

Prepared (also subject responsible if other) SEM/CV/PF/P Mark Douglas		No. EUS/CV-01:1752/REP		
Approved SEM/CV/PF/P Mark Douglas	Checked MGD	2001-12-17	B	F:\REPORTS\E Section\Ericsson\2001303_R300ds\ATCB\12-12- 01\R300ds addendum.doc

Addendum to “SAR Test Report: R300ds (AXATR-421-A2)”

1. Introduction

This report is an addendum to document EUS/CV/R-01:1059/REP (Rev B), “SAR Test Report: R300ds (AXATR-421-A2)”. In this report, additional information supporting the compliance of the R300ds wireless handset is provided. This information is in response to queries by American TCB.

2. Responses

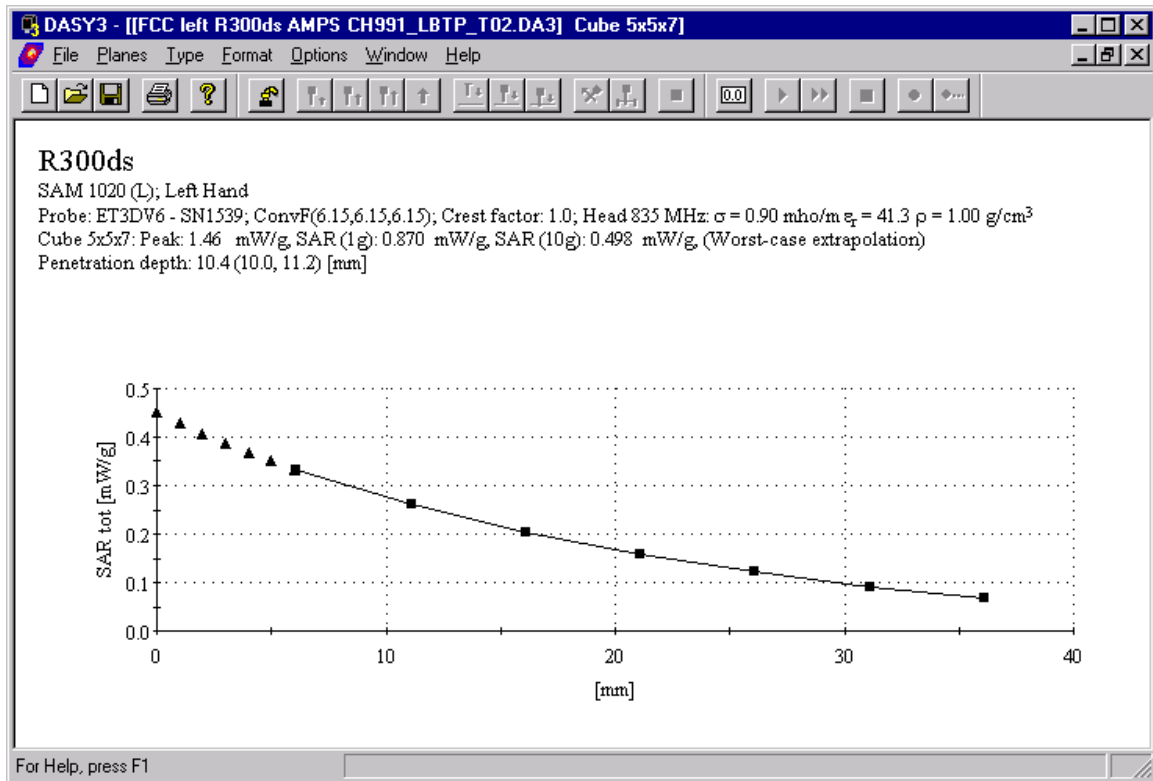
There are three questions posed by American TCB which require detailed explanation. These are numbered the same as the original questions and answered below. The other questions were answered in a simpler way (e.g. over the phone).

4) A boundary interpolation plot is required.

From a phone conversation, it was made clear that this is referring to extrapolation data along the measurement axis normal to the phantom inner surface. An example plot is given below for the configuration which gives the highest SAR.



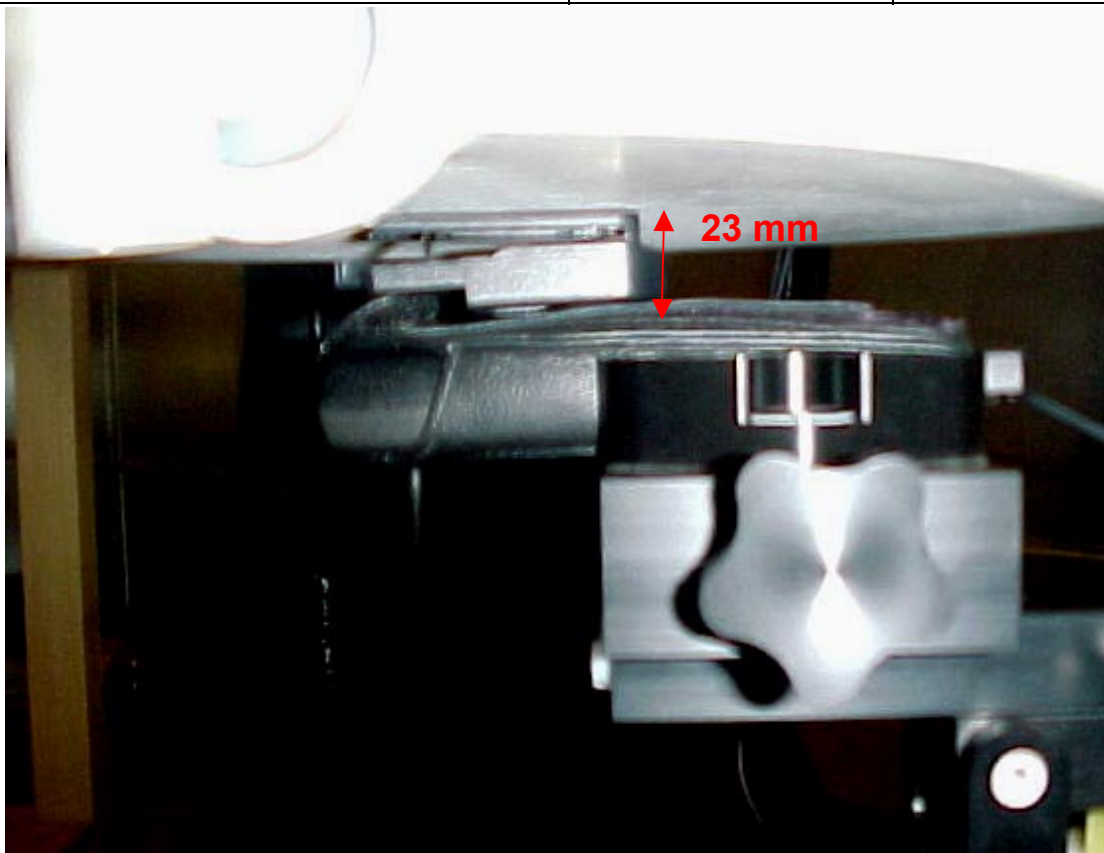
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Extrapolation of SAR to the inner surface of the phantom.

- 9) Please identify distance of phone to phantom (excluding belt clip) for body worn operations. For body worn operations, the device is placed flat against a flat phantom with a 2mm thick shell. The thickness of the carry accessory is 23mm (including both the clip and the leather case). Therefore, at the clip the distance from the handset to the liquid is 25mm. This distance is maintained across the length of the handset, as illustrated below.

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11) Please provide information on probe response to TDMA signals.

The probe manufacturer (SPEAG) recently provided data on the measurement uncertainty due to the use of pulsed signals. There are two uncertainty items:

- **Signal response time uncertainty:** the uncertainty due to the finite rise time of the probe to an electric field step response. This is assessed according to Annex E1.7 in the latest draft IEEE P1528. SPEAG states that the signal response time uncertainty is $\pm 0.8\%$ with a rectangular distribution.
- **Probe integration time uncertainty:** the uncertainty in the assessment of the time-average SAR value due to the finite measurement time at each point. This is assessed according to Annex E1.8 in the latest draft IEEE P1528. SPEAG states that the probe integration time uncertainty is $\pm 1.4\%$ with a rectangular distribution.

13) Does the phantom conform to current recommendations of SCC-34/SC-2 and as described in IEEE P1528.

The phantom is designed to meet these specifications. This is stated in section 5.2 of the "SAR Measurement Specification of Wireless Handsets." Also, below is a certificate of conformance from the manufacturer (SPEAG).



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Certificate of conformance / First Article Inspection

Item	SAM Twin Phantom V4.0
Type No	QD 000 P40 BA
Series No	TP-1002 and higher
Manufacturer / Origin	Untersee Composites Hauptstr. 69 CH-8559 Fruthwilen Switzerland

Tests

The series production process used allows the limitation to test of first articles. Complete tests were made on the pre-series Type No. QD 000 P40 AA, Serial No. TP-1001 and on the series first article Type No. QD 000 P40 BA, Serial No. TP-1006. Certain parameters have been retested using further series units (called samples).

Test	Requirement	Details	Units tested
Shape	Compliance with the geometry according to the CAD model.	IT'IS CAD File (*)	First article, Samples
Material thickness	Compliant with the requirements according to the standards	2mm +/- 0.2mm in specific areas	First article, Samples
Material parameters	Dielectric parameters for required frequencies	200 MHz – 3 GHz Relative permittivity < 5 Loss tangent < 0.05.	Material sample TP 104-S
Material resistivity	The material has been tested to be compatible with the liquids defined in the standards	Liquid type HSL 1800 and others according to the standard.	Pre-series, First article

Standards

- [1] CENELEC EN 50361
- [2] IEEE P1528-200x draft
- [3] IEC PT 82209 draft
- (*) The IT'IS CAD file is deducted from [2] and is also within the tolerance requirements of the shapes of [1] and [3].

Conformance

We hereby certify that this item is in compliance with the uncertainty requirements of SAR measurements specified in the standards [1], [2] and [3].

Date

6.11.2001


Signature / Stamp

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