

Mike Kuo

From: hsieh [hsieh@etc.org.tw]
Sent: Thursday, February 09, 2006 8:27 PM
To: Mike Kuo
Subject: Re: LIGHTSPEED INTERNATIONAL CO., FCC ID: NGJEDGE100MPCMCIA, Assessment NO.: AN06T5443, Notice#1

Attachments: 9412054_01_EMC Test Report_r.pdf; Operation Description.pdf; SAR Test Report 01.pdf; SAR Test Report 02.pdf; SAR Test Report 03.pdf



9412054_01_EMC Test Report_r.pdf (33 .. 01.pdf (5 MB)

SAR Test Report 01.pdf (5 MB)

SAR Test Report 02.pdf (3 MB)

SAR Test Report 03.pdf (4 MB)

Hi Mike,

Attached please find the revised EMC & SAR test report and Operation Description.

We have added some info at page 5 of EMC report and page 6 of SAR report. The crast factor has been changed. New plots have provided in the SAR report. Please check and let me know any questions. Thank you so much.

Best regards,
Joe

----- Original Message -----

From: "Mike Kuo" <mike.kuo@ccsemc.com>
To: "hsieh" <hsieh@etc.org.tw>
Sent: Friday, February 10, 2006 8:48 AM
Subject: RE: LIGHTSPEED INTERNATIONAL CO., FCC ID: NGJEDGE100MPCMCIA, Assessment NO.: AN06T5443, Notice#1

Hi Joe :

Below are additional questions based upon newly provided document :

Question #15 : Based upon revised theory of operation, EDGE (E-GSM) is capable of multi-slot Class 10 and GPRS is capable of multi-slot of either Class 10 or Class 12. Please confirm once again what is capabilities of GPRS multi-slot Class and provide revised theory of operation.

Question #16 : EMC report : The test mode listed in the report as GSM/GPRS/EGPRS 850 and PCS/GPRS/EGPRS 1900. These indication of test mode do not address the actual test conditons. GSM is Class 8 with 1 uplink slot (duty factor 12.5%) , GPRS Class 10 is with 2 uplink slots (duty factor 25%), GPRS Class 12 is with 4 uplink slots (duty factor 50%) . The modulation used by GSM/GPRS is GMSK and EDGE is using 8PSK. Please indicate the Class Type and modulation type that were used during the final tests.

Question #17 : SAR report : Page 5 : "The EDGE PCMCIA Card can support GPRS Class Type 10, which comination of time slot is (4 DW, +1 UP) or (3 DW +2 UP), and we choose the latter as worst case to perform the SAR test" This statement is misleading. When you are testing GSM mode, then GSM is only capable of 1 up , if for Class 12 operation, there are 4 up link. Once again, please clearly indicate the mode of operation during each SAR test. Clearly identified the type of modulation and Class type that were used during the SAR tests.

Question #18 : The crast factor used is 1:8.3 which represents Class 8 with 12.5% duty factor which does not take into the account for Class 10 or Class 12. For your

information, Crest factor for Class 8 is 1:8 (or 1:8.3), Class 10 is 1:4 and Class 12 is 1:2. By changing the crest factor, the reported SAR value will be increased. Once you changed the crast factor and re-calculated the SAR value, if the SAR value is higher than 0.8 mW/g, you will be required to measure low and high channel as well.

Best Regards

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-----Original Message-----

From: hsieh [mailto:hsieh@etc.org.tw]
Sent: Thursday, February 09, 2006 2:25 AM
To: Mike Kuo
Subject: Re: LIGHTSPEED INTERNATIONAL CO., FCC ID: NGJEDGE100MPCMCIA, Assessment NO.: AN06T5443, Notice#1

Hi Mike,

Attached please find the revise SAR test report.
Thanks.

Best regards,
Joe

----- Original Message -----

From: "Hsieh" <hsieh@etc.org.tw>
To: "Mike Kuo" <mike.kuo@ccsemc.com>
Sent: Wednesday, February 08, 2006 10:48 PM
Subject: Re: LIGHTSPEED INTERNATIONAL CO., FCC ID: NGJEDGE100MPCMCIA, Assessment NO.: AN06T5443, Notice#1

> Hi Mike,
>
> Attached please find the some documents have been modified to meet the
> request.
> Any unsuitable please let me know ASAP.
> Thank you so much for your great help.
>
> Best regards,
> Joe
>
> PS:
> The new SAR report will sent to you at tomorrow, sorry.
>
>

> ----- Original Message -----

> From: "Mike Kuo" <mike.kuo@ccsemc.com>
> To: <Hsieh@etc.org.tw>
> Sent: Tuesday, January 24, 2006 4:50 PM
> Subject: FW: LIGHTSPEED INTERNATIONAL CO., FCC ID: NGJEDGE100MPCMCIA,
> Assessment NO.: AN06T5443, Notice#1
>
>

> Administrative portion :

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> Question #1: Operational description file is listed as confidential document. The information contains in this file can be accessed via Web Site which is considered as public information. Please delete operational description file from the request for confidentiality letter.

>

> Question #2: Please provide tune up procedure.

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> Question #3 : Schematic diagram provided does not include Radio portion.

> Please submit a complete schematic diagram.

>

> Question #4 : Please provide complete user manual (only quick manual is provided).

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> EMC portion :

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> Question #5 : Occupied Bandwidth measurement : please explain the test result is based upon 26 dB BW or 99 % BW. Please explain the position of display line on the spectrum plots.

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> SAR and EMC related:

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> Question #6: Based upon operational description, this device is capable of operating EDGE (8PSK) modulation. However, there is no test data in either EMC or SAR test report to address this modulation.

> Please provide test data with EDGE modulation for EMC and SAR.

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> SAR portion :

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> Question #7 : As indicated in the " Quick manual for EDGE-100M PCMCIA card ", the suggested antenna position during the normal usage can be Vertical Way or Rest on the unit. During SAR evaluation, the evaluation only addressed the antenna is positioned vertically but with rest on the card. Please provide additional SAR evaluation on all three host computer for this position.

>

> Question #8 : Based upon OET 65 Supplemental C, in order to reduce number of channel investigated, the measured shall be made at the center frequency. If the measured value is less than 0.8 mW/g then the high and low channel can be waived. In the page 5 of SAR test report, the justification to select high channel at 800 MHz band and low channel at 1900 MHz band do not comply OET 65C procedures. Based upon the review experiences, highest conducted output power does not necessary produced higher SAR value. Please either a) provide the preliminary test data to show the channel selected produced highest SAR value or b) repeat all SAR evaluate at middle channel.

>

> Question #9 : The duty cycle factor used is 1:8.3 for GSM and GPRS mode.

> Per the operational description, this device is GPRS Class 12 device.

> Please indicate what was the GPRS Class used during the SAR evaluation.

>

> Question #10 : Please adjust the grid size to show the complete hot spots. Most of SAR plot submitted the SAR spot was cut off.

>

> Question #11: System validation : the reference SAR value per DASY dipole calibration file for 1900 MHz Body should be 10.4 mW/g but in the test report, the reference SAR value for 1900 MHz body is 9.925 mW/g.

> Please explain the difference.

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> Question #12: Liquid Calibration : 1900 MHz liquid parameter was used
> for 1900 MHz measurement but looks like 900 MHz liquid parameter was
> used for 800 MHz band. Please use liquid parameter with 835 MHz for
> 800 MHz band measurement.
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> Question #13 : What is the liquid depth ?
>
> Question #14 : When perform the SAR value, if there are multiple hot
> spot displayed, please make to report the secondary hot spot value.
>
> Due to number of questions asked in this review, additional questions
> may be asked based upon the reply to above questions.
>
> Best Regards
>
> Mike Kuo
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> 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.
>
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