MOTOROLA

ACCREDITED
TESTING CERT # 2518.01

FCC ID: IHDT56KC1
DECLARATION OF COMPLIANCE SAR ASSESSMENT Part 2 of 3

Enterprise Mobility Solutions (EMS)
EME Test Laboratory
8000 West Sunrise Blvd
Fort Lauderdale, FL. 33322

Date of Report: 6/11/09
Report Revision: A
Report ID: SAR rpt_i856 Banfi_090611_SR7285

Responsible Engineer:	Michael Sailsman (Senior Staff EME Eng.)
Report Author:	Michael Sailsman (Senior Staff EME Eng.)
Date/s Tested:	5/4/09-5/15/09
Manufacturer/Location:	Penang
Sector/Group/Div.:	iDEN Mobile Devices
Date submitted for test:	4/23/09
DUT Description:	TDMA: 81:120, 2:6, 1:12, and 1:6; 64 QAM, 16QAM, and QPSK Modulations; 0.60 W Pulse Avg; MOTOtalk: 114:120 8FSK; 0.85 W nominal; (GPS and Bluetooth Capable)
Test TX mode(s):	Phone: 1:3 ; Dispatch: 1:6; MOTOtalk: 114:120; Data: 81:120
Max. Power output:	0.64 W pulsed average (iDEN); 0.891 W (MOTOtalk); 0.010 W (Bluetooth)
Nominal Power:	0.60 W pulsed average Conducted Power (iDEN); 0.85 W (MOTOtalk); 0.0063 W (Bluetooth)
Tx Frequency Bands:	806-825, 896-902 MHz (iDEN); 902-928 MHz (MOTOtalk); 2.402-2.480 GHz (Bluetooth)
Signaling type:	TDMA: QPSK, M16-QAM, M64-QAM; FHSS: 8FSK (PTT); BT
Model(s) Tested:	H74XAN6JR7AN
Model(s) Certified:	H74XAN6JR7AN
Serial Number(s):	364VKF7VZQ
Classification:	General Population/Uncontrolled
Rule Part(s):	15, 90

DUT Photo
(Refer to Exhibit 7B)

Approved Accessories:
Antenna(s):
85009255001 (Internal IFA 806-825MHz: ¼ wave antenna, -1.41dBd; 896-902MHz: ¼ wave antenna, -0.64dBd; 902-928MHz: ¼ wave antenna, -0.64dBd); 85009254001(Internal IFA 2.4-2.48GHz, ¼ wave antenna, -0.84dBd)
Battery(ies):
SNN5837A (BN70 High performance); NTN2529XXXA (High performance battery door); SNN5838A (BN10 Maximum capacity); NTN2530XXXA (Maximum performance battery door)
Body worn accessory(ies):
NNTN7649A (i856 Holster)
Audio/Data cable accessory(ies):
SYN1458A (Stereo headset-"Mic" with PTT); SYN1472A (Mono Headset- "Mic" with PTT); SYN2356A (3.5mm Stereo headset-receive only); SKN6238A (USB data cable)

Max. Calc. : 1-g Avg. SAR: 1.16 W/kg (Body); 10-g Avg. SAR: 0.84 W/kg (Body)
Max. Calc. : 1-g Avg. SAR: 0.16 W/kg (Face); 10-g Avg. SAR: 0.11 W/kg (Face)
Max. Calc. : 1-g Avg. SAR: 0.88 W/kg (Head); 10-g Avg. SAR: 0.62 W/kg (Head)

The test results clearly demonstrate compliance with FCC General Population/Uncontrolled RF Exposure limits of 1.6W/kg per the requirements of 47 CFR 2.1093(d).
The test results clearly demonstrate compliance with ICNIRP (1998) Guidelines for limiting exposure in time-varying electric, magnetic, and electromagnetic fields (up to 300GHz), Health Physics 74, 494-522 RF Exposure limits of 2W/kg averaged over 10grams of contiguous tissue.

Signature on File
Deanna Zakharia EMS EME Lab Senior Resource Manager, Laboratory Director

Approval Date: 6/11/09

Certification Date: 6/11/09

Certification No.: L1090523P

Appendix C
Dipole Calibration Certificates

Calibration Laboratory of
Schmid & Partner
Engineering AG
Zeughausstrasse 43, 8004 Zurich, Switzerland

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S Servizio svizzero di taratura
S Swiss Calibration Service

Accredited by the Swiss Accreditation Service (SAS)
The Swiss Accreditation Service is one of the signatories to the EA Multilateral Agreement for the recognition of calibration certificates

Accreditation No.: SCS 108

Client Motorola CGISS

Certificate No: D835V2-435_Sep08

CALIBRATION CERTIFICATE

Object	D835V2 - SN: 435
Calibration procedure(s)	QA CAL-05.v7 Calibration procedure for dipole validation kits
Calibration date:	September 22, 2008
Condition of the calibrated item	In Tolerance

This calibration certificate documents the traceability to national standards, which realize the physical units of measurements (SI).
The measurements and the uncertainties with confidence probability are given on the following pages and are part of the certificate.

All calibrations have been conducted in the closed laboratory facility: environment temperature (22 ± 3)°C and humidity < 70%.

Calibration Equipment used (M&TE critical for calibration)

Primary Standards	ID #	Cal Date (Certificate No.)	Scheduled Calibration
Power meter EPM-442A	GB37480704	04-Oct-07 (No. 217-00736)	Oct-08
Power sensor HP 8481A	US37292783	04-Oct-07 (No. 217-00736)	Oct-08
Reference 20 dB Attenuator	SN: 5086 (20g)	01-Jul-08 (No. 217-00864)	Jul-09
Type-N mismatch combination	SN: 5047.2 / 06327	01-Jul-08 (No. 217-00867)	Jul-09
Reference Probe ES3DV2	SN: 3025	28-Apr-08 (No. ES3-3025_Apr08)	Apr-09
DAE4	SN: 601	14-Mar-08 (No. DAE4-601_Mar08)	Mar-09

Secondary Standards	ID #	Check Date (in house)	Scheduled Check
Power sensor HP 8481A	MY41092317	18-Oct-02 (in house check Oct-07)	In house check: Oct-09
RF generator R&S SMT-06	100005	4-Aug-99 (in house check Oct-07)	In house check: Oct-09
Network Analyzer HP 8753E	US37390585 S4206	18-Oct-01 (in house check Oct-07)	In house check: Oct-08

	Name	Function	Signature
Calibrated by:	Jeton Kastrati	Laboratory Technician	
Approved by:	Katja Pokovic	Technical Manager	

Issued: September 22, 2008

Calibration Laboratory of
Schmid & Partner
Engineering AG
Zeughausstrasse 43, 8004 Zurich, Switzerland

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Swiss Calibration Service

Accredited by the Swiss Accreditation Service (SAS)
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Accreditation No.: **SCS 108**

Glossary:

TSL	tissue simulating liquid
ConvF	sensitivity in TSL / NORM x,y,z
N/A	not applicable or not measured

Calibration is Performed According to the Following Standards:

a) IEEE Std 1528-2003, "IEEE Recommended Practice for Determining the Peak Spatial-Averaged Specific Absorption Rate (SAR) in the Human Head from Wireless Communications Devices: Measurement Techniques", December 2003
b) IEC 62209-1, "Procedure to measure the Specific Absorption Rate (SAR) for hand-held devices used in close proximity to the ear (frequency range of 300 MHz to 3 GHz)", February 2005
c) Federal Communications Commission Office of Engineering & Technology (FCC OET), "Evaluating Compliance with FCC Guidelines for Human Exposure to Radiofrequency Electromagnetic Fields; Additional Information for Evaluating Compliance of Mobile and Portable Devices with FCC Limits for Human Exposure to Radiofrequency Emissions", Supplement C (Edition 01-01) to Bulletin 65

Additional Documentation:

d) DASY4/5 System Handbook

Methods Applied and Interpretation of Parameters:

- *Measurement Conditions:* Further details are available from the Validation Report at the end of the certificate. All figures stated in the certificate are valid at the frequency indicated.
- *Antenna Parameters with TSL:* The dipole is mounted with the spacer to position its feed point exactly below the center marking of the flat phantom section, with the arms oriented parallel to the body axis.
- *Feed Point Impedance and Return Loss:* These parameters are measured with the dipole positioned under the liquid filled phantom. The impedance stated is transformed from the measurement at the SMA connector to the feed point. The Return Loss ensures low reflected power. No uncertainty required.
- *Electrical Delay:* One-way delay between the SMA connector and the antenna feed point. No uncertainty required.
- *SAR measured:* SAR measured at the stated antenna input power.
- *SAR normalized:* SAR as measured, normalized to an input power of 1 W at the antenna connector.
- *SAR for nominal TSL parameters:* The measured TSL parameters are used to calculate the nominal SAR result.

Measurement Conditions

DASY system configuration, as far as not given on page 1.

DASY Version	DASY5	V5.0
Extrapolation	Advanced Extrapolation	
Phantom	Modular Flat Phantom V4.9	
Distance Dipole Center - TSL	15 mm	with Spacer
Zoom Scan Resolution	dx, dy, dz = 5 mm	
Frequency	835 MHz ± 1 MHz	

Head TSL parameters

The following parameters and calculations were applied.

	Temperature	**Permittivity**	**Conductivity**
Nominal Head TSL parameters	22.0 °C	41.5	0.90 mho/m
Measured Head TSL parameters	(22.0 ± 0.2) °C	40.2 ± 6 %	0.88 mho/m ± 6 %
Head TSL temperature during test	(22.5 ± 0.2) °C	----	----

SAR result with Head TSL

SAR averaged over 1 cm³ (1 g) of Head TSL	Condition	
SAR measured	250 mW input power	2.39 mW / g
SAR normalized	normalized to 1W	9.56 mW / g
SAR for nominal Head TSL parameters [1]	normalized to 1W	**9.51 mW /g ± 17.0 % (k=2)**

SAR averaged over 10 cm³ (10 g) of Head TSL	condition	
SAR measured	250 mW input power	1.57 mW / g
SAR normalized	normalized to 1W	6.28 mW / g
SAR for nominal Head TSL parameters [1]	normalized to 1W	**6.24 mW /g ± 16.5 % (k=2)**

[1] Correction to nominal TSL parameters according to d), chapter "SAR Sensitivities"

Appendix

Antenna Parameters with Head TSL

Impedance, transformed to feed point	50.0 Ω -8.9 jΩ
Return Loss	- 21.0 dB

General Antenna Parameters and Design

Electrical Delay (one direction)	1.392 ns

After long term use with 100W radiated power, only a slight warming of the dipole near the feedpoint can be measured.

The dipole is made of standard semirigid coaxial cable. The center conductor of the feeding line is directly connected to the second arm of the dipole. The antenna is therefore short-circuited for DC-signals.
No excessive force must be applied to the dipole arms, because they might bend or the soldered connections near the feedpoint may be damaged.

Additional EUT Data

Manufactured by	SPEAG
Manufactured on	December 15, 2000

DASY5 Validation Report for Head TSL

Date/Time: 22.09.2008 10:19:42

Test Laboratory: SPEAG, Zurich, Switzerland

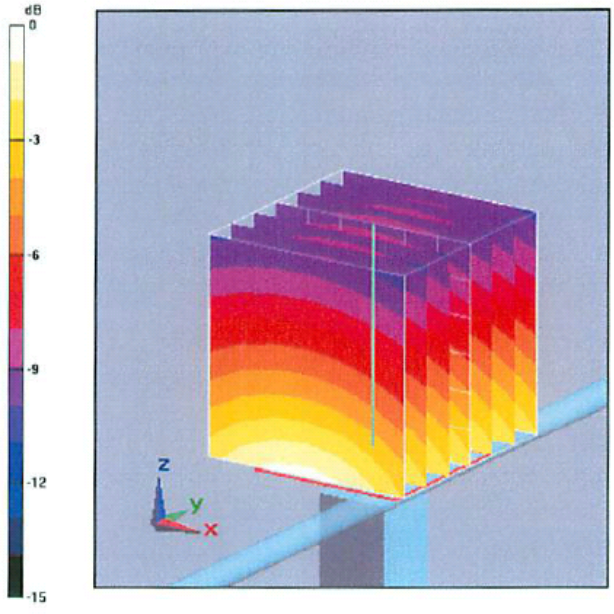
DUT: Dipole 835 MHz; Type: D835V2; Serial: D835V2 - SN:435

Communication System: CW-835; Frequency: 835 MHz; Duty Cycle: 1:1
Medium: HSL 900 MHz
Medium parameters used: f = 835 MHz; σ = 0.901 mho/m; ε_r = 41.4; ρ = 1000 kg/m^3
Phantom section: Flat Section
Measurement Standard: DASY5 (IEEE/IEC)

DASY5 Configuration:

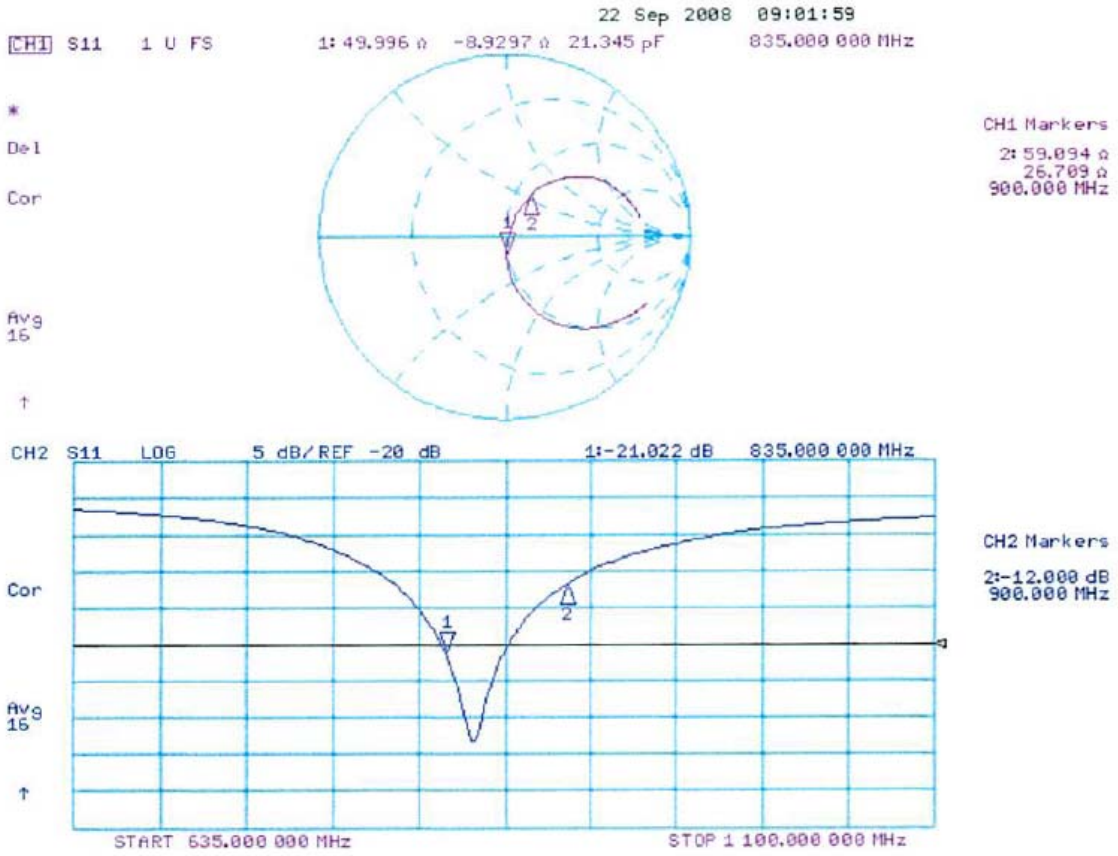
- Probe: ES3DV2 - SN3025; ConvF(5.97, 5.97, 5.97); Calibrated: 28.04.2008
- Sensor-Surface: 3.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn601; Calibrated: 14.03.2008
- Phantom: Flat Phantom 4.9L; Type: QD000P49AA; Serial: 1001
- Measurement SW: DASY5, V5.0 Build 119; SEMCAD X Version 13.2 Build 87

Pin=250mW; dip=15mm; dist=3.4mm/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 56 V/m; Power Drift = 0.020 dB
Peak SAR (extrapolated) = 3.48 W/kg
SAR(1 g) = 2.39 mW/g; SAR(10 g) = 1.57 mW/g
Maximum value of SAR (measured) = 2.69 mW/g



0 dB = 2.69mW/g

Impedance Measurement Plot for Head TSL



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Accreditation No.: **SCS 108**

Client **Motorola CGISS** Certificate No: **D900V2-085_Aug08**

CALIBRATION CERTIFICATE

Object	D900V2 - SN: 085
Calibration procedure(s)	QA CAL-05.v7 Calibration procedure for dipole validation kits
Calibration date:	August 25, 2008
Condition of the calibrated item	In Tolerance

This calibration certificate documents the traceability to national standards, which realize the physical units of measurements (SI).
The measurements and the uncertainties with confidence probability are given on the following pages and are part of the certificate.

All calibrations have been conducted in the closed laboratory facility: environment temperature (22 ± 3)°C and humidity < 70%.

Calibration Equipment used (M&TE critical for calibration)

Primary Standards	ID #	Cal Date (Certificate No.)	Scheduled Calibration
Power meter EPM-442A	GB37480704	04-Oct-07 (No. 217-00736)	Oct-08
Power sensor HP 8481A	US37292783	04-Oct-07 (No. 217-00736)	Oct-08
Reference 20 dB Attenuator	SN: 5086 (20g)	01-Jul-08 (No. 217-00864)	Jul-09
Type-N mismatch combination	SN: 5047.2 / 06327	01-Jul-08 (No. 217-00867)	Jul-09
Reference Probe ES3DV2	SN: 3025	28-Apr-08 (No. ES3-3025_Apr08)	Apr-09
DAE4	SN 601	14-Mar-08 (No. DAE4-601_Mar08)	Mar-09

Secondary Standards	ID #	Check Date (in house)	Scheduled Check
Power sensor HP 8481A	MY41092317	18-Oct-02 (in house check Oct-07)	In house check: Oct-09
RF generator R&S SMT-06	100005	4-Aug-99 (in house check Oct-07)	In house check: Oct-09
Network Analyzer HP 8753E	US37390585 S4206	18-Oct-01 (in house check Oct-07)	In house check: Oct-08

	Name	Function	Signature
Calibrated by:	Jeton Kastrati	Laboratory Technician	
Approved by:	Katja Pokovic	Technical Manager	

Issued: August 26, 2008

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Accreditation No.: **SCS 108**

Glossary:

TSL	tissue simulating liquid
ConvF	sensitivity in TSL / NORM x,y,z
N/A	not applicable or not measured

Calibration is Performed According to the Following Standards:

a) IEEE Std 1528-2003, "IEEE Recommended Practice for Determining the Peak Spatial-Averaged Specific Absorption Rate (SAR) in the Human Head from Wireless Communications Devices: Measurement Techniques", December 2003
b) IEC 62209-1, "Procedure to measure the Specific Absorption Rate (SAR) for hand-held devices used in close proximity to the ear (frequency range of 300 MHz to 3 GHz)", February 2005
c) Federal Communications Commission Office of Engineering & Technology (FCC OET), "Evaluating Compliance with FCC Guidelines for Human Exposure to Radiofrequency Electromagnetic Fields; Additional Information for Evaluating Compliance of Mobile and Portable Devices with FCC Limits for Human Exposure to Radiofrequency Emissions", Supplement C (Edition 01-01) to Bulletin 65

Additional Documentation:

d) DASY4/5 System Handbook

Methods Applied and Interpretation of Parameters:

- *Measurement Conditions:* Further details are available from the Validation Report at the end of the certificate. All figures stated in the certificate are valid at the frequency indicated.
- *Antenna Parameters with TSL:* The dipole is mounted with the spacer to position its feed point exactly below the center marking of the flat phantom section, with the arms oriented parallel to the body axis.
- *Feed Point Impedance and Return Loss:* These parameters are measured with the dipole positioned under the liquid filled phantom. The impedance stated is transformed from the measurement at the SMA connector to the feed point. The Return Loss ensures low reflected power. No uncertainty required.
- *Electrical Delay:* One-way delay between the SMA connector and the antenna feed point. No uncertainty required.
- *SAR measured:* SAR measured at the stated antenna input power.
- *SAR normalized:* SAR as measured, normalized to an input power of 1 W at the antenna connector.
- *SAR for nominal TSL parameters:* The measured TSL parameters are used to calculate the nominal SAR result.

Measurement Conditions

DASY system configuration, as far as not given on page 1.

DASY Version	DASY5	V5.0
Extrapolation	Advanced Extrapolation	
Phantom	Modular Flat Phantom V4.9	
Distance Dipole Center - TSL	15 mm	with Spacer
Zoom Scan Resolution	dx, dy, dz = 5 mm	
Frequency	900 MHz ± 1 MHz	

Head TSL parameters

The following parameters and calculations were applied.

	Temperature	**Permittivity**	**Conductivity**
Nominal Head TSL parameters	22.0 °C	41.5	0.97 mho/m
Measured Head TSL parameters	(22.0 ± 0.2) °C	39.5 ± 6 %	0.93 mho/m ± 6 %
Head TSL temperature during test	(22.0 ± 0.2) °C	—	—

SAR result with Head TSL

SAR averaged over 1 cm³ (1 g) of Head TSL	Condition	
SAR measured	250 mW input power	2.64 mW / g
SAR normalized	normalized to 1W	10.6 mW / g
SAR for nominal Head TSL parameters [1]	normalized to 1W	**10.5 mW /g ± 17.0 % (k=2)**

SAR averaged over 10 cm³ (10 g) of Head TSL	condition	
SAR measured	250 mW input power	1.71 mW / g
SAR normalized	normalized to 1W	6.84 mW / g
SAR for nominal Head TSL parameters [1]	normalized to 1W	**6.78 mW /g ± 16.5 % (k=2)**

[1] Correction to nominal TSL parameters according to d), chapter "SAR Sensitivities"

Appendix

Antenna Parameters with Head TSL

Impedance, transformed to feed point	50.5 Ω - 6.0 jΩ
Return Loss	- 24.5 dB

General Antenna Parameters and Design

Electrical Delay (one direction)	1.390 ns

After long term use with 100W radiated power, only a slight warming of the dipole near the feedpoint can be measured.

The dipole is made of standard semirigid coaxial cable. The center conductor of the feeding line is directly connected to the second arm of the dipole. The antenna is therefore short-circuited for DC-signals.
No excessive force must be applied to the dipole arms, because they might bend or the soldered connections near the feedpoint may be damaged.

Additional EUT Data

Manufactured by	SPEAG
Manufactured on	September 20, 2000

DASY5 Validation Report for Head TSL

Date/Time: 25.08.2008 11:33:53

Test Laboratory: SPEAG, Zurich, Switzerland

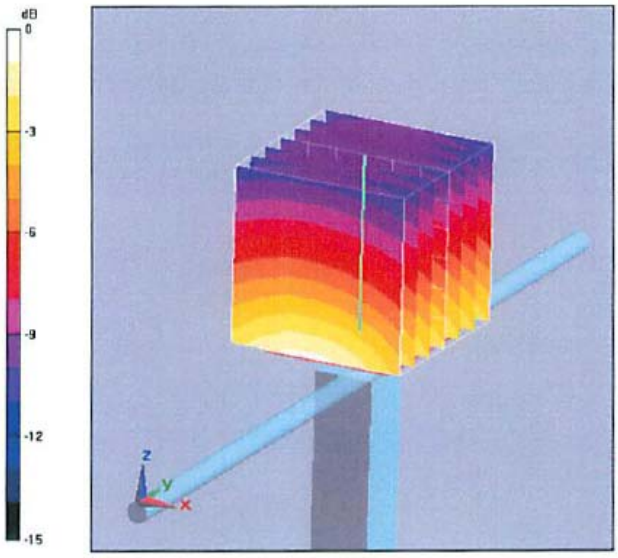
DUT: Dipole 900 MHz; Type: D900V2; Serial: D900V2 - SN:085

Communication System: CW-900; Frequency: 900 MHz; Duty Cycle: 1:1
Medium: HSL 900 MHz
Medium parameters used: f = 900 MHz; σ = 0.93 mho/m; ε_r = 39.5; ρ = 1000 kg/m^3
Phantom section: Flat Section
Measurement Standard: DASY5 (IEEE/IEC)

DASY5 Configuration:

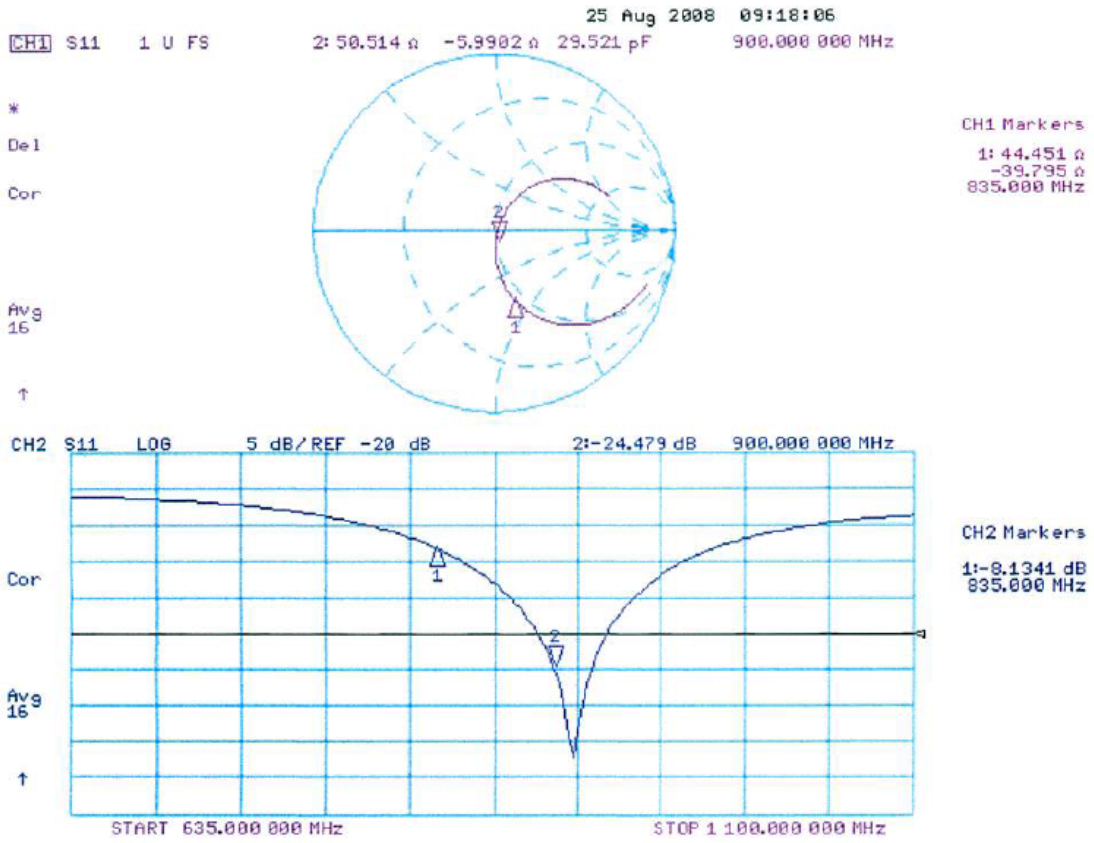
- Probe: ES3DV2 - SN3025; ConvF(5.78, 5.78, 5.78); Calibrated: 28.04.2008
- Sensor-Surface: 3.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn601; Calibrated: 14.03.2008
- Phantom: Flat Phantom 4.9L; Type: QD000P49AA; Serial: 1001
- Measurement SW: DASY5, V5.0 Build 119; SEMCAD X Version 13.2 Build 87

Pin=250mW; dip=15mm; dist=3.4mm/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 57.6 V/m; Power Drift = 0.032 dB
Peak SAR (extrapolated) = 3.92 W/kg
SAR(1 g) = 2.64 mW/g; SAR(10 g) = 1.71 mW/g
Maximum value of SAR (measured) = 2.97 mW/g



0 dB = 2.97mW/g

Impedance Measurement Plot for Head TSL



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Accreditation No.: SCS 108

Client **Motorola CGISS**

Certificate No: **D2450V2-704_Nov08**

CALIBRATION CERTIFICATE

Object	D2450V2 - SN: 704
Calibration procedure(s)	QA CAL-05.v7 Calibration procedure for dipole validation kits
Calibration date:	November 18, 2008
Condition of the calibrated item	In Tolerance

This calibration certificate documents the traceability to national standards, which realize the physical units of measurements (SI).
The measurements and the uncertainties with confidence probability are given on the following pages and are part of the certificate.

All calibrations have been conducted in the closed laboratory facility: environment temperature (22 ± 3)°C and humidity < 70%.

Calibration Equipment used (M&TE critical for calibration)

Primary Standards	ID #	Cal Date (Certificate No.)	Scheduled Calibration
Power meter EPM-442A	GB37480704	04-Oct-07 (No. 217-00736)	Oct-08
Power sensor HP 8481A	US37292783	04-Oct-07 (No. 217-00736)	Oct-08
Reference 20 dB Attenuator	SN: S5086 (20g)	01-Jul-08 (No. 217-00864)	Jul-09
Type-N mismatch combination	SN: 5047.2 / 06327	01-Jul-08 (No. 217-00867)	Jul-09
Reference Probe ES3DV2	SN: 3025	28-Apr-08 (No. ES3-3025_Apr08)	Apr-09
DAE4	SN: 601	14-Mar-08 (No. DAE4-601_Mar08)	Mar-09

Secondary Standards	ID #	Check Date (in house)	Scheduled Check
Power sensor HP 8481A	MY41092317	18-Oct-02 (in house check Oct-07)	In house check: Oct-09
RF generator R&S SMT-06	100005	4-Aug-99 (in house check Oct-07)	In house check: Oct-09
Network Analyzer HP 8753E	US37390585 S4206	18-Oct-01 (in house check Oct-08)	In house check: Oct-09

	Name	Function	Signature
Calibrated by:	Claudio Leubler	Laboratory Technician	
Approved by:	Katja Pokovic	Technical Manager	

Issued: November 18, 2008

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Calibration is Performed According to the Following Standards:

a) IEEE Std 1528-2003, "IEEE Recommended Practice for Determining the Peak Spatial-Averaged Specific Absorption Rate (SAR) in the Human Head from Wireless Communications Devices: Measurement Techniques", December 2003
b) IEC 62209-1, "Procedure to measure the Specific Absorption Rate (SAR) for hand-held devices used in close proximity to the ear (frequency range of 300 MHz to 3 GHz)", February 2005
c) Federal Communications Commission Office of Engineering & Technology (FCC OET), "Evaluating Compliance with FCC Guidelines for Human Exposure to Radiofrequency Electromagnetic Fields; Additional Information for Evaluating Compliance of Mobile and Portable Devices with FCC Limits for Human Exposure to Radiofrequency Emissions", Supplement C (Edition 01-01) to Bulletin 65

Additional Documentation:

d) DASY4/5 System Handbook

Methods Applied and Interpretation of Parameters:

- *Measurement Conditions:* Further details are available from the Validation Report at the end of the certificate. All figures stated in the certificate are valid at the frequency indicated.
- *Antenna Parameters with TSL:* The dipole is mounted with the spacer to position its feed point exactly below the center marking of the flat phantom section, with the arms oriented parallel to the body axis.
- *Feed Point Impedance and Return Loss:* These parameters are measured with the dipole positioned under the liquid filled phantom. The impedance stated is transformed from the measurement at the SMA connector to the feed point. The Return Loss ensures low reflected power. No uncertainty required.
- *Electrical Delay:* One-way delay between the SMA connector and the antenna feed point. No uncertainty required.
- *SAR measured:* SAR measured at the stated antenna input power.
- *SAR normalized:* SAR as measured, normalized to an input power of 1 W at the antenna connector.
- *SAR for nominal TSL parameters:* The measured TSL parameters are used to calculate the nominal SAR result.

Measurement Conditions

DASY system configuration, as far as not given on page 1.

DASY Version	DASY5	V5.0
Extrapolation	Advanced Extrapolation	
Phantom	Modular Flat Phantom V5.0	
Distance Dipole Center - TSL	10 mm	with Spacer
Zoom Scan Resolution	dx, dy, dz = 5 mm	
Frequency	2450 MHz ± 1 MHz	

Head TSL parameters

The following parameters and calculations were applied.

	Temperature	**Permittivity**	**Conductivity**
Nominal Head TSL parameters	22.0 °C	39.2	1.80 mho/m
Measured Head TSL parameters	(22.0 ± 0.2) °C	38.4 ± 6 %	1.84 mho/m ± 6 %
Head TSL temperature during test	(22.0 ± 0.2) °C	----	----

SAR result with Head TSL

SAR averaged over 1 cm³ (1 g) of Head TSL	Condition	
SAR measured	250 mW input power	13.5 mW / g
SAR normalized	normalized to 1W	54.0 mW / g
SAR for nominal Head TSL parameters [1]	normalized to 1W	**52.9 mW /g ± 17.0 % (k=2)**

SAR averaged over 10 cm³ (10 g) of Head TSL	condition	
SAR measured	250 mW input power	6.30 mW / g
SAR normalized	normalized to 1W	25.2 mW / g
SAR for nominal Head TSL parameters [1]	normalized to 1W	**24.9 mW /g ± 16.5 % (k=2)**

Appendix

Antenna Parameters with Head TSL

Impedance, transformed to feed point	53.7 Ω + 0.8 jΩ
Return Loss	- 28.8 dB

General Antenna Parameters and Design

Electrical Delay (one direction)	1.153 ns

After long term use with 100W radiated power, only a slight warming of the dipole near the feedpoint can be measured.

The dipole is made of standard semirigid coaxial cable. The center conductor of the feeding line is directly connected to the second arm of the dipole. The antenna is therefore short-circuited for DC-signals.
No excessive force must be applied to the dipole arms, because they might bend or the soldered connections near the feedpoint may be damaged.

Additional EUT Data

Manufactured by	SPEAG
Manufactured on	March 22, 2001

DASY5 Validation Report for Head TSL

Date/Time: 18.11.2008 12:27:36

Test Laboratory: SPEAG, Zurich, Switzerland

DUT: Dipole 2450 MHz; Type: D2450V2; Serial: D2450V2 - SN704

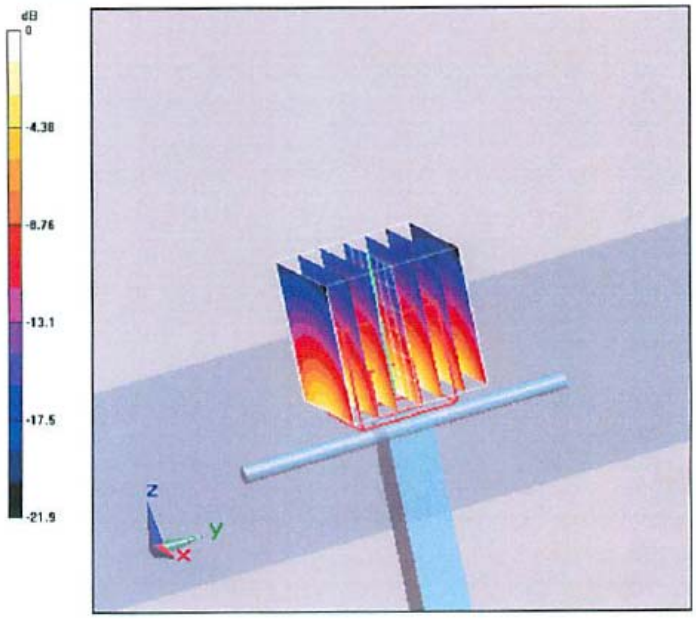
Communication System: CW; Frequency: 2450 MHz; Duty Cycle: 1:1
Medium: HSL U10 BB
Medium parameters used: f = 2450 MHz; σ = 1.84 mho/m; ε_r = 38.4; ρ = 1000 kg/m^3
Phantom section: Flat Section
Measurement Standard: DASY5 (IEEE/IEC)

DASY5 Configuration:

- Probe: ES3DV2 - SN3025; ConvF(4.4, 4.4, 4.4); Calibrated: 28.04.2008
- Sensor-Surface: 3.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn601; Calibrated: 14.03.2008
- Phantom: Flat Phantom 5.0 (front); Type: QD000P50AA; Serial: 1001
- Measurement SW: DASY5, V5.0 Build 120; SEMCAD X Version 13.4 Build 45

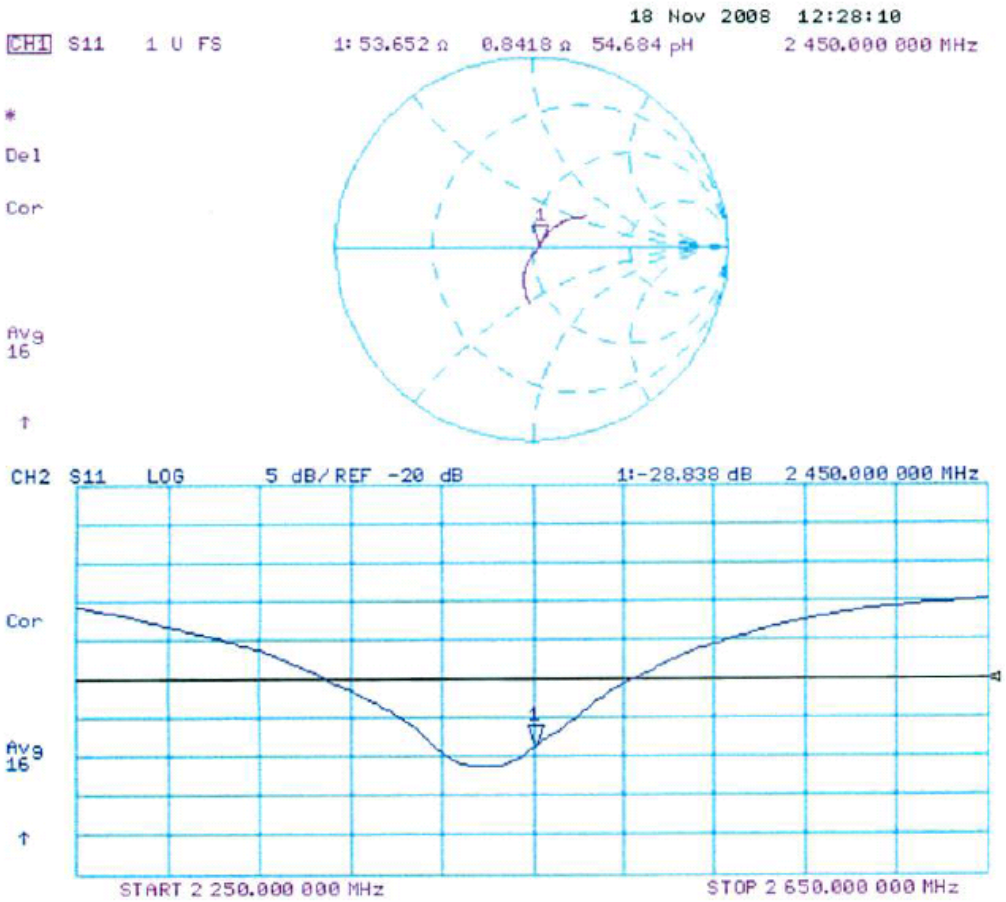
Pin = 250 mW; d = 10 mm/Zoom Scan (7x7x7)/Cube 0:

Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 96.3 V/m; Power Drift = 0.028 dB
Peak SAR (extrapolated) = 28.4 W/kg
SAR(1 g) = 13.5 mW/g; SAR(10 g) = 6.3 mW/g
Maximum value of SAR (measured) = 16.3 mW/g



0 dB = 16.3mW/g

Impedance Measurement Plot for Head TSL



Appendix D
Test System Verification Scans

The SAR result indicated on the Manufacture's Calibrated certificate for dipoles D835V2 S/N 435, D900V2 S/N 085 and D2450V2 S/N 704 was not used due to the following:

-- The IEEE1528-2003 and the FCC OET-65 Supplement C, System Verification section indicated that "The measured 1-g SAR should be within 10% of the expected target values specified for the specific phantom and RF source used in the system verification measurement."

-- SPEAG calibration certificates indicated that the allowed tolerance for these dipoles is higher than +/-10% (i.e. 17% K=2).

-- The allowed tolerance for the probes is also higher than +/- 10%

Due to probe, dipole and system tolerances noted above, the lab averages dipole results across multiple probes to establish a set of averaged targets for each dipole using the following procedure:
• The System Validation was conducted per IEEE1528-2003 and the latest draft of IEC62209-2 (10/3/08) standards using the simulated head tissue and multiple probes that are available and applicable for the dipole under test to verify the System Validation. Results for this dipole are within the measurement system uncertainty of the reference SAR values indicated within the latest draft of IEC62209-2 (10/3/08) when uses flat phantom with 2mm thickness is used. These results then are averaged and used as the target for the daily system performance check when the simulated head tissue is used.
•The dipole targets for the body are set immediately following the same process noted above. Since there are no standards referencing SAR values for System Validation using the simulated body tissue, the compliant System Validation results using the simulated head tissue are used to justify the use of the System Validation results with the simulated body tissue and same setup except for the simulated tissue type.

The targets set in this report were conducted following the above process.

Note that the target set for the tested dipole, when using the simulated head tissue, meets the requirement for the system validation per IEEE1528-2003 and the latest draft of IEC62209-2 (10/3/08) standards. The difference between this result and the result from the manufacture's dipole calibration certificate is 0.2% for the 835MHz dipole, 8.7% for the 900MHz dipole and 7.61% for the 2450 dipole which are within the system measurement uncertainty at k=2.

To assess the isotropic characteristics of the measurement probe, a probe rotation was performed using the "Rotation (1D)" function in the DASY software with a measured isotropy tolerance of +/- 0.5dB.

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Date/Time: 5/4/2009 5:14:52 PM

Robot# / Run#: DASY4-FL-3 / MeC-SYSP-835H-090504-01
Phantom# / Tissue Temp.: SAMTP1234 / 20.5 (C)
Dipole Model# / Serial#: D835V2 / 435
TX Freq. / Start power: 835 (MHz) / 250 (mW)

Target: 9.53 mW/g (1g)
Calculated: 9.36 mW/g (1g)
Percent from Target (+/-): 1.8 % (1g)
Rotation (1D): 0.19 dB

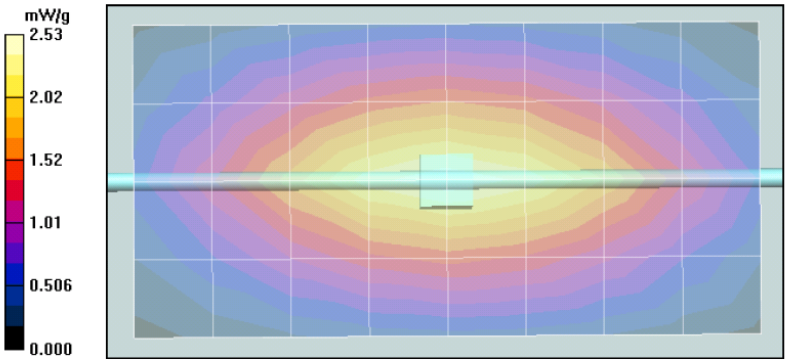
Comments:

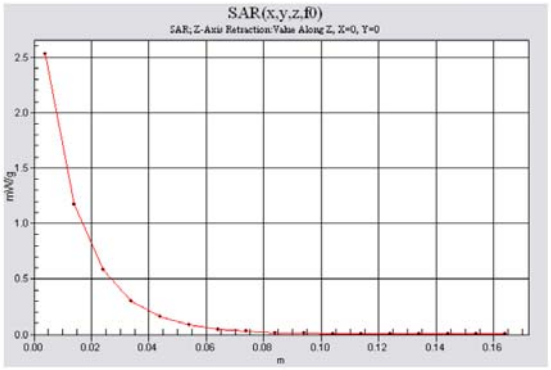
Probe: ES3DV3 - SN3185, Calibrated: 11/18/2008, ConvF(5.56, 5.56, 5.56)
Electronics: DAE3 Sn401, Calibrated: 7/18/2008
Duty Cycle: 1:1, Medium parameters used: f = 835 MHz; σ = 0.88 mho/m; ε_r = 42.1; ρ = 1000 kg/m^3

System Performance Check/0-Degree 5x5x7 Cube (5x5x7)/Cube 0: Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm
Reference Value = 54.4 V/m; Power Drift = 0.011 dB
Peak SAR (extrapolated) = 3.38 W/kg
SAR(1 g) = 2.33 mW/g; SAR(10 g) = 1.52 mW/g
Maximum value of SAR (measured) = 2.52 mW/g

System Performance Check/Dipole Area Scan 2 (41x81x1): Measurement grid: dx=15mm, dy=15mm
Reference Value = 54.4 V/m; Power Drift = 0.011 dB
Motorola Fast SAR: SAR(1 g) = 2.34 mW/g; SAR(10 g) = 1.58 mW/g
Maximum value of SAR (interpolated) = 2.52 mW/g

System Performance Check/Z-Axis Retraction (1x1x17): Measurement grid: dx=20mm, dy=20mm, dz=10mm
Maximum value of SAR (measured) = 2.53 mW/g





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Date/Time: 5/5/2009 6:48:58 AM

Robot# / Run#: DASY4-FL-3 / JsT-SYSP-835H-090505-01
Phantom# / Tissue Temp.: SAMTP1234 / 19.7 (C)
Dipole Model# / Serial#: D835V2 / 435
TX Freq. / Start power: 835 (MHz) / 250 (mW)

Target:	9.53 mW/g	(1g)
Calculated:	9.64 mW/g	(1g)
Percent from Target (+/-):	1.2 %	(1g)
Rotation (1D):	0.087 dB	

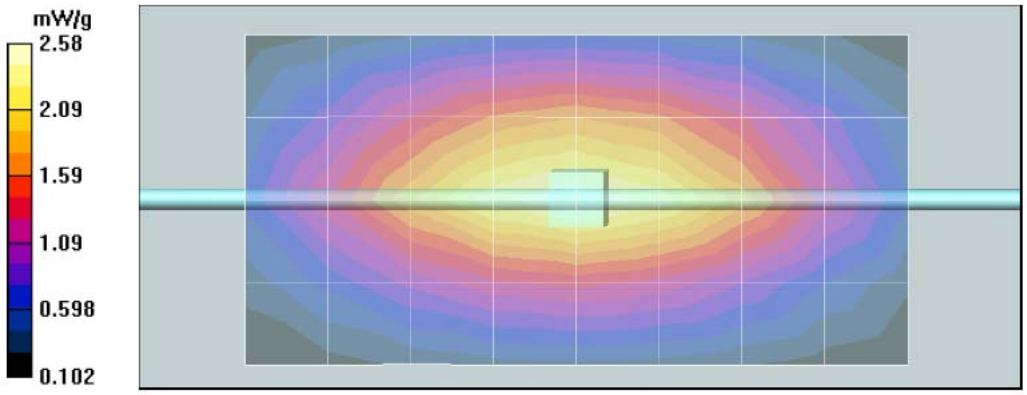
Comments:

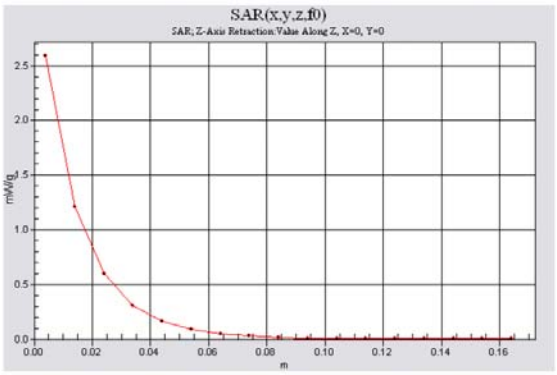
Probe: ES3DV3 - SN3185, Calibrated: 11/18/2008, ConvF(5.56, 5.56, 5.56)
Electronics: DAE3 Sn401, Calibrated: 7/18/2008
Duty Cycle: 1:1, Medium parameters used: f = 835 MHz; σ = 0.88 mho/m; ε_r = 42.6; ρ = 1000 kg/m^3

System Performance Check/0-Degree 5x5x7 Cube (5x5x7)/Cube 0: Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm
Reference Value = 55.3 V/m; Power Drift = -0.002 dB
Peak SAR (extrapolated) = 3.51 W/kg
SAR(1 g) = 2.41 mW/g; SAR(10 g) = 1.58 mW/g
Maximum value of SAR (measured) = 2.61 mW/g

System Performance Check/Dipole Area Scan 2 (5x9x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (measured) = 2.58 mW/g

System Performance Check/Z-Axis Retraction (1x1x17): Measurement grid: dx=20mm, dy=20mm, dz=10mm
Maximum value of SAR (measured) = 2.59 mW/g





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Date/Time: 5/6/2009 6:45:25 AM

Robot# / Run#: DASY4-FL-3 / JsT-SYSP-835H-090506-01
Phantom# / Tissue Temp.: SAMTP1234 / 19.5 (C)
Dipole Model# / Serial#: D835V2 / 435
TX Freq. / Start power: 835 (MHz) / 250 (mW)

Target:	9.53 mW/g	(1g)
Calculated:	9.40 mW/g	(1g)
Percent from Target (+/-):	1.4 %	(1g)
Rotation (1D):	0.15 dB	

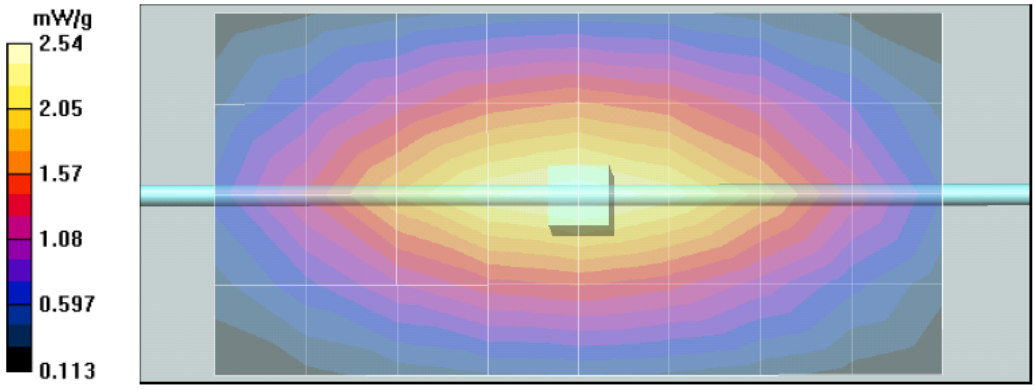
Comments:

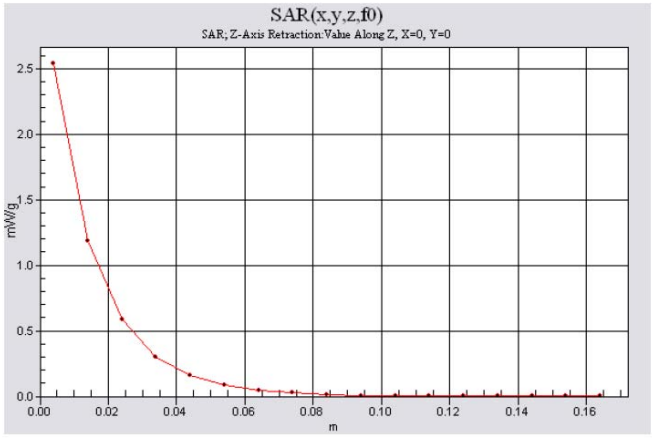
Probe: ES3DV3 - SN3185, Calibrated: 11/18/2008, ConvF(5.56, 5.56, 5.56)
Electronics: DAE3 Sn401, Calibrated: 7/18/2008
Duty Cycle: 1:1, Medium parameters used: f = 835 MHz; σ = 0.89 mho/m; ε_r = 43.2; ρ = 1000 kg/m^3

System Performance Check/0-Degree 5x5x7 Cube (5x5x7)/Cube 0: Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm
Reference Value = 54.3 V/m; Power Drift = 0.00215 dB
Peak SAR (extrapolated) = 3.40 W/kg
SAR(1 g) = 2.35 mW/g; SAR(10 g) = 1.54 mW/g
Maximum value of SAR (measured) = 2.54 mW/g

System Performance Check/Dipole Area Scan 2 (5x9x1): Measurement grid: dx=15mm, dy=15mm

System Performance Check/Z-Axis Retraction (1x1x17): Measurement grid: dx=20mm, dy=20mm, dz=10mm





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Date/Time: 5/7/2009 7:29:26 AM

Robot# / Run#: DASY4-FL-3 / JsT-SYSP-835H-090507-01
Phantom# / Tissue Temp.: SAMTP1234 / 19.8 (C)
Dipole Model# / Serial#: D835V2 / 435
TX Freq. / Start power: 835 (MHz) / 250 (mW)

Target:	9.53 mW/g	(1g)
Calculated:	9.64 mW/g	(1g)
Percent from Target (+/-):	1.2 %	(1g)
Rotation (1D):	0.16 dB	

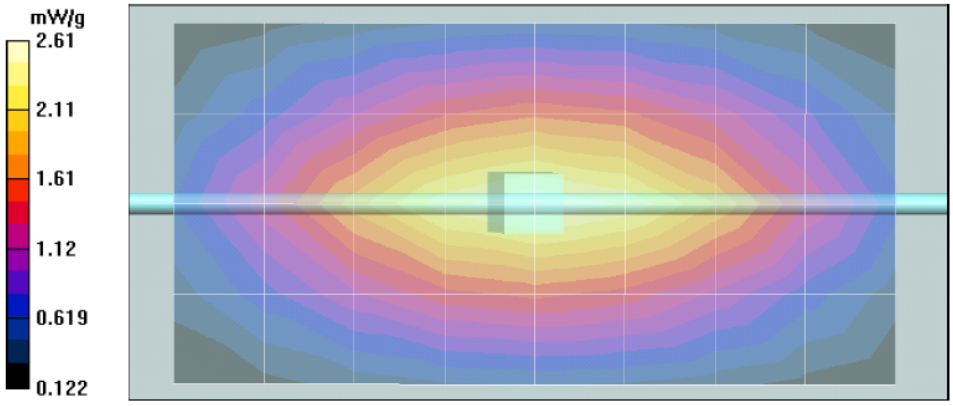
Comments:

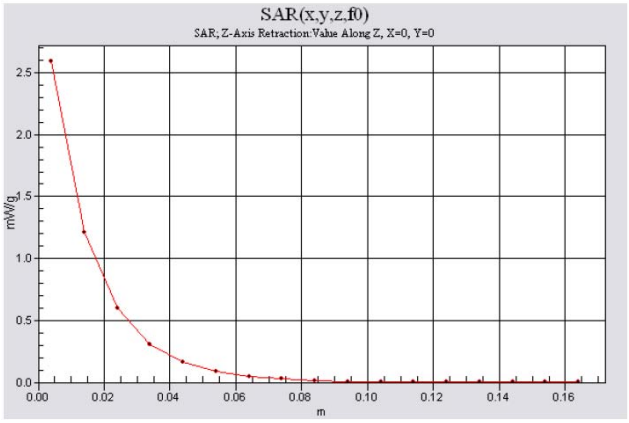
Probe: ES3DV3 - SN3185, Calibrated: 11/18/2008, ConvF(5.56, 5.56, 5.56)
Electronics: DAE3 Sn401, Calibrated: 7/18/2008
Duty Cycle: 1:1, Medium parameters used: f = 835 MHz; σ = 0.92 mho/m; ε_r = 43.2; ρ = 1000 kg/m^3

System Performance Check/0-Degree 5x5x7 Cube (5x5x7)/Cube 0: Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm
Reference Value = 54.1 V/m; Power Drift = -0.000271 dB
Peak SAR (extrapolated) = 3.48 W/kg
SAR(1 g) = 2.41 mW/g; SAR(10 g) = 1.58 mW/g
Maximum value of SAR (measured) = 2.61 mW/g

System Performance Check/Dipole Area Scan 2 (5x9x1): Measurement grid: dx=15mm, dy=15mm

System Performance Check/Z-Axis Retraction (1x1x17): Measurement grid: dx=20mm, dy=20mm, dz=10mm
Maximum value of SAR (measured) = 2.59 mW/g





Motorola Government & Public Safety EME Laboratory

Date/Time: 5/8/2009 7:34:42 AM

Robot# / Run#: DASY4-FL-3 / JsT-SYSP-900H-090508-01
Phantom# / Tissue Temp.: SAMTP1234 / 19.6 (C)
Dipole Model# / Serial#: D900V2 / 085
TX Freq. / Start power: 900 (MHz) / 250 (mW)

Target: 11.50 mW/g (1g)
Calculated: 10.40 mW/g (1g)
Percent from Target (+/-): 9.6 % (1g)
Rotation (1D): 0.16 dB

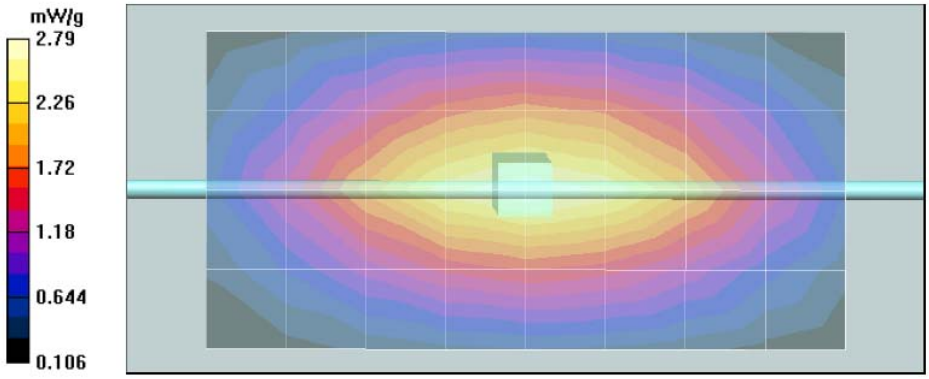
Comments:

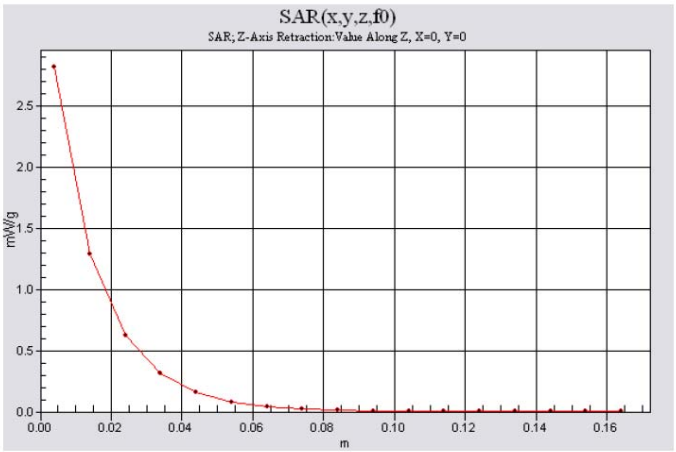
Probe: ES3DV3 - SN3185, Calibrated: 11/18/2008, ConvF(5.56, 5.56, 5.56)
Electronics: DAE3 Sn401, Calibrated: 7/18/2008
Duty Cycle: 1:1, Medium parameters used: f = 900 MHz; σ = 0.95 mho/m; ε_r = 41.1; ρ = 1000 kg/m^3

System Performance Check/0-Degree 5x5x7 Cube (5x5x7)/Cube 0: Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm
Reference Value = 55.3 V/m; Power Drift = 0.0127 dB
Peak SAR (extrapolated) = 3.78 W/kg
SAR(1 g) = 2.6 mW/g; SAR(10 g) = 1.7 mW/g
Maximum value of SAR (measured) = 2.81 mW/g

System Performance Check/Dipole Area Scan 2 (5x9x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (measured) = 2.79 mW/g

System Performance Check/Z-Axis Retraction (1x1x17): Measurement grid: dx=20mm, dy=20mm, dz=10mm
Maximum value of SAR (measured) = 2.82 mW/g





Motorola Government & Public Safety EME Laboratory
Date/Time: 5/9/2009 5:27:50 AM

Robot# / Run#: DASY4-FL-3 / HvH-SYSP-900B-090509-01
Phantom# / Tissue Temp.: OVAL1019 / 19.0 (C)
Dipole Model# / Serial#: D900V2 / 085
TX Freq. / Start power: 900 (MHz) / 250 (mW)

Target: 11.30 mW/g (1g)
Calculated: 10.72 mW/g (1g)
Percent from Target (+/-): 5.1 % (1g)
Rotation (1D): 0.16 dB

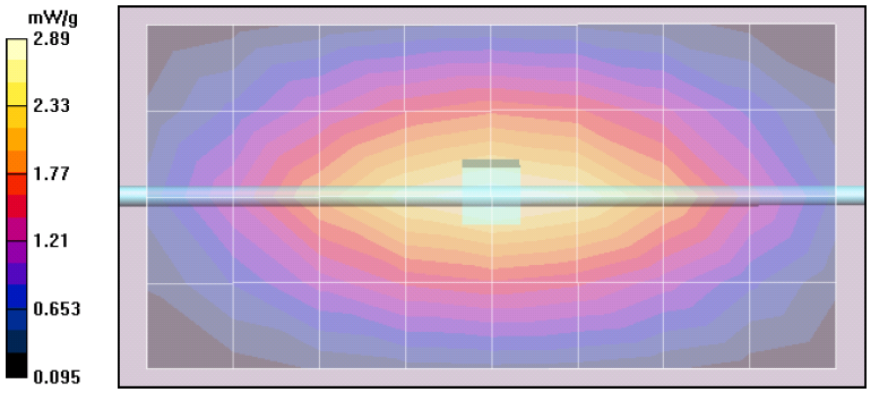
Comments:

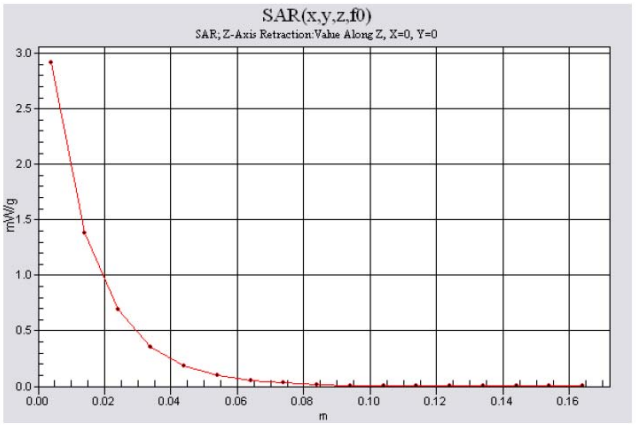
Probe: ES3DV3 - SN3185, Calibrated: 11/18/2008, ConvF(5.48, 5.48, 5.48)
Electronics: DAE3 Sn401, Calibrated: 7/18/2008
Duty Cycle: 1:1, Medium parameters used: f = 900 MHz; σ = 1.04 mho/m; ε_r = 54.7; ρ = 1000 kg/m^3

System Performance Check/0-Degree 5x5x7 Cube (5x5x7)/Cube 0: Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm
Reference Value = 53.5 V/m; Power Drift = 0.0196 dB
Peak SAR (extrapolated) = 3.88 W/kg
SAR(1 g) = 2.68 mW/g; SAR(10 g) = 1.76 mW/g
Maximum value of SAR (measured) = 2.89 mW/g

System Performance Check/Dipole Area Scan 2 (41x81x1): Measurement grid: dx=15mm, dy=15mm
Reference Value = 53.5 V/m; Power Drift = 0.0196 dB
Motorola Fast SAR: SAR(1 g) = 2.69 mW/g; SAR(10 g) = 1.81 mW/g
Maximum value of SAR (interpolated) = 2.89 mW/g

System Performance Check/Z-Axis Retraction (1x1x17): Measurement grid: dx=20mm, dy=20mm, dz=10mm
Maximum value of SAR (measured) = 2.92 mW/g





Motorola Government & Public Safety EME Laboratory

Date/Time: 5/11/2009 4:02:50 PM

Robot# / Run#: DASY4-FL-3 / HvH-SYSP-835B-090511-01
Phantom# / Tissue Temp.: OVAL1019 / 20.5 (C)
Dipole Model# / Serial#: D835V2 / 435
TX Freq. / Start power: 835 (MHz) / 250 (mW)

Target: 9.8 mW/g (1g)
Calculated: 9.2 mW/g (1g)
Percent from Target (+/-): 6.1 % (1g)
Rotation (1D): 0.16 dB

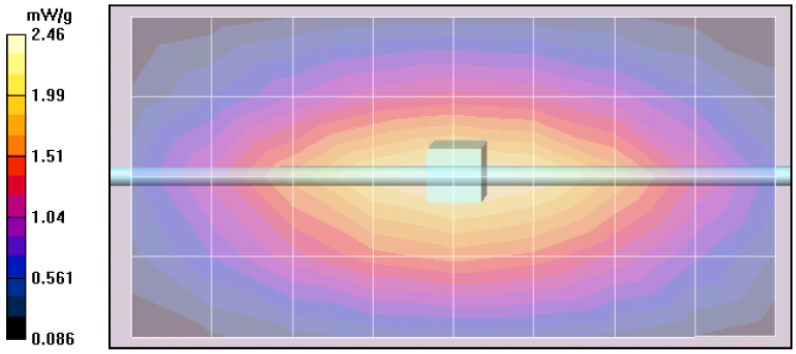
Comments:

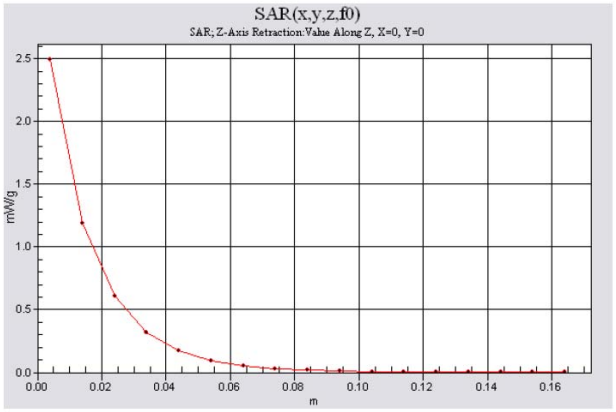
Probe: ES3DV3 - SN3185, Calibrated: 11/18/2008, ConvF(5.48, 5.48, 5.48)
Electronics: DAE3 Sn401, Calibrated: 7/18/2008
Duty Cycle: 1:1, Medium parameters used: f = 835 MHz; σ = 0.97 mho/m; ε_r = 55.1; ρ = 1000 kg/m^3

System Performance Check/0-Degree 5x5x7 Cube (5x5x7)/Cube 0: Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm
Reference Value = 51.3 V/m; Power Drift = 0.0314 dB
Peak SAR (extrapolated) = 3.32 W/kg
SAR(1 g) = 2.3 mW/g; SAR(10 g) = 1.52 mW/g
Maximum value of SAR (measured) = 2.49 mW/g

System Performance Check/Dipole Area Scan 2 (41x81x1): Measurement grid: dx=15mm, dy=15mm
Reference Value = 51.3 V/m; Power Drift = 0.0314 dB
Motorola Fast SAR: SAR(1 g) = 2.31 mW/g; SAR(10 g) = 1.55 mW/g
Maximum value of SAR (interpolated) = 2.48 mW/g

System Performance Check/Z-Axis Retraction (1x1x17): Measurement grid: dx=20mm, dy=20mm, dz=10mm





Motorola Government & Public Safety EME Laboratory

Date/Time: 5/14/2009 10:36:19 AM

Robot# / Run#: DASY4-FL-3 / HvH-SYSP-900B-090514-01
Phantom# / Tissue Temp.: OVAL1019 / 20.4 (C)
Dipole Model# / Serial#: D900V2 / 085
TX Freq. / Start power: 900 (MHz) / 250 (mW)

Target: 11.30 mW/g (1g)
Calculated: 10.76 mW/g (1g)
Percent from Target (+/-): 4.8 % (1g)
Rotation (1D): 0.13 dB

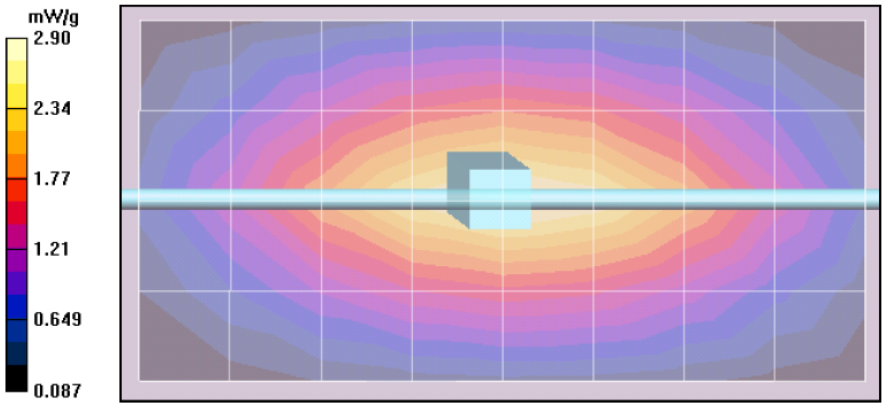
Comments:

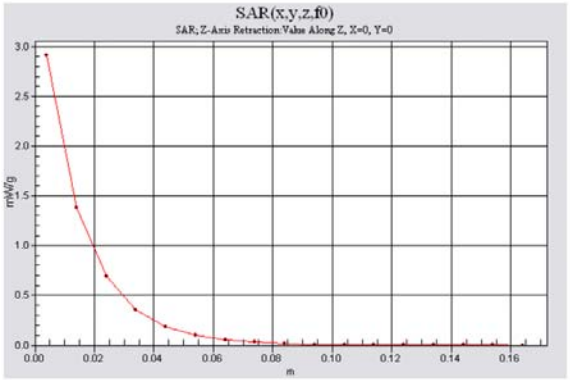
Probe: ES3DV3 - SN3185, Calibrated: 11/18/2008, ConvF(5.48, 5.48, 5.48)
Electronics: DAE3 Sn401, Calibrated: 7/18/2008
Duty Cycle: 1:1, Medium parameters used: f = 900 MHz; σ = 1.04 mho/m; ε_r = 54; ρ = 1000 kg/m^3

System Performance Check/0-Degree 5x5x7 Cube (5x5x7)/Cube 0: Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm
Reference Value = 53.7 V/m; Power Drift = 0.0119 dB
Peak SAR (extrapolated) = 3.91 W/kg
SAR(1 g) = 2.69 mW/g; SAR(10 g) = 1.77 mW/g
Maximum value of SAR (measured) = 2.91 mW/g

System Performance Check/Dipole Area Scan 2 (41x81x1): Measurement grid: dx=15mm, dy=15mm
Reference Value = 53.7 V/m; Power Drift = 0.0119 dB
Motorola Fast SAR: SAR(1 g) = 2.7 mW/g; SAR(10 g) = 1.81 mW/g
Maximum value of SAR (interpolated) = 2.91 mW/g

System Performance Check/Z-Axis Retraction (1x1x17): Measurement grid: dx=20mm, dy=20mm, dz=10mm





Motorola Government & Public Safety EME Laboratory

Date/Time: 5/15/2009 12:38:52 PM

Robot# / Run#: DASY4-FL-3 / HvH-SYSP-900H-090515-01
Phantom# / Tissue Temp.: SAMTP1234 / 20.0 (C)
Dipole Model# / Serial#: D900V2 / 085
TX Freq. / Start power: 900 (MHz) / 250 (mW)

Target: 11.50 mW/g (1g)
Calculated: 10.48 mW/g (1g)
Percent from Target (+/-): 8.9 % (1g)
Rotation (1D): 0.23 dB

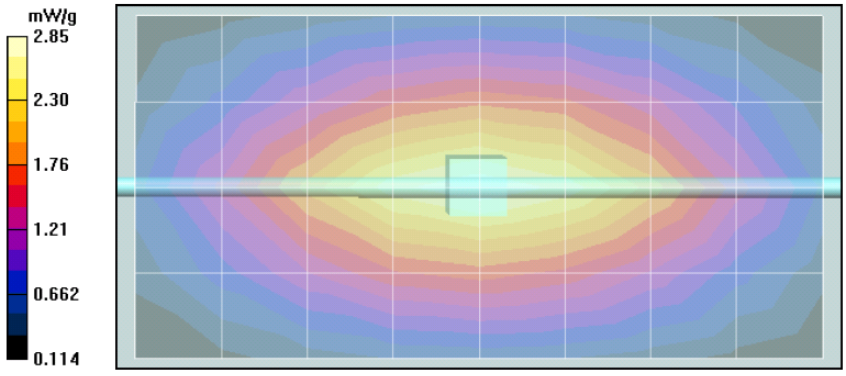
Comments:

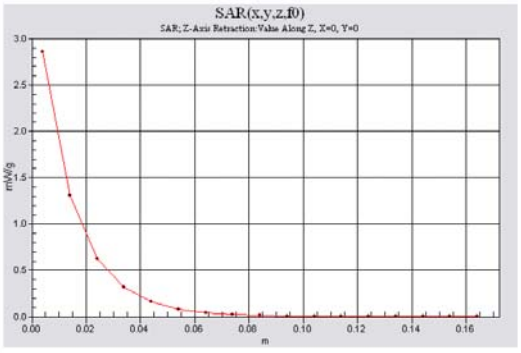
Probe: ES3DV3 - SN3185, Calibrated: 11/18/2008, ConvF(5.56, 5.56, 5.56)
Electronics: DAE3 Sn401, Calibrated: 7/18/2008
Duty Cycle: 1:1, Medium parameters used: f = 900 MHz; σ = 0.96 mho/m; ε_r = 41.2; ρ = 1000 kg/m^3

System Performance Check/0-Degree 5x5x7 Cube (5x5x7)/Cube 0: Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm
Reference Value = 55.5 V/m; Power Drift = 0.00577 dB
Peak SAR (extrapolated) = 3.82 W/kg
SAR(1 g) = 2.62 mW/g; SAR(10 g) = 1.71 mW/g
Maximum value of SAR (measured) = 2.83 mW/g

System Performance Check/Dipole Area Scan 2 (41x81x1): Measurement grid: dx=15mm, dy=15mm
Reference Value = 55.5 V/m; Power Drift = 0.00577 dB
Motorola Fast SAR: SAR(1 g) = 2.65 mW/g; SAR(10 g) = 1.79 mW/g
Maximum value of SAR (interpolated) = 2.85 mW/g

System Performance Check/Z-Axis Retraction (1x1x17): Measurement grid: dx=20mm, dy=20mm, dz=10mm
Maximum value of SAR (measured) = 2.86 mW/g





Motorola Government & Public Safety EME Laboratory

Date/Time: 5/9/2009 8:27:02 PM

Robot# / Run#: DASY4-FL-3 / MeC-SYSP-2450B-090509-25
Phantom# / Tissue Temp.: DUAL1003-A / 20.6 (C)
Dipole Model# / Serial#: D2450V2 / 704
TX Freq. / Start power: 2450 (MHz) / 30 (mW)

Target: 56.93 mW/g (1g)
Calculated: 55.20 mW/g (1g)
Percent from Target (+/-): 3.0 % (1g)
Rotation (1D): 0.18 dB

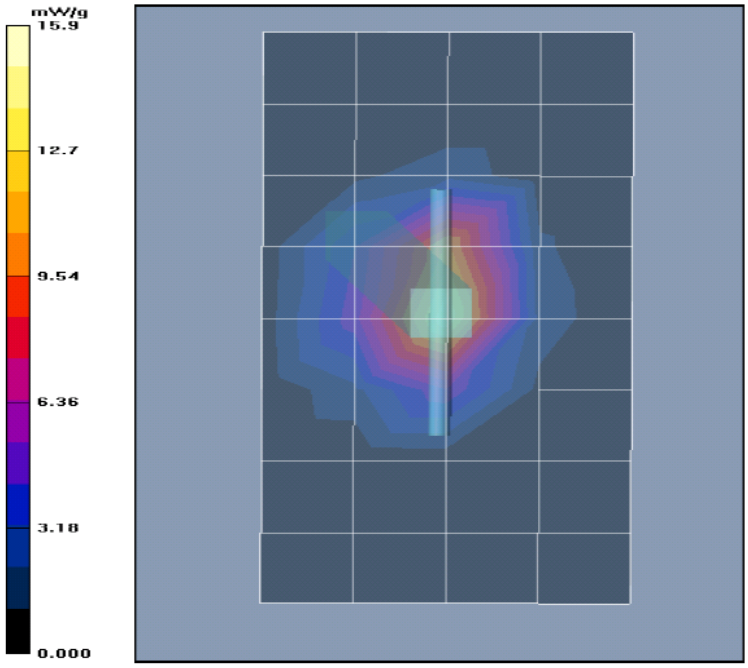
Comments:

Probe: ES3DV3 - SN3185, Calibrated: 11/18/2008, ConvF(3.86, 3.86, 3.86)
Electronics: DAE3 Sn401, Calibrated: 7/18/2008
Duty Cycle: 1:1, Medium parameters used: f = 2450 MHz; σ = 1.9 mho/m; ε_r = 50.1; ρ = 1000 kg/m^3

System Performance Check/0-Degree 5x5x7 Cube (5x5x7)/Cube 0: Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm
Reference Value = 91.9 V/m; Power Drift = -0.00584 dB
Peak SAR (extrapolated) = 28.4 W/kg
SAR(1 g) = 13.8 mW/g; SAR(10 g) = 6.41 mW/g
Maximum value of SAR (measured) = 15.7 mW/g

System Performance Check/Dipole Area Scan 2 (41x81x1): Measurement grid: dx=15mm, dy=15mm
Reference Value = 91.9 V/m; Power Drift = -0.00584 dB
Motorola Fast SAR: SAR(1 g) = 13.6 mW/g; SAR(10 g) = 5.77 mW/g
Maximum value of SAR (interpolated) = 17.2 mW/g

System Performance Check/Z-Axis Retraction (1x1x17): Measurement grid: dx=20mm, dy=20mm, dz=10mm
Maximum value of SAR (measured) = 15.9 mW/g



DIPOLE SAR TARGET - HEAD

Date:	**12/04/08**	Frequency (MHz):	**835**
Lab Location:	(FL08)-G&PS	Mixture Type:	**IEEE Head**
DAE Serial #:	805	Ambient Temp.(°C):	21.7

Tissue Characteristics			
Permitivity:	40.7	Phantom Type/SN:	SAMTP1022
Conductivity:	0.90	Distance (mm):	15
Tissue Temp.(°C):	21.5		

Reference Source:	Dipole	Power to Dipole:	250 mW
Reference SN:	**435**		

Target 1g-SAR Value (mW/g, normalized to 1.0 W):	**Difference from Target**
9.56	**-0.28% (1g-SAR)**

New Target:

Average 1g-SAR Value (mW/g):	**9.53**

Passes K=2

Percent Difference From Target (MUST be within k=2 Uncertainty):

Probe SN #s	1g-SAR (Cube)	Diff from Ave	Robot
1547	9.32	-2.3%	R2
1384	9.72	1.9%	R2
3185	9.56	0.3%	R2
		#DIV/0!	
		#DIV/0!	
Average	**9.5333**	New Measured SAR Value	

(normalized to 1.0 W)

Test performed by: **Ed Church** Initial: E r C

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DIPOLE SAR TARGET - BODY

Date:	**12/04/08**	Frequency (MHz):	**835**
Lab Location:	(FL08)-G&PS	Mixture Type:	**Body**
DAE Serial #:	805	Ambient Temp.(°C):	21.8

Tissue Characteristics

Permitivity:	53.2	Phantom Type/SN:	OVAL1022
Conductivity:	1.00	Distance (mm):	15
Tissue Temp.(°C):	21.3		

Reference Source:	Dipole	Power to Dipole:	250 mW
Reference SN:	**435**		

New Target:
Average Measured SAR Value: **9.80** mW/g(1g avg.),

Probe SN #s	1-G Cube	Diff from Ave	Robot
3185	9.92	1.2%	R2
1384	9.88	0.8%	R2
1547	9.60	-2.0%	R2
		-100.0%	
		-100.0%	
Average	**9.8000**	New Measured SAR Value	

(normalized to 1.0 W)

Test performed by: **Ed Church** Initial: E. C

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DIPOLE SAR TARGET - HEAD

Date:	03/12/09	Frequency (MHz):	900
Lab Location:	FL08-G&PS	Mixture Type:	IEEE Head
DAE Serial #:	401	Ambient Temp.(°C):	20.8

Tissue Characteristics

Permitivity:	42.5	Phantom Type/SN:	OVAL1016
Conductivity:	1.01	Distance (mm):	15
Tissue Temp.(°C):	21.4		

Reference Source:	Dipole	Power to Dipole:	250 mW
Reference SN:	85		

Target 1g-SAR Value (mW/g, normalized to 1.0 W):

10.9

Difference from Target

5.50% (1g-SAR)

New Target:

Average 1g-SAR Value (mW/g):	11.50

Passes K=2

Percent Difference From Target (MUST be within k=2 Uncertainty):

Probe SN #s	1g-SAR (Cube)	Diff from Ave	Robot
3185	11.36	-1.2%	R2
3147	11.64	1.2%	R2
N/A	N/A	#VALUE!	N/A
N/A	N/A	#VALUE!	N/A
N/A	N/A	#VALUE!	N/A
Average	**11.5000**	New Measured SAR Value	

(normalized to 1.0 W)

Test performed by: **J. Turco** Initial:

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DIPOLE SAR TARGET - BODY

Date:	03/12/09	Frequency (MHz):	900
Lab Location:	FL08-G&PS	Mixture Type:	FCC Body
DAE Serial #:	401	Ambient Temp.(°C):	20.9

Tissue Characteristics

Permitivity:	52.6	Phantom Type/SN:	OVAL1022
Conductivity:	1.04	Distance (mm):	15
Tissue Temp.(°C):	21.5		

Reference Source:	Dipole	Power to Dipole:	250 mW
Reference SN:	85		

New Target:
Average Measured SAR Value: **11.30** mW/g(1g avg.),

Probe SN #s	1-G Cube	Diff from Ave	Robot
3185	11.20	-0.9%	R2
3147	11.40	0.9%	R2
N/A	N/A	#VALUE!	N/A
N/A	N/A	#VALUE!	N/A
N/A	N/A	#VALUE!	N/A
Average	11.3000	New Measured SAR Value	

(normalized to 1.0 W)

Test performed by: J. Turco Initial:

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DIPOLE SAR TARGET - HEAD

Date:	**12/23/08**	Frequency (MHz):	**2450**
Lab Location:	(FL08)-G&PS	Mixture Type:	**IEEE Head**
DAE Serial #:	850	Ambient Temp.(°C):	21.6

Tissue Characteristics			
Permitivity:	37.9	Phantom Type/SN:	SAMTP1208
Conductivity:	1.85	Distance (mm):	10
Tissue Temp.(°C):			

Reference Source:	Dipole	Power to Dipole:	100 mW
Reference SN:	**704**		

Target 1g-SAR Value (mW/g, normalized to 1.0 W):	**Difference from Target**
52.4	**8.40% (1g-SAR)**

New Target:

Average 1g-SAR Value (mW/g):	**56.80**

Passes K=2

Percent Difference From Target (MUST be within k=2 Uncertainty):

Probe SN #s	1g-SAR (Cube)	Diff from Ave	Robot
1547	57.20	0.7%	R2
1393	55.50	-2.3%	R2
1545	57.70	1.6%	R2
		#DIV/0!	
		#DIV/0!	
Average	**56.8000**	New Measured SAR Value	

(normalized to 1.0 W)

Test performed by: **Ed Church** Initial: _____

DIPOLE SAR TARGET - BODY

Date:	**12/23/08**	Frequency (MHz):	**2450**
Lab Location:	(FL08)-G&PS	Mixture Type:	**Body**
DAE Serial #:	850	Ambient Temp.(°C):	21.9

Tissue Characteristics

Permitivity:	50.8	Phantom Type/SN:	OVAL1018
Conductivity:	2.02	Distance (mm):	10
Tissue Temp.(°C):			

Reference Source:	Dipole	Power to Dipole:	100 mW
Reference SN:	**704**		

New Target:

Average Measured SAR Value: **56.93** mW/g(1g avg.),

Probe SN #s	1-G Cube	Diff from Ave	Robot
1545	58.50	2.8%	R2
1393	55.50	-2.5%	R2
1547	56.80	-0.2%	R2
		-100.0%	
		-100.0%	
Average	**56.9333**	New Measured SAR Value	

(normalized to 1.0 W)

Test performed by: **Ed Church** Initial: E, C

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