



Equipment Standardisation and Certification Framework for the Telecommunications and Broadcasting Sectors of Trinidad and Tobago

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1 Introduction

As the Government of Trinidad & Tobago continues in its drive to liberalise the telecommunications sector, it is important that a proper Equipment Standardisation and Certification Framework be established to facilitate both the transition to and maintenance of a market driven sector. The Government established the **Telecommunications Authority of Trinidad and Tobago** ('the Authority') under the *Telecommunications Act 2001*, as amended (hereafter called 'The Act'), as the independent regulatory body for the telecommunications and broadcasting sectors. The Act was fully promulgated on July 1st 2004.

The Act clearly provides for the exercise of technical standards setting and equipment certification functions by the Authority, including the recognition and/or adoption of international standards. The Act also clearly establishes both the power and obligation of the Minister to introduce regulations regarding radio transmission and terminal equipment approvals and certification.

1.1 Objectives

The purpose of this framework is to establish a mechanism under which the Authority can, in collaboration with the Trinidad and Tobago Bureau of Standards (TTBS) and other local, regional and international agencies, develop and/or adopt appropriate technical standards for telecommunications and broadcasting equipment for use in Trinidad and Tobago.

In doing so, the Authority will promote awareness and adherence to national, regional and international telecommunications standards, and the effective development of applicable telecommunication standards and certification capabilities.

1.2 Modification to Document

As the country's telecommunications industry matures, the equipment standardisation and certification framework will evolve. The framework will be reviewed and modified as necessary, and in consultation with stakeholders and the public, to keep pace with technology trends.

1.3 Other Relevant Documents

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

- The *Telecommunications Act 2001*, as amended
- Authorisation Framework for the Telecommunications and Broadcasting Sectors of Trinidad and Tobago
- Recommendations for a Spectrum Management Policy
- Recommendations for Radio Spectrum Regulations
- The Standards Act of 1997

2 Relevant Legislative Framework

Prior to the promulgation of the Act, the regulatory framework for the telecommunications sector was guided by the **Wireless Telegraphy Ordinance 1936** (hereinafter referred to as the ‘WTO’) and the **Telephone Act 1968**.

Under the WTO, there were no special provisions made for the standardisation and certification of telecommunications equipment to be used in Trinidad and Tobago. Special consideration was, however, given to the operation of radio-frequency (“RF”) equipment and the prevention of radio interference by the harmonious use of RF spectrum resources.

Given the proliferation of mass market wireless devices including mobile phones, citizen band radios, Family Radio Services or General radio Mobile Services (FRS/GMRS) devices (both low and high power) locally, the need still exists (and will continue to exist) for the planned and careful utilisation of available RF spectrum for telecommunication services. Hence the standardisation and certification of such RF devices will continue to be a priority.

The following provisions of the Act are particularly relevant to standards setting and equipment certification:

- Section 18 (1) (d), which identifies establishing national telecommunications industry standards and technical standards as among the functions and powers which the Authority may exercise;
- Section 18 (1) (o), which identifies testing and certification of telecommunications equipment as among functions that the Authority may exercise;
- Section 32, which permits the attachment of terminal equipment to a public telecommunications network subject to that equipment being certified by the Authority as being safe for users and in compliance with applicable standards;

- Section 45, which permits concessionaires and licensees to implement other internationally, accepted technical standards;
- Section 48 (3), which permits the Authority to forego equipment testing if satisfied that the equipment has been certified in accordance with international standards;
- Section 71, which establishes the general offence of failure to comply with the Act or regulations made under it; and
- Section 78 (1) (d), which identifies regulations regarding terminal equipment approvals and certification as among the regulations to be made by the Minister on the recommendation of the Authority.

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*. Hence there is some overlap of the functions of the Authority and the Trinidad and Tobago Bureau of Standards (TTBS) with regard to standardisation and certification of telecommunications equipment.¹

¹ The TTBS has compliance and enforcement powers, which have been utilised in the past, for example, the confiscation (from store shelves) of Christmas lights that are not Underwriters Laboratories (UL) listed.

3 Global Perspective on Equipment Standardisation and Certification

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

- (a) the power to prescribe, or otherwise identify, technical standards or specifications for particular types of telecommunications equipment;
- (b) the power to establish, or otherwise identify, authorised testing laboratories and certification bodies;
- (c) identified procedures for equipment certification or similar approvals, or for demonstrating other conformity to standards and requirements;
- (d) as an alternative to establishing domestic certification programs, the recognition of equipment certification by other countries or authorities; and
- (e) the maintenance of one or more registries identifying certified equipment and applicable certification criteria and standards.

Ultimately the purpose of standards and certification schemes is to ensure 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.

4 TATT's 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:

- publishing criteria for certification and establishing standards for approval of telecommunications equipment;
- identifying domestic or foreign organizations or testing facilities for approval of telecommunications equipment;
- maintaining a register of approved types of telecommunications equipment, criteria for certification and standards for approval; and
- entering into agreements with standards and/or certification bodies or regulatory agencies in the country, region or internationally to provide for mutual recognition, certification and approval of telecommunication equipment.

Given the huge 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 and countries, the Authority's approach to telecommunications equipment standardisation 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. As such, one of the driving forces for equipment standardisation (research and development) is notably absent. Hence it is envisaged that standards development and/or adoption would be more driven by user needs in the areas of (but not limited to) safety and public health, frequency assignments and radio frequency power allocations, and telecommunications networks and interoperability requirements. These factors will, at least initially, drive the Authority's efforts in standards development.

Statements on the Authority's Approach to Equipment Standardisation and Certification

- 1. The Authority will, as an interim measure, adopt internationally recognised standards as national telecommunications and broadcasting standards until such time as standards are developed in Trinidad and Tobago. National standards will be published and maintained on the Authority's website and may be modified as the Authority deems appropriate from time to time.*
- 2. The Authority will collaborate with the TTBS and any other relevant (local, regional or international) agencies from the public and private sectors in the development and maintenance of national telecommunications industry and technical standards.*
- 3. The Authority will establish criteria and procedures for equipment certification and similar approvals. These procedures will be published and maintained on the Authority's website and may be modified as the Authority deems appropriate from time to time. The Authority's initial statement of criteria and procedures is set out in the remaining parts of this consultation document.*
- 4. The Authority may also request the TTBS, Cariri or any other recognised agency to perform metrology and calibration functions on its behalf for the purposes of certifying telecommunications equipment in accordance with adopted standards.*
- 5. The Authority will establish and maintain a register of certified equipment and the associated manufacturers that are approved for use in Trinidad and Tobago. This register will be published and maintained on the Authority's website and may be modified as the Authority deems appropriate from time to time.*
- 6. The Authority will establish and maintain a register of preferred / recognized equipment testing laboratories. This register will be published and maintained on the*

Authority's website and may be modified as the Authority deems appropriate from time to time.

5 Equipment Certification Guide

5.1 Introduction

This section outlines the Authority's procedures for certifying telecommunications equipment.

5.2 What equipment must be certified?

In general, all terminal equipment (as defined by the Act) or other equipment to be installed or used for a public telecommunications network or telecommunications service or broadcasting service must be certified by the Authority.

Registration procedures shall be specified by the Authority, and must be complied with for the equipment certification to apply. The Authority reserves the right to decline any application for certification.

5.3 Who can apply for equipment certification?

The manufacturer, importer or commercial distributor/vendor of equipment for sale or hire in Trinidad and Tobago must apply for equipment certification with the Authority unless the equipment concerned has been previously certified and entered in the Authority's register of certified equipment.

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

5.4 How to apply for certification

An application to certify equipment must be made on the official application form published by the Authority. Application forms must be submitted in English. Normally, one application is necessary for each piece of equipment. However, one application may cover a range of related products provided that the application details the differences and the compliance of all of them is justified on the basis of the supporting documentation.

Separate applications should be made for equipment models supplied under different brand names. The brand names will be separately listed in the register of certified equipment maintained by the Authority.

The application must be accompanied by a Declaration of Conformity, along with approved test results by a recognised laboratory. The present form of Declaration of Conformity is attached as Appendix 1 to this document. The applicant must submit all information identified in the application procedures and any other information requested by the Authority.

An application that is complete and in order will normally be processed within ninety days of its receipt by the Authority. Applications that are incomplete may be rejected. Where an application is complete, but certification is rejected, the Authority will give reasons for the rejection.

Successful certification of equipment will result in a corresponding entry in the register of equipment certifications maintained by the Authority and open to inspection by the public.

5.5 Cancellation of Certification

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. The Authority will give reasons for any cancellation or de-certification.

5.6 Technical Requirements

The Authority shall publish technical specifications with which identified types of equipment must comply. In the absence of a relevant specification, the Authority may specify technical requirements on a case-by-case basis. In any event, before a certification is granted by the Authority, it is required that the equipment:

- (a) be electrically safe for users, subscribers and the employees of the telecommunications system operators and the public;

- (b) be electromagnetically compatible with other equipment to which it will be connected to and/or with which it will be used;
- (c) be fitted with a device which will protect the telecommunication system of which it is a part or to which it is connected against electrical, electromagnetic or other damage;
- (d) makes efficient use of the RF spectrum where applicable; and
- (e) be capable of inter-working with other telecommunication equipment for the purposes of telecommunications.

5.7 Test Results

The Authority may require any person to submit any telecommunications equipment for testing and/or examination.

Test results for equipment must be obtained from a recognised laboratory.

The Authority shall maintain and publish a list of recognised / preferred laboratories on the web-site. The list will also be provided on request.

Test results should 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 Declaration of Conformity submitted with the application.

Test reports and any other test results must be retained in the supporting documentation.

5.8 Declaration of Conformity (DoC)

The DoC is a document drawn up by the manufacturer or supplier (wherever located) on company letterhead or stationery and signed by them confirming that the product complies with the regulations and technical specifications that apply in Trinidad and Tobago. The applicant must satisfy himself that the DoC is authentic and applies to the equipment he wishes to supply in Trinidad and Tobago.

The proposed form of Declaration of Conformity is attached as Appendix 1 to this consultative document.

5.9 Alternative to Declaration of Conformity

Where equipment has been approved in another country or region 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 which is not explicit in the evidence itself and which gives an undertaking to make the supporting documentation available to the Authority on request.

5.10 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 Trinidad and Tobago. It is necessary for the applicant to have a copy of this supporting documentation and for a copy to be supplied with the application.

The format of the supporting documentation is flexible to accommodate the needs of different product types. It should have some unique identification number or other identifier of its own which is cross-referenced from the DoC.

The supporting documentation must be kept available for inspection by the Authority for at least 5 years after the last product of the relevant type has been supplied to Trinidad and Tobago.

5.11 What about equipment manufactured abroad and modified locally in Trinidad and Tobago?

Equipment manufactured abroad and modified locally in Trinidad and Tobago will also be subject to the certification process. Typically, 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.

5.12 Inspection

Any person involved in the import, manufacture and supply of equipment is expected to satisfy himself that the equipment in which he deals complies with the relevant technical specifications and that the documentation that accompanies it is authentic.

The Authority may perform inspections and checks on telecommunications equipment at any time as a result 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 and the provision of sample products for test at a laboratory nominated by the Authority may be required. The holder of the certification will, unless otherwise stated, be responsible for all laboratory charges incurred.

5.13 Changes

If a product change introduces significant new functionality that can have an effect on interconnection or network interoperability or requires the use of additional radio frequencies, then a new application for certification must be made.

Changes that may affect an existing network interface or have an effect 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 or that are non-network affecting or that 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 Declaration of Conformity, then a new Registration for Equipment Certification and / or Declaration of Conformity must also be submitted to the Authority.

5.14 Transitional Arrangements

Telecommunications equipment imported into Trinidad and Tobago or previously commercially distributed prior to the effective date of the new scheme will be required to be certified at the discretion of the Authority in accordance with the procedures described in this document, and as standards are adopted and/or developed by the Authority.

5.15 Contact Details

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Email: info@tatt.org.tt

APPENDIX 1 – Specimen Declaration of Conformity

Reference:	
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I / We _____
(name of manufacturer/supplier)

Of _____

_____ *(address including postcode)*

declare under my/our sole responsibility that the product(s)

_____ *(product description including brand name, type or model and any supplementary information such as lot, batch or serial number identification)*

to which this declaration relates, is/are in conformity with the TATT Procedures for Registration of Terminal Equipment & Radio Equipment for Equipment certification and the following national specifications.

and that I have examined the technical basis for this declaration which is based on test reports and /or certificates issued by

Supporting documentation relevant to this declaration has been compiled under the reference number given above and will be made available to TATT on request.

Signature _____
(for and on behalf of manufacturer/supplier)

Date: _____

NOTE: For information on how to complete this declaration and prepare the supporting documentation, please refer to the corresponding section of the TATT Guide to Registration for Equipment Certification.

References

- [1] International Telecommunications Union <http://www.itu.int/osg/spu/ni/spectrum>
- [2] Procedures for Public Consultations – Telecommunications Authority of Trinidad and Tobago <http://www.tatt.org.tt>
- [3] Telecommunications Act 2001 and Telecommunications Amendment Act of 2004 <http://www.ttparliament.org/>
- [4] The Standards Act of 1997 <http://www.ttparliament.org/>

