Equipment Standardisation and Certification Framework for the Telecommunications and Broadcasting Sectors

Version 2.0

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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 them 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 new devices such as unmanned aerial systems (UASs), commonly known as drones, and modular devices, which could require equipment certification.

The Authority first published its *Equipment Standardisation and Certification Framework* in February 2008, and now updates the framework to reflect advancements in telecommunications technology, equipment and uses.

1.2 Purpose

The purpose of this document, *Equipment Standardisation and Certification Framework for the Telecommunications and Broadcasting Sectors* (the Framework), is to increase the effectiveness of the processes for equipment standardisation and certification for telecommunications and broadcasting, by updating these processes and their requirements, and by providing for key partnerships with local, regional and international stakeholders.

1.3 Objectives

This Framework aims to ensure:

1. compliance with the recommendations of the International Telecommunication Union (ITU) that specify standards for telecommunications equipment.

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

5. specification of the processes and procedures for obtaining equipment certification.

6. the processes to assess locally developed radio frequency (RF) devices for use in Trinidad and Tobago are defined.

7. there is awareness of, and adherence to, national, regional and international telecommunications standards by entities requiring equipment certification.

1.4 Scope of the Document

This Framework presents the Authority's approach to, and processes for, certifying radiocommunications, telecommunications and broadcasting equipment and other devices. It outlines the guidelines, forms and requirements for submissions by applicants for certification, including manufacturers, their representatives, and commercial distributors. The processes, guidelines and requirements are 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 amongst multiple users.

1.5 Review Cycle

This document will be revised every five years due to advances in technology and evolving local needs, and to meet changing circumstances, but it may be reviewed at any time at the discretion of the Authority, based on proposals for modification submitted by stakeholders or members of the public, or changes in international regulations. 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 consultation@tatt.org.tt.

1.6 Other Relevant Documents

The following documents, currently in effect, 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*
3. The *Trinidad and Tobago Frequency Allocation Table*
4. The *Class Licensing Regime*
5. The *Schedule of Devices Eligible for Use Under a Class Licence*

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

The *Class Licensing Regime* and the *Schedule of Devices Eligible for Use Under a Class Licence* will be updated upon the approval of this Framework.

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

Approved devices: are devices that have been certified for use in Trinidad and Tobago and include class licensed devices

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

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: a regulatory provision that 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: a regulatory provision that 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: a regulatory provision that 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 following the submission of the relevant registration form (R-CL)

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 –

(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.

Section (51)(1):

Notwithstanding section 50, an inspector shall not exercise the powers vested in him under that section except upon warrant of a Magistrate issued to him for the purpose and, in the execution of the warrant, the inspector shall be accompanied by a police officer.

In addition to compliance with the 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. Designated power to prescribe, or otherwise identify, technical standards or specifications for types of telecommunications equipment

2. Designated 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 malfunctioning 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, where equipment must comply with FCC standards and be tested by FCC accredited/certified laboratories before the equipment can go to market. Accredited laboratories in Brazil and the USA can be viable 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 Brazil and the USA.

In the EU, a different approach has been adopted, where EU standardisation bodies such as CE set 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.

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 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 ensure national security and safety, the Authority, through this Framework, shall develop strategic partnerships with other agencies, such as the Customs and Excise Division and the Trinidad and Tobago Civil Aviation Authority (TTCAA), who have oversight over such areas as the importation of equipment, authorisation of airborne systems, and ensuring adherence to safety guidelines. These agencies may also require the registration of certain devices where safety concerns arise.

Equipment Standardisation and Certification Framework Policy Statement

1. *The Authority will seek to develop strategic partnerships with other relevant agencies, such as the Customs and Excise Division and, the Trinidad and Tobago Civil Aviation Authority in order to develop a collaborative approach to ensuring that only certified equipment is used locally.*

3.2 Locally Developed Devices

Products that are developed locally 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 are keen to have them certified by the Authority. However, the cost of testing a new device for conformance at foreign labs is high,

thousands of US dollars per device, depending on the type and number of tests needed and the standards used.

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, can be a hindrance to the development of a local RF device industry in Trinidad and Tobago.

The Authority will use a regulatory sandbox approach to treat with 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. The Authority may establish general terms and conditions, along with relevant procedures, in consultation with the industry, to govern the regulatory sandbox approach.

Accreditation standards and tests to be used will, in the first instance, be those of the FCC. This is 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 evaluate whether to develop equipment certification testing expertise and some testing facilities over the medium term, where viable, with the assistance of foreign agencies, including ITU. This will enable pre-compliance testing of equipment prior to shipping to an accredited laboratory for testing.

Equipment Standardisation and Certification Framework Policy Statements

2. *Equipment developed locally will require certification by the Authority.*

3. *The Authority will use a regulatory sandbox approach to treat with locally developed low-powered RF devices and may establish in consultation with industry and publish general terms and conditions, along with relevant procedures, to govern the approach.*

4. *The Authority will also evaluate the feasibility of developing equipment certification testing expertise and some testing facilities over the medium term.*

3.3 Volume of Equipment Certification Applications

In recent years, the Authority has seen an almost three-fold increase in the number of equipment certification applications received per year, comprising both local and foreign applicants. In Trinidad and Tobago, the average annual volume for certificates increased from 331 in the period 2008 to 2012, to 514 in the period 2013 to 2017, and to 561 in the period 2018 to 2022, with 717 processed in the financial period October 2021 to September 2022.

Notably, jurisdictions such as Grenada, Jamaica and St Vincent and the Grenadines are levying application fees for the processing of equipment certificates. Based on the considerable resources required to process applications for equipment certification, the implementation of a charge for certification is reasonable. This will ensure the cost of these activities is not unfairly borne by concessionaires and licensees not involved in the certification of equipment.

Table 1 shows a list of the application fees levied by six neighbouring countries for equipment certification. Local fees are applied to nationals seeking certification of equipment for personal use or resale, while international fees are applicable to manufacturers and certifying agencies seeking confirmation that their devices can be used within the target country.

Table 1 Processing fees charged by other jurisdictions for equipment certification

Country	Local Fee	International Fee
Jamaica	US$350.00	US$350.00
St Vincent and the Grenadines	EC$100.00 (US$38.00)	EC$117 (US$43.00)
Grenada	EC$500.00 (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

These charges are being introduced because current surpluses only arise from licence and concession fees, and they should not be asked to subsidise this additional service. Cost savings to licensees and concessionaires can be achieved through levying this charge.

To address the growing number of applications and the resources required to facilitate the applications for equipment certification, the Authority will introduce charges for processing, to cover its costs of generating and issuing the certificates.

Equipment Standardisation and Certification Framework Policy Statement

5. *The Authority will introduce charges for processing equipment certification applications.*

3.4 Unmanned Aerial Systems (UASs)

A new category of equipment, which uses 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 and privacy. These UASs also fall under the ambit of the TTCAA.

As part of its equipment certification, the Authority will establish a register of users and their devices for certain UASs, as advised by the TTCAA. The radios used by these devices typically fall within the Class Licensing Framework and do not require individual licences.

Equipment Standardisation and Certification Framework Policy Statement

6. *The Authority will establish a register of users and their devices for certain UASs, as advised by the TTCAA.*

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 is a Wi-Fi module in a printer or stove. The Authority receives numerous applications each year, for various types of modules, from manufacturers and their authorised 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.

Equipment Standardisation and Certification Framework Policy Statement

7. The Authority will process applications for the equipment certification of RF modules or sub-assemblies where applicable, for embedding within devices.

3.6 Time Limits

The Authority initially considered that imposing time limits on equipment certificates was not necessary. However, due to changes in operating parameters, certified equipment will now require recertification after the term of a previously certified device has expired. Recertification will help ensure that the certification provided remains relevant to the operation of the devices. Other jurisdictions do impose time limits on certification. For equipment where the parameters are unchanged at expiration, the Authority will endeavour to process recertification in an expeditious manner.

The Authority will introduce a term of five years for a valid equipment certificate, where charges for recertification will apply.

Equipment Standardisation and Certification Framework Policy Statement

8. The Authority will introduce a term of five years for a valid equipment certificate, with recertification processed expeditiously where the operating parameters of the devices remain unchanged.

3.7 Change in Ownership

The Authority has received requests from various foreign entities and manufacturers for new certificates due to mergers and acquisitions affecting the 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 presented. Charges for reissued certificates will apply as if a new certificate is being issued.

Equipment Standardisation and Certification Framework Policy Statement

9. The Authority will facilitate name changes on equipment certificates.

3.8 Receive-Only RF Devices

The Authority has not been issuing equipment certificates for receive-only RF devices like 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 the adoption of broadcasting standards in 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, except where such devices operate in frequency bands utilised by public safety agencies. Such devices, if authorised, may be subject to registration.

Equipment Standardisation and Certification Framework Policy Statement

10. The Authority will not typically require applications for equipment certification of receive-only RF devices. However, where such devices operate in RF frequency bands utilised by public safety agencies, such devices if authorised may be subject to registration.

3.9 Wired Devices

The Authority has not been issuing equipment certificates for wired 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 caused on fixed telecommunications networks.

Equipment Standardisation and Certification Framework Policy Statement

11. The Authority will not typically require applications for equipment certification for wired equipment unless reports of unauthorised use arise.

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 Family Radio Service/General Mobile Radio Service (FRS/GMRS) devices. The Authority has sought to establish a clear process for the issuance of appropriate equipment certificates (see Appendices I and II). Details of this process can be found in Appendix III. The guidelines below will ensure the process is effective, for an acceptable customer experience.

4.1 National Approach to Equipment Standardisation and Certification

Given the large number of telecommunications equipment standards currently in force or being developed internationally, 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. Therefore, the Authority will place emphasis on standards to address imported equipment.

It is recognised that the country 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 will 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.

In exercising its powers and performing its duties under the Act, the Authority will adopt policies and methods of setting standards for 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.

4.2 Equipment Requiring Certification

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

Equipment Standardisation and Certification Framework Policy Statement

12. The Authority reserves the right to decline any application for equipment certification that does not meet the criteria of any of its polices, frameworks or spectrum plans.

4.3 Applicant Eligibility for Equipment Certification

The application for certification may be made by the manufacturer of the equipment, its authorised representative for acquiring certification, or the authorised distributor for its equipment. The applicant can be a citizen of Trinidad and Tobago, a company incorporated in Trinidad and Tobago, a foreigner, or an overseas corporation.

Equipment Standardisation and Certification Framework Policy Statement

13. An application for certification may be made by the manufacturer of the equipment, its authorised representative for acquiring certification, or the authorised distributor for its equipment.

4.4 Application Procedure for Equipment Certification

Applicants must complete the appropriate EC-01 form in English (see Appendix IV), which can also be found on the Authority's website (www.tatt.org.tt) and submit it either in hard copy or online. Equipment manufacturers or their authorised agents will be required to complete an

agreement provided by the Authority for the certification of their devices for use in Trinidad and Tobago. Payments for applications can be made at the offices of the Authority, by bank transfer or online.

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

The application form must be accompanied by an approved certificate from a recognised equipment certifying and testing body. The Authority shall recognise FCC and CE standards and certification results in its consideration. A DoC, along with approved test results prepared by a recognised laboratory, shall also be accepted. The Authority may recognise certification results from laboratories suitably accredited by a member of the International Laboratory Accreditation Cooperation (ILAC) Mutual Recognition Arrangement (MRA). References to available lists of accepted certifying bodies and testing laboratories can be found on the Authority's website.

Applicants must submit all information requested in the application procedure and any other information the Authority requires. An application that is deemed complete will be processed within 30 days of its receipt by the Authority. Applications will be processed on a first-come, first-served basis. Applications that remain incomplete by the applicant beyond one month of submission may be rejected. Where certification of a complete application 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.

Equipment Standardisation and Certification Framework Policy Statements

14. Applicants must complete the appropriate EC-01 application form in English in hardcopy or online.

15. An application that is deemed complete will be processed within 30 days of its receipt by the Authority.

16. All certified equipment will form part of a regularly updated equipment certification registry which shall be published on the Authority's website.

4.5 Technical Requirements

The Authority shall publish the technical specifications with which various types of equipment must comply. In the absence of a relevant technical 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, in accordance with section 48(1) of the Act, that the equipment:

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

2. be electromagnetically compatible with other equipment to which it will be connected 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.

6. operate under the approved conditions and parameters defined by the manufacturers and specified by applicable authorities.

Equipment Standardisation and Certification Framework Policy Statement

17. The Authority will publish the technical specifications with which various types of equipment must comply.

4.6 Registration of Particular Equipment

All Type 2 and 3 devices, as well as those Type 1 devices, as defined under the Class Licensing Regime, that have been identified for registration, such as push-to-talk (PTT) and UASs of certain specifications, shall be registered using the (R-CL) registration form in Appendix V. The class-licensed devices that are required to be registered shall be published on the Authority's website.

Where a commercial distributor applies for the certification of equipment that requires registration under a class licence or station licence for purposes of public safety, the Authority may require, under section 48 of the Act, that the distributor notify the Authority of each person or entity to whom or to which such equipment is sold, as part of the certifying process. This information may

include the name and contact information of the user and shall be submitted to the Authority within three months of being obtained. The distributor shall not retain any information not required as part of its commercial activities once submitted to the Authority. The distributor shall also inform the entity purchasing the equipment of its responsibilities regarding the proper use, including the location where the equipment may be used. Where the purchaser wishes to resell or no longer use the equipment, the purchaser will be required to notify the Authority accordingly.

Equipment Standardisation and Certification Framework Policy Statement

18. All Type 2 and 3 devices, as well as those Type 1 devices defined under the Class Licensing Regime that have been identified for registration, shall be registered using the (R-CL) registration form.

4.7 Cost of Equipment Certification

For manufacturers seeking equipment certification of wireless devices for sale and distribution within Trinidad and Tobago, the Authority will charge those manufacturers and their authorised representatives for certification services, to recover the cost of providing such services, as permitted under section 52 of the Act.

4.8 Cancellation of an Approved Equipment Certificate

The Authority reserves the right to cancel a certificate 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 is modified or subsequently develops operational or safety problems. Certificates remain valid until cancelled by the Authority or until the term expires. The Authority will give its reasons for any cancellation or de-certification.

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19. The Authority reserves the right to cancel a certificate at any time where it has reason to believe, that the relevant regulations and technical requirements have not been observed. The Authority will give reasons for any such cancellation or de-certification.

5 Technical Considerations

The Authority shall maintain a requirement and procedures for certifying that the technical characteristics of telecommunications equipment comply with its published specifications.

5.1 Test Results

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

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.

Equipment Standardisation and Certification Framework Policy Statement

20. The Authority may require an applicant to submit any telecommunications equipment for testing and/or examination by a recognised laboratory.

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 standardisation.

Equipment Standardisation and Certification Framework Policy Statement

21. The Authority will accept the EU Declaration of Conformity

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 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.

Equipment Standardisation and Certification Framework Policy Statement

22. The Authority will recognise alternatives to the 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.

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 as meeting 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.

Equipment Standardisation and Certification Framework Policy Statement

23.The applicant will submit a copy of each supporting document with the application. The supporting documentation is the complete dossier of the evidence that describes in detail the products concerned.

5.5 Equipment Manufactured Abroad and Modified in Trinidad and Tobago

Equipment manufactured abroad, which was already certified on entry into Trinidad and Tobago but subsequently modified locally, will also be subject to the equipment certification process. In this scenario, the party that did the modification will be the applicant for the certification. In all cases, the supporting documentation should explain the modifications and reference the test results on the modified product or explain why the test results on the unmodified product remain valid. Modifications include changes in hardware, software or firmware, or configurations specified by the manufacturer.

Equipment Standardisation and Certification Framework Policy Statement

24. Equipment manufactured abroad, which was already certified on entry into Trinidad and Tobago but subsequently modified locally, will also be subject to the equipment certification process.

6 Additional Considerations

6.1 Inspections

Any person involved in the importation, manufacturing or supply of equipment must ensure 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, in accordance with section 51 of the Act. Inspections may arise because of a complaint, a report of interference, concerns of unauthorised use, visual inspection of products in a retail outlet, inappropriate advertising, or by random selection as part of the Authority's regular compliance and conformance monitoring activities. 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 certificate will be responsible for all laboratory charges incurred, unless otherwise stated. The Authority will not typically require the certificate holder to conduct more than one laboratory test annually for a specified device unless necessary.

Equipment Standardisation and Certification Framework Policy Statement

25. The Authority may inspect telecommunications equipment at any time, in accordance with section 51 of the Act.

6.2 Product Changes

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

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

Changes that are minor, essentially "cosmetic", do not affect the network, or have no potential or actual effect on safety, EMC, or radio frequency emissions may be introduced, provided that these changes and the assessment of their impact are recorded in the supporting documentation.

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

Equipment Standardisation and Certification Framework Policy Statement

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

6.3 Regularisation of Equipment

Equipment certification is required when telecommunications and broadcasting equipment will be imported into Trinidad and Tobago. It may also be required for products previously distributed commercially that were not certified prior to the effective date of the revised Framework, by the manufacturer or its authorised representative.

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

Equipment Standardisation and Certification Framework Policy Statement

27. Equipment certification shall be required when telecommunications and broadcasting equipment is imported into Trinidad and Tobago. It may also be required for products previously distributed commercially that were not certified prior to the effective date of the revised Framework.

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.

FCC. n.d. *Equipment Authorization.* Accessed 2022. https://www.fcc.gov/engineering-technology/laboratory-division/general/equipment-authorization.

Government of Jamaica Spectrum Management Authority. 2022. *Spectrum Management Authority Type Approval Procedure.* https://www.sma.gov.jm/approved-equipment/.

ITU. 2016. “Radio Regulations (Articles).” Regulations.

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 a 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 the certificate 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. This certificate is valid for 5 years.

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 Website: www.tatt.org.tt

Appendix II Sample of a 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 the certificate 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. This certificate is valid for 5 years.

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

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

Appendix III Equipment Certification Process

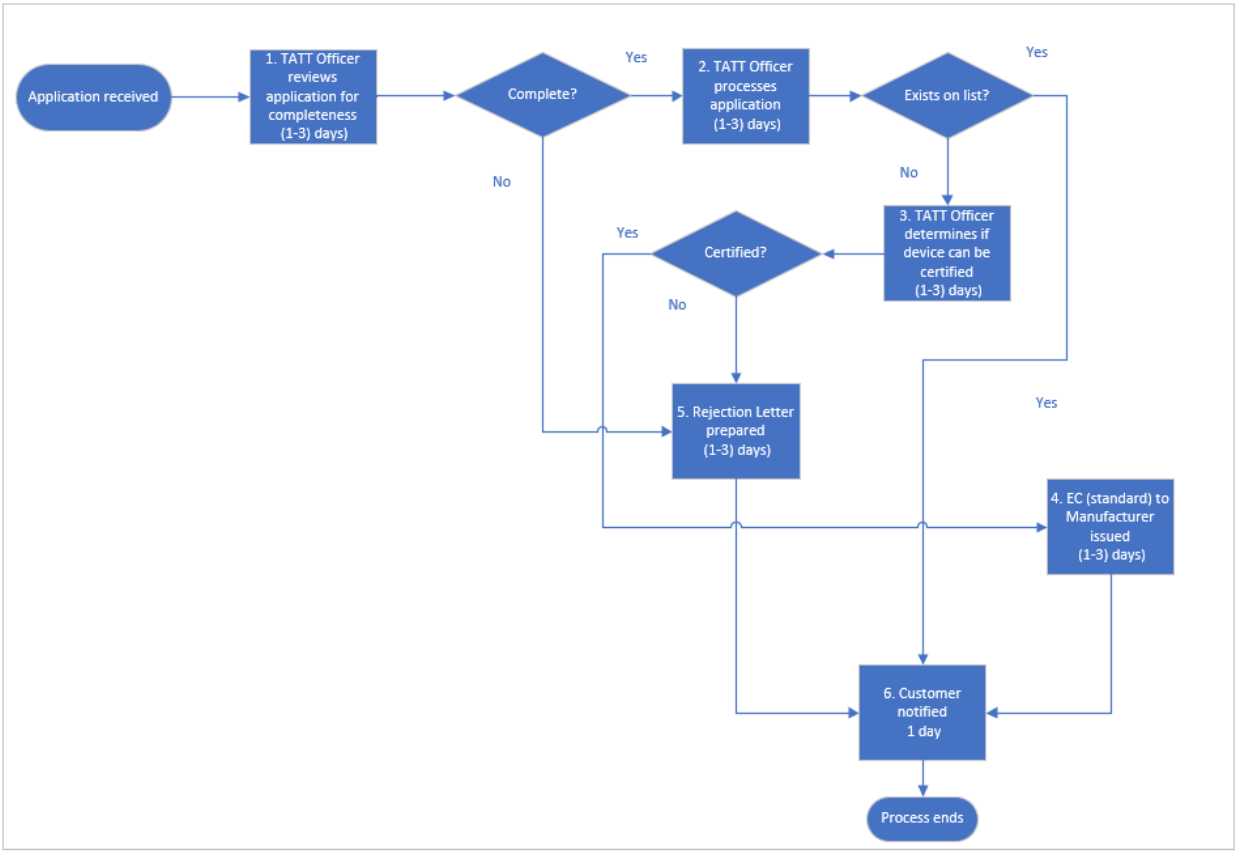

Figure 1 Equipment certification process map

Application Processing Procedures

Start of Process: An application may be submitted via email, in person, or by post.

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

Step 2: Once the application is complete, processing begins. A TATT officer checks the Authority's Equipment Certification Registry to see if the device was previously certified by TATT. If the device is found on the Registry, it has already been certified and the applicant can be informed.

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.

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

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

End of Process

Appendix IV Sample of 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 V Sample of 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. Write in BLOCK CAPITAL letters if done by hand.
3. Refer to the Guideline Sheet to help you complete this registration form.
4. Attach a copy of one (1) form of national identification (Drivers Permit, National ID or Passport).

A. REGISTRANT INFORMATION		
Registrant:		
Contact Information Name of Individual and Position:		
Mailing Address:		
Telephone:	Cell:	Email:
Identification Number:	Identification Type: Drivers Permit [ ] National ID [ ] Passport [ ]	

B. DEVICE INFORMATION
Device Manufacturer/Make:
Device Model:
Serial Number(s):

C. DESCRIPTION OF HOW THE DEVICE WILL BE USED

D. OPERATING PARAMETERS			
Parameter	**Base Station**	**Station 1**	**Station 2**
Frequency Range of Operation			
RF Output Power (dBm)			
Antenna Manufacturer/Make			
Antenna Model			
Antenna Gain (dB)			
Antenna Height above ground (m)			
Azimuth (degrees)			
Beam width (degrees) (V/H)			
Polarization			
Geographic Coordinates (degrees, minutes, seconds WGS 84)			
Physical Address (Location, Street, City/Town)			

E. 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: .....