

## 20. Fixed Wireless Access Networks

This is a licence to establish a fixed radio station to operate Fixed Wireless Access.

### 20.1 Exclusive Spectrum Bandwidth Assignment fee

This is applicable to cases that have been assigned exclusive use of a specific bandwidth countrywide.

This standing fee is to be paid annually for exclusive use of the bandwidth, in addition to the usage fee that is detailed in item 20.2 below.

Annual Fee for exclusive spectrum bandwidth assignment is calculated as follows:

$$F_n \text{ (KShs)} = \frac{\text{Assigned bandwidth (kHz)} \times \text{Weighting factor} \times 1043.65}{8.5 \text{ kHz}}$$

Where: Weighting factor to be used = 6  
Unit fee = Kshs. 1043.65

### 20.2 Spectrum Usage fee

This is based on actual usage of the spectrum, and depends on the number of TRXs in the network.

$$\text{Fee } F_u \text{ (KShs.)} = 100,000 \times n \times K_1$$

Where: **n** is the actual or equivalent number of 1.75MHz duplex TRXs estimated to be in use at the end of the year in review

Annual Spectrum Management cost of one TRX is KShs. 100,000

Weighting factor,  $K_1$  = 0.8, for  $f < 1$  GHz

= 0.7, for  $1 \text{ GHz} \leq f < 6 \text{ GHz}$   
= 0.6, for  $6 \text{ GHz} \leq f < 10 \text{ GHz}$   
= 0.5, for  $10 \text{ GHz} \leq f < 20 \text{ GHz}$   
= 0.4, for  $f \geq 20 \text{ GHz}$

Note: **f** is the frequency band in GHz

## 21. Terrestrial point to multipoint fixed Links (eg. LMDS backhaul links)

The fee is based on actual usage of the spectrum, and depends on the number of transmitters (TRXs) in the network and their respective bandwidths.

$$\text{Fee } F_u \text{ (KShs.)} = 100,000 \times n \times K_1$$

Where: **n** = the actual or equivalent number of 1.75MHz duplex TRXs estimated to be in use at the end of the year in review.

100,000 = Annual Spectrum Management cost of one TRX in Kshs.

$K_1$  = Weighting factor,  
 $K_1$  = 0.8, for  $f < 1$  GHz  
= 0.7, for  $1 \text{ GHz} \leq f < 6 \text{ GHz}$   
= 0.6, for  $6 \text{ GHz} \leq f < 10 \text{ GHz}$   
= 0.5, for  $10 \text{ GHz} \leq f < 20 \text{ GHz}$   
= 0.4, for  $f \geq 20 \text{ GHz}$

Note: **f** is the frequency band in GHz

## 22. Trunked Network (Mobile Trunked Radio Licence)

This is a licence to operate a trunked radio network.

### 22.1 Exclusive Spectrum Bandwidth Assignment fee

This is applicable to cases that have been assigned exclusive use of a specific bandwidth countrywide. This standing fee is to be paid annually for exclusive use of the bandwidth, in addition to the usage fee that is detailed in item 22.2 below.

Annual fee for exclusive spectrum bandwidth assignment is calculated as follows:

$$F_n \text{ (KShs)} = \frac{\text{Assigned bandwidth (kHz)} \times \text{Weighting factor} \times 1043.65}{8.5 \text{ kHz}}$$

Where: Weighting factor to be used = 6  
Unit fee = Kshs. 1043.65

### 22.2 Spectrum Usage fee

This is based on the actual usage of the spectrum, and depends on the number of TRXs in the network.

$$\text{Fee } F_u \text{ (Kshs)} = 43,000 \times n \times K_1$$

Where: **n** is the actual or equivalent number of 25KHz duplex TRXs estimated to be in use at the end of the year in review

Annual Spectrum Management cost of one 25KHz duplex transmitter is Kshs. 43,000

$K_1$  = 1 for trunked Public access mobile radio (PAMR) systems  
= 3.5 for trunked Private mobile radio (PMR) systems

## 23. Single channel radios

The fee, **F**, per transmitter per location is:

$$F \text{ (Ksh)} = \left( \frac{\text{RF Bandwidth (kHz)}}{8.5 \text{ kHz}} \right) \times 1043.65$$

24. Wireless Access Systems (WAS) operating on shared non-protected basis shall attract an annual frequency fee. Currently, the annual frequency fee is KShs. 10,000 per terminal.

25. The Commission is not bound to use any or all of the above formulas if in its opinion the service involved require technical or other considerations. Spectrum fees for radio equipment not covered in the above schedule shall be determined at the time of application.

26. Application fee of Kshs. 1000 applies to each application for a frequency in all the listed cases.

27. The frequency fee charging methodologies are subject to change from time to time and users are advised to check with the Commission to verify the status of any methodology in this document.

## Registration

Note that the prescribed application forms for fee frequency schedule are available at our offices situated at the CCK Centre, Waiyaki Way, Nairobi, as well as on our website.

For more details, visit our website at [www.cck.go.ke](http://www.cck.go.ke)



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# Frequency Spectrum Fees Schedule

Opening your world



## Frequency spectrum fee schedule

	Service	Description	Annual fees per station per frequency in Kshs.	
			MF/HF	VHF/UHF
01	Aeronautical station licence	A licence to establish a radio station for carrying radiocommunication with aircraft station	Ksh. 4,800	Kshs. 4,800
02	Aircraft station licence	A licence to establish a mobile station aboard an aircraft, to operate in the aeronautical mobile service	Ksh. 4,800	Kshs. 4,800
03	Licence for fixed station operating in mobile service	A licence to establish a radiocommunication station at a fixed location for carrying on a mobile radiocommunication service	Ksh.18,700	Ksh. 5,000
04	Mobile Station licence	A licence to install and use radio apparatus for transmitting and receiving aboard a vehicle, aircraft, or a ship	Ksh. 5,610	Ksh. 2,900
05	Portable Station licence	A licence to a portable radio communication apparatus to operate in the mobile service	Ksh. 5,610	Ksh. 2,900
06	Coast station licence	A licence to establish a station on land for carrying on a radiocommunication service with ship stations	Ksh. 18,700	Ksh. 5,000
07	Ship station licence	A licence to install and use radio apparatus aboard ships	Ksh. 5,610	Ksh. 2,900
08	Maritime mobile service identity	N/A	N/A	N/A
09	Radio Amateur licence	A licence to install and operate an amateur radio station	Ksh. 2,000	Ksh. 2,000
10	Citizen Band Radio licence	A licence to operate a low power radio apparatus operating in the frequency bands 26925 KHz to 27403 kHz	One time licence fee of Ksh. 1,000	N/A
11	Family Radio	No licence required for band 446.0-446.1 MHz	N/A	N/A
12	Private Paging service	A licence to operate a radio paging service for private use	N/A	Ksh. 25,000
13	Public paging service	A licence to operate a radio paging service for public use (base station)	N/A	Ksh. 140,000
14	Radio Press Reception licence	A licence to a radio station to receive press messages from stations transmitting multi-destination radio press messages	Ksh. 10,000	Ksh. 10,000

## 15. Alarm Systems

The basic charge for each alarm unit is Kshs 1250, but the specific charges for each particular customer is determined by using the maximum value in each grouping of 5; 5 for 1-5; 10 for 6-10; 15 for 11-15, etc.

## 16. Fixed satellite earth stations

The fee payable for fixed satellite earth stations is commensurate with the power and the occupied bandwidth, and is calculated on the basis of these parameters using the following formula:

$$= \left( K_1 \log_{10} \frac{P_{nom} \text{ (watts)}}{25 \text{ watts}} + K_2 \log_{10} \left( \frac{P_{tot} - 1000}{25 \text{ watts}} \right) \right) \times \left( \frac{BW(kHz)}{8.5 \text{ kHz}} \right) \times 574.10$$

Where:  $K_1 = 1$  for the first 1 kW of radiated carrier power

$K_2 = 0.2$  for additional power above 1 kW.

25 watts is the maximum power allowable for VHF base stations.

8.5 kHz is maximum allowable RF bandwidth for VHF base stations.

$P_{nom}$  is the nominal transmitter power.

$P_{tot}$  is the effective isotropically radiated power.

$BW$  is the width of frequency band that is just sufficient to ensure the transmission of information at a rate and with the quality acceptable under specific conditions.

## 17. Broadcasting stations

The fee payable for broadcasting stations will be charged as per the table below depending on the amount of ERP power.

The application for broadcasting fees is Kshs.1,000.

The flat rate fees for each category of ERP power are specified for ERP powers upto 10KW.

Service	Amount In Kshs.	ERP Power Conditions
TV broadcasting	360,000.00	ERP Power ≤ 10KW
	As per formula below subject to a minimum of KShs. 360,000	ERP Power > 10KW
Radio broadcasting	30,000.00	ERP Power ≤ 2KW
	65,000.00	2KW < ERP Power ≤ 5KW
	130,000.00	5KW < ERP Power ≤ 10KW
	As per formula below subject to a minimum of KShs. 130,000	ERP Power > 10KW

For ERP powers greater than 10KW, the formula below will be used subject to the applicable minimum amount as specified in the table below.

The formula for the fee payable for broadcasting stations is commensurate with the power and the occupied bandwidth, and is calculated on the basis of these parameters using the following formula:

The fee, F, per transmitter or carrier in Kenya shillings is:

$$= \left( K_1 \log_{10} \frac{P_{nom} \text{ (watts)}}{25 \text{ watts}} + K_2 \log_{10} \left( \frac{P_{tot} - 1000}{25 \text{ watts}} \right) \right) \times \left( \frac{BW(kHz)}{8.5 \text{ kHz}} \right) \times 574.10 \times K_3$$

Where,

$K_1 = 1$  for the first 1 kW of radiated carrier power

$K_2 = 0.2$  for additional power above 1 kW.

25 watts is the maximum power allowable for VHF base stations.

8.5 kHz is maximum allowable RF bandwidth for VHF base stations.

$P_{nom}$  is the first 1 KW of the effective radiated power (ERP).

$P_{tot}$  is the total effective radiated power in watts.

$BW$  is the bandwidth of the frequency band that is just sufficient to ensure the transmission of information at a rate and with the quality acceptable under specific conditions.

$K_3 = 0.4$  for TV broadcasting stations

= 5 for Radio broadcasting stations

## 18. Terrestrial Links (Fixed Station Licence)

This is a licence to establish a radiocommunication station at a fixed location for carrying on a Fixed Radiocommunication Service to provide a public service.

This category of licence is drawn for radio stations used to interconnect two specified fixed points.

The fee payable for this licence is based on the occupied bandwidth, and is calculated using the following formula:

The fee, F, (Kshs.) per transmitter per location is:

$$F = \left( \frac{RF \text{ bandwidth (kHz)}}{8.5 \text{ kHz}} \right) \times \left( \frac{\text{Number of RF channels}}{\text{RF channels}} \right) \times K_1 \times \text{Unit fee}$$

574.10, as Kshs.574.10 is the unit spectrum fee for a 8.5 kHz band.

$K_1 = 0.6$  for frequency band < 1700 MHz  
 = 0.5 for frequency band 1700 to 10000 MHz  
 = 0.4 for frequency band > 10000 MHz

RF means Radio Frequency, and other parameters are as defined above. Transmitter shall include terminal and repeater stations.

The formula is applicable to point-to-point links, microwave radio relay equipment, studio-to-transmitter links etc.

## 19. Cellular Mobile Networks

This is a licence to establish a fixed radio station to operate Mobile Cellular Radio service.

### 19.1 Exclusive Spectrum Bandwidth Assignment fee

This is applicable to cases that have been assigned exclusive use of a specific bandwidth countrywide.

This standing fee is to be paid annually for exclusive use of the bandwidth, in addition to the usage fee that is detailed in item 19.2 below.

Annual Fee,  $F_n$ , for exclusive spectrum bandwidth assignment is:

$$F_n \text{ (KShs)} = \frac{\text{Assigned bandwidth (kHz)} \times \text{Weighting factor} \times 1043.65}{8.5 \text{ kHz}}$$

Where:

Weighting factor to be used = 6

Unit fee = Kshs. 1043.65

### 19.2 Spectrum Usage fee

This is based on actual usage of the spectrum, and depends on the number of TRXs in the network.

Fee  $F_u$  (KShs.) = 43,000 x n

Where,

(i) n is the actual or equivalent number of 200kHz duplex TRXs estimated to be in use at the end of the year in review

(ii) Annual Spectrum Management cost of one TRX is Kshs. 43,000