Panasonic
ideas for life

RICHARD MULLEN
Group Manager

Product Safety and Compliance Division

May 30, 2008
ITPD-08-F007A

To:	Mr. Gregory Czumak / PCTEST TCB
Re:	FCC ID: ACJ9TGCF-199
Applicant:	Panasonic Corporation of North America
Correspondence Reference Number:	ACJ80434
Confirmation Number:	805150434-37
Date of Original Email:	May 29, 2008

This is in response to your request for additional information.

1. The cover letter and application list internal antenna gains for the WLAN (main and auxiliary antennae), but the specific band to which the listed gains are applicable is not listed. Please specify the antenna gains (both antennas) for the 2.4, 5.2 and 5.8 GHz bands.

Answer:

This PC contains the following type transmitter antennas: (1) BT TX/RX Pattern Inverter-F type with 3.06 dBi antenna gain; (2) WLAN Main TX/RX Pattern Inverter-F type with 1.58 dBi at 2.4 GHz, 2.48 dBi at 5.2 GHz and -1.1 dBi at 5.8 GHz; and WLAN Aux TX/RX Pattern Inverter-F type with 2.73 dBi at 2.4 GHz, 3.31 dBi at 5.2 GHz and 3.17 dBi at 5.8 GHz; and (3) Qualcomm WWAN Main TX/RX Pattern Inverter-F type with 1.84 dBi antenna gain and WWAN Aux RX Pattern Inverter-F type. This PC combination does not yet contain the GPS RX only module antenna.

2. The WLAN Operational Description lists 802.11n capability- is this implemented in the EUT?

Answer:

The employed Intel WLAN (a/b/g), Model 4965AG configuration within the subject PC does not support the 802.11(n) mode and therefore also does not support MIMO function.

3. Please confirm that MIMO operation is 1x2 (single transmit chain). The Operational Description lists 2x2 and 2x3- are these only implemented in 802.11n operation?

Answer:

Same answer as above - the employed Intel WLAN (a/b/g), Model 4965AG configuration within the subject PC does not support the 802.11(n) mode.

4. The BT test report shows EDR capability, but the BT Operational Description lists only a 1 MBPS data rate. Is this the correct Operational Description for the EUT?

Answer:

The subject PC will employ Alps Bluetooth Model UGXZA with BT specification Ver 2.0 + ERD, which has maximum symbol rate of 3Mbps. Today I will send you confidential specifications for employed Alps Bluetooth Model UGXA.

5. Please address 15.203 for the 15.247 and 15E WLAN external TNC connectors (i.e., based on marketing, intended use and installation requirements, professional installation is required).

Answer:

The PC User Manual and Supplemental Car Mounter User Manual provides all the necessary user information and warning notices about the WWAN antenna is intended for licensed radio service and must be professionally installed making reference to our provided recommended maximum antenna gains.

Panasonic Corporation of North America
One Panasonic Way 4B-8 Secaucus, NJ 07094
Tel: 201-348-7758 / Fax: 201-392-4564
MullenR@us.panasonic.com

6. In the NII and DTS test reports, please confirm that radiated emissions were investigated for both the main and auxiliary antennae, as well as both external antennae. Please specify which was used to produce the data in the report.
Answer:
We will refer this item to PCTEST test engineer to provide answer.

7. The BT conducted power levels listed in the SAR report (pp. 19 and 29) do not match each other, and both values are well over 1 dB less than the level in the BT test report. Please address.
Answer:
We will refer this item to PCTEST test engineer to provide answer.

8. FYI: In the future, please be sure that the licensed transmitter block diagram lists all of the clocks/oscillators, as required.
Answer:
I will instruct our factory and licensed transmitter manufactures to include clocks/oscillators on their provided block diagrams.

Attached find amended FCC cover letter to reflect and answer some of the above questions raised by PCTEST.

Sincerely yours,

Richard Mullen

Richard Mullen
Group Manager

Panasonic Corporation of North America
One Panasonic Way 4B-8 Secaucus, NJ 07094
Tel: 201-348-7758 / Fax: 201-392-4564
MullenR@us.panasonic.com