ITS Intertek Testing Services
ETL SEMKO

Specific Absorption Rate (SAR) Test Report

for

Ericsson Communication

on the

Tri-Band Radio Card

Model Number: GC75

Test Report: 20561681

Date of Report: July 31, 2001

Job #: J20056168

Date of Test: July 25 & 30, 2001

Total No of Pages Contained in this Report: 58 + Data Sheets

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Reviewed by: David Chernomordik	David Chernomordik, Ph.D., Technical Manager

Review Date: 7/31/01

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1.0 JOB DESCRIPTION

1.1 Client Information

The PCMCIA Card, Model: GC75 has been tested at the request of

Company: Ericsson Mobile Communications AB.
Address: Nya Vattentronet
S-221 83 Lund,
Sweden

Name of contact: Mr. Bo G.Jhansson
Telephone: (46) 46 193 242
Fax: (46) 46 193 295

1.2 Equipment under test (EUT)

Product Descriptions:

Equipment	Tri-Band Radio Card		
Trade Name	**Ericsson Communication**	P/N.	**GC75**
FCC ID	Not Labeled	S/N No.	Not Labeled
Category	Portable	RF Exposure	Uncontrolled Environment
Frequency Band	890 - 914 MHz 1710 - 1784 MHz 1850 - 1910MHz	System	GSM

EUT Antenna Description			
Type	Flat rod	Configuration	rotatable
Dimensions	60 mm (length) 10 mm (width)	Gain	0 dBi
Location	Outside the card (laptop)		

Use of Product : Wireless Communication

Manufacturer: SAME as above.

Production is planned: [X] Yes, [ ] No

EUT receive date: July 6, 2001

EUT received condition: Good working condition prototype

Test start date: July 25, 2001

Test end date: July 30, 2001

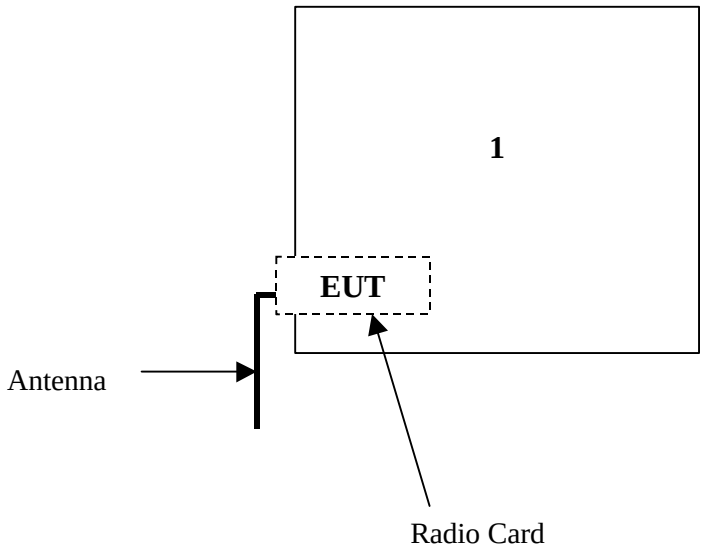
1.3 Test plan reference

FCC rule part 2.1093, FCC Docket 96-326 & Supplement C to OET Bulletin 65

1.4 System test configuration

1.4.1 System block diagram & Support equipment

Support Equipment			
Item #	**Equipment**	**Model No.**	**Serial No.**
1	Gateway Laptop Computer	Sol02150	0017508607



***** = EUT	**S** = Shielded;	**F** = With Ferrite
****** = No ferrites on video cable	**U** = Unshielded	**M** = Length in Meters

1.4.2 Test Position

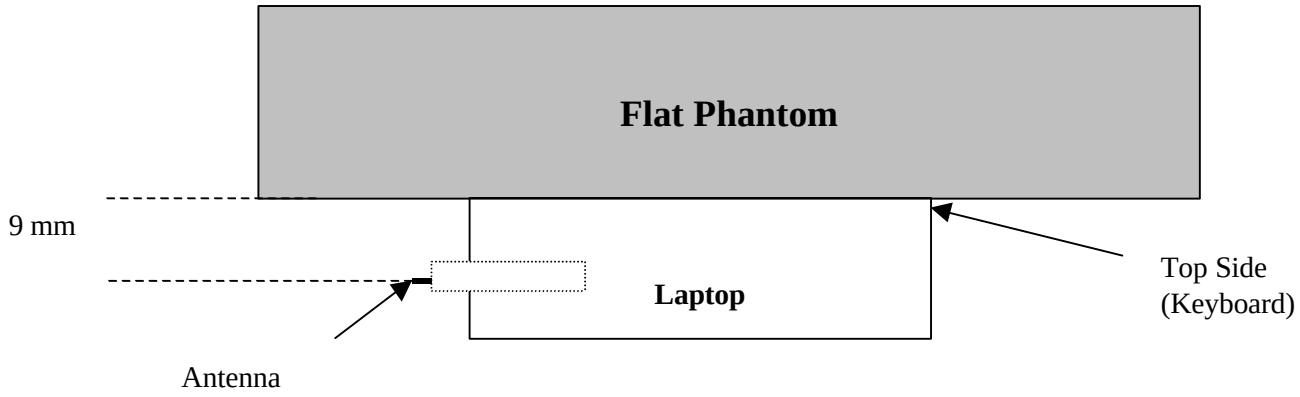


Figure 1: Face Up Position

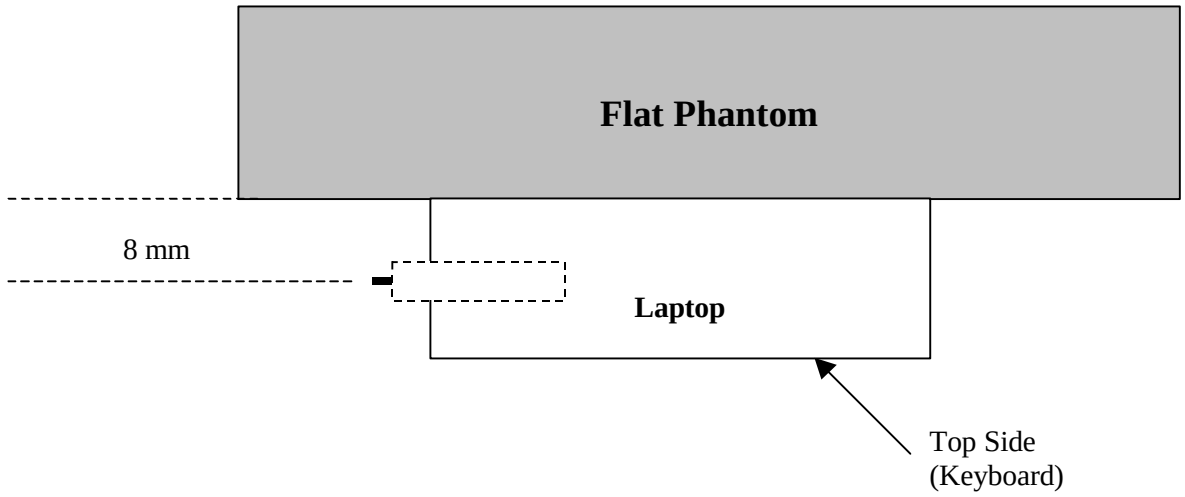


Figure 2: Face Down Position

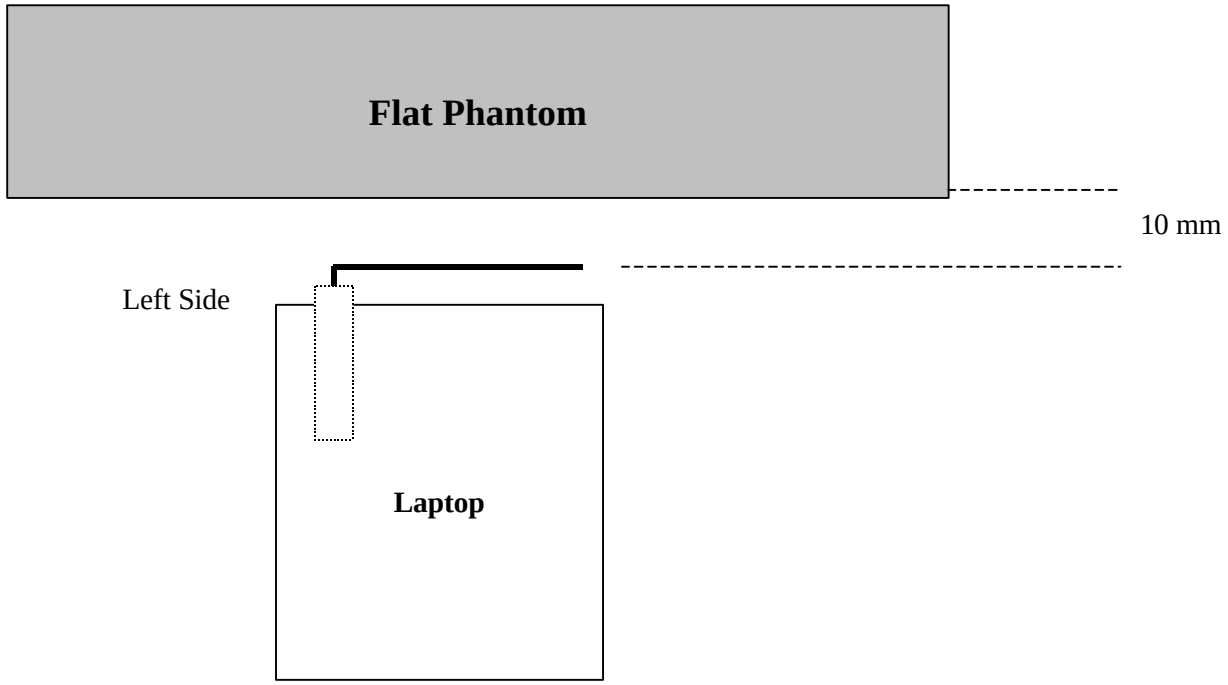


Figure 3: Vertical Position

1.4.3 Test Condition

During tests the worst case data (max RF coupling) was determined with following conditions:

EUT Antenna	Parallel to card	Orientation	Parallel to phantom
Usage	Body	Distance between antenna axis at the joint and the liquid surface:	8 mm with laptop on face down position. 9 mm with laptop in face up position 10 mm with laptop in vertical position, left side to the phantom
Power output	32.5 dBm	EUT Battery	N/A, EUT is powered from the Laptop

The spatial peak SAR values were accessed for lowest, middle and highest operating channels, defined by the manufacturer.

1.5 Modifications required for compliance

Intertek Testing Services implemented no modifications.

1.6 Additions, deviations and exclusions from standards

No additions, deviations or exclusions have been made from standard.

2.0 SAR EVALUATION

2.1 SAR Limits

The following FCC limits for SAR apply to devices operate in General Population/Uncontrolled Exposure environment:

EXPOSURE (General Population/Uncontrolled Exposure environment)	**SAR (W/kg)**
Average over the whole body	0.08
Spatial Peak (1g)	1.60
Spatial Peak for hands, wrists, feet and ankles (10g)	4.00

2.2 Configuration Photographs

SAR Measurement Test Setup

2.2 Configuration Photographs (Continued)

SAR measurement Test Setup

2.2 Configuration Photographs (Continued)

SAR measurement Test Setup

2.3 System Verification

Prior to the assessment, the system was verified to the ±5% of the specifications by using the system validation kit. The validation was performed at 1800 MHz.

Validation kit	Targeted SAR_{1g} (mW/g)	Measured SAR_{1g} (mW/g)
D900V2, S/N #: 0013	4.03	3.93

2.4 Evaluation Procedures

The SAR evaluation was performed with the following procedures:

a. SAR was measured at a fixed location above the reference point and used as a reference value for the assessing the power drop.

b. The SAR distribution at the exposed side of the flat Phantom was measured at a distance of 30 mm from the inner surface of the shell. The area covered the entire dimension of the head and the horizontal grid spacing was 20 mm x 20 mm. Based on this data, the area of the maximum absorption was determined by spline interpolation.

c. Around this point, a volume of 32 mm x 32 mm x 34 mm was assessed by measuring 5 x 5 x 7 points. On the basis of this data set, the spatial peak SAR value was evaluated with the following procedure:

   i) The data at the surface were extrapolated, since the center of the dipoles is 2.7 mm away from the tip of the probe and the distance between the surface and the lowest measurement point is 1.6 mm. The extrapolation was based on a least square algorithm. A polynomial of the fourth order was calculated through the points in Z-axes. This polynomial was then used to evaluate the points between the surface and the probe tip.

   ii) The maximum interpolated value was searched with a straightforward algorithm. Around this maximum, the SAR values averaged over the spatial volumes (1g or 10g) were computed using the 3-D spline interpolation algorithm. The 3-D spline is composed of three one-dimensional splines with the “Not a knot” condition (in x, y and z directions). The volume was integrated with the trapezoidal algorithm. 1000 points (10 x 10 x 10) were interpolated to calculate the average.

   iii) All neighboring volumes were evaluated until no neighboring volume with a higher average value was found.

d. Re-measurements of the SAR value at the same location as in step a. above. If the value changed by more than 5 %, the evaluation was repeated.

2.5 Test Results

The results on the following page(s) were obtained when the device was tested in the condition described in this report. Detail measurement data and plots, which reveal information about the location of the maximum SAR with respect to the device, are reported in Appendix A.

Measurement Results

Trade Name:	Ericsson Communication	**Model No.:**	GC75
Serial No.:	Not Labeled	**Test Engineer:**	Xi Ming Yang

TEST CONDITIONS			
Ambient Temperature	23.5 ^{o}C	Relative Humidity	56 %
Test Signal Source	Test Mode	Signal Modulation	GSM
Output Power Before SAR Test	32.5 dBm-890 MHz; 33.0 dBm-902 MHz; 33 .0 dBm-914 MHz; 27.1 dBm-1710 MHz; 28.0 dBm-1748 MHz; 28.8 dBm-1784 MHz; 27.7 dBm-1850 MHz; 27.5 dBm-1880 MHz; 27.7 dBm-1909 MHz	Output Power After SAR Test	The same
Test Duration	23 Min. each test	Number of Battery Change	N/A, powered from laptop

EUT Position: Keyboard Face Down					
Channel MHz	**Operating Mode**	**Crest Factor**	**Measured SAR_{1g} (mW/g)**	**Limit SAR (W/kg)**	**Plot Number**
1850	GSM	8	0.958	1.6	1
1880	GSM	8	0.817	1.6	2
1910	GSM	8	0.846	1.6	3
1710	GSM	8	0.477	1.6	4
1747	GSM	8	0.610	1.6	5
1784	GSM	8	0.860	1.6	6

EUT Position: Vertical on the Left					
Channel MHz	Operating Mode	Crest Factor	Measured SAR_{1g} (mW/g)	Limit SAR (W/kg)	Plot Number
1710	GSM	8	0.368	1.6	7
1747	GSM	8	0.404	1.6	8
1784	GSM	8	0.549	1.6	9
1850	GSM	8	0.430	1.6	10
1880	GSM	8	0.411	1.6	11
1910	GSM	8	0.422	1.6	12

EUT Position: Face Up					
Channel MHz	Operating Mode	Crest Factor	Measured SAR_{1g} (mW/g)	Limit SAR (W/kg)	Plot Number
1850	GSM	8	0.393	1.6	13
1880	GSM	8	0.391	1.6	14
1910	GSM	8	0.435	1.6	15
1710	GSM	8	0.431	1.6	16
1747	GSM	8	0.456	1.6	17
1784	GSM	8	0.553	1.6	18

EUT Position: Keyboard Face Down					
Channel MHz	Operating Mode	Crest Factor	Measured SAR_{1g} (mW/g)	Limit SAR (W/kg)	Plot Number
890	GSM	8	1.12	1.6	19
902	GSM	8	1.07	1.6	20
914	GSM	8	0.765	1.6	21

EUT Position: Face Up					
Channel MHz	Operating Mode	Crest Factor	Measured SAR_{1g} (mW/g)	Limit SAR (W/kg)	Plot Number
890	GSM	8	0.452	1.6	22
902	GSM	8	0.349	1.6	23
914	GSM	8	0.239	1.6	24

EUT Position: Vertical on Left					
Channel MHz	Operating Mode	Crest Factor	Measured SAR_{1g} (mW/g)	Limit SAR (W/kg)	Plot Number
890	GSM	8	0.542	1.6	25
902	GSM	8	0.492	1.6	26
914	GSM	8	0.438	1.6	27

Note: a) Worst case data were reported
b) Uncertainty of the system is not included

3.0 TEST EQUIPMENT

3.1 Equipment List

The Specific Absorption Rate (SAR) tests were performed with the SPEAG model DASY 3 automated near-field scanning system, which is package, optimized for dosimetric evaluation of mobile radios [3].

The following major equipment/components were used for the SAR evaluations:

SAR Measurement System			
EQUIPMENT	SPECIFICATIONS	S/N #	CAL. DATE
Robot	**Stäubi RX60L**	**597412-01**	**N/A**
	Repeatability: ± 0.025mm Accuracy: 0.806×10^{-3} degree Number of Axes: 6		
E-Field Probe	**ET3DV5**	**1333**	**04/23/01**
	Frequency Range: 10 MHz to 6 GHz Linearity: ± 0.2 dB Directivity: ± 0.1 dB in brain tissue		
Data Acquisition	**DAE3**	**317**	**N/A**
	Measurement Range: 1µV to >200mV Input offset Voltage: < 1µV (with auto zero) Input Resistance: 200 M		
Phantom	**Generic Twin V3.0**	**N/A**	**N/A**
	Type: Generic Twin, Homogenous Shell Material: Fiberglass Thickness: 2 ± 0.1 mm Capacity: 20 liter Ear spacer: 4 mm (between EUT ear piece and tissue simulating liquid)		
Simulated Tissue	**Mixture**	**N/A**	**07/27/01**
	Please see section 6.2 for details		
Power Meter	**HP 435A w/ 8481H sensor**	**3607U00673**	**08/01/00**
	Frequency Range: 100kHz to 18 GHz Power Range: 300µW to 3W		

3.2 Muscle Tissue Simulating Liquid

Muscle	
Ingredient	**Frequency** (800 – 900 MHz)
Water	54.05 %
Sugar	45.05 %
Salt	0.1 %
Bactericide	0.8%

Muscle	
Ingredient	**Frequency** (1900 MHz)
Water	55.5 %
Sugar	43.5 %
Salt	0 %
Cellulose	1.0 %

The dielectric parameters were verified prior to assessment using the HP 85070A dielectric probe kit and the HP 8753C network Analyzer. The dielectric parameters were:

Frequency (MHz)	**ε_r***	**σ *(mho/m)**	**ρ **(kg/m$^{3)}$**
915	55.9 ± 5%	0.98 ± 10%	1000

Frequency (MHz)	**ε_r***	**σ *(mho/m)**	**ρ **(kg/m$^{3)}$**
1900	54.3 ± 5%	1.45 ± 10%	1000

* *Worst case uncertainty of the HP 85070A dielectric probe kit*
** *Worst case assumption*

3.3 E-Field Probe Calibration

The manufacturer in the TEM cells ifi 110 calibrated probes. To ensure consistency, a strict protocol was followed. The conversion factor (ConF) between this calibration and the measurement in the tissue simulation solution was performed by comparison with temperature measurement and computer simulations. Probe calibration factors are included in Appendix B.

3.4 Measurement Uncertainty

The uncertainty budget has been determined for the DASY3 measurement system according to the NIS81 [5] and the NIST 1297 [6] documents and is given in the following table. The extended uncertainty (K=2) was assessed to be 23.5 %

UNCERTAINTY BUDGET				
Uncertainty Description	**Error**	**Distrib.**	**Weight**	**Std.Dev.**
Probe Uncertainty				
Axial isotropy	±0.2 dB	U-shape	0.5	±2.4 %
Spherical isotropy	±0.4 dB	U-shape	0.5	±4.8 %
Isotropy from gradient	±0.5 dB	U-shape	0	
Spatial resolution	±0.5 %	Normal	1	±0.5 %
Linearity error	±0.2 dB	Rectang.	1	±2.7 %
Calibration error	±3.3 %	Normal	1	±3.3 %
SAR Evaluation Uncertainty				
Data acquisition error	±1 %	Rectang.	1	±0.6 %
ELF and RF disturbances	±0.25 %	Normal	1	±0.25 %
Conductivity assessment	±10 %	Rectang.	1	±5.8 %
Spatial Peak SAR Evaluation Uncertainty				
Extrapol boundary effect	±3 %	Normal	1	±3 %
Probe positioning error	±0.1 mm	Normal	1	±1 %
Integrat. and cube orient	±3 %	Normal	1	±3 %
Cube shape inaccuracies	±2 %	Rectang.	1	±1.2 %
Device positioning	±6 %	Normal	1	±6 %
Combined Uncertainties				**±11.7 %**

3.5 Measurement Tractability

All measurements described in this report are traceable to National Institute of Standards and Technology (NIST) standards or appropriate national standards.

4.0 WARNING LABEL INFORMATION - USA

See user's manual.

5.0 REFERENCES

[1] ANSI, *ANSI/IEEE C95.1-1991: IEEE Standard for Safety Levels with Respect to Human Exposure to Radio Frequency Electromagnetic Fields, 3kHz to 300 GHz*, The Institute of electrical and Electronics Engineers, Inc., New York, NY 10017, 1992

[2] Federal Communications Commission, "Evaluating Compliance with FCC Guidelines for Human Exposure to Radiofrequency Electromagnetic Fields", OET Bulletin 65, FCC, Washington, D.C. 20554, 1997

[3] Thomas Schmid, Oliver Egger, and Niels Kuster, "Automated E-field scanning system for dosimetric assessments", *IEEE Transaction on Microwave Theory and Techniques*, vol. 44, pp. 105-113, Jan. 1996.

[4] Niels Kuster, Ralph Kastle, and Thomas Schmid, "Dosimetic evaluation of mobile communications equipment with know precision", IEICE Transactions on Communications, vol. E80-B, no. 5, pp.645-652, May 1997.

[5] NIS81, NAMAS, "The treatment of uncertainty in EMC measurement", Tech. Rep., NAMAS Executive, National Physical Laboratory, Teddinton, Middlesex, England, 1994.

[6] Barry N. Tayor and Chris E. Kuyatt, "Guidelines for evaluating and expressing the uncertainty of NIST measurement results", Tech. Rep., National Institute of Standards and Technology, 1994.

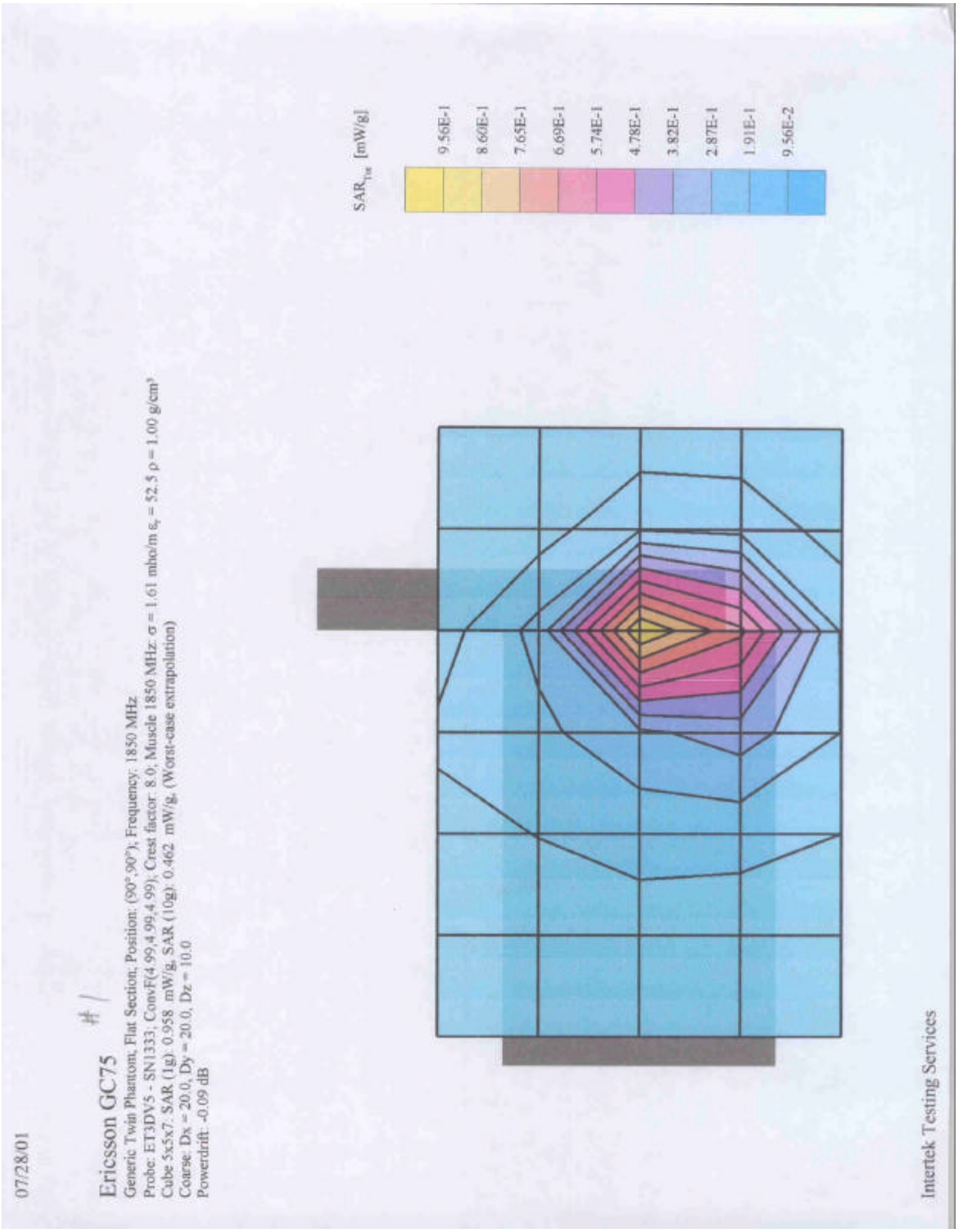
5.0 DOCUMENT HISTORY

Revision/ Job Number	Writer Initials	Date	Change
1.0 /J20056168	SS	July 31, 2001	Original document

APPENDIX A - SAR Evaluation Data

Please note that the graphical visualization of the phone position onto the SAR distribution gives only limited information on the current distribution of the device, since the curvature of the head results in graphical distortion. Full information can only be obtained either by H-field scans in free space or SAR evaluation with a flat phantom.

Power drift is the measurement of power drift of the device over one complete SAR scan.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#1
Ericsson GC75
Generic Twin Phantom; Flat Section; Position: (90°,90°); Frequency: 1850 MHz
Probe: ET3DV5 - SN1333; ConvF(4.99,4.99,4.99); Crest factor: 8.0; Muscle 1850 MHz: σ = 1.61 mho/m εr = 52.5 ρ = 1.00 g/cm³
Cube 5x5x7: SAR (1g): 0.958 mW/g, SAR (10g): 0.462 mW/g, (Worst-case extrapolation)
Coarse: Dx = 20.0, Dy = 20.0, Dz = 10.0
Powerdrift: -0.09 dB
SAR1g [mW/g]
9.56E-1
8.60E-1
7.65E-1
6.69E-1
5.74E-1
4.78E-1
3.82E-1
2.87E-1
1.91E-1
9.56E-2
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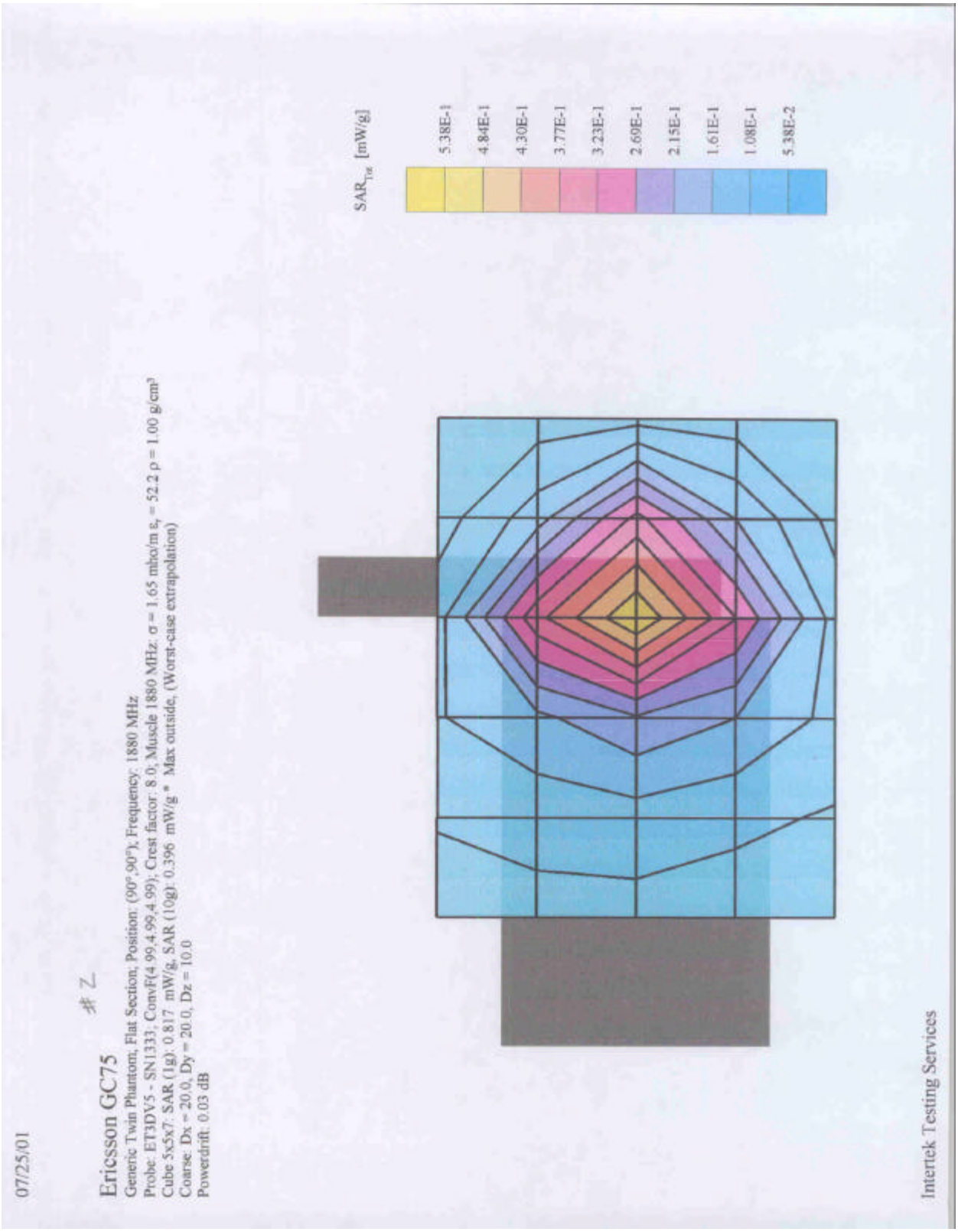
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#7
Ericsson GC75
Generic Twin Phantom; Flat Section; Position: (90°,90°); Frequency: 1880 MHz
Probe: ET3DV5 - SN1333; ConvF(4.99,4.99,4.99); Crest factor: 8.0; Muscle 1880 MHz: σ = 1.65 mho/m εr = 52.2 ρ = 1.00 g/cm³
Cube 5x5x7: SAR (1g): 0.817 mW/g, SAR (10g): 0.396 mW/g * Max outside, (Worst-case extrapolation)
Coarse: Dx = 20.0, Dy = 20.0, Dz = 10.0
Powerdrift: 0.03 dB
SAR_Tot [mW/g]
5.38E-1
4.84E-1
4.30E-1
3.77E-1
3.23E-1
2.69E-1
2.15E-1
1.61E-1
1.08E-1
5.38E-2
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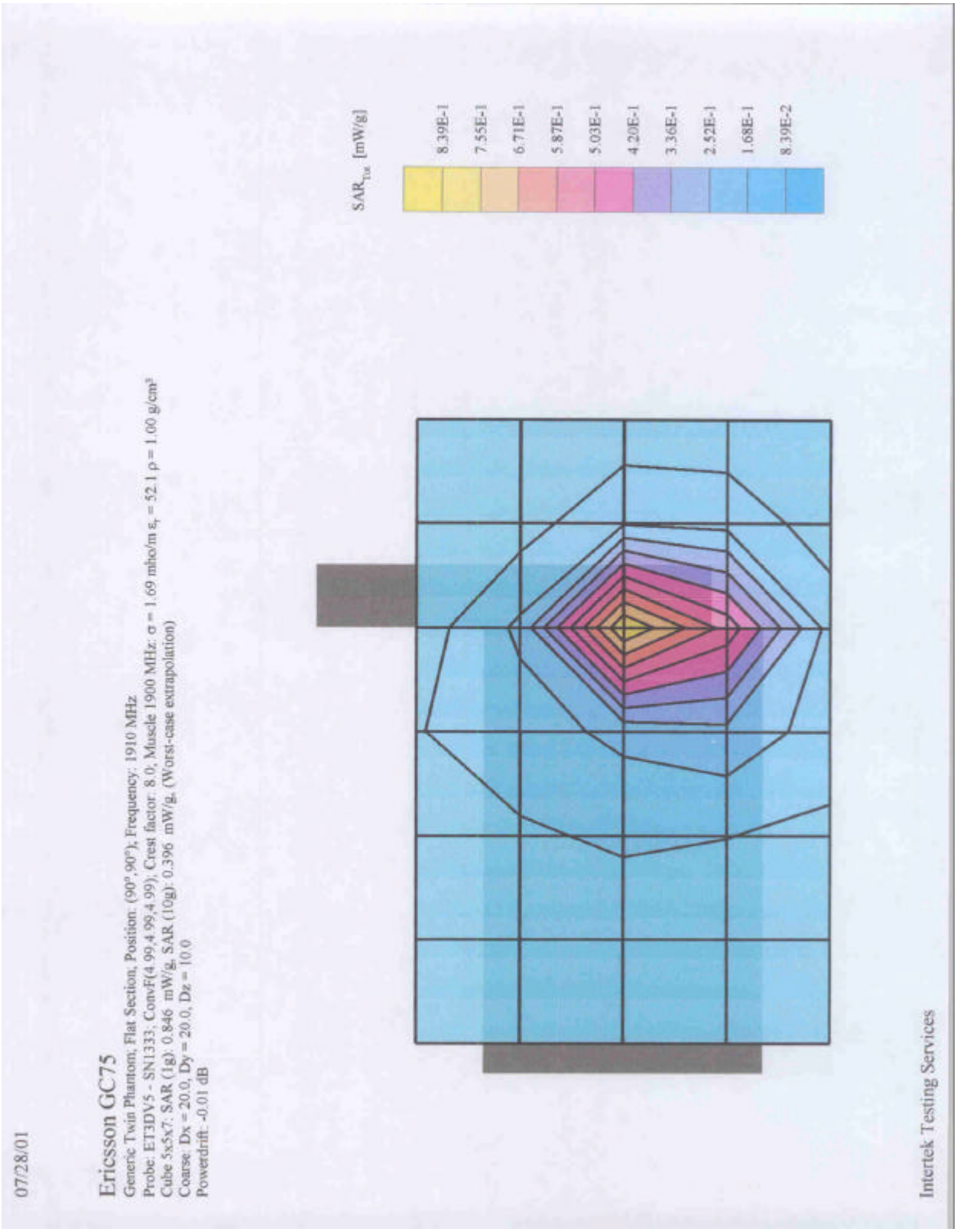
07/28/01
Ericsson GC75
Generic Twin Phantom; Flat Section; Position: (90°,90°); Frequency: 1910 MHz
Probe: ET3DV5 - SN1333; ConvF(4.99,4.99,4.99); Crest factor: 8.0; Muscle 1900 MHz: σ = 1.69 mho/m εr = 52.1 ρ = 1.00 g/cm³
Cube 5x5x7: SAR (1g): 0.846 mW/g, SAR (10g): 0.396 mW/g, (Worst-case extrapolation)
Coarse: Dx = 20.0, Dy = 20.0, Dz = 10.0
Powerdrift: -0.01 dB
SARTot [mW/g]
8.39E-1
7.55E-1
6.71E-1
5.87E-1
5.03E-1
4.20E-1
3.36E-1
2.52E-1
1.68E-1
8.39E-2
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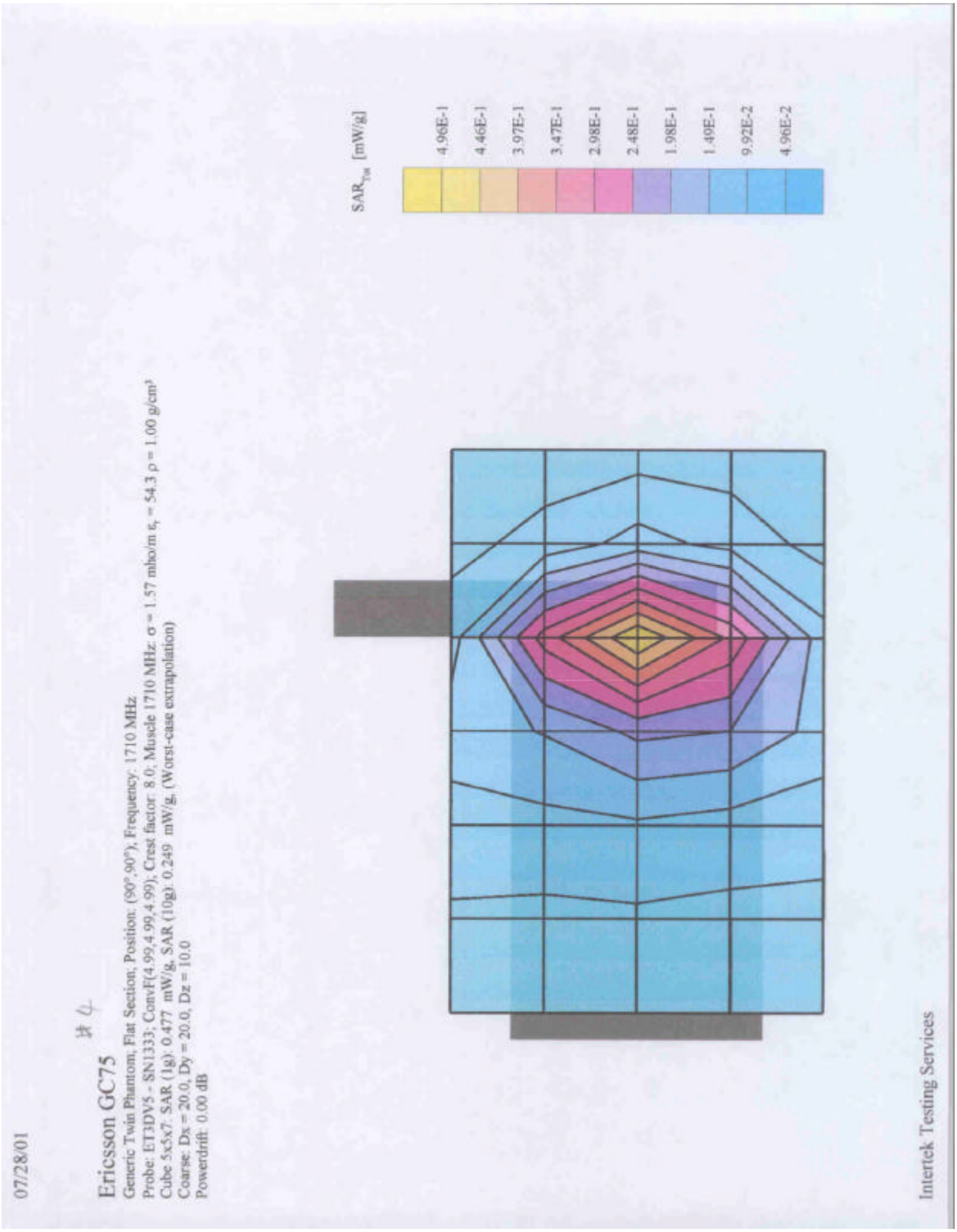
07/28/01
Ericsson GC75
Generic Twin Phantom; Flat Section; Position: (90°,90°); Frequency: 1710 MHz
Probe: ET3DV5 - SN1333; ConvF(4.99,4.99,4.99); Crest factor: 8.0; Muscle 1710 MHz: σ = 1.57 mho/m εr = 54.3 ρ = 1.00 g/cm³
Cube 5x5x7: SAR (1g): 0.477 mW/g, SAR (10g): 0.249 mW/g, (Worst-case extrapolation)
Coarse: Dx = 20.0, Dy = 20.0, Dz = 10.0
Powerdrift: 0.00 dB
SAR_Tot [mW/g]
4.96E-1
4.46E-1
3.97E-1
3.47E-1
2.98E-1
2.48E-1
1.98E-1
1.49E-1
9.92E-2
4.96E-2
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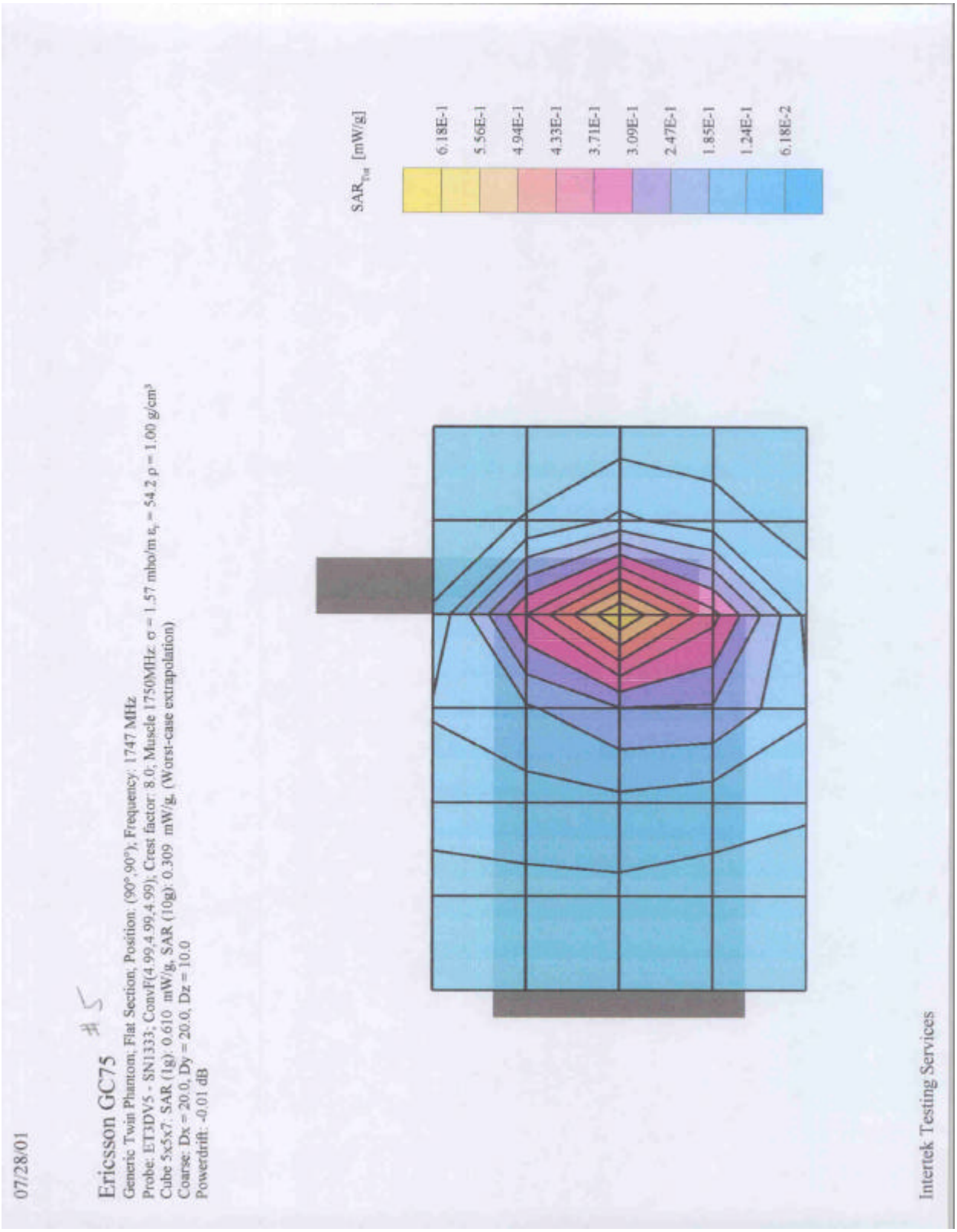
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Ericsson GC75
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Generic Twin Phantom; Flat Section; Position: (90°,90°); Frequency: 1747 MHz
Probe: ET3DV5 - SN1333; ConvF(4.99,4.99,4.99); Crest factor: 8.0; Muscle 1750MHz: σ = 1.57 mho/m εr = 54.2 ρ = 1.00 g/cm³
Cube 5x5x7: SAR (1g): 0.610 mW/g, SAR (10g): 0.309 mW/g, (Worst-case extrapolation)
Coarse: Dx = 20.0, Dy = 20.0, Dz = 10.0
Powerdrift: -0.01 dB
SARtot [mW/g]
6.18E-1
5.56E-1
4.94E-1
4.33E-1
3.71E-1
3.09E-1
2.47E-1
1.85E-1
1.24E-1
6.18E-2
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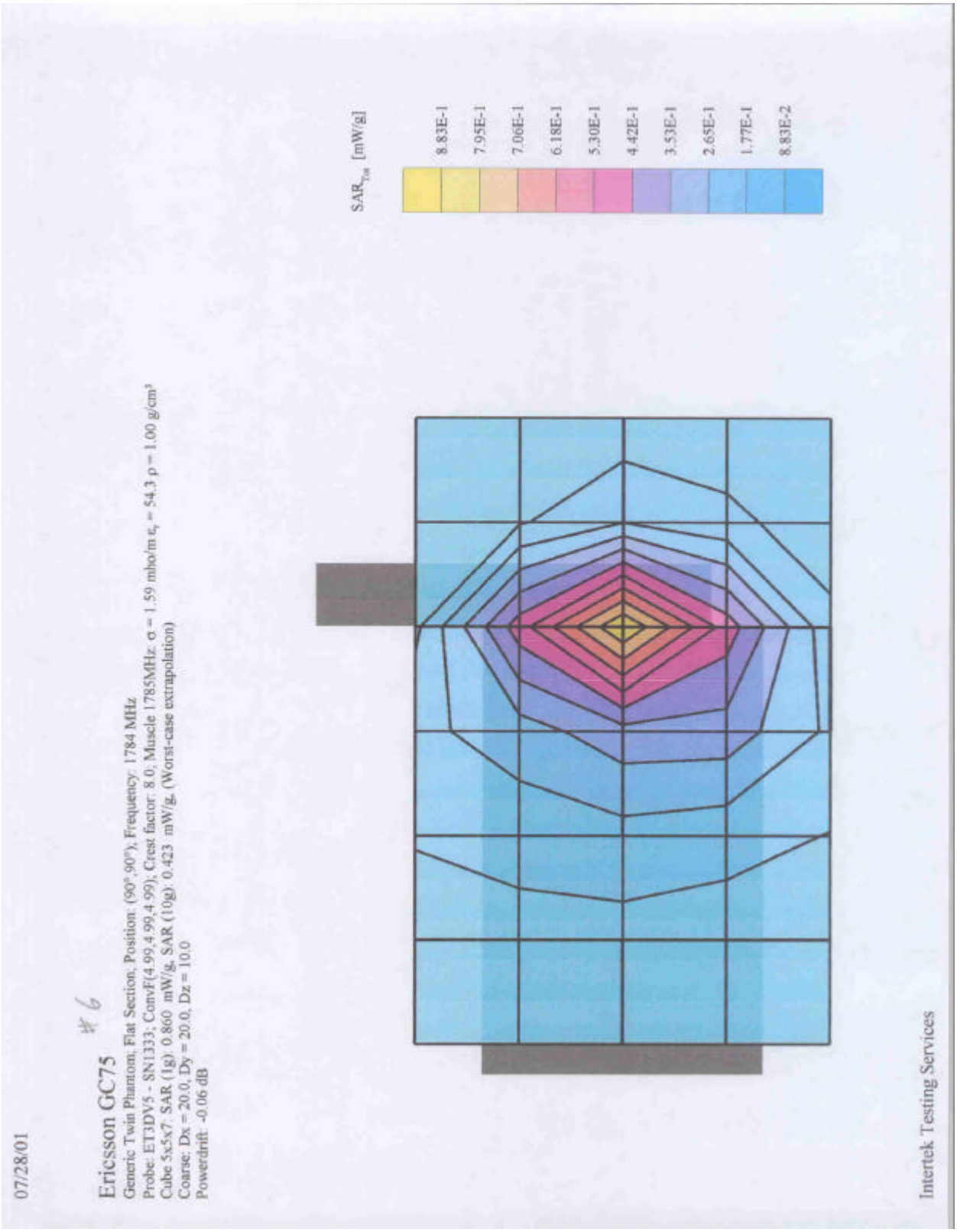
07/28/01
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Ericsson GC75
Generic Twin Phantom; Flat Section; Position: (90°,90°); Frequency: 1784 MHz
Probe: ET3DV5 - SN1333; ConvF(4.99,4.99,4.99); Crest factor: 8.0; Muscle 1785MHz: σ = 1.59 mho/m εr = 54.3 ρ = 1.00 g/cm³
Cube 5x5x7: SAR (1g): 0.860 mW/g, SAR (10g): 0.423 mW/g, (Worst-case extrapolation)
Coarse: Dx = 20.0, Dy = 20.0, Dz = 10.0
Powerdrift: -0.06 dB
SARtot [mW/g]
8.83E-1
7.95E-1
7.06E-1
6.18E-1
5.30E-1
4.42E-1
3.53E-1
2.65E-1
1.77E-1
8.83E-2
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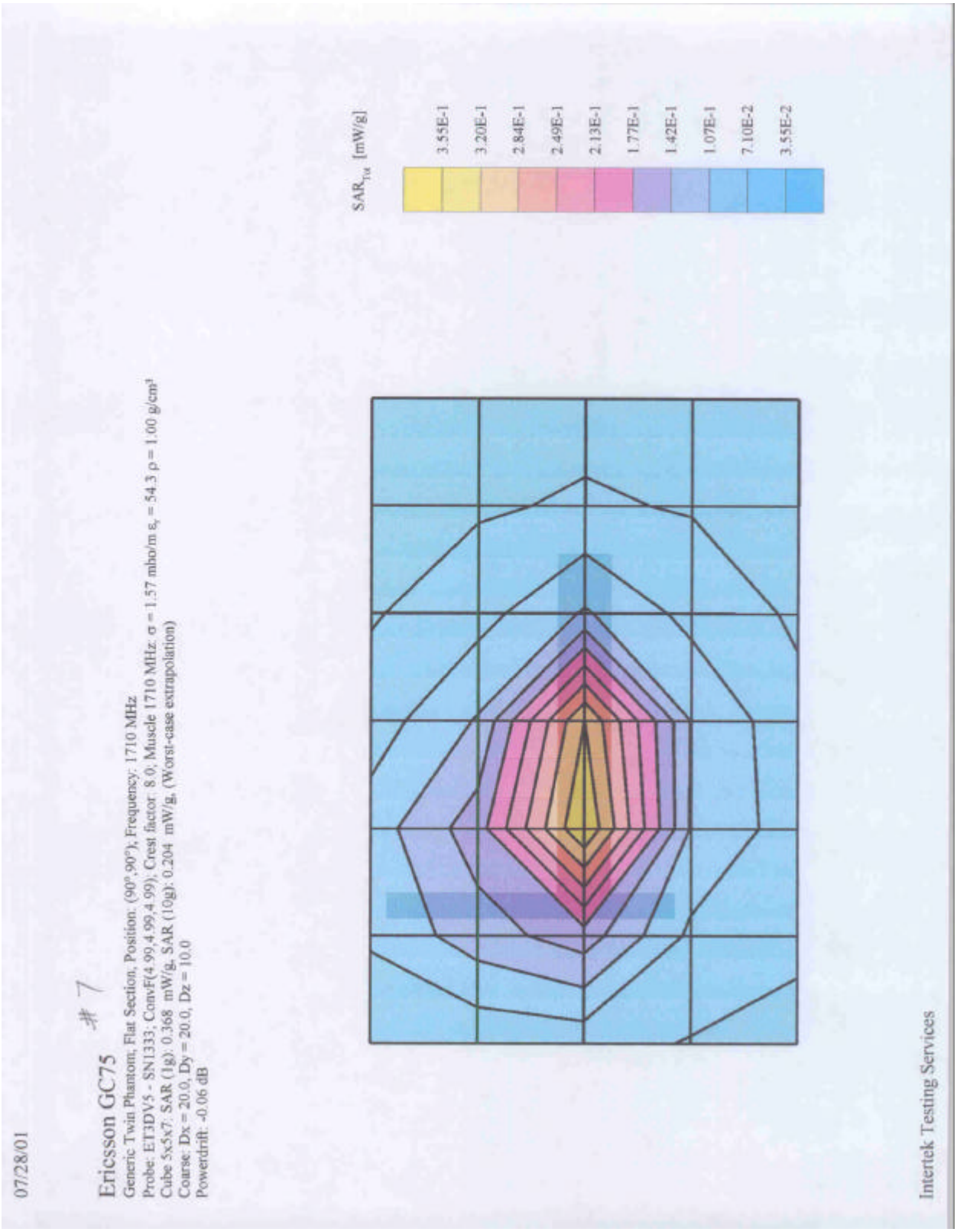
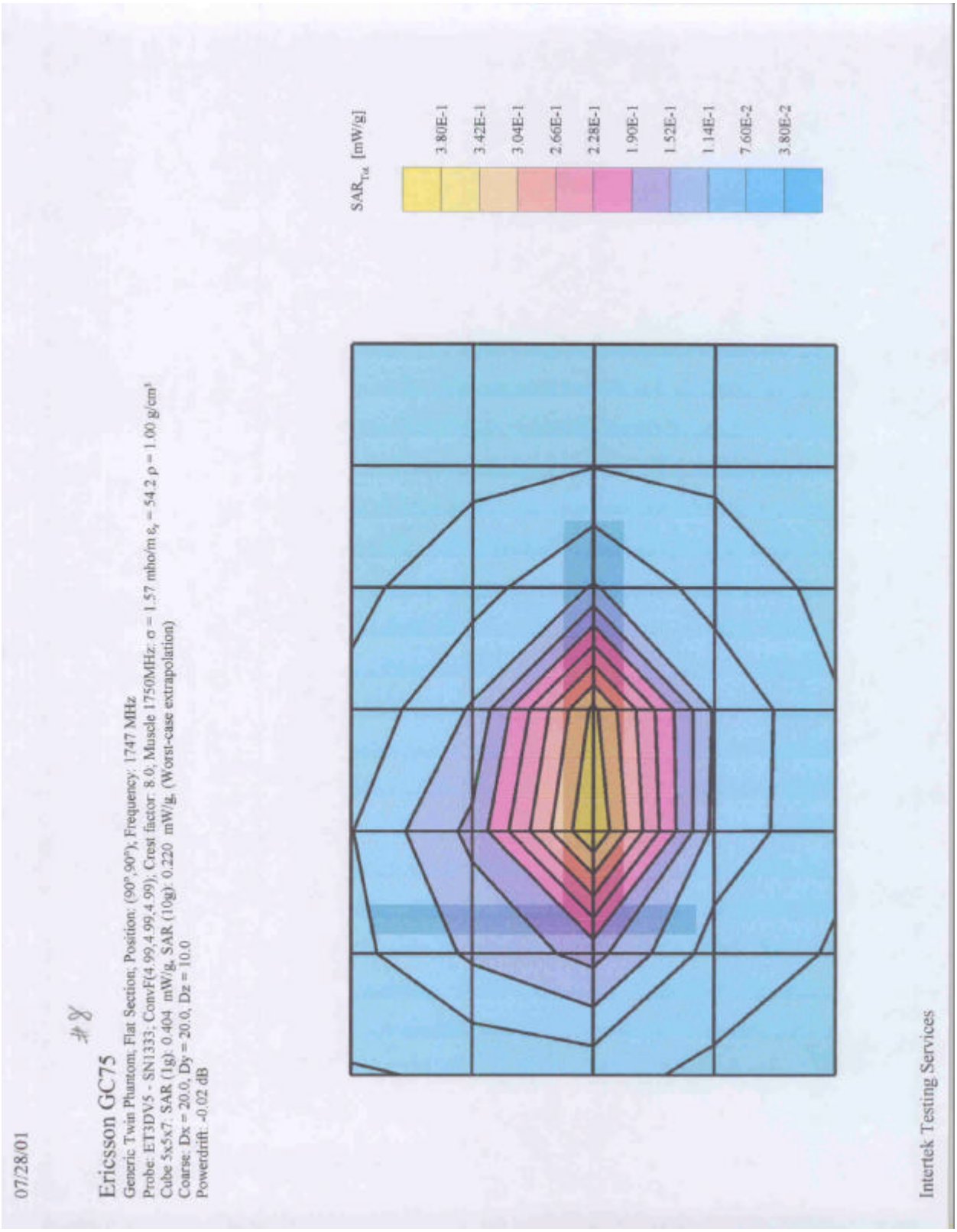
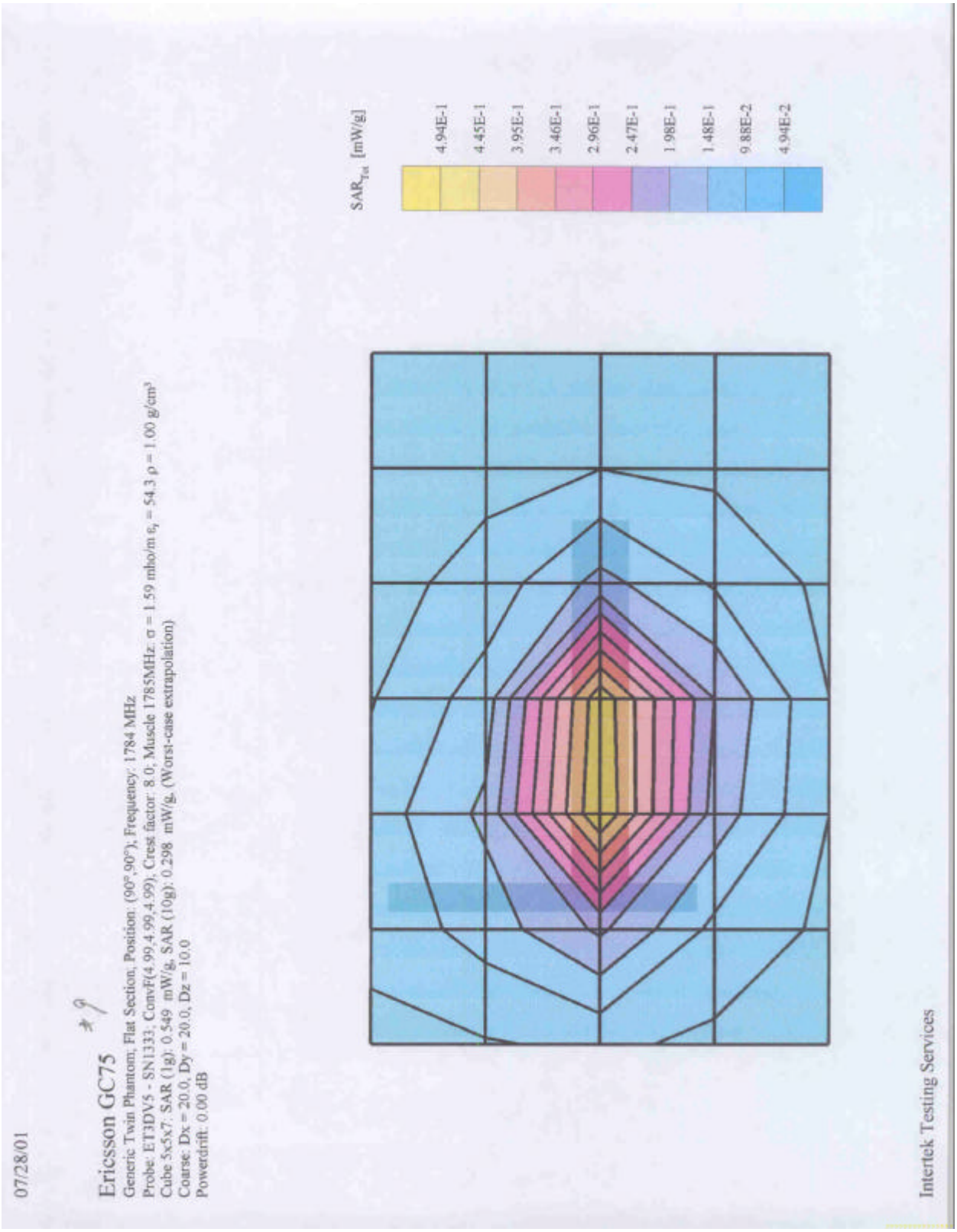
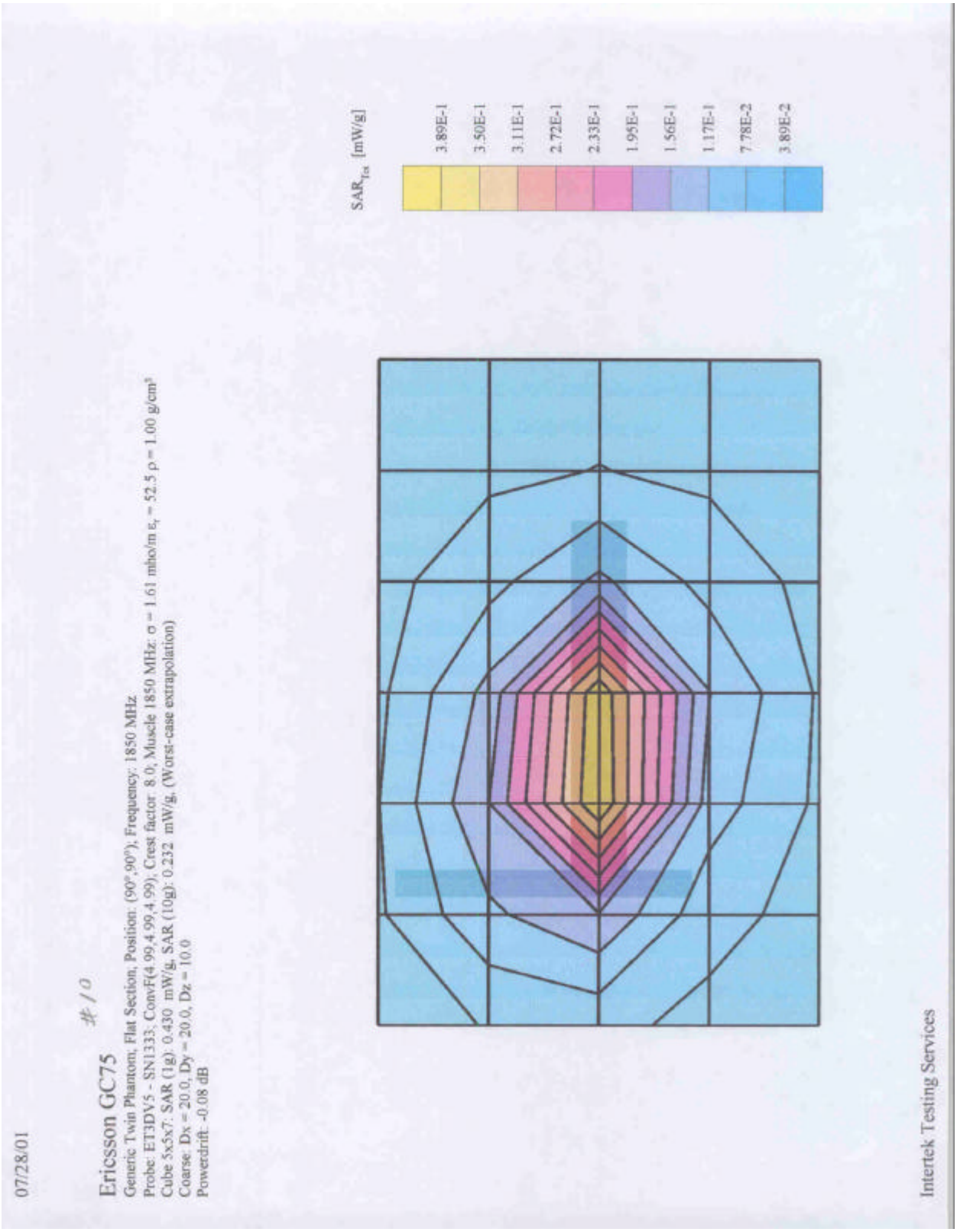
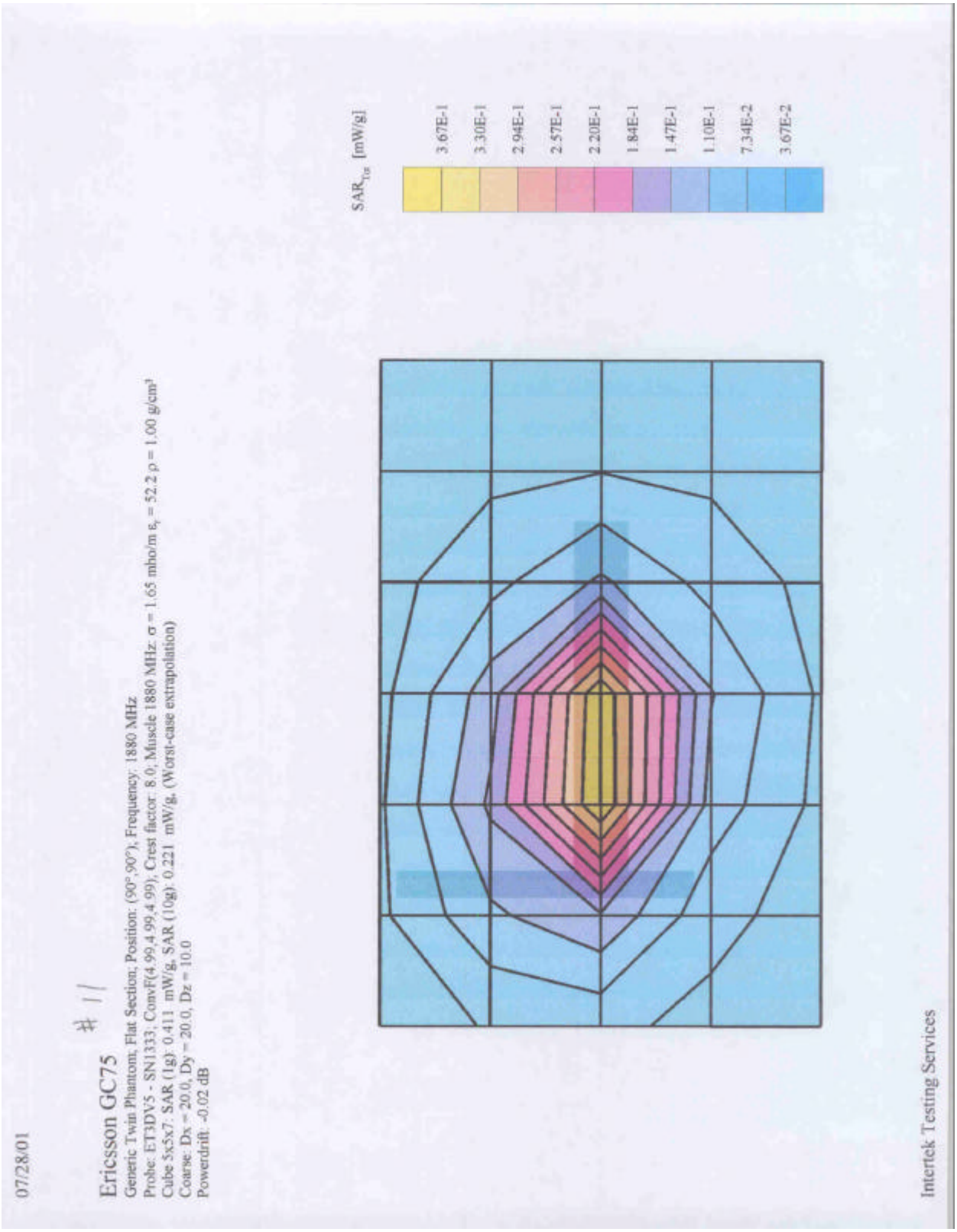
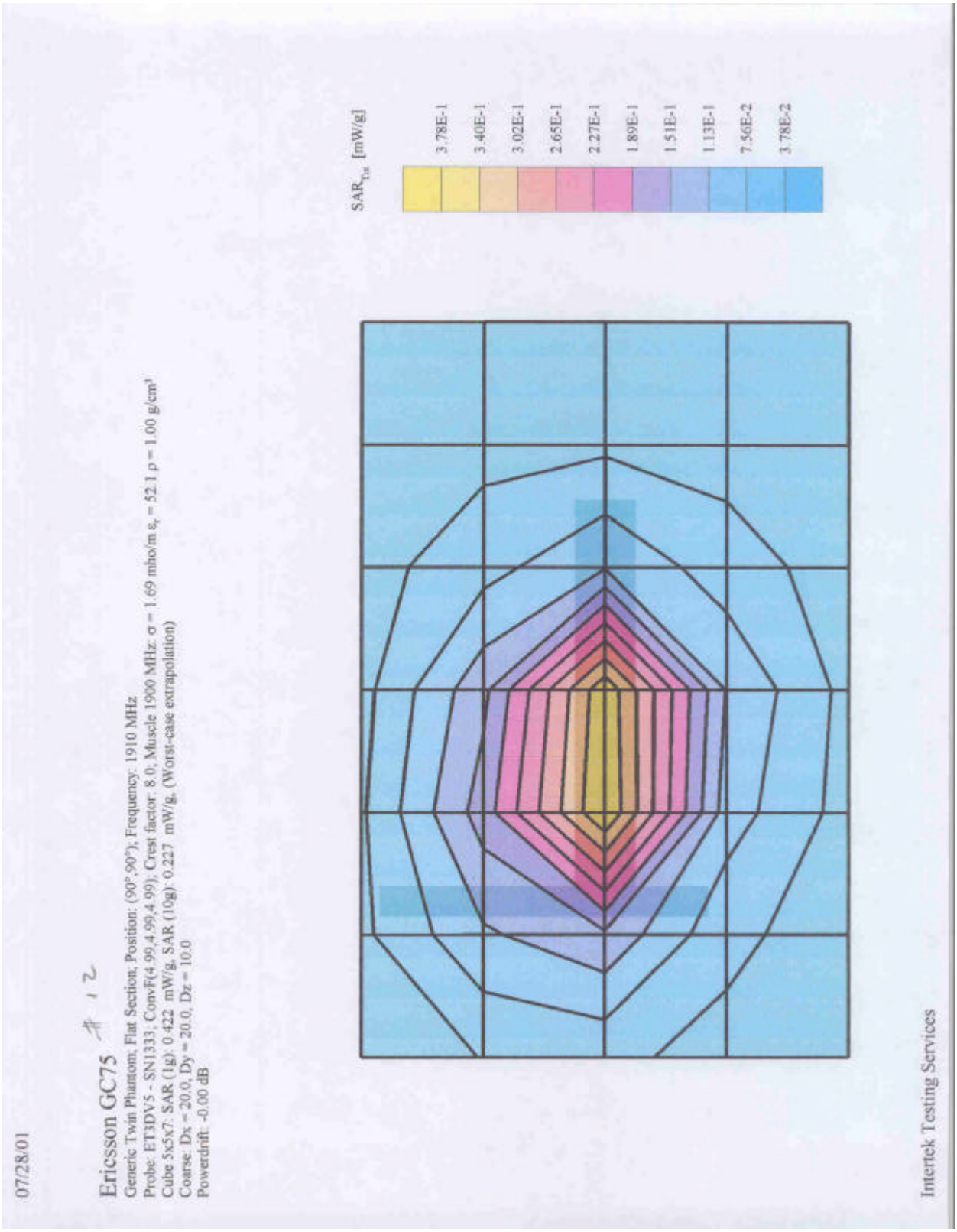

07/28/01
Ericsson GC75
#7
Generic Twin Phantom; Flat Section; Position: (90°,90°); Frequency: 1710 MHz
Probe: ET3DV5 - SN1333; ConvF(4.99,4.99,4.99); Crest factor: 8.0; Muscle 1710 MHz: σ = 1.57 mho/m εr = 54.3 ρ = 1.00 g/cm³
Cube 5x5x7: SAR (1g): 0.368 mW/g, SAR (10g): 0.204 mW/g, (Worst-case extrapolation)
Coarse: Dx = 20.0, Dy = 20.0, Dz = 10.0
Powerdrift: -0.06 dB
SARTot [mW/g]
3.55E-1
3.20E-1
2.84E-1
2.49E-1
2.13E-1
1.77E-1
1.42E-1
1.07E-1
7.10E-2
3.55E-2
Intertek Testing Services

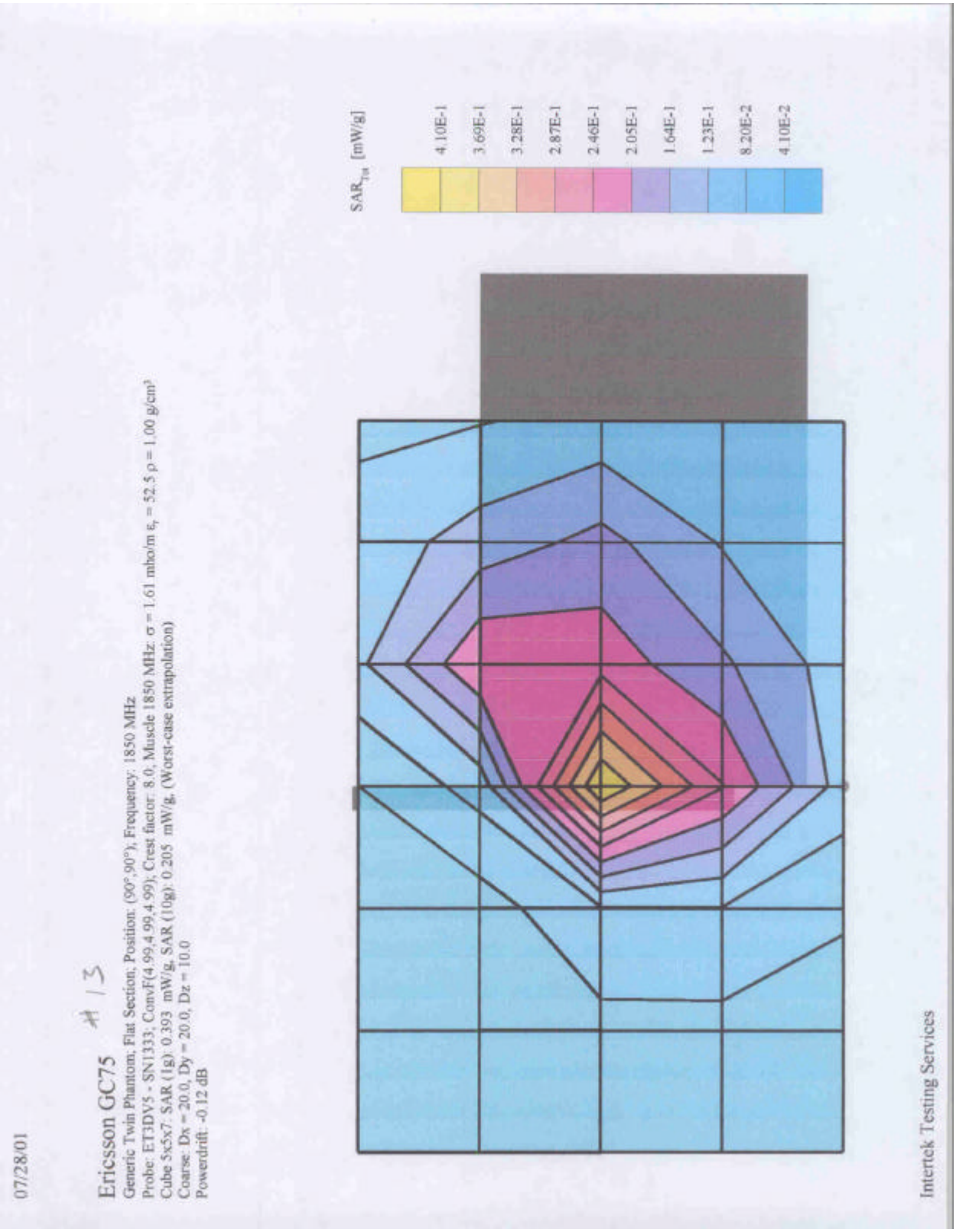

07/28/01
#8
Ericsson GC75
Generic Twin Phantom; Flat Section; Position: (90°,90°); Frequency: 1747 MHz
Probe: ET3DV5 - SN1333; ConvF(4.99,4.99,4.99); Crest factor: 8.0; Muscle 1750MHz: σ = 1.57 mho/m εr = 54.2 ρ = 1.00 g/cm³
Cube 5x5x7: SAR (1g): 0.404 mW/g, SAR (10g): 0.220 mW/g, (Worst-case extrapolation)
Coarse: Dx = 20.0, Dy = 20.0, Dz = 10.0
Powerdrift: -0.02 dB
SARTot [mW/g]
3.80E-1
3.42E-1
3.04E-1
2.66E-1
2.28E-1
1.90E-1
1.52E-1
1.14E-1
7.60E-2
3.80E-2
Intertek Testing Services

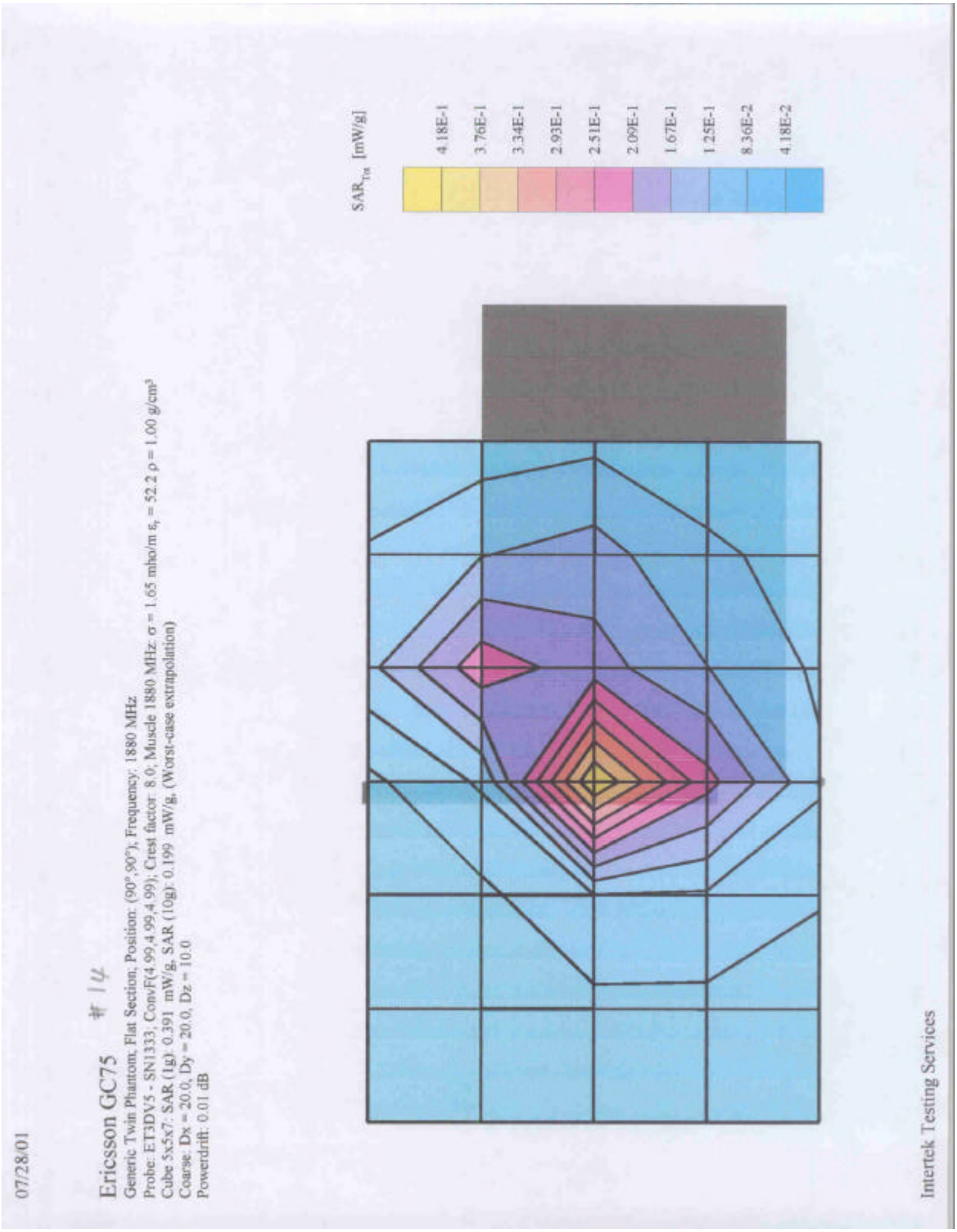

07/28/01
#9
Ericsson GC75
Generic Twin Phantom; Flat Section; Position: (90°,90°); Frequency: 1784 MHz
Probe: ET3DV5 - SN1333; ConvF(4.99,4.99,4.99); Crest factor: 8.0; Muscle 1785MHz: σ = 1.59 mho/m εr = 54.3 ρ = 1.00 g/cm³
Cube 5x5x7: SAR (1g): 0.549 mW/g, SAR (10g): 0.298 mW/g, (Worst-case extrapolation)
Coarse: Dx = 20.0, Dy = 20.0, Dz = 10.0
Powerdrift: 0.00 dB
SARTot [mW/g]
4.94E-1
4.45E-1
3.95E-1
3.46E-1
2.96E-1
2.47E-1
1.98E-1
1.48E-1
9.88E-2
4.94E-2
Intertek Testing Services

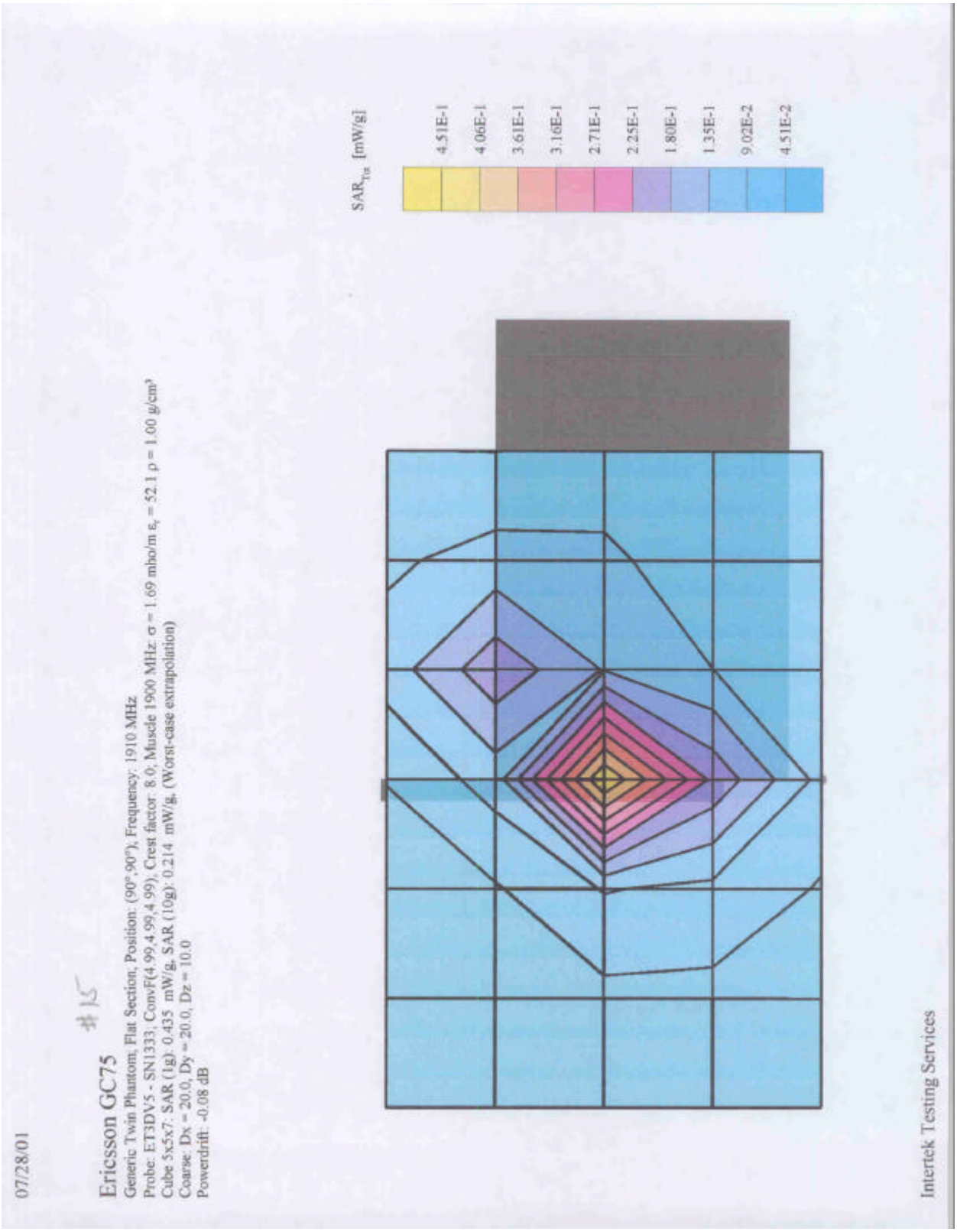

07/28/01
#10
Ericsson GC75
Generic Twin Phantom; Flat Section; Position: (90°,90°); Frequency: 1850 MHz
Probe: ET3DV5 - SN1333; ConvF(4.99,4.99,4.99); Crest factor: 8.0; Muscle 1850 MHz: σ = 1.61 mho/m εr = 52.5 ρ = 1.00 g/cm³
Cube 5x5x7: SAR (1g): 0.430 mW/g, SAR (10g): 0.232 mW/g, (Worst-case extrapolation)
Coarse: Dx = 20.0, Dy = 20.0, Dz = 10.0
Powerdrift: -0.08 dB
SARfos [mW/g]
3.89E-1
3.50E-1
3.11E-1
2.72E-1
2.33E-1
1.95E-1
1.56E-1
1.17E-1
7.78E-2
3.89E-2
Intertek Testing Services

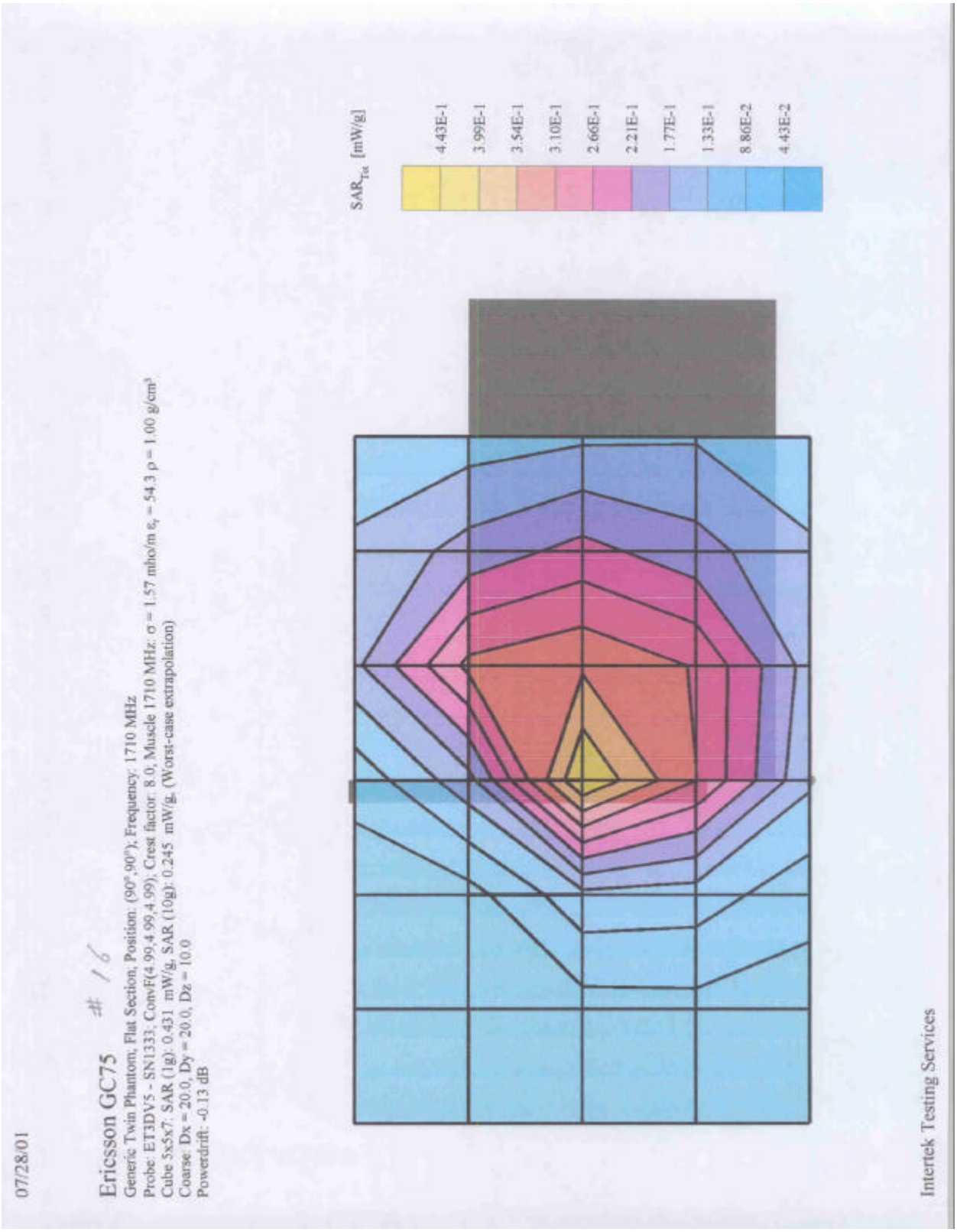

07/28/01
Ericsson GC75 # 11
Generic Twin Phantom; Flat Section; Position: (90°,90°); Frequency: 1880 MHz
Probe: ET3DV5 - SN1333; ConvF(4.99,4.99,4.99); Crest factor: 8.0; Muscle 1880 MHz: σ = 1.65 mho/m εr = 52.2 ρ = 1.00 g/cm³
Cube 5x5x7: SAR (1g): 0.411 mW/g, SAR (10g): 0.221 mW/g, (Worst-case extrapolation)
Coarse: Dx = 20.0, Dy = 20.0, Dz = 10.0
Powerdrift: -0.02 dB
SARTot [mW/g]
3.67E-1
3.30E-1
2.94E-1
2.57E-1
2.20E-1
1.84E-1
1.47E-1
1.10E-1
7.34E-2
3.67E-2
Intertek Testing Services

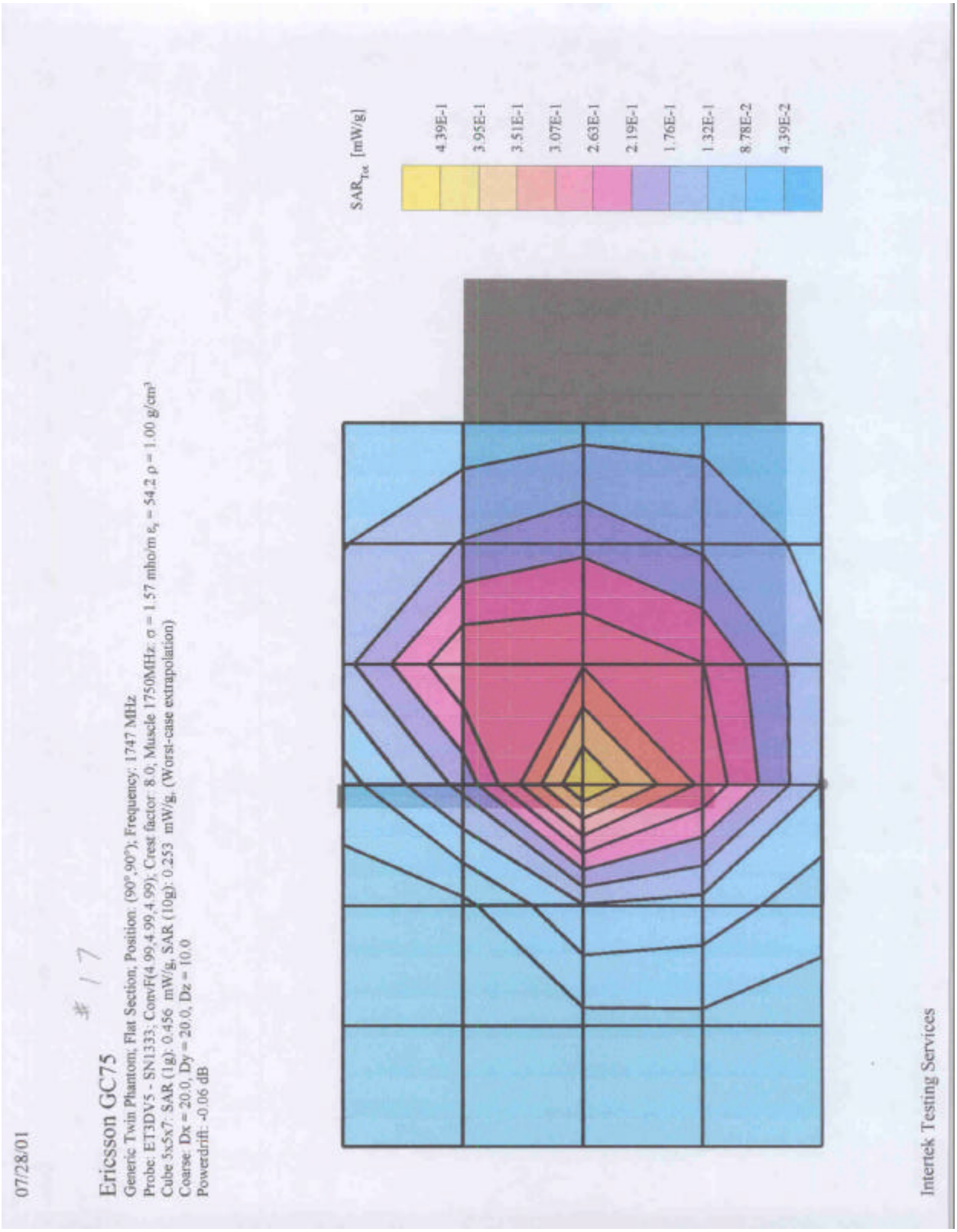

07/28/01
Ericsson GC75
Generic Twin Phantom; Flat Section; Position: (90°,90°); Frequency: 1910 MHz
Probe: ET3DV5 - SN1333; ConvF(4.99,4.99,4.99); Crest factor: 8.0; Muscle 1900 MHz: σ = 1.69 mho/m ε_r = 52.1 ρ = 1.00 g/cm³
Cube 5x5x7: SAR (1g): 0.422 mW/g, SAR (10g): 0.227 mW/g, (Worst-case extrapolation)
Coarse: Dx = 20.0, Dy = 20.0, Dz = 10.0
Powerdrift: -0.00 dB
SAR_tot [mW/g]
3.78E-1
3.40E-1
3.02E-1
2.65E-1
2.27E-1
1.89E-1
1.51E-1
1.13E-1
7.56E-2
3.78E-2
Intertek Testing Services

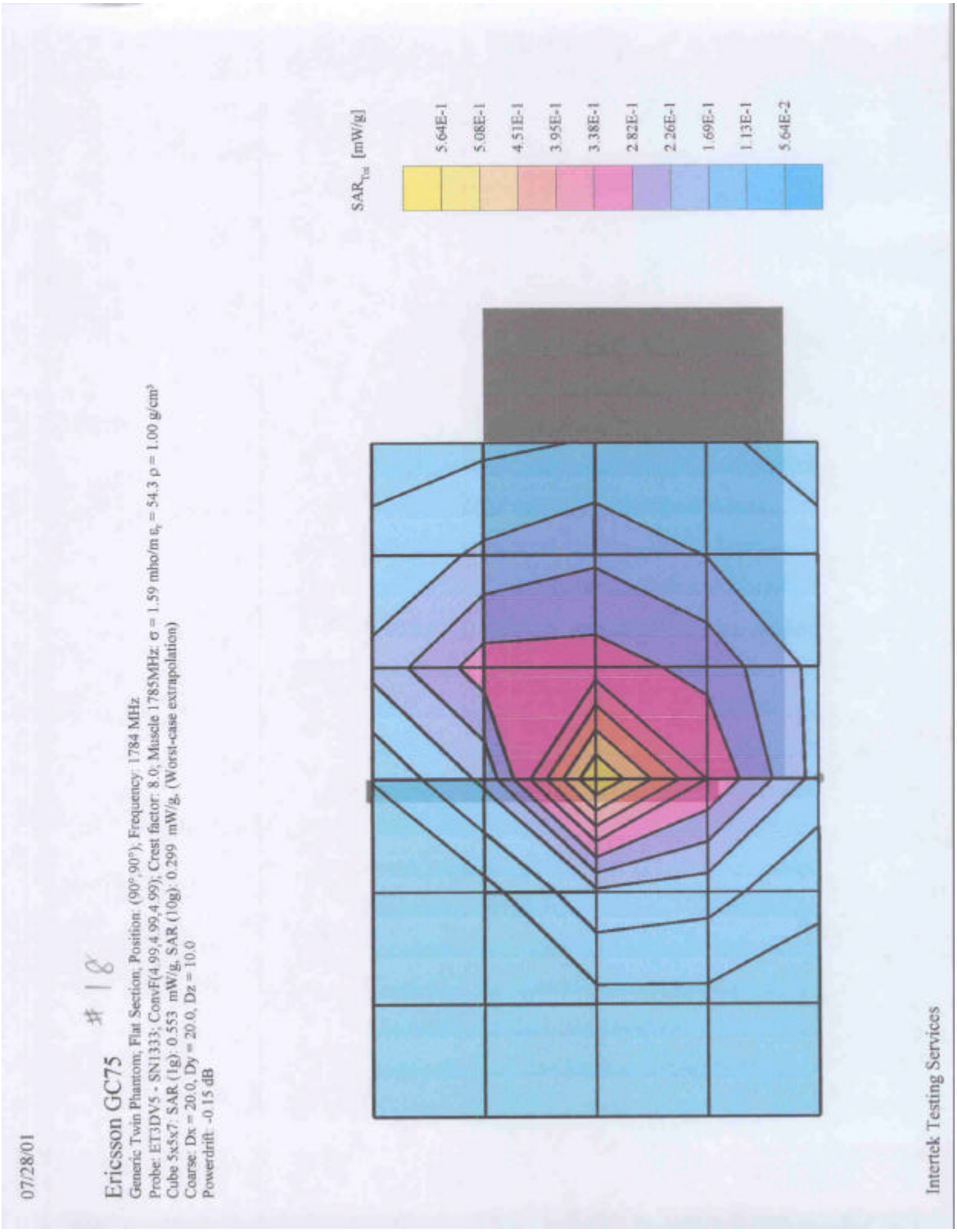

07/28/01
Ericsson GC75 #13
Generic Twin Phantom; Flat Section; Position: (90°,90°); Frequency: 1850 MHz
Probe: ET3DV5 - SN1333; ConvF(4.99,4.99,4.99); Crest factor: 8.0; Muscle 1850 MHz: σ = 1.61 mho/m εr = 52.5 ρ = 1.00 g/cm³
Cube 5x5x7: SAR (1g): 0.393 mW/g, SAR (10g): 0.205 mW/g, (Worst-case extrapolation)
Coarse: Dx = 20.0, Dy = 20.0, Dz = 10.0
Powerdrift: -0.12 dB
SARTot [mW/g]
4.10E-1
3.69E-1
3.28E-1
2.87E-1
2.46E-1
2.05E-1
1.64E-1
1.23E-1
8.20E-2
4.10E-2
Intertek Testing Services

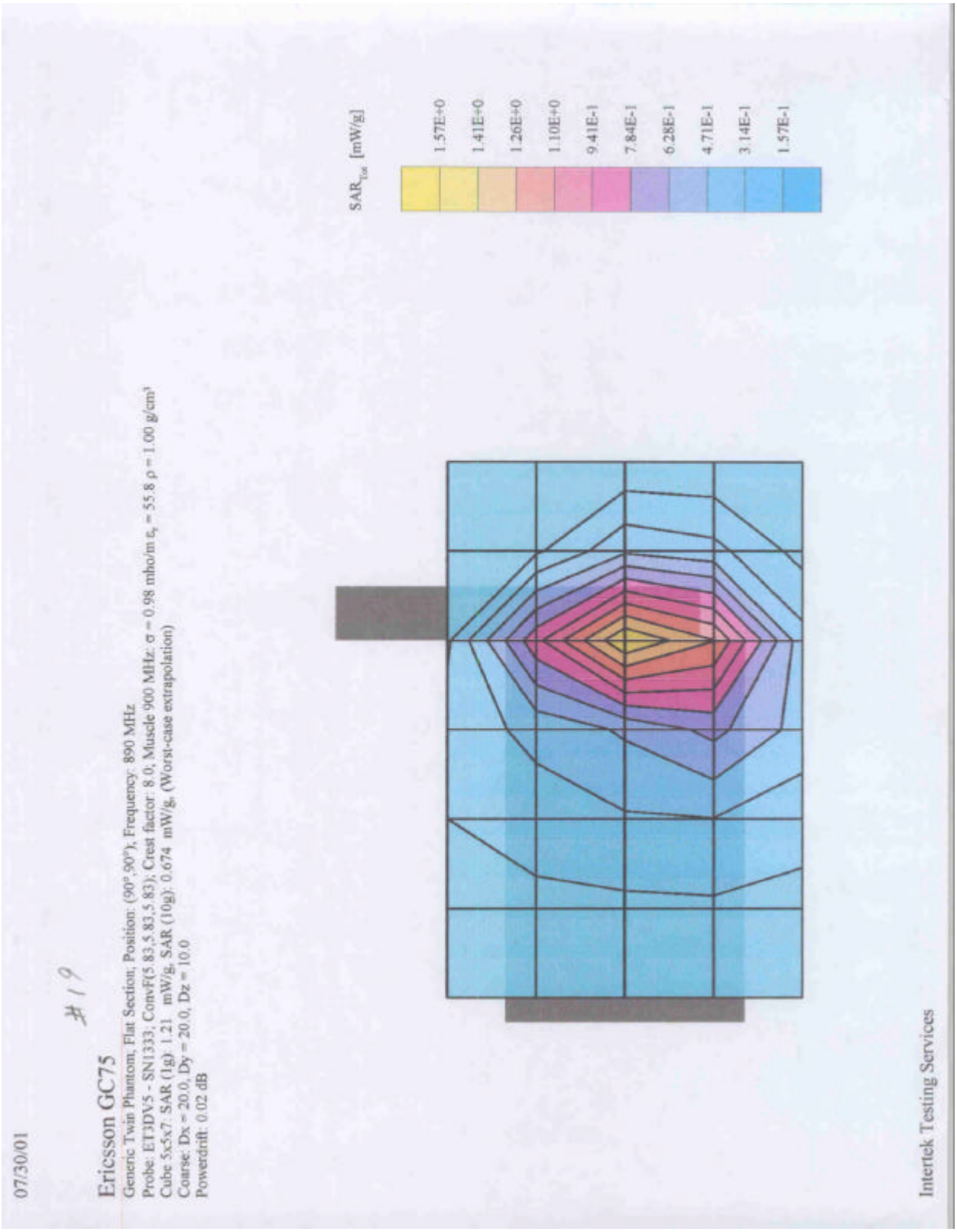

07/28/01
Ericsson GC75 #14
Generic Twin Phantom; Flat Section; Position: (90°,90°); Frequency: 1880 MHz
Probe: ET3DV5 - SN1333; ConvF(4.99,4.99,4.99); Crest factor: 8.0; Muscle 1880 MHz: σ = 1.65 mho/m εr = 52.2 ρ = 1.00 g/cm³
Cube 5x5x7: SAR (1g): 0.391 mW/g, SAR (10g): 0.199 mW/g, (Worst-case extrapolation)
Coarse: Dx = 20.0, Dy = 20.0, Dz = 10.0
Powerdrift: 0.01 dB
SARTot [mW/g]
4.18E-1
3.76E-1
3.34E-1
2.93E-1
2.51E-1
2.09E-1
1.67E-1
1.25E-1
8.36E-2
4.18E-2
Intertek Testing Services


07/28/01
#15
Ericsson GC75
Generic Twin Phantom; Flat Section; Position: (90°,90°); Frequency: 1910 MHz
Probe: ET3DV5 - SN1333; ConvF(4.99,4.99,4.99); Crest factor: 8.0; Muscle 1900 MHz: σ = 1.69 mho/m εr = 52.1 ρ = 1.00 g/cm³
Cube 5x5x7: SAR (1g): 0.435 mW/g, SAR (10g): 0.214 mW/g, (Worst-case extrapolation)
Coarse: Dx = 20.0, Dy = 20.0, Dz = 10.0
Powerdrift: -0.08 dB
SARtot [mW/g]
4.51E-1
4.06E-1
3.61E-1
3.16E-1
2.71E-1
2.25E-1
1.80E-1
1.35E-1
9.02E-2
4.51E-2
Intertek Testing Services


07/28/01
Ericsson GC75 # 16
Generic Twin Phantom; Flat Section; Position: (90°,90°); Frequency: 1710 MHz
Probe: ET3DV5 - SN1333; ConvF(4.99,4.99,4.99); Crest factor: 8.0; Muscle 1710 MHz: σ = 1.57 mho/m εr = 54.3 ρ = 1.00 g/cm³
Cube 5x5x7: SAR (1g): 0.431 mW/g, SAR (10g): 0.245 mW/g, (Worst-case extrapolation)
Coarse: Dx = 20.0, Dy = 20.0, Dz = 10.0
Powerdrift: -0.13 dB
SARTot [mW/g]
4.43E-1
3.99E-1
3.54E-1
3.10E-1
2.66E-1
2.21E-1
1.77E-1
1.33E-1
8.86E-2
4.43E-2
Intertek Testing Services


07/28/01
#17
Ericsson GC75
Generic Twin Phantom; Flat Section; Position: (90°,90°); Frequency: 1747 MHz
Probe: ET3DV5 - SN1333; ConvF(4.99,4.99,4.99); Crest factor: 8.0; Muscle 1750MHz: σ = 1.57 mho/m εr = 54.2 ρ = 1.00 g/cm³
Cube 5x5x7: SAR (1g): 0.456 mW/g, SAR (10g): 0.253 mW/g, (Worst-case extrapolation)
Coarse: Dx = 20.0, Dy = 20.0, Dz = 10.0
Powerdrift: -0.06 dB
SARTot [mW/g]
4.39E-1
3.95E-1
3.51E-1
3.07E-1
2.63E-1
2.19E-1
1.76E-1
1.32E-1
8.78E-2
4.39E-2
Intertek Testing Services


07/28/01
Ericsson GC75
#18
Generic Twin Phantom; Flat Section; Position: (90°,90°); Frequency: 1784 MHz
Probe: ET3DV5 - SN1333; ConvF(4.99,4.99,4.99); Crest factor: 8.0; Muscle 1785MHz: σ = 1.59 mho/m ε_r = 54.3 ρ = 1.00 g/cm³
Cube 5x5x7: SAR (1g): 0.553 mW/g, SAR (10g): 0.299 mW/g, (Worst-case extrapolation)
Coarse: Dx = 20.0, Dy = 20.0, Dz = 10.0
Powerdrift: -0.15 dB
SAR_Tot [mW/g]
5.64E-1
5.08E-1
4.51E-1
3.95E-1
3.38E-1
2.82E-1
2.26E-1
1.69E-1
1.13E-1
5.64E-2
Intertek Testing Services


07/30/01
#19
Ericsson GC75
Generic Twin Phantom; Flat Section; Position: (90°,90°); Frequency: 890 MHz
Probe: ET3DV5 - SN1333; ConvF(5.83,5.83,5.83); Crest factor: 8.0; Muscle 900 MHz: σ = 0.98 mho/m εr = 55.8 ρ = 1.00 g/cm³
Cube 5x5x7: SAR (1g): 1.21 mW/g, SAR (10g): 0.674 mW/g, (Worst-case extrapolation)
Coarse: Dx = 20.0, Dy = 20.0, Dz = 10.0
Powerdrift: 0.02 dB
SAR_tot [mW/g]
1.57E+0
1.41E+0
1.26E+0
1.10E+0
9.41E-1
7.84E-1
6.28E-1
4.71E-1
3.14E-1
1.57E-1
Intertek Testing Services