

Mike Kuo

From: Y. G. Gwon [ykkwon@onetech.co.kr]
Sent: June 04 日 2004 年 Friday 4:31 AM
To: 'Mike Kuo'
Subject: RE: IPOne Inc., FCC ID: RV5AIRGATE2500, Assessment NO.: AN04T3901



Airgate2500_OP.pdf
f



AirGate2500_Report_rev01.doc
t_rev01.doc

Hi Mike :

Thnak you very much for your kind and detail comments.
I think I revised all comments in our test report, but please review that in detail and then inform me, if I have to clear any items in the report.

Best regards,

Y. G. Gwon
ONETECH Testing & Eval. Lab.
EMC Div.
email: ykkwon@onetech.co.kr
TEL: +82-31-765-8289
FAX: +82-31-766-2904-----Original Message-----
From: Mike Kuo [mailto:MKUO@CCSEMC.com]
Sent: Friday, June 04, 2004 10:44 AM
To: 'Y. G. Gwon'
Subject: RE: IPOne Inc., FCC ID: RV5AIRGATE2500, Assessment NO.: AN04T3901

Hi Y. K.:

- 1)Page 6 section 3.1 of test report, please change the operating frequency to 2412-2462MHz.
- 2)Section 1 of test report, please change device type from "direct sequence spread spectrum" to "Digital Transmission System"
- 3)Page 6 section 3.1 of test report, please change duty cycle from 50% to 100%.
- 4)Section 1 of test report, modification is required but section 4 indicates " none ". Please revise the test report or provide modification list.
- 5)Section 7.4 of test report, the highest channel investigated is 2472MHz which does not agree with 11 channel operation (up to 2462MHz). Please make necessary correction.
- 6) HP437B is average power meter which cannot be used for peak power measurement. Attached please find FCC policy in regarding to Power meter Vs peak output power. If you want to use spectrum analyzer for peak output power measurement, make sure to use the spectrum analyzer with channel power capabilities. Some of spectrum analyzer has limitation of RBW up to 3MHz which can not be used for 802.11a/b/g device since the RBW will be less than 6dB bandwidth.
- 7)Section 8.4 of test report, the highest frequency measured is 2472MHz which does not agree with 11 channel operation (2462MHz). Please redo the tests at 2462MHz .
- 8)Based upon the output power measurement result, MPE estimate needs to

be
revised.
9)Section 10.5.2.2 , page 25, the highest frequency was tuned to 2467MHz
which does not agree with 2462MHz (11 channel) operation. Please tune
the
frequency to 2462MHz and redo the test.
10)Power spectral density tests: even though the device may pass with
RBW=VBW=3kHz, but the measurement must be made in accordance with FCC
measurement procedures. Please redo the tests.
11) operational description listed different FCC ID number. Please
remove
this FCC ID number and indicate the FCC ID number for this filing.

For your information, if this device is going to certify with 11 channel
operation (2412-2462MHz), all test data must be agreed with this
frequency
range. In the test report, you should indicate fundamental frequency
tuned
during the tests (for example :2412MHz). Do not just list low
channel.

Best Regards

Mike Kuo

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

From: Y. G. Gwon [mailto:ykkwon@onetech.co.kr]
Sent: Thursday, June 03, 2004 7:33 AM
To: 'Mike Kuo'
Subject: RE: IPOne Inc., FCC ID: RV5AIRGATE2500, Assessment NO.:
AN04T3901

Hi Mike :

Thank you for your kind and detail comments for the subject project.
I would like to answer your questions as following, but if you need more
documents, please inform me that at your earliest convenience.
I have to send your certificate to our customer ASAP.
Regarding your questions #1, #4, #5, and #8,;
I revised our test report. Enclosed please find a file.
Regarding your questions #2; I cannot find probe video bandwidth in the
product specification. Could you please send me documents for FCC
Policy, if you have. If you do not have, I will revise our test report
with test data with spectrum analyzer.
Regarding your questions #3; The sensor was directly connected to the
antenna port on the EUT. So the cable loss is zero.
Regarding your questions #5 and # 6; I am sorry. The channel is
1~11.(2412-2462MHz).
Regarding your questions #7; Many test reports in FCC Web site, the RBW
and VBW was same. So we set same bandwidth and measure the density. If I
change the VBW more than 3 times, I think the result is almost same. I
Have to redo the test?
Regarding your questions #9; Enclosed please find a revised internal
photo.
Regarding your questions #10; Enclosed please find the specification.
Regarding your questions #11; Enclosed please find a revised manual.
Regarding your questions #12; O.K. Thank you.
Regarding your questions #13; Enclosed please find a operational theory.

Best regards,

Y. G. Gwon
ONETECH Testing & Eval. Lab.
EMC Div.
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TEL: +82-31-765-8289
FAX: +82-31-766-2904-----Original Message-----
From: Mike Kuo [mailto:MKUO@CCSEMC.com]

Sent: Wednesday, June 02, 2004 5:37 AM
To: Y. K. Kwon (E-mail)
Subject: FW: IPOne Inc., FCC ID: RV5AIRGATE2500, Assessment NO.: AN04T3901

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

From: Compliance Certification Services [mailto:MKuo@ccsemc.com]
Sent: Tuesday, June 01, 2004 1:19 PM
Subject: IPOne Inc., FCC ID: RV5AIRGATE2500, Assessment NO.: AN04T3901

Question #1: FCC Docket 01-278, 95-19 and FCC 03-149 has been published in Federal Register on Dec. 09, 2003 with effective date of Jan. 08, 2004. All applications submitted after Jan.08 shall comply with ANSI C63.4:2001 procedures. In the section 5.5 of test report, ANSI C63.4:1992 is used. Please confirm the tests were performed per ANSI C63.4:2001 and revised the test report to indicate the test procedure used.

Question #2: Output power was measured with power meter. Based upon FCC policy in measuring RF conducted peak output power, the probe video bandwidth must be greater than 6dB bandwidth. Please equipment specification sheet to ensure that the requirement of power meter can meet above requirement.

Question #3: Output power : Please provide the cable loss information from EUT's RF connector to the power sensor.

Question #4: Please provide measurement equipment calibration information in the test report.

Question #5: Based upon section 3.1 of test report, this device is seeking 13 channel approval (2412- 2472MHz). In section 10.5.2.2 Radiated spurious emission and harmonic emission tests, the high channel was tuned to 2467MHz which is not the highest channel. Please provide additional radiated spurious emission and harmonics test with the EUT tuned to 2472MHz. Submit the test data.

Question #6: Please provide radiated emission to measure at the bandedge on the highest channel. Tune the EUT to channel 13 (2472MHz) and measure 2483.5MHz (restricted bandedge). Submit peak and average reading.

Question #7 : Based upon Direct Sequence measurement procedure published by FCC, while doing power spectral density tests, the VBW shall be greater than RBW. In the test report, VBW=RBW=3kHz was used. Please redo the measurement and submit the test data.

Question #8: Section 10.5.2.2 of test report, the measurement was made at the distance of 1 meter. Please include the distance correction factor in the tabular data.

Question #9 : Please provide additional internal photo of PCMCIA radio card by removing the metal plate to show the component side and solder side.

Question #10 : Please provide antenna specification sheet.

Question #11: This device is ADSL/WLAN device which is considered as mobile device per section 2.1091 of FCC rules. Based upon the definition of mobile device, the device must be installed and provided minimum separation distance of 20 cm from the body of user and near by person. In addition to separation distance, this device can not be transmitted and operating in conjunction with any other transmitter or antenna. Please revise the RF exposure statement in page 4 of user manual to include the similar statement as described above.

Question #12: For your information, please list the operating frequency of the device (2412-2472MHz) on the TCB application form. Do not list frequency band (2400-2483.5MHz).

Question #13: Please provide operational description or theory of operation.

The items indicated above must be submitted before processing can continue on the above referenced application. Failure to provide the requested information within 60 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.