



Intertek Testing Services

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Amendment Test Report
Specific Absorption Rate (SAR)
for
Samsung Electronics Co., Ltd.
on the
Cellular Phone
Model: SAMSUNG Q105 (1900 MHz Band)

Amendment Test Report: 20515351
Date of Report: June 7, 2001

Job #: J20051535
Date of Test: June 1, 2001

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Date of Report: April 25, 2001

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Warnock Hersey



NVLAP Laboratory Code 200201-0
Accredited for testing to FCC Parts 15

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Reviewed by: 	David Chernomordik, Ph.D., EMC Site Manager

Review Date: 6/7/01

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Table of Contents

1.0	Job description	2
1.1	Test Position for Muscle.....	2
2.0	SAR EVALUATION.....	3
2.1	SAR Limits	3
2.2	Configuration Photographs	4
APPENDIX A - SAR Evaluation Data		7
3.0	DOCUMENT HISTORY	11

1.0 Job description

This report is an Amendment to the original Test Report # 20468662 dated April 25, 2001. This Amendment Report covers the testing of the model SAMSUNG Q105 phone in the body worn/muscle position.

1.1 Test Position for Muscle

The EUT was configured for testing in a typical fashion (as a customer would normally use it), and in the confines as outlined in C95.1 (1992) and Supplement C of OET 65 (1998). Please refer to figure 1 below for the position details:

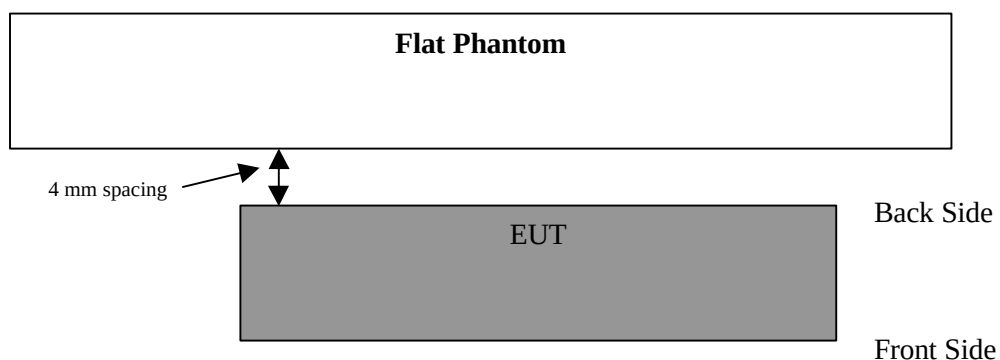


Figure 1: Intended use position for Muscle(Body Worn)

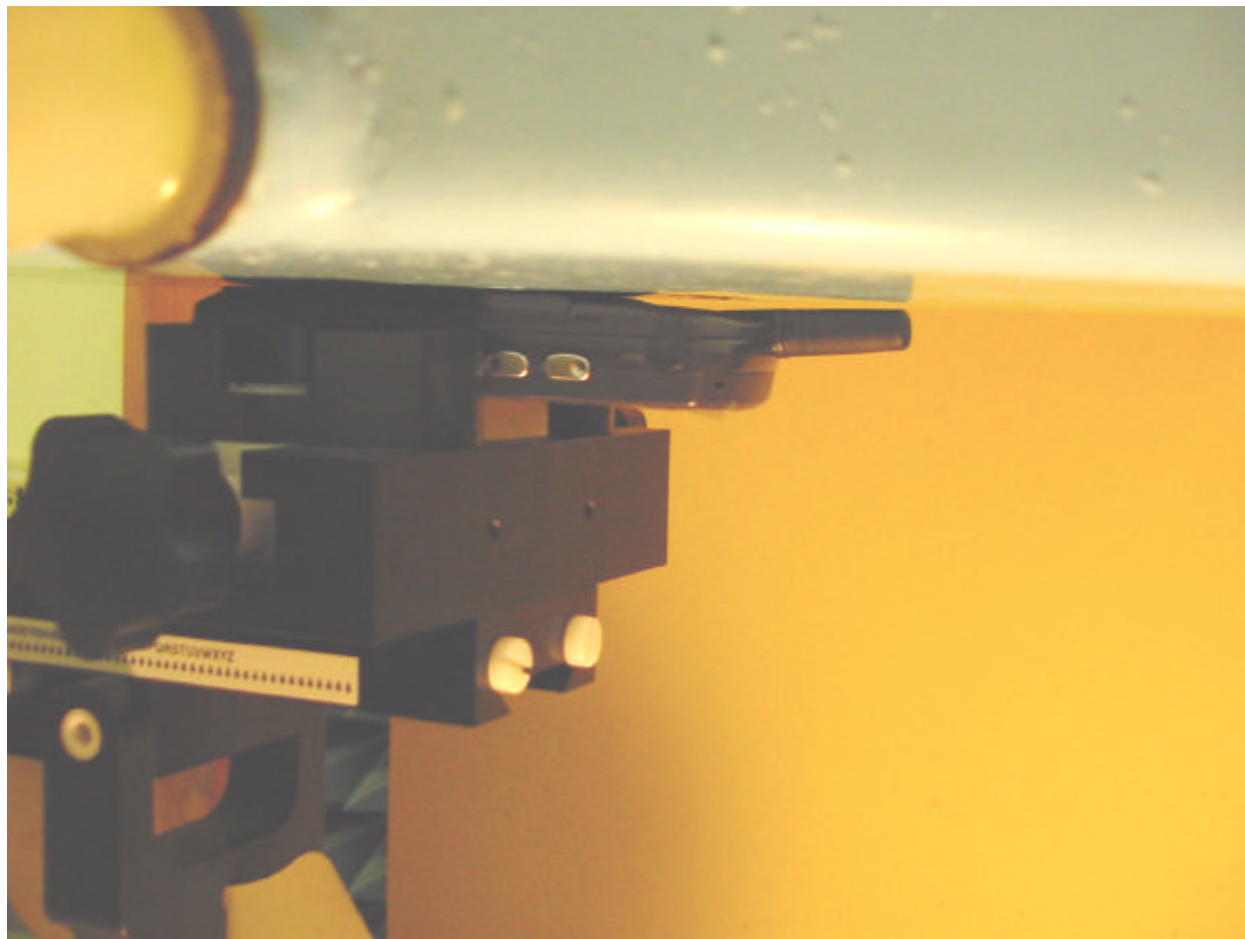
2.0 SAR EVALUATION**2.1 SAR Limits**

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

SAR measurement Test Setup



Measurement Results

Trade Name:	SAMSUNG	Model No.:	SAMSUNG Q105
Serial No.:	Not Labeled	Test Engineer:	Xi-Ming Yang

TEST CONDITIONS

Ambient Temperature	22 °C	Relative Humidity	51 %
Test Signal Source	Test Mode	Signal Modulation	CW
Output Power Before SAR Test	30.3 dBm	Output Power After SAR Test	30.3 dBm
Test Duration	23 Min.	Number of Battery Change	Every Scan

Plot No.	Channel MHz	Operating Mode	Crest Factor	Distance From Phantom	Measured SAR _{1g} (mW/g)
2	1910	GSM	8	2 mm	1.53
4	1880	GSM	8	4 mm	1.28
5	1850	GSM	8	4 mm	1.28

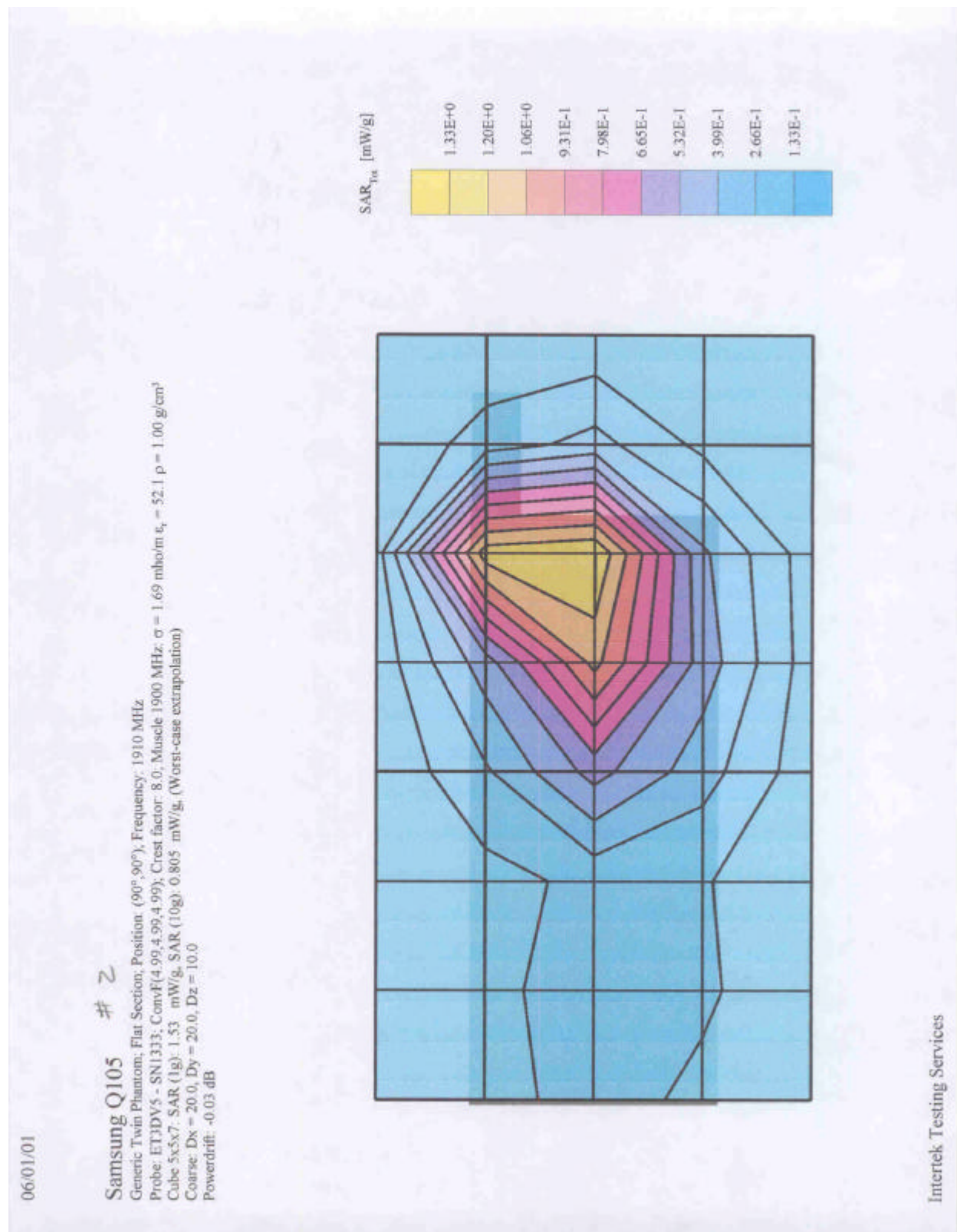
Since the EUT passed at 2mm distance at 1910 MHz it was determined unnecessary to not retest this frequency at 4mm distance. 4 mm spacing from the EUT to the phantom is the minimum distance required for the EUT to pass the SAR Limit of 1.6 (W/kg) at the low, middle , and high test frequencies.

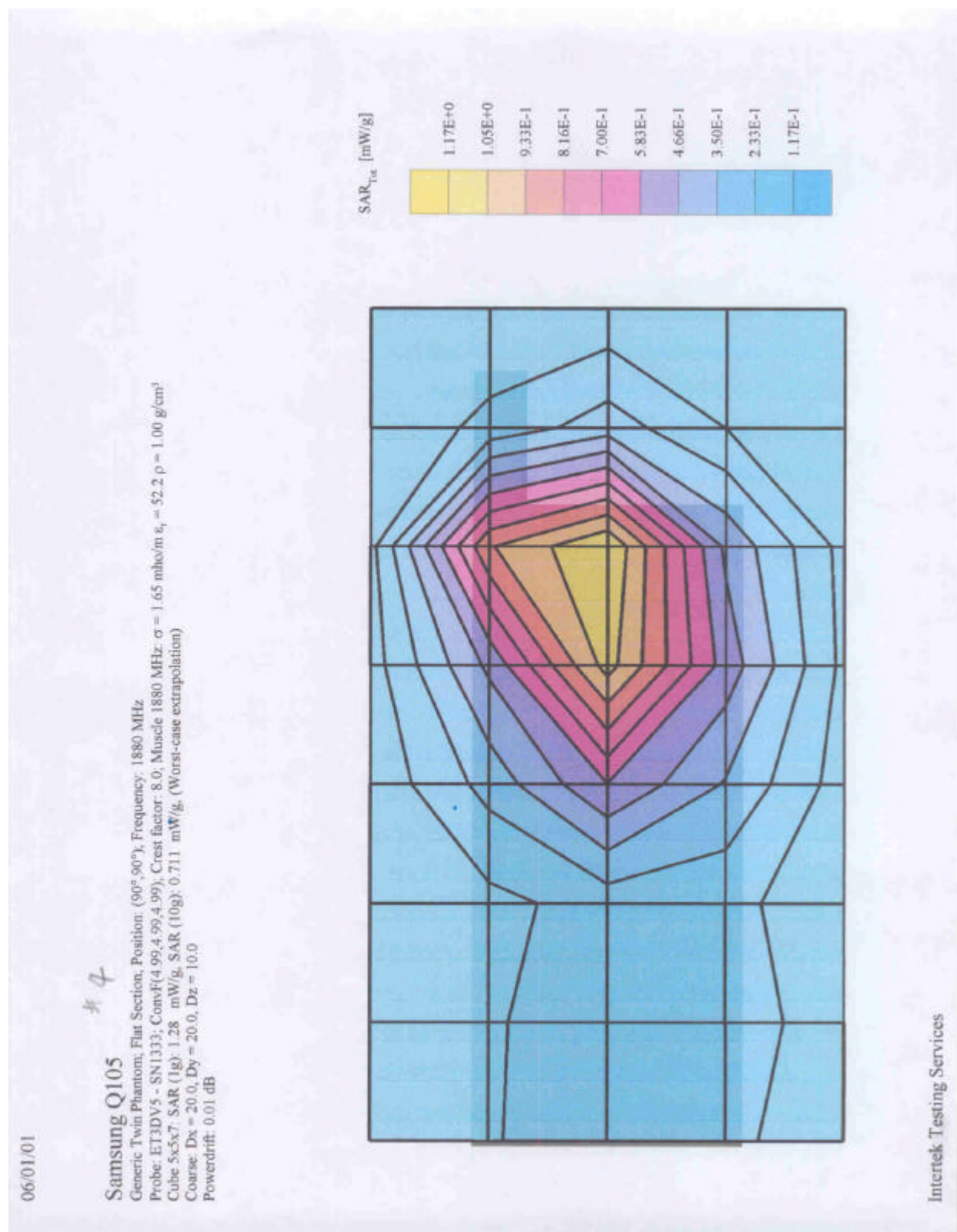
Notes: a) Worst case data were reported
b) Duty cycle factor included in the measured SAR data
c) Uncertainty of the system is not included

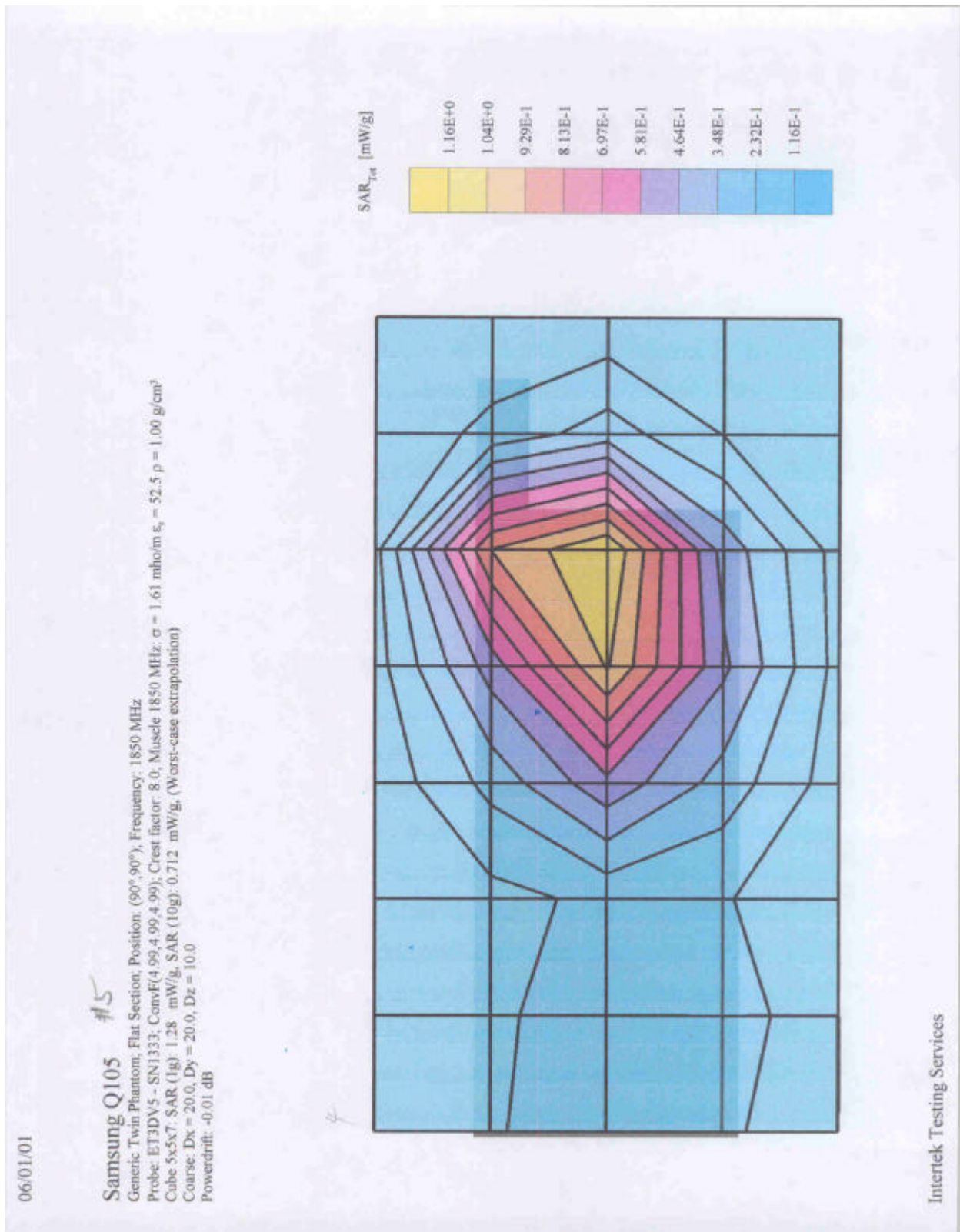
APPENDIX A - SAR Evaluation Data

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.

Powerdrift is the measurement of power drift of the device over one complete SAR scan.







3.0 DOCUMENT HISTORY

Revision/ Job Number	Writer Initials	Date	Change
1.0 /J20051535	SS	June 7, 2001	Original document