



December 22, 2004

Supplement to SAR Test Report for Motorola portable cellular phone (FCC ID IHDT56EZ1)

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Summary of FCC request for additional information

There was a request for additional information regarding Motorola’s SAR Test Report for Motorola portable cellular phone (FCC ID IHDT56EZ1). The requested information is addressed below in the same numbering sequence received.

3. A number of items in the SAR test report are listed as past their cal due date (p.4). Please address

Response: There were typos in the calibration dates of the dosimetric system equipment listed in the table on p.4 of the SAR report. Here is the corrected table.

Description	Serial Number	Cal Due Date
DASY3 DAE V1	SN398	16-Feb-05
E-Field Probe ET3DV6	SN1514	22-Jul-05
Dipole Validation Kit, D900V2	SN096	2-Apr-05
S.A.M. Phantom used for 800MHz	TP-1131	
Dipole Validation Kit, D1800V2	SN272TR	2-Apr-05
S.A.M. Phantom used for 1900MHz	TP-1250	

4. Compared to the actual SAR plot data pages, the dipole validation results for 1800 MHz, taken on 11/23/04 and 11/24/04, listed on p.5 of the SAR report, appear to be typos. Please address.

Response: The 1800Mhz SAR values listed in the table on p.5 of the SAR report, taken on 11/23/04 and 11/24/04, did contain typos. Here is the corrected table.

f (MHz)	Description	SAR (W/kg), 1gram	Dielectric Parameters		Ambient Temp (°C)	Tissue Temp (°C)
			ϵ_r	σ (S/m)		
900	Measured, 22-Nov-04	11.1	41.0	0.97	20	19.3
	Measured, 23-Nov-04	11.1	41.3	0.97	20	19.8
	Measured, 24-Nov-04	11.2	41.5	0.98	20	19.6
	Recommended Limits	10.8	41.5 ±5%	0.97 ±5%	18-25	18-25
1800	Measured, 23-Nov-04	38.4	39.0	1.37	21	18.9
	Measured, 24-Nov-04	39.0	38.8	1.38	20	19.1
	Recommended Limits	38.1	40.0 ±5%	1.4 ±5%	18-25	18-25

5. Please submit the required z-axis plots for the SAR data (none were submitted).

Response: The plots are attached below in the Supplement to Appendix 1.

Supplement to Appendix 1

SAR distribution comparison for the system accuracy verification

Test Laboratory: Motorola 112204 900 MHz GOOD +2.3%**DUT: Dipole 900 MHz; Type: D900V2**

Procedure Notes: 900 MHz System Performance Check / Dipole Sn# 096

M2 Power = 199mW Refl.Pwr PM3= -25.2dB

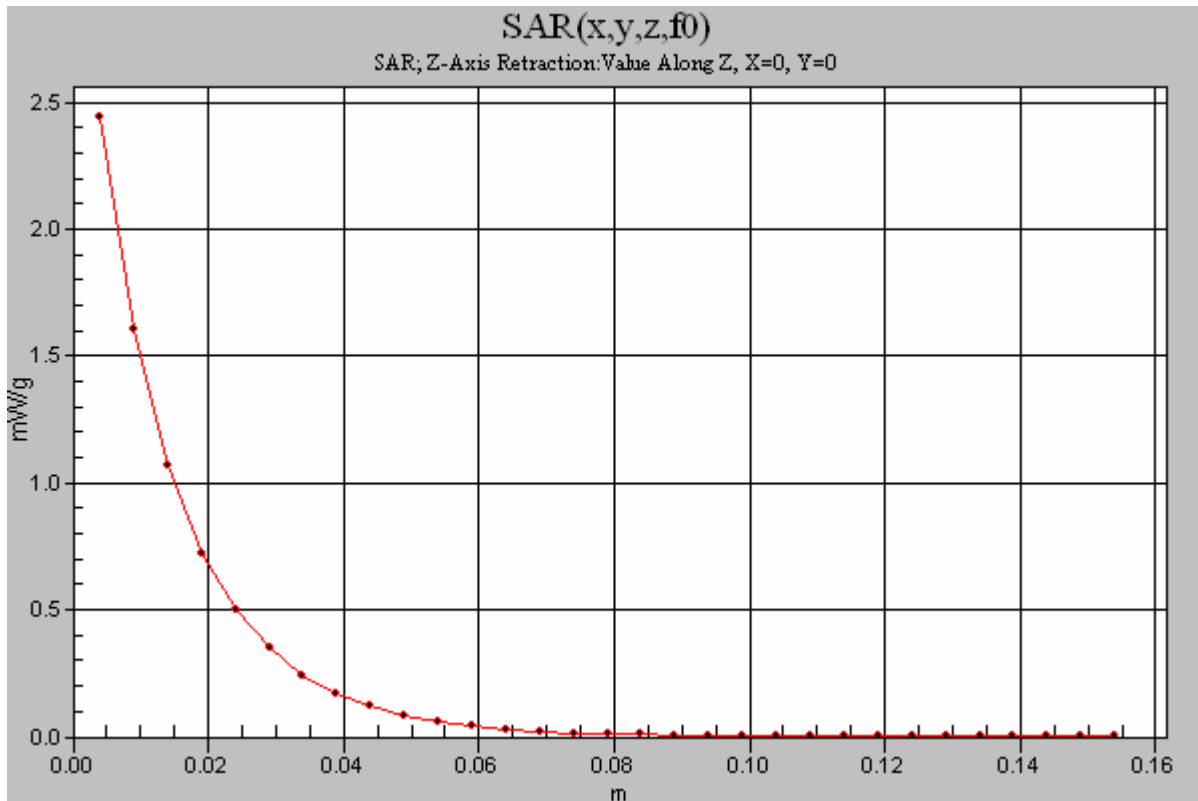
Sim.Temp@meas=19.3*C Sim.Temp@SPC = 19.3*C Room Temp @ SPC = 20*C

Communication System: CW - Dipole; Frequency: 900 MHz; Duty Cycle: 1:1

Medium: VALIDATION Only; Medium parameters used: $\sigma = 0.97\text{mho/m}$, $\epsilon_r = 41$; $\rho = 1000\text{ kg/m}^3$ **DASY4 Configuration:**

- Probe: ET3DV6 - SN1514; ConvF(6.08, 6.08, 6.08); Calibrated: 7/22/2004
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn398; Calibrated: 2/16/2004
- Phantom: R4: Sugar Water SAM; Type: SAM; Serial: TP-1131;
- Measurement SW: DASY4, V4.4 Build 3; Postprocessing SW: SEMCAD, V1.8 Build 130

Daily SPC Check/Z-Axis Retraction (1x1x31): Measurement grid: dx=20mm, dy=20mm, dz=5mm
 Maximum value of SAR (measured) = 2.44 mW/g



Test Laboratory: Motorola 112304 900 MHz GOOD +2.5%**DUT: Dipole 900 MHz; Type: D900V2**

Procedure Notes: 900 MHz System Performance Check / Dipole Sn# 096

PM2 Power = 200mW Refl.Pwr PM3= -25.2dB

Sim.Temp@meas=19.8°C Sim.Temp@SPC = 19.8°C Room Temp @ SPC = 20°C

Communication System: CW - Dipole; Frequency: 900 MHz; Duty Cycle: 1:1

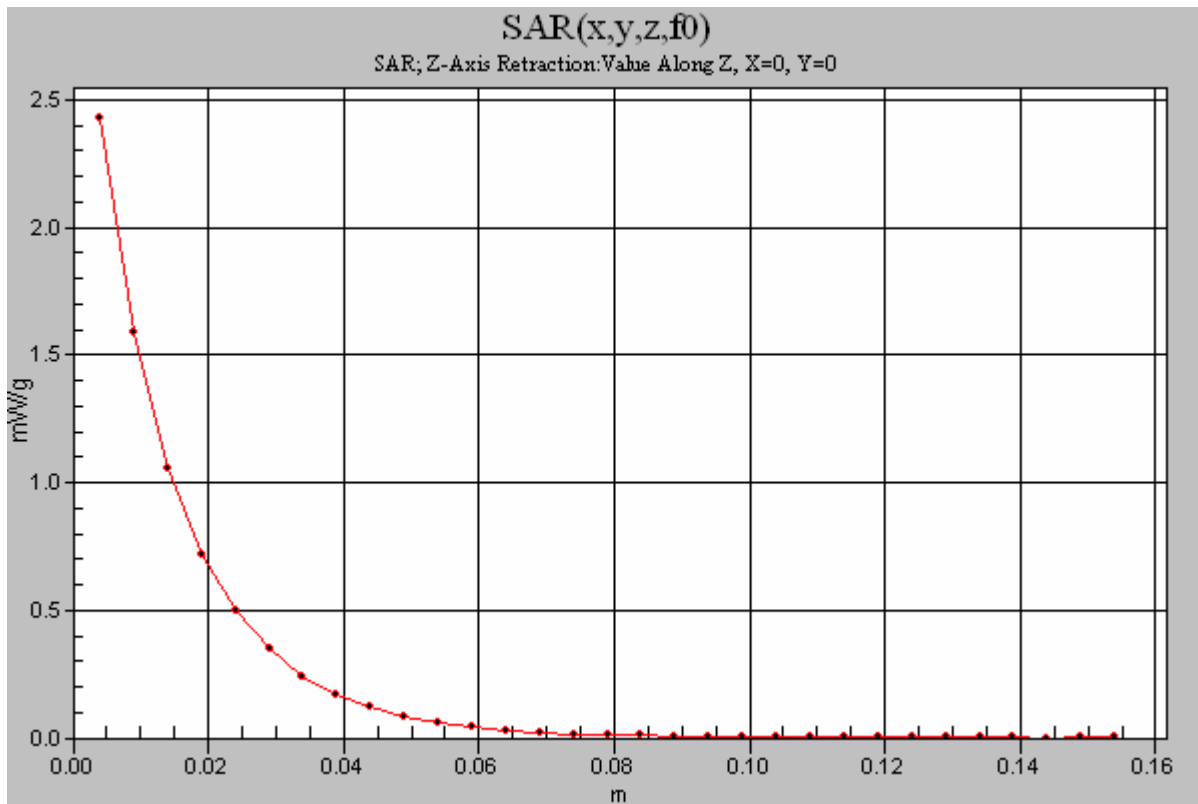
Medium: VALIDATION Only; Medium parameters used: $\sigma = 0.97\text{mho/m}$, $\epsilon_r = 41.3$; $\rho = 1000\text{ kg/m}^3$

DASY4 Configuration:

- Probe: ET3DV6 - SN1514; ConvF(6.08, 6.08, 6.08); Calibrated: 7/22/2004
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn398; Calibrated: 2/16/2004
- Phantom: R4: Sugar Water SAM; Type: SAM; Serial: TP-1131;
- Measurement SW: DASY4, V4.4 Build 3; Postprocessing SW: SEMCAD, V1.8 Build 130

Daily SPC Check/Z-Axis Retraction (1x1x31):

Measurement grid: dx=20mm, dy=20mm, dz=5mm Maximum value of SAR (measured) = 2.43 mW/g



Test Laboratory: Motorola 112404 900 MHz GOOD +3.7%

DUT: Dipole 900 MHz; Type: D900V2

Procedure Notes: 900 MHz System Performance Check / Dipole Sn# 096

PM2 Power = 200mW Refl.Pwr PM3= -26dB

Sim.Temp@meas=19.6°C Sim.Temp@SPC = 19.6°C Room Temp @ SPC = 20°C

Communication System: CW - Dipole; Frequency: 900 MHz; Duty Cycle: 1:1

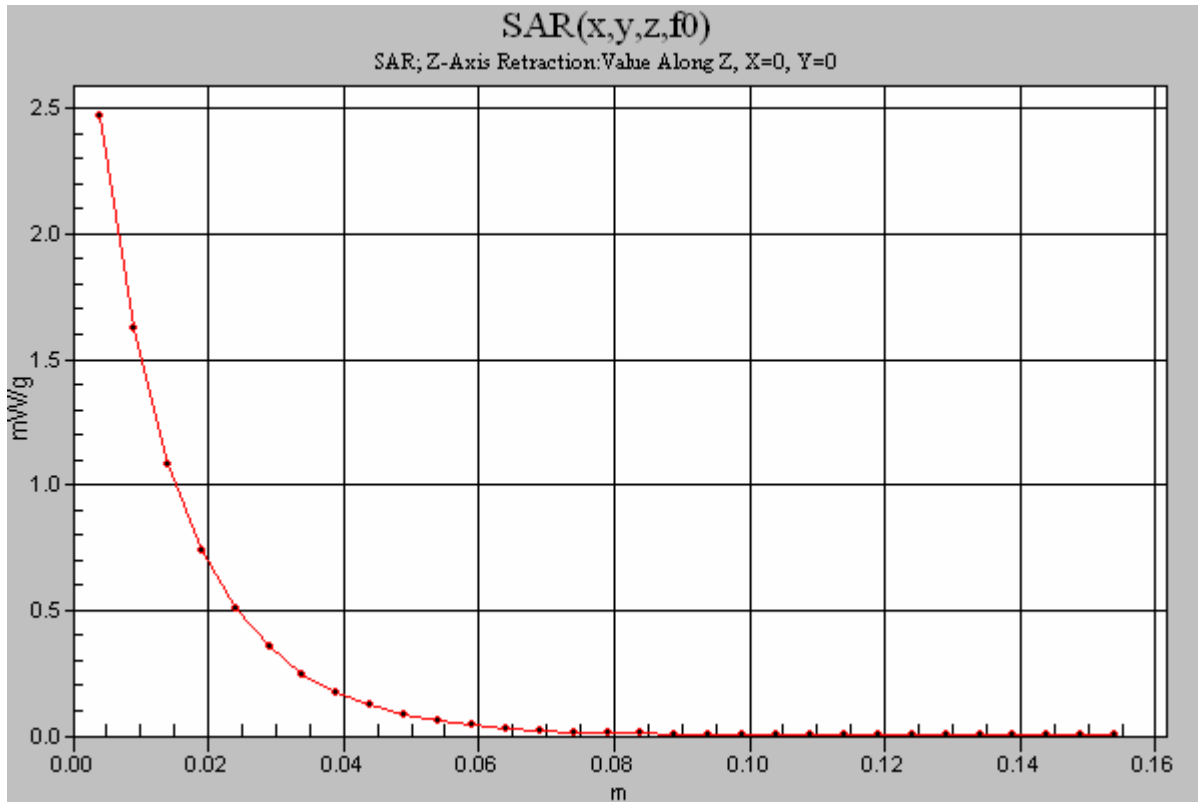
Medium: VALIDATION Only; Medium parameters used: $\sigma = 0.98\text{mho/m}$, $\epsilon_r = 41.5$; $\rho = 1000\text{ kg/m}^3$

DASY4 Configuration:

- Probe: ET3DV6 - SN1514; ConvF(6.08, 6.08, 6.08); Calibrated: 7/22/2004
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn398; Calibrated: 2/16/2004
- Phantom: R4: Sugar Water SAM; Type: SAM; Serial: TP-1131;
- Measurement SW: DASY4, V4.4 Build 3; Postprocessing SW: SEMCAD, V1.8 Build 130

Daily SPC Check/Z-Axis Retraction (1x1x31):

Measurement grid: dx=20mm, dy=20mm, dz=5mm Maximum value of SAR (measured) = 2.47 mW/g



Test Laboratory: Motorola 112304 1800 MHz GOOD +0.3%**DUT: Dipole 1800 MHz; Type: D1800V2**

Procedure Notes: 1800 MHz System Performance Check / Dipole Sn# 272tr

PM2 Power = 199mW Refl.Pwr PM3= -25.2dB

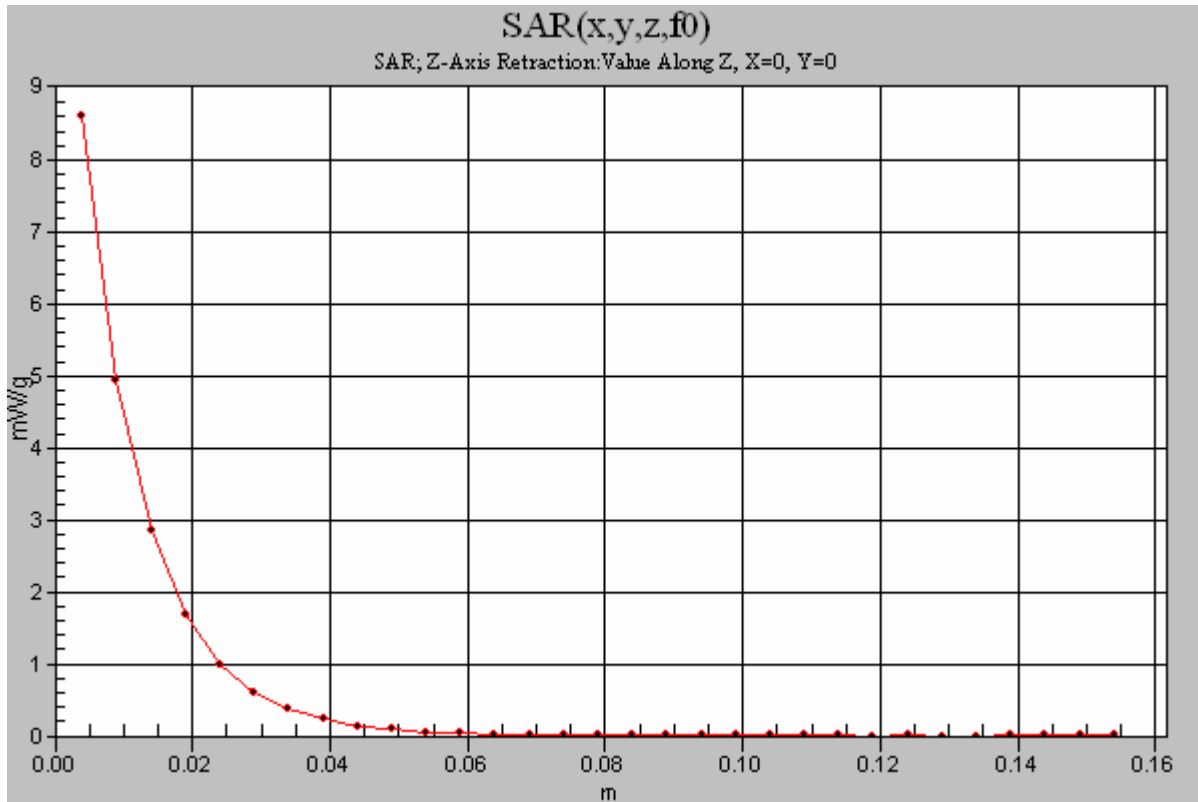
Sim.Temp@meas=19.1°C Sim.Temp@SPC = 18.9°C Room Temp @ SPC = 21°C

Communication System: CW - Dipole; Frequency: 1800 MHz; Duty Cycle: 1:1

Medium: VALIDATION Only; Medium parameters used: $\sigma = 1.37\text{mho/m}$, $\epsilon_r = 39$; $\rho = 1000\text{ kg/m}^3$ **DASY4 Configuration:**

- Probe: ET3DV6 - SN1514; ConvF(5.03, 5.03, 5.03); Calibrated: 7/22/2004
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn398; Calibrated: 2/16/2004
- Phantom: R4: Glycol SAM; Type: SAM; Serial: TP-1250;
- Measurement SW: DASY4, V4.4 Build 3; Postprocessing SW: SEMCAD, V1.8 Build 130

Daily SPC Check/Z-Axis Retraction (1x1x31): Measurement grid: dx=20mm, dy=20mm, dz=5mm
 Maximum value of SAR (measured) = 8.61 mW/g



Test Laboratory: Motorola 112404 1800 MHz GOOD +1.8%**DUT: Dipole 1800 MHz; Type: D1800V2**

Procedure Notes: 1800 MHz System Performance Check / Dipole Sn# 272TR

PM2 Power = 199mW Refl.Pwr PM3= -24.70dB

Sim.Temp@meas=19.1C Sim.Temp@SPC = 19.1C Room Temp @ SPC = 20C

Communication System: CW - Dipole; Frequency: 1800 MHz; Duty Cycle: 1:1

Medium: VALIDATION Only; Medium parameters used: $\sigma = 1.38\text{mho/m}$, $\epsilon_r = 38.8$; $\rho = 1000\text{ kg/m}^3$ **DASY4 Configuration:**

- Probe: ET3DV6 - SN1514; ConvF(5.03, 5.03, 5.03); Calibrated: 7/22/2004
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn398; Calibrated: 2/16/2004
- Phantom: R4 : Sect.2, Amy Twin; Type: Amy Twin Flat; Serial: n/a;
- Measurement SW: DASY4, V4.4 Build 3; Postprocessing SW: SEMCAD, V1.8 Build 130

Daily SPC Check/Z-Axis Retraction (1x1x31):

Measurement grid: dx=20mm, dy=20mm, dz=5mm Maximum value of SAR (measured) = 8.93 mW/g

