



BOTSWANA COMMUNICATIONS REGULATORY AUTHORITY

TYPE APPROVAL GUIDELINES, 2023

Revision: V1

Date: 27 February 2023

Table of Contents

1.	Introduction	1
2.	What equipment must be registered for type approval?	3
3.	Licences for use and sale of radio equipment.....	3
4.	Repair Service	3
5.	Who can apply for registration?.....	4
6.	How to apply for registration.....	4
7.	Modification and cancellation of Registration.....	4
8.	Fees	5
9.	Technical Requirements	5
10.	Test Results	5
11.	Declaration of Conformity (DoC).....	6
12.	Alternative to Declaration of Conformity	6
13.	Supporting Documentation	6
14.	What about equipment manufactured abroad and modified locally in Botswana?	7
15.	Products Already Registered.....	8
16.	Surveillance.....	8
17.	Changes.....	9
18.	Transitional Arrangements	9
19.	Second-hand Devices and Refurbished Devices	9
20.	Know Your Customer (KYC).....	10
21.	Disclaimer	10
22.	Contact Details.....	10
23.	Appendix 1 – Contents of Declaration of Conformity	10
24.	Appendix 2 – Type Approval Fees	11
25.	Appendix 3 – Type Approval Application Form	12
26.	Appendix 4 Type Approval Database Template	14
27.	Appendix 5 – List of BOCRA Recognized Laboratories	16

1. Introduction

- 1.1. the Botswana Telecommunications Authority (BOCRA) is the regulatory authority established in the Republic of Botswana under the Communications Regulatory Authority Act of 2012 (CRA Act).
- 1.2. In accordance with sections 84 and 85 of the Act, The Minister has the power to issue regulations concerning type approval. Pursuant to the foregoing sections, the Minister has prescribed type approval regulations contained in Communications Regulatory Authority Regulations, 2022 (CRA Regulations).
- 1.3. The arrangements for type approval are set out formally in Part V of the CRA Regulations, 2022. This guide explains the practical implementation of the Regulations.
- 1.4. The flowchart in Figure 1 below shows the high-level sequence for applying for type approval and radio licences.

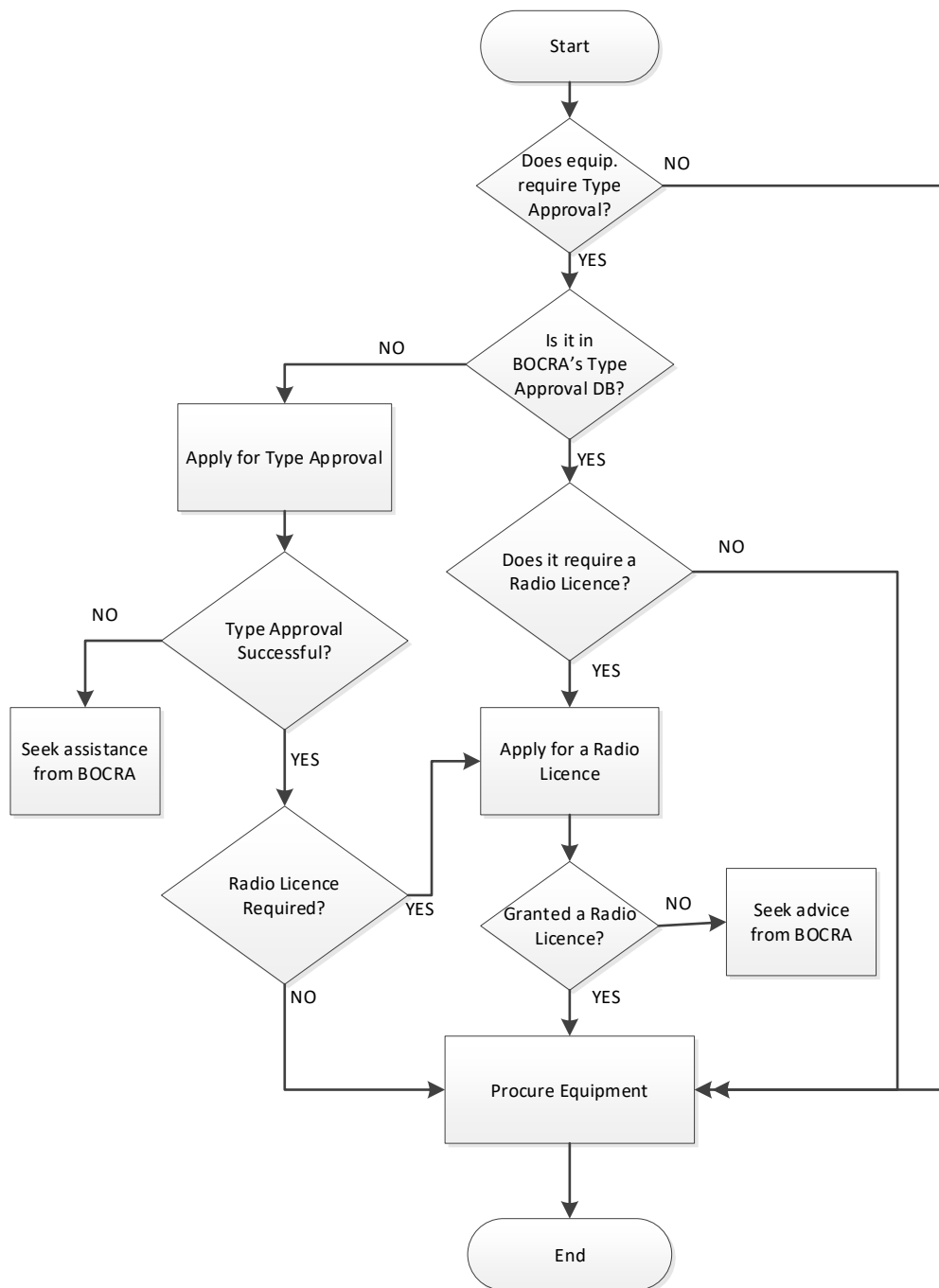


Figure 1: High-Level Type Approval and Radio Licence Application Procedure

2. What equipment must be registered for type approval?

- 2.1. In general, according to the CRA Act all telecommunications terminal equipment and all radio equipment (including broadcast equipment and Postal Equipment) must be registered for type approval. Seek advice from BOCRA if you are not sure whether a piece of equipment requires type approval.
- 2.2. BOCRA publishes a list of technical specifications and corresponding equipment types subject to registration. If an equipment type does not appear in the type-approval database or there is no applicable technical specification then BOCRA will decide, on a case-by-case basis, whether an application for type approval should be made and what technical requirements will apply. BOCRA reserves the right to decline any application for type approval registration.
- 2.3. Equipment that meets the technical specifications published by BOCRA (or equivalent) and which has been registered with BOCRA is type approved for the purposes of the Act. A registration may specify conditions which must be complied with if the type-approval is to apply.

3. Licences for use and sale of radio equipment

- 3.1. All radio equipment requires a licence (Radio Licence) from BOCRA for use of the radio spectrum.
- 3.2. Certain equipment types covered by a general or class licence will not require an individual licence for radio spectrum usage if they meet the requirements of the relevant technical specification for Botswana. Radio equipment that is exempted from the radio licence are specified in Schedule 3 of CRA Regulations. In all other cases, possession, or operation of radio equipment without a licence is an offence under the Act.
- 3.3. All suppliers of radio equipment in Botswana must also obtain a licence (Dealer Licence) from BOCRA to sell and maintain such equipment in accordance with Section 39 of the ACT.
- 3.4. Figure 1, radio equipment must be type-approved by BOCRA before one can apply for a Radio Licence for same.

4. Repair Service

- 4.1. An acceptable repair service must be established in Botswana for each type of equipment that is registered unless an exemption is secured from BOCRA.
- 4.2. If an equipment supplier wishes to use repair services outside Botswana, they should seek approval, with justification, from BOCRA for such an arrangement.
- 4.3. The Authority has issued Type Approval Repair Service Provider Guidelines, which are available at BOCRA Website (<https://www.bocra.org.bw>). The main objective of these guidelines is to protect consumers against the adverse effects of poor repair and maintenance services and provide a guide on accreditation of Repair Service Providers.

5. Who can apply for registration?

- 5.1. According to Regulations 45 and 46, the requirements for Type Approval apply to anyone who imports, manufactures, uses, or supplies communications equipment for use or sale in Botswana, as long as the requirements of (4) above are met.
- 5.2. The manufacturer or importer of telecommunication or broadcasting equipment for use, sale or hire in Botswana must register the equipment with BOCRA, prior to importing, unless the equipment concerned has already been registered in BOCRA's Type Approval Database.

6. How to apply for registration

- 6.1. An application to register equipment must be made on the BOCRA web portal on the URL <http://registration.bocra.org.bw/> and template of the application form is shown in Appendix 3. An applicant will be required to sign in or create a new account if he/she does not have one. From the web portal, an applicant can find a list of all applications he/she made and also check the progress of each application. Application forms must be filled in English.
- 6.2. One application may cover a range of related equipment if details of each equipment and respective supporting documents are provided in a manner that is easily discernible.
- 6.3. Separate applications should be made for models supplied under different brand names. The brand names will be separately listed in the type-approval register maintained by BOCRA.
- 6.4. The application must be accompanied by a declaration of conformity (refer to Section 1) and a full set of test reports confirming compliance with declared conformity.
- 6.5. It is not necessary to submit any other documentation or a sample of the equipment unless requested to do so by BOCRA.
- 6.6. An application that is complete and in order will normally be processed within ten working days of its receipt at BOCRA. The turnaround in other SADC countries was taken into consideration. Applications that are not complete and / or not in order may be rejected.
- 6.7. Successful registration of equipment will result in a corresponding entry in the Type Approval Database maintained by BOCRA and open to inspection by the public on the BOCRA website.

7. Modification and cancellation of Registration

- 7.1. Registration will normally be granted for the lifetime of the specific version of the equipment. Variations or upgrades of equipment must be specifically type-approved where such upgrades impact equipment safety, EMC, spectrum use, and/or standards.
- 7.2. BOCRA reserves the right to cancel a registration at any time where it has reason to believe that the relevant regulations and technical requirements have not been observed.

8. Fees

- 8.1. Type approval fees are payable on the issuance of a type-approval certificate.
- 8.2. Type approval fees are attached as Appendix 2 to this Guidelines.

9. Technical Requirements

- 9.1. BOCRA publishes technical specifications with which equipment is required to comply (Annex 3 and 3.1). In the absence of a relevant specification, BOCRA may specify technical requirements on a case-by-case basis. In any event, it is required that all equipment registered:
 - a) Is electrically safe for users, subscribers, and employees of telecommunications operators.
 - b) Is electromagnetically compatible with other equipment to which it is or will be connected or used.
 - c) Is fitted with a device which will protect the telecommunication system of which it is a part or to which it is connected, against electrical, electromagnetic, or other similar damage.
 - d) Makes efficient use of the radio spectrum where applicable; and
 - e) Is capable of interworking with other telecommunication equipment for the purposes of establishing, modifying, holding, or clearing real and virtual connections.

10. Test Results

- 10.1. Test results must be obtained from a laboratory that has been accredited by a body that is a member of the International Laboratory Accreditation Cooperation (ILAC) Mutual Recognition Arrangement. The testing laboratories should be compliant with ISO/IEC 17025. Compliance to ISO/IEC 17025 is certified by an Accreditation Body that is a member of the International Laboratory Accreditation Cooperation (ILAC).
- 10.2. Test results should be included with the application unless BOCRA specifically states in writing that test results are not required. The equipment must be tested for compliance with BOCRA's technical specifications (or equivalent) and should cover areas of Safety, Electromagnetic Compatibility (EMC) and Technical Standards. Reference to such compliance must be included in the declaration of conformity (refer to Section 1) submitted with the application.
- 10.3. Any other test results must be included in the supporting documentation (refer to Section 13).

11. Declaration of Conformity (DoC)

- 11.1. The DoC is a document drawn up by the manufacturer or supplier (wherever located) on company letterhead or stationery and signed by them confirming that the product complies with the regulations and technical specifications that apply in Botswana or their equivalent. It must be prepared and maintained in accordance with ISO/IEC 17050-1:2004. In addition to the minimum DoC content specified in clause 6.1 of that standard, the supporting information of clauses 6.2 a), b) and e) must also be included. The applicant must satisfy himself that the DoC is authentic and applies to the equipment he wishes to import or supply in Botswana.
- 11.2. Appendix 1 shows minimum content of a DoC.

12. Alternative to Declaration of Conformity

- 12.1. Where equipment has been approved in another country or region with technical requirements that are the same as or equivalent to those required in Botswana, then evidence of such type-approval may be offered in place of a DoC. The evidence should be referenced in a covering letter that includes any of the information mentioned in Section 1 which is not explicit in the evidence itself and which gives an undertaking to make the supporting documentation available to BOCRA on request.

13. Supporting Documentation

- 13.1. The supporting documentation is the complete dossier of evidence that describes in detail the products concerned and the basis on which they are declared to meet the appropriate technical requirements for Botswana. It is not necessary for the applicant to have copy of this supporting documentation or for a copy to be supplied with the application. However, the nature of the arrangements between the applicant and the party providing the declaration of conformity must be such that the applicant can make a copy of the supporting documentation available to BOCRA without undue delay.
- 13.2. The format of the supporting documentation is flexible to accommodate the needs of different product types, but it must comply with ISO/IEC 17050-2:2004. It should have some unique identification number or other identifier of its own which is cross-referenced from the DoC.
- 13.3. In relation to 5.1 a):
 - a) A brief technical description of the equipment including an explanation of the intended use of the equipment as presented to the user and any installation specific information relevant to compliance.
 - b) Identification of the telecommunications networks concerned and any intentional radio spectrum usage.
 - c) Identification of software and firmware that may affect compliance of a network interface or have an effect on radio frequency emissions.
 - d) if the equipment is an interface card or module for installation in a host equipment, the description must give sufficient information for compatible hosts to be determined; and
 - e) Where more than one model is covered, details of the relationships between the models and the rationale for including them.

- 13.4. A copy of the user information may be a convenient way of dealing with some of the above points.
- 13.5. In relation to 5.1 b):
- a) Circuit diagrams and PCB layouts for those parts of the equipment which have a direct impact on compliance with the technical requirements. For example: network interface circuits and radio interfaces (antennas or connection points for antennas); audio components in live speech equipment; line signalling; ports for connecting other equipment; power supplies and all network affecting elements. Full diagrams and complete functional information are not required but there must be sufficient detail to understand the compliance issues and to show the build level of the product in relation to the build level of any sub-assemblies.
 - b) Parts lists in so far as they are relevant to the above. Components which are critical to compliance should be identified and fully specified with suitable tolerances. Care should be taken to ensure that alternative sources of supply are also evaluated; and
 - c) Photographs of both the interior assembly and exterior of the product sufficient to permit a person to determine that a product is the same as that submitted for registration.
- 13.6. In relation to 5.1 c):
- a) Identification of all the BOCRA and other technical specifications that apply and the related test results.
 - b) Test reports or test data and details of test methods where these are not specified in the specifications; and
 - c) Justification for any cases where tests are not performed. This might be the case, for example, where several models are covered or where reliance is placed on a similar product for which data is held in another file (which must be cross-referenced).
- 13.7. The supporting documentation may be kept electronically provided clear legible paper copies of the whole dossier or extracts from it can be produced on request.
- 13.8. The supporting documentation must be kept available for inspection by BOCRA for at least 5 years after the last product of the relevant type has been supplied to Botswana.

14. What about equipment manufactured abroad and modified locally in Botswana?

- 14.1. Equipment manufactured abroad and modified locally in Botswana is included in the arrangements for registration. Typically, the party performing the modification will be the applicant for registration.
- 14.2. In all cases, the supporting documentation should explain the modifications and reference test results on the modified product or explain why the test results on the unmodified product remain valid.

15. Products Already Registered

This section is the exact opposite of 2016 Guidelines for reasons given below. Refer to the 2016 Guidelines for reference.

- 15.1. As discussed under Section 9 **Technical** Requirements, the **purpose** of type approval is **primarily** to:
 - a) Protect the public and users of telecommunications and broadcasting equipment from harm due to equipment that is not compliant with electrical safety specifications.
 - b) Protect public telecommunications and broadcasting networks from harm/damage due to equipment that is not compliant with electrical safety and/or EMC specifications.
 - c) Ensure that all telecommunications and broadcasting equipment operating in Botswana uses the radio spectrum efficiently.
- 15.2. Once a model of equipment has been type approved, and ***thus found to meet all the requirements in 15 above***, all other users and suppliers in Botswana can use or supply the same equipment without the need for further type approval (subject only to the requirement to have a Dealer's Licence and a Radio Licence, in the case of radio transmitter equipment), regardless of which entity/company/individual got the equipment type approved.
- 15.3. If the entity/company/individual that got the equipment type approved wants to be the sole supplier for the equipment or wants to be refunded the cost of type approving the equipment, they should get such exclusive agreement or refund from the Original Equipment Manufacturer (OEM). Such commercial matters have nothing to do with type approval or regulation.
- 15.4. Type approval is not the same as a radio licence which requires that every radio should be licensed. Thus, there is no need for every entity that uses, sells, or supplies any equipment that has been type-approved to have a Type approval certificate as long as the said equipment has been type approved and registered in BOCRA's type approval database.
- 15.5. BOCRA's personnel that conduct surveillance should have such database with them when they conduct surveillance so that they may refer to it where necessary.

16. Surveillance

- 16.1. All parties involved in the import, manufacture and supply of equipment are expected to satisfy themselves that the equipment which they supply has been type approved.
- 16.2. It is a violation of the Act to supply or to be in possession of telecommunications or broadcasting equipment which has not been type approved.
- 16.3. BOCRA conducts regular surveillance inspections to check for compliance with type approval requirements and may seize equipment suspected of being in contravention of the Act.
- 16.4. Where an inspection is inconclusive or unsatisfactory, additional information may be requested, including a sample of the equipment for testing at a laboratory nominated by BOCRA. Alternatively, BOCRA may direct the dealer/user to send the said equipment for testing at a laboratory specified by BOCRA. In all such cases the dealer/user of such equipment will be responsible for all costs associated with such testing. It is recommended that BOCRA should implement QR code in the Type

Approval certificate to improve security.

17. Changes

- 17.1. If a product change introduces an additional network interface or requires the use of additional radio frequencies, then a new application for registration must be made before such equipment is put into operation in Botswana. There will be modification charges for the changes.
- 17.2. Changes that may affect an existing network interface, safety, EMC or radio frequency emissions must be tested to prove compliance with the technical specifications. A record of the changes, relevant test results, the assessment of their impact, must be submitted to BOCRA with the applications and other supporting documentation.
- 17.3. Changes that are essentially cosmetic or that are non-network affecting or that have no potential or actual effect on safety, EMC or radio frequency emissions may be introduced provided a record of the changes and the assessment of their impact is maintained in the supporting documentation.
- 17.4. If a change affects any of the information recorded in the Registration for Type Approval or the Declaration of Conformity, then a new Registration for Type Approval and / or Declaration of Conformity must be submitted to BOCRA.
- 17.5. It will also be necessary to assess ongoing compliance whenever the relevant national specifications are amended.

18. Transitional Arrangements

- 18.1. Equipment type approved using the previous type-approval procedure is "grandfathered".
- 18.2. Only new equipment and modified versions of equipment previously type approved using the old guidelines must follow the new type-approval procedure.

19. Second-hand Devices and Refurbished Devices

- 19.1. The second-hand and refurbished devices which have not been modified and are still working in accordance with their original type approval certificates will not be subjected to any additional type-approval process.
- 19.2. Second-hand and refurbished devices which are not Type Approved for use in Botswana will have to go through the full type-approval process.
- 19.3. The Refurbished devices which have been modified shall be required to apply for the Type approval modification in accordance with the Type approval guideline.

20. Know Your Customer (KYC)

- 20.1. Applicants for Type Approval will be required to update their KYC information every two years, failing which their accounts will be suspended.
- 20.2. The following KYC information shall be updated on a regular basis:
- i) Applicants Name
 - ii) Company Name
 - iii) Company Postal address.
 - iv) Proof of the Company Physical Address
 - v) Company Contact details (telephone numbers, email)
 - vi) Applicants ID (Oman/Passport)

21. Disclaimer

- 20.3. BOCRA accepts no liability associated with any risk that may occur as a result of the use or operation of equipment it (BOCRA) may have type approved.

22. Contact Details

Botswana Communications Regulatory Authority Plot 50671, Independence Avenue
Private Bag 00495 Gaborone
Tel: +267 395 7755, Fax: +267 395 7976
Email: info@bocra.org.bw; standards@bocra.org.bw
Website: www.bocra.org.bw

23. Appendix 1 – Contents of Declaration of Conformity

- 23.1. The Declaration of Conformity should contain the following minimum information:
- a) Name and address of the equipment manufacturer.
 - b) Equipment Name.
 - c) Model number.
 - d) Standards that are the same as or equivalent to those published by BOCRA to which conformance is declared in respect of:
 - (i) Health.
 - (ii) Safety.
 - (iii) Electromagnetic Compatibility (EMC).
 - (iv) Radio Spectrum Usage Efficiency.

24. Appendix 2 – Type Approval Fees

Radio Terminal Equipment (RTE)			
Equipment Description	Current Fees (Pula)	Proposed Fee (Pula)	HS Codes
Radio Base Stations (BTS, NodeB, eNode, RAN etc.), Repeaters, Radio Interface and Ancillary equipment	3,100.00	3,500.00	85255090
Microwave Fixed Links (Point-to-Point)	3,100.00	3,500.00	85255090
Fixed Wireless Access (Point-to-Multipoint)	3,100.00	3,500.00	85255090
Broadcasting Transmitters (Sound and Television)	3,100.00	3,500.00	85255090
Satellite Earth Station	13,500.00	3,500.00	85255090
VSAT Terminal	8,300.00	3,500.00	85369040
Wireless Terminals (RLAN, Wi-Fi, WLAN, etc)	2,400.00	3,500.00	85369090
Mobile handsets terminals and ancillary equipment	1,100.00	3,500.00	85171490
Mobile satellite terminals		3,500.00	85171490
Short-Range Devices (SRD) (RTT, Medical application devices, IoT, RFID, remote Controls, Bluetooth Devices, Industrial controls etc.)	1,100.00	3,500.00	853630010
Wireless Microphones	2,400.00	3,500.00	851829
Alarm Systems	2,400.00	3,500.00	853180
Cordless Telephone	2,400.00	3,500.00	85171100
Telecommunication Terminal Equipment (TTE)			
Equipment Description	Current Fee	Proposed Fee	HS Codes
Basic Telephone	2,400.00	3,500.00	851714
Answering Machine	2,400.00	3,500.00	85176290
Switches less than 24 Ports	3,100.00	3,500.00	851762
Switches more than 24 Ports	3,100.00	3,500.00	853530
Routers	2,400.00	3,500.00	851762
Data Modem	2,400.00	3,500.00	851762
Multiplexor Equipment	3,100.00	3,500.00	851762
PABX with less than 24 Ports	3,100.00	3,500.00	85176290
PABX with 24 - 47 Ports	5,700.00	3,500.00	5400
PABX with 48 – 127 Ports	8,300.00	3,500.00	85176290
PABX with 128 - 255 Ports	10,900.00	3,500.00	85176290
PABX with more 256 Ports	13,500.00	3,500.00	85176290

25. Appendix 3 – Type Approval Application Form



BOTSWANA COMMUNICATIONS REGULATORY AUTHORITY

Private Bag 00495 Plot 50671, Independence Ave., Gaborone Botswana. Tel: +2673957755

Fax: +2673957976, E-mail: info@bocra.org.bw Website: www.bocra.org.bw

Registration for Type Approval

Name of Applicant Company or Person	Address
Company Registration/ ID No:	
Contact Information Tel. office: Tel. mobile: Fax: Email:	

Contact Information Please provide contact details for the person dealing with this application.	
Name	Telephone
Title / Position:	Fax
Email	

Product Details Please give details of the product. A separate application form should be used for each model, family or range of products.
Make / Brand Name
Product / Model Identification

Brief Description

Please give a brief description of the product. The description must identify all telecom networks to which connection is intended and all radio transmitters. For all radio transmitters specify the frequency range, channels/separation, modulation methods, output power and antenna type/gain.

Manufacturer or supplier making the Declaration of Conformity (DoC)

Name	Contact person
Address	Name
	Telephone
	Fax
	Email:

Identifying particulars of the DoC:**Repair Service Provider in Botswana**

Name	Contact person
Address	Name
	Telephone
	Fax
	Email:

Agreement

I / We hereby apply registration for the above product and agree to abide by the BOCRA Regulations for Registration of Terminal Equipment & Radio Equipment for Type Approval.

I / We believe that the DoC referenced above and supplied with this application is authentic and that it applies to the product described above.

I / We authorise BOCRA to discuss details related to this application with the manufacturer or supplier identified above.

Print name	Signature of the applicant
Title / Position	
Date	

For official use	Registration number
-------------------------	----------------------------

26. Appendix 4 Type Approval Database Template

23.1 Database Category

Category
Radio Telecommunications Terminal Equipment (RTTE) <ul style="list-style-type: none">- Mobile Handsets- Network Equipment- Satellite Equipment- Short-range Devices
Telecommunication Terminal Equipment (TTE) <ul style="list-style-type: none">- Terminal Equipment- Network Equipment

Database Structure

The online database it is recommended should be structured as shown below:

Type Approval Number	Manufacturer	Model Name	Applicants Name	Date of Application Approval	View Additional Information

Additional Database information

The additional information about the applicants of the Type Approval and the type approved equipment shall be contained in the additional database.

Applicants Details	
Applicants Name	
Applicants Physical Address	
Applicants Postal Address	
Applicants Contact Phones	
Applicant Email	

Products/Device Details	
Product Name	
Product Manufacturer	
Product Model, version	
Brief Product Description	

--	--

Additional Technical Information	
Frequency of Operation	
Applicable Standards	
Accredited Laboratory	
Submitted Test Reports	

27. Appendix 5 – List of BOCRA Recognized Laboratories

LABORATORY	COUNTRY	CONTACT/ADDRESS	TEL/FAX	E-mail
CETECOM- ICT Services GmbH	Germany	Ernst Hussinger	49 681 598 8721 49 681 598 8775	ernst.hussinger@ict.cetecom.de
EMC Technologies Pty Ltd	Australia	Mr C Zombolas	61 3 9335 3333 61 3 9335 9260	chris@emctech.com.au
Radio Frequency Investigation Ltd	UK	Richard Jacklin	44 1372 370900 44 1372 370999	Richard.jacklin@rfi-wireless.com
Telefication B.V.	Netherlands	Wouter Blom Edisonstraat 12a NL- 6902 PK ZEVENAAR	31 316 583 180 31 316 583 189	wblom@telefication.com
TRL Compliance Services	UK	Mark Heaven	44 1684 833818 44 1684 833858	mark.heaven@trlcompliance.com
SABS - TCS Pty	South Africa	ML Sibeko	+27(0)12 428 7911 +27(0)12 344 1568	SIBEKOML@sabs.co.za

Please note that testing should only be done by laboratories that have been accredited by a body that is a member of the ILAC Mutual Recognition Arrangement