

Mike Kuo

From: Claire Hoque
Sent: Friday, September 30, 2005 4:43 PM
To: Mike Kuo; Chris Harvey; Sunny Shih
Cc: Christine Vu; William Lau; Chris Harvey -TCB
Subject: answer----- Sierra Wireless Inc., FCC ID: N7NAC860, Assessment NO.: AN05T5160, Notice#1
Importance: High
Attachments: AC860 FCC parts 22 24 conducted report(revised).pdf; Attachment to AC860 Operation_Description (confidential).doc; Confidentiality Request Letter(including short-term).pdf; FCC ID LABEL(revised).pdf; Sierra Wireless A860 FCC MPE(revised).pdf; 05U3648-1 FCC 22 & 24 Test Report(without setup photos).pdf

Hi Mike and Chris,

1. The photographs show what appears to be a battery covering a large portion of the card near the connector. Please re-photograph the card for the internal photo exhibit showing the components under the 'battery', paying attention to the focus (original photographs are not clear).

[client] There is no battery on the board. The part, which was mistakenly identified as "battery", is actually a capacitor, and there is no component below it.

2. The Form 731 indicated the frequency range for the GMSK and EDGE operations for PCS1900 band is 1850.2 - 1909.8 MHz, however the test data submitted only documents the frequency range of 1850.4 - 1909.6 MHz. Please clarify and provide additional band edge data as needed.

[client] The frequency range 1850.2 - 1909.8 MHz is correct. Measurement has been redone and test report revised. See attached conducted report(revised)

3. The test procedures used are not clearly defined in the test report. An example of this is the Conducted RF Power Output measurements of test report section 4 which does not clearly indicate which instrument is being used for power, nor the bandwidth capability, especially for the >4MHz bandwidth signal of WCDMA. Additionally the RBW is indicated as being set at 300kHz, which would be too low for measuring the power of the GMSK, 8-QPSK and WCDMA modulated signals. Please clarify this report by providing more detailed test procedures either in the test report or separately (please include the detailed procedures in the test report in the future).

[client] The test report has been revised (attached).

4. The spurious emissions measurement of the signals was performed with a resolution bandwidth of 30kHz, which is less than 1% of the emission bandwidth.

In accordance with 22.917 and 24.238, please describe how this measurement complies with the requirement (copied here for your reference) or alternatively provide additional compliance data:

In the 1 MHz bands immediately outside and adjacent to the frequency block a resolution bandwidth of at least one percent of the emission bandwidth of the fundamental emission of the transmitter may be employed. A narrower resolution bandwidth is permitted in all cases to improve measurement accuracy provided the measured power is integrated over the full required measurement bandwidth (i.e. 100 kHz (for 22.917 or 1MHz for 24.238) or 1 percent of emission bandwidth, as specified). The emission bandwidth is defined as the width of the signal between two points, one below the carrier center frequency and one above the carrier center frequency, outside of which all emissions are attenuated at least 26 dB below the transmitter power.

[client] The test report has been revised(attached).

5. Please provide the detailed antenna specifications for this portable device.

[client] The antenna is a detachable hinged whip antenna and is internally matched to 50 Ohms.

6. Your MPE exhibit indicates that the PCS device operates below 3W (routine evaluation is not required) and therefore an MPE calculation is not provided. The MPE calculation must still be submitted for the maximum power and maximum antenna gain, but there is no need to measure the MPE. Please correct the MPE estimate for mobile uses of this module.

[answer] pls see revised MPE as attached.

10/4/2005

7. Please provide an exhibit which specifies the DC Voltages and Currents in accordance with FCC 2.1033(c).
[client] Pls see the attached document. "[Attachment to AC860 Operation Description](#)"

8. WCDMA related questions: please refer to the separate attachments. Additional SAR measurement were performed with air-link to base station simulator. In 850 WCDMA mode, only the highest SAR value with specific notebook during the test mode was tested; 1900 WCDMA mode, SAR tests were performed on all three notebook computer.

Thanks,

Claire

The items indicated above must be submitted before processing can continue on the above referenced application. Failure to provide the requested information within 30 days of the original e-mail date may result in application dismissal and forfeiture of the filing fee. Also, please note that partial responses increase processing time and should not be submitted. Any questions about the content of this correspondence should be directed to the e-mail address listed below the name of the sender.