Chris Harvey

From: Liming Xu [LXu@metlabs.com]
Sent: Friday, December 10, 2004 1:52 PM
To: 'Chris Harvey'
Subject: RE: Additinal Information needed for Mobicom MT#16267 FCC ID: R7C-F100

Chris, all SAR measurements were performed with the probe SN0163
All SAR results (values) have been calculated with the probe SN0163 conversion factors (SARf) during tests.
After August 2004.We updated the probe SN0163 conversion factors (SARf) and removed old probe SN0107 data from SARA2system.
During reporting, I used old mobicom report but did not update the new probe (SN0163) conversion factors (SARf).

Liming

-----Original Message-----
From: Chris Harvey [mailto:Chrisharveyemc@comcast.net]
Sent: Friday, December 10, 2004 10:04 AM
To: 'Liming Xu'
Cc: 'Christina Karlhoff'
Subject: RE: Additinal Information needed for Mobicom MT#16267 FCC ID: R7C-F100

Liming, I have been reviewing the revised report and have a question about the probe conversion factors (SARf) as it relates to the SAR values. I would have expected that with a change in the SARf values the SAR measurement data would have changed, but the new SAR data is identical from the previous version of the report (which had the incorrect SARf numbers). Please explain.

Chris Harvey
Chris Harvey EMC Consultants, LLC
charvey@ieee.org
cell 443-622-3300

-----Original Message-----
From: Christina Karlhoff [mailto:CKarlhoff@metlabs.com]
Sent: Thursday, December 09, 2004 1:30 PM
To: 'Chris Harvey'
Subject: RE: Additinal Information needed for Mobicom MT#16267 FCC ID: R7C-F100

Chris,

Liming provided revised FCC SAR report [see attached]. It is also in the TCB info folder [i replaced old one].

okay, hope to see your RG soon!

=D

-----Original Message-----
From: Chris Harvey [mailto:Chrisharveyemc@comcast.net]
Sent: Thursday, December 09, 2004 8:55 AM
To: 'Liming Xu'
Cc: 'Marie Confroy'; Gaylon Morris; 'Christina Karlhoff'
Subject: RE: Additinal Information needed for Mobicom MT#16267 FCC ID: R7C-F100

OK, this project review continues (this is now the 3rd RT). The SAR Probe Calibration information provided is for Serial Number 0163, however the SAR report documents a SAR Probe Serial Number 0107 which

was calibrated on 8/15/2003. Additionally, the SAR report indicates that the sample was received on 11/22/04, but the first round of tests was performed on 10/21/04. In light of this new discrepancy, please check that all SAR Probe information, including the ConvF factors and cal dates on the plots are correct for the probe that was actually used.

Please contact me if you have any questions.

Best regards,

Chris Harvey

Chris Harvey EMC Consultants, LLC
charvey@ieee.org
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-----Original Message-----
From: Christina Karlhoff [mailto:CKarlhoff@metlabs.com]
Sent: Friday, December 03, 2004 3:15 PM
To: 'Chris Harvey'
Cc: Marie Confroy; Liming Xu
Subject: RE: Additinal Information needed for Mobicom MT#16267 FCC ID: R7C-F100
Importance: High

Hi Chris,

Please find responses in red text below. All revised reports have been saved to the TCB info folder.

-----Original Message-----
From: Chris Harvey [mailto:Chrisharveyemc@comcast.net]
Sent: Friday, December 03, 2004 12:06 PM
To: 'Christina Karlhoff'
Cc: mconfroy@metlabs.com; Liming Xu
Subject: Additinal Information needed for Mobicom MT#16267 FCC ID: R7C-F100

Christina, I have performed a thorough review of the above refere3nced Class II Permissive Change application and have the following comments/issues that need to be addressed before this review can be completed:

1) I am not reviewing the FCC 15-B compliance, but please note that a device that contains a rechargeable battery and the ability to charge in the device (charger port on the EUT) must be tested for Conducted Emissions while charging. Please ensure that this device is compliant with this requirement. This has been added to the report.

2) For your FCC-B reports, please note that the FCC DoC label wording has changed and your template is outdated. This has been revised in the report.

3) The Pt. 22 and 24 reports indicate that the testing was performed in a Semi-Anechoic chamber; however the photos show that this was tested in the Radio Room. Please update the report before uploading. This has been revised in the report.

4) The Pt. 22 report indicates that the ERP of the fundamental was 31.6dBm in several places, however in the table in page 6 of 15 the ERP value is reported as 30.4dBm. Please correct the report with the consistent ERP values (both dBm and Watts). Once this change is made in the RF report please ensure that the RF report has consistent conducted RF power as the SAR report. This has been revised in the report.

5) Please explain what is meant by sanity check for the single measurements for head and body for the PCS1900 band. There is no explanation as to why the SAR is not completely

performed in this band. This has been updated in the SAR report.

6) Since this SAR testing has been performed using the Upright Head Phantom, please confirm that the SAR Measurement Uncertainty has addressed the following guidance from the FCC:

> 2) SAR Measurement Uncertainty - TCB should confirm how measurement uncertainty analysis was performed for the uncertainty components specified in Supplement C. The uncertainty analysis for device testing and system verification should be in accordance with the procedures recommended by P1528, or the SAR measurement system manufacturer when modified procedures are necessary. DUT and site specific uncertainty items should be analyzed independently for the specific tests and identified in the test report. TCBs should contact test laboratories or system manufacturers to assure that the appropriate procedures have been used to analyze measurement uncertainty.
>
> (Note: Probe Angle -- In view of the following disclaimer, which has been included (proposed) in P1528 for its up-coming re-circulation ballot, to identify that when the probe angle is greater than 30 degrees, additional uncertainty procedures not included in the standard are needed to account for such uncertainty. This means the end user has the responsibility to address the additional uncertainty issues when choosing to do measurements in those conditions.
>
> "The angle between the probe axis and the surface normal line is recommended but not required to be less than 30 degree. If this angle is larger than 30 degrees and the closest point on the probe tip housing to the phantom surface is closer than a probe diameter, the boundary effect may become larger and polarization dependent. This additional uncertainty needs to be analyzed and taken into account, for which modified test procedures and additional uncertainty analysis not described in this recommended practice may be required.)"
>
> See attachment entitiled VPM SAR probe

7) Please provide the SAR Probe and Dipole calibration information and Certificates.

> See all other attachments

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