



# **TYPE APPROVAL GUIDELINES**

FOR

## **RADIO AND TELECOMMUNICATIONS TERMINAL EQUIPMENT**

July, 2020

National Communications Authority

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## 1. BACKGROUND

National Communications Authority (NCA) is the regulatory body for the Information and Communications Technology (ICT) in Somalia. The NCA was established under the communications act of 2017 (the Act).

In accordance with article 59 of the Act, NCA has the statutory duty to ensure that no substandard Radio and Telecommunications Terminal Equipment (RTTE) is operated in Somalia. NCA fulfills this function by requiring that all RTTEs are type approved before being marketed or used in Somalia.

## 2. TYPE APPROVAL IN SOMALIA

Type Approval is defined as the process by which an RTTE is certified by the NCA to be used in Somalia. It involves verification of an RTTE to make sure it complies with the applicable international standards and essential requirements.

NCA Type Approves RTTE on the basis of the make and model. Once RTTE is type approved, the same model of equipment can be imported in Somalia without having to apply for another Type Approval. NCA will publish on its website a Type Approval Register containing the RTTEs that are approved.

The main goal of the type approval is to confirm that all RTTEs which are used in Somalia comply with the applicable technical standards recognized by the NCA in order to:

- a. Ensure environmental safety and health of users of the RTTE;
- b. Avoid interference to other radio communications networks;
- c. Prevent damage or interruption to interconnected networks;
- d. Guarantee effective use of the frequency spectrum;
- e. Facilitate the availability of quality equipment to consumers and operators;
- f. Promote interoperability between communications networks;

This document provides step-by-step guide to applicants that wish to obtain Type Approval for a RTTE, describing in detail the documents needed and the process to follow. The Type Approval Guidelines apply to all RTTEs imported to Somalia, whether for marketing or commercial purposes or for private use, and apply to any Person that is the initial or first point of supply of the RTTE in Somalia.

### 3. EQUIPMENT THAT REQUIRE TYPE APPROVAL

Any Telecommunications apparatus that is either radio equipment or telecommunications terminal equipment, or both (such as a mobile phone handset) which connects directly to a Public Telecommunications Network and / or which is an intentional transmitter of radio waves is subject to type approval by the NCA. Such equipment is referred to collectively as Radio and Telecommunications Terminal Equipment (RTTE).

Radio and Telecommunications Terminal Equipment that require Type Approval include (but are not limited to):

- Terminal Equipment
  - Mobile handsets, Tablets, PDAs, Telephone sets, IP Phones, Mobile Dongles, etc
- Short Range Radio Devices
  - Wi-Fi, Bluetooth, NFC Readers, RFID, etc
- Radio Transceivers
  - Broadcast Equipment, Satellite Equipment, Base Stations, etc.
- Network Equipment
  - BSCs, MSCs, PSTN Switches, Media gateways, Servers, Switches, Routers, Modems, PBX, tracking devices, etc.

### 4. WHO CAN APPLY FOR TYPE APPROVAL

Type Approval can be requested by:

- a. Authorized Importers (Authorized Importer is entity in Somalia that is authorized by the Ministry of Commerce to import RTTE to Somalia for marketing/commercial purposes in line with the Applicable Regulatory Framework).
- b. Licensed Operators (Licensed Operator is a Somali company or establishment located in Somalia that is licensed by NCA to own, establish or operate a telecommunications network).
- c. Local and International Manufacturers.
- d. Public/private organizations in Somalia wishing to import RTTE for their own use (i.e. not for marketing/commercial purposes).

## 5. GENERAL TECHNICAL REQUIREMENTS

Generally speaking, all RTTEs imported to Somalia have to meet the following requirements:

- a. RTTE must be electrically and electromagnetically safe for users, subscribers or the employees of the telecommunications system operators;
- b. RTTE must be electromagnetically compatible with other equipment to which it is or will be connected;
- c. RTTE have to use the radio spectrum efficiently in order to avoid causing interference to other networks;

A detailed technical specification is presented in Appendix C.

## 6. TYPE APPROVAL FEES

Refer to our 2021 Type Approval fees document, which has been developed and made available for your convenience. The document can be accessed at the [www.nca.gov.so](http://www.nca.gov.so).

## 7. TYPE APPROVAL PROCEDURE

Type Approval applicants are required to adhere the following procedures:

1. An Application for Type Approval must be completed using the application form shown in Appendix A of this document and which is available for download on the NCA website ([www.nca.gov.so](http://www.nca.gov.so)).
  2. NCA only processes applications of RTTEs which has already obtained Type Approval Certificate from a National Regulatory Authority (NRA) recognized by NCA showing that the RTTE complies with the required technical standards.
  3. National Regulatory Authorities (NRAs) that are recognized by NCA are listed in Appendix B and will be regularly updated and published on NCA website.
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4. If an applicant wants to apply Type Approval for different types of equipment. A separate application form must be completed, signed and stamped by the applicant for each type of equipment. Applications must be submitted via email ([typeapproval@nca.gov.so](mailto:typeapproval@nca.gov.so) ).
5. Each application for Type Approval must be accompanied by the following supporting documents:
  - a. Technical documentation of the RTTE (including details of transmission parameters, operating media, interface specifications, fulfilment of service technology requirements, etc).
  - b. A duly signed, stamped and dated Type Approval Certificate confirming that the RTTE complies with the suitable standards, issued by a National Regulatory Authority (NRA) recognized by NCA.
  - c. Proof of payment for the Type Approval application fee.
6. No application for Type Approval will be processed unless all required supporting documents are submitted to NCA. This may include the submission of any other additional information that is considered necessary by NCA for the purpose of Type Approval.
7. An application that is complete will be processed within thirty (30) calendar days of its receipt by NCA.
8. If the outcome of the assessment is successful, NCA type approves the RTTE and issues Type Approval Letter to the applicant.
9. NCA reserves the right to reject Type Approval application in the case where NCA is not satisfied in regard to any feature of the application. The Applicant may rectify the issue and submit a new application for Type Approval.

**Appendix A: Type Approval Application Form**

| <b>Applicant's Details (tick appropriate)</b>            |                                                       |
|----------------------------------------------------------|-------------------------------------------------------|
| <input type="checkbox"/>                                 | Authorized Importer- Importer Registration No.: _____ |
| <input type="checkbox"/>                                 | Licensed Operators- Provide License No.: _____        |
| <input type="checkbox"/>                                 | Manufacturer (local or international)                 |
| <input type="checkbox"/>                                 | Public/private organization (own use)                 |
| Company Name                                             |                                                       |
| Contact Person                                           |                                                       |
| Position                                                 |                                                       |
| Address                                                  |                                                       |
| Telephone                                                |                                                       |
| Email                                                    |                                                       |
| <b>Equipment Details</b>                                 |                                                       |
| Intended use                                             |                                                       |
| Equipment Type                                           |                                                       |
| Model/Brand Name                                         |                                                       |
| Model Number                                             |                                                       |
| Manufacturer Name                                        |                                                       |
| Manufacturer Details<br>(Address, Telephone and Email)   |                                                       |
| <b>Details of the obtained Type Approval Certificate</b> |                                                       |
| Issuing NRA                                              |                                                       |
| Date of issue                                            |                                                       |
| Validity                                                 |                                                       |

Form completed by: \_\_\_\_\_

Signature: \_\_\_\_\_ Date: \_\_\_\_\_

Official stamp

### **Appendix B. List of recognized National Regulatory Authorities (NRAs)**

The following list of NRAs are recognized by NCA and Type Approval Certificates granted by these NRAs can be used as Certificate of Compliance. The list of the recognized NRAs will be regularly updated and published on NCA website.

- a. All NRAs from EU Member states.
- b. Telecommunications Regulatory Authority (TRA), UAE.
- c. Information and Communications Technology Authority, Turkey.

## Appendix C: Technical specifications

| HEALTH AND SAFETY SPECIFICATIONS |                       |                                                                                                                                                                                                                                                                                                  |
|----------------------------------|-----------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Type                             | Applicable Standard   | Description                                                                                                                                                                                                                                                                                      |
| Electrical                       | EN 60950 or IEC 60950 | Electrical Safety of information technology equipment                                                                                                                                                                                                                                            |
|                                  | EN 60065              | Audio, video and similar electronic apparatus - Safety requirements                                                                                                                                                                                                                              |
|                                  | EN 62368-1            | Audio/video, information and communication technology equipment - Part 1: Safety requirements                                                                                                                                                                                                    |
|                                  | EN 60215              | Safety requirements for radio transmitting equipment                                                                                                                                                                                                                                             |
|                                  | EN 41003              | Particular safety requirements for equipment to be connected to telecommunication networks and/or a cable distribution system                                                                                                                                                                    |
| Radio                            | EN 50360              | Product standard to demonstrate the compliance of mobile phones with the basic restrictions related to human exposure to electromagnetic fields (300 MHz – 3 GHz)                                                                                                                                |
|                                  | EN 50364              | Limitation of human exposure to electromagnetic fields from devices operating in the frequency range 0 Hz to 10 GHz, used in Electronic Article Surveillance (EAS), Radio Frequency Identification (RFID) and similar applications                                                               |
|                                  | EN 50371              | Generic standard to demonstrate the compliance of low power electronic and electrical apparatus with the basic restrictions related to human exposure to electromagnetic fields (10 MHz – 300 GHz) – General public                                                                              |
|                                  | EN 50383              | Basic standard for the calculation and measurement of electromagnetic field strength and SAR related to human exposure from radio base stations and fixed terminal stations for wireless telecommunication systems (110 MHz -40 GHz)                                                             |
|                                  | EN 50384              | Product standard to demonstrate the compliance of radio base stations and fixed terminal stations for wireless telecommunication systems with the basic restrictions or the reference levels related to human exposure to radio frequency electromagnetic fields (110 MHz - 40 GHz) Occupational |

|                   |                           |                                                                                                                                                                                                                                                                                                                                              |
|-------------------|---------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                   | EN 50385                  | Product standard to demonstrate the compliance of radio base stations and fixed terminal stations for wireless with the basic restrictions related to human exposure to electromagnetic fields (110 MHz – 40 GHz)                                                                                                                            |
|                   | EN 60215                  | Safety requirements for radio transmitting equipment                                                                                                                                                                                                                                                                                         |
|                   | EN 50392                  | Generic standard to demonstrate the compliance of electronic and electrical apparatus with the basic restrictions related to human exposure to electromagnetic fields (0 Hz– 300 GHz)                                                                                                                                                        |
|                   | EN 50401                  | Product standard to demonstrate the compliance of fixed equipment for radio transmission (110 MHz - 40 GHz) intended for use in wireless telecommunication networks with the basic restrictions or the reference levels related to general public exposure to radio frequency electromagnetic fields, when put into service                  |
|                   | EN 62209-1                | Human exposure to radio frequency fields from hand-held and bodymounted wireless communication devices - Human models, instrumentation, and procedures - Part 1: Procedure to determine the specific absorption rate (SAR) for hand-held devices used in close proximity to the ear (frequency range of 300 MHz to 3 GHz)                    |
|                   | EN 62209-2                | Human exposure to radio frequency fields from hand-held and bodymounted wireless communication devices - Human models, instrumentation, and procedures - Part 2: Procedure to determine the specific absorption rate (SAR) for wireless communication devices used in close proximity to the human body (frequency range of 30 MHz to 6 GHz) |
|                   | EN 62311                  | Assessment of electronic and electrical equipment related to human exposure restrictions for electromagnetic fields (0 Hz - 300 GHz)                                                                                                                                                                                                         |
|                   | EN 62479                  | Assessment of the compliance of low power electronic and electrical equipment with the basic restrictions related to human exposure to electromagnetic fields (10 MHz to 300 GHz)                                                                                                                                                            |
| Optical and Laser | EN 60825-1 or IEC 60825-1 | Safety of laser products - Part 1: Equipment classification, requirements and user's guide                                                                                                                                                                                                                                                   |
|                   | EN 60825-2 or IEC 60825-2 | Safety of laser products - Part 2: Safety of optical fiber communication systems                                                                                                                                                                                                                                                             |
|                   | EN 60825-4                | Safety of laser products - Part 4: Laser guards                                                                                                                                                                                                                                                                                              |
|                   | EN 60825-12               | Safety of laser products - Part 12: Safety of free space optical communication systems used for transmission of information                                                                                                                                                                                                                  |

| ELECTROMAGNETIC COMPATIBILITY (EMC) SPECIFICATIONS |                                                                  |                                                                                                                                                                                                                                                               |
|----------------------------------------------------|------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Type                                               | Applicable standard                                              | Description                                                                                                                                                                                                                                                   |
| Information Technology equipment                   | EN 55022 or CISPR 22                                             | <ul style="list-style-type: none"> <li>• Radio disturbance characteristics</li> <li>• Limits and methods of measurement</li> </ul>                                                                                                                            |
|                                                    | EN 55024 or CISPR 24                                             | <ul style="list-style-type: none"> <li>• Immunity characteristics</li> <li>• Limits and methods of measurement</li> </ul>                                                                                                                                     |
|                                                    | EN 55032                                                         | Electromagnetic compatibility of multimedia equipment - Emission requirements                                                                                                                                                                                 |
|                                                    | EN 300 386                                                       | Electromagnetic compatibility and Radio spectrum Matters (ERM); Telecommunication network equipment; ElectroMagnetic Compatibility (EMC) requirements                                                                                                         |
| Limits                                             | EN 61000-3-2 or IEC 61000-3-2                                    | <ul style="list-style-type: none"> <li>• Limits for harmonic current emissions (equipment input current up to and including 16A per phase)</li> </ul>                                                                                                         |
|                                                    | EN 61000-3-3 or IEC 61000-3-3<br>EN 61000-3-11 or IEC 61000-3-11 | <ul style="list-style-type: none"> <li>• Limitation of voltage changes, voltage fluctuations and flicker in public low-voltage supply systems</li> <li>• Equipment with rated current <math>\leq 75</math> A and subject to conditional connection</li> </ul> |
| Generic standards                                  | ETSI EN 301-489-1                                                | <ul style="list-style-type: none"> <li>• Electromagnetic compatibility and Radio spectrum Matters (ERM)</li> <li>• Electromagnetic Compatibility (EMC) standard for radio equipment and services</li> <li>• Part 1: Common technical requirements.</li> </ul> |
|                                                    | EN 301 489-2                                                     | Electromagnetic compatibility and Radio spectrum Matters (ERM); Electromagnetic Compatibility (EMC) standard for radio equipment and services; Part 2: Specific condition for Radio Paging Equipment.                                                         |
|                                                    | EN 301 489-4                                                     | Electromagnetic compatibility and Radio spectrum Matters (ERM); Electromagnetic Compatibility (EMC) standard for radio equipment and services; Part 4: Specific conditions for fixed radio links and ancillary equipment and services                         |
|                                                    | EN 301 489-18                                                    | Electromagnetic compatibility and Radio spectrum Matters (ERM); Electromagnetic Comp ability (EMC) standard for radio equipment and services; Part 18: Specific conditions for Terrestrial Trunked Radio (TETRA) equipment                                    |
|                                                    | EN 61000-6-1 or IEC 61000-6-1                                    | <ul style="list-style-type: none"> <li>• Immunity for residential, commercial and industrial environments</li> </ul>                                                                                                                                          |
|                                                    | EN 61000-6-2 or IEC 61000-6-2                                    | <ul style="list-style-type: none"> <li>• Immunity for industrial environments</li> </ul>                                                                                                                                                                      |

## TYPE APPROVAL GUIDELINES

|  |                               |                                                                                   |
|--|-------------------------------|-----------------------------------------------------------------------------------|
|  | EN 61000-6-3 or IEC 61000-6-3 | • Emission standard for residential, commercial and light industrial environments |
|  | EN 61000-6-4 or IEC 61000-6-4 | • Emission standard for industrial environments                                   |

| RADIO SPECIFICATIONS |                                                                                                                                                                                                                                                                                                                                                                                         |
|----------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Radio Standards      | Description                                                                                                                                                                                                                                                                                                                                                                             |
| ETSI EN 303 035-1    | Terrestrial Trunked Radio (TETRA); Harmonised EN for TETRA equipment covering essential requirements under article 3.2 of the R&TTE Directive; Part 1: Voice plus Data (V+D)                                                                                                                                                                                                            |
| ETSI EN 303 035-2    | Terrestrial Trunked Radio (TETRA); Harmonised EN for TETRA equipment covering essential requirements under article 3.2 of the R&TTE Directive; Part 2: Direct Mode Operation (DMO)                                                                                                                                                                                                      |
| EN 60215             | Radio transmitters, Radio equipment, Transmitters, Communication equipment, Safety measures, Electronic equipment and components. Protected electrical equipment, Electrical safety, Fire safety, Explosions, Radiation hazards, Occupational safety, Environment (working), Design, Marking, Earthing, Leakage paths, Clearance distances, Symbols, Graphic symbols, Equipment safety. |
| EN 301 166-2         | Electromagnetic Compatibility and Radio Spectrum Matters (ERM); Land Mobile Service; Radio Equipment for Analogue and /or Digital Communication (Speech and/or Data) and Operating on Narrow Band Channels and Having an Antenna Connector; Part 2: Harmonized EN Covering Essential Requirements under Article 3.2 of the R&TTE Directive                                              |
| ETSI EN 300 086-2    | Electromagnetic Compatibility and Radio Spectrum Matters (ERM); Land Mobile Service; Radio Equipment with an Internal or External RF Connector Intended Primarily for Analogue Speech; Part 2: Harmonized EN Covering Essential Requirements under Article 3.2 of the R&TTE Directive                                                                                                   |
| ETSI EN 300 113-2    | Electromagnetic compatibility and Radio spectrum Matters (ERM); Land mobile service; Radio equipment intended for the transmission of data (and/or speech) using constant or non-constant envelope modulation and having an antenna connector; Part 2: Harmonized EN covering essential requirements under article 3.2 of the R&TTE Directive                                           |
| ETSI ETS 300 296-2   | Electromagnetic compatibility and Radio spectrum Matters (ERM); Land Mobile Service; Radio equipment using integral antennas intended primarily for analogue speech; Part 2: Harmonized EN covering essential requirements under article 3.2 of the R&TTE Directive                                                                                                                     |
| ETSI EN 300 390-2    | Electromagnetic compatibility and Radio spectrum Matters (ERM); Land Mobile Service; Radio Equipment intended for the transmission of data (and speech) and using an integral antenna. Part 2: Harmonized EN covering essential requirements under article 3.2 of the R&TTE Directive                                                                                                   |
| ETSI EN 300 471-2    | Electromagnetic compatibility and Radio spectrum Matters (ERM); Land Mobile Service; Access protocol, occupation rules and corresponding technical characteristics of radio equipment for the transmission of data on shared channels. Part 2: Harmonized EN covering essential requirements under article 3.2 of the R&TTE Directive                                                   |

|                 |                                                                                                                                                                                                                                                                                                                                                       |
|-----------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| EN 50385        | Product Standard to Demonstrate the Compliances of Radio Base Stations and Fixed Terminal Stations for Wireless Telecommunication Systems with the Basic Restrictions or the Reference Levels Related to Human Exposure to Radio Frequency Electromagnetic Fields (110 MHz - 40 GHz) - General Public                                                 |
| ETSI EN 301 502 | Harmonized EN for Global System for Mobile Communications (GSM); Base Station and Repeater Equipment Covering Essential Requirements under Article 3.2 of the R&TTE Directive                                                                                                                                                                         |
| ETSI EN 301 511 | Global System for Mobile Communications (GSM); Harmonized EN for Mobile Stations in the GSM 900 and GSM 1800 Bands Covering Essential Requirements Under Article 3.2 of the R&TTE Directive (1999/5/EC)                                                                                                                                               |
| ETSI EN 301 893 | Broadband Radio Access Networks (BRAN); 5 GHz high performance RLAN; Harmonized EN covering essential requirements of article 3.2 of the R&TTE Directive                                                                                                                                                                                              |
| ETSI EN 301 753 | Fixed Radio Systems; Multipoint equipment and antennas; Generic harmonized standard for multipoint digital fixed radio systems and antennas covering the essential requirements under article 3.2 of the Directive 1999/5/EC                                                                                                                          |
| ETSI EN 301 426 | Satellite Earth Stations and Systems (SES); Harmonized EN for Low Data Rate Land Mobile Satellite Earth Stations (LMES) and Maritime Mobile Satellite Earth Stations (MMES) Not Intended for Distress and Safety Communications Operating in the 1,5/1,6 GHz Frequency Bands Covering Essential Requirements under Article 3.2 of the R&TTE Directive |
| ETSI EN 301 427 | Satellite Earth stations and Systems (SES); Harmonised EN for low data rate land mobile satellite earth stations (LMES) operating in the 11/12/14 GHz frequency bands covering essential requirements under Article 3(2) of the R&TTE directive                                                                                                       |
| EN 301 430      | Satellite Earth stations and Stations (SES); Harmonised EN for Satellite News Gathering Transportable Earth Stations (SNG TES) operating in the 11-12/13-14 GHz frequency bands covering essential requirements under Article 3(2) of the R&TTE directive.                                                                                            |
| ETSI EN 301 441 | Satellite Earth stations and Systems (SES); Harmonised EN for Mobile Earth Stations (MES), including handheld earth stations, for Satellite Personal Communications Networks (S-PCN) in the 1.6/2.4 GHz bands under the Mobile Satellite Service (MSS) covering essential requirements under article 3.2 of the R&TTE directive                       |
| ETSI EN 301 442 | Harmonised EN for Mobile Earth Stations (MES), including handheld earth stations, for Satellite Personal Communications Networks (S-PCN) in the 2.0 GHz bands under the Mobile Satellite Service (MSS) covering essential requirements under article 3.2 of the R&TTE directive                                                                       |

|                 |                                                                                                                                                                                                                                                                                                                                                                            |
|-----------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| ETSI EN 301 444 | Satellite Earth stations and Systems (SES); Harmonised EN for Land Mobile Earth Stations (LMES) operating in the 1.5 GHz and 1.6 GHz bands providing voice and /or data communications covering essential requirements under article 3.2 of the R&TTE directive                                                                                                            |
| ETSI EN 301 681 | Satellite Earth stations and Systems (SES); Harmonised EN for Mobile Earth Stations (MES) of geostationary mobile satellite systems, including handheld earth stations, for satellite personal communications networks (S-PCN) in the 1.5/1.6 GHz bands under the Mobile Satellite Service (MSS) covering essential requirements under article 3(2) of the R&TTE directive |
| ETSI EN 301 721 | Satellite Earth Stations and Systems (SES); Harmonized EN for Mobile Earth Stations (MES) Providing Low Bit Rate Data Communications (LBRDC) Using Low Earth Orbiting (LEO) Satellites Operating Below 1 GHz Covering Essential Requirements under Article 3.2 of the R&TTE Directive                                                                                      |

|                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
|-------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| EN 55022          | Radio disturbances, Noise (spurious signals), Computer terminals, Data processing equipment, Computers, Computer peripheral equipment, Office machines, Data processing, Communication equipment, Communication networks, Radiofrequencies, Interference suppression, Grades (quality), Emission, Electromagnetic fields, Electromagnetic radiation, Electrical wave measurement, Electrical measurement, Conformity, Approval testing, Test equipment, Circuits, Testing conditions, Electromagnetic compatibility |
| ETSI EN 301 443   | Satellite Earth stations and Systems (SES); Harmonised EN for Very Small Aperture Terminal (VSAT); Transmit only, transmit-and-receive, receive-only satellite earth stations operating in the 4GHz and 6GHz frequency bands covering essential requirements under article 3.2 of the R&TTE directive                                                                                                                                                                                                               |
| ETSI EN 301 428   | Satellite Earth stations and Systems (SES); Harmonised EN for Very Small Aperture Terminal (VSAT); Transmit only, transmit/receive or receive-only satellite earth stations operating in the 11/12/14 GHz frequency bands covering essential requirements under article 3.2 of the R&TTE directive                                                                                                                                                                                                                  |
| ETSI EN 301 459   | Satellite Earth stations and Systems (SES); Harmonised EN for Satellite Interactive Terminal (SIT) and Satellite User Terminals (SUT) transmitting towards satellites in geostationary orbit in the 29.5 – 30.0 GHz frequency bands covering essential requirements under article 3.2 of the R&TTE directive                                                                                                                                                                                                        |
| ETSI EN 301 360   | Satellite Earth stations and Systems (SES); Harmonised EN for Satellite Interactive Terminal (SIT) and Satellite User Terminals (SUT) transmitting towards satellites in geostationary orbit in the 27.5 – 29.5 GHz frequency bands covering essential requirements under article 3.2 of the R&TTE directive                                                                                                                                                                                                        |
| ETSI EN 301 406   | Digital Enhanced Cordless Telecommunications (DECT); Harmonised EN for Digital Enhanced Cordless Telecommunications (DECT) covering essential requirements under Article 3(2) of the R&TTE directive                                                                                                                                                                                                                                                                                                                |
| ETSI EN 300 440-2 | Electromagnetic compatibility and Radio spectrum Matters (ERM); Short Range Devices (SRD); Radio equipment to be used in the 1 GHz to 40 GHz frequency range; Part 2: Harmonized EN under article 3.2 of the R&TTE Directive                                                                                                                                                                                                                                                                                        |
| ETSI EN 300 328   | Electromagnetic compatibility and Radio spectrum Matters (ERM); Wideband transmission systems; Data transmission equipment operating in the 2,4 GHz ISM band and using wide band modulation techniques; Harmonized EN covering essential requirements under article 3.2 of the R&TTE Directive                                                                                                                                                                                                                      |
| ETSI EN 301 893   | Broadband Radio Access Networks (BRAN); 5 GHz high performance RLAN; Harmonized EN covering essential requirements of article 3.2 of the R&TTE Directive                                                                                                                                                                                                                                                                                                                                                            |

|                    |                                                                                                                                                                                                                                                                                                                           |
|--------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| ETSI EN 301 908-1  | Electromagnetic compatibility and Radio spectrum Matters (ERM);Base Stations (BS) and User Equipment (UE) for IMT-2000 Third-Generation cellular networks;Part 1: Harmonized EN for IMT-2000, introduction and common requirements, covering essential requirements of article 3.2 of the R&TTE Directive                 |
| ETSI EN 301 908-2  | Electromagnetic compatibility and Radio spectrum Matters (ERM);Base Stations (BS), Repeaters and User Equipment (UE) for IMT-2000 Third-Generation cellular networks;Part 2: Harmonized EN for IMT-2000, CDMA Direct Spread (UTRA FDD) (UE) covering essential requirements of article 3.2 of the R&TTE Directive         |
| ETSI EN 301 908-6  | Electromagnetic compatibility and Radio spectrum Matters (ERM);Base Stations (BS), Repeaters and User Equipment (UE) for IMT-2000 Third-Generation cellular networks;Part 6: Harmonized EN for IMT-2000, CDMA TDD (UTRA TDD) (UE) covering essential requirements of article 3.2 of the R&TTE Directive                   |
| ETSI EN 301 908-3  | Electromagnetic compatibility and Radio spectrum Matters (ERM);Base Stations (BS) and User Equipment (UE) for IMT-2000 Third-Generation cellular networks;Part 3: Harmonized EN for IMT-2000, CDMA Direct Spread (UTRA FDD) (BS) covering essential requirements of article 3.2 of the R&TTE Directive                    |
| ETSI EN 301 908-7  | Electromagnetic compatibility and Radio spectrum Matters (ERM);Base Stations (BS), Repeaters and User Equipment (UE) for IMT-2000 Third-Generation cellular networks;Part 7: Harmonized EN for IMT-2000, CDMA TDD (UTRA TDD) (BS) covering essential requirements of article 3.2 of the R&TTE Directive                   |
| ETSI EN 301 908-11 | Electromagnetic compatibility and Radio spectrum Matters (ERM);Base Stations (BS), Repeaters and User Equipment (UE) for IMT-2000 Third-Generation cellular networks;Part 11: Harmonized EN for IMT-2000, CDMA Direct Spread (UTRA FDD) (Repeaters) covering essential requirements of article 3.2 of the R&TTE Directive |
| ETSI EN 301 753    | Broadband Radio Access Network (BRAN) 5,8GHz fixed Broadband Radio Transmutation system; Harmonized EN covering the essential requirements of article 3.2                                                                                                                                                                 |
| ETSI EN 301 783-2  | Electromagnetic compatibility and Radio spectrum Matters (ERM); Land Mobile Service; Commercially available amateur radio equipment; Part 2: Harmonized EN covering essential requirements under article 3.2 of the R&TTE Directive                                                                                       |
| ETSI EN 300 220-2  | Electromagnetic compatibility and Radio spectrum Matters (ERM); Short Range Devices (SRD) – Radio equipment to be used in the 25 MHz to 1 000 MHz frequency range with power levels ranging up to 500 mW - Part 2: Harmonized EN covering essential requirements under Article 3(2) of the R&TTE directive                |

|                     |                                                                                                                                                                                                                                                                                                                             |
|---------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| ETSI EN 300 220-3   | Electromagnetic compatibility and Radio spectrum Matters (ERM); Short Range Devices (SRD); Radio equipment to be used in the 25 MHz to 1000 MHz frequency range with power levels ranging up to 500mW; Part 3: Harmonized EN covering essential requirements under article 3.2 of the R&TTE Directive.                      |
| ETSI EN 300 422-2   | Electromagnetic compatibility and Radio spectrum Matters (ERM); Wireless microphones in the 25 MHz to 3 GHz frequency range; Part 2:                                                                                                                                                                                        |
|                     | Harmonized EN covering essential requirements under the R&TTE directive                                                                                                                                                                                                                                                     |
| ETSI EN 301 357-2   | Electromagnetic compatibility and Radio spectrum Matters (ERM); Cordless audio devices in the range 25 MHz to 2 000 MHz; Consumer radio microphones and in ear monitoring systems operating in the CEPT harmonised band 863 MHz to 865 MHz; Part 2: Harmonized EN covering essential requirements under the R&TTE directive |
| ETSI EN 301 840-2   | Electromagnetic compatibility and Radio spectrum Matters (ERM); Digital radio microphones operating in the CEPT harmonised band 1 785 MHz to 1 800 MHz; Part 2: Harmonised EN covering essential requirements under the R&TTE directive                                                                                     |
| ETSI EN 302 217-2-2 | Fixed Radio Systems; Characteristics and requirements for point-to-point equipment and antennas; Part 2 2: Harmonized EN covering essential requirements of article 3.2 of the R&TTE Directive for digital systems operating in frequency bands where frequency coordination is applied                                     |
| ETSI EN 302 217-3   | Fixed Radio Systems; Characteristics and requirements for point-to-point equipment and antennas; Part 3: Harmonized EN covering essential requirements of article 3.2 of the R&TTE Directive for equipment operating in frequency bands where frequency coordination is applied                                             |
| ETSI EN 302 217-4-2 | Fixed Radio Systems; Characteristics and requirements for point-to-point equipment and antennas; Part 4-2: Harmonized EN covering essential requirements of Article 3.2 of R&TTE Directive for antennas                                                                                                                     |