

APPENDIX 1

SAR Measurement Data

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EXHIBIT 1. HEAD SAR MEASUREMENTS

Head SAR Measurement Summary

Antenna	Power (W)	CH	CH. Freq	HEAD SAR1g (W/Kg)	HEAD SAR10g (W/Kg)	Power Drift (dB)
				BP-245H	BP-245H	
			(MHz)	2250mAh	2250mAh	
FA-S59V	5.63	01A	156.05	0.697	0.542	-0.56
	5.55	74	156.725	**	**	**
	5.50	88	157.425	0.606	0.47	-1.81
FA-S64V	5.63	01A	156.05	0.894	0.69	-0.59
	5.55	74	156.725	**	**	**
	5.50	88	157.425	0.723	0.558	-2.52

** SAR Test Reduction Applied For PTT Radio

FILE NAME: [ICOM-539OR1 HEAD FA-S59V 156.050MHZ.DA52:0](#)

DUT: IC-M73; Type: VHF Marine Transceiver; Serial: 00000201

Communication System: UID 0, CW (0); Frequency: 156.05 MHz; Duty Cycle: 1:1
Medium parameters used (interpolated): $f = 156.05$ MHz; $\sigma = 0.785$ S/m; $\epsilon_r = 52.482$; $\rho = 1000$ kg/m³ ;
Phantom section: Flat Section ; Measurement Standard: DASYS5 (IEEE/IEC/ANSI C63.19-2007)

DASY Configuration:

- Probe: EX3DV4 - SN3673; ConvF(10.54, 10.54, 10.54); Calibrated: 8/19/2020;
- Sensor-Surface: 3mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn874; Calibrated: 8/13/2020
- Phantom: ELI 4.0; Type: QD OVA 001 BB; Serial: 1057
- DASYS2 52.10.0(1446); SEMCAD X 14.6.10(7417)

Configuration_Head_IC-M73/Head Front, P=6W, d=25mm/Area Scan (61x181x1):

Interpolated grid: dx=1.500 mm, dy=1.500 mm
Maximum value of SAR (interpolated) = 0.772 W/kg

Configuration_Head_IC-M73/Head Front, P=6W, d=25mm/Zoom Scan (5x5x7)

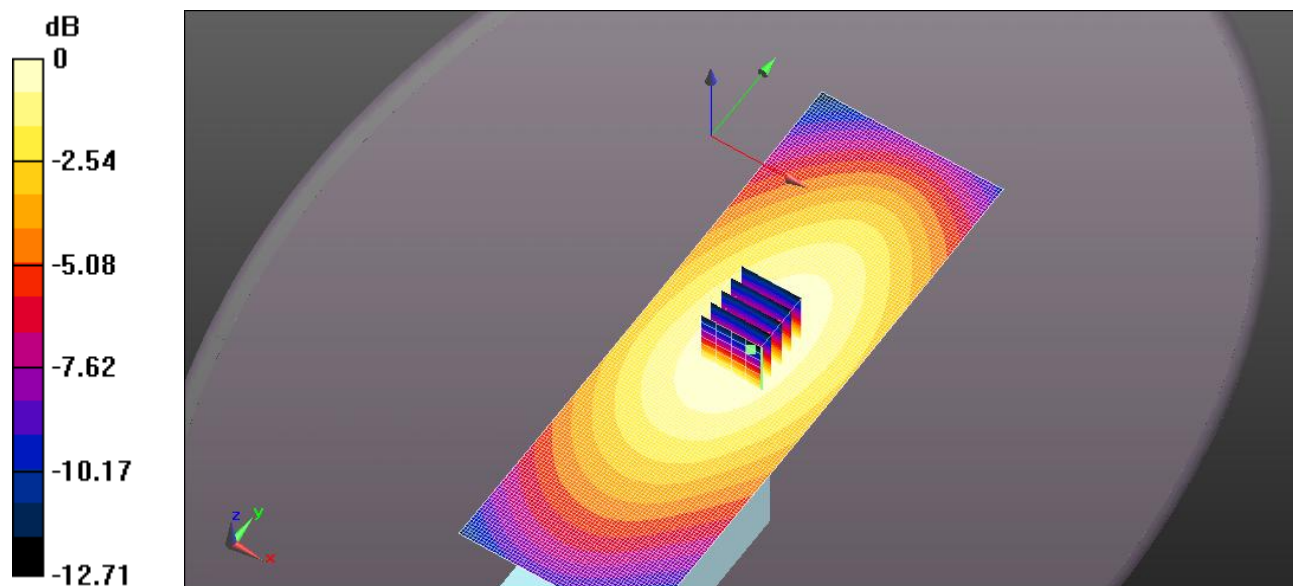
(5x5x7)/Cube 0: Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm

Reference Value = 32.04 V/m; Power Drift = -0.56 dB

Peak SAR (extrapolated) = 0.904 W/kg

SAR(1 g) = 0.697 W/kg; SAR(10 g) = 0.542 W/kg (SAR corrected for target medium)

Maximum value of SAR (measured) = 0.763 W/kg



0 dB = 0.772 W/kg = -1.12 dBW/kg

FILE NAME: [ICOM-539QR1 HEAD FA-S59V 157.425MHZ.DA52:0](#)

DUT: IC-M73; Type: VHF Marine Transceiver; Serial: 00000201

Communication System: UID 0, CW (0); Frequency: 157.425 MHz; Duty Cycle: 1:1
Medium parameters used: $f = 158$ MHz; $\sigma = 0.786$ S/m; $\epsilon_r = 52.252$; $\rho = 1000$ kg/m³; Phantom section:
Flat Section; Measurement Standard: DASYS (IEEE/IEC/ANSI C63.19-2007)

DASY Configuration:

- Probe: EX3DV4 - SN3673; ConvF(10.54, 10.54, 10.54); Calibrated: 8/19/2020;
- Sensor-Surface: 3mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn874; Calibrated: 8/13/2020
- Phantom: ELI 4.0; Type: QD OVA 001 BB; Serial: 1057
- DASYS2 52.10.0(1446); SEMCAD X 14.6.10(7417)

Configuration_Head_IC-M73/Head Front, P=6W, d=25mm/Area Scan (61x181x1):

Interpolated grid: dx=1.500 mm, dy=1.500 mm
Maximum value of SAR (interpolated) = 0.700 W/kg

Configuration_Head_IC-M73/Head Front, P=6W, d=25mm/Zoom Scan (5x5x7)

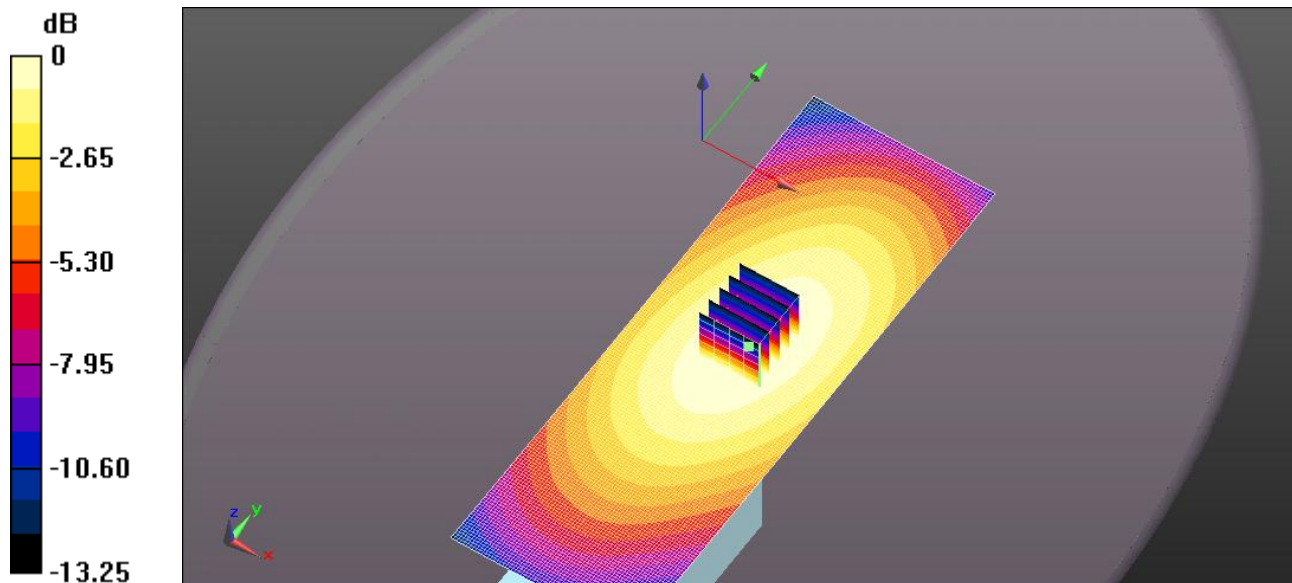
(5x5x7)/Cube 0: Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm

Reference Value = 34.16 V/m; Power Drift = -1.81 dB

Peak SAR (extrapolated) = 0.792 W/kg

SAR(1 g) = 0.606 W/kg; SAR(10 g) = 0.470 W/kg (SAR corrected for target medium)

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



0 dB = 0.700 W/kg = -1.55 dBW/kg

FILE NAME: [ICOM-539OR1 HEAD FA-S64V 156.050MHZ.DA52:0](#)

DUT: IC-M73; Type: VHF Marine Transceiver; Serial: 00000201

Communication System: UID 0, CW (0); Frequency: 156.05 MHz; Duty Cycle: 1:1
Medium parameters used (interpolated): $f = 156.05$ MHz; $\sigma = 0.785$ S/m; $\epsilon_r = 52.482$; $\rho = 1000$ kg/m³ ;
Phantom section: Flat Section ; Measurement Standard: DASYS (IEEE/IEC/ANSI C63.19-2007)

DASY Configuration:

- Probe: EX3DV4 - SN3673; ConvF(10.54, 10.54, 10.54); Calibrated: 8/19/2020;
- Sensor-Surface: 3mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn874; Calibrated: 8/13/2020
- Phantom: ELI 4.0; Type: QD OVA 001 BB; Serial: 1057
- DASYS 52.10.0(1446); SEMCAD X 14.6.10(7417)

Configuration_Head_IC-M73/Head Front, P=6W, d=25mm/Area Scan (61x161x1):

Interpolated grid: dx=1.500 mm, dy=1.500 mm
Maximum value of SAR (interpolated) = 1.03 W/kg

Configuration_Head_IC-M73/Head Front, P=6W, d=25mm/Zoom Scan (5x5x7)

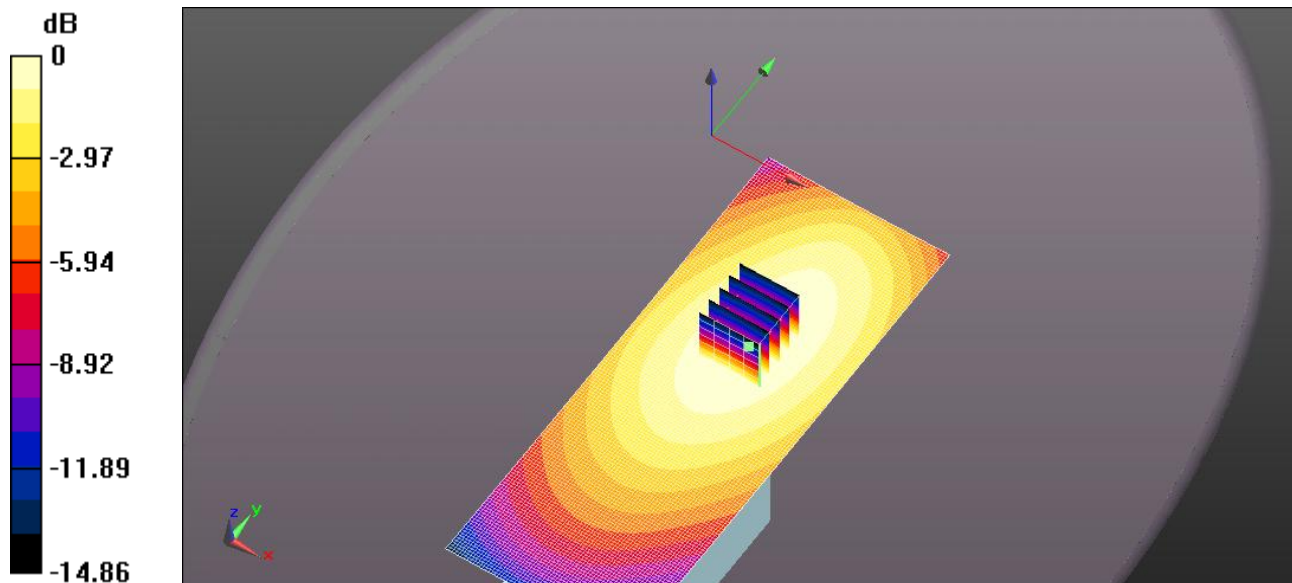
(5x5x7)/Cube 0: Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm

Reference Value = 36.22 V/m; Power Drift = -0.59 dB

Peak SAR (extrapolated) = 1.17 W/kg

SAR(1 g) = 0.894 W/kg; SAR(10 g) = 0.690 W/kg (SAR corrected for target medium)

Maximum value of SAR (measured) = 0.985 W/kg



0 dB = 1.03 W/kg = 0.14 dBW/kg

FILE NAME: [ICOM-539QR1 HEAD FA-S64V 157.425MHZ.DA52:0](#)

DUT: IC-M73; Type: VHF Marine Transceiver; Serial: 00000201

Communication System: UID 0, CW (0); Frequency: 157.425 MHz; Duty Cycle: 1:1
Medium parameters used: $f = 158$ MHz; $\sigma = 0.786$ S/m; $\epsilon_r = 52.252$; $\rho = 1000$ kg/m³; Phantom section:
Flat Section; Measurement Standard: DASYS (IEEE/IEC/ANSI C63.19-2007)

DASY Configuration:

- Probe: EX3DV4 - SN3673; ConvF(10.54, 10.54, 10.54); Calibrated: 8/19/2020;
- Sensor-Surface: 3mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn874; Calibrated: 8/13/2020
- Phantom: ELI 4.0; Type: QD OVA 001 BB; Serial: 1057
- DASYS2 52.10.0(1446); SEMCAD X 14.6.10(7417)

Configuration_Head_IC-M73/Head Front, P=6W, d=25mm/Area Scan (61x161x1):

Interpolated grid: dx=1.500 mm, dy=1.500 mm
Maximum value of SAR (interpolated) = 0.829 W/kg

Configuration_Head_IC-M73/Head Front, P=6W, d=25mm/Zoom Scan (5x5x7)

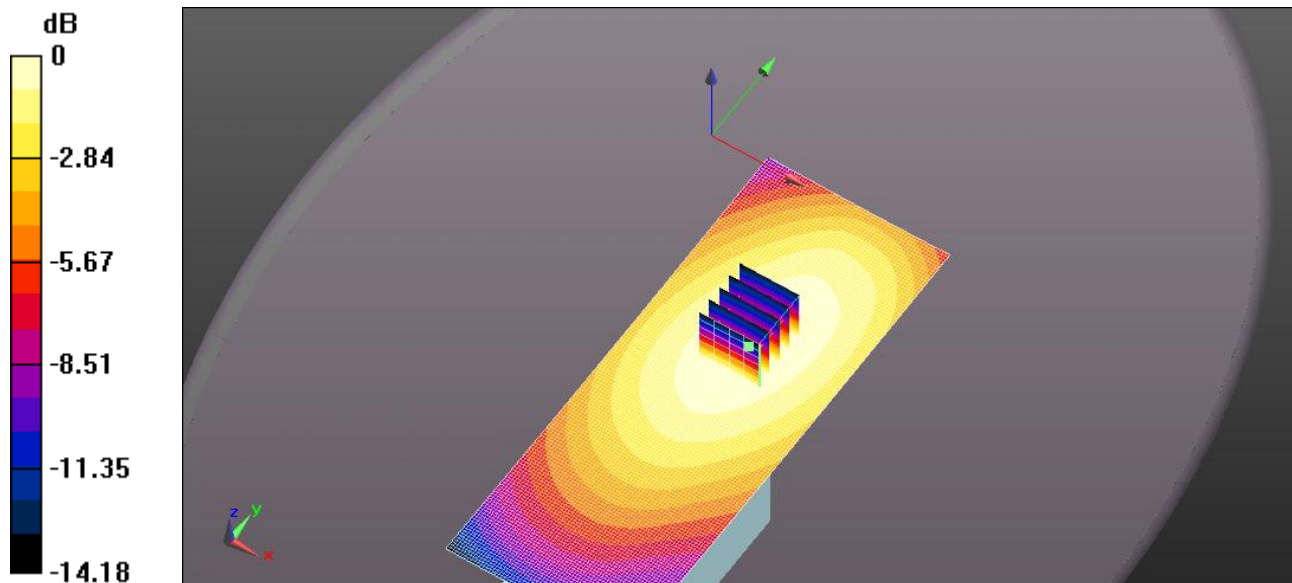
(5x5x7)/Cube 0: Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm

Reference Value = 40.74 V/m; Power Drift = -2.52 dB

Peak SAR (extrapolated) = 0.948 W/kg

SAR(1 g) = 0.723 W/kg; SAR(10 g) = 0.558 W/kg (SAR corrected for target medium)

Maximum value of SAR (measured) = 0.796 W/kg



0 dB = 0.829 W/kg = -0.82 dBW/kg

EXHIBIT 2. PRESCAN MEASUREMENT SUMMARY

Battery BP-245H 2250mAh HM-167	Antenna	Power (W)	CH	CH. Freq	BODY SAR1g (W/Kg)	BODY SAR10g (W/Kg)	Power Drift (dB)
				(MHz)			
MB-103	FA-S64V	5.63	01A	156.05	0.435	0.299	-0.35
MB-86		5.63	01A	156.05	0.351	0.273	0.37

FILE NAME: [ICOM-539OR1 BODY PRESCAN MB-103 FA-S64V 156.050MHZ.DA52:0](#)

DUT: IC-M73; Type: Marine Transceiver; Serial: 00000201

Communication System: UID 0, CW; Frequency: 156.05 MHz; Duty Cycle: 1:1
Medium parameters used (interpolated): $f = 156.05$ MHz; $\sigma = 0.766$ S/m; $\epsilon_r = 59.927$; $\rho = 1000$ kg/m³ ;
Phantom section: Flat Section ; Measurement Standard: DASYS (IEEE/IEC/ANSI C63.19-2007)

DASY Configuration:

- Probe: EX3DV4 - SN3673; ConvF(10.44, 10.44, 10.44); Calibrated: 8/19/2020;
- Sensor-Surface: 3mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn874; Calibrated: 8/13/2020
- Phantom: ELI 4.0; Type: QD OVA 001 BB; Serial: 1057
- DASYS 52.10.0(1446); SEMCAD X 14.6.10(7417)

Configuration_Body_IC-M73/Front to Face, P=6W, d=0mm/Area Scan (61x161x1):

Interpolated grid: dx=1.500 mm, dy=1.500 mm
Maximum value of SAR (interpolated) = 0.482 W/kg

Configuration_Body_IC-M73/Front to Face, P=6W, d=0mm/Zoom Scan (5x5x7)

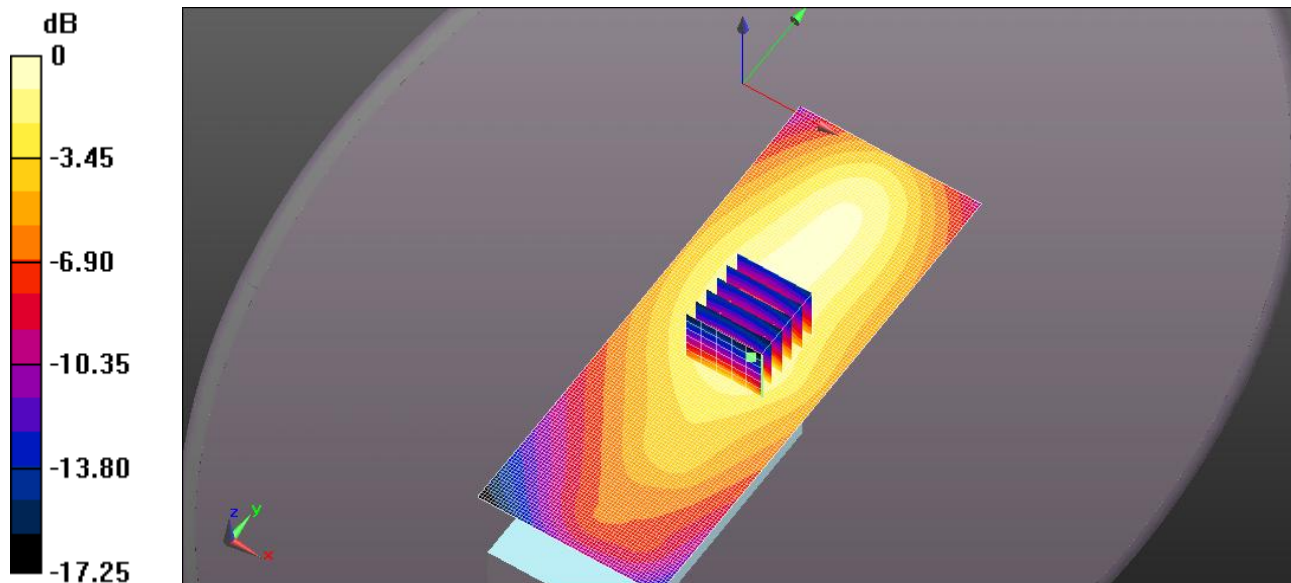
(6x6x7)/Cube 0: Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm

Reference Value = 24.94 V/m; Power Drift = -0.35 dB

Peak SAR (extrapolated) = 0.733 W/kg

SAR(1 g) = 0.435 W/kg; SAR(10 g) = 0.299 W/kg (SAR corrected for target medium)

Maximum value of SAR (measured) = 0.501 W/kg



0 dB = 0.482 W/kg = -3.17 dBW/kg

FILE NAME: [ICOM-539QR1 BODY PRESCAN MB-86 FA-S64V 156.050MHZ.DA52:0](#)

DUT: IC-M73; Type: Marine Transceiver; Serial: 00000201

Communication System: UID 0, CW; Frequency: 156.05 MHz; Duty Cycle: 1:1
Medium parameters used (interpolated): $f = 156.05$ MHz; $\sigma = 0.766$ S/m; $\epsilon_r = 59.927$; $\rho = 1000$ kg/m³ ;
Phantom section: Flat Section ; Measurement Standard: DASYS (IEEE/IEC/ANSI C63.19-2007)

DASY Configuration:

- Probe: EX3DV4 - SN3673; ConvF(10.44, 10.44, 10.44); Calibrated: 8/19/2020;
- Sensor-Surface: 3mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn874; Calibrated: 8/13/2020
- Phantom: ELI 4.0; Type: QD OVA 001 BB; Serial: 1057
- DASYS 52.10.0(1446); SEMCAD X 14.6.10(7417)

Configuration_Body_IC-M73/Front to Face, P=6W, d=0mm/Area Scan (61x161x1):

Interpolated grid: dx=1.500 mm, dy=1.500 mm
Maximum value of SAR (interpolated) = 0.381 W/kg

Configuration_Body_IC-M73/Front to Face, P=6W, d=0mm/Zoom Scan (5x5x7)

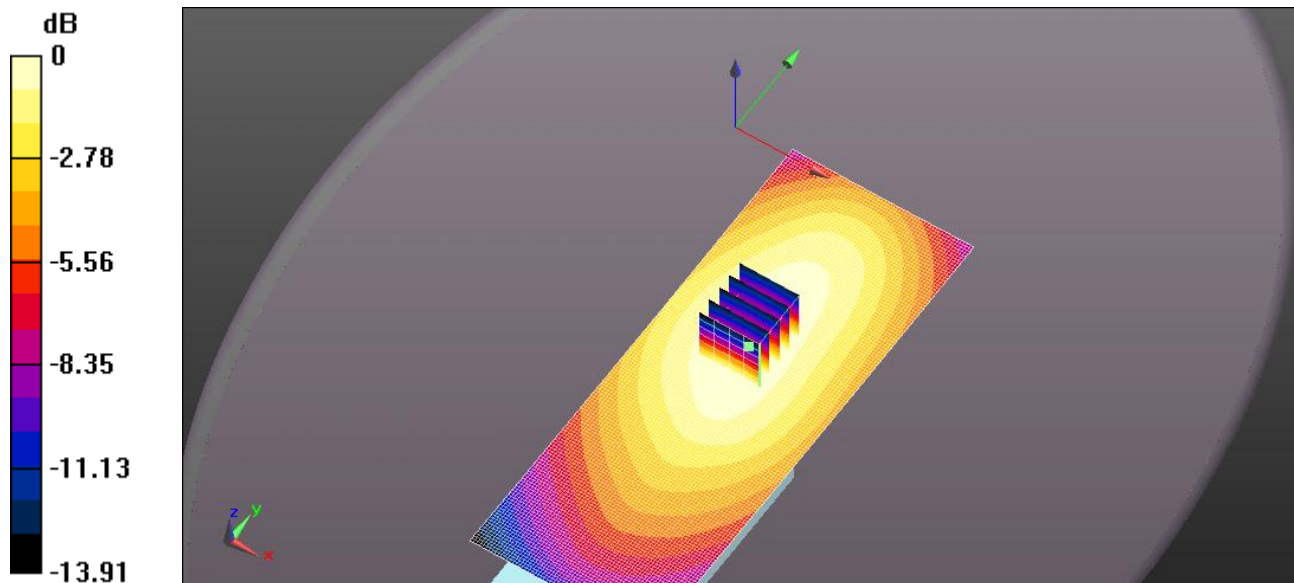
(5x5x7)/Cube 0: Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm

Reference Value = 21.27 V/m; Power Drift = 0.37 dB

Peak SAR (extrapolated) = 0.456 W/kg

SAR(1 g) = 0.351 W/kg; SAR(10 g) = 0.273 W/kg (SAR corrected for target medium)

Maximum value of SAR (measured) = 0.385 W/kg



0 dB = 0.381 W/kg = -4.19 dBW/kg

EXHIBIT 3. BODY SAR MEASUREMENTS

Body SAR Measurements Summary

Antenna	Power (W)	CH	CH. Freq	Body SAR1g (W/Kg)	Body SAR10g (W/Kg)	Power Drift (dB)
				MB-103 & HM-167	MB-103 & HM-167	
			(MHz)	BP-245H	BP-245H	
FA-S59V	5.63	01A	156.05	0.446	0.31	0.27
	5.55	74	156.725	**	**	**
	5.50	88	157.425	0.402	0.279	-0.32
FA-S64V	5.63	01A	156.05	0.452	0.31	0.44
	5.55	74	156.725	**	**	**
	5.50	88	157.425	0.391	0.267	-0.1

** SAR Test Reduction Applied For PTT Radio

FILE NAME: [ICOM-539QR1 BODY MB-103 FA-S64V 156.050MHZ.DA52:0](#)

DUT: IC-M73; Type: Marine Transceiver; Serial: 00000201

Communication System: UID 0, CW; Frequency: 156.05 MHz; Duty Cycle: 1:1
Medium parameters used (interpolated): $f = 156.05$ MHz; $\sigma = 0.766$ S/m; $\epsilon_r = 59.927$; $\rho = 1000$ kg/m³ ;
Phantom section: Flat Section ; Measurement Standard: DASYS (IEEE/IEC/ANSI C63.19-2007)

DASY Configuration:

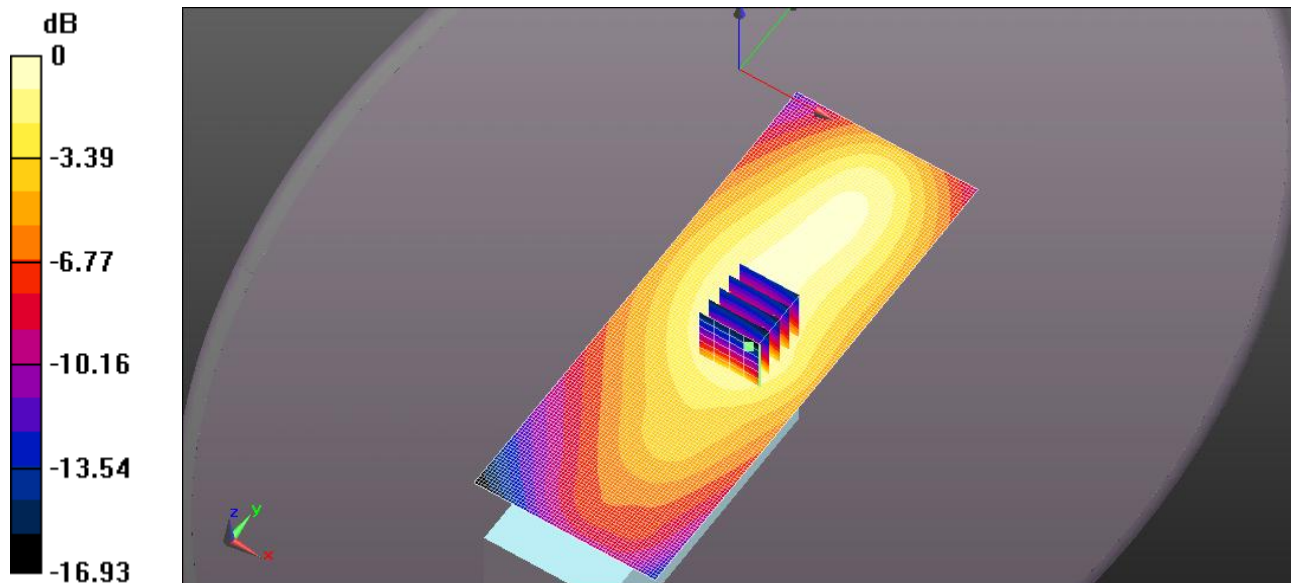
- Probe: EX3DV4 - SN3673; ConvF(10.44, 10.44, 10.44); Calibrated: 8/19/2020;
- Sensor-Surface: 3mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn874; Calibrated: 8/13/2020
- Phantom: ELI 4.0; Type: QD OVA 001 BB; Serial: 1057
- DASYS 52.10.0(1446); SEMCAD X 14.6.10(7417)

Configuration_Body_IC-M73/Front to Face, P=6W, d=0mm/Area Scan (61x161x1):

Interpolated grid: dx=1.500 mm, dy=1.500 mm
Maximum value of SAR (interpolated) = 0.485 W/kg

Configuration_Body_IC-M73/Front to Face, P=6W, d=0mm/Zoom Scan (5x5x7)

(5x5x7)/Cube 0: Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm
Reference Value = 22.83 V/m; Power Drift = 0.44 dB
Peak SAR (extrapolated) = 0.763 W/kg
SAR(1 g) = 0.452 W/kg; SAR(10 g) = 0.310 W/kg (SAR corrected for target medium)
Maximum value of SAR (measured) = 0.531 W/kg



0 dB = 0.485 W/kg = -3.15 dBW/kg

FILE NAME: ICOM-539QR1 BODY MB-103 FA-S64V 157.425MHZ.DA52:0

DUT: IC-M73; Type: Marine Transceiver; Serial: 00000201

Communication System: UID 0, CW; Frequency: 157.425 MHz; Duty Cycle: 1:1
Medium parameters used: $f = 158$ MHz; $\sigma = 0.767$ S/m; $\epsilon_r = 59.855$; $\rho = 1000$ kg/m³; Phantom section:
Flat Section; Measurement Standard: DASYS (IEEE/IEC/ANSI C63.19-2007)

DASY Configuration:

- Probe: EX3DV4 - SN3673; ConvF(10.44, 10.44, 10.44); Calibrated: 8/19/2020;
- Sensor-Surface: 3mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn874; Calibrated: 8/13/2020
- Phantom: ELI 4.0; Type: QD OVA 001 BB; Serial: 1057
- DASYS2 52.10.0(1446); SEMCAD X 14.6.10(7417)

Configuration_Body_IC-M73/Front to Face, P=6W, d=0mm/Area Scan (61x161x1):

Interpolated grid: dx=1.500 mm, dy=1.500 mm
Maximum value of SAR (interpolated) = 0.431 W/kg

Configuration_Body_IC-M73/Front to Face, P=6W, d=0mm/Zoom Scan (5x5x7)

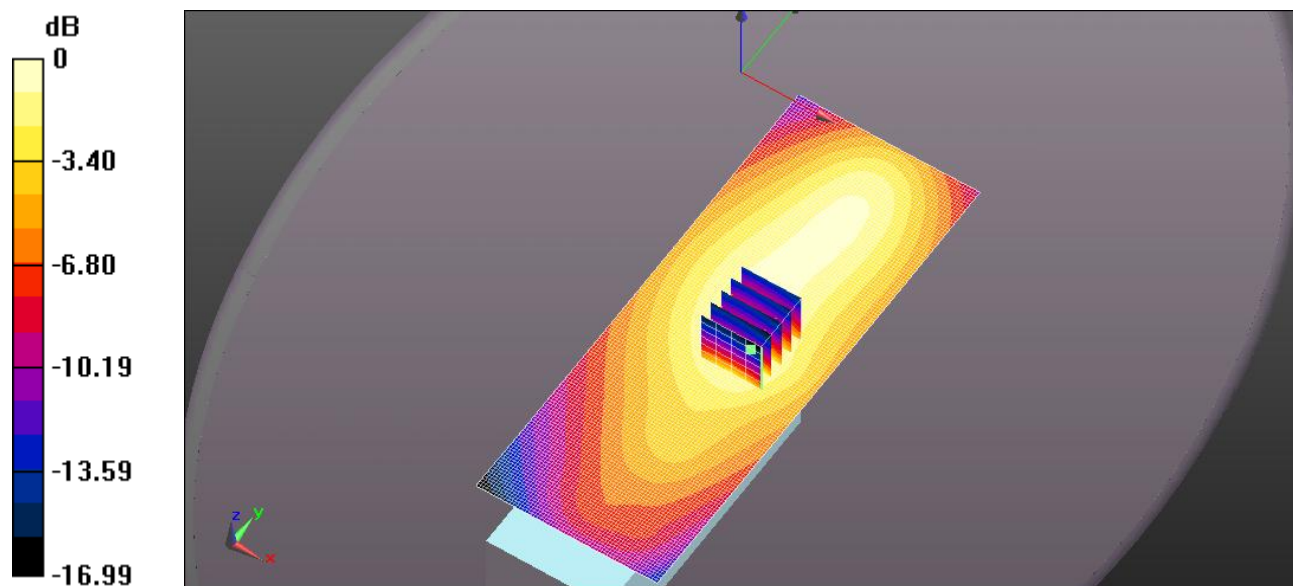
(5x5x7)/Cube 0: Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm

Reference Value = 22.56 V/m; Power Drift = -0.10 dB

Peak SAR (extrapolated) = 0.665 W/kg

SAR(1 g) = 0.391 W/kg; SAR(10 g) = 0.267 W/kg (SAR corrected for target medium)

Maximum value of SAR (measured) = 0.462 W/kg



0 dB = 0.431 W/kg = -3.65 dBW/kg

FILE NAME: [ICOM-539QR1 BODY MB-103 FA-S59V 156.050MHZ.DA52:0](#)

DUT: IC-M73; Type: Marine Transceiver; Serial: 00000201

Communication System: UID 0, CW; Frequency: 156.05 MHz; Duty Cycle: 1:1
Medium parameters used (interpolated): $f = 156.05$ MHz; $\sigma = 0.766$ S/m; $\epsilon_r = 59.927$; $\rho = 1000$ kg/m³ ;
Phantom section: Flat Section ; Measurement Standard: DASYS5 (IEEE/IEC/ANSI C63.19-2007)

DASY Configuration:

- Probe: EX3DV4 - SN3673; ConvF(10.44, 10.44, 10.44); Calibrated: 8/19/2020;
- Sensor-Surface: 3mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn874; Calibrated: 8/13/2020
- Phantom: ELI 4.0; Type: QD OVA 001 BB; Serial: 1057
- DASYS2 52.10.0(1446); SEMCAD X 14.6.10(7417)

Configuration_Body_IC-M73/Front to Face, P=6W, d=0mm/Area Scan (61x191x1):

Interpolated grid: dx=1.500 mm, dy=1.500 mm
Maximum value of SAR (interpolated) = 0.498 W/kg

Configuration_Body_IC-M73/Front to Face, P=6W, d=0mm/Zoom Scan (5x5x7)

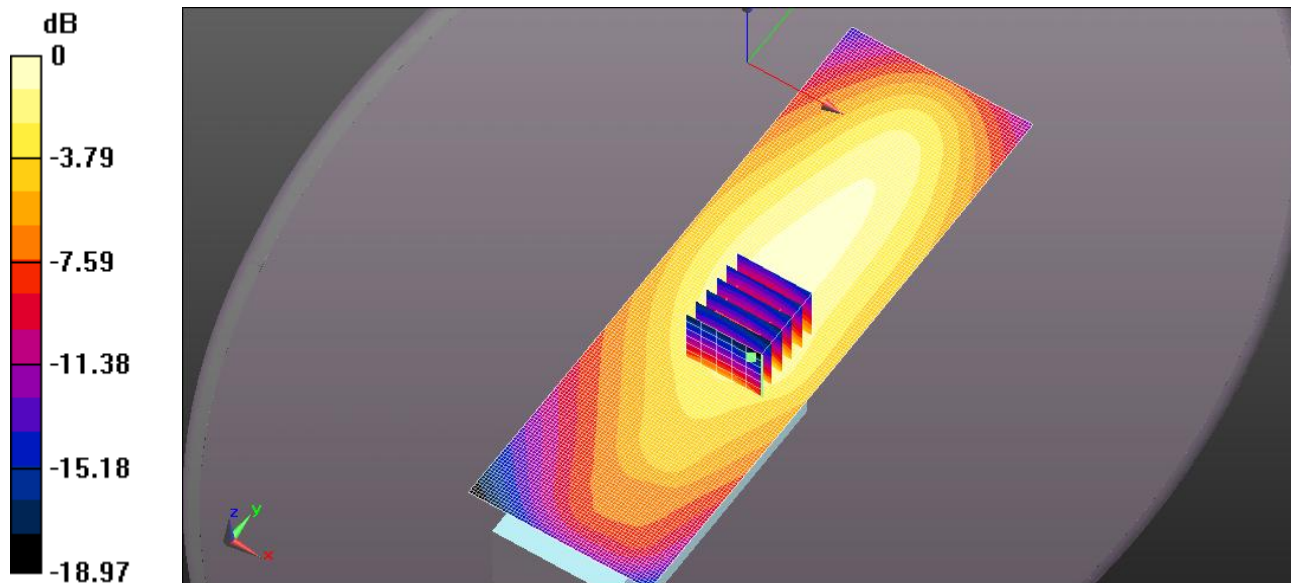
(6x6x7)/Cube 0: Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm

Reference Value = 23.15 V/m; Power Drift = 0.27 dB

Peak SAR (extrapolated) = 0.742 W/kg

SAR(1 g) = 0.446 W/kg; SAR(10 g) = 0.310 W/kg (SAR corrected for target medium)

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



0 dB = 0.498 W/kg = -3.02 dBW/kg

FILE NAME: [ICOM-539QR1 BODY MB-103 FA-S59V 157.425 MHZ.DA52:0](#)

DUT: IC-M73; Type: Marine Transceiver; Serial: 00000201

Communication System: UID 0, CW; Frequency: 157.425 MHz; Duty Cycle: 1:1
Medium parameters used: $f = 158$ MHz; $\sigma = 0.767$ S/m; $\epsilon_r = 59.855$; $\rho = 1000$ kg/m³; Phantom section:
Flat Section; Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)

DASY Configuration:

- Probe: EX3DV4 - SN3673; ConvF(10.44, 10.44, 10.44); Calibrated: 8/19/2020;
- Sensor-Surface: 3mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn874; Calibrated: 8/13/2020
- Phantom: ELI 4.0; Type: QD OVA 001 BB; Serial: 1057
- DASY52 52.10.0(1446); SEMCAD X 14.6.10(7417)

Configuration_Body_IC-M73/Front to Face, P=6W, d=0mm/Area Scan (61x191x1):

Interpolated grid: dx=1.500 mm, dy=1.500 mm
Maximum value of SAR (interpolated) = 0.424 W/kg

Configuration_Body_IC-M73/Front to Face, P=6W, d=0mm/Zoom Scan (5x5x7)

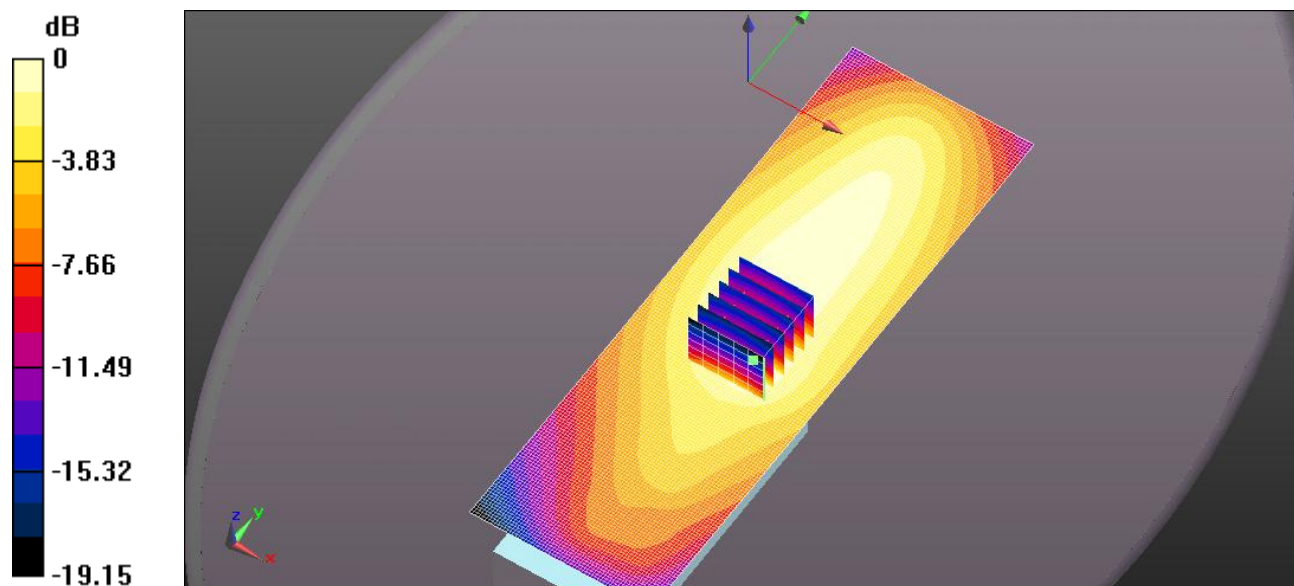
(6x6x7)/Cube 0: Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm

Reference Value = 23.63 V/m; Power Drift = -0.32 dB

Peak SAR (extrapolated) = 0.671 W/kg

SAR(1 g) = 0.402 W/kg; SAR(10 g) = 0.279 W/kg (SAR corrected for target medium)

Maximum value of SAR (measured) = 0.470 W/kg



0 dB = 0.424 W/kg = -3.73 dBW/kg