American Certification Body, Inc.

News Letter

1. 30MHz 到 960MHz频段范围内接收机的认证变更。

Change to authorisation for receivers in the band 30 MHz to 960 MHz:

Due to the FCC change from the old Verification and DoC authorisation routes, to the new sDoC authorisation route, there is a change to the requirements for many receivers operating between 30 MHz and 960 MHz which are part of a transceiver. In the past, before November 2018, a receiver which did not require certification and was part of a transceiver (where the transmitter part was certified), could be authorised through the verification procedure. However, under the new rules mandatory since November 2018, the receiver part of a transceiver requires sDoC or Certification. This could be an important change for manufacturers of transceivers operating in the 30 MHz to 960 MHz band. If the manufacture does not wish to, or is unable to follow the sDoC route, then **certification of the receiver part of a transceiver becomes necessary.** Examples of certification equipment class could be **CXX** for receivers in a licensed transceiver (such as LTE devices in the 700 MHz to 900 MHz bands) or **CYY** for receivers in an unlicensed transceiver (such as 902 MHz to 928 MHz RFID systems, or other 900 MHz short range devices).

As a reminder, typical testing for a radio receiver would be rule parts 15.107 and 15.109. If the radiated emissions testing of 15.109 is performed without the antenna connected, then 15.111 also becomes an applicable test; which may be important information to manufacturers of LTE licensed cellular radio modules.

2. ISED 关于对无线设备测试实验室的新要求的决定。

ISED Decisions on New Requirements for Wireless Device Testing Laboratories
http://www.ic.gc.ca/eic/site/mra-arm.nsf/eng/nj00165.html

Notice is hereby given that Innovation, Science and Economic Development Canada (ISED) will allow Certification Bodies to accept test reports from wireless test sites on file for testing completed prior to March 15, 2019, if uploaded to the Certification Engineering Bureau (CEB) system before June 15, 2019. This will allow an additional three(3) month grace period for projects that were already underway.

All testing performed after March 15, 2019 for new applications for certification shall be performed by an ISED recognized wireless testing laboratory.

Within this three (3) month grace period, Certification Bodies shall inform each manufacturer submitting a test report from a non-recognized Wireless Device Testing Laboratories that the reports from these laboratories will no longer be accepted after June 15, 2019.

General information： List of recognized Wireless Device Testing Laboratories.

3. ISED寻求关于RSP-100 新版本issue 12的意见，提交意见不晚于2019年5月24日。

The document "**RSP-100, Issue 12**, Certification of Radio Apparatus and Broadcasting Equipment" has been posted on the Radio Advisory Board of Canada (RABC) for a 70-day consultation period.

This RSP sets out the certification procedure for radio apparatus and broadcasting equipment which fall under Radio Standards Specifications (RSSs) and Broadcasting Equipment Technical Standards (BETSs), respectively.

Please refer to the following link:
https://www.rabc-cccr.ca/open-consultations/ised-radio-standards-procedure-rsp-100-issue-12-certification-of-radio-apparatus-and-broadcasting-equipment/

The Department of Innovation, Science and Economic Development Canada is seeking comments on the following consultation. RSP-100, Issue 12: Certification of Radio Apparatus and Broadcasting Equipment sets out the certification procedure for radio apparatus and broadcasting equipment which fall under Radio Standards Specifications (RSSs) and Broadcasting Equipment Technical Standards (BETSs), respectively.

All comments should be documented using the RABC comment form **no later than May 24, 2019.** Further coordination of comments will be handled through the Radio Advisory Board of Canada (RABC).

4. ACB在欧洲的研讨会。来自ACB欧洲团队的代表于本月(2019年3月)在哥本哈根举行了为期两天的研讨会，研讨会由Michael Derby和Pieter Robben两位主持，研讨会主题涵盖了美国FCC，加拿大ISED，日本MIC和欧盟RED。ACB欧洲的下一场研讨会计划于6月5日和6日在意大利米兰举办。

ACB Seminars in Europe

Representatives from ACB's European team gave a two day seminar in Copenhagen this month (March 2019). The seminar was presented by Michael Derby and Pieter Robben, hosted at the Aalborg University, Copenhagen, by EKTOS Testing and Reliability Services. The seminar was well attended by manufacturers, test labs and consultants. Michael and Pieter were pleased to see good participation and great questions from the attendees, who ranged from beginners to experienced experts. The topics covered FCC USA, ISED Canada, MIC Japan and RED EU compliance. ACB Europe's next seminar is planned for 5th and 6th June in Milan, Italy, at the offices of IMQ Test Lab.

5. 对于具有占空比的产品，比如Zigbee的设备，平均测量的测量方法是什么？

Question: What measurement methods are available for making average measurements on devices with protocol-limited duty cycles such as ZigBee devices (DTS devices certified under Section 15.247)?

Answer: Several measurement methods are available for making average measurements for radiated and antenna-port conducted spurious emissions provided that: (i) the spurious emissions fall in restricted bands, (ii) emission are temporally related to the fundamental, (iii) the maximum duty cycle used in determining the reduction factor is hardwired such that under no condition can it be changed or modified by either the device or end user, (iv) a documented justification for use of Section 15.35(c) including the measurements used to determine the worst-case duty cycle must be included in the test report, and (v) the duty cycle correction factor is the worst case operational duty cycle based on the maximum transmission time in any 100 msec period. If the above criteria are satisfied, one of the following measurement techniques may be used:

a) Applying a duty cycle correction to the Peak measurement – First, a Peak measurement is made using the Peak detector function of a spectrum analyzer. The spectrum analyzer settings should be such that it meets the requirements of 11.12.2.4 in ANSI C63.10 for making a Peak measurement. Then the operational duty cycle of the EUT may be subtracted from the Peak reading to derive the RMS average value. If the EUT supports more than one operational duty cycle the worst-case value should be used, *i.e.*, the highest operational duty cycle.

b) Taking a RMS average measurement while the EUT is transmitting in operational duty cycle – The RMS average detector of a spectrum analyzer can be used for making average measurements with the EUT operating on its operational duty cycle. If the EUT supports more than one operational duty cycle the worst-case value should be used, *i.e.,* the highest operational duty cycle. The measured RMS value using this method is compared against the limits and no other corrections are permitted.

   The spectrum analyzer settings shall meet the requirements of ANSI C63.10 for making Average measurements. This measurement refers to spectrum analyzer settings in either 11.12.2.5.2 or 11.12.2.5.3 in ANSI C63.10; except when using 11.12.2.5.2, set Trace mode = Max Hold and the measurement correction factor in 11.12.2.5.2 i) is not added.

c) Taking a RMS average measurement while EUT is transmitting continuously, *i.e.*, greater than 98%, and correcting for operational duty cycle – When greater than 98% duty cycle is achieved for testing purposes, applying average measurement techniques (*e.g.*, average detector / reduced VBW) then adjusting for the protocol limited duty factor to determine the average emission is acceptable. If the EUT supports more than one operational duty cycle the worst-case value should be used, *i.e.,* the highest operational duty cycle. This measurement refers to spectrum analyzer settings 11.12.2.5.1 (Trace averaging with continuous EUT transmission at full power) in ANSI C63.10.