

Helen Zhao

Subject: FW: Broadcom Corporation, FCC ID: QDS-BRCM1022HR1, Assessment NO.: AN07T6942, Notice#1



BCM94321MC User
Guide 6-28-200...



ACON Antenna
Specification.PDF...



BCM94321MC,
S-BRCM1022HR1 Q



Hitachi Antenna
Specification....



Foxconn Antenna
Info.xls



07U10893-1 FCC
DTS Report Part...



07U10893-1 FCC
DTS Report Part...



07U10893-1 FCC
DTS Test Setup ...



06U10708-1B FCC
DTS Report Par...



06U10708-1B FCC
DTS Report Par...



06U10708-1B FCC
DTS Test Setup...



BCM94321MC,
S-BRCM1022HR1 Q

From: September Radecki
Sent: Monday, July 02, 2007 5:03 PM
To: Helen Zhao
Cc: Barbara Judge; Michael Heckrotte
Subject: RE: Broadcom Corporation, FCC ID: QDS-BRCM1022HR1, Assessment NO.: AN07T6942, Notice#1

Hi Helen,

Below are the responses to your questions on the above application.

Question #1: The user manual does not contain OEM installation instruction. Please update the user manual.
<CCS Answer:> Revised User Manual was submitted on 6/28/07, am. It is also attached here.

Question #2: Please justify why internal photos are requested to keep long term confidential.
<CCS Answer:> The customer is requesting Confidentiality on the internal photos because:
The internal photos contain trade secrets and proprietary information not customarily released to the public. The public disclosure of the internal photos might be harmful to Broadcom and provide unjustified benefits to our competitors.
This statement was provided by Pin Wen of Broadcom in an email.

Question #3: The operational description lists two PCB antennas which were not ever tested with the device. Please explain.
<CCS Answer:> Revised operational description was submitted 6/28. It is also attached here.

Question #4: Please revise the 06U10708-1 FCC DTS Report in the following areas:

a) Section 5.2 indicates MCS index 32 is worst case for 40MHz mode, but the following sections show 40MHz MCS0 in many areas. Please explain.

b) Section 5.2 indicates that the measurements of output power and PPSD in the MIMO modes were ever made by using an RF combiner to compare with mathematical addition of Chain 0 and Chain 1, but how about conducted spurious emission? Did you perform pretest in order to determine the

worst case?

c) Please indicate antenna type under section 5.4. If the possible, please list the antenna manufacturer.

d) In 5.8GHz band at LEGACY mode 802.11a legacy mode, the combined antenna gain (8.08dBi) was used to determine output power limit and MPE, please explain why combined antenna gain instead of individual antenna gain should be used.

e) Page 8: The frequency range for 801.11n 40MHz SISO is incorrect.

Page 10: Editorial change should be made.

Page 43: the header Channel 2 2437MHz is incorrect.

Page 424: Plot shows SIMO.

Page 475 is the same as page 427, should be removed.

<CCS Answer:> Please see attached revised DTS Report.

Question #5: Please revise the 07U10893-1 FCC DTS Report in the following areas:

a) Section 5.2 indicates MCS index 32 is worst case for 40MHz mode, but the following sections show 40MHz MCS0 in many areas. Please explain.

b) Section 5.2 indicates that the measurements of output power and PPSD in the MIMO modes were ever made by using an RF combiner to compare with mathematical addition of Chain 0 and Chain 1, but how about conducted spurious emission? Did you perform pretest in order to determine the worst case?

c) Please indicate antenna type in section 5.4.

d) For both 2.4GHz and 5.8GHz bands, at MIMO both 20MHz CDD and 40MHz CDD mode, the max output power limit was reduced since the compound antenna gain exceeds 6dBi, however the PPSD limit was not reduced as per FCC15.247(e).

e) MIMO mode 2.4GHz restricted bandedge test - please explain why the test data with 3.05dBi gain antenna was included in the test report. The 3.05dBi was not even mentioned in section 5.4. The antenna spec for 3.05dBi antenna was not provided. The radiated spurious emission test data was not provided. Please explain.

f) Page 8: please remove 5.2GHz and 5.3GHz UNII bands

Page 178: The limit is for 2.4GHz band, not for 5.8GHz band.

<CCS Answer:> Please see attached revised DTS Report.

Question #6: The revised operational description indicates: "Channels 1-13 (20MHz), 3-11 (40MHz) 2400-2472MHz". However the test report does not show channel 12-13 (20MHz) and 10-11 (40MHz) has ever been evaluated. Please explain.

<CCS Answer:> Please see attached revised operational description.

Question #7: The revised operational description lists 3.05dBi antenna under 11b mode(legacy) with same power setting at L, M, H - 19dBm. But no test data can support this. Please explain.

<CCS Answer:> This is a PCB type antenna with lower gain than the version tested.

Thank you and best regards,

September

The items indicated above must be submitted before processing can continue on the above referenced application. Failure to provide the requested information within 30 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.