

FCC ID: NCMOGL-1
Applicant: Option International NV
Correspondence Reference Number: 23245 **Dated:** 2002-06-25
731 Confirmation Number: EA870130

Answer to 1):

We will do so.

Answer to 2):

The measurements were performed with a conversion factor of 5.4 (calibrated for 1800 Mhz head tissue), you can see the measurement results in the SAR report on page 7, table 2 "pre results".

But for the used EUT, the correct conversion factor for 1880 MHz body tissue is approximately 5.21. The conversion from 1800 MHz head tissue to 1880 MHz body tissue was calculated according to the [DASY user manual -chapter 4.5.3](#) connection between device, liquid and probe parameters (page 49)-.

The final SAR value (see test report page 7, table 3) was calculated according to the following formula:

$$\text{SAR (final result)} = \text{SAR (pre results)} \times 5.4/5.21$$

You can see the correctness of this formula in the attached application note "[data storage and evaluation](#)". This application note described, that SAR is conversely proportional to the conversion factor.

Answer to 3):

Please check the uploaded document "[Revised External Antenna Information.pdf](#)"

Answer to 4):

Please check the uploaded document "[Revised Safety Statement.pdf](#)"

Answer to 5):

On the next page you will find the results of the Validation:

Validation 1 : 1800 MHz Head Validation (all parameters are referred to 1800MHz)

Validation 1 : as 1, but with 1900 MHz Head liquid parameters

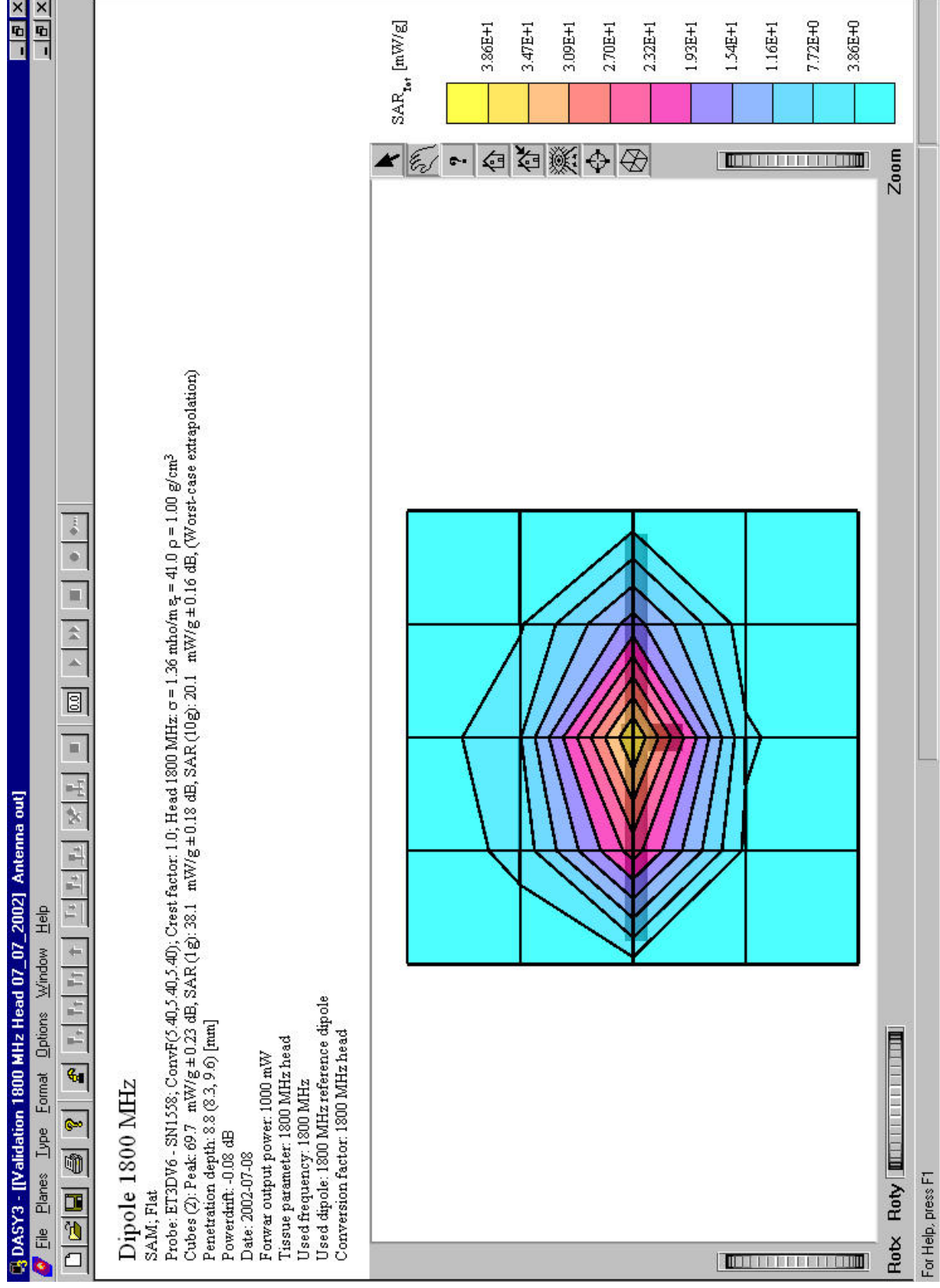
Validation 1 : as 2, but with 1900 MHz Conversion Factor

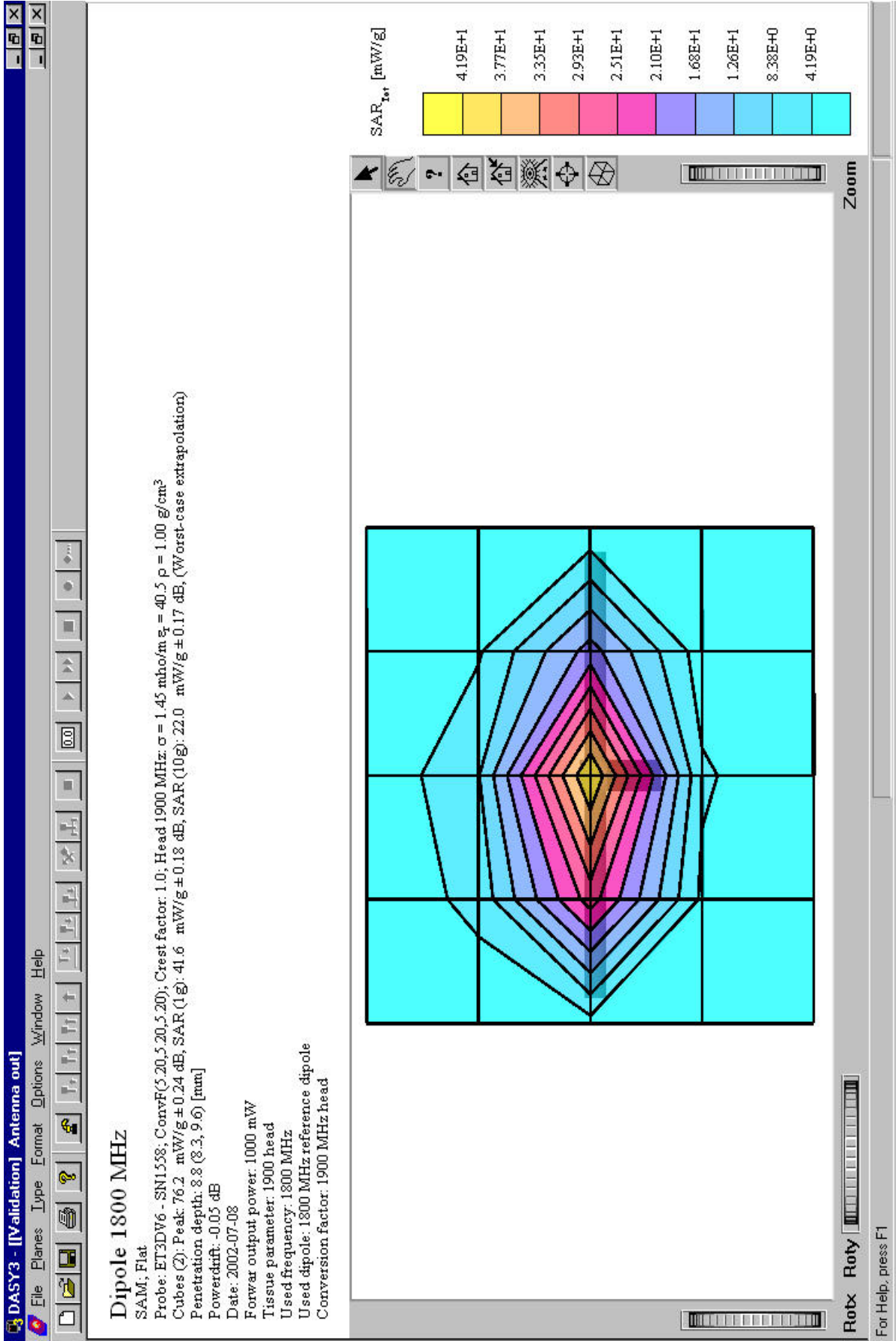
For the Validation 1 (1800 MHz Head) the value to be obtained (as referenced in IEEE 1528-200X, table 7.1) is 38.1 W/kg for a 1g cube. The measured validation value has been 38.1 W/kg.

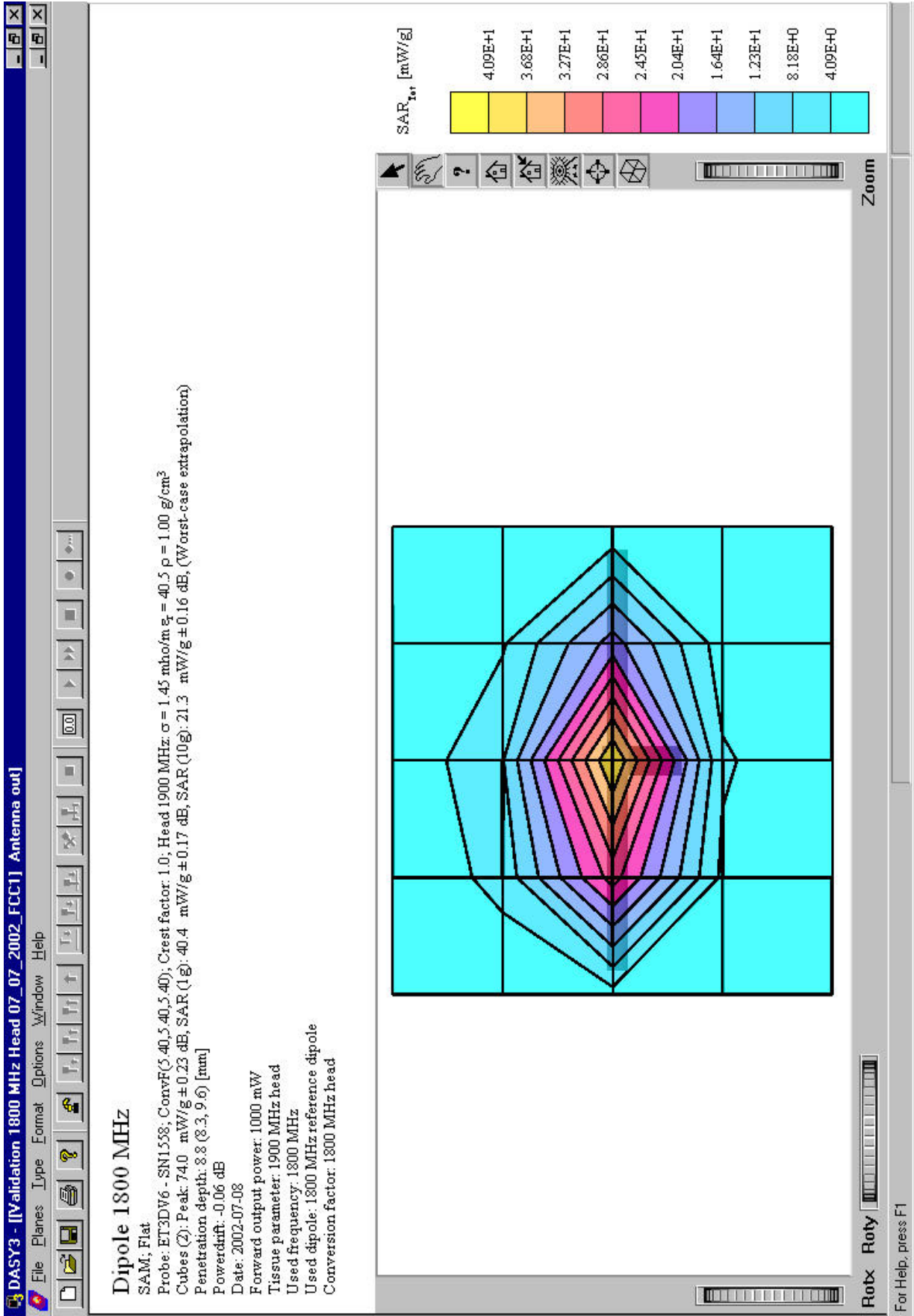
Through the change of the liquid parameter (sigma increases from 1.36 S/m to 1.45 S/m) from Validation 1 to Validation 2, the measured validation value also increases from 38.1 W/kg to 40.4 W/kg.

For the Validation 3, the ConF of 5.4 (1800MHz head) has been decreased to 5.2 (1900 MHz head), and hence the measured value increases from 40.4 W/kg to 41.6 W/kg.

The measurement results are in line with the expected results from the theory.







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Answer to 6):

We will do so.

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Answer to 7):

For every SAR measurement we performed directly a system validation measurement according to Draft IEEE Std 1528-200X (see appendix 1 "system performance verification", SAR report). We used for the target value of our system validation the numerical reference SAR value according to IEEE Std 1528-200X chapter 7.3.6 "reference SAR values. That means, we compare our validation results with the numerical reference results and not with results from the manufacturer.