.57); Calibrated: 3/22/2016;
- Sensor-Surface: 3mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn874; Calibrated: 8/22/2016
- Phantom: ELI 4.0; Type: QD OVA 001 BB; Serial: 1057
- DASYS2 52.8.8(1222); SEMCAD X 14.6.10(7331)

Configuration_Head_IC-F7010/Head Front, P=5W, d=25mm/Area Scan (51x211x1):

Interpolated grid: dx=1.500 mm, dy=1.500 mm

Maximum value of SAR (interpolated) = 1.84 W/kg

Configuration_Head_IC-F7010/Head Front, P=5W, d=25mm/Zoom Scan (5x5x7)

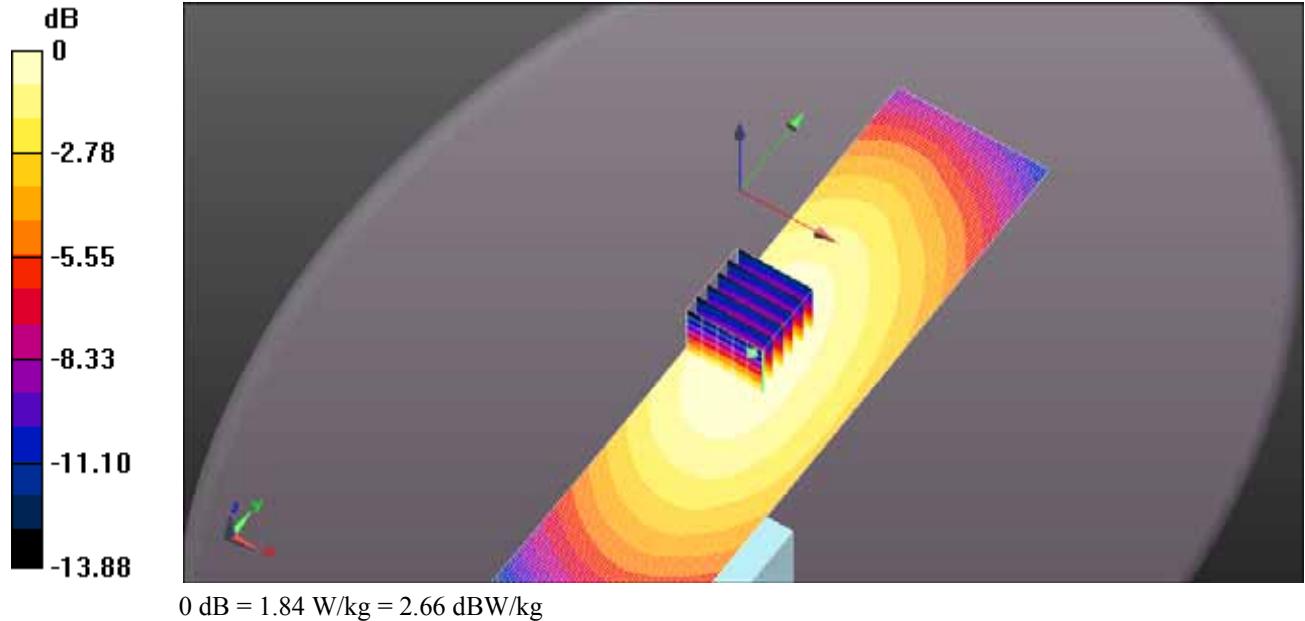
(6x6x7)/Cube 0: Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm

Reference Value = 10.18 V/m; Power Drift = -0.11 dB

Peak SAR (extrapolated) = 2.30 W/kg

SAR(1 g) = 1.62 W/kg; SAR(10 g) = 1.25 W/kg (SAR corrected for target medium)

Maximum value of SAR (measured) = 1.80 W/kg



Test Laboratory: Ultratech Group of Labs

FILE NAME: [ICOM-448QR1 BP-284 FA-S81VS 136MHZ.DA52:0](#)

DUT: IC-F7010; Type: VHF Transciever ; Serial: 0000235

Communication System: UID 0, CW (0); Frequency: 136 MHz; Duty Cycle: 1:1
Medium parameters used: $f = 136$ MHz; $\sigma = 0.713$ S/m; $\epsilon_r = 52.937$; $\rho = 1000$ kg/m³ ; Phantom section:
Flat Section ; Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)

DASY Configuration:

- Probe: ES3DV3 - SN3250; ConvF(7.57, 7.57, 7.57); Calibrated: 3/22/2016;
- Sensor-Surface: 3mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn874; Calibrated: 8/22/2016
- Phantom: ELI 4.0; Type: QD OVA 001 BB; Serial: 1057
- DASY52 52.8.8(1222); SEMCAD X 14.6.10(7331)

Configuration_Head_IC-F7010/Head Front, P=5W, d=25mm/Area Scan (51x141x1):

Interpolated grid: dx=1.500 mm, dy=1.500 mm

Maximum value of SAR (interpolated) = 0.170 W/kg

Configuration_Head_IC-F7010/Head Front, P=5W, d=25mm/Zoom Scan (5x5x7)

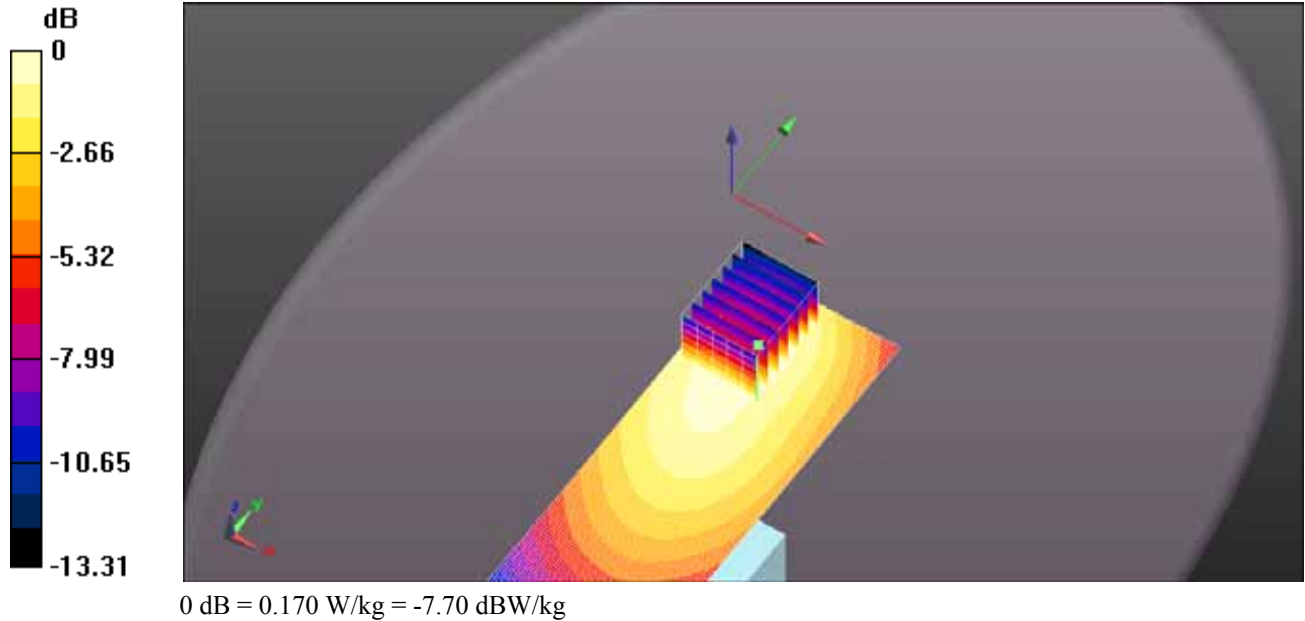
(6x7x7)/Cube 0: Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm

Reference Value = 3.335 V/m; Power Drift = 0.08 dB

Peak SAR (extrapolated) = 0.232 W/kg

SAR(1 g) = 0.141 W/kg; SAR(10 g) = 0.102 W/kg (SAR corrected for target medium)

Maximum value of SAR (measured) = 0.160 W/kg



Test Laboratory: Ultratech Group of Labs

FILE NAME: [ICOM-448QR1 BP-284 FA-S81VS 143MHZ.DA52:0](#)

DUT: IC-F7010; Type: VHF Transciever ; Serial: 0000235

Communication System: UID 0, CW (0); Frequency: 143 MHz; Duty Cycle: 1:1
Medium parameters used (interpolated): $f = 143$ MHz; $\sigma = 0.718$ S/m; $\epsilon_r = 52.877$; $\rho = 1000$ kg/m³ ;
Phantom section: Flat Section ; Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)

DASY Configuration:

- Probe: ES3DV3 - SN3250; ConvF(7.57, 7.57, 7.57); Calibrated: 3/22/2016;
- Sensor-Surface: 3mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn874; Calibrated: 8/22/2016
- Phantom: ELI 4.0; Type: QD OVA 001 BB; Serial: 1057
- DASY52 52.8.8(1222); SEMCAD X 14.6.10(7331)

Configuration_Head_IC-F7010/Head Front, P=5W, d=25mm/Area Scan (51x141x1):

Interpolated grid: dx=1.500 mm, dy=1.500 mm.

Maximum value of SAR (interpolated) = 1.52 W/kg

Configuration_Head_IC-F7010/Head Front, P=5W, d=25mm/Zoom Scan (5x5x7)

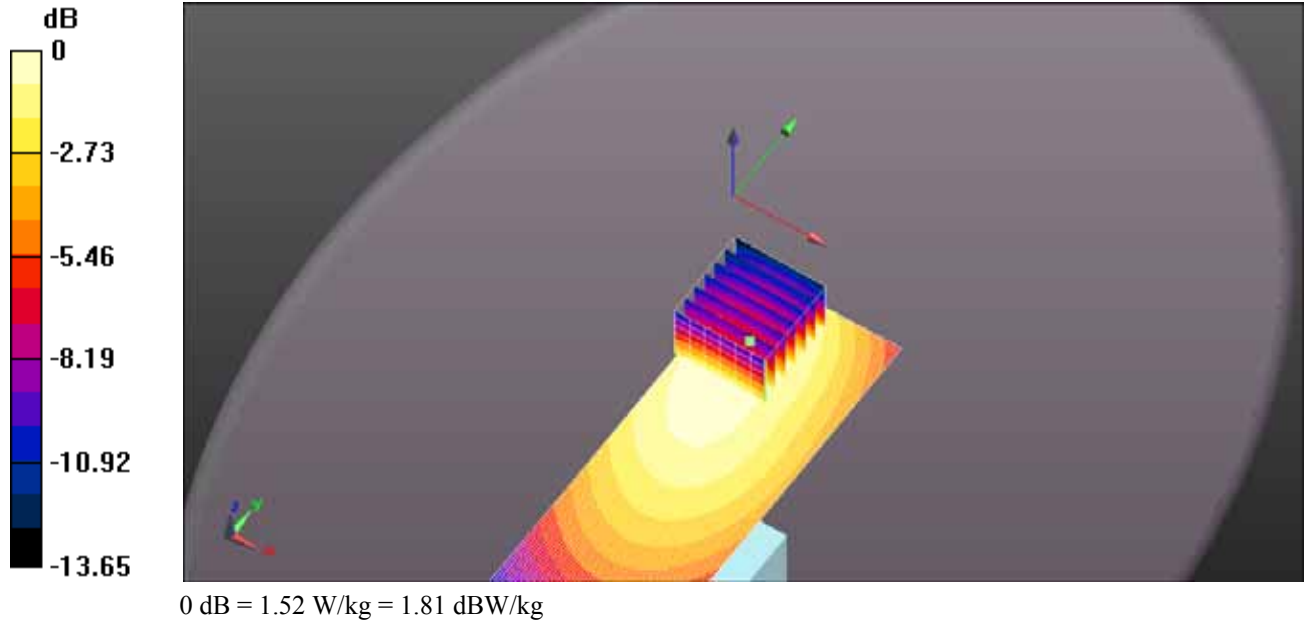
(7x7x7)/Cube 0: Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm

Reference Value = 10.53 V/m; Power Drift = -0.17 dB

Peak SAR (extrapolated) = 2.07 W/kg

SAR(1 g) = 1.31 W/kg; SAR(10 g) = 0.971 W/kg (SAR corrected for target medium)

Maximum value of SAR (measured) = 1.48 W/kg



Test Laboratory: Ultratech Group of Labs

FILE NAME: [ICOM-448QR1 BP-284 FA-S81VS 150MHZ.DA52:0](#)

DUT: IC-F7010; Type: VHF Transciever ; Serial: 0000235

Communication System: UID 0, CW (0); Frequency: 150 MHz; Duty Cycle: 1:1
Medium parameters used: $f = 150 \text{ MHz}$; $\sigma = 0.723 \text{ S/m}$; $\epsilon_r = 52.638$; $\rho = 1000 \text{ kg/m}^3$; Phantom section:
Flat Section ; Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)

DASY Configuration:

- Probe: ES3DV3 - SN3250; ConvF(7.57, 7.57, 7.57); Calibrated: 3/22/2016;
- Sensor-Surface: 3mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn874; Calibrated: 8/22/2016
- Phantom: ELI 4.0; Type: QD OVA 001 BB; Serial: 1057
- DASY52 52.8.8(1222); SEMCAD X 14.6.10(7331)

Configuration_Head_IC-F7010/Head Front, P=5W, d=25mm/Area Scan (51x141x1):

Interpolated grid: $dx=1.500 \text{ mm}$, $dy=1.500 \text{ mm}$

Maximum value of SAR (interpolated) = 0.355 W/kg

Configuration_Head_IC-F7010/Head Front, P=5W, d=25mm/Zoom Scan (5x5x7)

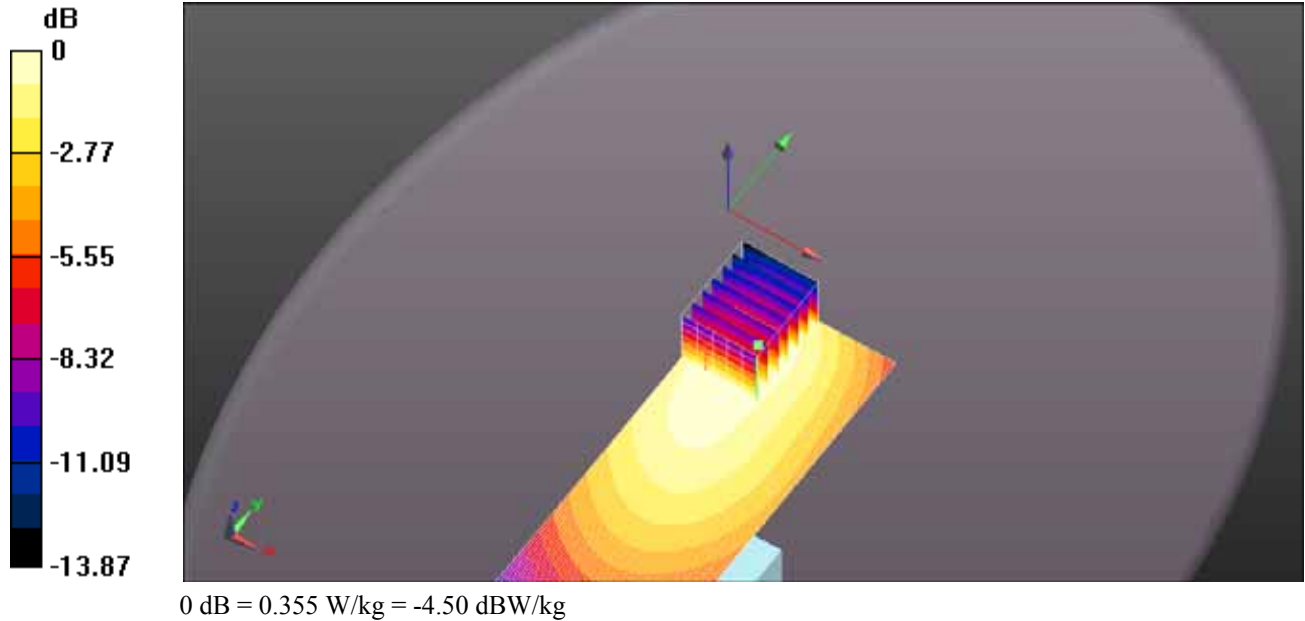
(6x7x7)/Cube 0: Measurement grid: $dx=7.5\text{mm}$, $dy=7.5\text{mm}$, $dz=5\text{mm}$

Reference Value = 4.677 V/m ; Power Drift = -0.04 dB

Peak SAR (extrapolated) = 0.487 W/kg

SAR(1 g) = 0.319 W/kg ; SAR(10 g) = 0.233 W/kg (SAR corrected for target medium)

Maximum value of SAR (measured) = 0.347 W/kg



Test Laboratory: Ultratech Group of Labs

FILE NAME: [ICOM-448QR1 BP-284 FA-S82VS 150MHZ.DA52:0](#)

DUT: IC-F7010; Type: VHF Transciever ; Serial: 0000235

Communication System: UID 0, CW (0); Frequency: 150 MHz; Duty Cycle: 1:1
Medium parameters used: $f = 150$ MHz; $\sigma = 0.723$ S/m; $\epsilon_r = 52.638$; $\rho = 1000$ kg/m³ ; Phantom section:
Flat Section ; Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)

DASY Configuration:

- Probe: ES3DV3 - SN3250; ConvF(7.57, 7.57, 7.57); Calibrated: 3/22/2016;
- Sensor-Surface: 3mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn874; Calibrated: 8/22/2016
- Phantom: ELI 4.0; Type: QD OVA 001 BB; Serial: 1057
- DASY52 52.8.8(1222); SEMCAD X 14.6.10(7331)

Configuration_Head_IC-F7010/Head Front, P=5W, d=25mm/Area Scan (51x141x1):

Interpolated grid: dx=1.500 mm, dy=1.500 mm

Maximum value of SAR (interpolated) = 0.301 W/kg

Configuration_Head_IC-F7010/Head Front, P=5W, d=25mm/Zoom Scan (5x5x7)

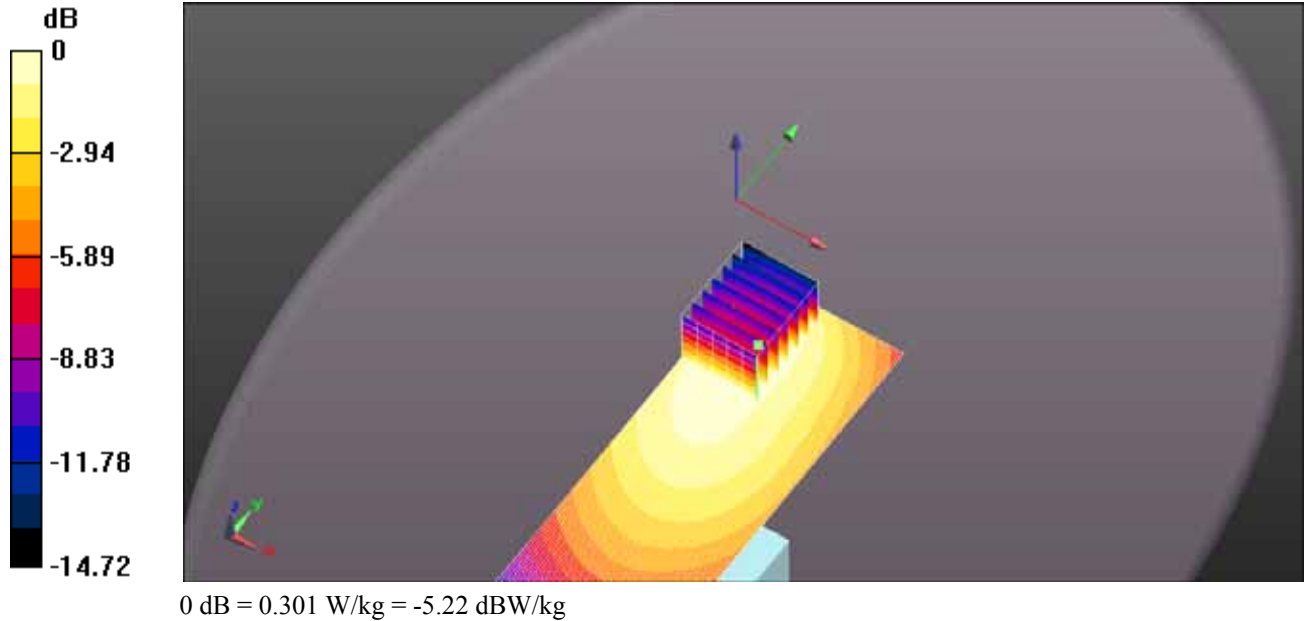
(6x7x7)/Cube 0: Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm

Reference Value = 4.230 V/m; Power Drift = 0.05 dB

Peak SAR (extrapolated) = 0.420 W/kg

SAR(1 g) = 0.273 W/kg; SAR(10 g) = 0.200 W/kg (SAR corrected for target medium)

Maximum value of SAR (measured) = 0.297 W/kg



Test Laboratory: Ultratech Group of Labs

FILE NAME: [ICOM-448QR1 BP-284 FA-S82VS 156MHZ.DA52:0](#)

DUT: IC-F7010; Type: VHF Transciever ; Serial: 0000235

Communication System: UID 0, CW (0); Frequency: 156 MHz; Duty Cycle: 1:1
Medium parameters used: $f = 156 \text{ MHz}$; $\sigma = 0.727 \text{ S/m}$; $\epsilon_r = 52.214$; $\rho = 1000 \text{ kg/m}^3$; Phantom section:
Flat Section ; Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)

DASY Configuration:

- Probe: ES3DV3 - SN3250; ConvF(7.57, 7.57, 7.57); Calibrated: 3/22/2016;
- Sensor-Surface: 3mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn874; Calibrated: 8/22/2016
- Phantom: ELI 4.0; Type: QD OVA 001 BB; Serial: 1057
- DASY52 52.8.8(1222); SEMCAD X 14.6.10(7331)

Configuration_Head_IC-F7010/Head Front, P=5W, d=25mm/Area Scan (51x141x1):

Interpolated grid: $dx=1.500 \text{ mm}$, $dy=1.500 \text{ mm}$

Maximum value of SAR (interpolated) = 1.63 W/kg

Configuration_Head_IC-F7010/Head Front, P=5W, d=25mm/Zoom Scan (5x5x7)

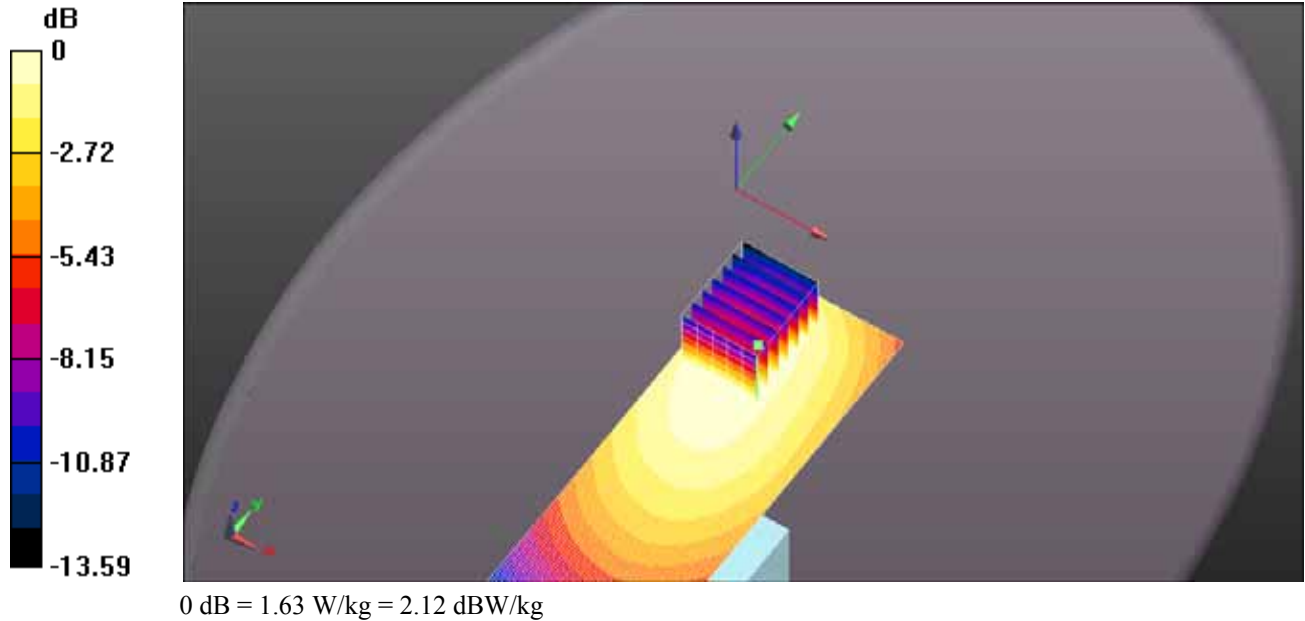
(6x7x7)/Cube 0: Measurement grid: $dx=7.5\text{mm}$, $dy=7.5\text{mm}$, $dz=5\text{mm}$

Reference Value = 10.23 V/m; Power Drift = -0.16 dB

Peak SAR (extrapolated) = 2.07 W/kg

SAR(1 g) = 1.37 W/kg; SAR(10 g) = 1.03 W/kg (SAR corrected for target medium)

Maximum value of SAR (measured) = 1.53 W/kg



Test Laboratory: Ultratech Group of Labs

FILE NAME: [ICOM-448QR1 BP-284 FA-S82VS 162MHZ.DA52:0](#)

DUT: IC-F7010; Type: VHF Transciever ; Serial: 0000235

Communication System: UID 0, CW (0); Frequency: 162 MHz; Duty Cycle: 1:1
Medium parameters used: $f = 162 \text{ MHz}$; $\sigma = 0.732 \text{ S/m}$; $\epsilon_r = 52.084$; $\rho = 1000 \text{ kg/m}^3$; Phantom section:
Flat Section ; Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)

DASY Configuration:

- Probe: ES3DV3 - SN3250; ConvF(7.57, 7.57, 7.57); Calibrated: 3/22/2016;
- Sensor-Surface: 3mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn874; Calibrated: 8/22/2016
- Phantom: ELI 4.0; Type: QD OVA 001 BB; Serial: 1057
- DASY52 52.8.8(1222); SEMCAD X 14.6.10(7331)

Configuration_Head_IC-F7010/Head Front, P=5W, d=25mm/Area Scan (51x141x1):

Interpolated grid: $dx=1.500 \text{ mm}$, $dy=1.500 \text{ mm}$

Maximum value of SAR (interpolated) = 0.531 W/kg

Configuration_Head_IC-F7010/Head Front, P=5W, d=25mm/Zoom Scan (5x5x7)

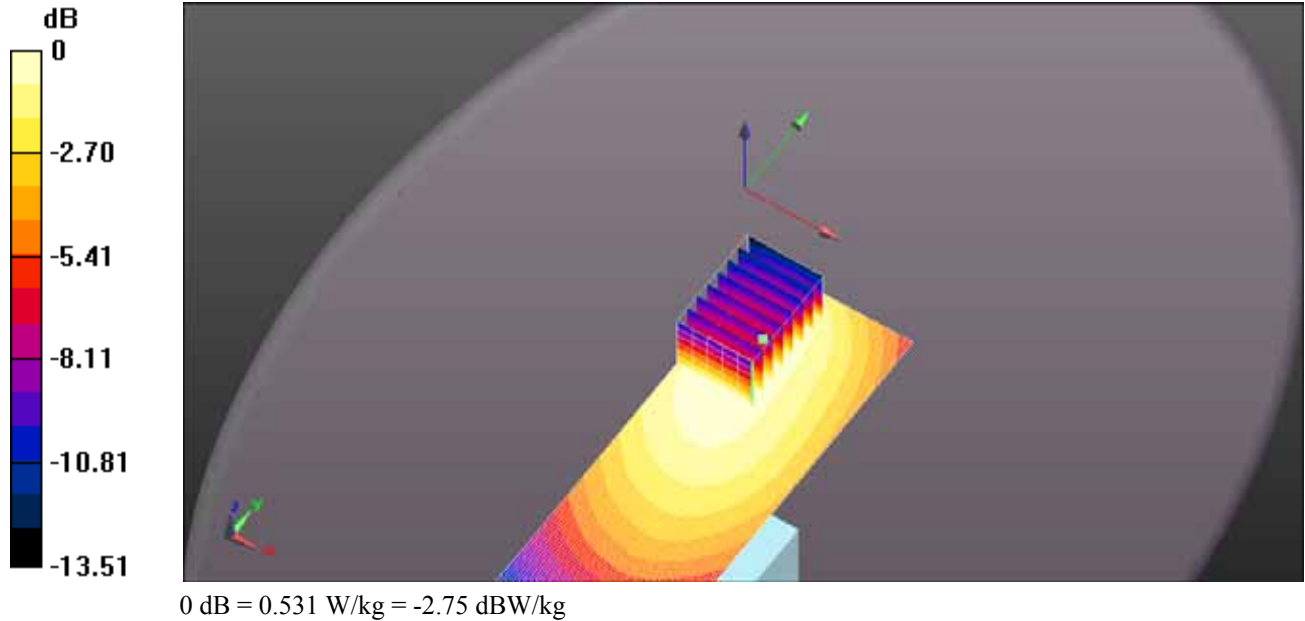
(6x8x7)/Cube 0: Measurement grid: $dx=7.5\text{mm}$, $dy=7.5\text{mm}$, $dz=5\text{mm}$

Reference Value = 5.677 V/m ; Power Drift = 0.03 dB

Peak SAR (extrapolated) = 0.706 W/kg

SAR(1 g) = 0.461 W/kg ; SAR(10 g) = 0.345 W/kg (SAR corrected for target medium)

Maximum value of SAR (measured) = 0.518 W/kg



Test Laboratory: Ultratech Group of Labs

FILE NAME: [ICOM-448QR1 BP-284 FA-S83VS 160MHZ.DA52:0](#)

DUT: IC-F7010; Type: VHF Transciever ; Serial: 0000235

Communication System: UID 0, CW (0); Frequency: 160 MHz; Duty Cycle: 1:1
Medium parameters used: $f = 160$ MHz; $\sigma = 0.729$ S/m; $\epsilon_r = 52.094$; $\rho = 1000$ kg/m³ ; Phantom section:
Flat Section ; Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)

DASY Configuration:

- Probe: ES3DV3 - SN3250; ConvF(7.57, 7.57, 7.57); Calibrated: 3/22/2016;
- Sensor-Surface: 3mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn874; Calibrated: 8/22/2016
- Phantom: ELI 4.0; Type: QD OVA 001 BB; Serial: 1057
- DASY52 52.8.8(1222); SEMCAD X 14.6.10(7331)

Configuration_Head_IC-F7010/Head Front, P=5W, d=25mm/Area Scan (51x141x1):

Interpolated grid: dx=1.500 mm, dy=1.500 mm

Maximum value of SAR (interpolated) = 0.249 W/kg

Configuration_Head_IC-F7010/Head Front, P=5W, d=25mm/Zoom Scan (5x5x7)

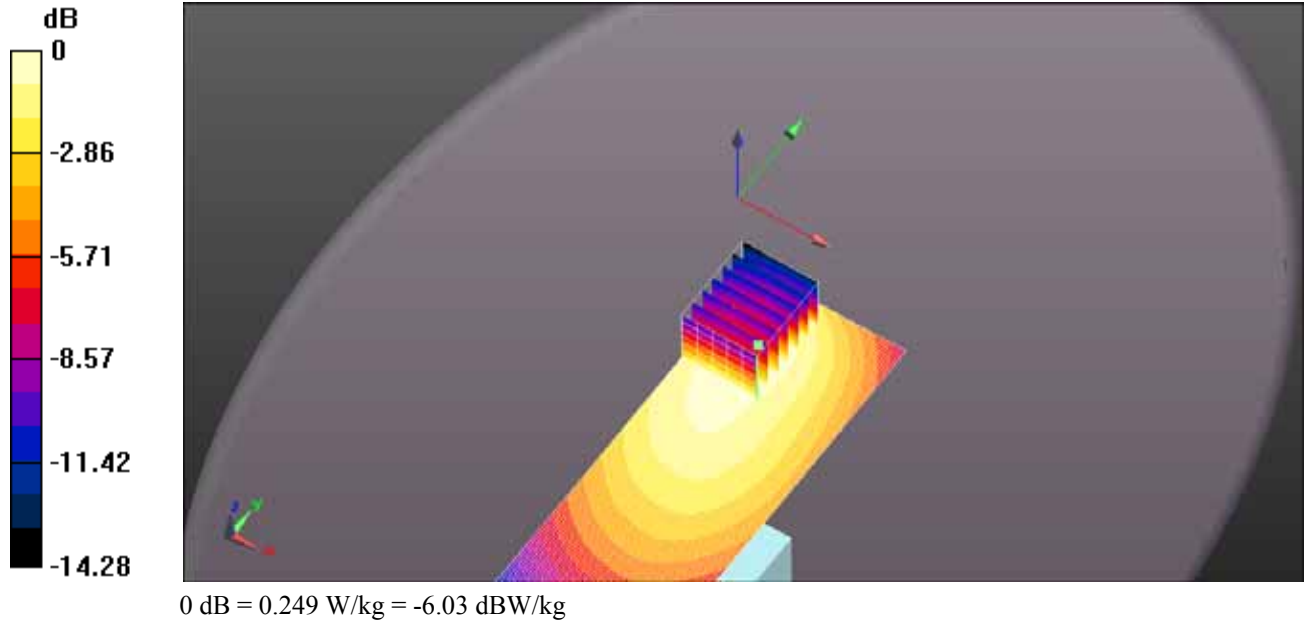
(6x7x7)/Cube 0: Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm

Reference Value = 3.602 V/m; Power Drift = 0.05 dB

Peak SAR (extrapolated) = 0.350 W/kg

SAR(1 g) = 0.210 W/kg; SAR(10 g) = 0.150 W/kg (SAR corrected for target medium)

Maximum value of SAR (measured) = 0.241 W/kg



Test Laboratory: Ultratech Group of Labs

FILE NAME: [ICOM-448QR1 BP-284 FA-S83VS 167MHZ.DA52:0](#)

DUT: IC-F7010; Type: VHF Transciever ; Serial: 0000235

Communication System: UID 0, CW (0); Frequency: 167 MHz; Duty Cycle: 1:1
Medium parameters used (interpolated): $f = 167$ MHz; $\sigma = 0.734$ S/m; $\epsilon_r = 51.736$; $\rho = 1000$ kg/m³ ;
Phantom section: Flat Section ; Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)

DASY Configuration:

- Probe: ES3DV3 - SN3250; ConvF(7.57, 7.57, 7.57); Calibrated: 3/22/2016;
- Sensor-Surface: 3mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn874; Calibrated: 8/22/2016
- Phantom: ELI 4.0; Type: QD OVA 001 BB; Serial: 1057
- DASY52 52.8.8(1222); SEMCAD X 14.6.10(7331)

Configuration_Head_IC-F7010/Head Front, P=5W, d=25mm/Area Scan (51x141x1):

Interpolated grid: dx=1.500 mm, dy=1.500 mm

Maximum value of SAR (interpolated) = 1.16 W/kg

Configuration_Head_IC-F7010/Head Front, P=5W, d=25mm/Zoom Scan (5x5x7)

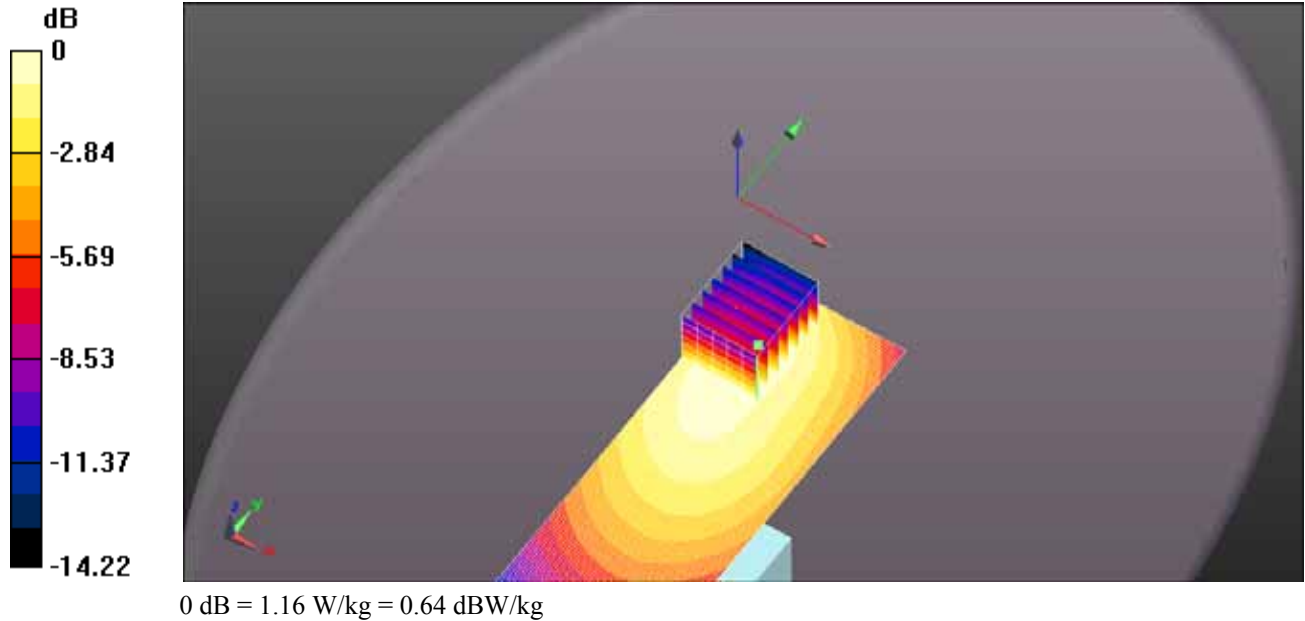
(6x7x7)/Cube 0: Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm

Reference Value = 8.069 V/m; Power Drift = -0.08 dB

Peak SAR (extrapolated) = 1.61 W/kg

SAR(1 g) = 0.988 W/kg; SAR(10 g) = 0.714 W/kg (SAR corrected for target medium)

Maximum value of SAR (measured) = 1.12 W/kg



Test Laboratory: Ultratech Group of Labs

FILE NAME: [ICOM-448QR1 BP-284 FA-S67VC 177MM 136MHZ.DA52:0](#)

DUT: IC-F7010; Type: VHF Transceiver ; Serial: 0000235

Communication System: UID 0, CW (0); Frequency: 136 MHz; Duty Cycle: 1:1
Medium parameters used: $f = 136$ MHz; $\sigma = 0.713$ S/m; $\epsilon_r = 52.937$; $\rho = 1000$ kg/m³ ; Phantom section:
Flat Section ; Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)

DASY Configuration:

- Probe: ES3DV3 - SN3250; ConvF(7.57, 7.57, 7.57); Calibrated: 3/22/2016;
- Sensor-Surface: 3mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn874; Calibrated: 8/22/2016
- Phantom: ELI 4.0; Type: QD OVA 001 BB; Serial: 1057
- DASY52 52.8.8(1222); SEMCAD X 14.6.10(7331)

Configuration_Head_IC-F7010/Head Front, P=5W, d=25mm/Area Scan (51x211x1):

Interpolated grid: dx=1.500 mm, dy=1.500 mm

Maximum value of SAR (interpolated) = 0.418 W/kg

Configuration_Head_IC-F7010/Head Front, P=5W, d=25mm/Zoom Scan (5x5x7)

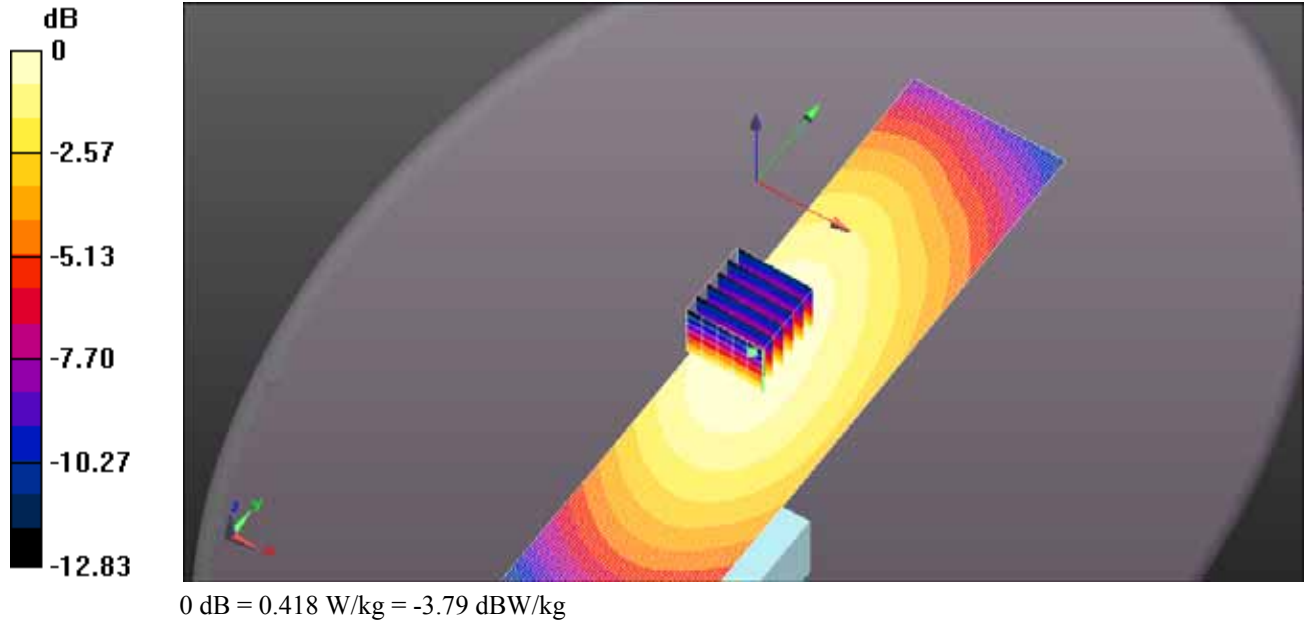
(6x6x7)/Cube 0: Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm

Reference Value = 23.92 V/m; Power Drift = -0.03 dB

Peak SAR (extrapolated) = 0.521 W/kg

SAR(1 g) = 0.374 W/kg; SAR(10 g) = 0.289 W/kg (SAR corrected for target medium)

Maximum value of SAR (measured) = 0.412 W/kg



Test Laboratory: Ultratech Group of Labs

FILE NAME: [ICOM-448QR1 BP-284 FA-S67VC 177MM 150MHZ.DA52:0](#)

DUT: IC-F7010; Type: VHF Transceiver ; Serial: 0000235

Communication System: UID 0, CW (0); Frequency: 150 MHz; Duty Cycle: 1:1
Medium parameters used: $f = 150 \text{ MHz}$; $\sigma = 0.723 \text{ S/m}$; $\epsilon_r = 52.638$; $\rho = 1000 \text{ kg/m}^3$; Phantom section:
Flat Section ; Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)

DASY Configuration:

- Probe: ES3DV3 - SN3250; ConvF(7.57, 7.57, 7.57); Calibrated: 3/22/2016;
- Sensor-Surface: 3mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn874; Calibrated: 8/22/2016
- Phantom: ELI 4.0; Type: QD OVA 001 BB; Serial: 1057
- DASY52 52.8.8(1222); SEMCAD X 14.6.10(7331)

Configuration_Head_IC-F7010/Head Front, P=5W, d=25mm/Area Scan (51x211x1):

Interpolated grid: $dx=1.500 \text{ mm}$, $dy=1.500 \text{ mm}$

Maximum value of SAR (interpolated) = 0.923 W/kg

Configuration_Head_IC-F7010/Head Front, P=5W, d=25mm/Zoom Scan (5x5x7)

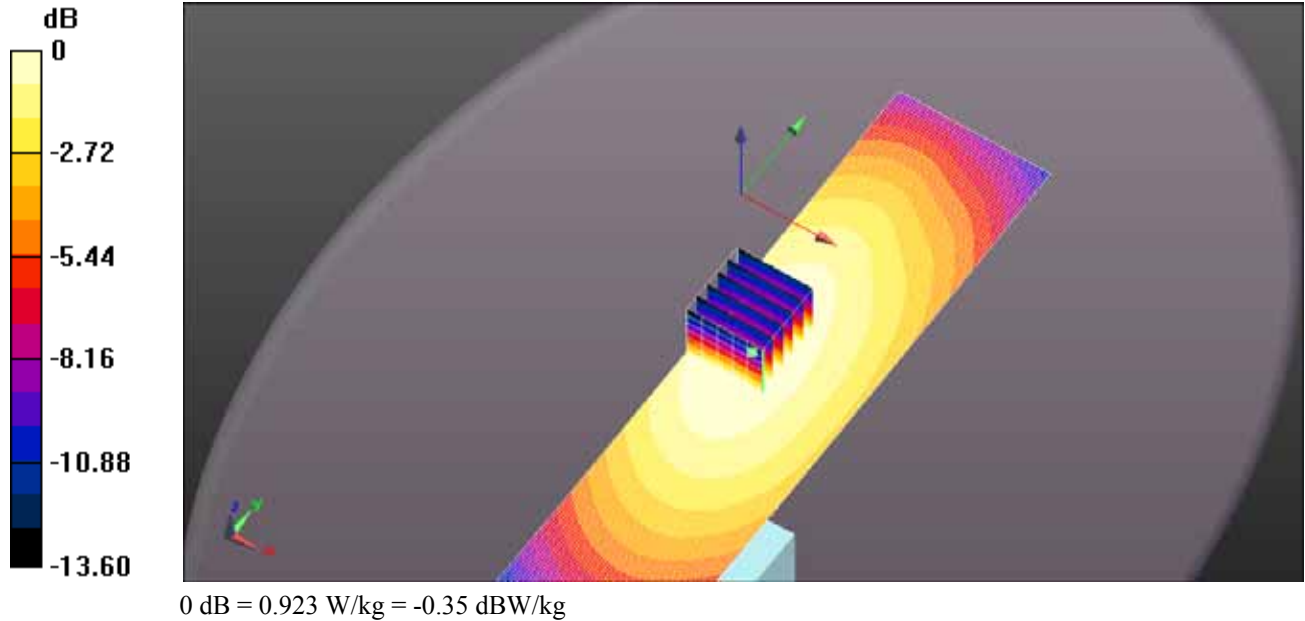
(6x6x7)/Cube 0: Measurement grid: $dx=7.5\text{mm}$, $dy=7.5\text{mm}$, $dz=5\text{mm}$

Reference Value = 34.88 V/m ; Power Drift = -0.03 dB

Peak SAR (extrapolated) = 1.15 W/kg

SAR(1 g) = 0.858 W/kg ; SAR(10 g) = 0.661 W/kg (SAR corrected for target medium)

Maximum value of SAR (measured) = 0.910 W/kg



Test Laboratory: Ultratech Group of Labs

FILE NAME: [ICOM-448QR1 BP-284 FA-S67VC 177MM 162MHZ.DA52:0](#)

DUT: IC-F7010; Type: VHF Transciever ; Serial: 0000235

Communication System: UID 0, CW (0); Frequency: 162 MHz; Duty Cycle: 1:1
Medium parameters used: $f = 162$ MHz; $\sigma = 0.732$ S/m; $\epsilon_r = 52.084$; $\rho = 1000$ kg/m³ ; Phantom section:
Flat Section ; Measurement Standard: DASYS (IEEE/IEC/ANSI C63.19-2007)

DASY Configuration:

- Probe: ES3DV3 - SN3250; ConvF(7.57, 7.57, 7.57); Calibrated: 3/22/2016;
- Sensor-Surface: 3mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn874; Calibrated: 8/22/2016
- Phantom: ELI 4.0; Type: QD OVA 001 BB; Serial: 1057
- DASYS 52.8.8(1222); SEMCAD X 14.6.10(7331)

Configuration_Head_IC-F7010/Head Front, P=5W, d=25mm/Area Scan (51x211x1):

Interpolated grid: dx=1.500 mm, dy=1.500 mm

Maximum value of SAR (interpolated) = 0.176 W/kg

Configuration_Head_IC-F7010/Head Front, P=5W, d=25mm/Zoom Scan (5x5x7)

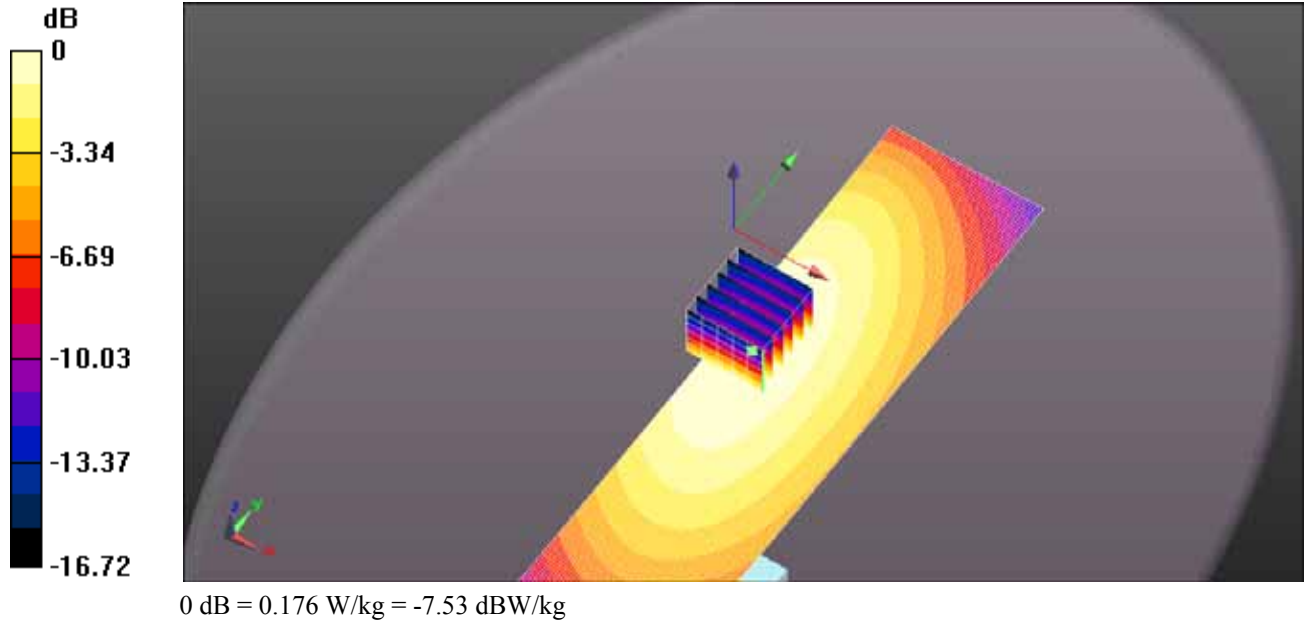
(6x6x7)/Cube 0: Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm

Reference Value = 14.32 V/m; Power Drift = -0.01 dB

Peak SAR (extrapolated) = 0.225 W/kg

SAR(1 g) = 0.159 W/kg; SAR(10 g) = 0.121 W/kg (SAR corrected for target medium)

Maximum value of SAR (measured) = 0.176 W/kg



Test Laboratory: Ultratech Group of Labs

FILE NAME: [ICOM-448QR1 BP-284 FA-S67VC 177MM 174MHZ.DA52:0](#)

DUT: IC-F7010; Type: VHF Transciever ; Serial: 0000235

Communication System: UID 0, CW (0); Frequency: 174 MHz; Duty Cycle: 1:1
Medium parameters used: $f = 174 \text{ MHz}$; $\sigma = 0.739 \text{ S/m}$; $\epsilon_r = 51.593$; $\rho = 1000 \text{ kg/m}^3$; Phantom section:
Flat Section ; Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)

DASY Configuration:

- Probe: ES3DV3 - SN3250; ConvF(7.57, 7.57, 7.57); Calibrated: 3/22/2016;
- Sensor-Surface: 3mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn874; Calibrated: 8/22/2016
- Phantom: ELI 4.0; Type: QD OVA 001 BB; Serial: 1057
- DASY52 52.8.8(1222); SEMCAD X 14.6.10(7331)

Configuration_Head_IC-F7010/Head Front, P=5W, d=25mm/Area Scan (51x211x1):

Interpolated grid: $dx=1.500 \text{ mm}$, $dy=1.500 \text{ mm}$

Maximum value of SAR (interpolated) = 0.112 W/kg

Configuration_Head_IC-F7010/Head Front, P=5W, d=25mm/Zoom Scan (5x5x7)

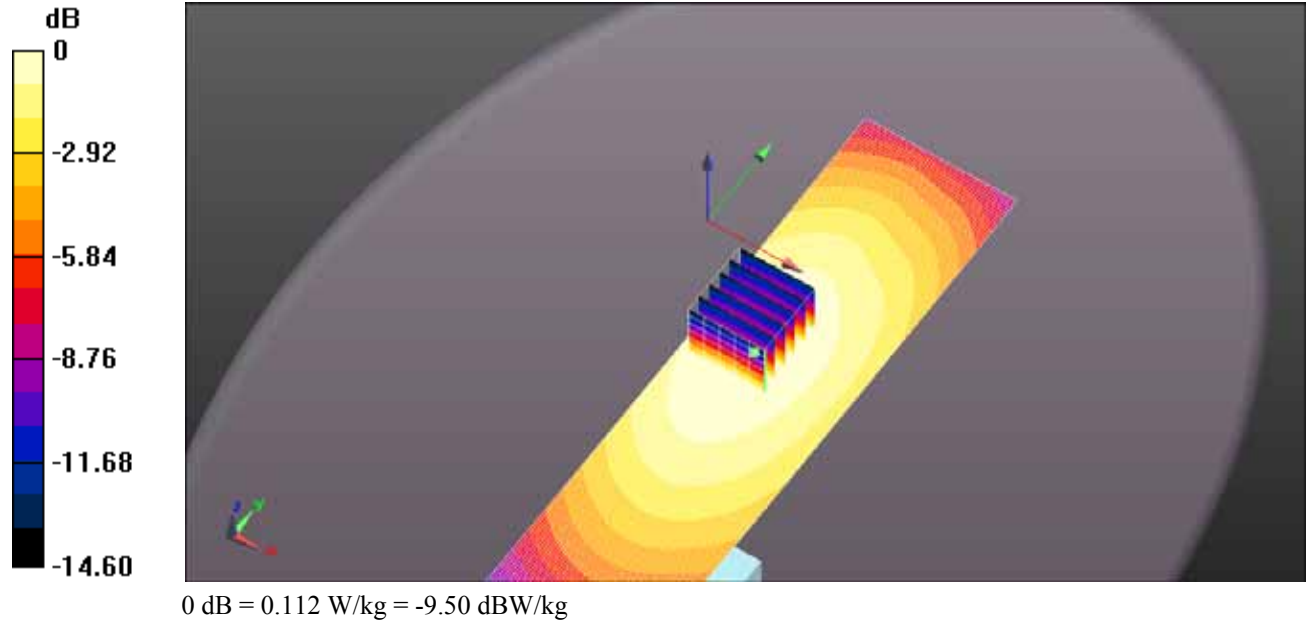
(6x6x7)/Cube 0: Measurement grid: $dx=7.5\text{mm}$, $dy=7.5\text{mm}$, $dz=5\text{mm}$

Reference Value = 11.43 V/m ; Power Drift = -0.07 dB

Peak SAR (extrapolated) = 0.138 W/kg

SAR(1 g) = 0.099 W/kg ; SAR(10 g) = 0.076 W/kg (SAR corrected for target medium)

Maximum value of SAR (measured) = 0.109 W/kg



Test Laboratory: Ultratech Group of Labs

FILE NAME: [ICOM-448QR1 BP-284 FA-S67VC 169MM 143MHZ.DA52:0](#)

DUT: IC-F7010; Type: VHF Transceiver ; Serial: 0000235

Communication System: UID 0, CW (0); Frequency: 143 MHz; Duty Cycle: 1:1
Medium parameters used (interpolated): $f = 143 \text{ MHz}$; $\sigma = 0.718 \text{ S/m}$; $\epsilon_r = 52.877$; $\rho = 1000 \text{ kg/m}^3$;
Phantom section: Flat Section ; Measurement Standard: DASYS (IEEE/IEC/ANSI C63.19-2007)

DASY Configuration:

- Probe: ES3DV3 - SN3250; ConvF(7.57, 7.57, 7.57); Calibrated: 3/22/2016;
- Sensor-Surface: 3mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn874; Calibrated: 8/22/2016
- Phantom: ELI 4.0; Type: QD OVA 001 BB; Serial: 1057
- DASYS 52.8.8(1222); SEMCAD X 14.6.10(7331)

Configuration_Head_IC-F7010/Head Front, P=5W, d=25mm/Area Scan (51x211x1):

Interpolated grid: $dx=1.500 \text{ mm}$, $dy=1.500 \text{ mm}$

Maximum value of SAR (interpolated) = 0.770 W/kg

Configuration_Head_IC-F7010/Head Front, P=5W, d=25mm/Zoom Scan (5x5x7)

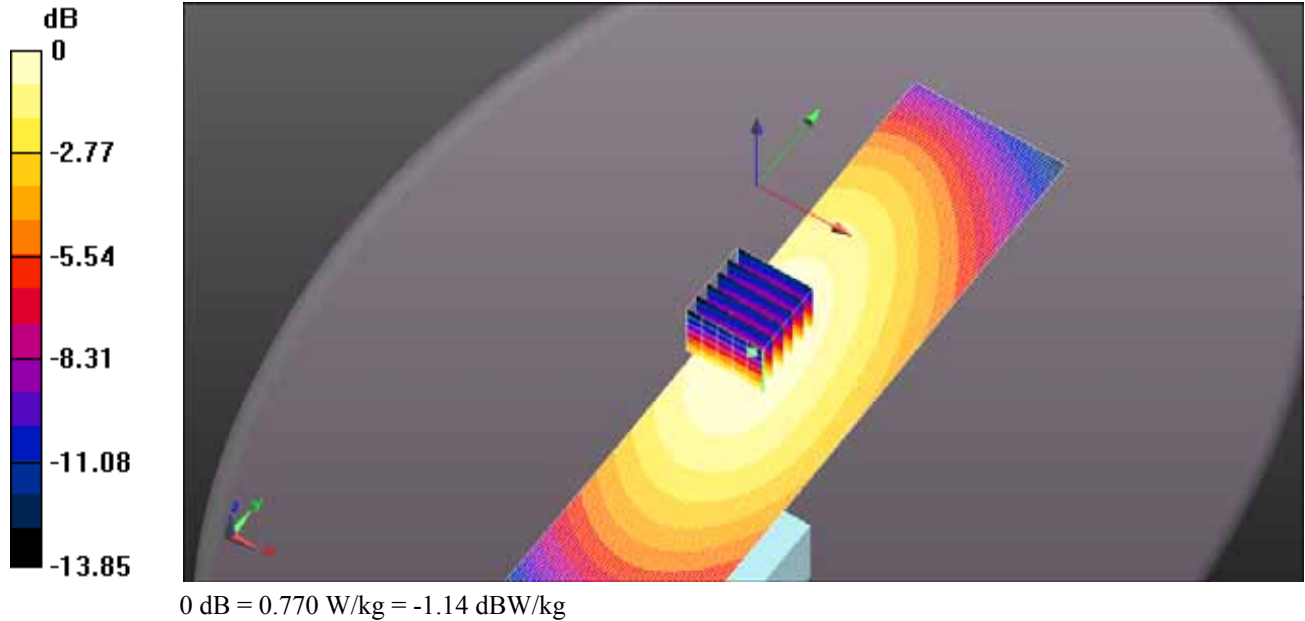
(6x6x7)/Cube 0: Measurement grid: $dx=7.5\text{mm}$, $dy=7.5\text{mm}$, $dz=5\text{mm}$

Reference Value = 32.26 V/m ; Power Drift = -0.04 dB

Peak SAR (extrapolated) = 0.966 W/kg

SAR(1 g) = 0.689 W/kg ; SAR(10 g) = 0.531 W/kg (SAR corrected for target medium)

Maximum value of SAR (measured) = 0.762 W/kg



Test Laboratory: Ultratech Group of Labs

FILE NAME: [ICOM-448QR1 BP-284 FA-S67VC 169MM 156MHZ.DA52:0](#)

DUT: IC-F7010; Type: VHF Transciever ; Serial: 0000235

Communication System: UID 0, CW (0); Frequency: 156 MHz; Duty Cycle: 1:1
Medium parameters used: $f = 156 \text{ MHz}$; $\sigma = 0.727 \text{ S/m}$; $\epsilon_r = 52.214$; $\rho = 1000 \text{ kg/m}^3$; Phantom section:
Flat Section ; Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)

DASY Configuration:

- Probe: ES3DV3 - SN3250; ConvF(7.57, 7.57, 7.57); Calibrated: 3/22/2016;
- Sensor-Surface: 3mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn874; Calibrated: 8/22/2016
- Phantom: ELI 4.0; Type: QD OVA 001 BB; Serial: 1057
- DASY52 52.8.8(1222); SEMCAD X 14.6.10(7331)

Configuration_Head_IC-F7010/Head Front, P=5W, d=25mm/Area Scan (51x211x1):

Interpolated grid: $dx=1.500 \text{ mm}$, $dy=1.500 \text{ mm}$

Maximum value of SAR (interpolated) = 0.792 W/kg

Configuration_Head_IC-F7010/Head Front, P=5W, d=25mm/Zoom Scan (5x5x7)

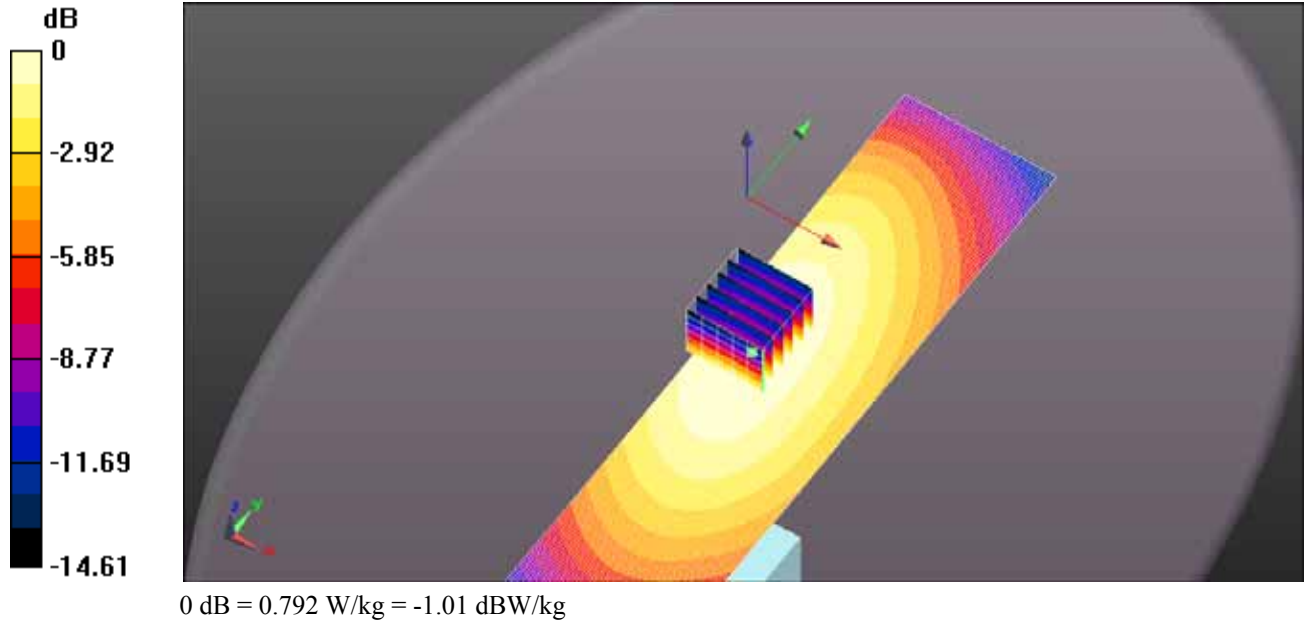
(6x6x7)/Cube 0: Measurement grid: $dx=7.5\text{mm}$, $dy=7.5\text{mm}$, $dz=5\text{mm}$

Reference Value = 32.13 V/m ; Power Drift = 0.00 dB

Peak SAR (extrapolated) = 0.999 W/kg

SAR(1 g) = 0.712 W/kg ; SAR(10 g) = 0.549 W/kg (SAR corrected for target medium)

Maximum value of SAR (measured) = 0.787 W/kg



Test Laboratory: Ultratech Group of Labs

File Name: [ICOM-448QR1 BP-284 FA-S67VC 169mm 168MHz.da52:0](#)

DUT: IC-F7010; Type: VHF Transceiver ; Serial: 0000235

Communication System: UID 0, CW (0); Frequency: 168 MHz; Duty Cycle: 1:1
Medium parameters used: $f = 168 \text{ MHz}$; $\sigma = 0.735 \text{ S/m}$; $\epsilon_r = 51.656$; $\rho = 1000 \text{ kg/m}^3$; Phantom section: Flat Section ; Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)

DASY Configuration:

- Probe: ES3DV3 - SN3250; ConvF(7.57, 7.57, 7.57); Calibrated: 3/22/2016;
- Sensor-Surface: 3mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn874; Calibrated: 8/22/2016
- Phantom: ELI 4.0; Type: QD OVA 001 BB; Serial: 1057
- DASY52 52.8.8(1222); SEMCAD X 14.6.10(7331)

Configuration_Head_IC-F7010/Head Front, P=5W, d=25mm/Area Scan (51x211x1):

Interpolated grid: $dx=1.500 \text{ mm}$, $dy=1.500 \text{ mm}$

Maximum value of SAR (interpolated) = 0.257 W/kg

Configuration_Head_IC-F7010/Head Front, P=5W, d=25mm/Zoom Scan (5x5x7)

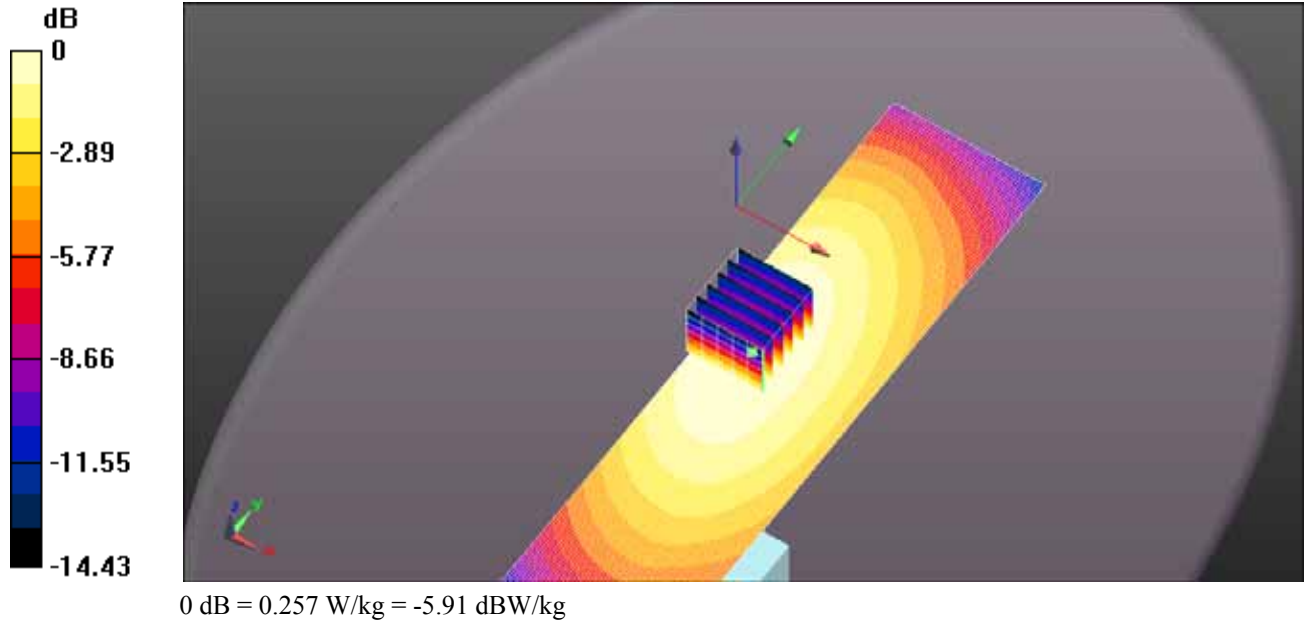
(6x6x7)/Cube 0: Measurement grid: $dx=7.5\text{mm}$, $dy=7.5\text{mm}$, $dz=5\text{mm}$

Reference Value = 17.90 V/m ; Power Drift = -0.06 dB

Peak SAR (extrapolated) = 0.320 W/kg

SAR(1 g) = 0.228 W/kg ; SAR(10 g) = 0.176 W/kg (SAR corrected for target medium)

Maximum value of SAR (measured) = 0.253 W/kg



Test Laboratory: Ultratech Group of Labs

FILE NAME: [ICOM-448QR1 BP-284 FA-S67VC 163MM 150MHZ.DA52:0](#)

DUT: IC-F7010; Type: VHF Transciever ; Serial: 0000235

Communication System: UID 0, CW (0); Frequency: 150 MHz; Duty Cycle: 1:1
Medium parameters used: $f = 150 \text{ MHz}$; $\sigma = 0.723 \text{ S/m}$; $\epsilon_r = 52.638$; $\rho = 1000 \text{ kg/m}^3$; Phantom section:
Flat Section ; Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)

DASY Configuration:

- Probe: ES3DV3 - SN3250; ConvF(7.57, 7.57, 7.57); Calibrated: 3/22/2016;
- Sensor-Surface: 3mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn874; Calibrated: 8/22/2016
- Phantom: ELI 4.0; Type: QD OVA 001 BB; Serial: 1057
- DASY52 52.8.8(1222); SEMCAD X 14.6.10(7331)

Configuration_Head_IC-F7010/Head Front, P=5W, d=25mm/Area Scan (51x211x1):

Interpolated grid: $dx=1.500 \text{ mm}$, $dy=1.500 \text{ mm}$

Maximum value of SAR (interpolated) = 1.12 W/kg

Configuration_Head_IC-F7010/Head Front, P=5W, d=25mm/Zoom Scan (5x5x7)

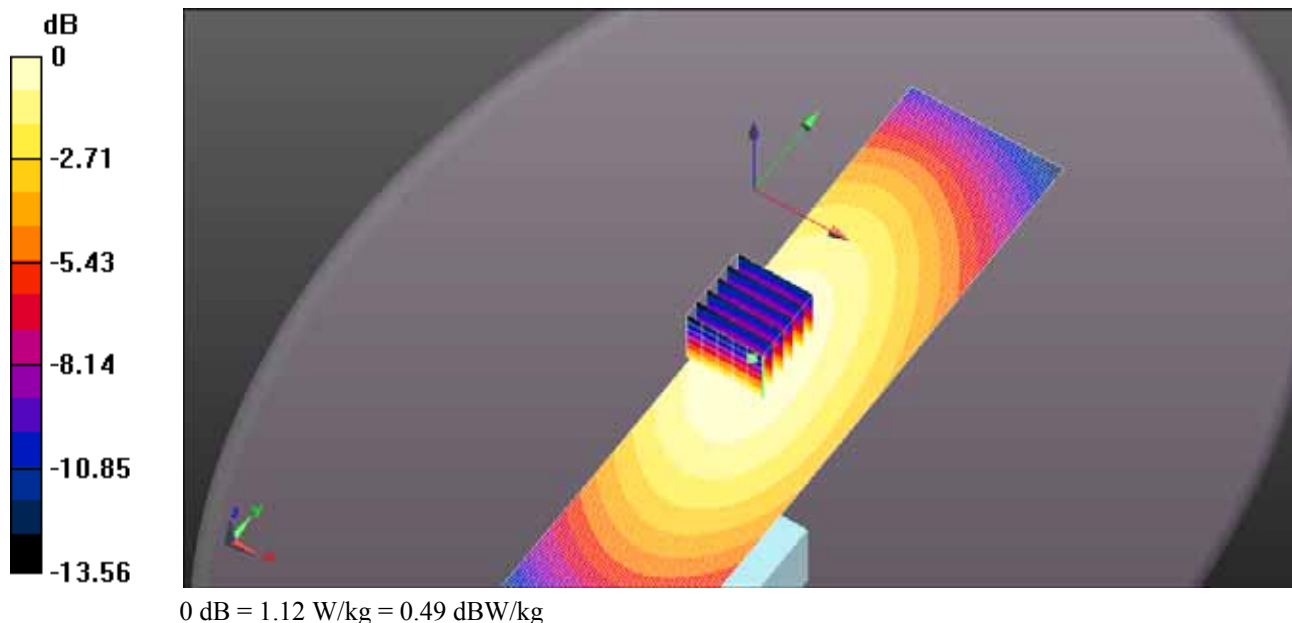
(6x6x7)/Cube 0: Measurement grid: $dx=7.5\text{mm}$, $dy=7.5\text{mm}$, $dz=5\text{mm}$

Reference Value = 38.88 V/m ; Power Drift = -0.03 dB

Peak SAR (extrapolated) = 1.40 W/kg

SAR(1 g) = 1.04 W/kg ; SAR(10 g) = 0.805 W/kg (SAR corrected for target medium)

Maximum value of SAR (measured) = 1.11 W/kg



Test Laboratory: Ultratech Group of Labs

FILE NAME: [ICOM-448QR1 BP-284 FA-S67VC 163MM 136MHZ.DA52:0](#)

DUT: IC-F7010; Type: VHF Transceiver ; Serial: 0000235

Communication System: UID 0, CW (0); Frequency: 136 MHz; Duty Cycle: 1:1
Medium parameters used: $f = 136$ MHz; $\sigma = 0.713$ S/m; $\epsilon_r = 52.937$; $\rho = 1000$ kg/m³ ; Phantom section:
Flat Section ; Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)

DASY Configuration:

- Probe: ES3DV3 - SN3250; ConvF(7.57, 7.57, 7.57); Calibrated: 3/22/2016;
- Sensor-Surface: 3mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn874; Calibrated: 8/22/2016
- Phantom: ELI 4.0; Type: QD OVA 001 BB; Serial: 1057
- DASY52 52.8.8(1222); SEMCAD X 14.6.10(7331)

Configuration_Head_IC-F7010/Head Front, P=5W, d=25mm/Area Scan (51x211x1):

Interpolated grid: dx=1.500 mm, dy=1.500 mm

Maximum value of SAR (interpolated) = 0.208 W/kg

Configuration_Head_IC-F7010/Head Front, P=5W, d=25mm/Zoom Scan (5x5x7)

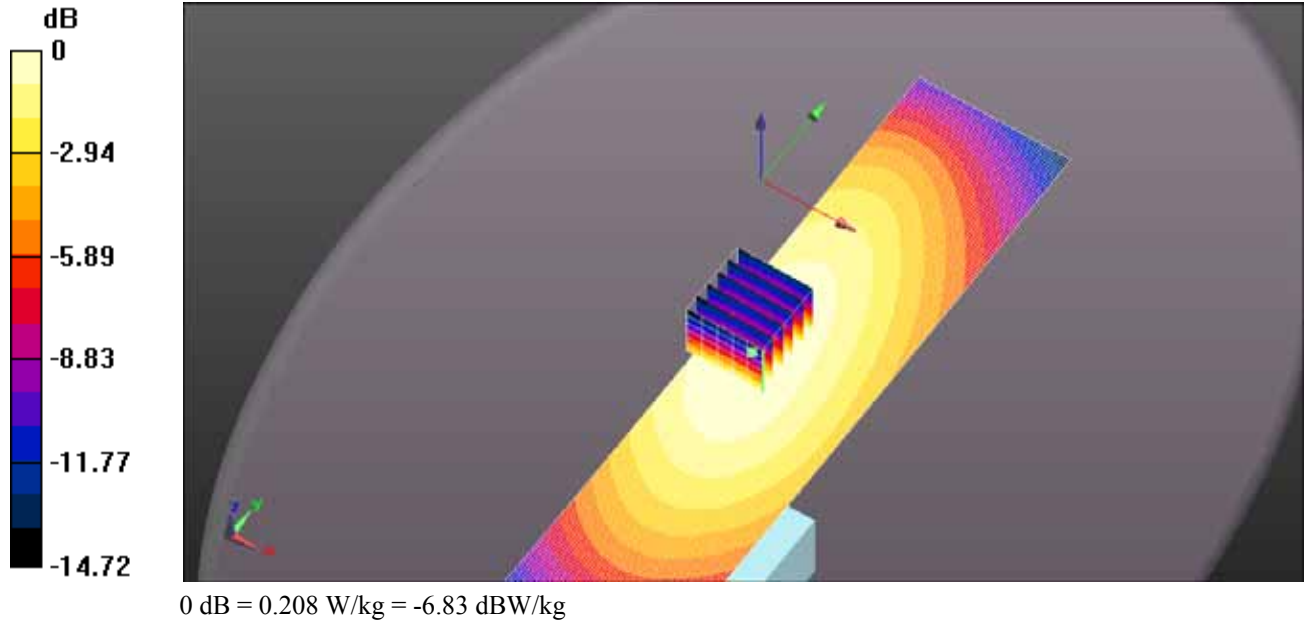
(6x6x7)/Cube 0: Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm

Reference Value = 16.92 V/m; Power Drift = 0.04 dB

Peak SAR (extrapolated) = 0.261 W/kg

SAR(1 g) = 0.187 W/kg; SAR(10 g) = 0.144 W/kg (SAR corrected for target medium)

Maximum value of SAR (measured) = 0.206 W/kg



Test Laboratory: Ultratech Group of Labs

FILE NAME: [ICOM-448QR1 BP-284 FA-S67VC 163MM 162MHZ.DA52:0](#)

DUT: IC-F7010; Type: VHF Transceiver ; Serial: 0000235

Communication System: UID 0, CW (0); Frequency: 162 MHz; Duty Cycle: 1:1
Medium parameters used: $f = 162 \text{ MHz}$; $\sigma = 0.732 \text{ S/m}$; $\epsilon_r = 52.084$; $\rho = 1000 \text{ kg/m}^3$; Phantom section:
Flat Section ; Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)

DASY Configuration:

- Probe: ES3DV3 - SN3250; ConvF(7.57, 7.57, 7.57); Calibrated: 3/22/2016;
- Sensor-Surface: 3mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn874; Calibrated: 8/22/2016
- Phantom: ELI 4.0; Type: QD OVA 001 BB; Serial: 1057
- DASY52 52.8.8(1222); SEMCAD X 14.6.10(7331)

Configuration_Head_IC-F7010/Head Front, P=5W, d=25mm/Area Scan (51x211x1):

Interpolated grid: $dx=1.500 \text{ mm}$, $dy=1.500 \text{ mm}$

Maximum value of SAR (interpolated) = 0.394 W/kg

Configuration_Head_IC-F7010/Head Front, P=5W, d=25mm/Zoom Scan (5x5x7)

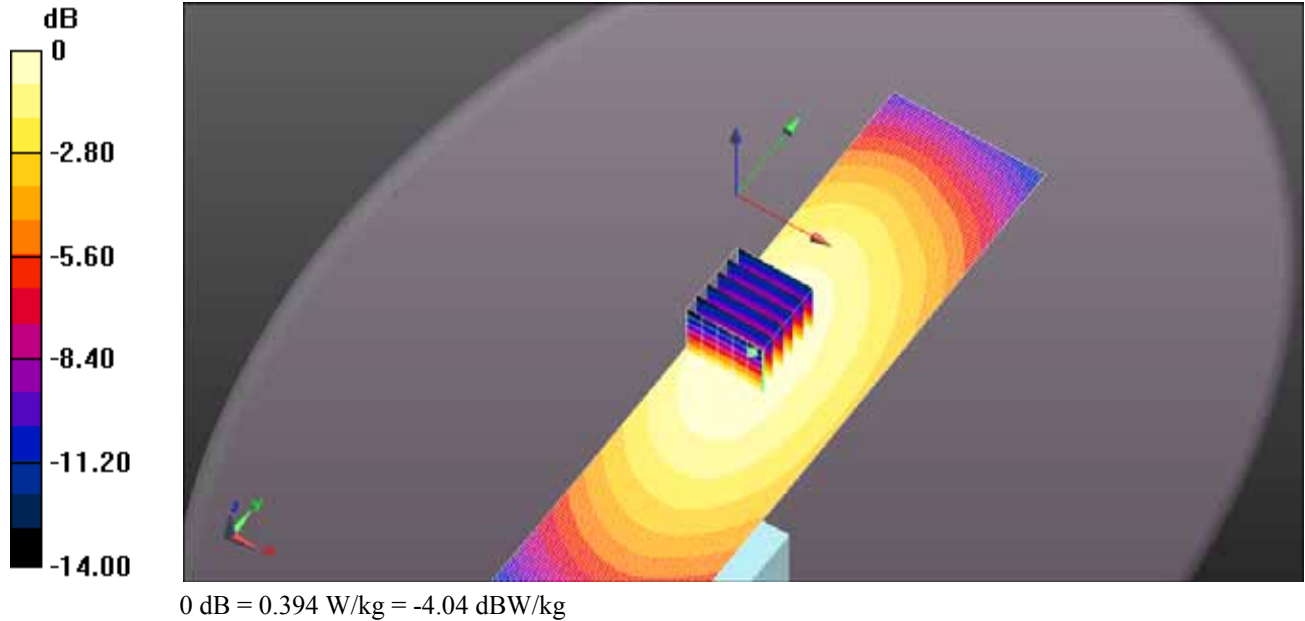
(6x6x7)/Cube 0: Measurement grid: $dx=7.5\text{mm}$, $dy=7.5\text{mm}$, $dz=5\text{mm}$

Reference Value = 22.57 V/m ; Power Drift = -0.03 dB

Peak SAR (extrapolated) = 0.492 W/kg

SAR(1 g) = 0.352 W/kg ; SAR(10 g) = 0.271 W/kg (SAR corrected for target medium)

Maximum value of SAR (measured) = 0.389 W/kg



Test Laboratory: Ultratech Group of Labs

FILE NAME: [ICOM-448QR1 BP-284 FA-S67VC 163MM 174MHZ.DA52:0](#)

DUT: IC-F7010; Type: VHF Transceiver ; Serial: 0000235

Communication System: UID 0, CW (0); Frequency: 174 MHz; Duty Cycle: 1:1
Medium parameters used: $f = 174$ MHz; $\sigma = 0.739$ S/m; $\epsilon_r = 51.593$; $\rho = 1000$ kg/m³ ; Phantom section:
Flat Section ; Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)

DASY Configuration:

- Probe: ES3DV3 - SN3250; ConvF(7.57, 7.57, 7.57); Calibrated: 3/22/2016;
- Sensor-Surface: 3mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn874; Calibrated: 8/22/2016
- Phantom: ELI 4.0; Type: QD OVA 001 BB; Serial: 1057
- DASY52 52.8.8(1222); SEMCAD X 14.6.10(7331)

Configuration_Head_IC-F7010/Head Front, P=5W, d=25mm/Area Scan (51x211x1):

Interpolated grid: dx=1.500 mm, dy=1.500 mm

Maximum value of SAR (interpolated) = 0.262 W/kg

Configuration_Head_IC-F7010/Head Front, P=5W, d=25mm/Zoom Scan (5x5x7)

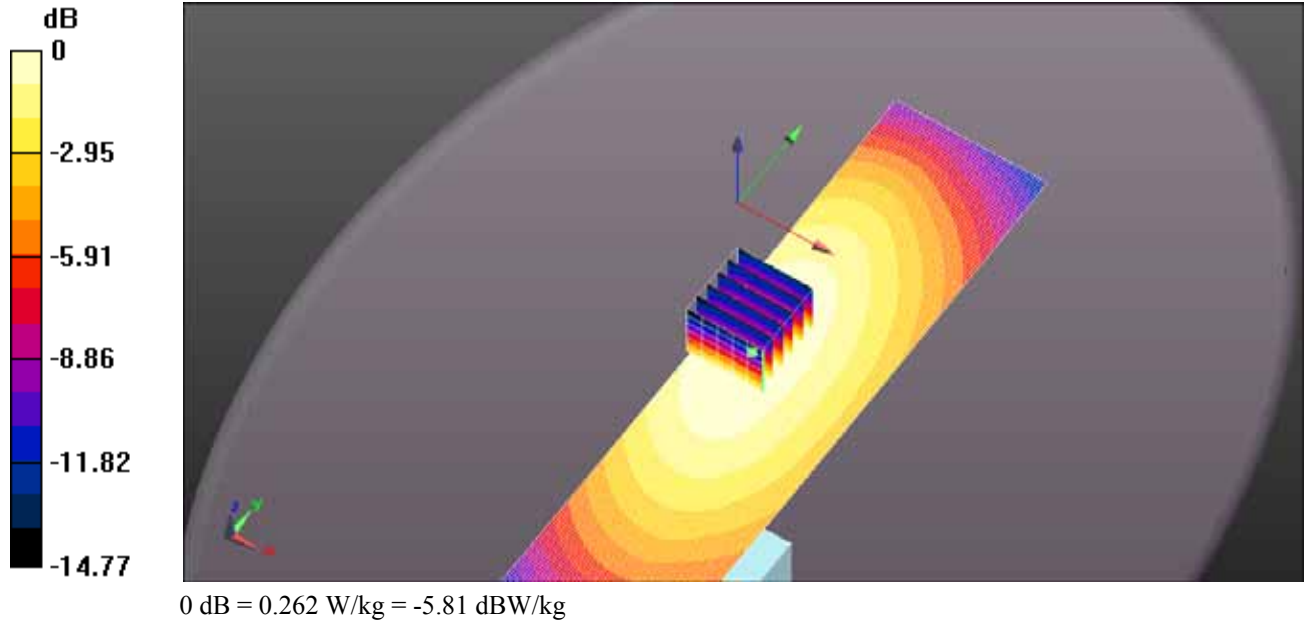
(6x6x7)/Cube 0: Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm

Reference Value = 18.03 V/m; Power Drift = -0.03 dB

Peak SAR (extrapolated) = 0.328 W/kg

SAR(1 g) = 0.234 W/kg; SAR(10 g) = 0.180 W/kg (SAR corrected for target medium)

Maximum value of SAR (measured) = 0.259 W/kg



Test Laboratory: Ultratech Group of Labs

FILE NAME: [ICOM-448QR1 BP-284 FA-S67VC 157MM 150MHZ.DA52:0](#)

DUT: IC-F7010; Type: VHF Transciever ; Serial: 0000235

Communication System: UID 0, CW (0); Frequency: 150 MHz; Duty Cycle: 1:1
Medium parameters used: $f = 150 \text{ MHz}$; $\sigma = 0.723 \text{ S/m}$; $\epsilon_r = 52.638$; $\rho = 1000 \text{ kg/m}^3$; Phantom section:
Flat Section ; Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)

DASY Configuration:

- Probe: ES3DV3 - SN3250; ConvF(7.57, 7.57, 7.57); Calibrated: 3/22/2016;
- Sensor-Surface: 3mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn874; Calibrated: 8/22/2016
- Phantom: ELI 4.0; Type: QD OVA 001 BB; Serial: 1057
- DASY52 52.8.8(1222); SEMCAD X 14.6.10(7331)

Configuration_Head_IC-F7010/Head Front, P=5W, d=25mm/Area Scan (51x211x1):

Interpolated grid: $dx=1.500 \text{ mm}$, $dy=1.500 \text{ mm}$

Maximum value of SAR (interpolated) = 0.747 W/kg

Configuration_Head_IC-F7010/Head Front, P=5W, d=25mm/Zoom Scan (5x5x7)

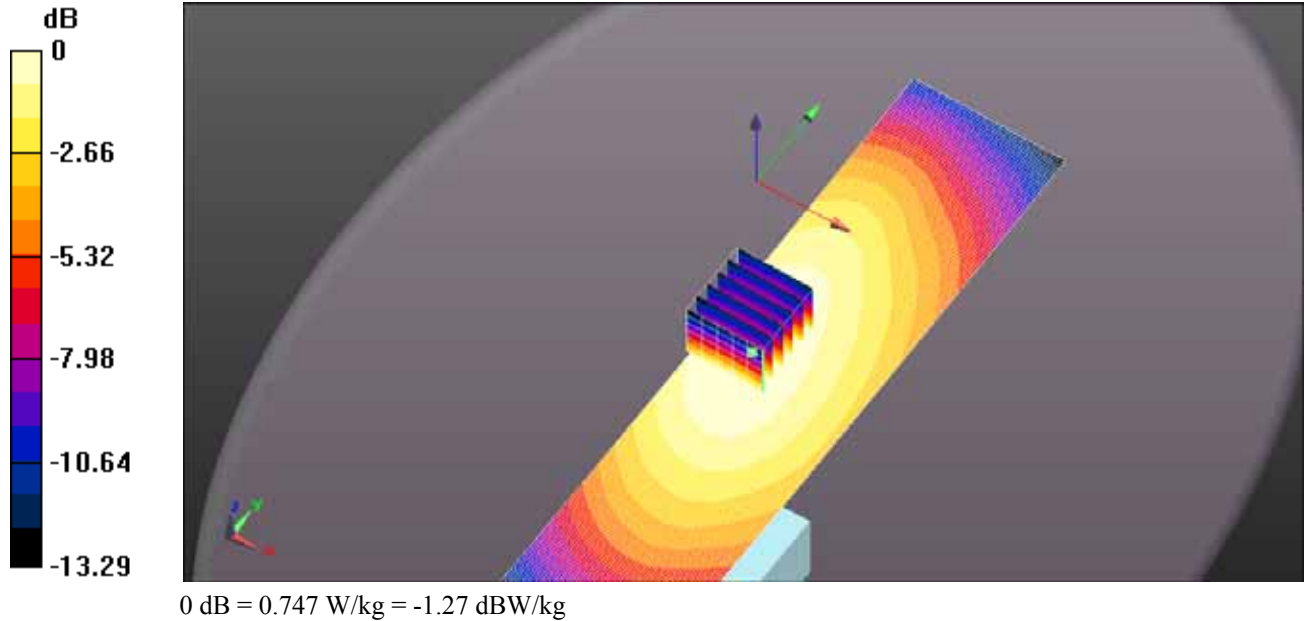
(6x6x7)/Cube 0: Measurement grid: $dx=7.5\text{mm}$, $dy=7.5\text{mm}$, $dz=5\text{mm}$

Reference Value = 31.84 V/m ; Power Drift = 0.02 dB

Peak SAR (extrapolated) = 0.945 W/kg

SAR(1 g) = 0.705 W/kg ; SAR(10 g) = 0.544 W/kg (SAR corrected for target medium)

Maximum value of SAR (measured) = 0.747 W/kg



Test Laboratory: Ultratech Group of Labs

FILE NAME: [ICOM-448QR1 BP-284 FA-S67VC 157MM 136MHZ.DA52:0](#)

DUT: IC-F7010; Type: VHF Transciever ; Serial: 0000235

Communication System: UID 0, CW (0); Frequency: 136 MHz; Duty Cycle: 1:1
Medium parameters used: $f = 136$ MHz; $\sigma = 0.713$ S/m; $\epsilon_r = 52.937$; $\rho = 1000$ kg/m³ ; Phantom section:
Flat Section ; Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)

DASY Configuration:

- Probe: ES3DV3 - SN3250; ConvF(7.57, 7.57, 7.57); Calibrated: 3/22/2016;
- Sensor-Surface: 3mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn874; Calibrated: 8/22/2016
- Phantom: ELI 4.0; Type: QD OVA 001 BB; Serial: 1057
- DASY52 52.8.8(1222); SEMCAD X 14.6.10(7331)

Configuration_Head_IC-F7010/Head Front, P=5W, d=25mm/Area Scan (51x211x1):

Interpolated grid: dx=1.500 mm, dy=1.500 mm

Maximum value of SAR (interpolated) = 0.129 W/kg

Configuration_Head_IC-F7010/Head Front, P=5W, d=25mm/Zoom Scan (5x5x7)

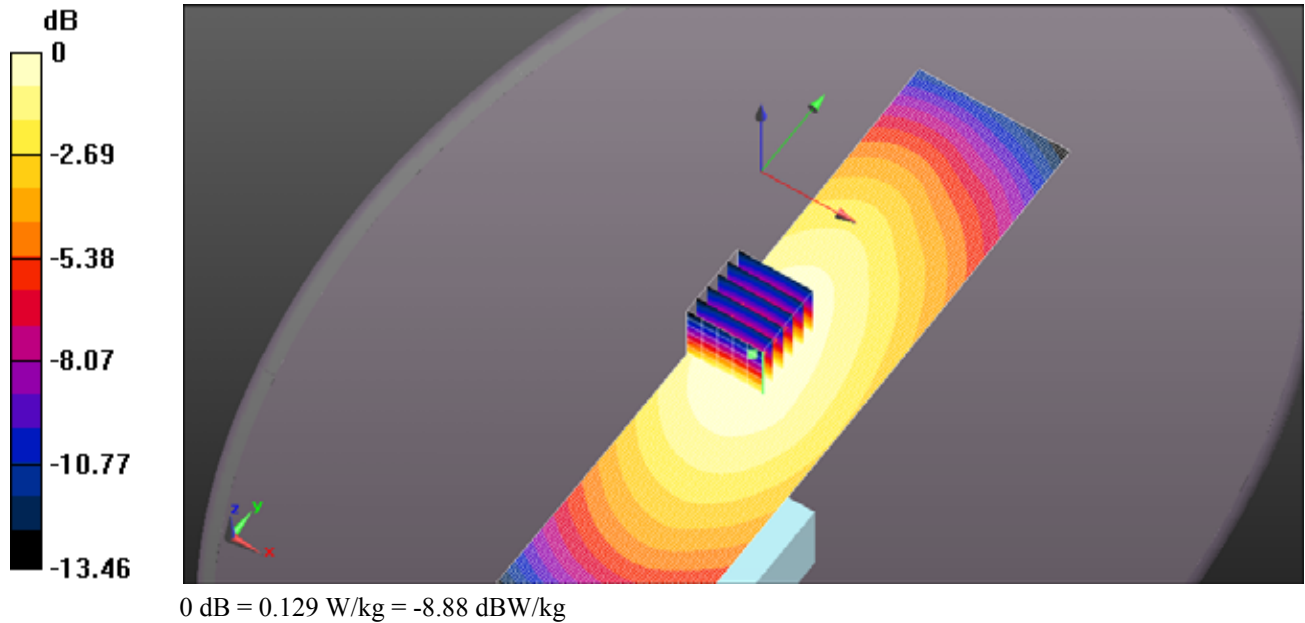
(6x6x7)/Cube 0: Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm

Reference Value = 13.42 V/m; Power Drift = 0.02 dB

Peak SAR (extrapolated) = 0.163 W/kg

SAR(1 g) = 0.117 W/kg; SAR(10 g) = 0.090 W/kg (SAR corrected for target medium)

Maximum value of SAR (measured) = 0.129 W/kg



Test Laboratory: Ultratech Group of Labs

FILE NAME: [ICOM-448QR1 BP-284 FA-S67VC 157MM 162MHZ.DA52:0](#)

DUT: IC-F7010; Type: VHF Transciever ; Serial: 0000235

Communication System: UID 0, CW (0); Frequency: 162 MHz; Duty Cycle: 1:1
Medium parameters used: $f = 162 \text{ MHz}$; $\sigma = 0.732 \text{ S/m}$; $\epsilon_r = 52.084$; $\rho = 1000 \text{ kg/m}^3$; Phantom section:
Flat Section ; Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)

DASY Configuration:

- Probe: ES3DV3 - SN3250; ConvF(7.57, 7.57, 7.57); Calibrated: 3/22/2016;
- Sensor-Surface: 3mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn874; Calibrated: 8/22/2016
- Phantom: ELI 4.0; Type: QD OVA 001 BB; Serial: 1057
- DASY52 52.8.8(1222); SEMCAD X 14.6.10(7331)

Configuration_Head_IC-F7010/Head Front, P=5W, d=25mm/Area Scan (51x211x1):

Interpolated grid: $dx=1.500 \text{ mm}$, $dy=1.500 \text{ mm}$

Maximum value of SAR (interpolated) = 0.627 W/kg

Configuration_Head_IC-F7010/Head Front, P=5W, d=25mm/Zoom Scan (5x5x7)

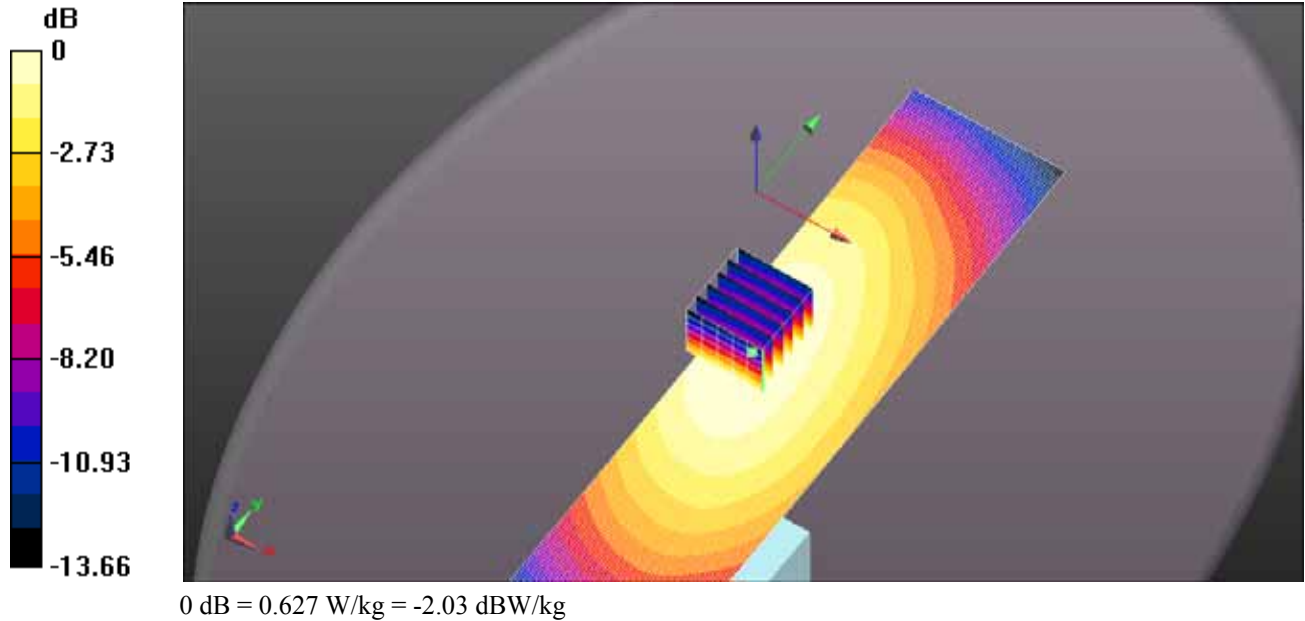
(6x6x7)/Cube 0: Measurement grid: $dx=7.5\text{mm}$, $dy=7.5\text{mm}$, $dz=5\text{mm}$

Reference Value = 28.36 V/m ; Power Drift = -0.04 dB

Peak SAR (extrapolated) = 0.780 W/kg

SAR(1 g) = 0.559 W/kg ; SAR(10 g) = 0.430 W/kg (SAR corrected for target medium)

Maximum value of SAR (measured) = 0.618 W/kg



Test Laboratory: Ultratech Group of Labs

FILE NAME: [ICOM-448QR1 BP-284 FA-S67VC 157MM 174MHZ.DA52:0](#)

DUT: IC-F7010; Type: VHF Transceiver ; Serial: 0000235

Communication System: UID 0, CW (0); Frequency: 174 MHz; Duty Cycle: 1:1
Medium parameters used: $f = 174 \text{ MHz}$; $\sigma = 0.739 \text{ S/m}$; $\epsilon_r = 51.593$; $\rho = 1000 \text{ kg/m}^3$; Phantom section:
Flat Section ; Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)

DASY Configuration:

- Probe: ES3DV3 - SN3250; ConvF(7.57, 7.57, 7.57); Calibrated: 3/22/2016;
- Sensor-Surface: 3mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn874; Calibrated: 8/22/2016
- Phantom: ELI 4.0; Type: QD OVA 001 BB; Serial: 1057
- DASY52 52.8.8(1222); SEMCAD X 14.6.10(7331)

Configuration_Head_IC-F7010/Head Front, P=5W, d=25mm/Area Scan (51x211x1):

Interpolated grid: $dx=1.500 \text{ mm}$, $dy=1.500 \text{ mm}$

Maximum value of SAR (interpolated) = 0.375 W/kg

Configuration_Head_IC-F7010/Head Front, P=5W, d=25mm/Zoom Scan (5x5x7)

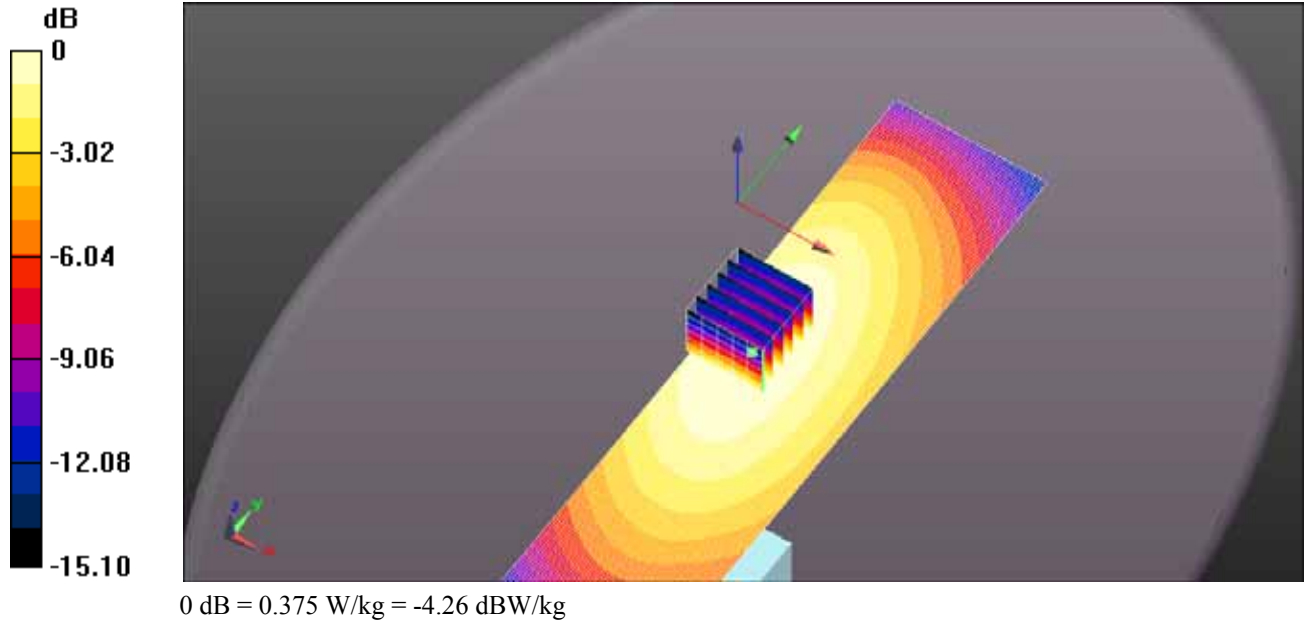
(6x6x7)/Cube 0: Measurement grid: $dx=7.5\text{mm}$, $dy=7.5\text{mm}$, $dz=5\text{mm}$

Reference Value = 21.67 V/m ; Power Drift = -0.04 dB

Peak SAR (extrapolated) = 0.471 W/kg

SAR(1 g) = 0.334 W/kg ; SAR(10 g) = 0.256 W/kg (SAR corrected for target medium)

Maximum value of SAR (measured) = 0.371 W/kg



Test Laboratory: Ultratech Group of Labs

FILE NAME: [ICOM-448QR1 BP-284 FA-S67VC 151MM 156MHZ.DA52:0](#)

DUT: IC-F7010; Type: VHF Transciever ; Serial: 0000235

Communication System: UID 0, CW (0); Frequency: 156 MHz; Duty Cycle: 1:1
Medium parameters used: $f = 156 \text{ MHz}$; $\sigma = 0.727 \text{ S/m}$; $\epsilon_r = 52.214$; $\rho = 1000 \text{ kg/m}^3$; Phantom section:
Flat Section ; Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)

DASY Configuration:

- Probe: ES3DV3 - SN3250; ConvF(7.57, 7.57, 7.57); Calibrated: 3/22/2016;
- Sensor-Surface: 3mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn874; Calibrated: 8/22/2016
- Phantom: ELI 4.0; Type: QD OVA 001 BB; Serial: 1057
- DASY52 52.8.8(1222); SEMCAD X 14.6.10(7331)

Configuration_Head_IC-F7010/Head Front, P=5W, d=25mm/Area Scan (51x211x1):

Interpolated grid: $dx=1.500 \text{ mm}$, $dy=1.500 \text{ mm}$

Maximum value of SAR (interpolated) = 1.08 W/kg

Configuration_Head_IC-F7010/Head Front, P=5W, d=25mm/Zoom Scan (5x5x7)

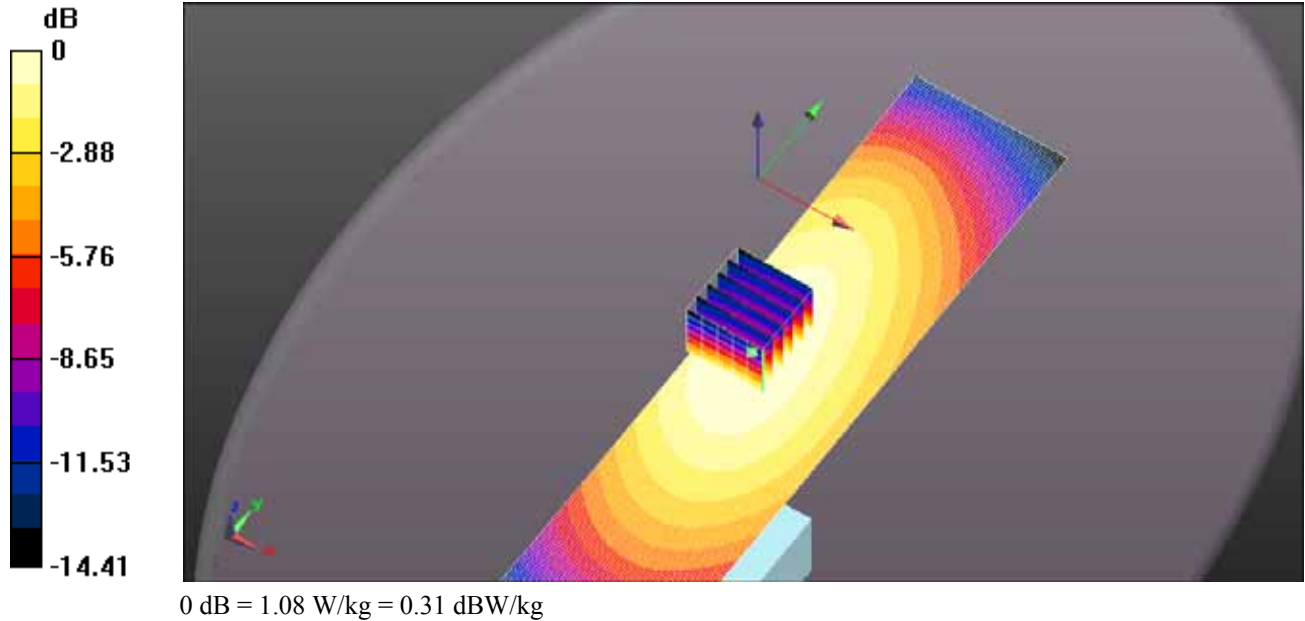
(6x6x7)/Cube 0: Measurement grid: $dx=7.5\text{mm}$, $dy=7.5\text{mm}$, $dz=5\text{mm}$

Reference Value = 37.92 V/m; Power Drift = -0.08 dB

Peak SAR (extrapolated) = 1.34 W/kg

SAR(1 g) = 0.945 W/kg; SAR(10 g) = 0.722 W/kg (SAR corrected for target medium)

Maximum value of SAR (measured) = 1.05 W/kg



Test Laboratory: Ultratech Group of Labs

FILE NAME: [ICOM-448QR1 BP-284 FA-S67VC 151MM 143MHZ.DA52:0](#)

DUT: IC-F7010; Type: VHF Transceiver ; Serial: 0000235

Communication System: UID 0, CW (0); Frequency: 143 MHz; Duty Cycle: 1:1

Medium parameters used (interpolated): $f = 143 \text{ MHz}$; $\sigma = 0.718 \text{ S/m}$; $\epsilon_r = 52.877$; $\rho = 1000 \text{ kg/m}^3$;

Phantom section: Flat Section ; Measurement Standard: DASYS (IEEE/IEC/ANSI C63.19-2007)

DASY Configuration:

- Probe: ES3DV3 - SN3250; ConvF(7.57, 7.57, 7.57); Calibrated: 3/22/2016;
- Sensor-Surface: 3mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn874; Calibrated: 8/22/2016
- Phantom: ELI 4.0; Type: QD OVA 001 BB; Serial: 1057
- DASYS 52.8.8(1222); SEMCAD X 14.6.10(7331)

Configuration_Head_IC-F7010/Head Front, P=5W, d=25mm/Area Scan (51x211x1):

Interpolated grid: $dx=1.500 \text{ mm}$, $dy=1.500 \text{ mm}$

Maximum value of SAR (interpolated) = 0.198 W/kg

Configuration_Head_IC-F7010/Head Front, P=5W, d=25mm/Zoom Scan (5x5x7)

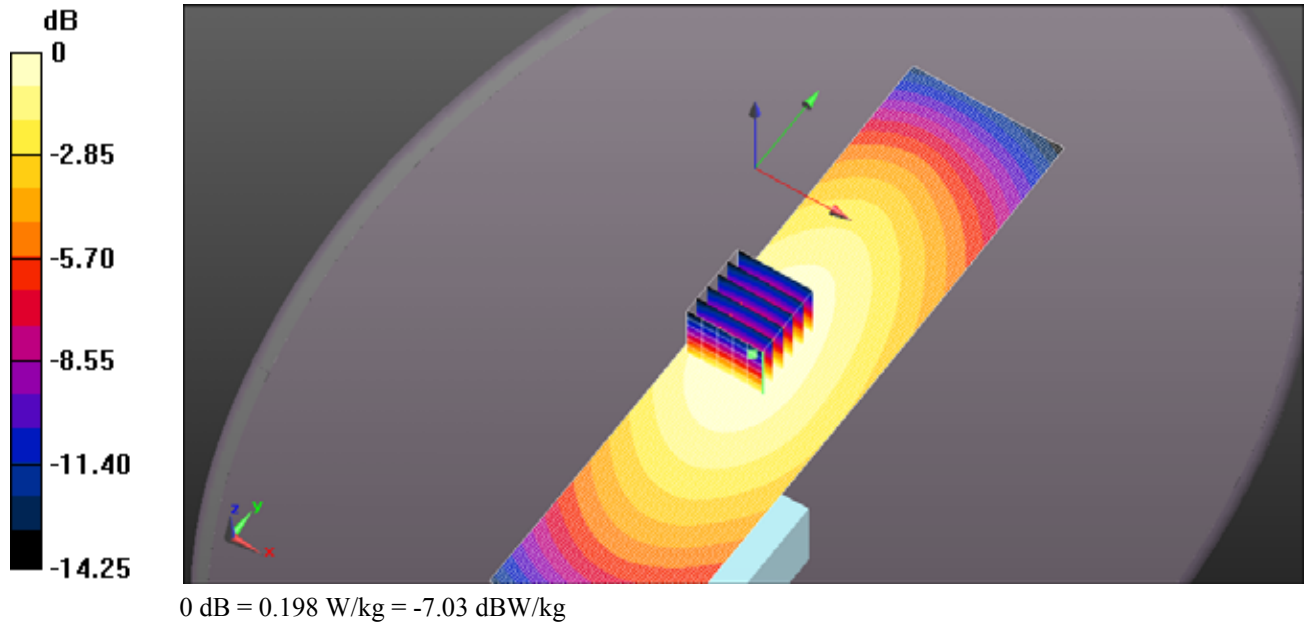
(6x6x7)/Cube 0: Measurement grid: $dx=7.5\text{mm}$, $dy=7.5\text{mm}$, $dz=5\text{mm}$

Reference Value = 16.72 V/m ; Power Drift = -0.00 dB

Peak SAR (extrapolated) = 0.253 W/kg

SAR(1 g) = 0.180 W/kg ; SAR(10 g) = 0.139 W/kg (SAR corrected for target medium)

Maximum value of SAR (measured) = 0.199 W/kg



Test Laboratory: Ultratech Group of Labs

FILE NAME: [ICOM-448QR1 BP-284 FA-S67VC 151MM 168MHZ.DA52:0](#)

DUT: IC-F7010; Type: VHF Transceiver ; Serial: 0000235

Communication System: UID 0, CW (0); Frequency: 168 MHz; Duty Cycle: 1:1
Medium parameters used: $f = 168$ MHz; $\sigma = 0.735$ S/m; $\epsilon_r = 51.656$; $\rho = 1000$ kg/m³ ; Phantom section:
Flat Section ; Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)

DASY Configuration:

- Probe: ES3DV3 - SN3250; ConvF(7.57, 7.57, 7.57); Calibrated: 3/22/2016;
- Sensor-Surface: 3mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn874; Calibrated: 8/22/2016
- Phantom: ELI 4.0; Type: QD OVA 001 BB; Serial: 1057
- DASY52 52.8.8(1222); SEMCAD X 14.6.10(7331)

Configuration_Head_IC-F7010/Head Front, P=5W, d=25mm/Area Scan (51x211x1):

Interpolated grid: dx=1.500 mm, dy=1.500 mm

Maximum value of SAR (interpolated) = 1.10 W/kg

Configuration_Head_IC-F7010/Head Front, P=5W, d=25mm/Zoom Scan (5x5x7)

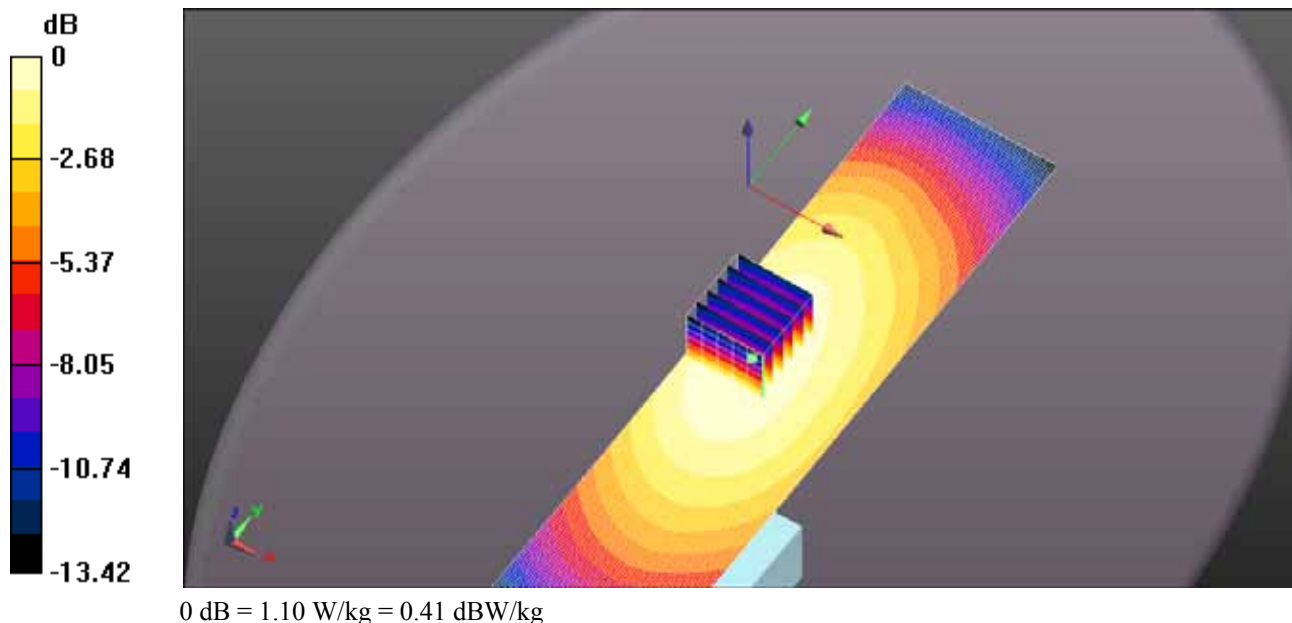
(6x6x7)/Cube 0: Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm

Reference Value = 38.21 V/m; Power Drift = -0.05 dB

Peak SAR (extrapolated) = 1.39 W/kg

SAR(1 g) = 0.987 W/kg; SAR(10 g) = 0.759 W/kg (SAR corrected for target medium)

Maximum value of SAR (measured) = 1.09 W/kg



Test Laboratory: Ultratech Group of Labs

FILE NAME: [ICOM-448QR1 BP-284 FA-S67VC 146MM 162MHZ.DA52:0](#)

DUT: IC-F7010; Type: VHF Transciever ; Serial: 0000235

Communication System: UID 0, CW (0); Frequency: 162 MHz; Duty Cycle: 1:1
Medium parameters used: $f = 162 \text{ MHz}$; $\sigma = 0.732 \text{ S/m}$; $\epsilon_r = 52.084$; $\rho = 1000 \text{ kg/m}^3$; Phantom section:
Flat Section ; Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)

DASY Configuration:

- Probe: ES3DV3 - SN3250; ConvF(7.57, 7.57, 7.57); Calibrated: 3/22/2016;
- Sensor-Surface: 3mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn874; Calibrated: 8/22/2016
- Phantom: ELI 4.0; Type: QD OVA 001 BB; Serial: 1057
- DASY52 52.8.8(1222); SEMCAD X 14.6.10(7331)

Configuration_Head_IC-F7010/Head Front, P=5W, d=25mm/Area Scan (51x211x1):

Interpolated grid: $dx=1.500 \text{ mm}$, $dy=1.500 \text{ mm}$

Maximum value of SAR (interpolated) = 1.61 W/kg

Configuration_Head_IC-F7010/Head Front, P=5W, d=25mm/Zoom Scan (5x5x7)

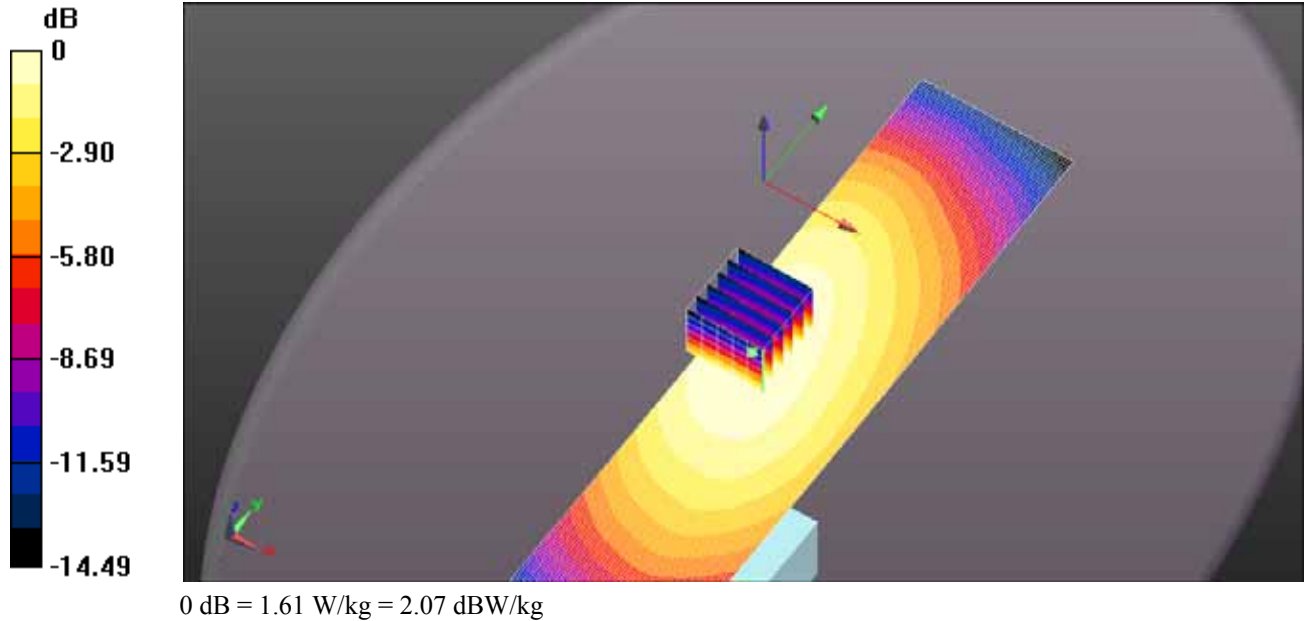
(6x6x7)/Cube 0: Measurement grid: $dx=7.5\text{mm}$, $dy=7.5\text{mm}$, $dz=5\text{mm}$

Reference Value = 46.17 V/m ; Power Drift = -0.02 dB

Peak SAR (extrapolated) = 2.03 W/kg

SAR(1 g) = 1.44 W/kg ; SAR(10 g) = 1.11 W/kg (SAR corrected for target medium)

Maximum value of SAR (measured) = 1.59 W/kg



Test Laboratory: Ultratech Group of Labs

FILE NAME: [ICOM-448QR1 BP-284 FA-S67VC 146MM 136MHZ.DA52:0](#)

DUT: IC-F7010; Type: VHF Transceiver ; Serial: 0000235

Communication System: UID 0, CW (0); Frequency: 136 MHz; Duty Cycle: 1:1
Medium parameters used: $f = 136 \text{ MHz}$; $\sigma = 0.713 \text{ S/m}$; $\epsilon_r = 52.937$; $\rho = 1000 \text{ kg/m}^3$; Phantom section:
Flat Section ; Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)

DASY Configuration:

- Probe: ES3DV3 - SN3250; ConvF(7.57, 7.57, 7.57); Calibrated: 3/22/2016;
- Sensor-Surface: 3mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn874; Calibrated: 8/22/2016
- Phantom: ELI 4.0; Type: QD OVA 001 BB; Serial: 1057
- DASY52 52.8.8(1222); SEMCAD X 14.6.10(7331)

Configuration_Head_IC-F7010/Head Front, P=5W, d=25mm/Area Scan (51x211x1):

Interpolated grid: $dx=1.500 \text{ mm}$, $dy=1.500 \text{ mm}$

Maximum value of SAR (interpolated) = 0.0724 W/kg

Configuration_Head_IC-F7010/Head Front, P=5W, d=25mm/Zoom Scan (5x5x7)

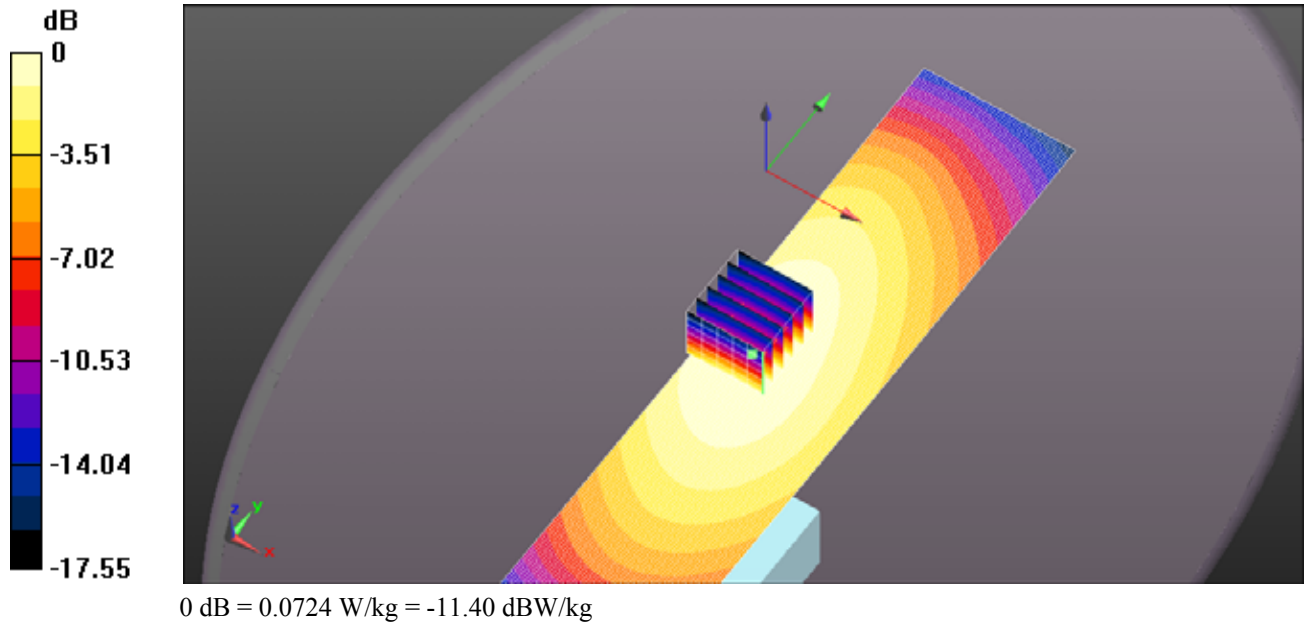
(6x6x7)/Cube 0: Measurement grid: $dx=7.5\text{mm}$, $dy=7.5\text{mm}$, $dz=5\text{mm}$

Reference Value = 10.01 V/m ; Power Drift = 0.05 dB

Peak SAR (extrapolated) = 0.0920 W/kg

SAR(1 g) = 0.065 W/kg ; SAR(10 g) = 0.050 W/kg (SAR corrected for target medium)

Maximum value of SAR (measured) = 0.0721 W/kg



Test Laboratory: Ultratech Group of Labs

FILE NAME: [ICOM-448QR1 BP-284 FA-S67VC 146MM 150MHZ.DA52:0](#)

DUT: IC-F7010; Type: VHF Transciever ; Serial: 0000235

Communication System: UID 0, CW (0); Frequency: 150 MHz; Duty Cycle: 1:1
Medium parameters used: $f = 150 \text{ MHz}$; $\sigma = 0.723 \text{ S/m}$; $\epsilon_r = 52.638$; $\rho = 1000 \text{ kg/m}^3$; Phantom section:
Flat Section ; Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)

DASY Configuration:

- Probe: ES3DV3 - SN3250; ConvF(7.57, 7.57, 7.57); Calibrated: 3/22/2016;
- Sensor-Surface: 3mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn874; Calibrated: 8/22/2016
- Phantom: ELI 4.0; Type: QD OVA 001 BB; Serial: 1057
- DASY52 52.8.8(1222); SEMCAD X 14.6.10(7331)

Configuration_Head_IC-F7010/Head Front, P=5W, d=25mm/Area Scan (51x211x1):

Interpolated grid: $dx=1.500 \text{ mm}$, $dy=1.500 \text{ mm}$

Maximum value of SAR (interpolated) = 0.248 W/kg

Configuration_Head_IC-F7010/Head Front, P=5W, d=25mm/Zoom Scan (5x5x7)

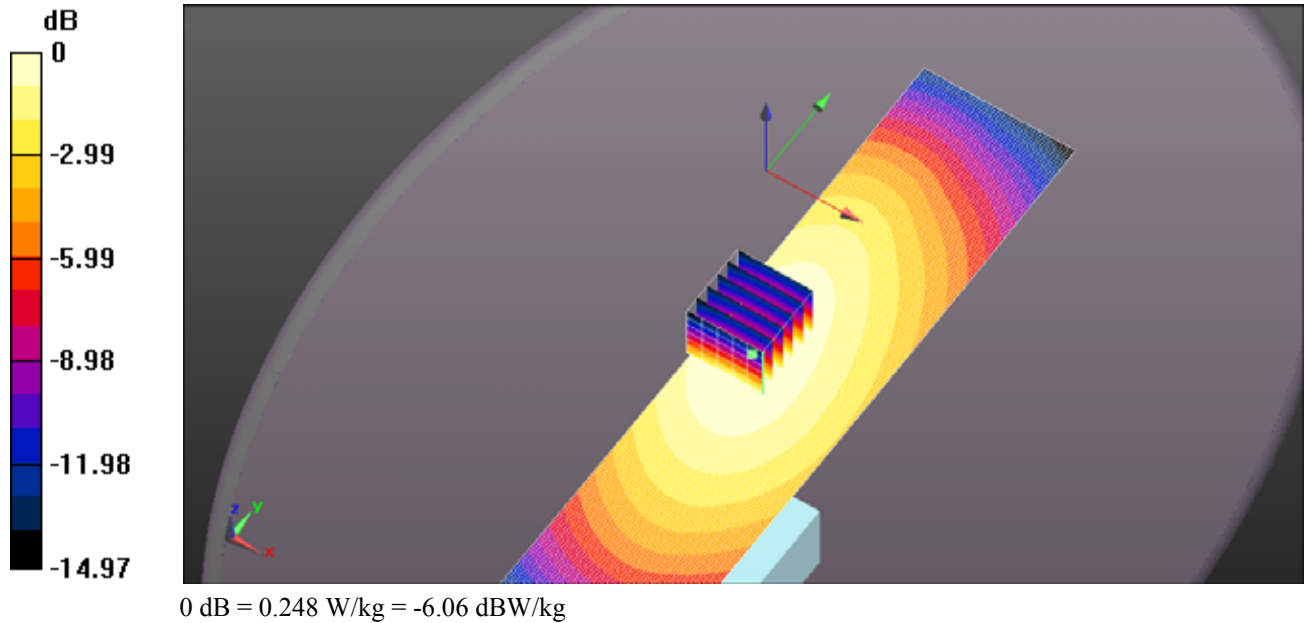
(6x6x7)/Cube 0: Measurement grid: $dx=7.5\text{mm}$, $dy=7.5\text{mm}$, $dz=5\text{mm}$

Reference Value = 18.41 V/m ; Power Drift = -0.00 dB

Peak SAR (extrapolated) = 0.315 W/kg

SAR(1 g) = 0.233 W/kg ; SAR(10 g) = 0.179 W/kg (SAR corrected for target medium)

Maximum value of SAR (measured) = 0.247 W/kg



Test Laboratory: Ultratech Group of Labs

FILE NAME: [ICOM-448QR1 BP-284 FA-S67VC 146MM 174MHZ.DA52:0](#)

DUT: IC-F7010; Type: VHF Transceiver ; Serial: 0000235

Communication System: UID 0, CW (0); Frequency: 174 MHz; Duty Cycle: 1:1
Medium parameters used: $f = 174$ MHz; $\sigma = 0.739$ S/m; $\epsilon_r = 51.593$; $\rho = 1000$ kg/m³ ; Phantom section:
Flat Section ; Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)

DASY Configuration:

- Probe: ES3DV3 - SN3250; ConvF(7.57, 7.57, 7.57); Calibrated: 3/22/2016;
- Sensor-Surface: 3mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn874; Calibrated: 8/22/2016
- Phantom: ELI 4.0; Type: QD OVA 001 BB; Serial: 1057
- DASY52 52.8.8(1222); SEMCAD X 14.6.10(7331)

Configuration_Head_IC-F7010/Head Front, P=5W, d=25mm/Area Scan (51x211x1):

Interpolated grid: dx=1.500 mm, dy=1.500 mm

Maximum value of SAR (interpolated) = 1.10 W/kg

Configuration_Head_IC-F7010/Head Front, P=5W, d=25mm/Zoom Scan (5x5x7)

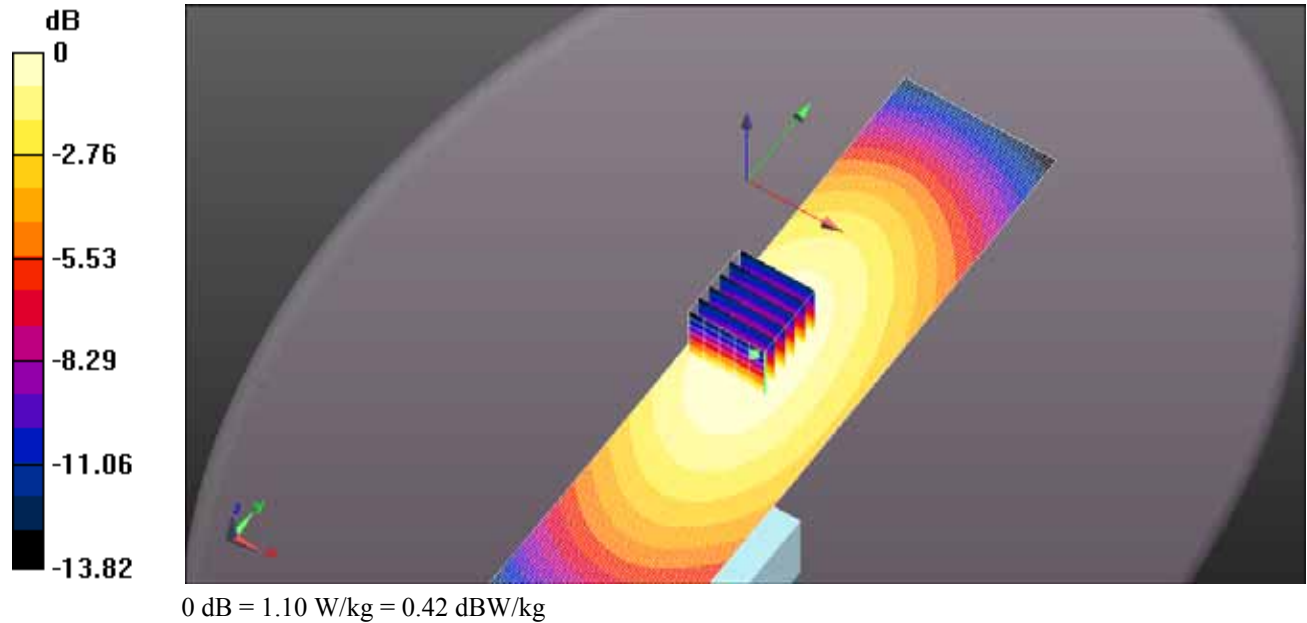
(6x6x7)/Cube 0: Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm

Reference Value = 38.20 V/m; Power Drift = -0.05 dB

Peak SAR (extrapolated) = 1.38 W/kg

SAR(1 g) = 0.981 W/kg; SAR(10 g) = 0.754 W/kg (SAR corrected for target medium)

Maximum value of SAR (measured) = 1.09 W/kg



Test Laboratory: Ultratech Group of Labs

FILE NAME: [ICOM-448QR1 BP-284 FA-S67VC 141MM 168MHZ.DA52:0](#)

DUT: IC-F7010; Type: VHF Transciever ; Serial: 0000235

Communication System: UID 0, CW (0); Frequency: 168 MHz; Duty Cycle: 1:1
Medium parameters used: $f = 168 \text{ MHz}$; $\sigma = 0.735 \text{ S/m}$; $\epsilon_r = 51.656$; $\rho = 1000 \text{ kg/m}^3$; Phantom section:
Flat Section ; Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)

DASY Configuration:

- Probe: ES3DV3 - SN3250; ConvF(7.57, 7.57, 7.57); Calibrated: 3/22/2016;
- Sensor-Surface: 3mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn874; Calibrated: 8/22/2016
- Phantom: ELI 4.0; Type: QD OVA 001 BB; Serial: 1057
- DASY52 52.8.8(1222); SEMCAD X 14.6.10(7331)

Configuration_Head_IC-F7010/Head Front, P=5W, d=25mm/Area Scan (51x211x1):

Interpolated grid: $dx=1.500 \text{ mm}$, $dy=1.500 \text{ mm}$

Maximum value of SAR (interpolated) = 1.43 W/kg

Configuration_Head_IC-F7010/Head Front, P=5W, d=25mm/Zoom Scan (5x5x7)

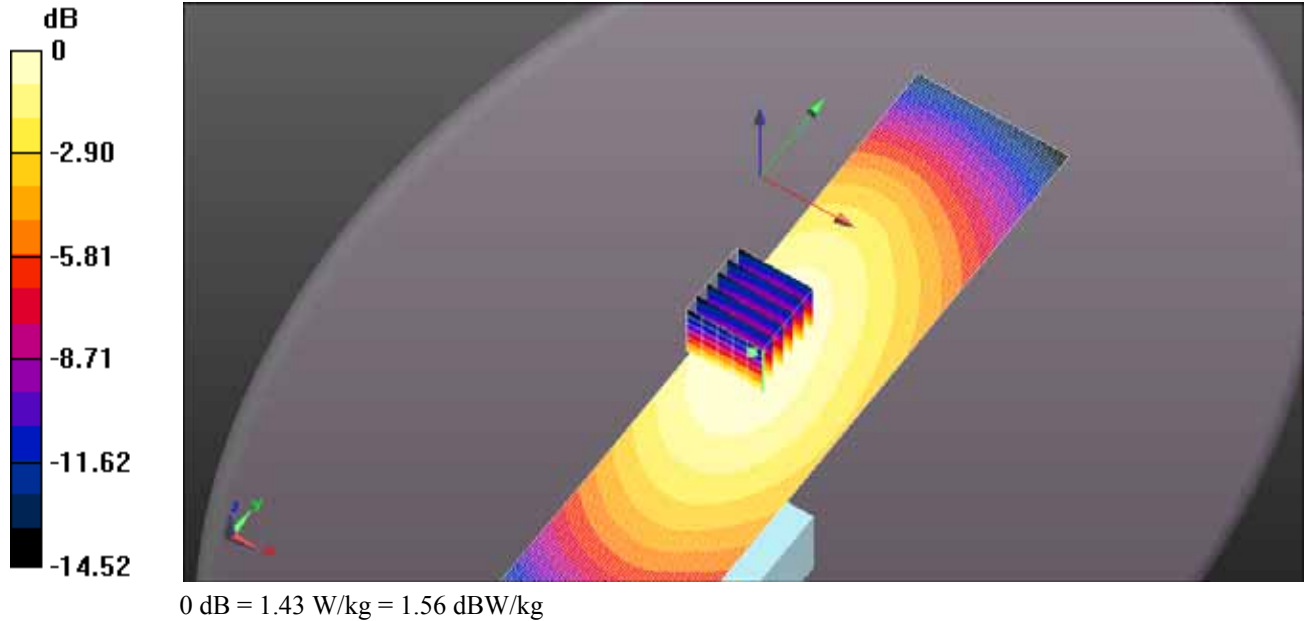
(6x6x7)/Cube 0: Measurement grid: $dx=7.5\text{mm}$, $dy=7.5\text{mm}$, $dz=5\text{mm}$

Reference Value = 43.74 V/m ; Power Drift = -0.03 dB

Peak SAR (extrapolated) = 1.79 W/kg

SAR(1 g) = 1.28 W/kg ; SAR(10 g) = 0.987 W/kg (SAR corrected for target medium)

Maximum value of SAR (measured) = 1.41 W/kg



Test Laboratory: Ultratech Group of Labs

FILE NAME: [ICOM-448QR1 BP-284 FA-S67VC 141MM 156MHZ.DA52:0](#)

DUT: IC-F7010; Type: VHF Transceiver ; Serial: 0000235

Communication System: UID 0, CW (0); Frequency: 156 MHz; Duty Cycle: 1:1
Medium parameters used: $f = 156 \text{ MHz}$; $\sigma = 0.727 \text{ S/m}$; $\epsilon_r = 52.214$; $\rho = 1000 \text{ kg/m}^3$; Phantom section:
Flat Section ; Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)

DASY Configuration:

- Probe: ES3DV3 - SN3250; ConvF(7.57, 7.57, 7.57); Calibrated: 3/22/2016;
- Sensor-Surface: 3mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn874; Calibrated: 8/22/2016
- Phantom: ELI 4.0; Type: QD OVA 001 BB; Serial: 1057
- DASY52 52.8.8(1222); SEMCAD X 14.6.10(7331)

Configuration_Head_IC-F7010/Head Front, P=5W, d=25mm/Area Scan (51x211x1):

Interpolated grid: $dx=1.500 \text{ mm}$, $dy=1.500 \text{ mm}$

Maximum value of SAR (interpolated) = 0.334 W/kg

Configuration_Head_IC-F7010/Head Front, P=5W, d=25mm/Zoom Scan (5x5x7)

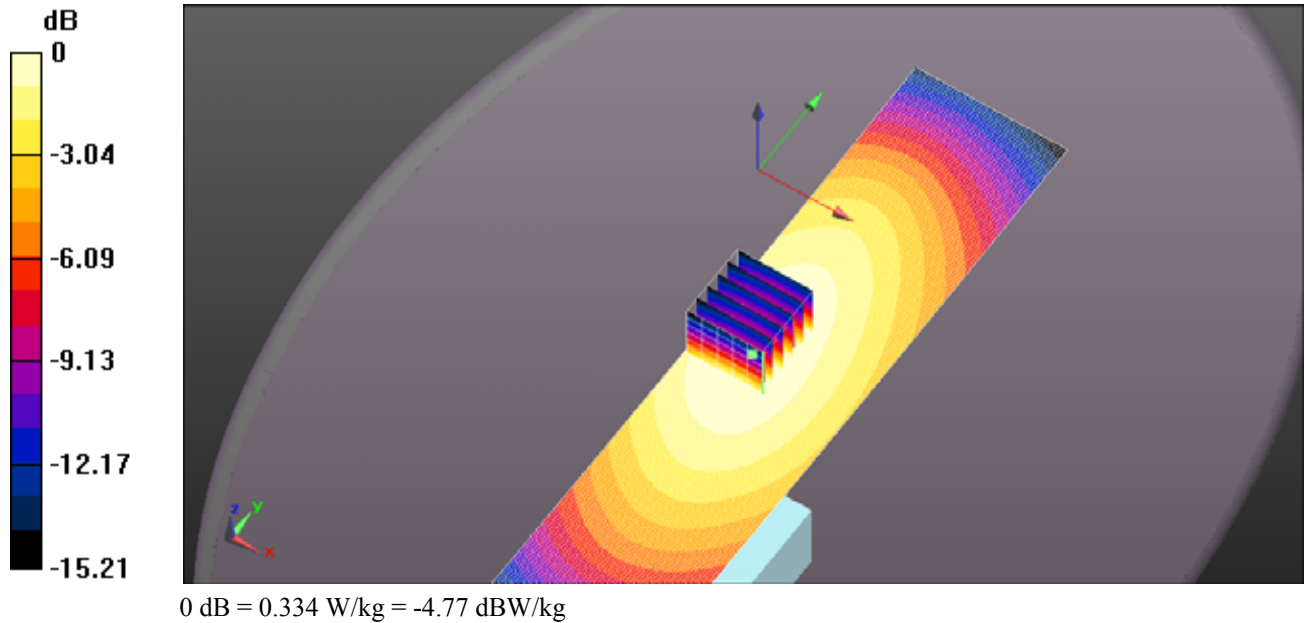
(6x6x7)/Cube 0: Measurement grid: $dx=7.5\text{mm}$, $dy=7.5\text{mm}$, $dz=5\text{mm}$

Reference Value = 21.41 V/m ; Power Drift = 0.01 dB

Peak SAR (extrapolated) = 0.424 W/kg

SAR(1 g) = 0.301 W/kg ; SAR(10 g) = 0.232 W/kg (SAR corrected for target medium)

Maximum value of SAR (measured) = 0.334 W/kg



Test Laboratory: Ultratech Group of Labs

FILE NAME: [ICOM-448QR1 BP-284 FA-S67VC 141MM 143MHZ.DA52:0](#)

DUT: IC-F7010; Type: VHF Transceiver ; Serial: 0000235

Communication System: UID 0, CW (0); Frequency: 143 MHz; Duty Cycle: 1:1

Medium parameters used (interpolated): $f = 143 \text{ MHz}$; $\sigma = 0.718 \text{ S/m}$; $\epsilon_r = 52.877$; $\rho = 1000 \text{ kg/m}^3$;

Phantom section: Flat Section ; Measurement Standard: DASYS (IEEE/IEC/ANSI C63.19-2007)

DASY Configuration:

- Probe: ES3DV3 - SN3250; ConvF(7.57, 7.57, 7.57); Calibrated: 3/22/2016;
- Sensor-Surface: 3mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn874; Calibrated: 8/22/2016
- Phantom: ELI 4.0; Type: QD OVA 001 BB; Serial: 1057
- DASYS 52.8.8(1222); SEMCAD X 14.6.10(7331)

Configuration_Head_IC-F7010/Head Front, P=5W, d=25mm/Area Scan (51x211x1):

Interpolated grid: $dx=1.500 \text{ mm}$, $dy=1.500 \text{ mm}$

Maximum value of SAR (interpolated) = 0.109 W/kg

Configuration_Head_IC-F7010/Head Front, P=5W, d=25mm/Zoom Scan (5x5x7)

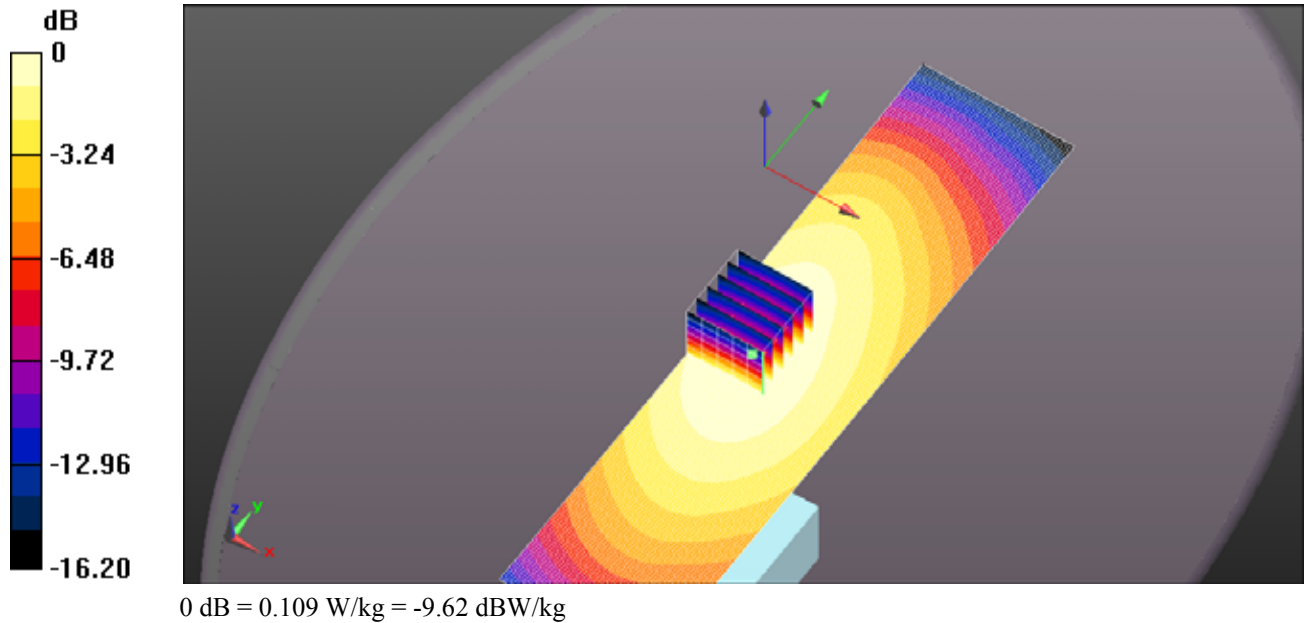
(6x6x7)/Cube 0: Measurement grid: $dx=7.5\text{mm}$, $dy=7.5\text{mm}$, $dz=5\text{mm}$

Reference Value = 12.31 V/m ; Power Drift = 0.01 dB

Peak SAR (extrapolated) = 0.139 W/kg

SAR(1 g) = 0.098 W/kg ; SAR(10 g) = 0.076 W/kg (SAR corrected for target medium)

Maximum value of SAR (measured) = 0.109 W/kg



Test Laboratory: Ultratech Group of Labs

FILE NAME: [ICOM-448QR1 BP-284 FA-S67VC 137MM 168MHZ.DA52:0](#)

DUT: IC-F7010; Type: VHF Transciever ; Serial: 0000235

Communication System: UID 0, CW (0); Frequency: 168 MHz; Duty Cycle: 1:1
Medium parameters used: $f = 168 \text{ MHz}$; $\sigma = 0.735 \text{ S/m}$; $\epsilon_r = 51.656$; $\rho = 1000 \text{ kg/m}^3$; Phantom section:
Flat Section ; Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)

DASY Configuration:

- Probe: ES3DV3 - SN3250; ConvF(7.57, 7.57, 7.57); Calibrated: 3/22/2016;
- Sensor-Surface: 3mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn874; Calibrated: 8/22/2016
- Phantom: ELI 4.0; Type: QD OVA 001 BB; Serial: 1057
- DASY52 52.8.8(1222); SEMCAD X 14.6.10(7331)

Configuration_Head_IC-F7010/Head Front, P=5W, d=25mm/Area Scan (51x211x1):

Interpolated grid: $dx=1.500 \text{ mm}$, $dy=1.500 \text{ mm}$

Maximum value of SAR (interpolated) = 0.877 W/kg

Configuration_Head_IC-F7010/Head Front, P=5W, d=25mm/Zoom Scan (5x5x7)

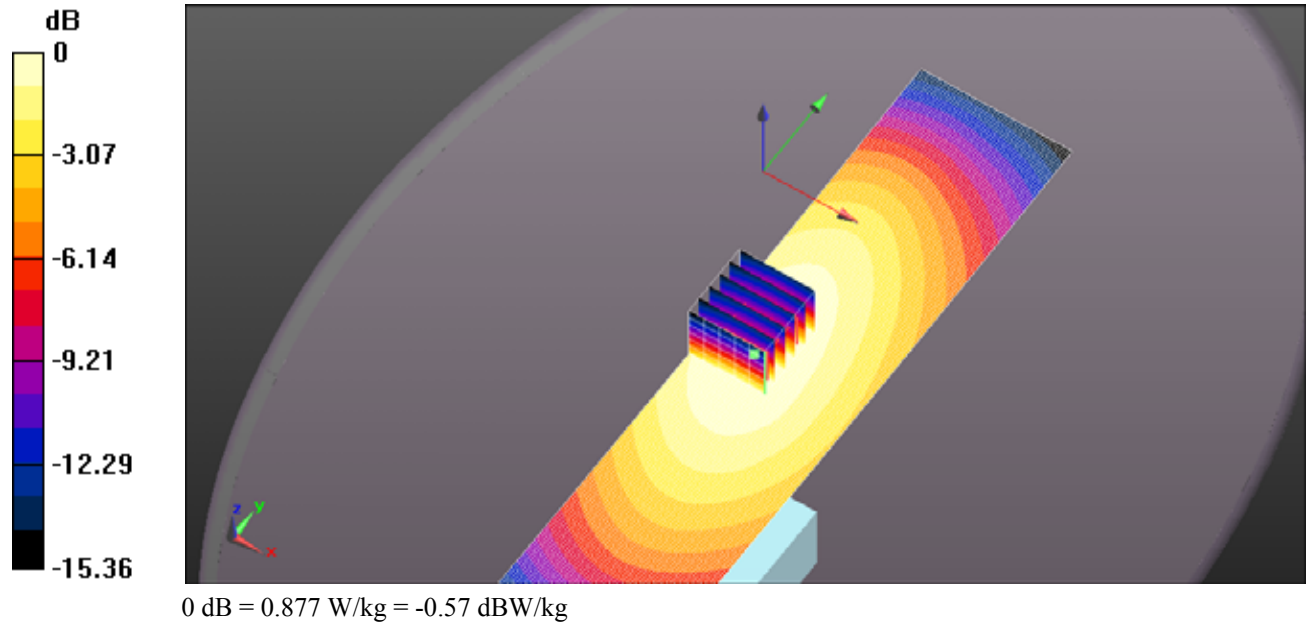
(6x6x7)/Cube 0: Measurement grid: $dx=7.5\text{mm}$, $dy=7.5\text{mm}$, $dz=5\text{mm}$

Reference Value = 34.39 V/m ; Power Drift = -0.01 dB

Peak SAR (extrapolated) = 1.11 W/kg

SAR(1 g) = 0.788 W/kg ; SAR(10 g) = 0.606 W/kg (SAR corrected for target medium)

Maximum value of SAR (measured) = 0.874 W/kg



Test Laboratory: Ultratech Group of Labs

File Name: [ICOM-448QR1 BP-284 FA-S67VC 137mm 156MHz.da52:0](#)

DUT: IC-F7010; Type: VHF Transciever ; Serial: 0000235

Communication System: UID 0, CW (0); Frequency: 156 MHz; Duty Cycle: 1:1

Medium parameters used: $f = 156$ MHz; $\sigma = 0.727$ S/m; $\epsilon_r = 52.214$; $\rho = 1000$ kg/m³ ; Phantom section: Flat Section ; Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)

DASY Configuration:

- Probe: ES3DV3 - SN3250; ConvF(7.57, 7.57, 7.57); Calibrated: 3/22/2016;
- Sensor-Surface: 3mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn874; Calibrated: 8/22/2016
- Phantom: ELI 4.0; Type: QD OVA 001 BB; Serial: 1057
- DASY52 52.8.8(1222); SEMCAD X 14.6.10(7331)

Configuration_Head_IC-F7010/Head Front, P=5W, d=25mm/Area Scan (51x211x1):

Interpolated grid: dx=1.500 mm, dy=1.500 mm

Maximum value of SAR (interpolated) = 0.232 W/kg

Configuration_Head_IC-F7010/Head Front, P=5W, d=25mm/Zoom Scan (5x5x7)

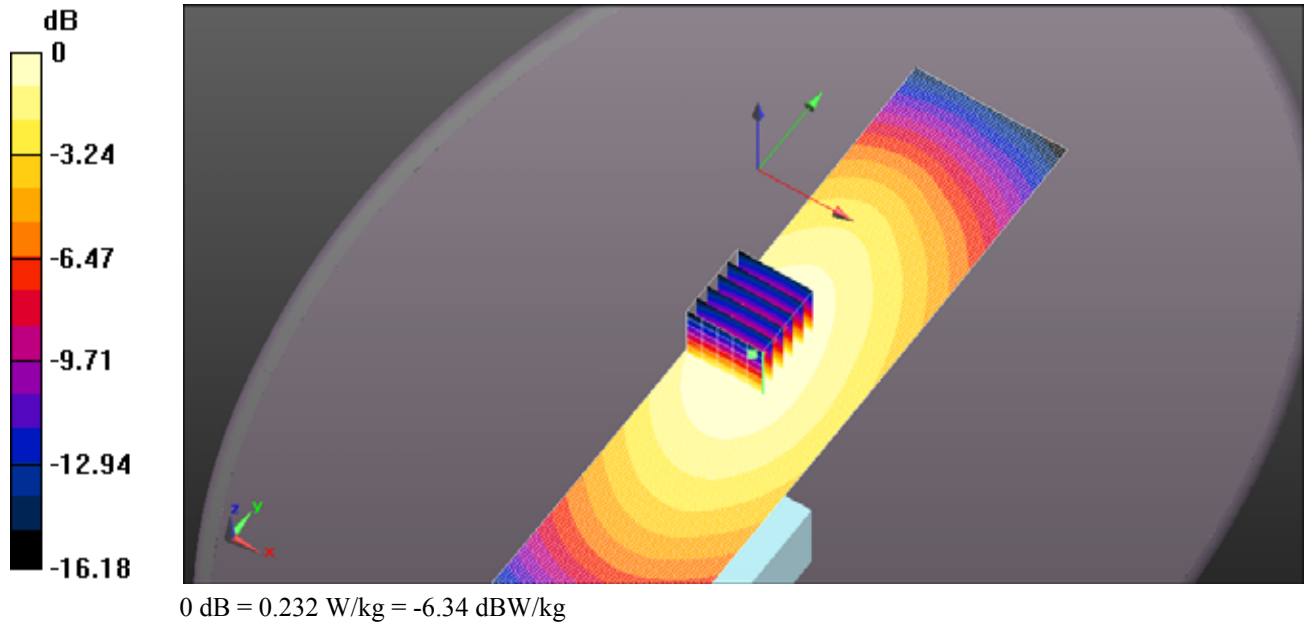
(6x6x7)/Cube 0: Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm

Reference Value = 17.89 V/m; Power Drift = 0.00 dB

Peak SAR (extrapolated) = 0.296 W/kg

SAR(1 g) = 0.210 W/kg; SAR(10 g) = 0.162 W/kg (SAR corrected for target medium)

Maximum value of SAR (measured) = 0.233 W/kg



Test Laboratory: Ultratech Group of Labs

FILE NAME: [ICOM-448QR1 BP-284 FA-S67VC 137MM 143MHZ.DA52:0](#)

DUT: IC-F7010; Type: VHF Transceiver ; Serial: 0000235

Communication System: UID 0, CW (0); Frequency: 143 MHz; Duty Cycle: 1:1

Medium parameters used (interpolated): $f = 143 \text{ MHz}$; $\sigma = 0.718 \text{ S/m}$; $\epsilon_r = 52.877$; $\rho = 1000 \text{ kg/m}^3$;

Phantom section: Flat Section ; Measurement Standard: DASYS (IEEE/IEC/ANSI C63.19-2007)

DASY Configuration:

- Probe: ES3DV3 - SN3250; ConvF(7.57, 7.57, 7.57); Calibrated: 3/22/2016;
- Sensor-Surface: 3mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn874; Calibrated: 8/22/2016
- Phantom: ELI 4.0; Type: QD OVA 001 BB; Serial: 1057
- DASY52 52.8.8(1222); SEMCAD X 14.6.10(7331)

Configuration_Head_IC-F7010/Head Front, P=5W, d=25mm/Area Scan (51x211x1):

Interpolated grid: $dx=1.500 \text{ mm}$, $dy=1.500 \text{ mm}$

Maximum value of SAR (interpolated) = 0.0836 W/kg

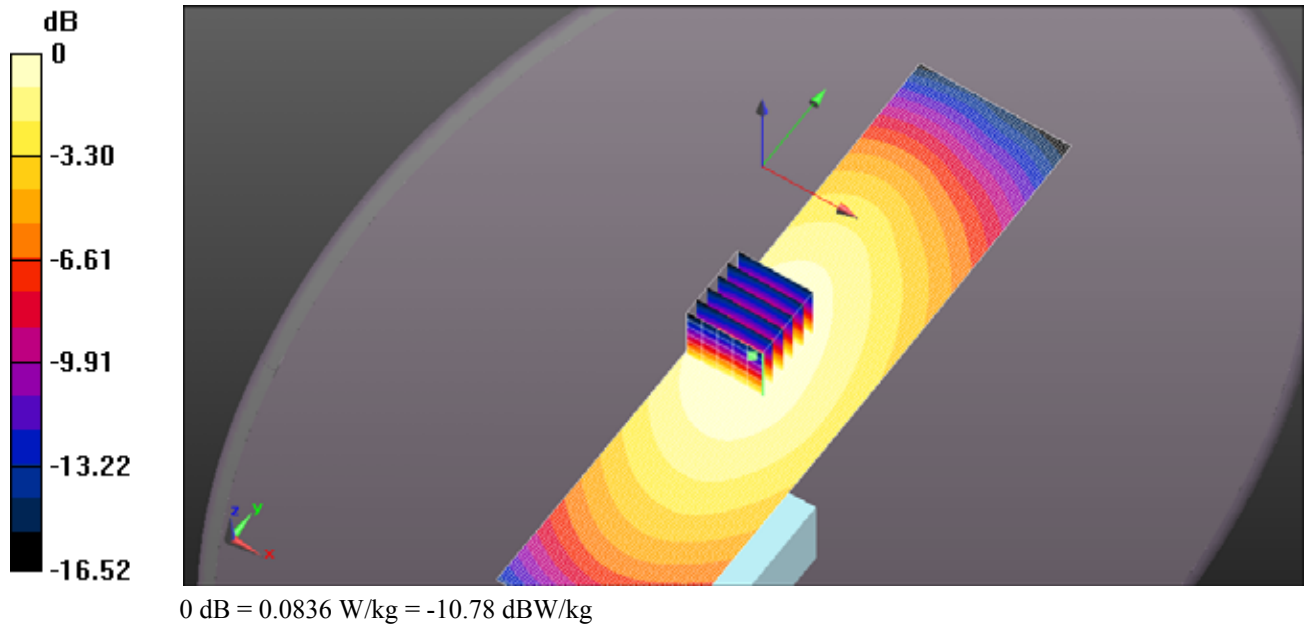
Configuration_Head_IC-F7010/Head Front, P=5W, d=25mm/Zoom Scan (5x5x7)

(6x6x7)/Cube 0: Measurement grid: $dx=7.5\text{mm}$, $dy=7.5\text{mm}$, $dz=5\text{mm}$

Reference Value = 10.75 V/m ; Power Drift = 0.02 dB

Peak SAR (extrapolated) = 0.106 W/kg

SAR(1 g) = 0.075 W/kg; SAR(10 g) = 0.058 W/kg (SAR corrected for target medium)
Maximum value of SAR (measured) = 0.0831 W/kg



Test Laboratory: Ultratech Group of Labs

FILE NAME: [ICOM-448QR1 BP-284 FA-S67VC 133MM 174MHZ.DA52:0](#)

DUT: IC-F7010; Type: VHF Transciever ; Serial: 0000235

Communication System: UID 0, CW (0); Frequency: 174 MHz; Duty Cycle: 1:1
Medium parameters used: $f = 174$ MHz; $\sigma = 0.739$ S/m; $\epsilon_r = 51.593$; $\rho = 1000$ kg/m³; Phantom section:
Flat Section ; Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)

DASY Configuration:

- Probe: ES3DV3 - SN3250; ConvF(7.57, 7.57, 7.57); Calibrated: 3/22/2016;
- Sensor-Surface: 3mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn874; Calibrated: 8/22/2016
- Phantom: ELI 4.0; Type: QD OVA 001 BB; Serial: 1057
- DASY52 52.8.8(1222); SEMCAD X 14.6.10(7331)

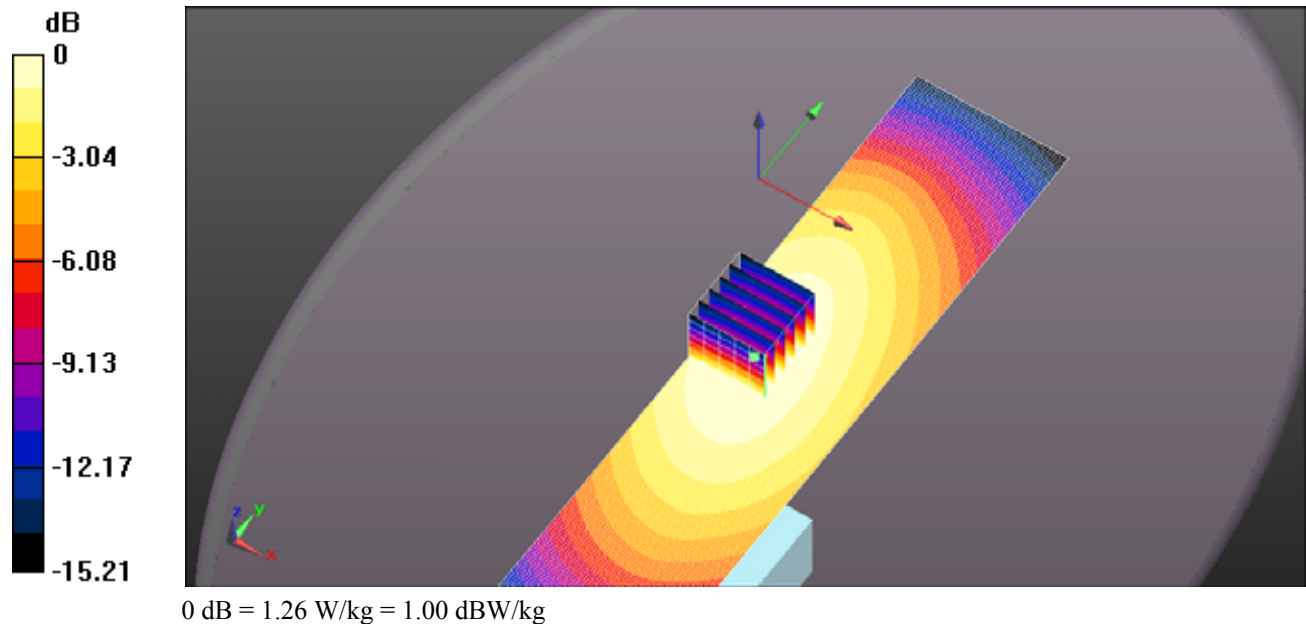
Configuration_Head_IC-F7010/Head Front, P=5W, d=25mm/Area Scan (51x211x1):
Interpolated grid: dx=1.500 mm, dy=1.500 mm
Maximum value of SAR (interpolated) = 1.26 W/kg

**Configuration_Head_IC-F7010/Head Front, P=5W, d=25mm/Zoom Scan (5x5x7)
(6x6x7)/Cube 0:** Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm
Reference Value = 40.75 V/m; Power Drift = -0.08 dB

Peak SAR (extrapolated) = 1.55 W/kg

SAR(1 g) = 1.11 W/kg; SAR(10 g) = 0.852 W/kg (SAR corrected for target medium)

Maximum value of SAR (measured) = 1.23 W/kg



Test Laboratory: Ultratech Group of Labs

FILE NAME: [ICOM-448QR1 BP-284 FA-S67VC 133MM 162MHZ.DA52:0](#)

DUT: IC-F7010; Type: VHF Transceiver ; Serial: 0000235

Communication System: UID 0, CW (0); Frequency: 162 MHz; Duty Cycle: 1:1

Medium parameters used: $f = 162$ MHz; $\sigma = 0.732$ S/m; $\epsilon_r = 52.084$; $\rho = 1000$ kg/m³ ; Phantom section: Flat Section ; Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)

DASY Configuration:

- Probe: ES3DV3 - SN3250; ConvF(7.57, 7.57, 7.57); Calibrated: 3/22/2016;
- Sensor-Surface: 3mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn874; Calibrated: 8/22/2016
- Phantom: ELI 4.0; Type: QD OVA 001 BB; Serial: 1057
- DASY52 52.8.8(1222); SEMCAD X 14.6.10(7331)

Configuration_Head_IC-F7010/Head Front, P=5W, d=25mm/Area Scan (51x211x1):

Interpolated grid: dx=1.500 mm, dy=1.500 mm

Maximum value of SAR (interpolated) = 0.349 W/kg

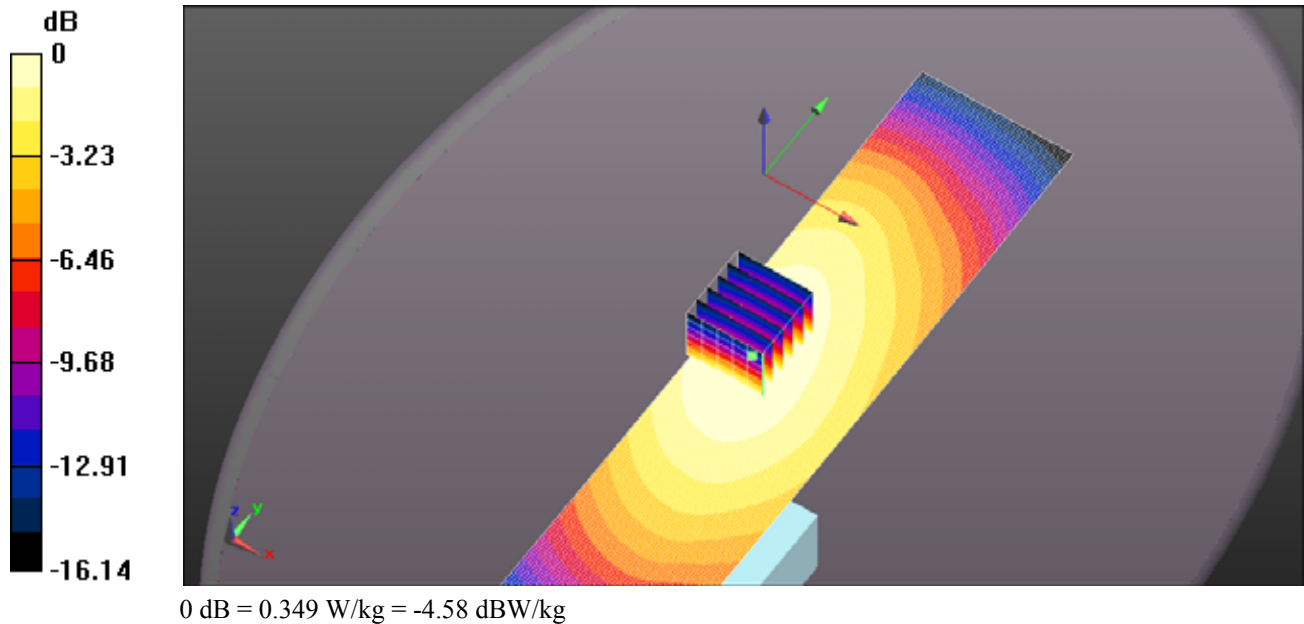
**Configuration_Head_IC-F7010/Head Front, P=5W, d=25mm/Zoom Scan (5x5x7)
(6x6x7)/Cube 0:** Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm

Reference Value = 21.58 V/m; Power Drift = -0.04 dB

Peak SAR (extrapolated) = 0.435 W/kg

SAR(1 g) = 0.309 W/kg; SAR(10 g) = 0.238 W/kg (SAR corrected for target medium)

Maximum value of SAR (measured) = 0.342 W/kg



Test Laboratory: Ultratech Group of Labs

File Name: [ICOM-448QR1 BP-284 FA-S67VC 133mm 150MHz.da52:0](#)

DUT: IC-F7010; Type: VHF Transciever ; Serial: 0000235

Communication System: UID 0, CW (0); Frequency: 150 MHz; Duty Cycle: 1:1

Medium parameters used: $f = 150 \text{ MHz}$; $\sigma = 0.723 \text{ S/m}$; $\epsilon_r = 52.638$; $\rho = 1000 \text{ kg/m}^3$; Phantom section: Flat Section ; Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)

DASY Configuration:

- Probe: ES3DV3 - SN3250; ConvF(7.57, 7.57, 7.57); Calibrated: 3/22/2016;
- Sensor-Surface: 3mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn874; Calibrated: 8/22/2016
- Phantom: ELI 4.0; Type: QD OVA 001 BB; Serial: 1057
- DASY52 52.8.8(1222); SEMCAD X 14.6.10(7331)

Configuration_Head_IC-F7010/Head Front, P=5W, d=25mm/Area Scan (51x211x1):

Interpolated grid: $dx=1.500 \text{ mm}$, $dy=1.500 \text{ mm}$

Maximum value of SAR (interpolated) = 0.122 W/kg

Configuration_Head_IC-F7010/Head Front, P=5W, d=25mm/Zoom Scan (5x5x7)

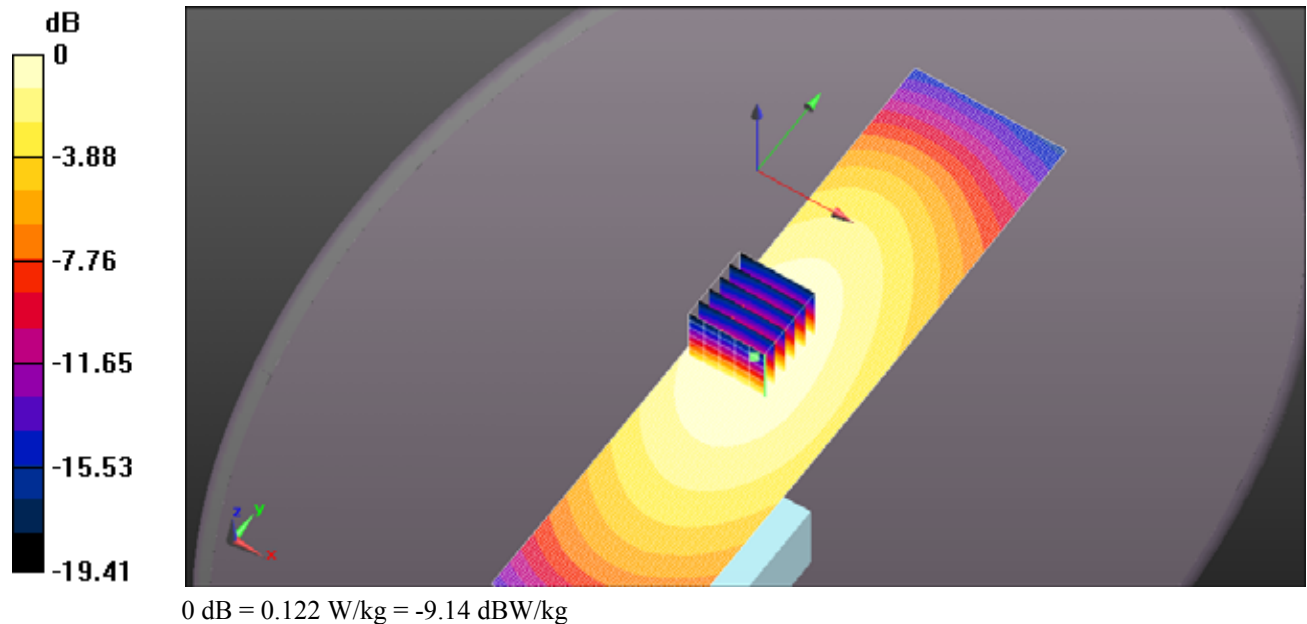
(6x6x7)/Cube 0: Measurement grid: $dx=7.5\text{mm}$, $dy=7.5\text{mm}$, $dz=5\text{mm}$

Reference Value = 12.96 V/m; Power Drift = 0.00 dB

Peak SAR (extrapolated) = 0.153 W/kg

SAR(1 g) = 0.113 W/kg; SAR(10 g) = 0.087 W/kg (SAR corrected for target medium)

Maximum value of SAR (measured) = 0.120 W/kg



Test Laboratory: Ultratech Group of Labs

FILE NAME: [ICOM-448QR1 BP-284 FA-S67VC 133MM 136MHZ.DA52:0](#)

DUT: IC-F7010; Type: VHF Transciever ; Serial: 0000235

Communication System: UID 0, CW (0); Frequency: 136 MHz; Duty Cycle: 1:1

Medium parameters used: $f = 136$ MHz; $\sigma = 0.713$ S/m; $\epsilon_r = 52.937$; $\rho = 1000$ kg/m³ ; Phantom section: Flat Section ; Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)

DASY Configuration:

- Probe: ES3DV3 - SN3250; ConvF(7.57, 7.57, 7.57); Calibrated: 3/22/2016;
- Sensor-Surface: 3mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn874; Calibrated: 8/22/2016
- Phantom: ELI 4.0; Type: QD OVA 001 BB; Serial: 1057
- DASY52 52.8.8(1222); SEMCAD X 14.6.10(7331)

Configuration_Head_IC-F7010/Head Front, P=5W, d=25mm/Area Scan (51x211x1):

Interpolated grid: dx=1.500 mm, dy=1.500 mm

Maximum value of SAR (interpolated) = 0.0581 W/kg

Configuration_Head_IC-F7010/Head Front, P=5W, d=25mm/Zoom Scan (5x5x7)

(6x6x7)/Cube 0: Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm

Reference Value = 8.793 V/m; Power Drift = -0.02 dB

Peak SAR (extrapolated) = 0.0720 W/kg

SAR(1 g) = 0.050 W/kg; SAR(10 g) = 0.038 W/kg (SAR corrected for target medium)

Maximum value of SAR (measured) = 0.0556 W/kg

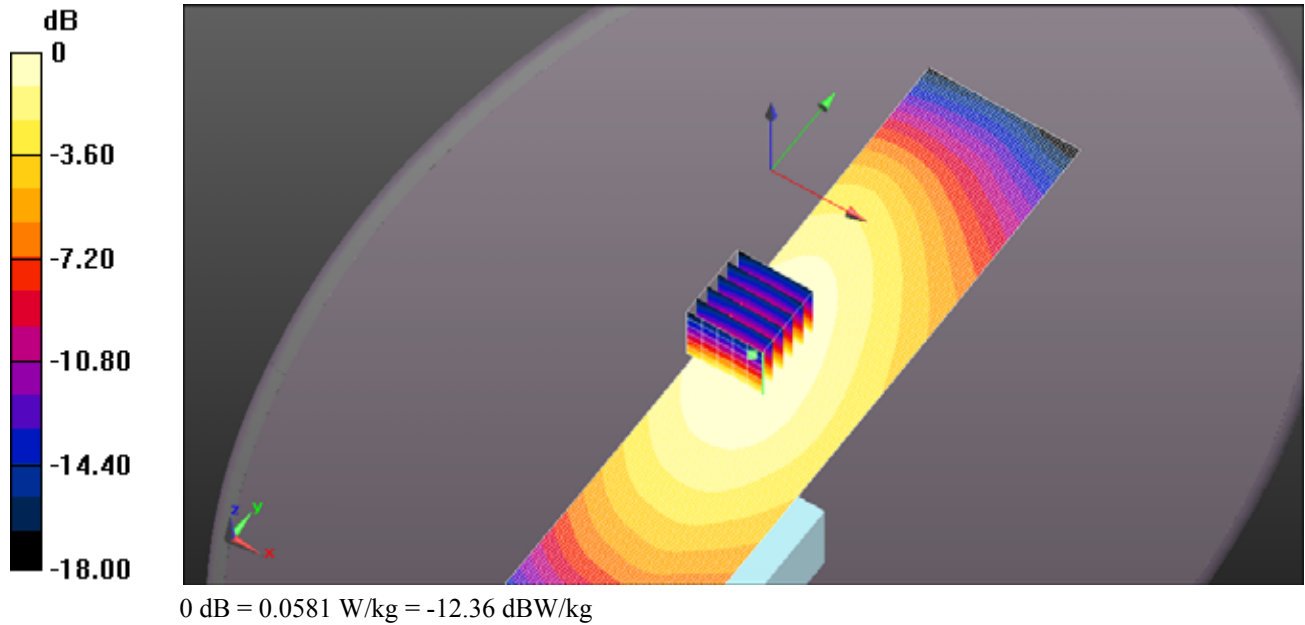


EXHIBIT 3. BODY SAR MEASUREMENTS

Antenna	Power (dBm)	CH	CH. Freq	BODY SAR1g (W/Kg)
			(MHz)	BP-283
				2010mAh
FA-S81V 136-150 MHz	37.02	1	136	
	36.97	2	143	0.19
	37.03	3	150	
FA-S82V 150-162 MHz	37.03	3	150	0.75
	37.03	4	156	
	37.07	6	162	
FA-S83V 160-174 MHz	37.05	9	160	
	37.12	6	167	1.30
	37.12	8	174	
FA-S81VS 136-150 MHz	37.02	1	136	
	36.97	2	143	0.26
	37.03	3	150	
FA-S82VS 150-162 MHz	37.03	3	150	
	37.03	4	156	0.19
	37.07	6	162	
FA-S83VS 160-174 MHz	37.05	9	160	
	37.12	6	167	0.16
	37.12	8	174	

Cut Antenna	Power (dBm)	CH	CH. Freq	BODY SAR1g (W/Kg)
				BP-283
			(MHz)	2010mAh
FA-S67VC 177mm 136MHz Cut	37.02	1	136	0.88
	36.97	2	143	
	37.03	3	150	
	37.03	4	156	
	37.07	6	162	
	37.19	7	168	
	37.12	8	174	
FA-S67VC 169mm 140MHz Cut	37.02	1	136	
	36.97	2	143	0.46
	37.03	3	150	
	37.03	4	156	
	37.07	6	162	
	37.19	7	168	
	37.12	8	174	
FA-S67VC 163mm 145MHz Cut	37.02	1	136	
	36.97	2	143	0.53
	37.03	3	150	
	37.03	4	156	
	37.07	6	162	
	37.19	7	168	
	37.12	8	174	
FA-S67VC 157mm 150MHz Cut	37.02	1	136	
	36.97	2	143	
	37.03	3	150	0.58
	37.03	4	156	
	37.07	6	162	
	37.19	7	168	
	37.12	8	174	

Cut Antenna	Power (dBm)	CH	CH. Freq	BODY SAR1g (W/Kg)
				BP-283
			(MHz)	2010mAh
FA-S67VC 151mm 155MHz Cut	37.02	1	136	
	36.97	2	143	
	37.03	3	150	
	37.03	4	156	1.07
	37.07	6	162	
	37.19	7	168	
	37.12	8	174	
FA-S67VC 146mm 160MHz Cut	37.02	1	136	
	36.97	2	143	
	37.03	3	150	
	37.03	4	156	
	37.07	6	162	1.67
	37.19	7	168	
	37.12	8	174	
FA-S67VC 141mm 165MHz Cut	37.02	1	136	
	36.97	2	143	
	37.03	3	150	
	37.03	4	156	
	37.07	6	162	
	37.19	7	168	1.69
	37.12	8	174	
FA-S67VC 137mm 170MHz Cut	37.02	1	136	
	36.97	2	143	
	37.03	3	150	
	37.03	4	156	
	37.07	6	162	
	37.19	7	168	1.74
	37.12	8	174	
FA-S67VC 133mm 175MHz Cut	37.02	1	136	
	36.97	2	143	
	37.03	3	150	
	37.03	4	156	
	37.07	6	162	
	37.19	7	168	
	37.12	8	174	1.75

Test Laboratory: Ultratech Group of Labs

FILE NAME: [ICOM-448QR1 MB-133 BP-283 FA-S81V 143MHZ.DA52:0](#)

DUT: IC-F7010; Type: VHF Transciever ; Serial: 0000235

Communication System: UID 0, CW (0); Frequency: 143 MHz; Duty Cycle: 1:1
Medium parameters used (interpolated): $f = 143 \text{ MHz}$; $\sigma = 0.804 \text{ S/m}$; $\epsilon_r = 59.438$; $\rho = 1000 \text{ kg/m}^3$;
Phantom section: Flat Section ; Measurement Standard: DASYS (IEEE/IEC/ANSI C63.19-2007)

DASY Configuration:

- Probe: ES3DV3 - SN3250; ConvF(7.18, 7.18, 7.18); Calibrated: 3/22/2016;
- Sensor-Surface: 3mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn874; Calibrated: 8/22/2016
- Phantom: ELI 4.0; Type: QD OVA 001 BB; Serial: 1057
- DASYS2 52.8.8(1222); SEMCAD X 14.6.10(7331)

Configuration_Body_IC-F7010/Body Back, P=5W, d=0mm/Area Scan (51x201x1):

Interpolated grid: $dx=1.500 \text{ mm}$, $dy=1.500 \text{ mm}$

Maximum value of SAR (interpolated) = 0.215 W/kg

Configuration_Body_IC-F7010/Body Back, P=5W, d=0mm/Zoom Scan (5x5x7)

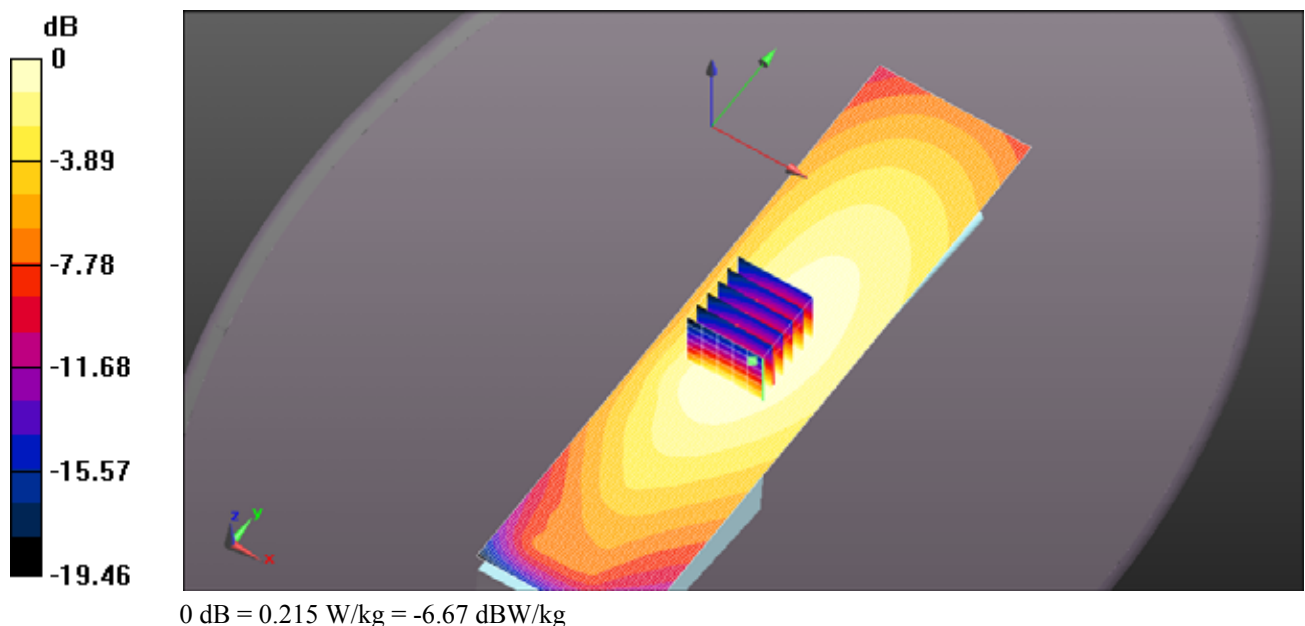
(6x6x7)/Cube 0: Measurement grid: $dx=7.5\text{mm}$, $dy=7.5\text{mm}$, $dz=5\text{mm}$

Reference Value = 1.619 V/m ; Power Drift = 0.15 dB

Peak SAR (extrapolated) = 0.278 W/kg

SAR(1 g) = 0.189 W/kg ; SAR(10 g) = 0.140 W/kg (SAR corrected for target medium)

Maximum value of SAR (measured) = 0.212 W/kg



Test Laboratory: Ultratech Group of Labs

FILE NAME: [ICOM-448QR1 MB-133 BP-283 FA-S83V 167MHZ.DA52:0](#)

DUT: IC-F7010; Type: VHF Transciever ; Serial: 0000235

Communication System: UID 0, CW (0); Frequency: 167 MHz; Duty Cycle: 1:1
Medium parameters used (interpolated): $f = 167 \text{ MHz}$; $\sigma = 0.817 \text{ S/m}$; $\epsilon_r = 59.137$; $\rho = 1000 \text{ kg/m}^3$;
Phantom section: Flat Section ; Measurement Standard: DASYS (IEEE/IEC/ANSI C63.19-2007)

DASY Configuration:

- Probe: ES3DV3 - SN3250; ConvF(7.18, 7.18, 7.18); Calibrated: 3/22/2016;
- Sensor-Surface: 3mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn874; Calibrated: 8/22/2016
- Phantom: ELI 4.0; Type: QD OVA 001 BB; Serial: 1057
- DASYS2 52.8.8(1222); SEMCAD X 14.6.10(7331)

Configuration_Body_IC-F7010/Body Back, P=5W, d=0mm/Area Scan (51x201x1):

Interpolated grid: $dx=1.500 \text{ mm}$, $dy=1.500 \text{ mm}$
Maximum value of SAR (interpolated) = 1.48 W/kg

Configuration_Body_IC-F7010/Body Back, P=5W, d=0mm/Zoom Scan (5x5x7)

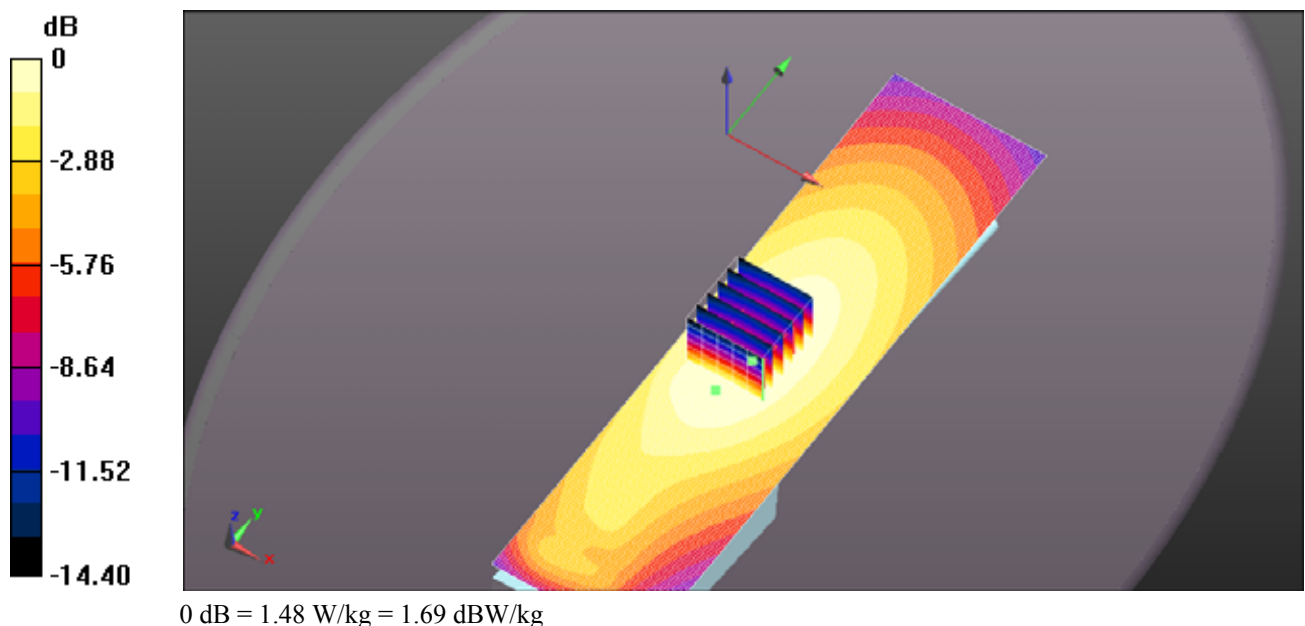
(6x6x7)/Cube 0: Measurement grid: $dx=7.5\text{mm}$, $dy=7.5\text{mm}$, $dz=5\text{mm}$

Reference Value = 12.97 V/m ; Power Drift = -0.16 dB

Peak SAR (extrapolated) = 1.85 W/kg

SAR(1 g) = 1.3 W/kg ; SAR(10 g) = 0.987 W/kg (SAR corrected for target medium)

Maximum value of SAR (measured) = 1.44 W/kg



Test Laboratory: Ultratech Group of Labs

FILE NAME: [ICOM-448QR1 MB-133 BP-283 FA-S81VS 143MHZ.DA52:0](#)

DUT: IC-F7010; Type: VHF Transciever ; Serial: 0000235

Communication System: UID 0, CW (0); Frequency: 143 MHz; Duty Cycle: 1:1
Medium parameters used (interpolated): $f = 143 \text{ MHz}$; $\sigma = 0.804 \text{ S/m}$; $\epsilon_r = 59.438$; $\rho = 1000 \text{ kg/m}^3$;
Phantom section: Flat Section ; Measurement Standard: DASYS (IEEE/IEC/ANSI C63.19-2007)

DASY Configuration:

- Probe: ES3DV3 - SN3250; ConvF(7.18, 7.18, 7.18); Calibrated: 3/22/2016;
- Sensor-Surface: 3mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn874; Calibrated: 8/22/2016
- Phantom: ELI 4.0; Type: QD OVA 001 BB; Serial: 1057
- DASYS2 52.8.8(1222); SEMCAD X 14.6.10(7331)

Configuration_Body_IC-F7010/Body Back, P=5W, d=0mm/Area Scan (51x141x1):

Interpolated grid: $dx=1.500 \text{ mm}$, $dy=1.500 \text{ mm}$

Maximum value of SAR (interpolated) = 0.303 W/kg

Configuration_Body_IC-F7010/Body Back, P=5W, d=0mm/Zoom Scan (5x5x7)

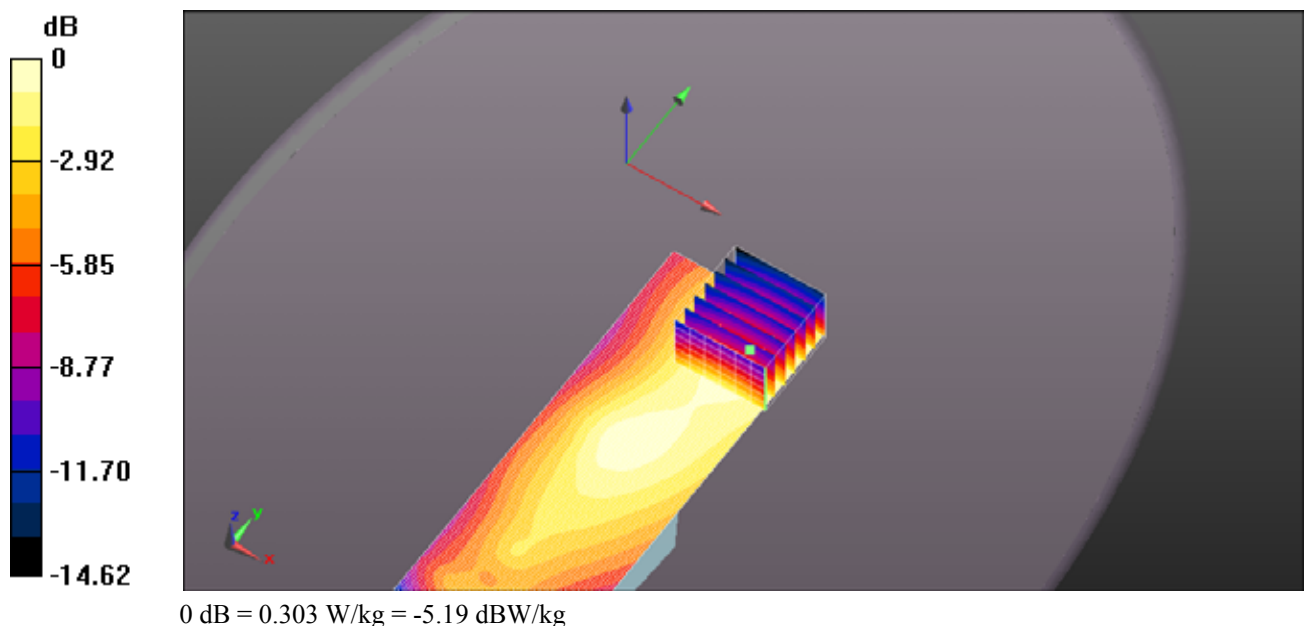
(7x7x7)/Cube 0: Measurement grid: $dx=7.5\text{mm}$, $dy=7.5\text{mm}$, $dz=5\text{mm}$

Reference Value = 4.342 V/m ; Power Drift = -0.15 dB

Peak SAR (extrapolated) = 0.447 W/kg

SAR(1 g) = 0.257 W/kg ; SAR(10 g) = 0.177 W/kg (SAR corrected for target medium)

Maximum value of SAR (measured) = 0.297 W/kg



Test Laboratory: Ultratech Group of Labs

FILE NAME: [ICOM-448QR1 MB-133 BP-283 FA-S82VS 156MHZ.DA52:0](#)

DUT: IC-F7010; Type: VHF Transciever ; Serial: 0000235

Communication System: UID 0, CW (0); Frequency: 156 MHz; Duty Cycle: 1:1
Medium parameters used: $f = 156 \text{ MHz}$; $\sigma = 0.813 \text{ S/m}$; $\epsilon_r = 59.698$; $\rho = 1000 \text{ kg/m}^3$; Phantom section:
Flat Section ; Measurement Standard: DASYS (IEEE/IEC/ANSI C63.19-2007)

DASY Configuration:

- Probe: ES3DV3 - SN3250; ConvF(7.18, 7.18, 7.18); Calibrated: 3/22/2016;
- Sensor-Surface: 3mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn874; Calibrated: 8/22/2016
- Phantom: ELI 4.0; Type: QD OVA 001 BB; Serial: 1057
- DASYS2 52.8.8(1222); SEMCAD X 14.6.10(7331)

Configuration_Body_IC-F7010/Body Back, P=5W, d=0mm/Area Scan (51x141x1):

Interpolated grid: $dx=1.500 \text{ mm}$, $dy=1.500 \text{ mm}$

Maximum value of SAR (interpolated) = 0.218 W/kg

Configuration_Body_IC-F7010/Body Back, P=5W, d=0mm/Zoom Scan (5x5x7)

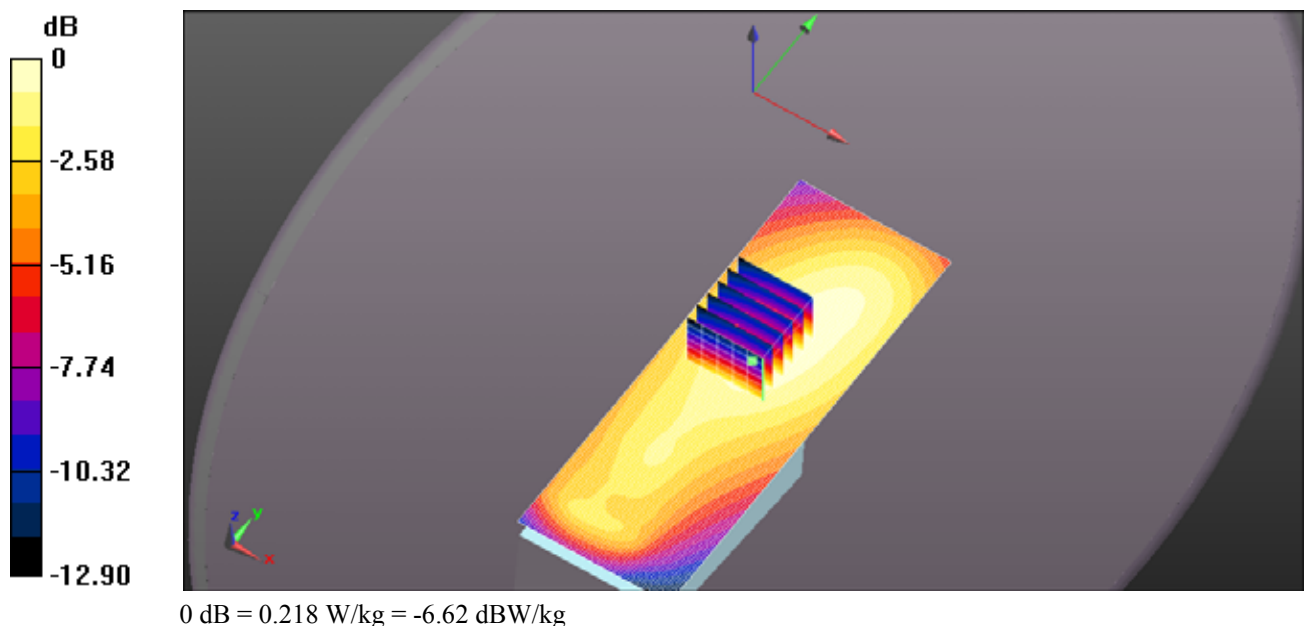
(6x6x7)/Cube 0: Measurement grid: $dx=7.5\text{mm}$, $dy=7.5\text{mm}$, $dz=5\text{mm}$

Reference Value = 4.955 V/m ; Power Drift = -0.03 dB

Peak SAR (extrapolated) = 0.293 W/kg

SAR(1 g) = 0.188 W/kg ; SAR(10 g) = 0.139 W/kg (SAR corrected for target medium)

Maximum value of SAR (measured) = 0.210 W/kg



Test Laboratory: Ultratech Group of Labs

File Name: [ICOM-448QR1 MB-133 BP-283 FA-S83VS 167MHz.da52:0](#)

DUT: IC-F7010; Type: VHF Transciever ; Serial: 0000235

Communication System: UID 0, CW (0); Frequency: 156 MHz; Duty Cycle: 1:1

Medium parameters used: $f = 156 \text{ MHz}$; $\sigma = 0.813 \text{ S/m}$; $\epsilon_r = 59.698$; $\rho = 1000 \text{ kg/m}^3$; Phantom section: Flat Section ; Measurement Standard: DASYS (IEEE/IEC/ANSI C63.19-2007)

DASY Configuration:

- Probe: ES3DV3 - SN3250; ConvF(7.18, 7.18, 7.18); Calibrated: 3/22/2016;
- Sensor-Surface: 3mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn874; Calibrated: 8/22/2016
- Phantom: ELI 4.0; Type: QD OVA 001 BB; Serial: 1057
- DASYS2 52.8.8(1222); SEMCAD X 14.6.10(7331)

Configuration_Body_IC-F7010/Body Back, P=5W, d=0mm/Area Scan (51x141x1):

Interpolated grid: $dx=1.500 \text{ mm}$, $dy=1.500 \text{ mm}$

Maximum value of SAR (interpolated) = 0.186 W/kg

Configuration_Body_IC-F7010/Body Back, P=5W, d=0mm/Zoom Scan (5x5x7)

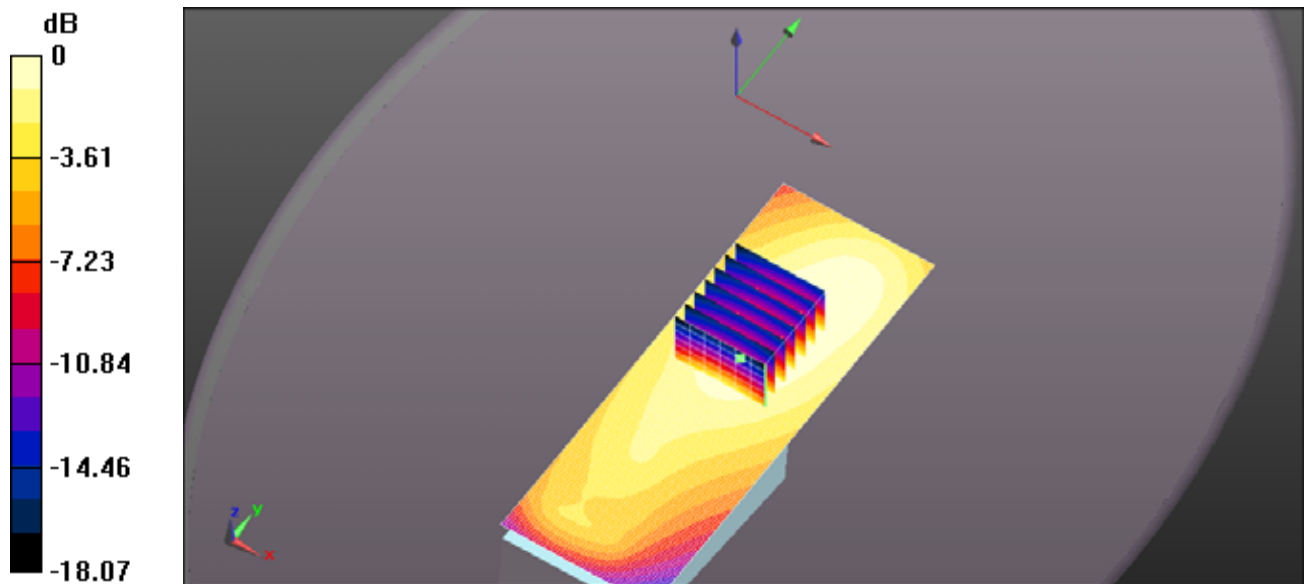
(7x7x7)/Cube 0: Measurement grid: $dx=7.5\text{mm}$, $dy=7.5\text{mm}$, $dz=5\text{mm}$

Reference Value = 3.933 V/m ; Power Drift = 0.11 dB

Peak SAR (extrapolated) = 0.243 W/kg

SAR(1 g) = 0.163 W/kg ; SAR(10 g) = 0.123 W/kg (SAR corrected for target medium)

Maximum value of SAR (measured) = 0.182 W/kg



Test Laboratory: Ultratech Group of Labs

FILE NAME: [ICOM-448QR1 MB-133 BP-283 FA-S67VC 136MHZ.DA52:0](#)

DUT: IC-F7010; Type: VHF Transciever ; Serial: 0000235

Communication System: UID 0, CW (0); Frequency: 136 MHz; Duty Cycle: 1:1
Medium parameters used: $f = 136 \text{ MHz}$; $\sigma = 0.798 \text{ S/m}$; $\epsilon_r = 58.74$; $\rho = 1000 \text{ kg/m}^3$; Phantom section:
Flat Section ; Measurement Standard: DASYS (IEEE/IEC/ANSI C63.19-2007)

DASY Configuration:

- Probe: ES3DV3 - SN3250; ConvF(7.18, 7.18, 7.18); Calibrated: 3/22/2016;
- Sensor-Surface: 3mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn874; Calibrated: 8/22/2016
- Phantom: ELI 4.0; Type: QD OVA 001 BB; Serial: 1057
- DASYS 52.8.8(1222); SEMCAD X 14.6.10(7331)

Configuration_Body_IC-F7010/Body Back, P=5W, d=0mm/Area Scan (51x201x1):

Interpolated grid: $dx=1.500 \text{ mm}$, $dy=1.500 \text{ mm}$

Maximum value of SAR (interpolated) = 0.999 W/kg

Configuration_Body_IC-F7010/Body Back, P=5W, d=0mm/Zoom Scan (5x5x7)

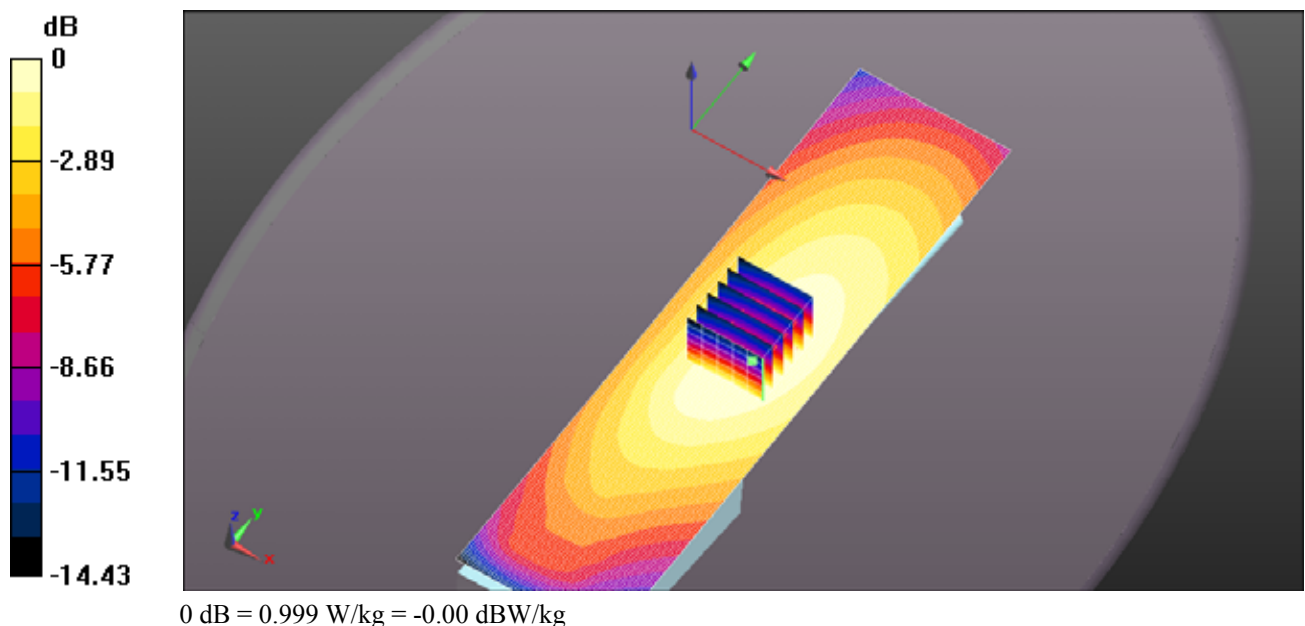
(6x6x7)/Cube 0: Measurement grid: $dx=7.5\text{mm}$, $dy=7.5\text{mm}$, $dz=5\text{mm}$

Reference Value = 6.678 V/m ; Power Drift = -0.08 dB

Peak SAR (extrapolated) = 1.27 W/kg

SAR(1 g) = 0.876 W/kg ; SAR(10 g) = 0.658 W/kg (SAR corrected for target medium)

Maximum value of SAR (measured) = 0.980 W/kg



Test Laboratory: Ultratech Group of Labs

FILE NAME: [ICOM-448QR1 MB-133 BP-283 FA-S67VC 169MM 143MHZ.DA52:0](#)

DUT: IC-F7010; Type: VHF Transciever ; Serial: 0000235

Communication System: UID 0, CW (0); Frequency: 143 MHz; Duty Cycle: 1:1
Medium parameters used (interpolated): $f = 143$ MHz; $\sigma = 0.804$ S/m; $\epsilon_r = 59.438$; $\rho = 1000$ kg/m³ ;
Phantom section: Flat Section ; Measurement Standard: DASYS (IEEE/IEC/ANSI C63.19-2007)

DASY Configuration:

- Probe: ES3DV3 - SN3250; ConvF(7.18, 7.18, 7.18); Calibrated: 3/22/2016;
- Sensor-Surface: 3mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn874; Calibrated: 8/22/2016
- Phantom: ELI 4.0; Type: QD OVA 001 BB; Serial: 1057
- DASYS2 52.8.8(1222); SEMCAD X 14.6.10(7331)

Configuration_Body_IC-F7010/Body Back, P=5W, d=0mm/Area Scan (51x201x1):

Interpolated grid: dx=1.500 mm, dy=1.500 mm

Maximum value of SAR (interpolated) = 0.509 W/kg

Configuration_Body_IC-F7010/Body Back, P=5W, d=0mm/Zoom Scan (5x5x7)

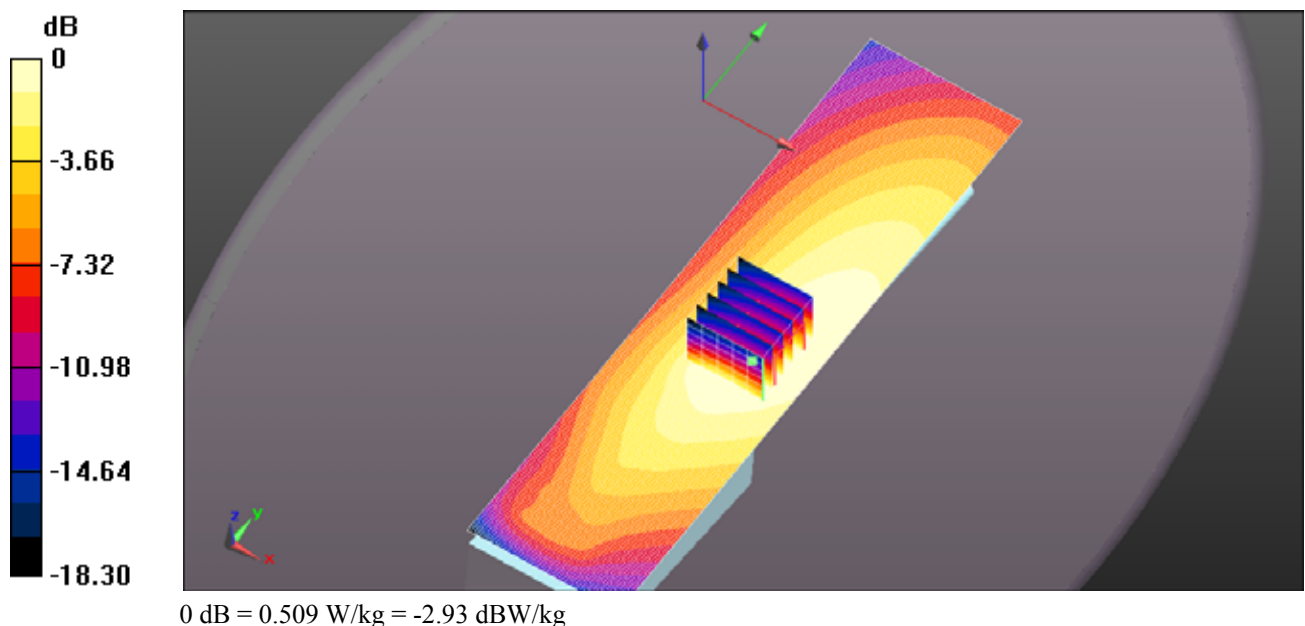
(6x6x7)/Cube 0: Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm

Reference Value = 3.075 V/m; Power Drift = 0.05 dB

Peak SAR (extrapolated) = 0.648 W/kg

SAR(1 g) = 0.442 W/kg; SAR(10 g) = 0.328 W/kg (SAR corrected for target medium)

Maximum value of SAR (measured) = 0.495 W/kg



Test Laboratory: Ultratech Group of Labs

FILE NAME: [ICOM-448QR1 MB-133 BP-283 FA-S67VC 163MM 143MHZ.DA52:0](#)

DUT: IC-F7010; Type: VHF Transciever ; Serial: 0000235

Communication System: UID 0, CW (0); Frequency: 143 MHz; Duty Cycle: 1:1
Medium parameters used (interpolated): $f = 143 \text{ MHz}$; $\sigma = 0.804 \text{ S/m}$; $\epsilon_r = 59.438$; $\rho = 1000 \text{ kg/m}^3$;
Phantom section: Flat Section ; Measurement Standard: DASYS (IEEE/IEC/ANSI C63.19-2007)

DASY Configuration:

- Probe: ES3DV3 - SN3250; ConvF(7.18, 7.18, 7.18); Calibrated: 3/22/2016;
- Sensor-Surface: 3mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn874; Calibrated: 8/22/2016
- Phantom: ELI 4.0; Type: QD OVA 001 BB; Serial: 1057
- DASYS2 52.8.8(1222); SEMCAD X 14.6.10(7331)

Configuration_Body_IC-F7010/Body Back, P=5W, d=0mm/Area Scan (51x201x1):

Interpolated grid: $dx=1.500 \text{ mm}$, $dy=1.500 \text{ mm}$.

Maximum value of SAR (interpolated) = 0.624 W/kg

Configuration_Body_IC-F7010/Body Back, P=5W, d=0mm/Zoom Scan (5x5x7)

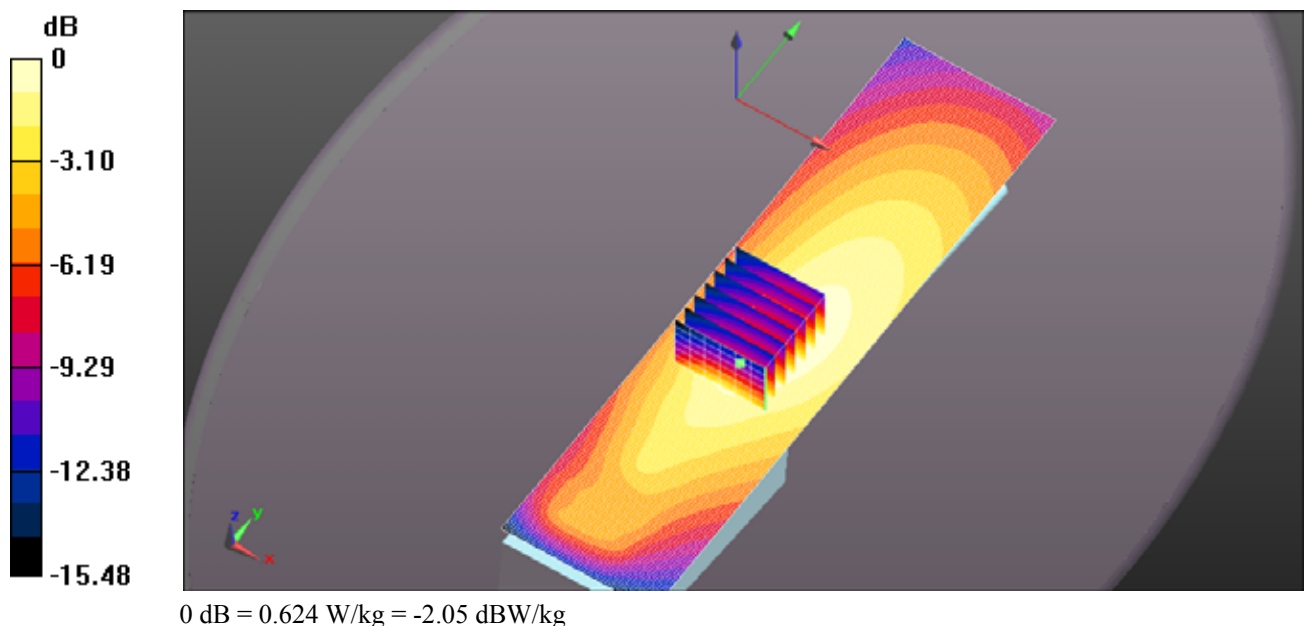
(7x7x7)/Cube 0: Measurement grid: $dx=7.5\text{mm}$, $dy=7.5\text{mm}$, $dz=5\text{mm}$

Reference Value = 4.653 V/m ; Power Drift = 0.06 dB

Peak SAR (extrapolated) = 0.823 W/kg

SAR(1 g) = 0.530 W/kg ; SAR(10 g) = 0.388 W/kg (SAR corrected for target medium).

Maximum value of SAR (measured) = 0.596 W/kg



Test Laboratory: Ultratech Group of Labs

FILE NAME: [ICOM-448QR1 MB-133 BP-283 FA-S67VC 157MM 150MHZ.DA52:0](#)

DUT: IC-F7010; Type: VHF Transciever ; Serial: 0000235

Communication System: UID 0, CW (0); Frequency: 150 MHz; Duty Cycle: 1:1
Medium parameters used: $f = 150 \text{ MHz}$; $\sigma = 0.808 \text{ S/m}$; $\epsilon_r = 59.672$; $\rho = 1000 \text{ kg/m}^3$; Phantom section:
Flat Section ; Measurement Standard: DASYS (IEEE/IEC/ANSI C63.19-2007)

DASY Configuration:

- Probe: ES3DV3 - SN3250; ConvF(7.18, 7.18, 7.18); Calibrated: 3/22/2016;
- Sensor-Surface: 3mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn874; Calibrated: 8/22/2016
- Phantom: ELI 4.0; Type: QD OVA 001 BB; Serial: 1057
- DASYS 52.8.8(1222); SEMCAD X 14.6.10(7331)

Configuration_Body_IC-F7010/Body Back, P=5W, d=0mm/Area Scan (51x201x1):

Interpolated grid: $dx=1.500 \text{ mm}$, $dy=1.500 \text{ mm}$

Maximum value of SAR (interpolated) = 0.677 W/kg

Configuration_Body_IC-F7010/Body Back, P=5W, d=0mm/Zoom Scan (5x5x7)

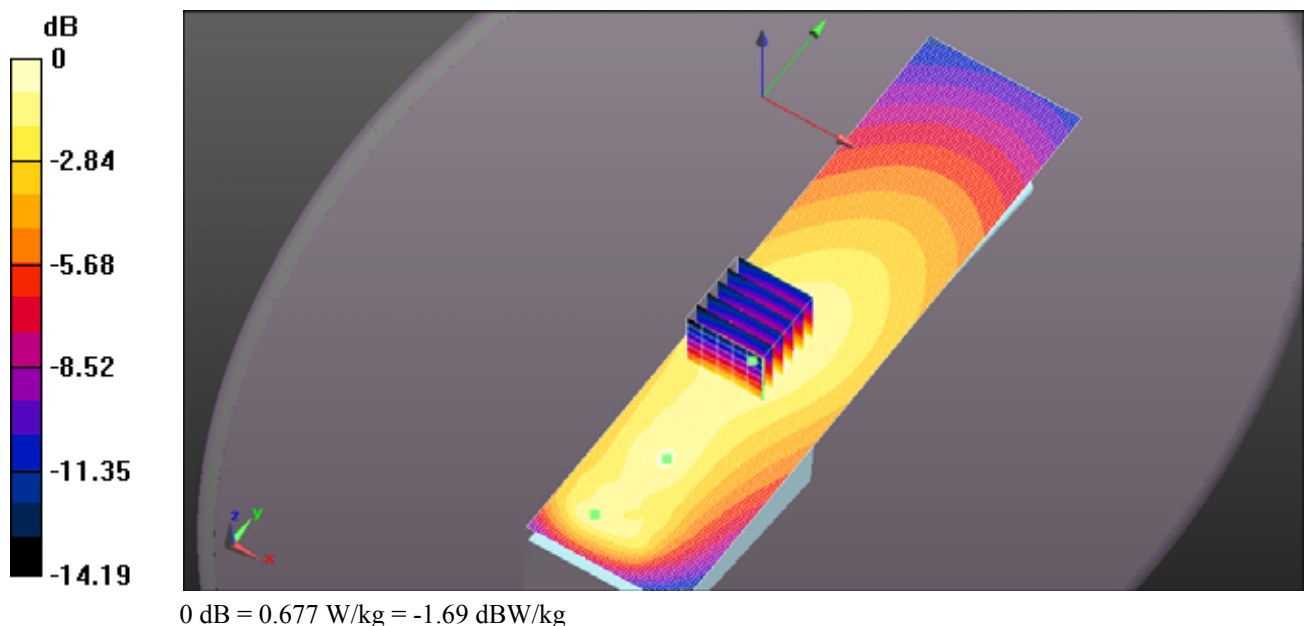
(6x6x7)/Cube 0: Measurement grid: $dx=7.5\text{mm}$, $dy=7.5\text{mm}$, $dz=5\text{mm}$

Reference Value = 9.289 V/m ; Power Drift = -0.11 dB

Peak SAR (extrapolated) = 0.969 W/kg

SAR(1 g) = 0.582 W/kg ; SAR(10 g) = 0.416 W/kg (SAR corrected for target medium)

Maximum value of SAR (measured) = 0.666 W/kg



Test Laboratory: Ultratech Group of Labs

FILE NAME: [ICOM-448QR1 MB-133 BP-283 FA-S67VC 151MM 156MHZ.DA52:0](#)

DUT: IC-F7010; Type: VHF Transciever ; Serial: 0000235

Communication System: UID 0, CW (0); Frequency: 156 MHz; Duty Cycle: 1:1
Medium parameters used: $f = 156 \text{ MHz}$; $\sigma = 0.813 \text{ S/m}$; $\epsilon_r = 59.698$; $\rho = 1000 \text{ kg/m}^3$; Phantom section:
Flat Section ; Measurement Standard: DASYS (IEEE/IEC/ANSI C63.19-2007)

DASY Configuration:

- Probe: ES3DV3 - SN3250; ConvF(7.18, 7.18, 7.18); Calibrated: 3/22/2016;
- Sensor-Surface: 3mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn874; Calibrated: 8/22/2016
- Phantom: ELI 4.0; Type: QD OVA 001 BB; Serial: 1057
- DASYS2 52.8.8(1222); SEMCAD X 14.6.10(7331)

Configuration_Body_IC-F7010/Body Back, P=5W, d=0mm/Area Scan (51x201x1):

Interpolated grid: $dx=1.500 \text{ mm}$, $dy=1.500 \text{ mm}$

Maximum value of SAR (interpolated) = 1.24 W/kg

Configuration_Body_IC-F7010/Body Back, P=5W, d=0mm/Zoom Scan (5x5x7)

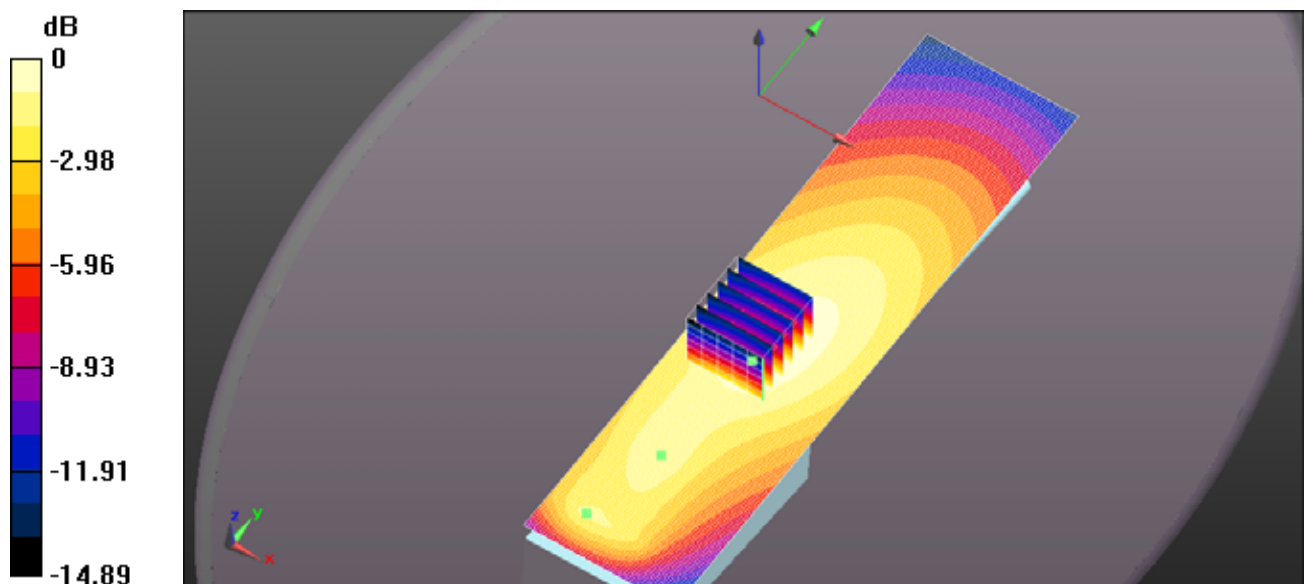
(6x6x7)/Cube 0: Measurement grid: $dx=7.5\text{mm}$, $dy=7.5\text{mm}$, $dz=5\text{mm}$

Reference Value = 12.79 V/m ; Power Drift = -0.09 dB

Peak SAR (extrapolated) = 1.68 W/kg

SAR(1 g) = 1.07 W/kg ; SAR(10 g) = 0.790 W/kg (SAR corrected for target medium)

Maximum value of SAR (measured) = 1.20 W/kg



Test Laboratory: Ultratech Group of Labs

FILE NAME: [ICOM-448QR1 MB-133 BP-283 FA-S67VC 146MM 162MHZ.DA52:0](#)

DUT: IC-F7010; Type: VHF Transciever ; Serial: 0000235

Communication System: UID 0, CW (0); Frequency: 162 MHz; Duty Cycle: 1:1
Medium parameters used: $f = 162 \text{ MHz}$; $\sigma = 0.817 \text{ S/m}$; $\epsilon_r = 58.948$; $\rho = 1000 \text{ kg/m}^3$; Phantom section:
Flat Section ; Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)

DASY Configuration:

- Probe: ES3DV3 - SN3250; ConvF(7.18, 7.18, 7.18); Calibrated: 3/22/2016;
- Sensor-Surface: 3mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn874; Calibrated: 8/22/2016
- Phantom: ELI 4.0; Type: QD OVA 001 BB; Serial: 1057
- DASY52 52.8.8(1222); SEMCAD X 14.6.10(7331)

Configuration_Body_IC-F7010/Body Back, P=5W, d=0mm/Area Scan (51x201x1):

Interpolated grid: $dx=1.500 \text{ mm}$, $dy=1.500 \text{ mm}$

Maximum value of SAR (interpolated) = 1.90 W/kg

Configuration_Body_IC-F7010/Body Back, P=5W, d=0mm/Zoom Scan (5x5x7)

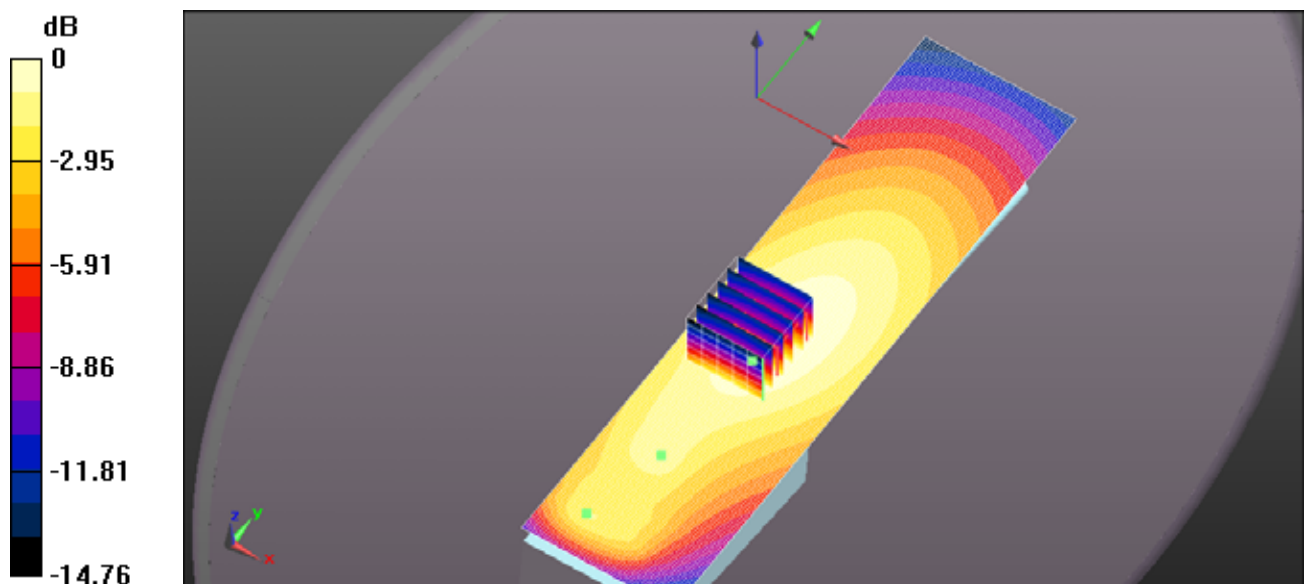
(6x6x7)/Cube 0: Measurement grid: $dx=7.5\text{mm}$, $dy=7.5\text{mm}$, $dz=5\text{mm}$

Reference Value = 14.24 V/m ; Power Drift = -0.09 dB

Peak SAR (extrapolated) = 2.48 W/kg

SAR(1 g) = 1.67 W/kg ; SAR(10 g) = 1.25 W/kg (SAR corrected for target medium)

Maximum value of SAR (measured) = 1.86 W/kg



0 dB = 1.90 W/kg = 2.79 dBW/kg

Test Laboratory: Ultratech Group of Labs

File Name: [ICOM-448QR1 MB-133 BP-283 FA-S67VC 141mm 168MHz.da52:0](#)

DUT: IC-F7010; Type: VHF Transciever ; Serial: 0000235

Communication System: UID 0, CW (0); Frequency: 168 MHz; Duty Cycle: 1:1

Medium parameters used: $f = 168 \text{ MHz}$; $\sigma = 0.813 \text{ S/m}$; $\epsilon_r = 57.923$; $\rho = 1000 \text{ kg/m}^3$; Phantom section: Flat Section ; Measurement Standard: DASYS (IEEE/IEC/ANSI C63.19-2007)

DASY Configuration:

- Probe: ES3DV3 - SN3250; ConvF(7.18, 7.18, 7.18); Calibrated: 3/22/2016;
- Sensor-Surface: 3mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn874; Calibrated: 8/22/2016
- Phantom: ELI 4.0; Type: QD OVA 001 BB; Serial: 1057
- DASYS2 52.8.8(1222); SEMCAD X 14.6.10(7331)

Configuration_Body_IC-F7010/Body Back, P=5W, d=0mm/Area Scan (51x201x1):

Interpolated grid: $dx=1.500 \text{ mm}$, $dy=1.500 \text{ mm}$

Maximum value of SAR (interpolated) = 1.94 W/kg

Configuration_Body_IC-F7010/Body Back, P=5W, d=0mm/Zoom Scan (5x5x7)

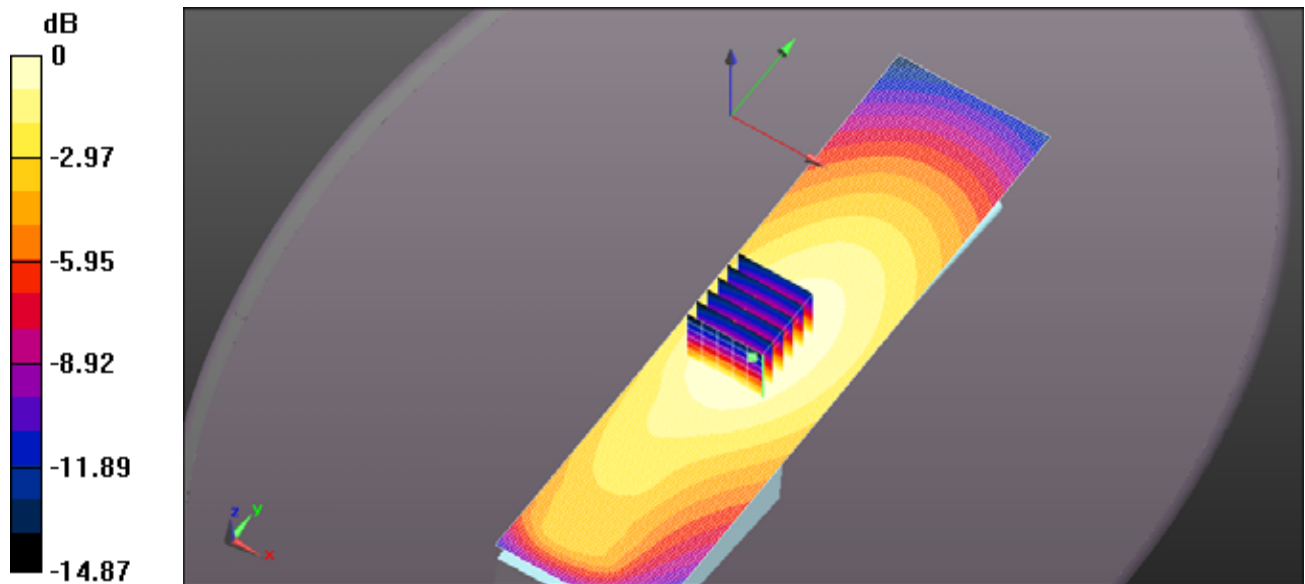
(6x6x7)/Cube 0: Measurement grid: $dx=7.5\text{mm}$, $dy=7.5\text{mm}$, $dz=5\text{mm}$

Reference Value = 12.93 V/m ; Power Drift = -0.13 dB

Peak SAR (extrapolated) = 2.44 W/kg

SAR(1 g) = 1.69 W/kg ; SAR(10 g) = 1.28 W/kg (SAR corrected for target medium)

Maximum value of SAR (measured) = 1.87 W/kg



0 dB = 1.94 W/kg = 2.88 dBW/kg

Test Laboratory: Ultratech Group of Labs

FILE NAME: [ICOM-448QR1 MB-133 BP-283 FA-S67VC 137MM 168MHZ.DA52:0](#)

DUT: IC-F7010; Type: VHF Transciever ; Serial: 0000235

Communication System: UID 0, CW (0); Frequency: 168 MHz; Duty Cycle: 1:1
Medium parameters used: $f = 168 \text{ MHz}$; $\sigma = 0.813 \text{ S/m}$; $\epsilon_r = 57.923$; $\rho = 1000 \text{ kg/m}^3$; Phantom section:
Flat Section ; Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)

DASY Configuration:

- Probe: ES3DV3 - SN3250; ConvF(7.18, 7.18, 7.18); Calibrated: 3/22/2016;
- Sensor-Surface: 3mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn874; Calibrated: 8/22/2016
- Phantom: ELI 4.0; Type: QD OVA 001 BB; Serial: 1057
- DASY52 52.8.8(1222); SEMCAD X 14.6.10(7331)

Configuration_Body_IC-F7010/Body Back, P=5W, d=0mm/Area Scan (51x201x1):

Interpolated grid: $dx=1.500 \text{ mm}$, $dy=1.500 \text{ mm}$

Maximum value of SAR (interpolated) = 2.00 W/kg

Configuration_Body_IC-F7010/Body Back, P=5W, d=0mm/Zoom Scan (5x5x7)

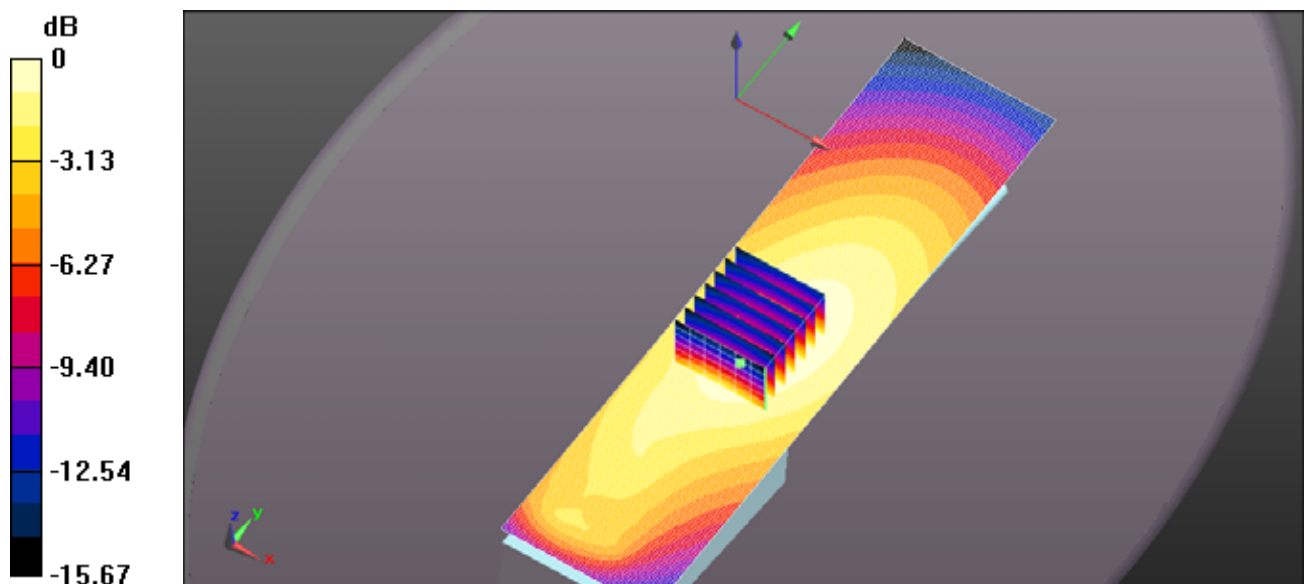
(7x7x7)/Cube 0: Measurement grid: $dx=7.5\text{mm}$, $dy=7.5\text{mm}$, $dz=5\text{mm}$

Reference Value = 13.95 V/m ; Power Drift = -0.09 dB

Peak SAR (extrapolated) = 2.57 W/kg

SAR(1 g) = 1.74 W/kg ; SAR(10 g) = 1.32 W/kg (SAR corrected for target medium)

Maximum value of SAR (measured) = 1.93 W/kg



Test Laboratory: Ultratech Group of Labs

FILE NAME: [ICOM-448QR1 MB-133 BP-283 FA-S67VC 133MM 174MHZ.DA52:0](#)

DUT: IC-F7010; Type: VHF Transciever ; Serial: 0000235

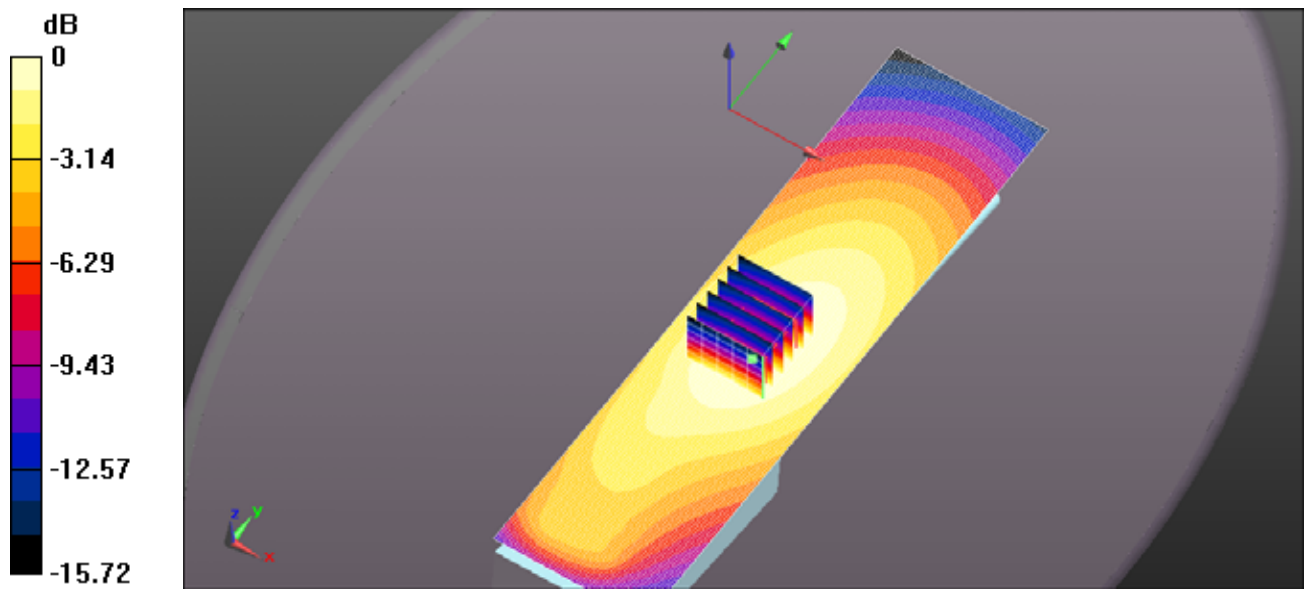
Communication System: UID 0, CW (0); Frequency: 174 MHz; Duty Cycle: 1:1
Medium parameters used: $f = 174 \text{ MHz}$; $\sigma = 0.825 \text{ S/m}$; $\epsilon_r = 59.809$; $\rho = 1000 \text{ kg/m}^3$; Phantom section:
Flat Section ; Measurement Standard: DASYS (IEEE/IEC/ANSI C63.19-2007)

DASY Configuration:

- Probe: ES3DV3 - SN3250; ConvF(7.18, 7.18, 7.18); Calibrated: 3/22/2016;
- Sensor-Surface: 3mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn874; Calibrated: 8/22/2016
- Phantom: ELI 4.0; Type: QD OVA 001 BB; Serial: 1057
- DASYS 52.8.8(1222); SEMCAD X 14.6.10(7331)

Configuration_Body_IC-F7010/Body Back, P=5W, d=0mm/Area Scan (51x201x1): Interpolated grid:
 $dx=1.500 \text{ mm}$, $dy=1.500 \text{ mm}$
Maximum value of SAR (interpolated) = 1.99 W/kg

Configuration_Body_IC-F7010/Body Back, P=5W, d=0mm/Zoom Scan (5x5x7) (6x6x7)/Cube 0:
Measurement grid: $dx=7.5\text{mm}$, $dy=7.5\text{mm}$, $dz=5\text{mm}$
Reference Value = 13.06 V/m; Power Drift = -0.05 dB
Peak SAR (extrapolated) = 2.53 W/kg
SAR(1 g) = 1.75 W/kg; SAR(10 g) = 1.32 W/kg (SAR corrected for target medium)
Maximum value of SAR (measured) = 1.96 W/kg



0 dB = 1.99 W/kg = 2.99 dBW/kg