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LD/SEMC/BGGI/NM Hamid Kami Shirazi

Approved

LD/SEMC/GGI/NM Ramadan Plicanic

Checked

050609

Company Internal REPORT

No.

BGGIN05:156

Date

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Report issued by Accredited SAR Laboratory

For

PY7A1041021

Date of test: 27maj to 2 June, 2005

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Statement of Compliance

Sony Ericsson Mobile Communications AB declares under its sole responsibility that the product

Sony Ericsson Type AAA-1041021-BV; FCC ID: FY7A1041021; IC:4170B-A1041021

to which this declaration relates, is in conformity with the appropriate RF exposure standards recommendations and guidelines. It also declares that the product was tested in accordance with the appropriate measurement standards, guidelines and recommended practices. Any deviations from these standards, guidelines and recommended practices are noted below: (None)

This laboratory is accredited to ISO/IEC 17025 (SWEDAC accreditation no. 1847).



Laboratories are accredited by the Swedish Board for Accreditation and Conformity Assessment (SWEDAC) under the terms of Swedish legislation. The accredited laboratory activities meet the requirements in SS-EN ISO/IEC 17025 (2000). This report may not be reproduced other than in full, except with the prior written approval of the issuing laboratory. The results and statements contained herein relate only to the items tested. The names of individuals involved may be mentioned only in connection with the statements or results from this report.

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## 2 Introduction

In this test report, compliance of the Sony Ericsson PY7A1041021 portable telephone with RF safety guidelines is demonstrated. The applicable RF safety guidelines and the SAR measurement specifications used for the test are described in the *SAR Measurement Specifications of Wireless Handsets* [1].

## 3 Device under Test

### 3.1 Antenna Description

<b>Type</b>	Built In	
<b>Location</b>	Up on the back	
<b>Dimensions</b>	Max length	32 mm
	Max width	20 mm
<b>Configuration</b>	PIFA	

### 3.2 Device description

<b>Device model</b>	PY7A1041021	
<b>Serial number</b>	F6100002NE	
<b>Mode</b>	GSM 850	GSM1900
<b>Multiple Access Scheme</b>	TDMA	TDMA
<b>Maximum Output Power Setting</b>	32.5dBm	30.0dBm
<b>Factory Tolerance in Power Setting</b>	±0.5dBm	±0.5dBm
<b>Maximum Peak Output Power for GPRS</b>	32.5 ±0.5dBm	30.0±0.5dBm
<b>Crest Factor</b>	8	8
<b>Transmitting Frequency Range(MHz)</b>	824.2-848.8	1850.2-1909.8
<b>Prototype or Production Unit</b>	Preproduction	
<b>Device Category</b>	Portable	
<b>RF exposure environment</b>	General population/ uncontrolled	



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## 4 Test equipment

### 4.1 Dosimetric system

SAR measurements were made using the DASY3 professional system (software version 3.1c) with SAM twin phantom, manufactured by Schmid & Partner Engineering AG (SPEAG). The list of calibrated equipment is given below.

<b>Description</b>	<b>Serial Number</b>	<b>Due Date</b>
DASY3 DAE V1	433	032006
E-field probe ETDV6	1582	032006
Dipole Validation Kit, D1900V2	5d002	032007
Dipole Validation Kit, D835V2	484	032007

### 4.2 Additional equipment

<b>Description</b>	<b>Inventory Number</b>	<b>Due Date</b>
Signal generator ESG-D4000A	INV 462935	112006
Directional coupler HP778D	INV 2903	012006
Power meter R&S NRVD	INV 483920	012006
Power sensor R&S NRV-Z5	INV 2333	012006
Power sensor R&S NRV-Z5	INV 2334	012006
Termination 65N50-0-11	INV 2903	012006
Network analyzer HP8753C	INV421671	092005
S-parameter test set HP85047A	INV 421670	092005
Dielectric probe kit HP8507D	INV 2000053	012006
CMU200	S/N: 833870/062	032006

## 5 Electrical parameters on the tissue simulating liquid

Prior to conducting SAR measurements, the relative permittivity,  $\epsilon_r$ , and the conductivity,  $S$ , of the tissue simulating liquids were measured with the dielectric probe kit. These values are shown in the table below. The mass density,  $\rho$ , entered into the DASY3 software is also given. Recommended limits for permittivity  $\epsilon_r$ , conductivity  $S$  and mass density  $\rho$  are also shown.

f (MHz)	Tissue type	Limits / Measured	Dielectric Parameters		
			$\epsilon_r$	s (S/m)	$\rho$ (g/cm <sup>3</sup> )
835	Head	Measured, 27/05/2005	42.1	0.90	1.00
		Recommended	41.5	0.90	1.00
835	Head	Measured, 30/05/2005	42.1	0.89	1.00
		Recommended	41.5	0.90	1.00
835	Body	Measured, 02/06/2005	54.0	1.00	1.00
		Recommended	55.2	0.97	1.00
1900	Head	Measured, 31/05/2005	38.0	1.47	1.00
		Recommended	40.0	1.4	1.00
1900	Body	Measured, 01/06/2005	51.9	1.53	1.00
		Recommended	53.3	1.52	1.00

## 6 System accuracy verification

A system accuracy verification of the DASY3 was performed using the dipole validation kits listed in section 3.1. The system verification test was conducted on the same day as the measurement of the DUT. Measurement made in ambient temperature (23-24) °C and humidity (35-50) %. The obtained results are displayed in the table below.

RF noise had been measured in liquid when all RF equipment in lab was set off. Measured value was 0.00011mW/g in 1g mass.

f (MHz)	Tissue type	Measured / Reference	SAR (W/kg) 1g/10g	Dielectric Parameters			Liquid t(°C)
				$\epsilon_r$	s (S/m)	$\rho$ (g/cm <sup>3</sup> )	
835	Head	Measured, 27/05/2005	8.9/5.78	42.1	0.90	1.00	22
		Reference	9.1/5.97	42.2	0.91	1.00	-
835	Head	Measured, 30/05/2005	8.77/5.69	42.1	0.89	1.00	22
		Reference	9.1/5.97	42.2	0.91	1.00	-
835	Body	Measured, 02/06/2005	9.07/5.81	54.0	1.00	1.00	22
		Reference	9.19/6.05	55.2	0.97	1.00	-
1900	Head	Measured, 31/05/2005	38.1/19.5	38.0	1.47	1.00	22
		Reference	38.3/20.1	39.6	1.45	1.00	-
1900	Body	Measured, 01/06/2005	37.8/19.8	51.9	1.53	1.00	22
		Reference	37.9/20.0	51.6	1.58	1.00	-



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## 7 SAR measurement uncertainty

### *SAR measurement uncertainty evaluation for Sony Ericsson PY7A1041021 phone*

Uncertainty Component	Uncer. (%)	Prob Dist.	Div.	C <sub>i</sub>	GSM 835 Head	GSM 835 Body	GSM 1900 Head	GSM 1900 Body
<b>Measurement System</b>								
Probe Calibration	±4.4	N	1	1	±4.4	±4.4	±4.4	±4.4
Axial Isotropy	±4.7	R	v3	0.5	±1.4	±1.4	±1.4	±1.4
Spherical Isotropy	±9.6	R	v3	0.5	±2.8	±2.8	±2.8	±2.8
Spatial resolution	±0.0	R	v3	1	±0.0	±0.0	±0.0	±0.0
Boundary effect	±5.5	R	v3	1	±3.2	±3.2	±3.2	±3.2
Probe linearity	±4.7	R	v3	1	±2.7	±2.7	±2.7	±2.7
Detection limit	±1.0	R	v3	1	±0.6	±0.6	±0.6	±0.6
Readout electronics	±1.0	N	1	1	±1.0	±1.0	±1.0	±1.0
Response time	±0.8	R	v3	1	±0.5	±0.5	±0.5	±0.5
Integration time	±1.4	R	v3	1	±0.8	±0.8	±0.8	±0.8
RF Ambient Conditions	±3.0	R	v3	1	±1.7	±1.7	±1.7	±1.7
Mech. Constraints of robot	±0.4	R	v3	1	±0.2	±0.2	±0.2	±0.2
Probe positioning	±2.9	R	v3	1	±1.7	±1.7	±1.7	±1.7
Extrap, interpolation and integration	±3.9	R	v3	1	±2.3	±2.3	±2.3	±2.3
<b>Measurement System Uncertainty</b>					±7.7	±7.7	±7.7	±7.7
<b>Test Sample Related</b>								
Device positioning	±6.0	N	0.89	1	±6.7	±6.7	±6.7	±6.7
Device holder uncertainty	±5.0	N	0.84	1	±5.9	±5.9	±5.9	±5.9
Power drift	-1.2/1.2/0.0/1.4	R	v3	1	-0.7	-0.7	-0.0	-0.8
<b>Test Sample Related Uncertainty</b>					±9.0	±9.0	±9.0	±9.0
<b>Phantom and Tissue Parameters</b>								
Phantom uncertainty	±4.0	R	v3	1	±2.3	±2.3	±2.3	±2.3
Liquid conductivity (meas)	-1/+3/+5/+0.7	R	v3	0.6	-0.4	+1.0	+1.7	+0.2
Liquid conductivity (target)	±5.0	R	v3	0.6	±1.7	±1.7	±1.7	±1.7
Liquid Permittivity (meas)	+1.5/-2.2/-5/-2.6	R	v3	0.6	+0.5	-0.8	±1.7	-0.9
Liquid Permittivity (target)	±5.0	R	v3	0.6	±1.7	±1.7	±1.7	±1.7
<b>Phantom and Tissue Parameters Uncertainty</b>					±3.4	±3.6	±4.1	±3.5
<b>Combined standard uncertainty</b>					±12.3	±12.4	±12.5	±12.4
<b>Extended standard uncertainty (k=2)</b>					±24.6	±24.8	±25.0	±24.8



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### 8 Test results

The measured 1-gram averaged SAR values of the device against head and body are provided in Table 1 and Table 2. The ambient humidity and temperature of test facility were (35-40) % and (23-24) °C respectively.

The depth of the head and body tissue simulating liquids were between 15.2cm and 15.1cm. A base station simulator was used to control the device during the SAR measurements. The phone was supplied with full-charged battery for each measurement.

For head measurement, the device was tested on the right-hand phantom (corresponding to the right side of the head) and the left-hand phantom in two different phones position, cheek (touch) and tilt (cheek + 15deg). For all modes, the device was tested at the lowest, middle and highest frequencies in the transmit band.

For body measurements the phone was tested on either the phone's antenna (Back) or the Front side phone against the flat section of the phantom with 15mm distance. GPRS measurements are done only for back side of the phone for all three different channels

Mode	Channel	Peak Output Power(dBm)	Phone Position	Liquid temp(°C)	SAR (W/kg) 1g mass	
					Right-hand	Left-hand
835 GSM	128	33.0	Cheek	22-23	0.89	0.82
			Tilt	22-23	0.61	0.57
	190	32.9	Cheek	22-23	0.95	0.92
			Tilt	22-23	0.66	0.60
	251	32.8	Cheek	22-23	<b>1.12</b>	<b>1.12</b>
			Tilt	22-23	0.77	0.70
1900 GSM	512	30.4	Cheek	22-23	0.71	0.51
			Tilt	22-23	0.78	0.65
	661	30.4	Cheek	22-23	0.67	0.51
			Tilt	22-23	0.79	0.73
	810	30.4	Cheek	22-23	0.77	0.50
			Tilt	22-23	<b>0.88</b>	0.73

Table1: SAR measurement result for Sony Ericsson PY7A1041021 telephone at highest possible output power. Measurements have done against the head.

Mode	Channel	Peak Output Power(dBm)	Phone Position	Liquid temp(°C)	SAR (W/kg)
					1g mass
835 GSM	128	33.0	Front to phantom	22-23	0.39
			Antenna to phantom	22-23	0.86
			Antenna to phantom, GPRS 2 Slots	22-23	1.30
	190	32.9	Front to phantom	22-23	0.41
			Antenna to phantom	22-23	<b>0.97</b>
			Antenna to phantom hands free	22-23	<b>0.97</b>
	251	32.8	Antenna to phantom, GPRS 2 Slots	22-23	1.29
			Front to phantom	22-23	0.52
			Antenna to phantom	22-23	0.87
1900 GSM	512	30.4	Antenna to phantom, GPRS 2 Slots	22-23	<b>1.38</b>
			Front to phantom	22-23	0.09
			Antenna to phantom	22-23	0.17
	661	30.4	Antenna to phantom, GPRS 2 Slots	22-23	0.41
			Front to phantom	22-23	0.09
			Antenna to phantom	22-23	0.22
810	30.4	Antenna to phantom, GPRS 2 Slots	22-23	0.99	
		Front to phantom	22-23	0.11	
		Antenna to phantom	22-23	<b>0.26</b>	
			Antenna to phantom hands free	22-23	0.25
			Antenna to phantom, GPRS 2 Slots	22-23	<b>1.02</b>

Table2: SAR measurement result for Sony Ericsson PY7A1041021 telephone at highest possible output power. Measurements have done against the Body.


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## 9 References

[ 1 ] R.Plicanic, "SAR Measurement Specification of Wireless Handsets", Sony Ericsson SAR Test Laboratory internal document GUG/N 03:141

[ 2 ] Basic standard for the Measurement of Specific Absorption Rate related to human exposure to electromagnetic fields from mobile phones (300MHz-3GHz), European Standard EN 50361, July 2001

[ 3 ] FCC, "Evaluating Compliance with FCC Guidelines for Human Exposure to Radio Frequency Electromagnetic Fields: Additional Information for Evaluating Compliance of Mobile and Portable Devices with FCC Limits for Human Exposure to Radio Frequency Emissions," Supplement C (Edition 01-01) to OET Bulletin 65 (Edition 97- 01).

[ 4 ] IEEE, "Recommended Practice for Determining the Peak Spatial-Average Specific Absorption Rate (SAR) in the Human Body Due to Wireless Communications Devices: Experimental Techniques," Std 1528-2003, June, 2003.

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## 10 Appendix

### 10.1 Photographs of the device under test



Front & back sides



System Connector

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Back side with battery



Portable Hand Free HPE-14

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## 10.2 Device position on SAM Twins Phantom



Device position against the head: Cheek (touch) phone position



Device position against the head: Tilt (cheek+15deg) phone position

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**Back side of Device position against the body: 15mm distance from Phantom.**



**Front side of Device position against the body: 15mm distance from Phantom.**

## D835 V2

SAM 3 Phantom; Flat Section; Position: (90°,90°); Frequency: 835 MHz

Probe: ET3DV6 - SN1582; ConvF(7.11,7.11,7.11); Crest factor: 1.0; Head 825-915MHz:  $\sigma = 0.90$  mho/m  $\epsilon_r = 42.1$   $\rho = 1.00$  g/cm<sup>3</sup>

Cube 5x5x7: SAR (1g): 0.890 mW/g, SAR (10g): 0.578 mW/g, (Worst-case extrapolation)

Coarse: Dx = 20.0, Dy = 20.0, Dz = 10.0

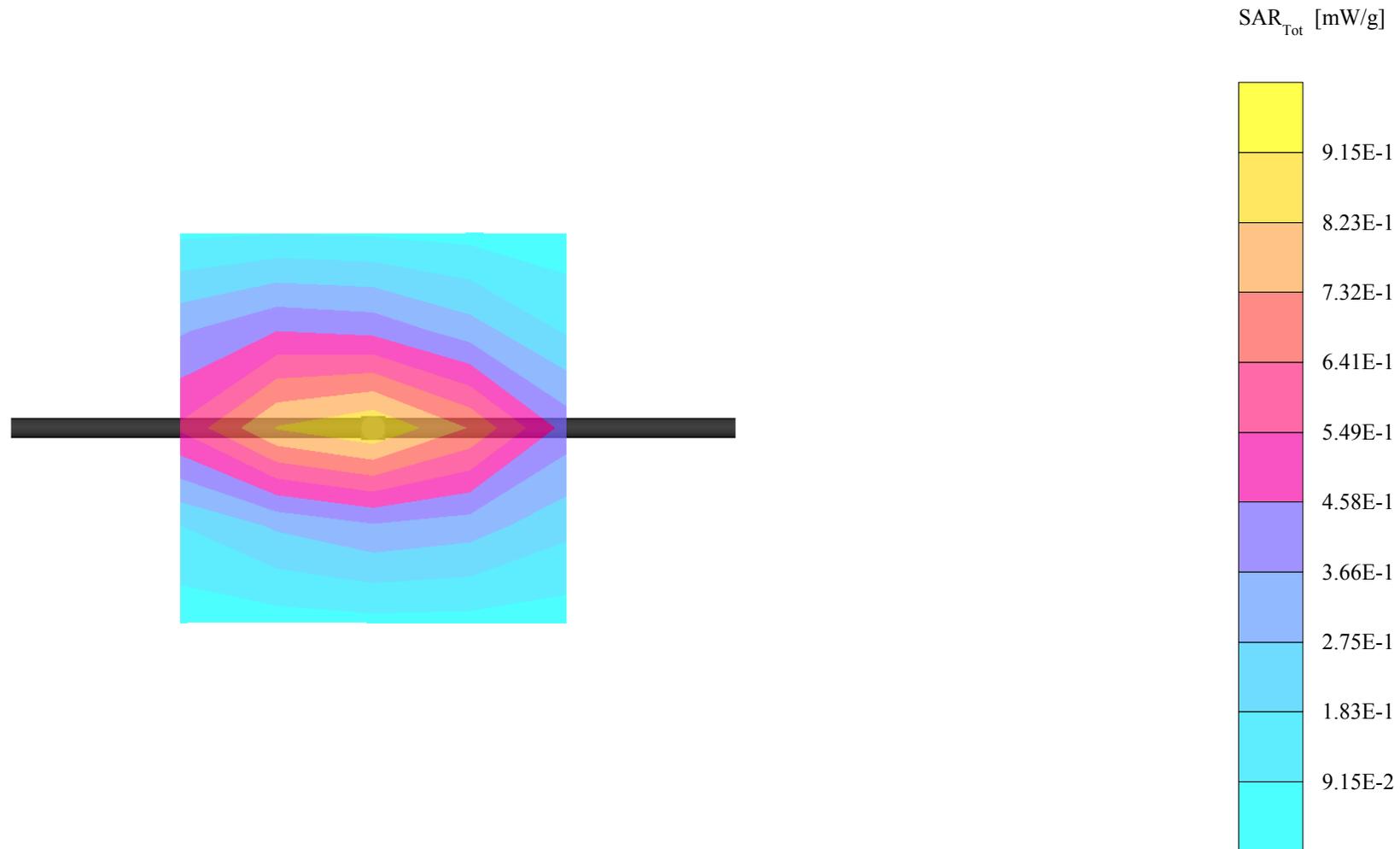
Powerdrift: -0.13 dB

P=100mW, d=15mm, 835MHz dipole D835V2 s/n 484

Target values: 1g mass 9.1 mW/g, 10g mass 5.96 mW/g

Measured values: 1g mass 8.9mW/g(-2.2%), 10g mass 5.78mW/g(-3%)

LIQUID'S Temperature 22C, Ambeint Temperature 24C ,humidity 50%



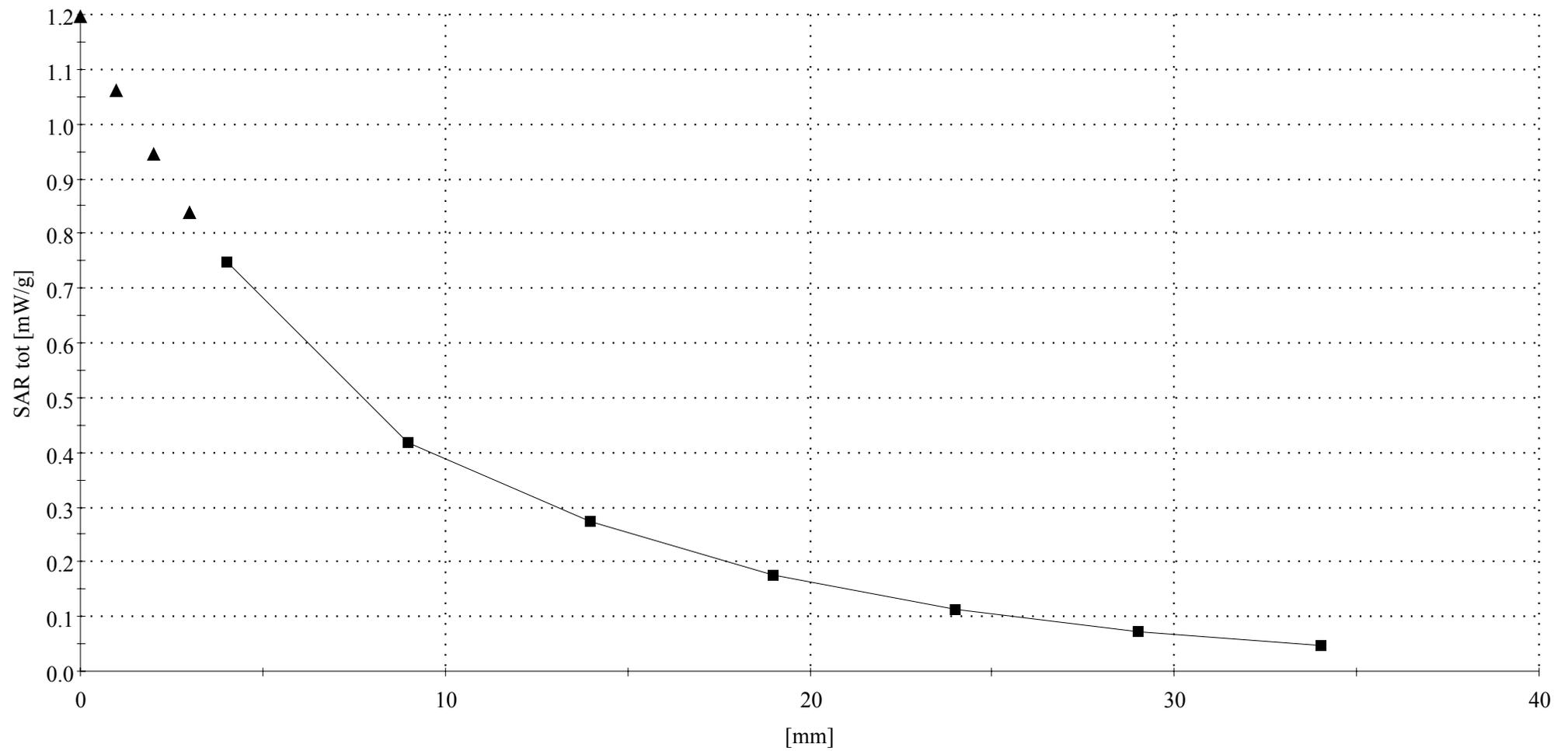
## PY7A1041021

SAM 4 Phantom; Flat Section; Position: (270°,90°); Frequency: 1910 MHz

Probe: ET3DV6 - SN1582; ConvF(4.68,4.68,4.68); Crest factor: 4.0; Muscle 1900:  $\sigma = 1.53$  mho/m  $\epsilon_r = 51.9$   $\rho = 1.00$  g/cm<sup>3</sup>

Cube 5x5x7: SAR (1g): 0.999 mW/g, SAR (10g): 0.559 mW/g, (Worst-case extrapolation)

Cube 5x5x7: Dx = 8.0, Dy = 8.0, Dz = 5.0



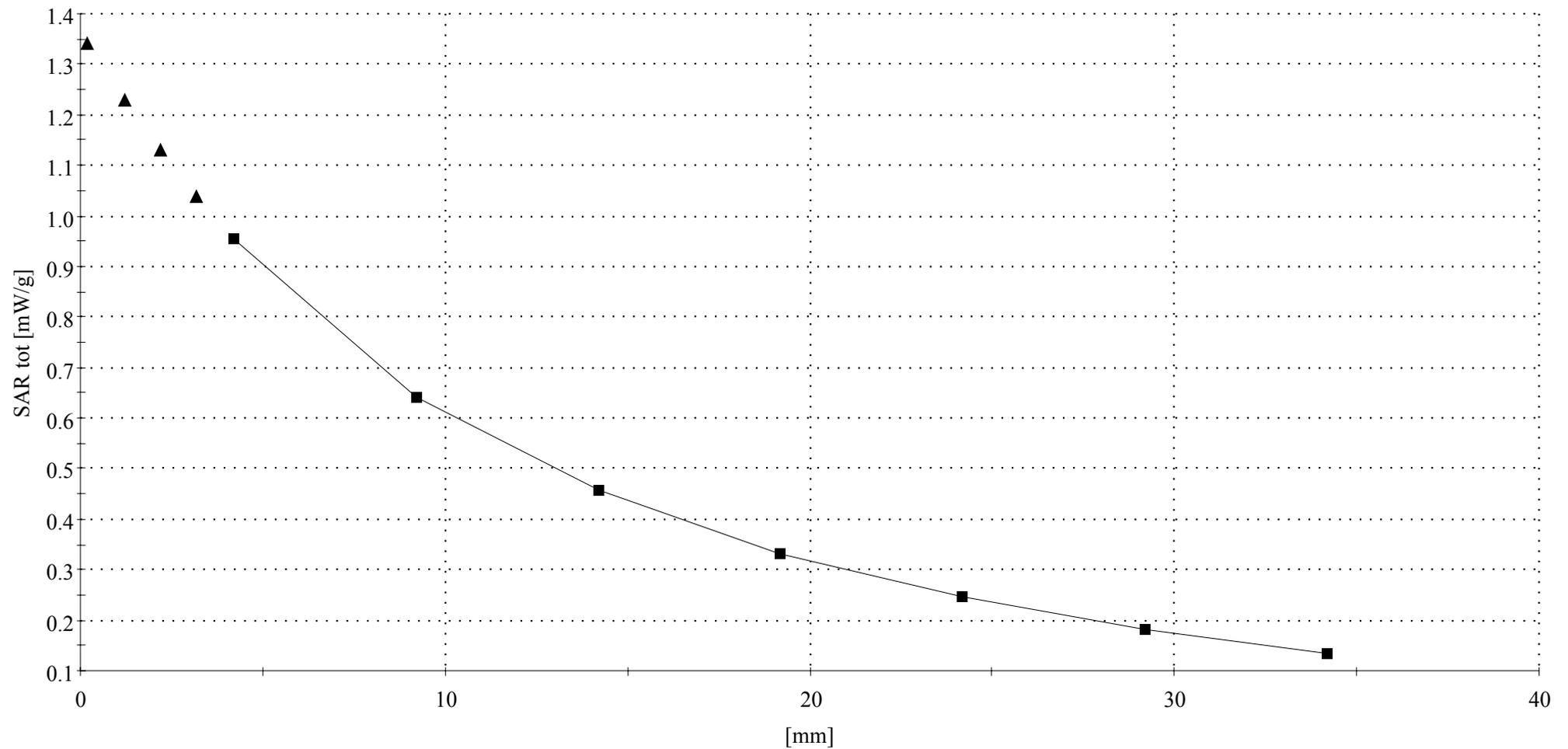
## PY7A1041021

SAM 3 Phantom; Flat Section; Position: (270°,90°); Frequency: 849 MHz

Probe: ET3DV6 - SN1582; ConvF(6.76,6.76,6.76); Crest factor: 4.0; Muscle 835-900 Mode:  $\sigma = 1.00$  mho/m  $\epsilon_r = 54.0$   $\rho = 1.00$  g/cm<sup>3</sup>

Cube 5x5x7: SAR (1g): 1.32 mW/g, SAR (10g): 0.913 mW/g, (Worst-case extrapolation)

Cube 5x5x7: Dx = 8.0, Dy = 8.0, Dz = 5.0



# PY7A1041021

SAM 4 Phantom; Flat Section; Position: (270°,90°); Frequency: 1850 MHz

Probe: ET3DV6 - SN1582; ConvF(4.68,4.68,4.68); Crest factor: 8.0; Muscle 1900:  $\sigma = 1.53$  mho/m  $\epsilon_r = 51.9$   $\rho = 1.00$  g/cm<sup>3</sup>

Cube 5x5x7: SAR (1g): 0.0843 mW/g, SAR (10g): 0.0521 mW/g, (Worst-case extrapolation)

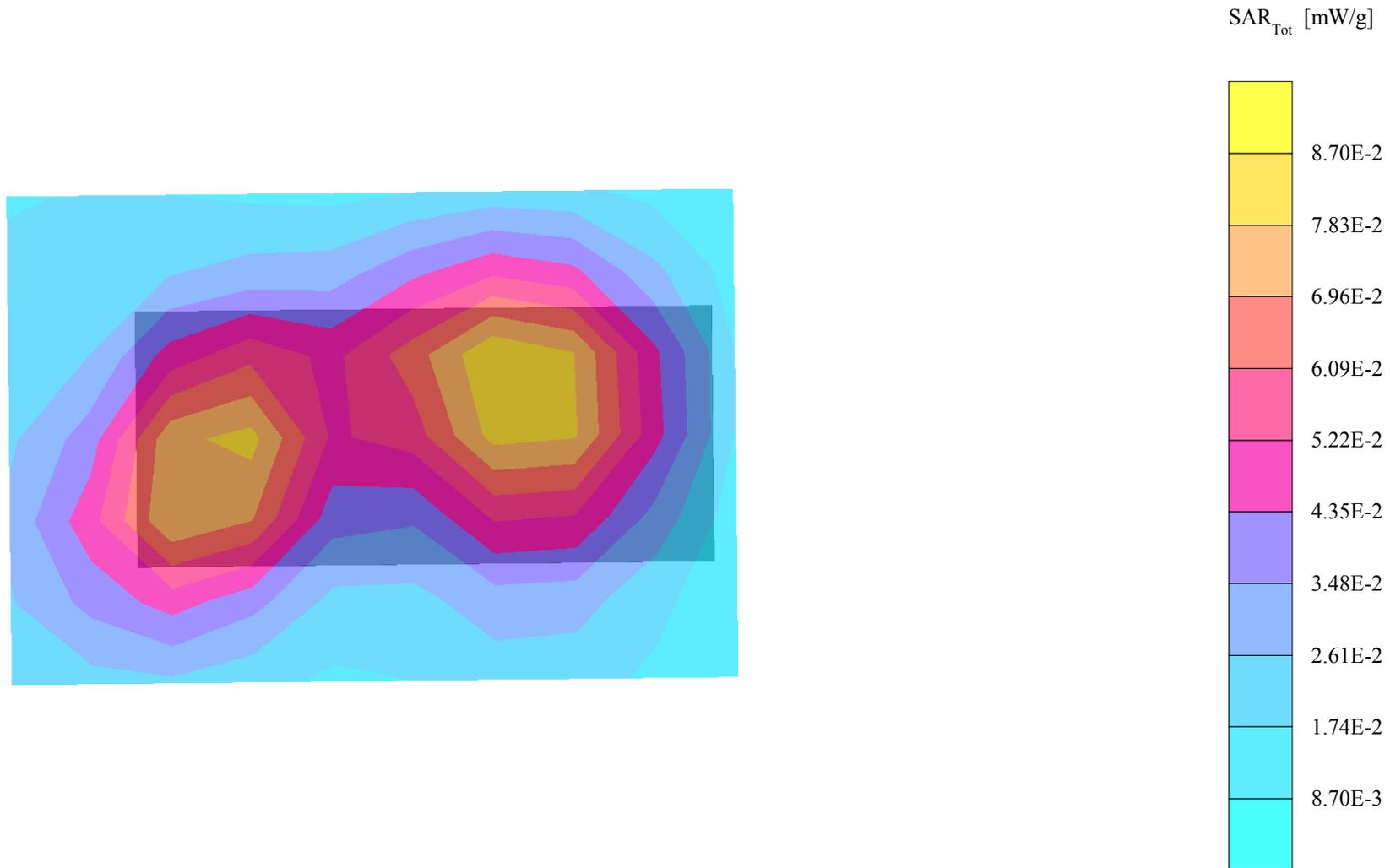
Coarse: Dx = 14.0, Dy = 14.0, Dz = 10.0

Powerdrift: -0.13 dB

PY7A1041021,S/N:Fp6100002NE;frequency 1850MHz(ch512),Front side Phone Position+15mm

distance from flat section of pantom, meas. Power=30.4dBm, Nom.Power=30.5dBm;

ambien temprature 23°C,and humidity 40%,Date:050601



# D1900 V2

SAM 4 Phantom; Flat Section; Position: (90°,90°); Frequency: 1900 MHz

Probe: ET3DV6 - SN1582; ConvF(5.17,5.17,5.17); Crest factor: 1.0; Head 1900MHz:  $\sigma = 1.47$  mho/m  $\epsilon_r = 38.0$   $\rho = 1.00$  g/cm<sup>3</sup>

Cube 5x5x7: SAR (1g): 3.81 mW/g, SAR (10g): 1.95 mW/g, (Worst-case extrapolation)

Coarse: Dx = 17.0, Dy = 17.0, Dz = 17.0

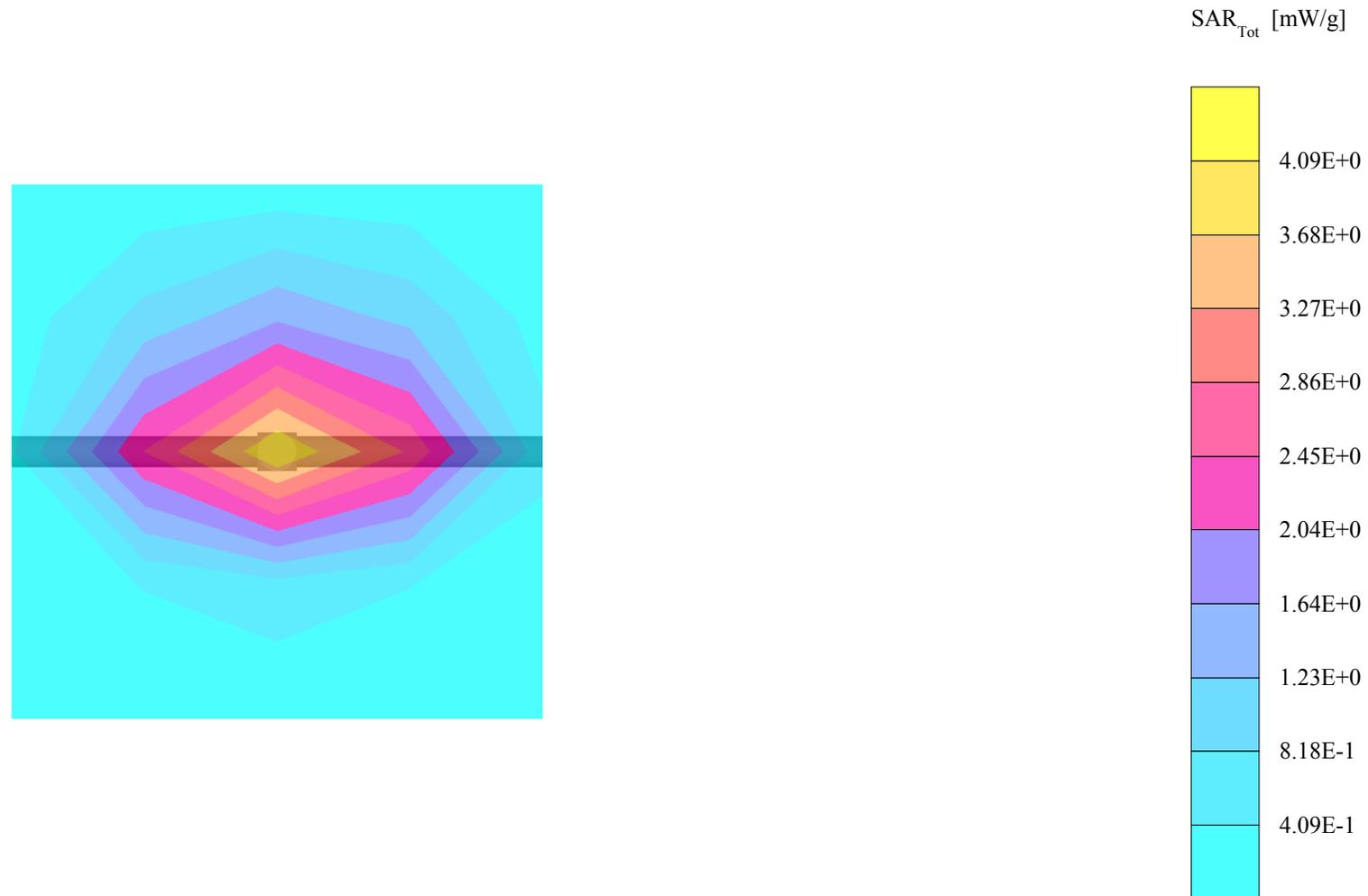
Powerdrift: -0.12 dB

P=100mW, d=10mm, 1900MHz dipol D1900V2 s/n 5d002

Target values: 1g mass 38.3 mW/g, 10g mass 20.1 mW/g

Measured values: 1g mass 38.1mW/g(-0.5%), 10g mass 19.5mW/g(-3%)

LIQUID'S Temperature 22C, Ambeint Temperature 24C ,humidity 50%



## PY7A1041021

SAM 3 Phantom; Left Hand Section; Position: (95°,59°); Frequency: 837 MHz

Probe: ET3DV6 - SN1582; ConvF(7.11,7.11,7.11); Crest factor: 8.0; Head 825-915MHz:  $\sigma = 0.89$  mho/m  $\epsilon_r = 42.1$   $\rho = 1.00$  g/cm<sup>3</sup>

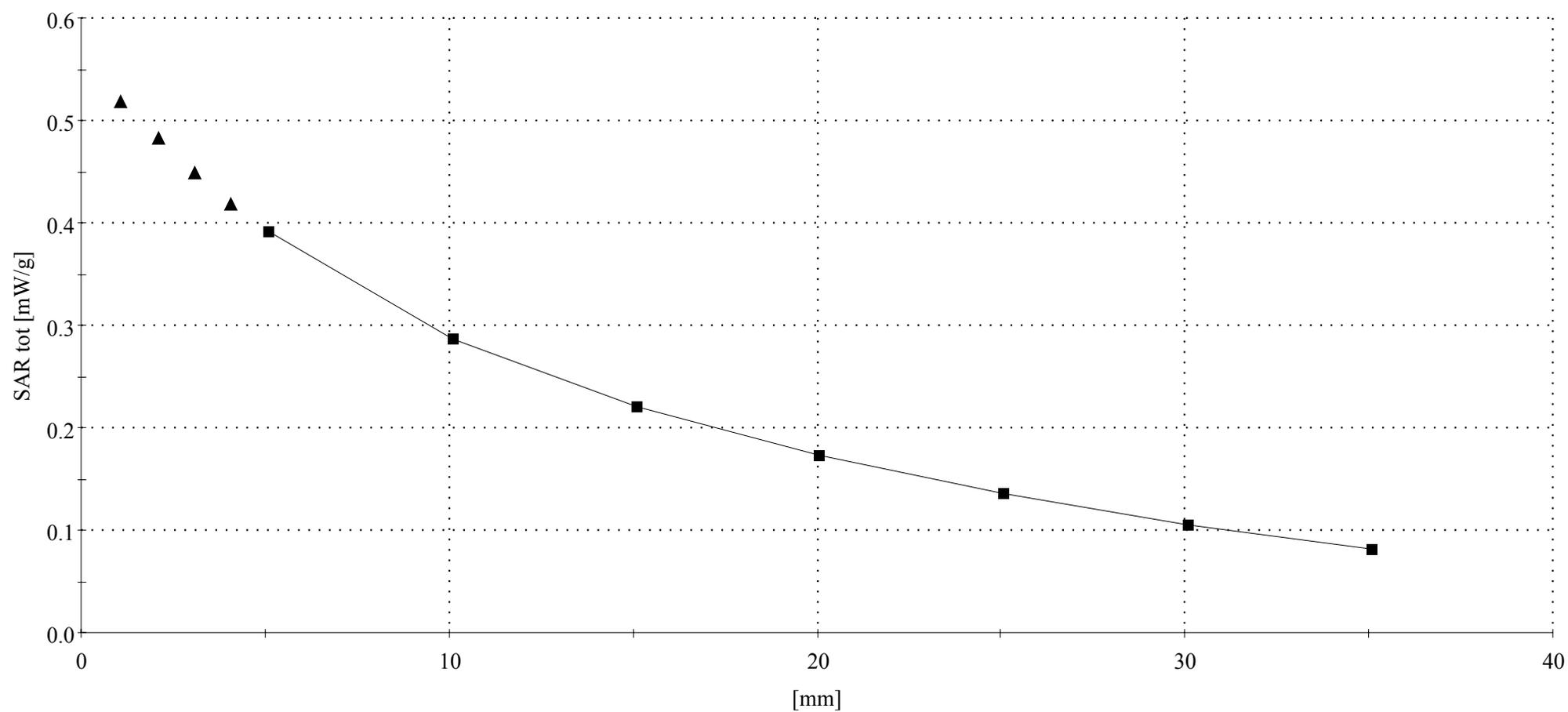
Cube 5x5x7: SAR (1g): 1.07 mW/g, SAR (10g): 0.725 mW/g, (Worst-case extrapolation)

Cube 5x5x7: Dx = 8.0, Dy = 8.0, Dz = 5.0

PY7A1041021,S/N:F6100002NE;frequevcy 848.8MHz(ch251), Left Hand Side,Cheek

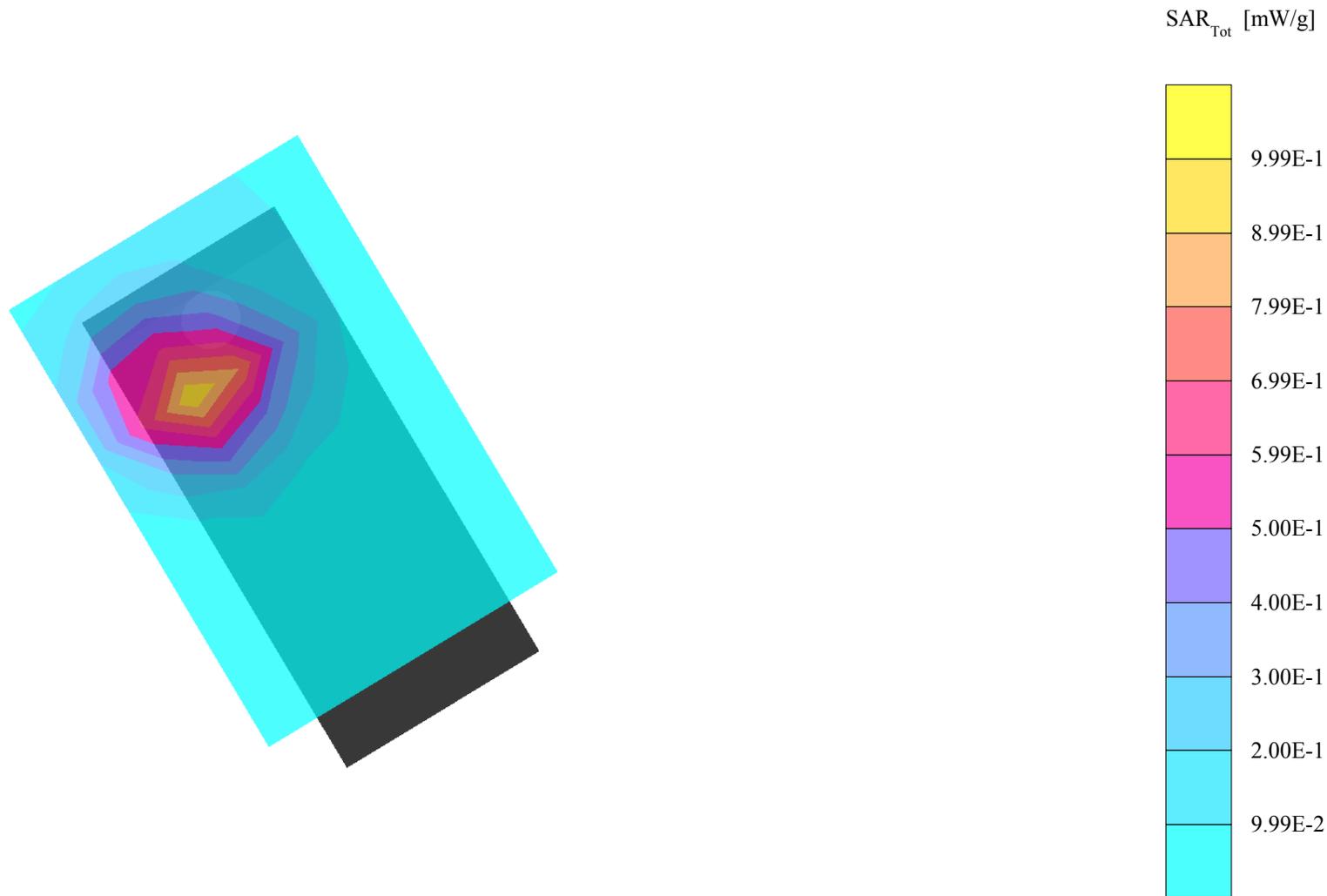
(95°) Phone Position, meas. Power=32.8dBm, Nom.Power=33dBm; ambien temprature

24(c-degree)and humidity 50%,Date:050530



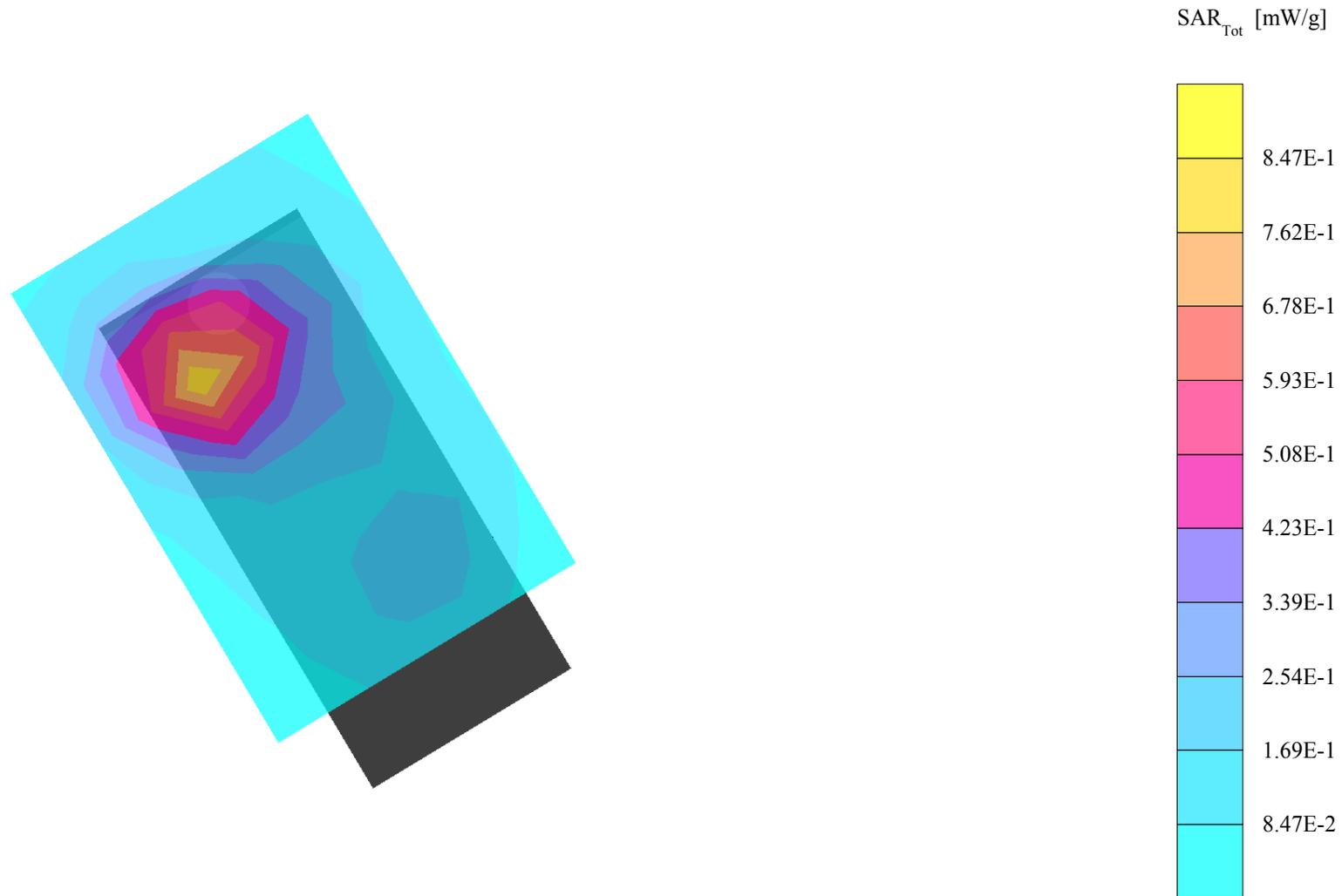
# PY7A1041021

SAM 4 Phantom; Righ Hand Section; Position: (110°,301°); Frequency: 1910 MHz  
Probe: ET3DV6 - SN1582; ConvF(5.17,5.17,5.17); Crest factor: 8.0; Head 1900MHz:  $\sigma = 1.47$  mho/m  $\epsilon_r = 38.0$   $\rho = 1.00$  g/cm<sup>3</sup>  
Cube 5x5x7: SAR (1g): 0.863 mW/g, SAR (10g): 0.426 mW/g, (Worst-case extrapolation)  
Coarse: Dx = 11.0, Dy = 11.0, Dz = 10.0  
Powerdrift: 0.00 dB  
PY7A1041021,S/N:F6100002NE;frequevcy 1910MHz(ch810), Right Hand Side,Tilt  
(95°) Phone Position, meas. Power=30.4dBm, Nom.Power=30.5dBm; ambien temprature  
24(c-degree)and humidity 50%,Date:050531



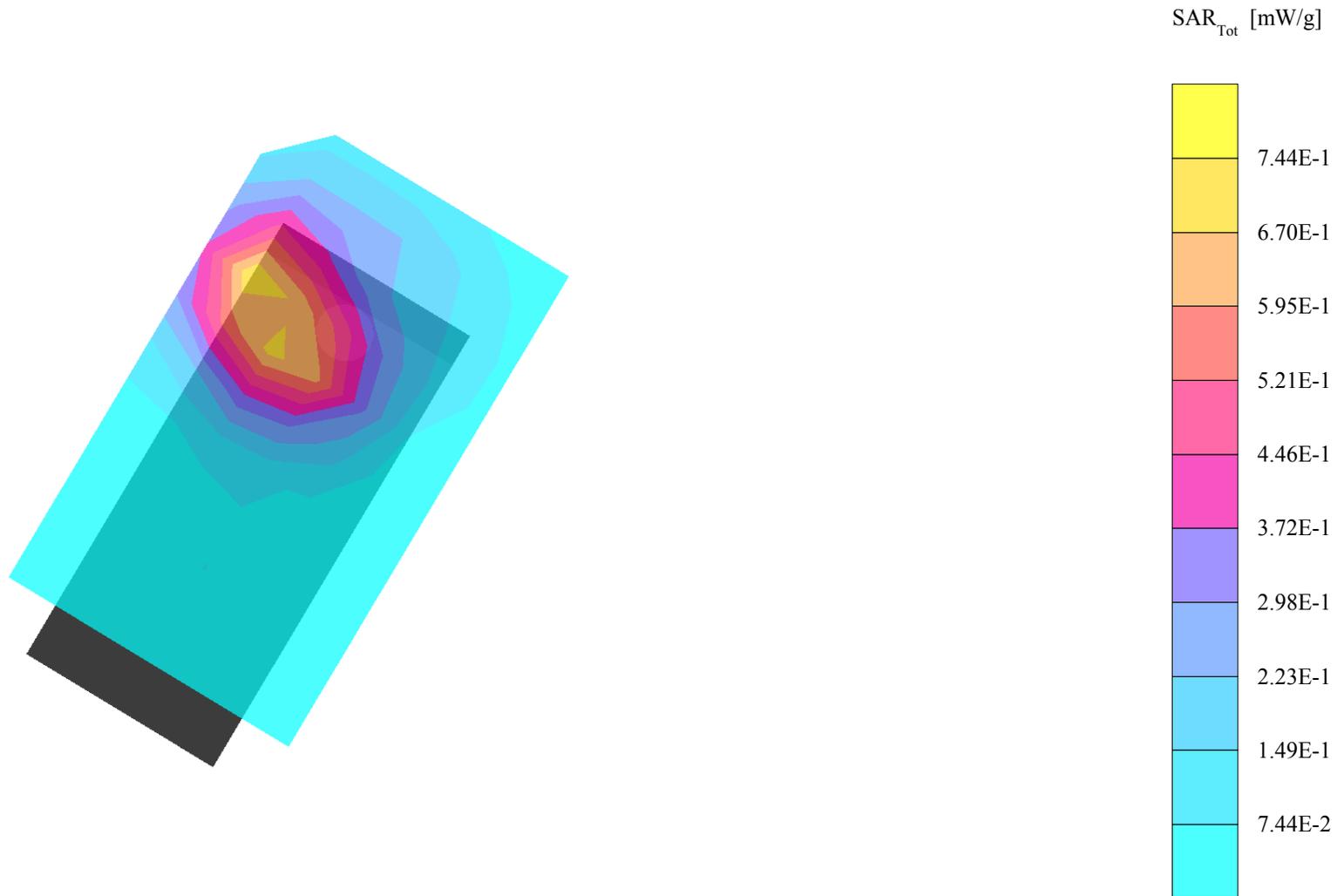
# PY7A1041021

SAM 4 Phantom; Righ Hand Section; Position: (95°,301°); Frequency: 1910 MHz  
Probe: ET3DV6 - SN1582; ConvF(5.17,5.17,5.17); Crest factor: 8.0; Head 1900MHz:  $\sigma = 1.47$  mho/m  $\epsilon_r = 38.0$   $\rho = 1.00$  g/cm<sup>3</sup>  
Cube 5x5x7: SAR (1g): 0.751 mW/g, SAR (10g): 0.384 mW/g, (Worst-case extrapolation)  
Coarse: Dx = 11.0, Dy = 11.0, Dz = 10.0  
Powerdrift: -0.14 dB  
PY7A1041021,S/N:F6100002NE;frequevcy 1910MHz(ch810), Right Hand Side,Cheek  
(95°) Phone Position, meas. Power=30.4dBm, Nom.Power=30.5dBm; ambien temprature  
24(c-degree)and humidity 50%,Date:050531



# PY7A1041021

SAM 4 Phantom; Left Hand Section; Position: (110°,59°); Frequency: 1910 MHz  
Probe: ET3DV6 - SN1582; ConvF(5.17,5.17,5.17); Crest factor: 8.0; Head 1900MHz:  $\sigma = 1.47$  mho/m  $\epsilon_r = 38.0$   $\rho = 1.00$  g/cm<sup>3</sup>  
Cube 5x5x7: SAR (1g): 0.717 mW/g, SAR (10g): 0.375 mW/g, (Worst-case extrapolation)  
Coarse: Dx = 11.0, Dy = 11.0, Dz = 11.0  
Powerdrift: -0.06 dB  
PY7A1041021,S/N:F6100002NE;frequevcy 1910MHz(ch810), Left Hand Side,Tilt  
(110°) Phone Position, meas. Power=30.4dBm, Nom.Power=30.5dBm; ambien temprature  
24(c-degree)and humidity 50%,Date:050531



# PY7A1041021

SAM 4 Phantom; Left Hand Section; Position: (95°,59°); Frequency: 1910 MHz

Probe: ET3DV6 - SN1582; ConvF(5.17,5.17,5.17); Crest factor: 8.0; Head 1900MHz:  $\sigma = 1.47$  mho/m  $\epsilon_r = 38.0$   $\rho = 1.00$  g/cm<sup>3</sup>

Cube 5x5x7: SAR (1g): 0.493 mW/g, SAR (10g): 0.270 mW/g, (Worst-case extrapolation)

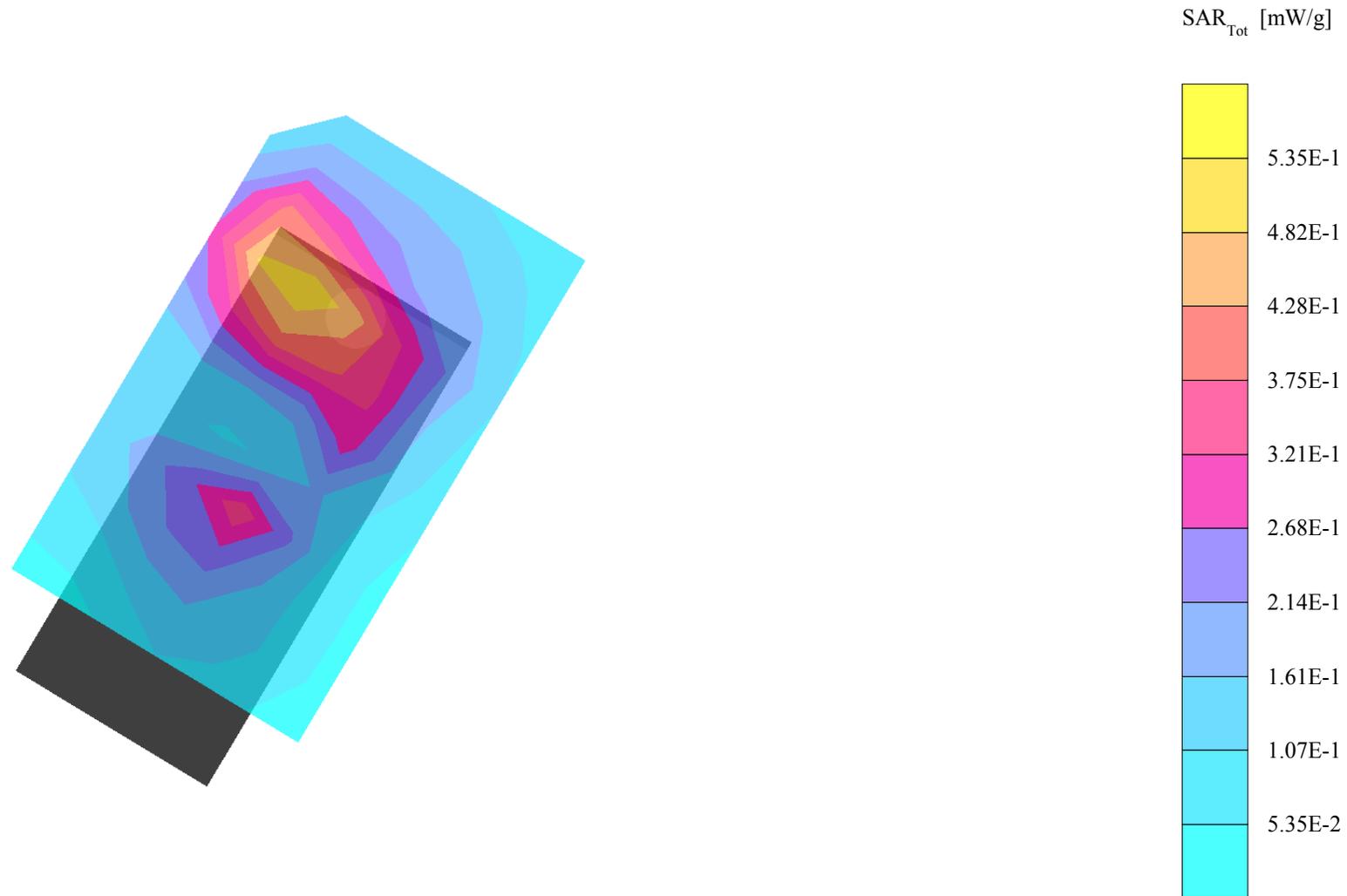
Coarse: Dx = 11.0, Dy = 11.0, Dz = 11.0

Powerdrift: -0.04 dB

PY7A1041021,S/N:F6100002NE;frequevcy 1910MHz(ch810), Left Hand Side,Cheek

(95°) Phone Position, meas. Power=30.4dBm, Nom.Power=30.5dBm; ambien temprature

24(c-degree)and humidity 50%,Date:050531



# PY7A1041021

SAM 4 Phantom; Flat Section; Position: (270°,90°); Frequency: 1910 MHz

Probe: ET3DV6 - SN1582; ConvF(4.68,4.68,4.68); Crest factor: 8.0; Muscle 1900:  $\sigma = 1.53$  mho/m  $\epsilon_r = 51.9$   $\rho = 1.00$  g/cm<sup>3</sup>

Cube 5x5x7: SAR (1g): 0.114 mW/g, SAR (10g): 0.0681 mW/g, (Worst-case extrapolation)

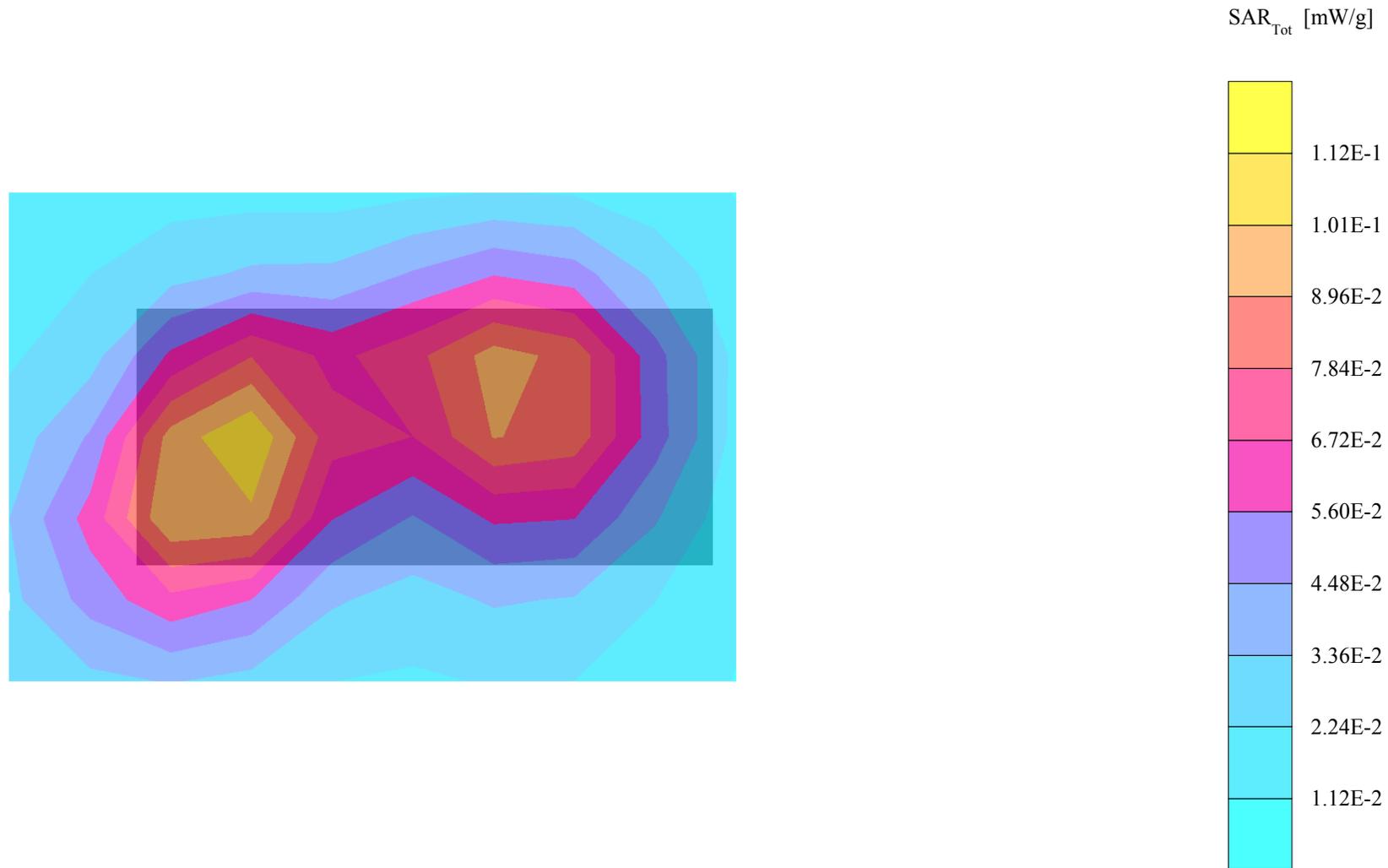
Coarse: Dx = 14.0, Dy = 14.0, Dz = 10.0

Powerdrift: -0.09 dB

PY7A1041021,S/N:Fp6100002NE;frequevcy 1910MHz(ch810),Front side Phone Position+15mm

distance from flat section of pantom, meas. Power=30.4dBm, Nom.Power=30.5dBm;

ambien temprature 23°C,and humidity 40%,Date:050601



# PY7A1041021

SAM 4 Phantom; Flat Section; Position: (270°,90°); Frequency: 1910 MHz

Probe: ET3DV6 - SN1582; ConvF(4.68,4.68,4.68); Crest factor: 4.0; Muscle 1900:  $\sigma = 1.53$  mho/m  $\epsilon_r = 51.9$   $\rho = 1.00$  g/cm<sup>3</sup>

Cube 5x5x7: SAR (1g): 0.999 mW/g, SAR (10g): 0.559 mW/g, (Worst-case extrapolation)

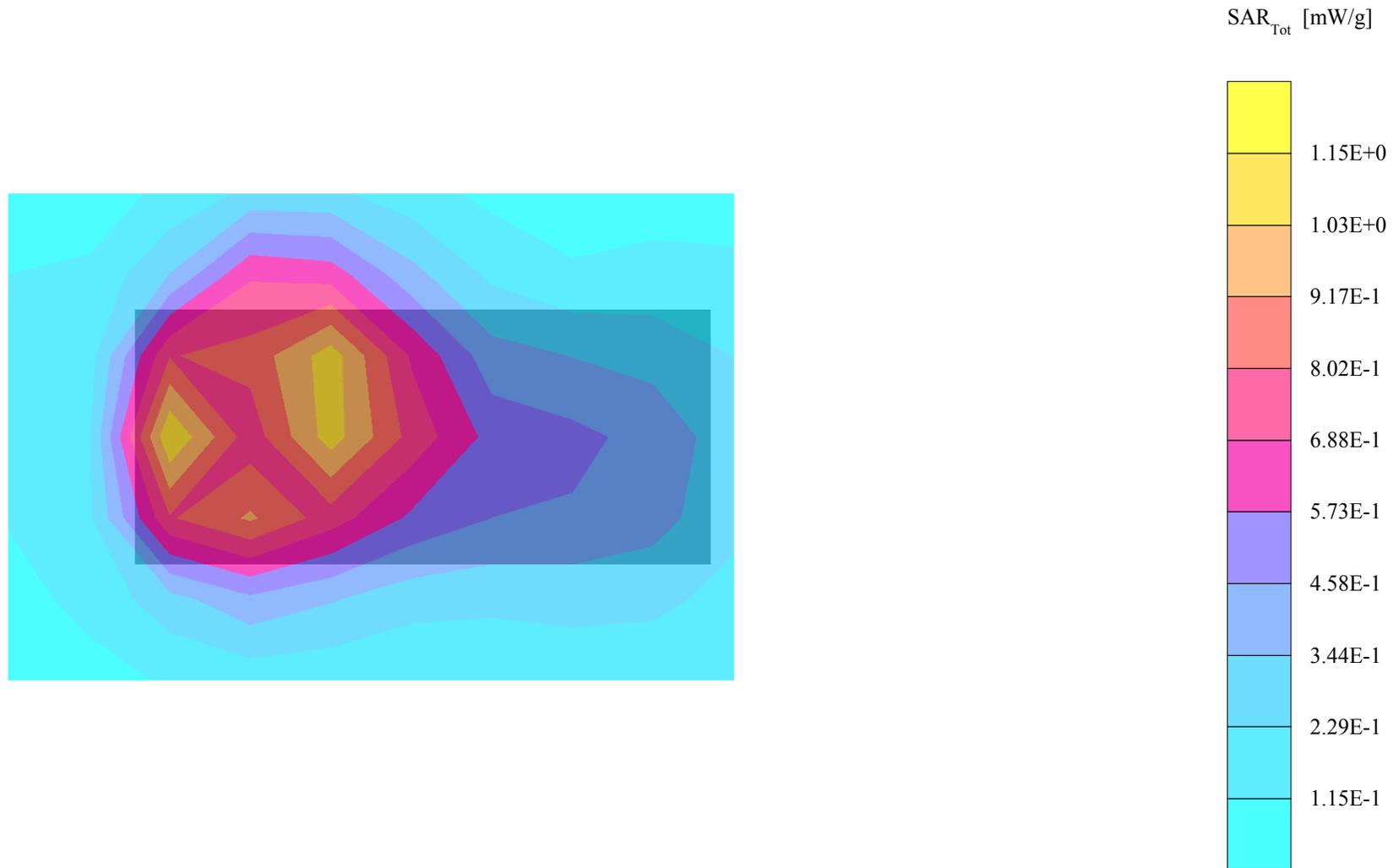
Coarse: Dx = 14.0, Dy = 14.0, Dz = 10.0

Powerdrift: -0.01 dB

PY7A1041021,S/N:Fp6100002NE;frequency 1910MHz(ch810),Back side Phone Position+15mm

distance from flat section of pantom, meas. Power=30.4dBm, Nom.Power=30.5dBm;

ambien temprature 23°C,and humidity 40%,Date:050601\_GPRS Measurement



# PY7A1041021

SAM 4 Phantom; Flat Section; Position: (270°,90°); Frequency: 1910 MHz

Probe: ET3DV6 - SN1582; ConvF(4.68,4.68,4.68); Crest factor: 8.0; Muscle 1900:  $\sigma = 1.53$  mho/m  $\epsilon_r = 51.9$   $\rho = 1.00$  g/cm<sup>3</sup>

Cube 5x5x7: SAR (1g): 0.254 mW/g, SAR (10g): 0.149 mW/g, (Worst-case extrapolation)

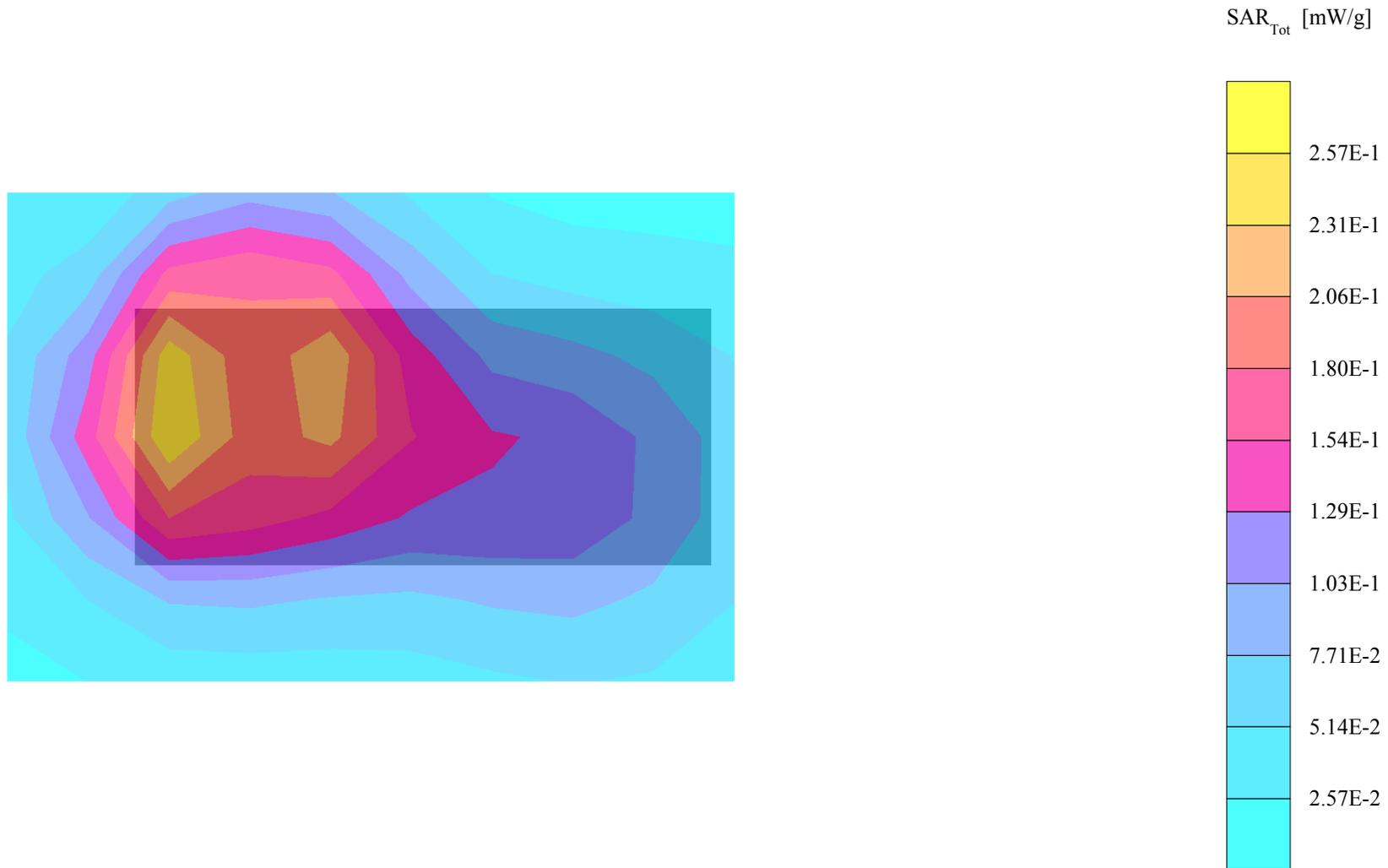
Coarse: Dx = 14.0, Dy = 14.0, Dz = 10.0

Powerdrift: -0.06 dB

PY7A1041021,S/N:Fp6100002NE;frequevcy 1910MHz(ch810),Back side Phone Position+15mm

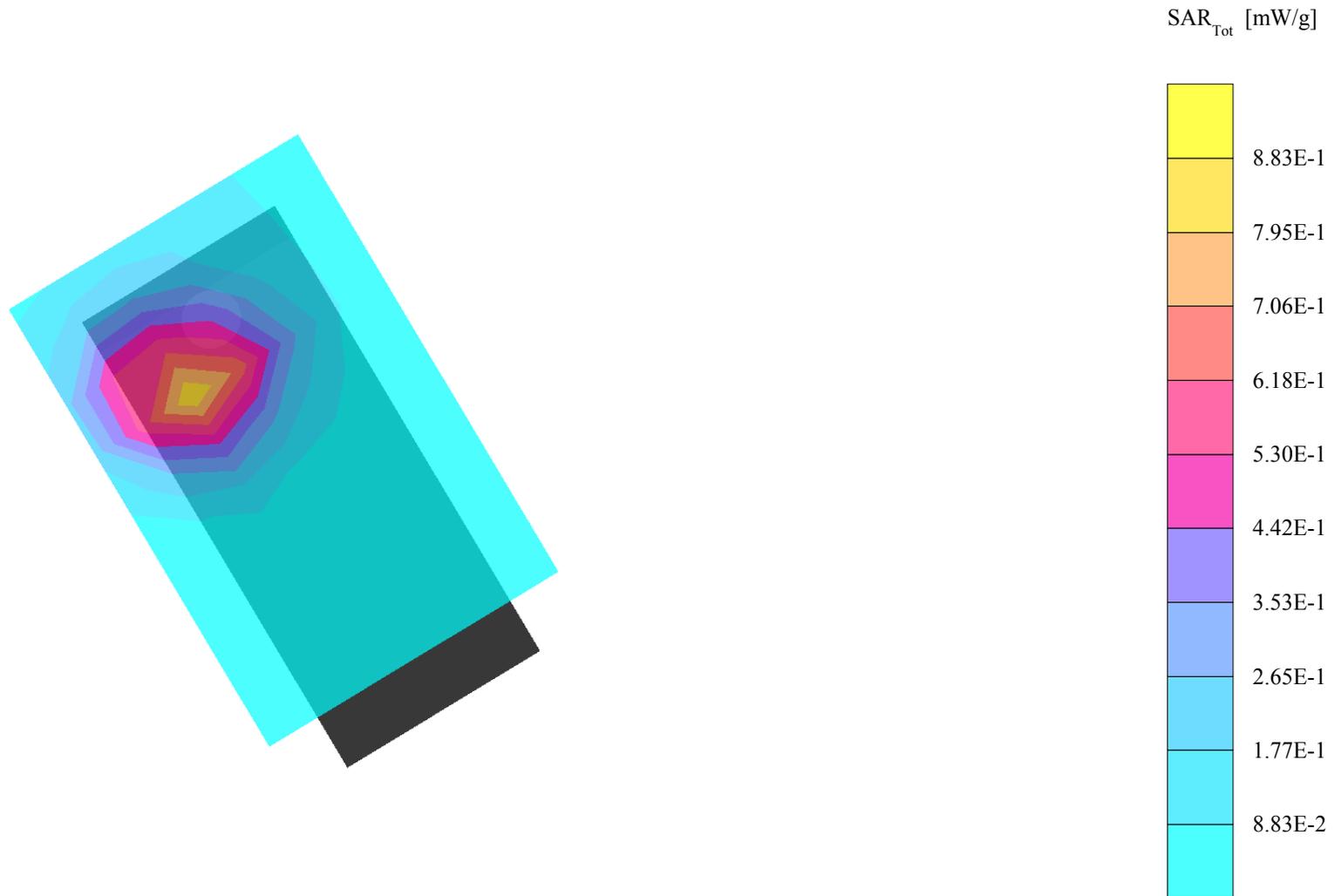
distance from flat section of pantom, meas. Power=30.4dBm, Nom.Power=30.5dBm;

ambien temprature 23°C,and humidity 40%,Date:050601



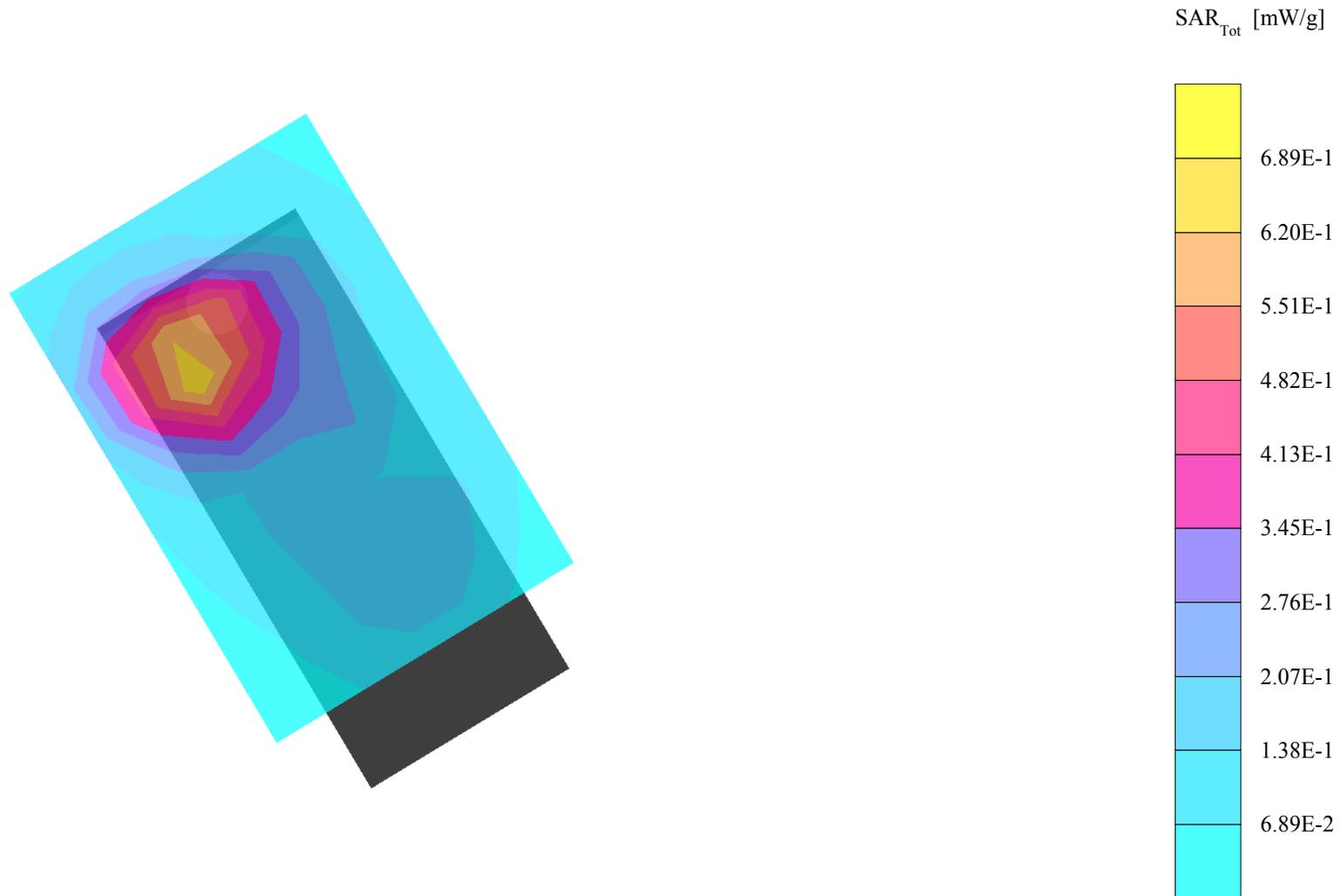
# PY7A1041021

SAM 4 Phantom; Righ Hand Section; Position: (110°,301°); Frequency: 1880 MHz  
Probe: ET3DV6 - SN1582; ConvF(5.17,5.17,5.17); Crest factor: 8.0; Head 1900MHz:  $\sigma = 1.47$  mho/m  $\epsilon_r = 38.0$   $\rho = 1.00$  g/cm<sup>3</sup>  
Cube 5x5x7: SAR (1g): 0.776 mW/g, SAR (10g): 0.389 mW/g, (Worst-case extrapolation)  
Coarse: Dx = 11.0, Dy = 11.0, Dz = 10.0  
Powerdrift: -0.06 dB  
PY7A1041021,S/N:F6100002NE;frequevcy 1880MHz(ch661), Right Hand Side,Tilt  
(110°) Phone Position, meas. Power=30.4dBm, Nom.Power=30.5dBm; ambien temprature  
24(c-degree)and humidity 50%,Date:050531



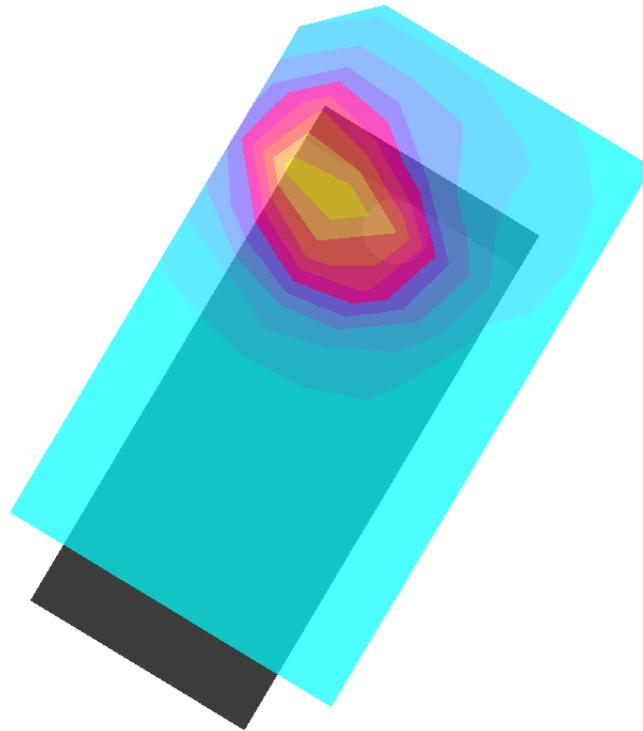
# PY7A1041021

SAM 4 Phantom; Righ Hand Section; Position: (95°,301°); Frequency: 1880 MHz  
Probe: ET3DV6 - SN1582; ConvF(5.17,5.17,5.17); Crest factor: 8.0; Head 1900MHz:  $\sigma = 1.47$  mho/m  $\epsilon_r = 38.0$   $\rho = 1.00$  g/cm<sup>3</sup>  
Cube 5x5x7: SAR (1g): 0.658 mW/g, SAR (10g): 0.337 mW/g, (Worst-case extrapolation)  
Coarse: Dx = 11.0, Dy = 11.0, Dz = 10.0  
Powerdrift: 0.02 dB  
PY7A1041021,S/N:F6100002NE;frequevcy 1880MHz(ch661), Right Hand Side,Cheek  
(95°) Phone Position, meas. Power=30.4dBm, Nom.Power=30.5dBm; ambien temprature  
24(c-degree)and humidity 50%,Date:050531

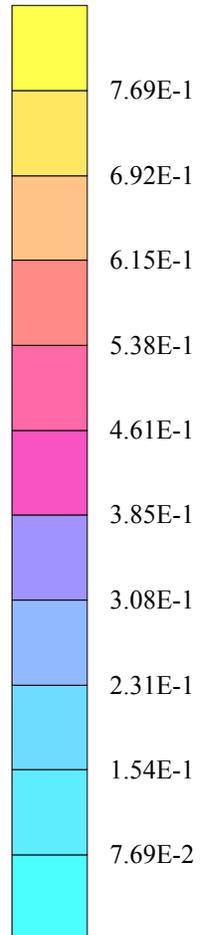


# PY7A1041021

SAM 4 Phantom; Left Hand Section; Position: (110°,59°); Frequency: 1880 MHz  
Probe: ET3DV6 - SN1582; ConvF(5.17,5.17,5.17); Crest factor: 8.0; Head 1900MHz:  $\sigma = 1.47$  mho/m  $\epsilon_r = 38.0$   $\rho = 1.00$  g/cm<sup>3</sup>  
Cube 5x5x7: SAR (1g): 0.718 mW/g, SAR (10g): 0.376 mW/g, (Worst-case extrapolation)  
Coarse: Dx = 11.0, Dy = 11.0, Dz = 11.0  
Powerdrift: -0.00 dB  
PY7A1041021,S/N:F6100002NE;frequevcy 1880MHz(ch661), Left Hand Side,Tilt  
(110°) Phone Position, meas. Power=30.4dBm, Nom.Power=30.5dBm; ambien temprature  
24(c-degree)and humidity 50%,Date:050531



SAR<sub>Tot</sub> [mW/g]



# PY7A1041021

SAM 4 Phantom; Left Hand Section; Position: (95°,59°); Frequency: 1880 MHz

Probe: ET3DV6 - SN1582; ConvF(5.17,5.17,5.17); Crest factor: 8.0; Head 1900MHz:  $\sigma = 1.47$  mho/m  $\epsilon_r = 38.0$   $\rho = 1.00$  g/cm<sup>3</sup>

Cube 5x5x7: SAR (1g): 0.502 mW/g, SAR (10g): 0.275 mW/g, (Worst-case extrapolation)

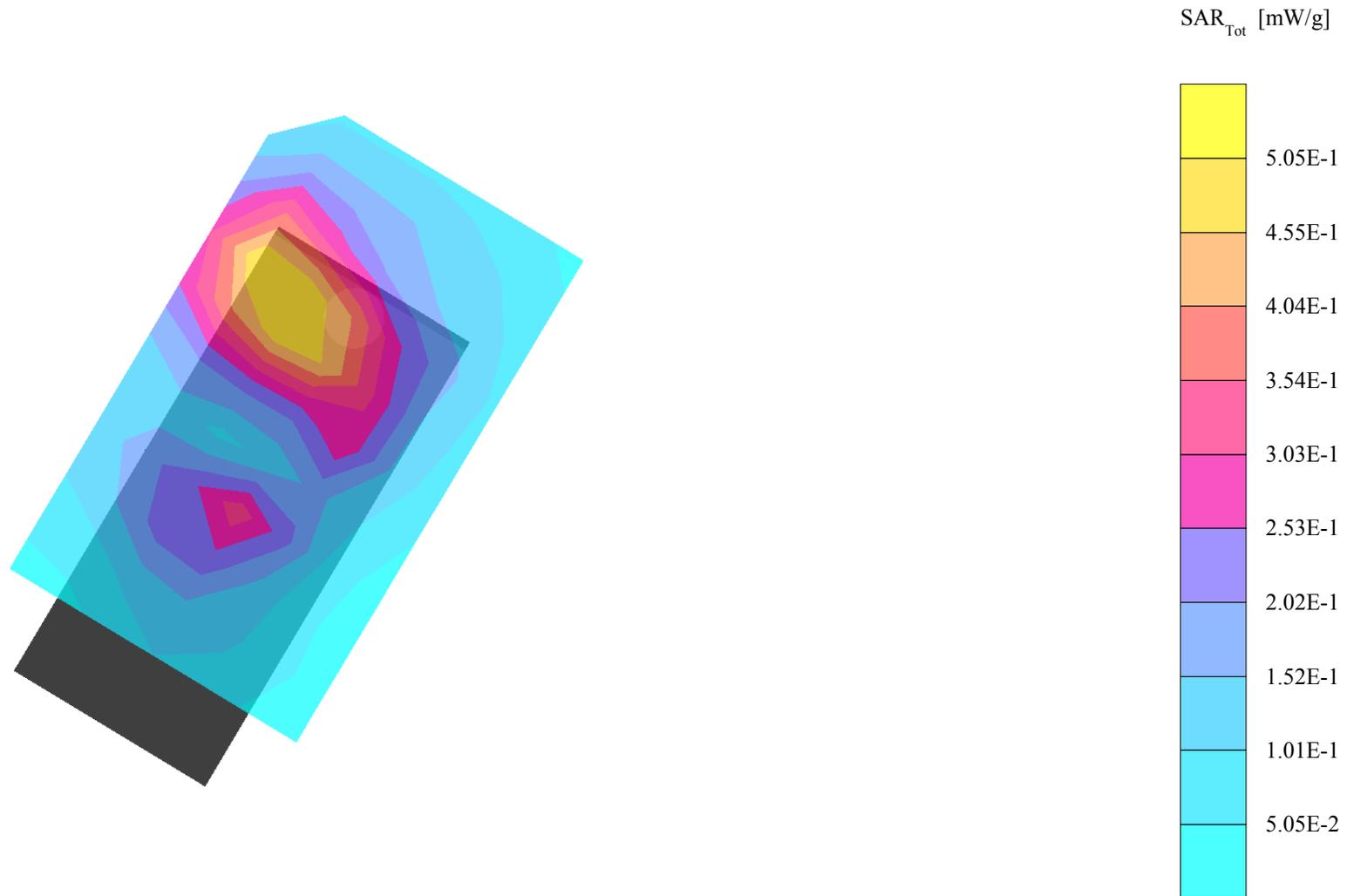
Coarse: Dx = 11.0, Dy = 11.0, Dz = 11.0

Powerdrift: 0.02 dB

PY7A1041021,S/N:F6100002NE;frequevcy 1880MHz(ch661), Left Hand Side,Cheek

(95°) Phone Position, meas. Power=30.4dBm, Nom.Power=30.5dBm; ambien temprature

24(c-degree)and humidity 50%,Date:050531



# PY7A1041021

SAM 4 Phantom; Flat Section; Position: (270°,90°); Frequency: 1850 MHz

Probe: ET3DV6 - SN1582; ConvF(4.68,4.68,4.68); Crest factor: 8.0; Muscle 1900:  $\sigma = 1.53$  mho/m  $\epsilon_r = 51.9$   $\rho = 1.00$  g/cm<sup>3</sup>

Cube 5x5x7: SAR (1g): 0.0933 mW/g, SAR (10g): 0.0562 mW/g, (Worst-case extrapolation)

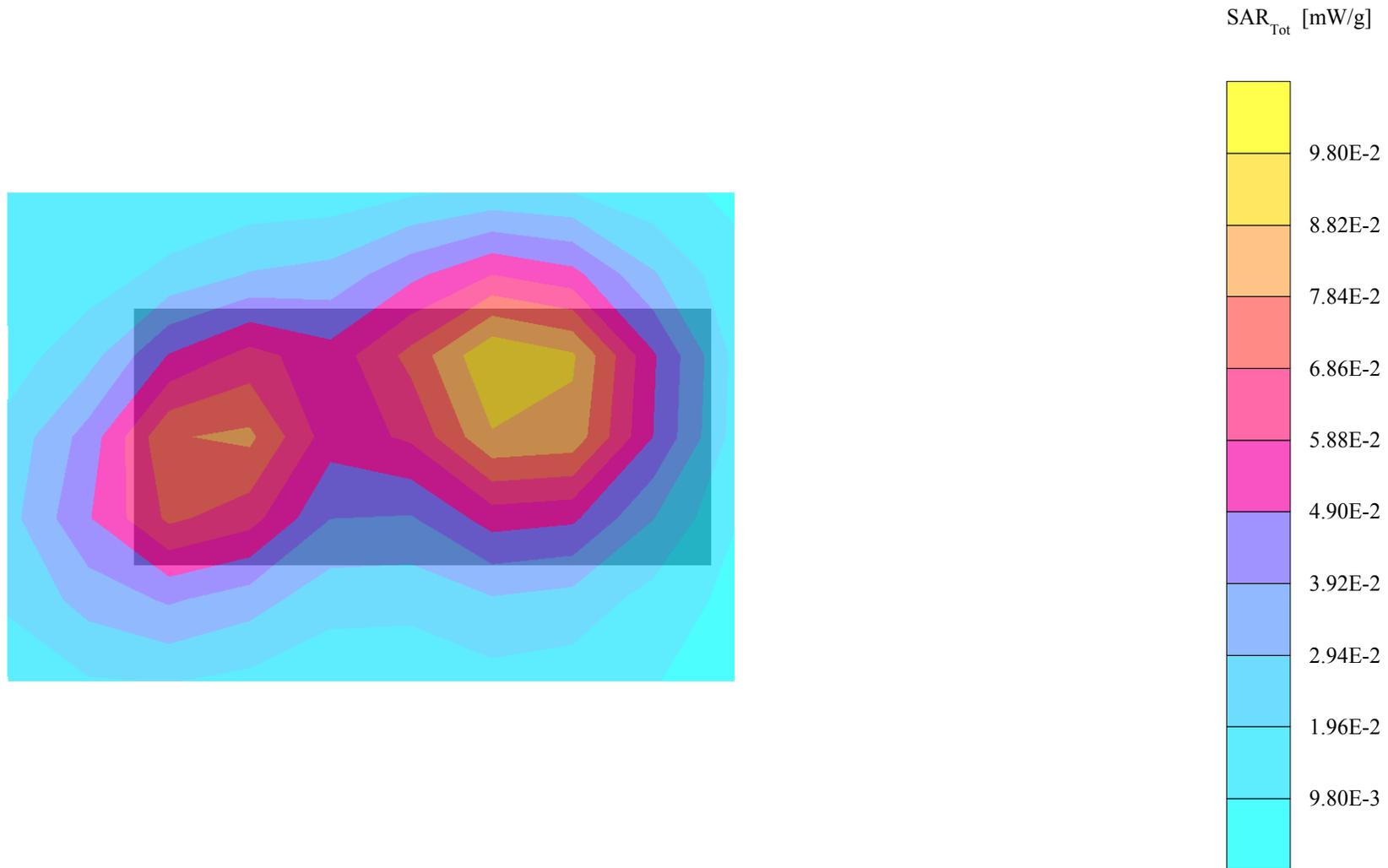
Coarse: Dx = 14.0, Dy = 14.0, Dz = 10.0

Powerdrift: -0.20 dB

PY7A1041021,S/N:Fp6100002NE;frequency 1880MHz(ch512),Front side Phone Position+15mm

distance from flat section of pantom, meas. Power=30.4dBm, Nom.Power=30.5dBm;

ambien temprature 23°C,and humidity 40%,Date:050601



# PY7A1041021

SAM 4 Phantom; Flat Section; Position: (270°,90°); Frequency: 1880 MHz

Probe: ET3DV6 - SN1582; ConvF(4.68,4.68,4.68); Crest factor: 4.0; Muscle 1900:  $\sigma = 1.53$  mho/m  $\epsilon_r = 51.9$   $\rho = 1.00$  g/cm<sup>3</sup>

Cube 5x5x7: SAR (1g): 0.969 mW/g, SAR (10g): 0.542 mW/g, (Worst-case extrapolation)

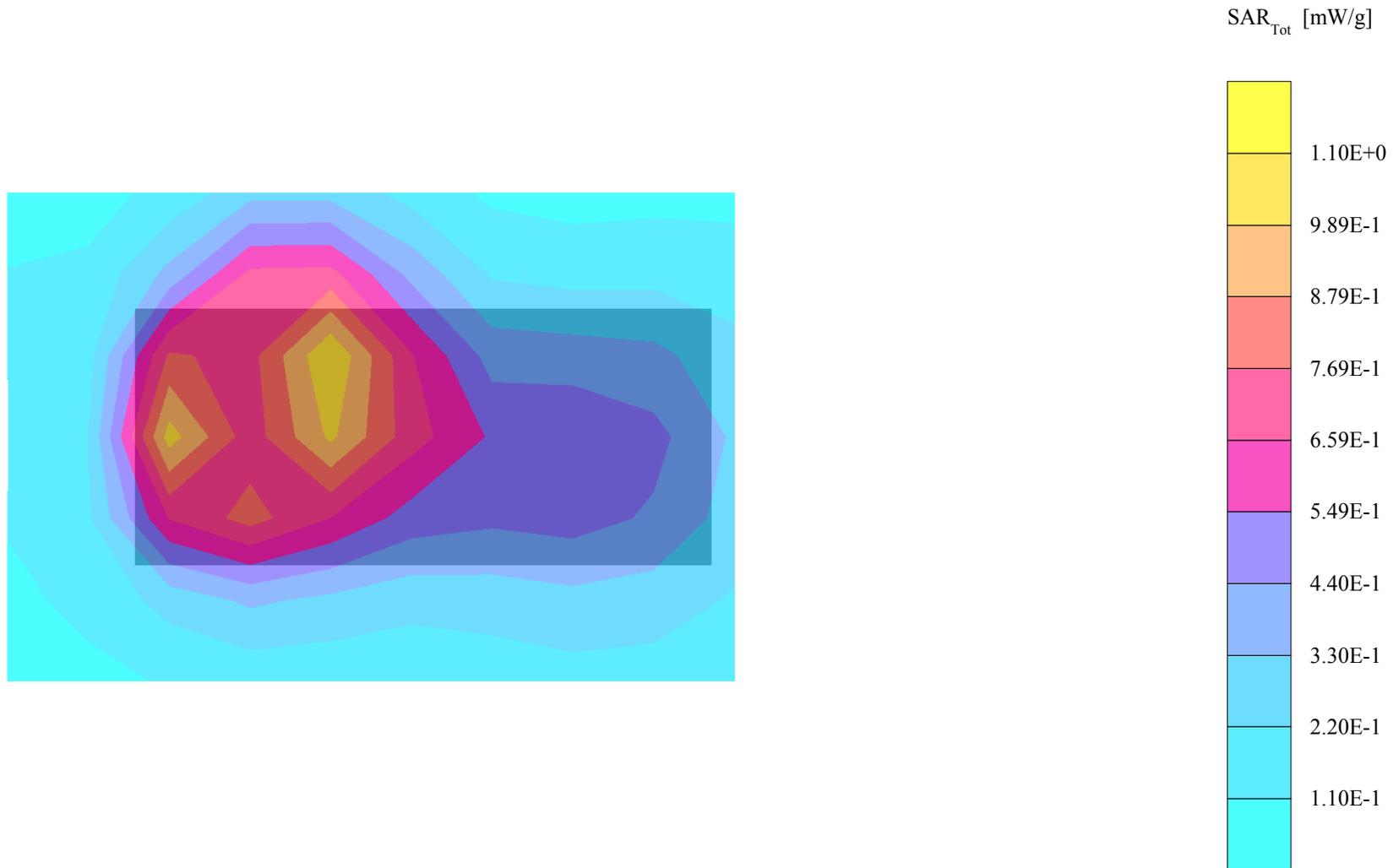
Coarse: Dx = 14.0, Dy = 14.0, Dz = 10.0

Powerdrift: -0.00 dB

PY7A1041021,S/N:Fp6100002NE;frequency 1880MHz(ch661),Back side Phone Position+15mm

distance from flat section of pantom, meas. Power=30.4dBm, Nom.Power=30.5dBm;

ambien temprature 23°C,and humidity 40%,Date:050601\_GPRS Measurement



# PY7A1041021

SAM 4 Phantom; Flat Section; Position: (270°,90°); Frequency: 1880 MHz

Probe: ET3DV6 - SN1582; ConvF(4.68,4.68,4.68); Crest factor: 8.0; Muscle 1900:  $\sigma = 1.53$  mho/m  $\epsilon_r = 51.9$   $\rho = 1.00$  g/cm<sup>3</sup>

Cube 5x5x7: SAR (1g): 0.215 mW/g, SAR (10g): 0.126 mW/g, (Worst-case extrapolation)

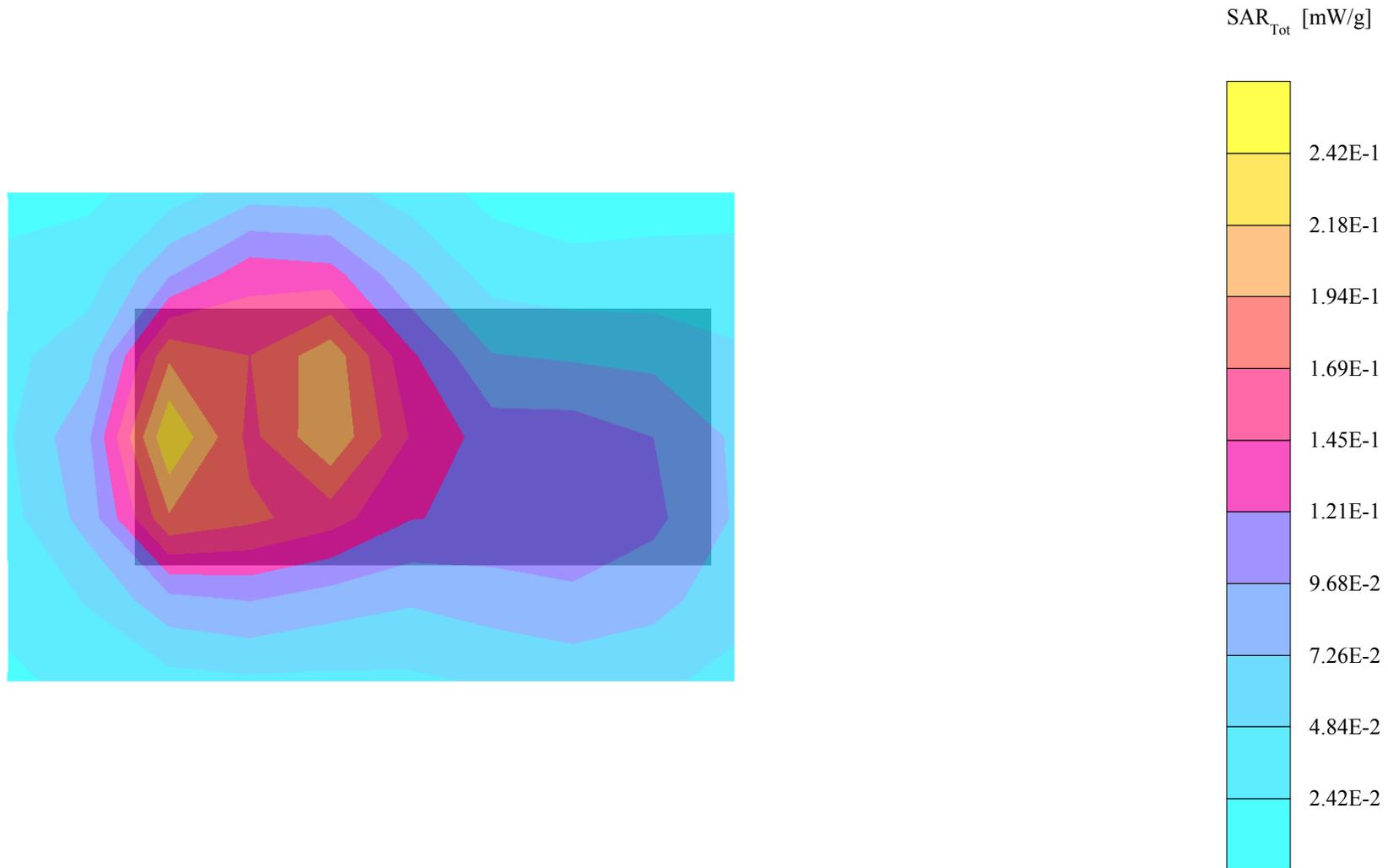
Coarse: Dx = 14.0, Dy = 14.0, Dz = 10.0

Powerdrift: -0.05 dB

PY7A1041021,S/N:Fp6100002NE;frequevcy 1880MHz(ch661),Back side Phone Position+15mm

distance from flat section of pantom, meas. Power=30.4dBm, Nom.Power=30.5dBm;

ambien temprature 23°C,and humidity 40%,Date:050601



# PY7A1041021

SAM 4 Phantom; Righ Hand Section; Position: (110°,301°); Frequency: 1850 MHz

Probe: ET3DV6 - SN1582; ConvF(5.17,5.17,5.17); Crest factor: 8.0; Head 1900MHz:  $\sigma = 1.47$  mho/m  $\epsilon_r = 38.0$   $\rho = 1.00$  g/cm<sup>3</sup>

Cube 5x5x7: SAR (1g): 0.763 mW/g, SAR (10g): 0.381 mW/g, (Worst-case extrapolation)

Coarse: Dx = 11.0, Dy = 11.0, Dz = 10.0

Powerdrift: 0.07 dB

PY7A1041021,S/N:F6100002NE;frequevcy 1850MHz(ch512), Right Hand Side,Tilt

(110°) Phone Position, meas. Power=30.4dBm, Nom.Power=30.5dBm; ambien temprature

24(c-degree)and humidity 50%,Date:050531

