

Mike Kuo

From: Claire Hoque
Sent: November 12 2003 Wednesday 11:53 AM
To: Mike Kuo
Cc: Steve Cheng; Michael Conrad; Michael Heckrotte; Sunny Shih
Subject: RE: Toshiba FCC ID:CJ6UPA3272WLP, AN03T3355(03U2195)

Hi Mike,

Here are the answers for Toshiba 03U2195.

Question #1: Page 1-1 of user manual indicates the modular cable will be supplied with notebook computer. However, there is no description on such modular cable. Please explain the usage of this modular cable.

<Toshiba>The modular cable mentioned is the telephone cord with RJ11 plugs used with the internal modem in the PC, and has nothing to do with the modules.

EMC portion :

Question #2: By reviewing the attachments submitted. There is no RF conducted test data included in this submission. However, in the EMC test report, FCC ID:CJ6UPA3272WL was mentioned as the basis of modular approval. In reference of the filing contains in the FCC ID:CJ6UPA3272WL, the max. output power listed on the grant is 47mW. The max. output power measured in this filing is 92.2mW. Please a) explain the output power differences, b) please confirm the WLAN modular used in this filing is identical to one under FCC ID:CJ6UPA3272WL. c) if identical module is used , please submit RF conducted test data / report for this submission.

<MH> The WLAN module used in this filing is identical to the WLAN module used in the filing as FCC ID: CJ6UPA3272WL.

The maximum peak power output is 47 mW. Attached report 03U2195-1 has been revised to document this peak power.



03U2195-1 FCC
Test Report(revi...

Question #3: Three antenna specification sheets are included in this filing. Three antennas are : HTL004, HTL008 and HTL012. In the EMC test report, there is no indication which antenna was selected during the tests and there is no rational provided why such specific antenna was selected. Please provide necessary information.

<MH> Testing was performed with the highest gain antennas. Attached report 03U2195-1 has been revised to clarify all the antenna model numbers and their applications.

SAR portion :

Question #4: FCC ID number listed on Page 2 and 4 of SAR report does not agree with proposed FCC ID number. Please make necessary correction.

<Sunny> It's typo and had been updated(pls see revised SAR report).



03U2195-2 SAR
Test Report(revi...

Question #5: The output power listed in the SAR report is 16.86dBm. There is no indication that such value is Peak or average. The max. peak output power measured in the EMC test report is 19.65dBm. When perform SAR evaluation, the output power shall be at least greater or equal to EMC measured value. Please explain why the lower output power was used during SAR evaluation.

<Sunny>Please refer to Question # 2.

Question #6: Two types of antenna are listed in the SAR test report, HTL 008 with 4.8dBi antenna gain, HTL 012 with 4.1dBi antenna gain. Antenna gain information does not agree with EMC test report which listed the highest antenna gain for WLAN is 2dBi. Please a) state which antenna was selected during SAR evaluation, b) explain the differences in antenna gain between EMC test report and SAR test report.

<Sunny> a) Using HTL 012 with 2.0 dBi (with cable assembly) antenna gain during SAR evaluation.

b) Antenna gain in SAR test report - without cable assembly.
Antenna gain in EMC test report - with cable assembly.

Please refer to revised SAR report for updated antenna gain.

<MH>The higher gain numbers are for the antenna itself; the lower gain numbers are for the antenna assembly including the integrated coaxial cable. All reports are revised to consistently report assembly gains.

Question #7 : Please address SAR test mode to justify the SAR evaluation documented in this filing can provide justification for RF exposure compliance based upon the device usage as illustrated in page 4-10 of user manual.

<Sunny>Please refer to attached illustration "Toshiba Reply to Question #4.pdf" for the answer.



Toshiba Reply to
Question #4.p...

Thanks,

Claire Hoque