To: David Chernomordik ES-Mpk
Subject: RE: Telian FCC ID: NPQFTD8500 remaining questions
David:

Thank you for explaining how you correct for power drift. I had assumed that power drift was already accounted for in the "Measured 1-g SAR" column. What you have done makes perfect sense.

The contribution of power drift to the estimation of uncertainty is not a simple matter. On the one hand, it should apply to all measurements and not just the highest one. On the other hand, by measuring power drift you are actually reducing the uncertainty of the resulting SAR measurement. At this point I will accept the test report as is.

Thank you,
Roland

-----Original Message-----
From: David Chernomordik ES-Mpk
Sent: Tuesday, October 21, 2003 1:32 PM
To: Roland Gubisch ES-Box
Subject: RE: Telian FCC ID: NPQFTD8500 remaining questions

Roland:

Since we need to report the highest SAR value, I thought that measured SAR = 0.854 W/kg is not the right number; the right number is scaled SAR=0.896 W/kg and it should be written on the grant. From the other hand, we need to show that 0.896 is the highest number. So, if 0.56 dB or 0.57 dB power drift is taken into account, the scaled SAR is less than 0.896 W/kg. This is why I scaled 3 numbers.

Now, there is a question: what power drift number should be taken into account in the uncertainty budget. In my opinion - the power drift for the highest (reported) SAR value. Therefore, the power drift is 0.21 dB or 4.9%. If you think that the highest power drift should go to the uncertainty budget, even if the SAR for that measurement is not the maximum, I make correction.

Thanks
David

-----Original Message-----
From: Roland Gubisch ES-Box
Sent: Tuesday, October 21, 2003 7:29 AM
To: David Chernomordik ES-Mpk
Subject: Telian FCC ID: NPQFTD8500 remaining questions
Importance: High

David:

I have 2 remaining questions:

1) New SAR plots were submitted, and you indicated that power drift was reduced so measurement uncertainty did not need to be changed. However, I note on latest test report (table, p. 20) and SAR plots (p.23) that power drifts of 0.57 and 0.56 dB are still reported. Please comment.

2) On the same test result table (p. 20), three scaled SAR values are shown. What is the reason/justification for the scaling? On the prior application, the values were scaled to reduce

SAR below the limit. Here, the SAR values are already well below the limit. Please comment.

Thank you,
Roland

From: David Chernomordik ES-Mpk
Sent: Friday, October 17, 2003 5:11 PM
To: Roland Gubisch ES-Box
Cc: Danielle Fontaine ES-Box
Subject: RE: Telian, SAR

Hello Roland

The FTD8500 was retested. The attached is the revised SAR report (4 files). With new test data (new numbers for power drift) the uncertainty budget is OK. Let me know if more corrections are required. The new manual was also sent to you earlier.

Thanks
David

-----Original Message-----
From: Roland Gubisch ES-Box
Sent: Wednesday, October 08, 2003 11:51 AM
To: David Chernomordik ES-Mpk
Subject: FW: Telian, SAR

David,

The user manuals are fine. The issues remaining to be resolved are:

NPQFTD8500
- revised uncertainty budget
- truncated SAR plots, do not show peak values

Regards,
Roland

-----Original Message-----
From: Roland Gubisch ES-Box
Sent: Wednesday, October 08, 2003 1:53 PM
To: David Chernomordik ES-Mpk
Subject: RE: Telian, SAR

David,

The client's explanation is reasonable, thank you. I will review the manuals now.

Roland

-----Original Message-----
From: David Chernomordik ES-Mpk
Sent: Wednesday, October 08, 2003 1:14 PM
To: Roland Gubisch ES-Box
Subject: Telian, SAR

Roland

I got the revised manuals with the new SAR values, they are written on pages 76 and 79 accordingly.

David

<< File: 8500 FCC - 031008(00c).pdf >>

From: Roland Gubisch ES-Box
Sent: Tuesday, October 07, 2003 5:11 PM
To: David Chernomordik ES-Mpk
Cc: Bryan Taylor ES-Lex; Danielle Fontaine ES-Box
Subject: TCB Review of Telian FCC ID: NPQFTD8500

David:

Review of this application is complete, and the following points are noted:

ADMINISTRATIVE
- The SAR values given in the user manual do not agree with those given in the SAR test report. The SAR values in the user manual should be deleted, or adjusted to agree with those in the SAR report.

EMC REPORT
- Section 12.3 frequency vs. voltage table: the "difference" column appears to reflect differences of 100 - 125 Hz. Please confirm. If so, no correction is necessary.

SAR REPORT
1) Uncertainty budget for power drift is 5% (0.21 dB). Measurements indicate actual power drifts as large as 0.57 dB. Please comment.
2) SAR plots on pages 25, 27 and 29 of the SAR test report fail to capture the peak SAR values. Please explain why these should not be re-done.

Thank you,
Roland Gubisch