



News Letter

1. 5G 频段进行二类变更申请的最低测试要求是什么？

Question : What are the minimum test requirements for Class II permissive change applications?

Answer : The following guidelines are provided for test data and information to be included in permissive change filings for devices approved under the Old Rules.

a) Changes in operations in U-NII-1 Band:

- 1) For all devices where the authorized power levels are increased, or for fixed devices to operate outdoors according to the New Rules, a full test report and including a description of software security must be provided.
- 2) For fixed devices where there is no increase in authorized power level an attestation with description of software security must be provided.
- 3) For mobile and portable client devices where there is no increase in authorized power, no submission is required for allowing operation outdoors.

b) Changes in operations in U-NII-2A and U-NII-2C Bands:

- 1) For all devices where there are changes in power levels, a full test report with including compliance with EMC, DFS and software security description as listed in KDB Publication 905462 (Section B) must be provided.
- 2) For devices to be authorized to operate in the TDWR band, a full test report showing compliance with DFS tests (see KDB Publication 905462 D02) and software security description must be provided.

c) Changes in operations in U-NII-3 Band:

- 1) For devices previously authorized under § 15.407 Old Rules to be modified to operate under the New Rules, a full EMC test report and software security description must be provided.
- 2) For devices previously authorized under § 15.247 to be modified to operate under the New Rules with changes in total power, a full EMC test report and software security description must be provided.
- 3) For devices previously authorized under § 15.247 to be modified to operate under the New Rules and the technical requirements of §15.407(b)(4)(i) with no changes in total power, a test report including the following must be provided:
 - i) Band-edge measurements,
 - ii) Band Power,
 - iii) High and Low channel emissions,
 - iv) Power Spectral Density Measurements, and
 - v) Software Security description
- 4) For devices previously authorized under § 15.247 to be modified to operate under the New Rules and the technical requirements of §15.407(b)(4)(ii) with no changes in total power or hardware changes, the following must be provided:
 - i) Test report showing compliance with § 15.247(d) emission limits. Alternatively, if there are no hardware changes, an attestation that the device is applying under 15.407(b)(4)(ii) and that the emission limits comply with § 15.247(d) for all antenna configurations.
 - ii) A list of all approved antennas with gain of 10 dBi or less, or list of antennas with gain 10 dBi or greater. Acknowledgement of the appropriate restrictions for the appropriate antennas. The specific condition of marketing will be based on the highest gain antenna permitted with the device.



American Certification Body, Inc.

News Letter

2. FCC认证申请中关于保密性的要求。

Question: Due to the nature of our device, we want all of the required, product-specific information we submit for our FCC certification application to be held confidential. Can our TCB approve this, or do we need to obtain FCC approval before we submit the application to our TCB?

Answer: TCBs can authorize Long-Term and/or Short-Term Confidentiality for most exhibits to which these options can be applied, provided the FCC application includes a proper Confidentiality Request Letter with the necessary information to justify the request per Equipment Authorization Confidentiality Request Procedures, [726920 D01 Confidentiality Request Procedures v01r02](#).

Internal Photos and User Manuals have their own specific conditions to meet in order to be eligible for Long-Term Confidentiality, and these conditions determine if a TCB or the FCC will review and decide the issue.

A TCB may grant Long-Term Confidentiality for these two exhibits only if the following special conditions are met, a sample NDA is provided, and justification is provided for points 1) - 4) below.

- ◆ Internal Photos may be held confidential if 1) the circuit board or internal components are not accessible to users; e.g. the circuit board is enclosed in epoxy, or 2) if the device is inaccessible to the public, e.g. mounted on the top of a large tower or in a fenced enclosure such that it is only serviceable by professional designated technicians under a Non-Disclosure Agreement (NDA). All sales for these devices must be under a NDA restricting the disclosure of the propriety information, including internal photos.
- ◆ A User Manual may be held confidential only when the manual contains proprietary technical information intended for professional technicians obligated under a NDA. All sales and distribution of the user manual must be under a NDA that restricts the disclosure of the information.
- 1) Detailed description how the internal photos and user manual are controlled to prevent them from becoming public or disclosed to unauthorized persons;
- 2) Description of how public access is restricted for products serviceable by professional designated technicians.
- 3) Statement that all sales of the non-consumer device will be under a NDA to include third party sales and that the final user of the device is subject to the NDA.
- 4) Key terms of the NDA, to ensure consistency between the Long-Term Confidentiality Request Letter and the sample NDA submitted with the letter.

If all these requirements cannot be met, an exceptional circumstance now exists as it relates to Long-Term Confidentiality for Internal Photos and User Manuals, and now Pre-Approval Guidance (PAG) must be requested from the FCC per the instructions in Footnote 6 of the Confidentiality Request Procedures document hyperlinked above, and the updated April 8, 2016 Pre-Approval Guidance List [388624 D02 Pre-Approval Guidance List v16R02](#), Section II, C, 2(b). Decisions are made by the FCC on a case-by-case basis.

If the FCC approves the request for Long-Term Confidentiality for the Internal Photos and/or User Manual, your TCB must submit a separate TCB PAG referencing the initial inquiry, and the inquiry tracking number should be entered in the appropriate field on the Form 731.

Other exceptional circumstances that require FCC PAG may include, but are not limited to:

- i) Requesting Long-Term Confidentiality for exhibits not eligible for Long-Term Confidentiality (as in the example above)
- ii) Making an exhibit(s) confidential that is currently publicly available but that qualifies for Long-Term Confidentiality.
- iii) Reinstating Short-Term Confidentiality for a recently expired Short-Term Confidentiality exhibit, if the maximum 180 days has not been utilized.



News Letter

3. FCC对于已经授权设备的非法使用发布的公告。

FCC Enforcement Bureau Public Notice:

WARNING: FCC Authorized Equipment Must be Used in Compliance with All Laws and Rules Persons or Businesses Using Authorized Equipment In a Manner that Violates Federal Law or the Commission's Rules Are Subject to Enforcement Action

<https://www.fcc.gov/enforcement>

<https://www.fcc.gov/document/fcc-enforcement-advisory-authorized-equipment>

4. EU对于SAR测试距离的说明。

Body SAR testing for a device such as a phone or phablet (hybrid of smartphone and tablet), should be evaluated at distances appropriate to the use condition (i.e. for a pocket worn device). The standard EN 50566 specifies that if a minimum separation distance to the body is specified by the manufacturer, the SAR report shall include the rationale behind the choice of separation distance used. ***For a mobile phone or phablet, the body SAR test distance must be 5 mm or less.***

As a reminder, if a large test distance is used for the body-worn SAR test of a device which could also be used in the hands, an additional SAR test at a smaller distance may be considered to demonstrate compliance for limb or hand SAR exposure.

5. CE部分法规的更新。

- ◆ [EN 60695-1-20:2016](#) - 5/6/2016 - Fire hazard testing - Part 1-20: Guidance for assessing the fire hazard of electrotechnical products - Ignitability - General guidance
- ◆ [ETSI EN 301 908-3 V11.1.1](#) - (May 2016) - IMT cellular networks; Harmonised Standard covering the essential requirements of article 3.2 of the Directive 2014/53/EU; Part 3: CDMA Direct Spread (UTRA FDD) Base Stations (BS)
- ◆ [ETSI EN 301 908-20 V6.3.1](#) - (May 2016) - IMT cellular networks; Harmonised Standard covering the essential requirements of article 3.2 of the Directive 2014/53/EU; Part 20: OFDMA TDD WMAN (Mobile WiMAX™) TDD Base Stations (BS)
- ◆ [ETSI EN 300 433 V2.1.1](#) - (May 2016) - Citizens' Band (CB) radio equipment; Harmonised Standard covering the essential requirements of article 3.2 of the Directive 2014/53/EU
- ◆ [ETSI EN 301 908-11 V11.1.1](#) - (May 2016) - IMT cellular networks; Harmonised Standard covering the essential requirements of article 3.2 of the Directive 2014/53/EU; Part 11: CDMA Direct Spread (UTRA FDD) Repeaters

6. 关于RED指令的说明，RED指令的协调标准还未正式发布，此时还有很大的不确定性，目前还是可以使用R&TTE指令。

6/13/2016 is the day when someone could apply the Radio Equipment Directive.

However, there are no harmonized standards, a Guide to the RED has not been published, no Commission Decision has been published regarding the mandatory notes on the packaging concerning restrictions in use, etc.

In theory one could apply to a Notified Body while using standards which have not been published yet in the Official Journal of the EU as a harmonized standard under the RED. One could also attempt to implement the various requirements such as requirements for the packaging, user manual, etc. and present these implementations to the Notified Body.

While there are many unknowns at this moment and we recommend that a manufacturer should wait for a while before attempting to apply the RED. In the meantime the R&TTE Directive could still be applied, it is not mandatory to apply the RED until June 2017.



News Letter

6. CA载波聚合知识连载三。

Carrier Aggregation Explained (Serial III)

Author: Jeanette Wannstrom, for 3GPP, (Submission, June 2013)

When carrier aggregation is used there are a number of serving cells, one for each component carrier. The coverage of the serving cells may differ, for example due to that CCs on different frequency bands will experience different pathloss, see figure 3. The RRC connection is only handled by one cell, the Primary serving cell, served by the Primary component carrier (DL and UL PCC). It is also on the DL PCC that the UE receives NAS information, such as security parameters. In idle mode the UE listens to system information on the DL PCC. On the UL PCC PUCCH is sent. The other component carriers are all referred to as Secondary component carriers (DL and UL SCC), serving the Secondary serving cells, see figure 3. The SCCs are added and removed as required, while the PCC is only changed at handover.

当载波聚合被应用时，对每一个分量载波对应多个服务小区中的一个。服务小区覆盖范围可能有所不同，例如，由于不同频带上的分量载波可能有不同的路径损耗（如图3）。RRC连接是由单个的小区处理的，也就是由首选分量载波（上行和下行PCC）传递信息的首选的服务小区。UE也是在下行PCC上接收到NAS信息，诸如安全参数。在空闲模式下，UE监听到的DL PCC系统的信息。在上行PCC上，PUCCH被发送。其他分量载波都称为次要分量载波（上行和下行SCC），服务于次要的服务小区，如图3。SCC根据需要被添加和移除，同时PCC只有在信息被传递完的时候被改变。

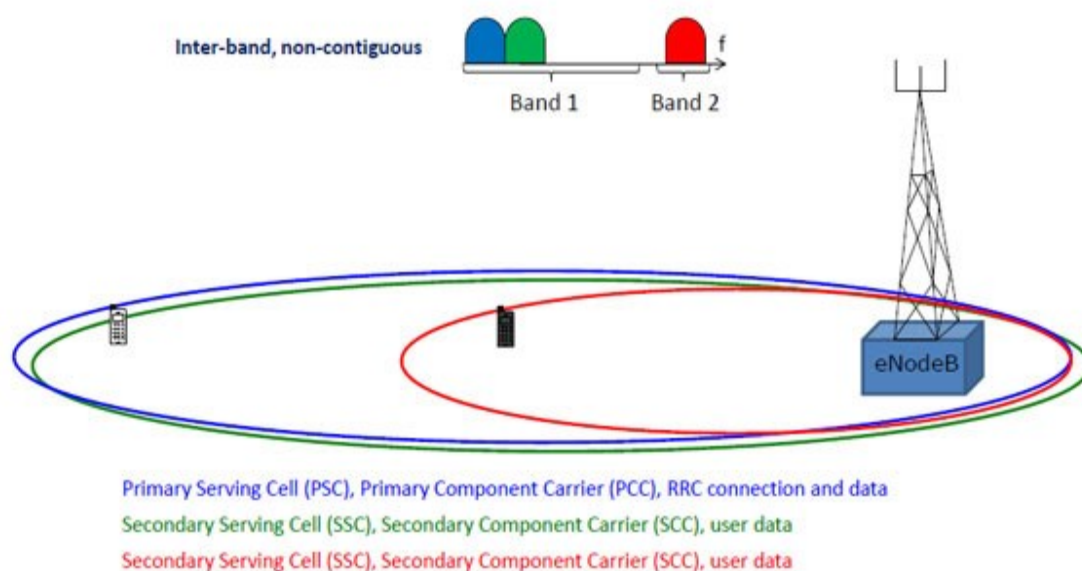


Figure 3. Carrier Aggregation; Primary and Secondary serving cells.

Each component carrier corresponds to a serving cell. The different serving cells may have different coverage.

图3. 载波聚合；主要的和次要的服务小区。

每个分量载波对应于一个服务小区。不同的服务小区有不同的覆盖范围。