

**September 29, 2009**

**RE: ATCB008189 – Original Equipment & Reassessment Certification Applications**

**FCC ID: WX3-361 & IC: 3100A-361 for Roche Diagnostics Operations Inc.**

1. This transmitter is a Bluetooth transmitter which is a frequency hopping spread spectrum (FHSS) transmitter. The digital transmission system (DTS) test procedure is not used for testing a FHSS transmitter. Please correct the FCC and IC test procedures to state that the FHSS transmitter test procedure was used for testing this device. Also Section 15.249 does not apply to a FHSS transmitter which operates under Section 15.247. Please delete any reference to Section 15.249 from these test procedures.

**Response:**

The test reports have been updated and have been uploaded.

**Comment 2:** The duty cycle correction factor for a FHSS transmitter is based on the dwell time during a 100 millisecond time period not the number of pulses during a 100 millisecond time period. (See the section on RF Spurious Radiated Emissions in Public Notice DA 00-705). Please show the dwell time during a 100 millisecond time period and change the duty cycle correction factor accordingly. Please verify that the device still complies with the average limits with this changed duty cycle correction factor.

**Response:**

The submitted duty cycle correction factor data that showed multiple pulses during a 100-millisecond time period was in error. The resolution bandwidth was incorrectly set to 10 MHz, which resulted in multiple hopping channels to be displayed while only intending to view the single channel that was being viewed. Upon lowering the resolution bandwidth it is evident that there is one pulse of 436 microseconds in a 100 millisecond time period. Data has been supplied and the duty cycle correction factor has been adjusted on all subsequent data.

**Comment 3:** The dwell time tests in the FCC test report do not demonstrate compliance with the limit. The dwell time limit is 0.4 seconds over a period of (0.4 times the number of hopping channels) or  $0.4 \times 79$ , which equals 31.6 seconds. This should be measured for all 3 data rates and only the worst-case duty cycle correction factor needs to be reported. Please multiple the time of occupancy by the number of times a signal hops on one channel in 31.6 seconds. This time period must be less than 0.4 seconds. Call me if you have questions about this procedure.

**Response:**

Data has been supplied to demonstrate compliance with the dwell time limit stated in 15.247 a. 1. iii.

**Comment 4:** Please provide a block diagram of this transmitter. The block diagram is a duplicate of the schematic diagram. The FCC wants separate exhibits for the block diagram and schematic diagram.

**Response:**

Exhibit titled "15584 Roche Accu-Chek, fcc15.247 xcvr Block Diagram XCVR" is the block diagram for this transceiver. We should not have included file "15584 Roche Accu-Chek, fcc15.247 xcvr Block Diagram". Our apologies for the confusion.

**Comment 5:** The applicant name on the Canadian representative letter doesn't match the applicant name on the IC application from. Please provide another Canadian representative letter for the same applicant on the IC application form.

**Response:**

It is our understanding that the IC Representative letter is included as a courtesy to show a real contact person exists for the client. As you can see from the attached file "Roche IC Company info", Industry Canada acknowledges that the 3 locations are part of the same company grouping, as they are all assigned the same numeric designation. The head office is in Germany. The branch offices are in Canada & the US. We do not wish to embarrass our client & delay the grant of certification by going through the US branch to re-contact the Canadian branch for a repeat of this signature. If it is unacceptable, please delete it & follow the normal channels as if the letter were not included.

**Comment 6:** Please provide an IC label that contains the applicant's name, model number and certification number as specified in Section 5.2 of RSS-Gen Issue 2 for this reassessment application in accordance with Section 5.4(f) of RSP-100 Issue 9.

**Response:**

This is a reassessment for the IC certification. They will use the label from the original certification. We do not understand this request as it is not required for a re-assessment - but exhibits "14888 Roche Accucheck, RSS-210 xcvr Label" and "14888 Roche Accucheck, RSS-210 xcvr Label Location" are provided for you.

**Comment 7:** For the IC receiver emission tests, please provide the resolution bandwidth of the measuring instrument during radiated emissions below 1000 MHz.

**Response:**

The resolution bandwidth of the measuring instrument during radiated emissions measurements below 1000 MHz was 120 kHz.

**Comment 8:** For the IC receiver emission tests, please provide the resolution bandwidth of the measuring instrument during radiated emissions above 1000 MHz.

**Response:**

The resolution bandwidth of the measuring instrument during radiated emissions measurements above 1000 MHz was 1 MHz.

**Comment 9:** Please correct the following on the submitted IC application form:

- (a) Handwritten signatures or digital signatures must be on pages 1 and 2 of the IC form (typed signatures are not acceptable unless they are digitally verified),
- (b) The correct model number for the reassessment application must be listed on the application form for this device and on the equipment label in item 6 above (several model numbers are mentioned throughout the exhibits in this application and I'm not sure just what the new model number is. Model number 681 has already been approved. See the REL in Canada.),
- (c) Please include the conducted output power for this device as 3.21 mW minimum and 3.31 mW maximum on the application form (When conducted output power is measured and the gain of the antenna is provided, please list the conducted output power rather than field strength for a transmitter), and
- (d) Worst case emissions for the transmitter and receiver should be the final corrected value of field strength for each device. The values currently listed are only the receiver readings before adding the correction factors needed to convert this value to a final field strength reading. Please correct the field strength for the transmitter to 68.76 dBuV/m @ 3m and correct the field strength for the receiver to 48.7 dBuV/m @ 3m.

**Response:**

The RSP-100 has been updated and uploaded.