



**ESWATINI COMMUNICATIONS COMMISSION (ESCCOM)**

**DECISION NO.1/2022**

**DECISION IN TERMS OF SECTION 38 OF THE ESWATINI COMMUNICATIONS  
COMMISSION ACT, 2013:**

**GUIDELINES FOR RADIO FREQUENCY SPECTRUM  
LICENSING, 2022**

**Effective from 1 January 2022**

## TABLE OF CONTENTS

I.	<u>INTERPRETATION</u> .....	4
II.	<u>POWER TO ISSUE GUIDELINES</u> .....	8
III.	<u>APPLICATION</u> .....	8
IV.	<u>GENERAL REQUIREMENTS</u> .....	8
V.	<u>PURPOSE OF THE GUIDELINES</u> .....	8
VI.	<u>MANDATE OF THE COMMISSION ON SPECTRUM LICENSING</u> .....	9
VII.	<u>RESPONSIBILITIES OF THE COMMISSION</u> .....	10
VIII.	<u>LICENSING APPROACHES</u> .....	11
	(a) <b>Station</b> .....	11
	(b) <b>Network</b> .....	12
	(c) <b>Area</b> .....	12
	(d) <b>Band</b> .....	12
	(e) <b>Class</b> .....	12
IX.	<u>CATEGORIES OF LICENCES</u> .....	13
X.	<u>GENERAL TERMS &amp; CONDITIONS FOR RADIO SPECTRUM LICENSING</u> .....	19
	(a) <u>Limitations of the Licence</u> .....	19
XI.	<u>TEMPORARY AUTHORISATIONS</u> .....	29
XII.	<u>ESCCOM SPECTRUM LICENCING PROCESS</u> .....	25
	(a) <u>Application procedure for licence to use radio frequency spectrum</u> .....	25
	(b) <u>Application to use radio frequency spectrum together with services exempt from the obligation to hold a telecommunications service licence</u> .....	28
	(c) <u>Radio Frequency Spectrum Licence Exemptions</u> .....	28
XIII.	<u>THE USE OF UNMANNED AIRCRAFT STATION (DRONE) AND REMOTELY PILOTED AIRCRAFT (RPA)</u> .....	29
	(a) <u>Command and Control links</u> .....	29
	(b) <u>Payload</u> .....	30
	(c) <u>Use of mobile network frequencies</u> .....	30
	(d) <u>Registration of UAS/RPA</u> .....	30
XIV.	<u>EARTH STATION IN MOTION (ESIM) INCLUDING SATELLITE PHONES</u> .....	30
	(a) <u>Use of ESIMS and Satellite phones</u> .....	30
	(b) <u>Licensing of ESIMS and Satellite phones</u> .....	30

XV.	<u>TV WHITESPACES</u> .....	31
(a)	<u>Use of TVWS Spectrum</u> .....	31
(b)	<u>Authorization of Whitespace devices</u> .....	31
(c)	<u>Operation of TVWS Devices</u> .....	32
XVI.	<u>DIGITAL TERRESTRIAL TELEVISION (DTT)</u> .....	33

(a) **INTERPRETATION**

In these guidelines, unless the context otherwise requires –

**“Act”** means the Electronic Communications Act, 2013;

**“allocation”** means an entry in the National Radio Frequency Allocation Plan of a given frequency band for the purpose of its use by one or more terrestrial or space radio communication services of the radio astronomy service under specified conditions (A band is therefore allocated to a service).

**“assignment”** means the authorisation given by the Commission to use a radio frequency or radio frequency channel under specified conditions;

**“authorised frequency”** means the frequency assigned to a station by the Commission;

**“authorization”** means a licence or individual right of use that a person may hold or be granted under any law which the Commission is entitled to administer.

**“Commission”** means the Eswatini Communications Commission (ESCCOM) established under the Eswatini Communications Commission Act, 2010;

**“electronic communications network”** means transmission system and, where applicable, switching or routing equipment and other resources which permit the conveyance of signals by wire, by radio, by optical fibre or by other electromagnetic means, including satellite networks, fixed (circuit-switched and packet-switched, including internet) and mobile terrestrial networks, electricity cable systems, to the extent that they are used for the purpose of transmitting signals, networks used for radio and television broadcasting, and cable television networks, irrespective of the type of information conveyed;

**“electronic communications service”** means a service normally provided for remuneration which consists wholly or mainly in the conveyance of signals on electronic communication networks, including telecommunications services and transmission services in networks used for broadcasting, but exclude services providing, or exercising

editorial control over, content transmitted using electronic communications networks and services' but does not include information society services, as defined in the Eswatini Communications Commission Act, 2013, which do not consist wholly or mainly in the conveyance of signals on electronic communications networks;

**"end-user"** means a person who has contracted for, or who requests, a communications service;

**"equipment"** includes any equipment or machinery;

**"Earth Stations in Motion (ESIM)"** are earth stations that communicate with geostationary-satellite orbit (GSO) systems operating in the fixed-satellite service (FSS) and operate on platforms in motion in the frequency ranges 17.7-20.2 GHz and 27.5-30 GHz. These stations may be mounted on aircraft, ships, land vehicles and other mobile platforms. The typical data rates currently provided by terminals operating in networks serving ESIM are around 100 Mbit/s, which are much higher or faster, than those provided historically by mobile-satellite service (MSS), which are around 700 kbit/s and use relatively low frequency bands (1.5 GHz, 1.6 GHz, 2.1 GHz, and 2.4 GHz bands). ESIM can also provide connectivity throughout countries and are particularly useful in areas without coverage by terrestrial networks.

**"harmful interference"** means radiation or induction which –

- (a) endangers the functioning of a radio-navigation service or of a safety service;
- or
- (b) obstructs or repeatedly interrupts an authorised radio or telecommunications service;

**"International Telecommunications Convention"** means the basic treaty that establishes the legal basis for the International Telecommunications Union and defines its purpose and structure including the protocols and obligations on members.

**"ITU-R Recommendations"** means a set of international technical standards developed by the Radio communications Sector of the ITU.

**"ITU Radio regulations"** means the complete texts as adopted by the World Radio Communications Conference (Geneva, 1995) (WRC-95) and revised and adopted by subsequent World Radio Communications Conferences, including all Appendices, Resolution, Recommendations and ITU-R Recommendations incorporated by reference.

**"licence"** means authorisation or individual right of use that a person may hold or be granted under any law which the Commission is entitled to administer;

**"licensee"** means a person licenced to provide a public communications network or service or an associated facility in accordance with this Act;

**"licenced service"** means a service that is authorised to be undertaken under a licence granted by the Commission under the Electronic Communications Act, 2013;

**"network"** means two or more stations operated by a person and used or intended to be used in communication with one another;

**"person"** means an individual, partnership, association, joint venture, trust, company or corporation;

**"public electronic communications network"** means an electronic communications network used wholly or mainly for the provision of publicly available electronic communications services;

**"public electronic communication service"** means publicly available electronic communication services;

**"radio communication"** means all electronic communication by means of radio waves;

**"radio emission"** means any emission of electromagnetic energy of frequency currently less than three hundred (300GHz) Gigahertz without continuous artificial guide or such other frequency as the Commission may from time to time publish in the Government gazette.

**"satellite earth station network"** means a configuration of two or more earth stations which interoperate by means of satellite;

**"spectrum assignment"** means the authorisation by the Commission to any licence specific frequency or frequency pairs for use within a given allocation, at a specified geographic location;

**"Station"** means a transmitter, receiver, a combination of transmitters and receivers, or any accessory thereto which is used or intended to be used for radio communications;

**"television broadcasting service"** means a broadcasting service consisting in the sending of visual images or other visible signals whether with or without accompanying sounds, where the visual images are such that sequences of them are seen as moving pictures.

**"Television White Spaces (TVWS)"** refers to the unused spectrum or guard spectrum between two consecutive TV and the unused TV channels between the active ones in the VHF and UHF spectrum.

**"transmitter"** means anything, irrespective of its use, function or the purpose of its design, that is capable of radio emission;

**"user"** means any person or body of persons who uses or operates radio communication equipment / networks.

## **(b) POWER TO ISSUE GUIDELINES**

These guidelines are issued in accordance with section 38(b) of the Eswatini Communications Commission Act, 2013.

## **(c) APPLICATION**

- (1) These guidelines shall apply to all radio frequency spectrum users including applicants, licensees and participants in a spectrum auction. The effective date of the guidelines shall be the **1<sup>st</sup> January 2022** and shall be applicable until such time that the Commission indicates.

## **(d) GENERAL REQUIREMENTS**

- (1) All radio frequency spectrum users shall apply for and utilise spectrum subject to –
- (a) the National policy for radio frequency spectrum management
  - (b) the Electronic Communications Act
  - (c) the National Radio Frequency Allocation Plan and/or the corresponding Radio Frequency Band Plan; and
  - (d) further consideration of policy approach to spectrum licensing, auctions or competitive bidding or eligibility.
- (e) Electronic Communications (Radio Frequency Spectrum) Regulations, 2016

## **(e) PURPOSE OF THE GUIDELINES**

- (1) the purpose of these guidelines is to: -
- (a) supplement the provisions of the Electronic Communications (Radio Frequency Spectrum) Regulations, 2016;
  - (b) establish a framework through which the Commission shall allocate available radio frequency spectrum under the National Radio Frequency Allocation Plan and/or corresponding Radio Frequency Band Plan;
  - (c) provide a long-term framework for awarding a spectrum user the right to use any radio frequency or group of radio frequencies under the National Radio Frequency Allocation Plan and/or corresponding Radio Frequency Band Plan;
  - (d) determine fair, efficient and transparent licensing procedure for a spectrum licence;
  - (e) provide for circumstances upon which the use and possession of radio apparatus does not require a spectrum licence and for the categories of radio apparatus in respect of which a spectrum licence is not required; and



- (f) provide for a process for the amendment, renewal, transfer and withdrawal of spectrum licences;
- (g) provide how the Commission shall issue authorization for the use of the frequency spectrum for the operation of drones;
- (h) provide details on the authorisation of earth stations in motion (ESIMs) for operation in Eswatini;
- (i) provide for the allocation and assignment of TV whitespaces for provision of Internet Services;
- (j) enable the provision of low-cost wireless broadband internet access services;
- (k) establish standard terms and conditions applicable to the operation of WSDs in the frequency band 470 MHz to 694 MHz, excluding Radio Astronomy sub-band 606 MHz to 614 MHz;
- (l) outline the process for issuing of radio frequency spectrum licences for provision of Television Broadcasting services using the Digital Terrestrial Television (DTT) Network;

(f) **MANDATE OF THE COMMISSION ON SPECTRUM LICENSING**

- (1) The mandate of the Commission is enshrined in the following regulatory frameworks:
- (g) **Electronic Communications Act, 2013** – Section 34 (1)(b) of the Act bestows upon the Commission the authority of managing the efficient and effective use of radio frequency spectrum, including spectrum and orbital locations used by satellite services, by assigning radio frequency spectrum or groups of radio frequency spectrum in accordance with the National Frequency Allocation Plan and with publicly available national policies.
  - (h) **Electronic Communications (Radio Communications and Frequency Spectrum) Regulations, 2016** – Section 9 of the regulations confers on the Commission the authority to assign radio frequency spectrum to applicants while section 15 of the Regulations authorises the Commission to award renewed radio frequency spectrum licences.
  - (i) **Standard Terms and Conditions** – The Standard Terms and Conditions of Radio Spectrum Licences as spelt out in Part IV of the Electronic Communications (Radio Communications and Frequency Spectrum) Regulations, 2016, further enhances and illustrates the relevant terms and conditions for regulating the spectrum that are common to all types of spectrum uses.
  - (j) **Radio Spectrum licence** – The Radio Spectrum Licence defines clearly the scope of the particular licence category along-with the duration of validity for which the licence is issued. Where applicable it also mentions the call sign to be used for radio station identification as

well as the Specific Terms and Conditions that are applicable to the particular type of spectrum use. The licence consists of:

- i. **Technical schedule (1)** – This section of the licence illustrates in detail all the technical parameters along-with the location/ area coordinates according to which the spectrum is to be used.
- ii. **Technical schedule (2)** – This section where applicable, (area based & transportable earth station licences) gives the format according to which the licensee is required to submit the technical details of a station or a network at the time of submission of an application and/or 10 working days prior to any new deployment or change of location to the Commission for approval before deployment. The Commission holds the right to object or reject any new deployment if there is a risk of harmful interference to be caused by the deployment. The objection or rejection will be sent within 10 working days after the date of receipt of the technical details. In case no objection/rejection is sent within the 10 days, the deployment will be automatically considered as approved.

(k) **RESPONSIBILITIES OF THE COMMISSION**

- (1) The Commission, as guided by the Eswatini Communications Commission Act 2013, the Electronic Communications Act 2013, the Electronic Communications (Radio Communications and Frequency Spectrum) Regulations 2016 and these guidelines, is enjoined to carry out the following functions:
  - (a) allocate and assign radio frequency spectrum to –
    - i. persons possessing a licence to provide electronic communications, radio and broadcasting networks, or services;
    - ii. government departments; and
    - iii. private and amateur wireless operations licensees
  - (b) in the allocation and assignment of radio frequency spectrum, give due regard to the requirements of safety and emergency services;
  - (c) grant or refuse an application for a radio frequency spectrum licence based on applicable policies and regulations.
  - (d) where necessary –
    - i. allocate certain frequencies for use by government entities in furtherance of the public interest;

- ii. inhibit or obstruct the use of other non-designated radio frequencies, on a temporary basis, for use by government entities.
- (e) for the purpose of assigning radio frequency spectrum, use competitive bidding procedures if the Commission determines that it would be in the public interest where –
  - i. a licence is to be granted to a new applicant; or
  - ii. competing and mutually exclusive applications have been filed by qualified applicants.
- (f) where an application for a frequency spectrum licence is rejected, the Commission shall notify the applicant in writing, giving reasons for the refusal.
- (g) where necessary, specify compatibility standards for the interoperability of radio frequency equipment and ensure that the standards are adhered to;
- (h) monitor all emissions from licenced stations to ensure the efficient utilisation and compliance with licenced parameters.
- (i) where it appears to the Commission that the frequency spectrum licence contains information relating to national security or other international obligations, the Commission shall withhold that information from public scrutiny.
- (j) where the Commission, pursuant to a report made to it or on its own accord, is of the view that certain measures need to be undertaken to avoid or mitigate any interference, the Commission may require a licensee or a class of licensees, in writing, to take the measures specified.
- (k) in collaboration with the Minister, prescribe fees for the use of the radio frequency spectrum;

**(l) LICENSING APPROACHES**

- (1) In issuing spectrum licences, there are five different licensing approaches which shall be applicable for granting access to radio frequency spectrum in Eswatini, namely Station, network, Area, Band and Class licence.

**(a) Station**

A station licence may be issued for stations that use internationally agreed bands and where there is no administrative work required to ensure interference free operation. Examples include Aircraft Stations and Amateur Stations.

(b) **Network**

A network licence may be issued for the spectrum use by a small onsite radio frequency network. Each frequency is individually planned and coordinated with other licensees in the same frequency band and frequencies are assigned and licenced on a first come first served basis. The licence defines the specific technical criteria, such as transmitter power, bandwidth, geographic location, equipment, antenna details, mounting height and any other parameters that must be observed.

(c) **Area**

An area licence may be granted for spectrum use within a specified geographic area to allow the Licensee the flexibility to reuse assigned spectrum and relocate transmitters within the area. The Commission will assign the frequency(ies) on a first come first served basis and the Licensee may determine how the frequency(ies) are planned and deployed within the defined geographic area. Details such as frequency, power, bandwidth and location are to be submitted to the Commission 10 working days prior to establishing any station within the area. The user is also expected assist the Commission to facilitate the licensing of frequencies in adjacent frequency channels and geographic areas.

(d) **Band**

A frequency band licence may be issued for spectrum use by a large network with a greater number of stations or links within the Kingdom of Eswatini. The licence defines the technical conditions that apply to the use of the frequency block.

(e) **Class**

A class licence may be issued where there is no requirement for the user of the radio frequency spectrum to hold an individual licence as it is considered by the Commission that the efficient use of the radio spectrum is not at risk and harmful interference is unlikely to occur.

Equipment deployed under a class licence shall comply with any specified technical requirements such as transmitter power, interference avoidance techniques (such as frequency hopping and dynamic spectrum Access) or other criteria as specified in the Class Licence.

The equipment may be deployed anywhere within the Kingdom of Eswatini on a non-protection non-interference basis. There is no limitation on the number of users.

(m) **CATEGORIES OF LICENCES**

- (1) From the licensing approaches discussed in **section VIII**, different radio frequency spectrum licence categories are applicable for issuing by the Commission in accordance with these guidelines. These categories are summarized in the Table 1 below:

**Table 1: Licence Categories under these guidelines**

<b>Service Category</b>	<b>Application</b>	<b>Licensing Approach</b>	<b>Licensing Options</b>	<b>Comments</b>	<b>Licence Duration</b>
<b>Mobile</b>	<b>IMT</b>	Frequency Band assigned	Blocks of 5MHz For 5G 50MHz	No limit on number of equipment deployed	In line with Service or Network Licence
	<b>Broadband</b>	Frequency Band assigned	Blocks of 5MHz	No limit on number of equipment deployed	12 Months
<b>Fixed</b>	<b>Point-to-Point</b>	Frequency Band assigned	Link basis	Each link and associated frequencies planned and assigned by the Commission	12 months
		Light licensing for 65 GHz, 70 GHz or 80 GHz bands	Link basis	Licence allows user to deploy one or more links anywhere within the Kingdom of Eswatini on a nonexclusive basis.	12 months
	<b>Point-to-Multipoint</b>	Frequency Band assigned	Network basis	Licence allows the deployment of point to multipoint fixed wireless network comprising of a single base station and multiple out stations using assigned frequency(ies).	12 months
	<b>Point-to-multipoint / multipoint-to-multipoint</b>	Frequency Band assigned	Network and Area basis	Each frequency is individually assigned by the Commission on a first come first served basis to be used within the specified area.	12 months
<b>Aeronautical</b>	<b>Aircraft radio station</b>	Station Assigned	Individual per aircraft	Individual licence per aircraft covering all equipment deployed on board	12 months

	<b>Aircraft portable radio equipment</b>	Station Assigned	Individual per portable radio equipment	Individual licence that specifically covers the portable radio equipment, which can be used on any aircraft. The licensee must have a licence for at least one aircraft to be eligible.	12 months	
	<b>Aeronautical ground stations</b>	Frequency assigned (International Frequencies)	Individual station per airfield / aerodrome	Licence covers the ground station, which will be operating in internationally harmonised frequency bands. The frequency is individually assigned from the pool of international channels.	12 months	
	<b>Aeronautical navigational aids</b>	Frequency assigned (International Frequencies)	Individual station per airfield / aerodrome		12 months	
	<b>Aeronautical ground-based radar</b>	Frequency assigned (International Frequencies)	Individual station per airfield / aerodrome		12 months	
<b>Broadcasting</b>	<b>Commercial Radio broadcasting Station</b>	Frequency assigned	Station	Licence is issued subject to identifying suitable frequency within current FM radio plan and limited to a small geographic area to be covered by a single station.	12 months	
	<b>Community Radio Broadcasting Station</b>	Frequency assigned	Station		12 months	
	<b>Public Radio Broadcasting Station</b>	Frequency assigned	Station		12 months	
	<b>Digital Terrestrial TV Multiplexer Network</b>	Frequency assigned	Area		Possible frequencies defined in GE-06 plan.	12 months
	<b>Digital Terrestrial Audio Multiplexer Network</b>	Frequency assigned	Area			12 months
	<b>Digital Video Broadcasting –</b>	Frequency assigned	Area			12 months

	<b>Handheld Multiplexer Network</b>				
	<b>AM Broadcast Stations</b>	Frequency Assigned	Station		12 months
<b>Private Mobile Radio (PMR)</b>	<b>Network comprising of Individual base station and associated mobile stations and handhelds</b>	Frequency assigned	Network	Licence allows the use of assigned frequency(ies) via a network consisting of a single base station. Frequencies are assigned on a first come first served basis and cannot be reused. The network can include a number of mobile stations or handheld stations that will also be covered under the licence	12 months
	<b>Exclusive use networks (e.g. networks of strategic, safety or national importance)</b>	Frequency assigned	Area	Licence allows the use / reuse of the licenced frequency within the specified geographical area. Frequencies are assigned on a first come first served basis.	12 months
	<b>National / regional networks (Large PMR network)</b>	Frequency Band / Block assigned	Nationwide	Licence allows the use of a block of frequencies to deploy a large nationwide network for private use. e.g. Trunk Radio, TETRA networks etc.	12 months
<b>Amateur</b>	<b>Basic</b>	Station	Station	Licence allows the use of the identified frequencies and associated transmitter	12 months
	<b>General</b>	Station	Station		12 months
	<b>Advanced</b>	Station	Station		12 months
	<b>Extra</b>	Station	Station		12 months



	<b>Resident Visitor / Resident</b>	Station	Station	powers and modes within the Kingdom of Eswatini	12 months
	<b>Club</b>	Station	Station		12 months
	<b>Repeater</b>	Station	Station	Licence allows the use of amateur frequency bands specified in the licence.	12 months
	<b>Beacon</b>	Station	Station		12 months
<b>Satellite</b>	<b>Fixed Earth Station (including VSAT central hub station)</b>	Frequency assigned	Station	Licence allows the use of the specified range of frequencies to transmit to the identified satellite and associated orbital position.	12 months
	<b>Satellite Earth Station Network Link</b>	Frequency assigned	Network	Licence allows the deployment of VSAT network links by Foreign Missions and Embassies.	12 months
	<b>Mobile/Transportable Earth Station</b>	Frequency assigned	Station	Licence is issued for multiple transportable earth stations and allows the deployment of the stations anywhere within the Kingdom of Eswatini (except the restricted locations mentioned in the licence) subject to approval by the Commission prior to operation.	12 months
<b>Test &amp; Development</b>	<b>Research</b>	Frequency assigned	Station	The licence will define the applicable frequency(ies), technical parameters and geographic area based on the individual requirements.	Max 6 months
	<b>Trial or demonstration</b>	Frequency assigned	Station		Max 6 months
<b>Temporary</b>	<b>For any radio equipment not</b>	Frequency assigned	Network, Station or Link	The licence will be for a predefined duration,	Related to duration of mission

	<b>covered under the defined licence categories. For supporting special events.</b>			location, frequency(ies) and a separate licence will be issued for each applicable service. Relevant Spectrum Licence Fees shall apply.	
--	---	--	--	---	--

## **(n) GENERAL TERMS & CONDITIONS FOR RADIO SPECTRUM LICENSING**

(1) Every licence issued by the Commission consists of terms and conditions which seek to address most of the issues concerning the regulation of radio frequency spectrum that are common to all types of spectrum access.

(2) The different sections of the terms and conditions which are applicable for radio frequency spectrum licences are outlined as follows:

### **(a) Limitations of the Licence**

This section clarifies the limitations that apply to the holders of radio frequency spectrum licences as follows:

(i) Holders of radio frequency spectrum licences are not allowed to provide telecommunication services to general public for direct or indirect fee unless and until the licensee holds a separate licence/authorization for the same. As per section 9 of the Electronic Communications Act 2013, there are two categories of licences defined for allowing the provision of telecom services to general public as well as for operating any telecom network and that are individual and general licences that must be obtained before providing such services.

(ii) Radio frequency spectrum licensees are not allowed to provide any type of voice telephony service, and the operation of a broadcasting network unless and until a valid licence or authorization has been granted by the Commission.

### **(b) Renewal**

This section details the provisions relating to the renewal of the radio spectrum licences, as follows:

(i) Applications for licence renewal shall be made within 3 months prior to the date of expiry. Failing to comply with this or to respond to two reminders issued by the end of the subsequent months after the date of licence expiry, licence cancellation procedure will be invoked and the assigned frequency(ies) will be withdrawn.

(ii) The licensee is required to confirm that the information provided to obtain the licence is correct and has not changed.

(iii) The annual fee is also required to be submitted along with the application for renewal.

- (iv) Spectrum licences are usually renewed by the Commission if the licensee and the service are compliant with current licence conditions and if there are no competition or spectrum management reasons to do otherwise (e.g. the need to re-farm the band to another use).
  - (v) Temporary authorisations are not renewable. Upon expiry, a new application is required to be lodged with the Commission and processed accordingly.
  - (vi) The obligation to renew a radio frequency spectrum licence vests with the licensee. Renewal of an annual radio frequency spectrum licence is to be performed on an annual basis by first indication of the intention to renew by the licensee after which an invoice shall be issued where applicable.
  - (vii) Subject to the renewal of a service licence, where applicable, renewal of a multi-year radio frequency spectrum licence is to be performed prior to the expiry of such a licence in the last licence year of the licence term.
  - (viii) After receipt of a renewal invoice from the Commission, the licensee shall pay the prescribed licence fee on or before the due date of the then current licence year.
  - (ix) If the prescribed licence fee is not paid by the due date, then the radio frequency spectrum licence will expire immediately on after the due date and this would mean that the licensee has surrendered the assigned spectrum.
- (c) Failure to Renew a Licence

If a licensee has not renewed his or her radio frequency spectrum licence and continues to utilise the radio frequency spectrum after the due date, the Commission will initiate the following process:

- (i) Issue a notice to the person in question advising him or her:
  - a. of his unlawful activity;
  - b. that he or she should cease with the unlawful activity within fifteen (15) days after receipt of the notice;
  - c. to inform his or her end-users and/or subscribers, if any, within seven (7) days of receipt of the notice of the date that he or she will cease to provide the services in question.
  - d. that they have five (5) days to respond to the notice of the Commission should they wish to do so.
- (ii) Should the Commission receive a response in terms of paragraph (i) (d.), the Commission will inform the licensee of its decision and reasons for the decision. In arriving at its decision

after receipt of the response, the Commission shall be entitled to request oral submissions from the concerned person, for consideration.

(iv) Failure by the affected party to comply with the Commission's notice will entitle the Commission to exercise any or all of its powers vested in terms of section 38 of the ESCCOM Act.

### (3) Amendment, Suspension, Cancellation or Revocation

This section details the provisions relating to the non-renewal, amendment, suspension, cancellation or revocation of the radio frequency spectrum licences.

#### (a) Amendment

Applications to amend a licence can be made at any time during the licence period. It should be noted that if the technical parameters of the application are different from those on the original application, there is no guarantee that it will be possible to continue to use any previously licenced frequency(ies).

#### (b) Cancellation

A licensee may apply for cancellation of a licence at any time using the relevant application form.

#### (c) Revocation or Suspension

There are two main reasons for a licence revocation or suspension which are being illustrated below:

##### (i) Non-compliance with terms of licence

Failure to comply with the terms and conditions of a licence will be a main reason to suspend or revoke the licence. The licence may also be suspended or revoked due to regulatory requirements or in the national interest. In these circumstances, **NO** compensation shall be payable to the licensee.

##### (ii) Spectrum management

a. If a licence needs to be revoked for the purposes of changes to the Radio Spectrum Policy(ies) or to meet changed International or National requirements, then due notice shall be provided to the licensee. In recognition of licensee's equipment investments and the time taken to put in place alternative communications facilities, the Commission will provide a notice period of 3 years.

b. The procedures to be followed will vary depending on the circumstances (e.g. frequency bands, number of licences, timescales) and revocation will be handled on a case by case basis.

c. The revocation process in this regard may be subject to a public consultation.

(d) Equipment Write-off in case of non-renewal, amendment, suspension, cancellation or revocation

If a radio spectrum licence is cancelled, suspended, revoked or not renewed, then the use of the radio equipment associated with the licence becomes illegal. Hence the licensee is required to get the radio equipment written off or exported. A declaration regarding the action taken is to be provided to the Commission within 1 month of the cancellation, suspension, revocation or non-renewal of the licence.

(e) Storage of the Unauthorized Radio Equipment

The licensee upon cancellation or expiration of the licence term may submit a request for keeping the radio equipment for re-use later on. Such request will be carefully considered by the Commission and approval will be granted only if the requirement is justified.

In such cases, the applicant is required to securely store the equipment, and submit a declaration clearly stating that the equipment will be kept without operation in the storage facility and will only be operated again after getting the licence from the Commission.

There is no guarantee that the applicant will be re-assigned the previously assigned spectrum should the licensee require to reuse the same equipment and the radio equipment may require re-programming.

Equipment that has been seized by the Commission in accordance with section VIII of the guidelines shall be kept safe by the Commission and the licensee shall be liable for all costs associated with the storage and such fees shall be as determined by the Commission.

(4) Transfer

There may be circumstances in which a licensee wishes to transfer a licence to another party, for example, the acquisition of an already licenced company by another company. The licensee should seek advice from the Commission at the earliest opportunity when the licensee thinks that a licence transfer may be necessary. A decision on whether to allow a transfer of the licence will

be made on review of the application and in line with the general terms and conditions for radio spectrum licensing.

Licensees wishing to transfer their licence must submit a formal transfer request to the Commission. The request should provide information about the proposed transferee. A copy of the transfer agreement signed by both the licensee and the transferee must be submitted along with the request. The transferee shall have statutory registration in the Kingdom of Eswatini and shall meet the conditions of the original licence being transferred. The request shall be submitted to the Commission at least 60 days before the date of the proposed transfer.

The licensee whose licence is being transferred has to clear all the outstanding dues with the Commission before the transfer is made.

#### (5) Sub-contracting

There may be instances where a licensee may require to out-source some of their work to other entities who are not under the direct ownership of the licensee. Since, such entities will be working on the licensee's project, they may require to use the licensee's radio communication equipment. In such cases, the licensee shall request for approval from the Commission to exercise the licensing rights through such entity(ies) with the condition that licensee will remain liable for meeting the conditions of the radio spectrum licence.

The prior written approval of the Commission shall not be required if the affiliate is and remains wholly-owned by the licensee, provided that the Commission shall be notified of such arrangement.

#### (6) Licence Fees

Licence fees, as noted above, are determined as per the applicable Spectrum Fee Schedule, and must be paid to the Commission on or before the date of issue or renewal of the licence. The fees will be payable annually covering the duration of the licence.

#### (7) Radio Equipment Operation

The licensee shall operate radiocommunications equipment in accordance with the terms and conditions stipulated in the two technical schedules of the licence as indicated in section IV of these guidelines.

The licensee shall ensure that radiocommunications equipment is operated in such a way that it complies with the non-ionization limits as published by the Commission and the ICNIRP.

#### (8) Harmful Interference

All spectrum assigned (network, link, area or nationwide) licensees are provided protection from harmful interference in accordance with the National Frequency allocation Plan.

Licensees are to ensure that they operate radiocommunications equipment such as not to cause harmful interference to other networks. In cases where such interference occurs, licensees are encouraged to amicably resolve any case of harmful interference and keep the Commission informed of any action taken in this regard.

Licensees or any affected party can however, launch a complaint to the Commission at any time for protection of their assigned radio frequency spectrum. In such cases, the Commission will investigate the matter and issue a decision, determination or order as appropriate to the affecting party to resolve the issue. The Commission may also direct the licensee to take, such action as may be necessary to resolve a case of harmful interference, however, the licensee will be liable to pay all the costs in this regard.

#### (9) Co-ordination across national boundaries

The Commission is solely responsible for undertaking all international coordination and registration procedures, particularly where there is a possibility of interference to/from the terrestrial and/or satellite services of another administration. In such cases the applications will be kept pending until the necessary agreements are made with the neighbouring administrations.

#### (10) Access and Inspection & modification, restriction and close down of unauthorized radio equipment

In accordance with Section 18 of the Electronic Communications (Radio Communications and Frequency Spectrum) Regulations 2016, section 38 of the Electronic Communications Act 2013, read together with sections (36, 39, 40 and 42) of the Eswatini Communications Commission Act, the Commission has power to access, inspect and if required modify, restrict or close down the radio user's radio equipment or installation, to ensure that the radio equipment is being used in



accordance with the terms and conditions of the licence. Furthermore, the Commission can seize radio equipment if all the above fails.

(11) Force Majeure

The licensee is exonerated of their liability or obligation when an extraordinary event or circumstance beyond their control occurs such as a devastating act of nature or other disaster that is beyond the reasonable control of a licensee, including but not limited to earthquakes, floods, widespread fires, tropical storms, or acts of war or terrorism.

In such cases, if the licensee figures out that there are certain licence obligations which cannot be fulfilled in such a scenario, can refer such obligations to the Commission for suspension and the Commission after analysis will take the necessary action as requested.

(12) Type Approval

A licensee is only allowed to use radiocommunications equipment that is type approved or type accepted by the Commission. Failure to do so will render the equipment unauthorized and the relevant processes shall be initiated by the Commission.

**(o) ESCCOM SPECTRUM LICENSING PROCESS**

(1) In accordance with the Electronic Communications (Radio Frequency Spectrum) Regulations, the Commission has a Key Performance Indicator (KPI) to respond to a valid radio frequency spectrum licence application and issue the licence within four (4) weeks from the date of submission of the application. The exception is those licences which require international co-ordination where fulfilling the KPI becomes beyond the control of the Commission.

(2) The procedure for spectrum licence applications shall be as follows:

(a) Application procedure for licence to use radio frequency spectrum

(i) The Commission may from time to time in its sole discretion publish a notice to notifying interested parties that a radio frequency spectrum band under the National Frequency Allocation Plan is open for application to be conferred on a first-come-first-served basis. The Commission may also use market-based approaches, including the competitive bidding process for individual licences in accordance with section 8(4) and 8(5) of the Electronic Communications (Radio Communications and Frequency Spectrum) Regulations 2016.

- (ii) Subject to the provisions of section 8 of the Regulations, any person who intends to apply for the right to use radio frequency spectrum referred to in (i) above, must apply to the Commission for a spectrum licence.
- (iii) An application referred to in (ii) above, must be made on the online application portal that is accessible through the ESCCOM website ([www.esccom.org.sz](http://www.esccom.org.sz)) via the link <http://registration.esccom.org.sz/> and the applicant must be particularly accurate in completing the technical portion supplying all the details required.
- (iv) The Commission may, after receiving an application referred to in (iii) above, request the applicant by written notice or by other correspondence to provide it with additional information reasonably required by the Commission in considering the application, which the applicant must provide to the Commission within a reasonable period specified by the Commission in that notice. Information that may be required includes the following:
  - a. the full and official name of the applicant, and if the applicant is a juristic person, the registration number of that person;
  - b. the name of a contact person responsible for liaison with the Commission on issues pertaining to these Regulations and the following contact details of that person-
    - i. physical address;
    - ii. postal address;
    - iii. telephone number or numbers;
    - iv. facsimile number or numbers; and
    - v. electronic mail address or addresses;
  - c. full details of all ownership interests in the applicant, including the identity and nationality of holders of such ownership interests and if the holder of any ownership interests is a juristic person, full details of all ownership interests in the juristic person;
  - d. full details regarding foreign ownership interests in the applicant, if any;
  - e. where the applicant is a company or close corporation, a certificate incorporation issued by the relevant official authority in the Kingdom of Eswatini;
  - f. a complete, accurate and concise business plan setting out-
    - i. a complete list of radio frequencies or groups of frequencies being applied for;
    - ii. a complete, accurate and concise statement of the services the applicant intends to provide in exercising the right to use the radio frequency spectrum being applied for;

- iii. any other services being provided or to be provided by the applicant in connection with the radio frequency spectrum applied for;
- g. any other information required by the Commission relevant to the application or that the applicant believes might be relevant to the Commission in considering the application.
- (v) The aforesaid application must be accompanied by any fee payable in terms of the Spectrum Fee Schedule, setting out spectrum licence application fees.
- (vi) The Commission may forthwith publish a notice of the aforesaid application and invite the public to may make written comments to the Commission within the time set out in the notice, which time may not be less than *14 days* from the date of the publication.
  - a. The Commission will provide the opportunity to an applicant to respond to any written comments contemplated in 7) above.
- (vii) An applicant's response to public comments must be submitted in writing to the Commission within the time set out by the Commission, which time may be not less than *14 days* from the deadline for the submission of public comments.
- (viii) The times for the submissions of public comments and applicant responses are to be determined by the Commission in light of the nature of the application.
- (ix) On receipt of a valid application for a radio spectrum licence, the Commission will:
  - a. ensure that all the mandatory fields of the application form are completed and all supporting documentation requested are provided. Incomplete application forms **will be returned** to the applicant, which will lead to delays in the issuing of a licence.
  - b. ensure that the application form is signed by a person authorized to sign the application on behalf of the applicant.
  - c. ensure that the application fee has been paid.
  - d. evaluate the application against the National Frequency Allocation Plan (NFAP), and associated Radio Frequency Band Plans to ensure compliance with all ITU relevant rules, regulations and recommendations and national requirements.
  - e. ensure that the licensee meets the required eligibility criteria and compliance with the required technical and operational criteria.
- (x) On completion of the evaluation, the Commission will either:
  - a. Recommend changes to the application
  - b. Recommend approval, or
  - c. Reject the application stating the reasons for rejection.

The Commission will determine the spectrum fees as per the relevant Spectrum Fee Schedule and issue the relevant invoices to the applicant. When the application has been paid for and approval for the issuance of the licence has been granted, the Commission shall notify the applicant that the radio Frequency Spectrum licence is available and ready for collection or delivery. The licence issued shall then give the applicant the right to use the assigned radio frequency and/or frequency band to operate the equipment listed in the application on the specified frequencies or frequency bands only.

(b) Application to use radio frequency spectrum together with services exempt from the obligation to hold a telecommunications service licence

(1) In accordance with section 7(2) and section 8 of the Electronic Communications Act 2013, the following telecommunications services categories may apply for assignment of radio frequency spectrum without a licence in terms of the Act:

- (i) amateur service;
- (ii) aeronautical services;
- (iii) citizen band service;
- (iv) navigation and radar system service;
- (v) private ECS/ECNS; and
- (vi) alarm system service and emergency response system service.

(2) Subject to provisions of the Regulations, a person who intends to apply for the right to use radio frequency spectrum under the National Frequency Allocation Plan, in conjunction with the telecommunications services referred to in 1) above, must with the changes necessitated by the context comply with the provisions of section X (2) to X (5) of this Guidelines.

(3) After considering any application made in terms of this guidelines, the Commission may refuse or grant the application, in whole or in part.

(4) If the Commission grants the licence, the Commission must issue to the applicant a spectrum licence in the form determined and subject to the conditions imposed by the Commission.

(c) Radio Frequency Spectrum Licence Exemptions

Section 7 of the Electronic Communications (Radio Communications and Frequency Spectrum) Regulations 2016, defines clearly the scope of the designated apparatus and frequency bands that are exempted from frequency spectrum licensing in the Kingdom of Eswatini. The conditions attached to the use of such apparatus and frequency bands are defined in section 7(5) and 7(6) of the regulations, and in the schedule under regulation 7 of the Regulations.

## **(p) TEMPORARY AUTHORISATIONS**

- (1) Temporary authorisations to use specific radio frequency spectrum for a particular service or application may be granted by the Commission - for example, to allow coverage of special events such as sporting occasions and festivals as well as for research. It may also be granted in cases where spectrum use is not covered under any of the defined licensing categories.
- (2) The duration of a temporary authorisation will depend on the service, its application and other circumstances as determined by the Commission.
- (3) Applications for a temporary authorisation should provide details of the spectrum band, technical characteristics of the equipment, antennas and services and the requested duration of the temporary authorisation. The purpose of the request should also be stated.
- (4) Applications should be made to the Commission at least one (1) month prior to the required date of the temporary authorisation. It is recognised that a temporary authorisation may be needed to meet urgent requirements, such as in case of emergency or unexpected circumstances, and these applications will be handled with priority. All requests will be addressed on the merits of the application.
- (5) There is no presumption that a temporary authorisation will be granted by the Commission.

## **(q) THE USE OF UNMANNED AIRCRAFT STATION (DRONE) AND REMOTELY PILOTED AIRCRAFT (RPA)**

UAS and RPAS have transmitters and receivers and therefore must not cause harmful interference to other devices using the licence exempt frequency spectrum.

### **(a) Command and Control links**

Drones and/or Remotely Piloted Aircrafts are controlled wirelessly mainly from the ground. The flight control may be a radio transmitter or a more complex control and command station with a video display. The remote pilot on the ground controls the aircraft using command and control links and receive real-time information about the aircraft systems, such as the rotational speed of motors. The transmission and receipt of such commands is made possible through the use of frequency spectrum.

(b) Payload

A person may operate other radio equipment than those used for command and control links on board the UAS and these may include but not limited to cameras that can send real-time video feed from the aircraft to the ground as well as thermographic camera.

(c) Use of mobile network frequencies

A person shall not the use of mobile network terminals on board an airborne drone, unmanned aircraft or other aircraft unless special exemption is granted by the Commission under special conditions such as and not limited to;

- (i) cases of public safety, health and emergencies.
- (ii) authorities and/or major critical infrastructure providers who require to use mobile communications necessary for performing their tasks on board aircraft.

(d) Registration of UAS/RPA

A person intending to operate unmanned aircraft stations will require authorization by the Commission and records of such authorizations will be kept by the Commission.

The Commission will register and keep a record of all remotely piloted or radio-controlled drones, copters and other aircraft (UAS/RPAS) as well as the radio equipment used in their flight controls.

**(r) EARTH STATION IN MOTION (ESIM) INCLUDING SATELLITE PHONES**

(a) Use of ESIMS and Satellite phones

An ESIM shall require a licence by the Commission before operating in the service area of Eswatini, and this includes devices fitted with operating area recognition functionality.

Some ESIMs may have a global authorization such as devices on aeroplanes, of which they have to be registered with the Commission through type approval.

(b) Licensing of ESIMS and Satellite phones

All interested applicants will have to apply to the Commission for licences to operate or use ESIMs and satellite telephones. Users will also have to comply with all applicable operating conditions put in place for the use of satellite systems and any other conditions that the Commission may prescribe in future.

The use of ESIMs and Satellite telephones will have to be coordinated with the neighbouring countries to ensure that such devices do not cause interference to other services using the frequency bands identified for ESIMs and Satellite telephones. Furthermore, any Regional Harmonised plans on the use of ESIMs and Satellite phones shall be applicable to all users of these systems.

All ESIMs devices and satellite phones will have to be type approved before they can be used in the country. Users of these systems shall pay all associated type approval fees and licence fees before they can be allowed to operate their equipment.

### **(s) TV WHITESPACES**

These are typically referred to as the "buffer" channels. In the past, these buffers were placed between active TV channels to protect broadcasting interference. In addition, TV broadcasting has become digital; thus, the need of bandwidth requirement is reduced compared to analogue transmission. Furthermore, it has since been researched and proven that this unused spectrum can be used to provide broadband Internet access while operating harmoniously with surrounding TV channels.

#### **(d) Use of TVWS Spectrum**

The Commission is making available TVWS spectrum for purposes of promoting spectrum efficiency through dynamic spectrum access as well as direct assignment of spectrum in order to achieve universal access of information and communications technology (ICT) services as well as to enable the provision of low-cost wireless broadband internet access services;

This Spectrum is made available for only Internet service providers or holders of a network or service licence and shall be authorized by the Commission prior to usage.

The frequencies and channels that are applicable for TVWS are as shown in Annex A of these guidelines.

#### **(e) Authorization of Whitespace devices**

Any person who possesses a WSD must ensure that the device is type-approved prior to operating it.

A WSD must be accompanied by instructions for protecting human body from possible exposure to electromagnetic fields when the device is in active operation, this instruction shall be displayed in all formats of user manual detailing exposure limits expressed in terms of Specific Absorption Rate (SAR) in accordance with the latest version of the International Commission on Non-Ionising Radiation Protection (ICNIRP) guidelines.

A person shall not operate a TVWS device using television white spaces without a licence issued by the Commission under these guidelines and the Commission shall not issue a licence to any person unless that person holds a network or service licence;

An applicant for a licence shall apply in accordance with section (X) of these guidelines and in addition, submit to the Commission the following:

- (i) the business plan related to the deployment of television white spaces;
- (ii) the technical plan and capability including network configuration, facilities, coverage capacity and improvement, interference management, network security and technologies complying with the technical requirements stipulated in the Second Schedule to these Regulations; and
- (iii) any other relevant information that the Commission may require.

(f) Operation of TVWS Devices

- (i) A licensee shall operate white space devices in the television frequency bands or as any other frequency bands designated by the Commission.
- (ii) A licensee shall ensure that its white spaces device can use geo-location database access mechanism to identify available frequencies.
- (iii) A licensee shall ensure that geographic coordinates of its fixed or portable white spaces device shall be determined at the time of installation and first activation from a power-off condition, and this information shall be stored by the device;
- (iv) Where a licensee's personal or portable master white spaces device re-establishes its position in activation from a power-off condition, a licensee shall ensure that it uses its geo-location capability to check its location at least once every 60 seconds while in operation, except while in sleep mode.
- (v) A licensee shall ensure that its master white spaces device uses the geo-location database to determine the available channels and maximum transmit powers to be used at the device's geographic coordinates.



- (vi) A licensee shall ensure that its white spaces device operates on available frequencies assigned by the Commission to ensure that interference is avoided.
- (vii) A licensee shall ensure that it operates its white spaces device without interfering with other services and without seeking protection from other services.
- (viii) Where a white spaces device operates along border areas, a licensee shall ensure that the device does not cause interference to other services from neighbouring countries.
- (ix) A licensee shall ensure that its white spaces device transmits within the permissible power levels in any channel and within out of band emission limits.

**(t) DIGITAL TERRESTRIAL TELEVISION (DTT)**

The Commission may grant access to use radio frequency spectrum for the provision of DTTB services including multiplex operations to licensees who hold a broadcasting service licence.

Broadcasting service providers shall apply directly to the Commission for authorization to use all or part of the multiplex capacity available in the country.

The Commission shall allocate and assign capacity of the multiplex directly to the broadcasting service providers and the Multiplex operator shall act only as a content distributor through establishment of a Digital Television Transmission network.

**ANNEX A: CHANNELISATION PLAN FOR UHF BAND USING 8 MHz BANDWIDTH**

<b>Channel Number (CH)</b>	<b>Center Frequency (MHz)</b>
21	474
22	482
23	490
24	498
25	506
26	514
27	522

28	530
29	538
30	546
31	554
32	562
33	570
34	578
35	586
36	594
37	602
38	610
39	618
40	626
41	634
42	642
43	650
44	658
45	666
46	674
47	682
48	690