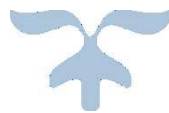


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# TYPE APPROVAL GUIDELINES

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ELECTRONIC COMMUNICATIONS EQUIPMENT



MAY 26, 2015

**NATIONAL COMMUNICATIONS AUTHORITY**

1ST RANGOON CLOSE, POST OFFICE BOX PMB 1568, CANTONMENTS, ACCRA, GHANA

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**DEFINITION OF TERMS**

“Act”	The National Communications Authority Act, 2008, Act 769 together with all amendments thereto.
“Authority”	The National Communications Authority and agents appointed pursuant to the powers under the Act.
“Category of Equipment”	Means a term that relates to a broad range of ECE such as mobile handsets, wireless routers, WiFi/WLAN laptop, fixed telephone, fax machine, etc.
“Certificate of Compliance”	A document issued by a Conformity Assessment Body stating the compliance of a specific ECE with one or more technical standards
“Conformity Assessment Body”	organizations, public or private, that have received official recognition in their own country as bodies with specific technical expertise and reputation, able to provide trusted opinions and assessment regarding ECE’s compliance with technical standards.
“Dealership License”	It is the license issued by the Authority to dealers of telecommunications equipment (i.e. importers, wholesalers and retailers).
“Dealership Licensee”	means a duly registered entity in Ghana that is authorized by the Authority to import ECE to Ghana for marketing/commercial purposes.
“Declaration of Conformity”	means a sworn statement issued by a manufacturer of a ECE, stating, under their responsibility, that the device complies with one or more technical standards. By issuing such document, the manufacturer also declares that they have executed all the tests and measurements that relate to said standards, and that such tests and measures have shown full compliance with the standards’ reference parameters.

“EC Act”	The Electronic Communications Act, 2008, Act 775 and any amendments thereto.
“ECE”	Electronic Communications Equipment
"Electronic Communications Equipment"	"Electronic Communications Equipment" - applies to both modular, sectional or host Telecommunications Terminal Equipment, Electronic Communications Equipment, Broadcasting Equipment, Short Range Radio Devices, frequency dependent Medical Equipment and Devices, Network Equipment and Information Technology Equipment
“Entity”	individual or company registered in Ghana
“Frequency Allocation Plan”	The frequency plan defined by the Authority that sets out the allocation of radio frequency bands, in Ghana, to their various uses.
“Ghana”	Republic of Ghana
“Guidelines”	Type Approval Guidelines
“Interface”	means <ul style="list-style-type: none"> <li>i. A network termination point, which is a physical connection point at which a user is provided with access to a public telecommunications network, and/or</li> <li>ii. An air interface specifying the radio path between radio equipment and their technical specifications.</li> </ul>
“International Manufacturer”	means a manufacturer of ECE based outside of Ghana. The international manufacturer may have offices in Ghana to market its products, but the ECE is manufactured outside of Ghana.
“Licensed Operator”	means a Ghanaian company or establishment located in Ghana that is licensed by the Authority to own, establish or operate a telecommunications network
“Local Contact/ Agent	Entity registered in Ghana and authorized to seek type approval on behalf of an international manufacturer
“Local Manufacturer”	A local manufacturer is a manufacturer based in Ghana whose business is to manufacture ECE in Ghana.

“Network Equipment”	network equipment such as switches, Mobile Switching Centres (MSC), Base Stations (BSCs), and transmission equipment
“Public Telecommunications Network”	Telecommunications networks used wholly or partly for the provision of publicly available telecommunications services.
“Radio Equipment”	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 communication.
“RTTE”	Radio Equipment, Network, and the Telecommunications Terminal Equipment
“Retailer”	A merchant who sells in small quantities directly to the end consumers.
“Service Provider”	An entity 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 using a telecommunications network.
“Technical Construction File”	A dossier comprising all the necessary technical documentation required for the standard Type Approval application.
“Telecommunications Equipment”	Equipment capable of being connected directly or indirectly with a Telecommunications Network in order to send, transmit or receive telecommunications services.
“Telecommunications Network”	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).

“Telecommunications Terminal Equipment”	A product, or a relevant component thereof, enabling communication which is intended to be connected directly or indirectly by any means to Interfaces of public telecommunications networks. Examples of Telecommunications Terminal Equipment include, but are not limited to: ADSL modems, PBX, phones connected to PSTN, Fax machines, answering machines, mobile handsets, set top boxes, etc.
“Testing Laboratory”	laboratories where the appropriate equipment, supplies, and certified expertise are available to conduct tests with regards to technical standards, including telecommunications, EMC and health and safety
“Type Approval”	The process by which ECE is authorized by the Authority to be used in Ghana or imported into Ghana, and involves verification of the equipment’s compliance with the applicable standards and requirements.
“Type Approval Certificate”	A document issued by a National Regulatory Authority stating that the ECE complies with the applicable standards specified by the National Regulatory Authority.
“Type Approval Regime”	The combination of Type Approval Regulations, Type Approval Guidelines, rules, procedures, forms and fees that may be issued by the Authority as required.
“Wholesaler”	a merchant who sells primarily to Retailers, other merchants, or industrial, institutional, and commercial users mainly for resale or business use.

## **ABBREVIATION OF TERMS**

NCA	National Communications Authority
DTT	Digital Terrestrial Television
RTTE	Radio Telecommunication Terminal Equipment
CAB	Conformity Assessment Bodies
DoC	Declaration of Conformity
CoC	Certificate of Conformity
ISO	International Organization for Standardization
IEC	International Electrotechnical Commission
ILAC	International Laboratory Accreditation Cooperation
E-Marking	Electronic Marking
H-Marking	Hard Marking
TAMSys	Type Approval Management System
NRA	National Regulatory Authorities
L.I.	Legislative Instrument
TAC	Type Approval Certificate
TAR	Type Approval Register
Wi-Fi/WiFi	Wireless Fidelity

## **1. INTRODUCTION**

- 1.1 This document, “Type Approval Guidelines” is issued by the National Communications Authority (NCA) in exercise of the powers conferred on it by Section 3 (r) of the National Communications Authority Act of 2008, Act 769 (Act).
- 1.2 The Type Approval Guidelines has been issued to enforce Section 3 (n) of the Act which empowers the NCA to certify and ensure the testing of Electronic Communications Equipment for compliance with international standards; and environmental health and safety standards including electromagnetic radiation and emissions.
- 1.3 The Type Approval Guidelines has also been issued pursuant to Sections 66 and 67 of the Electronic Communications Act of 2008, Act 775.
- 1.4 Regulations 78 and 79 of the Electronic Communications Regulations, 2011, L.I. 1991 empowers the Authority to approve Electronic Communications Equipment and also put in place both the standards and mechanism for the approval.

## **2. TYPE APPROVAL**

- 2.1 Type Approval is the process by which an ECE is certified by the Authority to be used in Ghana. It involves testing and verification of an ECE to ensure compliance with the applicable national and international standards and essential requirements.
- 2.2 The main objective of the type approval regime is to ensure that all ECE that are used in Ghana comply with the applicable technical standards accepted by the Authority relative to:
  - (a) Efficient Use of radio frequency spectrum for radio ECE: the efficient and appropriate use of the radio frequency spectrum, which is a limited resource, should be ensured so as to avoid harmful interferences and unacceptable degradation of service to other users of the radio spectrum.



- (b) Interconnection of Terminal Equipment with Public Telecommunications Networks to ensure that Terminal Equipment may be connected to the Public Telecommunications Networks without causing any damage to the Public Telecommunications Networks and to protect the interests of the users of the Terminal Equipment.
- (c) The protection of the health and the safety of the user to ensure that the operation of a particular ECE, in no way causes any harm to the users or to any other individual.
- (d) Electromagnetic Compatibility (EMC) to ensure that electromagnetic emissions of the ECE does not disrupt or affect the operation of other equipment working nearby. In addition, such ECE must have an acceptable level of immunity to disturbances which may occur as a result of the operation of other equipment found close to them.

2.3 By verifying the compliance of ECE with applicable technical standards recognized by the Authority, the Type Approval of ECE ensures that:

- (a) No substandard ECE which can present health and safety hazards are operating in Ghana
- (b) Consumers are protected from ECEs that are non-compatible with the local telecommunications network
- (c) The operating frequency of all radio ECE is as per the NFAP in Ghana and that no interference is caused to current and planned services.

### **3 TYPE APPROVAL REGIME**

3.1 The Type Approval Regime consists of the following elements:

- (a) Type Approval Guidelines comprising
  - i. Type Approval Application System and procedures
  - ii. List of Type Approval bodies that are recognized by the Authority

- iii. List of accredited laboratories, testing and measurement bodies recognized by the Authority.
  - iv. List of Technical Standards recognized by the Authority
- (b) Type Approval Register

#### **4 SCOPE AND OPERATIONS**

- 4.1 These Guidelines establish a regulatory framework for the making available on the market and putting into service Electronic Communications Equipment for connection to communications networks in Ghana.
- 4.2 These Guidelines shall apply to both modular, sectional or host Telecommunications Terminal Equipment, Electronic Communications Equipment, Broadcasting Equipment, Short Range Radio Devices, frequency dependent Medical Equipment and Devices, Network Equipment and Information Technology Equipment, to be collectively known as Electronic Communications Equipment (ECE) intended to be used or sold in Ghana.
- 4.3 For the avoidance of doubt, and in addition to the requirements of these Guidelines, every Telecommunications Terminal Equipment, Electronic Communications Equipment, Broadcasting Equipment, Network Equipment and Information Technology Equipment manufacturer, service provider and dealer licensed by the Authority shall be subject to these Guidelines, other applicable statutory laws, terms and conditions regarding equipment standards and radio spectrum interferences set out in the licence(s) and other product standards applicable in Ghana.
- 4.4 The Guidelines are to be read in conjunction with the Act, EC Act, Regulations (L.I.1991), and any other statutory laws and Guidelines that may be issued by the Authority from time to time. This document specifically aims to provide a guide to applicants that wish to obtain Type

Approval for an ECE, describing in detail the documents needed and the process to follow and Manufacturers who intend to supply their products into the Ghanaian Market.

- 4.5 The Guidelines apply to all ECE imported into or manufactured in Ghana, whether for marketing or commercial purposes or for private use, and apply to any entity that is the initial or first point of supply of the ECE in Ghana.
- 4.6 A separate conformance regime and equipment marking for Digital Terrestrial Television (DTT) Equipment (i.e. TV Sets and Set-top boxes/decoders) have been published by the Authority requiring all such devices to conform to the specific country standards developed and adopted by the Authority in conjunction with relevant state institutions and industry body.
- 4.7 These Guidelines shall not apply to Electronic Communications Equipment exclusively used for activities concerning public security, defence, State security, including the economic wellbeing of the State in the case of activities pertaining to State security matters, and the activities of the State in the area of criminal law.
- 4.8 These Guidelines shall not apply to Electronic Communications Equipment to be solely used by diplomatic missions.

## **5 OBJECTIVES OF THE GUIDELINES**

- 5.1 These Guidelines are intended to:
  - a. Prevent damage/interruption to interconnected networks;
  - b. Ensure effective use of the frequency spectrum;
  - c. Avoid interference to other communications systems;
  - d. Guarantee environmental safety and health of users of ECE;
  - e. Facilitate the availability of quality equipment to consumers and operators;
  - f. Promote interoperability between communications networks;

- g. Promote the development of communications networks, including the supply of Electronic Communications Equipment by qualified suppliers;
- h. Define processes for the Type Approvals of Electronic Communications Equipment;
- i. Identify applicable technical standards, including those promulgated by international bodies.
- j. Ensure conformance to national and international standards.

## **6 GENERAL CONDITIONS & ESSENTIAL REQUIREMENTS**

6.1 ECE shall be constructed so as to ensure:

- a) the protection of the health and the safety of the user and any other person,
- b) compliance with safety requirements as shall be prescribed by the National Communications Authority
- c) The protection of electromagnetic compatibility as shall be prescribed by the National Communications Authority, including particular levels of immunity which lead to improvements in the efficient use of shared or adjacent frequency bands.
- d) That its transmitted signals efficiently use the spectrum allocated to terrestrial/space radio communication and orbital resources so as to avoid harmful interference.

6.2 The construction of ECE shall be such that the ECE:

- a) interworks with accessories, and/or it interworks via networks with other ECE, and/or it can be connected to interfaces of the appropriate type;

- b) does not cause harm to the public network or its functioning nor misuse network resources, thereby causing an unacceptable degradation of service;
- c) incorporates safeguards to ensure that the personal data and privacy of the user and of the subscriber are protected;
- d) supports certain features ensuring avoidance of fraud;
- e) supports certain features ensuring access to emergency services;
- f) supports certain features in order to facilitate its use by users with a disability;
- g) supports certain features - to ensure that software can only be loaded into the ECE where the compliance of the combination of software and the ECE has been demonstrated.

6.3 The following general conditions shall apply:

- a) The essential characteristics, the recognition and observance of which will ensure that ECE will be used safely and in applications for which it was made, shall be marked on the equipment, or, if this is not possible, on an accompanying notice
- b) The brand name or the trade mark shall be clearly printed on the ECE or, where that is not possible, on the packaging
- c) The ECE, together with its component parts, shall be made in such a way as to ensure that it can be safely and properly assembled and connected
- d) The ECE shall be designed and manufactured to ensure compliance with safety requirements set by NCA providing that the equipment is used in applications for which it was made and is adequately maintained

6.4 The manufacturer shall prescribe measures of a technical nature to protect against hazards arising from the ECE in order to ensure:

- a) that persons and domestic animals are adequately protected against the danger of physical injury or other harm which might be caused by direct or indirect contact;
- b) that temperatures, arcs or radiation which would cause a danger, are not produced;
- c) that persons, domestic animals and property are adequately protected against non-electrical dangers caused by the ECE which are revealed by experience;
- d) that the insulation must be suitable for foreseeable conditions.

6.5 The manufacturer shall lay down technical measures to ensure that the ECE:

- a) meets the expected mechanical requirements in such a way that persons, domestic animals and property are not endangered by external influences on the ECE;
- b) shall be resistant to non-mechanical influences in expected environmental conditions, in such a way that persons, domestic animals and property are not endangered;
- c) shall not endanger persons, domestic animals and property in foreseeable conditions of overload.

## **7 PROVISION OF INFORMATION ON THE COMPLIANCE OF COMBINATIONS OF SOFTWARE AND ECE**

7.1 Manufacturers of ECE and of software allowing ECE to be used as intended shall provide the Authority with information on the compliance of intended combinations of ECE and software with the essential requirements prescribed in these Guidelines.

## **8 TYPE APPROVAL APPLICANTS**

- 8.1 Type Approval shall primarily be requested by a manufacturer of an Electronic Communications Equipment.
- 8.2 Any person be it licensee of a telecommunication service or infrastructure agents or consultants wishing to type approve an electronic Communications Equipment shall do so by submitting all required Technical Documentations and a Power Of Attorney.
- 8.3 A manufacturer and consultants whose presence is not in-country shall apply for type approval through an authorized local agents or contacts.
- 8.4 Manufacturers can apply for Type Approval only for ECE that is manufactured by them.
- 8.5 Type Approval Certificates shall always bear the name of the Manufacturer of the device unless otherwise stated through a Power of Attorney.
- 8.6 Once an ECE is type approved by the Authority, the same type of equipment can be imported, subject to import permission, by any eligible importer without having to apply for another Type Approval.
- 8.7 The Authority will maintain on its website a list of approved ECE(hereinafter referred to as “Type Approval Register”) to be accessed by the general public.

## **9 APPLYING FOR TYPE APPROVAL**

- 9.1 An application for Type Approval must be made using the Authority’s Type Approval Management System (TAMSys), accessible at the Authority’s website. Paper based application system shall only be accepted if the TAMSys is unavailable.
- 9.2 An application for Type Approval must be accompanied by a Declaration of Conformity in the form set out in Appendix 1 to these Guidelines and through local contacts.

- 9.3 Application for Type Approval must be accompanied by a Technical Documentation in the form described in Section 8 of these Guidelines.
- 9.4 Applicant shall include a duly signed and dated Certificate of Compliance from an NRA or a CAB recognized by the Authority.
- 9.5 NRAs and CABs that are recognized by the Authority are identified in the list of recognized Type Approval bodies, available on the Authority's website and an initial list is provided in Appendix 5.
- 9.6 The list of recognized NRAs and CABs will be regularly updated by the Authority, at its discretion.
- 9.7 Where there is no evidence in the form of the aforementioned Certificate of Compliance attesting that the ECE complies with the standards recognized by the Authority, the evidence of compliance of the ECE must be based on, but not limited to, duly signed and dated Test Reports issued by accredited Test Laboratories demonstrating that the ECE complies with the appropriate technical standards recognized by the Authority.
- 9.8 The Authority will accept Test Reports from any accredited Test Laboratory included in the list of accredited Testing Laboratories recognized by the Authority. An initial list of Testing Laboratories recognized by the Authority is provided in **Appendix 6** and a regularly updated list will be made publicly available on the Authority's website.
- 9.9 The Authority reserves the right to request for re-testing at a laboratory assigned by the Authority. The applicant will be responsible for all laboratory or other costs incurred.
- 9.10 In all cases of Type Approval, a sample shall be included in the application.
- 9.11 Samples submitted with Type Approval application shall be retained and used by the Authority. Samples submitted shall be as is to be sold to end users and shall come with where necessary accessories, device drivers and software and RF cables.



- 9.12 In cases where Type Approval Application is rejected on review, samples submitted shall be retained by the Authority.
- 9.13 No application for Type Approval shall be processed unless all required supporting documents are submitted to the Authority. This may include the submission of any other additional information that is deemed necessary by the Authority for the purpose of Type Approval and supporting firmware or software.
- 9.14 An application that is complete will normally be processed within fifteen (15) working days of its receipt by the Authority.
- 9.15 Following approval, the Authority will issue the applicant with a Type Approval Certificate and make a corresponding entry in the Type Approval Register within fifteen (15) days from date of issue.
- 9.16 The Authority reserves the right to reject the application where the Authority is not satisfied with any aspect of the application. The Applicant may, however, address the non-compliance and submit a new application for Type Approval when appropriate. In case of rejection, the Type Approval Application Fee will not be reimbursed.
- 9.17 An appeal to a rejection for type approval shall be made within thirty days of the date of rejection. Where no appeal is lodged within this time frame, the Authority shall publish the rejected application in a register to be known as Type Approval Rejected Register.

## **10 CONFORMITY OF ELECTRONIC COMMUNICATION EQUIPMENT**

### **10.1 Presumption of conformity and Adopted Standards**

- a. ECE which is in conformity with adopted national standards or parts thereof the references of which have been gazetted by the Authority shall be presumed to be in conformity with the essential

requirements covered by those standards or parts thereof, set out in Section 6 of these guidelines

## **10.2 Conformity Assessment Procedures**

- a. Manufacturers may demonstrate compliance of ECE with the requirements identified in Sections 5 using type approval procedures as outlined by the Authority.

## **10.3 Declaration of conformity**

- a. The declaration of conformity shall state that the fulfilment of the essential requirements set out in Section 6 has been demonstrated.
- b. The Declaration of Conformity shall have the model structure, contain the elements set out in Appendix 1, be continuously updated and be available in English language and any other second language.
- c. By drawing up the declaration of conformity, the manufacturer assumes responsibility for the compliance of the ECE.
- d. Declaration of Conformity (DoC) must include the following information:
  - i. Unique identification of the DoC.
  - ii. The name and contact address of the issuer of the DoC.
  - iii. The identification of the object of the DoC (e.g. name, type, date of production or model number of the product, and other relevant supplementary information).
  - iv. The statement of conformity.
  - v. A complete and clear list of product standards or other specified requirements, as well as the selected options, if applicable.
  - vi. The date and place of issue of the Declaration of Conformity.

- vii. The signature (or equivalent sign of validation), name and function of the authorized person(s) acting on behalf of the issuer.
- viii. Any limitation on the validity of the DoC.
- ix. The name and address of any accredited Testing Laboratory involved (e.g. testing or calibration laboratory, inspection body, certification body) recognized by the Authority.
- x. Reference to relevant conformity assessment reports, and the date of the reports.
- xi. Reference to the existence of associated supporting documentation such as that described in the relevant ISO/IEC standard.

## **11 TECHNICAL DOCUMENTATION**

- 11.1 The Type Approval Procedures shall be based on the submission of a Technical Documentation which contains all suitable test reports and other supporting documents demonstrating compliance of the ECE to Section 6. Its contents must be written in English.
- 11.2 The format of the Technical Documentation shall be flexible to accommodate the needs of different ECE types but it must comply with the format and other requirements of the relevant ISO/IEC standard. It must have a unique identification number or other unique identifier which is cross-referenced in the Declaration of Conformity (DoC).
- 11.3 The Technical Documentation shall contain all relevant data or details of the means used by the manufacturer to ensure that ECE complies with the requirements set out in Sections 5. In any event, it must prove the conformity of the ECE with the applicable requirements to be assessed. It must cover the design, manufacture

and operation of the ECE. The technical documentation shall, wherever applicable, contain at least the following elements:

- a. general description of the Electronic Communications Equipment including: photographs or illustrations showing external features, marking and internal layout; versions of software or firmware affecting compliance with essential requirements; user information and installation instructions;
- b. conceptual design and manufacturing drawings and schemes of components, subassemblies, circuits and other relevant similar elements;
- c. descriptions and explanations necessary for the understanding of those drawings and schemes and the operation of the Electronic Communications Equipment;
- d. a list of the adopted standards and/or other relevant technical specifications, the references, and descriptions of the solutions adopted to meet the essential requirements in Section 6 where those adopted standards have not been applied;
- e. In the event of partly applied adopted standards, the technical documentation shall specify the parts which have been applied;
- f. copy of the declaration of conformity;
- g. results of design calculations made, examinations carried out, and other relevant similar elements;
- h. Test Reports issued by accredited Testing Laboratories recognized by the Authority demonstrating that the ECE complies with Section 6;

- 11.4 The Technical Documentation shall be drawn up before ECE is placed on the market and shall be continuously updated.
- 11.5 The Technical Documentation and correspondence relating to any Type Approval procedures shall be drawn up in the English language.
- 11.6 Technical Documentation drawn up in accordance with the corresponding specifications of the adopted national standard that implements the relevant harmonized standard and/or technical specification shall be presumed to provide an adequate basis for the assessment of conformity.

## **12 GENERAL PRINCIPLES OF NCA MARKING AND EQUIPMENT IDENTITY.**

- 12.1 Marking is the process of affixing a label and a specified Type Approval number on the Type Approved ECE which is made or imported into the Ghanaian market, indicating its compliance with the Authority's recognized technical standards and requirements for the purpose of improving consumer's confidence in telecommunications products and services in Ghana.
- 12.2 The mark may also be affixed on the packaging and/or in the user manual, but it is not mandatory in these places, unless for reasons of size or other design features the ECE itself cannot be marked, in these cases it is mandatory to affix the label on the product package and the user documentation accompanying the ECE before it is displayed or offered for sale.
- 12.3 Pursuant to Section 66(3) of the EC Act 775, all Type Approved Terminal Equipment shall bear a legible label permanently affixed to such equipment, bearing the mark '**NCA Approved: XXX-XX-XXX-XXX**' as shown in Appendix 3 of these Guidelines.

- 12.4 Type Approved modular equipment is exempted from these marking requirements however if such module is placed in any other ECE with other unapproved modules, such ECE is subject to Type Approval and shall bear the NCA Mark upon approval.
- 12.5 Where it is shown that a mark permanently affixed to the outside of the ECE is not desirable or is not feasible, an alternative method of displaying the required mark may be used if approved by the Authority in writing. The proposed alternative method of marking and the justification for its use must accompany the application for the Type Approval of the concerned ECE.
- 12.6 The mark shall be affixed before the ECE is made available on the Ghanaian market.
- 12.7 The mark shall be affixed under the responsibility of the manufacturer, his authorized representative in Ghana, or the party responsible for placing the ECE on the Ghanaian market.
- 12.8 The responsible party shall be guilty of an offence if he or she fails to comply with these requirements.
- 12.9 The Authority shall take appropriate action against the responsible party who has affixed a marking found not to be in conformity with these requirements.
- 12.10 E-Marking (Electronic Marking) shall be accepted in place of physical marking however it is the sole responsibility of the manufacturer to ensure that such mark is not altered.

### **13 VALIDITY OF THE TYPE APPROVAL**

- 13.1 The Type Approval for any particular ECE is granted with an unlimited period of time provided no modifications have been made to the approved ECE.
- 13.2 Whenever an existing Type Approved ECE is modified with respect to manufacturing brand name, product name, model number or

function or any change that affect any of the information recorded in the Type Approval Register or the Certificate of Compliance or the Declaration of Conformity, a new application for Type Approval must be made according to the requirements of these Guidelines.

- 13.3 Whenever changes to the Type Approved ECE may affect compliance with the applied standards and requirements to which it has been previously tested and validated, a new application for Type Approval must be made according to the requirements of these Guidelines.
- 13.4 Whenever changes to the Type Approved ECE may affect a network interface or have an effect on the specific essential requirements relating to safety, EMC or radio frequency behaviour of the concerned ECE, a new application for Type Approval must be made according to the requirements of these Guidelines.
- 13.5 If changes to Type Approved ECE are essentially cosmetic and are non-network affecting or have no effect on the specific essential requirements relating to health and safety, EMC or radio frequency behaviour, a new application for Type Approval is not required provided that the information recorded in the Type Approval Register remains unchanged.
- 13.6 Manufacturers shall notify the Authority whenever there is a change in the version of software as well as firmware version used in the ECE. This is required where the said release is non-network affecting.
- 13.7 Notwithstanding Section 13.6, a software release that affects the network and basic functionality of the ECE as well as the information recorded in the Type Approval Register requires a new Type Approval authorization.

## **14 REVOCATION OF TYPE APPROVAL**

- 14.1 The Type Approval for any particular ECE shall be revoked in the following cases:

- i. In the event that the ECE listed in the Type Approval Register has undergone one or more of the changes described in Article 13.2, 13.3, and 13.4 without applying for a new Type Approval.
- ii. If a default of the Type Approved ECE becomes known or reported to the Authority or any other competent authority.
- iii. In the event of a regulation change in Ghana, including but not limited to change in the assignment of a frequency band in which the Type Approved ECE operates.

14.2 The Authority shall publish a notification on its web site about the revocation of a Type Approval and the reasons for revocation. The ECE in question shall be removed from the Type Approval Register. Only the original applicant who requested the Type Approval for the ECE will be individually notified.

14.3 Upon cancellation of a Type Approval, any party responsible for placing the ECE on the Ghanaian market shall have to withdraw the non-compliant ECE from the market. Noncompliance with this clause is a violation of the Act, EC Act and these Guidelines and will result in the application of fines and penalties.

14.4 The Authority shall inform or give a thirty (30) day notice to an Equipment Manufacturer or Dealer about the revocation of a Type Approval or the nullification of an exemption from Type Approval.

## **15 CLASSIFICATIONS OF ELECTRONIC COMMUNICATIONS EQUIPMENT**

15.1 Electronic Communications Equipment have been classified into the following categories

<b>SN.</b>	<b>Category Number</b>	<b>Category Name</b>	<b>Examples</b>
------------	------------------------	----------------------	-----------------



1	One (1)	Terminal Equipment	PDA's, Mobile handset s, POS , Tablet s, wireless enabled Infotainment Systems, Telephone set s, IP Phones, Mobile Dongles, etc.
2	Two (2)	Short Range Radio Devices	Wi-Fi, Bluetooth, NFC Readers , RFID , Keyless entry cards etc.
3	Three (3)	Network Equipment	BSCs, MSCs, BTS , PSTN Switches, Media gateways etc.
4	Three A (3.A)	Class 1 Network Equipment (Core Network Equipment)	
5	Three B (3.B)	Class II Networking Equipment (IT Networking Equipment)	
6	Four (4)	Radio Transceivers (Transmitter Receivers, Active Antennae Systems, Radios)	Radio, Broadcast, Satellite Equipment , Active Antenna Systems, Receive Only Devices, Base Stations, etc.
7	Five (5)	Frequency Dependent Medical Devices	Sealing generators,

15.2 The Authority shall reclassify equipment from time to time.

## 16 TYPE APPROVAL FEES

- 16.1 The fee for type approval application is contained in the Schedule of Fees. Applicants can submit an enquiry in respect of the fees via [typeapproval@nca.org.gh](mailto:typeapproval@nca.org.gh).
- 16.2 The Type Approval fees may be reviewed from time to time by the Authority and updated as necessary. Applicants should refer to NCA Schedule of Fees for current fees.
- 16.3 The prescribed application fee must be paid in advance of submission of the application for Type Approval. The application fee is non-refundable and has to be paid for each type of equipment.
- 16.4 The authorization fee must be paid upon issue of Provisional Authorization.

- 16.5 Payment of fees should be made by banker's draft or bank transfer in Ghana Cedi. The applicant is responsible for the transfer charges in the case of a bank transfer.
- 16.6 Proof of payment of the prescribed fee must be included with the application for Type Approval submitted to the Authority. This proof of payment can be, for instance, a scanned image or screenshot of a payment receipt. It must be in an un-editable format and the Authority's bank account number, payment amount and the date of payment must be visible.
- 16.7 The payment would be verified using proof of payment before the application can be processed.

## **17 ACCREDITED TESTING LABORATORIES RECOGNIZED BY THE AUTHORITY**

- 17.1 The Authority maintains and publishes on its website a list of accredited Testing Laboratories that are regarded by the Authority as suitable for performing tests demonstrating compliance of the ECE with the relevant standards recognized by the Authority.
- 17.2 The laboratories in this list have been accepted as accredited to perform laboratory test results according to the relevant product standards or other specified requirements adopted in Ghana, as identified in the accreditation scope for each laboratory.
- 17.3 Accredited Test Laboratories can be deemed as recognized by the Authority only if the following requirements are met:
  - a. The laboratory is compliant with ISO/IEC 17025
  - b. Compliance to ISO/IEC 17025 is certified by an Accreditation Body, who is a member of the International Laboratory Accreditation Cooperation (ILAC)
- 17.4 Where the type approval process has been followed, the relevant assessment test results from each of the laboratories recognized by the

Authority must be accompanied by the evidence of the relevant scope of accreditation of the respective laboratory involved.

## **18 TYPE APPROVAL BODIES TO BE RECOGNIZED BY THE AUTHORITY**

- 18.1 Type Approval bodies that are recognized by the Authority include NRAs and CABs.
- 18.2 The Authority will maintain and publish a list of NRAs and CABs that are regarded by the Authority as suitable for certifying compliance of the ECE with the relevant technical standards adopted in Ghana. An initial list is provided in Appendix 5 and this list will be updated regularly by the Authority with the addition of any new recognized NRA or CAB and published on the Authority's website.
- 18.3 The Authority will recognize only the NRA that has in place a Type Approval regime deemed to be acceptable by the standards of the Authority
- 18.4 The CABs in this list have been accepted as accredited to assess and certify ECE according to the technical standards or other specified requirements adopted in Ghana, as identified in the accreditation scope for each of them. In addition, the Authority recognizes the conformity assessment process of the CAB on this list to be valid for the purpose of issuing Type Approval in Ghana.
- 18.5 The Authority will recognize only the Type Approval Bodies that are accredited by a national accreditation agency or a national government body from selected countries as outlined in Appendix 5.
- 18.6 Where radio frequencies are concerned, the CAB shall be able to provide Certificates of Compliance for use in ITU Region 1 unless otherwise stated by the Authority.
- 18.7 The relevant Certificates of Compliance from those CABs recognized by the Authority must be accompanied by the evidence of the relevant

qualifications (e.g. accreditation certificate or other documentary evidence) of the respective body involved.

## **19 OBLIGATIONS OF MARKET PLAYERS**

### **19.1 Obligations of manufacturers**

- a. When placing ECE on the market, manufacturers shall ensure that it has been designed and manufactured in accordance with the essential requirements set out in Sections 5.
- b. Manufacturers shall draw up the Technical Documentation referred to in Section 11 and carry out the conformity assessment procedure referred to in these Guidelines or have it carried out.
- c. Where compliance of ECE with the applicable requirements has been demonstrated by the conformity assessment procedure, manufacturers shall draw up a declaration of conformity and affix the approved NCA marking.
- d. Manufacturers shall keep the technical documentation and the declaration of conformity for minimum period of six (6) years after the ECE has been placed on the market.
- e. Manufacturers shall ensure that ECE bears a type, batch or serial number or other element allowing their identification, or, where the size or nature of ECE does not allow it, that the required information is provided on the packaging, or in a document accompanying Electronic Communications Equipment.
- f. Manufacturers shall indicate their name, registered trade name or registered trade mark and the address at which they can be contacted on ECE or, where the size or nature of ECE does not allow it, is provided on its packaging, or in a document accompanying ECE. The address must indicate a single point at which the manufacturer can be contacted.

- g. Manufacturers shall ensure that ECE is accompanied by instructions and safety information in the English language and any other second language. Such instructions shall include the following
  - a. Information required to use ECE in accordance with its intended use.
  - b. A description of accessories and/or components, including software, which allow the ECE to operate as intended.
  - c. Where applicable, frequency band(s) in which the ECE operates; radio-frequency power transmitted in the frequency band(s) in which the ECE operates.
- h. A copy of the full declaration of conformity shall accompany each piece of ECE. This requirement may also be fulfilled by the provision of a simplified declaration of conformity. Where only a simplified declaration of conformity is provided, it shall be immediately followed by the exact internet or e-mail address where the full declaration of conformity can be obtained.
- i. Manufacturers who place on the market ECE which have not been type approved in conformity with these Guidelines shall immediately take the necessary corrective measures to type approve that ECE or have the ECE removed from the Market.
- j. Where ECE presents a risk, manufacturers shall immediately inform the Authority, giving details, in particular, of the non-compliance and of any corrective measures taken. Where corrective measures cannot be taken, the manufacturer shall withdraw or recall the ECE where appropriate with the supervision of the Authority.
- k. Manufacturers shall, provide it without delay any request from the Authority, with all the information and documentation necessary to demonstrate the conformity of ECE. They shall cooperate with

the Authority, at its request, on any action taken to eliminate the risks posed by ECE which they have placed on the market.

### **19.2 Authorized representatives**

- b. A manufacturer may, by a written mandate, appoint an authorized representative. The obligations laid down in Article 6.1(a) and the drawing up of technical documentation shall not form part of the authorized representative's mandate. An authorized representative shall perform the tasks specified in the mandate received from the manufacturer. The mandate shall allow the authorized representative to do at least the following:
  - i. request for type approval on behalf of manufacturer who does have in-country presence;
  - ii. keep copy of the type approval certificate
  - iii. keep the declaration of conformity and the technical documentation at the disposal of the Authority for a minimum of six (6) years after the ECE has been placed on the market;
  - iv. on the Authority's request, provide all the information and documentation necessary to demonstrate the conformity of the ECE;
  - v. cooperate with the Authority, at their request, on any action taken to eliminate the risks posed by ECE covered by the authorized representative's mandate.

### **19.3 Obligations of Dealers**

- a. Importers shall place only type approved ECE on the market. Before placing ECE on the market, dealers shall ensure that the appropriate conformity assessment procedure has been carried out by the manufacturer evidenced by a Type Approval Certificate.
- b. Dealers shall ensure that the manufacturer has drawn up the technical documentation, that the ECE has the required NCA marking and is accompanied by the information for users and

regulatory authorities, and that the manufacturer has complied with the requirements set out in Section 6.

- c. Where a dealer considers or has reason to believe that ECE is not in conformity with the essential requirements set out in Section 6, he shall not place the ECE on the market until it has been brought into conformity. Furthermore, where ECE presents a risk, the dealer shall inform the manufacturer and the Authority to that effect.
- d. Dealers shall indicate their name, registered trade name or registered trade mark and the address at which they can be contacted on the ECE or, where that is not possible, on its packaging or in a document accompanying the ECE. This includes cases where the size of ECE does not allow it, or where Dealers would have to open the packaging in order to indicate their name and address on the ECE.
- e. Dealers shall ensure that the ECE is accompanied by instructions and safety information in English and other language which can be easily understood by consumers and other users.
- f. Dealers shall ensure that, while ECE is under their responsibility, storage or transport conditions do not jeopardize its compliance with the essential requirements set out in Guidelines 5.
- g. When deemed appropriate with regard to the risks presented by ECE, Dealers shall in order to protect the health and safety of consumers, carry out sample testing of ECE made available on the market, investigate, and, if necessary, keep a register of complaints, of non-conforming ECE and ECE recalls, and shall keep distributors informed of such monitoring.
- h. Dealers who consider or have reason to believe that ECE which they have placed on the market is not in conformity with these Guidelines shall immediately take the corrective measures

necessary to bring that ECE into conformity, to withdraw it or recall it, if appropriate. Furthermore, where the ECE presents a risk, Dealers shall immediately inform the Authority to that effect, giving details, in particular, of the non-compliance and of any corrective measures taken.

- i. Dealers shall, for a period of six (6) years after the ECE has been placed on the market, keep a copy of the declaration of conformity at the disposal of the Authority and ensure that the technical documentation can be made available to those authorities, upon request.
- j. Dealers shall, provide at the Authority's request within the specified time frame all the information and documentation necessary to demonstrate the conformity of ECE. They shall cooperate with the Authority, at its request, on any action taken to eliminate the risks posed by ECE which they have placed on the market.

#### **19.4 Licensed Operators**

- a. Licensed Operators of public telecommunications networks shall define the technical characteristics of their Interfaces.
- b. Licensed Operators of public telecommunications networks shall publish accurate and adequate technical specifications of their network interfaces before any service provided through those interfaces is made publicly available and regularly publish any updated specifications.
- c. The technical specifications shall be in sufficient detail to enable manufacturers to design ECE capable of utilizing all services provided through the corresponding interface.
- d. The technical specifications shall include all the information necessary to allow manufacturers to carry out the relevant



compliance tests for the essential requirements applicable to the ECE. The licensed Network Operator shall ensure that those specifications are made readily available to the Authority.

- e. Notwithstanding Section 19.4 (a, b, c, and d) above, if an operator has cause to believe that publishing of such technical information might compromise the security of the network, that operator should inform the Authority in writing giving reasons why it should be exempted from publishing such information.
- f. All ECE issued with the Type Approval Certificate by the Authority shall be connected to the public telecommunications networks without inspection by the licensed network operators and the network operators shall have no right to refuse the connection of the ECE to the appropriate interfaces.
- g. Where the Authority considers that any ECE issued with the Type Approval Certificate by the Authority causes serious damage to a network or harmful radio interference or harm to the network or its functioning, the licensed operator may be authorized by the Authority to refuse connection, to disconnect such ECE or to withdraw it from service.
- h. In case of emergency, a Licensed Operator may disconnect an ECE if the protection of the network requires the equipment to be disconnected without delay and if the user can be offered, without delay and without costs to him, an alternative solution. The Licensed Operator shall immediately inform the Authority in this regard.

## **20 MONITORING AND SURVEILLANCE**

- 20.1 It is a violation of the Act and EC Act to import, supply or use ECE which is not Type Approved in Ghana and without a dealership

licence. Such violation shall attract a punitive measure from the Authority.

- 20.2 The Authority shall perform market surveillance activities from time to time to ensure that only type approved ECE is sold in Ghana. Such surveillance activities may result from a complaint, a report of interference, visual inspection of ECE in a retail outlet, inappropriate advertising or simply random selection.
- 20.3 An authorized officer of the Authority shall at any reasonable time enter any premises in which the importer, supplier or distributor is keeping the imported ECE for inspection purposes.
- 20.4 Importers, suppliers or distributors of ECE must cooperate in such activities and provide the equipment or sample units of it and/or make all or part of the supporting documentation at the disposal of the Authority on request without delay and without costs.
- 20.5 Where an initial examination is inconclusive or unsatisfactory, additional information may be requested and one or more sample units of the ECE may be required for testing at a laboratory assigned by the Authority. The Type Approval applicant, his authorized representative in Ghana or the party responsible for placing the ECE on the Ghanaian market will be responsible for all laboratory or other costs incurred. The Authority will return such equipment to the applicant if they are found to be compliant with the technical requirements and standards in Ghana.
- 20.6 At the time when non-compliance of the ECE with any relevant requirement or standard is discovered, the Authority may take all appropriate measures to withdraw the ECE in question from the market or from service, prohibit its placing on the Ghanaian market or putting into service or restrict its free movement or other enforcement measures that may be deemed as appropriate by the Authority.

- 20.7 The Authority reserves the right to revoke the Dealership Licence at any time where it deems that the relevant Guidelines and technical requirements have not been observed.
- 20.8 The Authority may publish on its website at its sole discretion information deriving from its monitoring and surveillance activities.
- 20.9 Inspected ECEs cleared into the Authority shall be destroyed after 180 days if the importer has not taken the necessary steps to remedy issues arising from the inspections.

## **21 CONSUMER COMPLAINT PROCEDURES**

- 21.1 Any complaints arising from the use of type approved ECEs shall be addressed using the consumer complaint procedure as mandated by Section 3(k) of the NCA Act and the relevant Acts, Regulations and Guidelines.

## **22 SACNTIONS**

- 22.1 The sanctions specified in the NCA Schedule of Penalties in the Ghana Gazette dated 20th April 2015, page 732, states that “Importation, distribution and sale of electronic communication equipment which are not certified by the Authority shall attract a penalty ranging from GhC20,000.00 to GhC 50, 000.00”.
- 22.2 Supplying defective sample to the Authority shall be considered as an offence and if TAC has been issued, it shall immediately be revoked and sanctions shall apply.

## **23 TYPE APPROVAL REGISTER**

- 21.1 The Type Approval Register contains detailed information on all equipment authorized by the Authority for use, import and commercialization in Ghana.

- 21.2 The information in the Type Approval Register is derived from the application presented for Type Approval by the applicant. The applicant is responsible for the accuracy of this information.
- 21.3 The Type Approval register is maintained by the Authority, who is responsible for inputting new entries upon successful registration.
- 21.4 The Type Approval Register is made available to all interested parties on the Authority's website.
- 21.5 The Type Approval Register will have the following details for each equipment:
- a. Type of ECE
  - b. Brand name
  - c. Manufacturer
  - d. Operating frequency band
  - e. Radio frequency power of ECE
  - f. Modulation type
  - g. Firmware/Software Version
  - h. Date of certification issue
  - i. EMC compliant standard
  - j. Radio compliant standard
  - k. Safety/Health compliant standard
- 21.6 These details provided in the Type Approval register are based solely upon the discretion of the Authority.

## **24 DEALERSHIP REGISTER**

- 22.1 The Dealership Licensee Register contains information on all entities authorized by the Authority to import ECE in Ghana for commercial purposes.
- 22.2 The information in the Dealership Register is derived from the application presented by the applicant. The applicant is responsible for the accuracy of this information.

- 22.3 The Dealership Licensee Register is maintained by the Authority, who is responsible for entering new entries upon successful registration.
- 22.4 The Dealership Licensee Register is made available to all interested parties on the Authority's website.
- 22.5 The Dealership Licensee Register includes the following data:
- a. Name of Entity
  - b. The Dealership License Class
  - c. Date of Authorization
  - d. Description of Company business
  - e. Postal address
  - f. Contact person's name
  - g. Contact person's e-mail address
  - h. Contact person's telephone number
  - i. List of Retail outlets
- 22.6 These details provided in the Type Approval register are based solely upon the discretion of the Authority.

## **25 CONTACT REFERENCES**

- 22.7 Application for Type Approval can be delivered to the Authority in the following manner only when the TAMSys is not available for online submission:
- a. Handed in person at the Authority's offices during normal office hours (08.00 to 17.00 GMT). The documentation must be contained in a single package/envelope and addressed to:
    - The Director General
    - National Communications Authority
    - 1st Rangoon Close
    - Cantonments, Accra
  - i. Sent via normal mail to:
    - The Director General
    - National Communications Authority
    - 1st Rangoon Close

P.O. Box CT1568  
Cantonments  
Accra

- ii. Sent via e-mail to the following address: (typeapproval@nca.org.gh). Any web portal that may be developed by the Authority shall replace this mode of application.
- (a) In case the application is sent electronically, the files must be in non-editable formats, such as PDF or JPG, and formatted in such a way to be easily printable
- (b) Any request for information about the Type Approval process can be addressed in person at the Authority's offices or by telephone via the number +233-30-2771701 or +233-30-2763449

**APPENDIX 1: DECLARATION OF CONFORMITY**

REFERENCE NUMBER: \_\_\_\_\_

I/WE .....  
*(Name of manufacturer/supplier)*

OF .....  
*(Address)*

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 FOLLOWING STANDARDS:

.....

.....  
*(include all applicable Standards, including those accepted/adopted by the Authority and any other relevant ITU-T, CCIR or other international standards that the product meets)*

AND THAT I/WE 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 AS REQUIRED.

SIGNATURE: ..... DATE: .....

*(for and on behalf of manufacturer/supplier)*

NOTE: *For information on how to complete this declaration and prepare the supporting documentation, please refer to ISO/IEC 17050-1:2004 Conformity assessment – Supplier’s declaration of conformity Part 1: General requirements and ISO/IEC 17050-2:2004 Conformity assessment – Supplier’s declaration of conformity Part 2: Supporting documentation.*

## APPENDIX 2: TYPE APPROVAL FORM AP09A



NCA FORM AP09

Payment Receipt No: .....  
Date: .....

### Application for Type Approval

#### Section A Applicants Details

Company Name \_\_\_\_\_

Contact Person \_\_\_\_\_

Address (Postal) \_\_\_\_\_

Telephone Number \_\_\_\_\_

Fax Number \_\_\_\_\_

E-mail address \_\_\_\_\_

#### Section B Technical Details of Equipment

Equipment Type (Refer to Section 15 of the Type Approval Guidelines) \_\_\_\_\_  
*(As should appear on authorisation)*

Brand Name \_\_\_\_\_  
*(As should appear on authorisation)*

Model Number \_\_\_\_\_  
*(As should appear on authorisation)*

Name of Manufacturer \_\_\_\_\_

Address of Manufacturer \_\_\_\_\_

Country of Origin \_\_\_\_\_

Intended Use \_\_\_\_\_

#### Additional Details for Radio Equipment (This is Compulsory for Radio Equipment)

Frequency Range \_\_\_\_\_

RF Output Power radiated \_\_\_\_\_

RF Output Power Conducted \_\_\_\_\_

RF Channel Spacing \_\_\_\_\_

RF Output Impedance \_\_\_\_\_

Type of Modulation \_\_\_\_\_

Bandwidth \_\_\_\_\_

Software/Firmware \_\_\_\_\_ Release \_\_\_\_\_

Antenna Type \_\_\_\_\_



Antenna Gain \_\_\_\_\_  
Technical Variants \_\_\_\_\_

**Details of Certificate of Compliance**

Issuing Body \_\_\_\_\_  
Issuing Date \_\_\_\_\_  
Validity \_\_\_\_\_

**Applicable Standards**

EMC \_\_\_\_\_  
Radio \_\_\_\_\_  
Health and Safety \_\_\_\_\_

***Undertaking:***

I/We \_\_\_\_\_ hereby certify that the information supplied in this application form is true in all respects and I/We hereby give undertaking that upon grant of the Certificate, I/We shall abide by the terms and conditions upon which the Certificate is granted. I/We accept that my/our Certificate, may be revoked and the appropriate penalty applied if it is established that I/We have been granted Certificate based on incorrect information.

**Signed** \_\_\_\_\_

**Date** \_\_\_\_\_

**Supporting Documents**

The following list of documents needs to be submitted. Items 4 to 8 constitute the Technical Documentation (TD). Please refer to the Type Approval Guidelines Section 11 in case more details are needed.

1. Application Letter on Company Letterhead
2. Completed NCA Type Approval Application Form
3. Sample of Product
4. Declaration of Conformity issued by the manufacturer of the ECE
5. Certificate of Compliance issued by a National Regulatory Authority or Conformity Assessment Body recognized by the National Communications Authority (where applicable)
6. Technical/ operational documentation of the ECE including user /installation manual
7. Test Reports of accredited laboratory
8. Photographs (external/internal), Circuit diagram, PCB layout, part lists and other relevant design information
9. Power of Attorney (where applicable)
10. Proof of Genuine IMEI by GSMA (where applicable)
11. Proof of Payment of Type Approval fee

*Submit Your Applications Online through [portal.nca.org.gh](http://portal.nca.org.gh)*

### APPENDIX 3– NCA MARKING

All communications equipment that have been type approved shall have an approved NCA mark. The markings can be physically etched on the device (H-Marking) or by software (E-Marking) accessible and visible when device is powered. This is recommended for devices with small form factor. Below is the marking without the outer lines.

**NCA APPROVED: XXX-XX-XXX-XXX**

### APPENDIX 4 – STANDARDS AND NATIONAL FREQUENCY ALLOCATION TABLE (NFAT)

#### Public Mobile

Service as in NFAP	Frequency Band	Applicable Subsection of Framework	Reference Standards of Conformity
GSM	880-915MHz 925-960 MHz	GSM Base Station and Ancillary Equipment	EN 301 489-8 EN 301 502
	1710-1785 MHz 1805-1880 MHz	GSM Handsets, terminals & ancillary equipment	EN 301 489-7 EN 301 511
CDMA	825-835 MHz 870-880 MHz	BS, UE, Repeaters	EN 301 908-5
IMT	1900-1920 MHz 1920-1980 MHz 2110-2170 MHz	UMTS handsets and related Equipment	EN 301 908-2 EN 301 908-6 EN 301 489-24
		UMTS base stations	EN 301 908-3 EN 301 908-7 EN 301 908-11 EN 301 489-23

#### Private Mobile

Service as in NFAT	Frequency Band	Applicable Subsection of Framework	Reference Standards of Conformity
Amateur Radio	3.5-3.8 MHz 7.0-7.2 MHz 14-14.35 MHz 21-21.45 MHz 24.89-24.99 MHz 144-146 MHz	Amateur radio and ancillary Equipment	EN 301 489-15 EN 301 783-2

Private Mobile Networks	138-144 MHz 146- 174 MHz	Land Mobile Radio	EN 300 113 -1 EN 300 390-1 EN 301 783 2
Private Radio Networks	400-470 MHz	CDMA 450 Scada system	EN 301 908-5
Maritime Radio	156.4875-156.5625 MHz 156.7625-156.8375 MHz	Maritime Radio	EN 300 698 EN 301 025 EN 301 178

### Fixed Wireless

WLAN	2.400-2.483.5 GHz 5.150-5.350 GHz 5.470-5.725 GHz 5.725-.5.825 GHz	2.4 and 5GHz high performance RLAN and ancillary equipment	EN 301 489-17 EN 301 893 EN 300 328 ETSI 301 893
Digital Microwave Radio	5.925-6.425 GHz 6.425-7.110 GHz 7.110-7.750 GHz 7.900-8.400 GHz 10.150-10.650 GHz 10.7-11.7 GHz 12.750-13.250 GHz 14.50-15.35 GHz 17.70-19.70 GHz 22.000-23.600 GHz 24.50-26.50 GHz 27.500- 29.500 GHz 31.80-33-40 GHz 37.0-39.5 GHz	fixed wireless services equipment	EN 301 489-4 EN 302 217-2-2 EN 302 217-3 EN 302 217-4-2
BWA	2.30- 2.400 GHz 3.30-3.400 GHz 3.40-3.60 GHz 3.60-3.80 GHz	BWA equipment	EN 301 489-17 EN 301 893 EN 301 753

### Short Range (nonspecific short range devices)

SERVICE AS IN NFAP	FREQUENCY BAND	APPLICABLE SUBSECTION OF FRAMEWORK	REFERENCE STANDARDS OF CONFORMITY	MAXIMUM STRENGTH/RF OUTPUT POWER
WLAN, Bluetooth ISM	2400 MHz – 2483.5 MHz	Non -specific short range devices	EN 300 440 EN 300 328	e.i.r.p 10 mw indoor only
	2.412-2.483.5 GHz 5.150-5.350 GHz 5.470-5.725 GHz 5.725-.5.825 GHz	Non -specific short range devices	ETSI 301 893 EN 300 328	e.i.r.p 100 mW
(NA)SRD Radar Systems	24.05 GHz – 24.25 GHz 57 GHz – 64 GHz 75 GHz – 85 GHz	Radio determination application	EN 300 440 EN 302 288 EN 302 372	e.i.r.p 500 mW e.i.r.p 100 mW e.i.r.p -41.3 dBm/MHz
Vehicle Telematics	5795 MHz – 5805 MHz 76 GHz – 77 GHz	Road transport and traffic telematics	EN 300 674 EN 200 674 EN 301 091	e.i.r.p 2 W 55 dBm peak e.ir.p -50 dBm Average power - 23.5 dBm
Car immobilizers, Alarm systems, data transfer to handheld devices etc.	9 kHz – 148.5 kHz 3155 kHz – 400 kHz 6765 kHz – 6795 kHz 7400 kHz – 8800 kHz 13.553 MHz – 13.567 MHz 26.957 MHz – 27.283 MHz 430 MHz – 435 MHz 830 MHz – 850 MHz	Inductive applications	EN 302 291 EN 300 330 FCC part 15 EN 300 220	72 dBµA/m at 10m 13.5 dBµA/m at 10 m 42 dBµA/m at 10 m 9 dBµA/m at 10 m 60 dBµA/m at 10 m 42 dBµA/m at 10 m, e.r.p 10mW e.r.p 10mW e.r.p 10mW
Article identification, asset tracking, alarms	13.553 MHz – 13.567 MHz 2446 MHz –2454 MHz	Radio Frequency identification applications	EN 302 291 EN 300 440	60 dBµA/m at 10 m e.i.r.p 500 mW
Cordless loudspeakers, headphones	43 MHz, 46 MHz, 47 MHz, 49MHz	Wireless audio applications	EN 301 357	e.i.r.p 10 m W e.i.r.p 20 m W e.r.p 5 mW
Vehicle Immobilizer, antitheft system, navigation device, etc.	133 kHz 134 kHz 433.72 MHz – 434.12 MHz 133 kHz 433 MHz 458.95 MHz 2450.00 MHz 24.15 GHz 76 GHz – 77 GHz 1575.42 MHz 13.553 MHz – 13.567 MHz	Vehicle fitted radio products	EN 300 220 EN 300 328 EN 300 440 EN 301 091 EN 302 291 EN 300 330	60 dBµA/m at 10 m 70 dBµA/m at 10 m, e.r.p. 10 mW (10 dBm), 75.6 dBµA/m at 3 m, e.r.p. 0.1 mW, 95 dBµA/m at 3 m, e.r.p 1 m W 70 dBµA/m at 10 m, e.r.p 10 mW (10 dBm) e.i.r.p 1 mW e.i.r.p 10 m W 10 W to 15 W Peak e.i.r.p 316.22 W Peak e.i.r.p 60 dBµA/m at 10 m

## Broadcasting

Service as in NFAP	Frequency Band	Applicable Subsection of Framework	Reference Standards of Conformity
FM Radio	87.5-108 MHz	Sound broadcasting equipment	EN 301 489-11 EN 302 018-1 EN 302 018-2
TV Broadcast	174-230 MHz 470-694 MHz	Vision broadcasting equipment	EN 301 489-14 EN 302 297 EN 302755v1.3.1

Note: In general equipment users should refer to the most recent editions of the standards and watch for subsequent amendments.

### APPENDIX 5 – RECOGNIZED TYPE APPROVAL BODIES

- FCC (Federal Communications Commission)
- ETSI (European Telecommunication Standards Institute)
- IDA (Infocomm Development Authority of Singapore)
- IC (Industry Canada)

### APPENDIX 6- ACCREDITED TEST LABS

#### FCC MARK ACCREDITED LABS

- Flom Test Labs, Chandler, AZ, USA
- AEGIS Labs, Inc. , 32231 Trabuco Creek Road, Trabuco Canyon, CA 9267, USA
- ATLAS Compliance & Engineering, Inc., 726 Hidden Valley Road, Royal Oaks, CA 95076 (OATS, USA
- CKC Laboratories, Inc., Mariposa, CA, USA
- Cisco Systems, Inc., San Jose, CA, USA
- Compatible Electronics, Inc., Silverado/Lake Forest CA, USA
- Compliance Engineering Services, Inc., Morgan Hill CA, USA
- DNB Engineering, Inc., Fullerton, CA, USA
- EMC Compliance Management Group, Mountain View CA, USA
- Electro Magnetic Test, Inc., Mountain View CA, USA
- Elliott Laboratories, Inc. Sunnyvale, CA, USA
- Garwood Laboratories, Inc., Pico Rivera, CA, USA
- Global Testing, A Div. of Rajkumar Corp. , Riverside, California, USA

- Intertek Testing Services NA Inc., Menlo Park, CA, USA
- MET Laboratories, Inc., Union City, CA, USA
- MiCOM Labs, 3922 Valley Avenue, Suite B, Pleasanton, CA 94566, USA
- NCR Corp., San Diego, USA
- EMC Lab, San Diego CA, USA
- National Technical Systems, Fullerton, CA, USA
- Nemko USA, Inc., San Diego, USA

## **ETSI (CE) MARK ACCREDITED TEST LABS**

- BSI (British Standards Institute, Testing Division - UK)
- ERA Technology (Leatherhead, Surrey - UK)
- ACTS Testing Labs (Corporate Homepage)
- A-Pex International (Japanese Test Lab. Language-Japanese)
- Assessment Services Ltd. (TÜV Product Service Co. - UK)
- Austest Laboratories (Australian Test Lab)
- Bellcore (Bell Communications Research Labs, NJ - USA)
- CCL - Communication Certification Laboratory
- CESI - Centro Elettrotecnico Sperimentale Italiano (Test Lab - Italy)
- CETECOM GmbH (Essen, Germany)
- AT4 wireless S.A
- Cosmos (Japan - Test Lab)
- DELTA - Danish Electronics, Light & Acoustics (Danish Test Lab)
- DEMKO A/S - Danish Test Lab (a UL company)
- FIMKO - Finnish Safety Test Agency
- FORBAIRT/NETC Home Page (Irish Test Agency)
- GASTEC - Gas Appliance Testing (Dutch Test Agency)
- HKSTC - Hong Kong Standards & Testing Centre Ltd.
- IG - Istituto Giordano S.P.A. - Italian Test Lab
- IPT - Instituto de Pesquisas Tecnológicas (Brazilian Test Lab)
- ITS - Intertek Testing Services (formerly Inchcape T.S.)
- KAITECH (Korean Test Agency. Language-Korean)
- KEMA b.v. (The Netherlands Test and Certification Agency)
- KTL Worldwide (Corporate Homepage)

# APPENDIX 7 – TYPE APPROVAL CERTIFICATE

NCA PRODUCT IDENTIFIER: **XXX-XX-XXX-XXX**

## TYPE APPROVAL CERTIFICATE

ISSUED BY



### NATIONAL COMMUNICATIONS AUTHORITY

UNDER THE ELECTRONIC COMMUNICATIONS ACT 2008, ACT 775 AND THE ELECTRONIC COMMUNICATIONS REGULATIONS 2011, L.I. 1991

**Attention** (Where Available): Roland Kudozia

**Date of Issue:** February 01, 2015

The National Communications Authority hereby grants this Certificate to

**ROLAND COMMUNICATIONS INC.**

(Hereinafter called the Certificate Holder)

Of

56 Multisectional Street, Manufacturing Lane, Tamale, Ghana

Based on the favourable assessment of the Test Reports and other relevant Documents submitted to the Authority.

This Certificate is **VALID ONLY** for the under-mentioned product:

APPROVED PRODUCT TYPE	:	<b>SHORT RANGE RADIO DEVICE</b>
MODEL NUMBER	:	<b>MMSSMMXX</b>
BRAND/TRADE NAME	:	<b>ROLAND</b>
PRODUCT NAME	:	<b>SEQUESTER MM</b>
FREQUENCY RANGE (WHERE NECESSARY)	:	<b>868.0 - 868.6 MHz</b>
EFFECTIVE RADIATED POWER (WHERE NECESSARY)	:	<b>&lt;1mW</b>

#### INTENDED USE OF PRODUCT

*As specified by manufacturer*

in the Type Approval Guidelines and other relevant regulations. The same is null and void when the equipment is altered in function and no longer falls within the parameters verified from the accredited Test Lab.

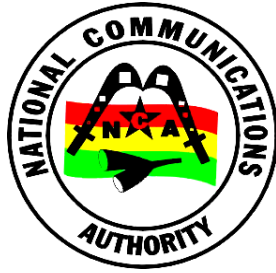
#### **DIRECTOR GENERAL**

*This Certificate is issued pursuant to Section 3(n) of the National Communications Authority Act 2008, Act 769, Section 66 of the Electronic Communications Act 2008, Act 775, Regulations 78-89 of the Electronic Communications Regulations 2011, L.I.1991*

PLEASE NOTE: THE MARK "**NCA APPROVED: XXX-XX-XXX-XXX**" SHALL BE MARKED ON PER THE TYPE APPROVAL GUIDELINES

**APPENDIX 8 – DEALERSHIP LICENCE**

**NATIONAL COMMUNICATIONS AUTHORITY (NCA), GHANA**



**DEALERSHIP LICENCE  
("THE LICENCE")**

Licence Serial No: ..... Company Registration No: .....

The National Communications Authority ("the NCA") in accordance with the National Communications Authority Act, 2008, Act 769 ("the Act") hereby grants this licence to:

.....  
("The Licensee")  
Of

.....  
(Address)  
to possess and deal in the course of his/her trade or business in apparatus or material for communications or in any component parts thereof ("the Licensed Apparatus") in conformity with the Act, Electronic Communications Regulations, 2011, L.I.1991 ("the Regulations"), the Electronic Communications Act, 2008, Act 775 and this Licence, which includes the conditions printed overleaf, and such amendments as shall be made from time to time.

Class of Licence  
.....

Date of Annual Renewal: ..... of each year till Date of Expiration of this Licence.  
(MM/DD)

Date of Expiration: .....  
(MM/DD/YYYY)

Total Number of Outlets/Stores:.....

Physical Addresses of Outlets/Stores:

- i. ....
- ii. ....
- iii. ....
- iv. ....
- v. ....
- vi. ....

(hereinafter called "the Licensed Premises")

.....

(MM/DD/YYYY)  
DATE OF ISSUE

DIRECTOR GENERAL



## CONDITIONS OF THE DEALERSHIP LICENCE

1. This Licence is granted for a term of five (5) years, beginning on the date of issue (“Effective date”).
2. The Licensee shall place the Licence in a glass-fronted frame which shall be prominently displayed in the Licensed Premises at all times.
3. The Licensee shall carry on the business of Dealership only at the Licensed Premises.
4. The Licensee shall:
  - a. keep and maintain a complete and accurate register(s) of all transactions, which shall include the following information:
    - i. date of transaction and particulars of equipment bought and sold; such as equipment type, make model and serial numbers;
    - ii. the supplier’s/customer’s name, address, telephone numbers and email address;
  - b. produce the register(s) and exhibit the stock of the Licensed Apparatus to the NCA or an Officer authorized by it, upon request;
  - c. file a copy of the register(s) with the NCA at the end of every quarter of the year;
5. The transaction records requirement shall not apply if the Licensed Apparatus is a communications Apparatus which falls under Class A Licence.
6. The Licensed Apparatus shall be stored at the Licensed Premises and nowhere else unless with the written permission of the NCA.
7. The Licensee shall promptly notify the NCA in writing of any change in ownership, business name, contact details, number of outlets, location etc. of the business.
8. The Licence shall not be transferrable
9. The Licensed Apparatus shall not be used by the Licensee for the purpose of communication, unless the Licensee has been licensed by the NCA for that purpose.
10. The Licensee shall not deliver any licensed apparatus to a consumer unless:
  - a. The possession or use of such equipment has been exempted from licensing or permitted under Class Licence granted by the NCA; or
  - b. The person to whom such equipment is delivered has been granted a Licence by NCA to possess and use it.
11. The Licensee shall only deal in the Licensed Apparatus and shall not alter any specifications of the Licensed Apparatus.
12. The NCA may at any time after the Effective Date of this Licence, revoke it or vary its terms, provision or limitations thereof by a notice in writing served on the Licensee or by general notice published in the national dailies addressed to all holders of Dealership Licence. Any notice given under this Clause may take effect either forthwith or such subsequent date as may be specified in the notice.
13. The Licensee shall return this Licence to the NCA when it is suspended, revoked or has expired.
14. The Licensee shall pay such Licence fees as the NCA shall determine on the Effective Date of the Licence; and an annual Renewal fee as specified in the NCA Schedule of Fees, shall be due and payable by Banker’s Draft to the NCA on every anniversary taking into consideration the Effective Date of the Licence.
15. Any Licence previously granted to the Licensee, in respect of dealership Business is hereby deemed revoked upon the grant of this Licence.
16. Dealership Licence is not the same as Type Approval Certificate.
17. The Licensee shall at all times deal with Licensed Apparatus that have been type approved by the NCA
18. The Licensee shall furnish the NCA with a list of all Licensed apparatus he\she intends to import into the country.
19. The Licensee shall be required to file their company’s audited financials with the NCA at the end of their fiscal year.

## EFFECTIVE DATE

This Type Approval Guidelines shall be effective on the date of its issue as stated below:

**ISSUED BY**  
**NATIONAL COMMUNICATIONS AUTHORITY**  
**MAY 28, 2015**