

From: Mike Kuo
Sent: Thursday, May 31, 2001 4:25 PM
To: 'Stabenau Thorsten, Essen'; Mike Kuo
Cc: 'Leone, Peter'; 'Luepertz, Manfred'; 'Nakamura, Norimasa'; Silberhorn Karin, Essen
Subject: RE: TOSHIBA filing

Dear Thorsten:

Please take photos with ruler by position the ruler on the side of notebook computer. I need to know the distance between WLAN module to the surface of keyboard and WLAN module to the wrists. (by looking the mechanical drawing, the WLAN is located underneath of keyboard, I am not concern about feet or ankles. I am not concern about antenna location in reference to feet, ankles, hands or wrists, because the antennas are installed on the edge of LCD panel. The separation distance can be maintained for at least 5cm.)

Best Regards

Mike Kuo

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

From: Mike Kuo
Sent: Thursday, May 31, 2001 3:30 PM
To: 'Stabenau Thorsten, Essen'; Mike Kuo
Cc: 'Leone, Peter'; 'Luepertz, Manfred'; 'Nakamura, Norimasa'; Silberhorn Karin, Essen
Subject: RE: TOSHIBA filing completion

Dear Thorsten and Karin:

Questions listed below will be considered as final reviews. Responses have to be received before the Grant of Authorization can be issued.

Question #1: By reviewing additional documentations submitted on 5/31/2001, not all questions in my e-mail dated 5/30/2001 were addressed. Please allow me to highlight the questions that have not been addressed

5/30/2001 Question #2 second paragraph: Please review the information that you have provided and make sure the output power is consistence. In addition, please provide technical specification to show how the device is able to maintain at least 2.5cm from person's hands, wrists, feet and ankles during the operation.

The bitmap picture that you submitted only to illustrate the separation distance of 20cm when use the device as table top application. However, 20cm separation distance is not the distance that we try to demonstrate the safety distance for RF exposure. 20cm distance is applicable to mobile device as defined in Part 2.1091(b). However, the device in question is classified as portable device. As result, please provide the technical specification (mechanical drawing or pictures) which can

demonstrate the device can maintain at least 2.5cm from person's hands, wrists, feet and ankles during the operation. Please note: to maintain a separation distance can not be the burden to the end user. A statement in user manual will not satisfy this requirement.

Question #2: Tune-Up Procedures: Since the RF module used on the Wireless LAN card can have max. conducted power difference by +14% depends on the sample selection. Please provide a tune-up procedure to demonstrate how the max. power will be verified before releasing of products. The tune-up procedure can be requested as confidential document. If requested, please also modify the request for confidentiality letter to include this document.

Question #3: Since the frequency range of the device is from 2412 - 2462 MHz with 11 channels. The previously submitted test report needs to be modified and submitted again.

Question #4: The test result for high channel: In the previously submitted test report, all high channel measurements were made at 2472MHz. Since the highest channel is confirmed as 2462MHz, please redo 6dB bandwidth, Radiated max. output power, conducted and radiated Spurious emissions, and power spectral density tests.

Best Regards

Mike Kuo / TCB Certifier
Compliance Certification Services
www.ccsemc.com

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

From: Mike Kuo
Sent: Wednesday, May 30, 2001 3:24 PM
To: 'Silberhorn Karin, Essen'; Mike Kuo
Cc: Stabenau Thorsten, Essen; 'Peter.Leone@tais.com'
Subject: RE: URGENT Toshiba : complete filing !

Dear Karin:

Question #1: The previous test report that I have reviewed has max. conducted output power of 47.7mW. However, the test report that you submitted yesterday has the max. conducted output power of 114.8mW. Both test reports have the same issue date 4/26/2001. Please explain in detail the difference between these two products.

Question #2: In accordance to TCB limitation released by FCC on Nov.15, 2000. All TCB can only certify Part 15 portable device under the following conditions:

a) the device and its antenna do not operate at closer than 5 cm from a person's body; by design, the antenna of the device provides a minimum separation distance of at least 2.5 cm from a person's hands, wrists, feet and ankles, with the peak conducted and peak radiated (EIRP) output power not exceeding): 100 mW for the 2.4 GHz band. The user manual provided is listed the nominal output power of 15dBm (31.6mW). Page 3 of test report listed the max. conducted output power is 100mW. There are inconsistencies on the max. power output.

Please review the information that you have provided and make sure the output power is consistent. In addition, please provide technical specification to show how the device is able to maintain at least 2.5cm from person's hands, wrists, feet and ankles during the operation.

If the max. conducted output is greater than 100mW and/or technical specification can not be justified to maintain at least 2.5cm separation distance. This application can not be reviewed by TCB. This application has to be filed to FCC directly.

Question #3: Number of channels and frequency range: The user manual is listed 11 channel with frequency range from 2412 - 2462MHz. However, page 3 of test report is listed this device has 13 channels with frequency range from 2412 - 2472MHz.

Question #4: Please take additional photos by removing the metal shielding enclosures.

Technical review can not continue at this point. Please provide your responses to question 1-4 ASAP.

Best Regards

Mike Kuo / TCB Certifier