

TCB Q and A

Sent: July 17 2003 Thursday 6:46 AM  
To: Mike Kuo (E-mail)  
Cc: Daniel Lawless; Anne Liang  
Subject: RE: Microsoft Corporation, FCC ID: C3KMN720, AN03T3016 Class II  
permissive change

Please see comments inserted below.

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

From: Anne Liang [mailto:Aliang@ccsemc.com]  
Sent: Tuesday, July 08, 2003 2:01 PM

Subject: FW: Microsoft Corporation, FCC ID: C3KMN720, AN03T3016 Class II  
permissive change

Hello Dave,  
Would you please take care of the following TCB comments?  
Thank you very much,

Anne

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

From: CERTADM  
Sent: Tuesday, July 08, 2003 1:46 PM  
To: 'mkuo@ccsemc.com'  
Subject: Microsoft Corporation, FCC ID: C3KMN720, AN03T3016 Class II  
permissive change

Notice\_content

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Question #1: In the user manual, the RF exposure statement is described as "Device should be located at least 5 cm (2 inches) away from any human body in order to meet FCC exposure limits. Exposure time should be limited if the distance is less." Per FCC instruction, any RF exposure statement shall be stated in such way that will not create burden to the end user. Based upon the SAR evaluation test report, the separation distance for all three notebook computer are less than 5 cm. Please revised the RF exposure statement and submit revised user manual.

Question #2: RF exposure statement shall include the statement to caution the user that this device and its antenna must not be co-located or operating in conjunction with any other antenna or transmitter.  
>>> As discussed the following statement will be added to the user manual.

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>>>see earlier message  
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Question #3: Since this Class II permissive change was related to the original certification filed under FCC ID: QDS-BRCM1006, some of information from the original application was used for this review. In the original certification, the device was transmitted with 21% duty cycle. What is the actual duty cycle actually used during SAR evaluation ?

>>>The equipment was set to 6Mbps during SAR testing. This data rate gives the worst case source based time average with a duty cycle of 93%

Question #4: Per the technical specification listed in the user manual, the output power of this device is rated from 13dBm to 17dBm. Per the SAR test report, this device was tested with 15dBm average power. Please provide power setting procedure used during the SAR evaluation and what steps have

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been taken to verify the average output power.

>>>The average power in the Packet was set to marginally over 15dBm for SAR testing using the radiopwr command {Note: This >>>command is only available for test purposes and will not be a feature of the shipping driver}. This was tuned using an >>>Agilent E4416A Series Power Meter with the gates set to measure power in the packet from 55us to 850us (for 6Mbps >>>packets). The reference to 17dBm is incorrect (if Microsoft are referring to power in pkt) and does not reflect the 15dBm >>>maximum limitations of the shipping drivers. I will have the user guide corrected to have an upper limit of 15dBm.

Question #5: Please provide SAR system validation plots to justify page 27 of 28 result.

>>> See attached plots.

Question #6: This device is 802.11g device which is capable of operating as direct sequence S.S. and OFDM modulation. Through out the SAR test report, there is no indication that both modulations have been investigated. Please explain.

>>>See answer to #3.

Best Regards

Mike Kuo

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.