



## Exhibit 11: SAR Test Report GKRMPX001

**Date of test:** 08/19/2004 to 08/31/2004  
**Date of Report:** 08/31/2004

**Laboratory:** Motorola Personal Communications Sector Product Safety & Compliance Laboratory  
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**Accreditation:** This laboratory is accredited to ISO/IEC 17025-1999 to perform the following tests:



Tests:  
 Electromagnetic Specific Absorption Rate

Procedures:  
 ANSI/IEEE C95.1-1992, 1999  
 (SAR) IEEE C95.3-1991  
 IEEE P1528 (*DRAFT*)  
 FCC OET Bulletin 65 (*including Supplements A, B, C*)  
 Australian Communications Authority Radio  
 Communications (Electromagnetic Radiation – Human  
 Exposure) Standard 1999  
 CENELEC EN 50361 (2001)  
 APP-0247  
 DOI-0876, 0900, 0902, 0904, 0915

Simulated Tissue Preparation  
 RF Power Measurement

On the following products or types of products:

Wireless Communications Devices (Examples): Two Way Radios; Portable Phones (including Cellular,  
 Licensed Non-Broadcast and PCS); Low Frequency Readers; and Pagers

A2LA certificate #1651-01

**Statement of Compliance:**

Motorola declares under its sole responsibility that portable cellular telephone FCC ID GKRMPX001 to which this declaration relates, is in conformity with the appropriate General Population/Uncontrolled RF exposure standards, recommendations and guidelines (FCC 47 CFR §2.1093). 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)

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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.

Motorola encourages all feedback, both positive and negative, on this test report.

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## 1 Introduction

The Motorola Personal Communications Sector Product Safety Laboratory has performed measurements of the maximum potential exposure to the user of portable cellular phone (FCC ID GKRMPX001). The Specific Absorption Rate (SAR) of this product was measured. The portable cellular phone was tested in accordance with FCC OET Bulletin 65 Supplement C 01-01.

## 2 Description of the Device Under Test

### 2.1 Antenna description

<b>Type</b>	Internal	
<b>Location</b>	Bottom Edge, Lower Flip	
<b>Dimensions</b>	Length	20mm
	Width	55mm
<b>Configuration</b>	PIFA	

### 2.2 Device description

<b>FCC ID Number</b>	<b>GKRMPX001</b>							
<b>Serial number</b>	004400007088915							
<b>Mode(s) of Operation</b>	GSM 850	GSM 1800	GSM 1900	GPRS 850	GPRS 1800	GPRS 1900	BlueTooth	WiFi
<b>Modulation Mode(s)</b>	GSM	GSM	GSM	GSM	GSM	GSM	BlueTooth	802.11b
<b>Maximum Output Power Setting</b>	33.10dBm	30.10dBm	29.90dBm	33.10dBm	30.10dBm	29.90dBm	4.00dBm	14.77dBm
<b>Duty Cycle</b>	1:8	1:8	1:8	2:8	2:8	2:8	1:1	1:1
<b>Transmitting Frequency Rang(s)</b>	824.2-848.8 MHz	1710.2-1784.8 MHz	1850.2 – 1909.8 MHz	824.2-848.8 MHz	1710.2-1784.8 MHz	1850.2 – 1909.8 MHz	2400 - 2483.5 MHz	2412 – 2472 Mhz
<b>Production Unit or Identical Prototype (47 CFR §2.908)</b>	Identical Prototype							
<b>Device Category</b>	Portable							
<b>RF Exposure Limits</b>	General Population / Uncontrolled							

**3 Test Equipment Used****3.1 Dosimetric System**

The Motorola Personal Communications Sector Product Safety & Compliance Laboratory utilizes a Dosimetric Assessment System (Dasy3™ v3.1d) manufactured by Schmid & Partner Engineering AG (SPEAG™), of Zurich Switzerland. All the SAR measurements are taken within a shielded enclosure. The overall RSS uncertainty of the measurement system is  $\pm 11.7\%$  (K=1) with an expanded uncertainty of  $\pm 23.0\%$  (K=2). The measurement uncertainty budget is given in Appendix 6. Per IEEE 1528, this uncertainty budget is applicable to the SAR range of 0.4 W/kg to 10 W/kg. The list of calibrated equipment used for the measurements is shown below.

Description	Serial Number	Cal Due Date
DASY3 DAE V1	375	06/17/2005
E-Field Probe ET3DV6	1506	05/27/2005
	1514	07/22/2005
Dipole Validation Kit, D900V2	96	04/02/2005
S.A.M. Phantom used for 850MHz	TP-1131	
Dipole Validation Kit, D1800V2	272TR	04/02/2005
S.A.M. Phantom used for 1900MHz	TP-1250	
Dipole Validation Kit, D2450V2	740	01/16/2005
S.A.M. Phantom used for 2450MHz	TP-1250	

**3.2 Additional Equipment**

Description	Serial Number	Cal Due Date
Signal Generator HP8648C	3847A04822	02/06/2005
Power Meter E4419B	GB39511087	04/05/2005
Power Sensor #1 - E9301A	US39210929	07/21/2005
Power Sensor #2 - E9301A	US39210930	07/21/2005
Network Analyzer HP8753ES	US39172529	10/29/2004
Dielectric Probe Kit HP85070B	US99360070	N/A

#### 4 Electrical parameters of the tissue simulating liquid

Prior to conducting SAR measurements, the relative permittivity,  $\epsilon_r$ , and the conductivity,  $\sigma$ , of the tissue simulating liquids were measured with the HP85070 Dielectric Probe Kit. These values, along with the temperature of the tissue simulate are shown in the table below. The recommended limits for maximum permittivity and minimum conductivity are also shown. These come from the Federal Communication Commission, OET Bulletin 65 Supplement C 01-01. It is seen that the measured parameters are satisfactory for compliance testing.

f (MHz)	Tissue type	Limits / Measured	Dielectric Parameters		
			$\epsilon_r$	$\sigma$ (S/m)	Temp (°C)
835	Head	Measured, 08/19/2004	43.3	0.92	19.8
		Measured, 08/21/2004	43.2	0.92	19.6
		Measured, 08/24/2004	42.8	0.92	20.0
		Recommended Limits	41.5 $\pm$ 5%	0.90 $\pm$ 5%	18-25
	Body	Measured, 08/20/2004	53.3	0.98	20.0
		Measured, 08/21/2004	53.3	0.97	20.0
		Measured, 08/24/2004	53.8	0.98	19.3
		Measured, 08/31/2004	53.4	0.98	19.5
1880	Head	Measured, 08/20/2004	38.5	1.44	19.6
		Measured, 08/21/2004	38.0	1.46	19.0
		Measured, 08/25/2004	38.1	1.45	19.4
		Recommended Limits	40.0 $\pm$ 5%	1.40 $\pm$ 5%	18-25
	Body	Measured, 08/21/2004	52.1	1.59	19.5
		Measured, 08/23/2004	52.0	1.59	19.5
		Measured, 08/25/2004	51.0	1.59	19.5
		Recommended Limits	53.3 $\pm$ 5%	1.52 $\pm$ 5%	18-25
2450	Head	Measured, 08/21/2004	37.6	1.88	19.8
		Measured, 08/23/2004	37.4	1.88	19.8
		Recommended Limits	39.2 $\pm$ 5%	1.80 $\pm$ 5%	18-25
	Body	Measured, 08/23/2004	37.4	1.88	19.8
		Recommended Limits	39.2 $\pm$ 5%	1.80 $\pm$ 5%	18-25

The list of ingredients and the percent composition used for the tissue simulates are indicated in the table below.

Ingredient	800MHz	800MHz	1900MHz	1900MHz	2450MHz
	Head	Body	Head	Body	Head
Sugar	57.0	44.9	--	30.80	--
DGBE	--	--	47.0	--	--
Water	40.45	53.06	52.8	68.91	48.75
Salt	1.45	0.94	0.2	0.29	0.15
HEC	1.0	1.0	--	--	--
Bact.	0.1	0.1	--	--	0.1
Diacetin Tech, 50%	--	--	--	--	51.0

## 5 System Accuracy Verification

A system accuracy verification of the DASY3 was performed using the measurement equipment listed in Section 3.1. The daily system accuracy verification occurs within center section of the SAM phantom.

A SAR measurement was performed to see if the measured SAR was within +/- 10% from the target SAR indicated on the dipole certification sheet. These tests were done at 900MHz and/or 1800MHz. These frequencies are within 100MHz of the mid-band frequency of the test device. This is within the allowable window given in Supplement C 01-01 *Appendix D System Verification* section item #5. The test was conducted on the same days as the measurement of the DUT. Recommended limits for maximum permittivity, minimum conductivity are shown in the table below. These come from the Federal Communication Commission, OET Bulletin 65 Supplement C 01-01. The obtained results from the system accuracy verification are displayed in the table below. The distributions of SAR compare well with those of the reference measurements (see Appendix 1). The tissue stimulant depth was verified to be 15.0cm  $\pm$ 0.5cm. Z-axis scans showing the SAR penetration are also included in Appendix 1. SAR values are normalized to 1W forward power delivered to the dipole.

f (MHz)	Description	SAR (W/kg), 1gram	Dielectric Parameters		Ambient Temp (°C)	Tissue Temp (°C)
			$\epsilon_r$	$\sigma$ (S/m)		
900	Measured, 08/19/2004	11.55	42.6	0.98	20.0	20.0
	Measured, 08/20/2004	11.8	42.7	1.00	20.0	19.8
	Measured, 08/21/2004	11.2	42.5	0.98	20.0	19.8
	Measured, 08/23/2004	11.65	42.4	0.99	20.0	19.7
	Measured, 08/24/2004	11.35	42.0	0.99	20.0	20.0
	Measured, 08/25/2004	11.54	41.8	0.98	20.0	19.7
	Measured, 08/31/2004	11.4	41.4	0.97	20.0	19.9
	Recommended Limits	11.4	41.5 $\pm$ 5%	0.97 $\pm$ 5%	18-25	18-25
1800	Measured, 08/20/2004	40.3	38.9	1.35	20.0	19.8
	Measured, 08/21/2004	42.1	38.4	1.36	20.0	19.0
	Measured, 08/23/2004	40.95	38.5	1.37	20.0	19.2
	Measured, 08/25/2004	42.35	38.6	1.37	20.0	19.1
	Recommended Limits	40.7	40.0 $\pm$ 5%	1.4 $\pm$ 5%	18-25	18-25
2450	Measured, 08/20/2004	59.29	37.6	1.88	20.0	19.0
	Measured, 08/23/2004	59.5	37.4	1.88	20.0	19.8
	Recommended Limits	57.6	39.2 $\pm$ 5%	1.80 $\pm$ 5%	18-25	18-25

The following probe conversion factors were used on the E-Field probe(s) used for the system accuracy verification measurements:

Description	Serial Number	f (MHz)	Conversion Factor	Cal Cert pg #
E-Field Probe ET3DV6	1506	900	5.72	7 of 8
		1800	4.77	7 of 8
	1514	900	6.08	7 of 8
		1800	5.03	7 of 8
		2450	4.46	7 of 8

## 6 Test Results

The test sample was operated in a test mode that allows control of the transmitter without the need to place actual phone calls. For the purposes of this test the unit is commanded to test mode and manually set to the proper channel, transmitter power level and transmit mode of operation. The phone was tested in the configurations stipulated in OET Bulletin 65 Supplement C 01-01. Motorola also followed the requirements in Supplement. C / Appendix D: SAR Measurement Procedures, section titled *"Devices Operating Next To A Person's Ear"*. These directions state "The device should be tested on the left and right side of the head phantom in the "Cheek/Touch" and "Ear/Tilt" positions. When applicable, each configuration should be tested with the antenna in its fully extended and fully retracted positions. These test configurations should be tested at the high, middle and low frequency channels of each operating mode; for example, AMPS, CDMA, and TDMA. If the SAR measured at the middle channel for each test configuration (left, right, Cheek/Touch, Tile/Ear, extended and retracted) is at least 2.0 dB lower than the SAR limit, testing at the high and low channels is optional for such test configuration(s)."

The DASY v3.1d SAR measurement system specified in section 3.1 was utilized within the intended operations as set by the SPEAG™ setup. The phone was positioned into the measurement configurations using the positioner supplied with the DASY 3.1d SAR measurement system. The measured dielectric constant of the material used for the positioner is less than 2.9 and the loss tangent is less than 0.02 ( $\pm 30\%$ ) at 850MHz. The default settings for the "coarse" and "cube" scans were chosen and use for measurements. The grid spacing of the course scan was set to 15cm as shown in the SAR plots included in appendix 2 and 3. Please refer to the DASY manual for additional information on SAR scanning procedures and algorithms used.

The Cellular Phone (FCC ID GKRMPX001) has the following battery options:

Model #1 – SNN5750A 980mAH Battery

Model #2 – SNN5751A 1960mAH Battery

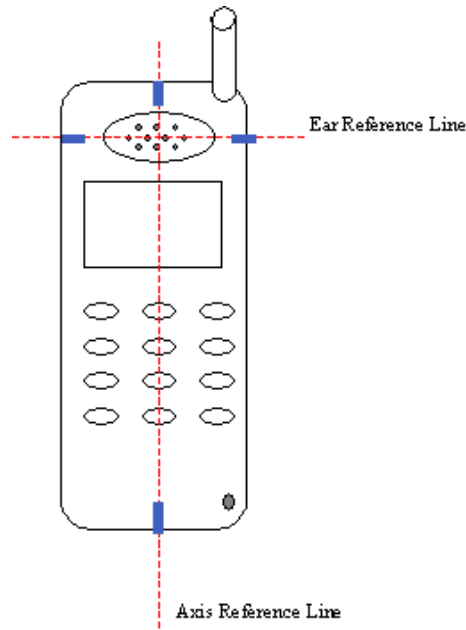
Model number SNN5750A was used to do most of the SAR testing. The phone was placed in the SAR measurement system with a fully charged battery. The configuration that resulted in the highest SAR values were tested using the other battery listed above.

### 6.1 Head Adjacent Test Results

To aid in positioning repeatability, the ear reference line of the device and the axis reference line of the device have been physically added using a non-metallic marker.

- Per Figure 1, the "Ear Reference Line" is centered vertically through the center of the listening area (as defined by the speaker holes in the housing).
- The "Axis Reference Line" bisects the front surface of the device at its top and bottom edges.
- The intersection of these two lines defines the location of the "Ear Reference Point".

The lines drawn on the device extended to the outside edges, as shown in blue in the figure below, & wrap around the sides of the device.



The SAR results shown in tables 1 through 4 are maximum SAR values averaged over 1 gram of phantom tissue. Also shown are the measured conducted output powers, the temperature of the test facility during the test, the temperature of the tissue simulate after the test, the measured drift and the extrapolated SAR. The exact method of extrapolation is  $\text{New SAR} = \text{Old SAR} * 10^{(-\text{drift}/10)}$ . The SAR reported at the end of the measurement process by the DASY™ measurement system can be scaled up by the measured drift to determine the SAR at the beginning of the measurement process. This is the most conservative SAR because it corresponds to the average output power at the beginning of the SAR test. This extrapolation has been done because when the DUT is operating properly it may exhibit a slump in radiated power and SAR over time. This is verified by measuring the SAR drift after the test. The test conditions indicated as bold numbers in the following table are included in Appendix 2

The SAR measurements were performed using the SAM phantoms listed in section 3.1. Since same phantoms and tissue simulate are used for the system accuracy verification as the device SAR measurements, the Z-axis scans included in within Appendix 1 are applicable for verification of tissue simulate depth to be  $15.0\text{cm} \pm 0.5\text{cm}$ . All other test conditions measured lower SAR values than those included in Appendix 2. Note that 800MHz digital mode SAR measurements were performed in accordance with Supplement C.

The following probe conversion factors were used on the E-Field probe(s) used for the head adjacent measurements:

Description	Serial Number	f (MHz)	Conversion Factor	Cal Cert pg #
E-Field Probe ET3DV6	1506	900	5.72	7 of 8
		1800	4.77	7 of 8
	1514	900	6.08	7 of 8
		1800	5.03	7 of 8
		2450	4.46	7 of 8



f (MHz)	Description	Conducted Output Power (dBm)	Cheek / Touch Position							
			Left Head				Right Head			
			Measured (W/kg)	Drift (dB)	Extrapolate d (W/kg)	Simulate Temp (°C)	Measured (W/kg)	Drift (dB)	Extrapolate d (W/kg)	Simulate Temp (°C)
Digital 850MHz	Channel 128	33.11								
	Channel 190	33.27	<b>0.305</b>	<b>0.28</b>	<b>0.31</b>	<b>19.6</b>	<b>0.264</b>	<b>-0.5</b>	<b>0.30</b>	<b>19.6</b>
	Channel 251	33.17								
Digital 1900MHz	Channel 512	30.14								
	Channel 661	30.11	<b>0.112</b>	<b>0.57</b>	<b>0.11</b>	<b>19.6</b>	<b>0.143</b>	<b>-0.53</b>	<b>0.16</b>	<b>19.0</b>
	Channel 810	29.96								
WiFi 2400Mhz	Channel 1	14.77								
	Channel 6	14.77	<b>0.0262</b>	<b>0.07</b>	<b>0.03</b>	<b>19.0</b>	<b>0.0197</b>	<b>-0.15</b>	<b>0.02</b>	<b>19.8</b>
	Channel 11	14.77								

**Table 1: SAR measurement results for the portable cellular telephone FCC ID GKRMPX001 at highest possible output power. Measured against the left head in the Cheek/Touch Position.**

f (MHz)	Description	Conducted Output Power (dBm)	15° Tilt Position							
			Left Head				Right Head			
			Measured (W/kg)	Drift (dB)	Extrapolate d (W/kg)	Simulate Temp (°C)	Measured (W/kg)	Drift (dB)	Extrapolate d (W/kg)	Simulate Temp (°C)
Digital 850MHz	Channel 128	33.11								
	Channel 190	33.27	<b>0.105</b>	<b>-0.01</b>	<b>0.11</b>	<b>19.8</b>	<b>0.107</b>	<b>-0.26</b>	<b>0.11</b>	<b>19.4</b>
	Channel 251	33.17								
Digital 1900MHz	Channel 512	30.14								
	Channel 661	30.11	<b>0.055</b>	<b>-0.09</b>	<b>0.06</b>	<b>19.3</b>	<b>0.0484</b>	<b>-0.05</b>	<b>0.05</b>	<b>19.0</b>
	Channel 810	29.96								
WiFi 2400Mhz	Channel 1	14.77								
	Channel 6	14.77	<b>0.0064</b>	<b>0.62</b>	<b>0.01</b>	<b>19.8</b>	<b>0.0076</b>	<b>-0.33</b>	<b>0.01</b>	<b>19.8</b>
	Channel 11	14.77								

**Table 2: SAR measurement results for the portable cellular telephone FCC ID IHDT56EV1 at highest possible output power. Measured against the left head in the 15° Tilt Position.**

f (MHz)	Description	Conducted Output Power (dBm)	Cheek / Touch Position with SYN5751A battery							
			Left Head				Right Head			
			Measured (W/kg)	Drift (dB)	Extrapolate d (W/kg)	Simulate Temp (°C)	Measured (W/kg)	Drift (dB)	Extrapolate d (W/kg)	Simulate Temp (°C)
Digital 850MHz	Channel 128	33.11								
	Channel 190	33.27	<b>0.293</b>	<b>-0.16</b>	<b>0.30</b>	<b>19.6</b>				
	Channel 251	33.17								
Digital 1900MHz	Channel 512	30.14								
	Channel 661	30.11					<b>0.132</b>	<b>0.38</b>	<b>0.13</b>	<b>19.0</b>
	Channel 810	29.96								
WiFi 2400Mhz	Channel 1	14.77								
	Channel 6	14.77	<b>0.0133</b>	<b>-0.17</b>	<b>0.01</b>	<b>19.8</b>				
	Channel 11	14.77								

**Table 3: SAR measurement results for the portable cellular telephone FCC ID GKRMPX001 at highest possible output power. Measured against the left head in the Cheek/Touch Position.**

f (MHz)	Description	Conducted Output Power (dBm)	Cheek / Touch Position with WiFi channel 6 enabled							
			Left Head				Right Head			
			Measured (W/kg)	Drift (dB)	Extrapolate d (W/kg)	Simulate Temp (°C)	Measured (W/kg)	Drift (dB)	Extrapolate d (W/kg)	Simulate Temp (°C)
Digital 850MHz	Channel 128	33.11								
	Channel 190	33.27	<b>0.277</b>	<b>0.33</b>	<b>0.28</b>	<b>20.0</b>				
	Channel 251	33.17								
Digital 1900MHz	Channel 512	30.14								
	Channel 661	30.11					<b>0.130</b>	<b>0.39</b>	<b>0.13</b>	<b>19.4</b>
	Channel 810	29.96								

**Table 4: SAR measurement results for the portable cellular telephone FCC ID GKRMPX001 at highest possible output power. Measured against the left head in the Cheek/Touch Position.**

## 6.2 Body Worn Test Results

The SAR results shown in table 5 through 8 are the maximum SAR values averaged over 1 gram of phantom tissue. Also shown are the measured conducted output powers, the temperature of the test facility during the test, the temperature of the tissue simulate after the test, the measured drift and the extrapolated SAR. The exact method of extrapolation is  $\text{New SAR} = \text{Old SAR} * 10^{(-\text{drift}/10)}$ . The SAR reported at the end of the measurement process by the DASY™ measurement system can be scaled up by the measured drift to determine the SAR at the beginning of the measurement process. This is the most conservative SAR because it corresponds to the average output power at the beginning of the SAR test. This extrapolation has been done because when the DUT is operating properly it may exhibit a slump in radiated power and SAR over time. This is verified by measuring the SAR drift after the test. The test conditions indicated as bold numbers in the following table are included in Appendix 3. Note that 800MHz digital mode SAR measurements were performed in accordance with OET Bulletin 65 Supplement C 01-01. All other test conditions measured lower SAR values than those included in Appendix 3.

A “flat” phantom was for the body-worn tests. This “flat” phantom is made out of 1” thick natural High Density Polyethylene with a thickness at the bottom equal to 2.0mm. It measures 52.7cm(long) x 26.7cm(wide) x 21.2cm(tall). The measured dielectric constant of the material used is less than 2.3 and the loss tangent is less than 0.0046 all the way up to 2.184GHz.

The tissue stimulant depth was verified to be 15.0cm ±0.5cm. The same device holder described in section 6 was used for positioning the phone. The functional accessories were divided into two categories, the ones with metal components and the ones with non-metal components. For non-metallic component accessories, testing was performed on the accessory that displayed the closest proximity to the flat phantom. Each metallic component accessory, if any, was checked for uniqueness of metal component so that each is tested with the device. If multiple accessories shared an identical metal component, only the accessory that dictates the closest spacing to the body was tested. The cellular phone was tested with a headset connected to the device for all body-worn SAR measurements.

There is one Body-Worn Accessories available for this phone:

A Leather Pouch with Belt Clip: Model Number SYN1070A

This leather pouch was used for all body worn SAR measurements.

The following probe conversion factors were used on the E-Field probe(s) used for the body worn measurements:

Description	Serial Number	f (MHz)	Conversion Factor	Cal Cert pg #
E-Field Probe ET3DV6	1506	900	5.53	7 of 8
		1800	4.18	7 of 8
	1514	900	5.87	7 of 8
		1800	4.46	7 of 8
		2450	4.24	7 of 8

f (MHz)	Description	Conducted Output Power (dBm)	Body Worn GSM							
			with SYN1070A				with SYN1070A & Bluetooth			
			Measured (W/kg)	Drift (dB)	Extrapolated (W/kg)	Simulate Temp (°C)	Measured (W/kg)	Drift (dB)	Extrapolated (W/kg)	Simulate Temp (°C)
Digital 850MHz	Channel 128	33.11								
	Channel 190	33.27	<b>0.626</b>	<b>-0.11</b>	<b>0.64</b>	<b>20.0</b>	<b>0.678</b>	<b>-0.11</b>	<b>0.70</b>	<b>20.0</b>
	Channel 251	33.17								
Digital 1900MHz	Channel 512	30.14								
	Channel 661	30.11	<b>0.617</b>	<b>0.00</b>	<b>0.62</b>	<b>19.5</b>	<b>0.513</b>	<b>-0.12</b>	<b>0.53</b>	<b>19.5</b>
	Channel 810	29.96								

**Table 5: SAR measurement results for the portable cellular telephone FCC ID GKRMPX001 at highest possible output power. Measured against the body.**

f (MHz)	Description	Conducted Output Power (dBm)	Body Worn GPRS							
			with SYN1070A & Bluetooth				with SYN1070A, SNN5751A & Bluetooth			
			Measured (W/kg)	Drift (dB)	Extrapolated (W/kg)	Simulate Temp (°C)	Measured (W/kg)	Drift (dB)	Extrapolated (W/kg)	Simulate Temp (°C)
Digital 850MHz	Channel 128	33.11	<b>1.46</b>	<b>-0.19</b>	<b>1.53</b>	<b>19.5</b>	<b>1.20</b>	<b>-0.16</b>	<b>1.25</b>	<b>19.3</b>
	Channel 190	33.27	1.25	-0.09	1.28	20.0	0.987	-0.09	1.01	18.8
	Channel 251	33.17	1.17	-0.13	1.21	19.7	0.887	-0.07	0.90	19.4
Digital 1900MHz	Channel 512	30.14	1.07	-0.03	1.08	19.5	0.75	0.06	0.75	19.5
	Channel 661	30.11	1.19	-0.04	1.20	19.5	0.796	-0.04	0.80	19.5
	Channel 810	29.96	<b>1.22</b>	<b>-0.03</b>	<b>1.23</b>	<b>19.5</b>	<b>0.858</b>	<b>-0.09</b>	<b>0.88</b>	<b>19.5</b>

**Table 6: SAR measurement results for the portable cellular telephone FCC ID GKRMPX001 at highest possible output power. Measured against the body.**

f (MHz)	Description	Conducted Output Power (dBm)	Body Worn GSM							
			with SYN1070A, Bluetooth & WiFi Channel 6				with SYN1070A, SNN5751A & WiFi Channel 6			
			Measured (W/kg)	Drift (dB)	Extrapolated (W/kg)	Simulate Temp (°C)	Measured (W/kg)	Drift (dB)	Extrapolated (W/kg)	Simulate Temp (°C)
Digital 850MHz	Channel 128	33.11								
	Channel 190	33.27	<b>0.646</b>	<b>-0.22</b>	<b>0.68</b>	<b>19.2</b>				
	Channel 251	33.17								
Digital 1900MHz	Channel 512	30.14								
	Channel 661	30.11					<b>0.615</b>	<b>-0.07</b>	<b>0.60</b>	<b>19.5</b>
	Channel 810	29.96								

**Table 7: SAR measurement results for the portable cellular telephone FCC ID GKRMPX001 at highest possible output power. Measured against the body.**

f (MHz)	Description	Conducted Output Power (dBm)	Body Worn WiFi							
			with SYN1070A				with SYN1070A & SNN5751A			
			Measured (W/kg)	Drift (dB)	Extrapolated (W/kg)	Simulate Temp (°C)	Measured (W/kg)	Drift (dB)	Extrapolated (W/kg)	Simulate Temp (°C)
WiFi 2400Mhz	Channel 1	14.77								
	Channel 6	14.77	<b>0.186</b>	<b>0.04</b>	<b>0.19</b>	<b>19.8</b>	<b>0.167</b>	<b>-0.03</b>	<b>0.17</b>	<b>19.5</b>
	Channel 11	14.77								

**Table 8: SAR measurement results for the portable cellular telephone FCC ID GKRMPX001 at highest possible output power. Measured against the body.**

## **Appendix 1**

### **SAR distribution comparison for the system accuracy verification**

# Dipole 900 MHz

900 MHz System Performance Check / Dipole Sn# 96

PM1 Power = 200mW

Sim.Temp@meas=20.0\*C    Sim.Temp@SPC = 20.0\*C    Room Temp @ SPC = 20.0\*C

R4 TP-1131 SUGAR SAM Expanded (Rev. 2)-9Jan03 Phantom; Flat Section; Position: (90°,90°); Frequency: 900 MHz

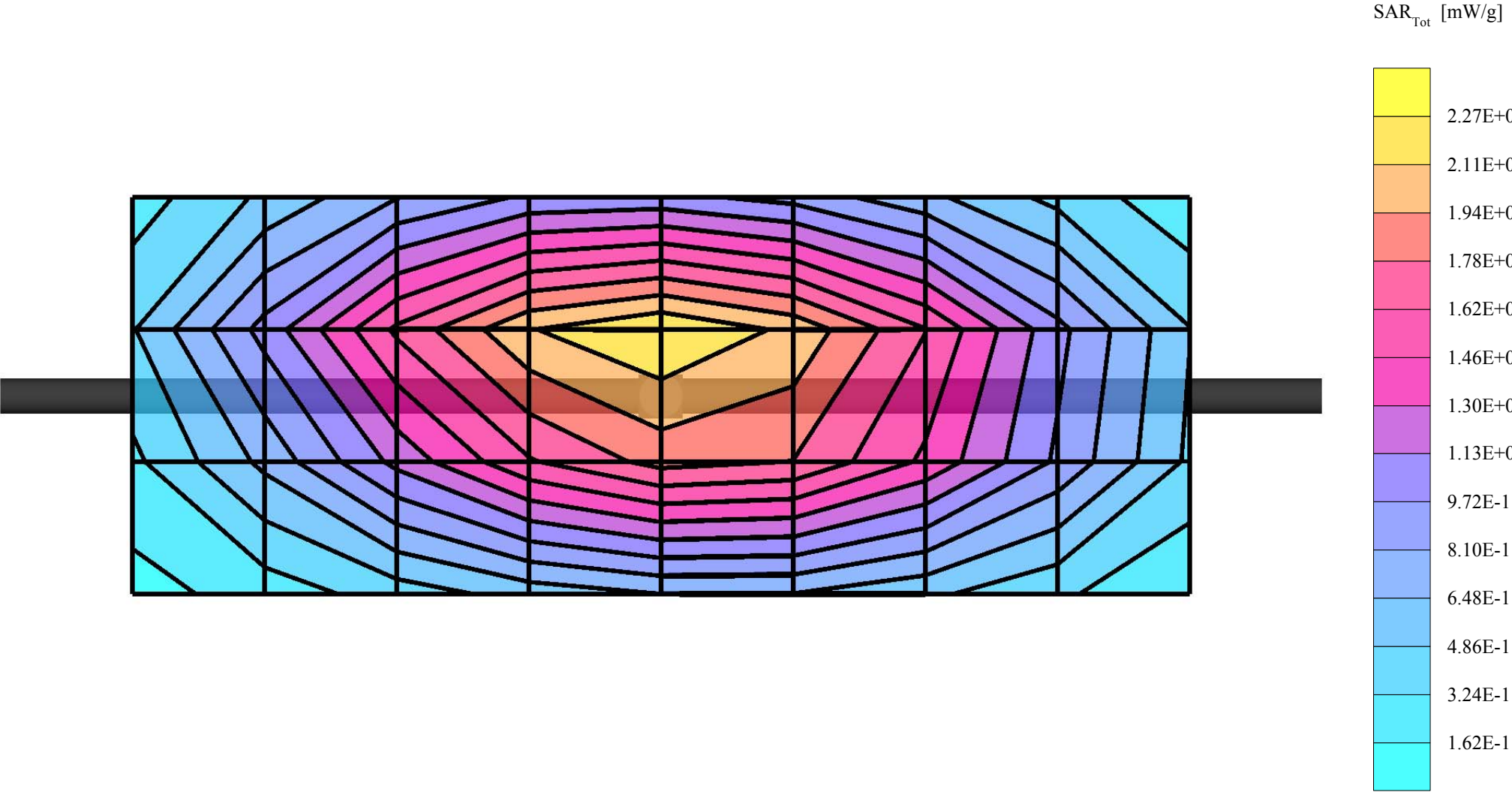
Probe: ET3DV6R - SN1506 - VALIDATION.4; ConvF(5.72,5.72,5.72); Crest factor: 1.0; 900 MHz    VALIDATION:  $\sigma = 0.98 \text{ mho/m}$   $\epsilon_r = 42.6$   $\rho = 1.00 \text{ g/cm}^3$

Cubes (2): SAR (1g): 2.31 mW/g  $\pm 0.08 \text{ dB}$ , SAR (10g): 1.46 mW/g  $\pm 0.08 \text{ dB}$ , (Worst-case extrapolation)

Coarse: Dx = 15.0, Dy = 15.0, Dz = 10.0

Penetration depth: 11.5 (10.7, 12.7) [mm]

Powerdrift: -0.02 dB



# Dipole 900 MHz

900 MHz System Performance Check / Dipole Sn# 96

PM1 Power = 200mW

Sim.Temp@meas=20.0\*C    Sim.Temp@SPC = 20.0\*C    Room Temp @ SPC = 20.0\*C

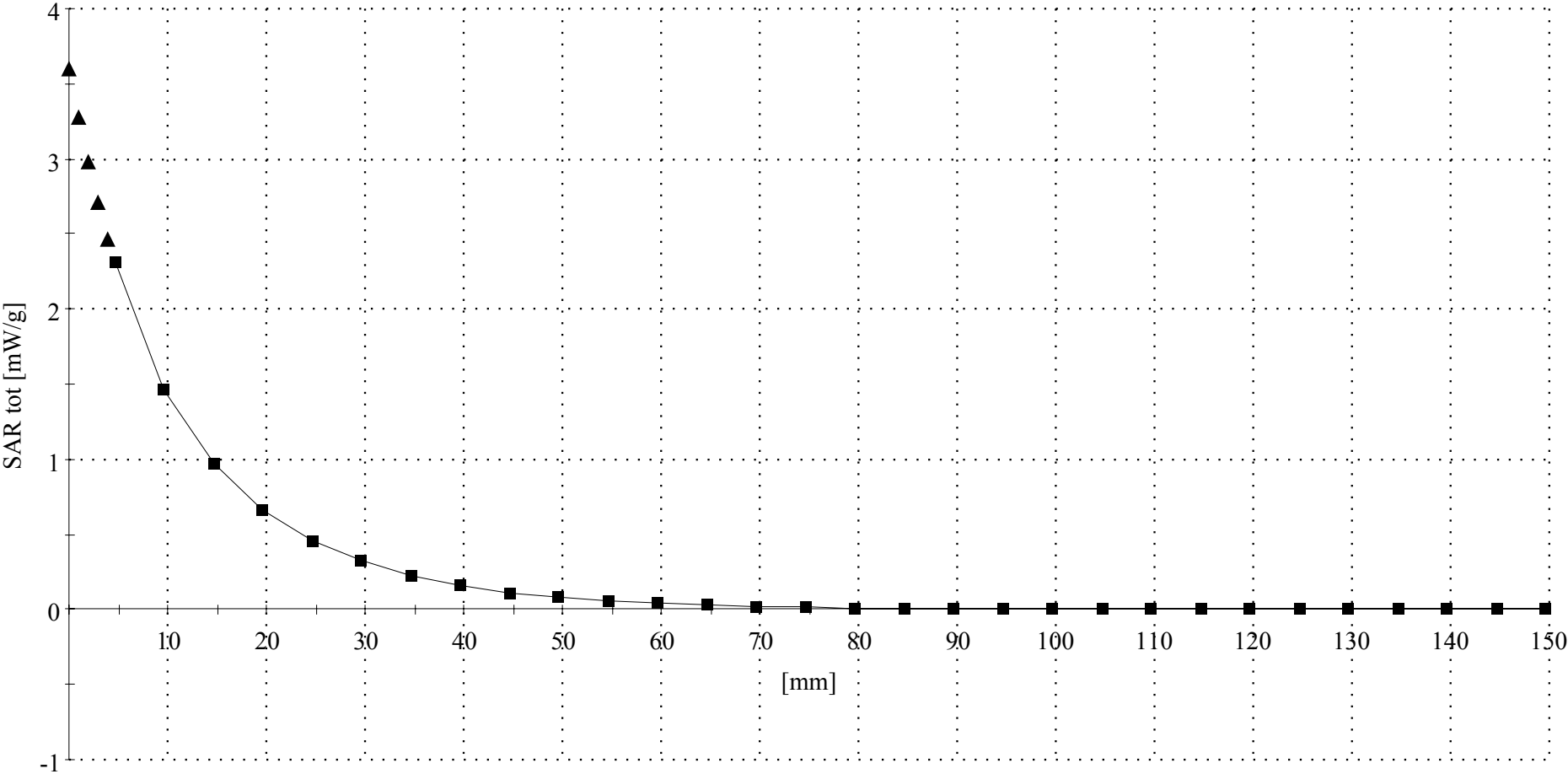
R4 TP-1131 SUGAR SAM Expanded (Rev. 2)-9Jan03 Phantom; Section; Position: ; Frequency: 900 MHz

Probe: ET3DV6R - SN1506 - VALIDATION.4; ConvF(5.72,5.72,5.72); Crest factor: 1.0; 900 MHz    VALIDATION:  $\sigma = 0.98$  mho/m  $\epsilon_r = 42.6$   $\rho = 1.00$  g/cm<sup>3</sup>

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Z-Axis: Dx = 0.0, Dy = 0.0, Dz = 5.0

Penetration depth: 11.5 (10.7, 12.6) [mm]



# Dipole 900 MHz

900 MHz System Performance Check / Dipole Sn# 96

PM1 Power = 200mW

Sim.Temp@meas=19.8°C    Sim.Temp@SPC = 19.8°C    Room Temp @ SPC = 20.0°C

R4 TP-1131 SUGAR SAM Expanded (Rev. 2)-9Jan03 Phantom; Flat Section; Position: (90°,90°); Frequency: 900 MHz

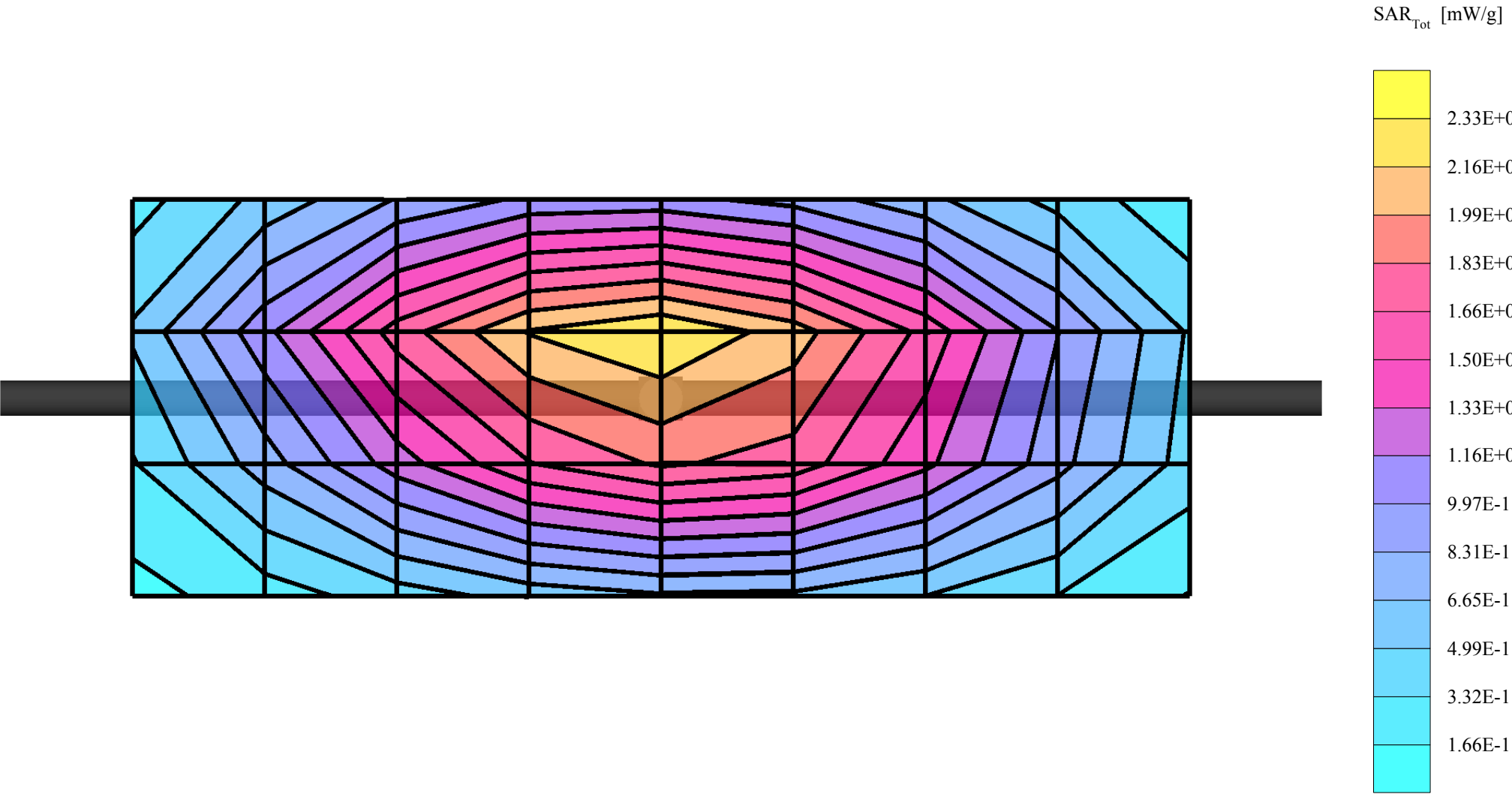
Probe: ET3DV6R - SN1506 - VALIDATION.4; ConvF(5.72,5.72,5.72); Crest factor: 1.0; 900 MHz    VALIDATION:  $\sigma = 1.00$  mho/m  $\epsilon_r = 42.7$   $\rho = 1.00$  g/cm<sup>3</sup>

Cubes (2): SAR (1g): 2.36 mW/g  $\pm$  0.06 dB, SAR (10g): 1.49 mW/g  $\pm$  0.07 dB, (Worst-case extrapolation)

Coarse: Dx = 15.0, Dy = 15.0, Dz = 10.0

Penetration depth: 11.6 (10.8, 12.7) [mm]

Powerdrift: -0.03 dB





# Dipole 900 MHz

900 MHz System Performance Check / Dipole Sn# 96

PM1 Power = 200mW

Sim.Temp@meas=19.8°C    Sim.Temp@SPC = 19.8°C    Room Temp @ SPC = 20.0°C

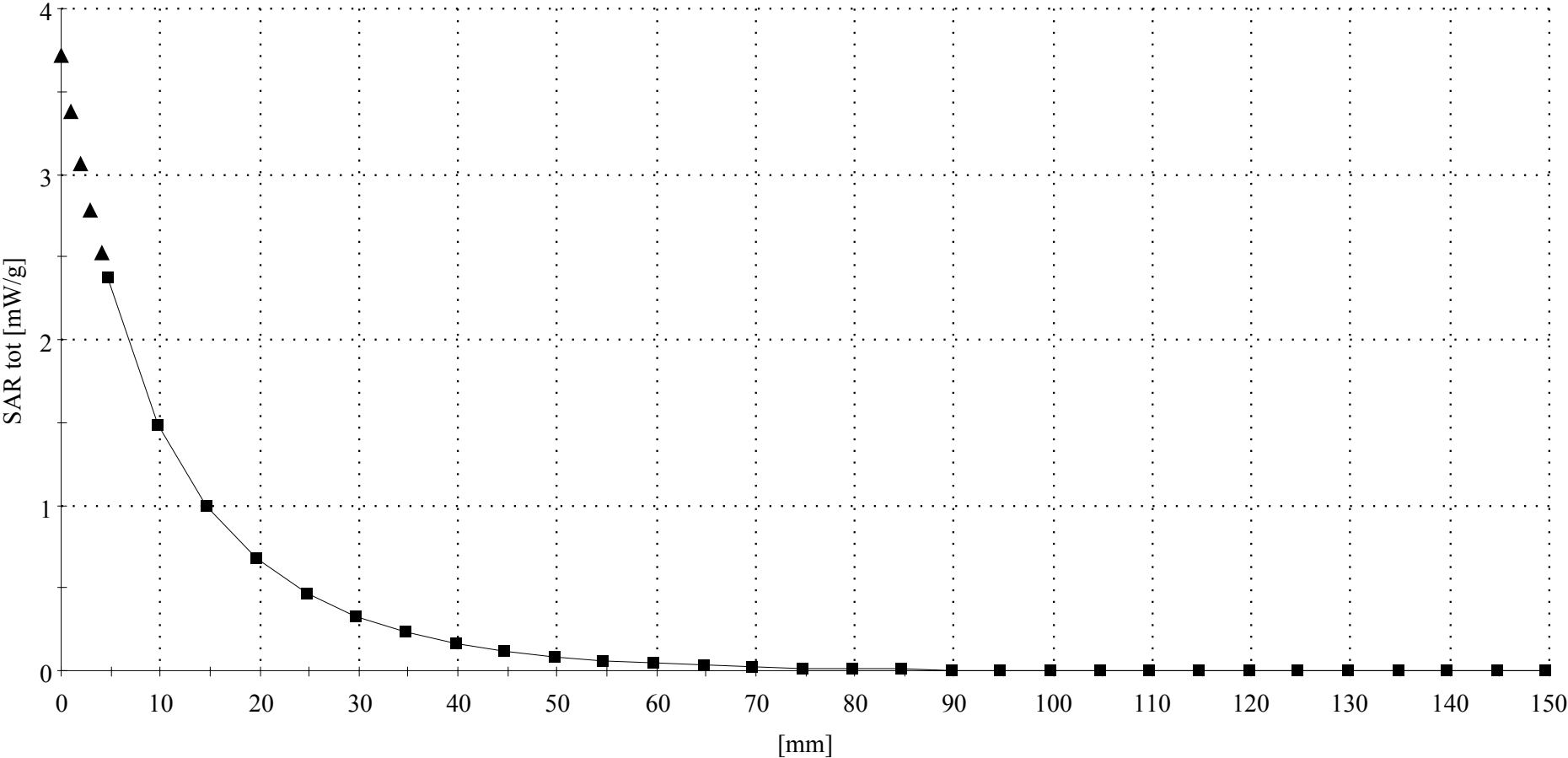
R4 TP-1131 SUGAR SAM Expanded (Rev. 2)-9Jan03 Phantom; Section; Position: ; Frequency: 900 MHz

Probe: ET3DV6R - SN1506 - VALIDATION.4; ConvF(5.72,5.72,5.72); Crest factor: 1.0; 900 MHz    VALIDATION:  $\sigma = 1.00$  mho/m  $\epsilon_r = 42.7$   $\rho = 1.00$  g/cm<sup>3</sup>

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Z-Axis: Dx = 0.0, Dy = 0.0, Dz = 5.0

Penetration depth: 11.4 (10.5, 12.6) [mm]



# Dipole 1800 MHz

1800 MHz System Performance Check / Dipole Sn# 272(TR)

PM1 Power = 198mW

Sim.Temp@meas=19.5C    Sim.Temp@SPC = 19.7C    Room Temp @ SPC = 20.0C

R4 TP-1250 GLYCOL SAM Expanded (Rev. 2)-9Jan03 Phantom; Flat Section; Position: (90°,90°); Frequency: 1800 MHz

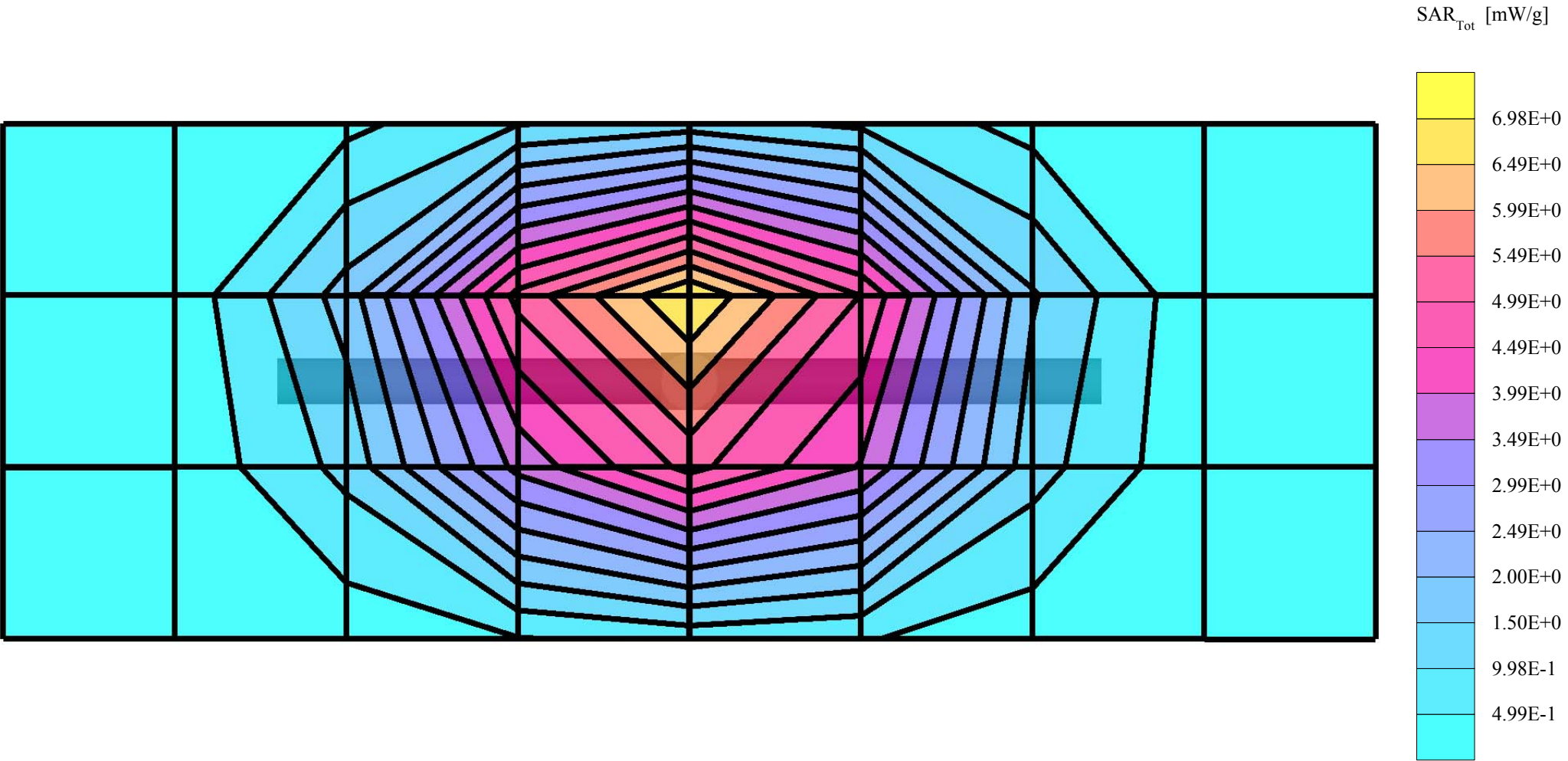
Probe: ET3DV6 - SN1514-VALADATION4; ConvF(5.03,5.03,5.03); Crest factor: 1.0; 1800 MHz VALIDATION:  $\sigma = 1.35 \text{ mho/m}$   $\epsilon_r = 38.9$   $\rho = 1.00 \text{ g/cm}^3$

Cubes (2): SAR (1g): 7.98 mW/g  $\pm 0.05 \text{ dB}$ , SAR (10g): 4.19 mW/g  $\pm 0.03 \text{ dB}$ , (Worst-case extrapolation)

Coarse: Dx = 15.0, Dy = 15.0, Dz = 10.0

Penetration depth: 8.5 (8.1, 9.3) [mm]

Powerdrift: 0.01 dB



# Dipole 1800 MHz

1800 MHz System Performance Check / Dipole Sn# 272(TR)

PM1 Power = 198mW

Sim.Temp@meas=19.5C    Sim.Temp@SPC = 19.7C    Room Temp @ SPC = 20.0C

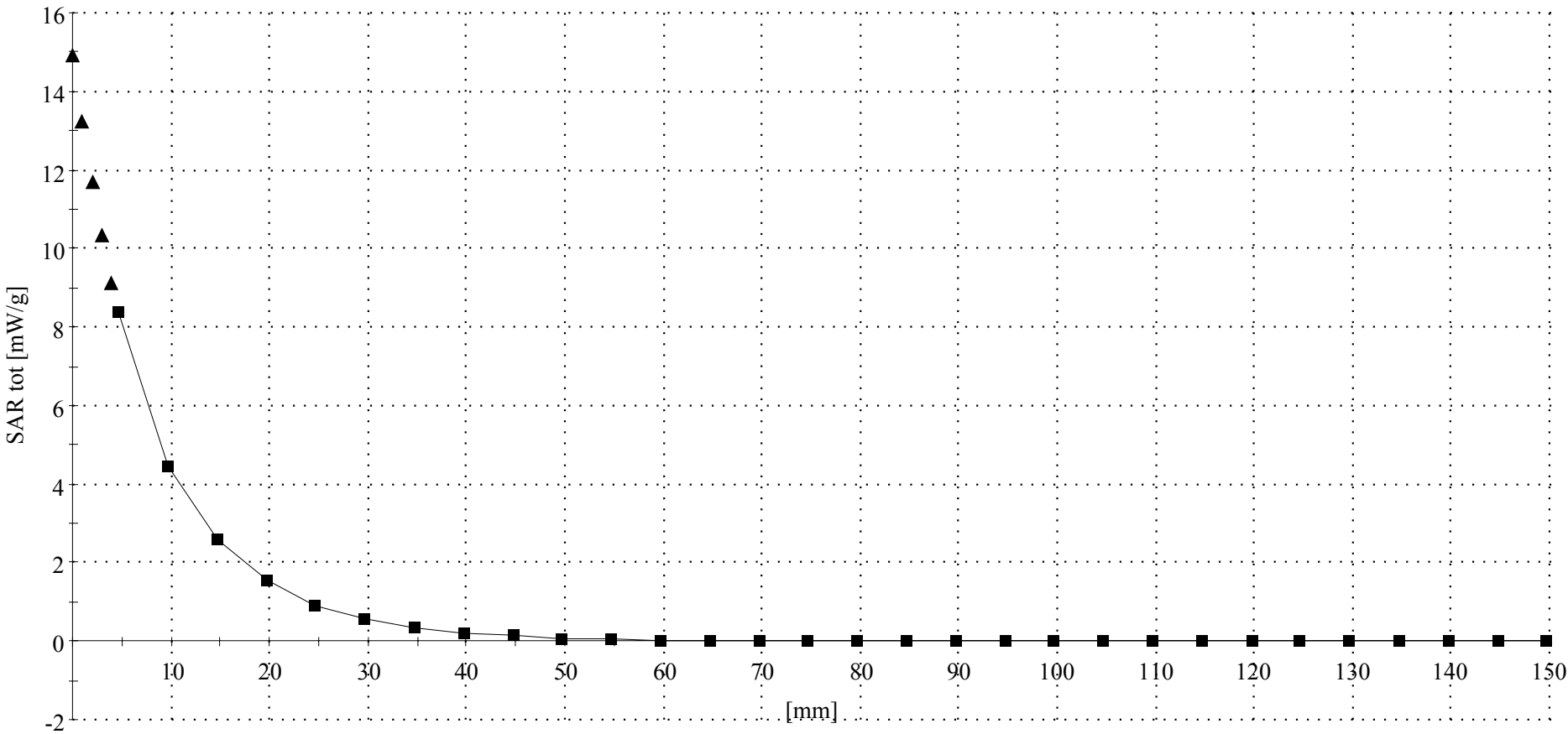
R4 TP-1250 GLYCOL SAM Expanded (Rev. 2)-9Jan03 Phantom; Section; Position: ; Frequency: 1800 MHz

Probe: ET3DV6 - SN1514-VALADATION4; ConvF(5.03,5.03,5.03); Crest factor: 1.0; 1800 MHz VALIDATION:  $\sigma = 1.35$  mho/m  $\epsilon_r = 38.9$   $\rho = 1.00$  g/cm<sup>3</sup>

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Z-Axis: Dx = 0.0, Dy = 0.0, Dz = 5.0

Penetration depth: 8.3 (7.9, 9.2) [mm]



# Dipole 2450 MHz

2450 MHz System Performance Check / Dipole Sn# 740

PM1 Power = 199mW

Sim.Temp@meas=18.7C    Sim.Temp@SPC = 19.0C    Room Temp @ SPC = 20.0C

R4 TP-1250 GLYCOL SAM Expanded (Rev. 2)-9Jan03 Phantom; Flat Section; Position: (90°,90°); Frequency: 2450 MHz

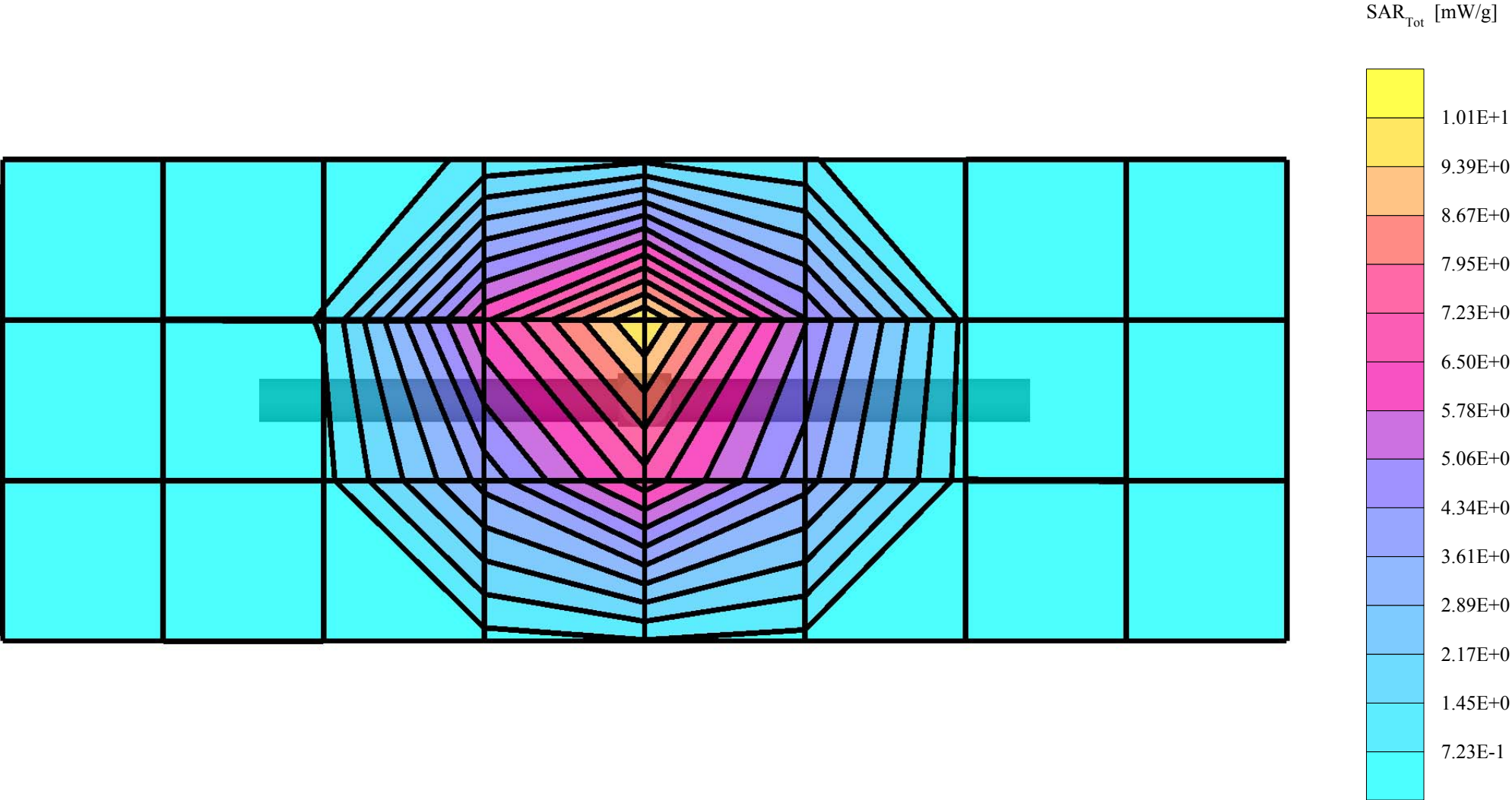
Probe: ET3DV6 - SN1514-VALADATION4; ConvF(4.46,4.46,4.46); Crest factor: 1.0; 2450 MHz VALIDATION:  $\sigma = 1.88 \text{ mho/m}$   $\epsilon_r = 37.6$   $\rho = 1.00 \text{ g/cm}^3$

Cubes (2): SAR (1g): 11.8 mW/g  $\pm 0.06 \text{ dB}$ , SAR (10g): 5.44 mW/g  $\pm 0.01 \text{ dB}$ , (Worst-case extrapolation)

Coarse: Dx = 15.0, Dy = 15.0, Dz = 10.0

Penetration depth: 6.6 (6.4, 7.2) [mm]

Powerdrift: -0.05 dB



# Dipole 2450 MHz

2450 MHz System Performance Check / Dipole Sn# 740

PM1 Power = 199mW

Sim.Temp@meas=18.7C    Sim.Temp@SPC = 19.0C    Room Temp @ SPC = 20.0C

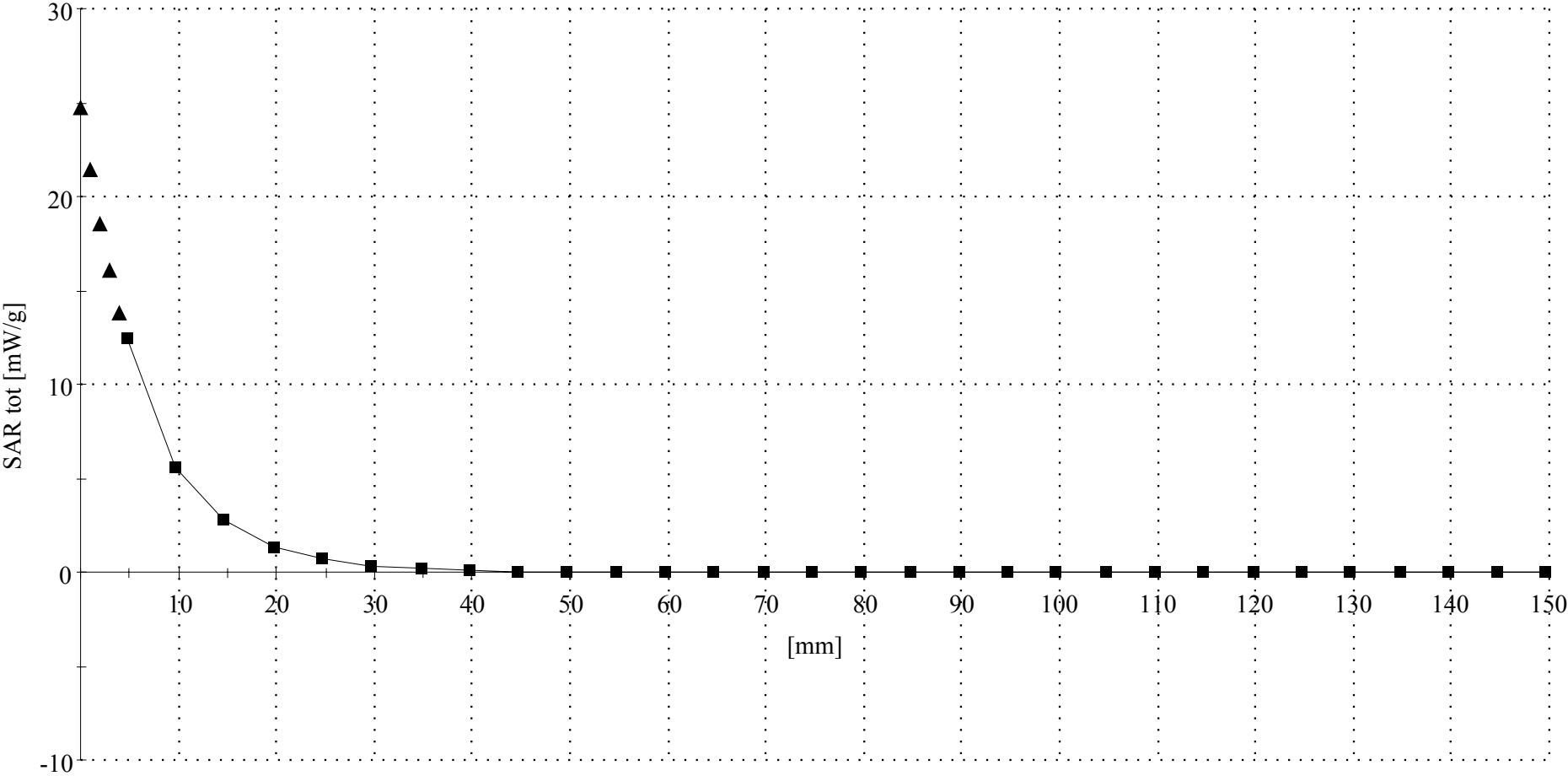
R4 TP-1250 GLYCOL SAM Expanded (Rev. 2)-9Jan03 Phantom; Section; Position: ; Frequency: 2450 MHz

Probe: ET3DV6 - SN1514-VALADATION4; ConvF(4.46,4.46,4.46); Crest factor: 1.0; 2450 MHz VALIDATION:  $\sigma = 1.88 \text{ mho/m}$   $\epsilon_r = 37.6$   $\rho = 1.00 \text{ g/cm}^3$

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Z-Axis: Dx = 0.0, Dy = 0.0, Dz = 5.0

Penetration depth: 6.4 (6.2, 6.9) [mm]



# Dipole 900 MHz

900 MHz System Performance Check / Dipole Sn# 96

PM1 Power = 200mW

Sim.Temp@meas=19.6°C    Sim.Temp@SPC = 19.8°C    Room Temp @ SPC = 20.0°C

R4 TP-1131 SUGAR SAM Expanded (Rev. 2)-9Jan03 Phantom; Flat Section; Position: (90°,90°); Frequency: 900 MHz

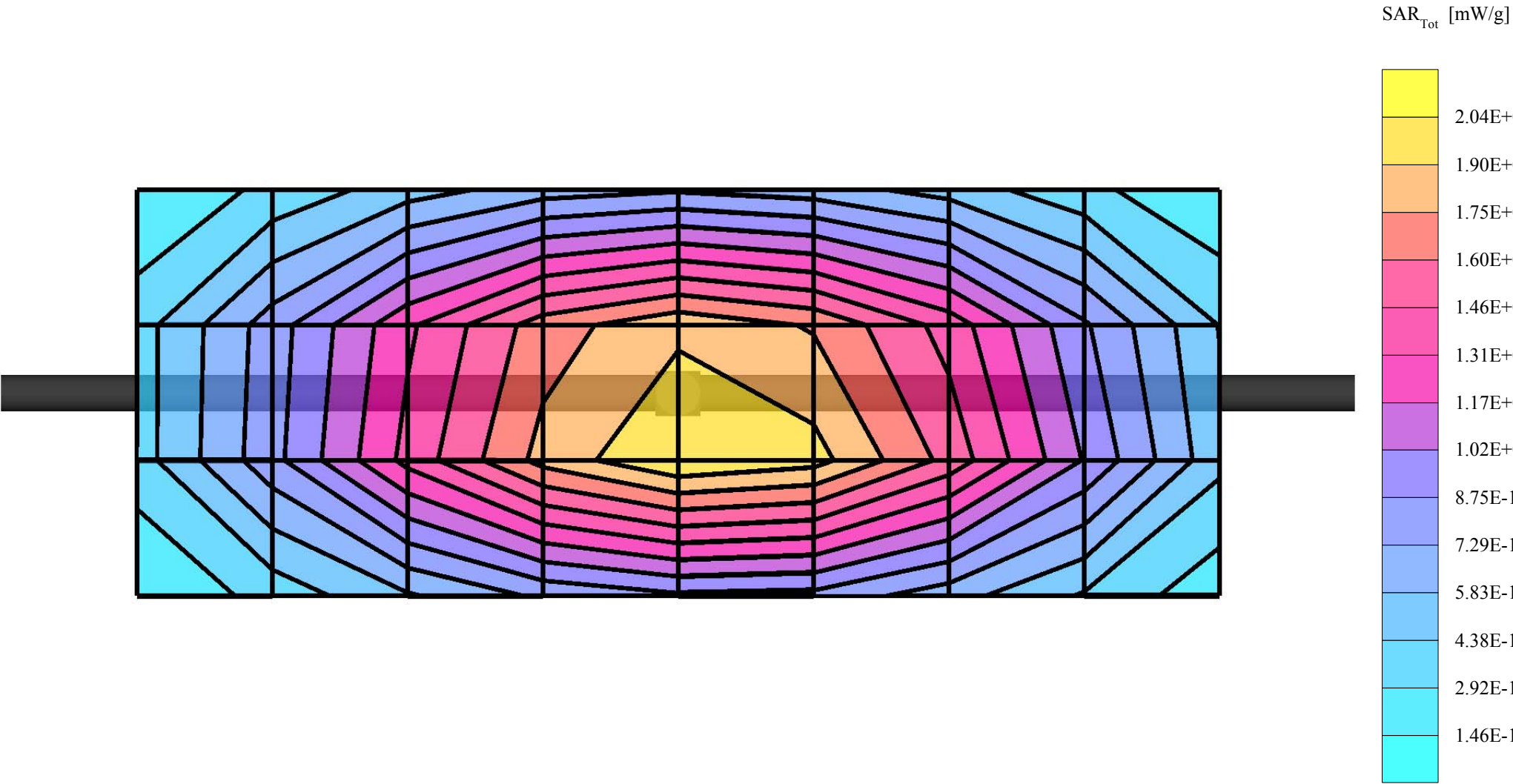
Probe: ET3DV6 - SN1514-VALADATION4; ConvF(6.08,6.08,6.08); Crest factor: 1.0; 900 MHz    Head & Body:  $\sigma = 0.98$  mho/m  $\epsilon_r = 42.5$   $\rho = 1.00$  g/cm<sup>3</sup>

Cubes (2): SAR (1g): 2.24 mW/g  $\pm 0.04$  dB, SAR (10g): 1.41 mW/g  $\pm 0.04$  dB, (Worst-case extrapolation)

Coarse: Dx = 15.0, Dy = 15.0, Dz = 10.0

Penetration depth: 11.4 (10.6, 12.6) [mm]

Powerdrift: 0.02 dB



# Dipole 900 MHz

900 MHz System Performance Check / Dipole Sn# 96

PM1 Power = 200mW

Sim.Temp@meas=19.6\*C    Sim.Temp@SPC = 19.8\*C    Room Temp @ SPC = 20.0\*C

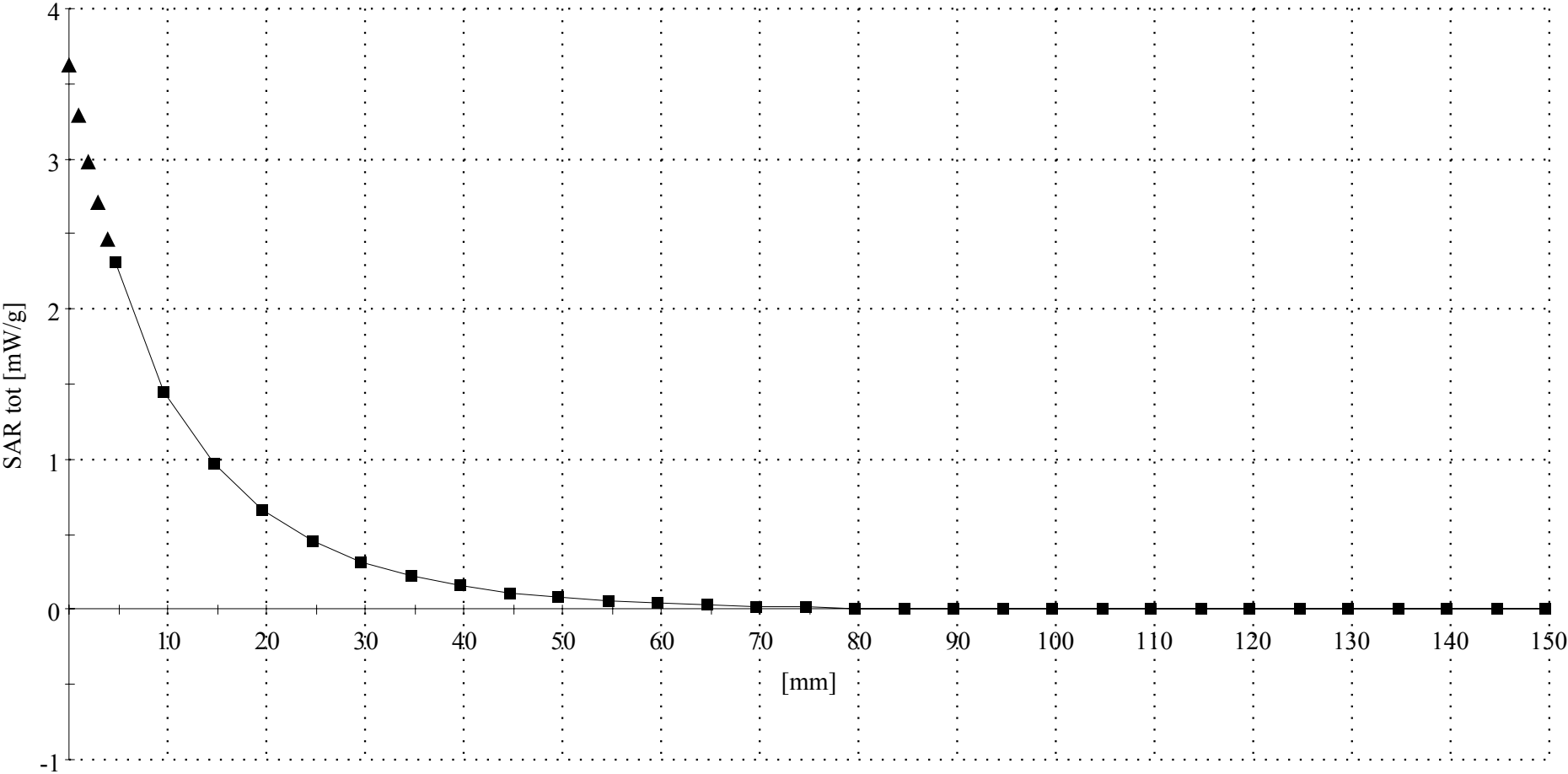
R4 TP-1131 SUGAR SAM Expanded (Rev. 2)-9Jan03 Phantom; Section; Position: ; Frequency: 900 MHz

Probe: ET3DV6 - SN1514-VALADATION4; ConvF(6.08,6.08,6.08); Crest factor: 1.0; 900 MHz    Head & Body:  $\sigma = 0.98$  mho/m  $\epsilon_r = 42.5$   $\rho = 1.00$  g/cm<sup>3</sup>

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Z-Axis: Dx = 0.0, Dy = 0.0, Dz = 5.0

Penetration depth: 11.4 (10.6, 12.6) [mm]





# Dipole 1800 MHz

1800MHz System Performance Check / Dipole Sn# 272tr

PM1 Power = 200mW

Sim.Temp@meas=19.1    Sim.Temp@SPC = 19    Room Temp @ SPC = 20

R4 TP-1250 GLYCOL SAM Expanded (Rev. 2)-9Jan03 Phantom; Flat Section; Position: (90°,90°); Frequency: 1800 MHz

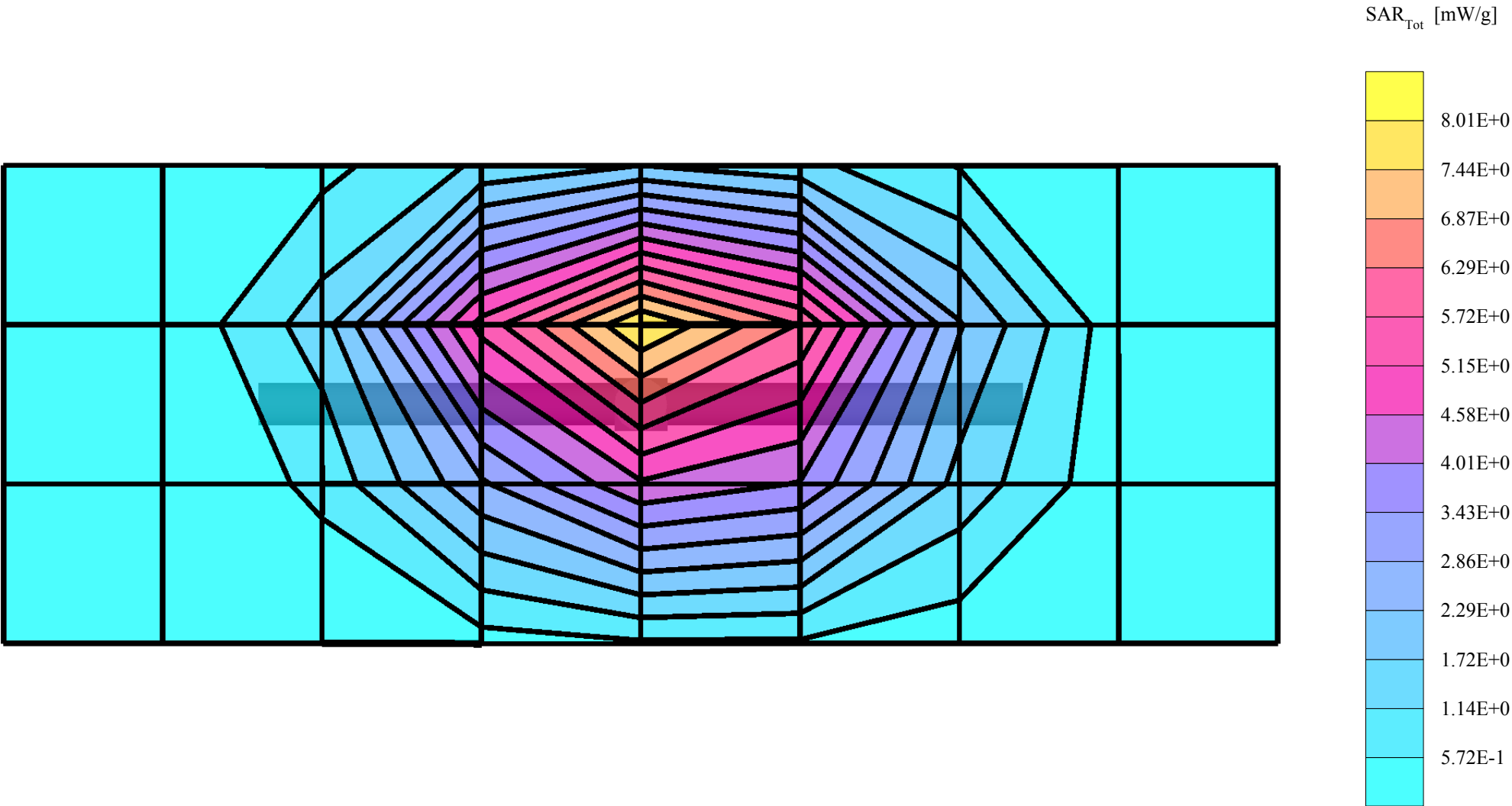
Probe: ET3DV6 - SN1514-VALADATION4; ConvF(5.03,5.03,5.03); Crest factor: 1.0; 1800 MHz VALIDATION:  $\sigma = 1.36 \text{ mho/m}$   $\epsilon_r = 38.4$   $\rho = 1.00 \text{ g/cm}^3$

Cubes (2): SAR (1g): 8.42 mW/g  $\pm 0.04 \text{ dB}$ , SAR (10g): 4.43 mW/g  $\pm 0.02 \text{ dB}$ , (Worst-case extrapolation)

Coarse: Dx = 15.0, Dy = 15.0, Dz = 10.0

Penetration depth: 8.5 (8.1, 9.3) [mm]

Powerdrift: 0.02 dB





# Dipole 1800 MHz

1800MHz System Performance Check / Dipole Sn# 272tr

PM1 Power = 200mW

Sim.Temp@meas=19.1    Sim.Temp@SPC = 19    Room Temp @ SPC = 20

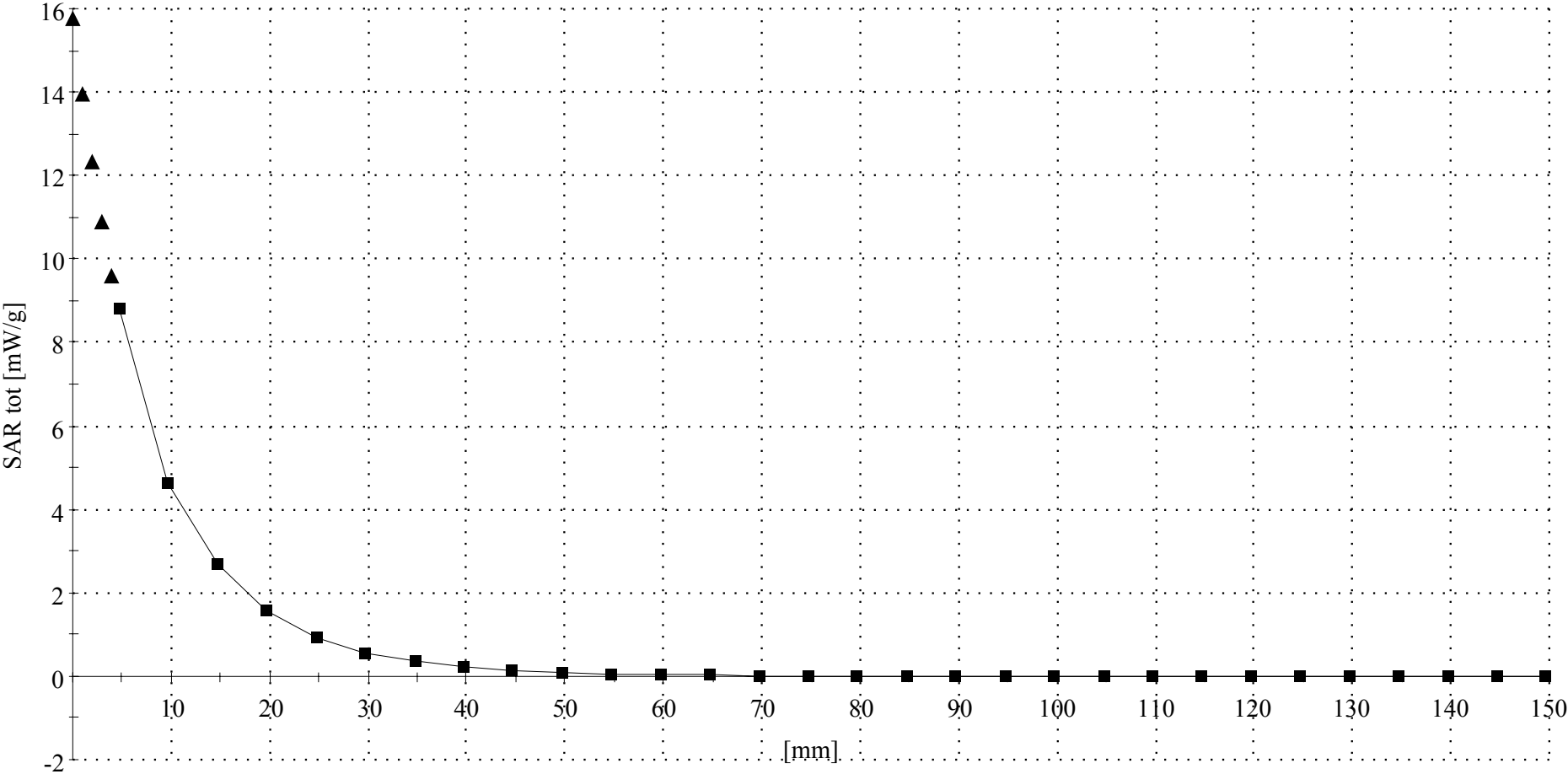
R4 TP-1250 GLYCOL SAM Expanded (Rev. 2)-9Jan03 Phantom; Section; Position: ; Frequency: 1800 MHz

Probe: ET3DV6 - SN1514-VALADATION4; ConvF(5.03,5.03,5.03); Crest factor: 1.0; 1800 MHz VALIDATION:  $\sigma = 1.36$  mho/m  $\epsilon_r = 38.4$   $\rho = 1.00$  g/cm<sup>3</sup>

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Z-Axis: Dx = 0.0, Dy = 0.0, Dz = 5.0

Penetration depth: 8.2 (7.9, 9.1) [mm]



# Dipole 900 MHz

900 MHz System Performance Check / Dipole Sn# 96

PM1 Power = 200mW

Sim.Temp@meas=19.7°C    Sim.Temp@SPC = 19.7°C    Room Temp @ SPC = 20.0°C

R4 TP-1131 SUGAR SAM Expanded (Rev. 2)-9Jan03 Phantom; Flat Section; Position: (90°,90°); Frequency: 900 MHz

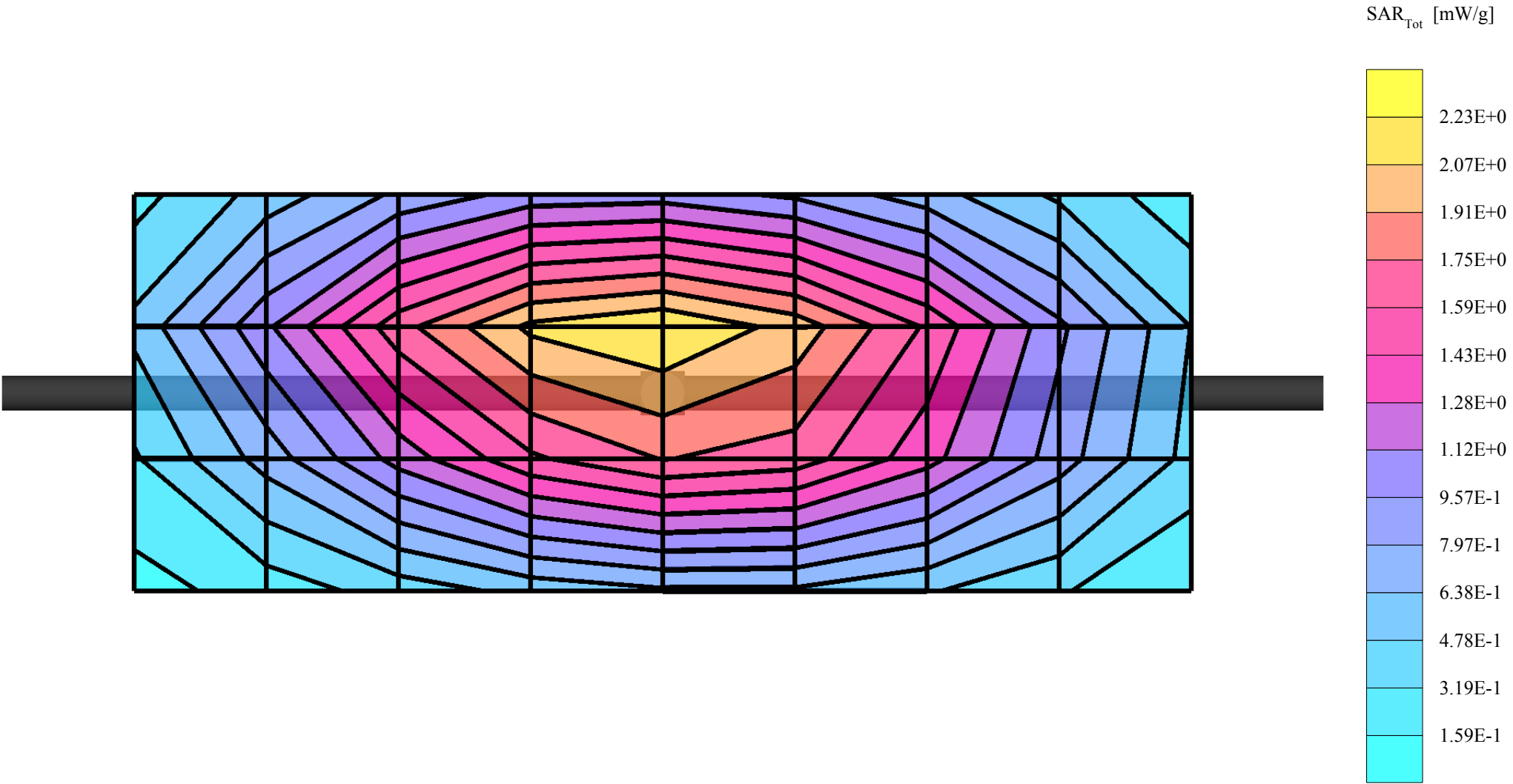
Probe: ET3DV6 - SN1514-VALADATION4; ConvF(6.08,6.08,6.08); Crest factor: 1.0; 900 MHz    VALIDATION:  $\sigma = 0.99$  mho/m  $\epsilon_r = 42.4$   $\rho = 1.00$  g/cm<sup>3</sup>

Cubes (2): SAR (1g): 2.33    mW/g  $\pm$  0.05 dB, SAR (10g): 1.46    mW/g  $\pm$  0.04 dB, (Worst-case extrapolation)

Coarse: Dx = 15.0, Dy = 15.0, Dz = 10.0

Penetration depth: 11.4 (10.6, 12.6) [mm]

Powerdrift: 0.01 dB



# Dipole 900 MHz

900 MHz System Performance Check / Dipole Sn# 96

PM1 Power = 200mW

Sim.Temp@meas=19.7°C    Sim.Temp@SPC = 19.7°C    Room Temp @ SPC = 20.0°C

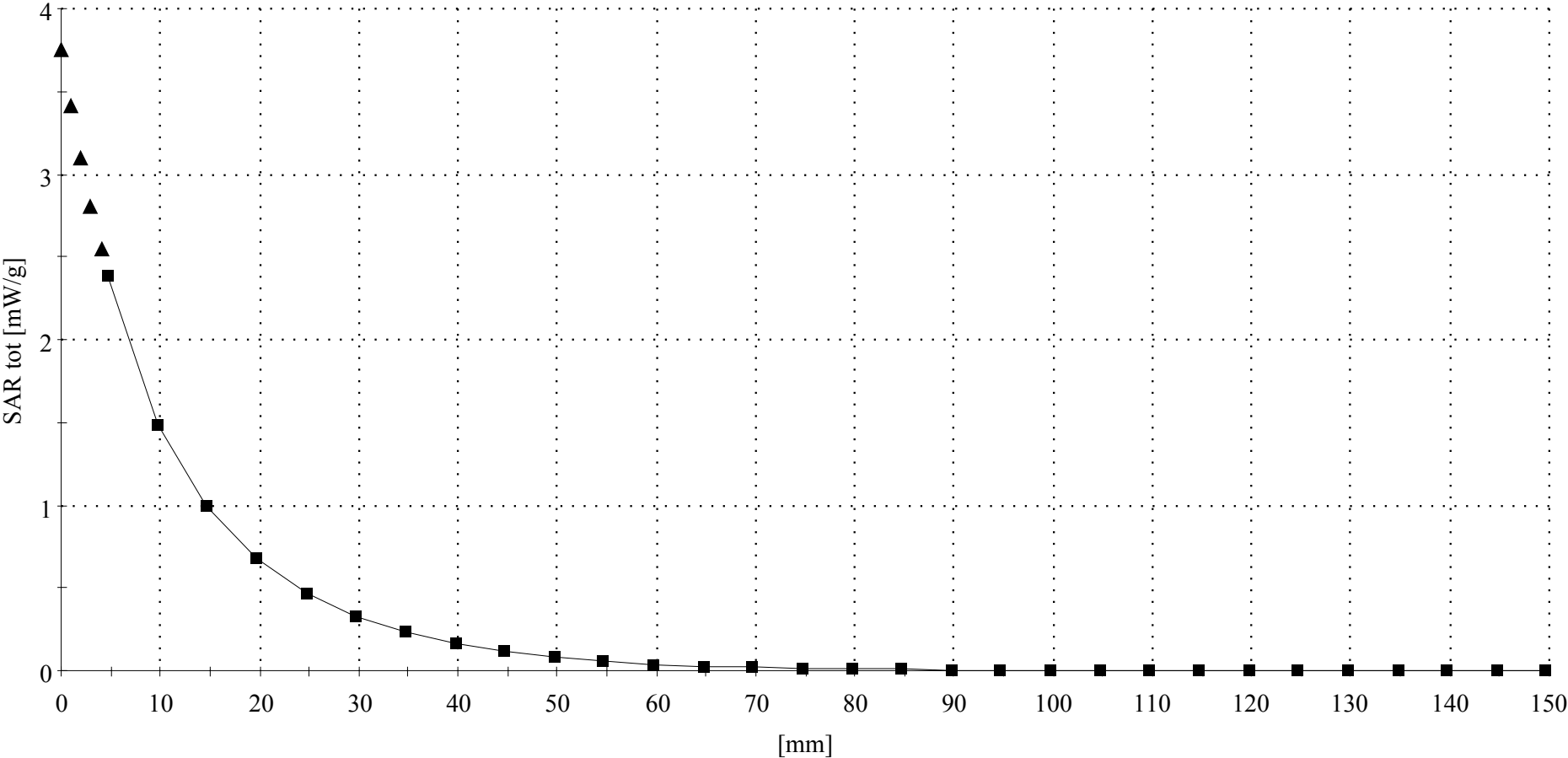
R4 TP-1131 SUGAR SAM Expanded (Rev. 2)-9Jan03 Phantom; Section; Position: ; Frequency: 900 MHz

Probe: ET3DV6 - SN1514-VALADATION4; ConvF(6.08,6.08,6.08); Crest factor: 1.0; 900 MHz    VALIDATION:  $\sigma = 0.99$  mho/m  $\epsilon_r = 42.4$   $\rho = 1.00$  g/cm<sup>3</sup>

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Z-Axis: Dx = 0.0, Dy = 0.0, Dz = 5.0

Penetration depth: 11.3 (10.4, 12.5) [mm]



# Dipole 1800 MHz

1800 MHz System Performance Check / Dipole Sn# 272TR

PM1 Power = 200mW

Sim.Temp@meas=19°C     Sim.Temp@SPC = 19.2°C     Room Temp @ SPC = 20°C

R4 Amy Twin Phantom Rev.4 (22Aug02) Phantom; section 2 Section; Position: (90°,90°); Frequency: 1800 MHz

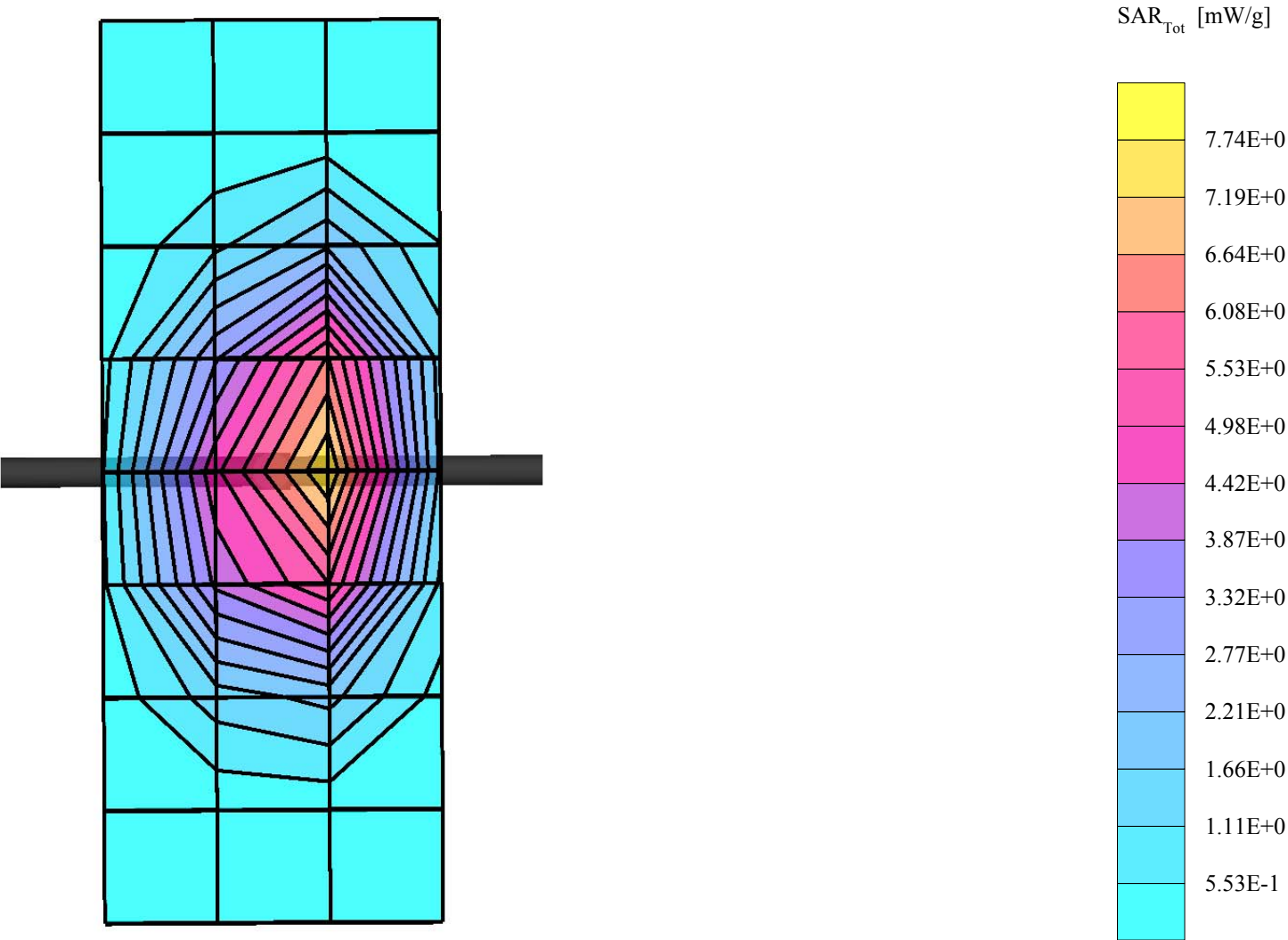
Probe: ET3DV6 - SN1514-VALADATION4; ConvF(5.03,5.03,5.03); Crest factor: 1.0; 1800 MHz VALIDATION:  $\sigma = 1.37$  mho/m  $\epsilon_r = 38.5$   $\rho = 1.00$  g/cm<sup>3</sup>

Cubes (2): SAR (1g): 8.19 mW/g  $\pm$  0.02 dB, SAR (10g): 4.33 mW/g  $\pm$  0.04 dB, (Worst-case extrapolation)

Coarse: Dx = 15.0, Dy = 15.0, Dz = 10.0

Penetration depth: 8.5 (8.1, 9.3) [mm]

Powerdrift: 0.05 dB



# Dipole 1800 MHz

1800 MHz System Performance Check / Dipole Sn# 272TR

PM1 Power = 200mW

Sim.Temp@meas=19\*C     Sim.Temp@SPC = 19.2\*C     Room Temp @ SPC = 20\*C

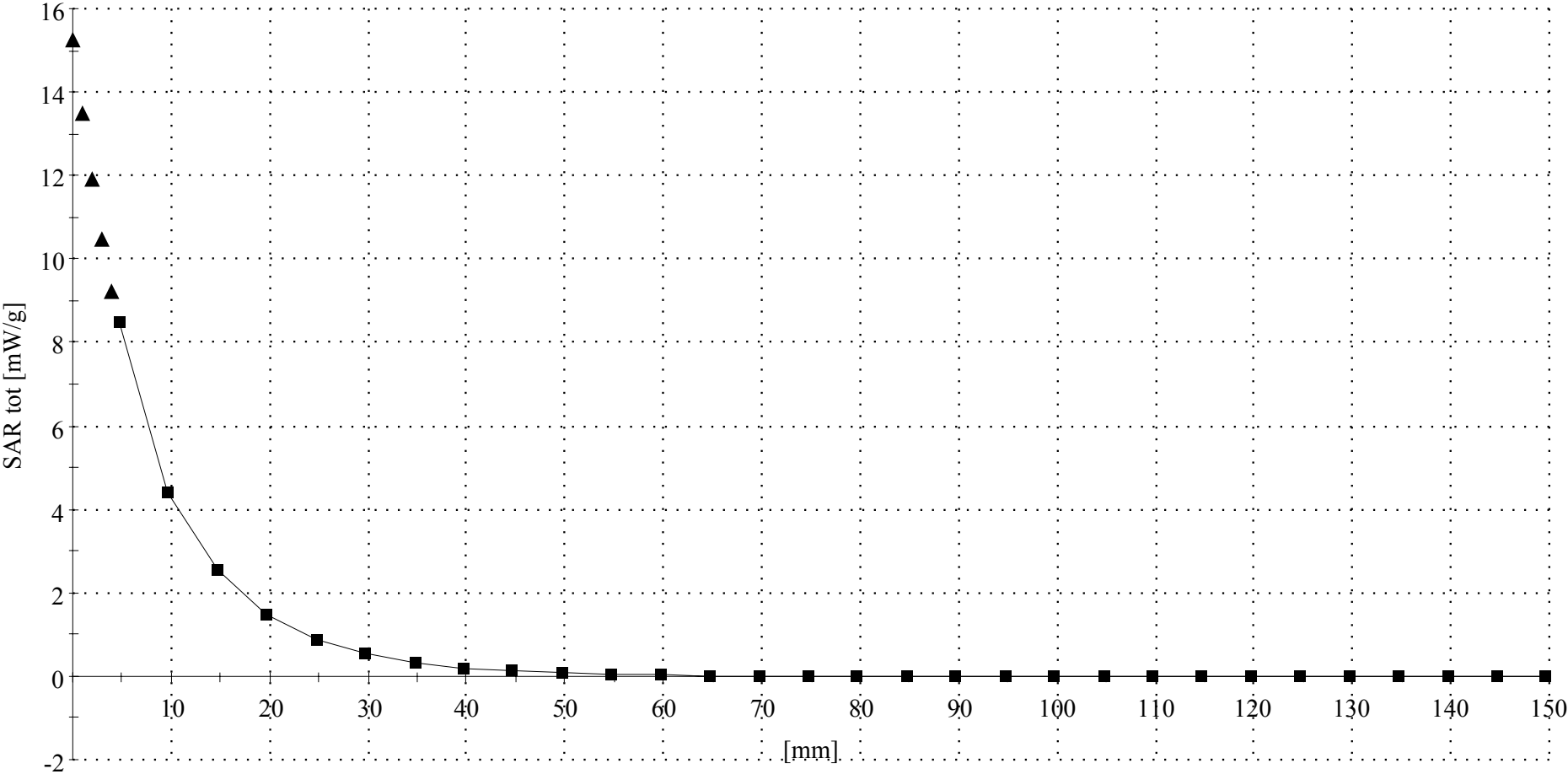
R4 Amy Twin Phantom Rev.4 (22Aug02) Phantom; Section; Position: ; Frequency: 1800 MHz

Probe: ET3DV6 - SN1514-VALADATION4; ConvF(5.03,5.03,5.03); Crest factor: 1.0; 1800 MHz VALIDATION:  $\sigma = 1.37$  mho/m  $\epsilon_r = 38.5$   $\rho = 1.00$  g/cm<sup>3</sup>

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Z-Axis: Dx = 0.0, Dy = 0.0, Dz = 5.0

Penetration depth: 8.1 (7.8, 9.0) [mm]



# Dipole 2450 MHz

2450 MHz System Performance Check / Dipole Sn# 740

PM1 Power = 200mW

Sim.Temp@meas=19.8°C    Sim.Temp@SPC = 19.8°C    Room Temp @ SPC = 20.0°C

R4 TP-1250 GLYCOL SAM Expanded (Rev. 2)-9Jan03 Phantom; Flat Section; Position: (90°,90°); Frequency: 2450 MHz

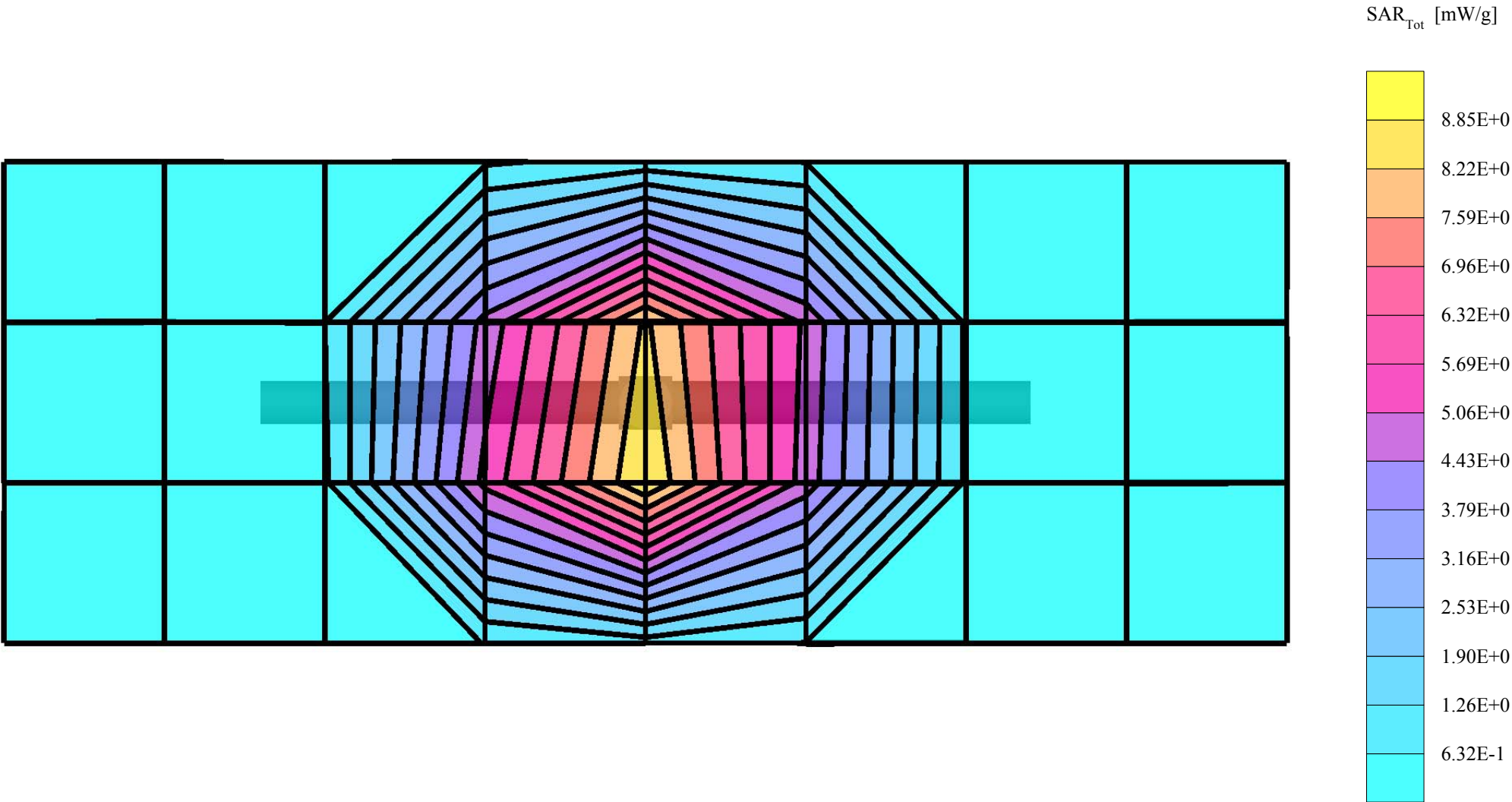
Probe: ET3DV6 - SN1514-VALADATION4; ConvF(4.46,4.46,4.46); Crest factor: 1.0; 2450 MHz VALIDATION:  $\sigma = 1.88 \text{ mho/m}$   $\epsilon_r = 37.4$   $\rho = 1.00 \text{ g/cm}^3$

Cubes (2): SAR (1g): 11.9 mW/g  $\pm 0.04 \text{ dB}$ , SAR (10g): 5.49 mW/g  $\pm 0.04 \text{ dB}$ , (Worst-case extrapolation)

Coarse: Dx = 15.0, Dy = 15.0, Dz = 10.0

Penetration depth: 6.5 (6.3, 7.0) [mm]

Powerdrift: 0.01 dB



# Dipole 2450 MHz

2450 MHz System Performance Check / Dipole Sn# 740

PM1 Power = 200mW

Sim.Temp@meas=19.8°C    Sim.Temp@SPC = 19.8°C    Room Temp @ SPC = 20.0°C

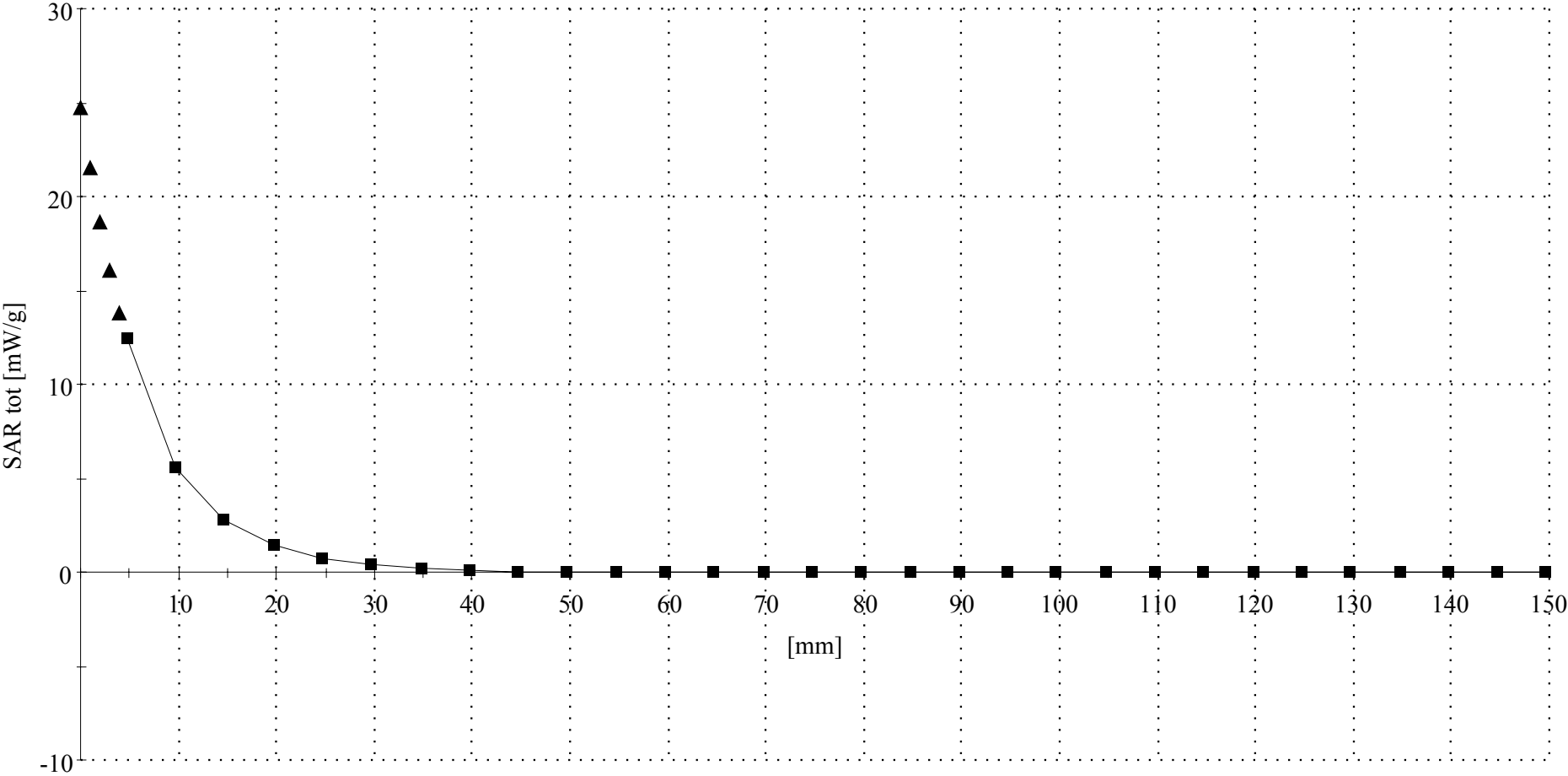
R4 TP-1250 GLYCOL SAM Expanded (Rev. 2)-9Jan03 Phantom; Section; Position: ; Frequency: 2450 MHz

Probe: ET3DV6 - SN1514-VALADATION4; ConvF(4.46,4.46,4.46); Crest factor: 1.0; 2450 MHz VALIDATION:  $\sigma = 1.88 \text{ mho/m}$   $\epsilon_r = 37.4$   $\rho = 1.00 \text{ g/cm}^3$

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Z-Axis: Dx = 0.0, Dy = 0.0, Dz = 5.0

Penetration depth: 6.5 (6.3, 7.0) [mm]



# Dipole 900 MHz

900 MHz System Performance Check / Dipole Sn# 96

PM1 Power = 200mW

Sim.Temp@meas=20.3°C    Sim.Temp@SPC = 20.0°C    Room Temp @ SPC = 20.0°C

R4 TP-1131 SUGAR SAM Expanded (Rev. 2)-9Jan03 Phantom; Flat Section; Position: (90°,90°); Frequency: 900 MHz

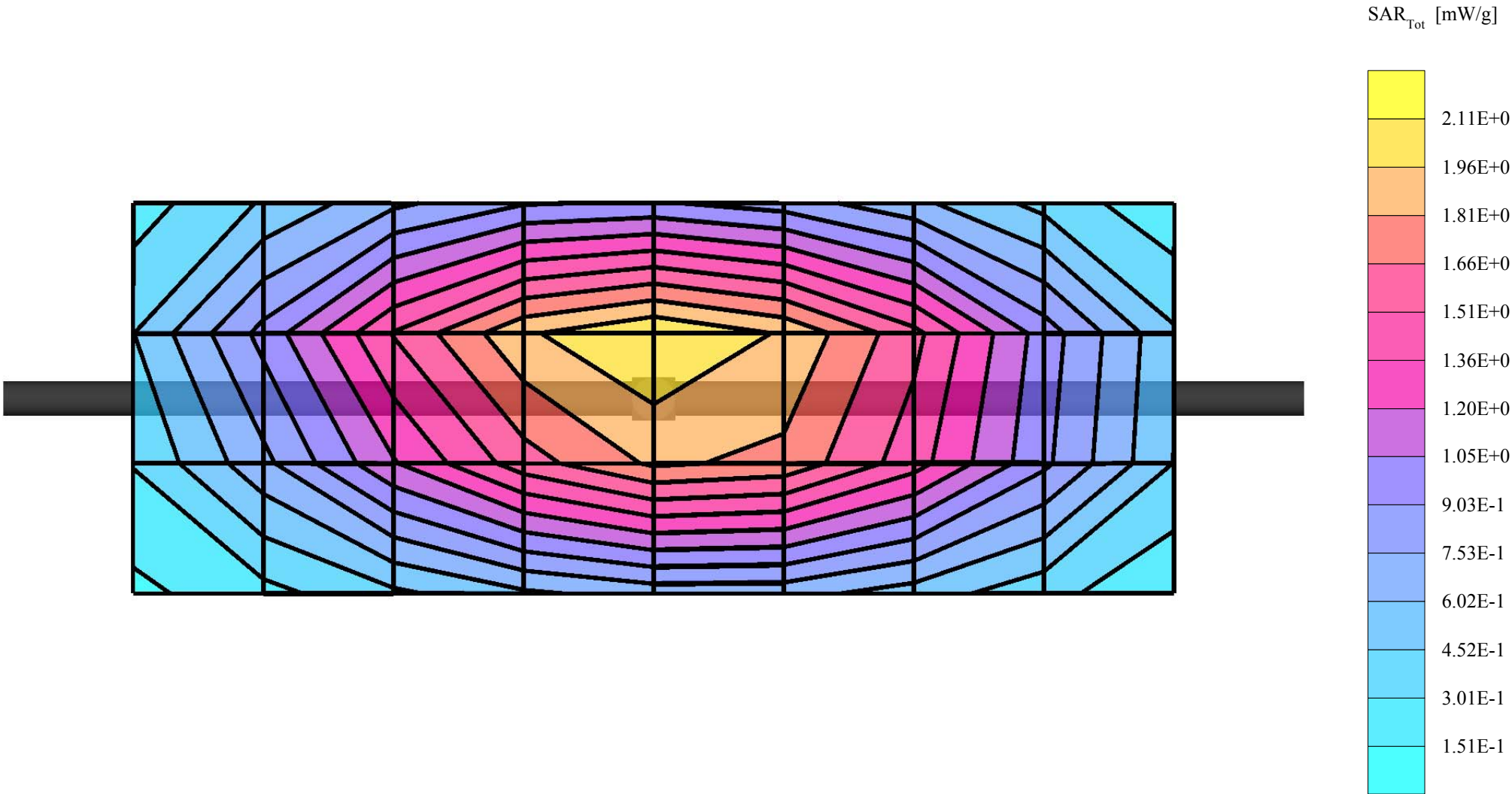
Probe: ET3DV6 - SN1514-VALADATION4; ConvF(6.08,6.08,6.08); Crest factor: 1.0; 900 MHz    VALIDATION:  $\sigma = 0.99$  mho/m  $\epsilon_r = 42.0$   $\rho = 1.00$  g/cm<sup>3</sup>

Cubes (2): SAR (1g): 2.27 mW/g  $\pm 0.04$  dB, SAR (10g): 1.43 mW/g  $\pm 0.04$  dB, (Worst-case extrapolation)

Coarse: Dx = 15.0, Dy = 15.0, Dz = 10.0

Penetration depth: 11.4 (10.5, 12.6) [mm]

Powerdrift: 0.01 dB





# Dipole 900 MHz

900 MHz System Performance Check / Dipole Sn# 96

PM1 Power = 200mW

Sim.Temp@meas=20.3\*C    Sim.Temp@SPC = 20.0\*C    Room Temp @ SPC = 20.0\*C

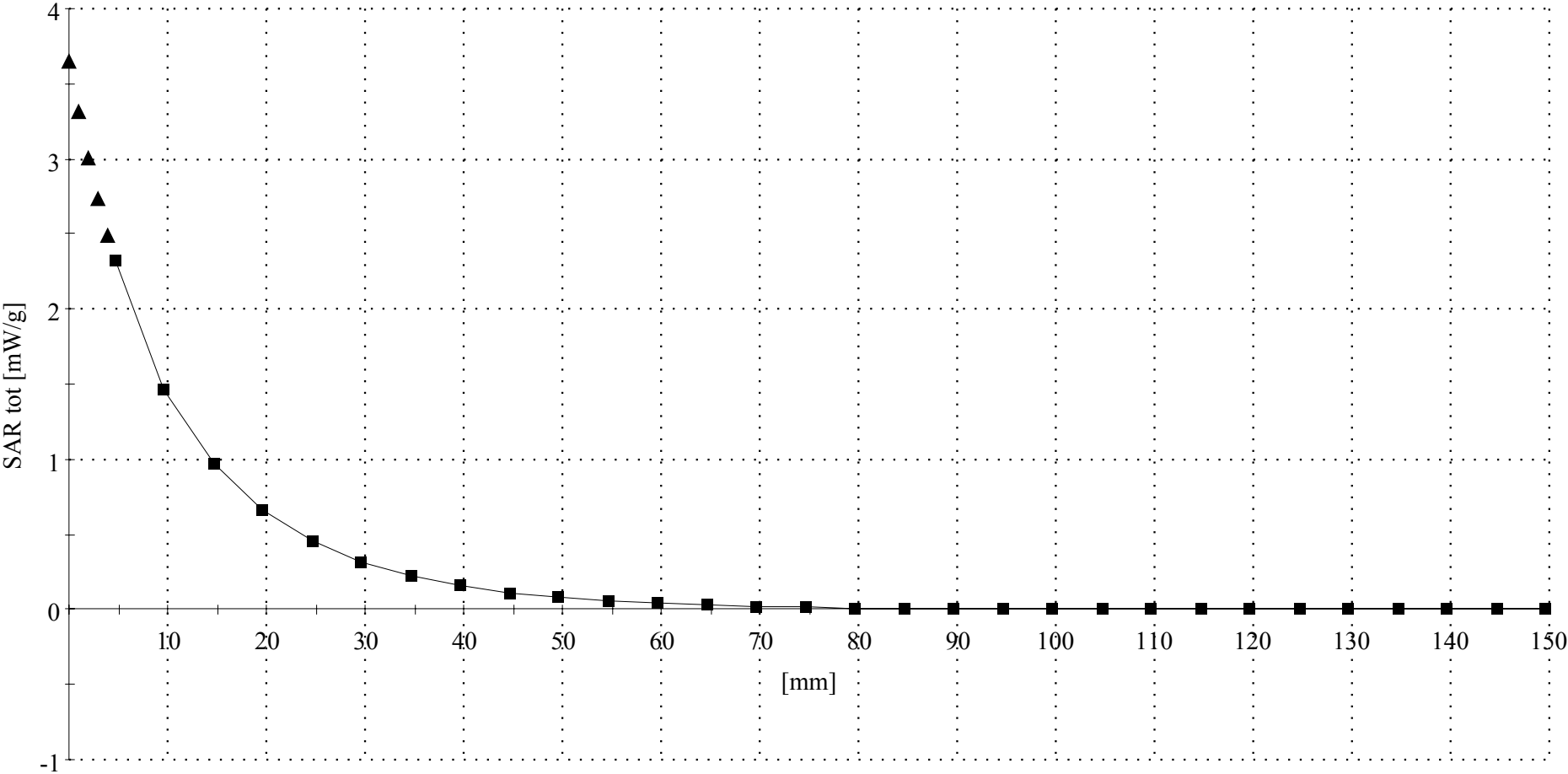
R4 TP-1131 SUGAR SAM Expanded (Rev. 2)-9Jan03 Phantom; Section; Position: ; Frequency: 900 MHz

Probe: ET3DV6 - SN1514-VALADATION4; ConvF(6.08,6.08,6.08); Crest factor: 1.0; 900 MHz    VALIDATION:  $\sigma = 0.99$  mho/m  $\epsilon_r = 42.0$   $\rho = 1.00$  g/cm<sup>3</sup>

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Z-Axis: Dx = 0.0, Dy = 0.0, Dz = 5.0

Penetration depth: 11.4 (10.5, 12.6) [mm]



# Dipole 900 MHz

900 MHz System Performance Check / Dipole Sn# 096

PM1 Power = 201mW

Sim.Temp@meas=19.7C Sim.Temp@SPC = 19.7C Room Temp @ SPC = 20C

R4 TP-1131 SUGAR SAM Expanded (Rev. 2)-9Jan03 Phantom; Flat Section; Position: (90°,90°); Frequency: 900 MHz

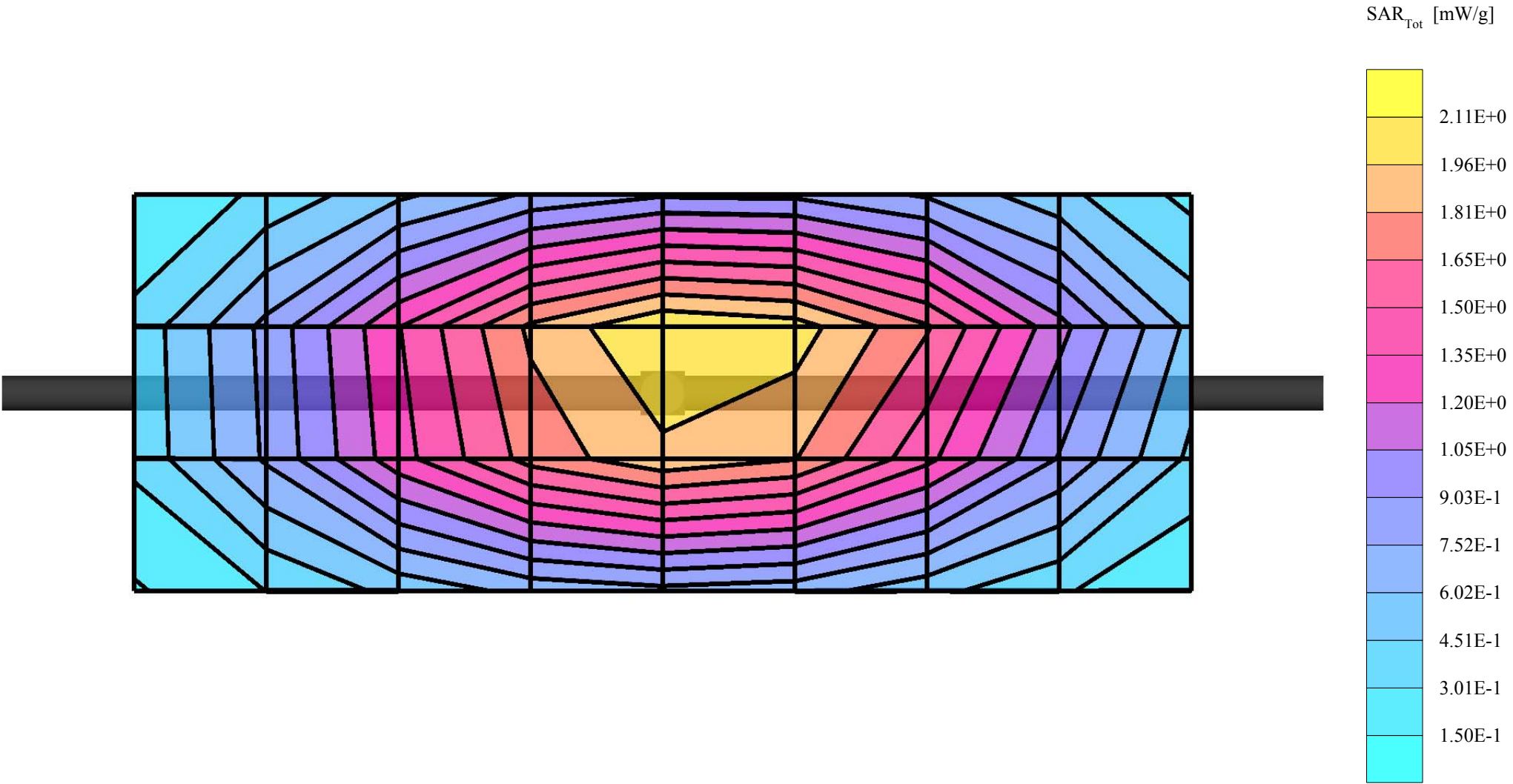
Probe: ET3DV6 - SN1514-VALADATION4; ConvF(6.08,6.08,6.08); Crest factor: 1.0; 900 MHz VALIDATION:  $\sigma = 0.98 \text{ mho/m}$   $\epsilon_r = 41.8$   $\rho = 1.00 \text{ g/cm}^3$

Cubes (2): SAR (1g): 2.32 mW/g  $\pm 0.03 \text{ dB}$ , SAR (10g): 1.46 mW/g  $\pm 0.03 \text{ dB}$ , (Worst-case extrapolation)

Coarse: Dx = 15.0, Dy = 15.0, Dz = 10.0

Penetration depth: 11.5 (10.7, 12.7) [mm]

Powerdrift: 0.00 dB



# Dipole 900 MHz

900 MHz System Performance Check / Dipole Sn# 096

PM1 Power = 201mW

Sim.Temp@meas=19.7C    Sim.Temp@SPC = 19.7C    Room Temp @ SPC = 20C

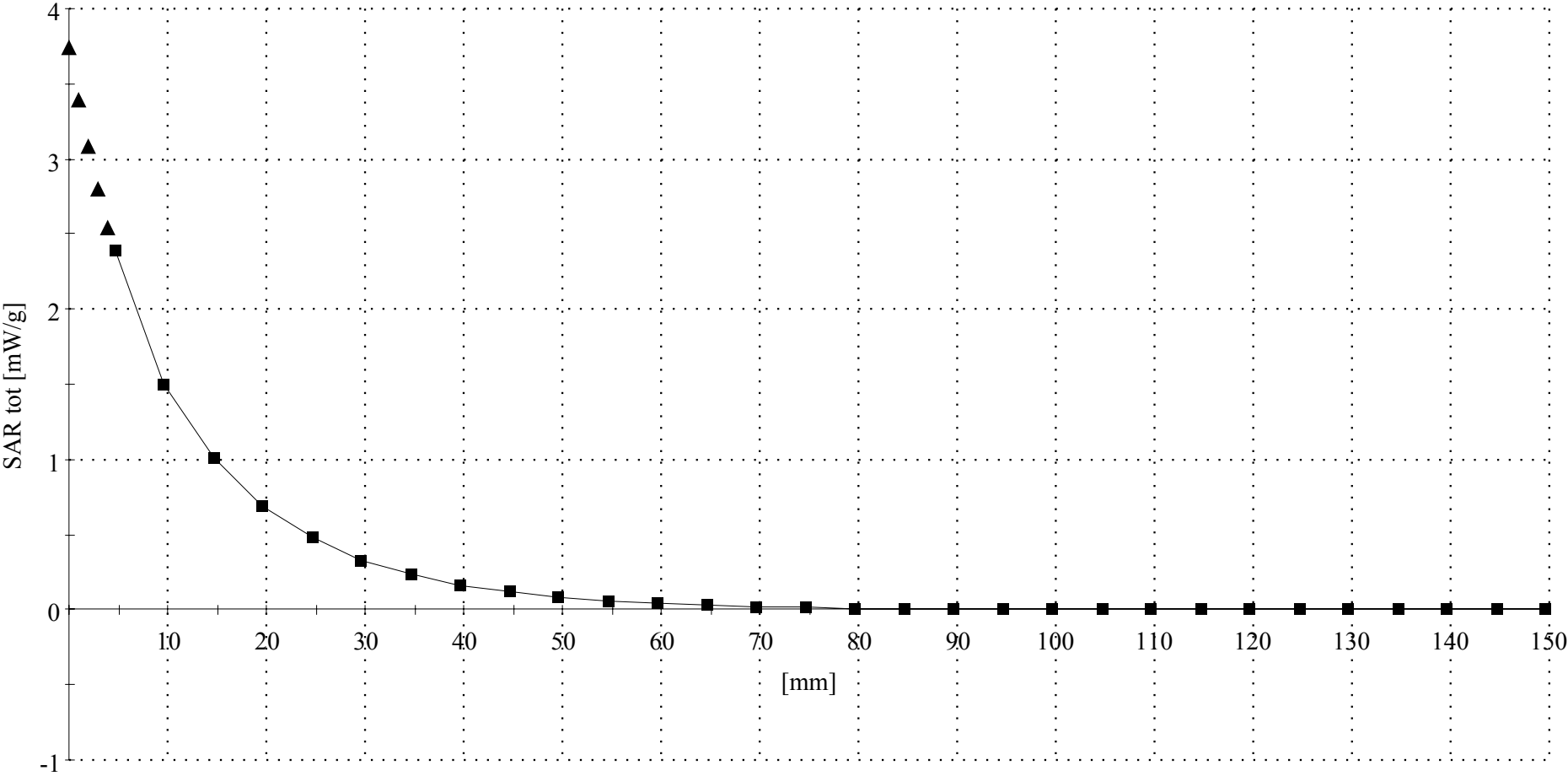
R4 TP-1131 SUGAR SAM Expanded (Rev. 2)-9Jan03 Phantom; Section; Position: ; Frequency: 900 MHz

Probe: ET3DV6 - SN1514-VALADATION4; ConvF(6.08,6.08,6.08); Crest factor: 1.0; 900 MHz    VALIDATION:  $\sigma = 0.98$  mho/m  $\epsilon_r = 41.8$   $\rho = 1.00$  g/cm<sup>3</sup>

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Z-Axis: Dx = 0.0, Dy = 0.0, Dz = 5.0

Penetration depth: 11.5 (10.6, 12.7) [mm]



# Dipole 1800 MHz

1800 MHz System Performance Check / Dipole Sn# 272TR

PM1 Power = 200mW

Sim.Temp@meas=19.0C     Sim.Temp@SPC = 19.1C     Room Temp @ SPC = 20C

R4 Amy Twin Phantom Rev.4 (22Aug02) Phantom; section 2 Section; Position: (90°,90°); Frequency: 1800 MHz

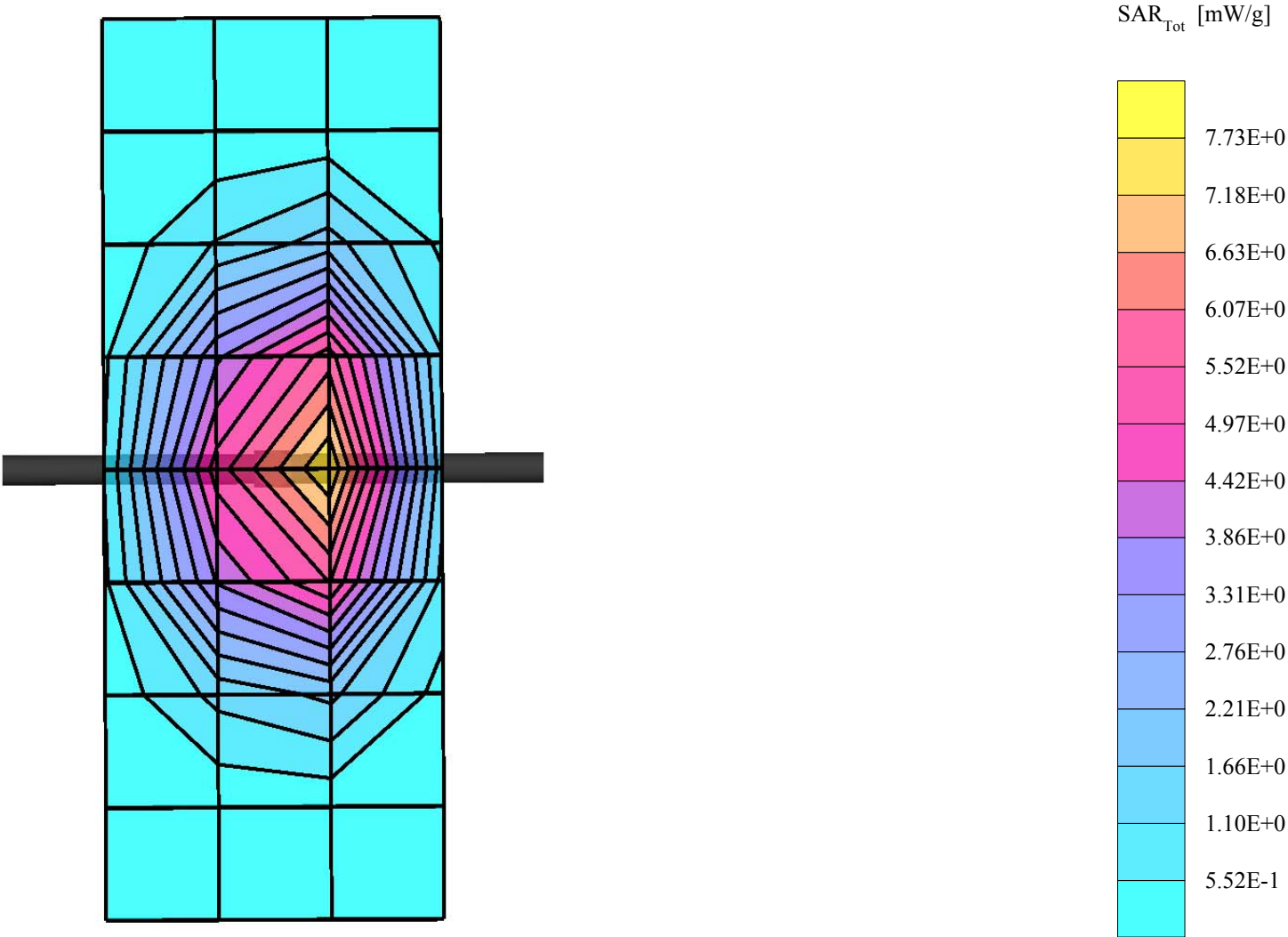
Probe: ET3DV6 - SN1514-VALADATION4; ConvF(5.03,5.03,5.03); Crest factor: 1.0; 1800 MHz VALIDATION:  $\sigma = 1.37 \text{ mho/m}$   $\epsilon_r = 38.6$   $\rho = 1.00 \text{ g/cm}^3$

Cubes (2): SAR (1g):  $8.47 \text{ mW/g} \pm 0.01 \text{ dB}$ , SAR (10g):  $4.44 \text{ mW/g} \pm 0.04 \text{ dB}$ , (Worst-case extrapolation)

Coarse: Dx = 15.0, Dy = 15.0, Dz = 10.0

Penetration depth: 8.5 (8.1, 9.3) [mm]

Powerdrift: 0.02 dB



# Dipole 1800 MHz

1800 MHz System Performance Check / Dipole Sn# 272TR

PM1 Power = 200mW

Sim.Temp@meas=19.0C    Sim.Temp@SPC = 19.1C    Room Temp @ SPC = 20C

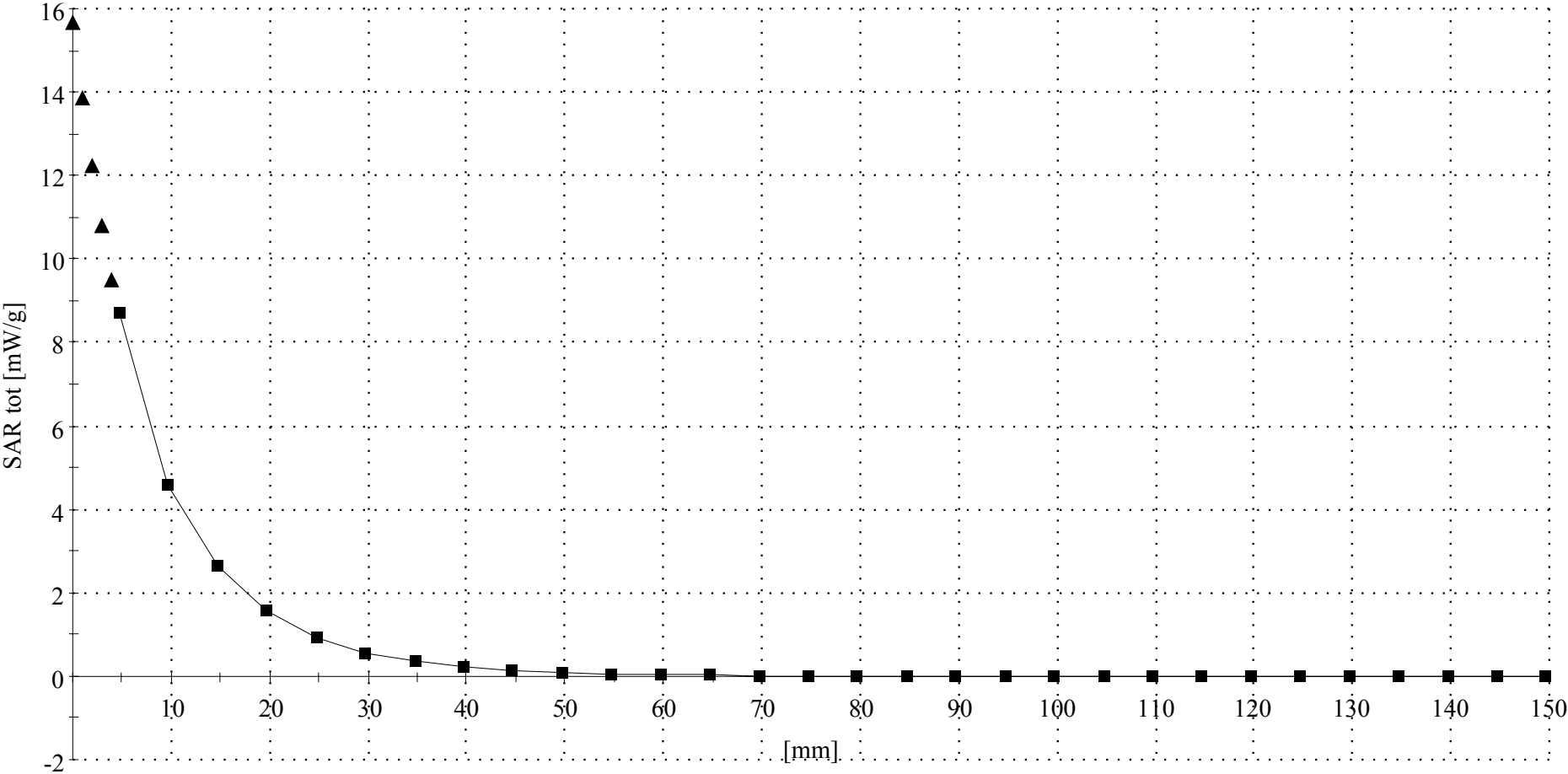
R4 Amy Twin Phantom Rev.4 (22Aug02) Phantom; Section; Position: ; Frequency: 1800 MHz

Probe: ET3DV6 - SN1514-VALADATION4; ConvF(5.03,5.03,5.03); Crest factor: 1.0; 1800 MHz VALIDATION:  $\sigma = 1.37$  mho/m  $\epsilon_r = 38.6$   $\rho = 1.00$  g/cm<sup>3</sup>

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Z-Axis: Dx = 0.0, Dy = 0.0, Dz = 5.0

Penetration depth: 8.2 (7.8, 9.1) [mm]



# Dipole 900 MHz

900 MHz System Performance Check / Dipole Sn# 096

PM1 Power = 200mW

Sim.Temp@meas=19.9C Sim.Temp@SPC = 19.9C Room Temp @ SPC = 20C

R4 TP-1131 SUGAR SAM Expanded (Rev. 2)-9Jan03 Phantom; Flat Section; Position: (90°,90°); Frequency: 900 MHz

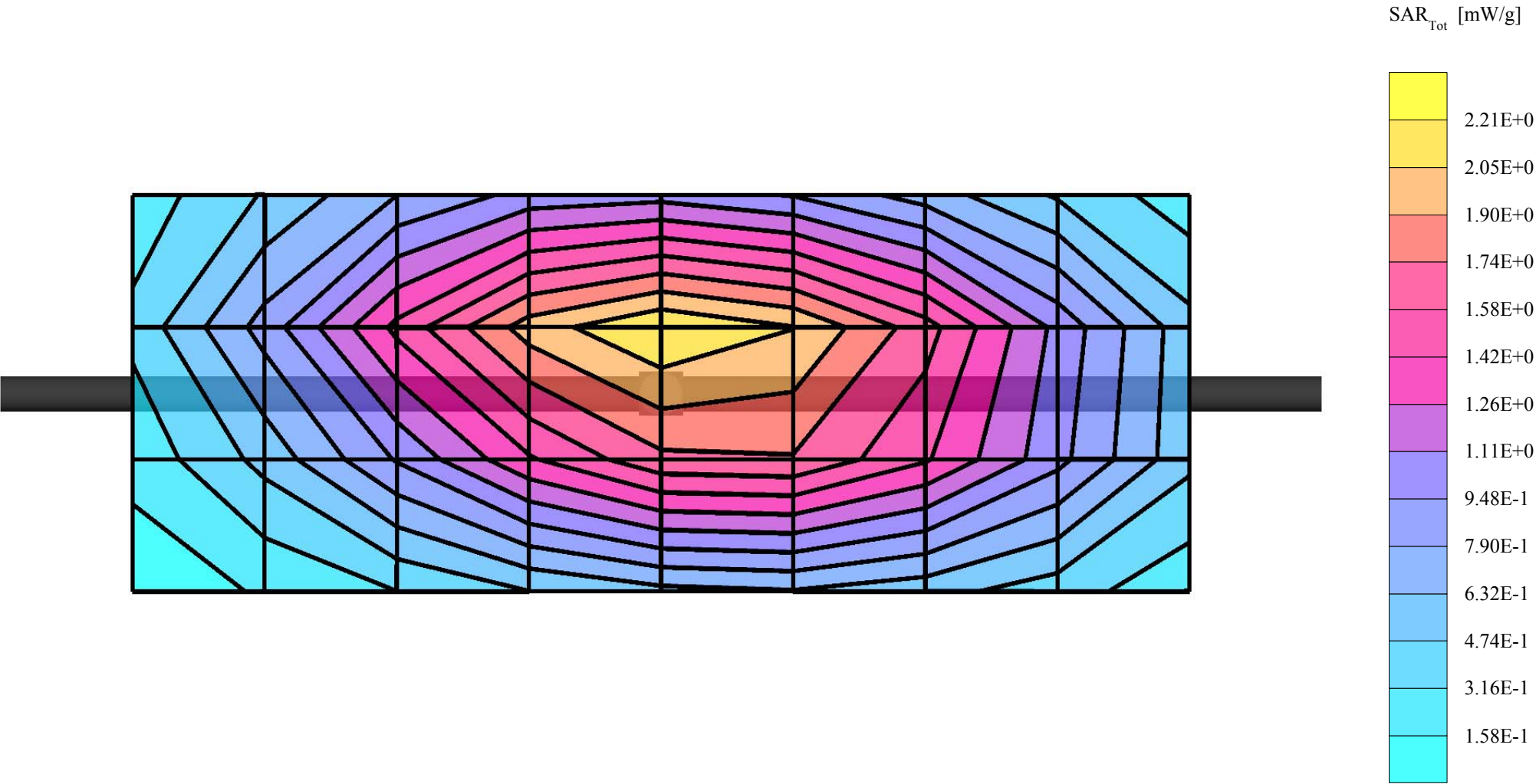
Probe: ET3DV6 - SN1514-VALADATION4; ConvF(6.08,6.08,6.08); Crest factor: 1.0; 900 MHz VALIDATION:  $\sigma = 0.97$  mho/m  $\epsilon_r = 41.4$   $\rho = 1.00$  g/cm<sup>3</sup>

Cubes (2): SAR (1g): 2.28 mW/g  $\pm 0.01$  dB, SAR (10g): 1.44 mW/g  $\pm 0.01$  dB, (Worst-case extrapolation)

Coarse: Dx = 15.0, Dy = 15.0, Dz = 10.0

Penetration depth: 11.5 (10.7, 12.7) [mm]

Powerdrift: -0.06 dB



# Dipole 900 MHz

900 MHz System Performance Check / Dipole Sn# 096

PM1 Power = 200mW

Sim.Temp@meas=19.9C    Sim.Temp@SPC = 19.9C    Room Temp @ SPC = 20C

R4 TP-1131 SUGAR SAM Expanded (Rev. 2)-9Jan03 Phantom; Section; Position: ; Frequency: 900 MHz

Probe: ET3DV6 - SN1514-VALADATION4; ConvF(6.08,6.08,6.08); Crest factor: 1.0; 900 MHz    VALIDATION:  $\sigma = 0.97$  mho/m  $\epsilon_r = 41.4$   $\rho = 1.00$  g/cm<sup>3</sup>

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Z-Axis: Dx = 0.0, Dy = 0.0, Dz = 5.0

Penetration depth: 11.4 (10.5, 12.7) [mm]

