Consultative Document

Equipment Standardisation and Certification Framework for the Telecommunications and Broadcasting Sectors

(First of Two Rounds)

Version 1.1

November 2022 2/2/3/2

Maintenance History

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1 Introduction

1.1 Background

In 2004, the Telecommunications Authority of Trinidad and Tobago (the Authority) was established under the Telecommunications Act, Chap. 47:31 (the Act), as amended, as the independent regulatory body for the telecommunications and broadcasting sectors. The Act provides for the establishment of technical standards and equipment certification functions by the Authority, including the recognition and adoption of international standards.

The Authority has an obligation to keep abreast of the latest international standards and to recognise and/or adopt these standards for such equipment where there is no conflict with the Authority's standards and international best practices. The Authority also recognises that rapidly advancing telecommunications technology has facilitated a proliferation of many new devices such as unmanned aerial systems (UASs), commonly known as drones, and modular devices, which shall require equipment certification.

The Authority first published its *Equipment Standardisation and Certification Framework* in February 2008, and now seeks to update the framework to keep abreast of advancements in telecommunications technology, equipment and uses.

1.2 Purpose

The purpose of this document, entitled the *Equipment Standardisation and Certification Framework for the Telecommunications and Broadcasting Sectors* (the Framework), is to modernise the general processes and requirements for equipment standardisation and certification for telecommunications and broadcasting equipment to be used in Trinidad and Tobago to remedy shortcomings of the existing framework. The Framework also intends to increase the effectiveness of these processes by fostering key partnerships with local, regional and international stakeholder agencies.

1.3 Objectives

This Framework shall ensure the following:

1. Compliance with recommendations adopted from the International Telecommunication Union (ITU)

2. Compliance with standards established by relevant organisations, such as the Federal Communications Commission (FCC), Conformite Europeenne (CE), and Innovation, Science and Economic Development Canada (ISED), and declarations of conformity (DoCs) from recognised manufacturers

3. Compliance with the Authority's various spectrum plans and standardisation frameworks

4. Establishment of strategic partnerships amongst government entities with a stake in the importation, certification, and safety of equipment

5. Development of the process and procedures for obtaining an equipment certificate

6. Development of the process to assess locally developed radio frequency (RF) devices for use in Trinidad and Tobago

7. Awareness of and adherence to national, regional and international telecommunications standards

1.4 Scope of the Document

This Framework presents the approach and processes that the Authority will adopt in certifying radiocommunications, telecommunications and broadcasting equipment and other devices. The Framework will also outline the guidelines, forms and requirements for submissions by manufacturers, their representatives, and commercial distributors. These processes, guidelines and requirements shall be based on standards established or recognised by the Authority, technological developments, the desire to promote local and regional innovation, and the need to ensure safe operations among multiple users.

1.5 Review Cycle

This document will be revised every five years or as it becomes necessary, given the advances in technology as well as evolving local needs. The Authority will consider and, if necessary, make modifications, in consultation with stakeholders, to ensure that the Framework is guided by appropriate international standards and local best practices.

Questions or concerns regarding the maintenance of this standards document may be directed to the Authority via email at info@tatt.org.tt.

1.6 Other Relevant Documents

The following documents are also relevant to the issues discussed in this Framework:

1. The Telecommunications Act, Chap. 47:31
2. *Authorisation Framework for the Telecommunications and Broadcasting Sectors of Trinidad and Tobago* (in effect)
3. The *Trinidad and Tobago Frequency Allocation Table* (in effect)
4. *Authorisation Framework for Citizen Band Radiocommunications Devices. Telecommunications Authority of Trinidad and Tobago. 2019*
5. *Authorisation Framework for Amateur Radio Service Telecommunications Authority of Trinidad and Tobago. 2021*
6. The *Class Licensing Regime*

These documents can be found on the Authority's website, www.tatt.org.tt

1.7 Definitions

The following definitions are used in this document:

Applicant: a resident of Trinidad and Tobago, a manufacturer or commercial distributor/vendor or internationally recognised certifying body of telecommunications

equipment for sale, hire or private use in Trinidad and Tobago that requests certification of such equipment by the Authority

Base station: a station in a land mobile service not intended to be used while in motion

Declaration of conformity (DoC): a document issued and signed by a manufacturer or supplier confirming that its product complies with the regulations and technical specifications of the EU or other regulatory authorities that accept such documentation

Fixed station: one or more transmitters or receivers of a service involving the transmission, emission and/or reception of radio waves for telecommunications purposes between specified fixed points

Spectrum licence: authorises the licensee to operate radiocommunications systems within a specified frequency band on a technology-neutral basis

The following equipment types require a spectrum licence:

1. Public mobile radio system
2. Private mobile radio system
3. Trunked mobile radio system
4. Fixed wireless access system

Station licence: authorises the licensee to operate the specified station, in accordance with technical parameters determined by the Authority

The following equipment types require a station licence:

1. Amateur station
2. Maritime station
3. Satellite station
4. Broadcasting station
5. General radiocommunications station
6. Aeronautical station
7. Station for special events
8. Station for test and development purposes

Class licence: authorises persons to use specific radiocommunications devices, within specific technical and operational parameters, and which would generally apply to low-powered, mass-market consumer devices or modules

There are three categories of class licences, as defined in the Class Licensing Regime:

Type 1 – End-user devices or customer premise equipment

Type 2 – Base stations

Type 3 – Fixed stations

Registration: the process by which the Authority records a type of device and its specifications for use in Trinidad and Tobago by the submission of the relevant registration form (R-CL form)

1.8 Relevant Legislation

The sections of the Act which inform this document are:

Section (18)(1):

Subject to the provisions of this Act, the Authority may exercise such functions and powers as are imposed on it by this Act and in particular –

(b) classify telecommunications networks and services as public telecommunications networks, public telecommunications services, closed user group services, private telecommunications services, value added services, broadcasting services or any other type of telecommunication service;

(d) establish national telecommunications industry standards and technical standards;

(i) plan, supervise, regulate and manage the use of the radio frequency spectrum

(o) test and certify telecommunications equipment, subject to section 48*(*3), to ensure compliance with—

(i.) international standards; and

(ii.) environmental health and safety standards, including electromagnetic radiation and emissions;

(p) ensure the orderly and systematic development of telecommunications throughout Trinidad and Tobago.

Section (18)(2):

In the performance of its functions under subsection (1)*(b)*, the Authority shall require that all persons operating or intending to operate any of the services listed in subsection (1)*(b)* notify the Authority accordingly and the Authority shall establish a Register of all such persons and services.

Section (32):

Any terminal equipment may be connected to a public telecommunications network where the Authority, after consultation with the concessionaire, has certified such terminal equipment as—

(b) being in compliance with international standards, and environmental health and safety standards including standards for electromagnetic radiation and emissions;

(c) meeting requirements of electromagnetic compatibility if specified;

(d) not posing a risk of harm to the network;

(f) being compatible with the network.

Section (40):

Radio-communication equipment shall not be operated in a manner likely to cause harmful interference to any other means of telecommunication.

Section (48):

(1) The Authority shall, for the purpose of certifying or approving terminal equipment and other equipment to be installed or used for a public telecommunications network or telecommunications service or broadcasting service determine whether such equipment fulfils the criteria stipulated in section 32 and such other requirements as the Authority may prescribe.

(2) For the purpose of a determination made pursuant to subsection (1), the Authority may require that such equipment be submitted for testing by an inspector.

(3) The requirement for testing may be waived by the Authority, after consultation with the concessionaire or licensee, if the Authority is satisfied that the equipment has been certified in accordance with international standards.

Section (49):

The tests stipulated under sections 48 and 50 shall be carried out in compliance with international standards and other standards prescribed by the Authority.

Section (45), which permits concessionaires and licensees to implement other internationally, accepted technical standards.

In addition to compliance with standards and certification requirements established by the Authority pursuant to the Act, consumer devices and other telecommunications equipment (“goods”) are also subject to product standards regulation, pursuant to the Standards Act 18 of 1997, where the Authority will be responsible for certifying radio frequency emissions and compatibility with public telecommunications networks.

2 Global Perspective on Equipment Standardisation and Certification

Equipment standards and certification schemes in many jurisdictions typically include the following features:

1. The power to prescribe, or otherwise identify, technical standards or specifications for types of telecommunications equipment

2. The power to establish, or otherwise identify, authorised testing laboratories and certification bodies

3. Procedures for equipment certification or similar approvals, or for demonstrating other conformity to standards and requirements

4. The recognition of equipment certification by other countries or authorities as an alternative to establishing domestic certification programmes

5. The maintenance of one or more registries identifying certified equipment and applicable certification criteria and standards

Ultimately, the purpose of standardisation and certification schemes is to ensure the compatibility of telecommunications equipment with the telecommunications networks to which they are connected, and to protect the public from improperly functioning or unsafe telecommunications equipment. Radiocommunications equipment raises additional concerns about the possibility of harmful interference and the need for equipment to function in accordance with frequency and output specifications.

The Authority, with assistance from ITU's Caribbean office, has noted the approach of Brazil, which drafted a legal and financial framework that supported the development of local testing and accredited laboratory facilities. This approach, in a nutshell, requires that manufacturers (both local and foreign) desiring to sell telecommunications, broadcasting and IT equipment in Brazil must be compliant with Brazilian-developed standards, and the equipment must be certified by an accredited Brazilian laboratory prior to the devices being marketed and sold in Brazil. The result has been the development of a home-grown laboratory and standards-setting industry in Brazil.

Brazil's approach is similar to the USA's, in that equipment must comply with FCC standards and be tested by FCC accredited/certified laboratories before the equipment can go to market. Accredited laboratories in the USA and Brazil can be supported due to the economies of scale that exist in those markets. It is unlikely that the size of the local Trinidad and Tobago market would be able to support the same legislative approach adopted by the US and Brazil.

In the EU, a different approach has been adopted, where the EU sets standards for equipment and allows manufacturers to perform their own tests or use a certified laboratory. Following this, manufacturers issue their own declaration of conformity (DoC) with EU defined standards. A DoC is a document issued and signed by a manufacturer, wherever located, on company letterhead, confirming that its product complies with the regulations and technical specifications of the EU or other regulatory authorities that accept such documentation.

Notably, jurisdictions such as Grenada, Jamaica and St Vincent and the Grenadines are all levying application fees for the processing of equipment certificates. Based on the high volume of equipment certification applications received by the Authority in recent times, the implementation of a certification fee is a reasonable next step.

Table 1 shows a list of the application fees levied by six neighbouring countries for equipment certification.

Table 1 Equipment certification application processing fees charged by other jurisdictions

Country	Local Fee	International Fee
Jamaica	US$350.00	US$350.00
St Vincent and the Grenadines	EC$100 (US$38.00)	EC$117 (US$43.00)
Grenada	EC$500 (US$183.30)	EC$500 (US$183.30)
Cayman Islands	US$500.00	US$500.00
Dominican Republic	US$200.00	US$200.00
Turks and Caicos	US$500.00	US$500.00

3 Developments in Equipment Certification

Since the publication of the previous framework in 2008, the Authority has encountered new challenges. These call for the adoption of new approaches to equipment certification and standardisation, followed by the associated regulations to govern equipment certification in the long term.

3.1 Public Safety

Recent developments in technology, including improved broadband coverage, faster data speeds, and the increased integration of telecommunications technology in various devices across many applications have posed realistic safety concerns for Trinidad and Tobago. These advancements have occurred much faster than the country can establish regulations and polices for the safe and lawful use of devices.

Therefore, to control and curb the influx of unauthorised devices and to ensure national security and safety, the Authority, through this Framework, shall seek to develop strategic partnerships with other agencies such as the Customs and Excise Division, Trinidad and Tobago Civil Aviation Authority (TTCAA) and the Trinidad and Tobago Bureau of Standards. These partnerships shall be governed by memoranda of agreement, to operate in the best interest of the national population with respect to public safety.

3.2 Locally Developed Devices

Products that are developed locally for use require certification. In the absence of accredited laboratories in Trinidad and Tobago or the Caribbean, it is the Authority's responsibility to assess the operation of these devices against the standards adopted for the RF spectrum bands in which they operate. Local developers who intend to bring these devices to market, so are keen to have them certified by the Authority.

The cost of testing a new device for conformance at foreign labs is high costing thousands of US dollars per device, depending on the type and number of tests needed and the standards utilised.

This is a barrier to the local development of new RF devices, particularly where venture capital or seed financing is not readily available. Hence, the lack of an accredited RF testing laboratory, either locally or elsewhere in the Caribbean. This lack can be a hindrance to the development of a local RF device industry in Trinidad and Tobago.

The Authority will utilise a regulatory sandbox approach to deal with the issue of locally developed low-powered RF devices. A regulatory sandbox is a controlled environment in which innovators conduct live product experiments under a regulator's supervision, with the regulator imposing relaxed regulations and standards. Local developers will be required to enter into contractual agreements with the Authority, enshrining applicable terms and conditions for the equipment being developed. The guidelines established in the contractual agreement set the logistics and parameters by which the radiocommunications devices shall operate.

Accreditation standards and tests to be utilised will, in the first instance, be those of the FCC in the USA. This decision was taken due to the ease of access to the tests, the clear documentation readily available, and the fact that the North American market is an attractive future market for local product developers.

The Authority will also seek to develop equipment certification testing expertise and some testing facilities over the medium term, with the assistance of foreign agencies including ITU. This will enable pre-compliance testing of equipment prior to the equipment being sent to an accredited laboratory for testing.

3.3 Volume of Equipment Certification Applications

In recent years, the Authority has seen an almost five-fold increase in the number of equipment certification applications received per year, comprising both local and foreign applicants. This increase has created delays in the processing of applications for equipment certification, with applicants sometimes having to wait an inordinate amount of time (and with concomitant consumer complaints) before a certificate or non-objection can be issued.

To address the growing number of applications, the Authority will introduce fees for processing, to cover administrative costs.

3.4 Unmanned Aerial Systems (UASs)

A new category of equipment which utilises radios to control, communicate and transfer photos and videos is unmanned aerial vehicles (UAVs) or unmanned aerial systems (UASs). These devices are quite popular with both the general population and industrial users. Whilst they have legitimate commercial and residential applications, they also raise matters of security concern and privacy. These UAVs also fall under the ambit of the TTCAA.

The Authority will establish a user register of certain UAVs as part of its equipment certification, as advised by the TTCAA. The radios used by these devices normally fall within the Class Licensing Framework.

3.5 Modules

Another category of equipment which was not envisaged when the original framework was drafted is RF modules or sub-assemblies. These are small, low power RF assemblies that are installed in larger devices. A typical example would be a Wi-Fi module in a printer or cooking stove. The Authority receives numerous applications each year for various types of modules from manufacturers and their representative certifying agencies, including commercial distributors.

The Authority will process applications for equipment certification for RF modules or sub-assemblies, and any associated licences for the installation or use of those modules, where applicable, for embedding within devices for use in Trinidad and Tobago. The Authority may prescribe a fee for granting these authorisations.

3.6 Time Limits

The Authority initially considered that imposing time limits on equipment certificates was not necessary given the state of the existing market and the Authority's limited resources. However, other jurisdictions do impose time limits on certification. Furthermore, a term on an equipment certificate would ensure recertification and regular review of operating parameters of previously approved devices.

The Authority will introduce a term of five years for a valid equipment certificate.

3.7 Change in Ownership

The Authority has received requests from various foreign entities and manufacturers for new certificates due to mergers and acquisitions of entities listed on the previous equipment certificate issued by the Authority.

The Authority will continue to facilitate a name change on equipment certificates, providing the appropriate legal documentation is provided.

3.8 Receive-Only RF Devices

The Authority has not been issuing equipment certificates for receive-only RF devices such as televisions, radios and direct-to-home (DTH) receive-only terminals, as it was deemed unlikely that such devices could cause interference to licensed users of RF equipment. However, the Authority may establish standards for receiver equipment for public broadcasting services, to facilitate adoption of broadcasting standards within Trinidad and Tobago, such as Advanced Television Standards Committee (ATSC) 3.0 technology for digital terrestrial television (DTT), or in-band on-channel (IBOC) receiver technology for digital radio broadcasting.

The Authority will not require applications for equipment certification of receive-only RF devices at this time.

3.9 Wired Devices

The Authority has not been issuing equipment certificates for wired (as opposed to wireless) devices. This approach was taken in consideration of the Authority's focus on protecting users of licensed RF equipment.

The Authority will not require equipment certification applications for wired equipment at this time and may adopt recognised standards for the use on fixed telecommunications networks, given the low probability of harmful interference being caused on telecommunications networks.

4 The Equipment Certification Process

In recent times, there has been a proliferation of wireless devices entering Trinidad and Tobago, such as unmanned aerial devices, modules for various equipment, Bluetooth devices and FRS/GMRS devices. The Authority has sought to establish a clear process for the issuance of appropriate equipment certificates, located in Appendices I and II. Details of this process can be found in Appendix 5. The guidelines provided below will ensure the process is effective and will result in an acceptable customer experience.

4.1 National Approach to Equipment Standardisation and Certification

In exercising its powers and performing its duties under the Act, the Authority will adopt methods of setting standards and certifying equipment, which will include, at a minimum:

1. Publishing criteria for certification and establishing standards for the approval of telecommunications equipment.

2. Identifying domestic or foreign organisations or testing facilities for the approval of telecommunications equipment.

3. Maintaining a register of approved types of telecommunications equipment, criteria for certification, and standards for approval.

4. Entering into agreements with standards and/or certification bodies or regulatory agencies locally, regionally or internationally, to provide mutual recognition, certification and approval of telecommunications equipment.

Given the large number of telecommunications equipment standards currently in force or being developed in the international arena, and the different equipment standards and frequency allocations that exist or are in force in different (ITU) regions, the Authority's approach to telecommunications equipment standardisation and certification takes into account the local needs of the private and government sectors, the public interest, and the applicability of relevant standards to Trinidad and Tobago given the country's current stage of development. It is recognised that Trinidad and Tobago is primarily an importer and user of telecommunications equipment, and this situation is expected to continue for the foreseeable future.

Hence it is envisaged that equipment certification, and standards development and/or adoption would continue to be driven by user needs in the areas of (but not limited to) safety and public health, frequency assignments, RF power allocations, RF interference mitigation, and telecommunications networks and interoperability requirements.

4.2 Equipment Requiring Certification

The Authority will certify RF transmitting equipment used as terminal equipment or other equipment to be installed or used for a public telecommunications network, telecommunications service or broadcasting service. The Authority reserves the right to decline any application for certification that does not meet with any of its polices, frameworks or spectrum plans.

4.3 Applicant Eligibility for Equipment Certification

The application for certification can be made by a citizen of the Republic of Trinidad and Tobago, a company incorporated in the Republic of Trinidad and Tobago, a foreigner, or an overseas corporation.

The manufacturer, importer, commercial distributor or vendor of equipment for operation in Trinidad and Tobago can apply for equipment certification from the Authority, unless the equipment concerned has been previously certified and entered in the Authority's register of certified equipment and such certification has not expired.

4.4 Procedure to Apply for Equipment Certification

Applicants must complete the appropriate EC-01 application form in Appendix III (in English), published on the Authority's website (www.tatt.org.tt), in hard copy or online.

Applicants should submit separate applications for each equipment model supplied, even if the brand is the same. The approved equipment brand names will be listed separately in the register of certified equipment maintained by the Authority.

The application form must be accompanied by an approved equipment certification from a recognised certifying and testing body. A DoC, along with approved test results prepared by a recognised laboratory, shall also be accepted. The Authority shall recognise FCC and CE standards and certification results in its consideration for granting equipment certification. Where available,

references to lists of accepted certifying bodies and testing laboratories can be found on the Authority's website.

The applicant must submit all information requested in the application procedures and any other information requested by the Authority.

An application that is deemed complete will be processed within 30 days of its receipt by the Authority. This is an outer time limit and the processing time can vary depending on the volume of applications being processed at the time. Applications will be processed on a first-come, first-served basis. Applications that remain incomplete by the applicant within one month of submission may be rejected. Where an application is complete, but certification is rejected, the Authority shall give reasons for the rejection.

All certified equipment will form part of a regularly updated equipment certification registry which shall be made available to the public via the Authority's website.

4.5 Cost of Equipment Certification

For manufacturers seeking equipment certification of wireless devices for sale and distribution within Trinidad and Tobago, the Authority will charge fees to those manufacturers and their authorised representatives permitted under the Act for providing certification services, which shall be commensurate with the cost of providing such services and operating the Authority.

4.6 Cancellation of an Approved Equipment Certificate

The Authority reserves the right to cancel a certification at any time where it has reason to believe that the relevant regulations and technical requirements have not been observed. Cancellation or de-certification can also result from misrepresentation or significant errors in the original application, or where initially compliant equipment subsequently develops operational or safety problems. Certifications remain valid until cancelled by the Authority or until the term expires. The Authority will give reasons for any cancellation or de-certification.

4.7 Technical Requirements

The Authority shall publish technical specifications with which various types of equipment must comply. In the absence of a relevant specification, the Authority may specify technical requirements on a case-by-case basis. For a certificate to be granted by the Authority, it is required that the equipment:

1. Be electrically safe for users, subscribers and the employees of the telecommunications system operators and the public.

2. Be electromagnetically compatible with other equipment to which it will be connected to and/or with which it will be used.

3. Be fitted with a device which will protect the telecommunications system it is a part of, or to which it is connected, against electrical, electromagnetic or other damage.

4. Make efficient use of the RF spectrum where applicable.

5. Be capable of interworking with other telecommunications equipment.

4.8 Registration of Certain Equipment

All Type 2 and 3 devices, as well as those Type 1 devices (Class Licensing Regime, 2008) that have been identified for registration, such as push-to-talk (PTT) and UAVs of certain specifications, shall be registered using the (R-CL) registration form in Appendix IV.

Where a commercial distributor applies for certification of equipment that requires registration under a class licence or station licence, the Authority may mandate that the distributor maintain a register of each person or entity to whom or to which such equipment is sold, as part of granting equipment certification.

5 Technical Considerations

5.1 Test Results

The Authority may require an applicant to submit any telecommunications equipment for testing and/or examination. The test results for equipment must be obtained from a recognised laboratory. The Authority shall maintain and publish references to lists of recognised laboratories on its website.

Test results may be included with the application. However, the equipment must be tested for compliance with the Authority's requirements (where published) and reference to such compliance must be included in the DoC submitted with the application. Other related test reports or results shall be provided in the supporting documentation.

5.2 Recognition of the Declaration of Conformity (DoC)

As stated earlier, a DoC is a document issued and signed by a manufacturer or supplier (wherever located) on the company's letterhead, confirming that its product complies with the regulations and technical specifications of the EU or other regulatory standardisation authorities that accept such documentation. The Authority will accept such documentation based on EU or other jurisdictions' recognised standards.

5.3 Alternatives to the Declaration of Conformity (DoC)

Where equipment has been approved in another country or region pursuant to technical requirements that are the same as those required in Trinidad and Tobago, then evidence of such equipment certification may be offered in place of a DoC. The evidence should be referenced in a covering letter that includes any of the information not explicit in the evidence itself, and which gives an undertaking to make the supporting documentation available to the Authority on request.

5.4 Supporting Documentation

The supporting documentation is the complete dossier of evidence that describes in detail the products concerned and the basis on which they are declared to meet the appropriate technical requirements for use in Trinidad and Tobago. It is necessary for the applicant to submit a copy of each supporting document with the application.

The format of the supporting documentation is flexible, to accommodate the needs of different product types. Each document should have some unique identification number or other identifier of its own, which is cross-referenced in the DoC. The supporting documentation must be kept available for inspection by the Authority for at least five years after the last product of the relevant type has been supplied to Trinidad and Tobago.

5.5 Equipment Manufactured Abroad and Modified in Trinidad and Tobago

Equipment manufactured abroad, which has already been certified on entry to Trinidad and Tobago, and subsequently modified locally will also be subject to the equipment certification process. In this scenario, the party performing the modification will be the applicant for equipment certification. In all cases, the supporting documentation should explain the modifications and reference test results on the modified product or explain why the test results on the unmodified product remain valid.

6 Additional Considerations

6.1 Inspections

Any person involved in the import, manufacture and supply of equipment is expected to be satisfied that such equipment complies with the relevant technical specifications, and that the documentation that accompanies it is authentic.

The Authority may perform inspections on telecommunications equipment at any time. Inspections may arise because of a complaint, a report of interference, visual inspection of products in a retail outlet, inappropriate advertising or simply by random selection. Where a check is inconclusive or unsatisfactory, additional information will be requested.

The Authority may request, as part of its due diligence, a sample of the product for testing at a suitably designated laboratory. The holder of the certification will, unless otherwise stated, be responsible for all laboratory charges incurred.

6.2 Product Changes

If a product change introduces any new functionality that can affect interconnection, network interoperability or requires the use of additional radio frequencies or changes in operating parameters, then a new application for certification shall be required.

Changes that may affect an existing network interface, or have a potential negative impact on safety, electromagnetic compatibility (EMC), or radio frequency emissions must be tested and assessed to the extent necessary to establish that ongoing compliance will be maintained. A record of the changes, relevant test results, the assessment of their impact and other relevant information must be maintained in the supporting documentation.

Changes that are minor, essentially “cosmetic”, are non-network affecting, or have no potential or actual effect on safety, EMC, or radio frequency emissions may be introduced, provided a record of the changes and the assessment of their impact is maintained in the supporting documentation.

If a change affects any of the information recorded in the registration for equipment certification or the DoC, a new DoC and an application for registration must be submitted to the Authority.

6.3 Regularisation of Equipment

Equipment certification is required when telecommunications and broadcasting equipment will be imported into Trinidad and Tobago and may be required for previously commercially distributed products, prior to the effective date of the revised Framework.

As future standards are developed and adopted, certification by the Authority will be required, in accordance with the procedures described in this document.

References

47 C.F.R. § 97.3. 2019. “Title 47: Telecommunication (Part 97 Amateur radio service).” *Electronic Code of Federal Regulations.* October. Accessed April 6, 2020. https://www.ecfr.gov/cgi-bin/text-idx?SID=66530d74ad797dc07b351e279a8a0795&mc=true&node=pt47.5.97&rgn=div5#se47.5.97_19.

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National Telecommunication Regulatory Commission St Vincent and the Grenadines. 2022. *NTRC Type Approval.* https://www.ntrc.vc/general/type-approvals/.

National Telecommunications Reguatory Commission. 2022. *NTRC Type Approval Procedures.* https://ntrc.gd/type-approval-procedures/.

Appendix I Sample of Certificate that Does Not Require a Licence

Ref no. 2/2/1/0000/0

Equipment Certification for Trinidad and Tobago

Name of Grantee:
Equipment Description:
Model Number:
Manufacturer:
Manufacturer Address:

Notes:
CL code:
[Certifying Agency] ID:

THIS IS TO CERTIFY that the above-mentioned equipment has been approved by the Telecommunications Authority of Trinidad and Tobago in accordance with the Telecommunications Act Chap. 47:31 and is valid only for the equipment identified above.

This Equipment Certification is granted under the following conditions:

1. The equipment is operated under the technical parameters specified.
2. No radio frequency interference is generated from said equipment to higher powered equipment.
3. Protection from radio frequency interference is not guaranteed.
4. Valid only for the period in which the CL code is identified in the "Schedule of Devices eligible for use under a Class Licence"

Authorised by _____ Date of Grant _____

Chief Executive Officer

Telecommunications Authority of Trinidad and Tobago
#5, Eighth Avenue Extension, off Twelfth Street, Barataria, Trinidad, West Indies
Telephone: (868) 675-8288 Fax: (868) 674-1055 Email: info@tatt.org.tt Website: www.tatt.org.tt

Appendix II Sample of Certificate that Requires a Licence

Ref No.: 2/2/1/0000/0

Equipment Certification for Trinidad and Tobago

Licence Required

Name of Grantee:
Equipment Description:
Model Number:
Manufacturer:
Manufacturer Address:

Notes:
[Certifying Agency] ID:

THIS IS TO CERTIFY that the above-mentioned equipment has been approved by the Telecommunications Authority of Trinidad and Tobago in accordance with the Telecommunications Act Chap. 47:31 and is valid only for the equipment identified above.

This Equipment Certification is granted under the following conditions:

1. The equipment is operated under the technical parameters specified.
2. No radio frequency interference is generated from said equipment to other licensed devices.
3. Certificate is valid unless revoked by the Telecommunications Authority of Trinidad and Tobago.

Any person who wishes to install, operate, or use the above-mentioned equipment must apply to the Telecommunications Authority of Trinidad and Tobago to obtain the necessary licence(s).

Authorised by _____
Chief Executive Officer

Date of Grant _____

Telecommunications Authority of Trinidad and Tobago
#5, Eighth Avenue Extension, off Twelfth Street, Barataria, Trinidad, West Indies
Telephone: (868) 675-8288 Fax: (868) 674-1055 Email: info@tatt.org.tt

Appendix III Sample Equipment Certification Application Form

Telecommunications Authority of
Trinidad and Tobago
#5 Eighth Avenue Ext.,
Off Twelfth Street
Barataria

Tel: (868) 675-8288
Fax: (868) 674- 1055
Email: info@tatt.org.tt
Website: www.tatt.org.tt

APPLICATION FOR EQUIPMENT CERTIFICATION

(FORM EC-01)

It is an offence under the Telecommunications Act, Chapter 47:31, to operate, use or install radio-transmitting equipment without a Licence from the Telecommunications Authority of Trinidad and Tobago.

Instructions:

1. All applicants must review the *Instructions, Guidelines and Explanatory Notes to apply for Equipment Certification* prior to completing this Form.
2. Individual applicants shall complete subsections A1, A2, B1, C1 and D1.
3. Organisations shall complete A1, A3, B1, C1 and D1.

4. The following supporting documents must be submitted with this Form:

    a. Evidence of Type Approval certification for the said equipment (e.g., FCC, IC, etc.).

    b. Copies of the manufacturer's technical specifications.

5. A separate application must be submitted for each make and model of equipment.

OFFICIAL USE ONLY

Radiocommunications licence required: Yes □ n/a □

If yes, type of licence: _____

Application made for licence: Yes □ No □ n/a □ Date application submitted: _____

Name of Officer (in block): _____

Signature: _____ Date: _____

A. APPLICANT INFORMATION

A1. Type of Applicant: Individual □ Organisation □

A2. Individual Applicant's Information

Name:

_____ _____ _____ _____

Title First Name Middle Name (optional) Last Name

Contact number: _____E-mail Address: _____

Address (residential):

Street 1: _____ Street 2: _____

Street 3: _____ Town/City: _____

Zip Code: _____ Country: _____

Mailing address (if different from above):

Street 1: _____ Street 2: _____

Street 3: _____ Town/City: _____

Zip code: _____ Country: _____

A3. Organisation Information (organisations only)

Contact name:

_____ _____ _____ _____

Title First Name Middle Name (optional) Last Name

Position: _____

Contact number: _____E-mail Address: _____

Registered name of organisation: _____

Registration No.: _____ Registration date: (dd/mm/yy): __ __/__ __/__ __

Registered address:

Street 1: _____ Street 2: _____

Town/City: _____ Zip code: _____

Mailing address (if different from above):

Street 1: _____ Street 2: _____

Town/City: _____ Zip Code: _____

B. SERVICE INFORMATION

B1. Provide a description of how the equipment will be utilised. (If additional space is required, please provide this information in a cover letter.)

C. EQUIPMENT DETAILS

Serial numbers must be submitted for all two-way radios including but not limited to PTT, MURs, CB and FRS?GMRS radios. Where the quantity exceeds 5 units of the same make and model, please submit a letter containing the serial numbers.

C1. Details of Application

Applicant name: _____

Name:

_____ _____ _____ _____

Title First Name Middle Name (optional) Last Name

Name of Grantee {name of manufacturer}: _____

Make (brand name): _____

Model number: _____Quantity: _____

Serial number: _____

Equipment description: _____

Acknowledged type approval {FCC I.D., IC, DOC, etc.}_____

Frequency range of operation: _____

Maximum transmitter output RF power (dbm/dbi): _____

D. DECLARATION AND SIGNATURE

I, the undersigned, do hereby declare on my own behalf and on behalf of the applicant that the information provided in this application is true and correct to the best of my knowledge, information and belief. I acknowledge and agree that submitting an application to the Telecommunications Authority of Trinidad and Tobago does not mean that a licence will be granted, and that consideration of this application is a matter for the exercise of the Authority's discretion acting in accordance with the Telecommunications Act, Chapter 47:31. I understand that in processing this application, the Authority may undertake such investigations as it considers appropriate to verify the information submitted and/or to assess the background or suitability of any person involved or to be involved in any permission or authorisation hereby applied for, and I hereby expressly consent for myself and on behalf of the applicant, to the carrying out by the Authority of such investigations. I confirm that I am duly authorised to make this declaration.

D1. Signature of individual applicant or person authorised on behalf of organisation:

Signature: _____ Date: _____

Appendix IV Sample Equipment Registration Form

Telecommunications Authority of
Trinidad and Tobago
#5, 8th Avenue Ext.
Off Twelfth Street,
Barataria

Tel: (868) 675-8288
Fax: (868) 674- 1055
Email: info@tatt.org.tt
Website: www.tatt.org.tt

REGISTRATION FORM FOR CLASS LICENCE DEVICES

Form R-CL

Instructions:

1. One (1) printed copy of this registration form must be completed and submitted.
2. Please write in BLOCK CAPITAL letters with the use of a pen.
3. Please refer to the Instructions sheet to help you complete this registration form.

A. GENERAL INFORMATION		
Registrant:		
Contact Information Name of Individual and Position:		
Mailing Address:		
Telephone:	Fax:	Email:

B. TRANSMITTER CHARACTERISTICS

	Base Station	**Station 1**	**Station 2**
Type of Class Licensed Device			
Manufacturer Make			
Manufacturer Model			
Serial Number (*Required for White Space Radiocommunications Devices only*)			
Frequency Range of Operation			

	Base Station	Station 1	Station 2
RF Output Power (Watts/dBm)			

C. ANTENNA CHARACTERISTICS

	Base Station	Station 1	Station 2
Manufacturer Make			
Manufacturer Model			
Antenna Gain (dB)			
Average Height above ground (m)			
Azimuth (degrees)			
Beam width (degrees)			
Polarization			
Coordinates (degrees, minutes, seconds)			
Physical Address (Location, Street, City/Town)			

D. DECLARATION AND SIGNATURE
I, the undersigned, do hereby declare that the information provided in this registration form is correct and accurate to the best of my knowledge. Registrant: …… Name of individual authorised to sign on behalf of company (Block Capitals): …… Title: …… Signature: …… Date: ……

Appendix V Equipment Certification Process

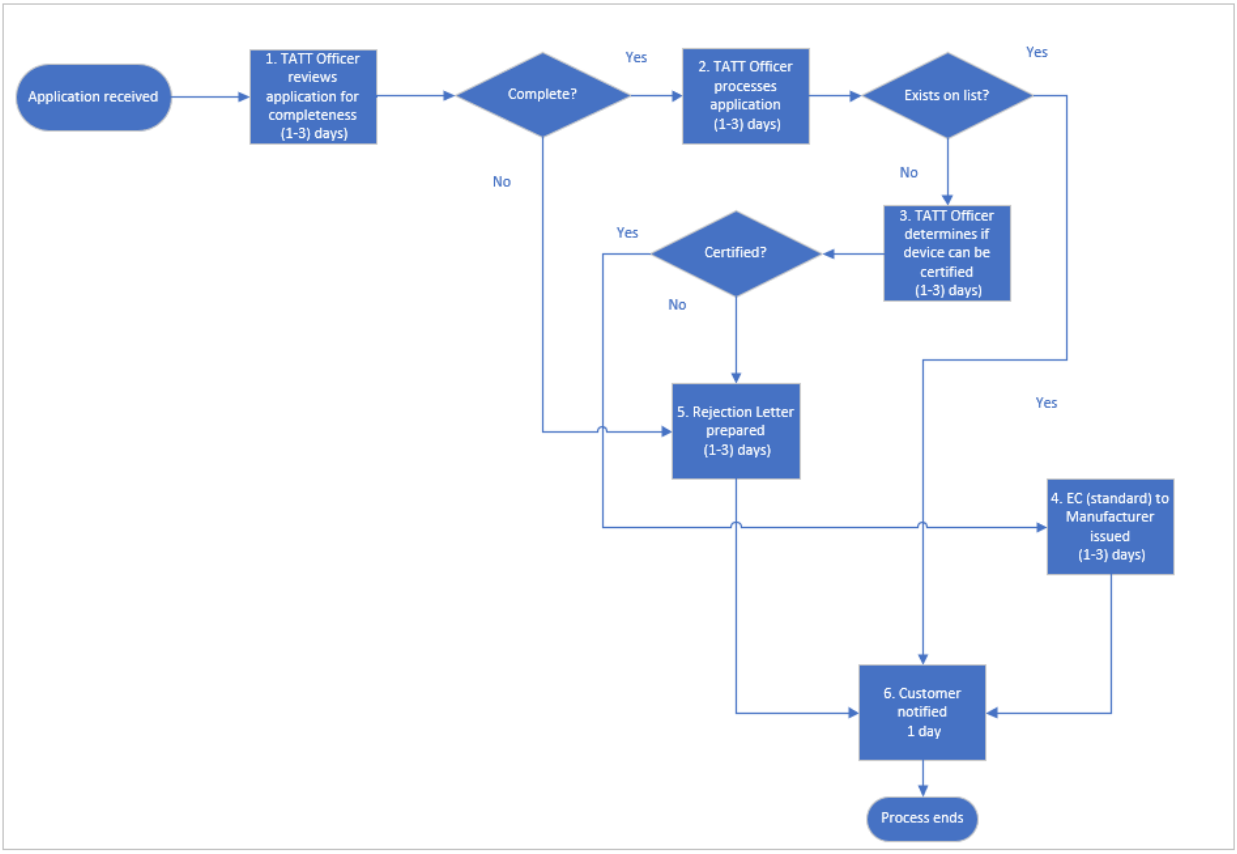

Figure 1 Equipment certification process map

Application Processing Procedures

Process Start: An application may be received via e-mail, walk-in, or mail.

Step 1: Once an application is received, it is checked for completeness and reviewed.

Step 2: Once the application is complete, processing begins. The check is made by the TATT Officer as to whether the device has previously been certified by TATT. The check is done via the Equipment Certification Registry. If the device is found on the Registry, the device has already been certified and applicant can be informed under Step 6.

Step 3: If the device does not exist on the Registry, it is reviewed to determine whether it can be certified for operation in Trinidad and Tobago.

Step 4. If the device can be certified for operation, an equipment certificate shall be prepared, and the applicant is notified under Step 6.

Step 5. If the device cannot be certified a rejection letter is prepared and the applicant is notified under Step 6.

Step 6. The applicant is notified of the outcome of the review of its application.

End of Process