

# TCB Applicant User's Guide

Reason for Amendment	Revision History		Approved Date
	From	To	
Initial Release	1.0	1.0	Mar-2-2007

## **1. Introduction**

In an effort to make the certification process more efficient for manufacturers, the FCC/IC/IDA has appointed TCB/FCB/CB(s).

The FCC/IC/IDA has designated TCB/FCB/CB to certify products for the FCC/IC/IDA in a shorter timeframe, allowing manufacturers to get to market quicker. SIEMIC Certification Service (SCS) is committed to provide applicant or agents with the highest quality of services. The goal of the company is to achieve a high level of customer satisfaction at all times. Commitment to the implementation of supporting managerial and business operational systems is essential to realizing that goal.

This document describes the application process for obtaining a FCC and/or Industry Canada and/or Singapore IDA Certification through SIEMIC TCB/FCB/CB.

## **2. SCS Accreditation Scope**

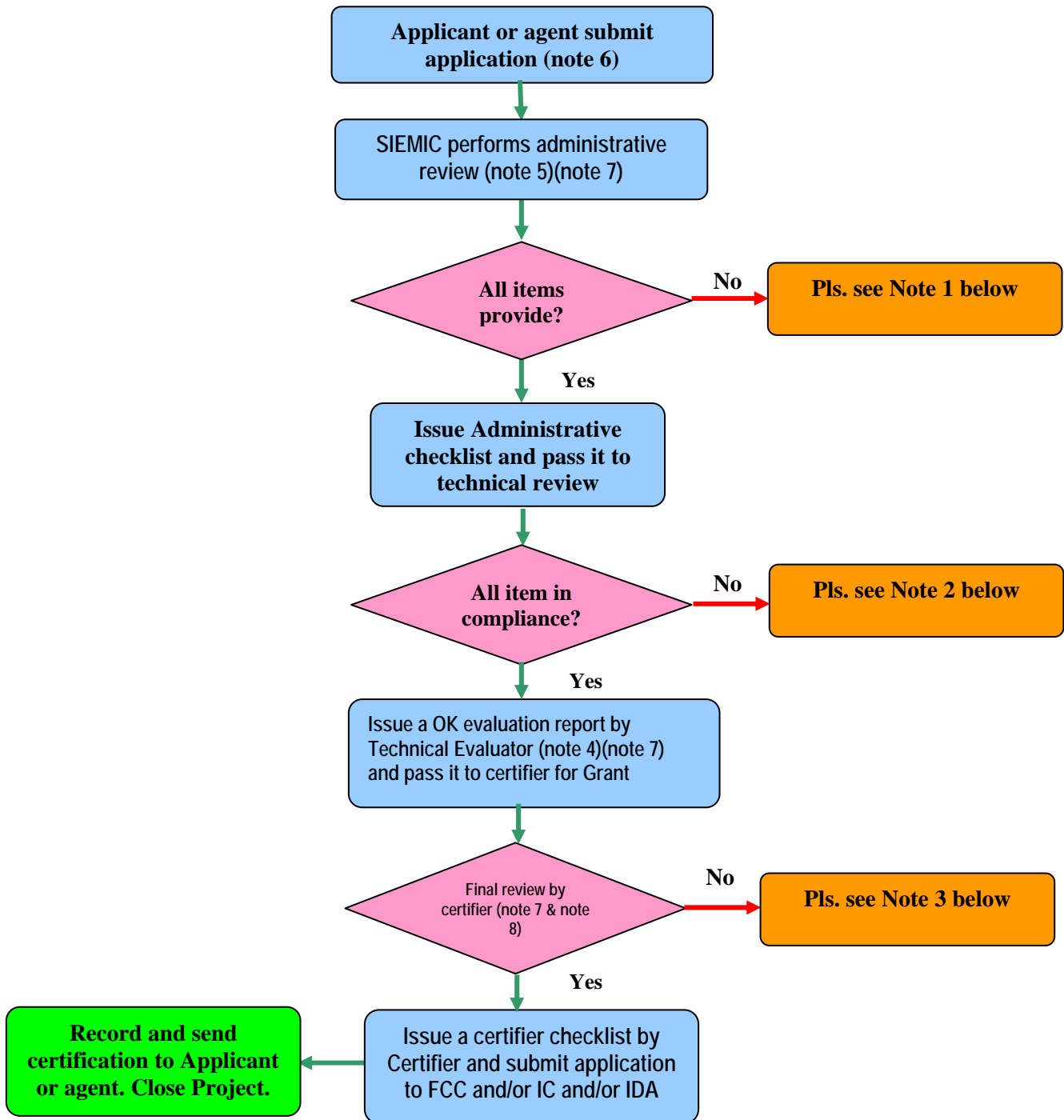
SCS is accredited to certify one or more of the following scopes of equipment:

PS: SCS will not accept any application which does not fall into following work scopes.

For most updated SCS accredited work scope, please visit

<http://ts.nist.gov/Standards/scopes/2007290.htm>

### 3. Certification Process Flow Chart



Note 1: Additional information may be required from applicant or agent at this stage and SCS would contact the applicant or agent immediately should this be the case.

Note 2: Sometimes a technical review will highlight issues that would not normally be uncovered until this stage. SCS will contact the applicant or agent for clarification or additional information.



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- Note 3: If there are discrepancies, either administrative or technical, SCS will contact the applicant or agent for clarification or additional information.
- Note 4: For designated Technical Reviewer, please see QM Guide 65 section 4.5.3(d). (whoever personnel perform in administrative review or certifier does not qualify for this)
- Note 5: For designated Administrative reviewer, please see QM Guide 65 section 4.5.3(d). (Who ever personnel perform in technical review or certifier does not qualify for this)
- Note 6: For permissive change Application, please see SCS-F42 (SCS Permissive Change Policy) for detail.
- Note 7: Any personnel has been perform testing on this application is not qualify to get involved in certification process.
- Note 8: For designated Certifier, please see QM Guide 65 section 4.5.3(d). (whoever personnel has performed in technical or administrative review does not qualify for this)
- PS: Any communication between SCS and applicant or agent by mean of exchanging information in regards of application will be documented and keep a record.

## **Annex I – FCC/IC/IDA Type of Certification**

### **(1) FCC Type of Application**

FCC Type of Application: Original, Class I Permissive Change (a change that does NOT effect the EUT's performance or the test results that were submitted to the FCC with the original Approval), Class II Permissive Change (when the electrical characteristics have been changed), Change in ID (e.g. for registering OEM equipment that is already registered under a different company).

#### **Class I permissive changes (no filing required):**

Variations/modifications which DO NOT degrade the characteristics required to be reported to the Commission (use engineering judgment or retest necessary)

- a. Change in shape of enclosure (No retest necessary)
- b. Redesign of printed circuit board without component or schematic changes (Retest necessary)
- c. Change in enclosure material from metal to plastic (Retest unnecessary)
- d. Situations described in Sections 2.1043(g),(b),(i),(j),(k)&(l)

Note: For unlicensed devices, degraded characteristics are emission levels which change (go up or down) by more than 3 dB, become significant emissions or are no longer significant emissions.

#### **Class II permissive changes (filing required):**

Variations/modification which Do Degrade the characteristics required to be reported to the Commission (retest necessary to determine)

- a. Change in type of enclosure where characteristics are degraded (Retest necessary)
- b. Changing the antenna on a Part 15 transmitter (Retest necessary)
- c. Class II Permissive Change (Part 15 and 18) for unlicensed devices can be made by Grantee Only. Changes made by anyone else require a Certification under a new FCC ID number (unless Part 97 and meets conditions in 2.1043(e)(1) to (5))
- d. Class II Permissive Changes for licensed devices can be made by any one (any device but Part 15&18)
- e. Filing of information from 2.1043(b)(2) required including test data showing compliance with the appropriate rule part(s).
- f. Modified equipment shall not be marketed under the existing grant of certification prior to acknowledgement by the commission of by a TCB, that the change is acceptable.

### **(2) IC Type of Application**

#### **Single Certification**

Single certification may be granted to radio equipment provided that the equipment model is assigned a unique model number by the manufacturer and certification has never been granted for that model by the Bureau.

## **Family Certification**

Family certification may be granted to many models of radio equipment that are nearly identical in design and construction provided that each model is assigned a unique model number by the manufacturer.

## **Multiple Listing**

Multiple listing is required when a manufacturer or distributor wishes to list under their name and unique model number, a certified radio equipment of an original equipment manufacturer (OEM).

## **Reassessment (Modification of Radio Equipment)**

A reassessment is required when a Class II permissive change ([http://strategis.ic.gc.ca/epic/internet/insmt-gst.nsf/vwapj/rsp100.pdf/\\$FILE/rsp100.pdf](http://strategis.ic.gc.ca/epic/internet/insmt-gst.nsf/vwapj/rsp100.pdf/$FILE/rsp100.pdf) see Section 6) is made to previously certified equipment.

## **(3) IDA Type of Registration & Equipment Registration Scheme**

There are two type of IDA Registrations, new model of equipment and modified model of equipment.

### **Modified Model of Equipment**

The supplier shall inform IDA of any proposed modification that is to be made to the registered equipment.

Modifications are categories as follows:

#### **(a) Class 1 Modification**

These are modifications performed on the registered equipment that do not affect compliance with the IDA Technical Specifications. Suppliers may continue to sell Class 1 modified equipment provided that IDA is notified of changes. Re-assessment by IDA is not required. Class 1 Modifications refer to:

- (i) Change in size, shape, colour and material of enclosure;
- (ii) Change in driver or software; or
- (iii) Change in printed circuit board layout without component or schematic changes.

#### **(b) Class 2 Modification**

These are modifications performed on the registered equipment that will affect compliance with the IDA Technical Specifications. Class 2 Modifications require re-registration with



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IDA. Suppliers should submit a fresh registration request to IDA together with the relevant registration package. Such modified equipment shall only be sold for use locally after re-registration with IDA. Class 2 Modifications refer to:

- (i) Change in transmitting antenna;
- (ii) Change in output power or radiated field strength;
- (iii) Addition of new network interface card;
- (iv) Change in the existing network interface card; or
- (v) Change not considered a Class 1 modification

When IDA is satisfied that the modified equipment has complied with the stipulated requirements, IDA will update the record and List of Registered Equipment.

The supplier shall make a fresh registration request to IDA for any changes falling outside the scope of Class 1 and 2 Modifications.

## ANNEX II - FCC/IC Submission checklist

### Required Documentation List for FCC Original Application:

Documentation Checklist	Provided	
	Ok	Not Ok
1, Form 731 (SCS-F04)		
2, Project Authorization Letter (SCS-F18)		
3, Certification Agreement (SCS-F12)		
4, Block Diagram		
5, Schematics		
6, Operational Description		
7, User manual (with FCC warning statement)		
8, Label artwork and location drawing		
9, Part List (need provide if it is licensed device)		
10, Tune up procedure (need provide if it is licensed device)		
11, Confidentiality Request Letter if applicable (SCS-F19)		
12, Modular approval letter if applicable (SCS-F26)		
13, Test Report		
14, Setup Photos		
15, External Photos		
16, Internal Photos		
17, User Manual		
18, SAR or MPE data (if applicable)		

### Required Documentation List for FCC Permissive II Change Application:

Documentation Checklist	Provided	
	Ok	Not Ok
1, Form 731		
2, Project Authorization Letter		
3, Certification Agreement		
4, Difference Statement (between new product and old product)		
5, Related Technical documents for the changing area		
6, Confidentiality Request Letter if applicable		
7, Test Report		



### Required Documentation List for FCC Change of ID Application:

Documentation Checklist	Provided	
	Ok	Not Ok
1, Form 731		
2, Project Authorization Letter		
3, Certification Agreement		
4, Authorization letter from original applicant		
5, Change of ID request letter		
6, EUT External Picture		
7, FCC ID Label		

### Required Documentation List for IC Original/Re-assessment /Multiple Listing Application:

Documentation Checklist	Provided	
	Ok	Not Ok
1, Industry Canada Authorization Letter (SCS-F14)		
2, IC Appendix I Form (SCS-F05)		
3, IC Appendix II Form (SCS-F06)		
4, Certification Agreement		
5, Block Diagram		
6, Schematics		
7, Operational Description		
8, User manual (with IC warning statement)		
9, Label artwork and location drawing		
10, Test Report		
11, User Manual		
12, RSS102 Attestation (SCS-F22)		
13, IC Cover Letter (SCS-F29)		

**Required Documentation List for Singapore IDA General Equipment Registration (GER) application:**

Documentation Checklist	Provided	
	Ok	Not Ok
1, IDA Application Form (SCS-F13)		
2, Certificate of Conformity issued by recognized certification body		
3, Photos of equipment (front, rear, side view and product label which shows trade and product name)		
4, General information or sales brochure		
5, Registration fee		
6, Test report		
7, User guide		
8, Local dealer's license no.		

In addition, IDA accepts equipment certification by local or foreign certification bodies recognized by IDA under a Mutual Recognition Arrangement (MRA).

## **Annex III – Further Explanations**

*Below are further explanations and details some of the above items to assist you in your documentation gathering:*

### **FCC Exhibits:**

**FCC ID** – XXXYYYYY (XXX = Grantee Code (3 characters); YYYY = Product Identifier (maximum of 14 characters) – The grantee code must be obtained from the FCC, and it is company and address specific (this code identifies you and you only). The product identifier is chosen by the grantee. It may be a maximum of 14 characters, and may include the dash (-) but no other symbols; just alphanumeric characters. If the applicant has no Grantee Code then SIEMIC can obtain the 3-digit code on behalf of the applicant, if the customer wishes us to do so.

NOTE: When you obtain the grantee code you will also receive a Grantee Code Registration Number (GCN#). Please keep this for your records because it will definitely be needed for other transactions with the FCC.

**FCC Registration Number (FRN)** – Please provide a FRN number for your manufacturer/applicant. This is now required for all Grantees (reference MD Docket No. 00-205). To obtain an FRN online, visit the FCC's Web site at [www.fcc.gov](http://www.fcc.gov) and click the Commission Registration System (CORES) link. For further assistance, please either refer to the FAQ at this same link, contact the CORES helpdesk at [CORES@fcc.gov](mailto:CORES@fcc.gov), or call the CORES helpdesk toll-free number: 1-877-480-3201.

**FCC Authorization Letter** – Must be prepared on applicant/manufacturer letterhead.

**Certification Agreement** – Must be signed by both applicant and SIEMIC.

**Theory of Operation/Technical Description** - A brief description of the circuit functions of the device along with a statement describing how the device operates; to include a description of the ground system and antenna, if any, used with the device. (Catalogue sheet may contain most information. It is necessary that this be in a separate document - PDF preferably). May be held confidential if included in Confidentiality Request.

**Tune-Up Procedure** – Procedure for ensuring the device is tuned to the correct frequency/frequency range and that it is operating at proper level. May be held confidential if included in Confidentiality Request.

**FCC ID Label and Location** - A photo or drawing showing the identification label clearly (you must be able to see the FCC ID number), and the location on the device. These may be submitted as one document demonstrating both, or two separate documents.

**Information to be included on the label:**

The term “FCC ID:” must be included prior to the XXXYYY and all must be contained on one line and legible (it is recommended that the type be 6-point or larger).

If product is larger than “palm-sized” (or 8X10cm), the statement according to Section 15.19 (a) must be included on label (15.19 (a) (1) or (2) or 3) depending on device).

If product is smaller than “palm-sized” (or 8X10cm), the required statement may be included in the User’s Guide/Owner’s Manual.

In addition, pursuant to Section FCC 15.19(b)(5) information regarding the label material and method of permanent attachment to the product should be supplied, i.e. the label must not be paper, and the ink and label material must be a quality and type that must last the life of the device.

**Label Location:**

In addition to being visible to the consumer, the label cannot be located on a removable part, such as a battery cover.

**User’s Manual/Installation Instructions-** A draft copy of the instructions may be submitted if the actual documentation is not available. The actual document shall be furnished to SIEMIC when it becomes available.

**Information to User (From the FCC Rules)** - to be included in the user’s manual:

- a. Section 15.19 statement – If device is smaller than the palm, this may be included in manual.
- b. Section 15.21 statement (for all intentional and unintentional radiators)– “Changes or modifications not expressly approved by the manufacturer could void the user’s authority to operate the equipment”.
- c. Section 15.25 Info (if applicable)
- d. Section 15.27 Info (if applicable)
- e. Section 15.105 statement (for digital devices)
- f. Modules (Instructions for installation by the “assemblers” as to method of ensuring proper separation distance between module and antenna and user.
- g. RF Exposure info (if applicable) - See 2.1093 of the FCC Rules

**FCC Part 18 devices** - To be included in the user’s manual or on packaging if manual is not provided (ex. Some ISM equipment): Section 18.213 Information

**Block Diagram** – See Section 2.1033(b)(5) – Exhibit must show “...frequency of all oscillators in the transmitter portion of the device . The signal path and frequency shall be

indicated at each block. The tuning range(s) and intermediate frequency (ies) shall be indicated at each block.” Document must be separate from manual, and preferably a PDF document.

**Schematics** – Schematics and description for ALL circuitry and devices provided for determining and stabilizing frequency, for suppression of spurious radiation, for limiting modulation, and for limiting power. NOTE: Please ensure that the components and component values are legible on the schematics. Also, if the EUT has many PC boards, be sure to title each page. This exhibit may be held confidential if included on the Confidentiality request letter.

**Parts List** – Parts list for the radio device, listing all components and/or identifying the source of OEM modules. This exhibit may be held confidential if included on the confidentiality request letter.

**RF Exposure Info** – The section must include a statement affirming compliance with respect to controlled/uncontrolled exposure limits for MPE/SAR evaluation of mobile/portable device (technical data upon request) or reasons for category exclusion from routine RF evaluation. Important rule sections concerning RF radiation exposure are 1.1307-1.1311, 15.247(b)(4), 2.1091 and 2.1093

Devices categorically excluded from routine RF exposure must still file an analysis indicating that they comply with RF exposure limits.

**Confidentiality Request Letter (SCS-F19)** – The exhibits provided to the FCC are accessible by the public on their site. A special request letter must be submitted to FCC for confidentiality to be granted to certain exhibits. Both permanent confidentiality (only specific documents allowed – schematics, block diagrams, parts lists, tune-up procedure, operational/technical description) and short-term confidentiality (documents are allowed to be held confidential for 45 days only – external and internal photos, test photos, block diagrams, schematics, user’s manual, parts list, tune-up procedure and operational description) are options. Under short-term confidentiality documents are automatically taken out of confidential status at the end of the 45 days unless a request for extension is submitted. Also, if you market before the 45 days, you must notify the FCC to lift the short-term confidentiality. Separate letters must be done if both are being requested. NOTE: In special cases where manufacturer and applicant are different entities, 3<sup>rd</sup> party confidentiality agreements can be made. Please contact us for specific details.

**External Photos and Internal Photos** - EUT photos, internal and external, showing all faces of the device and all circuitry, and one shot per page. Photos shall show top and bottom of each circuit board, also with shields eliminated. Internal photos shall show the component placement on the chassis and the chassis assembly. If components are covered by an insulator, provide a photo with the cover on, and one with the cover removed. External photos shall show the overall appearance, the antenna used with the device (if any), and the controls available to the user.

**Test Setup Photos** – Test setup photos must show peripheral or accessory devices connected or installed at time of testing and a brief description of these peripherals and accessories shall be included with test report.

### **Report of Measurements**

- a. 3 MB maximum size; if total size must be larger than 3 MB, separate into Part A, Part B, etc.
- b. Test report shall signed by lab signatory.
- c. Product & test setup photos separate documents
- d. Specifies measurement procedure used: ANSI C63.4:1992, EIA/TIA 603, MP-5, etc
- e. 6 highest spurious emissions, conducted and radiated QP
- f. Explanation of calculations used, even if done by computer or measuring instrument
- g. State Bandwidths (BW) used for measurement
- h. State frequency range scanned
- i. State EUT manipulated for maximum emissions.
- j. State test setup photos depict maximized configuration
- k. FCCID on each page (header)

### **Industry Canada Exhibits (in addition to the above list):**

**IC Registration Number** – The Company Number (obtained from Industry Canada) followed by UPN (unique product number) up to 8 characters. Just as with the FCC Grantee Code, SIEMIC will obtain the number for you, or you may obtain it yourself. To do so, send an email to [certification.bureau@ic.gc.ca](mailto:certification.bureau@ic.gc.ca) prior to application for certification. Provide the full company name, contact name, contact's phone name and email and fax number.

**IC Authorization Letter** – Must be prepared on applicant/manufacture letterhead

**RSS 102 Attestation** (if applicable to device) – Declaration must be made by a lab qualified to do so.

**RSS 210 Warning Statement for User's Manual** (if applicable to device) – the following statement must appear in the manual for the device:

“The installer of this radio equipment must ensure that the antenna is located or pointed such that it does not emit RF field in excess of Health Canada limits for the general population; consult Safety Code 6, obtainable from Health Canada's website [www.hc-sc.gc.ca/rpb](http://www.hc-sc.gc.ca/rpb).”

**Canadian Point of Contact** - (must be located within Canada) This POC may be authorized agent or distributor. Please include name of contact, company name, phone number, email, mailing address.



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**IC ID Label Artwork** (May be same label from FCC documentation to include IC ID number). Example:

IC: XXXX-YYYYYYYY (XXXX denotes manufacturer company number and YYYYYYYY denotes unique product number limited to eight alphanumeric characters.)

**COMPOSITE DEVICES SUBJECT TO OTHER FCC RULE SECTIONS OR IC STANDARDS** - In addition to the above, refer to the additional FCC rule section or IC standard applied for (if other than those listed above), for other specific requirements.

**NOTE:** This is the minimum set of documents that will be required for TCB review.