# Info-communications Media Development Authority ("IMDA")

### **Guide for Registration**

of

### **Telecommunication Equipment**

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Info-communications Media Development Authority 10 Pasir Panjang Road #03-01 Mapletree Business City Singapore 117438



#### **Contents**

|           |         |   | Page |
|-----------|---------|---|------|
| 1         | Introdu | uction  | 3    |
| 2         | Equipn  | nent Registration   | 3    |
|           | 2.1     | Equipment Registration Procedure  | 3    |
|           | 2.2     | <b>Equipment Registration Schemes</b>   | 3    |
|           | 2.2.1   | Enhanced Simplified Equipment Registration (ESER) Scheme                      | 4    |
|           | 2.2.2   | Simplified Equipment Registration (SER) Scheme                                | 4    |
|           | 2.2.3   | General Equipment Registration (GER) Scheme                                   | 5    |
|           | 2.3     | Acceptance of Online Application for Equipment Registration                   | 6    |
|           | 2.4     | Approval  | 6    |
|           | 2.5     | Validity of Equipment Registration  | 7    |
|           | 2.6     | Fees Payable  | 7    |
|           | 2.7     | Registration Enquiries  | 8    |
| 3         | Respor  | nsibilities of Suppliers  | 8    |
|           | 3.1     | General Obligations   | 8    |
|           | 3.2     | Equipment Approval by way of Registration                                     | 9    |
|           | 3.2.1   | Telecommunication Equipment requiring Equipment Registration                  | 9    |
|           | 3.2.2   | Telecommunication Equipment not requiring Equipment Registration              | 9    |
|           | 3.3     | Technical Compliance  | 9    |
|           | 3.4     | Renewal of Equipment Registration   | 10   |
|           | 3.5     | Modification  | 10   |
|           | 3.6     | Transfer of Equipment Registration  | 11   |
|           | 3.7     | Usage, Installation and Maintenance   | 12   |
| 4         | Radio-  | communication Equipment which requires IMDA Licensing                         | 12   |
| 5         |         | nent Registration of Machine-to-Machine Communication Device mbedded SIM card | 13   |
| 6         | Equipn  | nent Registration of Coaxial Cable Home Networking Equipment                  | 13   |
| Annex A-1 | Equipn  | nent Registration Schematic Diagram   | 14   |
| Annex A-2 | Applica | ation For Confirmation Of Conformity Schematic Diagram                        | 15   |
| Annex B   | Equipn  | nent Registration Fees  | 16   |
| Annex C   | Supplie | er's Declaration of Conformity Form   | 18   |
| Annex D   | List of | Technical Regulations   | 19   |
|           | Table D | 7.1 Technical Specifications for Line Terminal Equipment                      | 19   |
|           | Table D | D.2 Technical Specifications for Radio-communication Equipment                | 19   |
| Annex E   | Adden   | dum/Corrigendum   | 20   |

This Guide is subject to review and revision.

IMDA makes no warranty of any kind with regard to the information provided in this Guide and shall not be liable for errors contained herein or incidental or consequential damages in connection with the use of this Guide.

#### 1. Introduction

- 1.1 The Guide for Registration of Telecommunication Equipment is provided for suppliers to register their equipment with IMDA. It describes the procedure to be followed and requirements to be fulfilled by suppliers seeking to register their equipment under the Equipment Registration framework. Equipment registered with IMDA will be available for viewing from the equipment search<sup>1</sup> list, and has the approval of IMDA for sale and use.
- 1.2 Equipment registration shall be based on the submission of the Supplier's Declaration of Conformity (SDoC). The SDoC signifies that the supplier has carried out conformity assessment on the equipment to IMDA's Technical Specifications. The supplier declares equipment conformity based on results of conformity assessment, supported by test reports and technical documents.
- 1.3 The term telecommunication equipment or equipment refers to both the line terminal and radio-communication equipment, and supplier is the generic term for local dealer. The supplier shall be the declaring party responsible for ensuring that the equipment meets and, if applicable, continues to meet, the requirements on which the declaration is based.

#### 2. Equipment Registration

#### 2.1 Equipment Registration Procedure

2.1.1 The supplier makes a registration request on-line via the GoBusiness Licensing portal at <a href="https://www.gobusiness.gov.sg/licences">https://www.gobusiness.gov.sg/licences</a>, using one of the following equipment registration online selections:

#### Enhanced Simplified Equipment Registration (ESER)

For suppliers who wish to register complex multi-line equipment or the Short Range/Low Power Devices (SRD/LPD).

#### Simplified Equipment Registration (SER)

For suppliers who wish to register Mobile Terminals (LTE/3G/GMPCS) or Broadband Access Equipment (ADSL, Cable Modems and CCHN)

#### General Equipment Registration (GER)

For suppliers who wish to register any telecommunication equipment listed in Table B.1 of Annex B .

#### Application for Confirmation of Conformity (COFC)

For suppliers who opts to apply for COFC for exempted equipment listed in Table B.2 of Annex B

- 2.1.2 Information on Equipment Registration framework is available on IMDA website at <a href="https://www.imda.gov.sg/EquipmentRegistrationFramework">https://www.imda.gov.sg/EquipmentRegistrationFramework</a>.
- 2.1.3 Overview of the Equipment Registration framework is given in the Equipment Registration Schematic Diagram in Annex A-1.

<sup>&</sup>lt;sup>1</sup> Equipment search is available at https://eservice.imda.gov.sg/tls

#### 2.2 Equipment Registration Schemes

All telecommunication equipment may be registered under one of the following three schemes:

- (a) Enhanced Simplified Equipment Registration, ESER (Self-declaration)
- (b) Simplified Equipment Registration, SER (Self-declaration)
- (c) **General Equipment Registration, GER** (Declaration certified by an IMDA recognised body or evaluated by IMDA)

#### 2.2.1 Enhanced Simplified Equipment Registration (ESER) Scheme

- 2.2.1.1 ESER applies only to complex multi-line equipment or Short Range Devices/Low Power Devices (see Table B.1 in Annex B).
- 2.2.1.2 Supplier using the ESER (following Route 1a in the Equipment Registration Schematic Diagram in Annex A-1), is making an online declaration of conformity to the applicable IMDA Technical Specifications (see Annex D). The supplier has carried out their own conformity assessment for the model of equipment based on test results or evidence of equipment certification given by the manufacturer or an accredited body. The supplier is able to attest that the equipment is capable of meeting the relevant requirements set by IMDA in the technical specifications.
- 2.2.1.3 The ESER shall be accompanied by a sales brochure with technical data (file attachment to the online application which includes a picture of the equipment and technical data such as operating frequency band and output power of the SRD/LPD or the regulatory compliance information of the complex multi-line equipment).
- 2.2.1.4 No registration fee is payable in respect of an application submitted via the ESER.
- 2.2.1.5 For post market surveillance, IMDA may require the supplier to submit the test results or evidence of equipment certification as proof of conformity with the applicable IMDA Technical Specifications (see Annex D)

#### 2.2.2 Simplified Equipment Registration (SER) Scheme

- 2.2.2.1 SER scheme applies only to cellular mobile terminals ((LTE/3G/GMPCS) and broadband access equipment (ADSL, Cable modem and CCHN) (see Table B.1 in Annex B).
- 2.2.2.2 Supplier using SER (Route 1b in the Equipment Registration Schematic Diagram in Annex A-1) has carried out their own conformity assessment for the model of equipment based on test results or evidence of equipment certification given by the manufacturer or an accredited body. The supplier is able to attest that the equipment is capable of meeting the applicable IMDA Technical Specifications (see Annex D).
- 2.2.2.3 The SER request shall be accompanied by the following registration package (file attachments to the online application and e-Payment):
  - (i) SDoC (Annex C);
  - (ii) Photos of equipment (front, rear, side view and product label which shows trade and product name);

- (iii) Sales brochure with technical data; and
- (iv) Registration fee (Annex B).
- 2.2.2.4 For post market surveillance, IMDA may require the supplier to submit the test results or evidence of equipment certification as proof of conformity with the applicable IMDA Technical Specifications.

#### 2.2.3 General Equipment Registration (GER) Scheme

- 2.2.3.1 GER scheme applies to all categories of telecommunication equipment shown in Table B.1 of Annex B. However, for equipment categories such as analogue land mobile, cellular base station, UWB and wireless broadband access equipment, it is mandatory to register under the GER scheme.
- 2.2.3.2 IMDA mandates GER under the following circumstances:
  - (a) Equipment having high potential for causing interference;
  - (b) Equipment of new technologies which are yet to be stabilised.
- 2.2.3.3 Supplier using GER is required to submit evidence of equipment certification (i.e. declaration certified by an IMDA recognised body); or the relevant test reports and supporting documents for the model of equipment (i.e. declaration evaluated by IMDA).
- 2.2.3.4 Declaration certified by an IMDA recognised body
  - (a) For such declaration (see Route 2a in the Equipment Registration Schematic Diagram in Annex A-1), conformity assessment for the model of equipment has been carried out by a certification body recognised by IMDA. The GER request shall be accompanied by the following registration package (file attachments to the online application and e-Payment):
    - (i) SDoC (Annex C);
    - (ii) Certificate issued by IMDA recognised Certification Body;
    - (iii) Photos of equipment (front, rear, side view and product label which shows trade and product name);
    - (iv) General information or sales brochure; and
    - (v) Registration fee (Annex B).
  - (b) In addition, IMDA accepts equipment certification by <u>local or foreign certification</u> <u>bodies recognised by IMDA</u> under a Mutual Recognition Arrangement (MRA). Certification is a procedure by which the recognised certification body gives written assurance that the equipment conforms to IMDA's Technical Specifications.

#### 2.2.3.5 Declaration evaluated by IMDA

(a) For such declaration (see Route 2b in the Equipment Registration Schematic Diagram in Annex A-1), IMDA will carry out the technical evaluation for the model

of equipment based on test reports and a set of technical documents submitted by the supplier. The GER request shall be accompanied by the following registration package (file attachments to the online application and e-Payment):

- (i) SDoC (Annex C);
- (ii) Photos of equipment (front, rear, side view and product label which shows trade and product name);
- (iii) General description;
- (iv) Sales brochure with technical data;
- (v) Test reports;
- (vi) Facilities supported;
- (vii) User guide; and
- (viii) Registration fee (Annex B).
- (b) In addition, IMDA accepts test reports, which present test results of equipment testing done according to IMDA's Technical Specifications by (i) <u>testing labs</u> <u>recognised by IMDA under MRA</u>; (ii) testing labs accredited by accreditation bodies recognised by IMDA; or (iii) equipment manufacturers.

#### 2.3 Acceptance of Online Application for Equipment Registration

2.3.1 Any registration request must be accompanied by the required registration package as file attachments to the online application. All documents (file attachments or electronic media) submitted to IMDA shall be in English Language. Where applicable, applicant shall proceed to make ePayment when prompted by the system and via email. Registration request that is not supported by complete, adequate and proper documentation and information and payment of applicable fees will not be accepted.

#### 2.4 Approval

#### 2.4.1 Approval of complex multi-line equipment or SRD/LPD under the ESER

IMDA will not carry out any evaluation of the equipment before registering the device under the ESER. Once the system has accepted the online declaration of conformity for the model of the equipment, an email notification with a registration number in the format N1234-YY will be sent to the supplier. The device has been successfully registered with IMDA for sale for local use, and its information is available to the public upon selecting an equipment search (see footnote 1).

#### 2.4.2 Approval of Telecommunication Equipment under the SER/GER

2.4.2.1 On receiving the registration request (SER or GER), IMDA will carry out verification or technical evaluation by way of document examination. Verification or technical evaluation will be completed within three (3) or ten (10) working days after accepting the registration request depending on the route available to or selected by the supplier (see the Equipment Registration Schematic Diagram, Annex A-1). If technical details or clarifications are requested by IMDA, the supplier must provide them promptly. IMDA

will reject the registration request if the supplier fails to respond within thirty (30) days from the date of IMDA's request for information or if the registration request does not meet the stipulated requirements. The fees paid is non-refundable.

- 2.4.2.2 When IMDA completes the verification or technical evaluation, and is satisfied that the said equipment (object of supplier's declaration) has complied with the stipulated requirements, IMDA will authorise the equipment registration and a registration number will be assigned to the equipment model in the format: S1234-YY for equipment registered under SER and G1234-YY for equipment registered under GER.
- 2.4.2.3 The system will inform the applicant via an email to proceed to print a copy of the registration letter as proof that the equipment has been successfully registered with IMDA for sale for local use. Information of the registered equipment is also available to the public upon selecting an equipment search (see footnote 1).

#### 2.5 Validity of Equipment Registration

- 2.5.1 A record of telecommunication equipment registered with IMDA is valid for five (5) years from the date of assignment of registration number. Registration may be renewed for periods of 5 years at a time.
- 2.5.2 Validity of the equipment registered with IMDA may be affected if changes are made to the equipment. The supplier must inform IMDA of any proposed changes to be made to the registered equipment (see § 3.5 on Modification).
- 2.5.3 The equipment to be sold must be the same as the model that has been registered with IMDA. The registered equipment shall not be modified in any way without re-registering with IMDA.
- 2.5.4 Successful registration with IMDA shall not be taken as an IMDA guarantee for the proper functioning, performance or quality of the equipment. Suppliers must ensure that the registered equipment inter-works properly with the public telecommunication network.
- 2.5.5 IMDA shall not be liable for any interference caused to any other equipment, injury, loss of life and/or damages to property whatsoever, as the direct or indirect result of the use of any registered equipment.
- 2.5.6 In cases of doubt relating to interpretation of the IMDA Technical Specifications, method of carrying out tests or validity of statements made by the equipment manufacturers, IMDA's decision shall be final.

#### 2.6 Fees Payable

- 2.6.1 Regulation 20(3) of the Telecommunications (Dealers) Regulations (Cap 323, Rg) specifies that any application for equipment registration shall be accompanied by the appropriate fee. The applicable equipment registration fees are set out in the Fourth Schedule of the Dealers' Regulations and reproduced in Table B.1, Annex B. The fees are charged on per model basis.
- 2.6.2 Where fees are payable, applicant will be prompted by the system and via email to make online ePayment. IMDA will process the application upon confirmation on payment received. The fee is non-refundable.

- 2.6.3 If the applicant fails to make the payment within 30 days from the email notification, the application will be cancelled.
- 2.6.4 IMDA may classify a piece of equipment as one (1) or more of the types of equipment set out in Annex B for the purpose of determining the applicable fees. For equipment with multi-interfaces or intended to be used for multi-purpose, separate fees may be charged for each interface or type of use. In the event of incorrect payment made, the application will be returned for applicant to top-up the deficit.
- 2.6.5 Where a declaration is for a family series of the same type of equipment, it shall cover each individual model of equipment in the family series.
- 2.6.6 Registration request may be rejected if it is found to be incomplete or does not meet the stipulated requirements. A re-submission will be subject to new registration fee.

#### 2.7 Registration Enquiries

Registration enquires shall be addressed to the following:

Manager (Equipment Registration)
Licensing
Info-communications Media Development Authority
10 Pasir Panjang Road
#03-01 Mapletree Business City
Singapore 117438

Tel No: 6377 3800

Email: TLSAPPN@imda.gov.sg

#### 3. Responsibilities of Suppliers

#### 3.1 General Obligations

- 3.1.1 Under the Telecommunications (Dealers) Regulations, a supplier (local dealer) who wishes to manufacture, import, let hire, sell or offer or possess for sale any telecommunication equipment must first obtain a licence. Thereafter, the supplier is required to comply with the relevant licence conditions.
- 3.1.2 The supplier who holds a Dealer's Licence can sell telecommunication equipment that is registered for sale with IMDA under regulation 20(6) of the Telecommunications (Dealers) Regulations (Cap 323, Rg). In addition, the supplier can also sell telecommunication equipment set out in the First Schedule of the Regulations, and reproduced in Table B.2, Annex B, without the requirement of registering such equipment with IMDA.
- 3.1.3 The supplier must ensure that the telecommunication equipment is marked with the supplier/manufacturer's brand or identification mark, and the supplier/manufacturer's model or type reference. The markings shall be legible, indelible and readily visible.
- 3.1.4 The supplier must, before selling any telecommunication equipment, ensure that:
  - (a) equipment meets the applicable standards and specifications (see the list of IMDA Technical Regulations/Technical Specifications in Annex D);

- (b) equipment works correctly with the relevant telecommunication system or equipment of the telecommunication system licensee to which it is connected; and
- (c) the supplier will cease to sell the equipment if so directed by IMDA and dispose of the equipment at the supplier's own expense in the manner directed by IMDA.
- 3.1.5 The supplier must ensure that any telecommunication equipment, whether mains or battery powered, must be of a design that conforms with international safety standards (including radiation safety), specified in the appropriate IMDA Technical Specifications (e.g. IEC 60950-1 for electrical safety and ICNIRP recommendations for limiting exposures to time-varying EMFs in the frequency range up to 300 GHz).
- 3.1.6 Where applicable, the supplier must ensure that the telecommunication equipment intended for sale in Singapore complies with the electromagnetic compatibility (EMC) requirements specified in the IEC CISPR 32.
- 3.1.7 The supplier must ensure that supporting documents are available when requested by IMDA to show that the equipment conforms to IMDA's standards and specifications. The required supporting documents are as follows:
  - (i) Description of equipment;
  - (ii) Sales brochure with technical data;
  - (iii) Test reports;
  - (iv) Facilities supported; and
  - (v) User Guide
- 3.1.8 The supplier shall retain the supporting documents for at least 5 years (validity period of the registration) or may be longer at their discretion, considering the specific needs of their customers.
- 3.1.9 The supplier shall not manufacture, import, let hire, sell or offer or possess for sale any prohibited equipment set out in the Third Schedule of the Regulations.

#### 3.2 Equipment Approval

#### 3.2.1 Telecommunication Equipment requiring Equipment Registration

- 3.2.1.1 The supplier shall not sell any telecommunication equipment set out in Table B.1, Annex B until the supplier has made an online Supplier's Declaration of Conformity and registered the equipment with IMDA.
- 3.2.1.2 IMDA may invalidate the registration at any time for failure to comply with the terms and conditions for equipment registration established in this Guide, or if IMDA is satisfied that the equipment no longer complies with the stipulated requirements.

#### 3.2.2 Telecommunication Equipment not requiring Equipment Registration

3.2.2.1 Suppliers of telecommunication equipment set out in the First Schedule of the Regulations, and reproduced in Table B.2, Annex B, are exempted from the requirement

of registration with IMDA. However, under regulation 20(A) of the Regulations, suppliers of such equipment may opt to apply for Confirmation of Conformity (COFC). The COFC is not subject to renewal.

3.2.2.2 Supplier who opts to apply for COFC may submit an online application for Confirmation of Conformity and is subject to an application fee (Table B.2, Annex B). The submission requirement and process of COFC is indicated in Annex A-2. Upon authorisation of the application, a confirmation number in the format: C1234-YY will be assigned to the equipment model for the issuance of COFC.

#### 3.3 Technical Compliance

- 3.3.1 Whenever compatibility or other technical problem arises in connection with the use of registered equipment, the supplier shall solve all these problems within one (1) month after being notified by IMDA. If required, the supplier shall make all the necessary modifications, alterations or substitutions to the equipment already installed or being installed. In cases where the nature of the problem is not easily identified, the supplier shall provide assistance to IMDA to identify the source of the problem.
- 3.3.2 When a network operator, with the approval of IMDA, upgrades its network and/or changes the network interface specification such that the registered equipment is no longer compatible with the network, IMDA may invalidate the registration giving six (6) months notice in writing.
- 3.3.3 IMDA may carry out further evaluation on the equipment without stating any reasons, as and when required, after the registration.

#### 3.4 Renewal of Equipment Registration

- 3.4.1 The supplier will be prompted by a system generated email for equipment due for renewal one month (1) before the expiry date of the current validity period. Where applicable, the supplier may renew an equipment registration online at <a href="https://www.gobusiness.gov.sg/licences">https://www.gobusiness.gov.sg/licences</a>.
- 3.4.2 If the supplier does not wish to renew or fails to renew the registration, it will be cancelled out and the supplier will not be allowed to import or sell the equipment in Singapore.
- 3.4.3 If the request for renewal of registration is accepted by IMDA, its validity will be extended for another five (5) years. Where applicable, a fee of SGD 50 is charged for the renewal request.

#### 3.5 Modification

- 3.5.1 Where applicable, the supplier shall inform IMDA of any proposed modification that is to be made to the registered equipment or equipment that has been issued with Confirmation of Conformity.
- 3.5.2 Modifications are categorised as follows:

#### (a) <u>Class 1 Modifications</u>

These are modifications performed on the registered equipment that do not affect compliance with the IMDA Technical Specifications. Suppliers may

continue to sell Class 1 modified equipment without the need to notify IMDA of the changes. Re-assessment by IMDA is not required. Class 1 Modifications refer to:

- (i) Change in size, shape, colour and material of enclosure;
- (ii) Change in driver or software; or
- (iii) Change in printed circuit board layout without component or schematic changes; or
- (iv) Change in Specific Absorption Rate (SAR), provided the change does not affect compliance to IMDA technical standards, and the changed SAR value is within the safety limit of 2 Watts/Kilogram at 10 gram of tissue set by International Commission on Non-Ionising Radiation Protection.

#### (b) Class 2 Modifications

These are modifications performed on the registered equipment that will affect compliance with the IMDA Technical Specifications. Class 2 Modifications require re-registration with IMDA. Suppliers should submit a fresh registration request to IMDA together with the relevant registration package. Such modified equipment shall only be sold for use locally after re-registration with IMDA. Class 2 Modifications refer to:

- (i) Change in transmitting antenna;
- (ii) Change in output power or radiated field strength;
- (iii) Addition of new network interface card;
- (iv) Change in the existing network interface card; or
- (v) Change not considered a Class 1 modification
- 3.5.3 When IMDA is satisfied that the modified equipment has complied with the stipulated requirements, IMDA will update the record and List of Registered Equipment.
- 3.5.4 The supplier shall make a fresh registration request to IMDA for any changes falling outside the scope of Class 1 and 2 Modifications. Such request will be subject to the registration requirements and fees set out in Annex B.

#### 3.6 Transfer of Equipment Registration

- 3.6.1 A licensee may seek IMDA's approval for the transfer of his registration of telecommunication equipment to another licensee due to business restructuring, merger or acquisition. The transfer is subject to the following conditions:
  - (i) The transferee shall be responsible for ensuring that all registered equipment to be transferred are designed and constructed in accordance with the standards and specifications published by IMDA. The transferee shall be required to submit a fresh declaration of conformity in accordance with IMDA's technical standards in respect of the registered equipment to be transferred; and

(ii) The validity period of the equipment registration to be transferred shall continue to be valid only for the remaining period of the existing equipment registration but may be renewed where applicable.

#### 3.7 **Usage, Installation and Maintenance**

- 3.7.1 Suppliers shall inform their customers of their responsibility for the use, installation and after-sales maintenance of the equipment. Suppliers shall in addition, inform their customers on the non-liability of IMDA for the use, installation and after-sales maintenance of the equipment.
- 3.7.2 Suppliers shall ensure that there is proper installation and after-sales maintenance services of their equipment to meet customers' needs.
- 3.7.3 Where required by IMDA, suppliers shall undertake to notify IMDA of the name and address of every customer to whom such equipment has been sold or hired.
- 3.7.4 Suppliers shall advise their customers that the use of registered equipment to access any network operator's services shall be subject to the prevailing tariffs and terms of the various service schemes.
- 3.7.5 Where a licence is required for the use of the telecommunication equipment under the Regulations, suppliers shall inform every customer of the need to obtain such a licence from IMDA.

#### Radio-communication Equipment which requires IMDA Licensing<sup>2</sup> 4

- 4.1 A successful registration of any radio-communication equipment should not be construed as any form of representation by IMDA that the specific operating frequency of the equipment will be granted or made available by IMDA for the use or operation of the equipment in Singapore.
- 4.2 In no circumstance does IMDA represent to any equipment supplier or telecom dealer who sells any registered radio-communication equipment for use in Singapore or any person who buys such equipment that IMDA will grant or make available any specific operating frequency to the supplier, dealer or person for use with the equipment.
- 4.3 Separate written approvals should be sought and obtained from IMDA for the assignment of the operating frequency and the output power for the use with any registered radio-communication equipment. The grant and assignment of any specific operating frequency and the allocation of the output power for any radiocommunication equipment shall be at the sole discretion of IMDA.
- 4.4 Equipment suppliers or telecom dealers shall ensure that the buyers of the equipment obtain the necessary approvals from IMDA to operate in any assigned frequency band and the allocated power output before the sale of the radio-communication equipment.

Please refer to the relevant Technical Specifications for Radio-communication Equipment which requires IMDA Licensing

# 5 Equipment Registration of Machine-to-Machine ("M2M") Equipment with embedded SIM card

- 5.1 IMDA will only allow equipment registration of M2M Equipment embedded with local SIM card.
- 5.2 Where M2M Equipment is embedded with <u>overseas SIM</u> (permanent roaming), it <u>shall</u> <u>not</u> be registered under the equipment registration framework. Please contact IMDA (contact details given in Section 2.7) for more information or clarification on M2M equipment.

# Equipment Registration of Coaxial Cable Home Networking ("CCHN")<sup>3</sup> Equipment

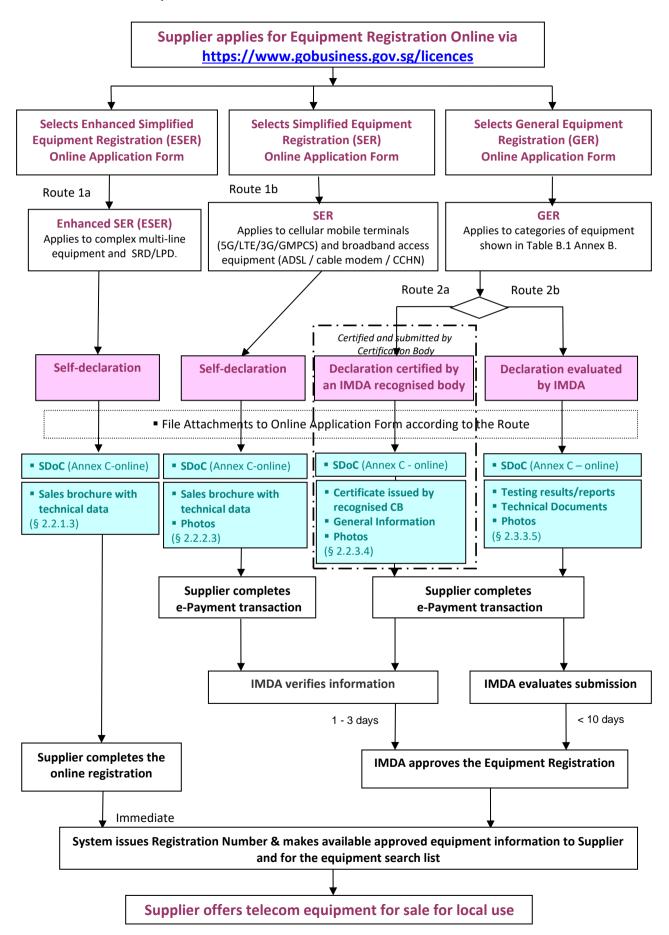
- 6.1 IMDA introduces CCHN Regulatory Framework governing the sale and use of CCHN Equipment. IMDA publishes the Code of Practice for the Provisioning of Coaxial Cable Home Networking Solutions (the "Code") in conjunction with the Technical Specification for CCHN (IMDA TS CCHN) which sets out the technical requirements for equipment recommended for the coaxial cable home networking solution.
- 6.2 Equipment suppliers/dealers dealing in CCHN Equipment are required to ensure that the equipment complies with the technical requirements set out in the IMDA Technical Specification for Coaxial Cable Home Networking (IMDA TS CCHN), and register the equipment under the SER scheme before such equipment is sold for use in Singapore.
- 6.2 In addition, equipment suppliers/dealers shall comply with the applicable provisions set out in the "Code of Practice for the Provisioning of Coaxial Cable Home Networking Solutions" which include:
  - (i) Dealers that are dealing in CCHN Equipment shall not sell or let for hire CCHN Equipment to any person who is not a recognised telecommunication licensee <sup>4</sup> in Singapore, except where approved by IMDA.

<sup>&</sup>lt;sup>3</sup> CCHN is one option for home networking solution that would tap on existing coaxial cables in homes to transmit data within the homes by installing coaxial adaptors and isolation filters (collectively known as the "CCHN Equipment")

Recognised telecommunication licensee refers to Facilities-based Licensee or a Service-based Licensee to which IMDA has granted a Facilities-Based Operations licence or Services-Based Operations licence under section 5 of the Telecommunications Act

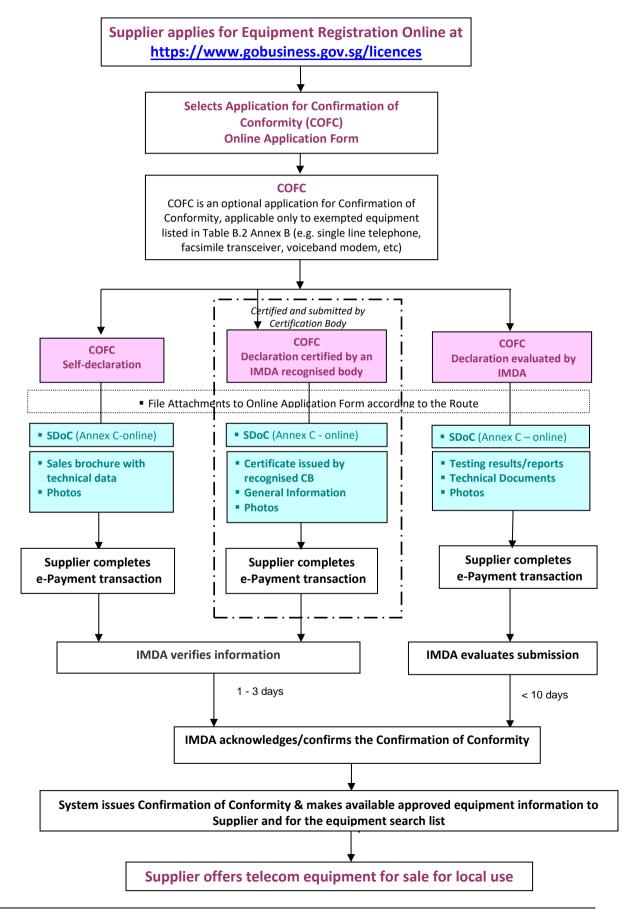
#### Annex A-1

#### **EQUIPMENT REGISTRATION SCHEMATIC DIAGRAM**



#### Annex A-2

## APPLICATION FOR CONFIRMATION OF CONFORMITY SCHEMATIC DIAGRAM (OPTIONAL FOR EXEMPTED EQUIPMENT)



#### **Annex B**

#### **EQUIPMENT REGISTRATION FEES**

Table B.1: Telecommunication Equipment requiring Equipment Registration

| Category   | Type  | Regist   | ration Fee (SGD) | Technical Specification     |
|--|---|----------|------------------|-----------------------------|
|  |   | riegist. |                  |                             |
| Land Mobile Radio  | UHF/VHF Land Mobile Transceiver; Radio          |          |                  | IMDA TS LMR                 |
|  | Data Transceiver; IDEN and TETRA trunk          |          |                  |                             |
|  | radio   |          |                  |                             |
| Mobile/IoT Base Stations   | 3G/LTE/5G Cellular Base Station and             |          |                  | IMDA TS CBS and/or          |
|  | Repeater System                                 |          |                  | IMDA TS IOT                 |
| Wireless Broadband Access  | 2.3 GHz and 2.5 GHz WBA or WiMAX                |          |                  | IMDA TS WBA                 |
| (WBA)  |   |          |                  |                             |
| Internet of Things (IoT)   | IoT User Equipment                              |          | 350              | IMDA TS IOT and             |
|  |   |          |                  | IMDA TS CD-SEC              |
| TV White Space Devices   | TV White Space Devices                          |          |                  | IMDA TS WSD                 |
| Dedicated Short-Range  | Dedicated Short-Range Communications            |          |                  | IMDA TS DSRC                |
| Communications in ITS  | in Intelligent Transport Systems                |          |                  |                             |
| Ultra-Wideband (UWB)   | UWB devices                                     |          |                  | IMDA TS UWB                 |
| Short Range Devices, where   | Remote Control for Cranes and other             |          |                  | Table 2 of IMDA TS SRD      |
| the operation requires IMDA  | high power SRD listed in Table 2 of IMDA        |          |                  |                             |
| approval   | TS SRD  |          |                  |                             |
| Equipment Category/T   | ype - Mandatory under SER Sche                  | me       |                  |                             |
| Category   | Туре  | Regist   | ration Fee (SGD) | Technical Specification     |
|  |   | SER      | GER (optional)   |                             |
| Mobile Terminals   | 3G/LTE/5G Cellular Mobile Terminal <sup>5</sup> |          |                  | IMDA TS CMT and             |
|  |   |          | 350              | IMDA TS CD-SEC              |
|  | GMPCS Equipment                                 | 400      |                  | IMDA TS GMPCS               |
| Broadband Access Equipment   | ADSL Modem                                      | 100      | 500              | IMDA TS ADSL                |
|  | Cable Modem                                     |          |                  | IMDA TS CM                  |
|  | Coaxial Cable Home Networking (CCHN)            |          |                  | IMDA TS CCHN                |
|  | Equipment <sup>6</sup>                          |          |                  |                             |
| Fauinment Category/T   | ype which can be registered und                 | er FSFR  | Scheme           |                             |
| Category   | Type  |          | ration Fee (SGD) | Technical Specification     |
| cutchory   | Турс  | ESER     | GER (optional)   | Teeninear Specification     |
| Complex/Multi-Line   | PABX, KTS, Multi-Line System, Voice             | LOLIN    | Can (optional)   | IMDA TS PSTN                |
| Equipment  | Messaging System                                |          |                  |                             |
| _4   | ISDN Basic Access, Primary Rate Access          |          | 500              | IMDA TS ISDN                |
|  | and NT1 Equipment                               | None     |                  |                             |
|  | Powerline Communications (PLC) Home             | None     |                  | IMDA TS PLC                 |
|  | Networking equipment                            |          |                  |                             |
|  | Coinphone/Payphone                              |          | 350              | IMDA TS PSTN                |
| Short Range/Low Power  | CTO & DECT Cordless Phone                       |          | 330              | IMDA TS CT-CTS              |
| Devices (SRD/LPD)  | 446 MHz Portable radio (PMR446) and             |          |                  |                             |
| Devices (SKD/LPD)  | 446 MHz Multi-channel portable radio            |          |                  | IMDA TS LMR                 |
|  | -   |          |                  |                             |
|  | (MCR446) at less than 500mW                     | None     | 350              | Table 1 of INADA TO COD     |
|  | Alarm, RFID, radio-detection, on-site           | None     | 330              | Table 1 of IMDA TS SRD      |
|  | paging and vehicle radar systems, remote        |          |                  |                             |
|  | controls, telecommand, telemetry,               |          |                  |                             |
|  | wireless microphone and video                   |          |                  |                             |
| Internated Description Description   | transmitter, wireless LAN and Bluetooth         |          |                  |                             |
| Integrated Receiver Decoders   | DVB-T2 IRD includes receiver set-top box,       |          |                  |                             |
|  | Integrated Digital TV (IDTV), In-vehicle        |          | 27.0             | IN 4 D 4 T 6 D) 12 T 6 12 T |
| _  |   | None     | 350              | IMDA TS DVB-T2 IRD          |
| Digital Terrestrial Television   | receiver, etc.                                  | None     |                  |                             |
| for use with 2 <sup>nd</sup> - generation Digital Terrestrial Television broadcasting system | receiver, etc.                                  | None     |                  |                             |
| Digital Terrestrial Television   | Residential Gateway                             | None     |                  |                             |

For mobile terminals with embedded overseas SIM card, please refer Section 5 of the Guide on additional information on Equipment Registration of Machine-to-Machine ("M2M") Communication Device with embedded SIM card.

<sup>&</sup>lt;sup>6</sup> Please refer to Section 6 of the Guide for additional information on the CCHN Regulatory Framework.

#### Notes:

- Notwithstanding the fees stated above, registration fee is SGD 100 for equipment certified and submitted by IMDA's recognised Certification Bodies.
- 2. Suppliers may opt to register equipment using the GER scheme for equipment under the SER or ESER scheme.
- 3. Standalone radio modules if sold separately will be subject to equipment registration.
- 4. For telecom network interface card which is Independent of Host (IOH), supplier may register the card and host/chassis separately to allow for flexible equipment configuration.
- 5. Registration fee for second or subsequent model of equipment of a family series is SGD 50 per model. Models of family series refer to models of equipment that shares the same technical specifications, design and electrical characteristics in respect of network interface, electromagnetic compatibility and electrical safety; and share the same test results/certification with the already registered equipment.
- 6. Registration is valid for 5 years and may be renewed for periods of 5 years at a time.
- 7. Except for ESER, fee for renewal of an equipment registration is SGD 50.
- 8. Request for re-registration due to class 2 modifications is subject to a fee of SGD 100 on a per model basis.
- 9. Latest issues of the IMDA Technical Specifications are available on IMDA website at <a href="https://www.imda.gov.sg/Standards">https://www.imda.gov.sg/Standards</a>.

#### Annex B

Table B.2: Telecommunication Equipment not requiring Equipment Registration

|   | •                          | pplication for<br>Conformity (COFC)        |                         |
|---|----------------------------|--|-------------------------|
| Category of Telecom Equipment &<br>Examples of Applications     | COFC -<br>Self-Declaration | COFC-<br>Declaration-<br>Evaluated by IMDA | Technical Specification |
|   | Application                | on Fee (SGD)                               |                         |
| Exempted Single Line Equipment                                  |                            |  |                         |
| Telephone (standard / multi-feature / image / data / switching) |                            |  |                         |
| Line interface – cordless phone                                 |                            |  |                         |
| Telephone ancillary   |                            |  |                         |
| Auto-dialler  |                            |  |                         |
| Auto answering / recording set                                  | (100)                      | (350)                                      | IMDA TS PSTN            |
| Caller identification equipment                                 |                            |  |                         |
| Security alarm system   |                            |  |                         |
| Facsimile transceiver / fax modem                               |                            |  |                         |
| Voice band modem  |                            |  |                         |
| EFTPOS / CCAT   |                            |  |                         |
| Digital leased circuit equipment                                | (100)                      | (350)                                      | IMDA TS DLCN            |

#### Notes:

- Notwithstanding the fees stated above, application fee is SGD 100 for equipment certified and submitted by IMDA's recognised Certification Bodies.
- 2. Under COFC-Self-Declaration, equipment suppliers shall conduct self-assessment of the exempted equipment conformity to IMDA Standards based on relevant test reports and submit the documents indicated in Annex A-2.
- Under COFC Declaration Evaluated by IMDA, equipment suppliers shall submit the documents indicated in Annex A-2, including relevant test reports for IMDA's evaluation.

#### **Annex C**

#### SUPPLIER'S DECLARATION OF CONFORMITY FORM

#### (To be incorporated as online declaration of conformity)

Instructions:

This Declaration is to be completed by the local supplier of the telecommunication equipment who holds a Telecommunication Dealer's Licence issued by Info-communications Media Development Authority ("IMDA"). Original copy of the Declaration is to be submitted to IMDA.

Where there is an operational group or department responsible for registering the equipment, please specify the details under the name of local supplier.

### **Supplier's Declaration of Conformity**

| I/We                        |                        |   |  |  |  |
|-----------------------------|------------------------|---|--|--|--|
|                             |                        | (Name of Local Supplier)  |  |  |  |
| C                           |                        |   |  |  |  |
| of                          |                        | (Address of Local Supplier)   |  |  |  |
|                             |                        | (Address of Local Supplier)   |  |  |  |
| hereby declare that th      | ne following teleco    | nmunication equipment,  |  |  |  |
|                             |                        |   |  |  |  |
|                             |                        | (Trade name and Model name)   |  |  |  |
|                             |                        | (made name and model name)  |  |  |  |
| complies with the follo     | owing IMDA Techr       | cal Specifications:   |  |  |  |
|                             | T                      |   |  |  |  |
| IMDA Reference              | Issue Date             | Title of IMDA Technical Specification   |  |  |  |
|                             |                        |   |  |  |  |
|                             |                        |   |  |  |  |
|                             |                        |   |  |  |  |
| I/Ma doclare that this      | Declaration of Co.     | formity is based an tast data or cortification are duced by   |  |  |  |
| i/ we declare that this     | Declaration of Col     | formity is based on test data or certification produced by:   |  |  |  |
|                             |                        |   |  |  |  |
|                             |                        |   |  |  |  |
|                             | (Name & A              | ldress of Test Laboratory or Certification Body)  |  |  |  |
| 1/M/2 de alama Alama all () | -£                     | adda IAADA is tarre for the recovery of their Declaration of Conferential                                 |  |  |  |
|                             |                        | ed to IMDA is true for the purpose of this Declaration of Conformity, and r furnishing false information. |  |  |  |
| am/are aware that the       | ere are penames n      | Turnstillig talse information.  |  |  |  |
|                             |                        |   |  |  |  |
|                             |                        |   |  |  |  |
| Signature of A              | Authorised Officer     | Date of Declaration   |  |  |  |
|                             |                        |   |  |  |  |
| Name of Au                  | ıthorised Officer      | <u></u>   |  |  |  |
| Nume of Au                  | ithonsed Officer       |   |  |  |  |
|                             |                        |   |  |  |  |
| Position held               | d in Organisation      | Telecom Dealer's Licence No.  |  |  |  |
| Additional Information      | Additional Information |   |  |  |  |
| Auditional Information      | 11.                    |   |  |  |  |
|                             |                        |   |  |  |  |
|                             |                        |   |  |  |  |
|                             |                        | Name & Address of Manufacturer  |  |  |  |

#### Annex D

#### LIST OF TECHNICAL REGULATIONS

Table D.1: Technical Specifications for Line Terminal Equipment

|     | Table B.1. Technical Specifications for Line Terminal Equipment |  |               |  |  |
|-----|---|--|---------------|--|--|
| No. | Reference   | Eqpt Category Group (for online entry) | Issue<br>Date | Title of Specification   |  |
| 1   | IMDA TS ADSL  | Broadband Access<br>Equipment          | Oct 16        | Technical Specification for Asymmetric Digital Subscriber Line<br>Modems   |  |
| 2   | IMDA TS CM  | Broadband Access<br>Equipment          | Oct 16        | Technical Specification for Cable Modems connected to High-<br>Speed Data-Over-Cable Systems   |  |
| 3   | IMDA TS CCHN <sup>7</sup>                                       | Broadband Access<br>Equipment          | Oct 16        | Technical Specification for Coaxial Cable Home Networking  |  |
| 4   | IMDA TS ISDN  | Complex/Muti-Line<br>Equipment         | Oct 16        | Technical Specification for Terminal Equipment connected to Integrated Services Digital Network  |  |
| 5   | IMDA TS PLC   | Complex/Multi-Line<br>Equipment        | Oct 16        | Technical Specification for Powerline Communications (PLC) Home<br>Networking  |  |
| 6   | IMDA TS PSTN  | Complex/Muti-Line<br>Equipment         | Oct 16        | Technical Specification for Terminal Equipment connected to Network Terminating Equipment or the Public Switched Telephone Network for access to voice band services |  |
| 7   | IMDA TS DLCN  | Exempted<br>Equipment                  | Oct 16        | Technical Specification for Terminal Equipment connected to 2 Mbit/s, 34 Mbit/s and 140 Mbit/s Digital Leased Lines  |  |

**Table D.2: Technical Specifications for Radio-Communication Equipment** 

| No. | Reference          | Eqpt Category Group<br>(for online entry) | Issue<br>Date | Title of Specification   |
|-----|--------------------|---|---------------|--|
| 1   | IMDA TS IOT        | IoT Base Station/ IoT<br>User Equipment   | Nov 17        | Technical Specification for Internet of Things   |
| 2   | IMDA TS DSRC       | DSRC in ITS                               | Oct 17        | Technical Specification for Dedicated Short Range<br>Communications in Intelligent Transport Systems   |
| 3   | IMDA TS DVB-T2 IRD | SRD/LPD -><br>(DVB-T2 IRD)                | Nov 17        | Technical Specification for Integrated Receiver Decoder (IRD) for use with 2 <sup>nd</sup> -generation Digital Terrestrial Television broadcasting system (DVB-T2) |
| 4   | IMDA TS WSD        | TV White Space Device                     | Oct 16        | Technical Specification for Television White Space Devices   |
| 5   | IMDA TS CT-CTS     | SRD/LPD -><br>(PMREQ/LPREQ)               | Oct 16        | Technical Specification for Cordless Telephone and Cordless Telecommunication Systems  |
| 6   | IMDA TS SRD        | SRD/LPD -><br>(PMREQ/LPREQ)               | Sep 23        | Technical Specification for Short Range Devices  |
| 7   | IMDA TS LMR        | Land Mobile Radio                         | Oct 16        | Technical Specification for Land Mobile Radio Equipment  |
| 8   | IMDA TS CMT        | Mobile Terminal                           | Sep 20        | Technical Specification for Cellular Mobile Terminal   |
| 9   | IMDA TS CBS        | Mobile Base Station                       | Nov 23        | Technical Specification for Cellular Base Station and Repeater<br>System   |
| 10  | IMDA TS GMPCS      | Mobile Terminal                           | Oct 16        | Technical Specification for Global Mobile Personal Communication by Satellite (GMPCS) Terminals  |
| 11  | IMDA TS WBA        | Wireless Broadband<br>Access (WBA)        | Oct 16        | Technical Specification for Wireless Broadband Access (WBA)<br>Equipment   |
| 12  | IMDA TS UWB        | Ultra-Wideband (UWB) device               | Oct 16        | Technical Specification for Ultra Wideband (UWB) Devices   |
| 13  | IMDA TS RG-SEC     | Residential Gateway                       | Oct 20        | Technical Specification for Security Requirements for Residential Gateways   |
| 14  | IMDA TS CD-SEC     | Mobile Terminal / IoT<br>User Equipment   | Jul 22        | Technical Specification for Security Requirements to guard against Network Storms for Cellular Devices   |

Note: Where applicable, the requirements to comply with IEC 60950-1 for electrical safety and IEC CISPR 32 for electromagnetic compatibility (IMDA EMC framework) have been included in the Technical Specifications as part of the conformity assessment requirements together with the telecommunications part.

19

Reference shall also be made to the Code of Practice for the Provisioning of Coaxial Cable Home Networking Solutions for compliance with the CCHN Regulatory Framework.

#### Annex E

#### ADDENDUM/CORRIGENDUM

| C                | Changes to the Guide for Registration of Telecommunication Equipment (IMDA Guide EQR Issue 1 Rev 8) |   |                |  |  |
|------------------|---|---|----------------|--|--|
| Page             | New provision in<br>IMDA Guide EQR  | Item Changed  | Effective Date |  |  |
| 19               | Annex D<br>Table D.2  | The List of Technical Regulations has been updated as follows: - IMDA TS CBS, Issue 1 Rev 3, November 2023  | 9 Nov 2023     |  |  |
| C                | hanges to the Guide fo  | r Registration of Telecommunication Equipment (IMDA Guide EQR Issue   | 1 Rev 7)       |  |  |
| Page             | New provision in<br>IMDA Guide EQR  | Item Changed  | Effective Date |  |  |
| 19               | Annex D<br>Table D.2  | The List of Technical Regulations has been updated as follows: - IMDA TS SRD, Issue 1 Rev 3, September 2023   | 1 Sep 2023     |  |  |
| C                | hanges to the Guide fo  | r Registration of Telecommunication Equipment (IMDA Guide EQR Issue   | 1 Rev 6)       |  |  |
| Page             | New provision in<br>IMDA Guide EQR  | Item Changed  | Effective Date |  |  |
| 15               | Annex B<br>Table B.1  | The Technical Specification column has been updated with the addition of IMDA TS CD-SEC for Mobile Terminals and Internet of Things   | 1 July 2022    |  |  |
| 18               | Annex D<br>Table D.2  | The List of Technical Regulations has been updated as follows: - IMDA TS CD-SEC, Issue 1, July 2022   |                |  |  |
| C                | hanges to the Guide fo  | r Registration of Telecommunication Equipment (IMDA Guide EQR Issue   | 1 Rev 5)       |  |  |
| Page             | New provision in<br>IMDA Guide EQR  | Item Changed  | Effective Date |  |  |
| 18               | Annex D<br>Table D.2  | The List of Technical Regulations has been updated as follows: - IMDA TS SRD, Issue 1 Rev 2, August 2021  | 10 Aug 2021    |  |  |
| C                | hanges to the Guide fo  | r Registration of Telecommunication Equipment (IMDA Guide EQR Issue   | 1 Rev 4)       |  |  |
| Page             | New provision in<br>IMDA Guide EQR  | Item Changed  | Effective Date |  |  |
| 15               | Annex B<br>Table B.1  | The Equipment Type and applicable Technical Specification have been updated as follows:  - New addition of Residential Gateway and IMDA TS RG-SEC   | 12 Oct 2020    |  |  |
| 18               | Annex D<br>Table D.2  | The List of Technical Regulations has been updated as follows:  - IMDA TS CMT, Issue 1 Rev 2, September 2020  - IMDA TS CBS, Issue 1 Rev 2, September 2020  - IMDA TS RG-SEC, Issue 1, October 2020 |                |  |  |
| C                | hanges to the Guide fo  | r Registration of Telecommunication Equipment (IMDA Guide EQR Issue   | 1 Rev 3)       |  |  |
| Page             | New provision in<br>IMDA Guide EQR  | Item Changed  | Effective Date |  |  |
| 3, 10,<br>13, 14 | § 2.1.1<br>§ 3.4.1<br>Annex A-1<br>Annex A-2  | Change in URL due to re-branding of LicenceOne to GoBusiness Licensing: <a href="https://www.gobusiness.gov.sg/licences">https://www.gobusiness.gov.sg/licences</a>                                 | 31 Oct 2019    |  |  |

| C             | Changes to the Guide for Registration of Telecommunication Equipment (IMDA Guide EQR Issue 1 Rev 2) |  |                |  |  |
|---------------|---|--|----------------|--|--|
| Page          | New provision in<br>IMDA Guide EQR  | Item Changed   | Effective Date |  |  |
| Cover<br>Page | -   | The ISO 9001: 2015 logo has been updated   | 21 Jan 2019    |  |  |
| c             | changes to the Guide fo   | r Registration of Telecommunication Equipment (IMDA Guide EQR Issue  | 1 Rev 1)       |  |  |
| Page          | New provision in<br>IMDA Guide EQR  | Item Changed   | Effective Date |  |  |
| Cover<br>Page | -   | The ISO logo has been updated  | 6 Sep 2018     |  |  |
|               |   | Revisions are mainly editorial to reflect changes to the online applications which are now through LicenceOne portal i.e.:  (a) Equipment registration shall be made online via the LicenceOne Portal at <a href="https://licence1.business.gov.sg">https://licence1.business.gov.sg</a> .  (b) Equipment Search is still available at <a href="https://eservice.imda.gov.sg/tls">https://eservice.imda.gov.sg/tls</a> |                |  |  |
| 15            | Annex D<br>Table D.2  | The List of Technical Regulations has been updated as follows:  - IMDA TS SRD, Issue 1 Rev 1, April 2018   |                |  |  |
|               | Appendix to IMDA<br>GUIDE EQR   | Removed as screenshots from TLS are no longer applicable.  |                |  |  |
|               | Changes to the Guide  | e for Registration of Telecommunication Equipment (IMDA Guide EQR Iss  | ue 1)          |  |  |
| Page          | New provision in<br>IMDA Guide EQR  | Item Changed   | Effective Date |  |  |
| 15            | Annex B<br>Table B.1  | The Equipment Type and applicable Technical Specification have been updated as follows:  - New addition of Internet of Things (IoT) User Equipment and IoT Base Station and IMDA TS IOT, respectively  - TV White Space Devices and IMDA TS WSD  - Dedicated Short-Range Communications in Intelligent Transport Systems and IMDA TS DSRC  | 11 Dec 2017    |  |  |
| 18            | Annex D Table D.2  Appendix to IMDA GUIDE EQR   | The List of Technical Regulations has been updated as follows:  - IMDA TS IOT, Issue 1, November 2017  - IMDA TS DSRC, Issue 1 Rev 1, October 2017  - IMDA TS DVB-T2 IRD, Issue 1 Rev 1, November 2017  - IMDA TS CMT, Issue 1 Rev 1, July 2017  - IMDA TS CBS, Issue 1 Rev 1, July 2017  - IMDA TS WSD, Issue 1, October 2016  Screenshots of the online equipment registration process for has been updated.         |                |  |  |

|      | Changes to the Guide for Registration of Telecommunication Equipment |  |                |  |  |
|------|--|--|----------------|--|--|
| Page | New provision in<br>IMDA Guide EQR                                   | Item Changed   | Effective Date |  |  |
|      |  | The Guide has been revised and published as IMDA Guide EQR Issue 1 to reflect changes made due the formation of Info-Communications Media Development Authority ("IMDA").                          | 1 Oct 2016     |  |  |
|      |  | Revisions are mainly editorial i.e. replacing all references made from IDA to IMDA, with the following highlights:   |                |  |  |
|      |  | (a) Changes in the following urls:  - www.imda.gov.sg/EquipmentRegistrationFramework  - www.imda.gov.sg/Standards  - https://eservice.imda.gov.sg/tls  - TLSAPPN@imda.gov.sg (for email enquiries) |                |  |  |
|      |  | (b) All IDA's Technical Specifications (IDA TS XXXX) in Annex D have been renamed as IMDA's Technical Specifications (IMDA TS XXXX)  |                |  |  |
|      |  | (c) Requirement for identification of equipment has been included in Clause 3.1.3  |                |  |  |

| Page            | New provision in IDA Guide EQR  | Item Changed  | Effective<br>Date |
|-----------------|---|---|-------------------|
| Cover<br>Page   | -   | The ISO logo has been updated   | 15 March<br>2016  |
| 3,10,<br>13, 14 | § 1.1<br>§ 2.1.1<br>§ 3.4.1<br>Annex A-1<br>Annex A-2<br>Appendix to IDA<br>GUIDE EQR | TLS portal link has been updated to <a href="https://eservice.ida.gov.sg/tls">https://eservice.ida.gov.sg/tls</a>   |                   |
| 8               | § 2.7   | Email address for queries is now: IDA_TLSAPPN@ida.gov.sg  |                   |
| 12              | § 5   | A new section on Equipment Registration of Machine-to-Machine ("M2M") Equipment with embedded SIM card has been added   |                   |
| 12              | § 6   | Equipment Registration of Coaxial Cable Home Networking ("CCHN")  Equipment  A new section has been added on CCHN Regulatory Framework governing the sale and use of CCHN equipment   |                   |
| 15              | Annex B<br>Table B.1  | The Equipment Type and applicable Technical Specification have been updated as follows:  - New addition of Coaxial Cable Home Networking (CCHN) Equipment' and IDA TS CHHN, respectively  - Deletion of ATM UNI Equipment and IDA TS BISDN  - Merging of ISDN Basic Access, Primary Rate Access and NT1 Equipment and IDA TS ISDN, respectively  - New Footnote to refer to Section 5 for additional information on M2M communication device. |                   |
| 18              | Annex D<br>Table D.1  | The List of Technical Regulations has been updated as follows:  - IDA TS ADSL, Issue 2, October 2013  - IDA TS CM, Issue 2, October 2013  - IDA TS CCHN, Issue 1, July 2014   |                   |

| DATS ISDN, Issue 2, October 2013   DATS PSTN, Issue 2, October 2013   DATS DATS DURATE INC. Issue 2, October 2013   DATS DATS DURATE INC. Issue 2, October 2013   DATS DATS DURATE INC. Issue 1 Rev 2, May 2014   DATS DATS DATS DATS DATS DATS DATS DATS  |       |                      | IIVIDA GOIDE E   |               |
|--|-------|----------------------|--|---------------|
| International Content of Page 2013   The List of Technical Regulations has been updated as follows:  |       |                      | - IDA TS ISDN, Issue 2, October 2013                                     |               |
| Table D.2  |       |                      | - IDA TS PSTN, Issue 2, October 2013                                     |               |
| Table D.2 - IDA/MDA TS DVB-T2 IRD, Issue 1 Rev 2, May 2014 - IDA TS LMR, Issue 1 Rev 5, June 2014 - Appendix to IDA GUIDE EQR Updated  Changes to the Guide for Registration of Telecommunication Equipment (IDA Guide EQR Issue 2 Rev 7)  Page New provision in IDA Guide EQR  11 \$ 3.6 Transfer of Equipment Registration - A new section has been added to provide for the transfer of equipment registration between telecommunication dealer's licensees.  15 Annex B Table B.1 The Equipment Category, Type and applicable Technical Specification have been updated as follows: - 'Integrated Receiver Decoders for use with 2 <sup>nd</sup> . Generation Digital Terrestral Television broadcasting system (DVB-T2 IRD)'; - 'Basic DVB-T2 IRD' and 'Basic DVB-T2 IRD + Multi-channel Audio'; - 'Part A of IDA/MDA TS DVB-T2 IRD' and 'Part A and Part B of IDA/MDA TS DVB-T2 IRD' and 'Part A and Part B of IDA/MDA TS DVB-T2 IRD' and 'Part A and Part B of IDA/MDA TS DVB-T2 IRD' and 'Part A and Part B of IDA/MDA TS DVB-T2 IRD' and 'Part A and Part B of IDA/MDA TS DVB-T2 IRD', respectively  15 Annex B Table B.1 Note 5 In In Its of Technical Regulations has been updated as follows: - IDA/TS SRD, Issue 1 Rev 7, April 2013 - IDA TS SRD, Issue 1 Rev 7, April 2013 - Appendix to IDA GUIDE EQR INDA/T2 IRD (Size 1 Rev 1, March 2013) - IDA TS SRD, Issue 1 Rev 7, April 2013 - Appendix to IDA GUIDE EQR INDA/T2 IRD (Size 1 Rev 1, March 2013) - Table D.2 IDA/T5 SRD, Issue 1 Rev 7, April 2013 - The ISS IDA/T3 IRD (Size 1 Rev 1, March 2013) - The ISS IDA/T5 SRD, Issue 1 Rev 7, April 2013 - The ISS IDA/T5 SRD, Issue 1 Rev 7, April 2013 - The ISS IDA/T5 SRD, Issue 1 Rev 1, March 2013 - The ISS IDA/T5 SRD, Issue 1 Rev 1, March 2013 - The ISS IDA/T5 SRD, Issue 1 Rev 1, March 2013 - The ISS IDA/T5 SRD, Issue 1 Rev 1, March 2013 - The ISS IDA/T5 SRD, Issue 1 Rev 1, March 2013 - The ISS IDA/T5 SRD, Issue 1 Rev 1, March 2013 - The ISS IDA/T5 SRD, Issue 1 Rev 2, March 2013 - The ISS IDA/T5 SRD, Issue 1 Rev 1, March 2013 - The ISS IDA/T5 SRD, Issue 1 Rev 2, March 2013 - The ISS IDA/T5 |       |                      | - IDA TS DLCN. Issue 2, October 2013                                     |               |
| DATS LMR, Issue 1 Rev 5, June 2014   | 18    | Annex D              | The List of Technical Regulations has been updated as follows:           |               |
| - Appendix to IDA GUIDE EQR  Changes to the Guide for Registration of Telecommunication Equipment (IDA Guide EQR Issue 2 Rev 7)  Page  New provision in IDA Guide EQR  Transfer of Equipment Registration - A new section has been added to provide for the transfer of equipment registration between telecommunication dealer's licensees  15 Annex B Table B.1 The Equipment Category, Type and applicable Technical Specification have been updated as follows: - "Integrated Receiver Decoders for use with 2nd_generation Digital Terrestrial Television broadcasting system (DVB-T2 IRD); - "Basic DVB-T2 IRD" and "Basic DVB-T2 IRD + Multi-channel Audio"; - "Part A of IDA/MDA TS DVB-T2 IRD" and "Part A and Part B of IDA/MDA TS DVB-T2 IRD", and "Part A and Part B of IDA/MDA TS DVB-T2 IRD", and "Part A and Part B of IDA/MDA TS DVB-T2 IRD", and "Part A and Part B of IDA/MDA TS DVB-T2 IRD, and "Part A and Part B of IDA/MDA TS DVB             |       | Table D.2            | - IDA/MDA TS DVB-T2 IRD, Issue 1 Rev 2, May 2014                         |               |
| - Appendix to IDA GUIDE EQR  Changes to the Guide for Registration of Telecommunication Equipment (IDA Guide EQR Issue 2 Rev 7)  Page  New provision in IDA Guide EQR  Transfer of Equipment Registration - A new section has been added to provide for the transfer of equipment registration between telecommunication dealer's licensees  15 Annex B Table B.1 The Equipment Category, Type and applicable Technical Specification have been updated as follows: - "Integrated Receiver Decoders for use with 2nd_generation Digital Terrestrial Television broadcasting system (DVB-T2 IRD); - "Basic DVB-T2 IRD" and "Basic DVB-T2 IRD + Multi-channel Audio"; - "Part A of IDA/MDA TS DVB-T2 IRD" and "Part A and Part B of IDA/MDA TS DVB-T2 IRD", and "Part A and Part B of IDA/MDA TS DVB-T2 IRD", and "Part A and Part B of IDA/MDA TS DVB-T2 IRD", and "Part A and Part B of IDA/MDA TS DVB-T2 IRD, and "Part A and Part B of IDA/MDA TS DVB             |       |                      | - IDA TS LMR, Issue 1 Rev 5, June 2014                                   |               |
| Changes to the Guide for Registration of Telecommunication Equipment (IDA Guide EQR Issue 2 Rev 7)  Page New provision in IDA Guide EQR  11 \$ 3.6 Transfer of Equipment Registration - A new section has been added to provide for the transfer of equipment registration between telecommunication dealer's licensees 15 Annex B Table B.1 The Equipment Category, Type and applicable Technical Specification have been updated as follows: - "Integrated Receiver Decoders for use with 2nd_generation Digital Terrestrial Television broadcasting system (DVB-T2 IRD) and "Basic DVB-T2 IRD" and "Part A and Part B of IDA/MDA TS DVB-T2 IRD" and "Part A and Part B of IDA/MDA TS DVB-T2 IRD" and "Part A and Part B of IDA/MDA TS DVB-T2 IRD", respectively 15 Annex B Table B.1 The registration fee for subsequent model in the same family series models has also been revised to SGD 50. For clarity, the definition of family series models has also been revised to SGD 50. For clarity, the definition of family series models has also been revised to SGD 50. For clarity, the definition of family series models has also been revised.  19 Annex D The List of Technical Regulations has been updated as follows: - IDA/MDA TS DVB-T2 IRD, issue 1 Rev 1, March 2013 - IDA TS SRD, issue 1 Rev 7, April 2013 - IDA TS SRD, issue 1 Rev 7, April 2013 - Appendix to IDA GUIDE EQR  Changes to the Guide for Registration of Telecommunication Equipment (IDA Guide EQR Issue 2 Rev 6)  Page New provision in IDA Guide EQR - The ISO logo has been updated - The ISO lorect URL link to 'testing labs recognised by IDA' has been provided - The ISO Direct URL link to 'testi            | _     | Annendix to IDA      |  |               |
| Page   New provision in IDA Guide EQR  |       | • •                  | , ,  |               |
| Page   IDA Guide EQR   |       | Changes to the Guide | for Registration of Telecommunication Equipment (IDA Guide EQR Issue 2 R | ev 7)         |
| - A new section has been added to provide for the transfer of equipment registration between telecommunication dealer's licensees  15  | Page  | _                    | Item Changed   |               |
| equipment registration between telecommunication dealer's licensees  The Equipment Category, Type and applicable Technical Specification have been updated as follows:  - 'Integrated Receiver Decoders for use with 2nd-generation Digital Terrestrial Television broadcasting system (DVB-T2 IRD)';  - 'Basic DVB-T2 IRD' and 'Basic DVB-T2 IRD + Multi-channel Audio';  - 'Part A of IDA/MDA TS DVB-T2 IRD' and 'Part A and Part B of IDA/MDA TS DVB-T2 IRD', respectively  15  | 11    | § 3.6                | Transfer of Equipment Registration                                       | 25 April 2013 |
| The Equipment Category, Type and applicable Technical Specification have been updated as follows:  - "Integrated Receiver Decoders for use with 2nd-generation Digital Terrestrial Television broadcasting system (DVB-T2 IRD)";  - "Gasic DVB-T2 IRD" and "Basic DVB-T2 IRD + Multi-channel Audio";  - "Part A of IDA/MDA TS DVB-T2 IRD" and 'Part A and Part B of IDA/MDA TS DVB-T2 IRD", respectively  15   |       |                      | - A new section has been added to provide for the transfer of            |               |
| Table B.1 have been updated as follows:  - 'Integrated Receiver Decoders for use with 2nd-generation Digital Terrestrial Television broadcasting system (DVB-T2 IRD)';  - 'Basic DVB-T2 IRD' and 'Basic DVB-T2 IRD + Multi-channel Audio';  - 'Part A of IDA/MDA TS DVB-T2 IRD' and 'Part A and Part B of IDA/MDA TS DVB-T2 IRD', respectively  15 Annex B Table B.1 been revised to SGD 50. For clarity, the definition of family series has been revised to SGD 50. For clarity, the definition of family series models has also been revised  19 Annex D The List of Technical Regulations has been updated as follows:  - IDA/MDA TS DVB-T2 IRD, Issue 1 Rev 1, March 2013  - IDA TS SRD, Issue 1 Rev 7, April 2013  - IDA TS SRD, Issue 1 Rev 7, April 2013  - Appendix to IDA GUIDE EQR  Changes to the Guide for Registration of Telecommunication Equipment (IDA Guide EQR Issue 2 Rev 6)  Page New provision in IDA Guide EQR  Cover Page  - The ISO logo has been updated  Cover Page  The URL link to Equipment Registration Framework has been updated (www.ida.gov.sg/EquipmentRegistrationFramework)  5 \$ 2.2.3.4 (b) Direct URL link to 'testing labs recognised by IDA' has been provided.  6 \$ 2.2.3.5 (b) Direct URL link to 'testing labs recognised by IDA' has been provided  14 Annex B Table B.1 (www.ida.gov.sg/Standards)  The URL link to IDA Technical Specifications has been updated (www.ida.gov.sg/Standards)  The List of Technical Regulations has been updated as follows:   |       |                      |  |               |
| - 'Integrated Receiver Decoders for use with 2nd-generation Digital Terrestrial Television broadcasting system (DVB-T2 IRD); IRD);'; - 'Basic DVB-T2 IRD' and 'Basic DVB-T2 IRD + Multi-channel Audio'; - 'Part A of IDA/MDA TS DVB-T2 IRD' and 'Part A and Part B of IDA/MDA TS DVB-T2 IRD', respectively  15   | 15    |                      |  |               |
| Digital Terrestrial Television broadcasting system (DVB-T2 IRD);  - 'Basic DVB-T2 IRD' and 'Basic DVB-T2 IRD + Multi-channel Audio';  - 'Part A of IDA/MDA TS DVB-T2 IRD' and 'Part A and Part B of IDA/MDA TS DVB-T2 IRD', respectively  15   |       | Table B.1            | 1  |               |
| IRD)'; - 'Basic DVB-T2 IRD' and 'Basic DVB-T2 IRD + Multi-channel Audio'; - 'Part A of IDA/MDA TS DVB-T2 IRD', respectively   15   |       |                      |  |               |
| - 'Basic DVB-T2 IRD' and 'Basic DVB-T2 IRD + Multi-channel Audio'; - 'Part A of IDA/MDA TS DVB-T2 IRD', respectively  15   |       |                      |  |               |
| - 'Part A of IDA/MDA TS DVB-T2 IRD' and 'Part A and Part B of IDA/MDA TS DVB-T2 IRD', respectively  15   |       |                      |  |               |
| IDA/MDA TS DVB-T2 IRD', respectively   |       |                      |  |               |
| The registration fee for subsequent model in the same family series has been revised to SGD 50. For clarity, the definition of family series models has also been revised to SGD 50. For clarity, the definition of family series models has also been revised   |       |                      |  |               |
| Table B.1 Note 5 Note 6 Note 6 Note 6 Note 6 Note 6 Note 7 Note 7 Note 7 Note 7 Note 8 Note 7 Note 8 Note 7 Note 9 Note 7 Note 9 Note 7 Note 8 Note 8 Note 8 Note 9 Note 8 Note 9 Note 10             |       |                      |  |               |
| Note 5   | 15    |                      |  |               |
| 19 Annex D Table D.2 Table             |       |                      |  |               |
| Table D.2 - IDA/MDA TS DVB-T2 IRD, Issue 1 Rev 1, March 2013 - IDA TS SRD, Issue 1 Rev 7, April 2013  - Appendix to IDA GUIDE EQR  Changes to the Guide for Registration of Telecommunication Equipment (IDA Guide EQR Issue 2 Rev 6)    Page  |       |                      |  |               |
| - IDA TS SRD, Issue 1 Rev 7, April 2013  - Appendix to IDA GUIDE EQR  Changes to the Guide for Registration of Telecommunication Equipment (IDA Guide EQR Issue 2 Rev 6)  Page  New provision in IDA Guide EQR  - The ISO logo has been updated  Cover Page  3 § 2.1.2 The URL link to Equipment Registration Framework has been updated (www.ida.gov.sg/EquipmentRegistrationFramework)  5 § 2.2.3.4 (b) Direct URL link to 'local or foreign certification bodies recognised by IDA' has been provided.  6 § 2.2.3.5 (b) Direct URL link to 'testing labs recognised by IDA' has been updated (www.ida.gov.sg/Standards)  The URL link to IDA Technical Specifications has been updated (www.ida.gov.sg/Standards)  The URL link to IDA Technical Specifications has been updated (www.ida.gov.sg/Standards)  The URL link to IDA Technical Specifications has been updated (www.ida.gov.sg/Standards)   | 19    |                      |  |               |
| - Appendix to IDA GUIDE EQR Updated screenshots on online equipment registration process  Changes to the Guide for Registration of Telecommunication Equipment (IDA Guide EQR Issue 2 Rev 6)  Page New provision in IDA Guide EQR  - The ISO logo has been updated  28 January 2013  3 § 2.1.2 The URL link to Equipment Registration Framework has been updated (www.ida.gov.sg/EquipmentRegistrationFramework)  5 § 2.2.3.4 (b) Direct URL link to 'local or foreign certification bodies recognised by IDA' has been provided.  6 § 2.2.3.5 (b) Direct URL link to 'testing labs recognised by IDA' has been provided  14 Annex B The URL link to IDA Technical Specifications has been updated (www.ida.gov.sg/Standards)  17 Annex D The List of Technical Regulations has been updated as follows:   |       | Table D.2            |  |               |
| Changes to the Guide for Registration of Telecommunication Equipment (IDA Guide EQR Issue 2 Rev 6)    Page   |       |                      | - IDA TS SRD, Issue 1 Rev 7, April 2013                                  |               |
| New provision in IDA Guide EQR   | -     |                      | Updated screenshots on online equipment registration process             |               |
| Cover Page  The ISO logo has been updated  \$\frac{28 \text{ January 2013}}{2013}\$  The URL link to Equipment Registration Framework has been updated (\(\frac{www.ida.gov.sg/EquipmentRegistrationFramework\)}{2013}\$  \$\frac{5}{2}.2.3.4 \text{ (b)}  \text{Direct URL link to 'local or foreign certification bodies recognised by IDA' has been provided.}  \$\frac{5}{2}.2.3.5 \text{ (b)}  \text{Direct URL link to 'testing labs recognised by IDA' has been provided}  \$\frac{14}{2}  \text{Annex B}  \text{Table B.1}  \text{(www.ida.gov.sg/Standards)}{\text{Note 9}}\$  The List of Technical Regulations has been updated as follows:}  |       | Changes to the Guide | for Registration of Telecommunication Equipment (IDA Guide EQR Issue 2 R | lev 6)        |
| Page  3 § 2.1.2 The URL link to Equipment Registration Framework has been updated (www.ida.gov.sg/EquipmentRegistrationFramework)  5 § 2.2.3.4 (b) Direct URL link to 'local or foreign certification bodies recognised by IDA' has been provided.  6 § 2.2.3.5 (b) Direct URL link to 'testing labs recognised by IDA' has been provided  14 Annex B Table B.1 Note 9  17 Annex D The List of Technical Regulations has been updated as follows:  | Page  |                      | Item Changed   |               |
| Page  3 § 2.1.2 The URL link to Equipment Registration Framework has been updated (www.ida.gov.sg/EquipmentRegistrationFramework)  5 § 2.2.3.4 (b) Direct URL link to 'local or foreign certification bodies recognised by IDA' has been provided.  6 § 2.2.3.5 (b) Direct URL link to 'testing labs recognised by IDA' has been provided  14 Annex B Table B.1 Note 9  17 Annex D The List of Technical Regulations has been updated as follows:  | Cover | -                    | The ISO logo has been updated  | 28 January    |
| (www.ida.gov.sg/EquipmentRegistrationFramework)  5 § 2.2.3.4 (b) Direct URL link to 'local or foreign certification bodies recognised by IDA' has been provided.  6 § 2.2.3.5 (b) Direct URL link to 'testing labs recognised by IDA' has been provided  14 Annex B Table B.1 (www.ida.gov.sg/Standards) Note 9  17 Annex D The List of Technical Regulations has been updated as follows:   | Page  |                      |  |               |
| 5 § 2.2.3.4 (b) Direct URL link to 'local or foreign certification bodies recognised by IDA' has been provided.  6 § 2.2.3.5 (b) Direct URL link to 'testing labs recognised by IDA' has been provided  14 Annex B Table B.1 (www.ida.gov.sg/Standards) Note 9  17 Annex D The List of Technical Regulations has been updated as follows:  | 3     | § 2.1.2              | The URL link to Equipment Registration Framework has been updated        |               |
| has been provided.  6 § 2.2.3.5 (b) Direct URL link to 'testing labs recognised by IDA' has been provided  14 Annex B Table B.1 Note 9  17 Annex D The List of Technical Regulations has been updated as follows:  |       |                      | (www.ida.gov.sg/EquipmentRegistrationFramework)                          |               |
| 6 § 2.2.3.5 (b) Direct URL link to 'testing labs recognised by IDA' has been provided  14 Annex B Table B.1 Note 9  17 Annex D The List of Technical Regulations has been updated as follows:  | 5     | § 2.2.3.4 (b)        |  |               |
| 14 Annex B Table B.1 Note 9  The URL link to IDA Technical Specifications has been updated (www.ida.gov.sg/Standards)  The URL link to IDA Technical Specifications has been updated (www.ida.gov.sg/Standards)  The List of Technical Regulations has been updated as follows:  |       |                      |  |               |
| Table B.1 (www.ida.gov.sg/Standards)  Note 9  The List of Technical Regulations has been updated as follows:   | 6     | § 2.2.3.5 (b)        | Direct URL link to 'testing labs recognised by IDA' has been provided    |               |
| Table B.1 (www.ida.gov.sg/Standards)  Note 9  The List of Technical Regulations has been updated as follows:   | 14    | Annex B              | The URL link to IDA Technical Specifications has been updated            |               |
| 17 Annex D The List of Technical Regulations has been updated as follows:  |       |                      |  |               |
|  |       | Note 9               |  |               |
| Table D.2 - IDA TS WBA, Issue 1 Rev 2, November 2012   | 17    | Annex D              | The List of Technical Regulations has been updated as follows:           |               |
|  |       | Table D.2            | - IDA TS WBA, Issue 1 Rev 2, November 2012                               |               |

|               | Changes to the Guide   | for Registration of Telecommunication Equipment (IDA Guide EQR Issue 2 F   | Rev 5)            |  |  |  |
|---------------|--|--|-------------------|--|--|--|
| Page          | New provision in IDA Guide EQR   | Item Changed   | Effective<br>Date |  |  |  |
| 14            | Annex B<br>Table B.1   | The Equipment Type and applicable Technical Specification have been updated as follows:  - 'Powerline Communications (PLC) Home Networking' and IDA TS PLC, respectively   | 27 August<br>2012 |  |  |  |
| 17            | Annex D<br>Table D.1   | The List of Technical Regulations has been updated as follows: - IDA TS PLC, Issue 1, August 2012  |                   |  |  |  |
|               | Changes to the Guide   | for Registration of Telecommunication Equipment (IDA Guide EQR Issue 2 F   | Rev 4)            |  |  |  |
| Page          | New provision in IDA Guide EQR   | Item Changed   | Effective<br>Date |  |  |  |
| 10            | § 3.5.1 and<br>§ 3.5.2 (a)   | Requirements for Modifications of registered telecommunication equipment:  - Removing the requirement to notify IDA for Class 1 Modifications  - Classifying change in Specific Absorption Rate (SAR) value of mobile phone as Class 1 Modification  | 4 April 2012      |  |  |  |
| 14            | Annex B<br>Table B.1   | A new note "Standalone radio modules if sold separately will be subject to equipment registration" has been inserted   |                   |  |  |  |
|               | Changes to the Guide   | for Registration of Telecommunication Equipment (IDA Guide EQR Issue 2 F   | Rev 3)            |  |  |  |
| Page          | New provision in<br>IDA Guide EQR  | Item Changed   | Effective<br>Date |  |  |  |
| 17            | Annex D<br>Table D.2   | The List of Technical Regulations has been updated as follows: - IDA TS GMPCS, Issue 1 Rev 4, August 2011  | Sep 2011          |  |  |  |
|               | Changes to the Guide   | for Registration of Telecommunication Equipment (IDA Guide EQR Issue 2 F   | Rev 2)            |  |  |  |
| Page          | New provision in IDA Guide EQR   | Item Changed   | Effective<br>Date |  |  |  |
| 14            | Annex B<br>Table B.1   | The Equipment Type and applicable Technical Specification have been updated as follows:  - '2G/3G/LTE Cellular Base Station and Repeater System' and 'IDA TS CBS', respectively  - '2G/3G/LTE Cellular Mobile Terminal' and 'IDA TS CMT', respectively   | Jun 2011          |  |  |  |
| 17            | Annex D<br>Table D.2   | The List of Technical Regulations has been updated as follows:  - IDA TS LMR, Issue 1 Rev 4, June 2011  - IDA TS CMT, Issue 1, June 2011 which has superseded the former IDA TS GSM-MT and IDA TS 3G-MT  - IDA TS CBS, Issue 1, June 2011 which has superseded the former IDA TS GSM-BS and IDA TS 3G-BS |                   |  |  |  |
|               | Changes to the Guide for Registration of Telecommunication Equipment (IDA Guide EQR Issue 2 Rev 1) |  |                   |  |  |  |
| Page          | New provision in IDA Guide EQR   | Item Changed   | Effective<br>Date |  |  |  |
| Cover<br>Page | -  | Change of IDA's address to Mapletree Business City   | 1 May 2011        |  |  |  |
| 8             | § 2.7  | Change of IDA's address and Fax No.  |                   |  |  |  |
| 17            | Annex D  | Issue Dates of Technical Specifications have been updated  |                   |  |  |  |

|      | Changes to the Gu              | uide for Registration of Telecommunication Equipment (IDA Guide EQR Issue                                 | 2)                |
|------|--------------------------------|---|-------------------|
| Page | New provision in IDA Guide EQR | Item Changed  | Effective<br>Date |
| 9    | § 3.2.2.1<br>§ 3.2.2.2         | Updated the procedures for the optional Application for Confirmation of Conformity for exempted equipment | 1 Apr 2011        |
| 10   | § 3.4.1                        | Updated the online renewal process  |                   |
| 12   | Annex A-1                      | Updated Equipment Registration Schematic Diagram  |                   |
| 13   | Annex A-2                      | Included a separate Application for Confirmation of Conformity Schematic Diagram                          |                   |
| 15   | Annex B<br>Table B.2           | Included in Table B.2, the additional option for COFC – Self-Declaration                                  |                   |
| 16   | Annex D                        | Updated Issue Dates of IDA TS SRD and IDA TS LMR  |                   |
| -    | Appendix to IDA<br>GUIDE EQR   | Updated screenshots on online equipment registration process  |                   |

|      | Changes to the Guide              | for Registration of Telecommunication Equipment (IDA Guide EQR Issue 1  | Rev 3)            |
|------|-----------------------------------|---|-------------------|
| Page | New provision in<br>IDA Guide EQR | Item Changed  | Effective<br>Date |
| -    | -                                 | The Guide has been revised and published as IDA GUIDE EQR Issue 2 to reflect changes in the IDA Equipment Registration Framework:  - Extending coverage of Enhanced Simplified Equipment Registration (ESER) and Administration of Simplified Equipment Registration (SER) for mobile phones and broadband access equipment  - Introducing Application for Confirmation of Conformity for exempted equipment  - Introducing upfront payment for equipment registration  - Revising the online equipment registration workflow | 15 Apr 2010       |
|      | Changes to the Guide              | for Registration of Telecommunication Equipment (IDA Guide EQR Issue 1  | Rev 2)            |
| Page | New provision in<br>IDA Guide EQR | Item Changed  | Effective<br>Date |
| 11   | § 4                               | Radio-communication Equipment which requires IDA Licensing  | 8 Jan 2010        |
| 16   | Annex D                           | Issue Dates of Technical Specifications have been updated   |                   |
|      | Changes to the Guide              | for Registration of Telecommunication Equipment (IDA Guide EQR Issue 1  | Rev 1)            |
| Page | New provision in<br>IDA Guide EQR | Item Changed  | Effective<br>Date |
| -    | -                                 | The approval framework described in this Guide is now extended to allow registrations of Ultra-Wideband (UWB) devices for sale and use:   | 3 Jan 2008        |
| 13   | Annex B<br>Table B.1              | UWB has been added as a new equipment category.   |                   |
| 14   | Annex B<br>Table B.3              | Frequency band 433.79 – 434.79 MHz has been revised to 433.05 – 434.79 MHz, in line with ITU-designated ISM band.   |                   |
| 16   | Annex D<br>Table D.2              | The List of Technical Regulations has been updated as follows:  - IDA TS UWB, Issue 1, Dec 07  - IDA TS SRD, Issue 1 Rev 3, Jan 08  |                   |

|             | Changes to the Gu              | uide for Registration of Telecommunication Equipment (IDA Guide EQR Issue   | 1)                |
|-------------|--------------------------------|---|-------------------|
| New<br>Page | New provision in IDA Guide EQR | Item Changed  | Effective<br>Date |
| 3           | § 2.1                          | The Guide has been revised and published as IDA Guide EQR Issue 1 Rev 1 to reflect changes made to the Equipment Registration Online.  Revisions are mainly intended for introducing the enhanced version of the SER scheme (ESER) for short-range/low power devices (SRD/LPD) operating in ISM frequency bands and transmitting not exceeding100 mW.   | 23 Jul 2007       |
| 3           | § 2.2                          | This section describes the Equipment Registration for ISM-band SRD/LPD, an enhanced version of the SER scheme.  |                   |
| 6           | § 2.5.1                        | This section describes the approval of ISM-band SRD/LPD under the enhanced SER.   |                   |
| 6           | § 2.5.2.3                      | This section highlights the e-Services available for e-Payment and printing of registration notifications.  |                   |
| 7           | § 2.7.2                        | This section highlights the equipment registration fee payable via e-<br>Payment.   |                   |
| 8           | § 3.1.5                        | This section highlights the need to comply with the EMC requirements specified in the IEC CISPR 22, where applicable.   |                   |
| 9           | § 3.2.1.1 (b)                  | This section highlights the availability of online declaration of conformity under the enhanced SER scheme.   |                   |
| 12          | Annex A                        | The Equipment Registration Schematic Diagram has included the route for the enhanced SER for SRD/LPD operating in ISM bands and transmitting not exceeding 100 mW (Route 1a).   |                   |
| 14          | Annex B                        | This annex has included a table defining the types of equipment not requiring registration fees (Table B.3).  |                   |
| 16          | Annex D                        | This annex now provides the Equipment Category Codes against the corresponding Technical Specifications for the purpose of guiding users in their online data entry (see Screenshot 3.5 in the Appendix to the Guide). It also highlights the EMC framework and requirements that have been included in the Technical Specifications as part of the conformity assessment requirements together with the telecommunications part. |                   |
|             | Appendix to<br>IDA GUIDE EQR   | This appendix provides screenshots demonstrating the following: - access to the Equipment Registration Online Equipment Registration for ISM-band SRD/LPD - Telecommunication Equipment Registration e-Payment  |                   |

|          | Changes to the Guide              | e for Approval of Telecommunication Equipment (IDA Approval Guide)  |                   |
|----------|-----------------------------------|---|-------------------|
| New Page | New provision in<br>IDA Guide EQR | Item Changed  | Effective<br>Date |
| -        | _                                 | The "Guide for Approval of Telecommunication Equipment" (IDA Approval Guide, 15 Mar 04) has been superseded by the "Guide for Registration of Telecommunication Equipment" (IDA Guide EQR Issue 1).   | 21 Jul 2005       |
| 13       | Annex A.4                         | General Approval (GAP) scheme for single-line analogue equipment is discontinued. Suppliers may sell such equipment without the requirement of equipment registration or opt to register such equipment using the SER or GER scheme.              |                   |
| 6        | § 2.2                             | Simplified Equipment Registration (SER) scheme is maintained and extended to cover (a) GSM phones, (b) DECT and PHS digital cordless phones and systems, (c) GMPCS terminals, and (d) ADSL and cable modems. Registration fee remains at SGD 100. |                   |

| 6 | § 2.3 | Type Approval (TAP) scheme is re-designated as General Equipment Registration (GER) with "Declaration evaluated by IDA". Fees are restructured to SGD 350/500.   |
|---|-------|--|
| 6 | § 2.3 | MRA Equipment Registration (MER) scheme is maintained and renamed as GER with "Declaration certified by an IDA recognised body". Registration fee remains at SGD 100.  |
| - | -     | Individual approval is discontinued for single items of equipment brought in by individuals from overseas for personal use. These individuals shall carry the personal responsibility for ensuring that the equipment conforms to the applicable IDA Technical Specifications. |