



PROICT: STRENGTHENING THE CORE CAPABILITIES OF THE LIBERIAN TELECOMMUNICATIONS AUTHORITY (LTA)

NETWORK TYPE APPROVAL REGULATIONS REPORT AND RECOMMENDATIONS (DRAFT)

May 2021

This publication is made possible by the support of the American People through the United States Agency for International Development (USAID) and was prepared by Integra Government Services International LLC in partnership with Atlantic TM for the Digital Frontiers Project.

ProICT: Strengthening the Core Capabilities of the Liberian Telecommunications Authority (LTA)

Network Type Approval Regulations Report and Recommendations

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ACRONYMS

ACT	Telecommunications Act 2007
ARICEA	Association of Regulators of Information and Communications for Eastern and Southern Africa
ASA	Australian Safety Approval
ATU	African Telecommunications Union
DoC	Declaration of Conformity
EMC	Electromagnetic compatibility
EMR	Electromagnetic radiation
ETSI	European Standard Organization
FCC	Federal Communications Commission (USA)
ICT	Information and Communications Technology
ITU	International Telecommunication Union
LRA	Liberia Revenue Authority
LTA	Liberian Telecommunication Authority
MRA	Mutual Recognition Arrangement
ProICT	Promoting American Approaches to Information and Communications Technology Policy and Regulation
USAID	United States Agency for International Development
WTO TBT	World Trade Organization Technical Barriers to Trade

DEFINITIONS

For the purpose of this report:

“Authorized Importer” means a person in Liberia that is authorized by the LTA to import radio communications equipment for marketing/commercial purposes in line with the Applicable Regulatory Framework into Liberia.

“Controlled Customer Equipment” (CCE) means any customer equipment which is located at the customer premises and that connects to the customer network or to a facility.

“Customer Equipment” (CE) means any equipment or system that is connected to a facility and is used, installed ready for use, or intended only for use on the retail customer side of the network boundary.

“Dealer’s License” means the license issued by the LTA to dealers of radio communications equipment (i.e., importers, wholesalers, and retailers).

“Declaration” means all information presented to the LTA will be treated as confidential and will not be disclosed to third parties.

“Declaration of Conformity” (DoC) means a procedure by which a supplier or a certification body gives written assurance that the ICT apparatus conforms to regulations and the technical standards

“Frequency Allocation Plan” means frequency plan of Liberia that sets out the allocation of radio frequency bands to their various uses.

“Liberia Telecommunications Authority” (LTA) means the telecommunications regulator in Liberia.

“Licensed Operator” means a person that is licensed by the LTA to own, establish or operate a telecommunications network.

“Radio Equipment” means a product, or relevant component thereof, capable of communication by means of the emission and/or reception of radio waves utilizing the spectrum allocated to terrestrial/space radio communications. Examples of Radio Equipment include, but are not limited to: earth stations, broadcasting, VSAT, microwave radio links, aeronautic and maritime stations, mobile handsets, Bluetooth devices, indoor Wireless Local Area Network (WLAN) equipment, etc.

“Retailer” means a merchant who sells in small quantities directly to the end consumers.

“Service Provider” means a person that is licensed to provide one or more telecommunications services to the public or licensed to own, establish or operate a telecommunications network to provide telecommunications services to the public. This includes providers of information or content providers using a telecommunications network.

“Radio and Telecommunications Terminal Equipment” (RTTE) means a product enabling communication or a relevant component thereof which is intended to be connected directly or indirectly by any means whatsoever to the interfaces of public telecommunications networks (that is to say telecommunications networks used wholly or partly for the provision of publicly available telecommunications services). Examples of telecommunications terminal equipment include but are not limited to: ADSL modems, PBX, phones connected to PSTN, Fax machines answering machines, mobile handsets, and Bluetooth devices.

“Standard” refers to technical standards, which are, published documents setting out specifications and procedures designed to ensure products, services and systems are safe, reliable, and consistently perform the way they were intended to. They establish a common language, which defines quality and safety criteria.

“Telecommunications Equipment” means equipment capable of being connected directly or indirectly with a Telecommunications Network in order to send, transmit or receive telecommunications services. It includes radio communications equipment and core network equipment such as switches, Mobile Switching Centers (MSC), Base Stations (BSCs), and transmission equipment. Core network equipment does not follow the Type Approval system for Radio equipment.

“Telecommunications Law” Telecommunications ACT of 2007 of Liberia

“Telecommunications Network” means any wire, radio, optical or electromagnetic systems for routing, switching, and transmitting telecommunications services between network termination points including fixed and mobile terrestrial networks, satellite networks, electricity transmission systems, or other utilities (to the extent used for telecommunications), circuit or packet-switched networks (including those used for Internet Protocol services), and networks used for delivery of broadcasting services (including cable television networks).

“Type Approval” means a procedure by which radio communications equipment is authorized by the LTA to be used in Liberia or imported into, and involves verification of the equipment’s compliance with the applicable standards and requirements.

“Type Approval Certification” means an official document signifying equipment compliance to technical evaluation requirement per equipment model. The Type Approval certificate also specifies parameters such as the operating frequency, maximum EIRP, channel spacing, model number, type of Modulation, emission designation, country of manufacture for the equipment, as applicable.

“Type Approval Regulations” means a document, which provides direction on different aspects of the Type Approval system such as principles, objectives, and essential requirements.

“Wholesaler” means a merchant who sells chiefly to retailers, other merchants, or industrial institutional and commercial used mainly for resale or business use.

EXECUTIVE SUMMARY

Equipment Type Approval is a critical aspect of the functions of telecoms regulators because it protects customers and citizens from counterfeit products. It also improves their belief in products and helps them to make better choices, while also improving national security. Indeed as the Association of Regulators of Information and Communications for Eastern and Southern Africa (ARICEA) stipulates, “any electronic network consists of a large number of switching points, interconnected by various transmission media such as cable, radio, microwave or optical fiber transmission links, using various techniques for individual or group transmission. For this kind of network, it is a must that it complies with national and international signaling and transmission standards in order to meet the requirements of quality, security and safety” (ARICEA, 2020).

This report contains regulatory recommendations for the general administration of Type Approval procedures in the Republic of Liberia. Under such regulatory framework, the report considers approaches to telecommunications and broadcasting type approval, fee structure, equipment certification process, etc.

As a means of setting up the requisite regulatory framework to administer type approval activities in Liberia, the report recommends the following:

- All equipment entering the Republic of Liberia must be type approved and authorized to be sold and used in the country;
- The LTA should set up standards to guide the type approval process;
- The submission of test reports, declarations of conformity, and brief be accepted from suitably accredited laboratories and without exception; and
- Any person in violation of such Type Approval Regulation will be subject to the LTA Penalty and Fines Regulations.

Pursuant to Part XI, “Telecommunications Equipment” of the Telecommunication Act of 2007 of the Republic of Liberia, the regulatory recommendations proffered in this report are designed to assist the LTA in developing regulations to guide the implementation of Telecoms Equipment Type Approval in Liberia.

I. INTRODUCTION

Under the United States Agency for International Development (USAID) Digital Frontiers Project, DAI Global subcontracted Integra Government Services International LLC (Integra) in partnership with Atlantic-TM Cameroon to implement the Promoting American Approaches to Information and Communications Technology (ICT) Policy and Regulation (ProICT) Activity and provide consultancy services towards strengthening the core capabilities of the Liberian Telecommunications Authority (LTA). The primary purpose of the engagement is to strengthen the core capabilities of the LTA with regulatory and technical expertise in areas the LTA identified in consultation with USAID and subsequent conversations with the technical team.

ProICT Liberia consists of the following six workstreams:

1. Modernizing the regulations governing the deployment of fiber optic cables.
2. Developing regulatory standards for television whitespace (TVWS) and related rural access technologies.
3. Assisting the LTA's administration to develop, optimize, and implement strategies for the Liberian Universal Access Fund (UAF).
4. Providing advisory and technical assistance to the LTA to help strengthen its role in transitioning the Liberian Internet eXchange Point (LIXP) to an independent and sustainable management structure.
5. Strengthening the Network Type Approval regime at the LTA.
6. Assisting with the reorganization of Liberia's FM radio spectrum to allow for the highest and best use of these critical radio frequencies.

PURPOSE

This report specifically concerns the fifth workstream highlighted above, i.e., strengthening the LTA's Network Type Approval Regime.

The objectives of this report are to ensure that the requisite regulatory environment is established in Liberia so that the following are achieved:

- Only properly type-approved telecommunications and ICT equipment are placed, sold or used in Liberia;
- Telecommunications and ICT equipment do not cause damage to or interfere with the operations of ICT networks or other ICT equipment;
- Telecommunications and ICT equipment do not cause harm to the general public or people working with ICT networks;

- The operating parameters of all telecommunications and ICT equipment are in accordance with technical standards requirements;
- Minimum technical regulatory requirements and administrative procedures that telecommunications and ICT equipment should meet before they are used or sold in Liberia are established;
- Applicable technical standards, including those promulgated by international bodies are identified; and
- Customs authorities gain greater clarity in establishing guidelines related to the clearance of telecommunications and ICT equipment.

2. TYPE APPROVAL REGULATORY RECOMMENDATIONS

Though the LTA is mandated by the Telecommunications Act of 2007 to develop a regulatory framework to implement an Equipment Type Approval regime, it is best practice that the LTA, in undertaking any such action, consult with relevant stakeholders.

Below are regulatory recommendations aimed at strengthening the capacity of the LTA to develop regulations that will guide the implementation and compliance of the LTA's Equipment Type Approval regime.

RECOMMENDATION 1: DETERMINATION OF TECHNICAL STANDARDS

- A technical standards framework (see draft provided in Annex I) is critical to the realization of the OFC fiber backbone in Liberia;
- The LTA should annually develop and review Technical Standards and Specifications to set minimum requirements and performance standards to be met by all telecommunications and ICT equipment;
- The LTA Standards should be based on International Standards to the maximum extent feasible and to use the World Trade Organization Technical Barriers to Trade (WTO TBT) Agreement¹ as a benchmark; and
- The LTA should adopt relevant international standards - for example, based on 3GPP for Mobile; Rec. UIT-T K,21; ISO/CEI 11801), which are developed by a recognized international standard development organization. Further, the LTA should adopt international standards recognized by the Mutual Recognition Arrangement (MRA)² partners. Please see Annex 6 for internationally recognized Type Approval bodies

RECOMMENDATION 2: COMPLIANCE WITH STANDARDS AND SPECIFICATIONS

- All telecommunications and ICT equipment intended for use in Liberia should comply with the LTA's Standards and International Technical Standards recognized by the LTA, such as electrical safety, electromagnetic compatibility (EMC), electromagnetic radiation (EMR), and operational requirements for radio communication devices;
- The LTA should maintain and publish in the Type Approval Regulations the technical standards and specifications applicable to identified Equipment types; and
- Where a suitable standard is unavailable and or updated, the LTA should apply other equivalent standards deemed appropriate.

RECOMMENDATION 3: ALL ICT EQUIPMENT REQUIRES TYPE APPROVAL

¹ According to the World Trade Organization (WTO), the "Technical Barriers to Trade (TBT) Agreement aims to ensure that technical regulations, standards, and conformity assessment procedures are non-discriminatory and do not create unnecessary

² A mutual recognition agreement (MRA) is usually intended to bind two or more countries in an agreement to recognize one another's conformity assessments results (for example certifications or test results).

The LTA should ensure that equipment type approval is required to any person or entity who intends to carry out the below activities:

- Use, sell or offer for sale ICT equipment within Liberia;
- Connect ICT equipment to an ICT network in Liberia for the purpose of electronic communication; and wish or intend to import ICT equipment into Liberia must apply to the LTA for a Type Approval license in respect of such telecommunications and ICT equipment before the use, importation, connection, sale or re-sale in Liberia; and
- Manufacturer of such telecommunications and ICT product should be required to either directly contact the LTA requesting for Type Approval on its products, or a local dealer and/or representative should apply on behalf of the manufacturer;

In furtherance of the above, all telecommunications and ICT equipment that are acquired via online shopping or brought into the country should be type approved before being used.

RECOMMENDATION 4: PROHIBIT RE-DESIGN OF TYPE-APPROVED ICT EQUIPMENT

The LTA should ensure that no person be allowed to intentionally re-design, install, operate, maintain or modify any telecommunications and ICT equipment in a manner which is:

- Contrary to the technical standards or specifications;
- Likely to cause non-interoperability between any telecommunications and ICT equipment;
- Likely to cause interference with, impairment, or malfunction of, or harm to any telecommunications and ICT equipment or any other equipment; or
- Likely to compromise the safety of the general public or any other telecommunications and ICT equipment.

RECOMMENDATION 5: PROHIBITIONS ON THE SALE OF NON-TYPE-APPROVED ICT EQUIPMENT

The LTA should ensure that no person be allowed to offer for sale, or have in possession with a view to sell any telecommunications and ICT equipment that:

- Are contrary to the applicable technical standards and Type Approval Regulation that will be published by the LTA;
- Are not type approved; or
- Have been certified or type approved but are subsequently altered or modified and no longer comply with the standards.

- Any person in contravention of these structures should be penalized under the LTA Penalty Regulation³.

RECOMMENDATION 6: ALL IMPORTED ICT EQUIPMENT REQUIRE TYPE APPROVAL

The LTA should put in the requisite mechanism such as a succinctly developed Type Approval regulation to ensure that all telecommunications and ICT equipment imported to Liberia are subject to Type Approval and a Type Approval Certificate obtained from the LTA prior to importation. Further, that all telecommunications and ICT equipment that have been type-approved by the LTA be imported into Liberia only by the following parties:

- Authorized importers;
- Licensed operators; and
- Persons (individuals) who import or bring in telecommunications and ICT equipment for their own use (i.e., not for marketing/commercial purposes) but must declared to the LTA for compliance purposes.

There should be no limitations placed on the number of importers or on the types of telecommunications and ICT equipment imported and supplied, other than such equipment imported must comply with the Type Approval Regime.

Suppliers of telecommunications and ICT equipment should be required to keep detailed records of serial numbers of all imported equipment. Such records should be made available to the LTA at any time upon request.

Furthermore, importers of telecommunications and ICT equipment should ensure that equipment imported for individual use comply with the relevant the LTA's Technical Standards and Specifications.

RECOMMENDATION 7: LTA ISSUING TYPE APPROVAL CERTIFICATES – T&CS

A Type Approval Certificate should be issued to an applicant upon successful Type Approval of a particular make and model of equipment. Also, the applicant should commit to conform to the following terms:

- Accept responsibility to discontinue importation and sale, and recall all the equipment already on the market in the case of defects in the equipment resulting in unacceptable performance due to non-compliance to the LTA Technical standards and specifications;
- Conform to any additional guidelines or regulations issued by the LTA;
- Compliance with the LTA's Standards and Specifications; and
- Furnish all Type Approval requirements, which include documentation and labeling.

³ As of 2017, this regulation was still in draft form.

RECOMMENDATION 8: LTA SHOULD INSTITUTE EQUIPMENT TESTING WITH TEST REPORTS

To conform to the LTA Type Approval strictures, telecommunications and ICT equipment importers should ensure that test reports clearly and unambiguously demonstrate compliance with applicable LTA standards and specifications, and such test results are attached to the Type Approval application form.

Test reports, which demonstrate compliance with International Standards and satisfy the technical requirements of the LTA's standards and or specifications, may be used to demonstrate compliance, so long as the relationship between the International Standards and the LTA's Standard/Specifications is demonstrated clearly and unambiguously.

Under this context, the LTA should recognize test results performed by the FCC, ETSI, ASA, and the ITU.

RECOMMENDATION 9: LTA SHOULD ISSUE COMPLIANCE LABELS/MARKINGS

The LTA should ensure the following:

- That all telecommunications and ICT equipment entering Liberia be marked with recognized international labels⁴ accepted by the LTA; and
- Labels should comply with the format and other requirements to be identified in the Type Approval Regulations.

RECOMMENDATION 10: LTA DECLARATION OF CONFORMITY

DECLARATION OF CONFORMITY (DOC) AND CRITERIA FOR APPROVAL

Under Declaration of Conformity, the following should apply:

- The LTA may choose to accept a declaration of conformity (DoC) by an applicant if accompanied by a certified copy of test reports and data issued by an accredited test laboratory confirming conformity of the telecommunications and ICT equipment for which Type Approval is sought with the applicable technical standards;
- In an application for Type Approval, the applicant must submit the test reports along with the DoC;
- In assessing an application for Type Approval, the LTA should take into account whether the test reports and DoC submitted and accepted by a foreign MRA partner;
- The LTA should not have regard to any test report and data accompanying a DoC if such report and data are older than three years⁵; and

⁴ Labels from internationally recognized institutions such as FCC, ETSI, ASA, and the ITU should be considered.

⁵ To further clarify, LTA's Type Approval process will be carried out annually as mentioned under Recommendation I, Provision I. Separately, and under its regular Type Approval processing, when an applicant presents an equipment to be type approved, DoC's will be checked to see the three-year validity stricture.

- The LTA may choose to accept a DoC and its accompanying test reports and data as valid if such declaration, test reports, and data were prepared for the telecommunications and ICT equipment for which application for Type Approval is made and if no modification to the equipment was made following the completion of the test reports.

RECOMMENDATION 11: LTA TO CONDUCT PERIODIC MARKET SURVEILLANCE

The LTA should periodically conduct market surveillance on all telecommunications and ICT equipment that require Type Approval under the following conditions:

- In the event that a complaint is made by a consumer or other competent body;
- In the event where the LTA received a report of interference;
- For a visual inspection of equipment in a retail outlet; and/or
- As a part of a random audit conducted by the LTA to ensure compliance.

In carrying out the market surveillance, the LTA should consider the following:

- Under suspicious circumstances, require the supplier to submit the equipment to the LTA for conformity assessment;
- Conduct a visual examination of the equipment, label, packaging, and certificate;
- The LTA will not assume liability for any damage or loss of such equipment whilst under its custody; and
- If the telecommunications and ICT equipment is found to be non-compliant with applicable Technical Standards and LTA regulations, the suppliers should be notified to cease using or selling such equipment and dispose of it at its own expense, or the LTA may seize the equipment and dispose of it.

RECOMMENDATION 12: LTA TO MAINTAIN EQUIPMENT IDENTITY REGISTER (EIR)

The LTA should ensure that it keeps and maintains a database register of:

- Standards;
- Type approved telecommunications and ICT equipment;
- Confiscated telecommunications and ICT equipment;
- Illegal importers of telecommunications and ICT equipment; and
- That such register should be accessible online via the LTA's website.

RECOMMENDATION 13: CUSTOMS CLEARANCE MOU

The LTA should establish an MOU with Customs Department at the Liberia Revenue Authority (LRA) to check and guarantee all imported telecommunications and ICT equipment are typed approved before being cleared into the country. The following conditions and requirements should be followed when importing ICT equipment:

- To facilitate the customs clearance of telecommunications and ICT equipment, a person acting on behalf of supplier/importer should present an LTA-issued Type Approval certificate and shipment documentation to Customs during Customs clearance;
- Person acting on behalf of the supplier/importer should ensure that the documents provided to Customs are original and genuine;
- If the equipment is intended for personal use, the equipment should not be released until the necessary Type Approval is obtained from the LTA;
- The telecommunications and ICT equipment must be in the list of the type approved equipment;
- Custom should retain non-type approved regulated telecommunications and ICT equipment until the LTA has checked and confirmed the approval status of the equipment. The retention time of the equipment should not go beyond three (3) weeks after which the equipment should be confiscated or released to the owner;
- The supplier or importer should ensure to provide the necessary documents within three weeks to ensure compliance; and
- Failing to respond within the allotted three (3) weeks and or non-compliant to LTA type approval requirements will allow the LTA to confiscate the equipment.

RECOMMENDATION 14: LTA SHOULD SET AND MAINTAIN FEES FOR TYPE APPROVALS

The LTA should ensure the following:

- That the LTA, from time to time, should determine and charge fees to cover expenses incurred, inter alia, for processing applications for registration and certification, maintaining records, and as a contribution towards surveillance and enforcement costs⁶;
- Type Approval fees may distinguish between fees payable on application processing and fees payable on minimum equipment testing;
- Applicants for Type Approvals shall pay the fees for Type Approvals at the times specified by the LTA in the Type Approval Regulations morphed from these recommendations; and
- All payments requested by the LTA should be paid in United States Dollars or its equivalence in Liberian Dollar within a specified time frame to be determined by the regulations.

⁶ As opposed to currency, where fees are being used to cover all of the above with the exception of surveillance and enforcement costs.

RECOMMENDATION 15: LTA SHOULD ENSURE TYPE APPROVAL CERTIFICATES HAVE EXPIRY DATES

The LTA should ensure that all telecommunications and ICT equipment are type approved and certificated, and that such certificates **should not** have expiration restrictions, unless under the following conditions:

- Where the technical specifications including the operating frequency and model number have been modified, tampered with, or enhanced;
- Where there is a recall (nationally, or internationally) for such equipment;
- Where the use of such equipment poses a security threat to Liberia;
- Where the use of such equipment creates undue technical infringements (such as interference, impedance, etc.) that have the potential to destabilize the sector and have other crosscutting negative effect on other sectors; or
- Where it poses a health concern.

RECOMMENDATION 16: LTA MAY/SHOULD ENTER INTO MUTUAL RECOGNITION ARRANGEMENTS

The LTA should seek to ensure the establishment of bilateral or multilateral mutual recognition agreements or arrangements between the LTA and other regulatory bodies at the level of the Mano River Union, ECOWAS, the ATU, the ITU, etc. Based on these agreements, the LTA should choose to accept the test report, compliance certificate or DoC issued under agreements of such organizations.

3. APPLICATION OF THE TYPE APPROVAL RECOMMENDATIONS

APPLICATION OF THE TYPE APPROVAL STRICTURES

The LTA should ensure that the regulations morphed from the regulatory recommendations contained herein apply to:

- Any person that provides communications services; and
- Any person, who uses, sells, imports, offers for sale or connects telecommunications and ICT equipment to telecommunications and ICT network within Liberia pursuant to the Telecommunication Act of 2007.

For avoidance of doubt, these recommendations should apply to all telecommunication terminal equipment that connects directly to the public telecommunications network, along with all intentional emitters of electromagnetic radiation (radio waves). Such equipment is referred to collectively as telecommunications and ICT equipment in this report.

4. CONTRAVENTION AND ENFORCEMENT

Any concerned party contravening these recommendations once developed into regulations should be assessed administrative fines pursuant to the LTA Penalty Regulation.

PENALTIES

The LTA should take necessary legal actions, under the LTA Penalty and Fines Guidelines, against those who use, import, sell, offer for sale or connect ICT apparatus in breach of this regulation. Additionally, the LTA may choose to issue one or more directives in pursuant to the Telecommunication Act of 2007.

ANNEX I. TYPE APPROVAL FORM

FORM: LTA1002-TA

LIBERIA TELECOMMUNICATIONS Authority

The National Regulator



Republic Of Liberia

TYPE APPROVAL FORM

Type Approval Fee: Local Applicant: US\$ \$100.00

Foreign Applicant: US\$ \$250.00

- This form should be filled out clearly. Illegible and/or incomplete form may delay processing.
- Fill the form completely and submit all technical information and supporting documents.
- This form, technical information, and supporting documents, should be forwarded to the Engineering & Technology Department for processing.

TYPE APPROVAL FOR: New Equipment / Product (): Existing Equipment / Product ():

A. BUSINESS ENTITY INFORMATION

Form No. _____

1. Entity Name: _____
2. Official Address: _____
3. Mailing Address: _____
4. Telephone number(s): _____
5. Mobile Number(s): _____
6. Email Address: _____
7. Incorporated in Liberia: YES () NO ()
8. Year of Incorporation in Liberia: _____
9. Business Registered in Liberia: YES () NO ()
10. Month and year entity was registered in Liberia: MONTH _____ YEAR _____
11. Business Registration is current: YES () NO (): Provide latest Registration documents
12. Existing Type Approval Certificate from a Recognized International standard Body: YES () NO ()
13. Name of Recognized International Standard Body: _____
14. Address: _____
15. Website: _____
16. Existing Type Approval Certificates from other recognized Regulators: YES () NO ()
17. Name of recognized Regulators _____
18. Address: _____
19. Website: _____

B. GENERAL SPECIFICATIONS

EQUIPMENT / PRODUCT		GENERAL DESCRIPTION
1	Type of Equipment / Product	
2	Model Number	
3	Maximum EIRP	
4	Manufacturer	
5	Country of Manufacture	
6	Frequency Band	
7	Bandwidth/Channel Spacing	
8	Type of Modulation	
9	Emission Designation	
10	Power Supply	
11	Operation Temperature Range	
12	Mode of Operation	

C. OTHER BASIC INFORMATION

1. Are you currently requesting another Type Approval? YES ()NO ()

If yes, please provide detail information:

2. Is this your first time requesting Type Approval in Liberia YES ()NO ()

If yes, please provide detail information:

3. Have you ever been denied a Type Approval Request YES ()NO ()

If "YES" provide detail information: _____

The submission of this form does not guarantee the issuance of the Type Approval. All information on this form must be true and correct. Failure to provide true and correct information will lead to disqualification of this form.

Signed:

Signed:

Official

Authorized Entity Official

Authorized Entity

Full Name:

Full Name:

Position:

Position:

All cash, checks and bank transfers should be deposited into Liberia Telecommunications Authority account (#02-206-300009400) at the Central Bank of Liberia. Submit copy of deposit slip with Type Approval Form for processing.

OFFICIAL USE ONLY

FORM #: NON-REFUNDABLE Type Approval FEE: _____

TYPE APPROVAL FOR: Network Equipment () Subscriber Equipment ()

Type Approval from Internationally Standards Body: YES () NO ()

Type Approval from Regulatory Body: YES () NO ()

LOCAL REQUEST () INTERNATIONAL REQUEST ()

LTA Administrative Officer:

LTA Technical Officer:

Request Approved () Request Denied () Reason(s) _____

ANNEX 2. LIST OF TELECOMMUNICATIONS EQUIPMENT

Below is a non-exhaustive list of telecommunications equipment:

1. Telephone handset (Ordinary, Executive, Secretarial sets)
2. Cordless Telephones
3. Telephone Answering and Recording systems
4. Cellular Telephones (GSM, CDMA, etc.)
5. Payphones (Coin or Card operated)
6. Call Monitoring and logging systems
7. Subscriber Private Meters (SPMs)
8. Fax machines (Facsimile Transceivers)
9. Call Routing Apparatus
 - a. Public Branch Exchanges (PBXs)
 - b. Key Telephone System (KTS)
 - c. Small Business System (SBS)
 - d. Multi line systems
10. Voice Messaging Systems
11. Data Modems and Fax Modems
12. Multiplexer, Packet Assemblers/Disassemblers (PADs)
13. Radio communication equipment
 - a. Citizen Band
 - b. Amateur Band
 - c. HF, VHF, UHF Radio Equipment
 - d. Microwave radio transmission equipment
 - e. Radio paging terminals and transmitters
 - f. Alarm transmitters
 - g. Satellite Phones and Antennae

- h. Telemetry and Command Modules etc.
- i. VSAT network system components
- j. All Laptops
- k. LPU (Line Protection Unit)
- l. Radars
- m. All indoor / outdoor, wired / wireless IT communication apparatus.

ANNEX 3. EQUIPMENT EXEMPTION FORM

The following are type approval exempt for personal use only and for the National Security Agencies (military and para-military).

EQUIPMENT TYPE	DESCRIPTION	TECHNOLOGIES	TYPE OF USE
Receiver-only, transmitter RTTE such as mobile handsets	Equipment is <ul style="list-style-type: none"> Receiver-only or transmitter capable only of transmitting under control of a public network that has been Imported for personal use 	GSM and UMTS only (including handsets and dongles)	Type Approval exempt only for personal use
RTTE for military use (for security agencies)	RTTE used by Armed Forces of Liberia or other Security Agencies	Various	<ul style="list-style-type: none"> Only applies to Liberia Army Forces AFL and Other Security Agencies

The following are type approval exempt for personal use by licensed persons and importers.

EQUIPMENT TYPE	DESCRIPTION	TECHNOLOGIES	TYPE OF USE
Cable and wiring RTTE	Equipment is <ul style="list-style-type: none"> Cable and wiring RTTE By nature “passive” equipment 	N/A	Type Approval exempt for personal use and importers
Infrared remote control Equipment	Equipment is <ul style="list-style-type: none"> A short range infrared remote control equipment Includes TV remote control, garage door opener 	Short-range infrared	Type Approval exempt for personal use and importers
RTTE for amateur use	Equipment is <ul style="list-style-type: none"> Terminal equipment To be used by radio amateurs or kits of components Assembled by radio amateurs Modified for use by radio 	Amateur radio in line with ITU region I requirements	Type Approval exempt only for personal use by licensed person

	amateurs		
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The following are type approval exempt:

- Similar RTTE if imported as standalone devices if not embedded in laptop or PC, or in the case of vehicle, these RTTE are not embedded in the vehicle;
- Wireless routers;
- LNB Components; and
- Set-top boxes either for satellite, IPTV or terrestrial.

EQUIPMENT TYPE	DESCRIPTION	TECHNOLOGIES	TYPE OF USE
Receiver only, transmitter RTTE embedded in personal computers	Equipment is embedded in a PC or a laptop and is: <ul style="list-style-type: none"> • Receiver-only radio equipment • Transmitter equipment with output power below 100 mW 	Laptops or personal computers equipped with short range radio technology such as WiFi, Bluetooth	Type Approval exempt for personal use and importers
Broadcast receivers, RTTE	Equipment is <ul style="list-style-type: none"> • Receiver-only radio equipment • Intended to be used solely for the reception of sound and TV broadcasting services • Include, satellite dish, aerials but exclude DTH set top boxes 	<ul style="list-style-type: none"> • TV and sound (radio) broadcast technologies: terrestrial TV (analogue and digital e.g. DVB-T) satellite TV, Radio (FM/AM) 	Type Approval exempt for personal use and importers
Vehicle component RTTE	Equipment is <ul style="list-style-type: none"> • Installed as part of a vehicle (car, motorcycle, etc.) • Includes car navigation, remote sensor, remote car key etc. 	Short-range technologies including Bluetooth	Type Approval exempt only for personal use

ANNEX 4. STANDARDIZATION AND TYPE APPROVAL BODIES

No	Name of Type Approval Bodies / Authorities
1	Federal Communications Commission (FCC)
2	International Organization for Standardization (ISO)
3	European Telecommunications Standards Institute (ETSI)
4	Institute of Electrical and Electronics Engineering (IEEE)
5	Telecommunications Industry Associations (TIA)
6	Telecommunications Industry Associations (TIA)
7	Internet Engineering Task Force (IETF)
8	Industry Canada (IC)
9	Infocomm Development Authority of Singapore