

From: Christine Vu
Sent: Friday, January 03, 2003 6:26 PM
To: Mike Kuo; 'kriegel@apple.com'
Cc: Michael Heckrotte; Steve Cheng
Subject: RE: APPLE COMPUTER, Inc. FCC ID:BCGA1041, Assessment
No:AN02T2498 (Third)

Importance: High

Hello Mike Kuo,
Here are the reply to each question below.

1. Question 1: The FCC Test Report has the correct antenna gain. However, the SAR did not have the correct antenna gain. This is a typo error, therefore, the SAR Report has been revised. It is attached below. The Technical Description has been revised as well to state the correct antenna gain. It is attached below.
2. Question 2: AC Line Conduction tests have been performed from 150kHz-30MHz. Attached below is the data.
3. Question 3: The test was done with 1Hz bandwidth for graph 21. This was a typo error. The plot is revised to reflect 1Hz. Attached below is the Updated Transmitter emission plots.
4. Question 4: The tests were performed with the highest gain inverted F antenna, model number 603-0617. Radiated testing below 1 GHz also used this same antenna. Refer to the Attachment below (Radiated Emission Data with Antenna Info.)
5. Question 5: Attached below is provided by client to address the module approval requirement per FCC public notice 00-1407.
6. Question 6: Limited Modular Approval with installation refer to Attachment #5 & #6.
7. Question 7: Mike Heckrotte has replied to this issue. Please refer to his response. Attached is the email.
Regarding question #7, the difference is 0.25 dB. The measurements were taken using two different instruments at two different times, and the difference is within the measurement uncertainty.
8. Question 8: Attached below is the second label that will be placed on the outside of the device that contains FCC ID.

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

From: Mike Kuo
Sent: Thursday, January 02, 2003 3:49 PM
To: Christine Vu; 'kriegel@apple.com'
Subject: RE: APPLE COMPUTER, Inc. FCC ID:BCGA1041, Assessment
No:AN02T2498 (Third)

Hi Mike :

I wrote request for transmitter module approval cover letter for your reference. Please review it and make necessary changes. After review, please forward your transmitter module approval cover letter to Christine.

Best Regards

Mike Kuo

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

From: Christine Vu
Sent: Thursday, January 02, 2003 3:38 PM
To: 'krieger@apple.com'
Cc: Michael Heckrotte; Mike Kuo; Steve Cheng
Subject: FW: APPLE COMPUTER, Inc. FCC ID:BCGA1041, Assessment
No:AN02T2498 (Third)
Importance: High

Hello Mike,

Mike Kuo just posed 2 more questions for this submission. Please reply to all ASAP.

Thanks!

Christine

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

From: Mike Kuo
Sent: Thursday, January 02, 2003 3:30 PM
To: Mike Kuo; Michael Heckrotte; CLIENT ADVOCATES
Cc: Steve Cheng
Subject: RE: APPLE COMPUTER, Inc. FCC ID:BCGA1041, Assessment
No:AN02T2498 (Third)

Question #8: Per FCC public notice 00-1407 module approval requirements, if the FCC ID label is not visible after the module is installed in the final product, a second label is required to be placed on the outside of device to identify the FCC ID label. This second label shall have the following wording " Contains FCC ID:BCGA1041 ". Please provide a second label format to comply this requirement.

Best Regards

Mike Kuo

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

From: Mike Kuo
Sent: Thursday, January 02, 2003 3:25 PM
To: Mike Kuo; Michael Heckrotte; CLIENT ADVOCATES
Cc: Steve Cheng
Subject: RE: APPLE COMPUTER, Inc. FCC ID:BCGA1041, Assessment
No:AN02T2498

Question #7: The max. RF conducted output power reported in the SAR report is 8.15dBm but Bluetooth test report listed the max. RF conducted output power measured with peak output power is 7.9dBm. Please explain the differences.

Best Regards

Mike Kuo

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

From: Mike Kuo
Sent: Thursday, January 02, 2003 3:15 PM
To: Michael Heckrotte; CLIENT ADVOCATES
Cc: Steve Cheng
Subject: FW: APPLE COMPUTER, Inc. FCC ID:BCGA1041, Assessment
No:AN02T2498
Importance: High

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

From: CERTADM
Sent: Thursday, January 02, 2003 3:14 PM
To: 'mkuo@ccsemc.com'
Subject: APPLE COMPUTER, Inc. FCC ID:BCGA1041, Assessment No:AN02T2498

Notice_content

Question #1: Per the technical description attachment file, it indicates that the max. antenna gain is 2.1dBi. However, in the Bluetooth test report prepared by CCS, it listed the max. antenna gain is -4.3dBi. In the SAR test report, two antennas are listed, one with 0.35dBi gain and the other one with -1.5dBi gain. Please explain the differences in antenna gain through out the submission files.

Question #2: The AC line conducted emission tests performed by Apple Computer were investigated from 400kHz to 30MHz. Per FCC public notice 02-157, for those devices investigated that did not demonstrate new AC line conducted emission limits will have grant conditions which indicate the manufacture and importation of this device must cease on July 10, 2005. If such grant condition is not desirable, please provide new AC line conducted emission tests from 150kHz to 30MHz based upon CISPR 22 Class B requirements. Please confirm or provide additional test data.

Question #3: Page 12 of transmitter emission plots indicate the video bandwidth is 0kHz. Please explain.

Question #4: There is no indication which antenna was used during Spurious radiated emission tests. Please be specific.

Question #5: Please provide a cover letter to address module approval requirement per FCC public notice 00-1407.

Question #6: There is no installation instruction provided for this module approval. Please confirm that this transmitter module will only be installed in Apple Computer's Laptop or Desktop computer. If this module is to be installed by Apple or Apple's authorized OEM, this will be resulted in limited Module Approval. If full module approval is desired, please provide a clear module installation procedure to be given to system integrator.

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.